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The Rural New-Yorker.

VOLUME XXXVIII, 1879.

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THE RURAL NEW-YORKER

A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME

VOL. XXXVIII. No. 1.
WHOLE No. 1510.

NEW YORK CITY, JAN. 4, 1879.

PRICE FIVE CENTS.
$2.00 PER YEAR.

[Entered according to Act of Congress, in the year 1878, by the Rural Publishing Company, in the office of the Librarian of Congress at Washington.]

OUR SUMMER VISITORS, AS SKETCHED FROM LIFE AT THE RURAL FARM.

Farm Topics.

THE FERTILITY OF THE SOIL.

J. B. LAWES, OF ROTHAMSTED, ENGLAND.

It is a well-established fact that coal and the various carbonaceous deposits found below the surface of the soil, are derived from an extinct vegetation. If no such deposit existed, and our only supply of fuel were derived from living vegetation, the present condition of man upon the earth would be altogether different from what it is.

Our dependence upon an extinct vegetation for our supply of food, as well as for our fuel, has not, I believe, up to the present time, been in any way the subject of discussion. Our investigations regarding the exhaustion of soil have made it appear possible, or perhaps probable, that fertility, or the power possessed by soils to furnish food for man, is largely dependent upon the residue left in the soil by a previous generation of plants. Owners and cultivators of the soil are constantly complaining of its exhaustion, and they probably may think that a process so easily performed, can hardly be worthy of scientific investigation, whereas, carried out with care and over periods of time sufficiently long, such investigation is capable of yielding very valuable information.

In a field set apart for growing continuous wheat crops, thirty-nine years have elapsed since certain parts of it received manure of any sort. Two bushels of wheat are drilled on the acre every autumn, and the straw and grass removed. Every one might safely predict that under such treatment the produce would decline; but the slow rate of decline, and the very long period which must yet elapse before the soil ceases to grow wheat, would hardly have been anticipated. Adjoining this unmanured plot is one which received every year a supply of all the necessary mineral food of the wheat plant, the quantity being more than that contained in the largest possible crop. The produce in this experiment is so slightly larger than that of the unmanured space, that an experienced eye could hardly detect any difference between the two crops.

To what are we to attribute this want of effect upon the wheat by these manures? It may be said that these manures are not supplied in a form suitable for the plant to assimilate; our answer to this is, that the same minerals when applied with ammonia or nitric acid, will produce a crop two or three times larger. We must, therefore, look for some other explanation, and it is difficult to attribute it to any other cause than to the absence of active nitrogen.

In all soils nitrogen is found in various combinations, as nitric acid, as ammonia and in combination with carbon. It is in the last form that by far the largest quantity exists, and it would appear probable that the ammonia and nitric acid are principally derived from the decomposition of this carbonaceous matter. Our soil still contains large quantities of organic carbon and nitrogen, still the quantity is sensibly declining and the crop is declining with it, and at present it does not appear quite evident what is to prevent the complete exhaustion of the soil taking place when the whole of the organic matter is gone.

It is said that plants can assimilate free nitrogen; that rains and dews furnish ammonia to the soil; that the soil condenses nitrogen in its pores; that the slow combustion of organic matter within the soil produces nascent hydrogen which unites with nitrogen forming ammonia. Without attempting in any way to estimate the value of these several processes for furnishing nitrogen to plants, I will merely remark that our wheat crop will derive as much benefit from them as the wheat in other fields, still the nitrogen obtained from these sources as well as from the organic matter stored up in the soil by a previous generation of plants, has not prevented a gradual decline in the crop. It would appear that upon an ordinary soil having a clay subsoil, the mineral food of the wheat is largely in excess of the nitrogen obtained both from soil and atmosphere. As nitric acid is constantly passing away in the drainage water, we may assume that the ammonia supplied by rain, dew, or condensed in the soil, is converted into nitric acid and unless arrested by the plant, escapes into the drains. A similar process goes on when the organic matter in the soil is decomposed. Nitric acid and ammonia appear to represent the active and transitory fertility, while the organic nitrogen forms the inactive but durable fertility.

In what manner these large amounts of organic matter have accumulated in our soil, I do not attempt to explain. Upon the newly cleared land in the States some of the organic matter would be due to recently existing vegetation, but upon land similar to mine which has been under arable cultivation for centuries, and which has for nearly forty years been subject to exhaustion, we must go back to a very remote period to account for so large an accumulation of organic matter yielding nitrogen.

HINTS FOR JANUARY.

LOOK BEHIND AND BEFORE.

Many of the hints for last month are equally applicable for this. Now is the time to make plans for the campaign of 1879. Take an inventory of the farm-stock and everything on hand. If this has never been done before, the proprietor will doubtless be surprised to find how much he owns. Straighten up the books, and the little debts, and collect those due from neighbors. Small accounts should not run long. Trust not to memory. Arrange the books for the business of the year. Study over the plans considerably in detail, and do not wait till the ground is ready to plow before deciding what to do. Look over the past and study the good hints and the failures—whether all was done to the best advantage; whether there was too little or too much help. This should lead to better plans for the future. Nothing can bring larger returns, for the time, than a few weeks spent in accordance with the above suggestions.

ENGAGE HELP.

Look about early in the season, and get your pick of hands in the market. Make a written bargain in detail, no matter if you are well acquainted. This will prevent misunderstanding. The man agrees to remain a certain number of months; to perform certain chores Sunday, or holidays; to start about such an hour in the morning, and close at such an hour in the evening. If, in case of an emergency, he works longer, he may have certain privileges to compensate for it. In case he quits before his time is out, he only receives a certain stipulated sum.

CARE OF CELLARS.

If they are too cold, bank up the outside with something, or place a double thickness of newspapers over the windows. This lets in some light and prevents the escape of heat. A double floor, or a fire in the room over the cellar, will help to keep out the frost. A kerosene stove in the cellar may be used in extreme cases. Ventilate on suitable days, and clean out decaying vegetables and fruits.

WOOD, TOOLS, ICE.

Cut a supply of wood, posts, rails, and logs for lumber, ready to be moved easily on the advent of sleighing. No thrifty farmer will leave these things to be done in the busier seasons. Get wagons and buggies repaired and painted, as well as tools and implements for summer use. Make stone-boats, cut hand-spikes and stakes, and get ready everything which can be got ready. Snow may be scraped from the ice to keep it clear and allow it to freeze thick. If you have never tried it, build a cheap ice-house, and enjoy a cheap luxury next summer. The cakes should be cut of even size, and set on edge close together. There should be perfect drainage at the bottom, but no recess of air. Around all, place a layer of eighteen inches of sawdust.

COWS.

Treat them generously and kindly, but do not keep them fat, unless they are to be turned off for beef. A cow is a machine, a laboratory for converting raw materials into milk. If little be given, little will be received. All animals should have exercise, especially those kept for breeding. Some of them are naturally lazy, but they will be the better for stirring about in the open air. It is cruel to keep animals tied up or shut up for days at a time. They need light, too. Direct sunshine exerts a powerful influence for good on animals, as well as on plants. Do not overlook a good supply of pure water two or three times a day; or good ventilation and proper cleaning of stables. When the ground is frozen and covered with snow, it may be well enough, on pleasant days, to scatter the fodder, and allow the stock plenty of room to pick it up, but when it is muddy, no one but a sloven will fodder on the ground. Good racks should be made for the sake of convenience and economy.

CALVES AND SHEEP.

Lard and kerosene are good to keep lice from calves; sulphur mixed with salt is good to drive ticks from sheep. Calves, like all animals, should be kept growing from birth to maturity. Here is one place where the profit comes in. There is always a loss of time and feed and more, too, by allowing young animals to "stand still" for six months or more of the year. Sheep are well clothed, and need shelter from snow and rain, and perhaps from the very strongest winds, but cold agrees with them. Feed them well; give them plenty of water, in small flocks; keep them dry, and they may stay out in the cold and thrive. A close dark pen is a poor place for sheep.

NOTES FROM MAPLEWOOD FARM.

HECTOR BERTRAM.

A GOOD WORD FOR PEA CULTURE.

WHY are not peas cultivated to a greater extent, as a field crop, in the Eastern States? They yield well on good soil, and ripen early, making one of the best of foods for swine in fall. Cooked, or soaked in milk until soft, they are excellent for fattening purposes, and their ripening so early makes them available before corn is husked. In fact, we have yet to learn that corn is superior to them. Mixed with oats, and ground, they are excellent for horses or cattle. Sheep eat them greedily, and fatten on them. They increase the weight of the wool, though not as much as beans. There is not so much oil in the former, as in the latter. After a crop of peas, the land is left clean, mellow, and rich. At least it has not been exhausted by the crop. The land from which they are taken, is left in fine condition for wheat, or for any other cereal. We have been successful in seeding to clover after peas. To sum up, there are very many reasons why peas may be raised with profit as a field crop. We would not sow the small, common field pea, but the large black-eyed Marrow-fat. They are usually of quick sale at good prices for seeding in spring. We always calculate to raise enough every year, to get the pigs well started, then finish with corn. We have sold bushels of them for cooking, when green. They yield fully as well as the small variety, and the latter are not fit for table use. Each farmer should sow a small piece, at least. As an old acquaintance remarked the other day, "they are handy to have around, anyway."

ECONOMY IN FATTENING PIGS.

We are giving the pigs all they will eat. They gain faster now than after it becomes cold, and require less grain to give them the same amount of fat. "Which is more profitable for fattening purposes: pigs at six months, or a year old?" is a question we have often asked ourselves, and have decided in favor of the latter. Young pigs while growing, require much more food to fatten. They must be fed heavily the entire season. Pigs that are wintered fatten quickly the following fall, and cost no more than those six months old. It costs but little to winter them. We have pigs that were a year old last month, that weigh over 300 pounds, and in the same pen, separated by a partition, others six monts old, that will scarcely weigh 200 pounds. The cost of feeding has been carefully estimated, and we are satisfied that the ones that weigh the most, cost the least. They are grade Berkshires.

LEAVES IN THE PIG-PEN.

Leaves make excellent bedding for pigs and we are gathering large quantities for that purpose. No animal requires more bedding, and none, we fear, receives less, as a general thing.

A SOILING EXPERIMENT.

M. OAKEY.

My experiment was nothing remarkable. I had either to rent land for pasture or soil my cattle, and believing the latter the better course, I adopted it. The results are nothing to excite wonder, nor are they particularly noteworthy. But facts are always in demand, and those which testify to ordinary practices and possibilities are, after all, the facts of most interest to the farmers generally. Too often those published spring from extraordinary causes, and indicate extraordinary efforts. My experiment cannot be classed among such, and therefore may be of value to others besides myself. Very many refused to adopt the system of soiling, because reluctant to undertake measures so revolutionary, and because, too, so many of its advocates are so enthusiastic over it as to cast doubts upon it, by trying to prove too much, and thus appearing prejudiced.

This was my first trial. It was therefore to be expected that I should make mistakes. I see now where I might have saved myself not a few dollars. Let me say, too, that almost every farmer would be better situated to take up the system than I was, for I had no clover to fall back upon, as it had failed to catch. I used very little timothy and depended entirely upon the crops grown during the season.

My dairy consisted of three cows and the land used was a trifle over two acres and three-quarters, more than half of which was in poor condition and badley run out. My object is butter making. Contrary to general custom, I have my cows fresh in fall, and dry them off in July and August. It was not of great importance to me therefore whether my cows were well fed in summer or not, because there was no need that they should be fed high, as they were not forced in milk or butter.

I will compare, then, the cost of soiling with that of pasturing. I could rent pasture at $2 per month per cow. The account would be as follows:

7 months pasture, 3 cows, $2 per month	$42.00
SOILING.	
2 acres fodder corn, labor and seed....	$22.25
½ do oats and ½ rye do do.....	6.00
Stable manure, guano and plaster.....	19.15
	47.40
Deduct twelve loads manure in yard,	18.00
Total cost seven months' soiling,.....	$29.40
Difference in favor of soiling,.....	$12.60

This is the actual expense, as kept from day to-day. Much more manure than this is saved, but I have allowed something for what would have accumulated during the night, if the cows were pastured. The $18 worth credited above, would have been dropped on neighbors' fields instead of in my yard. It returns almost the total expenditure for fertilizers used. The time required to cut the feed needed every day was less than an hour per day. The expense for the seven months would not be over $2, at the rate of wages I paid. I do not consider it; for the time lost in driving to and from pasture, &c., would balance it.

But there are other things to be considered. I used sweet corn almost entirely. I found the cattle ate field corn equally well, and the result in milk was the same. Sweet corn cost me $6 more than field corn would have done. The manure used is charged against this crop, but is hardly fair, for it is not exhausted by it, but much remains to enrich next season's growth.

After the quarter acre of rye was used up, I had it plowed and millet was sown June 11th at an additional cost of only $1.50. Besides this, I had sown in May two acres of peas and oats in equal quantities, which cost me, with the manure and plaster used, $24.40 I am now feeding the hay made from these two acres. With the millet I have enough to carry me through to the last of January. Add these items, $25.90, to the cost of the summer's soiling, $29.40, and the total is $55.30. This covers the cost of ten months. Last year it cost me to feed and pasture for the corresponding ten months $102.85, making a saving this year of $47,15, I am satisfied with this without comparing the yield in butter of the different years, especially when I know without going to the figures that the flow of milk was more constant and that the expected quantity was always returned without variation, when soiling. I had hoped, however, to make this comparison, but a change in the dairy hands would render it unfair. The rent of the land was nothing in this case as it was at my disposal without cost. That can be calculated by any one desiring it, for himself.

Middlesex Co., N. J.

MOISTURE-RETAINING POWER OF THE SOIL.

A LETTER FROM DR. E. LEWIS STURTEVANT.

I HAVE read with much interest the experimental attempt of the editor of the RURAL to settle the question whether pulverizing the surface soil checks the loss of water from the soil, and if I differ from him as to its value, it is because it seems to me that the experiments were not devised in such a manner as to give a reply to the question asked. The conditions involved in a plant pot of earth immersed in water, and those which occur in the field are vastly different.

We are sorry not to be able to give the figures of actual experiments which shall prove that pulverizing the upper soil does act to conserve the moisture in the field, because we are not entitled to their first use, and to do so would violate a confidence, but these experiments referred to, as well as our own observations upon experiments on the soil, tried for other purposes, show clearly that a loose coating of earth acts as a mulch and does conserve very largely the moisture of a field. For instance: upon a dry spot, a coating of sand was spread over a square yard or so, and a kernel of corn planted. In the summer drought, the adjoining corn plants perished, while that mulched with sand neither wilted, rolled nor showed any other indications of insufficiency of water. Again: a plot of land from which the weeds were removed by hand, as compared with an adjoining plot where the surface soil was kept lightened with the hoe to a depth of about two inches, showed noticeably less moisture of the soil through the dry season, as observed by digging holes to the subsoil. Of the crops of corn planted on these plots, the unhoed crop curled its leaves through lack of moisture, while the hoed crop did not appear to suffer. Again: of two boxes, the one filled with sand, and the water surrounding coming within several inches of the surface, the evaporation from the surface was very great, and the water was kept to within a short distance of the top. In another box of *earth*, likewise standing in the water, but with a coating of two inches of sand, the evaporation was comparatively little. Again: of two pots standing alongside on a green-house bench, the one with the surface hard, and the other with the surface pulverized, the former required more frequent watering than the latter, in order to preserve the life of the plants therein.

Again: In some experiments made to test the power of our common angleworm to convert a subsoil and a sand into loam, carried out through last winter in my study, one of the glasses used contained compact subsoil; a second glass, clear sand; and the third, ordinary loam, a half inch of vegetable matter being originally placed on the surface of each jar. The hard soil required a more frequent and abundant supply of water than did the loam and less was required for the sand.

And so I might multiply observations all tending to show that *where the water level is brought near the surface* of earth, the pulverization of the surface down to and including the water-soaked portion, *oftentimes*, shows an increase of evaporation. When, however, the pulverized surface soil is placed and kept *above* any permanent water level, then the contrary seems evident—that evaporation is checked. In general terms, as experience of the farm shows, a pulverized surface to our fields hinders the rise and loss of moisture from the deeper portions of the soil, although the loss of water is large from the surface which is itself pulverized.

In some observations on soil temperature this past summer, I found, in every trial, that the surface soil was warmer than the air, the temperature being taken early in the morning before the influence of the sun was to be felt. As dew is only deposited upon surfaces *colder* than the air, I cannot believe that, under the circumstances of culture, any moisture from the air can be deposited in our soil as dew, and that therefore this, as a source of water addition to our soil, usually, if not always, addneed as one of the effects of stirring the soil, must be abandoned from our thought. It is very true that under laboratory conditions, dry soils do absorb moisture from the surrounding air. It seems as certain that this absorption has never been determined for arable soils under farm treatment, and that, when exact experiments shall be made, it will be found that although there may be exceptional instances of an accretion of moisture by dry soils, yet that this fact will not apply to the ordinary conditions of soil and air, as met with on farms, during the season of growth in New England.

This whole subject of the physics of the soil is worthy of more full, complete and exact study, and I am very much pleased to see such an influential and advanced paper as the RURAL NEW-YORKER giving it prominence.

I must apologize for appearing in your paper with an article counter to your views, but as we are both seeking the TRUTH, I do not deem my position either as objectionable to you, or in bad taste.

(Far from it.—EDS.)

Farm Economy.

BARN-YARDS.

BY A WESTERN FARMER.

THE barn-yard is one of the most important parts of the farm, inasmuch as it is the manufactory of the manure as well as a place where the cattle spend a large portion of their existence. It should, therefore, be arranged with a view to the most perfect fulfillment of both of these purposes. It is all the better adapted for the latter purpose in proportion as it is more effective for the former, and a well-arranged barn-yard that will preserve the manure in the best manner, will be convenient and comfortable for the cattle.

THE SITUATION.

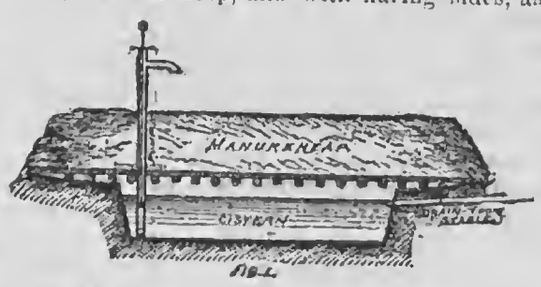
A barn-yard should never be made upon a steep slope. A slight slope to the south is desirable, but the site should be so nearly level that the rain which falls upon it may not flow off and carry the wash to lower ground where it will be wasted. The surface should be somewhat hollowed to the center to retain all the water that may fall upon it, and keep the manure or litter that may remain as moist as may be necessary to keep it in good condition. The manure and the litter of the yard should be heaped in this lowest spot in a square pile built up with perpendicular sides and hollowed at the top to retain what rain may fall upon it. When the yard is scraped up, fresh litter should be scattered over it to prevent the surface from being poached into mud. A muddy yard, or one slushy with soft manure, is unhealthful and contributes greatly to disease of the feet, lungs and udder. The troublesome affection of the hoofs and coronets, known as hoof-ail, foot-rot, etc., is caused by the wet filth of muddy and sloppy yards. Cattle take cold if compelled to lie about in such yards, and innumerable cases of pneumonia and garget are caused in this way.

THE DRAINAGE

of the yard, and stables as well, may be effected by means of a manure cistern in the center of the yard. This is a most valuable adjunct to a well-ordered farm and may be made to return its cost every year, either in a supply of liquid manure for crops that can be fertilized in that way—grass, clover and low-growing fodder crops being especially suited to it; or by furnishing the means for greatly enriching the manure heap itself. Drains from the stables and pens should be led into the cistern, and this should be covered with stout poles upon which the manure may be piled. A pump should be fixed in the cistern, by which the liquid manure can be raised and poured over the heap to moisten and enrich it, or into manure tanks for spreading it upon the field. The leaders from the roof gutters may be connected with the manure drains, so that the liquid manure may be diluted sufficiently for use, as it is far too concentrated to be safely used without being mixed with at least four or five times its bulk of water. During the fall and winter, the leaders should be disconnected from the manure drains and turned into the water cistern.

CISTERNS.

A manure cistern may be a very simple affair. All that is needed is, to excavate a hole large enough, say, twenty-four feet long by twelve wide, six feet deep, and with flaring sides, as

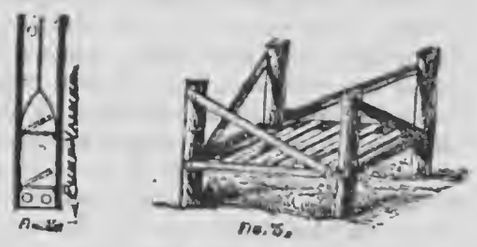


shown in section in Fig. 1. The bottom and sides are covered with a coating of cement made of one part of hydraulic lime and three parts of sharp sand, and laid directly on the earth with a common trowel. The cement should be carried over the edge on the top for a few feet, so as to make a hollow or dish-shaped receptacle to collect the drainage from the manure heap. Round poles are laid across the cistern, and rails upon these, to make a firm bed for the manure. A common wooden manure pump is fitted as shown by the dotted lines. This may consist of a wooden tube made of strips four inches wide nailed together at their edges and furnished with a spout, a lifting valve and iron rod to work it with. The valve is made, as shown at Fig. 2, of a piece of thin, hard wood, hinged by a piece of leather to an iron frame which is attached to the lifting rod. The valve opens (see dotted lines) when it is pushed down, and closes when it is drawn up; the liquid is retained in the pump by means of a check-valve, shown at the bottom in the illustration. Any handy boy can make this pump and a blacksmith can make the rod and valve-seat in an hour.

A water cistern is very handy to have in a barn yard, and will furnish a large supply of water for stock. It may be lined with cement, and for a building 50x24, should be ten feet deep and eight feet in diameter, which will hold 3,600 gallons or 120 barrels. The total quantity of water falling on the roof of a building of the size mentioned in the year, will be 25,000 gallons or over 800 barrels, giving more than two barrels a day through the year. A cistern of this size will easily be filled in a week of rainy weather, in spring or fall, and a heavy thunder-shower (two inches of rain-fall) would fill a third of it.

FEED RACKS.

No barn-yard is complete without feed racks. These are means of saving fodder and preserving cattle from injury caused by fighting over their feed. There are many simple methods of making them. One is by nailing fence strips to posts, as shown at Fig. 3. By this means a



rack for four cows is made. A sufficient number of these may be provided for all the stock, and one or two in excess may be useful. A long rack at which twelve to twenty cows may feed, may be made by setting fence posts in the ground and fitting two strong rails into them, as in a post-and-rail fence; cross laths rest upon the lower rail, and the upper one serves to keep the fodder in the rack. A rack of this kind for twenty head should be three panels, or thirty feet long, and four feet wide. This will give ample room to fit stakes and posts to the rack at intervals of three feet, so as to make species of stalls in which the cows can feed and which will prevent them from crowding each other. Similar, but smaller racks should be provided for sheep.

WATER TROUGHS

are as needful as feed troughs, for a constant supply of pure water is indispensable to health and profit from the stock, of whatever kind it may be. Troughs for winter use should be made to be reversed, so that at night they may be turned over and kept free from snow. One

constructed as shown at Fig. 4, would answer the purpose, and at night might be turned over, emptied and held with the side uppermost by means of the peg near the top of the post inserted in the hole at the corner of the trough.

CRACKS IN BARNS.

There seems to be an idea that these necessary evils on a farm should be winked at, and not spoken of too often. Some barns are nearly all cracks, especially on the outside between the boards. Now these cracks are a very important and very necessary part of all barns. There must be cracks, and they won't be *stopped* up, but they can be *backed* up and this is the way to do it: Mix together "*secundum artem*" in proportion to suit your circumstances, good seed, good soil, good tilth, good after care, and thus produce crops which shall be the "crack" crops of the country. When harvested, haul to the barn, and every farmer will not only stop up the barn cracks, but many little cracks in other folks' premises, such as the storekeeper's, the blacksmith's, the tailor's, the shoemaker's etc. It is astonishing how fast a neighborhood will improve when this mode of getting rid of the RURAL's bug-bear is adopted by the people who have barns.

The RURAL doesn't like people to tell it so much about stopping up the cracks, but is there anyone who has backed up these "airy nothings" as effectually as this same RURAL NEW-YORKER has done, especially during the past year? Let an Irish echo answer "Few, if any," through a crack, and let it be a big one!

S. RUFUS MASON.

Field Crops.

FORAGE PLANTS IN KANSAS.

L. J. TEMPLIN.

ASPECT OF THE COUNTRY.

KANSAS occupies a part of the region marked in the geographies of a few years ago as "The Great American Desert." This region, including Nebraska, Colorado, and Wyoming Territory, is now the home of nearly two millions of enterprising people. The success already achieved in grain and fruit-raising proves this part of the country capable of competing with any portion of the Union in diversified agriculture. But while this is true, it is a fact that admits of no question that the raising of live-stock is to be the great source of wealth to the people of this State. This is equivalent to saying that the forage crops are the most important ones to the prosperity of the State. From the Missouri River to the mountains, this whole region is one vast extent of native pasture. It seems strange to us that these rich plains should ever have been regarded as a desert; but it seems that a marked change has taken place in the appearance of the face of the country within the lifetime of the past and passing generations. Old teamsters and explorers tell us that fifteen years ago the sand-hills that stretch parallel to the Arkansas River, were entirely destitute of vegetation, whereas they are now almost entirely covered with nutritious grasses, making excellent sheep walks and cow pastures. The nutritious character of the native grasses of this region needs no other proof than the readiness with which they fatten stock for the market, even keeping cattle and sheep in good living order all the year round. There is a great assortment of wild grasses found on these plains, extending from the Rocky Mountains to the Missouri River. A knowledge of these grasses is of importance both to the settlers of these plains and also to all whose well-being is in any way affected by the live-stock products of this region.

SPECIES OF GRASSES.

There are in this part of the country 143 species of grass, belonging to five genera. Of these ninety-one are also found beyond the Missouri River, many of them growing all the way East to the Atlantic. Of these, however, seven belong, strictly speaking, to the plains, extending only a short distance beyond the river, while fifty-two are confined to the plains exclusively. Thus, of the whole number, eighty-four kinds belong equally to the East and West, while fifty-nine belong to the West.

Most of these grasses are worthless, or nearly so, as forage plants, and might be dispensed with, with little or no loss to the grazier and feeder. For eastern and central Kansas, one half dozen will include all that are of any special importance to the stock-raiser, while along the ascent of the eastern slope of the mountains, the list would have to be extended to perhaps a dozen. The relative value of the five most important to this region, may be set down about as follows: Andropogon furcatus, 40 per cent.; Andropogon scoparius, 20; Sorghum nutans, 20; Sporobolus heterolepsis, 12; Buchloe dactyloides, 5. The remaining 3 per cent. would be divided between several different species. This comparison of values is necessarily only an approximation, and may not be sustained when the matter is fully submitted to chemical analyses and experimental tests; but it is believed to be not far from correct. The Andropogons, which comprise more than one-half of our valuable grasses, are perennial, with rigid culms, and clustered or digitate spikes. The first-named above, Andropogon furcatus—

"BLUE STEM,"

is most abundant, and is distinguished from the two that follow it only by its spikes of flowers and fruit. It has a smooth, terete branching culm, with digitate spikes. It grows from five to seven feet high. It produces a large mass of radical leaves from eight to twelve or more inches long. These cover the ground so completely as to exclude many of the worthless weeds that abound in other places. Some seasons it produces seed quite sparingly. It seems to require a moist situation, or a wet season to induce it to seed profusely. It is an excellent grass for hay, especially if cut before the stems become hard and woody.

BROOM GRASS,

A. scoparius, is a much smaller grass than the foregoing, growing only three to four feet in hight. It is also much less abundant, and seems much less inclined to send up flower stalks than that grass; but in its radical leaves it very closely resembles the other, being, indeed, often mingled with it on the prairie. As a hay grass, it is probably of equal value, ton per ton, with the Andropogon furcatus. Dr. Darlington, in his "Weeds and Plants," declares these two species to be "remarkably worthless grass." However true this may be in regard to the worn-out and neglected fields of Pennsylvania, on the rich soils of Kansas they are exceedingly nutritious and valuable, constituting, according to the above estimate, sixty per cent of the valuable grasses of this part of the country, and producing enough rich herbage to feed and fatten millions of cattle each year within the limits of this single State. Sorghum nutans—

WOOD-GRASS,

is a noble grass, resembling the two preceding species, and distinguished from them only by its seed stalk. It has an open panicle that has a drooping tendency when ripe. It has often a glaucous color that contrasts finely with grasses of a pale or colorless hue. It resembles the others in not seeding very abundantly, except in favorable seasons and situations. It is injuriously affected by dry weather, the quantity of hay it will produce being greatly reduced by drought.

These three grasses, as shown above, are supposed to constitute eighty per cent. of the valuable hay and pasture grasses of these regions. When left standing, they generally dry up into natural hay before severe frosts, making a very nutritious feed that seems to be relished by stock almost as much as that which has been cut and put into stacks. If the fall and winter are dry, as is usually the case, this natural hay seems to retain its good qualities till the following spring. Stock will often live through the winter, in fair condition, with no feed except this dry grass on the range.

The next to be noticed is Sporobolus heterolepsis. This, with many other specimens, is called

"DROP-SEED GRASS."

It produces a heavy growth of long, slender leaves from the crown of the roots. These have a peculiar curled form, the points often resting on the ground. It is more inclined to grow in stools or bunches than either of those named above. It has a small panicle composed of sharp-pointed spikelets. The round seeds, when bruised, emit a strong, disagreeable odor. This grass, when it seeds, grows about two and a half feet tall, but in a dry season it seldom sends up any fruiting stems at all. It seldom yields any large amount of hay, but what it yields is of a very superior quality.

I come now to speak of a grass of which almost everybody in the country has heard, but of which I find many have formed very erroneous ideas. This is the

BUFFALO GRASS,

Buchloe dactyloides. It is entirely unfit for hay, as will be seen from the description. The leaf-growth seldom exceeds three inches in hight, while the scattering male flower stalks grow to about twice this hight. The seeds are borne near the surface of the ground, under the foliage. Both pistillate and staminate flowers are produced by the same plant. Though so short it forms a very close, thick sward, and furnishes a large amount of very nutritious herbage. It endures an almost unlimited amount of grazing, and seems to thrive better under such treatment than when left undisturbed. It is said to be found 100 miles west of the east line of Kansas and west of that range. In this part of the State it is generally found in limited patches, but old settlers state that when the buffaloes were here in great numbers it was the prevailing grass, but since their disappearance the larger grasses have come in and displaced it over most of the country. In places where it still retains its hold, the subsoil is generally found to be composed of hard-pan, which seems to be in the incipient stage of the process of turning to stone. On account of its impermeable character the water stands near the surface after a heavy rain; and it also dries out worse during a

drought than the surrounding soil. These facts probably account for the continued existence of this grass in these isolated spots.

There are many other species of grass that are found in greater or less abundance throughout these regions, many of which contribute to the sustenance of stock in the form of both hay and pasture; but the ones named, both on account of their quantity and the quality, are so predominant that the subject may be considered fairly treated without entering into a detailed description of the remaining ones. There is no question about the abundant supply of grasses to meet all probable demands for many years to come, provided the present supply can be kept up; but it is very questionable whether this can be done where the land is heavily stocked with animals. These native grasses seem to be quite easily killed out by close grazing and tramping, and their places are speedily occupied by worthless and noxious weeds. It is a question of vital importance to the prosperity of this country to know what success can be had in the cultivation of the tame grasses and clover. The discussion of this question would extend this article to an undue length, and so must be deferred.

Reno, Co., Kansas.

A CORN CROP.

On the 14th of May, 1875, on a piece of ground which had never been manured, I planted a variety of corn from Tennessee. It was a White Dent Corn. I made 120 hills, four feet apart each way, putting three grains to a hill. Every seed grew, ran up very tall, bore from two to nine ears to a stalk, averaging four, having from eight to twelve rows each.

The patch was shovel-plowed twice, a shovelful of hen-house manure (one-third manure to two-thirds common soil, mixed) put upon each hill, and afterward hand-hoed twice. The corn was husked Oct. 12, yielded 3.41 bushels of ears counting three half bushels to the bushel. From this I selected two-thirds of a bushel of twelve-rowed ears for future seed, and discarded the rest.

It will be seen that the corn received but common care, and but little manure, and yet it produced at the rate of 77.4 bushels per acre, all sound corn, there not being a nubbin in it. The season was quite wet, too wet for small grain, but just right for corn on upland, like the land on which this grew. The ears were medium in size, but very even. I hope by careful selection, to increase the yield of this corn to 100 or more bushels per acre, without any fancy cultivation. I think few of the great corn crops of this season can excel this, considering all the circumstances. S. R. M.

Dodge County, Neb.

RAISING POTATOES IN A GREEN-HOUSE.—With regard to a short article on this subject in RURAL for December 14, a correspondent writes us: "Mr. Peter Henderson, in his reply to the query of 'W. W. K.,' of Toronto: 'Would it be possible to plant the 'Beauty of Hebron' potato now, in a bed in the green-house, so as to have the product for planting in spring?' remarks somewhat to this effect: The tubers, being cut lengthwise, so as to expose as many eyes as possible, should, after drying, be planted in small pots, and then placed in the green-house not sooner than March 15th. When the shoots are about two inches long they should be removed, and then propagated. He concludes by saying: 'Every plant of these, if properly handled, is equal to a dry 'set.'" With all his remarks do I agree except this last. It is true that these plants, if properly handled, will produce other potatoes; but he is in error in supposing that these tubers will be as good as those grown in the natural way. This is not a new experiment; but when produced in this manner, it will be found that such tubers are exceedingly liable to rot, and consequently not desirable for keeping purposes; nor are they suitable for replanting, as they are weak, and the bulk of their product are certain to rot. X.

THE MOST PROLIFIC VARIETY OF CORN.—Apropos of our Editorial Brevity on this subject on page 748, a correspondent writes us from Burr Oak, St. Joseph Co., Mich., to the effect that the variety of corn which has averaged the best yield with him for the past thirty years, is the White Dent or the White Gourd-seed. It ears large; frequently has to each ear 1,200 kernels of great length, and sometimes as many as 1,800. It was introduced into this county about 1842, and down to to-day has not been generally grown by farmers thereabouts. He doubts whether it would thrive in Pennsylvania, New York, or the States to the north-east of them.

We know of a wealthy farmer but a short distance from our farm that up to a few years ago failed to get good crops though manure was literally piled upon the land regardless of expense. Lime was suggested and used in large quantities and the best crops ever known on that farm have since been raised. "The more dung the more lime," and the converse is equally true.

The Herdsman.

THE EXHIBITION OF FAT STOCK AT CHICAGO.

AN exhibition of fat cattle was held at Chicago recently to which our crowded columns have prevented us from alluding. This show is something novel and of much interest. We have had many exhibitions of fine cattle whose fancy points, rather than their merit in the butcher's eyes were their chief claims to excellence. In this exhibition intrinsic value as to beef was the object most desired, and the result of the competition cannot fail to be of great importance. American beef has been considered as of inferior excellence to what has been more poetically than truthfully called the grand, unsurpassed "roast beef of Old England." English beef has long been supposed to be the best in the world, and it has been thought that no other beef could ever come into successful competition with it. The results of the Chicago Exhibition go to show that we can produce as good beef and of as early maturity as our British competitors ever showed at their Smithfield butchers' shows. The cattle exhibited at Chicago consisted of Short-horns, Herefords, Devons and their grades. The premiums awarded were as follows:

SHORT-HORN COWS.

	Age.	Weights.	Gain per d y.
1st	1,721 days.	2,075 lbs.	1.20 lb.
2d	1,188 "	1,285 "	1.08 "

HEREFORD STEERS, 4 years old.

1st	2,692 days.	2,010 lbs.	.75 lb.

HEREFORD STEERS, 3 years old

1st	1,336 days.	1,705 lbs.	1.20 lb.
2d	1,356 "	1,760 "	1.29 "

HEREFORD STEERS, 2 years old.

1st	1,080 days.	1,470 lbs.	1.36 lb.

DEVON STEERS, 3 years old.

1st	1,371 days.	1,655 lbs.	1.20 lb.
2d	1,267 "	1,475 "	1.16 "

DEVON STEERS, 4 years old.

1st	1,658 days.	1,645 lbs.	.98 lb.
2d	1,652 "	1,870 "	1.13 "

GRADES AND CROSSED STEERS, 4 years old.

1st	2,058 days.	2,750 lbs.	1.69 lb.
2d	2,033 "	2,833 "	1.79 "

GRADE STEERS, 3 years old.

1st	1,307 days.	2,185 lbs.	1.[illegible] lb.
2d	1,277 "	2,205 "	1.[illegible] "

GRADE STEERS, 2 years old.

1st	958 days.	1,885 lbs.	1.96 lb.
2d	958 "	1,560 "	1.[illegible] "

GRADE STEERS, 1 year old.

1st	596 days.	1,420 lbs.	2.38 lb.
2d	641 "	1,520 "	2.37 "

SWEEPSTAKES. Steers.

1st	1,902 days.	2,440 lbs.	1.28 lb.
2d	1,307 "	2,185 "	1.66 "
3d	957 "	1,640 "	1.71 "
4th	650 "	1,480 "	2.27 "

Cows, 3 years and over.

1st..... A Hereford cow.

The above list deserves some notice. It should be stated that no first premiums for grade animals were secured by any but Short-horn crosses, although a Hereford steer came near to capture a premium in the sweepstakes. It will be observed that young beef is the most profitable because an average growth of more than 2¼ pounds per day may be made within two years. Beef older than two years does not pay so well, because the increase in weight is out of proportion to the necessary increase in food. The rapid maturity of Short-horn or grade Short-horn steers has totally changed the old system of feeding, and it no longer pays to feed until three or four years old, because the former average weights of that age can now be gained in half the time. It may be that the quality of the meat may suffer, but the profit of the feeder is everything and the consumer must take what he can get and be content. There is, however, little to grumble about in the quality of a well fed two-year-old of 1400 or 1500 pounds. This fact may well be considered by those who have not yet introduced the improved breeds into their herds, and are still throwing away feed in the endeavor to grow beef fit for market in four or five years.

FAT-STOCK EXHIBITION AT BIRMINGHAM, ENGLAND.

JOHN HILL.

THE 30th exhibition of fat stock, poultry, agricultural seeds and implements was held at Bingley Hall, as usual, Nov. 30th and Dec. 2d, 3d, 4th and 5th. Although, of course, there were some good specimens in each class, the collection was not as good as it has been on other occasions. The new rule which has been made by the Smithfield Club, which excludes any beasts that have been shown at Birmingham from being exhibited there, for fear of spreading disease, in a great measure tends to spoil both shows, many of the best animals in the present case having been kept for the Smithfield exhibition next week.

HEREFORDS.

Taking the classes as they are arranged in the catalogue, first come the Herefords, which as a lot are decidedly not so good as usual, a few entries excepted. There is to be a large show of these cattle in London, and the best, no doubt, are reserved for it. The ox that wins the first prize in his class for those over four years old is a grand, massive animal with a girth of 9 feet 10 inches; his live weight is 2,520 pounds. The first-prize beast in the steer class not exceeding four years old has wonderfully heavy flesh, with grand Hereford character, on short legs and beef to the ground. He has won 12 first prizes previous to this exhibition. At three years eight months old he weighs 2,114 pounds and girths 9 feet 1 inch. This animal takes the £100 prize for the best Hereford in the yard. The only other beast of this breed that deserves special notice is the beautiful heifer "Beatrice," three years three months old. She has been one of the great features in the leading shows ever since she came out as a calf, and it is a pity her life is now to be ended in the butcher's shop; but this, unfortunately, happens to many of our young show heifers. She often has been exhibited as a pair with the still more celebrated heifer "Leonora," so often the champion female of all breeds, beating the crack Short-horns and others. Fortunately she is breeding, and no doubt will produce offsprings worthy of their dam. "Beatrice" weighs, alive, 1,922 pounds. She is wonderful in the chine, back and loin, with an extraordinary rib and forepart, but rather fails in her flank.

SHORT-HORNS.

There were four entries for Short-horn oxen exceeding four years old. The first prize was taken by a very fine well-bred beast, full of quality, carrying a great weight of good flesh, with fine character. He was expected to have won the champion honors of the yard, but in this he was defeated by the cross-bred ox of which I shall speak presently; his live weight is 2,974 pounds at the age of five years five months. America is well represented in this class by the second-prize ox, bred by Mr. C. P. Bedford, Paris, Ky., and exhibited by Messrs. John Bell & Sons of Glasgow, Liverpool and London. I learn that he had been in this country six weeks, and he certainly is a good specimen of a well-fed Short-horn, and shows far more good breeding and quality than the other American ox exhibited in the class for animals not eligible to any of the other classes. The latter is a large, coarse beast, rough in his shoulders and tight in flank and thighs, and not quite fat enough for an exhibition of this sort. He is four years old and shows a good deal of the Short-horn type. He is exhibited by the same firm. The weight of the second-prize beast just mentioned is 2,110 pounds at four years six months old and the other beast weighs 2,114 pounds. The most level and evenly fed bullock in the Short-horn classes is the first-prize animal exhibited by Mr. A. Darley of Little Ness, Shrewsbury. He weighs 1,953 pounds at two years six months old.

There are a large number of Short-horn cows entered. The first and second honors were won by Walter Cottrell, Thame, Oxford, and Mr. R. Stratton of the Duffryn, Newport, Monmouthshire, respectively. Both the winners were of great merit; but the most striking cow in this class, showing beautiful Short-horn character, of excellent quality, with splendid head and carriage, a beautiful handler, covered with capital hair, with a back and thigh and loin nearly perfect, but rather light in her forepart and thin on her chine (no doubt partly accounted for by her age and what she has done, combined with the great milking properties of the herd she comes from), is the animal exhibited by Mr. John Allan Rolls of the Henkre, Monmouthshire. The judges highly commended her, and as she has not long been feeding, is ten years old, and has reared six calves, it is a very respectable situation to have obtained. She was much admired by all Short-horn breeders, as she is a good specimen of the herd to which the great "Duchess" breeders are beginning to look with interest, tracing back as they do in a direct line to the celebrated "Dairy" bull, and it is believed by many that the old "Dairy" tribe will turn out to be the one to which the breeders of the "Duchess" cattle must look for a cross. It is quite certain they are now at their wits' end where to go, and at all events such a cross is well worth their serious attention, the two tribes being so nearly descended from the same source. Mr. Thornton, the Short-horn auctioneer, has advertised a few of these "Dairy" cattle to be sold by order of Mr. Rolls on the 28th of March, 1879.

The special £100 prize for the best Short-horn in the yard is won by a beautifully fed white heifer bred and fed by Mr. Hubbard Sound, Lowesloft, Suffolk. At three years five months old she weighs 1,953 pounds, being two weeks older than the Hereford heifer, she weighs 31 pounds the heavier. This is another example of how nearly the two breeds agree in weight for age.

OTHER BREEDS AND CROSSES.

The Devons were fairly represented, as also were the Long-horns, but they need no special comment. The Scotch cattle were very fine, but not so remarkably fine as I have sometimes seen them. The cross-bred animals were not good, excepting the magnificent bullock that won the first prize of £50 in his class.

The Elkington challenge cup, value 100 guineas, and silver cup, value 100 guineas, given by Messrs. Jones, Gibbs & Co., as the best animal in the yard. This ox is black, being a cross between a Short-horn bull and a polled cow. He takes rather more than is usual in such cases after the dam, but is horned. He is wonderfully well fed and is square and meets you well with great forehead, foreflank, and rib, perhaps a trifle slack behind his shoulders and low in his back, but he has rare loins and great thighs, and altogether is an enormous mass of firm well-laid-on beef. He weighs at four years ten months old 2,816 pounds, and before he left his Scottish home he weighed 3,024 pounds, losing the difference on the journey, I suppose from not eating so well when traveling and having been weighed when empty at the entrance of the show yard.

Among the cows or heifers of any age not eligible for any of the other classes, there are always some beautiful specimens; young animals that have been in constant show condition and which have failed to breed. The Rev. R. Bruce Kennard of Marnhall, Blandford, wins with a splendid heifer "Isle" which ran the champion ox very hard for the chief honors of the yard, and some good judges even went so far as to say she ought to have had them. She certainly is better in her back, and is the most level and perfectly made animal for her size I have ever seen. She is square and thick on short legs, has extraordinary hind quarters, a capital top and wide in her chine. She has a beautiful coat and handles to perfection. She is really a "gem" and worthy of the grand herd she comes from. The second-prize animal, bred and fed by the Rev. Walter Sneyd of Keele Hall, Newcastle, Staffordshire, is a charming heifer and would have won in less high company.

Miscellaneous.

ROAD-SIDE ORNAMENTATION.

W. I. CHAMBERLAIN.

Difficulties in the Way.

Country road-sides are usually unsightly and unprofitable. They are often a refuge for stones, weeds and briers, or a tramping ground for teams in muddy weather. Under most of our State laws a "supervisor" or "path-master" is chosen for each road district, by vote, each spring. The position is no sinecure. It brings no pay except for labor, and is therefore often taken in rotation by all the farmers in a district, and so all sorts of men hold the office. But the supervisor is "monarch of all he surveys." He can order out the property-holders to work on the road when and where he will. He can run the ditches straight or crooked. He can cruelly plow into your nice turf in front of your very house-lawn, if he chooses. "His right there is none to dispute." Add to this the fact that in spring and fall, when roads are muddy, every man that rides or drives on the road is also an autocrat, and can poach up your turf the whole length of your farm, if he will, and it is plain that road-side ornamentation in the country is not an easy thing, even if one sets about it. Formerly, too, cows and hogs roamed the streets, but now that nuisance is almost everywhere abated. People began to see that since each farmer pays for all highways running through or past his farm the same price per acre as for the rest of his farm, and pays yearly taxes on them, too, his neighbors plainly have no right to use *his road-sides for their hog yard or cow pasture.* The public have a right to the proper and necessary use of them for travel, and nothing more. All else belongs to the land-owner. It logically follows that the latter has the right to improve and ornament his road-sides, and reap all benefits arising from such improvement; also, that the supervisors and the traveling public have no right to hinder his doing so. But how shall we prevent their ruining our roadsides by driving on them in wet times? Some throw down rails and chunks, but the irate and independent public will jump out of their wagons and throw the rails aside with a jerk and an oath.

TREES THE BEST ORNAMENTS.

I know but one effective way, and that is to do what should be done anyway, viz.: set a row of shade trees on each side of the road, about six feet from each fence, and double-stake and guard them while young. The laws in most States give the right to plant and protect thus. The trees will not only be a great ornament and blessing themselves, but will make it possible to have a lawn-like strip of grass, uncut by wheels and hoofs, all along the roadsides. Most of our country roads are about 60 feet wide. If, now, we allow 32 feet for the turnpike, or roadway and ditches, there remains room for a nice grass plot, 14 feet wide, on each side. But with a row of trees, well guarded by stakes, running nearly through the middle of each, it will be impossible for wagons to drive there. And with care, a nice, straight, smooth strip of grass may be had,

which can be mowed twice a year by the farmer with good returns in cash, and in improved appearance.

MOST SUITABLE SORTS.

What trees shall we plant? The Sugar Maple is my own favorite, and I have lately set about 200, making a double row more than half a mile long. The trees are clean and beautiful, and in time this double row along the roadside may be made a part of the sugar orchard, and yield many gallons of the purest, most delicious sweet produced by nature and art combined. The Elm is the most magnificent shade tree, but is a voracious feeder, and will in time draw heavily on the fertility of the adjoining fields. Its roots are of enormous length, and its branches spread far and wide, and will shade the adjacent crops in time. But it is hardy and requires less care than the Maple. Some varieties of the Cherry make good shade trees, and the boys do not object to the fruit. And even the apple tree is used in some parts of New England. A well shaped Baldwin is a handsome shade tree, and the apples will feed the boys and leave a large surplus to the farmer.

But it is not enough simply to plant the trees. The soil must be properly prepared beforehand, and the trees will need much subsequent care and shaping. The soil of some of our clayey road-sides is nearly ruined by travel in muddy weather, and must be restored to mellowness and fertility. In case of the Maples mentioned above, the ground was plowed, manured and cultivated for two years before the trees were set—just as for a young orchard, and it will be cultivated a few years in low crops or without crops, and then seeded to grass and the trees mulched. Some such treatment seems necessary to secure the life and rapid growth of Maples on a clay road-side. Tilling the ground, too, will keep horseback riders off. A plowed field is worse than the road, in muddy weather.

Such improvements add much to the cash value of the farm, and give returns enough each year in cash, if managed rightly, to pay for the labor.

Summit Co., Ohio.

THE HISTORY OF A POOR FARM. NO. 1.

It was certainly a poor farm, and as I inspected my new and accidental possession, I thought of Touchstone's remark about Audrey, "an ill-favored thing, sir, but mine own." It was something that would be costly to let alone and costly to do anything with; but as the latter was the only way to make it worth something in the end, I began to consider what should be done. The land was a sandy loam, a flat ridge with a swamp on each side, and rather steep hill-sides from the ridge to the swamps, a piece of wood-land of a few acres, and a more prepossessing field beyond the wood. The fences either lay down, or tottered in all angles but right-angles, and the rails were moss-covered and in a venerable condition of weakness, which made it unsafe to rest upon any of them. The fields were covered with wild garlic, sand burs, and rag-weed: the buildings were in a wretched condition of decrepitude and, for some years, no animal had put foot upon the premises to stay. The whole 60 acres could not have furnished one fair meal for a cow, and a flock of sheep, notwithstanding their supposed aptitude for, and success in, restoring poor fields to a condition of fertility, would have starved before they could have found a place to begin operations in.

It was over such a prospect that I was dubiously considering how hopeless was the task before me of bringing this farm into a profitable condition, and more particularly viewing a rough swamp of several acres lying in a sort of basin at my feet, when an old gentleman approached me very deliberately and said, "You are the owner of this place, I suppose?" Without waiting for an answer, he continued, "I thought so." Perhaps he saw the fact confessed in my assenting look. "You've a mighty poor piece of land here; that is, it's in a mighty poor condition—the land is good enough in itself, but it has been run down wonderful. And the question is how are you going to get it up again?" "Well," I remarked, "there's that swamp; don't you think that will help towards it?" "Yes," replied the old gentleman, "there is enough land there, if it was only put into good condition, to cut 30 tons of hay every year, and enough manure may be taken out of the drains to make the rest of the farm rich. I have lived more than 60 years on the next farm, and I know that the muck out of these swamps is worth, load for load, as much as cow manure, and that is just what this light soil wants." "I think you are right," I replied, "and no doubt a farmer who has a bed of swamp muck on his farm, is well supplied with manure, if he only manages it properly." "How would you use it?" asked he. "Well I have had some experience with swamps before this, and have used large quantities of swamp muck. I have spread it raw upon the ground and plowed it under, but in that way never found it of the least use. I have dug it and mixed it with lime and made a compost of it, and in that shape it is valuable, especially for top-dressing meadows and for plowing under. But the best method of using it is undoubtedly to haul it to the yard and bed cows, horses and pigs with it, very liberally, and so save all the liquid manure that would otherwise be wasted; and that is what I propose to do with it here."

THE PLANTATION MILL.

"What does this muck consist of?" asked the old gentleman. "I guess it's mostly rotten leaves and grass, and I don't see why it is not as good as they are. Gardeners think very highly of leaf-mold, I always thought." "That is true," said I, "muck that is free from sand, as this is, contains about three per cent of nitrogen; and one ton of it, dry, would be equal in value, in this respect, to seven tons of straw. A ton of good dry muck would contain 60 pounds of nitrogen, or as much as six tons of horse manure or ten tons of cow manure, in the wet state in which these are generally used. And there is no need to draw 1,500 or 1,600 pounds of water with every load of muck, if it is dug and left to dry for a few months, or even weeks." The old gentleman was too astonished to reply; so I continued, "If this dry muck is spread a foot deep in the pig pens or cow stables, every drop of the urine will be saved, and this, in one year, from one cow, amounts to 7,000 lbs., in which there is more than 150 pounds of nitrogen, besides 50 pounds of potash and 5 pounds of phosphoric acid. From 10 cows there might be saved 35 tons of this valuable manure, which would make, with sufficient swamp muck added to absorb it, at least 300 loads which would be worth more than any common barnyard manure ever made." "Then," said the old gentleman, "I don't see what you want more than a lot of cows, and to set a horse and wagon to work hauling muck, to make your farm rich." "There is some truth in that," I replied, "but what is wanted in this case is some way in which I can grow something to feed the cows first; and this must be something which must not require a large outlay of money.

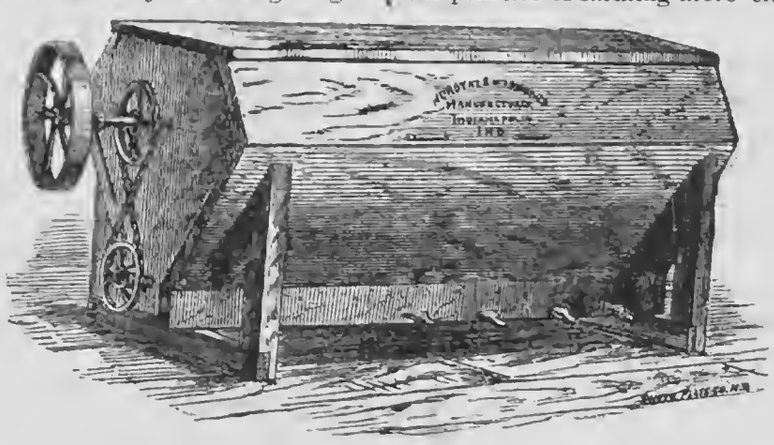
"The most difficult thing in the improvement of a poor farm is the start. This needs an outlay of money to purchase the fertilizers needed to grow the first crop. Just now artificial fertilizers promise to be of the greatest use for such a purpose, and the question of what should be used and how it should be used, is one that requires serious consideration. The points to consider are what crops would be the best to raise upon a poor, worn-out soil; and this involves the consideration of what stock are to be kept, and how they should be fed; and next, what fertilizers are the best to be used for those crops."

My plan was to feed as many cows as possible; to grow fodder crops only; and to purchase whatever concentrated food, such as bran, oil-cakes, wheat or rye middlings might be needed, with the idea that the principal value of these would be returned in the manure. In this way I should procure some rich manure, to which I could add as many times its bulk of swamp muck as possible, and so make a large quantity of fertilizing material, and in this secure my profit. My plan, also, included the growing of crops for the soiling of cows, and to sell only milk from the farm for which I could get a market at the door. From former experience I had learned to give a good deal of weight to the opinions of the neighbors who were native and to the manner born, and I was glad of every opportunity of conversing with them, and of learning their views; a man of ordinary common sense who has followed the plow all his life and has reached a good old age upon a farm, cannot fail to have gathered a large store of practical knowledge. Many a new-comer into a locality thinks himself able to teach the old residents a good many things; but it is generally the case that he finds he has many things to learn before he gets through the first year or two in his new home.

My old neighbor had left with kindly good wishes for my success, and pleased that there was a prospect of the farm, which had been badly mismanaged for years, becoming some thing of a credit to the neighborhood. He was a hale, hearty old man of 86 years, and had lived on the adjoining property for 60 years, starting as a farmer at the age of 26. He had been a tailor, but the sedentary business was not healthful, and on this account was changed for a farm. His grandson now worked the farm, and his house was filled with a number of great-grand-children; a striking instance to my mind of the happy effects upon a man and his circumstances of a healthful, active employment, and of the certain success of farming as a business when it is steadily pursued.

WHAT OTHERS SAY.

SCIENCE AND PRACTICE OF FARMING.—Professor Tanner says: "Take vegetable physiology: the man who understands the structure of plants is far better able to judge of any difficulty which arises in the cultivation of the crop than if he had not that knowledge. I do not say that a man who understands vegetable physiology is going to tell more about any failure in a crop or difficulty in its growth than the farmer of experience; but of two farmers having equal experience, the farmer who had a knowledge of vegetable physiology would give a clearer insight either into his difficulties or his means of success. The experience of the farmer is of priceless value, but if you supplement that experience by a knowledge of the character, habits, and nature of the thing you are dealing with, you must necessarily be in a better position to judge as to what causes your failure or helps you to success than if you had only one knowledge. The same applies to other branches of science. The view I wish to submit is that science must be regarded as a light thrown upon the experience which all derive from every-day practice on the farm. The study, even of pure science is likely then to be of advantage to all who are able to learn farming, because it will enable them to learn the practice of farming more clearly and more distinctly. But we must not think it is chemistry which will teach us farming. Farming is a direct matter of business in its every-day details, and is not to be learnt by science classes. But what science can do is to enable those who have learned it, to become more perfect agriculturists, and to grapple with difficulties which perhaps puzzle the man who has not this advantage. Therefore, it is of tremendous advantage to the younger men who have all their life before them.



BOLTER.

USE OF LIME.—Prof. Caldwell reasons in this way in the N. Y. Tribune: "Hence the first and one of the most important rules to be observed in the use of lime is that it should be applied in these large doses only to soils comparatively rich in humus, or strong clay soils rich in finely divided silicates. It has been proved by experiment that lime will convert plant food from insoluble to soluble forms in either case. We find the proverb current in France and Germany, as well as in our own language, that "Lime without manure makes the father rich but the children poor;" which means, plainly enough, that not only should we start with a good soil in using lime, but should maintain its good condition by the liberal use of manure; and we find that whenever, in this country or elsewhere, lime is used intelligently, manure is used freely."

CORN CULTURE.—"The suckers," says H. M. Engle, in a prize essay, "should, under all circumstances, be taken off before they appropriate too much substance which the main stalks should receive, but under no circumstances allow suckers to tassel, for whatever pains may be taken to bring or keep the corn at its greatest perfection by selection of seed, the pollen from the sucker may undo what has been gained by years of careful selection. I would as soon think of breeding from a scrub male to a thoroughbred animal, as to have the pollen from suckers cast upon an excellent variety of corn. It is also well known that the pollen from a neighboring field is ofttimes carried to an almost incredible distance, and consequently may cause more mixture than is desirable."

CATALOGUES, &c., RECEIVED.

NEW JERSEY STATE HORT. SOCIETY. The Fourth Annual Meeting of the above society will be held in Geological Hall, New Brunswick, N. J., January 15 and 16, at 10 o'clock, A. M., with an evening session on the first day. A number of topics of general interest are presented for consideration. Samples of fruits, flowers, etc., are solicited. E. Williams, Sec'y.

LIST of Clydesdale Horses at Lakeside Stock Farm, Syracuse, N. Y., the property of the enterprising firm of Smith & Powell. This handsome catalogue of 34 pages should be sent for by all desirous of improving their draft horses by the introduction of good blood, for which the Clydesdales have everywhere won an enviable celebrity.

ALSO, a 65-page catalogue of the twenty Hambletonian stallions and colts, and the forty Hambletonian mares and fillies belonging to the same firm and kept at the same place. To those interested in roadsters and light draft horses this list is both interesting and instructive.

ALSO, catalogues of Holstein cattle, to be seen on the same farm and bought from the same owners. The above catalogues will be sent free to applicants.

GARDEN MANUAL and Catalogue of Seeds, Plants, etc. J. B. Root, 802 Kishwankee St., Rockford, Ills. We would especially commend this catalogue and this establishment to the market and farm gardener, and to all especially interested in raising good vegetables.

Industrial Implements.

THE PLANTATION MILL,

shown in our engraving, is adapted to any kind of light power, and is a most serviceable piece of machinery for farm and plantation work. It will grind wheat, middlings or minerals, and will reduce meal to any required fineness. It develops great capacity by a small expenditure of power, because the grinding surface is small. The bed-stone oscillates upon a central point of contact, the spindle of runner-stone resting upon permanent bearings seated in an iron frame. This arrangement keeps the stones in face with each other.

As may be seen (see illustration) the construction is simple, solid and durable, and the stones are very accessible for dressing. The motion is said to be very steady and easily regulated. The buhr-stone is carefully selected, of sharp, even texture, medium, open or close, as desired. The Nordyke and Marmon Co., of Indianapolis, Ind., have given especial care to improving this mill, until now it satisfactorily meets the demands of their trade. The illustration of bolter shown is adapted to meal, buckwheat or flour. Its price is so low that it is possible for every one to add this machine to his mill equipment, and have a complete grinding mill.

This firm is one of the largest manufacturers of mill machinery, and extremely careful to turn out only very superior work. We would suggest that those interested should send for descriptive circulars or any information that experience may prompt.

Dairy Husbandry.

DAIRY SHORT-HORNS.

T. H. HOSKINS, M. D.

ADAPTABILITY OF SHORT-HORNS TO MILK OR BEEF PRODUCTION.

THE noble breed of Short-horn cattle is one that adapts itself, in the hands of skillful breeders, to every purpose for which cattle are required. Though pre-eminently a meat-producing stock, it has always from the beginning been a milk-producing breed as well. In the hands of breeders, whose aim is to make beef only, and who let the calves do all the milking, the system of these animals will adapt itself to the situation, and the nutriment goes mainly to flesh. But the potentiality of a milk-producing race exists in the Short-horn family under all conditions, and even where for years it has been disregarded, a moderate amount of care will in a few generations restore it. This, however, is in practice quite unnecessary, since the milking strains of the breed have in many localities been preserved, and kept under a constant course of improvement. This is notably the case on many farms in the Eastern States, especially in New York and New England. It may be said that in these sections the Short-horn has been as closely bred to milk as in Kentucky it has been bred to beef; and the result is a marked differentiation, whereby have been produced two quite distinct sub-breeds, that are yearly growing farther apart, and while preserving the distinguishing race-aspects in many points, are each assuming a type by which animals of each kind are at once clearly denoted to the experienced observer.

DAIRY SHORT-HORNS IN VERMONT.

In Vermont, especially, has the Short-horn been carefully bred for the dairy. This State, both by soil and locality, as well as by the tastes of her farmers, as one might say, is mortgaged to the dairying interest. The excellent market offered almost at their doors by the great cities and the manufacturing towns of southern New England (to the citizenship of which Vermont has herself greatly contributed) irresistibly urges the Vermont farmers to the task of supplying it with the choicest articles of diet, such as the West does not and cannot offer in perfection. This demand is seconded by her soil and climate, which together make grass her natural crop. Nowhere in America, not even in Kentucky (the writer has lived many years in both States as a farmer), does a richer sod exist, or one more prolific of the best grasses. The "Blue grass" is as much at home in one State as in the other, and the limestone soil in which it delights, underlies, proportionally, as large an area in the one State as in the other. Kentucky, with its large farms and warmer climate, chooses beef raising, and her Short-horns are of the grazier's type; while Vermont can show among her herds an equally good, if not equally numerous, array of the best type of milking stock. The Winslows, of Putney, have perhaps given the most notoriety to the Vermont type of Short-horns, and have recorded the highest prices received for them. The fame acquired by "Lady Sale, of Putney," and her progeny, has gone out into all lands. But although the Winslows have departed for the West, Vermont is not without many herds scarcely less meritorious, though less widely advertised.

A PROFITABLE HERD.

Among these, pre-eminent as a profitable milking herd, as well as of a very noble strain, is that of Henry C. Cleveland, of Coventry. Mr. Cleveland's father, Judge Cleveland, still living at the advanced age of eighty-five years, began the breeding of Short-horns before the era of Herd-Books, and had a large and fine stock of them as far back as twenty years ago. Since this herd has come into the hands of his son, great improvement has been made, not only by the introduction of choice and costly blood, but by a close and discriminating system of "weeding out," whereby every inferior calf and unprofitable heifer or cow has gone to the butcher without hesitation or remorse. The result is such, the milk-producing ability of the cows having been thus sedulously cultivated, that now the record shows an annual average for the whole herd, heifers and cows together, of 261 pounds of butter per head, sold in open market at a price that has netted for the current year slightly over twenty-five cents per pound, clear of freight and commissions.

Mr. Cleveland's stock at this time consists of forty-five head of pure-bred Short-horns, with twenty-three milkers. At the head of this herd stands the fine "Princess" bull, Second Lord of Malvern (14,782) six years old, whose sire was the Fourth Lord of Oxford, and whose dam, Lady Mary Second, sold at auction for $5,000. In a recent visit to Mr. Cleveland's place he pointed out to me six cows in a row, which he assured me had averaged twenty quarts of milk a day for eight months. One cow, the veteran of the herd and ancestress of quite a number of them, now in her twentieth year, records an average flow for one whole season of fifty pounds of milk per day, with a butter product therefrom of two pounds—this on grass alone. Mr. Cleveland feeds no meal or grain of any kind, except to the cows for a short time after calving, and to the calves after weaning.

In Mr. Cleveland's cow-stable the mangers are divided by partitions about four feet high, extending back about twenty inches from the manger. The cattle have each a stout strap around the neck, attached to a chain ten inches long, sliding by a ring upon an iron rod. The platforms are level, and well littered with sawdust. By this arrangement cows never get their feet in the mangers, and their flanks and hindquarters are as clean as can be.

The farm is in the valley of the Black River, 232 acres in extent, with admirable mowing and pasturage. The average hay crop is about eighty tons. In addition to this, three to four acres of corn, one to two acres of corn fodder, and a considerable quantity of oats are grown. This farm is run to make money, and money is made. Though no fancy prices are asked for stock that is sold, much of it is as good and as well-blooded as that for which very high rates have been paid.

DAIRY SHORT-HORNS IN NEW YORK.

In New York it is superfluous to say that many fine herds of milking Short-horns are found. Mr. Jonathan Talcott, of Rome, a dairyman and no speculator, reports his herd of Short-horns as usually making from twelve to fourteen pounds of butter per week, each, during the hight of the season. He has tested them alongside of the Jerseys, and gives the preference to the Short-horns for butter, without reference to their value for beef, or their yield of milk in quantity or for cheese-making. Mr. E. W. Stewart says he has authenticated the yield of a herd of twenty-eight thoroughbred Short-horns to be sixty pounds of milk each per day. Short-horn butter competes in market with Jersey butter on equal terms, when fresh, and its keeping quality is held by dealers to be superior. So eminent a dairyman as Hon. Harris Lewis, of Herkimer, after reviewing the merits of the different breeds from the dairy standpoint, gives it as his matured conclusion that the Short-horns of milking families, from the same amount of food will produce more butter, cheese and beef than any other breed; and the same conclusion finds expression from many other farmers, who have no speculative interest in fancy stock.

MILK RECORD OF REGISTERED JERSEYS.

PROMPTED to do so by the other milk records that have lately appeared in the RURAL, Mr. S. G. Livermore, Cedar Rapids, Iowa, sends us the following record of the yield from three of his Jerseys:

FLORA.

No. 1,745—American Jersey Herd Book. Dropped her last calf Feb. 23d, 1878.

Gave in April	749½ lbs. of milk
Gave in May	993 lbs. of milk
Gave in June	923½ lbs. of milk
Gave in July	834 lbs. of milk
Gave in August	805½ lbs. of milk
Amount in five months	4,305 lbs. of milk

She is due to calf Jan. 19th, 1879.

ELLA.

No. 323—American Jersey Herd Book. Dropped her last calf April 7th, 1878.

Gave in 20 days, commencing May 12	647 lbs. of milk
Gave in June	970½ lbs. of milk
Gave in July	809 lbs. of milk
Gave in August	768 lbs. of milk
Amount in three mos., 20 days	2,547½ lbs. of milk.

She is now giving 18 lbs. a day. The reason he ends the record with the month of August is the cows were away in September at the State Fair.

BUTTERCUP—4 YEARS OLD.

No. 1,746—American Jersey Herd Book. Dropped her last calf May 7th, 1878.

Gave in 20 days commencing May 12	652½ lbs. of milk
Gave in June	972½ lbs. of milk
Gave in July	844 lbs. of milk
Gave in August	800½ lbs. of milk
Amount in three mos., 20 days	3,269½ lbs. of milk.

The milk was weighed directly after milking each cow. Buttercup gave in three days, commencing May 20th, 1878, 101½ lbs. of milk from which was made six lbs. of butter. She is due to calf March 3d, 1879.

Floricultural.

CARNIVOROUS PLANTS.

IN a recent number of the Gardener's Monthly, Mr. Peter Henderson gives an interesting account of an experiment he has performed with "carnivorous plants."

To test the truth of the theory set forth by Mr. Darwin, and now adhered to by many scientific men, that certain plants obtain sustenance from animals which they catch and devour, he procured, last spring, from North Carolina a large number of Dionæa muscipula (Carolina Fly-trap). Having selected and washed the best plants, he procured two boxes, which were filled with a mixture of moss and sand, forming a soil somewhat similar to that which the plants had been growing in naturally, and a hundred strong plants were planted in each box. The plants in one box were covered with fine wire-gauze to exclude insects, while those in the other box were systematically fed, every day, with flies and other insects. After a lapse of three months from the time the feeding began, the operation was discontinued, and the most careful examination and comparison failed to show the slightest difference between the one hundred plants that had been fed, and the one hundred, under the netting, that had not been fed. Both lots had made a splendid growth, and were the admiration of scores of visitors. Mr. Henderson holds that this experiment disproves, or at least tends to disprove, the above-mentioned theory.

But it is fair to state that this one experiment ought not to weigh heavily against many like experiments which were carried on with great care by Mr. Darwin.

Everywhere.

RURAL SPECIAL REPORTS.

ILLINOIS, Baileyville, Ogle Co., Dec.—We had a lovely Indian summer, and on account of the favorableness of the weather, the farmers got their corn all husked in due season, and are better prepared for winter than usual. Some commenced plowing again, after their corn was cribbed, and continued plowing until Dec. 6, when the ground froze solid and put a stop to field work.

The corn crop was excellent in this locality, both in yield and quality, and was saved in prime condition. Clover-seed has turned out poorly; some was considered not worth hulling; and as the price of seed is only about $3 per bushel, out of which $1 must be paid for hulling, besides other expenses, it doesn't pay. The farmers have but little to do now, except to tend their stock and keep up the fires, and as coal is mostly burned here, instead of wood, it requires but little work to provide fuel. A good many farm hands are idle or merely helping with the feeding for their boarding. The wages paid the past season of eight or nine months, were from $16 to $18 per month, with board and washing. Day laborers got from 75 cents to $1 per day and board.

W. B. D.

PA., Wellsboro', Tioga County.—This section of country is high and rolling, well watered and well adapted to dairying, which is carried on to quite a considerable extent. Crops have been very good with the exception of potatoes and apples, which were not more than half a crop. The dry weather in the early part of the season spoiled the potato crop, and a heavy frost on the last of May cut our fruit in most localities. The weather from the 1st of August to the 15th of October was fine, but from then down to this date, it has rained almost every day, consequently the farmers are much behind with their fall work. Our market prices are as follows: winter wheat $1.00 per bushel, spring wheat, 80@90 cts.; barley, rye, 75c.; barley, 75c.; corn, shelled, 50c.; buckwheat, 50c.; oats, 25@30c.; potatoes, 50@65c.; apples, 60 cts. per bushel; eggs, 18 cts. per doz.; butter, 25c. per lb.; pork, dressed, 3.00@$4.00 per cwt.; beef, 4 cts. per lb., live weight; cows, $25.00; hay, $6 per ton; sheep, $2.50@$3.00; labor is very low; we can get the best men on the farm for 50 cts. per day or 8.00 to $10.00 per month.

W. O. R.

IOWA, Lettsville.—The soil of Iowa, like that of most other States, will not bear a continual cropping of the cereals without exhaustion; even the virgin prairie soil after fifteen successive crops needs rest. The usual method of recuperation is by seeding down to timothy and clover for meadow and pasture; hence the successful farmer must adopt the rotation system of farming best adapted to the kinds of soil to be worked. Persons of large means who have their acres by the thousand, have nearly quit grain farming, choosing stock raising in preference. Three continuous wet seasons have awakened the farmers in some localities to the importance of tiling their low grounds; a machine for putting in tiling is in use in this community, which is a success; from sixty to eighty rods a day can be put in without the use of the spade. A diminutive "mole-plow" used in marking off ground for corn drawn by three horses at a depth of nine inches, proved beneficial on partially exhausted ground during the past season. C. F.

NEW YORK, Rochester.—The fall, after our season of drought, has been very favorable for the growth of the wheat plant, and wheat is looking much better than was expected, the middle of October. The growth is not large, but strong and stocky, and large enough I think to winter well. A wide area has been sowed; for, notwithstanding the low price during the past fall, farmers generally have cleared as much profit from their wheat fields as from any department. Then, too, it is a pleasant crop to grow, and one that is always readily convertible into cash. Farm wages have been higher proportionally than in other trades—for which the farmers are generally to blame—a dislike of changing hands causes them often to pay more than the market price for those they do hire. Apples have been a drug on the market; fine fruit selling as low as 75c. per bbl.—barrel included—which cannot leave much margin for the producer. Potatoes are scarce and now command 80@90c. per bushel in our markets. Cabbage $4 per 100 heads. Beef and pork lower than last year. H. T. J.

NEW YORK, Great Bend, Jeff Co., Dec. 13th, 1878.—Crops, with the exception of corn, were poor. This town does quite a heavy trade in potatoes generally; as the soil hereabouts is inclined to be sandy, this crop is easily cultivated and generally of good quality; but the beetle did his best to spoil the crop for us during the past year, and those who did not fight early and late, are now compelled to pay the more persevering ones from 80c.@$1.00 per bushel for the tubers, or speak of them as the fox spoke of the grapes, and eat buckwheat cakes instead. Prices are at present here: wheat, $1.; oats, 30c.; corn, 48c.; rye, 40c.; butter, 13@18c.; pork, 3½@5c.; beef from 5@6c.; hay $7.00 per ton; cows from 20@$30, according to age etc.; sheep, 3.00@$5.00; eggs, 15c.; work is scarce and wages low; plenty of men for 50c. per day and board.

E. H. O.

MISS., Okolona, Dec.—Hereabouts, aside from the large plantations run by men of education and capital, farming has generally been in the hands of uneducated men, who, however incapable they may be of making agriculture a success, are still more unfit for every other sort of occupation. In this immediate neighborhood, there has been an almost total failure of crops. Cotton, our great staple, has yielded, in many cases, only a bale of about 450 pounds to five or six acres, while in some instances it took ten acres to yield a single bale, and this has to be sold for from seven to eight cents per pound. The present hard plight of our people is mainly due to their failure to raise at home such necessaries as corn, meat, and flour. W. H.

NEW YORK, Syracuse.—Diphtheria, and Scarlet fever prevail extensively hereabouts, reminding one of the old adage; "A green Christmas makes a fat graveyard." Farm produce sells low in our market. Wheat, 90c.@$1.00 per bushel; Oats, 25@30c.; corn, 50@55c.; dressed hogs, $3.50@4.00 per hundred; potatoes 70@80c. per bushel.; apples, 25@40c. per bushel; butter, 20@22c. per lb.; eggs, 25c per dozen. Evidently the prices of farm produce have touched bottom; but careful inquiry has failed to discover where salaries of Government officials have been reduced. N. RITTER.

WASHINGTON TER., Colfax, Dec.—The early rains started the Bunch-grass, which covers this whole land, and it is now two or three inches high. Cattle, horses and sheep are in fine condition to go through the winter, as they generally do without any other feed than the famous Bunch-grass. Crops here were very good; vegetables the finest I ever saw. We had many potatoes of the Garnet-Chili, Eureka and Early Rose varieties, that weighed 2½ to 3 lbs, and some that weighed 4 lbs. Prices are: Wheat, 50c; Oats, 60c; butter, 25c; eggs, 25c; potatoes, 50c. H. M.

OHIO, Celina, Dec.—Corn was a good crop on underdrained land; less than half a crop on land not drained. A full average breadth of wheat was sown and looks fine. Pastures, properly cared for, look well, and young stock are doing well, with but very little feed. On account of low prices, and lack of drainage, farming in this locality is paying very poorly. Wheat is selling at 80c.; corn, 25c.; oats, 18c.; rye, 40c.; buckwheat, 50c.; hay, $5 to $7; pork, $2.25; cows, from $20 to $40, as per quality.

G. W. R.

IOWA, Watkins, Dec.—Seeing an item in the RURAL about the "Lost Nation" wheat, I would say that it is a very good kind. A nephew of mine had a piece of about twenty-one acres that yielded the past season 440 bushels of good wheat. Times are very hard and prices are very low. Crops were good, except wheat. Fruit, of all kinds, was good. Hogs, $2 to $2.25; cattle, $2 to $2.30; wheat, 40 to 64c.; oats, 13c.; corn, 16c.; barley, 20 to 40c.; apples, 50 to 75c. C. G. H.

OREGON, Silver Wells, Wasco Co., Dec.—This is a newly-settled country; consequently farming is almost untried here yet. There is much rich soil in the small valleys among the mountains, but the climate is too cold to permit the growth of any but the hardier kind of vegetables. Stock-raising is the principal industry here. Cattle and horses usually winter well without feeding either hay or grain.

T. H. LA. F.

CANADA, Capetown, Ont.—The wheat, corn, potatoes and hay crops hereabouts were very good; barley and oats, however, ripened too soon. The apple crop is fair, the curculio having almost disappeared. The Snowflake potato does well on this soil—a brown sandy loam. The flower garden and house plants are always a success in their season, owing to good seeds and careful attention. G. G. K.

NEW YORK, Croton, Delaware Co., Dec.—This has been a season of abundant crops in this locality, with the single exception of potatoes, which were very light, many farmers not raising enough for their own use. The dairy interest is the main dependence of this county, though more grain has been grown for a few years past than for a long time previously. We have had a mild fall, with a great deal of mud, for several weeks past. Winter is now with us for something of a stay. A considerable amount of the butter hereabouts has been sold at prices ranging from 18c. to 22c., though quite a proportion of it remains unsold.

E. J. B.

OHIO, Ripley, Dec. 17, 1878.—Wheat is looking well. Crops were all good, except potatoes. We never had so many apples; more of them are rotting on the ground this year than the whole crop yielded last year. Wheat is selling for 80@90c. per bushel; corn, 30c. for 72 lbs.; oats, 20c.; butter, 12c.; live hogs, $2.25; choice winter apples, 45@60c. per barrel; clover seed, $3.60 per bushel. A great deal of rain since the first of November has made muddy roads.

J. R. T.

KANSAS, Burlington, Dec. 19.—Contrary to what one might expect, what is generally called old-fashioned farming is carried on to a greater extent in newly-settled than in long-settled parts of the country. Probably a similarity of conditions between the early settlers in both cases, begets a similarity of methods. Hereabouts the main object of each farmer is to see how much land he can cultivate, not how well he can cultivate it.

F.

KANSAS, Perry, Jefferson Co., Dec. 20.—We have had more snow this winter than for three years past. A week ago it snowed twelve inches which have since settled down, and it is snowing again now. The ground, however, has not been frozen. A good deal of the winter wheat looks bad; that sown early alone looks well, and much of that also has been injured by the fly.

B. B.

NORTH CAROLINA, Warren Co. — Present prices here are: cotton, 7½c.; corn, 60c.; dressed pork, 4c.; eggs, 15c.; butter, 25c. to 30c.; fodder, 75c. per 100 lbs.; oats, 40c. per bushel. Some of our vineyardists report a new departure in mildew—new at least here. It affects the canes, and is more noticeable on trellises than on stakes. I hardly think it will prove at all disastrous.

M. B. P.

RURAL FARM, Queens Co., N. Y.—Our winter wheat is looking exceptionally good, and we hope another summer to make interesting reports as to the comparative value of different methods of cultivation. The first really cold weather has occurred within the few past days.. Much rain—little snow.

KANSAS, Modena, Butler Co., Dec. 16.—We are having splendid winter weather here. Early-sown wheat is looking well and promises a good crop. All farm products are low: pork, $1.80; cattle, 2c. on foot; corn, 15@20c. per bushel.

J. B.

KANSAS, Hoplen, Crawford Co.—All early sown corn was a good crop; late corn, however, was poor. Oats, good; wheat, fair to middling; potatoes, poor. Cattle look well, but the price of everything is low.

A. S.

The Querist.

ANSWERS TO CORRESPONDENTS.

Is There a Best Kind of Gypsum?

J. R., New York City, as between Cayuga and Onondaga land-plaster or gypsum, asks which sort is the best for fertilizing purposes, and outside of the immediate localities in which each is produced, which has the best reputation among practical farmers, and also how they compare with Nova Scotia gypsum, and whether either of them is not as good as that variety.

ANS.—Gypsum is always simply gypsum when it is pure. There are two kinds of gypsum, namely, common or hydrous sulphate of lime, which consists of lime, 32½ per cent, sulphuric acid, 46½ per cent, and water, 21 per cent; and the rarer anhydrous sulphate of lime, which consists of lime, 41.2 per cent, and sulphuric acid, 58.8 per cent. Everywhere pure gypsum consists of these combinations, being in fact a salt of lime, in combination with water in the case of the common, or hydrous gypsum. But it is rarely that this substance exists in a state of complete purity, being frequently mixed with silica, carbonate of lime, sulphate of iron, and some other impurities. The proportion of impurities contained in the gypsum, as a matter of course, reduces the value of it as a fertilizer in the precise ratio in which the quantity of pure gypsum is reduced. The producers of this fertilizer find it to their interest to sell the purest article they can get, and generally the different kinds on the market do not show any serious variations in their composition. The Nova Scotia gypsum, and that from Cayuga and Onondaga, in the State of New York, as found in commerce, do not vary appreciably in composition, because the miners reject inferior qualities for obvious reasons, and the amount of pure specimens to be picked out of a ton of either kind is about the same in one as in another, and these cannot be distinguished one from the other by their appearance. As a matter of convenience, the New York plaster is used near where it is quarried, and the Nova Scotia near the Atlantic coast. The Nova Scotia plaster sometimes comes in competition with that of New York, but as yet no one who has used either could probably see the slightest difference in their effects. The New York plaster is white when ground, and some of the Nova Scotia is blue; the dark color is disliked by many who use it, but more from prejudice than for any better reason. It might also be noticed that pure gypsum is soft and easily ground, while the impure contains hard nodules that are difficult to grind; the plaster millers, therefore, are apt to reject impurities and grind only the pure stone. On the whole, the New York gypsums would doubtless be preferred by farmers.

Poultry Roosts, Food Vessels and Nests.

N. O., Waterville, N. Y.—asks the best way of arranging the above conveniences of a poultry house.

ANS.—Arrange roosts all on one level, not one above another, as is too often done. The fowls will fight for the top perch, when one is higher than the other. It is better to have the perches lie in notches in cross pieces, on posts, and not touch the sides of the house. They will not then infect the building with parasites, and can be taken out and cleaned easily. Roosts raised from two and a half to three feet are high enough for ordinary-sized birds, but roosts one foot and a half from the floor are high enough for Asiatics.

For drinking purposes, an open vessel or dish is better than a fountain as it can be more thoroughly cleansed. The vessel should be covered with a grating of wire or lath sufficiently open to permit the birds to put their heads through to drink, but sloping enough to prevent them from walking on it, or sitting on the edge of the vessel and soiling the water. A similar arrangement should be used for vessels intended for soft food. Hoppers should be used for grain, crushed oyster shell, and bone, that have a hole near the bottom edge, with a small tray in front to catch the grain, etc., so that no more will run out than the birds consume.

The nests can be arranged economically in boxes three and a half feet long, fifteen inches wide, the front and the ends eight inches high, the back three inches. The roof should be two feet wide, and slope from the front of the box upward and backward so as when set against the wall, to leave a passage under the roof, behind the box, open at the ends, for the fowls to pass in that way, as the front will be all closed. One board of the roof, next to the front, should be hung with hinges, so that it can be lifted up to get at the eggs and nests, This box will hold three nests, each a foot square inside, and four or five inches deep, with one side of two of the boxes high enough to form partitions between the nests, when set in the box. A number of such nest boxes can be placed next the wall either on the floor or raised about two feet on shelves, an arrangement that will give more floor room. The sloping roofs will prevent the fowls from soiling the boxes. There should be no fixtures; all should be portable so as to facilitate thoroughly whitewashing and cleaning.

How to Destroy Wire-Worms—Artichokes as Hog Food.

W. T. Arnold, Beaver Co., Pa., 1. Has a very productive piece of bottom land thickly infested with wire-worms. It was sod land, but was broken up last year and planted with corn, and he wishes to plant on it the same crop this spring, but is afraid the wire-worms would destroy it, and accordingly asks the best mode of destroying them. If salt enough to kill the pests were applied, he inquires whether it would injure the corn crop next year, and desires to learn what quantity should be used and when should it be applied. 2. He also asks, whether it would pay to raise artichokes in that section, as food for hogs.

ANS.—If a field is thickly infested with wire-worms it will not be advisable to trust to salt, plaster and other quack remedies, for their destruction, though fertilizers that increase the growth of the crop, help indirectly to overcome the insect enemies. The surest method of destroying the wire-worm is undoubtedly by the combined force of starvation and exposure to swine and birds. Destroy all vegetation for a season, plow the land in spring and early fall, and if possible once during the summer, so as to bring the pests to the surface and give the birds a chance at them. Frequent harrowing will aid in the same object. In this case, as the season is now too far advanced for plowing the land, do so next spring, and give the birds a chance at the pests some time before planting the corn. If the crop should prove a failure, it may perhaps be best to repeat the above plan next year.

2. Helianthus tuberosus, or Jerusalem Artichoke, may profitably be raised as food for hogs; but to obtain the best result, it should have a rich, mellow soil, and once established in such a soil, it becomes hard to eradicate. For this reason it is best to set aside some out-of-the-way corner for its culture.

Remedies for Roup.

W. H. M., Haddonfield, N. J., wants to learn what is the matter with his poultry and a remedy for the ailment, by whatsoever name it may be known. The symptoms are: birds drooping, standing about with eyes shut as if asleep; the head is swollen, with small scabs or dark lumps on face and comb; the eyes of some are closed tight with yellow matter which is hard, like corn; dung, watery, of a dark-brown, glazed color. Stock, Light Brahmas and Cochins.

ANS.—The trouble is *roup*, with a tendency to cankerous affection. For remedy: wash the head twice, or oftener, daily with vinegar and water, or with a weak solution of carbolic acid, and apply vassoline or carbolic salve to the sores. Give roup pills of known value, as per directions accompanying them, and also a tonic. "Douglas mixture" is good. A friend who is a large and successful poultry-keeper, gives a teaspoonful of rum and molasses two or three times a day. Remove the sick ones from the flock without delay, and put them in warm, dry quarters. Give the rest "Douglas mixture" in their drinking water.

Steam Plows, Etc.

F. G. R., Mansfield, Pa., asks where he can get a steam plow, or any information concerning that and other agricultural implements.

ANS.—A note addressed to Wm. C. Oestler, 43 Exchange Place, New York, will secure complete information concerning steam-plowing. R. H. Allen & Co., New York, will, on application, send circulars of "all kinds of agricultural implements." The inquiry is so general that we cannot answer it directly. The RURAL gives special attention to agricultural machinery: full descriptions of all new inventions and improvements that have been made in the well-known machines, will be found under the head of "Industrial Implements."

The Stump Apple.

N. R., Syracuse, N. Y., says he wishes some well-informed pomologist would carefully examine this apple—reported to have originated on an oak stump—and explain wherein it differs from the Indiana Red Stripe.

ANS.—Mr. Downing says of the Red Stripe: "Comes to us from Indiana; origin unknown. Fruit oblong, whitish, considerably striped, splashed and mottled with crimson. Core large and open. August." Of the Stump, he says: "Supposed origin Delaware. Fruit oblate, yellowish shaded with light red nearly over the whole surface. Core small. September and October." We have merely noted points of greatest difference.

Destroying Craw-fish on Overflowed Land.

R. M. T., Hackersville, W. Va., says his meadows are frequently overflowed, and consequently are often beset with craw-fish, and he asks for some cheap plan for destroying the pests.

ANS.—There are no means of ridding the ground of crawfish, except by draining it. If the land were drained by shallow ditches, so as to carry off the surface water as quickly as possible, some relief might be found. But the probability is, that so long as the ground is subject to overflow and is soaked with water for considerable periods, the craw-fish cannot be ejected from it.

Yield of Beans.

J. K., Bellevue Ohio, asks what variety of beans will give the best yield on a clay loam, and how much per acre that yield should be.

ANS.—All beans prefer a good loam or sandy loam. We cannot say which "variety" would do best upon a clayey loam, but should prefer the Kidney, Snap or Dwarf varieties. Some of these, as the Black Wax, are valued for earliness; some, as Early Mohawk, for hardiness; some, as White Wax, for family use; some, as Refugee, for lateness and pickling. These should yield upwards of 100 bushels per acre. Of the pole beans, Large White Lima is as good as any and should yield eighty bushels per acre.

Piano-ettes.

J. M. P., Turnersville, Coryell Co., Texas, asks whether C. W. Strong & Co., of Boston, Mass., are trustworthy, and whether the Pianoettes they profess to sell for four dollars are humbugs or not.

ANS.—Strong & Co. are trustworthy. The "piano-ette" is a small revolving cylinder, under which a piece of perforated card-board is rolled, the perforations permitting the protuberances on the cylinder to hammer on metal plates, on the principle of a music box, and by this means the air is produced. It is a very crude musical instrument.

Who are Entitled to Free Seeds?

Many Subscribers inquire whether they will be entitled to share in the free-seed distribution if they subscribe through an agent, just the same as if they sent their subscriptions directly to this office.

ANS.—All subscribers whose names are on our books, whether their subscriptions have been sent us by themselves, their friends or our agents, are equally welcome to participate in the distribution. We must have some protection and draw the line somewhere, and we do so under the applicant's name in the books of this office.

Clover Seed for Dyeing.

O. B. M., says that he has seen it related that clover seed is used for a coloring pigment for calico goods, but he doesn't know where to search for authentic information on the subject and asks the RURAL to publish the process.

ANS.—If it was stated where the above was related, it might have been some help to investigate this matter. After searching many technical books on the subject and inquiring from several experts, nothing can be learned of the use of clover seed as a dye stuff. We have never heard of such a use for it.

Where to Get Seed of Acme Tomato.

W. H. M., asks where can he purchase from a *reliable* dealer *pure* seed of Acme tomato. He wants enough for two acres.

ANS.—Of Thorburn & Co., R. H. Allen & Co. of this city; James Vick of Rochester; J. J. H. Gregory of Marblehead, Mass.; Landreth & Sons, Henry A. Dreer, Phila.; D. M. Ferry & Co., Detroit; Crossman & Bros., Rochester; Stair & Kendal, Cleveland; J. B. Root, Rockford Ills.

Market for Sage.

M. L., Alfred, Allegany Co., N. Y., having raised 100 lbs. of sage, asks where he can find a good market for it.

ANS.—It would not pay to send so small a quantity hither to market. The freight and expenses of handling it would be more than it would sell for. Sage is now sold very low at wholesale, and at the best would bring only a few cents per pound.

"Steep" to Hasten Germination.

S. C. B., Detroit, Mich., asks for a formula for the preparation of a "steep" to promote the rapid germination of seeds.

ANS.—We do not believe in any "steep" for this purpose, and advise our friend not to spend his money for quack preparations which are sold for this purpose.

Moore's Early Grape.

J. A. M., La Cygne, Kansas, asks what are the merits of Moore's Early Grape.

ANS.—Hardiness, size and quality. We have never tested it. We merely answer the question as to what is claimed.

Thrips.

S. B. P., Muskegon, Mich., sends us a sprig from a rose bush having spots on the leaves, and asks what causes them.

ANS.—Thrips.

Miscellaneous.

E. F., Providence, R. I., having been advised to sow Fife wheat, asks where seed of it can be had, as the catalogues do not mention it.

ANS.—Fife wheat is a spring variety, grown largely in Canada and Michigan, where spring wheat is a usual crop. As a matter of course, it is not kept for sale in R. I. where spring wheat is not grown. The seed may be procured from Rennie & Co., Toronto, Canada, or Ferry & Co., of Detroit, Mich.

J. W. S., asks 1. whether any plants from the free seed distribution bear edible or poisonous fruits; 2. what is the best thing to keep boots soft and water-proof; 3. the best poison for rats.

ANS.—1. No poisonous plants; of course, the tomato &c. are edible.

2. A mixture of beeswax and neat's-foot oil.

3. Phosphorus paste is as good as any poison.

A. W. G. Brockville Canada, asks if G. W. Turner & Ross are trustworthy and if their goods are as represented.

ANS.—G. W. Turner & Ross are responsible and the "Alexis" revolver is good enough for the money.

C. H. D., Nunda Station, N. Y., asks where Alfalfa seed can be obtained.

ANS.—Answers will be found in several late issues of the RURAL.

J. N. W. Brandon., Vt., asks where he can get a pair of Brown Leghorns and their price.

ANS.—Write to Geo. S. Josselyn, Fredonia, N. Y.

COMMUNICATIONS RECEIVED FOR THE WEEK ENDING SATURDAY, DECEMBER 28th.

"Subscriber," is reminded that a signature is required.—E. A. G.—L. W.—H. S.—I. S. C.—J. E. D.—J. M. P.—J. L. D.—W. B. D.—E. F. M.—E. J. B.—M. J. F.—D. E. S.—J. B. L.—M. W. F.—A. M. H.—D. S. S.—G. A. L.—S. L. R.—D. P. E.—G. F. N.—no signature—W. G. W.—J. S.—H. B. N.—R. C. C.—E. P. R.—L. C. W.—D. E. S.—G. A. B.—J. H. B.

THE
RURAL NEW-YORKER.

PUBLISHED EVERY SATURDAY.

Address
RURAL PUBLISHING CO.,
78 Duane Street, New York City.

SATURDAY JAN. 4. 1879.

We will be pleased to send one or more copies of the RURAL NEW-YORKER *free to any of our subscribers sufficiently interested in its welfare to be willing to hand them to their neighbors for inspection. An intimation by postal card will suffice.*

OUR readers who apply will have the Beauty of Hebron potato sent to them separately, because to send this with seeds makes an awkward package, and also, because the seeds may be forwarded at any time regardless of the weather, while the potatoes may be injured by frost. We mention this for the reason that our friends receiving the potato only, may think the rest of their selection has been overlooked.

We earnestly request that all letters containing money, or any communication intended for the BUSINESS DEPARTMENT *of the paper, be addressed to* THE RURAL PUBLISHING CO., *and not to any individual. We cannot otherwise guarantee the prompt entry of names upon our books, or the acknowledgment of money.*

OUR readers are particularly requested to read the particulars of our free seed distribution on p. 17, under publisher's notices, before ordering seeds.

WE offered, some time ago, to sell the cuts used in this Journal for twelve cents the square inch. Many have requested us to send proofs of our cuts. As we have upwards of ten thousand, we could not undertake to do so. Persons wishing to purchase, must select from files of the RURAL NEW-YORKER.

CHEESE AS FOOD.

The very low price of good cheese and its production in excess of demand have led the manufacturers into a serious consideration of the methods by which the home consumption can be increased; and this, of course, brings up the question of the value of cheese as food. Is it true, as is claimed by a leading stock journal, that cheese contains at least fifty per cent. more nutriment in a given weight than beef? As the two retail at nearly the same price, this is an exceedingly interesting question.

Let us first look at the matter from the point of production. It has been lately shown that a fattening steer and a milch cow eat yearly nearly the same amount of food for a given weight and time, and that the products of gain in beef on the one hand and milk on the other, are of almost identical food value. In the light of such facts, does it seem reasonable that the cheese producer can go to the extra labor of milking and manufacturing the cheese and still undersell the beef producer by thirty-three and one-third per cent.? In a time of great depression like the present, beef as well as cheese must be sold at very nearly the cost of production; and as both are largely exported, we must consider the effect of this on the price to be nearly the same with each. If, under such circumstances, the cheese-maker can give us fifty per cent. more food for our money than the beef raiser, it is a most interesting question for all agriculturists to know how he can do it.

Bischof, Henneberg, Stohmann, Grouven and others have found the composition of pure lean flesh to be about twenty per cent. of nitrogenous matters and from four to ten per cent. of fat; but as E. Smith remarks, in his work on food, this is not a fair way to arrive at the food value of any part of the beef. For in every case a certain amount of pure fat is attached, which is used as food and increases the value. The only proper way to arrive at the food value of beef is to accept the results obtained by Lawes and Gilbert in determining the percentage of fat and flesh used as food when the whole carcass is considered. These gentlemen found that in every 100 lbs. of fat beef there were fifteen pounds of nitrogenous constituents and thirty-five pounds of fat. Now, average new-milk cheese contains per 100 lbs. about twenty-three pounds of nitrogenous constituents to thirty-one pounds of fat; that is, four pounds less of fat and eight pounds more of nitrogenous matters. It is known that in the body by far the greater part of nitrogenous elements of the food are transformed into fat and consumed for the production of heat; and in this transformation two parts of the former are required to produce one of the latter; consequently, the eight pounds of nitrogenous matter in the hundred pounds of cheese in excess of that found in a like quantity of beef, are fully counterbalanced by the four pounds of fat which the latter contains in excess of the former. Cheese and beef of this composition should, therefore, be of about equal food value, if equally digestible—which is not the case.

It is true that some kinds of cheese make a better showing than this, especially those that have an extra quantity of cream incorporated; but when we consider that a considerable part of cheese is not digested, as was proved by E. Smith, it will not do to give the best cheese a greater food value than beef.

We are not endeavoring, by this statement of facts, to prevent the increased consumption of cheese—our business is, first of all, to furnish facts, and allow all things to stand on their true merits. We believe, however, that the home consumption of cheese can be greatly increased with advantage to consumer as well as producer—not because as food it is cheaper than beef, but because it increases the variety and makes an agreeable relish. But before consumption will be greatly increased, the execrable stuff kept at too many country stores must be replaced by an article of real value. Much of the lower grades of cheese is absolutely unfit to be eaten. Not only is it without value as food, but it does harm by disordering the digestive function. When the cheese manufacturers see to it that our country stores keep nothing but the best quality of cheese and sell it at a reasonable margin, they will find the popular appreciation of this article of diet to increase very rapidly and, what is of more importance to them, the amount consumed will increase in the same proportion.

EXCESSIVE YIELDS OF CORN.

THE largest well-authenticated yield of corn was one of 140 bushels to the acre, in South Carolina, a State where the average is not far from twenty bushels. This shows, in a degree, the possibilities of this wonderfully-productive grain. There are those who believe in the still higher possibility of producing, with every circumstance favoring, as much, even, as 200 bushels of dry, shelled grain on a single acre of land.

To show how such a crop may appear possible, at least on paper, let us estimate, first, the number of individual plants that can be made to grow and produce full ears on an acre of ground. We will take the common eight-rowed corn of New England as the basis of our calculation. With rows three feet apart, there will be 14,520 feet of row to the acre. By drill planting the single kernels being dropped uniformly, six inches apart, there will be, if all grow, 29,040 plants. As by actual trial 225 full ears of this corn will, when well dried, produce one bushel of shelled grain, a few figures will show that an average equal to one full ear to each stalk, will give 128 8-9 bushels of shelled corn. Double this, by getting two full ears per stock, and the crop will be 257 7-9 bushels. Yet in face of these figures, the fact remains that it is extremely difficult, under the best methods of culture now in use, to get a yield of 100 bushels to the acre; while the average of the country is about thirty bushels, or nearly the same as the average wheat yield in England.

There is no great difficulty, with good seed, good soil and good cultivation, in doubling this average. There is a goodly number of farmers who, one year with another, do not fall short of securing sixty bushels—a ton and a half—of dry, shelled corn from every acre planted to this crop. Occasional crops of seventy or eighty bushels are recorded every year, while 100 bushels are sometimes claimed, but subject to the incredulity of most hearers. No one, however, who has had experience in corn culture on favorable soils, can doubt that 100-bushel crops are occasionally realized. At the same time it is absurd to expect that the ideal possibility of 257.7-9 bushels can ever be realized since this requires not only the exact planting and perfect gemination of every seed, but the arrival of every plant to maturity and its production of two full and perfect ears, or their equivalent in imperfect ones.

Nevertheless, it is well to keep the ideal in mind as a stimulant to exertion. There can be no doubt that the habit of producing two ears (under ordinary close culture) can be bred into corn. Indeed the natural habit of the corn plant, where it has sufficient area to develop itself fully, is to produce multiple ears. Corn widely planted, and kept free from weeds, "tillers" like wheat and other cereals. Fifteen or twenty ears are thus sometimes grown from a single seed. But for the best results in field culture, the less of this tillering, or suckering, the better. We want to breed out that habit of growth, and breed in the habit of setting several ears on a single stock. Dr. Sturtevant aims to do this by close planting and "root pruning;" that is, repeated deep cultivation with a sharp-edged implement running close to the rows of corn plants. In this way he hopes to reduce the luxuriance of stem and leaf, (as seen in the plant where its full individual development is permitted and encouraged), and to get in its place a single stock with multiple ears. Anatomy of the corn plant reveals the fact that the germ of an ear exists at every "node" or joint. Under the ordinary conditions of culture, only one, or occasionally two and perhaps three, of these are developed so as to yield seed. The point of practice is to render this occasional occurrence a habitual one. We see it in the "pop-corns;" we aim to produce it in the common field varieties.

Some years ago a field of the long-eared white pop-corn was planted. Manure had been drawn and piled in the field the previous fall, which was spread in the spring. When the crop was cut up, it was discovered that where the rows of "pop-corn" crossed the spots on which the manure had stood all winter, ears were developed a foot long, with kernels as large as those of ordinary field corn, these ears looking precisely like those of the white variety known as the "Sandford" corn. These ears were as numerous on the stalk (two and three) as elsewhere, and there was no very great excess of luxuriance in the hight or leafage of the plants. Not much significance was attached to this occurrence at the time, but the recollection of it now suggests the thought whether there is not instruction to be drawn from it regarding this matter of developing the habit of multiple earing. This sudden transformation of small ears into large ones under the stimulus of high manuring, without a proportionate growth of the plant itself, seems to suggest that multiple earing is promoted (other circumstances favoring) by poverty of the soil, within certain limits. We suspect that a moderate deficiency of nitrogenous food, and an abundance of potash and phosphoric acid, are the right conditions for developing multiple earage.

If this idea should prove correct, does it not point to the conclusion that, in order to reach as nearly as possible a maximum yield of corn, the *seed* will require to be grown upon a different soil from the *crop?* In growing *seed*, may it not be best to be sparing of nitrogenous fertilizers, while in a crop from seed so grown, where the largest production is aimed at, we should fertilize the ground profusely with all the necessary elements of plant-food?

Our experience during the past year, has been very favorable to this view of the matter. We throw out the idea, to be thought over and experimented on by others. Certainly we have discovered (others may have discovered the like before) that a thoroughbred corn, carefully grown upon one farm for 60 years, and so persistently selected for eight rows as not to give in a large field a single variant specimen, may in one season, under high manuring, (without opportunity of "crossing") develop not only a remarkable yield, but a large percentage of ten and twelve-rowed ears, besides various other abnormalities, such as clusters of ears, numerous huskless ears on the ends of the stalks, etc. These things are worth studying.

MOISTURE-RETAINING POWER OF THE SOIL.

WE have never raised the question whether it was or was not desirable to stir the soil. That it *is* advantageous seems to us as plain as it seems to the many who have written to us to prove that it is so. A loose soil "imbibes" more moisture than a compact one. Nobody will dispute that. But, limited, of course, as to extremes, we say the loose soil will by capillary attraction part with more moisture than the compact one. Hence, *stirring* it, instead of tending to confine the moisture; instead of "breaking the capillary tubes," etc., etc., tends in the opposite direction.

In our experiments, we found that the water did not return to the surface at all in the pots which were filled with pure sand such as is usually used for mortar, except about the edges, which was due, no doubt, to the pot itself exerting a stronger capillary power than the sand. The cohesive power of such sand is so slight that the capillary power is nearly imperceptible. It was for this reason that we stated in our first experiments, several years ago, that sand should prove an excellent material for a mulch.

Several of our contemporaries and a number of correspondents, in proof that a compact soil will dry out sooner than a loose one, have cited the turnpike road as compared with the cultivated field. The amount of rainfall which passes through a turnpike road must be very slight. Except in long-continued rains only the surface is wet, while at the same time the loose soil may become saturated, and as the moisture evaporates from the surface, it may be resupplied from underneath.

While we need not at this time make further remark, we take occasion to refer to that paragraph of Dr. Sturtevant's article (p. 7), which begins "In some observations," as of much importance.

Catalogues, Etc.—It is seldom that we write about any plant—be it vegetable, flower, shrub or tree but what we have inquiries as to where it can be purchased. Under the sub-heading of Catalogues, &c. Received and under the department heading of Miscellaneous, we announce as we are enabled to do so, the receipt of the catalogues of the seedsmen, florists and nurserymen of the country; and it is in these catalogues or pamphlets that such plants will generally be found. We have been very careful to present these valuable books of reference according to their merits and not according to the advertising patronage which we have received or hope to receive from those who offer them to the public. In many cases they are offered *free* to applicants—in no instance is more than a nominal sum asked for them. Now, for the benefit of our readers who desire to purchase the best seeds or plants at the lowest prices, we say *send* for these catalogues as they are announced. Read them over—make marginal notes and so, when it is time to buy plants or seeds, be prepared to purchase those which will prove of most value.

BREVITIES.

A POTATO called Woodstock Kidney was awarded the prize as the best at the late show at Birmingham, England.

WE call attention to a series of articles entitled "The History of a Poor Farm," the first of which appears in this number. The name of the author will not appear at present, but we may say he is one of the foremost agricultural writers in this country.

A CORRECTION.—Mr. B. Pickman Mann writes: "Your types have taken a freak this week Dec. 21st to put me in a false position on your editorial page. I wish to put myself right by disclaiming any ownership in the letters Hon. prefixed to my name in your list of contributors, said letters belonging rightfully in front of the name of the distinguished gentleman mentioned in the next line above."

OUR CONDENSED PROSPECTUS FOR 1879.—Not to praise a friend beyond his merits *because* he *is* a friend;—not to condemn an enemy *because* he *is* an enemy;—not to admit any advertisement that can be misleading or in any way hurtful, *because* it pays;—not to interfere in matters that do not concern us, and—to do our best in matters that *do* concern us.

A DESIRE to see the greatest works of their kind in the world is natural. Within a short walk of the RURAL office is a work of this kind. We refer to the "bridge" which "connects" the cities of New York and Brooklyn. As a stupendous failure we do not think it can be equaled. Viewed in this way, our friends may while visiting this metropolis wish to take a look at it.

IF the friends of the RURAL NEW-YORKER will now speak a strong, hearty word in its favor to their friends and neighbors, they will materially help to advance the interest of a paper which has their own best interests always at heart. Now is the time to do this with the best results. Procrastination in this matter is doubly a thief, depriving the RURAL of many probable subscribers and them of its valuable lessons. Here, emphatically, "a stitch in time saves nine."

SEVERAL weeks ago it was stated in the RURAL that we would thank our friends if they would send to this office a specimen ear of the best corn they had raised. From the wording of the request we supposed it would fail to attract the notice of the general reader. From the responses, however, we could make a very creditable corn-show. Some of the ears were sent to the RURAL EXPERIMENTAL GROUNDS—some were given away and we have still in this office enough to fill a barrel. We mention the above to acknowledge in grateful earnestness the kindly feelings which our friends have shown us upon every occasion that has presented itself. We daily have occasion to regret that we can not write our personal thanks to the hundreds of RURAL subscribers who thus place us under obligations.

WE often regret that our quail are so hunted and nearly exterminated season after season, and wish some law could be devised and enforced to prevent the slaughter. If those who own the land upon which the birds are bred and live, choose to kill them, we have nothing to say. But we cannot protect them if we would against the hordes of sportsmen, as they call themselves—crazy-heads and loafers as we should call them—who, as soon as the "law is up" scour the country and bang away at the last feather. Taking them as a class, these people, while on their hunting sprees, make every other interest subsidiary to their own, and they are often unwilling to lose the chance of killing a bird even though they take the chance of firing into an out-building or in dangerous proximity to animals and men. If country people had any way of restricting these worse than tramps, quail could be made to become as domesticated as chickens.

Literary Miscellany.

A THANKSGIVING PARTY.

BANKS and his wife consulted
One bright November day,
Planning a splendid dinner
In a pleasant, airy way.
"We'll have a grand Thanksgiving,
Said Banks: "And Polly, dear,
You get the guests together,
And I'll provide the cheer."

Then Banks, with heart o'erflowing,
Said, "Now's the time, my dear,
To ask one's wife's relations,
So let them all be here.
Yes, ask them all, my darling;
Your husband's not the man
To stop half-way in making
A pleasant family plan."

So Polly asked her people—
And they were not a few—
Papa, mamma and brothers,
And all her little sisters, too.
These brought their little children,
A laughing, romping crowd—
And, in their after-dinner speech,
Banks really felt quite "proud."

Yet through it all a shadow
Into his bosom stole;
He knew that bills were coming in;
They paralyzed his soul!
He knew that Mother Pippling
Was whispering good advice
In Polly's ear, and, somehow,
That wasn't very nice.

He knew the romping children
Had done him damage dire
(For Banks had dainty furniture
As any could desire);
But still the guests were merry;
The dinner went "off well,"
In spite of many vexing things
Which one don't care to tell.

And when, at last, 'twas over,
And every guest gone home,
The tumbled house quite still again,
And resting-time was come,
Sweet Mrs. Banks said, cheerily,
"My dear, how kind of them
To come to us! Though mother"—
(Banks softly coughed "Ahem!")

"Yes, mother noticed, bless her!—
One slight omission, dear;
She said Thanksgiving dinners
Without one 'thank' were queer,
I know you don't say grace, dear;
But don't it seem to you
That to give thanks at such a time
Is what one ought to do?"

He fell into a reverie:
"You're right!" he sighed at last;
"Thank Heaven, the thing is over;
They're gone, and all is past!"
And so, in simple language,
By that good husband Banks
The grand Thanksgiving dinner
Was crowned by hearty thanks.

[*Ohio State Journal.*

WEAKER THAN A WOMAN.

CHAPTER XX.

A CRUEL day dawned for Felix Lonsdale—a day when the sun shone so brightly and with such heat that grass, flowers, and leaves withered beneath his fervent rays, when a golden haze seemed to lie over the land, and the brooks ran slowly over the pebbles beneath them—a day when the wind was still, and not the faintest whisper of a breeze stirred the leaves or blossoms—a cruel day. He remembered it all through his life, for the warm sunlight seemed suddenly to change into a fire that burned him, everything bright and fair appeared to wither before his eyes. It was a day which brought him a pain that never quite left him while life lasted.

He was in his office in the High Street—the office that had once borne such signs of prosperity—where the great iron safes had been filled with deeds, and huge bill-files had been loaded with documents—where the tables had been strewn with papers and letters—where busy clerks had passed the day, all too short for the work they had to do—where people were always going and coming with the air of having important business on hand.

It was all so different now. One by one clerks had gone—there was nothing to do. One by one the neighboring squires and farmers had withdrawn their business from the old office. There was so little to transact now that Felix could manage with one clerk. Still he had hope. He felt sure that in time this state of things must improve. When people began to think calmly, they would know that his father was innocent of that which had been imputed to him.

Felix was seated in his office. It was too warm for business—no one came in. There were no messages, no interviews—he had nothing professional to do. The clerk was busy copying a deed, and Felix was making the most of his time by writing an essay upon the "Inequalities of British Law."

Suddenly the postman's knock was heard in the quiet street, where on that scorching day even the very houses seemed to sleep. The sound did not interest Felix; he expected no letter. Violet seldom sent him a little note; when she did so, it was like the finest cordial to him—he worked the better for it,—he was happier and brighter. Perhaps, if she had known how happy those letters made him, she would have written oftener.

Presently, to his surprise, came the sharp, sudden knock of the postman at his own door. The clerk quickly disappeared, and then returned and placed a letter in his hands—a lady's letter, with a faint odor of violets. He opened it and looked at the signature—"Martha Haye."

It was from Violet's mother. What could she have to say to him? It was an invitation probably. He put aside his essay, and began to read the note.

"MY DEAR FELIX:—That which I have to say will pain you, I know; but I cannot help it—it must be said. The engagement between you and my daughter must come to an end. The circumstances under which I gave my consent are quite different from those subsisting at present. Your prospects have quite altered. If you marry my daughter now, you cannot keep her in anything like the position in which she lives even at present; and I am not willing to see her become a mere domestic drudge. Mr. Haye and myself wish the engagement to end at once, as under no circumstances could we consent to the marriage. Violet sends her love, and desires me to say that all this is written by her wish, and that she hopes always to be your friend. She is going away on a long visit to one of her relatives. Hoping you will see the necessity for this step, I am yours very sincerely, MARTHA HAYE."

He read it through, at first with a feeling and conviction that it must be a practical joke, then with a deadly assurance that they were going to take Violet from him. The handsome worn face grew deadly pale; a dazed dim look came into his eyes; a great tearless, voiceless sob rose to his lips; the sunlight seemed to change to a blood-red mist, and the sound like the roar of distant waters filled his ears. He sat with the letter open in his hand, dazed as a man who had received a terrible blow.

How long he sat he never knew; it seemed to him that years of agony, years of torture, rolled over his head. He was literally stunned. He had borne all his sorrows with a brave strong heart because he had a true hope, a beautiful warm love. To take that from him was to leave him with no ground to stand on.

Slowly thought and reason came back to him. He rose, still with the open letter in his hands, with a white set look on his handsome haggard young face which might have touched a heart of stone. He took his hat from the stand, and the clerk looked after him with a terrified gaze, wondering what could have happened to him.

"There was bad news in the letter," he said, "but where has he gone with it open in his hand like that?"

More than one person whom Felix Lonsdale met asked themselves the same thing, more than one spoke to him; but he did not hear—he walked on, looking straight before him, his eyes fixed on vacancy, his white set face without change or expression, until he reached the Limes. What he suffered as he passed the old land-marks, the trees, the stiles, the lilac-bushes at the gate, was known only to Heaven.

He went straight into the house, and Mrs. Haye herself was the first person that he met.

She was half frightened when her eyes fell upon his face; so unlike was it to any face she had ever seen, so changed by his great woe, she could hardly recognize it. She held out her hand to him with some commonplace words of welcome. He did not hear them.

"Come in here," he said; and, taking her arm, he led her into the nearest room. "Tell me," he asked, "did you write this?"

There was nothing to be said but the truth, yet in all her life Mrs. Haye had never been more frightened. She had to deal with a desperate man.

"Yes, I wrote it, Felix; it was wisest, kindest, best."

"And you say that Violet is willing—that Violet knows about it?"

"I wrote it with her express sanction," she replied.

"It is false! I would not believe you if you swore it! I will not believe it! Heaven is not so cruel!"

"There is no cruelty in it," said Mrs. Haye; "it is what must be done."

"Must be done! Do you know that she is my life itself, that I have no life apart from her, no hope that does not begin and end with her? If you take her from me, you leave a dead body—she is my soul itself!"

He paused, for the passion of his words overcame him. How was he to tell this woman what Violet, his beautiful love, was to him? How weak and impotent words were!

"I know that you are very fond of her," Mrs. Haye said gently; "still it cannot be—it cannot indeed."

"Will you tell me why you have done this cruel deed? What is your motive?"

"Because you cannot afford to marry; you must not burden yourself with a wife."

"Surely I know best. I can work—I do work. I would work night and day, with one hope before me of making my darling my wife. She loves me, she knows what trouble has come to us, she is willing to wait a few months longer, and then to share my lot. It will be brighter in time; everything will come right for us yet. I have no fear."

"I am not willing, her father is not willing—we see no use, no sense in the best and brightest years of her life being wasted in waiting for a marriage that, when it comes, will be the worst thing that could happen to her. We are not willing; and I tell you frankly that Violet sees matters as we do. She wished me to say all this."

"Do you know what you are doing to me—what you are taking from me? Do you understand," he cried hoarsely, "that you are killing me?"

"I am sorry, of course—it is very hard, I know—but such a life as you offer Violet would kill her."

"I do not believe it!" he cried. "You changed to me when my fortune changed. You were willing enough to give me my darling when you thought that I was the son of a rich man. I shall be rich again in time. I have seen the change in you; you have given me cold looks for kind ones—you have been barely civil where you had been warmly cordial. I understand it—you love Mammon. Wealth, rank, luxury, are more to you than the heart of an honest man. But my darling is not like you, and I will receive the statement you have made from no lips but hers."

"My daughter is not at home, and you will gain nothing from seeing her."

"But you cannot do as you propose; she is engaged to me—she is my promised wife—no man or woman living has the power to break such a bond. She could not break it herself."

"You will find you are mistaken there," said Mrs. Haye. And then Felix saw plainly that it was useless to say more to her—there was something of animosity in her tone. He left her, still holding the open letter in his hand.

"I am sorry for him," said Mrs. Haye, when describing the scene to her husband; "but what can we do? There is one thing that I am really thankful for—he has not the least idea about Sir Owen. I am not nervous, but I do believe that if he suspected what has happened he would kill him."

As Felix left the house to return home, Jennie, a smart housemaid, who had often opened the door for him, and who thought him a noble-looking gentleman, ran after him.

"Do forgive me sir," she said; "but you have always been so good to me, and I know all about it. I am so sorry for you, sir, that I cannot sleep for thinking of it."

He tried to look indifferent, to smile, but he could not; his pride and self-control broke down at these pitying words.

"Tell me what you know, Jennie," he said.

"They have sent her away, sir, so that you should not see her and persuade her. They have kept it quite a secret where she is gone—no one knows—but I stole into her room and saw her trunk addressed to North Alton, and I know that Mrs. Haye has a cousin living at North Alton. She is gone there, sir, and nowhere else."

"Thank you, Jennie," he said; "you have proved yourself a friend."

Jennie would not take the sovereign he offered her, and the sympathy he read in her face cheered him.

"It will be all right when I see Miss Haye," he said. "They have over-persuaded her. She loves me—and I trust her."

CHAPTER XXI.

Felix sent his clerk to Vale House with a note saying that the family were not to be alarmed if he did not return that evening, as he had some important business to transact in a town some miles distant; and Darcy Lonsdale, who was too ill then to feel an interest in anything professional, feebly blessed him as he listened.

"He works hard," said Kate as she read the note; then she sighed, thinking how different matters would have been had Felix loved Evelyn instead of Violet. The Hayes had stood aloof from them in their troubles; they had expressed but little sympathy, and Mrs. Lonsdale felt it keenly. Violet had not been to see them as Eve Lester had been; and Kate sighed again as she thought of the difference between the two girls.

North Alton was quite forty miles from Lilford. Felix knew that the name of Mrs. Haye's cousin was Miss Western. He had often heard Violet laugh about her mother's cousin, who was an old maid. He said to himself that he would go to North Alton by the night train; then he could see Violet in the morning, and be at home again in the evening. He little dreamed that people looked at him earnestly as he went to the station. His handsome young face bore the impress of unutterable sorrow; his eyes were dim and shadowed, with great dark circles round them; his lips were pale and trembling. He had never thought of taking food—he had not even drunk a glass of water to cool his parched lips. So ill, so sorrow-stricken, so unlike the handsome, gallant, noble Felix of the day before was he that Mrs. Lonsdale would hardly have known him had she seen him—he looked like the ghost of himself.

When he stood before Violet she uttered a cry of sorrow and dismay. He had left the hotel to go to her aunt's house, and met her just as, dressed for a walk, she was leaving the little front garden. One of Miss Western's maids was early walking. He waited until Violet had gone some little distance down the road, and then he followed her. She gave a little cry, and stood silent and shame-stricken before him. He saw the sorrow, but not the shame, and the sorrow misled him. The dreadful livid pallor, the stony mask, fell from his face as a snow-wreath melts in the warm light of the sun.

"My darling," he cried, "I knew it was false—I knew that you had not said it! Oh, thank Heaven, thank Heaven!" He leaned, pale and breathless, against the trunk of an elm-tree. "I believed in you, my darling," he said. "I knew that you had not sanctioned it; you could not—you hold my life in your hands. And yet why did you come here? Why did you not write to me? Speak to me, Violet, for by the heaven above me I swear that I am going mad!"

She was frightened, scared, at the wild eyes, the hoarse voice, the face so full of pain. She dared not have said to him—"I have made my choice, Felix, between love and gold." And, wretched as she was, though she had given him up, and never meant to marry him, her whole heart went out to him with greater warmth and greater love than it had ever gone before. She held out her hands to him, but started at the touch of his; they burned her like fire.

"You are making yourself ill, Felix," she said.

"Ill!" he repeated—and his laugh was more terrible to her than any words. "How would you feel, Violet, had any one tried to tear the living, beating heart from your body? Oh, my darling, tell me it is not true—tell me so, for Heaven's sake! Say that it is false—that they persuaded you, urged you, wrote without your knowledge! Speak to me quickly, for I am going mad!"

She was only a woman—at the very best a weak one—and she loved even after the weak fashion in which some women love. She could not endure the sight of his pain. She dared not tell him the truth; she did what weak women so often do—she temporized.

"I thought it best, Felix, to—to give you some years free that you might work the better. I should not like to be a burden to you."

He drew a deep breath, like one relieved from an intolerable load, from an unbearable pain.

"Is that all? Oh, my darling, my generous, noble Violet, is that all? I will not reproach you, but why have you given me this terrible fright? I have been almost dead. I am fifty years older with these hours of horrible pain. Why did you not tell me, sweet, what you dreaded? There is nothing to fear, Violet. I am so strong when I think of you that I could work by night and by day yet never feel fatigued. Such love as mine puts nerve into a man's right hand. Oh, Violet, sweet, you need not fear! You shall have a home as beautiful as love can make it. You shall have a life so easy and so free from care that when it ends you will look back in wonder to see how it has passed. You shall never know pain or fatigue that I can save you from. You shall be served and waited upon and attended to unceasingly."

She made him no answer, but her hands touched his gently.

"A burden!" he repeated. "You were afraid of being a burden to me! Oh, Violet, life of my life, I ought to laugh at you! Sweet burden that I would fain carry until death claims me! Would to Heaven that the time were near when I could make the dear burden all mine!"

Still she had not the courage to look at him and say, "I love you, but I love riches better—I have chosen them instead of you." She had not the courage to say it in that hour. She was frightened even to remember it.

"You will never feel this fear again, Violet, will you?" he said, speaking more like himself than he had yet. "It is so absurd—yet perhaps it is natural to a sensitive mind like yours. I am sane now, but I have been mad. Does my face alarm you? You need only laugh at it, sweet. I have forgotten to eat and to drink since your mother's letter came. The sun was shining brightly and warmly, but it seemed to change all at once into a scorching fireball, and I went mad. Yet I did not lose my faith in you, Violet. I knew that you would never have spoken as your mother did, never have written as she did; I can forgive her; it is only natural that she should think so much of you. No man could seem good enough for you. I am not good enough, but I love you so dearly that my great love stands in the place of great riches or great rank."

Still she uttered no word—she dared not tell him the truth.

"You are strangely silent, Violet," he said. "Have I frightened you?"

"No," she replied; "but you have startled me—you look so ill, Felix, and so unlike your own self."

"No wonder, my darling," he returned. "But I will again—I will remember how sensitive you are."

She looked up with a smile—so sirens smile at the men they lure to destruction.

"Felix," she said, "you should not love me so much, dear—you know what I have always told you about idols of clay."

"I cannot help it; my mission in life is to love you."

"I cannot ask you to come in and see me," she said. "Miss Western does not like gentlemen; she never receives visitors."

"My darling, I must hasten home," he told her. "But you have not informed me why you came here, Violet."

"Mamma wished me to come. I was not quite strong—I wanted a change."

"And why did you not write to me, sweet?" he continued.

She paused one moment. Should she tell him or not? No—she could not; she loved him too much, and she was somewhat ashamed. She found an excuse; there was no need for it to be a very good one to satisfy him.

"I knew you were true to me, Violet," he said. "I knew that it was your mother who persuaded you—who had written that cruel letter without your sanction, perhaps without your knowledge."

"I knew that she was going to write it," Violet told him—but he was not afraid even then. No man is so completely blind as a man in love.

"Then you sanctioned it to try me—you sanctioned it to see how much I loved you? Listen, Violet sweet—I shall go home and work as no man ever did. I shall begin at once to get your house ready for you—I shall wait no longer—and when it is ready, if your mother does not give her consent, I shall run away with you. Do you hear, my darling; I shall do as Jock o' Hazledean did."

She laughed faintly. Even then she had not the courage to say, "The letter was all true, and I have given you up of my own accord." Even then she deceived him by her look and smile, if not by her words.

"I must not stay longer," he said. "I shall go back home a different man. It is a terrible thing to know that one's fate lies altogether in the hands of a single creature; but, when they are such true, sweet hands as yours, Violet, there is nothing to fear. I will go back now to my work, which is sweetened by my love. Darling, say once more for me the words I love so dearly—'I belong to you, Felix.'"

She had always said them before while looking up at him with an arch sweet smile, her beautiful eyes seeking his; now the fair face drooped with a burning flush. She was nervous, weak, and guilty, but not guilty enough to repeat those false words.

"I am afraid Miss Western will find you here, Felix," she said; "if she does, she will send for mamma."

"Are you so closely guarded, my darling?" he laughed. "Ah, well, never mind! It will not be for long. I shall hasten home; I shall prepare your house; and when it is ready I will take you if all the world should try to prevent me, for you are my own. I shall go home happy because I trust in you and believe in you. I shall never believe that you have changed to me until you tell me so yourself. Good-by, my darling love of my heart—good-by!"

She watched him as he went down the high-road, and the impulse was strong upon her to call him back and say to him that she had given him up—that the life of love and struggle that he offered her had no charm for her—that she had weighed both, and had deliberately given the preference to wealth—that he must go home and learn to forget her.

She knew that she was in honor and in conscience bound to tell him this, but she did not. She watched him as he walked down the high-road, knowing that he went away with a sense of hope in his heart that was hereafter to cause him only more deadly pain. The wrong that she did him in letting him leave her with the truth untold was as great as the wrong she had done him in breaking her plighted troth.

CHAPTER XXII.

Felix was at rest for a short time. When he grew calmer and thought more carefully about Mrs. Haye's letter, he ceased to feel any great surprise. Mrs. Haye was, he knew, a worldly woman, and nothing was more natural under the circumstances than that she should cease to care for her daughter's marriage with him. But, with the hope that had sprung up afresh in his heart, it seemed to him that his strength and his energy had no bounds, that he could work as no one had ever worked. Violet was the mainspring of it all. If he lost her, he knew that he should never care to do another hour's labor. He began afresh with such zeal, such energy, such industry and perseverance, that every one wondered at him. He let them wonder—he knew why he was working.

And, while he was counting the hours, trying to turn each one into gold, Sir Owen was busy too. He had come to a perfect understanding with Mr. and Mrs. Haye. He told them that he would cheerfully give half his fortune to make Violet his wife. He had asked them to help him, and had promised them their reward. Mrs. Haye went on a short visit to her cousin, and was dismayed to hear from Violet that Felix had been to see her—that he had gone back home with the hope that all was right.

"Why did you not tell him the truth, Violet?" asked Mrs. Haye sternly. "It was cruel to deceive him further."

"I could not, mamma," she replied, her eyes filled with tears—"he looked so ill and unhappy, I could not."

"It was cruel kindness, Violet," declared Mrs. Haye; but she said no more, knowing that, in her daughter's place, she should have done the same thing.

It was arranged that Sir Owen should go down to North Alton and renew his offer of marriage. If Violet consented, the marriage must take place, Mrs. Haye said, in London. If they were married at Lilford, Felix Lonsdale was quite capable of going into the church and taking the bride from the altar. She was sorry for him, and she felt that it would be needless cruelty for the marriage to be celebrated just before his eyes. "It will be hard enough," she said to herself, "without that."

So all was arranged as she desired. Sir Owen went to North Alton, and the beautiful fickle girl who had loved Felix Lonsdale and given him up plighted her troth to a man she did not love—plighted it because he was rich. He had taken with him a magnificent diamond ring, which was to be the pledge of their engagement; and, as he placed it on her finger, he looked wistfully into her face.

"You care for me a little, Violet, do you not? You are a cold bride, after all, for a man to win. If I thought you really liked that lawyer better than me, I would not ask you to marry me—upon my soul I would not! I give you all I have—my love and my fortune. Surely you have a smile and a kind word to give me in return."

No wonder that he spoke in that strain to her. She was too weak ever to be a great sinner—too weak to sin and forget her sin. It looked her in the face now as she stood with the light of the Baronet's eyes upon her, the diamond ring on her finger, contrasting the wooing of her two lovers, and knowing full well which was best.

"Am I not kind?" she asked with an exquisite smile—a smile that pleased him so that he clasped her in his arms and kissed her.

When he did so, she wished herself dead. She said to herself that she could not go through with this new engagement; that she must let the wealth, the rank, the title pass; that she must give all up and go back to Felix. She loved Felix, and she did not, nor would she ever, love Sir Owen.

She had a few minutes for these reflections; and then he was telling her of the future, of all she would enjoy—how people would envy her, and what a position she would take in the great bright world. She listened, for the words were pleasant, and forgot her pain.

To Felix Lonsdale there came strange rumors, but he would not believe any of them. He had implicit faith in Violet—implicit trust. Until she told him that she was false to him, he should not believe one word to that effect.

One morning he received two letters. One was from Violet, and it said—

"Try to forget me, Felix. I have never been worthy of the great love you have given me; I am not worthy of it now. Try to forget me; for I have been thinking it all over, and I can see that our engagement must be broken. You said you would believe it when I wrote it. Believe it now, for I say that it must end. In the years to come we may be friends—never anything more." "VIOLET."

He read it with unbelief. Some one had compelled her to write it; it had not been done of her own free will—of that he was sure.

The second note was from his humble, faithful friend Jennie, the pretty housemaid, written with many apologies for the liberty she had taken; but she wanted him to know that her young lady would be at home at the Limes that night, on her road from North Alton to London. Her master and mistress were going to London with Miss Violet, she added, and she was afraid there was mischief on foot. It was her own private opinion that they had persuaded Miss Violet to marry some one else. If he went to the Limes late that evening, she would keep the entrance gate and the garden gate open, and she would manage that he should see Miss Haye.

He read both letters through, but he did not lose his reason this time. A calm settled despair came to him, against which he struggled blindly; he could not believe that his love was false even though he read it in her own handwriting. He would not believe it unless she told him so herself—anything was more credible than that she should have deceived him and broken her word. When he believed that, he said to himself, the heavens would fall. Whom could she be going to marry? How absurd! How ridiculous! He had never heard her name mentioned except with his own. He knew that she had many admirers, but who would dare to speak of marriage to her when it was well known that she was engaged to him? He could well understand that it was Jennie's own sensitive care and anxiety for him that had led her to make the mistake.

He would go however and see Violet, and hear from her what it all meant—but not at night—certainly not when it was late, as though he were afraid of being seen. He was her betrothed lover, she was his promised wife. He would go up to the front door in the broad daylight and ask to see the girl who had promised to marry him. Suddenly he remembered that, if he did so, he must betray Jennie. Violet's return had been kept a secret, and the family would at once suspect her of having betrayed it. Another thing had occurred to him—if they did not wish him to see Violet, and he went in a straightforward, honest way to ask for her, they might, and most probably would, refuse to let him see her; they would invent some untruth or other, and, if she were really going to London, he should miss the only chance he had of seeing her. It was humiliating and mortifying, but he must act as Jennie proposed; he had no other resource. He would go that night and see Violet.

Again he wrote home to say that he should not return until late; and Kate's kind eyes filled with tears as she read, thinking of how hard he was working, and her heart misgave her that it was all for nothing—that the prize he was laboring and waiting and hoping for would never be his. She had heard of Violet's absence from home, and her quick mother-wit had soon told her that of that absence Felix knew little or nothing. She drew a bad augury from that. It boded mischief to him, she felt sure. She was compelled to content herself with the thought that she would sit up for him and attend to his comfort when he did return.

Felix went. He hated himself for going at night, when no one could see him—for seeking a clandestine interview with his promised wife. The night was dark, and the wind blew cold. It was after nine when he reached the entrance gate. He found it open, and Jennie waiting for him inside.

"You will not be angry with me, sir, will you?" she said. "But it seemed to me almost as though some one were being killed. I am quite sure they have persuaded my young lady to marry some one else. I heard her crying bitterly this evening."

But Felix could not discuss the subject nearest to his heart even with this faithful, humble friend.

"Do you think I shall be able to see Miss Haye, Jennie?" he asked.

"Yes, sir. I will give her a message that in a few minutes will bring her down here to you. She will not be angry with me." And in a few minutes she had kept her word.—To be continued.

THE SECRET MARRIAGE.

S. A. F.

To say that Harvey Frothingham was in a bad temper was to put the mildest form of words to express the savage mood in which he found himself one winter's evening, as he shot through the main street of the town of L——, on his way homeward. Everything had gone contrary to his wishes all the week.

To commence with, he had fallen in love with Josephine Ormund, whose pretty face was her only fortune, and who worked in a paper-box factory for her daily bread.

Entirely ignorant of the fact that Harvey Frothingham was a man of standing and wealth in L——, pretty Josie allowed the minor facts, that he was insultingly free in his addresses, to influence her so strongly, that her dignified reserve taught him the lesson he needed, and when he sought her for his wife she refused the honor.

"As if, by Jove!" the angry man meditated, "I was only a hod-carrier."

To add to this discomfiture, the heiress, Miss Maude Chesterton—whom he had held in reserve, that his ambition might win a wife if his love would not—had coolly informed him that she was engaged to Fred Holman.

Now, if there was one man above another who was utterly detestable in the eyes of Harvey Frothingham, it was Fred Holman.

They had both been rivals at school, where both stood well in talent, application and social position; and Fred was ever a little in advance in every study, carrying away the contested prizes far more frequently than it suited Harvey he should.

In society, Fred's handsome face, ready wit, courteous manners, and frank, sunny temper, kept him ever in higher favor than Harvey Frothingham's sullen, cold disposition could gain.

And now, when Maude had been ever gracious to the son of the wealthy banker, Silas Frothingham, she answered his love-suit by the tidings that his life-long rival had won the promise to be his bride.

"And the worst of it is, it will be just the match to suit his uncle," muttered Harvey, savagely. "No fear of him disinheriting Fred now."

For Harvey knew that Fred depended entirely upon the good-will of his mother's brother, James Rutherford, a wealthy and eccentric bachelor, for his income. He had been left an orphan when a mere boy, and his uncle had adopted and educated him, and would probably make him his heir.

But the bachelor, having long ago put away sentiment, if he ever felt it, looked to Fred to make a match that would increase his fortune and social position. It was the wish of his heart to see Fred the husband of Maude Chesterton, and his wish was to be fulfilled.

Harvey Frothingham, at odds with love, would like to see his rival refused, disinherited, humbled as he felt himself humbled, since neither love nor money would accept him.

He strode over the pavement in a savage mood, and started suddenly to see Josephine Ormund coming out of a shop a few steps in advance of him. In her hand were several small packages, and her face was pale and anxious.

In a moment Harvey was at her side.

"Let me carry some of your parcels," he said, lifting his hat as he spoke.

"Thank you, I have only a few steps to go," answered Josie, hurrying forward nervously.

"You need not be afraid of me," Harvey said, noting her nervous manner. "I will not annoy you! Why will you not believe my respect is as great for you as my love?"

And before he knew exactly where his words were leading him, the young man was renewing the offer he had made before.

At the door of a small lodging-house Josie stopped and faced him.

"You have spoken so before, Mr. Frothingham," she said, gently; and because I believe you are sincere, I will tell you what I have kept secret for six months; I am already married!"

"Josie! Be quick! Why do you stand there?" cried a voice in the narrow hall-way, and a man stepped into the bar of light thrown across the open door by a street lamp.

"Fred Holman!" muttered Harvey, starting forward. "Married! and to Fred Holman!"

It almost consoled him in his own disappointment to think of the hold he had upon his rival. Engaged to Maud Chesterton, and married to Josie Ormund! Fancy the proud face when she knew she had been deceived for a girl who worked in a factory. And sweeter still was it to Harvey Frothingham to think of the wrath of James Rutherford when the news reached him.

But in his triumph Harvey Frothingham had resolved to be very cautious, to have strong proof of his rival's marriage before venturing to accuse, to either his uncle or his betrothed.

He had noticed the number of the house in the glare of the street lamp; "No. 28, Ralph Street."

This was the entry he made in his note-book, in case his memory proved treacherous.

It seemed as if fortune favored his plans.

Only the next day, happening to go into a large fruit-and-flower-shop, he saw Fred Holman selecting the contents of a large fancy basket of choicest fruits and rarest blossoms.

Nodding carelessly to Harvey, he wrote the address upon a card, and attached it to the pretty basket.

"You will send this at once," he said, and then left the shop.

And Harvey, taking the place Fred had just vacated, read the card:

"Mrs. F. Holman, No. 28 Ralph Street."

What proof was needed now? It was not in the nature of Harvey Frothingham to work openly in any scheme. A blow in the dark suited him better. Feeling sure of his position now, he hurried homeward to write two anonymous letters, that would, he fondly hoped, disinherit and utterly confound his long successful rival.

One of those venomous missives found Maude Chesterton in her pretty boudoir, trifling with some embroidery, and dreaming sweet dreams of her love and Fred Holman's sweet devotion.

She was a handsome, dignified girl of nineteen, full of all womanly sweetness, unspoiled by her great wealth.

She loved Fred Holman with the whole strength of her young heart, and she was sure that her love was returned.

With the divine intuition of true love, she knew that if she were beggared or deformed Fred would love her still the same.

Not for money had he sought her for his wife, not even to please his uncle. He loved her.

The dainty work under the slender fingers progressed but slowly, as Maude lay back in her deep arm-chair, looking into the glowing fire, and building castles of future happiness.

From this tender reverie she was aroused by a servant, who handed her a squarely-folded letter, awkwardly addressed, and fastened with a wafer.

Wondering who her unknown correspondent could be, she opened the paper. The same straggling hand inside met her eyes. Only a few lines were written:

"If you would have a proof of the falsehood of one you believe true, go at eight o'clock this evening to the second floor of No. 28 Ralph street, and you will find Mr. Frederick Holman and his wife!"

"Anonymous!" the proud girl said, her lips curling and her eyes flashing. "It is a falsehood!"

She threw the note upon the coals as she spoke, and watched the flames curl and blacken the paper till it flashed out of sight up the chimney.

Then, with all the color stricken from her face, she took up her embroidery.

Had Harvey watched her then, he would have thought that that poisoned arrow had missed its aim.

But it was not so. The work was thrown aside, the piano rang out under the restless fingers, a novel was opened, a room was put in order; but while the calm face betrayed no secret suffering, the girl was tortured all day by the words of the anonymous note:

"Frederick Holman and his wife!"

Could it be? Had the frank, brown eyes that had looked so lovingly into hers, mirrored only a false heart? Was she, indeed, so far deceived?

Long before eight o'clock Maude Chesterton had resolved to prove or falsify the words that seemed burned upon her brain.

Surely, of all the world she had the best right to test the truth of such a monstrous charge against her betrothed lover.

And while she was striving to hide from any eyes the tortures she endured, James Rutherford was storming up and down his library, holding the second of Harvey Frothingham's communications in his hand.

In the same awkward handwriting, the same facts were stated, the same hour and place to verify the writer's words.

But the peppery old bachelor made no secret of his wrath. To have listened to him, one would have supposed that making mince meat of his disobedient nephew was the least he intended. He called him all the pet names suggested by a furious rage; he used up all the abusive adjectives in the dictionary to describe Mr. Frederick Holman.

He exhausted every threat that he could devise; long before eight o'clock he had wrought himself up to a rage that was frightful to witness.

It was with a chuckle of satisfaction that Harvey Frothingham, secretly hidden in a narrow courtway, watched a tall stately figure leave a carriage at the head of Ralph Street, and walk to the door of No. 28.

In the quiet of the street he heard a clear voice ask the servant who opened the door:

"Does Mrs Holman live here?"

"Yes, ma'am second floor."

"Is her husband at home?"

"Oh, yes, ma'am; you'll find them both there."

Then Maud Chesterton entered the house, just as a short, panting man flashed up the steps, and, not pausing to make inquiry, also entered.

In the passage, Maude Chesterton, turning, as rapid steps followed her, faced James Rutherford.

"You here!" he said. "You have heard too, then, of the trick this ungrateful hound has played upon us?"

"I have heard," she answered, in a cold voice, "that your nephew's wife lives in this house. I wish to ascertain if it is true."

"We will soon see!—we will soon see! Second floor. Here we are. Now, then!"

And the old gentleman's raps proved the excitement under which he was laboring.

A very pale, sweet woman opened the door, her eyes showing that she had been weeping very recently.

"Does Mrs. Holman live here?" the old gentleman asked.

"That is my name, sir"

"Can I see your husband?"

The soft eyes, full of deep trouble were lifted.

"Is it on business, sir?"

"Very important business," was the rather dry response.

"Because the doctor said to-day he must not have any mental excitement. He is so very much worse to-day; I—I am afraid he is dying!"

And sobs broke out again.

"Dying!"

Maude Chesterton reeled into the room, and sank dizzily upon a chair.

James Rutherford, with a face white as death, said: "Dying! An accident?"

"No, sir; it is a fever from over-work."

"Fever—over-work!"

"Josie—Josie!"

If ever Fred Holman spoke, he spoke then from an inner room, and the little wife, seeming to forget her strange visitors, answered, quickly:

"I'm coming, Fred."

She went at once to the room from which the voice came, and again the two, listening intently, heard Fred's husky voice.

"Bring the last cordial, Josie. Ten drops! I am sure he knew me; but he is faint."

A moment later the same cheery voice spoke again: "Drink this, old fellow. So! See, here is Josie! Don't you know Josie?"

Then another voice—oh! so very faint!—said: "Josie—little wife!"

A moment of utter silence followed, and then Josie said:

"There is a gentleman and lady in the other room, Fred, who want to see Frank. Will you see them?"

And Fred, appearing in compliance with this request, found his uncle vigorously fanning Maude Chesterton with a newspaper to bring her out of a fainting fit.

Before he could frame a question, his uncle said, quickly:

"Get me some water!" And he obeyed.

Then, as Maude's blue eyes opened with a bewildered stare, the old gentleman continued:

"We were sent here to see your domestic felicity, and we seem to be misinformed."

"My domestic felicity!" cried Fred.

"Read that," said his uncle, handing the anonymous note. And Fred complied.

"Humph! yes," he said. "So you came to see Mrs. Frederick Holman. Well, that lady has made me a happy man;" and his eyes flashed merrily upon Maude. "But I will introduce you to my cousin's wife, Mrs. Frank Holman. Maude," he continued, with a gentle gravity, "since you have come here, it will be an act of Christian charity to remain, for"—and his voice sank very low—"we are afraid the poor little woman will be a widow before the morning."

"Poor fellow!" said James Rutherford. "What is the trouble?"

"Over-work. He thought he could increase his small salary by toiling over fine engravings in the evening, and he broke down. I never knew of his marriage till last week, when he wrote me a painful note, begging me to care for his wife if he died. I came here at once, and was fortunate enough to win poor little Josie's sisterly confidence and affection. Maude, if the great trouble we fear comes—"

"I will be her true sister, Fred!" interrupted Maude.

Here was a deep silence of several minutes, then Josie, very pale still, crept softly into the room.

"He is asleep!" she whispered. "The doctor said if he slept he would live!"

And when she broke into hysterical weeping, Maude held her close in loving arms, whispering that she must let her stay and comfort her, for Fred's sake.

Nearly eleven o'clock came, and still Harvey Frothingham waited, half-frozen, in the dark courtway, to see the discomfiture of his rival. Then his patience was rewarded by seeing Fred and his uncle come out of No. 28, arm-in-arm, evidently the best of friends, and enter Miss Chesterton's carriage, and drive away.

Not until the day of the wedding, when he saw Josie an honored guest, and was introduced to Mr. Frank Holman, did Harvey Frothingham understand the slight mistake he had made.

RECENT LITERATURE.

The Temperaments, or The Varieties of Physical Constitution in Man, considered in their Relations to Mental Character and the Practical Affairs of Life, etc. By D. H. JACQUES, M. D., with an Introduction by H. S. DRAYTON, A. M., Editor of the Phrenological Journal. 12mo, 350 pages, 150 illustrations, extra cloth. Price $1.50. New York: S. R. Wells & Co., Publishers, 737 Broadway.

A work treating of a subject that should be of universal interest, as it is of very great importance. The temperaments are defined according to both the ancient and the modern theories and classifications. The pathological views of the old medical schools are fully described, as well as those of the more recent anatomical and physiological systems. The writer discusses all the temperamental modifications and combinations usually met with, showing the configuration which is associated with the different types. The relations of temperament to occupation, marriage, education, training of children, choice of occupation, health, and disease, are entered into. An important and valuable feature is that of the practical hygienic rules for correcting the unhealthful predispositions of certain temperamental conditions; and not the least interesting part of the book is that which is devoted to the temperaments as they appear in races and nations, and is illustrated with many portraits. Then there are studies in temperament, and a chapter on the temperaments in the lower animals, showing the effect of domestication and other conditions.

The book in size and style is such as is usually sold for $1.50, but is offered in connection with a year's subscription to the Phrenological Journal, which is only $2. It must, we think, be specially acceptable to the subscribers, as it is in entire keeping with the objects of that publication, yet in itself forms an independent volume of a most attractive and useful sort.

MAGAZINES.

THE POPULAR SCIENCE MONTHLY for January 1879.—The enlargement of The Popular Science Monthly, announced to begin with this number, is quite as apparent in the variety as in the extent of its contents. The first article, on the Traces of an Early Race in Japan, is by Prof. E. S. Morse, who is at present lecturing in the University of Tokio, and investigating Japanese archæology and natural history. In the next article, on Virchow and Evolution, Prof. Tyndall discusses the famous address of the distinguished German doctor, on The Freedom of Science in the Modern State. Astronomical Magnitudes and Distances, by Prof. H. Corbart, is an exceptionally successful attempt to convey to the average reader some idea of the vastness of heavenly spaces. The Beginning of Nerves in the Animal Kingdom, by Geo. Romanes, is a very clearly written and interesting article. Pope and anti-Pope is a trenchant comment by Prof. Carl Voght, on the fight in Germany between the "Medical Pope" Virchow, and the "Zoological Pope," Hoeckel, over the subject of Darwinism. Black Diamonds by Maury, is an entertaining account of the early discoveries of coal. Following is a readable illustrated article on The Devil-Fish and its Relatives. But the paper of the number, both for interest and importance, is thereafter by Geo. Iles. The Scientific Relation of Sociology and Biology, The Physical Functions of Leaves, Curari or Woorara Poison, Molecular Dynamics, Effects of Alcoholic Excess on Character, and a Sketch of Gustav Wallis, make up the contents of the body of the number. Beside the fifteen articles enumerated there are editorials on Protection and Socialism, The Religious Recognition of Nature, and Improved Domestic Economy.

THE SATURDAY MAGAZINE, a new applicant for public favor, is edited by F. B. Perkins, and published in weekly numbers of 32 large octavo pages, at 11 Bromfield St., Boston, for $3.50 a year.

We judge, from what we have learned of this magazine, its pages are intended to give a variety of literature that will furnish to every member of an intelligent family, food for thought, as well as a store from which to draw instruction and amusement. Each number is to contain carefully made selections of both prose and poetry from the best foreign publications, interspersed with original items, editorial remarks, notes and queries, and other things needed to make the magazine rich, racy and attractive. Brevity is one of its rules, although we see indications that parts of one continued story may be expected in each number. We are told a tree is known by its fruit, but it is not always necessary to wait for fruiting time to predict what will result from oak, apple or chestnut trees; nor do we, from our knowledge of Mr. Perkins, the editor of this magazine, feel obliged to delay our judgment as to its value and success, nor have we any hesitation in giving, as our belief, that he will make it all that is promised—intelligent, versatile, lively, thoughtful, witty, experienced, and in every way adapted to cater to the literary public. We shall be disappointed if he does not make for the Saturday Magazine a place among the most popular publications of the day.

"A Spool of Thread and How it is Made," is the title of an illustrated pamphlet issued by the Willimantic Linen Co., of Willimantic, Con. The article was prepared by C. H. Clark, of the Hartford Courant, and originally appeared in Scribner's Monthly. Until this article is read, one would never imagine the extent of the interest that may be spun about a simple spool of thread, nor the intricate and interminable machinery used in its production. It is a chapter freighted with curious information and well worth reading. We presume the Company will send it free to any applicant.

THE Messrs. Burnett issue a very pretty price list that contains an explanation of the language of flowers and other interesting information. Its distinctive feature is the handsomely decorated and illumined covers in the Egyptian style. Something quite novel and attractive.

J. E. MILLS' Traveling Expense-Book is a very clever idea, undoubtedly suggested by experience. It is a systematic itemized record of all daily expenses, put in such shape as to remain a record after the pages are filled. One book contains memoranda for thirty days. Spring & Robertson, Lafayettte, Ind., are the publishers.

For Women.

CONDUCTED BY MISS FAITH RIPLEY.

DON'T MARRY A MAN TO SAVE HIM.

SARAH K. BOLTON.

A CRY comes over from Oregon
For a car-load—not of women wan,
But of women of brain and blood, and ton?—
"Come, marry these men to save them!

"There are thousands here in these haunts of sin
Spending their money in game and gin,
Corrupt without and corrupt within;
Come, marry these men to save them!

"They have been somebody's pride and joy!
Somebody's petted and pampered boy;
Spoiled for lack of a maiden coy;
Come, marry these men to save them!

"You must be healthy, and pure, and strong,
Alike to breast and bear the wrong,
Willing to carry a burden along;
Come, marry these men to save them

"You must be leader, but always seem
To be gentle and helpless as love's young dream,
And leaned upon when you seem to lean;
Come, marry these men to save them!

"You must be cleanly, and kind and sweet,
Making a path for their godless feet
Up to the grace of the mercy-seat;
Come, marry these men to save them!"

Oh! Woman, you're sold at a fearful price
If you wed your virtue to a chance device;
And trust your soul to that of vice:
Don't marry a man to save him!

A life that is pure needs a pure one in turn,
A being to honor and not to spurn,
An equal love, that shall constant burn;
Don't marry a man to save him!

A woman's life is a precious thing,
Her love is a rose unwithering,
Would you bury it deep in its early spring?
Don't marry a man to save him!

You can pray for his soul from morn till eve,
You can win the angels to bring reprieve
To his sin-bound heart; but you'll always grieve
If you marry a man to save him.

God gives to Woman a right to press
Her claim to a man's best manliness;
A woman gives all, should a man give less?
Don't marry a man to save him!

[*Woman's Journal.*

THE WOMAN'S CLUB.

A NEW AMUSEMENT.

DEAR FAITH RIPLEY.—I want to tell you of a very enjoyable time we have had in a (to us) new kind of social gathering.

We have (like many other of your rural friends doubtless) worn out the Old Folks' Tea-party, where some one is sure to be mortified by ripping a borrowed heir-loom brocade or bursting a slipper of the previous century; The Pound Sociable, too, has lost its interest in these economical days, when brown soap, corn meal, washing soda, white sand and salt compose the contents of most of the tastefully arranged parcels exposed for sale; while in amateur dramatic performances or concerts some one or some talent is apt to be slighted and the pleasure thereby diluted. It is therefore a matter of rejoicing when an entertainment that is democratic, inexpensive and a pleasant tax upon ingenuity, is introduced.

I will try and give you an account of our

VEGETABLE TEA PARTY.

You would have been surprised and delighted at the numerous devices, tasteful and comic that were suddenly developed for the occasion. Those having charge of the entertainment had engaged the town hall, on the platform of which were seated the so-called King and Queen of the vegetables in grotesque regal costumes. The queen was dressed in a robe of pale green and black, and over her shoulders was thrown a scarlet cloak, trimmed with cotton-batting ermine. A pumpkin crown and a popped-corn necklace with three small mock orange pendants completed her costume.

His Royal Highness was gorgeously arrayed in a crimson robe embroidered with gold, that looked suspiciously like a piano cover belonging to one of the ladies present. His crown was composed of the same precious vegetables as the queen's.

The subjects bearing offerings of the vegetables they were dressed to represent, were presented to their Highnesses and after making obeisance, and depositing their offerings and the baskets made of pumpkins or squashes, which contained them, at the feet of their sovereigns, retired from the stage.

Flora and Pomona of course furnish us with many lovely hints, and the heart of the agriculturist would have been gratified by the artistic display that the simple products of the soil afforded.

Without taking up too much space in describing separately the decorations of a host of counts, countesses and other titled people, I may speak of dainty bonnets made from red, green and white cabbage leaves, ruches from the nature-crimped kale, and cuffs from ripened corn-leaves. The brunettes revelled in the adornment of red peppers, while parsley festoons suited the blondes. Pumpkin seeds served magnificently for trimmings and watch chains, popped-corn and carrots came into play for earrings, while elaborate necklaces, crosses and pendants of carrots and turnips made a quaint display.

These articles were also utilized for illuminated letters that formed the mottoes around the room.

After the opening entertainments of the evening was over, the audience was invited to partake of a vegetable supper, the entertainers transforming themselves into waiters and waitresses and attending to the wants of those at the table.

Many attractive features may be added to an entertainment of this kind, such as good singing tableaux, charades, etc. We had on the stage at one time a pantomime, showing an old-fashioned kitchen with an old lady spinning, another knitting, a real baby in a cradle, a young girl paring apples, a dairy maid churning, while an old man sat on a bench trying hard to mend an antiquated boot.

An old fashioned clock that struck while the pantomime was in progress added much to the effectiveness of the scene. E. C. G.

STUDY AT HOME.

WHEN looking over the departments devoted to women, in the RURAL, I feel inclined to ask, "Is not the life more than meat and the body than raiment?" One would suppose not, judging from the amount of space allotted to fashions, fancy work and recipes for cooking, and the absence of contributions which would tend to stimulate readers to mental effort. It can hardly be that the women who live in the country are satisfied to allow food and clothes to fill their lives to the exclusion of mental and spiritual interests, and yet when a club is opened for them in the RURAL, and they are invited to discuss in it any and every matter which is of interest to them, what do we find the leading topic, at two or three meetings of the club?

DISH-WASHING!

Not, how can or shall we improve on old methods, but, mere recordings of personal feelings about the occupation. One writer informs the Club, that from her youth up she has doted on dish-washing, another, takes an unnecessary amount of space to divulge the startling fact of her utter abhorrence of the process. How entertaining and instructive!! If dish-washing and the making of rag-carpets engross the time and thoughts of the majority of the RURAL women, I trust there is at least a small minority who will be interested in hearing a little about the Boston Society to Encourage Studies at Home. The ladies who first conceived the thought of this association, wished to ascertain by actual experiment whether or not it was practicable for women to make an advance in learning, without the adventitious aids furnished by the class system, without the stimulus of rewards and even without the excitement of a competitive examination.

The rules of the Society are extremely brief. They stipulate that students must be at least seventeen years old, must devote a certain time to their work, each day or each week, and must pay an annual fee of $2 to cover the expenses of postage, printing, etc. Any lady wishing to become a student can obtain a programme of studies of the Secretary, No. 9 Park street, Boston, and having selected from it the branch or branches, which she wishes to pursue, will receive the special directions for that course. Memory notes, monthly reports and examinations by correspondence are the principal ways of testing the information acquired and at the close of the course each student prepares an essay. History, Natural Science, Art, German, French and English Literature are the six courses in the programme. The students live in all parts of the republic. The great majority are in out-of-the-way places, in which the few persons of studious tastes are lonely, and regard the Society as their deliverer from idleness or ill-directed work. Certain books are recommended in each course, and when the pupil cannot obtain them for herself, they are lent to her from the Society's library, which includes 490 volumes. I would advise all women who can snatch one hour a day from their work to become members of this Society. Try it, my friends, and see if you do not derive more satisfaction from having a thorough knowledge of some branch of literature, science or art, than in knowing the latest stitch in embroidery, or how to make indigestible novelties in pastry. FREE LANCE.

WHY MUST ALL WOMEN KNOW HOW TO SEW.

To insist that every woman must sew because she wears clothing, is just as absurd as to require that every man shall farm because he eats. Why should Harriet Hosmer or Elizabeth Thompson or Harriet Martineau be expected to sew and to cook or to embroider unless they do it as a matter of amusement. Why should it be insisted on that the woman who cannot sew, however wise or noble she may be, is lacking in some essential element of true womanhood. This is what Miss Harvey said in effect in a recent article and a most unjust and narrow statement it appeared to me. Every woman, even the humblest should feel free to reject the use of the needle, just so far as it suits her taste or her means to do so. There should not be any especial guilt felt in the confession, "I do not like to sew." But women have not got beyond feeling it, and society has not got beyond imputing it. The inadequate wages of many a woman compel her to sew when she needs, instead, to use her leisure for rest and mental culture. Such women must and do cut down sewing as much as possible and would still more, if they were not accustomed to think that they must have a certain amount of trimming, even on garments which are invisible to the public.

But, my RURAL sisters, why must you? Why must you even buy Hamburgh trimming, when you would so much rather, if you dared, go without it, and buy instead a book or a photograph or a Japanese vase? Let women make a beginning here; let them reflect that to put so much time and labor into ornament which will soon wear out, is one of the things than can be reformed. I feel quite sure that the ornamentation of clothing comes from a liking for beauty, as well as from mere love of display, but if we cease to decorate what is to be worn-out and used up, we may find a channel for our love of the beautiful in things more permanent, even though they are made with the needle. It seems to me that ornamental needle-work,—provided the article ornamented is one which deserves such adornment,—is as defensible as any other ornamental work, and that there are people who have an especial talent for it very closely akin to, yet not quite the same as the talent of the painter. Some of these can design as well as embroider, as some musicians can compose as well as execute. When, however, we have put ornamental needle-work to its right use, there still remains a word or two of warning about it to be spoken. It is a sedentary reercation, and it taxes the eyesight—two considerations which make it objectionable. At all events, let no one be required or forbidden to "use that polished lance," the needle, by other law or custom than the direction of their own tastes and aptitudes. JICKS.

WARM SLEEPING ROOMS.

I'm glad the barbarous idea that it is healthful to sleep in frigidly cold rooms is being combated. For my part, when I recall all the discomforts, yes, and absolute pain I've endured in cold bed-rooms, I'm ready to pronounce a sentence of perpetual banishment to the Arctic regions, against the inhuman monster who first promulgated the idea that it is "unhealthful to sleep with a fire." If a fire is a good thing during the day when our bodies are at a higher temperature than during sleeping hours, why isn't it a better thing at night? People pile on a hundred weight or so of bed-clothes, shut doors and windows to prevent the entrance of even a breath of fresh air, and in spite of their precautions, what with having to breathe the cold air of the room and the liability there is of the clothes slipping off, they are not comfortable. There is another thing to be considered, heavy covering is weakening. Many delicate women and children are made weary by sleeping under great quantities of covering. Then, it has been demonstrated time after time, in medical reviews and in newspapers generally, that pure air is absolutely necessary to perfect health. What sort of air is that which has been breathed and rebreathed scores of times during the night? Have a fire, and open your windows an inch top and bottom. Instead of laying in a heavy stock of blankets and comfortables, just invest in a stove, the children can then make their toilets in their rooms instead of rushing through the house half-clad to dress by the kitchen-fire, thereby impeding breakfast preparations. Besides, it isn't nice to have washing and combing going on in the same room and at the same time as cooking. A fire need not be kept in the bed-rooms all day. From eight in the morning until about six in the evening it could be dispensed with, and the expense and trouble would thereby be lessened. Think it over ladies, and if you have ideas on the subject, please ventilate them for the benefit of the club. Truly, LINDA BROWN.

THE HOUSEKEEPER'S JUGGLERY.

IT sounds like a very good motto, "One thing at a time, and that done well;" but we housekeepers know that it would never answer for us. We must do a great many things at a time, or at least keep a great many wheels in motion at once, or there will be a sad deficiency in some department. The household profession calls for a skill somewhat like that of the Chinese jugglers, who keep a dozen or two balls in the air at all the same time, catching and tossing each at precisely the right moment, and never allowing one to fall.

According as a housekeeper is able to keep a great number of irons in the fire at once without burning any, will be her general success. She must have an eye on the oven, the kettle and the sauce pan, the baby and the three-year-old, and very likely be setting the table for dinner, all at once. For none of these things can go on well without her constant supervision. Housekeeping may go on as regularly as clock-work, and yet be very unlike clock-work in one respect. You cannot wind it up and set it going in the morning and then have it run on alone for the rest of the day. The winding and grinding process has to go on continually.

I think this "jugglery" is the hardest lesson for the young housekeeper to learn; yet it is one of the possibilities. Those "Heathen Chinese" did not acquire all their skill at once. They were obliged to toss and miss their balls a great many thousands of times before they succeeded in performing their wonderful feats. The best housekeepers could tell you a great many tales of burnt pie-crust, and upset cream pitchers, and heavy cake when company was coming, and many tears dropped over the ironing board, before they arrived at their present state of perfection. So take courage, and be content to gain skill little by little. Systematize your work so that you can keep many things in hand at once. Thus you may save a great deal of precious time to do what you please with. If you wait to fully finish off one thing before you begin another, you will all your life realize the truth of the old saying, that "a woman's work is never done."

J. E. M'C.

ABOUT TEMPERANCE.

IT seems a little strange to me, that not a line has appeared in the Club about Temperance. It cannot be, that the subject has no interest for the ladies who read the RURAL, for how can any woman be indifferent to what so nearly concerns the happiness and prosperity of our homes and our country? I think it would be both profitable and pleasant for us to discuss the ways and means of combating the frightful vice of drunkenness, through the Club.

There is no question but that this evil will have to be fought "in season and out of season," and with all the weapons that ingenuity and patient effort can devise. For myself I am a prohibitionist. I believe in fighting the liquor interest at the polls as well as in the lecture room. Moral influence is excellent in its way, but I would not place my reliance wholly on that. Force as well as persuasion is my motto. There is one thing I would like to call attention to, and that is the habit of applying refined epithets to this coarse sin. A man is no longer drunk, he is inebriated or intoxicated, or he has imbibed too freely. We are becoming much too elegant to use such vulgar expressions as drunk and drunkenness. It seems to lessen the disgrace of the thing when we soften the word that describes it, and as words are a power, may not a failure to characterize this sin by the name which best expresses the coarseness of the act make the sin itself appear less repulsive? JO MORSE.

News of the Week.

Monday, Dec. 30, 1878.

[NOTE.—The RURAL NEW-YORKER expresses no political opinions whatsoever. We merely furnish a *resume* of the week's political occurrences for the benefit of those who do not read the daily papers.—EDS.]

POLITICAL.

CONGRESS having adjourned for the holidays, there is little political news of interest abroad. The session was a short but a busy one. The Senate passed the pension and Postal-Car Deficiency Bills and a Bill repealing the law which permits jury challenges on the ground of voluntary participation in the Rebellion. The House has passed the Indian Appropriation Bill without regard to the controversy now pending about the transfer. On Thursday Senator Burnside reported from his Joint Committee the voluminous Army Bill, whose preparation had been kept quite secret. Simultaneously the House Naval Committee has agreed upon a Bill establishing a Board of Assistants to the Secretary of the Navy. The House Committee on Currency and Finance adjourned without being able to reach a conclusion in regard to the measures that have been referred to it.

Senator Teller is chairman of the committee asked for by Blaine, and it is therefore called the Teller Committee. There was danger of its being brought to a standstill for lack of funds, as no appropriation had been made to defray its expenses. It has been found, however, that there is in the Treasury a balance of $20,000 appropriated for investigations in Florida and Louisiana by the Potter Committee, and the Department of Justice has just decided that that sum can be used by the Teller Committee.

MISCELLANEOUS.

The trials of the election cases at Charleston, S. C., will begin early in the new year. Chief Justice Waite will preside, with Judge Bond as associate. The Department of Justice claims to have important evidence. The Supreme Court has 1,080 cases on its docket. Its business is nearly three years behind, and losing constantly. For all this, Justice Swayne thinks "litigation rapidly falling off." This diminution, he ascribes to the fact that contracts broken by the strain of the financial panic have been about adjudicated, and the volume of law business has got back to nearly its normal state.

There have been distributed during the year drawing to a close, from the Department of Agriculture, over 50,000 young tea plants, and as many more will be distributed during the coming year. Commissioner Le Duc is still sanguine that tea can be cheaply and profitably grown in the United States.

For two or three years back there has been a good deal of quasi-scientific talk about changes in the Gulf Stream, spots in the sun, etc., etc., all going to account for our milder winters; but this year winter has set in in dead earnest for the holidays, both in this country and Europe. The storm of Saturday and Sunday was especially severe in New York State, and it has delayed trains at Buffalo with snow three feet on the level, blocking all Erie and New York Central stock trains at East Buffalo, and obstructing thoroughly travel in the northern part of the State and in Canada. The cold has also been very intense all through the West. In Great Britain and throughout the continent the fall of snow has been heavier than for thirty years. It was particularly heavy in Scotland, drifting 12 feet deep about Aberdeen, near which place a dozen trains were snowed in. In Geneva 400 men and 120 carts are constantly kept at work clearing the streets, and travel is almost wholly interrupted throughout Switzerland. There is more snow on the Vosges than the oldest inhabitant remembers, and it has driven the wolves out so that they have penetrated to the very gates of Metz.

The Moffet bell-punch is not quite so popular as it was. The liquor dealers generally don't like it, and the other people find that it is not working such financial wonders as had been promised. Indeed, the statement comes from Richmond that it has realized only $83,00 more in Virgina the past year than the old system, while it was expected to yield a revenue of at least $600,000. The marble palace in which the 102d Legislature of New York is soon to meet was to have cost $4,000,000, but, built during the wildest days of inflation and extravagance, it has swallowed up $14,000,000 since it was begun at the close of the war, though fortunately without entailing any debt. It is the most costly structure on the continent, next to the capitol at Washington, and is the second New York capitol at Albany. The first one was finished in 1807, ten years after the Legislature had finally settled down there, and cost $120,000.

South Carolina under democratic rule still continues more liberal in its policy regarding intermarriage of the races than Rhode Island under republican sway. The New England commonwealth obstinately refuses through its Legislature to repeal the ancient prohibition against a "nigger's" marrying a white woman—if he can find one who would like to be his wife. The South Carolina Legislature, almost unanimously democratic, has just refused to interfere with the freedom in this respect now enjoyed in that State by putting the Rhode Island law on the statute book, as some of the members wanted to do.

The suit brought against the government, by the heirs of Stephen A. Douglas, for certain cotton captured in Mississippi during the war and sold as abandoned property, is settled finally in the court of claims by judgment in favor of the claimants. The case has been pending for years and has been the subject of much controversy, investigation and litigation. The heirs are Robert M. Douglas, United States marshal for the western district of North Carolina, and Stephen A. Douglas, Jr.

Venerable Myra Clark Gaines has added another to the reverses of her eventful career, the House committee on private land claims at Washington having lopped off 80,000 acres from the 85,000 in Louisiana on which she claimed scrip, because her grandfather had no title for the land from the Spanish government, but the committee will report a bill in favor of allowing her the remaining 5,000 acres.

Since gold fell to par the demand for standard silver dollars has steadily increased. Before that time orders received at the Treasury Department averaged about 10,000 daily. Now they run up to more than three times that sum. With the return of financial matters to a specie basis, wages too, have gone back to about ante-bellum rates. The following are the average wages paid at the factories of Connecticut.

	1859 and 1860.	1876.	1878.
Laborers	$1 00@1 25	$1 66@2 00	$1 00@1 75
Unskilled mechanics	1 00@1 12	1 25@1 75	1 12@1 25
Mechanics	1 12@1 50	1 75@2 25	1 25@1 75
Skilled mechanics	1 75@2 50	2 50@3 50	2 00@3 00
Extra skilled mech's	3 00@4 00	3 50@6 00	3 00@5 00
Foremen	2 00@3 00	2 50@3 00	2 50@8 00

The trifle of increase in present rates over those of 1860, is fully counterbalanced by the higher prices for most commodities now-a-days, owing to our much heavier taxation—if to no other reason.

The New York Produce Exchange has sent a circular to all the commercial bodies in the United States, urging that the pound be taken as the unit of weight in the sale of all articles of produce, and that larger transactions should be indicated by the 100 pounds and by multiples thereof. Last year we sold England $150,000,000 worth of grain, live stock, meats, cheese and eggs. We sent over 300,000 cattle, 1,000,000 sheep, 50,000 swine and 30,000 horses. The cost of recent wars, as computed by competent authorities, is as follows:

	Cost.
The Southern rebellion	$6,000,000,000
Austro-German war	300,000,000
Austro-Italian	150,000,000
Austro-German-Danish war	20,000,000
Franco-German war	4,000,000,000
Russo-Turkish war	1,500,000,000
Total	$11,970,000,000

FOREIGN.

From across the Atlantic Great Britain sends news of dire distress among her operatives. Having disposed of all their salable belongings, the starving working people are now crowding into the poor-houses. In view of the severe competition from this country, farmers in the North of England are agitating for a repeal of the free-trade laws with regard to certain kinds of raw materials in which they are unable to complete profitably with foreign supplies. Many manufacturers, too, are not so enthusiastic as formerly on the manifold virtues of free trade. It was all well enough as long as they supplied the markets of the world and had no foreign competition at home; but lately cotton goods from this country and iron-ware from Belgium and Germany compete successfully in English markets with native products, and are running English goods closely in the markets of the world. In Germany, too, Bismarck is vigorously pressing the passage of a law imposing protective duties on all articles of foreign manufacture which come in competition with goods made at home. He wants to return to the tariff of 1819. Meanwhile he is energetically enforcing all laws against the socialists, but is so anxious to retain in the country men suitable for the army that a naturalized American who wished to deliver a course of lectures in Berlin on the beauties and advantages of this country, has been forbidden to do so, lest his words might increase the emigration of likely young men.

The impression that the Afghanistan war is ended, is confirmed by the recent capture of Jelalabad by the British, and the arrival there shortly afterwards of Yacoob Khan, son of Shere Ali, whom the latter left in command of his forces on his own flight in company with the Russian Embassy. It is said that the son will be set upon the father's throne; but in that case it would be necessary for the English to keep him there, as it is not improbable that efforts would be made by the father and his adherents to displace him. For the present, heavy snows and severe cold are impeding operations and causing a great deal of sickness and mortality among the European and Hindoo contingents of the British army.

The distress in the interior provinces of Brazil is reported as appalling. The people are even devouring the corpses of those who have perished of starvation, to escape a like fate. It is difficult to see how such a condition of affairs can exist in agricultural communities where no destruction of crops has been reported. Moreover, a telegram from Ceara, reports deaths in the capital from smallpox to the number of 600 daily.

A letter from Cairo, Egypt, states that English and Scottish horse raisers, who have been furnishing carriage horses of high quality to that country, state they can not compete at home with the horse raisers of Kentucky and Ohio, who send fine carriage horses to England, and far undersell the native English raisers. The letter, therefore, suggests shipments of horses from America to Egypt.

The Whitehall Review, of London, has lately been publishing lists of converts from the Protestant to the Roman Catholic Church in England within the last 25 or 30 years, giving the names and conditions of most of the wealthier ones. The matter has caused a good deal of excitement across the water, and a brief summary of the chief sources from which the best known of them have come, may be of interest to some RURAL readers. Of them 200 are from Oxford University, 150 from Cambridge; from Trinity College, Dublin, and London University jointly, only 10; 85 of the army, 14 of the navy, 45 of the bar, 13 peers, 14 peeresses, 19 sons and 28 daughters of peers, 78 other titled ladies, and 35 titled men—in all 1,500.

England and Russia are fast becoming close friends again, to all appearances, at any rate. The former proposes the Duke of Edinburgh, Victoria's son, and the Czar's son-in-law, as King of Bulgaria. Turkey and Russia, also, will soon sign a final treaty of peace and amity, and preparations are under way for transporting to the Crimea 100,000 of the troops now in Turkey so soon as the treaty shall have been signed. Immense quantities of wheat are being shipped from Odessa, and most of it is landed at Marseilles.

The Supreme Court of Justice of Spain has finally condemned to death Juan Moncasi, who attempted to assassinate the king, Oct. 25.

Beginning with a production of four pounds of tea in 1840, India now exports 40,000,000 pounds and all the islands of the Indian archipelago are cultivating the plant.

The London Truth says the Duke of Connaught, one of Victoria's sons, will be appointed Lord-Lieutenant of Ireland as soon after his marriage as an opportunity occurs to provide for the Duke of Marlborough, who at presents holds the position.

Domestic Economy.

CONDUCTED BY EMILY MAPLE.

PEN THOUGHTS FROM EVERY-DAY HOUSE.

BY ANNIE L. JACK.

GLOOMY SKIES, FIRESIDES AND SPIRITS.

"WEEKS of dull, dreary, sunless weather, try the most amiable temper." So says the family oracle, and we all bow assent. For during the long time of cloud which this November has brought us, have we not felt every careless word, every duty undone by anybody, or overdone by somebody, rasping on our nerves, and irritating us? Even the cat goes around twirling her body in search of her tail in gloomy persistence, and the chickens walk past the window in silence without indulging in a single r-r-r. The kitchen fire, too, is in the pouts, for to-day a thread of smoke is found to emerge from the joints of the pipes, and we are told it is due to a "bad wind." A smoky chimney is like the toothache—it gains one but little sympathy, yet if a man had to stand, as I have seen some women do, over a smoky fire, with eyes full of sharp tears, there would be some tall talking, and he would find some means of stopping the nuisance, even if to do it, he had to go to the village blacksmith's, for I have often noticed that *that* is the panacea for many of the dull, blunt things that worry a farmer's life. And speaking of blunt things, the bread knife and the butcher knife felt dull, too, and would not cut anything for breakfast that morning, but this is one of the evils a woman should know how to remedy, so we speedily made them as sharp as ever.

But the conversation about all these annoyances took place one breakfast time, and if it contained any element of unhappiness as a morning picture, it must be attributed to the want of sunlight in our darkened home. And yet I was reading yesterday that the proportion of sunny days in Canada as compared with Boston, is as fourteen to nine per month. Poor, dark, Boston, if so much more dim thy skies this last fortnight! And now comes the rain. If there has been one day without mist or rain for the last three weeks I do not remember it. Surely now we have had enough of the moist air said to be so conducive to health and beauty.

"Well, I much prefer clear skies," says the family critic; and the would-be wit among us remarked that the air was so calm even the wind could not rise and hoped the bread would not suffer from the general depression. And this sent the amateur cook to look at the sponge which we knew was satisfactory by her gentle, self-satisfied nod. It is one of the luxuries of farm life to be able to have home-made bread from home-grown wheat. There is about it a flavor that is not to be defined, but is, nevertheless, felt and tasted. We use hop yeast, making it every week, and keep in the yeast-jar a piece or two of root ginger, which is a great improvement in the raising. The sponge is set over-night with a few potatoes mashed through a sieve and mixed with the water to be used in setting. Two workings the next morning, and then our loaves are set to rise before the fire, taking care to have the pans out of the way of a draft. Count twenty quickly with the hand in the oven—it is an old-fashioned thermometer but safe—and bake for an hour and a quarter with a steady fire. There is no baker's bread that has the same sweet, nutty taste; it will even put one in a good humor on a sunless, gloomy day.

HYGIENIC FOOD.

ONE hears a great deal, nowadays about hygienic food. I should like to know what it really is, for I do not think many of the writers about it have a very clear idea of it themselves. They talk of "albuminous food," and food rich in nitrogen, or gluten; but they do not tell the average woman, who is not usually a profound chemist, what to eat and what to avoid. And they talk a good deal of nonsense, too. One lady, a constant contributor to an agricultural paper, who writes continually about brain and body food, gave, as an excellent—and, I believe, "hygienic"—dish, cabbage boiled in a small quantity of water till soft, and then thickened with milk and seasoned to taste.

Shade of departed Hygiea, think of that! As if cabbage boiled were not enough—and it is a well-known fact that boiled cabbage is less digestible than raw—she adds milk to it. I do not object to milk in itself, but the mixture is barbarous.

I wish to say a word about pies, though it is a well-worn theme. I do not think they should be banished entirely, for if they are well made, and eaten in moderation, they do no harm. A German physician told me the Americans do not know how to make or eat pies, but I am not ready to believe that. For my part, I prefer my fruit *au naturel*. And I think in the summer we can do almost without pies. A dish of blanc-mange, and one of fruit, stewed or raw, form a delicious dessert.

It is very well to point out pale, nervous school-girls, and say that their paleness and nervousness are the results of indigestible food, but these traits are oftener the results of late hours and insufficient exercise. If girls would keep early hours, and take long walks, we should not hear so much about the need of "hygienic food." SARAH GAMP.

CARPET SWEEPING.

I would like the "testimony" of rural dames who have used carpet-sweepers, in regard to their superiority over the ordinary broom—if, indeed, they are preferable. I have been assured that with a sweeper one can sweep a carpet with ease, raise less dust, remove more dirt and litter by far than with a broom, and at much less wear to the carpet. M. W. F.

DOMESTIC RECIPES.

Corn-Starch Cake.

One cup of butter; two cups of sugar; two cups of flour; two cups of corn starch; four eggs; one cup of milk; one teaspoonful of soda, and two teaspoonfuls of cream-of-tartar; pinch of salt; flavor to taste.

Mountain Cake.

Two cups of sugar; one cup of butter; one cup of milk; four cups of flour; the whites of four eggs; one teaspoonful of soda; two teaspoonfuls of cream-of-tartar; one pound of raisins; a pinch of salt.

White Cake.

One cup of butter; three cups of sugar; four and one half cups of flour; the whites of ten eggs; one cup of milk; one teaspoonful of soda; two teaspoonfuls of cream-of-tartar and a little salt; flavor with bitter almonds. This cake requires some time to bake, but is very nice. One great secret in making cake is thorough beating. Beat the butter and sugar together, and the yelks and whites of the eggs separately. Then add the yelks to the butter and sugar, and beat until you are tired. The greater part of the beating should be done before the flour is added. I always use sweet milk in cake and a small teaspoonful of soda, and large ones of cream-of-tartar.

The corn-starch cake should be baked in small, round tins. If anyone should try these recipes and fail, she must not think that the fault is in the recipes, for I have tried them repeatedly with the best of results. I prefer powdered sugar in making cake, but sometimes it will not stir to a cream with the butter, but seems heavy like plaster. If the powdered sugar is poor, I use granulated. Butter a paper the size of the bottom of the cake tin, to prevent the cake sticking to the tin. M.

Sweet Cider.

Mrs. M. L. says that cider may be kept sweet by adding mace, cinnamon and mustard-seed—a quarter of a pound each—with a pound of raisins to a barrel of cider. Rack the cider until free from pumace: put the spice and raisins into a cloth bag, which should be long enough to extend from the bung to opposite side. Drive the bung over the top of the bag and let stand a few weeks before tapping.

Dish-Washing.

I am truly sorry for those young housekeepers who hate to wash greasy dishes. A few directions which I will give, simple as they seem, will, if followed, help to lessen the disagreeableness of this dreaded duty. I would fill the dish-pan half full, or nearly so, with water as hot as you can bear the hands in. Take enough soap to make a slight suds; put in the dishes, having a clean dish-cloth. Wash them and turn into a pan, and pour hot water over them; then turn them into another pan to drain: take another clean dish-towel to wipe them with, and they will wipe so quickly and easily you will be surprised. If you will put water into the pots and kettles as soon as emptied, they will be soaked so that they will wash easily by the time you are ready for them.

Dessert Pudding.

One cupful of sour buttermilk; two tablespoonfuls of fried meal drippings, or the same of melted butter; one scant teaspoonful of soda; a pinch of salt; one cup and a half of flour; stir together into a batter. Have ready two or three large apples; pare and slice them on a buttered tin and pour the batter over them. Bake half an hour; serve warm, with sugar and cream or vinegar sauce. T. T.

OUR FREE SEED DISTRIBUTION.

SEEDS of the following varieties of plants are offered to our subscribers without any charge whatever (except for postage, a part of which we bear) until further notice:

DEFIANCE WHEAT. A hybrid spring wheat. The most promising variety ever before offered.

"PEARL" OR "EGYPTIAN" MILLET. One of the most promising fodder plants known.

BEAUTY OF HEBRON POTATO. According to many careful tests, this is ten days earlier than Early Rose, as good in quality, and more prolific.

THE VOORHIS WATERMELON. A specialty of the Rural Farm.

GOLDEN RURAL TOMATO. A specialty of the Rural Grounds.

ACME TOMATO. This is offered as the best of the newer varieties of Tomatoes to those who may prefer it to a trial of the Golden Rural.

NEW BRONZE RICINUS. Specialty of the Rural Grounds. The most beautiful Ricinus in cultivation. A cross between Ricinus Gibsonii and R. sanguineus.

HIBISCUS MOSCHEUTOS—the showy and beautiful Rose Mallow, never before offered so far as we know. Hardy.

CALLICARPA AMERICANA (Purpurea). The brilliant French Mulberry. Hardy.

HIBISCUS SYRIACUS. One of the most charming of hardy shrubs. Sometimes called "Rose of Sharon." Our seeds are saved from double-flowering varieties—many of them from seedling plants. They grow readily from seeds, and bloom as soon as plants would if transplanted from nurseries. The seedlings "sport" without end.

WEIGELA. Seeds saved mostly from seedlings. This is probably the finest hardy shrub in cultivation.

DEUTZIA CRENATA fl. pl. Seeds saved from seedlings at the Rural Grounds. Seventy-five per cent. of seedlings will bear double flowers. It is perfectly hardy and there is no finer shrub known for ornamental grounds.

HIBISCUS MILITARIS. Hardy and beautiful.

ERYNGIUM LEAVENWORTHII. The most striking annual of recent introduction. (See RURAL of November 9th for engraving of this and other plants, seeds of which we offer.)

GERANIUM SANGUINEUM. A true geranium of great beauty. Perfectly hardy.

YUCCA FILAMENTOSA. Every farmer and lover of plants should have specimens of this perfectly hardy evergreen liliaceous plant in his grounds. It is superb.

VITIS HETEROPHYLLA. See RURAL, Nov. 9, for description of this hardy vine.

RURAL HYBRID AQUILEGIAS. Beautiful, hardy perennials of great beauty.

GRINDELIA SQUARROSA. See RURAL of Nov. 9 for remarks.

OBSERVE.

Any ten of the above require a one-cent postage stamp:—that is, ONE *cent* for the ten, not for each, except the Beauty of Hebron Potato, Pearl Millet and Defiance Wheat. The Beauty of Hebron requires a two-cent extra stamp and the other two a two-cent extra stamp also.

Other varieties *may be* added. We intend this free seed distribution to be the most valuable of its kind that has ever been gratuitously offered by any journal, and to introduce the above valuable plants to the homes of farmers and horticulturists in every part of our country.

Sudden Changes of the Weather often cause Pulmonary, Bronchial and Asthmatic troubles. "*Brown's Bronchial Troches*" will allay irritation which induces coughing, oftentimes giving immediate relief. **25c. a box.**

THE MARKETS.

PRODUCE AND PROVISIONS.

NEW YORK, Saturday, Dec. 28, 1878.

BEANS AND PEAS.—There is no improvement in the demand for beans, while the market is lower for mediums and marrows. Supplies large, except of white and red kidneys. Pea beans show few choice samples. Red kidney active for Southern and West Indian use; quoted firm. Black beans steady at late rates. Green peas are in ample supply; must be prime at $1.30@1.35. Canadian field peas, in bulk and bond, 72@74c.; Southern B. E. peas quiet, and have lost their late advance quoted, $2.60@2.70; Medium beans, prime, $1.50; fair to good, $1.30@1.40; Marrow, free on ship, $1.65@1.67½; fair to good, $1.40@1.45; pea, $1.50@1.75; white kidney, $1.80@2.00; red do., $1.90@2.25; Black, $1.90@2.25.

Receipts of beans for week, 12,676 bushels; exports, 1,000 bbls.

BUTTER.—December's dullness has followed it to the end, and dealers hope that if buyers have made among other good resolutions for the new year one to do better by the butter market, they will lose no time in giving trade the benefit of it. The large stocks that are being carried certainly make a heavy outlook for the coming winter months and weather that will materially check future receipts together with a decidedly enlarged demand, will be required to put back-bone into the market. Exports light but include best grades; extra State dairies held with some confidence at old ranges. Some straight lines of fine tubs have realized 21c. Welsh quoted extreme. Western stock has the strongest side of the market; but creamery very firm. Dairy and useful factory firm, receipts somewhat slender. No sale for poor rolls.

State, full dairies, special, 20c.; other, 16@19c.; firkin dairies, fair to prime, 13@18c.; Welsh dairies, fine full, 16½@17½c.; choice dairy, pails and half tubs, 22@23c.; fair to prime do., 18@21c.; choice Welsh, 19@20c. fair to prime, 13@17c. Choice creamery 24@28c.; other, 23@24c. Best Western creamery, 30c.; other, 23@28c.; early packed creamery, 17@20c.; poor State 10@12c.; Western dairy, fine fresh, 15@18c.; fair to good, 10@14c.; factory, choice, 13@14c.; other, 6@12c.; rolls, 8@14c.

Receipts for week, 21,160 pkgs. Exports, 3,560 firkins.

BEESWAX.—Small lots are being placed at 26@27c. for Western and Southern.

BROOM CORN.—There are full supplies and not much being done. Jobbing rates are 4½@5½c. for medium green to choice hurl, with inferior at 4c. Car lots do not exceed 4½c. for very best and off grades sold below 4c.

CHEESE.—The exports for the week have been 25,146 boxes. These light shipments are incident to the holiday week. The market has a dull look, and as to prices show no marked change. Quotations are: 8¼@9c. for fancy, special lots to 9½c.; 8@8¼c. for fine lots; 7¾@7¾c. for good; 4@5c. for skimmed. State, farm dairy at 8@8¼c. for fine; 7@7½c. for good to prime, Wisconsin factory, fine, 8¼@8¾c.; some fancy lots to 9c.; do. good to prime, 7¾@8¼c. Western factory, fine and fancy 7½@8¼c.; good and prime, 6@7c.; do. full, skimmed, 2@5c.

Receipts for week, 39,110 boxes.

Liverpool cable 45s.

COTTON.—Towards the close the market shows a decided advance on a sharp rise in the Liverpool market, partly based upon the probabilities of increased consumption abroad. Closing prices are for December, 9.48@9.50c.; January, 9.53@9.55c.; February, 9.71@9.72c.; March, 9.86@9.87c.; April, 9.99@10c.; May, 11.10@11.11c.; June, 10.20@10.21c.; July, 10.28@10.30c.; August, 10.32@10.35c.

Quotations for spot cotton are based on American standard of classification, and on cotton in store running in quality not more than half a grade above or below the grade quoted:

	Uplands.	*N. Orleans*	*Texas.*
Ordinary	7⅝	7¾	7¾
Strict ordinary	8 1-16	8 3-16	8 3-16
Good ordinary	8 9-16	8 11-16	8 11-16
Strict good do	8¾	9	9
Low middling	9⅜	9¾	9¾
Strict low middling	9 5-16	9 7-16	9 7-16
Middling	9⅝	9⅞	9⅞
Good middling	9¾	10	10
Strict good middling	10⅛	10⅜	10⅜
Middling fair	10 15-16	11 1-16	11 1-16
Fair	11¾	11⅜	11⅜

Stained.

Good ordinary.....7¾; Strict good ordinary.....8¼
Low middling.....8¾; Middling 9¼

DRIED FRUITS.—General trade is slack as usual at this period of the year, and prices nominally unchanged.

Southern plums at 13½@14c.; State plums, 15@15½c.; Blackberries are quoted at 5@5½c. Peaches—Peeled Georgia, at 6@7c. for poor; 8@9c. for fair to good; 10@10½c. for prime; choice North Carolina, 11½@12½c.; good do., 8@10c.; unpeeled halves, 3@3½c.; quarters, 3@3½c. Pitted cherries, 22c. Apples—Old State quarters, 3½@3c. New apples, 2@2½c. for southern quarters in bags.; 3½@4c. for good and prime sliced; do., fair at 3@3½c. State at 3½@4½c. for new sliced; and 3@3½c. for quarters; western at 2½@2¾c. for new quarters. Raspberries, 30c.

Exports, past week, 1,000 bbls. dried apples. Since Jan. 1st, 20,000 do.; in '77, 27,300 do.

EGGS.—Cold weather at the West has cut off arrivals, and the market is higher and firm for both fresh and limed. Near points, 29@30c.; State and Penn., 27@27½c.; Western, fresh, 27c.; Southern, 27c.; Canadian, 25@25c.; under quality, 21@22c. Limed, choice, 18@18½c.; good, 17@17½c.; other, 14@16c.

Receipts for the week, 3,987 bbls.; do. last week, 6,734 do.

ESSENTIAL OILS.—First hand prices in N. Y. as follows: Peppermint in tin, $1.60; in glass, $2.30; sassafras, 44c.; wintergreen, $2.15; tansey, $2; wormwood, $3; pennyroyal, $1.25.

FEATHERS.—White live geese prime, 40@45c.

FRESH FRUITS.—Apples are freely offered at quotations. Owners are willing to forego some profit while the supply is so large, trusting to make it up further along in the season. Spits, choice, $1 75@2; other, $1 25@1 50; Baldwins, $1 25@1 75; Greenings and Spys, $1 25@1 50; common, 75c.@$1; Lady, choice, $5@7; poor, 2@3 50. Cranberries scarce compared with former seasons; prices very remunerative. Fancy Cape Cod, bbl., $9; fair to prime, $7@8 50; poor, $5@6 50; N. J., crates, fancy, $2 50@2 75; other, $1 75@2 25. Catawba grapes, nominally, 6@8½c. Fla. oranges steady, but the demand is not so sharp as holidays would warrant. Pecans, Texas, scarce, 12@14c. lb. Chestnuts out of date. Hickory nuts, shellbarcks, $2 50@2 75; Va. hand-picked peanuts $1 10; other grades, 85@35c.; shelled, 4@5c.; demand good.

Export of apples for week, 5,424 bbls.

FLOUR.—Trade has suffered on account of the holidays and close approach to a new year, and, with full supplies, prices have favored buyers.

Latest sales are at $3.15@3.60 for very inferior to fancy superfine State; $3.60@3.90 for very poor to good extra do., odd lots and lines; $3.90@4.25 for good to very choice do., and fancy lots above this; $3.15@3.65 for inferior to fancy superfine Indiana, Iowa, Michigan, &c.; $3.50@3.90 for very inferior to good shipping extra do. and $3.90@4.25 for good to very choice extra do.; common to about choice white wheat extras, $4.00@5.00; choice to fancy do. at $5.00@5.75; red and amber winter wheat, very inferior to very choice trade and family $3.00@5.00 round hoop Ohio at $3.55@4.25, and trade and family brands of do. at $4.25@5.50, the latter rate for very choice; St. Louis, $4.00@4.75 for very poor to good extra, and $4.75@5.00 for good to choice; Minnesota clear, very inferior to fancy, at $3.50@5.00; few brands going above $4.50; Minnesota "straight," inferior to fancy at $4.40@5.45; and patent fair to strictly fancy at $5.25@8.25, few brands going above $7.50; unsound stock at from $2.00@4.75; city mill extra at $4.65@5.00 for West Indies (the latter rate for fancy in new packages); do. for England $3.70@3.85; do. trade and family extras, $5.10@6.00; do. for South America, $5.00@5.60 for fair to very choice; No. 2 at $2.30@2.90 for very inferior to strictly fancy.

CORN MEAL.—Is at $2.15@2.50 for yellow Western and $2.80@2.85 for Brandywine.

FURS AND SKINS.—Market fairly animated.

	Nor. & East. No. 1 quality.	West & N. W No. 1 quality.
Otter, ₱ piece	$4 00@5 00	$2 50@3 00
Gray Fox	90@1 15	90@1 15
Red Fox	1 00@1 30	90@1 20
Black Bear	5 00@6 00	4 00@5 00
Brown cubs and yigs	1 00@2 00	1 00@2 00
Fisher	5 00@7 00	4 00@6 00
Mink, dark	1 00@1 50	50@75
pale	50@60	30@40
Muskrat, winter	10@12	9@11
— fall	8@9	6@8
— Kitts	@2	@2
Beaver, ₱ ₶	1 00@1 25	80@1 00
Raccoon	50@60	35@50
Opossum	4@8	4@8
Skunk, black		1 00@1 15
striped		10@60
Wolf, mountain		1 50@2 00
prairie		50@60

Southern furs usually sell 15 to 20 per cent. below western.

GRAIN—Speculative manipulation forced prices of wheat up early in the week, more particularly in the figuring on certain grades of winter, to apply on contracts. At the close the market is easy, and sales as follows of ungraded amber at $1 03@1 03½; No. 2 amber at $1 05½@1 06½; ungraded red at $1 01@1 08; No. 3 red $1 03@1 04½; No. 2 red, at $1 10½@1 11; No. 1 red at $1 10½@1 11; extra white at $1 11@1 11½; white State at $1 09½@1 10: No. 1 white at $1 09½@1 10½; No. 2 white rt $1 06@1 07; ungraded white at $1 06@1 10; New York No. 2 spring, January option, at 96½@97c.; No. 2, amber, December option, at $1 06; do. January option, at $1 06¾; do., February option, at 1,07¾; No. 2 red, December option, at $1 10½@1 11; do. January option, at $1 10¾@1 10¾; do., February option, at $1 10½@1 11. Rye at 57@59c. for Western and 58@60c. for State. Corn is variable, closing firm and moderately active; sales of steamer mixed at 45½@46c.; New York No. 2 at 47@47½c.; New York No. 3 at 44@44½c.; ungraded mixed at 46@47½c.; New York No. 2 white at 48c.; yellow Southern at 46½@47c.; yellow Western at 47c.; round yellow at 50c., for a car lot; No. 2, December option, at 47½@47½c.; do. January option, at 47½c.; do. February option, at 46½c.; new No. 2, January option, at 46½c.; steamer mixed, December option, at 46c.; do. January option, at 45½c.; do. February option, at 45½c. Oats are slow and easy in price; sales of New York No. 1 at 31½c.; New York No. 2 at 30½c.; New York No. 2 white at 32½@33c.; New York No. 3 quoted at 29½@30c.; New York No. 3 white quoted at 31½@32c.; white Western at 31@34½c.; mixed do. at 29½@31c.; white State at 33@33c.; mixed do. at 31c.; No. 2 Chicago, afloat, at 31c.; New York extra white at 33@33c.; New York No. 1 white at 34@34½c.; No. 2 Milwaukee at 30½@31c.

Barley State, 6-rowed, 90c.@$1; do., 2-rowed, 75c.@80c.; Canadian, 95c@$1 25; malt, $1@1 25, the higher for Canadian.

HAY AND STRAW.—There is a good business and diminished receipts strengthen prices.

Sales at 35@40c. for shipping, and 65@75c. for retail qualities. Straw quoted at 35@45c. for long rye, and 25@30c. for short rye, and oat at 40@45c.

Exports since Jan. 1st, 61,429 bales; do., 1877, 50,600.

HONEY.—Popular prices have not brought out the expected holiday demand. Consumption would perhaps be larger if retailers would adopt rates more in keeping with their outlay. Fine comb has now an abundance that deprives it of its former standard of luxury. Clover comb, single, 11@13c., two do., 9@11c.; buckwheat, 7@9c.; strained, 6@10c.

HOPS.—Some fancy parcels are held above quotations. The exports for the week are 700 bales, and there is a good inquiry from shippers for choice lots.

Quotations are for New Yorks, new crop, choice, 12@15; New Yorks, new crop, good and prime, 8@10; New Yorks, new crop, low to fair, 5@7; Eastern, 8@12; Western, 8@12; Yearlings, 4@6; Olds, all growths, 2@3; Pacific coast, 12@15.

POULTRY AND GAME.—The week has been a showy one for dressed stock, especially for turkeys. The Christmas supply was elegant, and though prices were not high, they ran even owing to the uniform good quality. The near South sent some very attractive dry-picked this year, and there is room for repetitions. Geese seem to have lost their special Christmas call. A certain class of our foreign population used to form a valuable demand. Custom, however, has given place to economy, and the plump, tender turkey can be more readily placed at fair prices than bony or doubtful aged geese at cheap figures.

Live poultry has no settled place in trade. Dressed can now be depended on as a regular receipt, and the weather favors what has to be carried over. Chickens, 6@8c., lb.; fowls, 6@8c.; roosters, 4@4½c.; turkeys, 8@9c.; ducks, choice, pair, 65c.@$1; other, 50@60c.; N. J. geese, $1.75@$2; other, $1@$1.50; pigeons, 30@35c.

Dry picked turkeys, 12@13c.; prime scalded, 11@12c.; fair, 8@9c. Chickens and fowls, dry picked, 12@13c.; common to good, scalded, 7@9c. Very poor ducks, 5@6c.; choice, 11@12c.; other, 9@10c. Geese range, 6@10c.

This is the largest quail season ever known; prices are low but not low enough to keep a large portion of the receipts out of store. Grouse ahead of demand. Wild ducks quiet, but likely to be wanted. Quail, doz., 70@75c.; Grouse, trapped, pair, 75c.; drawn, 60@65c.; Partridges, State, 75@80c.; other, 50@60c.; canvas-back Ducks, Havre de Grace, $2.50@2.75 pair; Western, $2@2.25; red head, 75c.@$1.25; Mallard, 50c.; Teal, 35@40c.; common, 25@35c.; Hares, 30@40c.; Rabbits, 25@30c.; Venison, short saddles, 9@10c.; long do., 7@9c.; whole deer, 6@7c.

PROVISIONS.—Hog products have been steadily tending downward. Mess pork quoted $8.90 bid and $9 asked for old for December; $8.95 bid and $9 asked for old for January; $8.20 bid and $8.40 asked for new for January; $8.35 bid and $7 15 asked for old for February; $8.25 bid and $8.30 asked for new for February; $7 bid and $7.25 asked for old for March, and $8.30 for new for March. Bacon at $4 for long and short clear, half and half. Lard—Western steam at $5.70 for spot lots; $5.67½ for December and January; $5.72½ for February, and $5.77½@5 80 for March. Stearine at 6¾@6¾c. for prime. Beef hams at $14.50@14.75. Tallow at 6¾@6 11-16c. for prime. Beef—Extra India mess, $20.50@31 for city brands; do. Philadelphia, $18.00@12; packet at $11@11.50; plain mess at $10@10.50; extra mess at $10.50@11.50.

VEGETABLES.—Buyers have taken some advantage of good hauling weather and comparatively easy rates for potatoes, but the offering continues large. Other items steady with the advancing season.

Nova Scotia E. Rose, bulk, $2.37@2.75 ₱ bbl.; Prolific and Chili red, $2.25@2.50; P. E. I. Jackson whites, $2; Mercers, $1.75@2; Eastern E. Rose, with bbl., $2.25@2.37; State, $2.50; fair to good, $2@2.37; do. Peach Blow, choice, $2.50@3.75; common, $2@2.25; Peerless, choice, $2.37@2.50; poor to good, $2@2.25. Sweet potatoes, Del., $2@2.50; Onions steady. White, $1.50@2; red and yellow, $1.75; Chester, $1.25@1.62. Hubbard and marrow squash, $1.75@2. Cabbage, $1@5 per 100. Cauliflower, bbl., $1.50@3. R. Turnips, 75@87c. Beets, 75c. Carrots, 75c.@$1. Pumpkins, 100, 4@@10. Celery, 60@75c. doz. Extras; hot-house Radishes, $3 ₱ 100 bunches; Cucumbers, $1@3 doz.; Mushrooms, 40@50c. ₶.

Exports, potatoes, past week, 3,150 bbls.; onions, 225.

SEEDS.—Clover is selling slowly; quoted at 6¾@6¾c. for prime, to 7c. for choice. Timothy quiet at $1.25 for prime. Flaxseed is strong at $1.42½.

TOBACCO—is held firmly, and quotations essentially as last week, with a quiet feeling, as usual, at the close of a year.

SEEDLEAF—CROP OF 1877.

New England wrappers,	common	10	@12
do. do.	medium	13	@15
do. do.	fine	18½	@25
do. do.	selections	27½	@35
do. seconds		10	@13
do. fillers		7	@ 9
Pennsylvania assorted lots,	common	9½	@13½
do. do.	fair	11¾	@14½
do. do.	fine	15½	@18
do. wrappers		20	@40
do. fillers		7½	@ 8
New York assorted lots,	common to medium	8	@10
do. do.	do. good,	12	@15
do. do.		9	@12
Ohio assorted lots		12	@18
Ohio wrappers		7½	@10
Wisconsin assorted lots			

WOOL.—The market has not varied from last week, with a moderate degree of activity, X and XX Ohio fleeces have sold at 34@35; fine Ohio combing and deluine at 38@40: medium and coarse do. at 33@38.

LIVE STOCK MARKETS.

Saturday, Dec 28, 1878.

BEEVES.—Receipts for the week, 9,526 head do.; last week, 11,320 do. Light receipts have kept the market stiff; poor to choice western steers sold at the close at a range of 7¾@10½c., dress 55@57 lbs. Old cows and young heifers, 2.50@3 per 100; an exporter paid 8½@9¼c. for nearly 400 steers, to dress 56 lbs. Quality well graded, but not so many fancy tips reported for holiday use as usual. Poultry has had quite a run during the week, and butchers have not felt the want of full ordinary supplies. One lot of premium Ohio steers brought 11¾c., dress 58 lbs.

COWS AND CALVES—There is no quotable change in the style of cows now arriving, sales generally at $40@60 per head. An extra milker would bring $70 or 75, but, as before, such grades would have a home quotation which would not make N. Y. prices compensating.

VEAL CALVES.—Choice N. J., milk, 6½@7; fair to good including high weights, 5½@6c.; State range good to best, 6@7c.; fed calves, 4@5c.; grass, 2½@3c. Hay dressed calves steady, with favorable weather.

SHEEP AND LAMBS.—Receipts for the week, 13,115 head; do. last week, 22,716 do. Trade has ruled rather quiet and prices are something easier; market, however, closes firm. Extra sheep, 5½c.; common to fair, 4@5c., the lower for ewes. Lambs, 5@6c.

SWINE.—Receipts for the week, 10,940 head; do., last week, 43,900 do. Market firm with fairly free sales at $3.25@3.30 including good Ohio corn.

Dressed hogs, N. J. light, 4¾c.; medium, 4¼@4½c.; heavy, 3¾c.; top for State, 4½c.; city, 3¾@4¼c.

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Genuine *versus* Spurious Electric Belts. Particulars free. Address PULVERMACHER GALVANIC Co., Cincinnati, O.

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UNSURPASSED FOR MAKING
LIGHT BREAD,
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It is Better and Healthier than ordinary Baking Powder, Cream Tartar or Yeast.

The cost of raising Bread, Biscuit, &c., with it is only about half as much as by ordinary Baking Powder, and the result is much better.

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If you cannot get it of your Grocer send a three-cent stamp to the manufacturers for a sample.
Manufactured according to the directions of Prof. E. N. Horsford, by the Rumford Chemical Works, Providence, R. I.

A GREAT OFFER FOR
HOLIDAYS!!!
We will during the HOLIDAYS *dispose of* 100 PIANOS & ORGANS, at EXTRAORDINARY LOW prices for cash. SPLENDID ORGANS 2 3-5 sets of reeds $65, 3 sets with Sub Bass and Coupler $80, 2 sets $50, 1 set $40, 1 set $35. 7 Octave *all* ROSEWOOD PIANOS $130, 7 1-3 do $140, warranted for SIX years. AGENTS WANTED. Illustrated Catalogues Mailed. Music at half price, HORACE WATERS & SONS, Manufrs. and Dealers, 40 E. 14th, St., N.Y.

USE THE PERFECT BUTTER COLOR! WELLS, RICHARDSON & CO.'S PERFECTED BUTTER COLOR is recommended by the agricultural press, and used by thousands of the very best Dairymen. It gives a perfect June color, and is harmless as salt. A 25-cent bottle colors 300 pounds, and adds 5 cents per pound to its value. Ask your Druggist or Merchant for it, or send for descriptive circulars. WELLS, RICHARDSON & CO., Prop'rs, Burlington, Vt.

My Annual Catalogue of Vegetable and Flower Seed for 1879, rich in engravings, from original photographs, will be sent FREE, to all who apply. Customers of last season need not write for it. I offer one of the largest collections of vegetable seed ever sent out by any seed house in America, a large portion of which were grown on my six seed farms. *Printed directions for cultivation on each package.* All seed *warranted to be both fresh and true to name*; so far, that should it prove otherwise, I *will refill the order gratis.* The original introducer of the Hubbard Squash, Phinney's Melon, Marblehead Cabbages, Mexican Corn, and scores of other vegetables. I invite the patronage of *all who are anxious o have their seed direct from the grower: fresh, true, and of the very best strain.*
NEW VEGETABLES A SPECIALTY.
JAMES J. H. GREGORY, Marblehead, Mass.

Reading for the Young.

SAVED.

THE wind is spent and the gale is past,
And the morning sun shines forth at last;
It shines on a strip of yellow sand,
And a good ship sluking in sight of land.

Over her deck and her battered side
Lazily washes the ebbing tide;
Out of the struggle and deadly strife
Lo! nothing saved but a baby life.

A wee frail thing is the one poor waif
A wee frail thing to be sound and safe;
But all forgotten its brief alarms
It gaily crows in the stranger arms.

A sailor looked at the little form—
"'Tis a tiny craft to have stemmed the storm!"
He sighs a bit as he bends him low,
And his thoughts fly back to the long ago.

Just such a babe on his young wife's breast
With clinging fingers his own caressed;
Just such another—but where is he?
Wrecked on the voyage of life, may be.

Is this but spared that in years to come
It may drift away from its heavenly home?
The baby laughs as his boy once did;
Ah, will it be so? Nay, God forbid!

The sailor's hand has a gentle touch
For the sake of the lad he loved so much;
And soft from his lips are the words that fall
"God bless the children—God keep them all!"

[Sunday at Home.

TEN QUESTIONS.

UNCLE TRUE.

My young relatives must have increased apace recently; and as the new comers have not done me the honor to write and explain that henceforth they consider me in the light of a dearly-beloved Uncle, I have concluded to break through my usual reserve and make the first advances. Among princes and potentates it is customary, when they venture abroad to make new acquaintances, to cement friendships with gifts. We all know how the Queen of Sheba overwhelmed Solomon with rich presents. Being Americans, we are, of course, all potentates, hence in making the acquaintance of my new nelces and nephews, I shall not present myself before them empty-handed. But then how am I to know that you are worthy of claiming relationship? I want none but clever and studious nelces and nephews. To ascertain if you can be catalogued under those heads, and moreover, to judge what progress my whole family has made in the school-room, I shall propose

TEN QUESTIONS,

and the one who answers the greatest number shall have my first gift, a book of humorous selections, called the "Rise and Fall of the Moustache," written by Mr. Burdette, the "Hawkeye" funny-man; and the second gift, a book of poems, shall be awarded to any one answering the second largest number of questions. The awards will be announced in the RURAL of January 18, with the names of the winners. Here are the questions:

1. Who wrote

Blow, bugle, blow, set the wild echoes flying,
Blow, bugle; answer, echoes, dying, dying, dying.

2. From what is the word Zoology derived?

3. How many square feet are there in an acre?

4. Who said

There is a pleasure in the pathless woods?

5. From what circumstance did the Roman, Brutus, derive his name.

6. Where did Jason go to get the Golden Fleece?

7. Name the Plagues of Egypt.

8. Who was the originator of the South-Sea Bubble?

9. What is the weight of the earth?

10. From what were the first plows made, and what their shape?

THE CHICKADEE.

AUGUSTUS FOWLER.

THE Chickadee (Paris atricapillus) is a common resident, familiar alike in the woods and the dwellings of man. He fears not the storms of winter nor the heats of summer. Cautious yet bold, cunning though seemingly simple, he averts all suspicion of the whereabouts of his nesting-place, and, when discovered, scolds the intruder. Ever on the alert, the hawk cannot make him his prey, nor the smooth gliding snake surprise him in his nest. In times of incubation when danger approaches, the male, before unseen, sallies forth and instantly appears before the intruder, hopping from branch to branch, keeping but a short distance from him, and remaining silent until he fears their retreat may discovered, then he sounds the alarm. At the the female peeps out of her abode, and quick-dodges back to await the issue. If their nesting-is not seen, or the male has artfully drawn the person away, the pleasing notes, Phe-be, Phe-be are heard; but if the nest is disturbed, and the female routed, they are clamorous in reiterating the notes, Pe-dee-dee-dee. If their nest is destroyed, they linger about a day or two, then go in quest of another suitable place to build again, such as a rotten stump or decayed upright branch of a tree or post, which is easily perforated, and dig a hole in it to the depth of six to nine inches, with a diameter usually of two and a quarter inches.

They are often many days in preparing their tenement. Their labors are commenced in the morning of each day, both male and female working, and they work until about the middle of the forenoon, when they stop, and are seldom seen about the premises until the next morning. It seems as though the task before them would depress their spirits and discourage them in their undertaking, but energy and perseverance will accomplish much: bit by bit of rotten wood is taken out of the hole and carried by each bird ten or fifteen feet from the tree and dropped on the ground. There is no delay in their work except what arises from the difficulty of detaching the particles of wood from the sides or bottom of the cavity; for each bird, after dropping its light load, flies back to near the entrance and waits for the other to appear, when it enters the branch instantly. When the hollow is finished the bottom is concave, as usual in birds' nests.

There is usually in the vicinity of the nest a hollow tree, or cavity made on purpose for the male to roost in during the time of breeding; such retreats are also occupied by them in severe stormy weather in winter, in which they sometimes remain three or four days in succession. They make their nests of different materials; sometimes it is entirely of cow's hair, at others entirely of wool; usually it is composed of various materials, such as those named, together with fine grass, the fine dried roots of the willow, etc., and lined with some soft material. Its inside diameter is one and three-fourths inches; its depth one and one-fourth inches. The eggs, which are commonly eight in number, measure in length nine-sixteenths of an inch, and in breadth eight-sixteenths of an inch. They are marked with reddish-brown specks over the entire egg, more thickly at the larger end; sometimes, however, the spots are thicker on the smaller end of some of the eggs of the same brood. They raise two broods in a season. The Chickadee, when compelled from necessity to take up his abode in a cavity not made by himself, selects one with an entrance not much larger than his body, so that he is not so liable to become the prey of the Mottled-owl, as are the Golden-winged Woodpeckers and Blue-birds.

There are no species of birds that suffer so much from the depredations of the Owl as the Golden-winged Woodpeckers. The deadliest foe to the Chickadee is the Great American Shrike, or Butcher-bird. Seated upon some prominent object the Shrike watches the movement of the little troop as they are busily engaged seeking their food in a variety of positions, unconscious of the sure death that awaits one of their number. While listening to the squeaking notes of the Brown Creeper which usually attends them, or the shrill clarion voice of Downy Woodpecker, you hear a noise like a falling stone through the branches of a tree; it is the Shrike: he has struck his victim, and if he does not devour it upon the spot, it is hung on the crotch of a branch to serve as a meal at some future time.

HOME-MADE DOLLS' HOUSE.

As many of our young readers are not in a position to expend any very large amount for toys, the following suggestions, which we gather from the Philadelphia Times, may be of service, and help to make the long winter evenings pass pleasantly:

A large packing case, divided into four compartments by two shelves placed crossways inside, makes an excellent doll's house. Any carpenter would fix these shelves and put on a door in front at a very small charge. The four compartments make a dining-room, drawing-room, kitchen and bed-room. The ceilings should be covered with white glazed calico, pasted on; this makes a good imitation of whitewash. Pale yellow calico pasted on the kitchen walls answers for the usual "distempering" of a real kitchen; this is less troublesome than painting or applying real whitewash, and looks quite as well. The calico must be strained as tightly as possible. The walls of the other rooms should be covered with paper. Carpets can be made out of pieces of velvet, or, better still, worked on canvas in a small pattern suitable to the room. This is a capital piece of easy work for a little girl. One great advantage in the doll's house as a toy is that, like a doll, it induces children to practice needlework. Real carpet is too thick for the doll's rooms, but drugget does not look amiss. Small pictures, cut out of papers or taken off bonbons, look well on the walls if surrounded by a narrow strip of gilt paper to imitate a frame.

Much of the furniture can be made at home. Beds are easily manufactured. Take an old note-paper or spool box, and place the lid upright against one end, the box being turned bottom upwards. This forms a bed, with a back and tester. Sew the lid firmly in its place, and paste pink glazed calico within and without, also along the sides; then cover with white muslin edged with lace, arranged like the curtains, draperies and valance of a real bed. A mattrass, stuffed with any scraps of wool or wadding, sheets, blankets (of flannel), counterpane and pillows can now be added. Silk patchwork is effective for the counterpane, or one can be knitted in fine wool on steel pins, in stripes of red and white. Lace over silk is very pretty for a counterpane.

Here, again, is an opportunity for the juvenile furnishers to exercise a little neat needlework.

A capital wardrobe can be made of another such box, without the lid. It should be lined inside with pink or white glazed calico, and covered outside with paper. Imitation oak panelling looks best. Stand this on one end, put a row of bent pins at the back, inside, for the dolls to hang their dresses on, and close the entrance by a curtain of some soft material (crimson llama or merino does well).

The curtain should be made to draw to and fro; this is easily managed by running a wire through a row of loops at the back of the curtain, and then fixing it across the door. If made in a soft material (silk is too harsh), it will draw easily.

Tables and chairs can be made in cardboard, but they are hardly durable enough to be suitable for the doll's house. If the family contains a brother with any taste for carpentry, he had better be applied to. Tables and chairs are easily made, even by amateur carpenters. If done neatly, it will be sufficient to paint the legs and backs to imitate whatever wood is desired—varnishing is a sticky and smelly operation, and hardly one to be recommended to young folks who have any regard for their own frocks or their parents' carpets.

Extremely pretty chairs can be made by covering the wood with strong gum, and then laying cut straw regularly side by side upon it till the chair is covered. Sofas without arm can be made out of an empty hook-and-eye box; turn the box bottom upward to form the seat, sew a piece of card against one side to form the back, and cover the back and seat first with a thin layer of wadding, then with silk, velvet or chintz.

A doll's house, such as described, is a toy in which all the children can take an interest, even the boys being useful in making it. Where such a toy is known to exist, friends and relatives who wish to make presents to the little ones generally let their gifts take the shape of some addition to the doll's house, which often grows surprisingly rich in the course of years. Glass and crockery, which cannot be made at home like the furniture, are frequently supplied in this manner. I omitted to mention a wash-stand among the bed-room furniture; a table does well for this, the top covered with a thin white oilcloth or marble paper. A toilet table should be covered with pink calico and draped white muslin, to match the bed.

Ingenious children will invent many other additions to the furniture—the doll's house is a capital holiday occupation. Of course it may be said that toy furniture is to be bought so cheaply that it is hardly worth the trouble of manufacturing at home; but the object of this paper is rather to find occupation for restless little fingers than to give instructions how to make articles which shall eclipse the gorgeous doll's furniture at any first-class toy shop. Doubtless prettier tables and chairs can be be bought, but the handmade ones gives amusement for many a wet afternoon, and their manufacture fills up many an idle hour.

THE great French novelist, Victor Hugo, tells this story about his own childhood—his father, be it remembered, was one of Napoleon's generals: "When I was five or six years old I was crying. My father who heard me, did not reproved, me but this is the way he punished me, 'Why, the poor, dear little girl,' he said in a cool, ironical manner, 'what's the matter with her? Who has been making her cry? She shan't be found fault with; it's right for little girls to cry. But how's this? What have you been dressing her in boys' clothes for? Make her a pretty frock at once; and to-morrow she shall go and take a walk in the garden of the Tuileries."

LETTERS FROM BOYS AND GIRLS.

From Lilly Lee.

DEAR UNCLE TRUE:—I see that some of the dear Cousins are alive yet. I was very glad to see their names in your columns. I expect they were very busy in getting ready for Christmas. There is lots of fun at Christmas. I like to fix up the rooms, trim them with wreaths and ferns, and make them look so bright and pleasant; and it is very nice to make pretty gifts for our dear friends; as I expect they enjoy their presents just as much as I do those I receive. It is pleasant, not only at Christmas, but always afterward, to look at them, and think of the dear friends that gave them. I remember the first time I hung up my stocking for Santa Claus to fill. Can any of you remember your first time? My stocking was red and white; and I went to bed early and listened so long to hear the reindeers come clattering down the chimney. As soon as it was light, I scrambled out of the trundle-bed, and ran for my stocking. It was stuffed full! That was a Merry Christmas for me; and mother went to put on her boot, and there was something in the toe. She took off the boot, shook it, and out came a live mouse! Oh, how I jumped and laughed; but I thought it was rather shabby in Santa Claus to give me so much and treat my mother so ill. Well, that seems a good while ago, and I have lost faith in Santa Claus, because some one told me he was a humbug. But he was a very pleasant cheat. I wish the girl cousins would tell me, in Uncle True's paper, what they received for presents, and how they made those they bestowed upon others. It would be so nice to learn something new.

LILLY LEE.

Our Cobbler.

ON a farm near our place there is a fine white gobbler, whose business heretofore was mainly to gobble, strut, admire himself, and take charge of the young turks when hatched. The season being cold and disagreeable for young turkeys all departed this life but one, and this one the afore-mentioned gobbler took charge of. But one night the little turk came home alone with his old mother, and the old gobbler was reported missing. Nor was the mystery unravelled for several days. One evening some one thought he saw him walking in the field with the hen; but instead of coming home to roost he disappeared. Search was made, and finally he was found under the hedge undergoing the hardships of hatching a nest of eggs! He has proven himself, not only useful as well as ornamental, but carries off the palm for gobblers.

YOUNG TURK.

Her Favorite Cousin.

DEAR RURAL COUSINS AND UNCLE TRUE:—My papa has taken your interesting paper for some years. We are all very much pleased with it, indeed I do not know what we could do without it. Can anything be done to revive the hearts of our gentlemen cousins. I feel very sad about them. The girls have chased them out of our sociable circle almost altogether I should judge. The boys pretend to be very brave, but when the girls rise up against them, and with the aid of the pen make them acquainted with the fact, they beat a hasty retreat. Poor, cowardly fellows, my heart aches for them! Slayer-of-conceit where are you? I wish you to know that you are my favorite cousin. Perhaps you will again venture to write when you find you have a friend among the girls; for with sorrow I confess that I belong to the conceited fair sex.

"RURAL LOVER."

Sabbath Reading.

THE SOWERS.

"All Seed is in the Sower's Hands."—Rosetti.

TEN thousand sowers through the land
Passed heedless on their way;
Ten thousand seeds in every hand,
Of every sort had they.
They cast seed here, they cast seed there,
They cast seed everywhere.

The land a forest straightway grew,
With plants of every kind;
And kindly fruits, and poisonous, too,
In that world could you find.
For trees grew here, and trees grew there,
And trees grew everywhere.

Anon, as many a year went by,
Those sowers came once more;
And wandered 'neath the leaf-hid sky,
And wondered at the store.
For fruit hung here, and fruit hung there,
And fruit hung everywhere.

Then plucked they many a berry bright,
None could their right deny;
And some ate to their long delight,
And some ate, but to die.
While some plucked here, and some plucked there,
And some plucked everywhere.

Nor knew they in that tangled wood
The trees that were their own;
Yet as they plucked as each one should,
Each plucked what he had sown,
So men do here, so men do there,
So do men everywhere.

CALL ON YOUR PASTOR.

VERY many parishoners make a sad mistake by neglecting to call on their pastor and his family. They think, perhaps, all belongs to him and his wife to make all the calls. But such is a grave mistake and should be corrected. Judgment, it is true, should be exercised in this matter. Lengthy calls should be avoided, and calls on Saturday not often made unless on special business.

But there are times when calls by parishoners would be highly appreciated by a pastor and his wife. Try it, brother and sister. Perhaps you have not called upon your pastor for six weeks; it may be six months. It may be a whole year, and so you do not know how they appear at home in their own family. And neither do you know how he and his family fare in temporal things. You wonder, perhaps, why Mrs. A why, the minister's wife, don't go to church of late; why she is not a teacher in the Sunday school; why not to the circle and other places of entertainment. Yes, why?

Go immediately, and learn why. If she is too modest to tell you the reason why, then gently inquire something about her apparel, and perhaps you'll be led into the secret of her absence. Be careful that she does not disguise the fact that she is very needy, with no means to relieve her necessities. Call on your pastor and family and cheer them by alms-deeds, and show that you appreciate his labors, and esteem him highly for his works' sake.

A short call on your minister and a few words of cheer in commendation of his sermon the past Sabbath may lift a heavy burden from his aching heart. For often his sermons to him seem very poor, and not in time nor place, when, perhaps, it was just the meat which fed you. Don't be afraid of puffing him up by speaking in a proper manner of his efforts to feed the hungry souls. If you were fed by the truth presented, tell him so, and speak of it in the prayer-meeting.

If you would call on your pastor and family, it would be reciprocated. You would see him more frequently at your home, and there would be stronger attachments created, and there would be a better understanding between pastor and people, and a strong bond of love and union fell.—Morning Star.

FEAR OF HUMAN JUDGMENT.

I AM just going to do something which I have clearly made up my mind to do, and some friend passing by catches sight of me, standing with the tools all in my hands, and on a mere momentary impulse he cries out, "What a fool you are to do that!" and so passes on and has forgotten me and my plan in a moment. And yet it is just that sort of taunt, or the fear of it, which has blighted many a sweet and healthful impulse in the bud. It is good for us often to know how superficial, how lightly made, how soon forgotten, are the judgments of our brethren which sound so solemn, and which tyrannize over us so. Such a feeling sets us free, and makes us independent. Be sure that you may feel that about any cruel criticism that is hampering you, and may cast it aside, and forget it, and go your way. The man who made it has probably forgotten it long ago.—Phillips Brooks.

PERSONAL CHARACTER OF JESUS.

IF we attempt to discover what it is in the personal character of Jesus Christ, as shown in His life, that thus attracts such permanent admiration, it is not difficult to do so. In an age when the ideal of the religious life was realized in the Baptist's withdrawing from men, and burying himself in the ascetic solitudes of the deserts, Christ came, bringing religion into the haunts and homes and every-day life of men. For the mortifications of the hermit, He substituted the labors of active benevolence; for the fears and gloom that shrank from men, He brought the light of cheerful piety, which made every act of daily life religious. GEIKIE.

CHRISTIAN, though the cup is bitter, yet it is put into your hand by your Father; though the cross is heavy, yet he that has laid it on your shoulders will bear the heaviest end of it himself; and why then should you murmur?

PERSONAL ITEMS.

Mrs. McNulty of Montreal, gave birth the other day to triplets—two boys and a girl. She named them Lorne, Louise, and Victor.

The King of Bavaria is erecting at Herren-Chiemsee a royal chateau, on the plan of that of Versailles. The building is to be spread over fifteen years, and the estimated cost is $9,000,000.

Lord Dufferin has declined a marquisate tendered to him, and will instead be promoted from his Knight Commandership of the Bath to the dignity of Knight Grand Cross of the same order.

Mr. Gladstone has a daughter who is familiar with the place of every work in his library and the run of its contents. When he desires a reference, she instantly fetches the book needed, and points to the passage required.

"Dawson, I should like to get a retriever," said the Duke of St. Albans to the great London trainer of race-horses, at the close of the racing season. "If I come across a good dog I will inform your Grace," replied Dawson. "I don't want a dog." exclaimed the Duke; "a horse is what I am after, to retrieve my losses on the turf."

One of the most astonished boys of the period lives in Rondout, and may be known as B. J. R. Smith. He had heard that powder would burn, and wishing to make the fire blaze, he poured the contents of his father's powder horn upon the coals. He will not kindle any more fires this winter, for the flowers will come again before he recovers.

Capt. Buchanan of Winston, N. C., disliked his daughter's suitor, Jerry Sheldon, and forbade him to come to the house. Jerry went, however, and immediately found himself in the old man's grasp. After a brief combat, Jerry threw the Captain down and held him there. The Captain called his servant girl and told her to get a gun. She obeyed. Then he ordered her to shoot Jerry. Again she obeyed, and Jerry was killed.

There has long been a mystery thrown around the early antecedents of Miss Mary Anne Evans, better known by her pseudonym of "George Eliot." It now appears from a sketch headed "Our Native Land," that she is the daughter of the late Mr. Robert Evans, bailiff to Lord Howe and to Sir Roger Newdegate, at Cotow, near Nuneaton, Warwickshire, and sister to Mr. Isaac P. Evans, who now holds the same position.

Proof that Abraham Lincoln was in 1858, a railroad deadhead, exists in the following letter written by him, on file in the Chicago and Alton Company's office: "Says Sam to John, 'Here's your old rotten wheelbarrow. I've broken it usin' on it. I wish you would take it and mend it, 'case I shall want to borrow it this afternoon." Acting on this as a precedent, here's your old 'chalked hat.' I wish you would take it and send me a new one." What Lincoln wanted was a renewal of his annual pass.

The great historical painter of the Revolution and the First Empire, David, once publicly exhibited a picture of large dimensions, one of the principal figures in which was an unbridled horse. With the pardonable vanity of an artist, he mingled with the crowd gathered before the painting. The spectators, with one exception, expressed unbounded admiration. The exception was a hackney coachman, who exclaimed disdainfully: "A precious painter, this David, to pretend to paint horses! Why, he's got one of his jaws all over foam, and no'er a bit between his teeth!"

In view of the fact that our Canadian friends are about to be blessed with a vicarious sort of Royal Court, it may be of interest to know that a new species of scandal has turned up in England. A lady of rank in London undertook to pay a tradesman's bill by presenting his wife at court, an honor of which she was most ambitious, but which etiquette forbids to the wife or daughter of a shopkeeper, however wealthy, refined, or well connected. At the last moment the Chamberlain found out who she was and refused to receive her. The lady says she performed her part of the condition. The tradesman has sued for his bill.

Miscellaneous.

FARMERS' MAP 19x25. Gives number of farm animals in each State. *Free to all.* Address H. W. HILL & CO., Decatur, Ill.

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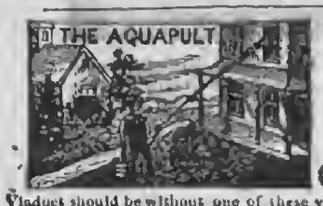

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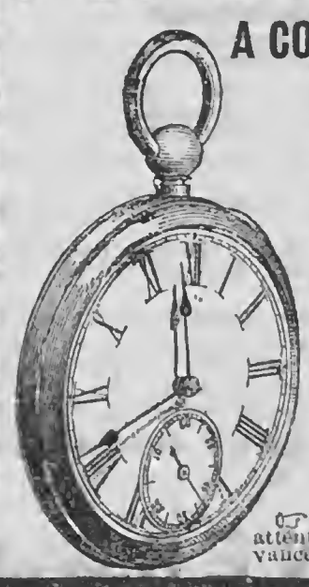

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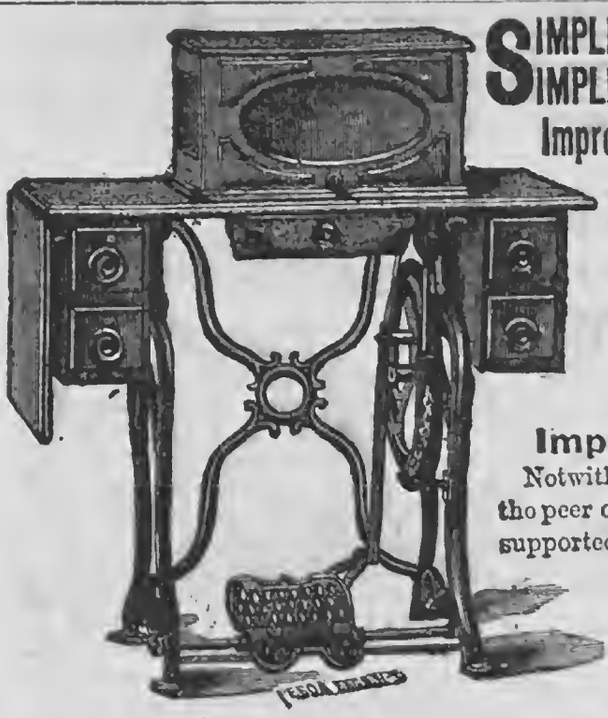

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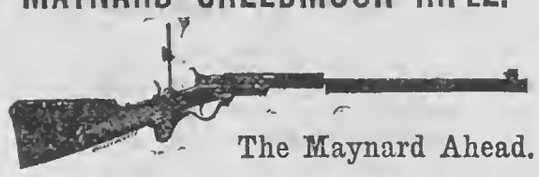

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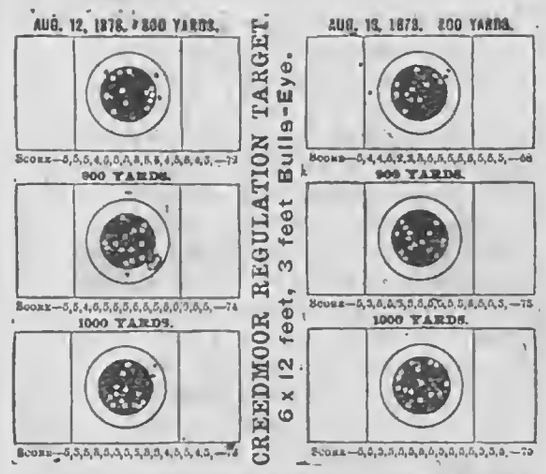

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BROTHER GARDNER'S LIME-KILN CLUB.

"GEN'LEM, if you see a pusson rushin' 'roun' de world enveloped in a dimund pin an' an ulster, am dat any sign dat he pays taxes, rents a church pew an' brings his chil'en up in de way dey should go?"

Brother Gardner looked down upon the sixty-four faces in the orchestra chairs, but not a voice responded.

"When you see a pusson seated in a sky-blue cutter, pushin' de lines over a fast hoss an' lookin' outer his left eye as if he had de bulge on all de co'ner lots in town, am dat any sign dat a single grocer would trus' him for a box of sa'dines or a peek of carrots?"

The elder Toots heaved a deep sigh; and Huckleberry Jones silently scratched his off leg just below the knee.

"When a man takes up fo' seats in de kyar, pushes folks 'aroun' on de market, elbows aroun' de city hall, an' gits de fust place at de stamp-window in de post office, am dat any sign dat when it came to de pull he'd give half-a-dollar's worth of wood ter keep an orfun asylum from freezin' to death? Doan' you black folks git dust in yer eyes! Dar's a heap of sand an' sawdust in dis worild dat passes for sugar to de man walkin' by, but when you come to de pinch de sugar aint dar. De sawdust bulges up an' de sand creeps out, an' you am dis'pinted an' disgusted. It's kinder hard to have to eat cold turnip when you know dat de family next door am luxuriatin' on sweet-cake an' turkey, but if de turnip am paid for yer needn't fear for yer digestion. I expeck dat de h'arafter am de biggest fing enny of us hev got to work fur, an' I tole you, brudders, dat big seal-rings an' pants cut twenty-two inches across de kull are nowhar' longside of a kin' word an' an honest heart."—*Detroit Free Press.*

SOMEBODY writes to a rural paper to ask "how long cows should be milked." Why, the same as short cows, to be sure.

WHAT is the difference between the weather and the baby? One never rains but it pours, and the other never pains but it roars.

A WESTERN editor, in response to a subscriber who grumbles that his paper is intolerably damp, says it is "because there is so much due on it."

CINCINNATI calls herself the Boston of the West. Our sympathies are solemnly tendered the Eastern Boston in this her hour of gloom.—*Louisville Courier-Journal.*

EDISON'S phonograph can whistle, sing, howl and jaw, but it can't throw a stone at a yowling cat on the back fence, or kick a chromo off the front stoop. There are still lots of room for improvement.

"JANE, what letter in the alphabet do you like best?" "Well, I don't like to say, Mr. Snobbs." "Pooh, nonsense! tell right out. Jane—which do you like best?" "Well," dropping her eyes, "I like 'U' best."

A MILLIONAIRE, who was looking at a level tract of land which he had just bought at an extravagant price, said to the agent who had sold it to him, "I do admire a rich green flat." "So do I," significantly replied the agent.

A LITTLE six-year-old, upon finding a lone and solitary stick of candy in his stocking on Christmas morning, mournfully exclaimed, "Gracious! if I had been born twins, I'd only got half this much!"—*Norristown Herald.*

YESTERDAY an Eighteenth Ward young man asked his landlady what kind of a bed the new one in his room was. "A spring bed," she replied. The youth felt the crop of December wheat under his chin as he said, "Well, I wish you would put more clothing on that bed and make it a winter instead of a spring one."—*New York Star.*

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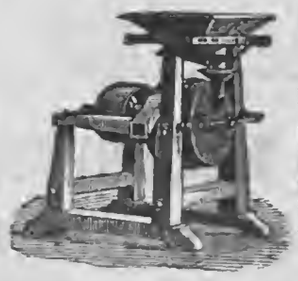

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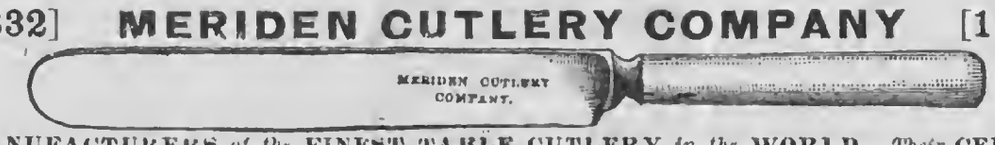

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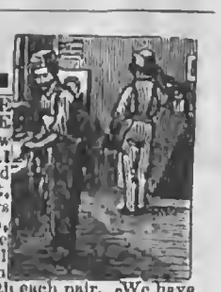

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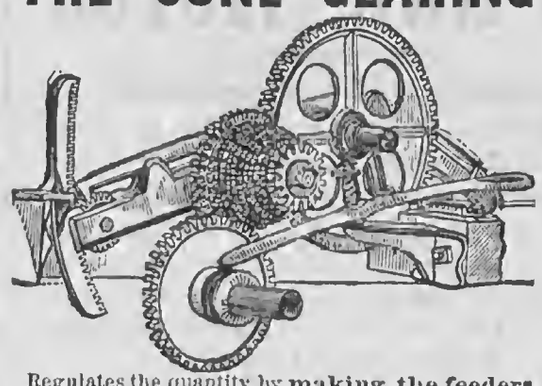

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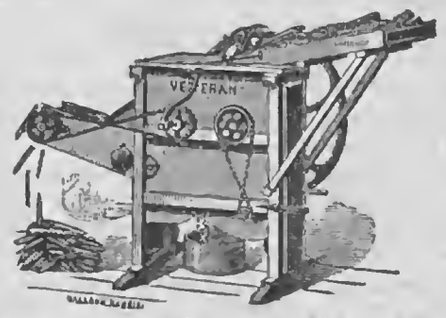

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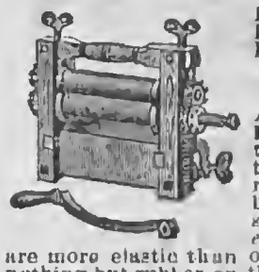

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THE RURAL NEW-YORKER

A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME

VOL. XXXVIII. No. 2.
WHOLE No. 1511.

NEW YORK CITY, JAN. 11, 1879.

PRICE FIVE CENTS.
$2.00 PER YEAR.

[Entered according to Act of Congress, in the year 1878, by the Rural Publishing Company, in the office of the Librarian of Congress at Washington.]

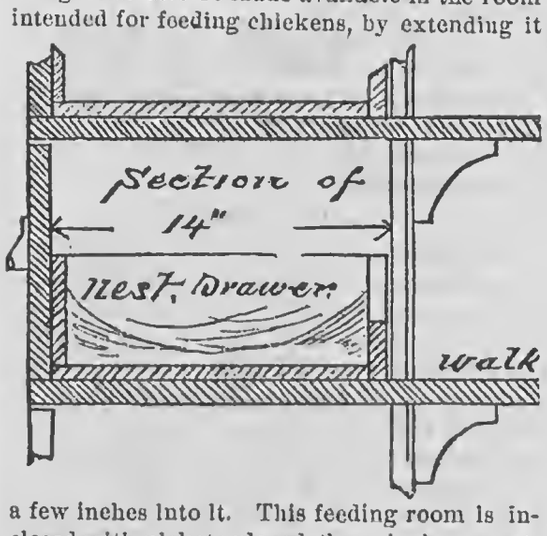
Rural Architecture.

DESIGN FOR A HENNERY.

PALLISER, PALLISER & CO., ARCHITECTS, BRIDGEPORT, CONN.

THE accompanying design fully illustrates a hennery 16 by 20 feet, arranged in two sections, so that two kinds of fowls can be kept in it and be entirely separate. The building is large enough to accommodate about 75 fowls; the nest boxes are so arranged that they can be drawn out into the passage for the purpose of getting the eggs, and when not needed in laying time, can be put in the reverse way and shut off the inside. This can be done if they are used for sitting hens.

The feed bins are so arranged that they are filled at the top from the small loft floored over the hall, fattening and setting room. This loft would, no doubt, be found useful for storage purposes generally. The feed bins being filled from the top, let their contents out into small troughs in the hennery, thus working automatically and taking care of themselves as long as the feed in them lasts, while the food is kept clean, as the troughs are raised above the floor, while a perch is placed in front of them for the fowls to sit on while feeding. The water trough is arranged in like manner, and has a partition over the center dividing it into halves. A running stream could be arranged which would insure pure and wholesome water at all times, a convenience which would contribute materially to success in keeping the fowls housed and fed in the building. This trough can also be made available in the room intended for feeding chickens, by extending it

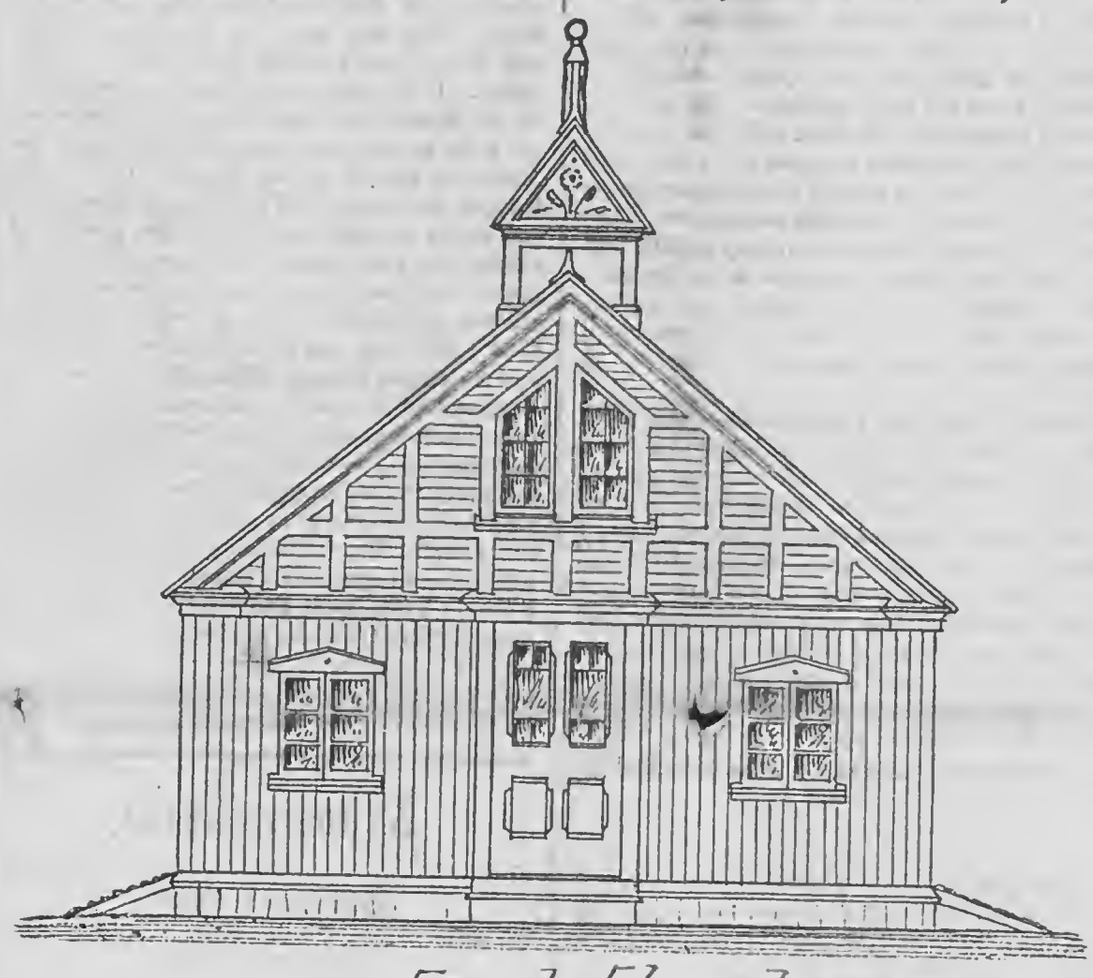


a few inches into it. This feeding room is inclosed with pickets placed three inches apart, and covered by the sloping boarding over the nest boxes and under the perches, as shown in cross section and at dotted lines on plan, p. 23.

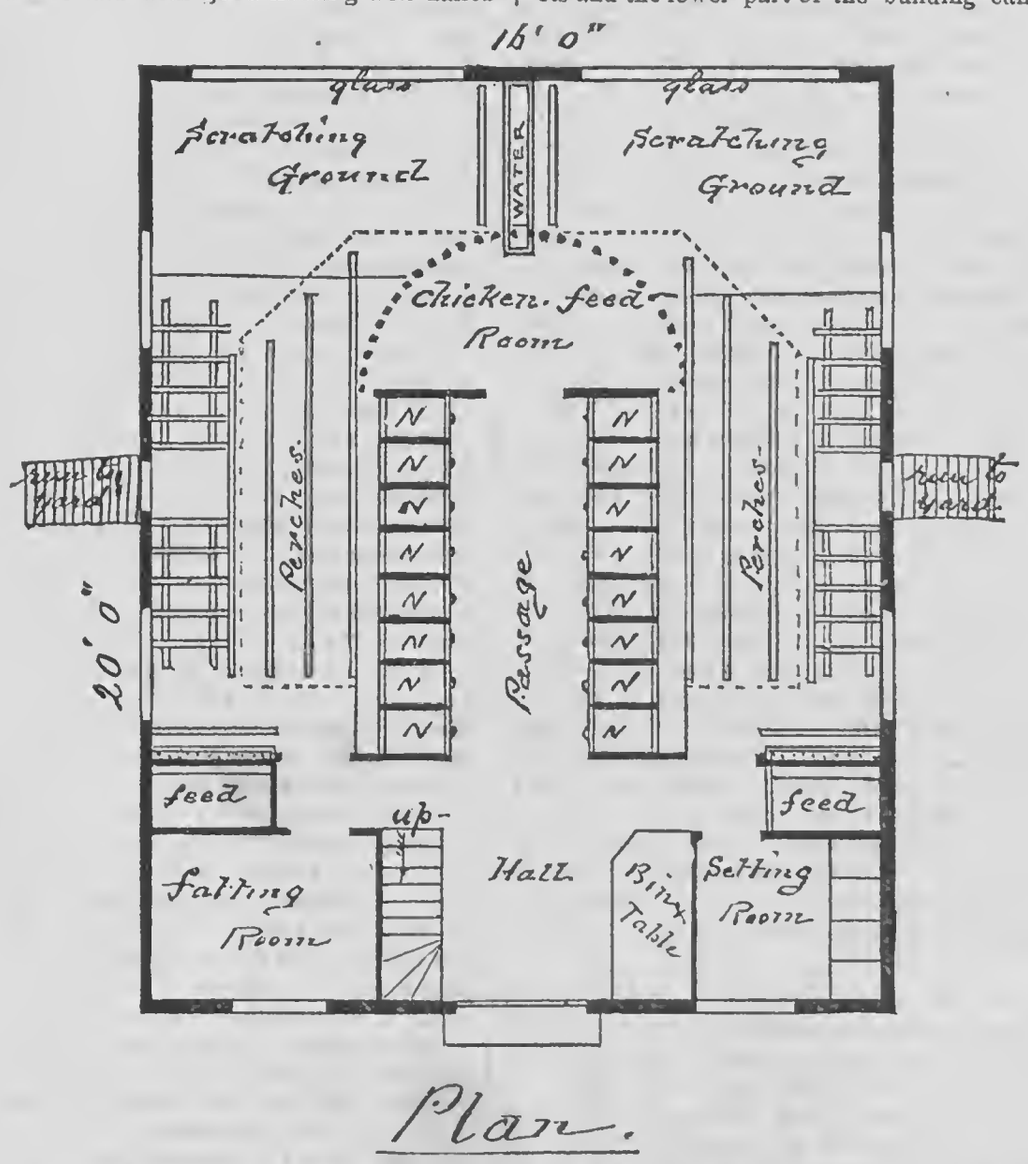
The frame-work of the perches is hinged at the top and arranged with hooks so as to raise and hang them up to facilitate the cleaning of the boards underneath. There are runs up to small platforms which extend from the doors leading to the yards to the first or lower perches. These runs are placed both ways, starting from scratching ground and feed trough. The small doors to the yards should be arranged to slide, and have cords attached to them so as to be opened and shut from the hall at pleasure.

The side walls of this building are 6 feet 6 inches high, and should be sheathed on both sides up to plate level, with narrow matched boards placed vertically, having a two-inch air-space between, which when filled with mineral wool, would render it rat, frost and vermin-proof, at a trifling expense. The roof should be shingled in the ordinary manner on slats. To regulate the draft, the ventilators should have shutters which can be operated by cords from the hall. The top shelf over nest drawers makes a handy and useful place for laying away many things when not in use, while the bin, as arranged to right of entrance, will be found useful both as a bin for meal and as a table when the lid is shut down. The windows should all be arranged to slide sideways into the walls, the outside of openings to be protected with heavy wire netting meshes about ½ or ¾ inch apart. Thus the sashes could all be pushed out of the way in summer time, which would make a very airy room, as the ventilation would be excellent. The scratching ground should have a good cement or brick-paved floor six inches below the other floor, and should be filled in with soil which can be removed and fresh substituted as often as desirable. The rest of the floor should be laid with good flooring well nailed down, and have a coat of tar and pitch about a quarter of an inch thick, on which a sprinkling of soil about one inch deep can be put. The pitch fills up all cracks, etc., and effectually closes any draft through the floor, and is a good preventive of vermin.

Such a building as this, if built in good shape, would cost but a very small amount, and would be a good investment as well as a source of joy and amusement to any lover of good poultry, and would fill up the spare moments which might be otherwise wasted. A yard on each side can be fenced in with pickets and the lower part of the building can be hid by bushes, trees and shrubs in the garden. The upper part would form a very nice and picturesque object in the landscape, which would be always pleasant to look at.



Front Elevation



Plan.

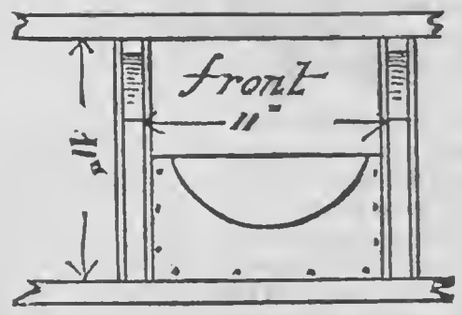
Farm Topics.

THE OUTLOOK FOR YOUNG FARMERS IN THE WEST.

PROFESSOR G. E. MORROW.

WHAT are the prospects for young farmers is a question in which, at the least, one million of persons in the United States have a very direct, personal interest. The welfare of all classes, and the continued prosperity of the nation very largely depend on what the future shall prove to be the correct answer; but for the enormously large number of young men and young women who are either already engaged in farming or are seriously thinking of adopting that as their business, no question possesses greater interest. It is not a matter of so much moment what are the prospects for the next year, or for the next five years—important as this is; but what is the outlook for a long series of years, for the quarter or third or half of a century these young people may hope to live and work, this is a question to which we may well give our closest attention.

No one of us is a prophet; we can only foretell the future by a study of the present and the past. The most casual observation shows the agriculture of the country, certainly of the West, to be in a depressed condition. Current discussion in public and private, shows that many farmers are discouraged and somewhat despondent as to the future—and there is reason for this. Prices for farm products of almost all kinds are very low; low in comparison with what they have been in past years, and low in comparison with those of articles to be bought by the farmers. Farm lands are low in price. Many of them cannot be sold for



nearly as much as they were purchased for during the recent inflation of prices. Many farmers have accumulated little or nothing for some years; but, instead, have found the money needed for interest and taxes more than equaling what they could make each year. In the aggregate a very large number of farmers in the West have been compelled to give up the farms on which they had lived for years and for which they had partly paid; and still others must look forward to this as the inevitable ending of their present struggle. Judging from the present alone, we should not predict a bright future.

If, throwing out of view the present and the more recent past, we look only to the general past of agriculture in this country, we would make a too favorable prediction for the future; for, to a degree we do not always realize, agriculture has been wonderfully prosperous in this country, with a comparatively few and these short, exceptional periods. I do not know when or where in all the world's history, there has been an equally rapid accumulation of property and of the accompaniments of civilization as that which has been going on in our Western States during the last third or quarter of a century. It is almost like a fairy tale—a land where almost anyone, given only health and industry, could begin with a mere pittance and at the end of a score or two of years, find himself the possessor of a comfortable competence. Yet this has been the experience of scores of thousands. Men have come from other countries to a soil and climate and a system of farming of which they knew almost nothing; where even the language of the coun-

try was unknown to them; men from the peasant classes, with little or no education from the schools, and little experience in business; yet with all these disadvantages, the very large majority of these men have not only lived, but have become comparatively rich; certainly rich compared with the position they could have hoped to have reached in their native lands. Thousands on thousands of farms purchased at $1.25 per acre, have grown to be worth $20 to $50 per acre, and in the interval have comfortably supported their owners. The streams of immigrants from other countries, and from older States of this country, have no other explanation so good as the fact that, in the general past, success has been the rule and failure the exception with the farmers of the West. An accumulation equally rapid I do not expect in the future, unless in comparatively limited regions.

So, then, the present is a present of hard times to farmers, and the past we cannot hope to be reproduced. Is, then, the outlook a dark one? I do not so see it, but confidently expect a steady, though not rapid improvement in the condition of the farming class of the West, and that, in any considerable series of years, agriculture will be found to give as good returns to those who intelligently and persistently give their attention to it, as will any of the great industries of the country.

This is not a mere blind assertion, but is one made for what seems to me sufficient reasons. And first, I give much weight to the broad proposition that, in the nature of things, a great industry, one absolutely essential to the human race, will not long remain in depression, in any free country well adapted to it. Farming is the basal industry of the world. We cannot conceive of circumstances in which it will not be necessary for a very large part of the race to be farmers. The West is well fitted for the production of the great agricultural staples. The conclusion seems a natural and inevitable one.

Again, it should be remembered that, bad as times are and have recently been for farmers, they have only shared these hard times with men in other callings, and that many other businesses have suffered more than has agriculture. Not only is it true that farmers are not the only men who have suffered, but it is also true that this is not the only country that has suffered. British farmers are to-day in a worse condition than are those of America. For all this depression there are causes, and it can hardly be that these causes are to continue to act with equal force. We can clearly see some of the causes which brought disaster to the business interests of this country. Many of these naturally followed the war. The road out of the mistakes that were made, along which the unavoidable losses of that period have had to be made up, has been a long and a hard one. Many have fallen on the way. But we are getting to the end. It is very hard for the many who have lost, or will yet lose, their homes; but with their places taken by men with more means and who will secure their farms at unusually low prices instead of unusually high prices, the country will be in a better condition.

Still, again, there is very much encouragement in the fact that, bad as times have been, there has not been a year, including this year, 1878, with its remarkably low prices, in which farmers who were out of debt have not made at least a small profit. Not all farmers have done this, but some have; and if this has been true during all this time of depression, it surely gives good promise for the future; unless we give up in despair and say that gloom and disaster and distress are to be the permanent condition of the country.

This is not the place for a discussion of national financial problems or policies; but whether the policy of the Government has been wise or unwise, it seems reasonably certain that the fluctuations in our currency are about at an end, and that in the future we can have a surer basis on which to make calculations. If this prove true, the owners of unemployed money will seek to invest it. I believe many of them will invest not only in farm lands, but in farming operations, and I can see no reason why investments in good farming lands in the West should not be almost absolutely safe and certain of giving a fair profit, at the prices at which they can now be bought. This investment of capital will bring relief in many ways.

In the past, Western farmers have, generally, looked mainly to the increase in the selling price of their lands as the source of profit. The inevitable tendency of the great tracts of low-priced lands in the West rapidly filling up and rising in price, has been to make farmers careless as to their farm work. Especially in the older portions of the West, a change must come. In the future, profits from farming will come more from the farm products, and the increase in selling price of the land will grow a less and less important factor—hence great profits are not to be expected. No sure business can give great profits for any long time; else it would certainly attract to it an over large number.

It should also be borne in mind that competition is constantly increasing, the number of farmers is becoming so large, and the aggregate crops so enormous, that where to find a market is not always easily answered. It is to be set over against this that the proportion of our population who are not farmers is rapidly increasing. Each successive census will show a larger part of the total population living in towns and cities, and engaged in manufacturing, merchandising, or other callings making them consumers rather than producers of farm products. It is also a hopeful sign that not only are our agricultural exports rapidly increasing in quantity, but that they are in much greater variety than formerly. We must continue to export largely of agricultural products, for our production is already enormously in advance of the possibilities of home consumption. It is an essential to prosperity that we see that we not only produce, but that we produce those things which are most in demand by other countries and as many such articles as possible. The recent development of the export trade of meat, animals and fresh meats, and the great increase in the exportation of dairy products and other articles in which manufacturing skill is added to the ordinary work of the farmer, are most important steps in a right direction.

These statements, if they be true, lead to some important conclusions. The ignorant, careless man; the man without training of the mind and without skill in his art, will not succeed in conditions where competition will be much sharper than it has been in the past, and, where he must make his profit mainly, or wholly, from his farm products. He will not be well adapted for the nicer skill and the better business judgment necessary for the production of a greater variety of the higher forms of farm products. For such men success is not to be so generally the rule; it may well be that for such men, failure will come to be the rule. More capital in money or skill or knowledge, or in all these, is to be needed for successful farmers in the future than has been needed in the past.

I count it sure that young farmers well fitted for their work will, as a class, succeed as well as their fellows in any other calling; will receive a good return in money, and will be honored and respected by their fellows. But I count it equally sure that special, careful training of the mind as well as of the body, something more than the acquiring of mere mechanical skill, is to be an increasingly important element in securing this success.

Illinois Industrial University, Champaign, Ill.

JOTTINGS AT KIRBY HOMESTEAD.

COL. F. D. CURTIS.

THE pigs, we did not know it before, are so fond of parsnips that they have rooted ours all up, and so we shall be short of this vegetable change in the spring.

Is it, or is it not economy to feed horses corn in the ear? We have practiced it for a number of years, believing that the portion which was not masticated, and so passed out of the horses without being digested, was not equal to the miller's toll. The toll is every tenth, and this with the waste and time spent in going to the mill, will make it fully equal to every eighth. Another thing farmers do not think enough about; suppose every tenth is not masticated and assimilated by the horse, it is kept on the farm; whereas, if it is left at the mill, the farm is so much depleted of plant food. We throw the whole ears into the manger and let the work horses bite the kernels off as they like. As soon as horses get used to eating corn, there is no danger of its producing any colic or other derangement of the bowels, but care must be taken not to begin too strong at first. Three or four ears of Flint corn are all a horse should have to begin a diet of this food. The Southern and Western corn is lighter and is not so apt to produce colic. In the South corn is almost always fed in the ear, and so it is in the West when fed at all. Corn is excellent feed for horses to work on; but not so good for fast driving. They are more quiet and tractable on corn than with any other grain, and will do more hard pulling and drudgery with less loss in condition. Oats make a horse sprightly and active, and hence should be fed sparingly to a colt. Oats have helped to make a great many balky, spavined, and run-away horses. Corn makes them dull and slow, but strong. Corn is the best for colts while being broken. It may be made lighter, and not so heating by having wheat bran mixed with it.

We tried it last year, and it worked so well that we shall do the same thing again—winter the big colt on oat straw and buckwheat bran. He will keep fat on this feed and healthy. A rackful of straw three times a day, and four quarts of the bran are ample. The bran is worth $12 a ton, and will weigh 20 pounds to the bushel. This will be 2.48 pounds for a feeding or 7.44 pounds per day, which would be four cents and forty-six hundredths of a cent, certainly a cheap feeding for a colt seventeen hands high. He is kept in a warm stable; put this down for 25 per cent. saving in the keeping. The above is a stable diet and not calculated for work. It is good for growing colts.

A young pig ate too much corn, got too fat and constipated, and was found in the pen in spasms. An injection of warm water was administered, which brought away a few lumps of excrement very hard and dry. A tablespoonful of castor-oil was given and the pig put into a hot bath. The treatment was what the disorder required; but the constipation had gone on so long that inflammation of the bowels had begun, and the pig died. Another one had died a few days before, but not until the skin beneath and around the body had turned black, owing to the inflammation. The feed of the remaining pigs has been changed to barley meal, which is more laxative. Corn is too hearty for young pigs and too heating. Oats, unground, are far preferable, and barley meal is the best of all.

The pigs got sick while we were at the great dairy fair in New York. There was so much mutual admiration and glorification at the Exhibition, that we are afraid the business of cheese making, and butter, too, will be overdone. The same week of the fair the New York market being glutted, had 91,000 cheeses thrown upon it and only 20,000 shipped abroad. Poor cheeses are worth nothing, and are being piled up in the storehouses in vast quantities. Only the best are sent to Europe, and these are a small percentage of the whole. If we keep on stimulating production by big figures, big speeches, or big factories, we must at the same time manage to get the American people to eat cheese. This is the thing to do to get rid of the cheese. Americans eat, on an average, but four or five pounds of cheese for each person in a year. Cheese is eaten now only as an appetizer or a dessert, whereas it should be eaten as a staple article of food. But how can we dyspeptics do this unless the cheese is made differently? It must be at least half digested by the rennet in the process of making, and then our feeble gastric juice may finish it; but as it is now made, our digesting functions are unequal to the task. Soldiers may do it, but the army cannot eat up the surplus even if cheese is made a ration. We have heard a great deal about cheese for the English market; let us hear and see something about *cheese for the American stomach*.

It was 28 hills of chufas which produced a half bushel of nuts, and not 78 as printed.

Arboricultural.

EVERY-DAY NOTES.

SAMUEL PARSONS.

Tree Roses.

FEW plants are more generally admired and more persistently abused than Tree Roses. A natural inference from this would be that there existed in this case very bad qualities mixed with very good ones. Doubtless this is true. But the trouble is that one class of people will persist in discerning only the good and another only the bad. Perhaps this is no more than might be expected. Persons who fail to grow Tree Roses successfully, berate them. The successful—a small band, we fear—and those whose admiration is born of sight only, without experience, of course will praise them. As in most cases, the truth lies somewhere between the two. True, good and shrewd men assert that three-quarters, yes, nine-tenths of all Tree Roses sold throughout the country die the first winter after the season during which they were planted. This is doubtless a very broad assertion, one difficult to prove, but there can be no question that Tree Roses fail alarmingly throughout the Northern States. Now we, all of us, admire a Tree Rose when it is healthy and has developed a great mass of green leaves and numerous large flowers. On the summit of its tall stem the effect is certainly charming.

Desiring Tree Roses, the questions therefore for us to answer and to act on accordingly, are: Must we replace defunct plants every year? or can we by any simple treatment preserve them healthy during a long period? To the first we say unreservedly and positively, we need not replace them every year. To the second question, we say, yes, on conditions. Let us look at these conditions. The Tree Rose is grown in an unnatural fashion. No Rose would grow naturally on the top of a high stick, and it is only the art of man that can make it do so. The stem is, nevertheless, destroyed and cracked by the sudden and intense suns of America, and the junction of the cion and stock is severed by extreme cold the first winter their somewhat abnormal union is exposed. All this makes the Tree Rose a plant to be well looked after under the best circumstances.

What, however, is the course pursued and conditions created in importing them, for they are not grown here? Impatient purchasers demand their shipment from Europe in fall, before the growing wood is mature. They arrive in this country during late September and early October, are sold and planted, in many cases, the same fall, and die during the winter, as a matter of course. Wise buyers obtain, later in the fall, Roses grafted with hardy varieties (Remontants, &c.), keep them in a dark cellar all winter, and plant them out in the spring, pruned in sharply. During the summer, they moss the stem, and during the winter, bind it with straw disposed loosely about the head. Thus managed and pruned systematically every spring, Tree Roses may and do succeed. Do not on any account condemn them, but look upon them as choice and beautiful plants which need and merit much careful treatment.

Tree Pæonies.

Most people know Pæonies and admire them. Their immense blooms present a mass of color that no other hardy flower can perhaps, surpass. They are hardy, moreover, farther north where the Rhododendron fails as well as many other rich-hued flowers. This admiration is therefore well merited, but is it discriminating? Do people realize that one Pæony is not as another, and that there is a group of Tree Pæonies, as different from the herbaceous Pæonies as nature apparently could make them, if we except a certain similarity in appearance. One is very slow-growing, almost dwarf; the other springs in a season to massive size. One is difficult to propagate, difficult to transplant and choice in the highest degree; the other is increased by division with the greatest facility; is easily moved, and is, moreover, well known to every one. Wherein lies the difference between the two is consequently hard to define, and yet you would see a decided difference if the two were presented to you side by side. Perhaps no expression of it can be clearer than that afforded by their familiar names. One is dwarf, with firm, enduring wood; the other herbaceous, or not wooded in the technical sense, but soft in flower and foliage branches. Experience, indeed, soon teaches distinctions, such as peculiar colors of the flowers and generally, a more refined nature, if I may use the expression.

The Tree Pæony has many varieties beautiful in color and form, yet few learn the real beauty of these varieties, for nurserymen usually only sell Pæonia Banksii. Although this is a good kind, one familiar with its appearance alone can have little conception of the more highly developed charms of other varieties of Tree Pæonies. Pæonia Banksii, since great numbers of it exist throughout Europe, can be increased by division of the roots with comparative ease. The choice varieties are, however, too rare for the slow process of division. They must, therefore, be grafted, but this is difficult, and the difficulty of the operation will probably long keep the best Tree Pæonies rare.

One office, that of ornamenting small city lots, these Tree Pæonies are specially adapted to perform. They are dwarf, hardy and long-lived and very bright in color of flowers. It is to be hoped that their employment may become generally popular.

The French Mulberry.

It pleased me recently to see that the RURAL was offering in its free seed distribution seed of this attractive shrub. Scarcely anything is more admirable in its way. Of course, there is nothing very grand about it, but it answers the purpose of a moderate-sized shrub, for late fall, so well that it must always be popular. Indeed, as people come to set higher value on ornamental fruit-or seed-bearing plants in fall, it must gain still greater favor. Are RURAL readers generally aware that two Callicarpas are grown in gardens, which are very dissimilar and yet sometimes confused? The finer one, and perhaps the one best known is Callicarpa purpurea—the one to which my previous remarks have referred. The other is a large, coarser variety, somewhat exposed to winter-killing, but sure to come up again every spring. Although it is thus semi-herbaceous, it is well worthy of culture.

NOTES FROM THE RURAL GROUNDS.

ABOUT HEMLOCKS.

From our window we can count over twenty different species of evergreens. We will suppose that one of our readers asks the question: "Which would you prefer could you have but one?" Our answer is: "The common Hemlock (Abies Canadensis) and we give this answer without any "ifs" or "ands." There are many others that may be preferred for a single reason or so. For instance, the Sun-ray Pine as we have called it, (Pinus Massoniana var.) is now as yellow as gold itself, excepting the tips of its needles, which are green. The common Balsam Fir during the entire winter maintains a brighter green than almost any other conifer. The Menzies's Spruce is of a sea-green color, or what is termed "glaucous" by botanical writers, and is a fresh, pleasing shade. So, likewise is the Scotch Pine in most

soils. We might mention a marked feature in any one of the rest. But more can be said in praise of the Hemlock than of any of the others, and when we come to tell its defects we are at fault. For this climate and situation it has no defects.

The Norway Spruce and its many varieties are cumbrous and stiff. The Austrian and Scotch Pines are stiff and coarse. The Balsam Firs grow gaunt as they grow old. The Arbor-vitæs are formal and, in winter, brown. They appear as if elegance and grace had been taken away so as to enable them to endure the frosts and winds and storms of winter. Not so the Hemlock, with its slender, pliant stems, and dense, though airy foliage that bends to the wind like the branches of a Willow. It will be conceded that evergreens, taken as a class, are more valuable as winter than as summer trees. If our grounds in summer were filled with evergreens alone, the absence of deciduous trees would be seriously felt. Different as the kinds are one from another, it is impossible so to arrange them as to overcome the cold, rigid appearance of the class. If our grounds in summer were filled with deciduous trees only, the absence of evergreens would not be felt at all. But, besides being one of the best of evergreens to brighten the winter landscape, we should also select the Hemlock as adding a distinct beauty to the summer landscape as well.

That the Hemlock is not often seen about the farm house is due probably to the difficulty of transplanting it, or rather of having it live after it is transplanted. With regard to those taken from the woods, we have found that this difficulty is measurably lessened by treating them upon the same principle as, under the same circumstances, we would treat deciduous trees, viz: severely cutting them back. Not only is this true of the Hemlock, but of the Red Cedar (Juniperus Virginiana) and Norway Spruce. Thus far we can speak from experience, and what is true of the above genera is probably true of the family. Years ago people thought that evergreens must not be cut back at all. We, ourselves, once thought that a Norway Spruce or Balsam was worthless if its leader were destroyed. Now we know of no other way of preserving their beauty to old age than by cutting back the leaders while they are young, until the lower parts are so developed as to insure a bountiful supply of sap which, otherwise, in a few years, would tend to nourish the upper portions alone.

We spoke of experience. Five years ago, immediately after transplantation, we cut back six Arbor-vitæs five feet high to one foot in hight. All lived. A Norway Spruce and a Hemlock about six feet high were cut back to three feet. Both lived. Four years ago, we purchased about forty young Hemlocks from a nursery the soil of which was very sandy. They were about eighteen inches high. Most of them died. But of the survivors several had been cut back as soon as they showed signs of weakness. This fall we *pulled up* two young Red Cedars in the woods, wrapped paper about them, planted them in pots and cut off half of their branches and foliage, placed them in the cellar for three days and then in the conservatory where they are doing well.

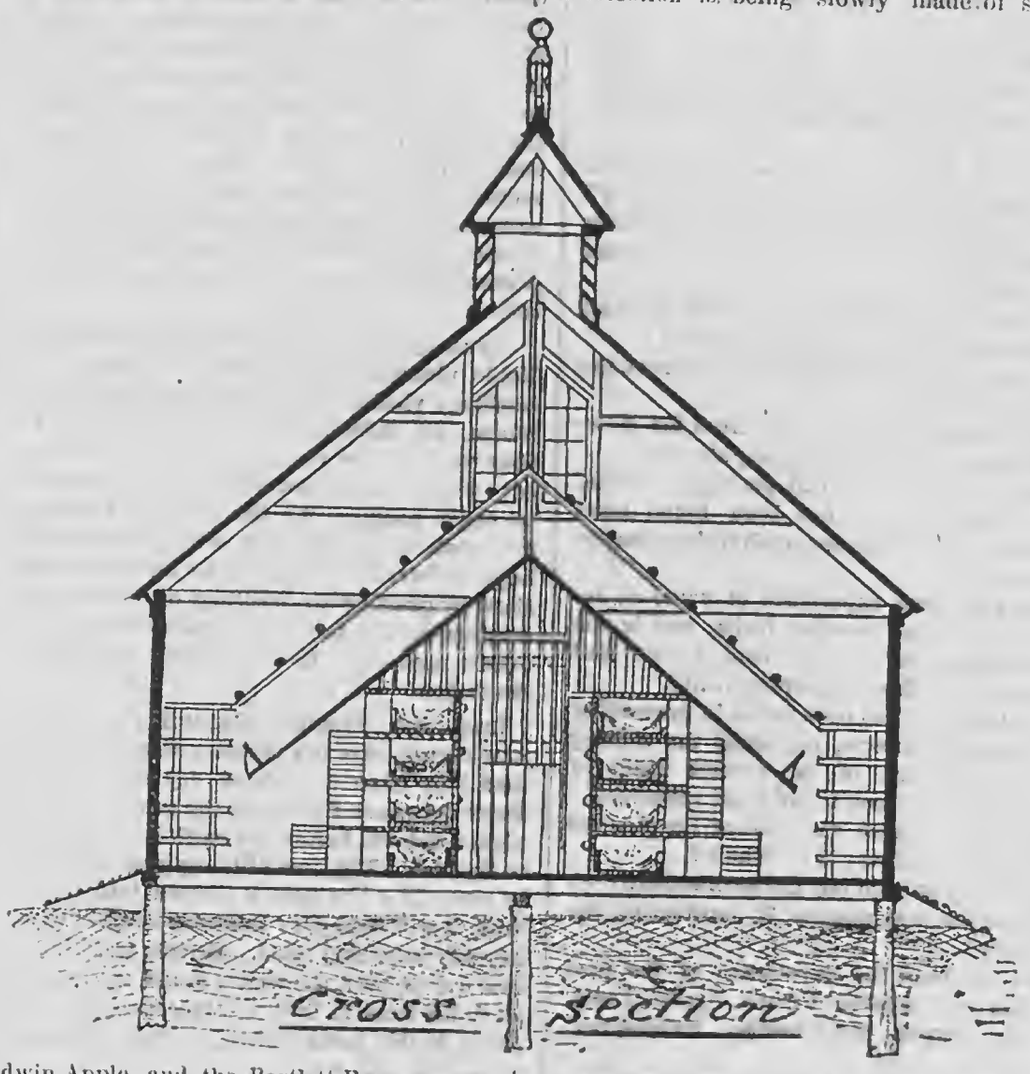
It is true there is no positive proof about all this. But the belief is strong upon the writer from such evidence and a good deal more of the same kind with which the reader need not be wearied, that all evergreens should be cut back when transplanted, more or less according to the injury which the roots sustain, the same as deciduous trees are cut back, though perhaps not to the same extent. The buds from the stems of deciduous trees push far more readily than those of evergreens and the vital processes of life are not so long suspended. Whence it follows that a portion of the old leaves must be left upon evergreens to perform the work which in deciduous trees might be performed by the new growth. Now, young Hemlocks, if taken from the woods without great care to preserve all the fibers by a "ball" of earth or otherwise, will die, no matter how carefully they may be transplanted. The questions we raise are: (1) would the mortality be as great if they were cut back? We have tried it in the case of the Red Cedar which we had supposed as difficult to transplant as the Hemlock. 2. Are not evergreens as a class benefited by being cut back in proportion (the proportion to be peculiar to them) to the injury sustained by the roots?

Pomological.

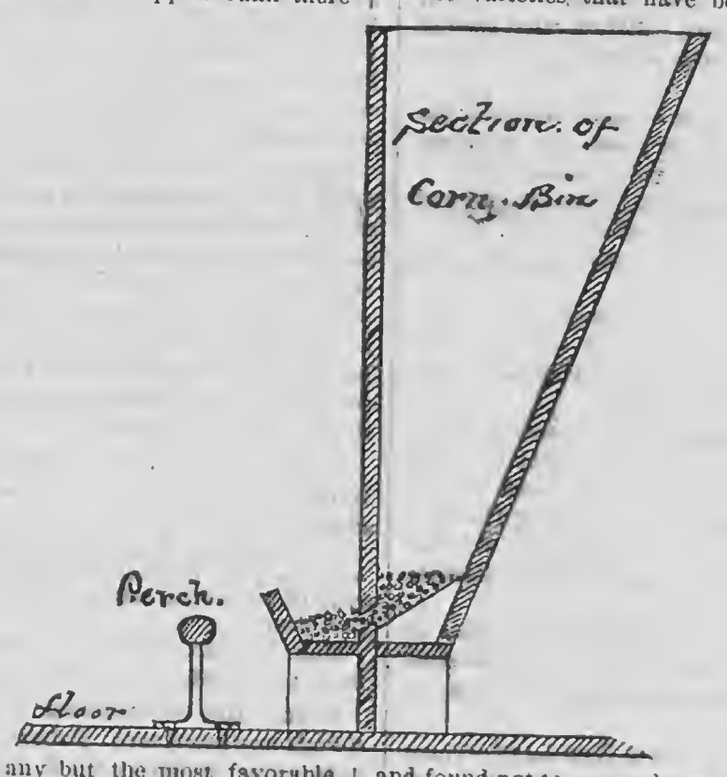
NOTES IN A NORTHERN ORCHARD—1.

T. H. HOSKINS, M. D.

These notes will specially interest those only who are trying to grow Apples in what is called, pomologically, the "cold belt," embracing the northern parts of Maine, New Hampshire, New York, Illinois, Iowa and Ontario, and all of Quebec and Minnesota, and of Wisconsin, except along the shore of the lake. They are the results of fourteen years' experience in Northern Vermont by one who, from a still longer experience in Southern Maine, supposed he knew what were hardy Apples, but who found, when he emoved to Vermont, that he knew very little on the subject. The Rostiezer, but not hopefully. Fifteen years ago it was believed that no Apples, except the Siberian Crabs, would endure the severity of the winters of northeastern Vermont, but now a selection is being slowly made of sorts,



Baldwin Apple, and the Bartlett Pear are considered tender in the Kennebec Valley. In the valley of Lake Memphremagog one might as well attempt to grow Oranges as either; while the Fameuse, Red Astrachan, Talman's Sweet, Blue Pearmain, St Lawrence, Sops of Wine and Westfield Seek-no-Further Apples rank there



as too tender for any but the most favorable localities, though set down as perfectly hardy in all the books. As for Pears, it is not known that, as yet, a Pear has ever ripened on the shore of Lake Memphremagog. Experiments are being made with the hardier kinds, Flemish Beauty, Clapp's Favorite, St. Ghislain and mostly new, that give every promise and considerable actual performance, in the way of success.

HARDY APPLES FOUND TOO TENDER IN VERMONT.

First let me clear the ground by giving a list of varieties that have been tested by us and found not to succeed, even under favorable conditions. This list will embrace only such as were recommended to be extra hardy. Of summer Apples, the American Summer Pearmain, William's Favorite and Summer Hagloe; of fall Apples, the Northern Sweet, Fall Orange, Colvert, Fall Pippin, Gravenstein, Franklin Sweet, Moses Wood, Fairbanks and Cathead. (the last four of Maine); of winter Apples, the Yellow Bellflower, Red Canada, Reinette, Munson Sweet, Danvers's Winter Sweet, Jewett's Fine Red, Minkler (of Illinois), McLellan (of Conn), Grime's Golden, Granite Beauty (of N. H), Bottle Greening, Northern Spy, Cooper's Market, Black Oxford, Morgan Sweet, Rockwood, Ramsdell's Sweet, Winter White, (the last five of Maine)

It will be noticed that the better keeper the fruit of an Apple is, the less likely it is to prove hardy in a severe climate. In fact, while a good many of the summer and early fall Apples of more temperate regions do fairly well in the cold belt, it may be said that not one of the standard winter Apples is hardy there. Those that most nearly approach hardiness are Blue Pearmain, Westfield Seek-no-Further, Talman's Sweet and Yellow Bellflower, in the order named. But not one of these is so hardy as to justify an orchardist in setting any number of them in his orchard with a view to profit.

APPLES FOUND HARDY ENOUGH IN VERMONT.

After testing, at a considerable expense, between 30 and 40 of the hardiest known sorts, it certainly was a discouraging prospect for one to think of raising an orchard. But a few gleams of comfort were discovered in the fact that some Canadian and Russian Apples proved to possess hardiness adequate, to the necessities of the case. Further experimentation gave some hardy varieties from the West and an active hunt for native seedlings revealed at least two hardy winter Apples possessing the requisite other qualities for use and profit.

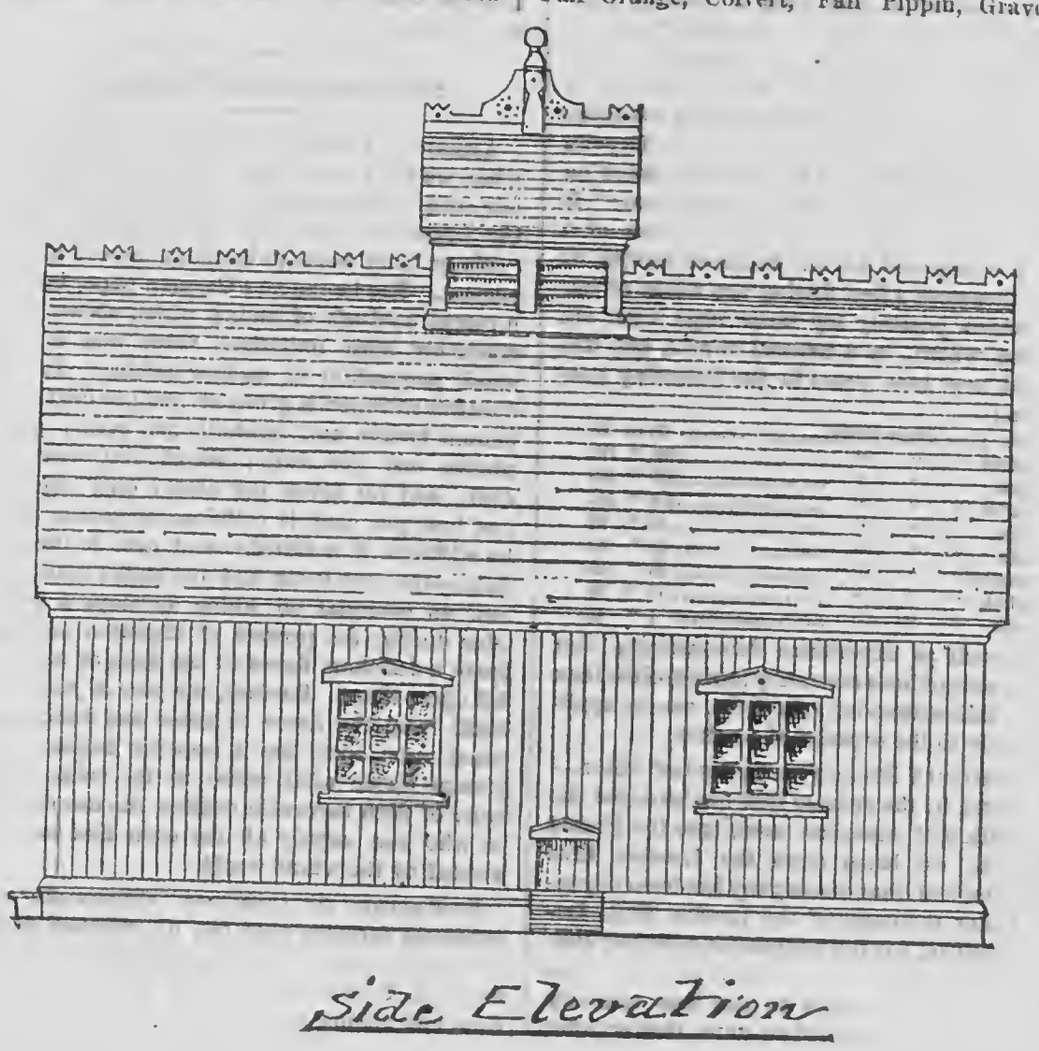
I will now give a list, covering all seasons from August round to July, of Apples of good quality, health and productive habit, that are quite hardy in my locality, near the village of Newport, Vt. at the head of Lake Memphremagog, six miles south of the parallel of 45 degrees, which constitutes the boundary between Vermont and Canada. The names succeed each other in the order of maturity, the earliest being named first.

Summer Apples.—Yellow Transparent, Grand Sultan, St. Peter's, Tetofsky, Summer Harvey.

Fall Apples.—Duchess of Oldenburg, Peach of Montreal, Pringle's Sweet, Prolific Sweet, Aroostook Harvest, Emperor Alexander, Plumb's Cider.

Winter Apples.—Wealthy, Northfield Beauty, Tracy Apple, Meader's Winter, Magog Red Streak, Scott's Winter, Case's Winter Sweet.

In another article I will give a short description of each of these Apples; and in a third, complete these notes by some remarks upon other varieties not strictly hardy, but possessing merits which, with moderate hardiness, entitle them to trial as top-grafted trees, or in sheltered places, even in the "cold belt." To this I will add brief minutes regarding new sorts believed to be hardy and meritorious, but not yet sufficiently tested.



Field Crops.

PROFITABLE CORN AND WHEAT RAISING.

For the benefit of my brother farmers who read the Rural, I desire to add to the testimony of Messrs Van and D. Steek—noticed in the Rural of December 7—a few items of interest in reference to the successful cultivation of these two cereals.

For some years I have been cultivating corn and wheat with a view, all the while, of making the most and best seed from a given extent of land, at the least cost, in the shortest possible time and with the least permanent injury to the soil. Discarding all old-fogy ideas, I persistently pursued their culture on almost purely scientific principles. In the first place, the natural laws that govern vegetation were complied with, the habits of the plants, their demands and wants were carefully attended to. In the second place, the nature of the soil, its elements and adaptation to the growth of the plants; were analyzed, and where deficiencies occurred, elements were supplied, and where too much stalk food predominated, materials were applied to neutralize the excess and secure the proper proportion of the various elements of the plant food.

For instance, low, alluvial land always produces too much stalk and too little grain. To make less stalk and more grain, lime, salt, ashes, etc., may be used to great advantage and profit. In the vegetable, as well as in the animal world, there are good, bad and indifferent specimens. Stockmen have them all, and it is only by close breeding, careful study and intelligent application of Nature's own laws, that they finally succeed in producing pure and valuable breeds. Just as much attention should be given to the selecting and saving of seed corn and wheat. The largest and best-looking ears taken from the crib do not by any means make the best seed. The best seed corn is always found in the field on the top ears of those stalks that bear more ears than one and ripen earliest. Seed corn should al-

ways be selected in the field, not from the largest stalks but from those that are the best-formed and have the finest stover.

Seven years of experimenting, working on one variety, have given me one that is almost invaluable in almost every respect. It is very prolific, having on each stalk several ears, each yielding from five to eight ounces of grain. My best specimen of a stalk had fourteen ears and shelled sixty-three ounces. My best 100 stalks selected from off an acre, shelled 170 pounds, and my best acre on highly improved land made me 102 bushels shelled. I merely state these facts to show what can be done by way of improvement in our cereals.

A word about the physiology of the plant may not be out of place right here: It is the largest of the grasses. It is monœcious and susceptible, perhaps, of greater improvement than any other. My opinion is that, in its original and primitive state, every joint that has a groove bore an ear. One may see on examination an ear or an embryo ear on every node from the roots to within six or seven of the tassel. Then I ask, why do not all develop as does that on the last joint generally about two-thirds of the way up? [Our answer would be, because it doesn't.—EDS.] I find an ear can be made by careful selecting and saving the seed, feeding and proper culture.

Wheat, too, can be wonderfully improved by picking by hand the center heads of the largest tillers, that ripen earliest. This insures pure seed, reliable and free from every foreign variety as well as from all cheat, cockles, etc. I do not mean that a farmer should pick all his seed, but I do say that he should pick a bushel or two which, when sowed on a choice, clean acre or two, will produce his seed for the next season. This picking should be done every year, so that the wheat may not deteriorate.

The most reliable preventive for the rust and perhaps one of the best top-dressings, is a mixture of salt and ashes—half and half. By mixing in December, or early in January, and keeping it stirred twice a month, it becomes in two months one of the best of fertilizers. Put it on in February or early in March. Four to ten bushels to the acre will pay any one twice the amount of expense and labor expended.

A. E. BLUNT.

Monroe Co., East Tennessee.

THE BEST POTATO?

FOR the past few years the Peach-blow, which was formerly the standard potato, has fallen into disrepute with farmers generally. All agree that, when perfect, it is a noble variety; but we cannot afford to raise it. A good crop is the exception. My own yield from half an acre this year, was twelve bushels of merchantable potatoes. (My Early Rose in parallel rows gave me at the rate of 100 bushels per acre). Last year the crop was better; but not large enough to make up the deficiency.

The Early Rose, which succeeded the Peach-blow in popularity, has done well for me *always;* but I hear complaints from many of my neighbors, who say it is running out with them and they want something more reliable. I am inclined to think that in the majority of cases this gradual failure is due to poor seed and insufficient cultivation—by which I mean lack of manures as well as lack of stirring the soil, in some cases aggravated by putting the same crop on the field year after year.

To those who may be seeking something better, I would recommend a trial of the Snowflake and the Carpenter's Seedling, both of which have done exceedingly well with me—soil, a very heavy clay, made rich with good stable manure and tillage. The Snowflake is perhaps too well known to need a description here. It is the *best* potato for the table I have ever seen; and my experience is, that if you will make the land rich enough, there will be but little trouble of small potatoes in the hill. With me it is a good yielder, and keeps well enough.

The Carpenter's Seedling is a large, white potato, oblong in shape, a handsome potato, and one that finds a ready market. It is a good producer; about the same season as the Snowflake; quality, fair. There are very few small potatoes in the hills, and the tubers are generally of even size. It is a good keeper. I have tried several of the new sorts—the Alpha, Ohio Beauty, Early Ohio, Ruby, Brownell's Beauty and several others—but for home use, I prefer the Snowflake to any of the others. For market, the Snowflake, Carpenter's Seedling and Early Rose are my choice. Who can name a better list? [We should add Beauty of Hebron.—EDS.]

H. T. J.

ALL of us know full well that manure is a valuable commodity. But when it is looked upon as representing so many dollars and cents, no doubt we shall take pains to make more manure and to be more saving of what we have. There are many farmers who would dig a pretty big hole if sooner or later they were sure to find a five-dollar gold piece in it, yet these men for the same amount of labor could accumulate more than five dollars' worth of manure that would insure an extra yield of perhaps ten dollars' worth of crops.

Miscellaneous.

WHAT OTHERS SAY.

THE following prolific questions for discussion are announced for the meeting of the New York Horticultural Society, to be held in Rochester the 22d inst.:—

Are we in danger of an over-production of fruit, and how can we secure a steady supply?

Can we expect a large foreign demand for fresh and dried fruit, and how can we increase the demand?

To what extent can the production of fruit of an extra quality be profitably carried?

How can we most economically, improve the quality of apples?

What variety of apple, aside from the Newtown Pippin, is best for shipping abroad?

What description of fruit packages, boxes, baskets, barrels, &c., has been found most satisfactory, especially for small fruits, peaches and grapes?

Is there any new experience of value in regard to drying and canning fruits, and in the construction of refrigerator fruit houses and cars, or new method of keeping fruit?

What progress has been made in preventing the ravages of insects, especially the codling moth, and which of the several kinds of traps in use have been found most effective?

Are any of the new varieties of Raspberries profitable for market; if so, which?

Should any now on our list be discarded?

What is the best method of cultivating the Raspberry?

What has been the experience of the past year with new varieties of fruits, Apples, Pears, Peaches, Grapes, Strawberries, Raspberries, Gooseberries, etc.?

What new varieties of Potatoes, Tomatoes, Pears, Beans, Squash, Melon, Celery, etc., are worthy of commendation?

Which of the recently introduced species and varieties of new ornamental trees, shrubs and plants, give promise of excellence?

Is it likely to prove profitable, in W. N. York, to plant trees for timber, and if so, what species and varieties, deciduous and evergreen, can be recommended?

What new implements of value are there, for orchard and garden purposes, viz: pruning, cultivating the soil, destroying insects, etc.?

New Books, Periodicals, Transactions, and other sources of pomological and horticultural information—what should the Society do in reference to them?

What is the latest experience with hedge plants? Is the Honey Locust suitable for a hedge plant? What is the best of all hedge plants for Western New York?

Which can be employed most economically and effectively for the embellishment of small gardens—Annuals, Hardy Herbaceous Perennials or what are known as "Bedding Plants?"

Can any principles be laid down for the arrangement of flowers and foliage in baskets and bouquets?

The adaptation of the different varieties of Apples, Pears and other fruits to different soils and exposures—what experience is there on this subject?

HOW MANY EGGS CAN A HEN LAY?—There has been so much loose talk about the total number of eggs a hen is capable of laying and her yearly yield under fairly good treatment, that it is a satisfaction to come across something beyond guesswork or mere inference on the matter. The foundation of science is accurate observation, and when a scientist publishes a statement, it is presumable that it is based on this foundation. Its accuracy, too, is confirmed, if it is quoted with approval by other men of wide experience and knowledge on the subject involved in it. Now, Geyelin says, and Prof. Miles in his excellent work on stock breeding, quotes him with approval: "It has been ascertained that the ovarium of a fowl is composed of six hundred ovules or eggs; therefore a hen during the whole of her life cannot possibly lay more eggs than six hundred which, in a natural course, are distributed over nine years in the following proportion:

First year after birth	.....	15 to	20
Second " " "	.....	100 "	120
Third " " "	.....	120 "	135
Fourth " " "	.....	100 "	115
Fifth " " "	.....	60 "	80
Sixth " " "	.....	50 "	60
Seventh " " "	.....	35 "	40
Eighth " " "	.....	15 "	20
Ninth " " "	.....	1 "	10

Inasmuch as experience demonstrates that some breeds of hens are vastly more prolific than others, this statement, of course, can be applicable only to the average of poultry.

A EUROPEAN RIVAL FOR AMERICAN MEAT.—Stimulated by the success that has attended the importation of American meat into the United Kingdom, we learn from the London Live Stock Journal, that a company has been organized under the name of the London Meat Importation Co,, for the purpose of securing supplies from districts near home if possible. The report of the directors to the first ordinary meeting of the shareholders states that an offer has been made to the company to load a vessel throughout the year with prime first-class meat, either on account of the shipper, on joint account, or on account of the company. The directors have made a personal inspection of various districts in North Germany, Austria, Hungary, Transylvania, Bohemia, Galicia, and in other portions of Eastern Europe, in order to decide as to the quality of meat suitable for the British market, to provide the necessary slaughter-house, appoint agents, etc. The directors report that they find it best, for many reasons, to slaughter as near the source of production as possible. The meat will be transported by refrigerated railroad cars and steamers.

JAPAN QUINCE SEEDLING.—Our friend Gen. Noble planted a "mixed lot" of seeds. The seedlings yielded six or seven different tints of bloom, all different from the parent. "*But* they took *thirteen* years to show the first flower! Such a tardy reward to trial, disheartens us eager people. We tire of patient waiting, and seek novelty in that which absorbs less hope deferred." He tried to hurry up their show by grafting his seedlings on the common Angiers Quince, but they would not mate. The article appears in the Gardener's Monthly for December.

LIME FOR BORERS.—Regarding borers in peach trees, says the Country Gentleman, it is useful to heap a peck of dry slacked lime about the peach trees after the grubs have been picked out and before the earth is drawn back to the tree. The lime kills any grubs that may be left. If a live grub is thrown into the dry lime, it will soon die; this may be tried to satisfy any inquiring mind. Having used lime in this way in 1877, the writer found no borers at all in his trees in 1878, and therefore has confidence in this means of repressing the depredations of this pest.

JELLY FROM THE JAPAN QUINCE.—J. W. Kerr says, in the Germantown Telegraph, that jelly made from this fruit is almost without a peer. But the bushes fruit very sparingly and it takes a good deal of fruit to make a little jelly. Wherefore, considering that this fruit is well-nigh as hard as a rock, its excellence is not likely to become generally known. Speaking of this beautiful shrub, why is it that it is only the blossoms near the ground that ever set fruit at all?

ENGLAND'S NEED OF FOREIGN FOOD.—Mr. Caird, the celebrated British agricultural statistician, says that quite one-half of each loaf consumed in England is of foreign origin, that one-fourth part of their whole meat and dairy produce comes to them from across the sea, and that almost the entire additions which may hereafter be sought to fill the ever-multiplying mouths of their dense population, must be drawn from other lands.

A WONDERFUL PLUM TREE.—We take the following from one of our best Western exchanges, word for word:

"We knew of three large plum trees in the western part of Detroit which bore a good crop of corn cobs saturated with kerosene the past year."

Here is a sort of plum tree that commends itself to the Bridgets of our country.

PORK.—The Germantown Telegraph says: "Pork unwholesome! Nobody except a lean, cadaverous, sedentary biped, who is obliged to live, probably on account of early dissipation, on Graham bread, and weak tea, would be guilty of such a slander!"

THE BEST PEAR.—Major Freas says, if he were to be asked to name the best Pear for general cultivation, he would unhesitatingly say the Lawrence.

NOTES OF CURRENT EVENTS.

AMERICAN CORN.—It is fortunate for us now when we are looking for enlarged markets for our corn, that Europeans are becoming favorably impressed with its valuable properties. "We go from home to learn the news" in this respect. For instance, a German paper notices a recent analysis of maize, which shows a remarkably high nutritious value and a very small proportion of useless residue. In this analysis nitrogen is given at two per cent.; albumen twelve and one-half per cent.; phosphates one per cent.; starch sixty-two per cent., and fat seven per cent.; only one and one half per cent. is cellulose or woody fiber. In addition, it is stated—and here is the new point—that the grain and the stalks both contain an essential oil which develops a sweet odor during the process of digestion and imparts a delicious flavor to the flesh of animals fed upon them. Further, the *pate de fois gras* made from the livers of geese and ducks fattened upon corn, has a peculiar delicate fragrance which adds much to its value. The more of such favorable notices, the merrier for us who can supply all the corn that may be wanted by the whole world.

EXHIBITION OF CORN.—A wide-awake and energetic farmers' club can do wonders in developing the interests of any locality. The Elmira (N. Y.) Farmers' Club is such an association, and during the years of its existence, has not only done much to forward the interests of agriculture in its own neighborhood, but has been a shining light in many distant dark places. A recent suggestion comes from this club. It is to hold an exhibition of corn, giving premiums for the best six ears shown. This is a worthy idea and will undoubtedly assist more to increase the yield of corn in western New York than any other device or method hitherto made known. Corn shows could very profitably be held in every village and township in the country.

A CONVENTION OF TILE MAKERS.—Those worthy and useful people, the drain-tile makers of Indiana, have had a convention. The extension of the business of draining may be imagined when we state that no less than 500 tile factories are kept busy in that State alone. The whole of these turn out in the working season of six months about 250,000 tiles each, or 125 million tiles in all. The benefit accruing from the use of so much tile every year must be enormous, and the tile makers in their effort to advance their own interests—which we take to be the object of the convention—can hardly fail to help the public interest as well, if they do nothing more than educate the farmers up to the point of knowing that to drain their wet lands will add greatly to the productive capacity of their farms and to the general wealth.

NEW FACILITIES FOR MEAT TRADE WITH EUROPE.—A contract has just been made by W. H. Vanderbilt for the establishment of a new line of steamers to ply between this city and various European ports, in connection with the different railroads under his control, and especially with the New York Central and its tributaries. They will be large, slow boats, designed mainly for freight. It is the present intention to fit up each of them with compartments adapted in the best way for the transportation of live stock and dressed meat to Europe, and it is expected that our trans-atlantic trade in stock of all kinds will receive a vigorous impetus from the facilities in this way afforded to its prosecution.

THE "Perfect Milk-pail" announced in our advertising columns this week, is the one that attracted so much attention at the International Dairy Fair. It is a very complete contrivance that one hates to part with, having used it once.

Horticultural.

SEED "RUNNING OUT."

There is much said about seed degenerating, or, as it is commonly termed, "running out," when grown and planted, or sown for a succession of years on the same soil, or in the same locality. This *may* be true in some instances, but I do not think so. Seed grown on rich, strong soil will do better on poor soil the first season than seed raised on that same soil. On the other hand, seed grown on poor soil will not do as well on rich soil the first season as seed grown on the same, but it will give a larger yield than if planted on its own soil. In other words, it is the richness of the soil and not the quality of the seed which increases the yield. I have grown, for the past ten years, one variety of potatoes (the Albany seedlings) without exchanging seed, on the same farm, and they were never better than the past season, although this has been a poor potato year. Early Rose planted near them, did not yield more than one-fourth as many bushels to the acre. And Snowflake, the seed of which I obtained last season, did not yield a heavier crop. By the way, I consider the last-named an excellent variety.

"ANON."

Ithaca, N. Y.

STRAWBERRIES.—Mr. Charles Shinn writes us from Alameda Co., Cal.: With us, near the Bay of San Francisco, the Peabody's Seedling is still the variety used for a main crop. Wilson's has never been a favorite. Longworth's Prolific is also planted, and, on some heavy soils, Jucunda and Triomphe de Gand, all productive and good market berries. Nothing else which our strawberry men tried was received with much favor until recently. The Monarch of the West was a magnificent market berry this last season, and will be planted largely in future.

I do not yet feel warranted in reporting upon any others of the new berries. Our system of cultivation is on ridges, with abundant irrigation between the rows, and we get enormous crops from the varieties best adapted to that system. Our Monarch of the West planted for family use, gave a fourth crop in one year, and the only enemy is a white grub in the collar of the plant. It is avoided by irrigation.

ALFALFA—A correspondent referring to an inquiry in a late issue of the RURAL, about the best way to kill Alfalfa, agrees with us that it is very tenacious of life, and says that having once obtained a good root-hold, it will last for fifty years, in his opinion. From 20 to 25 pounds of seed per acre are needed for meadow

to secure fine hay. If sown thin it grows too large with stalks too woody. Last summer he cut five tons of good hay per acre from Alfalfa. All kinds of stock are fond of it. He mowed it three times. It will produce one crop of seed and one of hay or three of hay; or it will pasture twenty sheep per acre through the summer. Three light plowings in August will kill it; or too much irrigation will have the same effect. For the last three seasons he has plowed some every spring, and it thrives well under the treatment, though he sowed spring wheat upon the ground.

It would be rash indeed to say that the Acme Tomato is destined to take the place of the Trophy. "We can hardly see how it could go ahead of the Trophy properly grown," says the agricultural editor of the Weekly Tribune. If plants of each be grown side by side, these differences might, we think, be noted: The Acme is earlier, of a rounder form, of a more uniform size and ripens perfectly about the stem. The color is a purplish red. It is of medium size and is easier to dress. The Trophy is larger, more lobed; of variable size, and does not generally ripen about the stem. It is a heavier cropper and the color is a bright red.

The Horseman.

CLYDESDALE HORSES.—Acting under the authority of the Clydesdale Horse Society of Great Britain and Ireland, the Earl of Dunmore has compiled the first and retrospective volume of the stud-book of that breed. In it he rejects the popular theory that the Clydesdale breed is the result of a cross between the native Scotch mares and some Flemish stallions imported by the Duke of Hamilton more than two centuries ago. He favors the opinion that the breed is a mixed one, the reward of careful attention in the selecting and mating of the best animals by the farmers in the valley of the Clyde. The work contains a short history of the Clydesdales; pedigrees of 1,044 horses foaled previous to Jan 1. 1875, and an appendix containing particulars of stallions which could not be classed as Clydesdales but which are alluded to in the numbered pedigrees. The data on which the history has been founded, have been corrected and substantiated by personal investigation in Lanarkshire, the birth-place of the breed. Recently a lot of 15 Clydesdale female horses of various ages, were sold by one man at Glasgow Scotland at the high average of $630, cash. The highest price paid was $1,250; while a famous prize-taking four-year-old mare was reserved at $2,500. There it seems good horses are thoroughly appreciated in the home market.

REMEDY FOR COLIC IN A COLT.—The colt has been grazing on the winter oats for the past ten days, apparently doing finely, but last night she came home suffering from colic. We drenched her with half a coffee-cupful of soda in a pint of water, which gave relief in twenty minutes. This is not the first time we have used this remedy, always successfully. We were surprised that the colt should have colic after becoming accustomed to the green food. Our colored man says, "the hard freezing of the last few nights made the green oats 'colicy." Perhaps he has about the right idea with regard to the matter. To be safe, we shall let the cows and pigs enjoy the oats during the remainder of the winter. M. B. P.

The Herdsman.

THE BEST SHORT-HORN HEIFER IN THE WORLD.

THE opinions of judges may, and doubtless always will differ as to which is really the best of two animals of nearly equal merit; but if we are to judge by prizes won at the most famous cattle show in the world, then the dignity of being the best living animal of her kind, belongs to the superb Short-horn heifer ICICLE, of which we present two views, which are, no doubt, excellent portraits, as they show throughout remarkable skill, both in the photographer who took the pictures and in the artist who copied them, retaining the accuracy of the photograph, but giving to it the ease, grace and reality of pictures from life. It seems strange that up to this time we should not have, on this side of the Atlantic, some animal draughtsman whose work will approximate, if not equal this.

We take these pictures from the Agricultural Gazette of London, in which they accompany the report of the recent cattle show of the SMITHFIELD CLUB, now held annually a short time before Christmas, at Islington, a suburb of London. Only fat cattle, sheep and pigs are exhibited, and the show of this year is the 81st of the Club.

The heifer ICICLE won the Champion Cup last year, and this year she wins the £40 Cup ($200), as the best beast in the Short-horn classes, the £50 Cup ($250), as the best heifer or cow in any of the classes (except 32), and a piece of Plate valued at £100 ($500), as the best beast in the Show. These prizes are given by the Smithfield Club, and besides she wins the Agricultural Hall Company's prize of 100 guineas ($525); and, as if this were not enough, our contemporary adds, "We understand that the enterprising firm of Cake (Linseed Oil) manufacturers, Messrs. J. Gibbs & Co., are also permitted to add their 100-guinea decoration"—($525) more. This makes altogether 400 pounds

"ICICLE"—FRONT VIEW.

sterling, or $2,000 won by this one animal at this Show—truly a wonderful record. This is the famous heifer referred to below in the letter of Professor I. P. Sheldon.

THE SMITHFIELD SHOW.

I. P. SHELDON, ROYAL AGRICULTURAL COLLEGE, CIRENCESTER, ENGLAND.

I may, I think, venture to presume that to most if not all the RURAL agricultural readers, the term Smithfield Show needs not to be interpreted. Nor will this assumption on my part be ascribed to national vanity, for, really, apart from all that sort of thing, the Smithfield Show has a reputation which extends over the greater part of the world. The Show is older than the present century, and it manifests all the vigor and freshness of perennial youth rather than the decrepitude of old age.

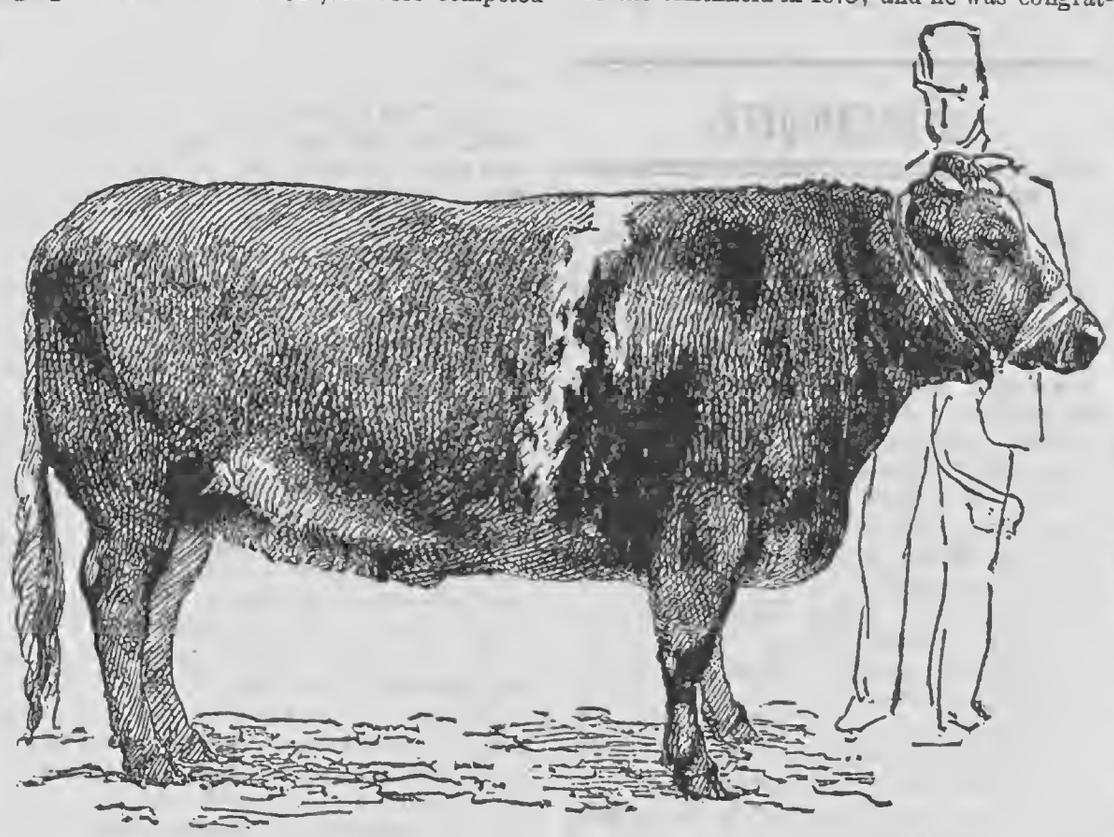
The Smithfield Club is a society unique in character, and peculiar to England. Its career has been one of honor and usefulness, and its age lends a lustre to its doings. Only one of our prominent agricultural associations is older than the Smithfield, and that one is the Bath and West of England Society, which held its centennary last year.

The Smithfield Club held its eighty-first annual Show of fat stock, in the Agricultural Hall, London, last week, and prizes of the aggregate value of about $14,000 were competed for. It must be remembered that these prizes are offered, and this Show exists for fat stock only, and that *breed*, as such, is of no account whatever. There are, of course, classes for the different breeds of cattle, sheep, and pigs; but in these, excellence of breed, purity of type, or any of the other characteristics for which each breed is respectively famous, is of no account. The animals are, of course, required to be pure-bred in their classes, but the prizes are awarded on account of perfection in fattening, and this is determined by quality rather than by quantity of flesh.

I do not say that it is theoretically impossible for such a Show, containing animals of equal merit, to be held in any other country, but it is practically impossible—at all events in the present day, and in any other country than America. There are in no countries except yours and ours, an equal number of animals, having equal merit as fat animals, such as we find at the Smithfield Show; and even if there were, it would be found practically impossible to get together such an exhibition. We could not get together such an one in England, and we should never feed the animals up to such an extreme degree of fatness, were it not for the honor which centers in the winning of prizes there, and for the substantial inducements which the Smithfield Club offers. The Club is wealthy, and the Show is popular, and so the prizes can be offered year after year.

The "Blue Riband" of the Smithfield Show is a coveted distinction, and our leading farmers are at great pains to win it. See what it amounts to in money: the champion beast in the Show is necessarily the best in his or her class and of his or her breed, as well as being the best among all the breeds. Now the champion prize is a piece of plate, value, 100 guineas; the prize for the best animal of the breed is a cup, value £40; and the prize for the best in the class is £20 in cash. So it follows that the champion beast secures to her owner three separate prizes, whose aggregate value is £165, or $825. This in itself is no mean triumph, as it is no barren one. But the honor of producing the most nearly perfect fat beast in the Show is almost more highly valued than the money—is more highly valued in fact.

Mr. Stratton, of Newport, Monmouthshire, is the enviable winner of the "Blue Riband" of the Smithfield in 1878; and he was congratulated first of all by the Prince of Wales, who witnessed the judging for the champion prize. The animal whose transcendent merits secured to her owner this coveted distinction, was a superbly beautiful red-roan Short-horn heifer. She is not very big either in stature or in actual weight; but she is one of the most nearly perfect fat animals I have ever seen. She is a *multum in parvo*; her top is wonderfully broad and long; she is very short on the leg, marvelously wide and deep in the breast, and very deep and spacious in the hind-quarters; her bone is fine and small, and the proportion of offal is very small compared with that of meat. She is splendidly fed, and handles firm and full of quality; wherever possible the meat and fat are put on, not in lumps, but in a shapely, uniform covering; and she exhibits two elements in perfection—those of breeding and feeding.



"ICICLE."

In the past forty-eight years the champion prize has been won by Short-horns twenty-nine times; by Herefords, nine; by Devons, seven; and by Scotch cattle, three. This fact speaks volumes in favor of the capacity of the Short-horns for being fattened to the highest possible pitch of perfection. But is all this extreme obesity in cattle a desirable thing in itself? We say, no; but it is an old custom to get them up for the Smithfield, and it is one of the things in which our leading agriculturists take a pleasure—a pleasure which is very expensive, and which seldom repays the cost.

STOCK NOTES.

FASHION IN STOCK.—The English papers contain reports of recent sales of sheep. Among these the prices obtained for Shropshires are particularly noticeable. This sheep is just now the fashion, and breeders are bidding prices up well into the three figures. Ewes sold for 120, 90, 185 and 105 dollars respectively, and rams brought from $105 up to $600. This fashion in stock hurts more than it helps. It misleads and brings disaster to hundreds of that class of people from whom—we are told—their money is so easily parted. It has been so with the Short-horn and the Jersey among cattle, and now the Guernsey is the rising cow. By and by it may, perhaps, become good and solid advice to tell farmers to keep stock breeders at a distance, lest their money should too easily slip out of their own pockets into those of that smart class of people. No farmer can now afford to pay $200 or half of it for a sheep or a pig, or $500 for a cow or a bull.

THE TEXAN FEVER.—Disease is reported to be very prevalent amongst cattle in Texas. The peculiar form is that of carbuncular erysipelas, or what is known as black-leg, murrain, or black-quarter. As the Texan stock becomes mixed with the improved races, the latter and the progeny of the mixture as a matter of course may be expected to become victims to the prevalent diseases from which the semi-wild race escapes. This seems to be the case, and the more valuable cattle are suffering just now more than usual. A sad result of the disease is the death by blood poisoning of many persons who have been engaged in skinning the carcasses of cattle that have died of the disease. This is a fearful fate, as a most painful death is inevitable from the least inoculation of the poison from the carcass, death being preceded by the occurrence of boils, carbuncles and ulcers over the whole body. It is safe to bury the whole carcass and not risk danger for the sake of a hide.

SOME PORK.—The whole number of hogs packed during the season of 1877-8 amounted to 9,905,000. The aggregate quantity of pork and pork products for the year is about 1,800,000,000 pounds, of which more than half was exported to foreign countries. With such an enormous production, prices have, of course, been greatly reduced; but, on the whole, the amount of money which has found its way into farmers' pockets from this business is over $50,000,000. As compared with the prices of other things, these fifty millions represent as much value as the larger amounts in other years when prices were higher. It is not the money itself, but what the money can effect in exchanges, which fixes the value and profit from it, and on this basis there is not much to complain of in the last season's pork business.

CATS.—These useful animals are worthy of notice from professional breeders, and we gratuitously give the latter the hint. Dogs have had their day as vermin killers, and now chiefly furnish subjects upon which farmers can vent their surplus spleen and animosity; or material for soap boilers and glove makers in the populous cities. The curly dogs whose skins used to furnish overcoat collars and cuffs, have disappeared, and the hunting dog has usurped the first position at the head of the canine race. As useful dogs exist no longer, we might turn to cats in place of them. These animals, if given a chance, would soon annihilate mice and rats, and beside this use they furnish a valuable fur. This is the point to which the stock breeders' attention is drawn. They might go further and fare worse. Jet black and fancy marks in cat skins are becoming fashionable, and now that the black points of the Jerseys and the mealy noses of other cattle are fixed permanently, the harmless, necessary cat might be put in training for solid colors, or such marks and points as may be desirable. The business of breeding cats is already established in European countries, and we might very well take a hand in it.

ABORTION IN COWS.—Herr Mobius expresses the opinion that this is often caused by giving the animals too cold water to drink.

Sheep Husbandry.

SHEEP ON NEARLY EVERY FARM.

Sheep raising in St. Lawrence county, N. Y., although not carried on extensively by any one, is yet a very important item of the wealth of the county. When nearly every farmer in a community keeps sufficient sheep to enable him to supply not only his own wants, but also to sell lambs, mutton and wool, sheep-breeding in the aggregate is of considerable importance, and this may be said to be the condition of wool-growing and sheep-breeding in this section. The farmer who does not keep a small flock of sheep is very rarely to be met with. The flocks in size range all the way from a half-a-dozen up to seventy-five and one hundred. The larger flocks are kept by men who do not keep cows or are so situated as to consider it more convenient or profitable to raise lambs and wool. There are very few prominent breeders of thoroughbred sheep, but we have a few farmers who have done a great deal for the improvement of sheep by the introduction of thoroughbred Leicesters and Cotswolds. The prevailing sorts are natives, or rather mongrels improved by the use of Cotswold and Leicester rams. There are a few small flocks of fine-wool sheep; but they are not regarded as profitable.

The greatest source of profit from sheep keeping lies in the sale of early lambs. The butchers usually pay from $3 50 to $4 00 per head for good animals of this sort. But the lambs that command the highest price are dropped by large, vigorous ewes, bred to Cotswold bucks. The lambs should come early and the ewes should be well housed and fed, and every possible precaution should be taken, especially in cold weather, to prevent accidents and keep the lambs growing. Late lambs are gathered up by drovers and shipped to the large cities. They do not usually command more than $2 50 or $3 per head. Even taking into consideration the extra care and cost of raising them, the early lambs pay somewhat the best.

In addition to that from lambs, a large share of the profit of sheep keeping comes from the sales of wool. The ordinary sheep clip, on an average, six to eight pounds per head. And herein is the ground for the prejudice against fine-wool sheep: their wool may be nicer for home use; but inasmuch as their clip is not as great as that of the others and does not command as good a price as the combing wools, there is no good reason why they should be kept. There is one reason for keeping sheep which is not very often taken into account, and that is, the keeping of them on rough land for the purpose of killing the weeds and brambles. They can be kept profitably on land too rough to be valuable for pasturing cows and horses. F. K. Moreland.

St. Lawrence Co., N. Y.

Various.

TRAMPS, AND HOW THEY ARE MADE.

Fifty years ago there were no tramps, but there were plenty of apprentices. Then everybody could learn a trade. Now boys are shut out from all trades by the arbitrary laws of the trade unions. Manufacturers dare not employ any boys, and the beneficent, time-honored apprentice system is entirely abolished. Boys without trades grow up without education, and become idle members of society, living upon their relatives while times are good, and when they cannot keep them longer, the youngsters are turned loose upon society perfect outlaws. If the apprentice system can be again introduced, which means the destruction or modification of trade unions, we shall soon see a wholesome change. Tramps are the natural result of an excess of foreign mechanics; let us encourage home manufactures by home manufacturers. S. R. M.

BEE HINTS.

At present there is but little to be done in the apiary, provided the hints for wintering bees, given in a full number of the Rural, have been followed. The hives must, of course, all be protected against the cold, and in the Southern States, against the heavy rainfall. Be sure that the mice do not gain admission to the colonies, and take care, also, that the temperature in the room where the bees are stored, is kept as near as possible between 35 and 45 degrees F. Should the temperature rise higher, and the bees become uneasy, select a warm, sunshiny day, on which to remove them to the open air, so that they may discharge their fæces, and while they are out, clean off the bottom boards as carefully as possible. If they are in danger of starvation, they must be fed with good capped honey.

Millers and Wire Binders.—The millers of Minnesota seem determined to make an exterminating war on wire binders. At their late convention a resolution was adopted to make a discrimination of 10c. per bushel against wheat which had been bound in this way. They insist that their stones and bolting cloths are seriously injured by pieces of wire which careless workmen permit to pass through the thrashers. The millers of Illinois also strongly object to these binders: but make no discrimination against the wheat on which they have been used. It is to be hoped for the benefit of all, that some less objectionable form of binders of equal efficiency may soon be devised; but meanwhile it is more than doubtful whether the millers of Minnesota are powerful enough to fix the price of wheat even for their own State.

CATALOGUES, &c., RECEIVED.

Price-list of choice field and garden seeds, W. B. Jones, Herndon, Ga. The catalogue particularizes Field Crops, Cotton and Forage Plants. Among the last named Mr. Jones says; "Egyptian, Cattail, East India, or Pearl Millet, is the best green soiling plant known in the South, from which three or four cuttings can be obtained on good soils. Am now (15th October) making my fourth cutting. These seeds were sold in Northern and Western States, last year, at most fabulous prices, where they cannot be matured, showing how much this plant is appreciated there for soiling and hay purposes. Two pounds of seed will plant an acre."

Sugar Frauds and the Tariff. This is a pamphlet of 30 pages by H. A. Brown, ex-special Treasury Agent. It treats of various frauds perpetrated on the revenue by importers and refiners of sugar, and the relation of these frauds to the home production, consumption and general interests. In noticing the brochure on the same subject lately published by D. A. Wells, we remarked last week that there seems to be ample grounds for a revision of our revenue laws in that connection, and this work strongly confirms that conclusion.

The Young Scientist. This is a twelve-page, well-illustrated monthly periodical, edited by the well-known John Phin, published by the Industrial Publication Co., 176 Broadway, New York, and costing only 50 cents per annum. The articles treat chiefly of scientific and semi-scientific matters, are written in a clear, intelligible style, frequently refer to practical subjects, and are interesting and instructive not only to youthful students, but often also to older heads in which there is still room for a good deal of useful information.

Western New York Hort. Society. Twenty-fourth Annual Meeting to be held in the city of Rochester, in the new City Hall, commencing on Wednesday, January 22d and continuing two or three days. The members of the Western New York Agricultural Society, and Farmers' Club, and all who take an interest in fruit culture and horticulture, are cordially invited to attend and participate. P. Barry, President; P. C. Reynolds, Secretary. The topics for discussion are of unusual interest. See p. 24.

Card. D. A. Fisher, proprietor of Home Nursery, Denver, Indiana. Fruit and ornamental trees, flowering shrubs, grape vines, roses, small fruit plants, greenhouse plants, etc.

Inter-State Industrial Exposition of Chicago. Reports of Secretary and Treasurer for 1878. Jno. P. Reynolds, Secretary.

Garden Guide and Illustrated Catalogue for 1879. R. H. Shumway, Rockford, Ill. Flower and vegetable seeds.

Everywhere.

NOTES FROM NORTH CAROLINA.

My Roses have bloomed in rich profusion this year. My custom is to prune closely during the winter. I find that fine charcoal is a very useful mulching for rose-bushes. In August I made some experiments in budding. One result was a magnificent Malmaison bloom in September on a stock of an old-fashioned Rose. Another was the beautiful contrast of a nearly pure white bloom among the dazzling Sanguineus. The flower seed which the Rural kindly sent, produced plants that promised well for a season, but some varieties perished in the trying summer.

The Strawberry Tomato flourished like an animal in its native element, and, behold, it proved to be what is common here—known generally as the Ground Cherry. The Hungarian Tomatoes grew well and were ready to bloom, but were nipped by the frost. The habit of the plant decidedly pleased me.

Last spring I received from the Department of Agriculture a few specimens of a variety of potato, marked simply No. 4, which I think I discovered to be the Beauty of Hebron. I planted them at least three weeks after Early Rose, Snowflake, and Early Vermont. The Beauty was planted with rather more care than the other kinds. It bloomed considerably before those that were planted so much earlier. It produced very satisfactorily indeed, both in quality and quantity, and was remarkable for the absence of small tubers. The experiment convinced me that it is second to no kind that I have seen tried in this latitude. I have preserved nearly all for seed.

I am surprised that more attention is not paid to the Fig in our country. This locality seems specially adapted to it. I have several varieties and would really hesitate to exchange them for any other kind of fruit-trees. If the first crop is destroyed by the cold, the unyielding bush or tree does not betray any discouragement, but works hastily on in the enterprise of reproduction. Hence, the fruit never fails while the tree lives. There is a continuous yield through the long months, from the time the second ripening begins to the day when a heavy frost falls. This year I ate the last about the 6th of November. The fruit is luscious and unquestionably wholesome. I know of no fruit that may be eaten so freely with impunity.

The farmers have had a favorable season for seeding wheat. However, our people, as a rule, are poor wheat-raisers. The crop needs more attention and better soil than they give it. New kinds of wheat are more appreciated than formerly, and the Agricultural Department at Washington, is distributing valuable varieties for experiment. A. W. Mangum.

Chapel Hill, N. C.

RURAL SPECIAL REPORTS.

New York, De Kalb, St. Lawrence Co., Dec. 27.—If I were asked to state what the weather had been in this part of the State for the past three months, I should say that we haven't had any. It has been rain, wind, snow and slush. The roads have been almost impassable, small creeks have become sweeping torrents, lowland has been submerged, hundreds of acres presenting more the appearance of lakes than tillable land. The wheat crop in this section was fair, the yield of spring wheat being about 25 bushels per acre, and some farmers report a yield of 50 bushels per acre of winter wheat. Oats were a light crop and of poor quality. Of barley there is not much raised here. Potatoes are scarce and high. Owing to the heavy rains in August and September they rotted badly; many farmers who had hundreds of bushels last year have not enough for next year's planting. Now and then, however, one is found who is fortunate enough to have plenty for his own use and a few bushels to deal out to his less fortunate neighbors.

A large share of the cheese factories have closed out the season's make at from 7c. to 9c. Now and then a factory has placed its cheese in winter-quarters, not being willing to accept the prices offered. This, I think, a bad plan, as it will tend to keep down the prices next spring. Wheat sells for $1; corn, 60c.; barley, 75c.; oats, 30c.; potatoes, 75c. to $1; butter, 15c. to 20c.; cheese, 7c. to 9c.; hogs, dressed, 3c. to 4½c.; hay, prime, $8 to $10 per ton. Of tramps, lightning-rod agents, tree-peddlers, etc., the supply has been large and of about the average quality. With the advent of cold weather these are becoming more scarce, yet the supply more than equals the demand now. S. C. D.

New Hampshire, Dover, Dec.—The season of 1878 has been dry, but as the drought did not commence until about the first of July, the hay crop, the great staple of New England, was not injured, and as a consequence we have harvested in fine order one of the best hay crops we have ever had. Corn was good; the hot, dry weather of July and August was just what was required to mature it. A larger area than usual has of late been planted to this crop by New England farmers, for they have become convinced that it is better to raise what they need of it than to buy so much from the West. This change in their practice has been brought about in a measure by the introduction and use of various commercial fertilizers upon sandy soils which have been considered worthless, but which, by the use of these manures, produce fine crops of corn. Potatoes have been the greatest failure of any crop here; the Colorado beetle and the drought seemed to join hands to destroy them, and the result is that not half a crop has been harvested; and where in former years potatoes have been 50 cents, they bring to-day $1 per bushel. But to fill the place made vacant by so important a crop as potatoes are to the New England farmer, we have had an unusually large crop of apples. Although these have brought only a low price, owing to their abundance they have materially aided our farmers to pay taxes and other necessary outlays. And take it all in all, the farmers are as well off as any other class, and perhaps better off; still among them there is a good deal of grumbling about the unprofitableness of their occupation. R.

Arkansas, Van Buren, Crawford Co., Dec. 29.—On Dec. 25, at night, we had a heavy snow storm, and on the 28th, also at night, snow fell to the depth of five inches. I have lived here nine years, and I have also lived in Mississippi and Alabama, and to all intending to emigrate, for the purpose of farming for a living, I would honestly say, "This is just the place for you." Corn is worth 30c.; meat 2c. to 3c. per pound; flour $2 to $3 per hundredweight; stock, cheap; land, per acre, from $4 to $12; rents from $2 to $4 per acre, or ⅓ of the corn crop and ¼ of the cotton in the seed. There are 25 churches belonging to seven different denominations. Our schools, buildings and teachers, are equal to those that can be found in any county of the State. There are 22 steam flouring mills in the county. Among our non-agricultural industries are lumber-making and dressing from pine, walnut, ash, hickory, oak and gum. We have rail and river transportation. Cotton, corn, wheat, rye, potatoes—Irish and sweet—timothy, red-top, some clovers and all the millets do well here. Our fruits are equal to those of Indiana, Kentucky or Tennessee, including the Apple, Peach, Cherry, Apricot and a large number of different berries. Moreover, all newcomers with brains and energy are sure of a hearty welcome from all the settlers. B. E. L.

Ind., Oaktown, Dec. 28th, 1778.—This year gave us a warm open winter and early spring, but the weather was so rainy that corn was planted much later than usual. June and July were good months for farmers. Wheat was rather above the average and hay a better crop than usual. In the latter part of July a dry spell began and for over two months we did not have rain enough to fairly moisten the ground. Corn was cut short fully one-half; late potatoes were a failure. About the customary amount of wheat was sown in this county, but much later than usual because of the drought. We are blessed with plenty of small fruits and peaches, but we had few apples and those not as large as usual. The price at which wheat was sold, 75 to 80 cents, did not put much money in the pockets of our farmers, and the shortness of the corn crop and the low price of hogs, make many long faces among those who are in debt. H.

Ohio, Mt. Vernon, Dec. 30.—The weather has been very cold here for the last ten days, the thermometer standing steadily at about ten degrees below zero. There is a grand prospect for wheat hereabouts next season, if our winter wheat does not freeze out. Every one who can do so, is putting up a large supply of ice, which is twelve inches thick and very solid. Our markets are low, but easy; wheat, 95c.; oats, 20c.; corn, 25 to 30c.; potatoes, 40 to 50c.; rye, 60c.; apples, 20c.; pure cider vinegar, 12c. per gallon by the barrel; eggs, 20c. per doz.; butter, 15c. per pound. The subject of making gravel roads is much talked of among us. Our present roads are good, but we want better. Where every creek has a bed of gravel, it's a sin and a shame that the life of an intelligent community should be made wretched not only in winter, but after every heavy shower, by muddy roads. M. W.

N. Y., Adams, Jefferson Co., Dec. 30.—Crops during the past year were more than an average in this section. Corn is worth 50c. per bushel; oats, one cent. per pound; potatoes, $1 a bushel; barley, about 75c.; apples, $1.75 per barrel; butter and cheese have just now very little sale here, most of the dairy product lying at the factories waiting for buyers. Pork and beef, $4@4.50 per hundred. Our farmers raise a good deal of beans and peas for seedsmen, but they have become so particular about their quality, and there is so much docking by the purchaser, that farmers would do better by raising almost any other kind of crop for market, rather than submit to the deductions made in the price when they deliver their seeds. T. C. C.

Texas, McKinney, Dec. 26.—We now have an inch-deep snow on the ground, and have had a considerable amount of cold weather for Texas. "Hard times come again" is murmured around here. Red May wheat is worth 50@60c. per bushel; pork, 2@2½c. gross; beef, 2¾@3c. gr.; sweet potatoes, Bermuda and Brazilian Yams, 75c.@$1 per bushel; corn, 20@25c.; red winter oats, 30@35c.; eggs, 10@12½c.; butter, 25@30c. This county has passed in the last ten years from a grazing to one of the finest farming regions in this or any other State. Because the black-wax soil does not wear out, it does not require a manure dressing every year, although it will yield much better from its use than without it. W. N. W.

Vermont, Manchester Depot, Dec. 28.—Although as a people we are much better off than we were a year ago, yet some are continually whining about hard times and scarcity of money, as if they really enjoyed grumbling or as if it in any way improved their plight. Hereabouts, railroad section men get $26 per month; carpenters, $1 75 to $2 per day; teamsters, $10 to $15 per month. Hay is selling for from $8 to $12 per ton; oats, 38c. per bushel at the mill; feed and meal, $1 20 per 100 lbs.; new milch cows, $30 to $35; oxen from $100 to $150 per pair; pork, fresh, $4 50 to $5; beef, $5 to $6; cord-wood, $3; spruce boards, $8 50 per M; flour at retail, $5 75 to $7. E. L. T.

Iowa, McGregor, Dec. 26. The weather here is intensely cold, cold enough to satisfy the most ardent admirer of genuine, seasonable, wintry weather. It freezes the ink inside the bookcase, it freezes the thoughts that the ink should express, which accounts for the short-

ness of this. It requires no thinking, however, to remember the pleasure with which the members of our little circle read the contributions of Mrs. Annie L. Jack, and, indeed, almost everything that ever appears in the RURAL.

J. R. J.

IOWA, Tipton, Cedar Co., Dec. 28.—Our fall has been fine and dry. The corn was all gathered in good order, and was of an average yield. A good proportion of the stalks have been plowed under for spring seeding. On the 16th we had a snow ten inches deep. During the last few days, it has been somewhat cold, the thermometer ranging from zero down to 10 degrees below that point, with a keen wind that drove the cold cuttingly through those exposed to its sharp edge. E. A.

MICHIGAN, Watson, Allegan Co., Dec. 27.—We anticipate a considerable revival of business before winter is over, if this snow remains, as lumbermen have commenced operations on a grand scale, which makes a market for our produce. There is an abundance of everything in the country, so that if wages are low, prices are also low to match. A little money will go a long ways in furnishing food and provision for the poor. H. D. E.

OHIO, Bennington, Morrow Co., Dec. 27.—We are having fine winter weather with about five inches of snow. Feed is abundant and cheap. Fall wheat looked promising when the snow came. Wheat is worth 85c.; corn 30; oats, 20; butter, 12½; eggs, 16; hay $5 per ton. T. W.

N. Y., Perry, Jan. 2.—I have just sold for 90c. per bushel some good Clawson wheat that looked better than wheat I sold for $2 per bushel in 1873. Barley is worth 60c.; pork, $3.25 per 100lbs; oats, 25c.; other farm products in proportion. J. B. P.

ILLINOIS, Naples, Scott Co., Dec. 29.—Weather very cold here for past two weeks, thermometer sinking as low as 12 degrees below zero. Sleighing splendid. E. M.

KENTUCKY, Danville, Dec. 26.—Clear and cold, with five inches of snow and the thermometer steady at 16 degrees below freezing point. A. F. M.

The Querist.

ANSWERS TO CORRESPONDENTS.

Bee Queries.

M. W. Mt. Vernon, Ohio, asks 1. which beehive is preferable—the American or Langstroth's; 2. how far must Italian bees be kept from other bees to prevent the former from mixing with the latter. 3. Is it advisable to buy Italian bees mixed with brown bees to start an apiary; 4. would not an eastern slope, protected on the north and west, be a good site for hives.

ANS.—1. Langstroth's we think is generally considerd the best hive in use. 2. They can stand side by side without mixing, unless one is raising queens, then about three miles would be a suitable interval. 3. Yes, if the queen is a pure Italian, and her young bees have the three distinct yellow bands on the abdomen characteristic of Italians, otherwise not. 4. Very good, but the hives must also be shaded from the hot sun, by low evergreens or shrubs. To judge from your questions if will be advisable for you to study a good treatise on bees before starting an apiary. Cook's Apiary is perhaps as good a one as any, published by T. G. Newman & Son, Chicago.

Wanted, a Good Farm in W. Va.

A Constant Reader, Syracuse, N. Y., intending to move to W. Va., for farming purposes, wishes to learn in what part of that State the best and cheapest lands and at the same time those most convenient to market can be purchased.

ANS.—A number of communications from different parts of W. Va. have appeared from time to time during the past year in the RURAL under the heading Everywhere. For these we refer "Constant Reader" to the full index we have lately issued. The word "cheap" is often used as a synonym of low-priced, and it is hardly probable that the best land, most convenient to a good market, can be bought in any State at the cheapest rate, if the word is used in this sense.

White Grubs.

L. G. W., in the RURAL of Nov. 9, complains of the White Grubs eating the potatoes. Let him sow broadcast, after planting, a half bushel of salt either from meat pickle, fish barrels, or any other cheap salt, and he will have no more trouble. He need not fear damage to the crop, as five bushels to the acre cannot hurt any crop. Salt in the soil attracts moisture which is congenial to most growing things. S. R. M.

Holding Grain.

A. S., Helper, Kans., asks, "would the RURAL advise farmers to hold back their grain for better prices, and if so, how long?

ANS.—We could not offer advice upon such a subject. Our "Everywhere" and market reports will prove our friend's best guide. In our "news" columns, also, the state of the crops and any important movements in the grain trade across the Atlantic, are mentioned whenever we think our readers can be benefited or instructed thereby.

Cutting Back Privet Hedges.

J. E. C. Kings Co., L. I., inquires about cutting back a privet hedge.

ANS.—It may be cut back at almost any time. The beauty of such hedges depends upon a severe annual pruning. They should be cut back to within two feet of the ground. The annual growth in what is called the California Privet is as much as eight feet. If this is left, the plants soon become leggy and by no means ornamental either in hedges or as single specimens.

Muck from an old Mill Pond.

E. A. G. Greenville, S. C., asks whether muck from an old mill pond would make a good manure.

ANS.—Yes. For the best method of preparing it, see RURAL of January 4, page 9, under heading, "History of a Poor Farm."

Huckleberry Culture.

W. B. Y. Norwich, asks how to cultivate Huckleberries.

ANS.—We do not know. Many have tried, but nobody has as yet succeeded, and we are inclined to think nobody ever will.

How to use Superphosphate.

G. H. Mayfield, O., asks how to use superphosphate.

ANS.—Mix it evenly with earth—the more of the latter the better. Sow it then broadcast and harrow in.

Miscellaneous.

M. H., Isle La Motte, Vt., asks 1, Where he can get the Prolific corn about which so much is said. 2, where can he buy thoroughbred cattle without having to pay fancy prices for them; he wants twenty or thirty yearling calves to start a dairy.; 3, the name of a reliable work on manures; 4, also, of one on grasses and forage plants; 5, will buckwheat eradicate couchgrass.

ANS.—1. We do not know what corn is referred to. There are many so-called "prolific" varieties of corn. 2, Try Smith & Powell, Syracuse, N. Y. 3. Harris's Talks on Manure is as good an authority as any. 4, None better than Flint. 5, We should say, no.

R. S. M. Peter's Creek, Stokes Co., N. C., asks whether we have ever experimented with Chufas and if so, whether we think they could be profitably cultivated for hog food.

ANS.—Yes, we have experimented with Chufas and do not believe they can be made to pay, at least in this section of the country. In the Southern States, however, especially in those along the Gulf, many speak favorably of them for hog and poultry feeding.

A. W. M. Chapel Hill, N. C., asks whether Pyrus Japonica has been used successfully as a stock in either budding or grafting, and whether it ought not to take to the varieties of the Apple.

ANS.—We do not know as to the Apple, but should say it would not prove of any value. It dwarfs the Pear and a late writer speaks of it in strong commendatory terms for that purpose.

C. T. M., Canandaigua, N. Y., asks the names of authors and publishers of best late works on peach and grape culture for a beginner in fruit culture.

ANS.—We do not recall any standard book about Peaches alone. Downing's Fruits and Fruit trees of America, Thomas's Fruit Culturist and Barry's Fruit Garden give all needed instructions. They can be secured through this office.

B. H, Kingston, Luzern Co. Pa., asks for the name and place of a manufacture of a horse-power corn-husker that works successfully.

ANS.—Phillip's Spiral Corn Husker, Chas. H. Mallison, Hudson, N. Y., is the best that we know of; it has proved quite a success.

James Truitt, Chanute, Kansas, asks for the address of Thomas Roe, Monroe Co., N. Y., and where he can get a few cions of the Stump Apple.

ANS.—1. We do not know. 2 Of any good nurseryman.

COMMUNICATIONS RECEIVED FOR THE WEEK ENDING SATURDAY, JANUARY 4th.

"Farmer's Garden," no name or advice—R. C. C.—M. B.—C. T.—S. R. M.—C.—A. R. C., seeds will be sent before spring—M.—W. J. F.—S. B. P.—L. S. H.—H. S.—C. A. R.—T. H. H.—L. A. R.—S. R. M.—C. S. C.—A. L. B., we ask indulgence for a week or so—C. S.—G. W. T.—C. B., answer by mail in a few days.—D. S.—G. M. S.—F. D. C.—R. B. P., thanks—B. E. L.—J. E.—J. A.—M. E. S., the Eryngium is a Texas annual—J. S.—C.—F. R. P., we answer questions as we are enabled to do so. Sometimes a week or more is required to hunt up the necessary information—"Farmer's Wife."—A. L. J.—E. M.—R. A. J., Everywhere notes are solicited from every section—C. S. A.—S. R. M.

It will Help You through the Year.

IT WILL HELP YOU TO MAKE MONEY AND TO SPEND IT JUDICIOUSLY.

"The sparkling, bristling, earnest, independent

"RURAL NEW-YORKER."

Professor E. M. SHELTON of the Kansas Agricultural College says:

"*The* RURAL NEW-YORKER *has more influence and is more quoted than all the rest put together.*"

For the largest Farms—the smallest flower plots—for the crops in the fields—the vegetables and small fruits in the garden—for the Herdsman, the Dairyman, the Apiarian everywhere.

For the Country, Village and City---For everybody that loves his home and desires so to elevate agriculture and horticulture that they shall be recognized as the noblest pursuits of men.

B. PICKMAN MANN of Cambridge says:

"*For years I have taken the leading agricultural journals, and they all seem* TAME *when compared with the* RURAL NEW-YORKER."

The most vigorous and able combination of practical writers ever before collected together in the columns of any journal.

2d YEAR OF ITS PRESENT MANAGEMENT. 30th YEAR OF ITS AGE.

Thousands of new Subscribers from all parts of the Country---Our old Subscribers united in enthusiastic expressions of approval and support.

Professor WM. J. BEAL of the Michigan Agricultural College:—"*The* RURAL NEW-YORKER *is now the* BEST *paper.*"

CHARLES DOWNING says:—"*I am glad for the public as well as for yourselves that the* RURAL *has so much improved.*"

Thousands of plant cuttings and seeds have been distributed free to subscribers during the past year—and our present Free Distribution of Seeds will, we believe, when they shall have been tested, be regarded as the most liberal offer of the kind ever before made.

Pearl Millet and Defiance Spring Wheat (now selling at not less than $20 per bushel each)—the Beauty of Hebron Potato—Golden Rural Tomato, Bronze Ricinus and sixteen varieties of seeds of our choicest hardy shrubs (most of which are not offered for sale), will be found in our present collection. (See page 33.)

Pres. T. T. LYON of Michigan says:—"*The* RURAL *is the best paper I see.*"

Sec'y C. W. GARFIELD of Michigan says:—"*I find that the* RURAL NEW-YORKER *has more things in its columns that I want than any other paper I take.*"

Ex-Gov. FURNAS of Nebraska says:—*The* RURAL *is most welcome to my table and family.*"

Dr. E. LEWIS STURTEVANT of Boston says:—"*The* RURAL NEW-YORKER *has the best list of contributors of any paper of its class in the country and is doing a noble work.*"

S. RUFUS MASON of Nebraska says:—"*I feel that I do not flatter anybody when I say that it is the* BEST *journal of its kind that I ever saw.*"

THE ACKNOWLEDGED HEAD OF THE RURAL PRESS.

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N. B.—Our Farm and Experimental Grounds of 82 acres are devoted to experiments of all kinds appertaining to plant life and the best agricultural and horticultural methods. New plants of all kinds adapted to the climate are tested and reported upon according to their merits. We cordially invite—indeed solicit—our subscribers to communicate ANY FACTS which they may deem of interest to the general reader.

Address all communications

RURAL PUBLISHING CO.,
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THE
RURAL NEW-YORKER.

PUBLISHED EVERY SATURDAY.

Address
RURAL PUBLISHING CO.,
78 Duane Street, New York City.

SATURDAY, JAN. 11, 1879.

We will be pleased to send one or more copies of the RURAL NEW-YORKER *free to any of our subscribers sufficiently interested in its welfare to be willing to hand them to their neighbors for inspection. An intimation by postal card will suffice.*

OUR readers who apply will have the Beauty of Hebron potato sent to them separately, because to send this with seeds makes an awkward package, and also, because the seeds may be forwarded at any time regardless of the weather, while the potatoes may be injured by frost. We mention this for the reason that our friends receiving the potato only, may think the rest of their selection has been overlooked.

We earnestly request that all letters containing money, or any communication intended for the BUSINESS DEPARTMENT *of the paper, be addressed to* THE RURAL PUBLISHING CO., *and not to any individual. We cannot otherwise guarantee the prompt entry of names upon our books, or the acknowledgment of money.*

OUR readers are particularly requested to read the particulars of our free seed distribution on p. 33, under publisher's notices, before ordering seeds.

WE offered, some time ago, to sell the cuts used in this Journal for twelve cents the square inch. Many have requested us to send proofs of our cuts. As we have upwards of ten thousand, we could not undertake to do so. Persons wishing to purchase, must select from files of the RURAL NEW-YORKER.

Applicants for seeds will please observe that the postage on ANY POSSIBLE *selection of* TEN *sorts of seeds,* IS NEVER *more than* FIVE *cents. A* ONE-CENT *stamp suffices for any selection of ten varieties* EXCLUSIVE *of the Beauty of Hebron potato, Pearl Millet and Defiance wheat. If the first of these three is included in the list, then a two cent* EXTRA *stamp is needed, and if the second and third are included, an extra two cent stamp is also required.*

HOG CHOLERA.

THE disease known as hog cholera has, within the last quarter of a century, extended its limits to such a degree as to be little less than a national calamity. It appears from time to time in nearly every State in the Union, and causes annual losses reaching at times the enormous amount of twenty to twenty-five millions of dollars.

We say the disease has been extending its limits, and we wish to call particular attention to this fact. Thirty years ago it was unknown in the New England, Middle, Southern and some of the Western States; why is it that none of these districts are at present free from it? We know that hundreds of those who will read this question stand ready with an answer—but scarcely two will agree. Some will claim that it is caused by errors of diet; and even here there is a variety of opinions; one will say, too much corn—an excess of carbonaceous elements in the food. Another is ready with an opposite opinion: too much clover—an excess of nitrogenous elements. Another class harps on high breeding, pampering, and weakened constitution; while still others are equally sincere in the opinion that the cause exists in the restricted range, over-crowding and filth to which many hogs are subjected. Each man will stand ready with facts to prove that he is right, and that a proper application of his views will rid the country of this dreaded malady.

But whence comes this variety of opinions? Are *facts* so deceptive as this? No; facts are not deceptive; it is simply the careless observation and explanation of facts that make so much trouble—it is the accepting for a fact that which is not a fact. If a man's hogs escape the disease while his neighbors' die of it, he attributes this to something he has done to prevent it—he has fed them ashes, or coal, or soda, or copperas; or he may claim this immunity is due to his breed, which has a better constitution, or he has fed them corn, or clover, or buttermilk; or his land is clay instead of sand; his hogs have been on sod instead of stubble, or his field is surrounded by an oak fence instead of a chestnut one. In the presence of all these conditions, however, how does he decide which has actually been the preventive one? There is no use in disguising the matter, he simply guesses at it—and then publishes to the world as a fact that which is only a guess. His hogs have escaped—there is the fact; why they have escaped is and must be guess-work till a large number of cases are observed, *all* of which point in the same direction.

To illustrate how some of our writers succeed in making their theories plausible, we will take the most absurd of the preventive conditions mentioned. A man's hogs have escaped, and in seeking for the reason he observes their pasture is surrounded by an oak fence; he hears of another person's hogs escaping—investigation shows they, too, were inclosed by an oak fence, while most of the neighbors have used chestnut. At another place the animals which were not attacked were within a chestnut inclosure—this fact is incomprehensible, but it cannot overthrow the other facts which he has collected, "the majority must rule," so it is not recorded; but he continues his investigations, accepting those facts which agree with his opinions and rejecting all others. Is it any wonder that he soon has an array of facts which *prove* that an oak fence will prevent hog cholera? Ridiculous as this may appear on paper, it is just what some very intelligent men have been doing for years; it is the kind of research that has been filling column after column of our agricultural journals; and such men have influence and thousands accept their doctrine!

We can point to instances, however, where none of the causes so often invoked were present, and yet the hogs died to the same extent as elsewhere. The fact is, no breed is exempt, no section is so salubrious as to be free, no conditions of diet, of surroundings, of range, appreciably lessen the death rate. The disease is a contagious one, and as long as we neglect the essential cause of the disease—the contagious germs—so long we will suffer from it. No diet will prevent one from contracting small-pox or yellow fever; nor can any preventive measures be effectual short of limiting the production and spread of such germs, and destroying those already existing.

It is now certain that a part of the commission appointed under Act of Congress to investigate this disease, will recommend measures for stamping it out; and to accomplish this result, we must have further Congressional action—action which will not be taken unless a united demand is made for it. As a people, we are always ready to investigate—but very often we stop with the investigation. Let us remember that no amount of investigation can free us from this disease, unless we enforce the measures which are indicated. To stop with the investigation is like sending for a doctor in a case of serious illness and expecting to be cured without taking his medicine or following his recommendations.

An expenditure of a small part of the sum annually lost from hog cholera, will, in a few years, free the greater part and possibly all of our country from its ravages. Shall the expenditure be made? Shall such a pressure be brought to bear on Congress as to force this action, or will we strain at the gnat and swallow the camel?

DRUDGERY.

EVERYBODY dislikes the continuous labor which is styled "drudgery." Drudgery, as the word is usually understood, means working whether you like it or not, and working steadily at a task until it is done. We say it is universally disliked, and yet no great thing can be accomplished without this same steady work. Drudgery, steady perseverance through thick and thin, carries the day and takes the prizes right away from genius, talent, wit and skill that cannot or will not drudge for them. "Is there anything in the world," asks Thackeray, "that cannot be accomplished by sheer hard work? Grant to any man, high or low, a sound natural capacity, and may he not aspire, with a reasonable degree of certainty, to the very grandest prizes which the Heads of the Houses of Life have to confer? May he not say to his will: 'You are my steed, I mean to saddle and bridle you. I shall spare neither whip nor spur, and you must carry me to the great goal. Be your name Hare or Tortoise, you and I must win the race.' Believe me that nothing is unavailing towards the great end, so long as it is work. The making of sundials and toy windmills helped Isaac Newton towards the *Principia*. Bacon was not wasting his time when he wrote about laying out gardens. Brougham took something by his motion when he sat down to furnish nearly an entire number of the Edinburgh Review. Burke found his account in writing summaries for the Annual Register, and Canning in making jokes for the Anti-Jacobin. All these things 'tell up.' They are columned and figured and entered to our credit; and some day the balance is declared, and we draw the splendid capital."

The worst feature of our times is the indisposition on the part of young and old, male and female, to that steady toil that is the price of all solid success. The terrible failures, the great break-downs of character, the defalcations, the peculations, the swindles, great and little; yes, and the robberies and burglaries occurring all around us, are the fruits, natural and legitimate, of the refusal to drudge on in the path of honest, patient, useful work. Our prisons and alms-houses and mad-houses are full of the wrecks of men and women who would not drudge.

The power of steady, patient and continuous work seems to be lost among a large class of our people. The education and the example of the past twenty years have been unfriendly to the homely virtues, of which perseverance and patience are not the least. "Nothing is denied to hard work"—"everything comes at last to him who can wait"—"learn to labor and to wait"—are three aphorisms that seem to have become obsolete and forgotten, yet they embody the sound wisdom that has grown up out of the experience of all past ages. Shutting the eyes to them will not blot out their truth, though it makes it useless to us.

It is among the farmers more than any other class that the old-time virtue exemplified in the willingness to drudge, yet remains. It is from amongst them that must come out those who are to replace the failures of the past generation among the professional and business ranks. Let them come fully grounded in the understanding that the only royal road to honor, fame and happiness lies far across the apparently weary waste of "drudgery." But, like the "Great American Desert," it is not as bad as it seems. Moderate compensations attend the patient traveler on his way. There are restful stations, refreshing springs, some grass and many flowers along the path. And when the summit of the "divide" is reached, there is a glorious outlook that can be gained in no other way.

EVENING AMUSEMENTS.

THE long winter evenings are here, when the boys and girls in the country, yes, and the men and women, too, are saying, "What can we do to amuse ourselves to-night?" Reading and study can be done to such an extent as to become wearisome: "all work and no play makes Jack a dull boy." The mind needs relaxation as well as the muscles; and no less work, mental or physical, will be accomplished if an occasional hour be given to diversion and entertainment. Lyceums, lectures, singing-schools, and an occasional sleighing party in the Northern States give opportunities for the meeting of young people; but we are thinking more particularly of home affairs, and of cold stormy evenings when only the family assemble, or perhaps a near neighbor or two drop in. How shall the hours be passed agreeably, amusingly and entertainingly?

It is only a few years since of games for children there were only Fox and Geese—Twelve-men-Morris Hull-gull—and a few more of the same sort. Cards were, as a rule, not allowed, but exceptions were sometimes made if nothing wickeder than "Old Maid" was played. But the number of games and amusements adapted to homes is yearly increasing, and there are now so many that the trouble is which to choose.

There are few games in which something more than mere amusement does not find place. Mere games of chance, of which there are very few, are not entertaining. Take Dominoes, for instance, a game in which children can find much pleasure, and still one which to play well requires good memory and sound judgment. In Checkers (or Draughts), and Chess, there are no chances involved. Thought, foresight, calculation, caution, all the mental faculties must be brought into action by those who would play either of these games even passably well. At Backgammon much depends on the cast of the dice. So much is chance; but the proper moving of the men requires intelligent consideration. In such games as Authors—Busby and the like, those with the best memory are winners of the game.

Temperance in all things should be the rule. Amusements may easily be carried to excess and time wasted by them that could be well spent in some other way. Study may be carried to excess and the brain overworked until it becomes worn out or useless; but study should not be condemned on that account. Labor may be carried to excess and the whole physical system break down under it; still "It is noble—'tis God-like to labor."

We should not forget to mention music, and dancing. There are no more profitable hours in a household, whose members are so fortunate as to be blessed with musical talent, than those spent in its use. Probably there is nothing that aids more in binding closely the family ties and promoting family love and harmony than music; and they are worthy of condemnation who, having the power to make music either vocal or instrumental, do not cultivate it.

Of dancing we are not earnest advocates further than in the home circle and among children. Here it may undoubtedly be indulged in, not only without harm, but with profit. We prefer therefore if dancing, as very generally practiced at the present time, is to be commended, it be done by other pens than ours.

BREVITIES.

POOR seeds are dear at any price.

LANGSHAN fowls are the latest sensation among poultry fanciers.

IT was Edgeworth who defined a fool as a man who never made an experiment.

AND now sticklers for grammar insist that the pests should be called trampers instead of tramps.

POULTRY enthusiasts talk about 200 and even 225 eggs per year. So far as we know or have heard, a true, fair record would put an end to such misleading stories.

WE hear that Mr. Thomas Meehan, editor *Gardener's Monthly*, will be a candidate for the Common Council of Philadelphia. We do not believe the report. Politics and horticulture will not mix.

MR. S. B. PARSONS suggests, in notes to the *Gardener's Monthly*, mixing the Retinospora with the Hemlock for hedges—which seems to us a suggestion of much value. The only setback is that the latter grows faster than the other. Cutting back remedies this difference in a measure.

THE seedling culture of Abutilons is very interesting. We advise our floriculturally inclined readers to try it. The flowers especially, and also the leaves are different in almost every plant. Crosses between the whites, such as Boule de Niege and the orange Darwinii or Thompsoni are easily effected.

ALL who till the soil should look upon every dead animal and plant as so much food for animals and plants of the present or future. The deprivation of life is the beginning of decay, or, in other words, the beginning of a return to the mineral kingdom which supplies plants with what we call their ash constituents.

THERE is but one plant, so far as we know, that potato beetles seem to prefer to the potato, and that is the Matrimony Vine, Lyceum barbarum. These grow from cuttings as readily as Willows. If, as we presume, the potato grubs and beetles would first infest such a hedge, Paris-green might be applied to it instead of to the potato plants.

NEW HAMPSHIRE'S late laws imprisoning tramps have completely rid that State of the vagrants. Vermont is following New Hampshire's example with results equally satisfactory. Providence has opened a wood-yard where the unemployed can earn fifty cents a day sawing firewood, and makes money by it from the labor of the industrious poor, but tramps do not ask the aid of Providence.

So little public honor has hitherto been bestowed on those whose labors have advanced the interests of the agricultural world, that it is a rare satisfaction to learn that 120,000 marks have been contributed towards the expenses of a fine bronze statue to be erected at Munich, as a memorial to the late illustrious Baron Justus von Liebig, whose studies in agricultural chemistry have so largely benefited farmers everywhere.

WITHIN a few days of the same date, chicks were hatched out at the RURAL Grounds from Partridge Cochins, Black Hamburghs and Plymouth Rocks. The last mentioned were the first to lay—the first ready for table use, and the first to mature. Of the brood of ten, two are black—larger than the others and the first to lay of the Plymouth Rock brood. If the Plymouth Rock can be considered a fixed variety, these two black hens may be considered "sports," or as reverting back to one of the original progenitors.

THE Canary Bird Vine is an annual with which our readers are familiar (Tropæolum peregrinum). We remember to have planted, years ago, seeds of this as well as of the Balloon Vine (Cardiospermum halicacabum), the Maurandya and Morning-Glories along a board fence, giving a southeastern exposure. In due time, they covered the fence, clustering upon the top and hanging over in entangled festoons. Early in the morning this vine-covered fence, during August and September, presented a sight more beautiful than can be described.

HUMBUG.—We find that fluid extract of Eucalyptus globulus is having a large sale among druggists for the cure of malarial disabilities. We have no right to assert anything regarding its febrifugal qualities, but we may be permitted to say that we do no believe it has ever cured a case of chills and fever or that it ever will. This tree has been much talked of because its roots imbibe a large quantity of water. Hence it was suggested to use it to *dry up* swamps. Hundreds of other trees would answer the same purpose. Fluid extract of Weeping Willow will prove just as effective in assuaging grief as fluid extract of Eucalyptus globulus will be found in assuaging malarial disorders.

For Women.

CONDUCTED BY MISS FAITH RIPLEY

THE FARMER'S LESSON.

If I had told her in the spring
The old, old story briefly,
When sparrow and robin began to sing,
And the ploughing was over chiefly!

But haste makes waste, and the story sweet,
I reasoned, will keep through the sowing,
Till I drop the corn and plant the wheat,
And give them a chance for growing

Had I even told the tale in June,
When the wind through the grass was blowing;
Instead of thinking it rather too soon,
And waiting till after the mowing.

Or had I hinted, out under the stars,
That I knew a story worth hearing,
Lingering to put up the pasture bars,
Nor waited to do the shearing!

Now the barn is full, and so is the bin,
But I have grown wise without glory,
Since love is the crop not gathered in—
For my neighbor told her the story!

EDITORIAL NOTES.

Any ladies who may have failed to receive patterns ordered from this office will confer a favor by dropping me a postal card, stating number of pattern, bust measure, and date on which it was ordered.

Linda Herbert.—I would advise you to wait for two or three weeks before purchasing a cloak, by that time the storekeepers will close out their stock at low rates.

Miss L.—Pretty photographs 36x28 can be bought as low as 75c. and $1, and beautiful imported photographs, a little smaller in size, cost $1.75. Many houses sell off their pictures at much lower rates than those given above, just after the holidays. A handsome natural wood frame costs $2.50 in New York.

TEA-TABLE COVER.

The finished cover is shown in No. 1. The center is art canvas, embroidered with crewels. The border is composed of alternate squares of guipure netting and embroidered art canvas, as shown in Nos. 2 and 3, and a fringe with a heading of drawn threads, ornamented with long stitches in crewel, as shown in the design, No. 4. The fringe and the border of squares are separated by a narrow border, as shown at No. 5. The different parts are sewn together, and the cover lined with art canvas or silk, according to taste. Directions for Crewel-Work were given in a late number of the Rural, and Guipure Netting will be given in a week or two.

LETTERS FROM A COUNTRY GIRL.—No. 10.

MARGARET B. HARVEY.

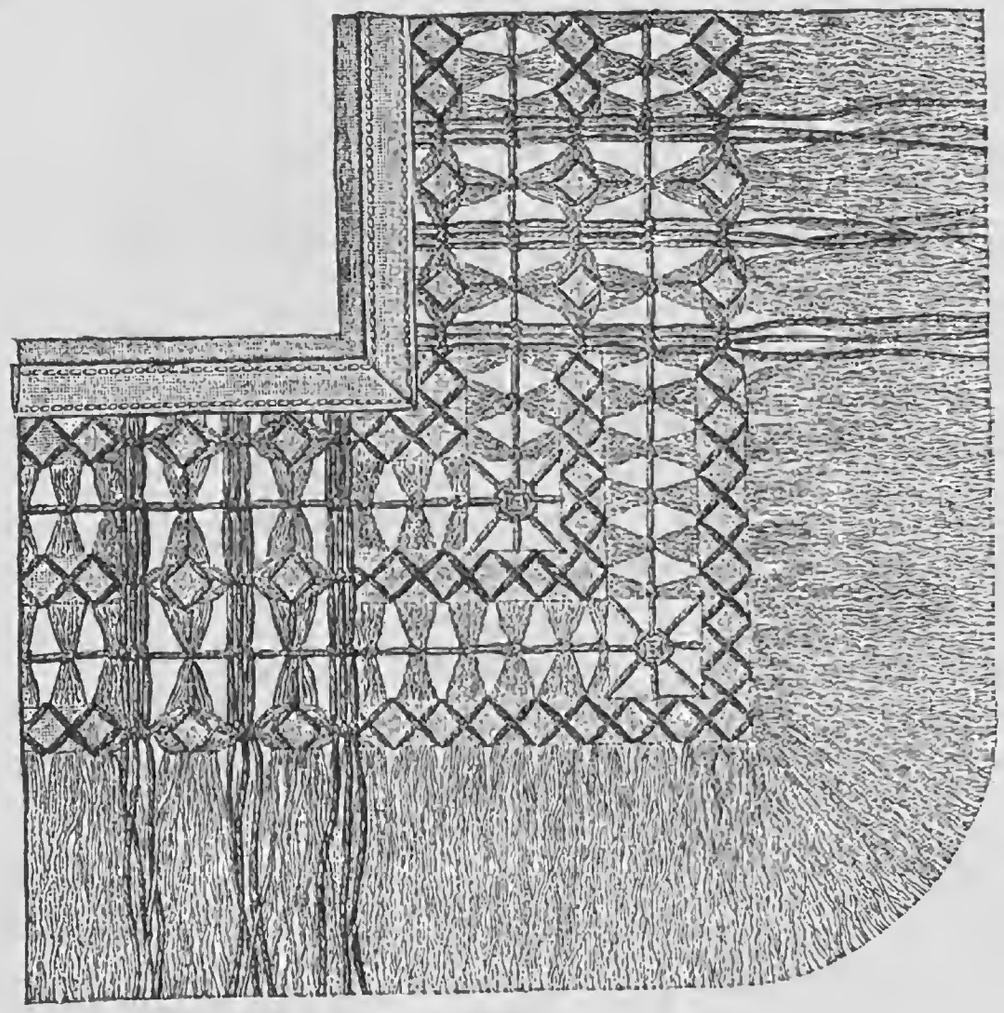
Incidentally throughout my letters I have referred to the advantages of possessing a knowledge of drawing. I fully believe that, scattered over our hillsides and hidden within our valleys are hundreds of girls and women dowered with a dormant power to copy or create, yet who feel that this one little gift can never be brought to light because no one has told them what to do. With the humble hope that what I say may be of some value, I assert first, that it is not nearly so difficult to become proficient with the pencil as is generally supposed. Of course, high art is one thing,—but ordinary delineation and shading, with satisfactory results, are within the reach of all who are willing to persevere.

To begin with, it is well to know something about the materials required. For a beginner, coarse gray cartridge-paper is best as a foundation,—better, even, than the common white drawing-paper, as it bears more rubbing and does not soil so easily. Then she wants one of Faber's lead-pencils, such as are sold for every day use, and a diamond rubber. After a learner has acquired a degree of skill it is time enough to think about Whatman's fine tinted papers and Faber's cases of polygrade pencils,—though I have seen very creditable drawings by young persons who never had either,

I would now get a light, smooth piece of pine board of a size suitable to hold on the lap, or rest on the edge of a table, or lay flat on a slightly sloping desk, as most convenient. Then I would spread my paper flat upon it, pushing a tack into each corner to keep it firm and smooth. Tacks for this purpose can be procured at any store for the sale of artists' materials, at the rate of about a cent apiece,—they have sharp points and large brass button-heads and, sink into the wood easily upon pressure with the thumb. A set of four may be used a long time.

I would not be too ambitious at first, neither would I be too trifling. I would not attempt to draw my father's barn, nor would I begin on straight lines, but I would try something simple, yet giving me an opportunity to see what I was doing. For instance, my fair friends, take the outline of a leaf, or the figure of an animal as given in the columns of the Rural. Judge by your eye how to arrange your lines so as to have your work in the middle of the paper, and begin at top or bottom or side or corner, suit yourself as to where you choose your starting-point. Only having taken one, let every line bear upon it, and be capable of being tested by measurements from it.

It is well to have little strips of paper for gauges. I will suppose that you are attempting to draw an ivy leaf, and have commenced at the extremity, directed upwards. Looking at your pattern you observe that the two lines defining the upper lobe diverge from this point to nearly an equal distance, so that a horizontal line joining them at their ends would form with them the boundary of a triangle not quite equilateral. Draw each of these lines, putting in the little curves according to the model, and then with your gauge measure each and the space between them, and see how nearly they correspond to the original. It is advisable never to erase a mark if it can be helped; but if it can't, that is, if you need to alter, the case is different. Make corrections until you are perfectly satisfied,—and don't be surprised if this should take you



No. 4.

hours. You will find the good effects of it by-and-by, when your eye and hand have become so well educated that a glance and a touch are sufficient.

The upper lobe finished, do the others in the same way. Get their distances apart, the length of the line between their apexes and that of the topmost part, the distance between this last and the stem. You have not finished your outline until it does actually describe an ivy leaf. Now put in your veins. The main ribs, as you see, divide the leaf into sections. Make these suit you exactly, and then you will find it very little labor to draw the short, wavy lines which represent the secondary markings.

You may, if you like, go on with the shading, or you may lay this piece away until you have become more familiar with the form. In any case, remember that you are to hasten not only slowly, but very slowly. Give as much effort to the turn of a curve as to half a page in a composition. And don't bear on too hard with the pencil, or your drawing will look too cold, sharp and black.

For a long time you must be content to copy shadow as you see it in pictures. But you will soon learn that very deep depressions have very dark shades; less, less; still less, less still; and that the parts which stand out are light, the effect of the shadow being to throw them forward. These depend on the light represented in the scene or upon the object. The conventional manner of its falling is from the upper left-hand corner, at an angle of forty-five degrees, so that the lower right-hand corner generally receives the greatest amount of darkness—though this rule is far from invariable. But observe lights and shadows—their form, direction and intensity—in nature, even while you are imitating set models, so that by the time you are able to invent you will have learned how to finish agreeably and correctly.

The manner of putting in the shading differs with the strength and habit and degree of delicacy of every individual hand. Some draughtsmen make a vast number of crossing lines of different degrees of heaviness, describing infinitely small lozenges; some make similar lozenges, with scattered lines running through them, up and down or from side to side; still others, blend their lines in no particular fashion. The only rule is, taste and practice, and this, too, is after all, the only rule for drawing.

Continue as you have begun until you can copy little scenes, first, by developing all the lines from the starting point, and trying their correctness by measurement, and then by lightness and heaviness of touch working in all the lights and shadows, until you can sketch from nature; first, by outlining a number of objects on a reduced scale and in true proportion, and then, by finishing them according as the brightness and darkness actually appear to you.

If you wish to draw from a large picture, in which the multitude of lines and variety of distances might confuse you, the work can be facilitated as follows: Rule over the surface of it a number of horizontal and perpendicular lines, every two lines running in the same direction being exactly the same distance apart, so that the whole pattern is covered by a number of precisely equal squares. Do the same upon the paper. Then the two, so far as rulings are concerned, are perfectly alike. Then put in, square by square, as much of the whole outline as appears in each. The shading will cover most of the lines, and those exposed can easily be rubbed out afterwards. If a drawing be upon white paper, the high lights are made by leaving it uncovered; if upon tinted, they are put in with a few judicious touches of white crayon,—not many, or the whole effect will be gray and chalky.

Crayon-drawing is most exquisite, and some of the productions of the artist on crayon are equal to fine oil paintings. Yet any one who can draw well in pencil ought to do just as well in crayon, making very pretty little sketches and beautiful heads.

Black crayons come in three grades of hardness, and cost seven cents for three—white ones, each five cents. Whatman's tinted papers, in soft grays and buffs and greens, are fifteen cents a sheet, each one being very nearly half a yard square. A stump, resembling a gray paper cigar, is ten cents; but you may be able to do without it. There is also a crayon-holder, but the brass tube on the top of a pen or pencil will answer the purpose, if you want any such contrivance at all. I never used one.

The outline is generally drawn with pencil or prepared charcoal, which is easy to work with, as it rubs out so readily. Crayon does not rub out, but makes a ruinous smear. (By the way, crayon-drawing is about the dirtiest work any woman can do. It is necessary to have a basin of water and a towel close at hand to be used every other minute, or else an inadvertent touch may spoil forever a most beautiful creation, the labor of months.) As to shading, it differs little from that required in pencil-drawing, except in the completed work the lozenges may be larger and more apparent. Then, too, it is not possible with the point of the crayon to blend as perfectly, hence this is done with the little finger, and the stump, or a crumpled bunch of coarse paper taking its place. In other words, in looking closely through the appreciable black lines in the shading, we must not see a light appearance, as of the bare paper, but one of a smooth, solid, cloudy gray. This is caused by the blending of the groundwork before the heavier lines are put on. Don't be frightened if your drawing looks coarse, crayon-work won't bear examining. See if the effect is good.

There are patterns sold for crayon-drawings (as there are also for pencil-pictures) which would be well for a beginner to have. By following them closely she will see what I mean, and then, perhaps, design for herself. These do not cost much and can be sent by mail. I am able to give the address of a house for the sale of artists' goods to any who wish it.

You may, if you try, before very long, be able to adorn your home with your own pretty pictures. How delightful that will be! I do think, in a moderately furnished room, nothing so effectually banishes any suspicion of a common, tawdry appearance, as well-executed drawings. But they must be framed, and if you don't know how to do that I will tell you. A drawing, especially if on tinted paper, looks best with a wide mat, usually white, around it, and the frame itself must be very simple. A plain, flat walnut band, with or without the merest suspicion of gilt within it, is very suitable the natural-hued, oiled woods, with perhaps a slight ornamentation in black at the corners are the fashion at the present time. If a tiny crayon head has a white mat around it, the beauty may be heightened by a few bright illuminations in water colors upon the margin, and then a flat band of dead gold will frame it fittingly. But never degrade your lovely effort by associating with it a cheap stained affair suggesting a staring lithograph, nor load it down with a cumbersome gilt appendage, appropriate for the ancient portrait of your great-grandmother.

LADIES, LEARN TO DRAW.

No. 1.—TEA-TABLE COVER.

Literary Miscellany.

GONE.

Gone with its joys, its hopes, its fears,
Gone with its smiles, gone with its tears,
One more link to the chain of years,
Another year has gone.

Gone with its weary toils, its strife,
Gone with its sorrowful record rife
Of broken vows and wasted life,
Another year has gone.

Gone with a sigh, gone with a groan
From hearts full of sorrow unknown,
Wafted up to the Great White Throne,
Another year has gone.

Gone perchance with a few bright days
Found in hidden paths and ways,
Mingling with joyous notes of praise,
Another year has gone.

Gone to its rest; it sleeps at last,
Down, deep in the vault of the Past,
Where the years lie, in number vast,
Another year has gone.

WHAT HAPPENED TO SEVEN GIRLS IN TEN YEARS.

MARY WAGER-FISHER.

Once upon a time in the city of Richmond, Va., (to be exact, it was upon New Year's Day, 1867,) six girls sat on the floor around a stove in a comfortably furnished room that served as bedroom and sitting-room to two of the number—Mary Walter and Zethrea Raynor. The names of the other girls, respectively, were Martha and Mary Cake (for short they were called "the Cookies"), who were sisters, and Cornelia Jaynes and Mary Roswell. The seventh girl—for they "were seven"—Mercy Biddle, was "up North," in Maine, her native State, begging her people for money for the Normal School building, which was to be for the accommodation of colored pupils in the capital city of Virginia. The six girls, as I have already remarked, sat on the floor around a stove; a wood fire was burning brightly within it; each maiden had her hands clasped about her knees; the twilight was beginning to gather, but the loose tongues, which had

been wagging for the last hour, betrayed no signs of weariness.

"I believe we are the happiest and merriest lot of 'N. Ts' in the South," observed Cornelia Jaynes, who was oftener called "Lee" or "Jaynesey." ("N. T." was the short for "nigger teacher,"—the epithet bestowed by the Southern whites upon the white men and women who taught in the schools for the colored people; and the girls, who were young, and for the most part pretty and gay, spoke of themselves as "N. Ts" with a wicked sort of delight.)

"I reckon we are the Maryest," replied Molly Cake, the younger and blacker of the "Cookies." "I am sure that we are the best looking," and rising to her feet, she surveyed herself in the 10x12 looking-glass that hung over the washstand. "Fair, fair with golden hair," and she patted her shining raven locks with mock dignity. "If ever I again am where I can survey my full four feet and six inches of maiden loveliness at one glance, I shall be enraptured. Only to think of the delight of seeing how my flounces hang, and if the length of my train is in proper keeping with the noble and philanthropic avocation in which I am now engaged. I suppose Mercy is wading through the Maine snowbanks about this time," she added, and turning about, the merry girl resumed her old place on the floor.

"She was the right one to go North," said Mary Walter. "She has a way of putting what she has to say, in a telling fashion. One sees at a glance there's no humbuggery about her, and if those Maine Yankees have any dollars to spare for anything, she will get them in her hands, for the 'Normal.'"

"There's a great deal of character in Mercy," added Zethrea Raynor, thoughtfully. "I shall not be surprised, if circumstances are favorable, to hear of her in the future as a foreign missionary, or something of that sort."

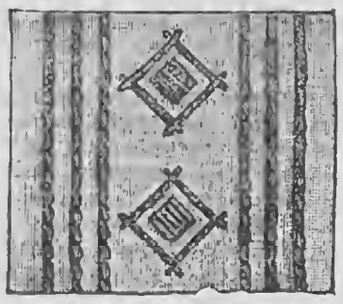
"Oh, I hope she'll be something better than that," shouted Mary Walter. "Anything but poking off to India or Japan to try and 'civilize a lot of people who are as happy as we are here, any day."

At this the girls glanced shyly at Mary Roswell, and Lee observed, with downcast eyes:

"I always expect something dreadful when Walter opens her mouth. She fairly keeps me in a tremble at the dinner-table, she speaks out so distinctly and free. I believe she's the only one of us who isn't afraid of the Hawleys."

"The Hawleys" were the family with whom the girls boarded, the man Hawley being a capable man, but beset with a weakness for retailing scandal; the woman Hawley had a sharp tongue and was an excellent illustration of a dowdy, both in general and in particular, so that between the pair, the "girls" had a fiery time. But they found consolation in forming a ring around their respective stoves in turn, every evening at twilight, and giving the Hawleys "particular fits."

"I am never afraid of people I despise," replied Mary Walter, tossing back her profusion of brown,



No. 5.

curling hair. "But I meant to cast no reflection on Mary Roswell, by my fling at foreign missionaries. Mary is a born missionary, whether at home or abroad. But Mercy's forte is not that, I think. She ought to fill a niche somewhere, where accuracy and executive power are needed. But I can't predict what her lot will be."

"Can you tell what mine will be?" asked Lee, with a blush and laugh.

"I'll prophecy that," chimed in Martha, the fair "Cookie." "Lee will marry that Presbyterian parson she corresponds with, and——"

"Oh, Martha!" cried Lee, "what a dreadful thing you are!" and her face blushed red and more red.

"Dreadful, perfectly dreadful," echoed Roswell. "Just see how Lee blushes!" And all the girls looked at "Jaynesey" and laughed in concert—a combined giggle that led her to cover her face with her hands.

"Oh my! what a sensitive plant!" said Mary Walter in a whisper. "I don't dare open my mouth now, for fear Lee will totally go off! Let's sing a hymn to revive her:

'Go tell Aunt Sally,
Go tell Aunt Sally,
Go tell Aunt Sally,
That her old gray goose is dead.'"

The girls, led by Molly Cake, sang the refrain with great effect.

"Now that we are all more cheerful in spirit," said Martha, "perhaps we can bear a prediction as to our own destinies. To begin with, I'd like to know what I am for-to-be."

"I can tell that!" cried her sister. "Martha is out out for a widower—a Methodist preacher with five children. She has a knack for living on nothing and making both ends of the year meet. Then she'd be first-rate in class-meeting—has such a pious face."

The sweet face of Martha was suffused with an amused expression, and she smilingly retorted:

"I shouldn't be at all surprised, girls, if that happened; I've had some stunning offers in that line. When a man with five motherless children, and a salary of five hundred dollars a year, with parsonage thrown in, makes you an offer of his heart, his hands," ("Twelve of 'em!" put in Mary Walter,) "and his fortune, why it sets one to thinking."

"I don't doubt it!" laughed Zethrea. "Now let's have a prediction as to the fate of Cookie junior."

"Let him be fair, with sandy hair,"

sang out the saucy brunette,

"Oh, perhaps we didn't propose any "him" about it," observed Roswell. "I predict that you will be a milliner."

"Pshaw! that's because I've trimmed all your winter hats," she retorted contemptuously.

"Really, sweet cake, I don't much believe you will ever marry," said Lee, seriously. "You are always poking fun at love and such things."

"Then I'm to subside into a milliner? Does no one else venture a prophecy? Does that one-armed captain who casts sheep's eyes me-ward signify nothing? Don't discourage me, girls, for I've always dreamed of a white satin dress and orange blossoms—black and white make such a lovely contrast!" and she concluded by holding her handkerchief up to her olive cheek.

"I don't think our predictions need annoy you much," observed Zethrea, in a tone of assurance. "I think you will all be married before I am. I never had a beau in my life."

"That's no sign," ejaculated Mary Walter. "I've had twenty or more, though heaven alone knows why."

"I shouldn't think a man would ever dare to ask you to marry him," said Lee, "unless he knew that you loved him with the real heaven-born marriage love!"

"Heaven-born marriage love!!!" repeated Molly, sotto voce. "Let's have another hymn:

'The one she's been saving,
The one she's been saving,
The one she's been saving,
To make a feather bed.'"

In this all the girls but Jaynesey and Roswell joined, concluding with a round of laughter.

Roswell seemed to have been taken with an "idea."

"What do you say, girls," she said, as the laughter subsided, "to a plan I have in mind. It is that, at the end of ten years, we each write the history of our ten years in the form of a letter and pass the letters around from one to the other. We will then see how many of our predictions came true."

"Nobody predicted on you, Roswell," said Martha. "You'll marry a missionary, I predict, and go back to the Sandwich Islands where you were born."

"I'll make a guess on Mary Walter, said Lee."

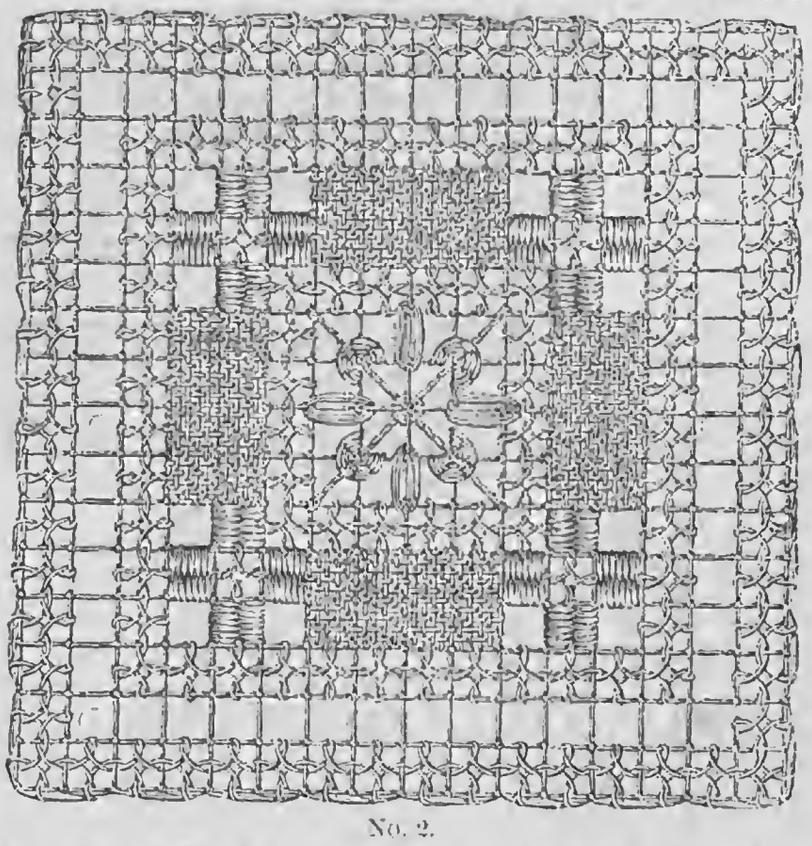
"Be very careful, Cornelia, for I might open my mouth," said Mary gravely.

"She will become a famous authoress," said Lee.

"Leave off the 'ess,' please. It is like being addressed as a 'female,' retorted Walter a little sharply. "But you needn't predict about me, girls. You'll not know how to address a letter that will reach me ten years from now, unless 'the spirits' shall have established a mode of communication between this and the unknown, that we have not heard of."

"Oh Mary Walter, you are so dreadful," iterated Lee, greatly shocked at Walter's irreverent tone, as it seemed to her. "I know you all think I'm silly and sentimental and of not much account," (Lee was greatly given to self-depreciation,) "but delicate people are quite as likely to live as anybody."

"You mean that people who are always going to die, never do die?" retorted Mary Walter, laughingly. "Well, I'm that sort, may be, but if I don't die, you may address me as Mary Walter, Spinster, the first of January, 1877. If I ever marry, it must be to a man who can withstand my sarcasm—and the chap that can do that will be greater than a Cæsar. He must have handsome hands and



No. 2.

ears, and the back of his neck be white and not red. He must never make love to me, nor yield to me an inch of his dignity—for then I should make game of him, like all the others—the simpletons that they are!"

"Oh, if ever you do fall in love, Walter," said Roswell, "I hope you'll have the disease bad. It would do you good, to fall in love, once."

"Then Roswell ought to be awful good," ejaculated Cookie, Jr., "for she's fallen into that pond enough times to be thoroughly soaked."

The tea-bell below stairs broke up the circle, and the girls arose, Roswell adding like a benediction, "Then we shall exchange autobiographies ten years hence?" and they all responded "Amen."

—[To be continued.

WEAKER THAN A WOMAN.

CHAPTER XXIII.

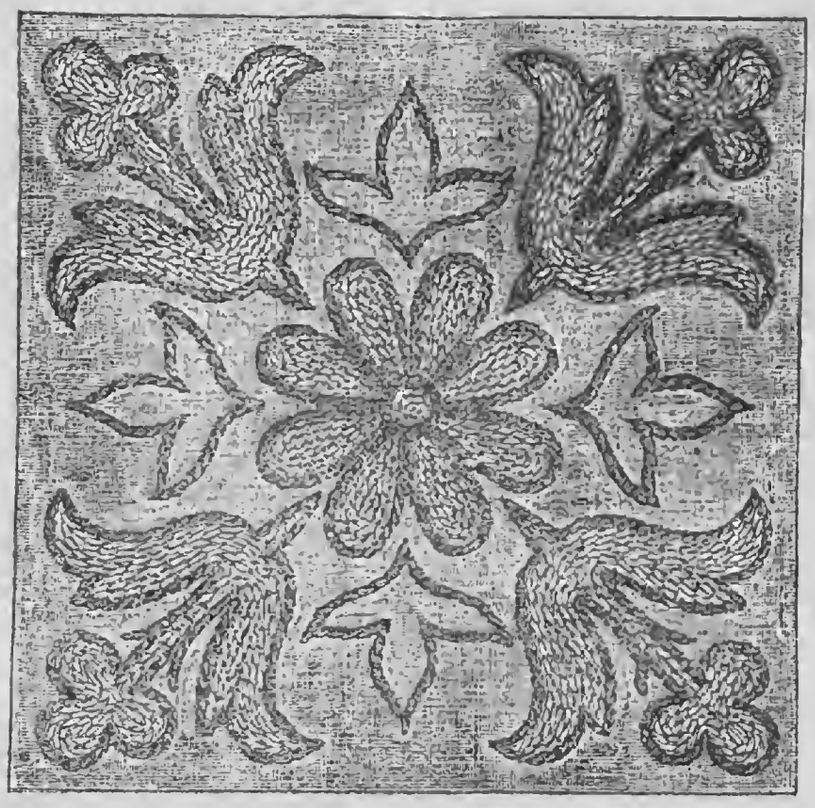
The girl Jennie delivered her message, and Violet quickly appeared at the gate of the Limes.

Before Felix had spoken to her, before he had touched her hand, the moment he had looked into her fair drooping face he knew that she was guilty. Something had gone from it that he was never to see again; something was there which was never more to leave it. She gazed at him and gave a little low cry; then, standing before him, she buried her face in her hands. He went up to her slowly; he took her hand from her face and raised it to his own. Then the lovely eyes closed; they could not meet his. He dropped her hands.

"You are guilty, Violet. Great Heaven, you have betrayed me! You meant what you wrote to-day."

There was something so quiet in his despair that Violet imagined his tone to be one almost of indifference, and the thought gave her courage; if he had shown any sign of great pain, she would have been frightened.

"I could not help it," she replied. "Do not be angry with me, Felix. I know it is the poorest of excuses—but it is true; I cannot help it. It was of no use going on in the same dreary way. It must have come to an end sometime."



No. 3.

"Let me quite understand," he said; "let me make no mistake this time. What have you done, Violet?"

"I have not done anything; but it seems better that we should part. No good can come of our engagement; it was a mistake."

He looked sadly at her.

"You say so, my darling, to whom I have given the best love of my heart—my life itself; you say that?"

"It is true, Felix," she replied; "and I am sorry. I shall never like any one as I have liked you, and you will never really care about any other woman as you have cared for me—I know it; but it cannot be helped."

He held up his head with such dignity, such passion of despair, that she was silenced. The false light words, the false light excuses, all withered into nothing, and she knew that she stood in the presence of a mighty sorrow, a mighty passion. All her little affectations, her miserable apologies, became as nothing before Felix's heart-rending distress and hopelessness.

"Violet," he said, "I can hardly believe that our meeting thus is real. I must be in a dream, from which I shall soon awake, and laugh to think that I believed in what was happening. It cannot be that I, Felix Lonsdale, have had to steal under the cover of darkness to meet you, my promised wife, and that you who have loved me, who have kissed me, who have looked on me as your future husband, are here to tell me that you are false to me. Stand still—so—and let me look into the face wherein I thought all happiness lay. Now tell me—is it true?"

He held her before him; she felt that his eyes were fixed on her—they seemed to burn to her very heart.

"You put things so strangely," she said. "I hardly know what answer to make to you. You are not fair to me. I have found that my engagement to marry you is not wise for either of us, and I tell you so. I see no heinous crime in that."

"You promised to love me, and me alone, until death—do you mean to keep that promise? No prevarication—speak truthfully—'Yes' or 'No'; do you mean to keep that promise? Speak, Violet."

But he had to bend low to hear her answer; it was a whispered "No."

"You promised to marry me, to be my wife, to spend your life with me and brighten mine; do you mean to keep that promise,? Speak—'Yes' or 'No.'"

"No," she whispered again.

"Will you tell me why you refuse, Violet."

Again she took courage at the seeming indifference of his tone.

"I cannot, Felix," she said; "you will find many another more suited to be your wife than I am."

"I do not want any one but you who have promised. What is there in the life I offer you that you dislike?"

"All of it, except—that I should like to be with you. I dislike the poverty, the obscurity, the want of rank and position. I am not so noble as you have always thought me, Felix. I love wealth and luxury, I love magnificence. I should never be content in the little home that you would give me—there would not be enough to fill my life. I felt that when I stood in it. I asked myself how I should live through the long years there. I should be miserable and you would be miserable too."

He looked at her in amazement.

"Would not love content you?" he asked.

The golden head drooped before him. She was ashamed of the words she had to speak.

"No, it would not content me," she replied "You deem me better, wiser, and nobler than I am. There are hundreds of good and noble women in the world, who ask only for love and are content with it. Seek one of those, Felix—they are worthier than I."

"Hush!" he cried again. "Do not say such words; many a man has taken the life of the woman he loved for less than that."

She shrank back from him with a pale scared face; he smiled one of the saddest and bitterest smiles she had ever seen on a human face.

"Have no fear, Violet; I spoke without reflection. You cannot think I meant to threaten you—you, every hair of whose head is dearer to me than my own life. Love would not content you, Violet?"

"No. I may as well tell you the truth. I was ignorant of many things when I promised to marry you. I did not know what riches meant—what luxury or magnificence was—what luxury or pleasure comprised."

"And you know now?" he said when she paused.

"Yes, I know now—and I cannot do without them. I would rather have had love with them; as I cannot have both, I choose them. You cannot call it a great sin, Felix, to change my mind when I did not know what my mind was."

"Violet," he said gravely, "do you know what even the world says of a woman who deliberately jilts her lover?"

"No," she replied.

"It says some hard things. It says that the woman who could be false to her plighted lover would be false to her husband and to Heaven; it says that such a woman brands herself 'liar' before the whole world—that she loses the claim to rank with women of honor. That is what the world says. Do you know what a higher power than the world says?"

"No," she answered him again

"That lying lips are an abomination. Where will you get this coveted wealth, Violet, even if you persist in refusing to keep your word to me?"

But she did not answer him; there were limits to what she dare do, and she dared not tell him that she was going to marry Sir Owen.

"You are very hard on me, Felix," she said.

"Nay, I am but telling you the truth—the solemn unvarnished truth. If you do give me up and marry even a title, never dream that you will have the respect or the esteem of your fellow-creatures; you would always be spoken of as the woman who jilted her true lover to marry a wealthier man."

But, in the pride of her youth and her beauty, in the pride of the future that seemed so brilliant to her, she would not believe that; she did not believe it, although she did not say so to him.

"Listen again, Violet," he continued in the same grave dispassionate voice. "You promised me, and I have lived on your promise; what is to become of me if you change your mind?"

"You will forget me soon, Felix," she said gently.

"Yes, dear—when the sun ceases to shine, when the tide neither ebbs nor flows, when flowers cease to bloom and birds to sing; but not until then, Violet—not until then, my sweet." His voice took all its old sweetness, his face its old light, as he drew nearer to her. "My darling," he said, "it was not your real self that was speaking. Your parents have persuaded you. They have told you that I cannot give you a home suited for you; but I can, my darling—I can. Only trust me. Violet, sweet, forget all they have advised, forget this wretched interview. Nothing so beautiful could be so false; nothing so fair could be so cruel. Let us forget it, my darling. I forgive it all, for I know it has been taught to you. Violet, let us bury the past wretched weeks. Let us begin again—you with renewed faith in me, I with my old love and old faith in you—faith and love which have never varied, and never will. Will you listen to me, Violet?"

"I cannot," she cried—and he felt the shudder that passed over her frame—"I cannot, Felix."

"Have you ceased to love me, Violet?" he asked quietly.

"No!" she cried. "Oh, do forgive me, Felix! I wish I had!"

"You still care for me?" he asked.

It seemed some relief to her to cry out that she did care for him—to lay her golden head on his breast, and moan out that she wished she were dead. His whole face brightened and changed as he heard the words.

"You still care for me, my darling," he said gently; "why, then, Violet, matters must come right in the end. This dark hour will pass, and happiness will dawn upon us."

So she lay sobbing near the noble heart she was breaking, while the wind wailed round them with a strange mournful sound.

Violet was the first to speak. She raised her lovely face all wet with tears.

"You do not understand, Felix," she said quietly. "I do love you—that makes my cowardice all the greater. I love you, but I can never marry you, because you cannot give me that which my soul loves best."

"But what if I do give it to you, Violet—what then?" he asked.

"You cannot; you must work hard all your life even for the moderate means that you will have. Do not talk any more about it. Felix, my resolution is fixed as are the stars in heaven; nothing can alter it, nothing can change it. We have made a mistake."

And for the first time during that interview it dawned across him that it was no girlish caprice he had to contend with, no idle whim, but the settled resolve of a woman in whose heart love took a secondary place.

Looking at her exquisite face, he asked himself, what if all this time he had been mistaken, if he had given this beautiful woman credit for a noble soul and a tender heart, while she had neither?

Such things had been; men had made even greater mistakes than that. What if she were worldly and selfish, false and pleasure-loving, even to the core of her heart?

"Violet, you puzzle me," he said. "Let me understand; you love me, you say?"

She sobbed out that she could not help it.

"You love me, yet you willfully break your promise to marry me. You send me away of your own free will, not because you do not love me, but because I have not money enough. Is that it, Violet?"

She did not deny it; it was the exact truth. He continued.—

"You love me, and I am what you call poor. You send me away, and a richer man comes. You will marry him because he is rich; you will marry him for his money while you love me. Violet Haye, do you know what the law of God calls such a sin? Do you think your weak subterfuge of calling this crime of yours 'changing your mind' will hold good when you are judged for your actions, and the just award is given to you?

He put her from him with a bitter cry—a cry that haunted her for long year.

"You have slain the best part of me; you have slain my love, my hope."

His despair frightened her; she drew nearer to him and tried to soothe him, but he would not let her hands touch him.

"You are not worth a man's thought, you are not worth a man's love," he cried, "you who have slain the truest of love. Do not touch me. It is such women as you who lure men on to death, who take a man's heart and crush it like a rose-leaf. No, do not touch me, Violet"—for she clung to him, weeping and crying out that he was too hard upon her—too hard.

"No, I am not hard," he said. "To my mind there is but one kind of love, and the soul of it truth. I do not understand such love as yours. Oh, Violet, once more let me appeal to you and warn you! Dear, you are all wrong—all wrong—and you will find it out too late. Believe me, Heaven has so made woman that to her the chief good is love—to her love is religion and life. Are you of a different nature that you can dispense with love?"

"It would not make me happy," she answered, in a low voice.

Her tears fell while she listened silently to words that haunted her for ever. His voice softened as he went on.

"You will not be young and beautiful always, Violet. The time must come when your hair will have lost its golden sheen and your eyes their light. What will wealth do for you then? If sickness comes to you, will all the wealth of the whole world purchase for you the tender touch of a loving hand or the tender words of a loving voice? You will lie, my darling, through long hours of pain thinking of me, longing for me, wondering how you could have been so mad as to send me from you, crying out my name, until you remember that to love me is a crime and that in my place you have the wealth you have chosen. Think of the long days when you will miss me. Ah, Violet, mind, lest in breaking my heart you break your own! I warn you that you cannot live without love; heed my warning before it is too late."

She made him no answer. He continued—

"I can see farther into the future than you, Violet, and with clearer eyes. I prophesy to you that the time will come when you will repent of what you are doing now, and be willing to give your whole soul to undo it. Will you heed my warning?"

Her heart went out to him in love and pity; but there was the picture before her of Garswood—the thought of the diamonds—of herself as Lady Chevenix.

"I cannot," she said.

He stood quite still for a few moments.

"You forsake me, then, for a richer lover—you give up my love for gold? Say, in plain words, that you do so; do not let there be a chance of mistake, Violet—do not let any false halo linger round your memory in the years to come. You give me up because I have not money enough."

"Yes," she replied; but the word came slowly and with great reluctance.

"I shall not regret you, Violet—you are not worth regret!" he said; but she cried out—

"Do not be so hard, Felix. I—I am weaker than a woman."

"You are indeed," he said, gravely. "Some women's weakness is half divine; yours is—well, I will give it no name; I know none that describes anything one-half so false."

"You are very hard, Felix."

He laughed aloud, and pleasure-loving Violet Haye wished never to hear such another laugh.

"I have no place here now, Violet. I will say farewell. My dear love, my lost love, farewell! Lay your sweet, cruel hands in mine once again—let me look into your sweet false face once more. Farewell, little white hands—you will caress me and slab me no more. Farewell, sweet eyes—you will look no more into mine. Farewell, golden head—you will never lie on my breast again—never again. Farewell! 'Beauty such as woman never wore,' heart most false, love most cruel—farewell!"

His voice died away in a low wail, and the next moment he was gone, and she stood there weeping for that which she could never recall.

"How cruel fate is!" she said. "I love Felix. Why could Felix not have Sir Owen's fortune? I almost wish that I had never seen Sir Owen. I did not think that I should care about Felix so much."

It was something new to the spoiled, petted beauty to feel pain—to weep without being comforted. She was unjust enough to think that Felix should have stayed to comfort her—should not have left her so wretched.

Then she realized that her faithful lover, so tender, so true, and so brave, had passed out of her life, and would be nothing to her for all time. She was impatient with her own misery—her own sorrow.

"If the time could come over again," she said, "I would not do it; I would marry Felix, let him be poor as he might."

But it was done; it was all over.

She was not very angry with pretty Jennie, but she warned her that her interview with Mr. Lonsdale must be kept a secret. She believed that Felix had bribed the girl—not that the girl had told Felix.

It was just as well, she thought, that the interview had taken place; there must have been a scene sometime or other. Now the matter was all settled, and she could go to London with a mind free from all anxiety. The grandeur awaiting her there must surely comfort her, for her heart ached for Felix—his burning, stinging words haunted her.

Who should dare say that on that white brow of hers was branded "liar"? Felix would be dreadfully distressed when he heard of her marriage. She knew that he would feel it most keenly; but then after a time he would forget it—no one would bear animosity against the young and charming Lady Chevenix. When she came back again, she and Felix would be friends. She would make overtures of friendship to him, and he would not decline them; he had always been so fond of her—poor Felix!

So she went away the next day to London, trying to forget the past and to think of the future. She did not care to remember that morning found her pillow wet with tears, for she had been dreaming of Felix.

CHAPTER XXIV.

Felix Lonsdale had tried his best; he had done hard battle with his sorrow—the sorrow that had come to him while the summer moon was shining and the corn stood ripe in the fields. He had done hard, fierce, terrible battle with it. It stood there ever by his side; no one had detected it yet—its presence was a secret from every one except himself. He was stunned, dazed, and bewildered by it; still he did brave battle with it. He looked at the invalid father, at the kindly mother, at the "army" of little ones; there was work to do, and he must do it. The home must be kept up, business attended to; money must be made, the home must not be neglected. Indulgence in sorrow was not a luxury for him.

He hardened himself, he hardened his heart; he said that there was neither mercy nor kindness nor love in the world.

Within a week after his farewell to Violet the handsome face had grown so haggard that it was hardly recognizable; the kindly eyes had a wild, weird expression, as though he were always suffering mortal pain—the ring had gone from his voice, from his laugh; he was an altered man. How he worked! He said to himself that work was the only thing which could keep him from going mad.

But it told upon him—no food, no sleep, no rest would he take—this constant warfare that kept every nerve strained. It seemed to him that if he once gave way, even if only for a moment—if he opened his heart to the dreadful sorrow waiting to be admitted—if he closed his eyes in rest—he must die. Colder and harder and prouder he grew, shutting himself and his sorrow in icy reserve; and at last Kate grew so miserable about him that she sent for Evelyn.

"I must [illegible] to you, Eve," she said, "or my heart will break. I do not like to distress my husband—he is ill enough; and, if Felix goes on like this much longer, he will have a terrible illness, or he will die. What is the matter with him, Eve? He does not eat or sleep; he looks like a man who has been stunned; he grows so hard and cold that I am almost afraid of him. He does not open his heart to me, he avoids me, he does not even look at me—he who used to love me so well. What is the matter with him, Eve?"

Eve looked very pale and sad, her sweet face was clouded; but Kate, in her distress, did not notice it.

"I can tell you what is the matter," she replied—"I heard it this afternoon. Violet Haye has gone to London to be married."

Kate cried out that it was impossible—that it could not be—Violet Haye was betrothed to Felix.

"It is so," said Eve—"aunt Jane told me about it this afternoon; and, fearing you would be in great trouble, I came to you at once. Violet broke off her engagement with Felix some short time since, and she is gone to London to be married."

"Married to whom?" cried Kate, in hot anger for her boy's sake.

"I do not know—she has so many admirers; but I believe it is some very rich man. Mrs. Haye is almost wild with excitement about it. She told my aunt the day before they started." And then, remembering how Felix loved Violet, they both wept together.

"I understand it all now," said Kate. "My poor boy has hidden it from us lest we should know what he suffered. Evelyn, does Heaven punish treachery?"

"I am afraid so," she replied, gently. "You say that Felix has grown hard and cold. Tell me where he is, that I may go and see him."

"He is at the office," replied Mrs. Lonsdale. "Do go to him, Eve. He was always fond of you—he always trusted you. Go and try if you can comfort him."

A light shadow of pain came over the sweet face—it passed in a minute.

"Yes," she said, thoughtfully, "he always trusted me. I will go and see what I can do for him."

Eve walked gently through the warm sunlit streets.

She went into the office without any announcement—she had done so since she was a child. Only Felix sat there, his pale, haggard face bent over his papers, a shadow like death in his eyes. He looked up in wonder at his visitor. Eve, with her sweet face, looked like an angel come to minister to him.

"Evelyn," he said, "you are an unexpected visitor."

She went round to him, and stood by the side of his chair.

"Felix," she said, "I know what has happened, and I am come to comfort you."

"Comfort! 'Comfort scorned of devils,' the poet sings. Eve," he laughed, "what comfort can you give me?"

She took the paper from his hands, and was startled on that warm day to find his fingers as cold as death. She held them in her own—her sweet eyes filled with tears.

"Felix, you must not harden your heart against me. You must not keep me outside it. We have been such true friends—such dear friends always. Do not be hard and cold and proud with me, dear friend."

"I will not, Eve," he returned gently. "Heaven bless you, Eve!"

"Listen to me a little while, Felix," she said—and her voice stole like a strain of sweetest music over his tired senses. "No man can know a greater sorrow than this sorrow of yours. The one you loved and trusted has deceived you. Violet has been false to you."

He shrank back with a cry at the sound of the words. She only clasped his hands the more tightly.

"Never mind the pain, Felix," she said. "It is right that you should accustom yourself to hear the words, and not shrink from them. Violet has proved false to you. I know how you loved her, and I know that the words cut you like a sharp knife; but, Felix, has there never been a mistaken love? Have you never heard of a man idealizing a woman, and worshipping in her virtues that she never possessed? The very fact that Violet could prove false to you proves also that she was unworthy of your love, that you thought her possessed of qualities quite foreign to her, and that she is not worth all this passion of regret."

"I loved her," was all he answered.

"I know, dear friend—I know"—and Evelyn's voice was sweet as the cooing of a dove—"and it is a terrible grief to you. Felix, because we are such dear and true friends, I am come to talk to you about this sorrow. There are three ways in which men meet sorrow. The weaker part of them fly at once to drink, to dissipation, to a reckless kind of despair; they have no nobility. You are above that. Others harden themselves; they shut out all love and sympathy from their hearts; they grow cold and proud, so that no kindly influence reaches them. Others—and, dear friend, believe me, these are the noble ones—accept sorrow as part of the discipline of life, as a gift sent from Heaven; and, while they accept it with humility, they bear it with dignity. It makes them nobler, grander, and better. It is an education that prepares them for Heaven. Which of the three classes will you join, Felix?"

"The last, if I can, Eve," he said slowly.

"Believe me, she went on earnestly, "we shall not know, until we come to die, what great sorrows do for us, and then we shall thank Heaven for them.

"A soul that has never suffered is but a puny soul, the strong and noble soul is the one that passes through the furnace of fire and comes out pure gold—not base metal or gold with an alloy—but pure refined true gold. The mystery is why men and women must all suffer; but that we shall never fathom; we only know that 'God sends pain—even to his best beloved He sends pain.'"

Something in the brave face and the brave patient voice touched him. He looked up at her suddenly.

"Surely, Eve," he said, "you have had no sorrow that you should speak in such a fashion?"

She smiled, and he thought how like her face was to that of pictured angels.

"Yes," she said, "I have a great sorrow; but it is dumb—it will never find a voice—it will die with me, and be buried in my grave."

"What has your sorrow done for you, Eve?" he asked, after a time.

"It has opened my heart," she replied, "it has killed all self-love, it has made me love and pity every one who has suffered, it has taught me that life is but short, and that heaven is my true home."

"It shall teach me the same, if you will help me, Eve. I loved her so dearly that my loss has almost killed me."

His pride and self-control gave way—he sobbed like a child.

"My dear old friend!" said Eve; and, as simply as a child might have done it, she drew his head upon her arm, and the first tears he shed over the great sorrow of his life fell on her kindly ministering hands.

RECENT LITERATURE.

Madeleine. By JULES SANDEAU. Philadelphia: T. B. Peterson & Bro. 50 cents.

THE character of Madeleine is a charming conception and the story of her life is prettily told. In the career of Maurice, the hero, we have an excellent illustration of the mental degradation to which an honest youth may come, who, reared in wealth and refinement, is sent forth to appease the youthful craving for change into the world, ignorant of its follies and the allurements of vice, and with no safeguard against them but the beneficent influence of a pure and refined home circle. As is too frequently the case, Maurice succumbs and, step by step, becomes a thoroughly selfish and depraved creature, until, ruined in property and station, he contemplates suicide as the only escape from dishonor. His rescue and gradual restoration to moral health by Madeleine, the simple country girl, is gracefully and naturally told. Unlike many of the novels we have from the French, there is nothing to offend the most delicate sensibilities throughout the story.

MAGAZINES.

HARPER'S MAGAZINE FOR JANUARY offers an unusual variety of interesting reading matter with over ninety illustrations. The number opens with an effectively illustrated paper on Liverpool entitled, England's Great Seaport. S. G. N. Benjamin contributes the first of the two profusely illustrated articles entitled, Rambles in the South of France. Besides these articles descriptive of places, there is for readers interested in the curiosities of animal life Mrs. Treat's illustrated paper, A Chapter on the History of Ants—a narrative of her own observations. Those interested in ceramic art will be especially pleased with Jennie J. Young's Cloisonne Enamel, with eight beautiful engravings. Agricultural readers will find Colonel Waring's illustrated paper on the last meeting of the Royal Agricultural Show, full of curious and instructive information. Porte Crayon contributes one of his characteristic articles entitled Home, with illustrations. A fine poem, The Great Harvest Year, by Edw. E. Hale, closes the number. The Easy Chair discusses Choate, the magazine of to-day, and the true story of Paul Revere's Ride, etc. The Literary Record is a survey of the important books of the month.

LIPPINCOTT'S MAGAZINE for January, beginning the new volume has a varied and attractive list of contents. There are three illustrated articles—Yorkshire Byways, by A. S. Gibbs; The Artists Island, by Dwight Benton; and Wild Boars and Boar Hunting, by Dr. G. Archie Stockwell. Miss Loffan, the author of that capital novel, The Honorable Miss Ferrard, contributes a striking story of Irish life entitled, Flitters, Tatters and the Counsellor, which is full of humor, pathos and incisive sketches of character and manners. A Young Girl's Experiences during the Two Sieges of Paris, gives a thrilling picture of the life of a Parisian family at the time of the Franco-Prussian war, and the fearful scenes enacted under the Commune. A series of stories under the general title of Women's Husbands, is begun in this number, and seems likely to pique curiosity by its fresh delineations of fashionable life. Edw. C. Bruce gives a graphic account of a Western Town. D. C. Macdonald describes A Trip to Newfoundland. Mrs. Hooper sketches the career of Madame Dubarry. Sidney Lanier gives us a Fairy Tale for Grown People. There are two striking poems in the number, The Poet's Protest, by Alfred H. Louis, and Christus! by Julia C. R. Dorr. Miss Olney's Through Winding Ways grows in interest, and the Monthly Gossip contains several papers deserving notice. The whole number is bright and readable from beginning to end. The publishers offer free to all new subscribers, in book-form, that portion of Through Winding Ways that has appeared previous to the issue of the January number.

ST. NICHOLAS for January opens with a long and beautiful poem, entitled The Voyage of the "Jettie," by John G. Whittier. Mrs. Dodge contributes a fairy-story, Wondering Toni, beautifully illustrated, and for the very little folks the same author gives a story of The Little Girl who Wanted to go to the Moon, illustrated with novel silhouettes. Chas. Dudley Warner asks the youngsters What shall We do with Her?—a tailless cat whose queer ways as he narrates them must keep her human neighbors in fits of laughter. F. H. Burnett, the author of That Lass o' Lowrie's, contributes a Christmas tale, Behind the White Brick. The long-promised fairy-story, by Julian Hawthorne, Rumpty Dudget's Tower, begins in this number, and the six pictures, by Alfred Fredericks, ably second its enchantments. Sarah J. Prichard tells How Wilster Elspeet's Ship went into the Church. There is a funny story, Pete's Christmas Tree, which describes the woes of a boy who wanted Christmas to come more than once a year. Christmas Day at St. Paul's, is a story which describes incidentally the anniversary of the charity school children in the great church of London. Two illustrated poems add much to the attractiveness of the number. The departments this month are extra good, and there is a capital acting play Ten Dollars, and a sweet little piece of music, A Nocturne for Little Hands. Susan Coolidge's new serial, Eyebright, will be begun in the February number.

News of the Week.

Monday, Jan. 6, 1879.

POLITICAL.

Owing to the recess of Congress there is little political news of interest, again, this week. The Potter Committee has been on a visit to New Orleans, mainly, 'tis said, to investigate a package of papers dropped in a store by the irrepressible Mrs. Jenks; but it was found that that astute lady had dropped the same package in streets and stores four times previously, on each of which occasions it had been returned to her unopened. It is supposed, therefore, that she wanted it picked up and investigated for some purpose of her own. The Teller Committee is about to start to the Crescent City, also, so that Louisiana matters are likely to be thoroughly ventilated. There is a great deal of interest taken in the nominations for Governor next year in Ohio, as the next Presidential election, it is supposed, will depend mainly on the condition of parties in that State. Gov. Talbot of Massachusetts has just sent to the Legislature the most energetic message delivered by any Governor in late years. He emphatically urges retrenchment in every department of the State Government, and as a first step in cutting down the extravagant salaries of officials, he advises a reduction in his own.

MISCELLANEOUS.

During the past week a cold wave of exceptional severity has swept from the northwest over the whole country from the Rocky Mountains to the Atlantic and from Canada to Mexico. News of consequent suffering and disaster load down the mails and keep the telegraphs busy in every direction. Trains have been blocked up in out-of-the way places, and their passengers half starved, and half frozen; cattle have perished by hundreds in exposed situations, and people by scores, not only in country places, but even in cities, upwards of half-a-dozen having been frozen to death during the week in this city and its environs; while tales of great suffering and many deaths are constantly coming from the prairies of the West. Numerous destructive and several fatal fires are also reported, while the weather prophets are loud in their predictions that this is only a foretaste of the intense cold we must endure in the next couple of months.

THE number of deaths in New York in 1878 was 27,005, against 26,203 in 1,877, and 1004 of them were caused by violence. There were 7·629 marriages and 25,729 births. The 90th anniversary of the founding of Cincinnati was celebrated last week under the auspices of the pioneer association. During the last eight years there has been an addition of 400,000 to the population of Texas. During that time the assessed valuation of property in the State has been increased $250,000,000. The oldest cow, probably, in New England was fatted and sold at Franklin recently. She was a Jersey, 28 years old, owned by E. L. Metcalf, had given birth to but one bull calf, and gave milk constantly without breeding during the last five years.

Lightning rod swindlers have been operating extensively during the fall and early winter in many parts of the country. They generally traveled in two gangs. The first induced many to have their houses rodded, payments to be made annually for ten years, during which the residences were insured against loss by lightning. Their followers always found that the sums agreed upon were too small, and in numerous cases the simple-minded farmers were bulldozed into signing notes for larger compensation. Over $1300 worth of these notes have now been sent to one bank in a small New England town for collection, while neighboring banks have received large amounts. This is only one of their forms of swindling; but they all have a close resemblance.

The Northern Pacific railroad which was the main cause of the collapse of Jay Cooke & Co., upwards of four years ago—an event which inaugurated the hard times that are now passing away—is to be at once pushed further west, a contract having been closed for its completion 100 miles more before the 1st of March. The price ($7100 a mile) is said to be the lowest at which any road has been built in this country or abroad, but the contractors are to be furnished with free transportation for their men and supplies over the completed part of the Northern Pacific line.

There will be a vigorous attack in Congress on the patent system after the recess, the farming enemies of the present system having secured many influential friends. The chief point which will be assailed is the right claimed by patentees, of collecting a royalty from the users of patented articles bought in good faith and once honestly paid for by private parties. The amount of shameful extortion and barefaced swindling practiced on the people, and especially on farmers, under cloak of this provision of the patent laws, has been so grievous as to imperatively demand some alteration in the laws for the protection of the community. Green's outrageous demands of royalty on Drive Wells are the immediate cause of the present congressional movement in the matter, and every farmer should at once bring all the pressure he can to bear on the member of Congress for his district, to induce him to give his support to some measure doing away with the present iniquitous proviso in this connection.

Cleveland summoned all nothern Ohio, and all the great men she could get hold of anywhere, to attend the dedication of her great viaduct last week—the biggest event in local history for years. The viaduct is indeed worthy to rank among the country's great public works, spanning the Cuyahoga river and valley, as it does, with 10 stone arches and an iron drawbridge, nearly two-thirds of a mile in united length, 64 feet wide and 70 feet above the river's low-water mark. It has been four years in building, at a cost of 2,170,000, including the right of way, and enables the East and West sides to see and meet eye to eye, across the vale where the rival cities of Ohio and Cleveland fought tooth and nail before their consolidations some 25 years ago. Texas expects to gain 15 representatives in Congress after the next census, but Senator Maxey says that 99 voters out of every hundred are opposed to a division of the State, their aspirations being to make of Texas a great commonwealth, bearing the same relation to the South that New York does to the East. New York influences are at work to induce members of the yellow fever commission against establishing a national quarantine. The commission now at the South find strong support for a system wholly under the control of the general government and which can be enforced in spite of the States. There are only eight States in the Union where the postal service pays its way, and half of them are in New England—New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania and Michigan—the net surplus of revenue from these States being over $2,530,000. If the remaining States did as well, the department would have a surplus of 10,000,000 to turn into the treasury annually, instead of lacking about $5,000,000 of being self-sustaining.

The receipts of wheat at the chief western centers are this year unprecedently large. The latest statistics show that at Milwaukee there is a very considerable increase over the two preceding years, while the receipts and manufacture of flour aggregate a larger amount his year than ever before. The live stock tables show an unprecedented increase in the business done, the receipts of live hogs being nearly double and those of cattle a third larger than last year. The receipts of cheese reached the enormous aggregate of 13,233,000 pounds., an increase of nearly 5,000,000 pounds over 1877. The receipts of wheat were 21,900,000 bushels. Flour, 2,263,000 barrels. The shipments of flour were 2,620,000 barrels. Chicago, St. Louis and Cleveland can show a proportionately large increase.

FOREIGN.

Across the Atlantic, the distress in Great Britain is still growing, and is reaching up from the laboring orders to the petty shop-keepers and the lower strata of what is called the middle class of society. Meanwhile all over the country wages are being reduced to starvation rates, producing grumbling and bitter discontent everywhere and strikes here and there. Another bank with several branches—that of Tweedie and Williams—has failed for $5,000,000 down in Cornwall, and though, as usual, it is said that it will be able to pay up in full, more than the customary amount of distrust and suffering has been produced by the failure. Out in Afghanistan things are not altogether so bright as previously reported. Shere Ali is on his way to St. Petersburg, to lay his case before Europe; his son Yakoob Khan has not surrendered to the British army, as stated in last week's telegrams. Of course, now that the Ameer's cause is not supported by Russia, its ruin is certain, but it may take several more months and many more lives to effect that ruin completely.

The people are dying of famine in northern Brazil so fast that coffins cannot be made for them, and they are thrown into ditches eight or ten at a time, and small-pox is still raging fearfully, the deaths in the province of Cerea alone numbering 500 or 600 a day. The government is doing much by sending the people into the country, etc. A thousand have been employed by the Collins brothers on the Mamore railroad.

A dispatch from Barcelona reports that the first cargo of American wheat ever received in that city arrived the middle of November, and great interest was excited. Samples were freely handled on Exchange, and it was immediately recognized as equal to Black Sea and Hungarian wheat. The cargo consisted of 72,000 bushels, and was sold for about $3.70 per 120 pounds. The cargo was brought in an English steamer. The freight amounted to $18,000, and the same steamer was again chartered to bring another cargo of wheat from New York. The American consul knows of a firm which has engaged three English steamers to bring three cargoes of American wheat to Barcelona, and it was thought about 25 cargoes would arrive during the season, all in English steamers. The consul reiterated his former opinions upon the great necessity of direct American communication with Spain and other countries bordering on the Mediterranean. With such communication, a new and important market could be opened. As it is now, we are indebted to the fact that British steamers find it profitable to take American wheat to Barcelona for this development of our trade. Fifteen cargoes of wheat from the Black Sea were afloat for Barcelona on the day on which this first cargo of American wheat arrived. The "Unicorn" line of steamers just inaugurated in connection with Vanderbilt's railroads, is intended to supply this deficiency. Some of the vessels will run between this city and all the chief European ports with which trade can be opened.

Statistics just given by Mr. Richard Hall, secretary to the meeting of cattle importers at Liverpool, show that there has been a very substantial growth in the cattle trade, especially in regard to importations from this country. The increase has been something enormous, and has occurred within a few months, instead of by slow accumulations. In 1875 only 702 cattle were imported, while in 1878, up to the commencement of December, the number was 50,000. The total for the year would probably reach 55,000, or, including sheep and pigs, not far short of 130,410 animals.

In France elections for the Senate were held yesterday, and have proved even more favorable to the republicans than their most sanguine hopes anticipated. A short time ago Gambetta predicted that yesterday would give the republicans twenty-five majority in the senate where they have hitherto been in a minority of at least twenty; but according to this morning's dispatches, their majority will be about fifty-seven. This will most likely insure the establishment of the Republic as the form of Government in that country after 1880. Its adherents already have a majority in the House of Representatives; McMahon has ceased his opposition to them; all the civic functionaries are of their party, or soon will be; the higher officers of the army have been mostly converted to their side, so that on the expiration of McMahon's term of office in 1880, they will be in an excellent position to defeat the hopes of the Imperialists and Monarchists. In Germany Bismarck's attack on free trade engrosses public interest; Socialist leaders are leaving the country, and another effort is being made to patch up a peace with the Vatican. In Spain Moncasi, the would-be regicide, was garotted, repentant, on New Year's Day.

Domestic Economy.

CONDUCTED BY EMILY MAPLE.

MEN, AND A CLEAN KITCHEN.

MARY WAGER-FISHER.

A WRITER in a late number of "Sunday Afternoon," an excellent Magazine, by the way—discovers a truth when she says, "Give a man a good dinner, and he will never know whether the windows and wood-work are clean or not—neither will he care two straws if they are not"—or something to that effect. She might have added that most men would rather live in dirt "up to their ears," than to have house-cleaning time come. I believe that men, as a class, love personal cleanliness as well as do women; that they like and appreciate a tidy table and well served meals; but that they are indifferent to a certain amount of dirt in and about a house, which is in fact not prejudicial to the health of the household. In this respect, they are superior to women in common sense, for no woman can keep her house in "spink-spank" order without making either a menial of herself, or paying for work done in which there is no positive profit. There is something truly delightful in entering a house where everything fairly bristles with cleanliness. But the charm is spoilt when one finds the mistress worn and weary from work and care, with a mind vapid and aimless so far as intellectual life is concerned, and too fatigued when evening comes to keep her eyes open as she reads, or listen to reading.

Four-fifths of the women who are housekeepers care more for what people may say about their housekeeping and the clothes they and their children wear, than they do about the world's opinion of the growth of grace in their hearts, or the culture of their minds. I heard a lady say not long ago, "Oh, I hate housekeeping! it consumes all my time in the everasting question of what shall we have for dinner. Life is *so* short that I want to get all out of it I can. I am jealous of every moment spent in looking after the vulgar needs of the body." She is a charming woman, a good wife and mother, an excellent housekeeper, but she has the vision to see that life holds things infinitely beyond polished windows, and stoves, that from their very blackness gleam like mirrors in the sun.

With all due respect for St. Paul in pronouncing cleanliness next to godliness, I believe extreme cleanliness, which requires the life-service of any human being, to be not merely next to sinfulness, but actually it. What I do indorse, is a sense of general wholesomeness in and about a house, clean cookery, clean dish cloths, a clean table-cloth and bright china and silver as essentials. That there are mud tracks on the floor, fly-specks on the window panes, dust on the top of picture frames, finger marks on the doors, or a carpet that has not had a thorough sweeping for a month—such things are of minor importance and ought to disturb the happiness of no woman who desires to use her time for better work. It is plain that a housekeeper must put a limit somewhere to her labors, or else give herself up to hopeless drudgery. What health and absolute comfort demand, should be carefully attended to; but beyond that, the work becomes, in a large part, unprofitable drudgery. It makes nobody better or happier—often the reverse—while the best that can be said of it is, that it gratifies in a way the small vanity of the woman who does it. She likes to see things look clean! So do all of us! And she is spurred on by some secret impulse to clean and polish, and sweep and brush, and scrub and scour, as if by such work eternal life were to be won. The force of habit finally becomes such that she can't lie down for a nap, and get a wink of sleep, if she knows that the mantel-piece has not been dusted, or that there is a bit of thread or a scrap of paper lying on the carpet. I doubt if any woman so hampered with a care for small things, can rise to a large and just conception of life, and understand in its true sense that life is more than meat, and body more than raiment. I believe in giving some good food to the mind every day of one's life, though the kitchen floor has not been scrubbed for a fortnight, or the parlor windows rubbed for a month.

Bryn Mawer, near Phila.

PEN THOUGHTS FROM EVERY-DAY HOUSE.

BY ANNIE L. JACK.

INTO ALL LIVES DARK SHADOWS FALL.

"I AM so glad you wrote about your dull days," said a reader of the RURAL to me the other day, and when I asked why, she answered:

"Because it is very gratifying to find you *have* little trials; smoke and grumbling and *nerves*."

"Bless your heart, child!" I said—I like to be patronizing to people older and wiser than myself—"did you suppose because 'Pen Thoughts' show only the bright or the practical side of 'Every-Day House' there is no November in our lives? But then, like the article in question, we generally finish by going on with the cooking, or the mending, or some of the varied duties and lessons that are the regular work of every day. Yes! there are hours so sunless that we find fault with our dinner, even if we cook it ourselves, and if the baby indulges in like temper, a consequence of the lack of sunshine, we give the chubby fingers a smart tap sometimes, to recall him to a sense of the duty owing to society. And generally, in like manner, some little trial or deprivaiton, with its sharp tap, brings us back to a recollection of our duty and our blessings."

But I think there is no time of the year so dreary and so far upon what one may call the dark side of nature, as the month of November. "November," say the French, "is the month in which Englishmen hang themselves," and even in our fair, clear, Canadian skies, it was a month of remarkable gloom, and fog and rain. Yet, amid all the drizzle and mud, the Canadian heart was stirred to its lowest depth by the advent of Royalty itself. I have only read the papers afar off, but it seems to me the children of to-day may well believe that fairy stories are true after their knowledge of the brave young Highlandman who has brought among them the daughter of a Queen. Somehow one feels inclined to pity her, so far away from home, breaking off old friendships, and parting from such a mother. I feel as if amid all the applause there must be a sad heart beating beneath the velvet boddice of the Royal Emigrant. I noticed that the Horticultural Society abstained from an address, which doubtless was wisely done. The new Governor General will, I am sure, have the interest of the agriculture and horticulture of the Dominion at heart, without being utterly bored, as he must have been by the sometimes needless and fulsome addresses.

The Educational Association (an exclusive society, that has much need to imbibe fresh ideas from the Boston Study-at-Home Society), presented to the Princess Louise an address, and petitioned her to become its patroness. The latter part of her reply, which I here copy, is the reason why, in this department, I have alluded at all to the visit of Canada's new Governor General. This is the conclusion: "For it is from the meeting and mastering of difficulties that intellectual strength grows and increases, just as physical exercise develops physical strength. May I venture to suggest the importance of giving special attention to the subject of *Domestic Economy, which properly lies at the root of the highest life of every true woman.*"

DOMESTIC RECIPES.

Soft Hop Yeast and Bread.

TIE a handful of hops in a cloth and boil with six good-sized pared potatoes until the potatoes are well cooked; then drain off the water on to a pint of flour; take out the hops, mash the potatoes and mix them with the scalded flour. When this is cool stir in two good yeast cakes previously dissolved in warm water. When very light set away in the cellar or some cool place where it will not freeze, and it will keep good two weeks in the Summer and two months in Winter, when double this quantity might be made.

For the bread: Take one cup of yeast for three or four loaves, the usual quantity of warm water (or if convenient take half new milk) and as much water as can be easily stirred in; when it rises, salt, add more flour, knead well and make into loaves.

We use Clawson wheat and think the bread is better if kneaded but once.

If one has a warm place for the sponge it may be set over night; if not, it is best to set it in the morning as it will rise in half the usual time if this soft yeast is used. MRS. S. C.

Savannah, N. Y.

Polato Croquels.

In these days when in some localities the potatoes are not of good quality it is a very nice change to prepare them as follows: Boil, and mash while hot; add a piece of butter the size of an egg; a small teaspoonful of white powdered sugar, two well beaten eggs and the necessary salt. Beat well together and make into small egg or cone-shaped pieces. When cold, dip them into a mixture of raw egg and bread crumbs and drop for a minute or two into boiling lard.

Impure Rain-Water.

It is worthy of notice that two ounces of borax will clear a twenty-barrel cistern of rain-water that has become impure. In a few hours the sediment will settle and the water be quite clear for washing purposes. ANNIE L. JACK.

Plum Pudding.

For a pound pudding: One pound of brown sugar; one pound of suet; one pound of grated stale bread; one-fourth pound of flour; one and a half pound of currants; one pound of raisins; one-fourth pound of citron; seven eggs; one ounce each of allspice, ginger, cloves and mace—or use them to suit the taste; a table-spoonful of salt and a half pint of brandy. Mix with pure milk. Boil five or six hours.

EMMA S. KANE.

Brooklyn, N. Y.

Fried Liver.

Cut into thin slices and pour over boiling water turning it off at once. Have prepared some cracker or bread crumbs; dip in the slices of liver, sprinkle with pepper and salt and fry in hot beef drippings until both sides are of a dark brown.

Breakfast Dish.

Chop cold steak very fine; cook it in a very little water; add a few table-spoonfuls of cream, thicken, and season with butter, pepper and salt; pour over slices of nicely browned toast.

MARY B.

QUESTIONS ANSWERED.

Washing Fluid.

Mrs. J. A. Gregory, N. Y., says: "In the RURAL of Nov. 9th, there is a recipe for washing fluid. Is the soda-ash there given the same as sal-soda? It also says to soak the clothes in cold water over night. Does it mean with or without soap? I am interested in anything that will make washing easier."

ANS.—1. Yes. 2. Without soap.

Curing Beef Tongues.

J. G. McGuire, Tenn., says: "Will you please publish a recipe for curing beef tongues?"

ANS.—For a dozen tongues, make a brine strong enough to bear up an egg; add a pint of molasses and three or four red peppers; bring to the boiling point; skim and let cool; pack the tongues in a large jar, and when the brine is cold pour it over them; put on a weight to keep them under and let remain ten or twelve days; then take out, drain and hang to smoke for two or three days; dry moderately and put away in paper sacks.

When wanted for the table, boil five or six hours, or until tender: let cool in the liquor in which they were boiled; skin and serve in slices as thin as a wafer.

Mending Rubber Boots.

L. E. B., St. Jo Co., Mich., says: "I wish to know how to make a preparation with which to mend rubber boots and to fasten patches on to them?"

ANS.—The best cement we know of for that purpose is made by dissolving four ounces of pure India rubber and an eighth of an ounce of powdered asphaltum with five or six times the quantity of benzine. Put together in an old tin can, cover tightly, and let stand three or four days; then work it well with a stick, adding benzine if necessary, so that the mixture will be of about the consistency of honey. Scrape the polish from the rubber; apply the cement to each part; let dry half an hour; put on another coat; let dry ten minutes when the parts may be pressed together.

OUR FREE SEED DISTRIBUTION.

SEEDS of the following varieties of plants are offered to our subscribers without any charge whatever (except for postage, a part of which we bear) until further notice:

DEFIANCE WHEAT. A hybrid spring wheat. The most promising variety ever before offered.

"PEARL" OR "EGYPTIAN" MILLET. One of the most promising fodder plants known.

BEAUTY OF HEBRON POTATO. According to many careful tests, this is ten days earlier than Early Rose, as good in quality, and more prolific.

THE VOORHIS WATERMELON. A specialty of the Rural Farm.

GOLDEN RURAL TOMATO. A specialty of the Rural Grounds.

ACME TOMATO. This is offered as the best of the newer varieties of Tomatoes to those who may prefer it to a trial of the Golden Rural.

NEW BRONZE RICINUS. Specialty of the Rural Grounds. The most beautiful Ricinus in cultivation. A cross between Ricinus Gibsonii and R. sanguineus.

HIBISCUS MOSCHEUTOS—the showy and beautiful Rose Mallow, never before offered so far as we know. Hardy.

CALLICARPA AMERICANA (Purpurea). The brilliant French Mulberry. Hardy.

HIBISCUS SYRIACUS. One of the most charming of hardy shrubs. Sometimes called "Rose of Sharon." Our seeds are saved from double-flowering varieties—many of them from seedling plants. They grow readily from seeds, and bloom as soon as plants would if transplanted from nurseries. The seedlings "sport" without end.

WEIGELA. Seeds saved mostly from seedlings. This is probably the finest hardy shrub in cultivation.

DEUTZIA CRENATA fl. pl. Seeds saved from seedlings at the Rural Grounds. Seventy-five per cent. of seedlings will bear double flowers. It is perfectly hardy and there is no finer shrub known for ornamental grounds.

HIBISCUS MILITARIS. Hardy and beautiful.

ERYNGIUM LEAVENWORTHII. The most striking annual of recent introduction. (See RURAL of November 9th for engraving of this and other plants, seeds of which we offer.)

GERANIUM SANGUINEUM. A true geranium of great beauty. Perfectly hardy.

YUCCA FILAMENTOSA. Every farmer and lover of plants should have specimens of this perfectly hardy evergreen liliaceous plant in his grounds. It is superb.

VITIS HETEROPHYLLA. See RURAL, Nov. 9, for description of this hardy vine.

RURAL HYBRID AQUILEGIAS. Beautiful, hardy perennials of great beauty.

GRINDELIA SQUARROSA. See RURAL of Nov. 9 for remarks.

OBSERVE.

Any ten of the above require a one-cent postage stamp:—that is, ONE *cent* for the ten, not for each except the Beauty of Hebron Potato, Pearl Millet and Defiance Wheat. The Beauty of Hebron requires a two-cent extra stamp and the other two a two-cent extra stamp also.

Other varieties *may be* added. We intend this free seed distribution to be the most valuable of its kind that has ever been gratuitously offered by any journal, and to introduce the above valuable plants to the homes of farmers and horticulturists in every part of our country.

Throat Diseases often commence with a Cold, Cough, or unusual exertion of the voice. These incipient symptoms are allayed by the use of "*Brown's Bronchial Troches*," which if neglected often result in a chronic trouble of the Throat. **25c. a box.**

THE MARKETS.

PRODUCE AND PROVISIONS.

NEW YORK, Saturday, Jan. 4, 1879.

THE holidays and extremely cold weather have tended to make quiet markets in nearly all cases. The trade expects a marked improvement for January sales, compared with the past dull December. Dairy products, poultry and vegetables seem to be up to buyers' limit in the price-view, and sellers will be contented if stocks of many items can be made to run down at current nominal rates. It seems likely that we shall depend very much upon home outlets, hence supplies have gone largely abroad, and as times in Europe do not indicate tree consumption, exporters will operate cautiously. Railroad supplies at the moment are moderate, owing to severe weather at the West and nearer, and that fact is favorable, as the market can start with a lighter movement when demands resume. Butter is freely offered, and some confidence is expressed for the best useful and higher grades. Cheese has proved a disappointing commodity this crop. There has seldom, if ever, been such a surplus of head stock. Poultry can hardly react in sellers' favor; it started low, and it is difficult to teach buyers new figures after easy terms have had any material length of establishment. We annex a comparative statement of some specials for the closed year and its predecessor:

Receipts of beans, 341,675 bu.; 1877, 350,328 do. Beeswax, 1,172 pkgs.; 1877, 1,257 do. Butter, 1,217,900 pkgs.; 1877, 1,269,750 do. Cheese, 3,172,800 boxes; 1877, 2,420,600 do. Dried fruit, 39,900 pkgs.; 1877, 58,000 do. Eggs, 465,800 bbls.; 1877, 474,725 do. Peanuts, 244,475 bu.; 1877, 278,150 do.

Exports of beans, 48,925 bbls.; 1877, 42,750 do. Beeswax, 151,850 lbs.; 1877, 128,425 do. Butter, equal to 230,300 firkins; 1877, 106,864 do. Cheese, 136,384,523 lbs.; 1877, 100,371,454 do. Dried apples, 20,036 bbls.; 1877, 37,300 do. Hay, 61,450 bales; 1877, 50,614 do. Potatoes, 149,850 bbls: 1877, 115,000 do. Onions, 11,318 bbls.; 1877, 11,233 do. Apples, 164,950 bu.; 1877, 108,250 do.

BEANS AND PEAS.—Medium and Marrow beans are far below the movement expected at this date of winter. Recently reduced rates are weak. Pea beans quiet; quality not fine enough. Kidneys with a moderate supply keep strong. Black beans in steady but not large demand. Green peas $1.20@1.35; Canadian field peas, 72@74c., in bulk and bond; Southern B. E. peas, 2-bush. bag, $2.00@2.70; prime, $1.47½@1 50; Medium beans, prime, $1 47½@1.50; fair to good, $1.50@1.40; Marrow, free on ship, $1.52@1.55; fair to good, $1.40@1.45; pea, $1.50@1.75; white kidney, $1.80@2.00; Ited do., $1,90@2.25; Black, $1.90@2.25.

Receipts of beans for week, 5,792 bushels; exports, 939 bbls.

BUTTER.—The run of trade for the past week can hardly be called a market. There has been no wholesale buying, and prices for the peddling trade are about as before. Fine parcels nominal. Western when properly salted and of uniform color holds its share of the market demand, and of other close buyers. Roll butter in better demand.

State, full dairies, special, 20c.; other, 18@19c.; firkin dairies, fair to prime, 13@18c.; Welsh dairies, fine full, 16½@17½c.; choice dairy, pails and half tubs, 22@23c.; fair to prime do., 18@21c.; choice Welsh, 19@20c. fair to prime, 13@17c. Choice creamery 26@28c.; other, 22@24c.; best western creamery, 27@28c.; other, 23@28c.; early packed creamery, 17@20c.; poor State 10@12c.; Western dairy, fine fresh, 16@18c.; fair to good, 10@14c.; factory, choice, 13@14c.; other, 8@12c.; rolls, 8@15c.

Receipts for week, 20,900 pkgs. Exports, 4,381 firkins.

COMPARATIVE RECEIPTS AND EXPORTS.

	Receipts, pkgs.	Exports, firk
June 1, '78, to Jan. 1, '79...	944,129	133,853
June 1, '77, to Jan. 1, '78...	803,939	136,136
June 1, '76, to Jan. 1, '77...	841,202	95,141

BEESWAX.—A light trade is in progress at 26@27c. for Western and Southern.

CHEESE.—This has been a very dull week and the situation as to prices essentially unchanged. The shipments have been 24,217 boxes, and part of these are through lots. Some special lots are held above quotations, but these are very scarce. Most of the stock is of a grade scarcely better than 8¼. Sales at: 8½@9c. for fancy; 8@8½c. for fine lots; 7¾@7¾c. for good; 4@5c. for skimmed. State, farm dairy at 8@8¼c. for fine; 7@7½c. for good to prime. Wisconsin factory, fine, 8¼@8½c.; some fancy lots to 9c.; do. good to prime, 7¾@8¼c. Western factory, fine and fancy 7¾@8¼c.; good and prime, 6@7c.; do. full skimmed, 2@5c.

Receipts for week, 11,371 boxes.

Liverpool cable 45s.

Comparative Receipts and Exports from June 1st.

	Receipts, boxs.	Exports, lbs.
June 1, '78 to Jan. 1, '79.....	2,687,165	105,042,228
June 1, '77 to Jan. 1, '78.....	2,150,510	89,160,618
June 1, '76 to Jan. 1, '77.....	1,855,318	73,426,279

Stocks of Cheese at principal points Jan. 1st, 1879, computed as follows:

	1879.	1878.
New York	306,467 boxs.	218,032 boxs.
Philadelphia	40,000	33,000
Boston	25,000	22,000
Liverpool	180,000	89,000
London	70,000	45,000

COTTON—Has been showing sharp fluctuations, as the advices from abroad were favorable or otherwise, with an active trading. Closing prices are for January, 9.50@9.51c; February, 9.64@9.65c.; March, 9.80@9.81c.; April, 9.93@9.94c.; May, 10.05@10.06c.; June, 10.16@10.17c.; July, 10.25@10.26c.; August, 10.31@10.32c.

Quotations for spot cotton are based on American standard of classification, and on cotton in store running in quality not more than half a grade above or below the grade quoted:

	Uplands.	N. Orleans.	Texas
Ordinary	7 9-16	7 11-16	7 11-16
Strict ordinary	8	8¼	8¼
Good ordinary	8⅛	8⅜	8⅜
Strict good do	8 13-16	8 15-16	8 15-16
Low middling	9 1-16	9 3-16	9 3-16
Strict low middling	9¼	9¾	9¾
Middling	9 7-16	9 9-16	9 9-16
Good middling	9 13-16	9 15-16	9 15-16
Strict good middling	10 3-16	10 5-16	10 5-16
Middling fair	10¾	11	11
Fair	11 11-16	11 11-16	11 13-16

DRIED FRUITS.—There has been but little done for several days, but an impression prevails that, with the new year fairly set in, business is likely to improve, and, in consequence, holders' views as to prices are fairly steady.

Southern plums at 13½@14c.; State plums, 15@15½c.; Blackberries are quoted at 5@5½c. Peaches—Peeled Georgia, at 6@7c. for poor; 8@9c. for fair to good; 10@10½c. for prime; choice North Carolina, 11½@12½c.; good do., 8@10c.; unpeeled halves, 3@3½c.; quarters, 3@3½c. Pitted cherries, 22c. Apples—Old State quarters, 2½@3c. New apples, 2@2½c. for southern quarters in bags.; 3½@4c. for good and prime sliced; do., fair at 3@3½c. State at 3½@4½c. for new sliced; and 3@3½c. for quarters; western at 2¾@3½c. for new quarters. Raspberries, 30c.

Exports, past week, 375 bbls. apples.

EGGS.—Supplies have run light and cold restrictive weather gives buyers some price-naming privilege. Demand, however, does not call for liberal receipts. Many Western arrive frozen and the actual supply small. Limited receipts of fresh have helped g od limned into use. Near points, doz., 30c.; State and Penn., 27@28c.; Western, fresh, 27@27½c.; Southern, 27@27½c.; Canadian, 23@24c.; poor 22@23c; selected limed, 19@20c.; good to prime, 18@19c.; poor, 15@17c.

Receipts for the week, 4,241 bbls.; do. last week, 3,987 do.

FLOUR.—The interruption to trade by the holidays, and as well by cold weather and the difficulty in moving supplies about the harbor gives but little to report this week; prices are on the whole rather easy.

The quotations are at $3@3.60 for very inferior to fancy superfine State; $3.60@3.90 for very poor to good extra do., odd lots and lines; $3 90@4.25 for good to very choice do., and fancy lots above this; $3.15@3.65 for inferior to fancy superfine Indiana, Iowa, Michigan, &c.; $3.50@3.90 for very inferior to good shipping extra do. and $3.90@4.25 for good to very choice extra do.; common to about choice white wheat extras, $4.00@5.00; choice to fancy do. at $5.00@5.75; red and amber winter wheat, very inferior to very choice trade and family $3.90@5.60 round hoop Ohio at $3.85@4.25, and trade and family brands of do. at $4.25@5.60, the latter rate for very choice; St. Louis, $4.00@4.75 for very poor to good extra, and $4.75@5.00 for good to choice; Minnesota clear, very inferior to fancy, at $3.50@5.00; few brands going above $4.50; Minnesota "straight," inferior to fancy at $4.40@5.65; and patent fair to strictly fancy at $5.25@6.25, few brands going above $7.50; unsound stock at from $2.00@4.75; city mill extra at $4 65@5.00 for West Indies (the latter rate for fancy in new packages); do. for England $3.70@3.85; do. trade and family extras, $5.10@6.00; do. for South America, $5.00@5.60 for fair to very choice; No. 2 at $2.30@3.90 for inferior to fancy.

FRESH FRUITS.—Apples are quiet as buyers will not risk the freezing temperature. Quotations not materially changed. Spits, choice, $1 75@2 25; common, $1 25@1 50; Baldwins, $1 37@1 87; Greenings and Spys, $1 25@1 62; inferior, 75c@$1; Lady apples dull, with the close of the holidays: choice, $5@6 bbl.; rough, 2@4 do. Cranberries show a moderate stock, prices tending higher for extra. Fancy Cape Cod, bbl., $9; fair to prime, $7@8 50; poor, $5@6 50; N. J., crates, fancy, $4; other, $2@3 25. Catawba grapes, nominally, 6@8 ¾c. Fla. oranges dull and weak, hf. bbl. cases, $1 75@4; bbls., 4@8. Pecans, Texas, 8@9c. per lb. Chestnuts out of date. Hickory nuts, shellbarks, $2 50@2 75; Va. hand-picked peanuts $1 10; other grades, 8@9c.; shelled, 4@5c.; demand fair.

Export of apples for week, 3,129 bbls.

HAY AND STRAW.—There have been but light deliveries here this week from the country, and although trade has been moderate, prices have been forced up a little.

Sales at 40@45c. for shipping, and 65@75c. for retail qualities. Straw quoted at 40@45c. for long rye, and 25@30c. for short rye, and oat at 40@45c.

Exports, for week, 335 bales.

HOPS.—Exporters have taken this week about 1 700 bales. This steady movement is almost entirely in the better grades, for which firmness prevails. Good and lower qualities are slow.

Quotations are for New Yorks, new crop, choice, 13@15; New Yorks, new crop, good and prime, 9@12; New Yorks, new crop, low to fair, 5@8; Eastern, 8@13; Western, 8@13; Yearlings, 4@6; Olds, all growths, 2@3; Pacific coast, 12@15.

OIL CAKE.—Western has sold at $28 per ton.

PROVISIONS.—Have towards the close felt the effect of the light receipts of hogs at the West and the falling off of the packing, consequent upon the severe storms; prices are higher and strong.

Mess pork quoted at $7.30@7.40 for spot lots of old; $7.12@7.25 for old for Jan.; $8.40@8.60 for new for do.; $7.20@7.35 for old for February; $8.40@8.60 for new for do.; $7.35@7.50 for old for March; $8.60@8.80 for new for do. Bacon at 4¼c. for long clear and 4¾c. for short clear. Lard at $5 87½ for spot lots; $5 85 for January; $5.87½ for February; $5.92½@5.95 for March. Stearine at 6¼. for prime. Tallow at 6¾ for prime. Beef Hams at $14.50@14.75. Beef at $10@1.50 for plain mess, and $10.50@11.50 for extra mess.

ESSENTIAL OILS.—First hand prices in N. Y. as follows: Peppermint in tin, $1 60; in glass, $2.30; sassafras, 44c.; wintergreen, $2.15; tansey, $2; wormwood, $3; pennyroyal, $1.25.

FEATHERS.—White live geese prime, 40@45c.

FURS AND SKINS.—The outlook is favorable, and prices are fairly firm.

	No. 1 quality. Nor. & East.	West & N. W.
Otter, ₩ piece	$4 00@5 00	$2 50@3 00
Gray Fox	90@1 15	90@1 15
Red Fox	1 00@1 30	90@1 20
Black Bear	5 00@6 00	4 00@5 00
Brown cubs and ylks.	1 00@2 00	1 00@2 00
Fisher	5 00@7 00	4 00@6 00
Mink, dark	1 00@1 50	50@75
pale	50@60	30@40
Muskrat, winter	10@12	9@11
— fall	8@9	6@8
— Kitts	@2	@2
Beaver, ₩ lb	1 00@1 25	80@1 00
Raccoon	50@60	35@50
Opossum	4@8	4@8
Skunk, black		1 00@1 15
striped		10@60
Wolf, mountain		1 50@2 00
prairie		50@60

Southern furs usually sell 15 to 20 per cent. below western.

GRAIN.—Wheat has tended lower and has been dull on tame foreign markets. Corn is also easy and slow. Oats have been well sustained on small receipts.

Latest sales of wheat are of No. 3 Milwaukee and Minnesota spring at 89c.; ungraded amber at $1.04½@1.08½; No. 2 amber at $1.05@1.05½; ungraded red at $1.03@1.08; No. 3 red $1.03; No. 2 red at $1.08½@1.08¾; No. 1 red at $1.09¾@1.09¾; ungraded white at $1.06@1.09; extra white at $1.11@1 11½; white State at $1.10; No. 1 white, in lots, at $1.09¾@1.09½; No. 2 white at $1.06¾@1.07; No. 2 amber, January option, at $1 05@1.05¼; do., February option, at 1.06¾; No. 2 red, Jan. option, at $1.08¾@1.08¾; do. Feb. option, $1.10. Corn, for steamer mixed, in lots, at 44½c.; New York No. 2 at 47¾@47½c.; New York No. 3 at 46c.; ungraded mixed at 45¾@47½c; new No. 2 white at 45½c.; New York steamer white at 45c.; round yellow quoted at 47@48c.; No. 2, January option, at 47¾@47¾c.; do. February option, at 45½@45¾c; new No 2, January, quoted at 45¾c. bid and 46c. asked; steamer mixed, January option, at 44¾@44¾c.; do. February option, at 44½c. Oats, for New York No. 1 at 31¾@31½c.; New York No. 2 at 30½c. offered and held at 31c.; New York No 3 white at 32¾@33c.; New York No. 3 quoted at 29@29½c. New York No. 3 white quoted at 31¾c.; white Western at 31@31c.; mixed do. at 29½@31c.; white State at 33@34½c.; mixed do at 31@31¾c.; No. 2 Chicago at 30c. asked and 29½c. bid for store lots, 31c. afloat; New York extra white quoted at 33@33½c.; New York No. 1 white at 34@34½c.; No. 2 Milwaukee at 30¼@31c. State 6-rowed barley, 83c.@$1; 2 do., 78@83c.; malt, $1.05@1.25, the higher price for Canada.

POULTRY AND GAME.—Live poultry slow, even with moderate supplies. Prices lower for chickens ducks and geese. Chickens, 6@7c., lb.; fowls, 6@8c. roosters, 4@4½c.; turkeys, toms, 6@7c.; hens, 8@9c ducks, choice, pair, 60@90c.; other, 45@55c.; N. J. geese, $1.50@1.62; other, 87c.@$1.37; pigeons, 25@30c.

Dressed poultry is dull, a good deal arrives frozen and unmarketable as the chief call is for choice light scalded or fine dry picked. Capons quoted 20@21c.; slips, 17@18c. Dry picked turkeys, 13@14c.; prime scalded, 10@12c.; fair, 8@9c. Chickens and fowls, dry picked, 13@15c.; common to good scalded, 7@8c. Ducks, choice, 12@13c.; other, 9@11c. Geese range, 6@10c. frozen stock, 4½@5½c.

Extremely cheap quail have rather absorbed the game demand. Venison no longer legitimately quotable. Birds of all kinds are plenty; prices easy. Hares and rabbits have declined. Quail, doz., 60@75c.; Grouse, trapped, pair, 70c; drawn, 50@60c.; Partridges, State, 70c.; other, 50@65c.; canvas-back Ducks, Havre de Grace, $2 pair; Western, $1.50@1.75; red head, 75c.@$1; Mallard, 50c.; Teal, 35@40c.; common, 25@35c.; Hares, 25c.; Rabbits, 17@20.

SEEDS.—Clover is in better demand Western quoted at 6½@7c., and State to 7¾c. for choice. Timothy at $1.25 for prime. Flaxseed quoted at $1.42½.

SUGAR.—Refined quoted at 9⅛@9¼ for cut loaf; 9¼ for crushed and powdered; 8⅝@8¾, for granulated; 7⅞@8⅜ for soft white and 6@7¾ for soft yellow.

TOBACCO.—The demand is light, but prices held generally steady, and not showing important change.

VEGETABLES.—Trade in potatoes restricted by cold weather. Choice qualities somewhat firm; common but useful easy; cabbages higher. Onions steady.

Nova Scotia E. Rose, bulk, $2.37@2.75 ₩ bbl.; Prolific and Chili red, $2.25@2.50; P. E. I. Jackson whites, $2@2.25; Mercers, $1.75@2; Eastern E. Rose, with bbl., $2.25@2.37; State, $2.50; fair to good, $2@2.37; do. Peach Blow, choice, $2.50@2.75; common, $2@2.25; Peerless, choice, $2.37@2.50; poor to good, $2@2.25. Sweet potatoes, Del., $2@2.25; Onions steady. White, $1.50@2.25; red and yellow, $1.50@2 Chester, $1.25@1.62. Hubbard and marrow squash, $1.75@2. Cabbage, $4.50@7 per 100. Cauliflower, bbl., $1.50@3. R. Turnips, 75@87c. Beets, 75c. Carrots, 75c@$1. Celery, 20@75c. doz. Extras; hot-house Radishes, $3 ₩ 100 bunches; Cucumbers, $2.50@3 doz.; Mushrooms, 40@50c. ₩.

Exports, potatoes, past week, 3,150 bbls.; onions, 225.

WOOL.—Firmness prevails and a moderate degree of activity; sales of X and XX Ohio fleeces at 34@35c.; combing and delaine at 36@38c.; Wisconsin fleeces at 32½; unwashed do., at 22½@26; Texas at 17@22 for fall, and 21@23 for spring. California at 21@24c. for spring.

LIVE STOCK MARKETS

Saturday, Jan. 4, 1878.

BEEVES.—Receipts for the week, 10,295 head do.; last week, 9,526 do. The week has not been a steady one in prices. At the close quotations were a shade better, poor to common steers, 7@8c., dress 54@55 lbs.; medium to good, 8¾@9½c.; 9¾@9¾c. for prime, dress 56@57 lbs.

COWS AND CALVES—The arrivals are small. Ordinary to good cows, $35@60; extras, $70@75. Market dull.

VEAL CALVES.—Live calves scarce, but the wants of the market are made up through receipts of hog-dressed. Choice N. J. and Buck's Co. live, 7c.; choice State, 7c.; other, including heavy, 5½@6¾c.; fed calves, 4@5. Hog-dressed, 6@9¾c.

SHEEP AND LAMBS.—Receipts for the week, 19,358 head; do. last week, 13,115 do. Sheep declined early in the week, and have since ruled dull and easy. Good to prime, 4@5c.; ewes, 3½@4c. Lambs steady at 5½@6½c.

SWINE.—Receipts for the week, 33,346 head; do., last week, 10,990 do. Market firm with seasonable weather. Fair, Ohio, $3.30@3.50 per 100 lbs.

Country dressed pork, N. J. light, 4¾@5c.; medium, 4¾@4¾c., heavy, 3¾@4c.; city, 4@4¾c.

Referring to new year projects the World says: "There is a rumor that the Baltimore and Ohio Railroad is soon to open independent stock yards; also, that the old yards at Weehawken will be reopened at the expiration of the present lease to the Jersey City Stock Yard Company. And along with these rumors floats the story that the hog slaughterers are becoming restless under a burdensome tax for needless accomodations in the way of yardage and gilt-edged corn, and contemplate the establishment of a union hog abattoir under their own control, somethlng after the fashion of the Butchers' Association abbatoir in East Forty-fifth street. Should all these things come to pass the traffic in live hogs here will slide out of the narrow rut which now makes it the next thing to a farce, and be once more a market where quotations of selling value will be something more than nominal.

The N.Y. World gives the following statistics:

RECEIPTS FOR THE YEAR.

Month.	Beeves.	Cows.	Calves.	Sheep.	Swine.
January	35,613	394	3,463	88,753	158,321
February	38,425	373	3,088	90,941	145,993
March	35,910	344	3,972	79,867	116,857
April	50,461	811	13,665	97,753	178 264
May	45,075	175	18,025	107,692	132,211
June	46,419	175	16 663	101,827	119,939
July	51,352	327	17 858	132,700	121,188
August	42,459	326	14,408	110,003	94,923
September	61,635	341	17,288	164 337	132,282
October	45,348	316	11,315	129 882	166,961
November	41,911	405	7,821	115,318	200,998
December	49,753	616	6 057	122,369	249,424
Totals	544,371	4,113	133,573	1,341,502	1,797,161
1877	505,217	4,110	140,161	1,199,867	1,286,004

SPECIAL NOTICES.

For particulars regarding Electric Belts, &c., address PULVERMACHER GALVANIC CO., Cincinnati, O.

New Advertisements.

THIS NEW
ELASTIC TRUSS
Has a Pad differing from all others, is cup-shape, with Self-Adjusting Ball in center, adapts itself to all positions of the body, while the BALL in the cup PRESSES BACK the INTESTINES JUST AS A PERSON WOULD WITH THE FINGER. With light pressure the Hernia is held securely day and night, and a radical cure certain. It is easy, durable and cheap. Sent by mail. Circulars free.
Eggleston Truss Co., Chicago, Ill.,

HORSFORD'S
Bread
Preparation
UNSURPASSED FOR MAKING
LIGHT BREAD,
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It is Better and Healthier than ordinary Baking Powder, Cream Tartar or Yeast.

The cost of raising Bread, Biscuit, &c., with it is only about half as much as by ordinary Baking Powder, and the result is much better.

It restores the nutritious elements which are taken from the flour in bolting. No ordinary Baking Powder or anything else used for raising bread does this.

Universally used and recommended by prominent Physicians.

If you cannot get it of your Grocer send a three-cent stamp to the manufacturers for a sample.

Manufactured according to the directions of Prof. E. N. Horsford, by the Rumford Chemical Works, Providence, R. I.

Reading for the Young.

PYRAMIDS AND OTHER THINGS.

WELL, the festivities of Christmas and New Year are over; Santa Claus has, I trust, been very liberal in his gifts to all my nieces and nephews and satisfied all their wishes and expectations. Now, at the beginning of the New Year, let us start out with the determination to learn all we can both in school and at home, to employ every moment in some useful occupation, in fact, to do our very best in everything the whole year round; when New Year comes again we can then take some pleasure in looking back on the work we have done in the past year. I have received no answers as yet to the questions asked last week, but, of course, I shall soon hear from some of my clever relatives; meanwhile, I have concluded to tell you, in a very brief sketch, something about

THE PYRAMIDS OF EGYPT,

which, perhaps, all of you may have heard mentioned, but all of you may not know what they really are. Those who have studied geography know that in the northeastern part of Africa is a country called Egypt, which in very ancient times was noted for its prosperity and civilization; but its glory has declined long ago, and in our day it is of interest mainly for its history, for the peculiar river Nile, which flows through the country from north to south and empties into the Mediterranean Sea, and for the pyramids. I suppose that none, or at least but very few, of my nieces and nephews have studied geometry, and are therefore puzzled as to the meaning of the word pyramid. A pyramid is a solid body with a plane base and terminating in a point at the top.

The pyramids of Egypt are huge stone structures, situated on the left bank of the Nile, on the border between the great desert of Sahara and the fertile valley of the Nile. They were built about 5000 years ago by the kings that then ruled over Egypt. These kings had the peculiar belief, that after death, soul and body should again be united, and they live a second life on earth if their bodies could be preserved for 3000 years without decomposing, and it was for the protection of their corpses that the pyramids were built.

By referring to your maps of Egypt you can readily find the city of Cairo, and not far from this city are situated the three largest pyramids. The largest one of these was originally (I say originally, for owing to the destructive hand of time and man, it is now somewhat smaller) 484 feet high and 760 feet on each side at the foot of the structure, and covered an area of 577,600 square feet, or over thirteen acres. If you try to comprehend these numbers you will get some idea of this immense structure.

The outside was at first smooth, but now it is worn off so as to form great steps all the way from bottom to top. Inside are several passage-ways that lead to the chamber within where the body of the king was placed.

There are in all between sixty and seventy pyramids, each of which is supposed to have served as the tomb of a king, but now the chambers are all empty, and we have no record of what became of the bodies, whether or not the soul did come back, after the lapse of three thousand years, and claimed what formerly belonged to it; but as we do not believe in any such absurd superstition it is more reasonable to suppose that the tombs have been robbed by explorers and adventurers. From this brief description of the pyramids you will be able to understand what is meant if they are referred to, and I trust also that you will read all you can find on the subject in your books and papers, thus constantly enlarging your stock of knowlege.

UNCLE TRUE.

TALKS WITH THE CHILDREN.

JENNIE E. J. ALGER.

I SIT by a bright, coal fire, while the snow falls swiftly without. A chubby little boy in the next house is anxiously watching the storm with eager black eyes. There has not been snow enough to give him good sliding, and he wants to try his Christmas sled. Perhaps if this very small boy were in Lapland instead of Massachusetts, he would not like snow so well.

Did you ever hear of people using snow-banks for cradles? In Lapland, when fathers and mothers go to church, they roll the babies in fur and dump them into a snow-bank outside the church door, while they go inside and enjoy the service without being disturbed. Sometimes there will be thirty babies, all in a row. Don't you think that is rather a cool performance? I sometimes wonder if our customs seem as curious to people of other nations as theirs do to us. For instance, there lies before me a tiny shoe. It is exactly three and two-eighths inches long, about an inch broad at the heel, and runs to a fine point at the toe; yet it has been worn by a full-grown woman. This seems very strange to me, but I have seen them even smaller than this, and they are worn two inches and a half long.

Ah! Don't you pity the poor, little Chinese girls, who have to endure terrible torture in order to wear them? Do you ask why? For the same reason that some of you will be advised to wear corsets—because it is the fashion. Would you like to know just how this torture is carried on? You may suppose, as I used to, that it is commenced when the victim is a baby, and that the whole foot is compressed, and never allowed to grow, so that it all enters the shoe. But this is not the case. Rev. R. C. Houghton, in his books "Women of the Orient" says, that the binding of the foot is seldom, if ever, commenced before a child is five years old, and in most cases not until she is six or seven. This allows the limbs a good start and growth, and the poor, little girl learns how to walk firmly. There are women who make this their business, but sometimes the mothers take it in hand.

In the first place, all the toes excepting the great toe are folded down under the foot, the fleshy part of the heel is forced downward and forward, and a bandage (consisting of a strip of colored muslin four or five feet long and three inches wide) is wound back and forth in a figure of eight, over the folded toes, across the instep and around the heel, pressing that toward the great toe to shorten the foot. The bandage is wound snugly at first, and then tightened a little at each succeeding operation. This gradually throws the instep up and virtually breaks it, so that when the bandage is removed the front part of the foot may be moved like a door upon its hinges.

Under this treatment the foot soon becomes merely a mass of bones covered with tendons and skin. The growth above the foot is checked, and the leg tapers from the knee downward. "In the course of six or eight years, if daily attended to, the elongated bone of the heel, which is about all that is left of this part of the foot, is brought within a few inches of the great toe; the broken instep and folded toes are bound together with the ankle in an ugly bunch bulging outward above what seems to be the foot, and the great toe and the heel alone are thrust into the little embroidered shoe, and it is pronounced a perfect lady foot."

Oh, how ridiculous! If you were to examine this tiny shoe you would find a block of wood in the heel, making it about an inch higher than the rest of the sole. This makes the woman look as though she were walking upon her tiptoes, as she wriggles along, throwing out her arms to balance herself. Such ladies are obliged to use a cane, or rest their hand upon the shoulder of their attendants. The latter method is considered very genteel. They wear wide embroidered trousers, which conceal the bunch above the shoe, and one would suppose that their feet were small but well formed. It is almost impossible for a gentleman of another nation to secure the privilege of examining a foot thus deformed, but the Rev. Mr. Houghton, by the help of a lady who taught in a mission-school for girls, gained permission to look at a girl's foot; and, by the liberal use of money, when in Shanghai, he persuaded an elderly woman to remove the bandage from her foot, so that he is able to describe the process of "making a foot."

I wish to tell you more about this curious custom, but I fear it will make this talk too long, so I will wait until some other time, letting you have a chance to be thankful that you can trot about on your own, dear, free feet.

A TOO COMMON STORY.

HERE are two extracts from the local columns of recent New York journals which we commend to the notice of young lads who propose to enter commercial life.

A middle-aged, educated gentleman, cashier of the dock department, was arraigned for embezzlement of funds belonging to the city. He was, it appears, a man of refined tastes, with an especial fondness for flowers, which he indulged to the full extent of his own means.

He was tempted at last to indulge in unusual outlay in the importation of rare tulips and orchids, and began to "borrow" the money in small sums from the treasury. At the time of detection he had embezzled over fifteen thousand dollars, all of which had been expended in green-houses and plants.

The second case was that of a young man who came with high recommendations from the West, where he had always deservedly borne a good character, to New York, where he obtained a position in an established firm as book-keeper. A few months ago he was led into debt for some trifle, innocent enough in itself, a bit of bric-a-brac, or unwonted finery in dress. Other young fellows, he thought, could do it; why not he?

His creditors pressed for payment; the lad had but half the amount needed. Passing a gambling-house, it occurred to him that he could make it all right by a lucky throw. He went in, threw and lost.

The next day he too "borrowed" from the drawer a few dollars to try his luck again. He lost; borrowed again and again, until he had stolen two hundred dollars.

Then luck turned, and he won one hundred and eighty dollars. He staked it all and lost. The next day he was discovered, arrested, and is now in prison. For the indulgence of that petty whim, or bit of vanity, he has sacrificed character, position, and all hope for the future, and taken up the life of a felon.

There is a singular uniformity in the histories of almost all defaulters. They are not thieves by nature. They are tempted to some apparently innocent indulgence—what more harmless than flowers? They always mean only to "borrow" the money from their employer. They always are confident they will repay it, and the miserable, hackneyed tragedy always ends alike—in the prisoner's dock. Will our boy-readers heed the lesson?—Youth's Companion.

"A SLAVE'S DEVOTION."

THE late Judge Chambers, of Maryland, an intimate friend of Daniel Webster, was once travelling in Pennsylvania. It was years before our Civil War, and the judge was accompanied by his "body-servant," who was very strongly attached to his master.

While staying all night at a hotel in an inland town, the judge took from his pantaloons pocket his pocket-book, containing eleven hundred dollars, and slipped it under the pillow.

The next morning he was called at an early hour, that he might take the first train. Consulting his watch, he found that he must dress in a hurry, or he would be left. His haste caused him to forget his pocket-book, and it was not until the cars were conveying him swiftly from the town that he remembered where he had placed it.

When the conductor approached to collect the tickets, the judge searched his pockets, and then he became aware of his loss. He mentioned the circumstances to the conductor, and paid his fare out of other money he had with him.

The conductor gave assurances of the honesty of the attendants at the hotel, and said he would send a telegram to the proprietor from the next station.

The judge observed that he would send back his servant to recover the money, with instructions how to rejoin him.

The conductor was astonished that the master was both willing to trust his servant in a free State, away from his control, and to put into his possession eleven hundred dollars. The judge, however, had no anxiety about his servant, who, from the next station, took the first train back, secured the money, and rejoined his master according to instructions.

At the close of the anecdote, the judge said to me that he would have entrusted to that man's keeping every dollar he was worth, and that, too, without a thought of his abusing the trust.

Some persons in a higher position would not be injured by trying to apply to their own conduct the lesson taught in this narrative.—Youth's Companion.

THE EFFECT OF POLITENESS.

A BRAVE, active, intelligent terrier, belonging to a lady friend, one day discovered a monkey belonging to an itinerant organ-grinder, seated upon the bank within the grounds, and at once made a dash for him. The monkey, who was attired in jacket and hat, awaited the onset with such undisturbed tranquility that the dog halted within a few feet of him to reconnoitre. Both animals took a long, steady stare at each other, but the dog evidently was recovering from his surprise, and about to make a spring for the intruder. At this critical juncture the monkey, who had remained perfectly quiet hitherto, raised his paw and gracefully saluted by lifting his hat. The effect was magical; the dog's head and tail dropped, and he sneaked off and entered the house, refusing to leave it till he was satisfied that his polite but mysterious guest had departed. His whole demeanor showed that he felt the monkey was something "uncanny," and not to be meddled with.—Nature.

The Puzzler.

MISCELLANEOUS ENIGMA.

I AM composed of 75 letters:

My 49, 15, 27, 2, 7, 19, 8, 33, 47, 16 unlawful.
My 5, 6, 58, 10, 46, 4, 3, 48 a musical arrangement.
My 31, 13, 21, 58, 43, 9, 4, 49, 12, 27, 49, 18 the time of the year when a plant puts forth its leaves.
My 36, 25, 24, 30, 29, 35, 40, 71, 32, 22 an owner of land in fee-simple.
My 62, 75, 64, 11, 14, 39, 34, 55, 42 one addicted to adulation.
My 67, 1, 40, 75, 17, 8, 51, 4, 23, 61, 52 a mill [or] adventurer.
My 28, 33, 26, 37, 45, 63, 56 to that place.
My 44, 60, 70, 65, 6, 20, 72, 51, 53, 54, 49 pertaining to the healing art.
My 59, 57, 68, 69, 12 a tax.
My 73, 74, 50, 40, 19, 10, 3, 41, 27 transgression.
My whole is a text of Scripture.

☞ Answer in two weeks. LITTLE ONE.

FRACTIONAL PUZZLE.

ONE-FOURTH of vine, one-fourth of wine,
Then add one-fifth of chime;
One-fourth of load, one-fourth of load,
And now one-fifth of rhyme;
One-fourth of hung, one-fifth of young,
And then one-fifth of grind;
And one-third of you will bring to view
A writer of master mind.

☞ Answer in two weeks. NELL.

CHARADE.

My first belongs to every one,
What should we do without it;
My second is a common word,
Nothing new about it;
My whole we all would like to be,
For one I do not doubt it.

☞ Answer in two weeks. MARY WALEY.

CROSS PUZZLE.

1. PART of a house. 2. A piece of beef. 3. To cover. 4. Called loudly. 5. Candy. 6. An apathetic person. 7. Molasses. 8. A light. Centrals form a town of South Carolina.

☞ Answer in two weeks. BALTO.

CENTRAL PUZZLE.

1. A FRUIT. 2. A surgeon's instrument. 3. Danger. 4. Relating to one's birth. 5. A niggard. 6. A disease. 7. An animal. 8. A river of Europe. 9. A small pie. 10. Dust from burnt coal. Words of five letters, with centrals forming a city of Virginia.

☞ Answer in two weeks. DR.

DOUBLE ACROSTIC.

1. A city of Turkey in Asia. 2. A city of Turkey in Europe. 3. A city of United States of Columbia. 4. A city of Peru. 5. A town of Michigan. Initials and finals form two Grecian law-givers.

☞ Answer in two weeks. MD.

TRANSPOSITION.

NAM rokws rouf uns ot nus,
Tub moewna's rokw si vener neod.

☞ Answer in two weeks. ANNIE YOUNG.

Sabbath Reading.

CAST THY BURDEN.

"Cast thy burden upon the Lord, and he will sustain thee."

AAST thou a care, whose pressure dread
Expels sweet comfort from thy bed?
To thy Redeemer take that care,
And change anxiety to prayer.

Hast thou a hope, with which thy heart
Would almost feel it death to part?
Entreat thy God that hope to crown,
Or, give thee strength to lay it down.

Hast thou a friend whose image dear
May prove an idol worshipped here?
Implore the Lord that naught may be
A *shadow* between heaven and thee.

What'er the care that breaks thy rest,
What'er the wish that swells thy breast,
Spread before God *that* wish *that* care,
And change anxiety to prayer.

RELIGIOUS NOMADS.

"WHAT shall we do with tramps?" is a question which is agitating society. The army of tramps is fast increasing. Tramps come to our houses by day asking old clothes or cold victuals. Tramps are found sleeping at night in barns, barrels and boxes. Tramps seek shelter from the cold in station-houses, stables and cellars. Tramps are found walking on the railroads, camping in the woods, and prowling along the highways. The women are afraid of tramps; the children run away from tramps; the men hate tramps. What shall we do with them? Some of the states have passed exterminating laws. In some cities the police are very vigilant and watchful. But the tramp nuisance continues.

Well, these are not the only tramps. We have a class of religious nomads who travel from church to church, as gypsy vagabonds travel from town to town. They are with one pastor as long as he shows them exclusive attention, and then become the adherents of another. They are in one sect awhile, and then try another, and at last drift into some sort of come-outerism. The prevalent modes of evangelism are calculated to produce a race of religious tramps. Men and women are taken from their religious firesides and their altars of worship to crowd into some large hall, where a colossal choir and various kinds of attraction hold excited throngs. When the work is over, the "tramp business" is brisk, and the nomadic wanderers are found everywhere. Each great revival of this sort needs three of another kind to follow it to save the things it scattered, and gather up the things it threw about in confusion. And if you say a word on this, you are charged with not being in favor of revivals. Your resistance is greeted with an impugnment of motives. The time is not far away when the churches will awake to the evils of any system that produces a race of religious tramps, that breaks up the established church life, that forms nomadic habits among Christians. And all this the modern system does most effectually.

READING HYMNS.

A correspondent of The Standard has the following to say of the custom of reading hymns before singing is generally practiced by the clergy and has often seemed to me to be in exceeding bad taste and disrespectful to the congregation. No doubt many will deem such a statement a rude one, and a reflection upon the clergy not warranted by the fact in the case and unwarranted warfare upon a time-honored custom. Well, let us see.

What was the origin of the custom of reading hymns before singing? Simply this: no books in the hands of the congregation or singers, and inability of the masses to read the hymns if supplied with books. In a large majority of our congregations, the causes which originated the custom no longer exist.

If a pastor desires his congregation to read with him the Scriptures in concert, he does not read over the chapter first and then ask the congregation to read it with him. If he should the inference would be that he had serious doubts of the ability of his congregation to read. Now, is there any essential difference between that and reading a hymn all through and then asking the assembly to repeat it in song?

But every good rule has its exceptions, and these may be occasions where it would be advisable to read a stanza or two and possibly the whole hymn. The preacher may know that the choir or leader of the congregational singing may need a few moments for preparation, and in such a case it might be the pleasantest way of passing a painful silence to repeat a stanza or two of the hymn. Again, if the preacher knows himself to be an extraordinarily good reader of poetry, it is kind in him to give his audience frequent specimens of his ability and accomplishments in that direction. Under all other circumstances, with intelligent congregations there is no further use for perpetuating the old custom of reading in extenso, hymns before singing. Who will second my motion for abolition?

Such souls as have once been in the arms of God, in the midst of all oppositions, are as men made all of fire, walking in stubble; they consume and overcome all hindrances: all difficulties are but as whetstones to their fortitude. The moon will run her course, though the dogs bark at her; so will all those choice souls who have found warmth under Christ's wings run their Christian race in spite of all difficulties and dangers.

WE should rather make easy channels for the water of life, than desire to raise land-floods from our broken cisterns.—[Bergelius.

NEVER venture on any action, unless you bring God to it; nor rest satisfied, unless you carry God from it.—[Quarles.

PERSONAL ITEMS.

George Washington is to be hanged in Kentucky in February, and Jeff Davis in South Carolina in April.

Duke d'Audiffret Pasquier has been elected a member of the French academy, to fill the place of the late Archbishop Dupanloup.

Bessie Turner played in "A Celebrated Case" at the Indianapolis opera house Christmas eve, and Theodore Tilton occupied one of the boxes.

Lord O'Hagan, late Lord Chancellor of Ireland, who has inherited through his wife the large Townley estates in Lancashire, was once a reporter.

The new Queen of Burmah is said to be practically a believer in women's rights—at least she takes a warm interest in the conduct of affairs. The King, after the custom of his fathers, married his own half-sister.

Peter McNamara, a well-known citizen of Washington, died this week from the bite of a man named Donaher, received two months since in an altercation. The bite was on the finger, which was subsequently amputated, but the poison had spread to the arm and could not be arrested.

Mr. Spurgeon continues to be a martyr to rheumatism and unable to resume his pastoral duties. "I cannot," he says "stand for even five minutes. During the night I have been fiercely attacked by rheumatism in the back and loins, and I now feel quite prostrate. How I long to speak again in the name of the Lord!"

It is related that not many months ago William Cullen Bryant and Bayard Taylor were sitting together in a Fourth avenue car in this city. The two poets became somewhat loud in a conversation about the physical and mental health of John Greenleaf Whittier. They were fearful lest Mr. Whittier's death should at an early day deprive them of a fellow-writer. And now he alone survives.

Mr. Young writes of Castelar, the famous Spanish statesman: "He is still a young man. He has a large dome-like head, with an arching brow that recalls in its outline the brow of Shakespeare. He is under the average hight, and his face has no covering but a thick, drooping moustache. You note the Andalusian type, swarthy, mobile and glowing eyes that seem to burn with the sun of the Mediterranean."

Mr. Haars, the American consul at Alexandria, Egypt, has just gone round the world in a rapid fashion, unequated even by Jules Verne. He accomplished the journey in 68 days. It took him 20 days to go from Alexandria to San Francisco, by Brindisi, Paris, Liverpool and New York; 20 days also to go from San Francisco to Yokohama; 6 days thereafter he reached Hong Kong; in 10 days he set foot on shore at Ceylon, and 12 days later he found himself again in Egypt.

William Wacherle says that he is alive and his wife says that he is dead. There is a paid-up insurance policy of $7,000 on his life, which fact is supposed to influence Mrs. Wacherle's course. Wacherle used to live in Carver, Minn., where he was a foreman in a machine shop. His wife induced him to get into life insurance, and he soon got the idea that she was in a hurry for him to die, so he left Carver, and wandered about the country for many years. Recently he returned to his old home, and learned that his wife had accumulated alleged evidence of his death. She refuses to admit his identity, and demands the $7,000.

They have a Methuselah in Baltimore, one William Scott, familiarly known as "Uncle Billy," a colored man who is claimed to have lived 149 years. A citizen has made affidavit that he has known "Uncle Billy" for fifty years; that William then bore the same appearance as now; that the deponent's father, who had been nursed by William, gave the date of the latter's birth 1729. "Uncle Billy" might pass for a man of seventy. He has had six "head" of children—that is, six different families of children, exactly how many he doesn't remember. He was a body servant to Lord Howe during the Revolution, went to England with him, and was servant to an English officer at the battle of Waterloo.

A Berlin paper has an amusing story about Beaconsfield. When orders were sent to secure rooms for him at the Kaiserhoff Hotel, it was specially directed that his sleeping chamber should have two beds. This caused much surprise, as it was known he was a widower, and there had never been an imputation on his private character. The general impression was, that, being in delicate health, he might have desired his faithful secretary, Montagu Corry, to sleep in his room. The waiters and chambermaids grinned, and set themselves to watch the British plenipotentiary when he arrived in Berlin, and took possession of his two-bedded chamber. They found he went to it all alone, and in the morning came out of it all alone, moving with bent head and the under lip pursed out as usual. Then began betting as to which of the beds the illustrious man had occupied. A chambermaid stole in, and came out with an astonished face. "Both!" It seems that the weather was very hot, and when the Premier felt himself uncomfortable from heat in one bed, he moved to the refreshing coolness of the other, with better hance of good sleep.

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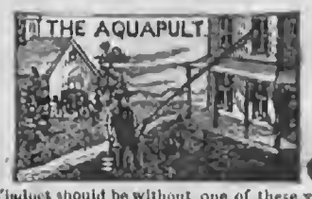

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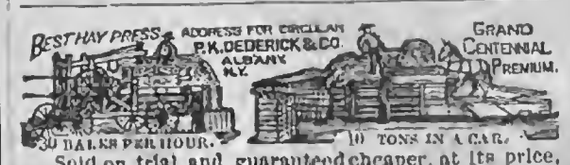

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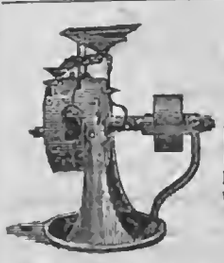

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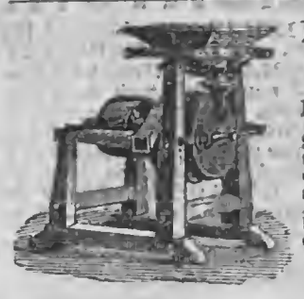

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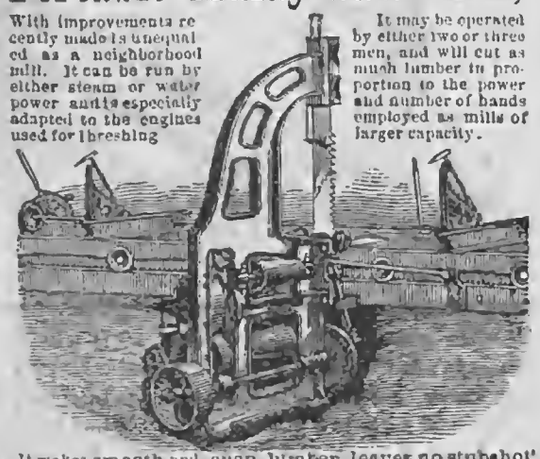

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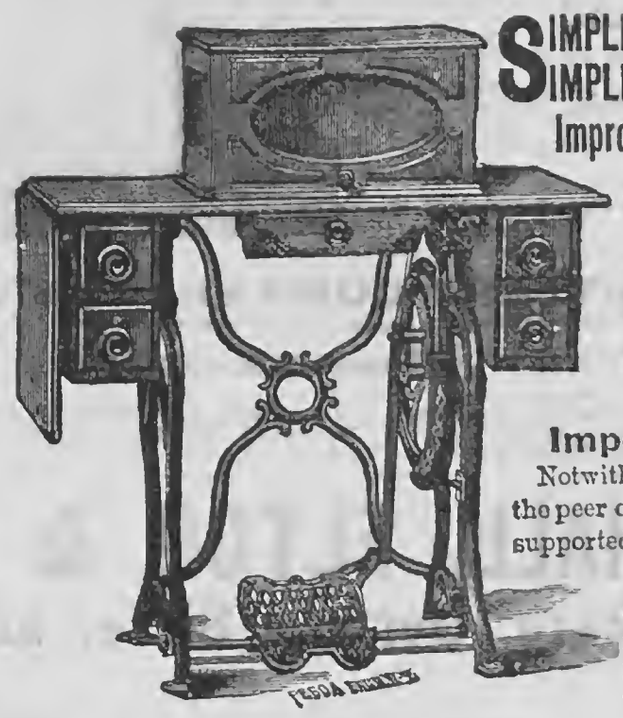

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Wit and Humor.

A YOUNG man with his first goatee may be said to have a tuft time of it,

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A JOCKEY calls his horses Kerosene and Petroleum, because they are a paraffine steeds.

WHEN the Sultan loses his temper, the ladies of the household speak of him as a harem-scare-'em fellow.

THERE is a very suggestive proverb which declares that "There are a great many asses with short ears."

IF a woman were to change her sex, why could she no longer be a Christian?—Because she would be a he(a)then.

HOOD, in describing the meeting of a man and a lion, said: "The man ran off with all his might, and the lion with all his mane."

A ROMANTIC young man says that a young woman's heart is like the moon—it changes continually, but always has a man in it.

THE young man who wrote and asked his girl to accept a "bucket" of flowers became a little pale when she said she wooden ware it.

LITTLE boy at the opening of a proposed spelling-match—"Let's start fair, grandmother. You take 'Nebuchadnezzar' and I'll take 'cat.'"

WIFE OF HIS BUZZUM. "Was that the kiss of dooty or kiss of affection, Mr. Bodger?" Mr. Bodger. "I decline to answer that question."

A CHICOPEE, Mass., small boy declined to eat soup at dinner the other day, on the ground that he hadn't any teeth that were little enough for soup."

THE class in German grammer is on the subject of genders. "Miss Flora, why is 'moon' masculine in German?" "So that she can go out alone nights, I suppose."

"DID you do nothing to resuscitate the body?" was recently asked of a witness at a coroner's inquest. "Yes, sir; we searched the pockets," was the reply.

THE latest waltz is called "The Wave." It is very pleasant to watch the buoys bobbing up and down to the music of the dance.—*New York Commercial Advertiser.*

THE laugh has gone around at the expense of a State Street, Boston, young man, because he was overheard to say that he wished he had the "facilities for a curtain lecture."

A COURTLY negro recently sent a reply to an invitation, in which he "regretted that circumstances repugnant to the acquiescence would prevent his acceptance to the invite."

A LITTLE boy, weeping most piteously, was interrupted by some unusual occurrence. He hushed his cries for a moment, the thought was broken, "Ma," said he, resuming his sniffle, "what was I crying about just now?"

"YES," said a young lady, who was possessed of a fine voice, "I am often asked to appear in public, but—" "But what?" observed a friend. "Well," she replied, "I should never be able to sustain my party. I am so easily decomposed."

"AREN'T you rather too old to ride for half price?" said a ticket clerk to the elder of two boys. "Well," remarked the youth, "I am under fourteen, and this boy with me is under six. That don't make twenty, and you will take two boys under ten for half each." And he took them.

THE graceful curvilinear 8 is mustered out, old and crippled, and sent to the asylum of superannuated years; and the blunderbuss is handed to the brave new recruit, the topheavy 9, with the bulgy forehead and the inadequate underpinning. "Halt and give the countersign!"—*New York Graphic.*

As an old colored man and his son stopped in front of an umbrella store, the son saw some umbrellas with covers on them, and questioned his father: "What's de covers on them dar um'rellas for?" "Why, chile, dem's put ober de um'rellas to keep 'em dry when it rains," was the father's response.

THE Hard-headed Breed.—Sympathizing bystander about an unfortunate man who has been knocked down and stunned by the train. "Poor man! Take him to the station," Injured one (recovering). "Tyek me to the station? What for, then? If aw've dune ony harm to y'or enginn, aw's willin' to pay for't."

A PAIR of scissors was lost, and the little one suggested that a prayer be said, asking that they might be found. There was, however, a lurking consciousness that there ought to be a combination of prayer and work, so the youthful philosopher said: "Now, Mother, I'm tired; so I'll pray while you hunt."

IT is not true that Bertha Von Hillern has paralysis of the l—. Now, before we complete the word let us reflect. If we go on and say "—egs," some awfully particular folks will stop their subscriptions, and if we say "—imbs" the other crowd will accuse us of mock modesty. Guess we won't finish the sentence. Anyhow, she hasn't got paralysis.

PRODUCER. MIDDLEMAN. CONSUMER.

"WHO was it rang, Bridget?" "It was a man, ma'am." "What was his name?" "I doan know, ma'am He axed fer yer husban', ma'am, and he is not got home." "What kind of a looking man was he?" "Sure, ma'am, he was a—he was red-headed, an' tall, an' he had a—a predicament in his spache, ma'am!"

SHE wept, the poor laundress, on returning five shirts, where her patron had entrusted her with six, and confessed that she had burned a big hole in the sixth while ironing. "Never mind," says, kindly, her enstomer; "Christmas comes but once a year, and that 'll be all right. How much do I owe you?" "Six shirts at 12½ cents each—75 cents." "But, I say, you burned one of 'em up." "Well, suppose I did. Had n't I washed it before I burned it? Go along wid ye; trying to chate a poor dissolute widow."—*New York World.*

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Depends in great measure upon our regard for or neglect of the laws of health. If we violate them we cannot expect to "make old bones." But that the span of existence allotted to a naturally delicate constitution, or one which has been shaken by disease may be materially lengthened, is a fact of which we have daily proof. The vivifying and restorative influence of Hostetter's Stomach Bitters upon a failing physique affords a striking illustration of the power of judicious medication to strengthen the hold on life. Restored digestion, complete assimilation, renewed appetite, sound repose, these are among the benefits conferred upon the debilitated by that supreme renovant. With a circulation enriched, a frame invigorated, and a nervous system tranquilized, the invalid, after a course of the Bitters, feels that his life-tenure is no longer the precarious thing that it was—that he may yet enjoy a "green old age."

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THE RURAL NEW-YORKER

A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME

VOL. XXXVIII. No. 3.
WHOLE No. 1512.

NEW YORK CITY, JAN. 18, 1879.

PRICE FIVE CENTS.
$2.00 PER YEAR.

[Entered according to Act of Congress, in the year 1878, by the Rural Publishing Company, in the office of the Librarian of Congress at Washington.]

Farm Topics.

LIGHTS AND SHADOWS ON ENGLISH FARMS.

PROFESSOR I. P. ROBERTS.

Superfluous trees and hedges; small, irregular fields; English and American farm laborers contrasted; excellent tilth the secret of England's large crops; good tillage versus commercial fertilizers.

LEAVING the fertile, well-tilled farm of Mr. J. J. Mechi, free from obstructing trees, hedges and ditches, and passing northward into Suffolk County, one is forcibly reminded at every turn in the road, of the justice of his criticisms on English agriculture.

The first thing that pleases yet annoys the American—especially if he be from the prairies—is the great number of spreading Oaks scattered through the fields, and the numerous and too often unkept hedges. That the Oaks are beautiful no one can deny; neither can it be denied that they obstruct the plow, occupy four times the ground that should under any circumstances be allowed trees so situated, and then are of comparatively little value. The Oak is the ideal of a lawn shade-tree, but is far too low and brushy for timber. So, a neatly-kept live fence in its appropriate place, is a "thing of beauty and a joy forever," but a double line of half-dead and unkept thorn-trees, inclosing often less than three acres, makes one exclaim, "Why cumbereth it the ground?" when England imports nearly two bushels of wheat for every one grown on her own soil.

From actual count it is found that, in some parishes, the fields average only four acres; in others, five and a half, six and a half, eleven, eight, thirteen, respectively. In 120 parishes 4,683 fields were found to be either triangular or of some other irregular and inconvenient shape. To fence a section of land—640 acres—into ten-acre, square fields requires 5,760 rods of fence, and to fence it into four-acre fields would require about 3,000 additional rods. If we estimate it at $1.00 per rod, we find the cost is $13.68 per acre. Add to this the cost of repairs, deterioration of material, interest on investment, and rent of the land occupied, and the total forms a sum that is not only appalling, but ruinous. It is no wonder that so shrewd a man as Mr. Mechi should, on purchasing his first little farm of 128 acres, removed three and a half miles of fence. If those who farm the lands owned them, there would be some hope that at least a part of these worse than useless trees and fences would be removed; but with the lands in the hands of the wealthy few, who too often think more of the "shooting" than of their tenants, all progress in this direction is slow.

In another direction very great improvement has been made—the laborers' earth-floored hovels of fifty years ago, not fit for swine, have largely given way to small, neat and comfortable brick cottages, and so far as I can learn, the farm laborer is now, as a rule, not only comfortably housed but well fed. But the English farm laborer and the American are quite different persons. The former seldom is able or expects to acquire either land or wealth, and is therefore apparently contented with his lot, anxious only to serve acceptably that he may retain his position. The latter, who is very often some young man born poor but with full faith in his ability to become possessed at no distant day of broad acres, is restless and ready for almost any change that offers a short road to success. In one thing they are alike—both seek their own good, the latter by change, the former by permanency. The one is unduly stimulated by those around him who have risen from obscurity to honor; the other lacks even a healthy incentive to make the most of his surroundings. The one is too rapid and nervous, the other too slow and plodding. The one is perfectly willing to do a big day's work, if you will let him do it in eight hours and go to the village after supper; the other will work faithfully twelve or fourteen hours, but must have plenty of time to eat and drink and is greatly averse to haste.

If I was disappointed in seeing so many more trees out of place, so many more open ditches, so many more broad-based and unkept hedges than I had expected, I was also greatly pleased and instructed by the fine tilth of the fields, and the magnificent crops of grain. Why is it that England so far exceeds us in the average yield of wheat, oats and barley? I began to ask questions:

"What insects are the most destructive to grain?"

"There has been none for many years in this locality that has done much damage."

"How often does the wheat winter-kill?"

"Scarcely ever, if sowed early and in good condition. The yield is sometimes slightly reduced by "laying," rainy weather, mildew or rust."

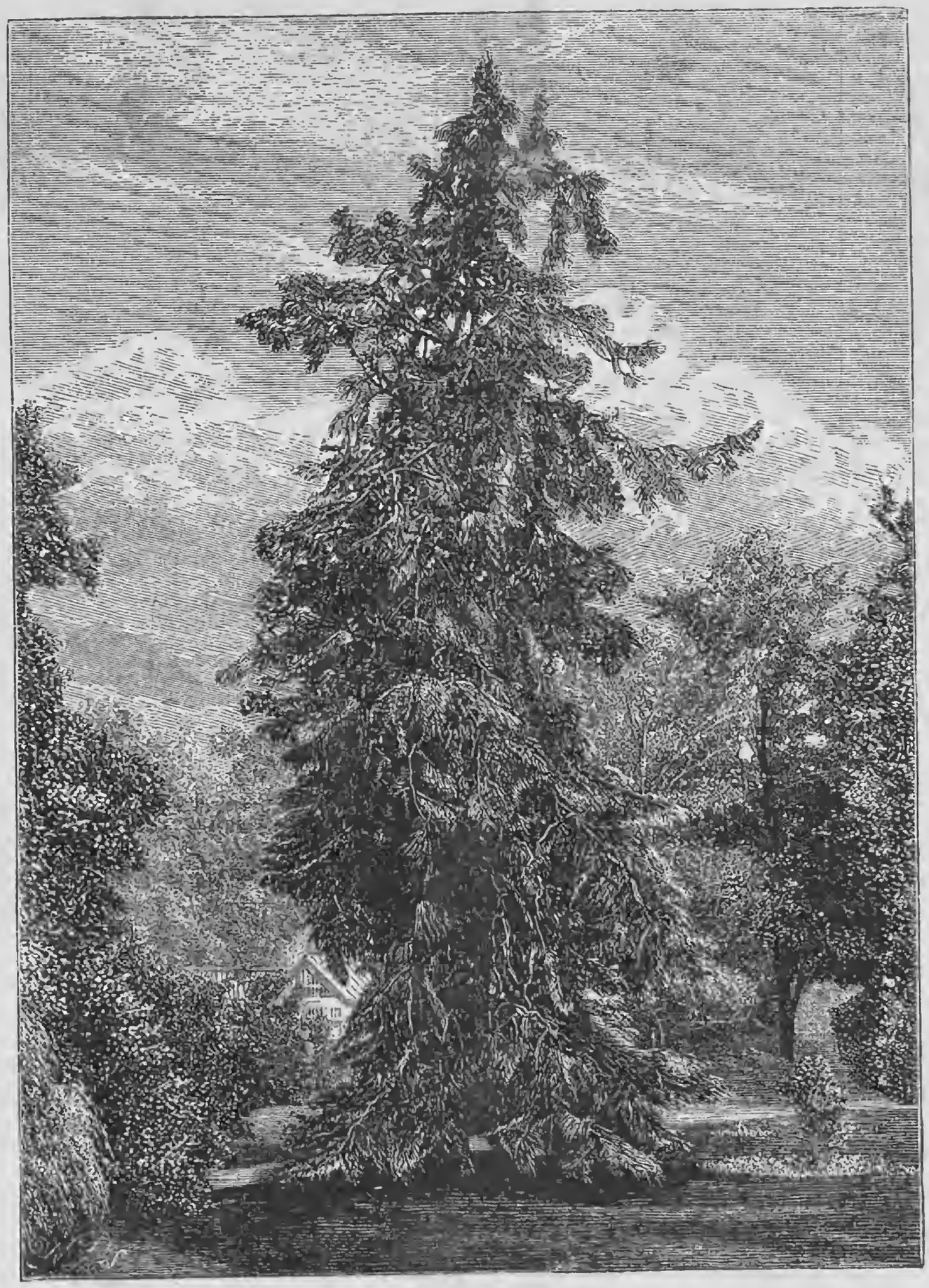
On looking around, I found that there were at least ten good farmers to one poor one, while in the United States the reverse is too often true. It is often said that the English farmer is forced to farm well to meet his high rents. Then, might it not be said that the American farmer is forced to farm well to get any profit on his low-priced products? While I felt that I had found some of the reasons for their high averages, I was not thoroughly satisfied, and on further inquiry, learned that while the question of fertilizers was a great one, the question of the preparation of the soil was a greater

The English are noted for their straight furrows, and we consequently infer that their plowing is superior; and so it is, in one sense The ground is all plowed; it is all alike, and looks beautiful; but still it is not well pulverized, because the mold-boards of their plows lack the requisite boldness and twist to perform the work in the best possible manner. The short, stubby, American plow holds harder and requires more skill to preserve a furrow of even width, but it is a better pulverizer; so the American farmer has come to think that the preparation of the soil is about complete when it is plowed: while the English fully understands that the real work is then only begun. Herein, I am satisfied, lies the secret of England's success in raising larger crops. It would take away the breath of a prairie farmer to hear even an Englishman's enumeration of the "spuddings," the "grubbings," the "twitchings," the harrowings, the cross-harrowings, the rollings and crushings that a heavy clay field is subjected to before it is considered ready for wheat.

What is this all for? Simply to unlock the full store-house of nature. That it is full has been proven time and again. By actual analysis it is found that an average soil contains, in the first six inches, plant food enough for from fifty to one hundred and fifty full crops of grain. I do not desire to discourage the purchase and use of fertilizers, but what I do protest against is, purchasing on time commercial manures at forty dollars per ton, which are really worth only twenty-five, to enrich cloddy fields already fairly rich in plant food locked up, it is true, but there, none the less, only awaiting a little judicious application of brain and muscle to set it free.

If these hastily jotted facts and impressions are the means of inducing my fellow-farmers to remove some of the useless trees and fences, or to give the fields an additional cross-harrowing or two before casting in the seed and asking the Lord to bless the labor of their hands, my object will have been attained.

Agricultural Dept, Cornell University.



PINUS PONDEROSA VAR. PENDULA. (See p. 39.)

AGRICULTURAL EXPERIMENTS.

PRACTICAL experiments in farming are essential to progressive agriculture, and yet how few farmers will take the trouble to make experiments and note carefully the results for their own and others' benefit! There are a few praiseworthy exceptions, but the great majority are entirely too indifferent in this respect. Agriculture will never attain the high degree of perfection it might, and which its importance demands, until the common farmers become more deeply interested in their calling, or "profession," and learn to work with their heads as well as with their hands. The term "professional farmers" sounds odd, and is unfamiliar, but they are just the kind of farmers needed to bring the great agricultural interest up out of old-time ruts, and place it on the highway to success. Statesmen, lawyers, physicians, etc., carefully note precedents and experiments in their respective professions, and profit thereby, and why should not "professional farmers" also learn wisdom from the past and reap some benefit from the study, experience, and labor of their brother farmers?

The Department of Agriculture is trying to bring about an improvement in this matter by distributing new seeds and improved varieties of old ones, and requesting cultivators to make minute special reports of their experiments with them. But few of those who might do this, however, can be prevailed upon to do so, as the majority of far-

mers are too busy throughout the summer season to spend much time in experimenting, and gardeners have the most of their grounds otherwise occupied, so that they have little room to spare for that purpose. Some few, however, do make careful experiments, and through this means many valuable improvements in products have been established in different parts of the country.

Among the many good features of the RURAL NEW-YORKER is its specialty in publishing valuable practical experiments that have been made on its own Experimental Farm and Grounds, and elsewhere also. General principles are applicable alike to all things of the same nature, but in farming the diversity of soil, climate, exposure and surroundings, requires careful consideration and study, and what may be suitable for one place might not do well in another. The field for study and improvement is therefore large and varied, and the exercise of one's best judgment is requisite to the successful tilling of the soil in the different parts of the country.

As statistical correspondent of the Department of Agriculture for Ogle county, for the past seven years, I have had considerable experience in experimental farming, and know whereof I speak. Some of the seeds received from the Department have proven satisfactory, and have been propagated from year to year, while others have failed to do well, or sometimes even to germinate. Among the most successful of those received within the past year, I will mention the

SILVER CHAFF WINTER WHEAT.

Last summer, I received eight quarts of this wheat. It was accompanied with the following "pedigree," or history: "This wheat comes from York county, Province of Ontario, Canada, where it has been successfully grown for two years. It is a distinct variety of winter wheat, withstands the severest frosts, and is not liable to disease or rust. Its average weight is sixty two pounds to the measured bushel."

I gave the eight quarts of seed to one of my neighbors, who sowed it, September 24, 1877, on twenty-six square rods, being at the rate of about a bushel and a half of seed to the acre. It was sown broadcast on rolling prairie soil—a black, rich loam—nearly level, but facing the south, well drained naturally, plowed a medium depth, not sub-soiled, and harrowed well after sowing. No fertilizers were applied, and the seed was not "prepared" in any way, but sown as received. It escaped winter-killing, but was injured somewhat by storms and hot weather a few days before harvesting, and was also slightly rusted. It sustained no injury from insects; was harvested July 9, 1878, when fully ripe, and yielded, when thrashed, 317 pounds, being at the rate of about 32½ bushels per acre, mostly good quality, though some grains were shrunken. The average weight was about sixty-three pounds to the measured bushel. The straw was strong and tall, some stalks measuring six feet with heads six inches in length. The straw of the crop was not weighed. The wheat produced was all sown this fall and before snow covered it, It had a promising appearance. I think this is an improved variety of hardy, smooth winter wheat.

BEAUTY OF HEBRON POTATOES.

On April 27, 1878, we planted five quarts of these potatos, cut to 250 pieces of one to two eyes each, in a row in the garden, planting the pieces about six inches apart. The soil was rich but had never been fertilized with anything but stable manure. The foliage was luxuriant and the blossoms profuse. They commenced blooming June 18. About 85 or 90 days elapsed from the time of planting till the decay of the foliage, but on this point I cannot speak definitely. On August 29, we dug nearly five bushels by measure from the five quarts of seed planted. After having been kept one week in a shed to dry, a few rotted, and the remainder weighed four bushels, or 240 lbs. They are now stored in the cellar and are keeping well. Their intrinsic merits for table use are about the same as those of the Early Rose as near as I can judge. W. B. DERRICK.

Ogle County, Illinois.

[We have not claimed they were SUPERIOR in *quality* to Early Rose—but earlier by ten days and more prolific and even in size.—EDS.]

THE HISTORY OF A POOR FARM.
No. 2.

HOW TO DRAIN A SWAMP.

"THE Doctor says ammonia is the most necessary thing required in the growth of crops," said my old neighbor, who had called to see how the work on the swamp was progressing.

"If he had said that ammonia is one of the most necessary elements of plant food, he would certainly have been correct, or at least nearly correct," I replied. "It is not at all certain that ammonia is needed at all directly, and only indirectly as a source of nitric acid, which it is more than probable is the shape in which nitrogen is taken up by plants. We say the sun rises and sets when, in reality, it is stationary, and it is we who are carried to and from it; so we think and talk of ammonia in connection with plants and manures, because we can recognize it easily by its strong and well-known odor and other properties, and so we never think of nitrogen except in that form, as nitrogen is inert in every way, and, as well as nitric acid, is without smell and invisible. Nitrogen, in some shape, is necessary for plants, but there are other things equally necessary."

"But I understood the Doctor to mean that ammonia is the most necessary thing that we are obliged to furnish to plants, and I read more about ammonia, in connection with manure, than of anything else in agricultural papers," said he.

"That is most likely, and there the Doctor is right. But we won't discuss that question just now. I see you have a good piece of meadow, how did you get that drained and reclaimed?" I asked. "I wish my swamp was in as good order."

"That meadow was as wet and rough as this swamp of yours twenty years ago, and it kept me busy for a dozen years or more to get it into the shape it is now," he answered.

"I can't afford to wait so long as that to improve mine," said I; "that would not pay. Let us figure a little about that. Here are about ten acres of land that are worth nothing as they are; the taxes are assessed at the rate of $50 per acre and the interest on the cost of the land is $70 a year. The taxes and interest are now a direct loss every year. If the land was in good grass, you think it would yield 30 tons of hay every year. I think so, too, and it would yield $100 per acre in sweet corn, and more than that if planted in cabbages. Thirty tons of hay are worth more than $300; add the interest and taxes, and there are nearly $400 a year actually lost on the swamp as it now stands. You were twelve years or more getting your land into meadow; if I were as long I should be out of pocket at least $4,000, you see. How did you manage yours?"

"First, I cut off the brush and it grew up into weeds and coarse grass. I dug an open ditch at the head of it and one across it to carry off the water, and then mowed it every year until the coarse grass died out and good grass came in. Now I get a good sort of meadow hay from it, but not more than a ton to the acre. Now, tell me what your plan would have been."

"The chief difficulty in my plan is that it is expensive at first; but its merit is that it will pay for itself in one or two years, and then give 50 to 100 per cent. interest on the cost ever afterwards. I would make a thorough job of it by draining first and then grubbing, leveling and turning over the surface or breaking it up completely and sowing down with timothy, red-top and Kentucky blue-grass in the spring. I should then expect to cut a crop of hay the same year of at least one ton per acre, and two crops the next year of three tons or more. That is my present intention. The cost will be as follows per 10 acres:

480 rods of ditch at 25 cents	00
Grubbing at $10 per acre	100 00
Plowing, harrowing and seeding	100 00
Total	$320 00

"This is a large estimate. I have found that I can get an acre of ground turned with the spade for $10, and there could be no better manner of preparing the surface than by spading it. There will be no better time than the present for making improvements. The only difficulty is in finding the money; but that can be borrowed, and no *good* farmer can make a mistake in borrowing money to drain or otherwise improve land that will repay the cost in one or two years."

"I don't like going into debt," quietly remarked the old farmer.

"Debt has certainly ruined many farmers," said I, "but a man may borrow and yet not get into debt, strictly speaking. Suppose you borrow, to buy a horse; if the horse is worth the money and you have profitable use for the animal, I don't think you are in debt—certainly you are no worse off than before; so if a farmer borrows money by which he can make his land produce the amount borrowed in one year or before the debt becomes due, I don't call that going into debt. A man is in debt when he owes and has no means to pay; if he has the means to pay he simply has a credit, which he can extinguish when it becomes due. John Johnson, the old veteran among American farmers, borrowed money to buy land, borrowed more to drain it, and repaid both loans before they became due from the proceeds of the crops."

"That may be all very well, but I would not advise any man to go into debt. Slow and sure has been my plan for 60 years, and it has kept a good roof over my head," said the old man.

"'Slow and sure,' is a very good motto," said I, "but 'fast and sure' is a better. In these days a farmer must go fast to keep up with the times, and it is not so much what a man *may* do as what he *must* do to carry on his business profitably. There is no other expenditure of money so profitable as draining wet land, and no good farmer need fear to borrow money to make such improvements on his farm as that; that is, if he only secures time enough to realize the profits from the improved land. We see the cost of draining and reclaiming this swamp will be $320, how long will it take to get that money back again?"

"Thirty tons of hay would do it," replied the old man.

"Well, you thought this land ought to give me that every year, and if it does no better than half that, the improvements will be paid for in two years."

"What kind of grass do you think of seeding the ground with?

"I have been considering that," I replied. "On moist ground timothy succeeds very well, but cows do not like the hay; red-top is the best grass for low, moist ground; but the hay is light, and not sufficiently nutritious. Mixed grasses always make the best hay, and you can get a heavier crop than of any one single kind. I intend to try a mixture of timothy, red-top, Kentucky blue-grass and orchard-grass, using four quarts of timothy and twelve pounds of each of the others. This will make a thick, close growth and yield fine hay which cows like."

"I have found orchard-grass to do very well on our bottom lands; it is an early and a late grass, being first to grow in the spring, the first ready for hay and the last green in the fall," said the old man. Then changing the subject suddenly he inquired how it happened that the ditches in the swamp were dug so evenly and neatly.

"The men have patterns to work by," I replied. "An evenly-cut ditch, with a regular slope to the wall, will remain a whole year without caving; and in tough swamp muck will keep its shape longer than that. In swamps, the ditches should remain at least a year before tiles are laid in, so that they should be cut properly at the first, lest the sides fall in. The

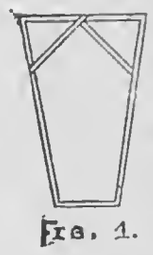


FIG. 1.

pattern is made of lath or narrow strips nailed together (see figure 1) and the ditch is cut to match it in width and depth. When the work is measured up, the ditch is compared with the pattern and if it is not right, it has to be made so before the work is paid for. A newly drained swamp will settle down considerably as the water drains off and the soil becomes solid. If tiles are laid before this occurs, there will be danger of disturbing them and spoiling the drain. After the ground has settled, the ditches may be cleaned out, the tiles laid and covered. The work will then be permanent and the surface uninterrupted."

JOTTINGS AT KIRBY HOMESTEAD.

COL. F. D. CURTIS.

MR. SLADE came over the other day to get a buck for his sheep. Ours were all rented. He had a flock of pure-bred Merinos, but had made up his mind to breed sheep for mutton, instead of for wool, so he wanted to make a suitable cross. We recommended to him to get a South-down sheep, but he said he did not know where to find one, and he did know of several Cotswolds he would obtain. We advised him to get one with the closest wool, the shortest legs, the broadest back, and the smallest head. In our cold and changeable climate, we want sheep with thick and close fleeces, hence a long, open-wooled Cotswold would be a bad sire, but such an one as we recommended would be better. He did not know that there was any difference in the wool of Cotswolds. There is, and some of them have very loose and open fleeces—a very poor protection for a rainstorm in cold weather, or for any storm. Their wool is long, bright and handsome; but the farmer who wants hardy sheep, should give them a wide berth. The same is true of the Leicester. A short-legged sheep will mature more quickly, and is more hardy and quiet. This latter point is quite an item. A ram with a big, coarse head will bequeath the same coarseness to his posterity and make the yeaning all the harder; hence the size of the skull is important.

With a Cotswold ram possessing the above qualities, Mr. Slade can get good market lambs, provided he feeds his Merino ewes bountifully. Unless he does, the big frames of his half Cotswolds will be lank and gaunt, and the butchers will reject them until they are able to eat grass and fatten themselves. A South-down cross would be smaller and plumper, and will fatten younger. If Mr. Slade saves his ewe lambs and breeds them to a Cotswold ram, he will not have so much trouble about making milk for the young, as they will produce more milk than the Merino mothers. The third cross will be seven-eighths Cotswold, and will be essentially equal to the full-bred. If the sire has all the time been a close-wooled sheep with short legs and a small head, and the ewe lambs which were like him have been selected and bred from, Mr. Slade will have a large, strong and productive flock of hardy sheep. We are making a flock the same way, only we shall cross the Merinos with South-down and Shropshire—the latter dash to get more size. When the readers of the RURAL hear of the Kirby Homestead Downs, they will know our secret, to which they must add clover hay and turnips.

A little knowledge will often make a partial success, when otherwise it would be a failure. The man complained that the calf did not learn to drink. It did not take up the milk when he put his finger in its mouth. The man put his finger into the side of its mouth and the calf could not make a vacuum and draw the milk into its mouth. This is what a calf has to do to suck. As soon as the finger was put into the front of the mouth, the calf was all right and drew the milk in rapidly. Then the man remembered that calves do not suck through the sides of their mouths.

The older we grow the more we are impressed with the importance of one of our rules, "that the only time to do a thing is when it is in the mind." We put off opening the cider barrel at the time and forgot it, and it nearly bursted before it was noticed. Cider should be opened at the bung as soon as it is placed in position and the cask kept full, and all of the impurities will work off. It will then make vinegar more quickly, and that of better quality, being free from taint. The cider is also more palatable and healthy. Not being allowed to work itself clear is one of the reasons why many barrels of cider will not turn to vinegar. Pure cider will always make good vinegar, as this is the natural chemical change which time will produce.

If a cow has all the corn stalks she will eat she will give as much milk as if fed on hay. She must not be compelled to eat the stems but be allowed enough so that she can select the leaves and husks. Of course, we mean stalks cut and cured before frost, and before they are over-ripe. More sowed corn would be grown if it was not so difficult to cure. Mr. Heaton had a crop this year in drills, which averaged ten feet in hight. He cut it down and let it lie a week in the sun, and then bound it up in small bundles and set a dozen together in one stook. He draws it into the barn as it is required for feeding. Such bulky fodder could not be stored handily, and it would surely mold and spoil if it was. If fodder corn could be raised close by the barn, it might be fed in the field in the middle of the dry, pleasant days, and drawn to the barn in inclement weather. Esquire Davidson has a small village of corn-stalk stacks around his barn. He sets a tall pole firmly in the ground and places the bundles of stalks around it with the tips towards the pole. But one tier of bundles is placed around a pole. This is his plan, and it is the best one for stacking, as the stalks do not mold.

When animals are lying down they are supposed to be gaining the fastest. This is no doubt true if they are in a comfortable condition. How much could our neighbor's calf gain during a week of cold rain, while being compelled to lie on the wet ground without any shelter?

Farm Economy.

IN-DOOR WORK.

Now that the weather is too cold for out-door work, I will make a few suggestions about the manufacture of certain articles which can be made in-doors and are almost indispensable on a farm.

GRAIN TROUGHS FOR SHEEP.—There are many ways of making these, but they are best constructed so that they may be revolved. Double boxes may be made by simply nailing three boards together, two of them seven and one four inches wide. Set the narrow board upon one edge, lay the surface of one of the wide ones upon it, and nail it firmly down through the center of the wide into the edge of the narrow one; then turn the narrow board up-side-down and nail on the other wide board in the same way, and you have a good double trough. On the ends of this, nail pieces of board fifteen inches long and twelve inches wide, and you have an invertible grain trough. Be careful that the pieces are nailed so that the ends of the trough will be exactly in the center of the end boards.

A PIG TROUGH.—Take two boards as long and as wide as desirable, one inch or more thick; let one of the boards be just the thickness of the other narrower than it; for instance, if inch boards, have one seven and the other eight inches wide. Nail the two boards together in the shape of the letter V—the side of the wide on the edge of the narrow. Saw the ends off evenly, and to them nail, crosswise, boards of the same width extending down to the ground, so as to prevent the whole from being easily upset.

WHIFFLETREES.—Farm whiffletrees should be made about thirty inches long. Hickory is the best timber for the purpose, although good ones may be made of tough oak and ash. If of good timber 1½ inch thick by 2½ inches broad

in the center, they will be heavy enough to stand the strain of one horse. Make the ends according to the irons. If small at the ends, their appearance is improved and the strength is not very much lessened.

DOUBLETREES.—These should be of first-quality oak, 2 inches thick and about 4½ inches wide in the center and 3¼ at the ends, to be of good proportion. For the clevis pin, a strong, flat staple should be inserted in the center and on the side next to where the whiffletrees are fastened. This is better than making a hole through the timber, as it is much stronger.

FIELD HARROWS.—For thirty teeth, make the harrow in two sections having three pieces of timber in each, two of them five feet long and one five feet six inches for the center. Bore the holes for the teeth thirteen inches apart, which will bring the outside ones four inches from the ends. The sections should be two feet four inches wide. When a lighter harrow is desired, make the sections two feet wide; cut the timbers four feet eight inches for the outside bars, and five feet two inches for the center—teeth twelve inches apart. * * *

Kentucky.

ECONOMIES OF CO-OPERATION IN FARMING.

A NUMBER of young farmers, each having a little money, finding business dull and wages low last season, concluded to unite themselves and their capital and form a co-operative company, and go to farming on their own account. They procured a large farm at Gunston, Va., well situated for growing vegetables and small fruits for the Washington market, and commenced operations by organizing themselves into one large family.

They find that this plan reduces the cost of living nearly one-half, and that many other advantages are gained. If the company were divided into single families, they would require ten dwellings; now one large house takes the place of ten small ones. And this is true of every article used, from a book up to a mowing machine. By dividing the labor into departments, especially in housekeeping, a large saving is made. One woman does the cooking, another the laundry-work, etc., and each becomes expert in her special line, does a large amount of work easily and well, and is relieved of the many cares that wear out farmers' wives.

By joining such an association, a young man secures a pleasant home and a permanent, paying business by investing less than one-fourth the capital that would be required to start him in farming in the ordinary way on such a scale as to make it profitable. Years ago when primitive methods of farming were in vogue, all the tools required for farming in the most approved manner could be bought for $100. A young man who did not inherit a fortune could start in the business with a prospect of success; but the introduction of labor-saving machinery has changed all that, and now a fortune must be invested to carry on farming successfully. This makes it necessary for young men to form co-operative associations, such as I have described, and avail themselves of their many advantages. At no distant day, such organizations will be found in all parts of the country, where industrious, moral and intelligent young men and women may always secure a pleasant, permanent home and constant employment at such wages as will enable them to live comfortable and secure a competency for old age. JOEL A. H. ELLIS.

Gunston, Va.

[We do not altogether agree with the above. —EDS.]

PREPARING TOBACCO FOR MARKET.

THE only subject now interesting to the tobacco grower is the proper handling and preparation of his crop for market. He has little to do with anything else at this time of the year. On his success in these points rest all his profits. This applies as well to the Virginia planter as to the heavier Kentucky shipper or the Connecticut seed-leaf grower. No bungling work must be done now. If a man has a fine crop he may easily ruin it at one handling; if he has a poor crop, he may materially enhance its value by proper management.

Being a manufacturer as well as grower, I speak from experiences in both characters. Assorting as to size and color is most important. Try it, if you will. Put together three bundles of tobacco of three equal grades. Take half the first grade and half the second and half the third and tie them up together—then look at the bundle. You will certainly be disgusted with its appearance. Then take a bundle of the worst grade and tie it neatly, and you will see that this would bring in market almost as much as the one with the two better qualities in it.

Now, as to size: tie a bundle of very long and another of very short tobacco together. See how clumsy it looks. Then separate the long from the short, and see what an improvement there is in the appearance of each bundle. Neatness must be observed in every step of the process of preparing tobacco for market. Don't crumble up the leaves, but keep them always straight. In stripping, don't throw them into a promiscuous heap, but lay them in a smooth, even pile by your seat. In every stage handle them with care and neatness.

Buncombe Co., N. C. S. C. SHELTON.

Field Crops.

DOURA.

UNDER the generic name, Sorghum, are found many varieties of plants that have been cultivated so long as to form races; and though specific names have been given to many of these, the points of difference are hardly prominent enough, as yet, to entirely justify a classification of them as distinct species. Much confusion is occasioned by the many names given in different localities to the same varieties. Several varieties of Sorghum vulgare are cultivated in this country, each for a different purpose. Sorghum saccharatum, known as Chinese sugar cane, is grown for the molasses manufactured from its juice; another, known as Broom Corn, for the manufacture of brooms, and still another, Indian Millet, is cultivated for its grain, more particularly around the Mediterranean, Asia Minor and the East, where it is extensively used as an article of food.

DROOPING SORGHUM.

Of the grain-producing varieties, Doura, also called "Guinea Corn," "Doora," "Durra," "Dana," "Jawari," and many other names, is a plant that is likely to have a future as a forage plant, particularly in the Southern States. The engravings represent Drooping Sorghum (*Sorghum cernuum*), which is sometimes incorrectly called "Pampas Rice." Prominent farmers of the Southern States, pronounce Doura superior to nearly all other forage-plants in that locality on account of its rapid growth; but whether it will prove of the same value in Northern localities can only be ascertained by experiment. Under favorable circumstances—that is, in a rich soil and warm climate—it attains a hight of from 10 to 16 feet. The leaves are about two inches broad and two to two and a half feet in length, much resembling those of Indian corn.

To thrive well, Doura needs a warm, fertile soil, well prepared and richly manured. The seeds can be sown in the spring, when all danger of frost is over, either in hills, at such distances apart as will allow the use of the cultivator, or in drills from 2½ to 3½ feet apart, the distance varying with the fertility of the soil—the poorer the land the more space is required. If sown in drills, the seed should be dropped about four inches apart, and as the plant suckers quite freely, when about a foot high, they may be thinned to a distance of 10 to 12 inches. Careful weeding and cultivation with the hand-hoe, are necessary while the plants are young; later the cultivator may be used.

DWARF SORGHUM.

When a hight of four to five feet is reached, the cutting for forage commences, and as a new growth starts from the roots after each cutting, it may be repeated as often as the crop has attained the above-named hight, which, in the Southern States, will be about once a month.

Drooping Sorghum (Sorghum cernuum), differs from common Sorghum in the bending over of the heads and the length of the flower-stalk. In Africa and India it is cultivated for the grain; but in this country will hardly be of importance except as a forage plant.

The engraving showing a single stalk is a dwarf variety of S. vulgare, growing upright and bearing white heads.

AN EXPERIMENT WITH DOURA.

Last spring some samples of Doura seeds were sent to us and to Dr. Hexamer at the same time by R. H. Allen & Co., of this city, for the purpose of testing the value of the plant. Those sent to us were overlooked and forgotten, but Dr. Hexamer reports as follows with regard to his:

"The seeds were sown in the early part of June alongside of Pearl Millet and Reana luxurians (see RURAL, Nov. 2). The seed remained a long time in the ground before coming up, and should probably have been soaked before sowing, and sown about the middle of May. Not knowing the character of the plant, I drilled the seed in like fodder corn. Afterwards, when I found that it came up in a thick mass, I thinned it out to one foot apart in the rows. Several plants, when about one foot high, were transplanted, and seemed not to suffer thereby, making as good a growth as the others.

"The stalks grew rapidly and luxuriantly, resembling Indian corn very closely, but tillering much more, so that each plant appeared like a large corn-hill. By the first of September they had reached a hight of ten to twelve feet, while the Pearl Millet was from six to eight feet, and Reana luxurians from four to five feet high. At that time I cut off a row of each of the three kinds, about six inches from the ground. The Doura made, until killed by frost, another thick luxuriant growth of three feet in hight. At various stages of its growth, as well as when dried, I fed the stalks to horses and cows. They ate them as readily as they would corn stalks. For feeding green, it seems to have the advantage over corn stalks that, on account of its not containing as much water, it may be fed out as soon as cut.

"Whether north of this latitude (Westchester Co., N. Y.) Doura will prove a more valuable forage plant than Indian corn, I am, from the experience of a single trial, not prepared to assert, but I have no doubt that, on account of its great yield and its habit of producing two and three crops in one season, it will soon become one of the most valuable forage plants for the Southern States." F. M. HEXAMER.

PEARL MILLET.

"PEARL" MILLET.

ALL of our old readers will remember our full-page engraving of this plant in the RURAL of Nov. 2. For the benefit of our new readers, we have had that cut reduced, so that though taking up much less space, its general characteristics may be understood just as well. It was the largest of the plants raised at the Rural Grounds last summer, having 52 stalks weighing 42½ lbs. Several plants were cut down August 1st. The average weight of the subsequent growth was nine pounds per plant. Allowing 16 square feet to this plant and supposing one of the same size could be raised upon every 16 square feet, this would give about 57 tons to the acre. Such data for estimates are always deceptive. We should not like to insure half that amount, even though it were cultivated under most favorable conditions. Of the hundreds of "new" things offered every year, most of them are introduced with statements which are altogether impossible of realization in practice. We offer our friends seeds of this Pearl Millet free of charge, believing it to be worthy of trial. That is all we have to say.

EARLY AMBER SUGAR-CANE.

A GOOD deal of interest has lately been aroused in the Northwest with regard to the cultivation of this plant, from which great things are expected. A jubilant correspondent out in Minnesota writes to us:

"The cultivation of the Early Amber Cane is no longer an experiment here in Minnesota, but is now most emphatically a success. Three different companies, one from Boston, one from New York, and one from Cincinnati, are talking of putting up sugar and syrup refineries in our State. Other States are, or should be, just as much interested in this enterprise as our own. I am an old resident of New York and I think I can say with safety that the soil there is as well adapted to the cultivation of the Early Amber Cane as in Minnesota. Any soil adapted to corn will raise good cane, and it will ripen earlier than most kinds of corn. It is more convenient to work it if planted in hills and row it each way. Seed should not be planted more than half an inch deep. There should be six or eight canes in a hill. It ought to be suckered, but will do well otherwise. I would advise to plant two pounds of seed to the acre. The average crop in this locality is from 125 to 150 gallons per acre. Some have raised as high as 300 gallons per acre. The cost of cultivation is but little more than that of corn, and it is a far more profitable crop."

Arboricultural.

PINUS PONDEROSA PENDULA.

(See First Page.)

PRACTICALLY as well as ornamentally Pines perform good service, the large-sized as skirting plantations and backgrounds, or as masses intended for wind-breaks; the small-sized, as beautiful specimens near the house. At present, however, we wish to confine ourselves to the consideration of a single variety, a variety that belongs among the large-sized Pines.

Pinus ponderosa is a Rocky Mountain Pine, one of the grand trees of the valleys of northwestern America. It grows upwards of 100 feet high and four or five feet in diameter with 30 or 40 feet of the stem free from branches. In general appearance it resembles somewhat Pinus Benthamiana, a still larger Pine. Its leaves take, moreover, something of the strong characteristic attitude of those of the familiar Austrian Pine. Less compact in their masses than those of the Austrian, the leaves are looser in the clusters and longer, and if possible more picturesque. The yellow heart-wood of old trees scarcely floats in water and is a

most valuable timber, hence the name Ponderosa.

Pinus ponderosa pendula, the subject of our plant portrait, is a variety of this Rocky Mountain Pine. Mr. H. W. Sargent, of Wodenethe, Fishkill-on-the-Hudson, owns the original of this portrait. It is doubtless the finest specimen in the country. Mr. Sargent says of it: "I imported it from Waterer and Godfrey about 1851, when three or four inches high. In 1859 it was nearly 18 feet high, its annual growth being two and a half to three feet. In June, 1878, it was sixty-one and a half feet high. Sir Joseph Hooker thought it a sport from the normal Ponderosa; but Waterer who raised it from seed, says he has others like it in its very pendulous habit."

We wish to say here that Sir Joseph Hooker was unquestionably right. It is doubtless a sport. Plants may be obtained from the same lot of seed of any variety, which will resemble each other very closely, but the next thousand seeds may produce nothing like them. In fact, no distinctly pendulous tree will reproduce itself satisfactorily from seed, or prove itself a species. As a matter of course, therefore, Pinus ponderosa pendula must be grafted on a kindred stock to reproduce the pendulous form with certainty. The healthy, vigorous growth of Mr. Sargent's tree is alone sufficient evidence of the hardiness in America of Pinus ponderosa pendula On general principles, however, we might expect this: for Pinus ponderosa is hardy, and weeping varieties of any tree are always at least as hardy as their parent.

Pomological.

NOTES IN A NORTHERN ORCHARD—2.

T. H. HOSKINS, M. D.

I will now proceed to a brief description of each of the apples which I have found to be quite hardy at Newport, on lake Memphremagog, near the line between northeastern Vermont and Canada.

Summer Apples.

Yellow Transparent.—This is one of the new Russian apples imported by the Government. The tree is a thrifty, upright grower. The fruit grows thickly upon spurs on the larger limbs. When thinned, it is large, but when not thinned, it is of medium size and very uniform and fair in appearance. The color is a lemon yellow; the fruit is as mellow and pleasant in flavor as the Early Harvest. Its season is fully two weeks earlier than Tetofsky, and it does not drop its fruit like that variety.

Grand Sultan.—This is another new Russian. It is of the same season and color as Yellow Transparent, but larger and of somewhat higher flavor. The fruit grows upon the ends of the branches and scattered over the tree, and not upon spurs, like the Yellow Transparent. I mention this, as some accounts give them as the same. The Grand Sultan seems to be an annual bearer, and gives good crops, but is not so prone to overbear as Yellow Transparent. (See Rural of Nov. 16, for illustration.)

St. Peter's.—This is a small apple, very closely resembling the Early Joe, but hardier. It is productive, and of very good quality, but it is doubtful if it would be a profitable market apple, on account of its small size. Season, August. (See Rural of Nov. 16, for illustration.)

Tetofsky.—This apple is pretty well known and highly valued at the Northwest for its hardiness. It is large, handsome, and very productive, but with me it drops so badly that not one quarter of the fruit reaches maturity. Season, August. (See Rural of Nov. 16, for illustration.)

Summer Harvey.—This variety is described in Downing, p. 367. Much hardier than Red Astrachan, same season, very productive and profitable. Color, greenish-yellow, like R. I. Greening, and of about the same size. Tree, a low, spreading grower.

Fall Apples.

Duchess of Oldenburgh.—This fine and profitable apple is classed with Summer fruit in more southern localities. With me it is not ripe until the first of September. In quality it is far better than when grown farther South, and is first among our retailing apples with dealers in its season. There is more money in it with me than in any other sort—225 trees, now five years planted, average nearly a bushel each, and bear every year. Fruit, uniformly fair and large, many specimens being 14 inches round. Of course, to keep up this productiveness and size the land must be kept in good heart. Tree perfectly hardy.

Peach of Montreal.—Were it not for the Duchess this would be our best market apple of the season—Sept. It lasts a little longer than that variety. It is of the shape and size of Yellow Bellflower, with delicate red cheek. Quality, very good when ripened on the tree, but it will not ripen if picked green, and as it is very soft when ripe, it is adapted only to a home market. A heavy bearer on alternate years. The tree is very thrifty and hardy.

Pringle's Sweet.—Small, about two inches in diameter, but very fair and uniform, and a heavy bearer on alternate years. Fruit, yellow with red cheek; flesh, yellow and of a rich, slightly astringent, but very agreeable sweet. The astringency resembles that of the Louise Bonne de Jersey pear. Its small size is its only fault. It is probably a Siberian hybrid. Season, September.

Prolific Sweet.—This is one of the New Russians. A large yellow apple, mellow enough and rich enough in flavor for dessert, and yet a fine baking apple. Tree, thrifty and productive. It is the only hardy sweet apple of large size and of this season (last of September) that I know of.

Aroostook Harvest.—This variety originated in Aroostook county, Maine, and was received by me from Rev. M. R. Keep, of Dalton, in that county. It is a round, yellow apple, a small medium in size, good quality; tree very productve, thrifty and perfectly hardy. Probably a Siberian hybrid. Season, last of September.

Emperor Alexander.—This is a well-known Russian apple of great size and beauty, but of only medium quality. It is, however, a great and regular bearer and a very profitable market apple, being placed among the first in this respect by the Montreal Horticultural Society. The tree is thrifty and hardy, and the fruit ships well and remains sound up to December.

Plumb's Cider.—Very hardy, very thrifty, a great bearer of good-sized and tolerably fair fruit, yellow with a few red stripes. Quality good, *not* a cider apple, but it got its name from the resemblance of its fruit to the well known Smith's Cider. Season, November. Not so profitable for market as Alexander, but a better apple.

Winter Apples.

Wealthy.—This Minnesota seedling, which has been so highly praised in the Northwest, bids fair to be equally valuable in the Northeast, and to replace the Fameuse in districts where that variety does not quite succeed on account of the hard winters. The fruit is almost entirely red, of medium size or larger, very fair and even in size, nearly round, of very good, almost best, quality, and keeps into February. The tree is thrifty, a free grower, perfectly hardy and very productive. The fruit handles and ships well and commands a ready sale.

Northfield Beauty.—This is very similar to Wealthy, but of a lighter color and more delicate, waxen appearance. Quality even better than that of Wealthy, but not so good a shipping apple, being more easily bruised, and showing bruises more. Tree, probably not so hardy as Wealthy, but more hardy than Fameuse. Very productive of uniform, fair fruit of more than medium size; very desirable, at least for home use and near market. Said to be a seedling of the small, yellow Siberian Crab, and known in some localities as "Cady's Crab." Keeps until March. (See Rural of Nov. 16, for illustration.)

Tracy Apple.—This resembles the Rhode Island Greening, but is only about half the size. Quality, good; keeps until February. Tree, very productive, a dwarfish, slow grower, but hardy.

Meader's Winter.—This is the best of the Winter Siberians. Size, small (five to six inches in circumference). Color, red. Tree, very thrifty and productive; fruit, rich, mellow, and entirely free from "crabbiness;" keeps until March. Tree, "iron-clad;" origin, Minnesota. (See Rural of Nov. 16, for illustration.)

Magog Red Streak.—This and the succeeding variety are native seedlings, originating on the shore of lake Memphremagog, and first propagated by the writer. The Red Streak is a large, yellow apple, streaked with red on the sunny side. No apple looks handsomer in the barrel, ships or opens better. In quality it is very good, the only defect being a fineness of grain bordering, in fully ripe specimens, upon "salviness." The flavor is a mild, rich subacid. Flesh, yellow. The tree is very thrifty, a free grower, comes early into bearing, and is "iron-clad" to the tip of its longest shoot. It is a heavy bearer on alternate years, with moderate crop in intermediate seasons. In eating from January to May. This and Scott's Winter are the only entirely hardy, all-winter apples I have yet found, that fill the requirements of a profitable market apple.

Scott's Winter.—This is a bright red apple of medium size and of good quality, rather more acid than Magog Red Streak. Keeps as long as Roxbury Russet. Tree, an early and profuse bearer every year.

THE ODD YEAR.

The editorial remarks, in the Rural for November 16, on the alternate bearing of certain varieties of Apples, I regard as of great importance to a correct understanding of the conditions of successful fruit-growing. I am aware that most orchardists fully believe in the theory of the even and odd years for the bearing of Baldwins and certain other kinds. The "Odd Year" is an expression so common that many persons consider it a cardinal fact. I know that under existing circumstances and conditions of the business of fruit-farming, certain kinds of Apples having a tendency to bear very profusely, seem to temporarily exhaust their power of production after one heavy crop, but after a year of very light bearing or of complete barrenness they will again give a large yield, if no accident of season or predatory insects happen to prevent them. But has it ever been observed whether good cultivation and the use of a generous quantity of the requisite aliment to produce apples would or would not cause a Baldwin tree, for instance, to bear regular annual crops of apples?

I have had occasion to discuss this subject to some extent with practical fruit growers, and it is my opinion, from facts within my own observation and from the well considered opinions of others, that in the nature of the case there is no necessity for the irregular habit of bearing peculiar to the Baldwin, Hubbardston Nonsuch and some other varieties, except the compulsion which follows a season of heavy bearing while no system of cultivation or fertilizaton of the soil of the orchard is practiced—or, I may add, except the accidents of winter killing of fruit buds, insect ravages, or some such extra calamity to which all orchard trees are liable.

Now, it is a fact, as the Rural has stated, that young orchards do not show this peculiarity for several years after they commence bearing, and that this regular habit of fruit production is only checked by the accident of winter or spring frost injuring the buds or blooms, causing a cessation of the natural draft upon the organic forces of the tree. While it is undergoing a season of enforced barrenness, the tree is storing up a vast amount of fruit-producing power, and the next season it may yield a greater crop than it ever did before. After all is said, it is plain, I think, that the cause of alternate bearing is of climatic or other accidental origin. This theory the Rural has set forth very distinctly, and the facts to substantiate it do not warrant the assumption that it is a natural peculiarity or necessity of any variety of Apple to bear or cease to bear every alternate year.

The years 1875 and 1876 were memorable in this section for great disasters to apple orchards on account of the ravages of the forest caterpillar. Those who by persistent care and battle with the enemy prevented the defoliation of their trees, were rewarded in 1877 with an abundant crop of fine Baldwins, and the trees even bore some apples during the two years first-mentioned, while those orchards which were left exposed to the unchecked ravages of the caterpillars bore no fruit in 1877, and are, in fact, now mostly dead or dying. Yet I know of cases where trees which received the benefits of constant cultivation during the caterpillar years, and leafed out well last year, have borne extraordinary crops the present year, and late in the fall indicated a probability of a good crop next year. Thus, I think, as "no human efforts can alter the bearing year," it is within the possibilities for us to enable our trees to be annual bearers, by proper treatment, provided a sudden change of weather or other unforeseen accident does not interpose its veto upon our endeavors. G. F.

Harrison, Me.

Floricultural.

HOW TO HAVE NICE PLANTS.

The inquiry is often made of me by people when visiting my green-house, "How do you have such fresh-looking plants?" And, thinking perhaps some of the many who read the Rural New-Yorker would like to know how I treat my plants, I venture to write the following.

First of all, I am very careful not to have any dust set in motion in the house; for when plants are in a healthy condition, the pores of the leaves are all open. Dust falling on them fills up the pores, causing the leaves to look dry, and after a while to fall off.

Second, I am careful to give my plants water when they need it most, and not to give any when the earth is already wet, as too much moisture causes them to turn a dark green and the roots begin to decay. On the other hand, if kept too dry, the edges of the leaves first, and then the whole leaf, will turn yellow, and soon the entire plant looks as if it had stood where the fire had scorched it.

Third. I am careful what kind of soil I use. For Geraniums I use three parts of decayed sods, two parts of scrapings of the barn-yard, and one of sand: for Heliotropes, three parts manure, one part sods, and one, sand. Many fail to have healthy Heliotropes by not having the soil rich enough. For Carnations I use sods, two parts; manure and sand, one part each: for Roses, leaf mold, two parts; manure and sand, one part each: for Verbenas, sods, one part; manure and sand, one part each. I give the soil for these five sorts as they are the most commonly grown. If this mixture is used, and the plants are treated in the way I have described, I think any one may keep them nice and thrifty.

In conclusion I will say, give your plants all the sun possible, moving them only when obliged to, keeping the temperature at 60 degrees, and those who have failed previously, will, I think, be successful now.

Carroll Co., N. H. D. Knowles, Jr.

Scientific and Useful.

ATMOSPHERIC DEPOSITION OF MOISTURE IN THE SOIL.

COE. F. AUSTIN.

During the summer of 1864 there was in this region no rain, except a very slight sprinkle, between the first week in June and the last week in July: yet corn was never a better crop. Of course, I had learned, from experience and by precept, that it was important in a dry season to plow the corn ground deep and to keep it loose, in order that it might become damp during the night; but I had never learned why. I had somehow conceived the notion that the moisture came up from below by capillary attraction; but a moment's reflection convinced me that this notion was erroneous, and I now asked myself seriously for the first time "Why is it?" and the answer quickly came: "The moisture comes out of the atmosphere the same as dew."

Examples of Aqueous Condensation from the Air.

In common with many other people, I had watched with interest the moisture which was diffused equally throughout the air of a warm room, collecting upon and trickling down the cold window pane. I had seen, during a very severe drought, water run in a stream from a table upon which there stood a pitcher of ice-water, the thermometer registering 102° in the shade at the time, and the pitcher standing in a draft between two windows, with the wind blowing quite fresh from the south. In South Jersey I had seen the tender garden plants wilt down in the forenoon under the influence of a westerly breeze which came off the land; but when less than an hour afterwards the wind had shifted to the south and was coming off the sea,—which it usually does in that region in the summer time between the hours of 11 A. M. and 2 P. M.,—I had seen the same plants revive and stand up stiff and vigorous from the moisture which the damp south wind had brought to their roots. I had noticed that cellar walls were always damp in hot weather, even in a drought. I had seen springs which issued from slate ridges increase their flow very perceptibly in dry weather just before a rain, thereby indicating an unusual amount of moisture in the atmosphere. I had seen a well dug at the brink of a slate ridge, that was said to be always dry in the winter and spring, although it always had water in it in the summer and fall. I had noticed that loose ground got damp to a considerable depth during a clear night in hot, dry weather, while compact earth remained dry; and that corn growing on ground plowed deep and kept loose, was not injured by a drought which commenced as soon as it was fairly up, and ended just before or about the time it began to set. During a severe drought, I had seen that portion of a garden over which earth had been thickly strewn which was taken from a place where kitchen slops had been emptied for a number of years, produce fine vegetables without watering, while those grown in the rest of the garden, *even with watering*, were almost a total failure: and I reasoned that all these effects were produced by one and the same cause, viz.: by the actual contact of a warm gas (air) containing moisture in diffusion with the colder surface of a solid,—the effect in the last mentioned case having been intensified by the water-absorbing property of the saline matter in the soil.

Conclusions Therefrom.

The following is a *resume* of some of the most important conclusions touching this matter, to which I then arrived:

First: The greater portion of the moisture which sustains vegetable growth during a drought, is condensed in the soil out of the atmosphere, by the actual contact of warm and apparently dry air, with the cooler particles of the soil. In hot weather there is always a large amount of moisture in the air, even when it is apparently very dry, and as cold air can hold in suspension less moisture than warm air, the atmosphere becomes overcharged with moisture the instant it cools down to the "dew point." During a clear night the earth loses its heat very rapidly by radiation, and if the ground be plowed deep and kept mellow, the air diffusing itself freely through it and becoming cool, deposits its surplus moisture on the surface of each particle of soil with which it comes in contact be-

neath the surface of the ground, in precisely the same way as it deposits dew on the surface of each blade of grass above the ground. A double purpose is thus beneficently worked out by Nature: the parched soil is dampened and the thirsty plants revived while at the same time a large portion of the heat lost by radiation is replaced by condensation, thereby preventing frost, which otherwise would occur on every clear, still night, even in midsummer. This will become obvious when we take into consideration the amount of this condensation, and also the fact that every pound of water condensed has given out to the earth and to the air at its surface as much heat as is required to melt between five and six pounds of cast-iron.

SECOND: Wells and springs are supplied in a great measure, if not wholly, during droughts, from the same source. The air percolates the soil and penetrates the crevices of the rocks, leaving its moisture just as it does on the cellar walls, the ice-pitcher, and the window pane. This moisture trickles down among the rocks by the force of gravity, supplying the veins and underground reservoirs, which in turn supply the wells and springs.

THIRD: Many soils ought to be greatly benefited in dry weather by the addition of anything which, without being injurious in itself, has a strong physical affinity for water—such as chloride of calcium, refuse from salt works, or even the poorest kind of common salt.

FOURTH: It seems that water should rise in the ground by capillarity only when the subsoil is soaked; and then only to a very limited hight. Water under all circumstances being subject to the law of gruvity, cannot possibly rise by the law of capillarily beyond that hight where the force of the former equals the influence of the latter.

EXPERIMENTS ON CAPILLARITY.

It appears that this might be all illustrated and many important questions concerning the whole matter permanently settled, by some very simple experiments with glass tubes filled with earth.

I have made several experiments with folded strips of bibulous paper, as follows: Place the end of a folded strip of paper of this kind in contact with something which is merely damp, and no moisture will pass into it by capillarity; but place it in a tumbler of water, and capillarity will carry the water in the paper to the hight of about three inches above the surface of the water in the tumbler, the paper becoming quite wet as far as the water rises in it. It, now, water be poured into the tumbler, nearly to its top, and a forked strip of paper be made to straddle its edge, the water will capillate up the inside leg of the fork, and rise about three inches in the strip; at the same time it will both capillate and gravitate downwards until it trickles from the outside leg of the fork. But experiments performed with glass tubes of an ample variety of dimensions, and filled with earth, are the only ones that could be considered satisfactory in this connection; partly because earth and paper are very different substances, and partly for the reason that solid matter in an extremely fine state of subdivision, may possibly be subject to the law of capillarity to such an extent that water may diffuse itself in it much as it diffuses itself in air; or, *per contra*, much as air diffuses itself in water. Although this is very improbable, it is quite certain that the air in the soil is a medium through which water diffuses itself in all directions in it.

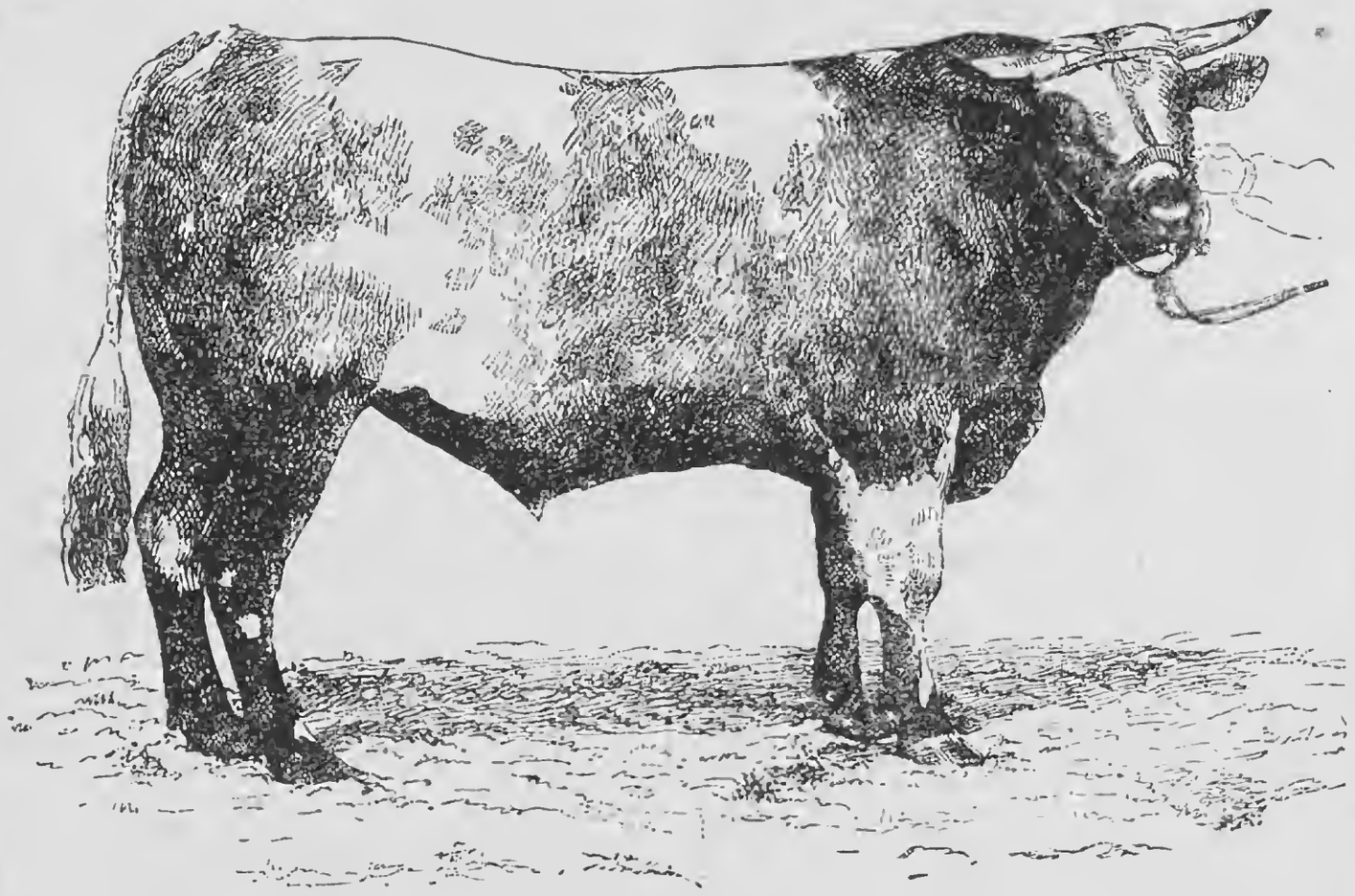
Camden Co., N. J.

The Herdsman.

STOCK NOTES.

FECUND FREE-MARTINS.—When twin calves are produced, one male and the other female, the latter, as most farmers know, is called a free-martin, and, as a rule, is barren. In such cases the internal generative organs are generally imperfect, partaking of the character of both male and female organs, while in appearance these imperfect females often resemble steers. When both twins are of the same sex, the reproductive powers are not impaired; neither is the male twin-brother of a female, sterile. In rare cases, however, the free-martin is capable of breeding, having escaped the malformation of her reproductive organs customary with others of her class. Such exceptions are, however, so rare as to be worthy of mention whenever they are well authenticated. Campbell Brown informs the Bulletin of the American Jersey Cattle Club for this month, that the heifer Irene of Short Hills (*sic*) (5,137) twinned with bull 2,682, dropped on Nov. 20 a bull calf by Jubilee (2,125). She is now the property of Crockett & Johns, Nashville, Tenn. Youatt could discover only two similar exceptions, which he mentions in his work on Cattle.

IN continuation of the portraits of prize cattle exhibited at Paris, we now present a picture of Mornay, which has been crowded out several weeks, a three year, one month, twenty-one days' old Short-horn bull, the property of M. le Comte de Massol, a Sonhey, Cote d'Or—which took the first prize in the class of older bulls at Paris last June. He girthed eight feet behind the shoulders, where he stood fifty-five inches high, the belly line then being twenty-five inches from the ground. His length was five feet two inches from the vertical line behind to the front of the fore-leg, and six inches beyond that to the front of the bosom—a well-made, substantial roan, of admirable quality—perhaps somewhat light in his hindquarters—very fine forwards, and well filled up behind the shoulders. This appeared in the London Agricultural Gazette of Nov. 11.



"MORNAY."

BLACK-LEG.—A correspondent writes us that some years ago he lost several head of young cattle by this disease, and as all attacked died, despite the use of various nostrums, he is decidedly of opinion that an ounce of prevention is better than a pound of cure. He thinks he has hit upon a preventive in a recipe recommended by a neighbor. It is a mixture of salt and sulphur in equal parts, a spoonful of which is to be administered to each animal once or twice a week during March, April and May. Since he commenced this treatment his stock has been entirely free from the ailment. While we do not think this prescription has contributed much to the immunity of his cattle, it certainly can do no harm, as both its ingredients are generally beneficial. Keeping the animals away from wet pastures and infected cattle, and feeding them well during the winter so that they will not be too much reduced to stand against the luxuriant pasturage of genial spring, are far better preventives.

TRUE HERE ALSO.—An English breeder of Jerseys brought the question of judging animals of that breed up before the Bath and West of England Agricultural Society last spring, complaining—1. That none of the judges seemed to know what the characteristics of a good Jersey are, and 2, that while not enough attention was given to milking qualities, too much was bestowed on color and other fancy points. In this respect many Americans, as usual, are disposed to ape the fashionable English follies, not only with regard to the points of the Jerseys, but still more, perhaps, with regard to those of other high-priced breeds.

Miscellaneous.

VAN'S VIEWS.

RAILROAD DISCRIMINATION AND WESTERN IMMIGRATION.

I HAVE just been reading in an agricultural paper a communication bepraising the lands in one of our extreme Western States, especially those along one of the principal trans-continental railroads. Now I don't wish to question the veracity of the writer, for I do not doubt there is much excellent farming land owned by the road; but if he is as disinterested as he claims to be, why doesn't he tell us what price grain and produce are bringing at points along the route of that road. Now I am informed, through a private letter, that out there wheat is selling for from 25c. to 40c. per bushel; old corn for 15c.; new corn, 11c.; pork, 1½c. to 2c.; beef, 1c. to 1½c.; butter, 4c. to 6c. per pound; eggs, 3c. to 4c. per dozen. Now one needs immense crops and to do all the work himself in order to get along at all with such prices for his products. Then, again, the farther west one goes the higher become the prices of sugar, tea, coffee, calico, cotton goods and clothing. Moreover, those shipping through freight are now getting "special rates," which are a "special" outrage on way shippers. Chicago is a big city: it is a fine city; it is a prosperous and growing city, and we are all proud of it; but we can hardly afford to let it have the life blood of all the other cities in the West to make it grow and wax great.

A few years ago, we had in this State a fight with the railroads and they had to suffer from the notorious "Potter Law." That law was an outrage 'tis true, and a reaction therefore set in soon after its passage; but it taught the railroads a lesson, and for a time they were tolerably civil, but now they seem to be getting extortionate and need another lesson. Almost every farmer in the West, and thousands doubtless in the East also, are unhappily familiar with their injustice, but for the benefit of the few who may yet be ignorant of the manner in which they themselves are suffering from it, I will cite a local instance of their oppression.

From Chicago to Ishpeming is a distance of 422 miles; from Fort Howard to Ishpeming the distance is 180 miles—less than one-half the distance between that town and Chicago. Now, the former place is right on the through line and 242 miles nearer Ishpeming than the latter, yet a Chicago man can send a car-load of miscellaneous freight to Ishpeming for $42, while a Fort Howard man for the same class of freight to the same place must pay $52. "If this isn't "sweetening" us with a vengeance. I am unacquainted with that process—$10 more for the same amount of freight over less than half the distance on the same track!

While prices are good and crops fair, the ordinary farmer will stand being swindled a trifle; but when the crops are poor or prices low, and especially when, as in this year, both combine to make it hard for him to pay the "tin per cent," which the "friend of labor" *will* have if he can persuade the farmer to burden his place with a mortgage, then the farmer begins to look into things, and after a while he and his fellows send to the legislature men who enact laws to check the rapacity of these soulless corporations.

History teaches us that the retributive passions of those who have freed themselves from oppression are proportinate to the degree of oppression from which they have been released; and so it may happen that these new legislators, urged on by the accumulated wrongs of their constituents, may make laws against the railroads as unjust as is the discrimination of the latter against the farmers. But much of the blame for the injustice of even such legislation must be borne by the corporations whose monstrous exactions may goad the agricultural community to misuse the power which former experience has taught them now rests in their hands.

Now, when our State legislatures shall "fix" the laws so as to prevent this unjust discrimination—and they certainly will do so—what will be the price of produce and grain in the extreme Western States? Indeed, I very much doubt whether, in any case, roads will give these special rates after they have sold their lands. Before emigrating to these parts of the country, therefore, for the purpose of farming, a man should take all these considerations into account, and be careful to look well ahead before jumping.

WHAT OTHERS SAY.

THAT DEPENDS.—"Give a sample of fertilizer to twenty chemists, and they will agree upon its chemical value," says the Scientific Farmer. "Give a fertilizer to twenty farmers, and no two will value it alike. One may call it worthless, and no two will assign the same crop production to its use. We might as well come to the conclusion at once that the agricultural value of a fertilizer depends upon who uses it—on the land, on the crop, and on the judgment of the user. Give a ton of superphosphate to this man to grow corn, and let him use it on land unfitted for corn, and the fertilizer is condemned. Give it to that man who applies it to corn land, and it is pronounced good. A hundredweight of fertilizer or dung applied to one field may produre double the crop of another field upon which one hundred pounds of the same fertilizer has been strewn."

WHEN TO STOP MILKING.—President Hoffman says, as reported in the Husbandman, that there is as great a difference in cows as there is in men. Some men can work three hundred and sixty-five days in the year and, for a time, seem to get no hurt from continual application, but it will be found at last they are drawing on reserved forces that sooner or later will be exhausted. So there are cows that will give milk all through the year, but he was not considering them. As a rule all cows need rest. If there should happen to be in a herd a few that would milk clean through to calving again, he would not regard it as an advantage. They will wear out sooner. The habit of milking close up to calving may be cultivated, but he does not regard it as profitable.

DOGS AND SHEEP.—"For two years in succession dogs have killed our sheep. The tax on dogs annually collected in each town is set apart to pay the damages they cause. The damages so far exceed the awards that several years will elapse before the tax will pay off claims already audited. Any one who keeps a dog and does not give him three "square" meals every day, ought to be fined. If this were done there would be but very few sheep killed by dogs. Until this is done—or, at all events, until dogs are better fed—the starving cur will help himself to mutton. He really ought not to be blamed as much as the thoughtless or cruel owner." So speaks the genial Col. Curtis in the N. Y. Tribune.

COST.—"It should never be forgotten," says Mr. Meehan, "that it costs something to keep up a garden as well as to maintain horses and carriages," which is true with this difference, that the plants of a garden can be obtained without much cost and can be left to take care of themselves for considerable periods. Mr. Meehan advises the employment of good gardeners, which is good advice for large gardens and wealthy people. But every country home should have its garden, large or small, and it is a poor family indeed that cannot find time to give it needful care.

"IT is absurd," says Dr. Blackmer in the New England Homestead, "to suppose that we can 'keep one up' or 'run one along,' who is prostrate and feeble, on rum, whisky or brandy. Not only is it theoretically true that an article which is neither digestible nor a promoter of digestion cannot keep one up very long, but practically it has been abundantly demonstrated that we can keep one up far better on oatmeal and beef tea and milk."

THEORY AND PRACTICE.—"A pretty fellow you are to instruct the public on rural matters, when you can't supply your own table with vegetables, or raise a good head of celery to save your neck!" A faithful report of domestic conversations on this point between agricultural editors and their wives would be very funny—to the public. Thus writes Mr. Coleman in his sprightly farm and garden column of the Christian Union.

CONSTITUTIONALLY TIRED.—An instance of a man who was born tired is mentioned by The Mark Lane Express. He hired out as coachman to an old lady, and showed his triumphant skill as a shirk by cleaning only that side of the horse and carriage that came round in front of the door.

GREAT SALE.—A bee-keeper in England, wishing to change his business, advertised "an extensive sale of live stock, comprising no less than 14,000 head, with unlimited right of pasturage."

Dairy Husbandry.

GRAIN FOR DAIRY COWS.

T. H. HOSKINS, M. D.

The question is often mooted, "Does it pay to feed grain to cows in milk?" I have heard it discussed for a whole day in an agricultural meeting, and as I sat at the reporters' table taking down the words of the speakers it came to me forcibly how much is lost in all such discussions for want of a clear understanding of the question, to begin with. For it was plain that the question, as stated, was too broad. It was like asking, "Does it pay to raise potatoes?" It may, or may not, according to circumstances, and people may discuss such a question forever without reaching any definite results.

One thing all dairymen will admit—that the profit of dairying consists of the surplus in hand after paying for the keep of the cows, the cost of labor, and the interest on the capital invested. One difficulty in getting at the real profit of a dairy is, that very few farmers have any exact knowledge in regard to the cost of keep or of labor, and consequently have only a very vague idea as to whether their dairies pay anything, and if anything, how much. Under such circumstances how can any farmer—and least of all one who has never tried but one way—be qualified to discuss the subject? Yet I have heard the most positive expressions of opinion given by just such men. In the last discussion of the kind which I attended, a little questioning brought out the fact that the only man—out of ten or a dozen who took part in the argument—who had any figures to produce in confirmation of his views, was the one who fed his cows the most grain and he was able to show a very satisfactory profit.

Suppose the question to be stated in this way—"Under what circumstances will it pay a dairyman in this State, or county, or town, to feed grain to his cows?" Then suppose the disputants to come prepared with the figures to show the results of their trials of one or more ways of feeding, we might here look for something of practical value to come out of the discussion. The actual result in each case would be found to depend, I think, first, upon the goodness of the cows. If a herd is so inferior that no quantity or quality of feed would force the average annual butter yield above 125 pounds per cow, and they would yield that quantity on the ordinary grass and hay feed of the farm where they were kept, then it is plain that it would not pay in *that* dairy, to feed grain.

But, second, suppose it is found that the herd is of such a quality that it can be made to increase its yield by better feeding; does it follow that even then it would *pay* to feed grain? Might it not be that some cheaper feed would bring the herd to its highest yield? By improving the pasture; by growing some green crop to feed in a dry time; by cutting the hay earlier; by not dogging the cows; by having better and warmer stabling; by feeding more or less green feed in the winter, might not *this* herd be pushed to its fullest capacity? If so, then plainly it would not pay to feed them grain.

But again, thirdly, suppose that by careful breeding, purchase and selection, a herd is got together so superior in milking quality that, after every practical improvement has been carried out in the matters of care and handling, and all practicable improvement is made in the feeding without grain, it is still evident or possible that the herd is not doing its best—what should prevent the ambitious dairyman from *trying* whether a ration of grain in some form would not give additional yield without injury to the cows and with profit to the owner?

Here comes in another element to be considered—*can we*, with perfect pasturage, or with good pasturage, green fodder, early-cut hay, warm stables, roots and skillful handling, develop the productive capacity of the best herd of dairy cows to its highest profitable point? Some experienced men will say it can be done. Then we have to ascertain (allowing that everything in the way of yield that is possible, is possible of attainment under this system), whether, nevertheless, more profit might not be made by *substituting* grain for a part of the hay, or for the green fodder in summer, or for the roots. These are all legitimate problems for experiment, and must be worked out practically by each individual according to his opportunities and his practical skill and ability.

I think it will be apparent to the intelligent reader that the question, even when brought within the much narrower limits we have put about it, is still one that does not admit of a single, definite answer. The inherent quality of farms, the condition of the markets, the relative prices of grain and grass at any particular place, or at any particular time, must be taken into account before a satisfactory decision can be attained. But one thing I think is sure—as Mr. Beecher is reported to have said he thought it no sin to let a fast horse go fast, so it is good economy to feed a good cow well.

There is another point in connection with the subject that it might be well to mention. There are Eastern dairymen who are feeding large amounts of Western grain to their cows, quite as much for the manure as for the milk. Though they believe they are more than getting their money back in an increased butter or cheese production, they still look with the most satisfaction and hope of ultimate gain, to their larger and much richer manure piles which, used as a top-dressing for mowings and pastures, will enable them to increase the number of cows they can carry from year to year. This attempt to arrest some of the prairie fertility in its way across and out of the country and over sea, is, in my judgment, a worthy one, and likely, in judicious hands, to be profitable; but not to men whose manure stands for six months in the year beneath unsponted eves, or the liquid excrement of whose stables runs to waste. These will not find much profit in feeding grain to dairy cows.

Orleans Co., Vt.

The Poultry Yard.

POULTRY LABORS REWARDED.

Having caught the poultry fever two years ago, I commenced the business of raising fancy poultry on a limited scale, keeping the farm stock on hand as a reserve in case of failure with more fancy breeds. I selected Houdans, Light Brahmas and the Plymouth Rocks to test their qualities for breeding purposes. I kept my former stock in the old hennery, and built for the fancy breeds a new house eighteen by twenty-five feet and two stories high. As I was determined they should not suffer the cold of a severe winter, I was very careful to make close joints, and in addition lathed and plastered the building throughout. After the completion thereof, the fancy stock took possession. It was my delight to look at them in their new home. I visited them quite often during the day, and once each evening.

It was not long before I heard them sneeze on entering their quarters at night. Never having had the roup on my premises and knowing nothing of the disease, I believed they had taken a slight cold, but would soon recover. Presently a swelling commenced about the eyes, and they began to discharge from the nostrils. I then consulted a fancier; to my surprise he pronounced it to be the roup. Hale's remedy was recommended, and I used it with good effect, losing but a small number of those taken with the disease. I tried to find the cause, but could not, and I was kept busy administering medicine to new patients continually. Finally, I invited a brother fancier to visit my hennery in order to get his opinion as to the cause of the sickness. After a thorough inspection of the premises, he advised more ventilation. I set about the work immediately, cutting air-holes on each side of the building, near the ceiling to prevent the currents of air passing over the hens' bodies while roosting upon their perches at night. In a short time the disease began to disappear, and now for several months I have not had a case of roup upon the premises. I am convinced that the disease was caused by want of a sufficient ventilation. I must also recommend cleanliness of the pens. Do not suffer the droppings to lay months, or even weeks in the building to taint the air with pestilential odors. Keep the house free from vermin, and I am satisfied there will be little or no disease among the poultry.

I do not attempt to instruct breeders of experience; I would rather apply to them for information; but from a perusal of these notes, such as myself who are commencing the business either for pleasure or profit may receive some benefit, and gain some hints for the construction of any buildings they may propose to erect. By profiting by my experience they may be relieved from much of the trouble and expense that have fallen upon me. Although I had kept poultry running at large upon my farm for more than twenty years, as I paid no attention to their wants (food excepted) I was as ignorant of their necessities as if I had never kept any fowls upon the premises, and I presume the majority of farmers know as little of the care of poultry as I knew when I placed them in unventilated quarters. I soon learned, however, that extra care and attention are needed to produce results sufficiently profitable to encourage one to continue the business until success rewards his efforts, and a like experience has doubtless led many others to the same conclusion. C. S. COOPER.

Bergen Co., N. J.

A GOOD WORD FOR THE DORKING.

In the late Poultry number of the RURAL, I noticed that but little credit was given to the Dorking as an egg-producing bird, and of her merits generally only a low estimate was given, which, no doubt, the writer thought a correct one in her case. Having had the poultry fever (slightly, perhaps), for a number of years past, and having during its course tried a number of the different birds, without that entire satisfaction that many experience with certain favorites of their own—if we judge by their statements as published in the various agricultural journals—a few years since we procured a trio of Dorkings, of the variety called Silver Gray Dorkings. They were of good size, and quite contented, compared with some of the smaller breeds, but they had more life and ambition to get a living than the Light Brahma. We have now had them for six or eight years, and taking them as family fowls for the farmer who wants eggs for his household and chickens for his table, we think them ahead of all the Asiatic races and many of the smaller breeds, when eggs and flesh are both taken into consideration.

During the past two or three years it has been difficult to have hens inclined to sit to furnish what chickens we wanted for our family use and to keep up our flock from the pullets raised, so as not to have on hand a lot of old hens that are thought not to lay as well as young fowls the first season or two. We do not sell either eggs or chickens, as a rule; generally all produced are used in our family, and this year we have had eggs very plentifully, and when the poultry number of the RURAL came to hand, we laid in the scale seven eggs just laid, and they weighed 18 ounces. Probably seven eggs would average a pound the season through; and when a chicken or young fowl is dressed for the table there is (if well fed), enough for a family dinner. So, in my experience, instead of their being tender fowls to raise, and inclined to lay but a few eggs, they are quite the opposite. We have rarely lost a chick the last three years; not one with the gapes or any other disease that I know of, and but three or four in a hundred by accident, an immunity which we think proves them entitled to be called hardy in regard to the raising of the chicks.

I am not prepared to say that they are the best of all fowls, as some say of other breeds, but of any we have ever tried they have come the nearest to what we think a fowl should be for the production of eggs and meat for the farmer's table; and if it were not for their superfluous fifth toe, and the large single combs of the cock, we should think them much nearer perfection than we now do,—as these appendages we consider detriments to them as a breed, and therefore objectionable. Others no doubt differ with us in that respect, but it is from comparing our differences of opinion that good frequently results; hence this letter on the fowl question. JONATHAN TALCOT.

Rome, N. Y.

BREEDING POULTRY.

I have had some experience in breeding poultry and have come to the conclusion that fowls must be bred the same as other stock. If you want a herd of butter cows, you must buy them from a breeder who has made this point a specialty for a number of years and by so doing has originated a family that will transmit to their offsprings the qualities peculiar to their progenitors. To do this requires careful selection and good judgment. Our best breeders don't always get what they breed for; but the poor animals are thrown out and never used for breeding purposes.

I have had Leghorns that were very poor layers, also Plymouth Rocks, and in fact both poor and good birds can be found in all breeds. If eggs are what one wants, let him try the Leghorn, keep an egg record, save the eggs from the best layers and set no others; then he will soon have a family of layers with an egg record worthy of being published. For general use I consider the Plymouth Rock A, No. 1.; but skill is needed in breeding them. When mating Plymouth Rocks there are many things to be considered that can only be learned by experience. Never select overgrown fowls for breeders. I have some extra-large Plymouth Rock hens and find they lay fewer eggs than smaller fowls of the same breed. Last spring I bred ten hen-turkeys weighing from 16 to 23 pounds each. Those that weighed over 18lbs did not hatch one-third of their eggs, while the others hatched nearly all those put under them. It is impossible to get an extra-large amount of butter from an extra-beef cow. I find the same rule holds good with fowls. Feed and care are the chief requisites for successful poultry-keeping.

Elyria, O. JOHN DINNERHORN.

Sheep Husbandry.

FATTENING SHEEP FOR MARKET.

This winter it is a question with the young shepherd and with many who own small flocks of sheep, whether it will pay to fatten some of their flocks to add to the glutted meat market. In view of the low price of hogs in many parts of the country, many suppose the demand for fat sheep will be light and prices consequently low. Undoubtedly this supposition is in a great measure correct, yet in my opinion it will pay to feed a few sheep well so as to have them in first-class condition for market by the last of February or early in March. About that time there is always a fair demand for well-fattened, winter-fed sheep. When the prices are high, it never pays to send a half-fed animal to market, and it certainly must be a losing business to sell poorly-fed stock when prices rule low.

This winter the best sheep only should be selected for fattening; all the others should be retained for wool-growing until better figures can be obtained for fat light-weights or stock sheep. Those picked out for the butcher should be fed generously and regularly, and upon this point too much stress cannot be laid. Care should be taken, however, to give the sheep only just enough for one meal at each feeding-time. If they are given a superabundance of hay, they soon learn to be particular in selecting the best part only, and if there is not enough of this at one feeding-time, they will wait half-hungry for the next. My own experience agrees with that of most successful sheep owners that fattening animals should be fed three times a day; though some of my neighbors think twice often enough. It is also very important that the sheep should not be allowed to suffer from want of water; neither should they lack a supply of salt; for although salt is not so necessary to them in the winter as in the summer, still they will thrive better if it is fed to them at least once a week at all seasons. J. A. T.

Auglaize Co., Ohio.

Various.

CATALOGUES, &c., RECEIVED.

PENN. FRUIT GROWERS' SOCIETY. The twentieth annual meeting of this Society will be held in Adler Hall, Reading, Pa., commencing January 15.

THE ILLUSTRATED ANNUAL REGISTER OF Rural Affairs and Cultivator Almanac for the year 1879, containing practical suggestions for the farmer and horticulturist, with about 130 engravings. By J. J. Thomas, Luther Tucker & Son, Publishers, 395 Broadway, Albany, N. Y.

SHAKERS' Descriptive and Illustrated Annual Catalogue and Amateur's Guide to the Flower and Vegetable Garden. Charles Sizer, Mount Lebanon, New York. This is a handsome catalogue of 84 pages, well illustrated, upon an excellent quality of paper. It deals for the most part with the good, old well-tried sorts.

A SERIES of books for the farmer, by Conrad Wilson. The present one, which is the first of the series, treats of Chemical farming; its possibilities and mistakes, illustrating the necessity and value of chemical elements when rightly used, and the danger of them when the conditions are wrong; including, also, an examination of the Stockbridge formulas. The price is 25 cts., or 50 cts. in cloth. Published by The Farmers' Publishing Company, P. O. box 2695 or 104 Duane St., N. Y. Each number of this series is complete in itself. Conrad Wilson is well known as an earnest, thoughtful, indefatigable worker for the good of agriculture, and we are confident that those who purchase this book will find in it instruction worth far more than its trifling cost.

THE thirtieth semi-annual statement of the Travelers' Insurance Company, which we publish this week, shows the company to be in a very strong position. It will be seen that there is a net surplus of $657,107.38 over and above capital ($600,000) and all liabilities. A close inspection of its investments shows, too, that care and discrimination have been exercised in selecting securities that have at any time an available cash value. The statement shows that the gain in resources is substantial, and there is a gratifying absence of any "padding out" with over-due interest, or other items of like character, that are not unknown devices in the statements of some companies. With the year just closed, the Travelers' has added $281,500 to its assets, and $46,700 to its surplus—an achievement as gratifying to the general public as to the company.

IT seems to be a fact that just in the ratio of a man's ignorance on a subject is his exceeding haste to express his opinion on it. This was aptly illustrated the other day by an anecdote repeated in our hearing.

Mr. Ex-Attorney General James Speed is an eminent lawyer practicing in the city of Louisville and living on a small farm on the outskirts of the city. All his time being devoted to his profession, his farm knowledge is necessarily limited. His brother tells this joke of him. "If I ask Jeems a law question, he hems and haws and wants to know all the facts, and then asks time to consult his books; but if I ask him a farm question about the rotation of crops or the breed of cattle best adapted to beef or milk, he answers me in a second. I suppose if you know nothing about a thing there is no need of hesitating in delivering your opinion.

Everywhere.

RURAL SPECIAL REPORTS.

N. Y., Rome, Jan. 4.—The winter wheat went into winter quarters in this vicinity looking very well. The ground was well soaked with water when the snow came, and there was no frost in it. We have had almost a continuous snow-storm and blow since Dec. 9th, except on the 10th, and that was a very rainy day. The wind changed to the west at night and it snowed hard on Wednesday morning, and from that time to the present we have had snow and wind storms, such as are not often seen with us at this time of the year. Christmas week was of unusual severity for the season. New-Year's Day was mild and very pleasant. Since then we have had snow and wind, with thermometer at zero on the 2nd; 10 deg. above zero on the 3d, and 18 deg. to 20 deg. above on the 4th. The snow is badly drifted and there has been no travel on the roads for two days. The prices of produce are very low in this section, except potatoes, which are worth $1 per bushel at retail. Poultry has been very abundant and cheap, and mostly of extra good quality in our market. J. T.

[There was nothing more plainly foreshadowed in our Everywhere reports than that potatoes would be high this winter. We are glad to know that a number of our subscribers have profited thereby.—Eds.]

California, San Gabriel, December 25, 1878. We bought this land two years ago last spring, and immediately plowed it thoroughly—it had never been plowed before. We set out a row of Blue Gums (Eucalyptus globulus), for a fence. They were in seed boxes, the tallest one foot in hight. Last month we cut six of them for posts to the roof for a shelter for hay, and one of them measured forty-two feet in hight and six inches in diameter at the base. We set out some seedling and some budded orange trees in June the same season, and all the budded ones have more or less fruit on them this year. We have all the varieties of fruits of the northern or temperate zone, and all of the semi-tropical that are to be got here. We expect to have fruit of some kind fresh from the tree from the first of January to the first of January. The Guava does well here and the Banana promises to do well also. As yet we have not the latter thoroughly at home here, but it is doing well in Santa Barbara, and also at Orange, forty miles south of here. A. P.

Penn., Schuylkill Haven, Jan. 9, 1879.—We are located on the southern border of the Schuylkill coal fields. Coal being low and a limited quantity having been sent to market during the past year, business of all kinds is depressed. The Phila. and Reading Railroad Co. is the great controlling Corporation of this county, and this Company is now paying its employees in scrip worth $10 each, payable the 15th day of April and May next. It is received at any time by the Company for fare, tolls, freight, &c. This is proving to be a temporary relief. Produce of all kinds is low, as the masses are poor and must buy low, if at all. The farmers complain bitterly of the depressed times, and yet they are much better off than any other class here. W. A. F.

N. Y., Naples, Jan. 4, 1879.—A snow storm of three day's duration already, is yet in progress, accompanied with heavy wind from S. W. veering to N. W., and finally settling due W. Roads drifted full; business suspended. Thermometer, six to ten degrees below zero. Wheat at the beginning of winter in Ontario and Yates counties looked decidedly unpromising. The dry weather at the time of seeding, checked the growth of what was then sown, while many delayed sowing until October, on account of dry weather and fear of the fly, so that, on the whole, wheat has a poor stand, and only a favorable winter and spring can insure a full crop the coming year. L. D. F.

New Hampshire, Dover, Strafford Co., Jan. 3.—This town is situated on the Cocheco river, and is noted for its cotton manufactures. The soil in the valley is well adapted to the production of grass. The past season crops were an average, with perhaps the exception of potatoes. These are scarce and high—$1.00 per bushel. Hay is good and rather cheap—from $12 to $15 per ton. Beef is worth $5.50 and $7.00 per cwt. Corn is not raised here for sale, but even many farmers buy a good deal of it from the West, for which they pay from $1.10 to $1.20 per bag.

Ohio, Attica, Seneca Co., Jan. 6.—The cold is very severe here now, the thermometer generally keeping close to zero, and sometimes sinking from six to eight degrees below that point. Though an artisan and no farmer, I generally winter about 40 hens, and on an average they bring me from $40 to $50 a year over and above cost—not counting those we eat. I sell but very few chickens, but I sell a great many eggs in winter, when eggs fetch a good price. I am now selling from six to eight dozen per week, at from 18c. to 20c. per dozen. C. L.

Wisconsin, Evansville, Jan. 2.—Farmers hereabouts were right glad that bad weather delayed its arrival until the corn was all harvested, for it was so badly blown down by storms last September that otherwise it must have been spoilt before spring. Corn, oats and late potatoes yielded well. Early potatoes, however, were a failure. Fruit was a better crop than usual. Feed was good throughout the entire fall and stock is in excellent condition for winter. Corn is worth 20c.; oats, 15c.; wheat, 90c.; buckwheat, 40c.; pork, $2.50; beef, $2.00. There is no sale for poultry. G. A. B.

Wisconsin, Washotah Station, Jan. 6.—This place is about 30 miles west of Milwaukee on the St. Paul, Chicago and Milwaukee Railroad. The health of our people is good, though there are some cases of chicken pox among the children. Cattle, sheep and horses are looking in fine condition. Farmers, here at any rate, are all happy and prospering. There are good schools, good churches, and a good many good church-going people. H. F. S.

Maryland, Greensboro', January 7.—Last season I raised over 500 bushels of corn from six acres. The best yield from a single acre was 92½ bushels of shelled corn. I think I should have got over 100 bushels to the acre were it not that a heavy storm broke off a great many stalks and prostrated those not broken. W. C. S.

Illinois, Virginia, Cass Co., Jan. 6.—The mercury here is 18° below zero, snow a foot deep, sleighing splendid. T. J. N.

The Querist.

ANSWERS TO CORRESPONDENTS.

Dandruff and its Remedy.

J. E. D. P., Waverly, N. Y., asks whether washing the scalp with water in which salts of tartar have been dissolved, will remove dandruff without injuring the hair.

Ans.—It is necessary to explain the nature of "dandruff" before an intelligent answer can be given to this question. The whole external covering (epidermis or scurf skin) of the body is in a constant state of growth and removal. Upon the smooth parts of the body this takes place so readily and constantly, through washing and the friction of the clothing, that it is not usually noticed. But upon the scalp, the presence of the hair prevents this, and the scales of dead epidermis remain among the roots of the hair. In some people desquamation is much more rapid than in others, and these are they who are troubled badly with "dandruff". No external application will "cure" it. Anything that lessens the activity of the dermal, or skin circulation lessens its formation, and this occurs by changes of health or constitution. If any sort of "dandruff cure" chances to be used at such a time, it will be regarded as effectual. The wash mentioned above will do neither harm nor good. Cutting the hair short and washing the head frequently in soft water, with a little soap, brushing also frequently with not too stiff a brush are the best means of keeping the scalp free from dandruff. Fine combs and stiff brushes increase it by exciting the dermal circulation and producing irritation.

Alfalfa.

M. E. B., Ellenburgh Center, N. Y., wants to know if Alfalfa will do well as far north as Clinton county, and where he can get the seed.

Ans.—We have not sufficient data to warrant the belief that Alfalfa will prove a more profitable crop than the clovers or other forage plants in the above locality, though we have seen a small patch do well at Michigan Agricultural College, where the climate is as severe as in the above section. Letters in some of our "exchanges" also show that it has been successfully grown as far north as New Hampshire, and one man claims to have obtained a good growth in Ontario, Canada, but the seed did not mature in either place. It is preeminently a plant for warm climates and is grown extensively in the south of France and other countries of southern Europe. In California it is rated among the best forage plants, both by reason of its quality and profuse yield. We are told that in the Sacramento valley 40 tons to the acre during the year are not an unusual crop. The roots penetrate deep, thereby enabling it to withstand drought. To do well it must have a rich, mellow soil, as it fails alike on light sand and heavy clay. As experience is the best teacher, our advice is to try a small plot. Seed can be procured from any large seed store.

Plowing Under Manure for Garden Vegetables.

A. S. H., Elm Grove, Ohio Co., W. Va., asks which is the better plan for garden vegetables—to plow manure under in the fall or early winter, or to put it on after plowing in the spring and thoroughly stir up the ground then? 2. He also asks for a good plan of a lime-kiln for burning limestone?

Ans.—1. The experience of practical persons is almost universally in favor of applying manure in the fall to ground that is to be cropped in the spring. Field and garden culture differ from each other only in the intensity of the methods employed, so to speak; that is, the difference is only in the quantity of manure used and the labor applied, both of which, in garden culture, are the greatest that can be afforded. It is a well-founded principle in culture of the soil that the manure should be kept near the surface, for it is there exposed to the influences of warmth and the atmosphere. Thus the needed decomposition takes place most rapidly and the chemical reactions upon the soil itself of this decomposition are most effective. The rainfall dissolving the soluble portions of the manure, carries them down as rapidly as can be desired, in any case. If the manure is perfectly decomposed before it is used, it may be spread in the spring and then thoroughly mixed with the soil with the best results. Otherwise it may be applied in the fall or early winter and be covered in in the spring; and this latter method will be found most generally applicable both to the condition of the manure and the convenience of all persons. 2. See illustrated article to be published in next issue.

Founder (Laminitis).

J. W., Jr., Ingham Co., Mich., asks what is best to do for a horse that has been foundered and remains stiff?

Ans.—Founder is a disease that needs prompt and careful treatment, and if it receives it, the vast majority of cases will recover in a few days. This treatment consists of a good dose of physic, (four to five drachms of Barbadoes aloes) 30 drops tincture of aconite root three times a day, and hot poultices to the feet. This may, or may not be followed by nitrate of potassa, according to the condition of the animal. When such treatment is not given in time, however, a condition known as chronic laminitis generally results and this is much more difficult to remove than the former. The treatment recommended by Prof. Law is probably the best. A broad-webbed bar-shoe, beveled on its upper and inner surface, and thinner at the heels than at the toe, is applied; the hoof walls and soles of the feet are coated daily with hot tar, and gentle blisters are applied around the coronet. Owing to the displacement of the bone of the foot by the inflammatory exudation, the animal often remains tender-footed for life.

Plowing Buckwheat Under.

A Subscriber, Middletown, N. Y., asks:—1. whether it would pay to plow under buckwheat, green, and then seed down with winter grain; if so, is the season long enough to sow buckwheat twice and plow it under each time, and would it pay to do so; and if so, how early should it be sown the first time? 2. What variety of spring wheat would succeed best in his locality?

Ans.—In our opinion it would not be advantageous to sow buckwheat with the intention of plowing it under green on land calculated for wheat next fall. Two crops of buckwheat could undoubtedly be grown in a long season, but it would require very early sowing. We have seen buckwheat sown early and allowed to mature, then harvested and the stubble turned for wheat. We would give this mode the preference.

2. This question can be answered most correctly by the successful farmers of the neighborhood. It might be well to try Champlain and Defiance.

The Old-Man Cactus, etc.

S. L. R., Springfield, asks, 1, whether the Old-Man Cactus bears blossoms, and if so, what kind? 2, whether we have grasses for sale, and what is our price for them and the Old-Man Cactus?

Ans.—All Cactuses bear flowers. The blossoms of the Old-Man Cactus are comparatively insignificant, and seldom, if ever, produced on pot-grown plants,—at any rate so far as we know. But the oddity and beauty of the little fellows amply compensate for their shyness in blooming. They are advertised for sale by Mr. Louis Menand, Nurseryman, Menand Station, Albany, N. Y.; also, by George Such, South Amboy, N. J.; John Saul, Washington, D. C., and others, who likewise sell ornamental grasses. We absolutely *sell* no flowers whatever upon any consideration.

Daphne Cneorum—Hyacinthus candicans.

G. H. A., New Haven, Conn., asks, 1, does Daphne Cneorum have seeds? 2, what is Hyacinthus candicans?

Ans.—1. Yes; but so far as we have been able to observe, it seldom produces its small, round, white berries in this section of the country.

2. A very handsome summer-blooming species, a native of the Cape of Good Hope. The flower-stems rise to a hight of from three to five feet, and are terminated by many nodding white, Snow-drop-like blossoms. The bulbs should be lifted in the fall, kept dry all winter, and transplanted again out-of-doors in spring; in fact, they should be treated precisely like those of Gladioli, than which they are hardier

Sorrel-Tree and Hatchet-Leaved Arbor-Vitæ

T. D. Bristol, R. I., sends two numbered cimens of plants and asks their names.

Ans.—1. Oxydendrum arboreum—the Sorrel-tree or Sour-wood. It belongs to the Heath family and is a tree of much beauty, bearing white flowers in long, one-sided racemes clustered in loose panicles at the end of the branches of the season, in early summer.

2. This is Thuiopsis dolabrata—the Hatchet-leaved Arbor-vitæ—a tree from 40 to 50 feet in hight. Prof. Thunberg says: "A lofty, vast and beautiful tree, of all evergreens the fairest." It is notable for its flat spray, broad and blunt leaves which are green above and whitish beneath.

Inflammation of the Eyelids of a Horse.

T. B. Easton, Talbot Co., Mo., asks the cause and remedy for inflamed eyelids of a horse? The eye discharges matter.

Ans.—The data here given are insufficient to enable us to decide which of several causes or several forms of disease this evil must be attributed to. We would urge our friend to secure at once the services of a veterinary practitioner, as diseases of the eye are much more readily cured if attended to in good time, than if neglected for some weeks.

Miscellaneous.

M. W. G., Tecumseh, Mich., asks:—1. How early should a new cock be placed with pullets so as to insure a new strain of chicks to be hatched in April? 2. Would lime-water injure a Chinese Primrose or Calla Lily, when used at the root to destroy white worms?

Ans.—1. Two weeks will usually do, but perhaps three or four are better. With a good, strong, vigorous cock, impregnation will sometimes last from twenty to twenty-five days. Cases of this kind, though, are rare, the influence of the cock rarely lasting over seven to ten days.

2. No. Lime-water of ordinary strength is beneficial to plants. Unless very strong, it could do no hurt.

H. D. Lock Haven, Pa., says he saw lately in the Rural an advertisement of a watch claimed to be worth $12 but offered for $3, and also another advertisement of a new Russian model revolver, and asks if we know whether the goods are what they claim to be.

Ans.—We have seen the watches and think they are worth what is asked for them, namely $3. We should not advise any one however, to purchase three-dollar watches with the expectation that they will prove good time-keepers. The pistols we have also seen and used and they are as represented so far as we are capable of judging.

D. J. R. Sardis, Pa.—1. Sends a sample of oats and asks the name of the variety. 2. He also asks what is the matter with a Calla Lily that did well during the summer, but which has grown little, if any, since he brought it into the house, although the lazy thing has good soil, plenty of water, but perhaps too much shade, as it is out of the sunshine.

Ans.—1. We cannot name the variety from the sample. 2. It is taking a rest; give it less water and a little sunshine.

T. M. D., Milford, Del., asks the name of a first-rate work on farriery.

Ans.—Law's Farmers' Veterinary Adviser, price $3, contains the best and latest information on veterinary matters concerning the horse and all other farm animals. Of works exclusively on the horse, Mayhew's Illustrated Horse Doctor, price $3, is as good as any. Of works on horse-shoeing, Coleman on Pathological Horse-shoeing, $2, and Miles on the Horse's Foot, 75c., are good.

M. H., West Granby, asks the name and publisher of the best Atlas that can be got for $3 or $4.

Ans.—Harper Bros., of this city, are now publishing some fine works of the kind. Write to them for description of their New School and General Atlas.

Mr. N. W. McKinney, Texas, asks where can he get genuine Compton corn, and at what price per package or bushel?

Ans.—Of R. H. Allen & Co., or Thorburn & Co., of this city. Four dollars per shelled bushel.

Communications received for the week ending Saturday, January 11th.

W. V. A.—S. B. F.—D. M. S., we will endeavor to answer questions in due time. Seed distribution will not begin for a month at least—T. H. H.—J. G. A.—J. W. K.—S. E. M. K.—C. A. G.—T. P.—A. L. J.—M. J., many thanks—J. M. H.—E. M. T.—J. W. R.—D. S. M.—L. B.—R. H. H.—J. T.—F. E. L.—E. G.—A. B. Culver, we have lost your address, as it was not given in your last communication—G. P.—E. K.—C. A. B.—S. M. P.—J. T. A—B. R.—C. G. J.—H. S.—W. F.—G. C.—S. S.—L. S.—J. S.—R. P. C.—L. W. S. C.—K. B.—A. S.—R. T. McN.—E. C. F.—B. P.—A. D. R.—L. D. S.—L. D. F.—J. H. P.—M. C. G.—R. H.—C. S.—W. S.—L. L. D.—W. A. F.—S. W.—R. L. T.—D. C. H.—E. B. T.—E. H.—P. P.—F. D. C.—F. M. A. B.

THE
RURAL NEW-YORKER.
PUBLISHED EVERY SATURDAY.

Address
RURAL PUBLISHING CO.,
78 Duane Street, New York City.

SATURDAY, JAN. 18, 1879.

We will be pleased to send one or more copies of the RURAL NEW-YORKER *free to any of our subscribers sufficiently interested in its welfare to be willing to hand them to their neighbors for inspection. An intimation by postal card will suffice.*

Our readers who apply will have the Beauty of Hebron potato sent to them separately, because to send this with seeds makes an awkward package, and also, because the seeds may be forwarded at any time regardless of the weather, while the potatoes may be injured by frost. We mention this for the reason that our friends receiving the potato only, may think the rest of their selection has been overlooked.

We earnestly request that all letters containing money, or any communication intended for the BUSINESS DEPARTMENT *of the paper, be addressed to* THE RURAL PUBLISHING CO., *and not to any individual. We cannot otherwise guarantee the prompt entry of names upon our books, or the acknowledgment of money.*

Our readers are particularly requested to read the particulars of our free seed distribution on p. 49, under publisher's notices, before ordering seeds.

Applicants for seeds will please observe that the postage on ANY POSSIBLE *selection of* TEN *sorts of seeds,* IS NEVER *more than* FIVE *cents. A* ONE-CENT *stamp suffices for any selection of ten varieties* EXCLUSIVE *of the Beauty of Hebron potato, Pearl Millet and Defiance wheat. If the first of these three is included in the list, then a two cent* EXTRA *stamp is needed, and if the second and third are included, an extra two cent stamp is also required.*

LARGE OR SMALL FARMS.

Among the questions frequently discussed at agricultural meetings and in the papers, is that of the comparative profits of large and small farms. It is a discussion equivalent to the canvassing, in a commercial assemblage, of the relative profitableness of a small or large store; or, among manufacturers, of the comparative advantages of a factory on a large or small scale. There can be no doubt that men have accumulated considerable wealth from a small commercial business, or by a manufacturing industry conducted on a moderate scale,—and also by the tillage of small areas of land. Industry and economy, conjoined with business capacity and a good acquaintance with the work in hand, will in time usually secure a competency in any avocation. By slowly laying dollar to dollar, with a shrewd investment of profits, a man can make himself independent, and even rich, doing but a very moderate business all the time.

For the majority of mankind this is the safest, and indeed the only practicable method. Out of a thousand men but very few have the natural capacity, or the acquired ability, to conduct any business successfully on a large scale. Napoleon declared that there were only two men in Europe who could handle an army of 100,000 men. A similar rule applies to every branch of human endeavor. And one of the chief elements of success is to know one's-self sufficiently well not to undertake more than can be successfully carried out. This applies as well to farming as to every other business.

But farming has never yet been a legitimate business in America. Land has been too abundant for that, as well as too rich with the accumulated fertility of ages. So far, we may say that there has been but little real farming done on this whole continent. When it comes to true farming—and it is now beginning to come to that in the older States—it will be necessary that a man calling himself a farmer should know something about his business, and be, to that extent, a business man.

As a business man his capacity for business will regulate the amount of business he will be competent to do. That, and the amount of capital he can control, will settle his status, whether as a large or a small farmer. And as farming is more and more conducted on business principles, the business of farming will divide itself into different classes. It will then become like other businesses, and as in trade there is a place for the large merchant and the small tradesman, so in farming there will be large and small farms, and all profitable in proportion to the capital and labor intelligently expended upon them for the production of salable crops.

When agricultural business is thus organized, it will be found, in many cases, that the area of land under tillage will not so much determine the profits as the amount of labor, capital and skill laid out in order to force the soil to its highest productive capacity. This, united with knowledge of the kinds of crops that are most suited to the market, an ability to forecast probable demand and prices, and a shrewdness in taking advantage of sudden turns of the market, will be the prime factors of success or failure.

Near large cities, or in places where prompt and ready transportation to large markets is obtainable, it may happen that a large force of men can be profitably employed on a few acres, the sales of products running up to tens of thousands of dollars annually. In this way a large business can be done on a small farm. It is now so done in many instances, and fortunes are acquired by skillful men from the tillage of five and ten-acre farms. As competition becomes closer and closer, only very skillful men, with a large cash capital, can run even such "little" farms successfully. But as yet there are many opportunities for intelligent young men of small means to "grow up" into such a business—more opportunities we should say, than there are men able and willing to take advantage of them.

But besides these "small farms" run at a high pressure for the production of fine perishable fruits and choice vegetables, flowers, trees, plants, etc., etc., there must also be farms of greater area for the production of breadstuffs, meat, milk and milk-products, wool, cotton, etc. Here also, as the pressure of competition increases and the money capital of the nation tends more to flow out into the country seeking investment there and satisfied with safe and moderate returns, the kind of earth robbery known as "scrub-farming" will cease by suffocation and starvation. It will not take a trained business man long to find out what it seems impossible to teach the "scrub-farmer," that there is no "business" and no profit in average crops of ten and twelve bushels of wheat, thirty bushels of corn, eighty bushels of potatoes, and other like returns per acre.

Similarly, the business farmer is not going to see any profit in cows so badly bred or so poorly fed, housed and managed, as to yield but 125 pounds of butter or 250 pounds of cheese in a season. Such a man is not going to rest a minute while ten or fifteen dollars per head on his neat stock and horses are wasted every year by the bad management of the manure. He is not going to lose the legitimate earnings of industry for want of proper implements, or the proper care of them, or by unskillful work in preparing land for a crop, or by poor seed, or by want of proper knowledge in the choice and application of manures. When farming becomes a business, with business men engaged in it, and a money capital proportionate to its requirements, we are going to see good farming become general. Then the ablest man, both in brains and money, will do the largest business in farming, as he now does in trade and manufactures.

EXTRAVAGANT HABITS.

One of the social wonders of the world in recent times was the ability and readiness with which the French people met the enormous tax or fine which their German conquerors laid upon them at the end of the last war. One thousand millions of dollars in cash were paid within a few months without any foreign aid and without any effort that was noticeable outside of France. The secret of this wonderful financial ability lay in the long-cherished and practiced habits of economy and saving usual amongst the French people. For years past, as to-day, that people have been simple in their habits industrious, sober, economical, and when they have a few francs to spare, they are carefully laid away. There is no eager grasping after large profits, large interest, usurious lendings, nor is there that eager desire to spend money as soon as it is possessed, that is common with us. Nor is it from avarice that the passion springs; on the contrary, it is a desire to possess some little competence, some store against a rainy day, that impels those people to exercise those virtues for which they have become noted and which are among their most conspicuous attributes on personal acquaintance with them. A son is to be sent to college or started on a small farm, the smallness of which would be ludicrous to an American, especially a Western farmer; or a daughter must be provided with her *dot* to start housekeeping with; and with habits of forethought cultivated for years and pursued with steadiness, there is no "cursed thirst for gold" for spending, but a careful husbanding for future needs. And this homely virtue saved the nation in a time of great disaster; and saves it every day from panics, collapses and frequent bankruptcies.

We might take a lesson from this. We labor and make money to spend, not to save. The desire to spend is innate. The child says, "when I have ten cents I will buy this or that with it." The man or woman in the same way has already laid out and spent hundreds of dollars in anticipation before it has been earned or he has come into possession of a tenth of the amount. This destroys thrift and creates uneasiness, discontent and dissatisfaction. It makes our every-day plodding life unwelcome to us. Our boys inheriting it, crowd to the cities to seek a rapid fortune, and our girls dream uneasily day by day of a better position. Society is to some extent debased by it. It is through this that sheriffs have been enabled to retire on a competency after two or three years of official life, gathering together the lost fortunes of hapless debtors ground between the millstones of the law and exacting creditors. And still we are getting no better! The hard times, now happily past we look at with revengeful feelings, and hail the better times at hand because those kept us poor and these promise to make us rich.

What a land and what a nation this would be if we could but engraft upon ourselves some of the French habit of economy and thrift; if, when we made a hundred dollars, we could be content to let it remain in safe-keeping without trying to double it by usury or speculation, or use it for some more noble purpose. Compare the last fifteen years of our history with the same period in French history, and it will be found that the greater part of our financial difficulties have arisen from our want of the French habits referred to.

MALARIA.

We have always thought that people might live in what are now known as "malarial" districts and yet escape the liability to malarial diseases by avoiding the out-door night and morning air. The following is a conversation between the writer and one of Brooklyn's (N. Y.) most distinguished physicians:

Q. Suppose a person remains in the house until the sun is well up in the morning and is careful never to go out after the sun begins to lose its power in the afternoon, is he liable to malarial diseases?

A. Yes. The liability to such affections can not be escaped.

Q. Then he may disregard the night and morning the same as the mid-day air?

A. No. Malarial affections assume many different forms. It depends upon the health, strength—upon the "constitution," as it is called, of the person—in which form the disease will manifest itself or whether it will manifest itself at all. All other things being equal, a person avoiding the night and morning air, might resist the disease, while if he exposed himself to it, he might be unable to do so.

Q. Then the heat and confined air of the house do not kill the malarial germs?

A. The air in and about the house is the same. Changes out-of-doors are quickly felt in-doors. The malarial germs are deadened—baked so to speak—after a while, but a fresh supply is always at hand.

Q. Then there is no way of living in a malarial district and of being secure against one or the other forms of malarial affections.

A. No. The precaution you speak of merely lessens the liability to, as well as the virulence of, the attack. The enemy is there all the same, but he is not so strong or aggressive.

A DIFFERENCE OF OPINION.

We have several times referred to the Climbing Hydrangea as a "new" vine that was likely to excite a good deal of interest. The impression has been made that it would probably bear huge panicles of flowers, like the now well-known hardy Great-panicled Hydrangea of which the RURAL has said so much—and this alone was enough to have insured it a ready sale.

In the Gardener's Monthly of January, Prof. C. S. Sargent says: "Too great expectations as to the horticultural value of this much-heralded plant will, I fear, only lead to greater disappointment — — and if it is new to gardens it is only because it has never seemed worth introducing into them before. The foliage is by no means striking. The individual flowers are small and arranged in loose, long-branched cymes, but without any of the showy sterile flowers which make Hydrangeas desirable garden plants." So much for Prof. Sargent's opinion.

Mr. Peter Henderson says in the same journal: "Like Hydrangea paniculata—that grandest of all our hardy shrubs—I think it very probable that when once established, the Schizophragma Hydrangeoides"—that is its charming botanical name—"will prove to be one of our finest hardy climbing plants."

It seems that the plant is hardy and that it propagates readily from seeds, but slowly from cuttings. But its hardiness is of little value if it has no beauty, and the less we propagate it the better. We are much opposed to the dissemination at a high price, of "new" plants that are not worth a place in our gardens even if they did not cost anything. Anybody can do better in the field or woods nearest to him.

BREVITIES.

A WEED may be defined as a plant that one does not want.

Among new tuberous-rooted Begonias there will soon be a double yellow in the market.

The best thing in the world to buy, if one is sure of a good article at a low price, is experience.

How to make Americans eat more cheese and to demand it of better quality and lower price is the problem.

Our picture of Pinus ponderosa var. pendula, is taken from the London Gardener's Chronicle of a late date.

There is no doubt that the Japan Persimmon is a success in California, and there is no doubt it is *not* a success here.

The growing of Havana leaf instead of Connecticut seed-leaf tobacco is strongly advocated by the convention of Connecticut Valley tobacco growers.

Erianthus Ravennæ and Eulalia Japonica Zebrina.—Of all hardy grasses of which we have knowledge, these are the best. We advise our readers to procure them next spring.

We have already spoken of Grindelia squarrosa as a valuable remedy for chills and fever. Its near relative, Grendelia robusta, is now used as efficacious in asthmatic and other bronchial affections.

The California Horticulturist.—We are pleased to see that Mr. Charles H. Shinn has become the editor of the above magazine. He is a generous-hearted man and a horticulturist by nature, education and practice.

Many of us know that Asparagus will stand a good deal of salt. Who knows from experiment that salt benefits Asparagus? That is, of two plots treated the same in every other way—will the one that is salted yield more or better Asparagus than the other?

Two men talking politics: the poor man is clamorous for more greenbacks; the rich man is equally stubborn for gold; both appeal to an impecunious stranger standing by for his decision. With stupendous gravity he replies. "I'm for unlimited issue—then I may get some of it; but if the issue is contracted, it won't make no difference to me whether coal is five dollars or ten cents a bushel."

We call attention to the Youths' Department this week. We want our young friends and their mothers and fathers to take more interest in this Department than heretofore. We cannot do this Department justice without their aid. Young folks want to be entertained as well as instructed through reading. Nobody is better fitted to do this than parents themselves.

We see that Pearl Millet is being offered by the trade at 60 cents per pint. This is a very high price but it is less than we supposed it would be offered for. We want all of our friends to try this fodder plant from the seeds we offer them for the asking, and to report next fall upon the results whatever they may be. We shall begin to send out our seeds to subscribers before March.

A distinguished gentleman of the West writes us: "If forestry concerns any class of people on the American continent, it certainly does the hundreds of thousands who have moved into the great plains during the past year. Can there be anything done by us to give this work the right direction, or must it drift on without any direction?" An article on the subject from him, signed Frontier, will appear next week.

Gold Neglected.—The return to a specie basis caused scarcely a ripple of excitement here in the financial capital of the country. Instead of the predicted rush to exchange legal-tender notes for gold on January 2, the first day of actual resumption, on that day the sub-Treasury in Wall street paid out for such notes only $130,000 gold, while it took in $400,000 gold in exchange for paper. Since then from four to five times more gold has been received for notes than has been paid out for them.

From all we have read and from all we have learnt from experience, we have no doubt that moles not only prefer animal food but that they would die upon an exclusively vegetable diet. People taking the opposite view, say in proof of it, that moles go from hill to hill, from plant to plant. "Why do they do this if not to feed upon the roots?" "Because," we answer, "more animal food (generally earthworms) collect in rich soil than in poor, and the earth is generally made richer about the roots of plants than elsewhere."

For Women.

CONDUCTED BY MISS FAITH RIPLEY.

IRISH AIR.

THE AUTHOR OF "SONGS OF KILLARNEY."

"'Twas pretty to be in Ballinderry."

'Twas pretty to be in Ballinderry,
'Twas pretty to be in Aghalee,
'Twas prettier to be in little Ram's Island,
Trysting under the ivy tree!
Och hone, ochone!
Och hone, ochone!
For often I roved in little Ram's Island
Side by side with Phelimy Hyland,
And still he'd court me, and I'd be coy,
Though at heart I loved him, my handsome boy!

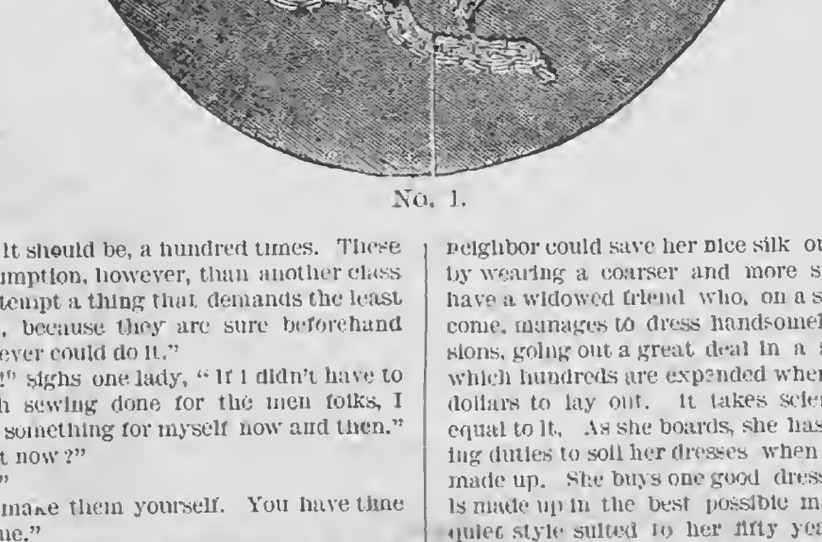
"I'm sailing," he sighed, "from Ballinderry
Out and across the stormy sea.
"Then if in your heart you love me, Mary,
Open your arms at last to me."
Och hone, ochone!
Och hone, ochone!
I opened my arms—how well he knew me!
I opened my arms and took him to me,
And there, in the gloom of the groaning mast,
We kissed our first and we kissed our last!

'Twas happy to be in little Ram's Island:
But now 'tis sad as sad can be:
For the ship that sailed with Phelimy Hyland
Is sunk forever beneath the sea.
Och hone, ochone!
Och hone, ochone!
And 'tis oh! but I wear the weeping willow,
And wander alone by the lonesome billow,
And cry to him over the cruel sea,
"Phelimy Hyland, come back to me!"

[*Good Words.*

CHINESE EMBROIDERY.

THE cuts at Nos. 1 and 2 are a center and border for a circular cushion or mat, done in Chinese embroidery. The foundation of the cushion is ruby satin; it is worked with gold thread and black embroidery silk. The method of working Chinese embroidery may be clearly seen in the cuts; the gold threads are laid on the design and caught down at intervals with a long stitch of black silk; a line of back stitches in black silk is worked round the outline of the center and in a few parts of the border, a portion of which is shown in No. 2. In order to complete the tracing of the circular border, trace first on one side of the tracing-paper and then on the other, matching the pattern at the broken line shown in the cut.



No. 1.

GUMPTION.

MRS. A. E. STORY.

NOT a high-sounding word, perhaps, but a very expressive one, is Gumption. A man had better be born with a good stock of gumption in his cranium, than with any amount of money in his (prospective) trousers' pocket. Many a man has let a fortune slip through his fingers for the want of it, and many a woman who might have clothed herself in purple and fine linen has been content to wear sixpenny calico for the same lack.

Gumption in the small, every-day affairs of life is more than any other quality—the one thing needful. Webster makes this word to mean: capacity, shrewdness, address. It is all this and more. What word have we that can quite express its full meaning?

If we see a man drawing out manure on a stone-boat, or wheeling it on a barrow, or damming a muddy brook to wash his sheep in, instead of driving them half a mile to the river, or lifting heavy barrels into a wagon instead of rolling them in, or cleaning his field of stones by carrying them off in his hat, or mowing the thistles in his pasture after they have gone to seed, or letting his mowing machine stand out in the weather, while his home-made contrivance for marking out even ground stands under cover, or cutting off a cow's tail to cure her of hollow horn, we are apt to say he is lacking in common sense, but it is only gumption he lacks.

A woman lacks it when she plants small flower seeds in the same way as her husband does melons and corn; when she tears her dresses into rags for her new carpet, because they are "just the color she wants;" when she spends all her spare time piecing bed quilts and lets her children run the streets, dirty and unraught; when she cans fruit in cracked jars and expects it to keep; when she lets her husband go abroad in patched overalls and collarless shirts, and then wonders he don't get into the legislature; when she tricks her daughter up to "catch a beau" before she is fairly in her teens; when she "talks" to her neighbors about her husband, and then can't understand why he is slightingly spoken of, when she allows her sons to call their father the "old man," and then is ready to cry her eyes out because they call her the "old woman;" when she keeps her children's stomachs stuffed with rich cake, pies and pudding, and then sends them to bed at night with their faces done up in lemon juice, to make their complexions clear; when she discards a lover because he has a wart on his nose and marries a dandy with a nose the color of a beet.

Some people go through life without being able to do anything they undertake, except in the clumsiest manner, and yet they have seen the work done as it should be, a hundred times. These have more gumption, however, than another class who never attempt a thing that demands the least taste or skill, because they are sure beforehand that they "never could do it."

"Dear me!" sighs one lady, "if I didn't have to hire so much sewing done for the men folks, I might afford something for myself now and then."

"What is it now?"

"Overalls."

"Why not make them yourself. You have time and a machine."

"Oh, I never could. I tried it once, and when John came to put them on he couldn't wear them, because I'd sewed the fronts together for one leg and the backs for the other."

Another lady wants to go on an excursion "dreadfully," but cannot afford it.

"Fix the hat you are going to take to the milliner's yourself. It wants nothing but what you can do."

"I wouldn't dare undertake it for the world. I should ruin it."

"Then make over your dress and save the dressmaker's bill."

"Oh, you could do it, I dare say; but I can't. If I ripped it to pieces, I should never be able to get it together again."

One of the worst things about women of this sort is, that they are forever blaming some one else for what they are to blame for themselves. Do they want to get along and up in the world—and often they are ambitious in this respect—they are not slow to see that somebody doesn't manage right, but never think of taking the blame to themselves. They haven't gumption enough for even that.

FIRST, SECOND AND THIRD BEST.

J. E. M'C.

I WISH that every young lady of limited means, in the country, might read the excellent letter of Margaret B. Harvey, "on dress," in a late number of the RURAL. It would also suggest many good ideas to girls who have considerable money to expend on dress every season. We all know how money can be frittered away on most unsatisfactory purchases, because we set out without a clear, fixed purpose a definite idea of what we wish to get.

Not only is it a very excellent plan to have one really good dress, but it is also equally important to have a good second best to save it. Many poor women destroy a best dress by wearing it at unsuitable times, simply because they have no other presentable on in which to go out. A richer neighbor could save her nice silk on a rainy day, by wearing a coarser and more suitable suit. I have a widowed friend who, on a small stated income, manages to dress handsomely on all occasions, going out a great deal in a social circle in which hundreds are expended where she has but dollars to lay out. It takes science, but she is equal to it. As she boards, she has no housekeeping duties to soil her dresses when they are once made up. She buys one good dress a year. This is made up in the best possible manner and in a quiet style suited to her fifty years. This is set aside as her very best, for dinner parties, sunny Sabbaths and the like. The last year's best dress is remodeled into an excellent second best, which is the most used of the set. It serves for afternoon wear, for general street wear, and dull Sundays. Then comes the third best which is made, most likely, of several old dresses, ripped apart and turned to the best account. This is for very common use, but looks well even on the street, for the materials of which it is made were of the best, in their day, and such goods have a perennial youth. The other accessories of her toilet are always elegant, though I should hesitate to tell you how long they last, for fear you will discredit my whole statement. It does seem as if Aunt E's things never did wear out.

Another hint, dear girls, save even the little pieces. Roll them up smoothly and lay them away in some safe place. A friend who buys an elegant outfit at Stewart's every season and has these twenty years, saves every scrap of her silks and rich dress goods and all the odds and ends of trimmings, laying them away carefully in boxes. Her supplies, when re-making her own or her little girl's clothing, seem inexhaustible. Wastefulness generally, is no mark of high breeding or refined culture, but quite the reverse.

THE RURAL of Jan. 25 will contain description and cuts of fancy lingerie.

No. 2.

CLUB NOTES.

ALL contributions for the Club must reach this office by the 20th of the month. The Club meets the first week in every month, and all subscribers are privileged to send contributions to it

Literary Miscellany.

I HAVE DRANK MY LAST GLASS.

No, comrades, I thank you, not any for me;
My last chain is riven, henceforth I'm free,
I will go to my home and my children to-night,
With no fumes of liquor their spirits to blight:
And with tears in my eyes I will beg my poor wife
To forgive me the wreck I have made of her life.
"I have never refused you before;" let that pass,
For I've drank my last glass, boys,
I have drank my last glass.

Just look at me now, boys, all rags and disgrace,
With my bleared, haggard eyes, and my red, bloated face!
Mark my faltering step, and my weak, palsied hand:
And the mark on my brow that is worse than Cain's brand.
See my crownless old hat, and my elbows and knees,
Alike warmed by the sun or chilled by the breeze;
Wh , even the children will hoot as I pass—
But I've drank my last glass, boys,
I have drank my last glass.

You would hardly believe, boys, to look at me now,
That a mother's soft hand was once pressed on my brow,
When she kissed me, and blessed me, her darling, her pride.
Ere she lay down to rest by my dead father's side;
But with love in her eyes she looked up to the sky,
Bidding me meet her there, then whispered "good-bye,"
And I'll do it, God helping! Your smile I let pass—
For I've drank my last glass, boys,
I have drank my last glass.

Oh! I reeled home last night—it was not very late,
For I'd spent my last sixpence, and landlord's won't wait
On a fellow who's left every cent in their till,
And has pawned his last bed their coffers to fill,
Oh! the torments I felt, and the pangs I endured!
And I begged for one glass, just one would have cured,
But they kicked me out of doors! I let that too, pass
For I've drank my last glass, boys,
I have drank my last glass.

At home, my pet Susie, with soft, golden hair,
I saw through the window, just kneeling in prayer;
From her pale, bony hands, her torn sleeves were strung down,
While her feet, cold and bare, shrank beneath her scant gown;
And she prayed—prayed for bread—just a poor crust of bread,
For one crust, on her knees, my pet darling plead;
And I heard, with no penny to buy one, alas!
But I've drank my last glass, boys,
I have drank my last glass.

For Susie, my darling, my wee six years-old,
Though fainting with hunger and shivering with cold,
There, on the bare floor, asked God to bless me;
And she said: "Don't cry, mamma, he will, for you see,
I believe what I ask for!" then sobered I crept
Away from the house; and that night when I slept,
Next my heart lay the pledge—you smile, let it pass,
But I've drank my last glass, boys,
I have drank my last glass.

My darling child saved me; her faith and her love
Are akin to my dear sainted mother above;
I will make her words true, or I'll die in the race,
And sober I'll go to my last resting place;
And she will kneel there, and weeping, she will thank God
No drunkard sleeps under the daisy-strewn sod,
Not a drop more of poison my lips shall e'er pass,
For I've drank my last glass, boys,
I have drank my last glass.

GRETCHEN'S SONG.

EBEN E. REXFORD.

GRETCHEN'S home, in the Fatherland, was under the shadow of the great pines, standing tall and stately, like soldiers, on the mountain-side. Franz said he could hear voices in them all day long; and the voices were always there in the night time plainer to be heard than through the day.

Franz was Gretchen's lover. She was his only friend. His only one? Ah, no! I was mistaken in saying that. He had one other, and that was his violin. Such music as he could coax from th wonderful instrument One moment Gretchen would cry over it. The next he would make her laugh, and before she knew what she was about she would be dancing as she listened.

"Ah, there must be a living soul in it!" she said, "I am half afraid of it, Franz."

"But you are not afraid of me, Gretchen?" Franz would say, and smile softly to see her flax-flower eyes droop, and the red come out in her cheek. "Surely, you are not afraid of me?"

"No," she would answer, and then Franz would say "Listen, Gretchen, and hear what the soul in the violin tells thee," and he would play little harmonies so low and sweet that they seemed like angel voices far away. What another would have said in words, he made his violin say for him. It was the strangest, sweetest way of wooing Gretchen had ever heard of, she thought. How pleasant to be the sweetheart of such a lover as Franz, who could put his thoughts into the most beautiful lan-

guage on earth, and sometimes she thought there could be nothing sweeter in Heaven.

By and by another lover came a-wooing. He was the son of a rich man in the village. He was proud, though just what he had to be proud of Gretchen could not understand. He could not play like Franz. He could not sing such strange and charming songs as Franz could. He seemed to lack so much, she thought, when she compared him with her lover. His father had money, and was the great man of the place, but that was nothing to be proud of. It merely happened so. This young man had never done anything to make himself or any one else better. No one was the happier because he lived. She thought no one ever would be, because, you see, she loved Franz, and on that account liked this new lover not at all, and used to laugh at his music and his shy, strange ways.

"I would not marry him if he had the world to put in his pocket," said Gretchen. "You are richer, with your music, Franz, than he with all his father's wealth."

And then Franz made his violin sing the sweetest, and the saddest little song. She smiled to listen, and felt the tears coming at the same time. She knew afterward, what he was thinking about then.

Gretchen's father wanted her to marry her rich lover.

"I cannot do it," she said, firmly. "Don't urge me, father, for it can never be."

"And why?" he asked.

"For many reasons," she answered. "I do not love him. I never could. That is one, and that is enough. Send him away, father, before I learn to hate him."

"I know why you will not listen to him," her father said. "It's because of that Franz. The good-for-nothing, idle fellow! I'd like to break that violin of his over his head. Now, listen to what I say, Gretchen. If you will not marry the man I want you to, I will never consent for you to marry Franz. Remember that."

He left her, and she sat down by the window of her little room and cried for a long time. She could not marry Franz against her father's wishes. She must give up her dream,—but she would not forget him or be untrue to him. She would love him if she lost him.

"You had better do as your father wants you to," Franz said, bitterly. "I am only a poor musician, and he will never take back his words, be sure of that."

"But I can wait," she said, and her face was brave and beautiful to see.

"Ah, but the waiting may be so long!" Franz said. "Have you thought of that?"

"I can wait all my life, if need be," she said, and he knew she meant every word.

By and by Franz made up his mind to go to America.

"I can work there better than here, may be," he said. "And it will be just as easy to wait there as here."

Before he went away he made a little song for her. It was such a sweet and tender one that, though he only sang it once, she forgot not a word or a note. Gretchen had never heard anything like it before, and she saw in it another proof of her lover's genius.

"Oh, it is so beautiful, Franz," she said. "The angels must have sung it to you."

"You think it is something wonderful because you love the one that made it," he said. "It shall be your song and mine, Gretchen, and I will sing it to no one else."

What long and lonesome days those were that came after Franz went away! It seemed as if waiting for a year or such ones would make an old woman of her. And they might have to wait so many years—but she would be true forever. Brave, noble little Gretchen!

The years came and went. No more lovers came to woo. They knew that her heart was over the sea with Franz. Once in a while she heard from him. He was waiting, like herself.

By and by her father died, and then Gretchen was free to go and come as she pleased. She was free to marry the man she loved, and she would find him in that wide, new world, and make her promise true.

But where to go she did not know. When last she heard from him he was traveling about the country with some German singers, and he might be east or west, or north or south. Perhaps—and when she thought of that her heart seemed to stop beating—perhaps he might be dead. Who knew? Stranger things happened every day in this world of ours.

But she would seek for him. She left her home and crossed the sea to the shores Franz had sought before her. He had come to New York. She would begin her search there. And she began it, and it ended fruitlessly. If he had ever been there they had forgotten him.

Then she went to other cities. Wherever she heard of any German singers, there Gretchen sought for her lover. But he was not among the roving minstrels. He seemed to have dropped out of existence. He had gone down in the great whirlpool called life, and she was alone, she feared.

But she was not the woman to give up her search and sit down hopelessly. "No news is good news," they say. So long as she heard nothing of him she could hope. And while hope lasted she would search for him.

So she went hither and thither—east and west, and north and south. She listened to the violins in many an orchestra, hoping to hear his among them. She did not care to see the players. That was not necessary. She would recognize the voice of his instrument when she heard it. But she listened in vain.

So a year went by and at the end of it, she found herself in a great inland city, with money almost gone and courage sinking low. How was her quest to be kept up longer? She could work, but when her work her search could not go on.

"Oh, my Franz!" she said sorrowfully, as she leaned her head upon the window-s that night, and listened to the roar of life as it surged to and fro in the streets below her. "It may be we have been near each other, and yet are never to meet again. It may be thou art dead. But thou hast not forgotten me, wherever thou art."

So beautiful and strong is loving woman's faith!

By and by the babel of life grew still. As she leaned out in the moonlit air, the impulse came to her to sing. Ah, it had been long since she cared to do that! And she sang—sang the little song Franz had made for her. Soft and low, at first, with a quiver in it, as if her sorrow haunted its notes and could not be shaken off; then, as the memory of the old times came back, and she thought of Franz, playing under the shadows of the pines, and seemed to hear his violin again, speaking to her like a voice out of Heaven, and falling like a balm upon the unrest of life, her song grew clearer and sweeter, and the night was like a great soul that listens in its stillness.

The song ended. Then from a window high up in the great tenement-house opposite, came the sound of a violin. It was like a voice that cries out in gladness that is almost unutterable—gladness so deep that it is half a pain. The long, tremulous tones came floating to her on the wind, and a voice in each chord seemed calling, calling, while over and above the voice a melody wound itself like a vine that is full of beautiful flowers.

"Oh, my Franz!" cried Gretchen, while her face was pale with sudden joy. "Oh, my Franz! I have found thee! That is thy voice speaking to me. Thou hast not forgotten thy song, and now thou art answering it."

Down the long stairs and across the street she flew like a bird that hears its mate. Up the stairs of the house in which Franz dwelt her feet climbed swiftly. Love lent her wings, and her body seemed light as her heart. Her soul kept crying, "Franz, I have found thee at last."

"Gretchen, is it thou?" It was Franz's voice, in the language of the fatherland, that spoke when her feet were at the door.

"It is thy Gretchen," she cried, and then he saw her at the doorway, with the light of woman's love shining in her face, and he dropped the violin, stretched out his hands toward her with a rapture too deep for words in his poor, pale face.

"Oh, my Franz!" and then her arms were about his neck, her tears and kisses mingled on his face.

"I had thought that I must die without seeing thee again," he said. "But it seemed as if I could not. It will not be so hard now, since thou art here to hold my hand."

"Thou must not say that, my Franz," she said, and her eyes were so full of tears that she could no longer see his face. "Thou must live for me."

"If I could," he whispered. "But I fear it cannot be. Even love like thine is not strong enough to conquer death."

"Bring me my violin," he said. And she brought it and raised him up in bed, so that he could play. He touched the strings softly and lovingly, in low, uncertain chords. Presently they fashioned themselves into the melody of the song he had made for Gretchen. Oh, it was so sweet, so sad. She felt the tears falling down her cheeks like rain.

All at once the violin fell from his hands to the floor, and a string snapped apart with a sound that was like a sharp cry of pain.

"It is the end, Gretchen," he said, faintly. "Let me hold thy hand, dear, and will thou kiss me?"

She bent above him and drew his head upon her breast, and kissed his thin, cold cheek. A lonesome wind was blowing through the room and smote against his forehead.

"Ah, the pines!" he cried. "Dost hear them, Gretchen? They are talking to me."

And then such a far-away look came into his eyes that she felt as if an infinite space was between them. And when she called his name, and he answered not, she knew that it was the space of death.

A WORD ABOUT ACTRESSES.

THERE is hardly a village in the land so obscure, or so small, but what has in it at least one young girl who is ambitious to become an actress.

In imagination, she sees herself the center of admiring hosts, the possessor of a heavy bank account, and the mistress of no end of superb costumes. The road to success seems very easy, and she reads with a thrill of envy of the adulation which is lavished on popular Miss Davenport or Lotta, and despising the uncongenial housekeeping or teaching, she sighs for an opportunity to become an actress. A writer in Lippincott's Magazine for January has done a wise and kindly thing in showing a little of the harsh reality which lurks beneath the romance of stage life. We give the article, hoping it may be the means of curing at least one girl of her desire to forsake the quiet of home for the glare of the footlights, and the temptations which beset the life of an actress.

"The stage is crowded with female aspirants of a good figure, some beauty, an irreproachable taste for the most expensive costumes, and no genuine talent.

Many young girls of wealthy families have sought the career of an actress from a powerful impulse toward the excitements of such a life. Still, judging from the meagre results which follow the indulgence of their inclinations, I infer that the stage appears to these ambitious ladies merely as an arena for gaining more general admiration than they could in private life. There is small capacity for any kind of fervid feeling in their hearts or minds; there is little of that singleness of purpose which is a requisite for any excellence in art, and which must take its line absolutely from a shaping instinct more powerful than any external circumstances. The comparative success of such actresses seems to the uninitiated to open an easy road toward a fictitious and brilliant life, and on every side we see young girls undertaking it without any idea of the preliminary hardships or any realizations of the thousand impediments in their way. Their idea of an actress is of a charming, graceful creature whose life is passed between the enjoyment of private incense and public applause; and by contrast with the prose of their every-day existence, and the enfeebling strain of effort to reach the demand for thoroughness and hard work in any other line of occupation, a sort of glamour is thrown over the stage.

Let us see what are those inducements which justify so many young ladies in aspiring to a theatrical career without the possession of talent which can ensure success. In the first place, they exchange the security of a retired and guarded life for a publicity which rarely becomes either celebrity or reputation. Generations of light women have made the name of "actress" a synonym for the worst faults of the sex; and let a girl once appear behind the footlights, be she chaste as ice, pure as snow, she cannot escape calumny. This is, of course, cruel injustice, and does great wrong in a hundred cases. Still, no one thinks of denying that the majority of the profession lead lives which separate them from their more scrupulous sisters. Thus, the very fact of a girl's becoming an actress induces a doubt of her possession of the traits most pleasing in women. Let her remain absolutely immaculate, she is yet jostled against women whose character she knows to be more than dubious; she becomes familiar with the idea of vice—is quick to learn that in the life she has entered one cannot be over nice and particular. It requires the loftiest ideals or the genuine impulse of a severe and conscientious pursuit of perfection in art not to suffer an indescribable lowering of tone from this constant association.

Another point is this; Nothing is so important for a mediocre actress (and we are writing of no others) as the matter of costume. Even with a continuous engagement it is impossible, with the salary paid to second-rate professionals (ranging from fifteen to forty dollars a week, and this often tardy in payment, sometimes wholly forfeited by failures of the management), to provide the rich and varied dresses now demanded at all the leading theatres. Thus, a young actress dependent on her salary and without an accumulated wardrobe to fall back upon, finds herself obliged to compete with others whose extravagance scarcely has a limit—who may, if it suits the play, indulge their love of dress by appearing in no less than six or seven toilettes of the most superb description. In certain theatres some of the costumes are given by the managers, but any actress will assure the novice that very few even of the "leading ladies" in the profession can properly dress their parts on their salary.

We have so far spoken only of the difficulties the young and obscure actress must contend with after she is launched and has a secure engagement, while the fact is, that it is well nigh impossible for her to obtain any footing at all on the stage, every entrance is so overcrowded. Getting an engagement at first seems practicable; after a few failures it becomes a weary experience. Promises are made only to be broken; hopes are held out which but the more cruelly light up the blank negation of the realities. To sit with a manager for two hours in the morning is to gain an idea of the numbers of aspirants to whom an engagement is a matter of vital interest, of actual necessity. Women of every age, from the round-faced girl of sixteen to the pale, worn creature of forty, come in to inquire if Mr.——has anything for them that morning; it is a dreary round, and to many a perilous one. Few illusions remain to the neophyte after toiling for weeks in this way without seeming near to the goal.

The goal once reached and an engagement made, the insecurity of things in general becomes manifest. On the stage, as everywhere else, if you make yourself essential—if you act so well that your playing of your part is an indispensable guarantee of the success of the drama—there is little danger of your losing your engagement. But few can adapt themselves to their roles with that fine fitness which precludes the idea of any one's doing it better. Hence, the young actress finds herself constantly in danger of being superseded. The green-room is full of cliques whose jealousies are of the most creeping and venomous kind, and a novice—and, above all, a novice whose standard of taste and morality seems disagreeably high—is a person to be got rid of if possible. At a time when the young actress needs the most friendly support, the most tender patience and the most generous encouragement she is liable to be fretted and disheartened by a course of systematic cruelty on the part of some older professional, who perhaps has taken a dislike to her—perhaps wants her place for a friend of his or her own. The generosity of actors and actresses has become proverbial, and apparently no class of people stand by each other so consistently; yet it is nevertheless true that in no other profession (unless we except the musical) can there be waged a more deadly internecine war. Thus, an engagement is often cancelled on a mere pretext, and the young actress finds the ground cut away from beneath her feet. And she has no redress. Her having been allowed a place in the play at all was a miraculous piece of good-nature on the part of the management, for which she was too thankful to allow of her making provisions of safety.

A continuous engagement for eight months of the year is one of the rarest pieces of good fortune, and rarely enjoyed by any save actresses of real ability. Few expect to do better than be employed in companies whose lease of life depends upon the success of tours into the provinces. Most of these end in failure, and payment for services rendered is often delayed, and sometimes, it is to be feared, altogether repudiated. What then becomes of the young actress out of an engagement, the entrance to every theatre barred for that season, unless some lucky accident opens an unexpected chance? It is on this chance that half—perhaps two-thirds—of one class of actresses live.

A feverish life it is too—of suspense, tortured by constant fluctuations of hope and despair; almost certain to be hampered by debts; exposed to every sort of humiliation, in which sympathy and promises of aid are rarely anything save a source of unexpected danger; the energies which unfavorable circumstances sometimes beget are chilled when resolutions of independence and high purpose find themselves powerless before petty alternatives, each repugnant to heart and mind.

This fictitious, elegant life of splendid living, rich dresses, waiting audiences, brilliant successes is, except to the possessor of rare talent or undoubted genius, the poorest, tawdriest, least worthy existence a woman can honestly live. It is, too, a life resting on a basis which renders the perceptions dulled and deadened to the finer uses and aspirations of womanhood—in which shadow is better than substance, tinsel than gold, and falsehood than truth."

X.

WEAKER THAN A WOMAN.

CHAPTER XXV.

From that day a change came over Felix Lonsdale; he went home even that same evening an altered man; he opened his heart to the love and sympathy that Katie showed him.

He did not suffer less—but it was in another fashion now. He worked harder than ever; he said to himself that if it were possible he would drown his sorrow in the hardest work he could find. And yet he did not know the worst; he only knew that Violet had broken her promise, and declared it impossible to marry him; he had not the faintest notion that there was really any wealthy lover at hand. He believed firmly that her parents had talked to her and argued with her until she had been overruled by them. Still, all Lilford—all but himself—knew that Violet was going to marry Sir Owen; it had been kept quite secret for some time, but now the day was fixed—the fourteenth of September—and there could no longer be any secrecy.

The whole place was in a ferment over it. There was to be a grand dinner given to all the tenants, to all the servants and dependants; and the bell-ringers had been told how many times a merry peal was to be rung on the old church bells, in honor of the bride and bridegroom. The only persons who knew nothing of all this were the inhabitants of Vale House—the invalid father who saw no one but the doctor and Eve Lester, the kindly industrious young step-mother, and the young lover himself. No one cared to speak to them on such a subject, and they were the last to hear of it. Even Evelyn, who never shrank from trouble, shrank from speaking to them about it.

Felix wondered one night, when she came to Vale House, why she was so kind, so tender and compassionate to him, why she hovered round him like a mother over a sick child, why she spoke such low earnest words to him—so noble, so beautiful, that his whole soul was stirred by them.

"I had almost begun to fear that there was something fresh concerning that unfortunate will," he said; "people have been so strange with me. It cannot be my love-story; no one knows that. People all know, of course, that Violet has gone away to London; but I do not think any one out of our own household knows that she has broken with me."

Eve could not tell him; she could help him, she could strengthen his heart and his mind, but she could not look at him and say, "To-morrow will be Violet's wedding-day." She turned away sick at heart that she could not take the whole burden upon herself and suffer for him. She was brave enough, but she could not say to him, "The girl for love of whom you are breaking your heart thinks so little of you—so little of your pain—that she is going to marry to-morrow the man above all others whom you dislike."

She talked to him of the grandeur and nobility of sorrow, the bravery of bearing pain, the cowardice of failing under a burden: and then, when she left him, she whispered to Katie—

"Be very kind to him to-morrow, *madre*. He will stand sorely in need of it."

But even Kate did not dream what the words meant.

The harvest-moon that night shone down upon many different scenes. It crept into a superb room in London, where Sir Owen, flushed with love and wine, told with many an oath to a choice circle of friends how he had outwitted the lawyer and carried off his bride.

"I shall have some fine amusement with him when I return to Garswood," he said. "He must have been as vain as Narcissus himself to think that any girl would prefer him to me."

His friends drank his costly wines and applauded him—each ignoble sentiment, each mean idea—until they could do so no longer.

The moon looked in at another window—the window of a magnificent chamber, wherein lay all the details of a superb bridal costume—a lace veil of priceless value, a wreath of orange-blossoms, white satin shoes and white gloves, with a dress that was a triumph of art. It shone on a pretty white bed whereon a young girl lay—on golden hair that was all disheveled and lying in silken profusion over the pillow—on a fair and beautiful face all stained with tears; for on this evening something like remorse had come to Violet Haye, and she had wept with a wild cry for the lover whom she had bartered for gold. Even the diamonds, the costly gems, the rich dresses, the wealth and grandeur for which she had sold herself, had not power to soothe her. The same moon shone into the room where Eve Lester knelt, her fair face raised to the evening skies, praying Heaven to help the man she loved through the bitter hour of his pain and desolation. It shone into the room where Felix sat writing because he could not sleep and was unable to find rest in anything except work. The silvery moon shone brightly over all.

Felix worked until his tired eyes could see no longer, and then he put away his papers. He had business for the morrow, and, if he could not sleep, he said to himself that he might close his eyes and think of that.

He went to the office early the next morning, and it struck him that there was an unusual stir in the streets. A band of music passed him. He saw the people, gaily dressed, all going in the same direction. He wondered if there was a *fete* anywhere,

or any fair that he had forgotten. It was the fourteenth of September—no, he could not remember that it differed from any other day. He saw that it was a lovely morning; there was bright sunshine, a sweet western wind, while all nature looked blithe and gay; still he could not understand the commotion in the town.

He went into his office—even the clerk was not there. Without loss of time he went to work busily at his papers. Ha! Surely he was not mistaken as to the chime of the old church bells—surely they were chiming not an every-day chime—surely he heard a burst of jubilant melody, a clang of joyful sound? He opened the window and the rich waves of sound came in upon the sunlit air.

"It is like the sound of wedding-bells," he thought to himself, "but no one has been married from here."

There was something pathetic in the handsome wondering face leaning from the window, listening to the bells that were ringing his death-knell.

He could not write; it was as though a thousand gay and airy shapes were flitting round him. There was one consolation—the bell-ringing could not last—it must stop soon. He could not work with that mad, merry music filling the air; but he could go and ask what it all meant.

It was strange that the first person he saw was the Vicar's wife, Mrs. Hunter. He asked her why the bells were ringing; and, as she looked at him, her eyes filled with tears.

"They ring for so many things," she replied; "how can I tell which it is?"

He passed on, but, as he walked away, she looked at him closely, while something like a sob rose to her lips.

"Beautiful women are beautiful fiends sometimes," said the Vicar's wife to herself. "I would not have done such a thing."

Felix thought her strange—but he had almost ceased to wonder at anything. Then he met his old friend Doctor Ludlow. He stopped and spoke to him.

"I ought to be very busy with my work," he said, "but those bells distract me. I have had to put away my writing. What are they ringing for, Doctor?"

And the kind-hearted Doctor looked sadly at him.

"Have you not heard?" he asked.

"No—I hear so little—I am so busy always. What is it for?"

But the Doctor could not tell him.

"Go as far as the church," he said; "the walk will do you good this beautiful morning. Ask the ringers—they are sure to know."

He had not the time to spare; but the morning was fine, and some strange instinct that he could not account for hurried him on.

"Why are you ringing this merry chime to-day?" he asked of one of the ringers, a white-headed old man, whose arms were wearied, and who sat resting on one of the green graves.

"Why? Because the great Sir Owen is married to-day, Master Lonsdale."

"Married!" cried Felix. "Married to whom?"

The chiming ceased and the wind fell as the old man answered—

"Married to Violet Haye."

CHAPTER XXVI.

There are no finer woods in England than the woods that surround Bramber Towers. Bramber is a glorious estate, and the woods extend to Lilford.

The Earl of Arlington, master of the Towers, had but one fault in the eyes of the county—he was too fond of travelling. It was no unusual thing for the Towers to be closed for two or three years, while the Earl, with his wife and daughter, delighted in fair Continental cities. "Let justice be done, though the heavens fall," was a favorite quotation of his.

Lord Arlington was a straightforward, honest, honorable Englishman—all devious ways and tortuous paths were unknown to him. It was always observed that if he were absent for any length of time things went wrong. His first concern on his return was to endeavor to set them right. He had been absent nearly three years this time, lingering with his beautiful wife and daughter in the quaint cities of old Spain. He reached home on the eleventh of September; and he feared that, as usual, during his absence much had gone wrong. His return was hardly known in the neighborhood—for one of the things that Lord Arlington disliked was fuss; why should there be a scene every time he returned? So he generally kept his intention secret.

The Countess was a beautiful, quiet, refined woman. One of her great characteristics was her sympathetic manner. It was natural to her to feel intensely the sorrows and joys of others. There were two children—the young heir, Lord Bramber, who was still at Oxford, and Lady Maude Bramber, a lovely girl about two years older than her brother.

Lady Maude inherited her mother's peculiarly sympathetic nature. She was as gifted as she was beautiful: and the one thing in which she excelled was art. She would have made one of the finest painters of the day had she not been an earl's daughter; as it was, her pictures were far superior to those of many well-known artists. It was at her solicitation that Lord Arlington returned home that autumn. She had seen the finest parts of Europe—the most picturesque—the most beautiful; but there was nothing she liked better than the fine old woods round Bramber; and she loved them best in autumn, when the leaves were falling, and the glorious tints of the foliage made a picture the tints of which could not be transferred to canvas.

She had begged that they might spend the autumn at home; for the beauty of an English autumn surpassed anything which they could see abroad. Her wish was complied with, as is the wish of a spoiled child often, and she promised herself a few pleasant months.

She set out one morning with her sketch-book nd pencils. The Countess suggested that she should take a maid or a footman with her—Lady Maude laughed.

"No danger lurks in our English woods, mamma," she said. "If I were in Italy or Greece, I might meet a few brigands; here at Bramber there will be nothing worse than the pretty brown hares and the little squirrels. I could not sketch at my ease with a great idle man waiting for me."

So she went into the Bramber Woods. As she neared the woods she heard a faint chiming of distant bells.

"They are the bells of Lilford old church," she said to herself; "what a mellow rich sound! I shall not hear it presently."

It died away as she entered the beautiful green glades; the sound could not penetrate the thick masses of foliage.

There was a broad open space, and a majestic oak spread out its great branches there. It was like a little kingdom in itself, this wonderful oak—a great green kingdom with a life all its own. Near it stood a very fine elm; and in the distance she saw the branches of a fine ash-tree. Not far from there was a pretty little brook, so clear that one could see the pebbles at the bottom of it; it ran with a sweet musical ripple that was a song in itself. The birds were having an entertainment of some kind in the green kingdom of leaves, and the noise they made over it was continuous.

As she became absorbed in the keen delight of her sketching, she forgot her feathered neighbors. They no longer disturbed her. It was all so still, so peaceful, so beautiful that she thought she could sit there for ever. Once she was disturbed; she fancied that from the long western glade on the other side of her there came the sound of reckless running footsteps, and then of a heavy fall, but after a moment or two she concluded that it was only the rabbits.

"They are having a steeplechase," she said, and laughed at the idea; then the pencil trembled in her fingers, for surely she heard the sound of terrible sobbing, great, passionate, bitter sobs. She could not be mistaken—they grew more bitter and deep, and then all was still. She tried to go on with her drawing, but her hand trembled—she could not persuade herself that what she had heard was fancy. Something must have made the noise—she would go and see.

(To be continued.)

CLEOPATRA.

ANNE CLAYBOURNE.

CLEOPATRA, Queen of Egypt, was one of the most brilliant and beautiful women the world has ever known, but her husband, Ptolemy Dionysius, who was her own brother, deprived her of her share of the kingdom and drove her to seek protection of the Romans. Cæsar was then emperor of Rome, and she used all her powers of fascination to win his favor, and succeeded.

When Cæsar was assassinated, she was accused of having assented in the crime, and was brought before Marc Antony for trial. Although coming to judgment, she came in the pride of beauty and anticipated triumph. Her galley was burnished with gold, its silken sails were filled with odors, and the silver oars, which were plied by the most beautiful maidens of Egypt, moved to the sweet sounds of music. The lovely Cleopatra, arrayed in slight drapery, reclined under a canopy on the deck, and appeared more like the dream of some sculptor or painter than like a human being.

Marc Antony was charmed with her person and talents and became her lover, neglecting his wife. But this woman of splendid attractions, who could make great men her slaves, and might have wielded an unlimited power for good, was ambitious, extravagant and unprincipled. After Cæsar's death, Antony aspired to the head of the government, but Octavius Augustus, grand-nephew of Cæsar, opposed him; a battle was fought for the sovereignty of the world at Actium on the Mediterranean, west of Greece, at which Cleopatra had sixty of her finest vessels. Just as Antony was about to gain the victory, Cleopatra, with her sixty galleys, deserted him, and he, rashly abandoning the conquest, followed her off from the field of action.

She caused herself to be reported dead, upon hearing which Antony besought his faithful friend and servant, Eros, to kill him. Eros pretended to consent, but when Antony's face was turned away, he killed himself instead. Antony was so touched by this proof of devotion, that he took the sword and wounded himself mortally, but lived long enough to be carried into the presence of Cleopatra. Here we find him in a magnificent apartment, its walls of purest alabaster, polished like mirrors, and its columns of gold, most delicately ornamented. Through the open windows are seen the dark, glossy leaves of the fig, the broad canopy of palms a hundred feet high, pavements of milk-white marble, cool as snow, and beautiful fountains of sparkling water.

On a couch which glows with the pictured fabrics of Eastern looms lies Marc Antony in almost superhuman majesty, his eyes closed, the curls parted from his noble brow, but his face so natural that, but for the rigidity of limbs, one might think he slept. Evidences of affection are all around; perfumes liberally sprinkled upon his auburn locks, and garlands of freshest flowers upon his cold limbs. Cleopatra sits beside him in speechless woe, with fixed yet vacant gaze. Unlike her regard for other heroes, she has loved him for himself, and not for his fame or power. Near them, on a table of the richest porphyry, negligently strewn with instruments of music, there stands a plain and common-looking basket, filled with the glossy leaves and purple fruit of the fig; they look very tempting, but there is a slight rustling sound, at times, and a movement of the leaves, not regular, as if shaken by the breeze, but heaving up, at intervals, as if some living thing was lurking underneath, and on a close examination, deadly asps are found crawling among the fruit; these serpents Cleopatra has applied to her bosom, and a very tiny spot of blood shows where the poison has been injected into her veins. Octavius, the successor of Cæsar, has conquered, and she will not be his prisoner; her hero is dead, and she will follow him.

Octavius comes himself, with all the nobles of his court, and flatters her with honeyed words, but she rejects his clemency with haughty scorn. He says: "We would have the beautiful Cleopatra among our friends: she is queen of Egypt still."

"By the great gods, I am! Nor is it in the power of all Rome to make me other! Free was I born and royal: free will I die and royal! Cæsar, I scorn your mercies, as I defy your menaces! My father left me a crown, and crowned will I go to my father!"

With this she flung her hand in defiance toward the victor, placed the antique crown of the Ptolemies upon her raven locks, and stretching herself upon the couch by the side of Antony, closed her eyes, gave one long, convulsive shudder, and Cleopatra the beautiful was no more. Egypt never since has known a native sovereign.

RECENT LITERATURE.

Hygiene of the Brain and Nerves and the Cure of Nervousness, with Twenty-eight original Letters from leading Thinkers and Writers, concerning their Physical and Intellectual Habits. By M. L. HOLBROOK, M. D. New York: Holbrook & Co.

THIS is a most admirable work, and one which deserves a place in every family library. As the author very truly says, "Nervous exhaustion is in the ascendant. It crops out in every direction. Our hot-house education promotes it, by cultivating the mind at the expense of the body. Our sedentary ways of living promote it. Our haste to get rich, our risks in business, our anxieties, our cares, all help to bring on nervous exhaustion. It is time for us to consider this matter in the light of science and common-sense, and see if something cannot be done to relieve our generation from the curse of nervous exhaustion, and show people how to conduct their lives so that peace and serenity shall take the place of haste and excitement, and all their attending evils." In the following chapters much excellent advice is given about diet, rest from head-work, walking, amusements, &c. The chapters entitled Important Questions Answered, What Our Thinkers and Scientists Say, are replete with valuable information. The latter part of the book is devoted to letters from T. W. Higginson, Wm. Lloyd Garrison, A. Bronson Alcott, Wm. E. Dodge, Dio Lewis, Frederick Beecher Perkins, Judge Samuel A. Foot, Sarah J. Hale, O. B. Frothingham, and many others who have become famous in the world of letters. We recommend the book to all who have charge of children, whether parents or teachers.

Common Sense in Business; or Practical Answers to Practical Questions on the True Principles and Laws of Success in Farming, Manufactures, Speculation and Buying and Selling Merchandise, with some Suggestions on making Wills and the Causes of Failures in Business. By EDWIN T. FREEDLEY. Philadelphia: Claxton, Remsen & Haffelfinger.

IT is impossible to do justice to this work in anything short of an elaborate review, or to present its many claims to the careful perusal of every one, in whatever walk of life. It is very generally supposed that business is inseparable from the principles of common sense, but Mr. Freedley conclusively shows it may be, and often is, conducted on a very different basis. He lays down clear and practical rules for the guidance of the inexperienced, as the veteran mariner describes in his charts the rocks, shoals and channels, while the questions and answers demonstrate the importance of the application of sound common sense to all the problems incident to the active duties of life. To young men, especially, it will be found highly instructive, not only in the laws of business but as to the true principles of success.

Roxy. By EDWARD EGGLESTON. New York: Chas. Scribner's Sons. Price $1.50.

As a bit of character sketching "Roxy" (the heroine) is well nigh perfect, not perfectly good but supremely natural. Most good women (in books) move about in such a grandly superior way, that they appear super-human, and the reader however much he may admire goodness in the abstract, is apt to sigh for some evidence of original sin to make the character appear more human. Mr. Eggleston has succeeded in portraying a grandly noble woman, who is, withal, a possible woman. There are also graphic descriptions of "hoe-downs" and "barbecues," forms of amusement with which many people are not familiar, and the true inwardness of electioneering in a frontier town is very cleverly delineated. Mr. Eggleston shows human nature as it is, and some rather repulsive sins appear in the course of the narrative, but his treatment of them is very delicate, and he proves conclusively that the hideousness of vice can be shown without offending the sensibilities of the most fastidious.

Castles in the Air. By LOUISE R. UPTON. New York: G. P. Putnam's Sons. $1.25.

THIS is one of the feeblest of all the mediocre volumes the year 1878 has bequeathed to the world. There is no plot—no story to speak of; the characters, with perhaps one exception, are weak and commonplace. The few incidents are improbable and uninteresting, and in fact the whole structure shows such a want of force and originality as to augur but poor success for this author's future efforts.

PORTRAIT OF LOWELL.—The publishers of the Atlantic Monthly have prepared for their subscribers an admirable life-size portrait of Hon. James Russell Lowell. It is uniform with the Atlantic Portraits of Longfellow, Bryant and Whittier, issued in previous years. It is far the best portrait ever made of Mr. Lowell, and as Mr. George William Curtis says: "The expression is most characteristic, and those who have hitherto known the poetry and not the poet, will like the poetry all the more now that they have seen the poet in so true a likeness."

Mr. E. P. Whipple, the Essayist, says: "The face is full of expression. It seems to me that every friend of Lowell, and every lover of his genius, will prize this portrait." Mr. Charles Dudley Warner, author of "My Summer in a Garden," calls it "a noble portrait of our Minister to Spain, poet, satirist, essayist, scholar." This admirable portrait is not offered to the general public, but is furnished to subscribers of the Atlantic Monthly, for one dollar, by the publishers, Houghton, Osgood & Co., Boston.

BITS OF GOSSIP.

THE BLIND PROFESSOR.—It is said of Prof. Fawcett, the blind member of Parliament, that no sooner had he recognized that he was hopelessly blind for life—he was shot in the eyes by a companion while out partridge shooting—than he determined that "it should make no difference," except perhaps that his career should be political rather than legal. Already entered at Lincoln's Inn, he relinquished, after some thought, a legal career entirely, and to the amazement of his friends proceeded to active political work. How completely his own opinion has been justified at the expense of that of his friends is now well known; but success could hardly have been predicted for the blind young man who, without money, connections, or political backing of any kind, came up to town on the death of Sir Charles Napier, and attended only by his secretary, took a committee-room and proposed to the electors of Southwark that he should represent them in Parliament. His courage, however, made him many friends, and he only retired from the contest when Mr. Layard was brought forward. Unsuccessful in his first attempt to gain a seat in Parliament, he made a second at Cambridge, which, as well as a subsequent venture at Brighton, resulted in defeat. At the general election of 1865 he contested Brighton again, and was then elected by a large majority. Again beaten at Brighton in 1874, he was shortly afterward returned for Hackney. Meanwhile he became Professor of Political Economy at the University of Cambridge, a post which he still holds.

ANNA DICKINSON TO LECTURE AGAIN.—Anna Dickinson, since her theatrical experience of last season, has been devoting herself to the study of French History, in which she had already become interested to an unusual degree, and at the solicitation of friends, she has consented to appear again on the lecture platform, and give, in a series of lectures, the result of her studies. Miss Dickinson has consented to this arrangement with reluctance, fearing that it might be said that she had given up her intention to follow the stage. Her lectures will be delivered in only the largest cities, beginning in New York, and her subjects for the series, which will include four lectures, will be "Joan of Arc," "Henry IV," "Voltaire," and "Danton." She will be under the management of the American Literary bureau. Miss Dickinson's return to the lecture field should not be construed into an abandonment of her theatrical aspirations. She attributes her ill-fortune theatrically to the treatment she received at the hands of the New York critics, and she has determined to wait for an auspicious time, and then to tread the boards again in characters of her own creation.—*N. Y. Sun.*

A GOOD SHOWING FOR AMERICA.—The thrift and industry of the people of New York city are clearly illustrated by the comparison of our savings banks deposits with those of three of the most economical and industrious nations of Europe, as follows, the figures being taken from the latest official returns at hand:

	Population.	Deposits.
New York City	1,100,000	$174,177,622
Switzerland	2,669,000	57,600,000
Austria	35,904,435	179,475,824
France	36,102,921	132,085,000

This comparison shows the thrift of the people of New York city in a light never before presented. The savings banks deposits of New York city, with a population of 1,100,000, are more than three times greater than those of Switzerland, with a population of 2,669,000; are within $5,298,201 of those of Austria, with a population of 35,904,435, and are $42,092,623 in excess of those of France, with a population 36,102,921.—*N. Y. Express.*

NO HARD TIMES IN "TEMPERANCE" VILLAGES.—Mr. Wm. E. Dodge, the well-known manufacturer and merchant of this city, when recently before the congressional labor committee as a witness, said that his firm employing some 2,000 persons, made it a rule that persons engaged in their manufacturing villages should not use intoxicating drinks. As a consequence there was no complaint of hard times among them. The villages named by him were Ansonia, Conn., Dodge Mills near Williamsport, Penn., Tabyhanna Mills, Warren County, Penn., St. Simon's Mills, Ga., Wabasheen Mills and Magnattiwan Mills, Ontario, Canada, and Collingwood Mills, Canada. Many of our employes, Mr. Dodge continued, are property owners. Some of them have been with us ten, twenty and twenty-five years. Our men have not suffered during this depression. They accepted wages which we could pay, and there has therefore been no special distress among them. Crime is practically unknown among them.—*Scientific American.*

HONEY sent to England in the comb over a month ago, for the first time, reached Liverpool safely on the 5th of December, and the experiment is pronounced successful. There were eighty tons in one ship, stored, says the Pall Mall Gazette, with some curiosity, "by American bees themselves into half a million neat little glass-sided boxes." That paper learns that the honey was the partial product of 12,000 swarms of bees, in which a large mercantile firm is interested, and which are distributed throughout the honey-producing sections of the United States in apiaries of 100 swarms each. "There seems to be no limit," it says, "to the provisions with which America is prepared to supply us. The first experiment of bringing honey in the comb on a large scale to Europe from America having proved successful, it will no doubt be repeated. Honey will even perhaps become with us, as it was with the ancients, an important article of food."

News of the Week

[NOTE.—The RURAL NEW-YORKER expresses no political opinions whatsoever. We merely furnish a *resume* of the week's political occurrences for the benefit of those who do not read the daily papers.—EDS.]

Monday, Jan. 13, 1879.

POLITICAL.

Congress returned from its holiday relaxation on Tuesday. There seems to be less disposition than usual in that body to talk for the sake of making political capital, and therefore more attention is being paid to business. It seems doubtful whether the bill for reorganizing the army will be passed. Much opposition has been expressed by prominent men against some of its provisions, chiefly on the ground that too much power is put into the hands of General Sherman. All hope of the passage of Mr. Edmund's electoral bill, or any other measure on that subject, might as well be given up. The House Committee on this question has decided to report the Senate bill adversely, which kills it, and directed the Chairman to call up for early action the House bill known as the Southard bill. Mr. Southard hopes that his bill, which is now on the Speaker's table, will be reached as early as next week, but it is not certain that it will ever pass the lower branch, while if it should, it would probably fall in the Senate.

The Credit Mobilier suit, under a special act of Congress, authorizing the government to sue the celebrated ring to recover damages, has at length come to the end foredoomed, when Judge Shipman at the first trial at Hartford sustained the demurrer of the defence to the suit. The Supreme Court of the United States has sustained the demurrer, and the case falls to the ground. To turn a bad trade into a good by means of a long subsequent lawsuit is a task as hopeless for Congress as for anybody.

MISCELLANEOUS.

THE American railroad construction for 1878 amounts to 2,688 miles, the largest for any year since 1873. It has been mostly in the Middle and Northwestern States. The notable feature of New-Year's at Ottawa, Canada, was the absence of fuss and feathers at the Governor-General's reception. Gentlemen wore ordinary morning costume, and the Marquis of Lorne went about the room talking and chatting with a degree of familiarity which surprised every one. Capt. Tom Lewis, the last survivor of the Lewis and Clark exploring expedition, which did so much towards opening up the West, was frozen to death in Albermarle County, Va., this week. The amount of seeds distributed generally throughout the Union last year by the National Agricultural Department was nearly 2,000,000 papers of vegetable seeds, 300,000 papers of flower seeds, 3,000 papers of tree seeds, and about 5,000 bushels of grains in quart packages. For the purchase and distribution of these seeds $65,000 were expended. About 300,000 copies of the Report of the Department for 1877 are said to have been published a couple of months ago, and of these 25,000 are reported to be still on hand. They contain a good deal of agricultural information, and farmers should send for copies.

New York State has 1,100 establishments for factory dairying, with 28,000 dairymen as patrons, representing 308,350 cows, producing 3,210,000 pounds of butter, and 99,032,750 pounds of cheese. Of these 23,000 dairymen, not over six have any time to waste on politics. A butter and cheese firm of this city, after several days' labor, has ascertained the amount of cheese now in store in New York to be 396,467 boxes. Some of the western roads are contemplating carrying storm signals on trains for the benefit of farmers. This will knock the family almanac higher than a kite. The message of the Governor of Tennessee favors a prompt settlement of the State debt at fifty cents on the dollar, as suggested by the State's creditors.

The Mormons have long insisted that as the lawfulness of polygamy was a part of their religious belief, Congressional laws against a plurality of wives in their case were unconstitutional, inasmuch as the Constitution forbids interference with religious beliefs. The constitutionality of the laws of Congress against polygamy in the Territories has, however, been at last definitely affirmed by the Supreme Court of the United States, and the pet institution of the Mormon religion will feel the restraints of law draw closer and closer around it. The fact that marriage goes outside the sanction of law, when more than two persons unite in it, and becomes a mere lawless concubinage, conveying no rights and depriving offsprings of legitimacy, will, in the long run, prove too heavy a load for the Mormon church to bear. Woman will revolt from it. Now let the United States courts apply the steady educational pressure of legal restraint.

A considerable increase in immigration to America is shown by the figures giving arrivals at New York during 1878. The total for the year, 121,695, is yet far short of those of a few years ago, but 25,000 greater than that of 1877. The dawn of better times here and growing depression across the Atlantic, together with the political persecutions in Germany, will doubtless largely increase the immigration this year.

The cold spell seems to have relaxed in most parts of the country, and now floods and their disastrous results are succeeding the miseries of a heavy snow-fall. The Ohio is already unusually high and rising and unless a sharp frost locks up the melting snow, much loss must occur. Reports from the Southern States show that the cold there was unusually severe. We are told the mercury stood at 20° above zero in New Orleans Sunday night, which is the lowest since 1857; at Vicksburg, Miss., it was at 12° above; at Jacksonville, Fla., there was sleet and ice, and skating for the first time in twenty years at Atlanta, Ga.

Reports from the fruit sections of Florida show, however, that the orange crop and trees were not changed by the recent cold snap.

The public debt statement is as follows:

Six per cent. bonds	$657,846,200	
Five per cent. bonds	703,266,650	
Four and half per cent. bonds	250,000,000	
Four per cent. bonds	198,700,000	
Total coin bonds		$1,809,812,850

This sum bears interest, but the following items do not:

Lawful money debt	$ 14,000,000	
Matured debt	22,446,460	
Legal-tenders	346,743,051	
ertificates of deposit	34,515,000	
Fractional currency	16,108,154	
Coin and silver certificates	24,076,830	
Total without interest		$ 421,443,035
Total debt		$2,267,702,345
Total interest		24,841,793
Cash in treasury:		
Coin	$224,865,477	
Currency	4,515,550	
Currency held for redemption of fractional currency	10,000,000	
Special deposits held for redemption of certificates of deposit	34,515,000	
Total in Treasury		$ 273,896,027
Debt less cash in the Treasury		$2,028,648,111
Increase during December		1,223,785
Decrease since June 30, 1878		7,138,720

Prices of produce and provisions at Chicago on the 1st of October of each year from 1860 to 1878, inclusive:

	Mess Pork. Price per bbl.	Lard. Price per lb., cts.	Wheat. Price per bush.	Corn. Price. per bus.
1860	$18 50	12½	$1 00	43
1861	18 50	7¼	85	21
1862	9 00	7½	96	33⅓
1863	13 50	10	1 05	75
1864	42 00	18	1 41	$1 24
1865	38 00	20	1 32	57
1866	32 00	17½	1 90	64
1867	23 50	13¾	1 86	1 02
1868	28 75	18¾	....	....
1869	32 50	18	....	....
1870	25 00	15¼	1 06	64
1871	13 00	9¾	1 23	47
1872	14 25	8½	1 18	35
1873	14 25	7¾	1 00	36
1874	20 87	14½	94	82
1875	22 50	13¾	1 11	55
1876	16 50	10¼	1 06	44
1877	14 25	8¾	1 10	43
1878	7 87	6⅝	87	34

The prices of these products, throughout the country, have borne the same proportion with those at Chicago in all these years, as at present.

The following average of retail prices in several towns East here, will show the difference in the figures at which the chief necessities of life can be bought at the dates mentioned:

	1860.	1865.	1878.
Flour	$8 00	$20 00	$8 00
Butter	23	60	23
Pork	12	30	12
Tea	50	1 50	50
Sugar	11	16	10
Fish	4	12	6
Beans	6	12	8
Cotton cloth	14	33	8
	$9 20	$23 13	$9 17

FOREIGN.

Across the Atlantic distress and starvation are on the increase in England. Owing to the large number of people idle, the threatened strikes on reduction of wages, have generally been postponed. In Germany the political troubles still continue; there is an alarming stagnation in business; and Bismarck is still urging a strong protective tariff as a remedy for this evil. He has also lately framed a law to do away with the freedom of speech in the Reichstag, or legislature of the Empire, the only spot in its broad extent where liberty of speech is now tolerated. He wishes the enactment of severe penalties against all those who may say anything there displeasing to the Government. France is more prosperous apparently than any country in Europe. The winter in the British Isles and all over the Continent continues unusually severe. Snow storms are frequent and heavy and the coast has lately been visited by several disastrous hurricanes. This morning's cablegrams intimate that that Manitoba cold wave of ours has just finished its journey across the Atlantic and is now giving a strong taste of artic weather to our cousins beyond the water

Shere Ali is on his way to St. Petersburg where he will beg the Czar to intervene in his behalf with Great Britain. His request, however, will not be granted in that quarter, but it is said that he may be more successful with the Emperor of Austria, as the latter country is looked upon as the friend of England, and can therefore intercede for the Ameer with a better face and chance of success. The English in Afghanistan have captured Candahar, and have informed Yakoob Khan of the terms on which peace may be concluded.

The oft-repeated story that the French Provisional Government of 1870 under Gambetta stole or lost a sum of $49,200,000 has been finally set at rest by an official investigation and statement. One of the worst taunts of the Imperialists and Monarchists against the one-eyed Jewish statesman is thus silenced for ever—if calumny can ever be silenced. Germany had two hundred and sixty sugar factories in full work during September. The yield of beets in both Germany and France last year was inferior to that of 1877. The selling of beets according to the relative density of the juice is making its way in France, and promises to become popular, as it will protect both the farmer and the manufacturer. Don Baldomero Espartero, duke of Vittoria, who for two or three generations took a prominent part in Spanish affairs both as a soldier and statesman, died at Madrid on Wednesday. He was born Feb 27, 1792, at Granatula, near Ciudad Real, in La Mancha.

It is uncertain when the widow of Minister Bayard Taylor will return to America, her landlord refusing to allow her to surrender her house until the expiration of the lease. For a long time the raising of tobacco has been prohibited in Great Britain in order to enable the Government to realize the greatest amount of revenue from taxes on its importation. It is now proposed to allow it to be cultivated in order to give employment to the people who are out of work, and also because farmers there, too, are on the outlook for something to cultivate, which will yield a little more profit than many of their present products. During the recent war 594,000 Russian soldiers poured down through Roumania into Turkey. Of these, 58,800 were sent back by rail wounded and 62,150 ill, 31,000 sick went back home to Odessa by sea, 29,000 are still in hospital, 31,000 laid their bones in Roumania, and 99,000 perished in Bulgaria.

Many American writers seem to believe that the vast indemnity exacted by Germany from France at the close of the war of 1870, is no longer a burthen upon the latter country—that the debt has been entirely wiped out. In this, however, they are egregriously mistaken. France, it is true, promptly paid the amount to Germany, but to do so she had to borrow it from others—chiefly from her own citizens, though a great deal of the money was loaned by English capitalists, some by Germans and not a little by other Europeans who wanted a good investment. During the six months of active hostilities between France and Germany the indebtedness incurred on account of the war amounted to five hundred and seventy-three million dollars, when the payment to Germany of an indemnity of one billion dollars was agreed upon. To meet this, the French Government, during 1871 and 1872, borrowed one billion six hundred and forty million dollars, agreeing to pay five per cent. interest. This amount, by reason of discounts and other expenses, was reduced to one billion one hundred and forty-five million dollars. This was the way in which the German indemnity was raised. Not one dollar of this money has been paid to the creditors, and interest is still being paid on the entire amount. France, in addition, has a large funded debt, always increasing by reason of deficiencies in the revenue. Her public debt has increased nine hundred and forty-six million dollars in the last three years. Her interest account is largely in excess of ours, and, did they borrow at the same rate as we, it would be further increased. The French Government can borrow at three per cent, while ours pays four. The impression that France has paid off her debt, by issuing paper, is utterly groundless. She still owes the money raised for the German indemnity, and much more beside.

Domestic Economy.

CONDUCTED BY EMILY MAPLE.

NOTES.

— Pie is an enemy in ambush.

— *Interest* is the spice of housekeeping.

— Oil of cinnamon will cure warts.

— Do not put mussy butter dishes upon your table.

— Newspapers are excellent for polishing glassware and windows.

— A salve made of equal parts of lard and gunpowder is recommended for frost bites.

— Old boot-tops cut into suitable size and lined, make very good ironing holders.

— Dip candle molds into hot water for an instant before drawing.

— Marion Harland says: "Between butchers and cooks, there is enough wasted in American kitchens to supply a national soup-house that might feed all the poor in the land."

— Mrs. Henry Ward Beecher says: "If parents would learn in time that over-indulgence in childhood brings to their children in later life only an inheritance of regret and disappointment, how many lives would be made happy and cheerful that now, through over-indulgence, are utterly wrecked and useless."

MOP-HANDLE PAPERS.—No. 11.

MAY MAPLE.

Grandma's Lamentation.

"STRANGE as it may seem, it is no less true, that there is always a black sheep in every well-to-do flock," said Grandma Dalton, as she took up her knitting work and seated herself in the warm, cozy corner of the sitting-room, always reserved for her when she made us her annual visit. "Now anybody that ever seen me at home knows," she continued, "that I never could endure slipshod, slovenly habits; and I never could allow my girls to do their work in a careless, shiftless manner, while they lived at home. Now Patty and Lucy and Maria are as neat about their persons and tidy about their homes as any mother could desire, and I am proud to think they are my daughters. But there's Hellen, that we always dubbed "Beauty," on account of her fair face and symmetrical form, has been a disgrace to her bringing up ever since she was married.

"Why, the other day when I was there, I counted *five* empt'ins dishes settin' round the yard, half or two-thirds full of dish-water, 'left to soak;' and then there were three or four dough pans standing about with flour and dried dough enough in each one to make a good-sized biscuit. Now, Hellen was never allowed to leave her bakin' dishes in that shape when she was at home; but she always hated to wash dishes and do housework the worst of anything in the world, and now that she can do with her own as she likes, she forgets her home training. I have about made up my mind that old King Solomon did not know much about human nature, leastways of girl nature, when he said, 'Train up a child in the way he should go, and when he is old he will not depart from it.'

"It is no more work to clean an empt'ings' jar, than it is a breakfast plate, if it is put into a pan of water, bottom side up, as soon as the batter is all rinsed out that is needed for the bread; and then when the dough is molded into loaves, the jar can be washed with but very little trouble. There is no sense in leaving a thick scale of dough about the bread or cake pan. Almost every particle of flour can be kneaded or stirred in with the mass. I don't wonder so many people suffer for the common necessities of life, so much is left to go to waste through pure carelessness; and unless Hellen turns over a new leaf, she will yet eat the bread of poverty. She has already lost many friends by her slovenly habits. I can't see why, when one has come to years of maturity and knows how to do work well, she will not do it right even though it may be distasteful. She might do right for the sake of pleasing those she loves, if for no better motive."

"But a sloven is invariably selfish." And Grandma Dalton sighed over the weakness of her once beautiful daughter, Hellen. And well I knew she had reason to be sad, as have many mothers who see their life work marred by unsightly blemishes.

NEURALGIC TOOTHACHE

SOON after my restoration to health from a severe illness last fall, I was troubled with a pain in the face, that seemed to proceed from the teeth, but which affected the whole instead of one particular tooth. At intervals all ache disappeared, and I hoped forever; then, again, it returned with stinging sharpness, up to the temple and along the upper and lower jaw. Several friends, martyrs to neuralgia, told me I was finding out how bad it was, for the first time, and for the benefit of many who may suffer in like manner, I write down my cure. One evening while the pain was very severe, I happened to read in a newspaper that an eminent physician had successfully tried powdered quinine. He dipped his finger in clean water, then into the quinine, and what adhered he rubbed along the gums, keeping it in the mouth as long as the bitter taste could be endured. Repeat, if necessary. I tried it faithfully—it was oh! *so bitter*, but the pain went away, and I hope others who may be similarly afflicted will find relief in the same way. ANNIE L. JACK.

MENDING RAG CARPETS.

WHEN my mother was sitting at her work the other day, I wondered if any other house-mother had mended her rag carpet as she was doing. When there comes a break in it, if the warp is broken, she ties the same kind of warp to one end of one thread at a time, and then across the break to the other end of the broken warp. Always be sure to tie what the men call a flat knot, so it will not slip. Bridge across thus each separate thread of warp. Then with the tape needle weave in carpet rags, going over one thread and under the next, across then back and so on until the break is all filled in. By so mending your neighbors will never know your carpet is patched. If your are careful you can weave in the ends of the warp with the rags so there will be no ends to give it a ragged look. Yes, I will say rag carpets do pay and if the rags are cut even and fine, and nicely colored, and woven in fine strips, they are pretty too. A WISCONSIN WOMAN.

SKINS FROM PEACHES.

IF Mrs. J. W. L. will place her peaches in a large wire basket and plunge them first into a kettle of *boiling* lye, strong enough to bear up an egg, and then into a tub of cold water, she will find little trouble in removing the skins. Experience will enable her to determine how long they should remain in the lye to eat off the outside skin. Plenty of water should be used in rinsing. Rub off the skins in the first water and throw the peaches into a pail of clean water. MARY B.

CARPET SWEEPERS.

WE have used a carpet sweeper in our family for four years, and now would not be willing to keep house without one. There is no doubt in my mind, M. W. F., as to "their superiority over the ordinary broom" for *every-day sweeping*. It is true that they will not sweep in the corners, but even when using the common broom, a whisk is preferable for that purpose. In their use little or no dust rises to settle upon the walls, furniture, etc., and the expenditure of strength in their working is as nothing compared to that in broom sweeping. A friend who is too feeble to sweep her room the usual way, tells me that since the purchase of a sweeper a year ago, she has been able to care for her own room with but little fatigue. A sweeper will pick up hairs, threads, pins and needles, which a broom will pass over, and in the sweeping of heavy carpets, it supplied a want in our family long felt. I have not been able to detect that it wears out the carpets, neither am I prepared to state, as many do, that its use is attended with far less wear and tear than when the sweeping is done with a broom. I am asked if sweepers can be used to the entire exclusion of brooms, and I reply, no: that the Friday's sweeping of those rooms in constant use, will be more satisfactory if the broom is first used and then the sweeper rolled over to gather up the settled dust, broom-splints, thread, etc., which the broom may have left. E. M.

DOMESTIC RECIPES.

Orange Snow.

THE juice of four large oranges and one lemon; the grated rind of an orange and half a lemon. Soak a package of gelatine in a coffee cup of cold water; when dissolved add the juice and grated rind and a coffee cup of white sugar. Cover and let stand an hour; then pour on two and a half coffee cups of boiling water; strain through flannel; when cold whip in the beaten whites of three eggs; turn into a mold and set on ice.

Orange Jelly.

add a pint of boiling water; a pint of orange juice and a pound of white sugar; let come to a boil; strain through a jelly bag and pour into molds.

MRS. L. D. H.

Cayuga, N. Y.

Fried Tripe.

Dissolve a box of gelatine in a pint of cold water; Dip into beaten egg and then in cracker crumbs; fry until of a dark brown on both sides; take up

onto a platter; add a little vinegar to the gravy and pour over.

Kidney Stew for Breakfast.

Boil kidney with one onion chopped fine, until very tender; then take the kidney up and chop into bits; return to the fire; boil up and thicken with a spoonful of corn-starch; season with pepper, salt and a lump of butter and pour over little squares of toasted bread. It is best to boil the kidney the day before it is wanted for breakfast.

E. M.

OUR FREE SEED DISTRIBUTION.

SEEDS of the following varieties of plants are offered to our subscribers without any charge whatever (except for postage, a part of which we bear) until further notice:

DEFIANCE WHEAT. A hybrid spring wheat. The most promising variety ever before offered.

"PEARL" OR "EGYPTIAN" MILLET. One of the most promising fodder plants known.

BEAUTY OF HEBRON POTATO. According to many careful tests, this is ten days earlier than Early Rose, as good in quality, and more prolific.

THE VOORHIS WATERMELON. A specialty of the Rural Farm.

GOLDEN RURAL TOMATO. A specialty of the Rural Grounds.

ACME TOMATO. This is offered as the best of the newer varieties of Tomatoes to those who may prefer it to a trial of the Golden Rural.

NEW BRONZE RICINUS. Specialty of the Rural Grounds. The most beautiful Ricinus in cultivation. A cross between Ricinus Gibsonii and R. sanguineus.

HIBISCUS MOSCHEUTOS—the showy and beautiful Rose Mallow, never before offered so far as we know. Hardy.

CALLICARPA AMERICANA (Purpurea). The brilliant French Mulberry. Hardy.

HIBISCUS SYRIACUS. One of the most charming of hardy shrubs. Sometimes called "Rose of Sharon." Our seeds are saved from double-flowering varieties—many of them from seedling plants. They grow readily from seeds, and bloom as soon as plants would if transplanted from nurseries. The seedlings "sport" without end.

WEIGELA. Seeds saved mostly from seedlings. This is probably the finest hardy shrub in cultivation.

DEUTZIA CRENATA fl. pl. Seeds saved from seedlings at the Rural Grounds. Seventy-five per cent. of seedlings will bear double flowers. It is perfectly hardy and there is no finer shrub known for ornamental grounds.

HIBISCUS MILITARIS. Hardy and beautiful.

ERYNGIUM LEAVENWORTHII. The most striking annual of recent introduction. (See RURAL of November 9th for engraving of this and other plants, seeds of which we offer.)

GERANIUM SANGUINEUM. A true geranium of great beauty. Perfectly hardy.

YUCCA FILAMENTOSA. Every farmer and lover of plants should have specimens of this perfectly hardy evergreen liliaceous plant in his grounds. It is superb.

VITIS HETEROPHYLLA. See RURAL, Nov. 9, for description of this hardy vine.

RURAL HYBRID AQUILEGIAS. Beautiful, hardy perennials of great beauty.

GRINDELIA SQUARROSA. See RURAL of Nov. 9 for remarks.

OBSERVE.

Any ten of the above require a one-cent postage stamp:—that is, ONE *cent* for the ten, not for each except the Beauty of Hebron Potato, Pearl Millet and Defiance Wheat. The Beauty of Hebron requires a two-cent extra stamp and the other two a two-cent extra stamp also.

Other varieties *may be* added. We intend this free seed distribution to be the most valuable of its kind that has ever been gratuitously offered by any journal, and to introduce the above valuable plants to the homes of farmers and horticulturists in every part of our country.

WE offered, some time ago, to sell the cuts used in this Journal for twelve cents the square inch. Many have requested us to send proofs of our cuts. As we have upwards of ten thousand, we could not undertake to do so. Persons wishing to purchase, must select from files of the RURAL NEW-YORKER.

For Throat Diseases and Coughs.—"*Brown's Bronchial Troches*," like all other *really good* things, are frequently imitated, and purchasers should be careful to obtain the genuine article prepared by John I. Brown & Sons.

THE MARKETS.

PRODUCE AND PROVISIONS.

NEW YORK, Saturday, Jan. 11, 1879.

BEANS AND PEAS.—There is no revival in the bean trade, and with heavy supplies of mediums and marrows prices have declined, closing unusually weak for winter. White kidneys easier in sympathy with marrows. Red kidneys very firm for smooth, high-colored parcels. Black beans steady. Pea beans nominal. Green peas $1.30 on truck, and $1.55 in store. Canadian field peas quiet at 72@74c., in bulk and bond; Southern fl. E. peas, $2.60@2.70 per 2-bush. bag; Medium beans, prime, $1 40; good, $1 20 @1.30. Marrow, prime, delivered on vessel, $1.40@ 1.45; fair to good, $1.25@1.35; pea, $1.35@1 5; white kidney, $1.70@1 90; Red choice, $2.4 @2.50; other, $2 20@2 35; Black or turtle soup, $2.05@2.20.

Receipts of beans for week, 4,880 bushels; exports, 807 bbls.

BEESWAX.—There is nothing being done outside of small lots to shippers, quoted at 26@27c. for Western and Southern.

BUCKWHEAT FLOUR—Is plenty and easy, selling at $1 90@1.95.

BUTTER.—The market as yet has only a one-sided position, the demand being directed to finest qualities. Arrivals of both State and Western have been moderate, and a constant though not heavy drain upon the upper grades has made prices favor sellers. Single State dairies are no higher, but with the new figures for best grocery use fine full ends have been frequently broken off to meet the demand. Exporters have bid 2c less than at our last and have obtained some sound stock a shade below New York views of table quality at 23@26c. Exports for the week equal to 3,263 firkins. West Indian packers are using common State at 10@12c. State pails are no longer quotable as a quantity. Western creamery is very firm and quoted materially above State. Prices for market grades of Western, including dairy and reliable factory marks are firm. Rates for such grades are much nearer State than usual. Choice rolls are scarce; this style of butter seems to have lost its specialty among consumers to a great extent.

State, full dairies, special, 20c.; other, 16@19c.; firkin dairies, fair to prime, 15@18c.; Welsh dairies, fine full, 16@17c.; choice half tubs, 23@25c.; fair to prime do., 16@21c.; choice Welsh, 19@20c.; fair to prime, 12 @17c. Choice creamery 23@24c.; best western creamery, 33@33c.; other, 2@@3c.; early packed creamery, 17@20c.; poor State, 9@12c.; Western dairy, fine fresh, 18@20c.; fair to good, 10@15c.; factory, ladle packed, 17@18½c.; good, 14@16c.; other, 6@8c.; rolls, 8@15c.

Receipts for week, 20,150 pkgs.

CHEESE.—The imports this week have been 36,163 boxes; there has also been more interest shown by home trade buyers, and most grades are held rather steadier. The cheapest factories still hold relatively above fine grades with the stocks of special factories very moderate, and shippers wanting them. Good grades and extreme low qualities, however, have more call. Quotations are: 8½@9c. for fancy—special lots held at 9½c.; 8@8½c. for fine lots; 7½@ 7¾c. for good; 4@5c. for skimmed; State, farm dairy at 8@ 8½c. for fine; 7@7½c. for good to prime. Wisconsin factory, fine, 8½@8½c.; some fancy lots to 9c.; do. good to prime, 7½@8½c. Western factory, fine and fancy 7½@8½c.; good and prime, 6@7c.; do. full skimmed, 2@5c.

Receipts for week, 5,377 boxes.
Liverpool cable 45s.
Steam to Liverpool, 30s.

BROOM CORN.—There are free sellers on fair supplies, and a slow trade. Jobbing rates are 3½@4@4½ @5½c. for inferior to choice. Car lots do not exceed 4½c. for very best, and off grades sold as low as 3c. One car very poor sold at 2c.

COTTON—Has been very variable, as the Liverpool advices were favorable or otherwise, closing, however, strong; latest prices are for January, 9. 0@ 9.22c.; February, 9.43c.; March, 9.63c.; April, 9.77@9.78c.; May, 9.92@9.93c.; June, 10.03@10.04c.; July, 10.11@ and August, 10.21@10.23c.

Quotations for spot cotton are based on American standard of classification, and on cotton in store ranging in quality not more than half a grade above or below the grade quoted:

	Uplands.	*N. Orleans*	*Texas.*
Ordinary	7¾	7¾	7¾
Strict ordinary	7 13-16	7 15-16	7 15-16
Good ordinary	8 5-16	8 7-16	8 7-16
Strict good do	8¾	8¾	8¾
Low middling	8¾	9	9
Strict low middling	9⅛	9 3-16	9 3-16
Middling	9¾	9¾	9¾
Good middling	9⅞	9⅞	9⅞
Strict good middling	10	10⅛	10⅛
Middling Fair	10 11-16	10 13-16	10 13-16
Fair	11¼	11⅜	11⅜

STAINED.

Good ordinary	7⅛	Low Middling	8⅛
Strict good ordinary	8	Middling	8⅜

DRIED FRUITS.—In apples there is a light export movement in Ohio quarters but, outside of this there is very little interest shown and prices are not settled. Peaches are slow and unchanged. Small fruits generally are having but little inquiry. Quotations are:

Southern plums at 13½@14c.; State plums, 15@15½c.; Blackberries are quoted at 3@5½c. Peaches—Peeled Georgia, at 6@7c. for poor; 8@9c. for fair to good; 10 @10½c. for prime, choice North Carolina, 11¼@12½c.; good do., 8@10c.; unpeeled halves, 3@3½c.; quarters, 3@3½c. Pitted cherries, 22c. Apples—Old State quarters, 2½@3c. New apples, 2@2½c. for southern quarters in bags.; 3½@3¾c. for good and prime sliced; do., fair at 2¾@3c. State at 3¾@3¾c. for new sliced; and 3@3½c. for quarters; western at 2¾@3¼c. for new quarters. Raspberries, 22c.

Exports, past week, 370 bbls. apples.

DOMESTIC FRUITS.—Apples are somewhat stiffer; that is, the demand is running upon selected sorts. This is usually the case after a severe frost. Greenings are selling more briskly. Choice Spitzenburgs not plenty and may suddenly advance. Lady apples have only a chance sale now there is no regular quotations. Selected Spitz. $1.75@2.12; other $1.25@ 1.50; Baldwins, $1.37@1.87; Spys, and Greenings, $1.25 @1 62; inferior, 75c.@$1. bbl. Cranberries quiet—late high rates have checked business. Fancy Cape Cod, bbl., $9; fair to prime, $7@8 50; poor, $5@6 50; N. J., crates, fancy, $3; other, $2@2.25. Catawba grapes, nominally, 6@7½c. Fla. oranges in good demand when in good order. A good many cases turn out poorly; high colored stem picked boxes, $5; for other the range is $1 15@4; bbls., 4@8. Pecans, Texas, 8@9c per lb. Hickory nuts, shellbark, lower, $2@2.50; Va. hand-picked peanuts, $1.10, other grades, 3½@5c.; shelled, 4@5c. Market quiet, as buyers stocked up freely during the holidays.

Export of apples for week, 3,345 bbls.

EGGS.—Supplies of fresh are small, but strong prices curtail trade. Early in the week 28c. was marked for Western, but 27c. is now extreme for State, Western or Southern. Limed have worked out well thus far, and prices are firm. Near points, 28 20c.; W. & S., 26@27c.; Canadian, 21@25c.; inferior, 23c. Limed, choice, 19@20c.; good to prime; 18@19c.; poor, 16@17c.

Receipts for the week, 2,8 6 bbls.; do. last week, 1,241 do.

ESSENTIAL OILS—Unchanged; rates to brokers: Peppermint in tin, $1 60; in glass, $2.30; sassafras, 44c.; wintergreen, $2.15; tansey, $2; wormwood, $3; pennyroyal, $1.25.

FEATHERS.—Live white Western geese 40@45c.; common poultry feathers not wanted.

FURS AND SKINS.—Prices remain firm but the catch this season is large, and exporters and other wholesale buyers do not commit themselves to sustain current rates. Interior purchases are known to be large.

	No. 1 quality. Nor. & East.	West & N. W.
Otter, ₱ piece	$4 00@ 5 00	$2 50@ 3 00
Gray Fox	90@ 1 15	90@ 1 15
Red Fox	1 00@ 1 30	90@ 1 20
Black Bear	5 00@ 6 00	4 00@ 5 00
Brown cubs and yigs.	1 00@ 2 00	1 00@ 2 00
Fisher	5 00@ 7 00	4 00@ 6 00
Mink, dark	1 00@ 1 50	50@ 75
pale	50@ 60	30@ 40
Muskrat, winter	10@ 12	9@ 11
— fall	8@ 9	6@ 8
— Kitts	@ 2	@ 2
Beaver, ₱ lb	1 00@ 1 25	80@ 1 00
Raccoon	50@ 60	35@ 50
Opossum	4@ 8	4@ 8
Skunk, black		1 00@ 1 15
striped		10@ 60
Wolf, mountain		1 50@ 2 00
prairie		50@ 60

Southern furs usually sell 15 to 20 per cent. below western.

FLOUR.—Trade has dragged a little the past week, and prices have been barely supported, although the receipts have been light. Neither the exporters or home trade buyers have shown much interest.

Latest sales are at $3@3.50 for inferior to strictly choice superfine state; $3.60@4.10 for very poor to good extra do., old lots and lines; $4 90@4.25 for good to very choice do., and fancy lots above this; $3.10@3.50 for inferior to very choice superfine Indiana, Iowa, Michigan, &c.; $3.60@3 90 for very inferior to good shipping extra do. and $3.90@4.25 for good to very choice extra do.; common to about choice white wheat extras, $4.00@5.00; choice to fancy do. at $5 00@5.75; red and amber winter wheat, very inferior to very choice trade and family, $3.90@5 60; round hoop Ohio at $3.85@4.25, and trade and family grands at do. at $4.25@5.60, the latter rate for very choice; St. Louis, $4.00@4.75 for very poor to good extra, and $4.75@5.60 for good to choice; Minnesota clear, very inferior to fancy, at $3.50@ 5.00; few brands going above $4.50; Minnesota "straight," inferior to fancy at $4.40@5.60; and patent fair to strictly fancy at $5.25@8.25, few brands going above $7.50; unsound stock at from $2.00@4.75; city mill extra at $4 60@5.00 for West Indies (the latter rate for fancy in new packages); do. for England $3.65@3.80; do. trade and family extras, $5.10@6.00; do. for South America, $5.00@5.50 for fair to very choice; No. 2 at $2.40@3.00 for inferior to fancy.

CORN MEAL.—Sales at $2.75@2.85 for Brandywine and $2.25@2 35 for yellow Western.

GRAIN.—Wheat has gained a little in price on small receipts, and somewhat improved export demands.

Latest sales are of ungraded spring at 85@86c.; rejected at 77c. No. 3 spring at 89¼@91; No. 2 Milwaukee spring, strictly prime, at $1.01; ungraded amber at $1.03@1.11½, No. 2 amber at $1.05½@1.06; No. 1 red at $1.10½; No. 2 red at $1.10¼@1.10¾; No. 3 red $1.03@ 1.05; ungraded red at $1.05@1.10½; extra white at $1.11½; white State at $1.11@1.11½; No. 1 white, at $1.10¼@1.10¾; No. 2 white at $1.07¼@1.08; ungraded white at $1.07@1.11; No. 2 amber, January option, at $1 05¾@1.06; do., February option, at 1.07; No. 2 red, January option, at $1 10¾.; do, February option, at $1.10¾@1.10¾; do., March option, at $1.11¾. Corn has fluctuated a little, closing firm at for steamer mixed, at 43@45½c.; New York No 2 at 47½c., and do. in store at 46½c. for prime; New York No. 3 at 41¾@44¾c.; ungraded mixed at 46@47¾c.; New York No. 2 new at 45¾@46c.; New York steamer white at 45c.; No. 2, January option, at 47¾c.; do, February option, at 45¾@ 46c.; new No. 2, Jan. option, 46c.; steamer mixed, January option, at 45¼c.; do., February option, at 44¾c. Oats have been light and rule firm. Sales of New York No. 1 at 31¾@31½c.; New York No. 2 at 31½c.; New York No 2 white at 34¼@34¾c.; New York No. 3 quoted at 30c.; New York No. 3 white at 33c.; New Western at 33@35½c.; mixed do. at 31@31¾c.; white State at 31@35¾c.; mixed do at 32@35¾c.; No. 2 Chicago at 31@31½c.; New York extra white quoted at 38@39c.; New York No. 1 white at 35c. offered. State 6-rowed barley, 93c.@$1; 2 do., 78 @83c.; malt, 95c.@ 1.25, the higher price for Canada.

HAY AND STRAW.—There is a fair inquiry for prime stock, which is higher, and the general market is rather favoring sellers.

Sales at 40@45c. for shipping, and 70@80c. for retail qualities. Straw quoted at 40@45c. for long rye, and 30@40c. for short rye, and oat at 40c.

Exports, for week, 699 bales.

HONEY—Continues to drag even at the unprecedentedly low quotations. Holders are becoming anxious. Clover comb, single, 10@12c.; two do., 8@ 10c.; buckwheat, 7@9c.; strained, 6@10c.

HOPS.—There has not been as much done this week, or only 250 bales exported. This has been due partly to the severe weather. Holders views are firm, and it is impossible to get choice stock, except at full late rates.

Quotations are for New Yorks, new crop, choice, 13@15; New Yorks, new crop, good and prime, 10@13; New Yorks, new crop, low to fair, 5@9; Eastern, 8@ 13; Western, 8@13; Yearlings, 4@6; Olds, all growths, 2@3; Pacific coast, 12@15.

LEATHER.—Quotations for hemlock sole are 18½@ 20c. for light; 20@21c. for middle; 20@22c. for heavy, and 17@19c. for good damaged.

POULTRY AND GAME.—There is no demand for live and rates do not pay for shipments.

Chickens, 6@7c., lb.; fowls, 6@7½c.; roosters, 4@ 4½c.; turkeys, toms, 6@7c.; hens, 8@9c.; ducks, choice, pair, 10@87c.; other, 45@50c.; N. J. geese, $1.50 @1.62; other, 87c.@$1.37; pigeons, 25@30c.

Dressed poultry has not arrived heavily, but most of the far State and Western is badly frozen and sells low on account of bad appearance. Fresh-killed near-points have sold at good figures. The rough stock is likely to work out at the cheap quotations, as scarcely any of it is spoiled for cooking, owing to steady cold weather. Small turkeys only have a steady call. Geese almost a drug.

Turkeys, Jersey, good to prime, 11@12½c.; Western, 8@9c.; Phila., dry-picked, 12@14c.; Chickens, do., 13@16c.; Jersey, 10@12c; State and Western, 8@9c.; other, 6@8c.; Capons, large and choice, 20@22c.; small, and slips, 17@18c.; Ducks, Phila., dry-picked, 12@13c.; Jersey, 11@12c.; State, 9@11c.; Western, 8@11c.; Geese, Phila., dry-picked, 8@9c.; Jersey, 6@8c.; Maryland, 6@7c.; State, 5c.; Western, 5@6c.

Quail continue abundant, and there is likely to be another full offering for the week. Grouse are easy, though a shade better than before. Wild ducks are out of attractive quality, and inside rates are mostly quoted. Hares and rabbits unusually plenty after the snows; prices low.

Quail, ₱ doz., 60@75c.; Grouse, trapped, ₱ pair, 60 @85c; drawn, 50@55c.; Partridges, State, 65@70c.; Western, 60@65c.; Eastern, 50@60c.; Wild Ducks, canvas-back, ₱ pair, $1.25@2; Red-head, 75c.@$1; Mallard, 50@60c.; Teal, 35@40c.; Black Ducks, 45@50c.; common, 20@25c.; Hares, 15@20c.; Rabbits, 8c.; Wild Turkeys, 16c.; Squab, $1.75@2.

OIL CAKE.—Western is lower, quoted at $27 per ton.

PROVISIONS.—Have been active and higher, on a falling off in the packing and diminished receipt; and considerable speculative activity.

Mess pork quoted at $7.40 bid and $7.55 asked for old for January; $8.75 bid and 8.90 asked for new for January; $7.45 bid and 7.55 asked for old for February; $8.75 bid and $8.95 asked for new for February; $7.50 bid and $7.65 asked for old for March; and $8.81 bid and $9 asked for new for March; and $8.85 bid and $9 asked for new for April; and May at $8.90 bid and $9.10 asked. Bacon at 4¾c. for long clear and 4¼c. for short clear. Lard, western steam, at $6.10 for spot lots; $6.07½@6.10 for January; $6.10@6.12½ for February; $6.15@6.17½ for March; $6.20@6.22½ for April, and $6.22½@6.25 for May. Stearine at 8¼. for prime. Tallow at 5¾ for prime. Beef Hams at $14.50@14.75 for Western. Beef, extra India mess, $21 for city brands; do. Philadelphia, $18.00@19; packet at $11@11.50; plain mess at $10@10.50; extra mess at $10.50@11.50.

SEED.—Grass is quiet; clover quoted 6¼@7c. for prime to strictly choice medium; timothy at $1.25@ 1.30. Flaxseed at $1.42½.

SUGAR—Refined at 9⅛@9¾c. for powdered, crushed and cut loaf; 8⅝@9c. for granulated; 7¾@8¾c. for soft white, and 6@7¾c. for soft yellow.

VEGETABLES.—Potatoes have had a start during the week and prices are firm at the close. Peach Blows scarce and wanted. Onions have advanced. Other vegetables firm with this date of winter.

Nova Scotia E. Rose, bulk, or 175 lbs. to bbl., $2.50@ 3 per bbl.; Poullic and Chili red, $2.25@2.50; P. E. I. Jackson whites, $2@2.25; Mercers, $1.75@2; Eastern E. Rose, with bbl., $2.50@3; State, $2.00@2 62; fair to good, $2@2.37; do. Peach Blow, choice, $2.75@3.12; common, $2.25@2.50; Pearless, choice, $2.37½@2.50; poor to good, $2@2.25. Sweet potatoes, Del., $2@2.25; Onions White, $2@2.75; red and yellow, $1.50@2; Chester $1.25@1.62. Hubbard and marrow squash, $2@2.25; Cabbage, $5@7 per 100. Cauliflower, bbl., $1.50@3. R. Turnips, 75@85c. Beets, 75c. Carrots, 75c. @$1. Celery, 60@75c. doz. Extras; hot-house Radishes, $3 ₱ 100 bunches; Cucumbers, $2.50@4 doz.; Mushrooms, 40@50c. lb. Lettuce, 50c. doz.

Exports, potatoes, past week, 1,010 bbls.; onions, 270.

WOOL.—There has been but little done since the opening of the year, but holders regard the market as in fairly good shape; with moderate stocks, confident of being able to support at least current prices.

Domestic Fleeces: Ohio, Pennsylvania and Virginia—XXX and picklock, 37@39c.; XX, 34@35c.; X, 33 @34c.; No. 1, 35@36c.; No. 2, 30@32c.; common, 28@30c.; combing and delaine, 36@38c.

New York, Michigan, Indiana and Wisconsin—XX, 31@32c.; X, 31@33c.; No. 1, 28@30c.; No. 2, 29@30c.; common, 27@28c.; combing and delaine, 31@ 7c.

Iowa, Vermont and Illinois—X and XX, 28@31c.; No. 1, 32@34c.; No. 2, 27@30c.; combing, 33@36c.

Missouri, Kentucky and Tennessee—Washed fleece, 26@31c; unwashed fleece, 21@26c.; unwashed combing, 2 @27c.

Stocks of wool in this city, January 1st, estimated 5,807,000 lbs., against 6,275,000 do. Jan. 1st, '78.

LIVE STOCK MARKETS.

Saturday, Jan. 11, 1879

BEEVES.—Receipts for the week, 6,817 head do.; last week, 10,295 do. Supplies have been extremely light. Stock has sold about as fast as it arrived, the closing range, 7@10c., dress 54@57 lbs. The top price was regarded a good one as nothing very extra in quality was showing. Exporters paid 9¾@10c. Fair quality native steers quoted 8c.

COWS AND CALVES—Arrivals are of no account; old prices $35@75 per head, nominal.

VEAL CALVES.—Demand for live light as dressed are abundant and easy. N. J. and Buck's Co., choice, 7c.; other, including State, 5½@6½c.; fed, 4@5c. Much of the dressed supply has arrived frozen, which hurt their sale the range is 5c. to 9c. for coarse to extra.

SHEEP AND LAMBS.—Receipts for the week, 15,971 head: do. last week, 19,358 do. The market shows some improvement for sheep as supplies have been moderate. Western range 4½@5¼c; N. J., including ewes, 4@5c. Lambs, 5¼@5¾c.

HOGS—Receipts for the week, 23,261 head: do., last week, 38,346 do. Fair to good Western hogs, nominally, $3 50@3.70 per 100 lbs.

Country dressed pork, light, 4¾@5¼c.; lean small pigs, 5¾c.; medium, 4¾@4½c.; heavy, 4c.; city, 4c. Pork tenderloins, 7c.

We take the following interesting table from the N. Y. World:

RULING PRICES IN CENTS PER LB. FOR PRIME BEEVES, SHEEP, LAMBS, SWINE AND DRESSED HOGS FOR EACH WEEK DURING THE YEAR 1878.

Week Ending.	*Beeves.* Prime.	*Beeves.* Average	*Sheep prime.*	*Lambs prime.*	*Live hogs, the best.*	*Dressed hogs, the best.*
		Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*
Jannary 7	10¾@11¼	9⅞	6½	6¾	4¾	5⅞
" 14	10¾@10¾	9¾	6	7	4½	5¾
" 21	10¼@10¾	9	5¾	7	4½	5¾
" 28	10¾@10¾	9¾	5¾	6¾	4⅝	5⅞
February 4	10¾@10¾	9⅞	5¾	7⅛	4⅝	5¾
" 11	10¾@10¾	9⅝	5¾	7	4½	5¾
" 18	10¾@10¾	9⅝	6⅛	7	4⅝	5¾
" 25	10¼@10¾	9	6½	7⅛	4½	5¾
March 4	9¾@10	8¾	6¼	6½	4⅝	5¾
" 11	9¾@ 9¾	8¾	6¾	7¼	4	5
" 18	10¼@10¾	9	6½	7¾	4¼	5⅝
" 25	10¼@10¾	9¾	6⅝	7⅛	4¾	5⅞
April 1	9¾@10	9	6⅝	7¼	37⁄8	5
" 8	10 @10¾	9¾	6¾	7	4	5
" 15	9¾@10	9¼	6¾	7¼	37⁄8	5⅛
" 22	9¾@10¾	9⅛	5½	10½	33⁄4	4⅞
" 29	9¾@10¾	9½	5½	10½	33⁄4	4¾
May 6	10 @10¼	9½	5¾	9	3¾	4¾
" 13	10¾@10¾	9¾	6	8½	33⁄4	4⅝
" 20	10 @10¼	9½	5¾	9¼	3¾	4¾
" 27	9¾@10	9¼	4¾	8	3½	4¾
June 3	10¾@10¾	9⅜	5	8	3½	4⅝
" 10	10¼@10½	9½	4¾	7½	4	5
" 17	9¾@10	9	4¾	7½	37⁄8	4¾
" 24	9¾@10	8¾	4¾	7½	4⅛	5⅛
July 1	9¾@ 9¾	8½	4¾	6½	4⅛	5¾
" 8	9¾@ 9¾	8¾	4¾	7	4⅛	5⅞
" 15	9¾@10¼	9⅜	5	6½	4¼	6
" 22	9¾@10	9	5¼	6½	4¾	6
" 29	9¾@ 9¾	8½	5¼	6½	5	6¼
August 5	9¾@ 9¾	8½	4¾	6½	4¾	6¼
" 12	9¾@10	8¾	4⅝	6	4¾	6¼
" 19	9¼@ 9¾	8½	4⅝	6	4¾	5¾
" 26	9¾@10	9	5⅛	6	4⅝	5¾
September 2	9¾@10	8¾	5	6	4⅝	6¼
" 9	9¾@10	9	5½	5½	4⅝	6
" 16	9¾@10	9	5	5½	4⅝	6¼
" 23	9¾@10	9	5¼	5½	4⅝	5⅞
" 30	9¾@ 9¾	8¾	5⅛	5½	4⅝	5⅛
October 7	9 @ 9¼	8½	5⅛	5⅜	4⅝	5⅛
" 14	9¾@ 9¾	8¾	5	5½	4⅝	5⅛
" 21	9 @ 9¼	8	5¼	5⅜	33⁄4	4⅞
" 28	8¾@ 9	7¾	5	5½	3¾	4⅞
November 4	9 @ 9¼	8	5	5½	3½	4⅝
" 11	8¾@ 9	7¾	4¾	5	3¾	4⅝
" 18	8¾@ 9	7¾	4¾	5	3½	4⅝
" 25	9 @ 9¼	8	5¼	5½	3⅝	4⅝
December 2	9¼@ 9¾	8¼	5⅛	5⅝	3⅝	4⅞
" 9	9¼@ 9¾	8¾	4¾	5½	3½	4
" 16	9¾@ 9¾	8½	5⅜	5⅝	3⅝	4⅛
" 23	9¾@ 9¾	8½	5⅜	5⅝	3½	4⅛
" 30	9⅜@ 9¾	8¾	5	5½	3⅝	4⅛

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Reading for the Young.

TALKS WITH THE CHILDREN—No. 2.

JENNIE E. J. ALGER.

DEAR LITTLE FRIENDS.—I have told you about the tiny Chinese shoe, but did not say what it was made of. Not of "French kid" or of thick, warm leather, but of silk or satin, embroidered with curious figures. Those I have seen were ornamented with what my baby niece called a "Cockel-do-del-do-o-o!" wrought with silk thread, and other curious pictures. They are sometimes embroidered with seed pearls. I think you will want to know how the little girls endure the torture of this cruel fashion. Strange as it may seem, some of them are anxious to have it begun, because they wish to be fashionable. Sometimes their feet will ache so badly that they will slyly slip off the bandages, which are replaced, however, as soon as this is discovered by the older members of the family.

A missionary, when writing one day, was much disturbed and distressed by the piteous crying of a child. When he could stand it no longer, he laid down his pen and went around the corner into a narrow, dirty alley, to find out what the trouble was. The child cried, "O Auntie, Auntie, don't do so, it hurts; it hurts so much! O-o-oh!" He pushed open a door that led into a court-yard, and there, on a high bench, sat a little girl about five years old. Her feet were dangling half-way to the ground, and the tears were pouring down her flushed cheeks. Seated in a chair near her was that dreadful Auntie, who held one of the child's feet in her hand, while the other hung down, so tightly bandaged that it looked more like a large pear, tied up in blue cotton cloth, than a naturally shaped foot. The old Auntie (I should call her a very naughty one) was looking very carefully at the other foot, especially the places where the little toes had been turned under. These parts were full of cracks and sores, into which she put powdered saltpetre to keep them from mortifying. Then she bound them up again and left the poor little thing sitting on the high bench, crying.

Rev. Mr. Houghton says that the skin often cracks or bursts just over the instep, and severe disease sets in; and, as it would be considered very dishonorable to have the foot cut off, it is not allowed, and the little sufferer soon dies. This seems terrible to us; but, I am sorry to say that we, or many of the ladies and girls of America, have a custom which is as bad (the Chinese say worse) and kills as many, to say the least. I hope no little girl who reads these letters will ever adopt the waist-pinching process. The bandages which are put upon the feet of the Chinese girls, must be worn all through their lives, as it would be impossible for them to move at all without them. Of course these beautiful (?) looted creatures can do no work. This is done by servants or other members of the household, who have natural feet. Not only the daughters of the rich people, but those of the poor mechanics, day laborers and farmers, have their feet bound, as the poor people think if their daughters have small feet, they may marry rich men and live without work.

It seems that the girls sometimes, if not always, make their own shoes, for, in the "Girls' Classic," which is written for their instruction, we find that they are commanded to "diligently make shoes or sew seams." In this we also find the question, "Why are your feet bound?" and the answer, "Not because it looks well for them to be arched as a bow, but to prevent your constantly going out of the house-door; therefore they have a thousand bandages and ten thousand wraps."

One would not think that a person with such small feet could go over very much ground in a day, but it is said that they will walk ten or twelve miles in that time on their way to and from some sacred temple, or when making visits to their friends. On their way to some temple, I say, for they worship idols. You would be surprised if you could see a collection of idols from different heathen lands. I have seen some no larger than the end of your little finger, and they are all the way from that size up to the large ones found only in temples. Horrible looking images they are, too; I have never seen a good-looking one. Nothing but the light of the Bible and the teachings of the Gospel will banish idol-worship. I hope you will help to give them these that they may learn the way to Heaven.

THE ANSWERS.

THE success of my questions, and the interest shown in the competition are very gratifying. I only regret that I cannot give a book to every competitor. Many of the unsuccessful aspirants have answered their questions comprehensively and in a way that indicated that they had thought twice on the subject. Others have been very careless, as for instance, giving the number of square inches instead of feet in an acre. Again, those who had started out on the right path failed because they did not keep to the strict limitations of the question. This was particularly the case in questions five and ten, and I have stretched a point by giving fractions of a mark when but a part of the question was correctly answered. I regret, also, to have to discriminate against two competitors, throwing out their answers; not being subscribers they are manifestly not entitled to participate in the competition. One young gentlemen writes me that he "indeavered" to supply correct answers, but it is plain why he failed. I only regret one circumstance, and that is that I did not put more difficult questions; but that can be easily remedied in the future.

The prize winners are Miss S. M. Potter, Syracuse, N. Y., and Miss Mary Jack, Chateauguay Basin, Canada. I shall give Miss Jack's answers, as I consider them the best received, and it is unfortunate she should not have remembered that Harley, Earl of Oxford, and not Sir John Blount was the originator of one of the greatest swindling schemes on record. The prizes will be mailed to-day, and I should like to send in the same package the felicitations of UNCLE TRUE.

ANSWERS BY MISS JACK.

1. Tennyson's Princess.
2. From zoon, animal, and logos, a discourse.
3. 43,560 square feet.
4. Byron.
5. Lucius Junius had received an excellent education from his father and had, naturally, strong sense and an inflexible attachment to virtue, but knowing that Tarquin had murdered his father and eldest brother, he counterfeited a fool in order to escape the same danger and obtained the surname Brutus.
6. Jason was a prince of Thessaly, who, with the aid of Medea, brought away from Colchis the Golden Fleece, which was guarded by a sleepless dragon.
7. By the first, the waters of Egypt were turned into blood; by the second, the frogs were sent in such numbers that they literally covered the land; by the third, the dust of the land became lice, on man and beast; by the fourth, a swarm of flies grievously infected Egypt; by the fifth, a murrain or distemper among the cattle, of which most of them died; by the sixth, the Egyptians, both man and beast, were afflicted with boils; by the seventh, God caused a very grievous hail—such as had not been in Egypt from the foundation thereof until that time, to fall upon man and beast; by the eighth, innumerable locusts destroyed the vegetation and ate up every blade of grass, nothing green remaining; by the ninth, thick darkness prevailed over Egypt for three days; by the tenth, which was yet more dreadful, more immediately affecting Pharaoh, for at mid-night the Lord smote all the first-born in the land of Egypt;—there was not a house in which there was not one dead.
8. Sir John Blount.
9. 6,069,000,000,000,000,000,000 tons.
10. Charles Mackay says, of "Tubal Cain," "And he sang—

"Hurrah, for my handiwork!"
And the red sparks lit the air
Not alone for the blade was the bright steel made,
And fashioned the first plowshare.

The first plows were said to be of wood—something like a forked stick.

I enclose a sketch of a wooden plow, used in Canada fifty years ago.

CULTIVATE GOOD MANNERS.

UNCLE TRUE.

I AM especially desirous that all the Cousins should be ladylike and gentlemanly in their conduct. By this I do not mean to say that they are not so, but we all know that even the best people may occasionally say or do things for which they afterward are sorry. It is mistakes of this kind I wish to guard against.

You will no doubt agree with me when I say that this may best be done by forming proper habits and manners in childhood and establishing them so firmly that one will do the right thing automatically and without effort.

The Scandinavians have a saying, "Hvad man I Ungdommen nemmer, man sjelden I Alderdommen glemmer," that is, whatever habits, manners or lessons are learned in youth, are apt to cling to one through life. (It might be translated, "As the twig is bent the tree is inclined.")

This being true, and knowing that those who are always pleasing and agreeable will get along in the world much better than the uncouth or careless, you will understand the importance of attending to these apparent trifles.

Just notice two boys, the one rude, noisy, selfish and overbearing, the other polite, respectful and pleasing in his manner, and of the two you have no hesitation in choosing the latter for your friend, while you naturally avoid the company of the former. It is exactly the same way among grown people. A true gentleman may always be recognized by his good manners, and his respect for the rights and feelings of others. But I did not mean to "lecture" you. Hoping, however, you will think of these things, I add a few rules of conduct which are often violated:

Shut every door after you, without slamming it. Never stamp, jump or run in the house.

Never call to persons up-stairs, or in the next room. If you wish to speak to them, go quietly where they are.

Always speak kindly and politely to others, especially to your playmates, if you would have them do the same to you.

When told to do, or not to do a thing, by either of your parents, never ask why you should or should not do it.

Tell of your own faults, not of those of your brothers and sisters.

Carefully clean the mud or snow from your boots or shoes before entering the house.

Be prompt at every meal.

Never sit down at the table, or in the parlor, with dirty hands, or with uncombed or tumbled hair.

Never interrupt any conversation, but wait patiently for your turn to speak.

Never reserve your good manners for strangers, but be equally polite at home and abroad.

Let your first, last and best confident be your mother.

Never smoke, chew nor snuff tobacco in any form, on the streets, or in any public conveyance, or in any place whatsoever.

TO OLD AND YOUNG.

WE publish the following extract of a letter from M. Oakey, A. M., Principal of Jamesburg Institute, Jamesburg, N. J., because we sincerely concur with his views, and desire to call the attention of our readers to the subject. Having mentioned some business matter, he says:

"If suggestions are not out of place, (I know how many different courses of advice a journal *feasts* upon as an annual diet), I would like to give you a hint here, at what seems to me to be a field unoccupied at present. It seems unkind to hint at anything further, after the improvements you have made, for I think you are earnestly and really working for the good, and not only the dollars, of your subscribers. These youths (meaning farmer's boys) ought to be attracted to the RURAL.

"First, because it is better to furnish them with improved 'notions' of farming before they are prejudiced towards 'father's ways.'

"Second, they need the wholesome influences which the RURAL exerts upon its readers—most all of the current literature put in their hands unfits them for steady toil and tends to fret them under their necessary labor. I have long used the 'moral' and 'homelike' illustrated periodicals as assistants in their education. It is wonderfully efficient.

"Third, and perhaps the strongest reason for the RURAL is, that the RURAL would secure lasting friends in those who grow up with it as an associate, and thus a broad foundation is laid for future and continued success. If a man tells a neighbor he has taken 'such and such a paper for so many years,' he uses the most powerful argument possible for the paper's acceptance and spread. I know you have a column devoted to 'Reading for the Young,' but it has not in the past occupied the prominent position I would suggest for it."

Now, it is our desire to make the "Reading for the Young" as instructive, interesting and admirable as it is possible to make it; and to this end we invite suggestions from all of our readers, who are interested in this department of the RURAL. It should please us much if parents would show their interest in the subject by writing to us, and inducing their children to do the same. Uncle True will be glad to answer through the RURAL, as far as space will permit, all intelligent questions put to him by his many relatives.

SINGULAR HANDWRITING.

PROMINENT among distinguished living Americans is the young inventor, Prof. Edison. He has invented a style of writing, which though peculiar, is capable, in his hands, of being written with great rapidity. While in Virginia City, Nev., the Professor stepped into a telegraph office and gave an exhibition of his penmanship. A local paper thus describes it:

One of the boys asked him to put his name in an autograph album. He wrote a line that looked like print, and signed his name to the bottom. Everybody admired the marvellous penmanship, which was emphatically, a new style. The letters were awkwardly made, taken singly, but when grouped in a line, all looked exactly alike as if engraved on copper-plate.

"You couldn't take thirty words a minute and print like that," said one. "I can take forty," was the reply. The fastest operator present took one end of a wire, and Edison, sitting at the receiver, picked up a sheet of paper and said, "Let the message come." He sat there three minutes and took one hundred and thirty words with apparent ease, doing better than he promised. The dispatch was written in the faultless hand that graced the autograph album.

Practice and care at any endeavor, will give one proficiency like that.—American Rural Home.

"WANTED, A BOY!"

A TRADESMAN once advertised in the morning papers for a boy to work in the shop, run errands, and make himself generally useful. In a few hours the shop was thronged with boys of all ages, sizes sorts and conditions, all wanting to find a situation.

The shopkeeper only wanted ONE boy, but how to get the right one was the great difficulty. He thought he must find some plan to lessen the number of applicants, and give him a better opportunity of selecting a good one. So he sent them *all* away, and thought the matter over a little. The next morning the papers contained the following advertisement:

"WANTED, A BOY WHO OBEYS HIS MOTHER!"

Now, then, thought the tradesman, I shall see soon who will apply. He also put a bill in his window with these words on it. And how many do you suppose did come? The story is that there were only two of all the numerous boys seeking employment in that big city who felt that they could honestly come and say, "*I obey my mother.*"

The crowd of lads was indeed quickly thinned out most effectually, and the tradesman had not much trouble in selecting a boy.

Such boys as these—boys that obey their mothers—are in great demand. My little boy, if you saw an advertisement for such a boy, could you truthfully go and offer yourself for the situation? If not, I fear there is something wrong about you. Look to the matter; seek the Lord's salvation; be an obedient son, and God will bless you—*Children's Friend.*

AN OLD "SETTING" CAT.

FANCY the amazement of a mother-cat at having fifteen added to her family in the mysterious way here related:

At a farm-house not far from Newton Stewart, Orange County, Ind., a rather uncommon circumstance took place recently. A hen's nest had been made in an out-of-the way place, in which eggs to the number of seventeen had been laid. The cat took possession of the nest, covered the eggs over with straw, and there brought forth kittens. Puss and the kittens remained in the nest for a considerable time, and the result was that fifteen out of the seventeen eggs sent out birds. The cat was seen lying with its brood, but no one ever saw a hen near the nest, or knew the eggs were there until the birds came out. The gude wife was "uncoly ta'en" when the fifteen chickens presented themselves.—*Louisville Paper.*

Sabbath Reading.

HYMN.

REV. WASHINGTON GLADDEN.

LORD, I believe in Thee,
In want, in pain, in grief;
I trust Thee where I cannot see;
Help Thou my unbelief!

Thy law is in my heart;
With that I follow Thee;
If sin still rule the worser part,
Be merciful to me!

I trust my brother, too;
In him, though lost, I find
Some spark Thy breath may yet renew;
For Thou to him art kind.

All that are Thine are mine;
To save men Thou didst come;
Live in my life, O Love divine,
Then I, too, may save some.

[*Sunday Afternoon.*

THE APOSTLES' CREED.

I BELIEVE in God the Father Almighty, Maker of heaven and earth:

And in Jesus Christ his only Son our Lord; Who was conceived by the Holy Ghost; born of the Virgin Mary; suffered under Pontius Pilate; was crucified, dead and buried; He descended into hell; the third day he He rose from the dead; He ascended into heaven; and sitteth on the right hand of God the Father Almighty; from thence He shall come to judge the quick and the dead:

I believe in the Holy Ghost; the holy Catholic church; the communion of saints; the forgiveness of sins; the resurrection of the body; and the life everlasting. Amen.

SUPPLEMENTARY "CREDOS."

[Edward Everett Hale in a Recent Discourse.]

I HAVE no other objection to the so-called Apostles' Creed than that most people of to-day take it in much that fashion. For myself, I understand its words; and, so far as they go, I have no objection to the use of them, if you can only make people see that they go only to the statement of a part of the faith of the second century, when this creed got itself written. I have often repeated it in religious service. But I never repeat it without the wish that the decorum of the place would permit me to add aloud, what in my own heart I do add, "I believe all that; and, thank God, I believe a great deal more." I observe, for instance, that whoever made the Apostles' Creed omitted all reference to man's duty to man, which is, in truth, an essential part of religion. Some expression of it belongs in any statement of religion. And if I had the Apostles' Creed to repeat to-day, I should like to add to it the creed of one disciple of to-day. I should like to speak of a few of the duties which press on us now and here. I should like to say, for instance, for myself:—

I believe that every exile, on arrival here, should be welcomed at the pier, and the way made easy for him to his new home.

I believe that, in practical methods, the state should give a homestead to each husband and wife who are willing to work upon it to produce their daily bread.

I believe that the state should offer an education to every child born in it,—as good for the child of the beggar as the child of the prince.

I believe that every man has a duty to the state, and that no man should give up to party what was meant for mankind.

I believe that the blackman and the red man should be truly enfranchised, and have the same rights before the state as the whitest of us all.

I believe that every woman should be as pure as the mother of Christ, and that society should throw around woman every protection and help for such purity.

I believe that every man should be as pure as every woman.

I believe that every man tempted by liquor should receive from every one around him all possible help, protection and care.

I believe, thus, in the gradual abolition of sickness, disease, and famine; for

I believe, that the average age of man should be three-score years and ten.

That will do for a beginning. Such a statement as that expresses, in the language of to-day to the people of to-day, a part of the duty of to-day as it appears to men who live in the life of the large cities of to-day.—Springfield Republican.

MERCY is like the rainbow, we must never look for it after night; it shines not in the other world; if we refuse it here we must have justice in eternity.—*Bp. Taylor.*

FILLING up time with and for God, is the way to rise up and lie down in peace.—*Brainerd.*

As the shadow of the sun is largest when his beams are lowest, so we are always least when we make ourselves the greatest.—*Seeker.*

THE more believers love God, the more they love one another; as the lines of a circle, the nearer they are to the center, the nearer they are to each other.—*Charnock.*

A GOOD conscience is the palace of Christ, the temple of the Holy Ghost, the paradise of delight, and the standing Sabbath of the saints.—*Augustine*

No moment should be allowed to pass unimproved; for if *once lost*, it is *lost for ever*.—*Rev. R. Ray.*

WE wish it to be distinctly understood that we do not endorse all the religious ideas published in this column, our object is to give matter which will stimulate our readers to study questions of conscience and conduct for themselves.—EDS.

PERSONAL ITEMS.

Two daughters of Senator Sargent of California are studying medicine at the Howard University.

"I notice," said Prince Metternich to his wife, the best dressed woman of the second Empire, "that your bonnets grow smaller and smaller, and the hills larger and larger. One of these days the maker will bring nothing but the bill."

Alfred Ballard, a negro, was converted to Methodism in Jackson, Tenn. He conceived that his mission was to reform gamblers, and he became insane on that subject. Dashing into a faro room, he shouted, "Death to all gamblers!" and shot the dealer dead.

A lucky family is that of the Barings. The founder of the family was a trader in Exeter, England, a hundred years ago, and now the family holds a baronetcy, a baronage, a bishopric, and an earldom, possesses immense wealth, and has sixty livings in its gift.

"Old Abe," the Wisconsin war eagle, has earned over $50,000 for all sorts of societies by the sale of photographs, histories, and entrance fees to fairs, a fact that may account for the report that the present bird is a fraud, the old Simon Pure having died some time ago.

The only male descendant of the poet Burns now living is Robert Burns Hutchinson, a tea planter in Assam, India. The daughter of Burns' eldest son, Mrs. Eliza Burns Everitt, died at Bath, England, three or four weeks ago. Her only child, Martha Burns Everitt, is unmarried

M. Gabriel Ibrahim, the last survivor of the Mameluke Corps formed in Egypt by Napoleon, has just died at Marseilles, where thirteen of that body were massacred by the Royalist mob eleven days after the battle of Waterloo. He was 84 years of age, and had long been a Roman Catholic.

James A. Whistler, the London artist, is the son of G. W. Whistler, once an engineer connected with the Stonington and Boston road. The father went to Russia, and his painter son was born at St. Petersburg, about 1834. The son entered West Point in 1851, and as a soldier was not a success.

Lady Sophia Macnamarra, who accompanies Princess Louise, is an Irish girl from Kerry, a sister of Lord Lisiowel, who was long a lord in waiting on the Queen. She herself was a maid of honor, and as such formed a friendship with the Princess. She is the wife of a plain English squire of fair fortune.

Francis J. Oliver of Somerville, Mass., kept a candy store, and about the sweetest thing in it was Grace Matthews, the clerk. Although Mr. Oliver was 77 years of age, and she only 20, he thought she meant it when she promised to marry him. He gave her $50 to buy a wedding dress, and she went out as though to make the purchase but never returned.

Frankie Chapman, daughter of a Methodist clergyman in Jackson, Ohio, went to a public ball in Cincinnati, where she had been living, and drank so much wine with a friend, Miss Agans, that she became intoxicated. They went home together, quarreled, fought, and Miss Chapman killed her antagonist by striking her on the head with a pitcher.

James Brooks had for several years got drunk on New Year's Day in Bismarck, Dakota, and rather than break the custom, he rode sixty miles on horseback on Dec. 31, 1878. He lost no time after his arrival, but began his annual frolic immediately in a dance hall, and was soon drunk and quarrelsome. He bullied everybody in the place except one woman, and she, when he struck her, shot him dead.

The first monarch in France who attempted to put down dueling with a strong hand was Henry IV. and there still exists a report of Sully on this matter, which says: "Since your Majesty ascended the throne four thousand gentlemen have been killed in single combat" Henry IV proposed that all quarrels between gentlemen be referred to a committee of Marshals.

An English footman named Foster, long in the service of the Duc de Nemours, having embraced the Roman Catholic Faith a few moments before his death, was baptized, immediately afterward receiving extreme unction. His funeral a few days ago was attended by the Duc de Nemours, the Princess Blanche of Orleans, Prince and Princess Czartoryski, and the Comte and Countess d'Eu,

The Emperor of Austria, at his summer retreat at Ischl, is an inveterate smoker, and has on the writing table of his bedroom a number of long, coarse Virginia cigars. The Emperor is tall and spare, with close-cropped sandy hair, just turning iron gray; regulation military whiskers and mustache; small, restless gray eyes; blunt features and heavy lips, and he wears the light blue uniform of a general. He speaks six languages.

Father Hyacinthe has hired a small farm house at Neuilly, near Paris and intends to reside there permanently. An English society of Roman Catholics, who approve of the marriage of priests, have offered to build a chapel there for him, and to furnish funds for a paper to be called the *Old Catholic*, of which he shall be editor. He has refused both offers, and proposes preaching in Paris if he can obtain permission from the civil authorities to do so.

John Olive, a Nebraska herder, had murdered several of his enemies, and it was deemed desirable to arrest him, but it was hard to get anybody to undertake the job. He always had a gang of his ranchmen close at hand, and was free with threats of vengeance on anybody who molested him. At length Billy Nicholls bargained to capture Olive for $500. It was Olive's custom to go to Plum Creek once a week for letters. Nicholls stationed himself in the Post-Office, with four companions chosen from the relatives of the men whom Olive had killed. When Olive entered he found himself looking into the muzzles of five revolvers, and was commanded to hold up his hands. He surrendered, and was quickly hustled out of sight. His ranchmen, as they straggled in one by one to see what had become of him, were caught in the same manner.

Harry Worn discovered in San Francisco, seven years ago, that Anna Morris, whom he was to marry, had also a matrimonial engagement with another man. Harry had given her $7,000 worth of jewelry, clothes, and money, showing how much he loved her, but on learning of her deception he said decisively that she could never be his wife. She thought differently and threatened to shoot him if he discarded her. To avoid trouble he came to New York. She followed, showed him a pistol that she had bought, and declared that she would kill him if he did not marry her. He fled to Buffalo and for four years did not see her; but she turned up at length, and renewed her threats. He appeased her with $500, and went to Chicago. He met her in the street a few days ago. She asked him if he was ready to marry her. He said no. She coolly put her hand under her sealskin sack, and drew out the same old pistol. He seized her, but she wriggled away through the crowd that had gathered, and escaped. But Mr. Worn expects to see her again.

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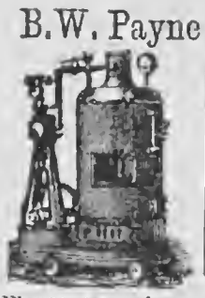

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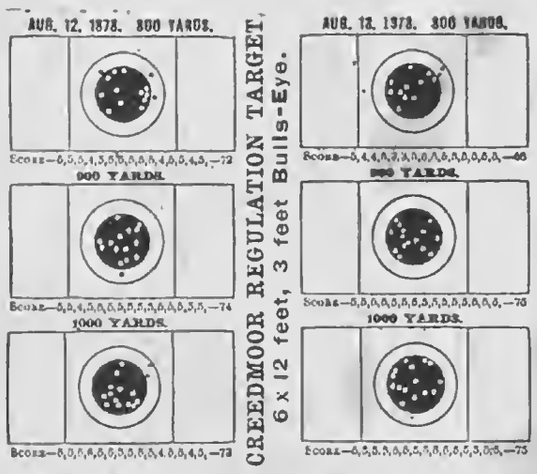

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at the Paris Exposition of this year, based on the greatest superiority of of performance during the test made manufactured of the best material and finished by skilled hand labor er beyond peradventure. Messrs. B ti m in prices, so as to bring their Great care is taken in the finishing these adjusted for railroad use. Call improved B. & C. Watches. The relative merits of Swiss Watches, as manufacture. Can a country that *Hundred* years be ignored? Give and they will demonstrate to you you to institute an impartial com-

The Jury of Awards' decision was workmanship and extreme accuracy by the Judges. These watches are ant made with improved machinery, thus insuring an accurate time-keep- & C. have made a still further reduc- watches within the reach of all of their movements, particularly on your jeweler and ask to see the public is asked to investigate the compared with those of American has made watches for the past *Two* the Borel & Courvoisier fair play, that none can excel them. We ask parison before purchasing.

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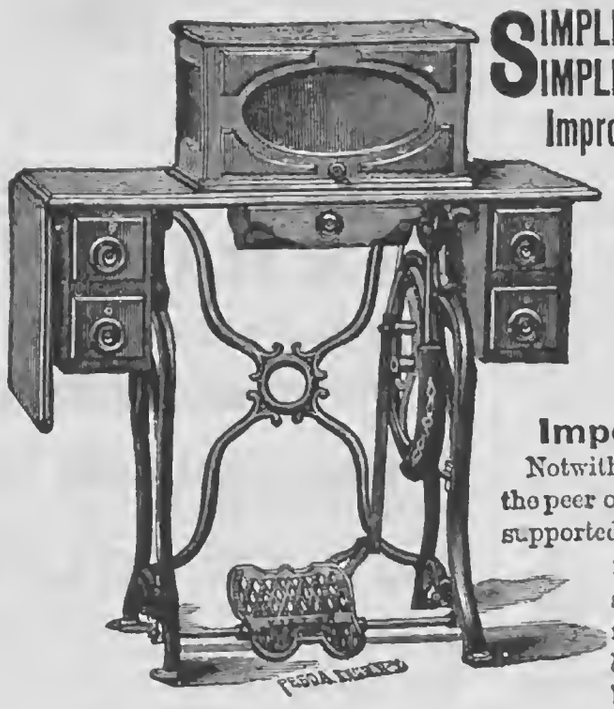

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To make hens lay and pigs grow, feed ANIMAL MEAL made from fresh meat and fresh bones dried and ground to a sweet meal, which fowls and pigs eat greedily. Used for five years, and universally liked. Four to six quarts mixed with a bushel of common meal or other feed and fed as usual. Trial Bags of 15 lbs., 50 cents; 30 lbs., $1; 100 lbs., $2.50. Also Bone Meal for Cattle, said to prevent abortion in cows, 10 lbs., 50 cts.; 100 lbs., $3. Ground Oyster Shells for fowls, 100 lbs., $1; and a full line special feeds. Send for testimonials from practical men. W. H. BOWKER & CO., 43 Chatham Street, Boston; 3 Park Place, New York; 21 North Water St., Rochester, N. Y. Manufacturers of the Celebrated Stockbridge Manures.

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60 CHROMO, PERFUMED, SNOWFLAKE & LACE CARDS, with name 10c, Game Authors 15c. Lyman & Co., Clintonville, Ct.

25 of the PRETTIEST CARDS you ever saw, with name 10c. post paid. Geo. I. Reed & Co., Nassau, N. Y.

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300 FARMS in the best part of MARYLAND *at panic prices.* For Catalogue & price list write Manoha & Wilson, Ridgely, Md.

Wit and Humor.

FAMILIAR RELATIONS.

A LITTLE *father* o'er the stile
As James would fain a *sister*—
As eke some *mother* lads would do—
He bent him down and kiss'd her.

The maiden cried, "*Aunt* you a wretch
To treat a girl so badly?
You'd *daughter* be ashamed, I say,
To *cousin* me so sadly!"

AN old proverb says that "the anvil lasts longer than the hammer." This is probably the only consolation the undermost man in a fight has.

A VERY fat man sent an order to the office for two seats in the coach for himself. The clerk engaged him one seat outside and the other inside.

A NEVADA politician was elected on the merits of a single speech. All he said was, "Fellow-countrymen, follow me to yonder refreshment saloon!"

AN exchange, speaking of young ladies, says it wants "more kitchen and less parlor; more pudding and less pianos." More sass is what the chap wants, with a broomstick thrown in.

"Is that the second bell?" inquired a gentleman of a colored porter. "No, sah," answered the porter, "dat am the second ringin' ov de fust bell. We hab but one bell in dis establishmum."

WHEN we see a streak of black on the cook's cheek, just after the coal man has been putting the winter supply of fuel into the cellar, we are led to infer that he turned a coaled shoulder on her.—*Ex.*

A WESTERN paper remarks in its financial analysis that money is so plentiful that young men are wearing pantaloons with checks on them. And when money is scarce probably there will be drafts through them.

AFTER all, a man never fully appreciates those voluminous dolmans of the ladies until he takes a moonlight promenade with the wearer and notices how effectually it conceals, from those behind, the exact whereabouts of his arm.

"TEDDY, me boy," said an Irishman to his nephew, "jist guess how many cheese there is in this here bag, an' faith I'll give ye the whole five." "Five," answered Teddy. "Arrah, by my sowl, bad luck to the man that tould ye!" exclaimed the uncle.

THE Austrian-Bosnian question has been thus cleverly hit off. Two Parisian *gamins* are conversing. "A Congress — what is it?" "Well, this. I want to do something for you, so I give you that gentleman's watch and chain. Now it is for you to go and take it."

STRANGER (in back seats of new hall to architect whom he does not recognise): "The acoustic principles of this hall must be villanously bad. I cannot hear a word the performers are saying." Architect (spitefully): "What can you expect? They're amateurs." Stranger: "I suspect its the architect who's the amateur." Architect collapses.

A SCOTCH gentleman plagued by poachers procured a cork-leg dressed in a stocking and shoe, and sent it through the neighboring village by the town crier, who proclaimed that it had been found in a man-trap on the previous night in Mr. Ross's grounds, who desired to return it to the owner. There was no more poaching after that.

THE Bishop preached. The congregation subsequently requested him to publish his sermon. The Bishop was greatly delighted. "And so," said he, with jocose affability, to the senior churchwarden, "the people were much pleased, eh?" "Well, you see, sir," replied the official, "our folks would like to know about it, and—" "Ah," interposed the Bishop complacently, "I see—they'd like to read it at home?" "Well, sir, that's what they would all like." Here he paused, and then added confidentially, "It was very hot, you see, and so, when you were preachin' many of 'em were asleep!"

Suffering for a Life Time.

Persons afflicted with rheumatism often suffer for a life-time, their tortures being almost without remission. The joints and muscles of such unfortunates are in most cases shockingly contorted and drawn out of shape. To afford them even temporary relief, the ordinary remedies often prove utterly useless. Hostetter's Stomach Bitters, on the other hand, is avouched, by persons who have used it, to be a genuine source of relief. It keeps the blood cool by promoting a regular habit of body, and removes from it impurities which, in the opinion of all rational pathologists, originate this agonizing complaint and its kindred malady, the gout. Besides this the Bitters remedy disorders of the stomach, liver and nerves, prevent and eradicate intermittent and remittent fevers, promote appetite and sleep, and are highly recommended by physicians as a desirable medicinal stimulant and tonic.

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WEYMOUTH'S PATENT.

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For	$ 1	you buy	$ 1.10	worth of Seeds or Plants
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"	$10	"	$12.50	" " Seeds or Plants
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1879.

30th Semi-Annual

STATEMENT

OF THE

TRAVELERS

Hartford, Conn., January 1, 1879.

ASSETS.

Real estate	$ 517,204 37
Cash on hand and in bank	127,904 69
Loans on bond and mortgage on real estate	2,256,193 13
Interest on loans, accrued but not due	58,173 98
Loans on collateral security	22,100 00
Deferred Life premiums	51,272 52
Premiums due and unreported on Life Policies	40,756 12
United States government bonds	423,420 00
State and municipal bonds	259,078 50
Railroad stocks and bonds	320,338 00
Bank and Insurance stocks	509,004 00
Total Assets	$4,595,445 31

LIABILITIES.

Reserve, four per cent., Life Department	$2,972,711 59
Reserve for re-insurance, Accident Dep't	221,326 34
Claims unadjusted and not due, and all other liabilities	144,500 00
Total Liabilities	$3,338,337 93
Surplus as regards Policy-holders	$1,257,107 38

Statistics for the Year 1878.

LIFE DEPARTMENT.

Number of Life Policies written in 1878	1,980
Whole number of Life Policies written to date	30,297
Whole number of Life Policies in force	11,207
Amount Life Insurance in force	$18,307,556 00
Total Claims paid in Life Departm't	$1,271,137 86

ACCIDENT DEPARTMENT.

Number of Accident Policies written in 1878	43,118
Cash Premiums received for same	$775,582 51
Gain in Premiums over 1877	$56,587 69
Whole number of Accident Policies written	517,985
Number Accident Claims paid in 1878	4,760
Amount Accident Claims paid in 1878	$284,343 23
Whole number Accident Claims paid	33,049
Whole amount Accident Claims paid	$3,041,951 94
Total Losses paid, both Departments	$4,313,089 80

JAS. G. BATTERSON, President.
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RODNEY DENNIS, Secretary.
JOHN E. MORRIS, Assistant Secretary.
GEO. ELLIS, Actuary
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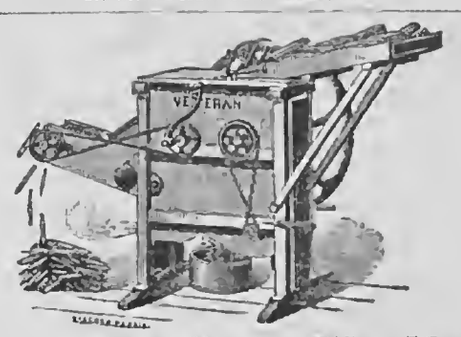

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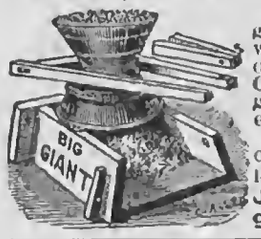

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THE RURAL NEW-YORKER

A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME.

Ralph Evans 1490

VOL. XXXVIII. No. 4.
WHOLE No. 1513.

NEW YORK CITY, JAN. 25, 1879.

PRICE FIVE CENTS.
$2.00 PER YEAR.

[Entered according to Act of Congress, in the year 1878, by the Rural Publishing Company, in the office of the Librarian of Congress at Washington.]

Farm Topics.

A PATENT GATE IN COMMON USE.

PROFESSOR R. C. CARPENTER.

FORM OF A COMMON GATE ON WHICH ROYALTY IS CLAIMED.

Throughout the whole of Michigan and probably a great portion of the United States, a gate is in common use, which is opened by sliding back until it reaches a balanced position, and then by swinging one-quarter around. One form of this gate is shown in Fig. 1 and other forms at Figs. 4 and 6. From these diagrams it is seen that the gate is exceedingly simple in construction, being little more than a fence panel supported by strips, so as to allow both sliding and rotary motions. Fig. 1 is a copy of a drawing published in the American Agriculturist for November 1864. In this case the posts A, A' are set so nearly in a line with the gate, that the strips d' and d, when nailed to the posts, as shown in the drawing,

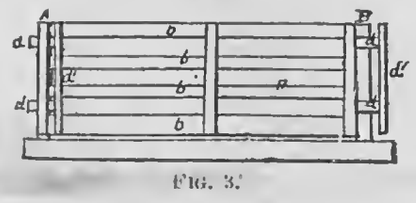


FIG. 3.

are made parallel with the gate. If the strips d, d' are but a trifle thicker than the boards from which the gate is made, the gate may be readily pushed back in a direct line, and then rotated by swinging the gate to the right (see Fig. 1). The posts are usually set as C' and D' in Fig. 6, or as A and B in Fig. 7; but in all these cases, except that shown by Fig. 7, whether the posts are in a parallel, perpendicular, or oblique line to the gate, and whether one or two slats connect them, the method of opening remains the same—first sliding to a balanced position and then turning one-quarter around. From this method of opening, the gate received the name of the "slide" or "slip" gate, to distinguish it from the ordinary swinging gate.

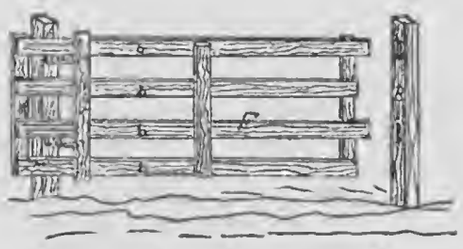


FIG. 4.—LEE'S GATE FROM HIS MODEL.

The *slide* gate possesses many advantages over the ordinary gate, which, concisely stated, are as follows: First, it is cheaper and more easily constructed; second, it is less liable to get out of order, as its method of swinging when in a balanced position, throws very little strain on any of its parts; third, it is less liable to be obstructed by snow, and, on the whole, works easier than the ordinary swing gate.

The details by means of which the gate is held in a closed position are by no means uniform. Fig. 1 shows the gate held by a single mortised post; Fig. 2 shows the method in common use, which is a combination of a post (A), slats (a, b, c,) nailed to the post and a strip or piece of board (B) nailed to the slats (a, b, c), the ends of the gate slip into the open spaces between the post A and the board or strip B. Fig. 4 shows the use of a double mortised post (B) which holds the gate by receiving the ends of two of its strips. Fig. 6 shows the use of two posts which hold the gate in essentially the same manner as shown in Fig. 2. There are still other methods of holding the gate closed; but to these it is not necessary to call attention. This gate in some form is to be found on the farm of almost every farmer in the State of Michigan, and before the beginning of 1878, it was generally supposed to be free from any patented device and even to be unpatentable.

THE LEE PATENT.

During the early portion of the year 1878, the farmers of Wayne and Washtenaw counties were considerably surprised by being called on to pay royalty on the gate. A party of men banded together at Ypsilanti, bought the State-right of a patent granted to John

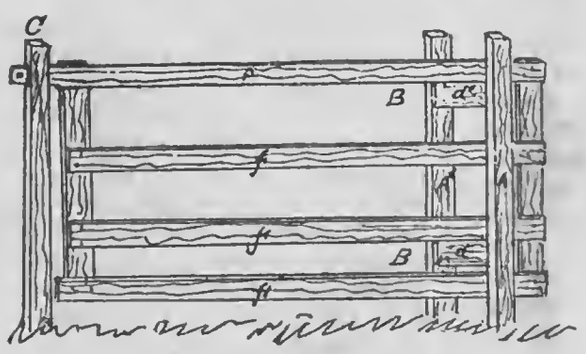


FIG. 1.—SLIDE GATE.

C. Lee, of Seville, Ohio. This they claimed covered the ordinary slide gate. They established headquarters in Ypsilanti, employed agents to whom they paid handsome salaries, and sent them forth over the State to collect royalties.

Their method of operating was as follows: They called on a farmer using the gate, claimed to own the right, and made their demands; if they could frighten the farmer sufficiently, they collected the following amounts: For a farm not exceeding 60 acres, $3; not exceeding 100 acres, $5; not exceeding 160 acres, $8; 240 acres and over, $10. In order to intimidate him they also resorted to the device of serving on him a notification of suit, but until very recently they have actually commenced no prosecution.

It is needless to say that they obtained a good deal of money, as many farmers would pay the fee demanded rather than stand the cost of a lawsuit. Many of the farmers, however, felt that the demand was unjust, and through their granges and farmers' clubs banded together to resist the payment of royalty on the ordinary slide gate. Mr. H. D. Platt, an enterprising farmer of Ypsilanti, has up to this time taken the most active part in opposing the payment of this royalty. He even visited the inventor, Mr. J. C. Lee, and obtained from him an affidavit certifying that the patent granted to him was for an improvement on the slide gate (Fig. 4) by means of which one post was dispensed with, and that his patent covered simply the improvement. The following is Lee's affidavit:

THE STATE OF OHIO, Medina County. } ss.

John C. Lee, of Seville, in said county of Medina, being first duly sworn, says that letters patents were issued to him numbered 50,605, dated October 24, A. D. 1865, for an improvement in a gate, known as the two-post gate, and that my improvement consisted in the dispensing with one post and the cross slats, and in the use of a strip perpendicular with the post and slats running parallel with the gate; and further saith that the two-post gate was in common use in this county at the time my patent was issued to me; and further, this affidavit saith that the facts stated in this affidavit are true, as he verily believes.

JOHN C. LEE.

Sworn to by the said John C. Lee before me and subscribed by him in my presence; and I further certify that the said John C. Lee is well known to me to be the person he represents himself to be. CHAUNCEY SPEAR.
Justice of the Peace for said county of Medina, October 31, 1878.

FIG. 2.—POST.

Mr. Lee further claimed that he informed the parties to whom he sold his patent, that it did not cover the ordinary two-post slide gate as shown in Fig. 7 or in Fig. 6. Mr. Lee made a model for Mr. Platt which he claimed to be like the original one sent to his agent when he applied for a patent. The structure of this model is shown in Fig. 4, from which it is seen to be in every particular feature like the gate shown in Fig. 1, except that in place of one post (A or A') is a strip d'. The patent granted Mr. Lee is different in many essential features from this model, and it is extremely doubtful that a gate made after his model would even be an infringement on his patent (Mr. Lee lays this discrepancy to his patent agents); for his patent is based entirely on a combination which exists in part only in his model.

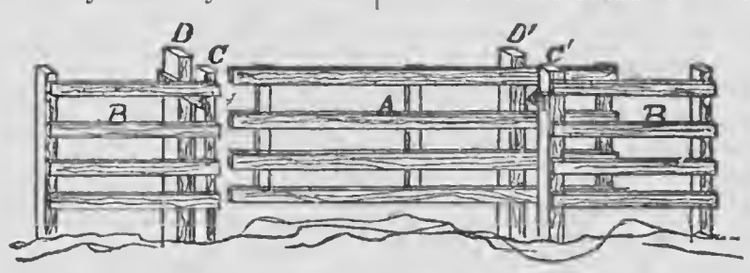


FIG. 6.—THE TEEL GATE, NO. 40777.

Fig. 3 is an accurate copy of the drawing of Lee's patent gate, as published in vol. III of the report of the United States Commissioner of Patents for 1865.

The following is an exact copy of the description of the patent granted to Lee:

No. 50,605—John C. Lee, Seville, Ohio.

Field Fence and Gate Combined, October 24, 1865.—This invention consists in the combination of the gate with the posts and fence, one of the said posts being slotted to receive the ends of the panels of the gate when closed.

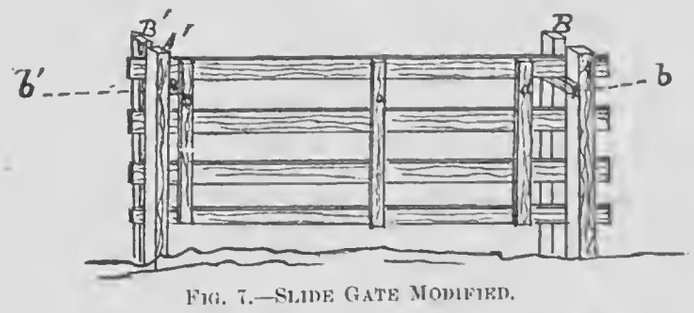


FIG. 7.—SLIDE GATE MODIFIED.

Claims.—The arrangement of the panel or gate F, in combination with the mortised post B, post A, strips d', slats d, as and for the purpose set forth.

In the construction of this gate the slats d—d are fastened to the posts (see Fig. 3). On the end of each set of these slats is nailed a strip (d' in Fig.), which is not connected with the ground. The gate is opened by sliding partially back over the slats fastened to post A, and then turning. Finally the post B is mortised, or slotted, to receive the end of the gate when closed.

There is no infringement on this patent unless a mortised post is combined with a fence panel, constructed with the strips d' and slats d, as arranged in the figure.

In the figure from Lee's model (Fig. 4), the strip d' and slats d', d, near post B, especially mentioned in the combination and shown in the drawing of the Patent Office (Fig. 3), do not exist, and hence it is doubtful if a gate made after Fig 4 would be considered an infringement on Lee's patent. Lee's patent is on an arrangement or combination, and there can be no infringement on this patent unless every essential portion of this arrangement or combination is copied, as shown in Fig. 3. According to Eaton S. Drone in American Cyclopædia, "A combination is not infringed by the use of one or more of its parts, if those parts are not specially patented, and if they do not substantially constitute the combination."

In order to be patented a combination "must be new and must produce a new and useful result, not due to the separate action of any one of the devices used, but to the co-operative action of all. In this case the patent protects only the combination and the new elements; anyone may use the old devices, either separately or in a new combination."

It is evident from this that there would be no infringement on Lee's patent unless this same combination of strips, slats and mortised post were used. No royalty could be collected from any person for using the slats d, d, with the strip d' fastened to them, provided he did not also use the mortised post B to receive the ends of the gate when closed. So far as I can learn, this improvement has never been infringed, for it is evident by comparing Fig. 1 and Fig. 3 or 4, that the old method of using two posts (no matter how frail) with slats nailed on them, affords better means of holding the gate than the improved method of dispensing with one post and using the strip d' unconnected with the ground. It is seen from the foregoing that the manufacture and use of the *slide* gate is not an infringement on the patent granted J. C. Lee.

No patent on the slide gate would have been valid, for it can be proved that the gate was in common use earlier than October, 1863, and again the gate was figured and described in the American Agriculturist of November, 1864, in an article from G. W. Taylor, of Ogle County, Ill. (See Fig. 1.)

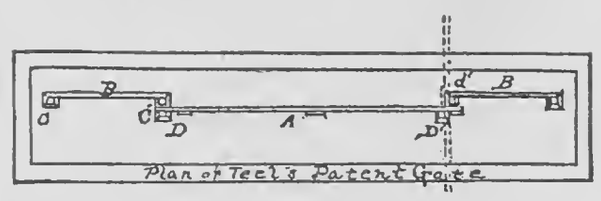


FIG. 5.

It is seen from section 24 of the United States Patent Laws, which is given in full, that either of the above conditions would prevent the issue of a valid patent.

WHAT MAY BE PATENTED—UNITED STATES PATENT LAWS.

"SECTION 24. *And be it further enacted*, that any person who has invented or discovered any new and useful art, machine, manufacture or composition of matter, or any new and useful improvement thereof, *not known or used by others in this country*, and not patented or *described in any printed publication* in this or any foreign country before his invention or discovery thereof, and not in public use or on sale for more than two years prior to his application, unless the same is proved to have been abandoned, may, upon payment of the duty required by law, and other due proceedings had, obtain a patent therefor."

After information regarding Lee's patent had been generally circulated, the business of col-

leeting royalty beeame unprofitable, and a few suits were actually commenced in the courts. These were promptly met by the farmers, who required the prosecutors to give bond for the costs. To this date, no trial has taken place, and it is probable the prosecution of the suits will not be continued, as the plaintiffs are certain to be beaten. They have not by any means given up the idea of collecting royalty from all those who use the slide gate, but they have dropped the Lee patent, and propose to persecute the farmers with an entirely different patent, viz.: the Teel patent, the right of which the same parties claim to have bought.

THE TEEL PATENT.

not only covers the ordinary slide gate, but it covers all gates that open by sliding back to a balanced position and turning one-quarter aronnd; consequently it covers the Lee gate, and all those who paid the Ypsilanti firm for the right to use that gate, must still pay them for the right to use the Teel gate, before they actually have a legal right to use the ordinary, or in fact any gate that is opened in the manner described.

Fig. 5 is an exact copy of the drawing of Teel's gate, published in the Patent Office report for 1863, and the following are the description and claim as allowed by the Patent Office.

"No. 40777.—A. C. Teel, of Girard, Macoupin Co., Ill.—*Improvement in* FARM GATES.—Patent dated December 1, 1863.—This panel of fence is to hang upon strips attached to the neighboring panels, that it may be pushed in half the length of a panel and then swung one-quarter round so as to make an opening the length of a panel. CLAIM—The suspending of the gate A on strips d, d' attached to posts C D C' D' at the ends B, B, of the fence, substantially as shown, to admit of the sliding of the gate and the turning of the same for the purpose of opening and closing it as herein set forth."

The figure shows only the plan of the gate, and one letter, C, is evidently misplaced, but despite this, the patent secures to A. C. Teel all the essential features of the slide gate. Fig. 6 is an isometric drawing of Teel's patent gate with the letters C and C' in their proper places.

When an inventor can prove that the specifications do not cover his whole invention, the Patent Office allows him to restate the specifications, under the name of a "Reissue." A reissue does not extend the time of the patent, but after it is once granted, its specifications replace those of the original patent. July 2d, 1867, A. C. Teel took advantage of this law and obtained a "reissue," of which the following is an exact copy:

"2667.—A. C. Teel, Girard, Ill.—FARM GATE Patented December, 1st, 1863; Reissued July 2d, 1867.

CLAIM,—FIRST the hanging or suspending of a gate in such a manner that it will have a combined sliding and swinging movement in the opening and closing of the same, the gate sliding from a closed position or state to a central balanced state, and then swinging while in a state of equipoise to an open position, and closing from an open position by swinging around in a line with the gate-posts and sliding to a closed state, substantially as shown and described. SECOND, the placing of the gate-posts C' D C' D', in such a relative position with each other, and constructing and hanging the gate between them as to admit of the opening and closing of the gate, substantially as herein set forth."

In the reissue there are two claims independent of each other, and an infringement on either claim or both claims may be prosecuted. The first is given without reference to a figure, and covers all cases of gates that open by sliding back to a balanced position and then swinging open. The second refers to the peculiar arrangement of posts shown in Fig. 5 and Fig. 6 (a mistake in the second claim makes it read posts C' D C' D', for posts C D C' D'—this is not material, however.)

A GATE THAT IS NOT AN INFRINGEMENT.

There is a modified form of the slide gate which is not an infringement on Teel's patent. This is shown in Fig. 7. This form of a gate is preferred by Mr. H. D. Platt to the ordinary slide gate. It is seen that it slides back only far enough to disengage the ends of the gate from between the posts A' B' and then swings around, or it can be pulled out and set on one side. The arrangement of the posts may be somewhat modified, but the arrangement shown in Fig. 6, is patented by claim second in Teel's reissue and hence cannot be used without infringing.

ROYALTY

must be paid for every infringement up to the time the patent expires, December 1, 1880, unless the patent can be rendered void. If it can be proved that A. C. Teel was not the original inventor of the slide gate, the United States Courts will declare the patent invalid. Sec. 24 of the Patent Laws already published, states that if any invention has been in use two years prior to application for patent, the patent will be invalid. It is extremely probable that the gate was in extensive use prior to 1861 in this country. If that point can be proved, the Teel patent is worthless. Again, any publication in this or foreign countries describing the invention prior to Teel's application for a patent (probably Aug., 1863), would be sufficient to invalidate the patent. Any one who possesses evidence of its use prior to 1861, or of publication prior to 1863, would render material service by informing Mr. H. D. Platt of Ypsilanti, or the writer of this article, of the character of his information.

It may be remarked, in conclusion, that there is in possession of the organization to resist the payment of this royalty, reliable evidence of its use prior to 1861, but no evidence of printed description previous to 1864. More proof of its early use, though probably not needed, is still very much desired.

Michigan Agricultural College, Lansing, Mich.

JOTTINGS AT KIRBY HOMESTEAD.

COL. F. D. CURTIS.

MR. FULTON, of Orange County, who has been a subscriber to the RURAL for twenty-five years, has recently purchased a yearling Jersey bull and he inquires if he shall put a ring in his nose, as he has heard that the Jerseys are inclined to be ugly. Putting a ring in a bull's nose does not of itself make him kind or prevent him from becoming vicious. It is only an aid in handling him. The proper and important thing to do is to break the bull when young, and have him in subjection. He should be halter-broken and taught to mind like an ox. When a year old, put a ring in his nose and lead him with a stout halter attached to it. This will do for ordinary occasions, but under other circumstances he should be led by a strong staff. Bulls should never be trifled with, or fondled about the head. No one should ever be allowed to touch their horns, however young they may be. They should not be approached in front, a bull does not like it. After serving a cow he should be *immediately* driven away, and the person in charge should always have a long, strong stick in his hand. Precautions are always wise in the management of bulls. They are especially dangerous when a cow is in heat in their vicinity.

We do not think Jersey bulls are any more inclined to be vicious than those of other breeds. They are often petted more than others when young, and this makes them more liable to injure their attendant. It is all very well to play with a calf's horns and have it jerk its head around and play back when its ears are pulled; but when the horns get longer, and the tendons of the neck get stronger, the same habit is likely to continue and the former pet may strike a blow or make a push with its head, which will do damage, and then if he is struck, it is the bull of it, to fight back. When a bull is not footed with, he will hold his head straight forward when a person is passing about him. Jersey cattle are naturally timid and nervous and must be gently treated. Knocking and cracking around a bull of this breed is offensive to him. When young he will try to run away, but when older he will naturally assert the rights of his bullship, and pitch in for a fight. Break the bull thoroughly to mind at the word, and then always afterwards be gentle but firm with him, and do not cross his nature, and not one in a hundred will be ugly. This has been our experience.

If a bull does get ugly, put a strong rope around his neck with a slipping noose and keep it on. He will never tighten it but once, and afterwards will stand quiet. If he is likely to choke to death at first, loosen it a little. We had a bull wear a slipping noose for four months, and although this was all the fastening he had, he never made it tight after the first tussle, when he choked down and gasped for breath.

James says, "the new plan is the best," and he can now do the chores in half of the time it took him before. A box of meal is now standing in one corner of the sheep pen where the old sheep are, and a dish is in it, so that he can feed their meal without its taking a half minute. The same is true of the calves, and the bran for the cows is handy by. This is better than running to the granary every time a measureful of feed is wanted.

Mr. Riley says his ruta-bagas were all necks, and are so strong they cannot eat them. This is because the seed was poor, that is, it was raised from imperfect turnips, or perhaps they were left standing in the ground all winter. All vegetables, when thus left, will run out. To bring good seed which will produce perfect roots, the vegetables designed for growing the seed must be taken up in the fall, kept healthy all winter, and then be reset in the spring. The stem of a ruta-baga is much ranker in flavor than the root itself, and where there is a preponderance of stem, or "neck," the turnip will invariably be strong in taste.

Webb's Imperial Swede is the purest and best variety we know of. Ours were free from necks and of choice flavor. We have sold a number of barrels for table use, enough to equal the whole cost of the crop. Those we sold brought 75 cents a barrel.

Mr. Callaghan says he "don't believe in eating rotten apples all of the time," so he picks out the sound ones and lets those that are speeked and partially decayed go to the pigs. He used to keep sorting them over and eating the specked ones, and by the time the first lot was gone another was ready, and so he had nothing but poor apples. Now he reverses the rule, and begins with the best and has the best all of the time. This is more comfortable, to say the least. The more apples are disturbed, the faster they will rot.

Farm Economy.

HOW TO APPLY MANURES.

WM. J. FOWLER.

Scattering manure on the surface in fall and winter; plowing under barnyard manure in spring; applying hen manure and gypsum; drilling commercial fertilizers with seed; need of thoroughly pulverizing the soil.

SUCCESSFUL farming depends so largely on making the soil rich that the best modes of doing this are necessarily matters of the first importance. The most natural mode is to apply manure on the surface and let rains and snows carry its substance to the roots of plants. I am not sure yet that we have bettered this plan. But long ago it was discovered that decaying manures lost some of their ammonia by evaporation, and it was naturally supposed that unless this decomposition occurred in the soil, this ammonia was wasted. Hence the general practice, until within a few years, of getting manure under ground as quickly as possible. But we have learned other facts about manure. When scattered over the surface in fall or winter, evaporation is very slight and very little ammonia is given off. Most manures are largely composed, so far as value is concerned, of mineral elements, lime, potash and phosphates, which cannot evaporate and must leach downward. Much even of the ammonia has been changed to nitric acid and, united with some base, has become a soluble nitrate. The manure applied on the surface of the soil in the fall is, before spring, brought directly to the roots of plants. Much of it indeed has been carried down so deeply that we need the long tap-roots of clover to bring it again to the surface. Under all the circumstances, putting manures on the surface, except on very steep side-hills, involves less loss than using them in any other way.

Much of the barnyard manure in spring is so coarse that for convenience in planting and cultivating hoed crops we plow it under. The roots of corn will reach it readily and with little loss. The following spring after partial decomposition, the ground is plowed and the manure again brought to the surface. But it is often found that the benefit of the manure is quite as great the second season as the first. Probably instead of leaving the course manure until spring, it would pay better to haul it out and spread it on the soil as made, during the winter. The soluble parts will be thoroughly incorporated with the soil, and the remainder may be turned under the furrow as before, to decay and become soluble.

An important advantage is gained in having some manure in close contact with the seed to give the plant a vigorous growth from the start. Manuring in the hill by hand is a tedious and expensive work; but even this will often pay. Hen manure thoroughly pulverized and diluted with three times its weight of gypsum, is excellent for either corn or potatoes. The object in mixing with gypsum is twofold: first, to weaken it so that the manure will not burn the sprouts of the seed, and, second, that the gypsum, or sulphate of lime, may absorb the ammonia of the hen droppings and become sulphate of ammonia, one of the most powerful stimulants of plant growth. Sulphate of ammonia is worth six cents a pound as plant food. Much of the effects of gypsum as a fertilizer are probably due to the fact that it always absorbs more or less ammonia from decaying matter in the soil and possibly, under some circumstances, from the atmosphere. I always advise the use of gypsum with nearly every kind of seed, for this reason.

The good effects of manure in contact with the seed often far exceed the presumable advantages from the manure itself. In other words, a little rich food at the beginning of the growth of a plant promotes its vigor and enables it to forage more vigorously in other parts of the soil. Concentrated manure also makes soluble some of the fertility locked-up in the soil which it touches. A spoonful of guano will make fertile from three to five times that amount of soil. Of course, to this extent manuring in the hill helps the plant to more rapidly exhaust the soil; but this is not really a disadvantage. All cropping is exhaustive and it is only objectionable when the product will not supply or purchase enough manure to keep the soil up to its original standard of richness.

The most frequent use of manures with the seed is in the application of commercial fertilizers by the drill. This is now the common practice with our best farmers, and its advantages are so numerous that it must become much more general. The benefits of manures, however applied, depend largely upon the after cultivation and thorough pulverization of the soil. I have rarely seen lumpy, cloddy land, however rich, produce a good crop; but I have much more frequently seen good crops on comparatively poor land well cultivated. We know that the elements of fertility must be present to make a crop; but on heavy land a great deal of cropping can be done if the soil is kept in good mechanical condition. The first sign of sterility in a clay soil, is when the vegetable matter wastes and the surface hardens and bakes.

Monroe Co., N. Y.

SAVING MANURE IN THE STABLE.

IN this city, V. B—a milk-man stables during the winter a herd of cows numbering, last winter 116. As he enlarged his barns during the summer, I presume the number will be greater this winter. All these cows are kept in one room. The stable is a basement with ground floor. It is cleaned only as suits Mr. V. B's convenience. When I visited it last winter, the accumulation was not less than one foot in depth over the whole floor. There was no stable odor. I wish to emphasize this point. The cows were remarkably clean. Not one in ten had any mark of manure on her quarters or about her udder. This condition of things was brought about by giving the cows plenty of straw bedding. Enough of the solid excrement was pitched under the forefeet and covered with straw, to cause the animals to stand level. The same gentlemen keeps his horses in ordinary or box-stalls in the same way, that is, he gives them plenty of bedding and removes their manure at his convenience.

In this way every particle of manure both *liquid* and *solid* is saved *under cover*. It is not only the cheapest but the best and cleanest way to keep cows or horses. I have kept a single cow in that way, and though I cleaned the stable in mid-winter only and again in spring, yet the cow was clean, the stable sweet and the milk clean and sweet. My horse stable—I keep a single horse—was cleaned July 1, and again Oct. 1, this summer, without in the interval causing any inconvenience from smell or heating. I have not cleaned my stable during the cooler months for some time, and during the heat of the past summer I tried very successfully the experiment of leaving the manure in it. I care for my stable with the help of a ten-year-old grandson, and never hear a word from my family about the smell of the stable being imparted to my clothing.

This plan gives the animals a soft, dry bed—a cushion to stand or rest on. The cows being clean, are not troubled with inflamed udders which are frequently caused by wet and consequent cold. When farming I spent much time, money and labor to save manure and to keep clean stables, clean cows and clean horses, and after having spent years in the endeavor, I find this the cheapest and simplest plan to accomplish the end. I commenced my reading of agricultural papers many years ago and from that time to this have read a great deal on the subject of saving manure. I have dug cisterns and drains; have dug out my barnyards so that they would hold water—and waded through them—have devised plans for pumping and delivering liquid manures; have cleaned stables and washed cows' bags; pitched filthy straw and cornstalks through a 15x15 inch hole in the stables, and I have lived to find it was worse than useless labor. I hope the coming generation will not be as foolish as I have been, but will show their sense by following Mr. V. B's plan. S. L. F.

Grand Rapids Mich.

LIME AND FARMERS' LIMEKILNS.

BY A WESTERN FARMER.

Lime as a Fertilizer.

THE value of manure is no longer a doubtful subject to a Western farmer. Farmers in the Western States, excepting possibly those who are now for the first time breaking up new prairie in Kansas, Nebraska, or Minnesota, are now compelled to look almost as closely to their manure supply as the most impoverished Eastern farmer. Among manures we must include what in contra-distinction are known as fertilizers, and lime is the most important although the most common of these. There is no other mineral that is more plentiful than lime. It is found almost everywhere in the West. From Western New York to the Missouri River, the underlying rock is almost everywhere limestone, and it is curiously true that the application of lime is equally effective on limestone land as upon clays and sandy loams where no lime is to be found.

There is no cheaper fertilizer than lime. When used upon soils rich in vegetable matter but which have been exhausted by continued cropping, it restores them at once through its

effect in rapidly decomposing the inert organic matter, and reducing it to soluble plant food. When used upon clay or sandy soils, of which potash rocks, such as mica, feldspar, or greenstone form a considerable portion, it is equally effective as it frees the potash from its combinations and renders it soluble. It has the same effect upon soils containing insoluble phosphoric acid, and releases it from its inert condition and makes it available as plant food to some extent. There is no other fertilizer to be procured by the farmer so cheaply as lime, that is at the same time so effective, or that can be so profitably used.

How to Use it.

A farmer may use 40 or 50 bushels per acre upon his fields every five years with great advantage; choosing the time of its application when he is preparing to seed down to grass or clover along with a wheat crop. Or, he may use 25 bushels per acre with benefit when he is plowing for a corn crop. He must, however, bear in mind that lime is, in fact, a key with which he opens the storehouse of the fertility of his soil, and if he goes therein and draws out all the stores and returns nothing, by and by the key will be turned only upon an empty receptacle; and he may as well then throw it away. For every application of lime in the rotation there should be one dressing of manure and one clover or grass sod plowed under; then a farm may be kept growing richer and richer, because by such management it will be only the surplus fertility which will be made available year after year, and only the enormous supplies of inert potash, phosphoric acid, and nitrogen, which any good soil contains, that will be gradually made soluble in advance of the requirements of the crops.

Limestone

when pure is carbonate of lime and is practically insoluble in water, and has no chemical action upon organic or inorganic matter. To become active in this way the lime must be made caustic or freed from its carbonic acid. This is done by burning it in kilns. The process of burning is very simple. When a farmer has a supply of limestone which he wishes to burn for his own use, he may make a pit something like those in which charcoal is burned; or he may make a temporary kiln; or construct a permanent kiln in a hill-side in which he may burn lime for himself and his neighbors.

Burning Limestone in a Pit.

A pit is made by laying down a floor of small logs or split timber in a hollow place. A layer of broken limestone is thrown upon this floor, the blocks being arranged as shown at fig. 1,

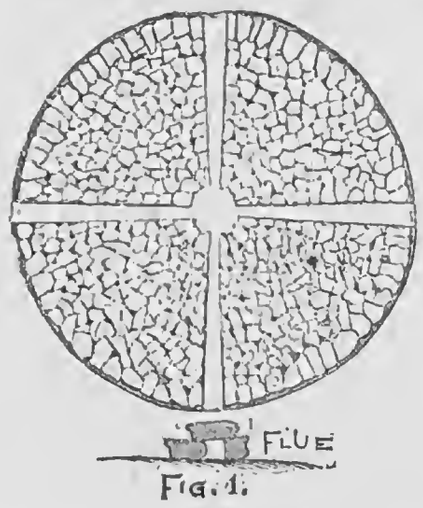


Fig. 1.

FOUNDATION FOR A LIME PIT.

so as to form flues by which the pit is set on fire and is ventilated during the burning. The pit is built up of alternate layers of wood or small coal and broken limestone, a sort of chimney having been left in the center. The outside is laid up carefully and when the whole is built up in a conical form, the outside is well plastered over with clay mud. The form of the pit is shown in section at fig. 2. Fire is then applied to the flues, which, as well as the chimney, should be filled with light-wood. The rest of the fuel may be rough wood, chips from choppings, or brushwood. The fire should be kept down and burning slowly by plastering up all the cracks, as these may form in the walls owing to the settling of the mass, or by thrusting into them sods or pieces of limestone and covering these with clay mud. When the fire is well started, the flues should be filled up with fresh wood, pushing this in as far as possible and then closing the mouths with stone and clay. In about 72 hours the burn will be complete, and when the whole mass is red-hot, it may be left to burn without further attention, excepting to punch it well together and fill up any openings by which air will enter so fresh as to cool the lime too soon. After three days, the lime will begin to cool and the pit may be opened. The unburned pieces of stone on the outside may be kept for another burning and the perfect lime may be then taken out for use.

It is now quick or caustic lime, and if the stone is pure and free from quartz rock it may be used for mason-work as well as for the field. To use it, it should be thrown in heaps of two or three bushels and kept exposed to the weather or to one or two showers of rain by which it will be slaked and fall to a fine,, dry powder; when it should be spread at once upon the land. One ton of limestone will yield a little over half a ton of burned lime, and one bushel of lime weighing 80 pounds, will absorb 26 pounds of water in slaking and will swell to more than twice its bulk. In the slaking, much heat is evolved, sufficient to ignite wood, so that the lime should not be thrown against fences or left in buildings which might thus be set on fire.

A Rough Kiln

may be built, in shape such as is shown in fig. 3, of "hard heads" or large cobble-stones, or so-called rocks picked from fields, but lime-stone should not be used, as it would not stand the fire, although for temporary use it will answer for three or four burnings when large blocks can be procured. The stones are laid up with lime and sand mortar, the inside of the kiln being made round and as smooth as possible. The kiln is filled with fuel and limestone as already described, but only from the top. It is therefore most convenient to build it near a bank, or else a stage must be made at the side of it. When the kiln is filled, the arch is closed up, excepting a fine hole to regulate the draft; when the lime is burned the arch is opened and the lime removed through it.

A Permanent Kiln

is built of the same general shape, as at fig. 3,

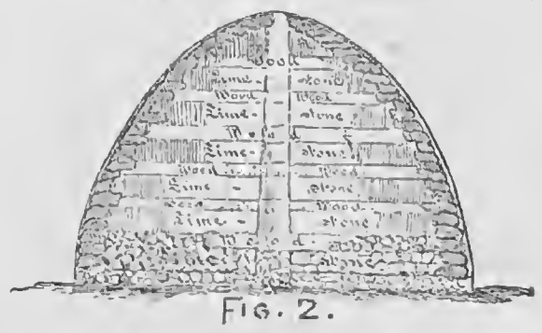


Fig. 2.

SECTON OF PIT SHOWING LAYERS OF FUEL AND STONE.

but more carefully, and is lined with good hard brick or with fire brick laid in fire-clay. Strong iron grate-bars are also built in over the arch and a fire-place is made in which fuel may be put to assist the burning. A kiln is best adapted for the use of fine slack coal as the main fuel, wood being used in the fire-place under the grate-bars. The bars are made so that they can be withdrawn when the lime is burned and so let the lime down into the arch from which it is removed. A permanent kiln is best made in a hill side so that the fuel and stone may be hauled up easily and dumped where they are wanted, from tip-carts. Lime may be burned in a pit for less than five cents a bushel when labor and material are paid for, and in permanent kilns the burning pays a good profit at ten cents a bushel.

The Herdsman.

THE JERSEY COW.

R. GOODMAN.

Jerseys and Guernseys.

The Channel Islands cattle were formerly known as Alderneys and Guernseys, but the exportation from the island of Alderney is so small each year and that from Jersey so large and the breeds of both islands are so similar in every respect, that the animals from the two last-named islands are classed in America as JERSEYS, and we know here of but two breeds imported from the Channel Islands, to wit: Jerseys and Guernseys.

These are distinct from each other in everything but quality and production of butter, and those not familiar with either race can easily distinguish the Jersey by its black nose and a white or light-colored band around the muzzle, the Guernsey having, almost invariably, a rich yellow or buff nose. This characteristic occasionally crops out on the Jersey, showing a Guernsey strain in some recent or remote generation, as a black nose marks an impure crossing in the Short-horn. To the breeder's eye the Guernsey is larger-boned than the Jersey, taller and stouter, coarser in the coat, wanting the symmetry and neatness of form of the other, and on the island where the

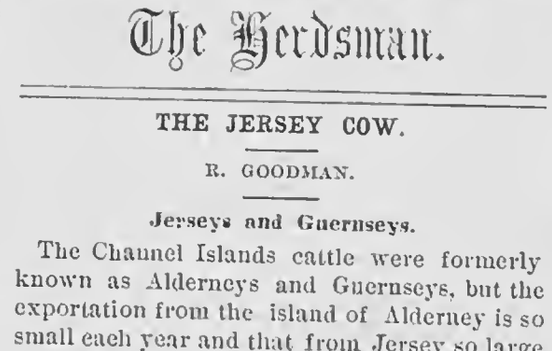


Fig. 3.

A LIME KILN.

latter are bred, the Guernsey is tabooed—not allowed to be imported within its limits or exhibited at the cattle-show fairs, and, in fact, there are but a dozen or so Guernseys on the Island of Jersey.

THE JERSEY'S HOME AND HER TREATMENT THERE.

This Island is one of the group of beautiful islands pertaining to the British Crown which lie near the shores of France in the bay formed by the coasts of Normandy and Brittany, consisting of Jersey, Alderney, Guernsey and Sark with their dependent islets. The largest, richest and most populous is Jersey, which lies about six leagues from the cost of France, being in form an irregular parallelogram eleven miles long and five and one-half miles wide. The climate is mild and temperate, without excessive heat in summer or severe cold in winter, while its surface presents to the eye a rich forest of fruit trees, gardens and little cultivated fields. When viewed more closely it is seen to be intersected with innumerable banks of earth covered with trees and verdant with the leaves of bushes and creeping ivy. These are the divisions of the numberless little fields and possessions of the inhabitants into which the whole country has been partitioned as an effect of the old Norman law of succession, reaching back over nine centuries and enforcing an equal division of land amongst the children of a family. Scarcely an estate is to be found on the whole island exceeding forty or fifty acres. Many vary from five to fifteen and the greater number fall near if not below the extent of the last-named area. All the practices of usual industry in the island are modified by this ancient law of succession and the land thus partitioned is cultivated in the manner of a garden, never lies fallow, is manured with the marine plants which grow in great abundance all over the rocky shores, and yields continued and bountiful crops.

The cow has become a great source of profit to these island farmers, as many as three thousand being annually sold from Jersey alone, and she is in an especial degree the subject of their care. She is penned or tethered on a narrow space and shifted to fresh spots of herbage several times in the day. In the winter nights she is warmly housed, and when about to calve, nourished and attended with great care. In addition to her herbages he is soiled with lucern, clover, carrots, parsnips, and the large Jersey cole, the leaves of which are stripped off as they grow; and it is a true saying that a Jerseyman will never treat his cow with neglect howsoever other animals may fare.

ORIGIN AND HISTORY OF THE JERSEY.

There have been many theories advanced concerning the origin of this breed of cattle, and a correspondent of the Kentucky Live Stock Record, allows his fancy to carry it back to the period when Jacob and Laban were breeders and the former "produced cattle of specific markings from the latter's herd," and he asserts the Jerseys are the descendants of a certain 'grizzled bull' in Jacob's herd. Unfortunately for this theory the ordinary editions of Sacred History speak of these early agriculturists as breeders of sheep and goats only in connection with the production of speckled and spotted animals, and do not mention the supposed ancestor of the Jerseys, the 'Grizzled Bull!' The more reliable theory is that, as the Jersey and Alderney cattle have a resemblance to certain breeds of Norway, Scandinavian cattle were introduced into the islands in the intercourse with the North which followed the subjugation of Normandy and its dependencies.

It is a singular fact that on this little island, not larger than Staten Island, New York, there is a marked difference between the cattle of the eastern and western districts, those of the side most exposed to the winds and saline moisture being small, fine-limbed and hardy: while those of the other side, which is more sheltered, finding a richer pasture, become larger in carcass and, some think, handsomer than the others. Col. Waring, editor of the American Jersey Herd Register, who visited the island for the second time last summer, noted another distinction—the northern and western parishes are giving themselves much more decidedly to the breeding for solid color, black switches, etc., than the southeastern parishes. And he says further that though breeding for fancy colors is condemned almost universally on the island as deteriorating the race of cattle, yet it has taken a strong hold of the majority of the large breeders, and will be practiced so long as the English are willing to pay the present high prices for fancy-colored animals. It is, perhaps, here that we shall be able to compete successfully with the islanders in breeding their especial stock, for we cannot hope to excel them in the dainty care bestowed upon their cattle, or in the little jocky preparations for market, for each beast is as tenderly treated as the Alderney of Miss Barker of Crauford, which, after being denuded of its hair by a fall into a lime pit, was clothed in gray flannel and watched over by all the town. But in breeding so much to fancy points, the real merits will be neglected, and by pursuing these, the breeder in the United States will win a superiority over all others in the production of profitable Jerseys. Indeed it is even claimed by recent visitors to the island that as good animals can now be procured here as there. The importations into the United States by the Fowlers and others command, on the average, higher prices than are obtained by breeders here, owing in part to the opportunity those importers have, by being on the ground, to select stock, in part to the application of the art of putting the animal in fine show condition, and in great part also to the idea prevalent as to all articles of use, ornament or instruction that anything coming from Europe is superior to a similar article of domestic production, or at least its foreign birth gives it a pronounced *éclat*.

THE JERSEYS AS BUTTER-COWS.

Nearly all the early treatises which allude to the Channel Islands cattle speak of the small Alderneys, their high price and their exclusive appropriation to the paddocks of gentlemen, their gentleness and delicacy of constitution, and it was said that being small in size, the milk they yielded is likewise small in quantity, though fully in proportion to their bulk in body; yet even in those days there were exceptional animals which gave their sixteen and twenty quarts of milk a day, and many which, taking several years together, exceeded in value the dairy cows of other breeds which gave more than double the quantity of milk at each milking, that of the Alderney being so rich in cream.

The Jerseys of the present day all over the United States are not small or ill-formed, but larger and much more symmetrical than was the average Jersey of twenty years since, the production of milk also being greater and the yield of butter surprising. In the latter respect the breeders of all other classes of stock, and even the ordinary farmers who have continued to swear by their native cows, are forced to admit that the Jerseys are superior to all others. In the Scientific Farmer, edited by Dr. Sturtevant, a noted Ayrshire breeder, it is stated editorially that "the evidence we have indicates that the Jersey cow is a larger milker than the native cow on an average" and instances are cited of nine to ten thousand pounds of milk from several Jersey heifers respectively in one year. The National Live Stock Journal for April, 1878, summed up the yield of 65 Jersey cows, which showed an average of 295 pounds of butter per year. Motley's Flora gave 511 pounds and 2 ounces in one year. Pansy (1019) 572 pounds in twelve months. A Philadelphia herd of 17 cows averaged 255 pounds each for the year 1876. Mr. Mackie's herd of 15 cows gave an average of 281 pounds on ordinary feed and in a breeding rather than a butter-making herd. In the annual report of the Secretary of Massachusetts State Board of Agriculture for 1876-7, is a portrait of the Jersey cow, Belle, owned by Mr. Elms of Scituate in that State, five years old, for which he has refused three thousand dollars. She made, in March, 19½ pounds of butter per week; in June, 16 pounds per week; in September, 14 pounds per week, and in December, ten months from calving, she was making one pound per day, being due to calve in two months. Five quarts of milk made a pound of butter all through the summer, and in December four quarts made a pound of butter.

It is not always the Jerseys of the largest yield of milk which make proportionately the greatest amount of butter. Those more moderate in quantity are apt to be richer in quality, and a cow giving twelve to fourteen quarts of milk a day is usually a more profitable butter-maker than one giving twenty quarts. We have in our herd Jerseys which produce, when flush, over forty pounds of milk a day, but we set a higher value on others which yield less but whose butter average for the year is greater.

CHARACTERISTICS OF THE JERSEY AS A BUTTER-COW.

The leading characteristics of the Jersey which make her so profitable as a dairy cow are:

First—Her qualities hereinbefore detailed as a milk and butter producer.

Second—Her persistency as a milker. The profit in cows is largely dependent on the continuous flow of milk for at least ten months, and one great reason for the non-success of ordinary dairying is, that the cows are dried off at or before eight months' milking, either because the work is troublesome in cold weather, or because a large calf is desired. The Jersey dries off with difficulty at the end of ten months, and produces a healthful progeny at the expiration of her period of gestation.

Third—The solidity and firmness of the butter made from her milk, which enable the dairy-man to produce as good an article in mid-summer as in spring or fall, the milk of ordinary cows differing greatly in these respects from that of the Jersey.

Fourth—Her ability to pick up a living upon as scanty pastures as any other cow, even one of the native breed, and make more profitable returns therefrom. But the converse of this statement is just as true and its practice more beneficial to cow and owners, for the Jersey will amply repay good and judicious feeding, either on pasture or in the barn. She bears crowding less than the Short-horn, and does her best in winter on early-cut hay with wheat middlings, a little Indian meal and roots.

Finally, the Jersey is as docile and beautiful as she is profitable, and either as a producer for

the butter dairy, or for the family, or as an ornament on the lawn or a pet in the barn-yard, she is unequaled.

A fair Jersey cow should not average during the ten months she is milked less than one pound of butter a day, and as Jersey butter brings everywhere a larger price than that from ordinary cows—say, ten to twenty cents a pound more—it is evident she is more profitable than the native animal for any butter dairy, and her calf will net the owner from $30 to $50.

The fine, gilt-edged butter-makers who obtain one dollar a pound for their production all the year round, mainly rely upon the Jersey as the cow for their dairies and in addition to the color, quality, quantity and flavor, find that Jersey butter bears transportation during the hot weather better than any other, one producer in my vicinity having for years sent his butter in tin-lined boxes a hundred and fifty miles all through the season, without the addition of any ice during the summer months.

THE JERSEY'S FUTURE HERE.

The observation of all discerning breeders who visit the Island of Jersey is that utility is there being sacrificed to vain show; that fancy points are usurping the place of dairy points; that the best butter cows are usually parti-colored, and that though the breeders of the island are themselves convinced that their course is destructive to the best interest of the island in the future, yet they are tempted by the large prices which the solid colors, black tongues and switches bring in the English and even in the American markets, and breed accordingly. Orders are sent for animals of a certain shade of color, without regard often to price and with no allusion to the udder marks, and it is not surprising that these orders are filled and a course of breeding established to suit the popular fancy, just as the silk weaver makes his patterns, not according to his own or any other's artistic taste, but in obedience to the demands of the man or woman milliner at Paris, for as Paris is France politically, so it is the World as to fashion. If we can keep clear of this lee shore and steer straight forward on the broad sea of large milk and butter production, combining therewith good carcass and form, the Jersey of the United States will yet take the lead the world over as the cow of the future. The increasing demand must be for dairymen's cows for utilitarian purposes, and no one can yet put a limit to the butter production of the Jersey, and she is yet to be developed by the breeders in this country beyond our most sanguine expectations, if we keep on the right course.

The Jerseys are now distributed all over the Union, and as a breed are numerically greater than any other except perhaps the Short-horn. They adapt themselves to any and all climates, becoming favorites in Maine at one extreme and Louisiana and Texas at the other, as well as in the regions between, and the demand is like that of Oliver, for 'more.' Every woman in the rural districts, whether she has her piano or sewing machine or not, must have her Jersey cow. At the regular agricultural exhibitions the Jerseys come forward as prominent competitors for premiums, and the interest taken in them is everywhere on the increase, and the farmers no longer sneer at their size or make unfavorable comparisons between them and the coarser animals to which alone they have until lately been accustomed.

The Jerseys have several Herd Books devoted to them in this country, but the Register of the American Jersey Cattle Club is the only one of authority among breeders generally, and a "registered" animal, in breeders' parlance, means one recorded in that Register, and the difference in price between a "registered" and an "unregistered" animal is usually about half in favor of the former.

Berkshire Co., Mass.

SALE OF FINE BLOODED CATTLE.

In Philadelphia, on the 16th inst; Alfred M. Herkness & Co, disposed of a large number of Jersey and Guernsey cattle and Hampshire Down rams, imported by Edward P. P. Fowler, of the Island of Jersey and Southampton, England. The attendance was large and the bidding at times quite spirited, but the prices realized were comparatively low. Among the collection of Jerseys offered and disposed of was Rosette 2d, two years old, which was purchased by J. E. Ridgway, of Philadelphia, for $360; Rebecca, one year old, bought by G. Volmer, of Germantown, for $235; Violet, two years old, by J. H. Cushing, of New York, for $215; Michot 2d, five years old, by Mrs. M. N. Rogers, of Philadelphia, for $200; Verichelez Pride, by Dundas Lippincott, of Philadelphia, for $250; Adeline, two years old, by J. E. Phillips, of Baltimore, Md., for $200; Magdalene, ten months old, by James Mooney, Philadelphia, for $205; Mabel, seven months old, by J. H. Cushing, of New York, for 195; Mignonne, nine months old, by J. E. Ridgway Philadelphia, for $390; Duchess, two years old by Alfred Baker, of Atlanta, Ga., $300; Patience, four years old, by William Barnett of Lionville, Pa., for $330; Cleopatra, three years old, by William R. Bullock, of Philadelphia, for $315, and Belle of Beaumont, two years old, for $160 to S. C. Kent, of West Grove, Pa. There were also the Jersey bulls Ameer, eighteen months old, and Beaconsfield, eleven months old; the former to James Young, of Middletown, Pa., for $215, and the latter for $225, to S. M. Burnham, of Connecticut.

Industrial Societies.

THE UTICA CONVENTIONS.

During the last week Utica, New York, has been the scene of a large gathering of dairymen, from all quarters of the country. The variety of subjects brought before them rendered this meeting probably the most important ever held in this country. The adoption of a constitution and by-laws for the proposed International Dairy Fair Association had to be considered and its officers to be elected. A meeting of dairymen was also held to consider the propriety and practicability of creating a test record for milch cows. Then the American Ayrshire breeders held their annual meeting at the same time. The American Dairymen's Association held its convention and the New York Central Farmers' Club had a meeting, so that the week was portentious with dairy doings.

To take these matters up in the order of their importance, we will first discuss the

INTERNATIONAL DAIRY FAIR ASSOCIATION.

At a meeting held at the American Institute at the close of the last fair, a committee was formed to draft a constitution and by-laws to be submitted to a convention to be held at Utica, New York, on the 14th day of January. Agreeably to this appointment, a large number of persons interested in the dairy or its products, met at the Butterfield Hotel and in committee went over the proposed constitution and by-laws, section by section, some parties contesting every step and thus foreshadowing the rumpus that was created when the committee's work came up before the regular convention for adoption. All the fiery eloquence, however, that was showered upon the meeting only evidenced by its heat the interest that all felt in so important an undertaking. Mr. Folsom and Prof. Arnold made some vigorous opposition to the constitution. The grounds of their claim were that the officers of dairy conventions in general should have been especially invited to be present at this meeting, and to further that purpose, it was proposed to adjourn until some time in the spring. But as no one felt like doing this work all over again for so small an object, the resolution was voted down by a large majority, and the convention proceeded to elect officers. It was early evident that there were but two candidates in the field, Mr. Francis D. Moulton and Mr. F. B. Thurber, and between them it was a very close race, first one leading and in the next ballot the other being ahead, neither being able to obtain a majority.

For the sake of harmony it was then agreed to let the one who obtained the greatest number of votes be elected. At the next ballot Mr. Thurber was the successful aspirant with a bare majority of four votes. His friends then came forward and urged upon the convention the propriety of electing Mr. Moulton first Vice-President by acclamation, which was done with great enthusiasm. Upon Mr. Moulton's final acceptance of the office which he at first refused, he pledged his best and most energetic efforts in behalf of the success of the fairs, and everybody felt relieved as there was great danger that the conflicting elements could not be amalgamated after the heat of the contest was over—and nothing but cheerfully working together would make the fairs successful. Now, however, we may look forward with every hope to a brilliant success for our International Dairy Fairs.

TEST RECORD FOR COWS.

Among the ideas that have been floating through the minds of the dairymen of this country and that, in fact, stands second in importance to no other, is the proposition to start a record of performances of dairy cows. There have been great trouble and diversity of opinions as to how the tests could be gotten up, but the necessity for it certainly exists in order to utilize the existing Herd Books that now only pledge the purity of blood, which blood may or may not be of any value in dairy cattle. If we can secure the records of cows' performances, then the existing Herd Books will be of very great value to us. To accomplish this end, a number of breeders representing all the breeds of thoroughbred cattle, met at the Butterfield Hotel, and discussed the feasibility of such designs as were proposed. I have not at present the time to fully outline even the propositions that were most favorably considered. It is of very great importance that we should hear from breeders generally through the agricultural press. Everybody seemed to be enthusiastically in favor of the proposed measure.

AYRSHIRE BREEDERS' MEETING.

This was held at Baggs's Hotel, for the purpose of electing their annual officers and making some changes in their by-laws and constitution. The officers elected were, for President, William Birnie, Springfield, Mass.; Vice-Presidents, Obediah Brown and Samuel Campbell; Executive Committee, T. M. Wells, Charles Sanford, Alonzo Libby, R. A. Boyer and A. R. Venable; Secretary, J. D. W. French; Treasurer, J. T. Brown. These officers were happily chosen from every part of the United States where Ayrshires exist to any measurable extent, and this mode of election is quite a contrast to that followed by some of the kindred associations that I know of. The matter of most importance before this meeting, was a proposition to cease registering the cattle that could not trace back their lineage to importations. The Secretary's arguments were to the effect that men were a little too liable to stretch the facts in making up such pedigrees, and that this imposed a fearful burden upon him. Such a proviso, however, is to be regretted, as we should foster home breeding as much as possible, while the fact of importation is of no real value whatever.

AMERICAN DAIRYMEN'S ASSOCIATION.

This organization also held its meeting at Utica during the week. The other matters were so much more absorbing that the speakers could hardly be held in their positions long enough to tell the empty benches what the agricultural colleges had failed to teach them. In fact, it was only after the adjournment of the convention of the International Dairy Fair Association that anyone took any interest in the addresses being delivered here. They were in no wise different from those of other years, and it was comical to hear each advocate state in glowing terms the rising beauties of his favorite breed of cattle, and as the speakers with different opinions followed each other in immediate rotation, the audience was completely bewildered. So, with the salt question: Professors, agents, dairymen, and dealers advocated this, that, or the other brand of salt with a decided leaning in point of numbers toward the peculiar prejudices of the secretary on this subject.

THE CENTRAL NEW YORK FARMERS' CLUB

also held a meeting at the Butterfield Hotel to elect the officers for the ensuing year. I did not get in in time to hear the usual addresses, and cannot therefore speak advisedly of them. The attendance was good, and the interest shown was flattering to the management.

A number of us belonging to the New York delegation took a sleigh ride out by the Unadilla Stock Association's grounds, and caught a glimpse of their beautiful herd of Holstein cattle and formed a pretty clear conception as to how beautiful that country would look in mid-summer, when something else than three feet of monotonous snow covers the face of the earth.

L. S. H.

A convention of sorghum growers will be held at St. Louis on February 5th, at which the advantages of the comparatively new Early Amber cane will be fully discussed.

Dairy Husbandry.

WHICH BREED FOR THE DAIRY.—No. 3.

L. S. HARDIN.

Points of Profit

Relation of food eaten with live-weight; a lesson from the trotting horse; average weight of milch cows of different breeds; proportion of milk and butter to live-weight; champion butter and milk breeds

In making up a table of the various good and bad points of cattle, we should not lose sight of the relative weight of each breed, nor will I by this admission subscribe to the common claim that large milkers always eat more than small ones. I think beyond doubt it is true as a general rule that large cows eat more than small cows, and probably in the exact ratio of their relative weights, and it is a great pity that our agricultural colleges cannot tell us what that ratio is. But when we come to the question of yield of milk, we are dealing with altogether another principle. Here we are met with the intricate principles of assimilation of food. A cow that will yield twenty-five pounds of milk a day, will probably consume two hundred pounds of food and water to accomplish it. Out of that two hundred pounds of material her powers of assimilation will decide the point whether she will make ten or fifty pounds of milk.

That I should make a difference between the powers of assimilation required to make bone and muscle, and the powers of assimilation required to make milk, looks a little as though I were imitating some of the professors in my theories. But I am certain my experience with cows demonstrates this to be a fact; whether or not the fact agrees with any theory is a matter of not so much moment.

There seems to be a parallel case in trotting horses. The horse that trots a mile in 2:20 will expend no more vital power than the horse that requires two minutes and thirty seconds to accomplish his mile, provided both are doing their best. The fastest horse will not, of necessity, eat more than the other. The cause of large animals eating more than small ones may lie in the fact that the former have a greater surface for evaporation, more extravagant lungs and other organs for throwing off waste material. But when it comes to producing a specific article, like milk or fat, the amount diverted to this purpose from the general waste, bears little or no relation to the original demand for food by the digestive organs. The question of what is the average weight of milch cattle is a difficult one. Probably no two breeders would set the same weights for the different breeds, and I am therefore all the more at liberty to pass my own judgment on their respective weights.

The time to test a cow's weight is while she is in full milk, as she is then in the best working order, without fat or fœtus to interfere more or less, as the latter always will, with her actual weight. I would put their respective weights as follows, being more anxious to get their relative than their actual average weights.

Jerseys	800 pounds.
Ayrshires	900 "
Natives	1,000 "
Short-horns	1,300 "
Holsteins	1,300 "

Prof. Arnold, in his work on American Dairying, puts the weight of Ayrshires at 1,000 pounds, Jerseys at 800 pounds, and Holsteins at 1,500 pounds. As it is hard to get the average of fat steers up to the last-mentioned weight, I am positive the Professor has made his estimate too high for any class of milch cattle.

Having offended our Short-horn and Jersey friends with the first table published on this subject, in order to be entirely impartial in the matter of giving offense, and to prevent having any friends at all, I will now give some additional figures that will, I fear, displease some of the other breeders. Having called attention to the fact that large cows eat more than small cows, and having given the relative weights of the different breeds with the respective yields of butter, I will now put them all together to see what proportions of butter and milk they yield to the one hundred pounds of live-weight. This table is made up from the two preceding tables.

BREED.	Lbs. milk.	Lbs. milk to butter.	Butter.	Av. weight of cows.	Butter to live-weight.	Milk to live-weight.
Ayrshire	5,469	25	218	900	30¾	607¾
Short-horn	6,312	25	252½	1,300	19 5-13	485
Jersey	5,625	22	281	800	35⅛	703
Native	7,550	25	302	1,000	30 1-5	755
Holstein	8,767	25	350	1,300	26 12-13	674

If this table is built upon sound principles, and taken from correct data—and I firmly believe it is, saving perhaps the Ayrshire yield which certainly looks too small—then it speaks volumes in favor of a more intelligent system of dairying. I have been laboring in season and, I suppose, out of season, to induce dairymen to stop the ruinous policy of carrying hundreds of pounds of superfluous flesh for many years on the frame of a milch cow only to make second-rate beef of her in the end. Does not this table, these solid figures, speak volumes in favor of eliminating with an unsparing hand those large-framed, indifferent milkers from the herd?

I notice that the Rural's very entertaining correspondent, Dr. Hoskins, gives us an article in favor of the Short-horn in the dairy; but with all his research, though his favorite breed has been in this country longer than any other, he has been able to find only one herd that can raise the butter yield to 261 pounds per head, which leaves the Short-horn still below the Jersey, Native and Holstein in the above table, and far below the correct figures of a profitable cow if she weighs the thirteen hundred pounds charged against her, and if she falls below this weight she has but poor claims to the honor of being called a Short-horn.

A gentleman writes to know what I mean by the word "actual" in my first table. That meant that the butter was actually made and not estimated at so many pounds of milk to the pound of butter, as with the other breeds where the owners only furnished me the milk yield.

In this table I have supplied figures for all the blanks and added the additional estimates of milk and butter yield to the one-hundred pounds of live-weight, which gives this:

Standard 35 lbs. butter to 100 lbs. live-weight.
" 755 " milk " " "

According to this the Jersey bears away the butter honors and the Native those for milk.

If anyone can find fault with these conclusions I hope he will do so, for I am only struggling to get right on this subject.

Arboricultural.

EVERY-DAY NOTES.

SAMUEL PARSONS.

WHY HAVE WE SO MANY ARBOR-VITÆS?

THE mere asking of such a question implies a superabundance of Arbor-vitæs. But I desire at once to explain my use of the term "so many" as decidedly relative. In other words, while we can hardly have too many useful and attractive trees properly distributed, yet we may employ too many of one kind, and especially of one kind which possesses undesirable qualities. There is, of course, a place on the lawn for every valuable ornamental tree, in spite of any particular defect, but whether we shall employ the more defective ones in relatively large quantities is another question. The Arbor-vitæ, or American Arbor-vitæ, for practically that is the only variety that comes under consideration, has been very widely distributed through the country in the form of hedges or single plants. Its special office, however, has been that of a hedge. When it first came into general vogue more than thirty-five years ago, the best judges thought it a great acquisition for the lawn, and recommended its use far and wide. Immense quantities of young plants could be obtained in the woods and pastures of Maine and elsewhere. It transplanted readily, grew well, and above all, could be clipped with ease into the formal (monstrous) shapes which seem so popular. Planting and other improvements in cemeteries grew to be the fashion, and what better plant could be used for hedges on the boundaries of cemetery lots than the American or more dwarf Siberian (American) Arbor-vitæ. Cemeteries have been greatly multiplied during the last twenty years, so that there has been great room for the employment of Arbor-vitæs. Their cheapness formed another attraction, and soon nearly every door-yard was graced with a hedge or, at least, two or three single specimens of Arbor-vitæ.

But let us consider whether this popularity was deserved. Except in June or early summer the Arbor-vitæ has a pale, peculiar green that is much less attractive than the green of many other evergreens. The shape is decidedly formal, possesssing little grace or elegance, but is, nevertheless, attractive when used in moderation or grouped with other evergreens. Neither is the beauty of the Abor-vitæ long-lived, especially if the tree is left unpruned. It becomes naked at the base, bulges out and splits badly. Even its most popular quality, that of clipping well, soon stunts it and produces surfaces devoid of foliage. There are a half-a-dozen evergreens that surpass it for ornamental purposes, such as White and Norway Spruces, Hemlocks, Retinosporas and some Pines and Silver Firs. Yet one objection that has been made against it, lack of hardiness, is not a fair one, since it does as well in winter as most evergreens. The way in which the growth of Arbor-vitæs has been discontinued since the heavy freeze a few winters ago, is due to as ill-judged a procedure as was the former mania for its universal employment. It must be explained also that the discontinuance of hedges on cemetery lots has done much to restrain the general use of Arbor-vitæs. Indeed, now that we are employing a much larger variety of evergreens for lawn-planting, such excessive use of one kind of tree will scarcely happen again.

THE VALUE OF EVERGREENS IN WINTER.

Walking out to-day in the bitter cold of a winter's morning, with the mercury at zero, thoughts in accord with the weather came to my mind. These thoughts naturally dwelt at first on the intensity of the cold, bleak wind, but as I passed suddenly into the lee of a grove of Norway Spruces, my mind, sympathizing with my physical condition, turned to the value of evergreens in winter. Anything that could afford such delightful shelter in winter deserves mention in the highest terms. During the temporary luxury of walking in the lee of these trees, I made up my mind, as I had never done before, that every one should plant evergreens to the north and west of his dwelling. I fully realized at this moment their supreme value as wind-breaks, and wondered exceedingly why people did not always attend to this matter. Deciduous trees may be, and are, valuable and delightful on other parts of the lawn, but nothing can take the place of evergreens for the north and west. True, few sorts of evergreens are suitable for wind-breaks. But if Pines and Spruces are disposed in an irregular belt or semi-circle, planted somewhat alternate-wise about the northwest corner, the borders, front and rear, might be varied by outposts of choicer specimens. Thus situated, fine evergreens could develop properly and exhibit their charms in their very best array.

HIBISCUS COCCINEUS.

Again, in the retired nook that would be left in the angle behind the wind-break proper, choice evergreens and other plants of low growth could be mingled with natural bits of rock-work, and the whole reached from the lawn by obscuring and winding paths. A varied and pleasing effect could in this way be given a wind-break, which otherwise would lose its attraction with the lapse of time. Large evergreens suited for shelter, Pines and Spruces, seldom retain for many years an appearance that is attractive close at hand. Need I exhort everyone to the practice of combining the useful and the ornamental in lawn-planting as in other operations? Hardly: everybody must already know the desirability of doing so. But perhaps everybody does not realize in actual practice how exceedingly ornamental a useful thing may be made.

A SCHOOL OF FORESTRY.

BY FRONTIER.

A FRIEND who resides far out on the plains, urges with much earnestness the establishment of a school of forestry, or experimental station, at some central point in the vast region embracing Nebraska, Kansas, the Indian Territory and Texas. From long experience he has been forced to believe that this is one of the great wants of the plains. There are some good reasons for his conclusion. It must be conceded by every intelligent observer that the possibilities of forest culture will determine more than any other available branch of human industry, the future wealth and national importance of this vast central region, 15,00 miles long and 500 miles wide—a country of unsurpassed natural fertility, and larger than the whole of the German Empire and France combined. The great want of this entire region is trees, and nothing can add more to its available wealth than a system of forestry adapted to the plains. As this country is rapidly filling up with a hardy population, the tree-planting interest is becoming daily more important. If the claims of forestry deserved the consideration of Congress in any way last year, in view of the rapidly changing condition of the great plains the demand for attention is vastly greater to-day.

While the subject of forestry is of national importance—a fact recognized by the appointment of a national Commission upon it, and the publication of an extended report on the subject—yet with respect to the plains it demands special consideration. In a large area of our country forestry is practical only with respect to conservation; but here the location and production of forests form the all-important question. The more intelligent nations of the Old World have for many years been at work in this direction with an energy and wisdom that should challenge our emulation. In view of all the surroundings, this work can be no more important in Germany, Belgium, or France than in this vast region which occupies the very center of our national domain. If the governments of the Old World are acting wisely in making liberal provision in this direction, then surely we are making a great mistake in neglecting to foster this interest. The want nationally is virtually admitted by the appointment of something like a Commission of forestry.

The most important question, then, is, how shall this want be supplied? It should be remembered that as far as the great plains are concerned, a system of forestry which has grown up in the damp, cold climate of Europe will be of little avail here. Our system of forestry, if we ever have one, will not only be peculiar to, but a creation of, the plains, and its success will depend upon plainsmen who have studied and learned to overcome our peculiar climatic conditions. It may be well to send Commissioners of forestry to Europe, but would it not be more practical to expend money in learning here at home the real conditions essential to successful forest culture. We do not want so much to know what can be or has been done in Europe as what can be done on the plains. The sending of men to Europe will not help us. If there is anything to be done, it should be done here. Our business is with our own peculiar climate and soil. We do not need to expend much time in studying the forestry of Europe, but we do want the means to study forestry here at home. And we would say to our Government, instead of expending thousands in looking after European processes, give us somewhere on the plains an experimental station, or school of forestry. Let it be established upon an intelligent and ample basis. Let it occupy some central point in thi s vast region, where the peculiar climatic conditions of the plains can be carefully studied, and the difficulties in the way of forest culture successfully met. Or, better still, would it not be possible to connect with our military posts a series of experimental forest stations, the whole being under an intelligent superintendence. Or, if neither of these plans can be made available, will not some persons of ample means, who have the future interests of this great country at heart, take this work in hand and see that something is done? Is there not some one who will do for the development of American foresty what J. B. Lawes has done for English husbandry?

Manhattan, Kansas.

Floricultural.

HIBISCUS COCCINEUS.

ONE of the most beautiful species of Hibiscus, and one which has not as yet received the attention of florists and amateur cultivators of flowers to the extent it merits, is Hibiscus coccineus, a representation of which is given in the accompanying engraving. It is a perennial herb, and grows wild from Carolina southward in marshes and on low, rich land, where it attains a hight of about six feet. The leaves are palmately veined and deeply parted into five lanceolate, acuminate lobes. In its native home it bears in July and August a profusion of bright red flowers that often measure six inches or more across, but in this latitude neither blooms so early, nor are the flowers so large. For the past three years this Hibiscus has been cultivated at the RURAL Grounds, where it has been kept in plant-house during winter and transferred to the open ground in May; but lacking the hot sun and humid atmosphere of its native habitat, it did not bloom until it was moved to the green-house in the fall, though there can be no doubt that it might bloom out-of-doors in this latitude, if forced for some time in the green-house before setting it out.

Being a very ornamental plant, with graceful foliage and large, showy flowers, and requiring no special care but such as can be tendered in any ordinary green-house, it is well worth cultivating, and deserves a place in every moderately-sized collection of plants.

Our engraving of the flower is somewhat and of the leaf considerably smaller than life. It was sketched in part from a dry specimen which bloomed with us the past season, and in part from a colored plate in Mr. Meehan's series to which references have repeatedly been made.

We chose to present the engraving, not only for the beautiful plant it represents, but because by its aid we can give our readers a better idea of the the Rose Hibiscus (H. Moscheutos) seeds of which are offered in the RURAL Seed Distribution (see Nov. 9). The flowers of this are larger, the petals broader and more imbricated and the color is generally rose, (sometimes white) instead of crimson. The leaves too though coarsely toothed, are but obscurely lobed, while those of Coccineus are, as seen, deeply parted. Both grow naturally in swampy places and both will thrive in high, dry soil. We are in hopes that the seeds we send out may lead to that cultivation which it is reasonable to suppose from analogy, it alone needs to induce the departure from the original which we call "improvements."

Entomological.

THE WOOLY APHIS OF THE APPLE-TREE.

(*Schizoneura lanigera. Hausm.*)

PROFESSOR CYRUS THOMAS.

I SEND the following notes on the above-named insect, to be added to what is said by Mr. Mann in the RURAL for Dec. 28.

As stated by Mr. Mann, the species was named by Hausmann in 1801 as infesting all apple trees in Germany. Serville and Amyot assert that it was unknown in Europe previous to 1787, at which time it was first observed in England, having been, as it was supposed, imported from North America. Tougard (*Ann. Soc. d'Hort. de Paris*) asserts that it was unknown in Belgium previous to 1829. The first-named authors also state that it was not observed in France until 1812. Harris, relying upon the authority of Salisbury ("Hints on Orchards"), declares that it was unknown to French gardeners for a long time previous to the date of its supposed importation into England. If it was imported into England in 1787, it did not reach France and Belgium until 1812, yet we find it in Germany in 1781, and that without any hint as to its recent importation. Serville and Amyot appear to have overlooked Hausmann's statements, although they must have had before them Vol. 1. of *Illiger's Magazine*, in which they were found. I may also add that M. Eudes Deslongchamps, in a prize essay read before the Agricultural Society of Caen in 1830, and M. Blot in a paper of the same date, maintained that it was not introduced from America, but was indigenous to Europe; that occasionally, under favorable circumstances, it was greatly multiplied in certain localities, and then for a time would disappear, and hence the idea of importation. The name "American Blight," given to it in England, indicates, on the contrary, the popular belief in that country of its American origin: but such popular names are about as often wrong as right. Prof. Riley in his third report, asserts, upon what authority I am unable to say, that it is conceded on almost all sides that it was imported from America into Europe.

Its habits, all the facts that can be ascertained in reference to its history in Europe, the discovery by Messrs. Walsh and Riley of its identity with the Apple-root Louse, are sufficient, in my opinion, to render it highly probable at least, that Harris was correct in supposing it to be an importation from Europe into America.

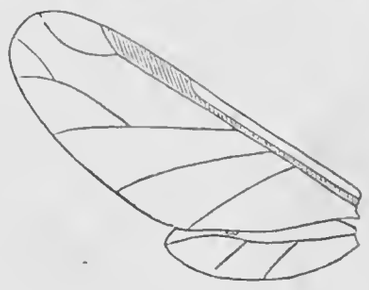
The generally accepted opinion in reference to the manner and place of depositing its eggs, as stated by Mr. Mann who follows Harris, is, I think, theoretical. He speaks of the winged females of the fall brood flying from tree to tree, depositing their eggs in the crotches of the branches, chinks of the bark, etc. I know not what personal observations he has made, but it is certain that Harris copied from Hausmann and Knapp his statement in reference to this matter; also that these two authors were not so fortunate as to discover a single winged specimen; in fact, they were of the opinion they never acquired wings, and Harris appears to have coincided with this opinion. It is also certainly true, as demonstrated by Walsh and Riley, that the winged specimens described by Dr. Fitch did not belong even to the same genus as the Wooly Aphis, but to Pemphigus.

While it is true that winged, oviparous individuals occur among the Chermesinæ and allied genera, the oviparous females of Aphidinæ are always apterous, and the same is probably true of the Schizoneurinæ; in fact, Kattenback believed the species of this group were always viviparous, but this is now known to be a mistake. Koch, in his admirble work on the Plant-lice, fails to notice this species, but speaks of the "Altmutter" (colony founders), of one species of this genus (*Schizoneura*) as being winged, though in most cases they are described as apterous. But this does not prove they are "oviparous," as in a large majority of cases the winged Aphides which found colonies are "viviparous."

While it is very common for the Aphidinæ or higher types of the family, especially those which feed on the leaves, to hibernate in the egg state; on the contrary it is very common for those of the lower types, which are oviparous, to winter over as larvæ, especially those which infest the roots as well as other parts of the plant.

While I cannot say that the Wooly Aphis of the apple tree does never hibernate in the egg state, I do know from personal observation that it does (and as far as I have observed only), winter over in the larva, or preparatory state. In January, 1877, after one of the coldest spells we had experienced for several years, I found them, while the snow was yet on the ground in considerable numbers on the trunk of an apple tree in my yard. And now, while writing this communication (Dec. 31, 1878), while the snow is still several inches deep and after most severe cold, I find them on the trunk of an apple tree, torpid, it is true, but reviving and moving about soon after being brought into a warm room.

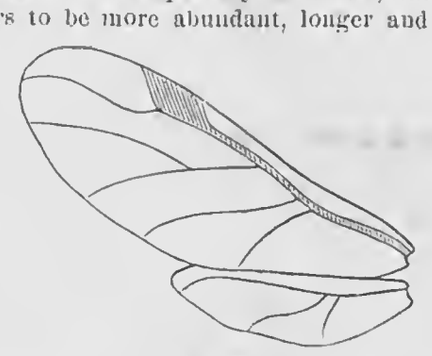
Another significant fact to which my attention is now called for the first time is, that they appear scattered over the trunk in little colonies in such fissures and chinks as they could find. In these colonies the few (from one to three or four), apparently full-grown individuals, which are thickly covered with cotton, are all dead, the larvæ alone remaining alive. These full-grown individuals are all wingless. Were they the founders of the colonies? Or were they deposited by winged females? I have failed entirely to find any



No. 1.

eggs, although I have examined closely for them. I find minute yellowish-white globules in the cottony material, but these little vesicles are not eggs, they are fæcal matter discharged from the anal aperture. The same thing is common with the Elm-leaf Aphis (*Schizoneura ulmi*), a species which, on account of the annual decay of its habitat, most probably hibernates in the egg form, but the reason for this is wanting in the case of the Wooly Aphis of the apple tree. Taking all these facts into serious consideration, I am disposed to seriously doubt the correctness of the statement Harris has copied from Hausmann and Knapp concerning this matter.

Most orchardists are aware that the work of these insects can generally be detected even after they have disappeared. They usually cause the surface of the spot they infest (on the trunk or branches) to become granulated and roughened. If present, they are easily recognized by the bluish-white, cottony substance they secrete from their bodies. At certain times, and especially in winter, this appears to be more abundant, longer and of a

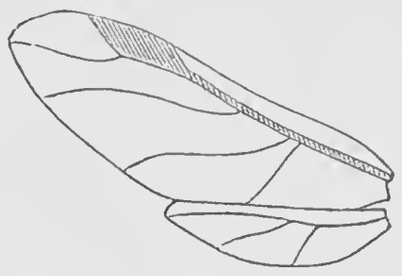


No. 2.

purer white than at other times. When they locate on the trunk or branches, so far as my observations extend, they usually select as a starting point some fissure, cut, break or otherwise injured spot in the bark; or, if these cannot be found, the wrinkles about the axils of the larger branches. In 1876 I noticed, during the summer, little scattered colonies even on the smaller limbs and twigs. If a tree is neglected and allowed to send up sprouts from the base of the trunk, the point of junction at or below the surface will be found a favorite resort for these insects.

REMEDIES.

For those on the trunk and branches, Mr. Mann has already mentioned the chief topical remedies. Kerosene, if carefully and properly applied, will probably be as effectual as anything else that can be used. Blot was of the opinion that topical applications were of comparatively little use, probably because the trunk continues to be supplied from the root colonies. His reliance was chiefly on preventive measures, and to this end he recommends the following culture: Avoid giving to the nursery, where the young trees are, more shade than absolutely necessary; avoid placing the trees in too flat or humid ground; give to both the nursery and orchard all the ventilation possible, so that they may be thoroughly aired, and keep the heads of the trees open, so as to favor the circulation of air and the drying of the soil; use the plow frequently, and do not permit rubbish or twigs to remain under the trees; surround each tree with soot or tobacco and fine sand.



No. 3.

For the destruction of the root-lice Dr. Fitch suggests clearing away the earth from the roots, as far as it can conveniently be done, then pour strong soap-suds upon them in sufficient quantity to penetrate and saturate the crevices in the excrescences. The soil taken out should be removed and other soil substituted; or, if returned, ashes should be freely mixed with it. I think it would be well in any case to substitute light and very sandy loam mixed with ashes or lime. Another method which was long ago practiced by French horticulturists, and strongly recommended by Blot in his celebrated essay on this insect, and which has also been recommended in this country by Harris, Walsh and Riley, is to drench the roots with hot water, applying it in sufficient quantities to penetrate to all parts of the roots which have been attacked. So far as I can ascertain, this species appears to infest the trunk and branches more abundantly in the northern sections, retiring more and more to the roots as we move southward.

I send herewith cuts of three principal forms of wing venation found in plant-lice. In No. 1, the third oblique vein is twice forked, which is the form found in most of the leaf-inhabiting species, as the rose, cabbage and apple plant-lice. No. 2 has the third vein but once forked; this is the form seen in the Wooly Aphis of the apple tree. No. 3 has the third vein simple, unforked and is seen in the genus Pemphigus or gall-making species.

Carbondale, Ills.

The Poultry Yard.

THE GAPES IN CHICKENS.

GEN. W. H. NOBLE, BRIDGEPORT, CONN.

Advent of the Pest.

I HAVE always dreaded a visit of the gapes to my poultry. Till a few years since it had never been known in this neighborhood. But in an evil hour, I was tempted to cross a large white hen with my fowls of that pet color. She came from a farm where about one-third of the chickens yearly died with the gapes. Often whole early broods were swept away. I had often seen the poor wee things gasping for breath, sickly-looking and stunted. They stood around in torment when they should have been on a joyful hunt after worms and grubs. Those which lived through the virulent season of the pest were greatly behind the size and vigor to which they were entitled. I believe in the doctrine of the survival of the fittest. But I don't think the fittest survive in any better shape for running the gauntlet of disease and hardship for dear life. Now I did not suspect that those contraband gapes would have hid somewhere in the substance or apparel of that old hen, and traveled with her to torment me. I don't know of any theory about the pest which furnishes it with a lodging or resting-place in the precincts of a full-grown fowl. Yet as it came and set down a big death list in my flock with the advent of this white hen, I cannot but think that the seed of the gapes took passage with her, like rats on a ship. At any rate, the next spring lots of my nice chicks gave up life under the painful ail.

Untrustworthy Nostrums and Safe Remedies.

I tried to conquer the trouble by fishing the worms from their throats with hair snares and feathers; but I am not handy at such work. The business, too, is tedious, and one which can not be safely deputed to Patrick. If this is done, the gape worms and the chicks will be buried in the same graves. In throat swabs of kerosene or turpentine, or in anti-vermin cures mixed in food, I never put much faith. The first might kill the worms, but would be pretty sure to kill the chicks, too. As to the food mixture, I never could see exactly how a cure taken into the stomach, would kill a worm in the windpipe. The remedy would have such a round-about road to get at the gape cause that I fear it would tire out on the journey.

Then I bethought me of the insect-smiters, lime, sulphur and carbolic acid. I slaked a barrelful of lime-wash to about the thickness of paint. Into this I stirred from ten to twelve pounds of sulphur-flour. Into each pailful used, I mixed about a tablespoonful of carbolic acid. With this on a broom or brush I sloshed over every part of my hennery, roosts, floor and walls, as well as every chicken coop, outside and in. Particularly over the floors of the latter a heavy coating was flushed. In the chicken coops this regimen was renewed again and again, especially with each new brood in the breeding season. The work is done very quickly. When Patrick finds out that he has not a job of delicate and artistic whitewashing on hand, he soon learns to despise economy of materials. The result is that the gapes have left. I have not lost a chick from it in more than two years; nor have I seen a symptom of its life in my broods.

I say, therefore, here is a remedy that suits all phases and years of hen life. It's just as good for the old as the young; for the mites of spider lice and for those bigger crawlers that so torment our fowls, as for killing throat worms. I have no doubt that other methods of defence and cure, from time to time put forward in the RURAL and kindred journals, have great and perhaps equal merit. The fumigation of a brood with tobacco or sulphur smoke in close quarters or coops; the thorough saturation of the dwelling and premises of our feathered pets with the dust of hellebore or Persian insect powder, well diluted with fine dry ashes of wood or coal, or with flour of sulphur, all do a blessed work for our poultry. These fumes and dust, breathed and blown into the throat and lungs and into the plumage of our birds, strike the vermin where they live, and stick to their hides to kill.

Lots of Sure Cures.

I think we should criticise and charily adopt all cures put forward for ails, which do not hint some trial or reason for their use. We know that everything in my mixture is a terror to insect tribes. But virtues are claimed for many things which are mere whim-whams and senseless fancies. No untried remedy put forward for any ail, which does not logically sanction a hope of cure, deserves our tests.

I am often amused at the thousand and one remedies put out for the ails of animals, trees or fruit. Lots of them are mere enthusings of those who are always ready with a cure. The curculio has had ruin threatened to his waste and life over and over again; but the rascal still lives and hurts. A good specimen of these random remedies was given by an able lawyer and senator to a professional friend, as sure to keep his plums from curculio ravages. It was to bore in the plum-tree trunk a hole large enough to admit a roll of sulphur, and after placing it there, to plug the opening; "then the sap currents would absorb the sulphur and kill the insect." This is a good deal worse than doctoring the stomach for a worm in the windpipe. But it is about as logical as that funny medley which Mark Twain recorded as the kind suggestions of friends to cure his cold.

Know About What You Prescribe.

Therefore, let no one put out in word or print a cure for ails in man, beast or tree, unless he can tell us of a trial of it, or give us some logical reason for hoping good therefrom. The old extinct Globe newspaper, the organ of "Old Hickory," flaunted at its head the sensible motto, "The world is governed too much." Some medical books or papers might well set up a paraphrase of it, "The world is doctored too much."

FEEDING HENS FOR EGGS IN WINTER.

IF a man has a comfortable place in which to keep his hens, he can keep them laying through the winter, if he chooses to give them the necessary care and attention in the preparation and variety of food. As to variety of food, though either corn or buckwheat, as well as other sorts of grain, are excellent feed for poultry, still neither corn nor buckwheat alone, meets the requirements for egg production, but either or both of them with the addition of other food of different kinds, to make a variety suited to the birds' wants, will answer the purpose, and produce a supply of eggs which will well repay the expense and labor involved. I have had excellent results from feeding mainly with buckwheat, giving daily, in addition, some kind of cooked food warm, as, for instance, a pudding of corn-meal, or some small potatoes baked, and occasionally seasoning the mess well with cayenne pepper.

An occasional feeding of scraps of meat or something of that kind, is also necessary in the winter when the fowls are confined to the house and there are no insects or anything of that nature which they can procure—at any rate if this is not a necessity it will be found a very beneficial addition to their diet. A supply of bones or oyster shells burned and powdered, or in some other way rendered fine; or some other material containing lime for the formation of the shells, should always be kept within reach of the hens. They should also have access to the earth in some manner, or a quantity of gravel should be kept in the poultry house, as it is necessary to the health of fowls that they be able to obtain something of this nature to aid in the process of digestion.

Perhaps it may be unnecessary for me to say anything of the necessity of a supply of water always being accessible to them, but I have seen fowls kept where they could obtain no water in the winter except by eating snow, and though they may live through that bleak season despite such treatment, still no one who treats hens with such neglect deserves, or will receive, anything from them during the winter months to pay for the food consumed by them. Now, let any who want a supply of eggs this winter, follow the mode of treatment here suggested, and I think they will be satisfied with the results.

E. J. B.

A GOOD EXAMPLE TO FOLLOW.

A CORRESPONDENT in Ottawa, Illinois, sends us an interesting account of a Poultry and Dog Show, which lately entertained that town through the efforts of the La Salle County Poultry Association. There was a liberal list of premiums for all kinds of poultry and

canine excellence, and all varieties were well represented, the entries including some fine specimens of water fowls as well as pure-bred birds. We are glad to hear that the exhibition was a financial success, as such displays are always sure to be in all enterprising towns surrounded by wide-awake farmers, if only the undertaking is judiciously managed. What adds to the pleasure of this result, at the same time that it shows a growing tendency to a very desirable united action among the agricultural community, is that it was the first venture of the kind in that neighborhood. As a natural consequence of the financial and pleasurable success of the undertaking, the managers have come to the wise determination of getting up similar meetings every year in future. By noticing the shortcomings and openings for improvement in each year's display, such exhibitions may be made both highly successful pecuniarily, and sources of pleasure and profit to the whole neighborhood.

Everywhere.

NOTES FROM KENTUCKY.

It has snowed here more or less twenty-two days out of the last forty. The snow is now fourteen inches deep, giving us better sleighing than has ever before been known in this vicinity. The highest temperature during the past four weeks was 49°, the lowest 20°, average 28°. Our out-door stock, however, is doing much better than when it rains, snows, freezes and thaws in such quick succession as it frequently does in this latitude.

Stock hogs and cattle are abundant at 2½c per pound; wheat is worth 85 to 90c.; corn, 35c.; potatoes, 40 to 50c. per bushel. We have had more failures during the past year than ever before. Farms that, five years ago, sold readily for $50 to $100 per acre, are now offered for from $20 to $40 per acre—good, well-improved, river-bottom farms. It does seem to me that the bottom is reached at last, unless it has fallen out entirely. The fear of the latter calamity deters, I presume, many from taking advantage of the present crash in real estate.

The potato crop is one of the most important here, and it may be interesting to note the varieties grown and the yield per acre, with our ordinary field-culture, generally on clover-sod, without artificial fertilizers, and with but little barn-yard manure.

VARIETIES OF POTATOES GROWN HERE.

Scotch Noble, large, round, deep-eyed, late, averaging, the past season, about fifty barrels per acre, which is equivalent to seventy-five in favorable seasons. This is the successor of the Shaker Russet, and closely resembles it.

Peerless, too well-known to require a description. With us, it sets more than it can mature, averaging, for the last five years, about forty barrels per acre, although I have grown this sort at the rate of three hundred barrels (sic) per acre. (!)

Superior, a new variety of excellent quality and fine appearance, that yielded with me the past season at the rate of one hundred and forty barrels per acre, notwithstanding the beetles and blight.

The Peach Blow was a total failure this season with us, and is losing caste as well as the Early Rose and King of Earlies.

Early Vermont, Compton's Surprise, Brownwell's Beauty, and Snow-flake have been discarded.

Beauty of Hebron will be tried here for the first time next season. Coming, as it does, from our esteemed friend, the Rural New-Yorker, we expect it to be *the coming potato*.

S. E. H.

Milton, Ky., Jan. 11, 1879.

RURAL SPECIAL REPORTS.

Virginia, Rivanna Albermarle Co., Jan. 6th, 1879.—On account of low prices of crops, the price of labor has been reduced for 1879 about 15 or 20 per cent. This year No. 1 men hire for $80 by the year, and for $8 per month. Wheat in this section of Va. was a failure, averaging not more than five bushels for one sown in this county. I sowed 169½ bushels of Fultz wheat, and made last year not quite 1,000 bushels. The tobacco crop was an average one in quality; but only about half a crop was planted. From eight acres I shall make about six thousand pounds. The hay crop is excellent. From forty acres of timothy meadow, I made over 120 tons. The corn crop also was splendid. I housed eighty-seven and a half bushels of corn from a measured acre of land last year, and from another acre, 600 yards distant from the first, eighty-five and a half bushels; that is, 171 bushels in the ear. From 48 acres, Rivanna River low grounds, I made over 7,000 bushels of ears of corn, not including what was destroyed by crows, coons and musk-rats, or what was stolen—the latter amounting to probably 300 bushels. Albermarle beats the world for corn. My neighbors all laughed at my crop while growing, but the laugh was turned when we gathered the corn, no neighbor making over 71 bushels per acre. Mine was a little too thick for a *maximum* crop, but theirs was too thin. In a letter from a friend in Hudson, N. Y., he says, "Your corn yielded rather more to the acre than any of my neighbors or myself can boast, and I really think it would give our county a pretty severe strain to match it." The former owner of Rivanna made, one year, 137½ bushels of shelled corn from an acre of this land.

Prices of produce in Albermarle are: Wheat, $1; corn, 40c.; oats, 30c.; timothy hay, 50c.; pork, 4½c.; best beef cattle, 3c. gross; Irish potatoes, 75c.; flour, $4.50, extra; butter, 20c.; apples, $2.50 per barrel; lands from $2 to $200 per acre, according to improvements and proximity to Charlottesville and railroads.

R. H. R.

Kan., Parsons, Labette Co., Jan. 9, 1879.—It is precisely four weeks since "The Storm" set in, and for once, at least, the audacious man, even, has not seen the like. On the 24th of Nov. last I was plowing, and it was so warm I pulled off my coat, and this not being enough, I had to pull off my vest also. On the 12th of Dec. a severe storm drove across the northwest, and while it brought snow to the lower Missouri, it brought rain here; but this froze as it touched the earth, and every blade of grass and every tiny twig became enveloped with four times its own diameter of ice, which either broke down the trees or bent them to the ground. The older peach and plum trees were badly riven. The young ones escaped.

The temperature for Dec. here was 19 7-100°. The temperature on the six days out of the first nine in this month, was 8° below zero; on the remaining three the thermometer registered zero to 10° above.

Arkansas, Van Buren, Crawford Co.—This county borders upon the Indian Territory, and at the end of our railroad communication, terminates in the valley of the Arkansas River. The soil is good and the climate, as a rule, delightful. Cotton is our staple crop, and almost for the first time, the yield last season was unfavorable, owing to an early frost. Corn, like all other cereals, does splendidly here. Stock can winter without artificial protection. Lands are cheap, and the country more healthful than the States of Illinois or Indiana. Where weeds are permitted to grow unchecked, we can beat the world. Pumpkins weighing from 50 to 100 pounds apiece, are common. Fruits are abundant, and we can grow two crops of Irish potatoes in one season.

L. C. W.

Va., Ashland, Hanover Co., Jan. 10.—The present is a season of greater financial pressure hereabouts than I have ever seen. The people are everywhere in debt, while the appreciation of money and the consequent depreciation in the prices of all farm products, leave many farmers without hope of being able to clear off the incumbrances on their lands. Agricultural prosperity must here be rebuilt on a foundation of ruins. If farmers were only out of debt they might do very well, but loaded down with mortgages and taxes, many of them will, I fear, have either to abandon their places entirely or to rent or sell a large part of their farms.

A. H. P.

Kansas, Pawnee Co., Jan. 8.—Weather very cold here. Sunny Kansas has put on her winter robes. Snow is about eight inches deep. Fall wheat, which is the chief crop here, is looking well and bids fair for another good crop. The last season's yield was about twenty-three bushels per acre all over the county. All other farm crops were good. Farmers should certainly be satisfied where they get their land for the living on it, as most of them here do, and don't have to pay a share of their products for fertilizers, as the Eastern farmers do. In fact, our soil would make a good fertilizer for the land in the old Eastern States. The Government land, however, is all taken in this county.

F. H. D.

Kansas, La Cynge, Jan. 2.—The weather in Kansas is unusually severe. On the night of the 13th and day of the 14th about twenty inches of snow fell—the largest fall of snow known in this climate. Since then we have had good sleighing all the time with the temperature ranging from zero to 24 degrees below that point. It is very seldom that the temperature during winter here is as low as zero; it generally ranges from 20 to 40 degrees above. This winter, however, one is kept busy building fires, as we are not so well prepared for cold weather here as where extremely cold weather is expected and preparations are made for it.

T. A. M.

Iowa, Lyons, Clinton Co., Jan. 11.—We have had a month of excellent sleighing, which is rather unusual for this locality. The Mississippi River at this point has been frozen over nearly a month, so as to be safe for loaded teams. Our natural "bridge of ice" always gives new life to business and a pleasant place for drives. On January 2d, 3d and 4th the thermometer ranged from 10 to 20 degrees below zero. The home market report of grain, stock, etc., is as follows: wheat, 55@72c.; corn (new), 25c.; oats, 15@17c.; hogs, liveweight, $2@2.10; cattle, liveweight, $3@4.50; butter, 12½c. per lb.; eggs, 20c. per doz.

M. G. R.

Neb., Gibbon, Buffalo Co., Jan. 7.—The winter has been very mild so far—no snow of any consequence, and better roads I never saw in any country. Cattle are looking very well. No other kind of stock is kept hereabouts in large numbers.

M. V. C.

Wis., Salem, Kenosha Co., Jan. 6.—The weather is extremely cold, the mercury during the last four days varying from 20° to 12° degrees.

D. L. B.

North Carolina, Brookston, Warren Co., January 11.—We have had a stinging cold so far this year.

M. B. P.

The Querist.

ANSWERS TO CORRESPONDENTS.

The Show Points of the Brown Leghorn.

J. M. D., North Paris, Me., asks what are the show points of the Brown Leghorn.

ANSWER BY HENRY HALES.

Cock.—Comb, bright red, single, upright, medium size, straight, deeply serrated, five or six points extending well over behind, without side sprigs or indentations. The head should be short but deep, of a reddish-bay color, shading into a lighter tint on the neck; eye, red and bright. Beak, yellow with a dark stripe down the upper mandible. Face, bright red without wrinkles or folds. White ear-lobes, large, round and rather pendent, smooth and close to the head, thin and free from wrinkles. Wattles, bright red, long, thin and pendulous. Neck long, well arched and full hackle, the hackles being a rich golden-bay, striped with black; the hackle is best when the color keeps the same down to the lower edge, without becoming yellow next to the breast and back. Back, of medium length and width, very dark red approaching black on the lower part, each feather striped with golden-bay. Breast, black, full, round, and carried well forward. Body, rather broad but heaviest forward, the under part black. Wings, large and well folded; bows, dark red, each feather striped with golden-bay; primaries, black, each feather edged with yellowish-brown; secondaries, black, the outside web broadly edged with brown; coverts greenish or metallic black, forming a well defined bar across the wing. Tail, upright, large and full; sickle feathers, large and well curved, metallic greenish-black; coverts same. Thighs of moderate length, black. Shanks, long, and bright yellow. Feet, same, with a faint dark stripe down each toe, the smaller the better. Upright and proud carriage.

The Hen.—Head, of medium size, dark-brown, shading off to yellow behind the comb, striped with black. Beak, the same as cock's. Eyes and face, the same. Comb, evenly serrated, drooping on one side free from side-sprigs. Ear-lobes and wattles the same as cock's but proportionately smaller for hen. Neck rather long and graceful, yellowish-brown, striped, with black back, dark-brown penciled with a lighter brown. Breast, full and round, of dark salmon-brown, shading off light under body. Body, deep and plump, broader in front than in rear, color brown. Wings, large and well folded; primaries dull black, the outer edge slightly penciled with light brown; secondaries, dull black, the outer web finely penciled with light brown; coverts, dark-brown, penciled with light-brown. Tail, upright, long and full, a dull black color penciled with light-brown outside: inside, dull black. Thighs, slender, medium length, of ashy-brown. Shanks, long, and of a bright yellow. Feet, as cock's. Carriage, not so upright as cock's. Without any white feathers in cocks or hens.

Keeping Sweet Potatoes and Peanuts.

G. H. T., Granville Corners, Hamden Co., Mass., asks how to take care of peanuts and sweet potatoes. He raised a peck of peanuts from 36 feet of ground during the past season, but though they were large and nice, he could not keep them well, and he asks how to do so.

Ans.—Several plans are practiced for keeping sweet potatoes, all of which are usually successful. This is not always the case, however, as circumstances often occur before the potatoes are finally secured, that destroy all chances of success, such as careless handling, exposure to cold or wet, etc. They should be dug before severe freezing weather, dried off in the sun and housed the same day. Many planters have potato houses constructed of logs daubed inside and out, covered with earth level on top, and above this a roof to protect the whole from rain, leaving the gable ends open. Inside this house a bin should be constructed a few inches smaller than the building, and the space between the walls of the bin and those of the house should be filled in with dry sand. As colder weather comes on, the potatoes should be covered with from four to six inches of dry sand, cotton seed or fine straw. Some secure an even temperature by a flue underneath, where fire can be used when necessary. If kept dry and at about 45 degrees, they will be in good order until the first of May. In more northern sections, a dry cellar will answer the purpose. A friend is trying a plan recommended by a Rural correspondent some two years ago. He buried them in a pit, covering it with straw and earth allowing them no ventilation. He gave them a day of sunshine about two weeks after they were pitted; then covered them again. They are keeping finely.

There is no more difficulty in keeping peanuts than in keeping chestnuts. They should not be placed in bulk until cured and dry.

A Good Wagon-Spring Wanted.

O. N. C., Carpenteria, Santa Barbara Co., Cal., says—"I have watched the advertising columns of the Rural for some time in search of a spring that would be just the thing for a farm wagon. We want something effective, durable, cheap and easily adjustable. Undoubtedly there are such springs; why don't the manufacturers tell us of them through the agricultural papers. We want to know where to find them, their price, and what is claimed for them?"

Ans.—There are several columns every week in the Rural at the disposal of manufacturers and dealers for answering the above and all similar questions.

The French Mulberry.

A. H. P., Ashland, Va., asks whether the French Mulberry bears fruit like other Mulberries or is it merely an ornamental tree.

Ans.—See Rural of Nov. 9. It is not a Mulberry. It belongs to the order of Vervains (Verbenaceæ). It is a very fine, ornamental, hardy shrub that, as we say, "ought to be seen in every garden."

The Ever-bearing Raspberry.

N. C., Berlin, Conn., says that the "Ever-bearing" variety of Raspberry is highly esteemed in some parts of Iowa, and wonders why nothing has been said about it in any of the many articles on Raspberries, that have been published in the Rural.

Ans.—What ever-bearing variety is referred to? There are several that bear in the fall—several that bear somewhat continuously. But there is no variety that for that reason is of special value.

A Suggestive Inquiry.

J. A. M., La Cygne, Kan., asks where can he obtain sample fruits in bottles, put up in alcohol for agents to travel with.

Ans.—This question may serve to show our readers how much weight to attach to the specimens shown by some traveling tree-agents.

Prolific Corn.

W. H. E., East Setauket, N. Y., asks whether there is any kind of corn more prolific for light, sandy soils on Long Island than the eight or ten-rowed flesh-colored and white corn.

Ans.—We shall give in a few weeks the information here asked.

Miscellaneous.

R. P. C., Ionia, Mich., asks, 1, where can he buy a barrel of Beauty of Hebron potatoes, and what would be their price per bushel: 2, the name of a *reliable dealer* in music boxes, where he can get a first-class music box capable of playing thoroughly well from 20 to 30 tunes, and of excellent manufacture.

Ans.—Of Thorburn & Co., of this city. They are the introducers of this excellent potato. The price is not yet fixed. It will be announced in due time. 2. M. J. Paillard & Co., N. Y. city.

Mrs. G. H. S., Buffalo, N. Y., claims to have discovered a remedy which three years' test has conclusively proved to be efficacious for driving away the large green worms that infest cabbages, and asks how she can best bring it before the public so as to make some money out of it.

Ans.—We know of no other way than by advertising the sale of receipes for the preparation or device.

J. D. F. W. Preble, N. Y., asks how to make the best kind of grafting wax?

Ans.—Mix equal parts of beeswax, resin and tallow, using an increase of tallow if it is desired to make the wax more yielding.

J. B. P., Sterlingville, N. Y., asks what kind of clover would yield a large crop in his locality.

Ans.—Red.

COMMUNICATIONS RECEIVED FOR THE WEEK ENDING SATURDAY, JANUARY 11th.

O. F. L.—G. H. S.—E. P. G.—L. V. R.—E. W.—L. E. B.—H. B.—N. H.—J. B.—F. S.—M. G. R.—J. A. M.—M. F.—J. M. S.—W. H. N.—W. S.—W. J. B.—G. A. A.—S. H. R.—J. K.—S. E. H.—W. T. H.—Inquirer—G. P.—A. H. P.—W. P.—T. H. H.—N. R.—F. H. S.—A. M. C.—M. M. D.—D. L. G.—C. M.—K. and F.—A. B.—"Poultryman" is reminded his name and address are required—L. D.—H. H.—W. H. C.—St. C. N.—F. S. S.—M. S. S—C. S. J.—E. L. T. C. L.—E. A. C.—J. F.—M. C. N.—J. S.—D. S.—B. G.—G. H.—W. F. H.—P. P.—W. G. W.—A. B.—J. M. S.—W. J. R.—D. C. A., thank you—L. G., thanks—H. S. C.—T. H. H.—J. J. D.—W. J. F.—A. S.—R. S.—M. O.

THE
RURAL NEW-YORKER.

PUBLISHED EVERY SATURDAY.

Address
RURAL PUBLISHING CO.,
78 Duane Street, New York City.

SATURDAY, JAN. 25, 1879.

We will be pleased to send one or more copies of the RURAL NEW-YORKER *free to any of our subscribers sufficiently interested in its welfare to be willing to hand them to their neighbors for inspection. An intimation by postal card will suffice.*

OUR readers who apply will have the Beauty of Hebron potato sent to them separately, because to send this with seeds makes an awkward package, and also, because the seeds may be forwarded at any time regardless of the weather, while the potatoes may be injured by frost. We mention this for the reason that our friends receiving the potato only, may think the rest of their selection has been overlooked.

We earnestly request that all letters containing money, or any communication intended for the BUSINESS DEPARTMENT *of the paper, be addressed to* THE RURAL PUBLISHING CO., *and not to any individual. We cannot otherwise guarantee the prompt entry of names upon our books, or the acknowledgment of money.*

OUR readers are particularly requested to read the particulars of our free seed distribution on p. 65, under publisher's notices, before ordering seeds.

Applicants for seeds will please observe that the postage on ANY POSSIBLE *selection of* TEN *sorts of seeds,* IS NEVER *more than* FIVE *cents. A* ONE-CENT *stamp suffices for any selection of ten varieties* EXCLUSIVE *of the Beauty of Hebron potato, Pearl Millet and Defiance wheat. If the first of these three is included in the list, then a two cent* EXTRA *stamp is needed, and if the second and third are included, an extra two cent stamp is also required.*

A LIQUID MANURE MINE.

AGRICULTURAL chemists generally agree that the manurial value of the liquid excretions of our domestic animals is not less than that of the solids, besides being "quicker," that is, more immediately ready for use as plant food. The solids require to undergo decomposition before all the plant food they contain is ready to be taken up by the feeding roots; but the plant food of the liquids is already in solution, and if properly diluted or mixed with absorbent substances, the plants can avail themselves of it, without delay, for purposes of growth.

Any one who has ever, in a cemented stable or manure cellar, attempted to furnish absorbents for all the urine of a herd of cattle has discovered that he has taken quite a contract on his hands. If he has before kept his cattle in a tie-up where their liquid evacuations went through the floor and were absorbed by the soil beneath, or drained away, he has small comprehension of the quantity produced, and the amount of dry bedding it will take to keep the place so that anybody can walk about there without rubber boots. He will find that long or chopped straw, in vastly greater quantity than he has ever found necessary to keep his cattle dry, will now leave them afloat, surrounded by straw islands, also afloat. In the cellar the manure will exist in the form of soft mush, and it will keep him busy to draw in the loam, muck, or sand required to reduce things to a comfortable state of solidity and keep his pigs from drowning.

Yet it will pay to do all this—to prepare beforehand the sawdust, spent tan, muck or sand for the stable floor, and the necessary loam for the cellar, in order to take up and retain all this mass of fertilizing fluid. In fact we cannot afford not to do it, and he who does it for the first time will receive a revelation of the the quantity of good manure that may thus be accumulated in a season from a stock of cattle, that will quite astonish him, and make him think that perhaps "farming can be made to pay."

An uncemented cellar with a sandy bottom, under a cattle stable, will not save much urine, unless very liberally supplied with absorbent material. If the droppings are received in the cellar upon a raised platform, it will soon become apparent that the fluids nearly all go through and soak into the ground, when only the usual quantity of bedding is used in the stable. This is a point which many overlook, and it is well worthy the attention of those who have barn cellars of this kind. In our judgment it will always pay to cement a manure cellar, unless its bottom consists of very heavy clay or hard-pan. Even then the walls, for a foot and a half upward from the bottom, ought to be made water-tight.

It may be a pleasing thought for those who have old-fashioned tie-ups which have been used many years, that the liquids that have gone through their floors for so long a time are not necessarily lost. If the ground is absorbent, most of these liquids have soaked into it, and in their passage downwards have left their fertility—their potash, phosphoric acid and nitrogen—in combination with the upper layers of soil. We have lately had an opportunity to see this matter very thoroughly tested. Among our not very near neighbors is a legal gentleman who lately come into the possession of his father's farm, and who has quite a notion of being a farmer with all the modern improvements. He has built him a new barn, with a cemented cellar, and all his fertilizing material is now thoroughly saved. The old barn, with its sheep-pens and tie-up directly on the ground, has been torn down, and, at our suggestion, he has had the soil beneath excavated, and spread upon his mowing. That from under the old sheep-pens was taken out only last fall, and consequently its effect is yet to be noted. But the earth from beneath the old tie-up was spread in the spring, several hundred loads having been drawn, and the dirt removed to the depth of nearly or quite six feet. It was our belief that this earth was thoroughly impregnated with phosphoric and potassic salts, and we had no doubt that there were some nitrous compounds there also, for we were aware that earth from beneath old stables had often been lixiviated for the extraction of nitre. Still, we supposed that really the greater portion of the ammonia had escaped. The hired man, who was put to this "foolish job," as he called it, was however soon converted to a believer in the manurial value of this soil by discovering a distinct odor of hartshorn in it, and this continued even to the bottom of the excavation. The coloring matter had not penetrated much below three feet. The excavated earth has proved to be equal to the best stable manure for top-dressing grass ground. The luxuriant and dark green growth of the meadow upon which it was spread is quite remarkable, and strange to say no difference is perceptible in the effect of the bottom layer from that of the top one. How many of our readers have a manure mine like this?

POULTRY INTEREST.

THE poultry interest in the United States is one of great magnitude, very much more so than most persons imagine. Some writers estimate the value of eggs and poultry used by an average of families in this country at a higher figure than the cost of either the beef or flour they use. This is probably too high an estimate, yet there is little doubt that the eggs and poultry together used in many families, represent a value nearly equal to that of either of the other mentioned articles of consumption used by them. This shows an aggregate value of many millions for the whole country.

Without troubling our readers with dry statistics we will simply say that the vast quantities of eggs and poultry used in our large cities are almost incredible, and that the production of them must have required no small amount of industry and energy. Great as this consumption of the products of the poultry yard is in cities, still it is less per head than in rural districts, where so many of the population keep a small number of fowls and consume most of the products. Could the value of all these small flocks of poultry throughout the country be estimated, the results would be truly astonishing. A great consumption of eggs and poultry occurs in the farmer's household, especially in summer, when eggs are cheap and the time required for cooking butcher's meat is needed for other duties.

We will now consider the management of poultry for eggs. Every one knows that eggs are dearer in winter than in summer, for the simple reason that fewer eggs are laid in winter. Now, the question is, how to make hens lay well during winter, so that the best price may be obtained for the eggs. Aside from the natural inclination hens have for laying in spring and summer, warmth and variety of food are the two great stimulants to the production of eggs. How these can be best supplied in winter is the question. Artificial heat is expensive and has a tendency to impart a tender constitution to the stock. So the best way is to have the houses built as warm and comfortable as practicable in a hill side; or they should be banked up on the north and west sides, and have no openings on those sides, except a ventilator on the north side. There should be one of these in the south side also.

Too much has been copied into our American Poultry Books from European poultry literature, where a westerly aspect is recommended: but in our climate nothing can be more absurd; for, while the westerly breezes from the Atlantic over the British Isles are the softest and purest, our westerly and northwesterly winds in winter are the keenest and coldest that we have to endure, and those from which fowls have to be most protected to keep them from freezing. Another mistake often made is the result of reading or hearing of the French system of colonizing poultry; that is, distributing a small number of hens to each of a number of small houses scattered over a large area of ground. This works well in France where the winters are mild, with little or no snow; but how would such colonizing answer in our cold northern winters, when the ground is often covered deeply with snow? It would keep one busy to clear it off, and moreover the poultry could not be kept warm in such small houses. Larger and warmer places to hold more fowls and keep out the severity of the cold that would naturally chill smaller places, are absolutely necessary for the successful forcing of hens to lay in winter. Upon the supply of such warm places, careful feeding, and cleanliness, rests the secret of success.

SHIPPING LIVE STOCK TO EUROPE.

IN every new and therefore untried enterprise carried on independently by different people, many losses must be expected at the outset. As a rule, in every undertaking experience alone can insure unvaried success. It should cause no surprise, therefore, to learn that several shippers not only of live stock, but also of beef and mutton from this country to Europe, have met with many heavy reverses, and that not a few of them have been bankrupted by their ventures despite the large measure of good fortune that has rewarded the prudence and pluck of others, and notwithstanding the splendid prospect of large gains from the trade in the future. A market for their commodities had to be made across the Atlantic in the face of prejudice, competition, and calumny. Suitable means of transportation had to be created, with little or no experience to aid in devising the best methods of doing so; and even the safest system of carrying on the trade had to be learnt by hard experience. Here as elsewhere, the success of regular traders is likely to be built upon the hardships and often the ruin of the pioneers in the enterprise. This winter has taught a harsh lesson to the shippers of live stock. Not a week passes without bringing news of severe losses to them from storm and shipwreck. Several disasters of the latter kind occurred on the exposed Irish coast last week, and in one case at least, large numbers of cattle and sheep were on board the lost vessel and perished. During the tempestuous weather of the last fortnight we have seen reports of three other cases in which a couple of hundred head of cattle and upwards of a thousand sheep were thrown overboard from vessels laboring heavily in the waves. Not improbably more cases than one of the same kind have escaped our notice. Moreover, the list of deaths among shipments of animals, the bulk of which have arrived safely at their destination, must have been very heavy. Experience seems to show that the exportation of meat, if not as profitable in some cases as that of live stock, is, on the whole, a far safer investment. This must be decidedly the case during stormy winters like the present, and it is not unlikely that the lessons now given will have a salutary effect in future.

PELARGONIUMS.

WE have cultivated a great number of house plants during our lives and the Geranium, as it is commonly called, has given us as much satisfaction as any other. The house Geraniums, as we have often explained, are not the plants known in botany by that name. They are hardy and several of the species, like Geranium maculatum, the Spotted Geranium—G. Robertianum, Herb Robert, are natives of this country. But the Pelargonium is from the Cape of Good Hope and this is the plant to which we now refer. Thousands of varieties have been produced from seeds, either crossed or self-fertilized, and it would seem that further improvement is scarcely possible. They are almost ever-blooming and the colors range from white through every shade of pink and red to a deep plum. A few years ago, we had but a few double varieties and they were all red, differing only in their "doubleness" or size of truss. Now we have among the double sorts all the colors to be found among the single varieties. As house plants they require but a modicum of care. Insects rarely trouble them and they will thrive in any soil. Indeed, we once tried the experiment of cultivating them in pure white sand and water. The experiment was tried for six months. They lived and maintained very good health, though the growth was less thrifty and the plants never bloomed.

After enjoying Pelargoniums in the house, throughout the winter, no plant is better for bedding purposes out-of-doors. They should be well cut back and planted out for this climate about the first of June. We find that many of our friends make the mistake of keeping the same plant for several years. Of course, they will live for many years. We once saw a Pelargonium ten feet high with a stem ten inches in circumference, that was, if we remember rightly, twelve years of age. But if we would have large, healthy foliage, large trusses of full flowers, cuttings must be taken every summer (late August is the best time), and in this way we secure new plants every year. We commend the Pelargonium especially to those of our readers who have only a sunny window in which to gratify their love of flowers.

SUNDRY MATTERS.

THE next special number of the RURAL will be a CORN number. We would thank our subscribers for any facts relative to varieties or culture, which may be the outcome of their experience. Probably no other crop has ever excited a wider or deeper interest than does corn at the present time. How to produce the greatest yield at the smallest expense is the question we would gladly throw light upon. Statements to the effect that certain farmers have produced 150 or more bushels of shelled corn to the acre are of no value. We can not treat the corn plant in the field as we would a choice flower in the conservatory. The yield of corn from a small plot under fussy cultivation is no indication of what the same variety of corn will yield if treated as large areas must be treated by the average farmer. We have heard of plots of land producing corn *at the rate* of 200 bushels of shelled corn per acre. We have heard of plots of land yielding potatoes *at the rate* of 1,000 bushels per acre. Such statements, if intended to show what can be done with ordinary field culture, are misleading and harmful. It is just as sensible to suppose we can raise in our woods trees as shapely as those upon our lawns, as that we can equal in our fields the best results of the highest cultivation in garden patches.

During last fall, and since, we have been trying to ascertain what variety of corn has produced, under ordinary circumstances, the best yield, intending to secure a quantity sufficient to enable us to distribute among our farmer subscribers enough of it for trial. We need not particularize further at this time. We will finish our present Free Seed Distribution first. This has assumed proportions which, to speak freely, have frightened us a little lest we should be unable to do all we have promised to do. But it is working smoothly now and we hope to end it in time to send out other seeds before another planting season. We would avail ourselves of this opportunity to express our appreciation of the support which the RURAL NEW-YORKER is receiving for 1879. Week by week, we might almost say, day by day, our circulation has greatly increased over the corresponding period in '77 and '78, notwithstanding our heavy storms and the much talked of hard times. We feel a strong inclination to thank everybody in a "broadcast" way;—but our readers would, no doubt, prefer that we should display our gratitude in other ways. To the continued improvement of our paper, therefore, to the well-being and the well-doing of our readers, we set ourselves earnestly and heartily to work without further ado.

BREVITIES.

THE article on Gates will be found of interest to all farmers.

WILL those who have not received stamps for the postage on corn sent to this office, please notify us?

IN answer to a number of inquiries we would say that Bohemian Hulless Oats are not *new* but very old. They have no special merit that we know of, and he who buys them at a high price, or with "great expectations," will be disappointed. Under various names this old variety has been revived again and again. It is now offered under the name of Chinese Hulless also.

For Women.

CONDUCTED BY MISS FAITH RIPLEY.

HER OPINION OF THE PLAY.

BY VANDYKE BROWN.

Do I like it? I think it's just splendid!
You see how I speak out my mind,
And I think 't would be better if men did
The same, when they feel so inclined,
But no, you're all dumb as an oyster,
You critics who sit here and stare,
Look grave as a monk in his cloister—
You have'nt laughed once, I declare.

I'm sure there's been lots that was jolly,
And more that's exciting, you'll own;
Why, I pity the poor hero's folly
As if he were some one I'd known!
And wasn't it grand and heroic
When he shielded that friendless girl Sue?
'Twould have quickened the pulse of a stoic,
But, of course, sir, it couldn't rouse you!

And then for the villain, De Lancey—
Now doesn't he act with a dash?
Such art and such delicate fancy,
And—did you observe his moustache?
He made my very blood tingle
When he threw himself down on his knees—
Do you know if he's married or single?
Yes, the villain—there laugh if you please!

I admit I know nothing of action,
Of unities, plot, and the rest,
But the play gives complete satisfaction,
And that is a good enough test.
Yes, I know you will pick it to pieces
In your horrible savage review,
But, for me its interest increases,
Because 'twill be censured by you.

I should think 'twould be awfully jolly
For the author to make such a hit;
How he pricks all the bubbles of folly
With his sharp little needles of wit!
I am sure he is perfectly charming,
Or he never could write such a play—
I declare, sir, it's really alarming
To have you sit staring that way!

And oh, if I only were brighter
And not such a poor little dunce,
I should so like to meet with the writer,
For I know I should love him at once,
Yes, I should, though you think it audacious,
And I'll tell him so, too, which is more,
And—you are the author—good gracious!
Why didn't you say so before? [*Bazar.*

DESCRIPTION OF CUTS.

FIGURE No. 1.—A fichu *jabot* is here illustrated. It is composed of two standing frills of narrow Valenciennes lace, which form the neck, and to these are attached two falling frills of much wider lace; a band of foundation lace serving to stay the arrangement in the proper outline. Where the wide frills meet at the neck they are joined by a

No. 1.

seam to the extremities which reach to the waist line. The seam is so made that the *jabot* terminates in a point, while a rose with its foliage is caught at the point of the neck ruchings. The opening at the neck is large enough to permit the article to be slipped on over the head, and the neck of the dress is turned under at each side to form a heart-shaped outline.

Figure No. 2.—The design of this *jabot* is simple and comparatively inexpensive. It is composed of a broad scarf of silk, with oval ends and a border of Valenciennes lace. The scarf, after the border has been applied, is caught in two upright loops under a cluster of blossoms and its ends are allowed to fall in careless folds which are lightly secured just as they fall. A small cluster of blossoms is at the bottom of the *jabot*, and a still more tiny one is caught between the borderings at the right side. The scarf may be white or any of the delicate evening tints, and can be secured to a narrow band to pass between the collar of the dress and the collar or frill worn inside the dress-collar.

Figure No. 3.—A ruche and *jabot* of black lace are represented here, and are very pretty to wear with light or dark dresses. The picture so faithfully delineates the construction, that no description is necessary.

Figure No. 4.—A handsome Pompadour, with a neck ruche and a long *jabot*. Wide insertion is selected for the body of the Pompadour, the stripe being joined under a tiny band of silk. A narrow line of Swiss insertion heads the frill of lace edging the Pompadour, and underneath it is laid a strip of silk of the color of the piping. The seam con-

No. 2.

fines the ruche plaited about the neck and may extend through the center of the *jabot* if desired. The *jabot* is formed by slightly gathering two long strips of lace and extending them in lengthwise lines, which causes the fullness to fall in cascade waves that may or may not be tacked at each side. The blossoms in this instance are all that seem necessary to hold the frills in place. White and black lace interminglied make a pretty half-mourning ornament of this kind, and violets may be substituted for the roses.

Figures Nos. 5 and 6.—This fichu is square across the back which extends as deep as a yoke; while at the front it descends in squarely outlined tabs nearly to the belt. The foundation is coarse Brussels net, on which strips of Valenciennes insertion are flatly sewed so as to show spaces of the net between them. The entire edge, including the neck and the overlapping front, has a border of deep lace set on with a trifle of fullness. The cuff

No. 6.

is formed in the same manner, with a frill finishing its pointed top. If preferred, fancy net may be used for the foundation with good effect, either in the Spanish or Guipure variety, and of course the border must match the net. Knots of velvet, satin, plush, or grosgrain ribbon may be used at the top and bottom of the closing, or clusters of flowers may be substituted for either.

I would like to say a word or two in praise of using *black* lace in making fichus and *jabots*. The average woman when she wishes to make her black or dark silk look "dressy," almost invariably decides to use an enormous quantity of white lace. For myself, I have always disliked a great splash of white on a dark dress, and it seems strange to me, that women should so seldom tone down the intense whiteness by a judicious mixture of black lace, and that they should appear so blind to the greater elegance and richness of *all* black lace articles as decorations for black silks.

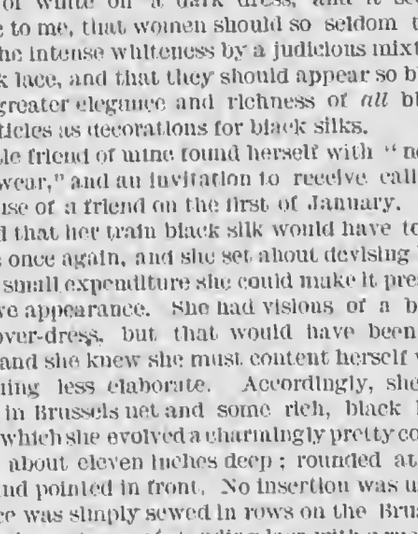
A little friend of mine found herself with "nothing to wear," and an invitation to receive calls at the house of a friend on the first of January. She decided that her train black silk would have to do service once again, and she set about devising how with a small expenditure she could make it present a festive appearance. She had visions of a black tulle over-dress, but that would have been too costly and she knew she must content herself with something less elaborate. Accordingly, she invested in Brussels net and some rich, black lace, out of which she evolved a charmingly pretty collar. It was about eleven inches deep; rounded at the back and pointed in front. No insertion was used; the lace was simply sewed in rows on the Brussels foundation. A row of standing lace with a ruching of white lace inside finished it around the neck. The sleeves of the dress were made in plain coat style with cuffs, these the girl ripped off and turned the edges of the sleeves back so as to make "elbow sleeves" of them, these she ornamented with frills of black and white lace. Some dark red silk roses and buds finished this really elegant set of lingerie.

THE BOY.

His Life Treated in three Chapters.

CHAPTER I.—"IT'S A BOY."

His advent is heralded in the brief but strong sentence just quoted. No matter what hopes have



No. 3.

been indulged in concerning girl babies, there is something in the pithy announcement "It's a boy," which dispels all fanciful dreams and sets everybody squarely on a prose basis. His very voice, as it utters a defiant war whoop in the grand army of humanity, tells the story to experienced years. The visions of a dainty girl darling very soon vanish before this positive piece of prose, who kicks his sturdy heels through the delicate pink socks intended for his sister, and who grows red as a turkey cock's head at Thanksgiving times when he is expected to show off before callers. He persists in an abnormal development of nose and a puffiness about the eyes, along with several other tricks known only to interested parties. Parents and nurses become reconciled and accept them on trust, seeing no other alternative. He emerges from his puffy and rosy obstinacy to a roly poly wide awake thing of beauty, which is a joy fully one-half of the time. There is a process from infancy to little boyhood, a sweet time, when the man-child is half baby, half angel. In the clear depths of his innocent eyes is a world of hope and trust and love. His white brow is as fair as a freshly-opened lily, and his lips as sweet as hermosa roses. He is most witching at this age, for the peculiarities which mark the *enfant terrible* are yet undeveloped. He is an armful of love and beauty and promise and dread and hope. Love him while yet there is no guile on the tender lips, no sin in the unwritten soul, no touch of the world upon God's finished work.

CHAPTER II.—"GIT UP OLD HORSEY!

"Mercy, what a noise! Look at that chair, with a string tied on the arms and made fast to the writing desk and flower stand, all to be driven tandem by that young imp in knit shirt and fancy hat and shoes! Who upset that work-basket? and, good gracious, what work has been made with my wool and thread! There's the Graphic torn to scraps and stuffed in the cuspadore with my screw-driver that I lost a week ago. What is he doing with that cat? and, dear me, if he hasn't thrown grandma's spectacles into the grate."

No. 4.

Where's Harry? Run to the kitchen and see. All the eggs are broken in the basket of folded clothes, and the milk for pudding has been fed to the cat and dog. Bridget Lannigan is in a towering rage, and says, "Phat's the use of shlavin to kape clane wid such a young divil furninst ye?" Miss Frigidity Fussbunch calls, and is horrified by being requested to "be a horse and let Harry ride straddle to Boston." She is questioned, also, on many delicate points. He gets very close to her and asks what that white stuff on her face is, and what makes her wear such a funny little hat.

A few years of this juvenile terror and then there appears another stage of the boy. He gets a fever only appeased by marbles. It is useless to head off this phase; if it is shut off in one direction it breaks out more violently in some other. It goes through a period of six or seven years and costs much mortified pride. He is afflicted with rats, pigeons and other boyish complaints, which are harmless, but annoying. He brings in dirty steel traps to amuse his sick sister, who grows worse under it, and in his solicitude he straps his legs fast to six feet of stilts and stoops to enter the door of her room, to the horror and dismay of his mother. He brings little notes home from school, which he tries to explain in a favorable light, but fails to convince his parents that it was "only because Bill Wilson dropped his slate on Abe Hennegan's toes and made me laugh." He carves his awkward initials on old Mrs. Williams' cellar-door, and she threatens his arrest. He goes to see "Humpty Dumpty," and goes home and throws real brickbats at his aunt, and Bridget is met with a battering blow from his head when she is bringing in the coal. He makes life a burden and home a snare and delusion. He tears the comforts in more ways than one, and slits the pillow-cases to match them. Gradually he leaves off his hurly-burly life and imperceptibly glides into

CHAPTER III.—"WHERE'S MY BLUE TIE?"

"Where is the blacking brush? I am going to a little surprise and won't be home till eleven. Is my percale shirt done up nice? I wish you'd make my collars stiffer. I don't thank some one for throwing my coat down and getting it wrinkled all up. How do you like this hat? Think it looks better than my soft one." You will find the pigeon boxes all deserted about this period; not a rat trap cumbers the back yard; the woodshed theatricals are all ended; the stilts are put away; kites forgotten; window glass is in perfect safety. The dust has filled the rude initials in Mrs Williams' cellar door, and there is an uninvited quiet all around the house; chairs stay in their places, and pantaloons will no longer bear cutting over for the boy. He gets them now out of new stuff, and mother's "cut" will not satisfy him. He is not in the way now, and there is a heavy pain in mother's heart as she thinks he will never need her much any more. The innocent eyes have a deeper meaning in them now. They have taken into their depths the reflection of a face younger than mother's, and life begins to look real to them.

The world is full of homes where these pictures will be recognized and hung up as family portraits homes where there are no sounds of young voices now. They grow away into the great world so soon, and we put away the nameless feeling of desolation as we do the cast-off toys of their children; and when the evening of life approaches the heart goes back along the line of time, and is once more with the children in the dear old long ago.—*Cincinnati Saturday Night.*

A WORD OR TWO.

ANNIE L. JACK.

A WRITER in the Literary Department of the RURAL takes exception to the fact that so much space is devoted to cooking recipes, fashion and fancy work, and no effort made toward mental improvement. I am sure the Editors of the paper are willing to do all in their power to provide variety for their readers, and they know well that nothing is more necessary than the best preparation of food; that the fashion patterns, so often slightingly spoken of, are very useful in a family, and a great saving of dressmaker's bills, and that even fancy work, home-made, besides being a pleasant recreation, is a cheap form of household adornment. If any one doubts it, let him inquire the price of such articles at a fancy store and see what a saving is effected by having them home-made, while the work is generally better done. But the writer speaks a few words that I can fully indorse, when mentioning the Society to Encourage Studies at Home. I am now in the fourth year of my connection with this charming method of study, and have found it both instructive and delightful. My children being under seventeen, I became a member, and have had such pleasant instruction, such helpful "pen-talks" with earnest, talented women, that I feel under a life-long obligation to them for glimpses of botanical and geological knowledge, and for help in all departments of natural science that I should not otherwise have obtained. There are *branches* now in several cities, and it will always be a wonder to me that so many gifted women give their time and thoughts to aid their unknown sisters without reward except that of their own good conscience.

HOW A SEDENTARY LIFE AFFECTS WOMEN.

THE Popular Science Monthly remarks that many of the ills and diseases prevalent among women in our day are no doubt traceable to the sedentary mode of life so common among them. The progress of the industrial art has done away with much of the household drudgery to which women were formerly subjected, and the result is in too many cases want of sufficient occupation for needed bodily exercise. It says; "The fruit of this state of things are strikingly exhibited in certain observations made by the late Dr. Robertson, a Manchester surgeon, who in his practice as a specialist for women's diseases, found that in women who themselves performed all their household work there was no trace of certain complaints, that these complaints begin to make their appearance in women with one servant, become more pronounced with women who have two servants, or worse still with those who have three servants, and so on." On the other hand we observed a statement the other day that since the suspension of labor in the mills of New England on account of the panic, many of the female operatives have sought employment as domestics, and as a consequence there is much more sickness among them than there was previously. This would seem to show that housework is not as healthy as labor in cotton and woolen mills.—Troy Times.

No. 5.

CANCER CURE.

MRS. W. C. GIFFORD, Jamestown, N. Y., is the name and address of the lady who sent us the article on Cancer Cure which we published some weeks ago. As we know nothing whatever of the cure in question, we shall have to refer all inquiries to the lady above named.

DEVONSHIRE LACE CO.—Can any of the RURAL readers give the address of the above-named company?

Literary Miscellany.

WEAKER THAN A WOMAN.

CHAPTER XXVI.

(Continued from page 46.)

SHE was one of the most fearless of maidens; all the high courage and undaunted bravery of her race lived in her. She put her drawing-materials aside and went towards the place whence the sound had proceeded. Her heart beat fast when she saw before her the prostrate figure of a man. There was no sobbing now, only a death-like silence, and the man lay with his face downwards. She did not faint, or scream, or run away, but she listened for his breathing, this dainty daughter of a noble race. Was he dead? Had he swooned? Was he hurt? She grew pale and trembled when, on the cool green grass, she detected stains of blood. Once, twice she spoke to him, and then she raised his head and looked into his face. How handsome it was—just such a face as she had seen given to a Greek god—such a face as she had seen in marble in the dim light of old Roman galleries. Then she saw that on the temple, so white, so rounded, so full of ideality, there was a terrible wound. A moment's reflection showed her what the wound was. Just above him was the branch of a tree. He must have been running in hot haste, and, not seeing the branch with its sharp, jagged edge, had run against it. He had fallen there, and had swooned, probably because the blow had stunned him.

What a handsome face it was, but how terribly marked with pain! What did all those great lines mean on the fair brow and round the beautiful mouth? Warm pity and tender compassion rose in her heart for him. She laid the helpless head on the grass again, and went and dipped her handkerchief in the brook. She laid it on his brow; she bound up the cruel gaping wound, and then hesitated what she should do next. His head lay upon her arm, and she looked like an angel of compassion bending over him. Suddenly, to her great relief, he opened his eyes and gazed at her.

"Violet!" he said.—"I am not Violet," she replied.

She saw his whole face change.

"Oh, Eve, Eve," he said, "you told me of the angel of pain, but the trial was more than I could bear!"

"I am not Eve," she told him gently; but from the dim shadowed look in his eyes she knew that he did not hear her.

Gently and quietly, with softest touch, she bathed his hot brow with the cool water of the brook until she saw that his senses had returned to him.

"I found you here, badly hurt," she said.

He tried to rise, but he was quite unable to stir. She laid her hand upon his arm.

"No," she said, "you must not try to stand—you will feel better soon. You are dazed and giddy—you must have struck your head against this branch. Where were you running so quickly?"

"Away from the sound of the bells," he answered. "I knew that I should not hear them in the depths of the Bramber Woods."

"Did they distress you?" she asked. "I thought them so beautiful."

"They drove me mad—they were killing me," he replied. Then with a low cry he bent his face towards the long grass.

"I feel sure that I have seen you before," she said. "Do you know me? I am Lady Maude Bramber; and you—I have seen you at the Towers. Surely you are Mr. Felix Lonsdale, the dear old lawyer's son?" He looked at her.

"Yes, I am Felix Lonsdale," he replied; "and I begin to think that Heaven has placed a black cross against my name. I ought to have known you, Lady Maude. I remember you now, but my head was all confused."

"Your face is quite familiar to me," said Lady Maude. "You came to the Towers with your father—it is four years since—and you took luncheon with us. I showed you some of my drawings, and you were very shy. It comes back to me so vividly. But, Mr. Lonsdale, why were you running from the sound of those bells?"

She saw a spasm of pain pass over his handsome face; his lips trembled.

"Do not agitate yourself," she said kindly. "Do not tell me if it pains you."

"All the world—all my world—knows it," he replied. "I will tell you, Lady Maude. I ran, mad, blind, reckless, from those bells because they are chiming in honor of the marriage of the girl I loved—the girl who had promised to marry me."

"Surely," said Lady Maude, with a light breaking over her face, "you do not mean your pretty golden-haired sweetheart, Violet Haye? Your father told us about her that day at the Towers."

"Yes; she has married Sir Owen Chevenix today, and the wedding-bells were driving me mad."

"Poor boy," said Lady Maude, rather to herself than to him, "I am not surprised at it. You shall not tell me about it now," added Lady Maude, after a silence of some few seconds. "It is the old story, I suppose, of trust and love, folly and treachery. Tell me of your home, your father—I was always very fond of your father. How is he?"

Sympathy was so sweet. They were sitting under the great boughs of the spreading elm. Lady Maude's just and gentle heart ached with pity for him. It seemed to him such a relief to talk to her. He felt weak and languid—woman's sweet, soft words, woman's pity and sympathy, were very acceptable to him just then.

He did not speak of Violet, but he told her the story of his father's bitter trials—how Mrs. Hardman's money was left to them, how happy it had made them, what plans and hopes they had built on it; then of the disputed will, the trial, the verdict; how his father's business had fallen away from him, and his old friends had one by one deserted him, all but Eve Lester; and he told her how Eve had come to offer her fortune to them.

Lady Maude's eyes filled with tears as she listened.

"That is a girl after my own heart," she said. "But do you mean to tell me, Mr. Lonsdale, that this is the outcome of English law? I have never heard of so cruel a case. All who know your father know that he is as incapable of doing wrong as any man in England—in fact, he would not do wrong—he is one of the noblest of men. I have always heard him so highly spoken of. You do not mean to say that his fellow-townsmen and the old friends who have known him for years stand aloof from him for this?"

She spoke with angry indignation that did his heart good to hear.

"It is true," he replied; "and, what is more, they have withdrawn their business from him—some under one pretext, some under another. We have had a struggle such as few could understand, and my great fear is that my father will never be a strong man again."

"He wants a reaction," she said—"something that would put him back into his place—that would reinstate him in public opinion; and he shall have it. I will tell this story, just as you have told it to me, to my father, and I am sure this is one of the wrongs he will hasten to redress. I am glad that I have seen you, glad you have trusted me. There has been a gross miscarriage of justice."

"Human laws must always be more or less imperfect," returned Felix. "It is only the Divine laws that have no flaw."

"Tell me more of Eve Lester," said Lady Maude. "Your fair false Violet does not interest me, but Eve Lester does. I love noble women—tell me of her."

He told of her patience, her heroism, her noble, gentle, generous life; and Lady Maude, looking at him, wondered why, when he understood the beauty of her fair soul so well, he had not loved her in preference to Violet.

"Men are all the same," she thought; "a fair face will lead in any direction. They lose their heads when beauty comes upon the scene; they are not strong-minded as a rule." Then with a smile she looked up at Felix.

"The little mouse in the fable freed the lion. I will be the mouse in this instance, and I promise you such help for your father as shall make his trouble really a blessing in disguise."

He thought of Eve's words and repeated them to her. She smiled.

"Your friend Eve is right," she said. "Sorrow is often a blessing in disguise. I am glad that I have met you; you will go home all the happier for knowing that the hour of your father's triumph is at hand. You will have something to distract your thoughts from fair, false Violet; and, remembering my promise, the fourteenth of September, her wedding-day, will not be the most unhappy day of your life after all."

He thanked her until the tears came into her eyes again; and then he told her that he was better, and asked her to let him walk with her to the end of the woods. When he tried to stand up, he looked very white and ill—she almost feared for him; but the giddiness soon passed, and they walked together to where she had left her drawing-materials. He thanked her again and again so simply and earnestly that she was charmed. Then she left him, and went away home.

Felix had intended to take up his burden bravely and carry it nobly; but human love and human passion were too strong for him—he could not face the world just yet. He stayed all night in the shelter of the Bramber Woods, doing hard battle with his despair; he watched the sun set, and the moon rise; he watched the golden stars come out one by one; he watched the chequered shadows that the moon threw upon the grass; he listened to the wind as it sang its sweet song; he thought of all the moonlit nights on which he had met Violet. He fell asleep for a few short moments, and dreamed that he stood under the wet lilac-bushes with her; her arms were clasped round his neck, her beautiful face was raised to his, and she was scolding him that even in a dream he could believe her false. He woke with a cry of rapture. There lay the cold moonlight, there stood the giant trees, and Violet had married Sir Owen.

All night he stayed there. It was the one terrible battle of his life. He was not ashamed to impart all his sorrow to the listening stars. There were times that night when he almost went mad, when he cried aloud for death. But Heaven was merciful, and death came not. The morning light found him pale, weak and exhausted; but that one fierce paroxysm had taken the sting of his sorrow away. It was better than if he had gone home and been ill for long days and weeks. That one fierce night of pain exhausted him; when it had passed, he was too weak and too tired to suffer more.

He went home in the full light of the morning, and found Kate waiting for him. She had guessed what had happened. She had not spoken of his absence, but she looked anxiously at his face when he came in. He bent down and kissed her.

"It is all over, madre," he said. "Now I shall live down my pain."

Kate looked sadly at the wound on his broad white brow.

"How did you cut yourself so terribly, Felix?" she asked; and he told her. It was one of his great merits that he never spoke a false or evasive word.

On that same night Lady Chevenix sat with her husband in a first-class railway-carriage on the road to Paris. They were to spend their honeymoon there, and they had left Dover by that night's steamer. As the night grew darker and the red lights of the signals passed more quickly, she fell into a deep troubled slumber. Her husband looked with exultant pride at the marvelous face with its exquisite beauty; he was glad that she slept—it would rest her, and would help to while the hours away. He tried to sleep, but it was impossible. He was exultant, triumphant; he had won the only thing wanting to complete the happiness of his life. His heart hungered as he looked at the graceful figure of his wife. He noted with pride and pleasure how the handsome traveling-dress became her sweet loveliness.

"The folly of that lawyer to imagine that such a woman as this was born to live in a place like Lilford! His year's income would not find her a decent dress. He will recognize his mistake when he sees Lady Chevenix."

It was strange that no feeling of pity for his rival or remorse for his own behavior crossed his mind. He did not seem even to understand that he had done a dishonorable thing. He had outwitted another man, and he was delighted. Then he saw the face that he was watching grow paler in sleep. Suddenly his young wife awoke with a loud cry. He saw her look at both her hands, while her white lips trembled.

"What is it, Violet?" he asked.

"A dream," she replied, shuddering—"only a dream."

"Very horrid things they are too, sometimes," he said. "What did you dream?"

She was still looking at her hands, rubbing the softly-tinted gloves as though she would fain rub something from them. She was too confused to be quick at invention.

"What did you dream?" he repeated—and there was a certain sharpness in his voice.

"I thought that I held a human heart in my hand, and that it was bleeding," she replied.

"That would do for a sensation novel, Violet," he said, laughing. "You have something better than a heart in your hand—you have a diamond ring on your finger worth two hundred pounds, and you have a wedding-ring that makes you Lady Chevenix. Go to sleep again, but dream of diamonds, my dear, not hearts—as whist-players say, diamonds are trumps."

But sleep had gone from Violet; she watched the skies until morning dawned, and more than once, although she was Lady Chevenix of Garswood, one of the wealthiest women in England, she wished that it were all undone, and that she was Violet Haye again.

On that same night Lady Maude and Lord Arlington talked long and earnestly. She told him the story that she had heard, and asked him for help. He thought long over it.

"I know of one way in which I can help him, Maude," he said; "but that will require consideration." Then he said a few words in a low voice.

She clasped her hands.

"Will you do that, papa?" she interrogated. "That would be one of the grandest things in the world. I shall be so pleased—far more pleased than at any good fortune which could happen to myself."

"I will think of it," replied Lord Arlington; and when he spoke in the tone that he did then his daughter knew that he was determined to accomplish what he had in view.

CHAPTER XXVII.

There was great excitement in the town of Lilford. As one man said to another, they might always expect something strange when the Earl came home; but this was stranger than all. The Earl's tenants, and every man in Lilford with whom he did business of any kind, received an invitation to dine with the Earl at the "Bramber Arms."

The "Bramber Arms" was the chief hotel in Lilford. It boasted of a large assembly-room, where the county-balls and the hunt-balls were all given. It was the very stronghold and fortress of the aristocracy of the neighborhood, and its resources were wonderful. The dinner to the tenants was to be served in the assembly-room. People called it a rent-dinner, such as the Earl generally gave to his tenants once a year; but they agreed that there was something more in it than that, or why were so many bidden who were not tenants? Why were the doctors, the vicar, and every other person with whom the Earl had any business relations asked, and many more besides? The Earl, it was remarked, rode or drove through Lilford every day, and he was sure each day to give three or four invitations. Public expectation and excitement increased. What could the Earl mean by such unlimited hospitality?

The proprietor of the "Bramber Arms" gave glowing accounts of the dinner that was to be prepared. No expense was to be spared. He was to provide the choicest dishes. He declared that during his business career he had known nothing like it.

Felix heard of the grand banquet, the rent-dinner, as it was called, and went home one evening pleased to have some news that would interest his father. When he reached Vale House he was astonished to find that two letters of invitation were there before him, one for his father and one for himself.

"That is wonderful," he said. "Why has the Earl invited us?"

Nor was his wonder much decreased when in his father's letter he read a few words written in the Earl's own handwriting, and signed "Arlington"—a few kindly words, begging Mr. Lonsdale, if possible, to be present, as he very much wished to see him.

"That means good news for you, father," he said. He had never mentioned his interview with Lady Maude, neither had he forgotten it.

Mr. Lonsdale shook his head gravely.

"There will be no more good news for me in this world, my dear boy—no second Will-o'-the-wisp will ever lead me astray. For the future I shall believe in nothing but what I see."

"You will find that I am right," said Felix. "You will go, will you not?"

"Yes, I will go, just to show my fellow-townsmen that, while they treat me as a thief or a swindler, the Earl of Arlington treats me as a gentleman. I will go, if only to show them that. Yet I have some misgivings, Felix. If they avoid me as they have done, it will kill me. Felix, what if his lordship has heard nothing of this story, and has invited me in ignorance? What if, when he finds it out, he avoids me too?"

"My dear father, why dwell on trifles? Lord Arlington says expressly that he wishes to see you. Surely you do not doubt his word? He has been so much in Lilford lately that you may be quite sure he has heard the whole history."

In his heart Felix felt certain that Lady Maude had told her father all about it, and that this invitation of the Earl's had something to do with her communication. He placed his arm caressingly round his father's neck.

"You may get better, father," he said, "and come with me."

(To be continued.)

WHAT HAPPENED TO SEVEN GIRLS IN TEN YEARS.

MARY WAGER-FISHER.

(Continued from page 30.)

The promise was faithfully kept, and the letters, by a hocus pocus of circumstance have fallen into my hands. Before giving them below, *verbatim et literatim*, I open a photographic album and take a look at their faces. Here is Zethrea—a wholesome looking girl—round faced, red cheeked, tall and lithe, superb black hair, beautiful hands—feet and teeth ditto, only these do not show in the portrait. She had been educated at Mt. Holyoke and lived at Cairns Point, N. Y.—a refined, affectionate and merry maiden scarcely out of her teens. This brown haired, brown eyed, smiling girl of exquisite complexion and a very fully rounded form, is Lee Jaynes, she belonged to Schenectady, N. Y.—a simple hearted, guileless, conscientious child. Of the "Cookies" it has already been hinted that one was dark and the other fair. The faces of both are very sweet and lovely; both had an exquisite sense of the ridiculous, of taste in dress, and abounded in the practical good sense and thrift of New England. Their home was in Nashton, N. H. Mary Roswell's face is not easily described. It is full of character, full of sadness, and some bitterness of expression lies about the mouth. Her life had been full of adventure and much too full of misfortune. She was born in the Sandwich Islands, where both her parents had gone as missionaries, and where both died and had been buried. Orphaned, she was placed in charge of the Missionary Board, and brought back to America by way of China. During this homeward journey, still scarcely more than a baby, an accident befell her from which she never recovered, and which made the doing of every kind of work more difficult for her than for those about her. But devoted to an unusual degree, and endowed with the true missionary disposition, she achieved great things in her way, overcoming all obstacles with a brave and dauntless spirit. She was the one person in the world that took the Lord at His word and *trusted* in it; although there were many times in her life when she had reason to believe that He had forgotten all about her. In person she was short—she wore her dark hair "shingled," which well became her round and rosy face; her smile was winning and her eyes dark blue. She had the knack of relating her experiences in a pleasing and graphic way, and some of her sketches have appeared at times during these past ten years in the columns of various journals. Mary Walter was the tallest of the girls, of light build, and decidedly individual in style and manner. Her picture shows a large eyed girl, with a rather delicate face, with brow and temples too much shaded by dark curling hair; she was college bred, quick tempered, high-strung nature, whose only faults lay on the surface, and who had gone as an "N. T." for the novelty of the experience. Mercy Biddle's face would have done up well as a Friend's—it had a fairness and reposedness about it that savored of Quakerdom. But she was only an old-fashioned, plain Methodist girl, with a Saxon's fairness, and a wealth of long fair hair simply coiled at the back. Her face was one to please and to win confidence at a glance. A strong, earnest face, full of positive convictions.

Now for the letters, which are given in the order of their dates. The first is from Mary Roswell:

SAN FRANCISCO, last of December, 1876.

DEAR OLD CHUMS:—Ten years! Is it only *ten* years since we sat in Walter's room that New Year's night? It seems like twenty at least, as I look back at the past. I suppose each one's life seems as eventful to her as mine to me. But I hope no one else of our band has been through as much as I have in these ten years. From Richmond I went (after you left for your homes in the summer) to Nelson Co., Va. You all remember the circumstances: one of the F. F. V's., with sixteen children, wanted a teacher for them. Sometimes I think I ought to have stayed longer with them; but I thought I could not, and from there I went to Staunton, Va. where I taught a year. From there, after a visit North, I went to Charleston, S. C., commissioned as teacher to the freedmen by the Presbyterian General Assembly. There I made a failure of teaching, as I always did in a city; after a few months left there and was sent to Winnsboro, S. C., where I was soon stationed by myself in the country. No one else would go to that station—it was so isolated. I lived there fourteen months, teaching in an old, dilapidated four-story brick building, formerly a theological institute. I was often very lonely, but I had plenty of work and felt that I was doing good. I had a Sunday school and a night school all the time, besides my usual day school. When at last it was deemed best to close the school there, and remove me to another station, a colored man indignantly exclaimed: "I'll never have anything to do again with the Presbyterian Persiety! Here I have been sendin' twelve chilen to you all dese fourteen mumfs and now they takes you away from me!"

From there I went still further into the country and taught in a log cabin with no windows, and only a hole for a door.

This was in the winter of '70 and '71 and South Carolina was greatly excited then. After vainly waiting for a better state of things, I closed the school and soon after went North.

But in the meantime, January 13th, I had been married. I cannot well speak of my marriage and the years that followed, for even now, that it is all

past, my heart cringes at the thought of those long dark months and years. And too, some of you have said things (to others) that pained me sadly, implying at least, that I deserved all I suffered. I will not dwell upon this, only to say this much (though I presume you will not believe it), I know all that any of you do and *more*, and I say now that I wronged no one, neither do I see how I could have done any other-wise than I did.

I was married January 13th at Winnsboro, S. C., by the Rev. Mr. Richson, our missionary superintendent. My husband returned soon after to Florida, intending to resign an office he held there and come North: in the meantime I chose to remain and continue teaching. But instead of resigning, he lost his office (County Judge) and lost what property he had, so he was unable to go North, and I went on with my school until compelled to close it as I have said. I went North for a time, but in June he asked me to come to Florida, thinking he had the means of supporting me there. I went, glad to go to my *home*, for I had never had one. But I stayed only three weeks. It was a long, hot journey there, but it was a longer one back, for those three weeks had been very painful ones. I was sick when I returned—sick in body and sick at heart. I went into a hospital and stayed until my baby was born, October 6th. I wanted to die, but God would not let me. I will not weary you with the years that followed, years of weary struggle to support myself and child. I was under matron in the Home for the Friendless, for a time; two summers I took charge of a house (this in New York city); was in Philadelphia for a time; then in New Jersey; was city missionary for a time; was for some months in Saratoga County, N. Y.; taught a colored school in White Plains, New York, etc., etc. I hardly *know* how I managed to live. Sometimes I did not taste meat or butter for months, and *once*, when I was nursing my baby, a wee puny thing, I had nothing to eat for several days but a five cent loaf of bread, and only water to drink. And yet in the midst of this all, and while my heart was *racked* with suspense and bitter aching, so I longed for nothing so much as to lie down and die, with my baby, I heard the remark, "If *I* had no more to trouble me than *you* have," and "How *easily* you take everything—it would *kill me*." So do we misjudge others. We know so little of the bitterness of the lot of other hearts. Still through it all, God's loving hand led me, His loving care never failed me. He was *not punishing* me for any wrong I had done others. I do not know the "Why," but I know it was not done in anger. Always he spared something for me. Sometimes I did not know one week where I could find shelter for the next; but it was always provided before the week was gone.

And then my boy—I can never tell the precious comfort he was to me. God-sent comfort. You know how I always wanted to be a mother. And although I was in grief and suspense almost every moment, yet in the midst of it all, my heart would *throb* with joy that I was a mother, though my next thought would be, "Oh, my God, let us both *die*."

He was a funny morsel, as monkey-like as a human being could well be, and every one said I could not raise him. But every day of his little life, from the very first, was most precious to me. I did not care how he *looked* or anything—he was *my baby*, my own little one—my God-sent treasure, and he, and he alone kept my heart from breaking. But I am making a long story. My husband died May 5th, 1875, at Pensacola, but it was six months before I knew the particulars or even the certainty of his death. He was my *husband*—the father of my precious boy. Only God can judge him now. In the fall of 1875 an uncle in California sent for me to come out here. I came by steamer. I was worn out with trouble and anxiety, and no hope of anything better here. I only wanted to die with my boy.

The voyage recruited my strength somewhat, and I tried to get something to do here. I taught a Chinese school for a time, but I was not strong enough to teach. Everything failed me, or I failed in everything, just as at the East. But the morning broke at last, a bright, peaceful morning. God sent me one to love me and care for me, a true, good husband. I was married again in May 1876, and my husband is all a true woman could ask for. My married life now, is as near perfect happiness as any thing on earth can be. My heart is all *rest* now. I am so happy I hardly know myself.

We are poor and always shall be, in purse. But *rich* in love, we three, and in God's dear love. Our little home, (*my home* at last!) is quiet and peaceful, a *resting* place. My husband is a laboring man, a Swede by birth, rather tall and spare, plain looking and of very few words, but true hearted and kind, an earnest Christian, and he *loves me*. Not one thing about him, would I change if I could. My boy Herbert, is fine and healthy, though still *small*. He is as smart (and good looking, too) as any you can show. He is perfectly satisfied with his "Papa." He said one day, "When papa first came to see us, before we married him, we thought he was just like any other man, did'nt we? We did'nt know how good he was, did we mamma?"

As for me, these ten years have changed me, I am older, am quite gray and instead of weighing from 125 to 130 pounds as I did once, I only weigh now from 90 to 100, but I am pretty well, so that I am happy.

In reading over the above I find I have said nothing of the kindness of friends during my long night of trouble. God sent me many friends who were strangely kind. I don't know how I should have lived without them. Mercy Biddle did me a great many kindnesses. All I had ever done for others was repaid to me "four-fold, good measure, pressed down, shaken together and running over," and I sometimes think the best of all of the happiness I have now, is the being able to do a little for others again.

Well, now, Walter, Raynor, Biddle, Lee and Cookies, how are you all? I wonder if Mrs. Hawley has changed her dress yet? I have no Richmond news. How I wish I could see you. We are all so changed, no doubt, I only hope you are all as happy as I am now. God bless and keep you all in His holy love and keeping. We shall never meet here, I fear, but may no one be missing from our band on the other shore. Yours truly,

MARY ROSWELL WILLIS.

(*To be continued*)

ADULTERATIONS OF FOODS.

FROM the Boston Transcript we extract the following summary of a paper read before the Social Science Congress at Boston by Geo. T. Angell. The subject with which it deals is one of vital importance and it deserves more than a passing notice. Unless we are prepared to subsist exclusively on vegetables and fruit, to live with paperless walls, carpetless floors, and to confine ourselves to skins for clothing, it behooves us to be up and doing in this matter of poisonous adulterations in food, wearing apparel, and wall and floor coverings.

"Take the adulteration of foods, for instance. One of the most eminent chemists of Massachusetts tells me that almost every class of articles now sold in this country for food is more or less adulterated, and that many of these adulterations are extremely poisonous. [Hayes, Bowditch.] For instance, cayenne pepper is adulterated with red lead, mustard with chromate of lead, curry powder with red lead, vinegar with sulphuric acid, arsenic and corrosive sublimate. It is stated in the Scientific American that probably half the vinegar now sold in our cities is rank poison. [Ploughman, Dec. 1, 1877.] One of our Boston chemists analyzed twelve packages of pickles, put up by twelve different wholesale dealers, and found copper in ten of them. [Massachusetts Board of Health Report, 1873.] Another chemist analyzed sixteen packages of pickles and found copper in all of them. Many of our flavoring oils, syrups, jellies and preserved fruits contain poisons. The adulterations of tea are too numerous to mention. Coffee is not only adulterated, but a patent has been taken out for molding chicory into the form of coffee berries, and I am told that clay is now molded, and perhaps flavored with an essence, to represent coffee. Cocoa and chocolate are adulterated with various mineral substances.

Several mills in New England, and probably many elsewhere, are now engaged in grinding white stone into a fine powder for purposes of adulteration. At some of these mills they grind three grades—soda grade, sugar grade and flour grade. [North Adams, C. W. Elliott, April Galaxy, 1877.] I am told that thousands of tons of it have been ground in the towns of Massachusetts. It sells for about half a cent a pound. Flour has been adulterated in England, and probably here, with plaster of Paris, bone dust, sand, clay, chalk and other articles. I am told that large quantities of damaged and unwholesome grain are ground in with flour, particularly with that kind called Graham flour [To detect adulterations of flour see Sanitarian, November, 1877.] Certainly hundreds, and probably thousands, of barrels of "terra alba," or white earth, are sold in our cities every year to be mixed with sugars in confectionery and other white substances. I am told by an eminent physician that this tends to produce stone, kidney complaints and various diseases of the stomach. A Boston chemist tells me that he has found seventy-five per cent. of "terra alba" in what was sold as cream of tartar, used for cooking. A large New York house sells three grades of cream of tartar. A Boston chemist recently analyzed a sample of the best grade, and found fifty per cent. of "terra alba" in that. [Hayes, March 23, 1877.] Much of our confectionery contains thirty-three per cent. or more of "terra alba." [Sheldon.] The coloring matter of confectionery frequently contains lead, mercury, arsenic and copper. [Massachusetts Board of Health Report, 1871.] Baking powders are widely sold which contain a large percentage of "terra alba" and alum. [Baltimore News, Nov. 17, 1878, from Scientific American.]

In 1874 a "medical commission" of five physicians appointed by the "Board of Health" of Boston, reported that over a million and a half gallons of water were sold as milk in that city in that year, for which nearly $500,000 in money was paid. They state further, that this water is likely to be taken from impure streams and barnyard wells, and so to produce typhoid fever and other infectious diseases in those who drink it. In one instance thirty-four cases of typhoid fever were produced in twenty different families by drinking milk mixed with water taken from a well standing near a cesspool. ["English Sanitary Record." Boston Journal, Feb, 25, 1876.] The high death-rate amongst infants in our cities is largely attributable to adulterated milk. In one year, for instance [1868], while there were 457 deaths of "cholera infantum" in Suffolk County, in the same population outside the city there were less than 100, [Massachusetts Board of Health Report, 1873.]

It is not water alone that is mixed with milk. Thousands of gallons, and probably hundreds of thousands, are sold in our cities which have passed through large tins, or vats, in which it has been mixed with various substances. I am told that after being drawn from these vats it tastes better and will keep longer than pure milk. Receipts for the mixture can be bought by new milkmen from old on payment of the required sum. I am assured, upon what I believe to be reliable authority, that thousands of gallons of so-called milk have been, and probably are, sold in this city which do not contain one drop of the genuine article. Probably this kind is principally sold to the poor.

Large quantities of the meats of animals, more or less diseased, are sold in our markets. Cows, in the neighborhood of our large cities, are fed upon material which produces a large flow of unwholesome milk. Poultry are fed upon material which produces unwholesome eggs. Meats and fish are made unwholesome, frequently poisonous, by careless and cruel methods of killing. [Lobsters, trawls, etc.]

Butter is not only manufactured in enormous quantities from animal fats, obtained probably in many instances from diseased animals, but this also is now still further adulterated with an article still cheaper. It is estimated that during 1877 there was manufactured in this country about 75,000,000 pounds of this butter. It is estimated that in 1878 there was manufactured not less than 90,000,000 pounds. It is estimated that during 1877 more than 40,000,000 pounds of cheese was manufactured here from the same material. A large portion of these products are so disguised as to deceive the public, and are sold as the pure, unadulterated product of the milk of the cow. In these products have been found, by analysis, horse fat, fat from bones, and fat such as is principally used for making candles; and the whole prepared with a heat not sufficient to kill the parasites which enter and breed in human bodies. It would require a volume to explain the adulteration of foods sold in our markets, many of which endanger health and life; and they are constantly increasing. What is being done to stop these adulterations? So far as I am aware, nothing whatever.

Large quantities of our so-called European wines and liquors are manufactured here, shipped to Europe, reshipped and sold here as the pure juice of the grape. A large portion of our California wines are made in Boston cellars. An eminent Massachusetts chemist, who has had a wide experience in the analysis of wines and liquors, tells me that of all the wines and liquors sold in eight places out of ten through the State of Massachusetts it would be safe to say that more than ninety per cent. are adulterated.

Now take our drugs and medicines. Here I cannot do better than quote the exact words of an eminent medical gentleman of Boston. He said to me, "The adulterations of drugs in this country are perfectly abominable. The physician orders a medicine for a patient in extreme danger. The medicine has only a quarter the strength it should have, because of its adulteration, and the patient dies."

I am told by the secretary of the Michigan State Board of Health that a large portion of our tin-ware contains lead in a soluble form. In Michigan several children have died from drinking milk which had been kept in tin pans of this kind. I am not aware of any reason why the tin-ware of Massachusetts should be less poisonous than the tin-ware of Michigan and Pennsylvania.

The use of arsenic, corrosive sublimate and other poisons has become common in ladies' dresses, in veils, in sewing silks, in threads, in artificial flowers, in gentlemen's underclothing, in socks, in gloves, in hat linings, in linings of boots and shoes, in paper collars, in colored enameled cloths and doubtless in many other articles. A child in Troy, N. Y., recently died in convulsions by taking arsenic from a green veil thrown over its crib to keep off flies.

Wall papers containing arsenic are largely manufactured and sold; also poisonous papers used for curtains, lamp shades, boxes, about confectionery, for tickets, cards and various other purposes. A friend of mine recently visited one of our New England factories where these papers are prepared. He found there about thirty barrels of arsenic. The employees were required to work only two days in the week. Many of them were made sick by that; some had died. The proprietor kept away from it. In railroad, lecture and concert tickets there is frequently enough arsenic to kill a child.

These arsenical wall papers are of various colors—green, blue, red, yellow, pearl and other colors. Some are cheap, some costly, some figured, some plain; some glazed, some unglazed. The amount of arsenic imported into this country during the year ending June 30, 1875, was two million three hundred and twenty-seven thousand, seven hundred and forty-two pounds (2,327,742). Each pound contains a fatal dose for about 2800 adult human beings. Yet it is sold in our markets almost as freely as wood and coal, at a wholesale price of from a cent and a half to two cents a pound. The editor of a leading Boston paper has recently stated in his editorial columns that it is estimated that about eighty-five per cent. of our wall papers now manufactured contain arsenic. A Boston gentleman recently purchased in different parts of that city twenty samples of kerosene oil, and submitted them to a skilful chemist. He found that eighteen of the twenty were dangerous, and sold in violation of law. It is said that the great Chicago fire of 1870 would never have occurred if the fluid in a single lamp which caused it had been of the proper legal standard.

There is little or no profit to the seller, who, in ninety-nine cases out of a hundred, would prefer to sell honest goods, and enrich only those manufacturers and adulterators, some of whom, regardless of the laws of God and man, are little, if any, better than the pirates that plunder our ships on the ocean, or the highwaymen who rob and murder on the land. Laws should be enacted and enforced prohibiting the manufacture and sale of these poisonous and dangerous articles under severe penalties, and compelling the manufacturers and sellers of adulterated articles to tell buyers the precise character of the adulterations. I have not a word of fault to find with our "boards of health." They are doing great service. But this work is beyond their power. If they should earnestly undertake it they would be opposed at once by combinations of capital and political influences which would either secure their removal or paralyze their efforts. Under our form of government there is but one remedy, and that is in the formation of "public health associations" in our cities, composed of influential citizens, supported by voluntary contributions, employing officers who cannot be bribed or removed by outside influence, and who would make it as dangerous to manufacture and illegally sell poisonous foods and other poisonous articles in our markets, as it is now to cruelly beat horses or starve cattle."

ADVANTAGES OF CRYING.—A French physician is out in a long dissertation on the advantages of groaning and crying in general, and especially during surgical operations. He contends that groaning and crying are two grand operations by which nature allays anguish; those patients who give way to their natural feelings more speedily recover from accidents and operations than those who suppose it unworthy a man to betray such symptons of cowardice as either to groan or cry.

He tells of a man who reduced his pulse from 126 to 60 in the course of a few hours by giving vent to his emotions. If people are at all unhappy about anything, let them go into their rooms and comfort themselves with a loud boo-hoo, and they will feel 100 per cent. better afterward.

In accordance with the above, the crying of children should not be too greatly discouraged. If it is systematically repressed the result may be St. Vitus' dance, epileptic fits, or some other disease of the system. What is natural is nearly always useful, and nothing can be more natural than the crying of children when anything occurs to give either physical or mental pain.

REAL WORKINGWOMEN.

IT is an odd spectacle to witness scores of women doing the work of longshoremen on the wharves of St. John's, Newfoundland. When the time arrives for vessels from Southern Europe, Brazil, West Indies, and elsewhere, to take aboard their cargoes of salt cod, herring, etc., files of buxom females, with tucked-up gowns, bared arms, and coarse brogans, may be seen along the wharves, carrying flat barrows of fish to and fro. Each barrow has four handles, and is borne by two women. They perform the same labor as men at this business, but their pay is inferior. In fact, they seem to work more arduously than their male co-operators, and continue to do so the same number of hours. Women also go on the "summer voyage" to Labrador, and act in the capacities of "splitters," "salters" and "headers."

RECENT LITERATURE.

Parturition Without Pain. Eighth Edition, enlarged. M. L. HOLBROOK, M. D. New York: Holbrook & Co. Price, $1.

IT is most necessary that every family library should contain standard works on Physiology and Hygiene. This is especially true of farmers' libraries, for while city people have doctors "to right of them, doctors to left of them," (which is perhaps a rather questionable advantage) and have, moreover, ample opportunity to consult medical works in the public libraries or to listen to lectures on these all-important topics; the farmer's family is dependent on the village doctor—who may live miles away—for all knowledge of the human form. Hardly a farmer in the land but what purchases books which treat of the diseases of cattle, horses and dogs. Books of this class have always a ready sale, for the farmer knows that it is only by the careful study of diet, exercise and rest in their relations to health, that he can hope to keep his live stock in good condition, but when it comes to a question of children, how many books does he buy? how much does he study? Most fathers wash their hands of all responsibility and leave the child's life and well-being in the hands of the mothers who are, quite likely, as ignorant as themselves. Mother-love will accomplish much, but it cannot supply the place of absolute, accurate knowledge of the proper care of children. The world is full of poor little humans, deformed, weak in mind and body, who, by reason of their parent's ignorance are compelled to lead lives of pain and anguish. Attention to the simplest of nature's laws would have made them vigorous. When one reflects on the amazing, yes, appalling ignorance of parents, the wonder is not that so many children are feeble, but that any are robust.

The work under notice should be carefully read by every mother. It is written in a clear, popular style, and the suggestions are admirable. The use of drugs is discouraged and people are recommended to live naturally, and by proper diet and exercise to become well and to remain so. Contributions from Mrs. Elizabeth Lady Stanton (who, though the mother of seven children, maintains that there need be no ill-health among women,) from Mrs Duffey and Dr. Clemence Lozier, enhance the interest and value of the book. We consider the work admirable in every particular and it would afford us much pleasure to know that every Rural household contained a copy of it.

As It May Happen: A Story of American Life and Character. 12mo, extra, cloth. $1.50. Philadelphia: Porter & Coates.

THIS is a remarkable work. Its most striking feature is the originality of the characters which, while not distortions, are still far removed from the conventional creations which appear in the average novel. The dialogue is natural and sprightly and the action is rapid. The author displays a skill in the development of the plot which is found only among superior writers; this is particularly noticeable in his treatment of the mysterious element which plays a conspicuous part in the book. The pure tone of this novel makes it most acceptable to all who turn with disgust from the many works published in these days, whose questionable morality appears to be their sole recommendation to public notice.

English History in Short Stories. New York: A. S. Barnes & Co. Price $1.

THOSE who must be contented with instruction in homeopathic doses will find this little work to be most valuable, and even those who have had the advantage of extensive reading will applaud the compiler for this ready, accurate and comprehensive text-book. It is embellished by notes on heraldry and the titles of nobility, and contains quite a detailed explanation of the government of England. In short, a book that so adequately adapts itself to both youthful and advanced readers is worthy of library or table space.

Lord Beaconsfield, when recently asked "how long he thought the Conservative Government would last," quietly replied: "As long as it pleases Providence to spare Mr. Gladstone to the country."

News of the Week

Monday, Jan. 20, 1879.

POLITICAL.

The work of the House has been interrupted by extraordinary mortality among its members, not less than four having passed away in the course of as many weeks, under circumstances which cause grave suspicion of the unhealthfulness of the Capitol or of the city of Washington. Three of these were from the South, and all happened to be democrats. The ablest of them by far was Gustav Schleicher, of Texas, a native of Germany, who had resided here since 1847. The House by a vote of 127 to 77 rejected a bill to reimburse William and Mary College, Va., for losses incurred in the war. Only four republicans voted in the affirmative and many democrats in the negative.

Mr. Edmunds has introduced a joint resolution prohibiting any bill passed by either House from being sent to the other after 12 P. M. of March 1, and any bill or resolution passed by both Houses from being sent to the President after 12 P. M. on March 2. This measure is designed to prevent the rushing through of bills just at the close of Congress, hitherto a fruitful source of jobbery, trickery and error.

Though Senator Sharon of Nevada has held his office for nearly four years and drawn almost $30,000 for pay and mileage, he has not been a month in his seat altogether hitherto. Some of his colleagues had never seen him until his recent arrival at Washington, and very few of them had made his acquaintance. He is 68 years old and is described as short and thin, light-complexioned, unprepossessing in figure, and weighing hardly more than 100 pounds.

Since the democrats organized the Indiana Senate they are more confident of pushing through the Legislature a partisan gerrymandering scheme. A bill has already been introduced, which throws most of the republican congressional majorities into a single district and gives the democrats a chance to elect nine members out of the thirteen.—In other words, gives the republicans a dose of their own medicine.

MISCELLANEOUS.

The Cincinnati Commercial's summary of murders and homocides in the United States in 1878, aggregates 1,326. The killings are put under thirty-three classes, some of which are these: "Killings on account of dogs, 4; killings on account of wives 64; wives killed, 68; parricides, 8; wives killed husbands, 11; negroes killed, 112; negroes kill, 102; bagnio fatal quarrels, 10; men killed in common quarrels, 258; bar-room and drunken quarrels, 74; fratricides, 14; wronged women kill seducers, 6; fathers kill sons, 18; killed in political quarrels, 14; deaths from abortion, 12; poison, 25; killed by thieves, 57; mothers kill children, 37; accidental killings, 69; mobs, 29; cards and gambling, 15; officers killed 53, and 36 officers were killed The Illinois Department of Agriculture, at Springfield, has received crop reports from a majority of the southern counties of the State, which indicate that the winter wheat was never in so good condition as at present. The heavy snows have protected the grain, and the ground is reported in excellent condition. Live stock is also reported in good condition.

Col. W. S. Clark resigns the presidency of the agricultural college at Amherst, Mass. The explanation seems to be that the trustees have discovered that President Clark is rather an expensive luxury. The college will retrench for the present by getting along without any head. It is probable that Prof. Stockbridge will be made acting president and no president chosen for the present. There was another severe snow storm over a large part of the country last week. Here 'twas the heaviest of the year. Many blockades on the railroads. Fifteen miles of cars are said to have been snowed in on the N. Y. Central, while it is stated that the loss from all causes during the snow embargo was $65,000 to the New York Central, nearly $50,000 to the Erie, and $45,000 to the Lake Shore road. These are only sample cases of what has generally been the results throughout the North and West.

Reports from nineteen Western railroads of their December business, show gross earnings amounting to $6,609,190, an increase over those of the same month in 1877, of $115,717. The figures for the year are: Gross earnings, $83,528,761; increase over 1877, $4,577,925. On last Tuesday, week, there were in the Chicago elevators 5,556,662 bushels of wheat, 1,945,988 bushels of corn, 427,933 bushels of oats, 226,684 bushels of rye, and 1,166,762 bushels of barley, a total of 9,324,029 bushels, against 9,060,977 the previous week, and 2,800,698 at the same time in 1877. New York and Brooklyn warehouses contained 3,812,000 bushels of wheat, 2,950,000 bushels of corn, 1,069,000 bushels of oats, 564 bushels of rye, and 918,000 bushels of barley. Grain in sight on the 21st of December: Wheat, 10,917,000 bushels; corn, 9,059,000 bushels; oats, 2,969,000 bushels; rye, 1,565,000 bushels; barley, 5,600,000 bushels. Exports from seaboard ports week before last included 97,488 barrels of flour, 1,104,420 bushels of wheat, 639,289 bushels of corn, 19,944 bushels of rye, 6,968 barrels of pork, 6,420,174 pounds of lard, and 15,797,917 pounds of bacon. Hamilton Fish was elected president of the Union League Club at New York the past week. Gov. Hampton of South Carolina is steadily mending. The export trade in live stock is assuming magnificent proportions in Canada. An English firm is reported as negotiating with Toronto exporters for twenty thousand head of grade Short-horn cattle and fifty thousand sheep of the Cotswold and Leicester breeds. This immense number is composed of the choicest animals, and the entire lot is to be delivered at Liverpool before the close of June next.

Dun & Co's, the commercial agents, report of the failures for 1878 cover 10,478, the highest ever reached, the total liabilities being $234,363,000, also the next highest being $228,499,000 in 1873. The decline in the value of staples and the haste to take advantage of the national bankrupt law are the most probable causes of the increase. At the final meeting of the Centennial Commission in Philadelphia, Wednesday, thirty-nine States and Territories were represented. General Joseph R. Hawley presided and delivered an address. The closing report of the Executive Committee was read and accepted. The report of the committee appointed to audit on finances were presented and adopted. The gross receipts of the exhibition were $11,161,611,55; expenses to date, $10,997,980,59—leaving a cash balance of $173,630,96.

All matters connected with the transportation of his products to market are of importance to the farmer, as they influence the price of his goods, hence it is gratifying to learn that the canals of this State have been exceptionally successful this year. A new system of management which keeps them apart from politics, went into operations last February and in the four remaining months of the fiscal year the expenses of the whole year were reduced $310,580, as compared with the year before; while at the close of 1878 they had been reduced from $851,729 in 1877 to $140,817—nearly one-half. This has also been accomplished without impairing the condition of the canals in the least, while their tonnage has increased 214,859 tons and the net revenue $245,871.

The conference between the representatives of the trunk line railroads and agents of ocean steamship lines running from New York was held at 29 Broadway Wednesday. The object was to make some arrangement for sustaining uniform rates on freight shipped for export from the West. The railroad men presented a plan adopted last week to prevent the cutting of rates. The steamship agents expressed their willingness to cooperate, if the railroads would agree to ship all their export freight by vessels of lines composing the Northern Atlantic lines. A conference committee was finally appointed to consider the matter. The proposition of the steamship companies would rule out the alleged Vanderbilt Unicorn line of steamships just established. It is said the railroad companies want to force upon the fast passenger and mail steamers the same rates of freight that the New York Central will secure by the Unicorn line.

Thomas Lord, the millionaire whose marriage with Mrs. Hicks about a year ago created such a sensation, is at the point of death. He has taken no solid food for two weeks, and his stomach will not retain fluids. He is about 85 years old. The Teller Committee is reported to have taken evidence in New Orleans, which demonstrates the existence of gross intimidation of voters at the last Presidential elections. The Potter Committee is about to investigate those cipher telegrams.

The hostile Cheyennes, imprisoned at Fort Robinson, Neb., since last October, having been informed a few days ago that they were to be taken back to their agency in the Indian Territory, became very sullen, and repeatedly expressed a determination to die before consenting to such a movement. They were shut up in a frame building, and in order to force them to consent to go South they were deprived of food and fire for five or six days, and of water for 24 hours, and the windows were removed from their prison through this intensely cold weather to freeze them to subjection. Driven to desperation they at last took advantage of the carelessness of the military guard, and at 10 o'clock at night, when nearly every one was in bed, they jumped through the windows and made for the prairie, which was thickly coated with frozen snow, firing on the guard from revolvers they had concealed since their capture, dangerously wounding four, two of whom have died. The main guard rushed out of the guard-house, and, following them up, killed over 40, including eight squaws and two children. Over 100 of the cavalry, mounted and dismounted, followed, but were forced to return for provisions. Since then the pursuit has been vigorously carried on, and all the fugitives either killed or recaptured, except 19. At latest accounts, these were holding a detachment of troops at bay. Much excitement among the Sioux.

A Military Court is in session at Chicago inquiring into the conduct of Major Reno at the battle of the Little Big Horn, where Custer and his command were massacred. Charges have been repeatedly made that were it not that Reno's cowardice on that occasion prevented him from going to the assistance of his gallant commander, the issue of the struggle might have been different. He demanded an official investigation into the matter, and hitherto some strong testimony for and against him has been taken.

FOREIGN.

The distress among the working class in Great Britain is still increasing. The workhouses are being filled to their utmost capacity. Private charity, though liberal, is insufficient to more than mitigate the suffering. There is a fierce struggle between labor and capital. Manufacturers find that to prevent their trade from passing into American and continental hands a reduction in the price of their wares is absolutely necessary. This they insist must be brought about by lowering the wages of their workmen. The latter say the vast profits of the capitalists should be diminished instead, and refuse to consent to the curtailment of their pay. During the past week several large strikes have been inaugurated, chiefly among the miners in Wales and Cornwall. In the manufacturing cities of Warwick and Lancashire the men have been locked out of a number of the most extensive factories and work suspended until the proposed reduction is agreed to. There is a strong probability that both labor and capital will emigrate largely, both to this country and Australia. Already the North Wales Mining Association is offering $33.88 to every member of the Union who desires to emigrate to America and $67.76 to those preferring to go to Australia. By this means the number of operatives, it is hoped, will be so reduced that the remainder will be able to get higher wages—according to the old doctrine of supply and demand.

In France the Republicans, having gained heavily at the late elections, are insisting that to the victors belong the spoils. They maintain that all governmental officials who are not openly of their party should be dismissed and red-hot republicans appointed in their places. To this the Government refuses to consent, and a Ministerial crisis is imminent. There is a good deal of talk about the possible resignation of MacMahon rather than his submission to the dictates of the triumphant party. It is said that Gambetta supports these demands, with a view to his election to the Presidency after the termination of MacMahon's term, in 1880. Now, as usual, agitation in France is having a disquieting effect throughout the rest of Europe. In Germany the agitation about protective duties in favor of home products is still the chief topic of public interest, over-topping that taken in Bismarck's proposed legislation to punish the abuse of free speech in the Legislature. This measure seems to excite greater indignation abroad, especially in England, than in the Fatherland. There is just now a report, also, that the great Chancellor intends to introduce a law authorizing the government officials to open suspected letters coming from other countries, in order to prevent the dissemination of objectionable political doctrines through means of the mail. Matters out in Afghanistan are nearly at a standstill, owing to the severity of the weather. Yakoob Khan is said to have followed his father in his flight.

Domestic Economy.

CONDUCTED BY EMILY MAPLE.

MOP-HANDLE PAPERS.—No. 12.

MAY MAPLE.

A Sewing-Circle's Household Wisdom.

"WELL I declare, if Mrs. Hester Douglas isn't more nice than wise, then my name isn't Rachel Ray;" and the *petite* lady drew up to the table that was covered with work and surrounded by ladies of various ages, both married and single; for this was society day.

"You see," continued Rachel Ray, as she adjusted her thimble and took up an apron to finish, "I called to see if Hester would not come to the sewing circle with me. But, dear me! didn't I know it was Saturday and that it was every housewife's cleaning day? anyway, if it wasn't, it ought to be. For her part, she had work enough to do at home; and if the ladies who attended the society every week would look around their houses, they'd find enough to keep them busy. She always cleaned her house every Saturday from garret to cellar. She must finish scouring the cellar stair and the wood-house steps. She s'posed most of folks would think they would do with washing occasionally, or sweeping once or twice a week; but she always scoured hers with plenty of soap, sand and elbow grease. And then the swill barrel, pail and dipper always came in for their share of the weekly scouring, too. And she'd warrant there wasn't a society woman who ever even washed those articles. But she had her opinion of such neat people. And she'd no doubt but the heathen that they were so anxious to provide for, might give them many a lesson in the art of housekeeping. "And the way she scoured and washed each step was certainly an example of hard work," continued Rachel, dropping her sarcastic tone.

"Yes, and very useless work, too, I should say;" said Mrs. Wright, the merchant's wife. "I quite agree with you in thinking Mrs. Douglas more nice than wise."

"Well, I never thought of the cellar stairs or the swill barrel being a test of neatness. To be sure, one might judge of one's economy by taking a peep into the swill barrel. But to me the idea of scouring it is quite new," said Mrs. Plainwell.

"My way of testing a housewife is by the doors; if they are kept clean about the latches, I'm not afraid but the rest of the house will be found comfortably tidy, in most cases;" said motherly Mrs. Burton, who never fretted or criticised if things did not look precise and altogether in style.

"I never have any doubts as to a housekeeper's capabilities if I can take a peep at the floor of her sleeping room. Now there is Louise Upton who always keeps her floor so clean that one can rub it with a cambric handkerchief and not soil it, and every thing about her house is off the same stamp;" said Mrs. Tilden. "For my own part, I never sought for fame in that direction, and do not expect my neatness will ever bring laurels to my brow." We all knew that the speaker was in no wise slack in her household.

"Aunt Ruth, what do you think of all this striving after excessive neatness?" said Rachel Ray.

"Why," said the serene-faced, quiet lady addressed, "the Good Book tells us that cleanliness is next to godliness. One can be clean without going into such extremes as have been spoken of this afternoon. Our Saviour rebuked Martha for being so troubled about matters pertaining to the household that she could not find time to entertain her guests without fretting about her work. He also commended Mary for having chosen the better part. She had no doubt cultivated her mind, and made herself more agreeable to the friends who gathered in to pay their respects to the family. To Mary life meant something better than scrubbing and cleaning. While Martha could see no use in pouring over parchments and high-sounding literature. It is the same now. We have our cultured Marys and our house-cleaning Marthas, and the work of feeding the soul and caring for the body still goes on, one extreme balancing another. But I believe those who can reach a happy medium and make themselves equally sharers of mental and physical labor, carrying neither to excess, are really the most useful and therefore the most contented."

HOW TO CARE FOR CHILDREN.

I WOULD like to bring a smile upon some poor, tired woman's countenance by telling where my boy spent most of his time when small. Our house was cold, and I did my work alone, so we took a dry-goods box two feet square—a smaller one would do nicely—put some carpet and an old quilt in the bottom, borrowed some casters from a bedstead, so it could be easily moved, and, lastly, put in some playthings and baby. For washing days alone, it would pay for itself, and besides one can feel safe if up-stairs or down-cellar. The top was just high enough for him to see out, and was also rasped off smooth, so he learned to walk by going from side to side, never getting bumps like children who walk by chairs. Never mind if he does cry, at first; as our good old doctor said, it hurts the mother worse to hear him, than it does the child to cry. But many children would be quite contented for a reasonable length of time. Our box would not go through the door, but I'll warrant the little ones would enjoy having it out of doors on a warm summer day.

Keep the high chair tied to the table leg at top and bottom, and when washing your dishes, put the baby in that, tying him in, of course, and give him some new plaything. I do not mean that one should always keep buying, but don't give a child everything at once. Old tin-ware and rag dolls, a chair for a horse, or a pail of rags to wash (without any water), with a string across the chairs to hang them on, is as good as all Broadway can afford. Don't begin by putting out of a child's reach articles that he cannot have, unless it be the shears and butcher's knife; but say, no, to him firmly, and perhaps at first it is well to take the child away from the object. If he persists, slap his hands, and, finally, if that is not enough, put him in the box, or tie him up. As he grows older, do not give him a lifelong horror of neatness, by *always* refusing him anything because it makes a litter or soils the clothes. If Mrs. Grundy should chance to call, she will only find out that you think more of your child's happiness than you do of her opinion.

Make children's clothes plain and of dark material, so they can be washed easily, and let them play in the sand, if it be dry. It might not answer in the city, but if you live in the country where people are accustomed to it, begin taking your children to church when young. Let them know, at first, that they cannot, under any consideration, get down from your lap, and I don't believe it will take very long for them to learn how to behave in church.

Having had some experience in croup, I will say that one of the best remedies I have yet found is a piece of flannel saturated with ice-cold water, bound tightly around the throat and changed often.

AUNT MARY.

HYGIENIC PIES.

I HAVE just finished reading a communication from "Sarah Gamp," and permit me to give my ideas of hygienic pies.

True, if pies "are well made and eaten in moderation they do no harm," but the great point to be gained is to have them "well made," and we all know how few housekeepers have reached perfection in the art. In the first place, it is not at all hygienic to use fine white flour to make your pie-dough, no hygienist uses it for any purpose. In the second place, it is not hygienic to use lard or butter. Let me give you a recipe for a strictly hygienic pie, copied from the cook-book of the well-known hygienist, Dr. R. T. Trall.

Graham Pie-crust.

"Pour boiling water into Graham flour and stir to a soft dough; roll out as thin as possible; sprinkle a little of the flour over the pie-plate, and spread this as the bottom crust. Make the top crust by mixing Graham flour with ice-cold water; add grated cocoanut if desired, knead as quickly as possibly to a stiff, hard dough; roll very thin; cover and bake immediately."

That is pie-crust, and for the contents, I will quote his recipe for apple pie.

"Spread the bottom crust on the plate; on this spread a few dates, stoned and cut into small pieces; sift a little Graham flour over this, and lay on the apples in slices or stewed; if the fruit is very juicy sift on more flour; cover with the top crust; have the fruit extend close to the edge of the crusts, which should be wet so that the top and bottom crust will adhere at their edges; with a knife roll the edges under so that they will be smooth; bake immediately, being careful not to have the top crust much browned. As soon as done, cover tight with a dish about two inches deep, and let it steam till cold, when the crust will be very tender."

Now that is *strictly* hygienic, and if the RURAL readers object to it, let them continue to make their pies in the old way, but I entreat them to substitute Graham flour in place of the fine white flour, and use as little "grease" as possible.

MRS. W. V. ASPINWALL.

KEEPING ACCOUNTS.

I WONDER how many of the RURAL families keep an account of household expenditures? It is a very satisfactory practice as it enables us to show whether we are living within our means or not. Parents need not keep the family expense account, if there are children who are old enough to do so. The habit will give them ideas of business early, and teach them the value of money. Provide a suitable book and see that every expenditure is promptly and correctly entered. If the work is well done, give the child a word of commendation now and then by way of encouragement. I knew a family who would not keep accounts believing that it made people penurious, (they lived on the generosity of a wealthy relative) but it seems to me there can be no excuse for such a result. On the contrary, among the most benevolent persons I ever knew, were those who kept cash-books in which the smallest expense was noted, with date of the same. It is fair to say that the pages of their account books were never marred with the record of money expended for tobacco, cigars or spiritous drinks. Is not so admirable an example to young men worth thinking about?

M. G. R.

Lyons Iowa.

QUESTIONS ANSWERED.

Turnip Tops.

E. L., Linn, N. Y., asks: Can the shoots which grow out of old turnips, at this season of the year, be used in any way for the table?

ANS.—Yes; they are considered by many to be an excellent spring vegetable. Pick off those shoots which are fresh and young; throw into cold water for an hour or more before cooking; have ready a kettle of boiling water; throw in a handful of salt and add the sprouts; they will cook in from twenty to thirty minutes. Eat with vinegar or prepare drawn butter and pour over.

Hot-Cross Buns.

Subscriber says: "Please give directions for hot-cross buns."

ANS.—Two pounds of flour; half a pound of sugar; a small quantity of grated nutmeg and allspice; stir together; make a hole in the center of the flour and pour in one-half pint of warm milk and one-half tea-cupful of good yeast; stir in enough of the surrounding flour to make a thin batter; cover and let stand before the fire until light; then add half a pound of melted butter; enough milk to make all of the flour into a soft dough and a little salt; dust over with flour and let rise for half an hour. Then make the dough into the shape of buns, notch out on each the form of the cross and lay them separately in rows on buttered tins to rise again for half an hour; put in a quick oven, watching them carefully, lest the color should be spoilt by overbaking.

Curry of Tongue.

A. L. M., says: "Please give recipe for a curry of tongue."

ANS.—Fry a dessert spoonful each of curry powder and flour in two tablespoonfuls of butter until brown; then add a pint of good beef stock; two onions chopped and fried brown in butter; two pounds of tongue cut into thin slices and the grated rind of a lemon; simmer for half an hour; add lemon juice and salt to taste.

To Stew Celery.

Mrs. T D. D., says: "I should like your recipe for stewing celery?"

ANS.—Remove the outer stalks and break off the green tops; cut into small pieces and boil in milk and water until very tender; thicken with a good lump of butter and flour; season with pepper and salt; then add the yelks of two well beaten eggs mixed with a teacupful of sweet cream; shake the sauce-pan over the fire until the gravy thickens, but do not let it boil.

OUR FREE SEED DISTRIBUTION.

SEEDS of the following varieties of plants are offered to our subscribers without any charge whatever (except for postage, a part of which we bear) until further notice:

DEFIANCE WHEAT. A hybrid spring wheat. The most promising variety ever before offered.

"PEARL," OR "EGYPTIAN" MILLET. One of the most promising fodder plants known.

BEAUTY OF HEBRON POTATO. According to many careful tests, this is ten days earlier than Early Rose, as good in quality, and more prolific.

THE VOORHIS WATERMELON. A specialty of the Rural Farm.

GOLDEN RURAL TOMATO. A specialty of the Rural Grounds.

ACME TOMATO. This is offered as the best of the newer varieties of Tomatoes to those who may prefer it to a trial of the Golden Rural.

NEW BRONZE RICINUS. Specialty of the Rural Grounds. The most beautiful Ricinus in cultivation. A cross between Ricinus Gibsonii and R. sanguineus.

HIBISCUS MOSCHEUTOS—the showy and beautiful Rose Mallow, never before offered so far as we know. Hardy.

CALLICARPA AMERICANA (Purpurea). The brilliant French Mulberry. Hardy.

HIBISCUS SYRIACUS. One of the most charming of hardy shrubs. Sometimes called "Rose of Sharon." Our seeds are saved from double-flowering varieties—many of them from seedling plants. They grow readily from seeds, and bloom as soon as plants would if transplanted from nurseries. The seedlings "sport" without end.

WEIGELA. Seeds saved mostly from seedlings. This is probably the finest hardy shrub in cultivation.

DEUTZIA CRENATA fl. pl. Seeds saved from seedlings at the Rural Grounds. Seventy-five per cent. of seedlings will bear double flowers. It is perfectly hardy and there is no finer shrub known for ornamental grounds.

HIBISCUS MILITARIS. Hardy and beautiful.

ERYNGIUM LEAVENWORTHII. The most striking annual of recent introduction. (See RURAL of November 9th for engraving of this and other plants, seeds of which we offer.)

GERANIUM SANGUINEUM. A true geranium of great beauty. Perfectly hardy.

YUCCA FILAMENTOSA. Every farmer and lover of plants should have specimens of this perfectly hardy evergreen liliaceous plant in his grounds. It is superb.

VITIS HETEROPHYLLA. See RURAL, Nov. 9, for description of this hardy vine.

RURAL HYBRID AQUILEGIAS. Beautiful, hardy perennials of great beauty.

GRINDELIA SQUARROSA. See RURAL of Nov. 9 for remarks.

OBSERVE.

Any ten of the above require a one-cent postage stamp:—that is, ONE *cent* for the ten, not for each except the Beauty of Hebron Potato, Pearl Millet and Defiance Wheat. The Beauty of Hebron requires a two-cent extra stamp and the other two a two-cent extra stamp also.

Other varieties *may be* added. We intend this free seed distribution to be the most valuable of its kind that has ever been gratuitously offered by any journal, and to introduce the above valuable plants to the homes of farmers and horticulturists in every part of our country.

WE offered, some time ago, to sell the cuts used in this Journal for twelve cents the square inch. Many have requested us to send proofs of our cuts. As we have upwards of ten thousand, we could not undertake to do so. Persons wishing to purchase, must select from files of the RURAL NEW-YORKER.

For Coughs, Colds and Throat Disorders, use "*Brown's Bronchial Troches,*" having *proved* their efficacy by a test of many years. 25c. a b

THE MARKETS.

PRODUCE AND PROVISIONS.

NEW YORK, Saturday, Jan. 18, 1879.

BEANS AND PEAS.—Prices for medium and marrow beans ruled low, but dealers think the decline checked, and choice grades are held with more confidence. Exporters are operating more freely in marrows, while a stronger potato market helps mediums for local use. White kidney quiet; Pea also, but with rather more stock looked at. Red kidney active and firmer, with each new wholesale transaction. Black beans unchanged. Green peas are in moderate supply, but the demand is limited at $1.30@1.32. Canadian field peas in bulk and bond 1c. higher, 73@75c.: Southern B. E. steady at $2.70@2.70. Medium beans, prime, $1.37@1.40; fair to good, $1.20@1.30; marrows, prime, free on ship, $1.40@1.45; fair to good, $1.25@1.35; pea, $1.40@1.55; white kidney, $1.70@1.90; red do., choice, $2.60@2.70; fair to good, $2.35@2.50; black beans, $2.05@2.25.

Receipts of beans for week, 3,020 bushels; exports, 600 bbls.

BEESWAX.—Small sales to the local trade at 26@27c. for Western and Southern.

BROOM CORN.—There are fair receipts and easy prices. Jobbing rates are 3¼@4@4¼ @5¼c. for inferior to choice. Car lots do not exceed 4½c. for very best, and off grades sold as low as 3c. One car very poor sold at 2c.

BUTTER.—There is rather more activity, but it does not run along the whole line of sellers. With butter, as with many other items of produce, there are too many sellers for the current volume of trade. As before, choice half tubs lead the call for State, and perhaps with the firmness in Western more sales of useful second quality State can be reported. Shippers have added some life to trade taking fair quantities of State, 13@15c. All in all, the month is favorably ahead of last in the distribution of under grades. An exchange correctly remarks that:—

"One of the most severe drags upon the market this winter is the collections of early made parts of dairies. Many of them are likely to go out disastrously for owners. Prominent dealers hope that the result will hasten what has been so frequently advocated, prompt shipments of fresh, carefully made stock. Holding in firkins for six months is a feature of the past, since creameries West and nearer steadily enlarge the supply of strictly fresh flavored butter."

Western butter is in good demand, showing good grain quality. Prices have been strained up rather high, and at the close are quoted full. Rolls higher with improved quality.

State, full dairies, special, 20c.; other, 16@19c.; firkin dairies, fair to prime, 15@18c.; Welsh dairies, fine full, 16@17c.; choice half tubs, 23@25c.; fair to prime do., 16@21c.; choice Welsh, 19@20c.; fair to prime, 12@17c. Choice creamery 24@25c.; best western creamery, 31@32c.; other, 24@30c.; early packed creamery, 17@20c.; poor State, 5@12c.; Western dairy, fine fresh, 18@20c.; fair to good, 10@15c.; factory, ladle packed, 17@18½c.; good, 14@15c.; other, 6@8c.; rolls, 10@16c.; grease, 4@5c.

Receipts for week, 27,711 pkgs.; exports, 8,860 do.

CIDER JELLY.—Eastern enterprise has found a way to utilize surplus apple crops. Vermont is sending in quantities a delicious addition to table supplies called apple jelly. If its present pure quality is kept up the item will find a steady place here; quoted 8c. lb. with free sales.

COTTON—Has been variable and active, closing firm at for January, 9.44@9.46c.; February, 9.54@9.55c.; March, 9.74@9.75c.; April, 9.91c.; May, 10.01@10.05c.; June, 10.14@10.16c.; July, 10.24@10.26c.; August, 10.32@10.35c.

Quotations for spot cotton are based on American standard of classification, and on cotton in store running in quality not more than half a grade above or below the grade quoted:

	Uplands.	*N. Orleans.*	*Texas.*
Ordinary	7 9-16	7 11-16	7 11-16
Strict ordinary	8	8¼	8¼
Good ordinary	8¼	8¾	8¾
Strict good do	8 13-16	8 15-16	8 15-16
Low middling	9 1-16	9 3-16	9 3-16
Strict low middling	9¼	9¾	9¾
Middling	9 7-16	9 9-16	9 9-16
Good middling	9 13-16	9 15-16	9 15-16
Strict good middling	10 3-16	10 5-16	10 5-16
Middling Fair	10¾	11	11
Fair	11 11-16	11 13-16	11 13-16

STAINED.

Good ordinary	7 11-16	Low Middling	8 11-16
Strict good ordinary	8 3-16	Middling	9 1-16

CHEESE.—The exports for the week have been 22,300 boxes; all grades have had more inquiry the past week, and the situation of the market is rather steadier, with choice factories especially firmly held. Quoted at 9@9½c. for strictly fancy; 8¼@8½c. for fine lots; 7¼@8c. for good; 4@5c. for skimmed; State, farm dairy at 8@8¼c. for fine; 7@7½c. for good to prime, Wisconsin factory, fine, 8¼@8½c.; some fancy lots to 9c.; do. good to prime, 7½@8¼c. Western factory, fine and fancy 7½@8¼c.; good and prime, 6@7c.; do. full skimmed, 2@5c.

Receipts for week, 12,076 boxes.

Liverpool cable 45s.

Steam to Liverpool, 35@37s.6d.

DRIED FRUITS.—There has been a slow trade in all articles the past week, and prices are unsettled. Southern plums at 13¼@14c.; State plums, 14½@15c.; Blackberries are quoted at 5@5¼c. Peaches—Peeled Georgia, at 6@7c. for poor; 8@9c. for fair to good; 10@10½c. for prime; choice North Carolina, 11½@12¼c.; good do., 8@10c.; unpeeled halves, 3@3¼c.; quarters, 3@3¼c. Pitted cherries, 20@22c. Apples—New, 2@2¼c. for southern quarters in bags.; 3¼@3½c. for good and prime sliced; do., fair at 2¾@3c. State at 3@3½c. for new sliced; and 3@3½c. for quarters; western at 2¾@3¼c. for new quarters. Raspberries, 27@29c.

Exports, past week, 1,219 bbls. apples.

FRESH FRUITS.—Apple dealers begin to withhold choicest marks of red and greenings in view of a better future. Good useful stock is selling at $1.50@1.87. No serious damage reported from stored lots during the severe frost. Spitzenburgs, choice, $2@2.37, bbl.; other $1.25@1.75; Baldwins, $1.50@2; Greenings and Spy and good sweet, $1.25@1.75; very common, 75c.@$1. Exports, 4,502 bbls. Cranberries are rather neglected at the prices, but holders will not yield for the present. Fancy Cape Cod, bbl., $9; good, $8 50; other, $5@8. Specimen marks of grapes, Catawba, 6@7½c. Few prime Fla. oranges of late receipts show considerable rust, and for such packages, either bbls. or boxes, prices are irregular. Extra high colored stem-cut, $5 half bbl. box; other, $2@4; bbls., $4 50@8. Peanuts scarcer; many lots detained by ice in Virginia rivers. Stock here large enough to supply all parts; hand-picked Va. best, $1.05@1.10; other 80@95c.; shelled, 4@5c. Hickory nuts dull at $2@2.50 for shellbarks; Pecans, 8@10c.

EGGS.—About last week's prices have ruled fairly firm. Local wants are light at the prices, and the main support of rates has come from outside orders. Limed eggs have advanced. Near points, 28 29c.; State and Penn., 27@28c.; Western and Southern fresh, 27@27½c.; Canadian, 24@25c.; poor Western, 2 @26c.; choice limed, 20@21c.; good to prime; 18@20c.; interior, 16@17c

Receipts for the week, 3,575 bbls.; do. last week, 2,856 do.

FLOUR.—There has not been much activity this week, but as receipts have been hindered by the storms prices have been well sustained.

Latest prices are at $3.15@3.60 for inferior to strictly choice superfine State; $3.60@3.90 for very poor to good extra do., odd lots and lines; $3.90@4.25 for good to very choice do., and fancy lots above this; $3.10@3.60 for inferior to very choice superfine Indiana, Iowa, Michigan, &c.; $3.60@3.90 for inferior to good shipping extra do. and $3.90@4.25 for good to very choice extra do.; common to about choice white wheat extras, $4.70@5.00; choice to fancy do. at $5.00@5.75; red and amber winter wheat, very inferior to very choice trade and family $3.20@5.60; round hoop Ohios at $3.85@4.25, and trade and family brands of do. at $4.25@5.60, the latter rate for very choice; St. Louis, $4.00@4.75 for very poor to good extra, and $4.75@5.50 for good to choice; Minnesota clear, very inferior to fancy, at $3.00@5.00; few brands going above $4.50; Minnesota "straight," inferior to fancy at $4.40@5.00; and patent fair to strictly fancy at $5.25@8.25, few brands going above $7.50; unsound stock at from $2.00@4.75; city mill extra at $4.65@5.00 for West Indies (the latter rate for fancy in new packages); do. for England $3.65@3.90; do. trade and family extras, $5.10@6.00; do. for South America, $5.00@5.50 for fair to very choice; No. 2 at $2.40@3.00 for poor to very fancy.

FURS AND SKINS.—A good feature of the trade is the firmness of common skins. Skunk and winter muskrat are doing better.

	Nor. & East.	West & N. W.
No. 1 quality.		
Otter, each	$4 00@6 00	$2 50@4 00
Gray Fox	1 00@1 25	1 00@1 25
Red Fox	1 25@1 50	1 00@1 30
Black Bear	5 00@8 00	4 00@5 00
Brown cubs and yigs	1 00@2 00	1 00@2 00
Fisher	5 00@8 00	4 00@6 00
Mink, dark	1 00@2 00	50@ 80
— pale	50@ 60	30@ 40
Muskrat, winter	13@ 15	11@ 13
— fall	10@ 11	9@ 10
Kitts	2@ 3	@ 2
Beaver, ₰ lb	1 50@2 00	80@1 25
Raccoon, each	70@ 80	60@ 70
Opossum		5@ 15
Skunk, black		1 30@1 80
— half-striped		75@1 00
— striped		30@ 50
— white		15@ 25
Wolf, mountain		1 50@2 00
— prairie		50@ 60

Southern furs usually sell 15 to 20 per cent. below western.

GRAIN.—Wheat has been held up partly by small receipts, as the export demand has been moderate. Latest sales are of Nebraska spring at $1; No. 3 Chicago spring at 93@98c.; rejected spring at 75@78c.; ungraded amber at $1.07@1.11; No. 2 amber at $1.06@1.07¼; rejected red at 99c.; ungraded red at $1.07@1.11; No. 1 red at $1.10¾@1.10¾; No. 2 red at $1.09¾@1.10; No. 3 red at $1.03¾@1.04; white State at $1.11¾@1.13¾; No. 1 white, at $1.10¾@1.11; No. 2 white at $1.08¾@1.08¾; ungraded white at $1.09@1.11¾; No. 2 amber, January option, at $1.07; do., February option, at 1.07¾; No. 2 red, January option, at $1.10; do. February option, at $1.10; do., March option, at $1.11. Rye at 55@56c. for State. Corn is fairly active and steady; sales of steamer mixed, in lots, at 45¾@45¾c.; New York No. 2 at 46¾@47¾c.; New York No. 3 at 45½c.; ungraded mixed at 47@48c.; New York No. 2 new at 46½c.; Jersey yellow at 45@47¼c.; round yellow at 47c. for a car lot; No. 2 white at 48c.; New York steamer white at 45c.; No. 2, January option, at 47¾c.; do., February option, at 45¾@45¾c.; do. March, at 46c.; new No. 2 January option, at 46c.; steamer mixed, January option, at 45¾c.; do., February option, at 44¾@44¾c. Oats are in light receipt and strong in price; sales of New York No. 1 at 31½c.; New York No. 2 at 31½c.; New York No 2 white at 34¾c.; New York No. 3 at 30@30¾c.; New York No. 3 white at 33@33½c.; white Western at 33@35½c.; mixed do. at 30¾@31¾c.; white State at 34@36c.; mixed do. at 32½c.; New York extra white quoted at 38½c.; New York No. 1 white at 35¾c., delivered; No. 2 Chicago, afloat, at 31¾@31¾c. Barley, State 6-rowed, 93c.@$1; do, 2 do., 78@83c.; Canadian, $1.10@1.25; malt, 95c.@$1.25.

HAY AND STRAW.—The local demand is fair, and as receipts run moderate prices are sustained.

Sales at 40@45c. for shipping, and 70@80c. for retail qualities. Straw quoted at 50@55c. for long rye, and 35@45c. for short rye, and oat at 40@45c.

Exports, for week, 1,300 bales.

HONEY.—It looks as though much would have to be carried over if present low rates do not move it. Clover, single comb, 10@12c.; two do., 8@10c.; buckwheat, 7@9c.; strained, 6@10c.

HOPS.—Shipments this week have been only 742 bales. Holders display confidence at current prices, notwithstanding present demands are moderate.

Quotations are for New Yorks, new crop, choice, 13@15; New Yorks, new crop, good and prime, 10@13; New Yorks, new crop, low to fair, 7@9; Eastern, 8@13; Western, 8@13; Yearlings, 4@6; Olds, all growths, 2@3; Pacific coast, 12@15.

SEEDS.—Clover is in full receipt and easier; quoted 6¾@6¾c. for western, and 7¼@7¾c. for State; timothy at $1.25@1.30. Flaxseed at $1.42½.

OIL CAKE.—Has sold at $27 for Western.

PROVISIONS.—Have advanced on partly a sharp speculative demand.

Mess pork at the close quoted at $7.65 bid and $7 65 asked for old for January; $9 bid and $9.25 asked for new for January; $7.55 bid and $7.90 asked for old for February; $9.10 bid and $9.60 asked for new for February; $7.60 bid and $7.75 asked for old for March; and $9.15 bid and $9.30 asked for new for March; and $9 20 bid and $9.30 asked for new for April; and May at $9.30 bid and $9.40 asked. Bacon at 4¾c. for long clear and 4¾@4¾c. for short clear. Lard, western steam, at $6.20 for spot lots; $6.15@6.17½ for January; $6.17½ for February; $6.25 for March, and $6.30 for April. Stearine at 6¾@6¾ for Western and 6¼ for city. Beef hams at $14.50@14.75. Beef, extra India mess, $21 for city brands; do. Philadelphia, $18.50@19; packet at $11@11.50; plain mess at $10@10.50; extra mess at $10.50@11.50. Tallow at 6¾ for prime.

POULTRY AND GAME.—Owing to scant supply only prices are stronger. Western chickens, 6@7c.; State and N. J., 7@8c.; roosters, 4@5c.; fowls, 8@9c.; turkeys, hen, 9@10c.; toms, 7@8c.; ducks, choice, 60@67c.; Western and Southern, 45@55c.; geese, N. J., $1.50@1.62; Western, 75c.@$1.12; pigeons, 25@30c.

There is a wide range of prices for dressed. Much of the supply is frozen, but the demand is good as prices are cheap and there has been no variable temperature to damage quality. Western dry-picked turkeys are unusually plenty and easy; prices check firmness for near-by. Ducks and geese dull. The main demand is for good chickens and small turkeys.

Phila., dry-picked turkeys, 12@13½c.; fresh New Jersey, 11½@13c.; selected Western, 11@12c.; other, 8@10c.; Phila. fowls, 10@12c.; do. chicks, 13@15c.; near-by fresh, 11@12½c.; other, including frozen, 5@10c.; Capons, 13@20c.; slips, 16@18c.; Ducks, 9@13c.; Geese, 5@8c.

Heavy supplies of quail still make the feature of the game market, and prices are so low that other items are weakened thereby. Wild ducks are not of attractive quality. Grouse abundant.

Quail, ₰ doz., 50@70c.; Grouse, trapped, ₰ pair, 60@85c; drawn, 50@55c.; Partridges, ₰ pair, 60@80c.; Canvas-back Ducks, $1.25@1.50; Red-head, 75c.; Mallard, 50@60c.; Black and Teal, 35@40c.; common, including Broad-bills, 20@25c.; Hares, 15@20c.; Rabbits, 10@15c.; Wild Turkeys scarce.

TOBACCO.—Trade has been quiet the past week, but prices have been well sustained. Quotations are for

WESTERN LEAF.

	Light.	Heavy.
Common lugs	2¾@ 3	3¾@ 3¾
Good lugs	3¾@ 4	4 @ 4¼
Low leaf	4¾@ 5	5 @ 6¼
Medium leaf	5¼@ 6¾	6¾@ 7½
Good leaf	6¼@ 8	8 @ 9
Fine leaf	8¼@10	10 @12
Selections	— @—	12 @12½

SEEDLEAF—CROP OF 1877.

New England wrappers,	common	10	@12
do. do.	medium	13	@15
do. do.	fine	18	@25
do. do.	selections	27½	@35
do. seconds		10	@13
do. fillers		7	@ 9
Pennsylvania assorted lots,	common	9½	@10¼
do. do.	fair	11¾	@14¾
do. do.	fine	15¾	@18
do. wrappers		20	@40
do. fillers		7¾	@ 8½
New York assorted lots,	common to medium	8	@10
do. do.	do. good,	12	@15
Ohio assorted lots		9	@12
Ohio wrappers		12	@18
Wisconsin assorted lots		7¾	@10

VEGETABLES.—Potatoes have had a steady trade and prices have seemingly settled in sellers' favor for all good grades. Onions, squash and cabbage firm. Shelled lima beans wanted.

Nova Scotia E. Rose, bulk, or 175 lbs. to bbl., $2.75@3 per bbl.; Prolific and Chili red, $2.25@2.75; P. E. I. Jackson whites, $2@2.25; Mercers, $2@2.12; Eastern E. Rose, with bbl., $2.75@3; State, $2.50@2 75; fair to good, $2@2.37; do. Peach Blow, choice, $2.75@3.25; common, $2.25@2.50; Pearless, choice, $2.37@2.50 poor to good, $2@2.50. Sweet potatoes, Del., $2@2.25; Onions, White, $2.50@3; red and yellow, $2@2.25; Chester, $1.25@1.62. Hubbard and marrow squash, $2@2.25; Cabbage, $5@7 per 100. Cauliflower, bbl., $1.50@3. R. Turnips, 75@85c. Beets, 75c. Carrots, 75c. @$1. Celery, 60@75c. doz. Extras; hot-house Radishes, $3 ₰ 100 bunches; Cucumbers, $2.50@3 doz.; Mushrooms, 40@50c. ₰. Lettuce, 50c. doz.

Exports, potatoes, past week, 5,585 bbls.; onions, 550.

WOOL.—There has been but little activity this week, but the market has been firmly held and is without important change.

Domestic Fleeces: Ohio, Pennsylvania and Virginia—XXX and picklock, 37@39c.; XX, 34@35c.; X, 33@34c.; No. 1, 35@38c.; No. 2, 30@32c.; common, 28@30c.; combing and delaine, 36@38c.

New York, Michigan, Indiana and Wisconsin—XX, 31@32c.; X, 31@33c.; No. 1, 33@35c.; No. 2, 29@30c.; common, 27@28c.; combing and delaine, 34@37c.

Iowa, Vermont and Illinois—X and XX, 28@31c.; No. 1, 32@34c.; No. 2, 27@29c.; combing, 33@36c.

Missouri, Kentucky and Tennessee—Washed fleece, 26@31c.; unwashed fleece, 21@26c.; unwashed combing, 25@27c.

LIVE STOCK MARKETS

Saturday, Jan. 18, 1879.

BEEVES.—Receipts small. There has been a strong attempt to advance prices under plea of prospective scarcity, blocked roads and other winter excuses. It has not been met, however, as wholesalers know their average wants pretty well, and many have taken advantage of the line holding weather and have kept a supply of dressed ahead in the slaughter-houses. The range at the close is 8¼@10c. dress 55@56 lbs.; numerous sales at 9@9¼c.; bulls, $2.70@3.20 per 100.

COWS AND CALVES.—Our former range of $35@75 per head is the nominal one. No demand.

VEAL CALVES.—Choice live obtain a larger share of trade than they would if dressed were not arriving so generally frozen. Choice N. J. and Buck's Co., live, 7@7¼c.; do., State, 7c. other, including 200@300 lb. calves, 5¾@6¾c.; fed, 4@5c.; grassers, 2½@3c. Hog dressed, in a small way, 9¼c.; general range, 6@9c.

SHEEP AND LAMBS.—Receipts for the week, 17,255 head; do. last week, 15,921 do. Sheep have sold very steadily at very fair prices compared with other stock. Western, fair to prime, 4¾@5¾c.; extra, 5¾@6c.; near-by, 4¼@5c.; ewes, 4c. Lambs, 5@6¾c.

SWINE.—Receipts for the week, 36,197 head; do., last week, 23,920 do. Few live arriving; nominal rate, 3¾@3¾c.

Country dressed pork continues easy, especially for heavy weights. Extra light pigs, 5½c.; ordinary light, 5c.; medium, 4¾@4¾c.; heavy, 4c.; city, 4@4¾c.; Western dressed, 4@4¼c.

ADVERTISING RATES:

Inside, 14th and 15th pages (Agate space)	40c. per line.
" 13th page	50 "
Outside or last page	80 "
Fifty per ct. extra for unusual display.	
Special Notices, leaded, by count	70 "
Reading "	1.00 "

Discount on 4 insertions, 5 per ct.; 8 ins., 10 per ct. 13 ins., 15 per ct.; 26 ins., 20 per ct.; 52 ins., 25 per ct.

☞ No advertisement inserted for less than $3.

New Advertisements.

THOROUGHBRED ESSEX PIGS.—For sale: Sows of 75 to 150 lbs. each, in pig by my best Boar (Harris' No. 523), at $5 each, adding 5 cents per lb., according to weight wanted. Also, some Sow—or Boar—Pigs, fit to breed, averaging 50 lbs., at same rates. Address OTTO ERNST, Clay Mines, South Amboy, N. J.

My Annual Catalogue of Vegetable and Flower Seed for **1879,** rich in engravings, from original photographs, will be sent FREE, to all who apply. Customers of last season need not write for it. I offer one of the largest collections of vegetable seed ever sent out by any seed house in America, a large portion of which were grown on my six seed farms. *Printed directions for cultivation on each package.* All seed *warranted to be both fresh and true to name;* so far, that should it prove otherwise, *I will refill the order gratis.* The original introducer of the Hubbard Squash, Phinney's Melon, Marblehead Cabbages, Mexican Corn, and scores of other vegetables, I invite the patronage of *all who are anxious to have their seed direct from the grower: fresh, true, and of the very best strain.*

NEW VEGETABLES A SPECIALTY.
JAMES J. H. GREGORY, Marblehead, Mass.

HORSFORD'S
Bread
Preparation

UNSURPASSED FOR MAKING

LIGHT BREAD

Biscuit, Rolls, Cake and Pastry.

It is Better and Healthier than ordinary Baking Powder, Cream Tartar or Yeast.

The cost of raising Bread, Biscuit, &c., with it is only about half as much as by ordinary Baking Powder, and the result is much better.

It restores the nutritious elements which are taken from the flour in bolting. No ordinary Baking Powder or anything else used for raising bread does this.

Universally used and recommended by prominent Physicians.

If you cannot get it of your Grocer send a three-cent stamp to the manufacturers for a sample.

Manufactured according to the directions of Prof. E. N. Horsford, by the Rumford Chemical Works Providence R. I.

A GREAT OFFER FOR
HOLIDAYS!!!

We will during the HOLIDAYS *dispose of* 100 PIANOS & ORGANS, at EXTRAORDINARY LOW prices for cash. SPLENDID ORGANS 2 3-5 sets of reeds $65, 3 sets with Sub Bass and Coupler $80, 2 sets $50, 1 set $40, 1 set $35. 7 Octave *all* ROSEWOOD PIANOS $130, 7 1-3 do $140, warranted for SIX years. AGENTS WANTED. Illustrated Catalogues Mailed. Music at half price, HORACE WATERS & SONS, Manfrs. *and* Dealers, 40 E. 14th., St., N.Y.

Reading for the Young.

THE FOREIGNER AGAIN.

DEAR RURAL COUSINS:—In the first place, I wish you all a happy and joyful New Year, and hope that you will now make your appearance in the columns of the dear old RURAL with renewed zeal and strength! The Editors of this unsurpassed household and farming paper have done their best to raise the RURAL to the highest summit of usefulness; now, dear cousins, let us sustain them in their endeavor by contributing what little wisdom and experience we may have. Let us all march up to the front armed with knowledge, wit and humor, and commence the battle at once, not a battle for life or death—we let the older folks do that kind of fighting—but one for space in the RURAL for our letters.

I suppose you will be astonished to see this letter dated from Clinton County, N. Y., instead of from Switzerland, Europe. I did intend to go abroad, but have changed my mind and concluded to prolong my stay in America indefinitely. I have now become accustomed to the climate and customs of this country, and I like the people that live in it so well, that I really would prefer to make it my future home. To be sure, Switzerland is also a very nice country. Having a republican form of government much resembling that of the United States, people enjoy almost as much liberty there as we do here. All the fault I can find with my living there, is that the country is too small for me. The farming population have to live too crowded, which sometimes produces very disagreeable consequences. During the time I have lived on this hemisphere, I have learned to appreciate the habits and manners of your people so much, that it makes me shiver every time I think back on the rural life in Switzerland. There people do all their work without machinery, and live on such a coarse diet—boiled pork and potatoes the whole year round, and sometimes they don't even get that. They have to work about one-fifth of the whole year in the grape-vine fields, just to get wine enough to satisfy their always dry throats. Wine is thought so much of that without it, it would be impossible for the farmer to get any hired help, not even if he would offer them double wages.

In Switzerland, a farmer would think it extravagant and foolish to keep a horse and wagon for the purpose of riding out; he always walks. If he has any produce as butter, eggs, etc., to spare, he tells his wife or daughter to put the same in a basket and go to the city to sell it, sometimes a walk of over ten miles. Of course, the poor women acknowledge the superiority of the men, and without grumbling they place the basket (containing, perhaps, thirty or more pounds of farm produce) on the head, and sometimes another on the arm, and march to the city laden down like camels. It seems very cruel and hard indeed, to have the women of my country do such hard work, but it is the custom and they don't complain. On the contrary, they seem to enjoy that kind of life and remain very healthy, in spite of their hard work.

I am pretty sure, that if Heliotrope had lived there only one month with an old, stylish farmer's family, she would not think that the "boys are really nice animals," as she calls them in her letter. I rather think that if she would try to live there in American style, the boys would quickly turn her out; she would then most likely call them *horrid* animals.

To spend this winter in a useful and agreeable manner, I took up the studies of anatomy, physiology and chemistry, and I find them to be very interesting and benefitting studies, even for the farmer. They give so much useful information about the constitution and organization of living beings, and the phenomena which are presented by life. The chemistry furnishes us with the most direct and certain means of ascertaining what a barren soil wants to make it fruitful, and also what ingredients are required to adapt it to any kind of produce. I am also trying to make a collection of Indian relics, arrow-heads, stone-axes, etc., but they seem to be very scarce in this locality.

But I fear I have exhausted UNCLE TRUE'S, as well as your patience. I will therefore close this long letter, wishing you once more a happy New Year, full of joy, usefulness and pleasure, and hoping that we all may appreciate the value of our young years, in which we must lay the foundation for our future. My motto shall be: "Never be idle, and when you work, do it with a design of usefulness." *Au revoir donc, mon cher Oncle et mes chers cousins!* JOHN SCHWYN.

Clinton Co., N. Y.

NUMBER TWELVE.

MARY B. LEE.

NUMBER twelve plays an important part in the Bible, in history, and in arithmetic, as well as in every-day life and business.

What so common as a dozen handkerchiefs or napkins, or whatever the article may be? It comes natural to think of various articles in dozens. Of course, dozen is another way of saying twelve; twelve units make one dozen, twelve dozen one gross, twelve gross one great gross.

Then, although the moon travels round the earth thirteen times in one year, making thirteen lunar months, the year is divided into twelve calender months and the sun appears to pass through one constellation each month. So we have the twelve constellations of the ecliptic or zodiac, or twelve signs in a circle.

Then we have twelve pence in a shilling, English money, which has only gone out of use in this country of late years. We used to hear of shillings and pennies, and buy goods at a shilling or two shillings a yard as if we lived under the British flag.

We have also twelve inches in a foot; twelve ounces in a pound Troy and apothecaries' weight. Twelve is the least common denominator of several numbers, halves, thirds, fourths, sixths and twelfths—so that it is very much used in working fractions.

From Jacob's twelve sons came the twelve tribes of Israel, about which so much has been written.

Our Lord chose twelve disciples to establish his church, and the number must have been considered important, because Matthias was chosen to take the place of Judas. In the Revelation of St. John we read of the number of them which were sealed—twelve thousand from each tribe, making 144,000 from all the tribes of Israel.

In the description of the heavenly Jerusalem, we read that the wall had twelve gates, and at the gates twelve angels, and names written thereon, which are the names of the twelve tribes of the children of Israel. And the wall of the city had twelve foundations, and in them the names of the twelve apostles. The measure of the city was twelve thousand furlongs. The tree of life is represented as bearing twelve manner of fruits, and yielding her fruit every month. In the Bible, then, twelve is an important number.

Long ago, in England, a woman had several husbands in succession till suspicion was excited, and a man married her on purpose to unravel the mystery. He watched closely till one night, while he pretended to be asleep, she melted some lead and came over to pour it into his ear, when he sprang up and prevented her from adding him to her list of departed husbands.

An investigation was commenced. Twelve men were chosen to look into the matter. The bodies of the buried husbands were taken up and examined. She had poured lead into their ears, and the metal was found in their heads. Of course the twelve men decided that she had killed them all. That was the first trial by jury. Ever since when a crime has been committed and some one is suspected and arrested, he is tried before *twelve* of his fellow countrymen, and they decide upon his guilt or innocence. So twelve figures in every trial, and no one is condemned to prison or death except by a verdict from twelve of his countrymen.

So we find twelve an interesting number in many ways.—*Demorest's Monthly*

SOCIAL LIONS.

A NATIVE of Ukaranga asserted that in the village next to that in which he lived the people were on most friendly terms with the lions, which used to walk in and about the village without attempting to injure any one. On great occasions they were treated to honey, goats, sheep, and ugali, and sometimes at these afternoon drums as many as two hundred lions assembled. Each lion was known to the people by name, and to these they responded when called. And when one died the inhabitants of the village mourned for him as for one of themselves. This village was reported to be situated on the shores of Lake Tanganyika, not very distant from Jumah Merikani's house; and he also told me that the friendship between the natives and the lions was commonly spoken of, but he had never been present at one of the gatherings. The Mananga, however, asserted that he had often witnessed this friendly intercourse between man and beast, and brought several of his tribesmen to testify to the truth of his statement. Certainly, if this be true, our most famous lion-tamers have yet something to learn from the natives of Africa.—*Across Africa.*

WHY HE WAS THERE.

AN illustration of the conservatism which formerly pervaded the Russian army is given in the following anecdote told by Bismarck:

One day I was walking with the Emperor of Russia in the Summer Garden of St. Petersburg, when, coming upon a sentinel in the center of a lawn, I took the liberty of inquiring why the man was placed there. The Emperor did not know; the adjutant did not know; the sentinel did not know, except that he had been ordered there.

The adjutant was then dispatched to ask the officer of the watch, whose reply tallied with the sentinel's—"Ordered." Curiosity awakened, military records were searched without yielding any satisfactory solution.

At last an old serving-man was routed out, who remembered hearing his father relate that the Empress Catherine II., one hundred years ago, had found a snowdrop on that particular spot, and given orders to protect it from being plucked. No other device could be thought of than guarding it by a sentinel. The order once issued was left in force for a century.—*Youth's Companion.*

THE TEN QUESTIONS.

THOUGH it is pleasing to see that the Cousins have been so interested in my questions, and answered them very fully, as a general thing, I am sorry that so many have not been more prompt with their answers. I am receiving answers now by the half hundred, which ought to have been here a week ago, and, of course, are entirely too late. Many, no doubt, are excusable, as the mails have been delayed in several parts of the country on account of the heavy snow-storms; but others have spent too much time in making up their minds, and consequently have lost their chance for competition. I am sure, however, they will be more prompt another time. UNCLE TRUE.

LETTERS FROM BOYS AND GIRLS.

Some New Cousins.

DEAR UNCLE TRUE:—I suppose you will call us the new cousins, for pa has just commenced taking your paper, and I hope you will be our uncle too. I heard grandma read Lilly Lee's letter, and she said she wished the girl cousins would tell her in Uncle True's paper what they received for Christmas presents, and how they made those they bestowed on others. I will tell you first who we are. My name is Katie Mills, and I was five years old last Thanksgiving. My little sister's name is Fannie. She was a holiday present, and was three years old after Christmas. We got a good many Christmas presents. Grandma gave us each a new slate, so we can write and make pictures. She gave us also a book and a box of handkerchiefs each. Papa gave us some picture books and silver spoons, and I got a writing-desk besides. Mamma remembered us by giving us something to keep us warm, and she also gave me a testament. Besides this we got some dolls from the Sabbath school Christmas-tree. I am afraid there are some little girls who didn't get any Christmas presents. We ought to be *real good* little girls, when God is so good to us. Now, Uncle True, I don't know as you will think my letter good for anything, but I am going to send it. KATIE AND FANNIE MILLS.

Livingston Co., N. Y., Jan. 11, 1879.

DEAR UNCLE TRUE AND COUSINS:—I am another relative and hope I may come into your circle; my father has taken the RURAL for a number of years, and I like it very much. I am eleven years old and live about eight miles above Binghampton. I do not go to school this winter, for I have to stay at home and help mother do the work. I guess I will not write more at present, but if this is published I will try to do better another time. Yours truly,

Binghampton, Jan. 11, 1879. CLARA MEAHER.

[You are all welcome. Next time I hope Clara will not forget to tell us in what state she lives; there are several Binghamptons in the United States.—EDS.]

The Puzzler.

DECAPITATIONS.

1. DECAPITATE a city of Germany, and leave a city of Arabia.
2. A city of Spain, and leave a field.
3. Mountains of Cape Colony, and leave the present time.
4. An island near Niphon, and leave turmoil.
5. A city of Arabia, and leave a cave.
6. Part of Arabia, and leave God's best work.
7. A Persian plateau, and leave a verb which means scampered.
8. A city of Siberia, and leave a jewel.
9. A city of India, and leave a city of Italy.
10. An isthmus of the Bay of Bengal, and leave uncooked.
11. A cape of Australia, and leave in debt.
12. A bay of Australia, and leave to listen.
13. One of the Sunda Isles, and leave a city of India.
14. One of the Hebrides, and leave a lady's name.
15. An island of Oceanica, and leave tools.
16. A town on the Isle of Man, and leave a fish.
17. A town of Ireland, and leave a pronoun.
18. A town of Ireland, and leave the edge.
19. A lake of Ireland, and leave to question.
20. One of the Channel Isles, and leave a vessel of old.
21. An isle of Scotland, and leave to kill.
22. A lake of Scotland, and leave a pronoun.
23. One of the Shetland Isles, and leave a measure.
24. A city of England, and leave a lady's name.

☞ Answer in two weeks. BALTO.

HIDDEN NOVELS BY BULWER.

1. Oui, la reln, zillah.
2. He forbade Amy novel-reading.
3. I saw Feuge near a mine.
4. Will he disown Edward?
5. According to the gospel Ham was branded.
6. The east rang Estory's doom.
7. These are the last days of pomp, Eligura.
8. 'Tis the hour when night and morning meet.
9. Ravers are brewers. On Lucerne St. malt ravers dwell.
10. Do not brag, Nestora!
11. Pat said, "Misther Thec! ax Tonsy."
12. Do search, Paul; cliff or down upon the strand.
13. It is Thepil Grims of ——, the Rhine wine inspector.
14. Adelaide Veroux is here.

☞ Answer in two weeks. DR.

CROSS-WORD ENIGMA.

My first is in April but not in May,
My second is in night but not in day;
My third is in dumb but not in mute,
My fourth is in harp but not in lute;
My fifth is in wooed but not in won,
My sixth is in moon but not in sun;
My seventh is in wood but not in fuel,
My eighth is in light but not in duel;
My ninth is in name but not in Morgan,
My whole is in splendid organ.

☞ Answer in two weeks. LIDA.

PUZZLER ANSWERS.—Jan. 11.

MISCELLANEOUS ENIGMA.—"It is far better to die a porter in the fear of the Lord, than a courtier in the fear of the devil."

FRACTIONAL PUZZLE.—Victor Hugo.

CHARADE.—Handsome.

CROSS PUZZLE.—

G A B L E
S T E A K
S H E A T H E
S H O U T E D
T A F F Y
S T O I C
S I R U P
S E T T O

CENTRAL PUZZLE.—Portsmouth.

DOUBLE ACROSTIC.—Initials, Draco; finals, Solon.

TRANSPOSITION.—
Man works from sun to sun,
But woman's work is never done.

Sabbath Reading.

THE NEW COMMANDMENT.

"A NEW commandment I give unto you, that ye love one another; as I have loved you, that ye also love one another." In His last interview with His disciples, before He suffered, Christ spake very tenderly on this point, and He accompanied His words with the prayer that they might all be one; and it was a prominent theme in the Epistles of the Apostles, and especially so in those of John, the disciple whom Jesus loved.

There are important reasons why the disciples of Jesus should love one another. They are all disciples of the same loving Saviour. They are all members of the same family, of which Christ is the Head. They are all born of the same Spirit. They have the same great object for which to live—the promotion of the kingdom of the Redeemer. They have similar joys and sorrows. They are all traveling on together to the same blessed home in Heaven, where they will forever dwell, and unite in the same rapturous songs, and participate in the same delightful pleasures.

They owe it to their Savior, who bought them with His own precious blood, that they love one another. Nothing will please Him better; nothing will honor His religion more, and tend so much to its advancement in the world. "By this," He said, "shall all men know that ye are my disciples, if ye have love one to another." Thus should His religion be advanced, and men be led to think and to speak well of it.

But, on the other hand, nothing so much brings dishonor upon religion, and hinders its progress, as the want of brotherly love, and a spirit of animosity on the part of the professed friends of Christ. Whenever such is the case, the enemies of religion take notice of it, and make the worst of it. They eat the sins of the disciples of Christ as they eat bread. They make them an excuse for the neglect of religion, and soul-destroying is the effect upon them. Next to more love to Christ, more love to His people should be striven for.

"Love is the golden chain that binds
The happy souls above,—
And he's an heir of heaven who finds
His bosom glow with love." H. S.

["*Observer.*"

CHEERFULNESS.

As therefore Jesus said to his disciples in the storm, "Be of good cheer," so say I to you. Be of good cheer always and everywhere, in your darkest nights and deepest griefs, and in the wildest winter weather. When the United States fleet stood off the coast of North Carolina, the water was troubled and exceedingly tossed, by reason of a great wind that blew, and it was night; but as the waves rose in their rage, they became phosphorescent, and changed the stormy sea into a sea of glory; so your brightest joys should leap up out of the very sorrows of your souls.

The bird that soars the highest builds her nest upon the ground; and the bird that sings the sweetest sings in the night; and when we are sinking down in the dark depths, by the grace of God, we may rise above them and soar away, higher than the skylark, up into the brightest shining of the sun of righteousness, singing, as we soar, sweeter than the nightingale. Although the fig-tree shall not blossom, neither shall fruit be in the vines; the labor of the olive shall fail, and the fields shall yield no meat; the flock shall be cut off from the fold, and there shall be no herd in the stalls; yet I will rejoice in the Lord, I will joy in the God of my salvation. The Lord God is my strength, and he will make my feet like hinds' feet, and he will make me to walk upon mine high places (Hab. iii. 17-19).—*Alexander Dickson in "Beauty for Ashes."*

COMPROMISING WITH CONSCIENCE.

A GOOD many people are inclined to settle the question of public amusements by a cowardly compromise with conscience. They wish to be considered opponents of theatrical exhibitions, and so they draw the line in favor of minstrel shows, where most likely, a company of vulgar comedians retail all the questionable jests of the season. Or, again, they consider their pledges as church-members violated by a visit to a circus, but deem opera-going an innocent and commendable practice. Now, whatever position be taken concerning play-houses, it is plainly the Christian's duty to look sharply at the moral quality of the average opera. One of the most famous of modern operas is devoted to the exploits of a fallen woman of the worst class. Last week three thousand Philadelphians crowded the Academy of Music to listen to the first recital of the story of another woman of the same sort. Is a tale of vice not the less dangerous when surrounded by all the allurements of the musical art? Plainly, there is a gross inconsistency in that choice which rejects the theater merely because it is a play-house, and accepts a lewd opera because it is a musical performance. It is useless to banish the corrupt old English dramatist from our libraries, so long as the music of equally corrupt modern Italian composers lies on the piano. It is not yet time to forget the good example of that American singer who refused, a few years ago, to enact the part of an abandoned character, and lost her professional engagement in consequence.—*Sunday-school Times.*

WE wish it to be distinctly understood that we do not endorse all the religious ideas published in this column. Our object is to give matter which will stimulate our readers to study questions of conscience and conduct for themselves.—EDS.

As all lights cannot make up the want of the light of the sun, so all temporal comforts can not make up the want of one spiritual comfort.

PERSONAL ITEMS.

The marriage of the Duke of Connaught will be solemnized at Windsor Castle about the 13th of March, the ceremony, originally fixed for February, having been postponed a month in consequence of the death of the Grand Duchess of Hesse. There is ample time therefore for any of our readers who may have been invited to the wedding, to pack up their carpet-bags and pick their steamers.

Lida Smith chewed gum in Louisville until her jaws kept moving in spite of her efforts to stop them. She took the gum out of her mouth, but her jaws continued to open and shut, with a violence that contorted the whole of her face. A physician applied bandages, but it was only by making her insensible with chloroform that she was quieted. It was a case of spasmodic action of the facial muscles from over exertion.

Rugby School, England, which in these latter days has come to be regarded as a model, was quite the reverse in the last century The boys were hardly treated and half imprisoned, and their only playground was the churchyard. A grim tower is still pointed out as the torture chamber of a former master, Dr. Wool, whose diminutive stature but severe stripes probably suggested the saying: "Much cry and little Wool."

Mr. Westwood, of Mount Auburn, Ohio, was worth $65,000 when his first wife died. Her industry and management had been to a great extent the cause of his prosperity, and he gratefully spent $1,400 in putting a monument over her grave. He soon married again, and his second wife rapidly wasted his fortune until he had no property left except the monument. According to the new Mrs. Westwood's advice, he had it removed to a marble yard, effaced the inscription, and offered it for sale at half its original cost.

Dr. McBride, who called himself King of Pain, died in Chicago a few days ago of consumption. He was an educated physician, it is said, but preferred a roving life and the methods of a quack. He traveled in a gaudily painted wagon, and was known from Maine to Mexico. He was tall and thin, his hair was never cut, and a dress like that of a Western scout gave him a picturesque aspect. Thousands believed his pretentions of almost miraculous curative powers and he did a profitable business; but he spent money freely, and died poor.

William Blair, of Boston, received a bequest of $25,000. He had been poor, and the sudden acquisition of wealth rather turned his head. He began to spend the money in reckless dissipation, in spite of the efforts of his father to restrain him, and kept on until only $11,000 were left. The father begged that this remainder might be given to him for safe-keeping, and the son, being then ill from long drunkenness, and very penitent, readily complied. The father put $10,950 into a pocket in his shirt, and started out to spend the other $50 in a frolic. That night he slept on a bench in a barroom, and in the morning every cent of the money was gone.

Ex-Judge Seney is one of the foremost men in Tiffin, Ohio. His wife and Anna Walker were for a long time intimate friends, going together to social gatherings and church meetings, and being very much alike in their love for Mr. Seney, as the wife eventually found out. A divorce suit was the consequence, Mrs. Seney, obtaining a decree in her favor and an award of $20,000. Subsequently Mr. Seney married Miss Walker, which so exasperated the divorced wife that she struck the new wife in the street. The latest move in the controversy is a suit by Mrs. Seney No. 1 against Mrs. Seney No 2 for damages in winning the love of the ex-Judge.

Johnny Chamberlin committed suicide in Magalia, Cal., because the civilization of the place had left him discouragingly far behind. Chamberlin went there in the early mining days, when Magalia was called Dogtown. He was a scholarly man, and had qualities of recklessness and good-fellowship that made him very popular. Coot's saloon was the popular resort. Chamberlin bet with Coot $5,000 on Lincoln against the saloon on Douglass. Thus winning the establishment, as truthfully related in one of Bret Harte's stories, he stuck to it until his death, two weeks ago. In the meantime Dogtown became Magalia, churches and schools were established, and public sentiment changed so completely that gambling and drunkenness—Chamberlin's strong points—came to be regarded as disreputable. So he shot himself.

George Meeks was sick abed at Boone's Landing, Ky., when the recent very cold weather began. There was hardly any food in the house, and it became necessary for Mrs. Meeks to go to a store several miles distant for provisions. She started out on foot. The snow was deep and the cold intense. The husband became alarmed when she did not return within a reasonable time, and went to search for her, notwithstanding his illness. He found her frozen to death not far from home, with a bag full of flour beside her. Another sad death by the cold was that of a negro woman near Evansville, Ind. She was very old—over a hundred, according to her own belief. She lived alone in a miserable cabin. In an effort to keep warm she piled a large quantity of light, dry wood in the fireplace, and the flames spread to the hut. She was slightly burned in escaping, and then she froze to death.

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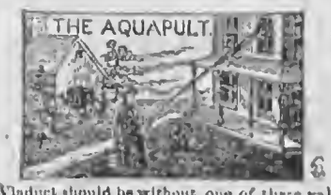

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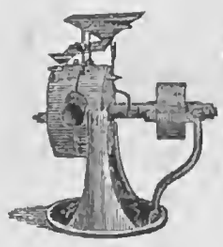

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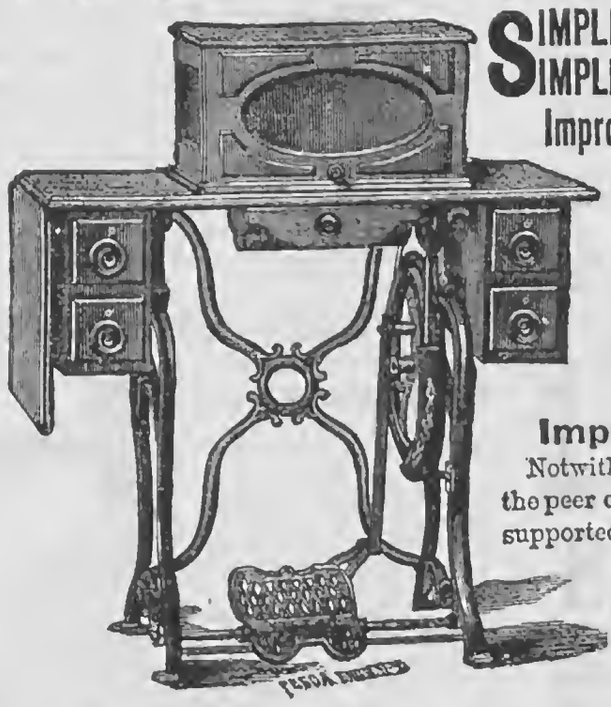

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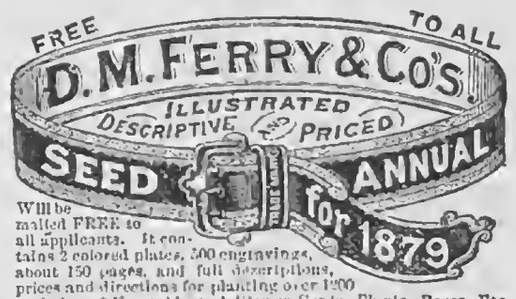

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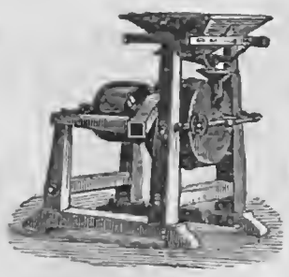

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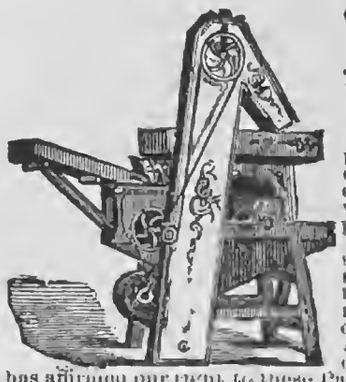

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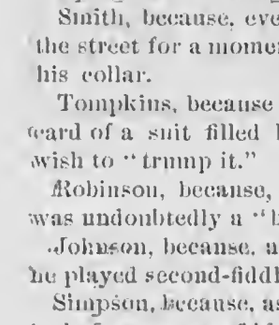

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THE RURAL NEW-YORKER

A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME

VOL. XXXVIII. No. 5.
WHOLE No. 1514

NEW YORK CITY, FEB. 1, 1879.

PRICE FIVE CENTS.
$2.00 PER YEAR.

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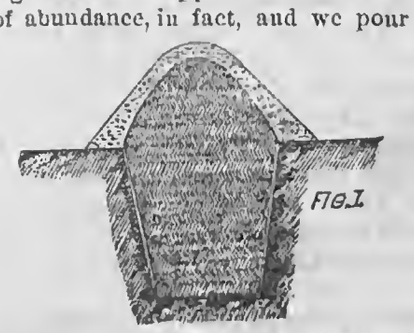
Farm Topics.

A NEW METHOD OF PRESERVING CORN AND OTHER GREEN FODDER.

BY A WESTERN FARMER.

Necessity of more thrift in feeding stock in the West; cheapness and great value of green-corn fodder; method of growing and preserving it for a long time; a temporary "silo," its construction and management; a permanent silo; ration of preserved fodder for cattle.

THE resources of the great western States are not economically husbanded. The same may be true of the East, but in the West the wastes are larger and more apparent. There is an excess of abundance, in fact, and we pour our

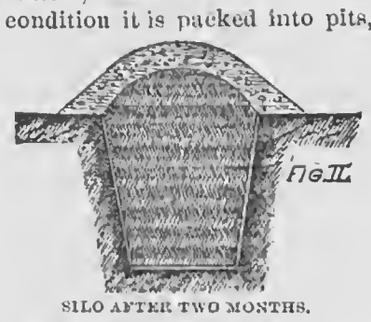


A SILO FRESHLY FILLED AND COVERED.

superabundance out with a lavish hand in the use of it. To some extent this waste pays, or rather it would not pay to spend labor, which is costly, in saving and using fodder, which is cheap. But things are changing very rapidly in this respect, and to husband and spend all our produce in the most economical manner will soon be indispensable to thrift, if not to the solvency of the farmers. Many Western farmers now cook their corn in feeding it to hogs and stock, who formerly threw it out lavishly upon the bare ground.

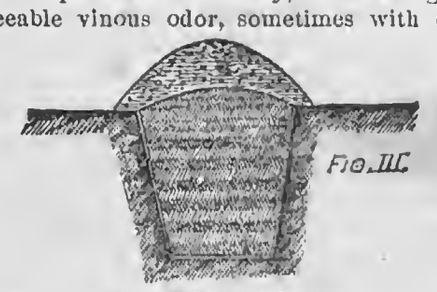
But corn is rarely grown for fodder alone either in the West or in the East, yet it may be made one of the most valuable feeding crops. Forty tons of roots per acre are considered a very large crop, but forty tons of green-corn fodder, worth more than the roots, may be as easily and more cheaply grown than the same quantity of the latter. And by a new process of preserving it, it may be kept fresh and succulent for a whole year, if need be. This method is a French and German practice, not new in those countries, but it is of recent introduction here, and will undoubtedly become common as soon as its usefulness and value are known. The method is as follows:

The corn is planted in rows as closely as may be to procure the heaviest growth. When the growth is the most vigorous and succulent—which is when the ears are still soft and full of milk—the crop is cut down. It is hauled directly to the barn and run through powerful fodder cutters, which reduce it to a fine chaff. In this condition it is packed into pits, called



SILO AFTER TWO MONTHS.

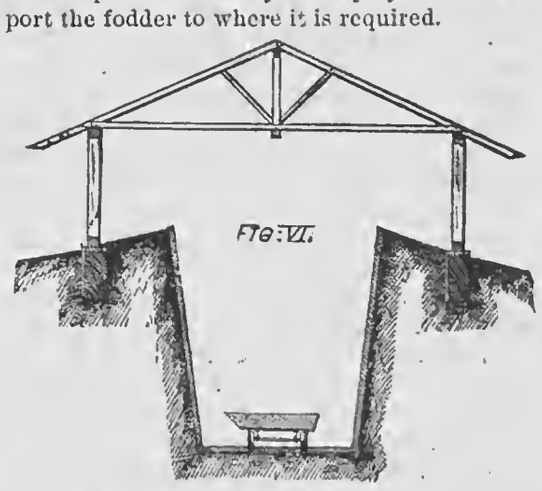
"silos," which are trenches dug in the earth, with sloping sides, about six feet deep and wide, and as long as may be required. The cut fodder is tightly packed in this trench, and is heaped up as high as possible in the manner shown at Fig. 1. It is covered with a layer of straw, and then with two feet of earth, well packed down, to exclude air. The success of the operation depends upon the complete exclusion of the atmosphere, when a fermentation occurs in which the starch of the fodder is converted partly into sugar, and the sugar partly into alcohol and some acid. The indigestible portions of the fodder are changed into soluble matter to a considerable extent, and the whole mass undergoes a transformation into a brownish substance retaining its perfect shape and consistence, but much more solid and compact than formerly, and having an agreeable vinous odor, sometimes with con-



SILO AFTER SIX MONTHS.

siderable mild acidity. After two months, the mass shrinks and settles into the shape shown at Fig. 2; and after six months, into that shown at Fig. 3.

During this settlement great care is to be taken to watch the covering and close every crack that may appear through which air might penetrate to the mass of fodder, and convey germs of moldiness or decomposition. When the pits are opened for use, this is done at one end and the cured fodder is cut down with a large knife, fig. 4, (an improved form of which will be seen in our advertising columns), as it is wanted for consumption; the cut surface being left compact and smooth. A frame of tight boards, to exclude air, is placed against the cut surface (fig. 5), and it is supported by a prop, as shown. This frame is moved along as the fodder is consumed, the earthen covering being thrown upon one side out of the way as the fodder is uncovered. The "silo" should open into the building, preferably a cellar, in which its contents are to be used, and a truck upon wheels may be employed to transport the fodder to where it is required.



PERMANENT SILO WITH ROOF, TRAMWAY AND TRUCK.

Permanent silos are made of brick-work, or cement concrete upon the floor and sides, and are covered with a roof for protection (fig. 6). They may also have a tram-way laid in the bottom for the passage of a light truck. A convenient place for the silo would be adjoining a cellar under a barn and opening into it by a door. Very similar constructions are used by Eastern dairymen for preserving brewery grains during the summer, and the method of preserving these is precisely the same in every respect as that above described for corn fodder. A permanent silo may also be built wholly above ground, of brick, with cement lining, and covered by a roof. Such constructions as these are becoming common among French farmers, who practice the system of ensilage. Many of these put away 500 to 1,000 tons of fodder every season, feeding 100 or more head of cattle.

A usual daily ration is 50 pounds of the preserved fodder for a large fattening beast, with more or less of grain; and 40 pounds for a milking cow, with rations of bran or other additional feed. The nutritive quality of the fodder is increased in proportion to the reduction of the water contained in it, so that 40 pounds of it would be equivalent to about 80 pounds of the fresh fodder. The preserved fodder is consumed with keen relish and is remarkably healthful.

I should have said that salt, at the rate of one pound to the thousand of the weight, is sprinkled upon the cut fodder, as it is packed away; and this tends greatly to the preservation of it.

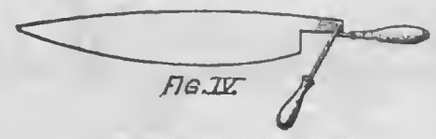
Dairy Husbandry.

NEW STYLES OF PUTTING UP BUTTER.

T. H. HOSKINS, M. D.

A growing change in public taste for butter; its advantages to the dairyman; consequent change in the style of butter packages; the Tinkham package; the Kenerson package.

THERE has never been a greater revolution in the butter trade that the sudden demand that has sprung up for new butter, fresh-made butter, to the exclusion of even the best tubs of "entire lots" of a season's make from first-class dairies. Accompanying this is a change of taste, to some extent, as regards the saltness of butter, so that, instead of the old standard of one ounce to the pound, we are told by dealers to reduce the amount to three-quarters, half, and even in some cases to only a third of an ounce of salt to each pound of butter.



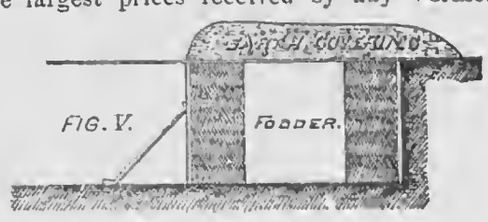
KNIFE FOR CUTTING FODDER.

Whence this sudden change in the tastes of our city customers has come, it would, perhaps, be difficult to tell. It is probably, however, a European importation. Our cultured and traveled fellow-citizens who have returned from the Paris Exposition, having brought over from France the Parisian taste for freshly made and lightly salted butter, have set a fashion that has rapidly spread among the "would-bes"—those not able to go abroad themselves, who console themselves by adopting, as quickly as possible, the foreign notions which their more fortunate neighbors bring home along with the "true Parisian aecent."

However this may amuse us, we, as dairymen, have no reason to complain of the new fashions in butter. In this time of small profits, it is lucky that thus we may at least have quick returns, and as butter is never any better than when first made, we are also saved the risks of great deterioration, a mishap from which we are never exempt, even with well-made butter, and which is both the sure and rapid fate of all other kinds.

With this change in taste comes a demand for a change in the style of putting up our butter. Hardly anybody now wants to buy a fifty, or even a thirty-pound tub. The call is for five and ten-pound packages, and already the Vermont dairymen, at least, are responding to this call in various ways. I will give the readers of the RURAL an account of the two plans now coming rapidly into use among those who make a "gilt-edged" article for the Boston market.

The first is what are known as "Tinkham Packages," first introduced—and not patented—by O. M. Tinkham, the agricultural editor of the Green Mountain Freeman, and one of the first to introduce Jerseys into Vermont. Mr. Tinkham lives in the town of Pomfret, where the manufacture of fancy butter has been for many years a specialty, and where, probably, the largest prices received by any Vermont

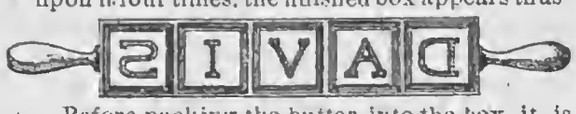


REMOVAL OF THE FODDER.

dairyman have been realized for small prints—two and four-ounce—sold to first-class hotels and restaurants in Boston. Besides those engaged in producing this specialty, there is a considerable number of the Pomfret farmers who supply families in the large cities with choice butter. Heretofore this has been sent to market in 25-pound tubs. But the call for fresh and frequent supplies, both by families and the fancy-grocery trade, has stimulated the ingenuity of our Pomfret friends, and has resulted in the plan devised by Mr. Tinkham. This consists of rectangular boxes, joined firmly at the corners by the sort of square dove-tailing which the Crandall blocks and other toys have made familiar. These boxes are made of spruce, to hold five and ten pounds of butter, and have either a sliding cover or a simple lid. A sort of tasteless wood paper is used to line the boxes, and the butter, when weighed, is firmly pressed into them, the top neatly smoothed, and the maker's stamp or monogram impressed upon its surface. These boxes are placed in a refrigerator until the butter has become very firm; they are then packed in cases, which are lined—top, bottom and sides—with hair felting, and, thus protected, they arrive at market in perfect order, even in the hottest weather. In cool weather the lined cases are of course not needed. This style of butter package is very acceptable for families and the best retailing trade, and has been adopted, with slight variations, on many dairy farms throughout the State.

It will be seen that Mr. Tinkham's method, while it is adapted to the family and grocery demand for small packages, does not meet the requirements of the small-print trade, which is considerable and increasing. This has been effected recently by an invention—patented—of Mr. James B. Kenerson of Peacham, Vt. His boxes are made and joined like Mr. Tinkham's, but are flatter, being intended for only one layer of prints. They are, I think, about an inch and three-quarters deep, very neatly made, with sliding covers. They are made of different sizes, adapted to the prints they are to hold. Those I have seen were for 20 and 40-quarter-pound prints, thus holding respectively five and ten pounds of butter. I suppose there can be no patent on the boxes themselves; this I think is limited to the stamps, which I shall describe, with a rough sketch. For the five-pound boxes the stamp is divided into five sections, thus:

The edges of each division are very much raised, and made thin, with a tapering edge, so that when the stamp is pressed upon the butter in the box, it is divided through half its thickness, and a stamp having been pressed upon it four times, the finished box appears thus



Before packing the butter into the box, it is lined with a fine muslin cloth, wrung out of clear brine, and a similar cloth is laid over the top before the cover is put on. The consumer, or the retailer in selling less than a box, cuts the prints apart with a knife along the deep divisions made by the stamp. This method of putting up fancy prints has been extensively adopted in Caledonia County, and meets with great favor in the Boston market. It is claimed that the expense is but a trifle more than that of tubs, the prices being for five ten-pound or ten five-pound boxes and crates, at the factory, only fifty and sixty cents respectively The crates are plain and cheap. In warm weather it might be better to use Mr. Tinkham's more costly felt-lined return cases, mentioned above.

The dairymen who have made use of either

of these methods of packing, speak favorably of them, and say that well made butter of good color so put up, brings from five to twenty cents a pound more than when packed in tubs; the latter price only, of course, for established brands. It will be seen that Mr. Kenerson's method greatly simplifies the making of small prints, or indeed prints of any kind. As many stamps are used on each box as there are varied inscriptions, or figures, on each row of prints. If the same figure, letter, or monogram is impressed on every print, only one row of stamps is required.

Farm Economy.

THE HISTORY OF A POOR FARM.

No. 3.

HIRED HELP.

I SUCCEEDED in letting a contract for ditching the swamp at 25 cents a rod, the ditches to be two feet wide at the top, three feet deep and one foot wide at the bottom. At this rate a good man with good tools will make 75 cents a day, at least, digging three to four rods. Six feet in length of the ditch will make one cubic yard, and I had offers to dig the ditches at ten cents a cubic yard. There never was, or will be, any better time to make improvements of this kind than the present, and every farmer who has such work to be done, and has the money to spare for doing it, should seize the opportunity now. There are hundreds of industrious men seeking employment, and to set such men at work is a kindness, as well as a just action. "The world owes every man a living." This is a hackneyed and oftentimes an illused adage; but it is true in one sense; every man ought to be at work, and there is something wrong when honest, industrious men cannot find work to do. The squire of the village, Mr. Martin, stood by as I said this to Doctor Jones, who had just called on me, and who is a noted farmer; "You are something of a communist," said he.

"That is not what I understand the so-called communism to be," I replied. "This is a division of the results of labor, and the degradation of all men to one common level, so that one man should not in any case have one dollar more than another, however well he may have earned it by means of superior skill, industry, or management. It is to a farmer's interest to employ as much labor as he can turn to advantage. Rather than have a field lie idle for want of labor, I would have the owner set a man to work on it, if he can make the labor return its cost and something besides for the use of the land; and I have never known a time when he could not do that by good management."

"What is wanted," remarked Dr. Jones, "is a supply of steady labor. A hundred acres of land ought to give work to three men, at least. To feed and care for 15 cows require the constant labor of one man, and 100 acres ought to feed at least 40 cows or yield an equivalent supply of food products. With a settled class of farm laborers we should have frequent small hamlets or villages; every 10 farms or 1,000 acres would need 10 farm homesteads and 30 laborers' cottages; and for 10,000 acres, or an area of four miles square, there might be a village of 200 or 300 houses for farm laborers, besides stores, shops, mechanics' houses, schools, churches and all the other accessories of a civilized society."

"Not forgetting the Doctor's office," said Mr. Martin.

"Nor a lawyer or two to encourage litigation," rejoined Doctor Jones jestingly.

"It is true," said I, "that at present, farm labor is carried on too much by a migratory and unsettled class, and that this works much mischief. It would be to the farmer's interest to build neat, comfortable cottages for his hired men, and encourage the presence of married men and families by giving a preference to them; and to each cottage a garden should be attached. There would then be a home market created for much farm produce, such as milk, butter, vegetables, flour and meat; and this would help very much to support an extra number of laborers, who would in fact subsist themselves out of the extra product of the farms, leaving as much as ever to be sold or shipped to distant markets.

"The product of one acre ought to be sufficient to provide for the wants of one person, so that ten farms of 100 acres each, ought to support a home population of 500 persons and yet to ship away half the products to make business elsewhere. The nucleus of a population will always be the laborers on the land, and it is to the farmer's interest to encourage the settlement of laborers, not only because of the home market thus provided, but because the value of land is in direct ratio to the number of the adjacent population. A settled class of laborers would soon wish to own their houses, and a demand for small building and garden plots would spring up. When laborers own their own dwellings and gardens, then the employers will have a better and more satisfactory supply of labor; then, too, there would not be such a rush to the Far West of our best men who are anxious, and properly so, to find permanent homes for themselves and their families."

"But how," inquired Mr. Martin, "are farmers to pay for such help? For a hired man to be able to support a family, much less to buy and own a house, would require higher wages than farmers can afford in these times, when everything a farmer has to sell is lower than it has been for thirty years."

"Labor is to be valued according to its quality," said I. "A good man is worth two or three poor men; and the more efficient a laborer is, the more money he can earn and the more profit his employer can realize from his work. As with all other things so with labor, the best is the cheapest. Here is an instance; one man at work in this swamp can dig five rods of ditch in a day and make a neater and better job than another who only digs three rods or less. The one earns $1.25 a day and the other 75 cents. I can hire both at $25 a month each, but should lose money at that price by one, and could well afford to pay the other $30 a month. It is so with all other work, and the better trained and steadier farmers' hired men become, the more profitable will be their work to their employers. Besides, we can always hire a man for a year for about as much as would be paid for nine months' irregular work. If a man works but half the time, he must earn enough to keep him all the time, and farmers ought to learn this lesson, and try to keep their men busy the year round."

"How can they do that?" asked Mr. Martin, "there are stormy days, and in the winter how can employment be found for hired men?"

"Make work for them," replied Doctor Jones.

"Precisely," I remarked; "In the stormy days there are tools to be sharpened, implements and harness to be repaired, and a farmer will find one of the best investments he can make will be for a workshop and tools; and one of the best things he can do, is to learn to use them himself and teach his men to use them. In the winter time there is much to be done to prepare for the spring and summer work, and it will be more profitable to keep the men at work if it is only to card the cows, clean the barn, or scrape the trees in the orchard, than to pay a whole year's wages for nine months' work. Farmers ought to make more of a study of this part of their business, for in time the farmer who does not employ laborers steadily will be but a laborer himself and earn only a laborer's wages."

WORK FOR FEBRUARY.

HEAD WORK,—On the farm at all times, this kind of work pays the best returns for the time given to it. Head work is too much neglected, considering the sure and large profits which are certain to follow its employment. February is the month of all others for study. The accounts and inventory of the previous year are fixed up. The grange or farmers' club is in full blast, and very likely doing its best. This is the time of year for meetings of pomological societies, for farmers institutes, for meetings of men especially interested in bees, swine, sheep, cattle, horses or any particular breed of domestic animals. These conventions are of more value to those who attend them than to those who remain at home. Some farmers act as if they were ignorant of this self-evident truth. The advantages are numerous and important. Men engaged in a common interest or specialty learn from each other. They get acquainted; they pick up new ideas; they gather enthusiasm; they go to work again with a better understanding of their business. No matter whether you are an officer or not, you are always a welcome listener, at any rate, in any of the above gatherings.

BOOKS AND PAPERS.—The farmer has selected his list of agricultural papers, and they are now coming regularly with all of their improvements. He has added to his library a few of the best and most recent books on his specialties. We hear less of book-farming than formerly. Books on agriculture are better than they were. People never expect to use all the advice given on any topic even by the most practical and successful man, but this is no reason why they should not consult the best men who are engaged in the same business with themselves. The same rule may be applied to books. We should be able to pick out from books some valuable hints applicable to our own wants. One book has a picture of a wheat stack about two-thirds done. The stack is cylindrical and flat or dishing at the top. That is no way to build a stack, and every farmer knows it; but after all every farmer might read the book with profit.

VISIT FRIENDS AND TAKE NOTES.—Every enterprising farmer who intends to progress is keeping accounts with various departments of his business. Each of his fields is charged with the work, seed and part of the manure put on it, and credited with what comes off. He keeps a diary, not writing for the sake of writing, but to make note of any new idea which he wishes to use during the next year. He sees a new gate latch, a sheep rack, a manger, something desirable about some farm implement, and he makes a note of everything of the kind by word or drawing. These notes are looked over every little while during the year. There are many advantages in visiting good farmers. Look about you for men who raise superior wheat, corn, potatoes and other crops, and live stock. If they are ahead of you, buy some of the extra seed or stock and enter into a healthy competition with the best of them.

GET UP WOOD; REPAIR IMPLEMENTS.—During the sleighing time the farmer is getting up wood, drawing logs to mill, marketing produce, visiting friends, etc. The drag teeth are sharpened, the plows repaired, the mower put in order, the wagon and buggy taken to town to be painted and put in first-rate order. He will not neglect to store ice for the summer.

EXERCISE FOR STOCK.—All kinds of stock will be the better for moderate exercise. This advice applies especially to animals which are kept in stables. Cows and horses should be let out for a part of each day, unless the weather is exceedingly severe or stormy.

MANURE.—If you are near town, it may be best to buy and draw manure during the winter. Take care of what is made on the farm. Look out for fire-fang in horse manure. Turn it, or mix it with manure of hogs and cattle.

ECONOMY.—Save as much as possible of everything useful if it does not cost too much labor. Time is money. Labor is money. It is poor economy to buy old stock at any price, to feed for profit. Young, thrifty stock pay much the best returns for feed consumed. Weigh them often, and when they cease to give returns for feed and trouble, dispose of them. Contrive in every way to do the chores with as little labor as possible, without neglecting anything. Try to save steps. We know of instances where two men take better care of the stock on a large farm than three or four do on a smaller farm. It is not economy to feed straw alone to any animal. It is not composed of the right materials for profitable feed. Oil cake, corn meal, or shorts will supply what the straw lacks. In this way, straw may be fed with profit to many animals. As profits are small at best, all these details of labor, age of animal, food etc, must be attended to.

FARM EXPERIMENTS SUGGESTED.

PRACTICAL knowledge is only to be acquired by actual experiment, and is the only kind of any real value. If all soils were exactly alike, having the same exposure and protection, subject to the same climate, and the same amount of rainfall at exactly the same dates, farming would at once rise to the dignity of an exact science. One set of experiments anywhere would be the foundation for all farm operations of the same kind everywhere. The vast body of farmers, so far as concerned their own avocation, would become mere machines, or even less in the social scale. Brains would be of no value, and the fool of the family would do as well as the genius on the farm.

Fortunately, however, the soil is various and must be treated with brains or it fails to produce. Business men never trust any one until inquiries have been made into his standing and his ability to fulfill his promises. Farmers, however, never think of inquiring into the character of the land they are going to trust their seed to. They say to themselves, "That's land, and this is seed, let's try them together."

It has been asserted that fertilizers are all washed down into the subsoil by rains, and are lost—if so, why is the subsoil always poor? An experiment, easily made, would settle this question for ever. It is the practice with many to put on too much lime, hoping to create plenty of plant food. But they create too much, and the crop goes to stems and leaves at the expense of the grain. Experiment would teach a valuable lesson here. The question of deep or shallow plowing and cultivation is yet a debatable one; why not experiment, prove that which is good and hold fast to it? Light and heavy seeding; early and late sowing; home-grown or foreign-grown seed; seed grown north or south of us: seed gathered when half-ripe or when wholly mature; subsoiling, and even whether it pays to feed starving fields as well as to keep stock always growing, are all open questions.

Why is this so? Why have six thousand years of ceaseless tillage taught us nothing? And are we to go on six thousand years more in the same style As every farm is, in a measure, *sui generis*, so must every farmer be its *genius loci*. Don't trust a man till you know *him*. Don't trust your land till you know *it*. Experiment, dig, pry and inquire at every possible opportunity; don't quarrel with a family you are not acquainted with, and, above all things, don't bury money in a hole without a bottom. S. RUFUS MASON.

Dodge Co., Neb.

Field Crops.

EXPERIMENTS WITH POTATO SEED.

HAVING heard much said about the difference in the crops produced by the seed taken from the different parts of the potato and from seed of different sizes, I determined last spring to make a series of experiments for my individual satisfaction, and I now relate them for the benefit or satisfaction of others.

I selected for my experiments seven leading varieties of potatoes, as follows: Early Rose, Peerless, Compton's Surprise, Victor, and Snowflake from seed grown on my farm, and Late Rose and Eureka from seed grown in Illinois, taking of each variety one and a half bushels of large and small potatoes as they had come from the field the previous Autumn. I first sorted out the small potatoes—those the size of a walnut and less—and cut them for planting to single eyes, as far as practicable. I then cut the large-sized ones to single eyes, keeping the seed from the eye, or seed end, separate from that nearer the stem, dividing the seed into two equal portions, as near as might be.

They were all planted on new land, in the same field, being the second crop on the land since it had been cleared of timber, a portion of the field having been planted to corn and a portion to potatoes the previous year. They were planted May 15th to 20th in rows three feet apart and the hills about two feet apart in the rows, three pieces, or eyes put in a hill. No manure whatever was ever applied to the ground. After they were well up, I harrowed them with a light one-horse harrow, following soon after with the hoe and hoeing up the sorrel, which is always very plentiful on new ground in this section; and about the time they were in blossom, immediately after a soaking rain, I cultivated with a shovel-plow, and hilled them up with the hoe. Upon inspecting the growing vines, I found in every variety the poorest stands in those rows planted with seed from the stem end of the large potatoes, and the best stands of the Peerless, Early Rose, Victor and Eureka were in the rows planted with seed from the seed end, while the best stands of late Rose, Snowflake and Compton's Surprise were in the rows planted with the small potatoes. In every variety the vines from the small potatoes were more puny and spindling than the others, and the most stocky and vigorous vines were found in every instance in those rows planted with seeds from the eye or seed end. In some cases the difference was so slight as to be discernible only upon most careful observation and comparison, yet the rule held good with every variety.

I am of opinion that the harrowing augmented the difference in the stand in favor of the more stocky vines from the seed end of the large potatoes, by tearing out a greater proportion of the more puny ones. The rows planted with seed from the stem end were a little later than the others, otherwise there was no perceptible difference in the season of ripening. From every variety I harvested the largest amount and the largest potatoes from those rows planted with the seed end of the potato. The next in amount was harvested from those planted with small potatoes; yet the rows planted with seed from the stem end produced tubers of a more even size, but smaller in amount, there being in these rows no potatoes of the largest size and very few small ones. My conclusions, therefore, from these experiments are, that it is best with these varieties at least to select seed from the eye, or seed, end of the largest potatoes.

As to the comparative productiveness of the several varieties, I find the Peerless largely exceeds any of the others, Victor and Late Rose ranking next, then Early Rose, Eureka, Snowflake and Compton's Surprise, in the order named. I also found that the yield was nearly double on the ground where potatoes had been raised the previous year.

It was my intention to weigh the product of each variety and those from the several divisions of the seed separately and by rows; but the potato crop in this section was nearly an entire failure and families in the village were unable to obtain any at any price. So, as my field was the only one where any were growing, the pressure to dig and sell the different varieties as they ripened was too great for me to withstand. I intend to repeat the experiments next season with these and several other varieties upon a small scale on two experimental plots, one of clayey loam, and the other a sandy ridge with but little loam. If other readers of the RURAL have experimented in this direction, I should be pleased to hear from them. GEORGE PINNEY.

Door County, Wis.

EXPERIENCE WITH PRICKLY COMFREY.

AS this new forage plant is attracting some attention, and as various opinions have been expressed about it, I will give to the readers of the RURAL my experience, as tending to throw light on the subject.

This plant is said to have come from the Caucasian Mountains, and has been lately introduced as a forage plant into this country. It appears to have been tried in England and France prior to its appearance here, and the reports of its yield in those countries, where the art and science of agriculture are much advanced, are very favorable. It is said that there it will yield from 75 to 100 tons per acre; that all stock, cows, horses, sheep and swine are fond of it, and do well on it. Now, if all this be true, it is a plant worthy of attention.

In the spring of 1877, I got 1,000 root cuttings and set them out in a bed to sprout. The situation of the bed was not well chosen, the ground being too wet; and as the spring was cold and backward, I only got about 500 sprouts, or plants, and these not until the first week in May. These were planted in hills three feet apart each way, one plant to the hill, with a shovelful of manure put into the hill before setting the plant. I cut my first cutting about the last of July, then cutting eight pounds to the hill, and getting two subsequent cuttings before the setting in of winter. This year I got my first cutting about the last of May, and have cut three times since. I top-dressed the ground well last fall, after the last cutting, and have done the same thing this year. I have cut during the year about 30 lbs. from each hill. I find it wonderfully vigorous and rapid in its growth, and perfectly hardy.

Now, in regard to its value as a forage plant. When I commenced to cut it last year, I began feeding it to my milch cows, in the sheds. A few of them took to it at once, and very soon ate it with avidity. The greater part of them, however, would not touch it, and had to be taught to like it. All finally became very fond of it, and we found both the quantity and quality of the milk greatly improved by its use. I regard it as of great value as forage for milch cows, and am sure that with proper cultivation it can be made to produce at least as much forage to the acre as any plant known. I am prepared to set an acre of it. It is propagated entirely from root cuttings, the roots being very hardy, and every little cutting of an inch in length will, under favorable circumstances, give a plant. I have not tried it as forage for anything but cattle; but it is said that horses, sheep and hogs are all fond of it, and do well on it. [But the taste for it must first be cultivated.—EDS.] T. M. H.

Ritchie Co., W. Va.

LOST NATION WHEAT.

THIS is the name given to a new kind of grain that was introduced, in this vicinity, two years since. Last season its reputation became established, as there was a good deal of it sown, and it yielded remarkably well. Many farmers raised thirty bushels to the acre. This, for Vermont, was an enormous yield, eighteen or twenty bushels to an acre having been heretofore considered a fair crop. The kernel is very large and plump, and the flour is as fine and white as the best brands of Western flour. It is a bald wheat and makes a quick growth; the stem is large and stout, so that it does not lodge easily. It is certainly the best kind of wheat that has been introduced in this section. There is a tradition about its discovery; but it is of little account as long as the grain speaks for itself. All other kinds will be discarded in this region another year. It is a spring wheat. Neither rust nor weevils injured it. S. H. R.

Randolph Vt.

Horticultural.

WORK FOR HORTICULTURAL SOCIETIES.

I AM heartily rejoiced to learn that the New York Horticultural Society announces a discussion of various questions connected with the growing and marketing of choice fruits, etc., all of which are of vast importance, and the general interest now felt throughout the country in relation to the subjects named in the issue of Jan. 11, page 24, leads us to hope the most searching analysis will be given, embodying the most rigid observation, and replete with stubborn facts. In the selection of fruit trees, raspberry, blackberry and gooseberry plants, we have in all the past years been guided by the *ipse dixit* of some wholly interested nurseryman to purchase some new and fabulously valuable sort just now for the first time in the world's history being offered for sale. And the only proof we can get in support of the idea of the true merits and value of such trees and plants is seen in the fabulous prices asked for them. Thus the amateur grower of fruits finds out, after much watchfulness, care and cultivation, that the said nurseryman or tree dealer was only riding his own hobby onward to a fortune.

But I, for one, trust that those who are about to discuss these and kindred subjects, will bring the light of facts, not guess-work, to bear upon them, so that those who wish to plant Raspberries need not be misled into paying fifty cents for a plant not worth three cents.

As a grower of fruits, I will here say that from an experience of twenty-five years, a peck of dry slacked lime heaped about the peach tree, does not prevent the ingress of the borer. I tried not less than 25 remedies, lime among the rest, and yet the worm was found at work about the crown of the roots in Autumn. The true remedy is found in the use of clay paint put on so thick the insect cannot sting through it. The paint is made of clay and water.

Hartford Co., Ct. E. P. GOODSELL.

FINE PLUMS, CORN MEAL AND CHICKENS.—"Throw your corn meal siftings around the trunks of your trees in spring, and the chickens will attend to the curculio pest. Before I adopted this plan, nice plums were scarce in my garden, since then they have been real beauties." So writes a correspondent of ours down in Texas.

Pomological.

APPLE TREE CULTURE FROM SEED.

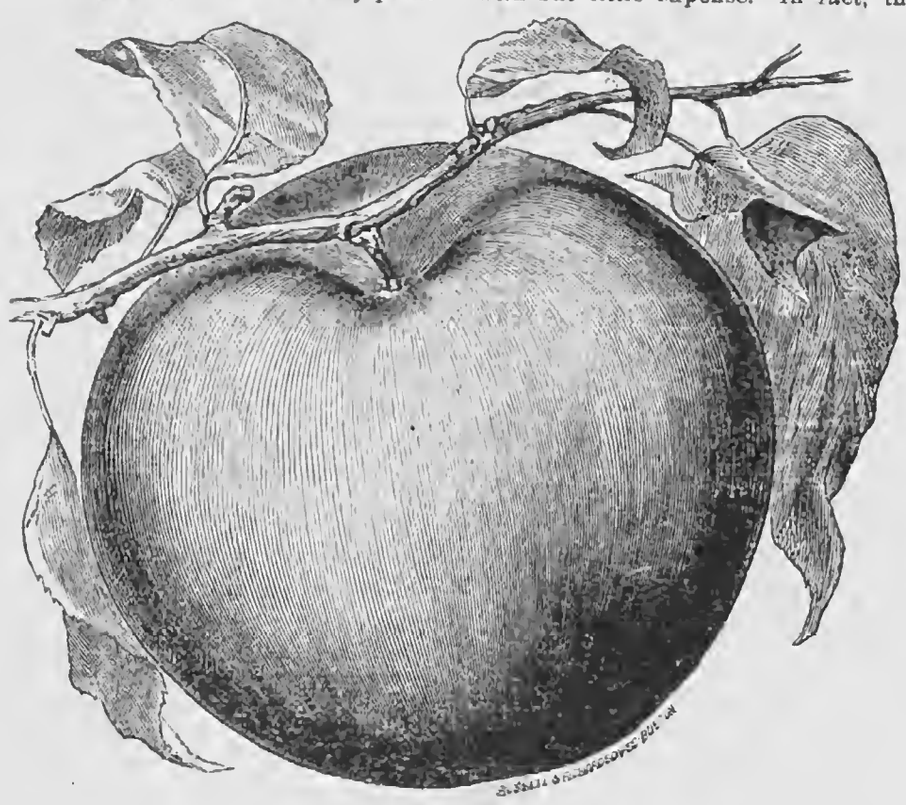
As the RURAL NEW-YORKER is a very important medium for interchange of thoughts and experiences of practical farmers, I wish to relate through its columns my experience in propagating apple trees from the seed:

Some twelve years ago becoming somewhat discouraged in attempting to secure fruit from purchased trees, owing to their early death, I concluded to try the experiment of raising my own trees. The result has been exceedingly gratifying. A moderately rich piece of land, about two rods square, was prepared for sowing the seed, by plowing it deep and fine, and laid out in rows about three and one-half feet apart. In these rows I sowed pomace from the cider-mill, covering it about two inches deep. The following spring, the young trees appeared in profusion. These I thinned out to six or eight inches, leaving only strong, healthy shoots. The ground was kept well cultivated and free from weeds by the use of the cultivator and the hoe. The first season the trees made a growth of from twelve to fifteen inches. The second season the same method of cultivation was employed, and the trees made a thrifty growth, being in the fall as large as clay-pipe stems at the base of stock.

The following spring I secured the services of an experienced grafter, and with my assistance, the entire lot of trees was grafted in one day by the method known as splice or lap grafting. The cions used were mostly from bearing trees of Northern Spy and Rhode Island Greening, as I consider these varieties the standard ones for this latitude, both for table and market. A large percentage of the grafts grew, and after remaining two years in the nursery rows, receiving good cultivation in the meantime, they were transplanted to the orchard, without the loss of a single tree in transplanting. I now have just coming into bearing as fine and thrifty a young orchard as can be found in the county, besides supplying my neighbors with many trees, all of which are doing much better than trees brought from the Western nurseries and set out at the same time.

Some of the advantages in raising one's own trees, are the following: When trees are brought from distant nurseries, they are, in the majority of instances, set out in soil of a nature entirely different from that in which they were raised—a circumstance which, combined with the difference in temperature and the delay which often occurs in resetting them, is, in my opinion, a prolific cause of the great amount of complaint we hear about purchased trees not doing well. On the other hand, trees raised in a soil and temperature like those of the place where they will be transplanted, the roots not being allowed to dry and wither from long exposure to the air, are acclimated, and consequently hardier and more certain to thrive. Again, it is far cheaper to raise one's own trees than to buy them. With a little care at the outset, and a few days' work each season while they remain in the nurseries, five hundred or a thousand nice trees can be raised with but little expense. In fact, the outlay will not approximate to what would have to be paid for the same number of trees, if bought, and the result will be far more pleasing—to the orchardist. It may be superfluous to add, in this article, what every successful tree grower already knows, that to make fruit-raising a success, the trees must receive constant care and frequent cultivation, after the orchard is once established. I have no hesitation in saying that trees raised at home, and properly cared for, will abundantly pay for all the labor and expense of raising them.

Washington Co., N. Y. JAMES E. MCCLELLAN.



THE STARKEY APPLE.

THE STARKEY APPLE.

THE original tree of this apple (figured above), grew from seed upon a farm in Vassalborough, Kennebec County, Maine, now owned by Mr. J. W. Starkey. It was broken down in a gale in 1872, being at that time 16 inches in diameter. The variety is hardy in that vicinity, a vigorous grower in the nursery, but less so after coming to bearing age. It is a very bountiful bearer, fruiting every year, but most abundantly in even years. Fruit medium in size, round or oblate, smooth and fair; color yellow, striped and splashed with bright red and covered with light gray dots; stalks slender, ¾ inch long; cavity small and even; flesh white, firm, crisp, juicy, of a pleasant lively sub-acid flavor. In its prime in November, but with care will keep well into the winter. Quality, as defined by the Maine Pomological Society, very good; excellent for dessert, and popular in market, being of good color as well as high quality. It is less tart than Gravenstein, but more so than Jewett's Fine Red.

NOTES IN A NORTHERN ORCHARD—3.

T. H. HOSKINS, M. D.

THERE is quite a large number of varieties of Apples to which, in our climate, the tantalizing description "almost hardy" will apply. These are the "hardy Apples" of the climatic belt just below us. Most of them are well known, and have long had a place in the standard works on pomology. Consequently I need only mention them with reference, not to description and quality, but to hardiness alone. Among summer Apples of this class I may name William's Favorite, Red Astrachan, Cole's Quince, Sops of Wine and Maiden's Blush. All of these have been grown, under favorable circumstances, in the cold belt, but an orchard of them would never be a source of profit. As root-grafted or budded trees the stem is always unsound, and when they reach the bearing size, the first full crop of fruit or severe gale will break them down and destroy them. They do better top-grafted into the smaller limbs of hardy kinds, and a few trees for home use thus produced are desirable.

Among fall Apples of the same class are Colvert, Northern Sweet, St. Lawrence, Fall Wine-sap, Moses Wood, Saxton Stripe, and a number of others. Of these St. Lawrence is the hardiest, and sometimes does quite well even when not top-worked.

There is a large number of almost-hardy winter kinds. The most successful with me are Famense, (which, like St. Lawrence, sometimes succeeds root-grafted or budded) Clyde Beauty, McClellan (early winter sorts), Westfield Seek-no-Further, Blue Pearmain, Talman's Sweet, Golden Russet of Western New York, Jewett's Fine Red (Nodhead), Yellow Bellflower, Canada Reinette, Ben Davis, Bethel (of Vt.), Ramsdell's Sweet, Bailey's Sweet. This list might be enlarged indefinitely, but orcharding limited to selections therefrom would prove, in the "cold belt," little better than a provoking failure. Yet, when top-worked on hardy stocks, fruit can be had from all these varieties. Usually, however, even when thus managed, the fruit is not so large—though often quite as good—as when grown under more favorable conditions of climate. The three varieties of all-winter fruit, which I have myself selected for top-working, to secure apples for home use, are Blue Pearmain, Westfield Seek-no-Further and Talman's Sweet.

I feel perfectly sure that we now have a list of entirely hardy Apples—as given in my second article—that justify orchard setting on a large scale in the "cold belt" with a view to profit. With all disadvantages, there are some very great advantages to the orchardist living in this section. Chief among these is that it will be many years before he will have to suffer from home competition. In the section where I live, apples brought from below by rail, are of quick sale, even in such great fruit years as 1878, at $1 50 per barrel. This is the lowest rate at which a medium grade of winter apples is now selling, direct from the cars, at the depot in sight from my window and within half a mile of my orchard. All my own fruit was marketed long ago, none of it at less than $1 per bushel, and home-grown apples will always have the preference with buyers here at certainly 50 cents a barrel over those from below. My Fameuse all went quickly at $3 25. This is a variety not grown further south in shipping quantities. I think the Wealthy will bring the same, and so will Clyde Beauty; while Magog Red Streak, Scott's Winter and Ben Davis go freely at $2 to $2 50—this, in the face of a fierce southern competition with apples bought in the orchard for fifty cents a barrel.

In ordinary years, when southern New England has but a moderate surplus, we have no competition except with Michigan fruit. Then we have no difficulty in getting $4 for Fameuse, or any kind of equal quality, while the next grade sells readily at $3. Now, as out of this there is no freight or commission to pay, and no risk to run, it is plain that, if we are secure in not losing our trees in hard winters, we have really a great advantage over southern and western competitors. My own orchard of over 1400 trees is now rapidly coming into bearing. It has, in the last 12 years, passed through some of the hardest winters ever known in this section, yet it is apparently as healthy and thrifty as any orchard in central New York. Meantime but few of my neighbors have been persuaded to plant trees. There are, in fact but four or five orchards in the county, that sell any apples, or will be able to do so for many years. The farmers have been so discouraged by their failure with southern and western-grown trees brought around by peddlers, that they will not even try, now, to raise an orchard. This state of things will be found to exist almost everywhere in the "cold belt," and therefore I say that he who *does* go into orcharding there with energy, perseverance, and an understanding of the necessary conditions and the right varieties, cannot fail to find the business a profitable one.

A SEEDLING CRAB.—A correspondent from the neighboring city of Brooklyn, referring to our cut and description of the Lady Elgin Crab, in RURAL for November 16, and to the remarks thereon quoted from J. J. Thomas, sends us a specimen of a nameless seedling crab, which he says is of very good quality; it keeps until February or March while the tree is a vigorous grower and very productive. The specimen sent has been kept in a basket since picked on the first of October, and cannot therefore be as handsome now as when first plucked, yet we do not know of a handsomer apple. Otherwise, however, it is not superior to many of its class. The shape is roundish-oblong, the fruit large for its kind.

Arboricultural.

EVERY-DAY NOTES.

SAMUEL PARSONS.

THE CLIMBING HYDRANGEA.—SCHIZOPHRAGMA HYDRANGEOIDES.

CONSIDERABLE expectations have arisen concerning this new climber. Possibly also these expectations have been exaggerated by incorrect reference to the charms of Hydrangea paniculata grandiflora, charms that have dimmed by comparison the beauties of other Hydrangeas. The conception of a Climbing Hydrangea, with great white or pink flower trusses 18 inches long enveloping the front of a building, rather startles the imagination. But the correct statement that the plant in question

has a poorer truss, with sterile flowers less showy than those of H. paniculata grandiflora, should moderate any excessive expectations. After all, we know of no one who has flowered the Climbing Hydrangea in America, and certainly, in other respects, our knowledge of its behavior is small. Seed has been imported within a few years, for the first time, from Japan, and a few plants exist. We have some small plants ourselves, and Messrs. W. S. Clark, C. S. Sargent and P. Henderson have others. It seems to us premature, therefore, to decide as yet on its merits. The foliage is attractive, and, judging from descriptions of eye-witnesses of its beauty in Japan when in bloom, its value must be considerable. With us it grows slowly at first, like the Wistaria, until it attains well-established, strong roots, when its development is rapid. Its propagation from seeds or cuttings is easy, and it seems, after the trial of several years, to be perfectly hardy. Mr. Peter Henderson has a variety that differs somewhat from ours in habit and growth of leaf, but it is doubtless the same thing, showing merely the ordinary tendency to vary. Although it is too soon to give an opinion concerning the value of this climber, I feel confident that it will yet prove a fine ornamental flowering vine for America. Our need, moreover, for more good hardy flowering climbers has been frequently felt and expressed.

CERCIDOPHYLLUM JAPONICUM.

This very rare and choice tree was, as far as I can learn, first introduced to America by Mr. Thomas Hogg, who sent it from Japan to his brother, Mr. J. Hogg, of New York, at least as early as 1863. This very tree stands in Mr. Hogg's garden at Harlem to-day; and its ornamental value, as there indicated, is very great. The outline is pyramidal and the foliage rich, glossy and beautiful, resembling the heart-shaped leaves of the Japan Judas tree, only smaller. Indeed, we may reasonably expect that the attractions of the Cercidophyllum will, in time, gain for it among deciduous trees a reputation similar to that possessed by the Japan Judas tree among shrubs. At present, however, it is almost, if not entirely, unattainable in this country. Practically it cannot be grown from cuttings, and little or no seed seems to have been sent from Japan. An anomalous tree, its relations with other plants are peculiar; for, though said to be of the Magnoliaceæ, it cannot apparently be grafted on any stock known in America.

THE UMBRELLA PINE.—SCIADOPITYS VERTICILLATA.

This evergreen is, in many ways, the most curious plant ever brought from Japan, and it will probably long remain as choice as it is curious. Even in Japan it is highly prized and planted in conspicuous positions. Indeed, it must present a truly elegant and remarkable appearance when a hundred feet high. R. Fortune and other travelers speak decidedly as to its reaching this hight, although so great an authority as Siebold says it "grows 12 or 15 feet high." Doubtless, the last authority refers to ordinary garden specimens. (See illustration in RURAL of Nov. 24, '77.) The Umbrella Pine seems to be truly *sui generis*, allied closely to no other conifer, although it has been variously termed Taxus, Podocarpus, etc. Indeed nothing, perhaps, could be found among plants more strikingly peculiar than the formal parasols of 30 or 40 stiff leaves, or broad glossy, green, flattened needles, that push forward every year. Curiously, also, these leaves drop only once in three or four years. Can anything be more anomalous? And then, to increase its attraction, it is rare, difficult to propagate, and hardy.

As to its rarity, I can only say that I doubt whether there are in America a dozen Sciadopitys verticillata over four feet high; and I believe this estimate of a dozen to be large. Seedlings a few inches high there may be in considerable numbers. It should be said at once that the rarity of the Sciadopitys arises chiefly from the fact that it is very difficult to propagate. In fact, no stock has been discovered on which it will graft successfully, and to grow it from cuttings is a slow and very unsatisfactory process—a peculiarity that applies to most hard-wooded, slow-growing trees. Seed, therefore, is the only practical means for its propagation. But unfortunately seed can seldom be imported from Japan without becoming rancid, or that are not, for some reason sterile. As a matter of course, we gather no seed in America from plants two or three feet high. We have two or three times imported Sciadopitys seed to Flushing in considerable quantity; first through Dr. Hall, in March, 1862, and then through Mr. Thomas Hogg in 1875. From the first lot we obtained very few plants, but from the second, of about the same size, we were fortunate enough to secure something over a thousand. These are perfectly healthy, yet they have scarcely grown three or four inches in as many years. When they do begin growing, however, we expect them to come on with some rapidity. But, in the meantime, during many years we must obtain all Sciadopitys of any size from Europe or Japan, and importation from Japan is at least hazardous. Nevertheless, an increased demand might develop a more careful and skillful culture, and thus enable us to have Sciadopitys several feet high, sooner than we now conceive possible.

Miscellaneous.

NOT AS REPRESENTED.

EDITOR RURAL NEW YORKER:—Since writing you a few days ago concerning the dilatory movements of C. H. Spaulding, I have just received the Mendelssohn piano, and I must say I had just as soon he had cheated me by not sending it, as to have insulted me by keeping the money and sending such a poor substitute. He advertised that the keys were covered with ivory, instead of which I find glazed pasteboard; also that he would send $1,50 worth of music, and he has sent none. Altogether, it is the greatest swindle, or misrepresentation I have ever seen. The instrument itself is perfectly worthless. A toy piano for children sold in town this winter at $1 50, was infinitely superior. I really would not have given 50 cents for it. Besides paying $2 freight, I sent $5, which makes $7 I have paid to own something I thought would be of value to the children to learn music on. It is as near nothing as anything in the musical order I ever saw. Indeed, I would rather have a 10-cent harmonica. I really hope if you keep the advertisement in your paper, that you will offer no other inducement to our country friends to purchase one, for I know they would be even more put out than I am after getting it. I don't mind paying double the value of anything (so far as I am able), if it suits me, but it becomes an abomination if I pay three times the value and it falls so far short. This is a truthful statement, and I am sorry to make it known, but as my husband says, "I may acknowledge myself stuck" in making such a bad bargain.

But enough of that. I would like to make some inquiries concerning some things in which I believe I shall be dealt honestly by—tell me where to procure some of the Chufas I see spoken of in the RURAL of Dec. 28th, and at what price; also where to procure some of the Hubbard, or Butman Squashes, and again, please inform me where I could get a pair of Angora goats, at what price, and whether it would be advantageous to raise them in this part of the country; also, please send me a few of the Beauty of Hebron potatoes the first favorable weather? MRS. T. L. LAMB.

Williamston, N. C.

[We thank our correspondent for writing us the facts. We exercise unusual care in editing our advertisements, but, despite this, it will sometimes occur that misrepresentations are made, and in the case of out-of-town firms, we must rely for our information on our friends, if we have any, in the advertiser's place of residence. The advertisement here referred to, will never be permitted to appear in our columns again. Information concerning Hubbard squash is to be had by looking over our seed advertisements. We will be happy to send Beauty of Hebron. (See our seed announcement.) The inquiry relative to goats will be answered later.—EDS.]

CATALOGUES, &c., RECEIVED.

STOCK-BREEDING: A Practical Treatise on the Application of the Laws of Development and Heredity to the Improvement and Breeding of Domestic Animals. By Manly Miles, M. D. New York, Appleton & Co.

This is a timely publication and more than realizes the modest claims put forward in its behalf by the author. Now when a general interest has been aroused throughout the country in the improvement of stock of all kinds; when a fresh market has been opened across the Atlantic not only for prime beef, mutton and pork, but also for good horses, cattle, sheep, and even swine; when at home professional breeders find their largest profits in the production of first-class stock, and intelligent dairymen realize that their best hopes of success depend on the possession of pure-bred herds or their grades: when every gentleman with a country residence is proud of the possession of a few choice animals and entertains high hopes of their progeny, a hand-book of authentic information on systematic and scientific breeding is sure to receive a general welcome so soon as its merits become known. Until the publication of the present work, despite the importance of live-stock to the agricultural interests of the country and the marvelous improvements made in it within the last century, no work has been accessible to the farmer in which the known facts and principles of the art of breeding our domestic animals with a view to their improvement were presented in a systematic and convenient form. In the manual before us, no pretentious are made to original discovery in the art of breeding, but under eighteen general headings all the leading facts bearing on the subject are systematically grouped together, plain inferences are drawn therefrom, and all the evidences extant in support of these conclusions are classified and arranged in a lucid and forcible manner. As a result of this method of treatment, the reader, having before him all the data on each branch of the subject, is in a position to do his own thinking and to form an intelligent opinion for himself.

The scope of the work includes every department of knowledge bearing upon the art of breeding, as can be seen by the following list of topics treated of in the different chapters: Breeding as an Art; Heredity of Normal Character; Heredity of Disease; Heredity of Acquired and Abnormal Characters; Atavism; Law of Correlation; Variations; Fecundity; In-and-in Breeding—an excellent chapter—; Cross-Breeding; Relative influence of Parents; Influence of a Previous Impregnation; Intra-Uterine Influences; Sex; Pedigree; Form of Animals as an Index of Quality; Selection; Period of Gestation. These subjects are all handled very fully and so clearly as to be easily comprehended by anyone possessed of ordinary capacity and education. This lucidity of style adds so largely to the interest of the book that, by force of contrast, the reader is pretty sure to regret its absence in many other works of a like semi-scientific nature.

Probably the most notable feature of the book is its copious wealth of citations from eminent authorities who have written on different phases of the questions therein discussed. Among so many quotations it is not unlikely that the intelligent reader will find some whose force is somewhat weakened to his mind either through doubts of the entire truth of the uncorroborated statements they contain, or on account of their occasional indirectness of relevancy to the point they are put forward to support; yet, taken all together, they excite a very lively interest as illustrations of the various facts related, the inferences drawn from them and the researches and discoveries made in a very attractive and useful department of knowledge.

A source of possible error, however, in this connection should be referred to. Too much importance may be assigned to the facts recorded in many of these citations. For instance, in the chapter devoted to heredity of diseases, we are told that Lucas says: "A blind beggar was the father of four sons and a daughter, all blind." Now such an occurrence must have been extremely exceptional among blind people, possibly as rare as among the progeny of parents blessed with excellent sight. It was the singularity of the fact that caused its record. Moreover, its value as an instance of the influence of heredity is greatly lessened by a lack of information concerning the cause of the parent's blindness. This might have been the result of disease, transmissible by infection to children, in which case the children might have been born blind the disease that caused the father's calamity having had a similar effect on his progeny. This case is here mentioned merely as a very prominent specimen of the faulty character of no a few of the quotations.

Such a work as this was greatly needed and consequently it supplies a want which thousands of farmers must have often felt. Indeed, it is probable that it will be of more use to farmers generally than to professional breeders; for most of these must be already acquainted with the principles it teaches, though not with the evidences with which it supports them. To farmers, however, it will afford valuable instruction which will guide them to a correct estimate of the amount of truth in the various articles they may read on the subject of breeding stock with a view to its improvement, besides putting them in possession of the best condensed information on that important topic. The book is an excellent specimen of the typographical art, its price places it within the reach of every farmer in the land, and we have lately seen no work we can more heartily recommend to our readers.

PETER HENDERSON & Co., 35 Cortlandt St., N. Y. Catalogue of Everything for the Garden. This is one of the largest catalogues we have ever seen and, in simple justice, we may add one of the most comprehensive. It comprises 182 pages, nearly 200 illustrations, and two colored plates. One of these represents a red-and-white-striped Tea Rose called American Banner, a name which is appropriate, not to say patriotic. We trust it may prove less disappointing than did the much-talked-of Beauty of Glazenwood sent out by some of our florists several years ago. The other colored plate presents several portraits of Lettuce, Radishes and Golden Dwarf and London Red Celery. Of the latter we shall have occasion to speak before another planting season arrives. Not to be behind in anything, Mr. Henderson offers for the first time a new seedling potato—also appropriately and Patrickotically named, St. Patrick. Mr. H. thinks that St. Patrick is perfect and charges for it accordingly, 75 cents per pound, or $6 per peck. Have you tested the Beauty of Hebron, Mr. Henderson? If not, how can you be confident that he (St. Patrick we mean) is superior to her (Beauty of Hebron)? The catalogue gives also a fine engraving of Pearl Millet, which, however, does not so truly represent the manner of its growth in this climate as does our own engraving to which we have often referred. The results of his experiments, also, are so entirely different from ours that either our best plants were much inferior to his *average* growth, or else Mr. Henderson is mistaken in his notes as to dates, rapidity of growth, hight of stem, etc. For instance, he states: "After cutting, a second growth started, and was cut August 15th—45 days from time of first cutting. *Its hight was nine feet.*" Now the highest stalk of our *best* plant which had not been cut down at all, measured, after frost, but ten feet one inch. But as to the catalogue, we have only to add it offers a long list of novelties, and as long a list of all other plants as anybody need desire to select from. We advise our friends to send for it.

THE LAWSON COMPANY'S CATALOGUE. Edinburgh and London. Among the novelties offered by this old and trustworthy English house we note the following for the benefit of our seedsmen and those amateurs who are in haste to purchase new things without regard to cost:

Primula sinensis fimbriata. This beautiful new variety was selected from a superb strain. Its foliage is of a dark green shade, the stalks of the leaves and flowers almost black, and contrasting beautifully with the fine, large, well-developed white flowers; sometimes blotched with crimson; very distinct.

Petunia hybrida nana compacta multiflora. An improved and highly recommended dwarf Petunia of the *inimitable* type; very dwarf, bushy habit, and densely covered with brilliant cherry-red flowers, each bearing a white star. Will be of great value as a market and bedding plant.

Xeranthemum annuum superbissimum. A very double improved variety, with perfectly globular-shaped flowers, and entirely free from projecting marginal ray florets; it is said to be the most perfect Xeranthemum yet obtained, and is indispensable for dried-flower works.

Solanum hybridum Empress This fine variety, of recent introduction, is very valuable for decorative purposes; the compact, bushy plant, richly covered with coral-red berries, is a great improvement on all former varieties.

Lychnis Haageana atrosanguinea. Introduced as a most brilliantly colored variety of robust growth, yielding flowers of an intensely rich blood-red color, forming a fine contrast with the dark glossy foliage.

Primula sinensis fimbriata. Another splendid new variety, of compact habit, and forming a perfect cone; it blooms very freely, the flowers being of a brilliant scarlet color.

BULLETIN OF THE NATIONAL ASSOCIATION OF WOOL MANUFACTURERS. This neat pamphlet of 254 pages contains an instructive address, covering 182 pages, by John L. Hayes, L. L. D. the well known secretary of the Association, delivered before the National Agricultural Congress at New Haven Conn, on the 29th of August 1878, on the resources of the United States for sheep husbandry and wool manufacture also an interesting, eleven-page report by E. Ollendorff, late Commissioner of Agriculture in the Argentine Republic, on sheep husbandry and wool production in that State; likewise the proceedings of the Association at its fourteenth annual meeting held in this city in October 1878, together with several other items of minor importance. The work is well edited by Mr. Hayes, and in a future issue we shall take occasion to refer to the fund of information on the wool growing interest of the world, which it contains.

VICK'S FLORAL GUIDE FOR 1879: It is, as usual, filled with fine and faithful illustrations. First, we have a colored plate of a group of Pæonies; then Instructions as to selection and sowing of seeds, lawn making, bedding plants and carpet beds; then garden adornments, balcony gardening, window boxes, etc. We have next a careful Alphabetical Index—a feature the value of which is not sufficiently estimated in the average seedsman's catalogue—and, finally, the usual lists of all sorts of seeds for the florist, gardener and farmer. Mr. Vick's address, which we should suppose would be well known to all of our readers, is Rochester, N. Y.

WM. H. CARSON. List of novelties and abridged catalogue of farm and garden seeds for 1879. In this we find a reduced cut of our Pearl Millet, of which Mr. Carson can claim to be the re-introducer to Northern farmers. Many testimonials from different parts of the country concur in praising its value as a fodder plant. He also offers Teosinte of which we gave an illustration in RURAL of Nov. 2; Prickly Comfrey, Chufas; many new varieties of farm seeds and vegetables. This catalogue will be sent to applicants.

R. H. ALLEN & Co., 189 and 191 Water St., New York. Seed Catalogue. Among root specialties Webb's New Kinver Yellow Globe is again advertised by this house. It is a new

English variety that is said to have produced enormous crops. It has been grown, Mr. Alleu says, by leading stock growers who inform him that its excellent qualities are fully maintained here.

P. K. DEDERICK & Co., of Albany, makers of the Perpetual Hay-press, send us a very interesting pamphlet containing the complete history of their patents, with fac-similes of the patents and specifications themselves. The book is free to anyone caring to send for it, and it will be found well worth perusal.

G. L. ANTHONY, Greensboro N. C. Descriptive catalogue of fruit and ornamental trees, grape-vines, small fruits &c.

L. W. GOODELL, Amherst, Mass. An illustrated catalogue of flower and vegetable seeds. Free to applicants.

GARDENING Guide. Wm. H. Spooner, Boston, Mass.

WHAT OTHRS SAY.

A REMEDY FOR THE PHYLLOXERA.—*La Gazette des Campagnes* says that an efficient means of destroying the Phylloxera has been discovered and has obtained a marvelous success. Apply lime-milk to the branches and heads of the vine during the winter, and by means of this process the egg, which is the real germ of this insect, will be destroyed.

AT THE STATE FARM (Monson, Mass.), the cows are milked precisely at 5 A. M. and 5 P. M., and each cow's milk is weighed and the weight recorded. The record shows that 55 cows gave, in one week in June, 2¾ tons of milk, and in one week in December 2¼ tons of milk. The whole amount of milk produced during last year was a little over 120 tons. Seven cows have given an average of about 20 quarts of milk each per day.

The winter feed for the milch cows is dry hay before milking at 5 A. M., and about 8 A. M. a bushel basket of cut hay and corn stalks wet with warm water in winter, and mixed with 2½ quarts of wheat bran for each cow. At noon they are fed with a peck of turnips or mangolds for each cow, and at night the same feed as the morning, thus making five meals per day from 5 A. M. to 7 P. M., at regular intervals.

A DOMESTICATED QUAIL.—We are not accustomed to associate the quail with domestic pets, and yet, according to the London Gazette, there is one of these timorous and by no means common birds running about the kitchen attached to Mr. Wildsmith's cottage at Heckfield, as unconcerned as though it were a tame starling or jackdaw. It was reared by a bantam hen, and is now four months old, and is almost full-grown. It perches upon the back of the dog, and creeps into the shelter of his body when lying down. It is also on good terms with the cat, and fears no stranger, but makes itself quite at home with every one. This unusual associate of the domestic fireside evidences what may be done by care and kindness, whilst the pleasure taken in its society by the dog and cat shows that even these game-loving animals are not always so black as they are sometimes painted.

THE ENORMOUS CROPS OF 1878.—The December Report of the Department of Agriculture just published at Washington, gives the latest estimates of the past year's crops throughout the country corrected down to the first of the month. The following summary of it will show how closely it approximates to the figures on the subject we placed before our readers during the fall. According to the Report, the corn crop for 1878 is some 30,000,000 bushels larger than that of 1877. The oat crop is somewhat in excess of that of 1877, making it the largest ever raised in this country. The average yield per acre is, however, less than in 1877, and the quality in most of the States is inferior. There is no material change in the barley crop from 1877, except that California increased her acreage from 450,000 to 650,000 acres, and almost doubled her yield per acre. The total product for the year will be in round numbers 42,000,000 bushels against 34,500,000 bushels in 1877. The rye crop is about one-sixth larger than in 1877, but the quality of the crop is inferior in the New England (except Connecticut) and Southern States, while in the States of the West, Northwest and Pacific slope it is superior, except in Illinois and Nebraska. The potato crop shows a large decline as compared with 1877, though the average area was about the same, the difference being less than one per cent. The average yield of the whole country will be 60 bushels per acre against 94 bushels in 1877, making a total product in round numbers of 124,000,000 bushels for 1878, against 170,000,000 in 1877. The hay crop is 20 per cent. greater than last year. Sorghum is receiving increased attention, especially in the trans-Mississippi States and Territories. In Stearns County, Minn., the variety called Amber Cane is reported as yielding as high as 300 gallons of syrup per acre. Delaware County, Iowa, manufactured 100,000 gallons of syrup during the year, and found a home demand for the whole. The tobacco crop is larger and exceptionally good.

THE WHEAT SUPPLY OF THE WORLD.—The following calculation has been made by a trustworthy French journal, the *Bulletin des Halles*, as to the wheat crops of the principal countries in and out of Europe:

Country.	Average crop.	Estimated crops in 1878.
Europe.	Bushels.	Bushels.
France	281,325,000	226,875,000
Russia	220,000,000	214,500,000
Germany	121,000,000	123,750,000
Spain	115,500,000	110,000,000
Italy	107,250,000	104,500,000
Austria-Hungary	101,750,000	110,000,000
Great Britain	101,750,000	101,750,000
Turkey in Europe	41,250,000	38,500,000
Roumania	33,000,000	37,950,000
Belgium	23,375,000	23,375,000
Portugal	8,250,000	8,250,000
Greece	4,950,000	4,812,500
Servia	4,125,000	3,850,000
Denmark	2,750,000	2,750,000
Sweden	2,337,500	2,337,000
Switzerland	2,337,500	1,870,000
Norway	270,000	270,000
Miscellaneous	540,000	540,000
	1,171,780,000	1,115,880,000
Out of Europe.		
The United States	302,500,000	330,000,000
Algeria	24,700,000	21,625,000
Canada	16,500,000	16,500,000
Australia	16,500,000	16,500,000
Egypt	16,500,000	11,000,000
Miscellaneous	8,250,000	8,250,000
	384,950,000	403,875,000
General totals	1,556,710,000	1,519,755,000

The first column in the following table, taken from the same source, shows the countries which do not grow enough wheat for domestic consumption and the amount required to make up the deficiency; while the second column tells the sources from which this is drawn and the quantity which can be supplied by each:

Country.	Estimated imports.	Estimated exports.
Europe.	Bushels.	Bushels.
France	55,000,000	....
Russia	....	44,000,000
Germany	....	....
Spain	....	....
Italy	8,250,000	....
Austria-Hungary	....	17,875,000
Great Britain	96,250,000	....
Turkey in Europe	....	....
Roumania	....	5,500,000
Belgium	2,750,000	....
Portugal	1,375,000	....
Greece	....	....
Servia	....	....
Denmark	....	1,375,000
Sweden	550,000	....
Switzerland	8,250,000	....
Norway	1,110,000	....
Miscellaneous	....	....
	173,535,000	68,750,000
Out of Europe.		
The United States	....	110,000,000
Algeria	1,375,000	....
Canada	....	2,450,000
Australia	....	2,750,000
Egypt	....	....
Miscellaneous	....	....
	1,375,000	115,500,000
General totals	174,910,000	184,250,000

According to these returns, England and France, the only countries which import wheat upon a large scale, grew last year about 150,000,000 bushels less than they will require for their consumption; and it will be seen that Russia and the United States are in a position to export about 154,000,000 bushels, or about the quantity which the two former countries want. According to our most reliable estimates, however, the wheat crop of this country is here considerably underestimated.

The Herdsman.

CARE OF DOMESTIC ANIMALS.

The present cold weather calls upon the owners of domestic animals to give them extra attention. To begin with, there should be no "cracks in the barn." A man of order and ingenuity will find a remedy for such defects. In extremely cold weather the animals should be cared for earlier in the morning than usual. Curry and brush the horses a little longer, and don't fail to card the cows. Cattle ought to have access to the sunshine, which they naturally seek if they have the chance. Horses do better if they are exercised daily, but they need good care after it. It is common to see a man tie his horse to a post, toss an old robe over his back, and then leave him for an hour or longer. In a few minutes the animal becomes restless, and in moving about the robe is thrown under foot. Every owner of a horse ought to own a good blanket that can be fastened around the breast of the animal, where protection is needed most. Act upon this precaution, and tie the horse so that he will *not* face the wind, and he will be saved much discomfort and perhaps more serious trouble.

Pigs are often allowed to suffer in winter, as well as in summer. I do not know why, unless it is because they are pigs. Give them a comfortable pen with plenty of bedding, and a yard to run in, and see how clean a pig can keep itself. Prejudice ought not to make this somewhat repulsive animal an object of neglect. Chickens need especial care in very cold weather. Give them food and water early in the morning. As soon as the water in the drinking vessel is frozen over, empty and fill again. Feed grain—a variety of it—and raw meat. A large bone with the meat left on will answer. Put an ear or two of corn with the shelled, to afford exercise for the chickens. Chickens like to pick for themselves, but in winter must be furnished with the material for doing so.

All who own animals should pay them a visit just before retiring at night, to see that they are comfortable. Do not enter a barn while smoking a pipe or cigar. If necessary to carry a lantern, hang it in a safe place while re-arranging bedding, etc. Every member of a family—ladies as well as gentlemen—ought to know how to feed and care for the animals kept. They often suffer through inattention on the part of persons hired to take care of them. Look well to the live stock; it will pay in dollars and cents, besides cultivating feelings of kindness and humanity. M. G. R.

Lyons, Iowa.

Industrial Societies.

MEETING OF NEW JERSEY STATE HORTICULTURAL SOCIETY.

THE Fourth Annual Meeting of the New Jersey State Horticultural Society was held in the city of New Brunswick, N. J., on the 15th and 16th insts., with a fair attendance. The tables contained a fine collection of forty varieties of apples, several pots of choice plants, and vases of cut-flowers, including Camellias, Orchids, etc., and a very interesting exhibit of Florida products, consisting of the famous Indian River oranges, lemons, limes, citrons, fresh as well as dried and preserved, guava jelly, guava canned, and guava and orange marmalade. These were grown, manufactured and exhibited by the Secretary, Rev. H. S. Williams, of Rock Ledge, Fla., and presented as a New Year's *souvenir* to the fellow horticulturists of his native State. These guava and citron products, being the first successful experiments as far as we know in this country, excited a good deal of interest from all present, and the committee of examination compared them critically with the imported articles, and found them decidedly superior in every respect, retaining more of the natural flavor of the fruit, thus adding another to the long list of home industries. The oranges, also, were pronounced much sweeter and finer than the Florida oranges usually found in our markets.

The Fruit Committee reported much less pear blight than usual. The May frosts did much damage, especially to the huckleberry and nut crops, the former being almost entirely destroyed. The new Strawberries, Great American, Beauty, and Pioneer, were placed on the New York market in sufficient quantities for dealers to test their merits as market fruits. They were all transported by wagon 12 miles, and stood the journey well. Their large size and attractive appearance created a demand for them at 40 to 75 cents per quart, but liberal culture is absolutely necessary to secure such results. The Beauty, for quality, was considered a better table fruit than the Great American, while some amateurs regard the Pioneer, as a family berry, hard to be beat.

The Brandywine Raspberry, owing to its high color and good carrying qualities—its chief merits—was in good demand and sold well. A new Raspberry, the Montclair, had been carefully examined, and was pronounced as large as the Antwerp, rather darker, slightly acid, with a peculiar aroma. Mr. Frost, one of the oldest dealers, thought "it one of the best he ever tasted." Mr. Archdeacon liked it for its solidity and fine flavor, and if it proved to be a good keeper, it would, in his opinion, be a valuable addition to the list.

On vegetables the committee reported the potato to be the most important; and the Early Rose the standard for quality and profit, though some had found the Peerless quite as profitable at lower prices, owing to its great yield. It is known that Vermont and Late Rose are often sold as Early Rose on the reputation of that variety. Large quantities of potatoes had found their way to our markets from Missouri, Michigan, Minnesota and Canada, and if these brought a profit to the grower, Jerseymen ought to take courage.

An instance of training tomatoes on trellises was reported where the yield of good, salable fruit was more than double that from an equal number of plants allowed to trail on the ground. Another case was mentioned of a market gardener who trained several hundred plants to stakes; the fruit ripening 10 days earlier than on plants allowed to lie on the ground, and were free from dirt and wire worms.

Discussions on the varieties of apples for profit in New Jersey; the best evergreens for orchard windbreaks; the revision of the Society's catalogue, and experience with new fruits, brought out a good deal of information. These, with a paper on roots, and a lecture on fertilizers, kept the interest unabated till the close of the sessions, notwithstanding the severe snow storm on the last day.

A proposal to hold a strawberry exhibit in Newark in June, was regarded with favor and referred to the Executive Committee. A Newark gentleman invited the Society to hold its next annual meeting in that city, and offered a Hall for the purpose, which was finally accepted with thanks. Now that the Society has made a new departure, it is thought by many that its membership and usefulness will be largely increased,—*nous verrons*. The old officers, with few exceptions, were reelected. George Such, So. Amboy, President; E. Williams, Montclair, Rec. Secretary; B. B. Hance, Red Bank, Cor. Secretary: W. H. Goldsmith, Newark, Treasurer.

THE ONONDAGA COUNTY, N. Y., AGRICULCULTURAL SOCIETY.

THE annual meeting and winter exhibition of the above Society was held in Syracuse, January 8th, 1878.

The officers elected were the following:

President—Edward A. Powell. Vice-President—Edward B. Judson. Secretary—Patrick H. Agan. Treasurer—Warren C. Brayton. Trustees—George Butts, Wm. H. Gifford, Alva W. Palmer, James R. Brown, Thomas Andrews, John Wells.

The display of fruits, flowers, grain, roots, etc., was exceptionally fine.

Of thirty prizes offered for the best displays of different varieties of apples, we notice friend Nelson Ritter bore away seven.

THE PENNSYLVANIA DAIRYMEN'S ASSOCIATION will hold its annual Convention at the Court House, in Meadville, on Wednesday and Thursday Feb. 5 and 6. On the first day, in the forenoon, President A. M. Fuller will make an address on the "Commercial Aspect of the Dairy;" and Prof. G. E. Morrow, Dean of the Illinois College of Agriculture and one of our contributors, will speak of "Western Dairying and its influence upon Eastern Markets." In the evening Hon. Harris Lewis will tell about the proper "Care and Management of Dairy Stock." On Thursday forenoon S. A. Faringdon will report on the International Dairy Fair, and our friend, Prof. E. W. Stewart, will discuss "Dairy Buildings and Management." Reports of the Secretary and Treasurer; reports on several dairy subjects; election of officers, addresses by visiting friends and social gatherings will profitably and pleasantly occupy the rest of the time.

Industrial Implements.

CLARK'S ROOT-CUTTER.

A VERY simple, cheap and strong root-cutter is shown in our engraving, which we have had drawn from the original, made by the Higganum Manufacturing Corp. at Higganum, Conn., under Clark's patent. A piece of the frame is broken away to show the mechanism, which consists of twenty-five gouge-shaped steel knives arranged on a wrought-iron shaft that

holds them securely. The roots are well and expeditiously cut at a small expenditure of power, and the oak-frame, firmly bolted together, affords substantial resistance to wear and tear. Its low price puts it within the reach of all who can appreciate the importance of root-feeding. Circulars may be had by addressing the company mentioned.

A NEW HAY KNIFE has recently been doing good service at our Experiment Farm, and we take pleasure in referring our readers to the advertisement of the knife on the thirteenth page of this issue. It will be seen to differ from the ordinary knife in shape and cutting-edge; the notch only is sharp, and goes through the hay with very little expenditure of muscle, and in pulling out, as the cutting-edge does not draw against the hay, the knife remains sharp much longer. If the notches were a little deeper it might be an improvement, it seems to us. The knife is said to be also admirable in bogs, cutting corn-stalks, ditching marshes, etc.; we think it likely, though this we have not had a good opportunity of testing. Altogether, however, it is a handy thing to have around the barn.

Industrial Topics.

A COUNTRY SCHOOL HOUSE.—No. 1.

PROFESSOR W. J. BEAL.

In many cases the location is a desirable one, situated on a slight elevation near a good road in a central portion of the district. In too many instances the house is built on a piece of low land, back from the main road, perhaps in the edge of the woods or more likely away from any trees. There is a little corner of half an acre, or less, cut off from a field. The lot is generally destitute of a fence, and open to the frequent visits of cattle, sheep, and perhaps swine. These animals keep the turf closely pastured, but otherwise damage the appearance of the yard. The land is rough and ungraded, just as Nature left it, except the removal of all or a part of the trees. The stones are scattered about, if stones are common in that locality. Stumps and logs are plentiful, unless the country is old.

Toward the rear of the lot are a couple of out-buildings much dilapidated, on account of frequent beatings by sundry stones and sticks thrown by mischievous boys. Several portions of the main building, especially at the front, are badly damaged by hard usage. In several places, scattered over the lot, are piles of stove-wood and numerous sticks are strewn about in great confusion. Good order may be displayed in a wood-pile as well as in anything else. A mud puddle is situated near the front door. An old board or two serve to keep the feet partially out of the mud. If we enter the room, we shall not be disappointed in finding that the inside corresponds with the outside of the house.

If the above description will not answer for most of our country school houses, it answers for too many of them. In a few cases there is an attempt to ornament the grounds by shade trees and other means, though even here usually no good design has been followed.

The effect on teacher, scholars, visitors, and passers-by is anything but inspiring. Suppose the ground were graded even a little, and trees set here and there about. In grading, the surface should be made smooth, but not necessarily level or formally graded down. If cattle run on the road, a neat fence should cut off their approach to the house. Let the teacher with the aid of the scholars, who will cheerfully lend a hand, pick up everything tidily. In summer there should be a few neat flower-beds kept in good order. Shrubbery and perennial herbs should find suitable places. It is no use to say the scholars would not help, or that they would destroy the plants after they were set out. Any one who has tried it knows better.

A word about the house. It is usually planned and built by those ignorant of the business, at least the plans are usually poor. The house is plain and almost always painted white, or sometimes red. I know of one case in which the house is red and the battens are white, or a part of each is white. White, for a country house, is too glaring and conspicuous, presenting too strong a contrast with all the surroundings. I know of many instances where the houses cost enough to be models of excellence. I think of one the walls of which were made of pressed brick. Every seat in the house is so high that hardly any one, except a "six-footer," can sit down squarely and rest his heels on the floor. On my visiting the school, the teacher said there was not a seat in the house low enough for the largest scholar. The seats were narrow and flat, not sloping backwards, and the backs straight up and down. In such places the children are required to sit with feet dangling midway between the seat and the floor, just because some one did not put brains enough into his plan for a house. In most cases the ceiling is tight, a stove supplies the heat, and there is no arrangement for ventilation except by the windows and doors. Sometimes there is no black-board, though generally there is a small one of poor quality in an inconvenient place. In some cases there is no wall under the sills. The cracks in the floor allow cold drafts of air to come up freely through it.

In such forlorn quarters, with no sign of ornament inside or out, children are banished for six hours a day, for several months of the year. Is it a wonder that some of them do not like the school? I hope the above picture is overdrawn, but in the majority of cases with which I am acquainted, I am sorry to say it is not.

Would it not be a good plan to put on a little more style? Why should not the inside of the school-room look as well as the church? This is the case with many of our city schools. Or, again, why should not the school-room be made as attractive as some of the village saloons? Through a poor streak of economy people are employing the cheapest teachers they can get.

When a boy, the writer hated school, but did not know why. It was not pleasant. To the best of his knowledge, the correct reason can be picked out of the foregoing account of our country school houses. There was nothing cheerful in the surroundings; the seats were uncomfortable; the hours were long and too many in each day; the air was impure, the teacher overworked and unskilled in awakening an interest in the studies. The writer liked nature, but disliked books—at least such books as were accessible. The greatest needs of our country are educated voters and educated mothers. With plenty of these there is no danger that the Republic will fail. In future papers I shall try to suggest means for making our country schools more effective.

Agricultural College, Lansing, Mich.

Various.

BEE HINTS.

The apiarian has still but little to do about the bees, further than to see that the proper temperature is maintained (between 35° and 50°), and to ascertain that they do not suffer from dysentery or the ravages of mice. But now is the time to make hives, frames and implements that will be needed during the busy season. Now is also the time to study good works on bee-culture, to familiarize one's-self with the experience of others, to look into the causes of their success or failure. One will thus store up much useful knowledge that will be handy to draw upon when occasion demands.

Oleomargarine.—Of sixteen manufactories of this concoction scattered here and there through the country, thirteen, we learn, have already been closed by the pressure of hard times, though backed with an aggregate capital of $1,800,000, to begin with, and few if any are running at a profit. Among the causes that have contributed to the stagnation in this greasy business not the least influential has been the lack, of late, of the liberal amount of free advertising foolishly accorded it by all our dairy conventions until the Rural entered a vigorous protest against the practice. At the late dairy show in this city the stuff failed to receive a single puff from any speaker, and the underhand trickery by which its manufacturers hoped to profit, like trickery generally, finally proved injurious to the tricksters. They cunningly contrived to introduce a few tubs of the stuff among the butter from distant points, and then loudly boasted that the judges could not detect the imitation from the reality; but in every case the odor of the conglomeration alone betrayed it. Some farmers, too, and even some creameries were, not long since, accustomed to use a good deal of it for the purpose of adulterating their butter; but the public odium and low prices that awaited upon detection, have greatly curtailed this opening for its sale. The curiosity of the general public also with regard to the concoction, has been nearly sated, while the low price of genuine butter of late and the necessary improvement in most of it, are also contributing to the unpopularity of oleomargarine

Chufas, Pearl Millet and Prickley Comfrey.—A correspondent writes us from Hanover Co., Va., that he has tried these three plants during the past year. The two first he considers really valuable farm crops, and is especially impressed in favor of Pearl Millet. If it is not deficient in nutritive elements—and such analyses of it as we have seen assign it a fair amount of nutriment—he will regard it as the grandest forage plant he has ever seen. His patch was from nine to ten feet high and formed a mass of forage 2x9 feet all along the row. He did not cut it for forage, however, but let it seed, lest it should fail to do so certainly and freely if it were cut once and he should depend on the second growth. The Chufas, on moderately good land and with only indifferent culture, yielded at the rate of 154 bushels to the acre, as ascertained by measuring the tubers from a small area of average productiveness. After two years' trial of them, he is quite satisfied that they are a paying crop.

Although the Prickley Comfrey was grown on very rich land, it proved of little use to him and he is about to abandon its culture, thus setting a much lower value on it than another of our correspondents who speaks in praise of it in this issue.

Beauty of Hebron.—The following is what James Veitch & Sons, the well-known London Seedsmen, say of this variety: It is an American introduction, a seedling from the Chilian Red. One of its special features is its luxuriant and rapid growth, the foliage partaking much of the character of that of Early Rose, only somewhat more vigorous. It is a very heavy cropper and early, coming into use three or four days before that variety. The tubers are of handsome Kidney shape, slightly tinged with red around the eyes, of smooth texture and grouped closely round the stalk when growing.

Everywhere.

RURAL SPECIAL REPORTS.

Virginia, Matthews C. H., Matthews Co., Jan. 15th, 1879.—We have the oldest and most thickly settled county in the State. Our population is something like 65 persons to the square mile, and most of our lands have been in cultivation for over a century without manure of any kind, with the exception of the old Virginia rotation—"a crop of pines"—and, strange to say, they still produce something and respond finely to what manure is spread on them. There have been vast quantities of ship-timber and lumber of all kinds cut from this county, and this has caused the agricultural interests to be neglected; but now we are turning our attention to farming and the oyster trade combined. The manner in which we improve our lands is unique; most of the farms lie on the water, and the owners procure fish from the numerous "pounds" and "purse nets," and drop them in the corn rows about two feet apart, using about 30 bushels to the acre. They are covered by the plow and the corn is drilled on top. This application generally produces about eight to twelve barrels to the acre, and I have known twenty-five bushels of wheat to be raised to the acre after the corn crop. The fish cost, at the pound, 20 cts. per flour barrel, and the improvement would be permanent, provided clover and grass seed were sown on the wheat, which is not generally the case. In the fall the oyster crop comes on, and the bivalves command a ready market, and for those having a suitable shore to plant on, the business is a very profitable one. This is the most healthy portion of Virginia. Billious diseases seldom occur, and the low grades of typhoid fever so common in the Piedmont region and West Virginia, are exceptions in this country. Land here is worth from $10 to $40 per acre, according to location and improvements; corn, 50 to 60c. per bushel; wheat, 90c. to $1; eggs, 20c. per doz.; butter, 30c. per pound; oysters, from 50c. to $1.25 per bushel. S. E. R.

Connecticut, North Coventry, Tolland Co., Jan. 16.—All grain crops yielded fairly in this neighborhood; so did grass, and the farmer can find a ready market for all his products at good prices. The corn crop was a trifle below an average, owing to the weather having been too cold when the plant was setting ears. But what the farmer lost in his corn crop, has been well made up to him by others, especially buckwheat, which has been a fine yield—25 to 30 bushels to the acre is considered a fine crop in good soil hereabouts. Buckwheat is now worth 50 cents per bushel; corn, 65c.; oats, 40c.; rye, 75c. Our hay crop was very large and of good quality, and is worth from $12 to $15 per ton at the barn. The potato crop was damaged considerably by the Colorado beetle, so that the tubers are not as abundant hereabouts as usual. They are quoted at $1 per bushel and upwards for the best Early Rose. Apples last season were plentiful, and many a farmer sold his crop for 15c. to 20c. or 25c. a bushel on the trees. Stock growers and dealers are now paying from $25 to $50 per head for good cows, while a few selections from blooded stock are worth more. Working cattle are worth from $100 to $125 per yoke. Fat cattle, dressed, 6½c. to 8c. per pound; hogs, 6c. per pound; good butter, 25c. per pound; eggs, 28c. to 30c. per dozen. Labor is cheap—good help can be obtained for $1 per day, and some few for 80c. a day, boarding themselves. Many of the young men are teaching school, an occupation that pays better than farming—winter term, $25 to $30 per month for 20 days a month. We are having fine winter weather. The wood market is dull; good, hard, dry oak and walnut are worth $5 per solid cord; mixed wood, $4, delivered at the wood-yard. Such wood can be bought upon the lot standing for from 80c. to $1 per cord, solid measure. E. B. T.

Kansas, Everett, Woodson Co., Jan. 11th, 1879.—I have been living in southeastern Kansas something over two years, this being my third winter here. Two of them have been quite cold; the first winter we had about six inches of snow on a level, which lasted about two weeks. This winter has been very severe, the thermometer standing as low as 16° below zero, with about 14 inches of snow on a level, some say two feet. The first snow storm commenced on the 12th and 13th of December, and there has been sleighing since that date. There is little or no frost under the snow, and all our storms of late have been snow storms. I don't know how it is where L. J. Templin lives, but in this vicinity we have to feed stock nearly as much and for nearly the same length of time as we did in northern Illinois, where I came from. "Sunny Kansas" is the theme of nearly every paper nowadays, but persons coming here to live must not expect to find everything as smooth as land agents and R. R. Co.'s picture it. I do not wish the Rural or its readers to infer from these remarks that I do not like Kansas. I have traveled over a considerable extent of the western country, and am well suited with my present location, and I think it is a fine country for new beginners to start, but it is always well to look at both sides of a bargain and then one is not so likely to be dissatisfied in this case as if he pictured the country only one degree below perfection. Good land in this section can be bought as low as $3 per acre, and some 80-acre lots at from $300 to $500; and 160-acre lots at the same rate, the improvements in many cases being worth fully the price asked for the farm. J. J. D.

Indiana, Newton's Retreat, Tippecanoe Co., Jan. 15.—We have had fine sleighing here for the last four weeks, but most of the farmers would be glad if the snow disappeared and the weather moderated, for a great deal of the corn is still in stooks and some even yet standing; but at present there is little prospect of finer weather, for during the last week the thermometer has ranged from 10° above zero to 20° below. Wheat was a good crop here last year; oats, however, were light, owing to the weevil's depredations; corn was an average crop. Prices for all kinds of produce are low, and times are hard. Wheat sells for 88c. per bushel; rye, 40c.; oats, 20c.; corn, 25c.; hay, $6 to $7 per ton; live hogs, $2.80 per cwt.; butter, 12½c. per pound; eggs, 17c. per doz.; potatoes, 40c. per bushel; onions, 40 to 50c. Business is improving slightly, and we hope times will be better in the near future. Tramps are plentiful, with some to spare. Hands on the farm get from $15 to $18 per month. There is plenty of work for those who are willing to do it at good prices. D. C. A.

Ohio, Dayton, Montgomery Co., Jan. 20.—We had, nearly up to Christmas, as nice a fall and winter as I ever remember to have seen, but a day or two before Christmas the cold snap set in, and ever since then the weather has been very cold—old men say the coldest they have ever seen. Potatoes and fruit froze in my cellar, a thing I never saw before. My flowers, kept in my sitting-room, had a very narrow escape, and indeed some of the most tender did get somewhat frosted. Most of my neighbors lost all of their flowers. The thermometer is generally about 20° or 25° below zero in the morning, and that is what we folks out here call cold. C. H.

Utah, Nephi City, Juab Co., Jan. 14.—The weather is very severe in this part of the country. It is snowing heavily now and has been doing just the same for the last four days. The crops hereabouts were very good last season; wheat averaged 20 bushels to the acre; barley, 30 bushels; oats, ditto; potatoes, about 70 bushels—which, of course, showed quite a failure—and they were not good at that. The crops of John Vickers, one of the best farmers in this part of the country, averaged: wheat, 40 bushels per acre; barley, 75 bushels; oats, 52 bushels. J. B. D.

Kansas, Offerle, Edwards Co., Jan'y 19.—We are having one of the coldest winters ever known to white men in Kansas. It has been steadily cold since 12 Dec. The ground is covered thickly with snow and the stockmen are losing heavily, as they have no hay to feed with. A good many of the settlers that came here late last fall are also suffering, for as our winters are generally open and warm, they did not expect such severe weather as that we now are plagued with, and accordingly made little or no preparations against such an unlooked-for visitation. S. H. S.

Michigan, South Lyon, Oakland Co., Jan. 20.—We have had 30 days of good sleighing. Wheat went under the snow with light top and surface spotted by the fly. Corn yielded well; oats, however, turned out light, and potatoes were nearly a failure. Wheat was the largest crop ever harvested in this vicinity; but it was not of so good a quality as the year before. It is worth 87c. per bushel; corn, 40c.; oats, 20c.; potatoes, 50c.; buckwheat, 50c.; live hogs 2.55 per 100lbs; steers, 3c. per pound; butter, 10c.; eggs, 18c. A. B.

Missouri, Louisiana, Pike Co., Jan. 16.—Since my last crop reports we have been having continued severe winter weather for this locality. Early yesterday morning we had our nineteenth snow storm, with rain during most of the day, which is the first rain for a long time. Stock water has been scarce with many, so that animals had to be driven some distance to the larger water courses. Stock generally is doing well where properly sheltered and well fed. This morning the weather is cold and the roads frozen hard. S.

California, Penryn, Placer Co.—The cultivation of the Orange is the one absorbing interest with us now. Our climate and soil have been both thoroughly tested as to their adaptability to its growth, and the result has been beyond all doubt satisfactory, and I should not be surprised if before long, some one of the many friends of the Rural in this section, should send it some fine specimens of oranges grown on the foothills of Placer Co. J. W. B.

CONNECTICUT. Poquonock Bridge, Jan. 21.—The present winter is proving more severe here than the last. Ice, I am told, is being stored in large quantities in the different ice-houses around us. Provisions, excepting potatoes, are low, very low. Potatoes, however, seem to be held back by the farmers for high prices. M. W.

PERSONS are warned against subscribing through one Charles Ed. Williams of Utica, N. Y. Mr. Williams is not an agent of the RURAL NEW-YORKER, and is not authorized to receive any money on its account.

The Queries.

ANSWERS TO CORRESPONDENTS.

Lime as a Fertilizer; Lime and Salt; Lime and Plaster; Hilling and Drilling Potatoes.

Inquirer, Pompey, N. Y., asks: 1. What effect would lime have upon winter wheat or barley, and when should it be applied? 2. Would lime and salt sown on the same crop be injurious to it; which should be sown first, and what time should be allowed to elapse between the two applications? 3. How would lime and plaster agree on grass land? 8. Will potatoes make a larger yield if planted in drills than in rows both ways, and if so, how much more will the yield be?

ANS.—1. The effect of lime is more marked on wheat than on barley, probably because of the longer time in which it can take effect on the former crop. Lime is a direct fertilizer, inasmuch as plants contain more or less lime; and an indirect one, as it helps much to render any undecomposed vegetable matter soluble and fit for plant food; it also helps to dissolve potash that may be held in an unavailable condition in the soil. Its effect on wheat is to stiffen the straw; to hasten the riponing; to produce a clear skin, and a hard berry. It has a marked effect on the clover which is generally seeded with the wheat, and in many localities farmers never think of seeding to clover without having previously dressed the field with forty or fifty bushels of lime per acre in the fall. It is generally applied in the fall; but it is equally effective if spread on the snow in the winter, and this is convenient to be done for several reasons. 2. Lime and salt have no effect upon each other when mixed. Salt is not nearly so effective as lime; for while lime is rarely used without apparent benefit, salt is used frequently without any benefit at all. Salt has much the same kind of effect as lime as regards wheat; but with clover it is rarely of service. Five bushels per acre are generally used, and this amount can never do harm, if it does no good; so that it is perhaps worth trying for the chance of any benefit from it. Salt may be sown with the lime or separately. 3. Plaster consists, in part, of lime, and to mix it with lime would be useless. If lime is needed by the soil, the small quantity of plaster generally used would be insignificant and useless. If plaster (sulphate of lime) is needed, lime would not be a substitute for it. But lime is always used at a season when plaster is not; and although lime may have been used in preparing the ground for a crop, yet plaster may very well be used after the crop has progressed in its growth somewhat. For instance, if the wheat ground has been limed in the fall, plaster may be used with benefit on the young clover when the wheat has been harvested, or in the following spring; and if lime has been used in preparing for corn in the spring, as is often the case, plaster may be found serviceable when sprinkled about the plants when they are eight to twelve inches high, in June. 4. Any crop generally planted in hills will yield more when planted in drills, other things being equal, because more plants per acre can be thus grown, less room being taken up by each plant. The usual difference is about twenty-five per cent.

Treatment of a Tender-footed Horse.

J. E. R., Lamartine, Pa., asks what ails his mare and a remedy for the ailment. She is lame in her fore-feet, and sets them out in front with the toe down and heel up. If she cannot be cured, he inquires whether her condition would injuriously affect her offspring. She has had three very fine colts and will be eight years old in the spring.

ANS.—The peculiar way of holding the foot here mentioned, which is known as *pointing*, does not indicate, as is generally believed, any single disease. It simply shows that there is pain in the back part of the foot. The most common causes of this are corns and navicular disease. A careful examination of the foot, by slightly paring out the angle between the bars and hoof wall and producing a certain amount of pressure on this part with pincers, should decide if corns are the cause of the trouble. If both feet are affected, as we understand from the above, and corns are found, it is probable that side-bones also exist. Disease of the navicular bone is more likely to cause the lameness; but it is often a difficult matter for a person without experience to decide if this is the case. In bad cases there is tenderness in the deep part of the hollow above the heels; tenderness is also shown on striking the middle of the sole with a small hammer, and there is usually considerable contraction of the back part of the hoof. This is a very unsatisfactory disease to treat, and without seeing the animal we could not advise a treatment. In case of corns and side-bones, have the animal shod so that the shoe will not bear on the affected heels; do not allow much paring of the sole, bars or frog in shoeing; have the shoes changed often enough to prevent the horn of the sensitive heels from growing in contact with them. If there is much tenderness, poultice and use hoof ointments and afterwards apply a blister above the hoof but not in the hollow behind the pastern.

It is best not to breed from lame animals, but lamenesses are not always transmitted; this depends greatly on the conformation of the animal and the use to which it is put.

Silk Culture.

G. A. L., Corsicana, Texas, asks. 1, whether there are any records of silk culture in this country; 2, where can he get the materials for starting in the business; and, 3, the name of some work on the subject.

ANS.—Yes, there are in large libraries and sometimes in the hands of those specially interested in such matters, several records of seri-culture in this country. Before the commencement of this century, silk culture was carried on to a considerable extent in Ga., S. C., Va., Pa., Conn., and Mass., but the business was ruined in all these places by the revolutionary war. The southern parts of Ohio, the east of Kentucky, Tennessee and north Georgia, both as regards soil and climate, have been found well adapted to this industry. In 1840 the total product of silk raised in the United States was reported at 61,552lbs, worth $250,000. In 1844 it had risen to 396,790lbs, worth $1,400,000; but in 1850, it had fallen to 14,763lbs, and for the last half-a-dozen years no statistics are given of native silk culture. During the period of the highest production here mentioned, there was a regular mania on the subject, which is sadly remembered by some as the *Morus multicaulis* frenzy. Many lost heavily at the time through investments made in expectations of great returns, but since then silk culture here has been generally carried on only as a pastime. A couple of years ago, however, an enterprising foreigner started in the business in Kansas, but nothing has been heard of him or his undertaking of late. It is also reported that raising silk has been tried successfully in Cal. In 1875 there was in San José one cocoonery with 1,000,000 silk-worms, and at the same time an association for the promotion of silk culture was established in Sanoma Co., and a silk factory in San Francisco. 2. We do not know of any one who has silk-worms, etc., for sale. 3. An excellent description of silkworms and silk culture can be found in the American Naturalist, Vol. 1., 1867.

Squash Bugs, etc.

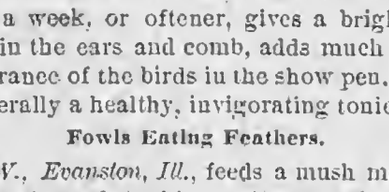
J. S. B., Palmyra, N. Y., wants to know where he can obtain the variety of duck known as Muskoka, described in the RURAL under date of Dec, 28, '78. He also wants to know the variety of corn best suited to the climate and soil of Western New York; and how to raise squashes in a garden infested with the squash-bug.

ANS.—1. Of any of the leading poultrymen, if Muscovy is meant. 2. We shall answer this question in our special corn number, which will be published in a few weeks, better than we can answer it now. 3. The Squash-bugs, Coreus tristis, appear at the same time as the young plants, lay their eggs on the under side of the leaves and live on the juice of the plants. The bugs hide under chips, pieces of boards, etc., that may be found around the vines; hence, by placing such objects about the vines, they will collect under these, and may be gathered and destroyed early every morning during the first part of the summer season. While the plants are still small it is also well to look over the leaves and destroy all eggs that may be found. There is also a Squash Borer, Melittia cucurbitæ, which enters the vine near the root, and often destroys the plant before there are any indications of its presence. To open the vine with a small knife and take out the larva, is the only remedy for this yet discovered, as far as we know.

Making Divisions in a Poultry House.

Ruralist, Walden, N. Y.—In building his third poultry house has utilized the suggestions given on the subject of such structures from time to time in the RURAL. He has placed it in the center of a thrifty orchard. The building faces the south, and is 14x36 feet long. It is supported by posts 8½ feet high. The east side has 8x12 and the south 7x22 feet of glass, and next to the ridge on the south side of the roof, a covering of glass, 4½ feet wide and 36 feet long, stretches along the whole length of the building. There are two doors—one at each extremity of the south side, close to the ends of the building. The house is intended for laying hens during the winter and for raising early chickens. He has several plans for dividing the building, but wishes to get the benefit of suggestions through the RURAL.

ANS.—A method of dividing the house is shown herewith. A central department may be set apart for nests, which may open both



into the large rooms and the central one. The roosts would be at the back of the house, and may be arranged as described in the article on poultry conveniences in a late issue.

Douglas Mixture for Poultry.

D. M. L., Great Valley, N. Y., having seen that the RURAL recommends the use of Douglas Mixture for poultry, asks whether there is danger in using too much of it; what quantity should be given; how often; how is it made, and what are its effects.

ANS.—There is danger of uneasiness, at least, in eating too much of anything, however healthful enough of it might be; about a tablespoonful of the "mixture" in a quart of drinking water, is about the right proportion; it is composed of sulphate of iron, sulphuric acid and water in the proportion of half a pound of the first, half an ounce of the second and two gallons of the third. Besides being a preventive of roup, a strengthener during molting time and beneficial in several other ailments to which fowl flesh is heir, its use two or three times a week, or oftener, gives a bright red color in the ears and comb, adds much to the appearance of the birds in the show pen, and it is generally a healthy, invigorating tonic.

Fowls Eating Feathers.

C. W., Evanston, Ill., feeds a mush made of bran and meal to his poultry together with pork scraps in the feed, yet the hens keep picking the feathers off his rooster's neck, and he asks why they do so, and how to prevent the practice.

ANS.—Confinement and want of occupation are among the chief causes why fowls eat feathers. The former is often inevitable in winter, but the latter can be avoided by burying some of their grain food in sand and allowing them to hunt for it, which will afford them pastime and healthy occupation. Give them some green food, fresh meat two or three times a week, burnt bones, oyster shells, charcoal, clean water and a clean hennery, and if all this doesn't cure them of the habit, follow Lewis's advice and wring their necks, for they are incurable.

Shipping Eggs to a Distance for Hatching

R. McD. S., Oak Grove, Texas, asks whether he could have Light Brahma eggs shipped to that place, and if so, whether they would hatch, and if so, where could he get them.

ANS.—Eggs are shipped every year greater distances than this, and yield satisfactory results. Eggs sent from the New England States to the Pacific coast usually hatch well; much, however, depends upon the packing. If carefully packed and handled, the journey should not hurt them at all. Any of the advertisers in this paper who breed that variety will supply eggs to order.

Pigment from Clover Seed.

In a late issue of the RURAL a question was asked about the process of extracting coloring matter from clover seed, and we replied that after a good deal of research and inquiry, we could obtain no information on the subject. A correspondent has just written to us that large quantities of clover seed—principally such foul seed as would not answer for seeding purposes—are shipped to France and Germany for coloring prints, etc., and he referred us to a firm in this city who could give full information on the subject. Inquiry from the firm mentioned, however, has failed to obtain any information.

Prices of Jersey Heifer and Bull Calves.

Several subscribers ask the prices of Jersey heifer and bull calves.

ANS.—Jersey heifer calves range from $50 to $100; yearlings, $75 to $150; two-year-olds, coming in, $150 to $250. Exceptionally fine animals bring fancier prices—bull calves and yearling bulls, $40 to $100; good ones attainable at, say, $50 to $75. Exceptionally good ones, from best butter stock, full black points, light-colored hide and very yellow skin, are in demand at fair prices, say, $250 to $500. All the above refers to animals capable of registry in the American Jersey Cattle Club Register.

Black-Crested, White Polish Poultry.

D. P. E., South Norwalk, Ct., asks about the "Black-Crested, White Polish" spoken of on page 806, RURAL of Dec. 21st ult.

ANS.—The variety is extinct. No specimens have been seen for fifteen or twenty years. They were always rare, and we do not believe they were ever seen by any of the writers on poultry in the United States. Numerous efforts have been, and are being made, to reproduce the variety, but thus far without success.

Miscellaneous.

F. S. Sleeper, Galesburgh, Kalamazoo Co., Mich., asks where can he get seed of Lost Nation Wheat. He wants the address of our correspondent C. G. H. Watkins, Ohio, who wrote about it, so as to be able to correspond with him on the subject.

ANS.—We give our friend's name so that C. G. H. may correspond with him. We have received a number of good accounts of this wheat. Dr. Hoskins, of Vermont, may give the needed information. A letter addressed to him at this office will be forwarded. We do not feel at liberty to make public the addresses of our contributors.

G. P., N. Y. City, asks the present residence of an actor he mentions. 2. Whether any entomological periodical is at present published in the United States?

ANS.—We do not keep the "run" of actors. An inquiry addressed to the Clipper would probably elicit the address wanted.

2. The Canadian Entomologist, London, Canada, is the only strictly entomological journal we know of. The American Naturalist gives large space to the subject and is published in Philadelphia.

J. A. M., Margaretville, Delaware Co., N. Y., asks where can he get the seed of the Jujube tree.

ANS.—This tree is not hardy, we believe, north of Georgia. Its botanical name is Zizyphus; it belongs to the Rhamnaceæ, or Buckthorn, family and is a native of Asia. Seeds can be procured of Thorburn & Co. of this city and of prominent Southern houses—perhaps of P. J. Berckmans of Augusta, Ga.

O. A. S., Mason City, Mo., pleased with the representation of berries on our "Index" sheet, asks where he can get roots and at what price.

ANS.—Of any of the nurserymen advertising in our columns. The prices so vary according to kinds that we could not make out a list, but they can be learnt from the catalogues which most of the firms furnish *gratis* to intending purchasers.

W. M. M., Ashley, Ill., asks whether the "Learner's Instrument" advertised in RURAL of Dec. 21 is a humbug and whether its advertiser is reliable.

ANS.—We have hitherto heard no complaints of the instrument, and before the advertisement was admitted into our columns we made satisfactory inquiries in regard to the standing of the advertiser.

"An Occasional Reader," Blackstone, Mass., asks why the RURAL is sold at retail in his town for six cents when the price should be a cent less.

ANS.—Probably because the newsdealer fixes the price at that figure. It is retailed at the "news" stands here for five cents. He can easily remedy the matter by subscribing for the paper and becoming a "Constant Reader."

B. G., Askowa, Ont., asks 1, what is the latest and best work on green-house work; 2, is there any good reliable periodical devoted to green-house work.

ANS.—A late work by Peter Henderson of this city. He can furnish it. 2, Not that we know of.

J. H. R., Utica, N. Y., asks whether the factory opened in Maine, some time back, for making sugar from sugar beets, has turned out a success.

ANS.—It will require another year at least before the experiment here mentioned, can be called a success.

L. S. Plattenburgh, N. J., asks where he can get "Carbolic Salve" and "Douglass Mixture" for poultry.

ANS.—Both can be got from Geo. S. Josselyn, Fredonia, N. Y. The "Mixture" can be "put up" by the next druggist; the recipe for compounding it is given elsewhere in this department.

S. McN., Jamestown, Pa., asks for information about budding and grafting fruit trees.

ANS.—A copiously illustrated article treating of this subject exhaustively, appeared in our issue of March 16, '78, page 166, and we refer our friend to it.

Mrs. W. P. J., Baldwin, Butler Co., Pa., asks whether the dealers in Mendelssohn pianos, who advertised lately in the RURAL, are reliable.

ANS.—The Company is reliable, but we have received complaints that the piano disappoints customers.

S. C. So. Vernon, Vt. asks whether the Hulless Oats are of any value as a crop.

ANS.—Of no special value. See Brevities last week.

COMMUNICATIONS RECEIVED FOR THE WEEK ENDING SATURDAY, JANUARY 25th.

J. F.—C. B.—W. T. H.—"Empsie"—E. E.—E. E. 2.—H. D. F.—L. S. A.—F. H. H.—G. B. A.—E. K.—S. E. R.—A. F. B.—L. F. C.—F. K. M.—A. L. J.—W. B. H.—J. L. R. N.—D. S. M.—K. B.—W. H. B.—M. W.—L. R.—I. J. B.—"Farmer's Wife."—W. J. F.—J. S. G.—L. J. T.—C. T.—W. R. Z.—F. D. C.—C. H.—J. D. G.—M. J.—A. L. J.—M. O.—W. G.—J. S.—S. C. G.—W. J. B.—M. M. D.—N. R.—A. W. M.—H. L. W.—W. H. N.—W. W.—D. B. N.—E. W thanks.—L. R.—W. B.—"Ruricola" A. W. M.—M. B. P.—W. S.—A. B. F. F. A.—M. D.—H. S.

THE
RURAL NEW-YORKER.

PUBLISHED EVERY SATURDAY.

Address
RURAL PUBLISHING CO.,
78 Duane Street, New York City.

SATURDAY, FEB. 1, 1879.

We will be pleased to send one or more copies of the RURAL NEW-YORKER *free to any of our subscribers sufficiently interested in its welfare to be willing to hand them to their neighbors for inspection. An intimation by postal card will suffice.*

OUR readers who apply will have the Beauty of Hebron potato sent to them separately, because to send this with seeds makes an awkward package, and also, because the seeds may be forwarded at any time regardless of the weather, while the potatoes may be injured by frost. We mention this for the reason that our friends receiving the potato only, may think the rest of their selection has been overlooked.

We earnestly request that all letters containing money, or any communication intended for the BUSINESS DEPARTMENT *of the paper, be addressed to* THE RURAL PUBLISHING CO., *and not to any individual. We cannot otherwise guarantee the prompt entry of names upon our books, or the acknowledgment of money.*

Applicants for seeds will please observe that the postage on ANY POSSIBLE *selection of* TEN *sorts of seeds,* IS NEVER *more than* FIVE *cents.*

A ONE-CENT *stamp suffices for any selection of ten varieties* EXCLUSIVE *of the Beauty of Hebron potato, Pearl Millet and Defiance wheat. If the first of these three is included in the list, then a two cent* EXTRA *stamp is needed, and if the second and third are included, an extra two cent stamp is also required.*

WE offered, some time ago, to sell the cuts used in this Journal for twelve cents the square inch. Many have requested us to send proofs of our cuts. As we have upwards of ten thousand, we could not undertake to do so. Persons wishing to purchase, must select from files of the RURAL NEW-YORKER.

CO-OPERATION IN THE PURCHASE OF FARM IMPLEMENTS.

IN an article lately upon "Skilled Labor," we showed that the inevitable tendency of the present unorganized condition of agriculturists is to break up our democratic system of small, independent farming, and to aggregate these small farms into large ones, on which machinery may be employed as largely as possible.

In our country where education is open to all, and where intelligence is more generally diffused than in any other land, it would seem that these small holdings might be more generally saved to their owners by a simple plan of co-operation. Superior intelligence ought to result in a superior social system among our farmers—ought to add to mutual confidence and reciprocal help. The concentration of the landed property of a country in the hands of a small minority of its inhabitants is quite congenial to a monarchy, but it would be decidedly opposed to the progress of republican institutions in this country. The breaking up of small proprietors would interfere with our school system; for, owing to the sparse population of large districts, there could be only a small attendance at some of the schools unless the scholars traveled from greater distances than would be desirable. Its political bearing also, would be disastrous to the well-being of the State, as it would constantly create more and more disproportion between the populations of country and city, until all political power would gravitate to the latter, and who can look with indifference upon the time when a great State shall succumb to the easy virtue of its cities? We feel like doing all we can to increase and not diminish the number of these independent tillers of small farms.

And if these small farmers will study co-operation, it will put them in possession of all the facilities for working their land with the best labor-saving machinery. And as can easily be shown, this co-operation will give each of them all these advantages as cheaply, in proportion, as if he owned all the farms of his associates. Let us suppose that one set of machinery will work 300 acres of land, and that these 300 acres are owned by seven farmers—five with 50 acres each, and two with 25 acres—all adjoining. Now what should reasonably hinder these seven farmers from forming a co-operative partnership in the purchase and working of all the machinery required to till these 300 acres to the best possible advantage? As there are in this supposed partnership two, each of whom owns 25 acres, this number of acres must represent a share, and each of the fifty-acre farms will hold two shares.

Let us suppose them to purchase a mower and reaper, and if in a grain region, a self-binder, hay-tedder, grain drill, field roller, two-horse cultivator, an artificial-manure distributor, stock and hay scales, horse-power, straw-cutter, etc. These and perhaps a few other implements would cost from $800 to $1,000, and each share would cost from $66 to $84. The seven farmers would even feel the cost less than a single farmer owning the 300 acres; for the seven small farms would be worth more than the one large farm, and there would be more work for the set of machinery, as the small farms would be worked more carefully and the aggregate production would be larger, and the more the machinery was used, the more profit.

If it is objected that eight farmers could not be accommodated with one set of implements, it may be answered that a proper division of time would afford abundant opportunity for all the work to be done on each farm, since the area of land is no greater than is often worked in one farm with one set of machinery. In haying and harvesting, each could use the mowing and reaping machines in rotation. The horse-power straw-cutter would enable each one to cut his hay and straw or feed in the most economical way. Moreover, owning the machinery together they would be likely to assist each other, and thereby save the cost of considerable labor.

In a social point, these co-operative partnerships would improve the neighborly relations among farmers in a marked degree. We urge this as a feasible means of preventing the necessity for the small farmer's selling out to his neighbor, and either going into new States, or accepting wages from the larger land-owners. This simple co-operation, requiring only a knowledge of business principles, will enable the small farmer to compete most successfully with the large one, and to maintain his footing under the most trying circumstances. The natural result of such co-operation among the small farmers would soon lead to the co-operation of larger bodies of farmers for other great and important purposes. It is want of social education that has prevented closer relations of farmers with each other, and their persistent, independent and individual action has made them the easy prey of the trading classes. We trust the future will show their capacity to act together, so that they may avail themselves of their natural advantages.

TO WHAT PURPOSE?

"MADAME ANDERSON completed, yesterday, the extraordinary feat of walking 2,700 quarter miles in 2,700 consecutive quarter hours at Mozart Garden, Brooklyn."

The above or similar paragraphs appeared in most of the New York and Brooklyn papers for January 14.

That any one, and more especially any woman, could be possessed of persistency and endurance sufficient to enable her to accomplish such a feat as this, is wonderful. Had it been only to walk six hundred and seventy-five miles in four weeks, choosing her own time for walking and resting, it would have been considered an accomplishment worthy of remark, a task few women would care to undertake.

Such are the thoughts that seem to occur first when reading such an announcement, but to all reasoning minds comes the question: "To what purpose has it been done?" And the only reply that can be made is: "For the purpose of transferring money from the pockets of the curious and the idle to her own." If the question be varied, and it be asked what good purpose has it subserved, the only answer is: "None—not the least." No one is better, morally or physically, for it—we wish we could know none is worse. It is reported that the Madame's share in the profits was $8,000. When we consider what she has undoubtedly lost, this sum seems small in comparison. She has gained in money and notoriety, and lost in many ways—especially in vigor and doubtless in length of life. She has sinned against herself, and through herself, against her Creator. Whatever power of mind or muscle one is gifted with should be used for the good of, first, its possessor, and, next, of those about him, and of mankind as a whole. The parable of the talents should not in its application be confined only to money or intellectual possessions. One is as truly accountable for the way in which he expends his strength, as for the way in which he disposes of any other of his possessions. He is not the fit possessor of wealth who will not use it for good ends. Nor is the athlete to be pardoned who wastes his powers in foolish exhibitions from which no good results. Madame Anderson's argument is that she can make more money in a month this way than by any other labor or profession in years, to which our reply is: "Making money is not the chief end of life."

We know not what others may think of a husband who can see his wife endure and suffer with equanimity, not to say pleasure, what Madame Anderson has undergone during the past month. He must know that she is violating physiological laws for which she must pay the penalty, probably by a ruined constitution and shortened life. But he has been content to see her, day after day, walk her rounds, with feet blistered and lacerated, and sometimes in such a state of stupor that it required the assistance of her "coach" to keep her upright and on the track, while often she had to receive from him a sharp blow on the shoulders to rouse her to consciousness and keep her up to her work. We do not know the man, and have no desire to make his acquaintance, but we must believe him devoid of common humanity, and shall not be surprised to learn in after times that he has spent in gambling and debauchery the money she receives for these exhibitions, leaving her at last to starve in a garret or to die in a hospital.

If a child or an animal had been compelled to endure such pain and fatigue during the last month, the strong arm of the law would have been invoked in its behalf. But a woman is supposed to have free will and to act from her own desires. We understand, however, that, without disputing the above ground, some women of Brooklyn have petitioned the Common Council to prevent such exhibitions in future on the ground that they are in violation of laws for the observance of the Sabbath, and tend to induce intemperance and immoralities. Had this been merely a local matter we should not have mentioned it in our columns, but we understand the exhibition is to be repeated in all of our principal cities (if the woman lives long enough) and we have no doubt she will have scores of imitators. We desire therefore to enter our protest against all such in the name of common morality and of right. There are none who commend the proper exercise of the physical powers more strongly than we do, or advise the too much neglected practice of walking. One in good health should be able to walk several miles at fair speed, say, four miles an hour, without undue fatigue. We have more than once urged this upon our readers, and shall doubtless have more to say about it in future.

FREE SEED DISTRIBUTION, ETC.

WE may now state that we shall begin our Free Seed Distribution on the 15th inst. As soon as it is ended, we propose to send to all who apply a few ounces of a new variety of field corn which we believe to be one of the most prolific varieties ever cultivated. Of this specific notice will be given in due time. We ask of our friends that they will carefully plant and care for the seeds which we offer them, and that as they are enabled so to do, they will report to us just what they think of them.

It is very evident that we can have no object in sending out seeds that are not superior of their kinds. It would be short-sighted, indeed, for us to praise these seeds beyond their deserts, sending them, as we do, among those who can in a few months verify the accuracy of our statements. We have said that many of the seeds offered in our list cannot elsewhere be procured. Fearing that we should fall short of several kinds, we have ourselves sent to the leading seedsmen of England and France for additional supplies. But we have failed in this way to procure an ounce.

It is becoming more and more evident to us that agricultural and horticultural journals are the mediums by and through which new seeds and plants should be distributed and tested. It is the editors' duty to keep posted upon all new plants and methods. How can they do this without experiment grounds? They should instruct the seedsman rather than receive their instructions through his catalogue which is generally a mere re-statement of what is said by the seedsmen of other countries. If many of our agricultural papers are as prosperous as their statements would imply, and if they have the welfare of the farmer, fruit-grower and gardener as closely at heart as they profess to have it, they will follow the RURAL's example, viz.: secure experiment grounds, test seeds, plants and fruits for themselves, distribute novelties among their subscribers, and by such means benefit their readers as they never can do by merely sitting in their sanctums and copying, re-hashing, or criticising the statements of others. Many of our seedsmen raise their own seeds, but it is submitted that the introducer is not an impartial judge of his own plants.

BREVITIES.

COL. CURTIS knows of a remedy for the hard times.

SEVERAL of our correspondents speak highly of Lost Nation (Spring) Wheat.

WE do not know that we shall ever again find space for our weekly table of contents.

THE Indiana Farmer, from its own experience, corroborates what we have said of the Acme Tomato.

WE have just eaten some sugar made from the stalks of Pearl Millet by the Agricultural Department at Washington.

PROF. ARNOLD succeeds ex-Governor Seymour as President of the New York Dairymen's Association. If a successor had to be found, it is fortunate that the choice fell upon so excellent a one.

ISN'T it a trifle curious that the President and Vice-President of the Great International Dairy Association of the future should both have been elected to those positions on account of their interest in the sale, not of genuine dairy products, but of salt.

THE farmers of Massachusetts have good reason to regret that their State Agricultural College has lost the services of its efficient president, Col. W. S. Clark. A man of wide experience, fine abilities, and a hard-worker, he was eminently fitted to advance the best interests of the institution over which he presided.

AMONG the most remarkable new plants of last year, Conophallus Titanum may be considered the most remarkable. It is an Arold like our Calla Lily. "Its tubers measure five feet in circumference and its leaf 45 feet in circumscription, on a stalk 10 feet high, while its spathe, of a bright black-purple, measures nearly three feet across."

AT the dinner of the N. Y. Hort. Society, given last Wednesday evening at the Astor House, everything passed off in an agreeable way. Wilson G. Hunt presided, and among the guests—about seventy-five in number—were Mr. Dana of the N. Y. Sun, Thomas Hogg, S. B. Parsons, and many of the seedsmen and florists of the city and suburbs.

THE announcement in our "news" columns of the death, by consumption, of Joseph N. Sturtevant, one of the well known Sturtevant brothers of Wanshakum Farm, will carry regret to many a farm fireside; for the deceased gentleman was not only a frequent contributor to the Scientific Farmer, but also a thoughtful writer to the agricultural press in different parts of the country.

WE find there are many people about the country who are willing to utter falsehoods for the sake of sharing in our seed distribution. They praise the RURAL as the best paper ever published, Send stamps and make their choice of ten. But their names are not upon our lists The greater number of these people will find that they have told "stories" and parted with their stamps to a poor purpose.

DEFALCATIONS and defaulters are now the fashionable words which we use to designate thefts and thieves in high places. Those are the words to polish over the crime—these to designate the criminals. Physicians find it profitable to give new names to old diseases. They are talked of, feared and written about more. Old plants are "introduced" under new and winning names, thus securing a ready sale. There is ever so much in a name.

DURING several months past we have been experimenting to ascertain what degree of looseness or compactness of soil best promoted the germination and early growth of seeds. In one of these experiments the "lifting" power of the growing embryo was well shown. Radish seeds were planted half an inch deep in a number of pots. In some of them the soil had been pressed so compactly that the little plants were unable to penetrate it, yet they grew, nevertheless, raising the entire layers of soil above them, fully half an inch thick, and supporting it for a day until it cracked and broke into pieces.

THERE is one part of the RURAL which many of our farming friends do not study as closely as they might with profit, to judge from the questions frequently sent us with regard to matters full information on which could be found in our market reports. In these days of small margins on agricultural products a close study of the local and general markets is essential to secure all the advantages derivable from judiciously selling and buying. Nowadays only a moiety of the goods used on a farm are produced on it, and it is therefore desirable that the farmer should become a close buyer as well as a shrewd seller. It is to place within his reach the best means of accomplishing this twofold object that we are careful every week to collect the best and latest market reports at this point, where, in reality, the prices are fixed for the rest of the country.

THE editor of the Agricultural Department of the New York Tribune is extremely careful to give credit for every item taken from other journals—even if but a line in length—and he naturally insists that others should do so as well. The following note is taken from the Tribune of Jan. 22:

"We are informed that an article about The Sheep's Foot, lately quoted in the Tribune, with credit to the Cincinnati Times, appeared originally in the Rural New-Yorker. And has it come to this, that we can't curry one of these Western papers without—finding a Tartar?"

How can agricultural editors set themselves up as entitled to the confidence of their readers if their columns show that they are capable of such thefts? We scarcely ever look over our exchanges without finding articles in them published as original, which were written for our columns.

Literary Miscellany.

WEAKER THAN A WOMAN.

CHAPTER XXVII.

(Continued from page 62.)

"I WILL, Felix; I will do my best," he replied.

Eve Lester came and talked to him; Katie cheered him; and between them the sorrow-stricken man took courage, and resolved to go amongst his friends again. Friends or foes, no matter which, he would go amongst them.

Kate will never forget how she helped him to dress, how she quieted the trembling nerves, while Eve cheered him with brave words.

"I shall remain here until you return," she said, "for I am quite certain you will bring good news with you, though I cannot think what the good news will be."

"I am quite at a loss to imagine why both Eve and you, Felix, should think good fortune lies in store for me," observed Darcy Lonsdale. "I have been under a shadow too long."

But Felix would not listen to one desponding word.

They had engaged a fly to carry them to the "Bramber Arms," and both father and son were surprised at the decorations, the flags, the evergreens, the arches of welcome.

"People show great respect to Lord Arlington," said Darcy Lonsdale—"and well they may, for he is a just man."

Then, together, father and son entered the assembly-room, where the grand banquet was laid. They saw the Earl at the top of the room, surrounded by a group of gentlemen.

"I shall go straight to him, Felix," said the lawyer; "there shall be no mistake about it. I will not sit at his table under false pretences."

"You shall do as you will, father; where you lead I will follow," was Felix's reply.

Darcy Lonsdale walked up to the Earl, but, before he had time to speak to him, Lord Arlington held out his hand and shook his with a hearty grasp.

"I am delighted to see you, Mr. Lonsdale," he said warmly.

But Darcy Lonsdale, looking into the Earl's face, said—

"My lord, before I take advantage of your kindness, let me ask you if you have heard that I have been charged with influencing one of my clients to leave me money?"

"Yes, I have heard it," replied the Earl.

"Have you heard that a jury of my own countrymen found me guilty, and that my fellow-townsmen—the old friends and neighbors whom I have spent all my life amongst—in their own minds found me guilty too, and have shown their opinion, most of them, by withdrawing their business from me—the old friends I loved and served, my lord?"

The Earl took his hand again.

"I have heard it, Mr. Lonsdale, and regret it. I am glad to have this chance of saying publicly that I disbelieve all that has been said about your guilt, and am proud to take the hand of an honest injured man."

"I thank you, my lord," returned Darcy Lonsdale.

His wonder increased when the Earl, turning to him, said—

"Your place, Mr. Lonsdale, is at my right hand."

The lawyer looked at him in amazement. Lord Arlington smiled.

"Yes, at my right hand," he said; "and after dinner you will know the reason why."

Wondering at this, Darcy Lonsdale took his seat.

"Your son will sit next to you," said Lord Arlington; "I shall want him as well."

Mr. Lonsdale saw the looks of wonder from all the gentlemen assembled.

"They are not accustomed to see me so honored," he said to himself bitterly.

Then the grand banquet began, and it was one long remembered in Lilford, because of its grandeur and costliness; those who partook of it described it in few words—it was worthy of the Earl who gave it. It came to a close at last, and the Earl ordered some more wine.

"I shall have a toast to propose presently, gentlemen," he said, "for which I shall want brimming glasses. Before giving it, however, I have a few words to say to you."

Silence deep and impressive fell over them; when the Earl spoke in the tone that he did, he meant something. There was not the faintest sound when he began.

"Gentlemen, old friends and neighbors I may say, there has been an injustice done amongst you which I have asked you here to-day to set straight. Understand me plainly, as an Englishman I uphold the legal institutions of my country. I bow my head to the decision of a judge; I listen with respect to the verdict of a jury. But, gentlemen, human laws, just because they are human and not divine, must at times err; and I say they erred when they pronounced a man as honest, industrious and honorable as my friend Darcy Lonsdale capable of influencing a woman to leave him her money. Gentleman, the judge who gave sentence against him was a stranger to him, and the jury who decided in favor of the heir-at-law did not know him. But you know him; he has lived amongst you all his life, he has served you to the best of his knowledge, and not one amongst you, man, woman or child, can say that he has ever spoken a false word or done a mean deed. He has always been industrious, honest and generous—a loyal subject, a spirited townsman, a true friend, a devoted husband, a kind father. He has spent his life amongst you, and not one of you can say that you have ever known him to do wrong. If you can, speak."

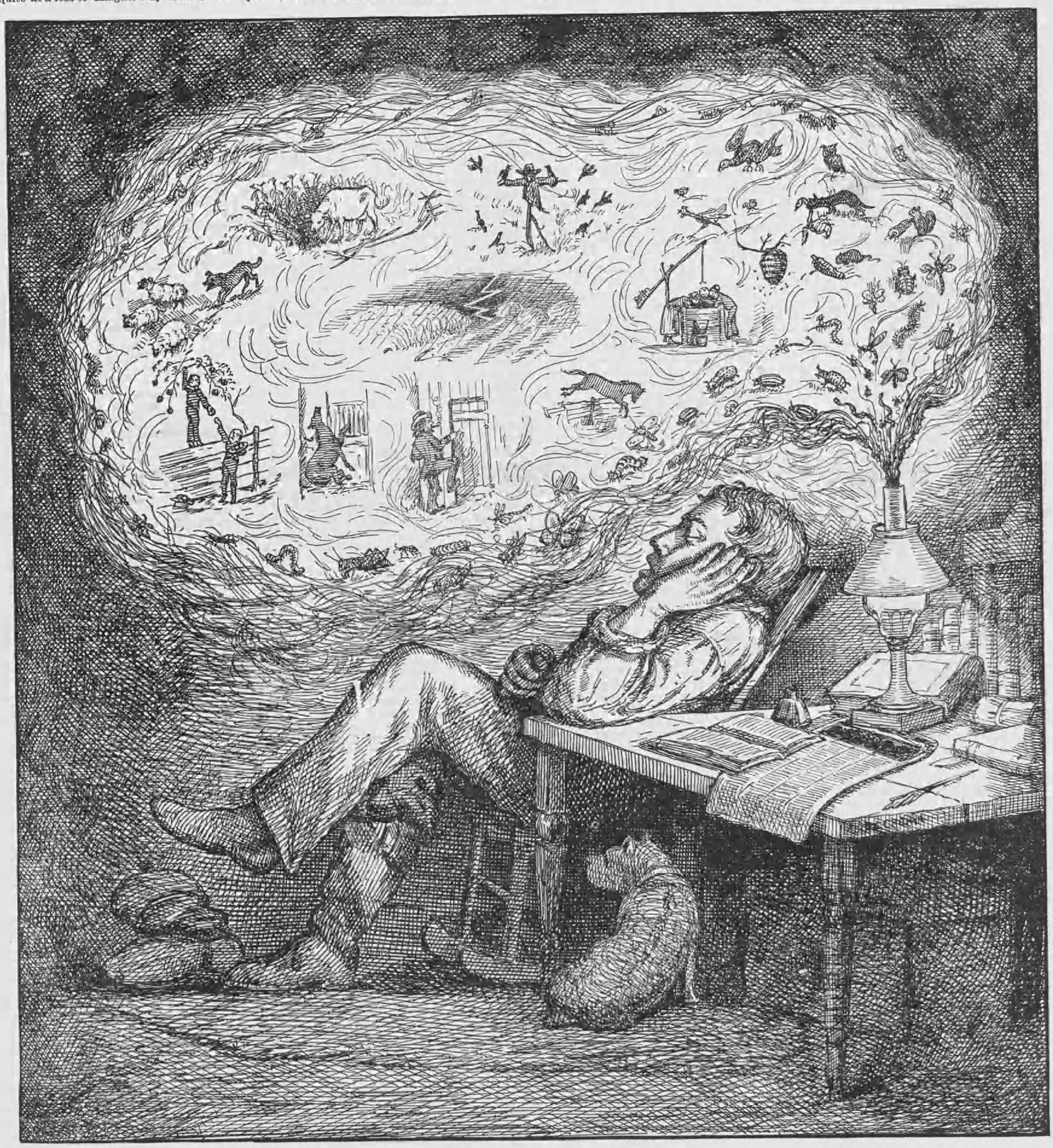
There was a dead silence which lasted for some moments, and then a voice said—

"You are right, my lord. Not one amongst us has ever known him to do wrong."

"I am sure not," declared the Earl. "Now mind what I say. With the jury and the judge who thought James Hardman entitled to Elizabeth Hardman's money, and who really believed that Darcy Lonsdale had wrongfully used his great influence with her, I have nothing to do. They did their duty, honestly, even if mistakenly. To you who constituted yourself judge and jury—to you who, knowing the man and his character, judged him yourselves as guilty—to you I wish to speak. I believe him innocent. I have read carefully since my return every word of the trial; and I say before you all, in the most emphatic words that I can use, that I believe him to be innocent, and, what is more, to be a deeply injured man."

He was obliged to stop, for there rose from the lips of the men who had misjudged Darcy Lonsdale, who had shunned him, who had withdrawn their business from him, who had half broken his honest heart by their conduct, a cheer such as had never been heard in Lilford. Perhaps in their hearts they had never quite believed him guilty. Perhaps the Earl's noble words touched them with compunction and regret. Something appealed to them, and they cheered until the walls of the "Bramber Arms" shook again.

"We are agreed then, gentlemen," said the Earl. "Our old friend and fellow-townsman is an honest, honorable gentleman."



A MIDSUMMER'S DAY DREAM.

They cheered again and again. It was with some difficulty that the Earl could make himself heard. At last silence was restored, and then he continued——

"We can never make up to him for all that he has suffered; we cannot give him back the strength, the hope, the happiness he has lost; we cannot atone for the wretched hours, the sleepless nights and the weary days—all that is beyond us. But I have thought of a plan by which we may aid him, and I want the close attention of every gentleman present while I propose it."

The Earl paused for one moment, and those seated at his hospitable table looked earnestly at him; there was still deeper silence when he began to speak again,

"There is no secrecy in England. Everything done in the country is as open as the sea that surrounds it. Our newspapers ventilate everything, and in one sense that is quite right; but in a case like this it is hard. Throughout the length and breadth of England men have read how Darcy Lonsdale's case went against him, and how he lost the money left to him. I want something else to go through the length and breadth of the land; I want people to read how Darcy Lonsdale's friends and townsmen—myself at their head—met and expressed their sympathy with him, and that they presented him with a handsome testimonial to show their full confidence in him and to make up for his loss. That testimonial I propose to head myself with five hundred pounds; and I venture to say there will not be a nobleman or a gentleman in the county who will not add his name to the list."

Cheers again arose—never had the "Bramber Arms" heard such cheers. Darcy Lonsdale's face had grown deathly pale; but for the strong arm of his son thrown round him, he would have fallen.

"I have one word more to say, gentlemen," continued the Earl. "and it is this. My agent, Mr. John Sleaman, a gentleman whom you all know and respect, is leaving me. I am glad to say that a fortune has fallen to him, and that he is going to enjoy it. I propose now to ask Mr. Darcy Lonsdale to take his post. The emoluments are good—one thousand per annum and a house to live in. If he will accept the office, I shall be proud to place my interests, my welfare, my property, in the hands of a worthy, honest, and honorable gentleman. Yet one word more. Mr. Lonsdale is no longer young; but he has a son—I wish we all had such a son—and I propose that he acts, if necessary, in his father's place, always of course with his authority; if he does, I shall secure two good agents instead of one. Gentlemen, join me in drinking the health of a valued, trusted townsman, of an honest, honorable man, my agent Darcy Lonsdale."

It was drunk with such honors as a man's name seldom receives. Then Darcy Lonsdale rose and turned his white face to them; but he could make no speech—the only words his trembling lips could utter were—

"Heaven bless you, my lord! I cannot thank you, though you have made a man of me again. My dear old friends and neighbors, how could you have misjudged me! But you see now that it was all a mistake. I am glad of it. In future we will deal gently with each other, we will judge each other mercifully. Lord Arlington, you have saved my honor; henceforward command me as you will." Then, unable to say any more, he sat down.

Doctor Hunter was the first to leave his place and shake hands with him.

"I confess I never believed one word of the story, Mr. Lonsdale," he said, "although I confess that I have avoided you. Will you shake hands and let the past be past?"

After that the guests went up to the lawyer one by one and shook his hand. Some frankly avowed that they had misjudged him, some begged his pardon, some said that they had gone with the many; but every man present wished him well and God-speed in his new life.

The speech worth hearing when that scene had passed, when justice had been done to an injured man, when peace had been made, was when Doctor Hunter stood up to prospose Lord Arlington's health. Never was a toast so received; for there is nothing after all which touches an Englishman's heart sooner than defense of the weak, love of justice, and generosity.

It was a pleasant evening, and Lord Arlington had so contrived matters that Darcy Lonsdale was the hero and not himself. He was all that was most kind and considerate; he talked to him, and won his son's heart forever. But in everything he put Darcy first, so that people might understand all this had been done for him. Was it any wonder that when he was gone the men stood in little groups, each one praising him?

Felix followed him to the door of his carriage and said—

"My lord, your life is filled, so people say, with great and generous actions; but none could be so great, so generous, so noble, as that which you have done to-day."

"I have only done justice, my dear boy;" said the Earl, kindly. "Your father was an injured man; I have tried to set him straight, and beside, I wanted a good agent, and I found one."

"You cannot make light of the deed," returned Felix; "it is a good one. My father appears to be a new man to-night; there is a light on his face and fire in his eyes that I have not seen for long months. The miracle has been worked by you—you have removed the false reproach attaching to his name. I can fancy, but I cannot tell you, what our home will be like to-night. My heart beats fast when I think of the mother and children there, my lord. I am not very eloquent, and I am moved too much for words—I can only echo my father's request, command me as you will."

The Earl was more touched than he liked to show by the emotion on the handsome young face.

"I will make you this one promise, Mr. Felix Lonsdale," he said—"if ever I want a service done, or want a friend, I will come to you."

"Thank you, my lord," responded Felix; and when the Earl drove off home he knew that he had left some of the happiest hearts in England behind him.

What a night it was! The Vicar drove away soon after the Earl had left; and then one by one the company dwindled down to about twenty. These would not let Darcy Lonsdale leave them—they had so much to say to him, and were so anxious to make up to him for their coldness; and when the host grew anxious, they would not separate until they had sung "Auld Lang Syne" in chorus. Then they escorted father and son to Vale House, where Eve and Katie anxiously awaited them.

"I am quite sure," said Eve, springing from her seat, "that I hear them; and that is Mr. Lonsdale laughing—do you hear, Katie?—laughing—and he has never laughed since the trial! Now I know there is good news."

There was good news in very truth, and the pity was that Lord Arlington was not there to see Kate clasp her arms round her husband's neck and sob out that she always knew matters would come right—that he was so good Heaven was sure to make his innocence clear. Presently she looked at him with tremulous lips.

"Is it really true, Darcy, that you are to be the Earl's agent and have a thousand a year? I can hardly believe that it is all true."

"It is true, Kate," he replied. "Eve, my dear, what have you to say to me, my true friend—the one true friend who loved me well enough to offer me her fortune if I would take it? Eve, I shall never forget that."

It had been arranged that Eve should spend the night at Vale House, so they sat round the fire until they were quite ashamed of the hour, and Felix repeated every one of the Earl's noble words, while the two ladies listened in raptures; every time he paused they said, "Go on, Felix," until he assured them that he had repeated every word.

"So it will be printed in every paper in England?" said Kate. "Well, my only puzzle is, what could have inspired Lord Arlington to do such a kind and generous action?"

Felix knew that Lady Maude had been the chief instigator of it, but that was a secret he never told—he kept it all his life. It was Darcy Lonsdale who answered his wife's question.

"My dear Kate," he said, "Lord Arlington has a love of seeing justice done. I remember when he raised half the county because some wrong had been done to a toll-gate keeper. It was such men as he who made Old England what she is, and who made the word 'England,' a synonym for honor."

And then these simple people, who had been through the fiery furnace of suffering, who had borne sorrow, shame, and disgrace, who had never ventured to hope for justice in this world, knelt and thanked Heaven for their rescue; and Darcy Lonsdale's eyes grew dim with grateful tears as he opened his Bible and read how the just and merciful Creator saves those who put their trust in Him.

Gradually they awoke to the full reality of the good fortune that had befallen them. The strength of his youth seemed to have returned to Darcy Lonsdale; he took his place once more amongst his townsmen, he went briskly to and fro from his office, he worked hard at his business, the clerks came back one by one to the office, and far more than its ancient glory returned to the house of Lonsdale and Son.

Katie could not rest until she had seen the Earl, in order to thank him; and the little lady went over to Bramber Towers and asked for an interview. She tried to thank him in a dignified matronly fashion and ended by falling upon her knees and kissing his hand, very much to the Earl's confusion and delight. It was a new life for them all, and the warmth of it cheered and brightened them more than anything had ever done before.

The day came when Darcy Lonsdale put his arm lovingly on his son's shoulder and said—

"Do not think, Felix, that in the midst of my troubles and of my prosperity I have given no thought to you. I am doing the best I can for you by giving you so much work that you will have no time to regret your lost love."

"My dear father, I shall regret her until I die," returned Felix.

"The young always think both their love and their sorrow immortal. I will say now what I have never said before, because I thought it would pain you—I thought she was not worthy of such love as yours. She had nothing but a beautiful face to recommend her—her soul was not beautiful, her heart was not true. The time will come when you will say that you had a fortunate escape. I pray Heaven it may be so."

But Felix looked grave; the world must come to an end before he could see a silver lining to that cloud—the cloud of his misplaced, unhappy love.

(To be continued.)

WHAT HAPPENED TO SEVEN GIRLS IN TEN YEARS.

MARY WAGER-FISHER.

ROSWELL'S letter was addressed to Mary Walter, and her letter comes next in order:

PHILADELPHIA, Jan. 2, 1877.

DEAR BIDDLE:—Last night came to me, forwarded from New York, the inclosed autobiographical letter from Roswell, which explains itself. I suggest that after reading it, you send it on to the "Cookies;" that they in turn forward it to Raynor (now Mrs. Z. R. Carlton, Cairns' Point, N. Y.), and she will send it to Lee, who will have the kindness to send it, with its accession of letters, back to me, when I will send the batch to Roswell.

My! hasn't Mary Roswell had a career! I wrote her quite a long letter last night, giving her the whereabouts and whatabouts of "us girls." She outstripped us all in falling in love and getting married. I am heartily glad she is anchored at last, and so very happy, and trust that her Swede will continue to prove to be all she believes him to be.

As for my own experiences, it would take me ten years to relate them in detail. I can only give the skeleton of my whereabouts, which you girls may clothe with the flesh of fashion and folly, of high life and gay life, of serious thought, of earnest work, or with whatever else may suggest itself. You cannot hit far from the mark, for my experiences have been wide and deep, although not at all like Roswell's. So here am I categorically for the past ten years! As Lee Jaynes would say "Walter opens her mouth."

Last of June, 1867, left Richmond for my home in Western New York. April, 1868, being thrown upon my own resources, I began a literary career in New York city. Spent a month, in the summer of that year, with Biddle at the "Cookies'." In the summer of the following year, made a tour through the West. Spent the spring of '70 in Washington, and the following summer in Newport and at Long Branch. Winter of '70 and '71 in New York; the summer at Saratoga, with a fortnight at Cairns' Point with Zethrea. Winter of '71 and '72 in New York and Washington; the summer at Sea Grove and the Lakes of New York. July 27, 1872, sailed for Europe. Winter, spring and summer of '72 and '73 in France, Italy, Austria and Hungary.

In May, 1873, in the Pantheon at Rome, in the moonlight, made the acquaintance, with a party of friends, of "my future," as the French say—a young man of goodly presence, whose card bore the simple Saxon—William Raleigh Darrell. (When Mercy Biddle first saw him she said "William the Conqueror.") It was a case of love at first sight, at second sight, and at all sights, for, after being over head and ears in what Lee would call the "Heaven-born-marriage-love," I made up my mind, that if I was ever married, it would be to that man. And he, poor soul, seemed to be laboring under a similar delusion. The delusion continued during the fall and winter of '73 and '74, spent in Paris. In the summer of '74, after a month in England, I sailed for New York, where I remained for the most part until the following summer-time, when I was "on the wing"—at Round Lake, Saratoga, Philadelphia and Niagara Falls. In the first month of the Centennial year, I was married to the "man of my heart,"—whose profession is Law, and whose law is love,—and who, as a man and a husband, physically, mentally and morally, "is all that could be desired," which you may imagine written in capital letters as high as the moon. We were married with very little ceremony, after the manner of the Quakers, in a room full of friends, neither of us promising to "obey," but each and both subscribing to the same vows. When I said good-by to New York, some one threw a pair of old slippers after us for luck, and we were whizzed away to this city of Brotherly Love, which is our home. We are both happy as well-nested pigeons and busy as bees. *His* troubles have been only mental conflicts and his paths those of prosperity and peace. *Mine* have been somewhat sterner, but upon the whole these ten years have been full of adventure and wholesome discipline, of hard work and travel, of fair literary success and a comfortable financial income. I feel that my girlhood was well "filled in," and trust that my middle life and old age (for I intend to have one—Europe gave me a new lease of life) will partake of similar experiences and perhaps usefulness. I still scribble and study as of yore. Haven't changed much, I think. No gray hairs nor any of their relations! I "behave" better than in the Richmond days—am an excellent wife, which surprises me, for I had an idea, ten years ago, that there was not a man on earth I could live with, without at least one "pitched battle" a week. Ah, how little we know ourselves! Our chateau is slowly taking shape, and when once under our own vine and fig tree, come and test my excellence as a housekeeper.

In conclusion, have the kindness to accept the expression of my highest and most affectionate remembrance, in which my husband also desires to unite. Fraternally, MARY WALTER DARRELL.

NEW YORK CITY, Jan. 20, 1877.

DEAR GIRLS:—The other two letters will speak for themselves. I was not of the New Year's *party*, ten years ago (still I belonged to that clique of girls), for I was North begging, to save the Normal School. Sunday, Jan. 6th, 1867, found me again in Richmond. Just got my school started, and was telegraphed home again—to my mother's deathbed.

During the next two years, I was housekeeper for my father, the only break during that time, a visit to the Cookies with Walter, in the summer of '68. Spring of '69 my father married again, and in March I bethought me to study medicine, and commenced reading. Came to New York in Oct., '69, and spent the next year in the "New York Infirmary for Women and Children," studying and attending college lectures. The following two years spent all my time in college and studying, and in March, '72, graduated, receiving a diploma of Doctor of Medicine. I put out a little shingle, "Dr. M. Biddle," and laid wait for any sick unfortunates who might fall into my hands. I immediately got the opportunity to prescribe (in the Church of "The Holy Trinity") for the poor women of the parish, which I still continue to do. The year following my graduation I commenced teaching in college as an assistant, and am now lecturing on Materia Medica; also am Secretary of the College.

My success as a physician has been, I believe, all that I deserved. I love my work more and more, and am perfectly satisfied to live and die in my chosen profession. I have kept up the acquaintance of the "Cookies" and Walter (and was the only one of the six at the latter's wedding); also, of Mary Roswell, whose beautiful boy is enough to make any mother proud, I am sure. Poor wave-tossed girl! I am glad she is harbored at last.

"Plons-faced" Martha Cooke and I are the only ones out of the matrimonial noose, and so we celebrated our single-heartedness by doing the Centennial together. And perhaps I should say, that annually, we have a visitation at one or the other's place of business, and woe to any who shall dare to interfere with this time-honored usage till death do us part. I live in Fannie Fern's old home, where much of her spicy scribbling was done, and though I sit in her chair and move over her carpets, I cut with the knife rather than the pen. Come one, come all, to see me; come, if you are well, and come, be sure, if you are ill.

Sincerely, MERCY BIDDLE.

(To be continued.)

REAL CARE AND SHAM.

THAT sturdy son of the English church, the Bishop of Manchester, recently, in the course of a public speech, made some sharp remarks on the frivolity of social life, and read the following letter from a young woman to illustrate:—

We breakfast about 10. Breakfast occupies the best part of an hour, during which we read our letters, and my mother expects me to write her notes of invitation, or to reply to such. Then I have to go into the conservatory and feed the canaries and parrots, and cut off the dead leaves and faded flowers from the plants. Then it is time to dress for lunch, and at 2 o'clock we lunch. At 3 my mother likes me to go with her when she makes her calls, and we then come home to a 5 o'clock tea, when some friends drop in. After that we get ready to take our drive in the park, and then we go home to dinner, and after dinner we go to the theater or the opera, and when we get home I am so dreadfully tired that I don't know what to do.

This is an exaggerated picture, of course, or at least, however true of English society girls, could hardly be asserted of any considerable portion of this community. Yet the cares or what are magnified into cares of some people can hardly be of greater importance than feeding the canaries and parrots and cutting off dead leaves and faded flowers. There is a fatal facility in multiplying cares about nothing, until we seem to be absorbed and completely taken up with vanities and nothings. The more complex civilization gets, the more burdensome it becomes, until we are fain to run away in any direction from the tread-mill which we have built for ourselves. Take for instance the single item of the supply of food to our human necessities. Plenty is the first essential; then we must have variety and delicacy, then fine ware from which to eat and an experienced servant to care for it as well as to prepare the meals; other refinements are gradually added, until the performance of satisfying hunger amid plenty, becomes a feat of organization, cooperation, and execution, not at all inferior in difficulty to the original problem of procuring the raw material of food itself. It finally comes to this that there is more distress over the failure of the domestic to scrub the silver or brush up the crumbs, than there would once have been over the absence of the dinner entirely. Perhaps it is still truer of apparel that the demands of fashion impose on this generation more labor and vexation than the weaving and home manufacture of garments did upon the celebrated grandmothers.

This tendency of civilization to complicate rather than simplify our lives should be resisted at every turn. Let us be sure that these modern "conveniences" are not traps to impose some new and embarrassing fetters, quite different from the opportunity for enlarging life which is anticipated from them. Keep the necessities of life well within bounds and find something outside of them, of a more ennobling character, for all the leisure which can be made. It is very easy to fill up leisure with "fancy work" and "loafing" and imagine oneself tired from mere absence of exhilarating mental effort or personal experience outside of the most ordinary selfish ways of life.

It is sometimes a good moral discipline to think over one's burdens, separate the real and the necessary, from the fictitious and the needlessly assumed. The value of the practice goes beyond personal life into public affairs. The difficulties of public problems arise more from manufactured obstacles to improvement and reform than from real ones, however real the former may sometimes be made to appear.—Springfield Republican.

RANDOM BITS.

TRUE SOCIETY.—The society begins in the home. When two young people love each other, and marry, they restore the picture of the apostolic church. They are of one heart and one soul; neither do they say that anything they possess is their own, but they have all things in common. Their mutual trust in each other, their entire confidence in each other, draws out all that is best in both. Love is the angel who rolls away the stone from the grave in which we bury our better nature, and it comes forth. Love makes all things new; makes a new heaven and a new earth; makes all cares light, and pain easy. It is the one enchantment of human life which realizes Fortunio's purse and Aladdin's palace, and turns the "Arabian Nights" into mere prose in comparison. Think how this old story of love is repeated forever in all novels and romances and poems, and how we never tire of reading about it; and how, if there is to be a wedding in a church, all mankind go, just to have one look at two persons who are supposed, at least, to be in love, and so supremely happy. But this, also, is not perfect society. It is too narrow, too exclusive. It shows the power of devotion, trust, self-surrender, that there is in the human heart; and it is also a prophecy of something larger, that is to come.

But it is at least a home, and before real society can come, true homes must come. As in a sheltered nook in the midst of the great sea of ice which rolls down from the summit of Mont Blanc is found a little green spot full of tender flowers, so in the shelter of home, in the warm atmosphere of household love, spring up the pure affections of parent and child; father, mother, son, daughter; of brothers and sisters. Whatever makes this insecure, and divorce frequent, makes of marriage not a union for life, but an experiment which may be tried as often as we choose, and abandoned when we like. And this cuts up by the roots all the dear affections of home; leaves children orphaned, destroys fatherly and motherly love, and is a virtual dissolution of society.

know the great difficulties of this question, and how much wisdom is required to solve them. But whatever *weakens the permanence of marriage tends to dissolve society;* for permanent homes are to the social state what the little cells are to the body. They are the commencement of organic life, the centres from which all organization proceeds.—*Rev. Jas. F. Clark.*

JEWISH POPULATION OF THE WORLD.—According to the latest statistics that have been gathered, there are, in round numbers, 8,000,000 of Jews in the world, who are thus divided: United States, 73,265; Great Britain and Ireland, 42,000; Italy, 25,000; France, 49,439; German Empire, 512,158; Netherlands (Holland), 68,003; Austria, 1,600,000; Russia in Europe, 2,612,179; Turkey, 150,000; Roumania, 247,424; Morocco, 340,000; Denmark, Belgium, Sweden, Switzerland, Canada have comparatively few Jews—they number there from 1,500 to 7,000.—while Asia has 2,138,000. Most persons will be surprised at the statement that there are less than 73,300 Jews in this country, which is generally supposed to contain a great many more. Some reports made the number as high as 150,000; but this is probably an exaggeration. The statistics given here are said to be as trustworthy as can be had at present, though no published figures can be wholly depended on, as the Jews are scattered all over the globe, and in many places where such a thing as a census has never been taken. The Jewish population of the world is loosely estimated at from 3,500,000 to 15,000,000—a very broad margin surely—but there is reason to believe that 8,000,000 is pretty near the truth. The two countries where Jews are scarcest are Spain and Scotland.

THE TROY (N. Y.) clergymen have adopted resolutions recommending that at funerals all unnecessary expense, such as an exhibition of flowers and a distribution of crape and gloves, be avoided, and that there be a brief and simple burial service. They also suggest a consultation with the officiating clergymen before the time and place of service is fixed, private funerals and a discountenancing of long-continued mourning.

RECENT LITERATURE.

England from a Back Window. By J. M. BAILEY, the Danbury News Man. Boston: Lee & Shepard.

MR. BAILEY is a captivating traveling companion. He is a keen observer, and his comments on the manners, customs and people of England are most entertaining. The book fairly overflows with humor that is as enjoyable as it is spontaneous. There's not a line of manufactured fun in it, but the reader finds an account of a drive or of a visit to a ruined castle, made irresistibly comic by the happy turn of a phrase. Mr. Bailey is quaintly funny, and his drollery is genuine wit, for it depends on neither crude spelling nor puns for its effect. As this book is both instructive and amusing, it is especially well adapted for reading aloud in the home circle, and many an otherwise cheerless evening may be made thoroughly delightful by glimpses through Mr. Bailey's "Back Window." Any one can have a "peep" by sending $1 to the publishers.

Pretty Little Countess Zina. A Russian Story. By HENRY GRENVILLE. Translated by MARY NEAL BURKWOOD. Philadelphia: T. B. Peterson & Bros. Price 75 cents.

THIS novel is pleasantly readable, and although the situations are not particularly strong, the current of excitement is rather more intense than is usual in high life society stories. The little Countess captivates by her ingenious and sometimes daring schemes in protecting her subdued but determined cousin. Her mother, the Countess Koumiassine, who is severe, but conscientiously arbitrary, furnishes abundant opportunity for strategic behavior on the part of her household. Of course, love and marriage are the golden hinges of the story, and the *denouement* is sufficiently withheld to give piquancy to the plot. The translation is exceedingly clever, the original evidently not having materially lost in the operation.

Davies and Peck's Elementary Arithmetic. New York: A. S. Barnes & Co. 60 cents.

THIS book, designed as the introductory volume of the Two-Book Course of Davies and Peck, is especially adapted to beginners. It is suited to the capacity of any child old enough to begin the study of arithmetic, and the subjects are treated in an interesting and attractive manner, while comprehensive definitions introduce each subject. The book may be said to be divided into five parts; the first consists of easy, simple lessons in numbers; second, fundamental operations, followed by general principles and properties of numbers; third, Fractions, Currency and the Metric System; fourth, Compound Numbers and Reduction; while Percentage, Interest, Discount, &c., occupy the closing pages of the book. Among the methods of performing examples, that of computing interest by aliquot parts is specially commendable.

The Boy Trapper. By HARRY CASTLEMON. Philadelphia: Porter & Coates.

THE boys who read and enjoyed Buried Treasure, to which this book is a sequel, will be glad to meet again some of the characters as old acquaintances, and to follow them through new scenes and adventures equally as interesting as those they have already witnessed. The author has a pleasant and natural way of telling stories which cannot fail to entertain his young readers.

A 16-PAGE quarterly, the Eclipse Era, is a new launch in a channel that seems of late to be filled with literary ventures of the same character. It is reasonably well filled with elegant extracts from the contemporary press, mostly without credit, and it finally concludes with a disquisition on the merits of some particular piece of mechanism, between the owners of which and the owners of the paper there seems to be no distinction; in fact, it is hard to determine whether the paper is intended to enlighten mankind on current literature or the beauties of steam on the farm. You may know for ourself at 20 cents a year.

For Women.

CONDUCTED BY MISS FAITH RIPLEY.

AN OLD STORY.

THEY stood alone in the light of the West,
He said that he loved her well.
He loved her well, but she loved the best—
There were none but the birds to tell.
"Sweet day," sang they——
"Sweet, sweet day!"

The bluebells were nodding in the green glen,
The waters were laughing a song,
The birds were telling the deeds of men
When the world knew never a wrong:
"Sweet day," sang they—
"Sweet, sweet day!"

He whispered low in her willing ear,
"Thou art dearer than life to me:"
There were none but the laughing waters to hear,
And none but the birds to see;
"Sweet day," sang they—
"Sweet, sweet day!"

The bluebells laid their fair heads to rest,
The birds flew over the wave,
The heart of the woman who loved the best
Lay mute in a silent grave!
For the love of the man who loved her well
Lived but the life of a fair bluebell!

THE WOMAN'S CLUB.

DEAR "CLUB"-ITES:—I do think this is the funniest Club I ever heard of. We women are supposed to meet once a month for the discussion of any and all topics likely to interest feminines, but the drollest part of it is, we *don't* discuss. Each writer discharges her load of ideas and retires without provoking any return fire. I've a theory that most of the women of the RURAL don't read the Club at all, but that those of them who have anything to say just use the Club for the purpose of advertising their ideas, not knowing or caring whether anybody is benefited or entertained by their writings. I propose to amuse myself in the same way. So here goes.

It may not be etiquette to criticise Club letters, but I think two or three rousing disagreements would enliven our meetings wonderfully, and beside, I think some articles (and their writers) are good subjects for hostile criticism. Now there's Free Lance. I think he is an insufferable prig (shouldn't wonder if he wore eye-glasses, parted his hair in the middle and affected the Dundreary drawl). He is forever nagging at us women. A long while ago he accused us of being dirty about feather beds; this brought out May Maple, who gave him what the little boys call "Hail Columbia." He subsided, and staid so, until Ermengarde ventured to assert that women would purify politics if the right of suffrage were granted them, when lo! F. L. arose in his might and protested that women were not nearly so good as was popularly supposed. After this chivalrous outburst he went into retirement, but I find in the RURAL of 4th January, he comes once again to the front. He rates women soundly for being interested in eating and dressing, and wants us to run to intellect or to Boston, which amounts to the same thing. Free Lance, you dear boy, don't you know we hunt up all the "goody" recipes so as to make toothsome concoctions for the lord and master? Exit F. L. Now, I want to enter an objection or two against Margaret B. Harvey's eulogy of black silk dresses. I disagree entirely with her that a black silk is a good investment unless one has another good dress. But to purchase a black silk for wear at church, receptions, theatre and for visiting is a bad speculation. It's a dress suitable for many occasions, but unfortunately, it isn't as durable as it is convenient. I've bought French and American silks, had 'em made long and short, and my experience is that for durability, a Cashmere is infinitely preferable. To be sure, it isn't so dressy, but what is more dowdy than a black silk that has lost its pristine freshness? Have your silk if you want to, girls, but be sure and provide yourselves with a second dress to save it.

A writer in last Club wants something said about temperance, and she avows herself as an advocate of fighting the liquor question at the polls. I don't see why temperance should have anything to do with politics. This is a moral reform, and we want to persuade men to be temperate. Christ was a reformer, and yet did He ever say to His followers that they should try to wire-pull in the council chambers of Judea, in order to force men to accept his gospel? The trouble with most reformers is, that they are in such hot haste to convert the world to their ideas that they cannot wait until men reason over the matter, but they want to insist on their reform notions being adopted or to be able to invoke the terrors of the law against those who hesitate. Have a little patience, my reform friends. I *could* say more, but I fear the editor may object to such an effusive letter.

WASHTENAW.

SHORT SKIRTS.

MADAM Anderson, the professional pedestrian, who accomplished the stupendous feat of walking 2700 quarter miles in 2700 quarter hours, wore her skirts to her knees. *She* could not afford to be hampered with even the average walking skirt, and I wonder if her sisters can afford to go through life penned in and dragged down by petticoats! My object in drawing attention to the costume of this famous little lady is not to urge on women the adoption of knee skirts, exactly, but to bring to their notice the terrible wear and tear of skirts. Women regard the walking dress as a great boon. It is, but it doesn't go far enough or rather it goes too far——down. Even a single skirt moderately short and plain though it be, impedes the free movements of the legs. If you doubt this, put on a gymnastic costume, or better still, slip off all your skirts except the short white one and make a tour of your room. Notice what a delicious sense of freedom you enjoy. Probably you never before realized the tyranny of skirts, and now that you do realize it, will you continue to hang yards of material from your waist to the agony of your back and the discomfort of your heels? Why a woman should be compelled to drag her life out of her for the sake of keeping her ankles covered, I never could understand. The most cultured and critical society permits and encourages women to appear at entertainments with toilettes so excessively *decolette*, as to be positively immodest, and yet a skirt which displays the foot and ankle of the wearer, is pronounced immoral!! One benefit resulting from the (deservedly) much abused pull-back style, is that by it many women have been taught there is no occasion for two or three petticoats under the dress skirt. Worth, the man dressmaker, calls the dress of the Persian women the "ideal costume," and recommends it for its elegance and comfort. Well, it isn't my ideal. The blouse and short skirt are good, but the baggy trousers are simply intolerable, both as a spectacle and for ease. Why can't pantaloons for women be modelled after those which are at present fashionable for small boys? RURAL sisters, can't you, won't you begin a skirt reform? JICKS.

WAS SHE TO BE COMMENDED?

A RELIGIOUS newspaper lately went into pious ecstasies over a young girl who, though compelled to earn her living by hard work at machine sewing, yet contrived by dint of denying herself all but the barest necessaries of life, to contribute quite liberally to a fund for the erection of a church edifice. The periodical aforesaid praised the girl most lavishly and held her's up as an example worthy of imitation.

I question whether she ought not to be severely censured for such a course of conduct. Girls who support themselves by taking in sewing do not fare at all sumptuously if they have work all the year round (which is of rare occurrence) and when they expend all of their meagre earnings on themselves. To say of a girl of this class that she confines her expenditures to "bare necessities" means that she lives on bread and tea, goes without proper underclothing, and denies herself the comfortable wrap which she needs to protect her from cold and storms. She moreover leaves herself without any reserve fund, and when work is slack, or when it stops altogether, how is she to subsist? If sickness overtakes her she is compelled to go the hospital and add one more to the host who, through ignorance, vice and indolence have become burdens on the public. Burdens which you, my thrifty friends, are taxed to support. It is the self-respecting, self-denying and frugal in the community who are taxed for the maintenance of hospitals, prisons and alms-houses. Has any one a right to increase the pauper class or to recommend measures which will land those who adopt them in eleemosynary institutions? Besides being a burden the poor girl will not have the care and attention she would receive at a private house. She will be very much at the mercy of doctors and nurses, who are not always the most humane of people. Most likely she will be experimented on by half-fledged physicians, and subjected to treatment which, although perfectly legitimate, cannot fail to be extremely distasteful to a woman, however low in the scale of refinement she may be. And the object of all this self-sacrifice is what? To clothe the naked or feed the starving? No, it is that a certain congregation may have a fine building in which to hold its services!

You, my Protestant reader, need not complacently say "yes; it's really shocking for the Roman church to grind the poor as they do," for in this instance it was a *Protestant* church for which this girl starved herself. And then they have the effrontery to call this "giving to the Lord." Where in the Bible is it commanded or even intimated that costly churches are a necessity or that they are particularly desirable; and where is the chapter and verse wherein we are enjoined to reduce ourselves to abject poverty in order that the "Temple of the Lord" may be beautified? "Giving to the Lord," indeed! It's vanity and pride and not righteousness which dedicates piles of marble and stone that cost from fifty thousand to one million dollars to the service of God.

Christ could be content with "upper rooms," but we of this century must have our marble-fronted buildings finished with stained-glass windows, costly altar-pieces and expensive upholstery. We count it, too, as a thing worthy of all commendation that the poor should starve their bodies and their minds in order that our church edifices may be artistically frescoed and provided with all the modern requirements of elegant worship.

"Giving to the Lord!" It's rank blasphemy to say that. JACQUELINA.

HIS MOTHER.

J. M. M'C.

"I AM so glad to see you, Aunt Cynthia," said little Mrs. Pryor, as she greeted the good, motherly, old maid with a half tearful kiss. "Come right into the sitting-room. I have moved the cradle in there, it is so much cooler."

"I hope baby isn't very sick?" said auntie kindly.

"I don't know just how sick he is, as I am not much used to babies. I was up with him all night and he was very restless."

"Poor little feller!" said auntie tenderly, as she lifted the hot baby to her ample lap. "Just bring a basin of water and some soft towels and a little blanket, and we will soon make him more comfortable." Aunt Cynthia speedily rolled him in a towel wrung out of warm water, and then wrapping the little flannel blanket smoothly and snugly about him soon "hush-a-byed" him into a quiet sleep. But the young mother's face did not lighten as it ought, even though her baby seemed so much relieved.

"I don't mind telling you, auntie," she said, in answer to a kind inquiry; "but John thinks I can keep the house and the table up to the old standard and take care of a sick baby too. He said his mother brought up nine children and always did her own work, and spinning, knitting and sewing besides. She even wove a rag carpet once on a neighbor's loom."

"John is a goose, my dear," said auntie placidly. "I know him like a book and his mother before him. He is well enough disposed, as men go, but his judgment about woman's work is about on an average with that of most men's. He was the fifth of those nine children, and before he was old enough to notice how things went on, Martha and Sabina were able to take a good share of the work on their stout shoulders. And they did it. Seth and John had plenty of steps to take before they were six years old, and so did all the rest. They saved as much work as they made from that time on. John's mother was an excellent, capable woman, but she wasn't perfect any more than you or I, and she didn't pretend to be. If she was living she would take John in hand and set him right about her early housekeeping days, and she would comfort your heart by telling you just what a hard time she had to get on when Martha was a baby, and how her John used to tell how it was with his perfect mother. They have a great deal more sense at forty than they have at twenty-five, dear, you'll find it so. Then John will begin to brag everywhere how my wife manages. It will all come right, Nelly, only have faith and patience. I'll have a good, quiet talk with John, and it will do him good. He will take it well from his old auntie, and don't you ever worry any more about these perfect mothers. I've seen the inside of a great many homes in my day, and the young mothers I have known were glad to get along just as you do, the best way they could. That is all that any of us can.

A great many conscientious little women are burdened with the self-accusation that they are not doing as well as they might, because they do not come up to a mother-in-law's standard. But if they could have gone through those same establishments when the babies were taking their degrees in teething, measles and chicken-pox, they would sit down with a smile of content in their own homes, and think they were not so much worse off than other people after all. Take for your comfort the assurance that your son will hold you up in just the same way to some little wife when the time comes around."

THE WALKING MANIA!

OH, why did Madame Anderson walk so much and so fast, and thus furnish a new test for men to homilize about for the benefit of women!

Since this plucky woman brought her undertaking to a successful issue, the press has fairly bristled with arguments and conclusions drawn from her extraordinary performance, and have striven to prove by it that unlimited walking, is to be the grand panacea for all the ills of womanly flesh.

I wish to mildly protest against this wild Walking Crusade; a moderate amount of exercise is not only beneficial for most people, but it is really necessary for their health's sake; but there are many who will be seriously injured if they become infected with the pedestrian mania, and take to tramping for health.

It is a question which each should decide for himself and herself. Very many women ought never to walk more than a quarter of a mile at a time; they should be in the open air and sunshine as much as practicable, but never should they permit themselves to be tempted into taking long walks. They can take a sunning in their rooms in the winter, or on the piazza, doorsteps or in the yard in summer. There are beside women whose lives are too full of hard toil to make walking either pleasant or beneficial. They would employ their time much more profitably if they ensconced themselves in easy chairs, or on lounges and "took a nap." In many forms of nervous diseases, rest is preferable to exercise. Men and women are often obliged to work all day in stores and offices, and when night comes, in most cases, bed and not walking should be recommended.

However, as I said before, each one should be his own judge in the matter. Only do not become so possessed of the "tramp" fever as to lose sight of all reasonableness in the matter. HYGIENE.

AN INTEMPERATE ASSERTION.

IN a recent discourse Prof. Felix Adler, a gentleman of culture, who lectures before a society of Rationalists every Sunday, made a statement to the effect that "poverty caused intemperance and not intemperance poverty." That many men are cowardly enough to seek the warmth and the doubtful attractions of the dram-shop because of the wretchedness of their homes, will not probably be disputed, but as intemperance is not confined to the poor, on what hypothesis does the brilliant Mr. Adler account for inebriety among those who have enough and to spare of the luxuries of life? The superbly fitted up wine-rooms which are a disgrace to our large cities are not supported by poverty but by wealth. It is a common occurrence for men to drink up their fortunes and reduce their families and themselves to want. What has Mr. Adler to say of such cases; is poverty or liquor drinking responsible for such a deplorable state of affairs? As well might one defend infanticide or homicide, on the ground of the man's not being able to provide for his child or wife as to excuse wine bibbing because a man is poor.

AN ANTI-RATIONALIST.

A TOBACCO GRIEVANCE.

I DO not know whether I am justified in ventilating my personal grievances in the columns of the Club, or in hoping for any suggestions in response tending to their alleviation. I have noticed nothing so far satisfactory as to removing the dreadful necessity of dish washing so bitterly complained of not long since. My grievance is that my husband is confirmed in an inveterate use of tobacco in every shape and to me. My little boy is growing up and I look forward with dread to the influence of his father's example upon him. It strikes me as being a terribly sad thing that a mother should dread her husband's influence upon her child, but it is probably not a singular case, and I should like to hear some views on the subject. MATRIX.

News of the Week.

Monday, Jan. 27, 1879.

MISCELLANEOUS.

Joseph N. Sturtevant, born April 1, 1844; died January 19, 1879. He has appeared before the public as one of the authors of "The Dairy Cow, Ayrshire," as one of the editors of the "North American Ayrshire Register," and as contributor to our various agricultural papers, under several *noms de plume*, such as J. N. S., Zelco, Alex. B., etc. His writings, the work of a few well moments, in a life which struggled with ill-health from its commencement, have made an impress upon agricultural thought which shall continue, even if the originator be unrecognized and forgotten. Honest in thought as in action, caring nothing for applause, a true philanthropist in all that constitutes the word, a careful thinker, considerate towards the opinions of others, and yet possessing a positiveness of character which came through conviction, his advice was often sought and seldom unheeded. Without personal vanity, as delicate as a woman towards the rights of others, with a mind trained to goodness for its own sake, one who believed in good because of the good, and hated evil because of the evil, he has left behind him many sorrowing friends beyond the circle of his intimate associates.

The trio at Waushakum Farm is now broken. Three brothers purchased the farm and formed one life in 1867, and for eleven years there have been harmonious thought and action—and now—and now—a wearying sense of desolation, which elicits our warm sympathy.

There were killed and marketed in the United States last year forty million fat hogs. The Senate committee on judiciary has agreed to report a bill defining polygamy, and providing that any person believing in polygamy shall be disqualified from jury duty. Silkworms of the value of $1,600,000 have just passed over our Pacific railroad, on their way from China to France. Caleb Cushing left property estimated as worth $1,000,000. Prominent orchardists from various parts of Iowa, report that the cold weather has killed the fruit buds on cherry, plum and peach trees, and killed all the grape vines, except the Concords, which are also badly damaged. Fitzhugh, the "bigger man than old Grant," is doorkeeper of the Texas Senate, where he is trying to be a "bigger man than old Hubbard." The Oil City Derrick's report of petroleum production shows the total outputs of the year 1878 to have reached the enormous figure of 13,752,156 barrels.

The Memphis Appeal notices that while there are 20,000,000 acres of land in Tennessee unoccupied and untilled, strong men are begging from house to house in that city for employment. The California Beet-Sugar Company are now working up sixty-four tons of beets per day. They expect to run through this working season not less than 19,000 tons of beets. In 1869 the United States imported paper to the amount of $527,465, and exported none worth mentioning. The last yearly statistics give only $135,487 worth of imports against $1,103,318 of exported paper. Thus far twenty-two persons alleged to have been members of the Molly Maguire order have been sentenced to death in Pennsylvania, and of the number nineteen have been executed. There were 193 deaths from scarlet fever in New York city during the past week, against 273 the week before. This decrease is due to the efforts of the health department in isolating cases and keeping the infection out of the schools.

It is reported, doubtless correctly, that the Berlin mission has been tendered to Hon. Andrew D. White of the Cornell University, and is now held under advisement by him. It would be difficult for the administration to find, in this country, a man who is better fitted, by culture and character, to be the successor of Bayard Taylor. Castor oil is becoming an important product in British India. Last year there were 67,000 acres devoted to it in Madras. It has been cultivated with success in Iowa. Iroquois County, Ill., has 200 artesians wells, all of small bore, within a radius of twenty miles. No one of them exceeds 75 feet in depth and they yield a total daily supply of 53,500,000 gallons.

Beechwood is one of the best materials for making butter boxes for grocers' uses. They are made by the million, and sold at from twenty to seventy cents per hundred, according to size.

It is estimated that the pension arrearages bill which Congress has passed, and which was signed by the President on Saturday last will take from fifty to one hundred million dollars out of the Federal Treasury. Frank Work's noted trotter, Modoc, bought for $8,000 in Lansingburg four years ago, fell dead in Central Park, Monday.

The miserable band of Cheyenne Indians that escaped from Fort Robinson as related last week, have all been killed or captured. They declared they would rather die than return to the Indian Territory and the paternal superintendence of the Indian agent, and all except seventeen, chiefly squaws and papooses, have kept their word. The Committee of the House, who have been investigating the advisability of the transfer of the Indian Bureau from the Interior to the War Department, are evenly divided in opinion—half of them strongly advocate the transfer while the other half oppose it, but put it in the President's discretion to so transfer turbulent tribes temporarily.

The amount of cider made this season in New England is unprecedented, the yield in western Massachusetts being calculated at 150,000 barrels, and some of the cider mills are still running. What to do with the liquid is a puzzle to the farmers. The use of what are called "grater" mills, which cut the apples instead of crushing them, increases the yield of cider, but is said to lower the quality. The average quantity of apples necessary to make a barrel of cider is ten bushels, and the mill charge is thirty cents a barrel. The present price of good cider is $2.50 at the mills. Some farmers have used their cisterns for storage. In the Massachusetts Legislature a bill is under consideration which provides that tramps shall be punished by imprisonment at hard labor for one year, and that "any tramp who shall enter any dwelling house or any unoccupied building, or kindle any fire in the highway or on the land of another, without the consent of the occupant or owner thereof, or shall be found carrying any firearms or other dangerous weapon, or shall threaten to do any injury to the person or property of another, shall be punished by imprisonment at hard labor in the house of correction or State workhouse for not more than two years." The enactment is not applicable to any female, to a minor under 16 years of ago, to any blind person, nor any person who has a certificate of respectable character from the Selectmen of the town of which he was last an inhabitant. Legistion of somewhat the same nature is urgently required in other States also.

A Washington correspondent says there have been distributed during the year drawing to a close from the Department of Agriculture over fifty thousand young tea plants, and as many more will be distributed during the coming year. Commissioner Ledue is sanguine that tea can be cheaply and profitably grown in the Southern States.

Judge James B. McKean, whose hatred of polygamy gained for him the name of "the Mission Jurist," died in Salt Lake City the other day. It was Judge McKean who first refused the right of citizenship to Mormons believing in plural marriages, and who gave the alimony to Ann Eliza Young. His death is a misfortune to those who are beginning a great fight against the Mormon power in Utah, for he would have been a leader.

FOREIGN.

Across the Atlantic distress is still growing in England. One after another the discontented strikers are forced to resume work at reduced wages by hard times and starvation. Many of the most prominent statesman are urging emigration as a remedy for the surplus of labor. A very large number of the landlords are returning from ten to fifteen per cent to their tenants on the half year's rent, and lowering rents for the next year. As if in mocking contrast to the spectacles of penury and want everywhere seen throughout the land, fashion and wealth never indulged in more expensive freaks than at present. The papers that detail in one column, starvation and misery among the vast body of operative, devote the next couple of columns to "hifalutin" accounts of the extravagant doings of the "upper crust." The opposition to free trade is growing stronger daily, especially among the agricultural classes, who find their labors unprofitable on account of foreign competition. American grain and meat can be put down in England at lower figures than those at which they can be produced at home, so that the farmer's occupation is in danger of collapsing. If the present laws continue in force it may be that the land in England will become merely a market garden for the supply of perishable vegetables, with here and there vast parks for the amusement and dignity of the great aristocracy and plutocracy.

In France a compromise has been effected between the Administration and Republican party who threatened to upset the Cabinet. The latter has, accordingly, obtained a vote of confidence by a heavy majority. Only the Radical republicans voted against them. Gambetta took no part in the struggle openly, but his forbearance was the cause of the Government's success. Six of the chief generals, who command divisions of the army in as many departments, are to be put on the retired list. They are men known to be in favor of the restoration of the Empire, and their places will be filled by pronounced republicans. A large number of civil functionaries who have retained their offices from the days of Napoleon the III. and are still friendly to his son, will also be replaced by men of decidedly republican opinions. In Germany Bismarck is said to be losing some part of his vast influence, on account of his reactionary measures. He seems determined to force upon the country a protective tariff, and has appealed to the agricultural community to support him in levying a tax on all foreign agricultural products in order to raise the price of their own. Such a measure would seriously hurt our trade in grain with the Fatherland. He is also seriously resolved on an act authorizing the opening of all letters crossing the frontier from foreign countries. In Turkey financial distress is becoming more dangerous daily. A definite treaty has been concluded with Russia, and now only awaits the approval of the Czar and the Sultan. The island of Cyprus, it is reported, is to be sold outright to Great Britain for $5,000,000.

The plague is spreading rapidly throughout Asiatic Russia, and an International Convention has just been held in Vienna with a view to concert measures to prevent its spread into Europe. Austria is to establish a strict quarantine against Eastern Russia, and Germany has 80,000 troops ready to form a cordon along the Muscovite frontier, so as to prevent all intercourse, should such a measure become necessary. Yakoob Khan has not yet fled, as reported last week, but his turbulent chiefs are rapidly deserting his standard, and when spring allows the renewal of active warlike operations, it is probable that no opposition will be made to the British. The Ameer is hid from public sight and knowledge somewhere in the vast regions of Asiatic Russia.

A few years ago the French Government bought seven small railways. One management now takes the place of seven, the force is better organized, sinecures have been abolished, and the general expenses have been reduced by $200,000 a year. The trial of Passanante, the would-be assassin of King Humbert, has been postponed to February, on a plea of emotional insanity, in order that the doctors may examine the state of his mind. The Geographical Society of Paris has taken the initiatory steps toward forming an emigration society, which will give information to those desiring to emigrate regarding all sections of the civilized world. It will describe the advantages and disadvantages of emigration in detail. Over 10,000 unsheltered sheep were killed by the recent storms in Scotland. The indirect taxes of France yielded 2,025,770,000 francs in 1878, an increase of 77,672,400.

Domestic Economy.

CONDUCTED BY EMILY MAPLE.

SOUTHERN ECONOMY IN KITCHEN AND DINING-ROOM.

If the friends of the RURAL would contribute more to these columns, not only of suggestions and queries as to their conveniences and necessities, but of results actually accomplished, it would make this Department much more attractive and profitable. I thank Mrs. Annie L. Jack and May Maple for what they have done, but there is still a great want, especially for us dependent Southerners, which has not yet been fully reached. In *ante-bellum* days we had, in a great measure, the labors of the house and kitchen done for us, but now, to a great extent, we must do them for ourselves, or rather, they must be done by our wives and daughters, who, God bless them! are accommodating themselves to the changed condition of affairs with a cheerfulness and will worthy of all praise. Indeed, they are so willing that we "men folks" are ashamed that we do not know how to furnish them with all the necessary conveniences and appliances for saving labor and toil. But it is an old saw that necessity is the mother of invention, and we have found it to be true. After the war, our servants, wishing to test and enjoy their freedom, very generally refused to hire, and under the old *régime*, all our out-door conveniences—our kitchen, smoke-house, well, and wood-pile—were a considerable distance away from the "big house"—as the negroes called the family dwelling. So, it was no small labor for the wife and daughter to make the daily, aye, almost the hourly circuit of these buildings.

In this extremity my wits came to my aid, and I moved up for my "folks" a double framed cabin which had been a servants' house, to the rear of my dwelling, for a family dining-room and cook room, making a covered passage-way from the one to the other. To the side of this I built a shed room, with doors opening into dining-room and kitchen, to be used as a pantry and general store-room. In the cook room I made a tank for water to be used during the day, to be filled from the outside; a sink for kitchen purposes; and put up a common farmer's boiler for heating water for washing, or any other purpose wanted. Between the cook room and the dining-room, on one side of the double chimney, I constructed a dumb-waiter, made in the shape of a long, shallow box, about eighteen inches wide, and three feet long, so that it could be easily slided from one room to the other, on a frame, through an opening in the partition, so that when the cook dished the meal, it could be easily and most conveniently transferred to the dining-room and placed upon the table, thus securing a hot meal, and dispensing with the necessity of a servant or two.

But in the dining-room was my most happy expedient. It was a dining table, the like of which may have been in use elsewhere, but I never had seen or heard of one. It is a round table, with another round table or leaf about five inches above the first, and made to revolve on an axis going through the middle of the lower table, and terminating in a socket in a piece of thick board fastened across the bottom of the lower table. The first table is six feet in diameter, and the top four feet, leaving room on the first table for the empty plates, knives and forks, cups, goblets, etc., there being a space all round of two feet, and room under the top table for storing the soup plates after they have been used, and for receiving other table "fixings," so as to make room for the dessert.

Now for the *modus operandi*. The cloth is made with a hole in the middle, with a slit from the hole, so that it can readily be put on without removing the top table. On the latter, which should be of walnut or mahogany, mats for the dishes can be used, or an oil-cloth cut round and a narrow band round it, can be made, and answers the purpose well. After the cloth is laid, the table can be fully set, and there is no further necessity for any waiting. The soup can be dished by the mistress, placed upon the revolving table, and passed round to every guest much more easily and handily than by any other process, and at the same time the viands are passed in review before every one. After soup is through with, the empty plate is simply shoved under the revolving table, out of sight, and each guest is ready to help himself to anything that suits his condition or appetite, without the necessity of anything being pressed upon him. In the same way the plates can be removed and the dessert served, and a waiter need not be in the room during the whole course of dinner.

A table, such as I have described, will comfortably seat twelve persons, and, if very round, will give them plenty of elbow-room, a desideratum always felt upon sitting down to a good dinner; for a fair start and elbow-room are all that one wants on such an occasion. But there is still another excellence about this table which commends itself at once to our lady friends—it makes a most beautiful center table for a wedding, or other festive collation. Place two tables as wings, on opposite sides, and ornament the center with silver, glass, china, etc., and place on them fruits, flowers and other delicacies, such as will at once occur to our fair friends, and the effect is charming.

Now, Mrs. Maple, since we are all in the family again, we need not feel any sensitiveness in opening our back doors and showing our friends about in our back yards. You see how I have done this, and I do hope that some one or more of your readers will follow my example, and tell us how we may improve our mode of living. Tell us what conveniences you have to save time and severe toil, and to make the drudgery of the kitchen more bearable. Do tell us how you live below stairs. With high life above stairs we all affect, at least, to be well acquainted, but very few pretend to know about the kitchen, while the kitchen and its affairs make up one half of our lives, and are provocative of more domestic disquietude than all other causes put together.

Glenn Springs, S. C. J. WIST S.

DOMESTIC RECIPES.

Brussels-Sprouts

WASH and look over very carefully; put on with plenty of boiling water and a little salt and cook twenty minutes, after the water again boils; drain well and pile high upon a dish with drawn butter poured over them. Garnish with poached eggs.

Parsnips with Cream Sauce.

Scrape, boil and slice lengthwise. Put into a frying-pan two tablespoonfuls of butter with pepper and salt. When the butter melts put in the parsnips, shake and turn until very hot; take out the slices upon a dish; add to the butter in the pan, half a teacupful of cream; boil up and pour over the sliced parsnips.

Beef's Heart.

Wash well, lay in salt and water for an hour, take out and wipe dry. Prepare a force-meat of bread crumbs, seasoned with pepper, salt, minced onions and salt pork; stuff the heart with this mixture and sew up in a thin cloth. Boil slowly for an hour and a half—the water should be allowed to boil away so there will be only enough left for gravy; take up, undo the cloth and put into the oven to finish. Baste often and turn the heart around as it browns. Thicken the gravy with a spoonful of butter mixed with the same quantity of flour; boil up, season, add the juice of a lemon and pour over the heart. MARY B.

Split Pea-Soup.

Soak a pint of split peas in water over night; in the morning turn off and add warm water; throw this off after an hour and cover the peas with four quarts of cold water; add two pounds of beef, with some bones well cracked and two or three stalks of celery cut fine; boil or simmer four hours; then strain through a colander, rubbing the peas, celery and meat through the holes until nothing more will pass; season with pepper and salt; add the juice of a lemon; return to the kettle, boil up and pour into the tureen over bits of toasted bread

E. M.

Canned Apples.

I saw an estimable lady lately putting stewed green apples into cans. While the fruit retains its full flavor, she prepares the apples, stewing as for sauce, and putting into cans without sweetening. She tells me they are excellent in the spring for pies, tasting fresh and new, while the apples in the cellar are partly decayed, rendering them poor for cooking.

AUNT EM.

Carpet Sweepers.

My husband gave me a sweeper for a Christmas present, or as Gertie says, "Santa Claus brought it!" With this much experience, I can say it is a magical labor-saving affair. It runs quietly and easily, and takes up all dirt except in corners, where a broom is needed to brush out for a few inches. I cannot say whether it is hard upon carpets, but I know it is not on the back. It saves much valuable time in the morning, besides it does away with the layer of dust on everything, to say nothing of what one inhales when a broom is used.

MRS. M. L. S.

QUESTIONS ANSWERED.

Reader wants a recipe for coloring dark brown, durable on cotton; also, one for red.

ANS.—For brown: take four pounds of cutch, five ounces of blue vitriol, and nine ounces of bichromate of potash for twenty pounds of cloth; boil the cutch in as much water as will cover the goods, and when the cutch is well dissolved, add the blue vitriol; put the goods in and let stand all night; in the morning dissolve one-half of the bichromate in hot water, put the goods into it and let stand for fifteen

minutes; air and wash off. Warm up the cutch water used the day before and again put in the cotton; let it stand until the next morning, then put through boiling water in which the remaining bichromate has been dissolved; wash out and finish in soap and water. Or, make a purple dye of extract of logwood and alum and a yellow dye of fustic; dip the goods into the purple dye, then into a tartaric acid water, and then into the yellow dye. Continue until you have a rich shade. For red: Boil one pound of camwood in an iron kettle; put in two or three pounds of cotton goods and let stand from one to three days according to the shade you wish. Air and heat occasionally.

A Cough, Cold, or Sore Throat should not be neglected. *"Brown's Bronchial Troches"* are a simple remedy, and will generally give immediate relief.

THE MARKETS.

PRODUCE AND PROVISIONS

NEW YORK, Saturday, Jan. 25, 1879.

BEANS AND PEAS.—There is no improvement in prices for mediums or marrows. Trade is a trifle more active, but not up to the winter style of business in mediums. While consumption is so light with the present liberal supplies, quotations will not improve. Marrows for export do not seem to be largely wanted, though the outlook last week was favorable. White kidneys and pea very quiet. Red kidneys weaker, but there has been a very prosperous and large business in them this year, and stock beans quiet. Green peas steady at $1.30@1.35. Canadian peas in bulk and bond, 73@75c.; Southern B. n. peas, $2.60@2.70 per 2 bushel bag. Medium beans, prime, $1.35@1.37½; fair to good, $1.25@1.30; marrows, prime, free on ship, $1.42@1.45; fair to good, $1.25@1.35; pea, $1.40@1.55; white kidney, $1.65@1.90; red do., choice, $2.50@2.65; fair to good, $2.35@2.50; black beans, $2.10@2.25.

Receipts of beans for week, 8,316 bushels; exports, 933 pkgs.

BUTTER.—Dealers more generally report a fair business, and the sales are running closer to receipts than for the past fortnight. The only grip of the market, however, as before is in the fine grades, and large purchasers of half tubs have not paid the extreme. Creameries are weaker; the general receipts containing very even table qualities of half tubs. This part of the season usually brings us some good parts of counties where the custom has been to hold for mid-winter. The under grades and some better have been supported to a good degree by exportation. Among the latter sales 19c. has been paid for common, 14@16c. for fair including Welsh tubs, and 20c. for a comparatively nice grade of half tubs. A large quantity of State butter remains to come forward, and the aim of sellers is to lighten the market as much as possible of all grades under fine to extra. Western dairy and ladle packed, the latter showing a marked improvement in quality, sell close to arrivals. Roll butter scarce, but not largely inquired for.

State, full dairies, special, 20@21c.; other, 17@19c.; firkin dairies, fair to prime, 15@18c.; Welsh dairies, fine full, 16@17c.; choice half tubs, 23@25c.; fair to prime do., 16@21c.; choice Welsh, 19@20c.; fair to prime, 12@17c. Choice creamery 25@27c.; best western creamery, 31c.; other, 26@30c.; early packed creamery, 17@21c.; poor State, 9@12c.; Western dairy, fine fresh, 18@20c.; fair to good, 10@15c.; factory, ladle packed, 18@20c.; good, 14@16c.; other, 7@9c.; rolls, 10@16c.; grease, 4@5c.

Receipts for week, 29,271 pkgs.; exports, 3,377 do.

BEESWAX.—Small sales are being made at 26@27c. for Western and Southern.

BROOM CORN.—All grades but the short description are plenty and easy in price. Brush and short broom choice, per lb., 5@5½c; do., common to good, 3½@4½c.; do., common to fair, 3@3½c.; red and crooked, 2@3c.

COTTON.—Has shown more activity, and closed firm at for January, 9.47@9.49c.; February, 9.49@9.50c.; March, 9.64@9.69c.; April, 9.85@9.86c.; May, 10.01@10.02c.; June, 10.13@10.14c.; July, 10.23@10.24c.; August, 10.31@10.33c.

Quotations for spot cotton are based on American standard of classification, and on cotton in store running in quality not more than half a grade above or below the grade quoted:

	Uplands.	*N. Orleans.*	*Texas,*
Ordinary	7 9-16	7 11-16	7 11-16
Strict ordinary	8	8 3/16	8¼
Good ordinary	8¼	8⅜	8⅜
Strict good do	8 13-16	8 15-16	8 15-16
Low middling	9 1-16	9 3-16	9 3-16
Strict low middling	9¼	9⅜	9⅜
Middling	9 7-16	9 9-16	9 9-16
Good middling	9 13-16	9 15-16	9 15-16
Strict good middling	10 3-16	10 5-16	10 5-16
Middling Fair	10¼	11	11
Fair	11 11-16	11 13-16	11 13-16

STAINED.

Good ordinary	7 11-16
Strict good ordinary	8 3-16
Low Middling	8 11-16
Middling	9 1-16

CHEESE.—Shipments this week, 33,854 boxes. There has also been increased business on home trade wants, the movement taking in the low grades, or qualities to be had at from 2 to 6, and fine stock, with a generally firm temper and no absolute change in prices.

Quotations are 9@9½c. for strictly fancy; 8¼@8½c. for fine lots; 7¼@8c. for good; 4@5c. for skimmed; State, farm dairy at 8@8¼c. for fine; 7@7½c. for good to prime, Wisconsin factory, fine, 8¼@8½c.; some fancy lots to 9c.; do, good to prime, 7¾@8¼c. Western factory, fine and fancy 7¾@8¼c.; good and prime, 6@7c.; do, full skimmed, 2@5c.

Receipts for week, 14,924 boxes.

Liverpool cable 46s.

Steam to Liverpool, 40s.

DRIED FRUITS.—Shippers have taken a few lots of quarters, the desirable parcels of which are at steady prices; otherwise the market is dull, and with the exception of raspberries, which are firmer, unchanged in price.

Southern plums at 13@13½c.; State plums, 14@14½c.; Blackberries are quoted at 5@5¼c. Peaches—Peeled Georgia, at 6@7c. for poor; 8@9c. for fair to good; 10@10½c. for prime; choice North Carolina, 11¾@12½c.; good do., 8@10c.; unpeeled halves, 3@3¼c.; quarters, 3@3¼c. Pitted cherries, 20@22c. Apples—New, 2@2¼c. for southern quarters in bags.; 3¼@3½c. for good and prime sliced; do., fair at 2½@3c. State at 3@3¼c. for new sliced; and 3@3¼c. for quarters; Western at 2¾@3¼c. for new quarters. Raspberries, 27@28c.

Exports, past week, 295 bbls. apples.

FLOUR.—There have been larger supplies, and not much activity, with prices weak and irregular.

Latest prices are at $3.15@3.60 for inferior to strictly choice superfine State; $3.60@3.90 for very poor to good extra do., odd lots and lines; $3.90@4.25 for good to very choice do., and fancy lots above this; $3.10@3.60 for inferior to very choice superfine Indiana, Iowa, Michigan, &c.; $3.00@3.20 for inferior to good shipping extra do. and $3.90@4.25 for good to very choice extra do.; common to about choice white wheat extras, $4.00@5.00; choice to fancy do at $5.00@5.75; red and amber winter wheat, very inferior to very choice trade and family, at $3.30@5.60; round hoop Ohio at $3.85@4.25, and trade and family brands of do, at $4.25@5.00, the latter rate for very choice; St. Louis, $4.00@4.75 for very poor to good extra, and $4.75@5.60 for good to choice; Minnesota clear, very inferior to fancy, at $3.50@5.00; few brands going above $4.50; Minnesota "straight," inferior to fancy at $4.40@5.60; and patent fair to strictly fancy at $5.25@8.25, few brands going above $7.50; unsound stock at from $2.00@4.75; city mill extra at $4 65@5.00 for West Indies (the latter rate for fancy in new packages); do. for England $3.85@3.80; do. trade and family extras, $5.10@6.00; do. for South America, $5.00@5.50 for fair to very choice; No. 2 at $2.40@3.00 for poor to very fancy.

CORN MEAL is selling at $2.80 for Brandywine and $2.25@2.35 for yellow, Western.

EGGS.—Receipts for the week, 3,256 bbls.; do., last week, 3,875 do. The market has ruled strong most of the week. Supplies are small and the actual count is diminished by frozen stock. Frozen and cracked eggs rate half-price. Limed are again higher. Near points, fresh, 31@32c.; state, Western and Southern 29@30c.; poor Western, 24@26c.; Canada, 25@26c.; choice limed, 22@23c.; good, 20@21c.; inferior, 18@19c.

FURS AND SKINS.—Advices from the London sales report higher rates for beaver, 25 per cent.; opposum, 35 do., and muskrat 15 do. Demand here good. Black skunk easier.

No. 1 quality.	Nor. & East.	West & N.W.
Otter, each	$4 00@6 00	$2 50@4 00
Gray Fox	1 00@1 25	1 00@1 25
Red Fox	1 25@1 50	1 00@1 30
Black Bear	5 00@6 00	4 00@5 00
Brown cubs and yigs.	1 00@2 00	1 00@2 00
Fisher	5 00@8 00	4 00@6 00
Mink, dark	1 00@2 00	50@ 80
— pale	50@ 60	30@ 40
Muskrat, winter	13@ 15	11@ 13
— fall	10@ 11	9@ 10
Kitts	2@ 3	@ 2
Beaver, ₱ lb	1 50@2 00	80@1 25
Raccoon, each	70@ 80	60@ 70
Opossum		5@ 15
Skunk, black		1 30@1 70
— half-striped		75@1 00
— striped		30@ 50
— white		15@ 25
Wolf, mountain		1 50@2 00
— prairie		50@ 60

Southern furs usually sell 15 to 20 per cent. below western.

FRESH FRUITS.—Favorable weather for retailers have given apples considerable activity, and sellers name higher prices for choice with more confidence. Fair grades of red fruit are now scarcer and greenings are going into use more freely. Spitzenburgs, choice, $2.12@2.50; other $1.25@1.75; Baldwins, $1.75@2; Greenings, $1.62@1 87; Boys and sweet, $1.40@1 62; poor and frost touched, 75c.@$1. Cranberries dull at the moment; stocks, however, are not large and former full rates are demanded for prime. A consignment of western arrived frozen. Florida oranges dull, a good many have latterly arrived of bad color, and buyers hold off for better supplies. For fancy use the Indian river groves are sending some beautiful high colored stock. Extra one-half barrel boxes, $3@5.50; good, $4; common $1.75@2.25; barrels, $5@8. Hickory nuts quiet at $2@2.25 for shellbarks. There is a stronger feeling on the part of holders in peanuts, but the demand does not as yet support them. Best hand-picked Va. $1.05@1.10; other 80@95c.; shelled, 4@5c. Pecan nuts, 7½@9c. Hot-house strawberries have sold at $5 per quart.

Exports of apples for week, 4,044 bbls.

GRAIN.—Wheat has shown limited export dealings, and with larger supplies by rail prices are weak and irregular.

Latest sales are of No. spring at $1 04; No. 2 spring at 98c.@$1; No. 3 spring at 91@93c.; ungraded spring at 95@98c. ungraded amber at $1.05@1 11; No. 2 amber at $1.06@1.07¼; ungraded red at $1.04@1.09½; No. 1 red at $1.10; No. 2 red at $1.09½@1.09¾; No. 3 red at $1.03½@1.04; ungraded white at $1.07@1.10½; extra white at $1.12@1.12½; white State at $1.11@1.11½; No. 1 white at $1.10½@1.10¾; No. 2 white at $1.07@1.07½; No. 3 white at $1.03¾@1.04; No. 2 amber, January option, at $1.07½; do., February option, at 1.07¾@1.07½; No. 2 red, January option, at $1.09½; do, February option, at $1.09@$1.09¾; do., March option, at $1.11. Corn is active and well sustained in price; latest sales are of steamer mixed, in lots, at 45¾@46c.; New York No 2 at 48c.; prime do. in store at 46¾@47c.; New York No. 3 at 45¾c.; ungraded mixed at 47@48c.; No. 2 white at 49@49½c.; New York No. 2 new at 45½@47c.; Jersey yellow at 45@45½c. for new; yellow Western new at 46@46½c.; New York steamer white at 46c.; No. 2, January option, at 47¾c.; do, February option, at 45¾c.; do. March option, at 45¾@46¾c.; steamer mixed, January option, at 45c.; do., February option, at 44¾c. Oats are offered lower, with fair supplies; latest sales of New York No. 1 at 31¾c.; New York No. 2 at 31@31½c.; New York No 2 white at 33¾@34c.; New York No. 3 at 30@30½c.; New York No. 3 white at 32½@33c.; New York rejected at 28¾c.; white Western at 33½@35c.; mixed do. at 31¾c.; white State at 33@35c.; New York extra white at 38@38½c.; New York No. 1 white at 35c.; No. 2 Chicago, afloat, at 31½c.; Jersey at 31c. Barley, State 6-rowed, 93c.@$1; do, 2-rowed, 78@83c.; Canadian, 97c.$1.25; malt unchanged.

HAY AND STRAW.—Prime lots of hay and long rye straw are higher, with a good trade in them.

Sales at 40@45c. for shipping, and 70@80c. for retail qualities. Straw quoted at 50@60c. for long rye, and 40@45c. for short rye, and oat at 40@45c.

Exports, for week, 486 bales. Southern demand for shipping good.

CIDER JELLY.—Vermont pure, 8c. per pound.

HONEY.—It is a rare circumstance to note honey as low as maple sugar, and a strong evidence of dull times when it does not sell at that. Single comb, Clover is down to 10@12c.; two comb, 8@10c.; buckwheat, 7@9c.; strained, 6@9c.

LEATHER.—Sales of hemlock sole at 18@20c. for light; 19@21c. for middle; 19@20c. for heavy, and 17@19c. for good damaged.

HOPS.—Shipments this week have been 1,377 bales; this shows a somewhat freer movement on export account, which is chiefly in the medium grades; prices generally are held steady.

Quotations are for New Yorks, new crop, choice, 13@15; New Yorks, new crop, good and prime, 10@13; New Yorks, new crop, low to fair, 7@9; Eastern, 8@13; Western, 8@13; Yearlings, 4@6; Olds, all growths, 2@3; Pacific coast, 12@15.

POULTRY AND GAME.—Live fowls and turkeys scarce and higher. The new rates, however, would not follow free deliveries. Roosters dull; old, 4@5c.; young, 6@7c.; N. J. fowls, 10@11c.; Western 9@10c.; turkeys, hen, 9@11c.; toms, 8@9c.; ducks, near by, 60@87c.; Western and Southern, 50@60c.; geese. N. J., $1.50@1.62; other, $1.12@1.37; pigeons, 25c.

Dressed poultry has a free trade only at the latter part of the week; and accumulations frozen or off in appearance are slow of sale. Prime fresh has a ready place. Western shippers are asked to note, and they will save time by the hint, that only fat dry-picked stock is wanted; lean sell no better than scalded.

Phila., dry-picked turkeys, 12@14c.; fresh New Jersey, 11½@13c.; selected Western, 11@12c.; other, 8@9c.; Phila. fowls, 10@12c.; do. chicks, 13@14½c.; nearby fresh, 11@13½c.; other, including frozen, 6@c.; Capons, 19@20c.; slips, 15@17c.; Ducks, 9@13c.; Geese, 6@10c.

Game is falling off in receipts, but there is a large quantity in store, and prices continue easy. Demand is good, and dealers expect to work off considerable stuff at the prices.

Quail, ₱ doz., 70@75c.; Grouse, trapped, ₱ pair, 60@85c.; drawn, 50@55c.; Partridges, ₱ pair, 75c.@$1; Canvas-back Ducks, $1@1.25; Red-head, 50@75c.; Mallard, 50@55c.; Black and Teal, 35@40c.; common, including Broad-bills, 20@25c.; Hares, 18@20c.; Rabbits, 13@15c.; Wild Turkeys scarce.

OIL CAKE.—Western is at $27 per ton.

SEEDS.—Clover is plenty and easy in price, quoted 6¼@6¾c. for prime western, and 6¼@6½c. for choice do.; timothy ranges at $1.20@1.30, as to quality.

TOBACCO.—Export demand is very moderate, and home trade in seedleaf continues fair. Quotations are for

KENTUCKY LEAF.

	Light.	Heavy.
Common lugs	2¾@3	3¾@3¾
Good lugs	3¾@4	4 @4¾
Low leaf	4¾@5	5 @6¾
Medium leaf	5¾@6¾	6¾@7¾
Good leaf	6¾@8	8 @9
Fine leaf	8¾@10	10 @12
Selections	—@—	12 @12¾

SEEDLEAF.

New England wrappers, common	10	@12
do. do. medium	13	@15
do. do. fine	18	@25
do. do. selections	27½@35	
do. seconds	10	@13
do. fillers	7	@ 9
Pennsylvania assorted lots, common	9¾@10¾	
do. do. fair	11¾@14¾	
do. do. fine	15¾@18	
do. wrappers	20	@40
do. fillers	7¾@ 8¾	
New York assorted lots, common to medium	8	@10
do. do. do. good,	12	@15
Ohio assorted lots	9	@12
Ohio wrappers	12	@18
Wisconsin assorted lots	7¾@10	

PROVISIONS.—Have been a good deal excited on speculative manipulation, tending higher, but closed dull and decidedly off from the best rates of the week. Mess pork quoted at $8.00 bid and $8.20 asked for old for January; $9.70 bid and $9.85 asked for new for January; $8.05 bid and $8.25 asked for old for February; $9.75 bid and $9.90 asked for new for February; $8.15 bid and $8.40 asked for old for March; and $9.75 bid and $9.90 asked for new for March; and $9 80 bid and $9.95 asked for new for April; and May at $9.85@9.95. Bacon at 4¾c. for long clear and 5c. for short clear. Lard, western steam, at $6.47½ for spot lots; $6 40 for February delivery; $6.45 for March, $6.55 for April, and $6.60 for May. Stearine at 6¾c. for Western. Tallow at 6¾c. for prime. Beef hams at $15 for choice Western Beef, extra India mess, $30.50 for choice city brands; do., Philadelphia, $18.50@19; packet at $11@11.50; plain mess at $10@10.50; extra mess at $10.50@11.50.

SUGAR.—Refined quoted at 8¼@8¾ for hards; 7¾@8¼ for soft white and 6@7¼ for soft yellow.

VEGETABLES.—The demand for potatoes has moderated with stiff prices, but holders feel assured that buyers will have to meet them for prime grades. Onions steady, with an advance in red and yellow. Ripe tomatoes are arriving from the island of Nassau.

Nova Scotia E. Rose, bulk, or 175 lbs. to bbl., $2.87@3.12 per bbl.; Prolific and Chili red, $2.25@2.75; P. E. I. Jackson whites, $2.12@2.37; Mercers, $2@2.25; Eastern E. Rose, with bbl., $2.50@3.12; State, $3.50@3 75; fair to good, $2@2.37; do Peach Blow, choice, $2.75@3.25; common, $2.25@2.50; Peerless, choice, $2.37@2.50; poor to good, $2@2.12. Sweet potatoes, Del., kiln-dried, $2 40; other, $2@2.25; Onions White, $2 50@3; red and yellow, $2.25@2.50; Chester, $2@2.25. Hubbard and marrow squash, $2; Cabbage, $5@7 per 100. Cauliflower, bbl., $1.50@3. R. Turnips, 75@87c. Beets, 75c. Carrots, 75c.@$1. Celery, 60@75c. doz. Extras; hot-house Radishes, $3 ₱ 100 bunches; Cucumbers, $3@3.50 doz.; Mushrooms, 40@50c. ₱ lb. Lettuce, 50c.@$1 doz.

Exports, potatoes, past week, 2,750 bbls.; onions, 600.

There is some demand for seed potatoes.

WOOL.—Manufacturers still buy very moderately, but holders are indifferent, except at steady prices. Quotations are for

Domestic Fleeces: Ohio, Pennsylvania and Virginia—XXX and picklock, 37@39c.; XX, 34@35c.; X, 33@34c.; No. 1, 35@36c.; No. 2, 30@32c.; common, 28@30c.; combing and delaine, 36@38c.

New York, Michigan, Indiana and Wisconsin—XX, 31@32c.; X, 31@32c.; No. 1, 33@35c.; No. 2, 29@30c.; common, 27@28c.; combing and delaine, 34@37c.

Iowa, Vermont and Illinois—X and XX, 28@31c.; No. 1, 32@34c.; No. 2, 27@29c.; combing, 33@36c.

Missouri, Kentucky and Tennessee—Washed fleece, 26@31c.; unwashed fleece, 21@26c.; unwashed combing, 23@27c.

LIVE STOCK MARKETS

Saturday, Jan. 25, 1879.

BEEVES.—Receipts for the week, 9,500 head; do., last week, 10,168 do. A sudden want of cattle struck a lightly supplied market at the close, and the advance over Wednesday is not deemed a permanent one. The yards were cleared before noon at 8¼@9¼c. for ordinary to good steers; 9¾@10¾c. for prime to extra. This is a high starting point for grades which tells in the general average. Three premium bullocks brought 10¾c. to dress 57 lbs. Steamers to-day take 2,840 quarters of beef and 100 live cattle. Chicago beef sides, 5@6c.

COWS AND CALVES.—Market dull at $35@65; some owners have refused these rates, and have taken stock back to the country.

VEAL CALVES.—Supplies of both live and dressed are moderate, and steady rates are reported. N. J., Buck's Co., live, milk, 7@7½c.; choice, N. J., do., 7c. other, including heavy weight, 5½@6¾c.; fed, 4@5c.; grassers, 2½@3c. Dressed, prime, 8@9½c.; fair to good, 7½@8¾c.; poor, 6@7c.; frozen quoted 1c. below our above rates.

SHEEP AND LAMBS.—Receipts for the week, 13,496 head; do. last week, 17,255 do. Demand for sheep good, with better rates. Some extras have brought 6c.; fair to prime, Western, 5@5¾c.; N. J., 4¾@5½c.; ewes, 4@4¾c. Lambs, 5¾@6¾c.

SWINE.—Receipts for the week, 35,960 head; do., last week, 36,197 do. Market firm; $3.70@3.85 per 100 lbs.; good corn Ohio the standard.

Country pork light, 4¾@5¼c.; medium, 4¾@4¾c.; heavy, 4@4¾c.; city dressed, 4¾@5c.; Western 4@4¾c.

SPECIAL NOTICES.

Genuine *versus* Spurious Electric Belts. Particulars free. Address PULVERMACHER GALVANIC CO., Cincinnati, O.

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Call on or write to R. H. ALLEN & CO., New York, for whatever you want of the above.
Address 189 & 191 Water St.

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ONE DIPLOMA the *only* award for Artificial Color, *was given to* Wells, Richardson & Co's PERFECTED
BUTTER COLOR
Over Six Competitors, for "*Superior Purity, Strength, Perfection of Color*, and *Permanence*." Much of the Prize Butter was colored with it. *GIVE IT A TRIAL.* Ask your Druggist or Merchant for it; or to know what it is, what it costs, where to get it, write WELLS, RICHARDSON & Co., Propr's., Burlington, Vt.

HIGHEST AWARD
— AT —
INTERNATIONAL DAIRY FAIR.

The Higgins' Sweepstake of $250, for best butter made in the United States, was awarded Hiram Smith, Sheboygan, Wis.

The Ashton Sweepstake of $125, for best butter made in United States or Canada, was awarded George Sidney Camp, Owego, N. Y.

The First Premium for best butter made in New York State, was awarded J. S. Murray, Delhi, N. Y. All used the **COOLEY CREAMERS**, the cheapest dairy apparatus in use. Send stamp for Circular to
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A new work on a new subject of immense importance to Farmers and Dairymen.
ENSILAGE.
The preservation of green crops, in a green state, in silos. French and American methods and experiences. 50 to 100 tons per acre of good, juicy food, instead of ½ to 2 tons of dry hay. Six cows on ensilage at same cost as one on hay, and in better condition. A sure crop instead of an uncertain one. Stables without barns.
Price, Cloth, with illustrations, $1.
J. B. BROWN, 55 Beekman St., New York.
Agents wanted.

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PLATFORM Spring Wagon.
The Ne Plus Ultra.
EVERY WAGON FULLY WARRANTED.
This is the best, handsomest, lightest and strongest wagon of its kind in the market. Every Farmer and Dairyman should have one.
AGENTS WANTED.
Correspondence solicited. Address
WATERTOWN SPRING WAGON CO.,
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HORSFORD'S Bread Preparation
UNSURPASSED FOR MAKING
LIGHT BREAD
Biscuit, Rolls, Cake and Pastry.
It is Better and Healthier than ordinary Baking Powder, Cream Tartar or Yeast.
The cost of raising Bread, Biscuit, &c., with it is only about half as much as by ordinary Baking Powder, and the result is much better.
It restores the nutritious elements which are taken from the flour in bolting. No ordinary Baking Powder or anything else used for raising bread does this.
Universally used and recommended by prominent Physicians.
If you cannot get it of your Grocer send a three-cent stamp to the manufacturers for a sample.
Manufactured according to the directions of Prof. E. N. Horsford, by the Rumford Chemical Works Providence R. I.

GREAT OFFER FOR FEBRUARY.
We will during *this month dispose of* 100 PIANOS & ORGANS, at EXTRAORDINARY LOW prices for cash. SPLENDID ORGANS 2 3-5 sets of reeds, $65. 3 sets with sub Bass and Coupler $80. 2 sets $50, 1 do $40, 1 do $35. 7 Octave *all* ROSEWOOD PIANOS $30, 7 1-3 do $140, all round corners do $175, warranted SIX years. AGENTS WANTED. Illustrated Catalogues mailed. Music at half price. HORACE WATERS & SONS, Mafrs. *and* Dealers, 40 E. 14th St., N.Y.

LIGHTNING HAY KNIVES.
WEYMOUTH'S PATENT.

This Knife is the best in use for cutting down hay and straw in mow and stack, cutting fine feed from bale, cutting corn stalks for feed, cutting peat and ditching marshes.
The blade is best cast steel, spring temper, easily sharpened and is giving *universal* satisfaction. A few moments' trial will show its merits, and parties once using it are unwilling to do without it. Its sales are fast increasing for export as well as home trade, and it *seems destined* to take the place of all other Hay Knives.
They are nicely packed in boxes, one dozen each, of 50 lbs. weight, suitable for shipping by land or water to any part of the world.
Manufactured only by
HIRAM HOLT & CO.,
East Wilton, Franklin Co., Maine.
☞ For sale by the Hardware Trade generally.

Reading for the Young.

THE WHITE CEDARS.

A FABLE.

HENRY S. CLUBB.

ON a swamp near the eastern shore of Lake Michigan, there grew near together two specimens of the American Arbor Vitæ, commonly called white cedar. Their center stems were straight and their branches regular. Their foliage, however, was sparse and principally on the extremity of the branches, so that the lake breezes had but little obstruction in passing through the trees.

A gentleman who took great delight in ornamenting his grounds, marked one of these trees for removal by tying a strip of white rag to one of its branches. When he had gone this tree addressed its neighbor, saying:

"Do you see the white ribbon fluttering from my branch? It was placed there as a token of distinction in admiration for my beauty of form."

"Did you hear what the man said when he tied that rag upon your branch?" said the other tree.

"I did not understand exactly, but I heard him whispering something to his little girl."

"I heard him say he would have you removed to his garden," said the neighbor tree.

"Oh, I am afraid that will kill me."

"He appeared to be a kind gentleman by the way he lifted his little girl over the wet places, so perhaps he will not treat you so roughly as to kill you by removal. Almost any change would be better than remaining in this dull place," said Arbor Vitæ No. 2.

The next day the gentleman returned with a spade and dug around a circle, cutting off the outer roots of the tree he had marked. The tree was frightened and trembled, but stood its ground until at last every root was severed that bound it to the earth. It was then lifted from its wet bed where it had grown from a seed, placed in a wagon, and conveyed to the gentleman's grounds where a hole had been dug for its reception in some nice soft soil. It was placed upright in its new position and the soil pressed between its roots, covering them up carefully—water being thrown on to make the soil pack firmly on the roots. The soil being moist and warm, new shoots soon started, striking into and permeating the ground in every direction. Nothing was done to the branches, but they were allowed to grow a year or two so as to get accustomed to their new position.

During the second summer, however, the gentleman noticing the vigorous growth, sheared off the tip-ends of the branches. Every place where a branch-tip was sheared off two little shoots soon grew out, giving the tree a thicker foliage. The same operation was repeated on the young shoots as they gave signs of growth beyond the desired limits. For each shoot thus shortened in, two or more appeared and in four years from the time it was transplanted, the tree, instead of being so sparsely covered with foliage that the wind could pass freely through it, had become a beautiful thick evergreen, and was prized beyond all the trees in the garden for its dense foliage and compact form. Several pairs of birds had built their nests in it and these were completely hidden from the sight of passers by. Persons passing in the street frequently stopped to admire the tree, and often inquired where the proprietor obtained that magnificent evergreen, and were astonished to learn that it had been removed from a neighboring swamp, as they had never seen anything there so beautiful.

Finding how successful he had been in removing this tree from the swamp, he concluded to remove others, and among those which he removed was the one that had been neighbor to the first one. This he planted near to the other, so that they became neighbors again. At first neither recognized the other. No. 1 had not grown much larger, but was so compact and solid that it looked like a first-class nursery tree, while No. 2 had grown taller, and its branches were spread out with very little foliage on their tip ends.

The next day a breeze that came through the branches of the new-comer wafted an odor of fragrance to the naturalized tree, and it at once recognized the same peculiar perfume that used to delight it in its former life in the swamp; and gently inclining its head as the force of the wind abated, it said:

"Are you not the same tree that was my neighbor in the swamp?"

"Can that be you?" replied No. 2. "How beautifully you have thickened up since you left my neighborhood. What can have caused so great a change?"

"Oh, I have gone through a great deal to attain my present condition," said Arbor Vitæ, No. 1. "My roots were shortened, my long, graceful branches pruned, many times my tenderest parts were nipped off, which caused me intense pain. At times it seemed impossible for me to withstand such rough treatment, and I often thought I must succumb to it. But at last I perceived that the man was improving me, I gained confidence in him, and resolved to bear courageously whatever trials I might be subjected to, and now you see the result of my training in my beautiful, compact form and thick foliage. You know in the swamp I was always a little vain of my tall, stately appearance. Now I have learned the pleasure of being useful as well as beautiful; the birds have become most delightful companions to me—they build their nests in my branches, and their songs cheer me as well as please the children."

"It must be mortifying after sending out such long roots and branches to have them lopped off," said No. 2; "but if the result is to produce such a respectable looking tree as you have become, I suppose I had better submit and make the best of it as you have done, although it is harder on me than it was on you, as I am more set in my habits of growth than you were when you were transplanted."

Just as they had reached this point in their conversation, the owner came along with his little girl and showed her the two trees. He said: "Do you remember, Celia, when we were in the swamp and I tied a piece of white rag on a tree to indicate the one I intended to remove?"

"Yes," said Celia; "there were two trees together, and you chose this one because you thought it would be the easiest to remove."

"I have now brought the other tree to try if I can improve it as I did the first."

"Oh! what a difference in the two trees: one is so thin and spreading. Its branches are long and almost bare, while the one you transplanted is so thick and green that the birds build in it, and we cannot see their nests for the deep, thick foliage," and Celia clapped her hands in admiration of her favorite Arbor Vitæ. At this moment a bird flew out from its nest in search of food for its nest full of little, unfledged birdlings. "Oh, Pa, lift me up so that I can look into the nest." As she peeped in she saw four broad bills wide open in the nest. The little ones were all expecting the return of the mother-bird to drop something nice into their open mouths. This was an unexpected sight, as the last time Celia had seen the nest there were four spotted blue eggs, and now they had disappeared and the birdlies had taken their places. She clapped her hands again, and said she would fetch the little birdies something to eat.

"You had better throw it out for the old bird and she will take it to them. If you feed them yourself you may give them too much and kill them, while their mother knows exactly how much they need," said her father, putting her down.

"But I would rather feed them myself," said Celia, pouting.

"It is not always best to do as you would rather, my pet," said her papa. "You see these two trees. Just now you were praising the beauty of the one I transplanted years ago, while the other, as you say, is not so ornamental or useful either, as the birds dare not build in a tree, that would not hide their nests from the gaze of idle boys or protect them from the cold wind or hot sun. This tree which gives you so much pleasure and is admired by all who pass by, has not had its own way for three or four years. Every time it has sent out a shoot beyond the rest I have cut it off. If I had let it have its own way it would have been no better than this tree just taken from the swamp. So my pet, if you are to grow up compact and beautiful in character and useful in your life, you must submit to have your wants limited: your shoots of pride and self-will must be pruned off, every excessive growth must be moderated by culture, and in a few years you will find your character will be as completely improved, as is this tree in its appearance and utility. The tree had to submit to a good deal of pruning before it attained the solid and compact form you now so much admire. It submitted quite gracefully to all my shearing and now is the most beautiful object on the lawn. So if my darling girl will submit gracefully to the culture, and trust her father for the result, she will become not only an object of admiration to others, but a source of satisfaction and happiness to herself and the delight of all who love her."

Celia saw the point, and although she felt the rebuke, she knew her papa was right, and whenever she became unwilling to submit her will to proper control, the two White Cedars on the lawn were pointed to as reminders of the benefits to be derived from wise and careful culture.

THE MALAY SWORD-DANCE.

WHILE on a cruise among the islands of the Malayan Archipelago our ship put in at Batavia for a week's repairs. Batavia is the Dutch capital of Java, wholly under the control of Holland; and its Dutch architecture, and Dutch manners of living, make one feel as if every house had been built in far-away Amsterdam, then boxed up, people, furniture and all, and sent by ship across the waters. So, to know anything of the natives to whom this great, beautiful island originally belonged, or their habits, dress and amusements, one must visit the Malayan settlements of the interior; and a little party of us determined thus to spend the week of our ship's stay at Batavia. We had made the acquaintance of a petty chieftain, who once had been in the service of the Rajah of Djokjskarta; and for a small fee Selim introduced our party to the court of his former master. Here, one day, we had an opportunity of witnessing the "sword-dance" of the Malays, the most noted of all their national dances. Ordinarily, it is performed by some thirty or forty ten-year-old lads, who are trained to their vocation from a very early age; but who practice it in public only for a year or so, before they are set aside as no longer sufficiently light and agile for this very peculiar dance. The boys are rigged out in very fantastic costumes, their hats especially, which are fancifully adorned with the plumage of many-colored birds, intermingled with brightly gleaming jewels. The only weapons used are wooden swords; but the youthful gymnasts seem thoroughly in earnest, and rush upon one another with all the fury of real combatants, their eyes gleaming fiercely, and their dark faces glowing with excitement. They all brandish their swords with great dexterity, dealing blows sidewise, and even backward, while they are in the very act of whizzing and whirling round the room in a rapid gallopade. Their motions are not less graceful than enthusiastic; and though the company is numerous, and the turns and thrusts are sudden, none seem taken unawares; nor is there even the slightest apparent confusion. Sometimes single combats follow the general engagement, each selecting his own opponent; but the boys are so well matched in regard to size, and all are so perfectly trained, that really there seems little advantage to be gained. The grand climax of the whole affair is to force two of their leaders into a corner, surround them with a circle of crossed swords, and hold them prisoners until one or the other succeeds in gaining possession of his opponent's weapon. The victor then receives as a prize a real sword, and is thenceforth honorably discharged from further trials of his skill, while the unfortunate lad who permitted himself to be disarmed has to go through an additional season of probation. The ordinary dress of the lower class of Malays is very simple, consisting for the most part of a long, loose "sarong," or petticoat, in place of trousers, and a tight-fitting jacket of white or red cotton; but the garb of the Princes is very gorgeous. The Rajahs wore sarongs of heavy silk, jackets of velvet, richly embroidered in gold and tiny seed-pearls, and jeweled girdles that seemed all ablaze with diamonds. Both turbans and sandals were adorned in the same costly fashion; and as for the creese or serpentine dagger, without which a Malay, whatever his rank, never appears, those of the Rajahs were marvels of costly workmanship. The display of wealth in the palaces of these native chiefs was far beyond what we expected to find; but we learned afterward that Malayan "Sultans" are pirate chiefs as well; and though they don't, in person, rob or murder on the high seas, they derive enormous revenues from the piratical hordes that everywhere infest the Malay Archipelago.—*St. Nicholas.*

FROM A NORTH CAROLINA COUSIN.

DEAR UNCLE TRUE:—Since you so kindly request me to contribute to the columns of the RURAL for the benefit of the cousins, I will tell them something about my Southern home. I live on the banks of a river in the "Old North State." A beautiful flowing river, whose gentle murmur makes music to our ears, and the banks of which are green the whole year round, (when the winters are not too severe). We have many evergreen trees, such as cedar, pine and holly with its bright crimson berries, all of which present quite a contrast to the other forest trees, which at this season of the year are brown and bare, and stand shivering in the blast. The holly is especially appreciated for our Christmas decorations. We always choose a Christmas tree of holly, for we think it pretty with the bright red berries which nature has given it, before Santa Claus adds his store of treasures rare. On the south side of our river, towering far above it, and sloping almost perpendicularly down to the water's edge, is a large rock which has become famous since the Revolution. It is said that when the daring and brave Hunter was pursued by Fanning, he made his escape by riding down this steep and dangerous rock and crossing the roaming river just below. Since then it has been familiarly known as "Faith Rock," and is one of our natural curiosities which we take pleasure in showing to strangers and friends, when they visit us. It has been said that the print of the horse's hoof can be traced on the rock, but this is all tradition, which imagination tends to keep up. Should any of the little cousins visit us, we will take pleasure in helping them look for the hoof-print.

Our summers are very pleasant here, and in winter the thermometer seldom stands lower than 12 degrees above zero. Yet this is considered real cold by those who live in this Southern clime. Many plants and flowers that could not stand the Northern climate thrive and grow here all winter; but the tropical plants and rare flowers that blossom in sunny Florida, can only be kept here by giving them a great amount of care and a nice hot-house in winter. I would like to send the cousins a bouquet from my "flower house" as a New Year's greeting; instead thereof, I hope they will accept my love and best wishes, which after all are the brightest flowers that grow in the garden of the heart. Lest I weary your patience I will close, and at another time if you wish you shall hear more about the home of COUSIN "EMPSIE."

"Riverside," N. C., Jan. 17th, 1879.

A LETTER FROM OLD UNCLE MARK.

DEAR GIRLS AND BOYS:—Though I am an old friend of yours, it is so very long since I have had anything to say to you through this column, that I fear you have forgotten all about Old Uncle Mark, and perhaps some of you will disclaim all relationship with me whatever. I will say that it is not at all from lack of interest in you that I have been silent, but by reason of uncontrolable circumstances.

Uncle True has for a long time past so completely monopolized the correspondence with you, that I confess I am not a little jealous of him, and in the future I propose to share some of your honors, with your permission. I desire to renew my acquaintance with my friends of old, if they will still own me as their uncle, and to make the acquaintance of those that have joined the cousins lately. Not knowing whether or not you will care to renew our friendship and consider me in the light of an uncle as in days gone by, I shall say nothing further at this time; but if you say so, I may hereafter write you an occasional letter, and be assured that at all times, no one will be more pleased to hear from you than UNCLE MARK.

"FOOL TINGS."

ANYBODY who criticises unfinished work, and sees nothing in drill but its drolleries, will be likely to get as badly ruffled as the Dutchwoman did. The new course of instruction in gymnastics and object teaching introduced into the schools of Philadelphia is responsible for the following incident:

Indignant mother sends for "the teacher" to call at her house on her way from school. The teacher complies with the request. "Ish you de teacher of dat school vat my poy goes to?"

"Yes," meekly responds the teacher.

"Vell, I takes my poy away!" (Teacher looks in mild surprise.) "My poy come hime the other day—he behave like crazy. He frow up his hands and say, 'Dis mine eye! dis mine nose! dis my mouth!' Now, what he go to school for to learn dat? He know dat before. Anudder day he go round de house like mad; he say 'Che, che, che; pe, pe, pe; ke, ke, ke;' now what *fool tings* dat?"

The teacher tries in vain to explain that the new course requires "object teaching" and "phonic spelling."

The indignant parent only flings back the retort, "Too many fool tings; I keeps my poy at home."—*Boston Advertiser.*

Sabbath Reading.

THE WINE GLASS.

Who hath woe? Who hath sorrow?
Who hath contentions? Who
hath wounds without cause?
Who hath redness of eyes?
They that tarry long at the
wine! They that go to
seek mixed wine! Look
not thou upon the
wine when it is red,
when it giveth its
color in the
CUP;
when it
moveth itself
aright.
At
the last
it biteth like a
serpent, and stingeth like an adder.

AFTER THE REVIVAL.

REV. ALEX. B. JACK.

THERE is a Bible in England bound in solid gold. Its pages are the finest parchment, its margins are illuminated with rare and curious workmanship. It is a costly relic, the property of the British Sovereign, kept under lock and key, and guarded with untiring care. Yet, after all, it is only a dead thing, penned by the hand of some old monk, painted by the finger of some cloistered nun. There it lies entombed in its grave of glass; in itself it has no life, neither can it give life to others. It is not for a moment to be compared with the humblest Christian who lives or lodges in some lowly cottage, and who is not a dead but a living Bible. Pearls of the East, diamonds of the sea, are on the boards of that Bible; what are these to the ornaments of a meek and quiet spirit? What that dead parchment to a deathless soul and a heart instinct with life? What that ink fading and rusting beneath the eye of Time to the blood in which the Spirit dips his finger and writes living truth upon a living soul? Anybody could write a Bible. With a feather plucked from a sea-bird's wing I could write the Bible on a paper page. With iron forged in the fire I could trace the Bible on the rugged rock. But ah! to write living truth upon a living heart, that is the work of the Holy Spirit. It is only the Spirit that can write on spirit. It is only the God who created that can convert the soul.

What is true of the reading is true of the preaching of the Word. Select the most gifted minister alive, seek out the man who lives in the closest communion with God, who is skilled in reading the secrets of the human heart, and who has above all other men that electric and magnetic power by which he leads others to himself. Now, take one in whose salvation you feel a deep anxiety, and who is yet in the gall of bitterness and bonds of iniquity—send him to that minister to be converted. I know what his answer would be. His answer is in the Bible; his answer is a royal answer in more senses than one. When the servant of the Syrian came before the King of Israel with a letter, saying, I have herewith sent my servant Naaman unto thee that thou mayest recover him of his leprosy; immediately the King rent his garments, and appealing to his courtiers, cried, "Am I a God to kill and to make alive, that this man doth send to me to recover a man of leprosy?" Even so, send a man to a minister to be converted, and if that minister knows his business, if he knows what he can do, he will say, "Am I a God to kill and to make alive, that you send that sinner to me to be converted?" A minister may make an impression. He may make an impression on a dead soul, just as I can make an impression on a dead body. I have seen a corpse galvanized, so that it seemed in every limb alive and life-like. So a man gifted with the power of moving other men may raise a tide of emotion in the human heart; but it is a tide like that of ocean when raised by the wind. Its surface swells, and rolling along the beach tears the seaweed from the rocks and casts the sea-shells on the shore. The tide-dial tells me that it never penetrates the dark depths of ocean. After a heavy swell for a tide or two it soon returns to its wonted calm; and that is just the result of many a promising revival and the history of many a Sabbath day's labor.—*Observer.*

BUNYAN'S IDEA OF THE DOCTRINE OF PERSEVERANCE.

THE doctrine of perseverance is also a cross to the flesh; which is not only to begin but to hold out, not only to bid fair, and to say, would I had Heaven, but so to know Christ, put on Christ, and walk with Christ so as to come to Heaven. Indeed it is no great matter to begin to look for Heaven, to begin to seek the Lord, to begin to shun sin; O, but it is a very great matter to continue with God's approbation: "My servant Caleb," saith God, "is a man of another spirit, he hath followed me (followed me always, he hath continually followed me) fully, he shall possess the land." Almost all the many thousands of the children of Israel in their generation, fell short of perseverance when they walked from Egypt towards the land of Canaan. Indeed they went to work at first pretty willingly, but they were very short-winded, they were quickly out of breath, and in their hearts they turned back again into Egypt.

Nay, do you not see with your eyes daily, that perseverance is a very great part of the cross? why else do men so soon grow weary? I could point out a many, that after they have followed the ways of God about a twelvemonth, others it may be two, three or four (some more and some less) years, they have been beat out of wind, have taken up their lodging and rest before they have got half-way to Heaven, some in this, some in that sin; and have secretly, nay, sometimes openly said, that the way is too strait, the race too long, the religion too holy, and I cannot hold out, I can go no farther.

PERSONAL ITEMS.

Wade Hampton amuses himself by feeding his pet chickens.

Prof. Swift of Rochester, has been for years carrying on his astronomical studies in an old cider mill, but the citizens now propose to build him an observatory, the plan of which he has approved.

Some Nebraska men attempted a surprise party on Mr. Cole and family. Mr. Cole used a revolver, Mrs. Cole a shot-gun and the children threw stones, and the number of callers who limped away was thirteen.

The German Emperor is wonderfully well and vigorous, though still obliged to carry his right arm in a sling, and drives out daily, accompanied only by the Crown Prince or an equerry. All the forenoon he devotes to receiving reports and giving audiences.

One Beinert, a miller of Plauen-Dreden, Saxony, has philanthropically presented the town with money for planting cherry trees along the streets, the money to be refunded from the sale of the cherries when the trees begin to bear. Beinert was under the impression that there were no small boys in Plauen-Dreden.

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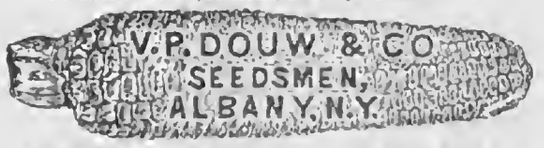

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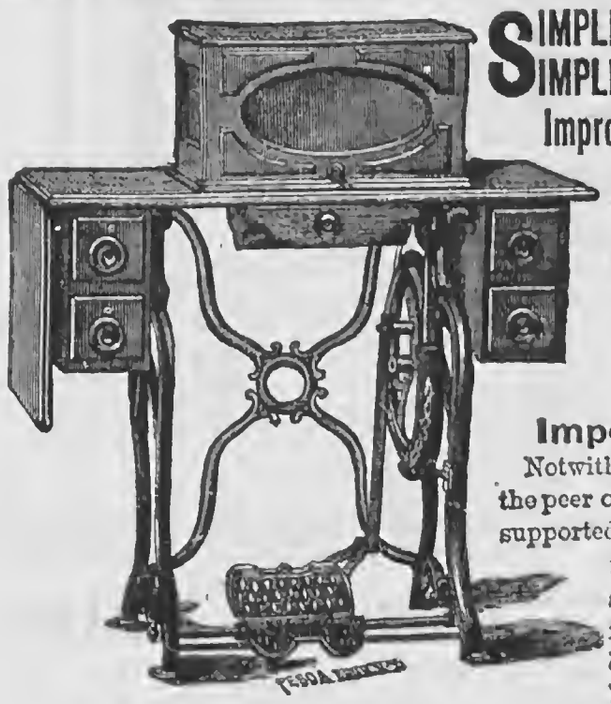

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Exact in every duty.

If this be true, such self-command,
Such well-directed powers—
Oh! may her little *minute* hand
Become a hand of *ours*.

A MULE's head does not contain a brain capable of culture and refined rearing, but it is wonderful to what an extent the other end of him can be reared.

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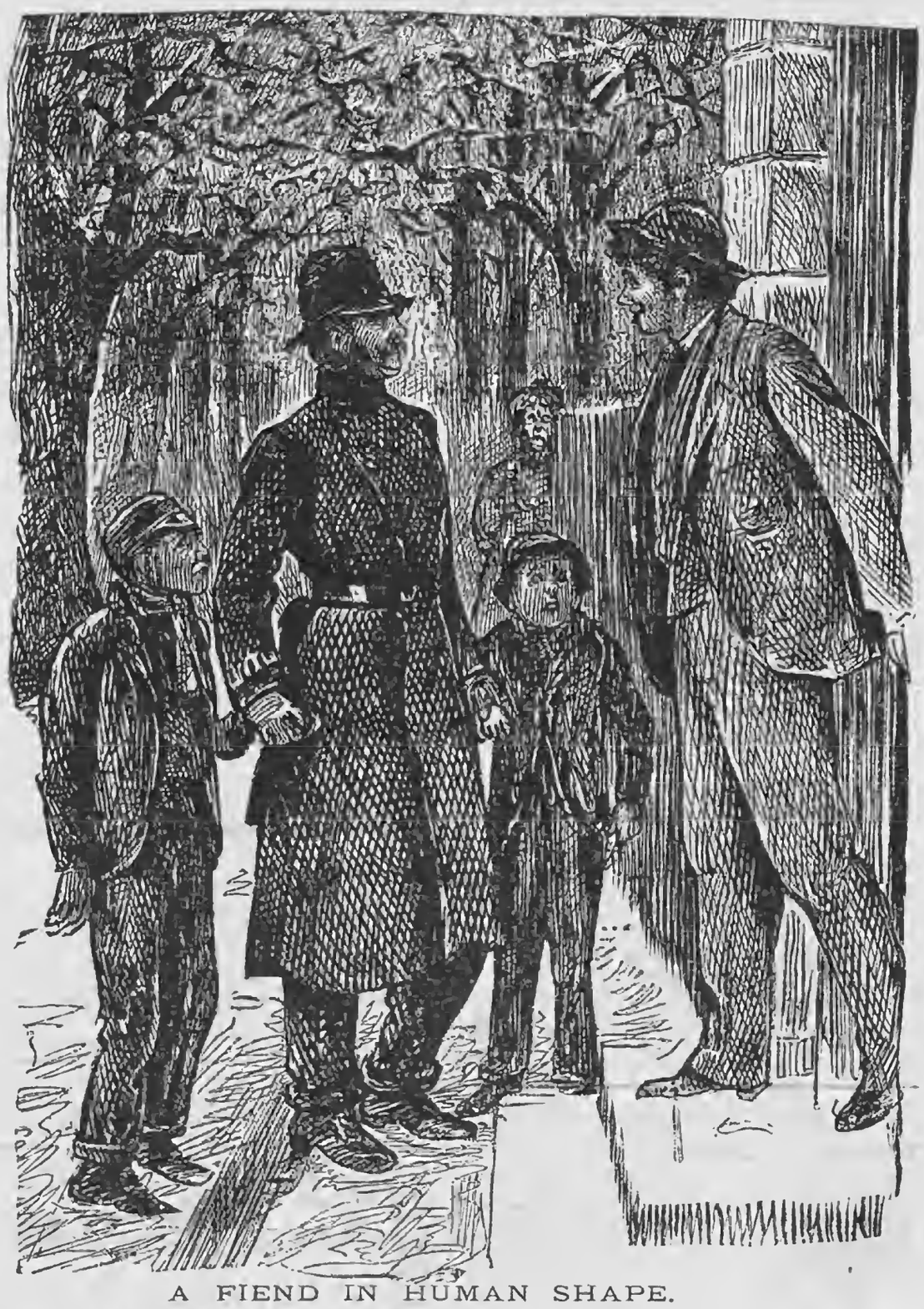

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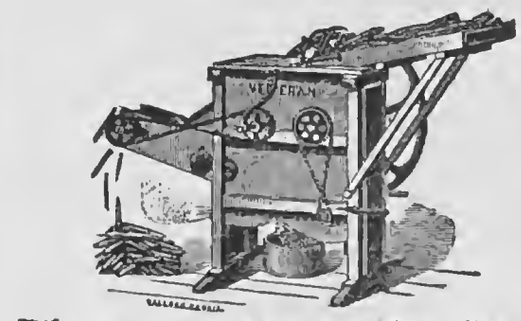

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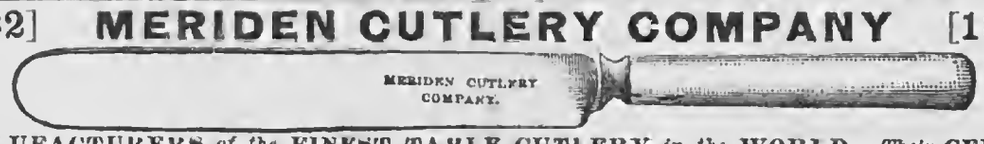

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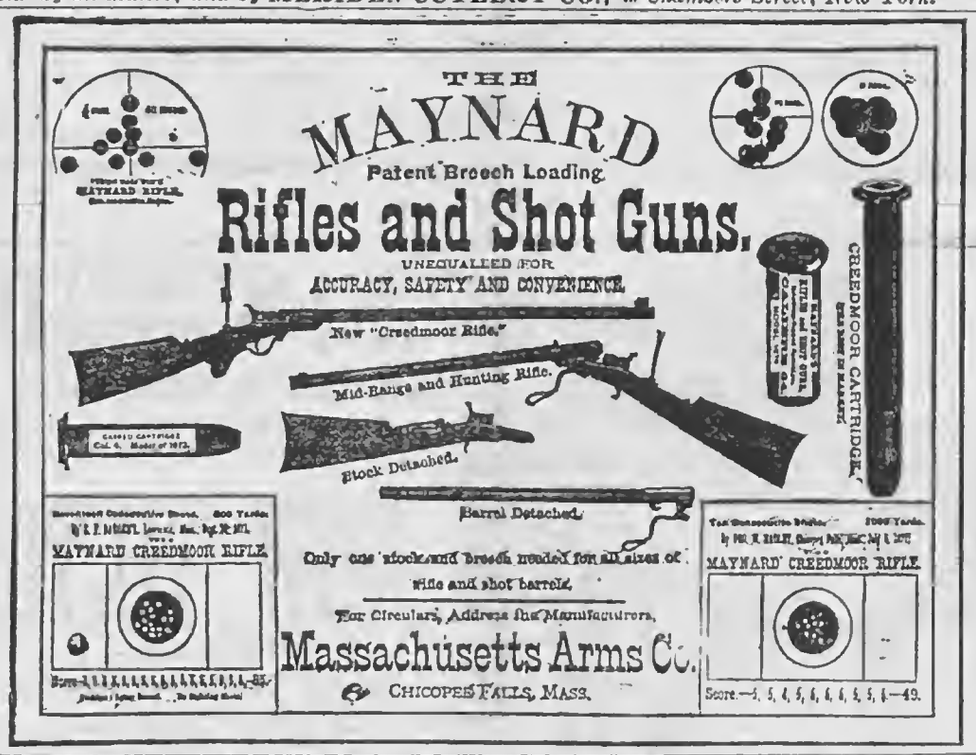

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THE RURAL NEW-YORKER

A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME

VOL. XXXVIII. No. 6.
WHOLE No. 1515.

NEW YORK CITY, FEB. 8, 1879.

PRICE FIVE CENTS.
$2.00 PER YEAR.

[Entered according to Act of Congress, in the year 1879, by the Rural Publishing Company, in the office of the Librarian of Congress at Washington.]

IF YOU DO NOT SEE YOUR PORTRAIT, ASK SOME CANDID NEIGHBOR TO POINT IT OUT.

Farm Topics.

A PANEGYRIC ON SWAMP MUCK.

GEN. W. H. NOBLE, OF BRIDGEPORT, CONN.

IT'S GOOD TO REPEAT SOME THINGS.

I HAVE often thought that a kindly review of the many thoughts of many minds in the RURAL would be of value and interest. Of course, its editor admits many notes, from whose conclusions he would dissent. He starts some ideas himself, and generously and wisely asks comment, as about the capillarity of the soil. This is right. Life in the garden and life on the farm should always be open to test new methods or prove the old. The world doesn't know half as much about animal and vegetable life as it ought. A good many old things and ways might be unlearnt, and a good many new ones taught before the fullness of wisdom comes to the tiller of the soil. But keep trying and studying by experiments in methods and results. By-and-by some farm Edison will come up to reveal unused forces, and find new workings for the old. In the meantime, let me help a little towards the intent of that well-told story about your "Poor Farm."

RICHES IN SWAMP MUCK.

The first two chapters of a Poor Farm's history in the late RURALS, delighted me. They betoken the brains whose help all poor farms sadly need. Sometimes a farm keeps poor, and gets run down, out of sloth and lack of means to better its belongings. But its poverty is about as often due to ignorance of its resources and the methods of its betterment. That muck swamp, whose sleeping forces and stored-up enrichment its historian puts into such clear figures, is the right place to begin its new life. There, are stored generations of decay, to feed the rootlets of grass or grain, courting its nourishment. The boggy hole of a swamp is but a younger branch of that deep and ancient storehouse of enrichment, the peat bed. The latter is of the same breed, but of older and larger growth. A swamp is thus a lowland water log, whose shallow depth of vegetable mold cannot be spared, and will not pay for moving to crops in other fields, though plenty for those planted above its drained surface. The peat bed is God's century-garnered store of that same mold, able to nourish not only its own, but to spare for generations, to crops on other farm-lands around its sunken area.

FARMS, FAT OR POOR, A QUESTION OF MANURE.

A farmer friend of mine, who beats all I know, in field or garden, answers to my notes of praise and wonder, "It's only a question of manure." It is a question, luck or failure, whose solution brings rich fields and abundant crops, or a starving farm. His lands are under the highest culture; they are kept so by a full supply of manure, made possible by solid cash, first laid out in stock and sea-drift-littered yards and stalls. Yet the solution is just as open to a poor farm owner's wits, as to the money of my friend. The rich owner's soil tells the footing of his funds in bank. The poor farm's swamp or peat bed, is an undug gold placer, whose water log must be drained and torn up before the glittering ore is reached. The fable of the field, made fertile by the son who trenched it deep in search for gold which his parent dimly told him would thus be found, might be paraphrased to the enrichment of a good many other sons, who have no better inheritance than a run-down, muck-swamp farm. Such may find both wealth and a solution of the manure question at the bottom of a deep swamp drain.

ACRES OF MANURE WITHIN REACH.

If there is any truth in chemistry, if the soil's elements and their record, if all we know about how plants feed and about the make-up of that black decay dug out of swamp holes, are not all myths, the owner of every swamp farm has plenty of manure at hand. In every acre of a swamp, whose drained and settled muck shows only a foot in depth of black vegetable mold, there are more than 1600 cubic yards of manurial material, equal, load for load, to that from the stalls. To be sure, you need to tame its acids and help out its dearth of salts by a sprinkling of lime and ashes. But the cost of these goes into crops on this as on other soils. They do more than this to your drained muck. They make all those 1600 cubic yards a rich, lasting and improving manure heap. Better than that; it is manure carted, spread, and commingled with the soil. You have not that toilsome job to do. You cannot exhaust its nutriment as a few crops do, in the case of a stout dressing of barn-yard manure.

A DRAINED SWAMP, A DIVIDEND BANK.

Those loads of muck are loads of crop makers that the toil and force of nature, the sun, the rains, the breezes and the upland wash and wastes, have piled up and tempered ahead for your use. You have but to yield to their stored-up forces your toil and wit, to win their powerful help. Each of those 1600 cubic yards equals in bulk a horse-cart, top-board load, well rounded up. If that yard, or load, is worth but 30 cents, you have on every acre of such land, $480 worth of enrichment,—that is a low-down figure. You could not shovel and cart and dump a load for that, except on a mighty short dray. But take off $180 for the changes and chances of the seasons; for the cost of land, of drainage and culture; for occasionally quickening and rousing its sluggishness with those salts that so rouse up vegetation in its first start. Then each acre of that swamp land, so endowed and redeemed from water log, is to you as good as, yes, far better than $300 in bank. It's a savings bank right at home; the fund therein is better than government bonds, or bank stocks or bond and mortgage. It's as solid and unfleeting as the earth. No panics or hard times or any of the perils and chances of trade, can shake its solid worth, or cut down its dividends. It's as safe as that scriptural house, founded on the solid rock.

NO DIVIDEND LESS THAN SIX PER CENT.

Year by year that $300 in such a bank, will pay to your toil and care, clear net dividends of six per cent. Besides, it will pay you for planting and reaping and housing, and for all needful enrichment. This, doubtless, reads to many besides that poor farm's owner, like romance, or some book-farmer's long-bow tale. From his boyhood he has looked out on that swamp land at his door, and thought it worthless except for the home and nesting of the blackbirds, and a few early bites of spring grass. But all I here lay down is bottom truth. Let him who can, gainsay the figures. I am far within the real footings of results from such swamp land improvement. There is no guess or fancy about it. I know whereof I speak. I have seen the right to a good deal stronger figures, proved, under no likelier chance than is before every owner of a big swamp.

I WILL TELL YOU A TALE.

A few years since, just outside the borders of this city, a practical-minded, brainful man, who studied deeper than the surface of things, bought twenty acres of miserable, heavy, forsaken swamp. A sluggish run meandered through this, as through most such lands. That he widened and deepened, as his cheapest and only drain. The rest of the area he laid out in lands, running out pretty much at right angles to the trend of this run. These lands he turnpiked, so that between each rounded surface there was a hollow, or little swale, through which the overcharge of surface moisture could rid itself into the run. This was all, except to seed it down to grass. Now, this was a work but half done. He should have dug a main drain, six feet, or seven, deep—the deeper the better. The more digging there, the less needed in other parts of the area.

AND HOW IT TURNED OUT.

Yet, in spite of all this cheap and shallow draining, he took from off that redeemed swamp, year after year, more than three tons of prime hay per acre. He had to build a big barn to store his crop. Some years it ran a great deal over three tons per acre. My friend's swamp was not the likeliest specimen of such lands. Its muck was rather shallow—a good deal under that foot-depth on which I have figured quantities. What are three tons of hay worth year by year? A farmer is a fool who sells it for less than $10 per ton. The average sales hereabouts for twenty years have been a good deal higher. I think it worth that to the farmer anywhere and at any time. Well, out of that $30, take $18 for your dividend of six per cent. on $300, and you have in hand $12 per acre to cover any kind of call for dollars, for barns, and tools, and toil, cutting and carting, and housing, taxes on land, fencing and keeping the area of meadow in good heart.

What now have you got to say, my doubting friend, about our savings bank and that $300 snugly there, for every acre of as good out-cast swamp as that whose history I have written about? But there are lots of such places everywhere, more easily saved from the weeping and gnashing of poverty, and full of enrichment for their own and other crops. There are acres upon acres of such land upon every square mile of land around me, that will pay better returns for capital outlaid, than any bank stock or old industry in the land.

YOUNG FARMER, "FIGHT IT OUT ON THIS LINE."

And yet the cry is "Go West, young man; go to the orange groves, whose delicious perfume and golden fruit will greet your five years' toil; go into stock-breeding or take some manufacturing contract; go to the gold placers or the silver mines; start a cattle ranche; go anywhere rather than stay in the rock-ribbed, swamp-farmed, chill New England." But, young farmer, think it well over before you start. I neither decry nor undervalue the enterprise which has pioneered a strip along the Atlantic into an empire spanning the continent. I know the merit and returns of bold adventure, all over this wonderful land. But let no man go away with a bee in his bonnet. Each should know that which he leaves behind in present opportunity, the toils and stores of years, and the society and make-up of old homes.

"'Tis distance lends enchantment to the view." But when you get up to the glitter and glamour, you may be as badly sold, as he who hunts the mirage on the sand, but finds not a drop to drink. You may strike oil, and you may not. A good many bore whose augers come up dry. Gold-digging averages about as hard as a Louisiana lottery as a way to get rich. The orange groves and the cattle ranches, have a good big discount on their offer of thrift and pleasant pictures, that comes in the shape of mountain fevers, swamp malaria, outlaw robbery, or the savage's swoop.

Besides, there are not a few unconsidered items of pleasant life not far off from your home, which you will not find at every step of your roaming. There is comfort in a land of settled homes and well-kept roads, and schools, and steeples; in the glimmer of a neighbor's lamp short of a day's ride. There are a thousand such-like, now unvalued things, to which you bid good-bye when you go West. But when bereft of their worth and comfort, they quickly become "to memory dear." If you are out of debt, and have health and will, you can win a new life for yourself and your land on that poor farm. Quicken your brain to study out and solve by trial this swamp question. You can do lots at the trial in the dead of winter, when labor is cheap. Plenty will jump at the chance of such work by the job. If you have not the cash, put the case before some rich neighbor; show him your studied-out plan and figures, and you can get all needful funds. Be up and doing, and before you know it, you will have rolled up to your credit in that home bank $300 for each acre you redeem.

JOTTINGS AT KIRBY HOMESTEAD.

COL. F. D. CURTIS.

Straw for Horses.

WE have been feeding our horses oat straw all winter until now, when the supply is exhausted. We have a lot of barley straw on hand, but we doubt if this would be good for horses. There is a good deal of dust in it; as the barley was caught in a long rain, and this, with the beards, will, in our judgment, make it unsafe to give horses. Horses, especially those that are worked and driven, should always have forage free from dust. We reason in this way, and it is sound logic. If two rackfuls of dusty hay will set a heavy horse to blowing and panting so as to be useless, a constant diet of this sort of food will damage a sound one. It will lay the foundation for, if it does not produce, a chronic irritation of the lining membranes of the bronchial tubes and of the lungs. We have so much faith in this logic that we shall not risk the experiment. Clover hay, if dusty, is equally dangerous. Bright oat straw is the nicest kind of feed for horses. A heavy horse, when fed on it, will breathe clearly, and any horse so fed is always ready for a hard drive, as he will not then fill himself as he would on hay, and so compress the action of the lungs by crowding the diaphragm against them. Six quarts of oats a day and oat straw have kept our horses in good condition, and the stallion and big colt are fat, fed on oat straw and buckwheat bran; the former on nine quarts and the latter on twelve.

This is a cheap way to winter horses, and a most excellent way to utilize straw. An acre of ground will go farther in this way than in meadow. Poor and run-out spots in meadows may be turned over and sown with oats, and the volume of available food will not be reduced, and they may be re-seeded at the same time. Bright timothy hay is the most substantial feed for horses and, next to it, we like oat straw. Rye straw, cut short and fed with meal, is grand feed for horses, and they will do as much work on this feed as on any, but they must have plenty of meal, not less than twelve to sixteen quarts. Rye straw has a market value equal almost to hay, and hence both are costly feed, but oat straw is worth very little in market, and if it can be utilized for feed and save more costly fodder, it is a good idea. Give the horses the oat straw and let the cows have the hay. If our horses worked hard, they would require more oats.

How to Warm Hen-Houses.

Mr. Henry McCormick has his hen-house lathed and plastered, and he says it does not freeze. This, in the long run, would not be a very expensive way to fit up a hennery, as the plastered walls will be lasting and cheaper than lining with matched lumber. They would be warmer also. Our hen-house is too cold. We are satisfied of that fact, and it is the main reason why the hens do not lay more eggs in winter. They have grain enough, and bone-meal, and lime and meat, but they are too cold. We are going to line the inside with tarred paper and try that to see if it will not make the hennery warm enough. If it does not, next summer we will cover the paper with lath and plaster. The tarred paper will help to keep the lice out of the room. It only costs three cents a pound, and the expense is not much. Paper is one of the best non-conductors and therefore a very effectual lining to keep the heat in and the cold out. We are going to make it a rule to shut the entrance every night and not to open it until the cold of the night is somewhat modified by the sun—not before nine o'clock in the morning. This will help to keep the temperature more even day and night. Where there are a warm, southern exposure and a glass front, the temperature will rise quite high during the middle of the day, and in the night change to be so cold as to make an unhealthy difference. Keeping out the cold at night will help to make the temperature more uniform, and prevent roup and other disorders, the results of colds. Fowls thus kept comfortable will require less food to be kept in good condition, and will lay far more eggs.

Bad Teats.

There must be great care when cows are dried off or there will be permanent injury to the milk ducts by the accumulation of curd, which will harden and stop up the passages. The water of the milk is absorbed and so are the fatty properties (the butter); but the caseine (cheese) cannot be absorbed, and unless squeezed out of the udder and teats, remains in them and in the smaller passages and the teats, and forms into a hard mass, and often effectually stops them. Remaining in one spot all winter, the glands are often irritated and a sore is formed from which bloody milk, or rather blood, is secreted, or a callus is formed and the teat being stopped up, that portion of the udder dwindles, and is useless. A good cow is often spoiled in this way. The only safety in drying up cows is frequently to draw all of the milk out and carefully strip the teats to make certain that the last drop is forced out. This should be done every few days until no more milk can be obtained. Drying up may be hastened by feeding the cow food wanting in succulence, such as dry hay or straw.

Smoking vs. Barns.

Another man has smoked in his stable and there is one barn less. Ten cows happened to be in the yard and were saved. Everything in the barn burned.

BURNT CLAY AS A FERTILIZER.

THE stiff, yellow-clay sub-soil of our lands, full of iron ore, is poisonous to plants and vegetation. But it should be remembered that for thousands of years this same sub-soil has been the grave and repository of countless millions of reptiles, worms and insects, and that into it have been washed down the inorganic remains of myriads of both birds and beasts. How, then, can these inorganic elements be utilized so as in a cheap and effective way to permanently increase the fertility of the soil? By burning. In England I have frequently used burnt clay and always with the most beneficial effects, particularly on wheat, clover and grass; and among what I might, perhaps, style successful and scientific farmers, the practice is largely followed. The following is the method of performing the operation.

In very dry weather let a furrow be turned over as deeply as possible by a three-horse plow. Let this same furrow be again plowed up by a following three-horse plow. By these means great blocks of hard, stiff clay are thrown up, some of them nearly 100 pounds in weight. Let these lumps be collected and built in circles of, say, ten feet in diameter and several feet high. Build up the interior of each with brush, old roots, stumps, etc., so disposed as to ignite easily, and cover the whole with lumps of dry clay. After having set fire to the heap, let the mass burn for three or four days, care being taken to supply fresh clay, so as to prevent the fire from burning too furiously. By these means the stones in the clay will be completely pulverized; the silica of the soil will, to a large extent, be rendered soluble, and the carbonic acid entirely expelled from the carbonates of lime and magnesia in the rocks.

All practical farmers are aware that the lack of soluble silica is the cause why wheat and oats are apt to lie down on rich lands, and why they refuse to fill with seed the heads of grain. (?—Eds.) They also know that lime and magnesia as carbonates, do not enrich the soil, whereas when rid of the carbonic acid, they are of great value both directly as plant-food, and indirectly as means of supplying it, by decomposing and thus rendering soluble other unavailable constituents of the soil. This burnt clay is absorbent and filtrative, and has a tendency to sink into the sub-soil and amalgamate with it, causing it to work more easily and thus increasing the fertility of the soil. Heavy land can thus be cheaply and easily aerated and enriched, and a good part of the hitherto dormant chemicals contained in the great repository of Nature rendered fit for food for sustaining and stimulating vegetable life. From ten to twenty tons per acre of this burnt clay will permanently enrich the land, and farmers will find it much cheaper and more efficacious

than the commercial fertilizers that now throng our markets. (?—Eds.) H. G.
Staunton, Augusta Co, Va.

Industrial Topics.

SNOW DRIFTS.

W. I. CHAMBERLAIN.

HOW NOT TO MAKE THEM.

THE snow is beautiful, indeed, but mighty. As light as down, at first, the fleecy crystals fall. A single one, even on the delicate balances of the chemist, scarcely makes its presence felt. But gathered in countless millions by the thickening storm and swept onward by the gale, they become a force resistless. They block the path of the belated traveler. They fill the deepest railway "cuts," and bury the on-rushing trains. They crash in huge roofs by their accumulated weight.

So long as "the fleecy mantle of the earth" lies soft and still, it is poetic. But when the winds rise and "cock it up" in piles like mown hay in the meadows; when it takes bold possession of the broad highway, and drives the traveling public into the adjacent fields, then it becomes the most prosaic of facts, to be accounted for and overcome. It is in this aspect that I wish now to speak of it.

Recently in driving five miles on a southerly road, we were compelled five different times to turn out into the adjacent fields. The snow had taken complete possession of the road, by huge drifts filling it up from fence to fence—in one place for a full half mile at a single stretch. So great a hindrance to travel have the drifts been here this winter (and often before), that it has become a serious question how we shall prevent or overcome the difficulty. Here, as elsewhere, an "ounce of prevention is worth a pound of cure." I find that ounce of prevention in the *wire fence*.

Some years ago I had a lane running southeast from my barn, with a good board fence on each side of it. Our prevailing winter winds are from the southwest, and every winter that lane would drift so full of snow that it was almost impossible for cattle and horses to get through it at all. Nearly four years ago the agent for one form of wire fence offered to build one on the westerly side of the lane on these conditions: I was to test it *as long as I chose*. If then it proved effective to "turn stock" perfectly and prevent the drifting of snow in the lane, I was to pay for the labor and material. If not, not a cent; and I was to be the judge. The offer seemed to be so fair that I stripped the fence of its boards, took up each alternate post (leaving them a rod apart, which is near enough for wire fence), braced the end posts, and had wires stretched and the "barbed strips" of wood attached to the second wire from the top, and the fence was completed. It was in August, and a fine crop of "rowan" or "aftermath" grew temptingly in the meadow just over the wire fence. I yarded my whole dairy in the lane for several nights to give the thing a thorough test. The fence was too much for the cows. They wanted the nice grass, pricked their necks a few times on the barbed strips while reaching after it, and then quit the business in disgust. An unruly horse came up to it, didn't notice the top wire, but saw the barbed wooden strip a foot below it, and seemed to say to himself, "Pooh! do they call *that* a fence," reared and threw his front feet easily over the strip, and thought he was in the meadow. He was soon disabused of the idea. The top wire he didn't see, threw his legs down on the barbed strip which gave them a good pricking. The old fellow retreated a rod or so, came up in good order for a second attack, and—retreated as before. This time he tipped his head to one side, pricked up his ears in a comical way, and looked at the fence, as if he said, "Beaten at last, as sure as I live! A plague on this telegraph business, any way!" And he has not learned telegraphing yet!

Winter came, and the first storm of snow and wind said to itself, "Now I'll fill up that lane for the cows!" But not a drift could find harbor behind the wires any more than in the open field. At the end of a year I paid for the fence, and have since put up more than half a mile more. One strip of it keeps my neighbor's forty cows out of my grain fields and orchard, and another keeps my own dairy out of valuable crops. The cows and horses have not learned to jump it or break it down, or the snow to lodge and drift behind it.

This is not a puff or an advertisement of wire fences. I am not an agent, and have not the slightest pecuniary interest in their introduction. There are some objections to them, especially to the kind that uses a twisted, jagged, barbed wire instead of the wooden strip. But they have advantages. They are far cheaper than board fences, and seem to be durable and effective. But the point I urge here is that *snow cannot lodge and drift behind them*. Hedges, stone walls, rail fences and board fences, all harbor huge drifts. Time after time this winter, as I have turned into the fields to avoid such drifts that blocked the highway, I have said to myself, "A wire fence here would have prevented all this." And I have even questioned whether a law could not be justified, requiring owners of land bordering on the road in exposed localities subject to heavy drifting, to build there such fences as will not harbor snow drifts, or else keep the road shoveled clear. The fences that do the mischief in Ohio, with our westerly winds, are those on the west side of roads leading in a northerly and southerly direction.
Summit Co., Ohio.

REQUEST.—Will any of our friends who have tried the Billings' patent horse-shoe tell us just what they think of it?

Industrial Societies.

WESTERN NEW YORK HORTICULTURAL SOCIETY.

Paris-green and sheep versus the codling-moth; culture and manure for the Pear, Peach and Quince; paper bands against the c. m.; trimming trees; Pears free from blight; sod for bearing orchards, culture for young orchards, manure for old; drainage for all orchards, sandy soil for Apples, clayey for Pears; objection to cultivation of orchards; Apples set 20 feet apart in the largest orchard in the world: no fear of too much fruit; a couple of exceptions; disagreement; warm soil for early and heavy soil for late Apples; everlasting cider; cider jelly; small fruit packages and the kind of fruit for them; marketing fruit abroad; extra-quality fruit; keeping fruit; destruction of insect pests; good new Peaches and Grapes; cider pomace; yellows; a selection of Plums.

THE twenty-fourth annual meeting of this Society was held at Rochester on the 22d January, President Barry presiding. H. T. Jones read a brief report upon Ornithology and was followed by the reports of the County Committees on visiting Orchards.

Mr. Woodward, of Niagara Co., told us the receipts from fruits in his county were as much as from any other crop, and those who cared for their orchards received remunerative returns. For the Apple he preferred clean culture—grass was conducive to the apple-tree borer. Their successful fruit growers all practiced clean culture. The codling-moth was doing great damage, but his ravages were greatly checked by the use of the different moth traps—as many as 36,000 having been caught in one season by one party. He had tried bands, but preferred letting sheep run in the orchard. They were better than swine. In one instance Paris-green had been applied to destroy the canker-worm, quite early in the season, just after the fruit had formed. The trees thus treated bore fruit perfectly sound; whereas the rest of the orchard was badly infested with the codling-moth. The Peach required cultivation and responded liberally to generous treatment, barnyard manure being the best fertilizer for it. Pears could be grown without cultivation, but those orchards which were well manured gave the largest crops and the finest fruit. He recommended the use of ashes, salt, bone meal and lime. For Quinces he would add a little barnyard manure.

C. M. Hooker, of Monroe Co., to secure the best results thought the main thing was to keep the trees well cultivated till 25 years old and feed them well. He advocated the use of paper bands for destroying the codling-moth. The patent bands were no better than the paper, and cost more. It was his experience that a second band, near the branches, paid as well as the first. He had always had plenty of wormy apples, although he had used the bands constantly. In many instances much damage was done by trimming—which is generally done too irregularly and unmethodically to be of much value. He formed the head seven feet high and trimmed a little every year. We never hear but one side—the bright one—of fruit growing. Failures are seldom recorded. It takes longer for an apple orchard to come into profitable bearing than is generally supposed. He would look for profits after 20 years rather than before; and many orchards, for various reasons, would never pay.

W. Brown Smith, of Onondaga Co., said the apple crop was unusually large. The Quince crop, too, was large and the fruit very nice. Pears were the poorest crop of any—the cause being the blight. Some varieties were comparatively exempt—among them the Seckel, Tyson, Beurre D'Anjou, Duchesse, Winter Nelis, Josephine De Malines and Duchesse De Bordeaux, and he would recommend the planting of these sorts in districts afflicted with the pest. Godfrey Zimmerman, of Erie Co., thought younger trees might need cultivation, but for bearing orchards a sod was preferable, but the trees needed manure.

J. J. Thomas, of Cayuga Co., said that although their county had a soil well adapted for the Apple—they had no large orchards, and farmers generally complained this year because they had so many apples. Only those who had in previous years established a trade made money from their large crops. In every case cultivation or manure has been rewarded by fine fruit. He would recommend that young orchards be cultivated and old ones cropped short or manured. The Amsden June and Alexander, both large, handsome peaches, had ripened with him July 20th. Prof. W. R. Lazenby, of Tompkins Co., said the apple product was not a staple one with them. Some orchards were very productive, but in many cases there was a lack of thorough drainage—which should be the foundation of every orchard. Apples preferred a sandy soil, while Pears do well on heavy clay. He recommended the use of decomposed stable manure, refuse salt, lime and ashes. He would prune yearly if necessary, and never remove a limb larger than one inch in diameter. In his section he would plant the trees not more than 25 feet apart each way, and not allow them to grow more than 18 feet high. H. T. Brooks, of Wyoming Co., would advise not to plow orchards, although many of our best growers cultivate as much as they do corn. Salt gives stability to products and he would advise its use. The President then read an interesting letter he had received from R. McKinstry, of Hudson, N. Y. He planted his apples 20 feet apart each way, thinking the limbs would not interlace seriously before reaching the age of 25 years. He is satisfied with his course, and is confident the extra trees will amply repay for themselves before he is obliged to move them.

Questions for discussion were then presented, the first being, "Over-production: Are we in danger from an over-production of fruit, and how can we secure a steady supply?" S. D. Willard opened the discussion, advancing the theory that consumption increases more rapidly than production, and we need have no fears of overstocking the market. New markets were being constantly opened to us; insect enemies are increasing rapidly, and till we supply the whole world, we may increase our production and rely upon finding a good market. Mr. Younglove, of Vine Valley, would answer to the first part of the question, "No—except it may be of Apples and Strawberries—but of the Grape and Peach—*never*." The demand for grapes is increasing rapidly. People are becoming educated to the every-day use of fruit, and they buy it. Would answer the second part of the question by advising the selection of favorable localities along our lakes, where there is a reasonable certainty of a crop every year. "Plant orchards even if the locality is seemingly unfavorable. One crop of peaches will pay for all care and expense. It is so of other fruits. They will often succeed where success is not looked for."

Mr. Barry: "Fruit growing is not yet reduced to a system. It is mainly carried on by those who sell their surplus fruit at such prices as they may be able to get. I believe that fruit growing in Western New York will never be overdone—we have a favorable climate and good land, but our whole soil is not favorable for orchards. Any good dry soil is suitable for Apples, but sand is not so durable as clay and requires more manure."

Mr. Lay found that on his warm sunny soil the early Apples succeed the best; whereas the late winter varieties were more perfect when grown on heavy soil. Mr. Hooker stated that the history of almost any fruit-growing is that we have grown too much. It is no use to accumulate large crops unless we can find better markets. Reduce the area under fruit and take better care of what is left.

Mr. Woodward thought it would be impossible to over-supply our markets with prime fruit, but very easy to overstock it with second-quality fruit. The export of fruit this year was ten times our last year's exportations. The only way to produce a steady supply is to manure and cultivate our orchards better than we do.

"How can we enlarge and supply a home market for fruit?" was next discussed. Prof. Lazenby advocated the use of smaller packages for apples, as it would be more convenient for a portion of the consumers. Mr. Woodward spoke of a method of preparing cider, by passing it through sand, so that it would keep perfectly sweet any length of time. Mr. Thomas mentioned the successful experiment of evaporating cider to a jelly-like consistency. Mr. Hooker valued the home market more than the foreign. The beauty of our fruit sells it. If we add quality to this, the demand will increase. Make the grade even, both in beauty and quality. Mr. Green thought that beauty was more important than quality in securing the sale of fruit.

"Foreign market: Can we expect a large foreign demand for fresh and dried fruit, and how can we increase the demand?" formed the first topic for discussion at the evening session. Mr. Root thought that all that is necessary is to ship the fruit in an attractive form. Mr. Ellwanger instanced the high prices obtained in Paris for apples, and stated that neither that nor the German market was supplied. Mr. Hooker thought it would be a great advantage if we could establish direct communication with the European markets. Mr. Green said the Baldwin is a favorite in Europe. Mr. Woodward thought that honest packing was necessary. Mr. Hoag told of a gentleman who had shipped apples to Russia and obtained seven dollars per bbl. Mr. Beadle told of an American gentleman who had established a good trade in Scotland. He had done it by dealing honestly with his customers. Prof. Lazenby stated that in Michigan the Northern Spy was their best apple for exportation. Mr. Barry had successfully shipped apples to Europe, wrapping each one in paper and packing them in barrels.

"Extra quality of fruit: To what extent can the production of fruit of an extra quality be profitably carried?" was next considered.

Mr. Woodward said that the best only paid, especially in peaches and pears. He advised the practice of thinning. Mr. Younglove thought it was not so much the thinning as the time of thinning. Peaches should be at least five or six inches apart.

"Fruit packages: What description of fruit packages, etc., have been found most satisfactory, especially for small fruit, peaches and grapes?" was next discussed. Mr. Hubbard had found baskets holding six, twelve and eighteen quarts, very satisfactory: besides, they were very cheap. Mr. Younglove thought if market baskets holding about a bushel each and strongly made could be procured, they would be in demand. Mr. Hooker stated that Canadians put up apples in larger barrels than ours, and get a better price in consequence.

"Keeping fruit: Is there any new experience of value in regard to drying and canning fruits, and in the construction of refrigerator fruit houses and cars, or new method of keeping fruit?" was then debated.

Mr. Hoag spoke of the establishments recently put up near him as experiments, but which are working successfully.

"Insects: What progress has been made in preventing the ravages of insects, especially the codling-moth, the borers, and which of the several kinds of traps in use, have been found most effective?"

Prof. Lazenby said the codling-moth laid about 200 eggs in the course of the season, showing the necessity of destroying as many as we could. He did not believe it would do to rely upon medicated bands. He said the bands should be applied about the time the Wilson Albany Strawberry blooms, and should be frequently examined during the summer. Mr. Woodward spoke of the utility of hogs in an orchard for destroying the canker-worm, and sheep for destroying the codling-moth. Mr. Fish would be cautious in turning sheep into the orchard. Mr. Chapin thought the birds were our cheapest insect destroyers. Mr. Woodward advised washing the bodies of the trees with whale oil soap, to prevent sheep gnawing the bark. Mr. Hoag indorsed Mr. Chapin's views. He had bands last summer almost entirely destroyed by birds searching for the worms. Mr. Chapin destroyed the canker-worm by applying tar to his trees and sprinkling Paris-green on it. Mr. Zimmerman said there was a beetle that destroyed the chrysalis of the codling-moth. Mr. Beadle thought a soft soap preparation applied to apple trees in the spring, would keep the borers out. Prof. Lazenby knew of two orchards in which this preparation had been used with success. They used the soft soap undiluted. Mr. Harris thought, from his experience, it was unsafe to use ashes as a preventive for the borer.

New Peaches; Are any of the new early varieties of peaches worthy of being extensively planted for market?

Mr. Younglove would recommend the Alexander and Amsden June for near market. Mr. Hooker thinks it is premature to recommend any of the new varieties for extensive planting; Mr. Younglove likes the Salway for a very late peach. Mr. Woodward would be careful about recommending the Salway for general cultivation. It does well in only a few favored localties. Mr. Barry noted that the many new varieties brought out during the past year were mainly of Hale's Early parentage, and enumerated some 30 new varieties of Peaches brought out last year.

Mr. Green spoke highly of the Forest Rose Strawberry, Glendale, Captain Jack, Cumberland Triumph, Sharpless and Duchesse and recommended high culture if satisfactory results were desired.

"What has been the experience the past year with the new varieties of Grapes?" was the next subject handled. Mr. Prentiss gave a brief account of the Prentiss Grape which he has had in bearing for 14 years. It is a seedling of the Isabella; about as early as the Concord; a strong grower and very productive; foliage healthy; rather inclined to overbear; a good keeper and commands a high price in market. Specimens exhibited showed a handsome bunch of excellent keeping qualities and fair flavor. Mr. Farley described the Duchesse as a very promising sort from the Hudson River. He had fruited it two years at Union Springs; vine the most vigorous of any he grew out of 50 varieties. The form of clus-

ter resembles the Delaware but both berry and cluster are larger. Admirable for shipping. Mr. Salter thought highly of the Pocklington. It is hardy, early, productive, a strong grower and of fair quality. Mr. Hoag being requested by several, gave a short history of his new Grape, the Niagara. It ripens with the Hartford and hangs on the vine fully two weeks after ripening. An excellent shipper. Mr. Younglove, Mr. Hooker and others spoke in high terms of this new Grape.

The grapes above described are all white or green, and are all competitors for popular favor. None of them is yet for sale, but they are being carefully tested.

In the evening of the 23d inst., the question-box was opened and the following questions asked: "Has cider pomace any value as a manure?" Prof. Dann quoted from Prof. Storer that its manurial value was very slight. Mr. Barry would not throw it away. It is not injurious and might be beneficial.

"What about the Yellows?" Mr. Rogers thinks it is caused by the grub in the roots. Mr. Hooker, to prevent any misunderstanding as to the disease, gave the symptoms, which are: first year, slender, yellowish shoots appear to be forced out of the larger branches. This is followed by premature ripening of the fruit and deterioration of its quality. The second year, these symptoms appear to be aggravated, and perhaps there is no fruit at all, followed by the possible death of the tree. No hope for a tree once diseased—better dig it out and burn it. Some localities that were formerly seriously affected with this disease, are now entirely free from it. He is afraid its visitation here will prove a serious thing. Mr. Hooker reported that they had been troubled with it in Chautauqua County for several years, but it was now spreading very rapidly over the whole county. Mr. Woodward said that in Niagara County the yellow shoots do not appear at first and sometimes one-half of the tree will be diseased while the other half is apparently healthy, but the second year generally takes the other half too. They had never been troubled with the yellows till after the winter of 1877, and many whose trees were apparently diseased had restored them to their former vigor by the liberal use of barnyard manure. Mr. Fowler said that the yellows was accompanied with low vitality. By proper care and manure he thinks we can keep it out. Mr. Younglove stated that the cause of the death of the tree was the grub. The yellows are always first seen in the fruit. He would remove the tree and have some hesitation in replanting in the same spot. Mr. Hooker said that the disease sometimes commences on one branch. We should not regard peach culture as a hopeless case, because the yellows have disappeared in some localities. Mr. Allen had restored his trees by the use of barnyard manure. Mr. Ruhlman stated that a Dr. Gould had applied iron chips around his affected trees and with good success. Mr. Barry said that all these symptoms are common in sickly trees. Many trees have this appearance, which do not have the yellows.

Mr. Barry was requested to name the six best Plums for market culture. His choice was: Reine Claude de Bavay, Lombard, Pond's Seedling, Fellenberg, Bradshaw, Coe's Golden Drop, Magnum Bonum, Shropshire Damson. He did not like to stop at the half dozen. Mr. Hoag named the Mooney as a valuable market sort. Mr. Hooker would add the Monroe Gage; Mr. Jones, the German Prune.

Upon some reference being made to the Russian Apples, Mr. Barry stated that he did not know of one as good as our own, but they were hardy and especially adapted to the Northwest.

H. T. J.

VERMONT DAIRYMEN'S ASSOCIATION.

THE winter meeting of this active Society, which was held at Montpelier, Jan. 22, 23 and 24, was, as usual, well attended, spirited, and every way successful. Papers on a great variety of subjects were read, and addresses made on various topics by intelligent gentlemen. These were followed by lively discussions. The most prominent speakers from abroad were Professors Atwater of Connecticut, and Englehardt of Syracuse, Mr. Whittaker of Massachusetts, and Capt. Strongitharm of England. Among our home speakers was ex-Gov. Smith, who, besides being president of the Vermont Central Railroad, is one of our most extensive farmers, and who gave a very vivid and interesting sketch of his recent trip through England, Ireland, Belgium, France and Switzerland, in each of which countries he took pains to inform himself by personal inspection of the actual condition of agriculture, and especially of the dairy interest. His report of his visit to the Cork (Ireland) butter market, and his comparison of it with the almost equally noted butter market of his own town, St. Albans, excited a lively interest among his hearers. Mr. Skinner, of Tunbridge, and Mr. Whitney, of Williston, two of our "boss" butter makers, (dairymen who have got far beyond that once imagined *Ultima Thule* of 300 pounds to the cow), gave full and detailed accounts of their methods of management and manufacture. The last-named gentleman, who began dairying twenty odd years ago with a herd that yielded 50 pounds of butter per cow, has, by careful selection and breeding, with little use of foreign blood, probably come the nearest of any man to creating a native breed of dairy cows. Prof. Englehardt discoursed upon the sugar-beet and beet sugar making. Prof. Atwater gave one of his clear, masterly lectures on feeding materials, with special reference to the feeding of dairy herds. Capt. Strongitharm read a paper upon the feeding value of the palm-nut meal. Mr. Whittaker discoursed with ability upon the general subject of dairy-feeding, and the management of herds with reference to continuous milk production. The subject of the recent International Dairy Fair, and Vermont's position there, formed very interesting topics of discussion, and it was resolved with enthusiasm that the officers of this Association should accept the offer of a position in the management of the International, with authority to contribute financial aid, and with instructions to secure a full representation of Vermont in every line of dairy production at the next international exhibition. It came out in discussion that, notwithstanding the inroads of Western creamery butter upon the market for our medium grades of product, for strictly fine and fancy butter Vermont still holds her grip on the Boston market, the only difficulty being the lack of enough of this class of goods to answer the rapidly growing market for a kind of butter not heretofore demanded in large quantities.

T. H. HOSKINS, M. D.

Orleans Co., Vt.

The Herdsman.

STOCK NOTES.

KEEPING BACK HOGS.—In view of the extremely low price of hogs during the present season, a price lower in some parts of the West than has been obtained for them at any time within the last thirty years, it would probably be more profitable to hold back young and thrifty animals than to sell them now at a loss, which in many places must be done if they are disposed of at the ruling figures. The present depression in the trade cannot last. The financial stringency which now depresses all branches of trade, can only be temporary. The last report from the Treasury at Washington shows an accumulation in that department of $233,000,000 in coin, almost the whole of which must go into circulation within the next twelve months. In the banks of England and France a very unusually large amount of coin and bullion has also accumulated—a sure sign of an exceptionally bad state of trade in our foreign markets. During last year the excess in value of our exports over our imports was in the neighborhood of $280,000,000, a gain of that amount by this country, and it is estimated that during the present year the gain will amount to $300,000,000. Since New Year's about $150,000,000 have been invested here in Government bonds at four per cent. interest, mainly by banks and capitalists, and the greater part of this sum will certainly be withdrawn and put into undertakings which will return a larger percentage, so soon as financial confidence revives, and this must soon occur now that the business of the country has returned to a specie basis. The tightness in money matters caused by this measure has been especially hard upon farmers, but it is the part of wisdom to pluck consolation even from disaster, and hope at any rate can be drawn from this step. Moreover, the present distress among the working classes in Great Britain, who in good times are among the best customers for our hog products, cannot last long, and with an easier money market and an increase of purchasers, prices must go up. Then again, many farmers will probably be discouraged by the present prices of hogs and quit the business of raising them, and the consequent smaller supply next year will contribute with the larger demand and the greater amount of money in circulation to raise the prices for them a twelvemonth hence.

We have here mentioned our chief reasons for the suggestion that hog products will probably "pay" better next winter than they are doing this, in order to enable our readers to form an intelligent opinion on the matter for themselves. Of course, the risks of loss from disease in the meantime, as well as the comparative value of the extra feed and the profits therefrom, together with the worth of money in hand, are all questions which every farmer is in the best position to decide for his own neighborhood and his own circumstances.

WINTER SHELTER FOR SHEEP.—The advantages of shelter for all kinds of stock during the inclemency of winter have been so frequently and forcibly set forth in these pages and in all other periodicals and works in which the best agricultural experience has been given to the public, that to dwell on the subject here would be as wearisome as to dilate upon the evils of cracks in barns. There are some people, however, who, while they are careful to provide protection from the weather for their cattle, their horses and even for their hogs, seem to imagine that Nature has done this office for their sheep. Because they themselves might to a considerable extent be insensible to the miseries of cutting blasts, of heavy showers, and of melting snows, if protected by the sheep's warm fleece in addition to their usual covering and while kept warm by moving about, these wiseacres act on the supposition that the same defence must be equally effective for its owner. They forget that an unusual protection is in every case needed against an unusual hardship, whereas the unsheltered sheep has only its ordinary coat to screen it from severe weather, however extraordinary it may be. Moreover, the covering that would be warm enough for man or beast while in motion, would be a sorry protection for either while asleep or at rest. Then again, neither the cold nor the wet that penetrated the fleece in which they might be easily enfolded, would come into direct contact with the sensitive nerves that ramify all through the skin, and by reflex action from the little brains even such folks must have, would produce a local feeling of discomfort and misery, while the same causes would instantly produce these sensations in the poor sheep.

Here at the East almost every sheep owner affords his flock some winter shelter, but out West this is often neglected, not through such stupidity as that here indicated, but from carelessness, oversight or on account of the examples set by neighbors; for examples of this kind are often more infectious than diptheria. For the sake of economy in feed, of the health of the poor things, and of gentle humanity, we would urge upon any of our readers who may have hitherto neglected to provide some sort of shelter for his fleecy flock, to delay not an hour longer before he supplies the omission. Even a rough shed to shield them from the pelting rain, the heavy snow or the cutting blast, would be a godsend to the pitiful things during this inclement season.

HOGS.—Following is the total number of hogs packed in the West during the winter season, with average cost of hogs per 100 pounds, dressed and gross, according to Cincinnati "Price Current" reports:

Seasons.	Number packed.	Cost, net.	Cost, gross
1877-78	6,505,446	$4 99	$3 99
1876-77	5,101,308	7 18	5 74
1875-76	4,880,135	8 82	7 05
1874-75	5,566,226	8 33	6 66
1873-74	5,466,200	5 33	4 34
1872-73	5,410,314	4 66	3 73
1871-72	4,831,558	5 15	4 12
1870-71	3,695,251	6 58	5 26
1869-70	2,635,312	11 53	9 23
1868-69	2,499,873	10 22	8 18
1867-68	2,781,084	7 95	6 36
1866-67	2,490,791	7 22	5 78
1865-66	1,785,955	11 67	9 34
1864-65	2,422,779	14 32	11 46
1863-64	3,261,105	6 70	5 36
1862-63	4,069,520	4 20	3 36
1861-62	2,893,666	3 03	2 42
1860-61	2,155,702	5 67	4 57
1859-60	2,350,822	5 91	4 73
1858-59	2,465,552	6 28	5 02
1857-58	2,210,778	6 86	3 89
1856-57	1,818,468	5 94	4 75
1855-56	2,489,502	5 75	4 60
1854-55	2,124,404	4 21	3 37
1853-54	2,534,770	4 19	3 35
1852-53	2,201,110	6 01	4 81
1851-52	1,182,846	4 45	3 56
1850-51	1,332,867	3 75	3 00
1849-50	1,652,220	2 66	2 13

Of these the following numbers were packed in the towns mentioned during the last 25 years:

Seasons.	Chicago	Cin'ti.	St. L.	Milw.	L'ville.	Ind's.
1878	2,501,215	632,302	509,540	371,982	279,414	270,150
1877	1,618,084	523,576	414,747	225,598	214,862	294,198
1876	1,592,065	563,359	329,895	181,972	223,147	323,184
1875	1,690,348	560,164	462,246	236,598	273,118	278,329
1874	1,590,024	481,253	463,786	294,024	295,967	295,769
1873	1,425,079	626,305	538,000	340,500	302,244	196,317
1872	1,218,858	630,301	419,062	315,000	309,512	172,100
1871	919,087	520,086	305,200	241,000	248,135	105,000
1870	688,140	337,320	241,316	172,628	185,000	65,474
1869	597,954	356,156	234,341	129,094	167,308	56,466
1868	796,226	305,831	237,323	159,463	140,980	52,645
1867	639,332	462,610	176,830	138,370	157,071	53,739
1866	507,355	354,079	116,760	87,853	90,519	36,000
1865	760, 14	350,600	185,894	107,130	92,409	55,838
1864	904,659	370,623	240,089	141,001	109,267	66,400
1863	970,264	608,457	175,000	182,465	116,000	77,000
1862	505,691	474,467	84,093	94,761	91,326	42,100
1861	271,805	433,799	70,800	61,000	138,751	38,781
1860	151,339	434,429	70,326	22,000	251,270	32,276
1859	171,684	383,826	67,500	32,000	288,500	33,214
1808	99,262	446,677	98,000	16,000	258,913	40,480
1857	74,000	344,512	71,531	15,000	245,830	27,160
1856	80,380	405,396	93,000	34,000	232,733	65,030
1855	73,694	355,786	89,830	84,000	283,788	34,476
1854	52,849	421,000	90,000	43,000	407,033	44,900

HINTS FROM ASSEMBLED WISDOM.—At the fifth annual meeting of the Iowa Fine-Stock Breeders' Ass'n, lately held at Des Moines, abortion in cattle and horses was attributed to over-exertion, fright, use of the spurs in mares, foul food, moldy fodder, soured roots and ergotized grain. As preventives, food should be changed frequently and the above causes avoided. To prevent contagious abortion, affected animals should be quarantined. The Cotswold was honored with the title of the Short-horn among sheep, on account of its rapid growth, superior quality, tendency to fatten at any age and long wool. Grass was enthroned on the seat from which King Cotton was years ago deposed. Hogs, it was held, would be more healthy and profitable if they got more of it than they now do. For roadsters, a trotting sire was preferred to a thoroughbred, and farmers were advised to shun breeding fast horses and confine themselves to draft-horses. The great advantages of beef cattle that can be fatted for the butcher at an early age, were strongly dwelt upon. So were those of creameries over butter making at home. As a remedy for warts on calves, a salve was recommended, made of sulphur, lard and camphor; and to get rid of lice on cattle, two methods were given: first, an application of two drachms of arsenic in a quart of water; and, second, thoroughly washing, and applying eight parts of good linseed oil, one part of tar, and sulphur sufficient to make a thin paste.

JOTTINGS.—The recent rise in hog products seems to be of a speculative nature, as it is generally conceded that the supply is greater than the demand. The "bulls" who tossed up the prices will probably be badly injured by the "bears" who have already pulled them down. . . . The sale of Hereford cattle appears to be rapidly growing in the West, especially on the plains where milk is of little or no account. Hereford breeders claim that for beef their breed matures at least as early as the Short-horn, takes on flesh as readily, and brings top prices oftener in the London market. . . . Mainly on account of some articles in American papers, asserting the existence of pleuro-pneumonia among our cattle in some isolated parts of the country, the English papers have for some time been making strong efforts to secure from the Privy Council an order compelling the slaughter, at the port of debarkation, of animals imported from the United States. On the 28th of January news was telegraped to this point that on account of the arrival from Canada of a cargo of cattle, some of which had died on the passage from that much-dreaded disease, the Privy Council had yielded to the pressure put upon it and forbidden the removal from the port of debarkation of cattle shipped from this side of the Atlantic. This measure would lower the price of imported beeves about $25 per head, and as the shippers would be sure to deduct at least that amount from the prices given here, our stockmen and farmers would be so much out of pocket. The news came from Montreal and it is thought that it was merely a trick of Canadians, to secure the bulk of the trade for the next year. Although shippers here are in daily expectation of such an order, no direct news of its issue has hitherto reached this port. . . . Fat Scotch cattle bring in the English markets $25 per head more than American cattle of the same weight, the difference being due solely to their superior quality. Here is a profit for the improvement of our stock by more careful breeding. . . . Three or four weeks ago, it was mentioned in our "news" department that an English buyer of horses for Egypt declared that Great Britain could not compete with America in the price of horses for his market, and now we find that the American, Gen. Stone, for a long time an officer in the Khedive's army, has written to Commissioner Le Duc that there is a fine opening for the sale of our prime horses in the land of the Pharoahs. . . . All live-stock designed for exportation are carefully inspected by Government order to prevent all possible danger of spreading any contagious disorder elsewhere. . . . That British Empire Horse Association whose formation was mentioned some months ago in the RURAL, is about to wind-up its affairs, leaving others to realize its high expectations of profits from the importation of horses from this country.

The export demand for cattle in Canada next spring is put down by the American Stockman at eight thousand fat beeves a week, and it is considered probable that the shipments from this country will be at least as heavy. In the latter estimate no account is taken of our live-stock trade with Cuba and a few of the other West Indian Islands which are supplied mainly from Texas and Florida. . . . We notice in our Western exchanges, and in telegrams to New York papers from that quarter, that there has been considerable mortality among sheep in some parts of those States and especially on the plains, owing to lack of food and shelter. . . . There is a pretty lively discussion between the National Live-Stock Journal and the Turf, Field and Farm about the value of thoroughbred blood in the trotter. The former, while acknowledging that the modern rattler originally derived much of his good qualities from that source, thinks that where prime roadsters are wanted, the best cross now is that with a good trotting sire. It declares that our trotters have been so vastly improved of late that it would be as hopeless to expect further advancement from thoroughbred blood in their case, as it would be to think that an increase of speed could nowadays be secured by the cross of an English race-horse and an Arab. Our New York contemporary, on the other hand, is of the opinion that there still remains a good deal of trotting virtue in a thoroughbred cross, and for the last few weeks has been citing a number of exceptionally fast examples of young flyers, the progeny of such breeding.

LARGE HOGS.—A correspondent from Augusta, Kalamazoo County, Mich., writes us that this fall he sold two hogs, 20 months old,

that weighed, alive, 1,250 pounds, and dressed, 1,100 pounds. They were a cross of Chester White and Byfield.

Miscellaneous.

PEARL MILLET.

EDS. RURAL NEW-YORKER,—*Dear Sirs:* In your notice of our Catalogue—for which by the way accept my thanks—you seem to think I made a mistake when I stated that Pearl Millet grew with us to an average hight of 9 feet in 45 days. No, Sirs, I can assure you that no mistake or exaggeration was made, either in dates, hight, or weight. In fact I was so astonished at the result, that in every case I had the weights and hights carefully tested by my foreman for corroboration; and I can further assure you that in every instance we give, they were under, rather than over the results stated. But as I said in my article, it was garden culture, and it would not be reasonable to expect such yields from the average farm culture.

I have just been talking with a gentleman who has most successfully practiced the ensilage method with green-corn stalks, and he is now preparing to grow Pearl Millet next season for this purpose, and thinks with the extraordinary growth of the Millet, and the economic advantages of ensilage, that even a "little farm well tilled," may prove a gold mine to dairy farmers in the vicinity of large cities. PETER HENDERSON.

New York, Jan. 30, 1879.

POSSIBLE DISASTER FROM IMPROVED FARMING.—Good butter, prime meat, No. 1 wheat, and, in fact, all good things are scarce and costly. The farmer who bends all his energies to produce such crops, grows rich fast. Therefore *all* farmers should at once abandon their slovenly, slipshod modes of doing business, note well-tested methods of doing better, and "go and do likewise." But suppose everybody does do so; suppose everything grown or produced is of the very highest and finest quality possible, will prices keep up? No, indeed! they would come down to the price of rancid butter. Then, what 's the use of trying to do better, if it is only to bring ruin upon the whole community!! Fortunately there are not many who are trying, it being one of those questions not yet perfectly settled in the farmer's mind, whether any effort to get above the common herd is worth the trouble. From present appearances, the "dreadful consequences" may be looked at calmly; there is no danger of such a condition of things culminating in our time, so we may all possess our souls in patience. S. R. M.

WHAT OTHERS SAY.

MYSTERIOUS PROVIDENCES.—Mr. W. I. Chamberlain, in a thoughtful article to the New York Tribune, shows that we are over-ready to ascribe to the dispensations of a Mysterious Providence what is really due to our own laziness or ignorance. He says: "Some years ago a fellow-townsman died of low typhoid fever. Both of his sons sickened of the same disease. One died, the other 'recovered,' shattered for life in mind and body. At the funeral the minister made such remarks as one would expect from the text: 'How unsearchable are His judgments, and His ways past finding out.' But in this case were the judgments unsearchable, and the ways concealed? As the minister stood in the open doorway of the house, there was wafted to him a stench, almost intolerable to untrained nostrils, from the pig-pen not a hundred feet distant, where a dozen huge hogs were fed thrice daily with sour whey, and from the barnyard nearer still on the other side, where thirty cows were milked night and morning, trampiug their voidings deep into the muddy ground. Midway between yard and pen was the house well, and the copious summer rains had doubtless soaked typhoid germs from both through the level, porous ground into this well, to be drank daily by the unthinking victims. And day and night the malaria from the same sources unstrung their physical systems, and made them susceptible to the poison. And yet the doctor had never pointed out these things, or advised their removal."

After giving several forcible facts which have come under his own observation he concludes:

"But why multiply examples, as I might do from personal knowledge and from books and medical reviews? They give almost countless well authenticated and thoroughly tested instances where disease-germs have been filtered through the soil from privies, pig-pens, cow-yards, grave-yards, buried excrements or washed bedding of typhoid patients, and from defective sewers or drain-pipes and the like, sometimes long distances, into wells and springs, and have given slow poison to individuals, families, neighborhoods and even whole villages, while bad air has increased the evils of bad water. Such facts ought to be known and heeded. Such milking-yards and pig-pens as those described ought to exist nowhere, or at worst never near enough to house and well to taint air and water. Cheese factories, too, with scores of hogs fed near by, or whey run into the nearest brook, are often breeders of ague and typhoid fever. Their offensive features should be abated, by law if necessary. In villages, the slop-drains and privies often create nuisances and destroy health and life. In the village referred to above, the instances cited, and other similar ones, finally forced the council to pass and enforce stringent sanitary ordinances.

"The doctors in any community have a duty to perform; and if, through ignorance, self-interest or false delicacy, they fail to perform it, why shall not the ministers undertake it? They can do it in the line of their profession. For if our bodies are to be "fit temples for the indwelling of the Holy Spirit," they certainly demand physical care on moral grounds. As for "Mysterious Providences," God does oftimes "move in a mysterious way," no doubt, but far more often according to fixed natural laws not hard to be understood by those who will study. In such cases what right have we to talk of mystery? What right have we to think we are "receiving the chastisements of the Lord in meekness," when we are simply taking the physical consequences of our own negligence or filth? What right have we to submit to what we can surmount or remove? That is laziness, not piety; and ministers will do valiant service by telling us so. With tremendous power can they teach from instances like those I have given that "whatsoever a man soweth that shall he also reap." And few incitements to right living are more powerful than this law if really believed."

FARMERS AND POLITICIANS.—*Editor Rural:*—I like your caricatures, and I like the idea of publishing them. Nothing has a greater influence with the public than pictorial wit. It takes hold of men that argument cannot reach. It strikes hard, and to a vital spot, and is feared by the wrong-doers more than all other methods of attacking wrong. Nast's pencil broke up the Tweed Ring—pity that pencil has been employed so ill since. Nast, the satirist of crime in high places, was a great moral force: Nast as a mere partisan, is a melancholy object.

The farmers need the aid of the pictorial satirist, and are just the men to appreciate and applaud his work when done for their behoof. We have had plenty of flattery from the politicians, while the same politicians were making laws to hurt the farmers. So have come upon us high taxes, the result of extravagant legislation; and unequal taxes, by means of which an unjust share of the public burdens is put upon farming property. These wrongs cry loudly for redress. Add to this, exorbitant usury (ten per cent. and sometimes more, on the perfect security of improved farms), and any one may see that the only thing that has kept tens of thousands of farmers from bankruptcy has been a succession of favorable seasons that we all know cannot long continue. If the RURAL will strike for the farmers as a farmers' paper should, with pen and pencil, you may soon reckon your subscribers by the hundred thousand. The field stands unoccupied before you. T. H. H.

MUSHROOM CULTURE.—"We saw a crop last Saturday," says the London Gardeners' Chronicle, "that well merited the application of the term 'wonderful,' in Mr. Maitland's garden at Merton Abbey, Surrey, and which, without exception, is the best example of mushroom cultivation that has come under our notice. The Mushroom-house is 155 feet long, and 12 feet wide, and contains five beds, four for mushrooms and one for sea-kale, and each of the entire length of the shed. There is a path down the center, about 30 inches wide, and the beds are arranged two on one side, three on the other, and all averaging about one foot in depth. The practice followed is to fill up the beds with ordinary 'London manure' beaten firmly down, and then left until the heat is on the wane before spawning. When this is done the beds are covered with hay for a week to 'draw the spawn;' at the end of that time, or as soon as it is seen that the spawn is freely on the move, about half an inch of soil is lightly placed over the beds and merely leveled down. For a week or two after soiling the temperature of the house is maintained at about 60°, and subsequently at about 53° or 54°. In this way the mushrooms begin to appear in about thirty days, and in about five weeks the beds are in full bearing, as at present, and producing the delicious "buttons," 'cups," and "grillers," in perfectly astounding quantities. In ordinary practice it takes six weeks to get a crop, and then not often a big one.

WHY DOES MAIZE YIELD TWICE AS MUCH AS WHEAT?—Referring to a discussion upon this topic in the American Cultivator, Professor Beal says: "The two crops are not treated with equal fairness. The wheat is usually sown (when it yields fifteen bushels to the acre) and allowed to struggle with weeds and a baked soil, while the Indian corn, if we consider workings in both directions, is cultivated from four to six times during its early growth.

Give wheat good cultivation after the plants come up, and we all know by numerous experiments that the yield is very greatly increased. Perhaps Mr. Harris has never seen the experiment tried of planting Indian corn and then allowing it to fight its own way with grass and weeds, with no hoeing by hand or horse. In Michigan we have some enterprising (?) men, who have tried this valuable experiment on corn, whether by design or shiftlessness it does not matter. The result on the maize was amazing, and far from gratifying. I have not seen the crops measured, but I am certain in some cases there could not have been fifteen bushels of shelled corn to the acre."

NIGHT SOIL.—If the privy were treated more like an earth-closet, and a barrel of dry sifted coal ashes kept convenient for covering the excrement as fast as deposited, the health of the family and the fertility of the soil would be greatly improved. Night soil thus treated is handled with as much facility and as little offense to the olfactory nerves, as is a pile of rich barnyard manure.—ALEX. HYDE, in the New England Homestead.

TALKS ON TIMELY TOPICS.

FUNDING DEBTS.—The Government of this country is rapidly paying off debts contracted by it when it was glad to be able to borrow money nominally at six per cent. interest, but as it had to take the loan in depreciated greenbacks and has now to pay it in gold, the interest on the amount actually obtained, was in reality far more extortionate than the greediest money lender would have the face to ask even of a farmer. To pay off these old debts whose exorbitant interest has for years been a grievous burden on the industry of the country, the Government is contracting new debts on which it has to pay only four per cent. interest. We hear of several farmers, also, who are preparing to imitate this wise economy. To get rid of old debts, the interest of 10 or 12 per cent. on which has been gradually reducing them to poverty, each of them is now on the outlook for an opportunity to incur new obligations at a much lower percentage, with the proceeds of which he intends to clear off his outstanding liabilities together with their heavy yearly burden. In the near future capital must be content with more modest profits than in the days of inflation; these men will accordingly be able to borrow money at lower rates of interest, and after they have by this means paid their old debts, though the sum of their indebtedness may be as great in the future as in the past, their yearly tax on account of it will be much lighter, and therefore more easily bearable.

LOW PRICES AND HIGH EXPENSES ON ENGLISH FARMS.—For at least twenty years, the London Live-Stock Journal says, farmers there have seen nothing like the hard times that are now upon them. Within a year, while high-class cheese has held its own, inferior kinds have sunk at least $5 per cwt.; butter is from 12c. to 15c. per pound lower; fat pigs are scarcely salable; wool is about half the price it was five years ago; and wheat from 24c. to 36c. less than this time last year. Then look at the burdens which English farmers have to bear, and from most of which ours are free. At a recent agricultural meeting in Essex, one of the farmers, who rented 210 acres, of which 195 acres only were productive, gave the following abstract of his expenditure during the year, outside of his rent, all farm and family expenses and government taxes: Tithe paid to lay proprietor of the local church "living," $512; ditto to vicar, $148; poor rate, $201; sanitary rate, $57.50; surveyor's rate, $35.25; school rate, $20; voluntary church rate, $10.25, or a total of $985.

CATALOGUES, &c., RECEIVED.

B. K. BLISS & SONS' ILLUSTRATED HAND-BOOK FOR THE FARM AND GARDEN AND CATALOGUE OF GARDEN, FIELD AND FLOWER SEEDS, 34 Barclay Street, New York. So-called novelties are offered in abundance every year, as being decided improvements upon older varieties of their kinds. And yet those who purchase them find out to their cost that they are too often inferior to the old sorts, and that not one in twenty is really worth the high price asked. This firm has, we think, been fortunate in the selection of new things to offer to the public, as the popularity of many which they have introduced from season to season, through many years, may prove. Among potatoes, the Early Rose, Snowflake, Alpha, Peerless and others are widely known and cultivated. The Acme, by many deemed the best of all our tomatoes; also the Conqueror and Golden Trophy; and latterly the much-talked-of Defiance and Champlain spring wheats, have been popularized, so to speak, by their enterprise. All of our last year's readers will recall our own experiments with Defiance and Champlain spring wheats. Of six different varieties planted, Defiance produced the heaviest straw, the largest heads and the greatest number of grains to the head. Hot weather and frequent showers, as we supposed, caused the grain to shrink so that the yield was very light. But we have never been able to raise Spring Wheat profitably, and it is not to be supposed that either Defiance or Champlain will succeed where other spring varieties persistently fail. A month ago we were obliged to pay $15.00 per bushel for seed of Defiance for our free seed distribution. Mr. Bliss informs us, however, that his supply is now greater than he supposed it would be at that time, for which reason the retail price has been fixed at $15.00 per bushel. Mr. Bliss also offers our Beauty of Hebron Potato at 60 cts. per lb. He is fair enough to admit that "it is a fine cropper of excellent quality, ripens with the Early Rose, and is equally valuable as a market variety."

His American Wonder Pea was tested at the Rural Grounds last summer and reported upon. We can assure our readers that it is of excellent quality (as good as the Little Gem), of dwarf habit, vigorous and productive. The only *Wonder* to us is that Mr. Bliss should be satisfied to present a picture of an English variety as its portrait. Among other new peas we see Culverwell's Telegraph and Carter's Telephone, the first of which we tested last season with results which did not commend the variety as worthy of special notice.

Among a long list of seeds of special plants, we see the Climbing Asparagus offered. It differs from ordinary Asparagus only in its vine's manner of growth. This catalogue of 136 pages is one of the most neatly executed and serviceable to the farmer, gardener or florist, published in this country.

THIRD REPORT of the Montreal Horticultural Society and Fruit-growers' Association of the Province of Quebec, for the year 1877. This handsome compilation contains an unusually large fund of useful information on many branches of the horticultural art, and is especially rich in information valuable to fruit-growers and to the cultivators of flowers. A very important point in the teachings of such works lies in the fact that they are not the gleanings of book-makers, merely compiling what others have said on each topic, but the honest lessons taught by the experience of those who have won a well-earned reputation for efficiency in the practical treatment of the plants about which they speak. For instance, in this work may be found an article by Dr. T. H. Hoskins on Apple Culture in the Cold North, and another by Mrs. Annie L. Jack on Currant Culture, and our readers know that any information either of these gives on the subjects mentioned, is the outcome of actual experience, and therefore of no small practical value. The pamphlet contains 22 other reports on various topics of interest and importance to horticulturists, equally the results of the experience of other persons whose names, however, are not so pleasantly familiar to our readers. The manner in which the work is edited reflects credit on the Secretary of the Society, Henry S. Evans.

JAS. J. H. GREGORY, Marblehead, Mass. An excellent catalogue, free to those of our readers who will apply. Among the seeds of the more notable plants offered, we see the early Amber Sugar Cane, which is now exciting a deal of interest in various sections; White Russian Spring Wheat, which, our readers may remember, is one of the varieties which we tested at the Rural Farm last spring. As compared with the others it did not take a high rank;—Teosinte (Reana luxurians), for a description and cut of which we refer to the RURAL of Nov. 2, may prove of value as a fodder plant south of Pennsylvania;—American Wonder Pea, which, according to our tests, is one of the best second early peas in cultivation;—Egyptian Sweet Corn, and an endless list of squashes, melons, beans, tomatoes, etc. The engravings are exceptionally good and the entire catalogue one of the best.

E. & J. C. WILLIAMS. Descriptive Catalogue of trees, plants, vines, etc. Montclair, N. J. There are some nursery establishments that it gives us pleasure to refer to, because we know our friends ordering of them will be faithfully served. The above is one of them. The Messrs. Williams make a specialty of small fruits; are the introducers of the well-known Kittatinny Blackberry; are nurserymen of great experience, and may be trusted to do just whatever may justly be expected of them. The pamphlet is free.

DEPARTMENT OF AGRICULTURE, Special Report No. 9. This Report, of 28 pages, is of more than usual utility and interest. In it are enumerated the different varieties of wheat, corn, cotton, oats, barley, buckwheat, potatoes, Irish and sweet; hay, sorghum, tobacco and fruit, chiefly cultivated in each State during the past season, together with a pithy statement of the success that attended each sort.

BARR & SUGDEN, 12 King Street, Covent Garden, London, W. C. Descriptive Spring Catalogue of choice Seeds for the flower and kitchen garden. This establishment is well known as being one of the most enterprising and trustworthy in England.

Dairy Husbandry.

DAIRYING IN 1878.

THERE can be no disguising the fact that the season of 1878 has been a hard one for the dairy interest of the country. The prices of butter and cheese have been extremely low, and wherever milk has been sold, the price of that has corresponded with those of its products. As a result dairymen are generally discouraged. With most of them, besides loss from low prices, there has been an additional loss in the value of their stock. For those who bought on credit last spring, in hopes of paying from the season's profits the outlook is as bad as it well could be.

Dismissing this feature of the case, let us see if there are not some compensating advantages in low prices for those who make the business a permanent one.

First: the decline in prices of stock for those who are not in debt or do not care to sell, can scarcely be called a loss. It makes no difference to the productive capacity of ten cows whether we sell them at twenty-five, or one hundred dollars each. In the latter case, the owner is apt to spend money more freely on personal expenses, live higher and finally come to grief. If he calls his cows worth only twenty-five dollars each, he does not expect to make so much, and so manages to come out all right. Calling our property worth more than it is, has been the ruin of many a business man these last few years.

Second: with cheaper cows we are getting down to bottom prices in the cost of production. This is greatly enlarging the market for our dairy products. American cheese is going abroad more extensively than ever before. We undersell English cheese-makers in their own markets. Our own people are learning to use cheese more than ever before. When once they begin to use it they will not soon discontinue it. But for the extremely low price of meats, cheese would be used still more than it is. The difficulty in getting a good market for cheese has been that the great mass of farmers through the country who do not make cheese, manage to do without it. Hereafter it is almost certain that dairy products will be higher; but so far as cheese is concerned, this will not induce farmers to engage in its production. It requires too many and too expensive appliances, and altogether more skill than any can afford except they make dairying a regular business. Yet wherever the liking for cheese has been learned, there will be a sure and steady demand even at considerably higher prices than now prevail. Whoever then can manage to rub along this year, may confidently hope to do better in the near future.

Monroe, Co., N. Y. W. J. FOWLER.

The Poultry Yard.

HOW MANY EGGS CAN A HEN LAY?

THERE is little doubt but that away back before the arrival of historical times, the hen had been domesticated, and supplied the rude, scantily clad tribes of those days with eggs and toothsome morsels. Since then few animals have been so closely connected with domestic life, or have afforded both by their numbers and their intimate relationship to man, so many opportunities of ascertaining everything of interest concerning themselves, and yet, strange to say, considerable doubt still rests upon the number of eggs any breed of them is capable of laying under any particular kind of treatment. In order to arouse a legitimate interest on the subject with a view to settle the question on a basis of ascertained facts, we gave in the RURAL of Dec. 21, a statement by a practical poultry keeper of the number of eggs from different breeds of fowls. Again, in our issue of Jan. 11, we quoted from the work of Prof. Miles a statement of Geyelin, given with the assurance characteristic of a full-fledged scientist, to the effect that no hen can lay more than 600 eggs, and the learned man condescended even to specify the proportion in which these would be dropped in each of eleven years. In giving this statement, we ventured to doubt its complete accuracy, despite the scientific reputations of its author and indorser, because, among other reasons, a generalization on the matter could not be correct on account of the fact that some breeds of poultry are vastly more prolific than others.

Our correspondent, Mr. Nelson Ritter, is also bold enough to differ in opinion from such eminent authorities, but then he modestly gives a pretty good reason for his dissent. He says: "While I dislike to disagree with the scientists who are supposed to know whereof they affirm, yet I cannot accept the conclusions of Geyelin regarding how many eggs a hen can lay, as stated in RURAL of Jan. 11th. I have at this moment hens not seven months old, that have laid twice the number of eggs he allows for the first year, and am confident they will continue to lay for several months to come. Were I convinced of the truth of Geyelin's statement, I should certainly 'drop' the hen business and that immediately. I have found the greatest profit in keeping hens only until they were eighteen months to two years old."

Isn't it about time that in this age of investigation, congressional, ecclesiastical, practical and scientific, some lover of truth and research should set himself the task of finding out by careful experiment through a number of years how many eggs a hen is actually capable of laying. To a regular poultry keeper of a systematic and inquiring turn of mind, there would be little extra labor or trouble in keeping a careful account of all the particulars necessary to give value to the investigation.

Everywhere.

RURAL SPECIAL REPORTS.

MISSISSIPPI, Okolona, Chickasaw Co., Jan. 21st.—We have had a severe winter hitherto and no work has yet been done towards next year's crops. Usually we have a considerable amount of plowing done by this time. Our people declare they will plant less cotton than usual the present year and more of the necessaries of life; but, judging from the fate of similar resolutions in the past, I fear that when seeding time comes they will forget or disregard this decision, and neglect everything else in the interest of cotton. Our forage crops were very short last year, and we shall be short of forage for making the next crops. Cotton did not nearly pay the expense of production. As for myself, I have not raised any cotton on my farm for the last three years, and was in hopes that my neighbors would follow my example; and, indeed, I think they would have done so were it not for the unjust discrimination against us made by railroads in the matter of freight. We are only 260 miles from Mobile; St. Louis is 650 miles from it, yet St. Louis ships freight to Mobile for $10 less per car-load than we can from this point—$10 more for transporting the same amount of freight for but a trifle over one-third of the distance! The railroad may possibly find that such an injustice may put a few dollars more in its treasury; but some of us begin to doubt whether the privileges granted the road were bestowed on it in order to enable it to gain an unjust profit at the expense of those living along its route, by whose votes those privileges were conceded on the plea that its construction would be a special benefit to them. It seems to me that those interested in the agriculture of the country could in some honest way force a change in this dishonest system. The farmers of the country are the chief sufferers by it: but then to rouse farmers to united effort against corporate injustice and oppression, requires ten times the provocation that would band together in vigorous action any other class in the community. A. M.

CALIFORNIA, Santa Rosa, Sonoma Co., Jan. 20.—Since May 1, 1878, our rainfall has been 5. 70-100 inches; at this time last year it was 14. 95-100 inches. We may expect more rain up to April 1, and occasional showers, perhaps, in April. Our wheat on summer fallow is looking well. The ground was cross-plowed and seeded before the rains. The deep and mellow soil retains moisture enough to keep the plants growing. But fields of wheat adjoining, not summer-fallowed, look badly for want of rain. Ours, however, is a notable exception, and we attribute its better plight to the heavy coat of stable manure received a year ago last summer. During the months of Dec. and Jan. so far, the days have been clear and pleasant—temperature, at noon, about 55°. But the nights were invariably cool, with frequent heavy white frosts. Newly plowed ground will be found at sunrise with a frozen crust nearly strong enough to walk over. Plantations of young Eucalyptus trees have suffered, and the tender growing branches of exposed Oranges were nipped. But their matured leaves and hardened wood stand cold that freezes them as stiff as sheet-iron, unless the thermometer falls below 18°. Ours are not injured; but they are somewhat protected by branches of Cypress. The mode of doing this is to drive, close to the tree, a high stake from the top of which depends evergreen limbs of any kind, which mingle with the branches and shelter the tree from the direct rays of the sun when the leaves thaw out. After the tree is six or seven years old, if is hardy here. Any evergreen shelter is better than straw, or mats, or other covering. We never lost a tree protected in this way, while extensive young plantations covered with sacks, have been destroyed. SPECS.

MISSOURI, Kingston Furnace, Washington County, Jan. 24.—The winter of 1877-8 was of "ethereal mildness"—result, a splendid crop of peaches and no crop of ice. The first part of the season of 1878-9 bid fair to follow in the same footsteps, but changed its mind, and we have had it ranging from 10 to 20 degrees below zero—result, such an ice crop that ex-Gov. Fletcher said at Washington, that when he left home the population of Missouri was engaged in two principal pursuits—gathering ice and running for the U. S. Senate. Another result, by no means so pleasant, is a total loss of our peach crop for the coming season. However, the trees did so well last season that they needed "a rest." The winter wheat has come out from under the snow looking No. 1, but now comes the danger of successive freezing and thawing in which the drilled wheat stands a better chance than the broadcast. An acre of red, rust-proof winter oats, sown Aug. 17th last (an experiment here in farming) went under the snow in first-rate condition, and have come out from under it in like good order, but I do not consider them out of the woods yet by any means. In a RURAL article on alfalfa, it is said that it loves the sun. With this I agree, but it does well in Germany, where, I think, the cold is as intense as in New Hampshire. I propose this season to try the German plan of "soiling" hogs upon it. Here nearly all who work farming in summer, mine for lead ore in winter, and just now are busy harvesting their winter crop. N. W. B.

MINN., Lakeside, Riverville Co., Jan. 28.—Grasshoppers and blight played sad havoc the past year with our crops in this portion of the country. The wheat crop was badly blighted and graded mostly No. 4, worth at the present time, 33c. per bushel; average yield, about 12 bushels per acre. Corn was a full crop, 40 bushels per acre; price per bushel, 20c. Oats yielded 50 bushels per acre, and its price is the same as that of corn. Potatoes were a light crop owing to the ravages of the potato beetles; price, 20c. to 25c. per bushel. Pork is worth $2 50 to $3 per 100 lbs.; beef, ditto; butter, 16c. per pound; eggs, 12½c. per dozen. We have had a remarkably fine winter so far. Only about an inch of snow has fallen. Wheeling is superb. The first week in January was remarkably cold, the thermometer on the 2d registering 26° below zero. The sun has not been behind a cloud for nearly a month. Not a day has been lost down to the present time by teamsters or out-door laborers.

M. T. R.

OHIO, Willersburg, Jan. 27, 1879.—We have had very good sleighing the past four weeks until lately. Within the last two days it has thawed considerably, and the jingle of sleigh-bells has ceased. The weather has been very cold. The thermometer was the lowest on the morning of Jan. 3d, being 23° below zero. Apples, potatoes and other vegetables were frozen in large quantities in almost every cellar I know of. It was also very severe on game, especially quail. They were found in bunches of eight or ten frozen stiff. Times are dull, and produce low. Wheat, 88c. to 90c. per bushel; flour, $4.50 to $5.50 per bbl.; rye, 40c. per bushel; corn, 30c.; oats, 20c.; barley, 50c.; timothy seed, $1.25; clover seed, $3.60; lard, 9c.; butter, 12c.; eggs, 20c.; apples, 30c. to 40c. per bushel; potatoes, 60c. to 65c.; live pork, $2.25 to $2.50 per hundred; beef cattle, $3.00 to $3.25. Feed is plenty and stock is looking exceedingly well, notwithstanding the cold weather. G. W. D.

NEW YORK, Ithaca, Jan. 24.—Strong winds and heavy snow; many cross-roads badly drifted; hard times for farmers, particularly for those in debt. Beef, dressed, 4c. to 6c. per pound; pork, $3 50 per cwt.; hay, $4 to $7 per ton; buckwheat, 40c. per bushel; wheat, 95c.; oats, 24c.; corn, 45c; potatoes, 60 to 70c.: apples, 25c. to 35c.; butter, 14c. to 17c., per pound; eggs, 20c. per doz. Clover seed is turning out very poor, a large amount of hay is being shipped.

NEW YORK, Ithaca, Jan, 28.—This is a regular spring day, clear and warm; the snow is disappearing very fast. The State Grange of New York is in session here and has a very full attendance. L. M.

IOWA, Manchester, Delaware Co., Jan. 26.—Last year I raised the Acme tomato and found it the finest tomato I have ever raised and I have had the Trophy for many years. A. D.

The Querist.

ANSWERS TO CORRESPONDENTS.

Potato Culture, Etc.

L. W. R., Chenango. N. Y., asks 1, the best way to get the largest quantity of potatoes from a pound of seed; 2, whether it would be safe, the coming season, to plant potatoes on the same piece of ground on which the potatoes planted there last year, were very much injured by angle and wire-worms; 3, what is the best way of using hard-wood ashes, as a fertilizer for potatoes; 4, how are potatoes raised under straw; 5, will peanuts bought raw at the stands, grow.

ANS.—A pound of potatoes will go a good ways in planting, if each eye is cut by itself with as much of the potato as there can be. If the piece is not larger than a pea, the eye will sprout and form a hill. The butt or stem end may be cut into small pieces, and many of them will sprout even if no eyes are visible, just as buds will come out of limbs of trees where they are not discernible. With ordinary culture, when the seed is prepared in this way, several hundred-fold of potatoes may be grown. A large crop can be raised by planting the potatoes in a hot-bed and allowing them to sprout, and then removing the sprout and planting it in ground carefully prepared, and letting the potatoes throw out another from the same eye, which, in its turn, is likewise transplanted, and so on, until the vitality of the eye is exhausted. A number of settings, or hills, may be obtained from all of the eyes in this way, and the yield from each eye very largely multiplied. This is the way the great yields are obtained. To be successful, the conditions of soil, temperature and moisture must be just right, that is, in a condition to promote rapid and vigorous growth. Any one familiar with the manipulation of hot-beds could, doubtless, succeed in the sprouting method; but if the grower is not thus familiar, it would be best to cut the potatoes in small pieces and plant each piece, with the eye, in a hill in the open ground. The richer the ground is made, the larger will be the growth; but such overgrown tubers are more apt to rot. We would not recommend making the ground too rich, as healthy potatoes are the best for the table or for seed.

2. We do not think angle-worms ever injure crops, as they extract their food from the ground. Wire-worms prey upon the roots of plants, and might injure the potatoes by eating off the roots to the vines, or by feeding upon the potatoes themselves. Grubs are the most damaging to potatoes, as they eat holes into them. It does not follow that either will damage a crop the second year because they did the year before, as the same conditions may not exist; and then again, the winter may be such as to make a decided change. From these facts there may be no risk in planting the same ground successively with the same crop, and we should prefer to plant potatoes on potato ground rather than on sod or stubble, where, if the season is favorable for the growth and development of worms and grubs, they would be sure to be found the most active. The grubs last year were not caused in such large numbers by the potatoes, or by any crop, but by the favorable conditions which must have existed for a space of time long enough to bring them into existence, and, in the absence of grass roots or other vegetation, they fed upon the potatoes. A mild winter is conducive to the development of all sorts of worms and grubs, and one of opposite character is destructive to them.

3. Unleached ashes should be sown broadcast and harrowed in, but leached ashes, not being so strong in alkali, may be used to the best advantage by dropping a handful in the hill. They may be dropped on the ground and the potato put on top, or the potato dropped first and the ashes put on top of it. It is immaterial. The ground will absorb enough of the potash in unleached ashes so that the potato will not be injured by it, and the ashes will retain moisture so that the potato will come up sooner. Potatoes exhaust the soil of potash, and on this account a dressing of it in the form of wood ashes, is most valuable, and will materially increase the yield. With an occasional dressing of ashes, a patch of ground may be devoted to the culture of potatoes for years with excellent returns. It is one of the few crops where a direct application of manure containing its chemical constituents, has a direct and perfect effect. This is owing to the simple organism of the plant. Quite a poor soil contains starch enough to supply the demands for successive crops of potatoes, if potash is not wanting.

4. The culture of potatoes under straw is a simple matter. The seed should be placed on the *surface* of the ground, at short distances apart, say 16 inches, and then carefully covered with straw. If the ground is comparatively free from weeds, the straw need not be more than six inches thick; but if the land is very foul, the covering of the straw should be at least a foot deep. Rye straw, if it has been bound up, will lie closer, more solid, to the ground and need not be so thick. The light must be excluded from the potato, and it will grow and take root in the ground. There must be straw enough to produce darkness, and this is all that is required. The straw does not turn to mold during the season, but packs down and affords a complete protection, so that the hills of young potatoes form on the top of the ground with nothing over them but the mulch made by the straw. Of course, there is no cultivating or hoeing, but if weeds make their appearance above the straw they must *pulled out*.

5. Peanuts, as they are found in market, not too old, will grow. After they are scorched or baked, they will not grow.

Preparing Muck for Use; Alfalfa.

A Subscriber—address mislaid—asks, 1, whether muck, dug out now, would be in a fit condition to apply to root and other crops in spring, and what is the best way of preparing it in the shortest time; 2, how much clover seed should

be sown per acre with wheat in the spring; 3, whether alfalfa can supply the place of clover.

(1) Muck is totally inert until it is decomposed, and it decomposes slowly while it is saturated with water. It is in the best condition for use when it is a year old. Muck that is dug now can hardly be made ready for use in the spring, unless it comes out loose and soft, so that it can be worked up easily: when in that condition it may be mixed with wood-ashes and thrown into heaps where it will heat and ferment. Otherwise it may be mixed in equal proportions with stable manure and thrown in compact heaps to ferment until required for use. There is usually considerable acid in fresh swamp muck, which renders it injurious rather than beneficial; this is neutralized by mixture with lime, wood-ashes or potash salts. It would be best to keep the muck above referred to in heaps until next fall and then to use it largely, when dry and fine, as bedding for cattle, pigs and poultry; in fact in every place where it can be made serviceable in that way; and then to throw it into compact heaps, that it may not freeze, but will decay and become soluble through the winter months.

(2) If the clover is sown alone, 12 pounds per acre would be a proper quantity. (3) By no means. Alfalfa can never become a substitute for clover in ordinary agriculture where clover succeeds well. It is an excellent crop to use in place of clover where the climate is too dry for the latter. Where heavy manuring can be given, alfalfa may be made useful as a soiling crop to come after clover and to be cut two or three times in the season, but it will not succeed for this purpose excepting upon rich soil. (4) Yes.

Hen Manure and Ashes.

T. L. M., Hartford, Trumbull Co., Ohio, asks: 1. whether it would be safe to mix hen manure and wood-ashes now and let them lie until spring; 2, what is the best method of applying the manure to corn in the hill.

ANS.—No; mixing ashes and hen manure now and letting the mixture lie for two or three months, would certainly cause the loss of the greater part of the ammonia in the manure. The poultry droppings should be stored away safely in barrels or elsewhere, covered with earth or, better still, with dry muck, until just before it is wanted for use. It should then be reduced to a powder and mixed with, say, three times its own bulk of mold or dry muck, so that it can be more easily spread and to lessen the risk of its burning the seed. Dry ashes may be added just before its application, so that they will not act upon the manure before it is buried.

2. In applying the manure to corn in hills, a thin layer of earth should be left between the manure and the seed, to prevent injury to the latter. If a planter is not used, drop the corn by hand in the hills, cover it with half an inch or so of earth, then drop a small handful of the mixture, scatter it a few inches about and cover it with a little more earth. Or a handful of manure may be thrown down where the hill is to be, and quickly mixed with the earth by two or three strokes of the hoe, and the corn dropped and buried the usual way. If care is taken to always allow a layer of earth between the manure and the seed, the labor of mixing loam or muck with the manure before applying it, can be dispensed with. This information has been given at greater length more than twice in different articles during the year. A thoroughly live paper dislikes repetition, but courtesy to our long list of new readers must stand our excuse in this and several other cases.

The Rose-Bug Puzzle.

A. B., Syracuse, N. Y., says: "I wish to get some information about Rose Bugs. Have a vineyard of three acres, planted 8x8 feet, and eight to twelve years planted, mainly Concord. No rot whatever and no mildew on the Concord. Most of the time since my first crop, in 1869, they have given good, well-matured crops of grapes, yielding five tons in 1877. Three years ago a few Rose Bugs made their appearance here for the first time as far as we know. They did very little damage the first season, but they came again the next season, 1877, in much greater numbers, and last season, 1878, they came in such immense numbers as to destroy my grape crop completely. Now, what I wish to learn is this: Is the Rose Bug likely to be a permanent institution where they once make their appearance—like rats and mice, do they come to stay? I have studied the habits of this pest in various books and papers, but cannot learn from any of them what I most wish to know. Are they likely to show themselves in large numbers many years in succession in the same place? If so, I must rip out my grape vines, as there seems to be no method of destroying or driving away this pest, without costing more than the value of the crop. My vineyard is on sandy land, and from what I can learn, the bugs are not troublesome on heavy clay soil, being generally found on sandy or gravelly lands."

ANS.—During some seasons we are overrun with Rose Bugs—then, again, we see little of them for several years. We would recommend our friend to plant near the vines a hedge of plants which they prefer to the Grape, such as Roses, Spiræas, etc.

Price of Oil-cake.

O. F. B. Rushford, Alleghany Co., N. Y., says that while oil-cake is quoted in a late RURAL at $28 per ton, the best figure at which he can get it at Buffalo, is at the rate of $38 per ton for Western cake, and he asks the cause of so wide a margin, and whether there is any difference in quality between Western and Eastern cake.

ANS.—We do not know how to account for the extreme difference in prices otherwise than on the ground that New York quotations are based upon 50-ton lots for export, which are to-day quoted at $27.25, while our friend probably buys unimportant quantities at retail. There is no material difference in the quality of Western cake from that ground East. Whenever considerable quantities of the cake are used, it would be well for the purchaser to correspond directly with some Western or Eastern mill instead of buying it near home. A number of farmers who use the article in the same neighborhood, could, with little trouble, combine their purchases, and thus be enabled to secure what they want at better figures than if each bought the comparatively small quantity he might need.

Sowing Orchard-Grass—Barbed Wire-Fence.

W. H. B. Lincoln, Loudoun Co., Va., asks: 1. What is the best time to sow orchard-grass and ought it to be harrowed in; 2, how to kill the sand thistle which he describes; 3, can barbed wire-fence be recommended by those who have used it.

ANS.—1. The best time to sow orchard-grass is early in the spring. It should be sown upon the harrowed soil and then covered lightly by means of a brush harrow. The seed is very light and should not be covered deeply. 2. To kill the weed mentioned (which cannot be referred to by name without a specimen by which it can be identified), the best plan would probably be to improve the soil by manuring and cultivation, when the crop's growth would soon smother it out. 3. The barbed wire-fence may turn out to be as dangerous to the owner as for a trespasser, and it is a question if it is wise to use a fence by which a neighbor's cattle may be injured and a claim for damages arise. It is as durable as any other wire fence and no more. See the article on snow-drifts elsewhere in this issue.

Field Peas for Vermont.

S. C. So. Vernon, Vt., asks what kind of peas should be used as a field crop thereabouts: should they be sown with oats; broadcasted or drilled?

ANS.—The Common Canada Field Peas (now quoted in market at 90c.@$1.00 per bushel) are the best for field sowing. They should be broadcasted, at the rate of three pecks of peas and two bushels of oats to the acre. The two are easily separated in the fanning mill after thrashing. Ten bushels of hard-wood ashes and a barrel of good ammoniated superphosphate form a fair dressing for an acre on reversed sod, and are better than stable manure which makes the peas run too much to vine. The ground should be thoroughly harrowed both before and after sowing, and finished by rolling. When phosphate is not at hand, 20 bushels of ashes and one bushel of salt make a good dressing.

Spinning-Flax.

S. K. P. Chesterfield, Conn., asks where flax prepared ready for spinning, can be bought, and its price.

ANS.—Though there are in this country a number of places, especially in Ohio, where flax is water-retted, and dew-retted, dried, broken, scutched and hatcheled and thus made fit for spinning, we do not now call to mind the name of any of those engaged in this industry.

Miscellaneous.

Young Veterinarian, Oaks, Pa., asks: 1. In what part of the country would he be most likely to succeed in starting in his profession; 2, the name of a good work on diseases of stock.

ANS.—There are so few skillful veterinarians in any part of this country, and so much injury and loss are constantly caused by ignorant treatment of stock by farmers and quacks, that an educated, honest veterinarian should have little difficulty in establishing a profitable business in any part of the stock-growing States, such as Kentucky, Illinois, Kansas, Colorado, etc. Select some point and write to the local postmaster there either asking his opinion as to the prospects for a veterinarian in that neighborhood, or requesting him to send the name of some one likely to be posted on the matter. 3. The best we know of is Law's Farmers' Veterinary Adviser, price, $3.00.

J. M. H., Kearney, Neb., asks: 1. whether Yucca filamentosa is a bush or a tree; 2, also if that and Callicarpa Americana, Hibiscus Syriacus, Weigela, Deutzia crenata and Geranium sanguineum live out-of-doors all winter; and, 3, how they must be planted.

ANS.—1. Yucca filamentosa is nearly stemless with leaves of a sword shape, from one to two feet long. It is a plant quite hardy, having endured with us 20 degrees below zero, and of striking appearance. It belongs to the Lily family, sends up a stalk four feet or more in hight, which in summer bears a great number of bell-shaped, nearly white flowers. The leaves are evergreen and it is in every way a highly desirable plant. 2. Most of them are perfectly hardy. We must refer our friend to RURAL of Nov. 9 for further particulars. 3. Instructions as to sowing seed will be given in a few weeks.

J. F., Paola, Kansas, desires to know if we, or any of our readers, have had practical experience in making sugar from sorghum or corn-stalks by the process invented by F. L. Stewart, Murrysville, Pa., and described in the Agricultural Report for 1877, or by any other process that has been successful. 2. He also asks if there is any kind of cane seed that has been used for sugar making, and 3, if there is a market for dried sweet corn and its price.

ANS.—1. We cannot give any fuller account of the process than is found in the Report above mentioned. For a short description of the process see the RURAL of Oct. 5, 1878. 2. We do not know of any. 3. For seed, sweet corn is sold for 25 cents a quart. For cooking purposes it sells for $4.00 a bushel.

W. W., Newburgh, N. Y., asks, 1, the name of a reliable New Jersey firm from which peach trees can be bought; 2, the name of some good late varieties of Peaches.

ANS.—Hance & Sons, Red Bank, N. J. We do not know of any nurserymen at Newburgh who sell peaches. 2. Oldmixon Freestone, Jacques, La Grange, Red-Cheek Melocoton, Smock Freestone, Lemon Cling, Morris's White (for canning). There are many new varieties, but we do not know how they may thrive in your section.

J. H. P., Selah, Yakima Co., Oregon, asks: 1, whether an experiment in raising Chufas would be likely to pay well; 2, where Chufas can be bought.

ANS.—We have tried them for three years. It does not pay to gather them by hand labor. Hogs like them and fatten upon them. There is often much gained and seldom much lost by an experiment on a modest scale. 2. See our advertising columns and notice of catalogues.

C. H., Glendale, Mich., asks whether J. J. Gregory's White Russian Spring wheat is the same as Defiance wheat.

ANS.—It is not the same. Mr. Gregory charges $2.25 per bushel for White Russian; Mr. Bliss charges $15.00 per bushel for Defiance. They are both white and beardless. We have tried them both. See RURAL of Sept. 14, which gives the result of our trial, also engravings of each.

J. M. K., Alice Grundy Co., Ia., asks the name of a periodical devoted to tobacco and its culture and where it can be purchased. Many are about to engage in tobacco culture in his neighborhood.

ANS.—The Tobacco Leaf, 142 Fulton Street, this city; subscription price $4.20 per annum. Tobacco News, and Tobacco and Grocery News, $2.50 each, both published at Louisville, Ky.

L. R. P., Helm's Store, Va., asks how many varieties of field corn are known to the RURAL.

ANS.—There are varieties without number. Study our "Corn" number soon to be issued.

COMMUNICATIONS RECEIVED FOR THE WEEK ENDING SATURDAY, JANUARY 31st.

D. W. C.—N. C. D.—W. W.—H. S.—E. F. M.—G. K.—J. L. T., we will be glad to have you and all of our subscribers report what they think of the plants which grow from the seeds we offer.—W. B. G.—A. M. V. A.—F. M. S.—C. T.—E. W. S.—F. M. B.—F. D. C.—"Anon"—M. A. A.—W. I. C.—H. T. J.—H. V. A.—N. W. B.—M. G. R.—J. M. B.—T. H. H.—N. R., thanks—N. C.—G. B. B.—J. S.—G. U. D.—"Ivy"—B. H.—W. J. F.—J. W. M.—I. B. A.—W. C. G.—S. R. M.—E. L.—M. W.—T. L. M.—M. J. C.—I. R. W.—"Anon"—J. E. S.—E. G.—S. C. G.—D. N. K.—W. F.—S. G. B.—D. R. P.—F. D. C.—A. L. J.—M. P. W.—S. L.—G. M.—"Medicine," Apothecaries will understand the name—A. S. N.—N. J. S.—W. G.—"Practical"—P. S. W.—W. B. J—A. E. S.—B. F. T.—D. E. S.—S. F., thanks.

Trees, Seeds, Plants, &c.

PAMPAS RICE, OR DOURA CORN, per lb, $1.50; ½ lb., 50c; oz., 15c.; pkt., 10c. KENNEY'S AMBER SUGAR CORN, per quart, 60c.; pint, 30c.; pkt., 10c. PEARL MILLET, per lb., $1; ½ lb., 35c.; oz., 15c.; pkt., 10c. CHUFAS, per quart, 75c.; pint, 40c.; oz., 15c.; pkt., 10c. For 25 cts. we send 8 pkts. CHOICE FLOWER SEED. All prepaid. Illust'd Garden Guide and Catalogue of 38 pages, describing 500 varieties, *sent free*. Address COLE & BRO., Seedsmen, Pella, Iowa.

RELIABLE HOME-GROWN SEEDS.

Ten Packets for 25c. RURAL NEW-YORKER with *Extra* Premium for $2. Also Rabbits, etc. Send Postal for Circular.

TUISCO GREINER, Naples, N. Y.

FOR 2 DIMES.—One pkt. each of Verbenas, Striped Petunias, Double Hollyhocks, Balsams, Phlox and Pansies. L. D. SNOOK, Barrington, Yates Co., N. Y.

1800 ACRES IN SEED.

ESTABLISHED OVER HALF A CENTURY.

Centennial Grand Prize Medal awarded for Purity, and Diploma of Honor for Superior Quality.

This popular brand of Garden Seeds is exclusively of our own growth, from the choicest selected vegetables; they are the only Seeds in the market that are WARRANTED PURE, FRESH, and TRUE TO NAME.

Merchants, Planters, Gardeners, and all Rural Residents desiring Seeds of undoubted purity and quality, should plant them. Enclose letter stamp for Buist's Garden Manual and Almanac for 1879. 188 pages of useful information on gardening, with prices of Buist's Seeds by the ounce, pound and bushel. A Northern and Southern edition is published. Address,

ROBERT BUIST, JR., Seed Grower, Philadelphia.

E. P. ROE'S $5 List of SMALL FRUIT Plants,

For family use. 22 VARIETIES.

The most LIBERAL OFFER of the Season.

$13 WORTH OF PLANTS FOR $5.

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Our combined CATALOGUE OF FLOWER AND VEGETABLE SEEDS, GREENHOUSE AND BEDDING PLANTS, FRUIT AND SHADE TREES AND EVERGREENS, SHRUBS, SMALL FRUITS, &c., &c., mailed to any applicant. Address

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BE THE FIRST IN MARKET

And you will COIN MONEY.

Garden Manual and Price List for 1879 sent free. Address J. B. ROOT, Rockford, Ills.

VICK'S FLORAL GUIDE

A beautiful work of **100 Pages, One Colored Flower Plate, and 300 Illustrations,** with Descriptions of the best Flowers and Vegetables, and how to grow them. All for a FIVE CENT STAMP In English or German.

The **Flower and Vegetable Garden,** 175 Pages Six Colored Plates, and many hundred Engravings For 50 cents in paper covers; $1 in elegant cloth. In German or English.

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Vick's Seeds are the best in the world. Send FIVE CENT STAMP for a FLORAL GUIDE, containing List and Prices and plenty of information.

Address JAMES VICK, Rochester, N. Y.

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IT WILL PAY

to grow a liberal family supply of the best kinds of Fruit. For first-class Trees, Plants and Vines to produce the same, send to E. & J. C. WILLIAMS, Catalogues free. Montclair, N. J.

5 Cents Per Bushel Saved

in raising Corn. For Illustrated Pamphlet, giving particulars and prices to agents, address THOMAS SMOOTHING HARROW CO., Geneva, N. Y.

ONLY $1 For TWELVE Ever-Blooming **ROSES**

Strong Plants, your choice, labeled, *free by mail*. 125 finest sorts. Large assortment of Flowering Plants at same price. *New Tea Roses added gratis on $3 orders.* Catalogue free. INNISFALLEN GREENHOUSES, Springfield, O

GOOD CURE FOR HARD TIMES.

A PLANTATION OF EARLY PROLIFIC and RELIANCE RASPBERRIES.

100,000 Plants FOR SALE; *also* 200,000 *Cinderella* and *Continental Strawberry Plants*, Millions of other Plants, Trees, etc. Everything new, novel and rare. *Prices low.* Send for *Descriptive Circular* to GIBSON & BENNETT, Nurserymen *and* Fruit Growers, Woodbury, N. J.

GRAPE VINES.

Also **Trees, Small Fruits, etc. Wholesale** rates very low to Nurserymen, Dealers and large Planters. Send stamp for Descriptive List. Price List **Free.** T. S. HUBBARD, Fredonia, N. Y.

ARTICHOKES.

Red Brazilian and White French varieties; cheapest hog food known. Send for Circulars.

E. F. BROCKWAY, Ainsworth, Iowa.

THE
RURAL NEW-YORKER.

PUBLISHED EVERY SATURDAY.

Address
RURAL PUBLISHING CO.,
78 Duane Street, New York City.

SATURDAY, FEB. 8, 1879.

We will be pleased to send one or more copies of the RURAL NEW-YORKER *free to any of our subscribers sufficiently interested in its welfare to be willing to hand them to their neighbors for inspection. An intimation by postal card will suffice.*

OUR readers who apply will have the Beauty of Hebron potato sent to them separately, because to send this with seeds makes an awkward package, and also, because the seeds may be forwarded at any time regardless of the weather, while the potatoes may be injured by frost. We mention this for the reason that our friends receiving the potato only, may think the rest of their selection has been overlooked.

We earnestly request that all letters containing money, or any communication intended for the BUSINESS DEPARTMENT *of the paper, be addressed to* THE RURAL PUBLISHING CO., *and not to any individual. We cannot otherwise guarantee the prompt entry of names upon our books, or the acknowledgment of money.*

Applicants for seeds will please observe that the postage on ANY POSSIBLE *selection of* TEN *sorts of seeds,* IS NEVER *more than* FIVE *cents.*

A ONE-CENT *stamp suffices for any selection of ten varieties* EXCLUSIVE *of the Beauty of Hebron potato, Pearl Millet and Defiance wheat. If the first of these three is included in the list, then a two cent* EXTRA *stamp is needed, and if the second and third are included, an extra two cent stamp is also required.*

WE offered, some time ago, to sell the cuts used in this Journal for twelve cents the square inch. Many have requested us to send proofs of our cuts. As we have upwards of ten thousand, we could not undertake to do so. Persons wishing to purchase, must select from files of the RURAL NEW-YORKER.

OUR readers are particularly requested to read the particulars of our free seed distribution on p. 97, under publisher's notices, before ordering seeds.

WRITING FARMERS.

IT is rather a favorite "skit" at farmers who write for the papers to say that they don't practice what they preach, and that thus they frequently disappoint those who visit them by the slovenly appearance of their premises, the ill-kept condition of their live-stock, and the weediness and light returns of their crops. This charge has a small sub-stratum of truth to rest upon; and yet a pretty wide acquaintance with writing farmers enables us to declare that the foundation for such ill-natured charges is much less than is asserted by men who may be good farmers, but who are so selfish that they not only won't "do good and communicate," themselves, but enjoy "sitting in the seat of the scorner" wagging their hard heads, and comforting their little souls by exaggerating the defects of their neighbors.

So far as there is truth in the gossip of such men about "writing farmers," the explanation is not at all difficult, nor is it greatly to the discredit of those who are so criticised. There is a limit to the working ability of every man and woman. So much can be done in a day, and then the night cometh, and rest must be taken. The hard-headed and hard-hearted human animal, be he farmer or what not, who devotes all his efforts to his own selfish advancement and cares nothing for the good of others, no doubt has a shade of advantage in mere money-making over his neighbor who is willing to devote a part of his time to the general good—and such is the practice of agricultural writers, as a rule. Certainly there is no branch of literary effort where labor yields so poor a return as in agricultural writing. As yet, so little does the average farmer and his family care for improvement in their own business that, little as they read anyway, nine-tenths of what they do read is the mere news, gossip and scandal of the day, or the blood-and-thunder and cheap sentiment of the dime novel and the story paper. Few men ever earn a dollar by writing upon agriculture.

But in still other ways is the generous-hearted citizen at a disadvantage with the hard-heads in a rural community. Not only will he sacrifice his time and strength by his writing, if he writes, but he is the one upon whom his merciless critics are sure to shirk off all the useful, but pecuniarily unprofitable work of the neighborhood. Both in public and church affairs the thrifty boor and his griping helpmeet are "too busy" to lend a hand; but neighbor Good-Heart and sister Charity are delegated by a unanimous vote—and a sneering laugh in the sleeve—to do the "thank-ye" jobs for the common good. They do them cheerfully, and "great will be their reward in heaven," but on earth it is probable that Good-Heart's farm and Charity's household will suffer in comparison with those of the pious and patriotic neighbors who profit by their exertions, only to "say all manner of evil against them falsely."

We think, and have reason to think, that the readers of the RURAL are of a different class from these hard-hearted and ungrateful people to whom we have referred. We believe they appreciate the efforts of its many generous contributors to advance the knowledge, contribute to the comfort and promote the happiness of the whole. And we believe, too, that if they could visit the farms and the houses of these writers, they would not find them lacking in a practical demonstration of the advantage of a study of their work, or any the worse for the time bestowed in this way for the pleasure and profit of their readers.

EXPORT OF LIVE ANIMALS.

THE necessities of the English nation have far outgrown the home supply, both of breadstuffs, meats, cheese and butter. England has become a vast workshop and mart, and her agriculture has fallen behind in its capacity for supplying the wants of her artisans and merchants. Whether or not the peculiar condition of the English agricultural interest—which exists in a twofold, or rather threefold division, as landlord, gentleman-farmer tenant and laborer, and in which the labor of the last supports the luxuries and extravagance of the other two, is at the bottom of this, need not be here considered; although its discussion would involve some considerations most important to us. The fact is as stated, and its results appear in a demand upon foreign nations for at least one-half of the sustenance of the English people.

Out of this condition of things has grown an enormous foreign business in breadstuffs and provisions, the larger bulk of which has fallen to us in a natural manner, simply because we can supply food cheaper than any other nation. This ability may be, and probably is, a consequence of the very different position of our agricultural interest and social organization, from those of England. The English people, however, want bread and butter, cheese and meat, and we can supply all they lack, with advantage. Their needs will enlarge and our capability of supplying them can increase. In this promised enlargement of our best and most convenient market, lies the most hopeful prospect of our agriculture. One steamer recently sailed from Boston for England with 252 live steers and 4,000 live sheep on board, and this cargo is but one drop in the bucket of the rapidly growing business.

Exports of dressed beef to England began in 1845 as an experiment by the shipment, in October of that year, of 36,000 pounds. In April, 1877, more than 8,000,000 pounds of meat were exported, and from that time the shipment of live stock has become an important part of the trade, and although the export of cattle may be temporarily checked by the expected orders of the British Privy Council, these orders will probably only remain a short time in force, and until their revocation, the increase in our shipments of beef will, most likely, counterbalance any decrease in those of fat stock. The effect of our past trade has been to reduce the price of beef in the English markets from 25 cents a pound to 17 cents. At the latter price it seems as though we should have the market entirely in our own hands from the impossibility of English farmers competing with us on account of the high rents they have to pay for their farms, and the fact that they are not working-men themselves, but must live out of the proceeds of the labor of their workmen. The English laborer and an English farm cannot support two idle men with their families, and produce beef for 17 cents a pound. This seems reasonable to us who find ourselves taxed to do this latter and support ourselves by our own labor. Therefore this outlet for our products seems to be sure and permanent, and we may feel safe in laying out our plans to fill it.

American farmers are a studious class of men, and are wedded to no ultra conservative system. Their farms are happily their own, to do as they will with them. They can grow what crops they wish, and are used to change of methods. Now it is their interest to look out for the new order of things. A vast foreign trade is already in their grasp, and there is a promise of an enormous and early increase of the home markets from the expected revival of a hitherto prostrate business. With such a business outlook before them, farmers must become business men and work their farms on business principles. The main thing is to make them more productive; in what product,—so that it is food,—matters not so much, as that the products should be staple ones and such as will meet with a ready market. Grain, meat, cheese, butter; and whatever can be converted into these, have the whole world for a market either directly or indirectly, and to grow enough of these will demand all our acres, the work of every pair of hands and the thought of every active brain.

CLASS JOURNALS.

ALTHOUGH agricultural journals have a wide distribution, yet they reach but a small proportion of persons engaged in agriculture. "What can an agricultural journal do for a farmer?" is a frequent query with persons who do not understand what such a journal really is. To show what a genuine agricultural newspaper is we might be pardoned for referring to THE RURAL NEW-YORKER, as a bright example of a class journal. Many persons suppose that agriculture is the only industry represented by special journalism. To show how mistaken this idea is, we enumerate a few of the trades and industries that support and are represented by journals entirely devoted to their interests. The shoe and leather and tanning interests have the Shoe and Leather Reporter; the cabinet-makers and upholsterers have the American Cabinet-Maker; the druggists have the Druggists' Circular; there are the American Grocer, the Lumberman, the Millers' Journal, the Millstone, the Manufacturing News, the Manufacturer (for textile industries), the Architect and Building News, the Manufacturer and Builder, the Ironmonger and Iron, the Tobacco Leaf, and scores of other special journals devoted to distinct branches of industry. In these are discussed questions of interest to the readers from their own special stand-points, pertinent news and business announcements, so that no person of his class can be properly instructed and fitted for his business who neglects to study his special journal.

It is precisely so with an agricultural journal. No farmer can hope to keep up to the times—and he must do this to be successful—if he neglects to read some good agricultural paper. As a sample of such it may be entirely pertinent to look within the covers of any number of THE RURAL NEW-YORKER. There will be found items of news of importance to farmers; leading articles discussing broad questions pertaining to our industry; articles on practical subjects from the brains and pens of men who have grown gray in farm work, and whose hands have guided the plow across their fields for years, "whose talk has been of cattle" since boyhood, and who have an inspiring idea of benefiting their chosen and favorite craft and those who may call them brothers. The conductors as well as the contributors are fresh from the field and garden, and spend time and labor in investigating all that may be new in the practice or science of agriculture. From long habit as well as from a sense of duty undertaken, all these are apt to take broader views and deeper insights into matters of daily experience than those who give attention solely to the common routine of the farm. In every walk of life there are those who are called upon to learn and those who must teach. It is part of our human nature that we cannot keep a new idea in our minds; we must be communicative or nothing; and thus it is that a new and valuable idea learned in the stable, the barn, or the field, is at once made known and becomes common property. It is certain, beyond a doubt, that the present vast extension of agricultural industry, and the excellence of our present methods, are the results of the teachings of the agricultural press, just as the corresponding extension of mechanical industries has been effected mainly by the class journals referred to.

As agriculture is the industry of half the population, it is the more important that there should be a sufficient number of agricultural journals of excellence and practical value to furnish all the information and instruction needed. Fortunately the field is occupied by many of the highest character and of the greatest usefulness, and we sincerely hope that they will all of them receive during the present year and in the future the hearty support they so well deserve.

BREVITIES.

OUR free seed distribution has actually begun. We would that it had ended.

ONE can not see himself as others see him. If he could, each of our farmer readers might, we think, point out his own portrait on our first page.

J. J. MECHI writes to the London Agricultural Gazette: "There is still much melancholy in agriculture. Farmers are justly alarmed by American reports and imports."

SEEDS of early Cabbage may now be sown in boxes in any sunny window. So may the seeds of the Golden Rural Tomato in a few weeks—which reminds us of the necessity of haste in our seed distribution.

IT was Daniel O'Connell who wittily emphasized the difficulty of putting a good deal of sense into a few words, by writing to the editor of a Dublin newspaper, "I send you a long letter, *because I haven't time to write a short one.*"

NOW that Scarlet Fever is prevalent, we would say to our readers that far more depends upon careful nursing than upon medicines. Do not ever wake a child up to give it medicines. Nothing is better than warm lemonade or slippery-elm.

GEN. LE DUC has just appeared before a Committee of the Senate to urge that the Agricultural Department should be authorized to keep a strict supervision over the shipment of live stock from this country. More stringent precautionary measures in regard to this matter cannot be too promptly enforced.

AWHILE ago, a hired man was smoking a pipe while standing near the door of the stable. The door was suddenly blown back, knocking the pipe out of his mouth and scattering the fire in every direction. The sparks were put out—but we were reminded that pipe-smoking, even by the most careful men, ought *never* to be tolerated about the barn.

WE CALL THE ATTENTION of our readers to our advertising columns, which are now filling up as spring approaches. It is submitted that the character of these advertisements is strictly in accord with our professions of a desire to consult the interests of our readers as a foremost principle in the management of this journal. If by any misrepresentations on the part of advertisers, deceptive advertisements are admitted, we shall expose them so soon as the fact is ascertained, as, in several instances, we have already done.

THE St. Petersburg Gazette announces that a dairy show on a large scale will be held at Helsingfors in the course of the ensuing spring, and that the Government has granted a sum of 2,400 roubles towards the traveling expenses of country people in poor circumstances desirous of visiting the exhibition. Our politicians, too, are unquestionably deeply interested in dairy matters, and they would, no doubt, have exerted their influence upon the Government to have extended a helping hand to the "country people in poor circumstances" who desired to visit our International.

WE have no doubt that the English sparrow, in a very few years, will so damage our corn crops that we shall not only be ready to let this bird shift for itself but to join in exterminatory measures in place of the kindly protection that has thus far been extended to it. It seems only to have found out during the past season, or so, that corn in the milk is delicious food, and that by a little scratching and pecking a sufficient meal may easily be obtained. In an experimental plot of sweet (black) corn, planted in an out-of-the-way part of our grounds, we had a good opportunity of observing their operations. From the time that the corn was well set until it began to harden, a flock of about fifteen made this their headquarters. They would peck upon the silk end of the ears, open the husk and feed upon the corn as far down as they could manage to pry it open. They destroyed about half of the crop.

DR. H. DE VRIES has been experimenting to ascertain what changes occur in frozen plants. He finds that the ice is formed, *not* in the cells, but in the interstices or intercellular spaces. Hence a bursting of the cell walls, which has generally been supposed to take place, is impossible. The plants remain alive as long as they remain frozen and die only when a thaw takes place. He finds that if the thawing process is conducted gradually, the vitality is preserved. Now, if the intercellular spaces freeze, they must become distended. Why does not this distension rupture the cells upon which they press? Will de Vries tell us that? We presume the cell juices *do* freeze if the cold is intense enough, and that the degree of cold requisite to freeze the cells of different species of plants, varies. When this takes place, must the plant die; or, will gradual thawing save it in this case as in the other? In other words, must the plant perish whose cells or cell juices are frozen?

PRICKLY COMFREY.—A correspondent, one who has raised a large quantity of Prickly Comfrey, says: "Did not the RURAL advocate its cultivation awhile ago?" We reply, yes; and add that the RURAL probably influenced a trial of this plant more than any other journal. But a mistake or blunder, made years ago, is no less the one or the other for being persisted in. The cultivation of Prickly Comfrey was, as far as we know, advocated by the then editors in good faith. Our trials constrain us to believe that it is, as compared with other forage plants, nearly worthless, though we continue to receive favorable reports from here and there. We have placed these before the reader the same as if they accorded with our own views. Nearly every seedman's catalogue offers roots for sale. Our readers, having read all that can be said on both sides of the question, will judge for themselves whether Prickly Comfrey is worth its cost and their time and labor.

EXTRACTS FROM THE REPORT OF THE COMMISSIONER OF AGRICULTURE.

From the last Report of the Commissioner of Agriculture to the President, just received, we make the following extracts which we believe will be of interest to our readers:

Plants for Tannin.—The examination of two new materials, the algarobo and the canaigre, for tannin, shows the existence of a very abundant source of this important material, and gives reason for the belief that the latter, at least, may soon afford a cheap supply to the arts. . . . The importance of a new and cheap source from which tannin may be readily obtained can scarcely be overestimated, and the most diligent prosecution of this search in various directions will be continued until success is assured. The amount of barks and other substances, valued for their tannin, reaches many millions of dollars yearly, and, if the canaigre root answers our expectations, the world's supply may be easily grown by our own people.

Early Amber.—Satisfied of the extraordinary qualities of a variety of sorghum called the "Minnesota Early Amber," I procured as much of the pure, well-cured seed as possible, and distributed the same in every Congressional district in the United States. The results of this distribution have been uniformly favorable, and the variety is recognized as a great acquisition, yielding everywhere a large amount of rich saccharine juice, which, under proper treatment, gives a first-class article of cane sugar and sirup, the yield being from 120 to 250 gallons of heavy sirup to the acre. Mr. Seth Kenny, of Morristown, Rice County, Minnesota, who first made sugar from "Early Amber" cane, writes that he has made, this season, for himself and neighbors, 4,240 gallons of sirup, of which, at the time of writing, he had sold 720 gallons at 10 cents per gallon, and 13 barrels of which were grained into mush sugar. . . . The experiments thus far made have scarcely been sufficient to accurately determine the actual cost of the production of sugar from these sources, but they have sufficed to settle the question of its production with no further care than is required in making good butter and cheese.

Sugar from Pearl Millet, Etc.—In addition to the experiments made with maize and sorghum, other allied grasses were subjected to the same treatment. A few seeds of pearl millet, which had been sown late in the season to test its value as a forage plant, produced a large growth of blades and stalks. The presence of saccharine matter in considerable quantity was so apparent that the stalks were stripped and put through the mill, and the juice gave a fair quantity of readily crystallizable sugar of good quality. . . . An experiment with Teosinte, a small quantity of the seed of which had been procured from Vilmorin & Co., of Paris, was made after frost had cut the leaves of the plant and injured the stalks, and although a fair proportion of sirup was obtained, crystallization could not be induced, and the results were unsatisfactory.

Prospects of Tea Culture.—In the effort to introduce the cultivation of the tea plant and the manufacture of tea, reasonable progress has been made. In Assam, India, the native home of the tea plant, the English Government, recognizing the great importance of the subject, years since undertook the establishment of tea culture, and after many failures and at great expense has at last succeeded in making it a permanent and profitable industry. Here, with a climate and soil admirably adapted to the growth of the plant, and a people whose mechanical ingenuity is always equal to any emergency, there can be no doubt whatever of the ultimate success of this industry, but it must necessarily be of slow growth. . . . From leaves raised in the Department grounds and obtained from the Carolinas and Georgia, experiments have been made in the laboratory after the methods of the Japanese as reported by importers and other authorities, and with such success in some of the samples as to obtain the warm commendation of experts and dealers, who declared the tea made to be "excellent Oolong—as good as could be bought anywhere." . . The question whether our people can compete with the acquired dexterity and cheap labor of Asia will be answered, when the time comes, by mechanical inventions that will do the work cheaper and better. Meanwhile nearly every family in the Middle and Southern States may grow their own tea, and better tea than they at present buy in the general markets, if they do nothing more.

Analysis of Grasses and Green Manuring.—The analysis of our native grasses has been extended to thirty-nine species, and has already resulted in the conclusion that there exist very many uncultivated grasses which may fairly claim equal merit with many of our standard varieties.

Attention has been directed also to numerous plants without any reputation as forage plants, but which, flourishing vigorously upon worn-out soils, are looked to as the means of the ultimate restoration of such lands to fertility by their employment in green manuring; a method which, with clover, rye, buckwheat, and other crops, has been productive of such excellent results—an unfailing and inexpensive resource, and often the only remedy within the means of the average farmer.

The determination to institute a thorough research in this direction has been very much encouraged by a recent conversation with that eminent chemist, Dr. St. Julian Ravenel, of Charleston, S. C. The results obtained in some experiments made by him in utilizing the vetch and the beggar-lice weed of Florida as preparatory forerunners for a crop of wheat in the sandy, barren flats near Charleston, are so wonderful that the experiments will need to be repeated under personal inspection several times before we can feel sure of such favorable results as the usual sequence to such simple means.

Sugar Manufacture, from Chemist's Report.—The sorghum was a variety known as the Minnesota Early Amber. Both corn and sorghum were in a condition of vigorous growth when cut, the leaves being green. The seed of the sorghum was sufficiently mature to warrant its preservation, and indeed, the last lot received shelled slightly upon handling. The sorghum had not been planted or cultivated so as to produce even a fair average in size, as will be seen by the results appended.

The mill made use of in expressing the juice was an old sorghum-mill of common construction, which, through previous use and misuse, had been rendered quite unfit to give satisfactory results. After most of our experiments below given were concluded, it was repaired, so that afterward its working was very much better, as will be seen by the subsequent results given further on. . . .

The process in brief is as follows: After topping or stripping the corn or sorghum, it was passed through the mill, and when sufficient juice had been obtained, it was heated in the copper tank to a temperature of 82 dg. Centigrade—182 dg. Fahrenheit. After the juice had reached this temperature there was added to it, with stirring, cream of lime until a piece of litmus paper dipped in the juice showed a purple or bluish-purple color. The heat was now raised to the boiling-point, and so soon as the juice was in good ebullition the fire was drawn, and a thick scum removed from the surface of the juice.

The experiments here given clearly indicate that sugar may be thus made at a profit, and it is desirable that nothing be spared in continuing an investigation giving such fair promise of success.

RESULTS OF EXPERIMENTS IN THE MANUFACTURE OF SUGAR FROM MAIZE AND SORGHUM.

Number.		Pounds of raw stalks.	Per cent. of juice in raw stalks.	Pounds of juice used.	Specific gravity of juice.	Pounds of sirup made.	Per cent. of sirup in juice.
1	Corn-stalks, stripped and topped	2,353	35.29	830	1063	74	14.33
2	Corn-stalks, stripped and topped	2,783	33.91	597	1061	101	19.92
3	Corn-stalks (butt ends), stripped and topped	3,568	29.04	971	1053	142	14.62
4	Corn-stalks (top ends), stripped and topped	2,547	19.94	488	1050	65	13.46
5	Corn-stalks (top ends), stripped and topped	3,052	37.97	1,099	1057	146	13.33
6	Sorghum, stripped and topped	2,860	32.06	848	1057	135	16.71
7	Sorghum, topped, but unstripped	3,624	36.75	958	1057	145.5	15.30
8	Sorghum (butt ends), unstripped	1,324	47.49	445	1059	73	16.41
9	Sorghum (top ends), unstripped	1,322	43.16	498	1057	58.5	14.70
10	Sorghum (top ends), unstripped	1,290	41.49	346	1053	57	16.47
11	Sorghum (butt ends), unstripped	1,126	34.09	291	1059	41.5	14.26
12	Sorghum, small stalks, stripped	963	56.20	538	1059	103	18.95
13	Sorghum, large stalks, stripped	515	56.55	290	1060	60	20.00
14	Sorghum, small stalks, stripped	1,623	55.87	781	1061	156	19.97
15	Sorghum, large stalks, stripped	1,549	58.01	711	1064	158	22.22

When the sirup reached the density above indicated, it was drawn off into wooden tubs, the fire having previously been drawn from beneath the evaporator. . . .

It was intended to have still further concentrated the sirups in a smaller pan of galvanized iron, so arranged that by a slide the heat could be instantaneously removed to prevent the scorching of the sirup; but before this plan was completed it was found that the several tubs of sirup were crystalizing, and they were therefore allowed to stand, and the sugar was obtained by pressing out the molasses by means of an ordinary screw-press, the mass of molasses and sugar from the tubs being inclosed in an ordinary grain bag.—To be continued.

Literary Miscellany.

PARSON WILLIAMS'S SABBATH BREAKING.

On the grave of Parson Williams
The grass is brown and bleached,
It is more than fifty winters
Since he lived and laughed and preached.

But his memory in New England
No winter snows can kill;
Of his goodness and his drollness,
Countless legends linger still.

And among those treasured legends
I hold this one a boon,
How he got in Deacon Crosby's hay
On a Sunday afternoon.

He was midway in a sermon,
Most orthodox, on grace,
When a sound of distant thunder
Broke the quiet of the place.

Now the meadows of the Crosbys
Lay full within his sight,
As he glanced from out the window
Which stood open on his right.

And the green, fragrant haycocks
By acres there did stand;
Not a meadow like the Deacon's
Far or near in all the land.

Quick and loud the claps of thunder
Went rolling through the skies,
And the Parson saw his Deacon
Looking out with anxious eyes.

"Now, my brethren," called the Parson,
And called with might and main,
"We must get in Brother Crosby's hay,
'Tis our duty now most plain!"

And he shut the great red Bible,
And tossed his sermon down,
Not a man could run more swiftly
Than the Parson in that town.

And he ran now to the meadow
With all his strength and speed;
And the congregation followed,
All bewildered in his lead.

Ha! not often on a Sunday
Such sight as this, I ween,
Of a parson and his people,
A New England town had seen.

With a will they worked and shouted,
And cleared the fields apace;
And the Parson led the singing,
While the sweat rolled down his face.

And it thundered, fiercer, louder;
And dark grew east and west;
But the hay was under cover,
And the Parson had worked best.

Not a moment had been wasted;
The rain was falling fast,
As the Parson and his people
Through the village breathless passed.

And again in pew and pulpit
Their places took composed,
And the Parson preached his sermon
To "fifteenthly," where it closed.

When the services were ended,
The people talking stayed,
And among the sternly pious
There were bitter comments made.

And the good old Deacon Crosby,
A meek and godly man,
Hardly dared rejoice his haycocks
Had been saved on such a plan.

But the Parson came down, striding
In haste, the narrow aisle,
And the Deacon's bent old shoulders
He patted, with a smile.

And he said: "No fear, my brother,
Lest God think it is a sin;
For he sent the sun to make your hay,
And your friends to get it in."

[H. H. in the Independent.

WEAKER THAN A WOMAN.

CHAPTER XXVIII.

Lady Chevenix wrote a long letter home, telling her mother how greatly she was enjoying Paris—how she had been to one of the State balls at the Tuileries, and how the Emperor had danced with her—and Mrs. Haye, on her side, made all the ladies round Lilford envious by telling them how her "dear child, Lady Chevenix," was enjoying herself in Paris, and what a favorite she was at the Imperial Court.

Sir Owen was very kind to Violet in those days, and she was so completely dazzled by the novelty of all she saw that she never remembered Felix, except to congratulate herself on her own good sense in having given him his *conge*. Some slight indications of impatience made her think that Sir Owen had a certain amount of bad temper, but at present he had shown none to her—indeed she thought him far better than he had represented himself. He had told her that he gambled and drank. She had seen nothing of these bad habits; she was too inexperienced to detect that he had placed a restraint on himself which might break down any day.

She did not like him very much. Although he was a Baronet and a man of wealth, he was not a thorough gentleman. She found that Sir Owen was coarse in his manners, coarse in his speech. She often, even in those early days, shrank from, him saying—

"You talk so strangely, Owen—I do not understand you."

"Then you must have some lessons, my charming wife," he would answer laughingly, following up the remark by speech that was anything but refined.

That was done in good humor; what he could be when that humor changed she had yet to find out. She did not love him—she never made the least pretense of loving him. She was kind to him; she tried to talk to him, to amuse him; she obeyed his wishes, and made herself very amiable and charming—not because she loved him, but because he was the means of procuring her all the luxury, the magnificence, the pleasure that she now enjoyed. In his coarse way he felt that.

He brought her home one day a set of sapphires so brilliant and rare that she cried out with rapture when she saw them.

"There are no sapphires finer than these," he remarked. "What do you say for them, Violet?"

"I say 'Thank you' with all my heart," she cried.

"Is that all, Violet?"

"What more can I say, except that you are good, kind, and generous?"

"Can you think of nothing else, Violet?" he asked. She looked puzzled.

"I cannot indeed, Owen; but I will say anything you wish me to say."

He turned away impatiently.

"If you thought any set form of words, any pretty phrase would please me, you would use it—I am quite sure of that."

With the brilliant sapphires in one of her hands, she looked half wistfully at him; the man who had it in his power to make such presents as this was worthy any amount of patience.

"I would say anything to please you, Owen," she said.

He looked into her fair face.

"I know you would," he returned; but it has never occurred to you to throw your arms round my neck and kiss me, and—and say, 'Thank you, my darling.'"

She shrank from him with a little shudder, his dark face was so close to hers.

"I have noticed," he said, "that you are always ready to thank me when I bring you any of the silly trifles women like so much—you are then most amiable; but never once, by Heaven, since we have been married have you come to me and kissed me of your own free will!"

"I will do so now," she said; and she placed the sapphires in their cases.

"No, thank you," he returned. "It would not be spontaneous. You would do it because I asked you."

She was startled by the expression of his face, at the tone of his voice—startled, and just a little afraid.

"You do love me, Violet, do you not?" he asked.

She had never thought about loving him; he was to her a rich man who had wanted her to marry him, who had bribed her by his riches and his title, and for whom she had given up the man she really loved; but to love him—she had never thought of it; it had never entered into her calculations. He was to have her beauty, she was to have his money and his title.

"Do you love me, Violet?" he demanded angrily; and before she had time to speak a sudden conviction darted through her mind that she did not love him and never should—a certain terrible conviction that, although she was married to this man, she loved Felix Lonsdale still.

She trembled as she answered—

"Yes, you know I love you, Owen."

She knew the words were false, but she was too frightened to say anything else.

"I know you ought to love me," he said savagely; "but there is no understanding a woman—fair dealing is not characteristic of the sex. Still I should not like to think that you married me for my money, and for nothing else. Did you, Violet?"

She was not clever at lying, although she had broken a noble heart by her weakness. She had not the quick ready fashion of speaking falsely which she acquired afterwards. She buried her face in her hands; it was easier to weep, after the weak fashion of women, than to speak.

"Nay, I did not mean to pain you, Violet," he said. "Do not cry. Still I should like to know that you love me. No man would like to think that his wife had married him for his money."

After that little scene Lady Chevenix did not feel quite so sure of her husband, and began to stand a little in awe of him.

* * * * *

The gay French capital might be as gay as it would, Sir Owen would not remain. Invitations poured in upon him and his beautiful young wife—he would not accept them. One of his fixed resolves was to be in England at Christmas, and to England he was determined to go. In vain Violet pleaded that Garswood at Christmas would be dull. He laughed at the notion.

"No place is ever dull where I am, Violet," he cried. "That shows how little you know me. I shall fill the place with visitors of my own choosing—and I promise you that we shall not spend our time in singing psalms."

That was the first dissension between Violet and her husband. She would fain have remained longer, but Sir Owen was tired of Paris. He liked English sports, English habits, and English cheer. He was angry that Violet should for one moment presume to like Paris. It was unheard of, he said, that any Englishwoman should find Christmas at home dull. And that was the first time that Violet saw him in a rage. He swore loudly—not at her—that was to come later on. He declared the whole race of women foolish and idiotic. He frightened her so that she was glad to escape from his presence and give orders for packing up.

"I am not my own mistress, after all," she said, with a discontented look on her fair face—"I cannot do as I like. I never dreamed that I should have a master."

She did not like the idea. She had been so free and unfettered all her life that it was new to her to be under control. She had yet to learn that Sir Owen had the obstinacy of twenty men, and that when he had once set his mind upon anything he would carry it through. Her wishes, caprices, fancies, and desires would have about as much effect upon him as summer waves have upon a weather-beaten rock.

She had a sample of this when they reached Calais on their return to England. It was not wet weather, but there had been a terrible gale, and

the sea was rough. Violet was a bad sailor, and when she heard the surf beating on the shore, she begged of her husband to delay their passage at least twenty-four hours. She was so afraid, she said, of a rough sea.

He laughed. It was all nonsense—the sea would not hurt her. No one ever heard of an accident to the Dover and Calais boats.

She allowed that; but the passage made her very ill. Would he not wait?

"If you are ill, you will soon be well again; the whole passage does not occupy two hours. You must bear it as other people do."

"I did not think you could be so unkind to me, Owen," she said piteously.

"I am not unkind; but I warn you fairly that I have very little patience with the caprices of women. As for their own nonsense, I should never bear it. A man cannot be expected to go on honeymooning forever. That kind of thing is all over now, and we may as well take our proper places. Mine is to be master—and I tell you frankly that I intend to be obeyed. Make up your mind to that, and we shall get along all right. Thwart me, and we shall not agree."

They were not very pleasant words for a bride of only a few weeks to hear. She thought over them for some time.

"Felix would never have spoken to me in that fashion," she said to herself. "But I must obey. There is no help for it—he is supreme master."

She was very ill crossing the Channel; but Sir Owen only laughed. Seasickness was a sort of jest to him. He never dreamed that his young wife would resent the laughter, but she did. When they landed at Dover, she would not speak to him. He might be master, she said to herself, a hundred times over; but no man should laugh at her.

"You are sulking with me," he said laughingly. "Ah, my Lady Chevenix, you will find that a losing game! I do not think there is a person in all England—man or woman—who can sulk so long or so thoroughly as I can myself;" and that she found to be perfectly true.

Neither of them had the faintest idea of self-control—it was a thing unknown to either of them—so they reached Garswood without exchanging a word on the journey. Their coming home was quite unexpected; consequently there was no rejoicing. It was night too, and cold. Sir Owen was not well pleased at their reception, although he had expressly forbidden any one to write.

But Violet's spirits rose again when she found herself in the magnificent mansion. After all, her husband might be coarse and bad-tempered, but she was mistress of those superb rooms. This was her house. She was to live in the midst of all this luxury, with troops of liveried servants at her call. Still she did not say to herself now that it was all hers. She was beginning to understand that for her everything depended on the humor of her husband. It was not all hers. She was so pleased that Sir Owen recovered his good-humor, and the first evening they spent together at Garswood was perhaps the happiest they ever had there.

On the morrow Sir Owen found a hundred things that required his attention; nevertheless he was thoughtful about his young wife.

"You will like to see your mother and father, Violet," he said. "Order the carriage when you like. I cannot go with you, but I will come for you. You bought some presents for them, did you not?"

"Yes," she answered.

She looked wistfully at him. It was her first visit since her marriage, and she would have liked him to be with her; but she was beginning to understand that she must not interfere with his arrangements. She could not resist saying—

"I should enjoy it so much more if you were with me, Owen."

"Oh, no, you would not!" he laughed carelessly. "You only fancy so. You and your mother will have so much to talk about that I really could not stand it, you know—I could not, indeed. I will be there in the evening, and will drive you back home."

She knew that to say more would be quite useless, so she made the best of the arrangement. After all, there were many delights before her. She had a superb costume, trimmed with costly sable—one of the great Worth's masterpieces—and she was to wear that for the first time. Her heart beat as she thought of the pleasure of driving in her magnificent carriage through the streets of Lilford, dressed in her Parisian costume.

"I hope that I shall meet Lady Rolfe," she said, "just for the pleasure of cutting her."

She drove at once to the Limes, and was met with the kindest of welcomes.

"I should have gone to meet you, Violet, had I known that you were coming," said Mrs. Haye.

But Lady Chevenix thought that under the circumstances it was just as well she had not come.

They went to the drawing-room together. Francis Haye was more of an invalid than usual that day, and his daughter, on hearing that he was asleep, would not have him disturbed.

"Let us have a long talk, Mamma," she said. "I have so much to tell you."

They sat down to exchange confidences, and Mrs. Haye almost trembled with delight as she looked at her daughter.

"How well you look, Violet!" she said. "What a superb dress, and how it becomes you! Are you very happy, my dear?"

"As happy as other people, I suppose, Mamma. I am very rich—and that must mean that I am very happy. It will take me a whole day to show you my dresses and jewels."

Will you stand up, Violet? I feel quite sure that you have grown; or is it the new style of dress that suits you?"

Violet stood up.

"I have grown, Mamma," she answered. "You know I am only just twenty; I may grow taller still."

"You are quite tall enough to be graceful, my dear," said Mrs. Haye; and her eyes lingered proudly on the lovely face with its dainty bloom, so young, so fresh and fair, and on the graceful figure that was shown to such advantage by the costly dress that swept the ground. "You have improved very much, Violet," she added.

In that she was right; Violet had a grace and refinement that gave her an additional charm.

They talked long, and not unhappily. Presently Violet produced her presents. Mrs. Haye went into a rapture about a dress of Genoa velvet and some superb Mechlin lace. After that Violet began to inquire about her old friends.

Mrs. Haye had many little facts to relate about all of them.

"Mamma," said Lady Chevenix, with a slight flush on her face; "what do they say in Lilford about my marriage and me?"

"What can they say, my dear? Every one envies you, every one talks about this wonderful marriage."

Violet took up the rich tassels of her dress and played with them. She never raised her eyes to her mother's face.

"But do they—I mean, have they said that I did wrong?"

"Wrong!" cried Mrs. Haye. "Why should they? Which of them would not have done the same thing? Which of them would not be pleased to do the same wrong?"

Lady Chevenix looked relieved.

"I was afraid they would say I had acted unfairly," she said slowly. "Mamma, how are the Lonsdales? How is Felix?"

There was a brief silence before the question was answered, and then Mrs. Haye told her wonderful story.

"You have never heard of such a change of fortune, Violet," she said; "it is almost as wonderful as your own; I can hardly understand it. The Lonsdales seem to have all the business of the town now, and of the county too. They have—I cannot tell how many clerks; they give grand dinner-parties; and, what seems to me stranger still, they are frequently invited to Bramber Towers."

"We shall visit there, I suppose," remarked Lady Chevenix. "I am pleased indeed to hear all this, Mamma; if any family ever did deserve good fortune, they did. They are recognized by the county now, I suppose?"

"Yes, quite. Lady Rolfe has taken them up. I hear of nothing but the Lonsdales."

There was silence again for some minutes, and then Violet said slowly—

"And Felix, Mamma—have you seen him since my marriage?"

"No, not once, my dear," was Mrs. Haye's reply. "I need hardly say that he has never been here."

"Do they say—do you know, if he thought much of it?" Did he make a great trouble of it, Mamma?" she asked.

"I cannot say," replied the cautious mother; "I have never heard the subject mentioned."

Lady Chevenix was silent again. After a little while she said quickly—

"I should like to ask you one question more. Does Felix—has he found any one else to care about yet?"

"I have not heard so, Violet, my dear, you have every blessing the world can give; do not think about him. And, if you will take my advice, you will not talk about him—Sir Owen might not like it."

"I shall be careful, Mamma—I shall not speak of him; but I wanted to hear about him just once."

She said no more then, but as she sat in the familiar room she thought a great deal of him; it was impossible to help it. The quick eyes noted how completely every trace of him had been removed; the books that he had given her, the pictures, were all gone.

"They need not have banished everything," she said to herself.

Presently her father awoke; he was delighted beyond measure to see her looking so well and so beautiful.

Later on Sir Owen came, and they spent a pleasant hour together. But there was a dreamy look on the lovely face, a softened light in the clear eyes; she could not help thinking of the past bright girlish life that had been so simply happy. Felix had been part of that life, and she could not help remembering him when she thought of it.

She enjoyed herself, she laughed and talked, she told gay anecdotes of her triumphs in Paris; but as she quitted the house, she carefully avoided going near the bare lilac-bushes, or lingering for a moment at the garden gate. As she drove home she said to herself—

"I do not think I shall go to the Limes very often. After all, the pain is as great as the pleasure."

But she did not own what the pain was.

CHAPTER XXIX.

During the next few days Lady Chevenix was occupied in arranging all the beautiful ornaments, pictures, and statues she had brought with her from abroad. Amongst the treasures of her girlhood was a small rosewood writing-desk. On it she had written all her love-letters; in it she kept every love-letter she had received; and she remembered now that she had not destroyed them before her marriage, and that she ought to have done so. She was alone in the sumptuous room that was her boudoir. The apartment was perfect in its way, and the golden-haired girl who stood in it looked like a fitting occupant.

She took out a little key and opened the desk. How well she remembered the perfume of violets—the faint sweet perfume that she had always liked so much! There lay the great bundle of letters tied with blue ribbon—letters on which a life of love and passion had been wasted; there too lay the portrait that Felix had given her when he came home from college—a portrait that had seemed to her one of the finest works of art. She would not open the letters; it would be folly to irritate old wounds. She would burn them; she ought to have burned them before her marriage but her mind had been in such a whirl then she had not thought of it.

She went to the fireplace and stirred the fire into a bright flame. She had not thought what she was about to do would pain her—it had seemed an easy thing to burn old letters; but, when she placed the first bundle in the midst of the flames, it seemed to her that she was burning a living thing. Alas for the love wasted in them, the passion, the pathos! It seemed to her that she was torturing Felix again; the hiss of the flames was like a reproachful voice. Still it must be done. One after another she threw them all in, until the last was destroyed. By that time the color had died from her face, and her hands trembled.

Then she came to the portrait; of course she must destroy it. And what was that folded so carefully in the tissue-paper near it? A spray of lilac, withered and dead! She remembered the day and the hour when it had been gathered. She took the portrait in her hands; there could be no harm in looking at it for the last time. The noble, handsome, frank young face—how she had loved it once! How those eyes had watched her—how those lips had kissed and worshipped her! It must go. She looked at it intently for a few minutes, and then she held it over the flames; but she could not destroy it—she could not see the flames leaping round that face. It was impossible. She wrapped up the portrait quickly, and locked it out of sight.

White and breathless with emotion, her hands trembling, her heart beating, she looked up suddenly as her husband entered the room.

"What are you doing, Violet?" he cried. "Are you ill? You look as if you had seen a ghost."

"I have seen one," she replied slowly.

"What have you been burning? The grate is full of burnt paper."

She looked at him with wistful eyes. Their expression did not please him.

"I have been burning all the old letters I found in my writing-desk," she replied.

Perhaps she had an idea that he would say something kind to her; but he laughed contemptuously.

"What sentimental simpletons women are! Are you going to keep that shabby little desk here? It spoils the room," he said.

"I thought it quite a grand piece of furniture once," she replied.

"Did you? Your ideas have altered on many subjects, no doubt. I came to ask you to ride out with me."

Her head ached with repressed emotion, but she dared not refuse. She had learned one lesson already, and that was that she must keep her husband in a good humor if possible. Now that the novelty and restraint of her presence were wearing off a little, he was beginning to indulge in fits of temper that startled her. She must keep him in good humor. She dressed and went out with him.

"Why do you always select the Oldstone Road?" she asked him.

"Because I like Oldstone far better than Lilford. Most of my property lies in Oldstone. I intend to go to Oldstone church when I go to church at all, and I shall patronize Oldstone generally."

A painful sense of disappointment stole over her, but she dared not express her feelings. She had pictured herself, in all the pride of her new state, rustling in her costly silk up to the old-fashioned aisle of the dear old church at Lilford, to which all her old friends went. She would have liked to see Felix again, to see how he looked and whether he had altered. She wondered what he would think of her in her new grandeur, and felt curious as to where and how they would meet. Then she remembered their terrible parting, and said to herself that she must not think of him.

She never saw him. She went several times to Lilford—more than once she drove past Vale House; but she never saw him. Then Garswood filled with guests, and her time was no longer her own. She ought to have been perfectly happy. She was mistress of the most magnificent home in the county; she had every luxury that money could purchase; she was *feted*, admired, flattered; she received unwonted homage. The local papers were full of descriptions of the galeties and amusements going on at Garswood, and gave a list of the fashionable visitors gathered there; and every now and then came some reference to the great beauty of Lady Chevenix. The ladies of the neighborhood, reading this, looked at each other in wonder, as though they would have said, "Can this be the girl we knew as Violet Haye?"

(To be continued.)

WHAT HAPPENED TO SEVEN GIRLS IN TEN YEARS.

MARY WAGER-FISHER.

A WEEK later, Mary Cake penned *her* "ten years" of doings.

NASHTON, Jan. 27th, 1877.

WALTER, RAYNOR, BIDDLE, ROSWELL and JAYNES: All hail! And so it is expected that Martha and I will tie on our "tale-pieces" and send the kite flying up Cairns's Point way? But mind you all, I shall keep strong hold of the string, and draw in all the little bits of paper that may get tied on hereafter.

My biography of the past ten years!! Indeed, and that is easily given. Why, any one of you could write the whole of it on your smallest finger nail; "Got married and have two babies." But you all look disappointed and are, may be, hungry for one of "Mollie's yarns." Will even take in a little exaggeration, eh?

Being a Methodist, I suppose I ought to be able to extemporize a little and drum up something to outshine Roswell's wandering, eventful career, Walter's prosperous ways on this side and the other of the Atlantic, and the power Biddle has acquired during the past ten years of killing people stone dead, with a few doses of medicine.

I see *now*; I should have kept a *journal*, I remember I began one when I first came home and persevered with it until each day's record was only a duplicate of its predecessor; "Have remained home to-day, and nothing unusual has occurred," was the sum and substance of my life with few variations. Walter's visit with Mercy in '68 was one of those variations when the fingers fly so merrily over the keys, that the music floats in through every crevice of the heart and the air swells grandly up through the whole.

In the spring of '69 (May 20) I was married to James K. Chapin of Nashton. Sit down, Lee Jaynes, and keep quiet! You know as much about that variation as *I* do. I don't know exactly how it came about that I got married, for I always thought I *shouldn't*, but if I *should*, I had pictured to myself (as you all may remember) a husband fair and sandy, with blue eyes and "mutton chops." But I didn't get any such kind of a "*feller*," girls. Why! he is blacker than I am, if anything, and that you know is unnecessary.

I again saw Walter when passing through New York on my wedding trip. Came home to begin a *married life* which glided along rather evenly, until the fall of '71, when I remember a short piece of a visit from Mary Roswell. Thanks for that short favor, Molly! Oct. 27th found me in New York on a visit to Mercy. This visit furnished change and amusement until the following June, when I gave birth to a boy, and we called him Johnny Cake! (delicious you know.) The seasons following the birth of Johnny were closely filled in with maternal cares until the spring of '76, when I launched out into housekeeping. Had barely got settled, when the Grand Exposition opened. I thought I wouldn't do the Centennial *this* time, but staid at home and celebrated by receiving another little black head. Girls! can you imagine how I look dangling my own babies and singing "Hush-a-bye," etc.? I do the thing up in shape (honest.)

In summing up these events of the past ten years, I haven't lost sight for an instant of our home in Richmond. I have looked up several times, to make sure that I am not writing there in the old room. I can peek across the hall at Walter and Raynor and invite them to go down with me into Roswell's and Jaynes's room and get some hot coffee with condensed milk. Kate Hawley is brushing outside the key-hole and our portly matron steps out of her den when she smells the coffee and hears us shouting. Lee, I thought you would marry that chap who wrote you such great long letters! Roswell if I were rich, I should be tempted to start at once for California and see you in your own "home." I congratulate you most heartily on your happiness. Walter! how did you feel when you fell in love? I'm coming to see you if fortune favors me, for I must confess I want to see how you act as a married woman. Mercy! hold fast to your profession and mind you don't get caught in the noose before you know it. By way of self description, I will say that I am the same old chick. I suppose I have grown old by ten years, since I saw two of our number, but I dont feel it.

No doubt each of you, save the two old maids, has the best husband in the world. So have I. My married life is very peaceful, and though you may wonder how any man can live with me, and not quarrel, I can truthfully say we never have, and my husband is no idiot either.

My boy will match yours, Roswell. I only hope he will not prove like a false fire-cracker, that flashes up when first lighted as though a tremendous snap was in it, and then fizzles all out. The little girlie is as sweet and winning as the angels in heaven.

Martha is able to vindicate her own course; but shake hands with me girls across the sheet, that she still remains single, and things look *now*, as though, if occasion required, she might take the *enviable* position of "Aunt" in my growing family. Receive in conclusion my choicest benediction and remember I am always ready to receive and embrace you.

MARY CAKE CHAPIN.

NASHTON, Feb. 7, 1877.

DEAR SPIRITS OF '67:—Very gladly I fall into line of battle in this grand army of facts and figures, while endeavoring to lap my life onto ten years ago and see what comes out between. Summer of 1867—we parted then, and into what different paths! These few letters shall reveal *my* life: *Uneventful*. Autumn of '67, went to Alexandria, Va., as work still remained to be done among the Freedmen and the opportunity still remained to me to bear some part in it. At home fall and winter of '69, doing little. From spring of '69 until '70, teaching in Nashton. Fall of '70 went to Illinois to join an old friend; our object, to see what the West might offer as a business opening. Unsuccessful and returned to Nashton, determined to see what kind of a business woman I could make in my own town, and accordingly joined myself to a Mrs. White, of like mind as myself, and we started in and still continue together. Our sign swings "White & Cake," and we are often addressed "Dear Sirs." The success we hoped for in the beginning has been sadly interfered with by the hard times, but those wise in the tricks of the trade say we should be satisfied in that we have been able to meet our bills, and have, I hope, steadily gained in name and fame. I have a pretty store, centrally located, with well appointed millinery, fancy dry goods—and in the rear a department for giving women "fits;" so that if you walk in some pleasant afternoon, you may find me measuring tape over the counter, or striking my most persuasive attitude before some semi-beguiled mortal, with a "love of a bonnet" on her head. I can hardly say with Biddle that I am satisfied to live and die in my vocation, for an aged milliner might get a feather askew, while the old family doctor is a treasure of wisdom and skill. However, for the present I am content. This is home, and the family number remains unbroken.

Personally, the ten years have left their marks, I suppose. The gray hairs grow plentiful and the crows' feet creep into the corners of the eyes, but the heart is amazed at the passage of time.

And now, girls, my story is ended. My heart and home are open to you all, to you and yours.

As ever, MARTHA CAKE.

(To be continued.)

RECENT LITERATURE.

Hampton Tracts. For the People. Sanitary Series, Nos. 1 to 5. New York: Putnam & Sons. Price 8c. each.

THE first of the series is by Helen W. Ludlow, and has for its subject The Health Laws of Moses; the second is on the Duty of Teachers, by E. W. Collingwood; the third, Preventable Diseases, by Mrs. M. F. Armstrong; the fourth, Who Found Jamie? by Helen W. Ludlow; the fifth, A Haunted House, by Mrs. Armstrong. These useful little books deserve to be extensively read. The "tracts" are condensed and strong statements of the fundamental laws of health, with illustrations of the results of breaking these laws, and advice as to the best and easiest way of living in obedience to them. The editing committee promise that the series "will provide, as simply and in as attractive a manner as possible, carefully prepared information upon all points directly connected with physical life,"—as cleanliness of the person and house, ventilation, drainage, care of children and invalids, preparation of food, etc.

MAGAZINES FOR FEBRUARY.

SUNDAY AFTERNOON comes laden with good things. Our experience with this magazine during the first year of its existence, leads us now always to expect that every number will contain bright, suggestive papers on social reform topics, nor are we ever disappointed. The February number contains the following articles of this class: A Pair of Home Missionaries, As to Sunday Dailies (a capital article), The Littleton Reformers, (a paper which all women could read to advantage), and At the Door of the Tabernacle, each and all of which will repay perusal. Caroline Healey Dall contributes a paper on that charming woman, Anna Jameson. Ministers and Hobbies, by W. M. F. Round; A Conventional Conscience, What is Conscience, The True Story of Hans Christian, Paper Roses, A Just and Faithful Knight of God, Sunday in Water Street, Kasina Al Anwar, and The Still Hour, comprise all the articles in the body of the magazine. The Editor's Table discusses Where is the Church? Theatre Going; Notes on Current Events.

THE PHRENOLOGICAL JOURNAL, opens with a life-like portrait and phrenological and biographical sketch of Senator John P. Jones, of Nevada. It contains also portraits and sketches of the late Bayard Taylor, American Minister to Germany, and also of the Marquis of Lorne and Princess Louise.

The chapter on Brain and Mind discourses on Organic Quality, its nature and influence, illustrated with nearly a dozen engravings. Strange Plants are also illustrated. The Unfolding of Mind through Conflict and Sin is an interesting paper.

The Health Department is well sustained by the articles on Dietetic Delusions; Experiments in Magnetism; and the Proper Position in which to Sleep, while our social relations as men and women are discussed in Single-Blessedness; Can the Sex of the Human Cranium be determined? There is also a great amount of valuable information in the Editorial Department, Answers to Correspondents, etc. The publishers of this Journal have made a reduction in price. It is now published at $2.00 per year, with liberal premium offers to subscribers.

PROF. EMIL DU BOIS-REYMOND opens the Popular Science Monthly with an able article entitled Darwin *vs.* Galiani, in which the rival doctrines of *teleology* and *natural selection* are discussed and compared in a very instructive and dispassionate way, although the writer is evidently a strong believer in the latter mode of accounting for the phenomena of organic life. Prof. Joseph Le Conte follows with a second and concluding paper on the Scientific Relations of Sociology to Biology, pointing out in this article the true position of Sociology as the chief of all the sciences, how it has been made possible through the development of others, and how it is characterized by the possession of methods and data that are peculiarly its own.

The Crystallization of Gold, Silver, and other Metals, by Thomas J. Gregan, is an illustrated and untechnical account of the various beautiful crystalline shapes taken by some of the precious metals, and the conditions under which the phenomena occur. In the next article, Herbert Spencer before the English Copyright Commission, we have some strong common sense forcibly applied to a very important question; and few, after reading it, will fail to understand why Mr. Spencer was called before the Commission a second time. The Formation of Mountains is an illustrated account of a series of experiments performed by Prof. Alphonse Favre, of Geneva, to show the formation of the great irregularities of the earth's surface by means of lateral thrust and crushing due to the process of cooling.

People who believe in "bumps," as well as those who would locate the mental faculties a little deeper than the scalp, will be interested in "The Old Phrenology and the New," by Dr. Andrew Wilson. With the aid of illustrations the writer makes sad work with the professions and teachings of the old phrenologists, and shows how much more reasonable is the explanation which recent science has to offer. "Backgammon among the Aztecs," by Edward B. Taylor, is an instructive paper, on the high antiquity and wide diffusion of one of our common games. "Planetary Rings and New Stars," by Prof. Daniel Vaughan; "Mites, Ticks, and other Acari," by E. R. Leland (illustrated); "Typhoid-Fever Poison," by Dr. Ely Van de Warker; and a sketch by Prof. George B. Prescott of Mr. Elisha Gray, who is introduced as "the inventor of the Speaking Telephone," and of whom a portrait is given, fill up the body of the number.

The departments are all good, the Editor's Table and Popular Miscellany especially so. The former contains some trenchant remarks on the "Morality of Copyright," and an explanation of the present attitude of science toward the question whether the so-called elements are elementary or not.

New York: D. Appleton & Co. Fifty cents per number, $5 per year.

For Women.

CONDUCTED BY MISS FAITH RIPLEY.

THE SAFEGUARD.

A BABY crept to his father's knee,
And was lifted up and lulled to rest,
Till the blue eyes closed, so tired was he,
And his little head fell peacefully
At ease on the ready shoulder there,
While the baby hand so soft and fair,
Lay like a shield on his father's breast.

Of old 'twas said that when men drew near
To fierce temptation or deadly strife,
And lost their way in a maze of fear,
Or periled their souls for worldly gear,
By a way unknown an angel band
Would lead them out of the dangerous land,
Into the light of a noble life.

The story is true for the world to-day:
We see no white-robed angels mild;
But out of the dark and perilous way
Where men and women forget to pray,
Into the peace of a purer land
They are led by a gentle, shielding hand,
The hand of a little helpless child.

[Elizabeth W. Denison, in Sunday Afternoon.

LETTERS FROM A COUNTRY GIRL.—No. 11.

MARGARET B. HARVEY.

AND now I would like to talk a while about music. Of course, what I have to offer upon the subject will be of little practical value to those who have no instrument. So I will linger long enough to say, *Get one!* One woman will say she cannot afford it, another, that she won't have any until she can buy a Steinway grand. But friends, while you are waiting, your time is passing, your fingers are stiffening, and your taste is settling into a perpetual crudity. Don't be above starting with a low-priced piano, and the knowledge gained upon it may either aid you or encourage you to procure a better one. I venture to say, that if you use as little as seventy-five dollars for this purpose, you will be able to receive more than the worth of the money in return, even if you buy second-hand. As for organs, you can purchase just as good a new one as anybody needs for a hundred dollars. But I suppose every woman must have her heavy black silk and her gold watch and her Paisley shawl, whether her house is adorned and her mind cultivated, or not. It is her business, not mine.

Music, I believe, is the highest art, the noblest science and the grandest pursuit which can occupy the human mind. Of all things earthly, it exercises the greatest sway over mankind, and of all things earthly, it is the most incomprehensible. How can we explain why combinations of certain notes fill the heart with a sense of pure joy, holy sentiment, elevated patriotism, or yearning tenderness, and anon deep sadness and wild despair? And this not by any trick of form or color appealing to the eye,—not by any set phrase or idiom, conveying an exact, unmistakable meaning,—but simply by vibrations striking the ear. It seems, indeed, an unutterable language between soul and soul, the struggling efforts of a wandering, awful spirit to speak to us who but faintly comprehend, the tongue in which only seraphim can fully hold converse; the one reality of this lower world that we expect to find again in heaven.

OPERATIC MUSIC.

Thinking thus of music, it must follow that I consider an opera the sublimest product of human genius. When through a long extended composition any mortal man by such feeble instruments as mere sounds can control a mighty multitude, and compel its members at his will to experience in rapid succession, simple pleasure and careless joy, and deepest longing, intensest grief, fiercest hate, noblest sacrifice, highest hope and grandest triumph, I say, his creative and governing energy is something godlike. He is greater than a poet, for it is the poet's thought as echoed in the strains to which it is wedded, that is carried home to the heart and life to remain forever; he is greater than a painter, for his songs fly through the air and are transported bodily into far distant regions in which the picture is scarce heard of; he is greater than builder or monarch or conqueror, for his work remains indestructible long after theirs has crumbled into dust. The more we know of music, the more angelic we may become.

I hope at this late day, that I have shocked no one by coming out so strongly in favor of the opera. If I have, he or she is the very one who does not know how largely operatic music has entered into our every-day life. The sweetest songs and the most beautiful hymns that we have, might be described by this term, which many have learned to pronounce so contemptuously. For instance, "The Last Rose of Summer," is "operatic,"—it is from Martha: "Sleep, Gentle Mother," is from Il Trovatore: "Then You'll Remember Me," is from The Bohemian Girl. The church tune Ovio, is from Norma: Fading Light, from Der Freyschutz, while that grand air Seymour, or Von Weber (as it is sometimes more fitly called), is from Oberon, by the same author, Weber. And many a time, I hope, has your heart swelled and your eyes filled with tears to the enchanting strains of Manoah, by Rossini.

Now that some of my friends mean to set out in earnest and *play*, I would advise them right here to learn all about operas that they can. This does not touch upon the question of *going* to the opera, which I leave for others to discuss,—but covet a knowledge of such music above all other kinds. And when you have fairly learned your scales and gained control over fingers, and are ready for a "piece," attempt something classical. There are easy arrangements for beginners, no more difficult, if one determines to *work hard* and *count correctly*, than many pages of exercises. Don't, ladies, *don't* fool away your time on exercises, take at once something which will draw you out, and which, when thoroughly mastered, will be, after all your endeavor, a possession of some value. When with infinite trouble you have learned a lot of little runs and tinkles, you don't want to play them, and nobody cares to hear them. If the object of practicing them be to gain freedom of hand, this can be attained just as surely on a real composition,—only, don't get discouraged. Make it a rule *never* to give up a piece after having once commenced it, even if you don't know it for months. The next one will be ten times easier.

BALLADS AND POLKAS.

Don't waste your hours and energies upon common ballads, polkas and schottishes. There is, usually, nothing in them but a "cute" trick of expression, or a rather "smart" jingle, of which one soon grows weary. And as they depend on exact rendition for effect, they require practice which might be far better employed. You can just as well learn Meyerbeer's exquisite song, "Thy Flowery Banks, O Flowing River," from the Hugenots, or one of Abt's melting melodies, "When the Swallows Homeward Fly," or "Guardian Mother," as you can learn "Johnny Morgan," or "Whoa, Emma!" Instead of noisy, bombastic, stamping marches, written by nobody knows nor cares whom, take the really spirited and magnificent ones from Faust and Norma. A careful student had far better be busied with Mendelssohn's Songs without Words than with some trifling, merely pretty Snow Drop or Rose Bud pieces. We are immortal beings, remember; we have plenty to do in these lives of ours, and we cannot afford to choose less than the best,—not only for the time involved, but the influence upon us. If we want our hearts made pure and our tastes refined, we must first of all give preference to those things best calculated to do this for us.

Because I have exalted the opera and kindred music, I do not mean to imply that there is no merit in less pretentious compositions. But I do say, set up a high standard first, and if possible, reach it, then you will be able to judge of good elsewhere. Nothing, however humble, if wrought out in a sincere, loving, tender, unselfish spirit, is worthless, so you must aim to cultivate not only a correctness but a breadth of taste. You will often find a priceless gem, like Wilson's Shepherd Boy, among the mountains of rubbish around you.

THE SPIRIT OF MUSIC.

As a general rule, that which comes the nearest to swaying completely the emotions, approaches most nearly to perfection. Dance music, with which, alas, too many of our girls spend their leisure, is of little real value. It serves only to please the ear during the brief excitement of the passing hour. For seasons of melancholy, of loneliness, of aspiration and of faith, it has nothing to give. Those who cultivate a love for soft reveries and wailing miserere and divine psalms, will seldom find their playing unacceptable and unappreciated. Yet if you must have dashing waltzes, choose those which have more to recommend them than their sparkling movement—those which sing of flashing waters and swaying tree-tops and reveling fairies. Such are Strauss's compositions which have a witchery inimitable. He who can hear unmoved the brilliant, "Beautiful Blue Danube," or the charming "Thousand and One Nights" must be callous indeed. Of course, you will find it profitable to learn a few simple polkas and cotillions to amuse the children,—but don't consider them part of your *own* music.

VOCAL MUSIC.

So far I have spoken only of the piano. Many persons eminent for their musical culture have pronounced it a very imperfect instrument, giving preference to the violin and the organ. This may be true, we would all, I think, rather hear gay sounds in the orchestra and solemn ones in the church, than in our parlors. But as an accompaniment to the voice it would be difficult to find a substitute available for our homes. It is claimed that its notes are sharp and clear-cut, having neither the human-like thrilling of the violin nor the blending swell of the organ, but for singing, this is no drawback, as the vocal tones must rule the instrumental ones. The fewer and simpler the chords the better. Never believe that the most expensive piano or the greatest facility in execution will ever take the place of a good voice. Whatever else you do, *sing*. Women in the country, I believe, have a better chance to practice the high notes than women in the city. Let one of the latter scream in her room, and she may be sure it will be known, and her breaks too, but one of the former may go out into the woods, as I have repeatedly done, and gain control of her abdominal muscles and expand her chest and exercise her vocal chords with no fear of intrusion. Let your improvement in singing keep pace with your advancement in playing. It is a high art to be able to sing well to a correct accompaniment, simple ballads, and the old, familiar Irish, Scotch and "darkey" songs are always fresh and sweet.

I have supposed that you are going on without a teacher. Of course, the more lessons you can take the better; but, at the same time, no one can do your work for you, and nothing need hinder your doing it by yourself. You can learn all the keys and scales from a manual, and after that it is all practice. But it is a little more difficult. I think, to learn to sing by note without a teacher. You can only become able to read by picking out the notes one by one and trying them on the piano, and then striving to grasp the true sound with the voice. Yet keep on and on, and bye-and-bye, as an eminent organist said, you will "begin to see."

ORGAN PLAYING.

Now a word to the lady who has an organ. You will probably first want to play familiar church and Sunday-School hymns, as perhaps you would if you had a piano. This is well, for in any pursuit, make it yield you pleasure and profit as soon as possible; but don't let this be all. Just as grand composers have left music suitable for the organ as any for the piano. Think of your rich heritage of chants, masses, oratories and sonatas. There are published books of voluntaries made up of selections from the wonderful creations of Mozart, Handel, Hayden and Beethoven. Any music dealer can send you such a book on application.

Again I will say, practice. You must try if possible to get in, at the very least, a half-hour's work daily—but as much more as you can, short of neglecting things more important, that is, if anything *is* more important than your rest and comfort and culture. But I know that some of your neighbors will talk, and say you are giving yourself airs, or leaving duty undone. I might say, "Don't mind them," but I know you *will* mind them, at least, enough to be annoyed even if you are not frightened into giving up your effort. Yet you can remember that if you overlooked a hundred little odds and ends of time, in which you might just as well be seated before the instrument as idle by the fire, they would find no fault with you, and you would end by knowing nothing,—then you can choose, determining which fate would be the more dreadful, to be talked about, or to be ignorant. But I shall suppose that you have decided wisely, so I will tell you, for your encouragement, that I know of a young man who learned to play on a painted board and succeeded finely. Better do this than not attempt—for he learned the correct fingering of many difficult pieces, and when he did get a piano at last, practice soon took the stiffness out of his hands. I shall have to talk, one of these days, about habits of study, so that I can make you believe that you have time if you will take it. And now I will close by saying, success to your music. Success need not necessarily mean amazing ease in execution, nor ability to perform a difficult composition (a very simple piece is frequently very beautiful), nor the power to show off in public, though it may include all of these. But it *does* mean amusing the children, entertaining a friend, comforting a dear one, or mingling in private worship, in short, adding to the pleasure, the loveliness and the devotion of the home.

OLD MAIDS AND OLD BACHELORS.

J. S.

OLD maids are useful. They can cook, sew and take care of children, nurse sick people, and generally play the piano. Old bachelors are useless. They do not even know how to drive nails or split wood.

Old maids are amiable. If one wants anything done that requires patience and kindness of heart, a single lady is sure to be the one to do it.

Old bachelors are ill-natured. They snub children, despise babies, and hate young mothers, and are always so busily employed in seeing that other people take good care of them that they have not a moment to give to anyone else.

Old maids are nice looking, and "young for their years." Old bachelors generally have red noses, rheumatism in their knees, bald heads, and mouths that turn down at the corners.

Old maids can make a home of one little room, and cook delicious meals for one over the gas-jet in cunning little tin-kettles, besides making all their own wardrobes. Old bachelors need an army of tailors, waiters, cooks, distant relatives and hotel landlords, to keep them comfortable. When old maids are ill they tie up their heads in pocket-handkerchiefs, take homœopathic pellets out of two bottles, alternately, and get well again. When old bachelors are ill they go to bed and send for four doctors; have a consultation; a mantlepiece full of black bottles; all the amiable married men who belong to the club to sit up with them at night, besides a hired nurse; they telegraph to their relations; and do their best to impress the world with the idea that they are dying.

When an old maid travels she takes a sandwich, a piece of pound-cake, a bottle of lemonade in a hand-basket, and lunches comfortably in the carriage. When an old bachelor travels he orders a dinner in courses at the station, and raves because he has not time to eat it before the "fifteen minutes for refreshments" are over.

Old maids drink weak tea and it cures their headaches.

Old bachelors drink strong liquor which gives them headaches.

Old maids are modest; they think their youth is over and their beauty gone. If, after a while, some autumnal love is given them, they take it as a sort of miracle, and hope people will not laugh at them for "marrying so late in life."

Old bachelors believe that all women are in love with them, and that they must carefully guard themselves from traps laid to inveigle them into matrimony. They also fondly cherish the belief that should they eventually become married men, the world expects them to exhibit great taste in women by their choice, and that the "other fellows" will laugh if their portion be not tender youth and beauty; also that when they marry, many women will expire of jealousy.

BE HAPPY.

T. A. GERE.

NATURE, everywhere, tells us to be happy. Never mind your age, cheerfulness is not a reproach to gray hairs. Take a hint from the leaves of the trees. How they chatter with the squirrels and laugh at the dew drops all summer! Yet, when they fall, how gladly they mingle in a merry romp or joyous dance in the breezes of autumn.

A POSTPONEMENT.

THE illustrated article on Painting on China, promised for January, was delayed in consequence of our inability to procure just the engravings we wanted. We hope to be able to get them in course of a few weeks.

In response to many requests we shall give designs in Crewel Work, in RURAL of February 15.

RURAL of March 1st will contain illustrations of Cross-Stitch, a style of ornamentation very much in vogue for embellishing household linen.

News of the Week.

Monday, Feb. 4, 1879.

MISCELLANEOUS.

The fleeces of the Angora goats in Mariposa county, Cal., sell from 70 to 90 cents a pound. The excess of exports over imports for the six months ending December 31, 1878, was $148,888,036, as against $102,159.169 for the six months ending December 31, 1877, and for the year ending December 31, 1878, $304,642,571, as against $140,056,112 for the year ending December 31, 1877. The yellows in the peach is root difficulty, says Meehan in Gardener's Monthly. Sitting Bull's people are nearly starved and are anxious to make almost any terms for peace, but the chief himself says he will never again cross the line. The Senate has passed the House Refunding Bill without dissent and the Consular and Diplomatic Bill, and the Naval Appropriation Bill. On Thursday it passed the important Bill modifying the existing law of patents; and twice during the week it refused by party votes to take up Mr. Edmunds's uncomfortable resolutions concerning the enforcement of the Amendments. The House has good-naturedly extinguished the bill of Mr. Wright, the Pensylvania Communist, providing for a Government loan of $500 to every person wishing to avail himself of the Homestead Act; and has debated the bill introduced by Mr. Goode, of Virginia, devoting the proceeds of the sale of public lands to the common schools of the several States in proportion to their illiterate population. On Tuesday the House passed peremptorily, by 155 to 75, the bill from the Committee on Labor and Education restricting Chinese immigration to fifteen on any one vessel.

Many eggs are now sent to London from Continental countries in cheap coffins, instead of boxes or barrels. The coffins sell for more than cost, and the shippers make money on the packages as well as the goods. Here's a hint for some of our farmers in other things as well as eggs. The bill repealing the charter of the Louisiana Lottery Company passed the Louisiana Senate Wednesday with an amendment that the law shall take effect after March 31. A bill to punish tramps has been introduced into the lower branch of the Legislature of this State. It provides that any person going about from place to place, begging beyond the limits of the town where he is an actual resident, shall be deemed a tramp, and be punished by imprisonment in the State prison for not more than fifteen months. Any tramp who shall enter a dwelling-house, or kindle a fire on the highway, or on the land of another without consent, or be found carrying dangerous weapons, or threaten injury to any person or estate, shall be imprisoned in the State prison for not more than two years. Any tramp who wilfully and maliciously injures a person or estate, if the act is not now punished by imprisonment in State prison, shall be imprisoned in state prison for not more than five years. Any act of beggary or vagrancy by a person not a resident of this State shall be evidence that the person committing the same is a tramp. The act is not to apply to females or minors under 17 years of age, or to blind persons.

Wade Hampton is going to Florida to recruit. United States District Judge Blodgett is undergoing investigation at Chicago by a congressional committee for his alleged corruptions. A United Judge too! Secretary Sherman says he has been erroneously credited with estimating the cost of the new pension bill at $150,000,000. From the best information he can get it will cost anywhere from $36,000,000 to $100,000,000. A suit for the recovery of the Arlington estate by the family of Gen. Lee, has been in progress for some time at Alexandria, Va. It was confiscated during the war and used as a cemetery, chiefly for the remains of colored troops, of whom 40,000 were there interred. The Lee family say that it did not belong to the General, but to his wife, and was therefore illegally confiscated. The case was concluded Thursday afternoon. The jury was only out a few minutes and returned a verdict for the plaintiff for the whole property in fee. Ejectments will now lie against Kaufman, who is in possession of the cemetery, and Strong, who has the rest of the property except the portion occupied by Maria Syphax, which is not in controversy. The defendants entered a motion for a new trial; bills of exceptions will be made as soon as possible and be signed by the court at Richmond.

The Michigan lumbermen have been figuring up the work that they have done in years past, and it scares them, almost, to find how much territory they have cut over. Since 1853, 9,000 million feet have been cut in the Saginaw valley alone, and logging is going on there at the rate of 500 million feet yearly. In 1866, only 600,000 lbs. of wool reached Galveston, Texas; ten years afterwards, it received 2,000,000 lbs., and this year its receipts have already reached upwards of 2,500,000 lbs. Over $25,000,000 of coin obligations, including $1,400,00 United States notes, have been paid during the current month, yet the coin in the Treasury has steadily increased. A field between Norwalk and Los Angeles, Cal., produced last season a crop of barley, a crop of corn and then a crop of potatoes. The Nez Perces Indians are willing to cede their lands, amounting to about 4,800 square miles, to the Government for six townships in the Indian Territory and $250,000 in money. The Interior Department agrees to these terms and Congress is to be asked to make the necessary appropriation.

There is mourning in Warren County, New Jersey. Many a house is in trouble, and will be for months to come. Ex-officials and some of the present ones have been in the habit of stealing systematically. They raised checks and forged and didn't seem to think it wrong to help themselves from the public crib. Now they have been brought up with a round turn. For some time their trials have been going on, and this is the result: Ex-Clerk Mattison, four years in State Prison; ex-Director Strader, two years; ex-County Collector Cammins, two years; ex-County Collector Teel, two years; ex-Freeholder Bulgin, eighteen months; Freeholder Cox, eighteen months; Freeholder King, one year; ex-Attorney Givins, eighteen months; Councilman McDermott, one year—all at hard labor; Contractor Sliker, six months in the county jail and $500 fine. There are other indictments. The happy result of this prosecution of dishonest officials seems to have had an encouraging effect upon other communities similarly burdened, and already in three other counties within a radius of fifty miles of this city, various corrupt officials have been indicted and stand a good chance of getting their deserts.

Now that specie payment has begun and that there is a good deal of talk about the small amount of money apparently in circulation, it may be of interest to compare the amount per head of circulation now and at different dates in the near past. From the following tables it will be seen that the periods of public prosperity and business briskness by no means necessarily correspond with periods in which the volume of money in circulation was the largest. This table gives the amount of paper and specie in circulation at intervals of five years before 1860. As the banking reports before the war were insufficient, it is probable that these figures do not include all the bank issues in circulation, but if we add, say, $20,000,000, or about 10 per cent., to the amount of paper here given, the allowance will be ample to make up this deficiency:

Year.	*Bank Paper.*	*Specie.*	*Total.*	*Per Capita.*
1835	$121,032,292	$59,646,994	$180,678,286	$12 07
1840	113,664,443	34,574,829	148,239,272	8 68
1845	89,608,711	44,241,242	133,849,953	6 66
1850	131,266,526	45,379,345	176,745,871	7 60
1855	186,952,223	53,944,546	240,896,763	8 93
1860	207,102,477	23,594,537	230,697,014	9 30

Several hundred millions compound-interest and short-term notes which the advocates of inflation reckon as currency are excluded from the table. Since 1860 the currency per head has nearly doubled and the volume has increased 130 per cent, taking $310,000,000 as the volume for that year. In the previous thirty years population increased 145 per cent. and nine States were added to the Union; imports and exports increased respectively 411 and 442 per cent. and the currency increased 178 per cent. In the eighteen years since 1860 population has increased 50 per cent. imports and exports have increased respectively 28 and 45 per cent. and the currency has increased 130 per cent. The contrast may be more clearly shown thus:

THIRTY YEARS, 1830-1860.

Increase in	*From*	*To*	*Per cent.*
Population	12,866,000	31,443,000	145
Total imports	$70,877,000	$362,166,000	411
Total exports	73,850,000	400,122,000	442
Cotton manufactures	26,000,000	116,000,000	346
Currency	104,000,000	290,700,000	178

EIGHTEEN YEARS, 1860-1878.

Increase in	*From*	*To*	*Per cent*
Population	31,443,000	47,000,000	50
Total imports	$362,166,000	$466,872,000	28
Total exports	400,122,000	743,942,000	85
Cotton manufactures	116,000,000	200,000,000	70
Currency	310,000,000	713,000,000	130

It will, of course, be understood that estimates are used here in some cases, for example, for population and value of cotton manufactures in 1878, and for population at quinquennial periods.

Here is the amount of money in circulation since the outbreak of the war. For the sake of getting it in conveniently here the table has been divided into two sections, but in studying it, the reader should consider the second merely an extension of the first:

Year.	*National Bank Notes.*	*Legal Tenders.*	*Coin.*
1865	$146,138,000	$432,688,000	$18,072,000
1870	299,767,000	356,000,000	18,460,000
1873	347,267,000	356,000,000	19,868,000
1875	354,408,000	375,771,000	8,050,000
1878	319,652,000	346,743,000	30,688,000

Year.	*Fractional.*	*Total.*	*Per Capita.*
1865	$25,006,000	$621,904,000	$17 70
1870	39,876,000	714,105,000	18 52
1873	44,799,000	767,934,000	19 20
1875	42,129,000	780,378,000	18 40
1878	16,150,000	713,233,000	16 00

FOREIGN.

MeMahon has resigned the Presidency of the French Republic, Mons. Grevy has been elected for seven years to succeed him, Gambetta has been chosen as President of the Chamber of Deputies instead of Grevy, and all this has taken place with as little public disturbance or danger as if the changes had occurred among our own order-loving people, instead of among our turbulent and excitable Gallic friends. The French Republic may now at last be considered definitely established.

The Russians have waked up to the discovery that the plague is among the trophies they brought home from their campaign against the Turks, and there is much alarm in all western Europe. The disease first made its appearance in the southern province of Astrakhan, on the Caspian sea, and has rapidly advanced up the valley of the Volga to Nishnii-Novgorod, in the heart of the empire, and but a little east of Moscow. It comes upon a people weakened by war and famine, with the number of physicians reduced one-third by the conflict with Turkey and the typhoid fever that followed it, and with very inadequate sanitary regulations. It was neglected at first, too, till it has acquired such malignity as to carry off 90 per cent of those it attacks. The governments of Russia, Germany and Austro-Hungary have but recently taken strong measures against it. Should it further increase, however, Germany, will establish a military cordon of 80,000 men on her frontier. The international sanitary commission have sent doctors to study the disease and adopted a pretty strict quarantine. The plague has not appeared in Europe before since 1844, but the terrible desolation it has caused in passed centuries—it victims numbering 25,000,000—naturally excites alarm and justifies every precaution. Though it is one of the great historic scourges of mankind, the proper treatment of it is hardly so well understood as that of yellow fever, and as a rule it kills whomever it hits when it has become epidemic.

Domestic Economy.

CONDUCTED BY EMILY MAPLE.

HOUSE-WORK.

THIS is one of the most comprehensive compound words in the English language. It expresses the elements of home life in a multitude of phases. Every department of housewifery is included in its definition. A person versed in house-work is qualified to make home comfortable, enjoyable and happy. House-work is not merely kitchen drudgery; it combines the elegancies and comforts of home as well as its labors. As wealth increases, as refinement progresses, so the duties of house-work multiply, and the advancement of education makes an increase of care and labor in this department, likewise. In the last fifty years the change of programme in house-work has been more marked than in almost any other department of labor. Half a century ago one room was used for sitting-room, dining-room, kitchen and, not unfrequently, sleeping-room. The parlor or square room, was never opened, unless upon state occasions. All the preparations for the family cooking were made upon the long kitchen table. The pantry was a little seven-by-nine closet, as far from the fire as possible, and was used as a store-room for everything. One set of plates was sufficient for all the varieties of food set out for a family meal. Plain, coarse, but wholesome fare was sufficient for diet. Strong home-spun cloth was the clothing of the whole household. A garment once made, did duty for a year at least.

Now, look at the contrast! Sitting-room, dining-room and kitchen are always to be kept in order, and are in constant use. The pantry is the manufactory where all the comestibles are fabricated. Dish washing is one of the hardest jobs of the whole day. Certainly no less than three courses of plates would answer for a family dinner, and frequently more are required. Sweeping and dusting are daily occupations, and then the cooking! Such varieties of dishes, pies, cakes and what-not! It requires a busy head and nimble hands to do the work for a family of moderate size at the present time, not speaking of the making and mending, the darning and patching that are a branch of housewifery. A thorough, practical knowledge of house-work requires more brains than are needed to become a lawyer or a physician. To run the complicated machinery so as to have no jars or friction, is a science in itself, and is certainly a very important department of education, in which young women ought to be well versed. It calls into exercise all the faculties of the mind and body. One needs the wisdom of Solomon and the patience of Job to practice all the details of every-day life.

And yet we have all around us those who, day after day, go through the routine, and look, and are happy and contented with their stations. Doubtless, they have hard days and aching heads and backs, but they understand their business and equalize their daily labor. They do not undertake to crowd the work of three days into one day. They know themselves, and understand how much they can endure, and do not overtask themselves. This is a great secret in house-work—to undertake no more than one can easily accomplish. House-work is one of the most requisite branches of a girl's education, and public attention is being roused up to the facts of its utility. The time has arrived when house-work is appreciated. FARMER'S WIFE.

HOUSEHOLD NOTES.

SOME time ago a gentleman taking dinner with us, said: "What piece of the beef is this? what do you pay for such meat?" My husband said, "This is an inferior piece of meat, cheap, and one that few will buy; but the manner of cooking it makes it so tender." After washing the meat, we put it in a large covered pot with some drippings, fat or lard, and butter; and place the pot over a hot fire and let it remain a few minutes until it is well browned to close the juice cells. Then we salt the meat, pour into the pot about a quart of water, set it on the back part of the range and let it steam until done, which, as we use very large pieces of meat, will take from two to three hours. If the water boils away, add more hot water.

Many people, excellent housekeepers in every other way, say they cannot can tomatoes so as to have them keep. I boil them until the scum stops rising, and add nothing except a little flour and water, when preparing them for the table. When opened, they are so natural in taste as to be as good as fresh ones. I put them in glass jars and treat them the same as any canned fruit.

We tried a new way of keeping green corn this year, and it is a success. Cut the corn from the cobs without cooking. Have an earthen pot ready; first put in a thin layer of corn, then a layer of salt, and so on alternately until the pot is full. Then cover with a plate pressed down so that the brine will cover it and exclude all air. Before the corn is used it will require to be freshened by soaking it over night in water. A teaspoonful of sugar, added in cooking, improves it. Beans (string) can be kept in the same way. Though I've never heard of it, I see no reason why peas, shelled, couldn't be kept too. The corn and beans must be packed as soon as cut, or they will spoil.

Servant girls are the torments of housekeeping. When we secure one that knows how to work, she is either dishonest, untruthful, or so "touchy" there is no living with her. What can we do about it? MRS. E. E. O.

CURE FOR FROST-BITES.

THIS is an excellent cure for frost-bitten feet, fingers or ears: Let a small quantity of lard boil until thoroughly done; then immediately, while boiling, pour it upon a cake or piece of ice. Let it remain until it is cold as the ice itself, after which take it up. It will be more like wax than lard. Apply this to the afflicted part in liberal quantities, and bind it on with a cloth. This is a remedy for freshly frosted members, or for frost-bites of former years. When the feet are sore from old frost-bites, it is a good plan to soak them well in tepid water in which is dissolved a little alum, after which apply the lard, prepared as stated.

H. V. A.

CURE FOR A COLD.

MY mother wishes me to tell the RURAL boys and girls how to cure a cold without drinking hot drinks that cause one to sweat and then so easily take more cold. Put a teaspoonful of ginger into a pint of cold water, enough sugar to make it good, and drink as nearly all of it as is possible before going to bed. My brother's remedy, thirty years ago, when a boy, was to drink, as nearly as possible, a quart of just cold water on retiring.

A WISCONSIN WOMAN.

DOMESTIC RECIPES.

Cream Cabbage.

Wash, cut fine, boil until tender, and drain the water from it. Brown two tablespoonfuls of butter in a saucepan; put in the cabbage and pour over it a teacupful of good cream; season, and let simmer for half an hour.

To Cook Salsify.

Wash the roots, and as the outer skin is scraped off throw the roots into cold water. They require nearly an hour's boiling in plenty of water; throw in with them a little salt, a small piece of butter, and the juice of half a lemon. Serve with rich gravy or melted butter.

To Stew Carrots.

Half boil, then scrape and slice them, into a stew-pan. Add to them half a teacupful of any weak broth, pepper and salt to taste, half a teacupful of cream, and a salt-spoonful of sugar; simmer until tender, but not broken; before serving, thicken with a bit of butter rubbed smooth in flour. If liked, chopped parsley may be added ten minutes before dishing.

Venison Steaks.

Cut them from the neck, and season with pepper and salt. When the grid-iron has been well heated over a bed of bright coals, grease the bars and lay the steaks upon it. Broil them well, turning them once, and taking care to save as much of the juice as possible. Serve them with some currant jelly laid on each slice. MRS. S. L.

Oat-Meal Bread.

Will some of our friends please give Mrs. L. S. N., directions for making oat-meal bread?

Fish Fritters.

Take the remains of any fish, which has been served the preceding day; remove all of the bones, and mince fine; add equal quantities of bread crumbs and mashed potatoes; stir in two beaten eggs; season with pepper and salt; add enough cream to make the mass of the proper consistency to mold into little balls, and fry them in boiling lard.

Egg Sauce.

Boil three eggs hard; cut them into small squares and mix them in good butter sauce; make very hot and squeeze in some lemon juice before serving.

Turnip Soup.

This soup should be made, all but adding the turnips, the day before it is required.

Stew a knuckle of veal with an onion and a bunch of sweet herbs in six quarts of water; cover closely and stew gently five or six hours; put in a cool place; the next day remove the grease, fat and sediment; cut five or six turnips into thin slices and stew slowly in the soup until tender; then add half a pint of cream; thicken with a little flour and butter, and season to taste.

Mock Hash Venison.

One teacupful of gravy, two or three cloves, a little allspice, one tablespoonful of red currant jelly and the same quantity of port-wine; thicken with a trifle of flour. Season to the taste; cut some thin slices from a cold leg of mutton and simmer in this gravy for a few minutes. MARY B.

QUESTIONS ANSWERED.

Mrs. M. B., wishes a cement for fastening a brass top on to a glass lamp.

ANS.—Take three parts of resin, one part of caustic soda and boil in five parts of water; when the ingredients are dissolved and the liquid partly cold, mix with half its weight of plaster-of-Paris.

Mrs. E. M. G. wishes directions for coloring blue on cotton.

ANS.—Dissolve seven ounces of copperas in sufficient warm water to cover three pounds of cloth; put in the goods and let remain one hour, airing often; then take out and rinse through two clear waters. Dissolve one ounce of prussiate of potash in the same quantity as before of warm water, and add one tablespoonful of oil of vitriol; stir up well; put in the cloth and let remain another hour airing in the same way; then rinse and wash in cold water.

OUR FREE SEED DISTRIBUTION.

SEEDS of the following varieties of plants are offered to our subscribers without any charge whatever (except for postage, a part of which we bear) until further notice:

DEFIANCE WHEAT. A hybrid spring wheat. The most promising variety ever before offered.

"PEARL" OR "EGYPTIAN" MILLET. One of the most promising fodder plants known.

BEAUTY OF HEBRON POTATO. According to many careful tests, this is ten days earlier than Early Rose, as good in quality, and more prolific.

THE VOORHIS WATERMELON. A specialty of the Rural Farm.

GOLDEN RURAL TOMATO. A specialty of the Rural Grounds.

ACME TOMATO. This is offered as the best of the newer varieties of Tomatoes to those who may prefer it to a trial of the Golden Rural.

NEW BRONZE RICINUS. Specialty of the Rural Grounds. The most beautiful Ricinus in cultivation. A cross between Ricinus Gibsonii and R. sanguineus.

HIBISCUS MOSCHEUTOS—the showy and beautiful Rose Mallow, never before offered so far as we know. Hardy.

CALLICARPA AMERICANA (Purpurea). The brilliant French Mulberry. Hardy.

HIBISCUS SYRIACUS. One of the most charming of hardy shrubs. Sometimes called "Rose of Sharon." Our seeds are saved from double-flowering varieties—many of them from seedling plants. They grow readily from seeds, and bloom as soon as plants would if transplanted from nurseries. The seedlings "sport" without end.

WEIGELA. Seeds saved mostly from seedlings. This is probably the finest hardy shrub in cultivation.

DEUTZIA CRENATA fl. pl. Seeds saved from seedlings at the Rural Grounds. Seventy-five per cent. of seedlings will bear double flowers. It is perfectly hardy and there is no finer shrub known for ornamenta grounds.

HIBISCUS MILITARIS. Hardy and beautiful.

ERYNGIUM LEAVENWORTHII. The most striking annual of recent introduction. (See RURAL of November 9th for engraving of this and other plants, seeds of which we offer.)

GERANIUM SANGUINEUM. A true geranium of great beauty. Perfectly hardy.

YUCCA FILAMENTOSA. Every farmer and lover of plants should have specimens of this perfectly hardy evergreen liliaceous plant in his grounds. It is superb.

VITIS HETEROPHYLLA. See RURAL, Nov. 9, for description of this hardy vine.

RURAL HYBRID AQUILEGIAS. Beautiful, hardy perennials of great beauty.

GRINDELIA SQUARROSA. See RURAL of Nov. 9 for remarks.

OBSERVE.

Any ten of the above require a one-cent postage stamp:—that is, ONE *cent* for the ten, not for each except the Beauty of Hebron Potato, Pearl Millet and Defiance Wheat. The Beauty of Hebron requires a two-cent extra stamp and the other two a two-cent extra stamp also.

Other varieties *may be* added. We intend this free seed distribution to be the most valuable of its kind that has ever been gratuitously offered by any journal, and to introduce the above v uable plants to the homes of farmers and horticulturists in every part of our country.

An Extended Popularity.—Each year finds *"Brown's Bronchial Troches"* in new localities, in various parts of the world. For relieving Coughs, Colds and Throat diseases, the Troches have been *proved* reliable.

THE MARKETS.

PRODUCE AND PROVISIONS.

NEW YORK, Saturday, Feb. 1, 1879.

BEANS AND PEAS.—Heavy arrivals and no improvement in the demand have weakened quotations for marrows. Choice grades of mediums are not plenty and they hold up; under grades are freely offered at buyer-favored prices. Neither pea beans nor white kidneys have a steady place and prices are off. Red kidneys are in excess of the demand, again quoted lower. Black or turtle soup beans have merely a retail call. Green peas at station, $1.30; in store, $1.32½. Canadian field peas quiet, but steady at 73@75c., bulk and bond. Southern B. E. peas firmer, $2.70@2.75; Medium beans, prime, $1.35@1.37½; fair to good, $1.20@1.30; marrows, prime, free on ship, $1.40@1.42½; fair to good, $1.25@1.35; pea, $1.20@1.30; white kidney, $1.40@1.85; red do., choice, $2.60; fair to good, $2.35@2.45; black beans, $2.00@2.25.

Receipts of beans for week, 7,850 bushels; exports, 514 pkgs.

BROOM CORN.—There is but little short corn offering, but otherwise there are fair supplies and an effort to sell, which gives easy prices. Brush and short broom choice, per lb., 5@5½c; do., common to good, 3½@4½c.; hurl, good to choice, 3½@4½c.; do., common to fair, 3@3½c.; red and crooked, 2@3c.

BEESWAX.—A light business at 26½@27c. Exports 2,550 lbs.

BUTTER.—The local trade continues to be of light volume; in State, however, there is this encouraging feature to be noted; buyers recognize the merits of stock offered at 16@20c., especially as there are four or five cents difference against them when they call for next and above grades. Bargains in firkins, Welsh and some summer lines of half tubs have brought out numerous Eastern buyers. Shippers are also availing themselves of this point and exportation promises to be liberal for a time. In short, although business has not struck the winter form that holders would desire, there is a freshness pervading the market that may easily turn into a rapid movement. Receipts are heavy, as large quantities now come forward on commission. This fact has weakened dairy rates. Western butter is quoted about as before, but with the competition of useful grades of State, inside figures are mostly quotable. In creamery the demand seems to be about equally divided; heretofore Western has led the cold weather call. Western butter has largely arrived frozen and as there is some risk in the thawing of some far western marks, buyers of cheap grades have felt safer in operating in stored State rolls firm for fancy to good fresh.

Single extra State half tubs, 26@27c.; State, full dairies, special, 25c.; other, 16@18c.; firkin dairies, fair to prime, 15@18c.; Welsh dairies, fine full, 16@17c.; choice half tubs, 23@25c.; fair to prime do., 16@21c.; choice Welsh, 19@21c.; fair to prime, 13@17c.; Choice creamery 25@26c.; best western creamery, 30c.; other, 24@28c.; early packed creamery, 17@20c.; poor State, 9@12c.; Western dairy, fine fresh, 15@20c.; fair to good, 10@15c.; factory, ladle packed, 15@19c.; good, 14@16c.; other, 7@9c.; rolls, 10@18c.; grease, 4@5c.

Receipts for week, 37,000 pkgs.; exports since Jan. 18 equal to 19,000 firkins; same time 1878, 3,400 do.

CHEESE.—The exports this week have reached 48,144 boxes; in connection with the home trade, the movement has been quite satisfactory. The feeling among holders is to let supplies go promptly at current figures in order to get the pretty full general stock worked down as close as possible; the only grade excepted from this is strictly fancy, which is in reduced assortment, and is occasionally running above quotations.

Quotations are 9@9¾c. for strictly fancy; 8¼@8½c. for fine lots; 7½@8c. for good; 4@5c. for skimmed; State, farm dairy at 8@8¼c. for fine; 7@7½c. for good to prime. Wisconsin factory, fine, 8½@9c.; do. good to prime, 7½@8¼c. Western factory, fine and fancy 8@8¼c.; good and prime, 6¾@7½c.; do. full skimmed, 2@5c.

Liverpool cable 46s.

Steam to Liverpool, 40@45s.

COTTON.—There has been a somewhat freer export movement, with a variable market, closing steady at, for February, 9.45@9.46c.; March, 9.64c.; April, 9.81c.; May, 9.96@9.97c.; June, 10.10@10.11.; July, 10.20@10.22c.; August, 10.29@10.31c.

Quotations for spot cotton are based on American standard of classification, and on cotton in store running in quality not more than half a grade above or below the grade quoted:

	Uplands.	*N. Orleans.*	*Texas,*
Ordinary	7¾	7¾	7¾
Strict ordinary	8 1-16	8 3-16	8 3-16
Good ordinary	8 9-16	8 11-16	8 11-16
Strict good do.	8¾	9	9
Low middling	9¾	9¾	9¾
Strict low middling	9 5-16	9 7-16	9 7-16
Middling	9¾	9¾	9¾
Good middling	9¾	10	10
Strict good middling	10¼	10¾	10¾
Middling Fair	10 15-16	11 1-16	11 1-16
Fair	11¾	11¾	11¾

STAINED.

Good ordinary	7¾	Low Middling	8¾
Strict good ordinary	8¾	Middling	9¾

FEED.—Quoted at $14.50@15.50 for 40 lbs.; $14@14.50 for 60 lbs.; $15.50@17 for 100 lbs., and $14@15 for rye feed.

DRIED FRUITS.—In apples there is a steady movement for export, the Ohio quarters taken at 2¾@3¾; sliced lots have more local demand. Raspberries are stronger, being scarce; other small fruits are held steady.

Southern plums nominal; State plums, 14@14½c.; Blackberries are quoted at 5c. Peaches—Peeled Georgia, at 6@7c. for poor; 8@9c. for fair to good; 10@10½c. for prime; choice North Carolina, 11½@12½c.; good do., 9@10c.; unpeeled halves, 3c.; quarters, 2c. Pitted cherries, 21c. Apples—New, 2@2½c. for southern quarters in bags.; 3¼@3½c. for good and prime sliced; do., fair at 2¾@3c. State at 3@3½c. for new sliced; and 3@3½c. for quarters; Western at 2¾@3¼c. for new quarters. Raspberries, 28c. Apples, evaported, Alden or Williams, at 9¾@10¾c.; other processes at 6@8c.

Exports, past week, 763 bbls. apples.

EGGS.—Receipts for the week, 3,215 bbls.; do., last week, 3,256 do. There are light averages for New York supplies, but the market will not stand pressed prices. When rates for fresh have been put above the annexed buyers have suddenly withdrawn. Limed doing well. Market for all prime steady at the close. Near points, fresh, 31@32c.; State, Western and Southern 29c.; poor Western, 24@25c.; Canada, 25@26c.; choice limed, 23c.; good, 21@22c.; inferior, 18@19c.

ESSENTIAL OILS—Prices are easy as no export demand now supports trade. Stocks of American oils abroad said to be very large. Latest quotations, first hands: peppermint, glass (Hotchkiss), $2.30; in tin, $1.50; wintergreen, $2; sassafras, 43c; pennyroyal, $1.25; spearmint, $3.25; wormwood, $3.

FLOUR.—There is more of a movement for export, and low grade stock generally is at stronger prices. The higher grades are having more attention, and rule steady.

Latest prices are at $3.15@3.60 for very inferior to strictly choice superfine State; $3.60@3.90 for very poor to good extra do., odd lots and lines; $3.90@4.25 for good to very choice do., and fancy lots above this; $3.10@3.60 for inferior to very choice superfine Indiana, Iowa, Michigan, &c.; $3.60@3.90 for inferior to good shipping extra do. and $3.90@4.25 for good to very choice extra do.; common to about choice white wheat extras, $4.00@5.00; choice to fancy do. at $5.00@5.75; red and amber winter wheat, very inferior to very choice trade and family, at $3.90@5.60; round hoop Ohio at $3.85@4.25, and trade and family brands of do. at $4.25@5.00, the latter rate for very choice; St. Louis, $4.00@4.75 for very poor to good extra, and $4.75@5.60 for good to choice; Minnesota clear, very inferior to fancy, at $3.60@5.00; few brands going above $4.50; Minnesota "straight," inferior to fancy at $4.40@5.60; and patent fair to strictly fancy at $5.25@8.25, few brands going above $7.50; unsound stock at from $2.00@4.75; city mill extra at $4.70@5.00 for West Indies (the latter rate for fancy in new packages); do. for England $3.65@3.80; do. trade and family extras, $5.10@6.00; do. for South America, $5.00@5.50 for fair to very choice; No. 2 at $2.35@3.00 for poor to very fancy.

BUCKWHEAT FLOUR quoted at $1.70@2, with most of the sales at $2.50.

CORN MEAL.—Sales at $2.80 for Brandywine and $2.25@2.75 for yellow Western.

FRESH FRUITS.—The apple market has developed into a strong position; all good to prime have a fair demand at the extreme. Off qualities very slow. Exports for week, 2,243 bbls. Spitzenbergs, choice, $2.25@2.50; poor to fair, $1.37@2; prime Baldwins and Greenings, $1.75@2; Spys and sweet, $1.25@1.50; demand small for latter sorts; frosted or specked, $1@1.12. Cranberries are in moderate demand only, but prices hold up for choice, hard, high-colored fruit, as a fair share of using season remains. Fancy Cape Cod, $9; prime, $7.50@8.50; common to good, $5@7; N. J. crates, $3, selected; prime, $2.75; other, $2@2.50. Florida oranges dull; foreign are showier than the bulk of domestic and draw off trade; half-bbl. boxes, $1.75@3.50; some poor enough to quote at $1@1.25; bbls., $5@7. Hot-house strawberries, $5 per quart. There is not much doing in peanuts, but choice Va. are held with some firmness, at $1.10@1.15; good to prime, 30@95c; a free offering of the latter grades; shelled, 4@5c. Pecans, 7¼@9c. Hickory nuts dull at $1.50@2 for Shellbarks.

FURS AND SKINS.—Leipsic sales did not turn out as favorable as that of London, and common skins here have lost in a week more than they gained by the London buoyancy. Skunk show the most marked decline. Collection here heavy.

GRAIN.—There are reports at the close of a freer inland movement of supplies, and the markets here for all articles have eased off a little. Export purchasers of wheat and corn are somewhat freer, but there is marked vigor to the business, the cables from the other side representing quiet and tame markets.

Latest sales of wheat are of No. 2 Milwaukee spring, at $1 02 for strictly prime; ungraded amber at $1.06@1.07½; No. 2 amber, store and afloat, at $1.06@1 07¼; ungraded red at $1.01@1.07; No. 1 red at $1.09@1.09½; No. 2 red at $1.09@1.09½; do., steamer quality, at $1 06; No. 3 red at $1.04@1.05; extra white at $1.10¼@1.10¾; white State at $1.09½@1.10; No. 1 white at $1.09¾@1.09¾; No. 2 white at $1.07@1.07½; ungraded white at $1.07@1.09; No. 2 amber, February option, at 1.07¾; do., March option, at $1.08¾; No. 2 red, January option, at $1.09; do., February option, at $1.09@1.09¾; do., March option, at $1.10¼. Rye at 58@59 for No. 2 Western and 56@60 for State, the lower price for car lots. Corn, steamer mixed, in lots, at 45½@45¾c.; New York No. 2 afloat at 48@48¼c.; prime do. in store at 47@47½c.; New York No. 3 at 43¾@44c.; ungraded mixed at 47@48¼c.; New York No. 2 new at 46@46¼c.; Jersey yellow at 46¾c.; New York yellow at 47¼c.; yellow southern in car lots at 45@46c.; New York steamer yellow at 46¼c.; New York No. 2, February option, at 45¾c.; do. March, at 46¼c.; steamer mixed, February option, at 44¼c.; do., March, at 44¾c. Oats at for New York No. 1 quoted 31¼c.; New York No. 2 at 30¾@31c; New York No 2 white at 32¾@33c.; do., February, option, at 3 ¾c.; New York No. 3 at 30c.; New York No. 3 white at 31¾@32c.; white Western at 32¾@33c.; mixed do. at 30¾@31c.; white State at 33@34¼c.; mixed do. at 31¾@32c.; New York extra white at 33@33¾c.; New York No. 1 white at 34¼c.; No. 2 Chicago, afloat, quoted at 31¾c. Barley lower. State 6-rowed, 85@90c.; do, 2-rowed, 75@78c.; Canadian, 90c.@1.15; malt unchanged.

HAY AND STRAW.—There is a good call for prime hay and long rye straw, which rule in favor of holders. General receipts are larger, which presents decided strength otherwise.

Sales at 40@45c. for shipping, and 70@80c. for retail qualities. Straw quoted at 50@60c. for long rye, and 40@45c. for short rye, and oat at 40@45c.

Exports, for week, 1,900 bales.

HONEY.—Holders strive hard to place the burdensome surplus, but the low prices do not seem to aid their efforts. Single comb clover, 10@12c.; two do., 8@10c.; buckwheat and dark, 7@9c.; strained, 6@9c.

HOPS.—Exports for the week, 1,119 bales; these are partly through shipments; the market, as a rule, has rather a quiet look, and there are but few lots good enough to exceed 13. Shippers want strictly choice stock, and this being in very moderate supply accounts partly for the tame feeling.

Quotations are for New Yorks, new crop, choice, 13@15; New Yorks, new crop, good and prime, 10@12; New Yorks, new crop, low to fair, 7@9; Eastern, 8@12; Western, 8@12; Yearlings, 4@6; Olds, all growths, 2@3; Pacific coast, 12@15.

LEATHER.—Quotations are 18@20c. for light hemlock; 19@21c. for middle do.; 19@21c. for heavy, and 17@19c. for good damaged.

OIL CAKE.—Western moves but slowly, and is offered at $27 per ton.

PROVISIONS.—Hog products have been very much excited, violent fluctuations, and closed weak, through speculative manipulation. Mess Pork closed at $8.20 bid and $8.50 asked for old for February; $10.15 bid and $10.35 asked for new for February; $8.30 bid and $8.50 asked for old for March; and $10.15 bid and $10.35 asked for new for March, and $10 15 bid and $10.35 asked for new for April, and May at $10.25@10.40. Bacon at 5c. for long clear and 5c. for short clear. Lard at $6 60 for spot lots; $6 57½@6.60 for February $6.67½ for March, $6.77½ for April, and $6.85 for May. Stearine at 6¾c. for prime. Tallow at 6¾@6¾c. for fair to prime. Beef hams at $16@16.50. Beef, extra India mess, $18@20 as to brand; packet at $11@11.50; plain mess at $10@10.50; extra mess at $10.50@11.50.

POULTRY AND GAME.—Live stock has continued scarce, and quotations for fowls have nearly equaled best dressed; hen turkeys also doing well. Ducks and geese firmer.

Fowls, N. J., 12@13c.; Western, 11@12c.; Roosters, old, 5@6c.; young, 7@9c.; turkeys, hens, 11@12c.; toms, 9@10c.; ducks, 60c.@$1 pair; N. J. geese, $1.75@2; other, $1.25@1.75; pigeons, 30@35c.

With only an ordinary demand, dealers have as much as they can do to keep prices up to former ranges for any kind of dressed. A good deal of coarse stock is showing, and to fill fancy wants buyers have frequently resorted to city killers. Heavy turkeys are not wanted. Prime scalded stock sells about as well as dry-picked, unless the latter is from special near points.

Phila., dry-picked turkeys, 12@13c.; fresh New Jersey, 11½@13c.; selected Western, 10¾@11½c.; other, 8@9c.; Phila. fowls, 9@11c.; do. chicks, 12@13c.; nearby fresh, 11@12½c.; other, including frozen, 6@9c.; Capons, 18@20c.; slips, 15@17c.; Ducks, 9@13c.; Geese, 6@9c.

The market has been supplied so long with cheap game that consumers have had a surfeit, and dealers have still to quote low figures for even moderate supplies of many items. The weather, too, is becoming treacherous for holding, while the export outlet, which has helped diminish the surplus, is now reduced.

Quail, ₱ doz., prime, 60@75c.; soft, 45@50c.; Grouse, trapped, ₱ pair, 55@60c; soft, 40@50c.; Partridges, ₱ pair, 80c.@$1.10; Canvas-back Ducks, $1@1.25; Redhead, 50@75c.; Mallard, 40@50c.; Black and Teal, 25@30c.; common, including Broad-bills, 15@20c.; Hares, 22@25c.; Rabbits, 14@18c.

RICE.—Sales at 5¾@6¼ for Carolina, fair to good quality; and 6¾@7¾ for prime to choice do.

SALT.—Higgins' quoted at $2 40, Ashton's at $2.50, and other brands at $1 10@1 15.

SEEDS.—Lighter arrivals has tended to better prices for clover, which is now 6¾@6¾ for prime, and 6¾@6¾ for choice. Timothy at $1.20@1.25.

SUGAR.—Refined at 9⅛@9¼ for cut loof; 9@9⅛ for crushed; 8¾@9 for powdered; 8⅝@8¾ for granulated; 7⅝@8¼ for soft white and 6@7¼ for soft yellow.

TEAS.—Quotations are for Hyson, 18@22c. for common to fair, 25@33c. for superior to fine, and 35@40c. for extra fine. Young Hyson at 18@21c. for common to fair, and 25@45c. for better qualities. Gunpowder at 16@23c. for common to fair, and 30@50c. for higher grades. Oolong at 18@23c. for common to fair, 26@33c. for superior to fine, and 35@45c. for extra fine to choicest.

TOBACCO.—The home trade demand for seedleaf is quite fair, but Kentucky leaf moves but very moderately; prices generally steady.

VEGETABLES.—Potatoes that have been kept back by cold weather are now coming in and the rush making a temporary over-supply and prices bend a little under it. Bermuda potatoes have sold at $3 per bbl.; do., tomatoes, 75c. box; Nassau do., 50@75., do.; Onions very firm. Squash slow; extra large, however, not as saleable as medium sizes. Lima beans, shelled bring good prices.

Nova Scotia E. Rose, bulk, or 175 lbs. to bbl., $2.75@3.10 per bbl.; Prolific and Chili red, $2.12@2.50; P. E. I. Jackson whites, $2.12@2.37; Mercers, $2@2.25; Eastern E. Rose, with bbl., $2.87@3.00; State, $2.50@2 75; fair to good, $2@2.37; do. Peach Blow, choice, $2 87@3.00; common, $2.25@2.50; Peerless, choice, $2.12@2.37; poor to good, $2@2.12. Sweet potatoes, Del., kiln-dried, $2 40; other, $2@2.25; Onions, White, $2.50@3; red and yellow, $2.25@2.50; Chester, $2@2.25. Hubbard and marrow squash, $2; Cabbage, $5@7 per 100. Cauliflower, bbl., $1.50@3. R. Turnips, 75@87c. Beets, 75c. Carrots, 75c.@$1. Celery, 6@75c. doz. Extras; hot-house Radishes, $4 ₱ 100 bunches; Cucumbers, $4@4.50 doz.; Mushrooms, 40@50c. ₱ lb. Lettuce, 50c.@$1

Exports, potatoes, past week, 1,700 bbls.; onions, 175 do.

WOOL.—There is a more active movement on wants of manufacturers and a generally firm market. Quotations are for

Ohio, Pennsylvania and Virginia—XXX and picklock, 37@39c.; XX, 34@35c.; X, 33@34c.; No. 1, 35@36c.; No. 2, 30@32c.; common, 28@30c.; combing and delaine, 33@33c.

New York, Michigan, Indiana and Wisconsin—XX, 31@32c.; X, 31@32c.; No. 1, 33@35c.; No. 2, 29@30c.; common, 27@28c.; combing and delaine, 34@37c.

Iowa, Vermont and Illinois—X and XX, 28@31c.; No. 1, 32@34c.; No. 2, 27@29c.; combing, 33@36c.

Missouri, Kentucky and Tennessee—Washed fleece, 26@31c; unwashed fleece, 21@25c.; unwashed combing, 23@27c.

LIVE STOCK MARKETS

Saturday, Feb. 1, 1879.

BEEVES.—Receipts for the week, 10,137 head; do., last week, 9,500 do. The market has been thrown into considerable excitement owing to the report of the stoppage of importation of American cattle into England. Up to yesterday no telegrams were received by shippers confirming the report, but it is currently believed that the British Government will, for a time, prevent the landing of live bullocks from this country. It seems that reports of alarming prevalence of pleuro-pneumonia on this continent has gained credence in cattle raising districts abroad, and the prompt precautionary action of the English Government is excusable. When the facts of the general condition of cattle here become settled, dealers look for a resumption of the growing business of export. There are some who assert that jealousy of competition has prevailed in influencial circles across the water; of this, however, we cannot speak. Certain it is our English cousins must be hard to suit if the style of stock they have been in receipt of fails to satisfy them; in almost every instance of the past year, or longer, the cream of our stock yards has been sent on board steamers. Trade has dragged during the week, prices at the at the close ranging 8@10c. to dress 55@56 lbs. Seven car-loads of fat cattle have been exported since the semi-official interdiction. Chicago dressed beef, 4½@5½c.

COWS AND CALVES.—There is no trade here that can be termed a market. Cows of real value that are sent in to be realized on are just as apt to be taken back to the country. Nominal quotations, $35@45, but a cow that has lasting dairy merits is really worth more than it would bring here inside of the range of prices.

VEAL CALVES.—There has been a steady trade for prime live or dressed; the exceptional extreme quoted last week has been general for top grades of live most of the week. Small hog dressed are quoted ½c. better for best. Live calves, N. J. and Buck's Co., 7@7½c.; choice State do., 7c. other, including heavy weight, 5½@6¾c.; fed, 4@5c.; grassers, 2½@2¾c. N. J. and Buck's Co. hog dressed, best, 10c.; prime, 9½c.; other, 6@8½c.

SHEEP AND LAMBS.—Receipts for the week, 17,639 head; do. last week, 13,496 do. A brisk trade has favored sellers and the pens have been fairly cleared of both sheep and lambs. Western sheep, 5¾@5¾c.; N. J. and other, 5@5½c.; ewes, 4½@5¼c. Lambs, 5¾@6¾c.

SWINE.—Receipts for the week, 24,766 head; do., last week, 35,960 do. Good live corn hogs in good demand with sales at $3.90@4.20 per 100; poor Illinois sold at $3.57½ per 100.

N. J. dressed pork better; light, 5¾@5¾c.; medium, 5¾@5½c.; heavy, 4¾@5c.; city dressed, 5@5¾c.; Western, 4¾@4¾c. Pork tenderloins, 6@6½c.

New Advertisements.

HORSFORD'S Bread Preparation

UNSURPASSED FOR MAKING

LIGHT BREAD

Biscuit, Rolls, Cake and Pastry.

It is Better and Healthier than ordinary Baking Powder, Cream Tartar or Yeast.

The cost of raising Bread, Biscuit, &c., with it is only about half as much as by ordinary Baking Powder, and the result is much better.

It restores the nutritious elements which are taken from the flour in bolting. No ordinary Baking Powder or anything else used for raising bread does this.

Universally used and recommended by prominent Physicians.

If you cannot get it of your Grocer send a three-cent stamp to the manufacturers for a sample.

Manufactured according to the direotions of Prof. E. N. Horsford, by the Rumford Chemical Works Providonce R. I.

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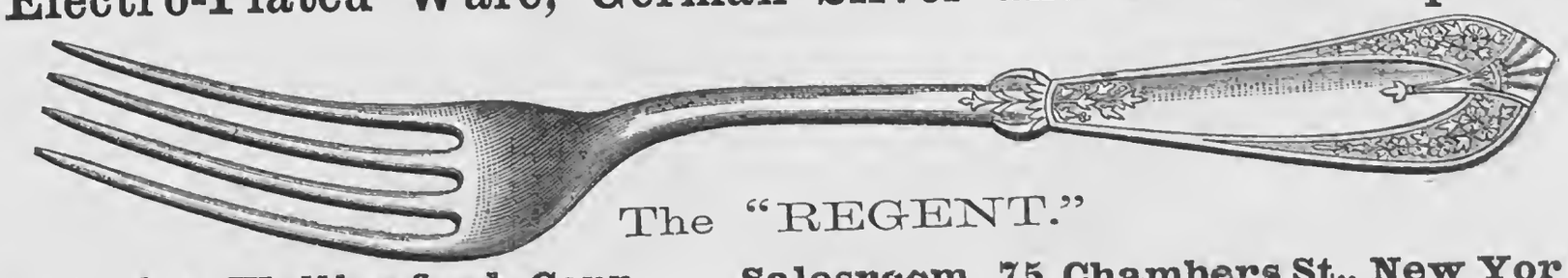

The "REGENT."

Factories, Wallingford, Conn. **Salesroom, 75 Chambers St., New Yor k.**

Reading for the Young.

BUY MY PRETTY FLOWERS.

COME, kind people, what's your pleasure?
Do not pass my posies by;
Gathered from a fairy's treasure,
Fresh and lovely, here they lie,
Scented from sweet Nature's still,
Fragrant after morning dew.
Come, then, choose ye where ye will—
Here are some of ev'ry hue.

Here a lily bud is peeping,
Here a violet of blue,
Here a pansy, thoughtful keeping,
Gay and merry daisies too;
Here a graceful fern is bending
Low to kiss a blushing rose;
Mignonnette's sweet odor blending,
While rich beauties all disclose.

Dahlias curling, fuschias drooping,
Bright geraniums, heather-bell,
Wild vines, with their tendrils looping
Round sweet-briar, look so well.
All my blossoms tell the story,
How the earth, so beauteous clad,
Decked with gems, arrayed in glory,
Welcomes Summer gay and glad.

Come then, stay and buy a posy
Brought from garden, meadow, dell,
Gathered while you all were warmly
Wrapped in slumber's soothing spell.
Up betimes, no thought for resting,
Out the flower-girl must stray,
To and fro with eager questing
For the posies here to-day.

Buy my pretty, pretty flowers—
Choose ye as they lovely lie,
Wet with dew or morning showers;
Take a penny bunch—please buy!

PRESERVE THE INDIAN RELICS.

A LETTER FROM F. E. ASPINWALL M. D.

Jan., 23, 1879.

EDS. RURAL NEW-YORKER:—I see by a late number of the RURAL that at least one of your young correspondents is "trying to make a collection of Indian relics, arrow-heads, stone axes, &c." That is a good idea. I only wish many more would do likewise, and preserve carefully every stone implement they find. Having had nearly fifteen years' experience in collecting, I will, with your permission, offer a few thoughts and hints to your younger readers and others who may be interested in ancient implements.

I commenced collecting when a mere boy, my principal object being then to get a collection of pretty and odd specimens; but like most young people who have no one to advise them I made many mistakes, and had to learn wisdom by expensive experience.

I foolishly threw away many of the ruder and more imperfect specimens, many of which, from a scientific point of view, were just as valuable as the more perfect specimens, and several specimens, that I thought were not shaped just right, I tried to improve and thus nearly or quite ruined them. It should be remembered that the rude and imperfect and even the broken specimens, are just as necessary in the study of the archæology of any district as are the perfect specimens. Even the blocks and chips of flint, chert, jasper, quartz, &c., are interesting to the earnest student. The way the implements are broken, and the proportion of broken specimens of each class, are often clues to their uses; and the rude, unfinished specimens and the blocks of "raw material" and chips or flakes of the same, often give hints as to the methods of manufacture.

One very important thing for collectors to do is to keep a careful record, in a book for the purpose, of where, in what position, and under what circumstances each specimen was found. The date of finding may also be of interest. Whether found on the surface, or under the stump of an old tree, or far beneath the surface imbedded in the "drift" of many centuries ago, are often important hints as to their approximate ages. And whether found near the edge of large bodies of water, or in valleys near small streams, or on hills, or far back from water are all important hints as to the uses of the various implements. The proportion of each kind from each locality often indicates their uses. A good way to keep the record is to number and describe in your book each locality, and give each specimen the same number as the locality in which it was found; or each specimen can be numbered as obtained and recorded in rotation. I prefer the former method.

Another very important matter to collectors is to take good care of their specimens. Yet very few do. The inexperienced do not realize how easily flint implements, especially the more delicate forms, are broken, and other stone implements defaced if not broken. It will not do to keep them in contact with one another in a box. They will thus be liable to frequent and serious injuries. The delicate points, barbs and other parts on which their value often largely depends cannot be preserved in that way. Unless you have some good and safe way of displaying them you had better keep each specimen wrapped up in a separate piece of paper, and all stowed carefully in a box or boxes for the purpose. And be careful in wrapping them, also in handling them, for one, falling on a hard substance, is very likely to break. Also do not "strike fire" with your "flints" just to see the "sparks fly," that would utterly ruin them. In short, take the best of care of all the specimens that you find, or that may chance to fall into your hands, and if you do not wish to keep them yourself, present them to some scientific institution or museum where they will be appreciated and preserved, and your name will be recorded as the donor.

Stone implements are fast becoming scarce in the U. S. especially in the settled portions. Thousands of specimens are being annually broken by the various implements of agriculture, and many more by children and others who happen to find them or otherwise get possession of them, yet do not appreciate their value.

Farmers have excellent opportunities for making collections and should improve them. They should aid the few struggling institutions that make a specialty of antiquities, by contributions of such specimens as they are willing to part with. And all should remember that "private collections" are very apt to be sooner or later scattered and thus lost to the world, and should act accordingly.

These ancient stone implements are of historical interest, and serve to indicate, in some degree, the condition and progress of man in prehistoric times.

THE FARMERS OF THE FUTURE.

M. OAKEY.

WHO are to be the farmers of the future? Where are those who will occupy the old homesteads? Who shall be the best farmer "in our neighborhood?" By far the largest portion of the future farmers are already on the homestead. The young men and boys living on their father's farms are the candidates for the worthy position of "best farmer." Some one among them will outrank all others. Why? Because he was born so? No! not by any means. Simply because he will *make* himself the best. Young men who desire to stand well among their fellows, or who are ambitious to stand above them, have the encouraging fact to spur them on to attain such a position, and to bear always in mind, that there are no farmer geniuses born to the position. The highest rank awaits any one who will grasp the prize; and who shall succeed in acquiring it, depends solely upon the efforts made by each. Furthermore, the actual position each will assume, will be proportionate to the energy and perseverance put forth.

Now, those two words, energy and perseverance, need not scare any one. They don't mean overworking oneself and complete exhaustion. On the contrary, they prevent any such suicidal practice, or wasteful habit. One's strength and powers must be held under control—husbanded, and a check administered now and then, or else "energy," or otherwise "perseverance," will not be able to hold out. They exclude frantic and spasmodic exertions which do not promote advancement, but, on the contrary, very greatly retard it.

How shall these two qualities be applied to make successful farmers of the boys and young men? Well, if you have not begun the application already, start at once. Lay the foundation now. And let that foundation be *thought*. Keep one word always in the front and on the right and left, above and below you, until your whole expression and personality shall indicate it. That word is—*Why?* You are sent to plow a field a certain way—think, "Why?" You harrow it once. It is not enough. You are sent the second, and even a third time over it. Think, "Why?" You cultivate a crop first one way, then another—"Why?" The cattle must be regularly watered; your father says: "You attend to it." Think while doing it—"Why?" The feed must be changed. "Why?" The plow must be sharpened. "Why?" In short, while cultivating your father's field, cultivate the field of thought in your own mind. Do not ask "Why?" think "Why?" Solve for your own self each problem as it appears, and it may occur that you will be able to answer "why" to many difficulties that confront and confuse older heads around you.

First, then, lay the foundation of your future success upon a deep and broad "Why?" Do not be mere machines to perform the routine only of the work assigned you.

LETTERS FROM BOYS AND GIRLS.

DEAR UNCLE TRUE:—I have read so many of your good tales in the RURAL that I thought I would like to be one of your cousins, if you will be so kind as to accept me. I am a small boy, and was born in Honolulu, on the Sandwich Islands. My father and mother have been dead many years. I have lived with Aunty Dunlap for six years, who, I believe, has done her best to make a good boy of me; and I think she has succeeded pretty well, although Aunty's Uncle Mason, Miss Georgia and Sister Alice, all say that the picture in the RURAL of January 18, was intended for me. I am what you might call a live boy, and I glory in it; for I do despise a boy that has never been waked up. Indeed, Uncle True, I have seen some old men and women that have slept all their lives, but I am not going to be one of that class of people. They tell me I can't be President because I was not born in the U. S.; but I will try to be just as good a man as the President. Aunty makes me say my prayers before going to bed every night, and I go to Sunday-School twice every Sunday. I don't swear or use any bad language; therefore, don't you think I am a good boy, Uncle True? You were a little boy once, did you think it any harm to walk on your hands, or tie a string of Jackson Crackers to an ordinary dog's tail? I have been too long in my introduction to you; excuse JAMES CALDWELL.

West Va.

DEAR RURAL COUSINS.—The sun is now going down in a bank of swarthy western clouds across the large grain fields of my native home. All the day the sky has threatened storm. Here and there, through broken and gusty rifts, flashed out a bar of tan-colored flame, streaked with other bars of angry scarlet, like the dabbling of some bloody fingers upon the horizon. A raw wind is blowing from the west, that tries hard to entangle the stout old ivy which now commences tapping on my window as if for aid. I have just read the last number of the RURAL, and cannot help noticing the many improvements made in it since I last saw it, for I regret to say, that I have been one whole year without the RURAL; but with the new year I resolved never to be without it again, and signed for it at once.

The RURAL is a paper that should be read in every family circle. I am sorry to see that the young folks take so little interest in the Youth's Department. Many thanks to RURAL Lover for her sympathy, it is uncalled for. She is entirely wrong when she states that those whimsical daughters of Eve have successfully driven all the boys from the field. The boys take it, as I imagine that Moses of old would have done. I hope to see more of my old cousin's letters appear in the next issue, and especially should I like to see such excellent effusions as Nemo's and Hayseed's as well as those from my Pennsylvania friend, Fern. Now I will close so as to leave room for you, dear cousins all. *Adieu.* IVY.

Ivy's Rest, N. Y.

The Puzzler.

HIDDEN COUNTIES OF NEW YORK.

1. GIVE it to me, De Kalb, any how.
2. Her escort landed in New York.
3. Where is the club-room, Eva?
4. Which way, Nellie?
5. For lean suet is impossible.
6. Feed Tom on roes of the shad.
7. Yes, sextons are responsible.
8. Go range through the wildwood!
9. Don't a riot terrify you?
10. Put names of ladies first.
11. Frank Lincoln is at home now.
12. A graduate of Yale wishes to go.
13. The King saw his mistake.
14. The Earl gave livings to nearly a dozen young ministers.
15. They ate some peaches.
16. I lost the hat Jo gave me.
17. He said 'twas Dutch, Essie.
18. 'Twas cat-tar Augustus used.
19. It is awful to novices.
20. Casper, I entreat you to remain.
21. Among them were Blanche, Nan, Godfrey and Ben.
22. Do you see the wrens, Sela, Ernest shot?
23. The barque enswamped.
24. Mr. Shork, I merrily sung a lay.
25. A letter from Adi's, on pink note paper.

☞ Answer in two weeks. LITTLE ONE.

BIBLICAL ENIGMA.

I AM composed of 63 letters:
My 13, 37, 14, 23, 25 the first High Priest.
My 45, 63, 60, 50, 1, 24, 57 a seaport in Pamphylia.
My 22, 42, 29, 9, 10 a small town of Lycaonia.
My 55, 13, 26, 46, 49 a bird mentioned in the Bible.
My 44, 12, 48, 28, 32, 58, 57, 43 a granddaughter of Herod the Great.
My 42, 2, 9, 9, 36, 33, 38 one of the names of an Apostle.
My 20, 16, 21, 15 a plant mentioned in the Bible.
My 44, 45, 9, 19, 48, 26, 34, 62, 61 a coat of mail.
My 27, 46, 4, 3, 2 a musical instrument mentioned in Daniel.
My 5, 30, 35, 49, 14, 13 a General slain by a woman.
My 38, 51, 37, 29, 48, 7, 11 a bird mentioned in the Bible.
My 6, 13, 8, 44, 37, 17 a Prophet in the time of David.
My 53, 57, 52, 60, 44, 56, 4, 1 Abraham was called the father of.
My 41, 30, 31, 22, 39, 54, 5 in the Ark built by my 59, 62, 57, 44, who was a preacher of my 14, 16, 26, 44, 60, 10, 7, 4, 5, 6, 12, 35, 38.

My whole may be found in the writings of my 51, 13, 4, 1.

☞ Answer in two weeks. J. M. BRAINERD.

ACROSTIC.

1. A short time. 2. A thick rope. 3. A short-lived insect. 4. A surgical instrument. 5. A piece of music. 6. A Mexican cattle raiser. 7. To delay. 8. Cheerfully. 9. To drink in. 10. A bird. 11. To droop. 12. The doctrine of the soul. 13. Musty and rank. 14. To swing. 15. Neighborhood. 16. Weak in mind. 17. Injury. 18. A glutton. Initials form a promise which, if we remembered in the hours of adversity, would clear away the darkest clouds.

☞ Answer in two weeks. MD.

TRIPLE ACROSTIC.

1. OBSCURITY. 2. A lady's name. 3. A polished surface to reflect light. 4. A man of the Bible. 5. A noon repose. 6. A man's name. 7. Total. 8. Wedded. Primals, centrals and finals form flowers.

☞ Answer in two weeks. DR.

PYRAMID PUZZLE.

1. A CONSONANT. 2. A Bible tribe. 3. A drink. 4. Parts of the human body. 5. A flower. 6. Places for trash. 7. Nearness in place. 8. Informally. Centrals form an animal.

☞ Answer in two weeks. BALTO.

NAME PUZZLE.

PLACE nine male names so as to form a tenth.

☞ Answer in two weeks MAY.

PUZZLER ANSWERS.—Jan. 25.

DECAPITATIONS.—1, Baden, Aden; 2, Olot, Lot; 3, Snow, Now; 4, Sado, Ado; 5, Aden, Den; 6, Oman, Man; 7, Iran, Ran; 8, Kopal, Opal; 9, Prone, Roine; 10, Kraw; Raw; 11, Howe, Owe; 12, Shark, Hark; 13, Java, Ava; 14, Tanna, Anna; 15, Drukes, Rakes; 16, Peel, Eel; 17, Athy, Thy; 18, Trim, Rim; 19, Mask, Ask; 20, Sark, Ark; 21, Islay, Slay; 22, Awe, Wo; 23, Yell, El; 23, Chester, Hester.

HIDDEN NOVELS.—1, Rienzi; 2, My Novel; 3, Eugene Aram; 4, The Disowned; 5, Pelham; 6, A Strange Story; 7, The Last Days of Pompeii; 8, Night and Morning; 9, Ernest Maltravers; 10, Agnes; 11, The Caxtons; 12, Paul Clifford; 13, The Pilgrims of the Rhine; 14, Devereux.

CROSS-WORD ENIGMA.—Lida Dodge.

Sabbath Reading.

FORGIVENESS "FOR CHRIST'S SAKE."

IF any one who is a Christian finds a difficulty in forgiveness, I am going to give him three words which will help him wonderfully. "*For Christ's sake.*" Cannot you forgive an offender on that ground? Ah, the girl has acted very shamefully, and you, her father, have said some strong things, but I beg you to forgive her for Christ's sake. It is true your son has behaved very wrongly, and you did in a fit of anger say a very stern thing, and denied him your house forever. I entreat you to eat your words up for Christ's sake. Sometimes when I have been pleading a case like this, the person I have been persuading has kindly said, "I will do it for you, sir." I have said, "I will thank you if you will do it at all, but I would rather you would have said you would do it for my Master, for what a blessed Master he has been to you! Do it for his sake."

Finally, I want to say to you all brethren, that, as brothers and sisters in Christ Jesus, if we are to forgive one another, there must be some other things which we ought to do. And the first is, do not let us provoke each other to offend. If I know that a man does not like a certain thing, I will not thrust it in his way. Do not say, "Well, but if he is short-tempered, I cannot help it; he should not be so ready to take offence. I cannot always be paying deference to his absurd sensitiveness." No; but, brother, your friend is very ready to take offence, and you know that he is; have respect, then, to his infirmity of temper, such as you would have if he were afflicted in body.

In the next place, do not make offences. Oftentimes a man has been offended at another for no reason at all. One person has said of another as he passed him in the street, "He will not even nod to me. He is too proud to own me, because I am a poor man." Now, that beloved friend who was thus blamed could not see much further than his hand, for he was short-sighted. Another has been censured for not hearing, though he was deaf, and another for not shaking hands when his arm was crippled. Do not imagine offences where they are not intended.

Next, do not take offences where they are intended. It is a splendid thing if you will not be offended. Nothing makes a man feel so small as when you accept what he intended for an insult as if it were a compliment, and thank him for it. Can you master yourself to that point? Remember, you have overcome everybody when you have so fully overcome your own spirit that you remain content with that which naturally would excite your wrath.

Then, if you must be offended, dear brother, do not exaggerate an offence. If there must be something wrong, let it be as little as you can. A blind eye is often the best eye a man can have, and a deaf ear is better by far than one which hears too much. "Also take no heed," says Solomon, "unto all words that are spoken, lest thou hear thy servant curse thee." Something you have done may irritate a servant, and he may make remarks which are unbecoming and impertinent. Don't hear what he is muttering. Keep out of hearing. He will be sorry to-morrow. What would *you* do if *your* Master picked you up for every word, and if he caught up every sentence that you uttered? How would you live at all if he reckoned sharply with you? No, dear friends, as you have to forgive one another, do not take offence, and when offence is given do not exaggerate it, and, if you can, do not even observe it.

Then, again, do not publish offences. There has been something very offensive said. What then? Do not repeat it. Better that you should let your heart break, than go up and down with a fire-brand in this fashion. If a brother has done wrong, why should you do wrong? You will be doing wrong if you publish his fault.

Above all, my brethren, and with this I close, never in any way, directly or indirectly, avenge yourselves. In all things bend, bow, yield, submit. Brother, the most splendid vengeance you can ever have is to do good to them that do you evil, and to speak well of them that speak ill of you. They will be ashamed to look at you; they will never hurt you again if they see that you cannot be provoked except it be to greater love and larger kindness. This ought to be the mark of Christians; not "I will have the law of you," or "I will avenge myself," but I will bear and forbear even to the end. "Vengeance is mine. I will repay it, saith the Lord." Do not take that into your hand which God says belongs to Him, but as He for Christ's sake has forgiven you, so also forgive all those who do you wrong. "How long am I to do that?" says one. "I would not mind doing it three or four times." There was one of old who would go the length of six or seven, but Jesus Christ said "unto seventy times seven." God help us to be patient to the end. This is the kind of doctrine which Christ Himself preached, and therefore, since He preached continually this love to our neighbor, and forgiveness of our enemies, we ought both to preach and to practise it. Go ye and believe in Him, and be imitators of Him, remembering that He forgave His murderers upon the cross whereon He wrought out our redemption. May His Spirit rest upon you evermore. Amen.—[*Extract from a sermon by C. H. Spurgeon.*

Is not the soul more than raiment, more than friends, more than life, yea, more than all? Then why do you not labor to enrich your soul? 'Twere better to have a rich soul under a threadbare coat, than a threadbare soul under a golden garment. If he be a monster among men, who makes liberal provisions for his servant or his slave, and starves his wife, what a monster is he who makes much provision for his baser part, but none for his nobler nature! Ah, friends, a slothful heart in the things of God is a very heavy judgment.

PERSONAL ITEMS.

A woman lecturer modestly advertises herself in Providence as a "child of nature, wearing the unmistakable crown of genius, and doing her share in the ever-appointed work of genius—the work of 'making the whole world akin.' She brings with her the electricity of the North—the brilliancy of the aurora borealis—and all who meet her are magnetized." She blows her own trumpet so well that the RURAL won't "puff" her name.

A story is told indicative of the coolness and nerve of the Prince of Wales. He was in company with Dr. Lyon Playfair watching a caldron of lead boiling at a white heat. The doctor told him that, for certain scientific reasons, he could put his hand into the seething metal with impunity. The Prince, on this assurance, plunged his hand in, and pulled out a portion of the molten lead. It is a singular scientific fact that when lead is at a certain high temperature the human hand can be put into it without danger, the natural moisture of the skin preserving it from harm.

Nellie Hayes, a Wisconsin girl, put on trousers and started through the deep snow to walk six miles for provisions, the family larder being empty. She soon became tired out, besides losing her way, and the cold was intense. A big Newfoundland dog which accompanied her was the means of saving her life. She scooped out a hollow in the snow, lay down in it, and made the warm dog lie on her, shifting him about so as to successfully cover the coldest parts of her body. In that way she passed a whole night, and was not very severely frostbitten. "With two or three more dogs," she says, "I would have got along very comfortably."

A noisy drunkard was arrested in Chestnut street, Philadelphia last Wednesday week. He was bareheaded, and his clothing was torn. In the police station, when asked his name and residence, he said: "Maguffin, and I live on the Grampian hills, and I want to get there soon, because I've got important business." He was put into a cell, where he died of heart disease, brought on by dissipation. Then he was recognized as Mark Bates the actor. Ten years ago he was regarded as one of the finest light comedians in this country, and was, most of the time, at the head of a traveling company; but latterly drunkenness unfitted him for acting.

Deacon Schorn, of Murfreesboro, Tenn. was an Odd Fellow in high standing, and an accomplished swindler. He inserted a false name in a lodge record of 1848, had the supposed member reinstated, in response to a fictitious request from Chicago, and finally obtained for him a membership in the Chicago Odd Fellows' Life Insurance Association, then he waited for the opportunity to profit by all this scheming, and it came in the Ashtabula railroad disaster. Schorn manufactured evidence that the mythical member was killed, and obtained $1,900 insurance money, which he was to turn over to the "bereaved family." The swindle was not suspected until an attempt to repeat it was detected.

Rev. W. F. Checkley, assistant minister of St. Paul's Episcopal Church, in Toronto, starved to death a few weeks ago. Though his pay was nominally $800 a year he received about $400. His family consisted of six children (one, the adult son, having lost both hands), two children of a dead brother, and an invalid sister. After Mr. Checkley's death it was ascertained that the large family had lived on bread for two years. During that long period of suffering meat had not been tasted in the household, yet the man was always so heroically cheerful and even jocular that his dear, pious friends didn't think it necessary to pay the beggarly wages they had agreed to allow him.. An ample fund will be raised for the widow and children, so that the father and husband's woeful death will do for his family what the labor of a pious life could not do.

Potato Valley, in eastern Utah, contains only twenty families, and these are almost isolated from the rest of the world. John Boynton and Washington Phipps were partners in a ranch until Boynton murdered Phipps. The highest court official in the valley was a Justice of the Peace, but he did not hesitate to preside over a trial of Boynton. There were only six jurors, owing to a scarcity of men in the neighborhood. Their small number, and the fact that several of them had witnessed the tragedy, helped them to agree quickly to a verdict of guilty. The Justice sentenced the prisoner to be hanged, and sent him away with a constable, to whom the execution of the sentence was intrusted. But the constable took Boynton to the county seat, where he is to have a more regular trial.

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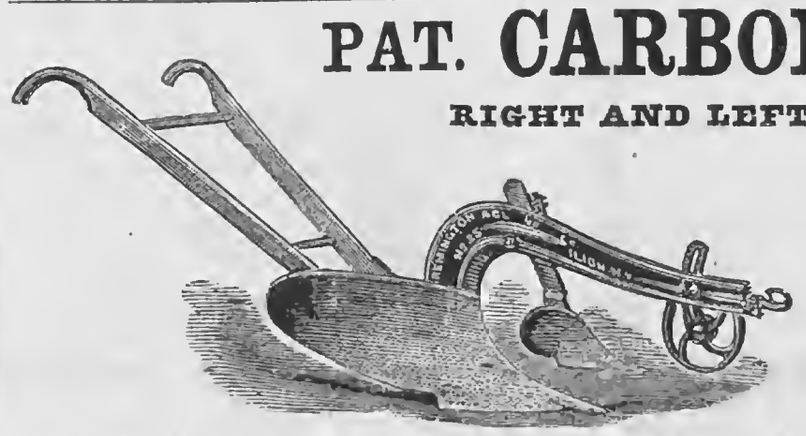

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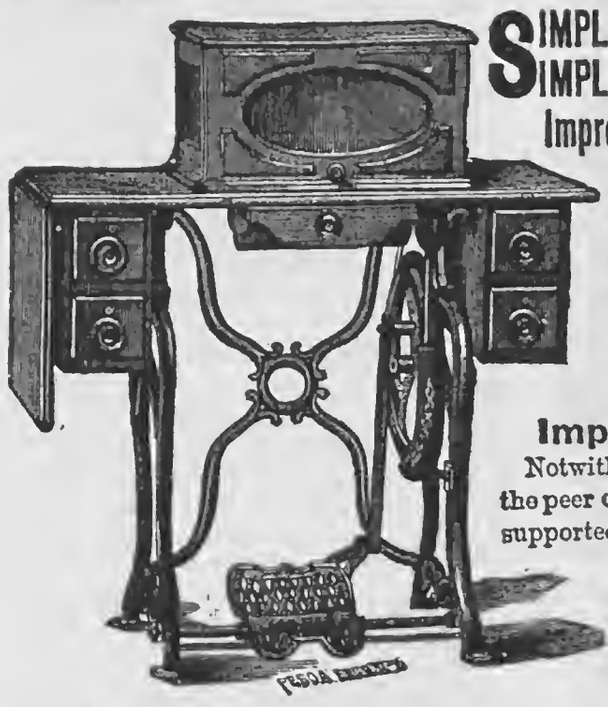

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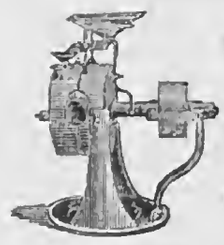

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STRIKING Objects—Clocks.

NEWS of the Weak—Hospital reports.

THE article chiefly sold at most fancy fairs—The visitor.

WHEN ought mariners to have fruit at sea? When they stem the currents.

WHAT order of merit would the Queen remind you of if she were in bad humor?—Victoria Cross.

A CURIOUS sign has been adopted at Cupar by a native baker proud of his knowledge of English, "European loafer" being printed in large letters over his door.

"You want a flogging—that's what you want," said a parent to an unruly son. "I know it, dad; but I'll try to get along without it," returned independent Hopeful.

WHEN Laplanders meet they rub noses; when Englishmen meet they bow; but when Jerseyman meets Jerseyman, they shake and smile and shake again.—*N. Y. Com. Advertiser.*

FOR WOOERS OF THEIR OWN DESTRUCTION.—A bashful young man applied to his village paper for information on the important subject, "How to win a woman's love."—The reply was, "Kiss the babies, caress the tomcat, and give strict attention to the old lady."

AN old colored preacher in Atlanta, Ga., was lecturing a youth of his fold about the sin of dancing, when the latter protested that the Bible plainly said, "There's a time to dance." "Yes; dar am a time to dance," said the dark divine; "and it's when a boy gets a whippin' for gwine to a ball."

IT was a colored preacher who said to his flock last Christmas Day: "We have a collection to make this morning, and for de glory of Heaben, whichever of you stole Mr. Jones' turkeys, don't put anything on the plate." One who was there says, "Every blessed niggah in de church came down with the rocks."

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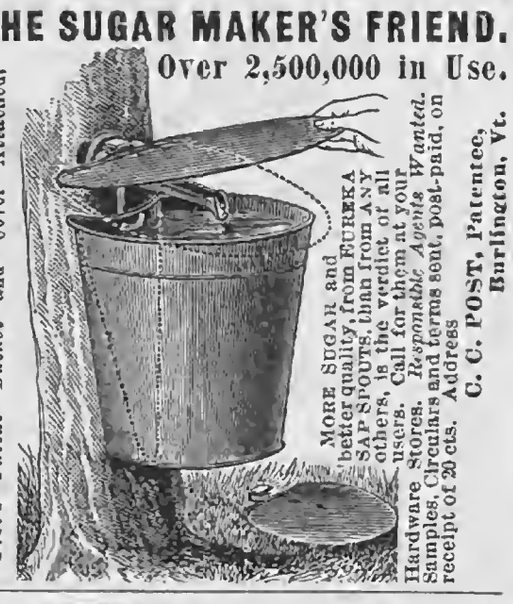

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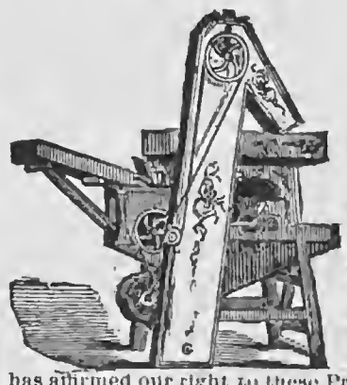

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THE RURAL NEW-YORKER

A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME.

VOL. XXXVIII. No. 7.
WHOLE No. 1516.

NEW YORK CITY, FEB. 15, 1879.

PRICE FIVE CENTS.
$2.00 PER YEAR.

[Entered according to Act of Congress, in the year 1879, by the Rural Publishing Company, in the office of the Librarian of Congress at Washington.]

THE CLIMBING HYDRANGEA. (Schizophragma Hydrangeoides.)

Horticultural.

THE CLIMBING HYDRANGEA.

Schizophragma Hydrangeoides.

(See first page.)

We are sorry that this plant must bear so formidable a botanical name. Siebold, as far as appears, was the first to describe the Climbing Hydrangea, and having discovered that the new plant had four or five cells in the ovary where the Hydrangea had only two, he felt himself obliged to place it under a new genus. So good an authority as Maximowicz calls it Hydrangea scandens, a name by which we should very much prefer to have it known were not the other by structure the legitimate one. The illustration given is a faithful copy of the Climbing Hydrangea's appearance as given in Siebold and Zuccarini's great "Flora Japonica." Seeing is believing, and having compared a dried specimen of the Climbing Hydrangea, sent out by Mr. Maximowicz to Mr. Leroy of Columbia College, we can testify that Siebold's picture is a correct representation of the actual plant.

Mr. J. W. Clarke, lately of the Massachusetts Agricultural College, speaks of it in a recent letter as follows: "The Schizophragma has leaves, when fully grown, about the size of those of the Hydrangea paniculata grandiflora, only much more glossy and finely veined, also much thicker. If there were no flowers it would be well worth growing for the foliage simply. The flower, examined singly, is not striking, but taken in a mass, as it grows about the trunks of trees, it is very fine. The flower somewhat resembles that of Viburnum lantanoides. If given good ground and not too much shaded, its growth is quite rapid."

The general character of the illustration presented, suggests much the same conclusions. Unquestionably, the foliage is fine, being ovate, almost round sometimes on the older growth, and more pointed and serrated on the young leaves, as shown on the piece of climbing stem in the illustration.

Here also, on this stem, are evident the numerous adventitious roots or rootlets which enable it to cling, like the Ivy or Ampelopsis Veitchii, to walls and slightly rough surfaces. We learn from Siebold and others that the Japanese value highly the Hydrangea scandens, and cultivate it in their gardens. The familiar name for the Climbing Hydrangea in Japan, is the Trailing Snow-Apple, Tsura Demari. When seen climbing over the front of dwellings in Japan, the effect is said to be very pleasing. In a wild state, as seen trailing over and around rocks and trees, its appearance is also described as charming. It is found growing after this fashion in the higher mountain valleys in Japan. The Japanese also grow it as a dwarf tree, about three feet high. Siebold speaks of a variety of the Hydrangea scandens, that bears reddish-colored flowers, which we should much like to see.

Pomological.

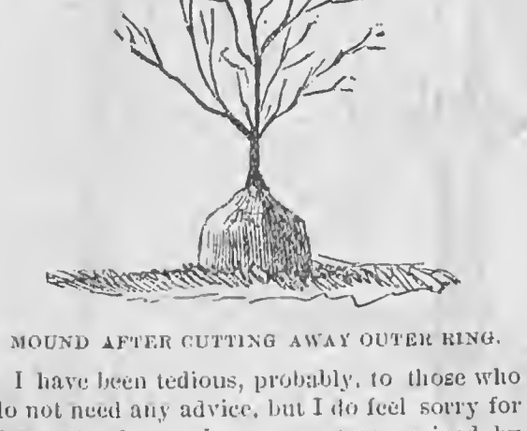
PROTECTING YOUNG TREES FROM RABBITS.

WHY SOME MOUNDS DO NOT PROTECT.

I was highly interested in General Noble's account of the treatment given those old trees. One reads so much that savors of profit only, in the management of fruit trees, that it is a treat indeed to an amateur whose object is not profit alone, to read of the General's surgery of those old trees, and as he promises more, we are in a hurry to hear it. Some apple trees have already been ruined by rabbits here this winter, and I propose to tell how I prevent their depredations. It is by mounding, of course. The Rural has objected to this method, but for want of a better preventive, and of suitable appliances on every farm for wrapping or encasing the lower part of the stems, we continue the use of the old plan hereabouts. In every agricultural paper I have ever read, I am accustomed to see many inquiries every winter about this matter, many claiming they have mounded their young trees to no purpose. Now, the trouble is they have not done the work right in two respects. The principle upon which the little mounds act as barriers, is as fixed as the habits and nature of the little animals against which the trees are to be protected. The rabbit will not climb, nor will the field mouse, to any considerable extent. Neither will the former leave the plane of its burrow coursing along just beneath the surface, to ascend into a mound; nor could it if it would, if the mounds are properly made. Well, it *might*, but it *does* not, since the mound is not only compact, but frozen through owing to its complete exposure. But all this many of us understand, still there are many who do not, if we may judge from the inquiries frequently made. Where mounds have failed, it must have been from one of two causes, or maybe on account of both, viz: the mound is not compact enough, containing trash, clods, etc., or its sides are too sloping, rendering it an easy matter for the animals to walk right up it. In nearly every instance I have noticed here, the mounds are too low and sloping.

HOW TO MAKE THEM.

I choose a time for making them when the soil is a little wet, *not muddy*, but waxy. I much prefer a day on which there is a slight freeze. I quarry out a square yard of the thinly frozen soil around the stem of the tree; the ground being slightly congealed on the surface, this is easily and rapidly done, and the operation removes away all weeds, grass and clods. The soil around the stem is then made very loose, after which I "firm" it by tramping, stamping, etc. Another portion of the upper soil is removed near the tree, which again disposes of all trash, and from this I get the soil to make my mound. This I start with a broad base, say two feet; I am careful to tramp down well every few spadefuls. In this way the mound is raised ten or twelve inches high, sloping steeply in the shape in which it is too frequently left.



MOUND AS TOO OFTEN LEFT.

I then take away the outer and lower part all around by plunging the spade in, perpendicularly, about six inches from the stem of the tree. This leaves a ball standing around the stem, the surplus soil being thrown aside. Next I "humble" myself, and with my hands mold this ball into a pointed or oval shape at the top, and pound it with my fist till it is very compact and smooth.

MOUND AFTER CUTTING AWAY OUTER RING.

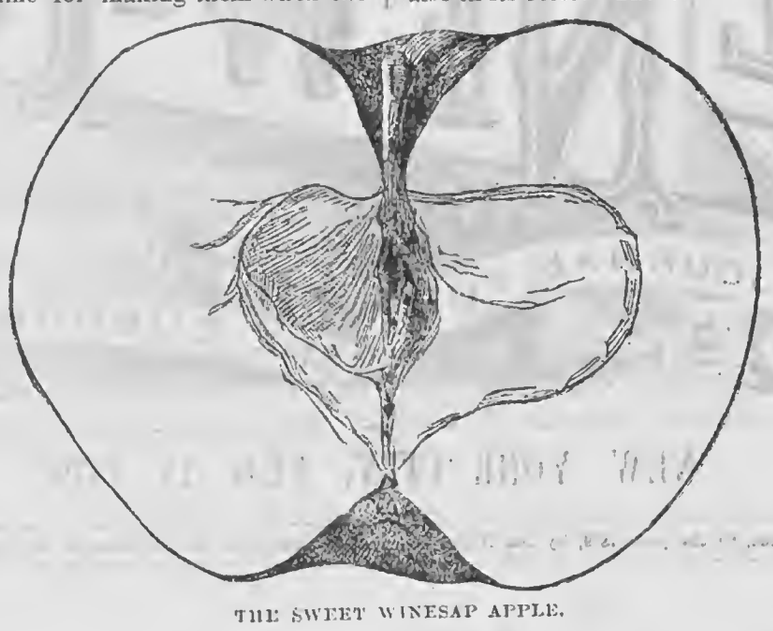
I have been tedious, probably, to those who do not need any advice, but I do feel sorry for those who have nice young trees ruined by "varmints." The aggregate loss in the West from this cause is enormous every winter. My object has been to give those help who think they have tried mounds in vain. Don't give up this plan; mounds fashioned in this way will "work." There's plenty of soil, and on many farms the materials for wrapping are not at hand. Remove all mounds in spring. If this advice will save one tree, either in this or any succeeding winter, I shall feel rewarded.

Dr. A. C. Williams.

Douglas Co., Ill.

THE SWEET WINESAP APPLE.

A short time since we received by express a dozen apples from friend Nelson Ritter, of Syracuse. They belonged to a variety purchased as the Ladies' Sweet, but were unlike others of that sort grown in that neighborhood. A couple of noted pomologists failed to recognize by the fruit to what variety specimens similar to those sent us actually belonged. Mr. Ritter says: "The tree is an upright grower—more so than the Northern Spy. The branches are very stocky, the bark is smooth both on branches and stem, resembling that of the Red Astrachan in this particular, as it does also in its color. The tree is a great bearer and the fruit keeps well through the winter. We pronounce the quality first-class. A good judge of fruit expresses the opinion that it is Bailey's Sweet."



THE SWEET WINESAP APPLE.

Having some doubts about the variety ourselves, we sent a specimen to Mr. Charles Downing, of Newburgh, and requested his opinion on the matter. He replies as follows: "It is the Sweet Winesap—Downing's 2d Revised Edition, page 378—with its several signs. It is a good winter apple. I have never been able to find out where it originated. The tree is a vigorous grower, upright, and forms a round head. It bears large crops on alternate years, and often light ones on intermediate years. Its season is from November to March, and it is considered a valuable and profitable Apple where known."

Farm Topics.

THE HISTORY OF A POOR FARM.

No. 4.

Artificial Fertilizers.

The supply of manure is the first consideration in the improvement of a poor farm. Notwithstanding the certain effectiveness of artificial fertilizers, and their convenience in handling and use, it is by no means advisable to trust entirely to them. There was never yet an old-established practice that was suddenly abolished and displaced by a new method, that was so complete an innovation upon old customs as the substitution of artificial fertilizers for barnyard manure; and it is not probable that any system of farming by the use of these alone will soon become prevalent. Yet they are invaluable as a help to increase the yield of our fields by assisting the effects of manure, or by stimulating early growth, and thus forwarding the plants' maturity. Another of their invaluable uses is to help to improve such a poor farm as this of mine, so as to make a beginning and lay the foundation of the often-repeated sequence, "more feed, more cattle; more cattle, more manure; more manure, more feed," and so on. Without the easily procured artificial fertilizers, the "more feed," with which one must start, would be impossible, and a poor farm must ever remain in a condition of hopeless sterility.

MOUND FINISHED.

"The first thing to be done in the course of improvement, is to procure manure; of that there is no doubt," said my old neighbor; "and for my part, I would choose stable manure before any other kind. My grandson, William, has been trying phosphate, bone-dust, and some other fertilizers, and is quite wild about them; but I have my own doubts. They may do very well to help a little and hurry up the crop, but they won't last like manure; at least it doesn't seem natural that 200 or 300 pounds of the stuff, sown over an acre of ground, can bring a ton of hay or 30 or 40 bushels of corn extra."

"Suppose you were to burn that ton of hay or corn, how much would be left of it?" asked Doctor Jones.

"Not much," replied the old gentleman. "When my barn full of hay burned up about 40 odd years ago, I remember there was a very small heap of ashes left, and there were five-and-twenty tons of hay at least in it. But what has that to do with it?"

"Only this, that every ounce of potash, phosphoric acid, lime and other minerals in those 200 or 300 pounds of fertilizer that go into the ton of hay, you would get back in the ashes; and the only part of the fertilizer you would lose, would be the ammonia or nitrogen. If I remember aright, a ton of hay contains 133 pounds of mineral matter, or ash, and this consists of 34 pounds of potash, 8½ pounds of soda, 6½ pounds of magnesia, 15½ pounds of lime, 8 pounds of phosphoric acid, 7 pounds of sulphuric acid, 39½ pounds of silica, 10½ pounds of chlorine, and 3½ pounds of sulphur. Of the remainder, 31 pounds are nitrogen; and the balance consists of water, carbonic acid and hydrogen. The nitrogen is the only one of these which it is necessary to supply in the manure or fertilizer. Now, suppose we make a mixture of 150 pounds of sulphate of ammonia, 75 pounds of muriate of potash, and 50 pounds of fine bone-meal, we should have the following substances, which we may compare with those contained in the hay. We should have

	In the fertilizer,		and in the hay.	
Nitrogen	32	pounds	31	pounds.
Potash	37½	"	34	"
Lime	14½	"	15½	"
Phosphoric acid	10	"	8	"

Besides these, there would be some sulphuric acid, soda, chlorine, silica and magnesia in the fertilizer, so that the 275 pounds of mixed chemicals would supply all that was required to make one ton of hay, without taking anything from the soil at all. Now it seems plain enough to me that it is all right."

"You would prescribe for a sick soil just as you would for a sick man, I suppose?" remarked the old gentleman.

"Well, something in the same way that I would feed a child, or a man, or a pig, or a cow. I don't see any difference. If you don't feed a pig something out of which it can make fat, it never will get fat, that is certain; and if you don't give your crop potash, phosphoric acid, nitrogen and the rest of its food, you will have none. Now, does it matter whether you give a pig peas or corn, oatmeal or barley, so long as it has the elements out of which it can make fat? and if not, does it matter whether you give your crops wood ashes, or potash salts, phosphates and sulphate of ammonia; or barnyard manure in which the potash, phosphoric acid and ammonia are supplied? If the crops get these, it matters not in what shape they are provided, so that they get them."

"I like to see a good heap of manure going on to the land," said the old man; "something to fill up the ground and make it rich; and you may talk and talk, but I never can believe a wheel-barrow load of chemical stuff can do the good that ten wagon-loads of manure will do."

"A good many farmers think as you do," I replied, "and a few are beginning to think as Doctor Jones does. But here is my difficulty, and scores of others find the same trouble: what are we to do where there is no manure to be had? We must then use artificial fertilizers for a start, and after that if we can make enough manure we are all right; if not, don't let us cast away the boat which carries us safely over the stream, because we think we shall have a bridge by-and-bye. It is very clear to me that I shall have to make use of fertilizers unless you will sell me some manure, and the question is, what shall they be?"

"I have no manure to spare at any price, and no other farmer that I know of has," replied the old man.

"Just so; no farmer can sell manure; he might as well sell his bread and butter and go hungry. And when barnyard manure cannot be had, some substitute must be provided. We have no substitute for manure but artificial fertilizers, and without these my case would be hopeless. A poor farm cannot be started on the road to improvement without them, unless one has the money to buy stock and feed, and then make manure. When the large capital needed to do this is not at hand, the only resource I can see is, to use some artificial fertilizers. There are twenty acres of rye which I have just sown. I shall put 200 pounds per acre of fertilizer upon the land, which will contain 16 pounds of potash, 10 pounds of phosphoric acid, and 16 pounds of nitrogen. In the spring, I shall repeat the application, which, in all, should enable this land to produce at least 25 bushels of grain and one ton of straw per acre. I shall expect to get 20 bushels of grain if the season is fair. Twenty bushels of rye and one ton of straw, will take from the soil 26 pounds of potash, 15 pounds of phosphoric acid, and 27 pounds of nitrogen. There will be something left for the grass and clover, but not much; and it is a question with me if I ought not to use 300 pounds of the fertilizer instead of 200 pounds. But I shall try 200 pounds, and we shall see the result.

The fact is, that no soil is so poor but that

it contains a vast amount of latent fertility. It is there, but is not available. It is locked up. Every particle of soil, unless it is pure quartz or silica, contains potash, soda, phosphoric acid, magnesia, and other mineral plant food, or rather sources of plant food, in it. And amongst the particles there is always some organic matter which contains nitrogen. But none of these are plant food until they become soluble. To the extent that the rain, the atmosphere, and the sun's heat slowly dissolve out the plant food that may exist in it, the poorest soil is able to produce just so much or rather so little; to the extent that manure or fertilizers help to dissolve more plant food by their action on the soil, the soil can produce so much more in addition to what the fertilizers supply food for; and to the extent that the decomposing action of the roots themselves is exerted upon every particle of the soil which they touch, the latter will still produce so much; so that if we add manure or fertilizers to the poorest soil, we may reasonably expect to get more returned than we have given. This is the theory. In practice we may get this or we may not, and it is safe to expect less, because the season may very rarely be such as to favor all these different results, and may, in fact, exert an unfavorable influence and prevent some of them from taking place. So that it is always safe to supply more than is actually supposed to be necessary."

Rural Architecture.

A FEW AXIOMS IN BARN BUILDING.

W. J. CHAMBERLAIN.

"An axiom is a self-evident truth." So says the definition. Sometimes, however, our attention must be called to it before it is seen to be "self-evident." This is the case with some of the axioms of barn building, to which I propose to call attention.

FIRST.—Money is saved by increasing the contents *perpendicularly* (vertically) not horizontally. Let Fig. 1 be an end section of a barn of any size, with posts thirteen feet high, and showing posts, girths, &c., ready for the siding. Suppose now we double the hight as in Fig. 2. We have doubled the capacity of the barn without increasing the size of the roof. If we double the size horizontally, we must double the roof as well as the siding. But the roof is, proportionately, the most expensive part of the barn. Therefore it pays to economize in roof by making the barn as high as possible without inconvenience. By taking advantage of a slope, or by grading up as in Fig. 2 for a "bank barn," hay, etc., may be drawn in, *part way up*, and pitched down, and thus the additional hight instead of proving a disadvantage in labor, will be an advantage. That this axiom is not understood by many, is attested by the multitudes of low, flat barns everywhere found. That it is an axiom, however,—a self-evident truth,—all will at once admit on examination.

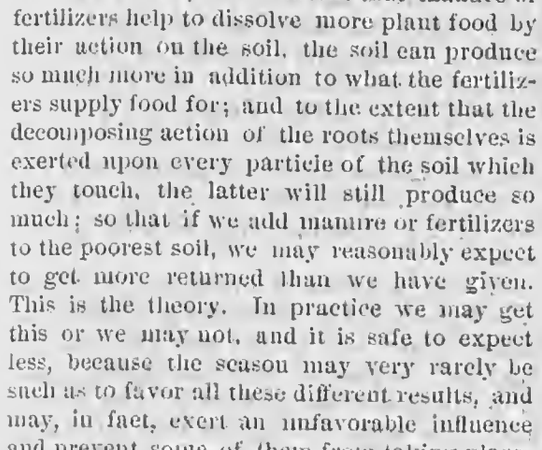


FIG. 1.

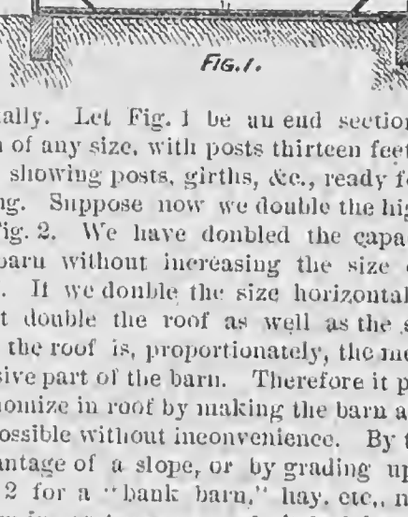


FIG. 3.

SECOND.—It pays to build *one* barn rather *than several covering an equal space*. Let Fig. 3 represent the ground plans of four small barns. Now suppose them simply moved up together and covered by a common roof. Evidently the amount of roof remains the same, except that there is a saving of half the cornice, but half of the sides and half of the ends are rendered useless and disappear. That is, the four barns will require twice the lumber and timber for siding their outsides that will be required for one barn that shall cover the same space and store as much (yes, more) hay, grain, &c. This, too, is self-evident when once pointed out. If, now, the principle here involved be combined with that involved in Figs. 1 and 2, we see that a barn of *twice the length, breadth and hight* of any given barn—for instance, one of those represented in Fig. 3—will hold *eight times* as much hay, &c., but will take only *four times* as much roof and siding; or, in other words, a given amount of money spent for roof and siding will house *twice as much* feed in one such large, high barn as in four small ones costing the same money.

Add to this the great economy of time in the feeding and care of stock in one barn, and we wonder to see small barns scattered all over the farm, as we do on multitudes of farms. The object of this mode of building originally was to save in the hauling of hay and the returning of manure to distant fields. But the best farmers now favor concentration. It has many advantages that I cannot stop to mention here. "Put all your eggs in one nest" is, after all, a good rule in barn-building.

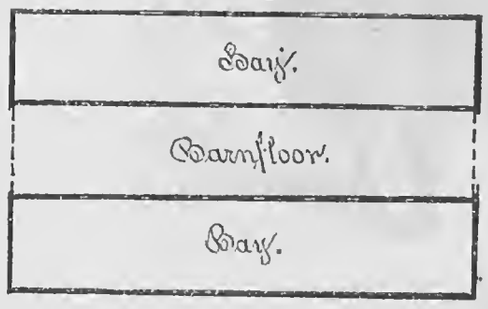


FIG. 4.

THIRD.—The barn floor should run crosswise, not lengthwise, of the barn. Let Fig. 4 represent the ground plan of a barn 45x75 feet. If a barn floor 15 feet wide, runs through the middle *lengthwise*, it occupies *one-third* of the room of the barn, clear to the ridge. If a scaffold is laid over it, it interferes with the storage of the bays, and a high, long scaffold is in itself a nuisance. If, now, a barn floor of the same width runs *crosswise* of the barn, through the middle, as in Fig. 5, c, it occupies only *one-fifth* of the room, and permits the hay in the bays to be stored to the ridge of the roof. In so long a barn it is a good plan to have three sets of doors, at c and b, b, Fig. 5. The spaces b, b, can be used as barn floors till the bays a, a, are filled to the roof, and then the doors closed, and these spaces, b, b, used as bays and filled with hay from the floor, c. The three sets of doors are for convenience in storage. The cattle, etc., are supposed to be below in the basement.

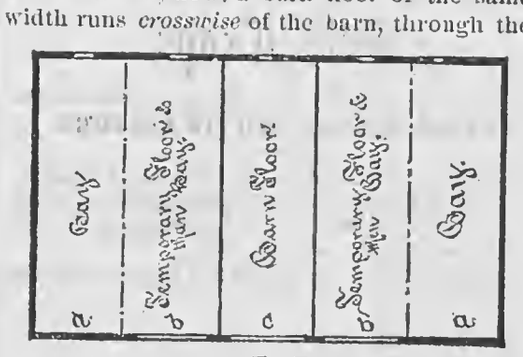


FIG. 5.

I have seen many expensive barns, excellent in many respects, but in which it seemed as if half the storage-space was wasted by wrong arrangement of details, chief among them being the wrong position or direction of the barn floor. Barns will be expensive enough at best, but they can be rendered far less so by careful attention to a few self-evident truths or obvious principles.

Summit Co., O.

The Herdsman.

POLLED OR HORNLESS RACES OF CATTLE.

M. C. WELD.

GENERAL CHARACTERISTICS.

THE horns of cattle are certainly of very little use to us. True, we utilize them finally, but they are too often used as terrible weapons against mankind, as well as against other animals. Cattle are frequently greatly injured by one another's horns, and horses are not unfrequently killed when turned loose in confined yards with cattle. Polled cattle are by no means helpless when attacked by horned beasts, for they defend themselves resolutely, and their heads are well adapted to this use by reason of a considerable knob in the center of the poll, with which they can well push and punish an adversary. In fact, though almost uniformly of a gentle and docile disposition, it often happens that in a mixed herd the *boss* (I use the word legitimately) is a hornless animal. One reason for this is that the hornless ox or cow has so peculiar and, so to speak, unscientific a way of fighting that the others are taken all aback by it, just as an adroit wrestler would be likely to be worsted in a rough-and-tumble "rassle."

The hornless breeds are quiet and good feeders. They lay on fat smoothly, evenly and rapidly. They are so quiet in disposition that they are excellent travelers, bearing transportation by rail or by road better than any of the horned breeds. Their lack of horns is of particular advantage in shipping by rail, as they are very little likely to hurt one another either in the cars or when yarded, and they may be packed closer. Those qualities are elements of profit which, were the breeds better known, would not only make them favorites with the drovers, but, naturally, the breeder would realize his share of the profit in the better prices he would get. Their distinguishing peculiarity is transmitted almost invariably to half- and even three-quarter-bred offspring; and not this alone, but their other good qualities accompany it. The quality of their beef is surpassed by that of none of the British breeds, unless it may be by the Highlanders, and certainly not by any of the continental breeds, and they possess a hardiness of constitution and an aptitude to fatten which are unusual.

As to their form and comeliness when exhibited in perfection, these points can hardly be better shown than by copying from Youatt his picture of a Galloway heifer named "Queen of Scotts," bred by Mr. Mure, fed by Mr. Wright, in Norfolk, and exhibited at the Smithfield fat-cattle show. Her portrait was taken under the sanction of the Club, and the following are her recorded measurements: Hight at shoulder, five feet two inches; length from nose to rump, ten feet four inches; across the hips, two feet six inches; across middle of back, three feet; across the shoulders, two feet four inches; girth of leg below the knee, eight inches; distance of breast from the ground, one foot three and a half inches; width between fore-legs, one foot five inches; weight, 1,520 lbs. The weight and perfection of this heifer were, however, extraordinary.

Youatt recognizes four principal breeds of polled cattle, namely: the Galloway, Angus, Norfok, and Suffolk breeds.

THE GALLOWAYS,

as now bred, are a black breed, though red and yellow used not to be uncommon; of medium size, maturing early, fattening kindly, and very evenly, and producing beef of almost unrivaled quality. The cows have no place in the dairy, but what little milk they yield is of very rich quality.

THE ANGUS

cattle are a closely allied race, and are considered as descended from the Galloways. As would be expected, a more favorable climate, better feed and, perhaps, care, have developed a somewhat larger frame in them, accompanied by greater length of leg and better handling quality. They, also, are black; have grown much in favor of late years; and, judging by the offers of prizes at the English Agricultural shows for "Angus and other polled breeds," as a class by themselves, one would suppose that this was the leading breed among the hornless ones, where they are best known. They are essentially a beef race, and no doubt, as profitable feeders, they are fully equal to their aforesaid cousins, while they are no better as milch cows.

Both Galloway and Angus cattle have been imported into this country and Canada in small numbers, but neither they nor any other of the polled breeds have become as popular as their merits warrant, especially in the beef-producing section of the country.

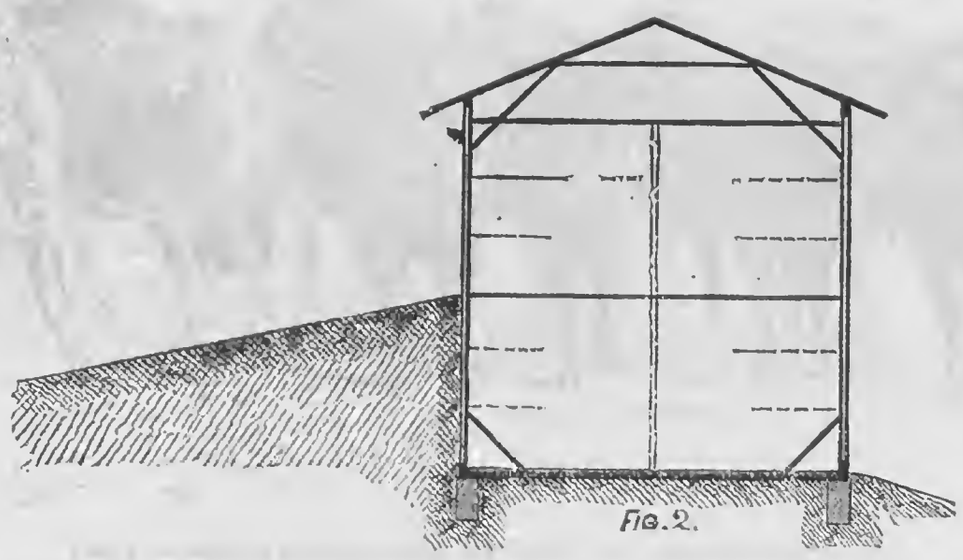


FIG. 2.

THE NORFOLKS

originated from mingling the blood of the Galloways—which were brought in great numbers into that part of England to be fed for the London market upon the rich pastures of Norfolk and Suffolk—with that of the native stock. The original cattle of Norfolk resembled the Devons both in color and general style. The hornless beasts from Scotland were greatly their superiors in flesh-making and quality, so they gradually came to be preferred, and the horned breed gave place to the hornless one, which retains the rich red color of the native Norfolks.

Youatt gives, after a rather unfavorable description of the breed, the accompanying beautiful portrait of a cow bred by Mr. George, of Eaton, near Norwich,—as near an approach to ideal perfection in a useful cow as could well be drawn. It is obvious that the cow is not in full milk; at least with no knowledge to the contrary, and knowing that the breed retains the milk-giving character of the ancient race of Norfolk, we may well suppose that the udder which is in perfect form, is dry, and the same is indicated by the shriveled look of the teats. This portrait of Mr. Eaton's cow, which was taken hardly less than fifty years ago, bears a very close resemblance to the beautiful Norfolk cow exhibited by Mr. Taber, of Patterson, N. Y., at the International Dairy Fair in December, and it is a pleasure to be able to point to a beautiful and useful herd of these cattle in our near neighborhood.

The Norfolks, as now bred, are red, above medium size, of excellent form, and superior as milkers. They are easy keepers, good feeders, mature early, bring good-sized calves, and for the farmer who values cattle for all purposes—namely, for veal, milk, labor and beef—there are few, if any, more attractive breeds.

Of late years especial attention has been paid to improving the Norfolks upon the estate of Lord Sonds, and the efforts of that nobleman and his efficient steward, Mr. Fulcher, seem to have met with merited success. The objection to the Galloway and Angus breeds in this country, has always been that they were purely beef breeds. The Norfolks are not liable to reasonable objection, for they are excellent milkers, and fatten as kindly as Short-horns or Devons, or even as Galloways.

CROSSING POLLED BULLS ON WESTERN AND TEXAN COWS.

The use of polled bulls for Texas cattle and for all the herds of the Western Plains, has often been advocated. Such reforms are not brought about by "precept upon precept." People who sit here on Eastern farms and write letters to the papers, get enthusiastic over great reforms which it seems as if it would be easy to effect, if the people most concerned were only half as wide-awake to their own interests as we are. We wonder why in the world the active, thinking men of the Plains, Texas, New Mexico, California and Colorado, do not work out of their long-horned, slab-sided brutes, and by crossing with improved animals, work into really handy, profitable cattle. They, on the other hand, wonder how active, thinking men can be contented to stay here in this old-fogy, money-lending, dead-and-alive, humdrum East, on our little tucked-up, fenced-in farms. The fact is, the reforms come as fast as it is healthy for them to come. If the breeders on the Plains should wake up suddenly to the conviction that polled bulls were the only ones they ought to use, the supply would be exhausted at once and we would have to import at high figures, and that would discourage the breeders.

The course which seems the wisest for the Western breeders, generally, to pursue, is to combine upon the foundation of their hardy Spanish stock the excellencies of the Short-horn and of the polled breeds. It would matter little which cross was first taken. Were the polled bulls first crossed upon Texas cows, the progeny would be horuless, greatly improved in form and quality, not essentially increased in size, but weighing more at parallel ages; much quieter, less prone to wander, more tractable, and making a better use of their feed; that is, keeping in better condition on the same food. They would mature earlier, probably,—certainly, if well fed. They would not show themselves fighters, but would defend themselves well against horned animals. When the heifers come to profit, they will be found fair milkers, if of the Galloway or Angus cross, and uniformly good to large milkers, if of the Norfolks. The young bulls will be found to propagate the characteristics of the hornless breed with considerable regularity, and will be sought for as breeders. Example is better than precept, for it is *contagious*.

OTHER CROSSES.

The use of Short-horn bulls upon these cross-bred or grade heifers, will generally result in increasing size, confirming their early maturity and their early fattening qualities, as well as their gentleness and quietness of disposition. Few horns will develop, but there will, no doubt, be an occasional reversion in the second generation to the long horns of the Spanish beasts.

The cross of Short-horn or Short-horn-American bulls upon Texas cows, is well known and highly valued. It increases size, quality, weight, early maturity, milk and all good points. The cross-breds, or grade Short-horns, need, however, better care, better feed; and

they fall off, "shrink," worse on the road. The crossing of polled bulls upon these grade cows may be depended upon to give a class of cattle which, while they will have all the advantages of the Short-horn grades, will do better on rather short pasturage, travel much better, shrinking less, and packing closer both in yards and on railway cars or steamboats. There seems to be every reason why we should value the polled breeds in this country, the Norfolks being apparently best adapted to Eastern and central farming—say to the great dairy region—and the Galloways or Angus to the great beef-raising and feeding sections.

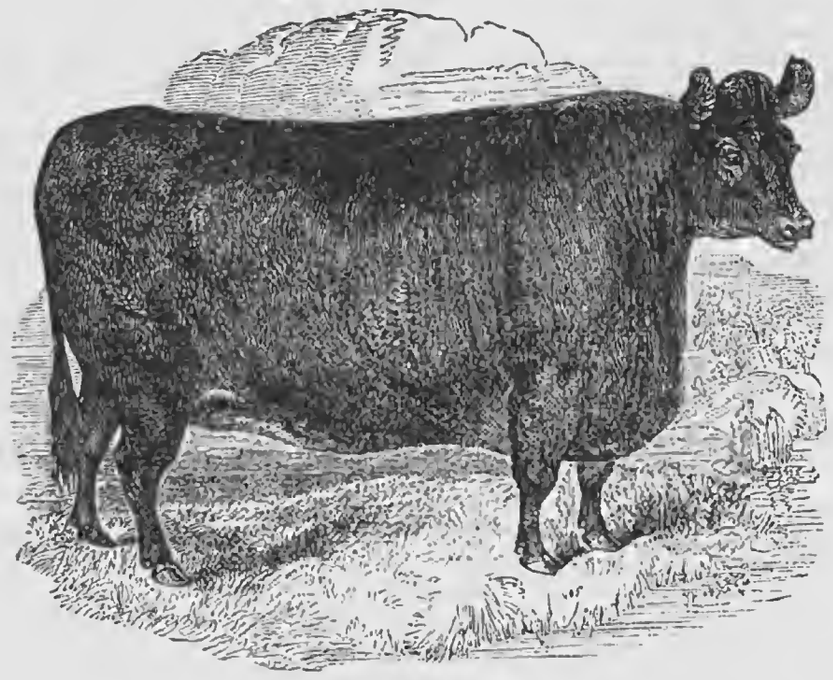
A FAMOUS GROUP OF POLLED CATTLE.

THE accompanying engraving of the champion group of Angus, or Aberdeen cattle exhibited at the late Paris Exposition, by Mr. McCombie of Tillyfour, Aberdeenshire, is a faithful reproduction of an illustration taken from photographs, and published in the Agricultural Gazette for January 20, '79. The animals were taken "at home" after their return from the great Show and when they had recruited on their native pastures from the miseries of the quarantine to which they had been subjected. More than one reference has been made in the RURAL to the high distinction won by the members of this group individually and collectively, and it gives us pleasure to be able to place before our readers accurate portraits of the animals which carried off the highest honors at the World's Fair, and have won for themselves and their owner a world-wide celebrity.

On the left flank is Gaily, a four-year-old cow. On her right is Sybil 2nd, two years and three months old. Next comes Pride of Aberdeen 8th, probably the most valuable animal of the breed in existence, her owner having refused upwards of $1500 for her. Fourth comes Halt 2nd, one year and eight months old, the easy winner of the first prize and gold medal in her class. Then comes a little beauty, Witch of Endor, one year and three months old, while on the right flank is Paris, one year and two months old, the gainer of the first prize and gold medal in his class.

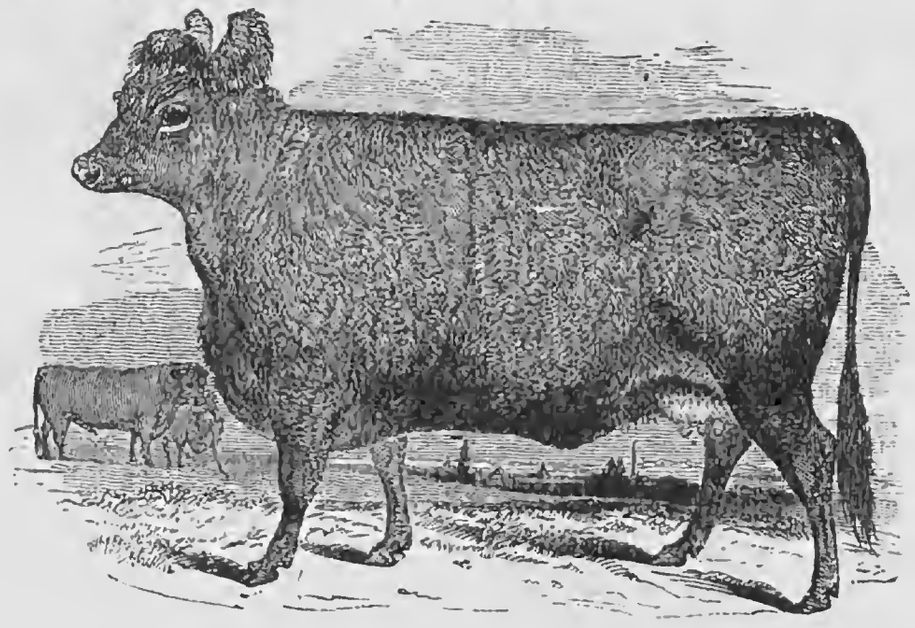
STOCK NOTES.

JOTTINGS.—At a recent meeting of the agricultural department of the Royal Jersey Agricultural and Horticultural Society, it was stated that the returns show that the exportation of Jersey cattle during the preceding twelvemonth, amounted to 2,080 head. Of these 1,790 were for England; 210 for America and 80 for France. Regrets were expressed that so many of the best stock were sold for exportation, and measures were suggested by the adoption of which it was hoped that the best bulls might be retained on the island. . . . The (English) Farmer mentions the case of a cow-calf of Dutch breed, whose udder began to swell when the animal was only two months old. When six months old, the udder was fully distended, and thereafter the calf was regularly milked every day. When eleven months old, the animal's development was backward, but she gave about four and a half quarts of milk daily; it contained, however, a little more water than that of a full-grown cow. . . . The Bulletin of the A. J. C. C. mentions another instance of early lactation. In 1873 Mr. Parke's heifer Anne Page (2,690) when eleven months old began to yield two pints of milk daily, which she increased to two quarts within a fortnight. She was taken to the bull for the first time when twelve months old. . . . The English Herd Book of Angus polled cattle has reached its fourth volume. . . . Holsteins were first introduced into this country in 1852 and the last American Herd Book of that breed contains the names of 197 bulls and 251 cows, or a total of 445 head. . . . Thiers, one of the shrewdest men France has ever produced, said, "The agriculture of France cannot dispense with sheep" and many of the most progressive farmers in the Eastern States seem to think the saying true of their own section also. England's 34,532,000 sheep on 77,284,184 acres, yield annual products worth $150,000,000, and, moreover, English farmers consider that sheep have contributed more than any other kind of stock towards enriching the land so that the average yield of wheat, which in the days of Elizabeth was six and a half bushels to the acre, is now upwards of thirty bushels. It has been well said, however, that a few sheep well cared for, will be profitable on every farm, while a large flock would, in nine cases out of ten, be a source of trouble and expense to the ordinary farmer. Dr. J. L. Hayes, Secretary of the National Association of Wool Manufacturers, says that the enormous clip of Canada wool is obtained from small flocks, rarely exceeding fifty head. He recommends long-wooled sheep, especially Cotswolds. . . . A Stock-Breeders' Association has just been organized in Mississippi with a view to dairying and fine stock raising on the prairies in the eastern part of the State. Already a commencement has been made, as it is estimated that 400, or so, of the inhabitants, have a few choice hogs or sheep, and, now and then, a few head of thoroughbred cattle. . .



GALLOWAY HEIFER.

. The Department of Agriculture's statistics of the live-stock in this country in Jan., 1878, though not strictly accurate, are the most trustworthy attainable. These estimates made up from a multitude of local reports, show that of horses we then had 10,329,700, valued at $600,813,681, an average of $58.16 for each animal; of milch cows, 11,300,100, valued at $298,499,866, an average of $26.41 each; of oxen and other cattle, 19,223,300, valued at $329,541,703, an average of $17.14 each; of sheep, 35,740,500, valued at $80,603,662, an average of $2.25 each; of hogs, 32,262,500, valued at $160,838,532, an average of $4.98 each. New York was ahead in the number of milch cows, having 1,404,100. In "other cattle" Texas took the lead with 3,458,300. Illinois was next, but a long way behind, with 1,274,100. That State, moreover, was first in horses, having 1,091,500. Iowa stood first in hogs with 2,950,000, and next came in order Missouri, Indiana, Ohio and Illinois, none of them with less than 2,000,000 porkers. . . . An English correspondent for whom the National Live-Stock Journal vouches as an authority in such matters, says that for fat bullocks the West Highlanders are the best that come to the London markets, bringing from half a cent to a cent a pound more than beasts of any other breed. They are seldom fit for the butcher till fully ripe, bring top prices every time. The Hereford being a grass beast, is most prized in July, August, September and October, when he readily tops the market. Despite the large number of Short-horns in the country, few bullocks of that breed reach the London market, and although some bring top figures, as a rule they sell at lower rates than any of the sorts already mentioned. The Polled Scots, he thinks, require a northern climate, and plenty of roots—swedes and turnips. When brought south, he says, they frequently merit the sobriquet of "pensioners."



NORFOLK COW.

Field Crops.

PEARL MILLET AND ITS CULTURE.

Twenty-five years' experience with it; drilling it; its early appearance and rapid growth; growing it in double rows; broadcasting it with cow peas; as a soiling plant.

FOR the benefit of numerous inquirers about this valuable forage plant, and the best method of its cultivation, I give, through the RURAL, my experience with it for twenty-five years past, the most economical plans of growing it profitably, and the uses for which it is adapted. I have attempted to utilize it in a variety of ways, never failing to reap a satisfactory crop during the long period of its growth here, in latitude 33° north. It probably finds its most congenial home and greatest development under our long, warm suns, and in our porous soils. It revels in a dry sandy loam, and is the grossest feeder and most rapid grower of all the Sorghum family, if it properly belongs to this family of plants. [Same order—genus Penicillaria,—EDS.]

The land being made fertile, if not so naturally, after breaking it well, I make the beds some four feet apart, harrow off clean, open a very straight furrow with the marker, and drill in with any one of the hand seed drills about three pounds per acre of the clean seed, and cover it lightly. When the seed first germinates, the grower will feel discouraged. The very fine, grass-like spears do not promise the gross, luxuriant crop, of which boasts are constantly made, and after a few cool mornings have turned the blades to a sickly yellow, he will be almost tempted to pronounce the crop a failure. But a slight side-line hoeing, together with the warm suns of May and June, makes a most rapid change; and by the tenth of June the plants have here attained a hight of from three to four feet, are fit to be cut as a green soiling crop, and furnish a cutting every fifteen or twenty days thereafter, till frost. I cultivate simply with the horse hoe, cultivator, or sweep in the middle of the rows. I seldom give more than one hand hoeing. I never chop through the stalks, except where seed are grown, but let the plants stand thick in drills, shaving the sides of the drills with the hoe or sweep.

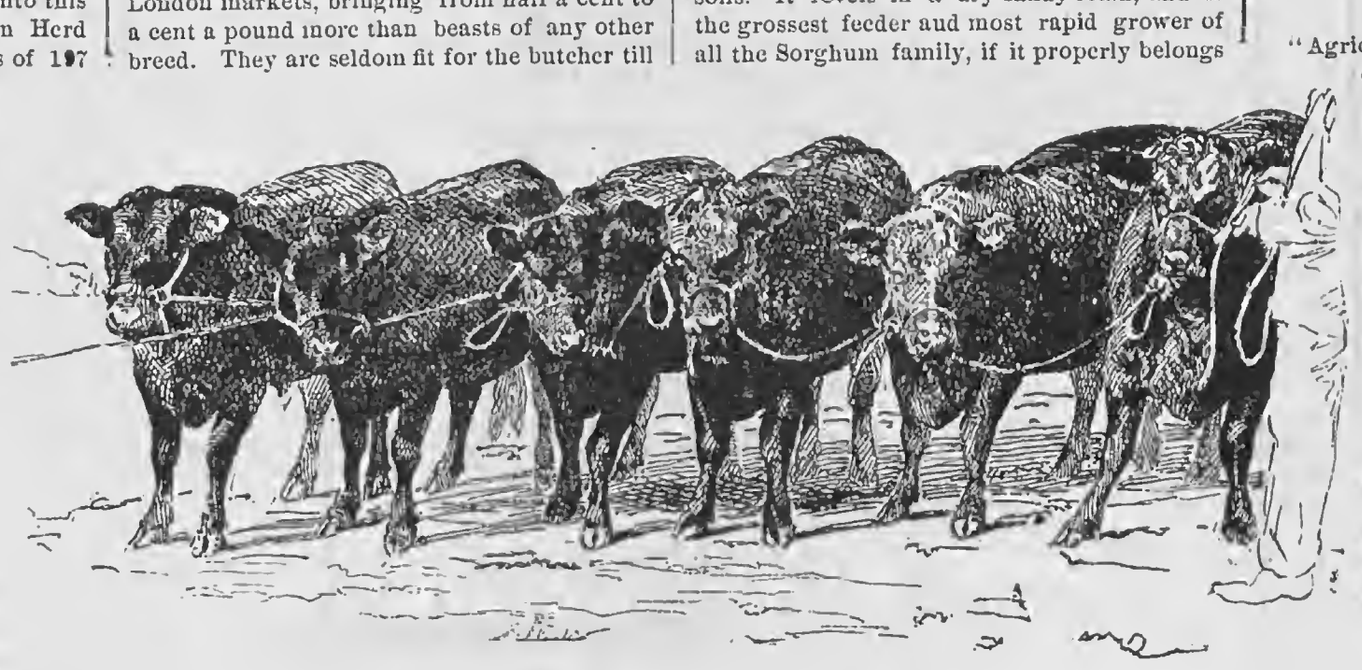
The best method of growing it is in double rows on a seven-foot bed, with the drills fifteen inches apart. The plants soon close up the interval. No grass or seeds can appear. And in this form it is the prettiest growing crop I have ever seen. Sweeps or the cultivator should be used only in the wide middles. In these double rows it is easy to cut with a stiff grass scythe, the hand having more room to operate on each side of the drills.

The third and most profitable way to grow it I find is to broadcast it with our field cow peas, on rich land about the middle or last of May. Having put a piece of rich soil in good tilth, I broadcast one and a half bushels of peas to 215 pounds of millet seed, harrowing in the mixture and rolling the surface. Under our warm suns both plants start the race together, each struggling for the ascendency; the pea climbing upon the middle stalks, dwarfs the latter, and the two make a dense mass of the finest green or dry forage, which can be cured better than if grown singly, as the millet stalks are now quite small and spindling. In the two plants there is a combination of a "cereal" with a "legumen," and this makes a valuable rich winter food for all stock. If one can conceive a vegetable-growth, from four to six feet high, so dense that a rat could scarcely pass through it, and on which a horse and cart might stand over a full load for the latter, his conception would be realized here by this combination of growth on rich land, in August and September. The plant seems to be greatly influenced by sun and moisture. Commencing in March, I plant it every month till August, either in drills or broadcast. It would probably be advisable not to put the crop two years in succession upon the same spot, unless it be well manured. It must draw heavily upon the stores of fertility and consume all plant food in the soil, being so long a grower. It will give a return in proportion to the food given it, and during the many years in which I have planted and used it, I have often wondered that its merits were not properly appreciated.

I have never tried keeping it by "ensilage," but I should suppose that with its latest growth in September, this plan would succeed admirably. I use it principally as a green soiling plant for horses and cattle, and know of no crop that furnishes so much green, succulent food.

W. B. JONES.

Burke Co., Ga.



MR. M'COMBIE'S CHAMPION GROUP OF POLLED ANGUS CATTLE AT PARIS.

Industrial Topics.

HOW TO SECURE A GOOD COUNTRY SCHOOL-HOUSE.—No. 2.

PROFESSOR W. J. BEAL.

"Agriculture advances with the improved conditions of the common schools."

There is more at stake in a little country school than some of us are aware of. The surroundings of a child exert a wonderful influence for good or ill. It is good economy to see that the school-house and its surroundings are convenient and pleasant. For beautifying the ground, employ a landscape gardener or the man or men of your own neighborhood, who have displayed the best taste in beautifying their own homes. Before constructing a school, do not be afraid to pay a small fee for plans to be examined. Then, on these plans get the advice of a committee of teachers. Every man is not a landscape gardener or an architect, any more than he is a blacksmith or a doctor. By employing the best men for each place or business, time and money are saved and verything goes off better.

There are numerous approved patterns of stoves and furnaces which are made for bringing into the room, in a partially heated condition, an abundance of fresh air, and for expelling the impure air. To do this may take a trifle more fuel but it will prevent cold

draughts, drowsiness, pale faces, and poor health. Good health is a priceless treasure, often too little prized till it is taken from us. To regain it we are willing to spend fortunes; to preserve it in our children we should take all reasonable precautions.

A school-room, even the poorest, need not be destitute of ornaments. A little effort on the part of a teacher or of the school board, will secure some pictures, brackets and vases for flowers. Once in a while some evergreens may be tastily arranged and suitable mottoes placed about the room,

And now after making all needful preparations in the house and its surroundings, do not neglect the most important part of placing a first-class teacher in charge. The people may be poor, the number of children small, the times hard, and the most rigid economy seem necessary; but here is one of the last places wherein to cut off expenses. The enterprising farmer does not try to hire poor, cheap hands to do his work, because produce is cheap or because he is in debt. He knows the best are the cheapest at any reasonable price. He hires men to drive his team, to feed his animals, milk his cows, plant, cultivate, and harvest his crops. He does not expect that even his best men will perform these duties with profit to himself without some of his personal oversight. To perform this work, he often pays a man more wages than is paid the teacher of the summer district school. He is willing to leave this cheap teacher with entire control of his children all summer for the best hours of the day, but he would not think of trusting the entire care of his swine to the best man he could hire. He could not afford it. He would lose money. Swine may live a year or two and that is the last of them. The children will probably live forty to sixty years, and mold the character of those who follow them, and, to some extent, of all those with whom they associate. There is no reason in thus discriminating between the care of our domestic animals and of our children. Is it not a wonder that the district schools are as good as they are, considering their management?

Every farmer does not know how to superintend a school. But few of them know how, and they are aware of it, hence they do not visit the schools or attempt to interfere with their management. In some States the people employ skilled or *professional* persons to superintend their schools, but in many places there is almost no supervision. The school runs itself, if the teacher and scholars can get along together. Every man ought to be expert at his own business, and has no reason to expect he can do everything and do it well.

To all I say, employ only good teachers. How can this be done? Certainly not without taking some pains to find out that they are good. The candidates should be thoroughly examined in various studies, by *competent* persons, who make this their entire business, or an important part of their business. This is not all. Good testimonials must be produced, vouching for moral character, correct habits, etc. If the person has ever taught school before, great care should be taken to learn that he has liked the business, kept good order, and succeeded in interesting his pupils. With thorough examinations and a searching inquiry of reliable persons as to character and former success, competent teachers can be selected.

There is no objection to hiring such persons at the lowest possible rates that will employ them, but hire them at any price, and do not take up, even for one term, with a person who does not bear the severest test. In hiring for low wages, this must be taken into consideration: the teacher will not be contented with his place or business. He may think it important to give part of his time to something else, to eke out his small salary. If he is possessed of good caliber, he will soon engage in some other business, where his energy will bring larger returns. This will make it necessary to employ new and untried teachers. Frequent changes of teachers are much to be avoided.

Agricultural College, Lansing, Mich.

Floricultural.

RUSTIC VASE SUPPORTERS.

Rustic work or ornaments, if more generally used about our premises, would add much to their beauty, and that cheaply, too. For instance, the vase supporter shown at Fig. 2, is simply a portion of the top of a tree with parts of two or three branches remaining. The main portion may be from three to five inches in diameter and about five feet in length, set firmly in the ground. The tops of the branches and main stem are cut off square; use for the main stem a large vase, or even a tin jar or wooden butter bowl, if at hand; and for the branches, pint or quart basins painted green. Nail them firmly in position, fill with earth; place in them some hardy running vines, and in the large vase a Monthly Rose or Verbenas, Petunias or some low-growing flowering annual. If possible, cover the earth in the vases with moss, which retains its moisture, necessitating less care in watering. Let the bark remain on the supports, and the

FIG. 1.

more scraggy-looking they are, the better the effect. A few Morning-glory plants allowed to entwine about the support, will add much to the beauty of the whole. The arrangement in Fig 1. is a support for one vase only; and should be only about two feet above ground, and if in a settled situation, the vase may be filled with tall-growing plants.

L. D. Snook.

Yates Co., N. Y.

Miscellaneous.

CATALOGUES, &c., RECEIVED.

Register of the Vermont Merino Sheep-Breeder's Association, Vol. 1.—Somewhat over half-a-dozen years ago a large New England lock company was reported to have lost heavily by the issue of a very expensive catalogue of their wares. The edition of 2,000 copies cost them, it was said, $80,000, or $40 apiece. A copy of the work was presented, *gratis*, to each of their customers who bought $500 worth of their goods in a single bill, and the remainder of the books were kept on sale to the rest of the trade at cost price. Judging from the growing tendency towards artistic and expensive catalogues among those who wish to employ such compilations to introduce their goods to the favorable notice of the agricultural community, we are sometimes disposed to think that there is some risk that a few of these may share the experience of the getters-up of that costly lock catalogue. The size, the fine illustrations, the neat French-morocco binding, and the general make-up of the above-named work strongly suggested this reflection.

Besides an interesting account of the introduction of the Merino into the United States, and 22 excellent engravings of fine specimens of that breed—it contains full information with regard to the history and breeding of the various Vermont Merino flocks recorded in the book. Now that a lively interest is aroused throughout the country in pure-bred stock of all kinds, this publication is very timely, of interest to all sheep breeders, and of importance to the owners and intending purchasers of the oldest breed of all sheep—the Merino. The work is well edited by Albert Chapman, of Middlebury, Vt., Secretary of the Association, and is offered for sale at $2, which, we are assured, is a trifle less than the cost of the book and postage.

The Ensilage of Maize and Other Green Fodder Crops. By M. Augustus Goffart. Paris, 1877. Translated and published by J. B. Brown, 55 Beekman street, New York. Price $1.

This is a neat little book of 79 pages, printed in large type upon glazed paper, handsomely bound in imitation morocco, and containing a full account of the method of preserving fodder by ensilage, the way in which the plants should be grown, cut and stored away, the changes that take place in their constituents, and, in short, of every particular that might interest or instruct those who may adopt this excellent method of preserving stock feed. Just a word about translations of such practical works, designed for the use of the farming community. In mentioning the measures throughout the work the original French terms are used. It seems to us that these require translation into American equivalents just as much as, if not more than, the rest of the work. It is a poor excuse for this omission to point to the vocabulary prefixed to the work, wherein the reader may learn that a *litre* is equal to 1 76-100 pint or 61 cubic inches; a *centime* to one-fifth of an American cent; a *kilogramme* to 22.055-10,000 lbs avoirdupois, and a *hectare* to 2.471-1,000 acres.

Even a mere reference to this vocabulary must distract the reader's attention, and to "work out" into American equivalents the quantities and areas mentioned throughout the

FIG. 2.

work would be a labor too tedious, not only for most farmers, but for most readers of any class. Such a source of obscurity and incomprehensibility is hardly pardonable in quotations from foreign authorities, even in the short-lived pages of an agricultural paper, and should never find place in a work which, like that before us, deserves to become a standard on the subject of which it treats. The recent introduction of the metric system into most of our public schools will, doubtless, in time, obviate the necessity for such translations, but those who publish books to-day will scarcely be content to wait for their sale until then, and meanwhile it's hardly reasonable to expect that adult readers will hunt up smart school-boys or, better still, girls, to work out the sums.

Alfred Bridgeman, 876 Broadway, N. Y.: Annual descriptive catalogue of vegetable, grass, herb and flower seeds.

Mr. Bridgeman was good enough to send us a large assortment of novelties last season. These were planted and marked with usual care; they germinated freely, but were cut off by the late frost which, everywhere in this section, perpetrated so much damage. This is an old establishment, and a very trustworthy one. The catalogue is finely illustrated with accurate portraits, and the lists of seeds are printed in large type, with all needed details.

E. P Roe, Cornwall-on-the-Hudson, Orange Co., N. Y.: Descriptive Catalogue and Price List for 1879.

This catalogue is full of the information that the enterprising grower of small fruits most needs. All the best varieties of Strawberries, Raspberries, Grapes, Gooseberries, Currants, &c., are offered with impartial statements regarding their merits from many people and from many localities. We believe that Mr. Roe tries to tell the truth, a little matter that many small-fruit dealers disregard in proportion as the telling of it interferes with the sale of their plants. The catalogue will be sent free to our subscribers.

The American Stockman. This is a daily, semi-weekly and weekly journal; price, per annum, $5, $3 and $2 respectively; published by the American Stockman Co. at Chicago, Ill. It is devoted to the live-stock interests of the country, and the excellent character and wide experience of its editor, E. W. Perry, are ample guarantees that it will be conducted on high principles and in an effective and progressive manner.

State Supervision of Insurance. Speech of Hon. C. R. Knowles, made in the House of Assembly, New York, in support of such supervision; also, a pamphlet of 16 pages, giving the opinions of the various Insurance Companies in the State with regard to the matter, nearly all of them in favor of it.

D. C. McGraw, Binghamton, N. Y. Abridged catalogue of seeds, greenhouse and bedding plants, shrubs, evergreens, &c., for the Spring of '79. This, as well as his larger plant and seed catalogue, sent on application.

The Brazilian Tea—Cha-maté (Ilex Paraguayensis). This is an illustrated pamphlet of 19 pages concerning this new aspirant for cultivation in the extreme south of this country, by Charles Wm. Zaremba, M. D., etc., etc.

B. S. Williams, Victoria and Paradise Nurseries, Upper Holloway, London, N., England: Descriptive catalogue of agricultural seeds, &c. 65 pages, profusely illustrated.

Communications received for the week ending Saturday, February 8th.

J. W. L.—L. S.—F. H. D.—G. K.—M. M.—H. J. D.—E. W. S.—J. D. T.—M. G. R.—W. G. W.—I. O. W.—W.—J. J.—N. R. P.—W. I. C.—H. B.—L. S. H.—A. C. A.—C. W. B.—N. R. P.—P.—W. H. H. many thanks.—M. W.—J. W.—W. H. P.—F. McM. —V. D. C.—R. H. C.—J. J. W.—C. C.—W. R. B.—J. D.—E. R. W.—L. R. B.—R. W. F.—E. T.—R. I. W.—C.—J. T., It will take us at least six weeks to complete the present seed distribution. The corn will be distributed not until that is completed.—T. H. H.—R. G. J.—A. S. we do not care for poems.—Kitt.—F. D. C.—F. B. W.—M. E. A.—W. H. G.—J. D. H.—T. M. S.—S. M. S.—A. L. J.—T. E. L.—B. P. M.—Mrs. M. O.—E. G. thanks.—W. J. B.—Anon.—M. J. R.—W. H. H.—H. A. W.—H. S.—G. W. K.—S. E. H.—H. J.—

Industrial Implements.

CORN SHELLERS.

The Sandwich Manufacturing Company of Sandwich, Illinois, is said to be the oldest house engaged in the manufacture of Power and Hand Corn Shellers in the United States, it being now nearly a quarter of a century since they commenced that line of manufacture in a small way and with a few men. They now employ more than 200 hands and, at this season of the year, are taxed to their utmost capacity to keep pace with the demand. They make shellers of all sizes and capacities—from the large warehouse and portable sheller with capacity of 3,000 bushels of shelled corn per day, to the one-hole "Count" hand sheller, illustrated on this page, which has a capacity of 150 bushels per day. This and the "Veteran" sheller, advertised in this number, are probably best adapted to the wants of Eastern farmers and millers, while the larger sizes have an immense sale in the North and West and Northwest, as well as in many sections of the East and South, where corn is raised in sufficient quantities to warrant the use of a Power Sheller.

We recommend the Veteran Sheller especially, to the notice of those farmers who have use for a small Power Sheller of convenient size and capacity for general farm use. It is a machine that with proper care will last a lifetime, and may be operated by wind, horse, steam or water power, or by hand. We advise all who contemplate buying a sheller of any size or for any purpose, to write for their circulars

Sandwich Manufacturing Co's. Corn Sheller.

Everywhere.

NEBRASKA NOTES.

Yesterday I saw a neighbor buy a Dickey No. 2 farm mill for twenty-five dollars, on time at ten per cent interest. The mill is good enough, but I opine my neighbor must be exceedingly shrewd and fortunate, or a year hence, he will find his note a difficult one to take up. In this section there is no profit in extensive wheat growing. It demands expensive machinery—the drill, the harvester and the thrasher. Before the "labor-saving-machinery" era farmers were compelled to offer large wages to secure a hasty harvest, and without reason laborers to-day demand an exorbitant price if they handle wheat. Last summer, hands asked one dollar and fifty cents per day for handling nicely bound bundles of wheat, but were willing to handle heavy Hungarian hay all day for seventy-five cents. It occurs to me that the wheat-growing farmer uses machinery needlessly expensive. Every self-binder that comes into this county meets my mental regrets. Think of it—over three hundred dollars for a binder that is expensive to keep in repair and feed with a wire, and at best is used but a few days, leaving the farmer still to invest another hundred before he can cut his hay.

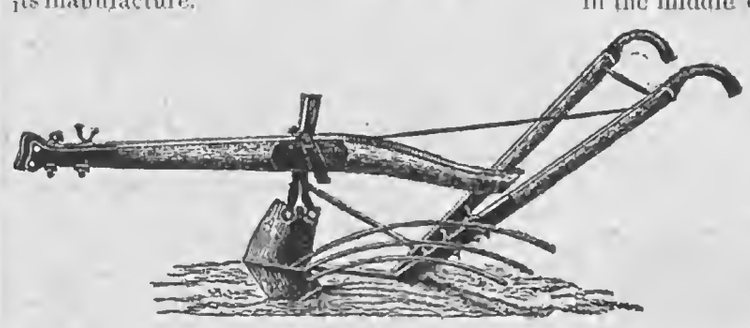
A history of the reaper from the time it was held in the yeoman's strong hands until it reached its present complicated form, would be full of interest. Let us look critically at one chapter in that history. The harvester carrying its crew of binders, sailed for a season over the cereal sea. To an ingenious man, the first perfect working harvester must suggest the doing with arms of steel what was often imperfectly done by the two or three binders. This actually occurred, and presto! "Orthello's occupation's gone." It was necessary to elevate the grain, wind or no wind, to suit the living binders' convenience, but why hoist it up in the wind to be bound in wire? I here throw out a suggestion, hoping that it may prove a bonanza to some grateful genius who will remember me with the materialized idea: Combine the binder with a table rake. When the gavel on the table is compressed ready to be delivered, tie it up and gently push the bound bundle off. Why not?

The next step is to cut hay with the same machine. My experience proves that a two-wheel machine is not the best for cutting grain, and a one-wheel machine is an imperfect mower. We have already learned to overcome that difficulty. I can name a machine that has two wheels when mowing—and a good mower it is, too, its only objection in my eyes lying in the fact that it is a rear-cut—but in grain harvest its two wheels are put side by side on the center of the axle, thus making it an equally good reaper. The two four-inch-wide mower-drivers make an eight-inch reaper wheel. What would be the gain in such a combination? 1. Two hundred dollars, or fifty per cent. on first cost of the machines. 2. A machine that would work well in the wind where many binders work badly. 3. One horse less in harvest, as no power would be consumed in useless elevating. 4. A trifle would be saved in grain by binding the gavels near the ground instead of binding them high up and throwing the bundles out of the way, thus shelling more or less grain.

PLOWS.

The Center—Nebraska is not in the West—has plows peculiarly adapted to the wants of its inhabitants. Our stirring plows, made of steel, are short, light and costly. The furrow slice is suddenly raised and pitched as much forward as sidewise, and tumbled upon its head, stubble and ordinary "trash" entirely disappearing. The longer mold-board of the East would seem to be of lighter draft, but it would not "stir" or pulverize as does ours. I say "would seem to be of lighter draft," for if those iron fellows of the East have not been materially modified since my boyhood days, our light steel plows would "get away with" them so far as lightness of draft is concerned, provided each moved an equal amount of earth. I notice a gradual change in the form of plows as annually sent out by the factories to this "plowman's paradise." Our breakers which are not intended to *break*, but simply to invert about two inches of the soil, have grown longer from heel to point, aiming to lift the slice as gently as possible, and let it fall over.

While the mold-board and land side have grown ridiculously long, the share or "lay"—as we call it—has grown correspondingly short. Our breakers now are divided into "square cuts" and "slanting cuts." The latter often have iron land sides with a piece of steel deftly welded to the heel, where there is the greatest amount of friction. The more slanting the cut, the greater necessity for the steel and a long land side. The question occurs, "Is not the friction that calls for the use of steel, a continual loss?" A square cut was patented and put on the plow, with gratifying results. It was found that the plow fitted in this way, was of about one-third lighter draft in the ordinary conditions of the soil than those without this device, and the difference was still greater when the ground was so dry that a "slanting cut" could not be used; for then the "square cut" worked excellently. It is expensive, however, and the land side is superfluous. An enterprising friend of mine has brought out another plow which he names the Eureka. It is not patented, and an ordinary mechanic can construct it without a heavy outlay. It is sold by the inventor for a dollar an inch, that is, a twelve-inch plow for twelve dollars, and a plow that cuts a furrow fourteen inches wide, for fourteen dollars. The accompanying cut shows its construction and may aid in its manufacture.



It would be poor economy, indeed, to incur the freight on such plows from a distance, as any good local mechanic can supply them cheaper than those made elsewhere can be furnished, with freight and other charges added to the cost of manufacture.

The advantages claimed for this plow are: 1. Lightness of draft; 2, it is a "dry ground breaker;" 3, the expense of keeping it sharp is ten per cent. less than that for the patented plow: and, 4, the first cost is thirty per cent. less. When the plow gets dull—which it will not do much sooner than a spade—it is sharpened on the blacksmith's anvil. Only two bolts are removed to get the plow ready for the smith. The rods cause less friction than the old-style mold-board. The strop of iron running from the horizontal cutter to the bottom of one of the handles, stiffens the plow and steadies it in running.

R. H. CRANE.

Orleans Co.

NOTES FROM SOUTHERN TEXAS.

As regards the fruit and nursery business in Southern Texas, the following extract from a friend's letter of January the 20th, may interest some RURAL readers. He lives in Washington Co., on the Austin branch of the Texas Central R. R., and in a lovely country—rolling prairie considerably broken by timber belts—about 11 miles west of the Brazos River. The soil is sandy and black sandy, inclining to hog-wallow along branch and creek bottoms.

"A good many trees are sold" (by agents—W. F.), "but the collections are uniformly deficient. * * * We are planting nursery stock in the field below the R. R., and which we recently bought—soil, a black sandy; but I think the cut-leaf ants and the poisoned spots in the land are as bad there as anywhere else. These two things, with some others, are the peculiar curse of this country. (They are. Cyanide of potassium dissolved in water, and a little poured into the mouths of their holes, kills a multitude of ants, but it must be repeated weekly, and the cost of time in applying it is a great consideration. They may also be dug out, flooded out, and fumigated in their towns, but altogether their annihilation is a tedious, laborious and expensive job,—far better settle where such a curse does not exist. For the 'poisoned' spots in the land, I never knew a cure.—W. F.) Trees and plants are continually dying out. Very many pear and apple trees in our orchards, and which a few years ago were very promising, are now dead, and I think a year or two more will finish all. A year ago we planted a new peach orchard of 5,000 trees—mostly Amsdens and Alexanders. They have grown well. It was a timely plant, as the old peach orchards are nearly run out. None of these cultivated fruits seem to be durable in this soil and climate, not even the Peach, which has always been claimed to be specially suited for Southern soils. We had an abundant crop of peaches last summer, but got nothing for them, as the country was full of peaches, many young orchards just coming into bearing, and the few small cities in the State require but few fruits, and St. Louis is too far off, and rates thither too high to ship. The present promise for fruit is not good; our trees are mostly run out and many of them half-dead; many of them blossomed in December, when the last half of that month was quite cold. This phenomenon of late fall blooming also occurred in the Long Island orchards, as I notice in the newspapers. The present winter, so far, is unusually cold and rainy. All our soft-wooded plants froze in the greenhouse,—we have a greenhouse but no heating apparatus in it. * * * We were much frightened all last summer because of the yellow fever, but had none of it in the State, so far as I know. * * * I read in the papers of snow four feet deep in Central New York, which is my old home. No snow here at all, but in the northern part of the State there are from four to ten inches, and in some places ice has been cut and packed. Times are hard here, money scarce, wages low; nobody has money but the three-per-cent-a-month men and the Jews. A good crop of cotton, but prices so low—six to seven cents—that it is a loss to raise it, but it is the only thing to make money out of."

WILLIAM FALCONER.

RURAL SPECIAL REPORTS.

KANSAS, Parsons, Labette Co., Jan. 27, 1879.—A sudden and great change has come over the spirit of the weather. The sun and southerly winds operated the whole of last week, and though the temperature rose to 58 dg. and 62 dg. in the middle of the days in the last of the week, it required the full week to liquefy the snow, which rested upon a couple of inches of ice. There is not a vestige of it in sight. It remained on the ground just six weeks. Though an inexperienced person might naturally think to-day, that winter was gone, this would be a wrong conclusion. We shall yet have several cold snaps, but in future the sun will quickly put an end to them. Fine days here in the spring and fall, are quite illusory. A stranger was here one day in late December, (not 1878). He sat with his friend on a sunny bank, and the new-comer was surprised beyond measure at the bright warm sun, and the soft south wind. He would write straight home about the delightful country. The friend told him to leave room for a postscript. They met the next morning, one running *from*, and the other *right into* the teeth of a bitter northwester. "Did you send off your letter?" asked the friend. "Yes," said the stranger, "and the postscript, too."

It is quite probable that the wheat in this latitude will be thin, as the seed did not germinate well: still, the sanguine newspapers represent that it looks well, etc. The acreage is probably one-fourth less than that planted last season. Of course, corn, potatoes, etc., will occupy the place where wheat was last year. Owing to a very inferior yield of all farm products in this (south-eastern Kansas) section, and the low prices of grain and stock, farmers are in a very bad state. But we find they are no better eastward. Taxes here are not heavy, say 2½ to 3 per cent. on a 50 per cent. valuation. If not paid when due, then follows a penalty of, say, 24 per cent. every six months, and penalty and taxes failing to be paid, the property—real—is sold, and if not redeemed, will be lost. Execution issues immediately for personal property tax, if not paid when due. Many farmers have mortgaged their farms, and a great many mortgages are being foreclosed.

The land is entirely destitute of swamps and only an exceedingly small portion is not available for cultivation, this portion being stony. The country is beautiful, all the streams running between the rolling prairies, being fringed with trees. The climate is that of the Indian Territory—from the north line of which we are only 20 miles distant—and is not excelled in the Southwest, except on the Pacific Coast. People living off the "bottoms" escape the malaria, and when cultivation becomes general, the country will be more free from such diseases than Illinois or Indiana. We are 965 feet above the sea. It seems a little singular that no one is sun-stricken here. The oldest physicians have never known of a case. The highest point of the thermometer last year was 98 deg., and with a heat over 86 deg., we always have good breezes. Our nights in summer are invariably luxurious. I have never known a case of hydrophobia here, and in all conscience we are not in want of dogs. J. B.

TENNESSEE, Humboldt, Jan. 28.—A general thaw has set in hereabouts. During the past week the mud and slush have been simply awful. We are now having spring-like weather with thunder showers. Bull-frogs are croaking lively, as a sort of bass accompaniment to the cheeringly melodious songs of the mocking-birds. Elms, Maples, evergreens, etc., are pushing out their buds and blooms. We count this a hard winter, however. Since the first of December ice and snow have been abundant all the time until quite lately, the thermometer varying from freezing point down to zero, and several times dipping down 5 deg. below that. Stock and small grain are looking well. Provisions are abundant and at low rates. Pork, 4c. per lb.; bacon, 6c.; flour, 2½c. to 3c.: corn, 50c. per bushel; wheat, $1; potatoes, 50c. to $1; apples, none in the market: cotton and tobacco are going at very low rates. Lands, if at all salable, bring only half former prices, and rent for less than half of old-time figures. Yet, on the whole, the outlook is encouraging. Frugality and thrift—and these virtues only—can get us out of our troubles. B. F. T.

N. Y., Corning, Steuben Co., Jan. 31.—The weather is now very pleasant and the snow is nearly all gone, except in sheltered spots and along fences; but we shall likely have more before long. Until within a few days, it had been quite steady cold since the fore-part of December. We have also had quite good sleighing since about that time, which is something quite unusual for this locality so early in the season. Every snow that has fallen has been very dry and the wind piled it badly up beside the fences and into the roads, so that in many places the roads have been abandoned altogether, and teams have gone around through the fields. It has been a good time for lumbering, and those who had much teaming to do, have been quite busy. The snow came so early that but very little frost is in the ground. Prices of produce seem very low, but when compared with those of most articles which the farmer has to buy, they stand about the same as during several years back; that is, five dollars' worth of produce will buy nearly, if not quite, as much now as five or six years ago. Hay is selling for $5 to $7 a ton. F. H. D.

MAINE, Paris, Oxford Co., Feb. 6.—Plenty of snow for the lumbermen in the northern part of the county. The Lewiston Steam Mill Co. propose to land over 5,000,000 feet of spruce and pine on one of the Rangeley lakes the present winter. The farmers are getting about 75 cents per bushel for potatoes, which are taken by railroad to the Boston market. Several thousand bushels have been sent from this county. The Early Rose command from 5 to 8 cents per bushel more than other kinds, a fact which proves it pays to raise improved kinds of potatoes. The farmers of this State propose to give the corn crop extra attention the present year. It has been proved that good corn can be raised in this State at an expense of 41 cents a bushel. The proprietors of the Lewiston Journal, the leading paper among the Maine farmers, have offered a cash premium of $50 for the best acre of corn raised in the State in 1879. This paper advocates the raising of more corn and wheat at home and sending less money for these products to the West, though the railroads receive the larger part of it for freight charges. S. M. D.

ILLINOIS, Rockford, Winnebago Co., Feb. 3.—We have had a fine winter with from 12 to 14 inches of snow, and six or seven weeks' good sleighing. There have been no bad storms or snow drifts to interfere with traveling. We have had some pretty cold weather, however, the mercury having dived down 20° below zero several times. That wonderful piece of vertebra, the winter's backbone, has now been broken, however. For the last ten days a warm thaw has destroyed sleighing, but left us excellent wheeling. Last season the crops were all good in this county, except potatoes, and of these there was an abundance raised for our own use. Our grocers are now retailing them at 60c. per bushel. In our wholesale markets wheat is selling for 75c. per bushel; corn, 23c.; rye, 40c.; oats, 20c.; hogs, $3; beef cattle, $3.50@3.75 per cwt. We have lost a good many hogs by hog cholera. J. D. H.

MAINE, Brooks, Waldo Co.—The winter, since New Year's, has been steadily and at times severely cold. The mercury has been down to 24° below zero. Stock of all kinds is doing well at the stables, and there is no epidemic disease throughout our borders. Hay is worth $6 to $10; butter, 8c. to 16c.; eggs, 22c.; cheese, 8c. to 12c.; corn, 55c. to 60c.; potatoes, 65c. to 80c.; and stock rules low. The Legislature, which is now in session, proposes some needed reforms in cutting down salaries and curtailing needless expenses. There promises to be considerable immigration to the newer lands in the Northern part of the State, about equal to the emigration that will leave us for the West. With the increase in production of wheat and corn, that has taken place in the past ten years, carried forward for the next ten years, Maine will produce her own bread and corn. J. W. L.

ILLINOIS, West Jersey, Stark Co., Feb. 3.—This winter we have had more snow and better sleighing in this State than white folks have ever had since the departure westward of the red man. Although we have had some pretty severe weather, I think the farmers have enjoyed this winter better than last. Our first snow was on the 8th of December, and ever since we have had good sleighing until the last three or four days, during which the snow has been rapidly thawing, so that now sleighing is pretty well over for the present. Produce is very low and farmers complain of the scarcity of money. M. E. M'C.

ILLINOIS, Risdon, St. Clair Co., Jan. 31.—We have had the coldest spell of weather this winter that we have had for years; the thermometer reaching 17° below zero on the morning of the 3d inst. So far as we are able to learn, fruit is injured badly, and a majority think the Peaches are all killed. There is no question but that the weather has injured wheat, as the cold spell commenced with sleet, and the drill rows were all filled first with ice and then with snow. There is very little wheat held over here, nearly all the farmers having sold all they could spare. A very few, however, are holding for better prices. N. J. S.

CANADA, Oxford Co., Ontario, Jan. 29th—We have had steady winter weather for the

last six weeks; a big bluster occasionally, but no thaw; lots of snow and that badly drifted. Times were very dull, but they have improved a little on the arrival of the sleighing. A good many men are still out of work; wages 50c. per day and board. Prices are as follows: wheat, 70@88c. per bushel; barley, 40@60c.; oats, 28c.; peas, 50@60c.; corn, 50c.—not much grown;—hay, $8 per ton; beef, 4@5c. per pound, live-weight; pork, dressed, $3@3.50; potatoes, 80c. per bag; apples, 50@60c. per bag. We think prices have touched bottom.

G. K.

ILLINOIS, Hugo, Douglas Co., Jan. 31.—It is hard to describe the straitened monetary condition of our people hereabouts. Even among those considered our wealthiest citizens it is no easy matter to collect even small debts. "No money" or "wait a little" is the usual answer to a request for payment. If the farming community could only be induced to take the RURAL, or even an inferior agricultural paper, and to act upon its teachings, I feel confident that they would be in a fair way to better farming and easier times. Prices are: corn, 18c; potatoes, 50c; wheat, 75c; apples, none for sale; oats, 12½c; hay $3.00 per ton (!!!); hired hands, $10 to $15 per month; land, $20 to $30 per acre; hogs, $2.10 per 100 pounds. Every thing is low, even our spirits.

A. C. W.

LABORERS' WAGES AT MEMPHIS, TENN.—With reference to this subject a friend—a business man of Memphis—writes to me as follows:—"Wages are low here. Negro men get from $8 to $12 a month. The best white labor—and people are cautious about hiring white labor on account of so many men representing themselves as laborers who have never done an honest day's work—commands from $12 to $15 or $16 a month, with board. It takes the very best labor to bring the outside figures."

W. F.

KANSAS, Phillipsburgh, Phillips Co., Jan. 25.—The early sown fall wheat looks well, but the late sown is thin on the ground. The weather was so dry here in the fall that it did not all come up. Wheat is worth, in Phillipsburgh, 30c. to 40c. per bushel; corn, 35c.; oats, 30c.; potatoes, 25c. to 30c.; butter, per lb., 15c.; eggs, 12c. per dozen; cows, $20 to $35 each; horses, $75 to $100; draft cattle, $100 per yoke. The Yucca filamentosa, or Soap Plant, grows well here, so do the Sensitive Rose and many other nice flowers.

V. B.

KANSAS, Oxford, Sumner Co., Feb. 3.—I do not think that men who have homes and families should allow themselves to be overcome with the mania for coming West—as many do. We do not want maniacs. We have plenty of room, however, for those who read such papers as the RURAL, and after fully investigating the matter, come hither as a matter of business. For such men there are plenty of business openings here.

G. T. W.

TEXAS, McKenny, Collin Co., Jan. 30th.—Weather warm and beautiful. Corn plowing and preparing for spring planting.

W. M. N. W.

The Poultry Yard.

CARE OF POULTRY IN WINTER.

FARMERS often complain that poultry are nothing but a bill of expense in the winter. As managed by some farmers who make their hens roost on trees, it must be confessed that hens make little return, but this is not the fault of the hens but of the owner of the flock. If a man wants eggs, he must get a good breed, give them comfortable quarters and suitable food. Hens are egg-making machines, and they will turn out just as many eggs in winter as in summer, if they have proper care. Eggs are worth twice as much in winter as in summer, so it is worth while to take some pains to have the production as great as possible. Some persons feed their poultry pretty well, but they give them no egg-shell material. To furnish the raw material for manufacturing egg shell, I have never found anything better than bones, and clam or oyster shells pounded fine. Hens should have a mixed food—corn, oats, wheat, rye, buckwheat, etc. Thick sour milk with wheat bran or boiled potatoes, fed warm, makes an excellent food on winter mornings, for laying hens. Six or eight years ago I kept Brahmas, Cochins, Hamburgs, etc. One day my father said, "Why don't you get the White-Crested Black Polish fowls? They were the best I ever had." I bought a trio, paying $12 for them. Now, I have five years' experience with them, and I have found out that they have more good points than any other breed I have had. In the year 1877, I had twenty-five hens and they laid 4,575 eggs—381 dozen, or 183 eggs per hen. In the year 1878 I had twenty-five head again, and they laid 4,250 eggs—354 dozen, or 170 eggs per hen or pullet. In the year 1877 I had more pullets than in 1878. Some of my neighbors keep White Leghorns and their hens averaged only 150 eggs per hen.

Mohigh Co., Pa. D. N. KERN.

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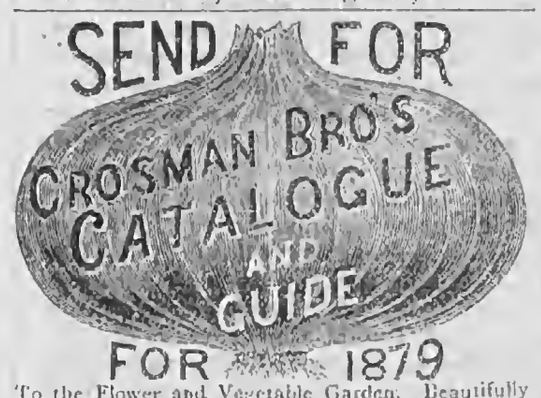

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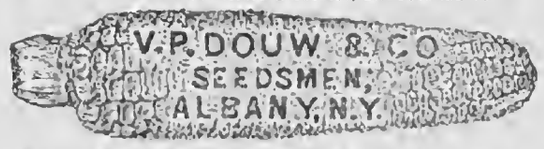

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Thousands of plant cuttings and seeds have been distributed free to subscribers during the past year—and our present Free Distribution of Seeds will, we believe, when they shall have been tested, be regarded as the most liberal offer of the kind ever before made.

Pearl Millet and Defiance Spring Wheat (now selling at not less than $15 per bushel each)—the Beauty of Hebron Potato—Golden Rural Tomato, Bronze Ricinus and sixteen varieties of seeds of our choicest hardy shrubs (most of which are not offered for sale), will be found in our present collection. (See page 113.)

Pres. T. T. LYON of Michigan says:—"*The* RURAL *is the best paper I see.*"

Sec'y C. W. GARFIELD of Michigan says:—"*I find that the* RURAL NEW-YORKER *has more things in its columns that I want than any other paper I take.*"

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Dr. E. LEWIS STURTEVANT of Boston says:—"*The* RURAL NEW-YORKER *has the best list of contributors of any paper of its class in the country and is doing a noble work.*"

S. RUFUS MASON of Nebraska says:—"*I feel that I do not flatter anybody when I say that it is the* BEST *journal of its kind that I ever saw.*"

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THE
RURAL NEW-YORKER.
PUBLISHED EVERY SATURDAY.

Address
RURAL PUBLISHING CO.,
78 Duane Street, New York City.

SATURDAY, FEB. 15, 1879.

The several statements in our columns to the effect that we intend to send trial lots of corn to our subscribers, have brought us a great number of premature applications. Now we beg to state that, being in the very midst of our other free seed distribution, we CAN NOT *regard these applications. The announcement in relation to the corn will be made in a few weeks. As we believe, the variety to be offered is the most prolific of any hitherto cultivated. It was for this reason that we have hastened to secure a quantity sufficient to supply every one of our subscribers who may apply with enough to give it a fair trial.*

We will be pleased to send one or more copies of the RURAL NEW-YORKER *free to any of our subscribers sufficiently interested in its welfare to be willing to hand them to their neighbors for inspection. An intimation by postal card will suffice.*

We earnestly request that all letters containing money, or any communication intended for the BUSINESS DEPARTMENT *of the paper, be addressed to* THE RURAL PUBLISHING CO., *and not to any individual. We cannot otherwise guarantee the prompt entry of names upon our books, or the acknowledgment of money.*

Applicants for seeds will please observe that the postage on ANY POSSIBLE *selection of* TEN *sorts of seeds,* IS NEVER *more than* FIVE *cents.*

A ONE-CENT *stamp suffices for any selection of ten varieties* EXCLUSIVE *of the Beauty of Hebron potato, Pearl Millet and Defiance wheat. If the first of these three is included in the list, then a two cent* EXTRA *stamp is needed, and if the second and third are included, an extra two cent stamp is also required.*

OUR readers are particularly requested to read the particulars of our free seed distribution on p. 113, under publisher's notices, before ordering seeds.

LESSON OF THE FAT-STOCK SHOW.

THE rapid progress made during the last two years in opening a profitable market abroad for our best live cattle and best fresh beef in the quarters, makes it more important than ever before that the American farmer should study carefully the laws of animal growth. And it may be considered most opportune and fortunate that a fat-stock show was instituted which has demonstrated one of the most important of these laws. The saving of even two per cent. in the manufacture of cotton goods often makes all the difference between loss and liberal dividends. Taking a hint from this, the farmer may easily find in his business a leak of from 10 to 50 per cent.

Let us take a look at the facts disclosed at the late Fat-stock Show at Chicago. Here we must expect to find only cattle that have been well fed and have lacked nothing to make them fine specimens of their breed and age. They were brought there to compete for high prizes, and, having been of different breeds and ages, a careful study of them will disclose some important facts which may be generally applied to cattle feeding. We desire our readers to make a careful review of the prize animals, published on page 8 of this volume.

The RURAL has often called attention to the fact that profitable beef raising can only be found in *early maturity*. This show gives such remarkable examples of this point that we have taken the average of four classes of Short-horns and their grades, animals of about equal merits for beef. These being prize animals and all fed to the best advantage, illustrate in the most admirable manner the effect of age on profit in feeding. We have arranged them accordingly in classes of four each, as follows:

	Average age. Days.	Av. weight. lbs.	Av. gain per day. lbs.
4 Steers,	669	1,420	2.13
4 Steers,	967	1,637	1.74
4 Steers,	1,281	2,166	1.69
4 Steers,	1,890	2,332	1.32

Here is a lesson of the greatest value to every feeder. It shows conclusively that it costs much less per pound to make beef when the animals are under two years old than when they are beyond that age. It may be said that in each succeeding month in the life of a steer, it costs more to grow a pound of beef than in the preceding one. But the falling-off in gain per day does not include all the loss—scarcely half of it. If the reader will examine this table, he will see that between 669 days and 967 days, or for 298 days, the steers only gain 267 pounds, or .89 of a pound per day, instead of 2.13 lbs. per day; but the steers will eat at least 30 per cent. more during these 298 days than during the same number of days of the previous period, so that each pound of flesh put on, will cost more than twice as much per pound for the second as for the first period. And during the next period, it will cost still more to put on a pound of growth; and this cost increases the older the animal grows until it reaches full maturity.

The philosophy of this increase of food is found in the fact that the older and heavier the animal grows, the more food it takes to keep up animal heat and supply the waste of the system. This waste constantly increases according to the age of the animal, and thus, whilst the food necessary to support the animal is constantly increasing, the part of it applied to meat production is constantly decreasing, and upon the food of meat production depends all the profit.

Every farmer ought to see from this illustration, that all his animals intended for meat, should be pushed without any standstill from weaning age to market day.

CHANGE OF SEED.

IF not already done, it is none too soon to look out for good seed for the crops of the year. The farmer may be a good one. He may have saved his own seed for many years in succession. He may have continued to improve it. This is all right and proper, but *a change will be a benefit, or rather he will gain a large percentage in the yield by obtaining seed of the same variety he now raises, and then mixing it with the seed kept for years on his own place. The advantage of this mixture will not be apparent until the second year. It will be less and less apparent for several years after.* The ideas expressed by the words in Italics are not the outcome of guesswork or theory. They are the result of many experiments made for ten or twelve years by Mr. Charles Darwin. Professor Beal has also lately made some experiments in the same direction, showing a great advantage in mixing seeds of the same variety grown in different places. He promises to furnish us the result in a few weeks.

OUR SEEDS.

WE shall be sadly disappointed if our friends do not meet with gratifying success with the seeds we send them. With the seeds of Weigelas, Deutzias, Yuccas, Hibiscus Syriacus, H. Moscheutos, etc., etc., we have never had the least trouble. They germinate under ordinary treatment and the young plants transplant well and thrive lustily. Many of them will bloom the second season, which is all they would do if the plants were purchased from the nurseries. Besides, and this has always been to us a fascinating part of seedling culture, some of them will so differ from the parent plants as to constitute distinct varieties. Again, they are all of them hardy and are generally looked upon as among the most desirable shrubs for our gardens and lawns.

We shall send these seeds to thousands of rural homes throughout the country, and we hope that two years hence, if not before, we shall have abundant evidence that the endless botheration and expense which attend these distributions have not been in vain.

Agricultural Report for 1878.—We wish the newspaper editors who have been disparaging the fitness of Gen. LeDuc for the office he holds, would read his last report, extracts of which appear in this and the last issue of the RURAL. He has been blamed for suggesting the introduction into general cultivation of several plants which his critics do not think could be profitably grown in this country. Some of these, they say, have already proved failures here, which is true; and others, from their own inward consciousness, they are certain will not succeed; but we are all fond of boasting that this is an age of rapid progress, and hence the failure of an enterprise in the past should hardly be deemed conclusive of its failure today. And with regard to the untried plants, whose adaptability to our present agriculture promises profitable additions to our list of products, an opening for the employment of our superabundant labor and a help in our present distress, wisdom and common sense demand a trial for them, and this is all the Commissioner asks. We cannot help thinking that political prejudices rather than the good of agriculture have prompted many of the low attacks upon Gen. LeDuc which have been made from time to time.

Geranium sanguineum.—We are obliged to discontinue our offer of seeds of this plant. Anticipating our supply would fall short of the demand, we sent an order for a quantity to Mr. B. S. Williams, of London, and to the Lawson Co. of Edinburg, requesting that if they could not fill the order, they would endeavor to procure the seeds from other seedsmen. The reply is that, in spite of diligent inquiry, they are unable to send us any. It is strange that our American seedsmen seem to know nothing of this desirable plant;—desirable, because it is everblooming and perfectly hardy; because its leaves are pretty and nearly evergreen; because it spreads over the ground; grows compactly and leaves little to be desired for bedding purposes. We shall increase our stock as fast as we can, and again offer seeds of Geranium sanguineum to our subscribers in the fall. Meantime we request all who succeed in raising plants to save all the seeds which their plants bear.

BREVITIES.

QUESTIONS and Answers are crowded out this week.

THE distance of only twenty feet apart is now advocated by several good apple growers.

"BLAME is bestowed by those who wish you prosperous and those who fear that you will be so."

MOST of our readers are not aware of how beautiful the finest strains of the dwarf, double Hollyhocks are. There is no other flower that has been really improved by florists more than this.

"NOT to distort nature," says Mr. Meehan, "but to encourage her towards her best efforts, is surely a worthy object of the garden art,"—which means that "nature must be judiciously directed by art."

WE are thinking about offering to our subscribers a premium for the largest yield of corn from the seed we propose to send those who apply for it. In this case we shall be careful to send the *same* amount to all.

THE CORN number of the RURAL NEW-YORKER will be issued next week or the week after. In it notice will be given of our free distribution of what we call the most prolific variety of corn in cultivation, for all sections to which the variety is adapted. We have secured a sufficient quantity to furnish all our readers who apply, with enough to give it a fair trial.

N. Y. STATE DAIRYMEN'S ASSOCIATION AND BOARD OF TRADE.

IT was my privilege some five years ago to attend Dairymen's Conventions throughout the country and catch the drift of the general discourses on milk, cattle, cheese, butter and kindred subjects. After returning to my home in Kentucky, I was asked to explain some of the fresh thoughts I had brought back with me. My reply was that had I been visiting some old lady in central Kentucky, I would have heard the same old story on butter-making that the very learned butter expounders of the North had been pouring into the ears of their confiding listeners.

I return after five years and sit in convention and listen to the same old story, "Come here, my child, and I will tell you the story of my wedding-day," certainly something fresh and startling! Such was my experience on my first visit to Utica.

Everything was serene and happy. The Convention was evidently gotten up for harmony. But let us change the scene. A few weeks later I attend another Convention at Utica. Here there is no effort at harmony. Men are at liberty to say just what they think. The market for twelve months has been in a ruinous state of depression. Men are sick of flattery, and getting hungry for the truth. Seeing the necessity for looking things squarely in the face, President Folsom brought together the freshest, brightest, most original and independent speakers it has ever been my pleasure to listen to. In a clear-cut and manly manner, in his opening address, he set forth the prime necessity for a lessened supply or increased demand in the cheese market. With a merchant's mind directed to the latent power of organization, he pressed the dairymen to form county associations, just as merchants form their boards of trade. He told the farmer in no flattering terms, that while Canada was improving in the quality of her cheese, the makers of the State of New York were absolutely deteriorating in the quality of theirs; while the West was a dangerous competitor. He impressed upon the farmer the importance of making a more solid cheese that will ripen quickly, and yet stand a trip across the Atlantic in summer without deteriorating in quality. At the same time he called attention to the fact that cheese made now is ripened in ten or fifteen days, while in former years, twenty-five to thirty days were considered none too long for perfect curing, to which change may be attributed the bad keeping qualities of this season's make.

A letter to the Convention was read from Mr. Henry Kemp, one of the oldest dealers in New York City, treating of the export trade from 1840 to the present date. He divided the subject into five epochs, tracing step by step the gradually accelerating exports from the beggarly sum of 11,666 boxes in 1840 to the flood of 2,133,225 boxes that overwhelmed the market in 1878. [If the quality had only kept pace with the quantity, America would be the foster-mother of the world.] Mr. Kemp is evidently a great admirer of the commercial laws of England, and makes the capital point that how can we expect the English artisan to buy our goods if we make laws refusing to receive the products of his handiwork. In other words, if you do not buy of him, he will not have money with which to buy of you.

H. K. & F. B. Thurber made the convention a present of one of the fine Cheddar cheeses that took the premium at the International Dairy Fair. This was cut and handed round to the cheese makers, who were taught a good lesson by being able to compare their own make with this sample of the finest product of their competitors. The letter called attention to the necessity of our makers studying the tastes of their English customers; and while it praised the intelligence of the American farmer as being much above the average, at the same time he must not imagine that his English competitor is standing still, and the progressive thought abroad was evidenced by an English address, freely quoted, and full of warning to the English farmer.

THE PHYSICAL REACTION OF MILK.

This subject was treated very cleverly by Mr. O. S. Bliss, of Vermont. Much of this address was scientific and related to the conflicting statements of our speculators on the component parts of cows' milk. Mr. Bliss gave us his original ideas on the manner of testing skim-milk to tell whether or not all the cream had been taken from it. Taking first as a standard, the heaviest skim-milk reported in the books, he found that his method of cooling milk had produced the heaviest skim-milk on record and, arguing *a priori*, he had produced the most perfect method of creaming milk, yet discovered. This paper called forth pretty general discussion, showing that the dairymen's ideas are by no means a unit on the all-important subject of raising cream.

EASTERN AND WESTERN BUTTER MAKING.

This was a paper read by L. S. Hardin and consisted in drawing a strong contrast between the two rival methods. It was shown by a paper read at the late American Dairymen's meeting, reciting national statistics, the subject having been illustrated with maps, that New York was not only the most prosperous, but the very center butter-producing district of the country. Mr. H. called attention to the fact that these statistics were taken from the Government report for 1870, nearly ten years ago, while the daily quotations in the New York papers show that Western butter is selling from six to eight cents a pound in advance of Eastern or New York make. The New York Dairyman has his cows all come in fresh in the spring. The milk is all produced when butter is hardest to make and selling at lowest market rates, thus requiring that it should be held over and come into the market "strong and venerable with age." Against this old obsolete method the Western farmer works his cows the year through. His butter is made from cream that is sweet and pure, and is shipped in refrigerator cars and reaches the consumer when hardly three days old, "fresh and rosy as the blushing morn."

CONSUMPTIVE DEMAND FOR DAIRY PRODUCTS.

This subject was treated by Mr. X. A. Willard in a most exhaustive manner. To say it was the best paper I ever heard Mr. Willard read is paying it a high compliment indeed. Now that the conflict between the English and American cheese-makers had begun in earnest, he felt cheerful with regard to the result in view of the progressive spirit of our dairymen, and especially the cheap cow feed of the West. We must, however, keep a strict eye to the question of quality. He called attention to the fact that while the Englishman consumed 16 pounds of cheese per annum, we use scarcely one-fourth of that quantity. Our cheese-makers must make the finer brands and in greater variety for the home market. He spoke with earnestness against going back to the old method of making cheese from sweet curds, giving at length the history of the rise and decline of this heresy.

COST OF PRODUCING CHEESE IN 1878.

This was the subject handled by Secretary Gilbert with the cautious care due to figures. By means of printed circulars he had gathered reports from a host of farmers, showing exceedingly close work for this season. The cost of production per cow was, gross, $39.70, while the gross money product was $47.25—no very encouraging exhibit, it is true, but as the cost came mostly out of his own labor and farm, the farmer is able to stand it. There were many interesting special items, but there is not room to report them. H.

EXTRACTS FROM THE REPORT OF THE COMMISSIONER OF AGRICULTURE.

(Concluded from last week.)

The sugar thus obtained was very greatly improved in appearance by the addition of five or ten per cent. of water, and stirring it into a mush, and again subjecting the mass to pressure, by which operation the adhering molasses was almost entirely removed, and the sugar obtained was, in the case of sorghum, nearly white, while in the case of corn it was of a rich golden yellow. I may add that in no case, either with corn or sorghum, did I fail to obtain satisfactory results in the way of crystallization, although, of course, the molasses still contains a very large percentage of crystallizable sugar, which will, at least, in great part, be obtained by further concentration. . . .

The point which these experiments have fully settled is, that there exists no difficulty in making from either corn or sorghum a first-rate quality of sugar, which will compare favorably with the best product from sugar-cane grown in the most favorable localities.

After a few minutes the sediment from the juice subsided, and by means of a syphon the clear liquid was decanted off, leaving a muddy sediment which was equal to about one-tenth to one-twentieth of the bulk of the juice. This muddy sediment was then drawn off by means of a stop-cock, and filtered through a plaited-bag filter, and the clear filtrate therefrom was added to the liquid previously syphoned off.

The clarified juice which, during the above operation, is not allowed to cool below a temperature of 66 deg. Centigrade, or 150 deg. Fahrenheit, was now emptied into the evaporating pan, and there was added to it, with stirring, a solution of sulphurous acid in water, until the lime present was neutralized, as was shown by the reddening of litmus paper when it was dipped in the juice. The evaporation was now hastened as much as possible, and the juice concentrated to a sirup at a boiling-point of 108 deg. Centigrade, equal to 226 deg. Fahrenheit, or thereabout. . . .

On account of the trouble in stripping the stalks, experiments were made with stalks unstripped, the tops alone being removed, and these experiments appear to prove that this troublesome operation of stripping may be avoided without any diminution of the amount of juice or of sugar obtained therefrom.

Below are the results obtained from stripped and unstripped sorghum, calculated to the raw stalks used.

By raw stalks is meant the stalks as they were cut in the field, leaves, tops, and all.

	Average per cent. of juice to raw stalks.	Average per cent sirup in juice.
Stripped sorghum (Nos. 5 and 6)....	35.02	15.00
Unstripped sorghum (Nos. 7 to 11, inclusive).....	40.60	15.47

The character of the maize and sorghum operated upon still remains for consideration. As has been already stated, the maize-stalks had been stripped of their ears three or four weeks before they were cut for the mill. It is much to be desired, and is contemplated in the further experiments, to determine whether this was the time when their content of sugar was at the maximum. It is by no means improbable had they been cut when the grain had begun to form, and was still in its milky state, that the product of sugar would have been greater. At least further experiments are needed to learn at what time the stalk may be most profitable as a sugar-producing plant. . . . . The experiment with millet, already mentioned, gave very interesting results, and it promises to be a new sugar-producing plant of considerable value. . . . By the treatment of this juice by the process already described, 24¾ pounds of juice yielded 2¼ pounds of sirup, which speedily crystallized, yielding an excellent sugar, which polarized 92°.

An experiment was also made with a small lot of sugar-beets, received from F. D. Curtis, of Charlton, Saratoga County, New York, the object being to learn whether the process for the preparation of sugar from corn and sorghum, as above described, was applicable to beets; 14.5 pounds of sugar-beets were ground up, and 7.87 pounds of juice were expressed, having a specific gravity of 1080. This juice yielded a sirup which crystallized readily within twelve hours, and yielded .61 pound of sugar, which polarized 91°.7, and .58 pounds of sirup, from which an additional quantity of sugar may be doubtless obtained.

SILK CULTURE.—Last spring, through the courtesy of Mr. Long Tsuda, a valued correspondent in Japan, the department was presented with a few cards of the eggs of a kind of silk-worm known as the *Yana Gawa*, a valuable race, producing a small white constricted cocoon. The worms were fed on three different species of *Maclura*, or Osage Orange, and on eight different species of Mulberry, as well as on some other allied plants, by way of experiment. Another race that has been fed for the last eight years on Osage Orange by Professor Riley was also grown. A part of the silk from these worms has been reeled in this country by Mr. L. S. Crozier, of Silkville, Franklin County, Kansas, and proves to be of the very first quality. But the most interesting fact in connection with these experiments is that the silk produced from the Osage-orange race, which was originally a cross between the best French and Japanese worms, actually proved superior in quantity and equal in quality to that fed on Mulberry. . . . There can be no question as to the adaptation of the larger part of our country to the silk culture, or of our ability to grow the worms successfully. Experience has established these two facts, as it has the superior quality of American-grown silk. It is not so necessary to urge the cultivation of the Mulberry as it is to establish first a market for the cocoons. In some parts of the South the best of white mulberries are already grown in large orchards, for the sake of the fruit, which is deemed most valuable food for hogs, and in case the Mulberry trees already grown should at any time be cut off by mildew and disease, as they were at the close of the Multicaulis fever in 1839 and 1840, we have the advantage over Europe and other countries in being able to fall back upon the *Maclura*, which proves, when judiciously fed, to be as good as Mulberry.

TOBACCO CULTURE.—The tobacco crop does not promise so large a yield this year as last, but the quality is much superior. Later returns are necessary before any estimate of the quantity can be made. . . . The following table presents the number of persons engaged in the different occupations in the United States at the last enumeration:

Population.	1870 (census).		1878.	
		Per cent.		Per cent.
Total over 10 years.....	28,228,945	.....	34,000,000	.....
Males in all occupations.	12,505,923	.....	15,000,000	.....
Agriculture.....	5,922,471	47.35	7,600,000	50.66
Manufacturing and mining.....	2,707,421	21.65	2,900,000	19.33
Professional and personal.....	2,648,793	21.47	3,000,000	20.00
Trade, commerce and transportation	1,191,238	9.52	1,500,000	10.00

The agricultural interest being valued at 38 per cent. of all others combined, the value of farms and property is $11,124,959,037.

Value of farms, 1870.....	$9,262,803,861
Value of farm animals, 1870.....	1,525,276,747
Value of farm implements, 1870.....	336,878,429
Total.....	$11,124,959,037

The increase of population over 10 years was somewhat above 21 per cent. At the same rate of increase of values of farms and farm products for 1878 would be as follows.

Value of farms, 1878.....	$11,207,992,671
Value of farm animals, 1878.....	1,845,584,863
Value of farm implements, 1878.....	407,622,899
Total.....	$13,461,200,433

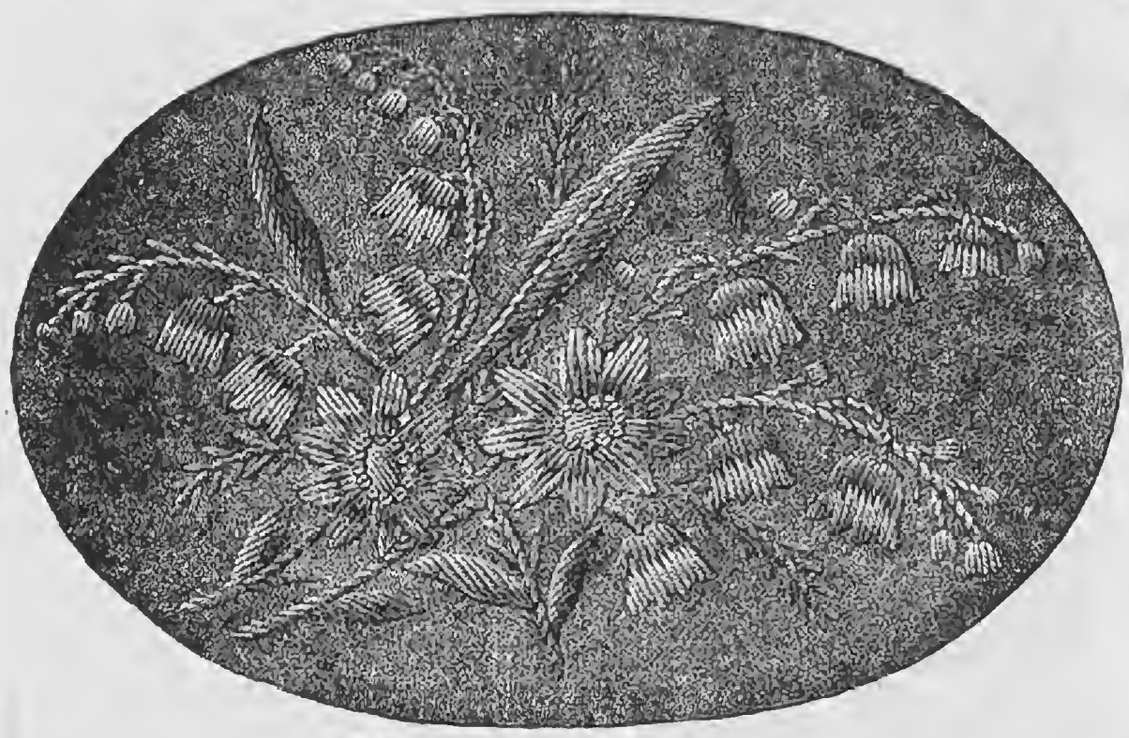
For Women.

CONDUCTED BY MISS FAITH RIPLEY.

CREWEL WORK.

"CREWEL" is a loosely twisted yarn or worsted, manufactured in all shades and colors. It is sold in two sizes, fine and coarse. The coarser make is that in most general use. The foundations usually employed for Crewel Work are unbleached linen—that known as Bolton sheeting is the material generally used for doyleys, toilet sets, chair-backs and one yard square table-covers. It is inexpensive. There are other materials which are employed for foundations of Crewel Work for various purposes, such as satin-dechine, twilled-silk, broccatine, burlaps and crash, linen, serge, diagonal cloth, gray and blue felt, flannel and Holland. "Crash" is the name of the gray linen, now so much used for Crewel Work. Round toweling may also be used. Crewels, are the only kind of worsted used for this artistic embroidery. They are made with only two plies, and then a loose twist causing them in working to form lines, which may be compared to the lines in fine engravings. In color, too they may be brilliant without being harsh. The embroidery silks are floss (coarse and fine) Dacca, Mitorse, silks and Filoselle, which latter is very durable, and far easier to work than floss, and also cheaper than silk. Gold and silver threads are also used. The needles used are ordinary round-eyed, and the long-eyed embroidery needles, the latter are used for Crewels and floss silks, and the former for twisted silks and cords and for gold and silver threads. Always choose a needle large enough. If you have to tug a needle through the material it is evident it is too small, and should be rejected, always select the best needles. Thimbles that have been worn smooth are the best, as they are not so likely to injure and catch the loosely twisted threads, a stiletto will be required to make holes for taking thick edging cords through the stuff.

To fringe doyleys, etc., cut a square of linen the depth of the fringe from each corner, and draw the threads out from four sides to the required depth. Take a needleful of Crewel (the skein for this purpose should be cut only once). Put the end of the Crewel to the edge of the frayed-out fringe. Then put your needle downward through the edge of the pattern about an eighth of an inch above the drawn threads. Now place the needle as close as possible to the left of where it was last inserted, pass the Crewel under the point of the needle from left to right, hold the Crewel firmly between the thumb and forefinger of the left hand until you have drawn up the stitch as you would a button-hole stitch, carry the Crewel on from space to space, and cut the fringe when you have finished sewing



NO. 1—MEDALLION IN CREWEL WORK.

in the loops. When Crewel work is finished it will be found that it has become much drawn and puckered. To remedy this, a clean cloth must be tightly stretched and pinned upon a drawing board or deal table, upon which the work must be placed face downward, stretched and pinned as tightly as possible. A wet sponge should then be passed over it till every part is made damp, especially that which is most puckered. When it has become dry again it may be taken up, and then it will be as smooth as if it had been ironed. In washing Crewel Work, make a lather of fine soap, and rub the article to be washed in it. Do not put a particle of soap on the work. Rinse in warm water and squeeze; do not wring. Shake well and stretch till dry; as directed for new work.

Crewel Work designs stamped on white or ecru linen ready for working, can be purchased at the following rates. Scrap bags, 3 for $1.75; single pattern, 45c.; school bags, at same rates. Wall pockets (with two pockets), 3 for $1.75; single pattern, 60c. Toilet sets, 3 for $1.25; single pattern, 45c. Tidies for chair backs or seats, 3 for $1.00; single pattern, 37c. Sofa cushions, 3 for $1.00, single pattern, 37c; chair stripes, larger size $2.50 and smaller size $1.50 for 3; single patterns in larger size 95c., in smaller, 55c.

The instructions given above, taken in conjunction with Miss Harvey's article on Crewel Work, published in RURAL of December 14, contain most that there is to be said about this style of artistic embroidery; but if any ladies want further information, I shall very gladly furnish it to them. Please address all letters relating to fancy work and fashions to Faith Ripley, care of RURAL NEW-YORKER.

Description of Cuts.

At A and B are shown methods of working the crewel-stitch. The length of each stitch must be left to the taste and judgment of the worker, who can make them suitable to the coarseness or fineness of the material to be worked on, making also due allowance for the abruptness of the curves. A closer stitch and more solid work are required for articles that are intended for use rather than for mere ornamentation. For instance, the stitches in this case should be evenly and smoothly made, and should resemble the woof of satin. In working, the outline is to be covered first; and in such work as the stalk of a flower, begin from the lower end first and work on until it is crossed by a leaf or ends in a flower, then pass the needle to the other side and work downwards then make another line of stitches inside the outline until the stalk is filled up. See B.

In more elaborate Crewel-Work designs the satin stitch may be used. The stitch is made in passing the silk from one outline to another. A piercer comes in useful here for keeping the stitches even and smooth. When it is desirable to raise any portions of the work, it may be done with cotton and silk taken over it. See J .K. L.

NO. 1.—MEDALLION IN CREWEL WORK. The ground-work is unbleached linen. The design, which consists of lilies and blue corn-flowers, may be worked in their natural colors, and will serve for ornamenting table covers, drapes, for baskets, toilet sets, etc.

NO. 2.—DESIGN IN EMBROIDERY. This design may be worked in crewel or silk, in their natural colors, or in several shades of one color as preferred. It can be used for sachets, bags, book covers, chairs, etc.

NO. 3.—EMBROIDERED STRIPE. The foundation may be cloth, velvet, crash or linen worked in silk or crewel. The work is in the natural colors of the flowers and foliage. The stripe can be used for ottomans, chair backs, etc.

NOS. 4 AND 5. These little sprays are pretty for ornamenting pin-cushions, toilet-cushions, etc. They may be worked in crewel, embroidery cotton, or silk, according to the material to be ornamented.

MISS HARVEY'S REPLY TO THE CRITICS.

DEAR MISS RIPLEY:—I find I am being criticised, but I believe unjustly. One of your correspondents has lately taken me to task for saying that I do not believe in the woman who does not know how to sew. Perhaps I will be indulged if I tell *why* I don't. It is because I think every true woman will instinctively seek first of all to perform the duties nearest at hand, acquiring the lowlier arts in common with all her sisters before rising beyond them. I know I should be ashamed to sit down to paint, or embroider or play the piano, if I did not understand how to make a garment, dust a room, or get a meal as well as most women do.

Again, some one finds fault with my saying that every lady ought to have a black silk dress always available, adding, as though giving me a suggestion, that purchasing one is a bad investment, unless one has another dress to save it. I do *not* remember remarking that the young lady described hadn't a single suit to her back until she got the silk, and I do remember saying that she soon after bought a cashmere, trimming it with pieces left from the better material. If she wore the less costly dress at all, wearing it must certainly have saved the other. I think I also intimated that she had a serviceable *de bege* for every day use. I am sorry I cannot always make myself understood. Very truly,

MARGARET B. HARVEY.

PRICE OF PHANTOM WORK.

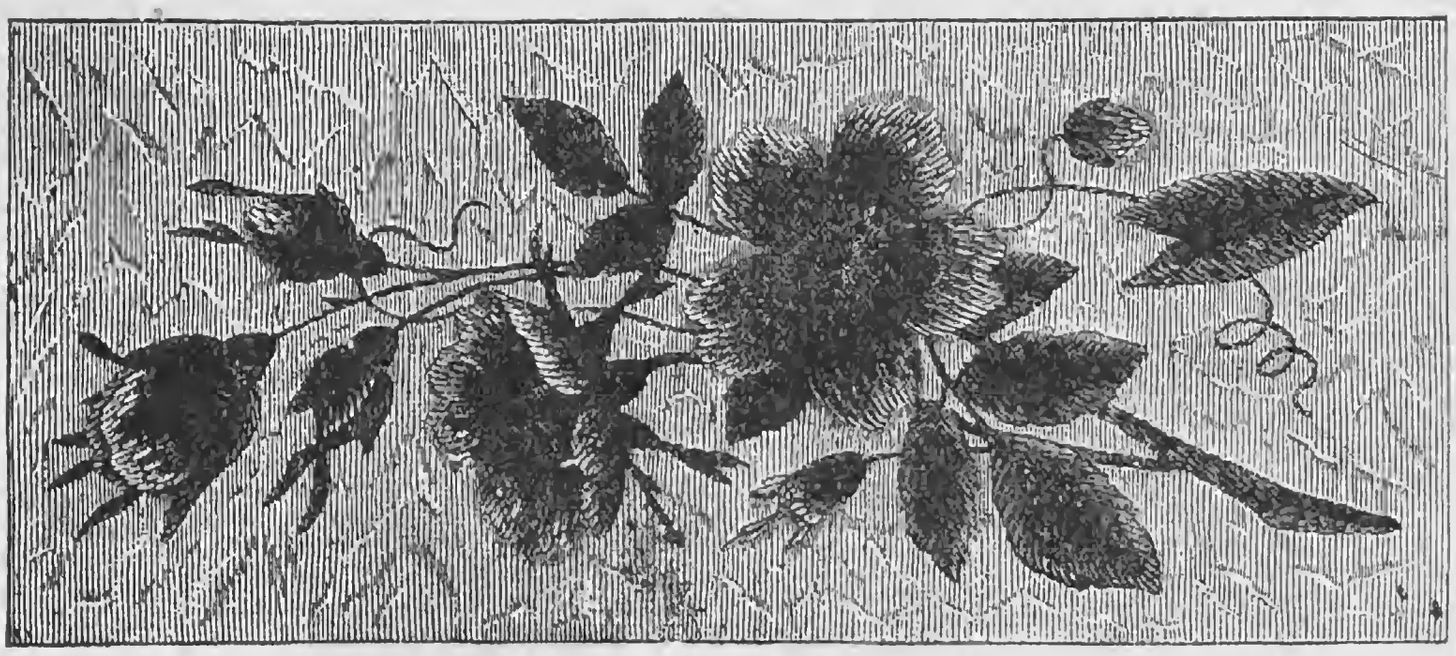
I AM sorry I cannot give, in reply to the inquiry of Mrs. Post, a satisfactory answer.

The value of phantom work depends altogether upon the quality and the market. In the cities such artistic tid-bits occasionally command high rates, but the present over-supply of fancy productions and fancy workers must, materially, affect market values.

A fern-leaf faultlessly wrought and of medium size would probably sell for fifty cents. There was a time, not long since, when it would have brought four times the amount.

ROSE GERANIUM.

A LARGE design in Crewel work will be published next week. It was crowded out of this issue.



NO. 2—DESIGN IN EMBROIDERY.

WILL some of the ladies tell Mrs. H. B. K. how to make white wax lilies? Please send answer to RURAL NEW-YORKER office.

THE address of Margaret B. Harvey is No. 116 North 11th St. Philadelphia Pa. We would suggest that those who write to her for information should not omit to inclose a stamped envelope or a postal card addressed to themselves. It is hardly just that Miss Harvey should be expected to pay postage on replies to questions sent to her.

Literary Miscellany.

THE TRAMPS.

A WOMAN and man; she pallid and wan,
And with sad eyes, hollow from fasting;
His, glassy and marred by the drunkard's reward,
That still about him are casting
With that death-eager look of that terrible thirst
That has borne him and torn him down from the first

As they stand in their shame by the bright kitchen flame,
With despair in each shivering motion,
What a story I read of man's madness and greed
And of woman's angelic devotion—
Of the wonderful love of two ill-mated lives,
Which still, in its storm-trampled embers, survives.

Does her memory stretch from that poor, bloated wretch
Far back into days that were golden,
When his love, first breathed, seemed a treasure bequeathed,
For which she was ever beholden?
Surrounds him still with the illusion of yore
Through which women behold the men they adore?

Aye; there, as they stand, she touches his hand—
The hand of the sot and scoffer—
And a gleam of old grace lights the sad, shrunken face
As she turns to the food that we offer,
And gives him the larger share—wolfishly thrust
To his lips ere her hunger has broken a crust.

Then, their rags closer bound their chill frames around,
They pass on the way of the vagrant;
For wretches so mean in good homes to be seen
Would be a transgression most fragrant;
But the woman half turns, with a wave of the hand
And a sad, thankful look that is simple and grand.

And I look through the panes, as the brief day wanes
And the shadows of night are blending,
And watch o'er the snow, on the highway below,
The two figures slowly wending:
A woman, whose love can all wretchedness span,
And the coarse, shattered wreck of what once was a man. [*N. Y. Sun.*

WEAKER THAN A WOMAN.

CHAPTER XXIX.

(Continued from page 94.)

For Lady Chevenix held up her head with the highest amongst them. She never ignored the past—she spoke of it without hesitation; she talked of her home, the Lines, of her parents, of all her old Lifford friends, with the exception of the Lonsdales, whom she appeared to have quite forgotten. But though she never named them she thought of them; and when she read the brilliant account of all the festivities, she knew that Felix would read the same, that he would hear them talked about. One thing she did wonder at, and that was why he had never contrived to see her. She had imagined that he would make some effort, but he had made none. Christmas came and went; the snowdrops and the crocuses came, the blue violets peeped out, and the desire of her heart was given to Lady Chevenix. She went to London and made her *debut* at Court.

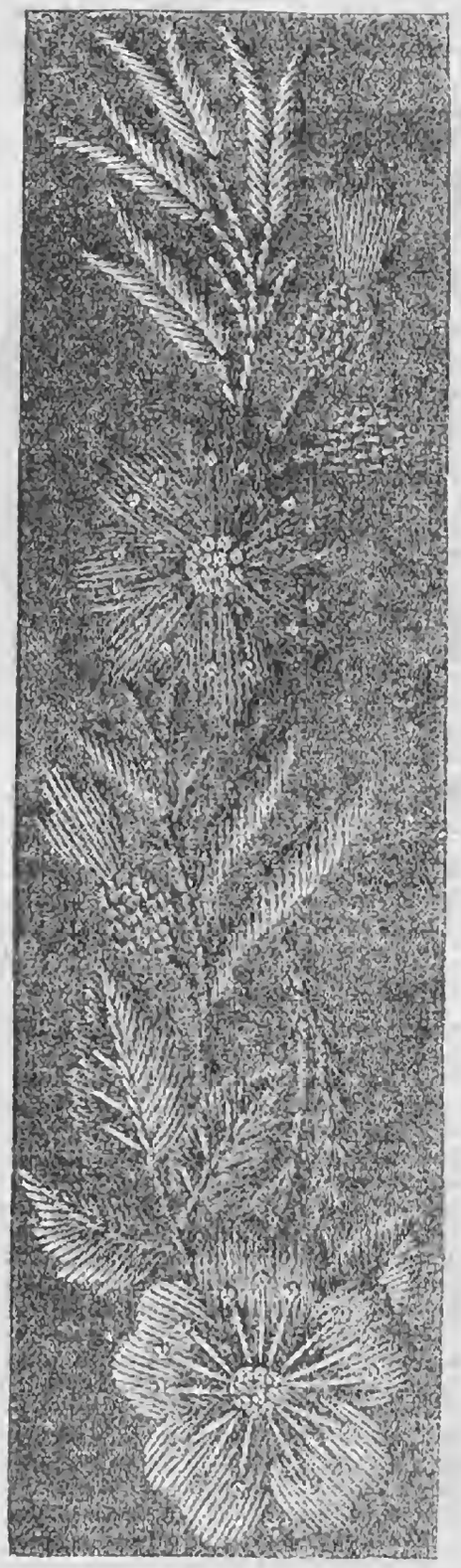
Then it seemed to her that she had reached the climax of all happiness and grandeur. Sir Owen possessed a handsome mansion in Belgravia, and the season they spent in town was one long scene of uninterrupted gaiety and excitement. Young, surpassingly beautiful, graceful, Lady Chevenix soon won a place for herself in the highest and most exclusive circles. She was idolized; her wealth, her diamonds, her superb mansion, her grand parties, were subjects of public comment. But after a time she found that, although she was liked and flattered, her husband was simply detested. No one seemed to care for him; his manners were so coarse that when she contrasted him with other men of his own rank and position she was ashamed of him; she read dislike and aversion to him in the faces of the people whom she liked best and of whom she most approved. Thoughtless, laughing young men said to her—

"Come without your husband, or we shall not enjoy ourselves."

When she particularly pressed any lady to come to see her for some special purpose, the answer always was—

"Well, tell me when you will be quite alone and I will come."

She found that Sir Owen and herself were seldom invited twice to the same place, and it dawned upon her very slowly that she should never be what she aspired to be, a queen of society, because she had a drawback in the shape of her own husband. She was slow in reaching that conclusion, but it was a correct one; and she studied him, to find out, if she could, how it was that he made himself so odious, so disliked.



No. 3.

She could not deny that his face was dark and almost sinister-looking, that his manner and carriage were awkward, that he had an unpleasant voice; the outward appearance of the man was however the best part of him. No one could have called him a gentleman; he was selfish and brutal, and so egotistical that in company no person ever had a chance of speaking but himself. He had two moods—he was either familiar and boasted until every man present felt a great desire to put him out of the room, or he was so sullen that to look at him was like looking at a great black cloud. That was Sir Owen in his sober moments; but, as the novel restraint of his young wife's presence wore off, he fell more frequently into his old and fatal habit of drinking.

At first he carefully concealed it from her, for in his coarse fashion he loved her. A woman of more noble soul perhaps would have made a better man of him—would have helped him to overcome his bad habits and acquire good ones. The woman who had married him, not for love, but simply for his money, had but one thought—it was to keep him in a good temper while it was feasible, and when it was not to keep out of his way.

CHAPTER XXX.

THE season was over, and Sir Owen and Lady Chevenix were expected at Garswood. By that time Sir Owen, to use his own expression, was himself again; the novelty and restraint of his new life had worn off, all his natural characteristics were in full play, and there were times when his young wife wished herself dead. She was not often driven to such despair, but occasionally he was terrible. As a whole she enjoyed her life. She had money and everything that she wished for; she enjoyed her magnificent home, with all its attendant luxuries; she was by universal consent queen of the county.

For some time there was ill-will between herself and Lady Rolfe. She did not wish to ask either that lady or her daughter Lavinia to Garswood, but after a few words from her husband she was compelled to give way. She had the good sense to make the best of it, and Lady Rolfe became a frequent visitor at Garswood.

During all this time Violet had never once seen Felix. She had heard of him continually—he was rising rapidly in the world. She heard old Colonel Riddell speak of him one evening when she, with Sir Owen, went over to a formal and stately dinner-party at Lady Rolfe's.

"Mark my words," said the Colonel—"the leading man in this part of the world is, or very soon will be, young Felix Lonsdale, the lawyer's son. I have watched him with interest. He will be a leader yet. He acts as the Earl's agent now, and Lord Arlington has implicit confidence in him. I prophesy that with the Earl's interest he will be returned as member for the borough, and that once in Parliament we shall hear of him."

One or two others agreed with the Colonel. The face of Lady Chevenix grew crimson when she heard her husband give a little insulting, sneering laugh. She saw with dread that he had drunk too much wine.

"I have beaten him once," said Sir Owen, "and I will beat him again; if he goes in for one interest, I will go in for the other."

For his wife's sake no one answered him; and Lady Rolfe gave the signal for the ladies to withdraw.

"I shall never go out to dine again if I have to meet that man," said the old Colonel, who was an aristocrat *de pur sang*. "Such men ought all to be shot. What could that lovely woman have been thinking of to marry him?"—for the Colonel was far above the scandal and gossip of the neighborhood, none of it was ever brought to him.

So there were times in her brilliant, luxurious life when Lady Chevenix was weary of it all and longed to see the face of a true friend. She had called on Eve Lester, but Eve had declined to see her, and "aunt Jane" had been rampant on the occasion.

Lady Chevenix sat in the best parlor at the Outlands, looking very lovely, dressed in sheeny silk and marvelous lace, when the elder lady came in to her, more erect and uncompromising than ever.

"My niece declines to see you, Lady Chevenix," she said "and I think she is quite right. You jilted our best friend, and, naturally enough, we take his side. Do not call again—Eve does not care to know you."

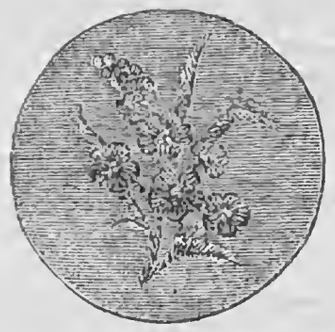
Perhaps in all her life Lady Chevenix had never felt so humiliated. There was no polite disguise about the remark, no conventional veil. "She had jilted their best friend, and they did not care to know her." Even Evelyn cried out in wonder when she heard what her aunt had said.

"No half truths for me!" said that uncompromising lady. "If every one told the truth, this would be a different world."

Never had Lady Chevenix felt so humbled. She had hoped to have heard something of Felix from Evelyn, but, if Eve would not see her, why, there was an end of it.

She had not encountered her old lover once. She wished very much to see him. Why should they not be friends? She had no desire for anything more than the most common form of friendship. She remembered his bright, sunny temper, his sweet smile, his wonderful good humor, his cheerful presence. She felt that it would be a comfort and a pleasure to see him at times after the sullen silence that often lasted for days—to hear a few bright words. She found herself often wondering when and where she should meet him again. At last the time came.

Lady Maude Bramber had been absent from home for some few days, and during that time the Earl had sent out invitations for a dinner-party. If he and his Countess had heard anything of the love-story of Felix and Violet, they had completely forgotten it. The Earl sent out the invitations, and one went to Garswood for Sir Owen and Lady Chevenix, and one to Felix Lonsdale. Lord Arlington very seldom had a large dinner-party now without inviting Felix; his brilliant conversational powers made him a most welcome guest.



No. 4.

"Felix is a host in himself," the Earl would say laughingly.

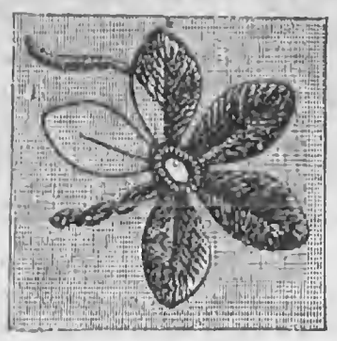
He had not the faintest idea, when he sent out his invitations, of having done wrong. Lady Maude, to whom Felix had revealed his love-story, did not return until the day of the dinner-party, and then it was too late to send a note or message anywhere.

"They must meet some time," she said to herself in dismay; "perhaps it will be better here than elsewhere. I shall be at hand to help him if he requires help."

She said nothing to any one, but awaited the course of events.

The dinner was given in honor of Lord Rayden, a great statesman, who was visiting the Earl, and Lord Arlington was both pleased and proud to introduce his young and gifted *protege* to his friend. Colonel Riddle was invited—he would not have gone had he known that he was to meet Sir Owen, whom he detested—also Lady Rolfe, her daughter Lavinia, and several other friends.

It was a warm day, and the shade of the green foliage all about Bramber Towers was cool and inviting. The dinner-hour was fixed for seven.



L.

"There is no keeping people indoors on these fine summer nights," said the Earl, "so we may as well be prepared to spend the evening out of doors."

Lady Maude was the first in the drawing-room, and to her great delight Felix came in soon afterwards. She was wonderfully proud of him. As Lady Maude looked at him, she thought to herself that there could not be a finer, handsomer, or nobler-looking man in England than he was.

"I was waiting for you, Mr. Lonsdale; I have something to tell you. I know you are a brave man; this evening I shall see your bravery put to severe proof."

He could not imagine what she meant, but he said that he hoped whatever might be the proof she would not find him wanting.

"I have no fear as to that," she said earnestly. "Mr. Lonsdale, I want to tell you that Lady Chevenix will be here this evening. Papa made up his list of invitations during my absence, and I could do nothing."

No. 5.

She was glad that they were alone. His face grew white as death—so white that she was alarmed; he stood quite still, and she saw his hands tremble. She talked on that he might have time to recover himself.

"I would have prevented it, had it been possible, but it was not. You have never seen her since her marriage; and I am told that she has grown doubly beautiful. Still, if you do not feel equal to meeting her, you shall not."

She saw the great effort that he made to recover himself. He succeeded; the color returned to his face; he stilled the trembling of his hands; he smiled as he answered her—

"You are so good to me, Lady Maude, that I am at a loss how to thank you for giving me this warning. I needed it. If I had met Lady Chevenix suddenly, I should have been terribly embarrassed; now I am master of myself."

"And will keep so?" said Lady Maude earnestly.

"And will keep so," he repeated.

Then the Countess joined them, and presently one or two more entered the room.

"Look," said Lady Maude, as she touched Felix's arm gently.

He looked in the direction indicated and beheld Violet so changed from the lovely laughing girl who had kissed him and quarreled with him twenty times in an hour that he hardly recognized her. This was an imperially beautiful woman, on whose white breast and white arms shone jewels worth a king's ransom—a woman whose face was so peerlessly lovely that it dazzled one as did the light of the sun.

Violet wore one of the triumphs of art that she had brought with her from Paris; and nothing could have been devised to enhance her loveliness more. Her dress was composed of some pale green fabric, soft and shining, covered with clouds of white lace looped up with water-lilies, and in her golden hair nestled a lovely drooping water-lily. She wore a *parure* of diamonds and emeralds. Her white shoulders and well-molded arms helped to compose a picture that no man could have seen without feeling his heart beat the quicker for it.

Lord Arlington went forward to meet her. Like a foil to her bright and radiant loveliness, her dark-browed husband stood by her side.

"You are right," said Felix to Lady Maude; "she is a thousand times more beautiful."

Lady Chevenix did not notice Lady Maude Bramber leave his side and go up to her. When she had exchanged a few words with her, she said—

"An old friend of yours, Lady Chevenix, is here this evening." And once more the two who had parted so tragically stood face to face.

CHAPTER XXXI.

Once more Violet and Felix Lonsdale stood face to face. They looked at each other for a moment in silence. To Felix there came back with a keen bitter pain the memory of his passionate farewell;

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to Violet there came the sudden keen conviction that she was looking at the face of the only man she had ever cared for. Lady Maude Arlington, much as she disliked the brilliant young beauty, felt so pleased, after bringing the two together, that she had screened Lady Chevenix from observation, for she trembled—her face flushed crimson, and then grew white.

Felix was the first to speak. He did not hold out his hands in greeting; he simply bowed and murmured some few commonplace words.

"I am very pleased to see you," said Lady Chevenix; and the words had a ring of truth that touched both listeners.

With her usual smiling grace Lady Maude said—

"We have a little time to spare—would you like to look at these photographs? They are quite new, and finer than anything I have yet seen."

They all three sat round one of the pretty little tables that were covered with pictures and books. Lady Chevenix turned to Felix again.

"I should like to see your father and Mrs. Lonsdale," she said. "Are they well?"

"They are quite well," he told her, but he made no response to her desire of seeing them.

"He does not care at all about seeing me," she thought; "he does not seem in the least degree agitated or embarrassed—he has forgotten me;" and as the thought came to her, her eyes filled

with tears. "He never could have cared so very much for me," she said to herself; "he could not really have grieved about losing me."

She looked at him—he was talking in a lively strain to Lady Maude. She wondered to herself if this calm, proud, handsome man, so perfectly well-bred, so self-possessed, talking so brilliantly to the Earl's daughter—if this could really be the same ardent, despairing young lover who had bidden her a passionate farewell. He was in no hurry to talk to her. She had rather pictured herself as having to hint something like prudence to him; she could have laughed at herself for the notion.

He did not look at her; she doubted even whether he had noted her rich dress, her shining jewels. When she spoke, he replied with polite indifference, with well-bred calmness, but he never once voluntarily addressed her. It was all so different from what she had pictured that she experienced a sense of depression.

Lady Maude was compelled to leave them for a few minutes, and then Lady Chevenix turned to Felix.

"How strange it seems that we should meet here!" she said.

"Yes, it is strange," he replied. "I am very often here on business—you, I presume, come equally often on pleasure?"

"It is my first visit," she said; but he did not ask the reason of that.

"How cold, how indifferent, he is to me!" she remarked to herself. "No one would ever think even that we had been friends. If he would say something reproachful, it would be better than this."

But there was no thought of reproach in him. He spoke to her with a smile. He neither sought her nor avoided her. His conduct was such that she might have been a stranger whom he had met for the first time. Then came the signal for dinner, and Lady Chevenix was a little surprised to find that Felix took down Lady Maude. She went down with the Earl, and Sir Owen escorted Lavinia Rolfe. Violet was so placed at the table that she could see and hear all that passed.

Never in her life had the beautiful Lady Chevenix felt so surprised. She had always heard Felix spoken of as being clever and gifted; but she had never dreamed that he was really the genius he was. When with her, he had seldom spoken of anything but herself and his great love for her. Now, for the first time, she heard him converse with intellectual men, who all seemed to look up to him as their superior. She was astounded. The great statesman Lord Rayden talked much to him, and the Earl asked his opinion.

"It does me good," said Lord Rayden, "to hear such ideas as yours, they are so thoroughly fresh, clever, and original. We must have you on our side. You must not go over to the enemy."

Felix had a natural wit that made his conversation piquant and amusing. Lord Arlington delighted in it. When any playful attack was made on himself, he would look at him and say——

"I shall leave you to answer that, Mr. Lonsdale."

The dinner was a complete success. It was a new thing to Lady Chevenix, intellectual conversation such as she was listening to. She looked once at her husband, and she saw him gazing with undisguised admiration at Felix.

Sir Owen said little. He had ideas of his own; one was that talking at dinner-time was a bore rather than not; people sat down to eat, not to talk. He certainly did not contribute much to the general entertainment. He dined well; and more than once Violet felt something like dismay, as she saw how the wine-glasses before him were replenished. She could not help contrasting the two men; nor was she the only one present who did so. Felix was so bright, so handsome, so animated, so gifted and intellectual; he was a leader of conversation even amongst older and wiser men than himself, for he had the gift of picturesque language. Sir Owen, coarse and heavy, his brain dulled with constant drinking, speaking little, but, when he did speak, saying something almost disagreeable, was doltish and inert, except when he was offensive. There could have been no greater contrast—and Lady Chevenix saw it. To herself she thought how Felix would be appreciated and understood in London, how eagerly he would be sought—who would care to remember that he was the son of a country lawyer? Such men make their own mark. Where her husband would not be tolerated, Felix would be received with open arms.

All these observations she made to herself, as she sat by Lord Arlington, her beautiful face wreathed with smiles. The last words she heard, as the ladies quitted the dining-room, were from Lord Rayden.

"The next time you run up to London, Mr. Lonsdale," he was saying, "pray come and see me; I shall be delighted if you do, and I will show you the very article in the newspaper of which we are speaking."

And in her own mind Lady Chevenix thought that such a thing as an invitation from the eminent statesman would be an honor Sir Owen would never attain.

The gentlemen did not linger over their wine. Lord Arlington saw that Sir Owen was inclined to drink freely; he made a note in his own mind that it should be some time at least before that gentleman dined with him again.

(To be continued.)

WHAT HAPPENED TO SEVEN GIRLS IN TEN YEARS.

MARY WAGER-FISHER.

From Zethrea Raynor.

CAIRNS POINT, Feb. 24, 1877.

DEAR FRIENDS AND SISTERS;—Of the pleasure the foregoing letters have afforded me there is no need that I should speak. Lee and I talked the matter over last summer, but we thought the date of our parting at R—— was the anniversary. I am right glad that Roswell set the ball rolling, or I fear the matter might have been indefinitely postponed. Of my life the past ten years, there is but little of general interest. It has been less eventful than some of the others. Still to have become a wife and mother, yet never to have been called "mamma" by childish lips, is an experience sweet and sad in its influences upon the life spreading out over many decades. To go back, you know Lee and I returned to Richmond, to our old work and endured the tender mercies of the Hawley's two years longer. Many were the battles I waged against the foul aspersions cast upon pure and self-denying lives. Of the teachers in your places, some were excellent as teachers, and pleasant as friends; but none, save one, could compare with "our clique," whom we often longed for with an earnestness that was surprising to the inmates of the house. Miss Howe, whom we knew slightly the first year, I learned to love dearly as I came to know her well. She was a true, strong woman, and died bravely on the field.

Our schools prospered and we were happy in our work. I look back upon those years of uncongenial toil and petty annoyances as among the most blessed of my life, for the fruits they have borne. In the autumn of '69 (nothing better presenting itself) I accepted a position as teacher in my native town, in which capacity a part of the time for the next two years was spent. The monotony was agreeably broken by a visit to Lee on the occasion of her marriage to Rev. Mr. Vaughan; and in the following summer, she with her husband, and later dear Mary Walter, made my home happy by a visit. The winter of '71 and '72 I spent in the happy home of the Vaughans on the shores of the beautiful Seneca. Many were the lessons I learned of practical Christianity.

At nine o'clock on a beautiful May morning in '72 I was married. It seems strange even now, that my husband chose me, for it was always said that I was "cut out for an old maid," and I had never aspired to the then doubtful joys of marriage. But with all my faults he loved me, and does love me dearly. My life is as happy as is given to mortals of my temperament. There is but one cloud over my sky (and you know I ever see the clouds), and that is the state of my husband's health. Let Lee do the gushing, only I claim to have the best husband in the world. Mr. Carlton was teaching in M—— when we joined fortunes, and we lived there, housekeeping or boarding, as was most practicable, until March, '74, when we returned to C. P., and in two months had to part with our baby. Thank the good father, dear girls, that He has spared you this stroke. We named her Mary Lee, and we fondly saw, even in her babyhood, the promise of all the virtues and beauty that her name implied. Her sweet image is enshrined in my heart of hearts, but I know that God deals more wisely and tenderly than we could, and she blooms in Paradise. Weep not over the grave of the innocent. After a lonely summer I was glad to resume my old employment. We are very pleasantly situated here. My husband is a much better teacher than myself; but they tolerate me and I don't wish to change my position as his assistant. There are already generations of my ex-pupils in C. P., and in all probability, years hence will be found those who bear lively impressions of your fellow-worker on their minds and backs. Personally, I think I have not much changed, except that I have grown stout. You know, ten years ago, I was said to have a "settled look."

This journal would be incomplete without a mention of the delightful visit we had in Berkshire last summer with Jaynesey and her family. And here let me pay my tribute to our hostess, as a housekeeper, wife and mother; and to our host as an accomplished Christian gentleman. Mr. Carlton became as warmly attached to them as myself. Their little May is a lovely child, and endeared herself to us at once. But let me whisper to you that her mother doesn't make her behave so much better than other people's "young ones."

Like everybody else, we "did" the Centennial, but unfortunately missed seeing Mrs. Darrell. From her we expected to get Mercy Biddle's address and give her a call. Had we done so, the good doctor would have found two good subjects for her death-dealing pills—a small dose would have sufficed. I do not despair of seeing them yet, nor Roswell and the "Cookies," as their places of abode are within our projected trips, if we are prospered in the immediate future.

And now I must say farewell, thanking you each and all, for your kindly remembrance. I cast my vote for a continuance of this general letter writing. Come and see us, all of you.

Yours in the bonds of '67. ZETHREA CARLTON.

Jaynesey's letter closes the story.

NORTH EGMONT, March 28, 1877.

Good morning, girls!—This precious budget of letters was received through our friend Zethrea. Glad was I to hear from you all, and learn of your respective localities. After a long talk with you through your interesting letters, I could not help thinking that my bark had glided more smoothly adown the stream of time than yours.

Why, girls, my life has been so uneventful, and God has led me so quietly that my history of the past ten years seems very tame compared with the others. I have no long voyages to speak of, or bright experiences to relate, or great achievements made, or victories to record; only just a quiet, happy, peaceful, restful ten years sailing over the sea of life. Why did you not write me and let me know where you were, so as to invite you to my wedding as I did Raynor? I was married in church, in the city of Schenectady, in October '69, with dear Zethrea for my bridesmaid. And here let me testify that Raynor gave proof of the love she bore me by closing her school and at considerable sacrifice, came and spent the week with me preceding my marriage. In the summer of '71, my husband and myself visited Raynor at her home, and together we there enjoyed Lake George. The following summer we began housekeeping on the banks of Seneca Lake, and here our happiness was intensified by having Raynor an inmate of the parsonage during the winter. In December of '73, we journeyed from the Seneca to Berkshire, Mass., and here we have resided for three and a half years. As I am the only ministers' wife among you, Mollie Cake would say, "I thought Jaynesey would write something sanctimonious." Well, Mollie, there is sometimes as much fun among the wives as the ministers. Never have I been more contented than as the wife of *my* minister; for, though we have celebrated the seventh anniversary of our marriage, I have not yet lost the lover in the husband, and even since the baby came we do not quarrel. Now, I take no credit for this blessed state of affairs, for never have I seen the lovely character of our Saviour assimilated more closely than in my God-given husband.

Our little May flower was given us the first day of May, 1873, and so we call her May Zethrea. Even at her tender age we find much companionship in her. The little mischief told me to-day she was trying to keep Satan out of her heart! I presume Zethrea expected to see her namesake fold her arms from morning until night. But girls, I have'nt been able to accomplish this. I "spect" that love gets the better of judgment. By the way, I must tell you that Professor Carlton is just splendid and very fine looking.

I wish so much to see you all. I drop a ballot for an exchange of photographs. If you want to know how old I have grown, you must come and see me. Silver threads are numerous among the brown, but I do not feel old.

Mary Walter, I have ceased to worry for fear you will open your mouth! I really *care* to see the one you deigned to marry, and am hungry for some of your fresh talk. I don't despair of seeing you all again. I have been thinking while writing who could have marked out our way for the past ten years so wisely and well as the hand of a good God! We have added to our circle of friends since we gave each other the promise of writing these letters; but the attachment for the old ones remains unbroken. The thought is a happy one to me, that we have all been spared to fulfill our promise of writing, and that no dear friend has to write for us, that we are among the dead.

For many another decade of years may our band remain unbroken, and when the angel shall stand with one foot on the sea and one on the land,—crying, that "time shall be no more," may we all meet to spend eternity together, not one of our number missing.

Remember, that the latch-string always hangs out at the Baptist parsonage for the girls of '67.

LEE VAUGHAN.

(THE END.)

THE LINE OF CAPET.

C. H. E. B.

It required time, patience and a large measure of industry to make France a monarchy, and the record of events during the 507 years that the French chicken was chipping its shell is as interesting as it is instructive. Hugh Capet was the real founder of the Kingdom, and when he started in business his actual dominions were a trifle greater in extent than the island of Corsica. The feudal barons who monopolized the greater part of the land were a law unto themselves, and when not employed in tearing each other's eyes out, they were devoted to the mysteries of the wassail bowl. They literally led a cat-and-dog life, which may partly explain that to this day the epithet *chien!* is as gall and wormwood to a Frenchman.

But to return to Capet. His enterprise was not thought much of by the barons, who regarded the assumption of a kingly title as in rather poor taste.

"Who made you Count?" Capet asked one of these feudal lords.

"And pray who made you King?" was the quick rejoinder.

This was a leading question, and Capet, taking counsel of wisdom, concluded he would make haste slowly, and although the Capetian line is the most ancient of any now existing, the founder was so uncertain of his tenure that he wore his crown but once, deriving his surname and the name of his house from his habit of wearing an abbot's cape.

Finding that his only hope of advancement was in conciliating the clergy, he professed a boundless devotion to the Church, thus augumenting his spiritual artillery by being friendly with the cannons! His son Robert who reigned in his stead was surnamed the Pious, and when not fighting, passed the major part of his time in singing chants. Robert was of a meek and gentle spirit, and lived in the fear of his wife. It is related that he met a beggar one day who was temporarily embarrassed, and not having any money assets himself he stripped the silver ornaments off his lance, thrust them into the mendicant's palm, and said, "Now, begone quickly lest the queen should catch me." Subsequently he had occasion to go to battle, and foremost fighting fell.

This was about the year 1000 A. D. at which time the fancy prevailed that the earth was speedily coming to an end. It was very bad for the prospects of the Kingdom, as people lost all interest in life and were inert. Even title deeds were made to read "to the end of the world approaching." But the nobles did not cease fighting on this account. They slashed each other with impartial ardor, while famine stalked through the land preparing the way for its handmaiden pestilence. The supply of customary food having been exhausted, human flesh was offered for sale; while one enterprising inn-keeper supplied his table with the delicacies of the season at the expense of forty-eight unfortunate human beings, whom he decoyed into his house and dispatched.

Finally people somehow concluded that the earth had no idea of stopping its motion, and it came to pass that Henry I. was seated upon the throne. He was a man of quiet tastes, and to end the ceaseless strife going on about him, arranged, with the aid of the clergy, the Peace of God, by which it was decreed that no blood should be shed on holidays, nor from the setting of the sun on Wednesday until the Monday following, under the severest penalties. This arrangement gave him leisure to take his Sunday walk to the brink of his kingdom, and looking over, meditate on how it might be enlarged, then returning home, be in time for tea and prayers.

Henry's reign is to be considered in the light of an anodyne, as it calmed the passions of the nobles somewhat, and gave his son, Philip I., during his tenure of forty-eight years, a chance to make real progress in establishing the monarchy on a solid basis. Philip was a thoroughly bad fellow, and gave the Church no end of trouble in keeping account of his miscellaneous wives and divorces, but the kingdom grew apace. The Norman Conquest of Sicily drew a host of fighting nobles away from France, as also the First Crusade, and Philip entered into the real estate business with a zest that boded his foes no good. When the Crusaders returned they found that this active monarch had married a province here, annexed a province there, and had confiscated castles elsewhere. In a manner that was very alarming.

But his son Louis VI. greatly improved on the methods of his father. While Philip followed events Louis controlled them. Meantime the nobles had turned desperate robbers, and travel was very insecure. At merely eight miles from the Capital there lived a regular Tweed baron who grasped whate'er he could and kept whate'er he grasped—much to the chagrin of travelers. As Louis had to travel that way he thought it expedient to make the place as well the man barren, which he accomplished and by appeal to the clergy, who armed their serfs, smote the stronghold, and generally made the place too tropical for the transgressor. Louis was so well pleased with this experiment that he granted the clergy and peasants communal and commercial privileges, they in turn supplying him with tribute and troops. This was the nucleus of the royal army, and a great stride in advance.

Louis VII. was an inefficient being, and did not advance the business in hand, but his successor Philip II. was a mighty monarch, who lost no time in enlarging his kingly domain. He began by innocently inciting baron against baron, and the plan worked so well that he made arrangements to continue it indefinitely, but the Third Crusade drew off some of his most promising game. While kings and nobles were upholding the Cross against the Crescent in the East, he turned his attention to the affairs of his neighbors, and acted very badly towards England. Richard, the Lion Hearted, when he returned was very wroth, and not feeling called upon to temper his steel with mercy made Philip feel as if he had almost been born in vain. Shortly thereafter was fought the battle of Bovines between the French and Flemings. It was a triumph of royalty over feudalism, and led also to the growth of the thirst for military glory which is now a leading characteristic of the Gaul.

The French will probably never forget this monarch, he was the first to establish permanent taxes. He also gave regular pay to his soldiers, and encouraged the growth of cities. He doubled the area of the kingdom by annexing Normandy, Main, Anjou, Tourraine and Poitou, by which the feudal lords were shorn of some of their fairest possessions. In his hours of ease he also built Notre Dame, founded the University of Paris, and planned the crusade against the Albigenses who were completely exterminated on account of their religious views, and ceased thenceforth to be a factor in political problems.

His son, Louis VIII., was known merely as the "son of an excellent father, the father of an excellent son, and the husband of an excellent wife." Only this. Louis IX. (St. Louis) was crowned soon after the death of his father, and had a fight on his hands at once. The barons could ill brook his Spanish mother. But the King's troops were very powerful now, and the barons had to succumb. Languedoc being added to the crown domains as the price of the insurrection. Louis was extremely religious and could not be restrained from proceeding with an army to Egypt. This expedition was called the Seventh Crusade. The king had quite a little difficulty in securing recruits, so he devised a plan that proved to be a trap. It was usual to give the courtiers new robes on Christmas, so on this occasion the king commanded every one to be at early mass, and as they entered each received his new coat. It was not long in being found out that every coat was decorated with the red cross, and you may depend on it the prayers for the king were not very fervent that morning. The Crusade was a failure, and when he returned to France, he was apprised of his mother's death. Then he set about ruling his kingdom in severe earnest. He caused to be made the first code of justice, and established courts, thus introducing lawyers. Making still another crusade to the Holy Land, he met his death among the ruins of Carthage.

His successor, Philip III., by marriage, added three provinces to the crown, and left the realm in good condition for his successor Philip IV. (The Fair), who began to rule when but seventeen. This young gentleman debased the coinage, and then refused to take it for state dues, and continued to raise revenue by banishing the Jews and seizing their property. Having a difficulty with Edward of England, he took advantage of that monarch's trouble with his own subjects, and added Flanders to the crown; but the Flemings revolted finally, and at the battle of Coulrai twenty thousand weavers vanquished fifty thousand French soldiers. Philip was not satisfied and went to war again, but the weavers shut up shop and came forth in such numbers that Philip cried, "Does it rain Flemings?" Apparently it did, and hence they continued to reign. After quarreling with the Pope whom he made his prisoner, and summoning the states-general and doing other good and bad things, he died, leaving his successor Louis X. a fine property. Philip V. and Charles IV. followed in order, but as Charles died and left no male heir, the son of Charles of Valois, Philip VI., was crowned, and by this act was established the house of Valois, which became the second reigning family in France.

News of the Week.

Monday, Feb. 10, 1879.

MISCELLANEOUS.

According to this mornings telegrams, the English government has not yet taken action prohibiting the importation of American live cattle. The city council of Liverpool, however, has forbidden the landing of them at that port after the 28th of this month, unless in the meanwhile provision be made for their slaughter on the quay. Many meat contractors there say that they are ready to build abattoirs suitable for the purpose, but hitherto no step has been taken in the matter owing to the uncertainty that still prevails with regard to the decision of the Privy Council. Several shipments of cattle have been landed since that containing diseased animals, but although every beast was closely examined, no trace of disease was found on any of them. Shippers here are making preparations to forward their last lots of live cattle so as to arrive in the Mersey before the 28th; 200 head were shipped on Saturday and 60 more will go next Thursday, after which date, exportation will be suspended from this port until some decisive action shall be taken at the other side. Meanwhile the Canadian government has forbidden the importation of cattle from this country for three months from February 6th. Prof. Law, of Cornell University who has been commissioned by the Governor of this State, to investigate the nature of the disease affecting some cattle in one of the suburbs of the neighboring city of Brooklyn, says that several of the cows there are suffering from inflammation of the lungs, a consequence of pleuro-pneumonia.

Across the Atlantic the native stock and agricultural interests, are alarmed at the prospect of a ruinous competition with our cheaper cattle. Last year our exports of all kind of live stock to Great Britain are stated to have been worth upwards of seven million dollars, and it is said that the contracts already made for this year would necessitate much heavier shipments. The landing at Liverpool, nearly three weeks ago, of a single lot of steers suffering from pleuro-pneumonia, afforded the frightened farmers an excellent pretext for insisting on the exclusion from the country of all cattle from the United States, lest their own herds should become infected. The report from our Canadian neighbors came opportunely to support this demand, while at the same time it was calculated to benefit our friends across the border; for these maintain that their own stock are entirely free from all contagious diseases, and therefore that their trade should not be interfered with.

If these representations, however, shall really succeed in securing an order against the importation of live cattle from this country, the prohibition can only be temporary. For the last half century there have been numerous local outbreaks of pleuro-pneumonia in some of the Atlantic States, and to-day the disease is not so unusually widespread as to afford valid grounds for exceptional restrictions on our trade. Cattle for export come almost entirely from the Western States, and there the malady is unknown. In the few localities where it has appeared, it is restricted almost exclusively to cows used for dairy purposes. The ailing animals never come in contact with beasts intended for shipment. Moreover, the attention to the malady, aroused by the present excitement, must result in the speedy abatement of the evil. During the severe outbreak of it at Boston in 1857, the Legislature empowered commissioners to destroy all infected animals and pay for them out of the State Treasury, and the measure extirpated the disorder so effectually that it has never reappeared there since.

After a bitter and protracted struggle between Senator Conkling on one side and the whole power of the Administration on the other, about the appointment of revenue officers at this port, the Administration triumphed, mainly, 'tis said, through the personal efforts of Sec. Sherman. Nearly all the Republicans, including all leaders, voted with Conkling, and so did a few anti-Tammany Democrats, but the Tammany Democrats aided by a handful of Republicans, carried the day, by a vote of 53 to 25, so that Merrit & Co., succeed Arthur & Co., as dispensers of the Federal loaves and fishes in this city. The Potter Committee is taking some curious testimony about those cipher dipatches in this city, but as in recounting political news, it is impossible to please every reader and tell the truth, the gist of it is here omitted. Edmund's resolutions affirming the fifteenth amendments to the Constitution, has passed in the Senate, all the Republicans and a few Democrats voting for it, and the rest of the Democrats voting against it on the ground that it was intended merely to make polical capital.

Tennessee seeming resolved to repudiate her honest debts, creditors representing five million dollars' worth of her bonds, propose to sue her. As they cannot do this individually, they are about to donate $100,000 of these bonds to a charitable institution in some Southern State and get that State to sue Tennessee for their value. Such a method of collecting debts from repudiating States has been strongly advocated in this city of late; but it is a trifle doubtful whether it is practicable. The Eastern or Republican part of the State insists on payment and is in favor of splitting the State in twain and paying its half of the debt. Georgia's credit is so good that she has been able to sell the whole of her 4 per cent bonds 60 days after they were authorized. One of the Richmond papers objects to stocking the Virginia rivers with fish on the ground that it would encourage idleness among the people, who, being thus furnished with free food, would neglect agriculture."

It is said that Senator Edmunds would accept Judge Hunter's seat on the Supreme Bench. Edwards Pierrepont would also like a place on the same seat. The Southern moonshiners are still turbulent here and there. Their latest murder was that of U. S. Deputy Marshal Dotson, at Sinking Creek, Va. These gentry have a rough way of resenting any government interference with their secret pursuits. J. Madison Wells, whilhom of the Returning Board, and later appointed by Hayes to a snug berth as Surveyor of the Port at New Orleans, has been indicted by the grand jury for peculation in office. Another persecuted saint! The Crescent City grand jury also found indictments against twenty-five bulldozers in three of the parishes in which Republicans charged violence during that presidential election which seems to have decided nothing. There are reports that between one and two hundred accused of violating the election laws, have already been arrested, and most of them released on bail. But so little credit seems due to the oaths of folks from that quarter, that rumors are apt to be a trifle untrustworthy.

Ex-Gov. Hartfranft started a couple of years ago for the White House, at one time got 28 votes more than Hayes at the Cincinnati Convention, and is likely to "fetch up" as postmaster at Philadelphia, a position just offered him. Archbishop Powell, of Cincinnati, tried banking, but, like many other estimable clergymen, he failed to keep a close grip on either his own or other folks' money, and the sum of his indebtedness to the poor who trusted to his financial ability is upwards of a million dollars. Sitting Bull is across the border, begging for food and pardon; no, he isn't, and never will be. A dozen reliable papers give the public the option of believing either clause of the sentence. Elizabeth, N. J., is like a well-dressed dandy without a cent in his pocket. The town spent a pile of money on fine streets, buildings and improvements of all kinds, and now is bankrupt. The value of property has gone down with a rush; a multitude of houses have been abandoned for taxes, and to meet interest and taxes, the town has to raise $600,000 a year on a valuation of $12,000,000—but it says it can't.

FOREIGN.

Europe seems in terror at the spread of the plague which is reported to have all the characteristics of the terrible Black Death of the Middle Ages. As stated here last week it kills ninety-five out of every hundred of those it attacks, carrying off its victims in from four to ten hours. In the town of Vetlianka in the government of Astrachan, where it made its first appearance, it slew at once 400 persons out of the 1,700 residents of the place, and the rest fled, leaving the dead unburied. At Prishibe it swept off 520 out of 830 inhabitants in two weeks, and even in sparsly settled localities it spreads with alarming rapidity. It has been known to advance westward 30 miles in two days. It is said to have already reached the Crimea, and now Italy and all Southern Europe are as much terrorized as Germany and Austria-Hungary. Russia is inviting medical aid from all her neighbors, burning infected villages and taking every possible precaution to arrest the invasion of a foe more deadly than Turk or English. A cordon of troops, a thousand miles long, has already been established and Melikoff has been invested with absolute power in the suffering region.

At last the Turko-Russian war is over! A definite treaty between the Sultan and the Czar was signed last Saturday. Yesterday the Russians began to evacuate Turkish territory, and the last of them is to cross the frontier within 35 days. Montenegro having got Podgoritza, has withdrawn her troops from Ottoman soil. Greece is still discontented with her bit of Turkey, and probably the Great Powers will have to decide whether she is to be made happy with another "serving." England has just closed the bargain with the Sultan for Cyprus. He'll retain a private estate he has there and pocket $5,000,000 for the rent of the island. Shere Ali is either dead or buried in the wilds of Asiatic Russia on a bootless tramp to St. Petersburg. Yakook Khan can't control even the city of Cabul; a part of it is said to be in insurrection. The British are resting in winter quarters as quietly as the turbulent and predatory natives will let them. Stanley offers once more to enter the "Dark Continent" at the head of a Belgian exploring expedition. Lord Dufferin has been appointed ambassador to Russia.

It is acknowledge by all that the resignation of McMahon from the Presidency of the French Republic and the election of Grevy to succeed him, have contributed greatly toward the permanence of that form of government. The Marshal's term would have ended in 1880, when there would certainly have been a struggle for the mastery between the Imperialists, Monarchists and Republicans. Now as Gevy stands at the helm for seven years, that critical struggle will be avoided, and if the French people deserve the blessings of a republic, it will be firmly established at the close of his Presidency. Waddington, the English-Frenchman, late Minister of Foreign Affairs, takes Defaare's place at the head of the Cabinet as President of the Council. Several other good changes have also been made in the Cabinet. All is peaceable and hopeful for the future. With few prominent exceptions, all the communists are to be fully pardoned. The Church and State are to be separated, as in this country Grevy declares the Republic wants peace at home and abroad, now and in future. England hails the prospect of a permanent Republic, as cordially as if she were herself a Republic as much in name as she is in reality. HERMAN.

The breakfast on the occasion of the Prince of Wales's visit to the city of London to unveil the statue of the prince consort cost £2,000. The thanksgiving for the recovery of the Prince of Wales, £13,000. That, too, was the amount spent in the reception of the czar of Russia. The Shah of Persia's reception cost £15,000. The sultan's cost £30,000. The flowers alone at the reception of the Prince of Wales, on his return from India, cost £2,000. The banquet in honor of the czar, £2,676. The upholstery bill was nearly £7,000 more. The cost of the menu cards at the dinner was £93; £170 was expended on bands, £25 for wands, £22 for gloves, £282 in gratuities and £7 upon corkscrews. The flowers at the Shah's reception cost £527 and the gloves at the czar's £57. There is now a big bill to pay for the installation of Lords Beaconsfield and Salisbury as freemen of the city.—*Cor. Newark Advertiser.*

Domestic Economy.

CONDUCTED BY EMILY MAPLE.

PEN THOUGHTS FROM EVERY-DAY HOUSE.

ANNIE L. JACK.

Old Wall Paper and Its Suggestions.

"This room must be repapered." It was the critic in household art who gave the mandate in such decisive tones, and only one voice was heard in protest.

"Spare it yet another year."

"And then," asks Household Art, "how long will it have been upon the walls?"

"*Only* twenty years."

They stand appalled—twenty years! What a change in the world's history that paper has outlived.

"Why it was a paper in slavery days," says the young historian, "and on that wall before Abraham Lincoln was ever President."

Could it be possible! Yet it was not faded—some fly specks could be seen on close observation; but the soft, gray, neutral ground, the white-and-scarlet of the large flowers with their satiny appearance were fresh and pretty, and we could not bear the idea of tearing it off to be supplanted by a gay, fresh pattern that would change the aspect of the parlor, that would cause the furniture to look out-of-place, and the pleasant memories that clustered around the dear, cosy room to be pleasures of the past. "For how could we recall them," I said, "if the walls were changed, that had been the same for twenty years?"

And while talking of these things it occurred to me that in the course of that time many people who visited me have passed the remark, "How well you keep this room," with an air as if they knew that it was not used except on state occasions. I seldom take the trouble to disabuse them of that opinion, but may here say that I do not believe in keeping a room for company, into which the family dare not venture; nor do I believe that faded furniture covers, dingy carpets, and rough, dim wood are signs of *use*, but rather of abuse. I know full well things *will* wear out, but often the carelessness of those in charge of the rooms is a cause of the quick fading from its original freshness, that is sometimes seen in newly furnished houses. In the room where this article had its first suggestion, the carpets and furniture were the same as when the owner entered her home a bride, with no experience, and nothing but what country folk are apt to call "book larnin." But she knew enough to keep a separate broom for her parlor carpet; to keep down the shades in strong sunshine, though not to darken the rooms; and to pick up any litter on the floor, instead of sweeping it too often, which wears away the nap of a carpet and raises dust over the furniture. Wood fires in a tight box stove, as used in country places, prevent a great deal of dirt that is inevitable with the soot of coal; but the dirt from the latter is often increased by carelessness in removing the ashes, especially by doing so while the furniture is uncovered, for then the dust settles in every crevice and groove.

Men and boys are a great deal more blamable than they will allow for the necessity of shut-up parlors; for if they would always remember their slippers, and not attempt feats of spitting, mother and sister would be always glad to have them stretched upon the parlor sofa in leisure hours. In this little twenty-year furnished room we think with pleasure now of the happy hours the children have spent there; of the corners where they have been found curled up reading some wonders of book lore; of the Sunday talks we have had there; the treasures that have been brought there for safe-keeping, and the many Christmas mornings when, in the center of the floor—the carpet being protected by sheets—there has been found a *tree*, blazing with candles and glorious with gifts, the wonder and delight of the children at home and of their little neighbors. How they enjoyed sitting under the branches for weeks afterwards before we could find it in our hearts to remove it, sharing its fruits with many. And I know well that all through life, they will go back to that little parlor, whenever the piney fragrance of a fir tree meets their senses.

No, leave the paper on. Household Art must go elsewhere for innovations; times are too hard for refurnishing, and we will not patch the old parlor's appearance.

RAG CARPETS—ONCE MORE.

While reading in the Rural of Nov. 16th, some remarks concerning rag carpets, as I have had a good deal of experience in that line—having been a weaver for about 15 years—I thought perhaps I could say a few words that might be of interest to the lady readers.

In the first place, I would suggest that you cut the old garments up instead of ripping them, which takes too much time, and what you would save out of the seams does not amount to much. Next, have the pieces washed clean, which is much easier than to wash the garments whole. Some people prefer to color rags before cutting, but I am not particular as to that; I rather think that I like the way of coloring them after cutting best, for then one does not color the waste rags. Select your best pieces, and cut or tear them in strips, and if of cotton, let the strips be one-half an inch in width. Do not cut around the corners, but tear them off. Of course, it makes more sewing, but always remember that "it pays to do only what it pays to do well." If rags are cut around the corners, they will soon wear off in those places, leaving the rest of the rags good. So you can see that it is not good economy, though it takes less time. Always have your rags as near half an inch in width as possible. Woolen rags must be cut narrower than cotton.

Wind your rags firmly in balls as nearly a pound in weight as you can guess, allowing a pound and a quarter for each yard, which will be enough to fill a yard with the proper amount of warp. If you wish to prepare your own warp, get cotton yarn No. 10; make it three-threaded, which will give you 30 knots, and of each pound you will have one skein left, which in three pounds will make 30 knots extra. Take good care to double your yarn even, and twist it well. Slack-twisted warp is almost worthless. Allow 6¾ knots of warp for each yard. This is more than usually allowed, but try it, for it takes less rags, and if well beaten up, the carpet will last nearly twice as long as if less warp was used. If you buy your warp ready prepared, always get that which is hard-twisted, fine and even. Never send your warp to the weaver without first reeling it and putting the desired quantity in each skein. Reel your rags you wish to color in skeins of two knots each, as they are lighter to handle and will color better. Be very careful to wash out every particle of the dye, as it will injure the rags if they be not well rinsed. Wind again into balls and they are ready to be sent to the weaver.

All calicoes and delaines that are of a good color, weave in without dyeing. Cutch makes a good color and beech bark or maple set with copperas, is durable and cheap. If you have a few odds and ends of all colors, sew them together in balls and make what we call a "hip-skip" stripe. Never put in a carpet rags that are worn so badly as to be tender, as it is waste; for they soon wear out and then the carpet is worthless. To sew rags properly, lap the two pieces three-quarters of an inch, and double the rag so that it is but half the width, and backstitch through it as far as it is lapped. This mode of doing it is much better than sewing one or two stitches in the middle, and leaving both ends flying.

MRS. J. A. GREGORY.

New York.

A CUP OF TEA.

"The cup that cheers, but not inebriates."

Who has not smiled at the way in which our foremothers made their first tea?

"Pooh!" says a little miss of ten, "it's nothing to make tea. All you've got to do is to put in a teaspoonful of tea for the drawing, and one for every person to drink of it; pour on a little hot water and let it boil till the streugth is out; then fill up with water."

Perhaps eight persons out of every ten who make tea at all, make it after this fashion; but it is a very poor one, for all that, and tea so made is, to say the least, not what it might be.

In the first place, tea should be *steeped*, not boiled; and then if one wishes to know just how *good* a cup of tea can be, she should never allow the addition of even the smallest quantity of water after the tea is steeped, as it will be sure to render it insipid. Let the required quantity be poured on at once, or, still better, put the water in the pot first, and add the tea to it. Tea is often spoiled, both as to color and taste, by oversteeping. Japan and black teas require a longer time than do the green sorts—say five minutes for Japan, eight or ten for black, while for green three minutes will suffice.

A good way to prepare tea for picnics and and the like, is to fill glass fruit jars with cold water, and to every quart put half a cup of dry tea, and just before using, drop a lump of ice into each jar. ADELINE E. STORY.

DOMESTIC RECIPES.

Apple Tarts.

Make the crust with one cup of lard; the white of one egg beaten to a froth; one teaspoonful of white sugar; one-fourth cup of cold water; flour sufficient to roll out. Make a rich sirup of white sugar, boiling in it some fresh lemon peel, then put in tart apples that have been sliced rather thick. When tender take from the fire to cool, and then fill the tart; cover with another crust and bake lightly.

Prison Cake.

One cup of butter; three cups of white sugar; five cups of flour; two cups of sweet milk; one teaspoonful of soda and two of cream-of-tartar; whites of eight eggs, This is for the white part.

Dark part.—One cup of butter; two cups brown sugar; one cup of molasses; one cup of sour milk; one teaspoonful soda; four cups of flour; yelks of eight eggs; fruit to taste. Put into the tins in alternate layers, and when it is sliced off it is in bars of dark and light.

One Egg Cake.

One and one-half cup sugar; three-fourths cup of sour milk; one-half cup of butter; one egg; one-half teaspoonful of soda. Do not mix very stiff.

Rice Pudding.

One teacup of rice, cooked till done; then add six eggs, one pint of milk, one pint of cream, one tablespoonful of corn-starch. Flavor with vanilla or lemon. Beat the eggs and stir into the boiling milk and cream. Cook over a hot-water bath. A cup of raisins should be added the last thing before it is cooked.

LORETTA E. K. TURNER.

Currant Sauce For Venison.

BOIL a teacupful of dried currants in a pint of water; add a small teacupful of bread crumbs, four or five cloves, a glass of port wine and a bit of butter. Stir until smooth.

Mich. MRS. A. L.

Creamed Potatoes.

PUT into a saucepan a teacupful of sweet cream, one tablespoonful of butter and dessert spoonful of flour, rubbed smooth in a little of the cream; cut some boiled potatoes into slices and add; season with pepper and salt, and just before they are served add a teaspoouful of chopped parsley. MRS. E. L. B.

OUR FREE SEED DISTRIBUTION.

SEEDS of the following varieties of plants are offered to our subscribers without any charge whatever (except for postage, a part of which we bear) until further notice:

DEFIANCE WHEAT. A hybrid spring wheat. The most promising variety ever before offered.

"PEARL" OR "EGYPTIAN" MILLET. One of the most promising fodder plants known.

BEAUTY OF HEBRON POTATO. According to many careful tests, this is ten days earlier than Early Rose, as good in quality, and more prolific.

THE VOORHIS WATERMELON. A specialty of the Rural Farm.

GOLDEN RURAL TOMATO. A specialty of the Rural Grounds.

ACME TOMATO. This is offered as the best of the newer varieties of Tomatoes to those who may prefer it to a trial of the Golden Rural.

NEW BRONZE RICINUS. Specialty of the Rural Grounds. The most beautiful Ricinus in cultivation. A cross between Ricinus Gibsonii and R. sanguineus.

HIBISCUS MOSCHEUTOS—the showy and beautiful Rose Mallow, never before offered so far as we know. Hardy.

CALLICARPA AMERICANA (Purpurea). The brilliant French Mulberry. Hardy.

HIBISCUS SYRIACUS. One of the most charming of hardy shrubs. Sometimes called "Rose of Sharon." Our seeds are saved from double-flowering varieties—many of them from seedling plants. They grow readily from seeds, and bloom as soon as plants would if transplanted from nurseries. The seedlings "sport" without end.

WEIGELA. Seeds saved mostly from seedlings. This is probably the finest hardy shrub in cultivation.

DEUTZIA CRENATA fl. pl. Seeds saved from seedlings at the Rural Grounds. Seventy-five per cent. of seedlings will bear double flowers. It is perfectly hardy and there is no finer shrub known for ornamenta grounds.

HIBISCUS MILITARIS. Hardy and beautiful.

ERYNGIUM LEAVENWORTHII. The most striking annual of recent introduction. (See RURAL of November 9th for engraving of this and other plants, seeds of which we offer.)

YUCCA FILAMENTOSA. Every farmer and lover of plants should have specimens of this perfectly hardy evergreen liliaceous plant in his grounds. It is superb.

VITIS HETEROPHYLLA. See RURAL, Nov. 9, for description of this hardy vine.

RURAL HYBRID AQUILEGIAS. Beautiful, hardy perennials of great beauty.

GRINDELIA SQUARROSA. See RURAL of Nov. 9 for remarks.

OBSERVE.

Any ten of the above require a one-cent postage stamp:—that is, ONE *cent* for the ten, not for each except the Beauty of Hebron Potato, Pearl Millet and Defiance Wheat. The Beauty of Hebron requires a two-cent extra stamp and the other two a two-cent extra stamp also.

Other varieties *may be* added. We intend this free seed distribution to be the most valuable of its kind that has ever been gratuitously offered by any journal, and to introduce the above v uable plants to the homes of farmers and horticulturists in every part of our country.

WE offered, some time ago, to sell the cuts used in this Journal for twelve cents the square inch. Many have requested us to send proofs of our cuts. As we have upwards of ten thousand, we couid not undertake to do so. Persons wishing to purchase, must select from files of the RURAL NEW-YORKER.

A Favorable Notoriety.—The good reputation of *"Brown's Bronchial Troches"* for the relief of Coughs, Colds and Throat Diseases, has given them a favorable notoriety. 25c. a box.

THE MARKETS.

PRODUCE AND PROVISIONS.

NEW YORK, Saturday, Feb. 8, 1879.

BEANS AND PEAS.—Beans have sold slightly better for export, but the market, as a rule, is dull all through. Holders thought that prices had touched bottom, but with the liberal offering, especially of low class mediums, further concessions will probably occur before a firm base is reached. Supply of red kidney, heavy, in the absence of southern call. Prime black beans quoted stiffer. Green peas, not rated prime, have sold at 1.37½; choice in store, $1.30@1.32. Canadian peas show sales at 73@75c.; Southern B. E. peas weaker. Medium beans, prime, $1.30@1.32; fair to good, $1.15@1.25; marrows, prime, free on ship, $1.37½@1.40; fair to good, $1.25@1.35; peas, $1.20@1.50; white kidney, $1.60@1.85; red do., choice, $2.60; fair to good, $2.35@2.45; black beans, $2.05@2.25 Lima, $1@5.

Receipts of beans for week, 16,732 bushels; exports, 900 bbls.

BEESWAX—Has been offered lower on account of fair supplies and a slow demand. Western and Southern quoted 25@28c.

Exports, past week, 361 lbs.

BUTTER.—The market is not generally active, and heavy receipts of commission State cause some depression in all but selections and fine table. Shippers continue to encourage holders, taking good sound mixed lots at a range of 10@20c., though the latter is extreme. There remains a fairly long season to handle the crop, and unless the interior reserves are far ahead of estimates, serious breaks in rates are not anticipated. At the moment supplies are somewhat pressing, and consignees should not be limited or restricted in their method of movement by owners' orders. Local merits of quality do not always go up to commercial standards at points where receipts concentrate, and at as late a date as this responsible sellers' judgment should be submitted to. Western butter is also largely included in the receipts, and prices are quoted as high as they will bear. Buyers of sound parcels divide their attention more than usual between Western and State, as in the latter good bargains are offering in dairies. Roll butter has only a nominal position. State full creamery turns out well this season, but, as usual, Western with heavier grain feeding is quoted the highest.

Comparative receipts and exports from June 1st to date:

	Receipts, pkgs.	Exports, firkins.
June 1, '78, to Feb. 1, '79	1,067,150	208,451
June 1, '77, to Feb. 1, '78	942,050	140,417
June 1, '76, to Feb. 1, '77	818,400	103,975

Single extra State half tubs, 26@27c.; State, full dairies, special, 20c.; other, 16@18c.; firkin dairies, fair to prime, 15@18c.; Welsh dairies, fine full, 16@17c.; choice half tubs, 23@25c.; fair to prime do., 16@21c.; choice Welsh, 19@21c.; fair to prime, 12@17c.; Choice creamery 25@26c.; best western creamery, 28@30c.; other, 20@23c.; early packed creamery, 17@20c.; poor State, 9@12c.; Western dairy, fine fresh, 18@20c.; fair to good, 10@15c.; factory, ladle packed, 18@19c.; good, 14@16c.; other, 7@9c.; rolls, 10@16c.; grease, 4@5c.

Receipts for week, 32,677 pkgs.; exports do., 11,500 do.

CHEESE.—The movement has been very steady and fair, chiefly in grades at from 2@6c., and fancy stock at about 9c., with special lots of the latter running up to 9½c., and even above this on especially attractive parcels. Good grades are most difficult to sell. The general market is firm.

Quotations are 9@9½c. for fancy; 8¼@8½c. for fine lots; 7¼@8c. for good; 4@5c. for skimmed; State, farm dairy at 8@8½c. for fine; 7@7½c. for good to prime. Wisconsin factory, fine and fancy, at 8¼@9c.; do. good to prime, at 7½@8¼c. Western factory, fine and fancy, 8@8½c.; good and prime, 6½@7½c.; do. full skimmed, 2@5c.

Comparative receipts and exports from June 1st to date:

	Receipts, pkgs.	Exports, lbs.
June 1, '78, to Feb. 1, '79	2,761,422	111,444,572
June 1, '77, to Feb. 1, '78	2,228,375	95,005 808
June 1, '76, to Feb. 1, '77	1,876,767	77,127,293

Liverpool quotation, 48s.
Steam to Liverpool, 45s.

COTTON has been slow comparatively the past week, and only slight changes in prices, which close at, for February, 9 61c.; March, 9.71c.; April, 9.88c.; May, 10.0.c.; June, 10.19.; July, 10.28@10.30c.; August, 10.38@10.39c; September, 10.17@10.19c.; October, 9.96@10c.; November, 9.84@9.85c.

Quotations for spot cotton are based on American standard of classification, and on cotton in store running in quality not more than half a grade above or below the grade quoted:

	Uplands.	N. Orleans.	Texas.
Ordinary	7 11-16	7 13-16	7 13-16
Strict ordinary	8¼	8¼	8¼
Good ordinary	8¾	8¾	8¾
Strict good do	8 15-16	9 1-16	9 1-16
Low middling	9 3-16	9 5-16	9 5-16
Strict low middling	9¾	9¾	9¾
Middling	9 9-16	9 11-16	9 11-16
Good middling	9 15-16	10 1-16	10 1-16
Strict good middling	10 5-16	10 7-16	10 7-16
Middling Fair	11	11¼	11¼
Fair	11 13-16	11 15-16	11 15-16

STAINED.

Good ordinary	7 13-16	Low Middling	8 13-16
Strict good ordinary	8 5-16	Middling	9 3-16

DRIED FRUITS.—Apples have a very good inquiry, and some sales of choice sliced run above quotations or up to 4c to the local trade; shippers have paid as high as 3¾ for quarters. Unpeeled peaches are about ¼ better, having been sold freely. Blackberries are also somewhat stronger.

State plums, 14½@15c.; Blackberries are quoted at 4¾@5c. Peaches—Peeled Georgia, at 6@7c. for poor; 8@9c. for fair to good; 10@10½c. for prime; choice North Carolina, 11½@12½c.; good do., 9@10c.; unpeeled halves, 3@3¼c.; quarters, 3½c. Pitted cherries, 21c. Apples—New, 2@2¼c. for southern quarters in bags.; 3¼@3¾c. for good and prime sliced; do., fair at 2¾@3c. State at 3@3½c. for new sliced; and 3¾@3¾c. for quarters; Western at 2¾@3¾c. for new quarters. Raspberries, 23c. Apples, evaported, Alden or Williams, at 10@11c.; other processes at 6@8c.

Exports, past week, 802 bbls. apples.

EGGS.—Receipts for the week, 3,070 bbls.; do., last week, 3,215 do. The market has been very lightly supplied and violent fluctuations have occurred. These, when upward, always damage trade, as buyers hold off and a sudden heavy delivery may take off all that has advanced. Since our last 34@35c. was realized for State and western, but with the withdrawal of buyers and larger regular supplies, together with lots being added from neighboring cities, prices are weak at quotations: near points, 30c. State, Pennsylauia, southern and western, 27@28c.; limed are quite gone, at least no one quotes them regularly; choice at last sales went at 25@26c.

FLOUR.—Business has been somewhat brisker, chiefly on wants of exporters, and prices stronger without an actual advance.

Latest prices are at $3.15@3.60 for very inferior to strictly choice superfine State; $3.60@3.90 for very poor to good extra do., odd lots and lines; $3.90@4.25 for good to very choice do., and fancy lots above this; $3.10@3.60 for inferior to very choice superfine Indiana, Iowa, Michigan, &c.; $3.60@3.90 for inferior to good shipping extra do. and $3.90@4.25 for good to very choice extra do.; common to about choice white wheat extras, $4.00@5.00; choice to fancy do. at $5.00@5.75; red and amber winter wheat, very inferior to very choice trade and family, at $3.90@5.60; round hoop Ohio at $3.85@4.25, and trade and family brands of do. at $4.25@5.60, the latter rate for very choice; St. Louis, $4.00@4.75 for very poor to good extra, and $4.75@5.60 for good to choice; Minnesota clear, very inferior to fancy, at $3.60@5.00; few brands going above $4.50; Minnesota "straight," inferior to fancy at $4.40@5.60; and patent fair to strictly fancy at $5.25@8.25, few brands going above $7.50; unsound stock at from $2.00@4.75; city mill extra at $4 70@5.00 for West Indies (the latter rate for very fancy in new packages); do. for England $3.65@3.80; do. trade and family extras, $5.10@6.00; do. for South America, $5.00@5.50 for fair to very choice; No. 3 at $2.35@3.00 for poor to very fancy.

FEED.—Sale at $14.50@15 for 40 lbs.; $14.50@14.50 for 50 lbs.; $14@15.50 for 100 lbs., and $14@15 for rye feed.

FRESH FRUITS.—Strong prices for apples limit the demand, but prices are as firm as at our last. Quotations are for stored or inspected parcels; late car-loads are regarded with suspicion on account of frost and rarely sell up to the extreme. Spitzenbergs, $4@2.50; Greenings and Baldwins, $1,75@2; poor lots, $1@1.25. Cranberries have only a moderate trade, but the supply is small, and as apples advance berries will hold to late rates; prime to fancy, bbls., $8@9; other, $5@6; N. J. crates, fancy, $3; other, $2@2.75. Florida oranges dull, lots not turning out handsome; bt. bbl. boxes, fair to best, $@3; discolored, $1@1.50; bbls., $4@6. Hot-house strawberries, $5 per quart. Peanuts firmly held, with only a moderate trade. Hand-picked Va., $1.10@1.12½; other, 80@95c.; shelled, 4½@5c. Hickory nuts nominal at $2.

Exports for week, 5,670 bbls.

HONEY.—The market is practically dead. Choice single comb clover still quoted down to 10@12c.; two do., 8@10c.; buckwheat, 7@9c.; strained, 6@9c.

FURS AND SKINS.—The market is active for prime lots for shippers' use, intended for the London March sales. Skunk are largely in excess of last year's catch and are again easier. It must be understood that shippers will not take skins that are torn; these have no other outlet than to local manufacturers. One reason for the prolonged activity of the market this year is the excellent quality of most furs, the season having been so favorable to fur growth. The shipping demand will close by Feb. 15th.

GRAIN.—Wheat has shown only a moderate export movement, but speculation has been very fair and has served chiefly to keep up prices; latest sales are of No. 1 red at $1.08¾@1.09; No. 2 red at $1.08¾@1.08¾; No. 3 red at $1.08¾@1.04; ungraded red at 99c. to $1.08¾; rejected red at $1; No. 2 amber at $1.08¾@1.08¾; ungraded amber at $1.0@@1.08½; No. 3 spring, car lots, at 90c@90¾c.; ungraded Minnesota spring at 90c.; extra white at $1.10; white State at $1.09¾@1.09¾; No. 1 white at $1.08¾@1.09¾; do. steamer quality at $1.07; No. 2 white at $1.07¾; ungraded white at $1.08¾@1,10; No. 2 red, February option, at 1.08¾; do., March option, at $1.10@1.10¼; do., April option, at $1.11; No. 2 amber, February option, at $1.08@$1.8¾; do., March option, at $1.09; do., April, at $1.09¾. Rye has been very active on wants of continental markets and closed strong; State quoted at 57¾@61c.; Western at 57@60c. Corn is in larger receipt and closed lower; latest sales are of steamer mixed, in lots, at 44½@44¾c.; old New York No. 2 afloat at 47¾c.; do. in store at 47c.; New York No. 3 at 42¾@43¾c.; ungraded mixed at 46¾@47¾c.; New York No. 2 new at 45¾@45¾c.; Jersey yellow at 45c.; New York yellow at 46¾c.; yellow western at 46¾c.; white western at 49¾@50c. for old; round yellow at 53c.; York No. 2 white at 46c. for new; New York steamer yellow at 45c.; yellow southern at 45¾@46¾c.; New York No. 2, February option, at 45¾c.; old do. at 47¼c.; New York No. 2, March, at 46¾c.; do., April, at 46¾c.; steamer mixed, February option, at 44¾@44¾c. Oats are unsettled and rather easier at the close; sales of New York No. 1 at 31¾c.; New York No. 2 at 31@31¾c.; New York No 2 white at 33c.; New York No. 3 at 30c.; New York No. 3 white at 32c.; white Western at 32¾@34¾c.; mixed do. at 30¾@31¾c.; white State at 33@34c.; mixed do. at 31¾@32c.; New York extra white at 33@35¾c.; New York No. 1 white at 34¾c.; No. 2 Chicago, afloat, at 31¾@31¾c., and for do. in store 30¾c. asked and 29c. bid; Jersey and Pennsylvania mixed at 30@31c. State 6-rowed barley, 85@90c.; do, 2-rowed, 75@78c.; Canadian, 90c.@1.15; do. malt, $1@1.25; western do., 60@90c.

HAY AND STRAW.—There have been very fair dealings, and as receipts have been moderate prices are somewhat firmer.

Sales at 40@45c. for shipping, and 70@80c. for retail qualities. Straw quoted at 50@60c. for long rye, and 40@45c. for short rye, and oat at 40@45c.

Exports, for week, 975 bales.

HOPS.—Exports for the week, 581 bales. The moderate business from exporters has been at fairly steady prices on prime stock, but the low grades favor buyers. There are few lots here of a quantity to exceed 13, but one fancy lot sold to a brewer as high as 16.

Quotations are for New Yorks, new crop, choice, 13@15; New Yorks, new crop, good to prime, 10@12; New Yorks, new crop, low to fair, 7@9; Eastern, 8@12; Western, 8@12; Yearlings, 4@6; Olds, all growths, 2@3; Pacific coast, 12@15.

LEATHER.—Hemlock sole at 18@20c. for light; 19@21c. for middle; 19@21c. for heavy, and 17@19c. for good damaged.

OIL CAKE.—Western has been in brisk demand at $27 per ton.

POULTRY AND GAME.—Live stock is scarce even for winter. N. J. fowls, 13c. Western, 12c.; young roosters, 8@9c.; old do., 6@8c.; Turkeys, hen, 12@13c.; do., toms, 9@10c.; Ducks, 60c.@$1; N. J. Geese, $1.75@2; other, $1.25@1 50 pair.

Dressed poultry has arrived moderately and good rates have ruled for fresh, bright stock. Nothing very common in market. Large turkeys not wanted, 10c. extreme for them. The supply of prepared frozen poultry will not, it is thought, be heavy this coming spring. Low prices last year checks the enterprise. Phila. and N. J. turkeys, including dry picked, 13@14c.; prime State and Western, small, 12@13c.; other, 9@11c.; Phila. dry picked fowls, 10@12c.; do. chickens, 14@15c.; N. J. chicks, 13@14c.; Western, prime, 11@13c.; other, 8@10c. Capons, 18@19c.; slips, 15@17c.; Ducks, choice, 13@14c.; other, 9@12c.; Geese, 7@11c.; 11c. for dry picked.

The surplus of game has been worked down and prices are better. Quail, choice, 85@90c.; other, 50@60c.; Grouse, trapped, 60@85c.; soft, 50@55c.; Canvas-back Ducks, $1.50@1.75; Red-head, 75c.; Mallard, 50@60c.; Teal, 40c.; common, including Broad-bills, 20@25c.; Hares, 22@25c.; Rabbits, 15@20c. Foreign exports for the week include 100 pkgs. game.

PROVISIONS—Have generally tended higher on a good demand. Mess pork quoted at $8.60 bid and $8.70 asked for old for February; $10.15 bid and $10.30 asked for new for February; $8.69 bid and $8.70 asked for old for March; and $10.15 bid and $10.30 asked for new for March, and $10 25 bid and $10.30 asked for new for April, and May at $10.35 bid and $10.40 asked. Bacon at 5c. for long clear and 5¼c. for short clear. Lard—Western steam at $6.80 for spot lots; $6 75@6.77½ for February, $6.82½ for March, $6.90@6.92½ for April, and $6.95 for May. Tallow at 6¾c. for prime. Stearine at 6¾c. for Western. Beef hams at $17.50 for Western. Beef, extra India mess, $18@20 as to quality; packet, $11@11.50; plain mess, $10@10.50; extra mess at $10.50@11.50.

SEEDS.—Clover is strong at 6½@6¾c. for prime and 6¾@6¾c. for choice western. Timothy is firm at $1.25@$1.35.

TOBACCO.—Export movement has been light and home trade moderate, with prices steady. Quotations are for

KENTUCKY LEAF.

	Light.	Heavy.
Common lugs	2½@ 3	3¼@ 3¾
Good lugs	3¾@ 4	4 @ 4½
Low leaf	4½@ 5	5 @ 6¾
Medium leaf	5¾@ 6¾	6¾@ 7¾
Good leaf	6½@ 8	8 @ 9
Fine leaf	8¾@10	10 @12
Selections	—@—	12 @12¾

SEEDLEAF.—CROP OF 1877.

New England wrappers, common	10	@12
do. do. medium	13	@15
do. do. fine	18	@25
do. do. selections	27½	@35
do. seconds	10	@13
do. fillers	7	@ 9
Pennsylvania assorted lots, common	9½	@10¾
do. do. fair	11¾	@14¾
do. do. fine	15¾	@18
do. wrappers	20	@40
do. fillers	7¾	@ 8¾
New York assorted lots, common to medium	8	@10
do. do. do. good,	12	@15
Ohio assorted lots	9	@12
Ohio wrappers	13	@18
Wisconsin assorted lots	7¾	@10

VEGETABLES.—Liberal supplies keep the potato market as it was, easy for common to good sorts. Seed demand moderate. Export for week: 3,200 bbls., do. of onions, 1,050 bbls. Eastern E. rose potatoes, $2.50@3; State at $2@2.62; N. S., $2.62@2.75; W. Peachblow, $2.50@2.75; red do., $2.25@250; prolific, $2.25@2.50; peerless, $2@2.37; Jackson white, $2.12@2.25; mercer, $1.87@2 (the extremes are for double heads.) Onions steady, many going out; W. I., 50@75c. per box; onions, white, $3@3.50; do. yellow and red, $2.25@2.50; chester, $2@2.50; marrow squash, $1.75@2; Hubbard, $2@2.25; cabbages per 100, $4@6; R. turnips, per bbl., 75c.@$1; carrots, 75c.@$1; beets, 75c.@$1; celery, per doz., 50c.@$1.

WOOL.—The failures, East, of one or two manufacturing concerns, early in the week, rather disturbed confidence and interfered with business, which has been very moderate. Prices are held firm. Domestic fleeces:

Ohio, Pennsylvania and Virginia—XXX and picklock, 37@39c.; XX, 34@35c.; X, 33@34c.; No. 1, 35@36c.; No. 2, 30@32c.; common, 28@30c.; combing and delaine, 36@38c.

New York, Michigan, Indiana and Wisconsin—XX, 31@32c.; X, 31@32c; No. 1, 33@35c.; No. 2, 29@30c.; common, 27@28c.; combing and delaine, 34@37c.

Iowa, Vermont and Illinois—X and XX, 28@31c.; No. 1, 32@34c.; No. 2, 27@29c.; combing, 33@36c

Missouri, Kentucky and Tennessee — Washed fleece, 26@31c; unwashed fleece, 21@26c.; unwashed combing, 23@27c.

LIVE STOCK MARKETS

Saturday, Feb. 8, 1879.

BEEVES.—Receipts for the week, 8,305 head; do., last week, 10,137 do. Supplies have been light, and with considerable competition on part of buyers prices show an advance over Wednesday, closing firm. No very extra grade here, and prices deemed high for the medium average quality of the offering. Common to good sold at 3½@9¼c., dress 56 lbs.; prime, 9¾@10c. to dress 56 lbs.; some Colorado stock brought 9c. Cattle are still taken for British use. The cattle disease scare has temporarily reduced consumption locally.

COWS AND CALVES.—A few fresh cows happened to strike a market during the week at $35@65 per head.

VEAL CALVES.—Prime live and dressed have had steady sale; frozen calves slow. N. J. and Buck's Co. live milk, best, 7¾@7½c.; good, 6½@7c.; other, including heavy weights, 5½@6c. for State; 7c. the top. Fed, 4½@5½c.; grassers, 2½@3c. Prime hog dressed, 9½@10c.; other, 6½@8c.

SHEEP AND LAMBS.—Receipts for the week, 25,288 head; do. last week, 17,659 do. Sheep have had a good demand; but with a larger offering prices have ruled a shade off compared with last week's. Western, fair to prime, 5¼@5¾c.; near-by, 5@5½c.; N. J. ewes, 4½@4¾c. Lambs, 5¾@6½c. A number of Canadian sheep are going abroad. Last sales of American sheep in England not favorable for owners.

SWINE.—Receipts for the week, 29 609 head; do., last week, 24,706 do. There has been a firm and better market for live, but at the close prices are not so strong. Nominal rates, 4¾@4¼c. No offering.

Dressed hogs doing well. Country pork, State and N. J., light, 6¼@6¾c.; medium, 5¾@6¼c.; heavy, 5¼@5½c.; city dressed, 5¾@5½c.; western, 5¾@6¾. Pork tenderloins, 6@¾c.

SPECIAL NOTICES.

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We will during *this month dispose of* **100 PIANOS & ORGANS, at EXTRAORDINARY LOW prices for cash. SPLENDID ORGANS 2 3-5 sets of reeds, $65. 3 sets with Sub Bass and Coupler $80. 2 sets $50, 1 do $40, 1 do $35. 7 Octave *all* ROSEWOOD PIANOS $130, 7 1-3 do $140, all round corners do $175, warranted SIX years. AGENTS WANTED. Illustrated Catalogues Mailed Music at half price. HORACE WATERS & SONS, Mafrs. and Dealers, 40 E. 14th St., N. Y.**

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Reading for the Young.

HOW THE TIGERS ARE CAUGHT.

HAVE you ever visited a place where wild animals are kept for exhibition and trained, or as it is commonly called, a menagerie? If so, you have no doubt wondered at the ferocious tigers and lions that are kept in great, strong, iron cages to prevent them from jumping out upon the other animals and upon people that come "to see the show." You must have noticed the fierce expression in their eyes as they gaze out over the crowd of curious visitors and impatiently walk to and fro in their cages, now and then uttering a suppressed growl that made your very boots tremble. You wondered perhaps that anybody would dare to catch and cage such animals, compared with whose strength and ferocity, the strength of a man is but feeble indeed. But your astonishment reached its topmost hight when you saw the keeper enter the cage, open the jaws of one of the beasts, and put his head in between its teeth. It would be certain destruction for anybody but the man who constantly trains them, to do this daring deed; but for him they form in some cases a certain attachment, or otherwise get so afraid of his whip, that they permit him to take liberties with them which it would be folly for anybody else to imitate. And even keepers are sometimes taught that nature is stronger than training, for occasionally we read of some being killed by the animals in their charge.

The lions and tigers we see in shows are either born in some menagerie, and as they in that case have never known what it is to be at liberty to roam over the plains and through the woods, they have become "domesticated" to some degree; or they have been caught in their native wilds while they were still young. The natives of Bengal, and other portions of Asia and Africa, where these animals are numerous and often troublesome, have devised many traps in which to catch them. One, which is much used, is represented in the picture. A stout framework is formed of posts set firmly in the ground, and covered with a heavy lid, which when it falls down is held down, either by a weight or a catch.

This lid is partially raised, as shown in the picture, and so set, by an arrangement somewhat like a mole-trap, that if anything comes under it and touches the lever, it falls and makes a prisoner of the intruder. You will notice that a looking-glass is fastened to a lever of the arrangement. This is to attract the tigers, of which the males, particularly in pairing time, are always ready for a fight; and one seeing his own image in the glass, takes it for an enemy and makes a bound for it, the lid falls and Mr. Tiger is made prisoner. The trapper, when he comes along, either kills him in the trap, or in the case of a young animal, sells him, if he can, to some showman. The traps are sometimes made portable, so the whole can be put on a cart and carried off.

In place of the looking-glass the trapper sometimes ties a kid in the bottom of the trap which by its bleating attracts the beasts. Lions are said to be more shy of traps than tigers, and carefully avoid all that looks like a trap unless they are very hungry.

If you notice, you will see a great resemblance between the Cat, Lion, Tiger, Panther and others. Scientists class them (with many others) in the order *carnivora*, which includes all that live on flesh by preying on other animals. Those named have the same build, only differing in size; they have much the same appearance in their movements, and all walk on the tip of their toes and not on the whole foot as for example does the bear. For these and other reasons, which you would not understand, scientists have put them in one group, which they call *felidæ* meaning the cat family.

Tigers are most numerous in Asia and particularly in Hindostan, where they breed almost undisturbed in the jungles along the great rivers.

The ground-color of the tiger is orange-yellow which is striped with black bands across the body; but the throat, breast and under part is of a dirty white. He sometimes reaches a size of about eight feet long and between three and four feet high, and is strong enough to carry off an ox. He is very subtle and treacherous in his character, and will lay in wait for his prey behind a log or stone near some path or watering place when he suddenly jumps upon and carries off beast or man that happen to pass.

UNCLE MARK.

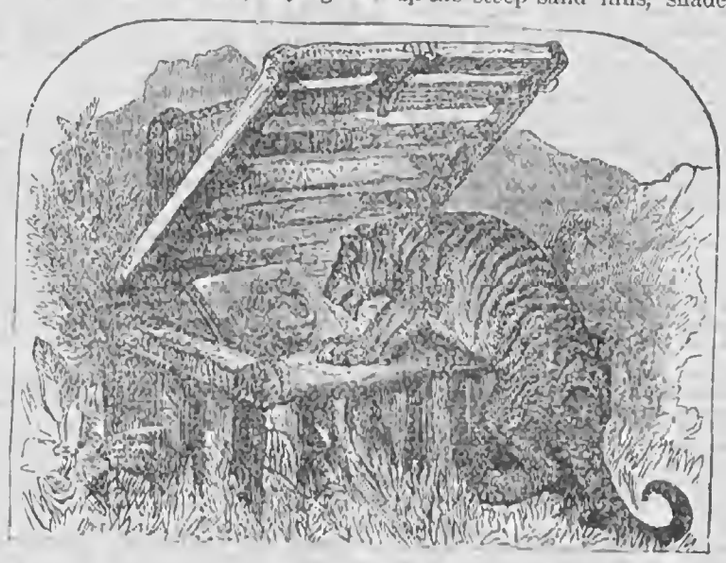
A KNIGHT IN A PIE.

YES, a real, live knight, in a real, crisp, nice pie. Did you ever taste of that pie? No, I think not, for it was cut open about two hundred years ago. Wouldn't you like to have been at that table upon which that lively pie was put? Methinks I hear some one say—they would have liked pies better filled with cherries or peaches.

I am going to let Sir Knight tell his own story. As he told it to—me? Oh, no, for the Knight has been dead about one hundred and seventy-five years, so he never had an opportunity of giving me an account of how it all happened; however, he told somebody who told some one else, who told some other body who told me. Now, I will let the knight speak for himself:—

"Yes, sir, there was not a thing which my royal mistress, Henrietta Maria, could have required of me, that I would not have complied with, sir; I was her sworn servant, and at her majesty's particular request, I once condescended to become—ladies, you know, have strange fancies—to become the tenant, for a time, of the *interior of a pie*. So I found myself imprisoned in a huge platter, of no ordinary dimensions, you may be assured, since I could lie at length in it; then I was entombed, as it were, in walls of standing crust and a huge cover of pastry. Notwithstanding the contrivances made to give me air, it was more like being buried alive than anything else I could think of, but I bore all these inconveniences cheerfully for the Queen, for whom I would have crept into a filbert-nut, if it had been possible.

I must say, I feared lest some awkward attendant might let me fall, or that some hungry guest might stick his knife into my upper crust; however, I had my dagger about me. I had other cause for apprehension, for my lord of Buckingham commanded the pastry to be carried down to the kitchen and put again in the oven, saying—



TIGER TRAP.

'The pastry was better eaten warm than cold. Then I thought of Nebuchadnezzar and his fiery furnace. Fortunately, the cook would not allow me to be put in the oven and I was again taken to the royal table.

The happy and glorious moment at length arrived. The upper crust was removed—I started up to the sound of trumpet and clarion. It was then, that with my buckler on my arm and my bilbo in my hand, I executed a warlike dance. I was almost deafened with the applause of those around me."

Have you any curiosity regarding the name of the "knight of the pie?"

He was called Sir Geoffrey Hudson, and is often mentioned in anecdotes of Charles the First's time. His first appearance at court was his being presented in a pie. Our knight was but a diminutive person, until he was thirty years old he was only eighteen inches high, after that age he grew to the height of three feet, nine inches, and then stopped.

Although Sir Geoffrey was of so insignificant stature, he proved a formidable antagonist; indeed, in a duel, if we can believe the chronicles of the time, he killed one Master Crofts, who had made fun of Geoffrey for appearing on the royal table in a pie. Regarding this duel, it is related that our knight said:

"I would not wish my worst foe the pain which I felt when I saw Crofts reel on his saddle, and so fall down to the earth, and when I saw that the life blood was pouring fast, I could not but wish to Heaven that it had been my own instead of his."

Poor Sir Geoffrey was not doomed to end his days in peace. Upon some suspicion respecting the Popish Plot, he was thrown into prison, where he languished many years, finally dying in his sixty-third year.

The brush of Vandyke has immortalized Sir Geoffrey, and his clothes are said to be preserved as articles of curiosity in Sir Hans Sivan's Museum.

SANS SOUCI.

BERTIE'S AND KATIE'S PICNIC.

DEAR UNCLE MARK.—Do you remember Bertie and Katie; and how the boy of us, that is I, once poked straws through the hives at the bees; and how the bees poked back, and how you carried me away, as you said bees did not like to be poked; and how I was crying too hard to even thank you? Well, I am that same boy, wiser now, and want to tell you of our picnic.

It was at South Haven, right in the middle of the "Lake Shore Peach Belt," not that there is any real belt of peaches there; though all we saw would make a pretty long belt, and all we ate would have made a wide rent in such a belt. It is so called because a narrow belt hugging the eastern side of Lake Michigan grows the largest, juiciest, lusciousest, meltingest peaches ever tasted by boy or girl. I wish all the cousins had been there, with Uncle Mark to keep us straight, we would have treated the whole family. The peach trees were so green that Katie said God must have just been painting them. I said may be they had been Paris-greened for insects.

Well, our picnic was to be up the shore a few miles, at a place called Thunder Mountain. Twenty of us, of whom two half dozen were children, were to go on a cunning little steamer named "Skipper." Just after we walked onto "Skipper," she made us children skip, for she bellowed till she was fairly hoarse. Katie said it made her angry for us to walk on her, but I think she did it just to scare us little folks. Soon she gave two ringing, roaring, shouts as if angry at being tied up, which I guess was true, for some men fairly ran to untie the ropes that held her fast, when "Skipper" just skipped out of the river into the lake puffing and blowing as though she had the asthma or else a bad cold. I guess it was the latter, for she just kept blowing her nose every minute.

In a few minutes we were out on the lake, and the fresh breeze, the dancing waves, and the rocking "Skipper," were just more than jolly, the children all got on "Skipper's" head, and just "hollered" the whole of that ten miles. "Skipper" would throw her head away up into the air, and then as if thirsty drop it quickly down to the water's edge. Some of the folks were sick. This was too bad, for it was just a tip-top time to be well. We saw on the water a great many beetles and other insects, which papa said were blown over the water and getting tired of flying, were trying to swim.

Just as soon as the boat touched the land we children rushed out onto the sand, which had been pounded so long by the waves that it was nearly as hard as stone.

Katie and the other girls stopped to gather pretty stones and shells, and to watch the jumping waves that were ever trying to leap onto the shore, and of which Katie said they must be tired for their faces were white. While we boys rushed up the steep sand hills, shaded with thick evergreens. I may tell you another time what we saw and did.

BERTIE.

HOW BOYS CAN MAKE MONEY.

THINKING perhaps to encourage the boys who do not altogether like father's ways, and who often wonder whether he used to pick stones, or pull weeds, or hoe potatoes all day in the hot sun, while he was a boy, when there was so much fun, and perhaps mischief, waiting for just such boys. Now boys, although you may be looking anxiously towards your cousin who clerks in the city, who has fine clothes and apparently an easy time; but don't be deceived. It is too often a delusion. I will tell you how I managed to go through with such a life and yet managed to drive a trade on my own account. Before I was twelve years old, I had saved seven dollars and a half by cutting and sawing wood, and by making fires in a neighboring church. In the month of February I obtained the consent of my parents to go to a neighbor who had lately brought a flock of sheep on his place, and buy as many sheep as I could with my seven dollars and a half. The man was a kind, honest farmer, and picked out three ewes that suited my fancy. We put them in the sleigh and I drove home the proudest I have ever been in my life. Father told me before I bought them that if I would take care of them he would give me the feed. We had never kept sheep, and I did not know how to care for them; but we had a clever hired man who helped me the best he could, and with our combined efforts they grew finely. In March I was wonderfully pleased one morning to find a nice little lamb running around with its mother. Soon I greeted the advent of another, and finally two more. I was now a proud boy, the happy owner of seven head all told. They grew finely, and in July I sold them all for twenty-one dollars, and the wool for five more, making in all a return of twenty-six dollars for my first business venture.

W. GOODRICH.

RECENT LITERATURE.

Night Sides of City Life. By T. DE WITT TALMAGE, D. D., Chicago: Fairbanks & Co. Price 50c. Received of T. O. Evans & Co., 76 East 9th St., New York.

This is a collection of the sermons recently delivered by the famous Dr. in the Brooklyn Tabernacle. The subjects discussed, taken in connection with the well-known characteristics of the author, as a preacher and writer, must insure for the book a ready sale.

It is popular in some quarters to characterize Talmage's style of preaching as "sensational;" granted that it is, if, however, by striking out into new and "sensational" paths, he can bring men to a saving knowledge of their sins, why should we quarrel with his methods? That he is a power for good, few, if any, will deny. Have we then, so many good influences at work in this world of ours, that we can afford to sneer at and belittle any who work for the salvation of men and the glory of God?

These collated sermons are to be specially commended to the young men in villages and country towns, who think it a grand achievement to come to New York and "see the elephant." Mr. Talmage, a man of taste and culture—and surely such an one ought to be a good judge—shows them that this "elephant," beside being a most unclean beast, is a tawdry, vulgar thing, and that no young man of refined tastes (leaving out the question of morality), could be other than disgusted at the attractions (?) so graphically described. If the reverend gentleman, by giving his sermons this permanent form, will only be able to convince foolish young men that drinking, gambling, and "fast" living generally, so far from being "manly," are most reprehensible and ignoble, he will have accomplished a great work.

How to Read and Hints in Choosing the Best Books, with Classified Lists of Works on Biography, Criticism, Fine Arts, Fiction, Poetry, Religion, Science, Language, etc. By AMELIA V. PETIT. New York: S. R. Wells & Co. Price $1.

THIS book will be of use not only to students, and those who are collecting a library, but to those also who read mostly for amusement. It is very convenient to have a book at hand which contains accurate information as to authors and their works, and which is full of good suggestions about what it is best to read. Many young people, after leaving school, determine on "courses of reading," but, having no one to guide them, they fritter away their time in attempting to accomplish too much. People of this class will find "How to Read" a great saving of fruitless toil. The book is fully indexed, and publisher and editor have done all in their power to produce an excellent work—and they have succeeded.

LINDSAY'S LUCK and Jarl's Daughter are two bright, attractive books by that delightful author, Mrs. F. H. Burnett. Every story that this lady writes (or ever did write) is interesting, and the books under notice are quite as entertaining as any that have preceded them. The publishers, Messrs. Peterson Bros. of Philadelphia, are doing the reading public a good service by reprinting Mrs. Burnett's stories, and the low price at which they are offered (25c. and 50c.) must insure for them an extensive circulation.

MAGAZINES FOR FEBRUARY.

HARPER'S MAGAZINE, while making a marked impression by the beauty of its illustrations, is even more remarkable for the temptations by which it solicits a reading, and for the satisfaction it gives the reader. There are exquisite illustrations of Mr. Beard's article, The Treasures of the Deep, and the letter-press is as entertaining as the pictures. Mr. Benjamin's second paper on Southern France presents some very novel illustrations. Phebe Earle Gibbons writes about French Farmers. The illustrations of the Brazilian article, At the Mouth of the Amazon, and of Mr. F. G. Mather's Winter Sports in Canada, are very fine. Mr. Horace E. Scudder's admirable paper, Education by Hand, is chiefly valuable for its comprehensive treatment of the whole subject of manual education.

A very interesting biographical sketch of the late Rear-Admiral Paulding, is contributed by Commander R. W. Meade, U. S. N.

Probably the most popular thing in the Number is Will Carleton's humorous and pathetic poem, Our Traveled Parson, with three exceedingly happy illustrations by Abbey.

The promised letters written by Mendelssohn to Madame Moscheles (edited by the latter), occupy over sixteen pages of the Magazine, one of which is given to a hitherto unpublished *lied* by the great composer, of which both the words and music are given.

Nothing could be more timely than John Esten Cooke's story, Moonshiners—the scene of which is laid in the mountains of Western Virginia, with two brilliant illustrations by Reinhart. Mrs. Rebecca Harding Davis contributes a strong short tale, A Story of the Plague.

A new serial novel by Miss Mulock, entitled Young Mrs. Jardine, is begun in this Number, and promises to be as interesting as the best of her previous stories.

Elizabeth Stuart Phelps contributes a Song, and Helen W. Ludlow a beautiful poem, entitled A Picture and a Parable.

SCRIBNER'S opens with a portrait of R. W. Emerson, drawn by Wyatt Eaton and engraved by T. Cole. There is also a paper on the Homes and Haunts of Emerson. In The Tile Club at Play, is detailed the excursion of the Club to Easthampton. The paper is made attractive by some exquisite engravings and an account of the life of John Howard Payne. The Fortunes and Misfortunes of Co. "C," contains a description of the actual experiences of a company in the Confederate army. Jno. Leech, the English caricaturist, is the subject of a paper by Russell Sturgis. In fiction, there are installments of Mrs. Burnett's Haworth's and Mr. Boyesen's Falconberg; Pott's Painless Cure, a capital little story by Edw. Bellamy, and a peculiar romance by Maurice Thompson. To the Clergy, by Rev. Edw. Eggleston, is full of bright suggestions and amusing anecdotes. A Symposium on the Chinese Question, by A. A. Hayes, Jr., contains the opinions of "distinguished representative men," including Ah Lee, Hon. Phelim McFinnegan, Mons. Alphonse de la Fontaine, Herr Isaac Rosenthal, and others. The cover of this number is a marvel of beauty.

APPLETON'S JOURNAL contains among its numerous articles a striking paper by Appleton Morgan, entitled The Shakespearean Myth, in which the authorship of the Shakespearean plays is studied from a fresh point of view, going to show that Shakespeare could not have been the author of those plays. In his article on Toleration, W. H. Mallock attempts to show that persecution is the inevitable consequence of profound and general belief. W. R. Greg's Verify your Compass is most suggestive and valuable. Dean Stanley's paper on the Historical Aspect of the United States is extremely interesting, proving as it does, that we are not so deficient in historical aspects as some suppose. The Editor's Table is more of a feature than ever under the new arrangement. The discussion this month is upon Amending the Constitution, The Nude in Art, Novel Reading, each topic being illustrated with fresh ideas and marked by close analysis. Some Modern Artists is an excellent criticism on Fortuny, Mellois, Leslie, Leighton, Alma Tadema and other English artists.

ST. NICHOLAS contains the first installment of Eyebright, Susan Coolidge's new serial story. H. H. contributes a charming poem, The Shining Little House, and Augusta Larned gives the boys and girls a peep into ancient Icelandic literature in a short poem entitled Helmdall. Rumpty-Dudget's Yomed, Julian Hawthorne's bewitching fairy tale, is continued. A Story of Stone, is a lively short article, written by Prof. D. S. Jordan, on a curious scientific subject. Little Nicholas, and How He Became a great Musician and About Violins, are two graphic and finely illustrated articles, giving the make and history of the violin.

There are seven short stories, all finely illustrated, some bright and some pathetic; and their subjects embrace: a hair-breadth escape from a Rhinoceros in South Africa,—the rescue of an old man from a snow-drift by two little boys,—the confusion made in Sunday-school by Polly Hersey's Pet,—a curious nest on wheels,—a poor little factory girl of Manchester, Eng.,—the origin of the Jumping-Jack,—and a little girl's experience in keeping a journal.

PERSONAL ITEMS.

Two of the newly elected Southern senators are first cousins—Wilkinson Call of Florida and J. D. Walker of Arkansas.

Mrs. Nellie Grant Sartoris is said to be greatly attached to the family she has entered and the country of her adoption.

President Palmer, of the Broadway National Bank, this city, and one of the metropolitan millionaires, used to drive a Broadway stage.

The late Dr. Linderman, Director of the Mints, was a descendant of Margaretha Linderman, the mother of Martin Luther, on his mother's side.

Though Senator Howe of Wisconsin has held his present position eighteen years, he will leave it on the 4th of March, sixty-three years of age; without a dollar in the world, it is said.

General George B. McClellan, now New Jersey's Governor, is far more youthful-looking than his 53 years would make him. His thick hair is only slightly gray, and his face is full and ruddy with health.

Wade Hampton has not only had to give up his intended trip to Florida, but has taken to his bed again. He will probably have to undergo another amputation of his leg, and is despondent about pulling through.

William Libby, the present leader, under Judge Hilton, in the firm of A. T. Stewart & Co., in this city, was an ambitious jobber who failed and was glad to get a situation with Stewart. He was a bankrupt at thirty, but now he is a merchant prince, estimated at from two to four millions. Herein is comfort for those who have met with early adversity.

Senator Jonas of Louisiana is a native of Illinois, and about forty-six years of age. He went to Louisiana while a boy, and has ever since lived there; is a lawyer, and was a confederate soldier. He has been State attorney a number of years, a member of the legislature, and received the nomination for lieutenant governor in 1872, with John McEnery. He afterward gave way and let in Penn as a compromise. He is a Jew, and is the third of that race ever in the U. S. Senate, Judah P. Benjamin and David Yulee having been the others.

Some recent developments go to show that Dr. Talmage, the eloquent Brooklyn pulpit, or rather platform gymnast and Presbyterian preacher, does not always stick closely to the candid truth. Hence our country friends may dissent from his opinion of rural morals. He insists that the city is worse than the country in morals, only because there are more people to be bad if they wish to be. In the rural districts the grocery store, or the blacksmith shop, by day and night, is the grand depot for masculine tittle-tattle, and there are always in the village a half dozen women who have their sun-bonnets hanging near so that at the first item of news derogatory, they can fly out and cackle it all over the town.

Michael L. Sullivant, formerly of Columbus, Ohio, and well known as having been the possessor of immense tracts of farm land in different parts of the country and particularly at Burr Oaks, Illinois, died suddenly on the steamer James Guthrie, at Owensboro, Ky., Tuesday night. He had been visiting his daughter, Mrs. W. A. Hopkins, at Henderson, Ky., and was on his way to Springfield, Ky. to visit another daughter, Mrs. E. L. Davidson, when he was taken suddenly ill. Five minutes before he fell from his chair dead he was in good spirits and apparently in good health. The remains will be taken to Illinois for interment. A wife and seven children survive. It is stated that he was at the time of his death owner of forty thousand acres of land in Illinois.

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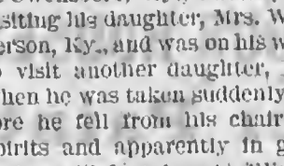

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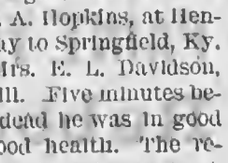

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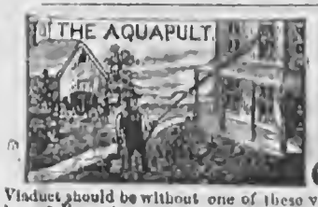

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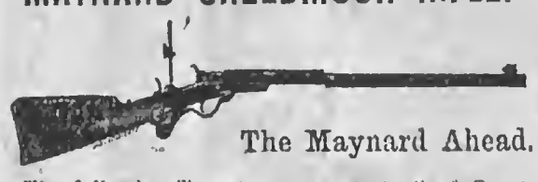

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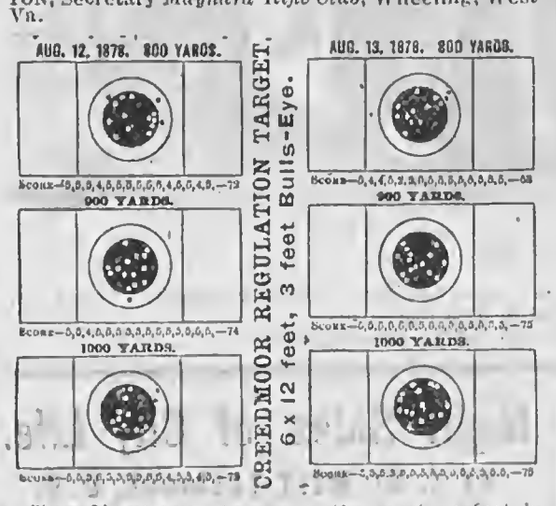

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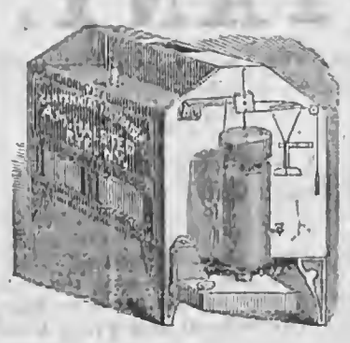

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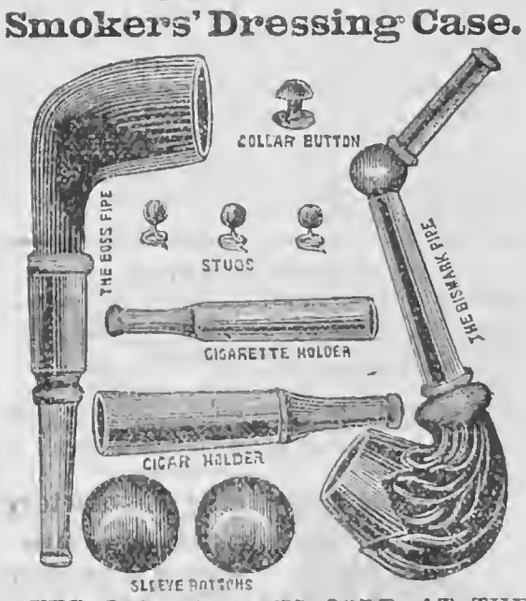

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"JULIA, my love, what do you think of my moustache?" Julia (looking earnestly at him for a moment).—"Why Alfred, where is it? Why didn't you bring it with you, darling?"

NEW READING.—A young man of twenty recently took to wife a Pennsylvania widow of fifty, the sole proprietress of a couple of paying petroleum wells. Of him it may be truly said that "he loved not wisely, but two wells."

TEACHER (to class in geography)—What does geography describe? The earth, on which some live, some exist, and others starve. How is the earth divided? By earthquakes. Of what does the earth consist? Land and water, and brickbats. Class may sit down.

THE Norristown Herald prints a poem headed "Lover's Leap." Of course they do. Nor are they to be blamed, either, when the old man suddenly opens the door at 11,30 P. M. and glares in on them like a modern allegory of wrath, with a lighted candle in one hand and a heavy cane in the other.

"'Pears to me you've got a putty slim fire, Miranda," said a spindling youth, the other night, as he sat in front of the fire-place by the side of a buxom young lady, who had no earthly use for him. "Yes," she said, as she wickedly looked at the floor behind him, "it's about all you and the fire can do between you to get up a respectable shadow."

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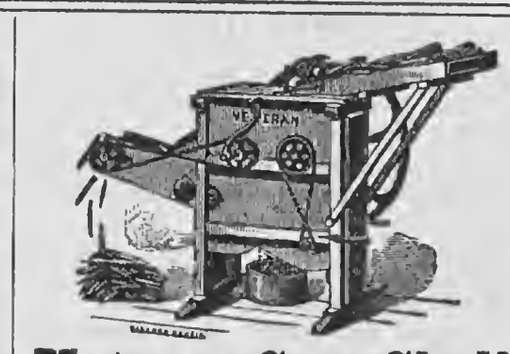

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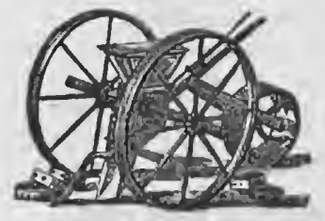

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A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME

VOL. XXXVIII. No. 8.
WHOLE No. 1517.

NEW YORK CITY, FEB. 22, 1879.

PRICE FIVE CENTS.
$2.00 PER YEAR.

[Entered according to Act of Congress, in the year 1879, by the Rural Publishing Company, in the office of the Librarian of Congress at Washington.]

Floricultural.

TILLANDSIA USNEOIDES.

This plant, a representation of which is given in the accompanying figure, plays a much more important part in commerce than one would suppose, judging from its apparently frail structure and humble appearance. It was named after the Swedish botanist, Tillands, and is also known as Florida Moss, Spanish Moss and Black Moss. It loves a warm, damp atmosphere and grows in abundance along streams, in marshes, valleys and low lands in all the Southern States, especially in Southern Georgia and in many parts of Texas, Louisiana, Alabama and Florida. Here it hangs suspended from the branches of the trees in long, twining, tangled bunches, having somewhat the appearance of an old man's beard, to which it has, not inaptly, been compared.

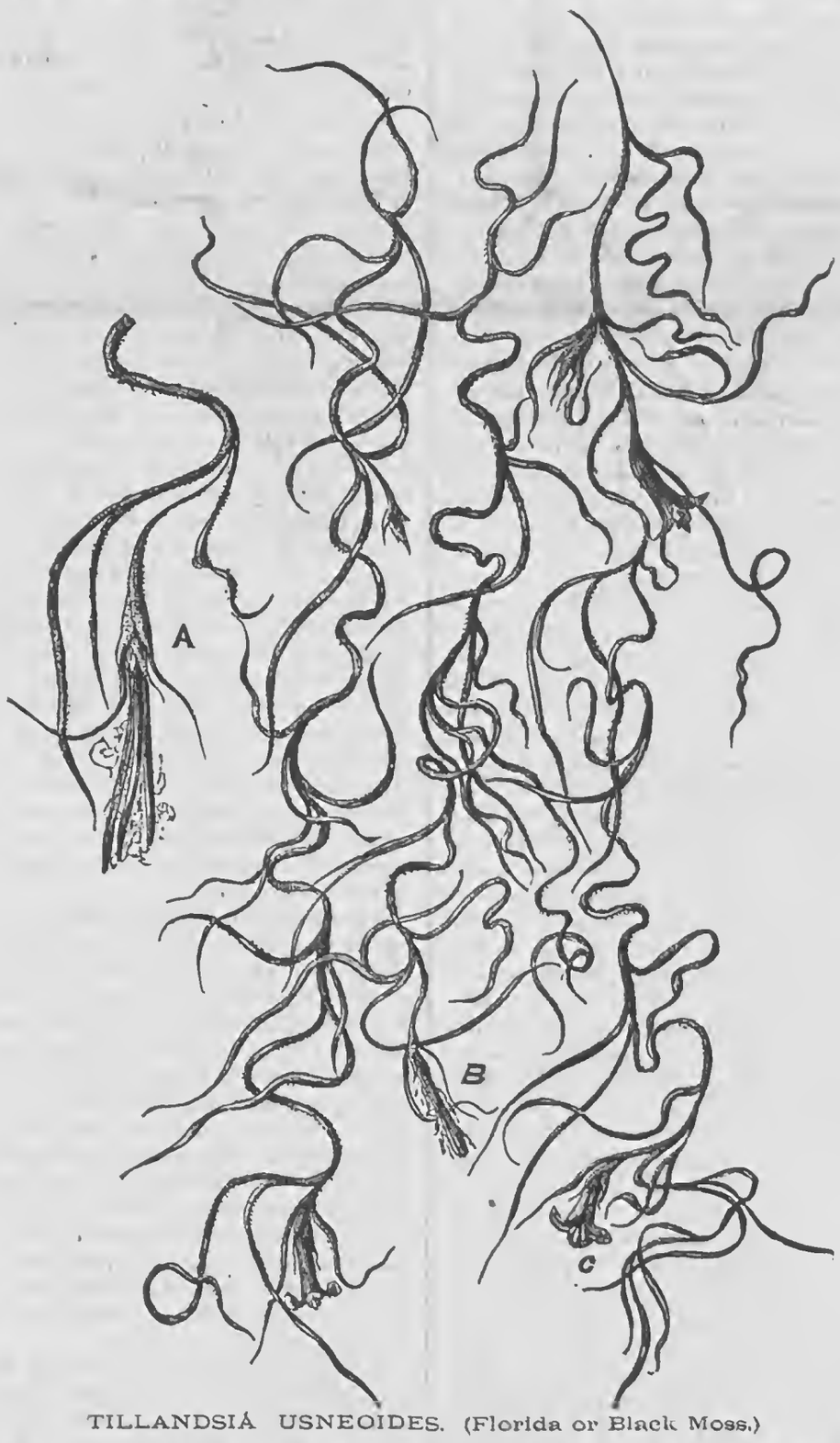
It is an epiphyte, or air plant, taking its nourishment from the moist air, and, as some suppose, also from the trees upon which it hangs, though, most likely, the feeble roots it spreads on the bark of these are more for support than for the absorption of food. Where but little is found, it has an airy, decorative effect, but where it grows in dense masses, filling the woods far and wide with heavy festoons that move lazily in the breeze and form barriers impenetrable to the rays of the sun, it has a somber and melancholy effect, that perhaps has given rise to the name of Indian Death Cloud, by which the Southern people sometimes denote it.

The plant is of a grayish color, and, as seen in the engraving, consists of a yarn-like stem with many branches, and tiny scattered leaves from one to two inches long. The epidermis is covered with a fuzz not unlike hoarfrost. Each internote, or piece of stem from leaf to leaf, is twisted. The flowers which appear at the end of the branches, are small, of a yellowish-green color and perfect, arranged on the plan of three, having three sepals, three petals and six stamens. From its mode of growth and general appearance, one would hardly take it to be so closely related to the Pine-apple as is the case, both being members of the family Bromeliaceæ.

At A is seen a ripened fruit split open, ready for the discharge of the seeds. B is another pod that has not attained its full size, and at C is seen an expanded flower, all of natural size. The fruit consists of three carpels, sometimes two, and sometimes several seeds provided with a coma or prolongation of the outer seed-covering into a hair-like mass by which they can be floated in the air. Though it is not particularly attractive, yet, for the oddity, it is often grown in greenhouses, and nothing is simpler than its cultivation. All that is required is to hang it up on a piece of wood or any growing plant, and to keep it warm and moist. It will not grow if planted in a pot, or even if it lies on the soil; it must be suspended so that it can grow downwards.

In the cities, and other places where evergreens are scarce, it is much used to decorate churches, private and public buildings for Christmas and New Year's, though it seems to us a very gloomy sort of decoration. Large quantities are gathered in the fall for this purpose, packed in barrels and shipped to the Northern seedsmen and florists, who bind it into festoons and other forms. A barrel sells in New York at about Christmas for not less than $2.50. But the use to which it is most extensively put, and which gives it by far the greatest value as an article of commerce, is as a substitute for horse-hair, to fill mattresses, chair-seats, saddles and cushions of all kinds. The inner part of the stem is peculiarly fit for this purpose. It is tough, flexible, durable, black and curly, and the best of it, when well prepared, can only be distinguished from horse-hair on close examination.

The process of preparation has been considered somewhat of a secret, and in the North, at least, has not been well understood. Though several methods are used, they all have in view the removal of the outer covering, or bark, of the stem. To accomplish this, it is sunk in shallow water, or narrow trenches are dug in the ground, into which it is packed in thin layers, where it remains for several months till the coating has decayed, when it is taken up, shaken, boiled, dried and beaten with sticks or machinery till all dirt is removed from the black inner stems. Or it is packed in large steam-tight vats, and for some time exposed to the action of steam, when it is washed, dried and beaten as before. Thus prepared, it is an article of export, and as the production involves simply the expense of gathering and preparing it, some profits may be realized. Here, in New York, upholsterers pay from three to eight cents a pound for it, according to its cleanness and quality.



TILLANDSIA USNEOIDES. (Florida or Black Moss.)

Our illustration is drawn from a quantity of this singular plant, which has been hanging in our office for a long time.

WINTER FLOWERS.

WILLIAM FALCONER.

Out-of-door plants being now locked in frost and mantled with snow, our windowgardens, frames and greenhouses only, yield us our posies. And with the multitude of kinds of winter-blooming plants suitable for this purpose, there is no more need of a dearth of blossoms in the little tenements, than, proportionately, in the conservatories of the millionaire. If under the poorest circumstances we cannot have many flowers, we can have green leaves and rambling vines, for isn't the wandering English Ivy as highly appreciated by fastidious and common folks, as are Geraniums, Pansies, and other floral paraphernalia? And there is the Wandering Jew that will flourish on the mantel-piece, the brackets in the corners, or the window, and is perfectly at home in earth or in water.

In order to obtain the best results from the means at our command, we ought to notice several appropriate conditions: The flower-pots, be they those pots proper, old teapots, damaged mugs, fruit punnets, lard tins, pickle-cans, blacking bottles, nail kegs, or whatever else you please, should have holes or cracks enough at the bottom to permit a ready egress of water; the drainage in the bottom of the pots, as potsherds, oyster-shells, small stones, or pounded brickbats, should be set in field-drain fashion—the larger ones in the bottom, then a sprinkling of small ones, and this nicely covered over by half-decayed leaves, moss, or other rough material, so as to prevent the soil from clogging the drain. The earth used in potting should be full of fiber or gritty; in fact, such a compost as will not become plastic but instead, always be free and open, and through which water will percolate readily. When potting your plants, put big plants into as small pots as you can get them, and smaller plants into proportionately smaller pots. Over-potting is a ruinous evil. So is over-watering. If your plants look sickly, stint rather than increase the supply of water, and never prescribe manure or manure-water for a ghost, else the phantom will probably die, or become more indisposed, at any rate. Feed robust plants liberally, but delicate or declining subjects treat sparingly. As a rule, plants treated as annuals, as Cinerarias and Primroses, require the sunniest window corner, and though Geraniums, Carnations, and the like, love as good a place, they will submit pretty well to less favorable treatment. But in all cases, the flowering plants should have window preference over German Ivies, English Ivies, Climbing Fern, Wandering Jew, Ferns, Myrtles, and other evergreens. Though Cactuses and other succulent or thick-leaved plants love the sunlight, they will winter very well in comparative shade, providing they be kept dry.

Daphne odorata is nearly past; it blooms copiously as a pot plant, but more so when planted out in a cool greenhouse. If Callas are strong and not over-potted, they will be in bloom now; if they be in small pots and have made many roots, feed them extra. I much prefer the old strong-growing kind to the dwarfer sort. Despise the notion of applying hot water to make them bloom, also of chopping off their leaves. Chinese Primroses are in all their glory. We grew ours in a cold-frame from the seed-pan to the flowering period, and now have splendid plants full of large, bright blossoms. I like the single better than the double ones. Cyclamens are approaching their best. Some growers dry them off in the summer and pot them afresh in August; others plant them out in the open garden, but the best Cyclamens I know of just now, were planted out in a cold-frame in the summer time—keeping the corms a half inch or so under ground—and lifted, shaken a little, and potted off about the last of August, this time having the corm rising a little above ground. Cinerarias are coming in. They are splendid greenhouse plants, but not so good for the window. They are big, bulky things, extremely subject to green-fly, very thirsty and hungry, and a dry or hot atmosphere curls their leaves. Sown about the end of June and grown on in cold-frames till the end of November, then removed to a cool greenhouse, they will yield flowers from January till April.

Stevias and Eupatoriums are in season, but I don't favor them much. Planted out in early, and lifted and potted in late summer, a rich soil, lots of water, and pinching seem to suit them well. Poinsettias, with their large and glowing rosetted bracts, are going slowly by, and should be kept drier, then placed under the stages on their sides till spring. They are better greenhouse than window plants, as is likewise Euphorbia fulgens, with its fiery wreaths. Bouvardias blossom freely through the winter; so do Heliotropes. Of the last, I prefer old pot-grown plants that were closely cut in last September or October, and allowed to break gradually; afterwards, cutting off the flowers will keep them within bounds.

TILLANDSIA USNEOIDES, OR FLORIDA MOSS.

JAMES TAPLIN.

This is a curious, though not very showy plant which drapes the trees in Florida, and more or less in other swampy places in southern States. It is an admirable packing material, and is also used for filling mattresses and pillows for sofas and beds, for which purpose it is probably second to nothing but horse hair, than which it is much cheaper. As a decorative plant for rooms it is very satisfactory; if obtained alive it will grow without trouble in positions unfavorable to vegetation generally, and although not very showy, it i very ornamental. In a living state I believe it is not in the trade, except when obtained from

Southern florists, who make a specialty of rare and curious plants from that district, so that it would generally be difficult to obtain plants from the North, except where specially ordered. I am well aware that this class of plants, like the Californin Gymnogramma triangularis, can be dried out to apparent death, and still grow under favorable circumstances, and also that the above Tillandsia, when dried, is very ornamental for the decoration of rooms; in fact, it is scarcely possible for a novice to distinguish between the dried plant of commerce and the living plant for ornament, but the difference can be readily seen when it is placed under circumstances favorable for growth.

The plant, naturally growing on trees, like Orchids in the tropics and Moss in the North, does not require soil of any kind for its support, but as it grows most luxuriantly in dense swamps, it requires a moist atmosphere to secure the best success with it. As it is difficult to give this in rooms, the next best substitute is to peg it over baskets or pots of plants which require frequent watering, and it will then grow freely and add a fresh feature to the room. It will also grow freely on branches of trees or blocks of wood, suspended from the roof and occasionally dipped in water, and being a plant of much vitality, if it is neglected for a time, it soon recovers and recommences to grow.

Middlesex Co., N. J.

Dairy Husbandry.

THE PENNSYLVANIA DAIRYMEN.

Necessity of organized discussion of dairy matters; cash versus credit system of selling; disadvantage of lack of uniformity in dairy products; Pennsylvania at the International Dairy Fair; best forms of dairy buildings.

The sixth annual meeting of the dairymen of this State was held on the 5th and 6th of this month at Meadville. This Association, although younger than those of several other States, has made rapid progress in organizing the dairy industry. Some of its leading men have seen clearly the necessity of beginning reform at the foundation—among the dairymen themselves. And to this end they initiated a course of lectures to be given in dairy districts, so that dairymen might get such instruction as would enable them to reform their faulty practices in the keeping and management of cows and the handling of milk. They determined to make a strong effort to bring Pennsylvania up to the New York standard of dairy goods; and, at this meeting, they pointed with gratification to the honorable position secured by the State in the International Dairy Fair. It was stated here that the course of lectures given by Prof. L. B. Arnold was heard by some 5,000 dairymen, and that it had awakened a high degree of interest, and was likely to result in much improvement in their practices. Yet the members of the Meadville Board of Trade reported that the quality of the dairy goods was so wanting in uniformity that they could not be purchased without a strict examination of each lot—that one lot might be of a very fine quality and the other very inferior. The President of the Association, Mr. A. M. Fuller, who has been most energetic in promoting its interests, gave a very clear opening address, in which his recommendations were generally very sound—and especially in urging primary organizations of the factories, where the patrons may be brought together every month, and hold discussions upon the proper management of their dairies. The patrons of a factory are all naturally interested in everything relating to the conduct and management of the business, and, as a body, they should control the action of its individual members, as the delivery of bad milk at the factory from a single cow may fatally injure the make of a vat of milk. This is a most important and needed improvement in factory management—each factory should become a dairy school for the mutual education of the patrons.

In reference to the proper system of disposing of dairy goods, Mr. Fuller was inclined to adhere to the present method of selling on commission, stating that the selling for cash of all the dairy goods offered was "simply impossible." He held that there was not money enough, at command, to buy them. This question raised a lively discussion. Many of the factory-men present thought all cheese should be paid for in cash. Mr. Carpenter expressed himself strongly against the credit system. He charged it had brought disaster to large dairy districts, and thought that all sales ought to be brought to the test of cash, and if there is such over-production that it could not be sold except on credit, dairymen ought to know it.

Prof. Stewart, on being called out, said he thought the credit system in selling dairy products had resulted in much loss; that the patrons of a factory in the interior could know nothing of the responsibility of a merchant in New York, and that dairy goods should be sold the same as cattle, hogs and sheep ar sold by the farmer—for cash. The hog products bought for exportation amounted to four times all the dairy products exported; the purchase of cattle required more money than the purchase of dairy products, and yet there was money enough to pay the farmer for both hog products and cattle on delivery. He maintained that there was really no valid reason why dairy products should not be paid for in the same way. He urged that the present system was simply a scheme by which the dairymen of the country furnished capital for the New York butter and cheese merchants to do business on.

Mr. Harris Lewis thought the New York commission merchants, as a class, were high-minded, honorable men, and thought that much less money had been lost by them than by those who purchased the goods, nominally for cash or 30 days, and failed with large obligations.

Prof. Arnold was opposed to the credit system and thought there was money enough to buy all the dairy goods the market required.

S. A. Farrington, a local buyer, said the real difficulty was the want of uniformity in the goods. He admitted that all known first-class goods would be taken for cash readily; but when the character of the goods was doubtful, they could not run the risk of buying except at very low figures. He referred to Harry Burrill, of Little Falls, who had dealt in dairy goods for 40 years, and had always paid a hundred cents, but was sometimes forced to ask indulgence for a few months. After a free expression of opinion, it was evident that the balance leaned towards cash sales and the breaking-up of the credit system.

At the evening session Hon. Harris Lewis gave a very instructive address upon dairy stock and its management. Had there been a large attendance of the rank and file of Pennsylvania dairymen, they might have listened to his suggestions with great profit. But, unfortunately, the audience was made up principally of factory managers, who could only receive his suggestions and carry them to their patrons.

At the morning session of the second day Mr. S. A. Farrington read a critical paper upon the International Dairy Fair, to which he awarded due credit for its bringing together a most instructive illustration of the dairy resources of the country, and he showed under what difficulties this Pennsylvania Association had contributed its share to the show. They had found the factories so unwilling to undertake the display of their goods at the Fair, that it became necessary to select a few cheeses from each of the best factories and purchase them for exhibition, and under such difficulties did the State come to its honors in the Fair.

After this paper, Prof. E. W. Stewart delivered an address upon "Dairy Buildings and their Management." He said in the future only skill could win; that dairy products had now reached such a low point in price that only the best article could pay a profit on cost of production. That it was now imperatively necessary that the dairyman should manage his business in the most economical way—that he must suffer no wastes by exposing his cows in cold stables or, worse, to the open air, which would require the consumption of so much extra food and necessarily reduce the milk production. He showed how easily and cheaply the dairyman could raise up his barn and place under it a tight concrete wall, making a warm basement for stabling his dairy stock, where the consumption of food to keep the animal warm would be reduced to a minimum. He showed how important it is to avoid nervous excitement in milch cows; that they should be watered in the stable where they could not be molested. He gave an illustrative plan of the manner of watering in the stable, and then showed the economy of giving water at 60 degrees temperature, instead of from a trough in the open air at a temperature of 32 to 34 degrees. He said that it required food to warm this water in the stomach of the cow, which is all saved by watering cows in a warm stable. He dwelt at some length upon the cheapest and best form of barn, which he thought to be either square or octagonal. In such a structure the amount of lumber and labor would be much less than in a building of the ordinary form, and the octagonal form would be much more compact and convenient, requiring no interior posts or beams, which obstruct labor. He also described his mode of tying, which is simple and cheap, giving the cow great freedom, and at the same time holding her in the center of her place, so that she cannot annoy her neighbors. His self-cleansing stable or platform, on which cows keep perfectly clean, saving all the labor of cleaning the stable, excited much interest.

Prof. L. B. Arnold read a report on butter exhibited at this Convention, and the points he made called out many questions, which he answered in a very clear and familiar way. He urged more attention to the proper washing of butter with brine and proper packing. He thought suspension in brine the best method of packing butter when it is to be kept for any length of time. He said when properly made and packed in hermetically sealed cans, it will keep as long as canned fruits.

The officers of this Association for the ensuing year are: J. H. Lenheart, of Meadville, President; J. M. Bigger, Cambridgeboro, Cor. Secretary; A. M. Fuller, S. A. Farrington, S. H. Findley, Executive Committee.

This is truly a lively Association and destined to revolutionize the dairy productions of Pennsylvania. S. E. W.

POISONOUS CHEESE.

T. H. HOSKINS, M. D.

It is a well-known fact, not unfrequently brought to public notice in the newspapers, that occasionally a cheese is found which possesses poisonous properties. Record is made of very severe and occasionally fatal cases, where the symptoms could be attributed to no other cause than the eating of cheese,—where, indeed, every individual partaking thereof was more or less affected. Some five years ago almost the entire Legislature of the State of Vermont, on the occasion of an entertainment offered to its members at adjournment, were thus made sick, and, albeit some sport was made of it at the time, it was by no means a laughing matter, though all who were affected by the poisonous cheese, recovered.

The symptoms of this cheese-poisoning are: nausea, followed by violent and protracted vomiting; pain in the bowels; strong purgative action and great prostration, with fever. When the patient recovers there remains for some time a tenderness and soreness of the bowels, indicating continued inflammation. The attack, to the inexperienced eye, very closely resembles one of cholera morbus; while to the physician it bears some of the marks of arsenical poisoning. These facts have very much misled the public, so that in the one case the idea has prevailed that no real poisoning occurred, but that the symptoms simply indicated the over-eating of indigestible food, or the indulgence in unaccustomed beverages; while, on the other, the attending physician has been led to suspect carelessness in the use of Paris-green, or in the application of arsenical fly-poison to the outside of the cheese.

My attention, both as a farmer and as a physician, has been repeatedly called to cases of this kind, and I am fortunate now in being able to lay before the readers of the RURAL the account of a case in which the circumstances give a very satisfactory clue to the real nature of the poison of cheese.

Mr. Edson Tracy of Brownington, Orleans Co., Vt., is one of the best dairymen of his locality. This is attested by the fact not only that he has had a large experience as a cheese-maker, extending over a period of twenty years, but that cheese of his make is in great demand by private families for home use, and has repeatedly received the highest award when exhibited at the County Fair, where the committee is composed of skilled lovers of dairy products. On the third day of July, 1877, Mr. Tracy began to make cheese, and continued the manufacture for forty days, making twenty single and ten double cheeses. When these cheeses were suitably cured for market—about the 25th of Sept.—they were sold, and out of the number five of the twenty single cheeses were found to be poisonous. The symptoms produced were those usually noted, and the severity of the attacks varied, in some instances being so severe that fatal results seemed imminent; but, fortunately, all those affected finally recovered.

By reference to Mr. Tracy's day-book it was shown that all these five cheeses were made in one week. The same record shows that the next week one of the cows of Mr. Tracy's herd began to give bloody milk, and that this milk was not afterwards used. This was on the 15th of July. The cow became very sick, and was near losing her bag, which, after swelling to the size of a six-quart pail, broke, with a profuse discharge, after which the animal slowly recovered. This abscess Mr. Tracy attributes to an external injury to the cow's bag. *Every cheese made from milk of which that from this cow constituted a fifteenth part*—there being that number of cows in the herd—*for five days before the milk itself gave evidence of anything wrong, was a poisonous cheese.*

Now, a pathologist knows that, in all probability, before *blood* appeared in that milk, warning Mr. Tracy of its unfitness for use, and that something ailed the cow, *pus* had existed, and had passed from the diseased gland into the milk ducts, and thence to the pail and the cheese vat. In this pus the microscope would undoubtedly have revealed organic germs capable of multiplication to an indefinite extent. The milk in cheese-making, is not subjected to a heat exceeding 130 degrees, and consequently these germs are not destroyed. On the contrary, they are placed in conditions eminently favorable to their growth and multiplication, so that we cannot doubt that each cheese made from this milk, became intensely charged with them, producing a mass of substance similar in nature to that putrescent animal matter upon the action of which in the blood, is dependent that class of so-called zymotic diseases of which typhoid fever and diphtheria are examples. I say "similar," because as yet we have no certainty that these poisonous germs are the same, no matter what form the disease produced by them may assume; neither are we sure that they are different. We only know that when they are taken into the body in sufficient quantity, and under ordinary circumstances, serious disease follows. We have had a striking illustration of this in the severe epidemic occurring, the past summer, in the town of Richford, Franklin County, Vermont, among those using water from a public well in the village street, into which sewer water obtained access, occasioning the death of many individuals.

It is something to know *whence* comes the poison of poisonous cheese. The history of the case I have given, shows that it comes from disease-germs in the milk itself, originating from suppurative inflammation in the milk-producing organ—the cow's udder. The lesson to cheese-makers is plain:—never use milk from a cow which shows tenderness, redness, or swelling of her bag, even though the milk may exhibit no ill signs to the eye. *The germs of disease are there before blood appears in the milk.* Run no risks; for serious consequences to health, life, and your own pocket and reputation may ensue. Customers are very shy of buying again from a dairy that has once produced and sold "Poisonous Cheese."

Orleans Co., Vt.

Sheep Husbandry.

HINTS FROM AN EXPERT ABOUT THE MANAGEMENT OF COTSWOLDS.

In the Register of Cotswold sheep, just published, the Hon. C. P. Mattocks of Maine, has a valuable essay on the above subject, full of information and practical suggestions, the principal of which are here briefly condensed; as nearly everything that is said applies to other breeds of sheep also:

Sheep need freedom of action and variety of feed more than any of our domestic animals. In winter they require shelter only against heavy rains and melting snows, as even a cold storm is better than a heated barn, at least for Cotswolds. A rough shed, facing the south and capable of being closed during rain and snow storms, is quite sufficient. They should then be kept in small flocks, have spacious yards to roam in at all times except during storms, and be fed in racks out-of-doors in ordinary weather. Where cold storms are rare, and the ground is free from heavy snow, artificial shelter is hardly necessary, for Cotswolds at any rate. Lambs as well as bucks should be kept by themselves. In lambing time warm quarters should be provided, and so should a warm hospital for old, feeble or wounded animals to which special feed and care should be given. Sheep should never run or feed with other stock in winter, and if it is desirable to feed to them the waste of cattle and horses, it should be gathered and fed to them apart. Flocks of a dozen or so of Cotswolds are best in winter, and of under a hundred in summer, although larger flocks have been sometimes kept successfully.

When confined during inclement weather, the best substitute for pasturage is a liberal supply of roots—turnips or mangolds—for these add to the feed of dry hay what sheep lose by their change from grass to hay. In the absence of roots, a ration of a pint of oats daily, per head, is recommended, and also the substitution, at one meal a day, of corn-stalks, oat- or pea-straw instead of hay. Corn should be fed to them very sparingly, while oats and peas can be safely and profitably fed in considerable quantities. Shorts and cotton-seed meal may be fed to advantage, if not too high-priced. Although sheep may be successfully wintered without water when they have access to clean snow, it is a cruel practice. If a liberal supply of salt is not always at hand, it should be given them at least once a week.

Tar, for the sheep to lick at will, is excellent. Smearing the nose with it in summer, prevents the deposit of eggs in the nostrils, which may afterwards develop into "grub-in-the-head." The practice is also good in winter, for the medicinal qualities of tar act as an antidote against cold and catarrh, besides benefiting the sheep in other respects. A solution of one ounce of carbolic acid, to a gallon of water, used once a week by turning a teaspoonful down each nostril, will soon cure a discharge at the nose, care being taken not to allow the sheep to swallow the mixture.

Breeding ewes should be taken from the flock two or three weeks before lambing and fed upon roots, mixed with oatmeal and shorts. The lambs when a month old, may be fed upon bran, oatmeal, or even a little corn-meal, in addition to the milk from the mother, and this can be most easily done by placing the extra feed in a small pen with an opening large

enough to admit the lambs, but small enough to exclude the ewes. With warm lambing pens and good care, the lambs may come even in the cold North, as early as February; in the absence of suitable conveniences, however, it is far better that they should be dropped when the sheep are turned out to pasture in May. In spring, it is advisable to turn the sheep into the pasture for only a few hours each day, at first, lest a too sudden change should induce the scours. The ewes should be thoroughly "tagged," that is, the wool should be cut away under the tail down to, and around the udder, so that the lambs may suck more easily, and to prevent the accumulation of filth, which would otherwise seriously impede the movements of the animals.

Within two weeks after the ewes are sheared, the lambs should be dipped in a decoction of tobacco and water, strong enough to kill the ticks, seven pounds of plug tobacco being sufficient for a hundred lambs. Or a solution of arsenic and water may be used, made by dissolving three pounds of white arsenic (powder) in boiling water, and adding forty gallons of cold water. In this case, the waste wash must be put where no animal can drink it, as it is deadly poisonous, and the hands of the persons who dip the sheep must be free from eruptions and bruises. Lambs' tails should be cut within a fortnight from their birth. Buck lambs should be castrated only when they have become strong enough to endure the operation, and sufficiently developed so that the owner can determine which should be reserved for breeding. In summer the sheep should be changed from one pasture to another, as often as possible. If the farmer has only one pasture, let him fence off a part of it, thus making two, so that his flock may have the necessary change.

The Herdsman.

A HOT-BED OF PLEURO-PNEUMONIA.

BLISSVILLE, a small village of Queens County, Long Island, has lately gained a wide notoriety in this neighborhood on account of its possession of a large distillery and several packed cow stables connected with it. The latter are wooden buildings containing between 700 and 800 cows, which are fed exclusively on the swill from the former. Some of the animals belong to Graff, Fleischmann & Co., owners of the stables and distillery, but most of them are boarded there by milk-dealers who get from them the supply of "Pure, Orange-County Milk" they sell to their customers in the neighboring cities of Brooklyn and New York. The cows are tied in opposite rows of stalls varying in width from 37 to 42 inches, the ropes being barely long enough to allow them to lie down. Between the rows of heads facing each other, there is just sufficient room to allow one to pass, but behind the animals are broader spaces from which the fast accumulating excrement and urine are swept away once a day. Evacuations are almost constant, as the nature of the food stimulates the kidneys so as largely to increase their secretions, besides rendering the fæces very abundant and almost liquid. In front of each row is a trough for distillery swill which is supplied, at a temperature of 109 deg. Fah., from a large tank, by turning a cock in a connecting pipe. The only provisions for light and ventilation, are the doors. When these are closed, the interior is dark and the air noisome. The cows never stir from the place. From the moment they first enter it until they cease to give milk in satisfactory quantity, and are fattened for the butcher, they take no exercise beyond those three-by-ten-foot stalls, get no change of food from that unwholesome swill, and breathe over and over again that filth-reeking atmosphere, until the lungs become diseased, the body feverish and the udder dry or nearly so. Small wonder that the wretched victims of cruelty and greed have become a source of sickness in the community, of possible infection among other herds, and of danger to our live-stock export trade. For right here is the most notorious hot-bed of pleuro-pneumonia in the country.

About four weeks ago the attention of the Brooklyn Board of Health was directed to the condition of the cows in these stables by local reports of the presence of pleuro-pneumonia among them, and by an unusually high rate of mortality among the children of the city, which was reasonably attributed to their use of milk from the diseased animals. The newspapers of New York and Brooklyn, always on the outlook for something sensational, daily filled columns with highly-colored accounts of the severity of the disease here prevalent, utterly regardless of the injury their exaggeration was pretty sure to inflict on the vast cattle interests of the country in the present critical state of our live-stock trade with Europe. A thorough investigation by the veterinarians attached to the Boards of Health of this city and Brooklyn, and by the Governor's Commissioner, Prof. Law, of Cornell University, leaves no doubt of the existence of a mild type of pleuro-pneumonia among the animals; but, owing to their strict confinement at all times to the stables, even if the disease had reached a contagious stage, it could hardly be communicated to stock designed for exportation. By orders of Governor Robinson the stables are now rigidly quarantined and effective measures have been adopted for stamping out the pest here and elsewhere throughout this State. A few days ago we visited the stables ourselves, and, although permission to examine the animals was refused, we saw and learned from the villagers enough of the condition and surroundings of the inmates of the buildings to enable us to guarantee the correctness of the above account of the matter.

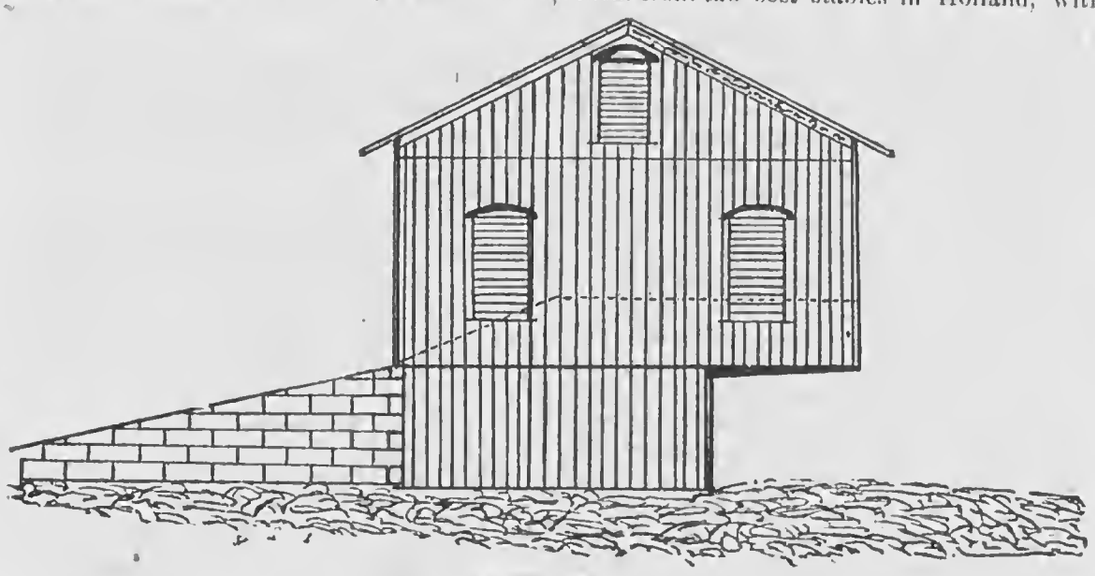


FIGURE 6.

STOCK NOTES.

JOTTINGS.—Of the Polled Angus cattle the North British Agriculturist says that, although it has no intention of pitting animals of that breed against Short-horns for prepotency in improving any kind of cattle with which they are crossed, or of putting them alongside either the Ayrshire or Jersey for milking properties, yet no pure breed will mature so early, carry the same quality and quantity of beef, and realize so much for hundredweight as the improved Polled Angus or Aberdeen. . . . Very few, if any, Norman-Percheron horses were imported into this country before 1856, yet the Stud-Book of that breed, issued a couple of months ago, contains a list of 701 imported horses and mares, while the number of native full-bloods bred in this country is 153, making a total of 854 registered in the volume. As, for various causes, a considerable number of imported animals have not been entered, it is held a safe estimate that the total number of Norman-Percherons that have crossed the Atlantic, mainly within the last ten years, is not less than 750. . . . Mr. McCombie's celebrated herd of Polled Angus cattle were lately sold, except the group illustrated in our last issue, which gained a wide reputation by carrying off a number of prizes at the Paris Exposition. Forty-four animals in all brought $9,354, or an average of $210 each. The highest price of a single beast was $512. One family of twelve brought an average of $312 a piece. The price of polled cattle of late years has been steadily advancing across the Atlantic. . . . The English Agricultural Gazette, in refuting the assertion of an American writer to the effect that if Short-horns were good milkers dairymen would long since have found it out, says that they have found it out in England. In the North, the Midlands and the West of that country it says the majority of dairy cows are cross-bred Short-horns, and many pure-bred Short-horn dairies are kept. Moreover, town dairymen pay higher prices for Short-horns than for any other kind of cows on account of their known power of giving abundant milk and of quickly fattening when they cannot be kept profitably in the dairy, either through becoming barren, loss of teats or advanced years. It also gives instances of the recent sale of two Short-horn dairy herds, one of which contained 31 heavy milkers which sold for an average of $120 each, while the other, described as chiefly good dairy cows, brought an average of $92.50 apiece. . . . An Illinois Short-horn breeder reports to the National Live-Stock Journal that his sales during the past year amounted to 1,088 head, at an average of $125.91 each, or a grand total of $136,995. He says that although prices are comparatively low, yet the outlook is not discouraging, as there is a greater demand than usual for young bulls and cheap high-grade heifers for the Western country. . . . The town authorities of New Castle-on-Tyne, England, urged on by the jealousy of local and Irish cattle dealers, have been guilty of a petty display of opposition to the importation of American meat into that town. Some time back they let a cattle-shed to the local agent of the Liverpool consignees of Mr. T. C. Eastman, one of our largest meat exporters whose annual importations to the north of England, amounting to 1,500,000 pounds, have kept down the prices of meat in that section. This shed was fitted up as a market for American meat. The other day the authorities, without any previous notice, tore off the sides of the building just as a consignment of meat was about to arrive. The American consul has protested against the unjust action and is seeking redress. . . . Smith and Powell, of Syracuse, N. Y., have lately imported 20 Holstein heifer calves, which were selected for them from the best stables in Holland, with special reference to the superior milking qualities of their ancestors. As a lot, they are said to show great uniformity, being finely formed and having all the marks and indications of deep milkers. With this addition, the Holstein herd of this firm now numbers nearly 60 full-blood animals of various ages. . . . The American Stockman says that, judging from the many old, flabby sows and light, unthrifty hogs just now coming into the Chicago market, it seems not unlikely that farmers, discouraged by recent low prices, are parting with their breeding stock, and that if the supply continues at the present rate, it would not be surprising if the crop should be short next fall and winter. Week before last we said that on this account among others, farmers might reasonably look forward to higher prices for hog products next season, and both the Stockman and National Live-Stock Journal are of the same opinion. Very inferior hogs which, a few weeks ago, would only bring $1.50 per hundred in the Chicago market, are already selling for $3.50, and the extra drain now from the tributary country on this account, is likely to contribute to the same end.

Rural Architecture.

A FEW AXIOMS IN BARN-BUILDING.—2

W. I. CHAMBERLAIN.

I WISH to call attention to a few more self-evident truths involved in the structure of barns.

4. It is economy to utilize all the space covered by the roof. This seems so evident that everyone says "Why, of course!" And yet the owners of the greater part of the grain-barns of Ohio and of many in Pennsylvania, seem to me to disregard it. Fig. 6 gives an end view of the ordinary Dutch grain-barn of central Ohio and of some parts of Pennsylvania. Nearly one-third of the entire basement story—usually the south third; and always towards the barnyard and straw stack,—is left uninclosed, in the form of an over-shoot or "overshot," as represented in the figure. The rest of the basement, even in barns as large as 45x100 feet, is all devoted to stabling for the stock, and on a grain farm the stock stabled there are seldom more than six or eight horses, as many cows, and sometimes a few sheep. The part of the barn left uninclosed, would be abundant to stable these, and the other two-thirds of the basement would store fifty tons of hay, in a barn 45x100 feet. I have sometimes asked Dutch farmers:

"What's the use of the 'over-shot,' anyway?"

"Vy, mynherr, elery pody has te ofer-shot!"

"Yes, but what for? What do you use it for?"

"Oh! nottings, nottings mooch. But he keep te toorvays nice and dhry alvays!"

And that is all! I have seen hundreds of such barns and never yet saw the "over-shot" utilized for storing machines, implements, feed, cattle, or even manure. The Dutch farmers, as a class, are among the best in our State, and their barns are splendid, usually costing three or four times as much as their houses. But in this respect they do not seem to me to be economical. Indeed the over-shot has always seemed to me a sheer waste, in more ways than one. It "leaves out in the cold" nearly one-third of the basement, the most valuable, because the most convenient place for storage, and as we have seen, it really costs the storage of fifty tons of hay. It leaves the barn to project so far that a very solid and expensive basement is required, usually quarried stone masonry throughout and immense timbers for the floor and projection above the basement. By actual measurement, some large barns of this kind require 10,000 feet of timber for the cross-sleepers and sills above the basement, and about as many feet of heavy plank for the floor. But more than half both of the timber and lumber would be saved by the other plan. And as already hinted, the part wasted in the projection would stable the stock, and the rest of the basement would store their feed and leave the whole main barn for grain. If that gave too much room, the barn could at first be made just so much smaller, thus saving a good deal of expense.

5. We should make the force of gravitation work for, and not against us. It is just as willing to help as to hinder, if we only plan aright. In hundreds of details is this true. I can specify but a few. We have already hinted at one. The bank-barn itself is a step in the right direction. A nine-foot basement with all the hay and grain driven in above it, means *nine feet more down-hill pitching* of hay and grain than there would otherwise be. If the whole basement is needed for stock, then the whole main floor above would be needed, if there were no basement. We have no more right to waste any of its precious room than we should have to waste the room of the first floor if it was not a bank-barn. If properly built, drained and ventilated, a basement will not injure the hay by musting any more than the first floor of an ordinary barn will. If I were to build a hundred grain or dairy barns, or barns for mixed husbandry, they should all be bank barns. Not only that, the space in the basement should be as carefully economized as that in any other part of the barn; yes, more carefully, for it is more valuable. The higher up you go, the less the pressure when the hay is in, and the harder the pitching to get the hay in. A thousand cubic feet in the basement will hold twice as much as a thousand above the "big beam," and a ton of hay is landed there in less than half the time. It is a weariness to the flesh to put hay or grain up near the roof, even if the horse-fork is used for the hay. It cannot well be used for grain to good advantage.

Under this head we might give this as an axiom: The higher up we drive, the lighter the pitching. An excellent plan is to have a *movable, elevated* barn floor. Suppose a barn like that in Fig. 5 page 103 of last week's issue, 75 feet long, with a permanent floor crosswise in the middle, and a temporary or movable floor on each side of it, for filling the outside bays. One floor will answer in turn for both these spaces, and can be so arranged as to slant upward the first 15 feet after entering the barn, gaining a rise of five feet, and then running level. The position of this elevated floor as indicated by the slanting and horizontal dotted lines in Fig. 6. Where pine planks run crosswise of the floor, a team will draw a ton of hay up such a slope perfectly well, and the top of the load will then be above the big beam in a barn with 16-foot posts (besides the basement), so that nearly all the hay is to be pitched down-hill; and I undertake to say that a smart man can pitch off every load till the hay in the bay reaches above the big beam, *quicker than two men* can unhitch the team, and throw it off with the horse-fork. In hilly Vermont I have even seen barns with the barn floor running *above the big beams* lengthwise of the ridge of the roof. Here every forkful is pitched downward. The plan of such a barn will be given in my next.

Industrial Topics.

NEED OF PERMANENT TEACHERS. ENTHUSIASM IN COUNTRY SCHOOLS! No. 3.

PROFESSOR W. J. BEAL.

IN my last I spoke of employing good teachers at any price. Low wages will not stimulate and encourage candidates to make a thorough preparation for the work. As a general thing, our teachers are poorly paid and often not properly prepared. Low wages make changes frequent. Young persons engage in teaching as a temporary employment to make a little something to help them to something better, not to help to prepare for better teaching.

It is to the advantage of any school to retain a good teacher for several terms in succession. The teachers of our district schools usually teach but one term in a place, and but few of them teach anywhere for more than three or four terms. How would a college fare with a change of president every term? How would a professorship succeed if filled with a new man every term? How would our graded schools thrive with a total change of teachers and directors every term? Yet this is the kind of management given to many of our district schools.

Competent salaries, fair and rigid examinations and good supervision will compel candidates to attend institutes, normal schools and colleges. As managed at present, is it not wonder that the country schools get along as

well as they now do? The results are as good in every way as could be reasonably expected.

I am best acquainted with the country schools of Michigan, which are acknowledged by those who are competent to judge, to be generally poorly supervised. Our villages and cities, however, have graded schools which are a credit to the country. The majority of the students who enter the Agricultural College come directly from the country schools. Some of them come from the graded schools.

I am informed by those who conduct the examinations that the students from the country are generally better prepared than those who come from the cities and villages. Undoubtedly we get the best from the country schools, and perhaps we do not get the best from the graded schools. Why should there be this difference? In the city children are often kept in school from six to nine months in the year. They are graded, so that those of similar advancement are placed in classes together. There is a good deal of an evening-up of the dull and bright. The brightest are often kept too long with those who are dullest. In the country the largest pupils go to school only three or four months in the winter and the smallest for three or four months in the summer, while a few attend for six months in the year. The most ambitious of the country people feel that their chance for an education is not as good as that of their city cousins. They work hard, however, improve what time they can get, and often procure a good education. The school is not graded to keep any from advancing. There is nothing to hold them back.

In the country school pupils of all ages and degrees of advancement occupy one and the same room. The youngest and most backward often learn as much by hearing the older pupils recite as they do in any other way. There is often great enthusiasm shown by some of the scholars in a district school. In graded schools steady attendants for many terms "peg out," get sick of school, and lose all ambition for study or much of anything else.

Ambition and good health, with perseverance in one direction, will overcome almost any obstacles. Every person is self-made if he amounts to anything, no matter whether he goes to school or not.

Farmers should generally pay more attention to the schools. The time thus spent will be the best investment possible to make. How shall they give this attention? Not *necessarily* by themselves going to the schools, if they know they are incompetent, but by employing and paying others to go who are competent judges of good schools; or, if they perceive the schools are not good, they will be able to point out the reason and a remedy.

In the words of my co-worker, Professor Fairchild, "Our country children need to be in school more days in the year and fewer hours in each day." I take also a few extracts from a former lecture of my own on this subject. "It would be better to have the children in school three hours a day for six months than six hours a day for three months. When our children go to school we are apt to put them on the high-pressure system. From my own experience as a teacher and a student of physiology, I am certain that many little children are permanently injured by sitting too many hours a day in school, and not unfrequently they study too hard and get pale and thin over their books. Many want their children at home to help at work on the farm or about the house. They should not work as many hours as older people. Why not have school half a day or three hours a day in one session? Teaching for six hours a day is too much for any person who puts much energy into his work."

One of the difficulties in teaching a country school is the multitude of text-books. By this means classes are unduly multiplied. No doubt we shall some day get rid of this evil, and then the teachers' work will be much simplified.

Agricultural College, Lansing, Mich.

Horticultural.

EXPERIENCE IN PURCHASING PLANTS, NOVELTIES, &c.

A mine that did'nt pay for working; a tricky dealer; a hunt after novelties, that ends in a sideless hole; good returns for cash and fine extras; ditto, ditto; dollar collections worth fully 100 cents each; a reasonable proviso.

As the time draws near to make up our orders for trees, plants etc., we naturally look back to see who received our orders last year, and what we received in return for our money. Accepting the advice of the RURAL, I sent for a number of catalogues to see who advertised what I wanted and sold it for the least money. I then sent at least one dollar for seeds or plants to all who sent me expensive and instructive catalogues free of charge. Those who required stamps sent to pay for their advertisements I felt under no obligation to patronize. Now I propose to tell my success; first, with three whom I will not here name, and whom I shall not trouble in the future.

One of these was a seedsman who offered all the novelties at ten cents per packet, which others were selling at 75cts or $1.00 per packet. In this case I thought I had struck a mine, and immediately ordered sixteen packets, six of which were novelties. I found on receiving them that each packet purported to contain five or six seeds, three or four of which on examination proved to be mashed or shriveled. I planted them in hotbeds by the side of other seeds which germinated and grew well, and got one plant from the six packets. I watered it every night and lifted the sash every morning, that it might not scorch, and in due time, I transplanted it to the most sheltered and conspicuous place in the border, intending to show my neighbors something nice, but when it bloomed, it looked no more like the colored plate representing "Dwarf-Crested Japanese Coxcomb" than a *mouse looks like a monkey*; and from the sixteen packets I did not get one-quarter the value of plants I did from a twenty-five cent collection of seeds from my old seedsman.

From another catalogue I ordered "eight fine and distinct, one-year-old, pot-grown Roses for $1.00" and a new double white Oleander, "Madonna grandiflora." I had already set 50 Roses besides the hardy ones I wintered, but these were to be one-year-old and I thought I would like to have them for immediate effect. After waiting two weeks and writing one letter of inquiry, I received eleven puny little Roses not one half as large as those I had ordered from two and three-inch pots, and a letter saying he was "out of" Madonna grandiflora and would not have any more until fall. When fall came, instead of sending the Oleander I had paid for, he sent a fall catalogue quoting Madonna grandiflora at 30cts, and extra-strong ones at $1.00 each. Now I should like to know where these plants that had got to be extra-strong and worth $1.00, were the previous May! The reader can draw his own conclusions. I shall draw mine and buy elsewhere.

To the third man I sent a large order for trees and plants for myself and neighbors, some of which gave satisfaction and some did not; but the novelties among these, like most others, proved of little value. One a Hypericum patulum, was to "bloom from June until frost: be evergreen, and create a sensation in the horticultural world"! It bloomed through the month of July a single yellow bloom, not superior to a single wild buttercup, and as for being evergreen, every leaf on it has been dry enough for fire kindling for more than two months. Another novelty was a tuberous-rooted Begonia; it came in an inch-and-a-half pot, and was about as large as one's finger nail. I put it under a propagating-glass and watched it day by day as it gradually grew smaller until it entirely disappeared in about six weeks. I then thought I would look for the tuberous root, and behold! the tube had all become cavity, for it could not be found. Yet for these two plants, I paid the price of a dozen common plants, one of which would have been worth a dozen of them. I will now mention three other firms, of whom I can speak with pleasure.

First come Storrs & Harrison, who sent plants twice as large as I expected, with liberal extras. As I sit writing, I see an Abutilon and a Veronica that were extras from them. The former, four feet high, has been in full bloom since November, and the admiration of all who have seen it; while the latter was a great curiosity last fall when in bloom, some blooms being pure white, while those that had been longer blown, had changed to purple.

From B. F. Elliott & Co., I also received nice plants and liberal extras. Among the latter were a Chrysanthemum, a dwarf double white shaded with pink, the handsomest I ever saw; and a Lantana which grew five feet high and spread three feet each way, blooming until cut down by frost, after having been clipped for bouquets all summer.

Among the other liberal dealers who send out nice plants at a low figure, I must mention Mr. Peter Henderson, who extensively advertised dollar collections, and twelve of them for $6, by express. In one of my collections purchased from him were twelve greenhouse plants costing me less than six cents each, and one of them, a Rivina humilis, I would recommend to anyone who wants an evergreen shrub that will flourish in the dry atmosphere of a sitting-room. Mine has over twenty racemes of white flowers and buds, five clusters of intensely scarlet berries, which are the main beauty of the plant, and a foliage of the brightest green, without a dry or faded leaf during the whole winter.

In conclusion, one word about the new Climbing Hydrangea: Mr. Parsons says "he owns some small plants," and intimates that he and Messrs. Clarke, Sargent and Henderson, own all there are in the country. He says "his differs from Mr. Henderson's," and that they are not large enough to enable one to judge of their merits. Now, Messrs. Saul, Henderson and Vick are offering them to their customers, and the two former have been doing so for more than one year. Now, if these dealers will speak definitely of the merits of this novelty—and they must know something on this point, if a year ago they had enough plants, and those sufficiently large, to justify them in offering them for sale—or if they will send some to the RURAL Experimental Ground, so that the RURAL may be able to report on them next fall, then if they turn out to be all that Mr. T. Hogg claims for them, I certainly want one; but if they are like most novelties, I want my money more than I do Schizophragma.

JOHN J. WATSON.

Newport, Co., R. I.

[We are happy to publish such communications, which evidently bear the marks of sincerity, though, as we believe, the marks of unintentional error as well. We are indeed glad to publish *anything* that is calculated to guide or benefit our readers in any way.—EDS.]

CAULIFLOWER.

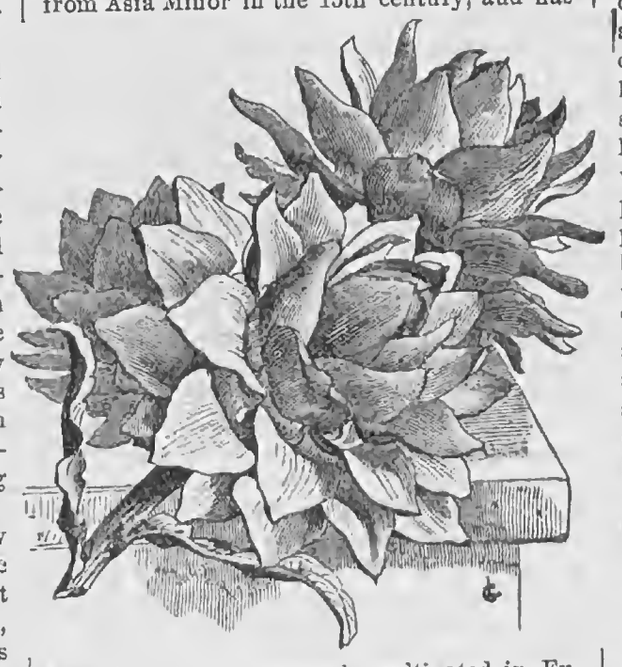
THIS very common vegetable is one of the market gardener's most profitable crops. It is closely related to the cabbage plant, and, like

that, the eatable part forms a head: but while the head of the cabbage is formed of the leaves, the head of the cauliflower is formed of the flower-stalks, which grow up in one compact, conical mass that, in well-grown specimens, measures nine inches to a foot across. There are many varieties in cultivation. Of these the engraving shows Lenormand's Short-Stemmed. It requires a good garden soil, richly manured; it is useless to attempt to grow it on a poor gravelly or binding clay soil.

Cauliflower is mostly grown as a crop for spring or early summer; as a late crop it is more apt to fail. For an early crop the seed should be sown in the first half of September, and later the plants should be set about three inches apart each way, in a cold-frame. During the winter they should be covered with sashes, and in cold weather have an additional covering of straw mats. On every mild or sunny day, air should be given, by raising the sashes a few inches, and as early in the spring as the weather will permit, the sashes should be removed entirely during the day. In the latter part of March, or as soon as safe from hard frost—a little will do no harm—the plants should be set out on well prepared and richly manured land, in rows two by three feet. The seed may also be sown on the hot-bed in February, and by proper care the plants may be ready to set out in the beginning of April; but in this case they must be thoroughly hardened before they are planted in the garden, or a little frost will kill them. By giving proper attention to this point, spring plants are but little inferior to those wintered over in the cold-frame, and may produce as good a crop. Lenormand's Early Paris, Erfurt Early Dwarf, Large Algiers, and Autumn Giant are some of the best varieties.

ARTICHOKE (Cynara scolymus).

THIS vegetable was introduced into Italy from Asia Minor in the 15th century, and has



ever since been commonly cultivated in Europe; but in this country it is found, as yet, only on the larger private places and on the tables of first-class hotels. The engraving shows the flower-bud, which is the eatable part of the plant. though sometimes the stems of the young plants are also eaten, being first bleached, like celery, by heaping soil up around them. Its cultivation is very simple. The plants may be raised from seed, which should be sown on a hot-bed in the latter part of February, and by proper care the plants will be ready to transfer to the open ground in the first days of May; or it may be propagated by suckers from the old plants in the spring. In either case the plants should be set in rows, three by three feet apart, in rich and deeply-prepared soil.

It is a perennial plant, and once planted, it requires no farther care during the summer season than to be kept clean, and to gather the crop. The heads will be ready for use in July, and continue to appear till fall. In the fall the old flower-stocks and leaves are removed and the plants, not being perfectly hardy, are covered with leaves or coarse manure, to protect them during the winter.

French Green Globe, the one represented by the engraving, is considered the best variety.

The Poultry Yard.

PARASITIC LUNG WORMS.

HENRY STEWART.

FOR every thing there is a reason, although your correspondent, Gen. Noble, (see RURAL of Jan. 25, page 58) cannot see any good in "doctoring the stomach for a worm in the windpipe." When the true character of anything is understood, a course of treatment may be considered rational that would otherwise appear absurd. In the case mentioned by Gen. Noble, the treatment he gave his hen-house might seem to some others than himself quite unreasonable—doctoring the hen-house for worms in the throat—but there is a far closer connection between the stomach of an animal and the mucous membrane lining the lungs and throat than between the latter and the walls and floor of a poultry-house, although even here there is a rational connection. The truth of this matter is, that "gapes" is really caused by a parasitic worm which belongs to a family of animals well known to naturalists. One of these infests poultry, another partridges, or rather grouse—as they really are—another lambs and sheep, another calves, and another young pigs.

All these are well known, and their natural history is so far clearly ascertained as to their generation by means of eggs. How the eggs or the young worms gain access to the lungs and air tubes is not *known* with such certainty as to satisfy a scientific man who will deal only with facts—that are facts, and not suppositions. Abundant circumstantial evidence exists to make it highly probable that the eggs of the worms are taken into the stomachs of the young animals with the food—with the grass in the case of lambs, calves and pigs, and by being picked up from the ground, in the case of young chicks. The ground becomes infested, most probably, by means of eggs voided by mature animals; for all these worms may be found in the bodies of mature animals, in some cases so numerously as to cause disease and death. This is notably the case in sheep, in whose lungs and air passages myriads of these may be often found, as is well known to every practical shepherd. The eggs being then introduced to the stomach, are hatched into worms, and these are sometimes so plentiful in the stomachs of animals as to cause trouble there. These worms find their way from the gullet to the air tubes and lungs, and live upon the secretions of the mucous membrane, which are increased in quantity by the irritation caused by their presence—"and thereby hangs a tale" of how "doctoring the stomach for a worm in the windpipe" may be very effective.

If the General or any man will take a dose of the old-fashioned sulphur and molasses for a week, he will find all his new legal-tender or other silver dollars which he may carry in his pocket, blackened by the fumes of the sulphur which went into his stomach. If he had breathed upon the silver, the blackening, which is caused by a sulphide of silver deposited upon the metal, would have been apparent much earlier and more conspicuously, because the vapor of the sulphur escapes by the lungs sooner than it does through the skin. The same happens when turpentine is taken as a medicine, as is well known. Indeed the action of turpentine is so effective that persons exposed to its vapor and breathing it only, are quickly affected by its diuretic qualities acting upon the kidneys; or the simple rubbing of turpentine upon the skin will show the same effects. Sulphur and turpentine are active poisons to these worms, and in the case referred to by Gen. Noble. the sulphurous fumes escaping from his fortunate application, may doubtless have done the business "and he builded better than he knew."

If any medicine can be called a specific, turpentine is such in the treatment of these lung worms, and I believe sulphur will be

found equally effective, but of slower operation. I have treated many lambs, sheep and calves for this disease with success, by the use of turpentine, administered through the stomach; and from its great volatility it rapidly enters the blood and is carried off through the lungs and air tubes, and, moreover, it strongly affects all the secretions, especially those of the mucous membrane and the skin, and is thus placed where it will do the most good, or rather the most *evil*, to the parasites which are destroyed—poisoned, in fact, by it.

Now, I think I have given "some trial or reason for the use" of the remedies I propose; fortunately I have never had any reason to try them with my fowls, because I have never had gapes among them, having used those precautions which would necessarily occur to those who knew the truth of this matter.

Bergen Co., N. J.

AN EXPERIENCE WITH SEVERAL BREEDS OF POULTRY.

C. S. COOPER.

In a former communication I stated that a free current of air in a house constructed for chickens, is actually necessary to keep them in a healthy condition. I shall now give my experience with the several breeds, as far as I have tested their qualities.

Barn-door Fowls were the first with which I had any experience; for when I first settled upon the farm, there was no other breed in the neighborhood. I bought my stock from several farmers and am willing to acknowledge that the birds were excellent layers and affectionate mothers. I wanted no better for several years. They began to fail, however, and I resolved to try another variety.

White Leghorns were my next choice. These I found excellent layers of large, white eggs. Indeed they were all I desired as layers, but they had other traits that did not altogether please my fancy. I found it almost impossible to keep them in any inclosure, be it ever so high, and owing to their naturally wild nature they were unsuited to my fancy. As brooders, too, they were very poor—many a setting of eggs was spoiled by the hens leaving their nests after sitting for a week or two. Then again, the chicks that were hatched and reared, were about two-thirds cockerels, so that it was difficult to rear enough pullets to supply all the eggs I wanted, and for table the birds are of very poor quality and of small body. Moreover they are not extra-hardy, so that, on the whole, they are not an A No. 1 breed, and I have altogether discontinued raising and keeping them.

Black Spanish were my next venture. I found them to excel the White Leghorns in laying qualities, their eggs being equal in size and color, but more numerous. The hens, however, were almost non-sitters, and of the same wild, restless disposition as the White Leghorns, all whose other objectionable traits they also had.

The Plymouth Rock and Light Brahmas, are the breeds to which I now confine myself exclusively, having discarded the Houdans for various objections. I find either of these varieties best suited to my fancy. Both kinds are of large size, docile, good layers, good mothers, and of excellent quality for table use. They can be kept in an inclosure of ordinary hight. I was dilatory in getting the Brahmas on account of rumors of their being inveterate sitters, but such a report is not well founded. I have had no trouble in breaking their disposition to brood, by two or three days' confinement. For winter layers they cannot be excelled, and the chickens are very hardy.

The Plymouth Rock excels all other breeds for general use. Fowls of this variety have all the good qualities of the Brahmas, are most excellent layers, very pretty, and among the best fowls for table use, pullets weighing, when full-grown, from seven to eight pounds, and cockerels from nine to ten pounds. Moreover, they are very hardy and great foragers when running at large. I am of opinion that this is the breed above all others to answer the general requirements of farmer and fancier. They are not slow to feather, mature early, and should I keep only one variety, the Plymouth Rock would be my only choice. [One changes his estimate of the value of breeds from year to year. At the present time we agree with Mr. Cooper.—Eds.]

There is a disposition, especially among fanciers breeding for feather, to in-breeding too closely. This practice is detrimental to the health and destructive to the constitution of the flock. I would say to all: get new blood in your flock every year, and select the best quality of birds.

Bergen Co., N. J.

A Fine Poultry Show was lately held at Burlington, Vt., by the Champlain Valley Poultry Association. There were a long list of premiums, and some very fine birds. The number of visitors was unusually large, and we are glad to learn that financially and in all other respects, the managers and exhibitors of the Show are to be congratulated on their eminent success.

Miscellaneous.

CO-OPERATION.

In the Rural for January 18, J. A. H. Ellis gives a very glowing description of the beauties and advantages of co-operative farming. If it were possible to organize a company, each one of whom was utterly unselfish, and whose only desire was to advance the public weal; in short, if the men were all saints and the women all angels, then his vision might become a reality. But as poor, weak humanity exists at present, it is almost certain that his enterprise will collapse within five years. Co-operation is a bright "idea" that may be successfully realized about the dawning of the "Millennium."

The Perpetual Hay Press.

Two co-operative companies have been formed in this city with the avowed object of settling upon the cheap lands of the West. Both appeared to be well organized, and wisely officered, and yet one disbanded before reaching its place of destination, the members of the other had sufficient cohesive powers to locate their lands and run for a year or two, when that collapsed also.

Some eighteen months since, about one hundred of us organized a co-operative grocery store in this place. Large dividends were promised and great benefits expected. It soon became apparent that nearly every man wished to become the controlling spirit in the organization. In fact we found plenty of material for officers, but very few were willing to rank as privates. The result can easily be imagined. That store that started off with a grand flourish of trumpets, has "run under" and is now being closed out. At least one of its stockholders proposes to "paddle his own canoe" in future, leaving co-operation to those men who "have a soaring after the infinite and a diving after the unfathomable, but who never pay cash."

In organizations of this kind, the "sweetest talkers," and those promising the most by the way of success, are usually given the lead, and in this case, we chose nine of the most inexperienced and impracticable men in the organization for directors. Men who had never succeeded at any kind of business for themselves, were decided to be the most competent to manage a store! Who could doubt their ability when they talked so eloquently, wrote so forcibly, and promised so much? Well, the result has proved a deserved failure. Co-operation may be all right in theory, but practically it will not work until people know more (or less) than they do at present.

I can recall a score or two of attempts to found communities, co-operative societies and the like, but all have failed in this country, except the Shakers and the Oneida Community. These are held together more by ignorance than by wisdom. I have about come to the conclusion that "competition" is the life of trade, the laboring man's incentive to energy, and the law of God. Nelson Ritter.

Syracuse, N. Y.

WHAT OTHERS SAY.

Seeds.—J. J. H. Gregory, of Marblehead, says that in no country in the world are vegetables raised in such abundance and variety as in this. The man with a garden can here "live like a king." Seed growers have many things to fight against. Seed peas are not grown with good success, owing to bugs, except in Canada. The best varieties of potatoes are grown just north of the apple zone, as in Vermont and Northern New York. The bulk of the choice seed imported comes from France and Germany. Some choice seeds are worth a great deal. As high as $200 per ounce have been paid for choice cucumber seed. Some kinds of seed require a special study to produce them. The foreign seeds are mostly sold by agents who reside in this country, and travel from place to place.

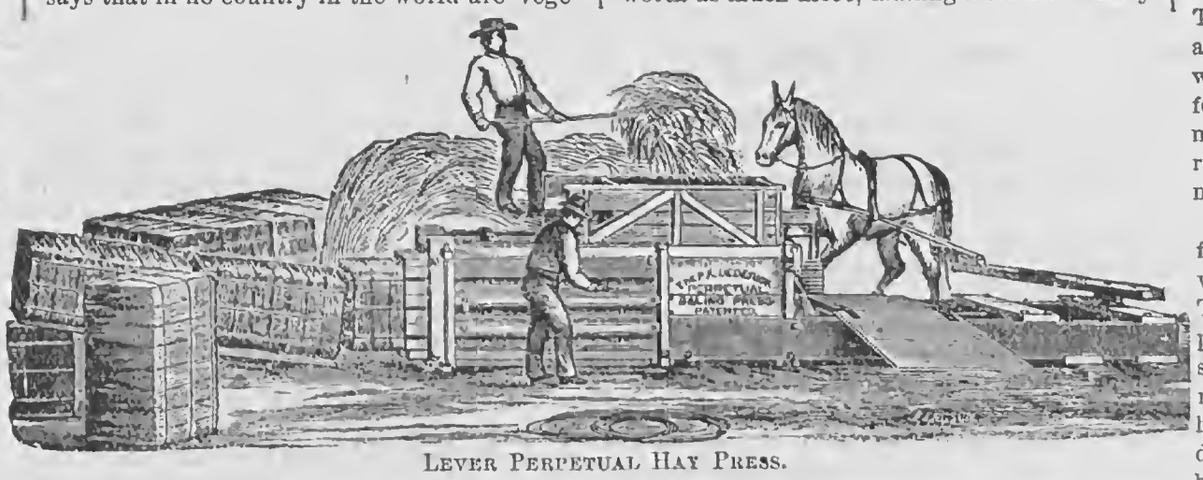
Fancy Milk.—The New York Times has the following in regard to the experience of a correspondent: Having a few high-bred costly cows, a finely-appointed dairy-house, the newest and best facilities for keeping milk, and keeping and feeding cows regardless of expense so long as it would bring profit, he tried hard to find customers who would pay a few cents per quart more for the best and purest milk, put up in sealed bottles and handled with the greatest care and cleanliness. The effort was a miserable failure. Not one milk-dealer in the whole city of New York could be found who would undertake the sale of milk so put up, at the reasonable price of 10 cents per quart, delivered. Not that there were no persons who could afford to give five times that price for it, but that there was no desire to pay a few cents a quart extra for purity and excellence in the milk. So that much-talked-of myth of "Parisian bottled milk" in New York was driven to earth and found baseless.

Frost and Fruit.—But little definite information, says the Indiana Farmer, has yet been received regarding the effects of our late excessively cold weather upon the next fruit crop. The general impression is that the peach buds in all this section of country are killed. Those who have examined them are positive that this is the case. Many claim that the trees are also killed. The mild dry weather of last fall, it would seem, should have made the wood of the trees unusually tough and hardy, and the dry weather thus far in the winter has been favorable to the preservation of the wood and bark, so we have hopes that a large proportion of the trees will survive. Mr. S. Johnson, president of the State Horticultural Society, gives it as his opinion that most of the Blackberries, Raspberries and Grapes are killed.

Beet Sugar in Maine.—At his factory in Maine, Mr. Gennert has already turned out one hundred thousand pounds of beet sugar during the recent season, and he has between five and six hundred tons of beets yet to manufacture. He says that there is no question about the profitableness of the business and the only trouble is to get beets in sufficient quantities. He gives the farmers $5.00 per ton for the roots, and states that a good average yield is twenty tons per acre. It is well known that it took a long time to establish this industry in France and Germany, and that it has accomplished wonders for the farmers of those countries. The pulp of the beets, after the sugar is extracted, is an excellent food for stock.—The Husbandman.

Poultry Figures.—G. O. Brown says that farmers will feed a bushel of corn to produce six pounds of pork, while the same amount of corn will keep a good laying hen one year, and she will produce at least twelve dozen eggs, averaging eighteen cents per dozen, which would equal two dollars and sixteen cents. In addition she would rear a brood of chicks worth as much more, making a total of nearly *five dollars* against six pounds of pork at ten cents, which would equal only sixty cents; or, in other words, the hen would yield *seven* times as much as the pig fed on the same quantity of corn.

Don't Pay.—From twenty years' experience as a fruit grower, Waldo says, in the Practical Farmer, that he has come to the conclusion that the size, health, and value of a fruit tree depend largely on the treatment it receives during the first four years after it is planted in the orchard, and that this is particularly true of the Peach. He does not think a peach tree which once becomes stunted, can ever be made profitable.



Lever Perpetual Hay Press.

ELASTIC WATERPROOF CEMENT FOR TREES.

Take one quart of fine North Carolina tar and boil it slowly three or four hours. Add to the boiling tar four ounces of tallow and one pound of beeswax, and stir till well mixed. Then remove the vessel from the fire and stir till the contents begin to thicken. Have ready one pound dry and sifted clay, and stir it in thoroughly until you can stir no longer. In warm weather this cement is soft enough to be easily spread with the point of a knife. When applied to wounds on trees, it completely excludes moisture, does not harden or crack or scale off, yields to the new growth, and can at any time in moderately warm weather be pressed by the finger into the corners and crevices of the wound which may be uncovered. T. H. Hoskins.

CATALOGUES, &c., RECEIVED.

We are gratified to learn that Mr. J. T. Lovett and Mr. E. P. Roe have become associated together in business life. For years the former has been the manager of the nursery of A. Hance & Son, of Red Bank, N. J. He is well known to our readers through his communications upon small fruits, which have been alike notable for their frankness and accuracy. Experienced, intelligent and trustworthy, we do not know of two gentlemen who are better fitted to inspire the confidence of those whose patronage they solicit.

A reference to Mr. Joseph Harris's announcement in this issue discloses the fact that Moreton Farm has been partially devoted to raising home-grown seeds. Mr. Harris says of his catalogue, which is now ready for mailing, that it contains ample directions for cultivation. His experience should make his suggestions of great value, and an opportunity of securing such advice free, does not often occur.

The Drainage and Farm Journal.—This is the first number of a new 28-page monthly periodical published by Billingsley & Diamond, Indianapolis, Ind.; price, $1 a year. It is devoted to drainage, tillage, tile and brick manufacture, and promises to be a convenience to the large class of farmers whose land needs drainage.

Annual Report of the Public Printer, showing the condition of the public printing, binding, etc., for the fiscal year ending June, 1878. Printed at the Government Printing Press, Washington, D. C.

Proceedings of the Fifth Annual Meeting of the Woman's Christian Temperance Union of Illinois, held at Monmouth last October, 9th and 10th, Mrs. M. H. Williams, Pana, Cor. Secretary.

Catalogue of thoroughbred horses belonging to J. W. Hunt Reynolds, for sale at Fleetwood Stock Farm, near Frankfort, Ky.

Industrial Implements.

THE LEVER PERPETUAL PRESS.

The improved methods of baling hay led to an increase in the market price of the staple, and greatly lessened the labor of handling it. We believe Mr. Dederick, of Albany, was the pioneer in this movement. At any rate his presses are to-day in very general use, and we have selected two suitable for farmers' use for illustration. The hay in the second cut is thrown into the top of the press into a condensed hopper, the lever-power is supplied by the horse, or horses, and the bale is made. The process is continuous, and about one ton an hour may be baled if the press is steadily worked. One of the great merits of this press for farm use is, that it may be operated by one man only, and handsome bales turned out ready for shipping, in the most methodical manner.

The first illustration shows a variation from the Lever Perpetual, and has some advantages and disadvantages as compared to it. The horse may be driven entirely around the press, or only half, turn and reverse. The side-feed is convenient, as it permits the operator to always remain on the ground, where he can attend to the horse. The press is self-discharging and perpetual, or each bale may be stopped if desired.

The presses are made for different sized bales, the 17x22 and 14x18 being the most popular. Their strength and solidity make them very durable, and to be relied on to stand an extra pressure if it is thought necessary. At the Paris Exposition, P. K. Dederick & Co. were awarded a gold medal, and in this country they have secured enough medals to start a coin-cabinet.

Various.

TALKS ON TIMELY TOPICS.

ALL THE EGGS IN ONE BASKET.—Farmers who keep strict accounts of their income and expenditure will be surprised at the difference in profits on their various products during the past season and in ordinary years. The prices of butter and cheese cannot compare with those of former years, while a crop of potatoes brings in more cash than the same quantity of choice apples. Unthinking farmers who could not be persuaded into orchard planting, are now exultant. "I told-you-so" is ever ready to give his opinion that all this talk of planting apple trees for profit is "bosh—there's nothing like a crop of good sound potatoes," forgetting the not far distant time when the tubers were fed to the cattle in preference to selling them at 20 cents per bushel, while apples were worth a dollar for the same quantity. It is true that in the case of the fruit, we have to wait some years for a crop, but it is always a remunerative one, if the fruit is properly handled, and the quality first-class. At the same time the experience of the past season proves the wisdom of having more than one department of agriculture or horticulture on which to depend. The culture of some kinds of vegetables, or small fruits, the perfecting of such seeds as can be grown in the climate where we live, the careful curing of good hay for winter sales, and the profits of a well kept poultry house, all contribute to fill the different "baskets." Yet let no one be tempted, by the low price of fruit, to neglect the orchard, or to leave it to the ravages of the tent-caterpillar or codling-moth. Careful picking of the "rings" of the former, which contain the eggs; and hay bandages to lure the latter where it can easily be destroyed, will amply repay the time expended. The children of a household if properly interested, can become students of nature in many branches of natural science if once they begin entomological researches; and the trees well cared for during years of over-bearing and low prices, will repay a hundredfold when the change comes, and apples once more bring profitable returns. A. L. JACK.

ADVANCE OFFICE, Wenonah, N. J., Jan. 31st, 1878.

PUB. RURAL NEW YORKER:—Some party is trying to trade one of my neighbors a large quantity of fertilizer, I think, in exchange for a residence here. My neighbor desires me to ascertain, if possible, whether the article is reliable or not. He has handed me a circular which has been furnished him. It purports to be issued by the "Bird Guano and Shell Fertilizer Co.," and the title page bears the name of Tunis Johnson and what appears to be the name of C. C. Lewis, *erased*. Their stores purport to be located at the foot of South Sixth street, Williamsburgh, L. I., and office at 58 Liberty street, New York City. Will you please inform me if the concern and this fertilizer are reliable, and what the real value of the fertilizer is? Yours truly,

MILTON P. PEIRCE, Pub. Advance.

We have received the above letter, and, as requested, made inquiry at the "Bird Guano and Shell Fertilizer Co.," where the following analysis was handed us, from which the reader can judge for himself:

Carbonate of lime	44,525
Organic and volatile matter	5,830
Insoluble sand and clay	6,383
Oxide of iron and aluminum	1,161
Chloride of sodium	279
Ammonia	48
Moisture	43,763
Carbonate of magnesia	a trace
Sulphate of lime	a trace
Potash and phosphoric acid, pure	a trace
	99,989

Signed by Walz & Stillwell, 18 Exchange place.

Everywhere.

NOTES FROM NEBRASKA.

EX-GOV. ROBT. W. FURNAS.

A lively and instructive week's work; products of Nebraska in 1878; Eastern exaggeration of Nebraska lawlessness; a fine showing for the educational system of the State; its weather peculiarities; its hardiest Apples.

OUR State Horticultural Society, State Board of Agriculture, State Stock-Breeders' Association, State Agricultural Institute and State Wool Growers have just concluded a week's session at Lincoln, the capital. All the sessions were held the same week, having been sandwiched and interspersed to mutual accommodation. The Horticultural meeting was particularly interesting, consuming three days and evenings of the time. The usual discussions,—as to varieties of fruits best adapted, all things considered, to our soil and climate, locations for orchards, modes of culture and treatment of trees,—were indulged in, whereby much valuable information was both imparted and obtained. In addition, valuable papers and essays were read and delivered from and by: Dr. Jno. A. Warder, Ohio, President American Forestry Association—Forests and the Future Water Supply; William Saunders, Agricultural Department, Washington City—Rotation of Crops; Suel Foster, Iowa—Evergreens and Hedges: by our own residents; Prof. Samuel Aughey of State University—Soils of Nebraska, outside the Loess; Ex-Gov. J. Sterling Morton,—Trees and Homes; Prof. Harvey Culbertson, Agricultural College—What can our Society do for the People? James Y. Craig—Grape Culture; D. W. Kauffman—Plum Culture, and James T. Allan, Sec'y American Forestry Association—Forests. For want of means, the proceedings of these annual meetings have not been published for some years past. The present Legislature, however, now in session, will make needed appropriation.

Statistics show that Nebraska products for 1878 were, in round numbers, wheat, 15,000,000 bushels; corn, 48,000,000 bushels; oats, 8,000,000 bushels; barley, 3,000,000, and rye, 1,000,000 bushels. Nebraska has 48,000,000 acres of land, of which 30,000,000 acres are suited to all kinds of agricultural purposes. We have now about 2,500,000 acres under cultivation.

I note that some Eastern newspapers are prone to advertise Nebraska as the "home of desperadoes!" Here, like all other sections of the world, we are not free from such characters. They are not native products, however, but refugees from older States. The extreme western and unorganized portions of the State afford fields for unlawful operations and hiding places for their perpetrators. Yet a greater number of such outrages as those heralded from our borders as "Nebraska crimes," are perpetrated in all the great cities of the East, in proportion to the population of both sections. As an evidence of the status of society generally in Nebraska, let me state that we have to-day more churches, more schoolhouses, more money invested in educational matters, two to one, than had ever any other State in the Union at our age. To say nothing of our State University, State Normal School, sectarian and private schools, we have 2,690 common-school districts, employing 3,730 school teachers. The educational expenditures for 1878 were $936,931.98. We have on hand a permanent cash school fund of $535,167.35, drawing eight and ten per cen. interest; and in addition, an educational endowment fund of 2,443,148 acres of land. The constitution fixes the minimum price of these lands at $7 per acre—some have sold as high as $40 per acre. This would make for us a permanent common-school fund of nearly $20,000,000. The State university has a land endowment fund of nearly $1,000,000 besides. With these prominent and leading characteristics, we are not likely to turn our attention to propagating or shielding outlaws to any very great extent!

We have had a remarkable winter. Up to the 13th day of December last farmers were plowing. Commencing on that day, and continuing for the following week, there was an unusual snowfall. We had the finest of sleighing for six consecutive weeks, the weather during that time having been the coldest known for years. The thermometer indicated 27 degrees below zero. At the date of this writing farmers are again plowing and planting spring wheat. Fruit-men do not think fruit buds injured as yet. Such is our altitude—one thousand feet above tide-water—and such our consequent favorable atmospheric conditions, that fruit buds and trees withstand a greater degree of cold here than in many other localities differently situated. In the winter of 1873-4 we had cold 32 degrees below zero, yet the season of 1874 gave us the finest peach crop we have ever had before or since.

What does Dr. Hoskins, your fruit correspondent, mean by "the climatic belt just below us," "the cold belt," and his intimation that Red Astrachan, Maiden's Blush, Tahman's Sweet, Ben Davis, Bailey's Sweet and other varieties he names, are "almost hardy!" To what locality does he refer? The varieties I name are among the very hardiest in Nebraska—we class them "iron-clads"—and most profitable.

Brownsville, Feb. 1.

NOTES FROM KENTUCKY.

MANY seem to think that we have, in this State, blue-grass, fine horses and beautiful women, and nothing more worth mentioning. 'Tis true we have these almost in perfection, but we have something more. We have inexhaustible mines of coal and iron; immeasurable beds of marl and carbonate of lime; almost boundless forests of the most valuable timber; farming lands of unsurpassed fertility; peach and other fruit lands of unequaled quality; a healthful climate; the most beautiful rivers in the world; taxes only 60 cents on the $100, and no State debts; schools, churches, railroads, etc., etc. I do not wish to be understood to say that we are exempt from all "the ills that human flesh is heir to," but that we have a full share of the blessings and a small proportion of the curses common to this "land of the free and home of the brave," and that the worthy who comes to "Old Kaintuck" will find a welcome so hearty and a greeting so cordial, that he will never regret the coming.

Excellent tobacco land can be had for $15 to $20 per acre; fruit land, $10 to $15 per acre; Ohio River bottom-land, $40 to $60 per acre, according to location and improvements. Here in Hunter's Bottom, 50 miles above Louisville and 100 miles below Cincinnati, land rates from 25 to 50 per cent. higher than its equivalent on the Kentucky and other interior parts of the State. The four farms sold here recently averaged $51 per acre. Horses, 15 to 16 hands, sound, good steppers and stylish, can be bought for $60 to $80; good work horses for $40 to $50; mules, 14 to 15½ hands, for $60 to $75. Six thousand barrels of potatoes were shipped from this Bottom the past season at $1 per barrel, and they averaged 40 barrels per acre. Our market is the Ohio River. Each farm has a landing for the packets that pass each way every day, and buy our farm products of all kinds at Cincinnati and Louisville prices, with freight and commission off. Tobacco is selling at 7 to 14c. per pound, and about 1,000 pounds is the crop per acre; corn is worth 31c.; oats, 24c.; wheat, 85c.; potatoes, 50c.

S. E. HAMPTON, M.D.

Trimble Co., Ky. Feb. 4th. 1879.

RURAL SPECIAL REPORTS.

NEBRASKA, Orleans, Harlan Co., Feb. 6.—In the issue of Jan. 11, the RURAL refers to the fondness of potato beetles for the Matrimony Vine, and suggests its use as a beetle trap. There is a plant growing hereabouts which the beetles seem to like better than that Vine. I refer to Solanum rostratum. The plant is the original pasturage of the beetles in Colorado, and has come down to us Nebraskans along our mountain streams. For several years past I have been in the habit of allowing a few plants to grow among my potatoes. I find the plants alive with beetles while the potatoes are uninjured. If the plants are getting worsted too soon, I come to the rescue with Paris-green. The beetles appear each year, but in such limited numbers as to cause no serious apprehensions. I do not use Paris-green on S. rostratum rather than on S. tuberosum through fear of injuring the latter, but because I like to fire where the enemy is thickest. I have raised the Doura—illustrated in RURAL, Jan. 18—for two years past and propose to continue raising it. I think it far inferior, however, to Pearl Millet as a forage plant. On new "breaking" it does well—the stalk rots and is out of the way much sooner than corn-stalks. It is as nearly grasshopper-proof as is common Sorghum. I never knew it to be injured by insects of any kind. It grows slowly at first—corn planted at the same time comes up a week earlier—but the Doura is always "ahead on the home stretch." It may do for John Chinaman to eat, but we find no place for it in the house. Wife wants a supply for her poultry; and hogs, sheep, cattle and horses eat it with seeming relish. I plant it about three and a half feet apart with a hand corn planter, by putting in a proper slide. R. H. C.

NEBRASKA, York, York Co., Feb., 5.—We haven't had more than five or six inches of snow this winter, and but very little cold weather. For the last week, farmers have been busy plowing and in some instances the hum of the thrashing machine has been heard in the land. According to present indications there will be a larger acreage of wheat put out this coming spring than ever before. This will furnish employment for the 1001 idle men of the East, if they will come this way about next July. [Put the idle men hereabouts at 1,000,002, and the estimate will be nearer the truth. EDS.] A great many fruit trees were sold the past season, which shows that the people have faith in raising fruit in this section. Wheat is now worth 60c; corn, 16c; oats, 15c; hogs, $2.00 per 100 pounds, live-weight. ANON.

CALIFORNIA, Carpentria, Santa Rosa Co., Feb. 3.—Much apprehension has been expressed in some parts of this State of late with regard to the crops for the coming season, owing to the small amount of rainfall, but it is raining here and the soil is in fine condition for "working," and the promise for next harvest never was more favorable at this time of the year. We are now planting potatoes, sowing grain, etc. The grass is growing finely, so that stock can get some feed. Flowers are blooming and all Nature looks gay. O. N. C.

NEW YORK, East Bethany, Genesee Co., Jan. 31.—The RURAL'S article on that patent fence out West, and the accompanying illustrations, well exposes one form of patent swindling, but it is only one out of thousands. As an inventor of a patent fence and several other devices, myself, I am quite familiar with the whole subject, and with the multitude of abuses connected with it. D. R. P.

NEW YORK, Whitney's Point, Broome Co., Feb. 11.—Snowing again! the second snowstorm in a week. Roads are nearly blockaded, drifted from fence to fence. Farmers are busy cutting wood and filling their ice-houses. Potatoes are scarce—65@75c. per bushel. Buckwheat, floured and sacked, sells for $1.25 per hundred; oats, 25c. per bushel; eggs, 22c. per dozen; butter, 12½ cents per pound. M. B. D.

MICHIGAN, Three Rivers, St. Joseph Co., Feb. 3—Last year's wheat crop hereabouts was only middling. Good corn, too, was short, as drought had hurt it. Hay was a big crop. Potatoes are rather scarce, but apples are plentiful. Wheat looked well when snow fell. It was sowed rather late on account o the ravages of the fly last year and the warm and dry fall. S. M. S.

WISCONSIN, Delafield, Waukesha, Co., Feb. 6.—My 30 head of cattle and horses well cared for and protected from the storms of winter in warm stables, bear testimony to the good effects of their owner's attention to the lessons taught by the RURAL. Since Christmas the winter hereabouts has been severe, but good sleighing makes the weather more bearable.

VIRGINIA, Dunnville, Essex Co., Va.—The wharves and depôts along our navigable rivers have suffered very much from floods. It is supposed that a great many oysters have been killed by the influx of fresh, muddy water. Grain is low, and labor unsettled and highly unsatisfactory among our farmers. R. S.

NORTH CAROLINA, Reidsville, Rockingham Co., Feb. 7.—I have had experience with Pearl Millet, and as a fodder plant it is far more productive than is claimed for it by any seedsman in your latitude. It is a great exhauster of the land, and therefore needs generous manuring. W. S. F.

KANSAS, Matfield, Green Co,, Feb. 5.—We have had more snow this winter than for 21 years, and still the ground is snow-clad, so that no plowing has been done up to date. Fall grain is doing finely, and the prospect for good crops is excellent. D. W. M.

MASSACHUSETTS, Swansea, Bristol Co., Feb. 10.—Stock of all kinds is doing well. Produce is low; pork, 5c. to 5½c. per pound; beef 7c. to 8c; poultry, 15c. to 16c; eggs, 30c. per doz; hay, $13 to $14 per ton at the barns; rye straw, $12 per ton in Fall River. R. R. M.

The Querist.

ANSWERS TO CORRESPONDENTS.

Improving a Poor Farm.—Scab in Sheep.

D. M. S., Martinsville, W. Va., is a merchant who knows nothing about farming. Sometime ago he became a subscriber to the RURAL, and reading it made him interested in agriculture. This interest led him to invest in a farm. It is a mixture of limestone, soapstone and slate. It has been badly handled; the fences are dilapidated; no manure has been put on the land for years; there is no grass on any part of the 193 acres included in it. He asks what is the best way to get it under grass: some tell him to sow it to buckwheat and when that is in bloom, to plow it under; others advise him to sow corn on it, and plow it under green; while others insist that to treat Carolina peas in the same way is the quickest method of enriching the soil. He asks, also, whether coal ashes have fertilizing properties enough to make it worth his while to haul them three miles; whether it will pay to put gas-house lime on the land, after having hauled it three miles at a cost of five cents a bushel; will blue-grass grow in the woods, and what is the best time and way to sow it; is there another species of grass that would do better under the circumstances. Which is the better plan—to rent the land for a few years to a skillful farmer and get him to put it gradually into good condition, or to put a man on it himself with a view to produce the same effect. He has a lot of fine sheep that are troubled with the scab, and he inquires whether the ailment is curable, and if so, what is the best remedy.

ANS.—No skillful farmer would be likely to rent such a farm as this, because, if sufficiently skillful, he would most likely be working a farm of his own. To hire a good man would be a good plan; and then furnish him with means to do the best he can with the land. But for one competent man in such a case, there are a thousand others, and the money cost would be disheartening. We would suggest, to try 40 acres or less at first. There must be limestone on the land and probably wood; if so, burn a few thousand bushels of lime in the most convenient of the methods recently described—see page 55—and spread 50 bushels per acre, when finely slaked, on the plowed ground as early in the spring as may be, and let it remain so. When danger of frosts is over, sow one bushel of buckwheat per acre and harrow the seed in with the lime. When the crop is in blossom, plow it under and repeat the sowing. Early in September, plow the second crop under and sow *two* bushels of rye per acre. In the spring, sow eight quarts of clover, six quarts of timothy and a bushel of Kentucky blue-glass per acre. When the rye is cut, sow 100 pounds of gypsum per acre on the grass. The blue-grass

will require three years to mature, and in the meantime the clover and timothy and the rye will supply some feed for stock. If this plan succeeds, enlarge the operation. It will be advisable to try a few acres with some artificial fertilizer, to test this against the green manuring.

Coal ashes are worthless. Gas lime is dear at five cents a bushel when fresh lime can be burned for that price. Fresh gas lime is hurtful, and should lie some months to become oxydized and get rid of its sulphuretted hydrogen. Orchard-grass is the best for woods, and succeeds well in shaded ground. Scab may be known by the appearance of a yellow discharge from numerous pustules and the formation of brown crusts,—scabs, in fact. Mere redness and irritation of the skin may not be scab. These may be treated by giving the sheep half an ounce of sulphur and one dram of cream-of-tartar daily for two weeks. The scab may be treated by soaking the scabs in hot water, breaking them up and removing them; then dressing the parts with a mixture of one quart of pine tar, one quart of raw linseed oil, and one ounce of creosote, well rubbed in to the raw spots. If the scab is really in the flock, the better plan would be to get rid of the whole; wash with hot lime-wash every place where they have rubbed themselves, and wait a whole year before the flock is replaced. It is a very contagious parasitic disease, and costs more to cure than the sheep are worth.

Overloaded Paunch.

H. D., F., Palmer, Mass., asks what is the best thing to do for a cow that has been to the meal chest and eaten too much cob meal, and it is not known for twelve hours or more?

ANS.—While the writer was attending veterinary lectures it was a standing joke with the boys, when asked at examination time what they would do if called to see a sick animal with certain mysterious symptoms about which they knew nothing, to answer that they would send for Dr. ——, Prof. of Pathology. And so in a case like this, where a spontaneous cure or death usually results in the course of a few days, we should advise, by all means, that a competent veterinarian be employed, if possible, to treat the animal. It is often necessary to change the treatment to a very considerable degree in treating such a case, and no one can judge so well when these changes are necessary as an experienced practitioner. When first discovered, a good purgative should be given, together with a stimulant to hasten its action; this may consist of two pounds of Epsom or Glauber salts, or a pound of each, as some prefer, to which may be added two ounces of either ginger or oil of turpentine and thirty grains of nux vomica. This should be followed every two hours with such stimulants as water of ammonia (½ ounce), sulphuric ether or sweet spirits of niter (2 ounces), or ginger (2 ounces). In case of bloating, the ammonia or ammonia and ether combined, are to be preferred. If there has been no improvement in seven or eight hours, another purgative dose of the same should be given. If bloating becomes excessive, the gas may be drawn off by puncturing through the most distended point on the left side, with a cannula and trocar, or even with a knife. Finally, if the patient does not improve, but is evidently sinking, the only hope is in making an opening through the left side and removing the greater part of the accumulated food. Few people will undertake this operation without having first seen it performed.

Angora Goats and Mohair.

D. S. & W. H. G., Morristown, N. J. ask the price of mohair; where they can buy Angora goats; where they can find some works on the subject, and what would be the price of goats; also the price of a good sheep dog.

ANS.—There is no market price or any regular market for mohair in this country. The price ranges all the way from 40c. to $1 per pound, the factories paying, on an average, about 60c. to 65c. There are two or three mills (one at Jamestown, N. Y., and others in Philadelphia), working up this material into fringes and other small wares, but they are supplied mostly from foreign sources. The reason of this is that the business of growing mohair in this country is not yet a settled one; the fleeces are very uneven and of poor quality, and the wool is not sorted, so that the mills do not care to buy the domestic product. Richard Peters, Atlanta, Ga., is the oldest breeder of Angora goats. They are also for sale by J. S. Goe, Brownsville, Pa. They are worth about $30 per head. Experiments in keeping Angoras have been carried on more extensively in California than in any other part of this country, and according to late articles in San Francisco papers, they have not proved satisfactory there. Similar experiments, on a smaller scale, have been made in so many parts of the country that if there really was money in the undertaking, the industry would by this time have assumed wide dimensions in those sections which experience had proved adapted to it. There is no book about goats published. A good shepherd dog is worth $25 and upwards, according to the amount of training.

Reports of the Department of Agriculture.

Many subscribers, with many addresses, ask how they can obtain the above works.

ANS.—To be able to answer the question authoritatively, we wrote to the Department at Washington, and Gen. Le Duc replies that each Senator and Representative in the lower House has about 720 copies of the last Report for free distribution among his constituents. It is urged that application should be made to them at once for copies, as already the demand for them is very great. It seems to us that some discrimination should be made in the distribution of these works among members of Congress. Members representing large cities, like New York, Phila., Chicago and St. Louis, have seldom any demand for books that treat of subjects in which their constituents have little or no direct interest, and about which they know little or nothing. Nearly all the volumes consigned to them, soon find their way to the paper mills, and the country is thus put to a wasteful expense. It is just such indiscriminate largesses that excuse, if they do not justify, the diatribes of political papers on the uselessness and wastefulness of such publications. If placed in the hands of those for whom they are nominally issued, the large fund of interesting and useful information compiled in them, would be of advantage to the agricultural community in the first place, and through them to the country at large. At present, however, it is not unlikely that more of them go directly to the dealers in old paper than to the farmers.

Carbonate of Lime—Pear and Apple Quinces.

N. C. D., Mt. Airy, Hamilton Co., Ohio, asks, 1, what is carbonate of lime; 2, what, if any, is the difference between the pear and apple quince.

ANS. 1, Carbonate of lime is a salt composed of one equivalent of carbonic acid and one of lime. Artificially prepared, it is a white amorphous powder, quite insoluble in water. In its purest natural form it is the mineral calcareous spar. The pearl is almost entirely composed of it. It is also the principal ingredient in limestones and marbles. Carbonic acid is one of the most feeble acids in the formation of the compound substances called bases, and is easily expelled with effervescence by nearly all the other acids. This fact can be readily illustrated by placing a piece of chalk or limestone in a vessel and pouring any acid, such even as a good strong vinegar, upon it. It is also expelled when the limestone containing it is heated to redness, hence when limestone is burned the carbonic acid gas escapes and the lime remains. 2, The Apple is the more popular of the two. For certain places, Rea's Seedling is better than either. The Pear Quince ripens about two weeks later than the apple; is not so large or of so good a quality.

The Market for Gilt-Edged Butter.

C. A. G., Cornwall, Orange Co., N. Y., asks how he can best secure city purchasers who will be willing to pay top prices for his Golden-leaf butter, which has received several certificates.

ANS.—There is a good deal of humbug about the reports of extravagant prices given for so-called "gilt-edged" butter. The fancy grocers are overwhelmed with applications from makers to sell such butter. If any mutual friend can persuade any of these to accept a consignment, one *might* get a trial, but the demand for fancy butter at extravagant prices is so limited that there is hardly any possibility of finding purchasers at more than the ordinary market prices. The best way to find a special market for a choice product is first to make it; then send it, packed in half tubs of 30 pound weight, to a respectable and honest commission agent who will look out for a permanent market for it, and who will suggest the proper sort of packages to meet the ideas of his customers in future. Our correspondent, may, perhaps, gain his point by communicating with a good commission agent, such as C. W. Idell, 333 Washington St.

Miscellaneous.

Mrs. G. B. B., Somerville, Tenn., asks what variety of cabbage is best for winter, and what will destroy the cabbage worm. 2. She also states that her early cabbages head well, then decay in the center of the stalks, whereupon the heads fall off, and she wants to learn the cause, and how to prevent it.

ANS.—1. Large Flat Dutch and Drumhead Savoy are good late varieties. 2. Hot water thrown upon the worms will kill them. Of course, it must not be so hot as to scald the cabbages. A market gardener who grows cabbage on a large scale, recommends a mixture of twenty parts of superphosphate of lime, one part of carbolic powder and three parts of fresh air-slaked lime, a small handful of which should be scattered over each head. 3. Club-root. Lime and bone-dust have been recommended.

A Rural Reader, Richford, Tioga Co., N. Y., sends a beetle for name. After a flood, caused by the bursting of a dam, it was found in low water swimming like a fish, near the bottom. 2. He asks whether the Smithsonian Institute pays anything for such specimens.

ANS.—1. It is Belostoma grande—the Gigantic Water-Bug. It lives in the water and feeds on other aquatic insects and small animals. It is figured in the American Entomologist, 1869, vol. I., p. 249, and mentioned in the RURAL for Sept. 20, 1873, p. 187.

2. The Smithsonian Institute does not pay, generally, for any specimens.

L. P. M., Danville, Montour Co., Pa., referring to the article, How Ninety-seven Bushels of Corn per acre were raised, in the RURAL for Dec. 7, '78, asks where he can get some of the Rennie's New White Field Corn therein spoken of.

ANS.—We forwarded the letter containing this inquiry, to Mr. Rennie, Toronto, Canada, and he replies that he cannot give the desired information, as he has sent out several varieties of corn, from time to time, to his Canadian customers, and cannot decide to which of them the above name has been given.

W. S. H., Harbourton, N. J., asks where can he obtain information as to the method of caponizing cockerels.

ANS.—Full information with regard to different modes of performing the operation, was given in lengthy articles in the RURALS for April 20th; November 23d and December 28th last year. Instructions are also given on the matter in Lewis's Practical Poultry Book, Dixon & Sear's Ornamental and Domestic poultry, American Poulterer's Companion, and in most standard works on poultry.

S. G. B., Jamestown, Chautauqua Co., N. Y., asks where can he get the seeds of Chinese yams.

ANS.—He cannot get seeds in this country, that we know of. The male and female flowers are borne on different plants, and we have only the male. Upon this bulblets grow in the axils, as large as peas, and these are sold by most seedsmen for seed, from which plants readily spring.

M. J. C., Ashley, Ill., asks, 1, where can he get the Beauty of Hebron potato for seed and at what price; 2, where can he get Pearl Millet seed; 3, where can he get alfalfa seed and at what price.

ANS.—1. It will be advertised in our columns later. 2. Of half-a-dozen now advertising it in our columns. 3. Of most seedsmen. Price 30 cents per lb.

A. L. M., Darbyville, Baker Co., Fla., intending to ship 400 crates of vegetables to this city, besides a good deal of fruit, asks the name of a reliable house here, to which he can with safety consign the goods.

ANS.—C. W. Idell, 333 Washington street, is quite trustworthy and has won a reputation for giving satisfaction to those who ship goods to him.

J. D. T., Brookside, N. J., asks whether dipping chestnut shingles in coal tar and then allowing them to dry before laying them, will be beneficial.

ANS.—1. Yes. The coal tar can be applied the same as if it were paint, and sand sifted upon it before it dries.

R. J. S., Chillicothe, Ross Co., O., asks where the varieties of Apples mentioned by Dr. Hoskins in the RURAL of Jan. 18th can be found, and at what prices.

ANS.—If he means trees, or cions, of the Dr. himself. His address is Newport, Vermont. He will send a price-list free to our subscribers.

"Medicine," Stratford, Conn.: asks whether Grindelia robusta, spoken of as a remedy for bronchial and asthmatic affections in RURAL Brevities, in issue of Jan. 28, is the name by which it is known in *materia medica*.

ANS.—Apothecaries know it by that name.

J. W. K., Pitman Grove, N. J., asks where can he get Banana seeds or plants.

ANS.—Do not know as to seeds. Plants of several different kinds are sold by such florists as Geo. Such, South Amboy, N. J.—John Saul, D. C.

C. M., asks whether the account of Wet Mountain Valley, Colorado, given in the RURAL of Jan 1st, 1878, is trustworthy.

ANS.—We are not acquainted with the writer of the article, nor do we personally know as to the correctness of the description.

Several Inquirers wish to know where Plymouth Rocks and their eggs can be procured.

ANS.—C. S. Cooper, Schraalenburg, N. J.; George S. Josselyn, Fredonia, N. Y.; A. M. Halsted, Rye, N. Y.

COMMUNICATIONS RECEIVED FOR THE WEEK ENDING SATURDAY, FEBRUARY 15th.

L. M, K.—E. W. S.—E. F. M.—B. P. M.—J. Le R. N.—V. H.—H. F. S.—R. W. F., thanks—S. D. W.—H. T. W.—L. S. H.—C. E. A.—A. A. C.—H. K. M.—J. D. J.—M. C.—W. F. per J. S. D., thanks—J. T.—P. W.—D. McL.—O. N. C.—E. L. T.—J. O. S.—H. L. K.—C. W. S.—A. M. H.—W. B. D.—"Workingman"—A. W. M.—E. W. S.—J. R.—N. E. P.—H. E. McC.—M. L. D.—M. M. L.—S. A. C.—S. McN.—W. J. F.—F. D. C.—S. E. W.—G. F. W.—H. M. S.—J. T.—F. A. R.—M. M.—D. E. S.—D. A. F.—J. R.—S. G. B.—W. B. D.—F. P. H.—G. G., thanks—W. B. A.—R. E. M.—A. P.—S. A. M.—R. S.—J. B.

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PUBLISHED EVERY SATURDAY.

Address RURAL PUBLISHING CO.,
78 Duane Street, New York City.

SATURDAY, FEB. 22, 1879.

The several statements in our columns to the effect that we intend to send trial lots of corn to our subscribers, have brought us a great number of premature applications. Now we beg to state that, being in the very midst of our other free seed distribution, we CAN NOT *regard these applications. The announcement in relation to the corn will be made in a few weeks. As we believe, the variety to be offered is the most prolific of any hitherto cultivated. It was for this reason that we have hastened to secure a quantity sufficient to supply every one of our subscribers who may apply with enough to give it a fair trial.*

We will be pleased to send one or more copies of the RURAL NEW-YORKER *free to any of our subscribers sufficiently interested in its welfare to be willing to hand them to their neighbors for inspection. An intimation by postal card will suffice.*

We earnestly request that all letters containing money, or any communication intended for the BUSINESS DEPARTMENT *of the paper, be addressed to* THE RURAL PUBLISHING CO., *and not to any individual. We cannot otherwise guarantee the prompt entry of names upon our books, or the acknowledgment of money.*

SPECIAL NOTICE.

OF ALL OUR SPECIAL NUMBERS, NO OTHER HAS CREATED AMONG OUR SUBSCRIBERS SO LIVELY AN INTEREST AS THE COMING CORN NUMBER. WE SHALL HAVE AN EXTRA EDITION PRINTED AND WILL SUPPLY, FREE OF CHARGE, SPECIMENS TO ANY OF OUR SUBSCRIBERS WHO APPLY FOR THEM. WE ARE CONFIDENT THAT THIS CORN NUMBER WILL DO GREAT GOOD, AND WOULD BE GLAD IF A COPY COULD BE PLACED IN THE HANDS OF EVERY FARMER IN THE COUNTRY. IN IT WE SHALL NOT ONLY OFFER TO SEND A TRIAL QUANTITY OF SEED (OF THE NEW VARIETY TO WHICH WE HAVE ALREADY CALLED ATTENTION) TO ALL OF OUR SUBSCRIBERS WHO APPLY, BUT WE HAVE DETERMINED UPON OFFERING PREMIUMS TO THOSE WHO, FROM THIS SEED SO SENT, SHALL PRODUCE THE LARGEST YIELDS OF CORN.

SUSPENSION OF OUR FOREIGN CATTLE TRADE.

THE Privy Council of Great Britain has issued an order that after the third of March all cattle imported from this country must be slaughtered at the port of landing within three days after their arrival. When questioned in Parliament last Friday as to the grounds for this order, the Government attributed it to the arrival in Liverpool of three cases of pleuro-pneumonia among American cattle. Apprehensions were therefore entertained that this disease might be communicated to native stock by infected animals in future shipments. The British Ambassador at Washington, the British consuls at various ports on the Atlantic, the commissioners whom the Canadian Government sent a few weeks ago among us to investigate the matter, had all furnished information of the existence of the disease in several parts of the Eastern States. Professor McEachran, the Canadian Commissioner, and his associates, Drs. Gadson and Lockhart, are reported to have ascertained its existence in Virginia near Lynchburgh and Martinsburg; in Maryland, near Baltimore; at Washington, near the Capitol; in Pennsylvania at several places; in this State in a number of localities on Long Island, also in Staten Island, Kings and Jefferson Counties; in Connecticut, near New Haven, and in several other parts of the Eastern States.

he recent action of the Governor of ew York and the reasons he assigns therefor afford ample proofs that with regard to some parts of this State at least the Professor's report was not without foundation. We learn, however, that Commissioners appointed by the Governor of Virginia, after investigating the alleged cases in that State, declare that the disease among cattle in both the places mentioned, is not pleuro-pneumonia. In many of the other places also, there is little doubt but that some other diseases have been ignorantly called by that name, for there is a natural tendency to ascribe all unknown causes of sickness among men or stock to any disease about which there may be a public excitement at the moment, and it is not pretended that the Canadians personally investigated the cases in all these places.

The check put to our foreign trade in live cattle by the action of the English Privy Council, Americans are apt at first blush to attribute solely to the pressure brought to bear upon the Government by the farmers and aristocratic land-owners with a view to getting rid of the ruinous competition with our cheaper beeves, from which they have lately been suffering and which threatened to be still more disastrous during the current year. This pressure, no doubt, existed and had a good deal to do with the decision arrived at, but it must be borne in mind that there was a counter pressure both by the vast body of consumers who have been benefited by the competition, by the English steamship lines and railroads, whose present meager profits will be rendered still more slender by the interdiction, and by the sticklers for free trade, who are always jealous of any measure that may seem to infringe upon their principles. Moreover, the privilege of importing live cattle from this country was an exceptional one. On the sixth of last September Her Majesty's Council issued an order prohibiting under all circumstances the importation of cattle from all countries in which any contagious disease was anywhere prevalent among them. The countries held to be infected were Austro-Hungary, Russia, Turkey, Greece, Roumania and Montenegro—in fact the whole of Eastern Europe. Cattle from the western seaboard of the Continent were admitted, but under the strictest surveillance, while cattle from Canada, the United States, Denmark, Sweden, Norway, Spain and Portugal have hitherto been allowed freer entrance. Great Britain has had ample cause for the most rigorous precautions to prevent the spread of pluero-pneumonia on her soil. It is moderately estimated that, some time back, the loss in the British Isles in six years from this disease amounted to $60,000,000, and even now, despite the severest measures for its prevention and repression, the annual loss from it is at least from five to eight million dollars.

In view of this experience of the Mother Country, Canada also is hardly blamable for taking every precaution against the introduction of the plague within her borders. It amounts almost to a certainty that she will be a loser rather than a gainer by her own and England's embargo on cattle from this country. Her trade in cattle with England has been temporarily ruined thereby, as she has made no preparations to ship by the St. Lawrence before spring. The earnings of her railroads and canals will be vastly reduced by the consequent diminution of their traffic. Her dealers have already made contracts for enormous deliveries of live cattle across the Atlantic during the present year.—a Glasgow authority states that they have contracted to deliver 250,000 head—while of many estimates we have seen none that places the number of cattle fattening for shipment at a higher figure than 15,000, and there are good reasons for believing that that estimate is twice too high. These dealers have been in the habit of making large purchases of our Western cattle, and while at present losing the profits of such transactions, they are running a serious risk of being mulcted for breach of contract through their inability to deliver the stipulated number of cattle to their foreign customers. On the whole, therefore, it is pretty certain that the Dominion will raise her own embargo on our cattle and urge the Mother Country to do likewise, so soon as she is assured that pleuro-pneumonia has been thoroughly stamped out in this country.

It depends upon our own Government, National and State, how soon this desirable object is to be accomplished. The interests involved are too important to the welfare not only of the agricultural community, but of the entire population of the country to brook a day's unnecessary delay. The disease is of the most contagious and insidious nature, readily communicable even by contact with the clothing of an attendant upon infected animals, days after he had left them. Favorable circumstances may, therefore, at any time cause an extensive outbreak which might inflict enormous losses upon the country. A month ago an export trade of 100,000 cattle during the current year, was deemed by good judges to be among the probabilities, and a trade of double that number among the possibilities, and although in the event of the continuance of the present restrictions, our exports of dressed meat will certainly be far heavier than would be the case should the embargo on live cattle be speedily removed, yet the difference in profits to our citizens during the summer months, combined with the loss from a decrease in the aggregate exports of our live-stock products, renders prompt action imperative.

For years the National Government has been culpably dilatory in providing means for the extirpation of this very disease. As long ago as 1871 the distinguished English veterinarian, Professor Gamgee, prepared for it an excellent report on the insidious pest. Twice during his term in office Gen. Le Duc has urged the necessity of liberal appropriations for stamping out this and similar contagious maladies among stock—and to his reiterated representations only the paltry pittance of $10,000 was accorded. Is it only when a long-threatened evil has come upon the country that our Washington Solons can be expected to take tardy action when the agricultural interest, the greatest in the nation, is concerned? True, the representatives of farmers in Congress, who have neglected to eradicate this plague, may point to the representatives of farmers in the agricultural press which, with a few honorable exceptions, has been equally remiss in calling attention to the necessity for stamping out the malady, or, worse still, have persistently denied its existence.

Indeed, whenever the danger from inattention to it has been referred to by any agricultural paper more far-sighted or better informed than the bulk of its contemporaries, it has been the habit of many of the latter to protest against any reference even to the existence of the malady here lest, forsooth, English agricultural papers might copy what might be said, and our cattle trade with that country be thereby possibly endangered. But to such reticence might be well applied the *mot* of Talleyrand to Napoleon, apropos of the execution of the Due d'Enghein, "It was worse than a crime—it was a blunder," for not only did it partake of the nature of a crime on the same principle as does the conduct of the owners of diseased cows who conceal the condition of the latter in order that they may sell their milk and finally their carcases, so endangering the health and life of their customers; but it also partook of the nature of a blunder, inasmuch as not only have the risks of contagion been thereby multiplied, but our trans-Atlantic customers must have discovered its existence; and now that they have done so, it is only natural that the very efforts made here to conceal it have given them exaggerated notions of its extent and severity. Upwards of three weeks ago Commissioner Le Duc, speaking from the records of his office before the Senate Committee of Agriculture, among other reasons why our export trade in live cattle should not be interfered with, urged that sporadic cases of pleuro-pneumonia had existed for nearly half a century here and there among our cattle, and that neither the number nor severity of such cases at present were so exceptional as to afford special cause for apprehension.

Candidly, we are strongly inclined to the same opinion, and we have never been among those who, from selfishness or ignorance, have foolishly attempted to conceal the existence here of a few widely-scattered cases of the disease. But, in view of the recent action of the British Government and of the magnitude of our interests affected thereby, even these few cases must be extirpated in the speediest possible manner; precautions must be taken against the spread of the malady, and some means devised by which our trade in live cattle with Great Britain may be speedily resumed, without exposing her herds to the slightest risk of contagion. On these points we shall have some suggestions to offer in our next issue.

FARMERS AS POLITICIANS.

THE government of the United States is supposed to be a government of the people, for the people and by the people. A large majority of the voters are farmers, and it consequently devolves upon this class to determine what laws shall be made and who shall make them. This being the case it becomes the duty of every one to so inform himself of the needs of the body politic that he may use this right of suffrage intelligently and for the best interests of the whole, of which he is so small a part. To do this, he must needs know at least the fundamental principles that underlie the science of government, and in so far as he does this he becomes a politician.

It is sad, but none the less true, that this term, in common conversation, has come to denote one who gives his time and attention to the furtherance of the interests of this, that, or the other party with which it has seemed best for him to connect himself. A politician, as the word is used, is one who has in some way gained an influence over voters, who can command the support of a certain set, clique, or ring, and consequently demands from his party a prominent position for himself or others whom he sees fit to name—one who believes that "to the victors belong the spoils," and to whom the control of the distribution of government offices with their attendant salaries and perquisites, whether national, State, county, or township, seems to be the chief object of party success. The name has become an unhonored one, and it is time it were cleansed from the ignominy that unscrupulous men have brought upon it. This will be done when every farmer becomes, as he should, a politician.

Universal education is the boast of this country. The good, sound sense of the common people is admitted; the honesty and economy of the governments of the towns and counties in the rural districts as compared with the knavish extravagance of cities, States, and the general government, are conceded. Take any district school-meeting, for example. The people understand there how and why they vote, and realize that every dollar expended is to be paid by themselves.

There is one thing every farmer can do—he can decline to give his vote to any man in whose honesty and capability he has no confidence. If a candidate is one to whom you would not trust the management of your own affairs, do not give into his charge the affairs of your town and county. First make personal worth, character and integrity indispensable qualifications of every man for whom you vote. Next satisfy yourself that he will speak, act and vote in such a way as will serve the interest of yourself and your fellow-farmers. If the interests of others, whether manufacturers, traders or professional men are antagonistic, they must yield precedence. Your motto should be "the greatest good to the whole number." Beware of smooth speeches and false logic. Try all things—prove or determine for yourself—that which is good.

We will close by just one bit of definite advice. Vote for no Representative in Congress who will not promise to use his best endeavors to raise the agricultural interests of the country to the position their importance deserves, and the first step towards this is to promote the officer in charge of the department to the position of Secretary with a seat in the Cabinet.

N. Y. STATE BOARD OF AGRICULTURE.

WE see that there is to be an effort to institute a Board of Agriculture for New York; and it would seem reasonable that 5,000,000 of people should have a bureau to keep a watchful eye over their greatest interest. The State Agricultural Society has been quite successful in holding annual fairs without the aid of a horse trot. Its greatest good has resulted from its display of stock and new farm machinery, thus allowing farmers to judge of improvements presented to the eye. But in dairy products—the largest specialty of agriculture in the State—it has uniformly presented a row of tubs of butter and boxes of cheese, which may have been instructive to coopers, but would have been equally useful to visitors had they been empty, since their contents are never exhibited. This Society has been and will continue useful in its way, but this great State requires a Board with broader views of its agricultural needs—that will exert an influence in organizing and developing its neglected resources—that will take an intelligent supervision of the great interests of agriculture. Pennsylvania, Ohio and other States are some years in advance of New York in this respect.

The fence question is rapidly solving itself under the pressure of circumstances. A few years ago it was thought one of the inalienable rights of slip-shod farmers to let their stock run in the road to annoy their neighbors, but the summary road law, of New York and some other States, has put an end to this nuisance; and now, moral philosophers among the farmers are beginning to ask the question whether any one has a right to require his neighbors to build fences to protect themselves against his stock. The Pennsylvania Board of Agriculture has solved this nice moral question in the draft of a bill to repeal existing fence laws, recognizing the principle that every farmer must be responsible for keeping his own stock at home. This will enable the farmer who soils his animals to build only such fences as he requires—and leave his neighbors as independent as himself.

BREVITIES.

MR. GEO. C. WOOLSON writes us: "I see in a recent RURAL an account of Hibiscus coccineus. This species from the Southern States is, as you say, not hardy; but we have a plant from Japan, apparently the same thing, which I have strong hopes of being hardy." If so, it will certainly prove a great acquisition.

IF you have rheumatism, eat celery—it is said to be a right-down, sure cure—if you eat enough of it. But even if you haven't rheumatism, we advise you to eat it all the same. It is a most delicious vegetable when properly grown and blanched, and farmers ought to raise one hundred bunches where now they raise one.

For Women.

CONDUCTED BY MISS FAITH RIPLEY.

WRITE THEM A LETTER TO-NIGHT.

Don't go to the theater, concert or ball,
But stay in your room to-night;
Deny yourself to the friends that call
And a good long letter write—
Write to the sad old folks at home
Who sit when the day is done,
With folded hands and downcast eyes
And think of the absent one.

Don't selfishly scribble "excuse my haste,
I've scarcely the time to write,"
Lest their brooding thoughts go wandering back
To many a by-gone night
When they lost their needed sleep and rest,
And every breath was a prayer—
That God would leave their delicate babe
To their tender love and care.

Don't let them feel that you've no more need
Of their love or counsel wise;
For the heart grows strongly sensitive
When age has dimmed the eyes—
It might be well to let them believe
You never forget them, quite;
That you deem it a pleasure, when far away,
Long letters home to write.

Don't think that the young and giddy friends,
Who make your pastime gay,
Have half the anxious thought for you
That the old folks have to-day.
The duty of writing do not put off;
Let sleep or pleasure wait,
Lest the letter for which they looked and longed
Be a day or an hour *too late*.

For the sad old folks at home,
With locks fast turning white,
Are longing to hear from the absent one—
Write them a letter to-night.

[*National Baptist.*

FRECKLES AND COMEDONES.

In answer to many inquiries relative to these skin blemishes, I give below Dr. Erasmus Wilson's recommendations for their treatment. (Dr. Wilson is *the* authority on diseases and disfigurements of the skin):

Freckles are sometimes a congenital affection, appearing soon after birth and continuing through life; more commonly, however, they prevail during the ten years from ten to twenty, and are more frequent in persons of light complexion and light hair than in those possessing a darker skin. The exciting cause of freckles is the operation of light and heat upon the skin, and in particular the sun's rays; but there doubtless exists a predisposing cause, in a weakness of structure of the skin and a sensitiveness to irritant impressions. The treatment should aim to promote a healthy tone and healthy nutrition of the skin; to this end the parts should be washed once or twice a day with some stimulating soap, such as that of juniper tar or carbolic acid, and cold water, and a moderately stimulating lotion subsequently applied, such as that of the bichloride of mercury in emulsion of bitter almonds (gr. j. Lj. ad. z.j.); a similar solution in spirit, with elder or rose-water. Some authorities claim that freckles are cured by galbanum and carbonate of soda, rubbed down with vinegar to the consistence of honey. This is to be rubbed upon the skin, left for some hours, and then washed off.

Comedones.—These are commonly met with on the face of persons in whom the cutaneous circulation is less active than natural, and particularly among the inhabitants of cities and large towns, in whom the brain and nervous system claim an undue proportion of the vital energies. The treatment of Comedones or black worms, requires the employment of such means as are calculated to stimulate the skin gently and excite it to the due performance of its proper functions. The parts affected should be saturated with soap and thoroughly washed; they should then be rubbed briskly with a rough towel until the skin be felt to glow. This should be repeated twice in the day. The immediate effect of this treatment may possibly be a red and patchy state of the skin, which will speedily pass away. It would be well, also, to extend the ablutions and frictions to the entire body, for the appearance of the disease in one part is indicative of a generally torpid action of the skin. Cold bathing and sea bathing are also calculated to be beneficial. In some instances it may be necessary to employ some medicinal stimulant, in which the bichloride of mercury lotion with spirits of wine, or with the emulsion of bitter almonds, will be found to be the best application.

ITEMS FOR CORRESPONDENTS.

Mrs. Bird, Madison Co., Wis.—You can purchase good quality of American silk at $1.00. Silks advertised at 50 and 60 cents, are usually worth no more.

Constant Reader.—The address of Alice Fletcher & Co. is East 14th St., New York.

Mrs. Linda Acker, Fulton Co., N. Y.—In Poonah painting on wood it is necessary first to cover every part which is to be painted with Chinese white, mixed with gum-water and laid on rather thickly, and upon this prepared white surface the colors will preserve their own proper hue, but unless this is done the tint of the wood, although it may be as near white as wood can naturally be, will spoil the effect of the colors.

Miss H. L. T., Ripon, Wis.—Crewels can be purchased at Decorative Art Society, East 19th St., New York, at $9 per pound or 10 cents a skein. I would prefer to have you order direct, rather than through me.

Lily Beal, Fond du Lac, Ill.—It is rather early to give positive information as to coming styles. I will publish in a week or two illustrations of two polonaises, suitable for the materials you name.

Literary Miscellany.

WEAKER THAN A WOMAN.

CHAPTER XXXI.

(Continued from page 111.)

As his Lordship had foreseen, the outdoor attractions proved too much for the younger guests. The Earl himself and Lord Rayden sat down to chess; Lady Arlington, Lady Rolfe, Colonel Riddle, and Sir Owen made up a whist-table; Lavinia went to the piano; Lady Maud distributed her attentions equally, and most of the younger people went out through the long open windows on the wide terrace.

The evening was fragrant, calm, and sweet; far away under the trees the glow-worms were beginning to shine, a nightingale was singing in the gardens, the faint ripple of fountains filled the air, the rich odor of roses and lilies ascended like a cloud of perfume.

One by one the guests went out. Some descended the terrace-steps into the rose gardens below, some admired the tints in the west left by the sunset, leaning over the stone balustrades; others wandered into the beautiful grounds. Lady Maude walked for a short time with Felix, and then she looked up at him with a smile.

"You can amuse yourself," she said; "you are a man of resources. I must go to that unhappy young lordling who is feebly trying to talk to Miss Lloyd."

She left him, and Felix turned down a broad path where acacia-trees were in full bloom. Lady Chevenix saw him, and followed him. She had been longing for the chance of speaking a few words to him, and it had come at last. He was startled when a shadow fell over his path and a sweet voice said—

"Felix—Mr. Lonsdale—will you be friends with me?"

He turned round in amazement. Violet stood before him, looking as lovely as a vision, her silk dress and rich lace trailing round her, her beauty deepened because over her white neck and shoulders she had thrown a silvery veil; it fell from her golden head, shadowing the fair face.

"I have alarmed you," she said; you were not thinking of me."

"I am afraid, to use a lawyer's phrase, that is a true indictment," he replied. "Lady Chevenix, I must plead guilty. I was thinking of Lord Rayden."

"And I was thinking of you," she said, gently.

"You are very kind," he returned, indifferently. "Lord Rayden is quite a new type of man to me; I have seen no one like him."

They were walking down the path together now—he had been compelled to follow, as she led. The white acacia-blossoms fell on them; the evening breeze was full of sweetness. Lady Chevenix turned to him with her old graceful impetuosity.

"I do not want to talk about Lord Rayden—I do not care to hear about him; I want to hear of you."

"You are very kind," he said again, with a polite bow.

She stamped her little foot on the ground impatiently.

"Do not be so polite to me," she cried; and then she seemed suddenly to remember herself. "I beg your pardon, Felix," she said. "but I want to know if you will be friends with me?"

"I do not understand you, Lady Chevenix," he replied; and she knew there was nothing but indifferent wonder in his voice.

"You do not understand? You must understand! A child would know what I meant. Will you be friends with me?"

She stood still as she asked him the question, and looked up at him with wistful eyes. In the half-golden light her face shone out clear and pure as a star. She held out her hand to him.

"Will you be friends?" she repeated: and this time her lip quivered.

He did not touch the hand she held out to him. He had bidden farewell to those hands—their least touch was no longer for him.

"Do you mean, Lady Chevenix, to ask me if I will be your friend? I do not see that that is possible—you forget the difference in our positions."

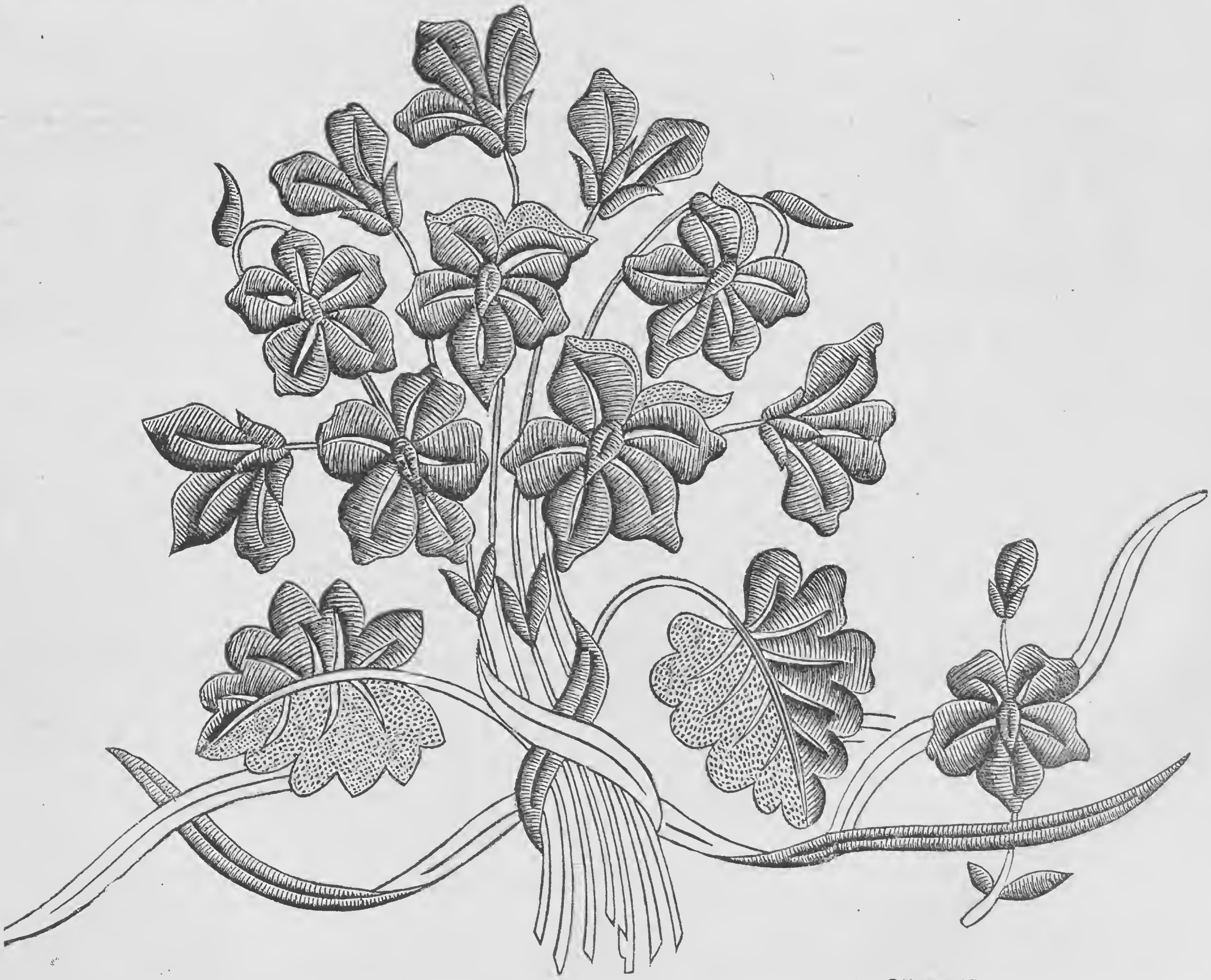
"You are Lady Maude's friend," she interrupted.

"Yes, that is natural. I have business relations with Lady Maude's father. It is quite a different matter. There never can be much friendship, I think, between people of different positions."

The tears stood in her eyes.

"I did not think you could have spoken so to me," she said.

"I am unfortunate if I have spoken unpolitely or abruptly," he returned. "Friendship is to me a



Design in Crewel Work, suitable for Chair Backs or Seats, or for Ottomans.

very sacred thing—I never lightly use the word—and I cannot but say that for Lady Chevenix of Garswood and a very hard-working lawyer there can be no common ground."

"I have known you all my life," she said.

He looked at her—he did not speak; it seemed to him that further speech would be imprudent. Her eyes fell before the clear, honest gaze; there was no reproach in it, no upbraiding, but it reached the depths of her soul.

They came to the end of the path; he did not turn back. There was a garden-chair; she sat down upon it, and he passed on with a low bow.

CHAPTER XXXII.

Lady Chevenix and Felix Lonsdale did not meet again for some time. Sir Owen had not made a very favorable impression at Bramber Towers. The Earl had invited him, with his beautiful young wife, to a grand ball, but Felix was not present, and Sir Owen forgot himself so far as to drink too much, and then, when intoxicated, to use coarse language.

In September Sir Owen was invited to be present at a grand political banquet given at Ordstone, and Felix made one of the most telling speeches of the night. It was so eloquent, so magnificent in its true, noble ideas, its picturesque language, that he became popular; a man who could speak so well ought to be in Parliament, the leaders said—and it seemed very probable that at the next election Felix would stand an excellent chance.

Sir Owen was startled; he thought a great deal about "young Lonsdale." With all his own dense stupidity, he was capable of admiring great talent in others. Another thing struck him. During the banquet he sat next to Captain Hill, who told him that he heard Lord Arlington say that the wisest action of his life was the placing of his affairs in the hands of Darcy and Felix Lonsdale. Sir Owen thought a great deal of that; a good, clever, trustworthy land-agent was a person he had long desired above all others, and, if the Lonsdales served Lord Arlington so faithfully, they would perhaps serve him in a like manner. He thought over it some days before he mentioned the subject to his wife.

He knew that he was deficient in business capacity. In his sober and most sensible moments he owned that. Study—learning of any kind—had always been irksome to him. He never had read anything but the daily newspapers and some of the sporting prints; he could not write a letter properly, and he had just sense sufficient to know his own shortcomings.

One morning he received a number of letters that puzzled him—some documents that he could not understand were sent for him to sign.

"A man may sign his whole fortune away without knowing it," he said. "I wish I had some clever man to see to it all for me. Arlington has none of this trouble, I know."

Lady Chevenix, in her graceful morning-costume, sat opposite to him. They had just finished breakfast, and that was, as a rule, his most amiable hour. He looked up at his wife suddenly; he had never consulted her on any business before, and would not have done so now but that she knew the Lonsdales.

"Violet," he said, "what a clever man that young Lonsdale is! He is making quite a good position for himself. I should not be surprised to hear of his getting into Parliament."

He did not notice the flush on her face or her agitation. She did not know what answer to make—she dared not say she was glad. Sir Owen did not want an answer. He went on——

"I have been thinking of asking him to be my land-agent; they say he does so well for Arlington. I really cannot grapple with all these matters myself; and he seems to be the only man about here who has a head worth carrying on his shoulders. I wonder if he would undertake the post if I asked him, Violet?"

"I cannot tell—I do not know," she replied.

"But you must; surely you must have some idea—you have known them a long time. What do you think?"

"I should say the Lonsdales would be very pleased; they ought to be. You would pay them well, of course?"

"I should be quite willing to give five hundred a year; but then I should expect all my work done for that. I pay almost as much as that now in one way and another. I think I shall go and see them about it, Violet."

"It would be the wisest plan," she said.

"Young Lonsdale has not shown any great anxiety to visit us," he continued, with a sneering laugh. "Perhaps he has not quite forgiven me about you—eh, Violet?—though he did not seem to care about it."

"He has forgotten all that nonsense," said Violet. "I do not believe he remembers even that we were friends."

"So much the better. I shall call to-day and see them. If young Lonsdale consents, I will make him come and dine with us. He dines often enough at Bramber Towers. I hope he will consent. I thought of traveling next year, and I should enjoy my trip much better if I left him in command."

"I hope you will succeed," she replied—and she did hope so; she would have been glad of anything that would have forced Felix into her society. She was lonely in spite of all her grandeur, and there were times when she was dreadfully tried.

It was hard work to live with Sir Owen; she had to watch him incessantly to study his humors, to obey him readily; she had less real liberty than the wife of many a poor peasant. She would be so pleased if she could see Felix sometimes—not that she wanted any allusion even to their former acquaintance, but she never knew what that sweet sunny presence of his had been to her life until he had passed out of it.

If they could meet sometimes, and laugh as they used to laugh over all the little comic scenes and sensations Lilford afforded, if she could talk to him of some of the thoughts and ideas that began to crowd upon her mind and brain, she would be well pleased; there was always a sense of something wanting, something missing, in her life. So she hoped that he would consent to act as Sir Owen's agent. Surely she should see him occasionally.

Her husband was not a pleasant companion, and at times, when her nerves and patience were overtaxed, she would go to her mother with a long list of complaints. But Mrs. Haye was always diplomatic. She would listen with every appearance of sympathy; she would condole with her daughter, and then she would say, "Every wife, my dear, has a good deal to undergo; the foolish ones talk about their trouble, the wise ones keep it to themselves. After all, you must expect some little drawback. You have wealth, title, grandeur, diamonds, carriages, servants; the only drawback is your husband, and you must study to bear with him as well as you can."

This was all that Lady Chevenix ever had from her mother.

Francis Haye would say to her at times—

"I do not like to interfere, Violet; but is all that I hear about your husband's intemperate habits true?"

"I am afraid so, father," she would reply; and then he would add—

"Can you do nothing to check him? A wife should have some influence over her husband."

"I can do nothing," she would answer; and then her father would doubt whether, after all, things had happened for the best.

* * * * * * *

Sir Owen rode over to Lilford and called at the office in Castle Street. If he had found Felix there, his request would have been refused; but Darcy Lonsdale was in the office, and listened calmly to what the Baronet had to say.

"I cannot give you an immediate answer," he replied; "but I will think over your proposition and let you know our decision."

Sir Owen stopped while he said something about his earnest desires, and he made some impression on Darcy Lonsdale by his evident trust in him. Once the elder man was inclined to turn round and say, "You robbed my son of the greatest joy of his life—his love—and I will have nothing to do with you or anything belonging to you." But that would have been undignified, and he had learned his lesson of mercy. To him there was something almost pitiful in the fact of this strong, coarse, rich man, unable to take care of his own, unable to hold his position with dignity, appealing to him for the sensible management that he could not give himself.

He would not decide hastily; he did not think his son would like the business. But five hundred per annum was a consideration; besides which, Darcy Lonsdale shrank from the remarks that people would make if he refused such an offer. He said nothing about it until he returned home at night, and then he found Eve Lester there, and the matter was reviewed in solemn council.

"I say take it," urged Kate. "It seems to me really, Darcy, that there is an especial Providence for us. Take it, by all means. It is a sin to throw five hundred a year away.

"My dear Kate, this is more a matter of sentiment than of money," said Mr. Lonsdale.

"I am of Kate's opinion," put in Evelyn. "I quite think you should accept it. If you do not, people will say disagreeable things."

"I have thought of that, too. The general impression would be that Felix held some kind of resentment against Lady Chevenix, or that he had still some lingering liking left for her. What do you say yourself, Felix?"

"My dear father, I will say nothing," he smiled. "It is a matter of utter indifference to me. I do not see that there is the least connection between Lady Chevenix and her husband's agency. Accept or decline it, just as you will."

"If I accept it, I will undertake to do all the work," said Darcy Lonsdale.

"Then I will do more for you, so that you may not feel it," said Felix.

"There will be one thing," remarked Mr. Lonsdale. "If we take the agency, we shall be compelled to visit Garswood at times; and I do not know whether you would like that, Felix."

"I shall neither like nor dislike it," he replied. "It is a matter of utter indifference to me. I do not like Sir Owen, I confess; as to Lady Chevenix I say nothing. If we are compelled to visit them, we must suffer the penalty of mixing in society."

He spoke in a tone of such perfect freedom and indifference that Darcy Lonsdale said to himself, "He has forgotten her;" but Kate and Eve both looked anxiously at him. He looked indifferent, and Kate thought he achieved the victory; but Eve knew him better, and understood that he would fight to the death but would never yield. So, after a long and animated discussion, it was decided that Darcy Lonsdale should write to Sir Owen and tell him that his offer was accepted.

"I am glad," said Eve, "for I hear many people say that unless matters improve the time will come when Lady Chevenix will badly want some one to look after her interests. Sir Owen drinks dreadfully, and has no thought of the hundreds he lavishes when he is not sober. Poor Lady Chevenix, with all her beauty may yet want a friend."

"I hope not," said Darcy Lonsdale kindly. "If I have anything to do with Sir Owen's affairs, I shall do my best always for her."

So the matter was settled, and Sir Owen, when he read the note in which Mr. Lonsdale gave his consent, was grateful. He took it at once to his wife.

"They have consented," he said. "Now from this day henceforth I shall lead a happy life; all that reading and writing and worry was too much for me. I was tired of it."

She read the note, and laid it down without comment.

"Are you pleased, Violet?" he asked.

"I am pleased if you are," she replied.

She was thinking whether this would bring her and Felix more together.

"I tell you what we'll do, Violet. We will give a grand dinner-party, and you must ask all the people from Bramber Towers, with Mr. and Mrs. Lonsdale and Felix. See about it at once; send the notes out to-day."

She obeyed him without a word.

CHAPTER XXXIII.

"We can not refuse," said Darcy Lonsdale, as he held Sir Owen's invitation open in his hand. "We must go this once, and then we can please ourselves afterwards. What do you say, Felix?"

Felix thought for a few minutes, and then he said frankly—

"To tell you the truth, father, I think I would rather not go—I do not like the idea. To transact Sir Owen's business is all very well, but to dine with him is quite another thing."

"You shall please yourself," returned Mr. Lonsdale. In his heart, although he felt great compassion and great indignation concerning his son, he was pleased that he had not married Violet. He had seen no chance of happiness for him—he had resented her conduct to him.

Darcy Lonsdale knew that his son was bitterly wounded, but he said to himself, "Pain is discipline," and every one has some kind of trouble to undergo. So, when he declined to go to Garswood, Darcy sighed to himself, and was sorry that his son still felt the rankling of an old wound.

But Kate would not have it so; for the first time, almost, in her life she differed from her step-son.

"You must go, Felix," she said. "Only think what people will say if you stay away! Even Lady Chevenix herself will be flattered and think you dare not meet her. Go, Felix; I should not like to give her that triumph. You will have to meet her some time or other—do it now."

He was not quite willing at first, but after a time Kate persuaded him, and it was arranged they should go.

Yet Felix hardly liked it. To have refused Sir Owen's agency would have been to stand in his father's light, to prevent the children from receiving the benefits of an ample income. He would not do that; but when he was in sight of Garswood he hated himself for having come near the place. He could not help wondering how Lady Chevenix would receive him, what she would say to him, whether she would be pleased, or the reverse.

"It can never be pleasant for her to meet me," he thought. "The sight of me must remind her of her unfaithfulness."

As they came in view of the towers and turrets of Garswood he expressed this idea to his father. He wished even then that he could return. He looked anxiously into his father's face.

"It seems to me," he said, "that we have compromised our independence by accepting the agency."

"My dear Felix," Darcy Lonsdale laughed, "if every man were to carry his private feelings into business, business would soon stop. Bear one thing in mind, and you will never be vexed about coming here. You are invited here, not as the lover whom Miss Violet Haye in her innocent pride forsook, but as the agent without whose services and restraining hand Sir Owen, rich as he is, will soon be ruined."

"There is common-sense in that view," said Felix.

"Then, again, for your own sake, Felix, forget the past. The world is very unjust. A woman forsaken is always pitied; a man forsaken is often laughed at. Let people say how little it must have affected you since you can visit her husband—not how bitterly you must grieve for her since you are compelled to decline all invitations."

And with those words the carriage stopped before the great entrance. Father and son entered the superb hall with its ancient oak and armor, its stained glass windows, and an ancient crest emblazoned everywhere.

They passed through the magnificent rooms, until they reached the great drawing-room where Sir Owen and Lady Chevenix received their guests. Several were already assembled, but standing apart from all others Felix saw Lady Chevenix.

It was the first time he had met her in her own home, in the midst of the splendor that was now hers, and his eyes were dazzled by her wondrous beauty. Her dress of white silk with trailing roses was richly trimmed with fringes of gold. She wore a tiara of diamons set in gold. Her exquisite beauty and her exquisite dress dazed him for a few moments, but he made no sign; and Darcy Lonsdale was proud of his son, as he advanced with princely grace and carriage into the room and bowed to the lovely woman who, despite all her efforts, grew deathly pale as she saw him.

Lord Arlington, who never neglected any opportunity of publicly showing his great affection and regard for Darcy Lonsdale, went up to him and began a long and interesting conversation with him. Lady Maude called Felix to her side. And so the Lonsdales' arrival passed off as the arrival of any other guests would have done.

"I am glad you came," said Lady Maude to Felix. "I was afraid you would refuse—and I should have been sorry for that."

Then dinner was announced, and the long and stately procession moved forward to the dining-room. Felix, from where he sat, could not only see Lady Chevenix, but he could hear all that was passing. He wondered at her perfect grace and elegance. She took her place at that superbly-appointed table as though she had been accustomed to it all her life. He watched her keenly, and with wonder. Where had she acquired her perfect grace and ease of manner?

Sir Owen, awed by the presence of his distinguished guests, behaved with great propriety, and altogether the dinner was a great success. Lady Chevenix gave the signal to the Countess of Arlington, and the ladies rose. Felix sprang up to open the door for them. His eyes met Violet's, and he saw a red flush cover her face, and rise even to the roots of her hair.

Was she ashamed of the price of her faithlessness? he wondered. Was she ashamed to parade before him her wealth, her grandeur, her jewels? The more shame she felt the better for her—it was a good sign. The gentlemen had a pleasant half hour, and then they rejoined the ladies.

"Surely," thought Lady Chevenix, "I shall be able to see him, to say a few words to him. I must know if he always intends to be as he is now, so cold, so proud, so unforgiving."

But it was a far more difficult matter than she had thought. She could not speak to him without attracting observation, unless he either purposely or accidentally found himself near her. Perhaps he would make the opportunity, she thought—but he did not. He talked a great deal to Lord and Lady Arlington, and at times to Lady Maude; but at last came an opportunity. Some one asked for the old-fashioned glee, "When shall we three meet again?" and Lady Chevenix remembered that she had the music. Felix was to take the tenor part—he had a glorious tenor voice, rich, clear, and ringing. She turned to him with a charming smile——

"The music is with some old books of mine in the canterbury—will you help me to find it?" So, while the room was filled with laughter and song, Lady Chevenix and Felix bent over the old music-books to look for the glee. She turned her head and said in a low voice——

"I want to speak to you, Felix—will you listen to me for a few minutes?"

"If you wish it," he replied coldly.

"I do wish it. I want to know if all our lives we are to be like this."

"Like what, Lady Chevenix?" he asked.

"You know what I mean—if our lives are to be so entirely apart, if you will always be cold and distant and proud to me—if you will always avoid me and ignore my presence."

He looked at her in mute wonder.

"Must I remind you of one thing, Lady Chevenix?" he asked.

"What's that?" she said.

"That it was your hand that separated us—that broke all ties."

"Yes, I know that; but could we not be friends? Could you not come to see us sometimes—talk to me, share our amusements, and be really a friend—could you not do this, Felix?"

"No," he said, "I could not."

"Why?" asked the sweet soft voice.

"Because I happen to be a man, and not a statue—because I have a human heart, and am not made of marble. Our lives lie apart, Lady Chevenix."

"You might be kinder," she said; and the beautiful woman shrank from him as though he had struck her a blow.

"No," he rejoined, "it would not be possible. As the wife of another man, you are nothing to me; to enter into a compact of friendship with you would be to endanger what I hope to keep stainless until I die—my honor before men and heaven. Our lives lie quite apart, and nothing can bring them into contact.

"Can I help you, Violet?" said a voice near them; and, looking up, Lady Chevenix saw the anxious face of her mother.

Mrs. Haye bent over the music-books.

"I will assist my daughter, Mr. Lonsdale," she said coldly.

Felix bowed and left them.

"My dear Violet," said Mrs. Haye, "how can you be so imprudent? Why do you talk to him? You will cause remarks that will not please you."

"Mamma," replied Violet, raising her white face, "he says that he will not even be friends with me."

"So much the better, my dear. Lady Chevenix of Garswood will choose her friends from amongst the highest in the land, not from her old playfellows. Try to look like yourself, Violet."

"I will; but I wish I were dead, mamma."

"Nonsense, child. See, Lady Maude is waiting for you. Come now, my darling Violet—courage; this is but childish nonsense."

So with inspiriting words she brought the smiles back to the sweet face; but in her heart she resolved that Lady Chevenix should see but little of Felix Lonsdale while she was there, and she kept her resolve.

CHAPTER XXXIV.

Five years had passed since the peal of Violet Haye's wedding-bells had driven her lover Felix almost mad, since the wonderful turn of good fortune had come to the Lonsdales and made them famous—five years, and they had brought with them many changes.

Darcy Lonsdale seemed to have recovered more than his usual health and strength; he had never been so happy, so prosperous and contented. Over and over again he said to himself that his misfortune had been a blessing. He attended almost entirely to Sir Owen's business—Felix very seldom interfered with it; but he in his turn attended entirely to Lord Arlington's. The firm was eminently prosperous, and it was fast taking the place of one of the most eminent in the county.

A great change had come to Felix. These five years had wonderfully improved him. He was looked upon as the rising man of the day; his society was courted; his opinion was sought upon every leading question. He retained all the simple habits of his boyhood; he reverenced and loved his father, he loved Kate and the little ones. He might have set up a separate establishment for himself, but he was quite content with the old home at Vale House. The only luxury in which he had indulged was the purchase of a spirited thoroughbred. When he had worked until eye and brain and nerve were exhausted, he would ride through the green lanes, gallop over the breezy commons, and return with renewed vigor.

They asked themselves, those who loved him best, if he had forgotten his unhappy love-affair. It was impossible to say.

He never mentioned Lady Chevenix; he never made any of those half-bitter, half-cynical remarks in which disappointed men so often indulge. If any one spoke of her in his presence, he listened, and replied if necessary; but there was nothing revealed in his manner. Kate said to herself proudly that he had forgotten her, that his heart was too noble to keep alive the memory of a woman so false. Eve knew him better. There were times when even a gallop over the breezy uplands did not set him straight, and then he would go over to the Outlands.

(To be continued.)

BREAKING THE BONDS.

L. Q.

"Do, Annie, fasten these flowers in my hair. See, I tremble so that I cannot. Oh! what an ordeal! I shall certainly make a goose of myself, and disgust Charley."

The lady addressed turned from the glass, and very deftly placed the drooping moss rosebuds in her companion's dark hair, artistically arranged a tiny bunch of the same exquisite flowers in the belt of the slender waist, and at the white throat, and then stepped back to admire the effect.

"Exquisite! Gertie. You are looking lovely to-night. Such color—such eyes! Take my word for it, Charley Denton cannot be disappointed."

Gertie Melton turned and flashed a glance at herself in the great pier-glass, which disclosed a slight girlish form, exquisitely rounded, robed in snowy muslin, ruffled, and tulled, and festooned in the fashion of now-a-days. But tears were in her lovely eyes as she turned away from the glass, saying:

"Cousin Annie, I am a miserable coward, and shall utterly fail in making the desired impression. Oh! Annie, dear, take my name and place just for to-night. We shall be able to deceive him, I know, for every one talks of how very much we resemble each other. We both bear the name of Miss Melton, and it will be easy to exchange positions. Besides, it will be such fun;" and she laughed in an almost hysterical manner.

"And the ring, Gertie?"

"You must of course wear it for to-night," and she tremblingly took from her hand a magnificent diamond ring, and placed it upon her cousin's finger. "Now remember. You are to be Miss Gertie Melton, the affianced wife of Charles Denton, and I your cousin, Annie Melton. Act your part, and I will mine."

The two girls, as they stood with clasped hands, looked strangely alike, both in form and feature, but they were as unlike in temperament, and manner, and voice as possible. Gertie was all enthusiasm, graceful, sparkling and impulsive to a marked degree, while her cousin was calm and impassive as a summer sea, matter-of-fact, and devoid of the least romance in her composition—one of the class of women who make excellent methodical housekeepers, and whose entire life is an accumulation of hard facts without a single dream.

Charles Denton, the subject of so much discussion, had that day arrived from a foreign shore, and had taken rooms at one of the fashionable hotels. He had intended to call immediately upon his affianced, but had met with an old friend—the only one who would be likely to recognize him after an absence of five years, from the fact that they had been fellow-students in a German university.

"I saw Miss Melton," he told him, "at the opera, last evening, and she informed me that she would attend the ball at Mrs. Vandevere's to-night. I can easily procure you an invitation, and you will have plenty of time to dine and dress. You will certainly meet the lady there looking her loveliest. What say you, Charley, I will call for you with the carriage."

"A pleasant arrangement, old chum. Especially as I feel slightly nervous about our meeting. Ah, me! how time changes one's feelings. I am not half as eager, I presume, as I ought to be, or as I would once have been."

"How in the name of divinity did you come to bind yourself, Charley? Hasty courtships, and a speedy execution for me. Gracious! I could not live five mortal years bound, and yet not tied, as you have been—would not for a kingdom."

"Did you never hear the romantic story? Well, Gertie may have changed, but five years ago she was as lovely and sparkling a fairy as ever danced among the moonbeams and flowers. I was not twenty, she but fifteen, when we fell madly in love with each other. Of course, old Squire Melton and my governor objected to the engagement, upon the first ground of our lack of years and experience. So, one day the dear child consented to my proposition of an elopement. Of that it is enough to say that we were followed and found, by our frantic and enraged parents before the tying of the knot was completed. Just as we were about to be pronounced man and wife, the proceedings came to an abrupt termination. I was packed off to Germany to complete my education and cool my boyish ardor, and she, poor child, in a deluge of tears, was sent away to a female prison, called a boarding-school. The only concession we could gain from our respective parents was this: Gertie was to be permitted to wear my engagement ring, and if when we had fully matured in mind and body we still clung to each other, they would place no further difficulties in the way of our union. My dear, sensible old father is, as you know, with the saints and sages in the better land, leaving me no master but my own will."

"And that is, Charley?"

"To abide by any decision the lady may make in the matter."

"She is a trump, old fellow; and I am thinking that after you have seen her, you will use your best efforts to influence her decision. But *au revoir*. I shall come as per appointment."

Left alone, Denton sat down and penned and despatched a note to Miss Gertie Melton, informing her of his arrival, and that he would meet her at the house of Mrs. Vandevere. It was received as the young lady was putting the last touches to her toilet, and threw her into a flutter of confusion.

The elegant mansion of the Vandeveres was brilliant. Light, flowers, and music, combined with the rich dresses and jewels, and fair forms and faces of the *elite* of the city, made a scene for a painter. Through the gorgeous array the Misses Melton trailed their spotless robes, paid their respects to the hostess, and dropped quietly into a retired corner, where they were soon joined by many an admirer.

"See, Annie," whispered Gertie to her cousin, "that is he. Oh! I should know him amid a thousand. That tall, dark, grand-looking man with Mr. Judson, who is paying his respects to Mrs. Vandevere. Be firm, Annie, dear, and wait my coming here;" and the lovely girl glided away.

A moment after, as Judson and his friend were making their way from group to group in search of Miss Melton, a servant accosted him thus:

"A lady wishes to see you in the conservatory, Mr. Judson."

"Take care of yourself, Charley. I will be back in a few moments," he said, as he followed the messenger.

To his intense surprise, he found among the flowers the radiant Gertie, who at once proceeded to unfold to him her stratagem, and gained his secrecy and assistance. Then they separated, and Judson returned to his friend, and after glancing about for a few moments, pointed out the cousins.

"There they are, Charley, as alike as two peas. Which will you choose, roses or geraniums? You see that is the only difference in their toilet."

"They are both extremely beautiful, but the one who is now speaking is mine. By Jove! what expression!"

"Miss Annie!" laughed Judson, while a slight shade of disappointment flitted across the speaking face of Charley Denton.

A few moments later he was bowing low over the white hand that was adorned with his engagement ring, but it lay cold and unresponding within his own as to chill him to the core. Then he was presented to the glowing, palpitating counterfeit. A dance was called, but his betrothed informed him that she did not dance, and there was nothing left him but an awkward *tete-a-tete*, while her lovely companion was whirled away upon the arm of Judson. They appeared to enjoy themselves hugely, and Charley Denton turned away with a sigh, and began talking of his journey, answering the lady's questions in the most matter-of-fact manner. And once or twice he found himself speculating upon the probability of her releasing him from his engagement.

"I find you very much changed," he said, after one of the awkward pauses.

"Ah! indeed," smiled the lady. "I hope the change is a pleasant one. You know in the days of our former acquaintance, I was but a hoydenish school-girl."

"I never thought so. To me you were enthusiastic and charming."

At this moment Gertie and Judson returned; the former in a glow of excitement that enhanced her beauty tenfold. She began at once to question Charley concerning his stay abroad, and his journey home.

"You quite surprised my cousin," she said, with sparkling eyes. "She did not expect you until the next steamer, I believe."

"I hope it was a pleasant surprise, Miss Melton," he replied.

"Oh! certainly. You see I know all about your romantic engagement;" and she laughed, blushed, and cast down her eyes in the most coquettish manner, for Judson and Annie had strolled away, leaving the real lovers together, and Charley Denton was completely charmed.

"Of course you, like every one else, think us very foolish?"

"Not I. I think it must have been splendid," looking up, archly. "It is out of the way of ordinary courtships—a real romance."

"Rather a childish one, our parents thought—one with which the lady is disgusted by this time."

"Ah! no. That is impossible. I know my cousin too well. She has a real affection for you. The love of a true woman is ever steadfast and unchangeable. It is the other sex who weary of bonds."

And the color deepened in her fair cheek.

They had been walking slowly along away from the glare of the lights and heated rooms, and reached the cool perfumed conservatory, when he answered:

"You, Miss Melton, are much more like what I expected your cousin would be. When we parted five years ago, she was all impulse and enthusiasm. Now she is so cold and passionless that I hardly dare approach her. Will you be my messenger, and say that if she —"

"No, no!" and she shook her head, laughingly. "You must not expect me to meddle with your love affairs. You must see her yourself. Trust me that you will find Cousin Gertie honorable and frank."

Charley Denton was in love, and that at first sight. But then, he argued, this loveliest of all beings was more like the one he had worshipped so ardently in his boyhood.

That night he sat in his room at the hotel, with his brain filled with a thousand plans. Sometimes he resolved to at once write to Miss Gertie, and dissolve the engagement. He would then be free to wed the one he really loved.

Morning found him as far from a decision as ever, and he wrote a simple note, requesting an interview, and begged her to decide whether the engagement should be considered binding. There was not a word of his own feelings; but the cousins laughed merrily over it.

"Rather a poor compliment to me," pouted Annie. "Had I been the real Gertie, I should have been furiously jealous. Why, he had the frankness to hint at my not being quite as charming as when we parted years ago! And for the rest of the evening was your most devoted cavalier. To me, he was frigidly polite—nothing more."

"Oh! but it was jolly! You ought to have heard our confidential talk, concerning his engagement. He asked me if I did not consider it childish!"

And her laugh was like rippling music.

When the appointed hour drew near, Charley Denton, with many a shrug of his aristocratic shoulders, prepared for the disagreeable visit, and as he walked up the stone steps of the Melton mansion, he felt very much like a criminal.

A lady arose, and came forward to meet him as he entered the semi-lighted drawing-room. He presumed it to be his affianced; but the first words of her welcome undeceived him. It was the beautiful cousin who had so stormed his heart; and, after they were seated, and the usual commonplaces passed, the supposed Miss Annie began business.

"My cousin, Mr. Denton, is not well—in fact, not quite rested from last night's fatigue, and wishing to avoid the unpleasantness of a conference with you, has deputed me to return you this;" and she drew from her finger their engagement ring.

He took it mechanically, and his mind flashed back to the time when he had placed it upon the hand of his almost bride, and for an instant sorrow appeared on his expressive face, and his voice slightly trembled, as he replied:

"I argue from this, Miss Melton, that the bond has become irksome to your cousin?"

"Not exactly that; but with yourself she considered it a childish attachment, which is better broken. You know in reality so little of each other, that your acquaintance, she says, must begin upon a new basis."

There was a ring at the door at this instant. Two lady callers were admitted, and at once began their chatter.

"Oh, Gertie! how is your cousin Annie? When does she go home? Do you know that we could scarcely tell you apart last night?" and a dozen more such questions, which effectually let the cat out of the bag, while Denton sat stupidly endeavoring to entertain one of the coquettes, who had instantly fastened upon him.

But the moment they had departed, Gertie stepped towards him, and said, shyly, but with a winning smile:

"It is useless to attempt to carry the deception any further. Of course, you have learned from those chatterers that Annie personated me last night. It was a suddenly-conceived freak of mine, as I was too much of a coward to endure your criticisms as your affianced wife. Besides, I wished to know your *real* mind. I feared a high sense of honor would induce you to wear the bonds, however galling, and I knew that if you could love Annie, you could not, Gertie."

She had said all this very demurely, and with down-cast eyes; but as soon as she had finished, he caught her hands with a look of transport, and answered:

"How could I be so stupid, when my heart turned to you at once, as all I had ever hoped or dreamed you would be? But," and he glanced at the ring, "you have given this back to me, and, of course, our engagement is broken."

"I have scarcely had time to consult my own feelings in the matter. I simply took my cue from you—from what you said last night about its being a childish engagement, and all that sort of thing."

"You must have known that I was alluding to your cousin, Gertie. Your deception caused me to feel a disappointment which would express itself. You must have seen my preference for yourself. You had me at your feet all the evening, as you may through life."

"You are crushing my hands, Charlie, dear. Give me back my ring, and forgive my little deception. It would have broken my heart, had our bonds been severed in earnest."

Tears came into her blue eyes, only to be kissed away with more than one endearing word. A plain gold ring guards the diamond now, and the bond which Gertie wears is for life. She is a lovely, sparkling wife, and very proud is her husband of her. Annie, too, wears her diamond—the plain hoop of gold is to come—when she changes her maiden name for that of Judson.

RECENT LITERATURE.

The Ideal Life. By ELLA F. MOSBY. New York: E. H. Swinney, No. 20 Cooper Union; Boston: Geo. H. Ellis, 101 Milk St. Price $1.25.

This book is written with the desire of placing before its readers some suggestion of the life which they desire to lead; of the character they wish to form; of the homes they seek to build for themselves. The author believes that there is a higher nature in every one, which can be awakened, however hard and unattractive may be the outside. She says of our intercourse with each other:

"You must see the angel within the man or woman, must believe in it, and appeal to it above the lower natures. This alone gives completeness. If you have not this tender insight into the hidden humanity, you will stumble and be hurt, you will continually be disappointed, vexed and chilled by the stripping away of illusions, which is too often the result of daily contact and intercourse with ideal and enthusiastic temperaments. Do not doubt your first vision—the lovely image is there—only keep patience and love. By such exercise you yourself will grow also, and may give new graces of life—the highest gift of all—to the beloved. The highest pleasure that ever comes to one, is to do something for those we love, and in this way we may give every act and word of our loneliest hours to them. When they next see us, they will feel the added warmth and light, and our most solitary struggles will not have been in vain. Far more powerful than persuasion and reason, far stronger than physical beauty, is this spiritual sphere from a beautiful life. You cannot wander to such a distance that it will not recall you, and touch you with a thrilling sense of its tenderness.

"The commonest things on earth teach us a parable of faith in the hidden nature which desires to grow in others and ourselves. You see a knot of gnarled and bare trees, twisted and uncomely—for what is so bare as a fruit tree in winter? Cedars keep their greenness, oaks their branching symmetry, but these look denuded and dead. Wandering back that way in spring you are suddenly surprised, enveloped in a cloud of fragrance and bloom. All around you snowy and rosy petals drift to the grass; in the air the bees are humming, and clusters of buds and blossoms touch softly your cheek and brow. Your scorn at its former meagerness is confuted and tossed away in sight of this exceeding fairness, for you were foolishly blind—all this blossoming tree even then existed potentially in the naked and gnarled trunk. Such a revelation, and higher, will Heaven give us of the personality which we misjudge here. 'For we shall all be changed.'" * * *

In no human life is growth without the knowledge of loss and pain. There are few mothers who have not been called upon to surrender one of the little flock—to miss from their firesides one of the darlings of their hearts; and often the household knows not one only, but many vacant places. The writer of this book says:

"Within the center of each household life, lies the remembrance of some little child which has been taken away in the innocence of its early morning. About that affection cling the innermost conceptions of human peace and tenderness and undefiled truth. If we have done wrong, if we have judged any harshly, if we have disquieted our day with restless ambitions, we have only to return into the presence of that stainless memory:—there we believe and love, there we are sorry—thinking of the fair dead child tears wash all our stains out of sight, and we humbly pray that we may be kept back from the sins which would bar us from the sight of its face in Paradise." * * *

In another chapter she says:

"When a child dies, the only shadow of his death falls behind him. He is 'gathered to his own.' Be you sure that the angels who receive him wear his mother's look and likeness. They never seem strange or far-off to a little child even here. * * * Heaven is for them, more than for older souls who have been weaned from its life, a native country whose landscapes, white with bloom and dew, wear a home sweetness, and whose presence is beloved and familiar."

The book is divided into three parts, the first on the daily or individual life; the second and third on history and the different arts. It is bound in one volume; with the title and one full-blown calla lily and leaf in gold. The cream-tinted paper of the pages makes the type clear and pleasant to the eye.

TEMPERANCE INTELLIGENCE.

THE minutes of the annual meeting of the Woman's Christian Temperance Union of Illinois has been issued in pamphlet form, and those who have not followed the progress of the Temperance Cause, must be surprised at the story of organization and executive ability which they disclose. We regret that space will not admit of our giving the plan of the Union's work in full. It treats of District Conventions, Gospel Meetings, Sabbath-school Work, Instruction in Public Schools, "Our Union," Young Ladies' Unions, Influential assemblies, Auxiliaryship.

The Home Protection Petition is to be presented at Springfield, during the session of the Legislature. The necessary blanks and all information concerning it can be obtained of Miss F. E. Willard, Pres't Ill. W. C. T. U., Evanston, Ill. The following is a copy of the Petition:

To the Senate and House of Representatives of the State of Illinois:

Whereas, In these years of temperance work the argument of defeat in our contest with the saloons has taught us that our efforts are merely palliative of a disease in the body politic, which can never be cured until Law and moral suasion go hand in hand in our beloved State; and

Whereas, The instincts of self-protection and of apprehension for the safety of her children, her tempted loved ones, and her home, render woman the natural enemy of the saloons: Therefore, your petitioners, men and women of the State of Illinois, having at heart the protecting of our homes from their worst enemy, the legalized traffic in strong drink, do hereby most earnestly pray your honorable body that by suitable legislation it may be provided that in the State of Illinois the question of licensing at any time, in any locality, the sale of any and all intoxicating drinks (including wine and beer), shall be submitted to and determined by ballot, in which women of lawful age shall be privileged to take part in the same manner as men when voting on the question of license.

THE AMERICAN ANTIQUARIAN, a Quarterly Journal devoted especially to Early History, Ethnology and Archæology. Illustrated. Edited by Stephen D. Peet, Unionville, Ohio.

The scope of the Antiquarian will be understood by the following list of topics:

The Early History, Exploration, Discoveries and Settlement of the different portions of the continent. The Native Races, their physical and mental traits, social organization and tribal distinctions; their religious customs, beliefs and traditions, as well as their earlier and later migrations and changes. The Antiquities of America, especially the pre-historic relics and remains, or any evidences as to ancient earthworks and structures, inscriptions, hieroglyphics, signs and symbols. Pre-historic Man, his origin, antiquity, geological position and physical structure. The Antiquarian will also treat of subjects of a more general character, such as The Descent of Man, The Rise of Society, The Origin of Writing, The Growth of Language, The History of Architecture, The Evolution of Ornament and Ceremonial observances, Comparative Religions, Serpent Worship and Religious Symbols, Man and the Mastadon, Man and Animals, Earth and Man, and many other topics which are connected with the Science of Anthropology, especially as they are viewed by the Antiquarian.

Besides these topics especial arrangements have been made by which articles will be contributed upon Archæological Relics, upon Aboriginal Languages and Dialects, and upon the traditions of this Continent compared with those of other lands.

The investigations made by the different historical and scientific societies, as well as the results of all explorations and discoveries will also be reported as far as possible.

In the editorial management the assistance of several prominent gentlemen has been secured. Prof. E. A. Barber will assume the care of Anthropological News; Prof. R. B. Anderson will take the department of Pre-Columbian Discovery, and A. S. Gatschet will take the department of Indian Linguistics. The design is to make the Antiquarian partake of the advanced studies of the best scholars on the continent, and every effort will be made to make it thoroughly reliable and valuable. It is the only work of the kind on the continent.

News of the Week

Monday, Feb. 15, 1879.

MISCELLANEOUS.

The remnant of the rebellious Cheyennes has reached Kansas, where the chiefs are to be tried for crimes committed in that State. Wild Hog and Old Crow deny that they have been guilty of murder and raiding, and, as stoutly as if white men, attribute all the outrages to the wicked Indians who are now in their graves or still free on the prairies. The subsidy lobbyists at Washington have induced the Senate to add to the Post-Office appropriation $300,000 to be paid annually to two steamship lines between this country and Brazil, at the rate of $150,000 apiece. One runs from this city *via* Norfolk, Va., and the other from New Orleans, *via* Galveston, Texas. The best men in New Orleans, of all parties, are about to hold a convention in April with a view to wrest that State from the machinations of mere politicians, and put an end to bulldozing and ballot-box stuffing by either whites or negroes. U. S. Judge Blodget's trial at Chicago, has developed the fact that the charges against him were made by Hessing, one of the whiskey ring, who was sent to prison by him for a couple of years. Hessing's testimony has been squarely contradicted, and it is to be hoped for the sake of public morality, that the Judge may be proved entirely innocent. New Hampshire's law against tramps works admirably and meets the women's hearty approval. To check the negro emigration to Texas from Georgia and Alabama, the Legislatures of both States have imposed a tax of $100 on every agent soliciting them to emigrate. Sambo seems to still remember his old friend's injunction, "Go West, old boy, go West."

The New York Senate has passed a bill punishing the grave crime of pilfering "stiffs," with five years' imprisonment. Indiana and Ohio are likely to follow suit. The U. S. Senate has passed a bill permitting women—beg pardon, lady—lawyers to practice before the Supreme Court at Washington. Now for beauty and purity, flowers of rhetoric and the hothouse in the grim precincts of our courts! President Hayes has written to Collector Merritt congratulating him on his confirmation by the Senate, and directing that no officers must be removed because they are Arthur's friends or any new ones appointed because they are the friends of anybody else. It's possible there's no joke about civil service this time, and that Merritt, after all, may prove worthy of his name.

The following is the full text of the instructions sent by the Governor of this State to Gen. Patrick, who has been commissioned to stamp out all traces of pleuro-pneumonia in New York:

STATE OF NEW YORK, EXECUTIVE CHAMBER,
ALBANY, Feb. 12, 1879.

General MARSENA R. PATRICK:—

SIR—In pursuance of the provisions of the act chapter 134 of the Laws of 1878, entitled "An act in relation to infectious and contagious diseases of animals," I hereby designate and appoint you as my assistant in executing my duty under the said act and in carrying out its provisions.

It has been made known to me that the infectious and contagious disease among neat cattle called pleuro-pneumonia has been brought into and exists in various places in the counties of Kings and Queens in this State. You are therefore directed, as such assistant, to prohibit the movement of cattle within said counties except on license from yourself, after skilled examination under your direction. You are also directed to compel all owners of cattle, their agents, employes or servants, and all veterinary surgeons, to report forthwith to you all cases of disease by them suspected to be contagious. When such notification is received, you are directed to have the cases examined and to cause all such animals as are found to be infected with the said disease destroyed and buried with slashed hides. You are directed, further, to quarantine all cattle which have been exposed to the infection of said disease or are located in an infected place, but you may in your discretion permit such animals to be slaughtered on the premises and the carcases to be disposed of as meat if, upon examination, they shall be found fit for such use. You will forbid and prevent all persons not employed in the care of the cattle there kept from entering any afflicted premises. You will likewise prevent all animals and fowls from entering such premises. You will prevent all persons so employed in the care of animals from going into stables, or yards, or premises where cattle are kept, other than those in which they are employed.

STRINGENT PRECAUTIONS.

You will cause the clothing of all persons engaged in the care, slaughter or rendering of diseased or exposed cattle, or in any employment which brings them in contact with such diseased animals, to be disinfected before they leave the premises where such animals are. You will prevent the manure, forage and litter upon infected premises from being removed therefrom, and you will cause such disposition to be made thereof as will in your judgment best prevent the spread of infection. You will cause all buildings, yards and premises in which said disease exists or has existed to be thoroughly disinfected. You are further directed, whenever the slaughter of diseased or infected animals is found necessary, to certify the value of the animal or animals so slaughtered at the time of slaughter, taking account of their condition and circumstances, and to deliver to their owner or owners, when requested, a duplicate of such certificate.

Whenever any owner of such cattle or his agent or servant has wilfully or knowingly withheld, or allowed to be withheld, notice of the existence of disease upon his premises or among his cattle, you will not make such certificate. You are further directed to take such measures as you may deem necessary to disinfect all cars or vehicles or moveable articles by which contagion is liable to be transmitted. You are also to take such measures as will secure a registry of cattle introduced into any premises in which disease has existed, and to keep such cattle under supervision for the period of three months after the removal of the last diseased animal and the subsequent disinfection of such premises. You are further authorized and empowered to incur such expenses in carrying out the provisions of the foregoing order as may in your judgment be necessary, and to see to it that the bills for such expenses be transmitted to this department only through yourself, after you have examined and approved them in writing.

L. ROBINSON.

By the Governor—D. C. ROBINSON, Private Sec'y.

It seems not improbable that Kearney's mandate, "The Chinese must go," will have to be obeyed; or rather that they must not come in such disagreeably overwhelming numbers. The Senate has just passed the House bill prohibiting the importation of more than 16 of them on one vessel at one time. There is a rumor, however, that the President may veto it, on the grounds that it violates a treaty without giving proper notice; because the State Department is now conferring with the Chinese ambassador with a view to restricting the immigration, and because our trade with China and the interests of our citizens resident there, might be injured by such hasty action. In Columbia, Vancouver's Island, Australia, New Zealand, and in fact wherever Mongolian and Caucassian emigrants are competing, the laboring classes of the latter are bitterly opposed to the former. And as the Caucassian is the dominant race everywhere, its members are taking measures to exclude the swarms of cheap laborers from the Flowery Kingdom.

Out in Dakota Territory it's a jolly good thing to be a member of the Legislature. D. D. W. Flich, who represents the Black Hills district in the lower House, now sitting at Yankton, evinced a decided preference for billiards to law-making, and became a great annoyance to the Sergeant-at-Arms. The latter always got his man, however, until last Wednesday week. On the afternoon of that day the Sergeant sent three clerks and a messenger after Flich soon after roll-call. He was found by the posse in a saloon. Taking to his heels the legislator escaped at a back window and ran across into Nebraska, the clerks giving chase. Flich wheeled and ran back into Dakota, and before the pursuers could catch him, gained his room in the Yankton Hotel, barred the door and covered the window with a shot-gun. At last accounts he was still in a state of siege.

FOREIGN.

The long-threatened strikes in England have at last broken out. Although there are large ones in nearly all the manufacturing towns, that in Liverpool is so great that it overshadows the others. Sixty thousand 'longshoremen, sailors, coal-heavers, and other laborers have there struck, the first two classes against a reduction in their wages, and the other merely from sympathy for the strikers, and possibly through fear that the sucessful example of reduction might soon induce their employers to cut down their own wages also. The streets are daily paraded by vast processions of strikers prevaracating to the public in doleful doggerel that they have no work to do. Ships are retained for want of sailors to man them, of 'longshoremen to load and unload them, and of cartmen to take away or bring their cargoes. The gates in the long lines of walls surrounding the docks, are closed to the public, red-coated cavalry guard the approaches and the low prices of provisions alone have hitherto prevented disastrous riots there and elsewhere. Hundreds willing to work for the wages offered are being imported chiefly from Glasgow, and as the leaders of the strike now counsel arbitration, there is a good chance for a speedy resumption of work.

The British forces in South Africa have experienced a Custer-like defeat at the hands of the Zulus, a warlike tribe against which war was lately declared. About 500 English soldiers and 600 native auxiliaries, forming a detached column, were assailed by what fear, pride, or possibly truth, estimates at 20,000 Zulus. All the Europeans, including 49 commissioned officers from colonels downward, were slain, as were most of their native allies. The fight, or rather massacre, occurred near the Tugela River, the dividing line between Natal and Kaffirland. The spoils were a valuable convoy of 102 wagons, 1,000 oxen, two cannon, 400 shot and shell, 1,000 rifles, 250,000 rounds of ammunition, 60,000 pounds of provision, the colors of the Twenty-fourth regiment and the clothing and effects of the slain. At first there was a panic for the safety of Natal, but a part of the Zulus have since been repulsed in an attack upon an entrenched position; the British forces have been concentrated, and reinforcements are hurrying forward from England, Aden, India, the Cape of Good Hope and the Mauritius. The Zulu loss is put down at 5,000, and if much less than that now it will be much more before long. The full fighting force of the tribe is estimated at 40,000 men.

It is reported that Shere Ali has never quitted Afghanistan, that he is daily in receipt of all important news from Yakoob Khan, and that he is massing forces near Herat. The English are said to be apprehensive of advancing hastily, as the surrounding semi-savage tribes, though quite ready to take their liberally-distributed money in the friendliest way, are nevertheless always ready to pilfer, cut off stragglers, pounce upon convoys, and act as guerillas on every opportunity. The Viceroy of India advises the annexation of the whole of Afghanistan, and the advice causes much indignation among the Liberals at home, who stigmatize such a measure as a violation of the professions of that wily, everlastingly smart, unprincipled, mountebank, trickster, Jew, Beaconsfield. All Europe is still in terror of the Russian plague and adopting measures for preventing its extension, while Russia is busy trying to suppress it within her borders. It is said to have disappeared from the province of Astrachan where the first outbreak occurred, but it has broken out elsewhere in the more westerly parts of that country, and is said to have made its appearance in Turkey, but this is denied. Russia complains of Roumania for having quarantined her without giving her notice of intended measure, and the feeling between the two countries is far more hostile than should exist between people lately so closely allied. Roumania has seized upon Arab-Tabia as a part of her fresh acquisition, the Dobrudscha, despite the protest of Russia; Todleben has ordered four regiments to seize the place, and unless Europe interposes, there is some risk of collision between the forces of the Czar and those of Prince—King—Nicholas. Already there has been a skirmish between the Muscovite troops and the Roumanian police.

HERMAN.

Domestic Economy.

CONDUCTED BY EMILY MAPLE.

PEN THOUGHTS FROM EVERY-DAY HOUSE.

ANNIE L. JACK.

Labor-saving Devices in the Household.

IT is very refreshing to see the gentlemen of a house taking interest in the domestic conveniences that are strenth-savers to those members of their households who have the household work to do. There is nothing more useful in a kitchen than a man who can use a hammer and nails to advantage, put up shelves, or take them down, mend a broken chair or the leg of a table as need be, and do it with a pleasant manner, and not as if he were conferring a favor. Some men have an exasperating way of assisting in any household matter, making it appear that they stooped from their high dignity to work that was beneath them. If you trace back you will generally find that as boys, they had not been made helpful in domestic affairs, and consequently their manner was the result of wrong training. But just as surely as labor-saving machinery accumulates in the barn, ought it to be in use in the kitchen. First, of all water in the house is a grave necessity, then the washer and wringer, a clothes dryer, and small mangle. There should be a mincing machine, the latest improvement in irons and ironing-board, an apple parer, raisin stoner, potato washer, and anything else that comes under the notice of the housekeeper as a need. Of course, they cost money; so does tobacco, yet I do not think I ever knew any one compare the two in point of usefulness, while we all know houses where there is money enough for the "weed" which does no good; but not enough for household conveniences.

It is a hopeful sign when there are men who consider the RURAL a good medium through which to give their opinion on this domestic problem; who sympathize with, and help wife, sister, or mother in the ceaseless round of duties that fall to their lot. The one idea of a Chinaman will not answer in the varied work of a woman's life; her tasks are heavy, and many. All honor to the man who will try to make the kitchen as it should be—the brightest room of the house, with cheerful, sunny windows, and among other things a baking table that can be shut down when not in use and serve other purposes. By supplying things like this, an ordinary mechanic can lessen materially the labor of the household.

LOG-CABIN SKETCHES; OR, JESSIE SEABRIGHT'S DIARY.

MAY MAPLE.

A Poor Beginning.

Nov. 10th, 18—. How little I thought, when, years ago, I wound my way among the lofty hills and quiet valleys of western New York, from the comfortable school-room to the small, low and really comfortless dingy log cabin whose inhabitants were to extend their hospitality to the teacher for a week or two, as the case might be, that some time in my life I should be obliged to step into a log cabin, not one whit better, and call it home. Yet, here I am in a far-off wilderness, with my husband, John Seabright, and our two-year-old Berlie. I have been a wife four years, and John and I ought now to be in good circumstances; for he is a steady, hard worker, and I have learned to use the best economy. But fate was against us; our house, with nearly all its belongings, except our clothes, was destroyed by fire. The little village lot was sold for but little more than enough to pay off the mortgage. So we were left with only sufficient means to bring us to these Northern woods—where unimproved farms can be had for almost nothing—and to purchase a stove, a few dishes and such provisions as we should need for the coming year.

John has bought a tract of land containing one hundred and sixty acres, which boasts of a tiny cabin for the family and a small "patch"—perhaps two or three acres—"cleared." A *gun* paid for the whole farm. And this is our home. The present outlook is not very captivating. The cabin contains one room below and a low bit of chamber above. Two half-sashed, small-paned windows light the lower room, and these are so high up that I can only look out when standing. We have one chair. John has improvised a stool, a bench, a couple of bedsteads and a table; and these, with stove and dishes, make up all our house furniture—exactly the same as those old York State patrons "got along with" for years, and really believed they could do no better. Time will develop my resources, and necessity may enlarge my sympathies; at present my neighbors are but little better off, as far as appearances go. I will keep my eyes open for any opportunities to improve our condition. And whatever the improvements may be, I will jot them down in my journal, for it is possible my experience may save another from discontent and many unhappy hours.

DOMESTIC RECIPES.

Extra Good Cookies.

ONE-half cup of butter, one cup of white sugar, one-half cup of sour milk, one egg, one-half teaspoonful of saleratus. Melt the butter, mix all soft together with a spoon, and set away for one-half hour in the winter and one whole hour in summer where it is cold. Then the dough can be easily rolled without adding very much flour (the less the better), sprinkle the dough after rolling with sugar, cut and bake in a quick oven, watching carefully. The ingredients mentioned in this receipe make two dozen cookies. Add carraway seed if liked.

Raw Pumpkin Pie.

One pint of new milk, three well-beaten eggs; sweeten and spice to taste; then stir in gradually four heaping tablespoons of grated pumpkin. Place the crust in a deep tin, then pour in the mixture and bake brown.

Popovers.

Two cups of milk, yelks of two eggs, a little salt, two cups of prepared flour. Add the whites of the eggs last, well-beaten. Bake in small tins—for breakfast or tea.

Orange Cake.

One cup of sugar, two eggs, half a cup of butter, half a cup of sweet milk, two cups of prepared flour. Bake in four layers, as for jelly cake.

Mixture to be put in between layers.—The grated rind and juice of one orange, whites of two eggs, two cups of sugar; spread between the layers and frost the top of the cake.

Jelly Cake.

Three eggs, whites and yelks beaten separately, one cup of sugar, one heaping cup of prepared flour, a piece of butter the size of an egg, three tablespoons of sweet milk. Bake in four layers.

Prepared Flour, with Horsford's Bread Preparation.

The cake recipes I have given require prepared flour, which the ladies of the RURAL will find superior to any baking powder, cream-of-tartars, etc., that could possibly be used. For making biscuit, muffins, dumplings and cake, its equal cannot be found. Everything is sure to be light and good that is made with it. (See the advertising columns of the RURAL.—EDS.)

The most economical method of using it is to prepare twenty-five pounds of flour, by taking one package and thoroughly sifting it twice through the flour. There are measures given, but this I find the quickest and most saving way to use it. The cake can be made and baked in half the time required by the old method. It seems to me that Horsford's Bread Preparation will work a revolution in domestic economy when its virtues become known to everybody. MRS. F. BREWSTER WINN.

La Salle Co., Ill.

Barley Soup.

Wash and soak one-fourth pound of barley in a quart of water over night; in the morning turn off the water not absorbed and add three quarts of boiling water; a teacupful of bread crumbs and salt to taste; boil *slowly* four or five hours; add a tablespoonful of butter and a little chopped parsley half an hour before serving.

Cheese Toast.

TAKE half a teacup of grated cheese—use crumbs and dry pieces—mix with it a teacup of grated bread, the yelk of one egg, a spoonful of butter, three spoonfuls of rich cream, pepper and salt and a little mustard if liked; toast some slices of bread, spread the mixture on, place in a quick oven for three or four minutes and serve hot. MARY B.

Oatmeal Bread.

NOTICING a request in RURAL of Feb. 8 for a method of making Oatmeal Bread, I send mine.

No. 1.—Take fine oatmeal, put enough cold water in it that it will be covered after being thoroughly stirred; put in a flat pan, and bake in a moderate oven till the edges come away from the sides of the pan. The bread should not be more than a quarter of an inch thick, and not be allowed to brown.

No. 2.—Fine oatmeal, with hot water poured over it; stir well, leave it to stand ten or fifteen minutes, and dip into a flat pan by the spoonful, which should be flattened into cakes in the pan. There should be enough water on the oatmeal that it will work easily.

No. 3.—The same as No. 2, with the addition of a little more water, and enough Graham flour to make the oatmeal a soft dough. Bake as No. 2.

No. 4.—Cold oatmeal mush with Graham flour molded in until the dough can be rolled and cut with knife or cake cutter, or made into rolls or biscuits. Bake in a moderate oven until a light crust is formed.

No. 5.—Add a little cold water to cold oat-

meal mush, mix in Graham flour till a dough is made that when dipped with a spoon will just settle flat. Bake in gem pans like Graham gems. Salt may be added to any of the above, if desired, but the bread is sweeter without it. Grated cocoanut, in any proportion, makes a pleasant addition. RITA BELL.

Coughs.—"Brown's Bronchial Troches" will allay irritation which induces coughing, giving oftentimes immediate relief in Bronchitis, Influenza, Hoarseness, and Consumptive and Asthmatic Complaints. **25c. a box.**

THE advertisement of the Diamond Dictionary on another page contains a statement that is misleading. The purchaser will not get for sixty-three cents what would ordinarily cost seven dollars to purchase. The advertiser means to state that anyone who receives the book will get seven dollars' worth of information for the lesser price. The book is worth in the shops about 75 cents.

THE MARKETS.

PRODUCE AND PROVISIONS

NEW YORK, Saturday, Feb. 15, 1879.

BEANS AND PEAS.—Beans are quiet; there has been some better export movement, but general supplies are still large and sellers humor buyers; red kidneys have materially declined; some of this variety is expected from California. Green Peas steadier; $1.30 at station; $1.32½ at store. Medium beans, prime, $1.30; fair to good, $1.15@1.20; marrows, prime, free on ship, $1.82@1.35; fair to good, $1.25@1.35; pea, $1.20@1.50; white kidney, $1.55@1.80; red do., choice, $2.40@2.45; fair to good, $2.20@2.30; black beans, $2.05@2.25; Col. Limas, $4@4.25.

Receipts of beans for week, 8,150 bushels; exports, 1,050 bbls.

BROOM CORN.—Short corn is scarce and wanted; other sorts are plenty. Brush and short broom corn, choice, per lb., 5@5½c.; do., common to good, 3½@4½c.; hurl, good to choice, 3½@4½c.; do., common to fair, 3@3½c.; red and crooked, 2@3c.

BUTTER.—Local trade is generally inactive and the export call is earnestly courted; in fact, a prolongation of extreme dullness at this advanced part of the season would allow foreign purchasers to dictate. When the first-class qualities of butter may be quoted easier than under styles, sellers properly feel a little alarm. Receipts, however, have been free, rather weighing upon the market. Now it is thought that as the bulk of country-held State has come forward, the situation is more hopeful. Western creamery has arrived heavily enough to break the market, 27c. quoted against 29c. last week for top grades; other good lines have sold at 22c. for export. Western dairy and other packings dull, and mostly selling at inside figures.

Single extra State half tubs, 26@27c.; choice lines, 22@25c.; State, full dairies, special, 19c.; other, 16@18c.; firkin dairies, fair to prime, 15@18c.; Welsh dairies, fine full, 16@17c.; choice half tubs, 23@25c.; fair to prime do., 16@21c.; choice Welsh, 19@21c.; fair to prime, 12@17c.; choice creamery 24@26c.; best western creamery, 27c.; other, 19@25c.; early packed creamery, 17@20c.; poor State, 9@12c.; Western dairy, fine fresh, 18@20c.; fair to good, 10@15c.; factory, ladle packed, 18@19c.; good, 14@16c.; other, 7@9c.; rolls, 10@16c.; grease, 4@5c.

Receipts for week, 29,734 pkgs.; exports do., 6,150.

CHEESE.—The demand has been very regular and fair, and the whole situation of the market unchanged from last week; holders generally firm.

Quotations are 9@9¼c. for fancy; 8¼@8½c. for fine lots; 7½@8c. for good; 4@5c. for skimmed; State, farm dairy at 8@8¼c. for fine; 7@7½c. for good to prime, Wisconsin factory, fine and fancy, at 8¼@9c.; do. good to prime, at 7½@8¼c. Western factory, fine and fancy, 8@8¼c.; good and prime, 6½@7½c.; do. full skimmed, 2@5c.

Exports, for the week, 61,840 boxes.

Liverpool quotation, 49s.

Steam to Liverpool, 42s. 6d.@45s.

COTTON.—There has been less activity, but price closed firm. February, 9 71@9.72c.; March, 9.76c.; April, 9.92c.; May, 10.08@10.09c.; June, 10.22@10.23.; July, 10.32@10.33c.; August, 10.41@10.43c.

Quotations for spot cotton are based on American standard of classification, and on cotton in store counting in quality not more than half a grade above or below the grade quoted:

	Uplands.	N. Orleans.	Texas.
Ordinary	7¾	7¾	7¾
Strict ordinary	8 8-16	8 5-16	8 5-16
Good ordinary	8 11-16	8 13-16	8 13-16
Strict good do.	9	9⅜	9⅜
Low middling	9¾	9⅞	9⅞
Strict low middling	9 7-16	9 9-16	9 9-16
Middling	9¾	9⅞	9⅞
Good middling	10	10⅛	10⅛
Strict good middling	10⅜	10⅝	10⅝
Middling Fair	11 1-16	11 3-16	11 3-16
Fair	11⅝	12	12

STAINED.

Good ordinary	7⅛	Low Middling	8⅛
Strict good ordinary	8⅛	Middling	9⅛

DRIED FRUITS.—Apples continue in very fair demand and rule firm in price. Peaches, unpeeled, are wanted and are at strong prices. Small fruits are quiet. State plums, 14½@15c.; Blackberries are quoted at 8c. Peaches—Peeled Georgia, 6@7c. for poor; 8@9c. for fair to good; 10@10½c. for prime; choice North Carolina, 11¾@12½c.; good do., 9@10c.; unpeeled halves, 3½c.; quarters, 3@3½c. Pitted cherries, 21c. Apples—New, 2@2½c. for southern quarters in bags.; 3½@4c. for prime sliced; do., fair at 2½@3½c.; State at 3@3½c. for new sliced; and 3@3½c. for quarters; Western at 2½@3½c. for new quarters. Raspberries, 23c. Apples, evaporated, fancy at 10@12c.; other processes at 5½@8c.

Exports, 1,183 pkgs. dried apples.

EGGS.—Receipt for week, 5,910 pkgs.; do. last week, 3,070 do. The demand is better at the late decline, but prices are weak with prospective free receipts. Near points, 24c.; State, 23c.; Western and Southern, 22@23½c. Limed exhausted.

FLOUR.—There is a much better export and home trade demand, and prices have improved a little.

Latest prices are at $3.25@3.65 for very inferior to strictly choice superfine State; $3.65@4.00 for very poor to good extra do., odd lots and lines; $4.00@4.25 for good to very choice do., and fancy lots above this; $3.20@3.65 for inferior to very choice superfine Indiana, Iowa, Michigan, &c.; $3.65@4.00 for inferior to good shipping extra do. and $4.00@4.25 for good to very choice extra do.; common to about choice white wheat extras, $4.10@5.10; choice to fancy do. at $5.10@5.50; red and amber winter wheat, very inferior to very choice trade and family, at $4.00@5.75; round hoop Ohio at $3.90@4.30, and trade and family brands of do. at $4.30@5.75, the latter rate for very choice; St. Louis, $4.10@4.85 for very inferior to good extra, and $4.85@5.75 for good to strictly choice (with a few very fancy brands in high favor with the jobbing trade), quoted up to $6.25@6.50; Minnesota clear, very inferior to strictly fancy, at $3.65@5.00; few brands going above $4.50@4.60; Minnesota "straight," inferior to fancy at $4.40@5.75; and patent poor to strictly fancy at $5.25@8.25, few brands going above $7.50; unsound stock at from $2.00@5.00; city mill extra at $4.70@5.15 for West Indies (the latter rate for fancy in new packages); do. for England $3.85@3.85; do. trade and family extras, $5.10@6.00; do. for South America, $5.00@5.50 for fair to very choice; No. 2 at $2.85@3.00 for poor to very choice.

ESSENTIAL OILS.—Nominal in a wholesale way. Peppermint, glass (Hotchkiss), $2.30; in tin, $1.60; wintergreen, $2; sassafras, 40c.; pennyroyal, $1.25; spearmint, $2.25; wormwood, $3.

FRESH FRUITS.—Apples in moderate demand, but steady. Prime Eastern stock rated $1.50@1.75; late receipts of State, $1.62@1.87, sound lots. Spitzenbergs, $2@2.50; Greenings and Baldwins, $1.75@2; poor lots, $1@1.25. Cranberries continue quiet, but the supply is small, and as apples advance berries will hold to late rates; prime to fancy, bbls., $8@9; other, $5@6; N. J. crates, fancy, $3; other, $2@2.75. Florida oranges very dull; hf. bbl. boxes, fair to best, $3; discolored, $1@1.50; bbls., $4@6. Hothouse strawberries, $5 per quart. Peanuts firmly held, with only a moderate trade. Hand-picked Va., $1.10@1.15; other, 80@95c.; shelled, 4½@5c. Hickory nuts nominal at $2.

Exports for week, 6,514 bbls. apples.

FURS AND SKINS.—Exports for early sales abroad have ceased. Buying here, however, continues brisk, as trade in Europe promises to assume more of its old-time busy character than has prevailed in recent years. The fine quality of skins this season also makes dealers anxious to secure them. Several items which fell off after the late foreign sales have revived again.

Quotations: Badger, 50.@$1; bear, black, N., $8@12; do. S., $5@5; cub. N., $5@8; brown, $3@7; beaver, Cal. W., $1@1.40; S. and W., 80c.@$1.10; N. W., $1.52@1.75; N. and Ca., $1.75@2.30; cat, wild, N., 25@50c.; S. and W., 10@20c.; house, 10@15c.; deer, W., summer, 20@25c.; winter, 10@15c.; elk and moose, 12@15c.; fisher, S. and W., $3@6; N. and Ca., $7@10; fox, silver, $25@75; cross, $2@5; blue, $3@5; white, $1.50@2; red, N. and E., $1.50@1.75; N. and N. W., 50c.@$1; gray, N. and N. W., $1@1.25; S. and W., 40@70c.; kitt, 25@35c.; lynx, Minn., $1.50@2; Can., $2@2.50; marten, large dark, $5@8; small and pale, 75c.@$1.25; mink, S. and S. W., 3@5c.; W., 50@60c.; Middle States, $1@1.25; N. W., $1@1.20; Eastern, $1.50@1.75; Can. and N. S., $1.75@2; muskrat, S. and W., fall, 8@10c.; S. and W., winter, 10@14c.; S. and W., spring, 14@16c.; N. and E., fall, 10@12c.; N. and E., winter, 14@16c.; N. and E., spring, 12@20c.; kitts, 3@5c; opossum, N. and W., 20@30c.; S., 5@10c.; otter, S., 3@4c.; N., 5@7c.; rabbit, 3@3½c.; coon, S. and S. W., 3@40c.; W. and N., 50@65c.; Mich. and N. W., 75c.@$1; seal, Atlantic, 40@60c.; Pacific, $10@15; skunk, black-cased, $1.50@1.70; half-striped, 30@40c.; full, 40@50c.; white, 10@20c.; wolf, large, forest, $1.75@2.50; prairie, 75c.@$1; wolverine, 20@30c.

GRAIN.—Wheat is active and higher; sales are of No. 1 red at $1.10½@1.11; No. 2 red at $1.10½@1.10¾; No. 2 red, steamer grade, at $1.08@1.08½; No. 3 red at $1.06½@1.08; ungraded red at $1.03@1.10; No. 1 amber at $1.10@1.11; No. 2 amber at $1.08½@1.10¼; ungraded amber at $1.07¾@1.10½; extra white at $1.11@1.11¼; white State, in lots, at $1.10@1.10¾; white at $1.10@1.10¾; No. 2 white at $1.08@1.08¾; ungraded white at $1.08@1.09½; No. 3 spring at 92@95c.; ungraded spring at 92@96c.; No. 2 red, February option, at $1.10¾@1.10¾; do., March option, at $1.11¾; do., April option, at $1.12¾; No. 2 amber, February option, at $1.10; do., March option, at $1.10¾; No. 1 white, February option, at $1.10@1.10¾; do., March option at $1.10¾. Rye at 60c. for Western and 61c. State. Corn is in larger supply and easier; sales of steamer mixed, in lots, at 44½@44¾c.; New York old No. 2 at 46¾@47c.; New York No. 3 at 42½c.; ungraded mixed at 46½@47c.; New York No. 3 at 45¾@46c.; Jersey yellow at 45¾c.; yellow western at 45@45½c.; graded steamer yellow at 44¾c.; old western ungraded white at 48c.; New York No. 2 white at 50¾c. for old.; yellow southern at 44½@45½c.; New York No. 2, February option, at 45¾c.; old do. at 45¾@47¾c.; New York No. 2, March, at 46¾c.; old do. at 47c.; New York No. 2 April, at 47@47½c.; do., May at 47½c.; steamer mixed, February option, at 44½@44¾c.; do., March, at 44¾c.; do. April at 44¾c. Oats are more freely offered and are a trifle easier; sales of New York No. 1 at 32c.; New York No. 2 at 31½c.; New York No. 2 white at 33¾@33¾c.; New York No. 3 at 30c.; New York No. 3 white at 31¾@31¾c.; white Western at 31@33¾c.; mixed do. at 30½@32c.; white State at 32½@34c.; New York extra white quoted at 33@33¾c.; New York No. 1 white at 35c.; No. 2 Chicago, afloat, at 32c. asked. Barley lower. State 6-rowed barley, 80@95c.; do. 2-rowed, 65@75c.; Canadian, 85c.@$1.10; do. malt, $1@1.25; western do., 60@$1 15.

HAY AND STRAW.—There are full receipts, but demand is fair and prices sustained; sales at 40@45c. for shipping, and 70@80c. for retail qualities. Straw quoted at 50@60c. for long rye, and 40@45c. for short rye, and oat at 10@45c.

Exports, 350 bales.

HOPS.—There is little or no change to report. Brewers who are not freely stocked with old hops are taking all the "bargains" offered in new, but prices have not yet reached a point that will warrant speculation. Good, fair brewing hops have changed hands at from 8@10c., while 12c. and 13c. can still be realized for grades suitable for export. There is a marked falling off in the export traffic; the cause assigned for it is the general depression of business in England.

Quotations are for New Yorks, new crop, choice, 13@15; New Yorks, new crop, good to prime, 8@11; New Yorks, new crop, low to fair, 6@8; Eastern, 8@12; Western, 8@12; Yearlings, 4@6; Olds, all growths, 2@3; Pacific coast, 12@15.

OIL CAKE—Is higher, quoted at $27.50 per ton.

SEEDS.—Clover is wanted at 6¾@6¾c. for prime and 6¾@6¾c. for choice western. Timothy is at $1.40@1.50.

PROVISIONS—Have been variable in price, but left off firm. Mess pork quoted at $8.00 bid and $8.80 asked for old for February; $10.25 bid and $10.35 asked for new for February; $8.85 bid and $8.85 asked for old for March; and $10.30 bid and $10.40 asked for new for March, and $10.30 bid and $10.40 asked for new for April, and May at $10.35 $10.40@10.50. Bacon at 5@5¾c. for long clear and 5¾@5¾c. for short clear. Lard at $6.80 for spot lots; $6.85 for March; $6.97½ for April, and $7.05 for May. Stearine at 6¾@7c. Tallow at 6¾c. for prime. Beef Hams at $13.50. Beef, extra India mess, $18@20, as to quality; packet, $11; plain mess, $9.50@10.25; extra mess at $10.50@11.

POULTRY AND GAME.—Good prices rule for live poultry. Western, 12@12½c.; young roosters, 8@10c.; old do., 6@7c.; Turkeys, hen, 14@14½c.; do., toms, 11@12c.; Ducks, 60c.@$1; N. J. Geese, $1.75@2; other, $1.25@1.50 pair.

Dressed poultry is doing better than for a long period, but light receipts and good quality are the chief supports of our advanced figures. Phila. and N. J. turkeys, including dry picked, 15@16c.; prime State and Western, small, 14@15c.; other, 12@13c.; Phila. dry picked fowls, 12@14c.; do. chickens, 15@16c.; N. J. chicks, 14@15c.; Western, prime, 12@14c.; other, 10@11c. Capons, 19@20c.; slips, 15@17c.; Ducks, choice, 15@16c.; other, 12@13c.; Geese, 8@13c.; 13c. for dry picked.

Quail are scarce and high; grouse easy; choice wild ducks doing better; few hares remain. Quail, choice, $1.00@1.12; other, 55@70c.; Grouse, trapped, 55@70c.; soft, 60c.; Canvas-back Ducks, $1.75@2; Redhead, $1.00; Mallard, 50@60c.; Teal, 40c.; common, including Brond-bills, 20@25c.; Hares, 22@25c.; Rabbits, 16@20c. Foreign exports for the week include 41 pkgs. game.

TOBACCO.—Export demand is better, but the home trade slack.

KENTUCKY LEAF.	Light.	Heavy.
Common lugs	2¾@ 3	3¾@ 3¾
Good lugs	3¾@ 4	4 @ 4¾
Low leaf	4¾@ 5	5 @ 6¾
Medium leaf	5¾@ 6¾	6¾@ 7¾
Good leaf	6¾@ 8	8 @ 9
Fine leaf	8¾@10	10 @11
Selections	— @—	12 @12¾

SEEDLEAF.—CROP OF 1877.

New England wrappers, common	10	@12
do. do. medium	13	@15
do. do. fine	18	@25
do. do. selections	27½	@35
do. seconds	10	@13
do. fillers	7	@ 9
Pennsylvania assorted lots, common	9¾	@10¾
do. do. fair	11¾	@14¾
do. do. fine	15¾	@18
do. wrappers	20	@40
do. fillers	7¾	@ 8¾
New York assorted lots, common to medium	8	@10
do. do. do. good,	12	@15
Ohio assorted lots	9	@12
Ohio wrappers	12	@18
Wisconsin assorted lots	7¾	@10

VEGETABLES.—Trade in potatoes does not come up to the expectation of sellers. Only faultless parcels of Rose Peach Blow being the extremes. Onions firmer, with a good export call. Bermuda potatoes, 2@7. Eastern Early Rose, $2.50@3; State at $2.@2.62; Nova Scotia, $2.62@2.75; white Peach Blow, $2.50@2.75; red do., $2.25@2.50; Prolific, $2.25@2.50; Peerless, $2@2.37; Jackson white, $2.12@2.25; mercer, $1.87@2 (the extremes are for double beads.) Onions steady, many going out; onions, white, $3@4 per box; do. yellow and red, $2.50@3; chester, $2@2.50; marrow squash, $1.75@2; Hubbard, $2@2.25; cabbages per 100, $4@6; R. turnips, per bbl., 75c.@$1; carrots, 75c.@$1; beets, 75c.@$1; celery, per doz., 50@75c, Bermuda tomatoes, 50@75c.; Nassau, 40@60c.

WOOL.—There has not been much activity the past week, and the market is a little unsettled, without absolute change in the prices.

Ohio, Pennsylvania and Virginia—XXX and picklock, 37@38c.; XX, 34@35c.; X, 33@34c.; No. 1, 35@36c.; No. 2, 30@32c.; common, 28@30c.; combing and delaine, 36@38c.

New York, Michigan, Indiana and Wisconsin—XX, 31@32c.; X, 31@32c.; No. 1, 33@35c.; No. 2, 29@30c.; common, 27@28c.; combing and delaine, 34@37c.

Iowa, Vermont and Illinois—X and XX, 29@31c.; No. 1, 32@34c.; No. 2, 27@29c.; combing, 33@36c.

Missouri, Kentucky and Tennessee — Washed fleece, 26@31c.; unwashed fleece, 21@26c.; unwashed combing, 23@27c.

LIVE STOCK MARKETS

Saturday, Feb. 15, 1879.

BEEVES.—Receipts for the week, 9,664 head; do., 8,305 last week. There has been a fair trade at about Wednesday's prices; the range is 8¼@10¼c., 56@58 ℔ dress, only a few choice Illinois fat steers bringing the extreme quality averaged good, a large portion of the sales running from 8¾ to 10c.

COWS AND CALVES.—The market is without new features. The proposed interference with the swill milk trade will be apt to further reduce the use of cows from shipping points; nominal range, $35@65 per head.

VEAL CALVES.—Live calves scarce; on very scant days 8c. was obtained for extra. Market firm, for N. J. and Buck's Co. milk, 6¾@7¾c.; heavy, 6@6½c.; State, 6@7½c.; fed, 4@5½c.; grass, 3¾@3½c. Hog dressed calves, choice, 10½@11c., good to prime, 9@10c; very common, 6½c.

SHEEP AND LAMBS.—Receipts for the week, 19,080 head; do. last week, 25,288 do. Light supplies have made strong prices. Western, 5½@5¾c., with a few at 6c.; N. J., 5@5¼c.; ewes, 4½@4½c. Lambs, 6¼@6c.

SWINE.—Receipts for the week, 41,503 head; do., last week, 29,807 do. Common qualities, $4.20@4.30 per 100. Market quiet.

Dressed hogs—N. J., light, 6@6¼c.; medium, 5¾@5¾c.; heavy, 5¼@5¼c.; city, 5@5¼c.; western, 4¾@5¾c.

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This machine does as much work as 5 men can do by hand, and does *better* work than can be done by any other means whatever. No more sowing too much to the left. Agents wanted in every county in the United States. Price $6.00. Send stamp for Circular.

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Has a Pad differing from all others, is cup-shape, with Self-Adjusting Ball in center, adapts itself to all positions of the body, while the BALL in the cup PRESSES BACK the INTESTINES JUST AS A PERSON WOULD WITH THE FINGER. With light pressure the Hernia is held securely day and night, and a radical cure certain. It is easy, durable and cheap. Sent by mail. Circulars free.

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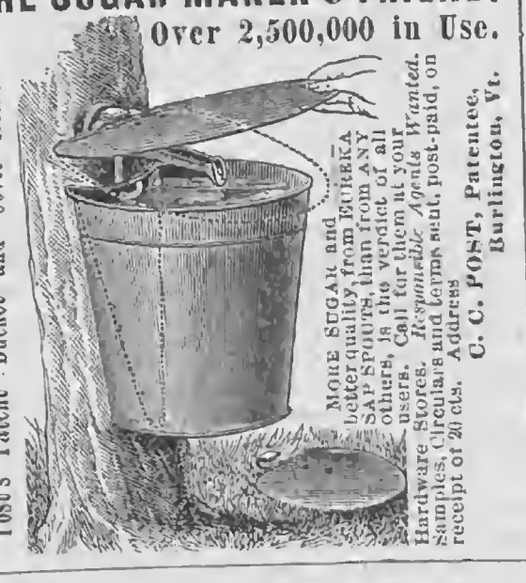

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For Incubation & Artificial Hatching.

Apparatus, 100 eggs' capacity, $25. 41 gold and bronze medals and diplomas awarded to the inventor, PROF. A CORBETT, 7 Warren St., N. Y. City. Send for Circular.

GREAT OFFER FOR FEBRUARY.

We will during *this month dispose of* **100 PIANOS & ORGANS, at EXTRAORDINARY LOW prices for cash. SPLENDID ORGANS 23-5 sets of reeds, $65, 3 sets with Sub Bass and Coupler $80, 2 sets $50, 1 do $40, 1 do $35. 7 Octave *all* ROSEWOOD PIANOS $130, 7 1-3 do $140, all round corners do $175, warranted SIX years. AGENTS WANTED. Illustrated Catalogues Mailed. Music at half price. HORACE WATERS & SONS, Mnfrs. *and* Dealers, 40 E. 14th St., N. Y.**

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Reading for the Young.

TO THE SONS OF THE FARMER.—No. 1.

REV. A. W. MANGUM.

WHICH is better for the farmer's sons, to go to the city, or to remain on the farm?

In discussing this question my sincere desire is to give the best counsel that I can.

First, while you are *young*, it is best, for many reasons, to remain on the old home-plantation. There your character will be formed more safely, and is almost sure to be purer when it is formed; for the country is comparatively free from many of the most seductive and dangerous vices of the town. Even those who never yield to the temptations to grosser vices in the city, are, at least, so familiarized with multiform wickedness that the heart is tainted and sadly liable to lose its decided abhorence of that which the pure should vehemently despise. It requires sound, established character to pass uninjured through the peculiar traps and pitfalls for the young in the cities. And let it be remembered that character is indispensable to true happiness, true honor, true success of any good kind, in life.

Stay in the country till your tastes are developed. Rural simplicity is eminently favorable to a just appreciation of the innocent, substantial, yet unostentatious privileges and enjoyments in life. The city substitutes the specious, the artificial, the exaggerated, the delusive, the dazzling, the sensational, the intoxicating, for the plain realities of the country. With pure and simple tastes, you may find rich entertainments almost anywhere; but, with tastes corrupted and inflamed you cannot be contented unless you are engaged in extravagant indulgences, running hastily onward and downward to ruinous dissipation.

Stay on the farm till the habits are thoroughly formed. Virtue has not such fierce opposition in the country, as in the town. It is easier to form good habits, and harder to form many of the worst habits, in country, than in town. Early habits are almost destiny to the young. A single vice will, if pursued, surely destroy the character, the peace, and the usefulness of any one. You may conclude that you are very different from the unfortunate young men who have become the victims of the many fascinations of prevailing evils in cities; but that conclusion was, doubtless, in the minds of many whose early history has closed in darkness, shame, and tears. Your fearless presumption is proof of your danger.

But stay on the farm while young, for there you have an independence which is highly favorable to the development of true manliness of character. Many, at least, of the boys and young men who rush to the towns and beg themselves into some kind of a clerkship are subjected to a daily experience that smacks most unpleasantly of the very essence of servitude. The will of the employer is the master of the employed. The duties required of one by an employer who has an inflexible system in the work of those whom he employs, and who studies to control all so that he may accumulate profits, are generally such as virtually to enslave those who are bound to perform such tasks. The highest type of American character demands the generous influences of mutual respect, sympathy and love between the employer and the employed. Besides, the pay in respectable work in the city is generally small for a long time, while the expenses unavoidable in city life rapidly and continuously consume the meagre wages. How few young men in cities are able to lay by anything as gain—as capital for any business!

Stay on the farm till you have learned the regulations and principles involved in trade-life. There will be abundant opportunities to learn these at home if you studiously avail yourself of them. Wait till you have acquired a knowledge of human nature. There are many "sharpers" and deceivers in large cities. They are apt to victimize those who are inexperienced in the ways of the world, and who are unable to detect at once the wiles of the cunning and unprincipled.

Stay on the farm, for you are needed there, while the places that you would occupy in the city are either filled already or are eagerly sought for by other applicants. There are so many young men rushing to the town that employers can find plenty to fill all the places they have at unprofitably low wages.

All that I teach in this article is that you should stay on the farm at least until you have reached your maturity. In this series of articles I may advise as to the course you should pursue when youth is past.

[The Rev. A. W. Mangum of the University of North Carolina will contribute a series of articles, entitled To The Sons of the Farmer for the Youth's Department of the RURAL. We recommend every farmer's boy in the land to read these articles.—EDS.

A HORNED FROG.

MADISON, Jan. 19th, 1879.

DEAR COUSINS: How many of you have ever seen a horned frog? When I was about eleven years old my brother went to Texas and for a long time I did not hear from him. Finally there came through the mail a little box addressed to me and marked "horned frog." I was totally ignorant as to what a "horned frog" might be, so I decided not to investigate the matter until I got home. I was made to wait, however, until I had eaten my supper and then the box was opened. The reptile leaped out on the floor and seemed quite lively, (and who wouldn't need a little exercise after riding from Texas to Wisconsin in a hook-and-eye box?) Thinking that many of you perhaps have never seen a horned frog, I will try and describe one to you. Mine was about five inches long to the tail and had a pale yellow color. He had the shape of a lizard and acted very much like one, only he never climbed. Right over his eyes were two horns and back of these was a semi-circle of nine more, which were much larger and very sharp. From the middle horn on his head to the end of his tail a distinct white stripe extended straight through the middle of his back.

On each side of this stripe were four black spots which were round and underlined with bright yellow. Each side of his body was edged with two rows of sharp white spines, and the mouth, which seemed to be a slit from one side of the head to the other, was surrounded by sharp little thorns that reached to the back of his head. I wish you could have seen him drink. Sometimes I put him into a basin of warm water, when he would drink till he bloated out like a rubber ball. When I first had him I was at a loss to know where to put him, but one day papa brought home a wooden box with a sliding pane of glass in the top. This I partly filled with soft white sand. Froggy liked his dominion very much and showed his approval by burying himself in the sand, as was probably his custom in his native country. After I had kept him about two months I began to think it was time he should eat something, but all my efforts to make him eat were fruitless. One day I had been to church, and coming home I found him in the grass by the door. He started to run, and, being afraid he might get away, I ran after him as fast as I could and finally caught him, though with great difficulty. On another occasion there seemed to be something the matter with my little pet, and I thought he was going to die. But how great was my surprise one morning to find him in a new skin and as chirp as ever. The old one which he had crawled out of lay on the sand beside him. The skins that came off from his little hands were so soft and white that they looked like little gloves, and I kept them for a long time. My frog lived only about six months; in all that time he scarcely tasted a morsel of food. Occasionally he would lick some fat pork or lard, or he would scramble around after flies among mamma's house plants, but the flies seemed more likely to eat him up than he to eat them. If any of my young cousins have a brother in Texas, I advise them to send at once for one of these curious animals. It is worth the trouble to own such a curiosity. Perhaps Uncle True can add something to this letter about horned frogs. We all enjoy the young folks' column of the RURAL very much, and I want to see some letters in it from all of my cousins.

FRANKIE M. BROOKS.

This letter is very interesting, indeed; I only wish that all the cousins would tell us about their pets as Frankie has done. To give you a better idea of a "horned frog" I have taken pains to procure a picture of one, though it may not be exactly like the pet Frankie had, as there are several species, and they vary somewhat in size and appearance. The fact is, it is no frog at all, but a lizard, which is quite common in the southern States. Travelers camping out where these animals are numerous are sometimes annoyed by their seeking shelter in the folds of the blankets, and by reason of their prickly skins, they are not very comfortable bedfellows. There is a real frog, sometimes called the horned frog from its having a small horn over each eye, but it is only found in South America.

There are many points of difference between a frog and a lizard, of which the most prominent are that the frog while young lives in the water and breathes by means of gills like a fish; the lizard breathes by lungs from its birth. The frog has no tail in the adult, or full-grown state; the lizard retains its tail through its whole life, even if it is broken off by accident, a new one soon grows out. The hind legs of the frog are well developed, and being used for leaping, are much longer and stronger than the fore limbs; the lizard's legs are simply used for creeping and running.

Those learned men known as naturalists, find many other points of difference, but those mentioned are enough to tell them apart. It will be very interesting for any of my young relatives, who are not already familiar with the subject, to procure a few frog-eggs, put them in an aquarium or some small pond, and closely watch their development. The transformations that take place through the babyhood and youth of the frogs will be a wonder to you.

When the little ones first come into the world, they are shaped much like fishes and breathe by gills like these. The head rapidly grows larger and gets out of all proportion to the body; the limbs are developed, the hind pair first, the gills disappear, and finally the tail is absorbed and the frog takes to the land as its dwelling place, only returning to the water to bathe and to hide from danger.

In the absence of Uncle True these few remarks are made by

UNCLE MARK.

JUMPING JACK REAPPEARS.

RURAL RELATIVES:—From the depths of that supposed "dead silence" I rise; or, with more *nom de plume-tal* precision, jump once again into your friendly midst. To-day one year ago I wrote you, and then of a beautiful walk that is yet precious to memory. Now the earth is white with "ermine too dear for earl," and the wind keeps time with the falling flakes in a tune most lively and gay. And as we cannot go walking this Christmas-time, my two companions—the golden-haired maiden, and she of the nut-brown tresses—and I, quietly spend the day in-doors. When the cheer of the day is over, and the delicious dinner is only a remembrance, I hunt out my good gold pen, which has lain idle so long, and write another letter. But what shall it be about this time? I have spent many weeks of the past autumn-time in visiting and sight-seeing, and shall I tell "a little something" of that? Niagara Falls, in all their rushing beauty, were most delightful. The city of Buffalo, with its broad, clean streets, was a pleasant place to spend a few weeks. The "Land o' Grease," or, in explanatory words, that part of western Pennsylvania where petroleum is obtained, was a constant wonder and enjoyment. And of these and other places visited, much might be written, as the weeks I was absent from home were very crowded ones, and it seems I have much to tell; but that inevitable "time and space," so well known in editor's sanctums, frowningly warn me to move on. But I must not forget mentioning the lovely carriage drives over the almost mountainous roads of the wild territory; and, again, the lovely sails on the moon-lit waters of the beautiful Niagara River. While in Canada, I one day fell to thinking about that pleasant writer, Mrs. Jack. Of course, *Jack* is to my name, but, "the question is," *can* we be considered as in any way related? Be that as it may, as the result of my thinking I was wondering just where in the Dominion lives the author of those cheery "Whiffs from Canada." But how I do tarry by the way! Co and I were out in the dairy-room the other day to see the beautiful frosted cob-webs that hung in fairy-like festoons above the great stone trough. The spiders had been at work just before the "cold snap" came, and *Jack* Frost (any relation?) found splendid subjects upon which to try his skill. The rafters, shelves, and even the crane in the old-time fire-place, were wreathed in delicate whiteness by the frost. A feather wing that hung against the wall was daintily touched by a fringe more beautiful and soft than eider-down, and my companion playfully—not suggestively—remarked on its appropriate fitness for a bride. It was indeed beautiful. The days have been bitter cold ones with us lately, yet they bring us beauty in the shape of frost works, pleasant evenings round the fireside, and rides over the ever "beautiful snow."

One thing more and I am done. Our poor plants! How they have suffered! But *we*, among the more fortunate, saved in part our treasures from the grim Frost-king, and now lovely white primroses cheer us with star-like blossoms and sweet perfumes. Wishing to you all, my dear relatives, much profit and pleasure for the new year, I bid you all an affectionate good night.

JUMPING JACK.

The Puzzler.

GEOGRAPHICAL ACROSTIC.

1. A town of New York. 2. A lake of Minnesota. 3. A river of Arkansas. 4. A river of Pennsylvania. 5. A city of Peru. 6. A city of France. 7. Mountains of Labrador. 8. A mountain of Bolivia. 9. A city of France. 10. One of the Shetland Isles. 11. A river of New Brunswick. 12. A lake of Florida. Initials form a noted place in the Old Dominion.

☞ Answer in two weeks. LITTLE ONE.

CROSS-WORD ENIGMA.

My first is in Arctic but not in London,
My second is in Cape May but not in Hunterdon;
My third is in Blair but not in Yates,
My fourth is in Charlevoix but not in Gates;
My fifth is in Somerset but not in Lucas,
My sixth is in Franklin but not in Cass,
My seventh is in Clinton but not in Upas.
My whole form two counties of Maryland.

☞ Answer in two weeks. BALTO.

DIAMOND PUZZLE.

1. In cities. 2. An article. 3. Public pleasure-grounds. 4. Shunned. 5. A holiday. 6. Chronicles. 7. Christened. 8. Sorrowful. 9. In countries.

☞ Answer in two weeks. NELL.

TRIPLE ACROSTIC.

1. An animal. 2. Belonging to an empire. 3. A rug. 4. Sooner than. Primals, centrals and finals form fruits.

☞ Answer in two weeks. MD.

PUZZLER ANSWERS.—Feb. 8.

HIDDEN COUNTIES OF NEW YORK.—1, Albany; 2, Cortland; 3, Broome; 4, Wayne; 5, Orleans; 6, Monroe; 7, Essex; 8, Orange; 9, Ontario; 10, Putnam; 11, Franklin; 12, Lewis; 13, Kings; 14, Livingston; 15, Yates; 16, Tioga; 17, Duchess; 18, Cattaraugus; 19, Fulton; 20, Erie; 21, Chenango; 22, Rensselaer; 23, Queens; 24, Herkimer; 25, Madison.

BIBLICAL ENIGMA.—Let us not weary in well doing, for in due season we shall reap if we faint not.

ACROSTIC.—The Lord will provide.

TRIPLE ACROSTIC.—Primals, Geranium; centrals, Oleander; finals, Marigold.

PYRAMID PUZZLE.—

K
D A N
P U N C H
F I N G E R S
J E S S A M I N E
L U M B E R R O O M S
J U X T A P O S I T I O N
U N C E R E M O N I O U S L Y

NAME PUZZLE.—Sigismund.

Sabbath Reading.

PREACHING HONESTY.

WE do not think that there has been any hesitation on the part of Orthodox ministers about teaching, in a general way, that men ought to be honest. The fact that religion must include morality is asserted by them strongly and frequently. The great lack has been a careful and minute application of this truth to the affairs of every day. Men must not only be told that they ought to be honest; they must also be told what honesty is. A close and faithful application of the moral law to the business of life needs often to be made. It is in this, if in anything, that modern pulpit has failed.

If the average minister, for example, should undertake to preach on the Eighth Commandment, he would be likely, first, to give a careful exegesis of the text, referring to other scriptures which support its teachings, and showing how in all the legislation of Moses the rights of property were protected; in the first place he would enter into some philosophical investigation of the origin of property rights; then he would show how Christ's law of love secures obedience to the eighth commandment, and a genuine respect for the rights of property; and finally he would impressively exhort his hearers to remember the injunction of the decalogue, and never to interfere with the property rights of others. All this is curious and entertaining, of course, to minds trained in abstract speculation; and, graced by an occasional illustration drawn from nature or from history, and by a few neat literary references, it may be made very pleasing to the auditors. The trouble is that it does not come quite close enough to the "business and bosoms" of those who listen.

The thing that is needed is that the command, "Thou shalt not steal," should be translated into the terms of modern commercial life. It ought to be shown, to begin with, that cheating is stealing; that every transaction in which by deceit or concealment or misrepresentation a man obtains money or other values that he could not have obtained if he had told the truth, is a direct infraction of the eighth commandment; that he who gains an advantage by telling a lie or by hiding the truth in a commercial transaction, is just as really a thief in the sight of God's law, as he who picks his neighbor's pocket.

Then, it ought to be shown with equal distinctness that the commandment forbids all violations of the law of trust. He who appropriates to his own uses property entrusted to him for safe keeping is a thief. He who risks in private speculation the property which has been placed in his hands for specific purposes is a thief. The boy who spends the money of his Sunday-school class, or of his ball-club, for his own purposes, breaks the eighth commandment. He may intend to replace the money thus taken; he may think he knows just where he will obtain it; but this gives him no right to take it. Every penny of it ought to be sacredly kept, that he may give at any moment an exact account of his stewardship.

Such distinct application of the Bible law of honesty to the affairs of every day are always needed, and if the pulpit has failed at all, it has probably failed just here. It is not only true as a venerable pastor says, that we have not made enough of honesty, it is also true that we have not made it so plain as we ought to have done what honesty requires and forbids. Specific and elementary teaching from the pulpit on this point would be timely and serviceable.—*Sunday Afternoon.*

THE "ONE-CLASS" PLAN.

EVERY how and then somebody starts up with the revival of a long-ago exploded notion, and calls it a new invention. One of the latest fancies in this line is "the one-class plan," or the proposal to have but a single teacher for an entire Sunday-school. This is the old plan which the modern Sunday-school displaced. The catechetical exercises of former days were conducted in that way. Children's services down to the present time have had the same form. But the small-class system, whereby each scholar can receive the personal instruction of a teacher, is an essential feature of the modern Sunday-school. Without this feature a Sunday-school is not a Sunday-school; it cannot do its distinctive work for the scholars individually. As Dr. Duryea once effectually put it, "The sick soul needs not a lecture on medicine, but a prescription." Unless the physician can feel his patient's pulse, and question him as to his feelings and needs, he cannot prescribe for him to advantage.—*S. S. Times*

THE GOLDEN VIRTUE OF SILENCE.

To know when to speak and what to say are silvery virtues, certainly; but nothing, after all, compares with the golden virtue of silence. It is always among the possibilities of talk that you may do some mischief, that you may inflict a wound, that you may be misunderstood. It is safe to keep the lips closed, especially when you are tired, or hurt, or indignant. "By thy words thou shalt be justified, and by thy words thou shalt be condemned." How often do we repent of the hasty speech almost as soon as it is uttered; but it is then too late to recall it, when it has gone, like a barbed arrow, into the heart of a friend. Self-control is one of the rarest of graces; yet it is an impossibility to do anything in life which shall be high, or heroic, or noble, without it. "Better is he that ruleth his spirit than he that taketh a city."—*Christian at Work.*

GOD loves to see a poor Christian shut his closet door, and then open his bosom and pour out his soul before him.

PERSONAL ITEMS.

General R. L. T. Beall, who was sworn in on Saturday as a member of Congress to succeed the late Beverly Douglas, is a strapping big Virginian, aged fifty-nine years. In the war he fought with his back toward Richmond.

He saw Washington, rode on Robert Fulton's pioneer steamboat, fought the British at North Point, moved to Newbury, Ohio, and the other day died at the ripe age of 86 years—which his name was Samuel Harrison, the auronaut.

General Badeau, the United States Consul General at London, lives at a country seat eight miles out of town. He drives into his office daily, there being upon his brougham a coachman and footman in dark-blue liveries, cockaded hats and fur tippets.

Mr. Sam Ward, the great Washington lobbyist, is down on what he calls "centurions." The centurion is a political wire-puller who is in Washington in company with some rural Congressman whose election he has aided in securing, and who offers to control a few votes on any question.

Professor George S. Morris will leave the Michigan University at Ann Arbor to take the chair of philosphy and ethics in the Johns Hopkins University at Baltimore. It is said that there will be other desertions from the Ann Arbor School, the regents of which have wrangled a great deal lately.

General Sherman, who has lately been once more "marching through Georgia" and several of the other Southern States, says that Georgia and Florida are now receiving "the best possible type of immigration," and that the whole Southern country is stepping abreast of the North. When he arrived in Jacksonville, Fla., General E. Kirby Smith happened to be there too, so Sherman invited the ex-Confederate to run over to St. Augustine with him. General Smith accepted.

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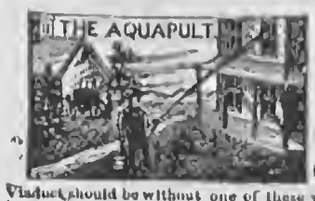

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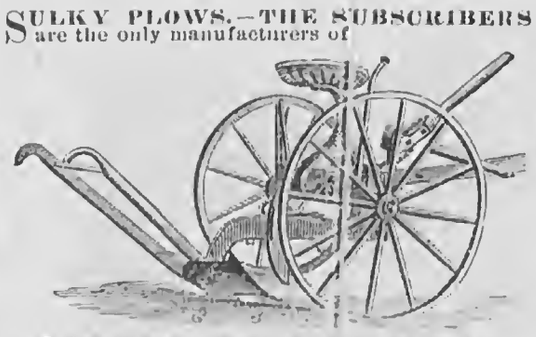

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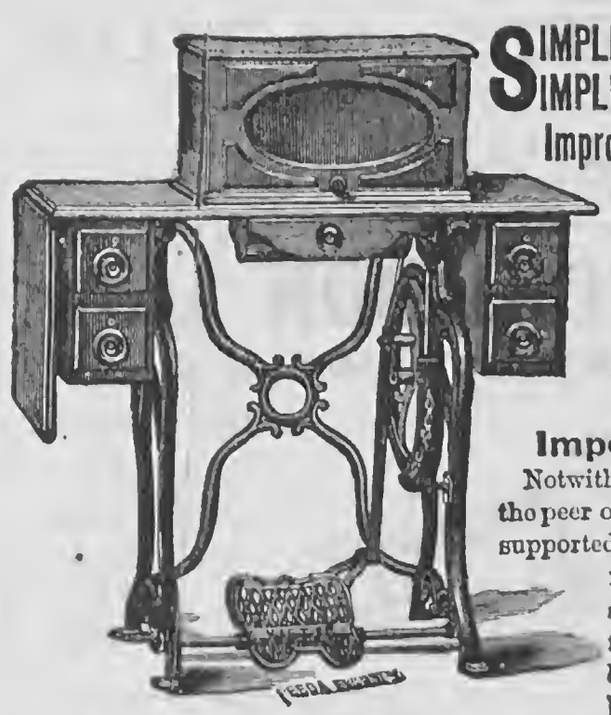

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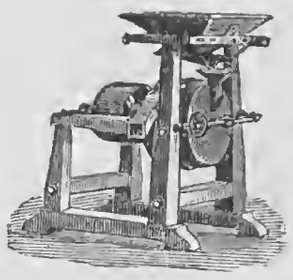

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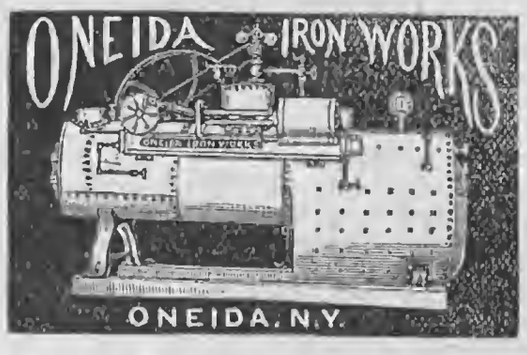

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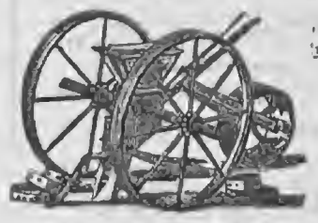

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THE RURAL NEW-YORKER

A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME.

VOL. XXXVIII. No. 9.
WHOLE No. 1518.

NEW YORK CITY, MARCH 1, 1879.

PRICE FIVE CENTS.
$2.00 PER YEAR.

[Entered according to Act of Congress, in the year 1879, by the Rural Publishing Company, in the office of the Librarian of Congress at Washington.]

Farm Economy.

A GOOD START IN FARMING.

To the farmer there is always an interest in learning how young men starting in business, with plenty of pluck and energy, but not very much experience, manage to get along at the outset. We frequently receive letters containing accounts of the early struggles, mishaps and successes of young men in their first attempts at farming, but as few of them are meant for publication and the lessons to be learnt from the experiences of the writers, are taught more pithily by older hands in our columns, we seldom give these communications to our readers. We here make an exception to this rule, in favor of a letter from a young friend of the RURAL in Chautauqua County, New York. He says:

"I follow the life of a farmer for the love of it. I came here two years ago, and found this farm of 26 acres badly run down and yielding only an abundant crop of quack-grass. I plowed it all up and put in corn 4x4 feet both ways, and kept the cultivator busy among it. By this means the quack-grass was kept well under and soon disappeared entirely from most of the place. On one piece where the weeds and quack-grass were specially rampant, I summer-fallowed all last season and shall set it to corn this year. I plowed under a piece of pasture that had not been touched with the plow for fifteen years, and planted it with corn, but the grass and weeds fought it for the mastery the first year, and won. Not discouraged, I planted it with the same crop last spring. The seed was White Dent. In gathering it, I chopped off both ends of the best and fullest ears, and shelled the remainder by hand. I planted the selected seed in rows three feet apart, cultivated the rows once and hoed them once, and the yield from an acre and an eighth, was 135 bushels of ears—good-sized ones too. I used no manure in any shape, plowed the ground only once and dragged it twice before planting. I shall give it a good dressing of manure and plant it with oats this year, and seed it down to wheat next fall.

The piece I summer-fallowed I have sown with rye, to be plowed under for green manure. Before sowing the rye, I put some barnyard manure on a part of the ground, so as to be able to judge of its effect by the difference in the growth of the crops on both pieces. I have also plowed under a rich clover patch and sown it with rye, to be plowed under likewise. This piece I shall plant with potatoes and a small strip of corn, this spring. I have about an acre and a half of muck which I shall soon haul out on a yellow, sandy piece of ground, which I shall afterwards plant chiefly with potatoes.

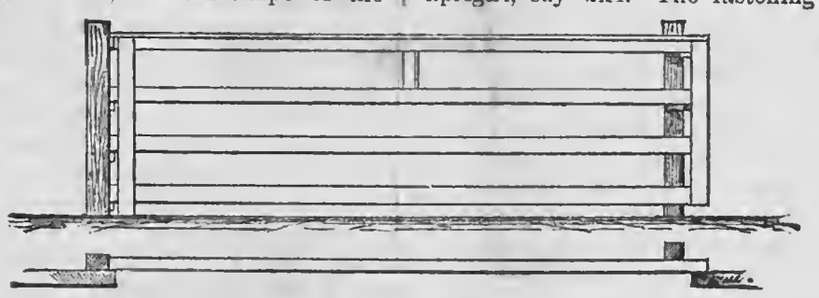
I have two cows and a heifer which I shall soil in the yard this year. They have been kept on corn-stalks all winter without a morsel of hay. The stalks were cut up, steamed and mixed with meal and bran and, occasionally, with ground oats, and I have more and richer milk than my neighbors who fed theirs with hay. I also keep three horses. My barns are boarded with pine, matched and battened throughout. In my carriage-house are a working bench and a coal stove. Behind the stove is a door opening into the roosting room of my poultry-house. The door is kept open at nights and during the day-time whenever it is not necessary to keep the work-shop very warm. By this means my fowls are always kept comfortable.

MY GATE, OR MY BARS.

CALL it which you will; it is free for everybody, and free from all claims for "patent royalty." It is the "Lee Patent" with all the points claimed in the Lee patent left out. And it is the "Teel Gate" with all the points claimed in the Teel patent left out. For posts, it relies entirely on the posts that support the ends of the fence where the opening for gateway is left.

HOW THE FRAME IS BUILT.

The size or width, the length, as well as the number of rails used, and the shape of the



GATE OR BARS.

rails, also, for that matter, can be varied at pleasure, or to suit the size, length and hight demanded or desired. I use hemlock inch fence boards, twelve feet long and four inches wide, for the three lower rails; for the top rail, two pieces three inches wide, one of them as cap nailed to the center of the other with eight-penny nails. "For the right hand end, I use a bit, of 2x4 scantling just long enough to cover the gate's width before receiving the cap board, nailing the rails thereto with ends even with the outer edge. Use eight and eleven-penny nails.

For the left end, I use two bits of board four inches wide, with upper ends even with cap, and lower ends as much below the bottom rail as I wish the gate to stand above the ground. Let the rails at this end run past the uprights, two inches. I make nine inches' space between the upper pair of rails; eight inches between the others; and three inches below the bottom, giving 44 inches in hight. Another rail in the middle, with eight inches' space, would make it 54 inches; that is 4½ feet, or a "lawful fence" for this State.

The second rail from top, and the space below it, must be left free, to be used the entire length as a slide.

Before telling how my bars are put up and held in place, you must know that my gateway opens on a village sidewalk, and the Teel pivot and swing would prove a nuisance at every opening. My gate must not swing into the street. It must open on my own grounds. By my arrangement it can be swung in for persons to pass, but for teams it must slide nearly the entire length. Besides, as the fence-posts stand inside the fence, the gate must have room to slide past the posts which project on that side, and it is set inside accordingly. To the fence-post on the right, at the end of the fence, at the proper hight to support the sliding rail, I nail a cleat of one-inch-and-a-half or two-inch stuff, to project inward, so as to leave room for the pannel to slide free and admit of its being nailed to an upright, say 2x4. The fastening of this to the right side of the cleat must be done after the pannel is in place. A similar cleat below this, and where it will not interfere with any lower rail, will keep the upright firmly in place; or the lower end may be divided or set in the ground as a post. On the left-hand fence post, bits of inch-and-a-half stuff are nailed to the post at the right hight to let the bottom of each rail rest thereon, and then covered by a strip to hold these ends in place—using no mortices—the top of this strip and the top of the post allowing the cap of the top bar to rest thereon. If a fastening is desired, a notch in the bottom of the top rail can shut over a rise in the rest that receives its projecting end.

Snow cannot interfere with "My Gate," which can be easily raised when you wish to slide it. "My Gate" has no hinges; it cannot sag; it cannot be blown open; it cannot get out of order; it is cheap; it is just as efficient as you choose to make it; it is free for everybody. Prof. Carpenter and the Michigan Agricultural College, as well as the rest of mankind are welcome to

Attica, N. Y., 1879. MY GATE, OR MY BARS.

Biographical.

PROF. S. W. JOHNSON.

IN continuation of the series of portraits of gentlemen who have become identified with agricultural interests, the RURAL this week

PROFESSOR S. W. JOHNSON.

presents an engraving of Prof. S. W. Johnson taken from a recent photograph. The gentleman is best known among farmers by his works on farm topics, and recently by his skillful management of the Connecticut State Experimental Station, and the careful analyses of commercial fertilizers made under his immediate direction. The work done at New Haven has been rewarded with a success beyond what might have been expected considering the meagerness of the appropriation. Few Connecticut farmers know, perhaps, that the experiment station which has served them so well, is comprised within the limits of two small rooms; that it has no land at its disposal and no place for even pot experiments; that many of the appliances used are loaned from Yale College, or are drawn from the private laboratory of the Professor, and that it actually has no library except what is contributed by the Director. Under such circumstances it is somewhat remarkable that the station is able to make a record at all.

S. W. Johnson is of Connecticut parentage, but was born at Kingsboro', Fulton Co., N. Y., July 3d, 1830. At the early age of four he "emigrated" into Lewis County, same State, to what is known as the "Black River Country," where his boyhood was passed on a farm that bordered the forests that then covered a large part of the region. His education begun in the common school, was continued at the Lowville Academy, the Yale Scientific School (then under the guidance of Prof. J. P. Norton), and during 1853, '54 and '55 at the University of Leipsic, under Erdmann and Lehmann. Thence he passed under the tuition of Liebig, von Kobell and Pettenkofer, at Munich, before passing over to Owen's College, England, where he enjoyed the advantages of Frankland's knowledge. Such a course of study was a thorough foundation on which might be reared a superstructure only limited by the ambition of the student.

He early disclosed an aptitude for teaching, filling positions for a short time in a common school, and in the N. Y. State Normal School, and, on returning to America in the autumn of 1855, took charge, as chief assistant, of the laboratory of analytical chemistry at Yale. In 1856 he was made Professor of Analytical Chemistry, and the following year agriculture was included in the name, which continued until 1874, when he had conferred on him the title of Professor of Theoretical and Agricultural Chemistry.

Brought up on an extensive, fertile and well-managed farm, he early became familiar with, and interested in agriculture, and the application of science to it. On assuming the chair of agricultural chemistry he began annual courses of instruction on that subject, which have been continued to the present time. His address before the Connecticut State Agricultural Society in 1856, on Frauds in Commercial Fertilizers, was the starting of the methods now employed to protect buyers of these articles. The next year Prof. Johnson was appointed chemist to the society, and during 1857, '58 and '59 made his reports on commercial fertilizers. When the State Board of Agriculture became a fact in 1866, the Professor was appointed a member by the Governor and Senate, serving for two years. He retired from the Board, but was at once named as its chemist, so that he continued to co-operate with it in effect, and for three years (1869–73) made reports on fertilizers. Mr. Johnson broached the subject of an Experiment Station in '73, and pioneered the movement, which ended in its establishment in 1877 by an act of the Legislature. Of this station he became director.

Prof. Johnson has not confined his usefulness to lectures. Besides the reports mentioned, he, while a student under Liebig, translated the German Chemist's criticism upon Mr. Lawes's experiments. Later, his "Lectures on Agricultural Chemistry" (1857), "Peat and its Uses as Fertilizer and Fuel" (1866), "How Crops Grow" (1868), "How Crops Feed" (1870), as well as numerous papers on various topics of Agricultural and Chemical Science,

testify to his literary activity. At the instigation of Liebig, "How Crops Grow" and "How Crops Feed," were translated into German, and the Royal Academy of Sciences of Stockholm had them rendered into the Swedish tongue. In addition to reproduction in England "How Crops Grow," can now be read in the Italian and Russian languages.

Prof. Johnson has aided his students by editing editions of "Fresenius's Qualitative Chemical Analysis," and "Quantitative Analysis," by the same writer. In original investigation he has, with his colleague Prof. Allen, done noteworthy service, having been the first to obtain the salts of the alkali metal, cæsium, (discovered by Bunsen in 1860,) in a state of purity, and to determine the exact atomic weight of the new element.

Prof. Johnson is enthusiastic in his devotion to the interests of science as applied to agriculture, and if his work shall be properly appreciated and abetted, the State will possess an Experiment Station whose reputation and usefulness will not be confined within local bounds, especially if it be continued under the direction of the gentleman who is conceded to be the foremost chemist in the country in his specialties.

Farm Topics.

THE HISTORY OF A POOR FARM.—No. 5.

Feeding for Manure.

"You say that the manure from a ton of bran is worth more than the bran itself!" said Martin, in a tone of astonishment.

"I don't say it is," I replied, "I say it is said to be, and I can readily believe it. Don't let us mistake this matter: what is said by good authorities is this: a ton of bran may cost $12; if the ton of bran is fed to a cow, she takes out of it a part of its substance, digests it, assimilates it and turns it into milk, flesh, or fat. The remainder is rejected in the shape of dung. Now the dung or manure, made by a cow while she is consuming a ton of bran, is known to contain certain quantities of nitrogen, phosphoric acid, and potash, which have a market value. The market value of these substances contained in that quantity of dung or manure, is more than $12. Is that plain to you?"

"The statement is plain enough, but the fact, as you may call it, is not plain," said he. "How is it possible that a ton of bran can be consumed and the refuse of it be worth more than the original value?"

"That seems to be nonsense," quietly remarked my old neighbor.

"Facts are stubborn things," I replied, "and I think I can see the fact here plain enough. Let us look into it a little.

"One ton of bran contains the following:

	Nitrogen.	Potash.	Phos. acid.
From wheat.....	44.8 lbs.	28.6 lbs.	54.6 lbs.
From rye.....	46.4 "	38.6 "	68.6 "

"Then rye bran is worth more than wheat bran," remarked Martin.

"I always knew that," rejoined the old man.

"Now, a cow returns in the manure, liquid and solid, 63.8 per cent. of the nitrogen of her food, and 97 per cent. of the mineral matter. So that there would be in a ton of manure—

	Nitrogen.	Potash.	Phos. acid.
From wheat bran...	28.58 lbs.	27.7 lbs.	53.0 lbs.
From rye bran	29.60 "	37.5 "	66.6 "

Each of these substances has as fixed a market value as bran has; and this market value is fixed in accordance with the prices of staple articles which contain these substances in great part; as nitrate of soda, for example, which is salable at a certain price, and this price gives 25 cents a pound for the nitrogen contained in it. Potash is a regular commercial article, and is worth seven cents a pound. Phosphoric acid is rated in the same way, at ten cents a pound. In whatever shape we buy these materials, they cost so much. Now the manure from a ton of wheat bran, which contains a certain quantity of these materials, is worth at those prices $14.37 and that from a ton of rye bran is worth $16.68, while the bran is worth $12 a ton. Is that plain to you?" Both Martin and the old gentleman shook their heads in unison, but said nothing.

"I cannot doubt it upon such evidence as this," I remarked, "and experience confirms it. Which would you rather do—spread your hay and corn upon the fields and plow them in, or feed them and use the manure?"

"I would rather feed them and use the manure; it would do more good," replied my old neighbor.

"Just so," said William, who had been listening. "Grandfather is right there, but he cannot see that if bran is put in place of the corn and hay, he would do the same, because the manure would do the most good."

"I see it, if you put it in that way," said Martin, "but I have heard the same said of clover hay."

"It is the same with all sorts of fodder and grain," I replied. "Corn meal and wheat bran have been used directly as fertilizers by the Connecticut tobacco growers and by the New Jersey truck farmers; but these people do not keep a sufficient number of cows to make half the manure they require, and in that way they miss making a good profit for their money and trouble in feeding cattle and making manure for themselves.

"There is another consideration. Manure contains plant food in a much more available shape than raw grain or clover hay, or green clover in fact, so that a gain is made by feeding these instead of using them directly as manure, and when the manure is well rotted, if it has not been injured in the process, it is more available than when it was fresh."

"I don't understand exactly what you mean by plant food," said the old gentleman, "but I know that manure made from cows fed on corn meal and bran, with their hay, will keep hot and won't freeze up in cold weather, while that from cows fed on hay will freeze up solid."

"Let us go and see," said I; "David is drawing manure from the cow yard to the big field. There he goes now with a load which is steaming in the cold air and is even now fit to be put in the hill for corn." The pile from which the load was taken was hot and black and rich, with no signs of what meal and bran were left in the manure, except the great heat. The heap was moist enough, having received all the liquids from above which came down into the cellar through the gutter.

"That is good manure," said the old gentleman.

"One load of that is worth three of our manure, grandfather," said William.

"I think there is something in that statement about the value of the manure from a ton of bran," said Martin, "and I do believe you are getting your money back again."

"I am sure of it," said I; "only give time enough and I think it will show for itself."

"How much is it safe to feed?" asked the old gentleman.

"That depends upon the appetite; when an animal eats heartily it is eating healthfully, and whatever quantity it consumes is no matter."

"I feed two quarts of meal a day," said William, "and the dry cows get none. I tell grandfather that that is not enough."

"I am feeding nine quarts of corn meal and bran, mixed, daily," said I; "three quarts at a meal, three times a day; and it pays to do it. I am now giving two bushel baskets of cut corn fodder, with three quarts of meal and bran, in the morning, directly after milking; three quarts of the mixed meal at noon with a peck of cut roots, and then a few pounds of dry hay; and two bushels of cut fodder, with three quarts of the meal, at night, after milking. Nine quarts of this mixed meal and bran, which is in great part middlings, weigh 12 pounds, and cost 12 cents; the roots, hay and fodder cost about 10 cents more, making 22 cents per day for each cow's feed. My cows are averaging seven quarts of milk a day, only three being fresh, and two being dry, out of 13. The milk nets me five cents a quart, which is 35 cents, against 22 cents for the feed. This leaves 13 cents per day *and the manure*. The manure is the great item in this case. Nothing is going off the farm but the milk, and whatever is sent out in the shape of milk, is easily brought back in a few tons of bran and oil-cake."

"Nothing can beat cows for improving land," said the old gentleman.

"Except sheep," remarked Martin.

"Did you ever keep a flock of sheep?" asked the old gentleman. "You didn't! I thought not; you are only saying, then, what nearly everybody says, who never kept any sheep. They are all very well in their way. I have kept a flock for years and years. It is only a few years since we had the last of our good old homespun, made from our own fleeces. Old Jacob, who lived by the church, used to weave the cloth for the folks, and we had a carding mill on the creek in the hollow. My girls and their mother spun the yarn and I fed and cared for the sheep, and so we divided the work. Those were good old times, and we shall never see them again. Here is William's girl; she plays on her piano which cost more than my whole flock of a hundred sheep in their best days, and she can't knit a pair of socks. I like the music well enough; the old songs are pleasant; but I tell William they cost too much; and I am afraid when I am gone the farm won't stand it. No; I know all about sheep; they are pretty good and make rich manure when well fed; but they are not equal to cows for profit, if you have only a good kind. There is no better way of getting light land up than by keeping cows on it. Dairy farms are always in good order, and it is just what this farm needs. That manure is the best I have seen, and can't be beat for raising corn. I shall begin to think it is really true about the bran; although I have been farming 60 years and never knew it. We live and learn, and as old as I am, I keep finding that out every day. But I always knew that you will find the feed in the manure every time."

CO-OPERATION IN THE PURCHASE OF FARM IMPLEMENTS.

PROFESSOR W. J. BEAL.

I was glad to see a recent editorial in the Rural on this subject. It is one not sufficiently thought of by our farmers. Good reapers, mowers, hay-tedders, grain drills, etc. are valuable implements. We could not get along without them. But they are quite expensive. They cost more than they ought to, when purchased at retail prices. In many places farmers are saving money by co-operating in the purchase of farm implements. This is worth attention. Every enterprising manufacturer of farm machines sends out his agents into various parts of the country. They are good talkers, and often prevail on men to buy machines. Men with small farms cannot afford to buy costly machines for their own use alone. It would be much cheaper to hire the work done in the old way; that is, to cut wheat with a cradle and thrash it with a flail. A combined reaper and mower costs about $150 and, on the average, lasts about eight years. The interest on the capital at eight per cent., is $12, and the wear and tear at least amount to $20 a year; making in all $32 a year for the use of a machine. Suppose the owner of a small farm can hire his wheat or hay cut at seventy-five cents per acre. The outlay for a machine as above estimated, will cut 42 acres per year. This is not all. Besides the cost of a machine, if purchased at $32 per year, the farmer employs a team and hand to do the work. This often makes the reaping and mowing very expensive.

Similar figuring may be made with grain drills and some other machines. These are often used to sow not over 50 acres per year, and are idle for the rest of the time. It may be said that if used but little they will last a long time. Sometimes this is the case, but not very often. Farmers leave their tools out in the sun and rain. They get rusty and out of repair. Something new or apparently better comes along, and they buy it, throwing the old implement away. So far as I can learn, the reapers, drills, cultivators, hay-tedders, etc., which are over ten years old and still in use, are hard to find and few in number. Co-operation in the use of expensive farm tools has been tried to some extent. There are some serious difficulties in the way. Men are selfish, and many of them cannot get along together. Some of them are ignorant of the use of complicated machines, and damage them more in one day than others will in a whole season. But this article is not written to find fault with the method proposed in the editorial; but rather, to suggest additional thoughts in the same direction.

But few farmers are competent to manage reapers and mowers and other complicated tools. For this purpose it needs mechanical tact. In every neighborhood there are men who have no farms or only small farms, and who are apt at driving teams and keeping implements in order. If they are pre-engaged, they can be employed to drill wheat, cut grass or grain at reasonable prices. This will need some foresight—some planning. The man can begin on the earliest grass and quit on the latest, perhaps on bottom land. He can do the same with wheat and other grain. At a good price he will try hard to accommodate. The writer knows of several neighborhoods where this plan is already in successful operation. The figures are given to set farmers to thinking, before the season arrives for mowing, reaping and drilling.

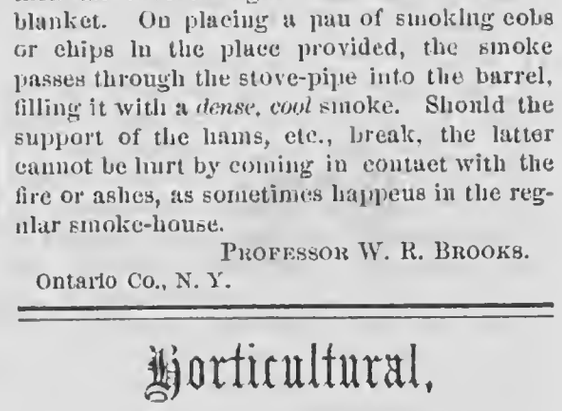
A HOG TROUGH.

A correspondent in sending us the above plan of a hog trough, says: "I like it better than the V-shaped one now in general use, because the hogs cannot get their noses under the sides and tip it over, as they sometimes tip the ordinary trough. Moreover, the food in it is spread out, so that they cannot eat it as greedily as they can out of the V-shaped trough; and even for a hog, it is well perhaps to take a reasonable time in eating his dinner. Last but not least, the animals cannot eat out of this trough while their feet are in it.

In making mine, I use common pine, and find the articles durable. The bottom, a, is of two-inch plank sixteen feet long and twelve inches wide. The sides, b and c, are six inches wide, and a quarter of an inch thick. Take three pieces of two-by-four, 14½ inches long; place them edgewise across the trough—one in the center and one half-way between the center and each end; bevel the ends and nail the sides to the trough. Lay one piece of two-by-four, sixteen feet long, edgewise along the middle of the trough; nail it to the cross-pieces and cut it off flush with the ends of the trough. Of two pieces of stuff, like the sides, fourteen inches long, set one at each end, nail them to the trough and to the two-by-four piece along the center, and the trough is complete.

A HOME-MADE SMOKE HOUSE.

The sketch below represents a simple but very effective smoking arraugement for all kinds of meats, especially hams, shoulders and bacon. The smoking is effected in a very thorough manner and in a short time. The writer had for this morning's breakfast some ham which was smoked in a contrivance precisely similar to this in six hours.



The arrangement can be made by any one without the least trouble, and it is sure to "work" every time. The sketch almost explains itself. The device consists of the barrel, A, of any suitable size. An ordinary flour or apple barrel will smoke four or five moderate-sized hams or shoulders. Both heads are removed and a movable cover provided for the top. This may be of boards, or an old oil-cloth or tight blanket will answer. A short trench is dug in which is laid a length of old stove-pipe, B. A larger excavation, C, is then made in which a pan of burning cobs or chips can be placed. This is covered by a tightly-fitting plank, D. One end of the stove-pipe communicates with this excavation; over the other end the barrel is placed, the earth banked up around the bottom of the barrel and over the stove-pipe, to keep all tight, as plainly shown in the cut. The meat may be suspended from a stick laid across the top of the barrel and then all covered tight with an oil-cloth or blanket. On placing a pan of smoking cobs or chips in the place provided, the smoke passes through the stove-pipe into the barrel, filling it with a *dense, cool* smoke. Should the support of the hams, etc., break, the latter cannot be hurt by coming in contact with the fire or ashes, as sometimes happens in the regular smoke-house.

Professor W. R. Brooks.

Ontario Co., N. Y.

Horticultural.

A QUESTION AS TO THE RELATIONS BETWEEN PLANT AND SOIL.

I have been for several years past, very much interested in the necessities that call for a rotation of crops. The usual reason given, that plants exhaust certain elements &c., &c., is a tale repeated by chemists, but it does not seem to me to be a sufficient reason, and I think that it is an important question in fruit culture, particularly in orchard fruits, and vineyards. For instance, I find that in new soil (I mean new to this particular crop), if I plant out young Grapes just started from cuttings, the first season will give a growth of three to five feet of vine. These are removed in the fall, the ground manured and turned over to be acted upon by frost, and planted again in due season with another lot of young Grapes. This year they will grow from one and a half to three feet. If I plant a third year under the same general conditions, the plants will not grow more than 18 inches at the best. Now, if this takes place with plants lifted yearly and the ground in the meantime be well manured and turned over, what are we to expect in a closely-planted vineyard after a few years!

Nurserymen find it necessary, in order to secure a good stock, to procure new land, if possible, for each crop of young trees. Although the land is only occupied about three years with a crop of young Pears, yet it is not considered profitable to plant again on the same land, even if manured without stint. What then are we to expect of a pear orchard that is never removed? These things require looking into. The exact specific relations that exist between the plant and the soil in which it grows, are not known.

Wm. Saunders.

Department of Agriculture, Washington, D. C.

A WESTERN LIVE FENCE.

In the Rural for January 25th, there was an article by "Frontier," on the great want of forest culture on the Plains. There is a greater want, however, and that is for fences. Both these wants may be very easily supplied by putting out a kind of Maple known here by the name of Box Elder. On cultivated land it is a fast grower, while it is as hardy as the Oak. A belt of it forms a good wind-break, and, moreover, it is a fine shade and ornamental tree as well as a live fence. The seed can be

found in large quantities along nearly all our Western rivers. It should be gathered in the fall after the first frosts, and planted immediately only a small depth below the surface; and the young plants will make their appearance in the following spring. If sown in a row for a hedge, the plants should be thinned out to the proper distance when of one season's growth, transplanted elsewhere, and cultivated, like corn, until three or four years old, when a superior fence may be made of them, as shown by the accompanying diagram. The young trees should be bent over and held down by fastening them to the uprights, by driving small nails into the latter near the top.

To all new beginners on the Western prairies I would recommend that they should do their first "breaking" in their "outlines," with a view to make fire- and wind-breaks there and also to prepare for forming live fences in this manner. The next "breaking" should be around the place designed for buildings and orchards. Trees should be planted freely both around the farm and homestead, well cultivated, and the labor and expense will never be regretted. S. D. WARNER.

Dairy Husbandry.

RULES FOR MAKING GILT-EDGED BUTTER.

AN OLD DAIRYMAN.

Feeding.

SELECT your cows with reference to the quantity and richness of the milk produced. The best cows are the cheapest for butter, so get the best you can of whatever breed you select. Give them good pasturage in summer, and plenty of pure water, with frequent access to salt. In winter, feed sweet, early-cut hay, well-cured corn fodder, roots, cabbages, etc., and a ration of bran, corn-meal, ground oats, or middlings.

Implements.

Have the best implements, and keep them scrupulously clean, well scalded, and often exposed to the sweetening influence of the sun. The milk pails and pans should be of the best quality of tin. A reliable thermometer is a necessity to every good dairyman.

Milking.

The milking should be done quietly and at regular times, and the utmost cleanliness observed. Nothing is tainted quicker than milk by foul odors, and surely at times with nearly all cows there is enough animal odor to it, without adding any more.

Setting.

Strain the milk slowly into pans four to six inches deep. It is an excellent plan to strain the milk into a large can set in cold water, and cool down to 60 degrees before putting into the small pans. The milk must be set in a pure atmosphere, at such a temperature as will permit the cream to rise in it from thirty to thirty-six hours after setting. In order to do that, the room should be kept at about 60 to 65 degrees, and not allowed to vary much either above or below.

In hot weather keep a large piece of ice in a tub in the room. Cover it over with a thick blanket, and, if arranged so that the water will run off, it will keep a long time, and keep the room very uniform.

In cold weather some arrangement for warming the milk room should be adopted.

Skimming.

Skim as soon as the milk begins to turn sour. Do not neglect this rule, as it is impossible to make good butter from cream that has become old and sour. When you pour your cream into the cream jar, splash as little as possible. Stir the cream every time you add more to it, and wipe the sides of the pot. Keep the temperature at about 60 degrees, and the cream-pot in the coolest part of the house, covered with a fine gauze netting strained on a hoop, not with a light cover. If covered too tight, fermentation is often too rapid.

Churning.

Churn often, as there is nothing gained by long-keeping. Bring the temperature of the cream in the churn to 58 degrees, and do not allow it to rise above 64 degrees. Churn early in the morning, while it is cool. First scald the churn, turn the paddles a few times; then pour off, and pour in cold water, and turn the paddles; pour off, and pour in your cream. In churning revolve the paddles with an easy regular motion, not too fast or too slow.

Coloring.

When it is likely to be deficient in color I have added a sufficient quantity of Wells, Richardson & Co.'s Perfected Butter Color, advertised in your columns, to keep it up to the June standard.

Working and Salting.

The butter should come in about forty minutes, a little more or a little less if the temperature of the cream when put in, was about 58°, ascertained by the thermometer. When it has "broken" and there is a difficulty in making the butter gather, throw in some cold water and give a few more turns. Some, and I think a majority, of the best butter-makers of to-day wash their butter with cold water before removing from the churn. Gather your butter with the paddle and lift it out into the tray, press it gently and incline it, and let the butter-milk run off. Work it gently with the paddle, with a cutting, gentle pressure, but not to mash it; or, better, put it into the butter-worker.

WESTERN LIVE FENCE.

Salt it about an ounce to the pound, or to the taste of good customers; only with the best salt, and free from lumps and impurities. Work the butter only so much as to expel the butter-milk, but not to work it too dry. This can be done by the use of a weak brine prepared for the purpose. Put the bowl away in a cool place. After standing twelve or twenty-four hours, gently press out, with a ladle or machine, the remaining butter-milk and any brine that will flow out with it, care being used not to work it too much. If this is done, the butter has lost its grain and becomes salvey, and its keeping qualities are injured.

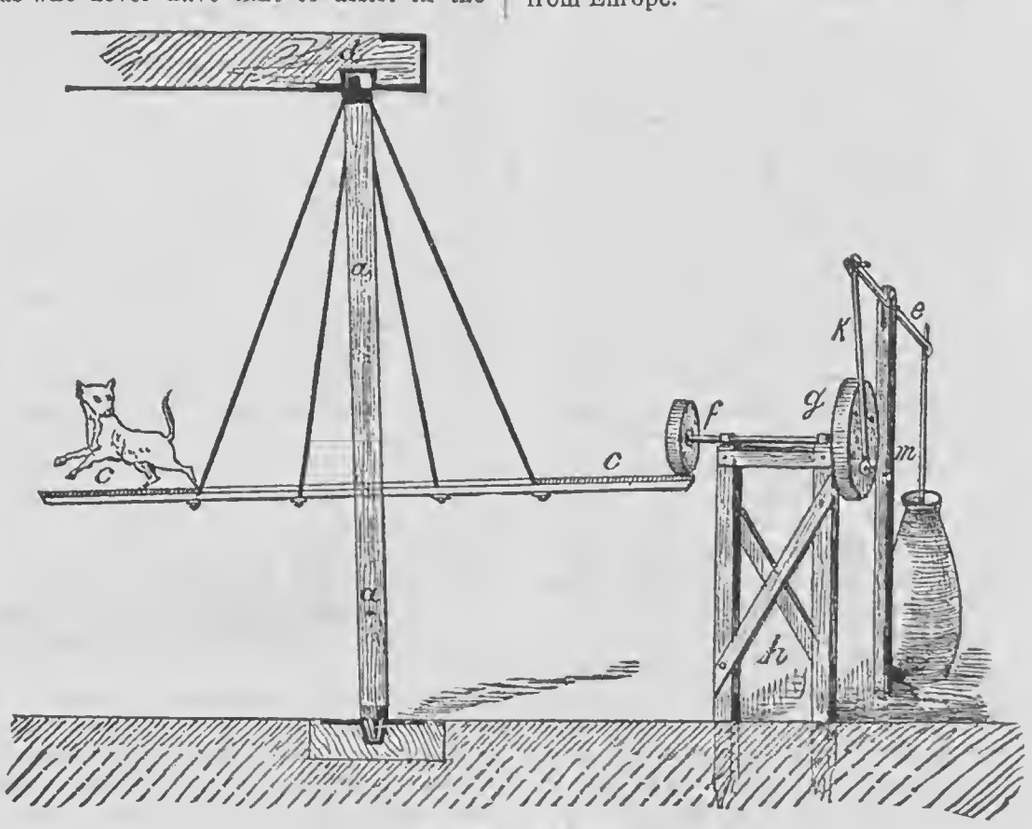
Packing.

Pack in vessels which will impart no impurities to the butter. Fill within half an inch of the top. Place a thin cloth wholly over the butter. Over that pour cold brine as strong as can be made of hot water and the purest salt, or cover with a layer of fine salt The whole process of making the butter, from drawing the milk to the placing of the butter in packages, should be hurried, as milk, cream and butter are going to decay every moment when exposed to the air, however pure it may be. Such butter is ready to keep or sell. If to be kept long before selling, surround every package with coarse salt, by placing them in boxes prepared for the purpose. This process keeps the butter cool and hard, and free from sudden changes of air. When all these things are attended to promptly, and with as much uniformity as is under the power of man to control, there will be a near approach to uniformity in color, richness and purity. If the new beginner follow these rules, and keep doing so, he will soon command the highest figures.

Cleanliness and common sense applied from the beginning to the end, are absolutely necessary to insure good butter that will bring the highest price in the market.

A HANDY CHURNING POWER.

WE wonder why farmers do not more generally make use of power for churning! It is hard work for a strong man to do a large churning with the dash churn—what a task must it be for a frail, delicate woman to be obliged to churn every day, and sometimes twice a day, during warm weather. For the benefit of the lady readers of the RURAL and for the sake of the conscience of those husbands who never have time to assist in the heavier duties about the house, we present a plan of a power suitable for dog, sheep, or calf, which will meet all the requirements of a dairy of medium size—price, ease of operation, and effectiveness, being all considered.



CHURNING POWER.

The standard, a, is simply a scantling, eight feet long and four inches square, with a small iron projection at top and bottom, to be inserted in the slot at d; firmly at the bottom with a play of two or three inches at the top. The arms are four feet long, three inches wide and an inch thick, mortised into the standard three feet from the bottom. The rim or track of the wheel, c, is laid two feet wide from the outside of the arms towards the standard, with braces, an inch square, reaching from the arms at the inside of the track to the standard near the top. The wheel when completed will be eight feet in diameter. The small wheel, f, is one foot in diameter and three inches thick, the larger one, g, eighteen or twenty inches in diameter and of the same thickness. They are connected by a shaft of inch-iron, eighteen inches in length, to which they are fastened securely at each end. The remainder of the cut illustrates the design so plainly that no one will be at a loss how to proceed.

The animal that is to furnish the motive-power, as will be seen, is placed on the opposite side from the small wheel which runs on top instead of under the large one, as it does in all other powers of this description that I ever saw. Built in this manner, it can be propelled by an animal much smaller than is required for powers such as are usually employed. We have seen many kinds of power churns, but never one which required as little force to furnish the motive power. It can be built in a single day by anybody at all handy with tools, with a very small outlay for lumber. This should be of well seasoned pine or other light wood. To have it light but yet strong is the desideratum. It should be placed under shelter; for, however valuable or strongly built a tool or machine may be, the sun and rain will soon reduce its value. Now, let the ladies who are obliged to churn by hand, insist that one be built for them, and we guarantee that they will be perfectly satisfied with its work. HECTOR BERTRAM.

Veterinary

INFECTIOUS PLEURO-PNEUMONIA.

PLEURO-PNEUMONIA is a specific highly contagious disease of the respiratory organs, peculiar to cattle. In Western Europe and America it is undoubtedly propagated by contagion alone. It was brought to Brooklyn, N. Y., in 1843 and again in 1850, and to Jersey in 1847, by English cattle, and finally it was imported into Massachusetts in 1859 by Dutch cattle. From the date of its first appearance in the neighborhood of this city to the present time, it has been nearly constant in some of the stables near New York, where it has been known as the swill-milk disease; and it is probable that it has been propagated from this point to the few other localities in which it is found; although it may have been imported directly to some of these places with cattle from Europe.

It is a very insidious malady, in that it has a period of incubation varying from two to about six weeks, and in some cases even longer; but its average duration is about 40 days. During this interval between the contraction of the disease and the manifestation of its symptoms, an improvement in the condition of the infected animals and an increased flow of milk in cows are often noticeable, due probably to the influence of the subtle poison on the nerves and blood. During this time, a beast may be, and often is, transferred, apparently in fine health, from one part of the country to another, or exported across the Atlantic, spreading disease all around it, certainly when the symptoms become manifest and probably, according to good authorities, while the animal is exhibiting unmistakable signs of good health.

In the first stages of the disease the symptoms are often hard to be detected by an unpracticed person and are chiefly the following: There is a slight rise in the temperature, discernible by the use of the thermometer. Should the temperature of a healthy animal be about 100°, that of an infected one would, at this stage, range from 102° to 104°. Accompanying this elevation are a slight loss of appetite, a decrease in the flow of milk, a disturbed respiration, faintly unusual sounds in the bronchial tubes, a slightly accelerated pulse, often an occasional shivering fit, rarely a slight, hard, dry cough, especially after drinking, and a disposition to keep apart from the rest of the herd. The second stage may not be entered upon for some days after the first has begun. Its symptoms are decidedly febrile. The temperature rises to 108° or more. The flow of milk rapidly dwindles; the mouth is hot; the breath noisesome; the breathing rapid and labored, while a low grunt evinces pain at each expiration, as, with outstretched neck, the suffering beast tries to breathe more freely. The bowels are constipated; the urine scanty and high-colored; the cough frequent, hard, and painful. The coat is staring, and the skin, yellow and scurfy, adheres to the ribs. Pressure between the ribs, just behind the elbow, or along the spine and loins, gives pain, expressed by a low groan. Pain is also caused by handling the windpipe along which the air courses with a rushing sound, plainly audible by placing the ear at the bottom of the neck. Still louder sounds can be heard at the base of the lungs by listening at the top and sides of the chest, a little behind the shoulder-blade. If only one lung is affected, this sound is louder in the other, owing to the greater amount of work it has to do. The animal either stands motionless with the fore-legs wide apart, crouches on its sternum or lies on the side most affected, to allow freer action to the opposite lung.

The hot stage of the fever is never long owing to a lack of sufficient vitality to withstand the injuries to the lungs, that then occur. As the disease progresses, the nostrils become dilated, a limpid discharge, often of a purulent nature, flows from the eyes and nose; the extremities, as well as the horns and ears, grow cold; the body wastes rapidly; water collects in the chest; the pulse becomes weak and irregular; the animal gapes and grunts, drops and dies, often from internal drowning, or a distention of the rumen from gasses resulting from the arrest of digestion.

In one form of the disease the animal appears for quite a long time to get neither better nor worse. A muco-purulent secretion is discharged from the eyes; the appetite is capricious; there is a constant, troublesome cough, and portions of the lungs are regularly expectorated along with a putrid, highly offensive pus. The animal rapidly grows emaciated, and an offensive diarrhea precedes a speedy death from consumption in from four to six weeks from the appearance of the first symptoms.

A post-mortem examination discloses a large collection of water in the cavity of the chest, in which are floating large, yellow flakes of coagulable lymph. The surface of the lungs is found united to the ribs by a "false membrane," and the lungs themselves are greatly increased in size—lungs which would ordinarily weigh five and eight pounds, after disease have been found to weigh 30 and 75 pounds respectively. Instead of being of a bright salmon color, diseased lungs are grayish or mottled, and their surfaces are rough, thick and hard, instead of being smooth, elastic and yielding. The proportion of deaths to recoveries varies all the way from 10 to 75 per cent., according to the condition of the herd among which the disease makes its appearance; the preventive or curative measures adopted, and the sanitary condition of the surroundings. It is generally estimated, however, at from 50 to 60 per cent. Most of the recoveries take place during the first stage of the disease, but as the portion of the lung once injured or destroyed can never be really restored, it is always advisable for the owner of the beast to fatten it for the butcher as quickly as possible after its recovery.

Medical treatment is chiefly preventive, for as a curative agent it appears to have done no good whatever. Hence animals with manifest symptoms of the disease, are at once slaughtered in England, and should be here, because the number of infected animals is so small that stamping it out, to prevent contagion, should be insisted upon. The judicious use of tonics, such as sulphates of iron or copper, have been found very serviceable in the way

fortifying the system against contagion, but they should be administered by a skillful veterinary practitioner, and, in this disease the bungling of the ordinary cow-leech should never be tolerated.

As the disease seldom or never affects the same animal twice in a lifetime, inoculation has been largely employed as a preventive of the regular form of the malady. As the result of a long series of experiments in Germany, Belgium, France and England, it has been calculated that the total loss from inoculation amounts to about four per cent. as compared with that from the natural disease, and that at least 30 per cent. of the animals exposed to infection become manifestly diseased, of which number 60 per cent., as above stated, die of it. Hence the benefit of inoculation. Of 22,348 cases of inoculation, mentioned in a late number of the American Veterinary Review, it failed to "catch" in 5,476 cases; and of the remaining 16,872, 1,582 inoculated animals lost their tails; 53 suffered from extensive gangrene, chiefly on the hind-quarters; and only 490 died.

The efficacy of this preventive largely depends on the virus or "ens" employed. This should be obtained by squeezing out into a clean vessel some of the serum from the lung of an animal killed in the first stage of the malady. Care should be taken that the deceased animal suffered from no disease except pleuro-pneumonia, and the lymph should be used at once. The operation is performed by making a couple of shallow incisions at the tip of the tail, placing a few drops of the serum therein and applying a bandage for a few days. If the inoculation is successful, a constitutional disturbance will be apparent in about ten days' time. The animals operated upon should be shut up in a secluded and disinfected stable, and treated in every respect like diseased stock; and all animals that have been in contact with infected beasts should be so treated. It is useless to inoculate animals already infected.

The matter of the contagion is exhaled in the breath as well as from the pores of the skin, and thrown off by evaporation from the solid and liquid voidings which retain it until thoroughly disinfected. Hence it impregnates the air, and even the walls of the buildings; mixes with the surrounding air to a considerable extent, defiles the stamping ground and pasturage of infected animals, and adheres to every person and thing that come within its influence. Wherever it appears, therefore, the utmost precaution should be observed to prevent its spreading, and no stable in which infected animals have been confined, should be used for four or five months after their removal, and then only when it has been thoroughly disinfected.

The Herdsman.

JOTTINGS AT KIRBY HOMESTEAD.

COL. F. D. CURTIS.

Sheep Eating Turnips.

THREE sheep of medium size eat a half bushel of cut turnips at a feeding. This is about as much as they can hold. They get no water, as the turnips supply all the moisture they require. They are thriving fast. Last winter our breeding ewes had no grain until near lambing time, but they had turnips and they did well. Since this crop is so easily raised and the roots are so natural and healthy a food for sheep, it is a wonder more farmers do not have a patch of turnips and grow them for their sheep. They keep the sheep from getting constipated, and help to keep up their appetites. Sheep are very apt to have these troubles—constipation and loss of appetite—in our long winters. When turnips are fed to them regularly there is no danger of their producing any colic or diarrhea, or of their deranging the fœtus—as the books tell us they are apt to do—by causing a chill and spasms. They are not any more likely to do this than ice-water, of which they are allowed to drink as much as they want. We have never had a sheep sick through eating turnips, but we have had them sick on account, no doubt, of drinking too much cold water. This is one cause of ewes aborting, as it produces a chill and spasms of the womb, which, in most cases, would result in the loss of the young. It stands to reason that five or six months of dry feeding must try the system and produce a feverish condition, and carry a flock of such delicate animals as sheep to the very verge of disease if not to disease itself. Where is the wisdom of pursuing such a course when a daily feeding of turnips will correct it all and make the sheep much better and at the same time save other food? Not one farmer in a hundred understands, or if he does, he does not practice a correct system of feeding in winter. More green or succulent food is necessary. It is the cheapest food we can raise: all that is wanted is the disposition or determination to do it. American farmers are babies in the art of feeding. An Englishman can make mutton and beef faster, and he must make it cheaper to enable him to pay such big rentals and have any profits.

Why Hens Eat Eggs.

Mr. Joseph Alexander says the reason why hens eat eggs in winter is because they are dry and they eat the eggs to quench their thirst. A neighbor was troubled by his hens eating their eggs; after he heard the explanation of Mr. Alexander he supplied them with water, and the first day they drank several basinfuls. This seemed to corroborate the theory of thirst.

To keep a Horse from Rubbing its Tail.

This habit, which spoils the appearance of some horses, is caused by scurf on the skin of the tail, or by worms in the rectum. [A foul sheath is often the cause.—EDS.] The first can be remedied by a thorough washing with borax. Carbolic soap is also excellent. A horse which has formed the habit of rubbing will probably keep it up for awhile after the cause is removed. Greasing the anus, and syringing the rectum with a mild decoction of tobacco, will relieve these parts and kill the worms, but the rubbing will doubtless be kept up for a time. To prevent disfignrement of the tail, nail a plank at the back side of the stall, with the edge projecting toward the horse, and at a hight just opposite the thighs. With this obstruction the tail cannot touch the sides of the stable. Another preventive is to fasten a rope at the back end of the partition of the stall and attach it to a rope hanging down from the ceiling directly in the rear of the tail, and then tie the other end to the partition on the other side of the horse. When he comes out of the stall the rope may be slack enough to allow the horse to back up a step or two, and being suspended from the floor overhead, it cannot fall down and will not allow the animal to get entangled. It may be kept taut by having the perpendicular rope fastened considerably in the rear—enough to draw it.

Why Sows do not Conceive.

A neighbor had a great deal of trouble to get his breeding sow to conceive. He took her to the male five times before she did. He was an old farmer, but he did not know the reason why his pig made him so much trouble. It was on account of her low condition—she was too poor and lacked vitality. Such instances are common. If breeding sows are expected to have young, as soon as possible after a litter are raised, or taken away, they must be fed liberally, so as to be in a thrifty or vigorous condition. The young pigs will be stronger on this account and more likely to live and do well. Breeding animals should not be poor and weak, nor should they be over fat. Thrifty and vigorous is the proper condition. They should also be fed a variety of food, or at all events not be confined to any one kind which is heating or constipating in its character. They should be separated at least two months before the young come, and not allowed to run together at all if they are quarrelsome, or if a master one is inclined to be vicious. They will not winter so easily and are liable to injury constantly. Suckling, unless there is a bountiful supply of food, will rapidly emaciate an animal, and even then reduces the strength.

MANAGEMENT OF YOUNG COWS.

ON some accounts it is probably better that cows should be fed and grown on the farms where they are to be kept. If brought to a strange place it takes some time for them to become wonted to the locality and to the other stock. A calf saved for a cow will be petted and humored in such a way as to be made gentle and kind to handle. It will also probably be a better feeder, and this usually means a better milker also. These hearty feeders should be allowed to breed early, so as to determine the flow of vigor to the milk glands as early as possible, and thus increase their size. After having one calf, the heifer may be fed liberally to keep up the flow of milk as long as possible, and also to increase the size of the cow. If the heifer is of a good milking strain, she will, with such treatment, make a superior cow, and, in any event, this management will bring out the best results of which she is capable.

Variety of food is especially important for milch cows. It insures hearty eaters and a good digestion. Cows that have been trained to eat any and everything edible are much surer to be profitable; because they thus eat much more than they could of a single article, no matter how rich or palatable it may be. One of the best cows I ever knew, was grown on the farm where she always lived, and never lost the liking for sour milk which she acquired while a calf, fed from the pail. This liking for sour milk is often a valuable point in a cow at times when there is no other way to dispose of the surplus. It used to be thought hard usage to keep cows in the early settlement of the country on "browse"—the buds and tender twigs of fallen trees. But cows so fed had always a little hay, some corn-stubble, a few nubbins of corn and the waste from the kitchen. In this way the great variety of food they received was much more favorable to health and a large production of milk, than forced feeding on one or two articles of food. High feeding is profitable for fattening animals; for with these, impairment of the constitution is thought to be of less importance, as they are to be killed so soon. But in feeding cows, and especially young cows, to induce a large milk secretion, the high feeding should include a great variety of articles, and thus induce a habit of hearty appetite which will continue through life. W. J. F.

Monroe Co., N. Y.

STOCK NOTES.

IN 1876 the importation of oxen and bulls into the United Kingdom was 168,598 and their average price per head, $102.64. Of sheep, 1,041,494 were imported, worth $10.39 each. In 1877 the importations of the former fell to 148,619; average price per head, $108.80; while the number of sheep imported dropped down to 874,062 at $10.93 apiece. In 1878, the number of oxen and bulls imported rose to 197,101; worth on an average $109.24 each; and the importations of sheep also went up to 892,126; price, $11.06 each. Thus it is seen that the increased supply has stimulated the demand, so that prices have been steadily rising. This, however, is attributable, to some extent, to the better quality of animals imported, especially from this country and Spain. The aggregate sum paid by John Bull to foreigners for live stock and dead meat during 1878 amounted to $100,615,776. Of the cattle imported the Continent furnished 133,000, or two-thirds of the whole, while 55,000 were supplied from this country and 10,000 from Canada; but about half the Canadian shipments were bred in the United States. . . . . The British Privy Council has decided that typhoid fever in swine, which has lately been very prevalent in that country, comes under the provisions of the Contagious Diseases Act, and accordingly that all infected hogs must be slaughtered and their owners compensated; but not at a higher rate than $8 per animal. . . . . Ireland is the great source of imported cattle supply to England. The small farmers of Ulster alone sent 193,596 head across the Channel during the year before last. . . . . Formerly the presumption in Great Britain was that all cattle from abroad were healthy; but since the passage of the Cattle Diseases Act last year, the presumption is that all foreign cattle are diseased, and the burthen of proving to the satisfaction of the Privy Council that they are healthy rests upon the importers. . . . . What is held to have been the heaviest beast ever slaughtered in Ireland was the Short-horn steer Jove, winner of several prizes, whose live weight was 3,696 pounds. He was butchered the other day at Coleraine.

Floricultural.

WINTER FLOWERS.—No. 2.

WILLIAM FALCONER.

SOFT-WOODED Cape Heaths, as Erica hyemalis, caffra and graecilis, are really pretty at this time of the year, but they are best grown in a cool greenhouse; so are Epacrises. Some growers plant them out in summer, while others prefer growing them on in pots. Plants under three years old are considered better than older ones. Acacias are "real pretty" from December till March or April, but most of them grow too big for window use. A. armata blooms when very small and so does A. Drummondii. Coronilla glauca and Cytisus Canariensis and its varieties are profuse yellow blossomers, compact, and if grown out-of-doors in summer and in a moderately cool room in winter make good window plants. Red spider is their greatest enemy. Chorozemas, orange, and Hardenbergias, purple and white, are neat and copious Australians, requiring treatment like the last. Violets in a cold-frame yield blossoms from November till early May, and, as a preventive against severe weather, a few potfuls in the house will furnish many blossoms in winter. Of Begonias we can have a feast or a famine, just as we choose; the tuberous-rooted and Rex varieties had better rest till spring, but the shrubby ones, Manicata and others, only need warmth and water to gladden our hopes. A few late summer-sown Browallias, or old plants lifted in the fall, cut back a little and potted, bloom continuously. Abutilons will come in a little later, unless you have a greenhouse, when you can have them all the year round. Libonias bear great crops of orange and scarlet; they like to be planted out and pinched in summer and get a little warmth in winter. Red, white and yellow—single and double—Oxalises are now in their heyday; they are splendid house plants. Oxalis versicolor—the little red and white variegated one—has been and still is very fine with me. I keep it pretty dry, cool, and near the glass. The little yellow-blooming Othonna in suspended pots is like a heavy fringe studded with golden stars. Crassulas, white and pink, Cotyledons, red; Sedums, yellow, and some other succulent plants, are in full bloom. They like a dry atmosphere and to be kept a little dry. Aloes are pushing up flower spikes. And I may say here that Aloes, Crassulas, and other South African succulents, unlike the Cacti and succulents of the Northern Hemisphere, grow freely in winter, hence are benefited by light waterings and warmth. Linum trigynum is a pretty plant of the flax family, with large deep-yellow blossoms that on tiny and massive plants alike are borne in great profusion. It likes a little warmth, as do also Peristrophe speciosa, Goldfussias, Jacobinias and the like—all serviceable at this season, particularly for the greenhouse. Cestrum elegans is at its best now, but though its flowers are showy and many, its leaves and stems are so hatefully odorous that I very much dislike it. Catalonian Jessamines are great favorites and good house plants, and they bloom more or less all the year round. In greenhouses Roses can always be had; in windows, if the Roses were well established in pots, ripened thoroughly and early, and pruned in accordance, we may soon expect a goodly reward. If timely cared for, we can now have any quantity of Snowdrops, Crocuses, Christmas Roses, Winter Aconites, and other early-blooming bulbous plants. The Jerusalem cherry plants, with their multitude of bright fruits, are very pretty and last several months in perfection. They are good house plants, but much better greenhouse ones.

Of course, the non-seasonable blooming plants will add a deal of green, but when "green" is wanted for cutting, besides smilax, Rose-geraniums, Maiden Hair, Pteris and climbing Ferns, I would highly recommend some of the evergreen kinds of South African asparagus. We have a species here that grows about ten inches high, is lovely as green in bouquets, and keeps in good condition as long and as well as the best of our Ferns; and we have one that grows some two or three feet high that is far heavier and richer; also, a climbing species whose long, sprayey strings are as handsome as those of Smilax. And I would also commend to notice for winter work the Lemon Verbenas. If grown in pots, well ripened and cut backin fall, like a Heliotrope, a little moisture and warmth will give lots of fragrant shoots in winter.

Entomological.

THE PEACH APHIS ON THE EASTERN SHORE OF MARYLAND.

THE severe freezing weather we have had during much of the winter, brightens the prospects for our escape from the devastations of the dreaded "Peach Aphis" the coming spring, as there is nothing that approaches as nearly to a remedy for this aphis as a severe winter. A few winters back, mild weather characterized the months of December and January,—and during January, investigation showed the insect to be in fine working condition, congregated in knots and patches upon the roots of young trees in the nursery and orchard. I had abandoned all hopes of saving the trees budded in the nursery the preceding fall from their blighting ravages. In February, however, a severe spell of freezing weather visisted us, which put a complete 'quietus' upon the little intruders, and that spring the trees escaped all harm from them.

Last winter, on account of the total absence of hard freezing, was very favorable for the preservation of the innumerable pests that had fastened themselves on the roots of the trees for shelter; and, as a result, we had them last spring in such quantities as to baffle all our efforts at their destruction. Although their natural enemies—such as Lady-bugs, and several kinds of flies—were feasting upon them all the time, the supply steadily increased rather than diminished. Now this aphis question is gradually looming up as a subject demanding the best study and thought of peach growers on the Peninsula. May not the increasing variableness in fruit of some of the standard market varieties, such as the Heath Cling, for example, be attributed to the under-ground operations of these depredators? Last spring in digging trees—upon the roots of which the insects had subsisted all the winter—many of the fibers and smaller roots were found to be entirely dead, and in many cases roots as thick as a knitting-needle were deadened and the bark secuingly rotten for a half inch outwardly from their junction with the main roots. The aphis works in the same manner upon bearing trees, as has been several times proven by investigation; and this assuredly weakens the vitality of the trees to a considerable extent, and, as a natural consequence, materially influences the yield of fruit.

I have not yet been able to notice anything in the appearance of trees repeatedly attacked by the aphis, that will support the belief of many intelligent and prominent peach-growers, that the aphis and yellows are identical in their influence upon the tree; or, in other words, that the aphis on the roots, produces yellows in the branches. On the other hand,

the spindling, wiry, sickly and yellow-looking suckers, that are thrown out about the forks and along the main limbs of the tree affected with the yellows, have in no single instance, to my knowledge, shown themselves on trees the roots of which were infested by the aphis. Neither have I any fear that the aphis will ever cause any serious trouble north of Maryland, as my observations respecting the effects of frost upon the insects while on the roots, convinces me that no great destruction to trees either in the orchard or nursery, need be anticipated on this account in Pennsylvania and farther north; though I am aware that the insect does occasionally appear in southern Pennsylvania, and that it has killed some trees in New Jersey in times past.

I have experimented considerably in trying to find an effectual remedy for these pests, when blackening by their immense numbers whole blocks of buds just starting to grow in the nursery, ranging from the bursting bud to those three or four inches in length; but all my researches have been useless, as I could not find anything that would destroy the lice and leave the buds uninjured. So, upon the advice of Prof. C. V. Riley, given in the New York Tribune in 1874, I have lately left them to the Lady-bugs and other foes, giving protection to the latter as far as practicable.

Caroline Co., Ind. J. W. KERR.

The Apiarian.

OUR BEE HINTS.

THE time for active work in the apiary is again near at hand. Indeed, in the more southern latitudes vegetation has already begun, and with the coming month of March the swelling buds will develop into tender sprigs of green and open their inviting blossoms to the busy bee that will eagerly search them for fresh food after the long winter's rest. It may be well briefly to consider a few points of interest in connection with the opening of spring work and bee keeping in general, and especially would we recommend such consideration to amateurs who have, as yet, but little experience, as well as to those who contemplate starting in this pursuit in the near future.

There are two classes of persons that will, and profitably may, engage in bee keeping—those who begin the work with a view to make it their business, who make it their only or, at least, their main occupation, and those who begin it, not so much for the profits as for the sake of the recreation and pleasure it affords. This latter class is by far the larger of the two, embracing the majority of our farmers and many professional men. We may add a third class: those who have heard of the profits realized from the business, and, thinking it a most excellent way to get rich without any outlay, study or work, madly rush into it with the idea that all they have to do is to market the honey and pocket the money. For these we write not, however; they had better never begin.

The first step one should take in this direction is to study the bee literature. Study the physiology of the bee. Acquaint yourself with what others have done and are doing. Learn which are the most difficult points, such as Italianizing, queen raising, artificial swarming and the like, and master them. By having all this clear in the mind, you can begin with confidence and work intelligently. There will then be nothing mysterious about it, which, because not understood, you must leave to chance and guesswork.

Next study the facilities you have for bee keeping, your locality, your honey-producing plants, your market, and see what difficulties you will be likely to encounter. When all this is clear, you can start; but do not begin on too extensive a scale; half a dozen stocks are sufficient to begin with. If the enthusiasm is kept up and all goes well, their number can be readily increased.

The time to remove the bees from their winter-quarters to their place in the apiary will vary with the latitude and the season. In many of the Northern States it is well to wait until the beginning of May. At any rate, if they are not diseased and have a sufficient supply of food, it is best to let them remain in winter-quarters till there are spring flowers enough to gather honey from, and until there is no more danger of cold weather. By keeping the bees packed up, they will remain quiet till quite late in the season. There are more bees lost during the early spring, from cold, dwindling and lack of food, than perish during the whole winter.

If, on examination when brought out, they should be found to have consumed their whole store of food, it is necessary to feed them at once. In every hive found without enough of food a frame of capped honey must then be exchanged for an empty one. If no comb honey is on hand, feed them good extracted honey, or the best quality of sugar made into a syrup by dissolving it in hot water. Half a pound to a pound daily is usually sufficient.

The situation of the apiary is also of importance. A place sheltered from the high winds, and partially, though not densely, shaded by trees and bushes, is preferable. Next to a sheltered orchard, a grove of evergreens, which may be kept low and spreading by pruning them back, is perhaps the best. Place the hives on the north side of these so that they may be shaded from the hot noonday-sun, and let them face the east, to protect the entrance from the fierce westerly winds. The hives should not be more than four or five inches from the ground, and a piece of board, on which the bees can alight, should be put slanting up to the entrance. The old practice of raising the hive two or two and a half feet from the ground has no advantage that we are aware of, and it has the positive disadvantage that bees coming home chilled, or weary and heavily laden, often fail to strike the entrance, and falling to the ground below the hive, there perish, being unable to rise again.

Realizing the important position this branch of industry occupies among the rural pursuits, and believing that every farmer, be his farm large or small, ought to keep a few hives of bees, we shall in future have more to say on apiarian matters than we have had heretofore.

Rural Architecture.

A FEW AXIOMS IN BARN-BUILDING.—3.

W. I. CHAMBERLAIN.

ONE of the axioms already given is, that we should make the force of gravitation *help and not hinder us.* In no case will gravitation help us more than in the storage of hay for sale, especially if there is a steep slope, at the foot of which the barn can stand. Near the middle of a forty-acre field on my own farm, is a sharp descent of 20 feet, which curves on three sides around a space large enough to place a barn 45 feet square. The ground is level above the slope and again below it. The place was dug out in past ages by the wash of a brook which is now dry, except in very wet weather. The formation of the land has suggested to me the building of a barn on the plan indicated in Figs. 1 and 2. Fig. 1 gives the curve of the hill and the ground-plan of the barn which I hope to build. Fig. 2 is the perspective view, taken from the southwest, the beholder's eye being about the hight of the eaves of the barn. In Fig. 1, a, a, a, a, is level ground; b, b, b, b, is a steep descent of 20 feet, curving around the flat on which the barn is to stand; and f, f, is level ground 20 feet lower than a, a, a, a; c, d, e, are the three bays of the barn, and run from ground to roof: g and g are bridges (see also Fig. 2) on which hay is drawn in above the big beams, the top of the load reaching so high as to give the pitcher just room enough to stand beneath the ridge of the barn as he

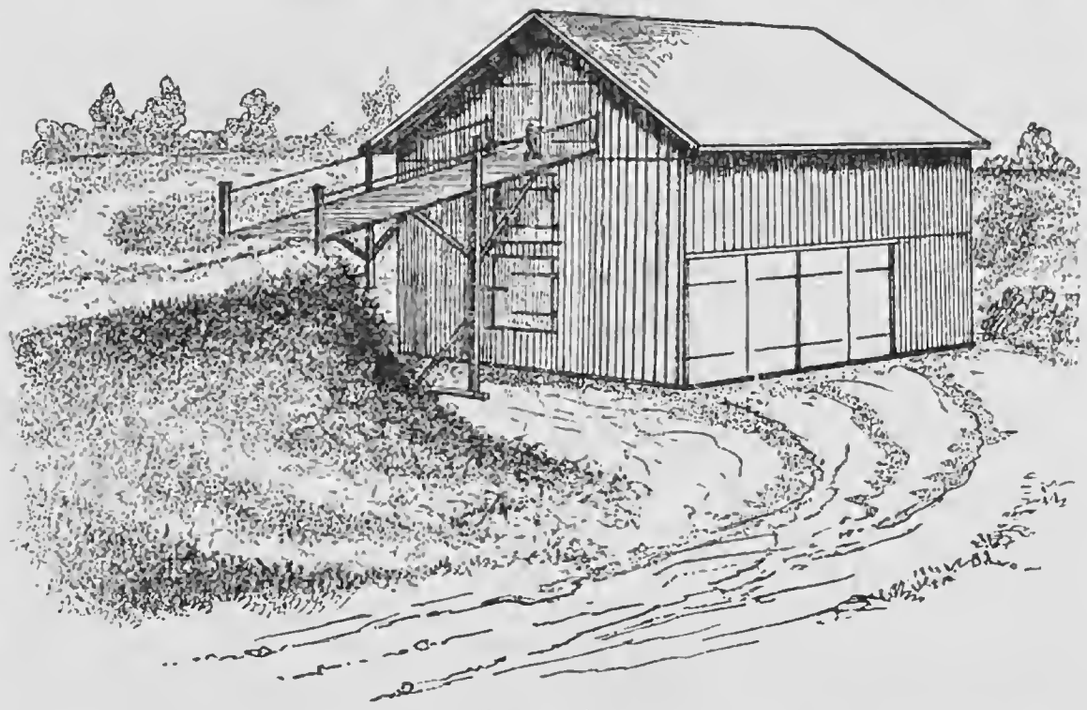


FIGURE 2.

begins to pitch off his load. The hay will go down 30 feet *by its own weight*, but if it were on the ground, it would take a sight of muscle, either of man or horse, to lift it to the top of the barn by forkfuls. H, h, are doors used in removing the hay for sale.

Fig. 2 shows the barn in perspective, and shows the curve of the hill, the general form of the barn and one of the bridges. The barn hides the other bridge, which slopes slightly from the other end, in the same manner as the one seen in the figure, and permits the team and wagon to drive through and out at the other end when the load is off. Where there is no hill at the other end, the team must, of course, back out the wagon or be unhitched and the wagon be run out by hand.

The barn is 45 feet square and 25 feet from ground to eaves, and will easily store 100 tons of hay below the eaves. The barn floor is above the big beams, under the "ridge-pole," and between the two rows of posts that support the purline plates. A "girth," or heavy railing, runs along on each side to prevent the possibility of man's or horse's stepping or backing off. The two west bays have barn floors laid on timbers resting on the ground and not framed to the sills, so that the ground, and not the barn, supports the hundred tons of hay. (These bays also have doors; see Fig. 2.) Now for the storage of the barn. Suppose it empty at the beginning of haying. The lower doors are all shut and firmly fastened. The large doors above the bridge (see Fig. 2.) are opened, and the load of hay is driven up the slight ascent of the bridge, into the barn, and along the elevated barn floor above the big beams, to the east end, and the east bay is filled to the roof, except the space occupied by the barn floor. Every forkful of hay goes below the hand of the man that throws it off, and is easily moved away, even by a boy. This floor is 14 feet wide in the clear, and 45 feet long, and each night two large loads of hay can be left on it, standing on the wagons, ready to be pitched off before the dew is off in the morning.

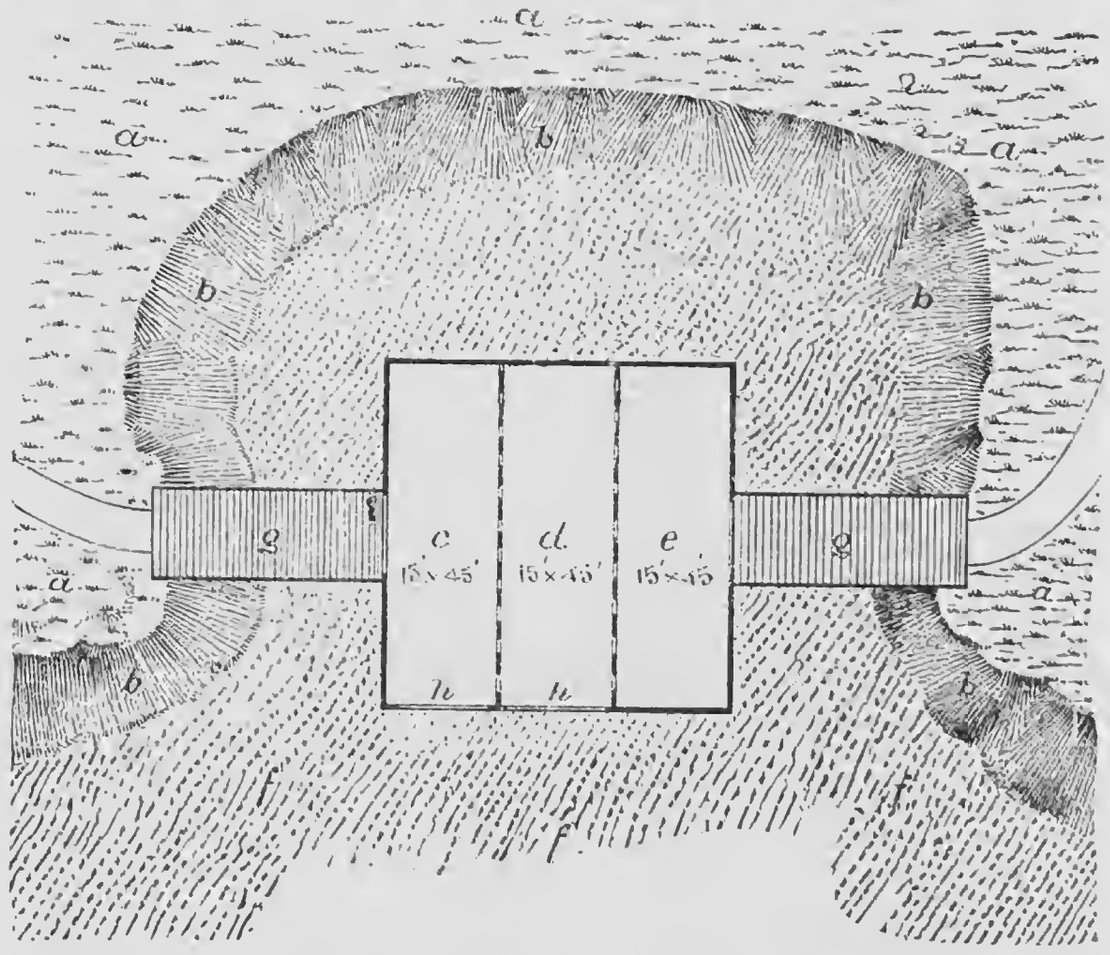


FIGURE 1.

When the bays are filled, one after the other from the east towards the west, and haying is over, the barn floor can be used for the storage of mowers, horse rakes and other summer machines, implements and tools till the next summer.

As before remarked, the barn is intended for the storage of hay for sale. In my case it is drawn to market loose, but the barn could easily be adapted to bailing, the machine and power standing at first under a shed, at the west end, from which they could be moved on to the west barn floor or bay as soon as the hay is out of that, and finally into the second or middle space. But for loading the hay loose, the wagon at first stands at the west end and the hay is pitched out and down from the small doors. When the first bay is empty, the wagon stands there and loads from the second, and finally stands on the second and loads from the third or east bay. Thus neither in storing nor in loading for sale is the hay pitched up. If the ground on which the barn stands is sloping, say towards the east, the loading for sale might be made easier by making each bay two feet lower than the one next west of it, and so one might begin the sale of hay from the east end, and then the bottom of each bay would be two feet above the bottom of the wheels of the wagon on which it must be loaded. But even as the barn stands in the figure, it is no worse pitching on to the load than in the level field, and far better till the hay is nearly out of each bay.

Such a barn, 45x45, with posts 25 feet high, may be built, as here indicated, for less than $400, rough, unpainted and without cornice, or for less than $500, with cornice and paint. The barn does not support the hay, and therefore does not require heavy timbers. It will store 100 tons of hay. The interest, at 6 per cent. on the cost, would be 30 cts. *per ton* for the storage of hay each year. It will save this, above stacking, in the labor of storage. It saves it again in the labor and convenience of loading for market, and it saves it twice over in the value of the hay for market. And with an abrupt descent of ground, even 10 or 15 feet high, a team can draw the hay in above the big beams as well as on the level of the ground below, to be pitched up. And most farms, except on prairie land, have such descents for at least one end of the barn, and one bridge.

Summit Co., O.

Miscellaneous.

WHEN TO SOW TOMATO SEEDS.

WE sow tomato seeds in the house about the middle of February and they yield ten days earlier than those sown in the hot-bed in March. Old tin fruit-cans answer excellently to sow seeds in. Our method is to unsolder the cans so that the sides can be lapped, and they are kept in place by strong strings tied tightly around them. These cylinder-shaped cans are much more convenient than clay pots and do not dry so soon, and the rust seems to act as a tonic to the plants.

Set the cans in earthen saucers and fill with earth; sow a seed in the center of each; place them in different parts of the house to see which do best. We keep some in the south window of the kitchen, others are in the east window and a few among the house plants.

When the weather is sufficiently settled—which in our climate is usually in May—so that transplanting to the open ground may be safely done, the plants can easily be slipped from the cans without injury to the roots. They should be covered at first to protect them against chilling winds at night and from the sun during a portion of the day. In setting them out it is best not to put them all out at one time, but to take out some at intervals of a few days, as otherwise a sudden change in the weather might destroy the whole. For covers we use large drain-tile with thin cloth tied over the top. They are easy to handle and can be removed in a moment. The varieties of tomatoes are so many, and most of them are so highly recommended, that we hardly know which to choose. Whenever we try "novelties" we also sow a few seeds of the old "Smooth Red" as a safe resort if the new kinds fail.

Lyons, Iowa. M. G. R.

SOME of our readers ask us to give illustrations and articles upon hot-beds, cold-frames, etc. Now the RURAL has placed before its readers such illustrations and articles for the past twenty-five years, and we do not propose to fill our columns with such old news again, unless it be to illustrate new plans or labor-saving designs as they become known to us from time to time. The information asked is given with all needed detail in half of the catalogues we have been noticing for weeks past. Send for them, if there are no old files of RURALS at hand.

BEAUTY OF HEBRON.—Mr. Hugh L. Wysoe, of Pulaski Co., Va., writes us that he received Beauty of Hebron from the Agricultural Department last spring, and can say that it yields more and is ten days earlier than Early Rose.

The Poultry Yard.

A POULTRY ACCOUNT.

For some ten years the care of poultry has afforded me much pleasure, and at the same time has been a source of considerable profit. For the last three years I have endeavored to test the profit-and-loss account, and each year I have seen a good balance on the credit side of my poultry account. Cholera has swept away whole flocks, and that quite near my place; but thus far mine have escaped, and I do not think I ever lost a fowl by contagious disease.

My poultry have enjoyed the advantages of comfortable houses, cheaply constructed, and designed to combine light, warmth and good ventilation. I always give an abundance of good, sound, nutritious food, varied with different kinds of grain, together with a daily supply of clean, fresh water. They also get plenty of broken oyster-shell, old mortar, coarse sand, etc. Their morning meal consists of wheat bran and middlings, mixed with boiling water. At noon, I give them cabbage, turnip, onions, apples, etc., and about four o'clock all the whole corn they will eat.

My plan has been to hatch chickens in May and June, and as soon as they are large enough for broilers the roosters are sold. During the early fall months I feed liberally. When cold weather comes, the fowls are in good, warm houses, of which there are three. I am careful to keep these reasonably clean, and frequently burn a pound or two of sulphur in them. The result is, the houses are free from lice.

The reader will see that the total stock for the year numbered 486. Should the number of eggs appear small, it must be noted that during April 130 fowls were sold, leaving but 40 hens to hatch and rear the chickens. My reason for selling then was that the prices of dressed poultry ruled higher than at any other season of the year—from 50 to 75 per cent. above prices obtained at Thanksgiving or during the holidays. Moreover, by disposing of a part of my flock then, I was not troubled during the summer months with a large flock of old fowls.

In Account with 174 Fowls.

Jan. 1, 1878.	*Dr.*
To 174 fowls, at 80 cts. each	$104 40
1½ tons wheat bran, $18	27 00
40 bushels corn, at 60 cts.	24 00
1 ton cracked corn	22 00
5 bushels rye, at 56 cts.	2 80
20 bushels oats, at 30 cts.	6 00
76 bushels corn, at 50 cts.	38 00
150 lbs. meat scraps, at 2 cts.	3 00
4 Plymouth Rock hens bought	7 50
40 dozen eggs set, at 13 cts.	5 20
Total cost	$239 90
Dec. 31, 1878.	*Cr.*
By 756½ doz. eggs	$156 47
130 hens sold, April 5th to 20th	88 40
150 roosters, July to Oct.	71 64
19 selected fowls, Plymouth Rocks	25 65
Hen manure	42 00
187 stock on hand, at 60 cts.	112 20
Total proceeds	$496 36
Deduct cost	239 90
Profit	$256 46

Review.

Rural, April 7th, 1877, page 217.

Record of 84 fowls.

Total proceeds	$352 80
Cost	150 20
Profit	$202 60

Rural, Feb. 9, 1878, page 91.

Record of 1877—144 fowls.

Total proceeds	$582 81
Cost	244 70
Profit	$338 11

Record of 1878—174 fowls.

Total proceeds	$496 36
Cost	239 90
Profit	$256 46
Total profit during three years	$797 17

Walden, N. Y., Feb. 2, 1878. Ruralist.

Various.

HONOR TO WHOM HONOR IS DUE.

In the issue of the Rural for January 18th, I notice a fine engraving of Pinus ponderosa pendula, and some remarks on its excellence by Mr. H. W. Sargent, of Fishkill-on-the-Hudson, the possessor of the original and only existing specimen. It seems that some varieties more or less similar have occurred in England, but apparently they are not really the same. There are, at the most, only one or two weeping Pines, and they are extremely rare. A distinct, hardy variety therefore, like Pinus ponderosa pendula, will unquestionably be a great acquisition. But the point on which I desire specially to dwell, is the fact that the high honor is due to Mr. H. W. Sargent of having been the first to introduce two of the best weeping evergreens in existence, viz.: the Weeping Hemlock and the Weeping Pinus ponderosa. No one who has seen these trees fully developed, can doubt this assertion; and I conceive that the remembrance of this fact is very pleasant to Mr. Sargent. Indeed, the increasing delight these varieties will doubtless afford future generations, should be always associated with his name. I therefore hope the names, Abies Canadensis pendula Sargentii, and Pinus ponderosa pendula Sargentii, may be accepted and employed. Moreover, there will be an advantage in this, because other Weeping Hemlocks may possibly receive distinctive names, as may also weeping forms of Pinus ponderosa. In any such case, Mr. Sargent's varieties should be fully designated.

S. Parsons.

Lost Nation Wheat.—A correspondent, from River Falls, Pierce Co., Wisconsin, confirms what another friend of the Rural from the Northwest, told, in a late issue, about this variety of wheat, as tested in that section. Fife is the standard sort thereabouts, and spring wheat the regular crop. Lost Nation is selling at a discount of ten cents per bushel at the mills, and at a heavier discount with the majority of farmers, mainly because it is so liable to be affected with smut. When good, its yield in light soils is superior to that of Fife, but it is not so reliable.

CATALOGUES, &c., RECEIVED.

Silica *vs.* Ammonia. Some of the most progressive of the Southern States are paying a great deal of attention to the agricultural resources of their soils, and to the best methods of developing them. Probably there is no part of the country in which so much commercial fertilizers are used as in some portions of the cotton States. It has, therefore, become a matter of prime importance with the farmers throughout that section that every precaution should be taken to test the relative values of the various fertilizers offered to them for sale. There were two means of doing this open to them, and, as a rule, both have been adopted with excellent effect. Of these two means, the first was the establishment of experiment stations at which samples of the various fertilizers sent in by any of the citizens of the State could be analyzed by upright, impartial experts of known ability, and reports made on the fertilizing value of the various constituents. Some of the cotton States have already adopted this excellent system, and the stations of North Carolina, Georgia and Tennessee have gained a national reputation for the thoroughness of their work, while saving enormous sums each year to the agriculturists of those States, by quickly exposing all fradulent or worthless fertilizers, as well as reducing to a slim possibility the chances that any extensive adulterations could escape speedy detection and exposure. The second method was to test the relative effects of various fertilizers on growing crops, the experiments being conducted by trustworthy farmers acting in connection with, and under the direction of the experiment stations, to which reports should be made. This has also been done; and Dr. A. R. Ledoux, the director of the experimental station at Chapel Hill, N. C., sends us in a neat 24-page pamphlet, the results obtained in the case of Popplein's Silicated Phosphate, from a combination of these two methods of testing the value of a fertilizer. Some time back this Baltimore firm, makers of a fertilizer according to a formula in which soluble silica, at the rate of five cents a pound, is substituted for nitrogen at the rate of twenty cents a pound, expressed their discontent at the money valuation put upon their fertilizer by Dr. Ledoux, and offered to donate five tons of it, or less, for the purpose of making a practical field test of its agricultural value in comparison with that of other fertilizers. The offer was accepted, and the tests made on various crops by three skillful farmers in different parts of the State. Those who have read Mr. J. B. Lawes's contribution to a late Rural, treating of the abundance of silica naturally in most soils, and the consequent needlessness of any artificial supply, will have no difficulty in guessing the result. In every case the silicated fertilizer was less beneficial in its effects than either the ammoniated fertilizers, Peruvian guano or barnyard manure, used alongside of it under similar conditions.

The Blessed Bees.—By John Allen, published by G. P. Putnam's Sons N. Y., price $1.00. This is an admirable little book of 169 pages, on bee culture. In it the author relates his experience with bees during one year. He tells how he started in bee-keeping: how he Italianized; how he produced comb-honey; uncleus swarming; how he marketed the honey; his profits, and preparation for winter; and finally he considers the reasons of his success and gives advice for others. The whole is an admirable narrative treating of all the points essential to successful apiculture, and from the manner these points are presented, the book has nothing of the dryness that characterizes didactic works generally. The reader enters into sympathy with the author, partakes of his enthusiasm and his pleasures.

To give a specimen, we quote from the author: "It was on the twenty-ninth of May that the work of Italianizing was completed. The work had been really exciting. I entered into it with an *abandon* which I believe is seldom found. People often complain that their work is a slavish toil. Mine had been a daily delight. Although several years have passed since then, and I now number my hives by the thousand, still as I write this account of those absorbing days, something of the old enthusiasm stirs within me."

Again in the notes in the back part he says: "The eggs deposited by a fertilized queen in worker cells, are impregnated, and develop into worker bees. The workers are imperfectly-developed females. All the work in the hive is done by them. They build comb, collect pollen and honey, take care of the queen, nurse the growing brood, protect the hive from robber bees, and keep it clean. Should the queen die or be taken from them, they will, if they have worker eggs or worker larvæ not more than three day old, raise a new queen in the manner described in the chapter on Italianizing."

The book is printed in distinct type, on stout, tinted paper, and neatly bound in cloth.

Harris's Moreton Farm Seeds. Descriptive catalogue of field, garden and flower seeds, cultivated and for sale by Joseph Harris, Rochester, N. Y. We trust that our readers have, ere now, discovered that our "notices" of catalogues are not influenced by the value of the advertising patronage of their authors. Our sole object in commenting upon them at all, is that our readers may be guided by a comparison of prices and lists, in purchasing of those who will supply them the fullest equivalent for their money. We have no acquaintance with Mr. Harris, but the catalogue in question is one that we should recommend our readers to apply for, being both notably original and interesting. We quote a few paragraphs:

It is sixteen years since I commenced to grow seeds. But this is the first year that I have issued a catalogue. I fear it will be a poor one, but I shall try and comfort myself with the reflection that no one will be asked to pay anything for it. I propose to send it free of all charge, prepaid by mail to any and all of my friends who desire it. I hope my seeds will prove to be fresher and better than my catalogue.

I have been an agricultural writer for twenty-nine years. My first article was written on this farm and appeared in the Genesee Farmer (to which the Rural New-Yorker succeeded. Eds.) for October, 1850. My friend, James Vick, was then the publisher of the paper—and never was there a better friend or a better editor. In 1851 he ran up the circulation of the paper to 50,000 copies, and the following year he put my name in the paper as one of the editors. I have been writing ever since. I have been connected editorially with the Genesee Farmer, the Rural New-Yorker, Albany Cultivator and Country Gentleman, the Hearth and Home and the American Agriculturist. I have also written a book which the publishers, somewhat to my annoyance, called "Harris on the Pig," and last year I wrote another book called "Talks on Manures."

Second Annual Report of the New York State Dairymen's Association with transactions and addresses for the year 1878. We have not space here to notice this neat and excellent compilation as fully as it deserves. A study of its contents containing the condensed results of the study and experience of some of our best teachers on dairy matters, would be of advantage to all our readers who may keep even a single cow. Among the most noticeable articles in it are: Suggestions for the improvement of Domestic Animals—S. Hoxie; Principles of Breeding Domestic Stock—J. F. Gulliver; Butter Making—R. Day; Guenon's System of Judging cows by the Escutcheon—Willis P. Hazzard; Statistics of Dairy Interest of New York—L. B. Arnold; The Production of Milk—Prof. I. P. Roberts; Dairy Interest Abroad—F. B. Thurber. Josiah Shull, Ilion, N. Y., Sec.

Descriptive Pamphlet of Thoroughbred Poultry, owned by J. T. Lovett, Cornwall-on-the-Hudson, N. Y. Illustrations of Brown and White Leghorns; Pea-Combed Partridge Cochins, and Plymouth Rocks. Of the last-mentioned Mr. Lovett says:

"My yard of this breed is composed of extra fine, pure-blooded hens of the Drake strain (acknowledged to be the best in the country), for which I paid a large sum, mated with a brother of "Bob," of the Rural Grounds, figured in the Rural New-Yorker of December 21st, 1878. This fine bird was presented to me by that journal, looks almost exactly like "Bob," and is one of the finest specimens of the breed in existence."

We have before us the Scale Catalogue and price-list of Jones of Binghamton, N. Y. Mr. Jones is nothing loath to sound his own horn—and says so. He is, too, ever ready to put a beam in a neighbor's eye, if it is agreed that it shall be a scale-beam with Jones engraved thereon. The reason why good scales may be made and sold so cheaply is clearly explained, and it is distinctly stated that the scales are not sold upon mere representation. They are guaranteed to be perfect and then sent out on trial, no money or conditions being exacted until the scale has abundantly demonstrated its worth. Any one who has had the pleasure of meeting Mr. Jones, will see the man reflected throughout the Catalogue. He is as honest as his scales are trustworthy.

Useful Arts: A Journal of American Industries; James A Whitney, Editor and Proprietor; published monthly at 312 Broadway, this city; price $1 per annum. This is the first number of a handsome, instructive, illustrated venture in periodical literature. From its contents, the fact that its owner—an occasional contributor to the Rural—does a large patent agency business, and its prospectus, we should judge that it will be devoted chiefly to the same department of industrial arts as the Scientific American. Its table of contents is varied, its matter instructive and interesting, its make-up in every respect commendable, and we heartily wish it all the success it may deserve.

Roses—Roses—Roses! The New Guide to Rose Culture. The Dingee and Conard Co. of West Grove, Chester Co., Penn. He who loves Roses ("and who does not?") needs this catalogue. It is about Roses of all sorts, and of their culture. Among a collection of new varieties sent to us by this company, we were especially pleased with that originated and named by Eugene Verdier of Paris, in honor of this company, "Dingee-Conard." It is of the hybrid perpetual class, is perfectly hardy, blooms incessantly, and the fragrant flowers are of a scarlet color with a flush of violet. But we heartily commend this catalogue and this firm to all of our friends.

Pamphlet. Choice Strawberries and other small fruits, grown and for sale by F. R. Pierson, Tarrytown-on-the-Hudson. Cuts are given of Cumberland Triumph, Crescent Seedling, &c. This pamphlet is free. We would say to our readers that it would be well to consult the Rural New-Yorker of Sept. 7, 1878, before ordering Strawberries for spring planting. In that will be found trustworthy information as to the best new and the best old varieties, from many who have stated the results of careful tests.

Cole & Brother's Illustrated Catalogue and guide to the flower and vegetable garden for 1879. Pella, Marion Co., Ills. Drooping Sorghum is a specialty in this catalogue of all sorts of flower and vegetable seeds. See Rural of Jan. 18, for remarks and illustration of this plant. Artichokes, Chufas (about which we are constantly having inquiries), are also offered. Free—that is, the catalogue.

Notes on the Aphidiæ of the United States, with descriptions of species occurring west of the Mississippi; by Chas. V. Riley and J. Mouell. This illustrated pamphlet of 40 pages gives a full account of the history, habitat, ravages, etc., etc., of the Plant-lice families of the country, in the clear style and comprehensive manner characteristic of the authors.

Report of S. L. Polk, Commissioner of Agriculture, for 1877 and 1878. This is another of the many excellent Reports with which Commissioner Polk instructs and stimulates the farmers of his State. It is a 61-page pamphlet, treating chiefly of fish propagation; commercial fertilizers; sheep husbandry; fences; crops and miscellaneous matters.

Benson, Maule & Co., 223 Church St., Philadelphia. Illustrated and descriptive catalogue of garden, field and flower seeds—a choice selection of small fruits, trees, plants, bulbs and agricultural implements—also a brief price-list of thoroughbred poultry and eggs for hatching. Free to all of our subscribers who apply.

C. H. Hovey & Co., 22 Tremont St., Boston, Mass. Spring Catalogue of plants, seeds etc. This catalogue offers a great variety of new things, some of which we have ordered for testing. Among them are several singular Philadelphuses and Weigelas.

Reid's Illust'd Floral Tribute, Rochester, N. Y. This is a costly catalogue of all sorts of seeds and plants, with about fifty showy little colored plates and many practical cultural details. So far as we see, it is offered free to applicants.

Beach, Son & Co., 7 Barclay Street, N. Y. Catalogue of all kinds of seeds and bulbs. This is a large, handsome catalogue, which will be sent without charge. The beautiful Gladiolus is a specialty with this firm, and the list is long and full.

J. M. Childs & Co., of Utica, N. Y., send us their Catalogue for 1879. It is well arranged, comprehensive, and contains almost everything in the way of farm tools, low prices, and good advice.

Address of the Hon. Marshall P. Wilder at the annual meeting of the New England Historical Society, and other proceedings. Published at the Society's House, 18 Somerset St., Boston.

L. J. Denton, Prospect Hill Nursery, Plainfield, N. J. Trade price-list of trees, flowering shrubs, vines, &c.

William Rennie's Seed Catalogue, Toronto, Canada. Eighty pages, well illustrated. Plants, seeds, &c.

Isaac F. Tillinghast, Factoryville, Pa. Catalogue of warranted vegetable and flower seeds, free to all.

A. Whitcomb's Descriptive Catalogue of bedding and greenhouse plants, Lawrence, Kansas.

Everywhere.

RURAL SPECIAL REPORTS.

WISCONSIN, Outagamie Co., Feb. 14th, 1879.—The snow which has come so freely to almost all sections of the country this winter has failed to reach us. Our fields have been bare and our roads hard, smooth and dusty so far all winter. Once or twice we have had snow enough to whiten the fields, but none to make sleighing. Farmers have had to haul their surplus wood and timber to market on wagons. In the lumber woods, the lumbermen have made ice roads by sprinkling them every night with water. A cheap sprinkler is constructed similar to those used to sprinkle streets in towns. By using it freely every day, a smooth, hard road is formed, by means of which our lumbermen are getting in about their usual supply of logs. The talk of "hard times" among our farmers is getting to be rather an old story. And although prices of all kinds of farm produce are low, still those who have anything to sell find a ready market for cash, and a little cash now goes some ways in the purchase of farm and other supplies. Those who have old debts to pay, do have rather "hard times." Some few such are giving up their farms and going "West" to again seek their fortunes and build up homes—not always for themselves. J. R.

INDIANA, Denver, Miami Co., Feb. 10.—Being located in the fertile country known as the "Eel River Valley," I thought a few lines might be of interest to some of your readers. This Eel River Valley region has greatly improved of late as an agricultural and stock-raising country. A good, strong, sandy loam or "Blackwalnut Bottom" stretches along the "Eel River" for miles, and seldom fails to produce good crops of wheat, corn, oats, grass and the various fruits and truck. Railroads traverse this section to the four points of the compass. The past season we had the largest crop of wheat and corn, of good quality, ever produced here. Wheat averaged twenty bushels per acre. Some pieces yielded thirty to thirty-five bushels per acre. Corn averages about fifty bushels per acre. Very little rain this winter but a good deal of severe cold. Fall wheat looks well. Wheat sells for 85c.; corn, 25c.; clover seed, $3.50; potatoes, 50 to 60c.; pork, $3.50 to $3 per cwt., gross. Most of pork sold from $2.25 to $2.40. Good horses, $75 to $125; milch cows, $20 to $35; land well improved for $40 to $60 per acre. D. A. F.

WISCONSIN, Arcadia, Trempealeau Co., Feb. 13.—So far times have been very hard here in Western Wisconsin. Many are losing their farms through indebtedness; and improved farms are consequently very cheap—from $5 to $20 per acre according to location, and the condition, not of the farm alone, but of the owner also, for the tighter the latter is pressed, the lower the price he must consent to accept for his holding. Many of us have learnt a good lesson from the present distress, and will be loath to run so heavily in debt in future. Lost Nation wheat has been a failure in the Northwest this year. It was more affected by hot weather than our older varieties. Millers will not give as much within five or six cents a bushel for it, as they will for Fife. The previous year, however, it yielded well, and was promising well last year until the advent of frost, and it will therefore be tried this year to some extent. Produce is low: wheat, 65@70c. per bushel; corn, 20@25c; oats, 17@18c; potatoes, 30@40c; hay, $5@$8 per ton. F. A. R.

OREGON, Shedd, Linn Co., Feb. 15.—It is no wonder that people from the East who visit this State in winter, call us "Web-Feet." We are now having our regular down-pour of rain; but we don't complain; for we must have it, or otherwise our crops must fail, as they sometimes do from drought in California. We have had a very pleasant winter with but less rain than usual this year. Our fall grains, both oats and wheat, look splendid. The area sown to grain last fall was twice as large as usual. Trouble from immense flocks of geese and ducks is one reason why so little fall grain is sown in this State. These pests eat up most of the seed and young stalks, unless one stands in the field with his gun up ready to shoot at all times. Stock of all kinds are doing well on our growth of grass this winter. It is now green and growing nicely. Wheat is selling at this station for 80c. per bushel; oats, 40c.; potatoes, $1; corn, $1. WEB-FOOT.

ALABAMA, Dunville, Morgan Co., Feb. 18.—Times are extremely dull in this State; never has money been scarcer hereabouts at this season than now. Cotton is selling for 6c. to 7½c. per pound; wheat, $1.00 per bushel; corn, 40c. to 50c; flour, 3½c. to 4c. per pound; corn meal, 50c. to 60c. per bushel; beef, 3c. to 3½c. per pound; pork, 4c. to 4½c; horses, $40 to $80; milch cows, $10 to $15; land, $2 50 to $10 per acre; and plenty to spare at either figure. We have good schools and churches of all denominations, as well as a healthy country, and we want good farmers to come and utilize our unused advantages. New comers of the right kind will be cordially received. H. N. V.

MINNESOTA, Howard Lake, Feb. 17.—We are having delightfully pleasant weather, not too cold since the coldest weather about and just before New Year's. Notwithstanding this, there has been more sickness than usual—a kind of epidemic a little like pneumonia, lung fever, or uncommonly bad colds. Some have not survived, and many consumptive persons who came here a few years ago to save their lives have not been able to overcome this tax on their strength and are fast failing. Some have already passed away, from that disease. Very many invalids, however, have come here for health and have saved their lives by so doing. S. A. M.

CALIFORNIA, Riverside. Del Norte Co., Jan. 29.—Much more frost than usual and stock getting thin. The chief businesses here are dairying and lumbering. Wheat is worth $1@$1.20 per bushel; oats, 50c.; potatoes, 60c.; butter, 25c.; eggs, 25c.; dressed pork, 6c. per pound; hay, $10@$12 per ton; interest on money, 12@15 per cent. per annum; taxes, 2½ per cent.; farm labor, $25@$30 per month, with many idle because they will not work for less than "going rates," and times are, of course, tight. B. B.

ILLINOIS, West Jersey, Stark Co., Feb., 18.—Snow nearly all gone and weather as fine as one could wish—a boon for the stock that have to glean their living in the corn fields. H. E. M.

The Querist.

ANSWERS TO CORRESPONDENTS.

Angora Goats, Once More.

Y. L. L., Williamston, N. C., asks where can he get Angora goats, and whether it is likely they can be raised with profit in this section.

ANS.—Questions similar to this, were fully answered in our last issue. We may, however, here add that the animals are, also, for sale by Wm. Kloewne, Hicksville, L. I. The praises of Angora-goat raising in this country have hitherto been sung chiefly by those who have had the animals for sale or by enthusiasts who are always over-hopeful of every fresh addition to our agricultural industries. It is said by those who have experimented in keeping them in Europe, that their native climate is so peculiarly adapted to them that the fleece of exported Angoras soon deteriorates. It is probable, however, that this real or apparent deterioration is caused either through lack of proper attention in feeding the animals or through negligence in sorting and otherwise preparing the wool for market. At the Cape of Good Hope and in some parts of Australia large herds of Angoras are kept, according to late accounts, very profitably; but in this country whatever profit has hitherto been made from them, has, in nearly every case, been made by importers and breeders. In view of the plethora of most kinds of agricultural products in our markets at present, it is very desirable that farmers should turn their attention to as many new agricultural industries as they can with profit; but from all our present information, we cannot include the keeping of Angora goats among these. For experimental or "fancy" purposes the Angora may still find purchasers, but as an addition to the regular farm stock, kept for profit, we cannot as yet recommend the animal.

Shorts vs Hay.

R. R. M., Swansea, Mass., asks what is the value of shorts compared pound for pound with good hay—not timothy, for that he considers an inferior sort for feeding cattle and sheep, unless cut before in bloom.

ANS.—Shorts are twice as valuable as good hay for food; that is to say, one pound of shorts will contain as much nutritive value as two pounds of hay. Tables in books differ very much and are often unreliable guides, owing to the difference in climate and condition. Shorts will make more valuable manure, too, owing to the larger amount of nitrogenous matter contained in them. This would make their feed value greater.

Miscellaneous.

B. H. N., Chazy, Clinton Co., N. Y., asks, 1, if the Pulvermacher belts advertised in the RURAL are what they pretend to be; 2, where can he obtain the best medical treatment.

ANS.—The Palvermacher belts are very effective in many cases, and the advertisers have the reputation of being trustworthy. 2. We cannot advise about a disease of which nothing, even the name, is mentioned. On general principles, however, we may say that the best doctors and other conveniences for treatment in cases of sickness, can be found in New York or any of the other large cities.

T. T., Businessburg, Belmont Co., Ohio, asks whether patent roofing paints are what they pretend to be, and whether we or our readers can, from personal experience, recommend a good recipe for painting and preserving oak shingles.

ANS.—Most of the chemical paints are reported to be good by those who have used them. The Rubber Paint Co., 506 West street, N. Y., will send samples of colors and all needed information. Who has found a good preparation for preserving oak shingles?

W. J. C., West Andover, Ashtabula Co., Ohio, asks where barbed wire fence can be obtained.

ANS.—Washburn & Moen Manuf'g Co., Worcester, Mass., and 42 Cliff street, N. Y. Ohio Barbed Wire Fence Co., Toledo, O. Thorn Wire Fence Co., Chicago, Ill.

Rita Bell—no address—asks whether the "American Book Exchange" of this city is trustworthy.

ANS.—We cannot say positively. We would not patronize it ourselves.

COMMUNICATIONS RECEIVED FOR THE WEEK ENDING SATURDAY, FEBRUARY 22d.

C. T.—M. E. H.—A. R. M.—H. S.—B. B.—A. E. J.—E. R. B.—A. E. B.—G. D. N.—A. L. J.—D. L. R.—"Ermengarde."—G. S. H.—C. W., M.D.—F. A.—Mrs. B. C. D.—H. N. V.—W. C. G.—N. W. B.—T. W.—I. J. B.—M. B. McL.—J. K.—W. R. B., thanks.—"Empire."—M. C.—W. R. B.—H. S.—M. A. H., Jr., as soon as we can find space.—F. H. D.—J. A. B.—W. H. N.—V. J. E., as soon as soon as we can.—G. G.—W. J. B.—J. A. M.—S. V. C.—D. F. S.—W. J. C.—W. J. F.—W. T. M.—P. B.—A. C. W.

Trees, Seeds, Plants &c.

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The most beautiful and complete Seed and Bulb Catalogue published. 60 Exquisitely Colored Plates, *Engraved Cover* in *Gold*. Describes 1000 sorts *Flowers & Vegetables*. Price, 25 Cents. All ordering the book are registered and the price refunded on first order for Seeds, &c., to the amount of $1. WM. H. REID, Name this paper. Rochester, N.Y.

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THE
RURAL NEW-YORKER.
PUBLISHED EVERY SATURDAY.

Address
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SATURDAY, MARCH. 1. 1879.

SPECIAL NOTICE.

OF ALL OUR SPECIAL NUMBERS, NO OTHER HAS CREATED AMONG OUR SUBSCRIBERS SO LIVELY AN INTEREST AS THE COMING CORN NUMBER. WE SHALL HAVE AN EXTRA EDITION PRINTED AND WILL SUPPLY, FREE OF CHARGE, SPECIMENS TO ANY OF OUR SUBSCRIBERS WHO APPLY FOR THEM. WE ARE CONFIDENT THAT THIS CORN NUMBER WILL DO GREAT GOOD, AND WOULD BE GLAD IF A COPY COULD BE PLACED IN THE HANDS OF EVERY FARMER IN THE COUNTRY. IN IT WE SHALL NOT ONLY OFFER TO SEND A TRIAL QUANTITY OF SEED (OF THE NEW VARIETY TO WHICH WE HAVE ALREADY CALLED ATTENTION) TO ALL OF OUR SUBSCRIBERS WHO APPLY, BUT WE HAVE DETERMINED UPON OFFERING PREMIUMS TO THOSE WHO, FROM THIS SEED SO SENT, SHALL PRODUCE THE LARGEST YIELDS OF CORN.

COMBATTING RESTRICTIONS ON OUR CATTLE TRADE.

THERE are few unmixed evils in the world; few mishaps from which wisdom and energy cannot wrest some good, and it happens not unfrequently that what at first appears a sheer misfortune is ere long transformed by these virtues into a godsend. It may yet be so with the present embargo on our live cattle exportation. It has forced public attention to the existence among our cattle in more places than was suspected, of a plague whose ravages wherever it has become widespread elsewhere, have been more disastrous than those of all other epizootic diseases combined. Had it not been for the seemingly hostile action of the British Privy Council this insidious malady might have been negligently permitted to advance stealthily among our herds until it had caused the loss of millions where its thorough suppression now will not cause the loss of as many thousands. It has forced upon the notice of the British public the importance of their meat supply from this country, so that already Liverpool, rather than temporarily lose our live cattle trade, is willing to spend upwards of $170,000 in constructing conveniences for slaughtering the beasts on their arrival so long as the present regulations remain in force. It has also directed public attention to many shortcomings and abuses connected with the cattle trade, and should attention to these lead to their speedy reform, such a measure would save millions to our farmers and stock-owners, save much suffering to stock of all kinds, materially lessen the chances of sickness or death among animals in transit, and, together with the complete suppression of pleuro-pneumonia among us, would place our cattle trade with Europe on a firm and more profitable basis. To secure these blessings, however, wisdom is necessary in concerting measures and energy in carrying them into execution.

One of the first things needed is to ascertain precisely the extent of the plague among us. This can be satisfactorily done only by official investigation aided by the co-operation of cattle owners. The number of the skilled veterinarians in this country is lamentably small, and the ignorance of the common run of cow doctors, especially with regard to pleuro-pneumonia, is lamentably great. Official investigation, therefore, can alone, as a rule, decide upon the prevalence of the disease in any neighborhood. To render even this effective, our farmers must contribute their help by giving to the appointed officials prompt notice of every case in which the existence of the malady is suspected. Whenever, either through selfishness or carelessness, the owner of ailing animals neglects this duty, his neighbors should promptly supply the omission. Such a man deserves little consideration from the community in which he lives, as the existence of the disease among his herd would be an imminent danger to all other cattle in the neighborhood. Inasmuch as cleanliness about the stable and sound food for neat stock tend to prevent the outbreak of the disease, to modify its severity and check its extension, every owner of cattle should, for the present at any rate, observe these conditions in his own case and bring pressure to bear upon his neighbors to induce them to do likewise.

Even before ascertaining the full extent of the malady, however, it is the duty of each State in any part of which pleuro-pneumonia has made its appearance, to take prompt measures for stamping out every ascertained instance of it. Delay in doing this is inexcusable in those in authority, who should be held to a strict accountability for dilatoriness in this pressing obligation. If there is only a single case in the whole State, the greater the necessity for eradicating it at once, before the disease can spread and become more unmanagable. That early and vigorous action can extirpate the malady with comparatively small loss is shown by the experience of England, where it is accustomed to make its appearance in several parts of the country every year, but where in each case it is promptly stamped out by slaughtering the affected animals, quarantining their healthy companions and thoroughly disinfecting all the possibly contaminated surroundings.

On the other hand, the losses likely to be sustained by this country should the disease be allowed to spread extensively in it, may be calculated from its disastrous results, some years ago, in Great Britain and from its ravages in a single instance shortly afterwards in this country. From Parliamentary papers it is estimated that in the six years ending with 1860, the losses from pleuro-pneumonia in Great Britain and Ireland amounted to $60,000,000. In 1859 the disease was introduced by Dutch cattle into Massachusetts, where for a short time no effective measures were adopted to check its propagation. When it had secured a firm foothold, a government commission was at length appointed with power to isolate exposed herds and kill all infected animals, remunerating the owners out of State funds; but to thoroughly extirpate it cost six years' struggle and the slaughter of 1,164 cattle, besides those that died of the plague. It is, therefore, fortunate that the Legislature of New York has already passed severe laws which have enabled the Governor to take effective measures for promptly stamping it out within this State. The Legislature of New Jersey is reported to be about to follow this salutary example, and the people of every other threatened State should insist on immediate legislation in the same direction.

To the Federal government belongs the duty of regulating our commerce between the States and with foreign nations; and upon the Federal government, therefore, rests a grave responsibility in the present conjuncture. According to the best obtainable information the disease is at present confined to a few—a very few—places in the Eastern States; chiefly to cows fed upon swill. The vast herds of the West are entirely exempt from it. It is of the utmost importance that this immunity should be maintained, not only on account of the probable losses its introduction there would entail, but also because, owing to the absence of disease in this chief source of our export cattle trade, the Canadian and British restrictions upon that trade, so far as that broad region is concerned, should be promptly rescinded. Already the representations of the Foreign Office at Washington to the English government, and those made to the government of the Dominion by the Canadian railroads and other interests injured by the embargo, tend to hasten the date of their repeal. To add to the weight of these representations, by giving assurance of safety to our foreign customers, and to remove the possibility of spreading the disease, all movements of cattle westward from suspected districts in the Eastern States, should be at once prohibited until it shall be proved that the plague either never existed there or has been permanently suppressed.

Every dollar of expense on the transportation of cattle from the pastures to the shambles comes out of the grazier's pocket, be he farmer or stockman; for the dealer's price to the owner of the animal is regulated by the outlay and risks necessary in taking it to market, coupled with the figure it will fetch there. By the present system not only is the expense of transportation rendered exorbitant by the exactions of the stockyard and railroad monopolies, but the risks to the health and life of the animals in transit are unnecessarily increased by the recklessness that overpacks them in filthy cars in which a fall frequently means injury or death, and by the cruelty that often keeps them for long journeys without food or even a drop of water to relieve their feverish thirst. Not only does this system unjustly lower the price of cattle to the original owners and inflict much needless suffering on the animals, but the physical condition induced by it, injures their meat and predisposes them to disease if it does not actually produce it. The interests of the vast body of cattle raisers, therefore, unite with the dictates of humanity and the welfare of the consumers in importunately demanding Federal legislation to put a speedy end to the overcharges and heartlessness of the present iniquitous system of cattle transportation.

The laws of the United States authorize the inspection of live stock at the port of shipment and the grant of a clean bill of health on the report of the inspector that the animals are free from all disease; but the laws do not forbid the shipment of diseased stock, neither do they provide that the inspectors shall be men competent to detect the presence of disease. A change in the laws regulating this matter should be made at the earliest moment. At every port at which live stock are shipped skilled veterinarians should be appointed as inspectors; their certificate of the healthy condition of the animals should be necessary before their embarkation; each certificate should state from what part of the country the animals therein mentioned had come; that no contagious disease was there prevalent, and that the animals had incurred no risk of contagion along the route from their pastures. In the appointment of these officers skill and trustworthiness, not political influence, should, and *must*, be the sole considerations. To them also should be assigned the duty of inspecting all animals imported into this country, and it should be made obligatory on them to rigidly quarantine all stock coming from countries in which contagious diseases might prevail. By these means immunity from the possibility of infection would be guaranteed to our foreign customers as well as to our own herds.

This country is so large and its ports for the shipment of cattle, are so far apart, that it would be about as reasonable for Great Britain or Canada to prohibit the importation of cattle from the whole European Continent because a few cases of pleuro-pneumonia had occurred in little Belgium, as to maintain an embargo on cattle from our vast borders, because the same disease had made its appearance in a very few places in that section of the country from which very few cattle are ever shipped abroad. Prompt action here by stock-owners themselves, as well as by the State and National Governments, will not only rid our own herds of all danger from infection, remove all the pretexts for the present embargo, and all risks of future restrictions; but must secure the speedy repeal of the interdiction that now hampers our foreign cattle trade.

CAN WE OVER-PRODUCE?

THE doctors of political economy are just now very busy explaining the cause of the continued existence of what is called "hard times." One avers that "over-production" is the chief cause; another blames "under-consumption." There may be a nice distinction between the meanings of these terms, but to our mind the difference between them is hardly apparent. It is a question if we can possibly produce such a surplus of products as will check all the avenues of trade, reduce prices to a point below a living profit, and cause "hard times" through an excess of what is really the most substantial wealth we can possess. It seems clear that to do so, is simply impossible. Let us suppose a case: Four men, who may represent four hundreds, or thousands, or millions; or four nations, if we wish, exist upon an island in the ocean. One of these men cultivates the soil and produces more than he can consume or even gather and care for. The others are laborers or mechanics and, finding no employment or demand for their labor, they are idle. Now, the first man needs help to handle what he fears is his over-product. What will he do with it? This troubles him. He calls one man to help him gather it; another to carry it to a safe place; and another to make a store for it. He pays them with part of his product and they are immediately supplied with what they have lacked. The farmer then wants a score of things which he never knew of before, and he finds one or the other of these men is able to supply what he needs. So, by-and-bye the whole four are busy and soon they are in a comfortable condition of dependence upon each other, and the next year the farmer does not fear to plant more than ever, because he sees a way to dispose of his products. By-and-bye the people of an adjacent island learn the fact that there are many things in abundance across the water, and they come over and exchange products, perhaps gold or something else they may have produced by their labor, for the farmer's superabundance.

Now, it is evident that so long as these men do not, each and all, produce so much of every product of their labor, that it cannot all be used, there cannot be over-production, or too much of any one thing; but especially there cannot be too much of the farmer's products, because everybody wants some of them, and they require so much labor to take care of them. It is precisely so in actual fact. Think for a moment of what is involved in the fact of 400,000,000 bushels of wheat, for instance. What a host of laborers of all kinds will this vast amount of grain call to work! Here are, for one thing, about twelve million tons to be freighted, stored, sold, transferred, receipted for, milled, bagged, barreled, shipped abroad, or used at home; and every one of the great army of men engaged in handling it, will use a portion of it for food, and wear out shoes, clothes, machinery and a thousand other things in the doing of it, to replace which will use up more of it. If the surplus of our crops were an idle, useless thing, it would be different; but it is the bread of life to the whole world, and there is scarcely an individual in any civilized country, where bread is eaten, whose labor is not stimulated and increased by an abundance of it. The political economists should look elsewhere for the cause of the hard times, than to an over-production of what is necessary to our life or comfort.

SPECIAL TO OUR SUBSCRIBERS.

We have sent out up to this time 60-000 packets of seeds and so far as we can judge, the distribution is hardly more than one quarter completed. Several of the varieties of seeds mentioned in our columns are exhausted—but we are well prepared with a reserve that will carry the free distribution through. Now this is the point to which we desire to call attention. We cannot *publish* what these reserve seeds are for the reason that hundreds of our subscribers would at once desire changes and additions, sending us stamps &c., which would give rise to an amount of work and correspondence that we are not prepared for. The reserve seeds are no less valuable than those in our already published lists and, like those, cannot for the most part be procured elsewhere. Those seeds of which our supply is exhausted will be *again* offered next summer, so that those who receive others in their place *now* can obtain them then if they so desire. We are again making arrangements for our *next fall* free-seed distribution which we shall endeavor to make even more valuable than any of the others. Subscribers who have not already applied for seeds will oblige us greatly by doing so AT ONCE, since next week's issue will announce the *corn* distribution and the premiums which we shall offer for the largest yield from the seed sent.

PELARGONIUMS.

We have never yet seen a Pelargonium (Geranium) with striped flowers, that was worth owning. The heads are small—the flowers open one after another—the petals fall almost as soon as they are well opened. Among a number of high-priced novelties, to which reference will in due time be made, we have purchased a new variety of the striped-flower class called "New Life," which may or may not prove more desirable than those to which we have referred. In color the flowers, judging by the one sent us, are scarlet lined and striped with white, making a clear, striking contrast. We have worked for the past five years to produce, by crossing and seedling cultivation, something remarkable in the way of Pelargoniums, with feeble results. Once we were well on the way towards producing leaves with white centers and green margins. Just at that time, "Happy Thought" was announced. Then again we thought we were on the sure path towards obtaining a crimson flower having a white border, and then, one with a white ground and a crimson border. A longer experience dissipated these vapors. We have to show, as the sum total of our labors, a half dozen plants which may, perhaps, be worthy of a name—and that is all.

BREVITIES.

NEXT week will be the CORN number.

THERE is a war in England between the Telegraph and Telephone—peas!

AMONG the varieties of celery, Clayworth's Pride is mentioned in England as the best.

MR. LIBBY has severed his connection with the American Agriculturist, of which journal for a few months past he has been managing editor.

THE electric light is now used in photography when the sun is obscured. Perhaps it may one day be turned to account in forcing plant growth.

SUBSCRIBERS are requested not to send their applications for our corn until they have received and read the next number of the RURAL. They are also requested not to make out their order for the corn on the same page with other business matters.

For Women.

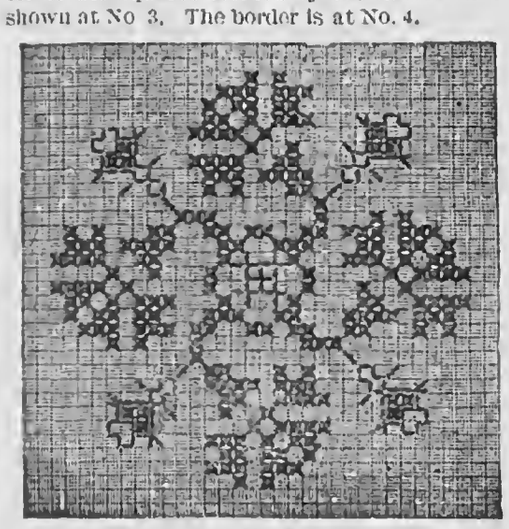
CONDUCTED BY MISS FAITH RIPLEY.

CORN IS KING,

or rather will be, of the RURAL domain next week, and so jealous is he of his royal prerogatives that it is doubtful whether he will permit any purely literary matter to be published in the RURAL of 8th of March. He may be induced to allow space for a short installment of "Weaker than a Woman," but the prospects are he will "spread" himself over the entire paper. For that one occasion then, we ask our readers' indulgence for omitting the customary literary departments.—[LITERARY EDS.

DESCRIPTION OF CUTS.

No. 1.—This table-cover can be easily made and it is extremely fashionable. It is made of Java canvas, embroidered in cross-stitch, in red and blue ingrain cotton. The corner for this is shown at No. 2, and the design which is worked in the center of the squares formed by the narrow line is shown at No 3. The border is at No. 4.



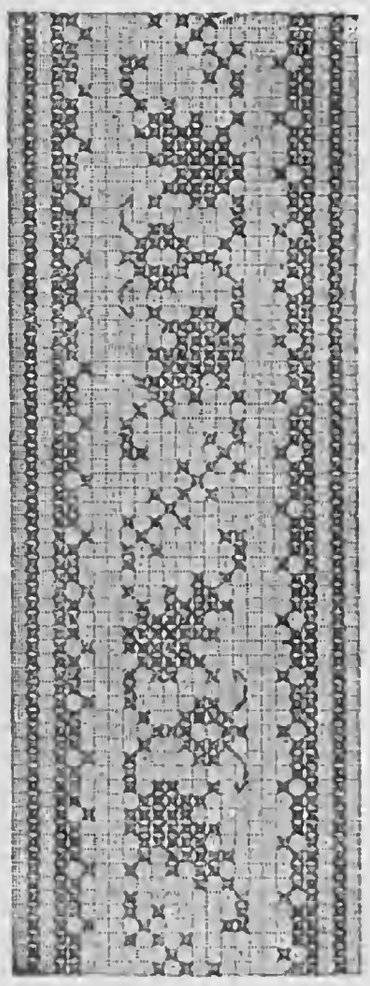
No 3.

No. 5.—COVER FOR TOILET-TABLE.—The foundation is of oat-cake cloth, embroidered with cross-stitch border and corners, worked with crewels. The fringe is made of the threads of the material drawn out and knotted together with lengths of crewels. No. 6 is a pretty border design for this cover. No. 7 is monogram in cross-stitch.

THE WOMAN'S CLUB.

INTELLECT vs. FASHION PLATES.

As a sprightly writer, in a late number of the RURAL, considers the Woman's Club by far too pacifically inclined, and as she forthwith proceeds to stir up matters, I vote that others follow her example. Concerning the last RURAL letter written by Free Lance, I differ with her decidedly; in fact, I am so much pleased with that same letter, that I want to pat him on the head. I think the matters of dress, "table fixings," and ornamental work occupy too much space in the papers, and (because they are kept so persistently before them) too much place in the minds of women. The plan of study referred to by F. L. must be an excellent one, and I should think such an opportunity to partially atone for the wasted hours of a lost youth, or to supply the deficiencies caused by early years of poverty or toil, would be eagerly embraced by thousands; but, as there are *men* who, although surrounded by every moral and intellectual advantage, never have an idea above neck-ties and hair oil, so there are women whose highest thought is the



No. 6.

arrangement of their head-gear and whose fondest affections twine about their new dresses. Now, this being the case, we must accept the fact, and not try vainly to change the unchangeable, but how unfair it is—there being as many of these pigmies in male as in female form—to allow the female member of that class to monopolize so much newspaper space! We do not see a half-dozen columns filled with pictures of the latest style of dress-coat, the newest thing in neck-ties, and smoking caps "too sweet for anything," with other such trumpery. This is intended to convey the idea that men are sublimely indifferent to such matters, whereas all the fashionable ignorance, all the petty vanities, all the fuss and feathers and frivolities of the race are made up into a bundle, and labeled—Woman! And so, for the sake of a few empty-headed nonentities, the whole sex is, figuratively, fed with milk instead of meat. I am glad Free Lance wrote that letter; go on, my son—you are developing beautifully, and will be a credit to us yet. By your leave we'll hereby bury the hatchet.

Concerning cooking recipes, they are well enough, provided a woman doesn't convert herself into a walking cookery book, or sacrifice all that is best of herself at the shrine of her kitchen stove. Of course, as a newspaper must cater to the tastes of different sorts of people, these minor matters should have a place, but they should be limited to a much smaller space than they now occupy.

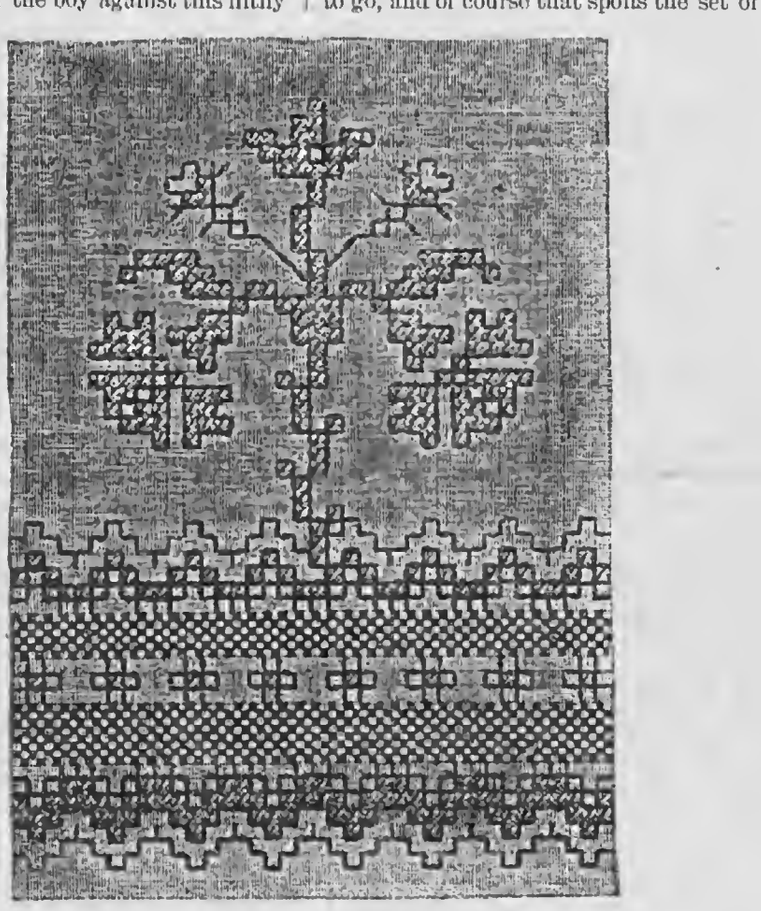
I heartily sympathize with the lady who is so troubled upon the subject of tobacco. The most you can do, my friend, is to use every means of prejudicing the mind of the boy against this filthy habit; make your own influence over him as strong as possible, pray daily for the success of your efforts, and leave the result with God. The probability is that his father will continue to use it to the end of the chapter, as only about one in five hundred ever does succeed in overcoming the habit after it is once firmly fixed. I disagree with the lady who does not believe in the expediency of trying to put down intemperance by political means. Moral suasion is all very well, friend, as far as it goes, but, as the great majority of rumsellers, would, probably be about as much moved by it as graven images, or as their friend and patron, his Satanic majesty. I go in decidedly for legal suasion; and when the right of suffrage is no longer withheld from half the intelligent citizens of the United States—as my prophetic soul tells me will be the case ere long—you shall see what legislation can do. With an exception or two, I liked Jicks' article on women's dress, of which, perhaps, more anon. ERMENGARDE.

IT is proposed to raise $40,000, with which to endow a professorship in the Syracuse University, to be filled by a woman.

A LAUNDRY HINT.

I BELIEVE it was only against cooking recipes and fashion articles that Free Lance fulminated in a recent article, and I may hope that my poor effort to make collar and shirt ironing a more satisfactory and easier process for my sister Ruralists will not be censured by his august self. (By the way Washtenaw, I don't think he is so immature and foppish; I've an idea he is an old fossil. Wonder if he couldn't be induced to allow a portrait of himself to be published in the RURAL, and thus set at rest these perplexing questions as to the location of his hair-parting, his age, &c.)

Now for the collar talk. Damp linen is very pliable, and a good pull will alter a fourteen-inch into a fifteen-inch collar in the twinkle of an eye. Collars ought to be stretched crosswise, and not lengthwise. Then in straightening out shirt-bosoms they ought also to be pulled crosswise instead of lengthwise, particularly in the neighborhood of the neck. A lengthwise pull draws the front of the neck-band somewhat directly under the chin, where it was never meant to go, and of course that spoils the set of a collar.

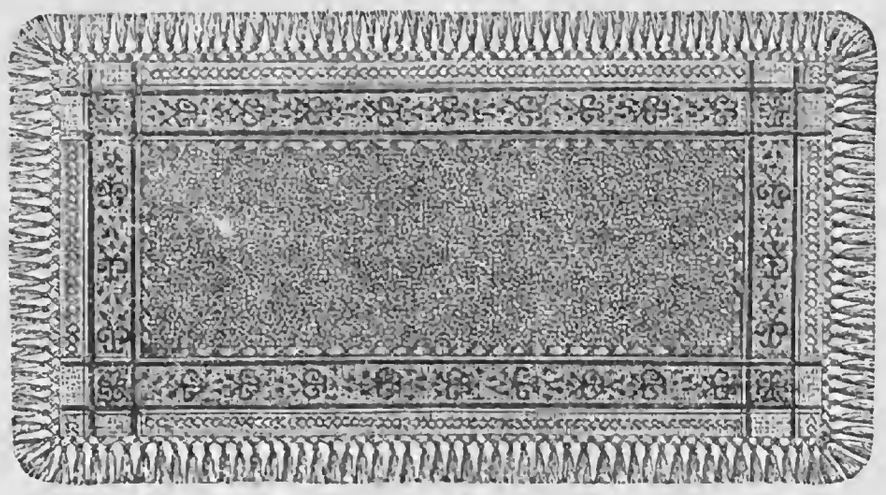


No. 4.

With the front of his neckband an inch too high and his collar an inch too long, it is hardly to be wondered at that the unhappy victim is betrayed into using expressions not sanctioned by Sabbath-school teachers. Try crosswise instead of lengthwise and report progress. DAME DURDEN.

A PROTEST OR TWO.

DEAR CLUB-ITES:—Because no protests or objections are made to the opinions of the "Club," it does not prove that we *agree* with all of them. I differ with Margaret B. Harvey about the economy of a silk dress. If you can afford two or three dresses for second and third best, and have a silk dress besides for extra occasions, then, by all means, have the silk dress. But I have seen a lady buy a nice silk dress (paying as much as two woolen dresses would have cost), then wear it on all occasions, for traveling, to parties, church, choir-meeting, &c., and in a short time it was so shabby as to be scarcely fit to wear. For people in moderate circumstances, I think it looks more suitable, if in traveling, they wear linen in summer and some tasteful, woolen suit in winter, instead of their one silk dress.



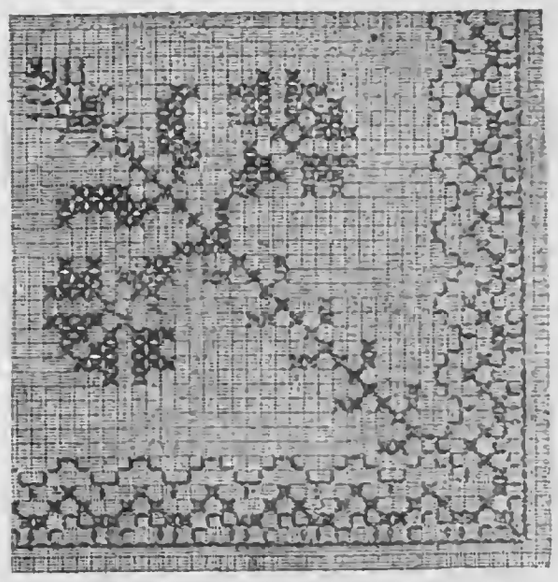
No. 5.

And again—In "Mop-handle Papers" No. 12, I find some remarks I would like to criticise. Some people may be "more nice than wise" about doing perfectly *unnecessary* work, but there are hundreds of women, I'm sure, (not idle or lazy ones, either) who would be glad to help in "Sewing Societies," etc., if they could get their own *necessary* work done. "Charity begins at home," and I think that is very *poor* charity which leaves undone family duties to help in outside matters.

What might be the test of *one* house-keeper's neatness, does not apply to all. My bed-room floor could not be "rubbed with a cambric handkerchief" and not soil the handkerchief. My bed room is also my sewing-room and the children's play-room. I don't think "Louise Upton" can be blessed with children. If she is, I would like to know what she does with them. "Aunt Mary's" box was a good arrangement for *very small* children, but the older they grow, the more active and restless they become. It is impossible to let children of three and four years play out of doors during cold weather, at least, in this locality as we are very much exposed to the wind. If left to themselves, children will get into mischief and often cause a great deal of extra work, not intentionally but because of their healthful activity.

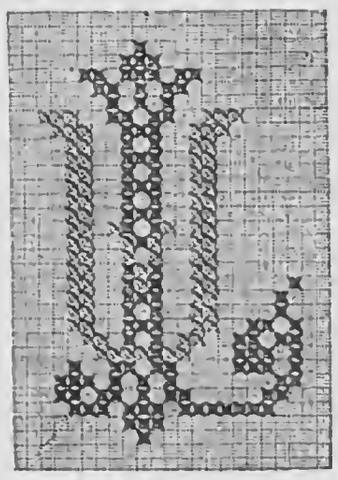
MRS. E. E. O.

If I may be allowed I wish to express an utter want of sympathy with the lady whose "tobacco grievance" induces her to air it through your columns. It is difficult to conceive of a wife whose influence for good is so slight, that the practice of the "small vices" of her husband go on unchecked to the detriment of her child (even supposing him callous to their effect); and it is more difficult to conceive of a mother whose influence for good is so slight that she should fear to have it overcome by the effect of habits which, to the uninitiated, are conceded to be revolting and disgusting. Few sinners are so hardened that they cannot be reclaimed. Let this lady continue to use her influence and to try, by all arts to strengthen it, and persevere in her endeavor to conquer, or at least lessen, the force of this "confirmed" habit. Let her, above all, retain and increase her influence over her child—of *how* to do so she must be the judge—let it grow with his growth, and she will find no fascination for him in the influences she dreads that can at all compare in strength with the safeguard her influence gives. CORNELIA.



No. 2.

WOMEN INVENTORS.—The question is often asked us: Do the inventions of women ever amount to anything? From our long experience with inventors of both sexes, we conclude that a larger proportion of inventions patented by women prove more useful and profitable than those of the sterner sex. We see by the New York Sun that the Metropolitan Elevated Railway Company has selected a device, from the many that have been under consideration, for lessening the noise of the trains, and that it is the invention of a Mrs. Walton, of this city. She gets, according to the Sun, $10,000 for the use of the invention on the Metropolitan line, and the company is to control its adoption on other roads, paying her a royalty.—*Scientific American.*



No. 7.

CANCER CURE.

THE proper formula for this "cure" is: Two ounces of Sulphur; ¼ ounce of Quicksilver; 1 ounce of Cream-of-Tartar; ½ ounce of Saltpeter. Put into a pint of molasses, stir; take a tablespoonful before going to bed. As published originally, ½ ounce of Quicksilver was given instead of ¼ ounce, as it should be.

QUERY.—Can any of the RURAL readers give us the words of "The Sexton" a short poem, the opening clause of which is, "Nigh to a grove?" Address answer to Literary Editor RURAL NEW-YORKER.

Literary Miscellany.

"GOOD-BYE!"

T. FERGUSON.

THE sun was bright, the world was fair,
My love stood by my side,
The scent of flow'rs was in the air,
The river's rolling tide
Rippled along, with silver song,
To the ocean deep and wide—

To the ocean many a mile away,
Where the stately vessels sail,
And the waves dash up to the little bay,
And the mighty winds prevail.
My love, I know, was thinking so,
For I watched her lips grow pale.

To-morrow I would speed afar
Across the heaving foam,
By dawn and dark, by sun and star,
Full many a league from home;
And this she knew, my love so true,
Whose lover needs must roam.

She turned her sweet face to the sky,
Wan, piteous, and dismayed;
The time had come to say "Good-bye,"
And, sobbing and afraid,
"God shield and save from wind and wave
My only love!" she said.

The sky above us, golden-bright,
To redder radiance grew—
"Good-bye!" she sobbed, "my heart's delight—
You take my love with you!"
But, dark as night, across the light
A croaking raven flew!

"Good-bye!"—and with a fervent pray'r
I strained her to my breast,
A flash of eyes, a gleam of hair—
The green leaves hid the rest;
And in a shroud of scarlet cloud
The sun sank in the west.

But did we ever meet again?
Nay ask not this of me.
The ship sped safe across the main—
Alas, but can it be?
The wrecks are more upon the shore
Than ever were at sea!

[*Family Herald.*

WEAKER THAN A WOMAN.

CHAPTER XXXIV.

(Continued from page 126.)

"I have come to chat with you, Eve," he would say. "Have you an hour to spare?"

Then one look at his face, at the shadowed eyes, would tell her that he was doing fierce battle with his foe. She would go into the pretty old-fashioned sitting-room, and, making him sit in a comfortable arm-chair, would talk to him. To herself she said often that it was like the laying of an evil spirit. She would read to him, converse with him, give him all the news she could. She knew, and he knew, why he was there, what ailed him, what old sorrow was crying aloud, what vain wild passion, what vain deep regret, was in his heart; but it was not discussed.

She knew when her wise, sweet, tender words took effect; the shadow would fall from his face, and he would listen in silence. At times he would sit for an hour listening, never speaking, and then, rising with a brightened look that did her heart good, he would clasp her hand warmly in his own.

"Thank you, Eve," he would say to her; "I know best what you have done for me."

Miss Lester was not very well pleased just then with her niece. Eve had received two good offers of marriage, and had refused them both; and, though Miss Lester disliked men, she had always a keen eye to the main chance, and said that if Eve refused one she ought to have taken the other.

She confided her grievance to Felix.

"I wish," she said, "that you would talk to her; you have known her so long—you are an old friend. Talk to her, Felix; tell her how foolish it is to refuse every good offer."

"But I thought you disapproved of marriage, Miss Lester, and disliked men."

"So I do—so I do; but I shall not live for ever, and Eve must have some one to take care of her. Squire Hethway would have made her a good husband. Talk to her, Felix."

"I really do not like to speak to Eve on such a matter," said Felix; she might not like it. She must have had her own reasons for saying 'No.'"

"Reasons," quoth Miss Lester. "She hasn't any. She is waiting until the man in the moon proposes to marry her, and I hope it will be soon."

Felix went away laughing, but he thought of Evelyn that evening more than he had ever thought.

"Whoever marries her," he thought, "will certainly have a treasure of a wife. Eve deserves the truest love that a man can give her."

Yet it never once occurred to him to love her himself. In his honest heart he believed that love was all ended for him; he could not realize that a man could love twice in a lifetime. His love, he told himself, had been slain. He never thought now of any future for himself; he never pictured himself with fair wife or loving children; he never dreamed again of a home. He filled his mind with work and study—love had ceased to be for him.

While he steadily rose in the world Sir Owen just as steadily went down. Five years had served to injure both the Baronet's character and estate; but for the restraining hand of Darcy Lonsdale, he would have been ruined. The clever honest lawyer had acquired a kind of influence over him; he would not allow him to live above his income; when Sir Owen made some extraordinary demand for money, his answer was always, "If you persist in spending more than your income, Sir Owen, I must resign my office;" and that threat invariably brought the Baronet to reason. He knew that he was about as capable of managing his estate as of translating Greek.

Sir Owen had had one great disappointment—Heaven had not blessed him with a son and heir. One good quality amongst a host of bad ones was his love of children. While he was cruel to animals, almost furious at times with his wife and servants, he loved little children; and the chances were that if he had had children round him he would have been a better man. As it was, the disappointment made him sour and morose; he could not bear it; he was sullen and fierce by turns.

"No son to succeed me!" he would say. "Why should I care about my fame or my name? I want a son. I should have something to live for if I had a son. Why, some of the laborers on my estate have half a dozen strong, sturdy sons; why should not one at least have been given to me?

"You may depend upon it, Sir Owen, Heaven knows best where to place the little ones," Darcy Lonsdale would say; and then Sir Owen, knowing how far he was from being able to take care of a child, would say no more.

He would have loved his wife better if little children had been there to soften him; as it was, he now spent half his time in quarreling with her and tyrannizing over her, and the other half in fierce love-making. That to her was the worst mood of the two.

He was not loved, the rich Baronet; the simple townspeople told strange tales of him when gathered round their fire at night—strange evil stories that never came to his wife's ears, or she would have left him.

"I would not let him marry my daughter," the poor women would say; "no, not if he had been twice as rich."

There was no mistake about the fact that his name was in very evil repute amongst both rich and poor.

Francis Haye talked over the matter with his wife sometimes. Mrs. Haye looked at it quite philosophically.

"I am told," she said, "that he drinks over a bottle of brandy each day; if that is really the case he cannot live long."

"I do not see how that improves matters," rejoined her husband.

"I do; she is sure to have all his money, and then in a short time she can marry again."

Francis Haye was not particularly sagacious; but this view of the matter struck him at once.

CHAPTER XXXV.

Lady Chevenix was standing in her superb drawing-room alone; she held a folded paper in her hand which she was reading attentively; then she meditated for a few minutes, and afterwards rang the bell. To the servant who answered it she said—

"Will you ask Mrs. Haye if she can come to me? I wish particularly to speak to her."

Mrs. Haye was spending a few days at Garswood—that was what the world was told; in reality she was there because Lady Chevenix feared for her life. Sir Owen had been drinking heavily, and he had grown dangerous, as she believed. She had lost all control over him, and the terrified servants told each other of sobs and cries that sounded at night when all the house was still. She grew alarmed at last, and sent for Mrs. Haye.

That philosophical lady said nothing to the fierce angry man who was beyond reasoning with; but she sent for a physician, and the appearance of a doctor frightened him into better behavior. Lady Chevenix would not part with her mother.

"You must stay with me, mamma," she said. "I have been through scenes that would make you shudder, and I have lost all heart—quite lost all heart. You must stay with me."

Mrs. Haye was one of those women who, even when alone, never under-value appearances, and she always moved and spoke as though people were looking at her. She merely answered—

"I shall be very pleased indeed to stay with you until your husband is stronger and better, my dear."

And it was arranged that she should do so.

Lady Chevenix stood waiting for her now. As she stood there, so tall and stately, with such ineffable beauty and grace in face and figure, she did not look like one who had lost heart. Her girlish loveliness had developed into womanly magnificence; but there was little trace in her of Violet Haye, the sweet girl coquette—little trace of the girl who had loved Felix Lonsdale, or even of the woman who had asked him so piteously to be "friends" with her. A darker sheen lay on the golden hair, a deeper light lay in the lovely eyes, the red mouth had not its wonted smile. One could see at a glance that the years had embittered her. She had not grown soft and tender, but stern, proud, and cold. She had hardened her heart, and tried to care for nothing but the wealth and luxury she now possessed.

She looked exquisitely beautiful; her morning-dress fell in artistic folds, a tiny cap of white lace and blue ribbon lay lightly on her golden head. Yet, though she was so wonderfully lovely, and was surrounded by all that was most desirable, she did not look like a happy woman.

She raised her eyes as her mother came into the room.

"Mamma," she said, holding out the paper, "I wish you would read this and tell me what to do."

Mrs. Haye took the paper from her daughter's hand and read it.

"The Loomshire Hunt Ball," she said. "Of course you are going?"

"That is what I want to know, mamma. You see, Sir Owen is one of the stewards. If I show it to him, and he goes, you can guess what is almost sure to happen—he will not keep sober. If I do not show it, and he finds out that I have received it——" A shrug of the beautiful shoulders conveyed the rest. "What do you advise me to do?"

"You must show it to him, my dear; there is no alternative. As steward and patron he must attend—that is, if he is well."

"He ought not to go, mamma. You know what will happen. Doctor Bell advised me to keep him at home and quite quiet; but, if he finds out that this has been withheld from him, I can imagine what will follow."

There was no sorrow, no despair in her voice. She merely gave hard, cold utterance to what she knew to be certain. She looked musingly at her mother; Mrs. Haye gazed at her.

"You cannot shut yourself away from all society, Violet, because you are afraid that your husband will not behave himself. You might as well be out of the world."

"Well, as matters stand, that is quite true," she replied. "You do not know, mother, what I suffer when he behaves in that way. I think sometimes that if I had been born an aristocrat I should not feel it so much. Then I could have stood aloof from the disgrace; now it falls upon me."

"Nay, that it does not, Violet," said Mrs. Haye, warmly. "You cannot force Sir Owen to keep sober. He drank before he knew you."

"Yes, that he did. I cannot expect any one to understand me; but that is really my feeling, that I share in the disgrace. Still that is not the point in question. Do you advise me to show him this or not?"

"I think you must show it to him," said Mrs. Haye—"it would not be safe to keep him in ignorance, I am sure—and we must do our best afterwards with him. You need not remain very long at the ball, you know."

"I will do as you say, mamma," she replied; and Mrs. Haye could read neither pleasure nor pain in her face.

Left alone again, Violet walked to the window, and stood looking out on the brilliant flowers and the stately trees.

"Of all strange turns," she said to herself, "to think that my life should have taken this—that the brightest part of it should be spent in keeping a fierce, coarse, violent man sober."

She was always just. She had sought her own destiny; it had not been forced upon her. She had that which she had coveted, and she must take the drawbacks with it.

She found that she had acted wisely in taking her mother's advice. One of the first things Sir Owen asked about was the ball.

"Shall you go?" she asked her husband.

"That I shall," he replied; "and you too. Lady Maude Arlington is going; every one who is any one will be there."

It was a favorite festival of his; he enjoyed making himself popular. He never missed the Hunt ball.

"Violet, mind you have a dress worth looking at. Lady Chevenix of Garswood must be second to none on this occasion. If there is anything you want, no matter what it costs, you must have it."

She thanked him; but there was neither gratitude nor pleasure in her voice. Bitterly enough she said to herself, "What will it matter if I am covered with diamonds? I shall have a weight of care on my mind which all the diamonds on earth could not balance—the ever-present fear that my husband will disgrace himself."

But during the next few days Sir Owen improved. The doctor had given him a serious fright; he assured him that unless he led a more abstemious life he must soon die. He bore the warning in mind and drank less.

He began to interest himself in the ball. Lady Chevenix looked forward to it with pleasure; Lady Maude would be there, and she liked Lady Maude. Felix would be there too—she had heard Sir Owen say so. She longed to see him again; she felt that there would be a sense of rest and protection in his presence that never came to her with any other. She wondered to herself if he would ask her to dance.

"I should like to dance with him," she thought to herself, with a smile that was almost pitiful.

She took great interest in her dress and her jewels, hoping that he would notice her presence more than he generally did. Very beautiful she looked in her favorite colors, white and blue—white satin and blue velvet. With her exquisitely-moulded arms and neck—fair as a sculptor's dream—a diamond necklace clasped round her throat, a diamond cross gleaming on her white breast, she looked like one who could sway men's hearts. Sir Owen was proud of her, and said so in his blunt fashion.

"There will not be a woman in the room like you, Violet," he said; and she wondered whether there would be one with such a load of anxiety on her mind.

The ball was always held at the Assembly Rooms in Lilford. It was very exclusive, very select, and at times very dull. But this year the party from Bramber Towers was a large one; several officers were visiting there. They at first voted the Hunt Ball a decided "bore;" but when they saw Lady Chevenix they thought differently. She was worth coming many miles to see, they declared; and she was soon surrounded by a crowd of admirers.

The rooms were beautifully decorated and filled with a brilliant crowd. Lady Chevenix looked for Felix first; she saw him, but he did not approach her. She observed that he chatted with the Countess of Arlington, and then with Lady Maude; she wondered if he would seek her. She kept her would-be partner in suspense. But Felix did not come; he danced with Lady Maude. Violet could not help hearing what people said—"How well they look together! Can it be possible that there is anything in it?" She could not help hearing it; and a pang of jealous pain seemed to rive her heart. Surely that could never be? Felix marry Lady Maude! It was all nonsense—the gossip of foolish people who did not know what they were saying.

She checked herself abruptly. What if it were so? What did it matter to her? Felix and herself were more than strangers. The greatest stranger in that room thought more of her and said more to her than Felix did. She was the queen of the night. Her wonderful beauty, her gorgeous dress, her costly jewels, made her the very center of observation. She had her triumph. The lover she had forsaken treated her with coldness, her husband kept her in a state of terrible suspense; but the crowd admired her. No one present would have believed that the beautiful, radiant woman had a weight, as of lead, at her heart.

Her spirits rose as the night wore on. It was something to see all the men admiring her; to see them strive for one smile from her; to see how they surrounded her, how they struggled to be of service to her; how her smiles and bright words swayed them as the sweet western wind sways the leaves. That was her triumph, and, to one so vain, it was no small one. She saw that Lady Maude, with all her aristocratic influence, was not sought after and admired as she was.

"Beauty rules the world," she thought, and then added, with a smile and a sigh, "Beauty and money combined, I mean."

Half the evening had passed, and she had exchanged no word with Felix. Presently chance brought them almost side by side in a quadrille. He bowed and spoke to her. Would he ask her to dance? She gave him the opportunity, but he did not take it. He never even thought of it. He had taken his farewell of those false hands; he would touch them no more.

When she went to partake of an ice with Major Morrison, she saw her husband standing by the buffet. He was holding a tumbler in his hand, and she could tell by his face that he had drunk too much. Her heart almost stopped beating. What should she do if there was a scene here?

"Pray excuse me," she said to Major Morrison.

She went up to Sir Owen, and laid her hand upon his arm.

"We have had a very pleasant evening," she said—and her poor lips were white with fear.

"Very," he replied; and in the effort to look dignified he spilt some of the brandy on her dress.

"I am tired," she said, trembling in every nerve; "and, if you will, Sir Owen, I should like to go home."

Her one wish was to get him away before any one noticed his condition.

"I shall not go home yet," he said. "Go back to your dancing. When I am ready, I will send for you."

She dared not disobey him. She went back to the ball-room, a deadly fear nestling in her heart.

Whether he ever did send for her, or whether it was but the fancy of an excited brain, Violet never knew. She had not ventured to disobey him when he said, "Go back to your dancing;" she did as he had directed. She had not dared to disobey or to plead with him, or to urge one entreaty on him. She read contempt for her husband and pity for herself in the eyes of Major Morrison. He made no allusion to the scene, nor did she; but when the dance was ended she asked him to take her back to the same spot. When she reached it Sir Owen was gone.

Felix had been to escort Lady Maude to her carriage—the party from Bramber retired early—and as he was returning he saw Sir Owen assisted into his carriage. Sir Owen called to him,

"Mr. Lonsdale," he said in a thick voice, "will you take a message to Lady Chevenix from me? Tell her that she did not choose to come when I sent for her, and now she may get home as she can; she may walk through the mud if she likes!"

"Stop, Sir Owen!" cried Felix.

But, with great dignity and ferocity mingled, Sir Owen shouted, "Home!" and the horses started off rapidly, leaving Felix angry and full of wonder.

At first he thought it must be a jest—no one could treat a young wife so barbarously, so cruelly—and he half expected the carriage to return; but it did not, and there was nothing left for him but to make the best of his message. He went back to the ball-room; it was difficult to believe that the beautiful, brilliant young queen round whom the best men in the room had assembled was the wife of the stupid, fierce, drunken Baronet. He made his way to her, and waited until he could find an opportunity of speaking to her.

"Lady Chevenix," he said, "I have something I wish to say to you."

She turned eagerly to him, and the light that came over her face caused him keen pain. She rose from her seat, dismissed her train of admirers with a queenly smile and bow, and laid her hand upon his arm. If the touch of the little hand made him tremble, she was not aware of it. They walked through the crowded ball-room until they came to a small recess at the end of it; then she raised her face to his.

"You wanted to speak to me," she said. "I shall be very happy to listen.

She decided that he had come to tell her that he would like to be better friends with her; no other thought entered her mind. Her limpid eyes were filled with light as she waited eagerly.

"I am afraid it is not a very agreeable subject," he began. "May I ask if you have seen Sir Owen lately?"

He saw the light and the color fade, the cold hard look come back again; the very tone of her voice changed.

"I saw him half an hour since, and wanted him to go home with me," she replied.

"Then there has been some mistake—just as I imagined. The truth is, Lady Chevenix, Sir Owen has gone home, after intrusting to me a message so brusque and abrupt that I do not like to deliver it."

Prouder and colder grew the fair face, yet into it there came, he saw, a shadow of fear.

"Gone home," she repeated, "and left me here?"

"I am sure there has been a mistake," he said. "Sir Owen wished me to say that he had sent for you, and—and that as you did not come he had gone home without you."

"But he will send the carriage back for me?" she interrupted.

"I am afraid not," he replied. "But I would rather not repeat his words. I am sure the carriage will not return."

"And he sent me this message by you," she cried—"by you of all men!"

"I am sorry to have had to deliver it, but I had no alternative," he replied. "May I advise you, Lady Chevenix?"

"If you please," she replied.

"Then I should counsel you to return home at

Come before any one has time to notice Sir Owen's absence—it will save so many unpleasant remarks. I will order a carriage, and no one need know for whom it is intended.

"Thank you," she said gently; "that will be best. I will go to the cloak-room at once."

She did so, and a few minutes afterwards she stood, with her opera-cloak round her, waiting for him.

"The carriage is ready, Lady Chevenix," he said; "allow me." He opened the door for her, and stood waiting until she had taken her seat. "It will not be long before you are home—you have a capital horse and a good driver."

She looked at him, and her eyes filled with tears.

"Felix," she said, "will you accompany me home? I would not ask you but that I am frightened. I am indeed. I dare not go alone."

He hesitated a minute, and then he said to himself that he must not think that she was Violet Haye or Lady Chevenix; she was simply a woman in distress, and it was his duty to help her.

"I am afraid," she continued—and he saw that her face was quite white and that her hands trembled. What a mockery her diamonds and her superb dress appeared now! "Sir Owen is very violent when he is not quite himself," she continued. "If he is at home alone, I dare not go."

"I will accompany you, Lady Chevenix," he said; "have no fear—you may rely upon me."

They said but little during the journey, and Felix was glad when the carriage reached Garswood.

"You will come in with me?" said Lady Chevenix; and, seeing the white frightened face, he would have done anything to help her.

He was thankful that he had consented, for Sir Owen had worked himself into a state of uncontrollable anger. He was in the drawing-room, with a decanter half full of brandy by his side, and when the pale woman entered he launched a volley of furious oaths at her. She made no reply, but, turning to Felix, said quietly—

"Will you take any refreshment, Mr. Lonsdale? You have had a long drive."

Another volley of oaths followed. Pale, scared and trembling, she fled from the room and took refuge in her own. If she had been alone, he would have followed her, and then she would have had to save herself as best she could; but Felix was there, and the very thought of his presence comforted her. He stayed with the furious man, whose violence soon changed into the extreme of friendliness, until he had stupefied himself with drink and was carried off helpless to bed, and then Felix started for Lilford.

As he left Garswood Felix raised his face to the calm evening skies.

"Heaven help her!" he said. "Poor Violet!"

No reference to this little scene passed his lips, but in his mind he felt infinite pity for her.

A few days later Sir Owen, feeling ashamed of his recent escapade, insisted upon having a dinner-party. Lady Rolfe, that veteran diner-out, with her daughter Lavinia (who had married a curate and subsided into "parish work"), the curate himself (a mild inoffensive gentleman who had perhaps deserved a better fate), the Reverend Mr. Clayburn, Darcy and Felix Lonsdale, Captain Hill, with one or two more, were to be present.

(To be continued.)

BOSTON LETTER.

The Carnival of Authors; "Uncle Tom;" Memoirs of Motley; The Tourjee European Excursion.

WHEN the salvation of the Old South Meetin'-house shall have been fairly accomplished, what will Boston uppertendom do for excitement? It will certainly be a dull day when there shall be no more original entertainments and grand balls for which the Old South fund may serve as a *raison d'etat!*

The last experiment, made by the ingenious and active committee of ladies and gentlemen who have devoted their energies to this great patriotic enterprise for nearly three years past, was the Carnival of Authors, which took place at Music Hall. This was one of the most originally and thoroughly delightful entertainments that was ever given in Boston, and it was thronged every evening with immense audiences, made up of the best people of the city, each individual of whom represented $1.00 in good money, for there was no "paper" in the house, it being very difficult for even the scribblers to get passes. The entertainment consisted of a continual succession of living tableaux from the works of the famous authors, who were each represented by a booth gotten up in the most picturesque and characteristic style, these mimic stages entirely circling the hall. Of course it was impossible to see all that was going on, omnipresence not being a finite quality, especially as there were platform tableaux and pantomimes following each other in quick succession. Perhaps none of the entertainments were more thoroughly enjoyable than the Saturday matinee, when Mother Goose received the most ample justice at the hands of forty children, with some of their older friends. I never saw anything more intensely amusing and "taking" in my life.

There was considerable dissatisfaction felt by those who did not have much opportunity to attend, that the carnival could not be prolonged, but it was quite out of the question. It is hoped, however, that at least the platform tableaux will be repeated in a series of entertainments to be given in the same hall in the course of a few weeks. Certainly they could not fail to be as thorough a success as was the carnival itself.

The original "Uncle Tom" is in Boston, raising a fund to build a new and substantial church for his colored friends in the little Canadian town of Dresden, which is his home. Nearly all these people were fugitives from slavery in the old days and many an interesting story can this aged man tell of them, to say nothing of his own thrilling history.

Perhaps you did not know that the very individual from whom Harriet Beecher Stowe framed the character of the hero of her wonderful book is still living, but it is a fact, and he is well and hearty, and looking not more than sixty years old, though he will really be ninety next June. He is tall, straight and broad-shouldered, though he is not able-bodied, having only had the use of his arms from the elbows down since he was eighteen, at which time he was nearly beaten to death and received this lasting injury. His laugh is the very jolliest "ki-yi-yi!" you ever heard; he has the very blackest of skins and a perfect type of the African face, illumined with a rare degree of cultivated intelligence. His head is well protected by "kinky" gray hair and a full gray beard softens his features. Father Hanson, as he is called, gives most interesting entertainments, lecturing, singing and giving bits of his history.

You should hear him tell how he escaped from the land of bondage forty-eight years ago, with his wife and four little children. A few years afterwards, he wrote and published a little book, and bought his brother. This family now is no small one—for he has ten children, forty-four grandchildren, and eleven great-grandchildren! His conversation and manners are perfectly refined, for he is accustomed to the best society, not only here, but in England, where on his recent visit he was honored by a personal interview with the Queen, who invited him to visit her at her palace.

The success which Mrs. Stowe's "Great American Novel" has met in the twenty-seven years of its existence is certainly very remarkable. There have been no less than 103 entirely distinct versions published in English and the various languages into which it has been translated, the last and most elegant edition of all having been brought out this season by Houghton & Osgood. It is beautifully gotten up on thick, tinted, red-lined and gilt-edged paper, with very full illustrations and rich binding, and a bibliography of the work precedes the story. It is said that no book except the Bible was ever translated into so many different languages—among those in which it is known to have been published being the Armenian, Bohemian, Danish, Dutch, Finnish, Flemish, French, German, Hungarian or Magyar, Illyrian, Polish, Portugese, Romaic or Modern Greek, Russian, Servian, Spanish, Swedish, Wallachian and Welsh.

Messrs. Hougton & Osgood have just published a valuable addition to biographical literature from the pen of that most graceful writer, Oliver Wendell Holmes, in the form of a memoir of the famous historian, John Lathrop Motley. Boston has the honor of being the birthplace of this talented, though often misunderstood, author and statesman, and his two chosen playmates with whom he used to enact mimic dramas, at his childhood home on Walnut Street, were Wendell Phillips and Thomas Gold Appleton. When thirteen years old he entered Harvard College, and it was here that Dr. Holmes first knew him, they being fellow-students. Years after they, with other bright and shining lights of the Hub, started the now famous and exclusive Saturday Club.

Apropos of the cooking fever now raging among fashionable ladies, the same house publishes a little volume by Mrs. A. D. T. Whitney, called, "Just How; a key to the Cook-Books," which will, I expect, be well received by the fair cookists. Now somebody ought to publish a "Just Why; a key to the Unabridged Dictionaries;" for cook-books and dictionaries are about equally blind and self-revolving in temperament!

The Tourjee European Excursion for 1879 is rapidly filling up. The books were only opened a few days ago, and I hear that a goodly number of ladies and gentlemen have already registered. They are the wise ones, for "first come, first served," with choice of staterooms, etc. It seems that not every one who tries can run one of these gigantic enterprises successfully. It is rumored that another ambitious Boston gentleman, who undertook to experiment in getting up a big picnic party for European travel next summer, has found himself compelled to withdraw from the field.

ROBIN.

RECOLLECTIONS OF SIR WALTER SCOTT.

ZENO CLAYBOURNE.

As Jennie sat beside the couch of a pretty young invalid friend, an uncle of the sick girl, a rigid, canny old Scotchman came in. The greetings were warm, in remembrance of the time, long past, when Jennie had tried to follow the intricate leading of the Scotchman's theological arguments and researches in the Bible class to which they belonged, and the conversation, like a current of air, rushed to fill up the time which intervened.

Among the events of interest mentioned, was the wonderful, many-sided Centennial Exposition, and, incidentally, the Zoological Gardens of Philadelphia, and the swans in them, when Mr. Hogg remarked, "Walter Scott used to keep swans at his home, at Abbotsford, and I have often fed them."

This remark fell like a lighted match dropped among shavings, for Jennie had just finished reading the brief biography of Scott found in Mitchell's Stories about Old Story Tellers, and she exclaimed with eagerness,

"Why, did you ever see Walter Scott? and his dog Maida, and his family?"

"Oh, yes! many's the time I've seen the fine old fellow, walking about his grounds, leaning on his favorite servant. You know he walked with a limp, having been lamed by a sickness in boyhood."

"Scott was a powerful man, physically, and had coarse features.

"Tell me all you remember about him," said Jennie.

"It seems to me quite wonderful to meet a man who has seen Walter Scott. Mitchell says that Maida was a noble stag-hound, whom Scott loved almost as well as any creature about him."

"Well, I was a little youngster then, and I thought the dog an enormous, ugly brute," said the Scotchman. He certainly had to be kept muzzled with a large leather muzzle. When he died he was buried on one side of the large front door, and a figure of him cut from stone, after a photograph taken in life, was placed over his grave and used for a horse-block. Another large dog was named Nimrod, and two rat-terriers, Spice and Pepper, belonged to Scott's lady, who was a French woman, of small stature, with black eyes and hair. There were four children, two sons and two daughters; Charlotte, named after her mother, Anne, Walter and Charles. Charlotte became Lockhart's wife, and their daughter afterward married a Catholic, who took the family name, Scott, with the homestead at Abbotsford, and removed an old mill to make way for a Roman Catholic chapel. Anne, favored her father in appearance and was a most excellent girl. The sons were both wild fellows. Walter married a Highland lady, and I remember little about Charles. The grand old place has passed entirely out of the family. The present incumbents have built an addition to it, in which they live, and keep the original house intact for exhibition. It is a ponderous house of Gothic style, and full of Sir Walter's own conceits; for instance, it contains a prison-door, which was once presented to him.

There are great halls, and corridors, and turrets, and courts; and the whole cost £125,000."

"No wonder," said Jennie, "that it is called a romance of stone and mortar?"

"Scott bought farm after farm," continued Mr. Hogg "to make the estate of Abbotsford; but he only enjoyed it a few years. It was never opened to the public, but twice, first when his son Walter was married, and last, when Sir Walter, himself lay dead in the house.

"You see, he sold his copyright to Constable, a publisher in Edinboro, and by the failure of that house and of Ballatyne & Co, he was involved to the amount of £117,000. The Duke of Buccleugh offered to pay his creditors every pound, but Scott was too proud to accept this favor. He determined to pay his debts by writing more books as the Waverly Novels were already very popular; but his health failed, and he died, from overwork, £30,000 in debt. He went to Italy in a ship which the government placed at his disposal, hoping to get better, but it was too late; he could not rally. He was so well loved by the people of London, that when he stopped there on his way home, they carted straw and spread on the street to deaden the noise in front of the hotel, where he lay. He came home and died, on a still September day, within hearing of the Tweed rippling over its pebbles, which Lockhart says, was the sound most delicious to his ear."

Here the speaker stopped, and the impressive silence was broken by Jennie's inquiring "Was not your uncle, the poet, a friend of Sir Walter's?"

"Yes," said the Scotchman "James Hogg, the Ettrick Shepherd, often went to the great house, and he considered Sir Walter a very good friend. He said that Scott would never help any one, in a literary way except Lockhart, but he often gave money to unsuccessful authors, and, in fact, supported several.

"Scott was a lawyer by profession and obtained the office of Sheriff, which corresponds to our Circuit Judge. He was also knighted, which gave him the title of Sir.

"When the King, Geo IV. visited Scotland Sir Walter was appointed to receive him."

"I have read," said Jennie, "that Dominie Sampson, Dandy Dinmot and other characters in his books were real people. Did you know any of them?"

"O, yes," answered her friend, laughing, "Dominie Sampson was his book name for Mr. Geo. Thompson, a learned preacher at Melrose. Meg Merilles was a gypsy, and Dominie Sampson was quizzing her closer than she liked when she exclaimed, "Gape, sinner, and swallie."

"The Dominie was engaged by Scott to make a catalogue of his library, and got along very well until he came to a very interesting book, in which he found himself portrayed, and he became so much absorbed, that when he was called to dinner, he stood with one foot on a chair, and the other on the floor in which position he had been reading for three or four hours.

"Dandy Dinmot was a man who lived in the vicinity and raised rat-terriers, and with them hunted hares for other people. Mr. Laidlaw was another inhabitant of Melrose, who lived in a good house, and was employed by Scott to write his later novels, by dictation, as the paralysis made Sir Walter unfit to use a pen. Tom Purdy was Scott's game-keeper, and was often brought up to the mansion by the servants to make sport for them. Wine was freely used by all in those days and their feastings were times of reckless dissipation. In this, the servants committed greater excesses than their masters, and one night Purdy was taken home from a revel in a state of stupid intoxication. He was placed by a stand, on which he threw his arms, and dropped his head.

"His wife exclaimed. 'There! I guess you have killed him now!' and surely enough, in the morning, he was found in the same position, dead, Scott felt very badly to lose his faithful servant, who had so often hunted with him, and supported him in his walks, and he caused a likeness of him to be cut in a marble wall, on one side of a corridor in his house. Our friend, the schoolmaster tells me he saw this and the stone dog, Maida, when he visited Abbotsford, a few years ago; but it is getting late and I must begone. Good-night," and before Jennie could thank him for the pleasure he had given her, the Scotchman was out of hearing.

BITS OF GOSSIP.

MANNA is a saccharine juice derived from a species of ash. It is a mild purgative.

FIFTY-ONE metals are now known to exist, thirty of which have been discovered within the present century. Four hundred years ago but seven were known.

THE Chinese and Japanese use fans as we do scrap-books. Friends inscribe on them impromptu, *bon-mots*, caricatures, &c. There are many of these blank paper fans in the Japanese shops in London.

THERE is usually very little to record as regards any innovation in men's costumes, but just now in Paris many of the dandies wear very tiny hooks at the top of their boots, and corresponding eyes on the trousers by which to keep them up on wet days.

ALTHOUGH the existence of kerosene oil in several of the provinces of Japan is said to have been known for twelve hundred years, the Japanese did not know how to refine it till about six years ago. Now, however, refining establishments are springing up rapidly, and its manufacture is becoming an important industry.

THE following is recommended as a good means of getting rid of mould in cellars. Put some roll brimstone into a pan and set fire to it; close the doors, making the cellar as nearly air tight as possible, when the fungi will be destroyed and the mould dried up. Repeat this simple and inexpensive operation every two or three months for two or three hours at a time.

A RECENT number of the Levant Herald gives a lengthy definition of the meaning of the word "Pasha." According to it, the title is derived from two Persian words which signify "the feet of the Shah," and dates from the days when Cyrus gave to his different officers of state the names of hands, feet, eyes, ears, and tongues, according to the different vocations assigned to them. Thus the title conveys in its derivation the idea of military service.

SIMPLE LIFE-SAVING MEDIUM.—Most men, in disasters at sea, have at command a means of keeping themselves afloat which can be extemporized in a minute. It is simply this. Spread a handkerchief on the deck of the vessel, place a hat in the center of it, mouth upwards, lift the opposite corners of the handkerchief and knot them very firmly. Grasp the knots tightly in the left hand, and leap into the water, keeping the hat under the surface. This provides a floating power of from five to six pounds with tall hats, and say half that with felt hats, which is ample to support the head and shoulders above the water for a considerable time.

SOUP.—Physiologically, soup has great value for those who hurry to and from their meals, as it allows an interval of comparative rest to the fainting stomach before the more substantial beef and mutton is attacked, rest before solid food being as important as rest after it. Let a hungry and weary merchant or lawyer begin boldly with roast beef, and what is the result? The defeat is often as sudden as was the attack. When the body is weary, the stomach cannot stand the shock of an ill-masticated half-pound of beef. But, if a small plateful of light soup be taken, nourishment will soon be introduced, and strength to receive more substantial material will follow.

CIGARS.—Rapid seasoning of a cigar is undesirable, as a high temperature is injurious. A dry atmosphere, with a temperature of about sixty or seventy degrees Fahrenheit, is best, the box being opened, and bundles untied. Some connoisseurs remove the cigars from the box, and place them loosely, in single rows, in a cabinet which is kept warm by the burning of a spirit-lamp. Unless caution and judgment be used, the cigars will lose flavor under such treatment. A cigar, after being well seasoned, should always be kept in a dry place, as it will rapidly absorb moisture and spoil. At sea, or by the seaside, a well-stoppered glass jar, or metal box with well-fitting lid, is best for the storage of cigars.

TO JUDGE SILKS.—There are two ways to judge silks. Note the closeness and evenness of the rib, and hold it to the light to judge the better of this. That shows the texture. Then crush the material in the hand and release it suddenly. Note if it springs out quickly; that is the verve, and should leave no crease behind. The quality of the silk is denoted by the verve. The Italian silk is the softest in the world, and often wanting in stiffness of appearance. The Bengal silk is the poorest, and deficient in verve. And, again, there is a great deal of silk manufactured which is adulterated with a material called jute, which is interwoven in the fibre of the silk. This manufacture will be found very deficient in verve. It is a silk which, if wetted, stiffens almost like paper.

GAMES.—Dice were known to the Lydians 1500 years B.C. Perseus is credited with the invention of quoits, and the Hindoo Tessa with that of chess. Ardschio, King of Persia, invented backgammon. Palamedes draughts, Pyrrhus tennis, and the Greeks the noble game of goose. Loto is a comparatively recent discovery, due to an Italian, Celestino Galiani, in 1758. Dominoes owe their name to the piety of a monk who originated them, and who was happy to pronounce a holy word while taking his amusement; and it is a nun who is believed to have invented both the game of battledore and shuttlecock and the catgut racket used in playing tennis. Excavations at Hissarlik, the presumed site of Troy, have brought earthenware "marbles" to light; and those at Pompeii have yielded a number of jointed dolls in ivory, which prove that the custom of giving costly toys to children is not one of modern development.

SEAWEED JELLY.—The Japanese not only eat seaweed in many forms, but they also largely employ it in their manufactures, and showed specimens at the Paris Exhibition. They use it in sizing paper, dressing silk, cotton and thread, as well as in dyeing. The French now collect the seaweed on their coasts and make thao, and employ it at Rouen on their fine cotton goods and prints. It has been observed that rain or fog (damp) does not affect materials dressed with thao. It also answers well for sizing papers; and the only obstacle to its more extensive use is the cost of production. It yields ten times as much jelly as an equal weight of isinglass, but for purposes of food that jelly is not quite so pleasant as an animal jelly, such as isinglass, as it does not melt in the mouth, and it contains no nitrogen. It is being tried in France in some of the hospitals, but as yet no official report has been issued.

News of the Week.

Monday, Feb. 24, 1879.

MISCELLANEOUS.

All the cows badly infected at the Blissville stables have been slaughtered on the spot and buried with slashed hides; those slightly affected were taken to the butchers', on permits, and there killed, as the meat was considered unfit for food. A small lot of cattle that arrived here by rail from Watertown, Conn., were also killed on the same account, and their carcasses dumped into the river. A few diseased animals were likewise slaughtered in a couple of other stables in the neighborhood. Wherever the malady has made its appearance hereabouts, the infected animals have always been fed on distillery or brewery swill and filthily stabled. The board of a cow here on hay, etc. costs about $2 a week; whereas the price at the Blissville stables was only 50 cents; hence the popularity of swill feed among those who look only to profit just under their noses. Gaff, Fleischmann & Co., got a few so-called veterinarians to testify that the cows in their stables had only sporadic, or non-infectious pleuro-pneumonia; but the testimony of Prof. Law and of the excellent veterinarians attached to Brooklyn and New York Health Departments contradicts this opinion flatly. Here as elsewhere, a fat fee has a marvelous effect in deciding the verdict of some pretentious experts.

There is a bill now before the Senate for a much-needed improvement in the method of transporting animals. Reliable testimony shows convincingly that in many instances they are confined in cars without food, water or rest for from 80 to 120 consecutive hours. Many distinguished physicians and sanitarians declare that the flesh of such animals killed before they have recuperated, is unfit for human food. The proposed bill makes it compulsory that animals in transit should have good food, pure water and rest every consecutive seven hours. It also provides that cars loaded with live-stock shall have the right of way over all trains, thus preventing any unnecessary delay. When animals are properly fed and watered in the cars, they may be confined for 60 consecutive hours, but in all cases they must then be unloaded. No invidious distinction must be made between the railroads within the United States and those a part of which run through Canada. Penalties for the violation of these rules can be summarily inflicted by civil action.

It is calculated that from 12 to 20 per cent of those drawing pensions, do so fraudulently; yet the Secretary of the Interior thinks that about 100,000 ex-soldiers or their representatives entitled to pensions under the recent act, have not yet applied for them, and arrangements are suggested by him for dividing the country into districts so as to facilitate their applications. Secretary Sherman estimates that the amount payable by way of arrears of pensions, will amount to *only* $41,500,000 and says that the result will be a deficit for the coming fiscal year of $27,000,000, to provide for which he recommends the imposition of some new tax. There is before the Senate a fierce struggle over a bill permitting the railroads to use their own telegraphs for the transmission of general news. The Western Union and the Associated Press are contending against such a measure as sure to endanger their own monopolies. Machinery Hall, the largest of the Exposition buildings, has been sold for $26,000; it cost $334,867. New Orleans has just got a line of fast steamers to the Mediterranean. Since Memphis found "a new way to pay old debts" by surrendering her charter, Mobile and Galveston have been pondering on the expediency of doing likewise.

In Wyoming Co., N. Y. last week hay sold for $3 a ton! Vanderbilt has bought the Tifft grain elevator in Buffalo, capacity per hour, 8,000 bushels; storage, 300,000 bushels; price $255,000. The courts of Wisconsin and Illinois have decided that where parent and teacher differ with regard to the studies a child shall pursue, the parent's wishes shall decide the matter. Jay Gould has sold out many heavy blocks of Union Pacific Railroad stock, and with them the control of the road; but he is consoled by an estimated profit of four and a half million dollars—or he ought to be. The House has voted an installment of $26,852,300 towards paying arrears of pensions according to the Act lately passed. but it is a trifle hard to tell where it will come from, as no extra tax has been imposed. Atlanta, Ga., doesn't want the State Fair this year. About 200,000 valentines were sent through the P. O. here on St. V's Day. Kearney and his "sand-lot" followers are willing to accept the anti-Chinese bill as a partial relief. Complete relief will come only when every Celestial suicides in the Pacific Ocean. Alaska Indians are threatening terrible things to the few white settlers. An English war-vessel is protecting these until they get an answer to their request for troops. The shareholders of the Keely motor company are alive enough to elect directors; it's doubtful whether the motor has a spark of life. A clergyman in Nashville lauded public honesty the other Sunday from his pulpit; and straightway the legislature that had just repudiated the State debt, indignantly censured him for doing so—and that by an official vote, too.

In 1861 there was 46,049 Federal office-holders; 53,067 in 1865; 86,600 in 1873; 99,384 in 1877. Since the war the number has nearly doubled—now moralize; there's your text. It seems that for a long time back the police authorities of St. Louis have been in the employment of the gamblers of that city—salary from $50 to $400 per month. Like other rascals, they now think it was an awful thing to be "found out." Four "road agents" "got the drop" on Col. Rice, Lieut. Sibley and a civilian named Cahn and an escort of seven troopers out near Bismarck, D. T., the other day, forced them "to up hands" and relieved them of nearly $3,000, of which poor Cahn forfeited $2,500. One of the robbers has been captured by a detachment of the "boys in blue." Fires have been uncommonly common all over the country of late, and the insurance companies begin to complain of this mode of disposing of poor stock at a high figure. There's a good deal of talk about an extra session of Congress, but neither party seems willing to be guilty of forcing such an outrage on the public interests of the country. The only excuse it could have would be the necessity for adopting vigorous measures for protecting the stock and other interests of the agricultural community. The committee appointed to investigate Senator Stanley Matthews' connection with Jim Anderson and Louisiana matters have at length found out that, like most of the others in that connection, he did nothing wrong. The Teller Committee is trying to find out fraud in Mississippi. The Potter Committee's labors are nearly ended. The latest census shows there are in this country 6,000,000 farmers, or thereabouts; the statistics of the advertising agencies show that the circulation of agricultural papers is about 600,000, and a large proportion of those who take these are not farmers, while many take two or more of them.

H. C. Burchard, of Illinois, has been nominated to succeed the late Dr. Linderman as director of the mint. The reduction of the tax on home-grown tobacco from 24c. to 16c. is causing a temporary stagnation in the business, as manufacturers do not want to buy more than necessary before April 1, when the law goes into operation. Texas has had heavier immigration this year than any State in the Union; but life there is not altogether happy. Upwards of 300 *known* murders have been reported during the last five years; eight murderers only have been hung. The other day a desperado who was well known to have committed three murders there, was arrested for them out in Kansas, but had to be released because no money had been appropriated by the Legislature of the Lone Star State to pay the cost of hunting up criminals, and the authorities didn't care therefore to go after the rascal, who is now boasting of his crimes with impunity. The Catholic Church is joining the railroads in the coal regions of Pennsylvania in attempts to break up the order of the "Knights of Labor," which is reported to be a second and hardly improved edition of the "Molly Maguires." Premier Macdonald of Canada, is about to retaliate on us "Yankees" by imposing a duty of from 60 to200 per cent. *ad valorem* on woolen goods imported from this country; from 40 to 80 per cent. on cottons; 35 to 50 per cent. on machinery and tools; $1 to $2 per ton on coal; 10 cents per bushel on corn and 20 cents on wheat. Extremely cold weather and heavy snowfall nearly all over the Northern States during the four last days of the week just ended. It looks as if March is about to come in "like a lion." Railroad smash-ups were nearly as common during the past week as bank smash-ups and downfalls of social saints in ordinary times. Zack Chandler's little boy's "Splendid Papa" was elected to the U. S. Senate on the 18th, at Lansing, Michigan, *vice* the elderly invalid, Christiancy, who will seek *otium cum dignitate* as our Minister in pleasant Peru.

FOREIGN.

Strikes are diminishing, but public distress remains about the same in England. There's an outbreak of pleuro-pneumonia in Yorkshire. Liverpool has voted about $170,000 for the construction of buildings for the receipt and slaughter of American cattle during the present restrictions on their importation. The Privy Council prohibited the landing of animals there after March 3, unless conveniencies suitable for this purpose were provided. In South Africa an English detachment of 1,200 men is surrounded by hostile Zulus, and reinforcements are being rapidly hurried forward. From Afghanistan there is a report, *via* Russia, that Shere Ali was at the point of death last Tuesday. In Russia the plague is said to be abating, but more implicit belief might be accorded to the report were it not that all news from the infected regions is submitted to a rigid censorship by the authorities. All communication between Russia and the rest of the European world is interrupted by a strict quarantine of all travelers on the frontiers. Bismarck's attempt to curb free speech in the Reichstag has been defeated by a strong majority of the votes of that body. It is said that the Chancellor is determined to force another dissolution, hoping that by means of the powers lately placed in the hands by the laws for the suppression of socialism, he will be enabled to secure the election of members of the legislature more subservient to his dictates, than those returned last fall before the passage of the anti-socialist laws. Meanwhile the enactment of a strong protective tariff law, is pretty certain.

President Grevy will get a salary of $100,000 a year and $50,000 for household expenses. His private fortune, too, places him among the very rich men of France. McMahon also is very well off, his wife having inherited an ample fortune. After congratulating his successor and wishing him all success the old Marshal retired to his estate at Grasse. It may therefore be said that Frenchmen have sent McMahon to Grasse while taking Grevy

HERMAN.

John Reed the gas-man of the Walnut Street Theatre, Philadelphia, for fifty-four years, during which time he has never missed a performance, has just celebrated his golden wedding. He is an eccentric genius and in his will bequeaths his head to the theatre for use as the skull in "Hamlet."

Judge "Jerry" Black's wife, who was a bride at seventeen, was niece of Walter Forward, Secretary of the Treasury under President Tyler. When Judge Black was Attorney-General, and afterwards Secretary of State, under Buchanan, Mrs. Black, then in her prime, was a distinguished ornament to official circles of the day.

Tennyson loves English farm life in its most practical ways.

Domestic Economy.

CONDUCTED BY EMILY MAPLE.

THOUGHTLESS ERRORS.

REV. A. W. MANGUM.

MANY persons who are generally discreet and commendable, are guilty of acts and practices that are very objectionable, but not regarded in the true light by those who commit them. Some of these improprieties are of so insignificant a character that they are seldom or never mentioned in papers or other mediums of reform. It is my purpose to call special attention to some of them.

In the country, particularly in the case of small farmers, the grain is often carried to the mill on horseback. The sack into which the grain is put is, not unfrequently, very much soiled—not having been washed in a long time. In some instances, a crude thought of something like cleanliness suggests the policy of spreading something next to the horse, to protect the sack of grain, going, and of flour, returning. That something is, most likely, a foul, stained blanket that has been used, for a long while, under a saddle; or, it may be an old, worn, filthy sack. In other instances, the bag of wheat or flour is simply thrown across the unprotected back of the horse. Then the boy or man mounts and sits directly on the uncovered sack. This is quite offensive to decency in the winter season, but is exceedingly disgusting in warm weather. Sometimes, when the trip to or from the mill is ended, the sack, on being removed, is found to be saturated with the sweat from the horse. A moment's reflection convinces any sensible person that the flour is more or less contaminated in such a case. It looks perfectly pure, both before and after cooking; but it cannot be as it looks. The farmer, perhaps, is very watchful that everything be neat and clean in the kitchen; and the good housewife is very fastidious in her notions about sweet, pure biscuit. Unfortunately, their attention begins too late.

It is very remarkable that so glaring and inexcusable a custom should, in so many instances, pass unchallenged and unchanged from generation to generation. Of course, I exempt from these charges all the multitude of good, thoughtful farmers who so properly scorn the very idea of such uncleanliness, and assume that they will join me in condemning the very offensive custom that I have stated.

I respectfully suggest as a useful subject for some of the accomplished writers in the department of Domestic Economy, "*The History of a Biscuit.*"

Univ. of N. C.

ONE OF THE SOLOMONS AND SOME OF HIS WAYS.

ADELINE E. STORY.

"I vow and declare for it," said Tabitha Trimsharp, as she picked up two pairs of boots and a pair of slippers which Solomon, The Profound, had left scattered about the room; "I'm getting clear out of conceit with smart folks, 'specially as they're only smart one way. There's Solomon now, a tip-top farmer, as every one allows; sound as a fresh-laid egg, when he's out on the mower or the grain drill, but as useless as a cast-off shoe the minute he steps foot in the house. Just ask him to tend the baby a minute, or dish up the potatoes, or turn the griddle cakes, or tie up a cut finger, and see whether he'll do it like a rational being that's seen these things done all his life?

"I tell you he's the awkwardest creature! Such a botch as he'll make of it. I, for one, never ask him to try. Don't tell me I never tried to develop his talents, for I have. Time and again I've tried to make something of that man when I hadn't much else to do, and I thought I'd be so proud of him—for you see Samantha was always telling me what a man's mother hadn't made of him his wife couldn't—if I could bring him to do such things as pile up the last week's papers on the top shelf in the closet without knocking everything off the other shelves; light a candle without throwing the burning match on the carpet or wiping the tallow from his fingers on his hair; or set the kettle off the stove without scalding the cat.

"I felt mortified and cut up at the work he made of it all, I can tell you; for I used to think a woman that couldn't teach another person how to do a thing, didn't half know how herself, but I've come to the conclusion that it makes a difference where that person is a man. But if ever I actually *suffered* it was once when I lay for a day flat on my back and no one to do anything but Solomon. You ought to have seen the toast he made for me! You wouldn't have hankered for a *taste* any more than I did. He washed the childrens' faces with the dishcloth, put their clothes on hind side before, and gave them the tongs and dear mother's daguerreotype to play with. He melted off the tea-kettle spout and burned a hole in the table-cloth. Just how he managed to do that I never knew. *He* thinks it must have happened when he shook the crumbs in the fire. But all that was nothing compared to the way he used the baby. He squeezed it so hard between his great, awkward hands every time he took it out of its crib that it grew black in the face, and then he walked the floor with it under his arm, heels up. He choked it with hot potato and stuffed it with cold apple-dumpling and cream till it cried, and then trotted it on his knees till its neck snapped, to stop it.

"But I would't mind Solomon's unhandiness so much," continued Aunt Tabitha, as she folded that worthy's night-shirt and tucked it under the pillow, "if the men folks far and near didn't think it small to be handy about the house, and if the boys that I've tried to bring up differently, didn't think it manly to take after their father. You'll notice boys do take after their father in such things.

"I like to see a man—yes, and a woman too, for the matter of that—able to turn his hand to a few things outside of his regular business without danger of twisting it off. If I had a daughter, now, I'd have her know how to do everything around the barn, in case of need, as well as the men could do it. She should be able to tie up the cows and milk them without getting on the wrong side to do it. She should know how to harness a horse and drive him when harnessed without feeling that she must *always* sit exactly in the middle of the seat and hold her arms extended, with a rein in each hand, in such a way as to make them ache for twenty-four hours to come. She should know how to use a hand-saw and drive a nail without splitting the board or smashing her thumb. She should know how to do various other things too numerous to mention, and if she didn't—well, she wouldn't take after her mother, that's all."

DOMESTIC RECIPES.

Bologna Sausages.

Three pounds of lean beef, three pounds of lean pork, two pounds of fat bacon, one pound of beef suet. Boil the lean beef and pork one-half hour; then chop fine, each by itself, as likewise the bacon and suet. Season with pepper, salt, thyme and ground mace. Fill ox skins with it; tie them in lengths, and put in a beef brine for ten days; then smoke them the same as hams or tongues.

Pigs Tongues.

Partially boil the tongues in order to remove the skins. Place them in brine for a week, then dry them and put into sausage skins. Fasten them up at the ends and smoke them.

Apple Batter Pudding.

Peel six tart baking apples; take out the cores and fill the cavities with sugar; put onto a pie-dish and cover them with a light batter. Bake until the apples are tender. Serve hot with cream and sugar.

Tartlets.

Cut as many rounds of rich puff paste with a tin cutter, as you wish; then again cut an equal number and press a smaller cutter inside them to remove the center and leave a ring. Moisten the rounds with water and place the rings on them. Bake from ten to twelve minutes in a moderate oven, and when done, fill the center with jelly or preserves. Stamp out a little of the paste rolled very thin into stars, etc.; bake them lightly and place one on top of each tartlet.

MARY B.

QUESTIONS ANSWERED.

Short-Cakes.

I have observed in the Domestic Economy column, published in the RURAL NEW-YORKER, a number of recipes for making strawberry short-cake, but have not yet discovered one for making what I term the genuine short-cakes without fruit, such as I remember, at least forty years ago, in the village of Claverack, N. Y. At that time my father's house was frequently the resort of prominent citizens of New York and elsewhere, and his residence became famous for the simple tea-table luxuries, such as coffee, waffles, whigs and short-cakes.

A colored woman cook who had been in the service of the family many years, acquired the pastry cook's art, and made short-cakes superior to any I have ever seen since that day, and no written recipe was used. I fancy that cream was one of the ingredients and liberally used. The dough was rolled out to about one-half an inch thick, then cut out with a tea cup, and baked in a quick oven. The cakes were light and flaky—like good bakers' bread. They excelled all others made at home. You will oblige me by giving your experience or the best recipe you have at command.

Near Hudson, N. Y. C. M. LUDLOW.

ANS.—I have never tried making short-cakes otherwise than with sour cream and soda, mixing only stiff enough to roll readily—in fact a cream biscuit—and these, although very palatable, I fear would scarcely answer your description of short-cakes which resembled "flaky bakers' bread." Neither have I a recipe.

but let us hope that some of the RURAL'S experienced housewives, who brewed and baked forty years ago, will be able to furnish us with a recipe which will meet the requirements.

E. M.

IMPLEMENT NOTES.

A NEW WHEEL-HARROW, that is a departure from the common method of construction, will be introduced this season by J. & J. W. Belcher, Chicopee Falls, Mass. It has been successfully tested and found to be a very serviceable implement. We believe circulars descriptive of the harrow are now ready for distribution. A new hard-metal plow is another specialty of this firm, which will be presented to the consideration of *farmers* this year for the first time.

A NEW MACHINE for grinding mower and reaper knife sections, is being made by the Boston Blower Co. It is very complete and very substantially made. By taking off the knife-holder and substituting another wheel, it becomes a serviceable implement for other grinding purposes. A new blind awning fixture, by applying which it becomes easy to convert blinds into awnings, is also a thing likely to meet with great favor.

MR. C. C. POST, of Burlington, Vt., who has become identified with the maple sugar interest through his Eureka Sap-spout, has, this year, increased his business facilities by combining factory and office under one roof. The Eureka is so thoroughly known as a sap-spout that combines cheapness with the greatest efficiency, that its name has become a standard, and hardware dealers everywhere keep it in stock as a matter of course.

CALHOUN'S Broadcast Hand Seed-Sower, so long and favorably known as an efficient implement, has recently been modified and improved in a way that greatly adds to its value. The Goodell Co. of Antrim, N. H., the makers, have met with gratifying success with this broad-caster, and a reference to their advertisement will explain what they claim for the implement.

THE Clipper Mower and Reaper Machine Co. is building factories at Keene, N. H., and will, this season, enter into active competition for the trade in this class of tools. Those who own Clippers and have been at a loss to secure repairs, may get duplicate parts now without trouble and at small cost.

For Bronchial, Asthmatic and Pulmonary Complaints, and Coughs and Colds, "*Brown's Bronchial Troches*" manifest remarkable curative properties.

We earnestly request that all letters containing money, or any communication intended for the BUSINESS DEPARTMENT *of the paper, be addressed to* THE RURAL PUBLISHING CO., *and not to any individual. We cannot otherwise guarantee the prompt entry of names upon our books, or the acknowledgment of money.*

WE offered, some time ago, to sell the cuts used in this Journal for twelve cents the square inch. Many have requested us to send proofs of our cuts. As we have upwards of ten thousand, we could not undertake to do so. Persons wishing to purchase, must select from files of the RURAL NEW-YORKER.

THE MARKETS.

PRODUCE AND PROVISIONS.

NEW YORK, Saturday, Feb. 22, 1879.

BEANS AND PEAS.—There is a better movement in beans, but it is not sharp enough to favor prices in any grade. As it is quality of either mediums or marrows must be strictly prime to realize extremes. California is sending limas and red kidney beans. Southern B. E. peas, $2.65@2.75. Green Peas steady at $1 30@1.32½; Canadian generally 74c. in bulk and bond. Medium beans, prime, $1.30; fair to good, $1.15@1.20; marrows, prime, free on ship, $1.32@1.37½; fair to good, $1.26@1.35; pea, $1.20@1.30; white kidney, $1.55@1.80; red do., choice, $2.40@2.45; fair to good, $2.20@2.30; black beans, $2.00@2.25; Cal. Limas, $1@4.25.

BUTTER.—There is no revival in local activity and sellers of even the best grades name prices with more tameness than is consistent with winter business. Exportation still keeps that side of the market bright, and a favorable feature is the fact that foreign buyers are running upon any one grade. Receipts begin to diminish, and many dealers feel that late concessions is all they will have to yield in table and useful grades. Creamery, Western and State, and all upper classes of stock feel the unusual winter pause in demand more severely than lower grades.

Single extra State half tubs, 25c.; choice lines, 21@23c. State, full dairies, special, 19c.; other, 16@18c.: firkin dairies, fair to prime, 15@17c.; Welsh dairies, fine full, 16@17c.; fair to prime do., 16@21c.; choice Welsh, 19@21c., fair to prime, 12@17c.; choice creamery 24@26c.; best western creamery, 27c.; other, 19@25c.; early packed creamery, 17@20c.; poor State, 8@1 c.; Western dairy, fine fresh, 18@19c.; fair to good, 10@15c.; factory, ladle packed, 17@19c.; good, 11@16c.; other, 7@9c.; rolls, 10@15c.; grease 4@5c.

COTTON.—There has been a very dull market this week on the easy English markets and a decline in price, but a partial recovery at the close on a falling off of the port arrivals: latest prices are for February, 9.76c.; March, 9.77@9.78c.; April, 9.92@9.93c.; May, 10.01@10.05c.; June, 10.20@10.21c.; July, 10.31@10.32c.; August, 10.40@10.41c.; September, 10.21@10.25c.; October, 10.01@10.0 c.; November, 9.85@9.86c.

Quotations for spot cotton are based on American standard of classification, and on cotton in store running in quality not more than half a grade above or below the grade quoted:

	Uplands.	*N. Orleans.*	*Texas.*
Ordinary	7 13-16	7 15-16	7 15-16
Strict ordinary	8⅜	8⅜	8⅜
Good ordinary	8⅞	8⅞	8⅞
Strict good do	9 1-16	9 3-16	9 3-16
Low middling	9 5-16	9 7-16	9 7-16
Strict low middling	9½	9⅝	9⅝
Middling	9 11-16	9 13-16	9 13-16
Good middling	10 1-16	10 3-16	10 3-16
Strict good middling	10 7-16	10 9-16	10 9-16
Middling Fair	11⅛	11¼	11¼
Fair	11 15-16	12 1-16	12 1-16

STAINED.

Good ordinary	7 15-16	Low Middling	8 15-16
Strict good ordinary	8 7-16	Middling	9 5-16

CHEESE.—The low grades have had a good export demand, especially stock to be had at 3@5c.; qualities from 6@8c. move slow. Fine stock is having a fair sale; on the whole the market has a very steady temper.

Quotations are 9@9½c. for fancy; 8¾@8¾c. for fine lots; 7½@8c. for good; 3@5c. for skimmed; State, farm dairy at 8@8½c. for fine; 7@7½c. for good to prime. Wisconsin factory, fine and fancy, at 8¾@9c.; do. good to prime, at 7¾@8¾c. Western factory, fine 8c.; good and prime, 6½@7½c.; do. full skimmed, 3@5c.

DRIED FRUITS.—Apples have had continued fair export movement, and the local trade good, with prices well sustained. Peaches rule at firm prices, and small fruits generally are steadily held. State plums, 14½@15c.; Blackberries are quoted at 5c. Peaches—Peeled Georgia, 6@7c. for poor; 8@9c. for fair to good; 10@10½c. for prime; choice North Carolina, 11½@12½c.; good do., 9@10c.; unpeeled halves, 3¾c.; quarters, 3@3¾c. Pitted cherries, 21c. Apples—New, 2@3½c. for southern quarters in bags; 3½@4c. for prime sliced; do., fair at 2¾@3½c.; State at 3½@4c. for new sliced; and 3@3¾c. for new quarters; Western at 2¾@3½c. for new quarters. Raspberries, 28c. Apples, evaporated, fancy at 10@11½c.; other processes at 5½@7½c.

EGGS.—The market has declined daily. Sellers are forced to humor buyers to avoid accumulations. Retailers will not buy ahead when the market begins to settle and quotations may be regarded weak.

Near-by, ₩ doz., 20@21c.; State, 19½c.; Western, prime to choice, 19@19½c.; do. medium to good, 15@18c; Southern, prime to choice, 19@19½c.

ESSENTIAL OILS.—Nominal in a wholesale way Peppermint, glass (Hotchkiss), $2.30; in tin, $1.50; wintergreen, $2; sassafras, 40c.; pennyroyal, $1.25; spearmint, $2.25; wormwood, $3.

FLOUR.—There has been a recovery of 15 to 20c. per bbl. on an upward tendency of wheat, and increased inquiry from both exporters and home trade buyers.

Quotations are $3.40@3.70 for very inferior to fancy superfine State; $3.70@4.10 for very poor to good extra do., odd lots and lines; $4 00@4.25 for good to very choice do., and fancy lots above this; $3.40@3.70 for inferior to very choice superfine Indiana, Iowa, Michigan, &c.; $3.70@4 00 for inferior to good shipping extra do. and $4.10@4.25 for good to choice extra do.; common to about choice white wheat extras, $4.25@5.35; choice to fancy do., at $5 35@6 15; red and amber winter wheat, very inferior to very choice trade and family, at $4.10@5 85 (fancy held higher); round hoop Ohio at $4 00@$4.35, and trade and family brands of do. at $4.50@4 85, the latter rate for very choice (a few fancy lots held higher); St. Louis, $4.25@5.10 for very inferior to good extra; $5.10@6 00 for good to very choice (with a few very fancy brands in high favor with the jobbing trade), quoted up to $6.50@6.75; Minnesota clear, very inferior to strictly fancy, at $3.75@5.00; few brands going above $4.75@4.75; Minnesota "straight," inferior to fancy at $4.50@6 00; and patent poor to strictly fancy at $5.25@8.25, few brands going above $7.50@7.75; unsound stock at from $2.25@2.25; city mill extra at $4.85@5.25 for West Indies (the latter rate for fancy in new packages); do. for England $3.75@3 90; do. trade and family extras, $5.25@6 25; do. for South America, $5.15@5 65 for fair to very choice; No. 2 at $2 40@3.25 for poor to very choice.

CORN MEAL.—Sales at $2.75 for Brandywine and $2.25@2 40 for yellow Western.

GRAIN.—Wheat has shown a decided advance with a freer business, including more of an export movement; sales of ungraded spring at 90@95c.; ungraded amber at $1 08@1 12½; No. 2 amber at $1 13@1 13½; No. 1 red at $1.13½; No. 2 red at $1 13@1.14½; No. 3 red at $1 09½@1 10; ungraded red at $ @1 12½; extra white at $1 13½@1 14; white State at $1 13½, No. 1 white at $1.13; No. 2 white at $1.10½@1.11; ungraded white at $1.08@1.12; Canada white, in bond, at $1 06; No. 2 amber, February option, at $1 13¾@1 13½; do., March option, at $1.13½@1 13½; No. 2 red, February option, at $1.13½@1 13½; do., March option, at $1.13½@1 13½; do., April option, at $1. 4½@1.15; do., May option, at $1 15½@1.15½; No. 1 white, February option, at $1 13½; do., March option, at $1 13½; do., April option, at $1 15½; do., May option, at $1.15@1 15½. Rye at 61@66c. for State and 63@62c. for Western. Corn has been in larger supply, but fairly sustained in price; sales of steamer mixed, in lots, at 44@44½c; New York old No. 2 at 46½@47c.; New York No. 3 at 42½@43c.; ungraded mixed at 44@47c; New York No. 2 new at 46½@46½c; Jersey yellow at 46½c.; steamer yellow at 44½c.; New York yellow at 45½c.; do. old at 47c., delivered; round yellow quoted at 47@48c. for new yellow western, old, at 47@47½c.; do. new at 45½@46½c; southern white at 51c.; New York No. 2 white at 51@55 c. for old; do. new at 49@50c.; yellow southern at 44½@46c.; New York No. 2, February option, at 46½c.; New York No. 2, old, same option, at 46½@46½c.; New York No. 2, March, at 46½@46½c. closing at 46½; New York No. 2 April, at 47½@48c.; do., May at 48½@48½c.; steamer mixed, February option, at 44½c.; do., March, at 44½@45c. Oats have been active at some improvement in price; sales of New York No. 1 white at 35½c.; New York No. 1 at 32½@32½c.; New York No. 2 at 32½@32½c. New York No 2 white at 33½c.; New York No. 3 at 31c.; New York No. 3 white at 32½c.; white Western at 33@34½c.; mixed do. at 31½@33c.; white State at 33@35½c.; mixed do. at 32@35c; New York extra white quoted at 38½c.; No. 2 Chicago, afloat, at 33@33½c.; unmerchantable at 32c.

BEESWAX—Has not varied in price, with light sales quoted at 25@2 c.

FRESH FRUITS.—Greening apples are taking their accustomed place at this part of the season: only parcels free from scald can be quoted at the extreme. Fancy red almost nominal. Spitzenbergs and Baldwins selected, $2.25@2 50; choice greenings, $2@2 25; fair to good lots, $1.50@1 75; these are quotations at stores and lofts. Eastern and railroad lots, $1.50@1 87 few at the latter. Little barrels cause a good deal of grumbling on the part of retailers. Cranberries quiet, but firm with higher apples. Prime to fancy, bbls., $8@9; other, $5@6; N. J. crates, fancy, $3; other, $2@2.75. Florida oranges very dull, foreign calling off the demand; hf. bbl. boxes, fair to best, $3; discolored, $1@1.50; bbls., $4@6. Peanuts firmly held, with only a moderate trade. Hand-picked Va., slow of sale, holders' views firm; $1.10@1.15; other, 80@90c. Hickory nuts a drug at $2. Pecans, small, 6@6½c.; large, 7½@8c.

FURS AND SKINS.—Our quotations are for prime round skins; torn or irregular parcels will not sell for export. The market has lost some of its activity. The Russian plague reports checked some trade, but the alarm has now subsided and it is likely that all good stock will find a place abroad from time to time forward. Badger, 50@$1; bear, black, N., $8@12; do. S., $3@5; cub, N., $5@8; brown, $3@7; beaver, Cal. W., $1@1.40; S. and W., 90c.@$1 10; N. W., $1.52@1.75; N. and Ca., $1.75@2 30; cat, wild, N., 25@50c.; S. and W., 10@20c.; house, 10@15c.; deer, W., summer, 20@25c.; winter, 10@ 5c.; elk and moose, 12@15c.; fisher, S. and W., $ @6; N. and Ca., $7@10; fox, silver, $25@75; cross, $2@5; blue, $3.07; white, $1.50@2; red, N. and E., $1.50@1.75; N. and N. W., 70c.@$1; gray, N. and N. W., $1@1.25; S. and W., 40@70c.; kitt, 25@35c; lynx Minn., $1.50@2; Can., $2@2.50; marten, large dark, $3@8; small and pale, 75c.@$1.25; mink, S. and S. W., 30@35c.; W., 50@60c; Middle States, $1@1 25; N. W., $1@1.50; Eastern, $1.50@1.75; Can. and N. S., $1.75@2; muskrat, S. and W., fall, 8@10c.; S. and W., winter, 10@14c.; S and W., spring, 14@16c.; N. and E., fall, 10@12c; N. and E., winter, 14@16c.; N. and E., spring, 18@20c; kills, 3@5c; opossum, N. and W., 21@30c.; S., 5@10c.; otter, S., 3@4c.; N., 5@7c.; rabbit, 3@3½c; coon, S. and S. W., 3@40c.; W. and N., 50@15c.; Mich. and N. W., 75c.@$1; seal, Atlantic, 40@60c.; Pacific, $10@15; skunk, black cased, $1.50 1.70; half-striped, 80@90c.; full, 40@50c.; white, 10@20c; wolf, large, forest, $1.75@2.00; prairie, 75c.@$1; wolverine, 2@3c.

HAY AND STRAW.—There are larger receipts, but prime stock is having a good demand and is at firm prices; medium grades are most difficult to sell; sales at 40@45c. for shipping, and 65@70c. for retail qualities. Straw quoted at 50@60c. for long rye, and 40@45c. for short rye, and oat at 40@45c. Salt Hay—N. J. meadow, $6@7 per ton.

HOPS.—The exporters have taken rather freer quantities of prime stock, but move slowly in the lower grades. Prices have barely varied.

Quotations are for New Yorks, new crop, choice, 13@15; New Yorks, new crop, good to prime, 8@11; New Yorks, new crop, low to fair, 6@8; Eastern, 8@12; Western, 8@12; Yearlings, 4@6; Olds, all growths, 2@3; Pacific coast, 12@15.

HONEY—Stock remains almost stationary; prices low and undecided.

OIL CAKE.—Western has had a freer export demand, and is quoted at $27@27.50.

POULTRY AND GAME.—Live fowls firm and scarce; turkeys and geese lower.

N. J. fowls, 13@13½c.; Western, 11@12c.; young roosters, 8@10c.; old do., 6@7c.; Turkeys, hen, 13@14c.; do., toms, 10@11c.; Ducks, 60@90c.; N. J. Geese, $1.50@1.75; other, $1.12@1 37 ₩ pair.

Dressed poultry arrives about equal to general wants; prices higher for extra stock.

Turkeys, choice, including dry picked, 17@18c.; prime, 15@16c.; do. fair to good, 14@15c.; chickens, Philadelphia, dry-picked, 17@18c.; Jersey, ₩ lb., 15@16c; do. Western and State, ₩ lb., 13@14c. Fowls—Prime, ₩ lb., 14@15c; fair to good, 11@13c. Ducks, State and Jersey, 16@18c.; Western, prime, 15@16c.; fair to good, 14@15c. Geese, 9@14c.

Game is in moderate demand, but reduced supplies and receipts keep the market firm.

Quail, choice, $1.00@1.25; other, 60@75c.; Grouse, trapped, 60@62½c.; soft, 45@50c.; Canvas-back Ducks, $1.75@2; Red-head, $1.00; Mallard, 50@60c.; Teal, 40c.; common, including Broad-bills, 20@25c.; Hares, 22@25c.; Rabbits, 16@20c.

PROVISIONS—Have tended higher, due partly to the falling off of receipts of hogs and a brisk speculative inquiry. Mess pork closed at $8.90 bid and $9.20 asked for old for February; $10.40 bid and $10.55 asked for new for February; $8.85 bid and $9.20 asked for old for March; and $10.15 bid and $10 60 asked for new for March, and $10 60 bid and $10.75 asked for new for April, and May at $10.70@10.80. Bacon at 5¼c. for long clear and 5½c. for short clear. Lard—Western steam at $7 for spot; $7 for February; $7@7.02½ for March; $7.07½ for April, and $7.15 for May Stearine at 7c. for choice. Tallow at 6½@6½c. for prime. Beef Hams at $18@18.50. Beef, extra India mess, $18@20, as to quality; packet, $11; plain mess, $9.50@10.25; extra mess at $10.50@11.

SEEDS.—Clover is fairly active at 6½@6½c. for prime and 6½@6½c. for choice western. Timothy is held firm at $1.40@1.50.

TOBACCO.—Export movement has been very moderate, but the local trade better. Prices are unchanged.

VEGETABLES.—The potato market is less oppressed with fresh receipts; but in the absence of a real wholesale demand late prices are very full. Onions higher. Marrow squash also. Bermuda potatoes, $6@7. Eastern Early Rose, $2.50@3; State at $2@2.62; Nova Scotia, $2 62@2.75; white Peach Blow, $2 50@2.75; red do., $2.25@2.50; Prolific, $2.25@2.50; Peerless, $2@2.37; Jackson white, $2.12@2.25; mercer, $1.87@2 (the extremes are for double heads.) onions, white, $4@5; per box; do. yellow and red, $2.50@3; chester, $2@2.50; marrow squash, $2@2.50; Hubbard, $2@2.25; cabbages per 100, $4@$6; R. turnips, per bbl., 75c.@$1; carrots, 75c@$1; beets, 75c.@$1; celery, per doz., 50@75c. Bermuda tomatoes, 50@75c.; Nassau, 40@60c.

WOOL.—There has been more interest shown by manufacturers, and with the freer business the market is the turn steadier.

Ohio, Pennsylvania and Virginia—XXX and picklock, 35@37½c.; XX, 33@35c.; X, 33@34c.; No. 1, 33@35c.; No. 2, 32@33c. common, 29@30c.; combing, 34@39c.

New York, Michigan, Indiana and Wisconsin—XX, 28@32c.; X, 28@31c.; No. 1, 31@33c.; No. 2, 27@30c.; common, 26@28c; combing and delaine, 33@37c.

Iowa, Vermont and Illinois—X and XX, 28@30c.; No. 1, 30@33c.; No. 2, 27@28c.; combing, 33@36c.

Missouri, Kentucky and Tennessee—Washed fleece, 30@33c; unwashed fleece, 18@24c.; unwashed combing, 22@25c.

LIVE STOCK MARKETS

Saturday, Feb. 22, 1879.

BEEVES.—Receipts for the week, 11,2.2 head; do., 9,664 last week. Fair demand, quick trade at ¼c. advance for Monday, closing, however, with an easier feeling and in favor of buyers. Trash, including cows and stags, 7@8c. to dress 55 lbs.; ordinary to good, 8¾@10¾c. to dress 55@56 lbs.; prime, 10¾@10¾c. to dress 57 lbs. Exporters used 2 0 at 9¾@10¾c.

COWS AND CALVES.—The close scrutiny now given milch cows almost silences traffic. Nominal range, 38@65.

VEAL CALVES.—Receipts, 136—four days, 171—no change. Live veals, 6@8c.; fed and grassers, as before; hog-dressed, 9@10½c., with selected Jersey, 10½@ 11c.

SHEEP AND LAMBS.—Receipts for the week, 23,479 head; do. last week, 19,660 do. Market rather tame, with slow sales at former prices, or 4¾@ ½c. per lb. for ordinary to prime. Few tops, 5½@6c. Choice lambs quoted at 6½@6½c.

SWINE.—Receipts for the week, 33,355 head. No sales of live hogs. Nominal figures reported at $4@4.25 per 100 lbs. for fair to good; two cars sold on afternoon of Monday—very rough Ohio culls at $3 85.

Dressed hogs—N. J., light, 6@6½c.; medium, 5½@5¾c.; heavy, 5½@5½c.; city, 5@5½c.; western, 4¾@5c.

TERMS FOR 1879.

THE subscription price of THE RURAL NEW-YORKER is

Single Copy, per Year $2 00
" " Six Months 1 10
Great Britain, Ireland, Australia and
Germany, per Year, post-paid $3 04 (12s. 6d.)
France, " " 3 04 (16¼f.)
French Colonies, " " 4 08 (20¼f.)

Any one sending a club of ten is entitled to one copy, one year, free.

Agents will be supplied with canvassing outfit on application.

SPECIAL NOTICES.

E. & J. C. Williams, MONTCLAIR, N. J., have a reputation for honest dealing. Send for their Catalogue of Fruit Trees, Vines, Plants, &c.

Genuine *versus* Spurious Electric Belts. Particulars free. Address PULVERMACHER GALVANIC Co., Cincinnati, O.

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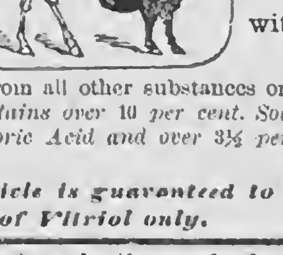
FARM IMPLEMENTS & SEEDS.

Call on or write to R. H. ALLEN & CO., New York, for whatever you want of the above. Address 189 & 191 Water St.

DISSOLVED BONES.

Warranted Raw Bone solved



PURE Meal, dissolved with Acid,

And to be free from all other substances or mixture whatever. *It contains over 10 per cent. Soluble and Reverted Phosphoric Acid and over 3½ per cent. of Ammonia.*

☞ ***This article is guaranteed to be Raw Bone and Oil of Vitriol only.***

Prices of the above by the car load very low to meet the present depressed prices of farm products.

BAUGH & SONS,
MANUFACTURERS,
20 S. Delaware Ave., Phila.

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PRICE, FULL RIGGED, $16.

SAMPLE PLOWS DELIVERED FREE OF FREIGHT ON RECEIPT OF PRICE.

The Syracuse Chilled Plow Co.

have enlarged the capacity of their works *three-fold*, in order to supply the demand for the year 1879.

THEY MAKE THE
BEST CHILLED PLOW
THE WORLD HAS EVER SEEN.

IT IS LIGHTER OF DRAFT.
IT IS MORE PERFECT IN SHAPE.
IT IS MORE DURABLE.
IT CLEANS IN EVERY SOIL WHERE OTHER PLOWS FAIL.
NO PLOW SO WELL PREPARES THE SOIL FOR A CROP.
THE PECULIAR WAY IT PULVERIZES THE SOIL IS ONE OF ITS GREAT EXCELLENCIES OVER ANY OTHER PLOW.
IT IS MADE IN DIFFERENT STYLES—ONE HORSE, TWO-HORSE, OR THREE-HORSE.

Every Plow is Guaranteed under the Seal of the Company.

BEWARE OF COUNTERFEITS.

The reputation of the Syracuse Chilled Plow has induced unprincipled manufacturers to palm off on the farmers plows that they call *chilled*, which are, in fact, nothing but common plows, with the word "chilled" painted or branded thereon.

The SYRACUSE CHILLED PLOW has been made but two years and a half, and in that time

Nearly 35,000 Have Been Sold.

No other new style of Plow sold over Six Thousand in the same length of time.

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SYRACUSE, N. Y.

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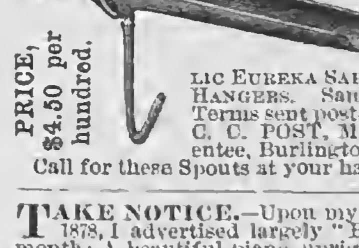

PRICE, $4.50 per hundred.

More Agents wanted to canvass for the sale of Post's Patent GALVANIZED METALLIC EUREKA SAP SPOUTS and BUCKET HANGERS. Samples, Circulars and Terms sent post-paid on receipt of 20c. C. C. POST, Manufacturer and Patentee, Burlington, Vt.

Call for these Spouts at your hardware stores.

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GREAT OFFER FOR FEBRUARY.

We will during *this month dispose of* 100 PIANOS & ORGANS, at EXTRAORDINARY LOW prices for cash. SPLENDID ORGANS 2 3-5 sets of reeds, $65. 3 sets with Sub Bass and Coupler $80. 2 sets $50. 1 do $40, 1 do $35. 7 Octave *all* ROSEWOOD PIANOS $130, 7 1-3 do $140, all round corners do $175, warranted SIX years. AGENTS WANTED. Illustrated Catalogues Mailed Music at half price. HORACE WATERS & SONS, Mfrs. *and* Dealers, 40 E. 14th St., N. Y.

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UNSURPASSED FOR MAKING
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It is Better and Healthier than ordinary Baking Powder, Cream Tartar or Yeast.

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Universally used and recommended by prominent Physicians.

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Manufactured according to the directions of Prof. E. N. Horsford, by the Rumford Chemical Works Providence R. I.

Reading for the Young.

THE DEVIL-FISH.

UNCLE MARK.

"DEVIL-FISH," you say? "What an ugly, irreverent, disgusting name!"

Well, that is true; it is not a handsome name, certainly, but then the gentleman that bears it is almost frightful enough for such a name. But few of my nieces and nephews may have heard anything about this animal, and fewer still have seen a real one or formed a clear idea of how it looks.

There it is in the picture. Notice the eight long arms, growing out from the head and surrounding the mouth, with their numerous sucking-discs on the under side. Notice the large, bright eye and the bulky, trunk-shaped body. If any one ever told you of such a monster, and you were not perfectly sure that your informer always told the truth, you might have doubted its existence.

There are many species of this class of animals, which are found in the sea the world over. Devil-fish is, however, not the real name—the one they always go by—Cuttle-fish is more common. They are also known as *Octopods*, which means that they have eight feet, and scientists put them in the class *Cephalopoda*, meaning head-footed, because the arms, which are also used as feet, grow out from the head, and when they walk, they walk with the head downward.

Some of them have ten arms, in which case two of the arms are much longer than the others, and are called *tentacles*. Cuttle-fishes differ very much in size. Some are only a few inches long, and others measure scores of feet. There is a large specimen, preserved in alcohol, in the New York Aquarium, which measures forty feet to the tips of the tentacles, and yet, this is but a baby compared with some that are found in the Pacific and Indian Oceans.

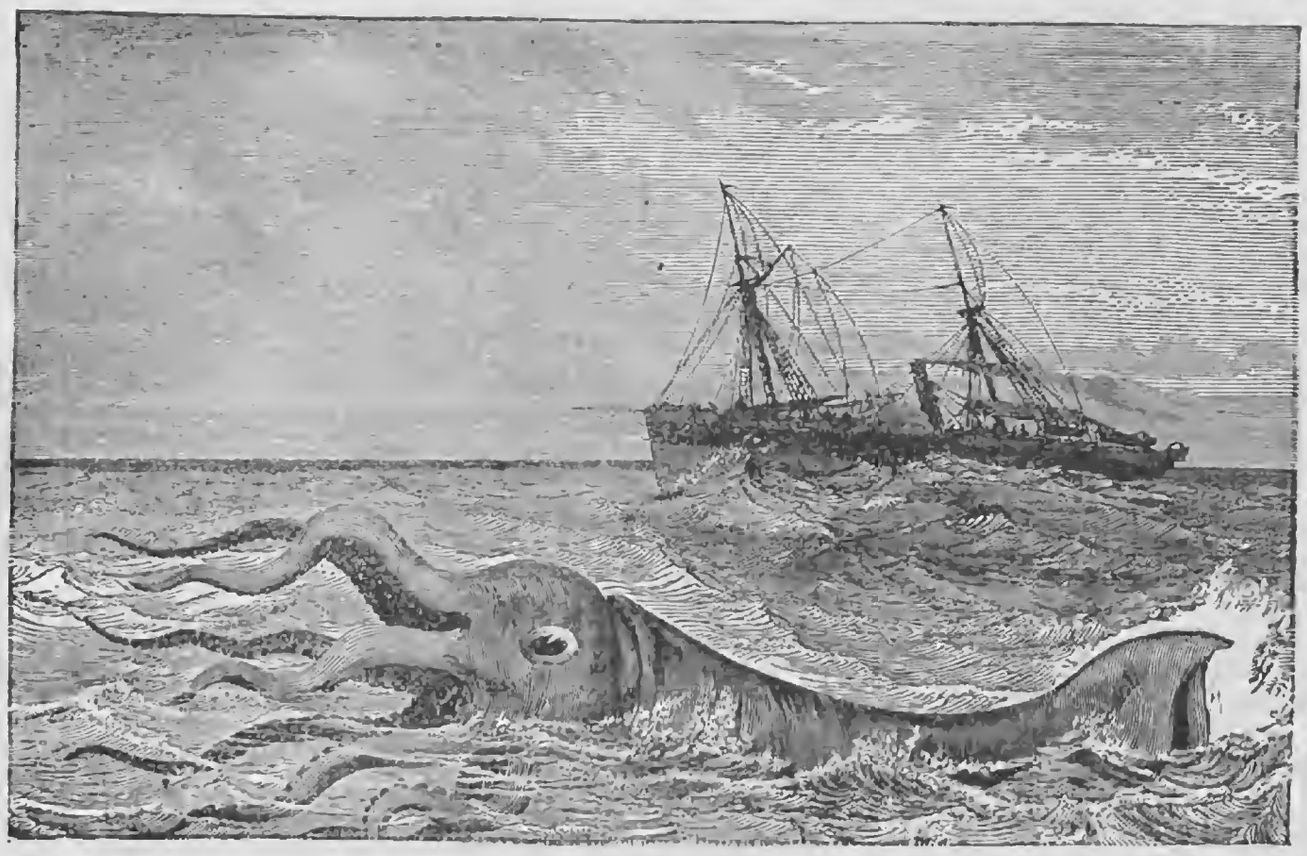
The body has no structure. It is one loose, flabby, jelly-like mass, inside of which is a bone called the cuttle-bone, used in the arts for polishing soft metals. The arms are used both for swimming and walking, but principally for catching the prey, and woe be to the poor victim that these long, cold, slimy, snake-like limbs wind about. The suckers hold the prey so firmly that it is impossible to escape from their grasp, and gradually it is worked towards the mouth and disappears in the stomach.

Victor Hugo, the great French writer, of whom I trust many of the Cousins have heard, says:

"Seized by this animal, you enter into the beast; the hydra incorporates itself with the man; the man is amalgamated with the hydra. You become one. The tiger can only devour you; the devil-fish inhales you. He draws you to him, into him; and, bound and helpless, you feel yourself slowly emptied into this frightful sac, which is a monster. To be eaten alive is more than terrible; but to be *drunk* alive is inexpressible."

Many of them are also provided with an "ink bag," filled with an inky fluid which they use as a weapon of defense. Whenever they are pursued by an enemy, they pour a cloud of this ink out in the water and hide from the pursuer.

The color is changeable. Generally it is brownish, but when irritated they assume a purple or violet color. As a means of protection, they can also take the color of the rocks upon which they walk on the bottom of the sea.



THE DEVIL-FISH.

TO THE SONS OF THE FARMER.—No. 2.

REV. A. W. MANGUM.

SOME may desire to go to the city because they will there have specially favorable opportunities to gather information—to become very intelligent. I do not deny that facilities for acquiring knowledge of certain kinds abound much more in towns than in rural districts. But you should understand that the country furnishes really better opportunities, in some respects, to the student than the city does. When once regularly engaged as a clerk in a mercantile house, or as a subordinate in any city business, your time for self-improvement, if not entirely wanting, is, at most, sadly limited. Your work is apt to need, and your employer to demand, most, if not all, of your time.

It is better to attend school in the country than in town. The fewer and simpler the attractions around the school, the more likely you will be to study faithfully and learn fast. I do not hesitate to say that the farm is a good place for gathering information and cultivating the mind. There, any literary work is more like recreation. I know what it is to plow all day and sit down and read by torch-light at night. The night—all the year round—in the farmer's home furnishes excellent opportunities for mental improvement. There are also many rainy days or other times of leisure which can be occupied in reading and study. As you have less company—less to divert your mind—in the country, you will there feel more interest in your books. They can charm you more because they have fewer and less potent rivals than in town. And you ought to learn much and have a well-trained mind before you wander from the circle of indulgent friends to risk your fortune among strangers.

As to the essential literary advantages, you can find them or procure them in your rural home or community. Good publications of every kind are numerous and cheap. You cannot spend your money more wisely than in the purchase of valuable publications, both periodicals and books. You should be careful to spend your precious time on such books and journals as will make you the wiser for the reading.

But you may have attended high schools and college. If so, you will be liable to conclude that you ought at once to seek a place of greater prominence than the quiet farm-house. Don't be in too great a hurry. Read! Study! Work! Wait! If you expect to enter a literary profession—one that will thrust you before the public—and feel the need of locating where there is more business than around your home, even then you will, likely, be the more respected and the more successful if you take time to furnish your mind thoroughly and to grow strong before you enter into hazardous competition with the able and experienced. Young men, like young plants, do not often thrive when they are under too thick a *shade*.

There is also decided advantage in recognizing the relations between plain, practical work and the duties of one of the so-called "learned professions." It will be profitable to you if you will take recreation from your professional studies by devoting yourself, now and then, to some practical pursuits on the farm. It will harden and strengthen your muscles and make you capable of more and better work with your mind. It will nurture that invaluable mentor—common sense, without which even the master of books is the slave of folly. It will enable you to carry with you into your profession a rational sympathy with the interests and peculiarities of the great laboring masses. It will develop that wisdom which will guide you in your efforts to utilize your powers and attainments for the welfare of those unto whom you hope to be a benefactor. It will aid materially in the formation and maintenance of that spirit of mutual trust and kindness which ought to prevail between those who pursue, respectively, the practical and professional duties in society. It will fasten in you a true regard for that great, all-sustaining department of human labor—the cultivation of the fields—and save you from the disastrous folly of divorcing, in your judgment and feelings at by your conduct, the two interdependent departments of human enterprise—the plain toil of Production and the more intellectual work of the learned Profession.

HISTORY OF A SNOW-FLAKE.

TOLD BY ITSELF.

WHEN I first began to notice the world I lived in, I found myself, together with my companions, floating in space, far above the loftiest mountains, where the earth looked like a dull plain beneath me. In appearance I was like a tiny drop of water—I was what is called vapor, then—and I was one of a great company of such drops. We floated in the clear air, dancing up and down, sparkling like a shower of diamonds. Driven by a light breath of air, we floated across a great body of water, high above it, so that the white winged ships seemed like little swans beneath us. While we passed over the water, our number was increased by other drops of vapor, which were separated from the water by the heat of the sun. Onward we went again, this time over the house-tops of a great city. We could see the people passing up and down its streets, looking like tiny moving specks. We passed over the city, and came again to the country. At last, after we had floated along for many days, we saw in the distance a lofty range of mountains. We went on towards it, but just as we were about to pass over, I felt a cold shiver pass through me. It was a very strange feeling, unlike anything I had experienced before. Of course, being an old traveler, I took little notice of it, and was going on, when I saw a strange change in my companions. I told you before that we were like tiny drops of water. They still shone as brightly as ever, but their *form* was changed. They looked like thistle-down, but were of the most lovely forms imaginable. Some were like simple stars, others were ornamented with delicate tracery, like ferns, but they all retained one primary form, that of a six-pointed star. You cannot see their shape with the naked eye, but I could, being one of them myself. We had been changed by the cold air into snow-flakes. The air seemed filled with us, whirling around, and bounding up and down. It was like a wild waltz.

The wind blew us fiercely about, but we did not care; we were wrapped up in the enjoyment of the hour. We went lower and lower down towards the earth, until at last I was stopped suddenly by the branch of a pine tree. The shock of the sudden stoppage was so great that it quite stunned me, and I must have remained insensible a considerable time, for when I next recollected anything the storm had ceased, the sky was clear, and the stars were shining. How beautiful everything was! The trees were loaded with pure snow, Nature's coverlet, with which she tucks up the earth to protect her from the biting cold. All around me I could hear the jingle of the merry sleigh-bells.

But do not think I am only good for *amusement*. No, indeed! Without our friendly covering, the tender plants would freeze during the winter, and the ground would be frozen so hard that it would take very long to thaw it out, and the growth of everything would be much retarded. In hot countries, too, where there is no ice, the snow on the high mountain tops is used as we use ice here.

I staid for many days on the pine branch, but after a time I noticed a great change in some of my companions. The sun was very warm, and after a few days they actually *melted* and disappeared. I was very much shocked by this, and my horror was increased to find the same symptoms were manifested in myself. I gradually melted, and became part of a pool by the roadside. After staying in that form for several days, the heat of the sun again separated me from my fellows. Again I became a tiny drop of vapor, and again I float about in the air with my companions, wondering over the strange experiences I have been through.

E. L. T.

LITTLE JACK HORNER.

"LITTLE Jack Horner
Sat in a corner,
Eyeing his Christmas pie;
He put in his thumb
And pulled out a plum,
And said, "What a brave boy am I!"

THESE six lines, I suppose, are as familiar to you as your A. B. C.—Indeed, I wouldn't much wonder if you knew all about Jack Horner, Mother Hubbard, Jack and Jill, long before you ever knew there were such torments in the world as A's and G's, and S's and W's. I do not believe you have ever heard the true story of the small Jack, this celebrated person in the literature of the nursery. Will you listen while I tell you the story, the real, true story? There is a tradition in Somersetshire, that the Abbot of Glastenbury, hearing that Henry VIII., had spoken with indignation of his building such a kitchen as the king could not burn down—It being domed over with stone—sent up his steward, Jack Horner, to present the king an acceptable present; viz: a dish which, when the crust was lifted up, was found to contain deeds transferring twelve manors to his sovereign, and that as Jack Horner traveled up to town in the abbot's wagon, he lifted up the crust, and stole out the gift of the manor of Wells, still possessed by his descendants, and when he returned, told the abbot that the king had given it to him, but was found, or suspected, to have imposed upon his patron.

Then there is another version of the story: When the monasteries and their property were seized, orders were given to take the title deeds of the abbey estates at Wells, which were very extensive and valuable. After some delay, it was determined by the Abbot of Glastenbury to give them up, and, for want of a safe mode of conveying them, it was decided that the most likely way to avoid their being seized by any but those for whom they were intended, was to send them in a pasty.

The safest messenger, and least likely to excite suspicion was considered to be a poor lad—our young hero—Jack Horner, who was the son of poor parents living in the neighborhood of the grange.

The lad set out on his journey on foot, laden with the pastry.

It was a weary road, and, England, not being so thickly inhabited as now, he sat down to rest in as snug a corner as he could find on the roadside.

Hunger at last overcame him—as it will some small children (do you know any children who are ever hungry, who like bread and butter and sugar?) Well as I was saying, hunger overcame him, and he was at a loss what to do, when he bethought him of the pastry and thought there would be no harm in tasting ever so little a bit of the pie which he was carrying.

He, therefore, inserted his thumb under the crust, when lo! there was nothing but parchment—poor disappointed boy—no pudding and no plums, and parchments are not very satisfying to a hungry stomach. Although Jack could not read these parchments, he thought they might be of value. He, therefore, pocketed one of the papers, and pursued his journey with the rest of the pastry.

Upon his delivering the deeds, it was found that one of the chief ones was missing; it was thought that the abbot had withheld it, and an order was sent for him to be executed this was all from Jack's stealing the plum. The sequel was that after the monasteries were despoiled, there was found in the possession of the family of Jack Horner a piece of parchment—which was his title-deed of Wells Abbey—the abbot having been executed for withholding the deed, as was supposed.

Jack ought to have confessed stealing the plum and not allowed the poor abbot to lose his head. I am real glad our plums are real, live ones, and not dried tough parchment.

FRANCIS STEVENS.

Sabbath Reading.

THE CASUISTRY OF THE CONFESSIONAL.

THE mistress and the Irish cook are in colloquy.

"Indade, missus, and what for should I stale from ye? I must go and tell it all to the priest. I kneel down to confess me sins: and he asks me so many questions; there's nothing in me that he doesn't find out. I daren't tell *him* a lie. I must tell him just what I took from ye, and all about it; the tay, the sugar, the coffee, and all unbeknowst to ye. He asks me jist what it is all worth; and I must tell him to a penny; for I mustn't tell a lie to *him*, ye know. 'Is that all,' he says, says he. 'Ye stop and think, and tell me ivery thing;' and his eyes look into me very sowl. And I takes care to put it high enough, to be sure of me sowl. Then he says to me, says he, 'Have ye got the money wid ye?' I says, 'Yes, Father B.' Ye know ye must have the money about ye whin ye go to confess. And thin he points up to the poor-box, hanging there before me eyes; and he says, says he, 'See that ye don't lave this house, till ye've put ivry penny of that ye stole into the box yonder, fornont the post.' And I must do it, missus, just as he tells me, wid his eyes looking at me so; or I go home wid a lie to the priest; and thin what's the good of confessing, and what becomes of me sowl? So what's the good to me, if I stales your sugar?"

The above was a veritable occurrence in the city of Boston, not long ago. It carries internal evidence of truth, so far as this—that an Irish servant would not be likely to *originate* the adroit casuistry of giving to the poor the proceeds of her pilfering. Some shrewder mind than hers started that idea. But is that the casuistry of the confessional? A certain old Book declares of the Almighty, "I hate robbery for burnt offering."—*Congregationalist.*

HOME PIETY.

IT is in the family life that a man's piety gets tested. Let the husband be cross and surly, giving a slap here and a cuff there, and then see how out of sorts everything gets. The wife grows cold and unamiable too. Both are toned on one key. They vibrate in unison, giving tone for tone, rising in harmony or discord together. The children grow up saucy and savage as young bears. The father becomes callous, peevish, hard, a kind of two-legged brute with clothes on. The wife bristles in self-defense. They develop an unnatural growth and sharpness of teeth, and the house is haunted by ugliness and domestic brawls.

Is that what God meant the family to be—He who made it a place for love to build her nest in, and where kindness and sweet courtesy might come to their finest manifestations? The divine can be realized. There is sunshine enough in the world to warm all. Why will not men come out of their caves to enjoy it? Some men make it a point to treat every man's family well but their own—have smiles for all but their kindred. Strange, pitiable picture of human weakness, when those who love best are treated worst; when courtesy is shown to all save our friends.

If one must be rude to any, let it be to some one he does not love—not to wife, sister, brother or parent. Let one of our loved ones be taken away, and memory recalls a thousand sayings to regret. Death quickens recollection painfully. The grave can not hide the white faces of those who sleep. The coffin and the green ground are cruel magnets. They draw us farther than we would go. They force us to remember. A man never sees so far into human life as when he looks over a wife's or mother's grave. His eyes get wondrous clear then, and he sees as never before, what it is to love and be loved; what it is to injure the feelings of the loved.

IN answer to the question, "Is it right for our churches to use fermented wine at the Lord's Table?" we unhesitatingly answer, *no*. When we properly celebrate that sacred ordinance with unfermented wine, we have no misgivings in regard to obeying our Lord. But on the other hand, how often do our churches use a fiery liquid which is not in any sense the fruit of the vine, and never was.

Let us then leave to the votaries of Bacchus the intoxicating cup. It contains a dangerous element, which Moses calls the poison of dragons and the venom of asps. Solomon calls it a mocker and a deceiver. Paul calls it the cup of devils, and it is appropriate for devil-worship and an idolatrous feast. But let the Church of Christ never pollute herself with such a cup, nor call it an appropriate emblem of Jesus' blood.—*National Baptist.*

YOUTH is the age of folly, of vain hopes, and overgrown confidence. How wise many might have been, had they not been wise in their own opinion too early! Lean not to great parts, lean not to natural or acquired accomplishments, lest you lose them and yourselves too. It was an excellent saying of St. Austin, "He who stands upon his own strength shall never stand." Ah, young men, if you must needs be leaning, lean upon precious promises, lean upon the rock that is higher than yourselves, lean upon the Lord Jesus Christ, as John did, who was the youngest of all the disciples. John leaned much, and Christ loved him much. Oh! lean upon Christ's wisdom for direction, upon His righteousness for justification, upon His blood for remission, and upon His all-sufficient merits for salvation.

MURMURING is a black garment, and it becomes none so ill as saints.

PERSONAL ITEMS.

Thomas S. Drew, elected Governor of Arkansas in 1864 and again in 1850, died recently in Texas.

The claimant for the Arlington estate, George Washington Custis Lee, eldst son of the late General Robert E. Lee, does not propose to remove the dead soldiers' bodies therefrom, but simply wants the fair value of the property. Mr. Lee is a tall, handsome man, apparently about thirty-five years old.

Senator Butler, who returned from South Carolina week before last, says that he rode with Gov. —Senator—Hampton for two hours on the Saturday before. The Governor is rather low-spirited, but his physical condition continues favorable. It is probable that another amputation of the leg bone will be necessary, as the flesh has receded and the wound cannot heal over in its present condition. Senator — Governor — Hampton says that he suffers more from the old bullet wound in his hip than from the amputation.

Fertilizers.

STOCKBRIDGE
MANURES

Originated by Levi Stockbridge, Professor of Agriculture in the Massachusetts Agricultural College. They have been extensively used for six years. Send for a little book describing them and giving directions for cultivating farm and garden crops. Every farmer, gardener or cultivator of a kitchen garden should send for a copy *mailed free*. **BOWKER FERTILIZER COMPANY, 43 Chatham St., Boston; 3 Park Place, New York; and 21 North Water St., Rochester, N. Y.**

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Don't go WEST. | 250 Eastern Md. Farms. Low prices; easy terms; convenient to R. R. & Steamers. Catalogues. J. C. PLUMMER, Cambridge, Md.

KANSAS FARMS AND FREE HOMES.

HOW TO GET THEM in the best part of the state. **6,000,000** acres for sale. For free copy of "**Kansas Pacific Homestead,**" address **Land Commissioner,** Salina, Kansas.

IF YOU WANT A FARM OR HOME with independence and plenty in your old-age, the
BEST THING IN THE WEST
is the ATCHISON, TOPEKA, AND SANTA FE R. R.
LANDS IN KANSAS
Circulars with map, giving full information, **free.**
A. S. JOHNSON, Acting Land Com'r, Topeka, Kan.

250 Maryland Farms in Tracts from 30 to 300 acres. Near railroad and navigable Salt-water (with all its luxuries), in Talbot Co., Md. Climate mild and healthy. Titles good. New Pamphlet and Map showing *location*, free. Address C. E. SHANAHAN, Atty, Easton, Md.

LANDS AND HOMES — GOOD WATER — TIMBER & FRUITS
IN SOUTHWEST MISSOURI.
1,000,000 acres of well watered, timber and prairie lands adjacent to the St. Louis and San Francisco R'y for sale, at from $2.50 to $8 per acre, on seven years' time. Excellent for stock, fruit, and agricultural purposes.
Free transportation to those who purchase land. Send for maps and circulars to
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W. & ST. P. R. R.
OVER 1,000,000 ACRES OF
FINE FARMING LANDS
IN MINNESOTA AND DAKOTA,
For sale by the WINONA & ST. PETER R.R. CO.,
At from $2 to $6 per Acre, and on liberal terms.
These lands lie in the great wheat belt of the North-West, and are equally well adapted to the growth of other grain, vegetables, etc. The climate is unsurpassed for healthfulness.
They are Free from Incumbrance.
Guide Book, Maps, etc., containing full information, sent free.
CHAS. E. SIMMONS, Land Commissioner, Gen'l Offices C. & N. W. R'y Co., CHICAGO, ILL.
Mention this paper in writing.

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EGGS. EGGS.
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Write now for Illustrated Circular of the celebrated JERSEY APPLE GRINDER and CHAMPION CIDER PRESS. They have proved the most successful cider-making machines ever produced.
Address ROB'T BUTTERWORTH,
Sole Manufacturer, Trenton, N. J.

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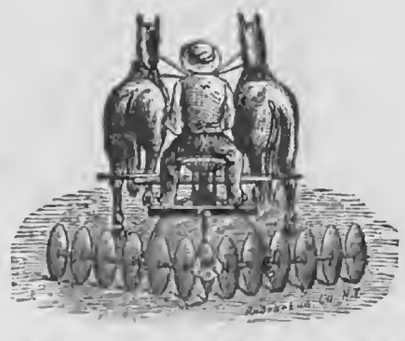
LA DOW'S JOINTED
Pulverizing and Smoothing HARROW.

Light, Simple, Cheap. Durable and Flexible



Will pulverize and leave ground smoother and in better condition and cover seed better, by once going over, than twice with ordinary Harrow. Acknowledged the best in use. Being jointed in the center, it accommodates itself to uneven surfaces, such as dead furrows, ridges, &c. Made with both Chilled Metal and Cast-Steel Discs.
Responsible agents wanted where we have none. Manufactured by **WHEELER & MELICK CO., Albany, N. Y.,** for the United States, except New England States. EVERETT & SMALL, Boston, Mass., Manufacturers for the New England States.

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CORN-SHELLERS, SMUTTERS, GEARING, SHAFTING, PULLIES, &c.
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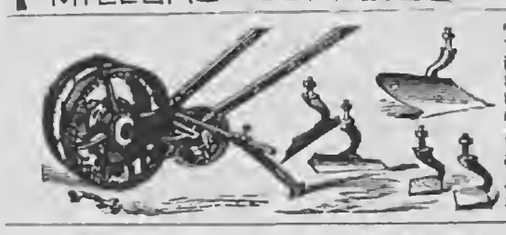

The New Planet Jr. Combined Drill, Wheel Hoe, Wheel Plow, and Garden Cultivator. Every one having a Vegetable Garden, large or small, should own this delightful tool. From early spring till fall it is the Gardener's ever-ready assistant, saving labor, time, backache, and often cost annually. The *Improved No. 2 Planet Jr. Drill*, and *New Planet Jr. Double Wheel Hoe, Plow, and Cultivator* are needed by every Farmer, Market Gardener, Onion Grower, and Nurseryman. The 1879 Planet Jr. Horse Hoe is **THE** tool for all fine work among Cotton, Corn, Tobacco, Potatoes, etc. Testimonials from many States. S. L. ALLEN & CO., 229 Market St., Philada.

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IS, PAR EXCELLENCE,
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Because it is simple, durable, safe, handsome, and will hatch a larger percentage of chickens than any other machine in the market. It has taken first premium wherever put in competition. In Sept. last one was taken from Rye to Elmira, N. Y.—*over* 300 *miles*—in operation, and *hatched* 51 *chickens out of* 60 *eggs.*
Testimonials from dozens of the best poultry breeders in the U. S. and Canada certify to its perfect working and ease of management.
EVERY MACHINE GUARANTEED. Send 3c. stamp for Illustrated Circular to
A. M. HALSTED, P. O. Box 23, Rye, N. Y.

THE BOREL & COURVOISIER SWISS WATCHES
HAVE BEEN AWARDED
THE GOLD MEDAL

at the Paris Exposition of this year, based on the greatest superiority of of performance during the test made manufactured of the best material and finished by skilled hand labor er beyond peradventure. Messrs. B tion in prices, so as to bring their Great care is taken in the finishing those adjusted for railroad use. Call Improved B. & C. Watches. The relative merits of Swiss Watches, as manufacture. Can a country that *Hundred* years be ignored? Give and they will demonstrate to you you to institute an impartial com-

The Jury of Awards' decision was workmanship and extreme accuracy by the Judges. These watches are and made with improved machinery, thus insuring an accurate time-keep- & C. have made a still further reduce- watches within the reach of all of their movements, particularly on your Jeweler and ask to see the public is asked to investigate the compared with those of American has made watches for the past *Two* the Borel & Courvoisier fair play, that none can excel them. We ask parison before purchasing.

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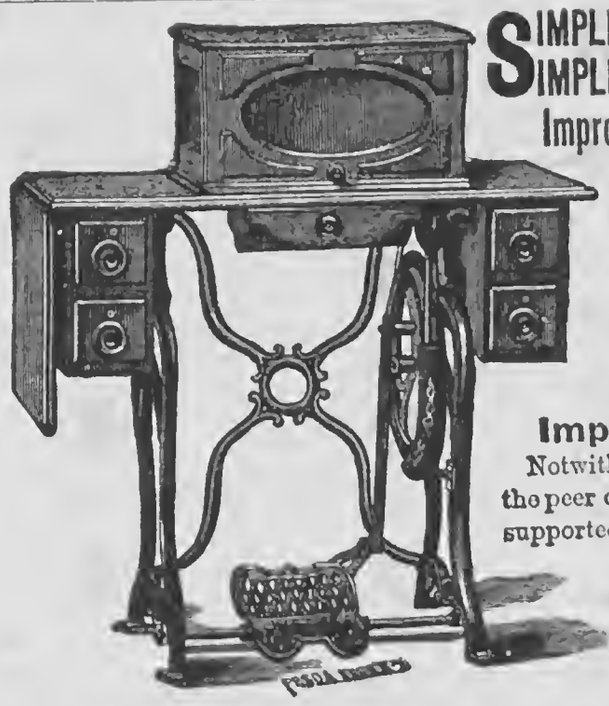

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Having regard for the demand of this progressive age, we now offer to the World the

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Accepted by the New England and Maine State Agricultural Societies. Superior to any for Level Land and Hillside.

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A PERFECT SMOOTHING HARROW,
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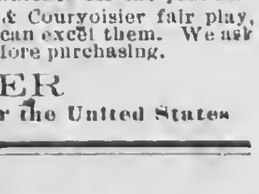
The Standard of America.
Admitted by leading Seedsmen and Market Gardeners everywhere to be the most perfect and reliable Drill in use. Send for Circular. Manufactured only by



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The simplest, cheapest and most perfect Cutter made.
Retail price, $12.
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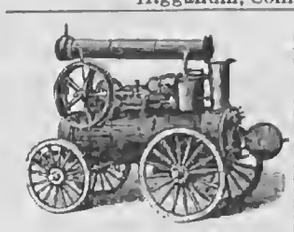
Higganum, Conn., Sole Manufacturers.



PATENT SPARK-ARRESTER.
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10 " " 750.
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Send for our Circulars.

ESTABLISHED 1840.

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4 " " 250.
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B. W. Payne & Sons, Corning, N. Y.
State where you saw this.

HIGHEST AWARD
—AT—
INTERNATIONAL DAIRY FAIR.

The Higgins' Sweepstake of $250, for best butter made in the United States, was awarded Hiram Smith, Sheboygan, Wis.

The Ashton Sweepstake of $125, for best butter made in United States or Canada, was awarded George Sidney Camp, Owego, N. Y.

The First Premium for best butter made in New York State, was awarded J. S. Murray, Delhi, N. Y. All used the **COOLEY CREAMERS,** the cheapest dairy apparatus in use. Send stamp for Circular to
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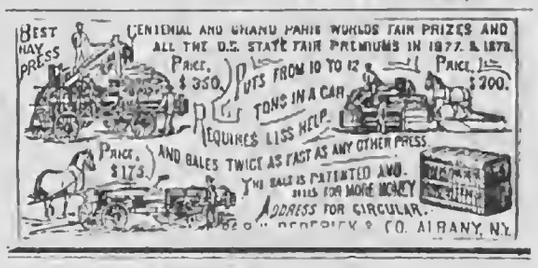

Miscellaneous.

AGENTS TO CANVASS FOR THE MOST interesting and best selling book that has been issued for years, THE ANNALS OF THE WAR, written by prominent soldiers, North and South. Send for Circulars and terms to agents to the publishers.
THE TIMES, TIMES Building,
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CATARRH.
THE
NORWEGIAN BALM
acts upon the mucous membrane of the Nasal passages the same as SOAP and WATER act upon the skin of the body. It immediately cleanses, softens and opens the pores, admitting of a free secretion of mucus, and if the body is kept clean and the bowels regular, the worst features of CATARRH will soon be overcome. Cleansing the Nasal passages of all foul matter *immediately restores the breath to its natural purity.*

EXTRACTS FROM TESTIMONIALS.
(For full text see Pamphlet).

PATERSON, N. J. December 16, 1878.
Mr. N. B. PHELPS, —Dear Sir: We are pleased to inform you that we are selling more of your *Norwegian Balm for Catarrh* than all other remedies for that disease, and find that it gives good satisfaction.
VAN DALSEN & SYKES, 131 Market St.

19 MURRAY ST., NEW YORK, Jan. 8, 1879.
Members of my family have used your NORWEGIAN BALM with great satisfaction. It really seems to have all the merit that you claim for it. *We surely should not know how to do without it.*
SAMUEL HOLMES, Treas. Bridgeport Brass Co.

905 Eight Ave., New York, Dec. 17, 1878.
I think your remedy for Catarrh "One of the greatest discoveries of the age." Before using the NORWEGIAN BALM my wife *suffered untold misery for years.* We sought medical aid, far and near, but to no effect. Our regular Physician, distinguished for his knowledge, skill and honesty, pronounced the disease incurable: that it would extend from the nasal organs to the throat and bronchial tubes, and finally to the lungs—and that death would be the result at no distant day. This was well nigh the case. But in your NORWEGIAN BALM *she found immediate relief;* the extremely offensive odor of her breath, from which she had suffered so many years *entirely disappeared within two weeks* after she commenced to use the BALM. After having used only one bottle, if not fully cured, she feels well on the way.
C. C. SULLIVAN,
Produce and Commission Merchant,
155 Chambers Street, New York.

IMMEDIATE RELIEF GUARANTEED.
Quart Bottle, $1.00. (*sufficient for Two Months' use*). Trial Bottle, Twenty-five Cents.
Ask Your Druggist for it, or send for Circular to
N. B. PHELPS, Prop'r., 6 Murray St. N. Y.

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Supplied by the
AMERICAN PUB. CO., Hartford, Ct., Chicago, Ill.

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60 CHROMO & PERFUMED CARDS (no 2 alike). Name in Gold and Jet, 10c. Clinton Bros., Clintonville, Ct

25 of the PRETTIEST CARDS you ever saw, with name 10c. post paid. Geo. I. Reed & Co., Nassau, N. Y

Wit and Humor.

An illiterate farmer wishing to enter some animals at an agricultural exhibition, wrote as follows to the secretary of the society: "Enter me also for a jackass." And he took the prize.

Fitz Hugh Ludlow, in his narrative of travel in "The Heart of the Continent," tells of an eccentric genius who improved on the old yarn to the effect that "the weather would have been colder if the thermometer had been longer," by saying he had been where "it was so cold that the thermometer got down off the nail."

A Newcastle man had occasion to appease the demand of the inner man at a London restaurant the other day. On calling for the bill, he paid it, and was leaving, when the waiter suggested that the amount did not include the waiter. "Ah," said the man from the extreme North, "but I didn't eat the waiter."

Scene at a wedding breakfast—company all seated about the table. A pause in the general conversation. Happy husband to his wife's little sister at the other end of the room.—"Well, Julie, you have a new brother now." Julie.—"Yes; but mother said to papa the other day that she was afraid you would never amount to much, but it seemed to be Sarah's last chance."

"Baboo" English History.—That native Hindoo students are acquiring a mastery not only of correct expression, but of accurate English historical knowledge, is shown by the following extract from an essay on Cromwell by a Baboo, which appears in the Allahabad Pioneer:—"Oliver Cromwell was a very stern man. He destroyed Charles I. by repeated beheadals. After this he was never seen to smile, but was frequently heard pensively to murmur, 'If I had only served my God as I have served my king, he would not have deserted me in my old age.'"

Nantucket fishermen are credited with the power of being able to sniff the land when some distance out at sea. An old skipper was said to possess this power to such a degree that, by a mere smell of the lead after sounding had been taken, he could discover his boat's position. Sending for the instrument one night when he was too champagned to leave his berth, some one, anxious to test his faculty, inserted the end of it in a flower-pot containing a small rose-tree. The skipper sniffed at it in the dark, and then exclaimed: "Why, Nantucket must have sunk, and we are over Mother Brown's garden."

Quite recently a gentleman giving a dinner-party was persuaded, much against his wishes, to allow his young Hopeful, a spoilt child, to join the company. Thinking that many of the rich dishes were not good for the boy, he objected to his partaking of them, but eventually gave way on the child threatening, "If I'm not allowed to have it, I'll tell!" This went on for some time, until the father made a stand, refusing firmly to let the boy have any wine, adding, "and you may tell if you like." Amidst roars of laughter, the child at once called out, with glee, "My new knickerbockers are made out of a pair of ma's old curtains!"

A clergyman was called upon on one occasion to officiate at a colored wedding. "We assure you, sah," said the gentlemanly darkey, "dat dis yere wedding, sah, is to be berry much in de fashion, sah." "Very well," replied the clergyman, "I will try to do everything in my power to gratify the wishes of the parties." So, after the dinner and dancing and supper were over, the groom's "best man" called again on the minister, and left him a ten-dollar fee. "I hope everything was as your friend desired it?" said the urbane clergyman. "Well, sah, to tell de trut. Mr. Johnson was a little disappointed," answered the groom's man. "Why, I took my robes!" said the minister. "Yes, sah—it wasn't dat." "I adhered to the rubrics of the Church." "Yes, sah, dat was all right." "I was punctual, and shook hands with the couple. What more could I do?" "Well, sah, Mr. Johnson he kind o' felt hurt, you see, 'ease you didn't salute de bride."

The True Way to Invigorate.

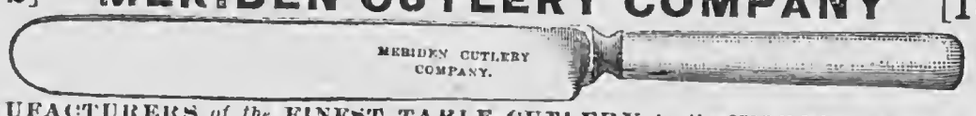
The true way to invigorate a feeble system is to infuse activity into the operations of the stomach, that wondrous alembic in which the food is transmuted into the constituents of blood, the chief element of our vitality. Hostetter's Stomach Bitters, because it accomplishes this end, is greatly to be preferred to many so-called tonics, useful indeed as appetizers, but inoperative as aids to digestion and assimilation. This sterling cordial, while it invigorates the stomach, healthfully stimulates the liver, bowels and kidneys, insuring the escape through the regular channels of effete and useless matter thrown off by the system, which is thus purified as well as invigorated by it. Its tonic influence is soon made manifest by an increase of vital energy and a more active and regular discharge of every physical function, and it has the further effect of rendering the system unassailable by malarial epidemics.

STRANGE RESEMBLANCES.

No. 1.

No. 2.

1832] **MERIDEN CUTLERY COMPANY** [1879



MANUFACTURERS *of the* FINEST TABLE CUTLERY *in the* WORLD. *Their* CELLULOID HANDLE *is superior to* IVORY, *and especially suitable for* HOLIDAY GIFTS. *Warranted and sold by all dealers, and by* MERIDEN CUTLERY CO., *43 Chambers Street, New York.*

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Clean seed, 15 cts. per oz.; 40 cts. per ¼ lb.; $1 per lb. Seed in chaff, 50 cts. per pint; 80 cts. per quart. By mail, post-paid.

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Directions for cultivation accompany each lot.

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Reliable, fresh and pure, at reasonable prices.
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Cleveland Seed Store, Cleveland, Ohio.

Pearce's Improved Cahoon Broadcast Seed Sower.

For Sowing all kinds of Grain and Grass Seed.

This machine does as much work as 5 men can do by hand, and does *better* work than can be done by any other means whatever. No more sowing too much to the left. Agents wanted in every county in the United States. Price $6.00. Send stamp for Circular.
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For Incubation & Artificial Hatching.

Apparatus, 100 eggs' capacity, $25. 41 gold and bronze medals and diplomas awarded to the inventor, Prof. A. Corbett, 7 Warren St., N. Y. City. Send for Circular

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Price, 50c. per box — 3 Boxes for $1.00.
Celebrated European Salicylic Treatment.
Croup, Catarrh, Coughs, Colds — Trade Mark — Paris & Leipzig.
SORE THROAT, BRONCHITIS,
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All Diseases of the Throat, Head, Chest or Lungs.

DIRECTIONS.

Children may take as many as 3 or 4 in an hour; grown persons 6 or 8; in severe cases to be used in conjunction with gargles and doses of Salacylica Powders, price $1 a box, containing 30 powders, both sent by mail to any address, on receipt of price. The only antidote for preventing the spread of Diphtheria and Croup in families. Address

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Gifford's Swinging Stanchion. Self-closing, self-fastening. First farm right in each town for 30 cts in stamps. For Illustrated Circular, address W. C. GIFFORD, Jamestown N. Y.

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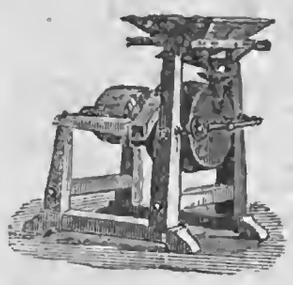

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FRENCH BUHR STONE
Portable Mills for Farmers, Saw Mill Owners, etc. Price from $80 up. Complete Mill and Sheller $96. A boy can grind and keep in order. Adapted to any kind of suitable power. Complete Flouring and Corn Mill very cheap.
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The Maynard Ahead.

The following Targets were made by Prof. Chas E. Dwight of Wheeling, West Va., on Woodland Range, August 12th and 13 h, 1878, with a *Maynard Long Range Rifle*, and are the MOST REMARKABLE ON RECORD. The grand total of 437 in a possible 450,—90 shots at the long ranges,—has never before been accomplished by any Rifleman, or Rifle, in the world.

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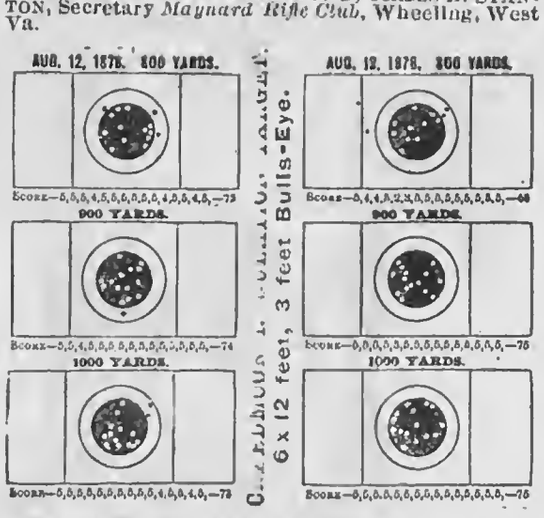

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The Best Paper, and the Best Premiums to Agents, is our motto. We ignore Chromos and all other cheap colored pictures, preferring to put our money in the paper and in Premiums to All.

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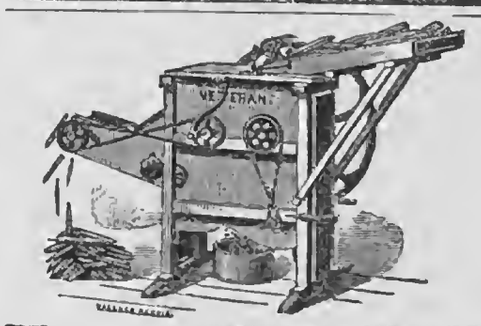
ELLWANGER & BARRY, Rochester, N.Y.



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Power and Hand Corn Shellers of all sizes and to suit all wants.

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NEW VEGETABLES A SPECIALTY.
JAMES J. H. GREGORY, Marblehead, Mass.

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A Compound of Cocoanut Oil,

For Promoting the Growth and Preserving the Beauty of the Hair.

It softens the hair when harsh and dry. It soothes the irritated scalp. It affords the richest lustre. It prevents the hair from falling off. It promotes its healthy, vigorous growth. It is not greasy nor sticky. It leaves no disagreeable odor. It kills dandruff.

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The Largest and Cheapest Tea House in the U. States

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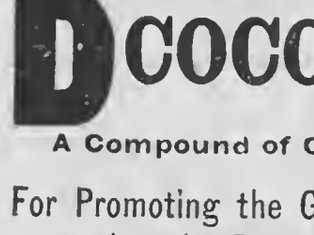

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THE RURAL NEW-YORKER

A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME

PHOTO ENB. CO. N.Y.

Ralph Evans
1490

VOL. XXXVIII. No. 10. WHOLE No. 1519 | NEW YORK CITY, MARCH 8, 1879. | PRICE FIVE CENTS. $2.00 PER YEAR.

[Entered according to Act of Congress, in the year 1879, by the Rural Publishing Company, in the office of the Librarian of Congress at Washington.]

Field Crops.

CORN.

ALL ABOUT IT.

How to Produce the Greatest Yields.

The Most Prolific Varieties.

CULTURE — FERTILIZERS — EXPERIMENTS.

BLUNT'S WHITE PROLIFIC.

The Rural's Second Free Seed Distribution to Subscribers for 1879, with Special Premiums for the Largest Yields.

SEED-CORN.

DR. E. LEWIS STURTEVANT.

WERE the average farmer to be asked to name the one thing most essential in growing a large yield of corn, he would reply "manure." And yet, there is no greater mistaken belief current than that applying manure will produce the large crop. It is a truth that each reader can verify, that while fertility of soil is essential to every crop, yet that the mere applying of manure alone cannot produce the crop. Many a farmer manures in excess of the capacity of his seed, and hence is wasting capital. In the presence of *sufficient* fertility to mature a crop, we from experience, place in their order—first, seed, then cultivation. It is a matter of common observation with us, that the best-manured land does not produce the largest crop, and that the land planted with the best seed, and sufficiently fertile, does produce the largest crop. If we have a poor seed, whose normal capacity is 40 bushels of corn per acre, we can easily obtain the 40-bushel crop by applying manure and culture, and yet we may be unable to obtain an 80-bushel yield by doubling the amount of manure used. On the other hand, if we have seed of the normal capacity of 80 bushels, we can obtain this 80-bushel yield without much trouble, and with but slight excess of manurial application over what we have assumed was used for the 40-bushel crop. Indeed, in a series of fields, or in one field differently manured in its portions, we need not expect to find the largest crop where the most manure has been applied, but probably we shall find it where less manure, but sufficient manure, has been used. And this leads to another proposition, viz.: that manuring beyond the capacity of the seed may be absolutely injurious to the crop.

We have manured a portion of a field, hoping to realize an enormous crop, using the chemicals which 200 bushels of crop would remove, and harvested but 99½ bushels of shelled corn per acre; while an ordinary field under farm culture, adjacent, fertilized with chemicals for 60 or 70 bushels of crop, has given us 123 bushels of shelled corn. We did not understand the reason at the time, but experiment has since shown that over-manuring does diminish the crop, by forcing leaf growth at the expense of grain development. Indeed, this last year, we have known a field upon which 20 carts of dung were used, to furnish less crop than an adjacent field manured with six bags of Stockbridge manure per acre. Under like manuring, two crops may vary widely according to the seed used, and an examination of the reports which are scattered through our Agricultural Society publications,

BLUNT'S WHITE PROLIFIC CORN.—(From Life.)

will make plainly evident how much more valuable one variety of seed is than another.

If we examine a little into the botanical history of the corn plant, we shall find that the ovaries in the ear, through the intervention of the silk, are fertilized by the pollen grains which are shed from the tassel. We will furthermore observe, that generally the pollen is shed from each plant before the silk in that plant is sufficiently developed to receive it. This is a provision of Nature in favor of cross-fertilization, and against self-fertilization or in-breeding. Hence, as the ovaries on an ear are fertilized by pollen from other plants, each kernel is liable to have a different male parent, and, as a matter of fact, these kernels, or the majority of them, are not brothers and sisters, but half-brothers or half-sisters; that is, they have the same mother but different fathers. Hence, we should expect what we actually find—a great diversity of inherited character between adjoining kernels in the cob. In our experiment, with three kernels in a hill, under equivalent circumstances of culture, under the same excessive manuring, the difference of growth between the three plants throughout the whole period of growth, was well marked, and the crop capacity was so different, that while one hill yielded one pound of ear corn, an adjoining hill yielded 3¼ pounds of ear corn, and while one hill yielded 1½ pound of fodder, another hill yielded 6¾ pounds of fodder. As a matter of fact, two kernels of corn which are taken from the same ear and which are neighbors, may produce plants so different that one shall be agriculturally barren, another of extreme prolificacy; one may be very leafy, another with far less leaf expansion, etc., etc.

We will furthermore observe, if we study our fields, that while every plant bears a tassel which sheds pollen, there are a great many plants which are either absolutely sterile, or agriculturally barren; that is, bear such inferior ears that they might as well be sterile, so far as their contribution to the crop is concerned. After many countings of stalks in many fields, among good farmers, we have concluded that about one-half the stalks in an ordinary corn-field are agriculturally barren, and the last we have counted were in the field mentioned above as yielding 123 bushels; here 74 per cent. bore ears worth counting, and 26 per cent. were either sterile or agriculturally barren.

This being the condition of affairs in our corn field, it is seen that to obtain good seed, something more is necessary than to select good ears, or twin ears, etc., the probabilities being that every ear has at least half its kernels pollinated from barren stalks, and as we have no means of distinguishing the kernels which result from prolific parentage, we must necessarily in this kind of selection improve the shape of our cob, the arrangement of the kernels etc., much more readily than we can improve the prolificacy. Indeed under the method of selection now in vogue, progress must be slow and uncertain until through intention or through accident, the barren pollen is eliminated from our fields; then, *then* only, are the conditions such that progress will be rapid, and results certain. The first mention of the breeding of seed corn, by confining the fertilization of ovaries to pollen from fruitful plants, is in the American Agriculturist of December 1867, when N. S. Bidwell, of St. Paul, describes the process of castration as practiced in Tennessee. Whether the corn being disseminated by Mr. Blunt of Tennessee, so remarkable for its prolificacy, (we have seen many stalks with eight or nine fine ears to a stalk, and a whole armful, cut as stated from a limited area, containing from six to nine perfect and fine ears) is the result of this castration of infertile stalks, we know not, but the *facts* are suggestive. The next mention we find is by Professor Beal, in the Scientific Farmer of April 1877, where the matter is ably

discussed, and the claim fairly presented. This latter communication, as well as Darwin's work on cross-fertilization in the Vegetable Kingdom, received at the same time, called our attention to this point, and we immediately put it in practice. In 1877, we cut out from our seed field about one-half the stalks; in 1878, we found it necessary to cut out only about one-fifth. Think of this gain: fifty per cent of barren stalks one year, and only 20 per cent from the field planted with this prepared seed the next year!

When this process becomes general, we shall see an immediate and great improvement in the crops that we raise; now, farmers are hampered with poor seed, and so few farmers know what they want, that they feel satisfied with what they have. Sure progress in corn culture must come from the *breeding of the seed:* yes, we mean it, the *breeding of seed.* The careful selection of the corn ears of the type of cob and kernel that is desired, and then the fixing of this type by using males of approved quality — the same as in breeding animals.

We are already over-stepping our limits as to space, and hence cannot go further into this interesting subject, or state what are the qualities that are desired in the corn and the corn plant. We will but say that some qualities can be impressed on the corn in three selections; other qualities require for their fixation twice or thrice three selections. It is very desirable that farmers should think over this matter of seed, and if the subject is studied, the student will be surprised at his own power over the corn plant so long as he works within the limits set by naturnal laws.

Waushakum Farm, So. Framingham, Mass.

CORN versus WHEAT.

BY PROF. ELBRIDGE GALE.

It is well known that there are portions of the great West where corn is the leading crop, while there are others that are almost exclusively wheat regions. This is especially true of Kansas, the eastern portion being eminently, though not exclusively, a corn region, while the western portion is decidedly a wheat region. Having a farm located between the two extremes, I may be permitted to give a comparative view of these two great farm crops.

The wheat farmer will urge from his standpoint the claims of wheat to a leading place in our agriculture, while the corn farmer will, with equal earnestness, sing "Corn is King." The wheat farmer will proudly tell us that Kansas ranks to-day first among the States in the production of wheat, and the corn farmer will tell us, with as much show of State pride, that Kansas ranks only the fourth among the corn-producing States. As for wheat, we know that on a very large area of the Western plains it is a decided success, while in the eastern portion of the State the corn crop is equally successful. The writer thinks that he has seen a heavier crop of corn growing in the valley of the Blue than in any of the States East. Now, while not prepared to speak disparagingly of either, I may be permitted, both from personal experience and observation, to judge somewhat of the comparative merits of these two great staple crops. It will be well to remember, before making any comparison of the two, that almost all statistics of farm crops are greatly in excess of the reality, both as to the average and the aggregate amount. The experienced farmer has already learned that it will never do in his calculations to put very great reliance upon the reports that are gathered up by our agricultural bureaus, or that find their way into the land-advertising sheets of the West.

Let us first consider the comparative cost and return of fifty acres in corn and wheat respectively. First the corn crop.

	Dr.
To plowing 50 acres	$50.00
6¼ bushels seed	1.30
Planting, 50 cts. per acre	15.00
40 days tending	80.00
Picking, 8 cents per bushel	60.00
Total cost	$206.30
	Cr.
40 bush. corn per acre, 2 000 bush., at 20 cts.	$400.00
Value corn stalks, 50 cts. per acre	25.00
Total credit	$425.00
Less cost	206.30
	$218.70

The wheat crop will stand about as follows:

	Dr.
Plowing 50 acres	$50.00
50 bush. wheat for seed	30.00
Seeding, 30 cts. per acre	15.00
Harvesting, $2.00 per acre	100.00
Thrashing, 8 cts. per bush	60.00
Total cost	$255.00
15 bush. wheat per acre, at 60 cts.	$450.00
Less	255.00
And we have	195.00

above cost of production against $218.70 in the case of the corn crop. In both cases we have sought to give the average figures. In these estimates the corn crop has a few dollars the preference, but not enough, perhaps, to be taken into account if there were not other points of difference which the figures only partially reveal. These points favor the corn side of the argument. It is worthy of note that the farmer and his regular help can mainly handle the corn crop, and hence the extra price of harvest labor is avoided. The farmer has also more time for handling the corn crop both in the culture and in the harvesting, which is very important to the man of moderate means. Again, the seeding of the corn crop is a very small item, while the seeding of the wheat crop is a heavy tax. It is an important fact also that the outfit of machinery necessary for handling the wheat crop is very expensive, while the corn crop demands very little in this direction. It should not be forgotten also that the corn crop can be marketed in the concentrated form of beef, pork, butter, cheese or wool, always paying a good percentage upon the original value of the corn for the expense of feeding, besides adding materially to the fertility of the farm, while on the other hand wheat will be a constant drain upon the fertility of the soil, and at the same time involve a heavy expense for marketing. An abundance of corn results in a bountiful supply of beef and pork, while wheat produces neither.

As we move west over the plains we soon reach a point where the corn crop becomes uncertain, and at last where it fails altogether, while wheat comes in as the great staple. Before the emigrant moves beyond the corn belt, he will act wisely if he takes the above facts into consideration. He should remember that though corn may be the rougher, it is, all things considered, the richer crop. With the wheat crop there is no alternative but to haul it to market and take what it will bring; while with the corn the farmer is more nearly master of the situation, for if the market price does not suit, the thrifty farmer will find a way to feed it at home and market the products in a concentrated form. In view of all the facts then, we are prepared to choose the corn-producing lands for a successful agriculture. And I cannot repress an expression of the belief that those who have been so eagerly moving out upon the wheat lands of the Far West, beyond the corn belt, have made a financial blunder that many, when too late, will sorely regret.

CORN EXPERIMENTS AT CORNELL UNIVERSITY.

PROFESSOR I. P. ROBERTS.

EXPERIMENTS IN CORN, 1875.

	Sound lbs.	Soft lbs.	Total lbs.
1. Ridge culture, heavily hilled with plow twice, cultivated twice	352	55	407
2. Deep flat culture (4 times)	290	19½	309½
3. Shallow flat " (4 times)	324	43½	367½
4. Continuous flat cultivation (7 times)	362	22	384
5. Drilled 1 stalk to the foot (flat culture, 4 times)	365½	18	383½
6. 5 stalks in a hill (flat culture 4 times)	369	29	398
7. 4 " " " (4 times)	438	44	482
8. 3 " " " " "	301½	127	428½
9. 2 " " " " "	266	49	315
10. Unlimed " " "	335	51	386
11. Limed, 200 bush. per acre (4 times) flat culture	493	57	550
12. Unsuckered " " " 4) times)	338	50	388
13. Suckered twice " " "	308	42	350
14. Unlimed Western corn, did not get ripe " " "			341½
15. Limed, Western corn (200 bush. per acre did not get ripe			545

REMARKS.

All plats but 14 and 15, common eight-rowed yellow. All plats unless otherwise designated four-stalks per hill, and 3½ feet apart both ways. Ground sandy loam, except one small corner which inclined to stiff clay. Plat 1 had the most clay soil. Plat 4 the least, and it disappeared at plat (five) 5. The field corn adjoining on clover sod, clay land, not good; yield only 40 bushels of shelled corn per acre, season cold. The land used for experiments, had a southern slope, had grown two crops of clover—a little timothy in it—in 1872; one crop in 1873; the second crop was left on the ground. Plaster—gypsum—was applied (two bush. per acre) to the clover both years. Plowed in the spring of 1874 and planted to field corn without manure, except a small quantity of plaster applied to the hills soon after the corn was planted. Plats one-tenth of an acre. Corn husked last of October and weighed in the field; to get the yield per acre of shelled corn multiply the totals by ten and divide by seventy-two.

EXPERIMENTS IN CORN, 1876.

No. of Plat.	Yield per acre. bush.	lbs.
1. 5 stalks per hill, no manure	41	10
2. 4 " " " " "	42	22
3. 3 " " " " "	42	20
4. 2 " " " " "	31	20
5. Two tablespoonfuls of plaster, per hill, applied June 5	39	30
6. Unplastered	36	40
7. Suckered, once	38	60
8. Unsuckered	39	10
9. Seed soaked twelve hours and rolled in plaster and about two spoonfuls of damp plaster dropped with the corn	41	50
10. Seed from tips of ears	31	30
11. " " butts " "	29	10
12. " " middle of ears	33	10
13. Ralston's superphosphate, 500 lbs. per acre	38	20
14. Peterson & Son's superphosphate, 500 lbs. per acre	34	20
15. Nothing	35	30
16. Bradley's superphosphate, 500 lbs. per acre	37	10
17. Plaster applied June 5th, two spoonfuls per hill	28	40
18. Ashes (wood) " " " "	38	20
19. 5 stalks per hill	38	60
20. 4 " " "	31	60
21. 3 " " "	32	40
22. 2 " " "	29	10
23. Plaster applied June 5th, two spoonfuls per hill	35	30
24. Unplastered	29	50
25. Seed same as No. 9	40	40
26. Suckered	28	40
27. Unsuckered	33	50
28. Seed from tips of ears	38	20
29. Seed from butts of ears	40	40
* Seed from middle of ears—error—not counted		
30. Ashes applied June 5th, two spoonfuls per hill	38	60
31. Plaster and ashes, half-and-half, applied June 5th, two spoonfuls per hill	37	50
32. Peterson & Son, superphosphate, 500 lbs. per acre	34	20
33. Nothing	34	20
34. Bradley's superphosphate, 500 lbs. per acre	36	40
35. Nothing	33	50
36. Ralston's superphosphate, 500 lbs. per acre	34	60
37. Cayuga plaster, two spoonfuls, applied in hill, dry	33	10
38. Syracuse plaster, applied June 5th, corn up	36	00
39. Syracuse in hill, two tablespoonfuls, dry	30	60
40. Western corn, no fertilizer, did not mature	34	60

AVERAGE OF DUPLICATES.

	Yield per acre. bush.	lbs.
Nos. 1 and 19—5 stalks	40	00
" 2 " 20—4 "	38	41
" 3 " 21—3 "	37	30
" 4 " 22—2 "	31	50
" 5 " 23—Plastered	37	30
" 6 " 24—Unplastered	33	10
" 7 " 26—Suckered	33	50
" 8 " 27—Unsuckered	36	30
" 9 " 25—Seed soaked 12 hours and rolled in plaster, etc.	41	10
" 10 " 28—Seed from tips	34	60
" 11 " 29— " " butts	34	60
" 12 " —— " " middle	33	10
" 13 " 36—Ralston's superphosphate	36	40
" 14 " 32—Peterson & Son's "	34	20
" 15 " 33 and 35—Nothing	34	50
" 16 " 34—Bradley's superphosphate	36	60
" 18 " 30—Ashes	38	40

REMARKS.

Ground inclined to be too sandy and gravelly; entirely free from clay. Had been in clover two previous years; mowed twice each year. Southern slope; season dry and suffered much from drought. Four stalks in a hill, except where otherwise designated. Hills three feet and a half apart both ways. Variety of corn, eight-rowed, yellow. Cayuga plaster used unless otherwise designated. Corn very dry when husked, and 70 lbs. of ears counted as a bushel. Cultivated four times, hoed once. Moderately ridged culture. All superphosphates dropped in the hill thoroughly mixed with the soil and the corn dropped on them. Plats small, less than 1-40 of an acre each.

All experimental plats, except those of 1875 were separated by one vacant row.

EXPERIMENTS IN MANURES, ETC., 1877.

	lbs. per plat.	Bushels per acre.
1. 25 lb Stockbridge Corn Manure.	58½	25 5-70
2. Nothing	72½	31 5-70
3. 20 lb Soluble Pacific Guano	95	40 50-70
4. 20 lb Lister's Ground Bone	114	48 10-70
5. 20 lb Lister's Superphosphate	131	56 10-70
6. Nothing	138	59 10-70
7. Crofut Superphosphate	135½	58 5-70
8. Seed Soaked 12 hours, and rolled in plaster, and about one tablespoon of plaster dropped in each hill	125½	53 55-70
9. 20 lb Plaster sowed broadcast, harrowed in	140½	60 15-70
10. Nothing	119½	51 15-70
11. 25 lb Stockbridge, sowed broadcast, harrowed in	108	46 20-70
12. *Seed soaked in Vitative compound	106	45 30-70
13. Suckered	120½	51 45-70
14. Unsuckered—four stalks—compare with 15	112	48
15. 5 Stalks	112	48
16. 3 "	125	53 40-70
17. 2 "	110	47 10-70

REMARKS.

All manures, unless otherwise stated, were dropped in the hill and mixed with the soil. Ground, clover and timothy sod. The plats, with extreme numbers, 1 and 17, were the poorest, the ground growing better toward the middle. Plats, separated by one vacant row. Soil, a little too porous; spring, dry; corn, somewhat injured for want of moisture. The land had borne a crop of clover and timothy the preceding year. Plowed once.

* *Vitative Compounds, directions for using:*—Dissolve the Compound in sufficient water to immerse the seed, then add the seed and allow it to soak from thirty-six to forty-eight hours. The Compound is poisonous to animals.

The package sent contained TWO OUNCES, and was—according to directions—to "invigorate" one-half bushel of seed. An analysis shows it to be composed of nearly equal parts of lead oxide and sulphate of zinc, † manufactured from phosphate rock and fish scraps.

EXPERIMENTS WITH STOCKBRIDGE MANURE, 1876.

½ acre—180 lbs. Stockbridge manure applied to the surface and thoroughly harrowed in; yield	1,070½ lbs. corn in ear.	
½ acre—No manure; yield	1,071½ " " "	

REMARKS.

Soil rather a heavy clay, from which had been cut two crops of clover in 1874; one crop in 1875; second crop plowed in, in October; ground harrowed in spring and replowed about May 1st. The stalks on the manured plat were perceptibly taller than those on the unmanured, and the ears of corn were much higher colored; moderately ridged culture; four times through with Western Corn Cultivator (two-horse).

EXPERIMENTS IN CORN CULTURE, 1876, TO TEST VARIETIES.

	lbs. of sound corn.	lbs. soft corn.	Bushels per acre.
1. 8-rowed yellow, home-raised seed	141	17	73 69-70
2. Maryland yellow, from D. C. Agl. Dept		97	
3. 8-rowed yellow glazed, fr'm Pa	155½	37	81 28-70
4. 8-rowed yellow, seed raised by Mr. Coy, South Hill	130	17	68 14-70
5. 8-rowed yellow, seed raised by Mr. Bates	145½	22	76 23-70
6. 100-day corn, seed raised by Mr. Holden, Etna	104½	11	54 60-70
7. White corn, seed raised by Mr. Ayers, West Hill	131	20	68 53-70

REMARKS.

Soil and conditions same as in preceding experiment, except that farm-yard manures were liberally applied in the winter. The utmost care was taken to make this test a fair one. Results quite as marked have been obtained since on a larger scale, but no figures were kept.

EXPERIMENTS IN VARIETIES, 1877.

	lbs. in ear.	Bushels per acre.
1. 8-rowed yellow—Mr. Bates	64½	36 60-70
2. 100-day corn—Mr. Holden, Etna.	63½	36 20-70
3. 8-rowed yellow, glazed, from Pa.	72½	41 30-70
4. Gold-drop	60½	34 40-70
5. Western corn, acclimated two years	64½	36 60-70
6. White corn—Mr. Ayres	95	54 20-70
7. 8-rowed yellow—Mr. Bates—planted with pumpkins every third hill	67½	38 40-70
8. Bates's corn—no pumpkins	78¾	45
9. Cook's yellow	128¾	73 30-70
10. Western Hicks's, acclimated four years	122	69 60-70
11. Bates's corn	121	69 10-70
12. 100-day corn	97	55 30-70
13. Penn. corn	96½	55 10-70
14. Gold-drop	107½	61 30-70
15. Western corn, acclimated two years	63	36
16. White corn—Mr. Ayres	66¾	38 10-70
17. Cook's yellow	90¾	51 60-70
18. Western Hicks's	58⅝	33 30-70

AVERAGE OF DUPLICATES, 1877.

	Bushels per acre.
No. 1 and No. 11—Bates's seed	53
" 2 " " 12—100-day corn	45 60-70
" 3 " " 13—Pa. seed	48 20-70
" 4 " " 14—Gold-drop	49
" 5 " " 15—Western corn	36 30-70
" 6 " " 16—Ayers's seed	46 15-17
" 9 " " 17—Cook's yellow	62 45-70
" 10 " " 18—Western Hicks's	51 40-70

REMARKS.

All the plats were separated by three rows of potatoes. Ground clover sod, one year standing, gravelly and variable in quality. The ground, from No. 8 to No. 10 was the best, and the poorest at No. 1 and No. 18. On plat No. 7 pumpkins were nearly a failure, with few vines. Plats 1-40 of an acre each. Culture same as in 1876.

GENERAL REMARKS.

No experiments were conducted in corn in 1878 on account of my absence in Europe, except in the regular experimental corn field, which contains about two acres divided into 33 plats, and which has been in experimental corn for four consecutive years. These experiments are conducted for the purpose of ascertaining the value of various fertilizers of known composition, when applied to the soil continuously. Not knowing the history of the management of the land except during a few years prior to its use for experimental purposes, it is thought best by those having the experiments in charge, to defer the publication of results, at least for another year. There are some difficulties in experimenting, that it is hard to overcome. If the plats are large, the variation of soil often changes the results; if small, some local cause, so slight that it is likely to escape notice, may change results perceptibly in the yield per acre. I prefer to let each one draw his own conclusions from the results given, rather than state any myself. Some results appear to contradict others, the reasons for this I cannot tell. I can only go on and try to ascertain the true ones. Some of the phosphates used have been analyzed and most of them are of good, fair quality; some being very good; but notwithstanding this, they have failed to produce any marked results either in wheat or corn, though the tests have been very numerous and under varied circumstances. Good phosphates produce marked results within ten miles to the north of us, while near Elmira no more marked effect is produced than with us. While visiting Mr. J. B. Lawes of England, I received some hints that I think will assist me in solving this mystery. I have already instituted a series of entirely new experiments for that purpose.

HOW TO GROW A BIG CROP OF CORN.

BY A WESTERN FARMER.

"Like produces like" with seed as with animals. One cannot therefore produce a large crop of corn from seed that has been used to grow amongst a number of barren stalks. Where five stalks have grown in a hill and but one has borne an ear, that corn is useless for seed. Seed should be selected from a crop where each stalk bears at least one ear, and if there is an attempt at two, if it be only in the shape of a husk without even a nubbin, the ear from that stalk should be chosen. This habit of shooting out ears at the joint may be encouraged in this way, and varieties with stalks producing several ears have thus been originated. But unless the seed has been selected with care it is in vain to expect a large yield of corn. The seed is the first requisite. The soil is the next. Too rich a soil is not prolific of grain. Enormous stalks often appear with the smallest nubbins, or only moderate ears. Excessive manuring will not help the yield of grain so much as the production of foliage. The popular method of planting corn on a clover sod may not be advisable in all cases. This is an Eastern practice and is disregarded in the West. It grows out of the necessity for some auxiliary fertilizing by rotation of crops, the prevention of weeds, and the saving of labor in cultivation; an Eastern farm being unable to grow weeds and corn both. We have come to that now in the West, although we follow wheat with corn, or corn with corn; and do not depend much upon breaking up a sod for this crop. It may be a question if it is not wiser to carefully nurse a sod and try to get more permanent meadow than we usually have, rather than break it up so frequently. But to grow a good crop of corn it is not necessary to turn under a sod. Stubble land will produce a heavy crop if it is rich enough in the right sort of fertilizers, and is kept free from weeds. Where the soil is not in good condition manuring is necessary; to put the manure in the hill or drill, is the best method. The crop then gets its food when and where it needs it the most.

An early start is the great point. One ear may be matured on a stalk with a late start, but to mature the secondary ears and give them their full growth, is impossible unless the crop makes a start from the first and *keeps it up.* If we use only a small quantity of manure in the hill to start the plant and the roots have then to grope several inches, or feet, away into the soil for food, time is lost and the crop is sacrificed. No after start can make up for this lost time. An excellent fertilizer to start the growth is a good handful of mixed

poultry manure, wood ashes and plaster. This old-fashioned fertilizer has in it all that the modern formulas provide—nitrogen, phosphoric acid, potash and lime; and the useful effect upon the soil in a chemical way, of these materials, as well. But there must be something else. If stimulating fertilizers are used in the hill or drill, manure must be provided outside and near at hand to furnish food as soon as the former have been exhausted. So that there should be either a bountiful provision of manure in the hill or drill and a good dressing of soluble fertilizer in the soil outside of those, or *vice versa*. Either will answer the purpose required.

The next point is cultivation. This should be immediately after the seed is sown or at least before a weed is to be seen. By running the cultivator in the rows very soon after planting, the soil is loosened, the young sprouting weeds are killed outright before they have done any harm, and the manure and soil are more closely intermingled. Whatever may be the effect otherwise of cultivation of the soil, we know that it helps the crop. The best crops are raised by the use of the plow, occasionally, in the rows. It may be the root pruning as is claimed by Dr. Sturtevant; it may be the mellowing and aerating of the soil: it may be that the soil is kept moist about the roots by covering them more deeply; or it may be all of these; but it is certainly true that the big crops that have been grown have been cultivated with the plow more or less. Suckering may be dispensed with. Indeed with some varieties of corn, this habit of suckering adds to the yield, as the early suckers often bear ears. The stripping of the suckers stimulates the growth of stalk, and that is to be avoided when we are endeavoring to produce grain. Nothing remains to be done after this when the attempt is made to grow a crop of unusual yield, a dressing of 150 lbs per acre of dissolved bone or Peruvian guano of low grade in ammonia, may be cultivated in at the last working. This will help the formation of ears, and as it will cost from $3 to $4.50 per acre, 6 to 10 bushels of corn per acre extra will pay for it. The filling out of all the imperfect ears will far more than make up this quantity, and every corn grower knows how many imperfect ears there are in the best crop grown. From recent successes in growing large crops of corn, it is difficult to say what the full possibilities of this crop may be; 100 bushels per acre are now frequently grown and it is thought possible that this yield may be greatly surpassed. The truth is we are about now beginning to learn how to grown corn.

CORN CULTURE.

CONRAD WILSON.

Conditions of Success.

SUCCESS in corn culture depends on conditions that are not only numerous but very important; and the more clearly the farmer understands them, the more easily and surely will he be able to comply with them, and to win the prizes they hold out. The leading questions that enter into the final yield and profit of corn are;

1. The natural fertility of the soil.
2. The question of fertilizers and manures.
3. The various problems of tillage
4. The variety of grain planted.
5. The question of pedigree.
6. The distance in planting, etc.

Each of these has an influence on the crop much greater than most of us perceive, and helps to determine not only the yield, but also the quality and the cost. Yet it is amazing how many practical men lose sight of nearly all these factors, and rest their hope of a maximum yield on giving special attention to a few leading conditions, by which the profit is supposed to be mainly determined.

The Road to Success.

One man, for example, gives great attention to *plant-food* and little heed to anything else. Another is all engrossed with the problems of *tillage*, and discovers but little value in the other factors. A third attaches exceptional importance to the variety of the grain, or the question of pedigree, and so on to the end of the catalogue. But rarely do we meet with the farmer who is wise enough to divide his attention fairly between all the essential conditions that belong to a maximum crop. Yet it is entirely true, and not to be denied, that very fair results are often reached, even in spite of important factors having been overlooked, and it is also true and still more remarkable, that among all the corn products yet recorded, there is not a single case in which all the elements of success are included or even recognized.

This fact is exceedingly suggestive, and teaches some useful lessons. And especially it teaches in what direction we are to look for progress hereafter. If the largest yield and lowest cost of corn yet reached by the foremost farmers are the result of merely limited and partial attention to the true conditions, while many essential factors have been neglected, what may we not expect from the coming farmer, when all the conditions of success will be more clearly perceived, and more perfectly worked out. Does not this view help to explain the strange contrast often witnessed between the present average of corn production and the higher results frequently reached by practical farmers; and does it not tend to show how the possibilities realized by the latter may yet become the average yield of the country?

It is gratifying to notice, that

More Rational Views,

than formerly, are now held in regard to maximum crops. While reflecting men, on one hand, do not claim that exceptional yields obtained on fractional areas of land, are, in any sense, a fair test for entire acres, so, on the other hand, practical farmers no longer claim that their own experience is the necessary limit of production. They frankly admit that larger yields are often obtained by those who *comply with the essential conditions*. Farmers of this class hesitate to accept accounts of unusual yields without vigorous proof; but when thus proved they admit them at their true value, as exceptions to a general rule. In this they are right; for it sometimes happens that too much is claimed for a maximum yield.

If a man with persistent energy, and favorable conditions succeeds in getting 150 bushels of corn per acre, with also a reduction of cost, even if he proves the fact beyond any doubt, still it does not follow that all others can do the same, or even that he himself can repeat it. Yet it is, none the less, a grand achievement, and stands out as an evidence of what may be accomplished. If timid men get alarmed, or discouraged by such evidences of progress, that is their own fault, but not at all a reason why successful men should suppress their triumphs, or conceal valuable facts from the public. Earnest farmers of true fiber and pluck always find in such conspicuous examples an inspiration that animates their efforts, and impels them forward.

Let me now refer briefly to a few examples tending to illustrate the main question in hand, which is the importance of *all* the factors that belong to a maximum yield.

Distance in Planting.

The crop of 120 bushels per acre, raised many years since by Jesse Buel; the yield of 132 bushels resulting from an experiment by Samuel Chidsey of Cayuga Co., N. Y.; the remarkable product of 160 bushels per acre, obtained by Major Williams of Kentucky; and the still larger result of 170 bushels per acre by the Pratts of Madison Co., N. Y., were all of them largely attributed to the effect of close planting in drills. Though other factors of course had some influence on the yield, yet this question of distance in planting having received special attention, was reasonably considered a special cause of success.

Plant Food.

In the remarkable crop raised by A. Campbell of Owego, N. Y., the cost of production, with all the factors included, was less than 10 cents per bushel, on a yield of 106 bushels of grain, and five tons of stalks. In this case, the abundance and variety of the plant-food added to the soil, were the special feature of the crop, and the real cause of success.

Tillage.

When Joseph Harris announced a profit of nearly $700 on his memorable corn crop of 15 acres, it was shown that the result was mainly due to the exceptional amount of tillage persistently applied to the crop both before planting and during the growth.

In another case, the surprising result obtained by J. W. Dickey of Pennsylvania, (169 bush. per acre,) was mainly the outcome of both the conditions last named. It was due in part to the efficacy of sheep manure long accumulated, and in part to the telling influence of thorough tillage which, as in the case of Harris, was often repeated both before and after planting.

Pedigree.

Again, the recent efforts of enterprising men who have investigated the *prolific capacity* of this cereal, clearly prove the great importance of pedigree, and show that the transmission of quality by descent is destined to become an important element of success The results obtained by Mr. A. E. Blunt, in Tennessee, Dr. Sturtevant in Massachusetts, and others who have practically examined the subject, clearly indicate the possibility, not only of greatly increasing the number of ears on the stalk, but of transmitting this quality so as to insure a *permanent* increase of yield per acre.

Conclusions.

From this cursory view of the possibilities, as well as the actual products often resulting, or mainly resulting from single causes, or from a few conditions only, we may derive the following instructive suggestions:

If the intensive development of a single element of success shows such striking results in the yield and profit of corn, what would be the effect, should the farmer distribute the same energy and skill among all the processes of the crop, giving equal and uniform attention to all the conditions of success?

In other words, if intelligent farmers would combine these best methods, applying plant-food with the liberality and judgment of Campbell, Compton, Parker and others; if they would test the value of tillage with the courage and faith of Harris and Dickey; giving the same prominence to pedigree as Sturtevant and Blunt, and adapting the spaces in planting to the varieties of grain, and to a maximum yield, after the manner of Williams and Pratt; how can we help seeing that by thus giving the full benefit of natural laws to *all* the conditions on which the crop depends, they would increase in the same ratio the amount and certainty of the yield, as well as the rate of profit.

Of course, there are some who will be ready to exclaim that all this is impossible. In reply, it only needs to be said, that all this may be accomplished with comparatively little difficulty, and with large remuneration, whenever American farmers will adopt, as they easily may, a system of experiments adapted to produce such results.

CORN AND ITS CULTIVATION.

HUGH L. WYSOR.

As the time is approaching when farmers will begin to prepare for spring planting, and as the seedsmen in their catalogues are already beginning to offer different varieties of seed corn, perhaps a few observations in reference to the seed and the cultivation of this cereal, derived from my own experience, may not prove uninteresting to your readers.

In Johnson's Encyclopedia of Agriculture, we are informed that there are only five original varieties of corn cultivated in the Middle and Southern States, and that all other varieties are only intermixtures in some form or other of these five, to which by careful selection year by year they may be brought back. These five are described as being the big and the little white flint, the big and the little yellow flint, and the white Virginia gourd seed. The yellow gourd seed is said to be a mixture of one or the other of the two yellow kinds and the white gourd seed. At the same time, by years of careful selection, a fixed characteristic may be given to a mixed variety at which it will remain with but little variation. I believe that what is here stated is in the main correct.

In the spring of 1875, I purchased in New York city, one-half bushel of a corn called the Mammoth White Dent, which I planted about the 15th of May. In this climate (it must be understood that I live in southwest Virginia, the climate of which is not greatly different from that of Maryland or Pennsylvania) corn is generally planted between the 20th of April and the 20th of May following, unless the variety be the pure white flint, called here Rareripe, which may be planted as late as the middle of June. As a rule, the pure white flint is not planted except by some few for bread, nor do we plant the pure white gourd seed, but all shades of varieties between the two mentioned. I planted the white Dent, which must have originated in some Southern or Western State, as before stated; and on the 15th of October, although it was not then mature, cut it in order to avoid frost. It proved to be a rather short-eared variety, with very deep grains, a large cob, carrying from 20 to 30 rows, and the best ears would easily shell out a pint of corn, though it would not weigh nearly so well as a flinty corn. From the half bushel planted, I saved only a bushel which I thought would germinate. This I mixed with the same quantity of a corn raised from seed received of the Department of Agriculture, called Rumer's White, a very white, floury corn, with long ears of 16 to 18 rows. A large proportion of this mixture still failed to mature as it ought, and accordingly the year following, I put in with it some of the kinds usually planted here, which had the general effect of rendering the ears more plenty, and of rendering the size of them from 12 to 14 rows. I can now go to my crib and pick out ears representing as many as 20 different sub-varieties, varying in characteristics all the way from pure flint to pure gourd seed. The same is the case to a greater or less extent with the cribs of a majority of farmers in the country, as even where a single pure variety is planted it is difficult to keep it so, from the ease with which different kinds intermix. The question then arises, whether it is better to plant mixtures of the sort above described, a pure original variety, or a mixed variety with a fixed characteristic. For my own part I have no information on this point.

To show how difficult it is to fix the character of any mixed variety of corn, I will state my own experience. Last spring I selected from my crib one ear each of two kinds—one a 12-rowed corn, with grains rather deep but hard, broad, fluted between the rows, and easily shelling out one pint of grains; the other, an 18-rowed corn, with deep, narrow indented grains carried on t smallest cob I ever saw, with the rows perfectly straight and the smallest possible space lost between them. I planted those two ears in such a manner that I was pretty certain that they could not intermix with each other, and so that the prevailing winds would not blow the pollen from neighboring crops among them. When I gathered the product, I found of the first kind not a single ear like the one I planted, and only two or three approaching it; and of the second, I found 20 or more ears like one another, but not one like the original ear. I conclude from this that a fixed character could not be given to a mixed corn in less time than ten years, and not then unless unusual care should be continually taken to make the selections very nearly approach the given standard. I should, perhaps, explain that by a mixed variety is meant not one that has different kinds of grains on the same ear, but one that has resulted from the intermixture of some of the five original corns. In one of your city contemporaries of last year, the question was raised whether more corn to the acre could be raised by planting the small flint corn as at the North or the large dent as at the South. This, of course, in a climate where either would mature equally well, as they would here for instance. I would remark in passing, that it is the practice here to sow the ground in wheat after the corn has been cut off, and for this reason it is in some respects preferable to plant a corn which will ripen not later than the 1st of October. Allowing that the small corn will produce two ears to the stalk—and many of the small sorts will do this—and that each ear shells out one gill; and that the large corn will produce one ear to the stalk, which on the average will shell out one-half pint, then the yield of each will be precisely the same; and this, I think, is about the truth of the matter. But if the small kind has only one ear to the stalk, then the yield of the large would be much greater.

We may now make a calculation of how much corn it is possible to raise to the acre, and see how much is actually raised. When the ground to be planted is checked three feet each way, as, I believe, is generally the course pursued by farmers, and two stalks left in each hill, there will be 9,680 plants to the acre; and if we suppose that every two plants yield one pint, the yield per acre will be 75 bushels. Now I can pick from my crib 64 ears which will shell out a bushel, or one pint to the ear. If, then, we suppose that every plant yields one pint, with the ground laid off as before, the yield will be double, or 150 bushels per acre. Thus, under the most perfect conditions, it is always possible to raise 150 bushels to the acre; but then these perfect conditions are rarely if ever obtained. Such a result as the above is frequently obtained on small plots of ground or on fractions of an acre, sometimes on one or two acres, but it is not at all probable on a large field. As a matter of fact, I have averaged 70 bushels on eight acres. A man may select ears which will shell out one pint to the ear, but he cannot do this by taking the ears in the order they grow in the field, for there is always a large proportion of nubbins, and many plants fail to ear at all. These nubbins come either from replants or from the thin parts of the field. A stand of corn is never so good but that there is more or less replanting to be done, and not unfrequently the replants constitute a very fair share of the field. Replants do not usually ear well, not because, as is frequently supposed, there is not time for them to mature, but because they are shaded by the earlier and larger plants, which cut off the sunshine and the air from them and cause them to grow as they would under the shade of a tree. Making all necessary allowances, 50 bushels per acre on good land ought at present be considered a good yield.

How far apart the plants stand, and whether they should be checked or drilled, is a question which depends for its answer on the variety to be planted and the character of the soil. The small kinds, may, of course, be planted much closer than the large.

It must always be borne in mind that air is as necessary to the existence of corn as to that of the human being. Want of air has pretty much the same effect on a crowded field of this crop as it has on a great number of people closely collected in a small house on a hot day in summer.

Plants that grow 12 to 14 feet high should stand not less than four feet apart each way, as then they can get air in four directions. Corn which has been checked has the advantage that it can be worked with less hand labor, especially when the land is very foul with weeds. In very sandy soils, it is absolutely essential that the ground be marked off both ways, as otherwise the plants will burn up, or "fire," as it is called. It is meant by this that when the corn is about to shoot, the blades will turn yellow from the ground to above the ear, the stalk becomes hard, and the ear fail to fill. Drilling may be practiced with advantage in clay soils. A plan sometimes pursued here is to lay off the rows three feet apart, and plant every 12 inches in the row, thinning to one stalk. This gives nearly five thousand more plants to the acre than where the rows are

three feet apart each way with two stalks in the hill, and supposing the ears to average equally well in both cases, the yield per acre would be one-third greater. I once saw a field of 100 acres planted in this way, which was estimated by good judges to average 60 bushels per acre. Here we never leave more than two stalks in a hill, as in this way the ears are so much longer and larger, that they will yield more than when three or four stalks are left, especially as in the latter case, the plants frequently do not have any ears at all from being too crowded.

It would be the hight of folly for a man here to pursue the plan followed by Judge Buel in raising 120 bushels to the acre, which was to plant in drills, two rows in a drill, the plants nine inches apart, and three feet nine inches from the center of the drills. As an illustration, I may state that on one occasion I determined, if possible, to raise 100 bushels on an acre. I marked off an exact acre of sandy land, which had been heavily manured for the purpose, and planted the corn in rows three feet apart, with the plants two feet apart, and two stalks in the hill. The corn grew nearly 14 feet high—it was a large yellow kind from Ohio—but on two-thirds of it there was not a single ear, so that instead of raising 100 bushels, I raised scarcely ten. The corn was burnt up for want of air.

A word now as to the object to be sought after in cultivating corn, and I shall cease to try the patience of your readers. One object is, of course, to keep down the weeds, but the principal object is to *stunt* the growth of the stalk. In this, I concur in the opinion of Dr. Sturtevant that the roots must be pruned. That corn should grow to the hight of 14 or 15 feet, as the seedsmen in praise of a variety which they have for sale, often say it does, is in my opinion a serious disadvantage for more reasons than one.

The best ears of corn I ever saw grew on stout, stubby stalks not over 8 or 10 feet high. Whether the side roots be cut or broken off by either deep or shallow plowing does not much matter, as the tap root is out of the way of being injured by either method. It is certainly, however, a useless, if not injurious practice to throw hills around the plants, as it cannot possibly do them any good. It has been the result of my observations that the stalks can be thoroughly stunted only by rapid successive plowings. If an interval of a week or ten days is allowed to elapse after the first working before the second is begun, there will scarcely be any check to upward growth of the stalk. As soon as the first working is finished, the second should be begun at once, cross-plowing, if the ground be checked. These workings should be continued till attention is demanded by other crops. Here, we have no particular time to "lay by" corn. We generally quit working it at harvest, which occurs between the twentieth of June and the first of July.

Newbern, Va., Jan. 20, 1879.

THE PROFIT OF CORN RAISING AS COMPARED WITH WHEAT.

"Can we produce corn in the East profitably," is a question often asked, but seldom answered satisfactorily. The greater ease of cultivation in the West, the heavier production, the low rates of transportation added to the natural adaptability of the soil, all tend to detract from the corn as a principal crop. Many stock feeders are buying Western corn and affirm that they do so much more cheaply than they could produce it on their own lands East. Besides, the quality of the grain for feeding purposes is in advance of our own production. If we cannot raise corn at a profit, equal to that of other grain, we are unwise to pursue its cultivation, except what is needed for home consumption, and even that may be more profitably purchased in many instances. In 1876 the corn crop of Illinois was estimated at two hundred and twenty-three million bushels; that of New York at only twenty-one million. This shows that the production of this crop here is not profitable. Again, let us compare the average cost of corn on a given area of land with the cost of wheat on an equal area. Two fields of ten acres each were taken for experiment, and a careful account kept of the disbursements and receipts, with the following results:

Corn Field, 10 Acres.

	Dr.
To 10 days plowing	$30.00
" 3 " dragging and marking	9.00
" 5 " planting	5.00
" 20 " cultivating	40.00
" 10 " shocking	10.00
" ⅛ of crop for husking	31.25
" 5 days cribbing	15.00
" 100 loads manure	50.00
Total	190.25

Corn Field, 10 Acres.

	Cr.
By 1,000 bushel ears	$250.00
" stalks	50.00
Total	300.00
Less cost	190.25
Bal.	109.75

The account above is estimated at a very low figure, and as will be observed, no mention is made of hoeing or fertilizing. One hundred bushels are far above the average crop in the East, especially on the hills. Some men understand corn and have large yields nearly every season; but of these there are few. Now let us note the profit of the same field sown with wheat.

Wheat Field, 10 Acres.

	Dr.
To 10 days plowing	$30.00
" 2 " dragging	6.00
" 6 " harvesting	9.00
" drawing	6.00
" thrashing	19.27
" 100 loads manure	50.00
Total	120.27

Wheat Field, 10 Acres.

	Cr.
By 350 bushels	$385.50
" 5 loads straw	15.00
Total	400.50
Less cost	120.27
Bal.	280.23

By comparing the two we find a balance of $170.48 in favor of wheat, or while from the ten acres planted with corn we receive a profit of $109.75, from the same field sown with wheat we would receive $280.23, aside from cost of production. With this difference it is not profitable to raise corn here for market. But little corn will yield well on old ground without hand culture, and if this item were also added, the difference would be considerably greater.

Hector Bertram.

GROWING CORN ON THE 43rd PARALLEL.

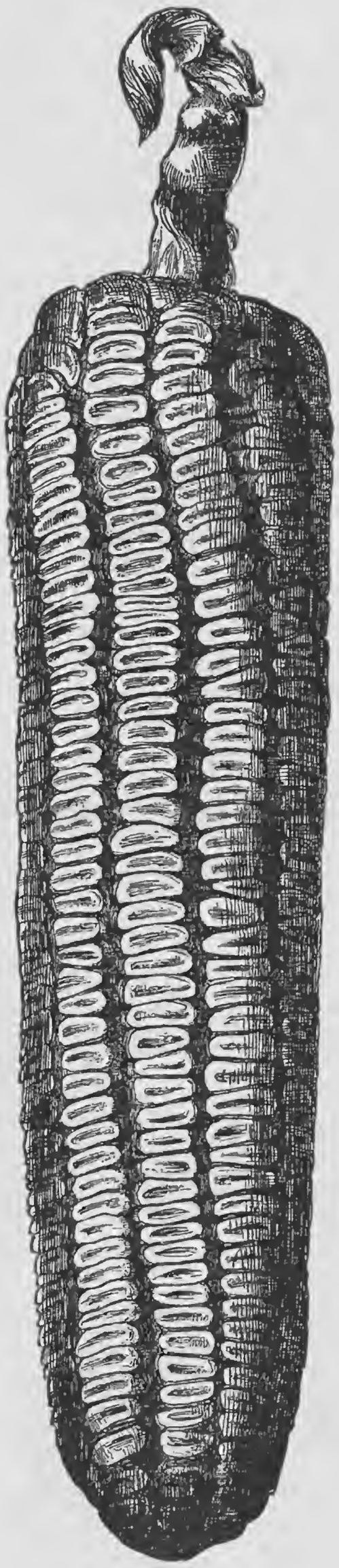
F. D. CURTIS.

Indian corn is the most important crop, next to grass, grown in this region. The farmer depends upon it almost entirely to make his pork and beef, to winter his poultry, and to a considerable extent for feeding his working teams, for which it is well adapted. It does not enter into the domestic economy of housekeeping as much as it should. The hard, or flint corn, is the only variety grown and this is not so well adapted for cooking, and is much harder to digest, than the lighter and softer dent variety. The latter does not contain so much oil and makes lighter and more digestible food. Farmers have not arrived at the progressive point of purchasing meal made from dent corn and using it in their families, thus saving flour, and bringing to their table a healthy, nutritious and cheap food. In making a collection of corn grown in this latitude for exhibition in Paris last year, under the supervision of the Agricultural Department, we found twenty different kinds. In color they were yellow, brown, white, and red, and one was variegated, each kernel being tinted with yellow and brown. The largest number contained eight rows on the cob; one, the Dutton, had ten, twelve, and even sixteen rows. There is a late and an early kind of Dutton, the early having the longer ear and the late containing twelve and sixteen rows with a thick and heavy cob. The kernels of the Dutton corn are very small and closely set. Some varieties have an exceedingly small cob and these are usually the earliest sorts. Ninety days are sufficient to ripen several of these kinds. They were brought from Canada. Our latitude is nearly as high as corn can be made a successful crop in New York State, or New England. It is planted in May, or as soon as the ground is dry, and warm, and cut up at the bottom as soon as ripe, the last of August or the first of September, always if possible before a frost. It is set up in stooks of twenty-five hills each and when dry enough is usually drawn into the barn where it is husked. Corn in this region is planted in hills, the rows being from two feet and a half to three feet apart. The early kinds, having smaller stalks, can be planted closer together. Three and four kernels are put into a hill.

In olden times a good deal of hand labor was used in tilling corn, but with the improved cultivators it is found that corn can be pretty thoroughly tilled without much hand hoeing. The hills are not now rounded up as they were formerly because experience has demonstrated that good crops can be grown by leaving them more level. One hundred bushels of ears are more than the average yield to the acre and would be considered a large crop. Farmers prefer to plant corn upon sod ground although on rich land successive crops of larger yield may be grown. Corn will bear any quantity of manure. Early and thorough tillage are essential for a good crop; by early tillage we mean when corn is young. Grass and weeds growing with the crop are destructive to it. The best and surest crops are grown when the manure is spread upon the sward in the fall, as it then becomes thoroughly incorporated with the soil, and is in a condition to feed the plant at the beginning, and all through its growth. When put on in the spring, if the season should happen to be dry, it does not decompose, and the crop does not receive the benefit.

By selecting the ears which ripen first, any kind of corn can be made to mature earlier, and it has been proved that by selection and good tillage corn can be improved both in the time of maturing and in quality. The same general law applies to it as to other grains. When different kinds are planted contiguous they generally mix in the ear, but sometimes hybridize, and produce a new variety. Corn stalks well cured will make more milk than any other fodder. A bushel of corn fed to hogs is estimated to make ten pounds of pork, but if ground and cooked it will make twenty-five per cent. more. Farmers calculate it will pay to feed corn to hogs when the pork will bring as many dollars per hundred, as the corn will shillings per bushel. This old rule has been handed down from father to son for many generations.

Kirby Homestead, Saratoga Co., N. Y.



BLUNT'S WHITE PROLIFIC, EAR.

CORN AND CORN DODGERS.

Corn is the king of all crops. It calls for some little help from the hand of man, but it responds in yield and quality, in exact proportion to what it gets. It is so universally grown and is so common, that words to teach of its culture seem out of place. Yet, the average yield in our whole country is not one-fourth its capabilities. As a nation we seem to be satisfied with about twenty bushels per acre, while ninety is within the reach of every farmer in the corn-growing belt, which covers nearly all the States. Here is an evident lack of either the knowledge how to grow the crop, or the energy to put the knowledge into practice. The whole matter of its cultivation is so simple, so easily understood, the seed, soil and climate are so well suited to each other, and the crop is so valuable when ripe, I may say from the time it is knee-high till the following month of March, that the neglect and abuse it generally receives is one of the wonders of American farming. The fact that a farmer may lose all his other crops, and still do well on a good corn crop speaks in its favor. Corn needs, in order to insure a heavy yield, less labor and preparation, in these days abounding with farm machinery, than any other field crop. The time of harvesting it, too, comes at a time when there is little else to do, and with all these advantages what do we get? What can we expect to get from a crop to which we give nothing?

How many of us use good seed, and give the land deep plowing, or subsoiling, manure, and timely and thorough cultivation? Do we not generally plant it on land known to be foul, for the very purpose of making the corn crop clean it? We make the crop a farm scavenger, and then groan over a poor yield. Why do we put all our efforts into small grain planting, so that by corn planting time we have none left for our most important crop? I will tell you—it is because we are all corn dodgers.

We dodge the questions involved in growing corn, and excuse ourselves for having a short crop, by saying, "Oh! anybody can grow corn." But in turning around to escape the eye of our questioner, we are confronted with a chance grain or two which had fallen on good soil, grown up, made a shade and shelter for the hens, by them been scratched and manured, till in all the pride of independence it had reared its tassel ten feet in the air, and thrust out from its robust stalk three or four ears of *seed corn*. Why did not the farmer scratch around it, manure it, and grow a crop of seed corn?

He dodged his duties;—what is a man who dodges his corn crop but a corn dodger, and what right has he to complain if his corn dodges him?

S. Rufus Mason.

INDIAN CORN FOR MILCH COWS.

L. S. HARDIN.

In this country, with our improved methods of dairying, the sheet-anchor of success is Indian corn. This remark applies as well to summer as to winter feeding, though it is a far more important factor in the latter than the former system of dairying. Men have discovered that no machine, not even a cow, can do profitable work with only a half supply of material. Of course, you can choke a machine, and overfeed a cow, just as you can blunder in anything else; but the man who proposes to carve out success must learn, by diligent application, the exact point to which a cow can be profitably fed, and, having found it, he must not hesitate to supply the food.

To take the subject up in an orderly manner, it is proper to first treat of the effect of feeding corn to cows in milk.

Effect on Milk Yield.

The practical dairyman need hardly be told that Indian corn, properly fed, will cause the cow economically to yield more milk to the pound of food than any other variety of feed. It is not only of prime value itself, but it renders many other kinds of food valuable, that, when fed alone, do almost as much harm as good. In the West, where high feeding has probably been brought to its greatest perfection, the favorite mixture is one-half, in bulk, each of bran and corn meal. The best results are reached by an addition of one pint of oil-meal daily when the cow is fresh. A mixture of bran, shorts and ship-stuff, which at the West is called "mill-feed," may do as well in milk-making if fed with cut straw; but it is not in sufficient use, or cheap enough, to call it an economical milk food that will compete with corn meal. Some of our best authorities state, as the relative value of meal, that 100 pounds of corn meal is equal to 76 pounds of wheat, 83 of oats, 90 of rye, 111 of barley, 60 of beans and 40 of oil-cake. This is pound for pound and does not relate to values, which, of course, is a vital question with cow feed. The heaviest profitable feeding, with corn meal and a cow of average weight, is four quarts of finely-ground meal a day, mixed always with coarser food.

How to Feed Corn.

When we speak of how to feed corn, we by no means propose to confine ourselves to the grain alone. We should consider its feeding quality in all its varied forms, as meal, whole grain, the stalk, as fodder and in ensilage. That every particle of this plant is valuable, even to the cob, there can be no reasonable doubt. The only question is as to how it is manipulated. If the corn is ground fine and the cob course and the two mixed, there is no better food for making milk. This I have seen demonstrated year in and year out with a herd of Jerseys, and it convinced me the cob meal did a good part in the economy of milk-making, and did not injure the animals in the least. When mixed in a slop it forces the highest possible yield, but I do not think it pays to cook meal for cows, unless it is done merely to

accompany other and coarser food that is being cooked.

In the Ear.

At the West corn is often fed in the ear, particularly the nubbins, and when we consider the cost of grinding and the cow as having an abundance of time to chew the corn and cob, it is an open question which way is the more economical to feed, especially when the cows are in fine health with active, digestive organs. Corn is very hard, and requires hard and continued boiling, or long soaking, to improve its quality with water. This is probably caused by the oily nature of the outside skin or husk. It will take up about as much water when soaked cold in twenty-four as in forty-eight hours. When the corn is not in small nubbins it is always broken into three or more pieces before being fed. If slightly salted, the cows relish it better.

Feeding the Stalk.

For many years I carried a herd of dairy cows through every winter with little or no other rough food than corn-stalks, cut into inch lengths. With this I would mix wet at the rate of four quarts per cow a day of corn meal and bran mixed and slightly salted. There are few, if any, better rough crops, not excepting the best timothy or clover hay, for making milk, than common corn fodder when fed as suggested. Some of the largest pieces would be rejected, but if a little meal was scattered over them, unless the cow was more than usually delicate in her tastes, they would soon be eaten up. Young heifers in full flesh would reject this part of the stock, but it was then useful as bedding and manure. The chief recommendation of this fodder is its low price, when compared with hay or even straw, containing so much more nutriment than the latter. It usually costs about one-fifth the market price of timothy hay, and for purposes of feed is, in my opinion, of equal value pound for pound. In feeding they will be of about equal waste one with the other, while their manure qualities are about equal.

As Cultivated Fodder.

This is the cow feed for which I have a special weakness. In strong land the rows should be planted three and half feet apart, twelve to twenty grains to the foot, and well cultivated as long as the horse can pass through the rows. After the corn has reached that stage when the tassel begins to wither and the lower blades on the stalk turn yellow, the fodder should all be cut and allowed to lay one day in the sun, or two days in the shade, when it should be bound into sheaves and shocked just as wheat is. These shocks, if properly put together, will stand without further trouble until needed for food in mid winter, when the leaves will be found green and nourishing, while the small stalk and little nubbins found here and there in it, give it a constant charm for cattle. The amount of this food that can be raised on an acre of land is simply amazing. There should be eight or ten tons of it to the acre, even after it has dried out in winter. Cows will eat it ravenously without its being cut up, but as meal is so much better for cows when mixed with cut fodder, I would always recommend that it be done. The most serious trouble I have ever had in raising corn fodder, was that the heavy growth would sometimes blow down and break off near the roots. This need not be any loss, however, as it can be fed green to the cows after the order of soiling. Fodder should be raised this way to help out the pastures when they get brown and dried up late in the season. Sweet corn seed is said to be more valuable than any other variety for this purpose, but never having tried it, I would be a little slow in recommending it, as sweet corn does not grow as luxuriantly as the gourd seed varieties.

Ensilage.

This plan of preserving green fodder has hardly been developed in this country, and certainly not to an extent that would justify one in trying it on a large scale. It consists in burying green fodder, cut into short lengths, in the earth sufficiently deep to prevent fermentation, and it is said to keep perfectly until needed for the stock, be that months or years. The labor looks portentous, while, even in its most perfect green stage, corn fodder is but little if any more valuable for cow food than it is in mid-winter, if properly cured and preserved as described above.

NOTES ON CORN INSECTS.

PROFESSOR CYRUS THOMAS.

INDIAN corn, which is one of our most valuable cereals, is subject to the attacks of a host of insect enemies; about forty species are known to be more or less injurious to it in this country. A large portion of these, it is true, do so little damage as to require no special notice except where it is desirable to give a full and complete list. As it is the intention to make this brief article practical and not scientific, I shall only notice those species which at times do sufficient damage to this crop to make it desirable on the part of the farmer to find, if possible, some remedy against their depredations. There is scarcely a moment from the time the seed is deposited in the ground, until the crop is harvested, and I may say consumed, that it is not subject to the attack of some insect pest.

As soon as the hill is covered, it often happens that a hidden foe, which has slept securely beneath the surface during the winter, comes up from its retreat, hungry and in search of food. The grass roots, its favorite food, having been removed by the plow, it finds a welcome substitute in the kernels of corn. Not relishing the hard outer coating, it bores its way into the interior where it finds more appropriate food; or, if sprouting has already taken place, it feeds upon the little roots and sprouts. The reader is doubtless aware that I allude to the

Wire-worms.

So much has already been written concerning these troublesome insects that it is unnecessary for me to enter into a detailed description of them. It is sufficient to state that they are the larvæ, or grubs, of certain slender beetles generally known as "Snapping-bugs," "Click-beetles," "Snapping-Jacks," etc., belonging to the group known scientifically as Elateridæ. They are slender and wire-like in form, with three minute pairs of legs situated on the first three segments behind the head and varying in color from a creamy white to a light brown. Those found injurious are rather small, varying in length from three-fourths of an inch to an inch and a half, and in thickness, from that of a knitting-needle to a small wheat stem.

They are long-lived and strong-lived, and hence difficult to destroy. Lime, salt, soot, and such topical applications seem, as a general rule, to have but little effect upon them. Where the soil is sandy and light, these may be beneficial, but oftener they prove unsatisfactory. Labor is too costly in this country in comparison with the price of corn to justify digging them out, or trapping them with slices of turnips, etc., as is often done in England. To poison them with Paris-green on rope, cake, turnip slices, etc., is not only too costly a process but is rather dangerous for practice on a large scale.

The starving process, I am satisfied, is the best practical method of fighting them that can be adopted, except in small areas, such as garden spots, where the more tedious process of hunting them out may sometimes be followed. But simply allowing the field to remain fallow for one or even two years, is not sufficient; one year's fallow with the ground kept well and deeply stirred, and free of weeds and grass, will be more effectual than thrice that time without this precaution. If they are to be starved, they must be deprived of food, and this means keeping the ground perfectly free of vegetation, unless planted in something that is obnoxious to them, and the list of such plants I am of the opinion will be found quite brief. If strong lime is plowed in, dry, somewhat late in the spring or early in the summer, it will probably prove advantageous and assist in driving these worms away. The starving process is most likely to be effectual in a dry season. The soil conceals other enemies besides those we have named.

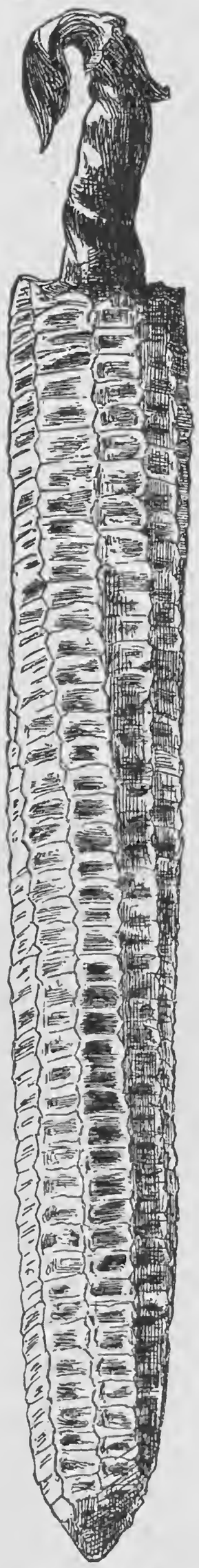
The White Grubs,

or larvæ of May-beetles (Phyllophaga), are often very troublesome in some fields. The treatment recommended for the wire-worms is equally applicable to these insects. There is quite a large number of species whose larvæ may be called "White Grubs," but those that injure corn, grass, etc., by eating the roots, belong to three species. Phyllophaga fusca, P. fraterna and P. pilosicollis, are the most common.

As soon as the young blade shows itself above the ground another host of enemies commence operations upon it. Chief among these are the larvæ or caterpillars of a certain group of moths belonging chiefly to the genus Agrotis, and known by the common name

Cut-worms.

As these have somewhat similar habits, and a remedy applicable to one is usually applicable to others, I will omit a detailed account of the different species, which would require more space than can be devoted to this article. Hunting them out and killing them are undoubtedly the most effectual remedies, and where the result will justify the trouble and expense, it is best to adopt it; but it is scarcely practicable in this country for field culture. The value of fall plowing has probably been over-estimated both in reference to its use as a means of destroying noxious insects and of increasing the next season's crop. But in reference to this, as with most other things, the accompanying conditions must be taken into consideration. If a field has been badly infested with cut-worms, fall plowing, if properly done, is undoubtedly one of the best remedies that can be adopted. But this, to be effectual, means that the ground should be kept clear of weeds and other vegetation during the fall after the preceding crop has been harvested; hence more than one plowing may be necessary. The value of the practice does not lie so much in turning them up to the weather—which is but imperfectly done if the ground is weedy or grassy—as in keeping the ground clear of vegetation and thus preventing them from obtaining a footing. The parent moth in depositing her eggs will avoid situations which furnish no food for her progeny. These pests are usually most injurious when the weather is moderately warm and moist.



BLUNT'S WHITE PROLIFIC, COB.

Last spring I noticed that the young corn during damp weather was attacked by an innumerable host of very small, brassy black beetles, marked with minute punctures, and having the feet, tibiæ and basal joints of the antennæ yellow. These little

Flea-beetles,

which belong to the species named Haltica (Psylliodes) punctulata, injure the plant by eating minute holes in the blade, as do the flea-beetles that often injure young cabbages. This appears to be unusual; at least it is the first time, so far as I am aware, that any one of this group of beetles has been noticed attacking corn.

But the insect which does the greatest injury to this valuable cereal, and which farmers observe with greatest alarm, is, beyond all question, the

Chinch-bug, Blissus leucopterus.

As I have shown by careful estimates given in my Second Report as State Entomologist of Illinois, the loss occassioned by this insect to corn in that State in 1874, amounted to nearly $20,000,000. I can only notice one or two points in reference to its history and habits. I may remark, first, that dry weather is necessary to the development of the pests in large numbers. And in order that the number may become excessive, too favorable, that is, dry seasons are necessary. Their habit of passing the winter in the perfect state, hid under rubbish, in the crevices of stumps, bark, etc., suggests the best practicable remedy that has yet been proposed; which is, to burn, as far as possible, the rubbish and other material that affords them hiding places. It is probable that it would be best to do this earlier in the fall than has been generally suggested. This is not necessary every season, as it is an easy matter for farmers to ascertain in the fall whether they are likely to appear in injurious numbers the following season. That moisture, especially in the form of heavy rains, has a tendency to destroy them, has been so clearly demonstrated that it can no longer be considered an open question. This being so, it is evident that in the winter following a rainy season they will be reduced to a minimum in respect to numbers, and although the following season may be favorable to their development, (that is, dry,) they cannot increase to the same extent possible when two favorable seasons come in succession. The second brood of the following year may excite some alarm, but usually it attracts but little attention. If the season has been dry, and an examination (and farmers should be careful to make thorough and close examinations) in the fall shows them to be present in considerable numbers, although they may not have done any material injury, or attracted attention, yet it may be set down as probable, in fact almost certain, that if the next season is dry, unless destroyed by an unusually wet winter, they will appear in destructive numbers. The warfare against them should at once commence, and fire should be carried to every possible hiding-place, even the fallen leaves of the surrounding forest, if there be any, should be burned. I am aware that some of our best entomologists have some doubts in reference to the value of this remedy; but so far it appears to be the best that has been proposed, except where thorough irrigation is possible, which will undoubtedly be most effectual. Various methods of checking the migrations of the first brood from field to field have been tried with varying success, such as ditching, drawing lines of coal-tar, setting up planks and tarring them, etc. As the season is always dry when they are injurious, the following simple plan has been found effectual where the soil is favorable. Plow a narrow strip around the field; keep it well pulverized by harrowing and rolling, then plow one or two furrows in this dusty strip. Do this every day or two while they are migrating.

Another enemy of the young corn, which, fortunately, only makes its appearance occasionally, is the

Army Worm,

the larva of a dull brownish-yellow moth (Heliophila unipuncta). As these caterpillars always, or nearly always, make their appearance in corn-fields by traveling thither over the surface of the ground, the best method of keeping them out is by ditching; but care must be taken to have the side of the ditch next the field, in the direction of which they are marching, perpendicular. Holes should also be dug in the bottom of the ditch at intervals of fifteen or twenty feet. If the holes and ditch become filled, the insects must be killed in some way and thrown out, or a new ditch made.

The Corn Plant-louse

(Aphis maidis) infests the tassels, ear-stalk and roots, but seldom appears in sufficient numbers to do any material injury.

The stalks are subject to the attacks of a caterpillar which bores into them and feeds on the pith. This is the larva of a moth,

Gortyna Nitela,

whose history and habits will be found described in THE RURAL NEW-YORKER of Sept. 22, 1877.

Another caterpillar which often does serious damage to corn by eating the silk and grains at the tips of the ears while they are soft, is the

Corn-Worm,

or, as it is called in the South, the Boll-worm, the larva of Heliothis armigera. It is not a very uncommon thing in Southern Illinois, Kentucky and Tennessee to see one-half the ears of a crop more or less injured in this way. So far no experiments have been made in order to find a remedy, but it is possible, as suggested by Prof. French in my last Report, that early planting and topping the corn, at least in this latitude, will prove advantageous, by bringing it to maturity before the caterpillar appears. He thinks from his observation that late fall plowing of the fields, where the insects have been numerous, will destroy a large number of the chrysalids which remain in the ground during the winter.

There are also

Several Species of Locusts

which must be enumerated among the insects that injure the Indian corn. The scourge of the West, the Rocky Mountain Locust (Caloptenus spretus) has been so thoroughly written

up by the U. S. Entomological Commission that it is needless for me to add anything in regard to it here. The common Red-Legged Locust (Caloptenus femur-rubrum) and the Lesser Locust (C. atlanis) occasionally do considerable damage to corn; and I have also known the American Locust (Aeridium Americanum) to attack this cereal in small armies.

The Corn Curculio

(Sphenophorus Zeæ) has been found puncturing the stalk, but I cannot ascertain that it has been troublesome at any point for several years.

The

Rice Weevil,

or, as it is sometimes called in the Southern States, the Black Weevil (Calandra oryzæ), does not confine its attacks to Rice, but appears to revel in the rich food it finds in the grains of wheat and corn. The close of the summer of 1878 developed the fact that, although a Southern species, it had found its way in vast numbers to the wheat fields and wheat stacks of southern and central Illinois, and in some instances the grains of stored corn were found riddled with holes by these minute curculios. This little species, which is a true curculio or Snout-weevil, is about one-eighth of an inch long, of a dark-brown color, and very similar in size, form and color to the notorious European Grain weevil (Calandra granaria), from which it is distinguished by four bright red spots on the wing-covers. Its extension northward was doubtless caused by the unusually warm weather of last season; it is therefore more than probable that its stay will be brief. The remedies which have been found most effectual for the European species will be equally applicable for the Rice weevil.

A number of other species might be named, which occasionally attack Indian corn, but they seldom cause sufficient injury to call for any special effort to counteract them.

Large Farms Favorable to Insect Pests.

In closing, allow me to say that so long as the present system of cultivating this cereal in large areas and year after year on the same ground, as done in many places, prevails, so long may farmers expect to have a continual warfare with insect pests. Where the favorite food of a certain species is massed, year after year, in large bodies, it is but natural that the species should be attracted thither and rapidly develop in numbers. If it is subject to the attacks of parasites, these will at length follow, and if the season, etc., favor them, will ultimately develop in number to an extent corresponding with that of the insect upon which they prey. But they are seldom able to accomplish the work of destruction until the injury to the crop has been done. Absolutely clean farming, if kept up by all farmers, would, as a matter of course, tend largely toward preventing the increase of injurious insects. But it is scarcely to be expected that this will ever be accomplished.

Extensive farms and large fields are perhaps the greatest evils, or, if a milder term may be used, mistakes in the American agricultural system. The inordinate desire of our agriculturists to increase the size of their farms has caused them to overlook the evil consequences which follow. One of these evil consequences, and the only one with which I am concerned at present, is that such large farms tend greatly to increase the number of the farmer's insect foes, and render it more difficult to counteract them.

If farms were small and fields small in proportion, the cultivation would be more thorough, better care would be taken of the crops produced, the farms would be cleaner and afford fewer hiding-places for insects; the soil would be better supplied with fertilizers and thus increase the vigor of the plants, and the rotation of crops would be more complete. This would to a very great degree prevent the immense development we sometimes see of certain species of insects. Small fields, diversified crops, proper rotation and clean, thorough culture afford the best possible means of counteracting insects which are injurious to farm products.

ROOT-PRUNING CORN.

The following experiments were performed at the Mich. State Agr'l College during the summer of 1878:

About the middle of May several plats of corn were planted on the same day and received the same treatment up to June 27th, when the process of root-pruning was commenced.

On one plat two rows were root-pruned, the next two simply cultivated without pruning, and so on throughout the whole plat.

On another two rows were root-pruned twice a week and two were cultivated twice a week. Others were pruned once a week and still others every two weeks. This treatment was continued until July 17th, when the dry weather prevented any further pruning.

The following are the results of these plats as found by weighing the seed. The figures given are the average number of bushels per acre reduced to shelled corn:

Two rows,	root-pruned twice a week	.....	58 bush.
" "	cultivated " "	.....	60 "
" "	root-pruned once a week	.....	55 "
" "	cultivated " "	.....	66 "
" "	root-pruned once in two weeks	...	58 "
" "	cultivated " " "	...	63 "

Another plat, situated just at the end of the one above mentioned, was heavily manured and treated in the same manner, with the following results:

Two rows,	root-pruned twice a week	.....	66 bush.
" "	cultivated " "	.....	72 "
" "	root-pruned once a week	.....	79 "
" "	cultivated " "	.....	84 "
" "	root-pruned once in two weeks	....	79 "
" "	cultivated " " "	....	85 "

In this experiment the largest amount of seed was in every instance produced by rows not pruned. Of course, but little weight can be given to the results of a single experiment. In other years, and on a different soil, far different results might be produced.

[The above is furnished us by J. Troop, who had charge of the experiments under the direction of Professor Beal.—Eds.]

NOTES FROM THE RURAL FARM.

Experiments with Corn.

During the summer of 1878 some experiments with corn were performed here. One-half acre was divided into twelve plats, numbered from one to twelve. Nos. 1 and 2 contained one-eighth of an acre each, measuring 165 feet long by 33 feet wide. The remaining ten plats contained one-fortieth of an acre each, measuring 33 by 33 feet. On all the plats the corn was planted in hills, 4 by 4 feet, with the exception of No. 1, on which it was drilled in. After harvesting, stalks and corn were weighed, the stalks being free from all atmospheric moisture, and partially dried, and the corn weighed in the ears—or corn and cob together.

The object of the experiment was to ascertain the comparative value of the fertilizers used, but by reason of variations in the soil of the different plats, and other counteracting circumstances, the experiment proves but little more than the already well-known fact, that but very little weight can be given to a single season's experiment; but as it may interest our readers, and benefit those that are too prone to draw, as they think, definite and reliable conclusions from a single trial, we publish the facts.

In plat No. 1 (containing one-eighth of an acre) the corn was planted in drills, four feet apart, and about six inches between each kernel, and manured with Mapes's corn manure in the drills. This plat produced 760 lbs. of corn and 900 lbs. of stalks.

In No. 2 (one-eighth of an acre) the corn was planted in hills and manured with phosphate of lime in the hills. It produced 600 lbs. of corn and 640 lbs. of stalks.

No. 3 (one-fortieth of an acre), manured with Mapes's corn manure in the hills, produced 122 lbs. of corn and 120 lbs. of stalks.

No. 4 (one-fortieth of an acre) was manured with stable manure in the hills, and produced 120 lbs. of corn and 126 lbs. of stalks.

No. 5 (one-fortieth of an acre), manured in the hills with Mapes's complete manure, produced 120 lbs. of corn and 120 lbs. of stalks.

No. 6 (one-fortieth of an acre), fertilized with a handful of Mapes's corn manure in each hill, produced 130 lbs. of corn and 140 lbs. of stalks.

No. 7 (one-fortieth of an acre) was fertilized with Mapes's nitrate of soda and dissolved boneblack in the hills, and produced 125 lbs. of corn and 130 lbs. of stalks.

No. 8 (one-fortieth of an acre) was manured with a handful of Mapes' corn manure in each hill; from it were gathered 140 lbs. of corn and 136 lbs. of stalks.

On plat No. 9 the corn was planted in hills, as in the others, but manured with phosphate of lime sown broadcast over the plat and raked in. It produced 160 lbs. of corn and 144 lbs. of stalks.

No. 10, adjacent to No. 9, and manured in the hills with Mapes's nitrate of soda and dissolved boneblack, produced the same amount —160 lbs. of corn and 144 lbs. of stalks.

No. 11 (one-fortieth of an acre) was manured with a handful of phosphate of lime in each hill, and produced 140 lbs. of corn and 130 lbs. of stalks.

On No. 12 (one-fortieth of an acre), which is a very flat and low plat, the corn was planted in hills, as before, but without any fertilizer whatever, and gave 125 lbs. of corn and 126 lbs. of stalks.

Plat No. 1 (corn drilled in) averaged 152 lbs. of corn to each one-fortieth of an acre, while Nos. 3 and 6, which were manured with the same kind of fertilizer, only averaged 126 lbs. —one 122 lbs. and the other 130 lbs. So, to account for the yield in No. 1, it seems reasonable to give more credit to the drilling than to the fertilizer.

Again, No. 2 (one-eighth of an acre, adjacent to No. 1), which was fertilized in the hills with phosphate of lime, averaged but 120 lbs. of corn to each one-fortieth of an acre, and No. 11 (the same fertilizer) gave 140 lbs., while No. 12, with no fertilizer at all, produced 125 lbs.

CORN AND ITS CULTIVATION.

The pollen from the tassel falls upon and fertilizes the silk and the silk the grain. If from weakness or other causes the silk fails to come out of the husk to be impregnated by the pollen the corn fails to appear or develop on the cob; hence the vacant rows so frequently seen on the cob.

A further examination of the stalk shows an ear, or the commencement of an ear, on every joint that has a groove. Generally about two-thirds have it, and in every one is seen an embryo ear undeveloped. The question arises right here, why this incomplete development? I have contended for several years that every such organization would develop on every grooved joint were proper attention given to selecting and sowing seed, to proper culture and proper plant-food.

Like all other cereals, corn has so deteriorated by bad treatment that it has not health enough to mature even one good ear to the stalk. With ordinary treatment all other grasses develop their heads or ears to some extent, and why should not corn do the same? For several years I have been giving corn and wheat some attention. I find corn susceptible of much greater improvement than most farmers are willing to admit. It is not in the province of this article to give the results of experiments. I will, however, give one to prove that there is much room for improvement of corn. Several years ago I commenced selecting my seed corn *in the field*, taking only those stalks that ripened earliest and that had not less than two good ears. These were cut up as soon as the husk was brown and the ear well glazed, and shocked in the field to cure. After standing a month or more the *top ears* only were saved *for seed*.

Great care should be taken in selecting not only those stalks that have the greatest number of ears, but those that look most like corn —nice, trim, uniform, vigorous and healthy. Large over-grown stalks are too gross and too sterile—they cannot be made prolific. The result of this method of saving seed, together with proper culture; has increased my yield on the same six acres, in six years, from 20 to 75 bushels per acre.

Before treating of the soil, I will give an account of the actual loss most farmers sustain in "pulling fodder," "cutting tops," and letting their corn dry up in the field before it is gathered. Fodder-pulling injures the grain nearly 13 per cent., cutting tops nine per cent., and by letting the whole crop dry up in the field, it loses 20 per cent. of its own weight. So you see by this slip-shod way of treating the best and surest crop we have we lose nearly 50 per cent. of it all. How shall we save it then? you ask. In a very simple way. When fodder-pulling time comes and the ears are well glazed, instead of taking the blades off, cut the stalks up close to the ground, and shock immediately in bunches the wind cannot twist or blow down. In this way the fodder is all saved, and the stalk too. The husk is much better and the corn loses nothing, but makes much better food, much better feed, much better seed and much more money. "But," you say, "it will shrivel and become loose on the cob." Not a bit of it! All the substance of the stalk at the time of cutting is absorbed by the ear, and it is matured in the same way that wheat is when cut in the dough state. This method insures the full weight, and saves the 20 per cent. lost by the old plan.

Another item. The stalk fodder and husk cured in this way are worth at least $3 per ton to any farmer, whereas, if left to die in the field, they will not amount from a hundred acres to a day's wages.

Any soil can be made to produce corn, provided it is not too wet. Soils differ so materially even on the same farm, that the farmer, to produce good crops, has to make them a real study. Once knowing them, and what they need and demand, he very easily increases the yield. For corn, land should be plowed, turning the sod only as deep as the grass roots extend, at the same time subsoiling with a heavy subsoiler and a strong team. The best fertilizer a farmer of limited means can use for his corn crop can be made behind his cows. Straw, chaff, leaves, muck, surface soil, barnyard scrapings, refuse of every description, well tempered with the droppings and manure water of the cow stalls make as good compost as the farmer needs. His compost heap must be kept under cover, and should be turned over at least once a month. The straw, chaff and leaves should not be thrown upon the heap until the cattle have well wet them.

In conclusion, I must urge upon my brother farmers the importance of putting in less land and preparing it better. With good seed, one acre well cultivated will yield 50 bushels, which gives infinitely more satisfaction and is done with much less labor and expense than the skimming over of ten acres with the same result. Almost any of our upland soils can be made to produce 50 bushels by a little scientific culture and saving of seed. A. E. Blunt.

East Tennessee.

POSSIBLE YIELD OF CORN.

HENRY STEWART.

Blunt's White Prolific.

The remarks in the Rural New Yorker of January, on page 12, on "Excessive Yields of Corn," prompt me to state my experience the past two seasons. In 1877, I planted one-tenth of an acre accurately measured, with a variety of corn known as "western horse tooth." The plat was fertilized with 50 pounds of Mapes's corn manure. The soil was poor and had not been cultivated the previous year. It was, however, possessed of considerable latent fertility, which was doubtless developed by the action of the fertilizer. The corn was planted in the usual manner, with three grains of seed to each hill, and the hills were three feet apart. The crop gathered amounted, when shelled, to nine bushels by measure. In 1878 the same ground with a piece of somewhat less size adjoining, which had been in potatoes in 1877, was again planted to corn. The whole plat covered 7776 square feet or a little more than one-sixth of an acre. There were 857 hills, thus giving about 4800 to the acre, which was the intention, the hills being as nearly as possible three feet apart. The variety planted was a corn known as White Prolific, (Blunt's White Prolific. Eds.) grown in East Tennessee, by a gentleman who has been for some years experimenting in the improvement of this grain, and which has the peculiarity of bearing several ears upon each stalk. I have sent you two stalks from one hill which have four ears each. The ground was fertilized with 100 pounds of the Mapes's Corn manure, which is compounded on a formula intended to provide exactly for the needs of the corn crop for grain production. No other manure of any kind was used. The crop when harvested yielded 43 baskets weighing 40 pounds each. After two months the corn was shelled, one basketful at a time; the majority of the baskets yielded more than a level half bushel and the whole product measured 25 bushels and nearly four quarts of shelled corn. A little figuring will show that this is equal to nearly 150 bushels of grain per acre. Some of the hills from which I cut specimen stalks—such as I have sent herewith—yielded three pints of shelled corn. The corn produced no suckers, or at least every sucker that appeared was removed at once. In the cultivation, there was no "new fangled" method or such as might be thought so—as root pruning, etc.; the ground was kept free from weeds and was loosened occasionally by a hand cultivator passed both ways through the rows.

In the article referred to, it is suggested that "an abundance of potash and phosphoric acid is the right condition for developing multiple earage." This is undoubtedly true, and as the fertilizer used in my experiments contained these elements chiefly and but little nitrogen, this corroborates the view taken. This variety of corn has, I believe, been carefully cultivated for several years, so as to fix this habit of multiple earing upon it; and in general bears more ears than it averaged with me. One stalk, which was unfortunately missed in the gathering, and was husked in my absence, bore seven ears, growing alone in a hill. What one man can do another may. If this Tennessee experimenter can grow corn with so many ears upon it, others can if they will take the trouble, and if by proper fertilizing, as much as 90 bushels of common corn and 150 bushels of improved corn can be grown upon an acre of ground, there is hope that farmers may largely increase their average yield. They need not fear to oversupply the market. Such a fear is a mere "bugaboo," and never yet troubled a farmer and never will. Corn is now in demand all over Europe as feed for horses and fattening cattle, and at present prices the market is almost unlimited. Two thousand millions of bushels—when we shall reach that—will be no burden on the market, and the great object with farmers should be to grow as much as possible at the least cost; 100 bushels on one acre may be grown at one-third the cost of 100 bushels on four acres, allowing for increased cost of fertilizing, husking and shelling. The extra cost of my 25 bushels was simply the fertilizer, worth about $2·75; and this undoubtedly returned two-thirds of the crop for its share. To repeat your closing sentence: "These things are worth studying."

BLUNT'S WHITE PROLIFIC.

Fort Collins, Feb. 10, 1879.

Eds. Rural New-Yorker:—Your letter of the 3d just received. I can give you no other history of my Prolific Corn than the inclosed, which I carefully cut from "Killebrew's Grasses of Tennessee." I made my corn all it is by *science*. First, a thorough knowledge of the *habits* of the plant; second, a thorough knowledge of the *laws* that govern the plant; third, its *demands*, viz., what plant food is best suited to it; fourth, soil, &c.

So far as the prolific nature of the plant is concerned, I am satisfied my theory is correct, viz., that *every joint that has a groove should*

bear an ear; and further that the *top ear* bears the only true seed.

In improving this variety I have gained several advantages. From 144 days I have reduced its period of ripening to 110 days. From one and two 6-oz. ears on each stalk, I have increased it to from four to six good 8 to 10-oz. ears, besides nubbins. From a cob that some call large, I have decreased its size at least a fourth, and nearly an eighth in weight. I have also made the fodder finer, the stalks more handsome, &c. A. E. BLUNT.

The following are some of the reports to which Mr. Blunt refers in the above communication:

VIRGINIA.—White Prolific, reported on favorably, giving three to four ears to the stalk, matured well. Another: good, early, six ears on some stalks; corn from department yields considerably more than common varieties.

NORTH CAROLINA.—White Prolific yields well, two to three ears on a stalk; many prefer the white corn.

SOUTH CAROLINA.—One report: the corn from the department is a great acquisition here. Another: yields largely, three to five ears on a stalk; the corn did very well considering severity of the drought.

GEORGIA.—White Prolific, ears large, cob small, kernels long. Another report makes "two crops a year with the yellow Dent;" another, White Prolific, month earlier, and five large ears on a single stalk.

MISSISSIPPI.—Prolific white corn, from the department, planted March 10; glazed July 1; too hard for table use; very prolific on rich land, three to five ears on a stalk. Another report, 10 feet high, two to four long ears on a stalk.

LOUISIANA.—White Prolific has given good results, making seven and eight good ears to a single stalk, long and well filled; it is an acquisition.

TEXAS.—White Prolific, yellow and other varieties, from the department, have proved valuable. Reports: early, large yield, three to five ears on a stalk, at least one hundred fold. Another: the corn from department is a great acquisition to this section of country.

KENTUCKY.—The few reports received from this State show the White Prolific to be valuable.

ARKANSAS.—"The Prolific White is very prolific indeed, averaging three ears to the stalk; shall plant it next season."

KANSAS.—Compton grew well, yield large; White Prolific grew finely, giving average of three ears to the stalk, and 90 bushels to the acre. Good grain.

INDIAN TERRITORY.—Report from Chickasaw Nation says: White Prolific, planted too late, 1,550 pounds from eight pounds planted, four to six ears on a stalk; this is about 180 fold for one planting.

BLUNT'S WHITE PROLIFIC.

A NOTE from Mr. Mason says:—I raised this last season but about four bushels of Blunt's corn, and rejected all but a peck for seed, as the balance had but eight and ten rows to the ear. I saved all that had twelve rows which will, I think, develop into a first rate variety by such treatment. With but common culture, it yielded me at the rate of 77 bushels per acre, not a nubbin in the whole of it. The cob is white, small and short, but the heavy yield is made up by each stalk producing on an average four ears, in some cases as high as nine. I believe it was to this especial point that Mr. Blunt directed all his efforts.

My article written for the RURAL NEW-YORKER in January, gives all the particulars of my little plat, (I had but a half pint of seed) and is correct in all particulars except in stating the year in which I grew it. I wrote 1878, the types say 1875. S. RUFUS MASON.

Dodge Co., Neb.

CORN AS A CLEANSER.

CORN is the best crop to act as a cleanser of the soil, when it becomes foul. When grown for this purpose, it should be planted three feet apart each way. It should be cultivated once a week, until too large to admit a horse, when the corn will so occupy the ground that weeds will give little trouble after. What few do start must be cut out with a hoe, or pulled out by hand. If well done, the land will be in fine condition the succeeding year and the corn will pay for the labor. This is the manner in which I fit my ground for strawberries, it leaves no grubs to destroy the plants. I have cleaned land of Canada thistles in this way the first season. NELSON RITTER.

CORN NOTES.

THE average weight of corn an ear is about five ounces.

STARCH is now largely manufactured from maize. A dilute solution of caustic soda is used to dissolve the albuminoid. The starch and bran remaining, are separated by diffusing both in water, when the bran settles, and the water being run off at the proper time deposits the pure starch, corn-starch of commerce.

NEBRASKA, Dodge Co., Jan. 20.

MR. EDITOR: I inclose you a corn article. I don't believe anybody wants to know *how* to grow corn, they all know too much already. It is very certain that as much as folks know on the subject, it is useless knowledge, as long as they won't apply it.

If we can make it a disgrace to a farmer to produce a poor crop of this grain, we shall just astonish the natives. I could give you the whole process for this section, but it would read like an explanation of why twice one made two—everybody knows it, but won't do it—that's all. S. R. M.

VARIOUS FACTS RESPECTING CORN.—Humboldt says corn belongs to South America. The Chinese are said to have a book describing corn, which dates back to the sixteenth century. Columbus found it growing when he discovered this continent. There is a proof that it is a native of this continent. Corn flourishes from 40° south latitude to 45° north. The best corn lands are probably found between 40 and 45 degrees. The valuable elements in corn are starch, sugar, gluten and oil. Southern corn contains most starch. White corn contains about 70 per cent. of starch. Sugar corn has but little starch and this causes it to shrivel. It contains a large amount of phosphate. Yellow corn has the most oil, and a large per cent. of gluten. The hard or flint varieties contain the most gluten, and the soft the most starch. Small varieties contain the most oil, and next to these the yellow corns. In comparing corn with wheat, oats and grasses, to see which is the most exhaustive, we find that the important elements exhausted by these crops are potash, phosphoric acid and nitrogen. The following table shows the relative proportions:

	Potash.	Phos. acid.	Nitrogen.
Corn, 50 bu.	77 lbs.	31	64
Oats, 25 bu.	50 "	12	24
Wheat, 24 bu.	24 "	20	41
Potatoes, 100 bu.	34 "	11	21

These figures include grain and straw. It is a discouraging fact that the general average of corn is not increasing, but this may be all the better for the enterprising farmers who are improving their methods of growing this crop.—*Professor M. Fenland.*

CATALOGUES, &c., RECEIVED.

INNISFALLEN GREEN-HOUSES, Springfield, Ohio. Catalogue of "Roses, Geraniums, Fuchsias and Bedding plants. Free.

ELLIS BROTHERS, Keene, N. H. Catalogue of "choice plants and seeds." Some new and very fine Pelargoniums are offered. Free.

VANDERBILT BROTHERS, 23 Fulton St., New York. Catalogue of seeds, farm implements, Peruvian Guano, Superphosphate, &c., &c. 28 pages, free.

HOVEY & Co., 16 South Market St., Boston, Mass. Illustrated Guide and Seed Catalogue. A long list of novelties—illustrated—88 pages—free to applicants.

THE advertisement of the Farmers' Publishing Co., announcing a series of *Charts* for farmers, will be found on page 164 of this number, and deserves attention.

WM. E. BOWDITCH, 645 Warren St., Boston, Mass. Commercial florists as well as practical seedsmen. An illustrated, interesting catalogue of 70 pages, sent free of charge to applicants.

STAIR & KENDEL—established 1839—115 Ontario St., Cleveland, O. Price-list of native and imported field, garden and flower seeds, agricultural implements, etc. Among varieties of sweet corn, Early Minnesota, Moore's Early Concord, Stowell's Evergreen and Triumph (an excellent variety) are offered. The price-list which will be sent on application specializes Cabbage and Onion seeds.

STORRS, HARRISON & Co., Painesville, Ohio. No. 2.—Spring catalogue of New and Rare Plants for 1879, including greenhouse and bedding plants. 80 pages fully illustrated. No. 3.—Trade-list of fruit and ornamental trees, small fruits, vines, evergreens, shrubs, Roses, etc., 16 pages. No. 5.—Retail price-list of No. 4. No. 7.—One-dollar collections of roses and plants sent free by mail. A trustworthy establishment, and we commend the above catalogues (which will be sent to applicants) to all of our readers.

ROBERT BUIST, JR., 922 and 924 Market St., Philadelphia, Penn. One of the oldest establishments in the country. This is an Almanac and Garden Manual for this year of nearly two hundred pages. It is designed to furnish "concise hints to cottagers, farmers and planters" on the cultivation of vegetable and flower seeds and plants. It is well illustrated; gives hints for every month in the year, and is alive with all sorts of information for those who are interested in plants or seeds. This book, so far as we can find, will be sent free to applicants, and it is certainly worth applying for.

PROF. A. CORBETT, 7 Warren St, N. Y. A pamphlet of 23 pages, setting forth the merits of his apparatus for the artificial hatching of eggs—the incubator or Artificial Mother. We are not willing to speak either in favor of or against this or any other incubator, having had no experience in their use whatever. The pamphlet gives copious extracts from the leading journals of the country, including one from MOORE'S RURAL NEW-YORKER of 1875, which is prior to the date of the present management. Our readers are advised to send for this pamphlet, and to give the matter full inquiry before purchasing.

MATTHEWS'S Seed-drill, that has become so thoroughly well known as an effective implement has been improved in detail this season by the addition of an indicator, with names of the various seeds thereon, attached to the side of the hopper. The dial is in plain sight, easily got at, and by the merest twist of the wrist the gauge is immediately set for sowing any desired seed. The improvement is a concession to lazy people, certainly, but at the same time it is a great convenience. The important features of the drill are unchanged—in fact there is no reason why they should be modified.

R. H. ALLEN & Co., 189 and 191 Water St., New York. Descriptive catalogue of choice farm, garden and flower seeds, roots, plants and garden requisites. "Location and soil for a garden"—"Frames and Hot-beds"—"Lawns"—about which we receive many inquiries at this season of the year, are definitely treated. Webb's New Kinver Yellow Globe Mangel Wurzel, to which we have already referred—Pearl Millet—Doura or Guinea Corn, Indian Millet and Sorghum—Prickly Comfrey—Early Amber Sugar Cane—Cow Peas—are all marked as specialties. The list of *Corn*, both field and garden, is likewise a leading one of this catalogue which will be sent free to our friends.

PARSONS & SONS Co., Kissena Nurseries, Flushing, N. Y. Catalogue of New and Rare Plants.—Hardy Plants may be considered a speciality with the RURAL NEW-YORKER, and we therefore take pleasure in calling attention to this catalogue, which enumerates about 250 which, with the exception of 26, are by no means well known among those who prize hardy ornamental plants for their lawns. Of the 250, about 100 have been added this year, the firm having been for several years past engaged in testing their hardiness. About 40 of the list of 250 have been, in effect, introduced to the trade by this enterprising firm, among them the Japanese Maples, which we ourselves have been foremost in introducing to the public. The list will be sent to all who apply for it.

HENRY A. DREER, 714 Chestnut St., Philadelphia. Garden Calendar for 1879: 128 pages finely illustrated. This is a valuable publication, and one that has been prepared with unusual care. The "Vegetable Garden"—"Remarks on the failure of seeds"—"Useful Tables"—and list of vegetable and agricultural seeds, take 38 pages; 40 pages are given to flower seeds, 4 to novelties, among which we note the Pelargonium "New Life," which bears flowers, some of which are striped red and white, while others are not striped at all, and of a rose or salmon color; also, the two much talked of Hydrangeas—Thos. Hogg (white) and The Climbing Hydrangea figured in RURAL of Feb. 15. Then the plant department of 128 pages finishes the interesting catalogue which we think Mr. Dreer will furnish our subscribers without charge.

THE Agricultural Insurance Co.'s Almanac and Guide to Safety. 1879. This little pamphlet has the usual almanac features, but is more especially valuable on account of its very plain exposition of the causes of most of the disastrous fires that consume farm property. Here is an insurance company that has paid over two and one-half millions for losses by fire during its twenty-five years' experience, and as it is confined by law to accept only farm and private residence risks, it becomes interesting to note that the majority of losses are almost invariably the result of carelessness. The almanac points out clearly and forcibly how unthinkingly negligent most people are, and a glance at the record of fires from preventable causes is calculated to instil precaution. The almanac is free to all who may ask for it, but it would be a cheap and desirable hand-book to safety, even if a price were demanded for it.

RURAL SPECIAL REPORTS.

PENNSYLVANIA, West Chester, Feb. 26.—Sunshine, rain, hail and high winds in succession. Water courses swollen and roads very muddy. We are looking for the "Corn" number in pleasurable anticipation. This, you know, is a great corn county. R.

INDIANA, Roanoke, Feb. 20, 1879.—We had a thaw, enough to remove the old snow, about three weeks ago; but the last few days have again been very stormy, and we have now six inches of snow. Corn, 30c.; potatoes, 80c.@$1; eggs, 12@15c. A. C. H.

PENNSYLVANIA, Annville, Lebanon Co., Feb. 18.—Weather since December has been unusually cold, with almost continual sleighing. The *ice harvest* is about over. The amount housed by our icemen is immense. Farm products are all low—Amber red wheat, 90 to 95c.; corn, 45c.; oats, 25c.; potatoes, 95c.; butter, 10c.; eggs, 15c. J. A. B.

CORRECTION.—In "Notes From Kentucky' Jan. 25th I am made to say "lowest 20 deg." I wrote "—20 deg." which I understand to mean "twenty degrees *below* zero. In the same article the Editor inserts "(sic)" and "(!)" after my "at the rate of three hundred barrels (of potatoes) per acre." If *any* doubt the correctness of my statement I will refer them to my neighbors, the Messrs Conways who will state that with them the Peerless has yielded at the *rate of four hundred barrels per acre.*

Milton Ky. S. E. HAMPTON.

KANSAS, Sedgwick Co., Feb 20.—The crops in our county the past year were good, wheat and corn being specials. At our county fair last fall were shown a greater variety of cereals and fruit than I ever saw in the county fairs of much older States. All kinds of fruit grow to perfection in the Arkansas valley. We have had a very cold winter with us, but it has let up at last, and farmers have started the plow for oats, Defiance wheat and Pearl millet. I shall try the Golden Rural and Beauty of Hebron as my specials, from your valuable collection. Our market is about as follows: Wheat, No. 2, 65c.; No. 3, 58 to 60c.; corn, 18 to 20c. per bushel; pork, live, $3.25 to $3.50 per cwt.; oats, 20c.; potatoes, 80c. to $1; apples, $1 to $1.50 per bushel; butter, 10 to 16c. per lb.; eggs, 10c. per doz., which we think very fair market for a new country. W. J. BROWN.

MICHIGAN, Laingsburg, Feb. 25, 1879.—We have had an excellent winter for business. The roads have been good since before Thanksgiving, most of the time sleighing, and to-day sleighs run well and snow is falling fast, with steady cold weather. Last winter we had very little sleighing; and hauling wood, ties, lumber, logs, etc., was sadly behind hand, but business has now caught up, and all classes are being benefited. Wheat did not promise highly last fall, but so far, the winter has been favorable. Many complain of hard times, but if most people are obliged to retrench a little, and learn how to do so, it will do no harm, for that is just what we must come to. People have lived beyond their incomes, and must cut down. Wheat, 88 to 91c. for white extra. Potatoes were short, and bring 40 to 50c. People here are waking up somewhat to the interests of agriculture—mostly through the influence of the Grange—and farmers are beginning to think and act more intelligently than ever before. May this state of things continue and increase. G. M. K.

KENTUCKY, Bowling Green, Feb. 24, 1879.—Many thanks for the seeds received a few days since; I am very proud of them and will take "particular pains" in planting them; as soon as the ground gets dry will plant the wheat and potato. We have had a great deal of very wet weather, so much that the farmers have done very little farming, scarcely any plowing for corn. Prospects, to-day, are very good for good weather, and farmers are making preparations for sowing oats, of which there will be above an average crop sown; there will also be a great deal of clover and orchard grass sown, more of the latter than ever before; farmers have known very little of the nature or value of orchard-grass until within the last two years; and now, as they know, it comes on earlier and lasts longer than any other grass. They sow more of it than ever before; the seed are worth $1 75 per bushel. Clover, $4 50; wheat, 80c. to $1; corn, 30c. to 35c.—some are holding for 40c.; oats, 30c. to 50c.; hogs, $2 50 to $3 50 per 100 lbs.; cattle, $2 to $4 per 100 lbs. Our wheat is not looking as well as it might, as it is not quite thick enough—the seed wheat was very bad on account of dry weather when it was beginning to head. The peaches are killed by the cold weather—a great many trees are dead. The apples and small fruits are damaged so that I fear we shall have a "bad" fruit year. JOE D. SMITH.

WIDE-AWAKE farmers on the 32°-33'-5" parallel are beginning to talk corn planting so hurry up your "corn number."

Rust-proof oats are in their beds and the Gray oats are shelling off their outer garments for the same position.

This is a second rate climate only for fruits. Apples are planted, cared for, nursed and doted up only to die before bearing. Peach trees live about six to nine years, "alternating in off years." Texas is always on extremes, either abundance or nothing at all; however, care and patience would obviate many of these failures.

I hope much from pear culture as blight is not known in this section. It is also generally acknowledged in Texas that this county (Collin) is the banner county for grain growing, stock feeding and grain shipping enterprise. Pearl Millet advertised in your columns grows well here. From 5000 seeds I obtained three-

quarters of a bushel of clean nice seed, all of which I shall sow for seed another year. Chufas, or earth almonds, do well. But, oh! the digging of them. Sweet potatoes yield 200 to 300 bushels per acre, but Irish potatoes do not do so well WILL N. WILLIS.

KANSAS, Parsons, Feb. 20.—For a couple of weeks we have been having frosty nights, with warm and drying days. The *winter* frost is out of the ground, and the present crust is of recent formation. Fattening cattle have done well this winter, giving one more proof of the advantage of dry, cold winter for making fat. Last winter, which was mild and wet from beginning to end, was exceedingly bad for cattle, many farmers having fed all their corn without making much, if any, increase of flesh. Winter wheat is said to be looking fairly. Spring wheat has been generally discarded here; but, in consequence of the scant sowing of fall wheat, many farmers are going to try spring. Wheat here is as reliable a crop as can be raised, and the quality is dry, making the flour eagerly sought by bakers, who are enabled to make more bread from dry than from moist flour.

The slight showing of prairie grass, which we had a week or two ago, has become seared by the recent frosts, but the blue-grass is still green. Indeed the latter keeps its color all winter. It is a most desirable grass. Our prairie grass is not good more than 10 or 12 weeks—say from the first of May to the middle of July, when it becomes scarce and woody. Though its life be short, it makes the flesh roll. It seems to excel other grasses during this time, but, of course, it is undesirable from the shortness of its availability. The hay made from it is often cut as late as August, and even September, and the best of such is so nearly worthless that cattle will eat musty corn fodder and corn cobs in preference to it. Horses seem to eat it much more eagerly.

Timothy and clover, wherever tried, have given good satisfaction, but grasses other than prairie, do not prevail to the extent of one per cent.

Blue grass is believed to be so congenial to the country that it is commonly supposed close cropping will alone induce the growth. I am certain, however, that it would require eight or ten years to insure a growth. In 1875 I sowed forty acres with it in a pasture of eighty acres. I looked in vain for its coming, but concluded the grasshoppers, which were very thick that spring, had taken the whole. The succeeding year revealed a few patches about a foot or two in diameter, and these have so extended themselves that the portion in which the seed was sown can be easily distinguished from the other. Indeed, on the unsown portion there is not a single patch. In another year, or perhaps two, I expect to have forty acres of good blue-grass. I omitted to say I sowed in February, on the prairie grass, at the rate of say ten lbs. of seed to the acre. J. B.

WORK FOR MARCH.

PLANS made in the two past months are now ready for execution, in whole or in part. The sun is getting higher, and his rays more penetrating. This stimulates activity in all outdoor work. The melting snow and lengthening days of March infuse life into every human being if he has a spark of vitality left in him.

CELLARS.

Sort over the fruit and vegetables, and carry out everything which is decayed. The odor of rotted vegetables penetrates the cracks of the floor and the carpet above, and carry disease and sickness to the people who dwell there. It is customary to have a cellar under the house, but there are serious objections to such a custom. Ventilate the cellar when the air is cool and dry, and close it in the warmest part of the day, and on all wet warm days. Give the walls a good heavy coat of whitewash.

LIVE STOCK.

The sight of bare ground and the approach of milder weather, and the long, monotonous diet of dry feed make all kinds of stock long for a change. If allowed they will work for hours on an old meadow or pasture where there is the least chance for a taste of green grass. They should be kept from these fields, as they tread them full of holes, damage the grass, lose their appetite, and get nothing which is valuable to them. Let off the surface-water and keep the yards dry, if possible. In such times never feed on the ground, but in stalls or racks. The changing weather of spring "between hay and grass" is a critical one for most kinds of animals. Several well littered box-stalls are convenient and almost a necessity for brood mares and cows in calf. Such animals should be well fed, though not highly fed. They need a little, oil-cake, bran, shorts or roots to keep them in the best condition.

WELLS.

Keep the snow shoveled from the platform over the well, also for a few feet each way, to prevent the surface-water getting in. This is easily done if the ground slopes each way from the well as it should.

ROADS.

If the water settle away and the roads get dry or nearly dry, do not fail to run the scraper. This will fill the ruts and small holes. A few hours of scraping, just in the right time, will save as many weeks of work later in the season. The people of some road districts have learned this long ago, but there are many who have not.

THE HEALTH.

The warm days of spring, mixed with sudden cold snaps and raw winds, are the most trying part of the year to the health of farmers. The appetite should not be stimulated. Winter clothing should not be given up. In sloppy weather, the feet need especial care. Cold, wet feet are the cause of many ills. In some way, keep the feet warm and dry. It will often be well to change the stockings during the day for a pair that are dry. Warm weather relaxes the system, and man and teams feel less able to do hard work than in steady cold weather.

A CHANGE OF BUSINESS.

Just now pork is low and sheep are looking better. We have heard numerous inquiries for sheep, and know of men who are bound to get rid of their hogs at any price. There are many farmers who always buy at the highest price in the dearest times and sell off when there is a depression. Pork will not always be so low. It is a good time to buy improved swine and give them a good chance. It is probably a good time to sell part of the sheep if they will bring an extra price. The farmer generally does the best who keeps the even tenor of his way, paying little regard to the "ups-and-downs" of certain articles or lines of business.

SELECT TREES AND PLANTS.

Almost every farm would be more valuable, if it contained a few more fruit trees and grape vines of certain desirable varieties. For a choice of varieties, consult the reports of fruit growers in your immediate vicinity. Every farm, even every village lot should have some grape vines. How many there are without this luxury. There is a sort of mystery about grape vines, which troubles beginners and often keeps them from planting.

PRUNING APPLE TREES.

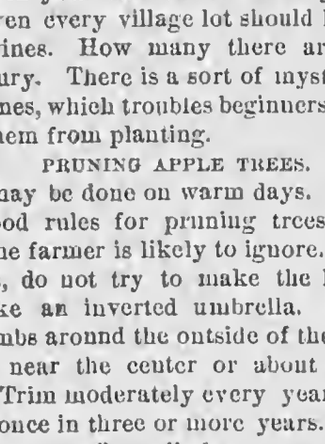
This may be done on warm days. There are often good rules for pruning trees, some of which the farmer is likely to ignore. In severe climates, do not try to make the head very open like an inverted umbrella. Thin out small limbs around the outside of the top rather than near the center or about the large limbs. Trim moderately every year and not heavily once in three or more years. Make it a rule to cut off no limbs over an inch in diameter.

SELECT GARDEN SEEDS.

Procure seeds early from a reliable source if you have not saved a full supply. Plan the garden and have everything ready on the approach of spring, for manual labor. Sow clover seed, and to insure a good catch, put on a fine-toothed harrow. This may seem to injure the wheat, but shut up your eyes and go ahead. Leave a strip without harrowing and you will be convinced that it pays to harrow wheat in the spring.

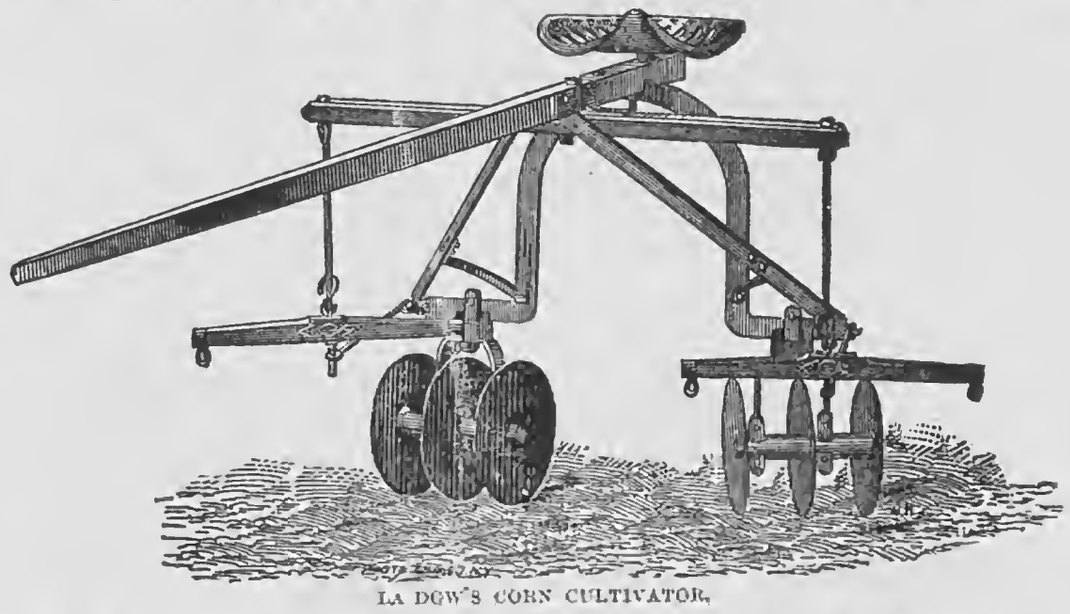
RADISH (Raphanus sativus.)

THIS favorite little vegetable is so well known that comments upon it are almost superfluous:



yet we do not think it is raised in as many gardens or found on the table as often as it deserves. Every family having a square yard of garden, can have a bed of radishes. What vegetable is a more sprightly relish with one's lunch than a few cool, crisp and tender radishes flavored with salt? Market gardeners raise large quantities which are consumed in the cities during early spring and summer.

The seed may be sown as early as the weather will permit, either broadcast or in rows six or



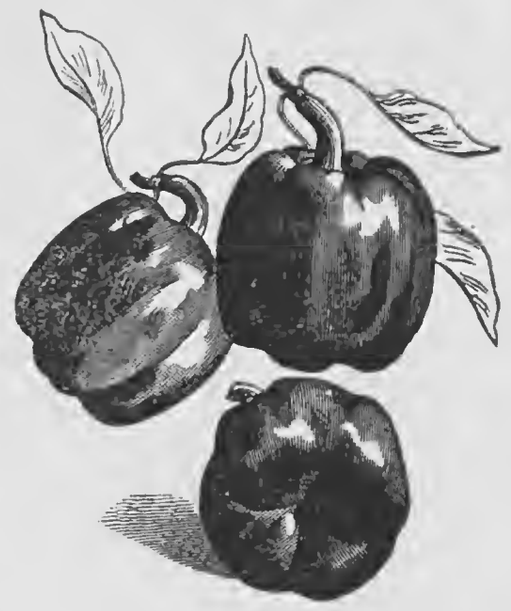
LA DOW'S CORN CULTIVATOR.

eight inches apart, in a light but rich soil, though it will thrive in any soil. But as radishes grow rapidly and may be pulled before they have time to interfere with other vegetables, the seed is most frequently sown between the rows of early cabbage or mixed with other seed, such as parsnip, parsley, carrot and the like. To obtain the best flavor, they should be grown rapidly and used while young; otherwise they will be as coarse as turnips and have a strong, pungent taste. They should also have plenty of water while growing or they will be soft and spongy. In Europe they are in such favor with most people that they are raised in the hot-beds as early as February, and to have a continuous supply of young roots, the seed is sown every week.

Any one who has a sunny window can have radishes all winter, by raising them in boxes six inches deep, filled with rich, light soil. There is any number of varieties, of almost all colors and shapes. Long Scarlet, Scarlet Olive, French Breakfast, Golden Globe and Black Spanish, are some of the best varieties. Our engraving shows the Scarlet Olive.

PEPPER (Capsicum annuum.)

THE use of this vegetable for pickling, and other purposes where strong flavor is required, is known better to every good housewife than we can tell it. Suffice it to say, that it is a favorite with all good cooks. Its cultivation is very simple. It is a tender plant, a native of South America, therefore cannot be sown in the open ground in northern latitudes



until the latter part of May. Sow the seed in rows and cover it lightly. When the plants are about three inches high, they should be set one foot apart in light but rich soil, and kept clean during the summer. Larger plants and more fruit may be obtained by sowing the seed in the hot-bed in March.

The Cayenne pepper used on the table, is the fruit of this plant, dried and ground to a powder. It is in no way related to the black pepper, which is a small berry, the fruit of a vine that grows in the East and West Indies.

Botanically, Capsicum annuum is a near relative of the potato, Solanum tuberosum, both being kindred genera of the same family, Solanaceæ. Our illustration represents Sweet Spanish.

COVERING SEED.

THERE are certain principles governing the germination of seeds and the after growth of the plants, and not only is it of great importance to the farmer to understand these, but attention to them is also of vital moment to the plant itself. Seed must be germinated in the dark until the young roots are sufficiently formed to begin to feed, because if exposed to the light, they grow of a green color, which does not belong to roots, but only to the upper parts of the plant,—those parts which grow in the light. Roots having a green epidermis cannot feed, because the green color is preliminary to the formation of bark, which is meant to exclude moisture, and not to absorb it. When seeds are sown broadcast over the field, and then covered so lightly as to allow the sun's rays to reach them, instead of forming healthy roots, capable of imbibing nourishment from the soil, they become incapable of feeding, because the mouths of the roots have grown up sealed, as it were, by the change to an incipient bark, which, if the exposure to light continues, finally becomes a perfect bark, by which their whole character is changed.

Crops grown from seeds scantily covered, suffer from starvation at the moment of germination, which is continued by natural circumstances so long, or so far into the life of the plant, as to obstruct its growth in every stage. The consequences are a feeble plant, having its growing period thrown into the season for filling up, and finally its ripening season thrown into so late a part of the year as to compel it to produce weak, shrunken and immature grain at a time beyond its natural time of harvest. Shallow covering stunts the plant and its produce, owing to an excess of light at germination. S. RUFUS MASON.

Dodge Co., Neb.

BETTER TIMES COMING.—Wm. A. Macy says: "The foreign demand will carry off all our surplus meat at present prices. If we have not made anything in handling hogs during the last year, I think we can look upon the introduction of our meat in foreign countries as being favorable to future prices. The day is not distant when we shall be fully compensated for our work, and fully make up for present losses."

LA DOW'S CULTIVATOR.

THIS is a modification of La Dow's harrow, adapted to working in rowed crops. There is a number of riding and walking cultivators, but this one is among the latest improvements, and it possesses sterling qualities. The illustration shows how the principle of the wheel-harrow has been made to meet the new requirements. These discs, or wheels, may be adjusted to turn the soil from or towards the growing corn; and may be run extremely close to the plants, scraping, burying, or cutting up the weeds, without injuring the roots of the crop.

In its mechanism the Cultivator is very simple, easily managed and there is little or nothing to get out of order. The draft is adjustable by means of the whiffletrees and hangers, and an evener that, it will be seen, is up out of the way of tall corn. By loosening a nut the gang may be reversed in a moment, or the line of draft changed. A strong feature is the lightness of draft. At a recent trial with a dynamometer, with driver riding, only 175 pounds were indicated. The Wheeler & Melick Co., of Albany, N. Y., make the implement, and can supply any further information.

THE EUREKA MOWER COMPANY of Towanda, Pa., succeeds the Towanda Eureka Mower Co. in the manufacture and sale of Wilber's Direct-draft Eureka Mower—an implement very widely known for its thorough work and light draft. The new company is very strong financially, including capitalists and business men of Towanda and Wilkesbarre who are well-known. The management is under vigorous direction, and it is its determination to furnish "not only the largest, but the cheapest mower in the market." The western trade will be supplied by The St. Paul Harvester Works, St. Paul, Minn., who manufacture under royalty. The Eureka seems to have made a very favorable impression in the West, especially among large farmers, because of its practical operation with six, seven and even eight-foot cutter-bars. Those not familiar with the merits claimed for the Eureka will find the advertisement on another page.

THE Thomas Smoothing Harrow is said to owe its success to the slant of its teeth, and its popularity to the excellence of material and workmanship, combined with the reasonable price at which it is sold. It is well adapted to "new breakings" and will put such land in condition to yield a crop the first year. Its chief claim—thorough pulverization—makes it very effective in sod, clay soil, and in distributing manure with evenness and fineness; and it has met with success in old corn-fields by driving the harrow before the plow, breaking the corn-stalk down lengthwise, which the plow then easily turns under. Its most conspicuous success as a specialty is in its use as a corn-cultivator. The best method for securing the most satisfactory results in this connection is amply explained in a small pamphlet gratuitously issued by the Thomas Smoothing Harrow Co., of Geneva, N. Y.

OUR CORN DISTRIBUTION.

After reading the preceding articles, comments as to the probable value of the variety of corn which we have called Blunt's White Prolific, seem unnecessary. We *know* of one instance in which it has yielded at the rate of 130 bushels of shelled corn per acre within twenty miles of this city, and it was this which first induced us to secure all that we could in order to distribute it among our subscribers. It seems to be a variety that is well adapted to a great range of country, having produced enormous yields in various parts of the South and West as well as in this vicinity. Our seed is procured from Mr. A. E. Blunt himself who, as already stated, has devoted several years to making it what it is. As agricultural and horticultural editors we have a dread of raising hopes which, in all probability, will never be realized. We believe that the agricultural press has, by "cracking up" new seeds and plants, which have upon trial proved inferior to old sorts, impaired the confidence which it ought to command from the farmer and horticulturist, and we are far from denying that our own journal has, in days past, at least, merited a full share of reproach. At present we desire, in so far as it is possible so to do, first, to test in our own grounds all novelties as fast as they appear in the market, and, second, to enable our readers to test them at a cost which, should they prove worthless or comparatively so, will leave little room for regret. Accordingly we are prepared to send to all of our subscribers who apply, a quantity of Blunt's Prolific White Corn, that shall enable them to judge whether it be or be not an improvement upon the varieties they have previously cultivated. The quantity so to be sent will require a two-cent stamp to carry it through the mail, and this two-cent stamp must be sent to us in the letter of application.

PREMIUMS.

In order to insure for this corn, trials in every part of our country where the cereal can be advantageously raised, and to invest them with the interests which a friendly competition may provoke, the following premiums are offered: On the part of the Rural New-Yorker $100 in cash, the details and plan of which will be fully given hereafter.

OTHER PREMIUMS.

Batavia, Ill., Feb. 22d, 1879.

Rural New-Yorker:—In answer to yours of the 15th, we will offer our $65.00 Feed and Meal Mill to the one having the largest yield of your new variety of corn. The details and all questions, as to who did raise the largest amount, or rather the best yield, we leave to you. Respectfully yours,

Challenge Mill Co.

St. Louis, Feb. 20, 1879.

Eds. Rural New-Yorker:—Yours of 15th rec'd and noted. You may offer one of our Improved Big Giant Feed-mills, No. 2, two-horse, price, $45, as a premium for your new corn, in such a manner as you may see fit, as suggested in your letter of above date. Yours,

J. A. Field, Son & Co.

P. S.—The mill will be delivered here on board cars or boat, free of charge.

Albany, N. Y., Feb. 19, 1879.

Rural Pub. Co., 78 Duane street, New York. Gentlemen: In reply to your favor of the 17th, we will say that we will join you in offering a prize of a La Dow Jointed Pulv. Harrow, for fitting the ground for a corn crop, or a Two-horse Disc Wheel Corn Cultivator, at the option of the winner, for the best yield of the corn you send out. Yours truly,

Wheeler & Melick Co.

Sandwich, Ills., February 21, 1879.

Rural Publishing Co. Gentlemen: We are pleased to offer one of our "Veteran" Corn Shellers complete (retail price, $35), as a premium for best yield of corn from seed to be sent out by you, as per your letter, or for second best if your premium exceeds ours in value and you deem it best to offer in that way. Or, if you contemplate awarding for any other excellency in connection with this scheme, other than the best and second-best yield, we shall be pleased to place our premium "where it will do the most good." You may announce this prize, therefore, as being given by us and in connection with your own announcement, and we presume your announcement of the *purpose* of the distribution and gifts will sufficiently cover the ground, and that it will not be necessary for us to make a separate announcement of the specific object of our prize. Yours truly, J. P. Adams, Sec'y.

Pittsburgh, Pa., Feb. 19, 1879.

Eds. Rural New-Yorker:—In reply to yours just to hand, we would say we will offer two Corn Shellers as prizes for yield or quality of your new corn. You can arrange the competition as you see fit. Wishing your enterprise abundant success, we remain very truly yours, Livingston & Co.

Eds. Rural New-Yorker:—Fully approving, as we do, the sound policy of the Rural in making Indian Corn a special feature for one number, and equally approving the liberal premium offered by this journal, the undersigned will cheerfully co-operate in the good work by offering the following *Book Premiums* to farmers, for weight of corn raised from the seed given out by the Rural. For the best weight of shelled corn per bushel, to be determined after an interval of three months from harvest, we offer the following *Books:*

1. Prof. Miles's New Book on Stock-breeding.
2. A complete set of Dickens's Works, in 19 vols., published by Appleton & Co.
3. Any books from Scribner's Catalogue to the amount of $5.
4. The first 30 vols. of Harper's half hour series.
5. The Wilson Series of Books for Farmers, bound in cloth.
6. The Rural New-Yorker for one year.

Farmers' Publishing Co.,
[Box 2,695.] 104 Duane St., N. Y.

THE
RURAL NEW-YORKER.
PUBLISHED EVERY SATURDAY.

Address
RURAL PUBLISHING CO.,
78 Duane Street, New York City.

SATURDAY, MARCH. 8, 1879.

UNLESS WE SHOULD HAVE SEEDS LEFT OVER, NOTICE IS NOW GIVEN THAT OUR FREE SEED DISTRIBUTION OF 1878-9 IS CLOSED. ALL APPLICATIONS RECEIVED WILL BE FILLED PROBABLY BEFORE THE 24th INSTANT.

THRASHING CORN.

If corn, after being cut up and cured in the field, could be made ready for grinding or market as conveniently as the small grains, a much larger area would be cultivated, especially in New England. It has always been supposed that no other than the old-fashioned routine of husking and shelling was practicable, and this is so slow and tedious, and constitutes so great a percentage of the whole cost of the crop when brought to a marketable condition, that it materially limits the area of this grain in the Western States.

Many ways of evading these onerous tasks have been tried. Some farmers feed the crop whole, ears and all, just as it comes from the field, believing the loss from feeding thus not equal to the cost of husking, shelling and grinding. Others break off the ears and thrash them with flails upon the barn floor. Still others cut the stalks and ears, by machinery, to a more or less short and fine condition. But all these ways are unsatisfactory. It is quite doubtful whether there is not even a loss, over all savings, in feeding the grain and stalks as they come from the field, aside from the awkwardness and slovenliness of the practice. Thrashing the ears is hardly less labor than shelling by the ordinary hand-shellers, while it does not leave the cobs so clean and wastes the husks.

In cutting up ears and stalks together we find several objections. The ravages of rats, mice and squirrels during the winter destroy much grain, and greatly damage the stalks by fouling them with the urine and excrement of the vermin. Then, unless cut very fine, and this requires power, the cattle pick out the ears and are with difficulty made to consume the fodder.

Some recent experiments lead to the hope that our Eastern corn may be thrashed effectively and cheaply by the ordinary thrashing machines, delivering the corn clean and whole, and leaving the fodder in an excellent condition for storage and feeding. Nothing more than a careful adjustment of the concave and a little practice in feeding the machine seem to be required, and we trust that thrashers generally, will see what can be done in this direction. Even if a little change in the machinery is required, it would still be profitable to make it, not only on account of the large quantity of corn already grown, but on account of the great increase of acreage that would be likely to follow when the disagreeable tasks of husking and shelling are done away with. Unless corn thrashed by machinery is well cured in the field, it is probable that it would require some drying before taking it to mill. But if the early varieties of 8-rowed corn (some of which are very productive and mature in from 90 to 100 days from planting), are generally grown, it would usually be quite as dry as any other grain after standing in small stooks for four or five weeks.

QUALITY IN CORN.

We all recognize a great difference in the quality of flour from different kinds of wheat, and the same with oat meal. Some are worth much more than others on that account. But when we come to corn meal it would seem that the quality of different kinds is not well appreciated. Corn meal is corn meal, with a great many buyers. If any distinction is made, it is between Eastern and Western, or Northern and Southern corn, with no consideration of the many different varieties embraced in each one of these grades.

The reason why this is so is, probably, because we eat much more corn *cake* than corn *bread*. On most tables where corn meal appears it is made up with sweetening and eggs into various forms, the edible quality of which depends upon what is added to the meal, rather than upon the meal itself. But there are not a few who delight in the sweet, rich and delicate flavor of the corn itself. A large number of people, it is true, never taste this, except, perhaps, in pop-corn, and this is quite too often sophisticated with sugar. Those who come from the city into the country are often very much surprised at the excellence of our hasty puddings and Johnny-cakes, made of pure corn meal and salt, mixed only with water or milk. But those who use corn meal in this way soon discover that there is a great deal of difference in its adaptation to different uses, and also in the quality, sweetness and freedom from any strong taste in the meal of each particular variety.

Southern people, who eat much more corn meal than Northerners, complain of the Northern yellow corn as being strong in flavor and unfit for human food. On the other hand, Yankees going South almost always complain of the tastelessness of Southern "corn pones" and the like, frequently thinking, until assured to the contrary, that the meal is mixed with wheat flour before being cooked. These differences of local taste, however, are not what we particularly refer to. The varieties of corn grown in a single county or neighborhood, North or South, East or West, will be found to be very different in quality for bread-making. The same variety also differs according to its stage of ripeness when cut up, the care with which it in handled, and in the selection of perfect, sound ears, free from mold, smut, or dirt of any kind, for grinding.

There is a great difference also in the way in which meal is prepared for the table. There is plenty of poor white bread made out of good flour, and it is the same with corn-bread made out of good flour. The agricultural Indians of New Mexico grow a peculiar variety of maize, and prepare it for food by boiling the meal to a thin gruel and then smearing it upon a smooth, hot stone, where it quickly forms a thin brown cake, hardly thicker than paper. These cakes are piled one upon another, four or five thick, and immediately rolled up in a tight roll, which hardens somewhat in cooling and retains its shape. These rolls are said to be very delicious by those who have eaten them, and we think our cooks might well take a hint from this method of cooking meal. One has done so, and furnishes the following recipe for a thin Johnny-cake which "is all crust." From the table where this Johnny-cake appears every morning during the winter, hot biscuits have been banished for lack of demand. The preparation is very rapid and simple, as follows: Take one pint of milk and stir into it half a cup of sifted corn meal. If from new corn, a little more meal is required. Add half a teaspoonful of salt. Have ready a sheet-iron pan, ten inches square and one inch deep. Set it on the stove, drop into it a piece of butter (or lard) half the size of an egg; let it melt, and by tipping, flow the melted grease all over the bottom and sides of the pan; then pour what remains into the meal-batter. Turn this into the pan, and bake in a quick oven to a full brown. This batter will appear very thin and the milk will rise to the top when it is poured into the pan, but it comes all right in the baking. A family of six will want about four pans for breakfast.

A HALF ACRE TO VEGETABLES.

We are anxious to use all the influence we have among our readers to induce them to give more attention to the home vegetable garden another season. Instead of an acre or more *called* the vegetable garden, that after planting and sowing is left, with barely sufficient after-labor to provide against the supremacy of weeds, try half an acre, or even less. Be generous with manure (if needed); plow, roll and harrow thoroughly, and then plant in even, straight rows, and *keep the weeds down.* Give a few rows of Celery, Salsify, Pie-plant, Asparagus and Cauliflowers a place. Make one or more paths through this garden and on either side set Currant and Gooseberry bushes, also in straight lines, to make the path boundaries. Give one plot forty feet square to Strawberries, another of the same size to Blackberries and Raspberries. Half an acre thus attended to, will, we are confident, gratify those who have never tried gardening in a small and painstaking way.

Farmers, occupied with their field crops and farm projects, are, without meaning to be so, perhaps, unmindful of the power which a varied supply of garden produce during the season exerts to make the country home a sprightlier and happier place than in a majority of cases it is found to be. Under "Catalogues, &c., Rec'd" we have placed before our readers, with any comments that have occurred to us, the catalogues of the foremost seedsmen in this country. These catalogues contain lists of all the vegetables which are worth planting, and they may be had for a nominal sum, or, in some instances, free of charge. Now, we say to our readers what we have said before: Send for these catalogues—read them—compare them. Order of those that seem to offer the best and the most for the price, and then be guided by our advice to try what *can be* done upon a half acre.

MOONSHINE.

There are many persons who are waiting for the "right time of the moon" before they will venture to plant their potatoes. They were governed by the same idea in slaughtering their hogs last season. They firmly believe that the phases of the silver satellite have a potent influence on the products of the earth. This need not be regarded as superstition; for it respects the theory of a natural cause, and is extenuated by the many surprising discoveries of causes and effects by modern science. The opinion is the result of the common tendency to cling to beliefs that are inherited, without questioning their soundness or seeking for rational explanations of them. As far as the moon theory seems to be sustained by experiment, there is, no doubt, in every case, an unrecognized cause that should rather be accepted as the true one.

Those farmers that pay no attention to such notions, are just as successful as those who do. We venture the affirmation that every one who is governed by the state of the moon and is blessed with a good result, invariably uses the ordinary indispensable conditions. He selects suitable land, applies proper manures, and cultivates the crop as it requires. If he hadn't done these things, his expectations would have proved a mere matter of *moonshine.*

BREVITIES.

Zea Mays.

The corn plant has been known to grow 28 inches in a week.

There is no variety of table corn which is sweeter and richer than the Black Mexican.

We had excellent green corn the 15th Oct. last. It was planted the 5th of July.

The average shrinkage of corn in a year is about twenty-five per cent. It would therefore be as profitable to sell corn at seventy-five cents per bushel after harvest as at one dollar the next summer.

There are few plants in which it is so easy to fix any desirable peculiarity or feature by selection of seeds for a few years as in corn. Hence it is there are so many well-marked varieties.

The corn plant is what is called in botany monœcious—that is, the male or staminate flowers are borne on one part, and the female or pistillate flowers upon another. The former is known as the tassel, the latter as the ear. The silk is the pistil. The cob is the rachis, and the chaff is the glumes (abortive flowers) and palets.

The Executive seems resolved to do its duty vigorously in order to check and suppress the spread of pleuro-pneumonia among our cattle. Already importations of live cattle from infected countries has been prohibited, and, curiously enough, a shipment from England has been the first prevented from landing by the orders just issued. The prompt and radical measures taken by the Governor of New York must soon stamp out the plague in this State, and the Legislature of New Jersey is already busy framing laws in the same direction. The bordering States also seem to be awakening to the necessity of prompt action.

We have stated that different species and varieties of the Gourd family as, *e. g.*, the melon and the cucumber, may be planted together or near one another and yet not "mix" the first season. It is the *seed* that is mixed, not the edible part. Seed sown from plants of different kinds that were raised near each other, may show that a cross has occurred. This being the case, we have been asked the question why *corn* mixes the *first* season? Now that part of the grain of corn which shows by its color that a cross has occurred, is the enlarged ovule or seed which is at once affected by cross-fertilization the same as in the *seed* of the melon or cucumber or any other fruit.

Literary Miscellany.

WEAKER THAN A WOMAN.

CHAPTER XXXV.

(Continued from page 143.)

THE Baronet wished to give this little party to remove any bad impression there might be on the minds of the people after the ball. He had resolved upon being most amiable, polite and attentive, to his wife especially.

But circumstances were against him. His favorite horse that very morning had been found lame, and the groom had the insolence or the courage to tell him that he had caused it himself by his reckless riding. He turned to dismiss the man on the spot, and then suddenly remembered that he could not replace him, for he was one of the most valuable servants that he had. He was obliged to rein in his temper, which in itself was enough to drive him almost mad, so little was he accustomed to self-control. His favorite mastiff, too, was ill, and he was annoyed about that. The veterinary surgeon said that the dog had better be shot, and Sir Owen swore roundly at him; to which the surgeon answered by saying that he could please himself, and that for the future he should not attend at Garswood if he were sent for. Sir Owen was very angry. It was incredible that a Baronet worth forty thousand pounds a year could not swear as he liked; such a thing was not to be borne.

So when the guests sat down to dinner, Sir Owen was not in the best of humors. He was a discontented man by nature. The first thing that always occurred to him was to complain, to find fault—never to praise. If he saw a clear soup, he was cross because it was not thick; if it were thick, he wanted thin. If one dish were placed before him, he was quite sure to complain because it was not another.

On this particular day he was very much annoyed because some of his favorite fish was not cooked as he liked it. In vain Lady Chevenix, seeing a storm brewing, tried to avert it; the more amiable and complacent she looked, the blacker and angrier he grew. An uncomfortable silence fell over the guests. Felix did his best; he tried to make conversation, but it was difficult with those muttered growls running on like an undercurrent. At last some other dish raised Sir Owen's ire, and he exclaimed—

"If I had married some one who understood these things, I should have been better off."

The guests saw Lady Chevenix's face grow as pale as the pearls she wore. Her silence irritated her husband, for he cried out angrily against her, with a word so coarse and insulting that there was not a man present who did not long to horsewhip him. She rose with quiet grace and dignity to quit the room; she felt that she owed it to her own self-respect not to remain. No sooner did he see her do so than he sprang from his seat and cried—

"Go back to your seat, my lady—do not show any of your airs here!"

The gentlemen rose quickly, but she mastered herself with an effort, for which they commended her. She repressed the hysterical cry that rose to her lips, smiled, and went back to her chair.

"Sir Owen does not always choose his jests wisely," she said; and order was at once restored.

They admired her more than they could say—it was impossible to help it. Her grace, her beauty, her self-possession, her self-control, her tact, all struck them. There was no one present who did not think highly of her for her behavior through so trying a scene. Sir Owen tried to laugh it off. He made some awkward apologies about having been annoyed by horses, dogs, and servants; nevertheless the incident left two disagreeable reminders for him. Darcy Lonsdale told him that same evening that the next time he insulted Lady Chevenix in his presence he must seek another adviser. Captain Hill did better.

"I want to say a few words to you, Sir Owen," he began, when on the point of departure. "You invite gentlemen to your house," he told him, "and then presume to insult them by behaving in the most brutal fashion to your wife. Do not repeat the experiment, Sir Owen. I have broken bread with you for the last time."

And no further word would the sturdy old sportsman exchange with him.

CHAPTER XXXVI.

Sir Owen was alarmed—he found that, although he was a Baronet, he could not do as he liked with impunity. Society had certain laws that must be kept—and one was that a man must, if he wished to be considered a gentleman, treat his wife with respect. Sir Owen found that he must alter, for people were beginning to give up his acquaintance; some of the best families in the county, who had welcomed him with open arms, now did not even invite him to their formal parties. He was losing caste as fast as he could lose it, and he said to himself that something must be done; he must alter, or every house in the county would be closed against him.

Withal there was something good in him—he was not without some redeeming qualities. On the day after the discreditable scene in his own house he rode over to Captain Hill's and asked to see that gentleman. The Captain looked very black when he saw who his visitor was, but Sir Owen held out his hand.

"I disgraced myself yesterday, Captain," he said "and I am come to beg your pardon—to say how sorry I am. I deserved every word that you said to me, and now I make you the most ample apology. Will you shake hands?"

It was impossible to refuse; but Captain Hill assented with an ill grace.

"Have you apologized to your wife?" he asked. 'That is the chief thing."

"Yes; I have made it all right with her. Upon my word, I am quite ashamed of myself. It shall not happen again."

For some time he did not give way to an excess; and in a shamefaced kind of way he tried to make up to his wife for his recent outburst of violence, he always did when he had offended her almost beyond forgiveness. He lavished new dresses, new jewels, new ornaments of all kinds upon her, for in his heart he loved her better than anything else on earth, though he insulted and ill-treated her.

Mrs. Haye had gone home, pleased at leaving matters a little better than she had found them; but Lady Chevenix had vowed to herself that she would not, if possible, be left alone with her husband again. She found that the presence of a third party made some difference, was some restraint, some check upon him. She invited Miss Hethcote to spend a few weeks with her, and that young lady, who had a girl's adoration for the beautiful, graceful Lady Chevenix, gladly consented. Marian Hethcote was a bright, pretty, clever girl, and her companionship was very pleasant to the Lady of Garswood.

They spent the greater part of the time together during the first few days of her stay. Sir Owen was most gracious to her. Then, as was usual with him, familiarity bred contempt. Miss Hethcote herself could not endure him. When her father remonstrated with her one day about her openly-expressed dislike of the Baronet, she said—

"I could never like a man who swears at his wife, papa—and Sir Owen very seldom speaks to Lady Chevenix without doing so. A man who swears at his wife will do anything."

Her dislike to him was not unjustified. She was sitting one morning with Lady Chevenix in her boudoir, the room that was like a shrine for the woman who used it. They were talking gaily and happily enough, when in the distance they heard the voice of Sir Owen speaking in most angry tones. The sound grew nearer and nearer.

"He is coming here," said Marian Hethcote; and the two ladies looked at each other in distress. The door opened with violence, and Sir Owen strode into the room, his face purple with rage. He did not speak to Miss Hethcote, but looked at his wife.

"Where is my silver-mounted riding-whip?" he asked.

"I do not know, Owen," she replied.

"You do know. You had it last, and now it is gone; no one can find it. The grooms say you had it last week."

"I do not remember having had it," she replied gently.

But the gentle words did not touch him. His temper was, as he expressed it, "all in a blaze," and when that was the case he spared neither man, woman, nor child. Miss Hethcote shrank back, startled and scared at the insults and abuse he lavished upon his wife. Lady Chevenix stood quite calm and still. When the angry oaths had ceased, she looked up at him.

"I will go and try and find it, Owen," she said. "I am sorry if I have annoyed you by misplacing it."

She left the room, and the Baronet went to the window. He felt rather ashamed of himself, for in his anger he had quite forgotten Miss Hethcote's presence. He stood there looking out for some minutes in silence. Then he turned to her.

"Women are so stupid," he said.

She was young, and loved Lady Chevenix very dearly, so she was not unwilling to take part in the fray. She had not yet learned that all-important lesson, that it is never safe to interfere between a man and his wife.

"They are remarkably stupid," she replied, "to tolerate such words as you have just used to Lady Chevenix. If I were in her place, I know what I should do."

"What would you do?" he asked sneeringly.

"When I did find the silver-mounted riding-whip, I know what use I should make of it."

He laughed. The idea of a riding-whip in those delicate little hands for the purpose hinted at amused him.

"If you were in Lady Chevenix's place," he said, "you would do just as she does—submit; it is woman's lot."

"I should not mind submission; but my submission would be to a gentleman, not to a swearing, loud-voiced tyrant."

"You speak pretty frankly," he said. "Do not vex me, though."

"I would rather vex than please you."

She was interrupted by the opening of the door. Lady Chevenix entered with the riding-whip in her hand."

"I have found it, Owen," she said quietly, as though no unkind word had passed his lips. "I am sorry to say that I did mislay it. It was put away by mistake with mine."

"I must request you, for the future," he returned, "not to touch anything belonging to me. What is mine is mine, and not yours. Do not let me be vexed in this way again."

He left the room with a quick angry bang of the door. Lady Chevenix quietly took up her point-lace and resumed the conversation. Marian Hethcote looked at her, wondering tears in her eyes. She went over to her, and clasped her arms round her neck.

"Dear Lady Chevenix," she said, "is it possible that you do not really care? I thought you would come back broken-hearted."

"Care, my dear, for trifles I am so thoroughly used to?" questioned Sir Owen's wife. "Certainly not."

"I do not understand how you can bear it. It is wonderful to me. I should run away. I could not live under it."

"My dear child, we learn patience as we grow older," said Lady Chevenix gravely.

But sweet, impulsive Marian would not be satisfied.

"I think it is dreadful. Do not be angry with me, Lady Chevenix, please. I have never heard such words before. They have filled me with horror. I cannot bear to think that you listen to them daily, you who ought to hear only sweet, kind, tender words."

"We will forget all about it, Marian," said Lady Chevenix. "It does not matter; everything comes to an end at last."

But Marian's heart had been stirred.

"Dear Lady Chevenix," she went on, "do not think me rude—that which would be rudeness in another is only love in me. I do love you so dearly, and I cannot bear to hear you spoken to in that fashion. If I were in your place, I should run away."

Lady Chevenix smiled.

"That would not be of much use," she said. "I find as the days pass that I cannot run away from my trouble."

Marian stood watching her, with a sad look on her fair young face.

"I often think about you, Lady Chevenix," she said, "and I wonder why—pray do not be angry with me—you married Sir Owen; you are so gentle, and he is so much the reverse."

"Dear Marian, marriages are made in heaven," she returned, with a slow sad smile.

"Are they? Well, dear Lady Chevenix—do not think me irreverent—if your marriage was made in heaven, mine shall be made on earth. I often wonder if I ever shall marry. Do you know that in my short career I have not seen very much happiness in married life? I am not greatly in love with it, therefore."

"It is like everything else—a lottery and a chance," said Lady Chevenix.

"I have quite made up my mind what kind of man I should like to marry," went on Marian. "He must be good, to begin with—clever, distinguished and handsome, gentle, and yet brave—something like—do not laugh at me, Lady Chevenix—something like Mr. Felix Lonsdale; he is my *beau-ideal* of a man."

She wondered why Lady Chevenix turned away with a little low cry on her pale lips.

"You like Mr. Felix Lonsdale then, Marian?" she said, after a time. It was a pleasure to talk of him, to utter his name and to hear it—a pleasure that she had long been deprived of.

"Yes, I like him better than any of the gentlemen I have met—much better. He seems to me a gentleman in every sense of the word. I like him very much," she continued warmly, quite unconscious of the pain she was inflicting on Lady Chevenix.

"He would be flattered if he knew how highly you thought of him, Marian."

The sweet girlish laugh rang out gaily.

"Would he? I do not think so. He does not seem to care very much for the society of ladies; he talks more to Lady Maude Arlington than to any one else. He is not what most people call a lady's man."

"He has other things to think of," said Lady Chevenix.

"Perhaps so. Mrs. Clayburn told me he had had a great trouble, a great sorrow, in his early life."

"Did she tell you what it was?" asked Lady Chevenix; and Marian Hethcote did not see the trembling of the white hands.

"Yes; he loved some one who forsook him; she married some one else. Mrs. Clayburn did not tell me much about it, but she said that that accounted for his not caring much for the society of ladies; he had loved this lady so long and so truly that he had taken it deeply to heart and he had never recovered from the sorrow."

"I do not believe it," said Lady Chevenix slowly.

"Indeed, it is true. I watched him after she had told me, and I saw that whenever his face was in repose it was sad."

Lady Chevenix was quite silent for a few minutes, and then she said—

"Did Mrs. Clayburn tell you who the lady was?"

"No, it is no one near here, I think," answered Miss Hethcote. "She did not say very much; but it was just what I had thought myself. I said to myself the very first night that I saw him, 'That man has had some great sorrow in his life.'"

"I have noticed nothing in him to make me think that," said Lady Chevenix.

"You see so many people that it has escaped you. I am quite sure that he has wasted all the love of his noble life on some one quite undeserving of it. I have an instinct that tells me so."

Lady Chevenix stood up before her all pale and trembling.

"My dear Marian," she said, "never speak to me of this again. Some one else will tell you if I do not. It was I whom Felix Lonsdale loved; it was I who gave him up to marry Sir Owen. Hush! Do not cry for me. I deserve it all, and much more; but, Marian, never talk to me of Felix Lonsdale again. We will go now, dear. The bell has rung for luncheon."

CHAPTER XXXVII.

"Violet," said Sir Owen to his wife, "I want you to give a garden party; they are much in vogue. There could be no more beautiful time for one than during this lovely weather. The grounds look superb; we have not a tree that is not in full leaf. Send out your invitations to-day."

"I will do so with pleasure," replied Lady Chevenix; and Marian Hethcote, who was present, appeared delighted.

"You are growing quite amiable, Sir Owen," she said.

"If one garden party makes me amiable, two ought to make me charming."

"Perhaps they will do so," said Miss Hethcote.

"We will give one now worth remembering. I think I can get the military band from Ordstone—I shall try to do so—and we will send to London for a *chef de cuisine*. We will have everything of the very best."

The invitations were numerous. Lord Arlington decided to accept his.

"I do not like the Baronet," he said, "and I am grieved for his young wife; still we cannot send him to Coventry. We must visit him sometimes—and a garden-party is better than a dinner-party. We need not stay so long and we need not see very much of our host.

So Sir Owen was made happy by a polite note from Bramber, saying that the Earl and his wife and daughter would be present at the gathering.

The Lonsdales all promised to be present, and it seemed as though the garden-party was to be a success.

One day Sir Owen sat with Lady Chevenix and Miss Hethcote after dinner discussing the coming event. He turned to his wife.

"Violet," he said, "I saw a very pretty girl the other day—a girl that quite took my fancy. I met her at Darcy Lonsdale's office."

"Indeed!" returned Violet. "Who was it, Owen?"

"Let me see now—what did they call her? Evelyn—Eve Lester—the niece of a certain strong-minded Miss Lester who lives at the Outlands. You must know her—of course you know her!"

"Yes," was the quiet reply, "I know Eve Lester."

"You ought to like her too. I quite admire her. I have not seen such a pretty face for some time—yours of course excepted, Miss Hethcote," he added laughingly.

"Lady Chevenix's face excepted, you mean," said Miss Hethcote; "hers indeed is a most beautiful face, Sir Owen."

"There is too much pride and defiance, or rather pride and indifference," he laughed, "in my lady's face. Now this girl, Eve Lester, is as fair and sweet as a dove; she reminded me of a dove, so fair and gentle is she."

"Very sweet people are apt to be very inane," said Miss Hethcote.

"Inane or not, I wish you would invite her to the party, Violet."

"I will do so with pleasure, but I do not think she will come."

"Why not?" he asked impatiently.

"Because, though we were friends once, we are not friends now," said Lady Chevenix.

"Then you must be friends; Violet, I am determined to have her at the gathering. I liked her sweet fair face."

"My dear Owen, I would do anything to oblige you or please you, but I cannot make any overtures of friendship to Eve Lester."

"But I say you must, Violet."

"I am sorry that I cannot. If you are determined that Miss Lester shall come, you must go yourself and invite her."

"It is the usual way if I want anything," he said angrily. "I can have everything except the one thing most desired. I only wish that I had had the sense to make such a girl as that Lady Chevenix: there would have been no opposition to my wishes then."

"I am quite sure that I wish the same thing," rejoined Violet quietly.

"Do you? I might have expected such a confession from you," he exclaimed.

All that was disagreeable seemed to be forgotten when the day of the *fete* arrived. The party was likely to be a wonderful success. All the *elite* of the neighborhood had assembled. The sun was bright, the trees were in luxuriant leaf. Had there been no other attraction, the beauty of the grounds alone would have been one.

Sir Owen looked proudly around; it pleased him to see such great and noble persons his guests. The one whom he cared most to honor was Major Rawson, the great Victoria Cross hero of whom all England and even all France had been talking—Major Rawson, who was heir to a Baronetcy, and one of the most popular men in England. Sir Owen was very anxious to impress him in every possible way. He was visiting at one of the houses in the neighborhood, and was received by Sir Owen with great *empressement*.

"I do not see Lady Chevenix," said the Major; "I am unfortunate in arriving so late."

"We shall find Lady Chevenix somewhere in the grounds," said Sir Owen; and he proudly introduced him to the county magnates.

Suddenly the Major touched his arm.

"Who is that beautiful woman yonder?" he asked in wonder.

"Which?" said Sir Owen.

"The one in blue and white there, talking to that dark, handsome man."

Sir Owen's face brightened with pleasure.

"That is my wife, Lady Chevenix," he said. "Come, and I will introduce you."

"I had heard that Lady Chevenix was beautiful," he replied, "but I had not expected to see such perfection. And the gentleman—who is he? His face is a striking one."

"He is my lawyer and agent; his name is Felix Lonsdale. It is strange that on the first occasion of meeting them you should see them together. He was a great admirer of my wife years ago."

Major Rawson was not surprised to hear it; such a woman as that might have any number of admirers. He looked from the handsome face of the young lawyer to the dark, evil, dissipated countenance of the Baronet by his side, and wondered in silence how any woman could have chosen between the two men, and have chosen so badly.

Later on in the afternoon he stood by Lady Maude, and they were both watching Lady Chevenix. The brave soldier who had won his cross by acts of valor worthy of a hero was wonderfully impressed by Lady Chevenix.

"I shall never forget that face," he said, "although I may never see it again. How beautiful it is! And yet there is a shadow over it. It is not the face of a happy woman, is it, Lady Maude?"

"No, not quite," she replied hesitatingly.

"Is Lady Chevenix happy?" he asked

She looked up at him.

"My dear Major, what a question to ask me!" she replied. "Who shall say which of us is happy? I think Lady Chevenix loves wealth and position better than anything in the world—and she has both."

"Is it well for us to have our heart's desire?" he asked gravely. "I have often wondered about that."

"I cannot tell," replied Lady Maude—"I have not mine."

"Nor I," said the Major; "but this beautiful lady, you say, has hers?"

He thought Lady Maude singularly reticent on the subject, the fact being that she never liked to hear Lady Chevenix mentioned. She could not forgive her for all she had made Felix suffer; she could not bear to think of so worthy a young fellow having been made wretched through the caprice of a woman. She never liked to remember the day and the hour in which she had found him stricken like one dead by the treachery of a false woman.

She said as little as possible about Lady Chevenix at all times. She was half vexed that Major Rawson should admire her, for, if Lady Maude had in her heart any weakness, it was a great admiration for the hero of the Victoria Cross. She would have liked to think that he was above the weakness of admiring a face merely because it was beautiful; she would have felt better pleased if he had praised it for being noble. Lady Maude admired nobility more than beauty, and could not understand any man being a slave to beauty.

She liked Major Rawson, and she said to herself now, in her exalted fashion, that he was the kind of hero she approved of. Her noble face brightened with happiness when he was by her side; she liked to hear him speak; his presence was a source of unwonted pleasure to her. She was too proud and stately to say to herself that she cared for him in any way, though she had a great admiration for him. But the day of the garden-party at Garswood was to be one to be remembered with pleasure by both of them, for it was the day on which they first began to understand that each had conceived a friendship for the other.

The brave and simple-hearted soldier could not comprehend why Lady Chevenix had given up Felix Lonsdale for Sir Owen. Some one gave him an explanation of it, and he came back to ask Lady Maude if it were correct.

"I wish you would not ask me," she said, "for it is a story I do not like to hear or to speak of."

"Your wishes are my law on every subject," replied the Major. "If you tell me that I must not ask you, I will not; but I am deeply interested—and I do not often interest myself in other persons' affairs."

"I can only tell you what happened," she replied—for to no creature living had Lady Maude ever betrayed one word of the confidence Felix had reposed in her. "The occurrence," she continued, "is unfortunately very common. Lady Chevenix, then Miss Violet Haye—'beautiful Violet Haye,' she was called—was engaged to marry Felix Lonsdale. I believe that if Sir Owen had delayed his coming for three months longer they would have been married. He came, and with his vast wealth and title soon became the lion of this county. How she broke her troth-plight, and why she broke it, what excuses she made to herself or others made for her, I cannot tell you; but it is quite certain that she went to London, and that Sir Owen followed and married her there."

"There can be but one explanation—she must have given up her lover for the Baronet," said the Major; "but I cannot imagine any woman preferring Sir Owen Chevenix to Felix Lonsdale."

"You forget that Sir Owen had, as the old song says, houses and lands, while Mr. Felix Lonsdale has nothing but his brains."

The Major was silent for some minutes, and then he asked——

"Is the world very hard on these sins, Lady Maude?"

"I do not know. I know that society receives Lady Chevenix with open arms."

"And what do women call such sins?" he asked again. "What is the name they go by in this curious world called society?"

"People give them different names—some call them prudence, some faithlessness."

"What do you call such behavior?" he asked.

"Mine is a plain unfashionable term," said Lady Maude. "I call the woman who breaks her word to her lover a jilt, and I call the wrong she does by its right name perfidy."

Major Rawson admired the speaker all the more for frankness.

And so Sir Owen's garden-party passed off well, every one praising the graceful beautiful hostess—but no one saw her standing later on in the evening with tears in her eyes watching the sunset.

CHAPTER XXXVIII.

Sir Owen had a novel idea—it was, when the June quarter day came round, to invite the principal tenants to dine at Garswood. Such things were done by the great landed proprietors of the county, and he was desirous of imitating them. This reminded him that there were several other matters that required attention—some of the tenants' leases had fallen in, and to renew them would require a long and patient search in the iron room, where all deeds and documents of value were preserved. There was another important piece of business on hand. One of the farmers in the neighborhood had sold some land to Sir Owen Chevenix; but soon after the sale he died, and his successors disputed his right to sell. Most of the old title-deeds of the Garswood estate required careful perusing; so Sir Owen invited Darcy Lonsdale to stay for a few days at Garswood. It would be much easier, he thought, for him to read the various papers there than to have them taken to his office.

Mr. Lonsdale thought so too, and promised to ride over to the Hall; but shortly before the appointed time some important law-business called for his presence in London.

"I must go," he said to Felix; "and you will have to take my place at Garswood—no one else can do it. What do you say, Felix? If you dislike it, I will give up my London engagement; but I do not think it can make any difference to you. What do you say?" And the elder man looked anxiously into the face of his son.

Felix was silent for a few minutes, and then he said, with a frank smile—

"It can't matter, father; I go as a man of business, not as a friend. I will do it with pleasure. It would be as well for you just to write and hint to Sir Owen that he might prefer you."

"I do not think he would," returned Darcy Lonsdale; "you are decidedly his favorite, Felix."

Mr. Lonsdale was right. Sir Owen was much pleased at the change. He passed the lawyer's letter over to his wife, and she read it.

"I am very pleased," he said. "Felix is cleverer than his father—and I like him. See that he has a nice room, and that his comforts are well attended to."

She made some vague reply—it seemed to her that heaven and earth were about to meet. That Felix should ever be under her roof as her guest seemed to her a most wonderful thing. How should she receive him? Would he soften a little in his manner to her? How fervently she hoped that Sir Owen would treat her, if not kindly, at least with some outward semblance of respect before her old lover! She was glad that Marian Hethcote was still with her—it would have been awkward to have met him alone.

When Sir Owen had quitted the room, Marian placed her hands upon Lady Chevenix's shoulders and looked into her face.

"Tell me," she said—"do you like this arrangement? Does it please or vex you?"

Lady Chevenix met her gaze with a calm smile.

"It does neither," she replied; and then Miss Hethcote understood that the subject of Felix Lonsdale was not to be reopened between them.

Lady Chevenix never forgot the evening when Felix came. It seemed to her that everything looked the brighter and the better for his coming. Sir Owen had given orders that the dinner should be delayed until he arrived.

Felix Lonsdale and Lady Chevenix met with seeming indifference. She looked very beautiful. She wore a dinner-dress of white lace, with lilies of the valley in her hair. She held out her hand in greeting to him.

"I'm very glad to see you, Mr. Lonsdale," she said. "I hope you will have a few pleasant days with us."

Miss Hethcote next had something to say to him, and then Sir Owen entered the room. He was most effusive in his greeting. He was delighted to see his guest; he hoped he would make himself quite at home, and enjoy himself as much as possible.

Violet could not help contrasting the two men as they stood side by side—Sir Owen's awkward figure and coarse face with the grand beauty of Felix Lonsdale, the nobility of the untitled man with the commonplacedness of the titled one. The contrast was both sharp and strong; she felt it keenly.

Then they went in to dinner. Sir Owen was in one of his best humors, and everything went off well. For so much Lady Chevenix was thankful; every hour spent without an outbreak was a gain to her.

"You will give us this one evening, Mr. Lonsdale," said Sir Owen. "Enjoy yourself a little before you begin to work."

It was a matter of perfect indifference to him. If he had consulted his own inclination, he would have preferred to begin work at once; but he could hardly be impolite enough to say so.

Sir Owen liked to sleep after he had dined. Felix declined to take more wine; and the Baronet, thinking in his heart that the young lawyer was a simpleton for it, went into the drawing-room with him, and then fell asleep. Before he closed his eyes he said——

"Lady Chevenix, Mr. Lonsdale will like to see the grounds, I am sure. You and Miss Hethcote will both enjoy a stroll."

He never once thought that he was submitting his young wife to a most deadly peril—the peril of a great temptation. He never thought of Felix Lonsdale as of one who had been his wife's lover. He had been engaged to her—that was a well-known fact; but, so soon as he, the victorious knight, had appeared, he had retired from the contest defeated, and there was an end of it all. He considered that he had raised his wife so completely above all her past life, that he had taken her so completely out of her old sphere, that nothing which had interested her then could interest her now—he never pondered the fact that Felix Lonsdale, the rising lawyer, the man of promise, the most clever and skillful practitioner in the county, was his wife's old lover. So he lay down in perfect content while he sent his young wife out into the lovely summer gloaming with her old lover.

They walked on all three together, saying little, but thinking perhaps all the more. They passed through the pleasure-grounds; they lingered amongst the roses and the lily-blooms; they watched the gold-fish in the fountain. The air was balmy, sweet, and fragrant with the odor of flowers.

"Let us go on to the park," said Marian Hethcote; "it will be very pleasant there."

They passed through the shrubbery and entered the park. The beautiful fragrant gloaming had set in; the water of the lake was tinged with crimson and gold; a lovely light lay over the trees; there was a faint murmur as the wind swayed the branches of the trees and stirred the leaves. The peace and beauty, the loveliness and repose touched them.

"Shall we sit down here," said Lady Chevenix, "by the lake side, and watch the light die out over the water?"

They sat down, the two ladies side by side, Felix, nearest to Miss Hethcote, at their feet. Marian was talking gayly to him; Lady Chevenix said but little. He who once loved her with such a passionate love looked at her. No dream of poet or painter could ever have been more fair. The evening light fell full upon her face, which was raised to the sky as she watched the crimson clouds; it touched her golden hair and was reflected by the rich jewels that she wore. She had thrown a white lace shawl over her white neck and bare arms; a corner of it was over her head, and the shadow of it softened her features. She listened to the lively sallies of her girl-friend, wondering if she should ever again be so happy, so light of heart.

Then Marian sang a quaint little song—a ballad telling the story of a knight who had ridden away to the Holy Land, leaving a girl-bride who died while he was away—a sweet sad song, just suited the hour and the gloaming.

"Now, Lady Chevenix," she said, "you must sing for us too; sing that beautiful song you were practising this morning."

"I was not practising," returned Lady Chevenix. "I was trying to put some words to an air I think very sad and sweet. If you would like to hear it, I will sing it. Would you care to hear it, Mr. Lonsdale?"

He murmured some commonplace words about his having always liked good music. She smiled bitterly to herself; and then, in a low, sad, sweet voice, she sang these words—

"'Yes, dear, our love is slain—
In the cold grave for evermore it lies,
Never to wake again
Or light our sorrows with its starry eyes;
And so regret is vain.

"'We should have seen it shine
Long years beside us, Time and Death might try
To touch that love divine,
Whose strength could ev'ry stroke defy
Save—only mine!

"'No longing can restore
Our dead again. Vain are the tears we weep;
And vainly we deplore
Our buried love. Its grave lies dark and deep
Between us evermore.'"

Her voice died away in a low sweet murmur that was like the love-plaint of a bird, and they were silent for some minutes, none caring to break the spell. Then Felix looked at her.

"I remember those words," he said; "they are taken from a poem called 'Lost Alice,' by Adelaide Ann Proctor. I gave you the book, I think, Lady Chevenix?"

That was the first time he had ever alluded to the past; he had until now always treated her as a stranger—as a Lady to whom he had been introduced for the first time by Sir Owen Chevenix.

Her face brightened when she heard it; it seemed to her that the broken chain had been taken up in those simple words.

"Yes, you gave it to me," she acknowledged; "and I know every word of the poem by heart—I have read it so often."

He looked up in surprise.

"Indeed!" he said. "I thought that you did not care for poetry at all, Lady Chevenix?"

"I fancied I did not, but I was mistaken. During these later years I have learned to value and understand many things that were once like so many dead letters to me."

"I wish," said Marian Hethcote, "that we could understand everything at once. As it is, we learn little quickly; it takes long years to teach us the simplest lessons, and by the time they are learned we must die. As my favorite poet says—

"'We live—we love; and then
Stone dead we lie.
O Life, is all thy song
Endure and die?'

How much more pleasant it would be if we could master everything at once! What mistakes and blunders we make! I read the other day of a great and wise man who, when he came to die, said, 'My life has been all a mistake.' Mr. Lonsdale, I am growing quite sad; it is your turn to sing for us."

"I cannot sing; but I will repeat some verses that I think very beautiful, if you would like to hear them."

"Whose are they?" asked Lady Chevenix.

"They are Miss Proctor's," he replied; and he turned his face away from her while he recited them.

It seemed to Lady Chevenix as though the wind fell and all nature were hushed to listen. There was no passion, no regret, in the low, rich tones—the were clear and sweet and eloquent—but each word as it fell in the fragrant gloaming seemed to burn itself on her heart and brain.

"The poem is called 'Parting,'" said Felix, "and is so beautiful in itself that it cannot fail to please;

"'Without one bitter feeling let us part;
And for the years in which your love has shed
A radiance like a glory round my head
I thank you—yes, I thank you from my heart.

"'I thank you—and no grief is in these tears;
I thank you, not in bitterness, but truth,
For the fair vision that adorned my youth
And glorified so many happy years.

"'Yet how much more I thank you that you tore,
At length, the veil, your hand had woven, away,
Which hid my idol—a thing of clay,
And false the altar I had knelt before!

"'I thank you that you taught me the stern truth
None other could have told and I believed—
That vain had been my love and I deceived,
And wasted all the purpose of my youth.

"'I thank you that your hand dashed down the shrine
Wherein my idol worship I had paid;
Else had I never known a soul was made
To serve and worship only the Divine.

"'I thank you for a terrible awakening—
And, if reproach seemed hidden in my pain,
And sorrow seemed to cry on your disdain,
Know that my blessing lay in your forsaking.

"'Farewell for ever now—in peace we part;
And should an idle vision of my tears
Arise before your soul in after-years,
Remember that I thank you from my heart.'"

So clearly, one by one, with cruel distinctness, the words sounded in Violet's ears. She knew, she understood that that was what he would say to her; in his mind there could never be even the faintest renewal of their past friendship, and in his heart he thanked her that his unhappy love, his great abiding sorrow, had taught him many noble lessons. She understood—he had said it delicately and kindly, but he had meant it—that the whole past was buried for him; he thanked her that she had taught him to suffer, and suffer in silent strength.

She was quite silent for many minutes after he had finished; it was Marian who talked to him and made him recite for them again and again.

The sun had set, the crimson and gold had faded from the water, a gray shade had fallen over it—all was quiet, calm, peaceful. Lady Chevenix rested her head against the gnarled trunk of an old tree; the peace and repose were novel to her. Presently a slight sound in the distance startled her.

"What is that?" she said.

"'It was only the deer that were feeding
In a herd on the clover grass,'"

sang Marian; and Felix looked up with a smile.

"I know that," he said. "You are quoting from a ballad called 'Hush.' Strange to say, I was thinking of it a short time since. The words were running through my brain."

"They have run through my heart," remarked Marian, "often and often. I am matter-of-fact myself, but that song always brings tears to my eyes. Repeat it for us, Mr. Lonsdale."

"I will. There is something in the time that suits the words. The light is dying in the sky, the sun has set, the flowers are sleeping, the wood-pigeons are silent, the air is full of dreams.

"'I can scarcely hear,'" she murmured,
"'For my heart beats loud and fast;
But surely in the far, far distance,
I can hear a sound at last?'"
"It is only the reapers singing
As they carry home their sheaves,
And the evening breeze has risen,
And rustles the dying leaves."

"'Listen there are voices talking!'"
Calmly still she strove to speak,
Yet her voice grew faint and trembling,
And the red flushed in her cheek
"'It is only the children playing,
Below, now their work is done,
And they laugh that their eyes are dazzled
By the rays of the setting sun.'"

"'Fainter grew her voice, and weaker,
As with anxious eyes she cried—
'Down the avenue of chestnuts
I can hear a horseman ride'"
"'It was only the deer that were feeding
In a herd on the clover grass;
They were startled and fled to the thicket
As they saw the reapers pass.'"

"'Now the night arose in silence,
Birds lay in their leafy nest,
And the deer couched in the forest,
And the children were at rest.
There was only a sound of weeping
From watchers around a bed—
But rest to the weary spirit,
Peace to the quiet dead.'"

There was silence as the last words fell, and Lady Chevenix bowed her head, so as to hide her tears. The gray shadows fell darker.

A loud voice roused them.

"Where are you? Where have you hidden yourselves? Surely a ramble amongst the flowers does not mean an encampment by the lake."

Through the clear fragrant air came the odor of a cigar, and Sir Owen, looking very cross, suddenly appeared before them.

"I could not find you anywhere," he said in a sullen tone "You must have hidden yourselves on purpose."

Lady Chevenix did not answer him, because she knew that it was needless to do so. Miss Hethcote was equal to the occasion.

"If we had wanted to hide," she said, "we would have hidden. As we did not, we remained here. If you are going to be cross, Sir Owen, do not spoil an agreeable party by joining it."

He laughed then, and sat down with them; but the beauty, the poetry and peace were all gone. He began to tell of a fight he had seen between a King Charles's spaniel and a toy terrier, laughing heartily at it, and wondering they did not laugh also. It was an exquisite joke to him to tell how the little King Charles lay dying—and even in dying tried to lick his hand.

"Do you enjoy seeing anything suffer, Sir Owen," said Miss Hethcote.

"I think a dog-fight, or anything of that kind, capital sport," he answered.

"But the unfortunate creatures must feel!"

"Feel!" sneered Sir Owen. "What nonsense! Foxes were made to be hunted, rats to be worried, dogs to fight. Why should they feel?"

With a shrug of her shoulders she turned away from him. Sir Owen laughed again; he rather enjoyed a dispute with a pretty girl.

"I am not one of your sentimentalists," he said. "Now Mr. Lonsdale could give you poems by the yard, I am sure."

"I should be very sorry to do so," remarked Felix; "at the same time I give the preference to poetry rather than to dog-fights."

Sir Owen laughed again; in his own opinion he was a most manly man, and Felix most insignificant. Felix rose from his seat and strolled away; he felt disgust almost amounting to hatred for this coarse, vulgar, repulsive man.

"Do not leave us, Mr. Lonsdale," said Sir Owen. "I will take Miss Hethcote indoors, and you can escort her ladyship—though she looks decidedly sullen."

It was useless for Lady Chevenix to say that she had no thought of being sullen; when Sir Owen had once asserted a thing, he maintained it. She looked up into the face of Felix Lonsdale, with a smile that made his heart beat faster than usual.

"That is not one of my faults," she said. "I do not remember ever having been sullen in my life; I have seldom been out of temper."

He remembered the sweet sunny temper that had never known cloud or variableness, but offered no remark—he had resolved to himself so often that nothing should induce him to talk to her about the past. They walked towards the house through the deepening shadows, and said but little to each other.

When they reached the Hall, Lady Chevenix was grieved to find a telegram from Mrs. Hethcote. Some friends had arrived quite unexpectedly, and she wished Marian to return at once. Felix wondered why the mistress of Garswood should turn so white when she had read the telegram—why she should place her hands upon the girl's shoulders and say to her so sadly—

"What shall I do without you, Marian?"

"I will come back to you as soon I can, dear Lady Chevenix," replied the girl, "and in the meantime Mr. Lonsdale will be here."

(To be continued.)

WHAT OTHERS SAY.

The Rural's First Seed Distribution for 1879.

A FEW COMMENTS OF THE PRESS.

THE Scientific Farmer (Boston, Mass.) says:—"The Rural New Yorker, 78 Duane St., New York, is giving its subscribers a series of "Free Distributions" of seeds and plants. When the high character and real value of this paper to the farmer is considered, this additional service to its subscribers must clinch many friendships, and form many new ones."

THE New-Orleans Picayune says:—"Thanks to that enterprising and model agricultural journal, the Rural New-Yorker, for a sample package of choice seeds, such as the Rural Publishing Company distributes gratuitously among its numerous subscribers. But this is, only a specimen of the first of a series of free distributions for the year. They are among the finest of hardy plants in cultivation. It is an ingenious and effectual method of securing the cultivation of these useful and beautiful products and plants in all parts of the country, and of extending their cultivation. The Rural Publishing Company bestows a great favor on their subscribers, and a still greater favor on the whole country."

THE Farm and Fireside, (Springfield, Ohio), says:—"The publishers of the Rural New-Yorker, 78 Duane St., New York City, are conducting a series of Free Seed Distributions among their subscribers. We have received a sample of the first distribution, and are free to say it is all the publishers claim for it. Ten of the varieties they offer cannot be purchased here or in Europe. They are among the finest hardy plants in cultivation. The Rural is a wide-awake, progressive journal, and merits a hearty support."

THE Buffalo (N. Y.,) Christian Advocate says:—"The Rural New-Yorker Publication Co., is making a free distribution of very rare and choice seeds to its subscribers. We have received from the company a sample package of the "Beauty of Hebron" potato. The cost to the company must be considerable, as some of the seeds which they give to their subscribers cannot be purchased either in this country or in Europe."

THE Michigan Farmer says:—"We have been sent by the publishers of the Rural New-Yorker, one of the packages of seeds which they are distributing among the subscribers to the Rural. Some of the varieties are only obtainable by means of this distribution as they cannot be purchased. The package contained ten packages, consisting of plant, vegetable and flower seeds, all of desirable varieties. It is certainly a very extensive and costly experiment the Rural is trying, and we hope their enterprise will be rewarded."

THE Observer, (Ont., Canada,) says:—"As our readers are aware, the Rural New-Yorker is this winter sending out several varieties of choice and valuable seeds, grown on its own experimental farm, free to all its subscribers who apply for them. Samples of these seeds have been sent to this office, and we find them to be all that they were represented. Some of them will be very valuable to farmers, especially the new fodder plant, Pearl Millet. We have also received a sample of the new potato, the "Beauty of Hebron," which it claims to be earlier and superior to the Early Rose."

THE Monongahela (Pa.,) Republican says:—"Subscribers to the Rural New-Yorker are being delighted with packages of valuable seed sent out free to each one, from the Rural experimental farm. The plan is simply this: Each subscriber may select from the list what is desired, and on enclosing a postage stamp naming the kinds desired, they are duly forwarded as a gift. No other proposal at once so valuable and so generous has been offered. In order to better understand this matter, address Rural Publishing Company, 78 Duane St., New York City, for a sample paper. A postal card request will be duly honored."

THE Harrisburg, (Iowa) Courier says:—"Our readers have probably noticed in the Courier the advertisement of the Rural New-Yorker. This is one of the very best publications in the country, and one of the foremost in advancing scientific agriculture. The publishers are now sending about a dozen different packages of seeds—ornamental and useful—to their subscribers free of charge, nearly all of which cannot be obtained from any other source, as they have been originated and grown on their own experimental farm. They have our thanks for samples."

THE Unionist, (N. J.,) says:—"That standard agricultural paper, the Rural New-Yorker, 78 Duane St., New York City, in addition to giving their subscribers their money's worth in reading matter are sending to each one packages of seeds, from the finest plants in cultivation. Some of the varieties are specialties of their own which cannot be purchased here or in Europe. They also send a "Beauty of Hebron" potato. This is but a foretaste of other good things that are to follow, for, as they assure us they intend to send other gifts to their patrons during the year."

THE Cincinnati (O.) Gazette says:—"The Rural New Yorker Company, 78 Duane street, New York, is distributing to its subscribers *free* generous packages of flower and vegetable seeds, hardy plants—ten varieties of which cannot be purchased in America or Europe."

News of the Week.

MISCELLANEOUS.

A Congressional delegation called on the President and urged him to sign the anti-Chinese bill. The National Workingmen's Assembly of Washington have adopted resolutions appealing to the President to sign the bill as the only means of preventing bloodshed on the Pacific coast. A mass meeting of politicians and merchants held at San Francisco telegraphed petitions to the Executive urging him to sign. Mass meetings have been held at Washington, Sacramento and Chicago for the same purpose. It is contended on the other hand, that great benefits have accrued to California from the immigration of the Chinese and that the passage of the bill would be a gross violation of treaty obligations and national honor.

The New York Chamber of Commerce at a special meeting held Feb. 27 discussed the question and protested that by every consideration of duty and interests the President should veto the bill. They also appointed a committee of three members of the Chamber to confer with the President upon whom great pressure has been brought to bear, from all sides.

Gen. Patrick and Prof. Law have issued the following: "In view of the existence of contagious pleuro-pneumonia on Long Island and vicinity, the owners of cattle in adjacent counties are earnestly requested to co-operate with the State authorities in their efforts to stamp out the disease. Attention to the following suggestions will greatly facilitate the work of the cattle disease staff, and is strongly urged for general adoption:

"*First*—Purchase all new cattle from neighbors only whose stock is known to be sound. Avoid purchasing from dealers, and refuse even Western cattle that have been kept for a day in common cattle-yards or dealers' stables.

"*Second*—In the case of all new purchases, even from neighbors, when the stock has passed over a public highway, place such animals in a separate building at a distance from the home herd, and keep them thus secluded for one month after purchase.

"*Third*—Should any such quarantined animals become sick, report the same at once to Gen. Patrick, Board of Health, Brooklyn, together with the place they were brought from, the name of the former owner, and the mode of conveyance.

"*Fourth*—Notify Gen. Patrick at once of all suspicious cases occurring among cattle, even independently of the purchase of new stock.

"*Fifth*—Exclude all cattle-dealers, butchers, and visitors, under all circumstances, from yards and buildings in which store cattle are kept.

"In view of the importance of the speedy extinction of the disease, the hearty co-operation of the owners of cattle is confidently expected."

Attorney General Devens has given an official opinion to the Postmaster General overruling a decision of the Assistant Attorney General for the Post Office Department with relation to the right of members of Congress elect to the next Congress to the franking privilege. The Attorney General decides that members of Congress are entitled to the franking privilege from the commencement of the term for which they are elected, although no session is actually called, and they are therefore not able to take the oath of office. Under this decision members of the Forty-sixth Congress will be entitled to the franking privilege after the 4th of March next, whether sworn in or not.

The President has signed the commissions of Horatio C. Burchard to be Director of the Mint and A. L. Snowden to be Superintendent of the Philadelphia Mint.

The House Committee on Expenditures in the State Department held a secret session last week, and although the injunction of secrecy has not been removed from the members attending as to what transpired, it is stated on good authority that the majority will report to the House articles of impeachment against Minister George F. Seward. The minority of the committee will oppose the report.

The Senate Committee on Commerce have reported the River and Harbor Appropriation bill to the Senate, with amendments proposing numerous changes. The net total added to the bill by the Senate Committee is about $1,100,000.

The Geneva Award bill has received its quietus for another session in the Senate. A gallant struggle was made by two Senators from Maine to get it before the Senate, but without avail.

The Senate has reduced the tax on tobacco and snuff to 16 cents a pound. Chewers and snuffers get all the favor that is granted, while smokers are left unrelieved.

The Bureau of Engraving and Printing is running at its full capacity on Sundays in order to supply the demand for four per cent. bonds.

The Ohio Republican State Convention is to be held at Cincinnati, May 28, not March 20.

A terrific explosion occurred at Stockton, California, the other day. A crowd of more than 200 people had assembled to witness the trial of a new propeller pump, set in the slough, and run by a thrashing engine. Those who stood near the engine, where the explosion occurred, were prostrated. The body of the engine was blown a distance of 150 feet through the crowd. The dead lay prostrate in every direction, some falling into the slough from the bridge. Ten or twelve dead bodies lay in one heap at the northwest corner of the bridge. People lay dead and dying on the street, blown from 50 to 100 feet. Some were blown to the ground with such force as to break every bone in their bodies. Faces, hands, and whole persons were scalded. The wounded were promptly cared for, and the dead were left undisturbed until the excitement of the moment had subsided, when they were removed to the Coroner's office. The explosion was the result of recklessness on the part of the engineer. The steam-gauge refused to work, and after the engineer had attempted to fix it and failed, he screwed down the safety-valve, and went on with his work. The explosion occurred about 15 minutes afterward. The killed numbered 16, the wounded 26, three or four of whom are not likely to recover. Many were blown a considerable distance, and escaped uninjured.

The demand for back pensions has begun. During the first six months of the fiscal year, the number of persons who presented claims for invalid pensions was 6,247. Since the passage of the new bill, a month ago, there have been presented 2,301 claims, and the applications for blank forms have been ten times as great as in any corresponding time during the past year.

Charles W. Angell, the defaulting Secretary of the Pullman Palace Car Company, pleaded guilty, in the Criminal Court, to two indictments against him, for larceny as bailee and embezzlement, and was sentenced to ten years in the Penitentiary—the full extent of the law. He made no remark, manifested no emotion, and simply bowed as the sentence was hained. Judge Williams, in reviewing the case, spoke of the high social position occupied by Angell, the enormity of his offense and the confidence reposed in him by the company, and expressed his belief that the full penalty at least was deserved.

A span, 110 feet long, of the iron bridge of the Chicago and Alton Railroad at Wilmington, Ills., gave way on the morning of the 27th February, as a train of empty coal cars was passing over it, and three cars were precipitated into the Kankakee River, a distance of over thirty feet. The bridge is of the Howe truss pattern. Other sections of it were injured, the total loss amounting to several thousand dollars. Nobody was injured. It is supposed that the keen frosts had affected the ponderous castings. Trains will temporarily run over another branch of the road, and no delay will occur.

Frey's stables, built by Mr. Maturin Livingston, next to Mrs. Reed's boarding-school in Fifty-third street, near Fifth avenue, this city, took fire between 2 and 4 o'clock on the morning of 27th February and forty-three horses boarded there were burned. The loss is some $130,000.

A shipper of cattle writes that the stock that goes to an Eastern market is carried much too fast. He thinks that in no case should it be kept on the cars longer than twenty-four hours, and that when taken off it should be rested at least seven hours and given plenty of food and water.

The report that yellow fever still prevails in certain sections and that several deaths recently occurred in New Orleans has been officially denied by the Board of Health of that city, the mayor and the president of the cotton exchange who declare that the health of the city was never better.

A religious warfare against the infamous Oneida Community has been inaugurated. It is a sort of Crusade, with Bishop Huntington, of the Diocese of Central New York, in the part of Peter the Hermit.

It is thought by some that Florida is the only State that grows oranges for market, yet the orange crop of Louisiana for 1876 was estimated at 32,000,000 oranges.

Oregon State and Washington Territory have been snowed-up, and much mischief has been done by the storm, which was very heavy.

By a more accurate estimate, the deficiency for the next fiscal year, instead of being $27,000,000, will not exceed $15,000,000.

The New York Assembly has passed a measure making it a Penitentiary offense for a person to fail to pay a hotel bill.

Grain rates from St. Louis to the East have been cut mercilessly by the pool lines.

THE PRESIDENT'S VETO.

As we go to press the news reaches us that the President has vetoed the bill restricting Chinese immigration, and its friends in the House failed to secure the requisite majority to pass it over the veto.

FOREIGN.

An avalanche fell near Marburg, Austria, killing twenty-one persons and destroying nine houses.

It is rumored that efforts have been made by English agents to bribe one of the Ameer's ambassadors to prevent Russia from intervening, offering the sum of 100,000 roubles ($80,000), as the wage of treason to his master.

It is stated that the Ameer was received with acclamations by the people during his late progress, through Eastern Asia, and that he firmly reiterated his intention of continuing the war. His death has just been announced. He will probably be succeeded by his son.

It is also asserted that the Afghans have 200 cannon and splendid cavalry, with which they could destroy the invaders of their country if they were properly commanded.

The King of Burmah has been doing a little old-school orientalism of the royal kind, he having murdered, with circumstances of peculiar horror, eighty-six members of the royal family.

A dispatch from Dunkirk about the breaking up of the British ship Adriatic, which stranded near that place on February 18, while on the passage from Pabellon de Pica, says there were 49 persons on the ship at the time she broke up, only seven of whom are known to be saved.

A petition to Parliament praying that no duty be imposed on American grain imported into the Dominion is being extensively signed at Montreal by shippers of grain, inland and ocean carriers and dealers, as they maintain that the export trade of that city would otherwise be seriously interfered with, as well as trade generally.

The resignation of Archbishop Purcell was prompted by his financial embarassments, though he has long contemplated the step. In fact, he tendered his resignation in person to Pope Pius IX, twenty years ago, but the Pope declined accepting it, saying, "They only who persevere to the end are worthy of the crown." The Catholic community at Cincinnati is greatly excited over the Archbishop's failure, especially the German portion of it, and the venerable prelate is worried almost to death by the calamity that has overtaken him.

For an Irritated Throat, Cough or Cold, "*Brown's Bronchial Troches*" are offered with the fullest confidence in their efficacy. They maintain the good reputation they have justly acquired. **25c. a box.**

THE MARKETS.

PRODUCE AND PROVISIONS

NEW YORK, Saturday, March 1, 1879.

BEANS AND PEAS.—The demand for beans has revived with strength enough to advance prices for mediums and marrows. Exports for the week, 1,350 bbls. Other sorts show a shade better of firmness, but the call is limited. There do not appear to be many long lines of fine quality stock in any variety this season. Green peas have advanced to $1,37½@1.40. Southern S. E. steady at $2.65 per 2-bush. bag. Canadian peas moderately saleable at 73@75c. Beans, Medium, prime, $1.30@1.32½; fair to good, $1.15@1.25; poor, 90c.@$1; beans, marrow, prime, del., on ship, $1.40; fair to good, $1.15@1.35; pea, choice, $1.35@1.40; fair to good, $1.20@1.30; white kidney, choice, $1.70@1.75; fair to good, $1.50@1.60; red kidney, prime, $2.35@2.40; fair to good, $2.10@2.25; black beans turtle-soup, $2.15@2.25; Limas, $1@5.

BEESWAX—Is in freer supply and offered at easy prices; quoted at 24@25c. for Western and Southern. Exports for week, 1,500 lbs.

BUTTER.—The first of March finds the market rather heavily stocked. Exporters have not filled up the part that was expected of them, while the local demand has dragged for an unusually long period for cold weather. Receipts fortunately are light, and a possible late spring is one of the consoling chances left sellers. Eastern buyers are out in better force but they, and in fact all buyers, seldom respond to extreme figures. Welsh tubs are moving at the moment as well as anything in market. There is more low priced useful Western in market than of the upper scale. A good many lots of factory show injury of grain through jobbing of store rolls or pats. English reports indicate that common lots of butter have been too liberally forwarded during the past two months. Iowa is shipping butter to California.

Single extra State half tubs, 25c.; choice lines, 21@22c.. State, full dairies, special, 19c.; other, 15@18c.; firkin dairies, fair to prime, 15@17c.; Welsh dairies, fine full, 16@17c.; fair to prime do., 16@21c.; choice Welsh, 19@21c.; fair to prime, 12@17c.; choice creamery 25c.; best western creamery, 26c.; other, 19@24c.; early packed creamery, 17@20c.; poor State, 8@11c.; Western dairy, fine fresh, 18@19c.; fair to good, 10@15c.; factory, ladle packed, 16@18c.; good, 14@15c.; other, 7@9c.; rolls, 10@15c.; grease 4@5c.

Receipts for week, 23,050 pkgs.

Exports for week, 7,000 firkins.

BROOM CORN.—There is but little being done and prices are a little unsettled.

Brush and short broom, choice, ₱ lb., 5@5½c.; do. common to good, 3½@4½c.; hurl, good to choice, 3½@4½c.; do. common to fair, 2@3½c.; and crooked, 2@3c.

CHEESE.—Shipments for the week, 47,420 boxes. The market has not varied. A good steady call has been noted for extreme low and high grades, but the medium qualities, of which the stocks are largest, move slow.

Quotations at 9@9½c. for fancy; 8½@8½c. for fine lots; 7½@8c. for good; 3@5c. for skimmed; State, farm dairy at 8@8½c. for fine; 7@7½c. for good to prime. Wisconsin factory, fine and fancy, at 8½@9c.; do. good to prime, at 7½@8½c. Western factory, fine 8c.; good and prime, 6½@7½c.; do. full skimmed, 3@5c.

Liverpool cable, 49s.

Steam to Liverpool, 42s. 6d.

COTTON—Has been very dull through the week and varying slightly. Closing prices are for March at 9.78@9.79c.; April at 9.93c.; May at 10.06@10.07c.; June at 10.20@10.21c.; July at 10.30@10.31c.; August at 10.39@10.41c.; September at 10.20@10.24c.; October at 10@10.01c.; November at 9.86@9.90c.

Quotations for spot cotton are based on American standard of classification, and on cotton in store running in quality not more than half a grade above or below the grade quoted:

	Uplands.	*N. Orleans.*	*Texas.*
Ordinary	7 15-16	8 1-16	8 1-16
Strict ordinary	8¾	8½	8½
Good ordinary	8¾	9	9
Strict good do	9 3-16	9 5-16	9 5-16
Low middling	9 7-16	9 9-16	9 9-16
Strict low middling	9¾	9¾	9¾
Middling	9 13-16	9 15-16	9 15-16
Good middling	10 3-16	10 5-16	10 5-16
Strict good middling	10 3-16	10 11-16	10 11-16
Middling Fair	11¼	11⅜	11⅜
Fair	12 1-16	12 3-16	12 3-16

STAINED.

Good ordinary	8 1-16	Low Middling	9 1-16
Strict good ordinary	8 9-16	Middling	9 7-16

DRIED FRUITS.—In apples the best of the Ohio and State quarters continue in favor with exporters, and they are strong in price. Peaches show firmness and a fair jobbing trade. Small fruits quiet generally.

State pluma, 14c.; blackberries are quoted at 5c. Peaches—Peeled Georgia, 6@7c. for poor; 8@9c. for fair to good; 10@10½c. for prime; choice North Carolina, 12@13c.; good do., 9@10c.; unpeeled halves, 3½c.; quarters, 3@3½c. Pitted cherries, 20@21c. Apples—New, 2@2½c. for southern quarters in bags.; 3½@4c. for prime sliced; do., fair at 3@3½c.; State at 3½@4c. for new sliced; and 3@3½c. for quarters; Western at 2½@3½c. for new quarters. Raspberries, 28c. Apples, evaporated, fancy at 10@11½c.; other processes at 6@7½c.

Exports, 550 lbs. dried apples.

EGGS.—Receipts for week, 9,552 bbls.; do. last week, 7,710 do. Lent is here and sellers look for a steadier demand. Receipts are increasing and prices have dropped to a point that leads to business. Stock from remote points are more or less frozen.

Near points, ₱ doz., 17c.; State, and Penn., 16@16½c.; Western, and Southern, 15c.; poor, 14@15c.

FLOUR.—The arrivals have been large and they have been freely offered, and with easier values or at slight decline.

Latest prices are $3.10@3.75 for very inferior to strictly fancy superfine State; $3.70@4.00 for very poor to good extra do., odd lots and lines; $4.00@4.25 for good to very choice do., and fancy lots above this; $3.40@3.75 for inferior to very choice superfine Indiana, Iowa, Michigan, &c.; $3.70@4.00 for inferior to good shipping extra do. and $4.00@4.25 for good to choice extra do.; common to about choice white wheat extras, $4.25@5.35; choice to fancy do. at $5.35@6.15; red and amber winter wheat, very inferior to very choice trade and family, at $4.10@5.85 (fancy held higher); round hoop Ohio at $4.10@$4.35, and trade and family brands of do. at $4.50@4.85, the latter rate for very choice (a few fancy lots held higher); St. Louis, $4.25@6.10 for very inferior to good extra; $5.10@6.00 for good to very choice (with a few very fancy brands in high favor with the jobbing trade), quoted up to $6.50@6.75. Minnesota clear, very inferior to strictly fancy, at $3.75@5.00; few brands going above $4.65@4.75; Minnesota "straight," inferior to fancy at $4.50@6.00; and patent poor to strictly fancy at $5.25@8.25, few brands going above $7.50@7.75; unsound stock at from $2.25@5.25; city mill extra at $4.35@5.25 for West Indies (the latter rate for fancy in new packages); do. for England $3.75@3.90; do. trade and family extras, $5.25@6.25; do. for South America, $5.15@6.65 for fair to very choice; No. ' at $2.40@3.55 for poor to very fancy, the latter an extreme.

CORN MEAL.—Sales at $2.75 for Brandywine and $2.25@2.40 for Western Yellow.

FRESH FRUITS.—Late business in apples is paying owners some profit. Fine greenings free from scald are the leading sort; very little extra red fruit remains. Russets are opened to the market, and shippers are including prime marks in their exports. Exports for week, 6,224 bbls. Spitz., $2@2.50; Baldwins, $1.75@2; Greenings, $2.12@2.50; Russets, $1.75@2; extra, $2.25; poor lots, $1.25@1.50.; Eastern apples, $1.50@2, truck price. The best reserve of cranberries is about used up; few lots good enough to rate at the extreme; good to choice, bbls., $7@8.50; N. J. crates, $2.25@3. Florida oranges have merely a chance sale, as quality is not generally attractive; best half bbl. boxes, $2.50@3.50; poor, $1@1.50; bbls., $4@6. Peanuts in fair demand; sellers' views more easily met. Va. hand-picked, choice, $1.10@1.15; other, 85@97½c. Hickory nuts in a small way, $2@2.25; pecans, small, 6@6½c; large, 7½@8c.; Hot-house strawberries, $5@5.50.

FURS AND SKINS.—There have been no special changes in price; shippers will operate moderately until the Hudson Bay Co.'s London sale is reported.

Badger, 50@$1; bear, black, N., $8@12; do. S., $3@5; cub, N., $5@8; brown, $3@7; beaver, Cal. W., $1@1.40; S. and W., 80c.@$1.10; N. W., $1.50@1.75; N. and Ca., $1.75@2.30; cat, wild, N., 25@50c.; S. and W., 10@20c.; house, 10@15c.; deer, W., summer, 20@25c.; winter, 10@15c.; elk and moose, 12@15c.;

fisher, S. and W., $3@6; N. and Ca., $7@10; fox, silver, $25@75; cross, $2@5; blue, $3.07; white, $1.50@2; red, N. and E., $1.50@1.75; N. and N. W., 50c.@$1; gray, N. and N. W., $1@1.25; S. and W., 40@70c.; kitt, 25@35c; lynx Minn, $1.50@2; Can., $2@2.50; marten, large dark, $5@8; small and pale, 75c.@$1.25; mink, S. and S. W., 30@35c.; W., 50@60c; Middle States, $1@1.25; N. W., $1@1.50; Eastern, $1.50@1.75; Can. and N. S., $1.75@2; muskrat, S. and W., fall, 8@10c.; S. and W., winter, 10@14c.; S. and W., spring, 14@16c.; N. and E., fall, 10@12c; N. and E., winter, 14@18c.; N. and E., spring, 15@20c.; kitts, 3@5c; opossum, N. and W., 25@30c.; S., 8@10c.; otter, S., 3@4c.; N., 5@7c; rabbit, 3@3½c.; coon, S. and S. W., 3@40c.; W. and N., 50@55c.; Mich. and N. W., 75c.@$1; seal, Atlantic, 40@60c.; Pacific, $10@15; skunk, black-cased, $1.50@1.70; half-striped, 30@40c.; full, 40@50c.; white, 10@20c.; wolf, large, forest, $1.75@2.50; prairie, 75c.@$1; wolverine, 2@3c.

GRAIN.—Wheat has tended a little lower on larger supplies and a decline West leading to a more active business, sales of choice Canada spring, in bond, at $1.03; No. 3 spring at 93@94c.; rejected spring at 82@83c.; ungraded spring at 93c.@$1.02; ungraded amber at $1.09@1.13; No. 2 red, steamer grade, at $1.11; No. 3 red at $1.09½; No. 2 amber at $1.12@1.12½; ungraded red at $@1.12; extra white at $1.13@1.13½; white State at $1.14½@1.15, No. 1 white at $1.11@1.11½; do., steamer quality, at $1.09; No. 2 white at $1.08@1.09½; ungraded white at $1.09@1.12; No. 1 red at $1.13@1.13½. No. 2 red at $1.13@1.13½; No. 2 amber, March option, at $1.12½; do., April option, at $1.13; do., May option, at $1.13½; No. 1 white, March option, at $1.11½; do., delivery by March 20th, at $1.12½; do., April option, at $1.13@1.13½; do., May option, at $1.14@1.14½; No. 2 red, March option, at $1.13@1.13½; do., April option, at $1.14½; do., May option, at $1.15. Rye is quiet at 61@62½c. for Western. Corn has been active and fairly sustained in price; latest sales are of New York steamer mixed, at 45@45½c.; New York No. 2 old at 46½@46½c.; New York No. 2 at 46c.; No. 3 at 44c.; ungraded mixed Western at 46@46½c. for old and 45c. for new New York yellow at 45½c.; New York steamer yellow at 45@45½c.; New York No. 2 white at 52@53c. for old; yellow Western at 47@47½c.; New York low mixed at 46c. for a car lot; Jersey yellow at 45@46½c.; yellow southern at 45c.; round yellow at 46c for new; New York No. 2, March option, at 46c.; do., April option, at 47c.; do., May option, at 47½@47½c.; New York steamer mixed, March option, at 44½c.; do., May option, at 45½c. Oats are offered freely and are easy in price; latest sales of New York No. 1 white at 36c.; New York No. 2 white at 34@34½c.; New York extra white quoted at 33½@33c.; York No. 3 white at 32½c.; New York No. 1 at 31½@32c.; New York No. 2 at 31@31½c.; New York 3 at 30c.; white Western at 34@35½c., mixed do. at 33@34½c.; white State at 34@34½c., the latter for strictly choice; mixed State 31c.; No. 2 Chicago, afloat, at 34½c.; do. in store at 33c. Barley steady but quiet; State, 6-rowed, 75@82½c.; do. 2-rowed, 65@72½c.; Canadian, 80c.@$1.05; Mal, Western, 60c.@$1.15; State, 75c.@$1.05, Canadian, $1@1.25.

HONEY.—We repeat old quotations to show the weakness that has prevailed the entire season. Single comb white clover, 10@11c.; two comb do., 8@9c.; buckwheat and other dark, 7@8c.; strained, 6@9c.

HAY AND STRAW.—Prime hay has not been over plenty and rules firm in price; other qualities are in full receipt and favor buyers.

Sales at 40@45c. for shipping, and 70@75c. for retail qualities. Straw quoted at 50@60c. for long rye, and 40@45c. for short rye, and oat at 40@45c.

HOPS.—About 1,500 bales have been taken by exporters this week, which, added to those bought by brewers has given us a pretty active market. Prices remain as quoted last week, though our extreme quotations of 16c. for choice State and 15c. for the the best Californias are more or less nominal. Most of the transactions have been on a basis of 7@11c. A good many of our large brewers are still working on old hops and only buy new ones when offered low.

Quotations are for New Yorks, new crop, choice, 10@14; New Yorks, new crop, medium, 7@9; New Yorks, new crop, low to fair, 5@6; Eastern, 8@10; Western, 8@10; Yearlings, 3@5; Olds, all growths, 2@3; Pacific coast, 10@15.

POULTRY AND GAME.—Live poultry still brings good prices but have sold higher during the week.

Fowls, N. J., 12@12½c.; Western, 11@12c.; Chickens and fowls, mixed, 10@11c.; roosters, old, 6@7c.; Turkeys, 13@15c.; Ducks, Jersey, N. Y. and Pa., ₱ pair, 75c.@$1; Western and Southern, 60@75c.; Geese, Jersey, $1.75@2; N. Y. and Pa., $1.50@1.75; Western, $1.25@1.62; Pigeons, 35@44c.

Dressed poultry is higher than for any time since fall, with fair receipts handled at full prices. Near points have best sale. Extra State and Western lots all chickens, would sell at 14c. by the package, but there are few such, and for mixed fowls and chickens of nice quality 13c. is a full figure, while some fair lots have sold at 11@12c.

Turkeys, best, 16@18c., the latter for Pa. dry-picked; other, 13@15c.; chickens, best, 16@17c.; other, 11@13c.; fowls, choice, 14@15c.; capons, 20@21c; slips, 17@18c; ducks, best: 17@18c.; other, 13@15c.; geese, 9@14c.

Quail, grouse, rabbits and hares are outlawed after to-day and are dropped from the list. A few quail sold to-day at the close at $1.25 and grouse at 50c. A few Missouri wild pigeons are here; they are acorn birds and shots they sold at $1@1.25. Choice pigeons are wanted. Canvas-back and Red-head ducks are plentier and lower; Norfolk Red-heads do not exceed 75c. ₱ pair. Southern Mallards sold at 75c., but they are inferior; choice Western Mallards would sell well up towards $1 ₱ pair. Southern Black ducks sell slowly. Teal in fair demand. Common ducks dull.

Wild ducks, Canvas-back, Havre de Grace, ₱ pair, $2.25@2.50; do. Western, $2; Red-head, 75c.@$1.25; Mallard, 75@90c.; Black, 60c.; Teal, 40@50c.; common, 25@30c.

PROVISIONS—Have not shown much activity, but held rather firm. Mess pork quoted at $9.50 bid and $9.60 asked for old for March, and $10.65 bid and $10.75 asked for new for March, and $10.75 bid and $10.80 asked for new for April, and May at $10.85@10.95, and June at $11 bid and $11.05 asked. Bacon at 5 5-16c. for long clear and 5½@5¾c. for short clear. Lard—Western steam at $6.97½@7 for spot; $6.97½ for March; $7.02½@7.05 for for April, and $7.12½ for May. Stearine at 7c. for prime. Tallow at 6 9-16@6¾c. for prime. Beef Hams at $18.25@18.75. Beef at for extra India mess, $18@21, as to quality; packet, $11@11.50, plain mess, $9.50@10.25; extra mess at $10.50@11.50.

SEEDS.—Clover is fairly active at 6¼c. for prime and 6¾@6¾c. for choice. Timothy in demand and ranging from $1.35@1.50, as to quality.

TOBACCO.—Exporters have been doing but little business the past week and the home trade moderate, but prices generally steady. Kentucky leaf quoted at

	Light.	Heavy.
Common lugs	2½@ 3	3½@ 3¾
Good lugs	3¾@ 4	4 @ 4½
Low leaf	4½@ 5	5 @ 6½
Medium leaf	5½@ 6¼	6¾@ 7½
Good leaf	6¾@ 8	8 @ 9
Fine leaf	8½@10	10 @11
Selections	—@—	12 @12½

SEEDLEAF.—CROP OF 1877.

New England wrappers, common	10 @12
do. do. medium	13 @15
do. do. fine	18 @25
do. do. selections	27½@35
do. seconds	10 @13
do. fillers	7 @ 9
Pennsylvania assorted lots, common	9½@10½
do. do. fair	11½@14½
do. do. fine	15½@18
do. wrappers	20 @40
do. fillers	7½@ 8½
New York assorted lots, common to medium	8 @10
do. do. do. good,	12 @15
Ohio assorted lots	9 @12
Ohio wrappers	12 @18
Wisconsin assorted lots	7½@10

VEGETABLES.—There is a fair demand for potatoes, but the market does not work upward for any variety. Cabbages have advanced; onions very firm. Bermuda produce begins to arrive regularly Norfolk kale has sold at $1.75 bbl. Bermuda potatoes, $6.50@7 per bbl; Early Rose, Nova Scotia, bulk, $2.75@3; Eastern, $2.75@3; State, choice, at $2.50@2.62; fair to good, $2@2.25; Peach Blow, white, in bulk, $2.50@3; red, $2.25@2.75; Prolific, $2.25@2.75; Peerless, State, $2@2.25; in bulk, $2@2.12; Jackson white, $2@2.37; Mercer, $2.12@2.25; (outside rate per double heads). Sweet potatoes, Md. & Del., $2@2.37 Bermuda tomatoes, 50@60c. box. Onions, Eastern, white, ₱ bbl., $4@6, yellow, $3.50@3.75; red, $3.50@3.75; Chester, $3@3.50. Squash, Hubbard, $2.50@3; marrow, $2@2.25. Cabbages per 100, $6@8; R. turnips, per bbl., 75c.@$1; beets, 75c.@$1; carrots, 75c @$1; celery, per doz. bunches, 50c.@$1. Hot-house rhubarb, per 100 bunches, $7@9; radishes, do., $3@3.50; cucumbers, choice large, per doz., $3@3.50; mushrooms, per lb., 50@60c.; lettuce, choice large heads, per doz., 50@87c.; po., poor to fair, per bbl., $1.50@3.

Exports of potatoes, for week, 7,650 bbls; onions, 120 do.

WOOL.—There has been more activity the past week on demands from manufacturers, and prices generally well maintained.

Ohio, Pennsylvania and Virginia—XXX and picklock, 35@37½c.; XX, 33@35c.; X, 33@34c.; No. 1, 32@35c.; No. 2, 32@33c; common, 29@30c.; combing, 34@36c.

New York, Michigan, Indiana and Wisconsin—XX, 28@32c.; X, 28@31c.; No. 1, 31@33c.; No. 2, 27@30c.; common, 25@28c.; combing and delaine, 33@35c.

Iowa, Vermont and Illinois—X and XX, 28@30c.; No. 1, 30@33c.; No. 2, 27@28c.; combing, 33@36c.

Missouri, Kentucky and Tennessee—Washed fleece, 30@33c.; unwashed fleece, 18@24c.; unwashed combing, 22@25c.

LIVE STOCK MARKETS

Saturday, Mar. 1, 1879.

BEEVES.—Receipts for the week, 9,087 head; do., last week, 11,222 do. Market slow and unsatisfactory, particularly to the buying interest. Sellers forced an advance of ¼c. per ℔, and hoped to clear the yards. Some Texas cattle (33 head), 1,042 ℔, average, were sold at 2c. per ℔., to dress 55 ℔. to the gross cwt.; a car-load of extra Illinois steers, 1,551 ℔ average, at 10¾c. to dress 57 ℔., with $1 per head added; and common to prime native steers ranged fr m 8¼c. to 10¾c. per ℔., to dress 55 ℔.@57 ℔.—the highest mark for smooth Illinois steers, 1,341 ℔ average. None taken by exporters. Missouri is sending dressed beef; not wanted.

COWS AND CALVES.—Demand very limited; light arrivals more than supply wants here. Nominal range, $35@65.

VEAL CALVES.—Live are steady and bring good prices with the large supply of dressed offering. Choice milk, N. J. and Bucks Co., 7¼@7¾c.; heavy weight, 5½@7c.; fed, 4¼@5¾c. Dressed calves, extra, 9¾c.; good to prime, 8@9c.; common, 6¼@7½c.; many frozen which sell at irregular figures.

SHEEP AND LAMBS.—Market not active but firm for prime stock. Sheep, $4.80@5.80 per 100 in late sales; lambs, 5¾@6¼c. A car load of premium State lambs brought $6.60 per 100 lbs.

SWINE.—Receipts for week, 24,373 head; do. last week, 33,355 do. Good Western hogs, $4 40; rough sold at 3.85; N. J. pork, light, 6@6¼c.; medium, 5¾@6c.; heavy, 5¼@5½c.; Western hogs, dressed, 4¾@5c.; city, 5¼@5¾c.

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☞ No advertisement inserted for less than $2.

SPECIAL NOTICES.

E. & J. C. Williams, MONTCLAIR, N. J., have a reputation for honest dealing. Send for their Catalogue of Fruit Trees, Vines, Plants, &c.

For particulars regarding Electric Belts, &c., address PULVERMACHER GALVANIC CO., Cincinnati, O.

The Best Paper, and the Best Premiums to Agents, is our motto. We ignore Chromos and all other cheap colored pictures, preferring to put our money in the paper and in Premiums to All.

New Advertisements.

GREAT OFFER FOR FEBRUARY.

We will during *this month dispose of* 100 PIANOS & ORGANS, at EXTRAORDINARY LOW prices for cash. SPLENDID ORGANS 2 3-5 sets of reeds, $65, 3 sets with Sub Bass and Coupler $80, 2 sets $50, 1 do $40, 1 do $35. 7 Octave *all* ROSEWOOD PIANOS $130, 7 1-3 do $140, all round corners do $175, warranted SIX years. AGENTS WANTED. Illustrated Catalogues Mailed. Music at half price. HORACE WATERS & SONS, Mafrs. and Dealers, 40 E. 14th St., N. Y.

ELASTIC TRUSS

Has a Pad differing from all others, is cup-shape, with Self-Adjusting Ball in center, adapts itself to all positions of the body, while the BALL in the cup PRESSES BACK the INTESTINES JUST AS A PERSON WOULD WITH THE FINGER. With light pressure the Hernia is held securely day and night, and a radical cure certain. It is easy, durable and cheap. Sent by mail. Circulars free.

Eggleston Truss Co., Chicago, Ill.,

DISSOLVED BONES.

Warranted PURE Raw Bone Meal, dissolved with Acid,

And to be free from all other substances or mixture whatever. *It contains over 10 per cent. Soluble and Reverted Phosphoric Acid and over 3½ per cent. of Ammonia.*

☞ *This article is guaranteed to be Raw Bone and Oil of Vitriol only.*

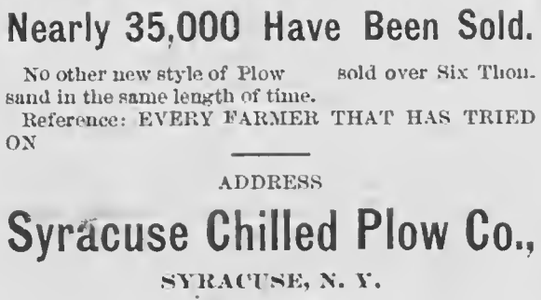
Prices of the above by the car load very low to meet the present depressed prices of farm products.

BAUGH & SONS,
MANUFACTURERS,
20 S. Delaware Ave., Phila.

SYRACUSE CHILLED PLOW.

PRICE, FULL RIGGED, $16.

SAMPLE PLOWS DELIVERED FREE OF FREIGHT ON RECEIPT OF PRICE.



The Syracuse Chilled Plow Co.

have enlarged the capacity of their works *three-fold*, in order to supply the demand for the year 1879.

THEY MAKE THE

BEST CHILLED PLOW

THE WORLD HAS EVER SEEN.

IT IS LIGHTER OF DRAFT.
IT IS MORE PERFECT IN SHAPE.
IT IS MORE DURABLE.
IT CLEANS IN EVERY SOIL WHERE OTHER PLOWS FAIL.
NO PLOW SO WELL PREPARES THE SOIL FOR A CROP.
THE PECULIAR WAY IT PULVERIZES THE SOIL IS ONE OF ITS GREAT EXCELLENCIES OVER ANY OTHER PLOW.
IT IS MADE IN DIFFERENT STYLES—ONE HORSE, TWO-HORSE, OR THREE-HORSE.

Every Plow is Guaranteed under the Seal of the Company.

BEWARE OF COUNTERFEITS.

The reputation of the Syracuse Chilled Plow has induced unprincipled manufacturers to palm off on the farmers plows that they call *chilled*, which are, in fact, nothing but common plows, with the word "chilled" painted or branded thereon.

The SYRACUSE CHILLED PLOW has been made but two years and a half, and in that time

Nearly 35,000 Have Been Sold.

No other new style of Plow sold over Six Thousand in the same length of time.

Reference: EVERY FARMER THAT HAS TRIED ON

ADDRESS

Syracuse Chilled Plow Co.,

SYRACUSE, N. Y.

My Annual Catalogue of Vegetable and Flower Seed for 1879, rich in engravings, from original photographs, will be sent FREE, to all who apply. Customers of last season need not write for it. I offer one of the largest collections of vegetable seed ever sent out by any seed huse in America, a large portion of which were grown on my six seed farms. *Printed directions for cultivation on each package.* All seed *warranted to be both fresh and true to name*; so far, that should it prove otherwise, *I will refill the order gratis.* The original introducer of the Hubbard Squash, Phinney's Melon, Marblehead Cabbages, Mexican Corn, and scores of other vegetables, I invite the patronage of all *who are anxious o have their seed direct from the grower; fresh, true, and of the very best strain.*

NEW VEGETABLES A SPECIALTY.
JAMES J. H GREGORY, Marblehead, Mass.

NEW PROCESS

For Incubation & Artificial Hatching.

Apparatus, 100 eggs' capacity, $25, 41 gold and bronze medals and diplomas awarded to the inventor, PROF. A. CORBETT, 7 Warren St., N. Y. City. Send for Circular

HORSFORD'S Bread Preparation

UNSURPASSED FOR MAKING

LIGHT BREAD

Biscuit, Rolls, Cake and Pastry.

It is Better and Healthier than ordinary Baking Powder, Cream Tartar or Yeast.

The cost of raising Bread, Biscuit, &c., with it is only about half as much as by ordinary Baking Powder, and the result is much better.

It restores the nutritious elements which are taken from the flour in bolting. No ordinary Baking Powder or anything else used for raising bread does this.

Universally used and recommended by prominent Physicians.

If you cannot get it of your Grocer send a three-cent stamp to the manufacturers for a sample.

Manufactured according to the directions of Prof. E. N. Horsford, by the Rumford Chemical Works Providence R. I.

Halladay Standard.

The only Wind Mill awarded

TWO MEDALS

and

TWO DIPLOMAS

by the

CENTENNIAL JUDGES.

Every machine warranted to be well made of good material; to do good work in any kind of wind; to be perfectly self regulating; to possess more power and to be more reliable than any other Wind Mill made.

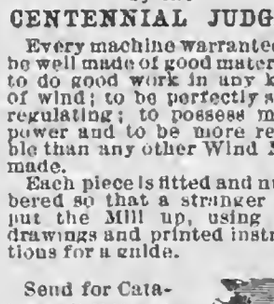
Each piece is fitted and numbered so that a stranger can put the Mill up, using our drawings and printed instructions for a guide.

Send for Catalogue "B" and Price List.

U. S. WIND ENGINE & PUMP CO., BATAVIA, ILL.

GREAT OFFER FOR THIS MONTH

We will during THIS MONTH dispose of 100 PIANOS & ORGANS, at EXTRAORDINARY LOW prices for cash. SPLENDID ORGANS 2 3-5 sets of reeds $70, 3 sets with Sub Bass and Coupler $85, 2 sets $55, 1 do $40. 7 Octave *all* ROSEWOOD PIANOS $130, 7 1-3 do $140, do $150, warranted SIX years. AGENTS WANTED. Illustrated Catalogues Mailed. Music at half price. HORACE WATERS & SONS, Manf'rs and Dealers, 40 East 14th., St., N. Y



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Awarded 1st Prize Medal over all others.

We build 17 sizes Wind Mills for Farm Pumps and Power Purposes

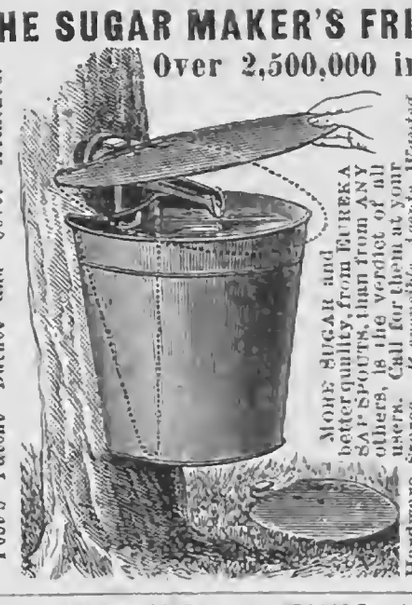
The strongest Wind Mill in the world.

Send for Catalogue No. 4.

ECLIPSE WIND MILL CO. Beloit, Wis.

THE SUGAR MAKER'S FRIEND.

Over 2,500,000 in Use.



MITCHELL, LEWIS & CO.

Racine, Wis.,

MANUFACTURERS OF

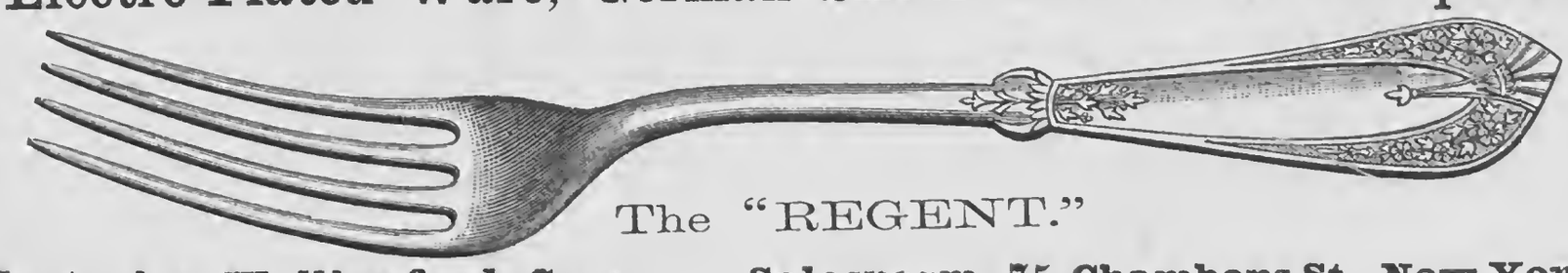
Farm and Spring WAGONS.

Our Wagons are unequaled in quality and finish, and are Monarchs of the Road, where ever known and used.

Send for Descriptive Price List.

HALL, ELTON & CO.,

Electro-Plated Ware, German Silver and Britannia Spoons.



The "REGENT."

Factories, Wallingford, Conn. Salesroom, 75 Chambers St., New York.

Domestic Economy.

CONDUCTED BY EMILY MAPLE.

ONE OF THE FOOLISH WOMEN.

ADELINE E. STORY.

"WHATEVER is worth doing at all, is worth doing well," is a proverb which many housewives improve upon after this fashion: "If it's worth while to do a thing, do it, and be quick about it."

"Now for it!" says Mrs. Dash, as she gets up from the table before the others are half done their breakfasts. "I've got to 'pitch in' to-day, if ever I did. I never should get anything done if I was as slow as some folks."

There is a scattering from the table. Ding-ding-dingle. Swi-i-sh! Clat-clat-clat-ter! the dishes are done. Next, Mrs. Dash flies over the floors in a sort of frenzy that would be alarming, were it not so *domestic*. The dust flies—chairs dance around and against one another. The cat scampers out at the door, and the dog goes after her. The broom swings on its nail in the corner, and the house is swept.

What next? The beds!—the chambers to be put to rights! Mrs. Dash goes up stairs as though an evil spirit were chasing her, and before you have had time to more than wonder how many beds there are to make, and how many rooms to be righted, down she comes again, two steps at a time, you verily believe. Finding the dust settled she seizes the duster, and whisk!—the furniture is as bright as new. Now with a plunge she is out of sight again. This time it is down stairs, instead of up. You speculate for a few minutes as to what she is doing in the cellar, and she is before you. She has skimmed the milk, worked over and packed yesterday's butter, and given the cellar a thorough straightening up. She looks tired and a bit flurried, you think. Well, perhaps she does, but you little know the woman, or her way of "pitching in," if you imagine she is going to flag in the least. You take an easy chair "to think her over," and while you are undecided whether this is one of the "smartest" women in the world, or the "biggest fool," she bounds into the room, throws herself into the nearest chair for just one-half minute, and as she fans her flushed and sweat-covered face with whatever she can first lay hands on, a hat, a newspaper, or her apron, she tells you that she has "mopped the kitchen floor, blacked the stove, swept the back yard, made a cake for tea and a pie for dinner, canned several quarts of fruit, and washed the windows." Her hair needs combing, but she hasn't time for that now; so by way of compromise she takes out the pins and *shakes it out*. Then twisting it into a knot again, she looks at the clock and exclaims:—"A whole half-a-day's work done in two hours and a-half! That's what I call 'pitching in.'" And before you have time to utter a word of protest against what you regard as a most wicked waste of the vital forces, she is off like a flash to attend to other things.

Mrs. Dash's clothes are always clean and whole; beyond that, she pays very little attention to her personal appearance. Collars and cuffs she wears only on Sundays or when she "fixes up" to go with Mr. Dash to town to "do her trading." She has no time to bother with collars, and as for the cuffs, she couldn't wear them if she would, for her sleeves, even when she sits down to her meals, are always rolled elbow high.

Mrs. Dash's children go to school with faces shining with soap-suds and dresses starched uncomfortably stiff. If their hair is braided so tight it hurts them to wink, so much the better; they will be less likely to go to sleep over their lessons. At noon they eat mince pie and cakes soggy with richness till not an idea, original or otherwise, can enter their heads, for Mrs. Dash is determined that *her* children shall have enough to eat. At night the little wretches go home to a hot supper, after which they romp outside "out of the mother's way" till bed-time, when they are pitched into bed two at a time, and left to their slumbers or the nightmare.

When Mrs. Dash has worn herself out and dies—which will be before she is forty—her successor will find the house "chock full," from garret to cellar, of things for her comfort, and that is the only comforting thought to be had in connection with her.

LOG-CABIN SKETCHES; OR, JESSIE SEABRIGHT'S DIARY.—No. 2.

MAY MAPLE.

Nov. 20, 18—. I have at last persuaded John to saw out the logs and set the window sashes lower; so I can look out upon the really beautiful scenery about our cabin home, while seated at my work. The upper part of the window he boarded up with some elm "shake." A couple of sheets, ripped apart half way, make long curtains, and when looped back each side of the tiny window, hide the place of the vacant sash and yet admit all the light. The grimy old walls I have covered with fresh clean newspaper; also the ceiling overhead; it was hard work, but now it is done, it pays well. The room looks clean and cheerful. And I can't help feeling that I have walked out of a prison cell into a sanctuary. I had almost forgotten to say that my light wall paper is bordered with evergreens. The little cedar swamp north of the house is a mine of wealth for beautiful borderings. I basted the little twigs on strips of coarse brown paper and then tacked the strips firmly to the wall; not forgetting to nail a strip over the top o each window curtain and another over the door They will keep bright a long time; and one who has not seen a room trimmed in this way can scarcely imagine how beautiful it appears.

There were shelves for the dishes in one corner near the stove, put up, I suppose, by our predecessor. But I did not like the arrangement very well, and tried to have John either make a cupboard or partition off a pantry. But he had no boards. And he is like most other men—he has but little time, and is still less disposed to fix up house conveniences. "Mrs. L. got along with those shelves; why can't you?"

I am silenced, for there is no use of having a war of words. "But 'where there's a will there's a way,' and I'll manage some way to have a different arrangement for my dishes and victuals," was what I observed to myself, as I spread papers here and cloths there to keep out the dust that is always flying about.

The other day I called on Mrs. Gordon; while there I noticed a couple of dry goods boxes in the yard, which had the appearance of standing empty a long time. At once I "struck up" a bargain for them. Mrs. Gordon had a large family of children, and of course plenty of work to do, but not much means to hire work done. Now we could both be accommodated. I would sew for her, and receive those boxes for pay. As Mr. Gordon was going by our house that day he would take them along and leave them in the yard. After cutting and fitting some work I turned my steps homeward, determined to surprise John when he came home from his work at night.

The first thing to be done was to thoroughly cleanse the boxes; and then hammer, nails and saw were sought and easily found, for John likes to keep his tools where he can find them readily. Fortune favored me, for there was a pile of "shake" (short boards, riven from elm logs, about two and a half feet in length, used for roofing instead of shingle, and sometimes it is used for siding by pioneers,) out by the fence, just long enough for shelves to put into my boxes; so I had only to nail in a few cleats for the shelves to rest upon. The old shelf boards were taken down and used for casings and doors; some bits of leather answered for hinges; the little box was put upon the larger one, for they were not of the same width, though as they stood now they were alike in length; some papers put upon the deep shelves, the dishes placed in clusters upon them, and behold a snug cupboard, which reached almost from floor to ceiling; and when the doors were all closed, but little if any dust would find its way inside. In the absence of paint, newspapers were pasted on the outside, corresponding with the walls of the room.

"Pretty well done," said John, as he examined my handiwork, when he came in for supper. "What a pity it is I'm not able to get you a set of carpenter's tools."

DOMESTIC RECIPES.

Corn Meal Gruel.

Take a pint of meal, pour over a quart of water, stir up, settle a moment and pour off; repeat three times; then pour over the washed meal about three quarts of cold water and let boil very slowly for two or three hours; thin with milk or cream and season with a little salt.

Johnny Cake.

One cup of sweet milk; one egg; six tablespoonfuls of corn meal; three tablespoonfuls of flour; three tablespoonfuls of sugar; a little salt and two-thirds of a teaspoonful of soda and one of cream-of-tartar. MRS. J. H. S.

Corn Meal Pudding.

Scald one quart of sweet milk, and while boiling stir in corn meal until of the consistency of pan-cake batter; take from the fire and stir in four well beaten eggs; one cup of sugar, and nutmeg to suit the taste; pour into a pudding dish and bake in a moderate oven two hours; serve with a hard or liquid sauce.

Cracked Corn or Samp.

This is a dish which my family relish with meat and gravy, and one which ought to be found oftener upon the farmers' table. Wash, and put to boil with five or six times its measure of water, and let cook slowly for several hours until perfectly tender; season with butter, pepper and salt. MRS. W. H. Y.

Corn Meal Pancakes.

Sift one pint of corn meal and pour over boiling milk until a little thinner than mush. When cool add the beaten yelks of four eggs, half a cup of flour and a little salt; add milk enough to make the batter suitable to bake, and last stir in the beaten whites and three teaspoonfuls of baking powder mixed with a trifle of flour. MRS. O. M.
Auburn.

Corn Meal Pudding with Fruit.

Three pints of new milk; one heaping cup of corn meal, and one even cup of flour; four beaten eggs; one cup of white sugar; two tablespoonfuls of melted butter; one-half pound of raisins cut and seeded; one teaspoonful each of salt and cinnamon; three teaspoonfuls of baking powder sifted with the flour. Scald the milk and stir in the meal then add the sugar, beaten eggs, butter, spice and fruit, well dredged with flour. When well mixed sift in the flour and beat fast for two minutes. Bake in a buttered dish in a well-heated oven. It will be done in from forty-five minutes to an hour. Should it brown too fast cover with paper. Eat as soon as done with creamed butter and sugar.

Corn Muffins.

Sift together one cup of corn meal and two of flour; cream; one-half teacupful of broken butter; beat three eggs, yelks and whites separately; turn the butter, eggs and one teacupful of sugar into the center of the flour and meal; beat to a batter in the center and then add two cups of rich, sour milk, into which 1½ teaspoonful of soda has just been dissolved; add a teaspoonful of salt and beat quickly until smooth and light. Bake in hot muffin-rings or gem-pans in a quick oven. MARY B.

Hominy Cakes.

Take one pint, after it has been cooked; add two eggs, the yelks and whites beaten separately and salt to taste; drop in spoonfuls on well buttered in plates and bake to a nice brown.

Fried Mush.

Cold mush sliced thin and fried in a little hot lard makes a delicious breakfast relish, and when eaten with molasses, or, better still, maple sirup, it makes a most palatable desert. MRS. W.
Iowa.

Corn Bread.

Three beaten eggs; one quart of good sour milk; two tablespoonfuls of melted butter; one tablespoonful of sugar; one teaspoonful of salt; a handful of flour and enough sifted corn-meal to make a thick batter; the last thing stir in a heaping teaspoonful of soda dissolved in a little water. Stir briskly and bake in a dripping-pan.
Ohio. MRS. L. M. W.

The Puzzler.

SYNCOPATIONS.

1. SYNCOPATE a place on the Great Desert, and leave a verb in the imperfect tense.
2. A city of Morocco, and leave a French negative.
3. Part of the Great Desert, and leave part of "diamond cut diamond."
4. Mountains of Fezzan, and leave behind.
5. A city of Mozambique, and leave a large body of water.
6. A river of Soudan, and leave a pronoun.
7. A river of Soudan, and leave a mode of entrance.
8. Mountains of Liberia, and leave corpulence.
9. A lake of Thibet, and leave a head.
10. A river of France, and leave the god of poesy.
11. A river of Bavaria, and leave a city of China.
12. A river of Austria, and leave a preposition.
13. A river of Turkey, and leave a noise.
14. A river of France, and leave a color.
15. A city of Spain, and leave an adverb.
16. A city of Spain, and leave the abbreviation.
17. A cape of Spain, and leave a negative.
18. A cape of Spain, and leave companions.
19. A river of England, and leave an auction.
20. A river of Ireland, and leave a title.
21. One of the Channel Isles, and leave sewing.
22. A river of Scotland, and leave to look.
23. An island near Scotland, and leave a girl's name.
24. One of the Orkney Isles, and leave a city of Arabia.
25. A river of Scotland, and leave a river of England.

☞ Answer in two weeks. LITTLE ONE.

PUZZLER ANSWERS.—Feb. 22.

GEOGRAPHICAL ACROSTIC.—Williamsburg.
CROSS-WORD ENIGMA.—Calvert and Carroll.
DIAMOND PUZZLE—

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PARKS
AVOIDED
CHRISTMAS
HISTORY
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TRIPLE ACROSTIC.—Primals, Lime; centrals, Pear; finals, Date.

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20 VERBENAS	20 "	1
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10 GERANIUMS	10 "	1
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50 Sweet Chestnut *or* 50 Catalpa Trees		1

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PERSONAL ITEMS.

Mrs. Livermore is lecturing on "The Other Side of the Water" on this side of the water.

The Rev. Woo-Hoong-Niok-Bau-Tsih-Dzae is one of the pastors residing in Shanghai China.

John W. Young, Brigham's son, has just taken his fifth wife. This in spite of the anti-polygamy decision of the Supreme Court.

The smallest pianist in the world, Signor Luigi Gustavo Fazio di Plinto da Campo Basso, is now in Rome. He is only two feet high—about as long as his name. He is said to be extremely clever.

Miss Hadie Heller, with the co-operation of Mrs. Stephen Fiske, is preparing a life of the late Robert Heller, Mrs. Fiske was formerly Mrs. M. H. Burnham, well known as a New York correspondent.

Bertha von Hillern is the pioneer of female pedestrianism. She laid away for a rainy day between $6,000 and $7,000 during the time she gave exhibitions before the present mania for walking broke out.

Princess Matilda, the niece of the King of Saxony, is one of the few marriageable daughters of Roman Catholic reigning houses, and has been for some time spoken of as the future Crown Princess of Austria.

Mrs. J. J. Astor, within the past ten years, has provided homes in the country for four hundred and fifty boys from six to eighteen years of age, at an expense of $6,700. These boys are self-supporting and doing well.

Jay Gould made $7,000,000 by his recent "failure." The Washington Post thinks if Mr. Gould would consent to give lessons in this art of "failing," he would, in all probability, earn as much more within a very short period.

David Bailey, who died at Cambridge, Me., several days ago, at the age of 80 years, was probably one of the oldest postmasters in the United States. He was appointed by Adams in 1828, and held the place continuously until his death, over half a century.

Fred. W. Vanderbilt, a son of W. H. Vanderbilt, and heir to $2,000,000 from his grandfather's estate, has been getting married on the sly. The deed was done on the 17th of December last, and was kept a secret until last week. The bride was formerly Miss Louisa Holmes Anthony, and is the divorced wife of Daniel Torrence, a cousin of the young husband.

President Grevy's salary will be $120,000 with an addition of $10,000 for table money and $20,000 for office expenses. He is a man of composed and well-balanced mind, whose pulse beat no quicker after his elevation than before. "Monsieur Gambetta, my bed will not be altogether one of roses," he said with demure good humor to the great tribune who called to congratulate him.

A monument of granite, in a niche of which is a well-finished bust of the late Barney Williams, has recently been reared in Greenwood cemetery, Brooklyn, in the family plot of the deceased famous Irish comedian, on Battle avenue, near Verdant path. The bust, which is an excellent likeness, is the work of the sculptor John McNamee of Florence, Italy. On the surbase of the monument is the following inscription: "Bernard Flaherty, 'Barney Williams.' Born June 10, 1824. Died April 28, 1876. Williams."

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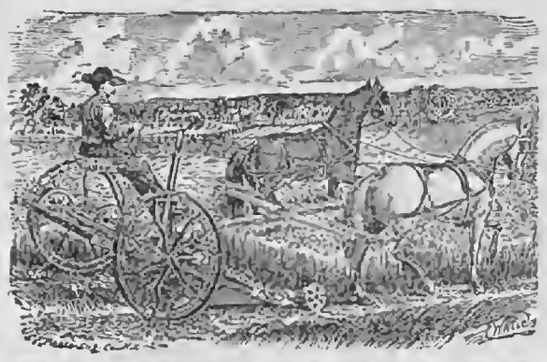

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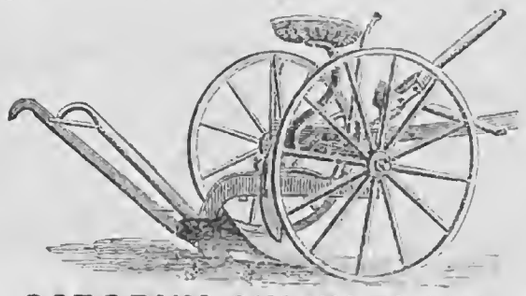

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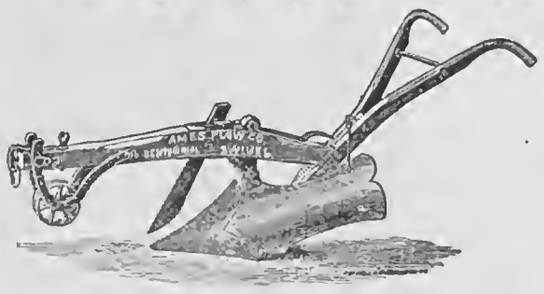

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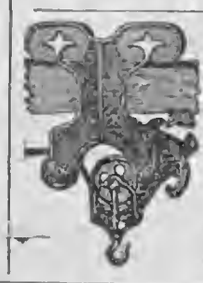

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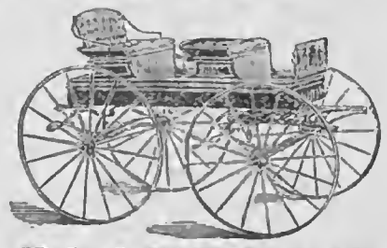

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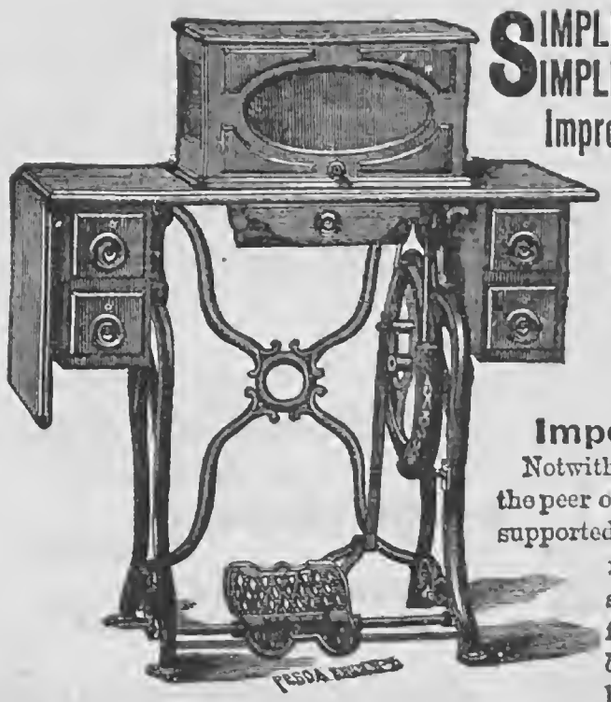

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Net Surplus, over..... $216,000 00
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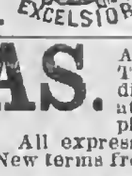
Every Man His Own Printer.  $3 Press Prints cards, etc. (Self-inker $5) 9 Larger size For business, pleasure, young or old. Catalogue of Presses, Type, Etc for 2 stamps. KELSEY & Co. Meriden, Conn.

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OUR CORN FESTIVAL.

THIRTY-FOURTH ANNUAL REPORT

OF THE

New York Life Insurance Company,

Office, Nos. 346 and 348 Broadway.

January 1, 1879.

Amount of Net Cash Assets, Jan. 1, 1878.....$34,452,905 29

REVENUE ACCOUNT.

Premiums received and deferred	$6,121,856 04	
Less deferred premiums, Jan. 1, 1878	396,289 26	—5,725,566 78
Interest received and accrued	2,264,560 48	
Less interest accrued Jan. 1, 1878	315,895 35	—1,948,635 13— 7,674,231 91
		$42,127,137 20

DISBURSEMENT ACCOUNT.

Losses by death, including reversionary additions to same	$1,687,675 61	
Endowments matured and discounted, including reversionary additions to same	673,051 74	
Life annuities and reinsurances	231,005 29	
Dividends and returned premiums on canceled policies	2,288,674 25	
Commissions, brokerages, agency expenses and physicians' fees	518,809 94	
Taxes, office and law expenses, salaries, advertising, printing, &c	417,258 78	
Reduction of values on United States and other stocks	88,035 00	
Profit and loss account	8,568 98	— 5,913,679 59
		$36,213,457 61

ASSETS.

Cash in bank, on hand and in transit (since received)	$912,839 43	
Invested in United States, New York City and other stocks (market value, $15,415,105 34)	14,791,267 72	
Real estate	4,582,270 42	
Bonds and mortgages, first lien on real estate, (buildings thereon insured for $12,800,000, and the policies assigned to the Company as additional collateral security)	14,364,158 43	
*Loans on existing policies (the reserve held by the Company on these policies amounts to $3,225,04)	621,084 93	
*Quarterly and semi-annual premiums on existing policies, due subsequent to Jan. 1, 1879	379,839 09	
*Premiums on existing policies in course of transmission and collection (estimated reserve on these policies $590,000, included in liabilities)	146,834 75	
Agents' balances	88,036 91	
Accrued interest on investments to Jan. 1, 1879	306,225 93	—36,213,457 61
A detailed schedule of these items will accompany the usual annual report filed with the Insurance Department of the State of New York.		
Excess of market value of securities over cost		623,837 62
CASH ASSETS, Jan. 1, 1879,		$36,837,295 23

APPROPRIATED AS FOLLOWS:

Adjusted losses, due subsequent to Jan. 1, 1879	$399,486 68	
Reported losses, awaiting proof, &c	180,993 39	
Matured endowments, due and unpaid	19,601 07	
Reserved for reinsurance on existing policies: participating insurance at four per cent. Carlisle, net premium; non-participating at five per cent. Carlisle, net premium	32,369,333 40	
Reserved for contingent liabilities to Tontine Dividend Fund over and above a four per cent. reserve on existing policies of that class	1,041,456 87	
Reserve for premiums paid in advance	14,997 18	—34,025,858 59
Divisible surplus at 4 per cent		2,811,436 64
		$36,837,295 23

Surplus, estimated by the New York State Standard at 4 1-2 per cent., over $6,500,000 00.

From the undivided surplus of $2,811,436 61 the Board of Trustees has declared a Reversionary Dividend to participating policies in proportion to their contributions to surplus, available on settlement of next annual premium.

During the year 5,082 policies have been issued, insuring $15,949,986.

Number of policies in force Jan. 1, 1876, 44,661. Amount at risk, $126,132,119.
Number of policies in force Jan. 1, 1877. 45,421. Amount at risk, 127,748,473.
Number of policies in force Jan. 1, 1878, 45,605. Amount at risk, 17,2901,887.
Number of policies in force Jan. 1, 1879. 45,005. Amount at risk, 125,232,144.

Death-Claims paid 1875, $1,524,815. Income from Interest, 1875, $1,870,658.
Death-Claims paid 1876, 1,547,648. Income from Interest, 1876, 1,906,950.
Death-Claims paid 1877, 1,638,128. Income from Interest, 1877, 1,867,457.
Death-Claims paid 1878, 1,687,676. Income from Interest, 1878 1,948,665.

Divisible surplus at 4 per cent. Jan. 1, 1876, $2,499,656.
Divisible surplus at 4 per cent. Jan. 1, 1877, 2,626,816.
Divisible surplus at 4 per cent. Jan. 1, 1878, 2,664,144.
Divisible surplus at 4 per cent. Jan. 1, 1879, 2,811,436.

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$1.00 " quart " "
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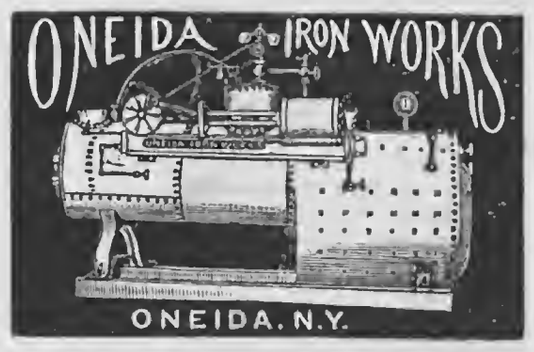

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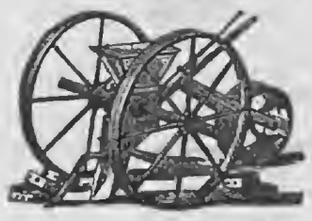
The Monitor.



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Grist Mills
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FRENCH BUHR STONE
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ACUTE OR CHRONIC
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THE RURAL NEW-YORKER

A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME

PHOTO ENG. CO. N.Y.

VOL. XXXVIII. No. 11.
WHOLE No. 1520.

NEW YORK CITY, MARCH 15, 1879.

PRICE FIVE CENTS.
$2.00 PER YEAR.

[Entered according to Act of Congress, in the year 1879, by the Rural Publishing Company, in the office of the Librarian of Congress at Washington.]

Rural Architecture.

A FEW AXIOMS IN BARN-BUILDING.—4.

W. I. CHAMBERLAIN.

The Water Supply.

THE axiom already referred to, that we should make the force of gravitation *help and not hinder us*, has one of its most important applications in the water supply for the barn. If there is a spring near, the force of gravity can usually be made to send it into the barn for the use of the stock, either with or without the help of the hydraulic ram. Where there is unfailing water in a well near by, the force of the wind can be made to overcome the force of gravity, and pump the water for the stock. Both these methods are good when applicable, and are usually well understood.

But in most dairy regions the soil is clayey, springs are few, and water in sufficient quantity often cannot be obtained even by deep digging. In that case what shall we do?

A barn that stables stock and stores their hay, grain and straw, will catch water enough on its roof to water the animals at least nine months in the year. If it is a bank barn, with stock in a part of the basement, as it should always be for a stock barn, the cistern can be a long brick arch, above in the bank, next to the front wall of the barn, and the water will come down into the basement through a pipe laid below the front wall, for the use of stock. A long, arched cistern, seven feet wide and seven feet high, will hold over ten barrels to every foot of length. If it is 50 feet long, as it may easily be for a large bank barn, it will hold 500 barrels which will store the average rainfall of six weeks on a barn of 45x90 feet, and water the stock likely to be kept in such a barn, say 30 or 40 head of cattle, for as long a time in case of dry or frozen weather. By that time the roof will probably replenish it.

Fig. 1 represents the water-tank, and connection with cistern in use in the writer's barn. The distance from cistern to tank is shortened, and the cistern made lower and smaller than the reality, so as to bring it into one figure. The tank should be placed in that part of the basement where it will be most convenient for the watering of all the stock. It may be, by hose and stop-cock, put in direct communication with a system of iron sinks, one in front of each cow, connected by iron tubing so that all the cows can be watered at once, by simply turning the stop-cock. Such an arrangement is found in some of the more expensive barns at the East, and was fully described and explained by engravings in the RURAL NEW-YORKER, a few weeks ago. In my own case—and the same would be true of most Western farmers — the expense and the waste of surplus water after watering, prevented the introduction of this system of sinks or basins. The horses drink from the tank, and the cows are watered in their feed-tubs, by dipping from the tank with a six-gallon pail, the tank being immediately in front of the row of cows. Thirty cows can be watered in fifteen minutes or so; more quickly than they could drink from the tank one at a time.

The water in the cistern when full, is some four feet above the level of the top of the tank (See Fig. 1), and, of course, would overflow till it fell to that level if not hindered by some device. Such a device is represented in the figure. In short, it is this: a float rising and falling with the water, opens and shuts the stop-cock that admits the water from the cistern. The tank, k, is sunk two feet below the basement stable floor. One foot from its bottom enters the iron supply pipe a, a, from the *bottom* of the *cistern*. At 3 is a stopcock, lying horizontally and worked by the lever, c, s. The iron rod, c d, joins the end of this lever to another lever, f e, at the point d, which is about one-fourth the distance from the pivot e to the float, f. This is a light, hollow, copper globe, about five inches in diameter, and by the aid of the double lever, it opens and shuts the stop-cock easily.

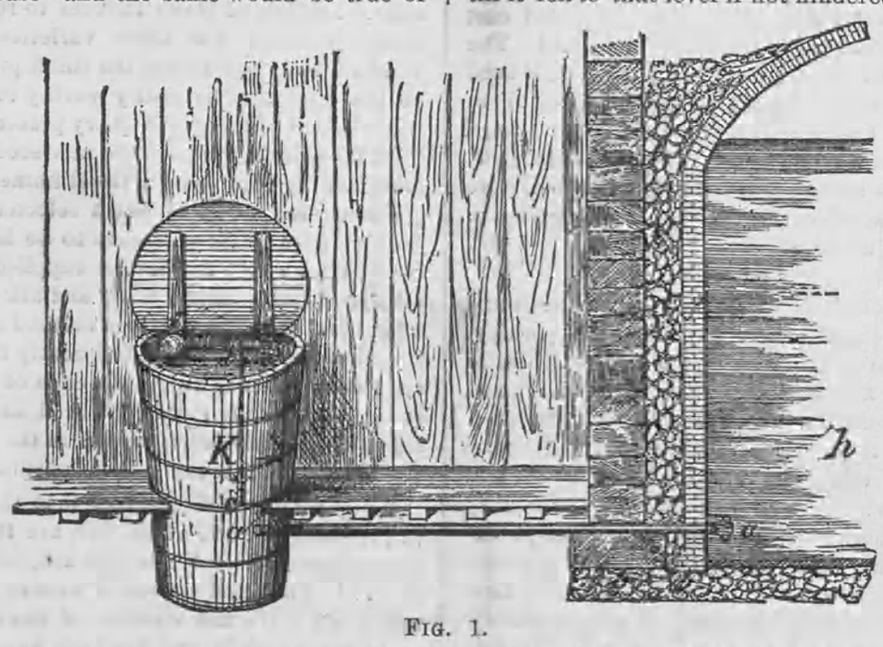


FIG. 1.

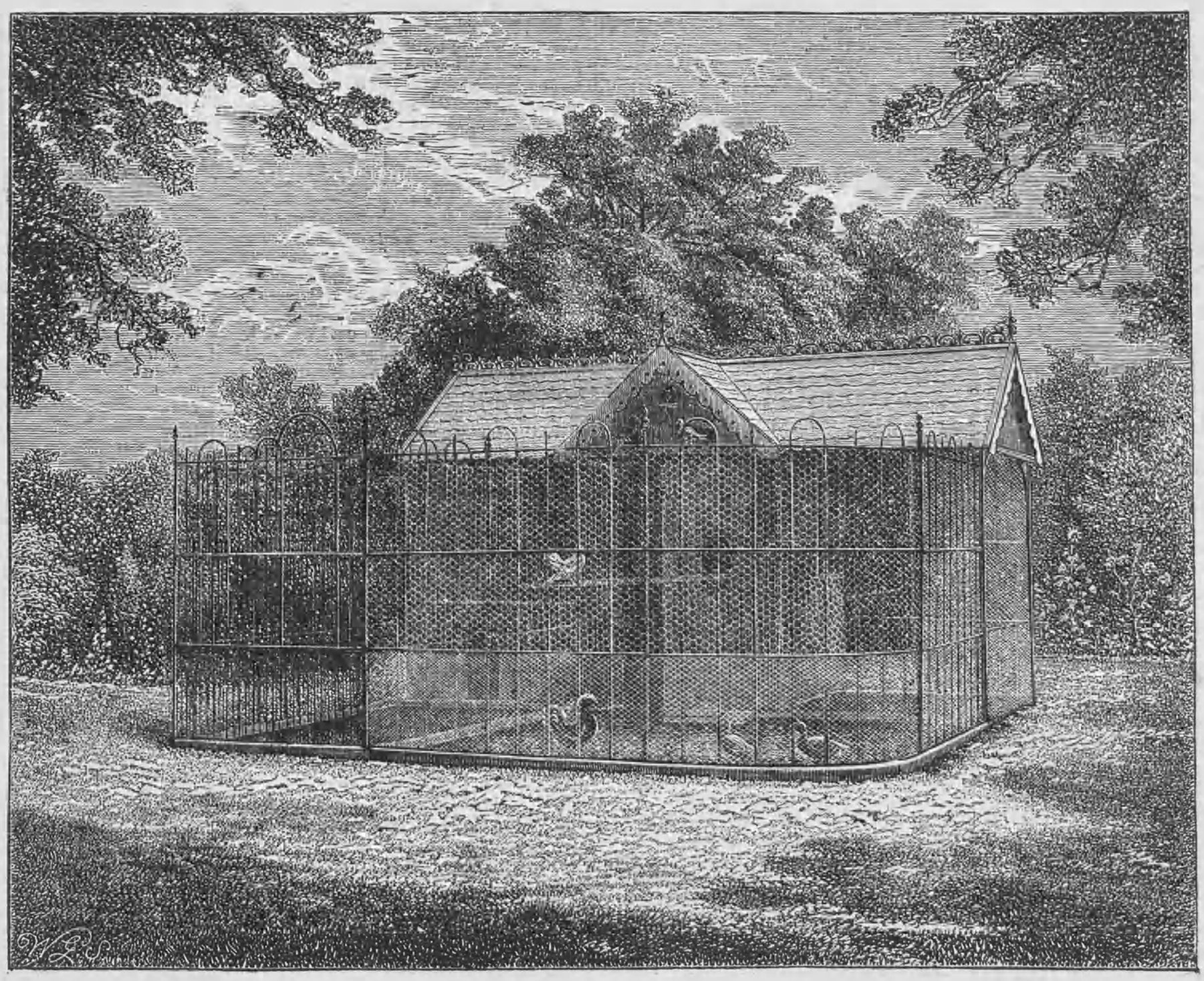
The apparatus works as follows: suppose the cistern full and the tank empty. The globe or float, f, drops by its own weight about a foot to a rest. This lowers the rod d c, and of course, also the lever c s, and turns the stop-cock, s, wide open. The water rushes in from the cistern, gradually fills the tank, lifts the float, f, and slowly closes the stop-cock. When the tank is full, lacking four inches, the float-lever, f e, is horizontal, the float just hits the cover and the stop-cock is shut perfectly tight. When the water is drank or dipped out, the float sinks and opens the stop-cock and admits the water again; and so on day after day and year after year. Mine has been in daily use for almost five years now, and in all the time has never required the slightest attention or repairs, and has never once failed to do its work exactly right. My Irishman says, "Be jabers, it's the hondiest pump in Amiriky!" There is no patent on it, and the more it is copied, the better I shall be pleased. Some dig a deep cistern in the hard-pan of the basement, or just out-of-doors, and then laboriously pump up the water. But it is far easier to dig a long cistern in the bank above, for half the digging is done by the grading of the bank. And when the cistern is there, it needs no pump. The cost of tank, pipe and fixtures was $12.

In these articles I have given a few only of the self-evident truths which have a bearing on the planning and construction of barns, and have suggested a few of the most obvious and useful of their applications. If any of my brother farmers who are about to build, shall be led by these hints to think out, and plan for themselves, rather than simply to copy the barns most common in their vicinity—good, bad or indifferent,—my object will have been fully gained.

Summit Co., O.

USEFUL POULTRY-HOUSE.

THE highest point of excellence is supposed to be reached whenever the eminently useful and ornamental can be combined in any one object. The engraving portrays a poultry-house, which was exhibited last fall in the



COMBINED POULTRY-HOUSE, DOVE-COTE, AVIARY AND DOG-KENNEL.

Crystal Palace, London, for which such excellence can be claimed. This structure is especially suitable for those of our readers whose premises are of limited extent, and who will not allow the chickens to run over and scratch up the few petted flowers and choice vegetables they raise, yet cannot forego the luxury of fresh-laid eggs and roast chicken.

All kinds of poultry can be kept in such a house, and by providing it with movable partitions for the roomy yard, each variety, or particular individual, can be kept separately, if desired. There is also a dove-cote in the top, a dog-kennel in one end, and at the other an aviary, in which may be confined sweet songsters and birds valued for their beautiful plumage.

Ordinary poultry-houses, though they may be very serviceable, are generally built of rough materials and present anything but an agreeable appearance; but this, besides being useful, can be placed on the lawn as an ornament that will add much to the attractions of the place.

Farm Economy.

THE EFFECTS OF PLASTER.

HENRY STEWART.

UNDER certain circumstances plaster is a very effective fertilizer; sometimes, however, no effect whatever is noticed from its application. It is not strange, therefore, that many mistaken ideas as to its properties should be current, not only among farmers, but also with some well-informed scientific men. One of these errors is that plaster acts favorably by absorbing water and conveying it to plants. This is a remarkably palpable error, as can be shown by a simple statement of the properties of plaster.

This substance is sometimes said to consist of sulphate of lime in combination with water, in the proportions of sulpheric acid, 46½ per cent.; lime, 32½ per cent., and water, 21 per cent. But this is gypsum, and not plaster at all. Gypsum becomes plaster when it is burned and the combined water is driven off. In the process of burning or "boiling" ground gypsum, the water escapes in steam as bubbles, as when water is boiled. This is known to many who have prepared the gypsum for uses as plaster. When water is added to the plaster, it again enters into combination with it, and the soft paste speedily sets and becomes hard and solid. Herein lies the basis of the popular error. Gypsum already contains all the water it can hold and can take up no more, so that it can in no way furnish any to plants excepting when it is decomposed chemically and the water contained in it is set free. But this is so insignificant a quantity, being only 21 pounds in 100 pounds of plaster—which is a large amount to apply to one acre—that it is of no practical account and may as well be passed over without further consideration.

Again, the gypsum—plaster, so-called—is supposed to absorb ammonia from the atmosphere, and so bring it within the reach of plants. But this is quite a gratuitous assumption, because water, which is abundantly present in the air at the driest seasons, has a much greater affinity for ammonia than the gypsum has. Cold water will absorb 700 times its volume of ammonia, while the gypsum can only act by parting with its sulphuric acid, which then combines with whatever ammonia may be present, in equal parts; thus one part of ammonia with one part of water combines with one part of sulphuric acid and one part of water, forming sulphate of ammonia. The chemical formula may be given, so as to be readily understood, as follows:

Ammonia is H3 N	Sulphate of Ammonia	
Water is H2 O	is	
Sulph. acid is H2 S O1		
Water is H2 O	2 N H3 plus	H2 S O4

H stands for hydrogen; N, for nitrogen; O, for oxygen; and S, for sulphur; the small figures denote the number of the equivalents of each element. Thus the power of absorbing ammonia from the atmosphere, exerted by gypsum, is of little account as compared with the enormous capacity of water for the same gas.

Here may be mentioned a mistake sometimes made by persons who really know more than many about chemistry. This is, that gypsum will absorb ammonia, when it is dry. To test this question, let one take a bottle of common ammonia water of the drug stores, remove the cork and tie over the mouth of the bottle a piece of fine muslin. The vapor of the ammonia will be found to escape in a pungent stream. If the muslin is covered with a quantity of finely-ground, dry gypsum, there will be perceived no diminution of the pungent smell. Then after exposure in this way, if the gypsum be heated in a capsule, there will be no scent of ammonia perceived. It is true this is a rough experiment, but it shows enough to prove the fact.

One valuable use for gypsum is to take up the odor of stables or manure heaps by scattering it on the floors or in the yards. This is effective in absorbing the ammonia, and probably also in decomposing the sulphuretted hydrogen—which really causes the most disagreeable smell from manure—as a reaction consequent on the freeing of the lime of the gypsum from its acid. But this effect only occurs, so far as moisture is present; and, of course, can be helped greatly by the occasional dashing of a few pails of water upon the stable floors.

The truth is, *probably*, that gypsum acts as a fertilizer directly, just as lime or potash does, and when dissolved in water may enter the plant in its perfect state: or otherwise in its elements, as lime or sulphuric acid when decomposed, and also in combination of these with ammonia or nitric acid or other substances. This is *probable*; for as to its real action, no one seems to know the precise truth of it.

MORE ABOUT PEAT MUCK.

GEN. W. H. NOBLE, BRIDGEPORT, CONN.

IN the RURAL of February 8th, it is said: "Raw muck is totally inert until decomposed by time or a fermenting compost, or by lime, wood-ashes or potash salts."

The best results with peat muck are doubtless reached by the above method. But excellent manurial value can be had out of it, pure and simple, by shorter ways. If farmers, for some crops and for some lands, are hard driven for a full supply of enrichment, I would cast on and spread right out of the muck bed. The average of these deposits will not harm, if used raw, on grass or grain, on plowed land or in orchard. I confess it is best to have the lumps spread and mashed down by roller and harrow. But at this season Nature's agencies will save us the delay of such work on the compost heap. Ahead of all these, stands

"Jack Frost."

Muck comes from its bed in unctuous and clay-like chunks that dry hard and lumpy. Peat is lifted from its layers in great clods of interlaced fibers, taking in moisture quickly and giving it out slowly. These keep in the summer's sun their shape and substance; but dump or spread either to face the open freeze and thaw of winter, and somehow all the acidity and the fibrous toughness of the lumps decamps. The whole mass breaks down into a fine muck-powder as light as ashes. Raw muck or peat that has stood the frost and thaw and leach of one winter in the open field, either broadcast or dumped in loads, looses its acid and inertness.

Varieties of Mucks and Peats.

It should be noted that there are different traits in both. Some of their deposits are so full of iron-rust and copperas, washed in from iron rocks and ore beds, that their harm is a great deal more than inertness. A little acid, or a little copperas, will not hurt our soils or crops. But, unlike learning, a good deal is sadly unwholesome. From the excess, peat has gotten, with some, a hard name.

Don't Wait for the Compost.

But if with good muck and peat you need to hurry up your crop food, and cannot wait for the compost-ferment, and have not the cash for the manure or salts to sweeten and unloosen its acid, or rouse its inertness, fear not, but right off in this freezing weather, cast it bountifully over any land you have. It's better to spread, but if just now you lack time and means, dump the loads—the frost will rend them into powder. The rain will drench out their acids. [? EDS.] In spring, with a heavy-loaded cedar brush, spread it, wholesale, in every direction.

Winter is the Time.

It is the time to drain, as well as to cart out muck. Labor is cheaper. Your work does not crowd, as in the seed-time, tilling or harvest. But, above all, the help of the elements should be sought for such winter work. I know some low lands are so drenched with floods and so water-logged, that you can hardly struggle against the flowage. Yet there are ways to do all needful work in spite of such hindrance. But I only started out to introduce some practical talk of some practical men on this topic of swamp drainage and muck.

NOW LISTEN TO THEIR WORDS.

Field Crops.

CORN IS KING.

E. WILLIAMS.

THE crop of 1877, according to the Report of the Department of Agriculture, was:

			Valued at
Corn	1,342,558,000	bush.	$480,643,400
Wheat	364,194,146	"	391,676,779
Rye	21,170,100	"	12,542,895
Oats	406,384,000	"	115,661,550
Barley	34,411,400	"	32,028,644
Hay	31,629,300	tons,	271,931,950
Cotton	4,500,000	bales, which, at 200 lbs. each, would be 900,000,000 lbs., which, at 10 cts. per lb.—about the average price now—would be	90,000,000

[An average bale of cotton is nearer to 400 than to 200 pounds.—EDS.]

Taking the preceding as the leading staples of the country, and assuming that the figures of the Statistician are approximately correct, corn can with propriety be crowned the King of all our agricultural products. For the production of maximum crops of this cereal, just as for others, the best seed is one of the most important requisites. In fact, it is held by some that it is only by careful selection of the seed, for a long series of years, that any great increase of productiveness can be obtained. It is claimed for several kinds of recent introduction that they have been brought to a degree of perfection superior to older sorts, through a careful and judicious selection of seed alone.

When the Judson branching corn was introduced, a few years ago, and illustrated and highly indorsed by the then editor of the RURAL, I thought a decided progress had been made, and I ventured to invest in seed enough to plant nearly an acre, only to find at harvest time that the whole crop was hardly worth the cost of the seed. Instead of the three, four and five ears to the stalk, I found at the most but two, and they were few and far between. A neighbor who has grown the White Prolific, of Tenn., for two seasons past, has, I learn, been disappointed, and will abandon it. [Of a great number of reports which we have received from widely separated parts of the country, with regard to this variety, this is the only instance in which its great merits are not acknowledged.—EDS.] Another has tried the Chester Co, Mammoth, of Pa., with like results. In view of these failures to realize the results claimed for these varieties, by the venders, and considering the small proportion of the crop that is really worthy to rank as the *very best* for seed, the query presents itself: "Do the purchasers of these new seeds get the cream of the seed or only the skimmed milk?"

But as the stock of extra selected seed of these new varieties will have to be largely increased before the masses are supplied, we will return to our common stock and ask: "What is the *best* seed and the best method of selecting such as we have?" I frequently find farmers who invariably reject the ends of the ears, reserving only the middle for seed, and I have seen this practice commended in the press, so that I suppose it is the general custom.

When we consider the fact that the kernels at the base, or butt, of the ear, are the first to set and mature. "We would ask, why reject them?" The chief reason or excuse generally given is: "It's the custom of the country," and I suppose it is, and has been handed down for generations past. My own custom is to select the best ear, from stalks bearing two ears if I can, and to reject only the top end, say one-third of its length, believing that by this course the productiveness and earliness are fully maintained, with a tendency to an increase in both directions, which could hardly be expected by pursuing the "custom of the country" in this matter.

A few years ago, after the close of the war, a newly-enfranchised citizen from Virginia entered our employ and, at corn-planting time, he insisted on discarding the butt kernels of the ear as well as the top, asserting that the middle of the ear only was fit for seed. On being asked his reason for this belief, he replied that he had always been taught to do so, and he knew the butt kernels were no good, 'cause they would grow so crooked on the ear you could not shell them; had done tried it, and knew. "Well, Sam," I replied, "we'll try it again," and I directed him to pick out enough of the crookedest and most irregular butt kernels he could find, so that with them I might plant five rows across the field, while it was agreed that he should plant the adjoining five rows with his choice of kernels from the middle of the ears. This was done, very much to his satisfaction, for he was certain that would give me a lesson at harvest time.

The rows were marked and treated alike in every respect. At maturity, the corn from each of the plots of five rows was cut and stacked by itself. At husking, each row of stacks was hauled at the same time, and each of us husked his own lot, the corn being thrown in heaps contiguous to each other. On completing the husking, I asked Sam which heap was the best: he unhesitatingly pronounced mine the best; and when told that was the result of his crooked kernels, he could hardly believe it. It is so long since that I have forgotten the measured results, but the most remarkable feature about it was the round and very uniform size of the ears and the entire absence of any nubbins. But Sam was most surprised to see the rows of corn on the ears as straight as any.

WHEAT GROWING IN SENECA CO., N. Y.

I HAVE lately purchased for shipment to New York a portion of a wheat crop so remarkable that it seems to me worth mention in the RURAL. This crop was grown the past season by that progressive and successful farmer, Martin L. Allen, who harvested 5,028 bushels from 140 acres—a fraction over 40 bushels per acre. When we consider that this crop was grown on land that gave a large yield of hay, wheat, barley and potatoes in 1877—not an acre having been fallow, a condition that so many think essential to success in growing wheat—it certainly is a very remarkable yield. The soil is a friable loam underlaid by limestone, well underdrained by nature, and has been under cultivation 60 years or more. The culture and preparation of the soil for this crop were thorough and complete, as will be evident to all from the results obtained.

The varieties grown were the Michigan White and Clawson, about equal areas of each, with very little if any difference in yield per acre; but the Clawson was the whiter and of more value for the New York market. The amount of seed sown was one and a half bushel, with 180 to 200 pounds of phosphate per acre drilled in with the seed. Time of sowing, after the middle of September to October 1st.

The above large average on so large an area, I think, can hardly be surpassed in the State; and, taken with the large yields of many others of our farms of less extent, it goes to show that we have among us some good farmers, and that Seneca Co. is coming back to its old-time fame of being one of the best, if not *the* best, wheat-producing county in the Union.

Seneca Falls, N. Y. L. F. C.

The Herdsman.

CRITICISING DAIRY COWS.

JONATHAN TALCOT.

IN the RURAL NEW-YORKER of January 4th, page 10, T. H. Hoskins, M.D., has given what I consider a very fair statement of the value of the Short-horns for the dairy, and it seems to me that if his statements are correct—and I have no doubt but that they are—it is too late for any writer to deny that they have any value as dairy cows, or to assert that they should not be found in any dairy farmer's herd. Yet it seems that there is at least one such writer who is writing a series of articles for the RURAL NEW-YORKER and who says in regard to Short-horns—"If I had my way I would no more consider the Short-horn a dairy cow than I would the Hereford, Polled Angus or Texas cow"—and in reference to Short-horns, if one may judge by his letters already published, he means the English, or Short-horn Durhams, but does not include the Dutch in their various short-horned branches, though these, too, are certainly entitled to that name. As a breeder of Short-horns, I am certainly willing that Mr. L. S. Hardin should have his own way about this matter; yet as he owns no cows and, so far as I have ever been able to learn from any of his published letters, never has owned or bred the different breeds with regard to whose milking qualities he proposes to enlighten the dairy farmer, I should like to know how he can judge of the dairy capabilities of the different breeds he discusses so freely, better than the practical dairyman who raises his own cows from either of the different breeds with which he may be familiar.

The fact is that Mr. Hardin, in his character of "Free Lance," which he assumes in his first letter, gets unduly excited and cuts and cleaves something he hardly knows what, till he exhausts himself; then sits down to see the results, and, frequently, if one may judge by his own letter, these results are not very satisfactory even to himself. If Mr. Hardin can take the letter of Dr. Hoskins in regard to the value of the Short-horn for the dairy, and prove that the statements contained therein are not correct, he will have done something towards sustaining his own "way," as he is pleased to write in his second letter, as published in the RURAL NEW-YORKER for Dec 21, page 809. In that letter Mr. Hardin says: "In this State—"Kentucky, I suppose Mr. H. means —" where Short-horn breeding is at the hight of its glory, the Short-horn cow has been weeded from the dairy. Her tendency, when fed rich food, to fatten and dry up rapidly, coupled with the waste of food in carrying several hundred pounds of useless flesh, has caused her most enthusiastic friends to desert her"—as a dairy cow Mr. Hardin means, no doubt. In the same letter Mr. Hardin says: "At the same time, it will not do to entirely pass over that ever-recurring argument for the Short-horn for the dairy, to the effect that when her milk gives out, she can be turned to a profitable beef animal." In the same letter also he says, "I am satisfied that no man on earth can make money fattening old dairy cows," also, "In fattening cattle, deliver me from old, pot-bellied cows, no matter what their blood."

Can Mr. Hardin reconcile these statements, although he has made them all in one short letter respecting Short-horns as one of the breeds of dairy cattle? If he can, he certainly will enlighten the writer, and no doubt a good many other readers of the RURAL NEW-YORKER. How a cow can be carrying several hundred pounds of useless flesh being dry, and at the same time be an old pot-bellied dairy cow that will

cost more to fatten than she would be worth when fattened, is a mystery to me that I should like to have explained if any person can do it satisfactorily.

In the course of my breeding I had a very fine dairy cow, as I thought, a high-grade Short-horn that was farrow, as I supposed. She was milked during the season and dried up, expecting to calve in the spring. She did not, neither did she ever have a turn of heat. She was sold in May, 1857, for $100, to the butcher, which I thought then paid me remarkably well, as she was not fed for the purpose of seeing what could be done with her; neither was it a time of inflation in prices. In the letter of Dr. Hoskins, mentioned above, where he alluded to my herd, he said well, that I was no speculator in Short-horns. That I began with them to raise cows for the dairy, is true; that I have succeeded as well as most farmers under like circumstances, I have no doubt. Had I had a better knowledge of the business, and more funds at my command, I think I would have done much better. My prices have always been so moderate as to place it within the reach of common farmers to purchase of me, if they desired to do so. I have never kept a record of any cow for the entire year. I have, however, tested them singly and have made from 10 to 14 pounds of butter per week, from various cows that I have bred. For two years our milk was sent to the cheese factory and our dairy was fully equal to any other in the factory where the milk of 600 cows was manufactured into cheese. One of the patrons of the factory, a neighbor, had a cow sired by a Short-horn bull owned by the writer, that would put more milk daily into the factory than any other cow whose milk was sent there. It has been an established fact that those dairies that were well graded by the use of Short-horn bulls, have been the most productive in milk for factory purposes. We have had numerous cows that would give 40 to 50 pounds of milk per day on grass in the best of the season, and one we sold, that went into a better pasture than she was wont to have on our farm, and the purchaser wrote me that she averaged 30 quarts of milk a day, measured free of froth, during the month of June, on grass alone. I thought then and still think she was a good dairy cow. Her purchaser wrote me that she was worth two cows for the dairy, and he was a breeder of Jerseys, but bought a Short-horn of the writer to test them together, and was highly pleased with the result.

In conclusion, there is room for all, and if one dairyman prefers one breed, and another a different breed, let it be so, and let each try to improve his favorite breed and not condemn those of his neighbor. In so doing he will be of greater benefit to the community than all the tournaments of "Free Lances" that can be gotten together, especially if the knights are to be taken from those "who own no cows," and, so far as we know, have never bred any, so as to test the different breeds whose merits they propose to discuss. In order to state the merits of the different dairy breeds correctly, they should be raised and fed by those persons who propose to give instruction to others, and the differences carefully noted in each breed, as well as their advantages and disadvantages. In that way some correct information could be gained of value to the community at large, that would be worth the publication.

Rome, N. Y.

STOCK NOTES.

EXPORTS OF SHEEP.—The shipment of 4,000 sheep in two flocks, in one week, by a Canadian railroad for transport to England for a market, is a significant fact. These sheep were raised in Western Canada and were chiefly grade Cotswolds. There is no more profitable farm animal than a sheep, if the right kind is in the right place. These Canadian sheep are raised in small flocks, generally of less than 50, and rarely greater than 100. The average value at the farmer's door, is $6 per head. There is abundant room in the United States for keeping flocks of this kind, and fortunately there is sufficient profit in it to make it remunerative and desirable.

JOTTINGS.—An order of the British Privy Council has lately prohibited the importation of cattle from Belgium or Germany....Australia and New Zealand are close competitors of this country in the canned meat trade of England. The colonial trade in goods of this kind has vastly increased within the last decade, and the prejudice of the British workman against such meats is fast disappearing. Just now Australia boasts of having invented machinery which packs 24 tins in Melbourne as quickly as one tin is filled by hand in Chicago....England has frequently accused Ireland of having been the source from which has come a great deal of the contagious diseases that have thinned her herds, and now, although all Irish cattle for the English market are closely inspected at the port of shipment, English farmers are insisting that they should be again examined on landing, on the ground that the first inspection is not sufficiently trustworthy....The Dublin Farmers' Gazette protests against a common prejudice against all-white Short-horns, and says that out of a lot of fairly-bred cattle tied up for stall-feeding, those that are white will, every time, be first ready for the butcher....The English Agricultural papers say that the Contagious Diseases Act was almost the only boon which agriculture in that country received from legislation in 1878; but they complain that the bill, as originally introduced into the House of Lords, was greatly modified. They claim that by it both foot-and-mouth disease and pleuropneumonia have been steadily isolated and stamped out, while the precautions taken at the various ports against the introduction of foreign contagious diseases, are giving native stock-owners a fair show.....The Victoria (Australia) Government has issued orders that 60 days' notice must be given of all intended importations of live-stock into that colony, and all animals are subjected to a rigid quarantine of 90 days after their arrival, while, if any disease has appeared among the shipment, the entire lot must be slaughtered on landing. English stock-owners are loud in their complaints at the severity of these regulations....Since Germany lately prohibited the importation of cattle from Russia, the latter country has been glutting the German markets with dressed beef. Asiatic Russia is considered the source of cattle plagues.

Dairy Husbandry.

FEEDING FOR BUTTER.

T. H. HOSKINS, M. D.

THERE is so little positive knowledge of anything in relation to agriculture, that it becomes no one to treat agricultural topics dogmatically. Yet no one who has observed the matter closely, can have failed to notice that positive treatment of a question is most acceptable to readers of agricultural literature. "Men," says a shrewd writer, "Men, in general, dislike uncertain and qualified statements." They prefer decisive opinions, distinct formulas. It is this manifest preference among readers, coupled with that limited comprehension which makes many minds so "cock sure" of everything, which gives us so much dogmatism, and leads to so much quackery in every branch of applied science.

I think the large majority of men interested in dairying believe that it is possible to feed for butter with success—that is, to increase the proportion of butter in the milk of a cow, by a special ration designed for that purpose. It is my belief that this is a mistaken idea, and I wish in this article to give the reason why.

But to clear the ground and properly circumscribe the question, I will first explain that I by no means doubt that good feeding may increase a cow's yield of butter. Nor do I doubt that when a cow is being actually starved, the proportion of butter to the other constituents of her milk may be somewhat lessened. What I mean to put forward is that by higher feeding we only increase the butter in proportion as we increase the other solids of the milk; and that when, by improved feeding, we have driven a cow to her best in milk, we cannot, by any change or modification of her feed, cause an increase in the butter element. I state this as an experimental fact, and I believe that there are physiological reasons why it should be so.

What is butter? It is simply fat, obtained from the food and secreted with the other constituents of the milk in the cow's udder. We all know that under the same feed the proportion of butter to milk varies greatly in different cows. This is the same whether the herd is fed on grass or hay alone, or whether they receive extra feed, with the view of pushing their yield of milk to the highest profitable point. Under this point of view it is quite customary to divide cows into two classes—butter cows and cheese cows, the latter being large yielders of milk not rich in fat. Now, the question under discussion may be simplified to the practical mind by putting it in this form: "Can a cheese cow be made a butter cow by any special manner of feeding?"

That it has been proposed and attempted to do this is testified to by much past and current writing in the agricultural journals; and great confusion exists, so that writers do not distinguish between increasing the butter *with* increase of milk, and increasing the butter *without* increasing the milk. Each individual cow comes into the world as a calf with a special constitution of her own, inherited from ancestry on both sides in varying degrees, but fixed from the start, so that the ability to take on fat or to secrete fat in the udder, cannot in that individual be increased.

How then can we produce an improved race of butter cows? How have our existing butter cows come into existence, being the progeny of inferior animals in this respect? The correct explanation of this problem seems to be that while we cannot improve the individual capacity of a cow as a butter yielder, we can, by proper care and feeding, cause her to bear progeny productive of richer milk. This progeny will not be uniform. Some will be better than the mother, some no better, and, possibly, with all care in feeding and tending, some may not even be so good. Much depends upon the male parent, and at this point we introduce skill in mating or breeding as an important element of progress. If we use the son of a rich milker as sire upon a cow whose progeny we desire to be butter cows, we have increased the probability of success by having the law of inheritance in our favor. And as soon as we have thus made a start on the path of improvement, we can, by judicious selection and careful in-breeding to fix valuable qualities (still keeping up the care in feeding, housing and handling), gain more and more completely and uniformly, with each succeeding generation, the quality, or qualities, in our herd which we desire.

As far as America is concerned, we may take advantage of the progress already made in other countries. In this specialty of butter-production, for instance, we have the Jersey and Guernsey cattle, to begin with. But I believe we make a great mistake in thinking that our best results with these breeds are to come from breeding them pure. It is the using of them as aids in improving the native stock of each particular dairy district, for the purposes of that district and its market, that we have need of, and we may gain advantage in the use of foreign strains of blood. The Jerseys are what they are in consequence of the way in which they have been bred and managed for many generations. By like management an equally useful breed may be in time produced in any region of country naturally fit for dairying. The use of imported Jerseys is to shorten the time of effecting this desirable object. But without that proper management and care, the importation of foreign stock, however good, will produce only slight and temporary advantage. The skill and care that made the Jerseys, must go with them wherever they go, or in a little time they will sink to the level of their "environment."

When skill and care become general in any district, there will spring up there a new breed of dairy cattle, for cheese or butter as the demand and purpose may be. They will not be Jerseys, Guernseys, Ayrshires, Short-horns or Dutch cattle. They will be local in their character as in their origin. As Great Britain, hardly larger than New York, has some twenty different breeds of "thoroughbred" cattle, so New York, New England, Pennsylvania, Ohio, will each have, perhaps, its twenty breeds or more. With the knowledge and skill at hand and in full exercise, the production of useful "breeds" will become but a slight and lessening difficulty. Good cattle for each required purpose will be the rule instead of, as now, the exception. Fifty years hence we may believe America will possess better breeds for every purpose than any which now exist, at home or abroad.

Meantime, we ought all to understand what can and what cannot be done—in what direction and through what means improvement must be sought, and what are the conditions of development in any required direction. Our cattle and other live stock will become better as our farmers and breeders become more and more masters of their business. Money to buy with, is not the sole condition of possessing a good herd of cattle. The wretched condition and rapid deterioration of many costly thoroughbred herds, are standing proofs of this fact. Good cattle are the concomitants of skill in the business. That produces them, and that alone will perpetuate them.

Veterinary.

ABORTION IN COWS.

R. GOODMAN.

THIS scourge, the cause of which has so far eluded the prying endeavors of dairymen and scientists, has elicited an apparently new theory which, perhaps, is sounder than those heretofore broached. An Illinois correspondent of a contemporary paper some time since advanced the idea that abortion in milch cows was owing to deficient nutrition—poverty of the pastures or the grain and hay feed, one or the other, or both, in some of the elements which are essential to health and strength. This opinion is now supported by the decision of U. S. District Judge Blodgett, of Chicago, himself a breeder. He has taken the testimony of experts—of the dairy farmers of the vicinity, where abortion is sometimes an epidemic, and the information obtained from the agricultural press—and comes to the same conclusion. And yet this theory can hardly be called new except in this latitude, for nearly half a century ago Mr. Lindsay, an English authority, said: "That improper or too little food is a prominent cause of abortion is strongly indicated by facts," and he instances cases where, the summer being unfavorable, the pasture and hay crop were poor and the cattle were fed on poor hay of the preceding year's growth, and the consequence was that half of the cows aborted. "The most common cause of abortion in cows," says White, another English authority, "is improper feeding during winter and spring before they are turned to pasture. The filthy pond water they are compelled to drink, and feeding on the rank fog grass of October and November, especially when covered with hoar frost, are likewise frequent causes of miscarriage." Any one who remembers the description in Charles Reade's last novel, "The Woman Hater," of the pond in the English town owned by a noble lord, whence all the people obtained their drinking and washing fluid, and of the *boneless* condition of the children of the place, can easily realize how the use of such water by cows would produce abortion and other disorders. On English farms where wells have been sunk, and the cattle supplied with good food and pure water from such wells, instead of the filthy mixture they had been compelled to drink, the effect was almost instaneous—the cattle began to thrive, became healthy, the quality of the butter and cheese improved, and abortion ceased.

Nearly a century ago all the cows of a farm in France miscarried about the fourth or fifth month. The accident was attributed to the excessive heat of the preceding summer, but as the water they were in the habit of drinking was extremely bad, and they had been kept upon oat, wheat and rye straw, it has been surmised that the great quantity of straw they had to eat in order to obtain sufficient nourishment, and the injury sustained by the third stomach in expressing the fluid parts of the masticated mass, together with the large quantity of impure water they drank while kept upon this dry food, formed the real cause of their miscarrying. In several other cases in France, where cows had been pastured upon land which had been flooded and the grass had become sour and rank, a majority of the animals prematurely slipped their calves.

At the present time, when we are tracing, with almost mathematical precision, the causes of many human disorders—such, for instance, as diphtheria, typhus fever and malaria of various kinds—to impure water and improper diet, like pork in excess, we cannot overlook the fact that our four-footed friends are subject to correlative diseases and other ailments from similar causes, and the reasoning is naturally sound, which ascribes the "accident of warping" to a vitiated state of the digestive organs, occasioned by bad food and impure water. Let the cows, then, be regularly fed on good food and proper quantities; let them have pure water as often as they need it; avoid exposing them to sudden changes; let the cow-houses be well ventilated; prohibit all manner of rough usage, and watch particular animals which may need an increase or reduction of food, and then, if disease occurs, the farmer will be able to have a clear conscience. But the probabilities are ten to one that cows thus tended will be free from disease of every kind, and pass a long and profitable life in the bestowal of bountiful gifts to their owners.

In England, where goats are favorites in the stable, it is said that their presence, or strong odor, has a favorable effect upon cows, and I read recently, in some agricultural paper, a communication from a farmer in this country, whose cows aborted several seasons, until at last he placed a "strong" goat among them, when they began to calf properly and he got out of the trouble—for he fed and watered well besides. As abortion does take place occasionally, even among animals fed on good hay and supplied with pure water, there is probably, in such cases, some deficiency—perhaps a lack of phosphates, which can be furnished by adding wheat bran to the feed or dressing the pastures with bone-dust, which last course will aid the land in production and supply to the grass and hay the element they lack. I find seeding to grass with bone-dust produces a great growth, and ascribe the health of my herd of Jersey cows to that and the constant mixture of wheat feed with their other provender—early cut hay, corn stalks, a little Indian meal—and to their easy access to good, clean water.

Lenox Co., Mass.

Miscellaneous.

JOTTINGS AT KIRBY HOMESTEAD.

COL. F. D. CURTIS.

Hot Water for Hens.

MR. L. D. SHERWOOD seems to have struck the key-note in the care of hens. His experience coincides with Esquire Davidson's, that poultry require water in winter—eating snow does not answer the purpose to make them lay well. Mr. Sherwood has partitioned off the second story of his pig-house for a hennery. It

is not lined on the inside, and is no warmer than matched siding will make it. The building, however, is situated in a warm and sheltered place. The grain fed is corn and oats. Hot water is furnished to the fowls twice a day. Mr. Sherwood says they gather around the water as soon as it is taken to them, and drink it greedily when quite hot. He feeds them apples every day or two, and they also have meat scraps, lime, coal-ashes and broken oyster-shells. The result of this attention to his hens is, eggs enough in winter to buy all the groceries and to supply his family with all they require. Mr. Sherwood says hens will not lay well without some sort of green feed.

Jersey Butter Will Keep.

We are now eating butter from a four-gallon crock, which was made in August, exhibited at the Schenectady Co. fair in September, where it won the first prize, and now it has all the aroma and excellence of fresh-made. This goes to show that Jersey butter has superior keeping qualities, and this is because of its natural hardness, on which account it can be so tightly and firmly packed as to be almost proof against hot weather and impervious to the action of the atmosphere.

Separating Breeding Animals.

We are now separating the breeding sows, putting each one in a pen by herself. They will begin to farrow in a month, and they should not be allowed to run together any longer. Much damage is done by leaving them together until near pigging time. They knock each other about and injure themselves. When pigs are born dead, it is always caused by a strain or bruise. Sometimes the injury is so slight as to kill but one pig, but this will often cause fever and inflammation which may destroy them all, or so affect the others as to make them puny and weak. On no account should a sow with pig be struck or roughly treated, because a slight blow or jam in the right place will surely destroy pigs. Their pens should be kept dry and clean, to prevent rheumatism, to which hogs are subject. They must also have, at least a month before farrowing, green or laxative food, such as roots, apples or bran—milk will do very well, but it ought to be mixed with bran. It does not make so much difference what sort of bran it is, if it is only coarse enough to produce freedom from constipation, which is the cause of sows being "crazy" and eating their pigs. Clean corn is the worst kind of feed for a sow with pig. This has been often repeated, but the warning is so often unheeded that its repetition is necessary. Sows in pig do not want fat-producing foods like corn, but lighter and less stimulating, such as we have mentioned. Strong feed will make too much milk before the pigs come, and this will cause fever and dry up the udders. Keep the strong feed until the pigs are at least a week or ten days old, before giving it to the sows.

Watching the Trees.

We have had so much snow and such big drifts that we shall lose scores of trees unless we dig them out before a thaw. Where the trees are not banked up in the fall, it is not too late to tread the snow down around them firmly, and thereby prevent them from being destroyed by the mice. This precaution is not necessary unless the trees are situated near a fence or plat of grass, as the field-mice are not often found in a clean field. For this reason we did not bank our pear orchard last year.

NOTES ON CURRENT EVENTS.

THE BUSHEL MEASURE.—There are bushels and bushels. What is a bushel to one man is often quite another thing to another. There are few things more delusive and intricate than the bushel measure. Between the bushel of five pounds of meadow foxtail-grass up to that of 80 pounds of lime or coal, there are as many other bushels as there are figures, and to make the matter worse, even a bushel of any particular thing differs in weight in many localities. Instead of being a help, this measure is a hindrance, and the man remembers in the confusion of modern instances the trouble of his school-boy days from the uncertainties of our common measures. And now it has been found that a bushel may be made less or more, by easy manipulation of the measurer. If a flat strike will leave a bushel weighing 57 lbs 2 oz, a round strike will cause it to weigh 57 lbs. 9 oz, and if a shock be given to the measure or it be shaken before being struck with a round ruler, the weight of the bushel will be about 63 pounds. Why should not all measures be abolished, and all commodities that are now measured be sold and bought by weight? If this were done the present confusion would be changed for a satisfactory certainty, and the endless succession of disputes would be avoided.

RYE AND WHEAT BREAD.—There is scarcely any well established custom in existence but what some one with a hobby would have us believe that it would be better for us to abandom that custom. Occasionally we are advised to eat nothing but the coarsest flour, and the disciples of Dr. Graham would make bran-chests of our stomachs. Others would have us change our wheat bread for that made from rye; others, again, try to induce the public to believe that there is virtue in nothing but oatmeal. It is a curious fact that as civilization advances among people, the consumption of wheaten flour increases *pari passu*. As the poorer and uneducated classes become better off and more cultivated, oats, barley, rye, buckwheat and corn are discarded as the staple foods, and wheat is practically the breadstuff and the staff of life. Yet the coarser grains are not without their valuable uses. Those who have habitually used the finest wheat flour, are glad to exchange—now and then—their "new process" for a little rye flour, oatmeal or buckwheat. This is in fact a healthful change which would become more popular if the effort to make it popular were free from misleading errors. It never pays to overdo anything, as a writer in the Weekly N. Y. Tribune, recently has overdone the subject of substituting rye flour in place of wheat for bread, by giving the following very inaccurate analyses of the two grains, viz:

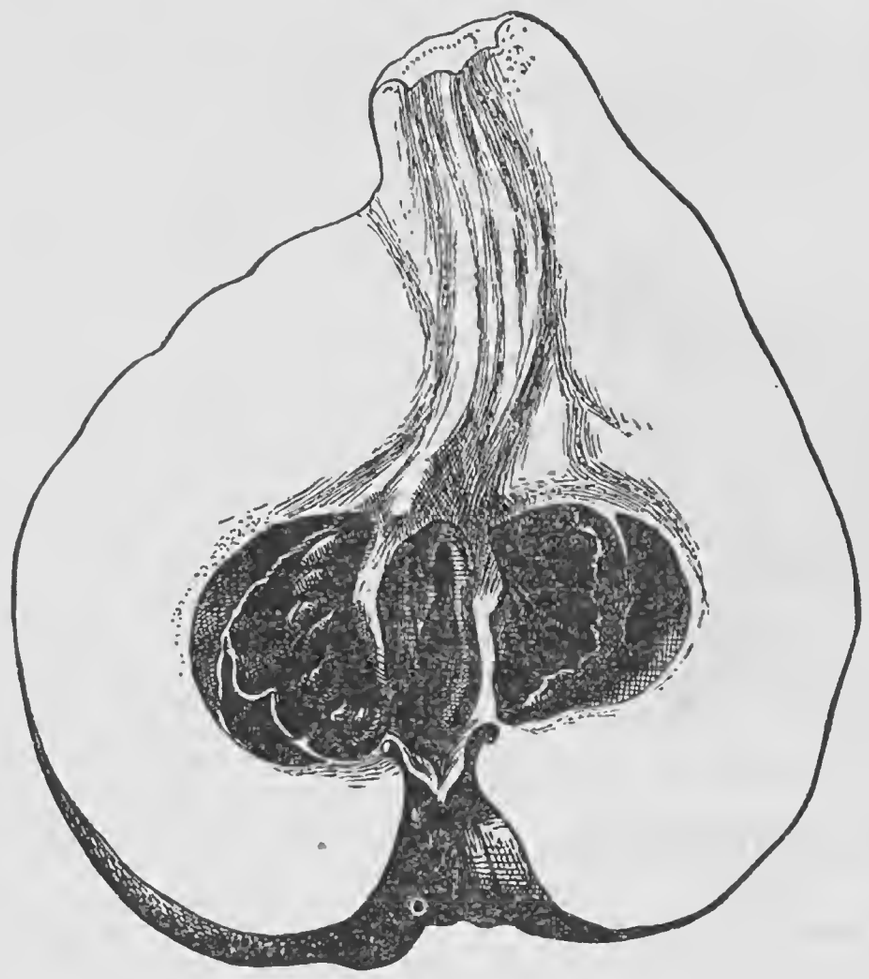
WHEAT.		RYE.	
Starch	71.2	Starch	61.07
Gluten	10.3	Gum	11.09
Sugar	4.8	Gluten	9.48
Gum	3.6	Albumen	3.28
Bran (?)	—	Saccharine matter	3.28
Water	8.0	Husk	6.38
		Acid and loss	5.42
Total	97.9	Total	100.00

Now where are the phosphates that are so much talked about, that build up the brain and the bone and for which we are advised to eat the whole flour, including the brans, both outer and inner? Has rye no water in it while wheat has eight per cent? Of what kind of acid has rye five per cent, or what sort of an analysis is it that finds a loss of even a small portion of 5.42 per cent? The analyses of wheat and rye and the flours from these grains, as given by the best authorities, Wolff & Knop, are as follows viz:

	Water.	Ash.	Albuminoids, Gluten, &c.	Carbohydrates Starch, Sugar, &c	Fiber.
Wheat	14.4	2.0	13.00	67.6	3.0
Rye	14.3	2.0	11.00	69.2	3.5
Wheat flour	12.6	0.7	11.80	74.1	0.7
Rye flour	14.0	1.6	10.50	72.5	1.5

The fact is that rye flour is less nutritious in flesh-forming matters and more nutritious in those which support respiration and the animal heat than wheat flour; therefore rye is better suited to laboring men or those whose circulation is quickened by exercise, while wheat is better for those who exercise their mental, rather than their muscular power, and for this very reason the more civilized a man becomes the more he hankers after wheat bread.

CANNED PROVISIONS.—The business in canned fruits, vegetables, meats, soups and fish, has grown to enormous proportions. In one meat-canning establishment in Chicago, 700 persons are employed and in the whole industry there are not less than 250,000 people interested as laborers or proprietors. The list of canned goods now includes not only plain meats, fish, fruits &c., but such made dishes as baked beans, clam-chowder, fish-balls and plum-pudding. The great convenience of provisions thus packed, for what is known as "light house-keeping," together with the use of gas and oil cooking-stoves, has vastly increased the business of supplying them; and perhaps the larger proportion of them is used for army supplies all over the world where the active business of manslaughter is in progress. As a curious instance of the effect of a convenient food supply upon social habits may be noted the fact that since canned goods have been put upon the market, the system of living in "flats" in the cities, has come greatly into vogue, and is constantly spreading. This is not without interest to those who supply the raw materials.



CHAMPION QUINCE.

Pomological.

THE QUINCE AND ITS CULTURE.

There is hardly a fruit in the country the cultivation of which is more generally neglected than that of the Quince; yet, there is perhaps no other fruit more grateful for the care and culture bestowed upon it, more susceptible of improvements, or that commands a better price in the market than this. If inquiry is made in the market for this fruit, some poor, knotty, inferior specimens are presented with the remark that they are the best that can be obtained. While the visitor at agricultural and horticultural fairs may see large and varied collections of the best apples, pears, peaches, grapes and other fruits, the collections of quinces are, in the majority of instances, confined to a few plates stored away on the back shelf, or in some out-of-the-way corner, where they are seen by but few others than the judges, and sometimes hardly by them. This indicates that fruit growers and owners of orchards generally, give but little attention to its cultivation, and that people at large do not appreciate it to the degree it deserves.

In part, this apparent lack of appreciation may be due to the fact that while other fruits admit of being eaten raw as soon as taken from the tree, the quince requires the manipulation of the cook before it is made palatable. But skillfully prepared, it is as healthy and delicious as any fruit, and as a preserve is an excellent variation for the table in winter when fresh fruits become scarce.

Aside from the usefulness of the fruit, the tree is very ornamental, and deserves attention for this purpose alone. The leaves are large, the flowers large and showy, and in the fall, the yellow fruit has a very presentable appearance. While we do not claim for it the same prominence given to apples and pears, yet we do insist that its qualities as a table fruit, entitle it both in country and city to more consideration than it is now receiving; and the price it commands in the market, one should think, would stimulate its cultivation.

But little effort has been made to improve the Quince. Apparently but few have thought it worth the trouble to select seed and raise seedlings with a view to improve the old varieties. The consequence is, that we are still growing the same varieties that were known centuries ago. In Europe quince seedlings are raised extensively in the nurseries, and used as a stock on which to graft the Pear. For trees that are to be trained in dwarf form, it is preferred to pear stocks, because it has more fine roots, will grow in places too wet and cold for the Pear, keep the tree small and bring it to bear earlier.

There are three methods by which the Quince may be propagated: by seeds, cuttings and layers. The propagation by seed is the most natural and perhaps the simplest method, and is the only way in which new varieties can be produced. Select the seed from the best varieties and only from the largest and best-formed fruits. Though this does not *insure* that the seedlings will be better than, or even as good as, the mother tree, yet there is a greater probability of more of them being of superior quality than if seed were taken from fruit without reference to its quality. Sow it in rows in rich and well-prepared soil as early in the spring as the weather will permit. It is somewhat slow to germinate, and for this reason some prefer to sow it in the fall and protect the rows with spent tan bark or manure during the winter. During the first summer, nothing further is required than to keep the plants clean by hand-weeding and the vigorous use of the hoe. The following spring, they should be classified and transplanted, all the strongest plants being set out by themselves. To increase their vigor, as well as to procure a straight stock, about half of the previous year's growth should be cut off over a bud that points directly upward. Plant them about one and a half feet apart in the nursery row, leaving space enough between the rows to use the horse cultivator. If there are only a few hundred plants, it is advisable to set a stake to each, to which they should be tied.

Cuttings of the Quince should be taken from one- or two-year-old twigs in the fall or early winter, made about eight inches long, tied in bunches and either buried in a dry spot of ground or kept in moist sand in a cellar during the winter. By April they will have a good callous formation—the fleshy outgrowth at the lower end from which the roots proceed. Set them in rows five or six inches deep as early as the soil is fit to plant in. Stretch a line and, if the soil is very loose, stick them into the ground to the required depth. If the soil is too hard and lumpy for this, open a trench with a spade, in which place the cuttings, always taking care to tread the soil firmly about them. If well taken care of, a large proportion will take root.

Layering consists in bending the lower branches to the ground. Make an incision on the under side, and partially cover them with soil. When they have taken root they are cut loose from the mother tree and each is treated as a separate individual. Both cuttings and seedlings should be treated alike after the first season. If desired, they can be used as stocks for Pear (as stated above) or for another Quince.

When the plants are three or four years old, according to size and vigor, they may be planted in the orchard, where they should be set twelve feet apart each way. A moist, but well-drained soil is preferable, and the Quince should never be planted on very dry, sandy or gravelly land. With the Quince, as with all other fruits, the better the land and the more manure, care and culture are bestowed upon it, the better will be the result.

Being half shrub and half tree, the Quince has naturally a crooked and dwarfed growth, and, if left to itself, will send out several branches from below the ground. This should never be permitted; the handsomest and in every way the most satisfactory trees, are those with a single stock twelve to eighteen inches high to the first branch, and trained in the form of a pyramid. In Europe where labor is cheaper than here, and where much more time and care are expended on both field and garden, the pyramidal form is a favorite one. One leading branch is trained straight upward, from which radiate, at regular intervals, all the main branches—a well-formed Norway Spruce is a good example of the pyramidal form. By reason of the tendency of the Quince to grow crooked, it requires a little ingenuity on the part of the husbandman to give it the pyramidal form, but by always pruning each branch over a bud that points in the direction in which it is designed that the tree should grow, and, by means of a string or stake, bringing this or that one into the right position, the desired form may be attained without difficulty. What is termed the dwarf form is also used for the Quince. It is nothing more than a well spread and equally balanced crown, on a miniature scale.

In localities where insect pests are numerous, the Quince is liable to suffer from these pests, particularly from the borers, though no more so than other fruit trees. To prevent their ravages, it is advisable to apply a strong solution of soap-suds to the trunk and larger branches, early in spring and several times during the summer. But the borer may attack the trees in spite of this, and the Quince-grower should therefore watch for the appearance of sawdust on the ground near the trunk, and if found, immediately proceed to destroy the offender, by punching wire into its hole or else carefully cutting it out. In the month of September when the young borers have begun to work, all the trees should be carefully examined and the borer's life cut short.

Of the few older varieties that are generally known, the Orange Quince is considered most prolific, while the Portugal Quince has the best flavor.

A correspondent to the RURAL from South Glastonbury, Conn., speaks highly in favor of a new variety, named the Champion Quince, a section of which is represented in the engraving. Of this he says:—

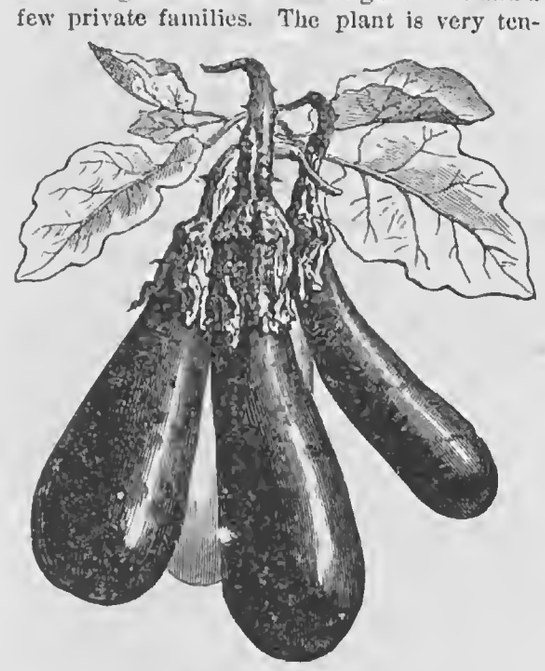
"The Champion is a chance seedling that originated on the grounds of Mr. George Perry, in Fairfield Co., Conn., in 1865, fruited for the first time in 1869, and the original tree has fruited every year since. The tree is a strong, free grower, and usually comes in bearing the second or third year. One tree, only three years from bud, produced half a bushel of fruit the past season. The variety is a regular and profuse bearer, never having failed to produce a crop during the past nine years. The fruit is of large size, and in shape much like a well-formed Duchesse Pear. Color, a pale yellow, not as bright and attractive-looking as the well-known Orange variety, although I think it fully equal, if not superior, to that variety, in flavor. It has been tested on a variety of soils, including some quite dry, gravelly land, and was found to do well wherever planted. This spring, we shall plant several acres of the Champion on a sandy loam, and by deep plowing and heavy enriching, we expect, in three years, to begin to gather the rich, golden harvest.

"The strong, vigorous habit of the tree, and its disposition to early bearing, together with the large size, perfect form and excellent quality of fruit, make it the most valuable acquisition to the quince family yet introduced. Had it only the color of the "Orange," we should say that "Perfection" would be a more appropriate name than "Champion." The entire crop of fifty bushels this year, sold for five dollars per bushel, showing that it is appreciated in market."

Horticultural.

EGG PLANT (Solanum Melongena.)

The Egg Plant is a tender annual, related to the potato and the tomato. It is a native of Africa and tropical America. It is not grown in the country and among farmers generally, nearly so extensively as it merits, its cultivation being confined to market-gardeners and a few private families. The plant is very ten-



EARLY LONG PURPLE.

der, and the seed should not be sown in the open ground until about the first of June; if wanted earlier, it must be sown in a hot-bed. Set the plants about two feet apart each way; hoe the ground frequently to stir it, and to keep it clear of weeds. Each plant, if well grown, will produce seven to nine eggs which are cooked in several ways, according to the skill of the cook. Twenty-five to thirty plants are sufficient for a family of six or eight persons. The engraving shows Early Long Purple; this and New York Improved are considered the best varieties.

SQUASHES.

The several varieties of squashes are all members of the gourd family, Cucurbitaceæ, and, as such, closely related to melons, cucumbers and pumpkins.

This class of vegetables finds a ready market in all large cities and is raised extensively by market-gardeners, though it is not among the most profitable crops. Large quantities

TURK'S TURBAN.

are shipped North from Southern ports in the early summer before the crop in the North is ready. The squash plant is very tender, and should be among the last vegetables planted. It will do well on any good garden soil, but a sandy loam is best adapted to supply its wants.

The early varieties are planted in hills, three or four feet apart each way; while those that run, or spread over more ground, require intervals of seven or eight feet. Pulverize the soil thoroughly by the plow or spade, and prepare the hills by incorporating two or three shovelfuls of well rotted stable or barn-yard manure in each. Plant eight or ten seeds in a hill, and when the young plants have three or four rough leaves, remove all but the three strongest. The seed may be planted two to

HUBBARD SQUASH.

three weeks earlier than usual, by giving the young plants some protection. For this purpose lay a box, ten or twelve inches square, on the prepared hill; heap the soil up around it six inches high, and pack it well so it can keep its form; remove the box and plant the seed in the hole thus formed, and cover it with a pane of glass which may be removed on mild days, and replaced at night. We have planted both melons and squashes fully three weeks earlier than would otherwise be advisable, by adopting this method of protection.

It is a very common, though questionable custom, to plant squashes among the corn, and in the same hills. This interferes with the cultivation of the corn, and is detrimental to the yield of both. It is well-known that in the whole family, the stamens and pistils grow in different flowers—which therefore depend upon insects or the wind for fertilization. The staminate, or male flowers appear first, and the pistillate, or female flowers, later. They are sometimes situated so far from one another that artificial fertilization, or the transfer of pollen from the male flower to the pistil of the female, becomes necessary. Especially is this the case if it is the intention to raise seed from a certain variety, as the varieties are very liable to "mix" one with another, and with melons, cucumbers and other plants of the same family. The pollen may be transferred with a camel's-hair brush, or by removing the whole male flower and bringing it in contact with the female flower when the latter is fully expanded and ready for the reception of the pollen.

There are many varieties of squashes; we enumerate a few of the best: For summer use, Turk's Turban, Early White Bush, Early Golden Bush, Boston Marrow. For winter use, Hubbard, Winter Crookneck, Marblehead and Yokohama. Our engravings show Turk's Turban and Hubbard.

Floricultural.

EUROPEAN CORRESPONDENCE.

The St. Petersburg Botanical Gardens.

St. Petersburg, Russia, January 29, 1879.

This being a rather mild morning, the thermometer on my outside parlor window indicating 19 deg. below zero only, and having for the day no other engagements affording me the enjoyment of fresh air, I instructed my "izvoshtshik" to prepare himself for a drive to the Imperial Botanical Gardens, situated about three English miles from the celebrated Winter Palace of the Emperor, the most marvelous specimen of architecture in the whole of Europe.

A brisk drive of some twenty minutes, upon the Neva, brought us to the grand entrance of this magnificent institution. On entering the grounds, which cover an area of over 200 acres, laid out in the English style of landscape gardening and adorned with every variety of deciduous and evergreen trees and shrubs hardy in this severe climate, we were met by two officials who conducted us to the grand Rotunda, the place for the safe-keeping of the Imperial Herbarium. Here a servant, in showy livery, became our guide through the rows of immense glass structures rich in treasures from every part of the globe. The greenhouses, which are connected with each other, afford a promenade of over a mile in length, through groups of plants of every description and style of beauty.

On leaving the grand saloon, one passes first into a house of low temperature, containing the large and choice collections of Ericas, Pimeleas and other floricultural treasures belonging to that beautiful and delicate tribe. From this you enter the "New Holland House" in which may be seen every variety of plants found in Australia, and at the Cape of Good Hope. Among these we noticed some very large and fine specimens of Banksias, Metrosideros, Melaleucas and some remarkably handsome specimens of Araucaria excelsa, about fifty feet in hight. Next we stepped into the "Acacia House" filled with the choicest specimens of this numerous and beautiful genus of plants from the temperate zone. Many of the trees have attained a hight of over thirty feet, and are covered with a mass of golden-yellow flowers perfuming the atmosphere most delightfully.

On leaving this, we were led into the "Camellia House," 600 feet in length, which with its trees of from 20 to 25 feet in hight, reminded us of the Magnolia groves in Florida. The collection is very large, embracing all the newest varieties produced from time to time in France and Belgium. Unfortunately for us, but few varieties had opened the luxurious-looking buds with which they were covered. From this we entered the glory of the institution, the "Palm House." In this immense structure we enjoyed all the tropics afford. The collection of Palms and Cycadaceæ embraces all the rarest and choicest varieties from every part of South America. Many of the specimens are from 20 to 30 feet high, and of beautiful form and proportion. Next we come to the "Orchid House," to us the most interesting and charming of all. Here you find all the curiosities of Nature—insignificant-looking plants adorned with the most peculiarly-shaped flowers of the most brilliant colors and exquisite perfume. The collection of Orchidaceæ is rare and large. Here we found also our favorites, the Nepenthes family, well represented; but the specimens, so far as regards vigor, size and beauty, cannot be compared with those I have seen in New York, exhibited by Mr. Such of Amboy, to which I have seen no equal in all of Europe.

On leaving the "Orchid House," which we did most reluctantly, we came to the "Fern House," which presents to the lover of this most delicate and graceful family of plants a charming appearance. The collection is a rare one, and embraces every variety in cultivation, from the most dainty-looking specimen to the grand and majestic-looking Tree Fern of from 10 to 15 feet in hight. Next we came to the "Stove House," filled with the choicest specimens of foliage plants from every part of the tropics. From this we enter the house for coniferous plants, which contains a valuable and fine collection of evergreens, some very large specimens of Araucarias, Cryptomerias, Libocedrus, Thujas, etc. Thence we pass into the "Azalea House," containing an immense variety of Chinese Azaleas and Rhododendrons, well cultivated specimens. From this we wandered through several other houses filled with collections of Pelargoniums, Fuchsias, Cactuses, Cape bulbous plants, Tea Roses, Cinerarias, Primulas, etc., etc.

All the structures, built of iron and glass, are of some architectural pretentions, heated by steam, and handsomely furnished throughout; and the plants, instead of being arranged in long and stiff, straight lines on shelves, as generally met with, are beautifully grouped, with gracefully curved walks leading between them, giving to the whole a natural and charming appearance. W. R. Bergholz.

Everywhere.

RURAL SPECIAL REPORTS.

Kansas, Everett, March 4, 1879.—Woodson County, Kan., is situated between 37.40 and 38 degrees of north latitude. It was settled in 1855 and organized in 1857. It contains 322,670 acres of which only 28,677 are under cultivation. The population, on the 1st of March 1877, was 5,041 and it will now probably number nearly 6,000. The value of assessable property, is $4,049,700. The county has not a dollar of bonded or floating indebtedness, and there is a respectable balance in the treasury. The face of the country is rolling prairie and bottom-land, interspersed with water-courses of which there are two rivers—the Neosho and Verdigris—and fifteen creeks. The wells are from 15 to 50 feet deep, and usually give good water. In some localities the water is hard; in others, soft. In some places some difficulty is found in digging wells on account of soap-stone, but those who have dug through this have always got water.

There is considerable timber in the county, more than in many of the western counties. The varieties are: Oak, Hickory, Black-walnut, Hack-berry, Pecan, Honey-locust, Sycamore, Elm, Red-bud, Box-alder, Soft Maple, Coffee-bean and Mulberry. The wild fruits are: Plums, Grapes, Cherries, Gooseberries, running Blackberries or Dew-berries, Paw-paw, Persimmons etc, all in abundance. Coal is found in considerable quantities and is said to underlie the surface of the whole county. It is of good quality. Building stone of good quality is abundant. Lead is found in some localities, but not in paying quantities. There are 56 school buildings, nearly all of which are supplied with maps, charts, etc. In 1877 the average number of months taught, was 5½. The average number of mills levied for teachers' wages, was five. The county receives about $2,500 annually from the interest on the sale of school lands, being more than twice the amount paid by the county to the State fund, and this amount is divided among the districts in the proportion to the children of school age residing therein. The railroad company owns about 60,000 acres of land in the county, which they are selling at from $1 to $4.00 per acre.

Of the productions corn yields from 30 to 80 bushels per acre on old land; oats, about 40 bushels. The average yield of wheat one year with another, is 20 bushels per acre.

Fruit, with the exception of Currants, do remarkably well, and Kansas is confessedly one of the best fruit States in the Union. The apple crop for 1877, was estimated at 2,408,548 bushels at an average price of 60c. per bushel, amounting to $1,445,128.80. Yates Center, the county seat, is situated in the center of the county. The situation is an elevated one and gives a good view of the surrounding country.

I think it would be far better for those now coming to Kansas to settle in the eastern and southern counties, instead of going farther west. The land is better, and is about the same price; markets are nearer and better, coal, wood and water are more plentiful. Lumber, too, is cheaper. I would also advise those coming West to come in the spring rather than in the fall, as by so doing they are able to raise some sod corn and vegetables, put up hay, and prepare ground for winter wheat; while by waiting until fall, everything has to be bought and the ready cash is soon spent.

The prices now are as follows: Wheat, 70c. per bushel; oats, 25c.; corn, 25c.; potatoes, 75c.; cows, $20 to $30 apiece; wood, $2 to $2 50 per cord. The reason grain is so high here is because it is about all used for home consumption, there being over 8,000 head of cattle and 5,000 head of sheep in the county, beside the milch cows and horses. What Kansas needs is more practical working farmers, who come here to *stay* and work. There are enough of the shiftless and visionary sort here now. J. J. D.

Missouri, Wellsville, Montgomery Co., March 1.—The writer lives about 90 miles from St. Louis and about midway between the Mississippi and Missouri Rivers. The land is high-rolling prairie interseeted here and there by belts of timber. Soil is not so rich as the bottom lands of Illinois, but better adapted to mixed farming, this being also a good fruit country. Though not so favored as our sister State, Kansas, by immigration, yet we get some new-comers and are slowly but steadily settling up. Where ten years ago, when I first trod these prairies, one could look for miles in every direction and see only three or four homes with stretches of prairie between, I can now stand in my door and count thirty houses within range of vision. The curse of slavery rested here and left a sort of shiftlessness among the early settlers, but the indomitable Yankee found his way here and things are fast improving, though there is room for greater improvement. Another curse still rests upon this place, which is, I believe, common to the West, that is; the dissatisfaction and restlessness of many people, causing them to be constantly seeking some better place, some garden of Eden, generally further West, which I fear many never find.

To show what can be done *here* by a contented person, I will cite an instance of a neighbor, which comes to my mind. In ten years he has transformed 120 acres of raw prairie into as beautiful a homestead as one will find further East among ordinary farmers. Broad meadows stretch here and there, skirted on one side by a row of tall Maples, as a windbreak to the entire length of farm, while a grove of them may be seen not far off, and the house is surrounded by shrubbery and a thriving orchard. So much for energy and perseverance with but little capital. Our crops last season were a fair average. Corn, a fair yield; oats, 30 bushels to acre; hay, good, worth now $4 per ton, delivered. Wheat has been somewhat neglected for several years back, but a larger area was sown last fall than the previous, and it looks well at present date. Potatoes scarce. Produce brings very good prices for the times, and will compare favorably with places east of us, where land is double the price of ours. Quotations for last week: corn, 27 cts.; wheat, 90 cts.; oats, 20 cts.; hogs, 3½ cts. per pound; butter, 12½ cts.; eggs, 12½ cts.; apples, 40 to 60 cts. These are prices where land is worth from $6 to $20 per acre; raw prairie, $6 to $10. M. A. E.

Texas, Corsicana, March 4—This winter has been so cold and wet that farmers have done nothing till within the last two weeks, when all good farmers have been busy planting corn. I finished 25 acres yesterday and expect to put in 25 more next week. The ground is getting hard, and will be too hard to break in one week more, unless it rains. Farmers here, as a class, are making but a sorry living. At least one-half of them are in debt and pay one to two and a half per cent. interest per month, and money scarce at that. The law does not allow over twelve per cent. per annum, but bankers and money-holders exact more and get it; a bad crop would bankrupt many. Good farm hands (negroes) get from $8 to $12, and (whites) from $12 to $16 per month, and board. Tramps numerous; petty thieving a common occurrence, and so is an occasional murder. Nothing but a strenuous tramp law will rid the State of white vagabonds, and nothing but the old-time whipping-post will teach the negro that he must not steal; as to being jailed, he cares nothing for that. G. A. L.

Virginia, Thoroughfare Station, Prince William Co.; March 6.—Thus far we have had an even winter, mostly dry and cold—fine weather for young lambs. Cattle are doing well, and have plenty of feed as yet. E. K.

The Querist.

ANSWERS TO CORRESPONDENTS.

Ungrateful, Peculiar and Naughty Poultry.

D. L. R., Fredonia, Chautauqua Co., N. Y., has a flock of 25 fowls. They have warm quarters, plenty of lime, coal ashes, oats, corn and corn meal, yet from August to November they gave him not a single egg, and since then only two or three a day, and he sorrowfully asks the probable cause of such gallinaceous ingratitude. He slaughtered a couple of roosters the other day, and on opening them, found one without a bit of gall, and he wants to know the reason why, and also why some of his hens eat the few eggs they drop.

ANS.—Probably his fowls are too fat. Overfeeding often gives such results. Another *possible* reason may be their age. Old fowls very rarely lay during the molting season; especially is this the case with the Asiatics and the sitting breeds. The non-sitters usually do better. As to the lack of gall—why should they have any? With such a fowl paradise—plenty and variety to eat and drink—there is nothing to create any "bitterness." That rooster was too happy to live: we'll warrant he never quarreled with his fellows, but moved along with a quiet cackle of contentment whenever a comrade trod upon his toes or his tail. And yet 'twere a pity to kill the noble bird: he might have founded a race of Quaker-doodles and doodlesses which—beg pardon, we're moralizing, which we were not asked to do. But those egg-eaters! When once this habit gets confirmed, the only way to break it is to cut off the bird's head. If the nests are so darkened that hens cannot see the eggs, they can't very well eat them, if they lay in the nests, but if they drop their eggs carelessly about, that precaution is of no avail. Blowing an egg and filling the shell with strong mustard mixed with vinegar, and placing it where she can get it, are said to sometimes give an egg-eating hen so bitter a lesson that she will not risk a repetition of it.

Treatment of Old Meadow Plowed Land.

The Rural's Friend, Chenango Co., N. Y., has a piece of ground which was old meadow, plowed a year ago last fall, and heavily top-manured last spring, planted to corn and the manure plowed in last fall. Wishing to seed it this spring, he asks whether it should be seeded just as it lies, or plowed again, so bringing the manure once more to the top. 2. He wants to know what would be the effect of dropping cow manure in the hill on old meadow land plowed this spring, a handful of gypsum or plaster having been placed on top, before covering it. 3. Will it pay to buy any of the fertilizers so extensively advertised at $40 per ton, to be used on corn when the farmer has plenty of cow manure which can be mixed with that of the horse stable, pig-pen and hennery.

ANS.—1. We would plow this ground by all means; that will mix the manure more intimately with the soil, which is what is wanted for grass; and it would also produce a fine, mellow, fresh surface, without which grass seed will not "take" very well. 2. As regards the manuring of the corn, it would certainly be better to spread the manure broadcast upon the plowed ground and harrow it in thoroughly; then plant the corn, dropping an ounce of Peruvian guano and gypsum mixed, in the hill, to give a start to the young plant. By manuring in the hill only the crop gets a good start, but is short of food when in its greatest vigor and at its greatest need, because the roots, spreading past the hill, find no nourishment there. But if the ground is full of manure, the spreading roots can find food as they reach here and there for it. 3. If there is plenty of good cow manure, it will still be found that it will pay to buy some artificial fertilizer for spreading purposes, unless the cows have been fed very highly on extra feed.

Raising Bedding Plants.

Practical, Delaware, O., desires a few directions for raising tomatoes and annual flowers, such as Petunias, Primulas, Verbenas, Zinnias, Pansies, etc., from seeds in the greenhouse. So far he has met with but little success, the plants usually growing up tall, spindling things that finally rotted off near the surface.

ANS.—The trouble probably is that the house is kept too warm for some of the varieties here mentioned, and the plants are too far from the glass. Sow the seed of all the varieties used for bedding plants, in boxes filled with light soil, about the latter part of March, and place the boxes near the glass, so that the young plants shall not be obliged to reach out after the light. When the first leaf appears, place the plants a couple of inches apart in other boxes, and by careful watering, shading if the sun becomes too hot, etc., our friend will have fine plants to put on his flower beds by the middle of May. Tomatoes thrive best in a hot-bed or hot-house, but the others require a comparatively cool temperature (about 50° F). Pansies, which are not annuals, by the way, are most frequently sown in a cold-frame in the fall, and kept there with a slight covering during the winter. The Primulas, from their willingness to flower during the winter and early spring, are used for winter decoration, and for this purpose should be sown in the greenhouse in the fall.

Dr. Hoskins's Answer to Ex-Gov. Furnas.

IN the RURAL of February 22d Ex-Gov. Furnas of Nebraska inquires: "What does Dr. Hoskins, your fruit correspondent, mean by 'the climatic belt just below us,' 'the cold belt,' and his intimation that the Red Astrachan, Maiden's Blush, Talman's Sweet, Ben Davis, Bailey's Sweet and other varieties he names, are 'almost hardy!' To what locality does he refer? The varieties I name are among the very hardiest in Nebraska—we class them 'iron-clads'—and most profitable."

To these queries Dr. Hoskins replies: "Well, my dear Governor, I mean that the people of northern Iowa, Minnesota, Wisconsin, the Province of Quebec, northeastern Vermont, northern New Hampshire and Maine, and the Province of New Brunswick, are not favored with as comfortable a winter climate for fruit trees as Nebraska, and other portions of 'the climatic belt just below us.' I mean that even the varieties named above, frequently winter-kill in our orchards, and are not safe for extensive orchard planting with a view to profit. But I am happy to say that persevering experiment in this 'cold belt,' is revealing and producing varieties of Apples, and possibly of Pears, Plums and Cherries, that resist the hard winters, and are of a quality by no means inferior to the fruit grown in Nebraska or New York. Thus the area of successful orcharding is being pushed from 100 to 200 miles northward."

Growing Tobacco.

E. T. T., Oxford, Sumner Co., Kan., asks where can he get tobacco seed; and what kind of tobacco sells the best in the market.

ANS.—Most of the varieties of tobacco seed grown in this country, can be obtained of any of the seedsmen in this city. Tobacco has been grown in Kansas by some few of the farmers for a number of years, but not enough to determine whether seed-leaf does the best, or cutting or ping leaf. If seed-leaf is grown, cultivate on soil that has been planted to other crops. In fact, select land that was the first plowed and planted on the farm. If dark soil is chosen, the leaf will be darker than if a lighter-colored soil is selected. It will be well to try various kinds of seeds, such as Connecticut seed, Havana seed and White Burley seed. The last is for chewing tobacco and the others for cigars. The farmers of Wisconsin raise Havana tobacco, and doubtless as good, if not better, leaf can be grown in Kansas, especially in the southern part of the State. The fine grades of Virginia and North Carolina leaf, known as Bright Wrapper, bring the highest price of any tobacco grown in this country.

About Hog Cholera.

R. S., Sycamore, Wyandot Co., Ohio, having a considerable number of hogs and being apprehensive of hog cholera during the next season, asks the RURAL to tabulate briefly a set of practical rules with regard to the best precautions against it and remedies for it. He intends to have the rules plainly copied and pasted up in a conspicuous part of his premises in order to promote their strict observance.

ANS.—As hog cholera is a strictly contagious disease on which food, surroundings or medicines have but little effect, we believe one of the most important things to do is to have petitions signed and sent to Congress asking for such legislation as is needed to control and exterminate it. It is best to keep hogs at a distance from public roads and streams of running water, which come from infected localities. Not much in the way of medical treatment can be done: a purgative (2 to 5 ounces Glauber salts), followed by half-drachm to drachm doses of nitrate of potassa (saltpeter), has given good results.

Flesh of Hogs Recovered from Cholera.

R. Saunders, Dunnville, Va., mentions pathological changes in the kidneys and liver, seen in hogs which had recovered from cholera and been fattened for use. He asks if in these cases the animals are diseased so as to be unfit for human food.

ANS.—There is a great variety of opinion in regard to the effect of disease on the healthfulness of the flesh as food. In case the animal has entirely recovered from the fever and fattens well, the presence of these changes would not be prejudicial to the meat. Some forms of anthrax, which closely resemble hog cholera, are liable to be mistaken for it, and unless the animal has thoroughly recovered from these, its flesh is a deadly poison. It is also to be understood that dangerous parasitic diseases may co-exist with hog cholera, and cause changes which may be attributed to the latter. The flesh of animals which are plainly affected with the so-called cholera, is not considered a dangerous article of food, though it is one which most people would prefer not to use.

Lameness in a Horse.

H. T. W., Burlington, N. J., says: "Can you tell me what will cure my horse? She has a habit of interfering, from the effect of which a bunch appeared between the hoof and the first joint over a year ago. A liniment was applied which drove it to the knee, and last fall more was applied which seemed to scatter it altogether; but now she seems to have a lameness of some kind in the shoulder. The flesh has shrunk and the animal does not stand squarely, but rests her foot upon the toe. She will not allow me to raise her foot and appears in pain if it is done.

ANS.—The mare is probably not lame in the shoulder but in some of the joints below. A careful examination should be made at the knee and elbow joints (the trouble is probably in the knee joint) for heat and tenderness. When the affected part is found, apply cold water for a week and then blister with cantharides ointment (one of cantharides to four of lard). The blisters may be repeated several times if not successful sooner,

An Over-sensitive Inquirer.

An Old Subscriber, Tecumseh, Mich., referring to our full-page cut of various kinds of farmers in RURAL for February 8th, asks whether the space might not have been better employed, if occupied with good reading matter; 2, whether we can afford to ridicule the supporters of the paper by publishing such insulting caricatures of farmers.

ANS.—No. Some things can be expressed by just such sketches, that cannot be told in words. The cost to the RURAL of such illustrations is at least thrice that of "good reading matter." We are as much farmers ourselves as any of our readers, and saw no reason to feel insulted by anything in that engraving. 2. We can "afford to ridicule" anything or anybody—whether a supporter of our paper or not—that merits ridicule.

A Sore Pastern.

L. M. H., Manor Dale, Pa., asks to be informed how to heal a stubborn wound above the heel on the pastern joint of a horse. It was cut by the horse hanging his hind foot in a long hitching rein nearly four months ago.

ANS.—A competent person examining the wound, could probably tell at a glance why it does not heal, but it is impossible for us to judge by this description. If either the joint capsule or the sheath of any of the tendons has been opened, it requires careful treatment. If there is "proud flesh," this should be touched with lunar caustic and a solution of half a drachm each of sugar of lead and sulphate of zinc in eight ounces of water, should be applied two or three times a day. This solution could probably be applied with advantage whatever the condition of the wound.

Tanning a Bull's Hide.

S. L., Sharon Center, N. Y., asks for a recipe for tanning a bull's hide with the hair taken off, so that it will be soft and pliable, as he wants it for halters and traces. All he has seen tanned for this purpose have the hair on, and are hard.

ANS.—Manufacturers decline to make public their recipes for tanning leather, as upon them they depend for their success in business. For the uses spoken of by our correspondent, we should prefer a bull's hide tanned in the regular way, as it would no doubt last longer and could be kept soft and pliable with oil. Our correspondent is not far from Gloversville, N. Y., where leather is tanned extensively in the manner he desires. By sending the hide there, he could, doubtless, have it tanned in a satisfactory manner.

Making Artificial Mothers.

A. S. N., asks, 1, what is the best way of making artificial mothers; 2, where can incubators be bought.

ANS.—Much depends on the use to which the "Mother" or "Brooder" is put, and where it is to be used. If in the house, a simple box, with a stone jug filled and refilled with hot water, over which a piece of old woolen blanket is thrown, will answer every purpose. If for out-door use, a tight coop or box should be used, with some more constant source of heat. If one is needed for open-air use, it is better to purchase one of some manufacturer of these articles. For these as well as for an answer to the second query, see the advertising columns of this paper.

Sheep for Sale or to Rent?

M. L. Pennell, Washington, Kan., asks where sheep can be bought or rented in considerable numbers.

ANS.—Sheep can be purchased by the flock at Denver, Colorado, at Wichita, Kansas, or of owners of flocks in the western part of your State between Hutchinson, in Reno Co., and Great Bend, 100 miles farther west. Sometimes some of the owners who cannot sell, will rent their flocks, but this is not often done from the uncertain nature of the business when in the hands of inexperienced persons. We give our correspondent's address in full, so that those who have sheep for sale may correspond with him. Such queries, however, should be made through our advertising columns.

Cows for Cheese and Butter.

N. E. P., Fillmore, Allegany, N. Y., asks, 1, what breed of cows is best adapted for milk and cheese; 2, what breed for cream and butter.

ANS.—1. Holsteins and Ayreshires are both well adapted for milk and cheese. It is a question which of the two breeds is the best, some preferring one and some the other. The Holsteins are the largest, give the most milk, and consume the most food. 2. For the richness of their cream and butter, the Jerseys take the first rank, though they are inferior to either of the above breeds in the quantity of milk produced.

Infantado Merino Sheep.

S. T., Onawa City, Monona Co., Ia., asks where he can buy a car-load of pure-bred Infantado merino sheep.

ANS.—Pure-bred Infantado merino sheep can be bought in many places East and West. E. Townsend, Pavillion Center, N. Y.; Samuel Archer, Kansas City, Mo.; A. M. Tyler, Alexander, Ohio; E. Peck & Sons, Geneva, Ill.; and S. B. Lusk, Batavia, N. Y., are all extensive and responsible breeders who have been successful prize-takers at exhibitions.

Spring Treatment of the Grapes.

J. R., Roselle, N. J., asks for a few hints as to the treatment of Grapes in early spring.

ANS.—As the spring season advances, gradually remove the covering. Rather than remove the covering too soon, it would be better not to cover at all. March and April are sometimes more trying to plants than the winter months. There will no harm result from rubbing off any buds that are not needed.

Miscellaneous.

Mrs. M. C., Memphis, Mo., asks, 1, for a recipe for coloring cotton a bright red; 2, does an orange tree need to be grafted or budded. Those in the nurseries, she has been informed, are merely ornamental and do not bear edible fruit. If they bear as seedlings, how old must they be before doing so, and what must be their treatment. Her's is six years old and has been treated like an Oleander. 3. She asks for some information about fig trees, and, 4, where can she obtain Muscatel Grapes.

ANS.—Leaman's Aniline Dyes—Wells, Richardson & Co., Burlington, Vt. 2. Seedling orange and lemon trees do not bear fruit in many years. Occasionally, however, they bear early. Root-prune the tree and replant it in rich, loose soil. It is always better to bud, unless a new variety is desired. Good varieties can be found probably among her friends and neighbors, and certainly at florists' establishments. 3. Brown Ischia, Brown Turkey, Violette, Pregussata, White Genoa are among the hardiest varieties. The fig will not be hardy enough for northern Missouri. It might be grown in large pots or tubs by storing in the cellar during the winter. Fig trees are propagated by layers or cuttings. 4. Muscatel, or Muscadel, is merely a general name for certain tender varieties.

F. Bros., Burlington, Kansas, ask 1, what is our opinion of the Peabody Sweet potato, and where can seed be obtained; 2, what is the best way of propagating Honeysuckles. 3. They intend to plant a row of White Elms around their farm, fifty feet apart, and ten feet inside the Osage-Orange hedge, to alternate with some kind of evergreen, and they inquire what sort we would recommend. 4. Those who are supposed to be competent judges on the matter, advise them to cut the Elms—which are to be two inches in diameter at the base—down to the ground, and our opinion as to the advisability of doing so, is asked; 5, will peas, tomatoes, potatoes, etc., of different varieties "mix" to any extent.

ANS.—1. It is a good variety. From Peter Henderson, we believe. 2. They grow readily from seeds or cuttings. 3. The American Arbor-vitæ or Hemlock. The first will grow faster, but the latter is handsomer. 4. We should advise it for your purpose. 5. They will mix;—that is, the flower of one variety of peas will mix with those of another variety of peas—those of tomatoes, with other varieties of tomatoes, etc. The *fruits* can not mix—neither can the potatoes mix, as they are merely fleshy, underground stems.

D. H. Scranton, Pa., asks, 1, what are the best varieties of Strawberries; 2, the best varieties of Blackberries; 3, of black Raspberries; 4, of Gooseberries; 5, of Grapes; 6, of Pears for culture in northeastern Penn.; 7, what is the best method of exterminating the bugs that destroy the Cucumber vines; 8, he has an apple orchard planted for nearly fifteen years on rather thin soil, and which produces now but little fruit, and he asks what is the trouble with it; 9, at what price can we furnish him certain specified books.

ANS.—1. It is not possible for us to specify what fruit or plant is best for any particular situation and soil; for Strawberries, try Wilson and Borden 30. 2. Kittatinny and Lawton. 3. McCormick or Mammoth Cluster and Doolittle. 4. Downing and Houghton. 5. Concord, Lady, Delaware. 6. Seckel, Bartlett, Buerre

d'Anjou. 7. Sprinkle over them fine, sifted coal ashes or plaster, in which a little sulphur has been thoroughly intermixed. 8. Give it a heavy dressing of barn-yard manure. 9. R. F. & L. F. Allen's New American Book, $2.50; Barry's Fruit Garden, $2.50; Wright's Practical Poultry-Keeper, $2; Harris's Talks on Manure, $2; Henderson's Gardening for Profit, $1.50.

T. H. T., Hillsborough, Washington Co., Oregon, asks, 1, whether Ayrshire cattle are now "out of fashion," and whether they are not as good as Short-horns or Holsteins for a cheese dairy; 2, how to cultivate Pearl Millet.

ANS.—1. Ayrshire cattle have never been widely "in fashion" in this country, and at present they seem to be as strong favorites with those who are well acquainted with them as they have been at any time. They are excellent cows for cheese dairies, fully as good as deep milkers among Short-horns. Holstein cows, on luxuriant pasturage, such as they have in Holland, are very deep milkers of milk suitable for either cheese or butter production, and under such conditions it is very doubtful whether any pure breed can equal them for cheese dairies; but the Ayrshire is much readier to accommodate herself to circumstances, and will give a satisfactory yield on scanty feed on which the larger and less active Holstein would be half-starved.

2. Prepare the land the same as for wheat, and plant TWO seeds four feet apart each way over the plat to be planted. As soon as the plants appear, pull up one. *Each plant*, under good cultivation, will need 16 square feet.

W. H., Norwich, asks what is the matter with his fowls. He has Partridge Cochins and White Leghorns and they don't lay. He feeds them bran and meal scalded, in morning; buckwheat, at noon, and occasionally meat and scraps. He is now feeding them burnt corn. He also wishes to know can hens be too fat to lay.

ANS.—We take the last question first, as that is probably the whole cause of his trouble. They are too fat. Over-fat has the same effect on hens as on milch cows—a very fat cow is rarely a good milker. An over-fat hog is never a good breeder. Just so with poultry: they should be generously fed, but no more than they will run after. Feed should never lie by them. Give them only what they will eat up clean, and always have them looking for a little more. W. H.'s course of food is good; cut the fowls to *half* rations; leave them almost without any for a day or two, and we think eggs will soon come.

W. H. B., Andover, N. Y., asks, 1, whether the juice of Liberian sugar-cane can be pressed out by means of a common cider mill; if not, can a farmer get a cheap machine suitable for the purpose; 2, would it be advisable for him to buy a seed drill on six months' time, having quite a number of acres to sow, and if so, which is the better, Farmer's Favorite or Buckeye.

ANS.—Yes, a cider mill can be made to answer. See RURAL, Feb. 8, p. 93 and Feb. 15, p. 109. 2. As to buying implements on time, our friend must be guided by his own circumstances and prospects. Both are excellent drills, and we would suggest that our correspondent procure descriptive circulars of both, and judge for himself which is best adapted to his needs.

M. M., Bloomville, Ohio, asks, 1, for information concerning the effect of spreading an inch or two of lime under the roosts in the poultry-house, and also, 2, what flowers will bloom and do well as a border around a bed of Ferns on the north side of a building, where the sun shines only a few hours in the morning.

ANS.—1. It will set free the ammonia in the poultry droppings—and as ammonia is a most important ingredient of the manure, it will depreciate the quality of the fertilizer. Plaster or gypsum will do no harm.

2. Alternanthera, Cerastium, Æschyranthes, Violets, Saponaria and Pansies will do as a border, and Fuchsias, Pelargoniums, Petunias, Godetias and various Pinks will bloom tolerably well in a shaded place.

J. C. K., Fredericksburg, Va., asks, 1, the name of a new work treating on the subject of Sheep Husbandry in all its branches and details; 2, also where Norfolk polled cattle can be obtained.

ANS.—1. The only modern work on Sheep Husbandry is Stewart's Shepherds' Manual, price $1.50, which can be procured through this office or of any bookseller who has a correspondent in New York. This book describes all the new breeds and their management; the rearing of lambs for market, and the treatment of the diseases usual in flocks. 2. Norfolk polled cattle are bred by Mr. F. W. Taber of Patterson, Putnam Co., N. Y. This is the only herd in this country.

H. J., Penville, N. J., asks for our opinion of Golden Millet as a forage plant; he has a rich meadow in which he wants to sow some variety of Millet.

ANS.—Golden Millet, also called German Millet, is a variety of the common or Italian Millet (Setaria Italica). It is a heavy cropper on rich land, but makes a very coarse hay, which, however, is greedily eaten by all kinds of stock. Procure a quantity of seed of the Pearl Millet, and try that on a portion of your meadow. We think it will be most likely to give satisfaction.

S. C., South Vernon, Vt., asks, 1, how can he get E. P. Roe's Catalogue of Small Fruits; 2, whether Black-cap Raspberries, set two feet apart in the row and properly pinched back in the growing season, will support themselves without stakes or other fixtures; 3, where can he get figroots, or slips for planting, at reasonable prices.

ANS.—1. Send for it to Cornwall-on-the-Hudson, Orange Co., N. Y. 2. Yes, if *properly* pinched back, they will support themselves; but they must not be permitted to grow over three or four feet in hight. 3, Of C. H. Hovey & Co., 22 Tremont street, Boston, and of most nurserymen.

H. R. M., Philadelphia, Pa, wants to learn where he can get a complete work on Poultry-keeping, treating of many specified branches of the business, and its price.

ANS.—THE RURAL NEW-YORKER has, within fifteen months, treated very fully upon all the topics mentioned. The best works upon poultry are Burnham's Poultry Book, $2; Felch's Amateur's Manual of Poultry, 75c.; Geyelin's Poultry Breeding, $1.25; Miner's Domestic Poultry Book, $1; Wright's Practical Poultry Keeper, $2; Lewis's Practical Poultry Book, $1.50. They can all be had through this office.

C. M., Colinville, Ont., wants to know if the sawing machine advertised in the RURAL of January 11th, is reliable.

ANS.—We presume reference is made to the one advertised by a dealer in Cincinnati, O., and can only say, that we make it a point never to accept any advertisement known to be fraudulent, and, so far as we can find out, the machine referred to, is reliable. If any of our readers know anything to the contrary, he will do us a favor by informing us of the fact.

A. A. C., Hardinsburgh, Indiana, asks for a good plan for a stock and grain barn, in which convenience and cheapness shall be essential points.

ANS.—During the past year we have published several illustrated descriptions of barns just of this kind, and are now giving to our readers a series of well-considered articles on the subject. We must refer our friend, therefore, to back and current numbers of the RURAL.

J. D. J., Love's Station, De Soto Co., Miss. says that a Brooklyn firm have sent him a circular offering a dictionary of 700 pages for 54c., and asks whether it is worth it.

ANS.—The dictionary referred to is probably the "Diamond," which sells at retail in New York for 50c. It is a very fairly abridged work that is worth from fifty to seventy-five cents, we should think. See publisher's notices in a late issue.

F. W. W., Jonesville, N. Y., asks where can he get Red-top and Orchard-grass seed, and the price of each, and how much per acre should be sown of each for pasturing purposes.

ANS.—Of any good seedsman. Red-top, $1.50 per bushel; Orchard-grass, $2.25. Of the first, about three bushels per acre; of the second, two and a half bushels.

S. G. B., Jamestown, Chautauqua Co., N. Y., asks where can he get seeds of the Chinese yam.

ANS.—Of Alfred Bridgeman, 876 Broadway, N. Y.; W. H. Carson, 125 Chambers Street; R. H. Allen & Co., 189 Water Street; B. K. Bliss, 34 Barclay Street, N. Y.

M. C., South Bend, Ind., asks which kind of Incubator, or Artificial Hatcher, do we recommend as the best.

ANS.—We have had no experience with them, and we are unwilling to recommend any. Write to A. M. Halstead, Rye, N. Y., and to A. Corbett, 7 Warren street, N. Y.

Mrs. E. Lewis, Prattsville, Green Co., N. Y., asks for directions for dissolving India rubber and gutta-percha.

ANS.—They are slightly soluble in coal naptha, oil of turpentine, and chloroform; but their best solvents are sulphide of carbon, and the liquid hydrocarbon called caoutchoucine.

A. P., St. Mary's, Ont., Canada, asks the best time to sow Pearl Millet and how thickly should it be sown.

ANS.—For the above section, not before June 1st. Each plant will need 16 square feet of land.

R. G., Lewisville, O., wants to know where he can obtain labels for sheeps' ears.

ANS.—Of C. H. Dana, West Lebanon, N. H. Some dealers may, perhaps, be found nearer home, by inquiring of some sheep-owner who uses labels.

W. C. L., Gainsville, Ala., asks, 1, which would give the better chance of success—raising tea from plants or seed; 2, and where either can be procured.

ANS.—1, From plants. 2, Of the Department of Agriculture, Washington, D. C.

I. R. W., Taylor's Center, Cortland Co., N. Y., asks: "Will a half-blood Pekin Drake breed in with the common ducks, and the eggs hatch?"

ANS.—Yes. It is only the Muscovy cross that results in a *mule*—a hybrid that will not breed.

J. A. M., Edge Hill, Pa., asks where would he be likely to get White-crested Black Polish fowls.

ANS.—Write to G. S. Josselyn, Fredonia, N. Y.—J. T. Lovett, Cornwall-on-the-Hudson, N. Y.

J. O. S., from some one of the 16 Bridgeports in the U. S., asks which is the best time to prune fruit trees, such as the Apple and Pear.

ANS.—Fall, winter or early spring. If in winter, choose a mild spell.

N. E. P., Fillmore, Alleghany Co., N. Y., asks whether we have tested the Fultz wheat, and if we think it a desirable variety.

ANS.—We have not, but have read many favorable reports of it.

J. R. Hartsgrove, Astabula Co., O., asks where can he get Alfalfa seed.

ANS.—Of any large seedsman who deals in farm seeds.

MANY inquiries regarding the plants mentioned under "Catalogues received," are referred to the Catalogues themselves. We praise or condemn only such plants as we have tried and found meritorious or of little account. We purchase and test *all* new plants that seem to be worth testing—except those which require tropical heat during the winter.

WE refer many inquirers about White-crested Black Polish fowls to our poultry number. Also to current numbers.

COMMUNICATIONS RECEIVED FOR THE WEEK ENDING SATURDAY, MARCH 8TH.

M. E. A. — W. W. — J. G. C. — W. C. — S. C. — S. E. H. — J. C. W. — A. H. — L. L. S. — J. F. L. — S. I. P. — A. P. A.—P. — J. T., thanks —N. M. L.— J. B.—W. M.—M. O., thanks —S. H. R.—T. H. H.— D. H. — M. S. W. — E. W. S. — E. G. R.—F. D. C.— J. M. K. — A. M. H. — C. M. —J. J. D. — J. D. S. — M. C. C., the *first* Seed Distribution of 1879 closed last week —B. M.—W. N. W.—W. I. I.—W. C. G.— R. G. — W. P. G. —F. K. M.—J. C. W., thanks — W. J. G.—C. D. — F. M. H. — J. S. — M. A. E.—Dr. T. H. H.—H. L. W. —C. H. S. — E. W. — S. E. J. — E. J. R. — F. D. C.—C. H. H.—R. C. C. —C. E. V.— T. T. L.

Trees, Seeds, Plants, &c.

PEAR SEEDLINGS.—No. 1, $3; No. 2, $5 per M. Mazzard Stocks—No. 1, $3; No. 2, $2 per M. E. P. CLARK, Dansville, N. Y.

RELIABLE HOME-GROWN SEEDS.
Ten Packets for 25c. RURAL NEW-YORKER with *Extra* Premium for $2. Also Rabbits, etc. Send Postal for Circular.
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Shaker's Garden Seeds.
True and Genuine. Fresh and Reliable.
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100 SELECTED VARIETIES.
Genuine stock. Quality best. Prices lowest. Send for free Catalogue to JOHN S. COLLINS, Moorestown, N. J.

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Eight beautiful Ever-blooming Roses, ready for immediate flowering, sent post-paid, by mail, on receipt of $1.00.
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25 varieties of Choicest Flower Seeds, sent post paid, by mail, on receipt of $1.
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Most of these NOVELTIES in Plants and Seeds were SELECTED PERSONALLY by us, while abroad, and are now offered for the FIRST TIME in this country
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N. B.—Our Seed Catalogue sent free on application.

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15 John St., New York,
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THE BEST ANNUAL FODDER PLANT.
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SMALL FRUIT PLANTS,
Seeds and Seed Potatoes.
Catalogue free. Address F. M. HEXAMER, New-Castle, Westchester Co., N. Y.

$1,000 Worth of RASPBERRY PLANTS Given Away
Strawberry, Blackberry, Currant, Grape, Gooseberry and Asparagus. 100 varieties. Strong plants true to name. Extraordinary offer. Family supply 20 varieties $3. Circulars free. G. H. & J. H. HALE, South Glastonbury, Conn.

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The largest and most remarkable collection ever offered for sale in this country. Also, an extensive assortment in large quantities of FRUIT and ORNAMENTAL TREES, SHRUBS and VINES.
SPECIALTIES: Japanese Maples, Rhododendrons, Hardy and Greenhouse Azaleas, Camellias, Roses, Magnolias and New and Choice Hardy Plants.
Price Lists *Free*. Descriptive Catalogues 10c.
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The most beautiful and complete Seed and Bulb Catalogue published. 60 Exquisitely Colored Plates, *Engraved Cover in Gold*. Describes 1000 sorts *Flowers & Vegetables*. Price, 25 Cents. All ordering the book are registered and the price refunded on first order for Seeds, &c., to the amount of $1. WM. H. REID, Name this paper. Rochester, N. Y.

ARTICHOKES.
Red Brazilian and White French varieties; cheapest hog food known. Send for Circulars.
E. F. BROCKWAY, Ainsworth, Iowa.

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Garden, Flower & Field Seeds,
Reliable, fresh and pure, at reasonable prices.
(ESTABLISHED 1839.
STAIR & KENDEL,
Cleveland Seed Store, Cleveland, Ohio.

GOOD SEED
SEEDS
Best ever grown
Down goes prices cheaper than dirt. Warranted fresh from grower. Send for free Illustrated book and Guide to the garden. Prettiest ever printed.
R. H. SHUMWAY, ROCKFORD, ILL.

THE ALBANY SEED STORE, Estab'd 1831.
PRICE & KNICKERBOCKER, successors to
V. P. DOUW & CO SEEDSMEN ALBANY, N. Y.
Spring Catalogue—250 illustrations—mailed on receipt of six cents in stamps, to prepay postage, which will be allowed on first order. 80 State St., Albany, N. Y.

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Catalogue of New, Rare and Beautiful Plants,
will be ready in February, with a colored plate.—Many new and beautiful Plants are offered, among Dracænas, Crotons, and other fine foliage plants, with a rich collection of Green-house and Hot-house Plants; Bedding Plants; new and choice Roses; Dahlias, etc. Well grown and at low prices. Free to all my customers, to others 10c.—a plain copy free.
JOHN SAUL, Washington, D. C.

THE
RURAL NEW-YORKER.
PUBLISHED EVERY SATURDAY.

Address
RURAL PUBLISHING CO.,
78 Duane Street, New York City.

SATURDAY, MARCH. 15, 1879.

PLEURO-PNEUMONIA AND SWILL MILK.

It is a misfortune of our free government that abuses are permitted to exist until they become intolerable. Preventive measures are supposed to interfere too much with the liberty of the citizen, and abuses exist until they become crimes. This is the case with the swill milk dairies which are so numerous in the large cities, but notably so in New York, Brooklyn and Jersey City. These foul establishments, pestiferous plague spots, dens of filth, cruelty, iniquity and disease, exist and flourish, in spite of Boards of Health and Societies for the prevention of Cruelty to Animals—human beings not included. So long as thousands of infants die annually from the effects of the diseased milk, we hear nothing, except the occasional spasmodic and perfunctory effort of a Board of Health which gives, now and then, a *raison d'etre*, or excuse for its existence, in a foolish and ineffective raid upon one of these pest-dens. But when a business becomes threatened; when the loss of a few thousands of dollars is risked, then a convulsion occurs; and, not to put too fine a point upon it, a row is made. Such a row is now in progress. "Our craft is in danger" exclaim the shippers of live stock, and something must be done about it, at once, or sooner.

There is a good reason for this commotion too; but it is not that the English ports have been closed against our cattle; but it is,—and we say this deliberately and knowingly,—that this danger is the least of the ill effects of the utterly abominable practice of feeding cows upon hot distillery slop, in filthy stables, in the outskirts of the cities mentioned. It has been denied that there is pleuro-pneumonia existing in this country. Yet the fact is not to be controverted. To our knowledge it has flitted about Long Island for two or three years past, and we could mention names and places of farmers and farms who have lost cattle by this disease, or who have saved their stock by vigorous quarantine. It exists now to our knowledge in Hoboken, among other places, and it has spread from a stable in that locality to the farms of an adjoining county, through the introduction of one cow brought from there to a country dairy. This knowledge has not come from any inquiry but through ordinary contact with farmers. Scores of people have the same knowledge, and any one might have learned it by simply visiting the neighborhood of the swill dairies. A most serious bill of indictment may be brought against these foul institutions:

They are dens of cruelty; the cows exist in them in all stages of disease engendered by the unwholesome food and the horrible filth and foulness in which they are kept. *They are destructive of human life;* the diseased milk coming from diseased blood, carries poison into thousands of unsuspected places, and tender children are slain by this concealed enemy. *They are destructive of honest trade;* they compete with the pure, fresh milk of the country dairies, and so lower the value of it in the city markets, as to drive it out of competition. By the use of a waste and worthless product, fit only for the sewers—cheap and nasty—this swill milk can be produced at a nominal price, as compared with pure milk from hay and grain. *They destroy the property of others;* they create disease and spread it by every "air of heaven" to distant places, where it poisons healthy cattle and causes ruinous loss to poor but honest farmers. *They disturb business,* and create uneasiness over one-half the globe; for as from an insignificant spark a wide conflagration may occur, so from this obscure corner of a great city, hidden from sight by dingy sheds and squalor and heaps of dirt and filth, pestiferous breath may go forth and carry the germs of death to the center of a wide field, from which other centers may be stricken, until whole continents may be infected.

The truth of these charges is easily proven. In fact, it is admitted. It has been repeated by a thousand lips and the tongues of rumor have spread it abroad, long time since. Now that the evil has come in such unquestionable shape, something may be done. Now that a few millions of dollars are at stake and a growing business is threatened, the public health may indirectly be benefited and the poor, suffering, patient cows may be spared intolerable cruelties.

Fortunately the high sanitary condition of farm herds has prevented the spread of this disease in this country. Wherever it has appeared, it has soon died out and has affected only a few cattle in the immediate neighborhoods. In Long Island it has been only here and there that a herd has been diseased, and by care to exclude danger, other herds have been saved. In fact, there is nothing at present to give occasion for the fears of the Canadians and the English people. But the latter have been seriously crippled by the dreaded disease in an epizootic form, and it is reasonable that they should fear a fresh danger from a new source. The disease is not epizootic here; it appears sporadically and dies out, each attack being easily traced to the sources we point out. But there are people who live, eat and sleep on the sides of volcanoes, and who hear the rumblings and tremblings beneath them without any fear until an eruption suddenly sweeps them away. Just so with this disease. What unknown conditions might arise suddenly that will prepare the way for its spread from Maine to Texas, we cannot tell. Some meteorological changes may take place at any time, favorable to the spread of infection and thousands of farmers may be ruined. The plague should be stamped out without delay. We approve of the proposal to authorize the Agricultural Department to take cognizance of this matter, and hope it may do so with such energy as to destroy the shameful business and prevent its resurrection ever again. A business that carries such possible disaster in its train, should be declared a public danger and an enemy.

WANTED—OLD SONGS.

"Let me make the songs of a nation and I care not who may make its laws," was the remark of one who knew how deeply old songs affect the minds and actions of the average public. It seems to us, however, that the influence of songs is on the wane; that we have none now so generally popular as in the olden time. In the Presidential campaign when "Tippecanoe and Tyler too" were the candidates, song singing was a prominent feature in every political gathering, whether large or small, and had doubtless much to do with the enthusiasm that eventuated in the election of Harrison.

But it was of the older times we were thinking, when matters of general and even local importance were woven into rhyme—which, however far from poetry it may have been, served to fix the incidents it commemorated firmly in the memory. Of the many songs of this kind we used to hear in our childhood, bits of several occur to us as we write. There was one reciting in detail Commodore Perry's victory on Lake Erie, commencing—

"On the tenth of September, let us all remember,
So long as the world on its axis rolls round,
Our tars and marines on Lake Erie were seen,
To make the proud flag of Great Britain come down."

After describing in detail the manœuvering of the contesting forces, it relates how—

"The whole British fleet was brought up complete,
When our signal was given to break through the line,
Then from larboard and starboard and from every quarter,
The lumps of Columbia most glorious did shine."

There were many stanzas of the same general style, which together served as a very good narrative of the event.

The capture of the British frigate Guerriere by the Constitution, was recited in a song of many stanzas, the first of which we remember was as follows—

"It oftimes has been told
How the British sailors bold
Could flog the tars of France so neat and handy, O—
And they never found their match
Till the Yankees did them catch—
The Yankee lads for fighting are the dandy, O.

Then followed a circumstantial account of the action, capture and surrender.

Of a more local character is the song relating to the death of a young man in consequence of the bite of a snake.

"On Springfield mountain there did dwell
A lovely youth, and known full well—
. . . . . .
Early one morn this youth did go
Out in the meadow for to mow;
He mowed and mowed all round the field
With a poisoned serpent at his heels."

The concluding stanzas portray in mournful cadence the sufferings and death of this lovely youth; and so popular was this song in New England half a century ago, that his fate was known and lamented by the whole community.

We should be glad to have some of these Epics rescued from oblivion. There are doubtless some among the readers of the RURAL who have copies or memories of them, that they would gladly see in print, and many of our young friends would be amused, if not instructed, by reading the songs their grandsires sung in the olden time. Why will not some of our enterprising publishers favor the public and profit themselves by issuing a volume of The Songs of our Fathers?

TIMBER PLANTING FOR PROFIT.

There are too many waste acres. Everywhere are seen plots of land that are uneven and rough, and not adapted for the plow. To bring them into profitable use and prevent them from becoming nuisances and nurseries for weeds, something should be done with these waste places. Planting them with trees seems to be not only a proper but also a profitable use for them. Fruit trees may be planted upon some of them, but the largest part of this useless acreage can be made a source of profit by planting timber trees upon it. What kinds of timber then should be planted? There is a steady demand for all sorts of ornamental and useful woods, such as walnut, cherry, white ash, sycamore and others used in building and cabinet-making. Chesnut, hickory and oak "go without saying" because there are abundant uses for them on the farm. But who thinks of trees that are useful for their bark? A few days ago the writer sold hemlock bark at $15 per cord; rock oak bark for $8, and white oak for $6, and the timber was left "to the good," in addition. Tanneries abound on every hand and they are rapidly using up the bark timber. Scores of tanneries which have cost many thousands of dollars are now abandoned, and hundreds more will go to ruins soon because the supply of bark is or soon will be exhausted. What farmer near these ever thinks of planting bark timber to supply the future demand. He skins his land of its bark, and leaves the ground to grow up with rubbish and useless trash.

Suppose he were to join hands with the tanners and go to planting his waste land with hemlock and oak? Clear up the denuded ground and plant some old fields with young trees. A coming supply would render the existence of the tannery profitable to him as furnishing a market for his farm produce and in time a customer for his growing bark. The mountain ranges can thus be made to secure a permanent industry for farmers who are now in danger of starving upon their hill sides as nearly barren as may be.

Let us consider the following figures. We import every year 4,000,000 hides and produce annually 9,000,000. These thirteen million hides require for their tanning 1,225,000 tons or cords of bark; half of this is hemlock and half of oak. Our stock of bark timber is disappearing from sight with amazing rapidity. Thousands of square miles of land in New York and Pennsylvania, the seat of the bulk of the tanning industry, are reduced to the condition of a howling wilderness by reason of this waste. By replanting this land it may be all restored to beauty and use. Otherwise, as soon as our present supply of bark is exhausted, this great industry must gradually collapse and leather must be imported from abroad, instead of, as now, being largely exported. Want of foresight is a human failing; but surely so plain a need as this, so sure a remedy, and so certain a resource, should be apparent to the most careless man whose interests are involved. When trees are planted, let it not be forgotten that there are some valuable for their bark and some localities where the bark is worth more than the wood.

Interest on Money.—The earnings of capital now become a subject of greater interest than for many years. We see that it is agitating both the mercantile and the agricultural classes. The bill before the Legislature of New York to make the legal interest on money six per cent. is taking a very conservative view of the question. Four per cent. is over the average earnings of real estate in New York, and probably in most States; and there is no reason why the interest paid for the use of money should be so disproportionate to its real earnings. The farmer, above all, feels the hardship of excessive interest. A farm encumbered to half its value is worked solely for the benefit of the mortgagee, as the legitimate income will only pay seven per cent. on half its value. The legal interest in several of the States has been only six per cent. for many years, and the New York movement may be considered very modest, since at present there is more money than business. Yet the money interest is combined, and vigilant in protecting its exactions; while the farmers, practically uncombined and looking for some miraculous intervention in their behalf, will probably find that the members elected by their votes will represent the small money class and forget their constituents.

Farmers—How to Lift the Load.—There is no disguising the fact that a large fraction of the farms are under heavy incumbrances. Many are no doubt on the point of giving up the struggle. But we say, renew your courage. Prices are low, but low prices are not the worst obstacles to comfort. Easy spending often makes high prices come to nothing at the debt-paying point. Look the whole field over carefully; lop off everything that can be properly dispensed with; save good food for body and mind; let the whole list be carefully scanned.

Now pay up your back interest, at whatever sacrifice; then say to your creditor, "The times are changed; money must bear its share of the inevitable losses of the reaction; you should be willing to reduce this interest to six per cent.; much of the money of the country cannot be loaned at that; give me a chance and I will return you the last farthing."

If he is not willing to be just, your promptness in paying interest will command the money at the reduced rate, and you can pay off your hard creditor and substitute the new one.

Spend less, produce more, and your load will soon be lifted.

BREVITIES.

The corn distribution is now in order. It may be worth repeating that the other distribution has ceased.

Though one of the stanchest temperance journals, the RURAL NEW-YORKER may be said to have been a little "corned" last week.

A newly-discovered process by which sugar can be profitably made from Indian corn and sorghum will soon be made public, so officially reports Mr. Victor Drummond, Secretary of the English Legation at Washington. He says that sorghum will yield 1,000 pounds of sugar from each cultivated acre and Indian corn about 800 pounds. If the discovery equals what is claimed for it, its importance to our farmers, especially in the West, can hardly be overestimated.

Mr. W. I. Chamberlain, writes us, too late for its insertion in the appropriate place, that the engraving and description of the water tank and cistern, given by him in connection with his article on barn-building in this issue, were first prepared for the Country Gentleman, in which they will appear nearly simultaneously with their appearance in these columns, and that permission has been courteously given him by the editor of our esteemed contemporary, to send them to the RURAL also.

The New Jersey Legislature is culpably dilatory in passing laws for the suppression of pleuro-pneumonia. Not only are the herd of that State thus kept exposed to contagion, but the existence of the malady widely among them in some sections, is a source of danger to cattle in the neighboring States. Prompt action, gentleman, is imperative in this case, and let the laws provide for the slaughter of infected animals as well as for the quarantine of exposed herds.

The warm days of spring are evidently at hand, but do not think it therefore necessary to immediately remove the covering of straw or boughs from plants thus protected for the winter. No more dangerous period exists for plants than during the freezing and thawing ordeal of early spring when the sun is powerful and the nights are cold. The chief endeavor at such times should be, to retain frost in the ground about the plants as late as possible, and at the same time to keep the leaves sheltered from the warm sun while the cold nights last. Better retain the covering far into April than remove it too soon.

We wish all persons interested in ornamental plants would report to us, as spring advances, concerning the condition of their trees and shrubs after the past somewhat severe winter. There is great need of exact information or data as to the hardiness of trees and shrubs, and as a natural result scarcely any one can undertake to give sound advice as to what trees to plant in various sections. In making such reports, moreover, care should be taken to state the character of soil, exposure, age of the plant in question, as well as period of time since last transplanted. On a knowledge of the peculiarities of such conditions largely depends the ability to form correct estimates of the hardiness of plants in any given locality.

The farmer's busy season is now near at hand, and with the opening of spring scores of little jobs will demand his attention. One that is by no means of inferior importance, though generally so considered, is the planting of ornamental trees and shrubbery around the house. If you feel that you cannot spare the time and the little sum it would cost to have your place regularly laid out, though we would advise such a course, then plant, at least, some trees. Procure a few Norway Spruces, hard Maples, American Linden, and other trees of rapid growth and handsome form, and plant them around your home. In after years, when you leisurely enjoy the seclusion and shade they afford, you will feel richly repaid for the trouble.

A "forage parsnip" of remarkable excellence has lately been raised in Brittany, France, through the tireless labors of M. La Baln, who has gratuitously been distributing seeds of it to all applicants. It produces from 20 to 27 tons per acre, according to soil and culture, and, while analyses show that in the common parsnip the proportion of dry material is only about 11 per cent., the *panais fourrager* is proved to contain from 17.28 to 21 per cent. of solids. These are rich in sugar, starch and aromatic constituents, a fact which accounts for the high opinion formed of its merits by French farmers who have tested it. They are unanimous in stating that cows are very fond of it, and that it increases the quantity and improves the quality of their milk. It is also excellent for fattening pigs and keeping horses in fine condition.

Literary Miscellany.

Our request for the words of "The Sexton" has brought us many replies from subscribers who have kindly been at the trouble of sending us a copy of the poem. One correspondent writes that "the poem was made familiar to Ohio people by the charming manner in which it was sung by J. M. Bouiard, when with the Alleghanians several years ago."

THE SEXTON.

AS SUNG BY MR. RUSSELL.

Nigh to a grave that was newly made,
Leaned a sexton old, on his earth-worn spade;
His work was done, and he paused to wait
The funeral train through the open gate;
A relic of by-gone days was he,
And his locks were as white as the foamy sea—
And these words came from his lips so thin,
"I gather them in! I gather them in!"

"I gather them in! for man and boy,
Year after year of grief and joy,
I've builded the houses that lie around
In every nook of this burial ground.
Mother and daughter, father and son,
Come to my solitude, one by one—
But come they strangers, or come they kin,
I gather them in! I gather them in!

"Many are with me, but still I'm alone!
I am king of the dead and I make my throne
On a monument slab of marble cold,
And my sceptre of rule is the spade I hold.
Come they from cottage, or come they from hall
Mankind are my subjects—all, all, all!
Let them loiter in pleasure, or toilfully spin,
I gather them in! I gather them in!

"I gather them in, and their final rest,
Is here, down here, in the Earth's dark breast!"
And the Sexton ceased—for the funeral train
Wound mutely over that solemn plain;
And I said to my heart—when time is told,
A mightier voice than the Sexton's old
Will sound o'er the last trump's dreadful din
"I gather them in! I gather them in!"

WEAKER THAN A WOMAN.

CHAPTER XXXVIII.

(Continued from page 159.)

Afterwards, when Lady Chevenix had gone to give orders about her journey, Miss Hethcote said suddenly to Felix—

"I shall go away much happier for leaving you here."

"I shall be here for a few days only," returned Felix. "Why should you be happy about my being here? I do not understand."

"I may speak freely to you," said Miss Hethcote; "you know them, and you belong in some measure to them. I may tell you that Lady Chevenix lives in mortal fear of her husband."

"Why?" asked Felix.

"He has been very violent to her many times. It is not long since she had to send for Mrs. Haye, being afraid of losing her life. She has refused to be left alone since then. That is why I am glad you are here.

"But," said Felix, "he loves her—he must love her."

"I say nothing about that. He may love her, or he may not; but, when he is half mad with drink, she has reason to be alarmed."

"I cannot think that even then he would hurt her," said Felix.

"Well, it is very pleasant to have such cheerful views of things. I should be glad if I could share your faith, but unfortunately I have seen bruises on her arms and marks on her face, such as, if I had been a man, would have made me feel inclined to call Sir Owen out."

She saw the handsome face of the man before her grow pale with emotion. She saw his strong hands tremble and his fingers clench tightly. She talked until the storm of passion had passed over him.

"I cannot bear to think of any woman being ill-used," he said; "it is one of the things that irritates me and makes me angry with an anger that frightens me. But Lady Chevenix is so gentle, so amiable, I cannot understand any man being unkind to her."

"I can understand anything Sir Owen does," rejoined Miss Hethcote. "Mr. Lonsdale, you will be kind to her?" she pleaded. "Believe me that a peasant-woman working in the fields, or a factory girl in a mill, is happier than Lady Chevenix of Garswood."

"I am grieved to hear it," he said; and then Miss Hethcote left him.

She went away early the next morning, never dreaming of what would happen before she saw Garswood and its mistress again.

CHAPTER XXXIX.

On the morning after Miss Hethcote's departure Sir Owen did not come down to breakfast; but Felix met his valet with some soda-water and brandy. The young lawyer descended to the breakfast-room, where Lady Chevenix awaited him. She looked very fair and young in her pretty morning-dress. She was so pleased to see him; her face brightened, her eyes met his with such a glad light; she could not be cold and formal to him.

"How true you are to your colors, Lady Chevenix!" he said. "Blue and white—I hardly remember to have seen you wear anything else."

"You will own that they are pretty colors, will you not?" she asked, with a smile—one of those charming smiles that stir a man's heart and pulse.

He sat down at the breakfast-table with her, and he asked himself had fate ever placed another man in such a predicament before.

"See," she said—"I remember your tastes. You like tea better than coffee, and you like fruit. These strawberries have just been gathered; they have the dew on them."

She talked to him during breakfast, so gaily, so kindly; but, when he looked at her, there was something almost pathetic in her eyes—something that, in spite of her brilliant beauty, was half sad. Then, when they had finished breakfast, a servant came in to say that Sir Owen would join them in a few minutes, and would take Mr. Lonsdale to the strong-room.

The long French windows were open, and great heavy red roses came peeping in. Lady Chevenix went to them; Felix followed her, and they stood talking together. In some vague way the years seemed to have fallen from them, the terrible past for a few moments was forgotten. He was like the Felix of old, she like beautiful Violet Haye. They had just a few happy minutes, during which they spoke only of the roses before them and the pleasant prospect. Then Sir Owen came in, and it was as though the whole face of the heavens had changed.

The Baronet and his legal adviser went away together, and Felix spent the whole of the day in the strong-room, reading documents and papers of all kinds. He did not see Sir Owen and his wife again until dinner, and thus the first day of his visit passed quietly enough.

On the second the tenants came to dine at the Hall, and the grand banqueting-room in the western wing was thrown open. The dinner passed off well, and the tenants drank Sir Owen's health with noisy cheers. Nor were they much less enthusiastic about Felix, when his health was proposed. After a pleasant day they left Garswood early in the evening.

Lady Chevenix had been alone all day; the servants were in attendance on the numerous guests, and in the evening she asked for tea, thinking that Sir Owen and Felix would like to join her. Sir Owen, who had drunk more brandy in a few hours than another man would have drunk in a week, made some observation about her ladyship's tea which, when repeated by the footman in the servants' hall, caused great amusement. Felix was sorry to decline, but he had some hours of hard work yet in the strong-room; the leases were all to be signed on the morrow.

When the visitors were all gone, he returned to the strong-room and resumed his work. Lady Chevenix went to him to persuade him to let her send some tea there, and he consented. He looked at her, as she stood in that darkened room, in her evening-dress of white silk and trailing lace. She wore a superb suite of opals, which shone with the "fire that lives in gems." She looked like a dream of beauty in that dull, gloomy room.

She sent him some tea, and asked him to come to the drawing-room when he had finished, and he promised to do so. When she returned, Sir Owen lay on one of the couches, fast asleep.

She was thankful to see him asleep, and hoped that he might wake up quite himself. She drew down the blinds and darkened the room. Who could tell what she suffered in her heart, this fair, stately woman, who shrank so keenly from all stigma of disgrace, her daily, hourly dread lest her husband should do something that would entail everlasting shame upon them, lest any one should see him in those moments when he was quite unfit to be seen? What a double life she lived, this brilliant and beautiful woman—before the world all gaiety, smiles and animation, in her own heart always a terrible weight of anxiety.

For this evening at least she was safe. She thought he would wake up himself, and then they would spend a happy hour with Felix; so she watched lest sound or light should disturb him until Mr. Lonsdale joined them.

He awoke at last, but the sun had long set, and the fragrant silence of night lay over the earth. She had cooling fruit that was pleasant to eye and taste ready for him, she had everything that was refreshing, but no stimulant. He pushed aside the purple grapes and the crimson strawberries.

"Where is the brandy?" he asked her. "The idea of offering a man such things as those!" he exclaimed. "Ring for the brandy!"

She dared not refuse—moreover, refusal would have been of no use. She rang the bell and gave the message, but, before the brandy came, with sweet womanly tact she had lured him from the room, hoping that he would forget it. She walked through the long corridors for some minutes, talking to him; then he suddenly remembered Felix, and said that nothing would satisfy him unless he left his work and joined them. He went to persuade him, while Lady Chevenix ordered the lamps in the drawing-room to be lighted.

The two gentlemen returned together, and they played for some time at cribbage, a game for which Sir Owen had a great liking. Suddenly he remembered the brandy, and asked for it. Lady Chevenix dreaded its coming; she said the evening was warm, and begged of him to take some iced cup instead. He laughed at her.

"Listen to her ladyship!" he cried. "Iced cup! The very name of it makes me shudder. I want brandy—nothing else."

She remonstrated again, but very mildly. She felt she could bear anything better than this, that the man she had forsaken should see in his true colors the man she had married.

These last words proved too much for Sir Owen. He swore roundly at her. What business of hers was it, he asked, if he wanted a sea of brandy? Let her remember herself—remember from what position he had taken her, and not attempt to dictate to him; he would not endure it. She tried to soothe and conciliate him; she might as well have tried to soothe a panther.

The brandy was brought, but even then he did not recover his good-humor. Felix was miserable. He longed to put down his cards and say good-night, but he saw the face of Lady Chevenix growing white, and he was afraid to leave her. Miss Hethcote had told him of Sir Owen's violence. He would not leave her to the mercy of that violent man; yet every moment he remained with them was a torture to him. Sir Owen had no moderation. In vain his wife and Felix engaged him with cards and in conversation. Despite everything, he filled and replenished his tumbler. At length the alcohol began to take such an effect upon him that Lady Chevenix deemed it prudent to rise.

"It is growing late," she said, "we had better put aside the cards."

"Yes," agreed Felix; "I am tired."

He had no time to finish his speech. Sir Owen did not seem to hear it. He merely turned with a scowl to his wife, and cried in a voice of thunder—

"Sit down and go on with the game!"

Felix saw that she trembled in every limb, yet she kept all sign of emotion from her face; nothing but its pallor betrayed her fear. She sat down, but the young lawyer's spirit was roused. He threw the cards upon the table.

"Lady Chevenix is very amiable to go on playing," he said; "I shall not. It is late, and quite time to leave off."

Without a word, and so suddenly that there was no time to prevent it, Sir Owen turned and struck his wife on the face.

"Take that," he said, "and mind that you do not interfere with me again!"

The next moment a pair of strong arms had seized him and had literally thrown him across the room. His face white, his whole body trembling with passion, Felix stood over him.

"If you touch her ladyship again, if you lay your cowardly hands upon her," he cried, "I will kill you!"

Then he turned to Violet. She stood trembling, with a great red mark across her lovely pale face—a mark that burned like a hot iron.

"Oh, Lady Chevenix," he said, "I am sorry! I ought to have been quicker, more on my guard. Are you much hurt?"

She raised her face with that terrible bruise on it to his, and he saw great tears in her eyes. For a moment the old impulse of love was strong upon him, and he longed to shelter the golden head, every hair of which was dear to him, on his breast; then he recollected himself and said gently—

"I shall never forgive myself that this has happened. If I had been quicker——" He broke off abruptly, for his wrath was rising again. "I shall kill him," he cried, "if he touches you!"

She looked up at him; the bruised face touched his heart, and he turned away. Sir Owen was lying just where he had thrown him. He went over to him; the Baronet had most composedly fallen asleep.

"Thank Heaven," he said, "that I did not kill him—that I did not do him some deadly harm. Shall I ring for the servants?" he asked Lady Chevenix; and he never forgot her answer.

"If you would not mind it," she said, "I should be so thankful if you would place him in a chair; I do not like the servants to see all that happens."

He raised Sir Owen, who made some violent plunges the while, and placed him in a chair. The Baronet fell placidly asleep again, and Felix went back to Lady Chevenix.

"You must apply something to your face," he said, "or it will be black to-morrow."

She smiled and raised the white lace that fell over her arm. He saw a long dark bruise, the mark of a cruel grasp that had held the delicate arm as in an iron vice.

"I am seldom without a mark," she told him; "but I do not often find them on my face."

He looked sorrowfully at the graceful woman who had preferred money to love, and had suffered so terribly for her choice; he longed to say something kind to her, but prudence forbade him. She held out her hand to him, and he saw how it trembled. She smiled, and he never forgot the smile.

"Some day," she said, "he will most probably kill me. If he does, you will always remember that I—I was sorry I had grieved you, Felix."

"I will remember," he returned gravely. He held her hand for one moment while he bade her good-night, and then she went away.

CHAPTER XLI.

Felix thought long and anxiously after his return from Garswood. He was glad that he had treated Sir Owen as he did; he said to himself that he should have been less than a man had he not acted as he did. Yet it was not likely that after what had passed he could remain under Sir Owen's roof; neither did he desire to do so. It was torture to him to see Violet ill-treated; he could not bear it—nor could he interfere to prevent it.

Moreover, he believed it to be quite impossible that after the *fracas* Sir Owen could continue his business relations with himself and his father; a man might forgive much, but knocking a person down was a serious matter. So, when the sunshine came peeping into his room, Felix had quite made up his mind that that would be his last day at the Hall.

His ideas were confirmed when a servant, tapping at his door, said that Sir Owen would be glad to see Mr. Lonsdale in his own room. That, he believed, was the prelude to his dismissal.

"Never mind," said Felix to himself; "if I were placed in such circumstances again, I should do the same, and perhaps more."

He went immediately to the Baronet's room. As he passed from one room to another, he could not help admiring the magnificence and luxury of the house; it was simply superb, and, the morning sun shining through the windows, made it more beautiful still. He little guessed what that same sun would see before it set.

He entered Sir Owen's room quite anticipating, and indeed half hoping for, his dismissal; but his heart was touched when he saw the trembling figure before him. Sir Owen, flushed and excited with drink, was bad enough; Sir Owen in the morning light, trembling, weak and haggard, was worse. Felix quietly awaited the beginning of the storm; but, to his surprise, Sir Owen held out his hand. The young lawyer would not see it; he felt that he could never touch a hand that had been raised against a woman.

"I am really very sorry, Lonsdale," Sir Owen began. "I am afraid I was too much excited over the tenants' dinner, and forgot myself. I am very sorry. I hope that I was not offensive to you?"

"He has forgotten what happened," thought Felix to himself. "I must tell him."

"You were not offensive to me, Sir Owen," he said, "but you behaved with the greatest brutality to Lady Chevenix. You struck her with such violence that I was compelled to interfere."

There was something ruefully comic about the Baronet's face.

"I ought to be much obliged to you, I am sure," he said. "I love my wife very much, and cannot understand how I could have so forgotten myself. But I am very unfortunate when I exceed my usual allowance of wine, Lonsdale. You will shake hands and be friends?"

"I am willing to forget my share in the business Sir Owen. But excuse my shaking hands with you."

The Baronet laughed uneasily.

"You are very particular," he said, and then turned the conversation.

Felix despite his disgust, felt a great pity for him; it was not lessened when he saw his valet come to him with a bottle and a glass.

"Take less of that, Sir Owen," he said, "or you will kill yourself."

"Well I have to die; and I may just as well die taking what I like as taking medicine. Some men have more to live for than I have. I am very fond of my wife, but she does not care much about me; and I have no child. I really believe, Lonsdale, that I should be quite a different man if I had a child."

"You have plenty to live for, Sir Owen. You have your duty to do on earth; yet more, you must think of a future life," said Felix.

"I can pay other men to do my duty; and as to a future life—well, I have not been able to decide about that yet."

"It is high time you did so," said Felix gravely; and Sir Owen laughed.

"I have no thought of dying yet, Lonsdale; indeed I dare not die if all that the parsons say is true. Let us talk about something more sensible. Are you going to work again to-day?"

"The work has to be done, and I suppose I must do it. The leases have to be signed this morning."

"I will sign them before I go," said Sir Owen. "I am going out this morning, because I do not feel like myself. I am out of spirits; a cloud is hanging over me. I shall have a good gallop, and see if I cannot clear away the heaviness."

Felix went to his work, which on this morning was in the library; and before he had been there very long Lady Chevenix entered.

"I did not know that you were here," she said. "Shall I be in the way? I have some letters to write."

He placed a chair for her, and then looked at her face. Across the soft cheek was the mark of a violent blow.

Presently Sir Owen came in to sign the papers. He seemed very much ashamed of himself when he saw the bruise on his wife's face. He took her to the great oriel window, and they stood there for some time talking; then Lady Chevenix came back to her place, and Sir Owen went out of the room.

Violet and Felix went on writing in silence, when there came a tap at the door. Sir Owen's groom wanted to know if he might speak to her ladyship for a few minutes.

Lady Chevenix bade him come in. The man stood before her cap in hand.

"My Lady," he said, "I beg pardon; I must make bold to ask you to interfere. Sir Owen, he will go out riding this morning. That is all good and fair, my lady; but he will ride the new hunter Plantagenet, and he is no more fit for it than a child."

"You had better tell him so, Martin," returned Lady Chevenix.

"My lady, I have told him, over and over again. The more I tell him, the more he will go."

Lady Chevenix looked helplessly at Felix.

"Mr. Lonsdale," she said, "will you go and try to persuade Sir Owen not to ride that horse? It is a highly mettled animal, and he has never ridden it yet."

Martin touched his forehead to Felix.

"If you could persuade the master to stay at home this morning, you would do him a service, sir," he said. "Indeed, my lady," he continued, turning to Lady Chevenix, "Sir Owen could hardly manage Bonnie Bess this morning, his hands are so shaky."

"Thank you, Martin," she responded; "it was very thoughtful of you to come to me. Mr. Lonsdale will follow you."

When the groom had retired she went up to Felix and laid her hand upon his arm.

"I know that you will do your best for me," she said pleadingly.

"You may be sure that I will," returned Felix and then he went away.

He might as well have appealed to a rock. All that he said, Sir Owen laughed to scorn.

"Something happen to me?" he cried. "Yes, I know what it will be. I shall come home cured of the 'blues!' I am going to gallop dull care away, and Plantagenet shall help me."

Felix looked attentively at the horse.

"I was never afraid of a horse yet," he said, "but I would not ride that one."

Lady Chevenix, finding that Felix did not return, came to see how matters were progressing. She gave a little cry of alarm when she saw the great powerful hunter, and her husband preparing to mount him.

"Owen," she cried, "do not attempt it! Pray, pray do not!"

He felt rather flattered by her evident anxiety, and touched her face with his lips.

"Good-bye, Violet. Do not make a scene. I have said that I will ride Plantagenet, and I mean to do so; nothing on earth shall prevent me."

Felix interposed.

"I should enjoy a gallop this fine morning, Sir Owen," he said. "Shall I go with you?"

"As my head-nurse, eh, Lonsdale? No, thank you. I can take care of myself very well indeed."

For more than half an hour they reasoned in vain. They could never reproach themselves in after-days that they had not done their best; but

their words were as vain as the beating of tiny wavelets against a sturdy rock. Sir Owen would ride Plantagenet; and there was an end of it. The only compromise that Lady Chevenix could effect was that he should take the groom with him.

"If it will please you, Violet," he said, "I will do so." He thought himself very good-natured in giving way so far.

"I shall be back to dinner all right," he told her "I may be rather late, for I shall ride round by Parkerly Copse."

"Martin," said Lady Chevenix to the groom. "do not leave your master for one moment. Do what you can."

"I will, my lady," he replied; "but I misdoubt me it will end badly."

Lady Chevenix re-entered the house, and Felix went back to his writing. Violet retired to her own room, to while the time away with a book.

The sunny hours of the beautiful day wore on; no cloud came over the smiling heavens; yet there was a faint wail in the summer wind which to the weather-wise heralded a storm. The shadows lengthened, and Felix had not left the library; he had partaken of a biscuit and a glass of sherry there, as he was anxious to get this work done. He had completely finished by six o'clock, and on going in search of Sir Owen was told that he had not yet returned. Lady Chevenix was in her room. He would have been glad if he could have gone home then; he did not care to remain for the long formal evening. Still he was unwilling to leave Lady Chevenix until her husband returned.

The first bell rang, and he went to his room. Sir Owen, he was told, had not returned, and her ladyship seemed anxious about him. After a little while Felix went into the drawing-room, where Lady Chevenix sat, dressed for dinner, superbly beautiful in a dinner dress of blue velvet and a suit of pearls. She turned to him anxiously.

"Sir Owen has not returned," she said. "I have told them to keep back the dinner until he comes."

He saw that she was anxious, and did his best to cheer her. He went to the balcony, where roses and jessamine grew in wild profusion.

"Come and look at these flowers, Lady Chevenix," he said. "I read a beautiful legend about the jessamine the other day." And while she stood by his side he related it to her.

The anxious look fell from her face, and her eyes lost their strained, intent expression. He thought if he could keep her attention engaged until Sir Owen returned, how well it would be—how much pain it would spare her. She turned to him suddenly—

"Do you think anything can have happened?" she asked. "Ought I to send servants out to look for Sir Owen?"

"Martin is with him," said Felix.

He left her for a few minutes, under the pretext of finding something that he had missed. In reality he gave directions for four of the men-servants to mount at once, and ride off in search of their master; and then he returned to Lady Chevenix.

"I am growing frightened, Felix," she said.

In this hour of supreme anxiety all barriers seemed to have fallen between them. She forgot that he was the man she had forsaken and deceived. She thought of him only as one in whom she put infinite trust—in whom she had infinite faith. He was once more the Felix in whom she had relied from her childhood upwards.

"I do not think you need be alarmed, Lady Chevenix, and for this reason—Martin is with him. If anything had happened to Sir Owen, the groom would have hastened back; of that you may be quite sure."

The thought was reassuring, and Lady Chevenix was relieved.

(To be continued.)

NEEDFUL EDUCATION.

A CONGRESS met at Manchester, England, last summer to consider the subject of teaching Domestic Economy in common schools; the Duke of Westminster presiding. Among the subjects proposed as part of the general elementary school training, in addition to letters, words and numbers, or measures, were order, method, punctuality, cleanliness, health, temperance, shelter, warmth, fresh air, clothing, food, cookery, thrift, penny banks, etc.

No one will be inclined to question the importance of all these subjects. It is often the case that a whole family suffers disease or exposure or want because the father or the mother has never had an opportunity of learning some of these lessons. And it can safely be said, on the other hand, that no family *need* want or suffer if all parents were early trained to a knowledge and observance of even only a part of them. Mr. E. Jones of Amberley street, Liverpool, who is one of the most indefatigable and also one of the most sagacious and discreet of philanthropists, presented a memorial to the congress, in which he asks the truly pertinent question, "How *time* is to be found for these confessedly important lessons?" He answers the question himself, by suggesting that there is a great deal of time wasted in all the schools on mere verbiage, and especially in oral spelling. Words are tossed from teacher to class and their letter-names are chattered over and over and over again, until the jingle makes a durable impression on the ear; but this does not enable the scholar to spell, for it is the hand, not the ear, that must do all actual spelling; and the eye, not the ear, is the natural guide of the hand—quick to show the proper form, and equally quick to detect any error in copying it.

Neither is oral spelling any aid in teaching reading. On the contrary it is a great hindrance and obstruction; so great, as of itself to delay progress for months, to say nothing of the far greater waste of time and trouble and tears that is caused by the unphilosophic, but inherited custom, of trying to teach spelling orally instead of through writing. Besides the *time* that may be gained in this line, there is the important condition of willingness to learn—*desire*—which is worn away by the weary round of parrot-like repetition without thought, which makes the spelling-book so hateful to the tired and disgusted little learner. The child wants to hear something that can be pictured in the mind, and called up and ruminated over. In this connection there is pertinency in the saying that one man can take a horse to water, but ten men can't make him drink.

Mr. Evans shows that by the present mode about one-third of the school time, throughout the entire elementary course of six grades, is given to spelling, and yet the results as given by her Majesty's inspectors in the blue-book for '76-'77, show that 60 children out of 100 pass the limit of public school age (13) without gaining anything but a mere ability to read, write, count, and do some rudimentary exercises in grammar and composition. But with a portion saved of the one-third of the entire time for school attendance, the children might be instructed, to their great pleasure and delight, as well as future advantage, in some such lines of actual and useful knowledge as, say:

One hour per week—Order, method, punctuality.
One hour per week—Health, cleanliness.
One hour per week—Temperance.
One hour per week—Fresh air, ventilation.
One hour per week—Food, cookery.
One hour per week—Thrift, penny banks.

(I should want to add or change so as to give one hour per week to soil and plant culture; one hour per week to a voter's duties; one hour per week to imparting a taste for studies of nature or natural philosophy.)

That it is practicable both to find time for such lessons and to give them, is proved by the experience of schools in this country. Among many others, the schools of Tyrone, Pa. dispense entirely with spelling as a step to reading, finding it really a great impediment. The little ones learn to read much sooner and with more pleasing tones since they have been taught to distinguish words by their sounds instead of by the letter-names. Spelling is taught later by an ingenious and speedy method, which exercises the eye and the hand upon it, and uses the phrases and sentences of the readers, in which the meaning and uses and changes of words appear, instead of the spelling-book, in which they are dead and laid out in rows. The teachers give daily talks and illustrations on the morals and virtues that tend to secure health, comfort, competence, usefulness and enjoyment of life. W.

GENTLEMEN WHO LACE.

Devices for Securing a Fine Figure—Claims of Benefits to be Derived.

[Forney's Progress, Feb 20.]

IN this country a few men wear corsets, and seem to like them. Gottschalk, the pianist, and equally celebrated as a beau, always had on a corset. The male corset wearers are those who take their coats to the up-town tailor, whose advertisement may be found almost any morning in the ledger. This ingenious fellow has an arrangement which he puts into coats, by which one's shoulders, are made to look as broad as a prize-fighter's. With one of his inventions, and, a perfectly constructed corset, the figure of a man becomes irresistible. It is a secret, that the ladies know as well as ourselves, that the shoulders of all our coats are more or less padded, that frequently our vests are ditto, so that with the exception of the hair of our heads, which is usually our own, there is about the full-dressed man, almost as much sham as surrounds the full-dressed woman. But our male corset-wearers, will not talk. They hide their corsets figuratively as well as actually, and would deny the whole thing, if they were asked about it. A daily newspaper reporter is the authority for saying, that the tailor who makes heavy shoulders out of slim ones, keeps quiet on the subject. Many attempts have been made, but all in vain, to interview him. One must turn to England, to discover how a man feels to be tightly laced. Here is a gentleman who wears ladies' shoes because he thinks them more comfortable, and goes for his corsets to a store where there are lady attendants, as "I find them much more obliging than male assistants usually are." He is a connoisseur in corsets for gentlemen. Listen to him:

"I strongly advise to have the corset made to open up the back only, as I find it is much more comfortable to wear and lighter, than when made to open in front, in the now common mode. I can truly affirm, from my own experience, that moderately tight lacing (say three to four inches less waist measure than the natural size) is not only not prejudicial, but, on the contrary, is very beneficial to the health. My occupation is of a sedentary nature, and I used to suffer much from pains in my side and back, and from indigestion; but about a year and a half ago my sister persuaded me to try and wear a corset, and she altered one of her own to suit me. I found it rather irksome for the first few days, but that feeling soon passed, and on my next visit to London I had a corset properly made to my own measurement. Since then I have had another one made, smaller in the waist and wider at the chest, which I am now wearing. The pains have quite left me and my health is generally much better than it used to be. Besides this, the feeling of being tolerably well laced is very comfortable. From my own observation and inquiries I find the practice of corset-wearing by young gentlemen is becoming much more usual, but we don't make any display of the fact."

In France and Germany many more gentlemen affect corsets than in England or America.

TO CLEAN OLD ENGRAVINGS.

THERE are many ways suggested for accomplishing this object, but the following plan, if carefully attended to, gives good results. Place the prints, one or two at a time, in a shallow dish, and pour water over them until they are completely soaked or saturated with it; then carefully pour off the water, and pour on them a solution of chloride of lime (one part liquor calcis chloratæ to 39 parts of water). As a general rule, the stains disappear as if by magic, but occasionally they are obstinate. When that is the case, pour on the spots pure liquor calcis chloratæ, and if that does not succeed, add a little dilute nitro-muriatic acid. There is no print that will not succumb to this treatment; in fact, as a rule, they become too white. As soon as they are clean they must be carefully washed with successive portions of water until the whole of the chlorine is got rid of. They should then be placed in a solution of isinglass or glue. Many collectors color this solution with coffee grounds, etc., to give a yellow tint to the engraving.

They should then be dried between white blotting paper, either in a press or under a heavy book, and finally ironed with an ordinary flat-iron to restore the gloss, placing clean paper between the iron and the print. Grease stains are much more difficult to remove. Benzine is the best for this purpose. Small grease spots may be removed by powdered French chalk being put over them, a piece of blotting paper over the chalk, and a hot iron over that. To clean manuscripts the chloride of lime will not do, as the writing will not stand its action as will the carbon printing ink. There is another kind of stain in the form of brown spots, which is often caused in framed engravings by the absorption of the coloring matter from knots in the wood behind. Only clear stuff should be used for backing, and to preclude the possibility of stains, thick paper or pasteboard should be placed between the engraving and the wood. To remove surface dirt from engravings and mezzotints the most effectual plan is to use common bookbinder's paste, which is to be applied with a paste-brush both to the back and front of the print. The paste will take up the whole of the dirt, which will come away with the paste when it is removed with water. A bath of plain water completes the operation, from which the print will emerge as fresh as when first issued.—*Monthly Magazine of Pharmacy.*

THE CHARMS OF ROYALTY.

SIR CHARLES DILKES'S objection to the proposed extra grant to the Duke of Connaught on his marriage is based on the belief that the business of royal grants is very considerably overdone. The Budget of the current year (1878) bore the following charges of this nature; The Queen, £1,925,000, to which must be added the revenue derived from the Royal Duchy of Lancaster, about £200,000 more; the Prince of Wales, £200,000 and the revenue of the Duchy of Cornwall, which is about £350,000; the Princess of Wales, £50,000; the Duke of Edinburgh, £125,000; the Duke of Connaught, £75,000; Prince Leopold, £40,000; the Crown Princess of Prussia, £40,000; Princess Ludwig, of Hesse, £30,000; Princess Christian, of Schleswig-Holstein, £30,000; Princess Louise, Marchioness of Lorne, £30,000; Duchess of Cambridge, £30,000; Grand Duchess of Mecklenburg-Strelitz, £15,000; Princess Teck, £25,000, and the Duke of Cambridge, £60,000. It does seem that Sir Charles Dilkes's objection is tolerably well founded.

It will be seen to make the modest little sum of £3,225,000 of the earnings of the poor, pouring into the laps of one woman and her children. Words are quite inadequate to express one's astonishment, not to say indignation, at such injustice.

WINE FROM ORANGES.—Experiments have recently been in progress in countries ravaged by the phylloxera, in regard to the substitution of orange juice for grape juice in wine making. The first wine made from oranges, in Spain, has just made its appearance in the market of Valencia. Four kinds have been produced, one of them a sparkling wine. They are all said to be of an attractive color, perfectly clear, of an agreeable, sweet, slightly acid flavor, and of an alcoholic strength of about 15 per cent.—*Druggists' Circular.*

FURNITURE POLISH.—Alcohol, 21 ounces; gum shellac, 2 ounces; linseed oil, 14 ounces; gum benzoin, 2 ounces; oxalic acid, 1 ounce; white resin, 2 ounces. Dissolve the gums and acid in the alcohol, let it remain 24 hours and then add the oil. This polish has been in use in the writer's family for fully 50 years, in a damp climate, and has been found to keep the furniture in good condition.—*Druggists' Circular.*

RECENT LITERATURE.

Philomene's Marriage. By HENRY GREVILLE, Phila.: T. B. Peterson & Bros. Price 75c.

A WELCOME preface to American readers introduces this novel, designed to correct many false impressions relative to the supposed mysteries attached to this famous author's early life and nationality. As a writer of the present day, we have none whose works have afforded so distinct an insight into Russian home life as Henry Greville's novels, Dosia and Sonia. To these popular and powerful works, perhaps may be attributed the false impressions now circulated that the author must necessarily be of Russian origin. We now learn that Henry Greville is a French lady—born in Paris, educated in France, and essentially French. Through rare ability she has risen from obscurity to the foremost ranks of French novelists, and she merits the great fame her writings have brought her.

The chief elements of interest in Philomene's Marriage lie in its simplicity. Totally devoid of the immorality usually pervading French novels, a thorough knowledge of rural life is evidenced, combined with a keen observation of human nature, and the whole is given to us with a real though quiet humor. The work is to be commended as an admirable photograph of the very small talk of a country village and the very small schemes of designing widows and pseudo fortune-hunters. It possesses also one higher element of interest in effectively tracing the influence of a pure and noble nature on a frivolous one. The plot is light and the incidents, though neither numerous nor startling, are admirably adapted to the subject. We regret to notice much of the author's brilliant style is lost in translation, but sufficient of the original piquancy remains to recommend the book to our readers.

The Shadow of Hampton Mead. By Mrs ELIZABETH VAN LOON. T. B. Peterson & Bros. $1.50

This is the story of three families, (two of which are American,) and the varying fortunes of each. Hampton Mead is a plantation in North Carolina, where the story opens, and when well developed it is transferred to England. We can mention the book only with "faint praise." It is not above the average of American novels of recent publication.

Roderick Hume. By C. W. BARDEEN. Syracuse N. Y.: Davis, Bardeen & Co.

UNDER the guise of an entertaining narrative of the adventures of a young school teacher, the author gets in some very good hits on the system of the modern Union school. He claims that the book is in no sense a satire, but in depicting certain phases of the institution directs attention to evils which it is to be hoped future legislation will remedy.

Carmen. By PROSPER MERIMEE of the French Academy. Philadelphia: T. B. Peterson & Bros. 50 cents.

THE outlines of the story of Carmen are doubtless well known from the libretto of the Opera of which it is the foundation. It is a powerful and picturesque story of brigand and gypsy life, of passion and jealousy, with capabilities of intensely dramatic situations which the librettist has seized and elaborated. The volume closes with a chapter on "Gypsies and Gypsy Character," which will be found interesting.

MAGAZINES FOR MARCH.

A School-Master as a Ring-Master.

IN Edward Eggleston's paper on "Some Western School-masters," published in the March SCRIBNER occurs this anecdote of School discipline in Indiana in the old times:

To a nervous child the old discipline was, indeed, very terrible. The long beech switches hanging on hooks against the wall haunted me night and day, from the time I entered one of the old schools. And whenever there came an outburst between master and pupils, the thoughtless child often got the beating that should have fallen upon the malicious mischief-maker. As the master was always quick to fly into a passion, the fun-loving boys were always happy to stir him up. It was an exciting sport, like bull-baiting, or like poking sticks through a fence at a cross dog. Sometimes a ferocious master showed an ability on his own part to get some fun out of the conflict, as when on one occasion in a school in Ohio, the boys were forbidden to attend a circus. Five or six of them went, in spite of the prohibition. The next morning the school-master called them out in the floor and addressed them:

"So you went to the circus, did you?"

"Yes, sir."

"Well, the others did not get a chance to see the circus. I want you boys to show them what it looked like, and how the horses galloped around the ring. You will join your hands in a circle about the stove. Now start!"

With that he began whipping them, as they trotted around and around the stove. This story is told, I believe, in a little volume of "Sketches," by Erwin House, now long forgotten, like many other good books of the Western literature of a generation ago. I think the author was one of the boys who "played horse" in the master's circus

Color in Lawn-Planting.

MR. SAMUEL PARSONS makes the following suggestions in a paper on "Lawn-Planting for Small Places," in Scribner for March:

As a rule, also, never plant a large, dark evergreen in front of, and very near, a brilliant, light-colored, deciduous tree, for thus planted it will dwarf and weaken the effect of the latter. On some lawns, however, a few massive dark evergreens may be used with effect in the extreme, and, if possible, north-west corner of the lot. They will protect and give character to the place, and heighten the effect of the deciduous trees. A striking contrast may be obtained by interspersing a few white birches among, and in front of, these evergreens. They will serve, in this case, to brighten the picture both winter and summer—though usually we prefer not to mix evergreen and deciduous trees. This harmonious and contrasting disposition of color requires careful study and even perhaps a natural gift. For instance, it is better to introduce gay, bright colors in well-judged proportions. A few bright flowers of deep red, blue or yellow, will have a better effect dispersed here and there about the lawns than in one great mass. Introduce them, so that by means of their different natures there will be always during the season a few gay points in the picture.

LIPPINCOTT'S FOR MARCH contains A Day with Hudson's Bay Dog-sledges, Illustrated, H. M. Robinson; Hungarian Types and Austrian Pictures, concluding paper, Illustrated, Edward King; Richard Realf, Illustrated, Rossiter Johnson; Women's Husbands—I. Narcissus—Chaps. V. and VI. (concluded); Pottery and Porcelain at the Paris Exposition, Illustrated, Jennie F. Young; Monsieur Pampelon's Repentance, Anna Eichberg; Yesterday, Edgar Fawcett; My Village in the South, Part I., Annie Porter; Through Winding Ways, Chaps. XXV.-XXVII., Ellen W. Olney; Live Wood in our Whipping-post, Howard M. Jenkins; "If this be Love," G. S.; Joseph's Adventure, D. C. Macdonald; Our Monthly Gossip; Literature of the Day.

HARPERS' FOR MARCH contains Present Tendencies of American Art, S. G. W. Benjamin, with twenty illustrations; A Few Sea-Birds, H. W. El-

llot, with nine illustrations; Along the Shore, a poem, A. T. L.; The Coast Survey, Martha J. Lamb, with twenty illustrations; the English Home of the Washington's, A. T. Story, with seven illustrations; Old Dutch Masters—I. Rembrandt Van Ryn, E. Mason, with four illustrations; The Pine-Tree, a poem, Harriet P. Spofford; A Ceremony upon Candlemas-Eve, a poem, Robert Herrick, with an illustration by Abbey; Berg and Thal—Sketches Tyrol (I.), George E. Waring, Jun., with fourteen illustrations; English and American Locomotives, Charles Barnard, with three illustrations; A Summer Story, Alice Perry, with one illustration; The English in India, Thomas Knox; Young Mrs. Jardine, a novel, Dinah Mulock-Craik; Climates for Invalids, Dr. T. M. Coan, with one illustration; Miss Vedder, a story, C. F. Woolson; Gary's Magnetic Motor, E. M. Bacon, with four illustrations; The "Tom" Side of Macauley, D. D. Lloyd; Miss Merler's Nerves, a story, Miss Thackeray; Afghanistan, Z. B. Gustafson.

Editor's Easy Chair: Major Andre and Nathan Hale; Semi-Royalty in Canada; The late Bayard Taylor; The new Capitol at Albany; Painting the Lily; Dr. Holmes on Interviews.

Editor's Literary Record: Macauley's History of England, Library Edition; Johnson's The Normans in Europe; Eggleston's Red Eagle; Hardy's The Return of the Native; Notley's Love's Crosses; Macquoid's Elinor Dryden; Bulwer's Last Days of Pompeii; Sandeau's Madeline; Hay's The Sorrow of a Secret; Besant and Rice's 'Twas in Trafalgar's Bay; Linton's Our Professor; Lady Carmichael's Will, and other Christmas Stories; Kip's Hannibal's Man, and Other Tales; Ruueberg's Nadeschda; Gilder's The Poet and his Master, and Other Poems; Schaff's Popular Commentary on the New Testament; Warner's Bible Narratives; O'Flanagan's The Irish Bar; Sport and Work on the Nepaul Frontier; Towle's Pizarro; Shaw's Castle Blair.

Editor's Scientific Record: Astronomy; Physics; Chemistry; Anthropology; Zoology; Engineering and Mechanics.

Editor's Historical Record: Political Intelligence; Disasters; Obituary.

Editor's Drawer: Concerning Laughter; Liquor Bills; Good English; A Warning; New York Men abroad; A Juvenile Bit from Illinois; Raising Money "in Meeting;" An Epitaph; Humors from the Irish Bar; Classic Gems; Another Epitaph; A Slow Railroad in New Jersey; Another Arrow from a long Bow; St. Valentine's Day—Hawking in Central Park (illustration).

CONTENTS OF ST. NICHOLAS FOR MARCH, 1879: Frontispiece—"They instinctively raised their guns and fired;" An Adventure on an Iceberg, Dr. Isaac I. Hayes, two illustrations; A Wonderful Candle, Aunt Fanny, illustrated title by R. Sayre; The Obstinate Weather-cock, Horace E. Scudder, two illustrations by Alfred Kappes; Red Riding-Hood and the Wolf, picture drawn by Gustave Dore; The Renaissance, art-paper, Mary Lloyd; The Wasp and the Bee, verses, Palmer Cox, illustration by the Author; Eyebright, Chapter III., Susan Coolidge, two illustrations by Frederick Dellman; Bloom, poem, Bessie Hill, two illustrations by R. Riordan; Wanted, Sarah Winter Kellogg; Oriental Bottles and Wells, and How they are Made, Fanny Roger Feudge, six illustrations; Dick's Supper, verses, Mrs. E. T. Corbett, three illustrations by L. Hopkins; Nanule's Little Muff, Mary Bolles Branch, two illustrations; Calling the Flowers, poem, Mary Mapes Dodge, illustration by Kate Greenaway; Rumpty-Dudget's Tower, concluded, Julian Hawthorne, three illustrations by Alfred Fredericks; The American Mardi-Gras, Mary Hartwell Catherwood, ten illustrations by J. Wells Champney; Waiting for Spring, picture; Pets from Persia, Kate Foote, two illustrations by Miss E. Foote; Elizabeth's Roses, translation of German Legend, printed in December number, Annie B. Parker; The Plaything Sky, verses, J. W. De Forest, two illustrations; A Jolly Fellowship, Chaps. IX. and X., Frank R. Stockton, three illustrations, two by James E. Kelly; The Mechanical Pigeon, Charles Barnard, two illustrations.

For Very Little Folk. Pinkety-Winkety-Wee, verses, Mrs. E. T. Alden, two illustrations; Joe and the Seal, C. M. Drake, illustration by J. C. Beard; Eleven Little Pussy-Cats, Jingle, Joel Stacy; Slate Pictures, drawn by L. Hopkins.

Jack-in-the-Pulpit (Illustration).

The Letter-Box (Illustration).

The Riddle-Box (Two illustrations).

AMERICAN NATURALIST FOR MARCH.—Remarks on Fossil Shells from the Colorado Desert, Robert E. C. Stearns; The Distribution of the North American Flora, Sir Joseph Dalton Hooker; The Origin of the Specialized Teeth of the Carnivora, E. D. Cope; Grief in the Chimpanzee, Arthur E. Brown; Experiments with Pyrethreum roseum in Killing Insects, W. L. Carpenter; Valentine, F. E. W.; Recent Literature: Comstock's Outline of General Geology; Gegenbaur's Elements of Comparative Anatomy; Schmarda's Zoology; Congressional Record, Feb. 12; Gen. Garfield on Government Surveys; Recent Books and Pamphlets.

Botany.—On Nomenclature.—*Aspidium boottii* Tuckerman—Botanical News.

Zoology.—Note on the Hairy-tailed Mole, *Scalops breweriі* of authors; The Clover-seed Fly, a new Insect Pest; The English Sparrow and our Native Song-Birds.

Anthropology.—Habel's Account of Ancient Guatemalan Sculptures.—Anthropological News.

Geology and Palæontology.—Mineral Wax in Utah; Merycopater and Hoplophoneus; The Nature of Eozoon; The Age of the Laramie; On the Occurrence of a Solid Hydrocarbon in the Eruptive Rocks of New Jersey; The Hudson River Group at Poughkeepsie.

Geography and Travels.—American Geographical Society; President's Annual Address.—Obituary.

Microscopy.—New Microscopical Societies.—American Quarterly Microscopical Journal.—Sale of a Microscopical Library.—Spring Clips.

Scientific News; Proceedings of Scientific Societies; Selected Articles in Scientific Serials.

For Women,

CONDUCTED BY MISS FAITH RIPLEY.

THAT PARLOR OF MINE.

ALICE M. THORNTON.

WHAT to do with that parlor I didn't know. It was the dismalest, dolefulest apartment I ever saw. You could fling open the blinds and let in a deluge of sunshine, but still the room had a "Hark! from the tombs" sort of air. You see the house, furniture and farm fell to Charlie from his mother, and he had spent all his money on tools and improved stock for the farm, and there was little left for house furnishing. We were married in the spring, and all the summer I planned and planned how to brighten that room. The carpet was a dark brown and black ingrain, the walls were whitewashed, there were green paper blinds at the windows, and besides there were a badly-worn sofa and rocker of black hair-cloth, four cane-seat chairs and rocker, with the bottoms partly broken through, and an old-fashioned stand. On the walls hung an ancient sampler, a battle-piece and a colored print of a tall man, in a swallow-tailed coat, standing under a very weeping willow and gazing at a tombstone, on which was the inscription "Sacred to the Memory," and there had been added in ink "John Thornton, aged 60; Mary Thornton, aged 10; James Thornton, age 30."

Charlie told me I could have all the money from the poultry, and I decided to spend what money I could make on that room. But the hens would set for a week very quietly, then a change would come over the spirit of their dreams, and they "set a standing," like the Dutchman's. A stray cat waged persistent warfare against the chickens and destroyed several broods, and those that escaped the cat fell victims to the "gapes." My ducklings stuffed themselves into apoplexy. When Thanksgiving came I had $25 worth of poultry to send to the market, instead of $75 or $100, which my imagination had pictured as the net proceeds in the spring. Twenty-five dollars wouldn't do much, but I resolved to make the most of what I had.

On turning the carpet, I found the other side was lighter and prettier than the right side. For the walls I made a whitewash by dissolving chrome in alcohol and adding enough to the wash to give it a yellow tint. This gave a sunshiny look to the room quite different from the glare of whitewash. A border of scarlet and gold finished the wall. The paint was very grimy and yellow, so I scraped off all I could of it. The doors I painted over with black-walnut stain (made by dissolving burnt umber in scalding hot vinegar). The panels of the doors I painted a buff-shade (made by adding chrome to common white-lead paint). On these panels I arranged a wreath of autumn leaves and tiny pressed vines. I then gave the whole door a coat of varnish. My doors were as handsome as I could wish and looked, with the glowing tints of the autumn leaves on the soft buff back-ground, like a picture. For window shades I used common bleached muslin; over this I placed curtains of lace, to be sure they were the cheapest of Nottingham, but the patterns were pretty fern-leaves and grasses, and they gave a light, airy look to the room. Over these I hung lambrequins of turkey-red, and they were beauties! The width of the cloth made the depth of the lambrequins; the pattern I cut from "presume," (as the little girl said when reproved for saying "guess,") a deep scallop on each side and a shallow one in the middle. The edge was trimmed with coarse red fringe, and above this was a ruffle, pinked on each edge and gathered in the middle. The cornices were smooth pine sticks, painted buff, with walnut-stained edges, and a tiny pressed vine was fastened onto the middle of the cornices.

The hair-cloth covers to the sofa and rocker I ripped off and used as a pattern to cut fresh covers by. I bought a quantity of red flannel and covered them with it. The worn cane-seat chairs and rocker had cloth tacked over the broken seats, and the scratched woodwork given a coat of walnut stain, and then varnished. The rocker had old blankets tacked all over it, the back and seat padded, and over this a cover of flannel. The cane chairs had a cushion tacked on with scarlet gimp, to the seat over the broken bottom. A keg, sawn in two, furnished the foundation for two footstools, which were padded and covered with flannel. The tops were worked on canvas; the design being a bouquet of purple foxgloves and their green leaves, on a dull red ground. My center-table was an old affair I found in the attic. This was sand-papered, stained and varnished. For a cover I took a coarse brown linen table cloth, and ornamented it with shaded red Germantown yarn. A strip of brown velveteen, about four inches wide, was sewed in the edge, about five inches from the bottom. This strip was worked with red yarn in coral pattern. A friend gave me a remnant of Brussels carpet—a medallion of flowers on a pearl ground, the back-ground being a dull red color. Of this I made a handsome mat, finishing the edge with a fringe of red.

The mantel was yellow and ill-shapen. This was covered with a scalloped lambrequin of red flannel, the edge trimmed with oak-leaves, of brown velveteen, veined with yellow silk. On the mantel were a pair of scarlet and gold vases, a Parian bust, a pair of photograph easels, and a clock—all wedding presents.

Charlie and I had a great number of books,—poetry, travels, history—and a quantity of bound magazines and periodicals. We had no bookcase; buying one was out of the question. I studied for some time how I should make one. At last I thought of the recess, at the side of the fire-place. The latter projected out towards the center of the room, leaving a deep recess at each side. Charlie was called in, and he nailed cleats to the sides and back of the recess; these being secured into the studding, held the shelves firmly, the shelves themselves being of pine, sand-papered, stained black-walnut and varnished. This gave me ample room for my books and papers, and one shelf for some old china, which had been Charlie's great-grandmother's.

I next took the pictures from their frames, and sent the mourning pieces and battle-scene into exile. I had a lovely chromo—a wedding present—and the two Demorest chromos, "The Oaken Bucket" and "The Captive Child," all in gilt frames. One of the old frames I used for a chromo of autumn leaves and flowers, on a white ground; the frame I covered with black velvet, glued on smoothly, then over the edge, near the picture, I fastened a strip of gilt paper, pinked on one edge, the straight side near the picture and the pinked side turned out. This made a charming frame. The other two frames were covered with gray moss, and a cluster of sumac berries on each corner. These frames held steel engravings. Bunches of leaves and vines were fastened over each picture.

We burn coal—Charlie exchanges wood for it at the coal-yard—so I have some of my prettiest plants here. Shelves are fitted to the windows, and here bloom spicy carnations, the modest primroses, the coral begonias, and the torch-like geraniums. The room is full of the odor of the scented geraniums, and Pet, the canary, fairly screams with delight, as he swings back and forth on his perch, mid the ivies and cobea-vines.

I made a wall-pocket from a couple of pieces of bristol-board, these pieces were oblong, the top corners then rounded off, the back being a trifle higher than the front, an embossed picture filled the center of the front. The two pieces were joined at the bottom, by a bias strip of red velveteen, glued on the edges of both pieces, the sides laced together with scarlet cord, being slightly spread apart, and then hung with red cord and tassels, and I have a handsome and serviceable pocket. My sofa pillow was a half-yard-square, of canvas, worked with a shaded wreath of green leaves, and red verbenas, with my monogram in the center. My tidies were white canvas, worked with red worsted. I made a letter case out of perforated board—both back and front cut shield-shape, the edges trimmed with pleated ribbon, and an embossed picture on the front. My work-basket was an old-fashioned round affair. I covered the edge with a scalloped drape, and lined the inside with turkey red, with a ruffled edge. A table covered with a red-felt cover, held the stereoscopes and views, and the latest magazines.

My room was more lovely when finished than I can tell you. In the darkest days, it is full of rosy tints and shades, and better yet, cost me less than $25. Charlie says—but you know what he says and how he says it. Every evening, he and I forget we are farmers, and leave the care and worries of our work with our work-clothes. Charlie brushes his yellow curls, sticks his feet into slippers, puts on clean collar and cuffs, with his blue and gray dressing gown. I have a princess dress of gray alpaca—costing 25 cents per yard—trimmed with scarlet bows, with pleated illusion in the sleeves and neck. It takes us about ten minutes to dress, but how much better we look and feel! Charlie reads aloud, and I listen and sew. The storms may rage without, but our "Eden," as Charlie calls the room, is full of bright tints and aglow with happy hearts. Our unmarried friends are fond of dropping in of an evening, and sighing, "How cosy you look. I've a good mind to get a home of my own!" I do believe our room has been the means of turning several old bachelor's heads and hearts towards matrimony, and altogether our room is a great success.

COUSIN KATE'S OPINION OF WOMEN'S RIGHTS.

B. C. D.

"How did you like the lecture, Cousin Kate?" said I to a bright-eyed relative, who had the evening before heard one of the noted women's-rights-women, deliver one of her spicy tirades, on women's wages, suffrage and the like.

"It was very entertaining," said Kate, "but I don't see, after all, if women get all they claim, that they will be any better off; married women at least. The rights which make women happy, they can never have as long as human nature remains coarse, selfish, exacting or ignorant.

"The right to be individuals in their opinions, their tastes, and even their whims, is what seems to be lacking. I know a man who calls himself respectable, who refused to get his invalid wife a lemon, she asked for, because *he* did not think she needed it. And there is Aunt Margaret Owen, as good and capable a woman as the world affords, who weaves carpets to get what she needs to wear, and Uncle Abram is good as men go, and yet he often gets her bill for weaving turned on account at the blacksmith's, without saying a word to her about it, or making it up in some other way to her, and if any one should tell him he was a tyrant, he would want to fight. He is able to pay his own bills, and hers too, but he seems to think that if she has the least liberty even with the money she earns after keeping his house and children, that she will commit some fearful extravagance with it.

"She has an old-fashioned, tall bureau, a very useful article of furniture to her, and the brass handles of the drawers had either fallen off or become loose, with twenty year's constant use; and one day when I was there, a traveling tinker came along who offered to put on some wooden knobs, for a small sum, and she decided to have it done without asking leave of her "proprietor." He came in while the work was in progress, and you should have seen the angry look he gave her, and heard the lecture he treated her to afterwards, on the crime of *squandering* money. A few dozen eggs had paid the bill!

"I have often seen her leave her loom and fly around the house, almost holding her breath, to find the last paper, which he happened to want and had mislaid himself, while he stood grumbling and wondering why "she never had a place for any thing." What good would the right to vote do her? If Uncle Abram couldn't give her the ticket he wanted to, and scratch it according to his own ideas, he would be a misused community." Kate paused for breath.

"He is only one of many," I suggested.

"I know it," said she; "he is better than a great many of them, but the same feeling of proprietorship in their wives crops out somewhere in nearly all cases. Matrimony to women seems to me like taking a long walk after a heavy shower and being obliged to step exactly in the footprints, of some other person who had gone before us. I think suffrage would add slightly to the hardship of such a trip."

"You've hit the nail on the head this time," said quiet grandmother, from her arm-chair. "If women were not called on so generally to sacrifice their rights in the household where they ought to be the best judges of affairs, we should hear less demand for legal rights which, although they may be unjustly withheld, it might not be expedient for us to exercise if we could."

ITEMS FOR CORRESPONDENTS.

WILL some of the RURAL readers please give a recipe for making *good* cologne, and oblige,

CELIA A. HOBBY, Stamford, Conn.

EAU DE COLOGNE.—Mix essence of bergamot, lemon, lavender and orange flower, of each one drachm; essence of cinnamon, half a drachm; spirit of rosemary and honey-water, each two ounces; spirits of wine, one pint; let the mixture stand two weeks, then put in a glass retort; the body of which immerse in boiling water contained in a vessel placed over a lamp, while the beak of the retort is introduced into a large reservoir (a decanter for example). Keep the water boiling, while the mixture will distil into the receiver, which should be covered with cold, wet cloths. In this manner the best quality of cologne-water may be obtained at one-fourth the price asked for it at drug stores. A lamp will answer best to boil the water. The foregoing is the most simple method of *distilling* without the regular *still*.

TO MAKE EAU DE COLOGNE.—Rectified spirits of wine, four pints; oil of bergamot, one ounce; oil of lemon, half an ounce; oil of rosemary, half a drachm; oil of Neroli, three-quarters of a drachm; oil of English lavender, one drachm; oil of oranges, one drachm. Mix well and then filter. If these proportions are too large, use smaller ones.

Some of our readers may have formulas for making cologne, which they know from experience to be good ones; if they will send them to me, I will take pleasure in publishing them for the benefit of Miss Hobby or any others who may wish to experiment in perfume making. F. R.

I want to "fix up" nicely a 12x12 bedroom, opening into my parlor. Especially do I want to know about window drapery, what kind of shades shall I have? what about lambrequins? I have a piece of velvet, would that do for lambrequins? Will some one give me full instructions?

A FARMER'S WIFE.

A young, married lady, in a late number of the Woman's Journal, has the following to say of her prospective bedroom, and perhaps what she says may furnish a hint or so to "Farmer's Wife."

"I will have a bedroom in gray and blue, a deep rich blue, not navy, and a very light shade of the same color. The curtains will be of wide, all-wool cream-white bunting, at twenty five cents a yard, with stripes at top and bottom of combined shades. The carpet will be a very large gray rug with a whole width of brussels for a border. I want a woven wire mattress on the bed, and white or pale blue blankets, pale blue cambric under swiss pillow-shams, and a chamber set of old-fashioned two shades of blue. I wish I had that old bowl and pitcher of grandmother's. I tell my husband that if ever he asks me to make a toilet-table out of barrel heads and cambric, tied in the middle like an hour-glass, or to make a chair out of a barrel sawed out, I will get a divorce on the ground of violent insanity. He says all right, and that I'm never to allow any hair-cloth stuffed furniture in in the house."

As "Farmer's Wife" says nothing about the style in which her parlor is furnished or her means, I cannot give explicit directions in answer to her question. I should advise that the room have a leading color, pink, blue, buff, or gray. The carpet should be light, with small figures. So small a room can contain only a bedstead, a chair or two, and a wash-stand or dressing-table, which should be of the new light woods. At the windows, a plain shade the same color as the prevailing tint of the room, and white swiss curtains, trimmed with lace, will make a charming finish. I hardly think that velvet lambrequins would be suitable, in fact, I would consider a pretty cornice a more artistic finish than lambrequins for a window in a room of that size.

DEAR MISS RIPLEY:—I am now twenty-five years of age; I come of a long-lived family who retain their youthful looks way into middle life (an uncle who is forty-three, is always supposed by strangers to be about twenty-seven). There is really no reason why I should look old, and in fact, the expression of my face is young, but my skin is full of fine lines, not deep wrinkles, but lines which cross each other at all angles. Will you please recommend some wash which will smooth out my skin? I have tried court-plaster, egg, alum and rose-water, tar, and a host of other things, but without success. L. D. V.

Judging from what you write, I think the trouble is that your skin needs to be stimulated, and that your general health is poor. Are you not always weary? Possibly you do not properly assimilate your food, and your skin needs nourishment. It certainly is not a natural condition for a woman of twenty-five to have a "lined" skin. What you need is a physician and not a "wash." Some doctors make a specialty of skin diseases and disfigurements, and I would strongly recommend you to seek good medical advice without delay, and not waste time and money on cosmetics. I can give you the addresses of two physicians in this city, who treat all disorders of the skin successfully.

News of the Week.

MISCELLANEOUS.

Monday, March 10th, 1879.

The liabilites of Archbishop Purcell, of Cincinnati are reported to reach the enormous sum of $6,000,000. This heavy load of indebtedness is due mainly to poor, or comparatively poor, Roman Catholics in Ohio, who, for 17 years or more, have been intrusting their earnings to his care and receiving interest from him. In other words, the prelate has been doing a heavy banking business and has failed disastrously. His creditors number 11,000, of whom seventeen-twentieths are said to be Germans and the remainder chiefly Irish. Various plans—some of them of a questionable nature and others wildly unbusinesslike—are being discussed for paying these debts. Very many of the depositors would be utterly ruined by the loss of their hoarded savings, and not a few are already suffering severely from the present collapse. No one ventures to accuse the aged Archbishop of having himself profited by the great sums that have disappeared. The business was chiefly in the hands of his brother, Father Purcell, and the latter turns out to have been a poor and careless financier. By this and similar troubles connected with various church organizations and clergymen, one is apt to be persuaded that it was not without reason that money-changers were driven out of the Temple.

The forty-fifth Congress came to an end last Tuesday, and straightway the President convened an extra session of the next Congress, for the 18th inst. This was necessitated by the failure of the last Congress to make the appropriations necessary for meeting expenses, on account of a deadlock between the Republican Senate and the Democratic House on three points. In each, the House attached new laws to appropriation bills, and refused to grant the money unless the laws were passed. The Senate insisted that new legislation should not be tacked on to money bills; but that the proposed laws should be discussed and passed or rejected as all other laws usually are. To the bill making appropriations for the army was added a law prohibiting the presence of troops at polling places during elections; while to that giving money to meet the expenses of Judges, Courts, etc.,—the Legislative Bill—were attached two new laws; one repealing the test oath demanded from jurors in the South, and the other repealing the present law which authorizes the appointment of United States supervisors of electors whenever United States officers are to be chosen. The Republicans might have yielded with regard to the first and second issues, but they were stubborn on the last point, on the ground that such supervisors are necessary as a safeguard to honest suffrage. As the next Senate will be Democratic as well as the House, the Democrats refused to yield a jot, and hence the need of the extra session at which some lively work, or rather talk, is probable. The vote in the House on the Anti-Chinese Bill after the President's veto was 109 for it to 92 against it; but as a two-third vote is needed to overrule a veto, the veto was in this case sustained.

Arrangements are completed at Gilmore's Garden, in this city, for a grand walking match for the championship of the world, between three citizens of this country headed by O'Leary, the Corko-Chicagoan, who at present holds the champions' belt, and an Englishman named Rowell, whom Sir John Astley, the original donor of the trophy, has sent across the Atlantic, to recover it. At 1 o'clock this morning the struggle began, and the men are now tramping around the arena. There is a great deal of betting strongly in favor of O'Leary. Meanwhile the mania for exhibitions of women walkers continues all over the country, a dozen or so now tramping in this and the neighboring cities of Brooklyn and Jersey City. That Court of Inquiry that investigated Reno's conduct during the Custer massacre, has reported that there is no proof that the major's action on that occasion was blameworthy, and that the defense made by his small band against the victorious Indians, was heroic.

The republicans have 128 members in the new House; the greenbackers claim 21 and hold the balance of power. The Potter Committee has finally made its report, or rather three of them—one by the democratic majority declaring that Hayes was given the Presidency fraudulently; a second, by the republican minority, saying that he was justly elected, and denouncing the bulldozing and fraud alleged to have been practiced in some of the Southern States during the last Presidential election; while Gen. Butler makes a third report agreeing with the democrats as regards the Presidency, and with the republicans as regards terrorism. The Roach subsidy for two lines of steamers to Brazil has been overwhelmingly defeated in the House. More than 25,000 applications for arrears of pensions have been made, varying in amount from $50 to $5,000 each. Last Thursday the name of Jim Keene, the millionaire speculator in grain, was forged to a telegram sent from this city to his agents in Chicago, ordering them to sell 3,000,000 bushels of wheat on his account. This caused a decline in the price of wheat from 96 to 93 cents a bushel next day, owing to the market being flooded. Towards evening, however, the forgery was detected, and the prices for wheat have since gone up. It is said that the fraud was due to a Chicago clique who have made contracts to deliver large amounts of provisions, and who hoped to be able to buy them cheaply, if a panic occurred in the market. U. S. Judge Rives has had five State judges indicted in Va. for not permitting colored men on juries in their courts. The State authorities are highly indignant at this action, and a collision is not improbable between the Federal and State authorities. Owing to a run on the New Orleans Saving Institution, it has suspended payment for 90 days; deposits, $2,050,000; bank said to be solvent. The Louisiana Lottery has been suppressed by the Legislature. Gov. Nichols of Louisiana, is said to be about to resign, on account of the failure of the Legislature to give due heed to his messages and recommendations, and because he finds himself unable to check lawlessness in some parts of the State.

The Vanderbilt will contest which has been off and on before the surrogate of this city for months back, finally came to a close during the week. The struggle was maintained with extreme bitterness, especially by Cornelius's lawyers, who flung vituperation, innuendoes and moral mud generally upon all opposing witnesses and everybody connected with the dead Commodore. Cornelius will have to be satisfied with the $200,000 the old man left him. This has been invested by W. H. Vanderbilt in government bonds, and yields $10,000. W. H. retains his $100,000,000, and comes out a head on every point. It has long been evident that the dead millionaire was quite shrewd and sensible when he made his will, but it was thought that the disposition he had made of his vast property was the result of a late decision. Several old wills, however, were produced in court, and from these it was evident that years before any suspicion could have rested on his sanity, he had decided to settle his property substantially as done by his latest will.

FOREIGN.

There is report and a contradiction of it, that Turkey has ceded Rhodes to France. The Pope is about to create a batch of new Cardinals next month and among them will be Dr. J. H. Newman. Of all those who have joined the Roman Catholic Church within the last century, he is conceded on all hands to be the most eminent, both on account of the high place he held in public estimation as a Protestant clergyman before his conversion, and also on account of his acknowledged intellectual force and the superlative beauty of his style as a writer. Nearly the whole of Europe has been visited during the week by storms of extraordinary severity.

Gen. Martinez Campos, of Cuban celebrity, has been made Prime Minister of Spain, where a change of Cabinet has just taken place. In France the red-hot republicans are gaining the ascendency. Two changes in their favor have just been made in the Ministry, and already rumors have attributed to Grevy an intention of resigning. This, however, is denied by another report. The imprisoned communists are to be set at liberty, with a few exceptions. Passamente, the would-be regicide, is on trial in Italy. A large band of Greeks lately invaded Turkish territory, but were utterly routed. Russia seems resolved to evacuate the country in strict accordance with her agreement. The Turks are reoccupying the territory as it is abandoned by the Muscovites, and already there are serious reports of outrages committed by them. Shere Ali is at last dead, and Yakoob Khan is negotiating with the British for peace. Weston has failed, of course, in that walking match against time.

The Zulu massacre is attributed by the London papers to the incapacity of Lord Chelmsford, the general in command, and another officer will probably replace him. An army of 10,000 will soon be in the field, and even this handful seems to tax great Britain's military resources. Young Prince Napoleon has started to take part in the war and will probably be made aid-de-camp to Lord Chelmsford. Strikes and distress are still rampant all over England. Agricultural laborers have struck in Yorkshire against a reduction of 24c. a week in their wages. The plague is reported to be under complete control in Russia, and being rapidly stamped out. The Czar and his heir are reported to be at variance, and the latter has been ordered to confine himself to his palace. Bismarck's gag-law has been defeated in the Reichstag. The quarrel between Prussia and the Duke of Cumberland whose Kingdom of Hanover Bismarck annexed, is likely to be patched up by giving him the slip of territory about which there is a dispute with Denmark. As he has just married the King of Denmark's daughter, such an arrangement might be satisfactory all around.

This morning's cablegrams announce that the English in Afghanistan have suffered several minor reverses. Yakoob Khan has succeeded his father in authority over most of the country unoccupied by the English. In South Africa the British have routed 15,000 Zulus after a severe conflict, and all danger of the invasion of Natal is now considered over. In France the impeachment of the De Broglie Ministry is considered pretty certain. It will be remembered that about a year ago that Cabinet was forced to resign owing to its reactionary tendency. It seems that pretty clear proofs have been discovered that before its fall it contemplated the overthrow of the Republic, by a *coup-d'etat*, and the restoration of the Empire or the Orleans family.

The moderate Republicans and all the Imperialists and monarchists are opposed to the movement as certain to awaken much party bitterness and possible danger to the government; but the extremists are likely to be triumphant according to this morning's news. McMahon, however, is reported to have just demanded to be tried with his former Cabinet, should the measure be finally adopted, and as he is still very popular with Frenchmen generally, and especially with the army, this action may serve as a check or stop to the intended impeachment. HERMAN.

In Russia taxes are collected in this way: A peasant, representative of a district, comprising several villages, is charged with the duty of collecting a certain amount of money, and it is the business of the people to distribute the taxes among themselves as they like the best. For the prompt collection, in the first place, the representative is responsible, and in case of tardiness he is imprisoned for a week with common criminals, and furnished with food at the cost of three cents a day. A district is obliged to pay for all its members, whether they are actual residents, or have gone elsewhere, or are in the army. In case a tax collector is unable to do his duty, he reports to the authorities; then the police appear armed with rods, and if the rods do not secure the desired result, the property of delinquents is sold at auction.

Domestic Economy.

CONDUCTED BY EMILY MAPLE.

COOKING UTENSILS.

MARY BEAL M'LOUTH.

"EUREKA! Eureka!" Not the Philosopher's Stone but a knife-sharpener, and no "Patent Right." Of any one who keeps shoemakers' supplies, you can get for fifteen cents a whetstone, which is coarse and soft, and which will put on a knife with a few strokes an edge that excels everything but the grindstone. Those who have used this convenience, could never keep house again without one. But take care never to get it wet or greasy.

To keep your knives and forks from rusting, make a bag of flannel, and stitch from top to bottom an inch and a half apart, a dozen times, making a little bag for each. Roll and keep in a dry place. I like this much better than paper. I have used it four years, and rust has never troubled my cutlery. And now if any of the handles dissolve partnership with their better halves, get some kind blacksmith to save you a few iron filings. Take two spoonfuls of pulverized rosin; one spoonful of sulphur, and one and a half spoonful of the filings. Fill the cavities with the mixture; heat the stem of the knife or fork, and insert it slowly, and put it carefully away to cool. The directions said fine sand or brick-dust would answer, in place of the iron, but I never tried those. The filings I can warrant, unless you cut or pry hard with the knife. Hot water will not injure them after they are thoroughly set. I have one that I know has been in use for five years.

I find many people who still use poisonous German-silver spoons, which corrode every time they are used, especially in grease. I always try and persuade such people to get half a dozen of those small, stout and cheap, iron spoons. They are so convenient for use and cooking, and never need scouring. When new, they do nicely for the table. The bowl of an old one with the handle broken off, is just the article for scraping kettles.

Common baking soda with a moistened piece of flannel will clean silver nicely, then polish with a dry piece. But I prefer to wash off the soda if the silver is not going to be used for a long time, for fear it might injure it.

Croup Remedy Corrected

The cure for croup in Jan., number, should read: A cloth wet in ice-cold water, put on the throat and covered with flannel. Change often but keep the flannel snug every moment, to exclude the air. The patient will breath more easily at once, but when you cease the treatment, do not leave the throat bare.

DOMESTIC RECIPES.

Turkey Soup and Salad.

It is not surprising that foreigners comment upon the extravagant habits of Americans. Look at the waste of the kitchen! For example, a turkey is roasted and placed on the table *once*. Only half of it is eaten, but the fowl was carved in so careless a manner, that it is not presentable for another meal. Perhaps a few slices are cut from it, for the next morning's breakfast; then the bones and fragments of meat are thrown out. The bits of meat might have been chopped with celery for a salad, and the bones made into soup. The French excel us greatly in utilizing "odds and ends" in cookery. They use parts of fowls—for instance, the comb of the rooster—that we would never think of eating. Turkey soup is too rich for persons of weak digestion, but will be relished by healthy people and children.

Soup of Turkey Bones.

Break the bones, place in a kettle and add two quarts of cold water. Cover closely and set on the back of the stove to simmer for an hour. Season with pepper and salt, and add one large spoonful of rice. Let the soup boil until the rice is done; then pour into an earthen dish and put away in a cold place until the next day. When wanted for dinner, remove the layer of fat, and heat the soup. Serve very hot with crackers and pickles.

Turkey Salad.

One teacupful each of chopped turkey and celery. Mix, and then turn over it a dressing made after the following recipe: One raw egg—beaten; one hard-boiled egg—mashed fine; one-half teaspoonful of salt; one teaspoonful of prepared mustard; one teaspoonful of melted butter; a large spoonful of vinegar.

Bread and Yeast.

However capable our domestic, I always make the bread myself. The yeast is prepared according to the following rule: A pint of flour is scalded with hop water to form a thin batter; thickened with boiled mashed potatoes, and passed through a colander. When cool, a teaspoonful of salt is added; the same quantity of ground ginger; a large spoonful of sugar, and one-half teacup of best yeast. Keep the mixture in a warm room to rise, stirring it down two or three times. We keep yeast in glass cans—Mason's—and in a dark place. Many think that the chemical action of light is as injurious to yeast, as to fruits canned in glass. A teacupful of yeast is sufficient for two large loaves of bread. The sponge is made with warm water and quite stiff, and is kept warm over night. In the morning, more flour is added to the sponge and it is kneaded for a half hour, or as long as there is time to spare. Bread is more tender, if melted butter — a large spoonful to each loaf — is worked into the dough. Let the mass rise until very light, when it may be molded into loaves and set to rise again. Top heat is best for raising bread, as it is apt to get scalded if placed on any heated surface. Experience teaches one, better than rules, how to bake bread. Some housekeepers set the sponge in the morning, thus making a hard, disagreeable day. If set at night, time is gained, and the bread-baking, can be gotten entirely out of the way long before noon.

Bread Cakes.

The waste of bread is in many houses a heavy item. Slices that might have been toasted, are allowed to become hard and dry, or even moldy. Broken pieces and crumbs that would have answered for griddle cakes, puddings, or dressing for fowls, have been overlooked until too old to be fit for use. Such negligence does not speak well for the housekeeper.

The careful housewife will look through the pantry every day, if possible, to see that nothing be lost. Our favorite breakfast cakes are made of bread crumbs according to the receipe given herewith.

Bread Griddle Cakes.

One pint of bread crumbs soaked in as much thin, sour milk, as they will absorb. Leave over night. In the morning, stir in one beaten egg, a small teaspoon of salt, and flour to make a batter of the right consistency to bake. More milk may be needed. One teaspoonful of bicarbonate of soda, dissolved in very little hot water, should be stirred in just before baking. If in the least sour, use more soda. Bake on a hot, well-greased griddle. The cakes are better if a half teacup of cold boiled rice be soaked with the crumbs. M. G. B.

Canned Apples.

There are several good ways of preparing apples to fill the fruit cans which are fast becoming empty at this season of the year; and there is no danger but the sauce will be relished by the farmer's family in the spring, when vegetables and fruit are scarce, and fresh air and hard work bring increased appetites. The most economical way, if one has sweet apples and boiled cider, is to make cider apple-sauce, as that requires very little, if any, sugar; and it is excellent, too, if well made. To do this it should be cooked slowly two or three hours, and not stirred at all, as that breaks the pieces and gives it such a mussy look. Instead of stirring, push the top pieces under carefully when partly done, and put in water as it boils away, to prevent its burning.

To make apple-butter, the sauce, when done, may be stirred or mashed fine, and seasoned with cinnamon, allspice and cloves. If one does not have sweet apples, sour ones will do nearly as well for apple-butter, if plenty of sugar is used; but they do not make good cider apple-sauce, as they fall to pieces in cooking. Pickles are good, made of sweet apples pared and cut in halves or thirds according to size, and prepared the same as sweetened pickled, pears or peaches, and if liquor is left from these it may be used for the apples. Sour apples may be stewed in the usual way and canned, sweetening when used. But to make *nice* sauce, use sound, fine-flavored apples, cut into quite large pieces. With a quantity sufficient for a quart of sauce, put a cupful or more of sugar, and half of a lemon, with a very little of the peel; stew quickly, and only enough for one can at a time.

Doughnuts.

One cup of soft yeast; one cup of warm sweet milk; one cup of shortening—half butter and half lard; one cup of sugar; two well-beaten eggs; one-half teaspoonful of salt; flavor with nutmeg, allspice or cinnamon. Knead all together; set in a warm place at night; in the morning, if light, knead again; roll about two-thirds of an inch thick; cut out in cakes a little larger than a silver dollar; let them rise; then fry in lard and roll in pulverized sugar.

Ginger Snaps.

Three cups of molasses; one cup of shortening; three teaspoonfuls of ginger; three teaspoonfuls of salaratus; two tablespoonfuls of water; one-half teaspoonful of salt. Roll rather thin and bake in a quick oven.

A Correction.

I hope no RURAL sister has been so unfortunate as to follow exactly my recipe for bread making, as it appeared in the RURAL of January 11, for by some mistake I was made to say as much "water"—instead of flour—as can be easily stirred in. MRS. S. C.

Fritters.

One quart of milk, one pound of flour, add

seven well-beaten eggs and a teaspoonful of salt. Drop by the spoonful into hot lard, and fry them a light brown. A friend of mine was telling me, the other day, that beets chopped fine and covered with sweetened vinegar, were very nice. I have not had time to try it, but mean to soon. They are not cooked but taken raw, and she said they could be kept in that way all winter. A nice dish and an economical one when we have bits of chicken or fresh meat left over, is made by cutting them from the bone, and with them making a nice gravy, adding butter, if desired. Line a pie-dish with biscuit crust, and put the meat and gravy in it. Cover with more crust, leaving an opening in the center for the escape of steam. Bake.

Lemon Jelly.

This is by some people pronounced to taste very much like port-wine jelly, for which I wish some one would contribute a recipe. Slice the lemons fine in water enough to cover them. Stew rapidly for half an hour. Strain, and add two-thirds as much sugar as there is juice. Boil until it jells.

North Fairfield, O. LORETTA E. TURNER.

NOTICE is given that the Free Seed Distribution that was announced in the RURAL of Nov. 9th, 1878, and which included field, garden and flower seeds, *is now ended.*

THE STEAM THRASHER that is advertised by the Blymyer Manufacturing Company this week, is a good bargain, and it would probably be to the interest of thrashermen to inquire into it.

SUBSCRIBERS are again requested to make their applications for the corn on separate sheets, with name and address, and distinct from any other subject they may wish to write about.

An Article of True Merit.—"**Brown's Bronchial Troches**" are the most popular article in this country or Europe for Throat Diseases and Coughs, and this popularity is based upon real merit. **25c. a box.**

THE MARKETS.

PRODUCE AND PROVISIONS.

NEW YORK, Saturday, March 8th, 1879.

BEANS AND PEAS.—The bean market shows some recovery, not so much in prices as in a steadier demand for home and export use. Best grades are cheapest at present ranges, and sellers do not hold back offerings as possible free receipts may turn matters less favorable. Green peas scarce and firm; $1.40@1.45; Southern B. E. peas weak at $2.00 per 2 bush. bag. Canadian peas, in bulk and bond, quiet at 7-@74c.

Comparative movement in beans for past three years:

	Receipts, bush.	Exports, bbls.
Sept. 1, '78 to March 1, '79	224,934	28,024
" 1, '77 " " 1, '78	228,154	25,363
" 1, '76 " " 1, '78	235,914	23,401

Receipts for week, 3,016 bush. Exports, 1,675 bbls.

BUTTER.—There is an improved action in business, a fair export demand and more general local and eastward call telling upon stocks, especially as receipts are moderate. The current impression is that all of the old crop will be out by the advent of new, but low prices will have to be accepted for a good portion of it. This latter point, however, has been discounted. Fine and fancy State is scarce, but the fact does not give prices any particular buoyancy. We have missed a good deal of New Jersey trade this season. Nearly all of the principal towns, with any agricultural outskirts, have been considerably supplied by home dairies; cheap hay and abundant grain permitting the production. Western butter has an easy time, as a whole: few lines of dairy or factory make the extremes.

Comparative receipts and exports, for past three years:

	Receipts, pkgs.	Exports, firkins.
June 1, '78, to March 1, '79	1,180,047	233,919
June 1, '77, to March 1, '78	1,016,077	148,721
June 1, '76, to March 1, '77	1,008,414	117,644

Single extra State half tubs, 25c.; choice lines, 21@23c.; State, full dairies, special, 19c.; other, 16@18c.; firkin dairies, fair to prime, 15@18c.; Welsh dairies, fine full, 16@17c.; fair to prime do., 10@21c.; choice Welsh, 18@19c.; fair to prime, 12@17c.; choice creamery 25c.; best western creamery, 28c.; other, 19@24c.; early packed creamery, 17@19c.; poor State, 8@11c.; Western dairy, fine fresh, 17@18c.; fair to good, 10@15c.; factory, ladle packed, 15@16c.; good, 13@14c.; other, 7@9c.; rolls, 10@15c.; grease 4@5c.

Receipts for week, 24,6 3 pkgs.

Exports for week, 5,586 firkins.

BEESWAX.—The market is having a moderate degree of activity, and is quoted at 24@25c. for Western and Southern.

BROOM CORN.—There are full supplies and demand slack.

Brush and short broom, choice, ₩ lb., 5@5½c.; do. common to good, 3½@4½c.; hurl, good to choice, 3½@4½c.; do. common to fair, 3@3½c.; and crooked, 2@3c.

COTTON—There has been a very dull market through the week and prices showing only slight change. Closing prices are for March at 9.71@9.72c.; April at 9.86c.; May at 9.98c.; June at 10.12@10.13c.; July at 10.23@10.24c.; August at 10 31@10,32c.; September at 10.13@10.15c.; October at 9.92@9.95.

Quotations for spot cotton are based on American standard of classification, and on cotton in store running in quality not more than half a grade above or below the grade quoted:

	Uplands.	*N. Orleans.*	*Texas,*
Ordinary	7¾	8	8
Strict ordinary	8 5-16	8 7-16	8 7-16
Good ordinary	8 13-16	8 15-16	8 15-16
Strict good do.	9¼	9¼	9¼
Low middling	9¾	9¾	9¾
Strict low middling	9 9-16	9 11-16	9 11-16
Middling	9¾	9¾	9¾
Good middling	10¼	10¼	10¼
Strict good middling	10¾	10¾	10¾
Middling Fair	11 3-16	11 5-16	11 5-16
Fair	12	12⅛	12¼

STAINED.

Good ordinary....8	Low Middling....9
Strict good ordinary... 8⅝	Middling....9⅝

CHEESE.—Exports for the week, 47,891 boxes; showing a very steady, fair movement. There has been nothing new, holders views as to prices generally steady, with most demand for the low and fine grades.

Quotations at 9@9¾c. for fancy; 8¼@8¾c. for fine lots; 7¾@8c. for good; 3@5c. for skimmed; 5¼@6¾c. for half skimmed: State, farm dairy at 8@8¾c. for fine; 7@7¾c. for good to prime. Wisconsin factory, fine and fancy, at 8¾@9c.; do. good to prime, at 7¾@8¾c. Western factory, fine 8c.; good and prime, 6¾@7¾c.; do. full skimmed, 3@5c.

Cable rate, 48s.

Steam to Liverpool, 40@42s. 6d.

Estimated stock in this city, 130,000 boxes.

Comparative receipts and exports past three years:

	Receipts, pkgs.	Exports, lbs.
June 1, '78 to March 1, '79	2,813,048	121,222,989
" 1, '77 " " 1, '78	2,270,386	93,334,133
" 1, '76 " " 1, '77	1,908,871	80,970,675

DRIED FRUITS.—In apples the exporters have been free buyers and have paid up to 3⅞@4c. for the best of the quarters; evaporated and choice sliced stock are having a fair local trade, and rule steady in price. Peeled peaches have a good jobbing demand. Small fruits are quiet.

State pinms, 14c.; Blackberries are quoted at 5c. Peaches—Peeled Georgia, @7c. for poor; 8@9c. for fair to good; 10c. for prime; choice North Carolina, 12@13c.; good do., @10c.; unpeeled halves, 3½c. quarters, 3c. Pitted cherries, 20c. Apples—New, 2@2½c. for southern quarters in bags; 3½@4c. for prime sliced; do., fair at 3@3½c.; State at 3½@4c. for new sliced; and 3½@4c. for new quarters; Western at 3@4c. for new quarters. Raspberries, 26c. Apples, evaporated, fancy at 10@11½c.; do. fair lots, 7½@8½c.

EGGS.—Receipts for week, 12,033 bbls.; do. last week, 9,552 do. Supplies are steadily increasing. There is a fair business; buyers, however, regardless of the Lenten season, dispute all attempts at stronger prices. Rates at the close extreme.

Near points, 18c.; State, Penn., Western and Southern, fresh, 17@17½c.; poor, 15@16c.

FURS AND SKINS.—Market here not materially varied under the late report of London sales, as shippers have been kept well advised of the foreign situations. At the Hudson Bay Co.'s sale, since our last, otter advanced 30@50 ₩ cent.; red fox, 25 do.; cross do., 40 do.; silver do., 20 do.; white, 100 do.; skunk, 40 do.; bear, 20 do.; marten and lynx, 10 do.; Wolf declined 10 per cent., all compared with last March. Mink equalled last September. Beaver sold 10 per cent. lower than in January.

FLOUR.—The market does not show much vitality, the supplies being liberal and full offerings to sell while trade drags.

Latest prices are $3.40@3.75 for inferior to strictly fancy superfine State; $3.70@4.00 for very poor to good extra do., odd lots and lines; $4.00@4.25 for good to choice do., and fancy lots above this; $3.40@3.75 for inferior to fancy superfine Indiana, Iowa, Michigan, &c.; $3.70@4.00 for inferior to good shipping extra do. and $4.00@4.25 for good to choice extra do.; common to about choice white wheat extras, $4.25@5.35; choice to fancy do. at $5.35@5.15; red and amber winter wheat, very inferior to very choice trade and family, at $4.10@5.85 (fancy held higher); round hoop Ohio at $4.00@4.35, and trade and family brands of do. at $4.50@4.85, the latter rate for very choice (a few fancy lots held higher); St. Louis, $4.25@5.10 for very inferior to good extra; $5.10@6.00 for good to very choice (with a few very fancy brands in high favor with the jobbing trade), quoted up to $6.50@6.75; Minnesota clear, very inferior to strictly fancy, at $3.75@5.00; few brands going above $4.65@4.75; Minnesota "straight," inferior to very fancy at $4.10@6.00; and patent poor to strictly fancy at $5.25@5.25, few brands going above $7.50@7.75; unsound stock at from $2.25@5.25; city mill extra at $4,95@5.25 for West Indies (the latter rate for fancy in new packages); do. for England $5.35@6; do. trade and family extras, $5.25@6.25; do. for South America, $5.15@5.65 for fair to very choice; No. 2 at $2.40@3.25 for poor to very fancy, the latter an extreme.

FRESH FRUITS.—The market for apples continues strong, a good exportation helping to keep stock in limits. Exports for week, 6,200 bbls. Eastern apples range at $1 50@2 25, the latter rate for extra. Stored stock, Spitzenburg and Greenings, $2 25@2 62 bbl.; Russets, $2@2 25; Baldwins, $1 87@2 12; Tallman Sweets, $2@2 25. Cranberries hold late rates with a moderate supply and demand: made bbls., $7@8 50; crates, $2 25@3. Florida oranges sell when in good order; others drag: best, $3@4 half-barrel box; other, $1@2. Peanuts firm for choice; spring generally brings business. Va. hand-picked, $1 10@1 15; other, 85c.@$1; shelled, $4@5. Pecans, 6c.@8c. Hickory nuts out of date. Hot-house strawberries, $5 quart.

MAPLE SUGAR.—New Ohio sugar quoted 15@17c. as a novelty. These prices would not follow fair receipts.

GRAIN.—Wheat has been subjected to sharp speculative manipulation, and with a good deal of irregularity finally was firm. Sales of ungraded Nebraska spring at $1 02; rejected spring at 83½@84c.; No. 3 spring at 97c.; ungraded amber at $1 12@1 14; No. 2 amber at $1 15@1 15½; ungraded red at $1 02@1 13½; No. 2 red at $1 15½@1 17; No. 3 red at $1 11½; extra white at $1 14½; white State at $1 14½@1 15; No. 1 white at $1 13½@1 14½; ungraded white at $1 13@1 14; No. 2 March option, at $1 15@1 15½; do., April option, at $1 15½@1 15¾; No. 2 red March option, at $1 16@1 17; do., April option, $1 16¾@1 17¾; do., May option, at $1 17; No. 1 white, March option, at $1 14½; do., April option, at $1 15¼@1 15¾; do., May option, at $1 1?. There has been considerable excitement, owing to forged telegrams authorizing heavy sales of wheat at Chicago. The fraud was discovered timely enough to prevent serious interruption in New York transactions. Corn has been fairly active, closing at for New York No. 2 at 45¾@46c.; New York No. 2 old afloat at 46@46¾c.; steamer mixed, at 45¾@45¾c.; ungraded mixed at 45@45c.; New York No. 3 at 45@45¼c.; No. 2 white at 50@52c. for old; Jersey yellow at 46c.; Southern yellow, on dock, at 45¾c.; round yellow at 46@47c.; New York yellow at 47c.; steamer yellow at 44¾@45¾c.; New York old No. 2, March, at 46¾c.; New York No. 2, March, at 45¾c.; New York No. 2, April, at 46¾c.; New York No. 2, May, at 47¾@47¾c.; steamer mixed, March, at 45@45¾c.; do., April, at 45¾c.; do., May, at 45¾c. Oats have been active and well sustained in price; No. 2 Chicago, afloat, quoted at 34¾@35c.; New York No. 1 white at 35¾@37¾c.; New York No. 2 white at 34¾@35¾c.; York No. 3 white at 33¾c.; New York No. 1 at 34@35c.; New York No. 2 at 34¼@34¾c.; New York 3 at 33¾c.; rejected at 32¾c.; white Western at 34¼@35¾c.; mixed do. at 33¾c.; white State at 34¾@36c. Barley, state, 6-rowed, 75@82c.; do. 2-rowed, 65@72¾c.; Canadian, 80c.@$1.15.

HAY AND STRAW.—There are very fair receipts, but demand good and prices sustained.

Sales at 40@45c. for shipping, and 70@75c. for retail qualities. Straw quoted at 50@60c. for long rye, and 40@45c. for short rye, and oat at 40@45c.

Exports for week, 2,564 bales.

HOPS.—The most marked feature of the trade this week is the large falling off in the export demand, only 390 bales having cleared since our last report. This is the smallest week's business in this line since the last week in October. The arrivals from the interior, however, continue quite liberal, the same reaching nearly 1,400 this week. With the exception of a decline of ½c. per lb. in the price of low grades of Eastern and Western hops, our quotations remain unchanged.

Quotations are for New Yorks, new crop, choice, 10@14; New Yorks, new crop, medium, 7@9; New Yorks, new crop, low to fair, 5@6; Eastern, 6@10; Western, 6@10; Yearlings, 3@5; Olds, all growths, 2@3; Pacific coast, 10@15.

Comparative receipts and exports from Sept. 1 to March 1.

	Receipts. Bales.	Exports. Bales.
Sept. 1, '78, to March 1, '79	54 107	21,421
Sept. 1, '77, to March 1, '78	115,088	65,312
Sept. 1, '76, to March 1 '77	43,584	20,898
Sept. 1, '75, to March 1, '76	59,341	29,276
Sept. 1, '74, to Mnrch 1, '75	30,926	13,888
Sept. 1, '73, to March 1, '74	16,424	456

OIL CAKE.—Western is quoted at $27.50@28.

PROVISIONS—Have tended lower, with a slack demand. Mess pork quoted at $10.15 bid and $10.30 asked for new for March, and $10.15 bid and $10.30 asked for new for April, and May at $10.25 bid and 10.35 asked, and June at $10.30 bid and $10.45 asked. Bacon at 5c. for long clear and 5¾c. for short clear. Lard—Western steam at $6.65 for spot lots; $6,62½ for March; $6.65 for April; $6.70@6.72½ for May. Stearine at 6¾@6¾c. for Western. Tallow at 6 9-16c. for prime. Beef Hams at $18.00@18.50. Beef, extra India mess, $18@21, as to quality; packet, $11@11.50; plain mess, $9.50@10.25; extra mess at $10.50@11.50.

SEEDS.—Clover moderiely active at 6¾c. for prime Western and 6¾@6¾c. for choice do. Timothy quoted at $1.75@1.80.

TOBACCO.—There has not been much activity, but prices generally steady.

POULTRY AND GAME.—Supplies of dressed poultry have rather exceeded demand and much Western has sold low. Choice, bright near points bring 17c. Frozen poultry for spring use will not be a feature this season from present information. Heavy turkeys not wanted: eight and eleven pound do best. Ducks and geese quiet.

Turkeys, best, 15@17c., the latter for Pa. dry-picked; other, 13@15c.; chickens, best, 16@17c.; other, 10@12c.; fowls, choice, 14@15c.; capons, 22@23c.; slips, 18@20c.; ducks, best; 17@18c.; other, 13@15c.; geese, 9@12c.

Live poultry has arrived freely and prices are down. N. J. fowls, 10@11c.; Western, 9@10c.; Chicks and fowls, mixed, 8@10c.; roosters, 5@6c. Turkeys, 13@14c.; Ducks, 60c.@$1; N. J. Geese, $1.75@2; other, $1@.50 Pigeons, 35@40c.

Pigeons and wild ducks comprise the game list. Mo. pigeons, $1@1.15 doz.; Canvas back ducks, $1.25@1.75 pair, the latter for Havre de Grace.; Red-head, 75c.@$1; Mallard, 60@75c.; Black, 50c.; Teal, 40@45c.; common, 20@25c.

VEGETABLES.—Exports potatoes, for week, 2,895 bbls; of onions, 255 do. The demand has slackened during the past few days, new and stronger rates causing the lull. Holders, however, quote rates firm for all good stock. Norfolk kale is plenty at $1.50@1.75 ₩ bbl.; do. spinach, $3@3.50. Florida green peas brought $6 ₩ crate. Hot-house rhubarb has a good sale for restaurant use.

Hot-house rhubarb, ₩ 100, $3@8: radishes, $3; cucumbers, $2.50@3 ₩ doz.; mushrooms, ₩ lb., 50c.; lettuce, selected, 50@75c. ₩ doz.; poor, $2@3 ₩ bbl. Bermuda potatoes, $6.50@7 per bbl; Early Rose, Nova Scotia, $3@3.25; Eastern, $3@3.12; State, choice, at $2.50@2,62; fair to good, $2@2.25; Peach Blow, white, in bulk, $2.50@3; red, $2.25@2.75; Prolific, $2.25@2.75; Peerless, State, $2@2.25; in bulk, $2@2.12; Jackson white, $2@2 37; Mercer, $2.12@2.37; (outside rate per double heads). Sweet potatoes, Md. & Del., $2@2.37 Bermuda tomatoes, 25@30c. box. Onions, Eastern, white, ₩ bbl., $3@4. yellow, $3.50@3.75; red, $3.50@3.75; Chester, $3@3.50. Squash, Hubbard, $2.50@3.50; marrow, $2.50@2.75. Cabbages per 100, $6@7; R. turnips, per bbl., $1@1.25; beets, 75c.@$1; carrots, $1@1.12; celery, per doz. bunches, 50c.@$1.

WOOL.—There is a moderately active market only, and holders' views without important change. Quotations are for

Ohio, Pennsylvania and Virginia—XXX and picklock, 35@37½c.; XX, 33@35c.; X, 33@34c.; No. 1, 33@34c.; No. 2, 32@33c.; common, 29@30c.; combing, 34@39c.

New York, Michigan, Indiana and Wisconsin—XX, 28@32c.; X, 28@31c.; No. 1, 31@33c.; No. 2, 27@30c.; common, 25@26c.; combing and delaine, 33@37c.

Iowa, Vermont and Illinois—X and XX, 28@30c.; No. 1, 30@33c.; No. 2, 27@28c.; combing, 33@36c.

Missouri, Kentucky and Tennessee—Washed fleece, 30@33c.; unwashed fleece, 18@24c.; unwashed combing, 22@25c.

LIVE STOCK MARKETS

Saturday, Mar. 8, 1879.

BEEVES.—Receipts for the week, 10,391 head; do., last week, 9,083 do. The market has been in bad condition all the week; prices declined on Wednesday, and were again lower at the close. A number of car-loads were left over at the close. Picked steers only brought 9¾@10c. 56 lbs. dress; choice exporting stock, 9@9½c.; ordinary to decent steers, 7¾@8¾c. 55@56 lbs. dress.; a car-load of Texans, 8¼c., also one at 4¼c. live weight

COWS AND CALVES.—The market is quiet at the old nominal rates of $35@45. In the examination of 700 cows in the vicinity of this city during the week, no case of serious disease was discovered.

VEAL CALVES.—Large arrivals of live have weakened prices, but the demand is good, the police giving early attention to "Pobs" and have already carted several consignments away. N. J. and Bucks Co. milk, 6¾c.; heavy, 5@5¾c.; State, 6c; fed calves, 4@5c.; hog dressed, 8¾@9c.; others, choice, 5@7¾c.

SHEEP AND LAMBS.—Receipts for week, 18,788 head; do. last week, 19,138 do. Spring lambs are dull at $4@6.75 per head; no money for butchers at present rates and sizes; other lambs, 5¾@6¾c. per lb. Sheep quoted, with a light trade, at 5¾@6c. for Western; 5¼@5¾c. for N. J. and near by; ewes, 4¾@5¾c.

SWINE.—Receipts for week, 22,511 head; do. last week, 24,373 do. Demand weak. Late sales fat Western hogs, 197 lbs. average, $4.30 per 100.: country pork, light, 6@6¾c.; medium, 5¾@6c.; heavy, 5¾@5¾c.; Western hogs, 4¾@4¾c.; city, 5¾@5½c.

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BAUGH & SONS,
Manufacturers of
Sulphate of Ammonia,
"A A NITROGEN."
(TRADE MARK.)
PURE GROUND BONES, BONE MEAL and CHEMICAL FERTILIZING SUPPLIES.
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1879. BONE. BLOOD. MEAT. NO ROCK PHOSPHATE USED. 1879.

The large and extensive Works of the BUFFALO FERTILIZER, destroyed by fire in July last, have been entirely rebuilt and supplied with new and improved machinery.

It is the leading Fertilizer now in use by the farmers of the States of New York, Ohio, Pennsylvania and Vermont, and the Canadian Provinces.

This Fertilizer is guaranteed for its purity, being manufactured entirely from ANIMAL MATTER. No rock or mineral phosphates or refuse acid from oil refineries enter into its manufacture.

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Call for these Spouts at your hardware stores.

HORSFORD'S Bread Preparation
UNSURPASSED FOR MAKING
LIGHT BREAD
Biscuit, Rolls, Cake and Pastry.

It is Better and Healthier than ordinary Baking Powder, Cream Tartar or Yeast.

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It restores the nutritious elements which are taken from the flour in bolting. No ordinary Baking Powder or anything else used for raising bread does this.

Universally used and recommended by prominent Physicians.

If you cannot get it of your Grocer send a three-cent stamp to the manufacturers for a sample.
Manufactured according to the directions of Prof. E. N. Horsford, by the Rumford Chemical Works Providence R. I.

GREAT OFFER FOR THIS MONTH
We will during THIS MONTH *dispose of* 100 PIANOS & ORGANS, at EXTRAORDINARY LOW prices for cash. SPLENDID ORGANS 2 3-5 sets of reeds $70, 3 sets with Sub Bass and Coupler $85, 2 sets $55, 1 do $40. 7 Octave all ROSEWOOD PIANOS $130, 7 1-3 do $140, do $150, warranted SIX years. AGENTS WANTED. Illustrated Catalogues Mailed. Music at half price. HORACE WATERS & SONS, Manf'rs and Dealers, 40 East 14th., St., N. Y

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PRICE, FULL RIGGED, $16.
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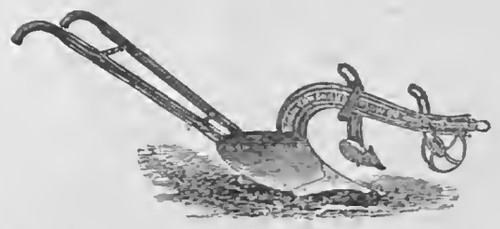

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have enlarged the capacity of their works *three-fold*, in order to supply the demand for the year 1879.
THEY MAKE THE
BEST CHILLED PLOW
THE WORLD HAS EVER SEEN.
IT IS LIGHTER OF DRAFT.
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IT CLEANS IN EVERY SOIL WHERE OTHER PLOWS FAIL.
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IT IS MADE IN DIFFERENT STYLES—ONE HORSE, TWO-HORSE, OR THREE-HORSE.
Every Plow is Guaranteed under the Seal of the Company.

BEWARE OF COUNTERFEITS.
The reputation of the Syracuse Chilled Plow has induced unprincipled manufacturers to palm off on the farmers plows that they call *chilled*, which are, in fact, nothing but common plows, with the word "chilled" painted or branded thereon.
The SYRACUSE CHILLED PLOW has been made but two years and a half, and in that time
Nearly 35,000 Have Been Sold.
No other new style of Plow sold over Six Thousand in the same length of time.
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***My Annual Catalogue of Vegetable and Flower Seed for* 1879,** rich in engravings, from original photographs, will be sent FREE, to all who apply. Customers of last season need not write for it. I offer one of the largest collections of vegetable seed ever sent out by any seed house in America, a large portion of which were grown on my six seed farms. *Printed directions for cultivation on each package.* All seed *warranted to be both fresh and true to name;* so far, that should it prove otherwise, *I will refill the order gratis.* The original introducer of the Hubbard Squash, Phinney's Melon, Marblehead Cabbages, Mexican Corn, and scores of other vegetables. I invite the patronage of *all who are anxious to have their seed direct from the grower: fresh, true, and of the very best strain.*
NEW VEGETABLES A SPECIALTY.
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Reading for the Young.

TO THE SONS OF THE FARMER.—No. 3.

REV. A. W. MANGUM.

In justice to you I assume that you realize to some extent, the importance of selecting a special calling in life. Permit me to urge this matter upon you, as one involving your interest in every sense. If you have no definite object in view, your preparation will be uncertain, at the best; much valuable time will probably be lost; your aimless efforts may be misdirected and comparatively wasted; and your energies, without the inspiration of a worthy, commanding aim, will be apt to slumber or languish. Your vocation once calmly, clearly decided, your character immediately begins to put on a more distinct individuality. Your tastes, your habits, your conversation, your plans, your associations, are all influenced continually by your choice. Your mind thus fixed, you will be comparatively free from the danger of moving hither and thither in fitful undertakings and pitiable instability, and you will also be saved from that more disreputable fate of squandering your precious spring-time in fruitless dreams and enfeebling indolence. If you have not a worthy something to do, you are very apt to do nothing—or, rather, worse than nothing. So you must, as soon as you well can, choose your vocation.

Of course I do not advise you to be hasty or in any respect presumptuous in making your choice. In that great work you not only can afford, but duty requires, faithful deliberation. Let your first aim be to obtain all possible information of a useful character. Learn to care for your health. Do the daily duties that demand attention. Cultivate a habit of close observation. Get knowledge of all that you use and all the work you engage in. Strive to acquire skill in your occupation, whatever it may be. Make it your constant aim to be thorough in all that you do. Give careful notice to details—to little things. Do not be content to move along the beaten path, without inquiry and investigation. Ask questions till you learn what fellow-laborers know; and then study and seek till you know more than those around you. Store your mind in every legitimate way. It may be your destiny to remain on the farm; or it may be that some more public field awaits you. In either case, you will need muscle, intellect, stores of learning. Working on, watching ever, you may confidently expect the not distant day when duty, with the authority of the master and the gentle sweetness of the loving maid, will present to your eager mind the ideal of the vocation you should follow.

Though I repeat, I must urge you to consider that the work you do, the knowledge you acquire, while you are undecided as to your life-work, is in no sense, necessarily and absolutely lost to your future calling. Until the ultimate choice is made, be governed by immediate duties and aims. It is shown, by many facts and by most distinguished illustrations, that farm life in youth is peculiarly favorable to success in high literary professions. In both Europe and America, the loftier plane of letters, statesmanship and oratory has often been occupied by those who spent their early years in toil and seclusion on the country-farm. Indeed, is it not a matter of observation that the country excels the town in furnishing men who rise to eminence and maintain great influence through a long life?

Furthermore, in the frequent contact between the practical and the professional American life; in the intimate interdependence of various vocations; and in the accidents which are not uncommon to the most clearly defined and most scrupulously restricted professions; in these there is sufficient proof that a knowledge of those industrial exercises that are familiar to the farmer may not only be made auxiliary, but may become actually indispensable to the highest success in any even literary career. In my youth I worked on the farm and became well acquainted with those peculiarities about horses and harness and implements of labor that are known thoroughly by none but those who learn by such experience. In the immediate pursuit of my profession as a minister, I have had abundant need of the very information I got on the farm. Well do I remember one occasion, when, in discharging my duty as a minister, it became necessary for me to drive a pair of horses, one of which had been bought from a circus company, and had "ways that were dark, and tricks that were vain." My best skill in driving was demanded and expended; my profoundest philosophy as to horse-nature was called into play; my utmost ingenuity and all my means of mending were most studiously appropriated; and, finally, I was forced to what, in military parlance, might be called a *coup de main*, in order to escape without a ducking or a worse disaster from a cold, wide, deep stream. What my final resort was, I will not tell now; but I learned it on the farm, and, in after years, it proved a happy deliverance from my embarrassment.

But apart from the advantage that the practical knowledge obtained on the farm secures to the individual himself, it often renders him of special service to others. This may, and probably will be, the case in the ordinary relations of life and on the most common or the most unexpected occasions. It is a matter of history, how Louis Napoleon alighted from his splendid carriage and went to the relief of a poor market-woman whose cart was overturned in the environs of Paris. I knew a venerable and distinguished bishop of whom the following is told: One day, in traveling professionally, (while a fine-looking young minister) he came to a hill upon whose steep side a lone wagoner was vainly trying to make his team pull the heavy load. He drove his sulky by, and went on his way; but he was so affected by the wagoner's helpless difficulty, that he leaped down, hitched his horse, returned to the hill, and offered to relieve the stranger, if permitted to drive. He was soon in the saddle, with lines and whip in hand; and, talking in gentle and assuring tones to the horses, "gave the word," and easily drove them up the hill. The wagoner walked near him, looked at him with astonishment and admiration, and said: "Sir, you are dressed like a gentleman; you talk like a gentleman; you look like a gentleman; and I know you are a gentleman; but one thing is certain, you've *draw* a wagon before today." Was he not the more of a gentleman because he could drive? Certainly, his knowledge of the wagoner's skill enabled him, doubtless, with pleasure, to show the genuine impulse of the true gentleman.

TRIXIE'S FIRST TOOTH.

Trixie was being dressed for Sunday-school when she made an important discovery; one of her little white teeth was loose.

"Oh! I'm so glad!" she cried. "All the other girls had loose teeth a long time ago, and once Jennie Potter had one, and she was eating an apple, and her tooth came right out in the apple. How soon do you b'lieve I can have mine pulled, mamma? Will I have to go to the dentist?"

Her mother said it was not loose enough yet, but when the time came they would make every effort to find some one fitted to extract the tooth in a skillful manner.

Although she said this very gravely, Trixie had a suspicion that her mother was laughing at her; so when her sash was tied she hurried off to tell Ned. But that young gentleman had been through the tooth-pulling operation so many times that it had ceased to be a novelty, and he did not prove a very agreeable confidant. But Trixie did not mind. She was as proud as if the whole world rejoiced with her.

She felt of the wee tooth every other minute on their way to Sunday-school; but they were late, and in the bustle of getting seated, the pleasant lesson, the singing, and the fact that her teacher had a new hat with a lovely feather on it, Trixie forgot her new dignity, and was only reminded of it when her cousin, the librarian, brought the books to the Infant Class. He was a tall young man who was studying dentistry, and his small kinswoman naturally thought he would be interested in the communication she had to make.

As he was passing by she stood up and said, in a loud whisper, "Oh, Cousin Nelson, do you know I've got a loose tooth?"

"Have you?" asked the youth, blushing, and conscious that the young ladies in the next class had heard the question.

"Yes. This is it—this one right here," and as she spoke she opened her mouth to its widest extent, and moved the tooth backward and forward.

Cousin Nelson's face was scarlet as he heard a suppressed laugh from Miss Montgomery and a faint titter from Miss Carlisle, and he hastily retreated to his library, wishing that he could pull out every tooth Trixie possessed.

"Let's see," said the little girl who sat next her, so she displayed it again, but kept wondering why Cousin Nelson should hurry off so fast, not even giving her time to ask how soon he thought it might be pulled.

Every day of the following week Trixie tormented the family about her tooth, and when her father came home from the store Saturday afternoon she said, "Papa, I just know my tooth is loose enough now. I can't eat with a bit of comfort, and I wish you'd pull it out to-day."

Her father looked at it and said, "Well, puss, I think it is ready to come out;" so she wheeled the big arm-chair nearer the window, climbed into it, and watched him while he twisted some thread into a cord.

"Tell me when you're all ready, papa."

He finished twisting, passed the cord around the little tooth and tied it firmly; then he said, "Now, Miss Beatrice, everything is ready."

"Call in the boys, then," she replied with great dignity.

A few weeks before Ned had had a tooth extracted, and Trixie remembered that she had seen tears in his eyes. The fact that it was a large double tooth made no difference to her. The Starkweather boys were over playing with Ned this afternoon, and she would show them all how brave a girl could be. No tears should be seen in her eyes!

The boys came in, wondering somewhat at the invitation, but when they saw the little figure in the easy-chair they guessed the reason, for everyone in the neighborhood had heard of Trixie's tooth. So with many a chuckle they waited to "see the show." "I know Trix 'll holler!" whispered Ned.

But it wasn't much of a "show" after all; papa gave a jerk, and the little tooth was dangling on the cord.

"Is it truly out?" gasped Trixie.

"Truly"—and her father laughed as he cut the string and gave the tooth to her.

"What a cunning, little thing! I'm going to keep it always. And I didn't cry one bit, did I, papa?" she asked, with an exultant look at Ned.

"Not one bit. Now for the pay."

"How much will it be?"

"Twenty kisses"—which were promptly paid with accompanying hugs, much to the detriment of papa's collar and tie.

Trixie kept her tooth a long time, but one day her box of treasures upset, and the wee bit of ivory must have rolled down a crack, for she never could find it. She regretted this very much, as she "always meant to keep it for her grand children!" Alice P. Adams.

Los Angeles Co., Cal.

LETTERS FROM BOYS AND GIRLS.

Dear Uncle True:—Again I write, from Riverside, to the little cousins of the Rural. I wish this letter to be an early spring-time greeting to you all. The winter is over sooner here than where many of you live, and although, even in the month of April, we may have some cold rains, still all nature gives us tokens of the approach of spring; and we have early flowers in bloom, and are cheered by the songs of birds long before that time. This past week we have had a few bright and balmy days that seemed to whisper of the glad springtime; and I have heard a few bird notes, which sounded so new and sweet, that I concluded the little warbler must have learned them in a sunny clime, where he has been spending the winter and is now just returning to practice for spring mornings. This little bird sang as though he were glad to be back again, and I do not think he has been happier than we all are here, though he may have spent the last few months among the orange trees, and where flowers bloom the whole year round. I like to live where I can watch the seasons come and go; then we can better appreciate each. You know it is said, "spring would be but gloomy weather if we had nothing else but spring." The buds on the trees are swelling now, and ere long the pretty pink and white peach blossoms will beautify the landscape. The air will be sweet with the perfume of the early hyacinths, "the crocuses will put up their little heads, and the pink spires peep from their chilly beds." Even now the violets are looking with their sweet blue eyes from the winter covering of leaves, and seem to say, "We need your protection no longer, for the spring time is coming." Here and there the green grass is covering the bare, brown earth, and making ready a rich feast for the little lambs. Are you, little cousins, getting ready for the spring time? Have you learned anything new during the long, dull winter, when you were housed up by the fires? Like the little birds, have you tuned your throats to sing glad songs, when the spring comes indeed? Songs of praise to Him, who giveth us all our days; whose mercy hath been over us all through the winter, and who hath promised to be with us *always*? Let us not forget that His loving hand sends us the spring; and shall we be less grateful than the birds, which sing for a few months only, while our songs may echo through a long eternity?

I thank you for giving space to my last letter. Sometime I will be glad to write you a letter to fill up a blank that may otherwise occur. Thus, would I ever like to fill up the blank spaces in the lives of those I love, so that, when I am gone, they may note my absence and think a shadow has fallen across their way. With many good wishes for you all, I remain, Cousin Emsie.

"Riverside," N. C.

Dear Editor and Cousins:—I live on a farm in Illinois. We keep four cows, one pig, and one horse, and have two canaries, which sing beautifully while hanging in the window among the flowers. My brother and I do chores, study at home, knit, sew and draw. I am nine years of age. We are now waiting for spring, so we can begin to garden. I noticed a letter from a Swiss boy, in which he told how they farm in Switzerland. His letters are very interesting. I wonder what has become of Young Tom, we have heard nothing from him lately. I would like to know if he takes the Rural. Such letters as those of Barney Blackstone, Solomon Sap and Slayerofconceit used to write are precious, but scarce. Ivy says Rural Lover is entirely wrong about the girls driving the boys from the field. I think Ivy is right and Rural Lover's sympathy uncalled for. I would like to have all of the boys and girls write more; it would be more interesting and would be more like past times. Uncle Mark tells how to catch tigers, that is a pretty good plan, I should think. We have caught quite a number of rabbits this winter, in traps so contrived that they do not hurt the animals. We have had sleighing about all winter, and the snow is still falling fast. Bob White.

Winnebago Co., Ill.

P. S.—Mr. Editor: Will you please inform me, through the Rural, where I can get a few cuttings of the best kinds of basket willows. My grandpa proposes to give me a piece of land to plant them, so I may have some willow cuttings when I become a man and able to use them.

[From any nursery nearest you. Uncle Mark.]

Dear Uncle Mark: I accept the kind offer you made the Rural cousins to write about their pets. For two years past I had a pair of tame raccoons, which I named Jim and Betsy. They were very playful and would not bite. I sold them this winter and with the money bought a Leicester ewe lamb, the profits of which, like Mrs. Purdy's Parquisites of Rural of Nov. 16th, shall be my "Parquisites" with which to take the Rural for myself. My Christmas presents consisted of a set of double-plated spoons and a butter-knife; they take the "shine" all of mamma's real silver. If any of the girls would like to see them, they will please invite me to their wedding, I will then bring them along to grace the table. Our teacher gives me fifty cents for the use of my Cricket clock this winter; it looks well in the school-room and gains many friends by always telling the truth.

Tuscola Co., Mich. Mary E. Wright.

"More Mortar."—Parrots very soon learn to repeat words and sentences that they frequently hear, thereby often giving rise to laughable jokes. The following story is told of a parrot:

Opposite his owner's residence there were some buildings in course of erection, and the men at the top of the scaffold were in the habit of calling to those below for such material as they wanted,—"More brick," "More mortar," and so on.

"In a very short time, Polly had these terms by heart, as well as the gruff tones in which they were uttered. No sooner did the Irish laborer relieve himself of a load, than the everlasting cry, "More mortar!" assailed his ears.

He bore it with exemplary patience till the mortar board at the top of the scaffold was piled up; but once more the order for "Mortar—more mortar!" was given.

Then, to the delight of the parrot's master, who was standing by, the Irishman flung down his hod, and making a speaking-trumpet of his hands, bawled to the bricklayer above, "Is it mor-r-tar-mad that ye are? Sure a man may have as many legs as a centerpig [centipede] to wait on the likes o' yes!"

Sabbath Reading.

EDIFYING PRAYERS.

Preaching is one thing and prayer is quite another. An address in a prayer-meeting is one thing and a prayer there is another. Sermons and addresses are for instruction and exhortation; the soul of prayer is adoration, praise including thankfulness, and petition. Sermons and addresses are addressed to men, prayer to God. A preaching prayer is neither one thing nor the other; is of very doubtful profit to men and not acceptable to God. Men are indeed to pray in public assemblies to the edification of those who listen, but that does not mean that they are to preach to them through the supplications. The listener is edified by the prayer that leads him to adoration, to praise, to pour out his wants before the throne of grace. If the prayer is delivered to men the hearer is led to look to the arm of flesh, and is not lifted out of his worldliness; but if the prayer is addressed to God the hearer is lifted up to communion with the high and holy One, and is inexpressibly benefitted by it.

Very sweet and precious to God is the adoration and praise and petition of His creatures. How He pleads for such offerings! What infinite pathos in the yearning of the great heart of love as expressed in His invitations! When He chides men for neglect to praise Him, to acknowledge His mercies, to cast their care upon Him, what tender, affectionate grief the language seems to convey! God speaks as though His heart had been wounded, as though the expectations of his love had been disappointed. It is not much one can say on such a theme beyond what was said a moment ago, that the praises and petitions of His creatures are very sweet and precious to God. Whoever bears such tribute to His throne receives a blessing words cannot carry, and whoever leads others in the sanctuary or prayer-meeting to bring such offerings leads them to an action, and disposition, and relation, that is heaven begun below. Such prayers edify; open the eyes of the soul to a region of beauty and glory like that of Paradise, a region perhaps never seen and therefore never known before, but never thereafter to be forgotten. May the Holy Spirit help us to pray!—*Christian Intelligencer.*

THE VICE OF COMPARISON,

One of the commonest and worst of the vices is the vice of comparison. There is good authority for saying that those who measure themselves by themselves and compare themselves among themselves are not wise. The Pharisee who went up into the temple to pray fell into this snare, "God, I thank thee that I am not *as other men are.*" That is the language of spiritual pride and of censoriousness. Thinking in this strain he is sure to paint others as black as he can in order that he may show himself to the better advantage on this background. It would have been well to thank God for not being suffered to fall into grievous sin; but the comparison between himself and other men was sure to bring with it many harsh judgments and many hateful passions. Such a comparison, moreover, puts the true standard of character out of sight; for that is the law that demands perfection. God's requirement is not, "Be ye good as other men:" it is, "Be ye perfect, even as your Father in heaven is perfect."

Besides, such a comparison is very likely to be unjust. How do you know that you are better than "this publican," Sir Pharisee? Perhaps his life may outwardly seem worse than yours; but it may be that he, though vicious and unprincipled and degraded in the eyes of men, is a better man than you are in the sight of God. It may be that he has been crippled from infancy with a heritage of bad passions. It may be that he was born with an organization that inclined him to indulgence. It may be that his environment from his earliest life has been evil. And it may be that against all these hindrances he has striven bravely—far more bravely than you have ever striven; and though his achievements, so far as man can see, have not been remarkable, God may credit this man, who has lived a bad life, with more real moral heroism than you have ever shown. You had better not thank God that you are better than other men, for God knows both you and them; and He may know that they are better than you.—*Sunday Afternoon.*

SELF RELIANCE.

Men must be taught self-reliance. They must also be taught to look to God for help, and to rely on his helping them. Both should go together. We think we have discovered a tendency in the prevailing teaching at Reform Club meetings to altogether ignore the gospel of self-reliance, manhood and courageous self-preservation, while properly exalting the gospel of hope in Christ and reliance on God. No person is in the way of overcoming any evil habit, or any sinful practice, so long as he is made to feel that he is wholly given over to the care of another party. In his thought, the other party at once becomes responsible for his conduct. If he fails, it is his misfortune, but the other party's blame. Teaching men that they are weak, only confirms them in weakness. Teach them that they may be strong through the grace of God and the exercise of the faculties that he has given them, and they have already passed the Red Sea walls and are advancing towards the promised land of redemption.—*Morning Star.*

PERSONAL ITEMS.

Miss Chloe Lankton of New Hartford, Conn., has just completed the collection of one million cancelled postage stamps. She began in October last, a gentleman in Philadelphia having offered her $200 if she would get the stamps for him, the money to be used in getting for her a life residence in a home for the friendless.

Frederick Stumpf and Henry Voullaire, St. Louis lawyers, were deformed cripples and their common misfortune led them to close intimacy. Voullaire died, and Stumpf, prostrated by grief, took to his bed, and remained there until his death, a few days ago. Stumpf had heart disease, but the doctors say that he would not probably have died for years if Voullaire's demise had not affected him.

Bonanza Mackay doesn't look 45. He resides at Virginia City eight months in the year, and is in his mine, where the temperature is from 60 to 100 degrees, almost every day. Mrs. Mackay and his two sons—he has no daughter—are in Paris. She likes Paris and France, but her husband prefers London and England. Mr. Mackay is a man of pleasant aspect and genial manners. His mine is the perfection of good order and propriety.

Prince Bismarck is a great eater, but he cannot be called a delicate or scientific diner. Beer, champagne, turtle soup, boar's head, and a mess of mustard and raspberry jelly formed only a part of a repast in a day when he was recovering from a slight illness. He could, at one time, dispose of eleven hard-boiled eggs at a sitting. He is fond of middle-sized trout. Besides his favorite drink—porter mixed with champagne—he strongly recommends another compound, said to be the invention of Field Marshal Moltke, consisting of hot tea, sherry and champagne. He enjoys good mutton, but he has little appetite for fillets of beef or beef in general.

Mr. Thomas C. Doremus, who died in this city, last week, at the age of eighty-three, will be best remembered for the interest and practical help that he extended to many movements of a religious or philanthropic character. For forty years he was a director of the American Tract Society. He was one of the founders of the Sabbath Committee. Together with his wife, who died two years ago, he was especially interested in missions in this city and throughout the world. His home in New York was the stopping-place of missionaries, going or returning from their fields of labor, and few deaths could create deeper regret in religious circles. Among business men here he was widely known and respected.

Lord Beaconsfield to strangers is an amiable old gentleman, who converses with a languid interest about music and painting, with some animation about turnips and cattle, and with no fire at all, but rather a demure composure, about politics and the spread of Roman Catholicism in England. He has a loud, grating voice, which only grows tuneful when he is warmed. He likes flowers, perfumes and fruit. He eats a great deal of champagne jelly, and drinks a great deal of black coffee. He never smokes. He dresses to perfection knowing exactly what style of clothes best suits him. Into newspapers he hardly ever dips. Sometimes when sitting alone he rests his head on his hand and gazes into the fire or out of the window. No man can boast that he has obtained a glimpse of "the Sphinx's" true mind.

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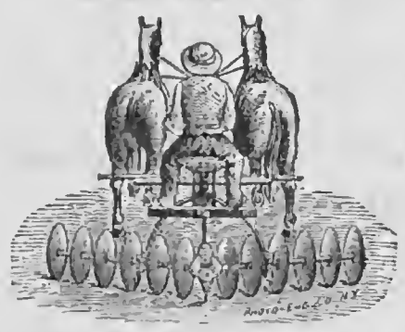

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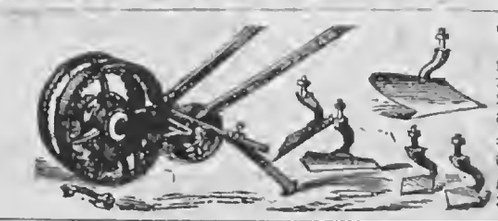

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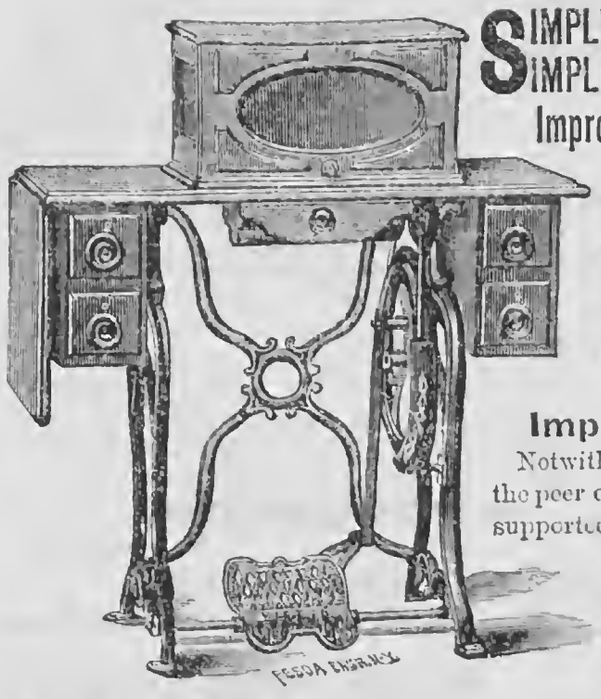

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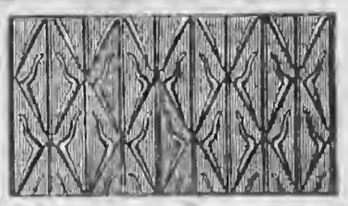

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Wit and Humor.

"THE Sioux are not contagious," said an old frontiersman. "What do you mean?" asked a bystander. "I mean that they are hard to catch," was they reply.

"ODER alms!" cried a servant girl, who was being courted by a member of the militia, as she passed out to a begging tramp a dish of fried onions.—*Wheeling Leader.*

THE farmer should sow his P's, keep his U's warm, hive his B's, kill off the J's, remember what he C's, take care of the V's, pay all he O's teach his wife not to T's, and take his E's.

ADOLPHE to Armida, on their way to Church: "How I would I were the prayer-book you clasp so lovingly." Reply—"How I would you were, for then I could shut you up."

IT is said that nine Cheyenne squaws recently captured have arms.—*Exchange.* And legs, too, no doubt—though they couldn't have made good use of them.—*Norr Herald.*

"WHEN I sleep 'neath the daisies" is the title of a new piece of music. It has not become popular yet, as the weather is too cool for so light a covering.—*St. Louis Spirit.*

BISHOP SIMPSON confesses that he used to be so timid that he would walk around the square to avoid meeting a young lady. That's nothing unusual when it isn't the right young lady.

"AND Moses was an austere man," read the minister from the Bible; "Dar now, you dun hear dat, Sam? De Scriptures say Moses was an oysterman, and you dun flung at me dat sellin' oysters wasn't a 'spectable bizziness. If it is good enough for Moses, it's 'spectable enough for me."

IT was a very honest old Dutch judge in Schoharie county who listened for several hours to the arguments of counsel and then said: "Dis case has been ferry ably argued on both sides, and dere have peen some ferry niee points of law brought up. I shall dake dree days to gonsider these points. But I shall eventually decide for de blaintiff."

THE Keokuk *Constitution* has about "sized" the weather in the following: "The gentle snowdrops came eoyly dowu this morning, and felt the damask cheek of the perambulating reporter as softly and tenderly as the toueh of the taper, velvety finger of a fairy—eh—er—ah—er—hitch up the mule and pull us out; stuck, by jingo.

THE reverend gentleman was visiting at the house of one of his lady parishioners, when the little girl said, "Mr. ——, can you see two ways at once, and is you got honey or sugar in one side of your face?" "Why, what do you mean?" asked he. "Why, ma says you've always got the eye in the sweet side of your face on her in church." Later in the day the abomination of desolation seemed to have settled in that child's heart.—*Yonkers Gazette.*

Not Symptoms, but the Disease.

It would seem to be a truth appreciable by all, and especially by professors of the healing art, that to remove the disease, not to alleviate its symptoms, should be the chief aim of medication. Yet in how many instances do we see this truth admitted in theory, ignored in practice. The reason that Hostetter's Stomach Bitters is successful in so many cases, with which remedies previously tried were inadequate to cope, is attributable to the fact that it is a medicine which reaches and removes the causes of the various maladies to which it is adapted. Indigestion, fever and ague, liver complaint, gout, rheumatism, disorders of the bowels, urinary affections and other maladies are not palliated merely, but rooted out by it. It goes to the fountain head. It is really, not nominally, a radical remedy, and it endows the system with an amount of vigor which is its best protection against disease.

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STRANGE RESEMBLANCES.

No. 3.

No. 4.

THIRTY-FOURTH ANNUAL REPORT
OF THE
New York Life Insurance Company,
Office, Nos. 346 and 348 Broadway.

January 1, 1879.

Amount of Net Cash Assets, Jan. 1, 1878.....$34,452,905 29

REVENUE ACCOUNT.

Premiums received and deferred	$6,121,856 04	
Less deferred premiums, Jan. 1, 1878	396,289 26	—5,725,566 78
Interest received and accrued	2,264,560 48	
Less interest accrued Jan. 1, 1878	315,895 35	—1,948,665 13— 7,674,231 91
		$42,127,137 20

DISBURSEMENT ACCOUNT.

Losses by death, including reversionary additions to same	$1,687,675 61	
Endowments matured and discounted, including reversionary additions to same	673,051 74	
Life annuities and reinsurances	231,005 29	
Dividends and returned premiums on cancelled policies	2,288,674 25	
Commissions, brokerages, agency expenses and physicians' fees	518,809 94	
Taxes, office and law expenses, salaries, advertising, printing, &c.	417,238 78	
Reduction of values on United States and other stocks	98,035 00	
Profit and loss account	8,568 98	— 5,913,679 59
		$36,213,457 61

ASSETS.

Cash in bank, on hand and in transit (since received)	$932,839 43	
Invested in United States, New York City and other stocks (market value, $15,415,105 34)	14,791,267 72	
Real estate	4,582,270 42	
Bonds and mortgages, first lien on real estate, (buildings thereon insured for $12,880,000, and the policies assigned to the Company as additional collateral security)	14,364,158 43	
*Loans on existing policies (the reserve held by the Company on these policies amounts to $3,225,000)	621,984 93	
*Quarterly and semi-annual premiums on existing policies, due subsequent to Jan. 1, 1879	379,839 09	
*Premiums on existing policies in course of transmission and collection (estimated reserve on these policies $590,000, included in liabilities)	146,834 75	
Agents' balances	88,036 91	
Accrued interest on investments to Jan. 1, 1879	306,225 93	—36,213,457 61
* *A detailed schedule of these items will accompany the usual annual report filed with the Insurance Department of the State of New York.*		
Excess of market value of securities over cost		623,837 62
CASH ASSETS, Jan. 1, 1879,		$36,837,295 23

APPROPRIATED AS FOLLOWS:

Adjusted losses, due subsequent to Jan. 1, 1879	$399,486 68	
Reported losses, awaiting proof, &c.	180,993 39	
Matured endowments, due and unpaid	19,601 07	
Reserved for reinsurance on existing policies: participating insurance at four per cent. Carlisle, net premium; non-participating at five per cent. Carlisle, net premium	32,369,333 40	
Reserved for contingent liabilities to Tontine Dividend Fund over and above a four per cent. reserve on existing policies of that class	1,041,456 87	
Reserve for premiums paid in advance	14,987 18	—34,025,858 59
Divisible surplus at 4 per cent.		2,811,436 64
		$36,837,295 23

Surplus, estimated by the New York State Standard at 4 1-2 per cent., over $6,500,000 00.

From the undivided surplus of $2,811,436 64 the Board of Trustees has declared a Reversionary Dividend to participating policies in proportion to their contributions to surplus, available on settlement of next annual premium.

During the year 5,052 policies have been issued, insuring $15,949,986.

Number of policies in force Jan. 1, 1876, 44,661. Amount at risk, $126,132,119.
Number of policies in force Jan. 1, 1877, 45,421. Amount at risk, 127,748,473.
Number of policies in force Jan. 1, 1878, 45,605. Amount at risk, 17,2901,887.
Number of policies in force Jan. 1, 1879, 45,005. Amount at risk, 125,232,144.

Death-Claims paid 1875, $1,524,815. Income from Interest, 1875, $1,870,658.
Death-Claims paid 1876, 1,547,648. Income from Interest, 1876. 1,906,950.
Death-Claims paid 1877, 1,638,128. Income from Interest, 1877, 1,867,457.
Death-Claims paid 1878, 1,687,676. Income from Interest, 1878 1,948,665.

Divisible surplus at 4 per cent. Jan. 1, 1876, $2,499,656.
Divisible surplus at 4 per cent. Jan. 1, 1877, 2,626,816.
Divisible surplus at 4 per cent. Jan. 1, 1878, 2,664,144.
Divisible surplus at 4 per cent. Jan. 1, 1879, 2,811,436.

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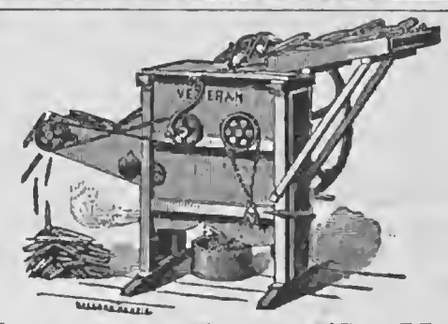

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THE RURAL NEW-YORKER

A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME

PHOTO ENG. CO. N.Y.

VOL. XXXVIII. No. 12.
WHOLE No. 1521.

NEW YORK CITY, MARCH 22. 1879.

PRICE FIVE CENTS.
$2.00 PER YEAR.

[Entered according to Act of Congress, in the year 1879, by the Rural Publishing Company, in the office of the Librarian of Congress at Washington.]

Industrial Topics.

MAPLE-SUGAR MAKING.

W. I. CHAMBERLAIN.

Improved Method and Appliances of the Present.

These we shall notice first, briefly, in a historical way, and then more at length by way of description.

It was a stroke of genuine genius that hung the bucket on the spout. Genius discovers obvious things never before discovered; things so obvious that when pointed out, we all say, "Why didn't we think of that before?" So here; we hunted for stones and chunks to block up our buckets or troughs, made long "spiles" to reach to them, saw the wind blow the sap *out*, and leaves and dirt *in*, or tip the bucket over; bent our backs to lift the sap and empty it; and boiled away hundreds of barrels of rain and snow-water colored with dirt and insects; and at last concluded to hang the bucket on the spout and cover it tight. We saw the wooden buckets and spouts sour the sap for years, and then learned to use metal for both.

For years we set our store troughs on a level with our arch; rolled the barrels of sap up long skids to empty, and dipped the sap by hand into the kettles or pans, and from one to the other; and then built on a slope, and let the sap *run down hill* from the gathering cask into vats and boilers, with never a pound to be lifted (See Fig. 5.); and wondered we hadn't thought of that before.

We may proceed at once to a description of apparatus and methods now used by the best sugar makers of Vermont, New York and Ohio. And we shall try to make our descriptions and directions so clear by the aid of engravings that any one may equip and run a "bush" by following them. When opinions differ on details, I simply give my own, based on the careful observation, travel, correspondence, reading, and actual working experience of many years. Some of the appliances are patented. I give my opinions of such exactly and clearly. I have no axe to grind, no pecuniary interest in their introduction.

The Sap Buckets

(See Fig 4.) are of "I. X." or "one cross" tin, cylindrical in form (not flaring) and are of three sizes, so graded as to fit into each other and form a set or "nest" of three, which is as convenient for handling, and as compact for storing as a single bucket of the largest size. The depth of each is nine inches. The circumferences are 34, 32½ and 30 inches respectively, and the capacities are 15, 13½ and 11 quarts. The three buckets require two sheets of 10x10-inch tin, and eight sheets of 10x14-inch. For the sides of each bucket take two whole 10 x 14-inch sheets, and a piece besides. This piece in the largest size is 7½ inches wide, and six inches in the medium bucket. These two pieces are made from the seventh sheet of 10 x 14-inch tin; six sheets having been, as above said, used whole in the sides of the three buckets. The piece in the smallest bucket is 3½ inches wide and is cut from the 8th sheet of 10x14-tin. This leaves a piece 10x10½ inches, and this and the two 10x10-inch sheets form the three bottoms. A ⅝-inch hole is punched just below the rim of each bucket, to slip over the notch in the spout or "spile,' and hang the bucket against the side of the tree (See Fig. 11). Thus hung the bucket can be covered *tight*. The best place for this hole is the middle (horizontally) of the piece (See Fig. 4), as the seams strengthen that part more, and keep it from bending when it hangs full. These buckets are not patented. Any tinner can make patterns from the above description and cuts, and manufacture them. This form of buckets has the following advantages over the conical form: the three sizes adapt them to the different running capacities of large and small trees; if properly distributed, they are worth as much as if all were of the largest size and cost much less and store better. Again, they do not *stick together*, or rust in storing, in "nests" as conical ones will, if packed into one another. They also hang firmer against the tree. There is also much less waste of tin in making them, than in making conical ones. They should be soldered at every seam, inside and out, and never painted *inside*, as that makes them rougher and more liable to sour. After a few years a coat of paint outside will help preserve them. Sap will not rust the inside, and the buckets will last 30 years or more. I still have some my father bought 37 years ago. I consider tin better than wood, as it is lighter, smoother, and hence more easily kept clean and free from sourness, and they do not shrink and require hooping, soaking, or repairing, like wood, when you are in haste to tap. Some excellent Vermont makers, however, use cedar buckets, painted.

FIG. 3.—OLD-FASHIONED SAP-BOILING.

The Spouts.

The best spout I know of is the "Eureka No. 2." (See Fig. 4½). Indeed, except in one point, easily remedied, and which I shall presently mention, I cannot conceive how a more perfect spout can be made. It is of malleable iron, cast and galvanized, and is exceedingly durable. Most of the other spouts are very perishable. It enters the hole in the tree, not like most other spouts, in form of a conical, hollow plug to stop the best running pores for the half inch of wood nearest the bark; but in form of three "flanges" which stop almost no pores, and when driven tight, hold the curved portion of the spout up against the bark (rossed smooth), and prevent leakage. The sap is not dammed back in the hole in the tree to sour, or conveyed through a long, hollow tube with the same result, but all runs out *clean* from the tree through a hole at the bottom side of the spout, and is conducted through a short, smooth, *open* channel into the pail. This channel seldom sours, and then is easily cleaned with a small brush or swab, without removing the spout from the tree. Freeness from souring is to me the most valuable of the many good qualities of this spout, for "strictly prime" sirup can never be made from sap the least soured. For nine years I have used the "Eureka" side by side with every kind of spout, wooden and metallic, home-made or offered for sale, and know it to be in this, and indeed in all respects, decidedly the best.

The Covers.

The buckets should *always be covered*. This, in proportion to the cost, is the greatest improvement of all. Covers exclude rain, snow, dirt, insects, etc., and help to keep the sap from freezing hard on cold nights, and shade it and help to prevent its souring on warm days. Excluding rain and snow is the main point, however. In a "camp" of 1,000 trees, it will save, during an average Ohio season the boiling of about a hundred barrels of rain water, stained dark by trickling down the limbs and bodies of the trees. Sap thus watered will make dark-colored, poor-flavored sirup. Thus the covers not only save much labor, but greatly improve the quality of the sugar or sirup. They are best made of inch lumber a foot wide, planed and painted on both sides while long boards, and then, when dry, cut up into lengths of 12 inches each. It is a great help in gathering to have the covers painted different colors on their opposite sides; for example, all red on one side and all white on the other. Then, in tapping, all are placed, say, red side up, and at each subsequent gathering, each is reversed as its sap is gathered. This saves confusion when two or three men are gathering, prevents missing any

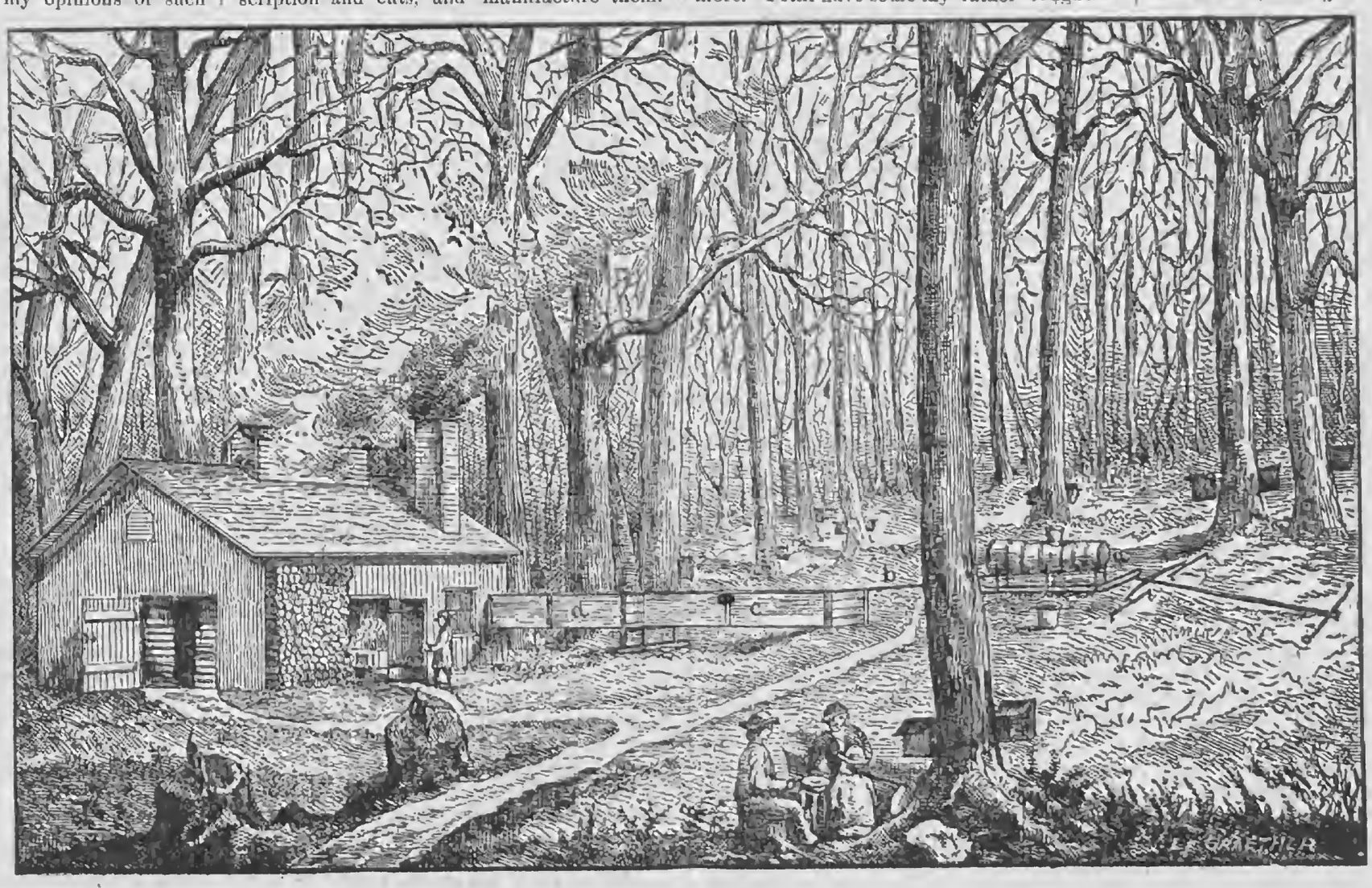


FIGURE 5.

sap, or running to a tree in doubt. You can tell as far as you can see the color of the cover, whether the sap in any bucket has been taken. If you forget to reverse, you make a trip for nothing, and a boy of average laziness will soon quit that business, and remember to reverse. It takes no extra time, and the covers warp less if reversed. This idea or device (different colors) occurred to the writer about eight years ago. He adopted it at once to great advantage in his own large camp, and patented it *by publishing it far and wide!* Many sugar makers now use it with great satisfaction and advantage.

A bit of history here will be instructive. Vermont sugar makers were in the habit of driving a sharp, open, half-cylindrical spout *into the soft bark* just below the bit-hole in the tree. This was not firm enough to hold the pail of sap, and so a *nail* or *spike* was driven into the tree just below the spout, and ears fastened to the buckets to hang them to this nail. Post's Eureka, No. 1 (See Fig. 4½), was a great improvement on this. It entered the hole and was held there by three flanges which did not stop the pores, as said above. It let the sap out through a small hole in the spout and prevented the wind from drying up the pores of the tree. But instead of hanging the bucket *on* the *spout* on notches (See Fig. 4½, No. 2) made to hold it, he attached a wire hook to

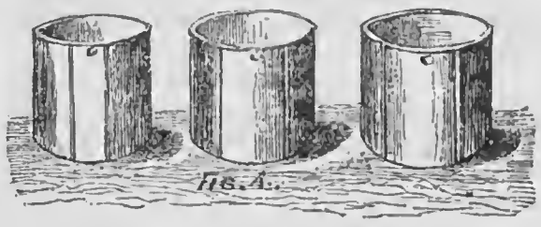


FIG. 4.

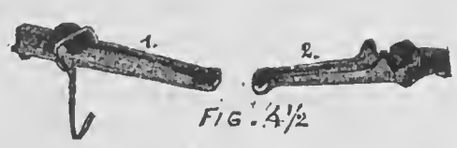


FIG. 4½

FIG. 7.

each spout, (See Fig. 4½, No. 1,) and hung the bucket as if on a nail two inches below. Then a cover could not be laid on the bucket, for that would exclude the sap (See Fig. 13, b), and so he invented a *tin cover* with a hook to fasten above the spout, and slant to the outer edge, as shown in the advertising columns of the RURAL. But this does not exclude insects, flying snow, frost and sun heat, which a two-cent wooden cover laid flat on top of the bucket (the No. 2 spout entering below the bucket rim) would accomplish. With hook and spout and tin cover one cannot revolve the bucket on the spout, as in Fig. 14, and empty it with unbent back, but must laboriously take the bucket from the tree to empty it, into the gathering pail standing on the ground. Of course, the inventor and maker will furnish hooks and patent covers as long as they are called for; but he would doubtless be quite as willing to furnish spouts without the hook at the same price. Most of the best improvements in fixtures and methods originated in Vermont. The patent evaporators (Fig. 6) and the mode of hanging the bucket on a notched spout by a hole punched just below the rim, and then covering the bucket *tight* with a square wooden cover (See Fig. 11), belong to the West. And our Vermont friends will allow us to poke a little good-natured fun at them on this point. We do not claim to "know it all," but their modes of hanging and covering buckets remind us of the well known "wheat in one end of the bag and stone in the other, to balance it on the horse;" or of the Chinese tailor who made the pantaloons for the missionary, as desired, "just like the old pair" sent for a pattern, *not omitting the big patches in the seat!* One of their best sugar-makers lately writes of the "*nails* to hang the buckets on!" We feel like saying: "Throw away your nails and hooks and rings and bucket ears; use No. 2 instead of No. 1 Eureka, and hang and cover your buckets sensibly!" The sugar industry is, on the whole, in a more advanced stage in Vermont than here, but truly in some points they are as slow to learn as we are in others. Having had our laugh at them for following in this "rut," we are ready to take good-naturedly from them a retort on some "rut" we doubtless are unconsciously following.

The Sugar-House; Location, Fixtures, Etc.

It should stand at the foot of a slope (See Fig. 5) so that the sap will run from a faucet in the rear of the gathering cask (a, Fig. 5) through a tin conductor (b, Fig. 5. See also the funnel end of the same enlarged in Fig. 7) into the store-troughs c, and d, (Fig. 5), and thence into the heater and evaporator, as shown in Fig. 6. In Ohio the slopes are usually gradual, and it is better to place the store-troughs as in Fig. 5, to gain hight for the gathering-cask to empty. The weather here, too, is so warm that it is best to store sap out-doors, so that the heat in the house may not sour it. In most parts of Vermont the danger is from freezing at night; and large "store-tubs" usually stand on a platform inside the sugar-house. The hills there are so steep that the sap can be run into these tubs easily. When store-troughs stand out-of-doors, each should have a tight, movable board cover to protect its contents from rain and snow, souring and freezing. The troughs may be connected by siphons.

The sugar-house itself needs little description besides that conveyed by Figs. 5 and 6. It should have doors or windows on all sides if possible, to be open or shut according to wind and temperature; also a good ventilator in the roof (See Fig. 5) to allow the huge volume of steam to escape. Doors and windows to the windward should be kept closed, as a cool or indeed any wind retards evaporation. A good shed adjoining and full of fine, dry wood, is essential. Unsalable wood will do if fine and thoroughly dry. Soft wood is quite as good as hard. Pine, hemlock, white-wood, bass-wood, soft and hard maple, ash, beech, hickory, is about the order of excellence. It is the flame that does the business. It may seem strange, but three-foot wood (*fine and dry* once more!) will keep an evaporator, 4x15 feet in size, in a perfect foam, and heat the sap in the heater, besides. The wood-shed and manner of storage are shown in Fig. 5. A narrow path should be left from the end door to door from shed to boiling room (See Fig. 5.).

The Boiling Apparatus.

for 1200 trees (buckets) is shown in Fig. 6, with open section and a part of the interior of the sugar-house. It consists of a heater, d, and a Cook's evaporator c, c, c, set on brick arch, h, with iron front and doors k, and ash-pit l, with iron grates above it for the wood and coals to rest on. Sap enters by the flexible rubber tube, b, from the store-trough a, through the regulator (the round top of which is seen at c) into the heater, d, and thence by a tin tube (represented by the dotted line g) into the evaporator at n, and flows back and forth through a transverse channel formed by "crimps" or ledges, till it is drawn off at the faucet, m, as sirup finished for market, or sugar ready to cake or grain if desired. Usually, however, a small 3x4 foot pan on a separate arch, is used for "sugaring off."

The Heater,

(d, Fig. 6, shown enlarged in Fig. 10) works on the principle of the tubular boiler. The part b, below the jag (See Fig 10), runs below the bottom of the evaporator, when in position on the arch, and sends the flame through the fifteen 1½-inch tubes on each side of b. (Fig. 10) surrounded with cool sap from the vat a, (Fig 6). This robs the flame of heat which would otherwise escape up chimney, and heats the the sap so that it enters the evaporator ready to boil.

The Evaporators

are patented and are manufactured in Cincinnati O., and in St. Louis, and in Bellows Falls Vt., and I think in a few other places. I give below the form of construction; not to help any one make one, but to show the principle on which they work, and the advantages they possess. Besides being protected by

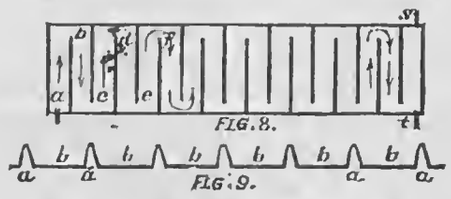


FIG. 8.

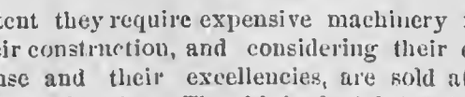


FIG. 9.

patent they require expensive machinery for their construction, and considering their expense and their excellencies, are sold at a reasonable price. The chief principle involved is, that a shallow body of juice or sap moving slowly over alternate hot and cool spaces, will evaporate more rapidly and clarify better than in any other way. The structure of the pan too increases the heating surface exposed to the fire, by the very means used to create the transverse current. The bottom of the pan, or evaporator (Fig. 6), is divided crosswise into spaces or channels six inches wide by a series of "crimps" open at the bottom to the fire. Fig. 9. is a longitudinal section of the bottom, or, in other words, a cross-section of the channels, and "crimps," or ridges. The channels are six inches wide (including the width of "crimps"), and the crimps rise about an inch and a half perpendicularly and are *open* at the bottom, *a, to the fire*, thereby greatly increasing the heating surface. The bottom of the pan is the best heavy galvanized iron, crimped by machinery *clear across* in the form of Fig. 9. Then every second crimp on each side is cut and lapped from the side inward 6 inches towards the middle, (See Figs. 6. and 8.), countersunk, riveted and soldered, and a cap soldered over the exposed end of each, tight; and the bottom—crimps and all—is drawn tight by bolts and nuts into grooves cut in the wooden sides to receive it. Fig. 8. is a simple (not perspective) ground plan of the finished bottom. The sap (or sorghum juice) enters at a (Fig. 8.), flows slowly along the channels past b, c, d, e, etc., as indicated by the direction of the darts, till it comes out at the faucet s, or t, (or m, Fig. 6) *finished sirup*. At first a few pailfuls of sap are drawn off at the faucet and turned back near the middle of the pan, till it comes to sirup in the three back channels, and then it remains so and can be drawn off, a gallon at a time, every twenty minutes or so in a 15-foot pan. There is no checking the fire to "sirup off," which is a great hindrance with kettles or common pans. The man has nothing to do but fire up, skim and draw off sirup all day long.

The "Regulator"

(c, Fig 6) feeds sap just as fast as it boils away. If it ceases to boil, sap ceases to flow. This trusty little monitor will never let the sap burn or overflow the evaporator, if properly "set," no matter how large the fire or how long the absence of the fireman. It works as follows: a float, rising and falling with the sap in the heater, works what for want of a better name I shall call a pair of jaws. As sap rises in the heater (and to the same level in the evaporator) these jaws bite the soft rubber tube (b, Fig. 6.) that supplies the sap, and check or stop the flow. When more sap is

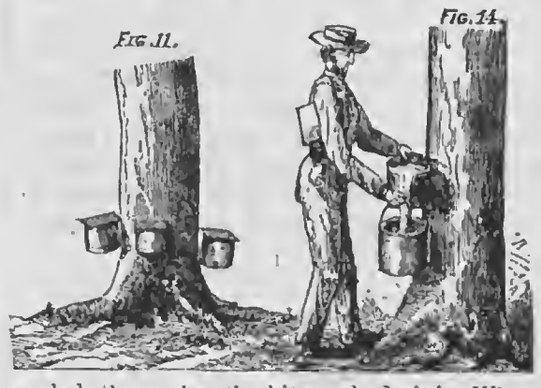


FIG. 11.

FIG. 14.

needed, they relax the bite and admit it. When the boiling is uniform, the feeding of the sap will be uniform. The "regulator" is Guild's patent, made in Bellows Falls, Vt., and usually furnished with the evaporators. It should in all cases go with them. The tin tube (dotted line o, g, n, Fig. 6.) keeps the sap in the heater level with that in the front end of the evaporator, so that the regulator in the former regulates both. The shallower the sap, the faster it will boil. An inch and a quarter in the front end, and ¾ inch in the back end are about as low, however, as it is safe to boil. If the evaporator is set level (as it should be when over 10 feet long) those will be about the depths at the two ends when the gates in the partitions (See Fig. 6.) are open; sometimes the flow needs to be checked by these gates, to allow the sirup to thicken a few moments.

The Arch.

The structure of this, and also its ash-pit, chimney, etc., are clearly and accurately shown in the engraving, and instructions for building them usually accompany the evaporators. A word only is necessary here. The last course of bricks but one should be laid on *crosswise*—masons call them headers. On this a single course should be laid *on edge*, so that the pan will project an inch or more on each side, and leave an air-space to protect the wooden sides. This, with the two inches of the bricks' thickness, gives a space three inches wide, the whole length on each side, not exposed to the flame below. This gives the cool spaces, mentioned above, for the sap to pass over in its transverse flow, and deposit sediment and hold scum till it can be removed, thus perfectly clarifying the sirup before it reaches the faucet, without using milk or eggs or any foreign substance to poison it or injure its flavor.

Such are, on the whole, in my opinion the best arrangements, utensils and apparatus for making sirup and sugar. A few hints will follow in regard to working the "camp" or "bush."

The Tapping

should begin as soon as decided sugar weather comes. In Ohio this is usually any time after the middle of February; in Vermont, usually some time in March. Thawing days and freezing nights make sap run best, but it must really thaw in the shade to amount to much. The Cook (curve-lipped) bit is best for boring—half-inch size, and after three weeks or so the the nine-sixteenth size will freshen the hole nicely. No bit but Cook's will do this last. All hardware men keep them. The best hand should do the boring, and especially the rimming with the nine-sixteenth bit. For this the bit must be held steady, true and firm, so it will not suck in too fast. In tapping at first, care should be taken to select a thrifty spot in the tree, free from former holes, etc., and where the tree will not lean badly from or towards the bucket; otherwise the buckets cannot be hung properly, (See Fig. 12). Large trees may have two buckets, and very large ones three, as in Fig. 11. No bucket has more than one spout; it cannot be covered, and one is enough anyway. With the Eureka spout, the rough bark must be rossed off with a hatchet, but not to the quick. Care is needed to put large-sized buckets to large and thrifty trees. An inch and a half is deep enough to bore for Eureka spouts, and a half-inch deeper in running, three weeks later or so.

Gathering

is done with a team, and a cask on a boat-sled (a, Fig. 5). The cask is about five feet long and two feet in diameter in the middle, and four inches larger (in diameter) behind than before, and holds four barrels. Its front end is raised four inches, so the line of the top of the cask is level or parallel with the runners of the sled. It will then empty dry on level ground, when the faucet is open. Each man has a four-gallon pail with a "lip" like that on a gallon measure, to prevent spilling in emptying into the tunnel. I always laugh to see a green-hand empty sap from the bucket. He sets his pail down (stoop), lays the bucket cover on the ground (stoop), takes off the bucket, spills a little sap and empties the rest into his pail (stoop), replaces the bucket, picks up its cover (stoop), and replaces it with a little dirt on to fall into the bucket, and picks up his pail (stoop) and starts off. I say to him, "stop stooping. Be content to be lazy in this. Your back will be tired enough by night if you gather forty barrels of sap. Try another bucket. Face the tree with the bucket between you and it, (See Fig. 14). Stand erect and hold the pail in your left hand to the left of the bucket and a little lower. Put the cover under your left arm, grasp the bucket firmly with your right hand either by its rim or just below the bottom according to hight, and turn it on its spout for a pivot till the sap is all in your pail; replace the cover (inverted) and you are done, without bending your back, dirtying the cover, spilling the sap or wasting time." All sap should be gathered *the day it runs*, and boiled at once and without stopping, even if it takes all night, otherwise the product is not so good.

Cleanliness

is indispensable. Let no dirt get into the sap. Not much can with buckets covered tight, but it is well to have a strainer in the tunnel and another at the store trough, and another above the rubber feed-pipe. Scald all buckets about once a week, and vats, boilers, etc, oftener, if you would make "gilt-edged" sirup or sugar. The buckets can be scalded at the trees, with hot water drawn about in the gathering cask, and do not require so much work as one would suppose: and there is usually a day or so between the "runs" when it may be done It costs, but it pays in the quality of the sirup. After washing, it is well to invert or "jack" the bucket on the spout as shown in Fig. 13, a.

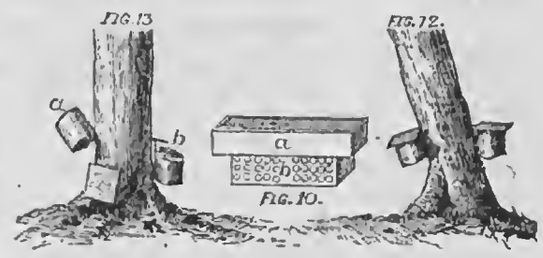


FIG. 13 FIG. 12. FIG. 10.

It dries nicely in that position and may remain so safely till needed again to catch sap. It pays to invert after a run even if we do not wash the buckets. We used to invert on our wooden spouts often, but right here is the one fault I referred to above in the Eureka No. 2. The notches are so near the tree that they hold the inverted bucket too straight up, so that even a light wind will blow many of them down. The notches hold the bucket too close, too, right side up, if the tree slants back at all, as in Fig. 12. The spout needs another pair of notches further out from the tree, and the inventor should put them there, at least for the Ohio market.

Boiling and Straining.

Cleanliness in boiling, too, is important. Shut the shed door when you split wood, and look out for dust and dirt on the wood in firing up, lest they get into the boiling sap. A curved sheet-iron guard over the arch doors in the position shown by the curved dotted lines (Fig. 6), is a great help in this respect. The sap should be skimmed often, and the sides of the evaporator and the bottom of the last three channels at the sirup end should be thoroughly washed for every day's boiling. Sirup for market should weigh plump eleven pounds per gallon when cold, and should be strained through flannel while hot, and permitted to settle to remove a fine, gray, floating substance usually called lime or niter, but which proves on chemical analysis to be nearly all silica. A flannel strainer will arrest most of it and the rest will settle in cooling. Sugar is made by boiling till it "pouts" like hasty-pudding and "hairs" from the end of the spoon. It may then be stirred dry into grained sugar nearly white, or stirred a little and run into cakes, or stirred till pretty stiff and "drained" in a tub or barrel with small holes in the bottom. If a flannel cloth is wet and laid over the top of the cask several times at intervals of a few hours, the sugar will be whiter, and if made from the first, as above described, will be about as white as granulated sugar. And yet it has gone through no poisonous refining process and has no clay, glucose, copperas or sulphuric acid in it. The sap is colorless and perfectly pure, and it has been kept so.

Buds.

By constant care and cleanliness and frequent scalding of utensils the flavor and color may be maintained till the tree buds start and not simply during the "first run," as is commonly supposed. And such a flavor! It is obtained with no other apparatus, unless it be in very small quantities by evaporating rapidly on the stove in a tin pan or porcelain kettle. But when the maple buds begin to swell, this fine flavor is gone, and in its place is a different one, not very strong but rather sickish to most persons. I would willingly give a thousand dollars or more for the exclusive possession of any simple process that would remove this flavor and restore the real sprightly maple flavor to the sirup; for often our best run in Ohio comes after the buds start a little, and the sirup cannot be used except for second quality.

Cost and Profits.

For a bush of 1,000 trees (buckets) the cost of equipment will be about $500, or 50 cents per tree. This includes a decent but not expensive sugar-house and shed. At present prices for "strictly prime" sirup, when sold to consumers *direct*, one year's gross receipts will about pay for the outfit.

The cost of running the bush is not heavy in cash. The work comes at a season when little other work can be done profitably and when help is cheap and abundant; and the usual farm force, with little extra help, will do the work.

When the trees stand thick, so that a thousand buckets can be hung on ten or twelve acres of ground, that piece of ground, if rightly managed, will probably yield more net cash than any other of the same size on the farm. Whatever is made is clear gain. Moderate tapping does not injure the trees or retard their growth perceptibly, unless begun when they are too young. I am astonished to see so many fine maple groves unused. The profits, however, will come chiefly from the best quality of sirup used as a table luxury or delicacy; and the more the supply of this is increased and brought to notice, the greater will be the demand. There is no fear of overstocking the market, as with strawberries. The plants of the latter can be grown in a year; of the former in fifty years.

Finishing Up.

As soon as the buds really swell, the buckets may as well be gathered, washed, scalded, wiped and stored for the next year's use. Every thing about the works should be now put in readiness for next year's use, even to storing the wood. Refuse wood stored now under cover is better than green wood cut next spring. And if any part of this work is deferred till after we begin the regular spring farm-work, it is apt to be crowded out till too late in the fall for the wood to season properly.

Horticultural.

THE RASPBERRY.

GEN. WM. H. NOBLE, OF BRIDGEPORT, CONN

Hardy canes essential; different species; varieties to be crossed—not species; objection to hybrids; native kinds more hopeful than foreign; a hardy cane, and a perfect berry; a hardy cane among the Antwerp tribe: the proper aim of selection and culture.

I OUGHT, in good faith, to have taken part in the RURAL'S raspberry tournament, but I think I have bettered myself by waiting for its record. That interesting array of "many men of many minds," gets us a good way down to hard-pan sense about the Raspberry. It is plain that there are some bottom facts and essentials in the make-up of its perfection, that should guide our choice and vote.

There are, too, no end of whims, interests and opinions about kinds and qualities, and the excellence of favorites. Through their noisy tangle you must work, to reach in each species, the make-up of a perfect fruit and cane. The one is nearly as essential as the other to all but the amateurs, who can bury and protect their little patches. However big and luscious a berry you may raise, it must be borne upon a hardy cane, before it fills the score of a rightful Raspberry standard. Unless it is in wood about as enduring, under rude handling, as a Currant, ere long your big berry must go to the wall. The mass of those who plant for home or for the market, either will not, or cannot, afford the time and toil needed to protect either the little patch or the acres to which the great public look for their supply.

As Downing and the RURAL'S Raspberry Number say, there are at least three species of this fruit: The Rubus Idæus, or the Antwerp tribe, European immigrants and their descendants, which make up a large family. The Rubus occidentalis, which is the old Black-Cap and its improved varieties, the Mammoth Cluster, Gregg, etc. The Rubus strigosus, the old Red-cane family and its progeny, the Philadelphia, Brandywine, etc. Each of these species has distinctive traits of excellence, which I hope will not be lost in crosses, but tasted in its own lineage of larger, firmer and more luscious berries, borne on hardy canes.

I hold to breeding new varieties within each species: no hybrids till in each a perfect berry is reached. The hope of developed excellence lies in mating the choicest of each species with the like of its family, till the progeny register a higher score of the essentials to a perfected fruit. Curb your longing to look upon the outcome of hasty crosses between diverse species, till in each, a perfect berry, borne on a perfect cane, has come to stay.

There is a great rage for hybrids about these days. I have less faith than some in their lasting betterment of fruit. They do well awhile, but after a time, the commingled blood fails to hold the high hopes flushed by its earlier promise. If there is a defect in fruit or leaf, or a tenderness of cane in one of the parents, it is pretty sure to crop out sooner or later in the progeny. It may shift over one generation, but not always. When a thing lives as long as a vine or cane can be renewed, the lurking taint is pretty sure to show itself in some sad mildew, or winter-kill, or other ail.

I would quench no hope of a brighter future out of crosses between the species of this fruit, after each is brought up to a standard of perfection. The wondrous feats of fruit development from rude nodules, began by chance, and, helped by human wit and toil through joyous years, promise yet bolder triumphs. To trials, guided by a close study of the laws which lift vegetable races to higher planes, who can mark the limit of possible glories in the garden? The marvels in pomology seen in this century, especially during the last thirty years, and in our own land above all, warrant the most sanguine hopes. Still I hold that among fruits, as in animal life, the true path to the highest excellence is through mating in each species those which come closest to the essential nature of its kind and the purpose of its growing.

Now as to the Raspberry; shut out no foreign kind of merit. Welcome and perfect it; but before offering wedlock to our natives, let it develop within its own varieties, not only the excellence of a perfect berry, but the stamina of a perfect cane. Until it can boast both these, let it be a little modest about high promise through such mating. When we deal out to our own a patient justice toward their best in cane and berry, keeping close to hardiness and large and firm fruits, our climate will soon make them the peers of any.

Besides, there are unlike tastes and a love of change, which at times prefer the native berries. The luscious Antwerp cloys, and we long for the high, spicy, wildy flavor of our own. These distinctive traits we should foster and refine till they reach a kind, the peer of any Raspberry. Till such grows in each species and repeats its high quality till both mates register all the points of a perfect berry and a perfect cane, take no thought about crossing the species.

Perhaps some one says: "It's the berry we want, the luscious berry; the canes we can protect with earth." Such unheed of tenderness in cane may do for the owner of a little patch, or for him who stints neither time nor money, nor toil, in his grounds and garden. But the mass who own their little or large plantations, either will not, or cannot, afford the luxury of a berry which they must protect. As to the broad acres planted for the market, however large and firm-fleshed the berry, the need and cry are for a hardy cane. No new kind bursts upon the world with loud ado, that does not claim a cane that never winter-kills. That kind of cane, then, is the one thing needful for the Raspberry.

Now what is a hardy cane? It is one that will stand unflinchingly the wind and frost and the freeze and thaw of our variable winters, and the drought and scorch of the summer. Before a Raspberry reaches the highest standard, it will on just such a cane, bear a perfect berry of its class.

And what is a perfect berry in each class. It is a Raspberry the equal in size of any; that holds a pulp, luscious, yet firm and close-knit enough to keep shape upon the table, and to bear the jolt of a journey to market. The home needs a firm berry just as much as the great public who buy. A soft, mushy berry is as much a discomfort on the table, as in the stalls. However large and well-fleshed a berry may be, you like to see and taste its plump and melting form, well held together. You revolt against a fruit that soon melts into an unctuous mass, that will hardly bear dishing and handling, without losing all its fullness and shapeliness of form.

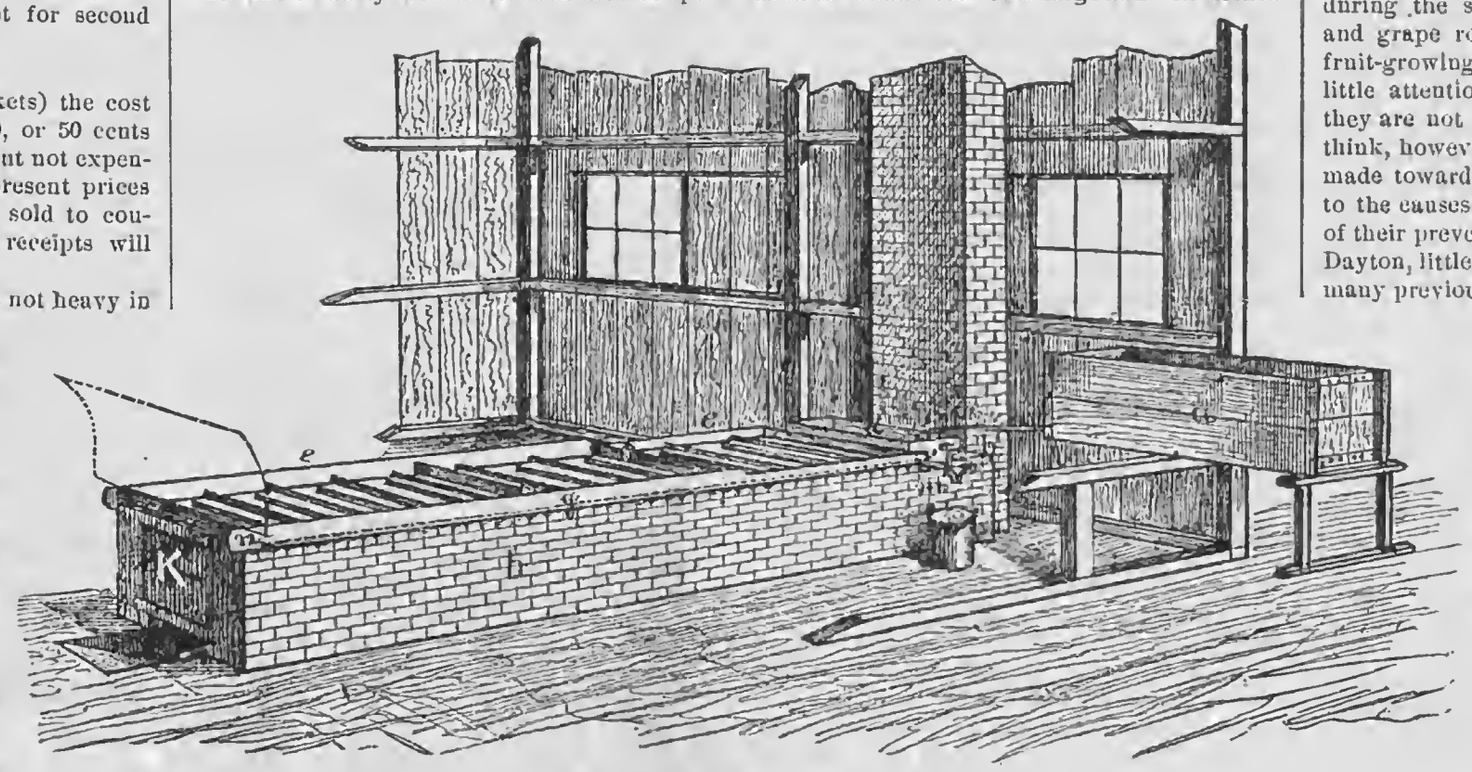


FIGURE 6.

Now the Rubus Idæus, or the Antwerp tribe, has not yet put out a perfect cane. Many of its American descendants have gained in hardiness upon the old type. I have tried a great many but only one of this tribe has with me proved itself a hardy kind. I believe I have a good Antwerp berry upon a perfectly hardy cane. I found it growing in the garden of a very old Connecticut home. Its berries were upon the table of my friend fully ten days before my Antwerps, forty miles South, showed an eatable fruit. I looked at the canes in their garden; they had not been shortened in, and were bearing to the very tips. They never had any protection in winter, though they stood on the north side of a fence or shed.

I transplanted some of these to my home on Long Island Sound. Its exposure is death to any tender thing. It faces the northern blast sweeping down through ten miles of an unbroken drift. Lots of plants, hardy far north of here, will not stand the ordeal on my grounds. In its most unprotected spot, on the brink of a bank facing the northwest, under the full rays of the sun and without a shelter, these berries have never lost a cane or shirked a crop. The fruit is of fair size, about two-thirds that of the largest Antwerp Raspberry, of good firmness, and in shape, color and taste, that of the old Antwerp. Let me add to this notice of my Raspberry, that I have none on sale, and have only raised them for an early family supply.

Now, about the upshot of all this writing is, that in each of these species of the Raspberry, we should strive for the largest and finest fruit, on the hardiest canes. That in this strife for excellence, we should keep them distinct. Only cross-breed, when each has reached about the highest standard of a perfect berry on a hardy cane.

A bright and promising future is before our natives. They have in a very few years of purposed trial or chance-planting, reached near to an excellence which it has taken all these generations to give the Old-World sorts. Each gain from the hard and seedy berry of those old wildings; each better new cane or better new fruit we raise, drifts us further from the aboriginal type, and makes sure an unfailing advance.

But while looking for that good time coming, of hardy canes and splendid fruits, how are the mass to know amid the crowd and noisy heralding of kinds, what they shall choose? Whom shall they trust among all who have on sale, "The biggest and hardiest Raspberry out?" In this berry race and regatta, we want some right and impartial judges whose business and love it is, to try and their verdict give, amid conflicting claims. We have pressing need, not only of such a tribunal, but of a national pomological garden, where not only this, but every fruit, can have a just and fair test of its merits. Without this the many, eager to have the last and best, are stuck with some worthless, tender, suckering torment, proclaimed as in its line, the pride of the world, great acquisition, etc., etc.

Pomological.

THE CAUSES OF PEAR BLIGHT, AND MEANS OF PREVENTION.

M. B. BATEHAM.

AT the annual meeting of our State Horticultural Society, each year, we endeavor to elicit all the new facts that have been observed during the season in relation to pear blight and grape rot—the two worst hindrances to fruit-growing in Ohio. We have paid but little attention to theories, for in most cases they are not fully sustained by the facts. We think, however, that some progress has been made towards the solution of the problems as to the causes of these maladies and the means of their prevention. At our recent meeting, in Dayton, little was said that was really new; but many previous observations were confirmed.

Mr. Ohmer, of Dayton, gave an interesting account of his long experience in pear culture. He is the most extensive and successful pear grower in Ohio. He has several thousand pear trees, standards and dwarfs, many of the former more than twenty years old, and he has lost very few from blight, especially of late years, since he discarded a few varieties that were most liable to the disease, on account of their rapid growth, and since he has adopted the practice of keeping his orchards in clover after a few years of cultivation, to give the trees a good start.

But the main secret of Mr. Ohmer's success, is, undoubtedly, the peculiar excellence of his soil. It is an elevated table of clayey, calcareous loam, the sub-soil of similar nature, pervious to the roots of trees, and several feet in depth, resting on limestone gravel which affords natural drainage. In this soil the pear roots descend so deep as to avoid injury from drought, and consequently the trees are not affected with leaf blight.

It was reported, at our meeting, that much less pear-tree blight than usual had occurred the past season, and this was, no doubt, attributable to the mildness of the preceding winter. In a majority of our pear orchards, the trees, when bearing, are overtaken by drought and more or less of them shed their leaves prematurely—in August. Then, when the fall rains come on, the sap starts anew, and buds swell and sometimes push out new leaves and even blossoms. In such cases the trees are full of watery sap when winter sets in and hard freezing occurs. Then, if the mercury descends below zero, mischief is commonly done to the young shoots and branches, as may be seen by discoloration beneath the bark and in the wood when cut. Trees thus injured often start to grow in the spring, as though no serious damage had been done; but in the hot weather of mid-summer they will be pretty sure to die of blight. This has been called, by some, frozen sap blight; but it only differs from what is termed fire blight in its predisposing cause; the latter occurring in trees that are not seemingly injured by the winter, and such as are of thrifty growth.

CAUSES OF THE MALADY.

Accepting the fact as established, that the blight is of a fungus nature—and in a sense this fungus may be said to be the cause of the blight of the tree, just as a fever may be said to have caused the death of a person—I claim that we ought to go farther back, and inquire what are the causes of this attack of the fungus or of the fever, so that we may learn how to guard against such diseases.

By many years of observation and the general testimony of others, I find that pear blight almost invariably becomes visible soon after rains during hot, sultry and cloudy weather, with low barometer and absence of winds, when fungus growth of all kinds is most active, as may be seen in-doors by mildew on bread and on shoes and gloves in closets. Exactly the same weather brings mildew on grape-vines and rotting of the grapes. The causes of these diseases I believe to be the same; but I do not care to speak of the grape maladies at this time.

My theory on this subject embraces little that is really new, though I believe it has not been distinctly stated before. I put it forth at this time with the request that pear growers will test its correctness by their observations the coming season, and if it shall appear that the facts do not sustain my conclusions, I shall be quite willing to abandon them.

The weather being hot and the ground wet, as above stated, of course the flow of sap is quite active, while at the same time the action

of the leaves in elaborating and evaporating the sap, is checked by the light pressure of the atmosphere and its being saturated with moisture, with a lack of wind and sunshine. This causes a plethora of sap in the branches of the tree, and with such weather as described, this sap speedily becomes vitiated or stagnant, ready to invite fungus action or fermentation. Then the fungus spores—which are abundant in the atmosphere at such times, and are settled on the bark—at once find access through some crevice or puncture, or through the pores of the bark itself, and the work of death goes on rapidly, like the operation of yeast in dough, which is another form of fungus growth. Any one who will peel off the bark from a few branches, as soon as the blight has affected the leaves, will distinctly perceive the smell of fermentation. If the weather speedily becomes cooler and bright, the disease may spread quite slowly, and perhaps not affect the whole tree. In such case, also, it may be stopped, if the affected limbs are cut off as soon as the evil is seen. Trees that were injured by the winter, in the manner I have stated, are the first to be affected with blight, because their sap is already vitiated, and only needs the kind of weather described, to set the fungus at work therein. Hence the reason why the worst seasons of blight follow severe winters.

THE PREVENTIVE MEASURES,

suggested by this theory of blight, are exactly those that have long been found beneficial. First of all, choose such land for a pear orchard as is least liable to be affected by drought—deep, clayey loam, with no hard-pan as a subsoil, where the roots can descend out of the reach of sun-heat, and find moisture. Those who have pear trees on soil not of such depth, should mulch the surface plentifully, to preserve the roots from drought, and thus save the trees from shedding their foliage prematurely. Attention to this would, in my opinion, prevent at least one-half the losses from pear blight in Ohio.

Preventing over-luxuriant growth of trees will also be necessary on rich soils, by seeding the ground to clover or grass for a few years at a time, after the trees have made fair growth and are commencing to bear. Where there are in an orchard some trees that will bear to have their growth stimulated a little, while the rest need clover, give the former surface-mulchings of manure. With such mulching, applied each season, the orchard may be kept perpetually in grass or clover, without injury. Washing the entire surface of the bark with anti-fungus liquids, like carbolic acid soapsuds—two ounces of the crude acid and two quarts of soft soap to two gallons of hot water, wetting all the branches as well as the trunk of the tree—will be found highly useful. So also is the lime and sulphur wash, long used with good effect by Mr. Saunders of Washington. It is made by putting half a bushel of quick-lime and six pounds of sulphur in a tight barrel, and pouring in six gallons of boiling water. Cover and let stand till the lime is slaked, then add enough cold water to bring it to the consistence of thin whitewash. It is important that all the branches should be covered with the wash; and this is most easily done by means of a garden syringe or a hand force pump, of which there are suitable kinds at most city hardware stores. Of course, the best time for the application is in the early part of summer, before the blighting weather occurs. I believe that the carbolic wash will be found as effective as the lime and sulphur, and being cheaper as well as more cleanly in its use, I give it the preference.

Lake Co., O.

THE APPLE ORCHARD.—No. 3.

"CLINTON."

The Twig Blight.

Spread of the disease; uncertainty as to its nature and origin; its difference from frozen sap and pear blight; its first indication; theories as to its cause; objections to them; lopping off diseased branches.

To the fruit-grower anything affecting the health or vigor of his fruit-bearing trees, shrubs, plants or vines, is a matter of direct interest. If the fruit be such as enters largely into consumption by the people, then the subject becomes one of general interest, as affecting the comfort or prosperity of that people. In view of these introductory premises we may readily perceive why a feeling of alarm has so largely pervaded the minds of the French people in consequence of the spread of the Phylloxera through their hitherto flourishing and productive vineyards, threatening their entire destruction, if unchecked.

In considering that peculiar form of blight upon the apple tree, which is the immediate subject of this article, let us be careful to avoid a confusion of terms and the confounding of diseases which are quite dissimilar in character, although they may be productive of similar results—an error into which many pomologists have fallen from lack of sufficient investigation. Let us also carefully avoid the acceptance of theories founded on mere conjecture, if unsupported by reliable and substantial facts.

The twig blight to which I now propose to refer, is not a new disease, although it never had attracted special attention or caused alarm in central New York until within the last five or six years. It was described some forty years ago by A. J. Downing, as "a blight which occasionally kills, suddenly, the ends of the Apple and Quince." The appearance of this blight in this portion of the State was first noticed in 1872, but the indications were so rare during that season that no special attention was given to the matter. The same was true during the succeeding year, although, to the careful observer, the disease was evidently on the increase; but in 1874 the disease became so apparent as to attract the attention of the most casual observer and to excite feelings of alarm, as but few localities in the central portion of the State were found to be exempt from it. Consequently, more attention has been given to it, and various theories have been advanced as to its cause; but as yet it does not appear that any satisfactory conclusion has been reached, or any sure remedy discovered, although investigations have been continued up to the present time. Happily this blight seems to have, in some degree, abated; yet, as it is liable to return at any time, the matter still retains its interest in the mind of the observant fruit-grower, and the question still remains undecided as to what it is and what is its cause.

This much we know, that although it sometimes affects the Pear and the Quince, its main field of operation is the apple orchard, and it may therefore be appropriately termed an apple blight. It differs from the frozen-sap blight in appearing at a different season of the year; and from the pear blight in its being confined mainly to the ends of the twigs and the smaller branches, never attacking the trunk or large branches, and but rarely any matured wood. It is generally confined to the new growth of the season, its appearance being manifested in the latter part of June or early in July, usually somewhat simultaneously with the time for the pear blight proper. Hence the mistake, which many have made, of confounding the two when both chance to appear in the same season. But to the careful observer they will be found to be essentially different in several respects. The blight of which I am speaking, usually commences at the base of the new growth of wood; that is, at the suture joint, or ring which marks the division between the growth of the preceding and the current year, in the slender branches, which are the first to be affected. This new growth begins to wither and die, as is indicated by the wilting of the leaves, which furnishes the first indications of the disease. If the withered branch is permitted to remain, the disease occasionally extends backwards or downwards, killing a portion or the whole of the growth of the preceding year, but rarely extending further.

I have been thus particular in describing this disease, that it may not be confounded with other forms of tree blight, as is too frequently done. And the question very properly arises, in regard to this form of blight, "What is it, and what is its cause?" It is, perhaps, much easier to determine what it is *not* than what it really is. Mr. A. J. Downing was inclined to attribute this and the common pear blight to an insect; and while his explanation of the sap-blight is doubtless correct in part, yet as it involves a still mooted question in regard to the circulation of sap, I should hesitate to accept his entire theory as unquestionable authority. The insect theory has, I think, been pretty generally abandoned by recent investigators. My own careful examination, made in several hundreds of cases with a glass of high magnifying power, have failed to detect the presence of any insect or any indication whatever of the work of insects. I conclude, therefore, that this explanation is merely conjectural. Another theory attributes this form of blight to the effects of electricity. But this theory, although hastily indorsed by some persons of acknowledged scientific attainment, is equally unsatisfactory, inasmuch as it also lacks the evidence to sustain it. The only evidence I have ever known to be presented in its support, is the mere fact that it usually first appears at that season of the year when the atmosphere is most liable to be sur-charged with electricity, as is indicated by frequent thunder storms. But a moment's reflection must satisfy us that this theory is at variance with all our former experience. As already stated, the disease first made its appearance in central New York in 1872, and I am not yet aware that that and the succeeding four or five years when our orchards suffered the most from it, were exceptional years, so far as electricity is concerned, or in any degree essentially different from the years which preceded them for a long time, during which the disease was unknown here. And why is one branch affected, while another, by its side and in an equally exposed situation, escapes unscathed? Why is not one side or portion of the tree-top affected, instead of the injured branches being scattered indiscriminately throughout the entire top, intermingled with the healthy branches? These questions have not as yet been satisfactorily answered.

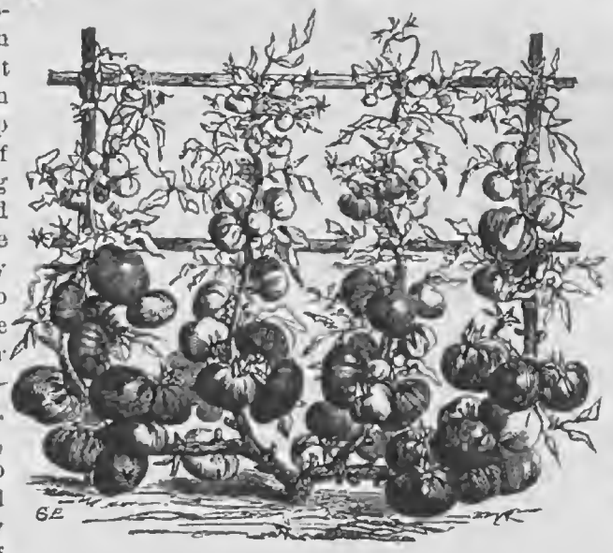
That the disease is distinct from the pear blight is, I think, clearly shown by the fact that no discoloration of the leaves accompanies its appearance; and by its not extending downward and thereby affecting the matured wood. It is only in exceptional cases, that it shows itself lacking in that cancerous character which marks the pear blight. Still, although lacking that cancerous characteristic, yet I would recommend in this, as in all similar cases, the cutting off of every diseased part thoroughly and surely, if for no other reason than to prevent the untidy appearance the affected limbs would give, if allowed to remain. Inattention to such matters always affords evidence of a degree of carelessness and neglect, which will never be found to characterize the successful fruit-grower.

Ontario Co., N. Y.

The Garden.

TOMATO (Lycopersicum esculentum).

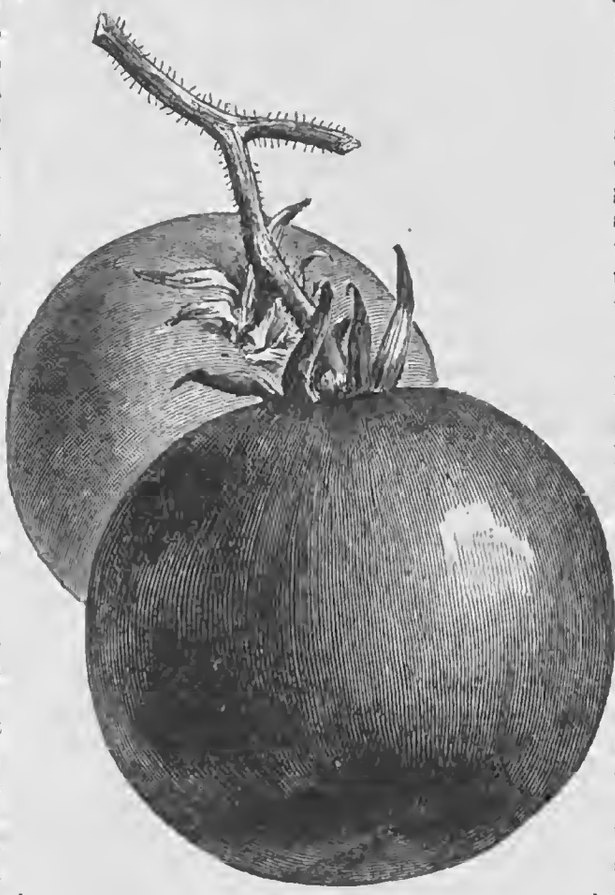
THE Tomato is a favorite vegetable with the American people, and it fully merits all the attention it receives. Near our large cities, hundreds of acres are planted every year for



EARLY RED SMOOTH.

market purposes, and, if we take private gardens into account, hundreds more are planted throughout the country. As an early crop, the Tomato commands a high price in the market, and enterprising gardeners strive to outdo one another in producing the first; but, in this case, like all other early vegetables, large quantities are shipped North from Southern ports, weeks before they ripen in the North. It does not require a rich soil, as it induces too strong a growth of the vines, and, though there will be a proportional increase of fruit, it will ripen later. A sandy loam is to be preferred to a heavier soil. Being a tender plant, the seed cannot be sown in the open ground till all danger of frost is over and warm days set in, which will vary with the latitude from the end of March to the end of May.

For an early crop, the plants must, therefore, be raised in a hot-bed, where the seed should be



ACME RED SMOOTH.

sown in the last half of March. When the plants are about an inch and a half to two inches high, they are transplanted under another sash. Later, to induce the growth of roots, they are again transplanted twice, or at least once more, giving them more space each time as they increase in size. When tough, stout plants are thus produced, they are lifted, with a ball of earth adhering to the roots, and planted in the open ground about three feet apart.

Farmers who have no hot-beds, need not, however, be deprived of tomatoes on that account. The seed may be sown in the beginning of May or even in the latter part of April. For a seed bed, choose a light soil, in a sheltered spot or, better still, in front of a wall facing south. Prepare the bed well and sow the seed either broadcast or in rows a few inches apart, cover it lightly, and when the plants are about two inches high, transplant them to a similar bed. Another transplanting will strengthen them, though it may be dispensed with. In June these plants may be set in the garden, and though the crop will not be an early one, it will be as valuable for home use.

In private gardens, where a comparatively small crop is grown, the plants should never be allowed to lie on the ground. Either support them with brush, like peas, or, better still, erect a trellis by putting down a few posts and drawing wires horizontally through holes in them, or instead of wires use simply some strips of wood, as shown in the engraving, to which the branches should be tied. By this method more fruit will be produced, and as it is more exposed to the sun, it will ripen earlier.

Exhaustive lists of varieties are given in every seed catalogue, and people differ as to which varieties are the best. When the plants are raised in the open ground, early, smooth varieties are to be preferred. The engravings represent Early Red Smooth and Acme Red Smooth, the picture of the latter being about two-thirds of its natural size.

Miscellaneous.

WHAT SHOULD BE TAUGHT IN THE COMMON SCHOOLS?

PROFESSOR W. J. BEAL.

THIS subject has received much attention from all classes of persons; some advocate more time for arithmetic; some, more time for grammar, or spelling, or geography, or writing, or reading. Many have urged that a place be made in the common schools for other topics, each speaking a good word for his favorite. So, almost every study found in our college courses, has had its advocates as *the study* much needed in the common school. Thus we have had advocates for history, agriculture, geometry, botany, zoology, chemistry, physics, astronomy, Latin, French, book-keeping, etc., etc.

The mind of a child is not capable of continued close attention to one subject for a long time. Changes and rest must come often. Our best educators are slowly changing their views as to what is most valuable for girls and boys to be taught in school. Some twenty-five years ago, much stress was laid on the study of English Grammar. The writer well remembers that he knew but little about grammar after having studied it for five terms. Probably the teachers were poor and the pupil unusually dull, but there are many poor teachers and many dull pupils. The writer thinks that Page was right, when he declared that grammar was one of the higher or difficult studies. Pupils are required to decline nouns, conjugate verbs, parse every word, and learn a long list of rules and their exceptions. Common people and some pupils, said that, after all of this study, they did not speak and write correctly. The answers by the advocates of grammar were varied and unsatisfactory. The same questions have been repeated till even teachers begin to think that the time spent in the old-fashioned way of studying grammar was time poorly spent.

I take a few sentences from *The Teachers' Institute:* "We lay down the broad proposition that a child is not taught to write and speak the English language correctly by studying English Grammar; such a claim is a visionary one. The best pupil in English Grammar, measured in the school, is the one who can recite its rules the most glibly; it is not the one who uses the language with ease and accuracy. He spends days, weeks and months in learning the classification of words, not only that nouns are common and proper, but collective, verbal, and abstract, also." He learns that verbs are regular, irregular, redundant, defective, transitive, passive or neuter, but he does not learn to speak and write correctly.

But let us consider what it is best for the beginner to study—the average boy or girl of a poor, illiterate family, the child who will probably spend but a few terms in the school. Such a child has had no benefits of what may be called home culture. For such a child, reading, writing and spelling are of the first importance. Arithmetic has probably been overestimated.

In reading, it is important that the child become interested and have books and papers always before him. In this way, he will acquire a habit of reading and will pick up much outside of school. The teacher must strive to

make the ideas of the reading lesson understood and fixed, like a picture, in the mind of the pupil. It will be worth a great deal of effort for the child to learn early to use a dictionary. This habit, once formed, will be of lasting value through life. It will educate the child or prepare him to help himself.

Spelling is best learned in connection with reading. To become a good speller in the English language, is the work of a life-time with most of us. It is to be hoped that the long and much-talked-of spelling reform will soon be brought to a vote and become a reality. Such a reform will save much time and perplexity to the printer, the teacher and the pupil. Every child can then easily become an accurate speller, and much more time can be given to other subjects. The reasons for this reform are good and sensible.

Every child should learn penmanship, including the printing of letters. He should learn to express himself briefly and clearly. Pupils usually have a great dread of writing compositions. Let them begin early to write as they would talk on any subject. Begin with some easy descriptions of common objects, and then keep writing a little every day. On the blackboard should be written or printed some sentences containing the most common mistakes in our language. Below these, insert the corrections. Write the errors which are heard in the school-room. Encourage the pupils to collect such sentences and help to correct them. Keep this going persistently, and pupils will learn to speak quite accurately without knowing anything of parsing or analysis.

Many books have been made for teaching the subject of arithmetic, but I think the model has yet to be written, though I have not seen all of the latest books. Writers of arithmetics must consult the grocer, the butcher, the barber, and get all the best modes of using figures in actual business. It requires but very little knowledge of arithmetic to do most kinds of business correctly. As usually taught, there is a great deal of time thrown away on arithmetic. Pupils try to learn certain parts of it and the reasons therefor, before their minds can comprehend the subjects.

Agricultural College, Lansing, Mich.

EFFECTS OF PLASTER.

In my article on plaster a mistake occurred in the printing of the formula showing the change of ammonia and sulphuric acid into sulphate of ammonia. I wished this to be plain and simple and free from technical nomenclature as much as possible, so as to be easily understood and yet to be correct. What I intended to show was as follows, viz: that

Ammonia is H3 N
Water is H O
These combined are H4 N O

Sulphuric acid is S O3
Water is H O
These combined are H O, S O3 } These combined are Sulphate of Ammonia, which is H4 N O plus H O S O3

This formula will show the combination in a way that will be plain to almost every farmer who uses plaster, and who will be interested in knowing just how the ammonia is acted upon by the plaster, and that after the ammonia and sulphuric acid have combined, the lime only of the plaster is left. I have used in this illustration the old chemical notation, which is more familiar to most people than the new one, and because it can be easily understood by those who know nothing about atomic notation.

H. Stewart.

CATALOGUES, &c., RECEIVED.

In noticing the seed catalogue of Cole and Bro., Pella, Iowa, in a late issue, a slip made the State Illinois instead of Iowa.

E. B. Crofut & Co's Price List and Catalogue of garden, field and flower seeds, and agricultural implements, Syracuse N. Y. This Catalogue of 36 pages is free to applicants.

Mapes's Manures, Fertilizers and Chemicals, This pamphlet of 40 pages contains a list of the dozen different kinds of manures and fertilizers prepared and for sale by this company, together with testimonials from practical agriculturists of their excellent effects on various kinds of crops and soils. 158 Front St., N. Y.

John Saul's Catalogue of new, rare and beautiful plants for the spring of 1879. This work of 112 pages contains a very full list of desirable flowers and rare plants suitable for green-house or bedding out. Sent free to the numerous customers of this old-established firm; 10c. to others or a plain copy free. John Saul, Washington, D. C.

Proceedings of the American Poultry Association at the Sixth Annual Meeting held at Buffalo, N. Y., commencing February 3d, 1879. Also constitution and by-laws and list of officers and members. We notice that at this meeting several changes in the standards of various breeds of fowls were made. An appendix containing these changes will be mailed to applicants who inclose a three-cent stamp to Geo. S. Josselyn, Secretary and Treasurer: Fredonia, N. Y.

The Apiarian.

OUR BEE HINTS.

Do not be in too great a hurry to remove the bees from their winter-quarters to their places in the apiary on the first mild day of spring. Provided they are healthy and do not need feeding, it is best to keep them packed up and cool till the spring showers have abated, for otherwise many bees will be lost. Nor is the fear of their loss the only reason for keeping them in. It is important that they should commence breeding as soon as they begin to fly out; if they do not, they will dwindle away, and the strength of the colonies will be reduced, which it will take a long time to regain. But they cannot rear brood until they can gather pollen enough from which to make "bee-bread" to feed the young; hence, in northern latitudes where the chill of winter still suppresses vegetation, bees will be most secure in their winter-quarters for some time longer. Feeding, if necessary, must be attended to.

Those who venture into bee-keeping for the first time this spring, should make up their minds what hive to use and use no other. It is a great advantage to have every hive, board, frame and cleat equal in size and shape to every other, so as to avoid the trouble in transferring, changing of frames, etc., that constantly must arise where hives of different sizes and shapes are used. Of course, we talk of none but movable frame hives, but of these a very copious list of patterns might be enumerated, each claiming to have some distinguishing feature that makes it superior to all others. We shall not discuss the merits and demerits of these, but simply give some of the points most essential to a good hive, and then let each purchaser suit himself.

The hive should be *simple;* a number of strips, bits and pieces, that require to be accompanied by a descriptive catalogue in order to learn where each one belongs and what it is good for, are of no advantage whatever, but, on the contrary, serve to form hiding-places for bee-enemies, to confuse the apiarist and retard his work.

It should be *cheap;* numerous patents on movable frame hives have now expired, and no hive made of the best materials and painted, ought to exceed two dollars in price, and if the beginner is mechanic enough to make his own hives, they can be had much cheaper.

It should be *compact in form;* if any one dimension much exceeds the others, in being either too long, too broad or too shallow, the bees are spread over too large an area and are therefore more likely to perish from cold and the attack of enemies than if their home were of a more cubical form.

It should be *tight* and of *exact workmanship* The reasons are obvious. A hive full of cracks and openings that admit moths, ants and other insects, as well as rain, cold and heat alike, or which is made in so slip-shod a manner as to weaken the durability of the whole hive and render its parts unfit for use in other hives, cannot be profitably employed.

A hive we have used with good results consists of a simple box without top or bottom, made of inch lumber and measuring one foot deep, one foot wide and one and a half foot long, inside measure. The ends and sides may be joined by tongues and grooves, or simply by nailing, if carefully done. All around this box and two inches from the top is nailed a cleat which supports a similar box that forms the second story and which is made large enough just to slip over the first one, or lower story, but only ten inches high. This is covered with a tight-fitting lid and provided with a loose bottom board. The upper story gives room for storing honey in boxes or frames, the lower, for brood chamber.

The Herdsman.

THE HISTORY OF A POOR FARM.—No. 6.

What Cows Shall be Kept.

Which is the best cow for a milk dairy? This is an important question for those farmers who produce milk for sale or for disposal to cheese factories. It is stated in the census report of the State of New York for 1875, that the whole number of cows from which milk was sold to cheese factories, was 398,722; the whole product of milk per cow delivered to the factories in the season of 200, days was 3,108 pounds, or an average of 15½ pounds per day or about seven quarts, a quart of milk weighing 2.2 pounds. This is exactly equal to my daily product per cow, out of 18 cows, and at the depth of the winter season; but I have two dry cows included, and those included in the factory reports were doubtless all in full average milking. My cows are about the average of common dairy cows. Seven quarts per day is far from profitable for a dairyman who patronizes a cheese factory at less than one cent per pound, or sells his milk in cities at four cents per quart or less, and pays one and one-quarter or one and one-half cent per quart for freight. Ten to twelve cents a day of income from a cow do not pay the cost of the milk. Fortunately I am situated so as to get five cents a quart net for my milk, and that pays a profit. But there are other poor farms than mine, where milk must be sold at two and one-half cents per quart, or less, and the question what kind of cows shall be kept, becomes very interesting. I am farming for profit—and not for fun, by any means—so that it interests me also to know what kind of cows can be procured that will yield an average of ten to twelve quarts a day during nine to ten months, and when they fall off to five quarts, may be made fat and sent to the butcher.

"It won't be a Jersey cow, you may be sure," said Mr. Martin.

"These Jerseys, or Alderneys, as I call them, have ruined the stock of cattle here," said my old neighbor. "We have little scraggy beasts that give a little rich milk, perhaps, but after a few years they are useless, and to get fat upon them is out of the question. I was offered $8 the other day for a dry Jersey cow, and she has eaten $10 worth of meal in trying to make her fat. Jerseys may be well enough for butter-makers; but for a milk dairy they are poor stock."

"I think they may be left out of the question," I replied, "when the dairyman hopes to sell a fat calf and fat a cow when she fails in milk, for a return of his first outlay. I have a young Dutch cow here that has given 20 quarts a day, and is now giving 10, after having milked nine months, and is due to calve again in three months more; but I am not satisfied with the milk; my customers complain that her milk is too watery."

"What do you think of this?" said William. "My boy, Fred, has just come home from the Agricultural College for the holidays, and he gave me this scrap from an agricultural paper. It says that one Holstein—that is what you call Dutch, I think—gave 16,274 pounds of milk in one year; that is more than 20 quarts a day for the whole year."

"I don't believe it, William," said his grandfather.

"That is a pretty tough story," remarked Martin.

"It may be true, nevertheless," said I. I have seen those Dutch cows on their native pastures, in north Holland, and not in Holstein—where there are no such cows at all—and have known them to be milked three or four times a day, and give a large pailful each time; but the cows have been bred on the richest pastures in the world, for years and years, some say for more than 2,000 years, and have been brought up to it. Yet what is their milk good for? It makes those round, hard cheeses, which are said to have been used for cannon shot at the siege of Antwerp, when iron balls gave out, and the cheese, bursting into fragments, did so much execution that the enemy hauled off their ships and fled. And these cheeses have precisely the same flavor and texture as our skim-milk cheeses, which are so much berated by everybody but those who make them. My Dutch cow will not give two pounds of butter out of a whole week's milk, and as I am inclined to believe this is the general character of the breed, I exclude them from the list of cows profitable for a milk dairy. I have crossed this cow with a pure Jersey bull and expect the produce, if a heifer, will make a valuable cow. We shall see about that in time."

"What do you think of the Ayrshires?" asked William. "Fred calls them the model dairy cows."

"And Fred is right," rejoined the old gentleman. "When I was a boy, it took the whole of one cow's milk to make enough for my breakfast, and if we got two or three quarts at a milking from a fresh cow, that was doing pretty well, and the first good cows we could get, were the Ayrshire cross that came from New England about 40 years ago. Since then the best cows I have seen or owned had Ayrshire blood in them."

"Flint says, for purely dairy purposes the Ayrshire cow deserves the first place, and the Ayrshire cow gives a larger return of milk for the food consumed than a cow of any other breed," said Fred, who being fresh from books quoted confidently and fluently.

"The best cow I have seen," said I, was "the cross-bred Ayrshire and Short-horn exhibited a few years ago by General Hungerford at the New York State Fair. She gave over 100 pounds of milk a day for three days in succession, which is equal to 45 quarts a day. She was a heavy-bodied cow that would make, when fat, 600 pounds of beef at least. Now such cows as that are what we want."

"If we could ever get them," remarked Mr. Martin, dubiously.

"Why should we not? We have a race of beef cattle from which we can rear beeves of 1,400 lbs. at two years old and 1,800 lbs. at three years old, every time by proper feeding; now what is to prevent us from making a race of cows that will yield milk as surely as a Short-horn steer will make beef. The milk-producing capability should be made hereditary. We have pigs, sheep and cattle that possess certain meat-making qualities and never fail in them; we have the same as regards butter in the Jersey, and we want the same in regard to milk."

"Why don't we have plenty of good Short-horn dairy cows now?" remarked Dr. Jones; "Bell, in his history of Short-horns, mentions the first Duchess cow which gave 30 quarts of milk a day and made 24 pounds of butter a week, and at that time cows nearly as good were not rare; now, it takes two Short-horn cows to nurse one calf."

"Of some kinds," I replied. "I have seen plenty of nurse cows about the yards and stables of fancy breeders, but these nurses are all well-bred grade Short-horns and good milkers. Harris Lewis has a herd of pure Short-horns kept purposely for milk, and he wrote me not long ago that his cows give 40 to 50 pounds of milk per day, and are good to hold out if fairly fed. There are several high-milking herds of this breed in New England, and most of the best dairies which supply the cities of New York and Brooklyn with milk are made up of grade Short-horns.

"But those large cows consume more food for the milk produced than a smaller Ayrshire cow," said Fred. "A small cow of 800 pounds live-weight, will eat 24 pounds of hay or its equivalent of other food daily, and a cow of 1200 pounds weight will eat 36 pounds or 50 per cent more; if the small cow gives 20 quarts of milk, that will cost per quart just the same as 30 quarts from the large cow. If Mr. Lewis's Short-horn cows give only 40 to 50 pounds, or 18 to 22 quarts a day, and Mr. Crozier's or Dr. Sturtevant's Ayrshires give the same, the Ayrshire milk would only cost two cents a quart, if the Short-horn milk cost three cents; so that there would be a loss of 50 per cent on the large cows."

"Fred puts the case very well," I remarked, "and if he knows so much of other farm business as he has learned about cows at the College, an Agricultural College is a good place for the young men to go to. No one can work a farm profitably now, unless he thoroughly understands his business; and the want of this knowledge is, to a great extent, the cause of much of the dissatisfaction that is rife among farmers. The pity is that farmers do not see clearly that it is as necessary to educate their boys to understand *their* work, as it is for professional and other business men to give their sons a business education at a business college. But go on, Fred, tell us something about these Ayrshires of Mr. Crozier and Dr. Sturtevant."

Fred took from his pocket a small, red, leather-covered book; referred to an index, and turned over the leaves, until he found what he wanted.

"Let me look at that book Fred?" The book was a blank paper memorandum book ruled and paged, and with an index; the page Fred had turned to was headed "Ayrshire cows" and under that head he had many items respecting those cattle. "Well go on Fred," said I, returning the book.

"Beacon Belle, an Ayrshire cow imported and owned by William Crozier, Northport, Long Island, gave 43¼ quarts of milk, equal to 95 lbs. daily, when fresh, at eight years old. In 1873 when 15 years old, she gave 23 quarts or 50½ lbs. daily, a month after having her 13th calf.

"Dr. E Lewis Sturtevant of Waushakum farm Mass., records the yield of his herds during seven years viz:

Average of Natives..... 4775 lbs. per cow.
Average of Ayrshires..... 5309 lbs. per cow.

The yields in the best year of the seven for each class was:

Average of Natives..... 4834 lbs. per cow.
Average of Ayrshires..... 6047 lbs. per cow.

A daily average of 15¾ lbs. for the Natives and of 19 lbs. for the Ayrshire. The yield of the 10 best Ayrshires out of 18 was 7317 lbs. in the year, and of the 10 best Natives 6943 lbs. One Ayrshire cow, Lady Kilbournie, gave 1338 lbs. in one month after calving: another cow, Georgia, gave 1417 lbs. in one month when fresh. These cows weighed about 850 lbs.

In averaging the yearly yield of first-class Ayrshire cows, Dr. Sturtevant places it at 5674 lbs. or 2629 quarts per cow or nearly nine quarts per day for 300 days or 10 months, leaving the cow dry for two months in the year. As to the quality of the milk Mr. Miller of Delaware Co., N. Y. reports one Ayrshire cow as yielding 14 lbs. 13 oz. of butter in one week in June; another gave 14 lbs 11 oz. and another 13¼ lbs. a year previously the last cow gave 18½ lbs in one week. In a pamphlet, "Milk Analyses" by Prof. Sharpless, Ayrshire milk is shown to have almost precisely the same composition as human milk and is therefore the best substitute for the natural food of infants."

"That is not so good as I expected," said Mr. Martin; "but it is good enough; 2,639 quarts at 2½ cents is equal to $65.97 and at five cents would be over $130 per cow in the year."

"Harris Lewis's Short-horns yield 251 lbs. of butter per year and he expects to reach 300 lbs." I rejoined; if 20 lbs. of milk make one pound of butter, that is, 5000 to 6000 lbs. per cow, but his cow, Princess, will eat 50 per cent more than Ayrshire cows. Their great advantage, however is that when they have passed their profitable age for milk, they are easily fatted for beef. On the whole, I think the Ayrshires are the cows I ought to keep here.

"Take my word for it;" added my old neighbor "you are right, and if there is a good Native cow that turns up anywhere, when you find out her pedigree, you will find Ayrshire in it." Ayrshire cows will certainly be the most profitable for me.

Everywhere.

NORTH CAROLINA NOTES.

Effects of cold weather on crops and people; ruta-bagas; checking pear-decay; labels; legislative economy; the dog question; no-fence law.

THE last days of the old year and the first of the new, will be long remembered as the coldest that our people have experienced for a great while. The lowest point reached was eight degrees above zero. Except that rather protracted season, the winter has been mild. There has not been an inch of snow, this year. The extreme cold affected the wheat and oats somewhat, giving them the appearance of blight, but I think the rains and warm days have repaired the injury to a great extent—the roots not being generally damaged. In different parts of the State, the people are suffering from a disease somewhat like the epizootic; though it is not so violent as that "horse disease," as it is called. The horses are not attacked this time. In this community it prevails as an epidemic, but is not generally, very severe. It is, most likely, attributable to the extraordinary cold, connected with the great and sudden changes in the weather.

I have learned, this season, that the ruta-baga is much more hardy, under exposure to the cold, than other species. I sowed the seed the RURAL kindly sent and others, in the same lot with excellent varieties of both white and red turnips. Both the latter froze (many of them) and decayed; while the ruta-bagas remained comparatively uninjured. A near neighbor considers the ruta-baga preferable to other kinds for the table. I found it so, long ago. It is milder and sweeter.

Having an apparently vigorous but worthless pear-tree in my garden, I grafted the lower limbs last year; and, in the budding season, I budded the parts above quite freely. Months ago I discovered that the upper portion of the tree was gradually dying; and recently I saw that the decay had reached to within a few inches of the grafted limbs. Though regretting to lose my buds, I concluded (with a wise friend's advice) to cut off the diseased portion. I intend to watch the effect and report. The saw betrayed no unsoundness at the point of separation. I knew no better way to prevent the blight from completely destroying the tree.

My own experience teaches me that a word in regard to labels on young trees may not be unimportant. I once was surprised to find the wires that attached the labels, rapidly destroying the swiftly-growing little trees. I concluded to be more cautious next time, and was, but in examining a fine young peach-tree recently, I discovered that the wire was hiding itself in the rapidly-forming bark, although the wire was loose and much larger than the part it surrounded. I visited the young orchard of one of the best farmers in this section, lately, and I saw that he was in danger of losing his trees from the same neglect.

Our Legislature, this winter, contains a large proportion of farmers and practical men. It scarcely has lawyers enough. One would expect extraordinary legislation in the interest of the industrial departments and enterprises from such a body; but the contrary is threatened. The cry of *retrenchment* drowns almost, or quite, every other. The State Geologist is threatened with official decapitation, on the plea that he is a useless tax. His work is not understood, and therefore, cannot be appreciated. The Agricultural Department meets with much favor, it seems so far, and will be continued. The analysis of fertilizers has (a committee of farmers say) already saved many thousands of dollars to the State, in shutting out worthless compounds. The intelligent farmers are pleased with the reports issued by the analyst, but there is a call for plain language in those reports—suited to the plain men for whom they are designed. The chemist has also published valuable formulas for the direction of those who wish to compound their own fertilizers. This may do good; but it is hazardous. It is too much of a "patent medicine" system; just as the common use of commercial fertilizers. The doctor must know the disease and condition of the system of the patient, before he can prescribe safely. The farmer must know what his land has and what it lacks, before he can add with certainty of success. To learn this, he must be an agricultural chemist—to some degree—and then experiment with his crops, and observe. Right here lies the chief difficulty as to the improvement of land and profitable use of manures. How can it best be met?

The dog-question will probably be handled by the Legislature this year. At present the State sacrifices the sheep to the curs. As most voters have dogs and but few have sheep, the barking is louder than the bleating, and our law-makers are apt to yield to the *howls* of their constituents.

The no-fence idea is gaining rapidly on the people. In Mecklenburg county the experiment has proved exceedingly gratifying. Some who opposed it most bitterly, are now its earnest advocates. Our Commissioner estimates our fences (in the State) at $15,000,000. Making and repairing fences are fast destroying all our valuable timber, and on every farm consuming the spare-days that ought to be devoted to composting and other profitable work.

The recent convention of Northern settlers in the South, held in Charlotte, N. C., promises to accomplish good. They represented different political parties, but harmoniously declared that Northern men may safely come to live and labor in the South. Other meetings are to be held. Five States were represented. A. W. M.

Chapel Hill, N. C.

RURAL SPECIAL REPORTS.

KENTUCKY, Sardis, Mason Co., March 10.—Our county, Mason, is the third in Kentucky in point of wealth, and is singularly favorable to the production of the cereals as well as for hemp, tobacco, fruit, vegetables, etc. In vineyards and orchards, Mason is the peer of any county in the Ohio Valley. The excellent quality of the corn and of the abundant blue-grass, naturally forces this to be a leading stock county; here are found the best breeds of racing and trotting horses, Short-horns and Jersey cattle, Poland China swine, South-down and Cotswold sheep, mules, etc. "Old Bourbon" is the only article we import from our sister county, as a creature comfort, but we claim to make Crab Cider equal in flavor to Tokay wine. Our chief city and county seat is Maysville, which has more business in proportion to population than any other town on the Ohio River. The fertility of our soil has been so little lessened by cultivation that no manure is necessary, except clover and rest, as a means of raising successfully any crop suited to this latitude. The present outlook of the farming community seems encouraging. Tobacco is very brisk, selling from $10 to $12 per hundred. From 1,000 to 1,500 pounds are produced to the acre. Pork is advancing, and the wheat is not winter-killed. J. B. H.

MISSOURI, Springfield, March 10.—In the opinion of the "oldest inhabitant" we have had a "hard winter." It has been as cold here before, but it has been a long while since we knew it so cold for so long a time continuously. From 18 to 20 deg. below zero is excessively cold for southwest Missouri, causing a swop of the peach crop for an abundant one of ice. The peach trees, also, are damaged in many orchards—the result cannot yet be fully seen. Canes of the Red Raspberries are killed; and so are Black Caps in the branches and part of the main cane.

The Kittatinny Blackerry is all right. Wheat, also, is uninjured—the earth having been covered with snow during the coldest weather. The prospect is good for a full crop of wheat. Cattle and other stock went well through the winter, where well fed; for though so very cold, it was dry. At this date the blue-grass is starting and the sheep care less for hay. Man, beasts and birds rejoice at the approach of spring, after a long, cold winter. We welcome the robins now with us in large numbers—harbingers of sunshine and flowers. H.

NEW YORK, Fluvanna, March, 9.—Snow melting very fast. Ice on Chautauqua Lake, 25 inches thick. A large harvest has been secured by the ice-men and farmers. Both classes find ice a source of great luxury in our long hot summer days. In many places the roads are almost impassable from excess of snow, the sun and south wind making them too soft for horses to travel on, thereby crowding all the travel upon the ice in the Lake.

Provisions of all kinds are cheap. Hay, $7; wheat, $1 per bushel; corn, 45c.; oats, 30c.; potatoes, 75c.; butter, 20c. per pound. Cows are in good demand at $40@45. Dairymen are now much struck with the idea of sending their milk to the creameries instead of manufacturing the butter at home. In N. Y. market creamery butter usually brings a better price. Money seems a little easier and business men seem hopeful for the coming season. Indeed the outlook is encouraging. Economy and perseverance will soon bring about better times. H. A. W.

MICHIGAN, Schoolcraft, Kalamazoo Co., March 8.—The winter has been admirable for our wheat. I do not think it has been injured in the least, and even the barley and oats are doing well. Still for success we shall require a favorable season from this time on, as the wheat plant is small, having been sown late. Wheat is now worth $1 a bushel; oats, 25c.; corn, 30c.; potatoes, 60c. to 70c.; barley, $1.75 per cental; land, from $45 to $80 per acre. The first 30 years of my life were passed in central New York and 13 years here, and although I have traveled considerably in other parts of the country; yet, taking everything into consideration, I am decidedly of the opinion that southern Michigan comes the nearest to being the farmer's paradise of any part of the country that I have seen. H. C.

UTAH, St. George, March 4.—Our spring is advancing, and Apricots, Almonds and even Peaches are in bloom, and bees are having a gay time. Lucerne or Alfalfa is the great hay and fodder staple here, and it may already be found six and eight inches high, giving the first crop in April, and yielding, in good ground when properly cared for, four to five crops of two tons each, aggregating from six to ten tons per acre annually. This feed is one of the best milk producers; is greedily eaten by horses, cattle, sheep, goats, hogs and even chickens, and also affords fine bee pasturage. Were its value fully known, millions of acres would be planted yearly. Experience proves that work teams fed on this, without grain, will stand equal service with those fed on wild hay with grain. J. E. J.

NORTH CAROLINA, Warren Co., March 13.—We have had a severe winter, though our heaviest snow merely whitened the ground. The earth freezes too hard for plowing even now almost every night. Fruit buds are still dormant. Land is in fine condition for plowing when not frozen, which is every afternoon. Northern men living in the South, are holding conventions with the avowed object of correcting misrepresentations of northern papers, in reference to the state of society etc. among us, and also to try to draw the attention of emigrants this way. There is room for many more farmers here; but it is a poor locality for the indigent or lazy—we have enough of such already. M. B. P.

NEW JERSEY, Harborton, Mercer Co., March 6.—We have had quite steady and severe cold weather from the 24th of December up to March 1st, since which time it has been warmer, and the frost coming out of the ground, makes bad roads. The field mice have done a great deal of damage by girdling fruit trees. The wheat in the fields looks well. Stock of all kinds have stood the cold weather very well. Hay and grain are abundant and prices low. Wheat brings from $1 to $1 08; corn, 38c.; oats, 23c. per bushel. D. J. B.

VIRGINIA, NEWMARKET, March 8th.—Farmers are just beginning to plow here, it having been too wet, and the frost not being out of the ground before this time. Wheat looks "tolerably" well here. Times are dull; prices for produce, low, and money rather scarce. Wheat sells for 90@92c. per bushel; corn, 40@45c.; oats, 30c.; potatoes, 75c.; butter, 10c. per pound; eggs, 10c. per doz. Farmers generally are in good cheer. Wages for farm hands, $10 to $12 per month. P. S. W.

INDIANA, La Porte, March 3.—Our soil is a rolling drift composed in the main of clay tinctured with red and yellow oxides of iron, mixed with sand containing minute particles of shell lime. All these ingredients are thoroughly commingled. We use none but home-made manures, and second-crop clover which we plow in to return, root and branch, to the ground. J. S. B.

GEORGIA, Herndon, March 7.—The weather is now very fine and farmers are beginning to plow. Although this has been the most severe winter known for many years, we are anticipating a good fruit year and abundant crops. H. B. N.

IOWA, Marshalltown, March 10.—The weather is pleasant now, but the last half of February was severe. Stock is looking well; farmers are getting ready for such spring work as plowing and getting in grain. N. L. C.

NEW YORK, Seneca Falls, Seneca Co., March 10.—We have had a very severe winter here, snowing and blowing most of the time. Wheat, as a general thing, went into winter-quarters looking poorly. E. D. B.

IOWA, Belle Plaine, March 8.—March here has hitherto been warm. Sowing will begin soon. Prices for all farm products are steady, and slowly moving upwards. H. B.

OHIO, Bucyrus, March 10.—The weather here is spring-like, and we are preparing to plant spring crops. Wheat looks well. D. L.

The Querist.

ANSWERS TO CORRESPONDENTS.

Varieties of Grapes.

N. E. P., Fillmore, Allegany Co., N. Y., asks, 1, for a detailed description of the Rickett varieties of Grapes, and what do other vineyardists, who have tried them, think of their merits; 2, whether we have tried the white and red Grapes said to have been sent out a couple of years ago by Mr. Sylvester of Lyons, N. Y., and if so, what is our candid opinion of them; 3, what is our opinion of the Walter, Croton, Senasqua, Eumelan, Worden and Brighton Grapes; 4, whether we personally attended the late meeting of the N. Y. State Hort. Society, and if so, did we ourselves taste specimens of any new Grapes, and if so, whether their quality was good; 5, do we personally know anything more of those new varieties beyond what is set forth in the report, and if so, what; 6, names of some new sorts of Grapes that promise well.

ANS.—1. Highland, vigorous, the leaves large and thick; bunch and berry, large, compact and shouldered, black; flesh, juicy, sweet, slightly pulpy and vinous, very good; ripens between Concord and Catawba. It would occupy too much space to describe the others; send for catalogue. Other vineyardists know but little about them. 2. No.

3. The Walter is very like Delaware, a little earlier, more pulpy, fine where it succeeds, not as reliable as Delaware. Croton and Senasqua, both unreliable and subject to mildew. Eumelan is one of the best of our most reliable class of Grapes, but is, unfortunately, malformed in its reproductive organs; the filament is nearly, and sometimes wholly, aborted, and the pollen deficient, causing the clusters to be emasculated; but, with age, the vine bears better. The fruit is fine and keeps well. The Worden is valuable, two weeks earlier than Concord, but it is not quite so heavy a bearer; vine, very similar; fruit, a little better than Concord. Brighton is a hybrid between a European vine and Concord; fruit, good; vine, vigorous, but subject to mildew in unfavorable years and locations.

4, 5. No, we did not attend the Rochester meeting. 6. Lady, Whitehall, Martha, Worden, Eumelan, Champion, Elvira, Belvidere, Humboldt, Telegraph, Moore's Early, To-Kalou. European varieties do not succeed upon the Atlantic sea-board, and hybrids with our native vines are healthier only in so far as they happen to carry into their make-up the healthier qualities of our native vines. No hocus-pocus of mixing eradicates the weakening elements. This remark applies to any and all such hybrids. Many of them succeed well, under favorable conditions, but our most reliable Grapes have in the past come from improvements upon native vines. As the laws of nature are uniform, we must probably look to this source for any hope in the future. Under present conditions, some of these amateur Grapes are desirable. The following is a partial list of new ones deemed the best: Highland, Amber Queen, Brighton, Adelaide, Autuchon, Canada, Black Defiance, Black Eagle, Brant, Challenge, Concord Chasselas, Concord Muscat, Diana, Hamburg, Don Juan, Downing, Secretary, Triumph.

Origin of Wheat and Corn, etc.

Mrs. A. C. H., Roanoke, Ind., asks what plant was the parent of our wheat; 2, what of our corn; 3, could small natural seedlings of American Arbor-vitæ be brought from Canadian woods and made to grow on her place; 4, to whom should application be made for seeds furnished by the Government.

ANS.—The origin of wheat is a subject of much speculation. It is not certainly known in a wild state. Some suppose it descended from extinct wild species; others, that it is the cultivated form of what are now regarded as distinct wild species. About 1855 a Mons. Fabre claimed to have developed wheat by careful cultivation during 12 years from ægilops ovata, a grass common to the south of Europe, but the assertion has been generally discredited. Wheat has been a cultivated plant since long before historical times; the number of varieties is very large, one Frenchman having cultivated as many as 322, and many suppose there must have been three or four original species of the plant, but the entire subject of its origin is mere conjecture. 2. Corn, according to Alphonse de Candolle and Darwin, is of American origin, and seems to have undergone no specific change since the earliest ages, Darwin having found in South America heads of maize embedded in a beach which had been raised at least 85 feet above the sea. 3. Yes, if lifted carefully and well protected during transportation with moss about the roots. 4. To the Commissioner of Agriculture, Washington, D. C.

Stabling Cattle.

S. C. Bonsacks, Roanoke Co., Va., asks the best method of stabling cattle in winter, and whether it is better to keep them confined all winter, or to turn them out in fair weather.

ANS.—It depends very much on the kind of cattle and the purpose for which they are kept. Ordinary store cattle may be kept most cheaply and profitably in yards with open protected sheds attached, because the extra cost of providing expensive stabling and attention is not returned in the saving of food. But milking cows and fattening cattle cannot be kept profitably in that cheap manner. For these cattle the most comfortable and warmest stables (not neglecting light and ample ventilation) will be found the cheapest, because the cost of using them and the attention needed to maintain perfect comfort for the cattle, are repaid by the increased product. The writer has been testing the question the past winter and finds the weight of milk from dairy cows falls about 10 per cent when they have the run of a good yard for four hours a day only; and that the milk-yield returns, when the cows are stabled all the time. But the stable is airy, roomy, light, warm, clean, and the cows are kept comfortably bedded with dry clean litter. There is also a considerable saving of fodder when the cows are kept up and they gain in condition at the same time. It is the same with fattening cattle which are

invaribly closely stabled by those who make a business of feeding them.

The Mann Apple.

S. B. Lindsay, Ont., asks whether the Russion Man Apple is a winter Apple; whether the tree is hardy, and if it can be had from nurserymen generally.

ANS.—The "Mann" Apple, which is probably what Mr. B. means, is not a Russian, though often so represented by tree peddlers, who generally class all hardy Apples as "Russians." The tree originated as a chance seedling in the orchard of Judge Mooney, of Granby, N. Y. It is called hardy in our large apple-growing districts, and is being introduced as an "iron-clad" in the "cold belt." Its perfect hardiness in severe climates is not, however, sufficiently tested. It is not on the approved lists of the Minnesota, Wisconsin, or Montreal Horticultural Societies. It would probably do well anywhere near the lake in Ontario, and perhaps to a considerable distance northward. Mr. Downing, in his first Appendix, says it is "a late keeper, valuable for market and cooking, and a fair table fruit." The tree is called an annual and early bearer, but nothing is said of its productiveness. We believe that it can be had of most nurserymen.

Holsteins and Belted Cattle.

F. C., Middletown, Orange Co., N. Y., asks what color are the Holstein cattle, and whether they and the Dutch are identical.

ANS.—The color of the Holsteins is black and while, spotted or mottled unequally in different parts of the body. Almost all the Holsteins imported into this country come from Holland—not from Holstein, which now belongs to Germany—and are often called Dutch. The Belted or Sheeted breed of cattle, however, of which there have been a few importations, are strictly Dutch and are never known by the name of Holsteins, although they possess many of the qualities of that strain. They also are black and white, but instead of being splashed or mottled with white, they are marked as if black animals had broad white belts or sheets around their bodies.

Miscellaneous.

A. S. N., asks, what can incubators be bought for? 2. He planted some Cranberries last spring, but had to water them every day in summer, and he asks how this over-troublesome job can be avoided.

ANS.—A glance at our advertisements would show one offered there for $25. Indeed, many of the queries sent us are answered either in the advertisements, market reports or list of catalogues received. While we are always pleased to answer to the best of our ability, all questions of interest to our friends, still, for the sake of other readers, unnecessary questions should be avoided. 2. We presume the Cranberries were raised on uplands, which is, as a rule, a risky business, unless the soil and situation are favorable. The soil should be always an alluvium, never a drift formation, and should be naturally moist without having stagnant water. The Cranberry requires a great deal of water for so small a plant; but in summer time stirring the soil frequently around it, answers the purpose of watering it. For plantations in lowlands, arrangements should be made for irrigating them in summer.

L. P. H., Strafford, Vt., asks, 1, why Cranberries are flooded in winter; 2, where do peanuts grow, on the tops or in the ground; 3, what would be the difficulties in raising Peaches in Strafford; 4, will wheat mix if different varieties are sown by the side of each other; 5, name the two best Grapes for raisins.

ANS.—1. Cranberries are flooded to protect the vines in winter and to destroy insects in the ground and on the vines; besides, some growers hold that water has a fertilizing influence on the meadow. 2. In the ground. 3. We don't know exactly how Strafford is situated, the character of the soil, etc., but cold seems likely to be one obstruction to success. 4. If by "mix" is meant whether they will fertilize each other, then, yes, to some extent. 5. Raisins are made from several varieties of the Muscatel tribe, which are grown nearly exclusively in southern Europe and on the islands of the Mediterranean. None of our native varieties are grown for raisins.

Mrs. L. S. B., Pella, Marion Co., Ia., wishes to learn where she can get information about silk culture from some one engaged in the business.

ANS.—Write to Mr. L. S. Crozier, Silkville, Franklin Co., Kansas.

H. W. H., Currant Creek, Colorado asks, where can he obtain Law's Veterinary Adviser.

ANS.—Through this office, or direct from Prof. Law, Cornell University. Price $3,

H. W., Sheperdstown, West Va., asks where Mapes's fertilizers can be obtained.

ANS.—160 Front street, New York.

COMMUNICATIONS RECEIVED FOR THE WEEK ENDING SATURDAY, MARCH 15TH.

Messrs. S. & P.—thanks.—M. L. S.—H. L. K.—E. R. W.—Dr. T. H. H., two inclosures.—"Anon."—F. D. C.—J. L. T., Jr.,—thanks.—H. E. B.—W. J. F.—J. E. R.—W. I. C.—F. D. C.—F. E. W.—C. W. G.—T. T. L.—R. W. F.—A. M. V. A.—Mrs. A. L. J. T. J. L.—Jack.

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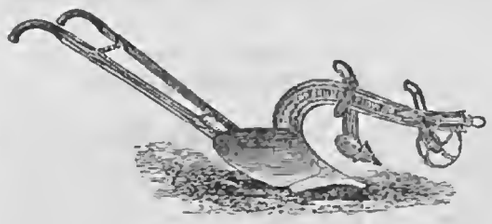
PRICE, FULL RIGGED, $16.

SAMPLE PLOWS DELIVERED FREE OF FREIGHT ON RECEIPT OF PRICE.



The Syracuse Chilled Plow Co.

have enlarged the capacity of their works *three-fold*, in order to supply the demand for the year 1879.

THEY MAKE THE

BEST CHILLED PLOW

THE WORLD HAS EVER SEEN.

IT IS LIGHTER OF DRAFT.
IT IS MORE PERFECT IN SHAPE.
IT IS MORE DURABLE.
IT CLEANS IN EVERY SOIL WHERE OTHER PLOWS FAIL.
NO PLOW SO WELL PREPARES THE SOIL FOR A CROP.
THE PECULIAR WAY IT PULVERIZES THE SOIL IS ONE OF ITS GREAT EXCELLENCIES OVER ANY OTHER PLOW.
IT IS MADE IN DIFFERENT STYLES—ONE HORSE, TWO-HORSE, OR THREE-HORSE.

Every Plow is Guaranteed under the Seal of the Company.

BEWARE OF COUNTERFEITS.

The reputation of the Syracuse Chilled Plow has induced unprincipled manufacturers to palm off on the farmers plows that they call *chilled*, which are, in fact, nothing but common plows, with the word "chilled" painted or branded thereon.

The SYRACUSE CHILLED PLOW has been made but two years and a half, and in that time

Nearly 35,000 Have Been Sold.

No other new style of Plow ever sold over Six Thousand in the same length of time.

Reference: EVERY FARMER THAT HAS TRIED ONE.

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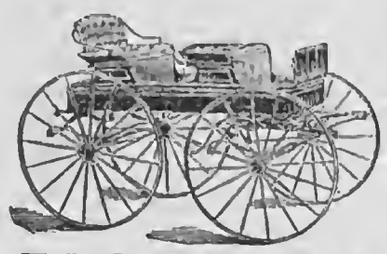
SYRACUSE, N. Y.

WATERTOWN



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The Ne Plus Ultra.

EVERY WAGON FULLY WARRANTED.

This is the best, handsomest, lightest and strongest wagon of its kind in the market. Every Farmer and Dairyman should have one.

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Correspondence solicited. Address

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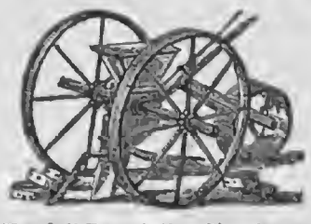
Watertown, N. Y.

The Monitor.



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5 Cents Per Bushel Saved

In raising Corn. For Illustrated Pamphlet, giving particulars and prices to agents, address THOMAS SMOOTHING HARROW CO., Geneva, N. Y.

Trees, Seeds, Plants, &c.

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All the leading and most desirable kinds of **Vegetable, Field and Flower Seeds,** will be found in my new-priced list, mailed free.

ALFRED BRIDGEMAN,
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PEARL MILLET.

The susbcriber has just received a fresh lot of this valuable forage plant. Clean, heavy seed, free from chaff, 60c. per pound. If sent by mail, 16c. per lb. must be added for postage.

ALFRED BRIDGEMAN,
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FOR SALE.—*Last year's* Honey Locust Seed: 10 pounds or less, 40 cts. per pound; 40 or 50 pounds, 30 cts.; by the 100 pounds, 20 cts.
ROBERT CRISWELL, Brooklyn, L. I.

ROCHESTER TREES
COMMERCIAL
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Hardy Trees, Shrubs, Vines and Plants, per dozen, 100 and 1000. **FINE ROSES a specialty.** New Spring **Price-List** now ready, and sent **free** to all applicants. **Ornamental Catalogue** (illustrated), **10c. Fruit Catalogue, 6c.** Both free to customers. Fine, thrifty stock and low prices. W. S. LITTLE, Rochester, N. Y.

SMITH'S FLOWER & VEGETABLE SEEDS.

We are prepared to furnish Farmers with the finest *Imported Swede Turnip, Mangel Wurzel and Imperial Sugar Beet* Seeds; *Dewing's Early Turnip Beet*, the finest variety ever grown for Market Gardeners or Family use; *Seed Peas* of all kinds by the quart or bushel.

Flower Seeds. Everything necessary for the finest show in large or small Garden.

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STRAWBERRY PLANTS

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SATURDAY, MARCH, 22, 1879.

A LESSON OF THE TIMES.

To all and each of us in one way or another the question, "How can I manage in these hard times to make both ends meet?" comes very directly home. All, or practically all, have diminished incomes, and thousands know not where to get their bread in an honest and self-respectful manner. For years we lived on the vain belief of a sudden return to prosperity next spring or next fall, but of late "hope deferred" has literally made the hearts of many sick. Journals now clamor, too often in vain, about returning prosperity. Although their grounds for obtaining our confidence have greatly improved, yet the faith of many persons has waxed faint. One good, however, has come out of it all, and that is, a certain steadiness with which many of us are settling down to work, as if convinced that it must take a hard pull and a long pull to reach favorable winds and waters. Perhaps it is the very growing prevalence of this sentiment that is helping much to bring nearer the long-hoped-for good times.

But to say we are settling down to work does not exactly meet the question of how to make both ends meet. Economy will do much, and circumstances have forced us to practice it as we probably never thought we could. Under any system of expenditure, however, money must be had in some way in order to live. The wonderful prosperity of America heretofore has, fortunately, saved us from learning the hard lesson of the pressure of close competition and small profits so well known in Europe. But now the question is forced upon us, and the simple answer should always be, do that which lies nearest your hand, in the full belief that close application to such work will lead up to better things. The curse of the times has been that people would not go to work because they were waiting for better opportunities that never came to them. We know, indeed, that there have been many, very many, cases where work of any kind was absolutely unattainable; but, as a rule, people have not accepted existing circumstances. Whole families of persons capable, every one of them, of making something, if ever so little, have literally lived on one of their number, because they could not get just the work that suited them.

Fortunately all this is gradually changing, and people are answering the question of the times by doing the best work they can find to do. And the best work for vast numbers has proved to lie, as it must always lie, on the farm. Millions of acres were sold in the West last year, for farming purposes, and our increasing exports are already beginning to show the results of these sales. Because we are coming to learn this lesson of good, honest work by manual labor, or any labor possible, a renewal of prosperity seems at length to be clearly approaching; but our efforts must not therefore relax. It may be near us, but who shall say how near or how far, if we don't hold a wise course. And in any case, be it near or far, we can never afford to forget the lesson taught us by the past hard times, that man was intended to earn his bread by the sweat of his brow and that there is no royal road to riches any more than there is to learning. While doing the work at hand, however, let us train ourselves in any special line for which we know we have ability, that we may become skilled producers and not mere common routine workmen. Above all, let us interest ourselves more and more in farming, for therein lies the backbone of our prosperity, after all.

ROOTS FOR DAIRY COWS.

However it may prove with other farm stock, the conviction seems established amongst all our best dairymen that it pays well to grow roots for feeding to cows in milk. It is not likely that our farmers will ever grow roots so extensively as do the English. Our severe winters, which, north of 35° prohibit the feeding of turnips off the ground by sheep, veto that use of root crops. The abundance of good grass land, and the admirable suitability of our glorious maize for all feeding purposes, limit greatly the necessity for root feeding. And yet experience has developed the fact that dry feed, no matter how rich in all elements of nutrition, does not alone promote such a free secretion of milk from our cows as when a liberal daily ration of roots is added. It may be that in some cases soaked and steamed feed will give as good results for a time; but there is something about the fresh roots that seems not only grateful to the appetite, but equally promotive of a healthy action of the digestive organs, upon which in the end must stand the power of profitable production in our dairy beasts.

What roots are best for this purpose, is a question often asked. While we set a high value upon turnips for feeding sheep, and also for young or fatting cattle, we believe we give voice to an opinion that is becoming more and more settled when we say that for dairy cows beets are, all things considered, most suitable. The further question, what sort of beets are best, cannot be so positively answered. But we incline to take the view that whatever particular variety or strain is adopted, the practical dairyman will give preference to a certain form, and that the form of root chosen will be that most nearly approaching the globular, free from side roots, and with a tap-root as little fleshy as possible. Farmers cannot wash these roots before feeding, yet they are all sensible of the evil of feeding them mixed with the earth which adheres to the fine fibers and branching prongs. If no other reasons were to be given, it is sufficient that great injury from wear is inflicted upon the teeth of animals that must chew up an ounce of sand with every pound of root. The attention of seedsmen has been thoroughly awakened to the existence of this opinion among practical herdsmen, and most of the new and improved sorts now offered are of the globular form.

As between the mangolds and sugar-beets, we think form will carry the day. But if from the sugar-beet a variety can be produced which will have, with a globular form, an excess of nutrient matter, then the preference will naturally librate in that direction. In the matter of size, there can be little doubt that immense but watery roots are getting out of favor with men of experience. One of the great objections to roots is the great amount of frost-proof storage-room they require. The larger they grow the more room they occupy in proportion to their feeding value, and the more likely to be hurt by slight frosting, both before harvesting and after being stored. A firm, heavy bulb, of medium size, with small neck, top, and tap-root, and as near to no side roots or fibers as possible, is what is needed. We advise our readers to select from the lists of the seedsmen the roots of this class, testing various strains, and selecting those that best suit their soil and their judgment.

SUPPRESSING PLEURO-PNEUMONIA.

After an excitement on any matter, a reaction naturally sets in and there is always a risk that the subject which caused the commotion may be unduly neglected. There is danger that this may be the case with regard to the extermination of pleuro-pneumonia from the few places in which it still exists in this country. The discussions and investigations consequent upon Great Britain's restrictions on our importations of live cattle, have made it clear that the disease is confined to narrow circuits in a few places in the Atlantic States. There have been sensational reports of its appearance in some places in the West, but in every such instance that has come under our watchful notice, a thorough investigation by competent veterinarians has demonstrated the fallacy of the reports and the reckless disregard of the public interests shown by the papers that have given a place in their columns to such pernicious rumors.

In view, therefore, of the narrow limits within which the malady is confined, and of the broad extent of the injury its presence there is inflicting upon our stock interests, efficient measures should at once be adopted for its eradication. Experience in every European country which has been cursed by its ravages, shows that the only reliable means of effecting this end is the slaughter of all infected animals, the destruction or thorough disinfection of their stables and the strict quarantine of all exposed animals. Remedies have proved worthless; while inoculation as a preventive, however effective in diminishing the death rate among infected beasts, has served to spread the contagion, as to this end it is as disastrous as the original disease.

But as the slaughter of infected animals should be enforced for the public good, their owners should be compensated for their loss in proportion to the average chances of their recovery, which can be easily ascertained from recorded statistics. A portion, if not the whole of the expense of this measure, should be borne by the State, inasmuch as its herds are especially endangered by the disease thus eradicated; and, in all fairness, a part should be borne by the national government, inasmuch as the measure is a protection even to distant herds, and tends to bring about the speedy removal of the embargo on our cattle exports, from which the stock interests of the entire country are suffering. As the infected beasts are destroyed to insure the safety of the untainted, the loss should be assessed on the principle of a "general average."

OUR COUNTRY CEMETERIES.

Every traveler through the United States, as from the car window he surveys the country through which he passes, ever and anon observes in the distance, on some hillside or on the naked field, a small collection of white marble headstones. These collections denote our country cemeteries, and each headstone marks the resting-place of some departed member of the human family. Were it not that one knew it to be so by observation, the uninitiated might be tempted to take these cemeteries for artists' marble-yards, for little else indicates that they are burial places. They have no trees, no sweet-scented shrubs, no flower-beds, no walks, no seats, no song-birds—nothing, except the cold marble slabs and a luxurious growth of weeds, is there to be found. Is this as it ought to be? Have those who departed, some in the bloom of youth, others in wintry age, left no relatives, no friends behind that will cherish their memories or beautify their resting-places beyond the placing of a stone on the grave?

In Europe, at least in northern Europe, the country cemeteries present a different aspect. Though the parish may be small and poor, the church-yard blooms like a paradise with lovely plantations of trees and shrubbery. Clean, graceful walks wind through the groves, and though, instead of the costly headstone, there may be but a simple wooden cross, yet at its base one may be sure to find a Rose or Hyacinth, or other floral treasure to bear evidence that the sleeper is not forgotten by the living.

Of necessity our early settlers could not give much attention to the laying out of burial places; but the neglect of our country cemeteries is growing to be a national characteristic. The country is now getting older, richer and more densely populated; it is quite time therefore to make a change; there is no longer any excuse for the present condition of rural cemeteries. Destroy the weeds and produce, instead, a velvety grass sod. Plant flowers, hardy evergreens and deciduous trees to beautify and shade the spot. Plant them for the sake of the sacred memory of those you have buried. Plant them for your own sake who visit and cherish the spot. Plant them for the sake of the community in which you live, whose æsthetic taste you will thus help to educate,

THE SUGAR MAPLE.

It is a pity that the Sugar Maple is not more extensively grown than it is at present. As an ornamental tree its outlines are very symmetrical when young, while in advanced years it usually assumes a diversity of form seemingly dependent on the soil and situation. It sometimes reaches the hight of 70 or 80 feet, although it is generally considerably smaller, and it is remarkable for the brilliancy of its autumnal colors. As fire-wood it ranks next to hickory and is the most valuable wood we possess for charcoal. The curled and bird's-eye varieties are prized for cabinet-work and interior finishing, while the straight-grained kind is used for a number of household and artistic purposes as well as for ship-building.

Moreover, a maple orchard or sugar bush, as it is called, is a source of no small annual income on a farm. The product is cane sugar, is cheaply and easily manufactured and is preferable on some acounts to that from sugar-cane. The sirup, too, as the best in the market, always finds a ready sale, brings a higher price than any other, and some makers dispose of all their product in this form. According to the census of 1870, the total production of maple sugar in this country was 28,443,645 pounds. Twenty-eight different States contributed to this quantity, of which the following yielded the largest amounts: Vermont, 8,894,302; New York, 6,692,040; Ohio, 3,469,128; New Hampshire, 1,800,704; Pennsylvania, 1,545,917; Indiana, 1,332,332; Virginia and West Virginia, 755,699; Wisconsin, 507,192; Massachusetts, 399,800; Kentucky, 269,416. The total quantity of maple molasses or sirup was 921,057 gallons. Of course, the actual production of both sirup and sugar must have been considerably greater than the amounts returned by the census, for in all such cases the sins of omission both on the part of canvassers and small makers are always numerous.

The industry is at present confined chiefly to the few States mentioned, with small contributions from the other States East of the Mississippi and North of the 40th parallel of latitude; for west of the Father of Waters the sugar Maple is seldom met with, while in the Southern States it is found only along the mountains. The black sugar Maple which Michaux classed as a distinct species, is now regarded as only a variety of the common kind, and is generally considered the most productive sort.

CARE NEEDED IN PURCHASING NOVELTIES.

We hope that all of our readers having fruit trees or plants of any description to purchase, or to order this spring, will be careful as to where or of whom they purchase or order them. If new things be offered of surpassing—not to say of incredible merits—do not select them. Be assured that really good fruits or flowers must first be made known through the horticultural press, and that no Wonder in the land of plants can ever originate, be propagated and offered for sale, in these days by any one individual. Remember this, that *every* plant of real worth, may be found in the catalogues of all trustworthy dealers, with the price attached, be it Strawberry, Grape, Pear, or flowering shrub or tree. If you want plants at all, it is worth your while to *find out what* plants you want, and to order them or to buy them directly of such firms as can and will supply the plants you want, and of no others.

ABOUT THE CORN PREMIUMS, &c.

It will be desirable that those who intend to compete for the Corn Premiums send in their names for registry at an early day. It is not our desire so to arrange the premiums as that he who produces the greatest yield from the corn we send him shall be entitled to *all* of the premiums or to a great share of them, but rather to the first and most valuable premium; the second largest yield, to the second most valuable premium, etc. All this may be settled upon at some future time. As to the method of planting, area to be planted, etc., we need only remark that the seed corn which we send must be sown within one-fortieth of an acre or in a plot 33 feet square.

BREVITIES.

You who have none, plant a Quince tree this spring.

Unmindful people — people who haven't their wits about them—had better never meddle with hot-beds. If hot-beds are to be of any special value, they *must* be attended to understandingly and promptly.

Marechal Niel Rose. — "There are but three words," says Mr. Hole in the London Garden, "which we dare to speak in such a presence as this—Hip, hip, hurrah! The hips, of course, for the seedling Brier on which he is enthroned, and the hurrah for the Royal Rose."

Mr. C. M. Hovey, our well-known Boston horticulturist, has lately arrived in London, taking with him some of his best Camellias, to the raising of which he has given much attention during years past. Mr. Hovey often contributes his experiences and views to English journals; but he rarely writes for home journals.

The temptation to uncover vines, borders and protected things, is almost irresistible among young gardeners and florists. They want to have things look shapely and tidy; all of which is in accordance with the spirit of the true gardener. But protection for this climate is never more needed than now, and those plants which have been protected need it most of all.

To carefully lay aside a good thing not immediately needed, against a time when it may be wanted, is only a matter of common prudence in every-day life. The farmer does so with his seeds, with his agricultural tools and implements and with his money; but he seldom does so with a good article in his paper. It happens not unfrequently that an instructive article appears in this and similar journals at a time when some of the readers cannot straightway utilize the information contained in it, however useful it might be to them at another season. Prudence would in such a case suggest that the article should be carefully preserved for reference when its information might be beneficial; but often even if prudence's suggestion is at once obeyed, carelessness soon loses the paper. Whatever they may do with other numbers, we would strongly advise those of our friends who are interested in maple sugar making, and cannot this season avail themselves of the information and suggestions contained in the article on that subject in this issue, to keep the number carefully for reference next season.

Literary Miscellany.

WEAKER THAN A WOMAN.

(Continued from page 174.)

CHAPTER XLII.

Seven o'clock struck, and then half-past, and Felix persuaded Lady Chevenix to take some dinner. If anything had happened, he thought to himself, she would be better able to meet it after dining. She was very unwilling at first, but after a time she consented, and dinner was served.

"I know what I think myself," said Felix. "Sir Owen has called in somewhere, and they have persuaded him to stay. Try to imagine that; it seems to me not unreasonable."

They sat alone at the stately dining-table, where the silver plate and the richly-cut glass looked so brilliant—the table where Lady Chevenix had undergone so many humiliations. It was but a farce; neither of them could eat.

Eight o'clock chimed, and no other sound broke the summer silence.

"I cannot sit here any longer doing nothing," said Lady Chevenix. "I am quite sure now that something has happened; I must send out a few of the servants."

"I have done that," Felix told her. "All that is possible has been done; they will return together soon."

His words were prophetically true. Even as he spoke they heard a confused noise at the grand entrance-hall—the rush of many feet, the cries of women, and the deep voices of men.

Felix never forgot Violet. She rose from her seat, and stood hesitating for one moment, pale as death. Then she turned to the door. But Felix was before her. That which was happening in the hall was most assuredly something which she must not see.

"Sit down, Lady Chevenix," he said. "You must not go out there. Let me see what is wrong."

She did not seem to understand him; but he placed her in a chair, and then opened the door. There was a rush of terrified servants, and women's voices cried." "Oh, my lady—oh, my lady!"

He held up his hand with an imperative gesture.

"You will kill Lady Chevenix," he said, "with this noise. Let no one go near her."

He took one step forward, and at once saw the cause of the commotion. A crowd of men stood round a litter, and on the litter lay Sir Owen. Felix pushed them aside.

"Is he dead?" he asked; and the answer was, "No."

"Thank Heaven for that!" he cried. Then he uttered a little cry of dismay, for Lady Chevenix stood by his side.

"What has happened?" she said. "Tell me the worst."

"Sir Owen has been thrown from his horse; and Martin says the horse fell on him?" cried a dozen voices.

And then, his eyes dim with tears, his whole frame trembling with excitement, Martin forced his way through the group, and stood before Lady Chevenix and Felix.

"My lady," he said, "I wish I had been dead before this day came round. You sent me to take care of him, and he is brought home so."

"Tell Lady Chevenix how it happened," directed Felix hastily.

"Sir Owen rode nearly all the time, my lady, and I rode by his side. We went all round Lilford, Harberly, and Ripdale. He stopped at Ripdale, and took some refreshment. Then he came home by the woods, and the horse was all right until Sir Owen came to the ring fence. The church clock at Lilford had chimed half-past seven. He turned to me and said, 'Martin, I shall take that fence in fine style.' I begged him not; I prayed him not. I told him the fence was too high for any horse, even the best in the kingdom, to take. But he would not listen—you know, my lady, he never would listen. He put the horse at the fence, and it refused. He whipped it and spurred it until my blood ran cold; and then he put it at the fence again. But Plantagenet would not take it. A third time he used the whip and spur, until the horse went almost mad. A third time he went at the fence. The horse tried his best, but his fore-feet caught the top, and he fell over, master being underneath him, my lady. When I went to raise him, I was afraid he had been crushed into a shapeless mass, but he was not; nor was he killed, for I felt his heart beating. I had a flask of brandy in my pocket, and I put it to his lips—he could not swallow it. I had to leave him there while I galloped off to the nearest cottage and gave the alarm. Then we made a litter, and carried him home."

Felix turned to him.

"How long will it take you," he said, "to ride to Lilford, and bring two doctors?"

"I can do it in two hours and a half," replied Martin.

"Go at once," said Felix, "and lose no time. You, John, go to Ordstone Station, and send a telegram to Sir William Daly, the great London physician. The address is Hyde Park Gardens. Say what has happened, and ask him to come at once. You, Stephen, go for Mrs. Haye. Take the carriage, so that she can return at once. Horton, if you will help me, we will carry Sir Owen to his room."

Felix sent for Mrs. Wardley, the housekeeper, and when she appeared he begged of Lady Chevenix to leave them for a time. She was very unwilling to do so.

"I ought to be with him, Felix, she said—"I ought indeed."

"So you shall be when I think it is right to send for you," he answered; and she went away.

They carried the Baronet into a spacious handsomely-furnished bed-room. The curtains were drawn and the lamps lighted. They laid him on the bed of down, and the faithful servants wept over him.

"I always knew that it would be so," said Mrs. Wardley. "I have always expected this evil day. I was his mother's nurse, sir," she added, speaking to Felix, "and I nursed him until he was three years old. He never would listen—never—and it has come at last."

The men took off his clothes and placed him between the fine linen sheets. Felix examined him attentively; he could discover no bruise, no wound. But for the pallor of his face, he might have been asleep.

"I begin to hope, Horton," he said to the butler, "that there is not much the matter. I cannot see a wound. He is stunned with the fall."

But Horton shook his white head.

"I am afraid, sir, that it is more than that. What time is it now?"

Felix took out his watch.

"It is just a quarter-past nine," he replied.

"It will take two hours and a half to bring the doctors here; that will make it a quarter to twelve. My lady might come in, sir. There is nothing to frighten her."

Then Lady Chevenix did come in. Felix looked hopefully at her.

"I begin to have every hope," he said; "there is not much the matter, I think. Certainly there are neither broken limbs nor bruises. I am of opinion that Sir Owen has been stunned by the fall. We will bathe his head, and try to get some brandy between his lips. I do not think there is very much the matter."

Lady Chevenix went up to her husband, and knelt down by his side. She had never professed any love for him; but, as he lay there, white, silent, and helpless, a keen sense of pity and compassion for him awoke in her heart. She took his hands in her own and rubbed them.

"Owen," she said—"try to speak to me."

They brought brandy; Felix gave it to him himself with a spoon—and this time they were quite sure he swallowed it. Felix looked at Violet.

"He has swallowed it," he said; "and see—there is some color coming back to his lips! Lady Chevenix, speak to him again."

"Owen," she said—"my dear, can you speak to me?" And this time there was no mistake; one of his eyelids moved, and his lips trembled faintly.

"He is getting better!" she cried. "I can see his lips move!"

They redoubled their efforts, and presently the pale lips parted. Felix gave him a little more brandy. They left nothing undone that they could do, the four who stood so anxiously by him—his wife, Felix, the butler and Mrs. Wardley. At last the Baronet gave a deep sigh and opened his eyes. His wife bent over him.

"Are you better, Owen?" she asked gently.

He looked up at her.

"Better?" he repeated. "I am all right."—"Tell me what is the matter?"

"I had a nasty fall. I remember it now," said Sir Owen. "It stunned me. I do not remember how I came home though."

They told him, and he listened attentively.

"So Plantagenet fell on me," he said. "I wonder that he did not kill me. As it is, I am not hurt. I am stunned—dazed a little. Very likely I fell upon my head; but it is wonderful that I am not hurt."

"I am very thankful," put in Lady Chevenix. "It might have been so much worse."

"Yes, it might. I own now that my conduct was very foolish. Violet, you will give all those poor fellows who helped to bring me home a handsome reward, will you not? Lonsdale, I am glad that you are with me. You will stay, will you not? I shall be all right to-morrow."

They asked him if he had any pain. He said "No." There was a strange giddiness in his head, and a strange sensation of numbness in his body; but, save for that, he felt all right."

The old butler, when he heard that, turned and quitted the room. He felt sure as to what was coming.

Sir Owen lay perfectly still. The lamps were all lighted, and their clear brilliant light fell on the compassionate face of Felix Lonsdale, and on the troubled one of Sir Owen's wife.

"How bright and pleasant everything looks!" said the Baronet. "How strange it seems to be lying here! I shall get up to-morrow." Yet, when he tried to move, there was a sense of helplessness that he could not understand. "It is strange" he said to Felix, "that I have neither wound nor bruise. I was quite stunned, but that is all. This numbness will go away with a few hours' rest. I am so glad you are here, Lonsdale. You will not leave me to-night, will you? I feel strangely wakeful, and it is dreadful to lie awake through the long hours of night."

"Of course I will stay," he replied, "and Lady Chevenix too."

"How strange it was, Lonsdale, that you and I should have been talking about death this morning! It must have been a foreboding of this accident. I have had a wonderful escape. I shall never forget it. I cannot think how it was that brute did not kill me. Violet, come nearer to me, and let me hold your hand. What a strange sensation it is to be frightened at nothing, as I am!"

She came nearer to him, and took his hands in hers; he looked at her.

"I have had a narrow escape," he said again, with a shuddering cry—"a narrow escape. Violet, this will do what no lecturing and no sermon could do. It will make me a better man. I will be a better man, my dear—I will indeed. I will give up brandy, and I will be kinder to you; I will, Violet. I will look after things better than I have done. I will help the poor, and go to church."

There was a brief silence, and then he started suddenly.

"I was asleep," he said—"asleep and dreaming. How strange! I shall be better to-morrow. I wish this feeling of numbness would go. It is nothing, but it is uncomfortable—I cannot stir. I shall be a better man after this, Violet. We shall be happier than we have ever been yet. I wish to-morrow were come, that I might get up. Felix, you need not send for any doctors; I shall not want any. My head is dizzy; it will soon be all right."

"They sent for doctors as soon as you were carried home," remarked Lady Chevenix.

"They need not see me if they come," he said. "You can tell them I have no pain, no wound, no bruise. I do not like doctors, and I shall be all right to-morrow."

Ten o'clock and eleven o'clock struck. He talked to them the whole time; but at eleven he com-

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plained more of the terrible numbness and the inability to move.

"I lie here like a log," he said. "I shall be glad when to-morrow comes." He looked haggard and restless as the time wore on. "I will not ask for brandy," he remarked, "though I should like some; but I mean to give it up—I do indeed. You will see, Violet, how happy we shall be when I am well."

It was nearly midnight when the doctors came—Doctor Brown, the old established practitioner, and Doctor Brene, the clever young physician from London, who had bought a practice in Lilford. They looked in wonder at the scene—the superb room, the pale lovely woman in her dress of blue velvet and pearls, the man lying on the bed.

Felix explained rapidly what had happened.

"I am all right," said Sir Owen. "They need not have troubled you, gentleman. I have no pain, no bruise, no wound. The fall stunned me—that is all."

The doctors looked at each other, and then asked Lady Chevenix if she would leave them with her husband.

"There is no need," he said impatiently. "Lonsdale never mind what they say; do not go."

"I will not be long away," replied Felix.

He did not like the look that had passed between the doctors; it was not a hopeful one. He touched Lady Chevenix gently on the arm.

"Let us retire for a few minutes," he said; and kissing her husband's face, Violet rose and quitted the room.

They did not go far. Through the oriel window at the end of the corridor the summer moon was shining, and they both walked thither. She looked up at Felix, and he saw that she trembled.

"I am frightened," she said. "It seeems so strange."

In perfect silence they stood at the window, watching the moonlight on the gardens. They had been there quite twenty minutes, when the door of Sir Owen's room was slowly opened, and Doctor Brene came to them.

"I have bad news for you," he said in his grave full voice. "Lady Chevenix, you must be brave. I have very bad news."

She could grow no paler. She stood white, calm, and self-possessed before him; but her heart was beating painfully, and every nerve was strained to the utmost.

"You must promise to listen quietly to what I have to say. Tell me, first, whether Sir Owen has any worldly affairs to settle."

Lady Chevenix looked at Felix, as though she hardly understood.

"He cannot have much to do," he said. "His will was made and signed some months since."

She seemed to understand neither question nor answer. She looked at the doctor.

"What is it?" she asked. "I do not understand. Tell me about my husband."

"He is very ill, Lady Chevenix—very ill indeed."

"But," she cried, "he has no pain—he has no wound!"

"So much the worse. Any pain would be better than none. The truth is—now promise me to be calm, Lady Chevenix—the truth is that Sir Owen has injured his spine, and that there is no chance for his life."

She trembled so much that the doctor brought a chair and placed her in it. He asked Felix to get her some wine.

"Try," he said, "to bear up a few hours. Your husband cannot live longer, and you must be with him. You must comfort him to the last. Try to bear up."

"I will," she replied. "And he does not know?"

"No. He knows nothing of it yet," he answered. "Drink this wine, and come back to him. It is midnight now, and he cannot live until sunrise. Come at once, Lady Chevenix; you must tell him, if you can, that he has to die."

"I cannot," she said. "I know it is my place—my duty—but I cannot do it. In some things I am weaker than a woman; this is one of them."

"Then I must tell him myself," returned the doctor, as he moved away slowly; "but this is not as it should be."

"Felix," she said, "I have never seen any one die. I know nothing of death. I am terrified at the thought of it. Do help me."

"I will," he answered—"all that I can."

They went back to the room and Sir Owen looked up as they entered.

"Why did you let me be tortured with doctors?" he cried. "I was getting better quickly, and they have frightened me with their long faces. They say—oh, listen, Violet—that I am going to die!"

He uttered the last word with a scream they never forgot.

"It is all nonsense," he continued. "My back is hurt with the fall—that is all; it is nothing more—nothing more, I assure you. Lonsdale, send for your father. I want to see him; he has always been kind to me, in his way. He will see at once there is nothing the matter; send for him."

Felix left the room at once, and sent Martin off for his father. He asked if the carriage had returned with Mrs. Haye, and was told that it had not. He went back to the room, and found Violet kneeling by her husband's side. Her head, with the golden hair all unfastened, was on the pillow, and she was trying to reason with him."

(To be continued.)

EDITH'S BROOCH.

"THERE, that's enough, young woman," said the harsh voice of Mr. Garnet, the jeweler, as a young and timid female still lingered near his counter. "I have made you the offer. If you like to take it, well and good; if not, you had better be off at once."

Still the girl hesitated.

"Can you not do any more for me? The brooch is so very valuable. It has been prized as one which is extremely rare," she pleaded.

"My good girl, do be reasonable. I have given my ultimatum. I never make two prices," said Mr. Garnet, sharply. "I can waste no more time on you."

And the jeweler turned from the young lady—for lady she was, in all her look and attitude and tone—to a customer who had just entered the shop.

"Is my pin finished yet?" he inquired.

And Mr. Garnet turned off to a neighboring drawer to bring the trinket forth from its hiding-place.

"There it is, Mr. Trevaux. I hope it will prove all satisfactory, sir," was the civil reply, as the jeweler brought it to the counter. "It was a tiresome job, and we shall be obliged to charge accordingly. It will be $40, sir."

Mr. Trevaux drew out his purse, and paid the money without further comment.

But as he did so his glance fell on the splendid diamond and ruby brooch that was still reposing on the counter near its shrinking mistress, and then it turned on the young lady herself with keen though not attentive observation.

Hers was a face and figure that could well bear inspection.

Paul's gaze furtively rested on her winning charms, while the jeweler wrapped up the beautiful breast-pin that had been so costly in its repair.

Then the young man lounged carelessly about the shop, examining its precious contents, and now and then asking the price of the tempting articles, while Edith Montrose once again spoke to Mr. Garnet, in a low, eager tone.

"The brooch is worth $300, I have often heard. I will be content with $300. Can you not give it to me? Even then it is a great loss," she added, plaintively.

Mr. Garnet hummed and hawed, looked again at the jewel, and again appeared to give way.

"Well, well, I always was rather soft where youth and beauty were in the case. I expect I shall lose; but it cannot be helped. I will give you the money. There, write this receipt and your name and address, and it shall be a bargain."

Edith sighed deeply, but there was no alternative: a young sister and an invalid brother depended on her for support.

Was it for her to prefer a trinket, however valuable, to their comfort and welfare?

The thought emboldened her to conquer feminine repugnance to such a sacrifice.

The pen was seized and the acquittance given during the brief absence of the jeweler.

But as he returned to his post with the bank-notes, another customer entered, followed by a large Newfoundland dog, who made up to Edith and fawned upon her with singular marks of affection, while his master began to inquire for the articles that he required from the store.

"Can I go? Will you please give me that sum?" faltered Edith, in a low tone, as the stranger deliberately turned over the things he had demanded to be shown.

Mr. Garnet turned sharply round, gave the girl the bank-notes, and then devoted himself to his more profitable customer.

Meanwhile, Edith Montrose left the shop, and was followed for some distance by Paul Trevaux, though she was too much engaged with her own thoughts to observe his movements, or perhaps his very existence.

"What kind of brooch were you wanting, Mr. St. Croix?" asked the jeweler of his remaining customer. "I have not long since purchased one of exceeding value and beauty, which I should like to show you."

Mr. Garnet looked round to point out the jewel in question; but it was not visible. He searched the jewel-cases, the papers, and the inkstand from which Edith had taken the pen; but in vain.

The brooch had vanished. No trace of it could be found, and Mr. Garnet's ire was both loud and deep.

"The young minx! Yes, there can be no doubt of it! I am seldom so utterly befooled. But who could have believed such a thing? She really looked like a lady. Well, she shall suffer for it, cost what it will. I'll have no mercy. Mr. St. Croix, now am I not justified? You are witness. Look here at this receipt."

And he displayed the graceful handwriting of his young client to Mr. St. Croix's stern eyes.

"A trick, of course. You never can be up to them; they have as many disguises as a detective," he returned. "However, I shall be very happy to bear witness in the matter, Mr. Garnet," he added, pocketing the jewels which he had just purchased from Mr. Garnet's store, leaving the jeweler to the indulgence of his wrath.

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"Young woman, we have a warrant against you. You must come with us," said two ferocious-looking individuals, or, at least, they had a most formidable appearance in the eyes of the poor girl and her invalid brother, as they entered their humble apartment.

"For what? There must be some mistake," faltered the girl, shrinkingly.

"Not at all. We never make mistakes. Ain't your name Edith Montrose?" they asked, sharply.

The girl bowed her head.

"Ah! yes; it's all right. And weren't you in the shop of Mr. Garnet, yesterday, jeweller, in Old Bond Street?" was the next query.

And again the assent was mutely given.

"Very well. Then you're the right person; and if you don't choose to give up the brooch you stole, we must take you off at once to prison," was the reply.

"I have no brooch. It is false! I sold it," exclaimed the girl, with flashing indignation in her eyes and face.

"Ha, ha! We know what all that means. We must search the house if you are still obstinate, young lady," returned the elder man.

"There are but three rooms on this floor that belong to me. I and my brother and sister lodge here," she replied, sadly. "My brother is in one of the rooms. He is ill. Please do not shock him by such a dreadful falsehood," she went on, presently.

"That's your look out; not ours. You should not have done it," the man answered, gruffly.

But the other whispered a few words to him that somewhat mollified his hardness; and when they pursued their search to the invalid's room, they so far softened their manner as to refrain from fully explaining their errand to the astonished Cecil.

"Well—well; its very cleverly hidden; but you'll be made to turn it out, young lady," said the official. "You must come with us; and if you choose to tell your sick lad there not to expect you back, it will, perhaps, save some trouble."

Poor Edith shivered; but her love for the suffering Cecil prevailed over her woman's fears, and she quietly told him she might have to give some evidence about a lost brooch, and that the younger sister Mabel would take her place in his room. And with this last brave attempt to conceal her suffering, she departed with her rough escort to the degrading destination of the police court.

The ordeal there was brief enough. There was no defence; but still only presumptive proof of her guilt. So a remand and a humane permission to occupy a room under surveillance instead of going to a common prison, was given by the indulgence of the bewildered and doubting magistrate.

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"Miss Montrose, I have obtained leave to see you. I trust you will pardon the liberty I am taking in this self-introduction, and in obtaining permission to take up your case," said a gentleman, who had just been announced to the young prisoner in the rough and ready style of her jailor.

And Paul Trevaux stood before her, with a frank yet respectful air that was adapted to win at once her confidence and her respect.

"You are very kind, but I do not know you," she said, timidly. "I have no friends to help me to prove my innocence, and it is unfair to expect a stranger to believe when proof is so strong against me."

"Never mind whether it is fair or not," he replied, smiling. "It is enough that I do trust you as I would myself, and that, being a budding barrister, I intend to win laurels in vindicating you triumphantly as an innocent lady. Will you allow such presumption?

Edith's eyes filled with tears for the first time since her misfortunes.

"You are indeed good and kind," she said, "and I do assure you from my very heart that I am innocent—quite guiltless of the theft;" and her color rose indignantly at the degrading word. "No; I sold the brooch in question to Mr. Garnet, and received the money, and left the jewel, while he was engaged with another gentleman—the one with a large dog, I mean."

"And you are sure the brooch was on the counter then?" he asked.

"Quite sure," she replied, and then the subject dropped, and the conversation turned on other topics, and Paul heard, without much difficulty, the sad story of the young girl's early troubles, how she and her brother and sister had been left orphans, and that all her energies had been taxed to the utmost to meet the demands on her courage and her time by such a burden.

And though she only distantly alluded to any pecuniary difficulties, the very fact of parting with so valuable a family jewel, was enough to prove the straits in which they had fallen.

Paul lingered till the last moment of his time, and then departed, more than before convinced of the innocence of his fair client, and equally conscious that she appeared to him most lovely and fascinating.

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"Pray, Mr. Trevaux, what witnesses have you to call in defence of the prisoner?" asked the magistrate, in an accent of severity that perhaps covered the dangerous yearnings of indulgence in his heart.

"Simply Mr. St. Croix and his dog," replied the young man, calmly. "I believe they are both in court, and if I can extract no information from them, I can only plead absence of any real proof for my client."

There was a general buzz as the large Newfoundland appeared by the side of his master, and looked round the crowded court with dignified inquisitiveness. But when his eyes fell on Edith, the creature could scarcely be restrained from rushing to her to display the strange regard he had conceived for her.

"Mr. St. Croix," said Paul, calmly, "may I ask if you have examined your dress, as you wore it on the day when the brooch was lost—I mean, so as to make it absolutely certain it cannot have been carried off by you in ignorance. Of course, I distinctly mean that the trinket might have clung to some part of your garment while you were utterly unconscious of its very existence, and I am sure, for this young lady's sake, you will pardon the question."

"It is impossible. I have worn them ever since the day. I must have detected such an involuntary theft had it been committed," replied Mr. St. Croix, gravely.

"And your dog? May I venture—or will you kindly undertake to pass this comb through his hair?" resumed the barrister.

There was a general laugh in court; but Paul was not to be turned from his purpose.

He came forward, and passed the large comb he held again and again through Neptune's thick coat of hair without effect. But just when a cry of derisive contempt was uttered by Mr. Garnet, there was a sharp, light sound on the floor of the court.

The missing brooch had become entangled in the innermost recesses of the shaggy mane, just below his broad leathern collar, and Neptune stood convicted of felony.

But he was not only freely shielded from punishment by a pardon, but some few months afterwards he was made a wedding present to Mrs. Paul Trevaux, *nee* Edith Montrose.

NEW YORK EXCHANGE FOR WOMAN'S WORK.

CONSIDERING the success of this social and charitable enterprise, we may expect to see similar institutions follow its example in all our leading cities. The Woman's Society of Decorative Art gave a powerful stimulus to every department of female industry, but from the necessity of its adherence to the most rigid standards, and its requirements not only of exquisite nicety, but of genuine artistic excellence, in the work admitted to its rooms, this society could afford opportunity to none except the most skillful — those trained to reach the perfection so many were willing and anxious to labor for.

The Woman's Exchange, on the other hand, while demanding that everything accepted shall be good in its way, recognizes the importance of affording a market for a thousand articles, pretty, useful and indispensable, which may be made by women in reduced circumstances to eke out a narrow income. The undertaking has been so successful that it is no longer necessary to argue about its *raison d' etre*. It has supplied a double need: it has not only aided a multitude of women in poverty who are precluded from the more active industries, but it has offered to buyers of holiday presents the best and pleasantest salesroom in the city.

This society was organized in the spring of 1878 by a number of leading ladies in New York. It has been simply and admirably managed. The rooms at 4 East Twentieth street recently vacated by the Society of Decorative Art were taken, and arrangements made for carrying on a quiet and, probably a losing, business until the autumn, when the summer travelers should return to town. Some time before Christmas the three rooms at first deemed sufficient proved too small, and the quarters were considerably enlarged. The place was full of goods of all sorts—some beautiful and claiming real consideration as works of a high order of decorative art. The sales in a single day frequently amounted to hundreds of dollars during the fortnight preceding the holidays.

The plan and methods of the managers might well be distinctly stated. The society will rely upon a permanent income resulting from the subscriptions of the members and of the subscribers. Any one subscribing five dollars a year not only helps an excellent charity, but at the same time becomes entitled to all the privileges of the Exchange, and can introduce the work of any one whom it is wished to help toward self-supporting industry. Articles can be entered only through the medium of a manager or a subscriber. All work is of course subject to the approval of a competent committee. It would be difficult to define or fix a limit to the kind of work received. Anything that a woman may do—from the painting of water color pictures on fire-screens to the making of tidies and dressing of dolls, from embroidering in Kensington stitch to the making of jellies and cakes—will be accepted. Nothing, in fact, has found a readier sale than the excellent preserves, spiced fruits, jellies, pickles and delicious cake which have been furnished. Ladies who have found it necessary to part with old valuables, such as laces, rare china, even pictures, have been able to do so with advantage.

The society receives only ten per cent. of the price: thus, the person who makes or offers the commodities is not despoiled. This small commission renders the exchange a distinctly charitable enterprise, as of course the proceeds of even the largest sales are too slight to defray more than a fraction of the necessary expenses.

Each article is registered and numbered without any delay and notice of each sale is at once sent by mail to the person interested, and she is requested to call and receive the money. There are but two salaried officers, the general superintendent and the secretary. Each lady-manager is expected to spend one morning of each week at the rooms, and co-operate if necessary. During the brisk traffic before Christmas, when the place was thronged with buyers, a dozen or fifteen of the graceful, accomplished lady-managers were frequently to be seen acting as saleswomen. H. N.

[Lippincott's Magazine.

THE PICTURESQUE ASPECTS OF SUGAR-MAKING.

W. I. CHAMBERLAIN.

Much of picturesqueness will always cling to the sugar camp. The romps of children through the "bush" on pleasant Saturdays, when "school don't keep," chasing with bows and arrows the squirrels just emerging "from out their winter home;" floating their little boats on the swollen, gurgling brook; boiling sap in a little pan, arch and shanty all their own, and making "maple wax" on drifts of still unmelted snow; hunting for "baby calico," that hardy pioneer of all the wild-flowers, that thrusts its tiny clustered buds above the dead leaves only to be buried in the next snow-storm; racing and romping till rosy cheeked and tired they go to bed and "sleep like logs" till Sunday morning. Then there are the troops of villagers who come to "see the folks and get some sugar"—so neighborly and social you know, in sugar time and peach-harvest! Then there is the night boiling with the lurid blaze leaping from the chimney top, and the red light flashing from open arch door, flooding with light the dark wood-piles and the trees beyond. There is your jolly companion who helps you enliven the evening with song and story, and then "turns in" on the rude bunk to sleep while you "fire up," and who in turn "boils" while you sleep. Or there is the lonely tramp through the "bush," for home, with the bright tin buckets flashing the moonbeams into your startled eyes from every quarter as their angles change with your advancing steps, till you half fancy you are hemmed in by Gideon's army, with pitchers broken and lamps all ablaze; and almost expect their trumpets to blow, and Jericho's walls to fall!

The fairies of the picturesque and the romantic have been driven from almost every corner of our modern, hum-drum farms by the demons of avarice and haste. The power mowers have chased them from our meadows, the reapers from the grain fields, and the whirring, smoking threshers from

our broad-roofed and generous barns. And even from our road sides, where once they boldly lay and watched the meek-eyed, sleepy oxen draw their loads on huge-wheeled ponderous carts, even from thence they have been scared by the flashing wheels of carriages whirled through the dust by their "two-thirty" spans, beneath the lashes of our modern Jehus!

The orchard was their safe home of old, but now in autumn, from the city comes the dealer, or the wholesale man, buys up the crop entire, and with a small army of pickers, and loads of barrels, baskets and ladders, and clatter of hammers and creaking of screws and clicking of packing clamps, in two days whirls off the crop to town. How could the fairies stay in such uproar as this? They fled to the maple grove, next, with its broad, arching limbs and silent shades—their only refuge now. Here they still wander, shy and scared beside the pebbly brook, scarce ever seen even by the children's watchful, all-believing eyes, except in thickening twilight or at the earliest dawn. Here only they now dwell and bless the farmer's family and home. Long may it be ere they are driven hence!

COLD FEET.—Cold feet predispose to colds in the head, throat, ears and lungs. Many people are troubled with sweaty feet; their feet consequently become cold. This is often caused by wearing woolen stockings. Cotton stockings should be worn under the woolen pair. A good remedy for cold feet is to bathe them at bedtime, commencing with water at blood heat, and gradually raising the temperature till the water is as warm as can be borne. They should be dried with a coarse towel, rubbed well with an inunction, and then incased in a well-warmed pair of stockings. Vaseline is recommended as an inunction. Boots that are thin, or tight and low shoes, should be avoided in cold or damp weather. Heavy, loose-fitting boots, with double uppers and wide soles, are proper. India-rubber overshoes should be worn in damp weather only, and should be removed as soon as the wearer enters the house. Slippers should not be worn by either sex during cold or even cool weather. One of the ways in which a cold is contracted is to exchange warm boots for low slippers. Those who do this forget that their feet and ankles have been protected all day, and that they have not only uncovered them, but placed them in the coldest stratum of air in the room. If they take the precaution to draw on over the stockings which they usually wear a pair of heavy woolen socks, the chances of taking cold from wearing the slippers are greatly decreased. Dr. Rumbold says that most women use elastic garters, which compress the veins and hinder the return of blood from the feet and legs. Almost every patient claims that her garters are not tight, yet most of them will acknowledge that when they are removed at night deep creases are found under the knees. In order to keep up the stockings without garters at all, they should be pulled on over the stocking-knit drawers and fastened with tapes. Four of these tapes, about six inches long, should be sewed on the drawers at about the middle of each thigh, one on the outer side and one on the inner side; also four tapes of the same length should be sewed one on the outer and one on the inner side of each stocking. The tying of the four pairs of tapes secures the hose in their place, and as they are long enough to come above the knees more of the limbs is then covered than when they are held up by the strangulating elastic or non-elastic garters.—*Dr. Rumbold in Virginia Medical Monthly.*

THE PRICE OF CORN.—The following from the *Burlington Hawkeye*, conveys a sound moral in a merry way, and after being laughed at may well be soberly pondered by farmers and others who are slow to see that the laws of trade "work both ways:"

"No," the honest farmer remarked, in tones of the deepest dejection, "the big crops don't do us a bit of good. What's the use? Corn only thirty cents. Everybody and everything's dead set agin the farmer. Only thirty cents for corn. Why, it won't pay our taxes, let alone buy us clothes. It won't buy us enough salt to put up a barrel of pork. Corn only thirty cents! By jocks, it's a livin', cold-blooded swindle on the farmer, that's what it is. It ain't worth raisin' corn for such a price as that. It's a mean, low robbery." Within the next ten days that man had sold so much more of his corn than he had intended, that he found he had to buy corn to feed through the winter with. The price nearly knocked him down. "What!" he yelled, "thirty cents for corn! Land alive—thirty cents! What are you givin' us? Why, I don't want to buy your farm, I only want some corn! Thirty cents for corn! Why, I believe there's nobody left in this world but a set of grasspin', blood-suckin' old misers. Why, good land, you don't want to be able to buy a national bank with one corn crop! Thirty cents for corn! Well, I'll let my carriage-horses run on corn stalks all winter before I'll pay such an unheard-of, outrageous price for corn as that. Why, the country's flooded with corn, and thirty cents a bushel is a blamed robbery; and I don't see how any man, looking at the crop we've had, can have the face to ask such a price."

SAND STORM IN THE ARABIAN DESERT.

THE engraving on page 189 shows one of these destructive storms in progress. The travelers are fleeing before it, hoping to reach the edge of the cyclone before their dread pursuer overtakes them. Failing this they will dismount, make a wall of defence of the camels, and wait for the storm to pass over them.

Girls are advised by a Chicago physician to always sleep on their backs if they wish to keep crow's feet from the corners of their eyes. "These blemishes," he says, "are the result of sleeping on their sides. The pressure upon the temple and cheeks leaves wrinkles at the corners and underneath the eyes which disappear in a few hours, but finally become so fixed that neither hours nor ablutions will abate them."

For Women.

CONDUCTED BY MISS FAITH RIPLEY.

A CHINESE SONG.

OVER green fields and meadows a tiny rill ran,
(The little precious coquette;)
She was pretty she knew, and thus early began
Gayly flirting with all that she met.

Her favors on both sides she'd gracefully shower,
Regardless of whom they might be;
One moment she'd kiss the sweet lips of a flower,
The next—lave the root of tree.

She would leap from one rock to another in play,
Tumble down on her pebbly bed;
Like a naiad let the dazzling sun-smitten spray
Fall in prismatic gems round her head.

Sometimes she would lash herself into rage,
And rush roaring and seething along;
Till a bit of smooth ground would her anger assuage,
When she'd liquidly murmur a song.

[*Macmillan's Magazine.*

HINTS ON HOUSEHOLD ADORNMENT.

Touches of Color.

BY S. J.

THE majority of households in our country are those of the great middle-class, and while the fortunate few whose palatial mansions are filled with costly gems of art, serve as models, as well as objects of which as loyal Americans we are justly proud; "the million" are obliged to employ a vast amount of consideration, as to the "ways and means," whereby each apartment of the unpretentious domicile may be made into a "thing of beauty."

At this time there is a loud outcry against all classes of house-furnishing which do not strictly accord with the "rules of high-art; while all "imitations" are pronounced "flimsy-shams" Now, while I admire all classes of true art-work, and feel an utter contempt for coarse, gaudy, or flimsy

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imitations of every kind, I hold that there is an intermediate line, whereon rests much that is beautiful and valuable, and that, inasmuch as a large majority of our people, must, either forego the pleasure of all beauty, or secure it by means of "imitations," it is better to copy good models, and form pretty and artistic objects, even though branded by the name of "home-made" than to allow the dwelling to remain bare and uninviting.

Dainty and carefully executed adornments, are peculiarly subtle and seductive in their influence and the gracefully draped portiere, the cozy "four o'clock tea-table," with its dainty and airy furniture, the bright, open fire-place, bordered with tiles, walls embellished with dado and frieze, floors furnished with rugs, and carefully stained or painted, grotesque wainscoting, painted panels, and various other artistic objects impress us as possessing natural, indefinable grace, while they become entitled to a three-fold welcome by reason of their inexpensiveness and utility. Let the adornment or embellishment be what it may, if carefully and artistically finished it is worthy of a place in the home of taste and the commendation of even the most critical judge.

Take as a beginning the entrance-hall to your little home; at the very threshold you may begin with your perfect imitations, by bringing a bit of vivid color to brighten this, the introductory apartment. Stained glass is beyond the ability of the limited purse, but who cannot afford to invest a few dollars in a set of those elegant vitromania plates, which, when properly applied, rival the most brilliant stained glass, and are used in England in many public buildings? Here, too, the floor may be stained in imitation of various beautiful woods, and if time permit, be laid off into blocks, quaint tiles or a center-piece, and borders. A Chinese, or other ornamental lantern, is easily made and imparts a glow and brilliancy that adds greatly to the cosy comfort. For these, I have used a base of wood, sawing it into a hexagonal of about fourteen inches in diameter, and finishing with a moulding around the edge, and six griffins, one fastened against each section of the hexagon and united at a point at the bottom (a few inches below). A pair of "drop-ornaments" placed together (back to back) finishes the arrangement; and when varnished and dusted with gold-bronze-powder, a substantial and most unique foundation is formed for the lantern. When securely fastened,

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and carefully bronzed, varnished, oiled or enamelled these ornaments appear as beautiful as richly-carved bronzes, from which they cannot be distinguished, unless closely examined. For the panels, six pieces of glass are cut, each a foot high and as wide as the inner side of the single sections of the stand, with pointed tops. Glue narrow strips of black muslin over the edges, then fasten together with stitches forming hinges at the top and bottom, leaving one panel open for purpose of introducing a lamp. Whether mediæval or modern designs be used for these panels the effect will be equally satisfactory, and when vitromania or Diaphenie is considered too expensive, various other modes of illuminating glass panels are worthy of a trial, of which I would mention the application of decalcomania transfers. After varnishing the entire glass with demmar, cover with bobbinet or Swiss muslin. The texts or mottoes of many kinds are most significant hall-ornaments, and the genial "Welcome," or cheery old "*Salve*," greeting the stranger at the open door, is equal to a friendly hand-shake, and at once bespeaks a hospitable people. Where possible these should be illuminated by hand, but if time and skill are not to be secured obtain tinted Bristol-board, and after sketching ornamental letters, of any kind preferred, apply floral decalcomania designs, and touch up with lines of gold, silver or bronze. When tastefully arranged this class of work is most satisfactory.

The umbrella-stand—though made only of a section of tile drain-pipe—placed within a shallow tin pan of proper size, may be made quite elegant, by giving the surface several coats of buff, grey, or other colored paint, then applying Japanese pictures, either transfers or the embossed sheets or better still the copper-colored classical designs, upon a black ground, which give a fine imita-

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tion of ancient-pottery. A tall vase in each corner, with a plate-cover, serving for a card-receiver on one, and a pot with ivy in the other, though transformed from common kitchen-jars to Antique Japanese-ware prove quite imposing, and are really of great utility.

Space forbids full directions for various other apartments, but I cannot forbear, suggesting the use of hangings instead of doors, between apartments, for book-cases, certain classes of cabinets, and other positions where doors are necessary; the application of dado and frieze divisions on the walls, instead of the uniform paper hangings so long used; the discarding of large, and the substitution of a number of small tables, of different sizes, some so small and light as to appear like mere Lilliputian affairs (here a wide field is opened for the artistic, in the use of imitations of inlaid ivory, *papier mache*, India ink and Sepia painting on white wood &c).

I would commend also, the use of rugs; cozy, and seductively comfortable chairs, and lounges; soft hangings, antique cabinets, tasteful brackets, wall-pockets and card-cases; above all luxuriant, growing-plants, which always proclaim the presence, of refined, pure and cultivated taste.

And here an unlimited amount of adorning is offered to the lover of the beautiful; for with some good soil, a few packages of seeds, or a selection of plants now offered so reasonably by our florists, and what may we not accomplish in the way of charming creations? Windows richly draped with the graceful luxuriance of green and color which no upholsterer may dare to compete; lovely swaying baskets from which the delicate sprays, and masses of vivid green come bubbling forth in fulness of life and beauty; stands and shelves; brackets and vases, "ferneries" and "Wardian cases," each and all offering a ready means for beautifying the home, where perhaps the limited ability to purchase materials forbids the use, of even home-made ornaments, for nature is a kindly and generous helper, and from her store-house we may draw without let or hindrance. So where no other adornment is available I would urge the use of growing plants, as a ready and satisfactory means of rendering home beautiful, and introducing those "touches of color," which render the series of household pictures, as effective and striking as the varied landscapes of the painter.

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Beautiful receptacles for these natural adornments may be obtained from innumerable refuse articles, variously utilized; and by means of a few colors, bronze-powders, and varnishes, many articles cast away as "rubbish" may be brought to bear upon the important point of household-beauty. Upon many of these, separate and useful articles might be written, and even then, "not the half could be told," but having extended my hints too far already, in conclusion I would say, whatever the work attempted, let it be accomplished in such a manner, that it will bear the closest inspection, and not only this, but prove to be perfect in all its parts. A fine piece of work, even though it be an "imitation," is a praise-worthy object; but a loose, rough, carelessly-finished piece of work at once condemns the operator, and is unworthy a place in any chaste home; for where a refined taste and exalted honesty of purpose dwells, no weak shams will be allowed. Loose and shaky ornaments must not sully an otherwise handsome cabinet; rough and sticky varnish shall not mar the perfect transferred picture beneath it.

We have all-sufficient of the false and unreal, the crude and weak, the unrefined and uncultivated, without the direct assistance of those who know the "true, and good and beautiful." A thing may be true yet not be original, and while I desire most earnestly to encourage all true art-work, I again say, where you cannot secure it, make a strenuous effort to imitate fine models, in every class of household-furnishing.

DESCRIPTION OF CUTS.

At No. 6377 and No. 6363 are given polonaise designs. They are pretty and graceful and will do excellently well as models for making over some old gown, which is to be worn about the house. I give them in response to many inquiries from ladie for a dressy polonaise pattern. Cost of patterns, cents each.

News of the Week.

MISCELLANEOUS.

Monday, March 17th, 1879.

The event that excited the greatest interest here during the week was the contest among pedestrians at Gilmore's Garden for the Astley belt, typical of the championship of long-distance walking. O'Leary, of Chicago, Ennis of the same city and Harriman of Boston, tried to keep the belt in this country to which the first of them had brought it not long since; while Rowell, a little Englishman sent over by the donor, Sir John Astley, to fetch it back, was pluckily resolved to obey orders, and easily managed to carry out his resolution. The first day of the six during which the struggle lasted, the Britisher got a start of 25 miles, and this he steadily maintained to the end, occasionally increasing it by a few miles whenever he wished to do so. O'Leary broke down on the third day, much to the disappointment of the public with whom he was the favorite, and not a little to the loss of his host of friends many of whom had bet heavily on his success. His two former successful struggles for the belt, had greatly injured his constitution, and want of proper training and care of himself had increased the damage. Besides his share of the gate money, he is reported to have lost $2,000 in bets owing to his failure. On the ex-champion's collapse, the hopes of those who wished Rowell's defeat hung at first upon Harriman, but on the fourth day he covered only 50 miles, showed marked signs of distress, and continued very shaky until the end. Ennis, who had hitherto been taking matters easy, now took second place, varying from 25 to 30 miles behind the Englisman, and hung on at this distance to the close of the contest. The following table will be of interest to those of our readers who prize tests of manhood and endurance:

THE COMPLETE RECORD.

The following table shows the number of miles made each day during the walk:

	Rowell.	*Ennis.*	*Harriman.*	*O'Leary.*
First day	110	95	100	93¾
Second day	87	78	86	70¾
Third day	86	77	84	51
Fourth day	77	85	55	—
Fifth day	67	70	65	—
Sixth day	73	80	60	—
Totals	500	475	450	215

HOURS OF REST EACH DAY.

Day.	*Rowell.* H. M. S.	*Ennis.* H. M. S.	*Harriman.* H. M. S.	*O'Leary.* H. M. S.
First	2 58 39	4 37 54	3 31 54	5 06 52
Second	6 39 22	7 04 07	4 15 03	6 27 04
Third	6 57 50	5 52 20	5 48 59	4 11 21
Fourth	10 16 59	6 20 14	12 00 29	
Fifth	9 22 36	7 35 34	7 37 42	
Sixth	2 27 24	3 55 24	5 17 34	
Totals	38 42 50	35 25 33	38 31 41	15 45 17

ACTUAL WALKING TIME.

	H. M. S.		H. M. S.
Rowell	102 15 15	Harriman	102 13 59
Ennis	105 34 27	O'Leary	48 15 43

AVERAGE TIME PER MILE.

	M. S.		M. S.
Rowell	12 16	Harriman	13 32
Ennis	13 20	O'Leary	17 35

It will be seen that the winner traveled within a very small fraction of five miles an hour the whole time he was on the track. He did a great deal of trotting, and it is generally conceded that the walker will have no chance with a runner in such contests in future. During the week, the attendance at the building was very large, although the price of admission was raised on Thursday from 50c. to $1. Vanderbilt charged $6,000 rent for the week; fire, gas, attendance, etc., would add say $4,000 more to expenses. At present it is estimated that the gate-money amounts to at least $50,000, leaving $40,000 to be divided as follows among the three contestants who covered 450 miles or over:

Rowell	50 per cent.	$20,000
Ennis	30 " "	12. 0
Harriman	20 " "	8,000

It is very probable that these amounts will be somewhat increased; but in any event, each contestant's feet have won him in a week more than his head would be likely to earn in a lifetime. Some rowdies tried at one time to create a riot to prevent the plucky little Englishman from winning, but respectability chiefly by means of policemen's clubs vigorously wielded, proved too strong for rowdyism.

Already about 35,000 applications for pensions under the late law, have been received at Washington. It is estimated that more than half of them will be allowed on investigation which commences next month, and that they will average about $900 each. All this is mere guess-work, but it is not guess-work that they *must* cost the Treasury upwards of $30,000,000 and possibly twice that sum. As no appropriations have hitherto been made to meet this outlay, prompt payment is hardly probable. There is likely to be a lively scramble for office in the next Senate. Twenty-seven places in its gift are worth not less than $2,000 a year each for about five month's easy employment—not work. Altogether it controls nearly 100 offices with salaries ranging from about $800 to $6,000 for the yearly session averaging less than six months. The consent of vice-president Wheeler, however, is necessary for the removal of most of the present employes. In that Rives's embroglio in Va., it is said the indicted State judges will decline to give bail; but will go to jail if necessary, and apply to chief Justice Waite for a writ of habeas corpus so as to get an early decision upon the constitutionality of Judge Rives's action and on the Civil Rights Bill under which he acts. Like the nation Indiana must submit to an extra session of its Legislature, because political legislation prevented the passage of necessary appropriations. The expense entailed on the State by this little trick will be from $25,000 to $50,000. Judge Blodgett of Chicago has been vindicated from the charges made against him by the old whiskey ring. Capt. Eads has been paid the $750,000 voted him by Congress for his improvements of the Southwest-pass of the Mississippi. How long will the improvement last despite the vast quantity of mud and *debris* brought down by the Father of Waters, and the shifting bottom of his mouths, for he has three of them?

The report of Gen. Crook's court of inquiry concerning the late massacre of Cheyennes at Fort Robinson, gives a complete history of the affair, points out certain errors committed by the officers in charge of the troops, but attaches no blame to anyone in the military service and recommends no further action. Gen. Crook approves of the findings. In the U. S. Court at Louisville, last Monday, Samuel McKee, a well-known republican lawyer, in defending some counterfeiters, showed three dies for the manufacture of spurious coin and said he could prove that the government detectives who arrested his clients, had themselves manufactured and sold counterfeit coin and used those dies. It is estimated that there are in this city now 11,393 men compulsorily idle, against 25,400 in 1873.

The Butter, Cheese and Egg Association assembled last week at Chicago, elected James F. Joyce of this city as President, R. M. Settler of Iowa as Secretary and Treasurer, and John A. Willett, of Massachusetts as first Vice-President. Bayard Taylor's body arrived in this city last Thursday, in charge of his wife and daughter. The flags on all public and many private buildings, were half-masted, and many other tokens of respect paid the dead traveler, author and Minister. Next day it was taken to his old home at Cedarcroft, near Philadelphia, and buried. The Fitz John Porter board of inquiry recommends his exoneration from the old charges on which he was condemned in the heat of late "Onpleasantness." The California Republicans, while conceding honesty of intention to the President in vetoing the anti-Chinese bill, declaim all responsibility for it. The constitution lately framed and adopted by that State, if constitutional, is so hostile to our almond-eyed visitors that they are pretty certain soon to abandon the "extraordinary fine climate" of the Golden State. It is not impossible that our treaty with China may soon be so modified as to restrict immigration from that overteeming country. Yet, after all, the exact figures with regard to Chinese immigration at the San Francisco Custom House, show that the net increase last year, was only 604—6,675 having arrived and 6,071 having departed.

Chicago is to have an elevated railroad 10 miles long. Canada spent $177,044 in promoting immigration last year, and 11,226 of the immigrants she enticed, slipped across the line into the United States. As a proof that business is reviving, it may be mentioned that according to the bank clearings, the total business represented by payments in 22 cities during February last, was 11.8 per cent. greater than in Feb 1878, though lately prices have been 10 per cent. lower. There is something tangible in this proof. Archbishop Purcell's indebtedness and the consequent hardships of his poor creditors are still prominent topics before the public. The Roman Catholic body generally seems inclined from an *esprit-de-corps* to help him in his difficulties by subscribing towards the payment or partial payment of at least the most pressing of his debts. His own available assets are said to be so trifling that they wouldn't pay more than from one to ten cents on the dollar, according to different accounts. At a meeting of 50 priests, held lately in Cincinnati, some very ugly stories were told about Father Purcell having been guilty of some very discreditable breaches of trust in appropriating funds placed with him merely for safe-keeping (!) towards paying his own indebtedness, and a criminal prosecution, it is said, can only be withheld by charity. Other reports exonorate him from everything, except gross carelessness and disregard of the interests of those who placed implicit faith in him, faults surely criminal enough. Several have taken legal action civilly against the Archbishop.

FOREIGN.

A terrible disaster has overtaken the Hungarian town of Szegedin, containing about 80,000 inhabitants. The town is situated on a plain, and the river Theiss which flows through it is confined by huge embankments, larger than the levees on each side of the lower Mississippi. The late thaws and rains rapidly melted the snow all along the river and on the mountains among which it takes its rise, and poured an immense body of water into its channel. The inhabitants of the city, aware of the danger to which this unusual influx exposed the embankments, hastily strengthened them in every possible way; but despite their utmost efforts the vast body of waters swept them away last Wednesday and the city was completely inundated. An official statement shows that 9,700 buildings were destroyed and only 261 left standing. The estimates of deaths range from 2,000 to 6,000, and now epidemic diptheria and other fatal diseases are appearing among the homeless inhabitants who throng the neighboring country. Sixteen thousand horses and cattle and 90,000 sheep, together with vast stores of grain and other farm products have been destroyed, and a broad reach of country swept bare by the torrent. The Emperor of Austria is now at the scene of the disaster, and has contributed 20,000 florins towards relieving the public distress. Other contributions are flowing in from all quarters, the panic-stricken fugitives are hospitably treated so far as the means and accommodations of the surrounding country allow; but still the suffering is appalling.

HERMAN.

THE CONNECTICUT MUTUAL.

THIS model life insurance company issues to-day its thirty-third annual statement, and, as is usual, in the matter of its regularly published report, shows advantages gained in the right direction. It has increased its amount of assets, lessened its ratio of expense, increased the amount of payment to policy-holders, and lessened the amount of interest deferred. Against the item "net premiums in course of collection" it writes as in the report of last year, "none." Its economical administration is shown in the low ratio of expense of management to receipts, 6.57 per cent.

The Connecticut Mutual was the first, in fact, the only company that at once, upon the proposal of a New York company to sell insurance at a discount, publicly advertised its purpose to do business as it had ever done, upon the safe accredited plan, understood by all the leading actuaries and experts of the country to be a true one. Acting always upon the only established principle that looks to financial results, which in life insurance teaches that a life insurance company to be safe must be *more* than safe, the management of the Connecticut Mutual has always conducted its affairs to the entire discredit of speculation. The showing of the statement to-day is the best proof of the wisdom of such action.

Schemes that are laid for sudden benefit, imagined or partially real, may be apparently successful as viewed by the sanguine man who hopes to gain advantage indirectly, but any departure from the proven path of rectitude in the administration of the business of a life insurance company must eventually lead to disappointment.

In a mutual life insurance company's business there is but one thing to sell, and that thing is the common property of all its members. For their respective parts of that property they have paid the fair, fixed, and universally recognized price. At the exact cost the new-comer makes his purchase. If the business has been large and the investments have been large in yield, at each year's close he has returned to him the proper dividend. In any event the surplus, in which as in all other matters and property he has an interest, should be so great that the most positive safety can be guaranteed.

The Connecticut Mutual begins its thirty-fourth year in the absolute possession of what makes a life company entitled to the foremost rank in business institutions. The information, the ability, the truthfulness, the economy of its management have been illustrated in the years past, and never more so than in that just closed. The course marked out by its direction is emphatically the same that has ever been pursued, and entitles it to the highest confidence on the part of all who would deal for future benefit with a first-class life insurance company.—[*Boston Daily Advertiser.*

Domestic Economy.

CONDUCTED BY EMILY MAPLE.

PEN THOUGHTS FROM EVERY-DAY HOUSE.

ANNIE L. JACK.

Early Spring Preparations.

AND now the long winter is nearly over, the strong March sun, the softening March winds, are slowly but surely undermining the foundation of the snow drift causing the ice on river and lake to become treacherous and unsafe. We find the mornings longer; we observe our afternoons give us more time, but the evenings are much shorter for work or recreation. Thus it dawns upon us that the "winter of our discontent" has passed, that we are near another spring with new hopes, new joys, with its varied work, and pleasant surroundings—the time of Nature's grand awakening is at hand. The sap already flows on the sunny side of the Maple, and some day we shall hear the carol of a bird, to stir our blood to a quicker heart throb of enjoyment at its very sound. Let us make the best use of this, the last of our winter leisure, and try to be what the Scotch call "forehanded," in our spring preparations.

Lately in several houses where I have chanced to call, I have noticed the young ladies seemed to keep on hand a cotton stocking—some plain, others of fancy open work—that was taken up when callers came, by slow degrees to be completed. In several instances almost the same words were used. "One can knit and talk and they wear better than bought stockings and can be refooted." Little Mrs. Mackredy had all the summer clothing for each of the family over looked and packed away in drawers, and was busy making pretty little bibs for the baby's summer use. Then another family where I visited, were intent on needle-work in the shape of curtains to be put up after house-cleaning, while in the kitchen the men folks were making improvements, by planing and leveling the floor, filling all cracks with putty ready for a coat of paint. I saw a neighbor busy at work the other day in a shed near his ice-house, and he explained to me that he was building a pantry to keep things cool in in summer.

So each in his own way looks forward to the future according to disposition and character, and makes preparation for the busy days when in our different departments we must "make hay while the sun shines."

In the kitchen every housekeeper has her work to do, and it is a good plan in this month to look over all vegetables, and fruit, picking out the best for longer-keeping, and using that which is likely to spoil. Apples, if carefully picked over, can be made into a delicacy for June and July by canning all the quarters and half apples when peeled, and filling the jars that have been emptied of other preserves. In this way they come in when other fruit is scarce, a season that overtakes most of us just before strawberries are ready. All garden lovers too are busy now, looking with longing eyes at the catalogues that promise so many new and rare things for our beauty-loving eyes; looking over seeds, sending in our orders, starting cuttings and seeds, and planning the garden of the future, that in our hopeful minds knows no blight or mildew, and is not spoiled by drought or flood. So as these bright days come before regular work can be commenced, let us be up and doing; for these are indeed the weeks of preparation.

A STORMY DAY.

LOOKING out of the window this morning, I saw that it was just such a day as I had been wishing for, one in which to work without interruption. Not even a tramp would exert himself to come, for the snow was falling fast, and drifting as it fell. After doing my share of the housework, I went up stairs and began with the clothes-closet, taking everything out from the topmost shelf to the lowest, and from every hook. Then our maid "Mollie" washed the shelves and floor, while I examined the mountain of bundles that lay before me. On one side of the closet we keep several large bags for scraps of various kinds. The bags are made of calico, with strings of strong tape to hang them by, and bits of white cloth are sewed on, for labels which are written with indelible ink. If anything is wanted from any particular sack, in a hurry, it is a great help to know just where to find it. In one sack old cotton cloth is kept, in another, old linen etc. In looking over such articles a few times in the course of a year, we find a great deal that we do not need, so part of the linen, cotton and flannel is made into a neat roll to be sent to a hospital from which we often receive an appeal for *anything* that we can spare. Next the cast-off garments suitable for both sexes, are put aside to be given to the inmates of an orphan asylum. How much better to dispose of old clothes where they will be of use, than to keep them to accumulate dust and moths.

Before noon the closet is dry, and each article back in its place; so I proceed to the storeroom to see how the supplies are holding out. The cellar is visited next, but there is little to do, as it has daily attention. The moment we find decaying apples or potatoes, they are *trimmed*, the best parts given to the horses or cows, and the poorest added to the compost heap. We never feed *whole* fruits or vegetables to animals, lest they get choked, and decayed substances are not fit to offer *any* animal. It is afternoon. The weather is less boisterous, and the softly-falling snow puts me in the spirit of writing. My letter is done, and there will be time before night to cut out some work that requires considerable planning. The basket is piled high enough to furnish me with sewing for a week to come. Twilight is upon us, and I will spend a few minutes of it in preparing sticks for labels, as very soon we will sow seeds in boxes in the house and hot-bed. The snow storm is over. The last meal of the day is finished, and I'll take my place in the family circle for the evening. I am, "with weariness oppressed," but that will soon be forgotten, for my hands will be occupied with some easy work and I will listen, while somebody reads aloud from the good old RURAL. M. G. R.

Lyons, Iowa, January, 1879.

DOMESTIC RECIPES.

I BELIEVE of all the cakes I make, those made after the following recipes are praised the most, and disappear the fastest.

Cream Cake.

One cup of sugar; two eggs; one tablespoonful of butter; three tablespoonfuls of sweet milk; one and a half cup of flour; one teaspoonful of soda and two of cream-of-tartar. Stir the sugar, butter, and yelk of eggs to a cream, then add the milk, whites of eggs, soda and cream-of-tartar. Beat fast for a minute or two and bake in three jelly tins.

Cream.

The cream should be made before the cake is and put on hot. Heat one half cup of sweet milk, and stir in as soon as it boils one egg, one half cup of sugar and one half cup of corn starch. Pile up the cakes with this spread between.

White Fruit Cake.

One cup of butter: two of sugar; three and a half of flour; whites of three eggs, the whole of one; one cup of milk; one teaspoonful of soda; two of cream-of-tartar; over one cup of raisins. Other fruit may be added if desired.

To Cook Veal.

Roll the slices in beaten eggs, and then in rolled crackers. Melt a small quantity of butter in the frying pan and place the veal in it, cover tightly and let it stew for an hour.

Pie Crust.

I have not had any "essence of pork" or lard in my house for a long time, but in place

of it use cream for shortening. For pie crusts I skim what sweet cream I think I shall require in my bread bowl which is well lined with flour, add a pinch of salt and mix. Roll out while rather soft. Dyspeptics can eat pies made in this way, without injury.

MRS. L. E. K. TURNER.

"Brown's Bronchial Troches," when allowed to dissolve in the mouth, have a direct influence on the inflamed parts, allaying Pulmonary Irritation, and giving relief in Coughs, Colds and the various Throat Troubles to which Singers and Public Speakers are liable. **25c. a box.**

THE MARKETS.

PRODUCE AND PROVISIONS

NEW YORK, Saturday, March 15th, 1879.

BEANS AND PEAS.—Medium and marrow beans continue steady; other grades show a light business. Green peas became quiet under the recent advance quoted, nominal $1.42½@1.45; Southern B. E. peas weak at $2.50@2.55. Canadian peas, in bulk and bond, 72@73c., with fair sales at the easier rates.

Receipts of beans for week 3,784 bush.
Exports of beans for week 1,124 pkgs.
Exports of peas 12,325 bush.

BEESWAX.—Offerings are fair and prices easy Western and Southern quoted at 24@25c.
Exports, past week, 3,783 lbs.

BUTTER.—The past week has been of Springpromising temperature, while a few consignments of new white butter also tend to warn holders that the grip of cold weather trade must soon relax. With the urgency to sell thus caused, buyers of almost any quality have the easy side of prices. Really useful table old, it is thought, will be worked out with present figures nearly sustained: as a call for natural yellow lays considerably upon early made, especially for coastwise and other shipment. There is nothing, however, to save a large storing of State and Western from the low winding up rates that have hung over it all winter. New State pails range 18@23c.; Welsh 18@22c.; poor 14@16c.; new western creamery 18@20c., for strictly choice; other grades 18@2 c.

Single extra State half tubs, 25c.; choice lines, 21@22c.; State, full dairies, special, 18c.; other, 14@16c.; firkin dairies, fair to prime, 12@17c.; Welsh dairies, fine fall, 15@16c.; fair to prime do., 18@21c.; choice Welsh, 18c.; other 7@13c.; choice creamery 25c.; country packed creamery, 17@18c.; poor State, 7@11c.; Western dairy, fine fresh, 17@18c.; fair to good, 10@15c.; factory, indie packed, 15@16c.; good, 13@14c.; other, 7@9c.; rolls, 9@14c.; grease 4@5c.

CHEESE.—The stock of really fine has been worked down to very small amounts. Of low grades offerings have been fair, the receipts having increased, but prices have scarcely varied, although there are free sellers. Exporters are steady buyers.

Prices are 9@9½c. for fancy; 8½@8¾c. for fine lots; 7¼@8c. for good; 3@4¼c. for skimmed; 5½@6½c. for half skimmed; State, farm dairy at 8@8¼c. for fine; 7@7½c. for good to prime. Wisconsin factory, fine and fancy, at 8¼@9c.; do. good to prime, at 7½@8¼c. Western factory, fine 7¼@8c.; good and prime, 6½@7½c.; do. full skimmed, 3@@4½c.; do half skimmed, at 3@ c.

Receipts for week, 40,168 boxes.
Liverpool cable, 48s.
Steam to Liverpool, 35@40s.

The Herkimer correspondent of the Utica Herald says:—Dairymen of this section are making a movement toward lowering the price for the manufacture of cheese. They claim that for the past two years owners of factories and makers have received too large compensation considering the cost of furnishing and price of labor. Some makers have already contracted to furnish and make the coming season for eighty-five cents per hundred pounds. Others are to receive one dollar per hundred, and deliver the cheese to the railroad.

BROOM CORN.—Medium qualities have a very good demand and are well sustained in price.

Brush and short broom, choice, ₹ lb., 5@5½c.; do. common to good, 3½@4½c.; hurl, good to choice, 3½@4½c; do., common to fair, 3@3½c.; and crooked, 2@3c.

COTTON—Has varied slightly only with a very dull look to trade, chiefly on account of the slack condition of affairs abroad. Latest prices are for March at 9.33@9.34c.; April at 9.93@9.94c.; May at 10.09@10.10c.; June at 10.24@10.25c.; July at 10.39c.; August at 10 43@10.44 c.; September at 10.24@10.25c.; October at 9.98@10c.; November at 9.8 @9.90.

Quotations for spot cotton are based on American standard of classification, and on cotton in store running in quality not more than half a grade above or below the grade quoted:

	Uplands.	*N. Orleans.*	*Texas,*
Ordinary	8 1-16	8 3-16	8 3-16
Strict ordinary	8 7-16	8 9-16	8 9-16
Good ordinary	8 15-16	9 1-16	9 1-16
Strict good do	9 3-16	9 5-16	9 5-16
Low middling	9 7-16	9 9-16	9 9-16
Strict low middling	9¾	9¾	9¾
Middling	9¾	9¾	9¾
Good middling	10⅛	10⅛	10⅛
Strict good middling	10⅜	10⅜	10⅜
Middling Fair	11	11⅛	11⅛
Fair	12	12⅛	12¼

STAINED.

Good ordinary	8⅛	Low Middling	9⅛
Strict good ordinary	8¾	Middling	9 7-16

DRIED FRUITS.—Apples move out well to exporters, and there is more being done with the local trade, with some advance made on evaporated stock. Peeled peaches are better and in freer demand. Small fruits are quiet.

Alden's evaporated apples are 12@12¼c.; new process apples at 9c. State plums, 14c.; blackberries are quoted at 5c. Peaches—Peeled Georgia, 6@7½c. for poor; 8½@9¾c. for fair to good; 10c. for prime; choice North Carolina, 12@13c.; good do., 9@10c.; unpeeled halves, 3¾c. quarters, 3c. Pitted cherries, 20c@21c. Apples—New, 2¾@2¾c. for southern quarters in bags; 3¾@4c. for prime sliced; do., fair at 3@3¾c.; State at 3½@4c. for new sliced; and 3¾@4c. for new quarters; Western at 3½@ 4c. for new quarters. Raspberries, 26c. Apples, evaporated, fancy at 11¾@12¼c.; do. fairlots, 8½@9c.

Exports for week, 2,800 bls. apples.

FEED.—Is selling at $15@16 for 40c.@50 lbs.; $15@15 50 per 99 lbs.; $15@16 for 100 lbs.

EGGS.—Receipts for week, 7,855 bbls.; do. last week, 12,033 do. Receipts have been held back to some extent, and the market is temporarily firmer. The market should not be tampered with in this way at this season, as an irregular situation will be the result.

Near points, 19 @20c.; State, Penn., Western and Southern, 18½c.; poor stock, 17@18c.

FLOUR.—The market has steadily yielded in price on lower wheat values, and the spring-like weather promising an early increased movement forward of supplies from western points.

Latest prices are $3.35@3.70 for inferior to very choice superfine State; $3.70@4.00 for very poor to good extra do., odd lots and lines; $4.00@4.25 for good to choice do.; $3.35@3.70 for inferior to fancy superfine Indiana, Iowa, Michigan, &c.; $3.70@4 00 for inferior to good shipping extra do. and $4.00@ 4.25 for good to choice extra do.; common to about choice white wheat extras, $4.25@5.35; choice to fancy do. at $5.35@6.15; red and amber winter wheat, very inferior to very choice trade and family, at $4.10@5.75 (fancy held higher); round hoop Ohio at $3.90@4.25, and trade and family brands of do. at $4.50@4.85, the latter rate for very choice (a few fancy lots held higher); St. Louis, $4.25@5.10 for very inferior to good extra; $5.10@6 00 for good to very choice (with a few very fancy brands in high favor with the jobbing trade) quoted up to $6.50@6.75; Minnesota clear, very inferior to very fancy, at $3.75 @5.10; few brands going above $4.75; Minnesota "straight," very poor to very fancy at $4.50@6 00; and patent poor to strictly fancy at $5.25@8.25, few brands going above $7.50@7.75; unsound stock at from $2.25@ 5.25; city mill extra at $4.35@5.20 for West Indies (the latter rate for fancy in new packages); do. for England $3.75@3.90; do. trade and family extras, $5.25@ 6.25; do. for South America, $5.15@5.65 for fair to very choice: No. 2 at $2 35@3.20 for poor to strictly fancy, the latter an extreme.

FRESH FRUITS.—The advance in apples has brought out some fine reserves of red fruit, for which there is a steady retail demand. Greening and Russets are firm, with a good call for grocery and bakers' use. Exports continue large for the season; shipments for week, 7,3.9 bbls. Choice red, $2.50@ 2.75; Greenings, $2@2.37; Baldwins, $1.50@2; Russets, $1.75@2; Eastern lots, seldom touch $2; most of them go to the cheap trade. Cranberries dull, but the supply is not oppressive. Made bbls., $7@ 8.50; crates, $3.25@3. Florida oranges nominal at $5 for best hf. bbl, boxes; others, $1.50@3.50. Some fine Fla. strawberries brought $2@3 ₹ quart; hothouse, down to $3.50. Peanuts in good demand at full prices. Va. hand-picked, $1.10@1.15; other, 75c. @1; shelled, 4½5c. ₹. Pecans, 6@8c.

FURS AND SKINS.—Following the Hudson Bay Co.'s London sales were those of Sir C. M. Lampson & Co., but nothing was developed thereby to vary the situation of our home market, as expressed last week.

GRAIN.—All articles have declined considerably on an expected early larger movement forward of supplies from Western centres on the mild weather, and a good deal of an effort to sell by speculators. Export demands are moderate. Of wheat latest sales are of No. 2 spring at $1 04½; No. 3 spring at 93@95c.; No. 4 spring at 88@90c; rejected spring at 80@82c.; ungraded spring at 93c.@$1; ungraded amber at $1 10@1 10½; No. 2 amber at $1 10@1 11; ungraded red at $1 01@1 12; No. 3 red at $1 09; No. 1 red at $1 14½; No. 2 red at $1 13¾@1 14; do., steamer grade, at $1 10; extra white at $1 14; white State at $1 13; No. 1 white at $1 13¾@1 12½; No. 2 white at $1 10@1 10½; No. 3 white at $1 09; ungraded white at $1 11@1 12; No. 2 amber, March option, at $1 10½; do., April option, at $1 10¾@1 11; do., May option, at $1 11½; No. 2 red March option, at $1 13¾@1 14; do., April option, $1 13¾@1 14; do. May option, at $1 14½; No. 1 white, March option, at $1 12; do., April option, at $1 12½; do., May option, at $1 13¾@1 13¾. Corn closed at, for New York No. 2 at 44½@44¾c.; New York No. 2 old afloat at 45¾@46c.; New York No. 3 at 43½@43¾; New York steamer mixed, at 44@ 44½c.; New York steamer yellow at 44½@44¾c.; ungraded western mixed at 44¼@45¾c.; southern yellow at 44½@45c.; New York yellow, old, at 46@46¾c.; New York No. 3 white at 47¾c. for new and 48c. for old; round yellow at 45@45¾c. for new; New York No. 2 old, March, quoted at 45½c. bid; New York No. 2, March, at 44¾c; New York No. 2, April, at 45¾@ 45½c.; New York No. 2, May, at 46¾c.; steamer mixed, March, at 44¾c.; do., April, at 44½c. Oats at, for New York No. 1 at 34@33¾c.; New York No. 1 white at 35½@36c.; New York No. 2 at 32½@33c.; New York No. 2 white at 33½@33¾c.; New York No. 3 at 31c.; New York No. 3 white at 33¼@32½c.; No. 2 Chicago afloat at 33¾c.; do., in store at 31¾c.; white State at 31½@36½c. mixed Western at 32½@33½c.; white Western at 35½@35c. Barley dull; State, 6-rowed, 75 @80c.; do., 2-rowed, 65@70c.; Canadian, 90c.@$1.05.

HAY AND STRAW.—Demand is very good, especially for shipping lots and medium grades; prices generally well supported.

Quoted at 40@45c. for shipping, and 70@75c. for retail qualities. Straw quoted at 50@60c. for long rye, and 40@45c. for short rye, and oats at 40@45c.

Exports for week, 375 bales.

HOPS.—Exports for the week have been 649 bales. Demand is moderate from all sources, and on medium grades buyers have the advantage.

Quotations are for New York's, new crop, choice, 10@14; New York's, new crop, medium, 7@9; New York's, new crop, low to fair, 5@6; Eastern, 6@10; Western, 6@10; Yearlings, 3@5; Olds, all growths, 2@ 3; Pacific coast, 10@15.

HONEY.—There has been some movement at extremely low prices. Clover, 8@10c.; buckwheat, 7@ 8c.; strained, 6@8c.

MAPLE SUGAR.—Ohio, 10@14c. ₹ lb., with a downward tendency.

POULTRY AND GAME.—Live plenty; prices easy, especially for Western fowls. N. J. fowls, 10@11c.; Western, 9@10c.; roosters, 5@6c. Turkeys, 11@13c.; Ducks, 60c.@$1 ₹ pair; N. J. Geese, $1.75@2; N. Y. and Penn., $1.50@1.75; Western, $1@1.50; Pigeons, ₹ pair, 35@40c.

Trade in dressed is not brisk enough to prevent many lots from becoming stale, and all but really fresh stock is quoted easy. It is easy to overstock the market when spring novelties are in order. Light weight turkeys rather firm.

Turkeys, best, 15@17c., the latter for Pa. dry-picked; other, 12@14c; chickens, best, 14@16c.; other, 8 @10c; fowls, choice, 10@11c.; capons, 22@23c.; slips, 18@20c; ducks, best: 17@18c.; other, 13@15c.; geese, 7@10c. Very poor State chicks, 5@7c.

Very little good quality game here: ducks extremely low; most of the pigeons are shot and do not call first-class trade. English snipe have appeared; quoted $2 doz.; wild pigeons, 75c.@$1; Canvas backs, 75c.@$1 pair, the latter for Havre de Grace.; Redhead, 40@60c.; Mallard, 40c.; Black and Teal, 30@35c.; common, 15@20c.

LEATHER.—Hemlock sole is quoted at 18½@19½c. for light; 19@21c. for middle; 19@21c. for heavy; and 16@18c. for good damaged.

OIL CAKE.—Western is in demand and quoted at $27.50@28 per ton.

PROVISIONS—Have been generally dull and depressed, but left off strong on a better inquiry, especially for bacon. Mess pork quoted at $10.15 bid and $10.25 asked for new for March, and $10.20 bid and $10.30 asked for new for April, and May at $10.30 bid and 10.35 asked, and June at $10.35 bid and $10.45 asked. Bacon at 5.12½c. for long clear and 5¾c. for short clear. Lard—Western steam at $6.40 for spot lots; $6.63½ for April; $6.72½ for May, and $6.77½ @6.80 for June. Tallow at 6 9-16c. for prime. Stearine at 6¾@7¼c. for prime Western. Beef Hams at $18.25@18.50. Beef, at for extra India mess, $13@21, as to quality; packet, $11@11.50; plain mess, $9.50@10.25; extra mess at $10.50@11.50.

SEED.—Clover is easier, and slow, quoted at 6¼c. for prime, and 6¾@6¾c. for choice. Timothy is quiet at $1.35@1.45.

SUGAR.—Refined at 9c for cut loaf, 8¼c. for crushed, 8¾@8¼c. for powdered and granulated; 7¾@8¼c. for soft white, and 6@7¼c. for soft yellow.

TOBACCO.—Receipts increase a little, while there is no improvement to export demand; prices are, however, held steady.

VEGETABLES.—Exports potatoes, past week, 3,245 bbls; of onions, 100 do. Demand moderate for potatoes, but prices are strong for choice. Southern produce shows a variety. Charleston asparagus, $12 doz.; Florida green peas, crate, $2 50@3.50; Virginia kale, 62c.@$1 ₹ bbl.; do spinach, $3; Baltimore do., $1 75; Virginia radishes, $3. Onions have declined. Other items fairly firm when not in large stock.

Hot-house rhubarb, ₹ 100, $2@3; radishes, $3; cucumbers, $2.50@3 ₹ doz; mushrooms, ₹ lb., 50c.; lettuce, selected, 50@75c. ₹ doz.; poor, $2@3 ₹ bbl. Bermuda potatoes, $7.00@8.00 per bbl; Early Rose, Nova Scotia, $3@3.25; Eastern, $3@3.12; State, choice, at $2 50@2.62; fair to good, $2@2.25; Peach Blow, white, in bulk, $2.50@3; red, $2.25@2.75; Prolific, $2.25@2.75; Peerless, State, $2@2.25; in bulk, $3@2.12; Jackson white, $2@2 37; Mercer, $2.12@2.37; (outside rate per double heads). Sweet potatoes, Md. & Del., $2@2 37 Bermuda tomatoes, 25@75c. box. Onions, Eastern, white, ₹ bbl., $5@6, yellow, $2.75@3.10; red, $2.75@3.00; Chester, $3@3.50. Squash, Hubbard, $2 50@3.50; marrow, $2.50@2.75. Cabbages per 100, $6@7; R. turnips, per bbl., $1@1.25; beets, 75c.@$1; carrots, $1@1.12; celery, per doz. bunches, 50@75c.

WOOL.—The market displays more activity. All low grades, especially California and Texas lots, are freely offered and favor buyers, but fine stock is held very steady.

Ohio, Pennsylvania and Virginia—XXX and pinklock, 37@38c.; XX, 34@35c.; X, 33@34c.; No. 1, 34@36c.; No. 2, 30@32c.; common, 28@30c.; combing, 36@38c.

New York, Michigan, Indiana and Wisconsin—XX, 30@32c.; X, 30@32c.; No. 1, 32@34c.; No. 2, 27@30c.; common, 27@28c.; combing and delaine, 33@37c.

Iowa, Vermont and Illinois—X and XX, 29@31c.; No. 1, 31@33c.; No. 2, 27@28c.; combing, 33@38c.

Missouri, Kentucky and Tennessee—Washed fleece, 30@33c; unwashed fleece, 18@24c.; unwashed combing, 22@25c.

LIVE STOCK MARKETS

Saturday, Mar. 15, 1879.

BEEVES.—Receipts for the week, 4,883 head; do., last week, 10,391 do. Supplies were extremely light, but the demand has corresponded to the small offerings and easy rates have been quoted most of the week for ordinary stock. The range at the close was 7¾@10¾c.; to dress 55@57 lbs.; most business at 8½@9¾c., dress 0 lbs.

COWS AND CALVES.—Market quiet; spring helps trade usually, but it is early yet; besides buyers are disposed to be cautious in purchasing while stock is subjected to the prevailing special inspection. Range $40@60 ₹ head.

HOGS.—Receipts for week, 28,224 head; do. last week, 22,511 do. Recent sales of live at $4 ₹ 100 lbs.; bids at the close, $3.90 do. Country pork, light, 5¾ @6c.; medium, 5½@5¾c.; heavy, 5@5½c.; city, 4¾@ 5¼c.; Western, 5@5¼c. Pork tenderloins; boxed, 7c.

SHEEP AND LAMBS.—Receipts for week, 19,039 head; do. last week, 18,778 do. Sheep are in large supply for the season and prices are weak. Western, 5@5¾c.; N. J., 5@5½c.; cwes, 4@4½c. Lambs, winter, 5@6c. Spring dull with a wide range of prices: choice, $5@5 50 per head; good, $4.50; other, $1@2.50. Young lambs are unusually plenty this season.

VEAL CALVES.—Live calves have ruled easy; there is a good demand at the close. Good to choice N. J. and Bucks Co., 6½c.; do., State, 5¾@6c.; fair quality and heavy weights, 5@5¾c.; fed calves, 4@5c. "Bobs" seldom evade the confiscating clutches of the sanitary police. Some young stock has sold at 2@3c. per lb, or 75c. $1.25 per head. Dog dressed calves easy as the weather is becoming treacherous; best 8½@ 9c.; fair to good, 6@8c.; very poor, 2@3c.

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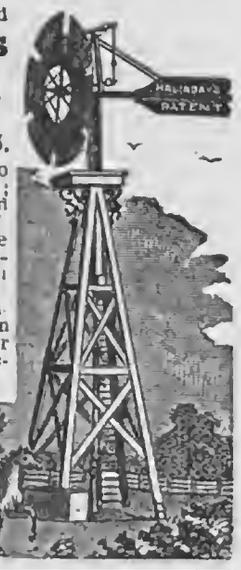

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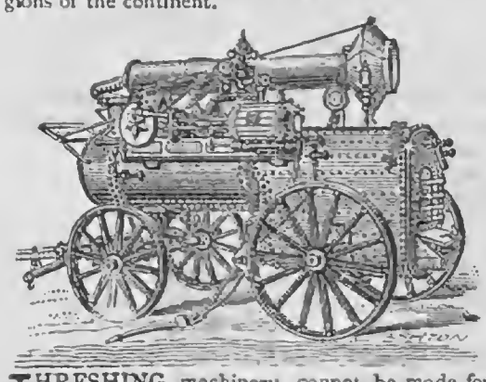

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WHO WILL JOIN?

DEAR GIRLS AND BOYS: Not long ago Uncle True published ten questions for you to answer and offered two prizes for the two best answers. The readiness with which you responded to this proposal shows that you are wide-awake, and encourages me to make you an offer also. It is not to answer any questions, to solve any problems, or to perform any great feat of any kind. I simply propose that all of you who are fond of gardening and love flowers unite with me to form a Horticultural Club.

Many of you, I doubt not, have already little gardens all your own in which you raise such vegetables and flowers as you are especially fond of. I well remember the little garden I had when I was a small boy. It was a small plat of rich land, only about two rods square, in a corner of the large garden. This I fenced in with a hedge of currant bushes, and in it I cultivated strawberries, raspberries, peas, carrots and a number of my favorite flowers, and even grafted and budded fruit trees. I found it a very healthy and pleasant occupation, and acquired, in the cultivation of this garden, a love for flowers and horticulture generally that has never since left me, but which has, on the contrary, constantly grown stronger as the years have passed.

I venture to say that you will find gardening as pleasant as I did, and I shall be glad to assist you, by answering through the RURAL, all reasonable questions you may ask concerning the management of your gardens.

The season is already far advanced, and all who wish to unite with me to form such a club must make preparations at once. Secure a piece of ground, but only a small piece, if too large you will find it hard work to keep it clean. Secure seeds of the plants you wish to grow, and send in your names to me that I may know who belong to the club. But I desire to learn how much you know about gardening already. I therefore offer four prizes for the four best essays on horticulture, or any branch of it, that I may receive from the cousins before April 9th, 1879. The prizes to consist of choice flower seeds of our own selection.

1st prize	.....	30 varieties.
2d "	.....	25 "
3d "	.....	20 "
4th "	.....	15 "

It is not necessary to write an essay in order to to join the club. All can join the club, but those who desire to compete for the seeds must write essays. Now let me hear from you.

UNCLE MARK.

JOHNNY'S TROUBLE.

MAY MAPLE.

"WHAT troubles you, Johnny?" said a lady to a little ten-years-old boy, who stood in the doorway, with a swelling throat and tear-stained face, trying hard to keep back the tears that would steal from under the long, dark lashes, and to choke down the sobs that would betray the rising grief, he replied: "They don't care one bit for me."

"Who does not 'care one bit' for the little boy?"

"Pa and ma don't."

"Why, yes, they do, child," said the lady, at the same time stroking down the glossy rings of hair on the boy's head. "If they did not care for you and love you more than words can tell they would not get you so many nice clothes to wear and such a variety of pretty toys to amuse you and good books to instruct you. Be sure, my dear boy, they do love you ever and ever so much."

"Well, they don't ever act as if 'm did. They don't say they love me, and they're al'ays tellin' me I'm the worst boy they ever see, and I don't think they'd care if 'm didn't have any little boy."

"Oh, Johnny! you must not feel like that. You know papa and mamma would both be very, very sorry if anything should happen to their little boy. Don't you know how hard they are working to make a nice home for you when you are grown to be a man? When their boy is careless and naughty they feel out of patience with him; and then they think he does not do as well as he might, just as you feel toward Tip when he does not mind and do as you want him to."

"But Tip is a dog, and don't care if I do scold him; does he?"

"Yes. Tip cares and feels as badly to be scolded as you do. Haven't you noticed how he always droops his ears and hangs his head when you speak sharp to him? and how happy he seems when you tell him he's a good dog and you like him?"

"Yes; and I'll go now and find him, and tell him that I love him 'cause I was cross to him when ma scolded me just now for gettin' my clothes so dirty. I wish pa and ma ever had time to tell me that they loved me, I guess I wouldn't always be doing' somethin' they didn't want done."

Ah! how many little hearts are aching to hear those sweet words, "Mamma loves you," or "Papa loves his boy." Every day the little sentence may be repeated or demonstrated by a gentle caress, and it will never become old; never distasteful, even though the child counts the years of twenty, thirty, forty, even to three score and ten. The musical cadence of these words, "I love you," will ever be sweet to the listening ear."

Many parents seem to think it makes the little five-years-old boy unmanly to be petted; for him to sit upon lap is almost a disgrace; indeed many a child is ridiculed till its little cheeks burn with shame because he shows an inclination to be caressed by the mother he has been heretofore taught to feel was all the world to him. He is early turned off to be "Pa's man." Alas! for the little fellow, "Pa" is never demonstrative, and when Johnny comes hanging around his chair, hoping he may feel a loving arm about him and a kiss upon his cheek, in nine cases out of ten he is told to "sit down somewhere out of the way."

What wonder is it that so many children learn to feel that nobody cares for them, and thus become reckless of their actions for the present or future. How many of those who now fill our prisons might trace their unfortunate career to their childhood, when for the want of love demonstrated in words and caresses, they learned to be selfish and careless of others' weal or woe.

It is all wrong to let a child feel that he is ever too old to be loved and petted. It is *love* that keeps the heart warm for holy resolves and noble actions. One who feels and knows that he is beloved will have courage to face the world, even though his garments are threadbare and the larder empty. He is sure the sun shines for him as well as the rest of mankind.

On the other hand, one who never hears, or is never made to *feel* that he is inexpressibly dear to the family circle lives under a cloud, though he may ride in a chariot and be robed in "purple and fine linen."

Then don't be afraid or ashamed to say, either in word or act, to the son or daughter, "I love you."

SHADOW PICTURES.

SOME very amusing pictures may be formed of the shadows thrown on a wall or screen by letting a light shine through holes cut in a piece of

paper, and if these holes are skillfully cut the features and expression of a face may be closely imitated. You can easily see whom the accompanying picture represents, and if you draw it on tracing paper and then cut out all that is black, you can make a shadow picture of it.

My little relatives, don't you think it would be nice to make such pictures yourselves? If you try hard and practice much you will soon be able to make some very nice ones of persons and all kinds of animals. UNCLE MARK.

THE DUKE'S STRATAGEM.

THERE was once a German Duke who disguised himself, and during the night placed a large stone in the middle of the road near his palace.

Next morning a sturdy peasant, named Hans, came that way with his lumbering ox-cart.

"O, these lazy people!" said he, "there is this big stone in the middle of the road, and no one will take the trouble to put it out of the way." And so Hans went on his way, scolding about the laziness of the people.

Next came a gay soldier along. His head was held so far back that he didn't see the stone, so he stumbled over it. He began to storm at the country people, and call them "boors and blockheads for leaving a huge rock in the road for a gentleman to fall over." Then he went on.

Next came a company of merchants with packhorses and goods, on their way to the fair, to be held at the village near the Duke's palace. When they came to the stone the road was so narrow that they had to go off in a single file on either side. One of them cried out, "Did any one ever see the like of that big stone lying here all the morning, and no one stopping to take it away?"

It lay there for three weeks, then the Duke sent word to all the people on his lands to meet near where this stone lay, as he had something to tell them.

The day came, and a great crowd gathered at the Dornthou. Each side of the cut was thronged with people overlooking the road. Old Hans, the farmer, was there, and so was Berthold, the merchant.

And now a winding horn was heard, and the people all strained their necks and eyes toward the castle, as a splendid cavalcade came galloping up to the Dornthou.

The Duke rode into the cut, got down from his horse, and with a pleasant smile began to speak to the people thus:

"My friends, it was I who put this stone here three weeks ago. Every passer-by has left it where it was, and scolded his neighbor for not taking it out of the way."

When he had spoke these words he stooped down and lifted up the stone. Directly underneath it lay a small leather bag. The Duke held it up that all the people might see. On a piece of paper, fastened to the bag, were these words, "For him who lifts up the stone." He untied the bag, and out fell a gold ring and twenty large gold coins.

Then every body wished that he had moved the stone, instead of going round it and only blaming his neighbors. They all lost the prize because they had not formed the habit of helpfulness.—*Christian Advocate.*

HOW TO PLAY "GO TO ALBANY."

THE players sit in a row, and the first says: "I am going on a journey to Albany," or any place beginning with an A. The one seated next to her says: "What shall you do there?" The verbs and nouns in the answer must begin with the same letter, so on through the alphabet. The one who asks the question, "what will you do there," continuing the game. But as an example is better than any directions, we will relate to you how a party of children played it:

Ellen—I am going on a journey to Albany.
Louisa—What shall you do there?
Ellen—Ask for apples and apricots.
Louisa—(To her next neighbor.) I am going to Boston.
Frank—What will you do there?
Louisa—Buy bonnets and buns.
Frank—I am going to college.
Susan—What will you do there?
Frank—Cut capers.
Susan—I am going to Dover.
Sarah—What will you do there?
Susan—Dress dolls.
Sarah—I am going to Erie.
Russel—What will you do there?
Sarah—Eat eggs.
Russel—I am going to Fairhaven.
Grace—What will you do there?
Russel—Feed fawns with frogs.
Grace—I am going to Greenbush.
Howard—What will you do there?
Grace—Give gold to girls.
Howard—I am going to Hanover.
Sarah—What will you do there?
Howard—Hunt with hounds and horses.

The party goes through the alphabet in the above manner. Whoever cannot answer readily, after due time is allowed, must suffer a penalty.—[*Pacific Rural Press*

The Puzzler.

BEHEAD AND CURTAIL.

1. BEHEAD and curtail keen, and find to sever with a knife.
2. To desire, and find a verb.
3. A vagrant, and find a male animal
4. Betrothal, and find to decay.
5. To long for, and find a human organ
6. To journey, and find to talk wildly
7. A race, and find part of the human body.
8. A slattern, and find a dog's name.
9. The winning card, and find a drink.
10. Veracity, and find a wagon wheel track.
11. A sharp, ringing sound, and find pale and thin.
12. A traveling chest, and find to scamper.
13. Worthy, and find a metal crust.
14. Worthless, and find an eruption.
15. To gabble, and find an animal.
16. A metal, and find a preposition.
17. Of old, and find a conjunction.
18. A lad, and find not in.
19. A couple, and find two words meaning all right.
20. The stomach of a cow, and find to undo.
21. To suffocate by water, and find a quarrel.
22. The world, and find genius.
23. Dry weather, and find to put to flight.
24. An outbuilding, and find a pronoun.
25. To vilify, and find wickedness.

☞ Answer in two weeks. LITTLE ONE.

CROSS-WORD ENIGMA.

My first is in china-aster but not in cactus,
My second is in carnation but not in arbutus;
My third is in belladonna but not in dahlia,
My fourth is in heliotrope but not in fuchsia;
My fifth is in candy-tuft but not in jessamine,
My sixth is in rosemary but not in columbine;
My seventh is in laburnum but not in ladyslipper,
My eighth is in narcissus but not in oleander;
My ninth is in pink but not in amaranth,
My tenth is in golden-rod but not in tragacanth;
My eleventh is in coriander but not in japonica.
My whole is a fragrant flower.

☞ Answer in two weeks. MD.

TRIPLE ACROSTIC.

1. PRESAGED. 2. A month and a vowel. 3. Walking in sleep. 4. Touching. 5. Root of a word. 6. A town on the Hudson (curtailed of the last two letters). Primals, centrals and finals form three Irish bays.

☞ Answer in two weeks. BALTO.

MAGIC SQUARE.

ARRANGE the nine digits in the form of a quadrangle, so that any three figures, added vertically, diagonally or horizontally, will make fifteen.

☞ Answer in two weeks. MERMAID.

PUZZLER ANSWERS.—March 8.

SYNCOPATIONS.—1, Ghat, Gat; 2, Noon, Non; 3, Tuat, Tat; 4, Black, Back; 5, Sena, Sea; 6, Yeou, You; 7, Djoor, Door; 8, Flat, Fat; 9, Palte, Pate; 10, Meuse, Muse; 11, Lech, Leh; 12, Inn, In; 13, Drin, Din; 14, Tarn, Tan; 15, Toro, Too; 16, Jaen, Jan; 17, Nao, No; 18, Palos, Pals; 19, Swale, Sale; 20, Suir, Sir; 21, Herm, Hem; 22, Spey, Spy; 23, Iona, Ina; 24, Sanda, Sana; 25, Doon, Don.

Sabbath Reading.

THE FOUR CALLS.

THE Spirit came in childhood,
And pleaded, "Let me in;"
But ah! the door was bolted,
By thoughtlessness in sin.
The child said, "I'm too young yet;
There's time enough; to-day
I cannot open." Sadly
The Spirit went his way!

Again he came, and pleaded,
In youth's bright, happy hour.
He called, but heard no answer;
For, lured by Satan's power,
The youth lay dreaming idly,
And saying, "Not to-day:
Not till I've tried earth's pleasures."
Again he turned away!

Again he came in mercy,
In manhood's vigorous prime;
But still he found no welcome;
The merchant "had no time."
No time for true repentance;
No time to think and pray;
And so, repulsed and saddened,
The Spirit turned away!

Once more he called and waited·
The man was old and ill;
He scarcely heard the whisper;
His heart was cold and chill.
"Go; leave me; when I need thee,
I'll call for thee," he cried;
Then sinking on his pillow,
Without a hope he died!

[*National Baptist.*

DR. Thomas of Chicago, gives his ideas of the Sunday question in his usual frank fashion:—

One of the unsettled questions of our American society is the manner in which the public should be expected and required to observe the Sabbath day. The guiding principle in this, as indeed in nearly all questions, is, that the Sabbath is the servant of man, and not man the servant of the Sabbath; that is, the Sabbath was made for man, and not man for the Sabbath. It is not a great something that man should bow down and worship, or that comes to enslave man; but an appointment, a provision for his good. And acting upon this general principle, our modern society has moved away from the severer ideas of our earlier history. We no longer make the Sabbath a day of gloom, of closed windows and solemn aspect; but rather a day of happiness in the home, and joy in the house of God. We have adapted our ideas of labor and rest on that day to what seems upon the whole to be the least labor and the most rest for all, in permitting the use of street cars. In all things, we should study the whole nature and wants of man, and seek the greatest good of all. One use of the Sabbath is rest. All needful public labor should as far as possible conform to this idea, and be so lightened as to permit all to enjoy a degree of that rest. As an example, our street cars should be run fewer hours than on week days; and the public should conform to this. The company has no more right to run the cars on Sunday, simply to make money, than a merchant has to keep open his store. And so of all necessary public work. Then, we should consider that man has a nature suited to, and needing the influences of Divine worship and sacred associations. And when the law of congruity, or of fitness, is studied, it will appear that this appeals to a part of his nature, different from the light and the simply amusing. Man needs amusement as well as study or worship, but it does not seem that the Sabbath is the proper day for such a purpose. Especially does it not seem proper to make the Sabbath a day for public amusement. And this seems the tendency in our midst just now.

WAYSIDE SHRINES IN THE TYROL.

SCATTERED along the road at very frequent intervals are the shrines and stations and crucifixes with which this whole land is disfigured. To the South German mind the tears of the Virgin and the cruel bodily sufferings on the cross seem to be the only effective emblems of Christianity. Generally absurd, and often painful, and always coarse, these tokens are too frequent to excite reverence, and can have little other effect than to maintain the routine of the formal observances of the Church. The Madonna wears hoops of enormous dimensions; she frequently weeps behind a painted handkerchief; and in one instance, where she was of wood and of life size, she held the freshironed linen with painted border of our own time. So little does the real character of the crucifixion impress itself upon the popular mind, that it is by no means uncommon for the bleeding side of the wooden Christ to be decked with flowers and ribbons on festival days. In one case a bunch of cattails was stuck between the knees. It is perhaps well for the tourist that these shrines occur so frequently, for their shock is weakened by familiarity, and one soon comes to pay little heed to them.—*Harper's Magazine.*

We should feel that the religion of the Bible stands alone, not only as to the wisdom and grandeur of her communications, but equally so as to the boldness of her evidences, the sublimity of her credentials and the god-like dignity with which she cometh to the light, that her deeds "may be manifest that they are wrought in God."—*M'Ilvaine.*

LIKE as a father pitieth his children, so the Lord pitieth them that fear Him. God is love; that is, He is the very impersonation of love itself. Wherever His nature extends, there is love; love in its essence; love in its fullness. His love is commensurate with Himself. All His affections are as infinite as He is.

PERSONAL ITEMS.

Jeff Davis's health has improved. He has bought "Beauvoir" a handsome residence near Mississppi City, Miss.

There is a natural and confident expectation that Gen F. A. Walker, who superintended the census of 1870, will be called to do the same work in 1880.

Queen Victoria, who in April, takes a trip of a month on the Continent, it is rumored, has expressed a strong wish to see Canada, and the Prince of Wales is encouraging her to visit both that country and the United States.

Dr. McCosh of Princeton college is a good debt raiser. During his administration $2,500,000 have been given to that institution, and now the last $120,000 of its debt are lifted by friends who wisely stipulate that the college mustn't hereafter live beyond its income.

The heaviest verdict for personal damages ever secured against a railroad is probably that for $39,501, which Dr. Charles W. Hackett, of Maplewood, Mass, a rising young physician, has been awarded against the Eastern railroad for having destroyed his health and so cut off his income for life, by an accident.

Mr. Gladstone, although he has passed his sixty-ninth birthday, wields the axe with great force, and is more than a match, as a walker, for active and alert men twenty years younger than he. Gout and rheumatism have no terrors for this busy man, and one of his most intimate friends used to say that "wonderful as is his mind, it is nothing to his body."

Real Estate.

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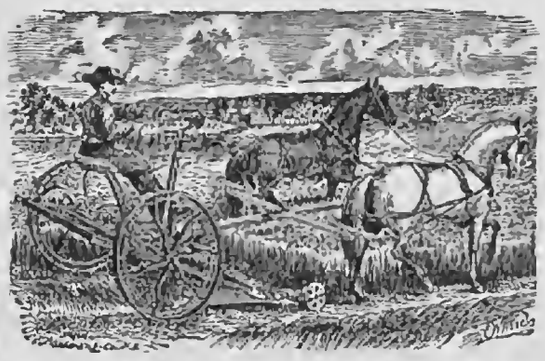

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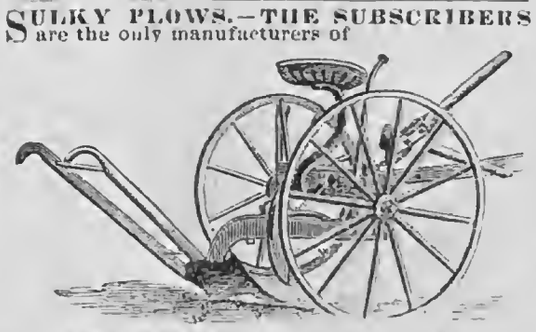

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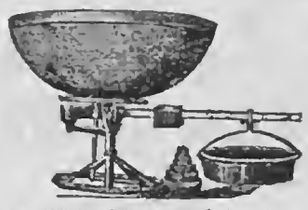

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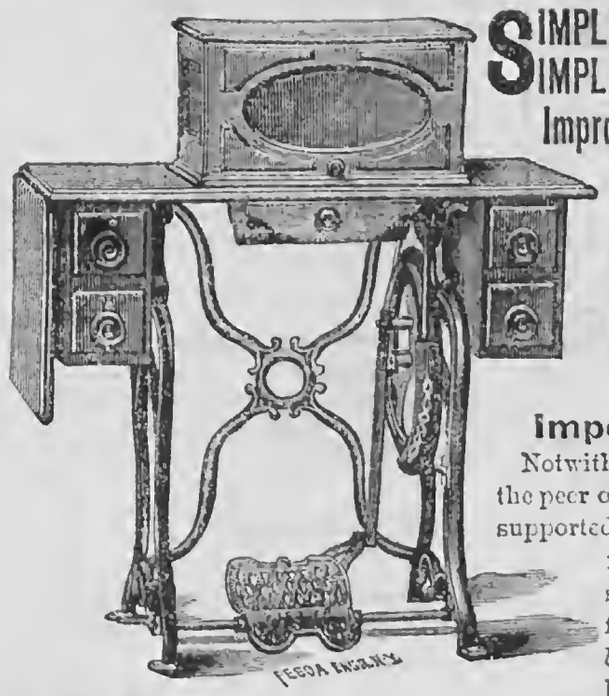

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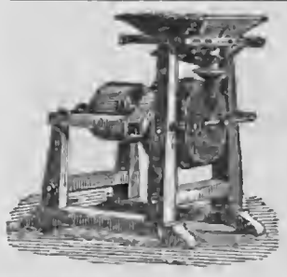

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The Standard of America. Admitted by leading Seedsmen and Market Gardeners everywhere to be the most perfect and reliable Drill in use. Send for Circular. Manufactured only by EVERETT & SMALL, Boston, Mass.

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WE ADVISE YOU TO INSURE YOUR property in the AGRICULTURAL INSURANCE CO. Of Watertown, N. Y., The largest Company in the country which insures only farmers' property and residences. Over twenty-six years old.

Capital $200,000 00
Net Surplus, over $216,000 00
Assets, Jan. 1, 1879.. $1,098,623 24

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My foreman, who has been with me for the past 2 years and 8 months, wishes a situation as Gardener. He is a first-class and life-long experienced gardener; a keen, go-ahead man, trustworthy and highly respectable; Scotch, married, no family. I confidently recommend him. Address ALEX. WATT, care of me—WILLIAM FALCONER, Botanic Garden, Cambridge, Mass.

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THE CHEAPEST and BEST FERTILIZER in the World, because it is pure bone (nothing else) ground in its natural state, retaining those elements that will surely restore exhausted land. Just the article for Wheat, Grain and Grass farms, Gardens, Conservatories, Hothouses, and Household Plants. Once using fully demonstrates its value. Sold in any quantity. Circulars free. Address Excelsior Fertilizing Co., SALEM, OHIO.

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Originated by Levi Stockbridge, Professor of Agriculture in the Massachusetts Agricultural College. They have been extensively used for six years. Send for a little book describing them and giving directions for cultivating farm and garden crops. Every farmer, gardener or cultivator of a kitchen garden should send for a copy *mailed free.* BOWKER FERTILIZER COMPANY, 43 Chatham St., Boston; 3 Park Place, New York; and 21 North Water St., Rochester, N. Y.

STRANGE RESEMBLANCES.

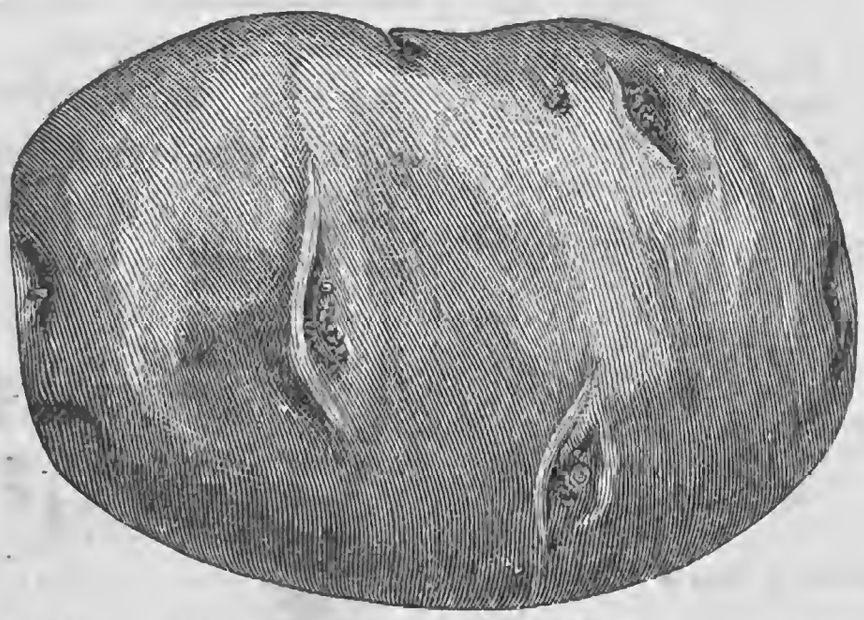
No. 5.

No. 6.

THORBURN'S NEW POTATO,

"The Beauty of Hebron."

A WEEK AHEAD OF THE EARLY ROSE.

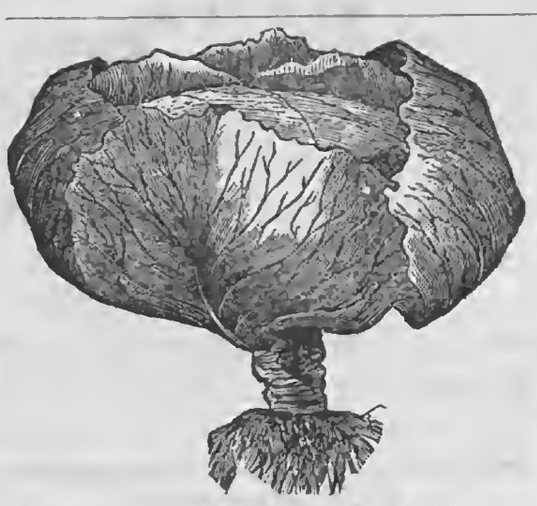


WITHSTANDS THE RAVAGES OF THE POTATO BUG BETTER THAN OTHERS.

The following among its many good qualities commend it for trial:
The plants appear above ground very shortly after planting, and from that time continue to grow with great rapidity, outstripping all other varieties in strength of growth and luxuriance of foliage. The tubers, shaped like those of the "Early Rose," are very smooth, slightly tinged with pink around the eyes, but attain a pure white color during the winter. Their yield is really enormous. The tubers lying closely together in the hills, the labor of digging them is but slight. For culinary purposes, its mealy qualities and richness and delicacy of flavor give it a precedence before all other varieties. Contrary to what is usually the case in all large specimens of potatoes, the BEAUTY OF HEBRON almost invariably proves *sound and solid to the core.*
The RURAL NEW-YORKER has tested and commended it. See issue, Nov. 9, 1878.

Price in New York, per barrel	$8 00	Or by mail, post-paid:	
" " " " " bushel	4 00	1 pound for	$0 50
" " " " " ½ bushel	2 25	3 " "	1 00
" " " " " ¼ bushel	1 25	5 " "	1 50
" " " " " ½ peck	75		

J. M. THORBURN & CO.,
15 John St., New York.



Marblehead Mammoth Cabbage.

There being a good deal of seed in the market raised from very poor stock, which must fail to give satisfaction, having been the original introducer of the Giant Cabbage, which when raised from the right strain of seed under proper cultivation, has been grown to weigh *over 40 pounds* to a single plant, and sixty tons to the acre, I now offer to the public, seed that has been raised by myself, with peculiar care, all of it *from extra large, extra solid heads.* The Marblehead Mammoth is not only the largest, but is one of the most crisp and sweetest of all varieties of the cabbage family, as will be seen by extracts of letters to be found in my Seed Catalogue, where my customers state that they have raised cabbages from my seed that have weighed 40, 45 and 50 pounds each. Full instructions for cultivation sent with every parcel of seed. Seed per pound, $5.00; per ounce, 50 cts.; per half ounce, 25 cts. My large Seed Catalogue sent *free* to all applicants.
JAMES J. H. GREGORY, Marblehead, Mass.

NEW EARLY FIELD CORN

Queen of the Prairie.

A variety of Yellow Dent Corn which originated in one of our Western States, and has been carefully selected by the growers for several years, and has proved one of the earliest varieties of Field Corn in cultivation. It was planted, the last season, after the wheat crop had been harvested, and matured the crop perfectly. It was also planted on Long Island, July 4th, and fully matured the first of October.
Selected ears, 25 cts.; 3 lbs., by mail, post-paid, $1; shelled, $1.50 peck; $4 per bushel.
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Manufacture this Plow of the *best Car Wheel Iron*; also of *Patent Hard Metal.* The handles vibrating from one side to the other as the plow is turned at the end of the furrow, enables the plowman to walk squarely behind the plow—a feature not possessed by any other Side-Hill Plow. It does as good work as any Land-Side Plow. For further particulars and prices, send for our new *Illustrated Catalogue.* Address

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State you saw this in the RURAL NEW-YORKER.

TEAS. AHEAD ALL THE TIME. The very best fresh goods direct from the *importers* at *half* the usual cost. Best plan to Club Agents and large buyers. All express charges paid. Quality guaranteed. New terms free.
THE GREAT AMERICAN TEA CO.
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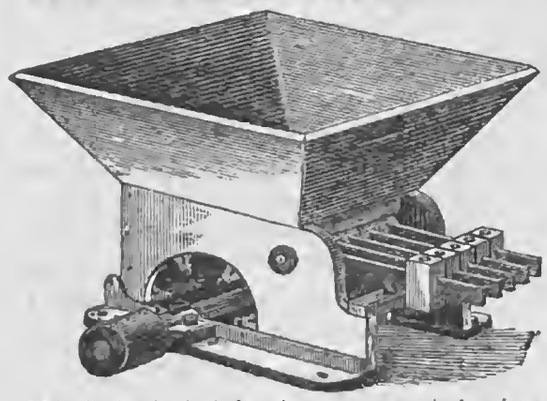
APPLE GRATER.



This Grater is first-class in every respect; has iron cylinder, iron frame, steel knives, adjustable concaves, and is not surpassed for quantity or quality of work. **Price Reduced to $40.**
For Catalogue of Cider Machinery and other information valuable to cider makers, address
BOOMER & BOSCHERT PRESS CO.,
Syracuse, N. Y.

THIRTY-THIRD ANNUAL STATEMENT

OF THE

CONNECTICUT MUTUAL LIFE INSURANCE COMPANY,

OF HARTFORD, CONN.

NET ASSETS, January 1, 1878		$45,072,083 57
RECEIVED IN 1878:		
For Premiums	$6,249,133 84	
For Interest and Rent	3,141,499 50	
Balance Profit and Loss	29,861 06	
		9,420,424 40
		$54,492,507 97

DISBURSED IN 1878.

TO POLICY-HOLDERS:		
For claims by death and matured endowments	$3,407,593 28	
Surplus returned to Policy-holders	2,346,137 71	
Lapsed and Surrendered Policies	1,559,037 10	
		$7,312,768 09
EXPENSES:		
Commission to Agents	$347,033 18	
Salaries of Officers, Clerks, and all others employed on salary	88,712 24	
Medical Examiners' Fees	11,908 36	
Printing, Stationery, Advertising, Postage, Exchange, etc.	170,651 56	
		618,905 34
TAXES		335,652 10
		8,267,325 53
BALANCE NET ASSETS, DEC. 31, 1878		$46,225,182 44

SCHEDULE OF ASSETS.

Loans upon Real Estate, first lien	$26,383,983 26
Loans upon Stocks and Bonds	30,453 28
Premium Notes on policies in force	4,720,535 17
Cost of Real Estate owned by the Company	7,515,066 18
Cost of United States Registered Bonds	2,963,764 39
Cost of State Bonds	723,400 00
Cost of City Bonds	1,988,720 00
Cost of other Bonds	500,000 00
Cost of Bank Stock	76,205 00
Cost of Railroad Stock	26,000 00
Cash in Bank at interest	1,231,548 86
Cash in Company's office	6,119 85
Balance due from Agents, secured	54,209 85
Bills Receivable	5,176 57
	$46,225,182 44
ADD:	
Interest accrued and due	$1,571,805 46
Rents accrued	16,541 29
Market value of stocks and bonds over cost	147,6[illegible] 11
Net premiums in course of collection....NONE	
Net deferred quarterly and semi-annual premiums	37[illegible] 4
	$1,953,945 90
GROSS ASSETS, December 31, 1878	$48,179,128 34
LIABILITIES:	
Amount required to reinsure all outstanding policies, net, assuming 4 per cent. interest	$43,131,708 00
All other liabilities	1,643,343 59
	44,775,051 59
SURPLUS, December 31, 1878	$3,404,076 75

Ratio of expense of management to receipts in 1878	6.57 per cent
Policies in force, Dec. 31, 1878, 64,979, insuring	$170,319,164

JACOB L. GREENE, President.
JOHN M. TAYLOR, Secretary.
D. H. WELLS, Ass't Secretary.
PHILIP S. MILLER,
General Agent for N. Y. City, Long Island and New Jersey,
194 Broadway, New York.

THE RURAL NEW-YORKER

A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME

VOL. XXXVIII. No. 13.
WHOLE No. 1522.

NEW YORK CITY, MARCH 29, 1879.

PRICE FIVE CENTS.
$2.00 PER YEAR.

[Entered according to Act of Congress, in the year 1879, by the Rural Publishing Company, in the office of the Librarian of Congress at Washington.]

Industrial Topics.

MAPLE-SUGAR MAKING.

W. I. CHAMBERLIN.

It is interesting to trace an industry to its inception and through its early stages, and the industry which gives us our present subject is no exception to this rule. The history of the most delicious sweet produced by nature and human skill combined, will lead us through as many periods or stages as geology and archæology declare the human race has passed through in the slow lapse of ages, though the length of the former differed considerably from that of the latter.

Our Pilgrim Fathers found the Indians acquainted with the value of this sweet. Their tomahawks scarred the trees, rude devices for spouts conducted the sap into rude stone vessels, and it was boiled in vessels of stone, or of copper hammered cold from metal brought at some time from the Lake Superior region, or dug, already formed, from the tombs of the Mound Builders. This may be called the "Stone Age."

My own dim, childish recollections are of the second, or "Bronze Age," of the industry, and were gained during a year's sojourn in a village "away off in Michigan," near which in spring time camped a small tribe, or part of a tribe, of friendly Indians, who made sugar as pictured in our engraving, sold it to us urchins, and with our coppers bought whisky and tobacco. In its manufacture they showed their belief in the doctrine of women's rights to cut and bring the wood, gather and boil the sap, and tend the ba—papooses, while they (the lords and masters) lounged close at hand in placid contentment and smoked the pipe of peace and laziness. The squaws took it most philosophically, too. Their housekeeping was not disturbed by their sugar-making. They had no parlors to sweep and dust, no silver to polish, and no dresses or gowns to make, tucked and plaited and puffed and frilled and fringed and bordered with lace. And as for their dinner arrangements, these were in no wise disturbed. Coons, squirrels and vegetables were boiled in the sap with little loss of time, and the squaws stood by and stirred the mess with a long stick, a growing appetite and a contented spirit! Even our childish tastes used dimly to discern in the sugar a flavor of turnips and coon-oil, and when a visit to the camp revealed the *modus operandi*, our tastes revolted. But soon the all-devouring appetite of childhood conquered these foolish æsthetic prejudices, and we picked the squirrel hair from our teeth and swallowed the sweetness with our former boundless relish.

Dim visions of the memory or fancy picture a raid upon the sugar camp, as already intimated. It was reasonable to suppose that with the hoarded spending-money of a month, and with a few "big brothers" for protection, we could, by visiting the camp, buy at wholesale rates and save cost of transportation besides. If we displayed our combined treasures before their gaze and said in dialect used in every Indian tale from Cooper down, "Much money, much sugar, much cheap," how could the high-minded, generous savages fail to respond?—It did not prove a financial success! We had not dreamed the noble savages would get up a "corner in sugar" with the shrewdness of a Chicago wheat-broker or a Wall street "bull" or "bear." We had not dreamed they would lovingly take our treasures from our hands and say, "Pale-faced pappoose very rich. Big Injun much poor. Big Injun keep much money; bring white pappoose much sugar *by-and-by*." We had not dreamed we should "accept the situation," and depart "sadder and wiser men!"

The third or "Iron Age" of the industry—if we may still keep up the metaphor—was not much in advance of that last noticed. The early settlers worked in a rude way; long elder "spiles" conveyed the sap to "dug-outs" or sap troughs. These were made from soft wood, usually bass-wood. A tree a foot or more in diameter was cut in o lengths of three feet each, split in two and the halves dug out with ax and adze, so as to hold a pailful or so; or rude wooden buckets were made, like those shown in Fig. 2. The mode of boiling was some improvement, too, on the Indian mode. Three huge iron kettles were swung by long sweeps (see engraving) over a fire-place made by hauling and rolling near together two huge logs. Wood was thrust in from every direction and the fire lighted, and the draft from either or both ends made the blaze roll around the kettles and the sap in them toss and foam. Sticks and leaves and ashes and fire-brands and smoke had free access to the sap and helped to flavor the sugar and give it the real "maple-sugar color"—as black as the faces of the Indians who were its original manufacturers. As the sirup got thick enough to be in danger of boiling over, a chunk of pork suspended from above, kept it down pretty well, but sometimes the man would have to rush to the end of the sweep and lift the kettle from the flames and swing it aside for a moment to save its contents. A shanty over these huge sweeps was out of the question, and when the rain poured the man must stand and take it, or run occasionally for a moment into his cubby-hole of a shed (see Fig. 2) and wish he could stay there all the time. For twenty years of my infancy, childhood and youth, our nearest neighbor boiled with such an apparatus, and the whole scene was so often and so vividly impressed upon my mind that I am sure it is correctly pictured in Fig 2.

In the next stage of our industry a rude arch of brick or unhewn stone was built (see Fig 3, last issue), half dozen large iron kettles were "set" in it down nearly even with their rims, and the sap was boiled with large wood, running nearly to the back end of the arch. A simple roof supported by four posts, was sometimes built over the kettles and the part where the man stood to put in wood. The arch and kettles and shed worked so well that many retained their use until quite recently.

The next improvement was to substitute broad, flat sheet-iron pans in the place of these iron kettles. Many at first doubted whether these pans, which in the beginning were made with wooden sides, were an improvement. More than 30 years ago my father had one made, having got the idea, I think, from a Vermont hired man. It was the first of the kind, I believe, in the State, and many people came to see "the thing work." Most of them went away laughing at the idea of "boiling in a wooden trough." They "believed the kettles would beat the thing anyway." The sap didn't "roll and tumble as it did in the kettles," &c., &c. And it was many years before the pans came into general use. Nor was it until recently that it became common to take advantage of a slope or side-hill so as to save rolling up the barrels of sap on skids and dipping from the store-trough into the kettles or boiling pans. These and many similar im-

INDIANS MAKING MAPLE SUGAR.—Fig. 1.

provements, in utensils and methods bring us down to the improved methods and appliances of the present as described here last week.

EDUCATION AND KNOWLEDGE: HINTS TO TEACHERS.

PROFESSOR W. J. BEAL.

At the close of my last, I spoke of wasting time on Arithmetic. Later in life, a few weeks will enable the pupil to easily understand what he spent so much time over when a little boy.

The observing powers should be early cultivated. This will be valuable in all departments of business and all conditions of life. Observation can well be cultivated in connection with writing descriptions of objects, such as any piece of furniture, a plant, flower, fruit, or animal. These lessons will almost always interest those who are usually classed as "dull." We need more observers.

Drawing is valuable to use in connection with the study of objects, as it will tend to improve the observation. Some knowledge of Geography and History will be desirable, and some lessons on Physiology.

These are subjects for children to study in the common school. I should try to obtain a good teacher who knows how to teach these things well, but if he has not had the proper training in Natural History or in drawing, I should not urge him to devote much attention to them. I should rather allow him to put the most time on what he liked best, for those things he would teach the best. There are but few who know how to interest young children in botany and zoology or in drawing.

In all school-training the teacher must not lose sight of the discipline which every pupil should acquire.

We should educate as well as impart knowledge; train as well as stuff the mind. Knowledge is useful, but there is so much known at present that it is utterly useless to attempt to teach all that is known, even in any one department. Education is power; it is more powerful than knowledge. I believe it is much more important, while I am with my students for a few weeks, to teach them how to investigate any subject by themselves, than to spend the same time in imparting the knowledge without giving them the power to investigate. In botany, instead of showing them the plants and telling all about their names, their uses, their structure (which would be mere knowledge which they could learn by themselves, if they knew how)—instead of this, I put them in a way, with some selected exercises, to acquire this or any similar information, whenever they may desire it. This education is too often confused with theory by those who have not given the subject careful attention. Nothing is more practical than true education. The good teacher will stimulate a desire for knowledge and instruct his students how to acquire it. I have recently heard of a girl of sixteen who had received no training, except that in the district school. She had committed two grammars to memory, including most of the fine print and notes. What a pity! It is well to train the memory, but too bad to fill the mind with anything except the most valuable information. With proper training, what achievements this bright girl could have made, in outlines of history, botany, zoology, geography, and something in several other departments of knowledge. One of the most interesting and suggestive works I ever read on education was that by Herbert Spencer, published by D. Appleton & Co., and costing, perhaps, $1.50.

To maintain good order is one of the most important and difficult points in teaching school. Some persons can never acquire the faculty. To aid in keeping order, be particular, even in little things, as to where each pupil shall sit, in the way he shall come and go from class. Begin at once, on the first minute of the first hour of the first day. No time must be lost before beginning. As it is easiest to check a horse at the top of a steep hill and make him go slowly all the way down, so it is easiest to maintain order by beginning at once on the opening of school. The teacher must be quiet and never bluster, speak plainly and distinctly, using only just the words to express the exact meaning.

Always prepare a programme for the exercise of the day, and adhere to this, with, perhaps, now and then a change. Have a time for every thing. To aid in this programme, obtain a scheme of some good graded school. Always be on time for everything. This is one of the most marked defects of the people in the country. To aid in keeping good order, strive to get the pupils interested. To get them interested, manage every honorable way to get them out promptly every day. To aid in this, use a series of tickets, which I need hardly explain. Have what we will call, an *Honorary Roll*. We may use a part of the blackboard for this purpose.

The Honorary Roll should include, each week, the name of every student who was not tardy or absent during the previous week. He should also have had all his lessons reasonably well. At the close of the term, a summary of this roll should be conspicuously posted in the room where it may be surrounded with a wreath of leaves, evergreens or flowers, and allowed to remain till the opening of the next term.

The successful teacher must have unbounded resources and patience to get along well in a district school. He should be cheerful, not silly, and never lose his temper. He must be able to readily devise plans, which may be novel, for the punishment of an offender. He must not be outwitted by his pupils. Try on the start to impress all the pupils that you want to do them good, and then carry out the design. Get interested in their plans and business. Have some general exercise every day. Always have singing or some concert recitations once or twice a day. Give them little talks on physiology, geography, government history etc.

Get up a museum. Your pupils will aid in procuring some shelves. They will bring in all sorts of fossils, minerals, Indian relics, and trinkets of interest. Some of these may be valuable and only borrowed for awhile. The teacher can tell the pupils about them at certain times. This is one of the best ways to interest dull pupils. There is no one so dull that he cannot find some interesting object to bring to school. He may know something about it. Give each a chance to tell about the specimens.

Agricultural College, Lansing, Mich.

Field Crops.

SPRING WHEAT.

A. M. VAN AUKEN.

Advantages of It.

Many people come here filled with the idea that we of this region grow spring wheat through laziness, and they make up their minds that they will soon show us that it is just as easy to grow winter wheat, and have good flour and good bread; though, if the truth be told, the folks here seem to have very good bread from the spring wheat flour. Well, one of these new-comers gets his wheat, prepares his land, and sows it. The result is discouraging—the yield is small, for all his fine growth of straw. He gets it ground; for he consoles himself that there is enough for his own bread, at any rate. The miller smiles a little at it, but comforts our farmer with the remark that it is a very poor wheat year. The first baking draws tears from his wife: "What ails the bread?" The next batch is no better. He pockets his pride and asks his neighbor what is the matter. With a hoarse laugh, which is most mortifying, the neighbor says: "Well, I thort you'd get enuff of that winter wheat; you see it ain't fit fur this kuntry, and we quit raisin' it long ago." A native who "happens" along, chimes in with, "Yes, it don't was much use to try winter wheat now. When my granfadder was just got his farm clear up, he raise just so good winter wheat as ever was; but now our woods is all chop off, it is no good."

There is much truth in this last remark; for from thirty to one hundred miles further north, the winter wheat is good; but as fast as forests are cleared away, the winter wheat begins to fail. Many who come from the East imagine that our spring wheat is poor stuff and makes indifferent flour. This is a mistake. Let me illustrate: Four years ago we had an excellent crop of wheat of a variety called Minnesota White Spring. It was a good, plump, fairly white wheat. At the mill to which I took our grist, the miller was recently from Rochester N. Y. and was an excellent miller. While waiting for the grist, I was wandering about the mill and finally began to discuss with the miller the merits of their smutter. From this we began to discuss the different varieties of wheat and one which he called the best. I asked if it was better than ours. He said, no, but that that was a spring variety while ours was a winter. I corrected him. He looked at me; went and felt of the flour, of the bran, of the middlings, and looked at the wheat in the hopper and listened to the stones. He came to me and said. "And you say that is spring wheat?" I replied in the affirmative. "Well" said he "if that is so, there are thousands of people fooled in their flour. I have ground thousands of bushels of that same wheat into XXXX Rochester flour, and we consider it among our best wheats."

This man may have been mistaken, but if he was not, it proves that our spring wheat *is just as good* as winter wheat.

Now let me quote a few prices on flour from the Rural for Dec. 28:

Superfine State	$3.90
St. Louis, choice	5.60
Minnesota "clear," choice	4.50
" "straight," choice	5 65
" "patent"	8.25

These are in all cases the outside figures. They show a grade of flour worth double what "superfine State" is worth, and that flour is made from a grade of wheat which would not rank very high if exhibited at our county fairs, and would in the East excite derision.

To make this extra grade of flour, *hard* spring wheat must be had. The result of this is already seen—the Milwaukee board of trade, some years ago, established a grade called "Hard No. 1." And the wheat which is most likely to produce this grade, is the Fife.

The rules of the Chamber for inspection are: "No. 1 hard spring wheat shall be composed mostly of hard Fife or Black Sea wheat, and shall be sound, well cleaned, and must not weigh less than fifty-eight pounds to the measured bushel."

One great reason for the prejudice against this kind of wheat, lies in the fact that in making this flour, we take, say, five hundred bushels of wheat, or enough to make one hundred barrels of flour; from this we shall get thirty barrels of "patent" flour, fifty-five barrels of "clear" flour and fifteen barrels of a poor grade which is sold without a name for what it will bring.

This poor grade is largely shipped East, but little being sold here. It has no life and is "poor stuff."

The grade of flour called "straight" is ground the usual way, and the middlings are then re-ground. This is known in our local markets as "Half-Patent."

There is one advantage, that, I think, I have shown—that spring wheat makes the best flour. Other advantages will readily suggest themselves, such as the avoidance of winter-killing; the fact that in spring the farmer is better able to judge of the probable supply and demand of the market, etc.

Best Varieties.

It is the "Hard Fife" and the "Black Sea" varieties which are used in this extra grade of flour. By the "New Process," better flour can be made of soft wheat than by the old process; but it is far inferior to that made from hard wheat. It is to the interest of farmers to raise a wheat which will grade "hard No. 1," or, in any event, not fall below "No. 1." This wheat will not get into the general market. It will be bought up by local millers and agents for Eastern millers. Even Boston millers find it to their advantage to keep agents in Minnesota, and have wheat shipped direct to their mills.

It is, then, best to raise varieties which will come up to these requirements. First stands the Fife. But it must be good. It is seldom one will get a good sample from an Eastern house. They make no specialty of it, and one will be as apt to get "soft" as "hard" from them. A few years ago we had a new wheat introduced, "all the way from Maine." It was called the "Bismarck," and had a wide sale. It proved to be only an invigorated Fife. The Club wheat is in every way inferior, and so is its prototype, the Lost Nation, the difference between which wheats it is hard to discern. Two varieties which seem to be lost, I think, would be valuable to us now; they were called the "Hedge-row wheat" and the "California wheat." The Rio Grande is an inferior wheat, and the White Russian is too little known to risk an opinion on its value.

Brown Co., Wis.

PROPAGATING POTATOES.

We have been in the habit of procuring most of the new potatoes when first offered, and usually propagate them in this way: About the first of February we plant the potato in the greenhouse, and in about twenty days there will be a good growth of sprouts on it. We now take up the potato, and slip off all the sprouts, planting them, three together, in pots. Having done this, we next replant the potato, and have another set of sprouts ready in about the same time as before. We now repeat the slipping off and replanting. The next set of sprouts, if left to get well rooted, can be planted at once in the ground. If the weather is too cold, pot the same as before. This process can be repeated as long as the potato keeps solid and does not become exhausted.

We usually keep sprouting until June, at which time we cut the potato into as many pieces as there are eyes, and plant them. The sets should be planted as soon as the weather and soil will permit. A pound of potatoes, treated in this way, ought to produce about three bushels of good, sound potatoes. It is best, in putting out the sets, to choose a moist time, or shade them. If properly started, they will produce potatoes just as large, sound and healthy, as though planted in the usual way. It is to be supposed, when any one plants potatoes, that he will endeavor to raise all he can. We find the ground should be kept mellow until the potatoes are ripe, and it should be rich to begin with. I. J. Blackwell.

Mercer Co., N. J.

How Much Wheat Seed per Acre?—Neigbor Glover always sows two bushels and a peck of seed wheat per acre. My rule is, one bushel and a half, and if the land is in good heart, it is enough, and if it is not in good heart, the quantity is certainly enough likewise, for thereby we save the plant-food needed for the growth of the straw from the three pecks of extra seed. He told me of a single kernel of wheat that produced 150 separate stalks. One grew in my garden among the carrots with 75. But why multiply instances when the evidence is so one-sided to show that there is no need for thick sowing. What is there in the nature of the wheat plant, that it should require eight times as much seed as for a corn crop, and how can we expect it to yield to its full capacity, without some after cultivation? P. W. C.

Dairy Husbandry.

THE RISING OF CREAM.

T. H. HOSKINS, M. D.

Cream and Butter.

There has been, of late, a great striving among dairymen and others interested, to understand the true principles concerned in the separation of cream from milk when left standing undisturbed. All agree that cream is lighter than milk, as oil is lighter than water. The microscope has shown us that the cream exists in very minute drops, called globules. Pure cream is simply ungathered butter—that is, the butter globules, after they have assembled together upon the surface of the milk, constitute cream; the same globules caused to adhere together by churning, form butter. There is no difference between pure cream and butter save this mechanical one; but cream, as ordinarily taken, is mixed with milk, which remains after churning as "buttermilk." Until recently the

Action of Gravitation

has been regarded as sufficient cause for the rising of cream. But since it has been discovered that under certain circumstances and conditions cream rises much more rapidly than under others, there has been a search, or groping, after some other cause, as necessary to explain all the facts. The

Law of Specific Heat

has been appealed to as furnishing an auxiliary force, or rather as increasing the levity of the cream globules relatively to the milk when rapidly heated or cooled. A little consideration of this law and its action, however, shows that so far as it acts at all in the matter, it has directly the reverse effect. For under this law when milk is rapidly cooled, the cream globules cool faster than the milk. Consequently they would have a less tendency to rise, rather than a greater, as their greater condensation or contraction makes them relatively heavier than before the cold was applied. So, theoretically, cream ought to rise slower, rather than quicker, when subjected to the strong and rapid cooling of the "Swedish method," or its modifications, the Hardin and Cooley systems. As it does in fact rise much quicker, those theorists who have been seeking for a motor power in aid of gravity to account for the observed facts, stand at a nonplus in the matter. I have long studied this subject along with others in relation to milk, and have always believed that the force of

Gravity Alone is Sufficient,

and that no other cause need be sought for to account for the separation of cream from milk, no matter how slowly or how rapidly, under various conditions, it may occur. I am convinced that the slight variations in relative weight between the globules and the milk effected under the law of specific heat by sudden cooling or heating, are not sufficient to cause any measurable difference in the rapidity with which they may come to the surface. But

Something Retards the Rising

of cream. All experience shows that widely variant periods of time are demanded for the perfect separation of cream from milk, when left to stand for that purpose under varying conditions, especially of temperature. Now what is this something? For that we are to look for is not some recondite hastening force or cause. No such thing has been demonstrated, and no such thing is needed. No apparatus has been devised positively to hasten the process. The most efficient apparatus is that which most effectively removes or prevents the obstruction referred to. Now

What Is It?

It is simply and only the existence of currents in the milk, which carry with them the globules and prevent them from gathering together at the surface, as they tend to do under the law of gravitation. The recently introduced methods of

Raising Cream at Low Temperatures

have misled observers. Setting milk for cream so successfully at a temperature of about 40 deg. by the use of ice or otherwise, has led people to believe that cold is the efficient force which in some mysterious way drives the cream quickly upwards. This hasty conclusion, that the sudden abstraction of its heat from the milk has a direct influence in throwing up the cream, has been the delusion under

which inquirers have felt compelled to resort to the law of specific heat, as referred to above. They stumbled upon it, they stumbled over it, and some have now stumbled through it, and admit their mistake, but are still at a loss to account for a mystery that, rightly looked at, is

No Mystery at all.

Cold setting is effective, not because it is COLD setting, but because it is setting *at a fixed and uniform temperature*. When the temperature of a fluid is continually varying, that fluid is permeated by currents. The warmer particles are rising to the top, and the colder particles falling downwards. Changes in the air or other surrounding medium, are communicated to the fluid through the walls of its containing vessel and its exposed upper surface, so that as long as these external changes of temperature are occurring, the currents are continued. In milk, when these currents are produced, the globules of the cream are carried along by them, going up and down, and only gaining the power to remain at the top as they occasionally coalesce in like masses, and thus obtain sufficient floating power to remain at the surface after reaching it in the course of the current. That merely

Making Milk Cold

throws up the cream, is an error refuted by the experience of every dairyman, in winter, for he finds that in ordinary pans exposed to the air, the cream rises with great difficulty and very slowly, at that season. In cold milk the globules do not coalesce or gather in masses, and consequently the lively currents induced by the great variations of temperature in the house at that season, make the separation of the cream from the milk a very slow process. To hasten this, scalding is resorted to; and why? Not because, as some think, the sudden reduction of heat after scalding throws up the cream under the law specific of heat (for that, as I have explained, works the other way), but because scalding favors the agglomeration and even the actual union of the globules, and thus greatly increases their floating power, as soon as the stronger currents abate.

Carefully Conducted Experiments

have shown me that where one unvarying temperature is maintained, there is no noticeable difference in the time taken by the cream to rise, whether that temperature be 130 deg., 40 deg., or any intermediate degree. Some other recent experiments also prove that while scalding hastens the rising of cream upon milk in small pans during cold weather, yet the cream does not *begin to rise so quickly* in the scalded milk as in a pan from the same mess set in a warm room. While the currents are strong in the milk, as they are while heating and cooling, the cream rises slowly, but when the scalded milk falls near to the temperature of the surrounding air the currents become sluggish, and the cream is thrown up almost at once.

The Best Uniform Temperature.

A uniform temperature is the chief requisite for rapid cream separation, yet while cream will rise with equal promptness at *any* uniform temperature between scalding and freezing, there are questions of convenience and economy which must be considered in fixing the one that will be most available in practice. Ice or iced water, in closed chests or tanks, furnishes probably the most convenient, if not the cheapest means of securing a permanently uniform temperature in which to set milk for cream. It also, by keeping the milk cold, preserves it in perfect condition for sale skimmed, or for making it into cheese. These objects will cause ice to be generally used. But I am experimentally assured that cans of milk, set in a closed tank supplied with water at a perfectly uniform temperature (be that temperature 130 deg., or 40 deg., or anything between), will throw up all their cream inside of twelve hours. The sole and only point to be observed, is the entire abolition of currents in the milk, by the preservation of an absolutely uniform temperature.

THE CREAMERY SYSTEM is rapidly extending, judging by the large number of notices of new creameries in our exchanges.

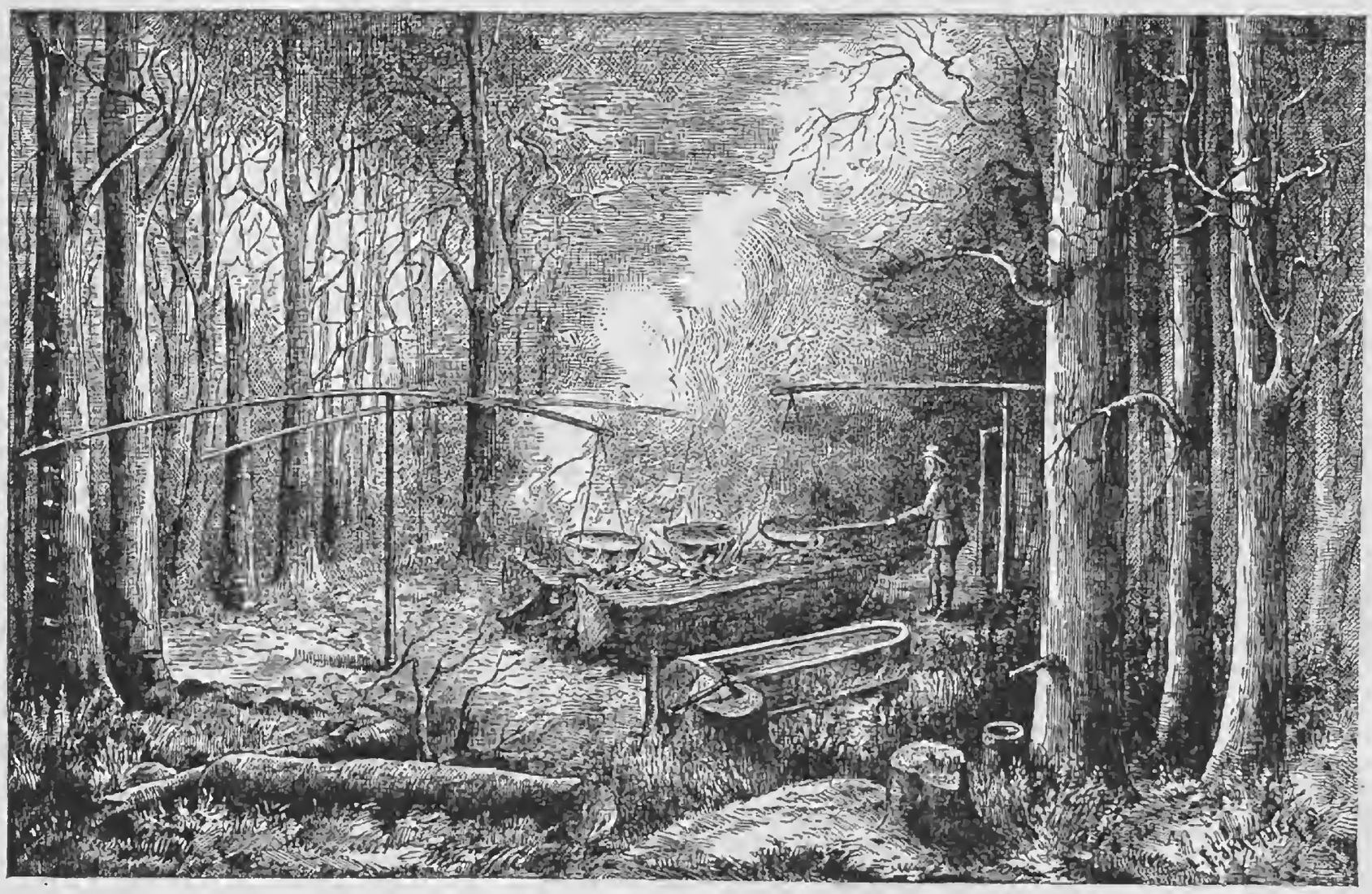
The Herdsman.

HOLSTEINS.

WING B. SMITH.

Their Antiquity.

THE dairy and farm interests of this country demand a milch cow better adapted to their needs than those that now fill the stables and graze upon the pastures of the ordinary dairyman or farmer, and with this point in view cattle breeders have been endeavoring, through



OLD-FASHIONED SAP-BOILING—FIG. 2. (SEE FIRST PAGE.)

importation and careful and scientific breeding, to procure or produce a breed of cattle with the requisite characteristics developed to such a degree as to satisfy the reasonable demands of both the farmer and dairyman. The results of the efforts in this direction are designated by many names, are of a variety of forms, sizes and colors, but usually carry to a more or less marked degree the points generally conceded to be favorable in the make-up of a superior milch cow: and without intending to disparage other breeds, I desire to call attention to a breed of cattle that for upwards of two thousand years have been bred in their native country, with a view to a practical combination of the milk-and flesh-producing qualities of the animal.

Grazing upon the meadows of Holland can be seen great numbers of cattle, large, finely-formed, wonderfully symmetrical, fully developed, uniform in color and general appearance, with a remarkable development of the milk-producing organs whose yield at the pail fully realizes the promises of their development.

Some of the choicest of these animals have been imported into this country, and they, with their descendants, constitute the Holstein breed of cattle of the United States. It must be borne in mind, therefore, that the Holsteins are not an experiment either in Holland or in this country, having been known here since 1852. No other breed known to us can so directly trace their lineage back for so many centuries.

Milk Records.

Americans, tired of humbugs, demand more than unreliable statements, surmises and estimates, and insist upon facts in the form of reports and records fully substantiated by unquestionable proofs, coming from persons well known, and consisting of weights, measurements, tests, etc., and these I will now give in proof of the correctness of my statements. The most essential quality in a cow for the dairy or farm, lies in her capacity for giving a large yield of milk. Now I unhesitatingly assert, that the Holsteins as a breed, are the most abundant milkers known. In proof of this statement, I place before RURAL readers the following records selected from among the very many now in my possession, many of which have been furnished me by prominent and trustworthy breeders and owners, embracing animals of almost every important herd of Holsteins in this country:

Crown Princess's largest daily yield is 76 pounds of milk; and largest yearly yield 14,027 pounds. Topsy produced 40½ pounds of milk in a day, before she was two years old. Maid of Twerk, in 280 days or 9 months and 10 days, gave 11,618 pounds of milk, an average of 40 6-10 per day. Her largest yield was 71¼ pounds of milk in a day. Verta averaged 52 2-10 pounds for 85 days. Johanna, imported in 1878, calved July 23d, 1878, and averaged 72 pounds of milk per day during last week in August; largest yield in one day, 78 pounds. Gentle Annie has had three calves, her first at 23 months old, and has consequently been in milk three continuous years, during which time she has given 26,860 pounds 14 ounces of milk, or an average of 8,713½ pounds per year, for the three years in milk commencing at two years old. Jufrau has completed her third continuous and consecutive year at 11,680 pounds per year. Janeka her fourth year at an average of 10,090 pounds per year. Lady Cliffeden (imported October, 1874,) calved February 1st, 1875, gave 2,093 pounds of milk in March, an average of 67 16-31 pounds per day. Record for 362 days, 16,274 pounds or 7,745 quarts of milk, an average of 21 143-362 quarts per day; largest yield in a day, 75 pounds. Maid Marion (imported) gave 21 quarts per day for six weeks; she gave 11,112 pounds in 365 days. Lady Andover gave, from October 1st, 1876, to June 1st, 1877, 9,856 pounds, an average of 35 67-91 pounds per day. Zwaan gave 12,009½ pounds of milk in a year. Astrea, eight years old, gave 80 pounds per day for 10 days. Maid of Twisk, five years old, gave in 303 days 12,593½, an average of 47 7-16 pounds. The next year she gave 14,312 pounds, an average of 44 pounds 7 ounces; her largest yield was 90½ pounds in a day. Jacoba Hartog, two years old, in 358 days gave 10,430¼ pounds, an average of 29 7-16 pounds per day. Sitjtje Bleeker, two years old, in 365 days gave 10,711⅝ pounds, an average of 29⅜ pounds per day. Neilija Korndyke, two years old, in 365 days gave 9,932¾ pounds of milk. Maid of Twisk averaged for 30 days, 73 1-6 pounds of milk a day.

The cow, Eva, for three consecutive months averaged *forty-two quarts* of milk a day; this was in the months of September, October and November, and during the following five months she averaged thirty quarts daily, making 8,352 quarts of milk in eight months. Eva 2d, at two years and six months old, with her first calf, gave an average of twenty quarts of milk a day for six months. Three months after dropping her second calf, she gave twenty-eight quarts of milk a day. In a herd of fourteen fully matured cows, not one of the fourteen will give less than sixty pounds of milk a day when in full flow.

Butter Records.

As to quality of the milk, we believe it is universally conceded that the butter and cheese of Holland are rarely excelled, and to the breeder or dairyman another vital point is the quantity of butter given. Records prove more than mere statements. Maid of Twisk gave 14,312 pounds of milk in a year; actual experiment proved that 20¼ pounds of milk made one pound of butter, which gives 706¾ pounds of butter in one year.

Snow Flake, two and a half years old, gave 10 pounds in a week. Texelaar produced 17 pounds 14 ounces of butter from cream of six days' milking. Texelaar 9th produced 12¾ pounds per week, and her daughter 14 pounds of butter in a week.

Sixty-eight pounds of milk taken from two cows (Maid and Jacoba) were set aside, the cream taken off when milk was sour and churned by itself in a common "dasher" churn, with the following result: three and a half pounds of butter to 68 pounds of milk, or one pound of butter to 19 3-7 pounds of milk; butter was weighed before salting and milk thoroughly washed from the same. From the daily milkings of Eva three pounds of butter were made for long periods. To prove the importance of Holland as a dairy country, let me state that one small province of that country exports nearly 5,000,000 pounds of butter annually to the markets of Continental Europe and the British Isles. Holland exports annually 32,000,000 pounds of butter and 61,000,000 pounds of cheese, which for so small a country is truly remarkable.

Flesh-forming Capacity.

The next most prominent feature of these cattle, and one of great importance to the breeder, is the readiness with which they take on flesh, and its quality. Experiments without number have proved that Holsteins take on *more* flesh with the *same food* than any other breed of corresponding weight.

Comparative Milk Records.

Professor Lehmann, in charge of the experimental agricultural station at Pommeritz, selected from both Short-horn and Holland races cows that had passed their sixth year, but which were not so old that their age affected the flow of milk. The experiment of milking commenced July 31, 1866, and terminated July 30, 1867, occupying precisely 365 days; during which time there were yielded by four Short-horns 27,240 pounds of milk, or an average of 6,801 pounds per cow, while four Hollanders yielded 32,136 pounds, or an average yield of 8,034 pounds per cow. Highest yield by Short-horns, 7,648 pounds; highest yield by Hollanders, 9,411 pounds. The same food, keeping, care and surroundings, which in the Short-horns produced 100 pounds of milk, produced 118 4-10 pounds in Hollanders, or fully 18 per cent. in favor of the latter as milk-producers.

At the Agricultural Academy at Eldena, many experiments were made in feeding and milking cows, etc., and very precise accounts were kept of the product of every cow, as well as of the expense of keeping her: and it was found that three Ayrshire cows averaged 2,247 quarts of milk per cow, while twenty-two Holland cows averaged 4,437 quarts per cow. Highest yield by Ayrshires, was 3,811 quarts; highest yield by Hollanders, 5,677 quarts. The Hollander consumed about five pounds of hay or the equivalent, to every quart of milk yielded, the Ayrshire nine pounds of hay to every quart of milk. One other experiment conducted by Villeroy, resulted in showing that 100 pounds of hay produced in Hollanders 28,92 quarts of milk, in Devons 19.13 quarts and in Herefords 15.97 quarts. Baron Oekle, in Frankenfelde, made a comparative experiment with Ayrshires and Hollanders, the average weight of the Ayrshires being 806 pounds, that of the Hollanders, 1,016 pounds. The experiment showed that the Ayrshires consumed 33.10 pounds of hay for every 100 pounds of live-weight, while Hollanders consumed 28.10 only.

Records of Live-Weights.

I have claimed for this breed of cattle a place among the beef animals, and would sustain my position by offering the following actual weights:

Bull,	4th Highland Chief	2,700 lbs.
"	First Consul	2,120 "
"	Dictator	2,140 "
"	Uncle Tom, at 26 months	1,525 "
"	Pken, 2 years	1,022 "
"	Chieftain, 21 months	1,425 "
"	Wild Eyes, 11 months	950 "
"	Calf, Pedro, 8 months	550 "
Cow,	Virginia, 6 years	1,635 "
"	Finesse, 8 years	1,625 "
"	Lady Texal, 6 years	1,780 "
"	Lady Cliffeden, 9 years	1,580 "
"	Lavina	1,500 "
"	Isis, 4 years	1,510 "
"	Mary	1,360 "
"	Aaltje Hengeveld, 5 years	1,280 "
Heifer,	Mabel, 3 years, 10 months	1,400 "
"	Minnie Winkle, 3 years, 10 mos	1,320 "
"	Angie Hertog, 3 years	1,112 "
"	Altonia, 3 years	1,174 "
"	Meika, 21 months	1,010 "
Calf,	Anna, 11 months	770 "
"	Jenny, 11 months	690 "
"	Sappho, 10½ months	700 "

The above cows were all in milk at time of weighing, and not in extra flesh, and had they not been in milk at the time of weighing they would have weighed very much more. I could extend this list indefinitely, but space does not permit.

Adaptability to Environment.

Holsteins have now been introduced into many of our States, and, without reference to

climate, soil or location, they thrive as well and furnish equal records of milk in Virginia, Massachusetts, Vermont, New York, Illinois or California. Be it on the highlands or lowlands, in the cold climes or warm, under all circumstances, with all kinds of food and divers manners of supplying it,—under all these conditions they still maintain that same superiority as milkers and beef animals with which they have been here accredited. They are remarkably vigorous and are seemingly little given to disease; and, standing beside the popular breeds of this country, they are far less affected by the extremes of our variable climate than others, while they bear exposure far better than most other breeds.

Their Prepotency.

The power of transmission of prominent characteristics by the Holstein males, is remarkable; for they invariably stamp their progeny with the color markings, form and size of the breed as well as with its all-essential milking qualities. This power is not confined to crosses with our Native or grade cows alone, but is equally manifest in crosses on full-blood animals of any breed or race.

A few instances that have come under my personal observation are sufficient to satisfy my readers on this point. Dolly Dutton's dam was a grade Durham that would hardly give milk enough to raise her calf, while Dolly on coming in at 18 months, gave thirty-eight pounds of milk a day. Another half-blood gave, as a two-year-old on dry feed, 40 pounds of milk per day, and when put on grass, 42 pounds in a day. Favorite, a half-blood, came in at twenty months, and gave milk in good quantity for over two years without cessation, and it was with difficulty she was dried off before her third calving. And here let me state as one of the very prominent and to the breeder an all-important characteristic of cows of this breed, their continuously large flow of milk during the whole year, as it is often with difficulty the cow can be dried off before calving.

After the presentation of such an array of facts as the foregoing, I feel justified in saying that in the Holstein cattle, the breeders and dairymen of the United States will find a breed possessing more desirable qualities and more fully meeting the demands and the wants of this country than any other; for in them we have size, form, finish, wonderful development, uniformity in color and general appearance, vigor and the production of remarkable quantities of prime milk, butter, cheese and beef.

Onondaga Co., N. Y.

Horticultural.

NOTES FROM THE RURAL GROUNDS.

Select Plants.

PEAS—EARLIEST.—Philadelphia Extra Early is the earliest and poorest of green peas. This variety owes its continued existence to the fact that a few market-gardeners obtain a higher price for it for two or three days than for any other. *All* of the extra early peas are inferior in size of pods, number of peas in them, and in flavor. Early Daniel O'Rourke, Carter's First Crop, and for dwarf, Tom Thumb and Laxton's Alpha are among the earliest. The last is the best of any very early pea that we have ever tried—and we have tried nearly all.

EARLY.—The best among the early peas is McLean's Little Gem. This comes in three or four days after Carter's First Crop, and Waite's Caractacus and Kentish Invicta. Little Gem does not *require* brushing, though it is better for a little support. In quality and fruitfulness there is not one other better pea than this. The vines grow about 15 to 20 inches high. American Wonder Pea (Bliss) was tried here, and found to be as early as Little Gem. It is an excellent pea, but we do not know why it should take the latter's place. In fact, it would seem that any real improvement upon older varieties is impracticable. The most that we can do, is to select good seed and to keep varieties pure and distinct.

MAIN CROP.—From our own trials we pronounce Eugenie as good as any for a main crop. It is sweeter than Champion of England, and does not grow so tall by a foot or so.

LATE CROP.—For this purpose British Queen is our choice. The vines grow very tall, but they are prolific and they give green, tender peas, through an unusually long period. They are very juicy, much wrinkled, thick-skinned, tender and sweet.

REMARKS.—As we have before remarked, it is perhaps the best way, for our climate, to plant the very-early, early, intermediate and late about the same time. Brush or support (for the garden) all varieties that grow over one foot in hight, and, for those that do not, straw or hay, placed beside the plants, will serve to keep them green and in a growing condition for a longer time than when not so treated. We have never thought that late-sown peas were worth the trouble of producing them, taking our summers as they run.

TOMATOES.—From careful trials and inquiry we believe the Acme and the Trophy the best tomatoes for family use. Little Gem is the *earliest*, but it is small and watery, keeps poorly, and in short, has only its earliness to commend it. Hundred Day is one of those varieties that a person will never be anxious to plant twice. Golden Trophy is the best of the Goldens. Green Gage, Yellow Cherry, Pear-shaped and Strawberry Tomato are the best for preserves.

ASPARAGUS.—There is virtually but one sort—the Conover's Colossal. Unless strong, healthy roots are purchased and planted, it is best to sow seed. Sow thinly in rows in early May. Thin out, retaining only vigorous plants. Next year the permanent bed may be formed, and the year-old plants set therein.

BEANS.—For DWARF, Early Mohawk and Golden Wax. The new variety of dwarf, Golden Wax, is excellent for pickling. For POLE, the Improved Lima (Dreer's).

BEETS.—Vilmorin's White Sugar is the sweetest and most tender beet we have ever tried. For early summer use, the Early Bassano; for general and later use, the Long Smooth Red.

CABBAGE.—Early Jersey Wakefield and Early York are the earliest. For main crop, Large Flat Dutch, Late Drumhead and Marblehead Mammoth Cabbage. For pickling, Early Blood-red Erfurt is excellent.

CAULIFLOWER.—For early, Early Snowball; Lenormand's for main crop. It may be well to remind our readers that a rich soil, good cultivation and a steady supply of moisture are essential to the perfecting of this fine vegetable. Too often the crop is rendered worthless by neglect. The Cauliflower is not worth planting unless it receives unremitting attention.

CELERY.—The golden and red sorts are this season brought out prominently in a number of catalogues. But, in so far as the color of the stems is concerned, be it golden or red, this need not induce anybody to try them, for the reason that the color almost entirely blanches out. The "Golden Heart" is, however, early and of fine flavor, while the red is dwarf and of good flavor also. Giant White Solid and Dwarf Crystal White are best for family use.

CUCUMBERS.—Tailby's Hybrid is still the best variety for cucumbers we have ever tried. It is rather long, pointed, greenish-fleshed, extremely tender and with few and small seeds. Green Prolific is best for pickles.

SWEET CORN.—We have repeatedly praised the Black for table use. The ears are too small for market purposes, and the color objectionable; but for sweetness and richness this variety is unsurpassed. Early Minnesota Sugar, Early Narragansett, Early Dwarf Sugar are best for early; Mammoth Sugar and Stowell's Evergreen for late.

LETTUCE.—For forcing, Curled Simpson and Golden Stone Head; for summer crop, American Gathering; for winter, Brown Dutch and Red Winter Cabbage.

OKRA.—A few plants of this in every garden are desirable for seasoning soups. The dwarf variety is best, simply for the reason that it takes less space and causes less shade. The flower is like that of the cotton plant, belonging to the Malva family.

RADISHES.—Of these we continue to try all novelties, by which trials we are not shaken in the belief that the old Scarlet Turnip is still the best. For late or winter radishes, we have no varieties to commend. We do not deem them worth cultivation at all.

EGG PLANTS.—Among these Long and Early Dwarf Purple are earliest; New York Purple the largest and best.

MELONS.—Among musk-melons, we prefer the Nutmeg and Christina. We have tried almost every sort praised abroad, and find that our climate is not suited to them. Among water-melons, we prefer the Black Spanish and Mountain Sweet.

PEPPERS.—For ornamental jars of pickles, Red African, Oxheart and Cranberry are preferred. For mangoes, Sweet Mountain.

SQUASH.—Summer Crook-neck, Early Green-striped Bush and Early Golden Bush, are best for early summer; Yokohama, Hubbard, Boston Marrow and Marblehead for winter.

PARSLEY.—The Fern-leaved is pretty as well as a good variety. Extra Curled and Moss Curled are the best for general use.

CARROT.—Extra Early Forcing is good for early and late; Half-long Carenton and Long Orange are best for main crop, while the last is best for stock.

PUMPKINS.—Of these the Large Cheese is best for home use, while Improved Mammoth is more profitable for market. Connecticut Field is perhaps best for stock.

RHUBARB.—Roots can be purchased for from $1 to $1 50 per dozen. Seeds may now be sown and the plants set a foot or less apart. Next spring the plants should be set about three feet apart each way, and the year after the stalks will be large enough to cut. For family use, it is economy to buy a few roots.

Small Fruits.

STRAWBERRIES.—Of the many new varieties that have been made known of late years, there is no doubt that several have come to stay. As we look over our vines to-day (March 20), we see that of all these new candidates for favor, the Sharpless bears the largest, greenest, healthiest-looking leaves; the Duncan next; Golden Defiance next, and Duchesse next. As between the others, there is no marked difference. To those who care to purchase any of the newer varieties we would recommend the following for trial:

Golden Defiance, Prouty's Seedling—Sharpless, Cumberland Triumph, Captain Jack (for market only), Duchesse—Pres. Lincoln—Parmalee's Crescent Seedling, Forest Rose, Duncan (for early home use), and Cinderella.

To those who desire to purchase old, well-tried sorts only, we would name: Wilson (for market), Triomphe de Gand, Charles Downing and Seth Boyden (Boyden 30) and Monarch of the West.

We would remind all who raise strawberries for their own tables or friends, that good drainage, rich soil and moisture are the secrets of entire success.

BLACKBERRIES.—Kittatinny is the best so far as we are enabled to judge—Snyder for trial.

RASPBERRIES.—Brinckle's Orange is the best of the yellows. It is of fine quality and quite prolific, if the canes are well protected during winter.

Of Black-Caps—Doolittle and Mammoth Cluster; of the native Reds, Herstine, Philadelphia, Brandywine;—of the foreign, Franconia, or Nuomi, and Clarke. For trial we commend the Montclair, Cuthbert, and (for market) Thwack.

GOOSEBERRIES.—Downing, Houghton. Avoid the *standards* about which so much fuss was made in Centennial times.

CURRANTS.—The Red Dutch is the most fruitful. Cherry, Champagne, White Grape, and (for jelly) Black Naples.

GRAPES.—For market or general use, the old-sort Concord must still be mentioned first. According to locality, the Isabella, Catawba, Delaware, Iona, Hartford Prolific. We think that Lady may now be mentioned among our reliable standard Grapes.

It would seem that there were scores, if not hundreds, of new varieties that must prove superior to well-known sorts. We would mention for trial all of Rickett's that are as yet for sale, such as Lady Washington, Don Juan, Eldorado, Newburgh, Highland, etc.—any of Roger's Hybrids—many of them do remarkably well here and in various other parts of the country—Moore's Early—Eumelan—Champion—Telegraph.

ONION (Allium Cepa).

THE culture of onions has for many years past been a very remunerative branch of market gardening, and at present there are perhaps more onion growers than there have been at any previous time. It is not a crop that can be universally grown throughout the United States. Successful onion culture is mostly confined to the area between the 40th and 43d parallel; farther north the season is too short for the crop to ripen, and south of this it is too hot for them to develop.

Soil.

It is generally believed that onions require a peculiar soil in order to do well; this is not the case, however; they will succeed on almost any soil, except on very stiff clay and on dry sand. Success depends not so much on the nature of the soil as on the preparation of the land and the cultivation of the crop. Some growers have raised immense crops on low and peaty lands, while others recommend a sandy loam, and still others have been equally successful on a rather clayey soil. Experience goes to show that a soil that has been in cultivation for many years is preferable to comparatively new land, and that onions may be raised on the same plat year after year, without any diminution of the crop. New land is too poor and not so easily pulverized, and the ability of older land to produce the same crop for a long time without intermission, cannot be accounted for on the score that onions follow onions, but is rather due to the constant enriching of the soil, the thorough pulverization that is necessary, and the vigilance with which the weeds are kept down.

Preparation.

The onion patch should be plowed in the fall, and if the manure one has at disposal is rather coarse, it may then be plowed under; if guano or any other fine manure is used, it should not be applied before spring. As early in the spring as the ground is fit to work, it should be prepared to receive the seed. It should not be plowed deeper than four inches, for onions feed on the surface soil; and if plowed in the fall, but not manured, fine manure may now be worked in by a thorough use of the cultivator. Pulverize the soil well; harrow, back-harrow and harrow again, level the plat with a scraper if necessary, and, finally, dress any uneven spot with the rake. It is of great importance that the land should be level, otherwise a single heavy shower will wash the seed away and the crop will, of course, be a failure. Any kind of manure may be used, some growers giving preference to one kind, others to another; the main point is to give a liberal supply. Stable and barn-yard manure must be well decomposed before it is applied. Night soil, where it can be obtained, thoroughly mixed with dry earth, is considered the best kind of fertilizer for this crop.

Sowing the Seed.

When the ground is thus prepared, the seed should be planted in drills from 12 to 15 inches apart. Either mark out the whole plat with a marker, or use a seed-drill that marks the rows as the operator proceeds. In either case taking particular care to get the first row straight. This may be best accomplished by stretching the garden-line to mark the first row. The seed-drill should be set to drop about five seeds to two inches, which may be ascertained by trying it on a board or a row of paper, and the seed should not be put more than one-half to three-quarters of an inch under the surface; if planted deeper, much of the seed will not germinate, and some hold that stiff-necks, or scullions, will be more numerous. It requires about four to six pounds of seed to the acre. There are several seed-drills in the market that open the drill to any desired depth, sow the seed, cover it up, and roll the row, all at the same operation; of course, they can be used for other seeds as well.

Never use poor seed. Nothing in onion culture is more important than to get the best quality of seed that can be procured. Only American seed should be used; foreign seed cannot be depended on for a good crop. And it should always be purchased either from the grower direct, or from a reliable seedsman, never from peddlers or small local dealers in seed. A difference of a few dollars in the price of seed, may make a difference of as many hundreds when the crop is harvested.

Cultivation

As soon as the onions are so far up that the rows can be seen, the plat should receive the first hoeing. Keep the weeds down by never allowing them to start. One man can go over more ground in one day, before the weeds start, than five men can in the same time when they are a couple of inches high. Occasionally they must be gone over on the hands and knees, and all weeds removed from the rows with the fingers. When the onions are about three inches high, they should be thinned to about one to two inches apart, but it is better to sow reliable seed at the distance the plants are wanted, than to thin too much, as those left standing will be more or less injured by the operation.

In August, when about two-thirds of the tops have fallen, it is time to pull the crop. This is done by hand, to avoid bruising them, each man taking three rows as he goes along. Six or eight rows are thrown together in a windrow, where they remain for several days till they are thoroughly dried, being stirred once a day to dry them the quicker. Next, the tops are cut off, the onions measured and carted to the barn, where they are placed about a foot thick on an airy loft, till they are marketed.

It is not advisable to lay them much over a foot in thickness; so, where space is limited, shelves may be erected, or some special arrangements made for keeping them.

Marketing and Storing.

About the middle of October, when shipping has commenced, is the best time to market onions. The prices are then apt to be higher than earlier in the season when the market is glutted with the newly-gathered crops. The price varies greatly. It has been as low as 75c per barrel and some years ago as high as $14 or even $16 per barrel. During the winter, onions should be kept in a cool, dry place, free from hard frost. It will do no harm if the thermometer should sink a few degrees below freezing point in the store-room; but by repeated hard frosts and thawings they become soft and unfit for use. They may be stored in a dry cellar in barrels which are perforated with air-holes. They will thus be ready to ship, as soon as spring opens, without further trouble; or they may be placed on a barn floor underneath which it cannot freeze, and covered with hay. Large quantities should never be stored during winter in an unsuitable place, and they must be thoroughly dry.

Varieties.

Of the many varieties of onions in cultivation, three seem to be standard: the White Portugal, the Yellow Danvers and the Red Wethersfield. The White Portugal is rather a small onion of mild flavor, and is excellently adapted to cultivation in private gardens for family use. It is rather a poor keeper. The Yellow Danvers is an early onion, and a favorite in the Boston market. Red Wethersfield is mostly grown for the New York market, and for shipping purposes. It attains a large size and is an excellent keeper.

Onion sets are small onions of the previous year's growth. They should be separated from the larger ones in the fall, kept free from frost during the winter, and set out as early in the spring as the ground can be worked. Prepare the land as for seed onions, and plant them in rows, like these, but three inches apart in the row. By the middle of June, they will have attained the size of an ordinary onion, and be ready for market. Some growers sow seed very thick on dry, poor land, for the purpose of raising sets. Small onions, no larger than peas, are just as good for sets as those of an inch or more in diameter.

The Schallott is a distinct species of onion (*Allium Ascalonicum*), which is not much cultivated in this country, but is a favorite in European kitchen gardens. It has a milder flavor and can be used earlier than the common onions. Onions of this kind are planted like onion sets; but, instead of enlarging the bulbs as sets do, they multiply and form a cluster of bulbs which will be ready for use in the beginning of June. The bulb is of a more conical shape and generally flattened on the side that grew next to the mother onion. They are excellent keepers.

The Potato onion is also a multiplier and should be treated like the foregoing. Like this, it is early, and has a mild flavor, but it is not so good a keeper, nor is it generally so prolific.

Top onions are small sets, about the size of peas, that grow in a cluster on the top of a certain kind of onion. They are planted and treated like sets. The large onions grown from them, are coarse, though of a pleasant taste, but do not keep well.

Sets, Seballotts, Potato onions and Top onions are mainly grown to supply the early market. Neither of them is depended on by onion growers, for the main crop, though in private gardens they are raised more or less in preference to the common seed onion.

Enemies.

A disease, something like mildew, occasionally makes its appearance on old onion beds. The plants become covered with a white dust, cease growing and die. The only remedy is to destroy all affected plants and plow a little deeper to bring more of the subsoil to the surface.

The onion fly lays its eggs on the plants near the ground. The eggs soon hatch and the maggot absorbs the juice from the stem, which turns yellow and falls over. The remedies, such as the sprinkling of scalding water, etc., are generally as injurious to the plants as to the maggots. It is recommended to soak sawdust in ammonia-holding liquors and scatter it over the onions.

Everywhere.

RURAL SPECIAL REPORTS.

KANSAS, Parsons, Labette Co., March 10.—For a week we have had a sun-heat of 60 to 80 deg. in the shade. We have radish and lettuce in full leaf, sowed in the open ground a short time ago. Farmers are plowing on high ground. The prairies are aglow to-night. In walking around the house we could count 20 or 30 fires. Those which were five or more miles away could only be seen by the lurid sky, and appear like the furnaces in the iron districts. There is one within half a mile of us. This has a fire line of one-third of a mile. These fires are started when the wind is still, but lightning in the north-east has started out its winds, and ever and anon the fire roars and crackles and sends out a light by which the boys can read their examples from the arithmetic. The men watching the fires look like Milton's devils. By the way, we have had a windy time lately. The winds have been strong, and for eight days, with only a few hours of intermission, they have been blowing at the rate of from 15 to 40 miles per hour. Kansas is famous for her *zephyrs*, as they are jocularly called. In March and April, and in September and October, they are heavy and nearly continuous. According to the reports of the State University at Lawrence for Oct., 1878, the entire distance traveled by the wind was 15,106 miles, the mean daily velocity being 487 miles, and the mean hourly velocity 29.03 miles. The highest velocity on the 8th was 50 miles an hour. This would give a rectangular pressure of 12½ lbs. per square foot. This is not enough to drive a *good* house from its foundation. If the side or gable struck by the wind was, say, 24x16 feet, there would be about 384 square feet, and the pressure would be 5,250 lbs., which would be equivalent to the pull of more than twenty horses. J. B.

N. Y. SENECA FALLS, March 15.—At wheat-sowing time last fall, the weather was very dry, and on this account and through dread of the Hessian Fly much of the seeding was not done until late; and wheat did not get up until the arrival of very cold weather. Accordingly our wheat stand is the poorest I have ever seen, and the prospects of the crop hereabouts are by no means good. No sales of land here. Wheat is worth only 95c; corn, 40c; oats, 25c; hay, $6 50 to $8 00 per ton; butter, 15c per pound; eggs, 13c. per doz. The prospects for the farmer who is in debt are not encouraging. We all hope for an early spring as we are anxious to get our crops into the ground as soon as possible. For myself, I believe in the early sowing of good seeds for almost any crop. W. S. M.

ALA., Danville, March 13.—Weather spring-like; farmers busy planting corn; wheat started growing on the advent of mild weather, and bids fair to turn out a large crop. Spring-sown oats are up and looking fine. Farmers are once more going to plant cotton heavily. They are in debt and see no other way to pay what they owe except by the sale of this staple. If they planted less of it and raised more bread and meat at home, the price of the cotton produced would be higher; the money now sent off for supplies to the grain-growing and stock-raising States, would be kept among us, and our aggregate wealth would increase much more rapidly than under the present system. Peach orchards are in bloom. Money tight; prices low; farmers somewhat discouraged. T. N. V.

INDIANA, Oaktown, Knox Co., March 19.—We have had the longest and severest winter for some years, the thermometer registering 18 deg. below zero on Jan. 3d, our coldest day. Peaches and all the finer kinds of Cherries, have all been killed, and in many places the trees are also killed down to where they were protected by the snow. Blackberry bushes are also dead, and Raspberries are considerably injured. Wheat looks fine, and a snowfall of six inches yesterday will help it still more. Our stock of grain, hogs and cattle is lighter than I have ever known it at this season during the past seven years. A. J. H.

MICHIGAN, Bennington, March 19.—Snow has covered the ground since Thanksgiving. Farmers have "improved" it by drawing wood and logs. Wheat looks well after having laid under the snow the whole of the long and severe winter. Barring accidents, we shall have a larger yield than usual. Wheat is selling here for 95c.; oats, 20c. to 25c.; potatoes, 45c. to 60c.; white beans, 75c. to $1; butter, 14c. to 16c. per pound; eggs, 12c. to 13c. per doz.; hams, 6c. per pound; corn, 18c. to 20c. per bushel; hay, $7 to $8 per ton; labor, by the day, 75c.; by the month, from $8 to $14. A. P. H.

NEBRASKA, North Platte, March 12.—The winter throughout Nebraska has been unusually severe, and in the western part of the State—which is the cattle region—the snow lay on the ground for a long time, and as our large cattle men never put up much hay, the animals become very thin; then the severe weather came on and at least 25 per cent. of the ill-conditioned, unsheltered beasts were frozen to death. But now the snow has disappeared, and the surviving animals will be able to pick up a living until the grass starts. There will be a very heavy crop of small grains put in throughout central Nebraska this year. E. C.

ALABAMA, Selma, March 18.—Fine weather here; peach trees in full bloom; most people have finished planting corn, and are now bedding up for cotton. My Strawberries are in full bloom; some young berries have already appeared on the vines; if we shall have no more freezes, I shall begin picking about the first of April. Despite the reports of hard times everywhere, we have here plenty to eat and plenty of work for everyone who wants it. Wages, 'tis true, are low, but all provisions are proportionately low. There is more money, I understand, deposited in the banks here now than at any time since the war. J. M.

GA., Fulton Co., March 18.—Our winter is over and the mocking-bird has taken its seat again in one of the oaks in front of the house, singing a welcome to the rising sun. The trees are putting forth their green leaves. The Peaches are in full bloom, though three weeks later than usual. Farmers have planted their early vegetables, such as potatoes, peas, cabbage, beets, onions, and some even beans, and now they are rushing to the corn field where they will plant more than usual. Wheat is looking well; oats more or less killed by the severe cold weather in January. Business lively. C. D.

WEST VA., Hulltown, March 20.—This has been a cold winter, unusually snowy and rainy hereabouts; more sickness, too, than usual, such as pneumonia and uncommonly bad colds. Wheat and grass have come out wonderfully during the warm weather we have lately had. The past season we had the largest crop of wheat and corn, of good quality, ever produced here. Wheat sells for $1.17@1.20; oats, 33c.; rye, 78c.; corn, white, 48c.; yellow 44c.; clover seed, $4; eggs, 12c. per dozen; butter, 15c per pound; land, from $23 up to $100 per acre. J. A. H.

NEW YORK, Crumb Hill, Madison Co., March 18.—Stock generally is wintering well; hay is abundant; wages are low, so is produce of all kinds. In the "History of a Poor Farm," it is claimed that cow dung is the best manure; but I have found the best results come from horse manure. I make a snug pile of it: fork it over occasionally, so that it will rot without over-heating during the winter, and be ready for use in spring. I put it under my corn hills in planting, and, barring frost, always get a good growth of both corn and stalk. L. P. N.

MICHIGAN, Mendon, March 17th.—Our long winter and heavy fall of snow have disappeared together, and we are having very warm and pleasant weather. As I am writing we are having our second thunder shower. Wheat is looking quite well, better than was expected, as the snow was mostly blown off from a good many places, leaving them quite bare. Stock is generally looking well. Wheat is worth from 95c. to $1; corn, 30c.; oats, 23c.; potatoes, 65c.; good clover and timothy hay, $7 per ton. G. A. A.

NEW YORK, Hanover Falls, St. Lawrence Co., March 17.—We up here in this Siberian climate of St. Lawrence County have been inclosed by snow-drifts since Christmas. Our roads have been through the fields, those between the fences having been rendered impassible by snow. The only work we have been able to do was to plow roads, take care of cattle, make fires. Despite the cold, however, good care has preserved twelve nice lambs to me, which the butcher will come after about June. G. R. C.

WASHINGTON TERRITORY, La Conner, Whatcom Co., March 10.—This is a strictly grain-growing county. The land is reclaimed marsh or tide land. Wheat has as yet been little grown, oats and barley having hitherto been our chief crops. There are eight steam thrashers in the county, which thrashed 250,000 bushels of oats and barley grown about the Delta of the Skagit and Samish rivers. The average price of oats during the past season was 40c., including sacks. Our market is San Francisco. L. A. S.

NEW YORK, Sherman, March 17.—The fall of snow has been very great, and roads have become nearly impassible. Snow has been as high as 10 and 15 feet deep in many places. Butter sells at 15@18c.; cheese, 11@12c.; maple sugar, 10@11c.; potatoes, 75c. bushel; eggs, 10c. dozen; good cows bring high prices. Making maple sugar is now in order, but owing to the great depth of snow it is hard for people to get around in the woods. M. L. D.

KANSAS, Oswego, March 20.—Oats are all sown and a good many are plowing for corn. Wheat looks well, but of it there is only a small acreage. A large area, however, will be planted to corn. Timothy is starting finely. Fat cattle have not all gone yet to market. They are selling at 2½ to 3c. per lb. Hogs have nearly all been sold at 2c. to 3c. Times as dull as usual. S. S. B.

KANSAS, Oswego, Labette Co., March 16.—Weather warm; oats are being sown throughout this neighborhood. The ground is in good working condition. Peach buds are not all killed. Farmers are getting only small returns for their labor, and consequently "hard times" still generally linger among us. Beef cattle and hogs are selling to-day for $3 per hundred pounds. S. F. B.

OHIO, Hudson, March 13.—The space devoted to maple sugar making in our agricultural papers seems to me vastly below a fair proportion. Corn, grass, vegetables, fruits of all kinds, stock and implements of every description have hundreds of columns devoted to them year after year, where this industry has one. W. I. C.

OHIO, Summerfield, March 17, 1879.—We have had a week or ten days of fine spring weather, and farmers were busily engaged at plowing; but last night we had a fall of six or seven inches of snow, and farm work has received a check. We have a large crop of wheat sown, and it generally looks very well. J. W. H.

KENTUCKY, Jeffersonville, Montgomery Co., March 17.—The Peaches are all killed here. The apple trees begin to show green leaves, and the grass is starting finely. Produce is low: Wheat, 30c.; corn, 40c.; oats, 35c.; potatoes, 40c. to 50c.; butter, 10c. per lb.; eggs, 8c. per doz.; hogs, $2.50 per 100 lb.; cattle, $3. W. L.

CONN., Berlin, March 20.—The winter has been rather severe on some trees and shrubs. Buds are killed in both apple and pear trees, and grape-vines have been somewhat injured, the new growth in some cases being killed twenty feet back on vines that were not trimmed in the fall. Mud is king now. IPSE.

ILL., Canton, March 18.—Thermometer, from 68 deg. to 80 deg. Some wheat sown upwards of two weeks ago. We commenced sowing on the 10th. Land in fine condition. C. H. B.

TEXAS, McKinnie, March 15.—We have finished planting corn hereabouts. The weather has lately been very dry; we haven't had a drop of rain for two months. W. N. W.

WISCONSIN, Lavalle, Sauk Co., March 19.—Wheat is worth 80c.; corn, 25c.; oats, 23c.; butter, 12c. to 15c.; improved land, $30 to $40. W. S. H.

The Poultry Yard.

POULTRY SQUIBS.

Poultry in spring always repay extra care. A change of food or a change in feeding proves beneficial. No extra expense need be incurred. If whole corn has been their only diet all winter, in spring feed cracked corn, and the fowls will require less of it, because it is more easily digestible, and more of it will therefore be assimilated. Better still, cook their feed.

I save my little potatoes for the purpose of making a change at this time of the year. I get my servant to boil a wash-boilerful of them, and as soon as done he removes them from the stove and mashes them, while boiling hot, in cracked corn, wheat bran and ground oats. I take about an equal bulk of the feed and potatoes, rather more of the tubers, perhaps, and the potatoes cook the feed and put it just in the proper condition for a prime diet. The bran and oats are only added in small quantities, just to give variety. I know of nothing better than this. I feed the mixture in the morning, and coarse, ground or cracked corn at night. When one mess is used up, I boil another, and so continue until the grass grows.

I believe in Light Brahmas. I consider them more desirable than any other breed. To be sure, I have always been partial to them and have never kept any others; but I have observed acquaintences who did, and do, keep the other breeds. My observation goes to show that those who keep the Leghorns and the smaller breeds, generally discard them after a while through dissatisfaction. I know this is true with Brahmas, too, but with them the practice is nothing like as general as with other strains. It is my opinion, too, that Brahmas will not degenerate as rapidly as the other breeds by in-breeding, a cause of degeneracy which often accounts for the change in breeds made by those who begin with the smaller varieties.

I like the way the Brahmas "handle." Feed for flesh, and you will be sure to get it, and no fowl will "stuff" more readily. Feed for eggs, and the birds will respond at once. Stimulate when the market is high and eggs scarce, and you will be sure to get the increased product. Care for them well in the winter, and when everybody else is paying a good round sum for eggs, you are pocketing what others pay. Neglect them, and they will respond at once, though they will thrive better under neglect than any other breed with which I am acquainted.

I had a mongrel about two months ago, sick with the roup. The ailment did not frighten me in the least. I did nothing for it. I did not clean the hennery; did not "doctor" the patient; did not remove him from the others, and did not even ventilate the house. And now, I am sorry to say—because I don't like to go contrary to all authorities—that that mongrel recovered perfectly and died the natural death of fat poultry (with funeral services at 12 M.) and not another bird was affected by contagion. This is the third time my fowls have passed through the same "contagion" in the last six or eight years with the same result, except the first time. Then I killed the patient out of pity for his condition.

Middlesex Co., N. J. M. CAREY.

[Despite the good fortune of our correspondent's fowls, we certainly would not advise other poultry-keepers to imitate his disregard of preventives and remedies.—EDS.]

EARLY SITTERS.

NOVICES in poultry breeding, and frequently older hands, are apt to make the mistake of crowding too many eggs under the hens at this season of the year. Nine eggs under an ordinary-sized hen, and eleven under a large one, are fully as many as will give good results. In three times out of four, more chicks will be hatched from nine eggs than from fifteen. During the very cold weather, the outer eggs in the nest get chilled, and as the eggs are constantly moved by the hen, each in turn getting an outside position, they all get more or less chilled, and either do not hatch or else bring out weakly chicks, which droop around for a while and then die.

Much may be saved in giving proper attention to the nests. The best method at this season is to use large boxes, or, better still, barrels sawn in halves; fill the half-barrel nearly half-full of straw or fine hay well packed down, then make the nest, hollow, and about ten inches across and four deep, in the middle of the hay. Set the hen on this, giving her nine or eleven eggs. She will cover them well and there is less fear of getting them chilled.

Another source of disappointment at this season is the non-fertility of many of the eggs. It is a fact well known to poultry fanciers, though possibly not to most of those who raise fowls, that the first two or three eggs laid by the hen or pullet rarely hatch. It is well, therefore, to be a little watchful, and consign such eggs to the kitchen. As a rule, I should never set anything earlier than the fourth egg. Should it be found impossible to detect such eggs, I should examine the eggs by means of an "egg-tester" on the fourth or fifth day, and remove all those which are not fertile. If three or four hens are set at once, those eggs which prove fertile may be put under two of them and the others given fresh eggs, thus saving time and eggs. A. M. HALSTEAD.

The Querist.

ANSWERS TO CORRESPONDENTS.

Rings for Hogs; Scab Mites, etc., etc.

J. W. L., Smith's Grove, Ky., asks: 1. Where can he get rings for mischievous hogs, rings that can be inserted in their noses and taken out at pleasure, somewhat on the principle of watch-chain rings? 2. In the West, small insects, found in spring, under the skins of cattle, are called "wolves." He inquires whether this is the right name, and the cause and remedy for the same? If the fats and acids of animals, instead of being consigned to sinks and creeks were applied directly to the soil, he wants to know whether they would not produce as good an effect as if composted, so that the trouble of this operation might be avoided? 4. What is the best time to plow under weeds, grasses, etc., with a view to producing the best fertilizing results from their decomposition? 5. Where can he get the best pocket memorandum?

ANS.—1. We do not know of any rings that can be put into a pig's nose and taken out at pleasure. Such a ring would be apt to be taken out at the pleasure of the pig. A "ring" can be made by a common blacksmith out of soft iron, and shaped like a long and thin horse-shoe nail, with a hole in the head through which it can be clinched and held fast in the pig's nose. Such a "ring" could be detached, if not worn out, and used on another hog. One like a watch or chain ring would catch at the ends and tear out or break? 2. The insects found under the skin of cattle are the same which cause scab in sheep and mange in hogs, dogs, etc. It is the *Acarus scabiei*. It is a minute insect, scarcely discernible to the naked eye. The name "wolves" is not the correct one. It begins its ravages in small spots, which should be treated as soon as discovered, to prevent spreading. Carbolic acid, diluted one drop to ten of water, will kill the vermin. The parts should be softened and dry scabs be removed first by thorough washing with soap-suds. The wash of carbolic should be followed by the application of an ointment of hog's lard and powdered sulphur, equal parts, or smearing with coal tar. In mild cases the latter might be the only remedy required, and is preferable to the lard and sulphur. Cattle in good condition are not exempt from the attacks of mange, but those in poor condition are more liable, as the dry state of the skin seems to invite the contagion. The disease spreads by contagion, by cattle touching each other, rubbing, etc., and also by the mites being carried in the air and lodging on the animal. 3. As a rule, all manures can be utilized more economically by immediate *mixing* with the soil. This is especially true of such active principles as fats and acids. 4. When they have attained full growth and before the seed is formed. 5. There is a great variety of these, and a selection can be made at any first-class bookstore.

Moonshine.

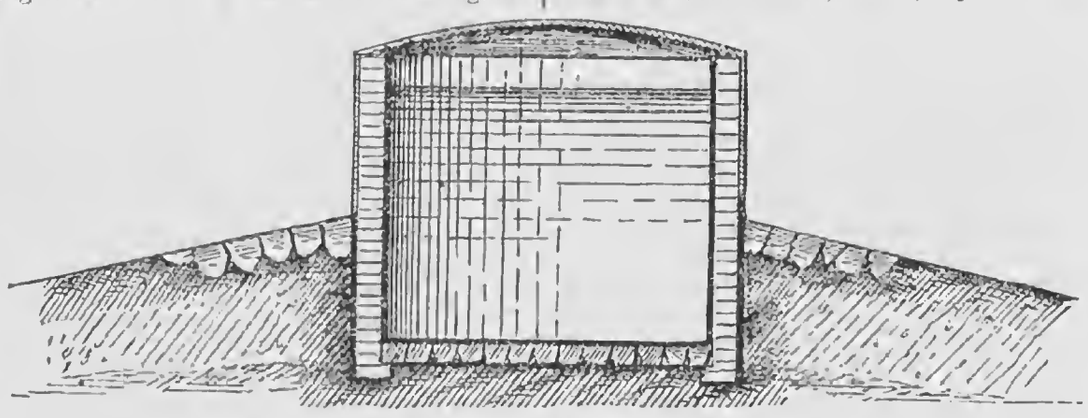
M. B., Smithville, Ont., Canada, asks what effect has the moon upon vegetation, the killing of animals, the setting of fence blocks, etc., etc.

ANS.—We are disposed to treat with indulgence all time-honored beliefs honestly entertained on matters of practical concern, however much they may be opposed to the results of modern scientific investigations. Millions of men, who were no fools, have been convinced that lunar influences were powerful for good or ill on human life and actions. Thousands have thought the same with regard to the stars; but stellar influences are fast disappearing from human imagination where alone they ever had an existence. The moon, too, is in a fair way of being soon robbed of blame or credit for the result of men's actions. Madhouse doctors already deny that she has any sensible effect upon the condition of their patients, although the very name of lunatics, which designates these, is derived from a supposition that they were markedly affected by her phases. True it is that the tides are known to be influenced by her movements; but scientific investigations coincide with close practical experiments in proving that her influence on all human operations and their results, is inappreciable. It is not impossible that light of all kinds has some effect on vegetation, and, perhaps, an infinitesimal influence on the decomposition of animal matter, but if this has any existence, it is so exceedingly small that hogs may be killed, fence posts set, and all other human operations performed without any fear of ill results from lunar influences. It would be pleasant to us to come out boldly against modern scientific incredulity, and in support of the venerable notions entertained by our great-grand-mothers, but the remembrance of G. W. and his little hatchet restrains our longings.

Canker in Poultry.

F. W., Philadelphia, Pa., asks what ails his chickens and a remedy for it. The eyelids become swollen and a thin, watery discharge glues them together. The bowels are very loose; the inside of the mouth becomes coated with a hard, white substance that emits a nauseous odor. In some cases the coating becomes so thick as to prevent the mouth from closing. The disease is very contagious. He at first mistook it for roup, but found out his mistake on discovering that there was no discharge from the nose.

ANS.—The disease is canker. It often accompanies roup, and affects the eyes in a manner similar to roup; it is very contagious, and, unless apartments are purified by whitewashing or carbolic acid, it is liable to occur again.



A SURFACE TANK.

To cure: take a piece of hard wood, the size of a lead pencil, and make one end spoon-shaped. With this remove the cankerous coating down to the raw flesh; then wash thoroughly with a solution of chlorate of potash, and anoint with vassaline or carbolic salve. Wash the eyes thoroughly, and anoint with the same. Repeat this daily until cured. Give tincture of iron in the drinking-pans with the water, and soft feed only. In very severe cases, use a solution of nitrate of silver in place of the potash. This must be used with great care, however.

A Surface Tank.

H. M., Huntsville, Ala., asks the best plan for building a water tank without the use of wood. The tank is to be on the surface of the ground and hold about 60 barrels.

ANS.—A water tank, or cistern, may be built above ground in the following manner: Choose a slightly elevated spot, and dig out as much as may be required, throwing the earth in a heap around the foundation. Then procure hard brick and water-lime mortar, made of one part of hydraulic cement and three parts of sharp sand mixed quite soft, and build the tank in the shape of a cylinder. For 60 barrels the tank should contain 240 cubic feet, which would be seven feet in diameter and about 6½ feet deep. The tank should be plastered with clear hydraulic cement, half an inch thick, inside and out, and the earth heaped up around it. A wooden or stone casing should be made around the cistern, to keep the water cool in the hot weather, and to strengthen it.

Tanning a Bull's Hide.

S. L., Sharon Center, N. Y., who had an inquiry on this subject in a late RURAL, receives the following recipe from P. H.: "If the hide is dry, soak it in salt water for one week; then put it into lime water for a few days, stirring it up once a day. When the hair is loose, scrape it off. Next put it into a bath made of hen dung and water, to extract the lime; stirring it up once a day for two days. It is now ready for the tan. Make a liquor of oak or hemlock bark—oak is best—put the hide into it; stir it up once a week for ten weeks. Then renew the liquor, and continue the same process until the leather shows a uniform color clear through, which will be in about nine months. Cut the thick edge of the leather to test the color. When properly tanned, partly dry it and give it a coat of lard. Then dry it thoroughly and it is ready for use. Apply the lard on the fleshy side. The work can be done by a steam tannery in six weeks.

The Muskoka Duck, Again.

D. L. B., Nunda, N. Y., like many others, asks where he can get a few eggs of the Muskoka duck; 2. where can he get the Beauty of Hebron potato, and its price per bushel or peck.

ANS.—In answer to our inquiry about the Muskoka duck, Mrs. Annie L. Jack says that is the correct name, and that her description of the bird was quite accurate. Those in her possession were presented to her by an old huntsman who periodically visits her neighborhood. On his next return she will find out all about the Muskoka, and let our readers know whatever she may be able to learn. At present, she seems to have a close monopoly of Muskoka. 2. Of J. M. Thorburn & Co., 15 John street, N. Y.; price, $4 per bushel; $1.25 per peck. See advertisement in last issue.

Measuring Corn in a Crib.

P. W., West Chester, Pa., asks for some rule for measuring the quantity of corn in a crib without the necessity of handling every bushel of it.

ANS.—Measure the crib so as to get the cubic contents in feet. Three cubic feet of ears will make one bushel of shelled corn. For instance, a crib 16 feet long, four feet wide at the bottom and six at the top, and seven feet from floor to top, will be measured as follows: the average width will be half the sum of the two widths, or five feet; multiply that by seven and by 16, which will give 560 cubic feet; 1½ cubic feet is one heaped bushel, and two heaped bushels ought to make a bushel of shelled corn; then divide 560 by three and the result will be 187, the contents in shelled corn. This rule needs to be modified to suit different circumstances.

Injured Leg in a Cow.

H. J. B., Amsterdam, N. Y., says: "Some weeks since I had the misfortune to have one of my cows bitten in the limb by a hog. I think I have succeeded in taking the soreness out, still the cow has not full control of her limb. The cords seem weak; what can I apply to strengthen them?"

ANS.—In such a case, we recommend dashing cold water on the afflicted limb, either from a small vessel or by means of a hose or fountain pump, to be continued for three or four minutes and followed by vigorous friction with wisps of straw till the part is dried and a reaction takes place. In case the weather is too cold to use the water treatment, dry friction may answer, or the application of a stimulating liniment with friction or even a mustard paste.

Remedy for Scours in Sheep.

S. W. T., Ithaca, N. Y., asks for a remedy for scours in a ewe:

ANS.—Confinement to dry food for a day or two often suffices. If the purging is severe, and especially if the voidings be accompanied with slime or blood, a gentle cathartic should be used, such as half a drachm of rhubarb, an ounce of linseed oil, or half an ounce of Epsom salts for a lamb, and a proportionately heavier dose for a sheep. This should be always followed by an astringent, and in most cases, if the latter alone is administered, a cure will be made. For this purpose use a quarter of an ounce of prepared chalk in half a pint of tepid milk once a day for two or three days. An English sheep cordial, which is strongly recommended, is the following: Take of prepared chalk one ounce; powdered catechu, half an ounce; powdered ginger, two drachms, and powdered opium, half a drachm; mix them with half a pint of peppermint water. Give two or three tablespoonfuls morning and night to a grown sheep, and half that quantity to a lamb. Any good drug store should supply the ingredients.

Hen Manure for Corn.

H. A. T., East Troy, Wis., asks whether it will do to put ashes and hen manure in the hill before or after dropping the corn therein, without mixing the manure with the soil.

ANS.—A great deal of mischief is caused by placing hen manure, mixed or unmixed with ashes, in direct contact with seed. This is too concentrated a fertilizer, and in most cases would seriously injure or entirely burn up the seed under such circumstances. A thin layer—say, half an inch—of soil should intervene between the manure and the seed. If the former, however, is mixed with about three or four times its bulk of loam, soil from the fence corners or dry muck, the danger from its contact with the seed will be trifling.

Wash for Fruit Trees.

W. H. H., Poughkeepsie, N. Y., says: "I shall scrape and wash a large number of apple trees this spring—will not a wash of caustic soda, with a little carbolic acid, be as good as the usual whale-oil soap and lime?"

ANS.—We have never used whale-oil soap. Charles Downing recommends dissolving two pounds of potash in two gallons of water, to be applied with a brush.

Silos?

J. J. Welch, Laneville, N. Y., asks whether there are any farmers in Livingston or the adjoining counties, who use silos for preserving corn fodder.

ANS.—We trust that any of our readers who may know of any conveniences of the kind in the section referred to, will communicate with our correspondent, as per above address.

Plants to Name.

T. J. E., Luling, Texas: The flowers are so dried up and crumpled as to be unrecognizable; the "moss" is Tillandsia usneoides, lately figured and described in the RURAL. We will be glad to name native wild flowers for our readers, providing the flowers reach us in good condition. Plants or flowers to be sent by mail, should be packed in tin or light wooden boxes; pasteboard boxes in mail transit are often bruised—as was the case in this instance—as flat as a pancake, and the contents reduced to a condition beyond discernment.

Miscellaneous.

J. B. J., Decatur, Macon Co., Ill., asks, 1, whether sheaf oats will make cows dry up, as he has been told by a neighbor: 2, will such food make the milk bitter; 4. He has a mare that for the last six or seven weeks has been growing poorer until he is afraid she will die. She seems in good health, and eats and drinks well. She is in foal. A friend says she is hide-bound.

ANS.—Sheaf oats, as compared to grass or other more succulent food, will make cows dry up, and as compared to hay or cured cornstalks, the oats in the sheaf not supplying sufficient succulence to offset the dry and unnutritious character of the straw, so much bulk of straw must be eaten in order to get a moderate supply of oats that the average succulence falls below that of the forage enumerated above. If the oats were cut while comparatively green, they would afford much more milk. 2, If the straw is free from rust and foul weeds it will not make the milk bitter, as there is nothing impure in clean oats to produce the effect. 3. The mare evidently requires more nutritious feed or her digestion is impaired. In either case give her, twice a day, four quarts of wheat bran scalded, with plenty of oats or one quarter of a pound of Glauber salts every other day mixed with four quarts of dry bran. The salts will correct the condition of the stomach and gently act upon the urinary organs which treatment will soon tell upon the skin. If there is too much loosness of the bowls produced, hold up a few days.

J. A. B., Needham, Mass., desires our opinion as to the new breed of poultry called Plymouth Rock, and asks where can eggs be procured. 2. What breed would we recommend for "all-purposes" fowls? 3. Please mention several reliable small fruit-dealers.

ANS.—We are much pleased with it. The fowls are gentle, mature early, are good winter layers. Very little can be said against them and much in their favor. 2. At this time, and judging from our own experience, we should say Plymouth Rock. Mr. J. T. Lovett, a trustworthy dealer, offers an excellent strain of P. R. His address is Cornwall-on-the-Hudson. His advertisement appears in the RURAL. 3. Dr. F. M. Hexamer, Newcastle, West. Co., N. Y.—E. P. Roe, Cornwall-on-the-Hudson, N. Y.—F. R. Pierson, Tarrytown, N. J., and a number of others. We do not believe that at the present time there is any other journal published which exercises more diligent and independent care as to the class of advertisements presented. Our friends may all of them consult these colums, therefore, with a reasonable assurance that they will not be deceived.

M. Mc. Bloomville, Seneca Co., Ohio, asks 1. for what purpose was the last ecumenical council held at Rome; 2, whether the steeple of the buildings in which it assembled was struck with lightning during its session; 3, whether any of our readers knows of a crab apple the size of an ordinary Rambo apple, but flavored like a peach.

ANS.—The last ecumenical council, opened by Pius IX on Dec. 8, 1869 in the Vatican basilica of St. Peter's, was assembled mainly for the purpose of declaring the infallibility of the pope, when speaking *ex cathedra*, that is, in his official capacity as the head of his Church, on points connected with faith and morals. 2. We do not remember to have heard of any unusual freaks of lightning about the building in which the Catholic prelates assembled from all parts of the world. 3. ?

S. W., St. Clara, W. Va., asks what is the best variety of yellow corn, briefly considered in all its points?

ANS.—This depends largely on the soil and climate. On bottom lands of rich alluvial soil the best kind would be some of the larger varieties of yellow Dent with medium-sized cobs and 16 to 22 rows of kernels, close set and deep. The ears of good length. If the soil is hilly and porous, the Dutton yellow—a 12-rowed variety of bright, plump kernels; ears of good length. If very poor soil, the eight-rowed yellow; small ears but very prolific, with small stalks. We have seen fine crops of each of these varieties. The Dent and Dutton require the longest time to mature.

J. L. B., Norfolk, Va., asks for a preventive of rust on turnips and for the flower fly.

ANS.—As far as we know, no reliable remedy is known for this disease. 2. Some Anthomyians are called flower flies, and some species of Coleoptera are called flower beetles. The latter may be shaken off the plants, gathered and destroyed. The flies lay their eggs on various parts of the plants; many remedies have been

tried, but most of them are more destructive to the plants than to the flies. The only effective remedy is to carefully look over leaves, stem and the upper part of the root of each plant and destroy all eggs and maggots that may there be found.

M. L. D., Sherman, N. Y., asks, 1, are all the seedsmen who advertise in the RURAL NEW-YORKER reliable firms, who sell only *pure* seeds and true to name; 2, what is a copyright book or newspaper; 3, does it pay to buy seeds at the stores of merchants or dealers, or is it better to send to some seedsmen; 4, do we know anything of the merits of the Washington potato.

ANS.—1. As far as we know they are. 2. One that has secured a right by law to the exclusive use of its name and original articles. 3. We should prefer to buy of seedsmen. 4. We have never tried it.

G. C., North Linndale, O., wants to know how to propagate the palm tree from seed.

ANS.—There are a great number of Palms in cultivation, and their propagation may vary somewhat, according to their hardiness, etc.; but, as a general rule, the seed should be sown in pots or boxes and placed on a gentle underheat. When the young plants are well under way, they should be transplanted, each in a small pot, and kept in a hot-house. As they grow, they should be transferred to larger pots, and have richer soil mixed with pieces of charcoal.

W. W. D., North Paris, Me., asks, 1, the names of some reliable breeders of Merino sheep; 2, the merits of a fertilizer he names; 3, where can he obtain the book "Grace Truman."

ANS.—1. N. T. Sprague, Brandon; S. G. Holyoke, St. Albans; E. N. Bissell, Shoreham; C. D. Lane, Middlebury; E. S. Stowell, Cornwall; V. Rich, East Shoreham, all of Vermont. Full information will be given by Albert Chapman, Middlebury, Vt. 2. We do not know of any fertilizer called by that name. 3. The American News Co. of this city.

M. A. E., Wellsville, Me., wants to know the proportion of lime and salt used in making chloride of lime, and directions for making it.

ANS.—Chloride of lime is best formed by acting on carbonate of calcium (marble, limestone) with hydrochloric acid. The reaction will take place thus: CaCO3 plus 2HCl equals CaCl2 plus H2O plus CO2. The products are chloride of lime, water and carbonic acid gas; the gas escapes and the chloride of lime remains dissolved in the water.

G. A., Campville, Conn., asks how Rhododendrons can be successfully grown in Northwestern Connecticut.

ANS.—They can be grown successfully in a greenhouse. For out-door culture, choose hardy or nearly hardy varieties, plant them in a sheltered place in a soil rich in humus and free from calcarious matter. During the summer season, they must be shaded somewhat from the hot sun. During the winter they may be covered with leaves, if small; otherwise packed in straw.

E. K., Thoroughfare Station, Va., asks whether the experiment made in the manufacture of sugar from beets in Maine, is an assured success.

ANS.—Those who have the enterprise in charge express themselves as satisfied with the measure of success that has hitherto rewarded their efforts; yet in view of the numerous failures elsewhere of similar undertakings which inspired hopes equally strong at the outset, it is yet too early to consider the experiment a complete success.

M. D. C., Eaton, N. Y., wishing to get as much seed as possible from the "Beauty of Hebron" potato, and to raise two crops this year, has planted the pieces in large tubs, and asks whether it would be better to transplant them when the weather is warm enough, or let them remain, and grow the first crop in the tubs.

ANS.—As the tubs are large enough to allow them full room, it would be better to grow the first crop therein, and the second crop in open ground.

S. E. W., Tiptonville, N. H., has a barrel of pork brine, and wants to know whether he should use it in his hot-bed, or on the asparagus bed; and, should hen manure be used with stable manure for a hot-bed.

ANS.—1. Give the asparagus bed a sprinkling with it about once a week. 2. No; dry the hen manure, pulverize it by trashing, and sow it on the ground like guano.

M. S. B., Long Island, wants to know what sort of a mill is used to grind sage.

ANS.—Sage is ground in a mortar when small quantities are handled. The rubbing and crushing effect leaves the material in the best condition. The ordinary burr-stone mills, such as the Plantation Mill described in a recent number (page 5), will serve when a large quantity is to be ground.

J. M. K., Burford, Ont., asks, which is the best kind of bee-hive in use, its price, and where it can be procured.

ANS.—It is a matter of opinion which hive is the best, some bee-keepers preferring one kind, and others, another. See Our Bee Hints in last week's RURAL. Visit some intelligent and successful bee-keeper near you; it will pay for the trouble.

W. H. W., Oak Ridge, N. J., asks if the Hemlock that grows in his section, will make a good hedge, and whether it can be trimmed into any form desired.

ANS.—Hemlock is a name sometimes applied indiscriminately to several evergreens, so we are not quite certain what our correspondent refers to. Hemlock Spruce (Abies Canadensis) is used for hedging and bears trimming well.

G. W. K., Tecumseh, Mich., asks where can he buy a good "Incubator" for farmers' use.

ANS.—Send to A. M. Halstead, Rye, N. Y., and also to Prof. A. Corbett, 7 Warren St., N. Y., for descriptions of the Incubators they have for sale; compare them and judge for yourself which is best adapted to your needs.

W. Y. Y., Salisbury, N. C., asks where can he get a good, pure, white variety of hominy corn.

ANS.—Thorburn & Co., 15 John St.; Peter Henderson & Co.; 35 Cortland St.; B. K. Bliss & Sons, 34 Barclay St.

C. C. N., Greenfield, O., asks whether the Bronze Crimson Lettuce and Ornamental Beets are purely ornamental, or grown also for the table?

ANS.—Both are useful for the table as well as ornamental.

J. P. B., Erie, Pa., asks where Lost Nation spring wheat may be obtained.

ANS.—From D. M. Ferry & Co., Detroit, Mich. The other question will be fully answered for all our readers in a week or two.

COMMUNICATIONS RECEIVED FOR THE WEEK ENDING SATURDAY, MARCH 22d.

T. F. F.—W. R. B.—J. A. H.—M. W. F.—J. B.—E. P. P.—Dr. T. H. H.—G. P.—W. H.—F. W. C.—A. B. C.—F. D. C.—W. W. H.—M. L. D.—S. T. B.—C. H. B.—P. H., thanks—W. S. M.—E. G.—J. B., see next issue—L. A. R.—J. R., thanks—"Fancy Free," thanks—S. B. P.—W. H. B.—W. S. H.—S. H.—A. W. H.—C. C. G.—W. L. H.—J. H.—F. F. R.—I. A., thanks—T. H. S.—J. L. D.—J. H. B.—N. A. R.—W. O. K.—F. J. W.—F. C. M.—J. C. R.—T R. K.—J. L.—C. M.—W. L. O.—J. T., 2—A. D. S.—T. R.—G. G.—L. R. H.—T. L. M.—L. B. S.—M. O. R.—E. P. R.—G. W. S.—E. W. G.—F. H. T., jr.—W. J. D.—J. M.—E. G.—A. B. F.—T. M.—K. R.—A. L. M.—N. A. T.—T. E.—H. M. N.—H. P. F.—J. M. R.—H. R.—B. C. L.—T. R.—N. T. O.—L. J. D.—J. O. S., Bridgeport—which of the 16 Bridgeports in the United States is meant?

The above is a fair specimen of hundreds of letters received. Soon these friends will complain that they did not receive the seeds applied for. We have received hundreds of applications for seeds some of which have had no signatures—some no address—some that could not be read, etc.

Trees, Seeds, Plants, &c.

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At $1 per 100; $8 per 1,000. Also the leading and new varieties of **Strawberry, Blackberry** and **Raspberry** Plants, including "**Gregg**" in large supply. Japan Persimmon, Japan Maple. Send for Price-List of **GENERAL NURSERY STOCK** and small fruit. LEO WELTZ, Wilmington, O.

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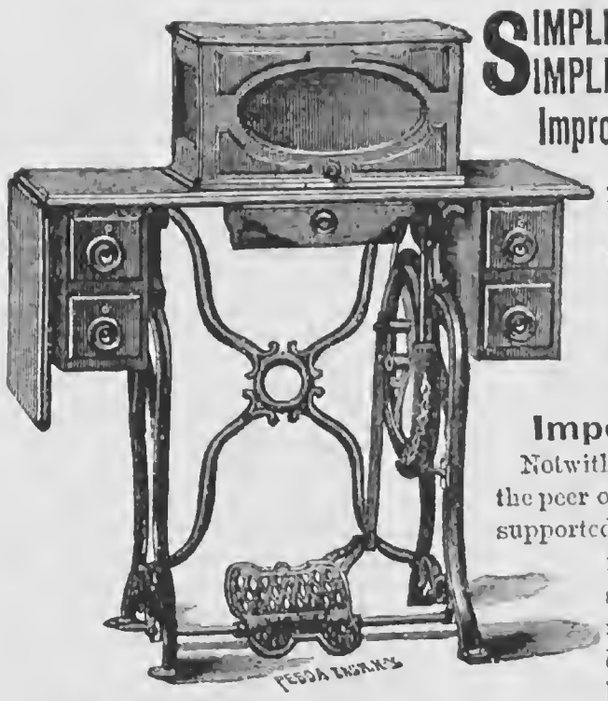

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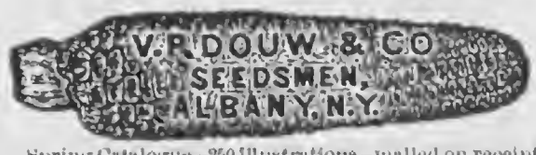

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THE
RURAL NEW-YORKER.
PUBLISHED EVERY SATURDAY.

Address RURAL PUBLISHING CO.,
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SATURDAY, MARCH. 29, 1879.

TRY IT AND TELL US.

THE RURAL does not wish to be considered as advocating any seemingly unnecessary expenditures of any kind. We believe in "rigid economy"—we believe that the extravagant, improvident farmer *must* fail in a business the very foundation of which is economy and labor. But there is a sort of excessive economy that makes men hateful to their friends, to their families, and, we should think, to themselves as well. As benevolence is not benevoleuce the very moment anybody gives away that which his own family needs—so economy must be called by another name whenever a man "economizes" so far as to deprive himself of those "common decencies" which should separate a man from a brute. We have no patience with the farmer who, according to his means, is too economical to be willing to make the interior of his home cheerful and comfortable. We have no patience with the farmer who has no appreciation at all of what are expressively known as the "refinements of home."

But what *are* the refinements of home? It is, unfortunately, true that each individual must answer this question for himself, and that consequently, in a majority of cases, it must be erroneously answered. We can not make "a silk purse out of a sow's ear," nor can we drum into the head of a dirty, heedless, thoughtless, selfish man that it is as much his duty to attend to the brightness of his own home as it is to eat his meals thrice a-day. But there are hundreds of our readers who are "refined" at heart, and do not, always show that they are refined simply because "the refinements of home" have never been presented to them in a forcible manner. There are others who from education take a partial or distorted view of what every man owes to his family and to every other man. For instance, we have neighbors who own fine barns and houses. The houses are furnished as well as need be—sometimes elegantly. Their animals receive good care; everything indicates prosperity—save one, *viz.*, the door-yard—the lawn—the strip of ground between the dwelling and the road, by whatever name it may best be called. That is given over to weeds and to an occasional stunted fruit or ornamental tree. Now there is nothing that so enhances the appearance of the house itself and of the entire premises as a meed of attention to this same "piece of land." Why is it not freely given? In reply to this question squarely put to good farmers, we have been told—"*Oh it's too much bother!*" or, "It takes too much time,"—or, "It costs too much"—or "That's all hifalutin; what *good* does it do?"

In such answers we see merely a disregard of the refinements of life. Such replies can not be supported by reason. Is it "too much bother" to have one's floor carpeted? Does it take "too much time" to set a neat, inviting table for the daily meals? Is it "hifalutin" to black one's boots and to put on the dress-up suit for Church or Sabbath-School? What is "hifalutin" in the one case, is "hifalutin" in the other, and the only difference is in degree. The orderly and even beautiful appearance of the grounds about the home is, to our way of thinking, of just as much importance as orderliness or beauty in any other part of the homestead or farm. Aye, if we were called upon to neglect our lawn on the one hand or our Sunday dress-up on the other, we should choose to neglect the latter and feel that we acted wisely.

Spring is upon us, good readers. The weedy, unkept plots of ground may now be turned into things of beauty, and so maintained for no more expense than is requred to maintain the tidy room, the clean carriage, the Sunday dress-ups and the ordinary marks of a regard for "decency" which we have called "refinements of home." Plant a few dwarf Pears; a few evergreen and deciduous shrubs and trees; a few Grape-vines, etc. Cut the grass every week—keep the path, or paths, clean and free of weeds, and then tell us, good readers, next November if, in truth, it is "too much bother;" if "it takes too much time;" if "it's all hifalutin!"

BEET SUGAR.

THERE is an aptness, which is continually illustrated, in the old story of the dying man who informed his weeping children that a pot of gold which was buried in his garden was their inheritance. The old man was doubtless soon buried beneath the sod, so that his mourners might find the treasure. The garden having been soon dug, and dug over and over without finding the buried treasure, was planted, and the unusual [illegible] resulted in a wondrous crop, which was found to be, in fact, the sought-for wealth. So with beet sugar. An enthusiastic gentleman promises the farmers of Maine that they have a veritable pot of gold in each of their fields, and that to find it they need only to plant sugar beets. We entirely agree with this idea, although it may not be in precisely the way that the enthusiastic person referred to would have us coincide with him. There is gold in beets, even though there may not be sugar as the intermediary. The manufacture of sugar may not be successful (although its success is to be greatly desired for many reasons), yet the culture of beets cannot fail to be of the greatest profit to the growers, if it only results in their learning how to grow roots successfully.

Root culture is one of the most promising innovations in our whole farm practice. No other product, from an acre of ground, will support so much live stock, produce so much meat, milk, mutton, wool, pork, lard or manure, as a well-grown root crop, and of all the root crops the sugar beet is the most nutritious. Sugar is by no means to be ignored as a nutriment, although a writer in a leading agricultural journal, recently intimates that the 10 or 12 per cent. of sugar in these roots may be dispensed with in estimating their value. It is in this respect that sugar beets have an advantage over the more productive mangels, and the lighter crop of the former thus balances in a great measure the heavier yield of the latter. The sweetest beet, the French or Silesian sugar beet, is of small size, or, at least, so desired by the sugar manufacturers; and if the crop is grown for sugar, these varieties, or one of them, is chosen. But if beets are not to be grown for sugar, they should by all means be grown for stock feed; and this is precisely where the analogy heretofore referred to, appears. If roots for stock, whether beets or mangels, are grown by reason of the present interest in sugar beets, the mythical pot of gold will be found, although in an unexpected way.

The moral of this is, "grow beets"—for sugar if you will, but if not, grow beets; or even other roots, and their sweet influences cannot fail to be appreciated by the live stock, greatly to the farmer's profit.

A STABLE INDUSTRY FOR THE FUTURE.

ONE of the most stable and profitable industries in the future will be the raising of sheep, and the production of mutton and wool. One of the conditions which will insure this is the fraternal relations which exist between the wool-growers and the manufacturers. The united action of these interests can doubtless succeed in regulating Congressional action so that no unjust or destructive legislation will be had in regard to either branch, which might not be the case if the wool-growers and the woolen manufacturers should each go their own way, and not unite to promote the general welfare. Last year, when the Committee of Ways and Means undertook to annul the tariff laws, the representatives of these interests met, and agreed in the most harmonious spirit to oppose any change so far as the woolen interests were concerned, and succeeded in convincing Congress of the wisdom of their wishes, and, no doubt, their influence did more than that of any other, and, perhaps, more than that of all other interests, in defeating the bill reported by the committee. Those engaged in woolen interests may take courage from these facts.

In connection with this favorable action of Congress, the establishment of new lines of steamers to run in conjunction with the great trunk lines of railroads to Great Britain for freighting live stock, opens up an almost unlimited market for all of the surplus mutton we can produce. The American farmer should be able to produce mutton at so low a cost as to be able to send it to Europe and undersell both the farmer of Great Britain and the Continent. The whole country east of the prairies is being impoverished in the productive ability of the soil, and needs the replenishment which sheep husbandry and stall feeding can best supply. This system of farming has made England a garden, and is the most wholesome and natural panacea for our depleted and worn-out lands. Shall we avail ourselves of the opportunities now presented, and so favorable for entering upon a new system of husbandry, or let the blessing brought to our doors pass by unheeded?

SEEDING AND FERTILIZING IN SPOTS.

MOWINGS and pasturage, when seeded and manured, are treated usually only once for all, and as a whole. We have often wondered why it was that farmers allowed bare or sandy spots to go unattended to until the bareness, or the weediness, extended so as to cover a large proportion of the soil. This is, we know, altogether needless. We are acquainted with at least one extensive farmer and dairyman who, not content with keeping his pastures free from all sorts of brush, never permits a bare or seedy spot in them. If from the settling of water, the effect of frost, or the pawing of animals, a bare spot appears, it is at once seeded, and in some cases even sodded, so that the turf is maintained unbroken. Similarly, where the grass gets thin and weeds begin to appear, manure is applied to that spot, and the enfeebled grass thus stimulated to reoccupy the ground. In this way a pasture of a hundred acres presents at all times a sod of pure, thick grasses, the like of which it would be hard to find on this side of the Atlantic. Yet there are thousands of farmers as well situated and as well able to have such pastures, if they only would, and the same principles are equally or more applicable to mowing lands.

The result is not only a matter of looks, but of profit. The cheese of the farmer above alluded to is sought for and taken by the high-class restaurants and hotels of New York and Philadelphia at a fancy price. Much of its excellence is doubtless due to his hereditary skill in its manufacture, but certainly the excellent quality and perfect uniformity of this cheese are due, in no small degree, to the fact that it is made of grass-milk, and because no weed-milk or browse-milk ever goes into it.

PEARS—THE DUCHESSE.

THE Duchesse d'Angoulemc! Do not purchase this pear for home use. It is often worthless—never good. It is at best coarse-fleshed, of a low flavor, and ripens only with much care. Else it is spongy and shriveled. *For market!* Oh, yes, it is an excellent market pear. *It is large!* The trees (dwarfs) are highly productive. It is a *fine* dwarf market pear—this Duchesse. Anything is a good market variety that is *large* and has *some* flavor. The *market* has to do with buying and selling. It cares most for *looks*. A strawberry that is *hard*, and sour, and red, is better than one that is sweet and delicious, though a little off color and soft. The demands of the market are peculiar. There is only a slight connection between *market* and *good* fruit. We say to our friends who want delicious pears—do not plant the Duchesse. A contemporary remarks of pears: "The variety is bewildering!" The varieties of medium or poor pears from which to select, *are* bewildering. But of really first-class pears, there are very few, and those that thrive in one locality may do but poorly in another. This cuts down the list still further.

IT IS HARD TO PLEASE ALL.

WE have never *felt* the truth of the above so forcibly as during the past few weeks in the matter of our free-seed distributions. Many have written to us complainingly, as if our distribution of seeds were something that we are paid for and that they have a right to demand, regardless of the terms and restrictions which we have been obliged to impose, and which we have published again and again. For instance, we have been told, within the ten days past, by many that we have *no right to discontinue* our first seed distribution, and that it is our duty to serve all alike. Many others have complained that they did not receive *all* of the sorts ordered, but that others were substituted which they did not want. If our complaining friends could only be induced to read the special and general notices which we are at pains to place clearly before them, they might see that their complaints have nothing whatever to stand upon.

Pinus Edulis.—Four years ago we planted nuts (seeds) of this Pine. They germinated freely, and when once well rooted in pots, were planted permanently out-of-doors. For three winters they have been unharmed, though at present not over seven or eight inches in hight. We have sent a great many of these seeds to our friends in place of others applied for, which we could no longer supply, and we hope they will be given a good trial. Prof. Torrey has said of this Pine that "it is found in rocky places on the Llano Estacado; also near Hurrah Creek, New Mexico, September 20, with ripe seeds." It seems to attain, according to situation and climate, a hight of from 20 to 50 feet. The nut is sweet and much liked by most persons, about the size of a hazel-nut, though rather more canoe-shaped. Those of our friends who have never raised Pine seedlings will, at least, see much to interest them in the singular manner of their first growth, sending up, as they do, half a dozen or more "first leaves," instead of two, as in most hard-wooded plants.

BREVITIES.

BALDWIN APPLES are now selling at wholesale in England, for $5 50 per barrel.

AFTER the practical details of the best modern methods of maple-sugar making, a description of older methods has all the more interest.

IT will soon be the best time of all the year to plant Strawberries. The reader is reminded to refer to the special strawberry, raspberry, &c., numbers of the RURAL of last fall for all needed information.

COL. COLMAN says, touching the extensive planting of Early Amber and manufacture of sirup and sugar, "Go slowly—wait—don't overdo the thing—slow and sure is the motto in all new enterprises," and this is our own advice to our Western friends.

IN this climate and at this season and a little later, spring bulbs (Tulips, Hyacinths, etc.) are very often harmed by frosts. Sometimes the flowering stalks of Hyacinths are cut off entirely. To prevent this, nothing is better than to mulch with old barnyard manure.

THERE is an unusual concurrence of opinion all over the country, among those who ought to know, that the Acme is the best tomato. Many of our readers will remember that the RURAL was among the first to state this opinion, having tried it with many other varieties when it was first introduced.

WE intended to have mentioned last summer when it occurred, the case of a double flower of Gladiolus—not "double" in the usual sense, but two flowers grown into one. It was nearly double the usual size, with twice the number of petals, stamens and pistils. By the way, what a miserable word "double" is to express what is meant by it. "Double" flowers are not, in fact, double in any sense. *Very* double—*extremely* double—*semi*-double, are the mongrel qualifications of this unmeaning term.

BEWARE of working in the garden too early in the spring. If attempts are made to transplant trees while there is even an inch of frost in the ground, great danger will be incurred from the accruing injury to small fibers. The preservation of these small fibers, be it remembered, is of vital importance to the life of the tree during the operation of transplanting. Moreover, ground that is worked in the spring before warm suns have dried it out, will, very likely, remain heavy and lumpy, and be otherwise injured throughout the season.

THE records of the Am. Pom. Society show that Bartlett and Seckel are highly thought of by 32 States;—Duchesse, Beurre d'Anjou, Doyenne de Eté and Lawrence by 29 States;—Flemish Beauty, Bloodgood and Buffum by 27 States;—Louise bonne de Jersey, Howell, Dearborn's Seedling and Onondaga by 24 States; Beurré Giffard, B Superfin, Winter Nelis, Doyenné Boussock, Rostiezer Sheldon and Tyson by 21 States. The above is a far better guide than selecting Pears haphazard out of catalogues or according to the dictation of tree peddlers.

STABLE manure seems to hold its own against all competing fertilizers, as is indicated by the fact that in these days of low prices, the value of good stable manure, in the market of New York, has gone up this year at least 20 per cent. Two facts are probably developed still more by this rise. Firstly, that stable manure is rather gaining than losing in popularity, and, secondly, that the demand is increasing because more people are turning their attention to farming, and because those engaged in it already are improving their methods.

THE culture of Willows for basket-making does not prove a success in America. Some say labor is too high to allow any profit. The facts are that willow shoots of the proper size for basket-making are worth only 5 cents per pound delivered in New York or the nearest city in which they can be sold. A large yield of willow shoots is one and a half to two tons to the acre, and there are many expenses which accompany their culture. Probably the chief cause of the general discouragement concerning willow cultivation is the fact that an insect or bug frequently ravages such plantations in a decidedly wholesale manner.

MR. N. OHMER of Dayton, Ohio, has ten or twelve acres of the Gregg Raspberry, and reports, according to Mr. Charles Downing in the N. Y. Tribune, that it is the largest, best and most profitable of any of the Black-Cap family he has grown. It is hardy, he says, and will succeed in any good soil. Mr. Downing thinks Souvenir du Congress pear "is promising as a market pear—being of good size and handsome, though only of second quality." "Good size," "handsome"—"second quality"—"good market variety." No doubt the *market* will continue to supply what sells best. We are only sorry for the people who choose size and appearance before quality. Why not buy *wax* pears larger and handsomer than any that grow, and keep them on the mantle-piece to look at, and then demand quality of the market?

Literary Miscellany.

THE FIRST STRAWBERRY.

MRS. FANNIE E. NEWBERRY.

A MYTH.

POMONA once, in meditative mood,
Turned languid eyes upon the Sisterhood,
And spoke with accents mild, and mellow tones,
"Come, sisters, let us wake and gird our zones;
We must not dream these lovely hours away,
A work we have before us this May-day—
Have you not heard great Jupiter's request?
He asks for something which may add a zest
To lovely Venus's birthday festival;
Some rare, delicious fruit which may excel—
Even Bacchus's wine, or roots of asphodel.
I have in mind a thought of something sweet
As honey of Hymetus, and complete
In flavor as that rare, ambrosial brew
Which Venus drinks, her beauty to renew,
And yet, withal, a crispness it must have
Like to the spicy cress which brooklets lave;
And e'en its color must be brilliant, too,
For Venus's beauty-loving eyes to view.
Ah! tell me, Sisters, what this fruit shall be
To please the gods in taste and symmetry."
Fair Ceres thoughtful seemed, and turned away,
And sparkling Flora not a word could say;
The seasons, always helpful to the three,
Looked in each other's eyes and sighed—"Ah, me!"
But bold Pomona, roused to action now,
Sprang to her feet, with triumph on her brow!
"Oh! Sisters, listen—heed my least command,
And haste to bring the best from every land.
Then in the magic bowl your gifts I'll brew,
And from it mold this fruit, all rare and new."
They flew on wings of thought, or sailed away
On downy clouds which, moored in ether, lay.
Fair Flora ransacked all her beauteous bowers,
And tore the hearts from out her choicest flowers;
While Ceres found the nourishment which lay,
Hidden from other eyes, in wheat away;
Then, thinking this an off'ring all too mean,
She wandered on among the wheat fields green
Till suddenly, with thrills of sweet surprise,
She met the glances of a baby's eyes,
Who, lying in content beneath a tree,
Had seen her beauty, and laughed out in glee!
Stooping, with strong desire, the goddess sought
To steal a kiss from off his lips, but caught
His breath, so subtly pure and sweet, she cried—
"I have it now—a gift to suit my pride!
This baby's breath contains a perfume far
Sweeter than airs from spicy gardens are—
Pomona will accept this offering,
E'en though from mortal lips its sweets I bring."

* * * * * *

The Seasons brought their dainty off'rings in
Of sun rays warm, and rain drops left of sin
Untouched and pure, since once their multitude
Flooded this wicked earth and left it good.
And as each off'ring mingled in that bowl
Into whose mystic depths no mortal soul
May ever look—Pomona, priestess fair!
Stood over it, and waved her white wand there;
While, ling'ring round about, the Sisterhood
With looks of doubt and eager wonder, stood:
At length, she lifted thence a drop, or two,
Which shone with radiance of the morning dew;
And from her finger took her thimble gold,
To pour therein the amber drops till cold—
Then turned them, hardened into shape, upon
A rose-leaf pale, which fluttered there anon.
But carelessly her white hand touched a thorn,
And by it was, with playful malice, torn;
A drop of blood oozed from the tiny wound—
Impatiently she shook it to the ground,
It fell upon the dainty, amber mold
And into crimson turned its lucid gold!
Pomona lifted it, surprised and mute,
But in her heart she knew she'd found the fruit,
O'er which both gods and men may well grow merry,
The luscious, fragrant, crisp and sweet strawberry!

Coldwater, Mich.

WEAKER THAN A WOMAN.

(Continued from page 190.)

CHAPTER XLIII.

AT one o'clock in the morning, Darcy Lonsdale reached Garswood. He had no words to express his surprise and dismay on hearing of Sir Owen's accident. He had returned home on the previous evening from London, and a few hours afterwards received the summons to Garswood. He went direct to Sir Owen's room, and was startled by the loud cry with which the dying man received him.

"Come here, Darcy," said Sir Owen. "You have more sense than all the doctors put together. Do I look like a dying man?"

"You look better than I expected to find you," answered Mr. Lonsdale.

"Yet they say I am dying. They say my spine is injured. I am talking to you now; yet they say when the sun rises I shall be dead. It is absurd—say it is absurd, Lonsdale."

Mr. Lonsdale looked down with infinite pity on the face that was almost convulsed with terror.

"I am afraid," he said, "that you have heard the truth. It would be cruel to give you one false hope. It is time for you to make your peace with Heaven."

Sir Owen turned his agonized face to his wife.

"Oh, Violet, they are all against me, my dear, but you! You do not believe it, do you? You are kinder and you care more for me. What is my life to them? Tell me—do you believe that I am going to die?"

She whispered her answer. No one heard it but himself, and with a wild cry he turned away his face.

"They are all alike! They want me to die! They will not let me live!" he exclaimed.

Doctor Brown stopped his wild raving by telling him that the quieter he was the longer he would live. The presence of the two doctors, however, irritated Sir Owen so greatly that they were compelled to go down-stairs. Felix followed them. The night had grown cold and chill. A storm was brewing; the wind was wailing round the house, bending the tall trees, and robbing them of leaves.

The servants were all up and a fire had been lighted in the library. Felix ordered hot coffee, and sent some to his father and Lady Chevenix.

"This is a terrible state of things," said one doctor to another. "There seems to be no sense of what should be done. We ought to send for the Vicar."

"Yes, it would be better," agreed the other. "It would save appearances. But I am no believer myself in death-bed conversions."

"You forget," rejoined his friend, "that mercy may be extended even at the last moment."

"No; I do not forget that. But I think the best preparation for death is a good life. I would not change places with Sir Owen."

Felix sent at once for the Vicar of Lilford, and then returned to the Baronet's room, leaving the doctors together.

Sir Owen had grown very quiet now. He lay with Violet's hands clasped in his, as though clinging to her, he could not die. Darcy Lonsdale sat at the other side, his kind, sensible face full of compassion. He had seen nothing in all his life that affected him as this death-bed scene did.

"I am no worse," he said; but the voice was changed and faint. "Have you sent the doctors home?"

Felix bent over him without replying; but there was such kindly sorrow and anxiety in his face that Sir Owen said—

"You are a good friend—what I call a true friend. My dealing with you was not as fair as regards Violet here. But you forgive me?"

"Yes," answered Felix, "I forgive you."

"Now look at me," whispered the faint voice—"look well at me. I feel weak, but that is through lying here so long, and being frightened. Tell me, do I seem like a dying man?"

With a woman's weakness, Felix bent lower over the face that a few hours since had seemed to him repulsive, so that Sir Owen should not see the tears which filled his eyes.

"Do not be angry with me," he said—"I dare not say 'No.'"

The Baronet groaned; and shortly afterwards Mrs. Haye arrived from Lilford. Lady Chevenix never moved; she still knelt by her husband's side, and Darcy Lonsdale kept his station opposite. Sir Owen smiled when Mrs. Haye came in—he had always liked her.

"Did they send for you also?" he said. "What folly! You must not believe one word they say."

The darkness of the night passed—there was a faint gleam of early dawn in the eastern sky. The dying man's quick ears detected the first notes of the birds.

"Hush! Hark!" he cried. "The birds are chirping! Now who is right? They said that I should be dead before the dawn! Draw those hangings, Violet, and put out the lamps. It is dawn now; I see the red light in the sky. I am right, and the doctors are wrong."

They drew the hangings and put out the lamps, the dawn came flushing into the room. The great window faced the east, so that the first rays of the sun shone directly into the room. How gray and haggard Sir Owen's face looked as those beams touched it!

Darcy Lonsdale discerned what Violet could not—the speedy coming of death. He knelt down by the dying man's side, and he spoke to him as no one would have thought he could speak. He dwelt so much upon the mercy of Heaven and the goodness of God that Sir Owen's pale lips trembled.

"I wish," he said, "that I had thought of all that before. It is too late now—much too late."

The Vicar came; but when he stood by the Baronet's death-bed, it was perceptible to all that Sir Owen neither heard nor understood. He roused himself soon afterwards, however.

"I feel very ill, Violet," he said—"very ill indeed. I have no strength; I cannot move. Can it be true what they said? Call the doctors back, and tell them they must do something for me."

They were brought back, and such an hour passed then as they hoped never to see again. Sir Owen's terrible cries, his screams of fear—for he was afraid to die—horribly afraid of the unknown future—distressed them. It was such a scene that those present were long in forgetting it. Then, when the bright sun came forth in his splendor, and the birds chirped loudly, the Baronet turned his face to his wife, sighed softly, and his spirit fled.

He had been dead some minutes before the doctors found it out; and the same sunbeams gilded the dead face of the husband and the white, beautiful living face of the wife.

They carried her away; for the horror of the scene proved too much for her. She was so overwhelmed as to cause alarm amongst those who loved her. It was bright morning then. The doctors took some breakfast, and each went off to his duties. Lady Chevenix lay in her room, with Mrs. Haye keeping anxious watch by her. Felix went home, and Darcy Lonsdale remained, to take charge of everything.

The gloom of the next few days was great. Into the darkened house there came no sunlight. People kept going and coming, all intent on the same melancholy business—preparations for the funeral. Dull gloomy days they were, into which came no gleam of hope.

Sir Owen's death caused great dismay; still no one was very much surprised at his untimely end; and, curiously enough, the suddenness of it excited great pity. People who had spoken unkindly of him, and condemned his faults most vigorously, now grieved most for him. His sins and errors seemed to be covered by the great, dark, thick veil of death.

The day of his funeral came, and half the county attended. Sir Owen was buried in the churchyard at Lilford, where the oak-trees seemed to murmur among themselves that they had foreseen what would happen, in the early days, when he walked under the spreading shade of their great branches.

Then came the reading of the will. The lawyers and trustees assembled in the library, and Lady Chevenix, in her widow's dress, entered soon afterwards, accompanied by Mrs. Haye. There was some little commotion at her entrance. One gentleman brought a chair, another a footstool. She looked so delicately lovely in her widow's dress, her golden hair half hidden by a pretty Parisian cap, the heavy folds of rich crape sweeping the ground. Lord Arlington hastened to meet her, and, after a few kindly words, took his station by her side. It was well known that he and Captain Hill were the two executors of the will. He spoke some few words to her in a low voice, and then both composed themselves to listen.

It was a good and just will—evidently the product of a thoughtful mind. Mr. Lonsdale had, in fact, suggested almost every clause in it. Every old servant in the house had a handsome legacy; the trustees, all Sir Owen's old friends—every one was remembered. The bulk of his fortune, with Garswood, was left to his "dearly-beloved wife." There was a very handsome bequest to Francis Haye, and one to the Vicar; there was a large sum left to each charity in the neighborhood.

There was a murmur when the reading ceased. Every one was pleased. Lady Chevenix bowed as she quitted the room, and the gentlemen stood in little groups to talk about her.

"What a fate!" said Lord Arlington. "So young, and so beautiful! She will have an income of over thirty thousand pounds per annum too. What a strange fate!"

"That comes of having a beautiful face," put in frank Captain Hill. "A beautiful face is better than a fortune."

"At times," said Darcy Lonsdale. "Every beautiful woman is not favored like Lady Chevenix."

Then matters pertaining to the estate were discussed by the executors; and it was arranged that, with the young widow's consent, all business should still be left in the hands of Mr. Lonsdale.

A very different scene was passing in the room where Lady Chevenix sat with her mother. Mrs. Haye was walking up and down, her pride and elation almost more than she could conceal.

"I always liked Sir Owen, my dear. I always said that he was a most honorable man. What could be nobler than his treatment of you? I have known such terrible things happen."

"What kind of things, mamma?" asked the widow—but there was little interest in the tone of her voice.

"Terrible things, my dear. I have heard of rich men dying, and leaving a handsome fortune to their wives on condition that they should never marry again. Now I call that atrociously mean."

"So it is, mamma," said Lady Chevenix—"and very wrong, too."

She spoke, however, as one whose thoughts were not with her words. She had untied the widow's cap, and was caressing with her fingers the long golden hair that fell over her shoulders. Mrs. Haye did not observe her.

"Sir Owen, you see, Violet, had more sense than that. I have never heard of a more generous will. Only twenty-six—and you do not look twenty—young, beautiful, with a fortune like that—what more could any woman desire?"

"I desire no more, mamma. I only feel as though I wanted a long rest. I am very tired; no one can tell how tired I am."

"Your income will be over thirty thousand a year. Only think of that! And it was so good of your dear husband to leave your father and myself five thousand pounds; it showed such a kind feeling. It seems strange that so much good fortune should have fallen to your lot."

The young widow looked round her sumptuous room.

"Yes," she said, "it is strange to remember that I was once Violet Haye."

"'Beautiful Violet Haye' all the young farmers called you," rejoined Mrs Haye. Then she saw the golden hair lying on the folds of crape. An expression of horror came over her face. "My dear Violet, how can you be so careless," she cried—"and after such a will as that? Put on your cap, my dear child, at once! Only imagine my feelings if one of the servants saw you! I should never forgive myself."

"I did not think of what I was doing," said Lady Chevenix, languidly.

"But you must think of such things. You must study appearances. It is a duty."

Mrs. Haye hastened to her daughter's side, and with her own hands wound the golden hair into a large knot, and placed the cap securely on her head.

"Do not take it off again, Violet," she said "after such a will, it seems quite heartless."

She wondered why her daughter laughed with a tired, hopeless expression—she who was mistress of thirty thousand a year.

CHAPTER XLIV.

Long months had passed since Sir Owen was laid in his grave; and now August was come round again, with its ripe fruits and yellow corn. Lady Chevenix, every one agreed, was a model widow. During the interval that had elapsed since her husband's death, hardly anyone had seen her. Visitors had called, but had never been admitted; they had left cards and condolences, and had each approved of the fact that Lady Chevenix kept herself quite secluded.

Mrs. Haye spent a great deal of time with her daughter. It was indeed that most estimable lady who had advised the long course of seclusion—who saw that the golden head was not uncovered until the proper time—who brought to her daughter all the news of the outer world, and formed the one link between her and society in general.

Nothing could have been more decorous or proper; and every one felt it to be quite the right thing to speak of Lady Chevenix as feeling her husband's loss so keenly that she was no longer able to see any one.

Did she feel it so keenly? She never asked herself the question. She had been overwhelmed with the horror of the closing scene—as indeed had every one else who had witnessed it. It had haunted her sleeping and waking hours, as it had the days and nights of every other witness. She had been stunned and bewildered by it. She had been so frightened that all her natural high spirits had left her.

Did she regret Sir Owen very much? She could not tell—she never asked herself the question. She had been shocked, startled, horrified—but it was not the keen sorrow of her loss that made her shrink from all observation. It was rather the reaction from what she had suffered. And she suffered still. She often started in alarm from her seat, her heart beating with terror, thinking that she heard her husband's voice; then she remembered that he was dead. She woke often from her sleep, her pillow wet with tears, her whole frame trembling with the horror of some terrible dream, in which her husband was an active figure—and then she remembered with a strange emotion that he was dead.

It was strange to go about the house without fear; it was strange to give her orders with the certainty that they would be obeyed; it was strange to know that she need tremble and suffer no more. There were to be no more anxious hours spent in waiting for her husband's going out and coming in; it was all over—he was dead. She said the words to herself a hundred times each day—"Sir Owen is dead." She had found it difficult to realize her subservience; she found it just as difficult to realize her independence. She told herself at times that she was absolute mistress of Garswood—absolute mistress of thirty thousand a year; but she could neither realize nor understand it.

One day Lord Arlington found it necessary to see Lady Chevenix on business; he was accompanied by Captain Hill. She received them with quiet grace, and listened to all their business statements; then she said it was her express wish that Darcy Lonsdale should continue to act in every way for her, but, as he would have more to do, she insisted on doubling the salary Sir Owen had paid him. Lord Arlington was very pleased about it, and the interview ended satisfactorily.

Meanwhile Darcy Lonsdale spent whole days at Garswood; and it was strange that he never once mentioned Felix to Lady Chevenix—nor did she inquire about him. But one day, when some protracted business was coming to an end, she looked up suddenly and said—

"Your son was very kind to me in my distress, Mr. Lonsdale. I can never forget how kind he was. But for him I do not know what I should have done."

"I am sure that he would be pleased to be of service to you, Lady Chevenix," he replied.

"It was doubly kind of him. He heaped coals of fire on my head," she declared warmly. After a few minutes she added, "I should like very much to make him a present, Mr. Lonsdale—just as a slight acknowledgment of his kindness to me. I should like to present him with a diamond ring. I thought I would consult you first. What do you think of it?"

She saw Darcy Lonsdale's face flush. He did not answer for a few minutes; then he replied—

"I will speak to you quite frankly, Lady Chevenix. I do not think that he would like it."

She bowed to him.

"I am glad that I asked you," she replied. "You know best."

"I am quite sure that the fact of his having been of service to you will be far more to him than any diamond ring, or anything that could be given to him," said Darcy Lonsdale.

"How is your son?" she asked. "Is he well? He never comes here."

"He is quite well, but so busy that we see little of him at home. He works without intermission."

She looked as though she would fain ask some other question. She played for a few minutes with the strings of her widow's cap and her face flushed. Whatever the question might have been that she wished to ask, it remained unspoken.

On that same evening her mother was at Garswood. Lady Chevenix seemed restless. She changed her seat continually; and then, tired of sitting, she walked up and down the room.

"You are very restless, Violet," said Mrs. Haye. "What is it, my dear?"

"I want to hear some news of my Lilford friends; none of them comes near me. How is Eve Lester, mamma? Has she a *fiance* yet? Is there any rumor of her marriage?"

"No. People say that she has refused some good offers—no one knows why," said Mrs. Haye.

"And—Felix Lonsdale, mamma. Is he going to marry?"

For a moment Mrs. Haye looked keenly at her daughter, and then she answered carelessly—

"I hear nothing of him. I do not think he will ever find time to marry; he has too much business."

"Does he — let me think — what is the Lilford phrase? Does he 'pay his addresses' to anybody?"

She waited restlessly for the answer.

"No," replied Mrs. Haye, "I have not heard that he does; in fact, he has no time."

She looked at her, but Violet's face was turned to the window.

Later on Mrs. Haye began talking to her of the brilliant second marriages she had heard of—marriages of fair young widows who had been left with large fortunes — how they had made most brilliant matches, married lords and dukes, filled grand positions, and made famous names. She did not say that there was a moral to be drawn from all this; but she left it for her daughter to think over.

So time passed; and at last Lady Chevenix wrote to implore Marian Hethcote to return to her, if only for a few days—for she was longing for a change. But, when Marian came, it was found that she had permission to remain for six months, if Lady Chevenix desired it.

Miss Hethcote deplored the sudden and untimely death of the master of Garswood; but there could be no doubt her second visit was more pleasant than her first. Lady Chevenix was cheered by the presence of her young guest; it was novel to hear the sound of a laugh in the gloomy Hall. Marian said to her one day—

"Dear Lady Chevenix, do you know what, if I were in your place, I should do?"

"I cannot guess," she replied.

"I should leave Garswood for a few months, or longer. This house is haunted, I am sure, for you."

"That is just it," she acknowledged; "it is haunted. If I go into the library, I see my husband there. I fancy I hear his voice in the corridors. There is not a room in the house which has not some sad or sorrowful association. I should like to go away, Marian. Will you come with me? Mamma cannot"

"I will go with pleasure," she replied. "Where shall we go? Shall it be to Scotland, Switzerland, or France?"

"Let us go to Normandy," said Lady Chevenix; "and I should like to stay away some time. Perhaps if your mamma wants to see you she will pay us a visit there. We will take some pretty chateau; and then I shall regain what I have lost—my health and youth and spirits."

So it was settled; and in three weeks after that conversation Lady Chevenix and Miss Hethcote left Garswood, to spend some months in picturesque Normandy.

Lady Chevenix sent for Darcy Lonsdale, and said farewell to him. She did another thing which pleased the lawyer very much, though he said little about it. When passing through London she sent such a hamper of toys to the Lonsdale children as had never been seen before. There was not one amongst them forgotten. To Katie she sent such ornaments that her eyes were dazzled as she looked at them; to Darcy himself she sent a superb diamond ring.

In the letter that accompanted these presents she said—

"I did not see your son, to bid him farewell; but tell him that I send my kindest wishes, and thanks for kind sympathy and help that I shall never forget."

Darcy Lonsdale looked at his son when he read the message; but Felix turned away without a word; nor did he ever mention Lady Chevenix's name. Darcy Lonsdale was pleased with her thoughtfulness.

"Her sorrow has done her good," he said to his wife.

But that obstinate little lady shook her head gravely; even the sparkling ornaments had not changed her opinion.

The state-rooms at Garswood were closed, and silence reigned where poor Sir Owen had at times made daylight hideous and night terrible. Again the neighborhood was delighted. Nothing could have been more proper. People told each other, with sympathetic faces, that "dear Lady Chevenix" had gone abroad to recruit herself after her great trial. Even Lady Rolfe said to herself that it was one of the most sensible things she could have done, and that, after all, she had turned out better than she for one had ever anticipated.

"I think Lavinia," she said, "that it was fortunate you lost such a chance. A widow with so much wealth! It is very sad. I never like to think of it."

"I would not have changed places with Lady Chevenix for all the money Sir Owen was worth," said the curate's wife. "I have at least a good, kind husband, mamma; while the poor girl lived in fear of losing her life. Money is a great advantage; but it is not all the world. I am happier now than I should have been had I married Sir Owen."

After a few days the gossip about Lady Chevenix died away; while she and Marian made themselves comfortable in their pretty chateau. Violet soon recovered her bloom; a lovely tinge as of a blush rose came to her face; her eyes grew brighter, and lost all their shadow; the last few years seemed to fall from her, and she looked young and fair—as she had looked when she married Sir Owen.

"You appear to be so well," said Marion to her one day, "yet you are so thoughtful. What are you always thinking about, Lady Chevenix?"

"Am I always thinking?" she asked, with a happy brooding light in her eyes. "I did not know it."

"What is it about? Something pleasant, I am sure, for you smile as you think, and at times a little pink flush creeps up to your hair even. I speak to you, and you do not hear me. I leave you, and you do not miss me. Why is it, I wonder?"

But Lady Chevenix made no answer. She never imparted to any one these the most treasured thoughts of her life.

(To be continued.)

THE NEW YORK PEDESTRIAN MATCH.

THE result of the walking match which for a week was the one theme of metropolitan conversation and journalism is now known. The proper thing for the patriotic American, as we are informed by the best Irish authority, is to abuse the Englishman who has won the champion belt for pedestrianism, and takes it back whence it came. We have got so far down from the original idea of the republic that we must pick out our citizenship instead of inviting all the world—as the Chinese are now learning,—and that nobody but an American must win any stake or honor here—except an Irishman. This is one lesson of the contest.

Another lesson is that barbarism is not expelled by our gloss of civilization. The exhibition of these six days at Gilmore's garden was as purely brutal as a bull-fight,—the bulls are eliminated, that is all the difference. There are a good many stories afloat, of course, that the race was sold, that O'Leary was bought, and his retirement a humbug. Certainly there is a basis for suspicion in the fact that the man whom everybody counted first should break down with nothing done, that the man least thought of should come off second best, and the one expected to be second should turn out a poor third. But it seems certain that the champion Irish-American entered the contest a sick man, and was inhumanly outraged with stimulants to keep afoot so long as he did. Every participant in the match suffered a physical wrong that must shorten his life. It was a thoroughly brutal show.

And it was carried on with brutal surroundings and appurtenances. It is a triumph of debasement that taints our civilization. The place in which this boasted athletic contest was waged was a miniature hell of drunkenness and profanity. By posting policeman two yards apart around the arena, the riot threatened by race animosity was prevented, but the threat was there, and the evil passions of the lowest grade of the people, the notorious criminal class of New York, were pandered to by a sale of liquors never surpassed if indeed ever equaled in this country. The week at Gilmore's garden was a disgrace to the great city and to American character.

The great newspapers gave up their space and their attention to this performance. There seemed to be no other interest under heaven worth consideration, except the question whether the Englishman, the American or the Irishman should win. This is the one great international competition of the year 1879. The character, the resources, the future of countries hung upon it. It has been quite painfully amusing.

The interest has not been confined to the roughs and reporters, however, but all the city was agog with feverish anxiety; Rowell and O'Leary, Ennis and Harriman were household words in the mouths of all New York; Wall street did not watch the rise and fall of stocks more closely than the hourly record of their respective miles, and streets, hotels and social gatherings were invaded by this barren topic. It is evident that the public mind has little to busy itself with of serious concern when this primitive sport, common to red Indians and black Africans, and only "improved" among us by the vivacity and vulgarity of the gamblers who are chiefly concerned in it, can absorb the attention so thoroughly. The public mind is as vacant and trivial as a child's.

There is a certain legitimate interest in human endurance and achievement, but its limit, in a trial so speculative, inhuman, profitless and vicious as this has been, is altogether passed.—*Springfield Republican.*

THE RESULTS OF INTEMPERANCE.

1. A HARVEST OF POVERTY. It results in the waste every year, in the United States, of seven hundred million dollars. It would pay off the national debt in three years. It nearly equals the sum paid for wages in all our manufacturing industries. It would give two and one-half barrels of flour to every person in the country. No wonder there are hard times. There are one hundred and sixteen thousand paupers, two-thirds of whom came to the poor-house through intemperance. We estimate that the world consumes twice as much as these four nations (England, France, Germany and the United States): spirituous liquors, 314,031,882 gallons annually; beer, 2,797,291,632 gallons annually; wine, 1,482,239,914 gallons annually. Thus the cost of liquors in the world, in ten years, is $64,405,042,231, or twice the value of the United States of America.—*Parker.*

2. HARVEST OF CRIME. Three-quarters of all crime in this country is connected with intemperance. This nation receives in return for this traffic, 500 murders, 500 suicides, 100,000 criminals, 200,000 paupers, 60,000 deaths from drunkenness, 600,000 besotted drunkards, 600,000 moderate drinkers who will be sots ten years hence, 500,000 homes destroyed, 1,000,000 children worse than orphaned.—*T. Parker.*

3. A HARVEST OF IGNORANCE. Intemperance stands in the way of all moral and mental progress. It is opposed to churches, schools and education. Free schools cost in the United States, $95,400,000 a year. Rum costs 700,000,000, or more than seven times as much.

4. A HARVEST OF DISEASE. It ruins the body. It makes it subject to disease, and its victims are far more likely to be carried away by prevalent diseases. A temperance man is far safer in times of cholera, or when wounded, than an intemperate one.

5. A HARVEST OF LOST SOULS. No drunkard can enter the kingdom of heaven.

MUTTON HAMS.—As a change from a too frequent pork, eggs and poultry diet, mutton hams would be very desirable. A sheep slaughtered occasionally would furnish sufficient fresh meat for a week's consumption, without the legs and shoulders. These may be cured as hams, and afford a toothsome change of diet, either sliced raw or lightly broiled over clear coals. To cure the hams, proceed as follows: The legs of a fat sheep are cut into the shape of hams, and rubbed over with a mixture of equal parts of bay salt and brown sugar. They then remain twenty-four hours. A pickle is made as follows: two pounds each of bay and common white salt, six ounces of saltpeter and one pound of brown sugar are boiled in four quarts of water, the liquid being skimmed as it boils; when the pickle is cold, the hams are put into it and kept covered for two weeks. They are then taken out, wiped dry, hung up and smoked over a slow fire of damp wheat straw. The knuckles should be filled with brown sugar and tied over closely with pieces of bladder. The hams are then hung up in a warm place, which causes the fat to melt partly and become absorbed by the lean meat. A few sweet herbs may be pounded and mixed with the pickle to add desired flavor. The shoulders may be prepared by removing the blade bones and treating them as above, taking care to rub the openings with plenty of the mixed salt and sugar. When taken from the pickle, they should be sewed up. To keep the meat, place it in a clean box between layers of sweet hay; cover with a close-fitting following lid, upon which a weight should be laid.—*Boston Journal of Chemistry.*

OFFICE-HOLDERS are not like sunflowers: they never give the God, when he sets, the same look that they gave when he rose.

RECENT LITERATURE.

Improved Dwellings for the Laboring Classes.—New York: G. P. Putnam's Sons.

This pamphlet of 45 pages, appearing as it does simultaneously with the agitation of the horrors of the tenement-house system among the property holders of this city, is calculated to accomplish much good. There is no question which so vitally concerns the well being of a nation as that of the health and comfort of the working classes. Notwithstanding the efforts of the various charitable and hygienic societies, there seems to have been thus far so little done, that in 1878 the death rate in this city was 24⅞ per 1,000, nearly one-half of which was furnished by children under five years of age. By such statistics the pamphlet demonstrates the need of improvement in the construction of the dwellings of the largest portion of our inhabitants; describes some model tenements, with diagrams, &c., and gives some valuable suggestions as to the means of effecting the much-desired reform.

Out of His Reckoning. By FLORENCE MARYATT Boston: Loring. Price 50c.

This little story of domestic life will be enjoyed by those with whom the author is already a favorite. There is nothing at all sensational about it, the only villain being a well-mannered youth whose greatest fault is his inability to decide which of two charmers he will marry.

How We Saved the Old Farm and How It Became a New Farm. By a Young Farmer. Boston: Loring. Price 50c.

This instructive work will furnish many useful hints to the farming community, and as the "hints" are conveyed in a most entertaining style the book can be read for pleasure as well as profit.

MAGAZINES.

HARPER'S FOR APRIL.—Berg und Thal. Sketches in Tyrol. II.—G. E. Waring, Jr. With 15 illustrations. The True Heaven. A Poem.—Paul H. Hayne. To a Bed of Tulips. A Poem.—Robert Herrick. With an illustration by Abbey. Sculpture in America.—S. G. W. Benjamin. With 16 illustrations. Picturesque Edinburgh.—Helen S. Conant. With 12 illustrations. Street Scenes in Havana.—Frank H. Taylor. With five illustrations. The Ancestry of Brudder Bones.—Olive Logan. With 17 illustrations. The Philadelphia Zoo.—Marie Howland. With 16 illustrations. Cor Cordium. A Story of No Man's Land.—Lizzie W. Champney. With one illustration. The Practical Interrogation of Nature.—Dr. J. W. Draper. How Abel M'April Preached for Mr. Smith. A Story. Church Music in America.—Mrs. A. B. Blake. Dr. Mitchill's Letters from Washington: 1801–1813. Young Mrs. Jardine.—Dinah Mulock Craik. With three illustrations. A Kitchen Garden.—E. P. Roe. The Voyage of St. Brandan. A Poem.—William Gibson. Richard Henry Dana.—R. H. Stoddard. Chelidonisma. A Poem.—A. T. L. Editor's Easy Chair; Editor's Literary Record; Editor's Scientific Record; Editor's Historical Record; Editor's Drawer.

FISH AS BRAIN FOOD.—Since during the acts of sensation and intellection phosphorus is consumed in the brain and nervous system, there arises a necessity to restore the portions so consumed, or, as the popular expression is, to use brain food. Now, as every one knows, it is the property of phosphorus to shine in the dark; and as fish in a certain stage or putrefactive decay often emit light, or become phosphorescent, it has been thought that this is due to the abundance of phosphorus their flesh contains, and hence that they are eminently suitable for the nourishment of the nervous system, and are an invaluable brain food. Under that idea many persons resort to a diet of fish, and persuade themselves that they derive advantage from it in an increased vividness of thought, a signal improvement in the reasoning powers. But the flesh of fish contains no excess of phosphorous, nor does its shining depend on that element. Decaying willow wood shines even more brilliantly than decaying fish; it may sometimes be discerned afar off at night. The shining in the two cases is due to the same cause—the oxidation of carbon, not of phosphorus, in organic substances containing, perhaps, not a perceptible trace of the latter element. Yet surely no one found himself rising to a poetical fervor by tasting decaying willow wood, though it ought, on these principles, to be better brain food than a much larger quantity of fish.—*Dr. J. W. Draper, in Harper's Magazine*

THE LIBRARY TABLE, which has heretofore been published as a Fortnightly, will, after the 22d of March, be issued weekly. It will be increased to 32 pages, several new departments will be introduced, and a number of distinguished contributors, in addition to those whose writings have already placed this journal in the foremost rank of periodical literature, have been engaged. Dr. McCosh, who is regarded by many as the ablest orthodox minister in this country; Junius Henri Browne, the popular magazine writer; Edgar Fawcett, the author of so many charming verses; Henry W. Bellows, D.D., L.L.D., the distinguished Unitarian divine; Rev. O. B. Frothingham accomplished as a preacher and writer; Thomas Bailey Aldrich, that most delightful of authors; Rev. Chas. S. Harrower, the popular Methodist minister, whose originality and brilliancy make him attractive as a preacher and an author; G. T. Lanigan, one of the most industrious and instructive editors of "The World," who also has an enviable prominence through his delightfully humorous poems. Geo M. Towle, the latest of whose works, "Pizarro" and "Vasco de Gama," should earn for him the eternal gratitude of parents. Abbey Sage Richardson, Edmund C. Stedman, J. T. Trowbridge, Arthur Gilman, Samuel Osgood, D.D., L.L.D., are a few of the well-known and brilliant writers who are announced as contributors.

The characteristic features will be, independent discussion of social and political topics, comments on current events, critical notes on literary topics, reviews of new books, biographical and critical papers on noted contemporary authors, contributors miscellany, notes and queries, "a forecast of new books," and a weekly review of finance and stock markets. The drama, music and the fine arts will each have separate departmens, conducted by the best talent that can be secured. Subscription price, $2.50; six cents per copy. Messrs Bothwell & Hinton, No. 1 Evening Post Building, New York, are the publishers.

ECLECTIC MAGAZINE.—The April number of the Eclectic contains twenty articles, and there is scarcely one of them which does not possess some feature of special interest and value. The one which will attract most attention, perhaps, is the lecture on The Electic Light, delivered by Prof. Tyndall, at the Royal Institution. This is the opening article of the number, and is followed by a remarkably entertaining paper on Edinburgh Society Seventy Years ago, containing personal reminiscences of Jeffrey, Sydney Smith, Brougham, and the rest of the famous group that founded the Edinburgh Review, besides other prominent figures in the society of that period. Another highly entertaining article is one on The Evil Eye, and other popular superstitions; but the paper which, after Prof Tyndall's, will arouse most interest is the opening instalment of John Stuart Mill's Chapters on Socialism, which promise to be a pregnant discussion of a subject of vital importance at the present time.

The remaining articles are as follows: Animals and their their native Countries, by Alfred Russell Wallace; the concluding part of The Earth's Place in Nature," by J. Norman Lockyer, F. R. S.; About Joseph Addison; the second instalment of Mademoiselle de Mersac, which promises to be a fresh and charming story; A Broken String, a poem; the second paper on Ancient Egypt, by Reginald Stuart Poole; At the Convent Gate (poem), by Austin Dobson; Mesmerism, Planchette, and Spiritualism in China; Robert Dick, the Thurso Baker, by William Chambers; The Pope's New Encyclical; A Flower (poem); A Biographical Sketch of the Rev. James H. Fairchild, D. D., President of Oberlin College, which is accompanied by a steel engraved portrait; and four well-filled Editorial Departments.

ST. NICHOLAS FOR APRIL—Opens with Little Puritans, an article from the pen of Horace E. Scudder, describing child-life among the early settlers of New England. There are two illustrations, by George L. Barnes, one of them. The Tithing-man keeping order among the Little Puritans at Church, forming the frontispiece of the number. Thomas Hughes, the famous author of Tom Brown's School-Days at Rugby, contributes a lively English boys' story. Harriet Prescott Spofford is represented by the first half of a story entitled A boy Astronomer, one of the illustrations being by C. S. Reinhart. The New York training-school for Little Housemaids, popularly known as the Kitchen-Garden, with the games and songs of the children, are described by Olive Thorne in a long article profusely illustrated by Jessie Curtis. Celia Thaxter, presents a lovely Easter Song; Lucy Larcom, a charming April poem entitled, Shower and Flower; and Mrs. Mary Mapes Dodge, some comical verses about The Little Big Woman and the Big Little Girl. There are two tales of adventure: one, A Morning Call from a Panther, dealing with life in Hindustan; the other, Spoiling a Bombshell, describing, with the aid of a striking picture, the daring act of a midshipman during a sea-fight. Besides all this, there are: a biographical sketch of John Milton, with three portraits of him at different periods of his life; a story of German fairies; and the usual overbrimming supply of good things in the editorial departments—Jack-in-the-Pulpit, Letter-Box, and Riddle-Box.

THE THIRTY-SEVENTH ANNUAL REPORT of the Board of Education of the County of New York, for the year ending Dec. 1878. The "Report" is interesting reading. From it one learns, among other things, that for "accomplishments" so called, the following sums were expended; Special teachers of music, $12,871,80; special teachers of drawing, $25,778,40; special teachers of German, $13,597,15; special teachers of French, $2,555,10. Special teachers of philosophy, chemistry and science, are reported *nothing*. The whole amount of money drawn from the Comptroller for purposes of public instruction, during the year, $3,288,374,93. Male teachers receive not less than $1,500; female teachers, an average not exceeding $800 (the justice of this must strike the most indifferent observer). All the schools have been examined at least once during the year, and a series of tables are given, showing the results in each class of schools. In instruction (that is percentage attained in studies), under the head of "excellent"—the highest classification—male schools are recorded as 244, female schools, 317. In discipline, male schools, 401, female schools, 466.

The following table of "comparative proficiency" is extremely interesting:

	Discipline, Excellent.	Reading, Excellent.	Spelling, Excellent.	Writing, Excellent.	Arithmetic, Excellent.
Male schools.....	82	40	73	69	41
Female grammar schools	98	80	92	93	56

The report says "the female grammar schools have improved in every respect, and are superior to the male grammar schools in all the matters referred to. Seventy-nine members of male schools suspended, two in female schools. Much space is given to outlining methods of instruction and to discussing sanitary conditions of the schools. These two divisions alone should recommend the book to the careful consideration of every one interested in the cause of education. Salaries paid to the officers and teachers of the College of the City of New York, amounted to $119,107,20. Whole number of scholars entered for the year, 1,263.

VARIETIES.

THE SHADOW KISS.

WE sit in the bright, cozy parlor—
My Lady Coquetterie and I;
"Oh! I'd give the world for just one kiss,"
I more than half pleadingly sigh.

Then she roguishly metes me my answer:
"And I tell you, sir, once and for all,
You shall never kiss *me* till the wedding day,
Though you'd give twenty worlds, Mr. Saul!"

'Twas my fiftieth time to beseech it,
And her fiftieth time to decline,
And try as I would, I could coax nor steal
No kiss from this madame of mine.

So we sit in the cozy, bright parlor,
And she gossips of Lent and the ball,
While the light on the table behind us throws
Our shadows before on the wall.

"Now surely," I once again ply her,
"You could have no objection to this;
Look there on the wall two shadows there be—
Let my shadow your shadow kiss."

"Very well," and we watch the performance
Of the profiles approaching eclipse;
In a second 'tis done—our shadows have met—
Our shadows and likewise our lips.

"*Sainte nitouche*, so at last I have triumphed!"
And she innocently says, "Not at all!
'Twas only a shadow kiss." Then she resumes
Her chat about Lent and the ball.

[*Courier-Journal.*

THE BOTTOM DROPS OUT OF A FARM.—An incident occurred at Bow Park farm (of the Hon. Geo. Brown, of the Toronto Globe), about four miles from this city, a few days since, which created quite an excitement in the neighborhood. When darkness settled down over the scene the night before there were no signs of what occurred during the silent watches of the night. The river wound gracefully along, and the road leading to the homestead was as firm as a rock. In the night one of the employees heard a deep rumbling sound. In the morning he told what he experienced, and declared he had heard the shock of an earthquake. The mystery was soon solved, for on proceeding along the roadway a sight that struck amazement into every witness was revealed. An acre or more of the earth had sunk nearly forty feet, and the tops of the trees were just visible on the level with the surface. The earth on the sides of the chasm is quite perpendicular, and the query is, where has that acre of land gone to? It is not a land-slide, but a complete disappearance. Some think that it is caused by a quicksand bottom, and others that the river had washed a stratum out beneath. Whatever the cause, the occurrence is a startling one in our staid and tranquil neighborhood.—*Brantford* (Can.) *Reporter*.

NEW DEFINITIONS.—The School Board is responsible for the diffusion of much useless knowledge. A Board Examiner, performing his functions in a purely agricultural parish, recently asked a mixed class. "What is a husbandman?" No answer was given for sometime, till at last a little girl ventured, "Please, sir, a man as has got a wife." The Examiner became thoughtful, and sorrowfully took his way to a parish owned by a Duke, and overawed by dueal establishments. Here he said, "Tell me what is meant by a nobleman?" There was silence for some time; at last one smart little boy replied, "Please, sir, it's a gentleman as gains his livelihood by riotous living!"—*London Echo*.

The Princess Louisa Margaret went to England to meet her Patrick. The convenience of this royal matrimonial arrangement is immense. The young man has only to tilt his feet upon a window and watch the coming of his pretty Princess to his side from over the seas. The British tax-payers doubtless contemplate the ceremony from a fiscal standpoint, as they have had to grant Arthur Patrick a marriage allowance of not less than $50,000 a year. The young man's present allowance of pocket money is $75,000 a year, and it is said he is to be made Viceroy of Ireland, which will give him $100,000 a year more, with the expenses of the Vice Regal household ($30,000) paid by his mamma's government. The young couple will be able to go to housekeeping.

ONCE upon a time a man sailing between New York and Norwich said to the captain of the ship: "I wish I had something to do." Whereupon the captain, Colt, replied: "Do you see those bundles and packages in the berth of my state-room? Their number is increasing with every trip; they are in the way, and the care and attention I have to give to them consumes more time than I can afford. Suppose you collect and take charge of these private packages for a fair compensation. I think you can easily build up a paying business." The man, whose name was Adams, took the hint, and from such a beginning originated the Adams Express Company.

GOVERNMENT STATISTICS.

	Yearly.
Salaries of the ministers of the Gospel,	$6,000,000
Cost of dogs	70,000,000
Support of criminals	12,000,000
Fees of litigation	35,000,000
Cost of tobacco and cigars	610,000,000
Importation of liquors	50,000,000
Support of grog shops	1,500,000,000
Whole cost of liquor	2,200,000,000

[*Maine Temperance Journal.*

A MEMENTO of the great Napoleon at Tallahassee, Fla., is a gilt china teacup adorned with the Emperor's monogram and a colored representation of the harbor of Otranto, Italy. It also bears the date 1813. The relic is thought to have found its way to Florida in care of the son of Marshal Murat, who went to that State in 1821.

CHINAMEN wear five buttons only on their coats, that they may keep in sight something to remind them of the five principal moral virtues which Confucius recommended. These are *jeu*, humanity; *y*, justice; *ly*, order; *tche*, prudence; *sin*, rectitude.

For Women.

CONDUCTED BY MISS FAITH RIPLEY.

"CONQUERED AT LAST."

Some time ago the Mobile Evening News offered a prize for the poem, by a Southern writer, which should be judged most meritorious, "expressive of the gratitude of the Southern heart toward the people of the North for the philantrophy and magnanimity so freely and nobly displayed in the time of the dire affliction of the South by pestilence." There were seventy-seven competitors, widely scattered, and their work was carefully examined by a competent committee, who decided that a poem entitled "Conquered at Last," by Miss Maria L. Eve of Augusta, Ga., though it was rough in construction, yet for its brevity, directness, spirit and force most truly represented the real sentiment of the Southern people. The following is the poem:—

You came to us once, O brothers in wrath,
And rude desolation followed your path,
You conquered us then, but only in part,
For a stubborn thing is the human heart.

So the mad wind blows in his might and main,
And the forests bend to his breath like grain;
Their heads in the dust, and their branches broke;
But how shall he soften their hearts of oak?

You swept o'er our land like the whirlwind's wing,
But the human heart is a stubborn thing.
We laid down our arms, we yielded our will;
But our "heart of hearts" was unconquered still.

"We are vanquished," we said, "but our wounds must heal;"
We gave you our swords, but our hearts were steel.
"We are conquered," we said, but our hearts were sore,
And "woe to the conquered" on every door.

But the spoiler came, and he would not spare,
The angel that walketh in darkness was there:—
He walked thro' the valley, walked thro' the street,
And he left the print of his fiery feet

In the dead, dead, dead, that were everywhere,
And buried away with never a prayer.
From the desolate land, from its very heart,
There went forth a cry to the uttermost part:—

You heard it, O brothers!—With never a measure
You opened your hearts, and poured out your treasure.
O Sisters of Mercy, you gave above these!
For you helped, we know, on your bended knees.

Your pity was human, but oh! it was more,
When you shared our cross and our burden bore.
Your lives in your hands, you stood by our side;
Your lives for our lives you lay down and died.

And no greater love hath a man to give,
Than lay down his life that his friends may live.
You poured in our wounds the oil and the wine,
That you brought to us from a Hand Divine.

You conquered us, brothers; our sword we gave;
We yield now our hearts—they are all we have.
Our last ditch was there, and it held out long;
It is yours, O friends! and you'll find it strong.

Your love had a magic, diviner than art,
And "Conquered by Kindness" we'll write on our heart.

TALKS ABOUT MY JEWELS.—No. 4

BY MARGUERITE.

GERTIE stood one morning, waving a hair-pin over her head, with a button dangling in the center of it and exclaimed, "Hurrah for mamma, and hurrah for mamma's childers!" I had just promised her that she might go with us to church, and she was supremely happy. I hardly know whether it is better to take children to church or not, if they can be left at home. I know I want mine to grow up to be constant church-goers, attending, not from a sense of duty but wholly prompted by love; but how can I be sure of accomplishing this?

One auntie declares that "Gertie will be disgusted with church by-and-by, if she attends now when she cannot understand the service," and besides, a mother has little rest, if she has a sample of "Helen's Babies" at her side. The little one may be demure enough during prayer, and put the little chubby hand over her face, and watch the minister through her fingers, or she may slip quietly off her seat and slyly pass into the next pew, to visit a boy neighbor, who has been intently looking at her for a long time. I find if the first liberty taken is unnoticed another soon follows twice as bad. The only consolation I got in my last tribulation of this kind was the remark—that "a mischievous child was never a fool."

The other day a gentleman called who is notorious for his antipathy to things religious. He asked Gertie "to take a ride with him." She declined. He insisted, and showed her his horse and carriage. She hesitated a moment and said, "Sometime;" then added brightly, "sometime, I'll go with you to church!"

"Church!" he said, as if provoked. "What do you want to go there for?"

"Oh!" she answered, "to show my new stockings."

"Yes," he replied exultingly, "that, or something like it, is just what everybody goes for!"

If she had told the minister that, I would not have cared, but was very sorry she said it to one who already held religion in contempt. I had a quiet talk with her afterward and told her it was Jesus we went to church to learn about, and of the home prepared for us if we love Him.

"Will there be lots of little boys and girls to play with, and any w'ocking chairs up there?" she asked me once.

I told her there would be everything she would need to make her happy, and she often talks yet of the heavenly "w'ocking chairs."

I wonder if every one hurries through their prayers sometimes, on the same principle of the boy who said, "Mamma, God knows the rest."

Bessie was gone one evening, and Fred cried whenever I left his side, and in my haste to get Gertie into bed, I said, "Only say God bless papa and mamma and take care of Gertie this night." She did it, and after I left her she cried bitterly because "she hadn't said it right." I went back again, and she went through with the usual form:

"Now I lay me down to sleep,"

and said "it right," as I supposed, and I left her. Again she cried as if heart-broken, and I could not understand her. Papa solved the mystery. In my haste I had not waited for her to say "Amen." She has a "God bless" for all her new friends, even remembering often "Jack and Gill" and little "Johnny Stout," who are real characters to her. She was almost asleep the other night when she called, "Mamma, I forgot to pray for Cousin Mamie." "Well, just say, God bless Mamie," I said.

"I must get out of bed first," she said, and the little white-robed figure, with clasped hands and closed eyes, asked "for a blessing on cousin, and that she might be made well." "Bless Will, too," I prompted, which she repeated, for I felt that one would not be entirely happy, even with God's blessing, without the other to share it.

PATCH-WORK.

As this old-fashioned work is again becoming fashionable, a few remarks about its appropriateness and utility may not be amiss. There are some people who have a perfect passion for this work; there is for them a peculiar fascination in arranging and placing the various bits of color. No other kind of needle-work is as suitable for teaching a little girl the use of the needle. It is pleasant to see the effect of the combinations and contrasts, and the little fingers can work more nimbly, in the short over and over seams, than they would in the long seams of either pillow-case or sheets. It is, besides, a nice way to make disposition of the accumulation of remnants in the scrap-bag. Old ladies, too, like to piece bed-quilts, and "grandmother's quilts" are precious heir-looms in many families. It is a matter of pride with these venerable ladies to be able to do something that is useful and pretty; and, no doubt, many memories of the by-gone years are stitched into the seams, and perhaps some sad reminiscences are called forth by the sight of a long-forgotten remnant of a garment, worn in the long ago by one whose busy hands are placed over her pulseless heart. To the old ladies who delight in this work, it is doubtless, a solace in many a lonely hour, and it would be almost a deed of cruelty to pronounce the labor of their hands useless. And to the little ones, who ought to learn to ply the polished shaft, it is mixing pleasure with profit. If an active, mature person has nothing else to employ idle hands and hours, it may do to cut up calico into scraps, just for the sake of keeping out of mischief; but there are so many more profitable ways of employing one's time and energy, that it seems a waste of both to spend them upon patch-work. An aged lady of my acquaintance has, within the past year, pieced together, for quilts, over thirty thousand pieces of cloth, and showed great taste and ingenuity in their construction; and it is really a deed of kindness to employ her to make patch-work, as it helps support her, and enables her to to purchase many comforts with which to brighten her pathway to the grave.

FARMER'S WIFE.

NEVER.

BY JOHNNY MOFFATT.

NEVER to see your face again,
Never to press your hand,
Never to look in your loving eyes
'Till we meet in the better land;
Never to walk in the shady lane
With your hand upon my arm,
Never to hear your voice again.
In song's bewitching charm.

Never—how hard 'tis to write that word;
Never—how long it seems;
Never—ah! no, for my darling one
I shall see thee oft in dreams
Again, as I saw you in dreams gone by,
When stars shone bright above;
When we were so happy, you and I,
In the dawn of our early love.

[*N. O. Picayune.*

"PUTTY."

ESTHER had been making a very pretty bracket which was ornamented with leaves and grapes done in putty work. It had cost her but a few pennies expense in addition to her labor, and she was justly pleased and proud of her handiwork. There was still a roll of the plastic material left over, and frugal Aunt Heppy suggested that they should mend up things with it.

"Nothing lasts like putty, if it doesn't make a very handsome seam. Now, there is that big pitcher of mother's, Esther, let's see what we can do with that."

It was the very best room pitcher, and Nelly had broken in the side of it as she went flying along one morning to fill it, the day they expected Aunt Agnes. Mother had saved the pieces, she thought so much of that pitcher, and then she had a vague hope that some day a one-armed soldier would come along with a cement that really *would* mend glass and China. She had tried all of them thus far, but without success. Father rather suspected that she meant to start a cement store some time, she was laying in so much stock.

"That never will answer for the the spare room, but we can make it good and sound for common use," said auntie. "If it is rather homely we mustn't mind that these hard times." So a nice seam of putty work was laid on over the broken edges, and the piece laid away to dry. Mother entered into the spirit of it and brought out a great number of cracked or broken articles which would be the better for a similar treatment. She was so glad not to give up her big stone crock which had been cracked from top to bottom, and the good butter bowl she had used for years. Altogether, Aunt Heppy's putty work gave great satisfaction, and proved a saving of a good many dollars, though not as ornamental as Esther's bracket.

J. E. M'C.

TOILET NOTES.

TO CURE MOTH-PATCHES.

(1) Add about one teaspoonful of pulverized borax to a basin of water when washing the face morning and evening; or a more convenient way would be to keep a quantity already dissolved in a bottle of water, and pour it into the wash-basin as often as needed. Twice a day is quite often enough to use it, and the moth-patches should slowly disappear in about ten days or two weeks. (2) Wash at night with equal parts of glycerine and white of egg; in the morning wash off with fine soap and warm soft water; repeat till cured. (3) Take two drachms of iodide of potash, one drachm of powdered rhubarb, and mix them with one ounce of lard, then rub a little on the spots once or twice a day.

SIX RECIPES FOR REMOVING FRECKLES.

(1) Get ten cents' worth of gum-benzoin and alcohol. Let it stand until the gum has dissolved sufficintly to redden the alcohol, and then pour off this mixture into a pint bottle, to the depth of half an inch, and fill the bottle with soft water. The preparation will then resemble milk, and is ready for use. Bathe the freckles with a soft cloth dipped in the liquid. If the skin smarts under the application, add a little more rain water. (2) Take beef's gall, half an ounce; saleratus, borax and gum guaiac, of each a quarter of an ounce (pulverized); alcohol and rose water, of each a quarter of a pint; mix and let stand ten days, shaking occasionally. Use as a wash twice a day. You can get this wash made up at the drug stores; it will cost you about thirty cents. (3) Emulsion of almonds one pint, powdered borax two drachms, tincture benzoin compound two drachms, mix and apply to the face night and morning. (4) Sour bran water applied to the face at night and allowed to dry there, will remove freckles and sunburn in a short time; will make the skin smooth and fair, but very easy to freckle again. (5) One-quarter gallon rain water, one ounce benzoin, one ounce aqua ammonia, one ounce rose water, two ounces glycerine; mix well; shake before using. (6) One ounce of lemon juice mixed with a quarter drachm of sugar will remove freckles. Keep this lotion in a glass bottle, corked tightly, a few days before using, and apply to the freckles occasionally.—*Evening Post.*

QUESTIONS ANSWERED.

MISS RIPLEY:—Would you be so kind as to give me some information in regard to the "Study at Home Society," mentioned by Annie L. Jack, in the RURAL? If I knew something of its rules and requirements, and if it were possible, I would like to become a member.

I have been an interested reader of the "Woman's Club," and, woman-like, have wished very much to have *my say*; but my long unused pen refuses to do its office. I find everything I wish to say, said so much better than I could possibly say it, that I hold my peace and look on. I would, however, like to thank Margaret B. Harvey for her excellent article on music, and to recommend it to the notice and *practice* of all RURAL musicians. It may afford her a little pleasure to know that one, at least, of the readers of that article, after years of neglect, has again opened the piano, and attacked "Strauss' Waltzes" and the "Shepherd Boy."

MRS. S. G. H.

On application to the Secretary of Society for Encouragement of Study at Home, No. 9 Park St., Boston, Mass., you will elicit full particulars as to the aims and requirements of the Society.

MRS HORTWELL, MADISON Co., N. Y.—An adult exhales by the lungs and skin, in the twenty-four hours, three pints at least of moisture, loaded with organic matter ready to enter into putrefaction; the quantity is often increased in sickness and the quality is always more noxious. This moisture goes chiefly into the bedding, in the case of invalids. It *stays* there, because, with the exception of a weekly change of sheets scarcely any other airing is attempted. Must not such a bed be *always* saturated, and be always the means of *introducing again* into the body of the unfortunate patient who lies in it that poisonous matter which nature is trying to get out of the system? This is probably why your physician ordered you to buy fresh, clean straw, put it into a ticking and burn the feather bed on which your son has been lying during his six weeks fever.

A great deal of fun has been poked at woman for looking under the bed as a last act before retiring, and it has been supposed that the habit was a silly and altogether useless one. But a Mrs. Mastin, of Dallas, Tex., has personal knowledge to the contrary. The Herald, of that place, says: "Mrs. Mastin went to her room to retire, but, woman-like, she looked under her bed, and though she had oftentimes done so before, it was well that she did so then, for there underneath lay curled up a man." What followed can thus be condensed: Mrs. Mastin screamed, the man came out and ran, and a neighbor came and fired his gun. No one hurt and no one caught. But the theory that it is necessary for a woman to look under the bed is established.

The ladies of Virginia are to erect at Winchester, June 6, a shaft memorial to the Confederate dead. It will be dedicated on that day with appropriate ceremonies. It will be in hight twenty-two feet, the base four feet broad. The column will be made of the finest Italian marble, and surmounted by a funeral urn and drapery, and the base of Richmond granite. On its front will be the coat of arms of the State, and on the different panels will be appropriate inscriptions.

Mrs. John Jacob Astor, in ten years, has secured homes and the means of a livelihood for about 45 homeless children at a cost of about $67,000.

Domestic Economy.

CONDUCTED BY EMILY MAPLE.

SOME NEW COOK BOOKS.

MARY WAGER-FISHER.

Was there ever before, in the history of the world, such a mania as now for writing books on cooking? How many new ones have been published within the past ten years—or five—I cannot say: but a good many. I have five at my elbow as I write, each one excellent in its way, and the author of each claiming for it a specific superiority over all the others. The copy I have of Miss Leslie's "Standard Cookery," published nine years ago, was then in its *sixtieth edition!* Her cookery is somewhat complex—too elaborate for plain cooks—but very good and reliable. Professor Blot's "Hand-Book of Practical Cookery for Ladies and Professional Cooks," is still more complex, and, as might be expected, contains very much that is foreign to American cookery; but for soups and for novel and palatable ways of using up "odds and ends" of meats, etc., it is excellent.

Mrs. Trowbridge's "Cook Book and Housekeeper's Aid," opens with a list of rules for housekeepers, that are alone of great use. They treat of buying groceries, a lesson which every inexperienced housewife appreciates: tell how to care for household supplies, and give a multitude of recipes for the "hundred and one" things that one likes to know about, and which do not appertain to the domain of cookery. Her recipes for cookery are of the plainest description and the briefest, rather too much so in some essentials. Marion Harland's "Dinner Year Book," containing a bill-of-fare for twenty-eight dinners for each month in the year—336 dinners—with instructions as to how to prepare each article, is a voluminous book of seven hundred pages, with a number of colored lithographic plates. She writes an amusing preface, which is followed by an article "Touching on Saucepans," that abounds in bright suggestives.

A little later comes Mrs. Whitney's "Just How; a Key to the Cook Books." While Marion Harland prepared her "Dinner Year Book" for the convenience of such persons as are always worried with the "What-shall-we-have-for-Dinner?" question, Mrs. Whitney writes her's for the sake of furnishing most explicit directions—putting in what other cook-book makers leave out. For instance, instead of the ordinary direction, "add flour sufficient to make" a dough or batter, she gives the exact amount, leaving nothing to guesswork. Her book is a small affair, of scarcely more than three hundred pages, looking even smaller, so compact it is and convenient to handle, although the type is large and clear. It is admirably practical, abounding in excellent directions. I have looked it through carefully, and find nothing I feel like criticizing but her method of boiling eggs, except for really hard boiling—as an egg for ordinary eating should *never* be *boiled*, but only remain from three to seven minutes (according to one's taste for hardness) in very hot water that does not boil.

Perhaps a recipe from each book will best convey an idea of their respective merits. Here is one of Mrs. Whitney's directions for "MILK-DIPPED TOAST." Make ready: Fire, and sliced bread, say a dozen slices cut smoothly, evenly and a quarter of an inch thick; one quart of milk scalded in an inner boiler; three round teaspoonfuls of flour, or two very heaping of corn-starch mixed with cold milk put to it by the teaspoonful till smooth and thin; one teacupful of broken butter; one round teaspoonful of salt; a clean spider. Set the spider on the fire; pour the scalded milk into it as the spider becomes hot; let it come to a boil; stir in the flour-thickening; pour it into the middle, stirring it round steadily and smoothly till all is thickened. Be sure the milk is boiling when you add the thickening, and that it boils up, cooking the flour before you leave off stirring. Now put in your butter, stirring smoothly again till it is melted and united, without oiliness, to the thickened milk. Add the salt.

Let all your stirring be done gently, and *underneath*, in spreading circles from the middle, holding your spoon horizontally, with the back of the bowl slightly touching the spider. Set the spider on the back of the stove, or the top of a hot kettle, while you toast your bread. Dip each slice of toast, as ready; turn and soak it, then pile in toast dish. Pour the remainder of the dressing over the whole. I prefer to keep the toast slices in the "dip" over the fire, as long as may be without their breaking to pieces. If they get a bit of a *boil*, it is no harm. Slide each piece under the preceding ones, until you have as many in the spider as you can manage, then lay them in the dish for table. A griddle spade is nice to take them up with when they are very tender."

It should be mentioned, that in a set of rules, she explains what she means by "broken butter," "round teaspoonful," etc.

Here is one of Marion Harland's "Dinners." It is for Thursday, first week in April:

Chicken Soup.

Mayonaise of Fish. Veal Chops with Tomato Sauce,

Potato Strips. Macaroni and Eggs.

Jelly Cake Fritters.

Chicken Soup.

Take the fat from the top of the liquor in which your chicken was boiled yesterday, and put on the soup to heat. Meanwhile, boil half a cupful of rice tender in a pint of salted milk; and when the rice is soft, stir in a tablespoonful of butter worked in flour to prevent oiling. When the soup boils up clear, skim and add the rice and milk, with two tablespoonfuls of minced parsley. Pepper and salt to taste; simmer ten minutes; chop up three hard-boiled eggs fine; put into the tureen and pour the soup upon them.

Mayonaise of Fish.

Yelks of three eggs; two tablespoonfuls of best oil; two teaspoonfuls of sugar; six tablespoonfuls of vinegar; one teaspoonful of salt, and half as much each of pepper and made mustard; white of one raw egg; two cupfuls of cold boiled fish (yesterday's cod); two heads of lettuce. Rub the yelks smooth with the oil, add sugar, salt, pepper, and mustard, and, when all are mixed, the vinegar, a little at a time. Set by, covered, while you cut—not chop—the fish into strips an inch long, and shred the lettuce. Mix these in a bowl. Whip the frothed white of egg into the dressing, and pour upon the salad. Stir up with a silver fork and put into a glass dish. Garnish with rings of the whites of boiled eggs.

Veal Chops with Tomato Sauce.

Trim and flatten the chops. Dip in raw egg, then in cracker dust, and fry, rather slowly, in lard or dripping. Open a can of tomatoes, and drain off the liquor. Salt the rest of the tomatoes and reserve for Friday's soup. Put the liquor into a sauce pan with a sliced onion and stew ten minutes. Strain out the onion, return the juice to the fire; thicken with a great spoonful of butter, worked up in a teaspoonful of corn starch; pepper and salt. Boil up sharply, and when you have laid the chops upon the dish, pour the sauce over them.

Macaroni with Eggs.

Break half a pound of macaroni into short bits; cook tender in boiling, salted water. Drain well; put into a deep dish and pour over it a cupful of drawn butter in which have been stirred two beaten eggs, and two tablespoonfuls of grated cheese, with salt and pepper. Loosen the macaroni to allow the sauce to penetrate the mass. Pass more grated cheese with it.

Potato Strips

Pare, cut in long, even strips; lay in cold water for one hour; dry by spreading them upon a towel and pressing another upon them. Fry to a light-brown in salted lard. Shake off the fat in a hot colander. Line a deep dish with a napkin and put in the strips. They should not be crowded in frying, but each should be distinct and free from the rest.

Jelly-Cake Fritters.

Cut a stale sponge or very plain cake into rounds with a cake-cutter. Fry to a nice brown in sweet lard. Dip each round in *boiling* milk, to soften it and get rid of the grease. Lay upon a hot dish and spread with sweet jelly or jam. Pile neatly one upon another, send around hot, sweetened cream to pour over them.

Fixing over "yesterday's leavings" is one peculiarity of the Dinner Year Book—the author, having, it would seem, followed home dinners in the series she here gives. I think Mrs. Whitney's recipes are perhaps more wholesome—if one is dyspeptic—than are those of Marion Harland, and may be a trifle less toothsome. Mrs. Whitney makes no pretence at competing with more comprehensive cook books, but it is at the same time quite complete enough for the ordinary housewife. It is cheap in price—one dollar—and is published by Houghton, Osgood & Co., Boston. "The Dinner Year Book" is, as I have remarked, an elaborate affair, admirably and satisfactorily gotten up, and costs $2.25. It is published by Charles Scribner's Sons, New York.

Bryn Mawr, near Phila.

SCRAP-JARS, AND WORK-BASKETS.

One of the most useful articles a lady can have, is a scrap-jar to stand by her sewing chair or writing table. Mine is a two-gallon pickle-jar that had been put among rubbish, because so badly cracked as to be unfit for holding liquids. A coat of brown paint and pictures brightened it up, so that the once worthless jar is now an ornament. The pictures are put on with wheat-flour paste, cooked until smooth. My scrap-jar is as convenient as an editor's "waste basket," as it saves time and steps when there are bits of paper or cloth to dispose of. The jar should be smaller at the top than at the bottom, so that the contents cannot be seen. When full, it can be emptied into the paper-rag bag, which is usually found in country homes.

A common peach-basket makes a neat and substantial work-basket. It should have a wire bail. Cover the outside of the basket and line it, also, with some bright-colored cambric. Wind the handle with braid to match, and cover the upper edge of the basket, with plaited braid to conceal the stitches. Small pockets of cambric may be sewed to the lining—on one side, or both—for holding small articles, like buttons and spools. Each pocket should have a piece of elastic cord drawn into the upper hem to keep it in shape.

To make a standing basket for work; take two peach baskets of the same size, invert one, and set the other upon it. Cover the two with cloth in *one* piece, and tie braid around where the baskets come together. Draw the braid tightly and tie, giving the shape of an hour-glass. The upper basket can be finished like the one first described. The lower basket is merely a stand for the upper one.

Lyons, Iowa. M. G. R.

AN EXCELLENT RECIPE FOR REMOVING DANDRUFF.

A well known physician tells us that there is nothing better for the above purpose than the following preparation: To one pint of alcohol add gum-camphor as large as a small hickory-nut. This, so to speak, merely camphorizes the alcohol. Bergamot, or oil of rose, or any other essence, may be used to perfume it as the individual desires. Wet the scalp with this daily. It will also be found a stimulant of the scalp; a promoter of the growth of the hair and will, in many instances, prevent it from falling out.

DOMESTIC RECIPES.

To Fry Salt Pork.

Cut into very thin slices and freshen by letting lie for an hour or more in cold milk or water. Roll in flour and fry until crisp. Drain from the fat and place the slices where they will keep warm. Pour off most of the fat from the frying-pan and stir in, while hot, a tablespoonful of flour—a little more may be added if the gravy be liked thick—and half a pint of new milk. Season with pepper and salt if not salt enough. Boil up and serve with the crisped pork.

Ham Balls.

Mince very fine cold, cooked ham—that which has been boiled is best, although fried ham will answer if not too salt—add an egg for each person; stir in a little flour and make into balls. Dip into egg and then in grated bread and fry until of a nice brown.

MARY B.

Canning Rhubarb.

Permit me to tell the readers of the RURAL how to can rhubarb—pie-plant—as I have never seen it among the recipes given: Prepare same as for pies and pack into glass cans, covering with *cold* water, taking care to get all the air out, and then put the cover on as tightly as possible. I have just used some which kept nicely, being nearly as fresh as new though not quite so sour, as some of the sourness soaks out in the water, which of course is not used. The pies are made the same as from fresh pie-plant.

MRS. W. W. HUNT.

Prune Pudding.

Take one pound of good prunes and let swell in hot water until soft; drain and take out the stones; spread on a dish and dredge with flour; mix smooth in a very little milk eight tablespoonfuls of sifted flour; add a scant quart of milk and six well-beaten eggs; stir in the prunes by degrees; beat the whole very hard; pour into a mold and boil two hours; serve with wine sauce. MARY B.

Mustard.

We find that all do not know that if mustard be mixed with the white of an egg instead of water or vinegar when used for plasters, it will prevent the skin from blistering. E. M.

News of the Week.

MISCELLANEOUS.

Monday, March 24th, 1879.

Conspicuous in the list of deaths this week have been Thomas W. Sherman, major-general of the United States army; cousin of W. T. Sherman, at Newport, R. I., of which he has long been a resident, and where his wife died only a few days ago; Gen George C. Foster of Burlington, Vt., who served with distinction with a Vermont brigade in the civil war; Dr. John M. Woodworth, surgeon-general of the United States marine hospital service at Washington; Rev. James De Koven, dean of Racine (Wis.) college and a native of Middleton, Ct.; and ex-United States Senator George Goldthwaite of Alabama a native of Boston. Now comes another speedy cure for hog cholera—warranted effectual, cheap, and easily tried without trouble or outlay. It is burnt corn, and the best way to use it is to make a pile of corn on the cobs, effectually scorch it, and then give the affected hogs free access to it. After the second day not a single hog, it is said, will be lost, and the disease will entirely disappear. The remedy is reported to have been tried in a number of cases and never to have failed.

There is quite a secession spirit in Missouri just now. Kansas City has been making a stong effort to get the State line fixed so as to be included in the territory of Kansas, and St Louis is talking about getting herself annexed to Illinois. A member of the Legislature has also introduced a bill to split the state into a North and South Missouri. The President has reached an interesting decision in the matter of the charges filed against each other by Gens Hazen and Stanley who for years have caused a world of scandal by their quarreling and charges and counter-charges of cowardice, ungentlemanly conduct etc, etc; He has ordered a court martial with Hancock president and with Gens. Pope and Augur and other members to meet in Washington to try both Hazen and Stanley.

The extra session of Congress has assembled. Randall of Penn has been elected speaker badly defeating Blackburn of Ky., his Democratic competitor. The Greenbackers had no show: and the Republicans of course had no chance. With the election of Randall the State division of the honors of that position since the organization of Congress has been as follows: Southern states—Kentucky, 9 times; Virginia, 7; North Carolina, 3; Tennessee, 2; South Carolina, 1; Georgia, 1. Northern States—Massachusetts, 5 times; Pennsylvania 5½; Indiana, 4¼; New Jersey, 3; Maine, 3; New York, 1; Connecticut, 1. Which foots up, Southern Speakers, 23; Northern do., 23.

The grand prize of the French academy for poetry has been adjudged to the communist refugee Renard, now a professor in Louisiana; professor of what—dancing, cookery, fiddling or teaching—is not reported; but we learn that New Orleans folks are curious to know who or what he is. Kansas counts on even a heavier immigration than she had last year. One day last week 2500 new-comers from the East arrived at Kansas City, Mo., *en route*, and this week the railroads centering there were notified to prepare for 10,000 more, chiefly from the Middle States. The reduction of the tobacco tax one-third was to give the poor man—cigars are not affected—cheap tobacco. If the manufacturers can keep the price up, as they have resolved at New York, a single firm, the Lorillard, will make $1,000,000 and the rest ratably. Meanwhile, the public revenue has lost $5,000,000 yearly. North Carolina has about one dog to every three sheep, and 28,000 of the latter were destroyed last year by the canines. The farmers want to know if the slaughter can't be stopped. United States officers report that there is less lawlessness on the Rio Grande border than at any time for the last 10 years. The Mexican authorities are making every effort to maintain good order, and have removed the Lipan and other marauding Indians to the interior, where they will have no chance to make it unsafe for Texan life and property.

The Kansas charge against Senator Ingalls is that he bought thirteen members of the legislature to vote for him. The feature in Wall Street has been the advance in the rates for money. The call-loan rate a week ago was 3 to 4 per cent; it is now fully 5 per cent and the tendency is still upward. The banks have been depleted of legal-tender notes by the payments into the Treasury on account of 4 per cent bonds, and the reserve in excess of the 25 per cent. required by law has fallen to $3,840,000, or to less than one-fourth of what it was a year ago. As this low reserve comes just at the beginning of the usual outflow of currency for the April settlements there is some uneasiness about the working of the money market, and the Secretary of the Treasury has thought it necessary to publish a letter assuring the public that he will exert the full power of the Treasury to prevent "tight money." Money in London is down to 2 per cent., and rates are unusually low at every European city. Sterling exchange was near to the gold-exporting point until late in the week, when on account of higher rates for money it fell off. Subscriptions to the 4 per cents continue on a moderate scale, but another $10,000,000 of 5.20 6 per cents have been notified for redemption, making $270,000,000 of the debt on which the annual interest has been reduced one-third since January 1. Silver has taken another tumble in London from 49⅜d to 49⅛d per oz, the latter being the lowest price since demonetization in this country. The bullion value of the 412½-grain silver dollar at the close of the week was $0 8295.

In the Senate of nineteen chairmanships of different committees, the South take twelve and the North seven. In that body there are 19 ex-confederate and only four Union officers, as follows: Ex-confederates, Morgan, Garland, Walker, Call, Cockrell, Vest, Ransom, Vance, Withers, Johnston, Gordon, Williams, Jones, Lamar, Butler, Hampton, Harris, Coke, Maxey. Ex-federal officers—Logan, Plumb, Burnside, Kellogg.

FOREIGN.

Lord Dufferin has been sent as ambassador to St Petersburg, and excused himself in his usual graceful fashion, at a dinner given him by the Liberals at the Reform Club, for taking service under a Tory Government by saying that he held diplomacy to be, like the army and navy, outside the sphere of party politics. He goes out to urge upon Russia with gentle firmness the propriety of getting her proteges in Eastern Rumelia and Bulgaria to carry out the Treaty of Berlin in a peaceable and orderly manner. The fact is that the Eastern Rumelians are determined not to submit to Turkish rule in any form, or to have the Balkan Passes garrisoned by Turkish troops, if they can help it, and they are encouraged naturally in their resistance by the meeting of the Bulgarian Parliament at Tirnova, inasmuch as this body seems to be fully as much occupied with their fate as with the affairs of its own province. Some of the English papers keep exhorting Lord Beaconsfield to give up Eastern Rumelia; but this is asking a little too much, because this he considered the great stroke of his Berlin mission. Nevertheless there are rumors that he is beginning to think of doing it, provided he can get something from

Russia in return that will help to cover his retreat.

The Duke of Connaught and the Princess Louise Margaret, daughter of the Prince and Princess Frederick Charles of Prussia, were married on Thursday. Windsor Castle and St. George's Chapel were finely decorated and the display of wedding presents at the castle was large and brilliant. The Archbishop of Canterbury performed the cermony. The bride was given away by her father. At the conclusion of the service the choir sang the Hallelujah Chorus and Mendelssohn's "Wedding March" pealed forth as the bride and bridegroom left the chapel. The bride wore a white silk dress trimmed with myrtle flowers, and the bridesmaids were similarly attired.

The Zulu war is still the chief topic of foreign interest in England overtopping the war in Afghanistan, and the Eastern embroglio. All idea of annexing Zululand is for the present abandoned. The Fingoes, a powerful Caffre tribe to the South of Natal, which, some years ago gave England a good deal of trouble, are again reported to be discontented and thinking of going to war again. Meanwhile reinforcements are being hurriedly sent forward, but the delay in this matter shows plainly how ill-prepared Great Britian was for going to war with Russia. From Afghanistan there is no news of importance. Yakoob Khan is still negotiating with the British.

In France the members of the Ministries "posted" throughout the country, as mentioned here last week, are preparing a vigorous protest against the action of the majority of the Assembly. On the establishment of the present form of government, it was made a part of the Constitution that the Legislature should meet at Versailles, a town of upwards of 60,000 inhabitants, situated 10 miles southwest of the center of Paris. This was made the seat of government, 1st, because the legislative buildings in Paris had been wrecked by the Communists; 2d in order to punish the capital for its recent turbulance; 3d, to remove the members from danger of pressure from mobs and threatened revolution, and for several minor reasons The red-hot republicans, however, whose stanchest supporters are the lower orders, of whom mobs are usually composed, have always been opposed to the removal of the legislative body from Paris, and now that they have got the upper hand, they insist on a return to the capital. As this will require an amendment of the constitution, and it was stipulated that whenever that document should be subjected to any single alteration, others might also be made, it is expected that the entire constitution will soon be revised and made more favorable to radical republicanism.

A Cough, Cold or Sore Throat requires immediate attention, as neglect oftentimes results in some incurable Lung Disease. "*Brown's Bronchial Troches*" will almost invariably give relief. **25c. a box.**

THE MARKETS.

PRODUCE AND PROVISIONS.

NEW YORK, Saturday, March 22d, 1879.

BEANS AND PEAS.—After the recent fairly liberal business in mediums and marrows, the market is easy again and quotations are regarded extreme. Red kidneys in few hands and held firm. White kidney and pea have hardly an inquiry. Green peas steady at $1 45 sale night. Southern B. E. peas dull at $2 50 per 2 bush. bag. Canadian, in bulk and bond, 72@73c Medium beans, choice $1.33@1.35 fair to good, $1.15@1.25. Marrow, prime, free on vessel, $1 40; fair to good, $1.20@1.35; pea, $1.20@1.35; white kidney $1.35@1 40, red, $2.40@2.60; black, $2 10@2.50. California Lima, $4@4 25.

Receipts for week beans, 3,512 bush.; exports, 973 bbl., do. peas, 4,265 bush.

BROOM CORN.—The best short corn is offered moderately only. Other grades are plenty and favor buyers.

Brush and short broom, choice, ℔ ℔, 5@5½c; do. common to good, 3½@4 c.; hurl, good to choice, 3½@4½c; do. common to fair, 3@3½c.; and crooked, 2@3c.

BEESWAX.—Small sales have been at 24@25c. for Western and Southern, with fair offerings.

BUTTER.—There has been a general marking down in prices for old crop butter and some dealers feel that it will be close work to get it out before new becomes a feature. New is plenty enough to divide local trade, and old must have exceptional merits to induce a wholesale customer. It is thought that exporters will want much of the remnant, but with the present situation of the market they will be apt to hold off until prices are safely in their favor. New sells steadily, and arrives quite freely for the early stage of the season. Carefully made fresh flavored brings the extremes readily; but when while is off in quality, it is more of a drug than common old. This fact should be noted, especially by nearby shippers, who have the best end of the market for this production.

NEW BUTTER.—State pails and half tubs, choice 24@25c.; good, 17@20c.; Welsh tubs, 17@21c.; very poor, 9@14c.; Western Creamery extra 28@29c.; fair to prime, 23@27c.; poor, 19@21c.; imitation, 17@22c.

OLD.—Best half tubs, 18@20c.; fair to prime, 12@17c.; firkins, full, 2@16c.; do., firkins, 1@16c.; common State 7@9c. Western, 10@16c., fair to best; State creamery, best, 20@25c.; poor, 4@14c., Western dairy, 14@18c; adie packed, selected, 15@16c., factory, do., 18@15c.; other, 6@10c.; rolls, 9@14c.; grease, 4@7½c.

Receipts for week—21,674 pkgs.; exports, 4 000 pkgs.

COTTON.—There has been much more activity, and the market closes firm at a decided advance on a better market in Liverpool. Latest prices are for March, 10.24c.; April, 10.38c; May, 10.47@10.48c; June, 10.65c.; July 10 78@10 79c.; August, 10 87@10.89c September, 10.69@10.71c; October, 10 41@10 43c.; November, 10.16@10.18c.; December, 10.11@10.13c.

Quotations for spot cotton are based on American standard of classification, and on cotton in store running in quality not more than half a grade above or below the grade quoted:

	Uplands.	N. Orleans.	Texas.
Ordinary........................	8 7-16	8 9-16	8 9-16
Strict ordinary............	8 13-16	8 15-16	8 15-16
Good ordinary............	9 5-16	9 7-16	9 7-16
Strict good do...........	9 9-16	9 11-16	9 11-16
Low middling.............	9 15-16	9 15-16	9 15-16
Strict low middling.......	10	10⅛	10⅛
Middling........	10⅛	10¼	10¼
Good middling..............	10⅜	10⅜	10⅜
Strict good middling	10⅝	10⅝	10⅝
Middling Fair.......	11⅛	11⅛	11⅛
Fair..........	12⅛	12⅛	12⅛

STAINED.

Good ordinary............	8½	Low Middling..........	9⅝
Strict good ordinary...	9	Middling............	9 13-16

CHEESE.—Really fancy stock is quite scarce, and occasionally runs above the outside quotation, otherwise there are free sellers, and demand unsatisfactory through the week leads to a trifle easier tendency of prices.

Quotations: 9@9½c. for fancy; 8½@8¾c. for fine lots; 7½@8c. for good; 3@4½c. for skimmed; 5½@6½c for half skimmed; State, farm dairy at 8@8½c. for fine; 7@7½c. for good to prime. Wisconsin factory, fine and fancy, at 8½@9c.; do. good to prime, at 7½@8½c. Western factory, fine 7¾@8c.; good and prime, 6½@7½c.; do. full skimmed, 3@4½c.; do half skimmed, at 5@6c.

Exports for week, 42,8 0 boxes.

Receipts for week, 30,630 boxes.

Liverpool cable, 48s

Steam to Liverpool, 30@35s.

DRIED FRUITS.—Apples are having a very good export and a fair local movement, and prices are well sustained. Peeled peaches have been active and firm in price Small fruits are generally dull.

Alden's evaporated apples are at 12@12½c.; new process apples at 9c. State plums, 14c.; Blackberries are quoted at 5c Peaches Peeled Georgia, 7@7½c. for poor: 8½@9½c. for fair to good; 1 c. for prime: choice North Carolina, 12@13c.; good do., 9@10c.; unpeeled halves 3½c. quarters, 3c. Pitted cherries, 20@21c. Apples—New, 2½@2¾c. for southern quarters in bags; 3¾@4¼c. for prime sliced; do., fair at 3@3¾c.; State at 3¾@4½c. for new sliced; and 4@4½c. for quarters; Western at 3½@4½c. for new quarters. Raspberries, 26c.

Exports, apples, 1,821 bls.

EGGS.—Receipts for week, 9 917 bbls.; do. last week, 7,855 do The market has been excited at one time during the week, 22c. was quoted for all fresh. The trade withdrew at that rate, and closing quotation will hardly survive until Monday.

Near points, 19c.; state, and Penn., 18@18½c.; Western, 18c. southern, 17½@18c.; poor, 16@17c.; duck, 26@28c.; goose, 60@70 c.

FLOUR.—Values have been easier on larger supplies of various grades, and buying moderate.

Latest prices are $3.35@3 70 for inferior to very choice superfine State; $3.70@4.10 for very poor to good extra do., odd lots and lines: $4 00@4.25 for good to choice do.; $3.35@3.70 for inferior to fancy superfine Indiana, Iowa, Michigan, &c.; $3.70@4 00 for inferior to good shipping extra do. and $4.00@4.25 for good to choice extra do.; common to about choice white wheat extras, $4.25@5.25; choice to fancy do. at $5.35@6 15; red and amber winter wheat, very inferior to very choice trade and family, at $4.10@5 7. (fancy held higher); round hoop Ohio at $3.9 @$4.35, and trade and family brands of do. at $4.50@6.85 the latter rate for very choice (a few fancy lots held higher), St. Louis, $4 25@5.10 for very inferior to good extra; $5 10@6.00 for good to very choice (with a few very fancy brands in high favor with the jobbing trade) quoted up to $6.50 6.75; Minnesota clear, very inferior to very fancy, at $3.75@5.10 few brands going above $4.75; Minnesota "straight," very poor to very fancy at $4.50@6 00; and patent poor to strictly fancy at $5.25@8.25, few brands going above $7.50@7.75; unsound stock at from $2.25@5 25 city mills extra at $4.85@5.20 for West Indies (the latter rate for fancy in new packages); do. for England $3.80@4.10; do. trade and family extras, $5.25@6 25 do for South America, $5.15@5 65 for fair to very choice; No. 2 at $2 35@3.15 for poor to very choice.

CORN MEAL.—Sales at $2.10@$2.30 for yellow Western and $2 00@2.65 for Brandywine.

FRESH FRUITS.—The apple market is good for fine stored stock, but prices are kept tame by the comparatively large rail road arrivals, mostly from the East. Spitzenburgs, $2@2 50 bbl. Greenings, $2@2 37; Russets, $1 75@2; Baldwins $1.75@2, N. E. and poor State, $1 5 1.75. Cranberries nominal at $7@8.50 for made bbls. $2 25@3 fair to fancy crates. Fla. strawberries arrive regularly and down to 75c @$1 ₩ quart hot-house, do., $1.50@2. Fla. oranges have a fair demand for the few lots of prime coming and here fancy hf. bbl. boxes, $5 50; fair to prime, $3@4 50; poor, $2@2.25. Peanuts in good demand, with 5c. advance. Va hand-picked, $1 15 1.20; other, 90c.@1 05; shell d, 4½@5c.

Exports of apples for week, 4,450 bbls.

FURS AND SKINS.—There are no new features. Late caught skins do not bring full rates.

HONEY.—Comb quoted, 7@10c.; strained, 6@8c.

MAPLE SUGAR.—New Ohio, light, 12@13c.; dark, 10@11c.; old, 6@8c. Market dull

GRAIN.—Wheat has been variable, but closed lower on full offerings, and the advices from the other side not especially favorable to shippers. Latest sales are of ungraded spring at 95c.@$1 02; ungraded amber at $1 1 ¾@1 11¾; No. 2 amber at $1 11@1 11½; ungraded red at 95c.@$1 10; No 1 red at $1 14½@1 14¾; No. 2 red at $1 14@1 14¾; No. 3 red at $1 0 ½@1 09; ungraded white at $1 12@1 13; extra white at $1 14½; White State at $1 13½@1 14¼; No. 1 white at $1 12¾@1 13, No 2 white at $1 10¾@1 11½; No. 2 amber, March option, at $1 11¾; do., April option, at $1 12 1 12½; do., May option, at $1 13; No 2 red, March option; at $ 14¼; do., April option, at $1 14½@1 15; do., May option, at $1 14¾@1 15; No. 1 white, March option, at $1 13@1 13¼; do., April option, at $1 13@1 13¼ do., May option, at $1 13¾@1 14; No. 2 white, delivery by April 1, at $1 11½. Rye is lower; Western at 56@58c., and State at 59 61c. Corn is fairly active, closing at for New York No 2 at 44¾@4 ¾c.; New York No. 3 old at 45¼@45½c.; New York steamer mixed at 43¾@43¾ ungraded western mixed at 43½@44c. New York No 2 white old at 48c.; New York No. 2 white at 47c for car lots New York steamer white at 45@45½c.; round yellow, new, at 45c.; New York yellow old, at 46c.; New York steamer yellow at 44c; New York old mixed, old, at 44¾@44¾c.; yellow western at 44@4 ¾c; yellow southern 45½c; New York No. 2, March option, at 44¾@44½c. do., April option, at 45c; do., May option, at 45¾c.; New York steamer mixed, March option, at 43¾c.; do., April option, at 43¾c.; do., May option at 44c. Oats are in very good demand at for New York No. 2 white at 33@33¼c.; New York No. 3 white at 31½@32c.; New York No. 1 at 32¾c.; New York No. 2 at 31¾c.; New York No. 1 white quoted at 35@35½c.; New York No. 3 at 30¾@31c.; mixed western at 30½@32c.; white State at 35@36½c.; white western at 33@33½c.; mixed State at 31½c.; prime No. 2 Chicago afloat at 32 ; do., in store at 30½c. Barley dull; State, 6-rowed, 70@80c.; do., 2-rowed, 55@65c.; Canadian, 80c.@$1 5.

HAY AND STRAW.—Prime hay is doing better on a good inquiry, shipping grades are fairly active.

Sales at 40@45c. for shipping, and 70@80c for retail quantities. Straw quoted at 45@55c. for long rye, and 40@45c. for short rye, and oats at 35@45c.

Exports for week, 1,832 bales.

HOPS.—Emmet Wells, in his Circular, says:

In sympathy with a decline in the London market prices here have fallen 1c. per lb. on nearly every description of hops We revise our quotations accordingly Those holders who hoped for better prices have not given sufficient importance to the fact that most of our home brewers are still well supplied with old hops hops that they bought last season on speculation when prices were even lower than now. Of course they are not carrying anything like as much stock now as they did in the beginning of the season, but we can mention the names of several brewers in this city who would not be obliged to come into market for a year to come. The same, we think, can be said of many of the London brewers who took from us last season nearly a 100,000 bales. There really remains nothing now to give hope for better prices until something is definitely known of the condition of the root in Europe. The heavy snows in America have protected our roots, but the low price of hops will drive many farmers out of the business.

Quotations are for New York's, new crop, choice, 9 13; New York's, new crop, medium, 7@8; New York's, new crop, low to fair, 1@6; Eastern, 6@9; Western, 6@9; Yearlings, 3@4; Olds, all growths, 1@2; Pacific coast, 10@14.

LEATHER.—Hemlock sole is quoted at 18@19½c. for light; 18½@21c for middle; 18@21c. for heavy; and 16@18c. for good damaged.

POULTRY AND GAME.—Fowls have been scarcer and prices are doing better. We shall soon however, have Southern additions, which may weaken rates. Turkeys doing well. Fowls, N. J., 11c.; Western, 9½@10c.; Southern, 9@9½c. roosters, 5@6c. Turkeys, N J., 12@13c.; Western, 11@12c. Ducks, N. J., N. Y. and Penn., $1.50 1.75; Western 75@1.37, Geese, N. J., $1 75@2; next nearest, $1.50 1.75; Southern, $1@1.25 Western 75@$1.37, the latter for gray. Pigeons, ₩ pair, 3@40c. Choice sizeable turkeys have been scarce and have advanced; eight to twelve pounds is the style wanted. Chickens are selling well when fresh and bright. Some State lots are still quoted at 6@7c. Scant game gives prime ducks some extra call. Geese no longer quotable. Frozen poultry is in market; some very choice from Vermont. Frozen turkeys, choice, 18@20c.; fair to good, 14@17c.; frozen chickens, 10@12c. Dry-picked winter chickens, 24@25c.

Turkeys, best, 19@20c., the latter for Pa dry-picked. other. 14@18c; chickens, best, 16@17c.; other, 10@14c; fowls, choice, 10@1 c.; capons, 24@25c.; slips, 18@20c; ducks, best; 16@17c.; other, 14@15c. English snipe and plover quoted $1.12@1 37; small snipe. 5 @ 60c.; Mo. wild pigeons, $1.25@1.50. Prospect for good quality pigeons said to be poor this spring. Some of their feeding points very scant of beech nuts. Wild ducks, 50c.@$1.00 for canvass; 40@55c. red heads; 35@45c., Mullards; 25@30c., black; 30@35c. teal; 15@20c., common. A few selections for fancy may exceed these figures, but the bulk of the supply is poor.

OIL CAKE.—Western is quoted at $27@27.50 per ton

PROVISIONS.—Have been very dull through the week, but held firm Mess pork quoted at the close, $10.40 bid and $10.50 asked for new for March, $10.45 bid and $10.50 asked for new for April, and May at $10 55 bid and 10.60 asked, and June at $10.65. Bacon at 1½c for long clear and 5¼c. for short clear. Lard—Western steam at $6.65 for contract grade, $6.62½@6.65 for March; $6.65 6.67½ for April; $6.72½ for May. Stearine at 6¾c. for prime. Tallow at 6 9-16 for prime. Beef Hams at $18 18.50. Beef, at for extra India mess, $19@21, as to quality; packet, $11@11.50; plain mess, $9.50@10.25; extra mess at $10.50@11.50.

SEEDS.—Clover is easy and dull; Western quoted at ¾c. for prime, and 6½ 6¾c. for choice. Timothy is quiet, quoted at $1.30@1.40.

TOBACCO.—Export demand is slack and home trade light with prices without important change.

VEGETABLES.—Exports potatoes, past week, 1,125 bbls; of onions, 42 do. A demand for potatoe seed has strengthened prices generally local demand also better at, buyers wanting prime quality. Ordinary gardens are quiet as Southern products begin to divide the trade. Sweet potatoes have kept admirably this season.

Charleston asparagus, $10 doz. Florida green peas, crate, $1 50@3.50; Virginia kale, 62c @$1 ₩ bbl. do. spinach, $3; Baltimore, do., $1 75. Virginia radishes $1 Hot-house rhubarb, ₩ 100, $4@8; radishes, $3 50@$1; cucumbers, $2@2.50 ₩ doz; mushrooms, ₩ ℔, 5 c.; lettuce, selected, 25@40c. ₩ doz.; poor, $1 50@3.50 ₩ bbl Bermuda potatoes, choice, $7@8 per bbl.; Early Rose, Nova Scotia, $3@3.25; Eastern, $3@3.25; State, choice, at $2 50@2.62; fair to good, $2@2.25; Peach Blow, white, in bulk $2 50@3; red, $2 25@2 75; Prolific, $2 25@2 75; Peerless, State, $1 75@2; in bulk $2@2 12; Jackson white, $2@2 37; Mercer, $2.12@2.37; (outside late per double heads). Sweet potatoes, Md. & Del. $2 50@2 75. Bermuda tomatoes, 50@80 box. Onions, Eastern, white, ₩ bbl., $1 45, red and yellow, $3@3.25; Chester, $2.50 3. Squash, Hubbard $3@3.50; marrow, $3. Cabbages per 100, $6@7; R. turnips, per bbl., $1@1.25; beets, 75c.@$1, carrots, $1@1 12; celery, per doz bunches 50@75c.

WOOL.—The movement has been very moderate through the week, and the low grades have been offered at easy figures, but the best fleeces on the moderate assortments are held steady. Quotations are for Ohio, Pennsylvania and Virginia—XXX and picklock 36 37½c.; XX, 34@36c.; X, 31@34c.; No. 1 33@34c. No. 2, 31@33c. common, 29@30c.; combing, 34@39c.

New York, Michigan, Indiana and Wisconsin—XX, 30@32c., X, 29@31c; No. 1, 30@32c.; No. 2, 27@30c.; common, 26@28c.; combing and delaine, 33@37c.

Iowa, Vermont and Illinois X and XX, 28@30c.; No 1, 30@32c.; No. 2, 27@28 .; combing, 33@36c.

Missouri, Kentucky and Tennessee — Washed fleece, 30@35c; unwashed fleece, 18@24c.; unwashed combing, 22@25c.

LIVE STOCK MARKETS

Saturday, March 22, 1879.

BEEVES.—Receipts for the week, 7 689 head: do., last week, 4,883 do. Light supplies last week and moderate offerings for the past six days, proved rather under even Lenten requirements. At the close there was quite a wild demand for cattle, high prices were obtained, especially with the quality of droves considered. Sellers had the market to themselves, but seemed satisfied with the advance of ½c. over Wednesday's rates, which brought quotations up to the following points: Poor to medium steers and useful oxen, 9@10c.; fair to good, 1 ½@1 ¾c; prime and extra, 11@11½c; usual dress. Foreign advices indicate the want of American beef in England.

The exports for the week are 8 950 quarters.

COWS AND CALVES.—Dull; only a moderate spring trade noted at $ @ ₩ head.

VEAL CALVES.—The market is heavily supplied when including hog-dressed. Prime live, however, bring good prices. N. J. and Bucks Co., milk 6½@7½c.; good, heavies, 6@6½c.. State, 5½@7c.; poor to fair, 4@5½c "Bobs" have no settled quotation; the question being very much between surreptitious sale or seizure. Hog-dressed calves choice, 9c.; fair to good, 6@8c.; poor 3@4c.

SHEEP AND LAMBS.—Receipts for week, 22,323 head; do. last week 19,019 do. There is an easy feeling in sheep price extreme. 5@6½c. Winter lambs, 5½@8½c. spring lambs, ₩ head, fair to choice, $4 6 It is useless to send extremely small lambs; some have brought only $ @3.50 ₩ head During the week 1,000 live sheep and 3,675 carcasses have been sent to Europe.

HOGS.—Receipts for the week, 19,598 head; do last week, 28,224 do No late sale; quotable rates, 4½@4¾c. for good corn.

Country-dressed pork light 6¾@6¾c.; medium, 6@6½c.; heavy, 5¾c.; city dressed, 5½@6½c.; Western, 5¾@6c., pigs, 6½c Tenderloins, 5 7c.

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IN this connection it will be pertinent and timely to warn the public against **Cheap** Threshers and **Cheap** Portable Engines. The superiority of our machinery, in all particulars, is now so generally acknowledged that our competitors have no resource but to present the attraction of low prices and long credit. Their goods being inferior, they have to sell them for what they can get. Times are hard; and purchasers, without fully considering the subject, will sometimes allow a lower price to decide them. Manufacturers of "cheap" machines are so set on carrying out competion to its utmost—competition of **Cheapness**, not of Excellence—that they meet "bargain hunters" half way, and furnish them cheerfully with inferior machines at the cheap rate they are asked for.

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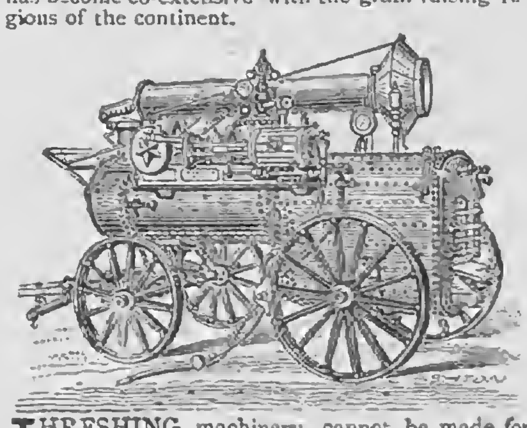

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Reading for the Young.

OUR FRIEND FROM SWITZERLAND RELATES SOME OF HIS EXPERIENCES.

DEAR UNCLE TRUE AND RURAL COUSINS: As I am just now at leisure I thought it best to write a few lines to my RURAL relatives, and to present, at the same time, my sincere thanks to Dr. Asplnwall for his very kind and wise advise in regard to the preservation of Indian relics. I had my little collection, consisting of a number of stone-axes, arrow-heads, gauges, war-clubs and other implements already arranged in about a similar manner as this gentleman advises us to do, and I really think it to be the best way of any. I am actually in possession of several stone implements which some people commonly call "gauges" (probably from their resemblance to the more modern gauges). Their length varies from 4 to 10 inches, and their breadth from 2 to 3 inches with a sharp, concave edge on one extremity. Some archæologists pretend that the Indians used these implements to tap the maple trees with, and that they prepared sugar of the sap thus obtained. Others pretend that the "red man" did not know anything about the manufacture of maple-sugar, but that he employed this implement for another purpose, for that of tanning the skins. Not being familiar with the Indian customs, I do not know which of these two suppositions is the correct one, and I would be very thankful for any reliable information on this subject. One of my friends who was digging lately for Indian pottery on the shores of Lake Champlain, found the grave of an Indian, as he supposed, containing the cranium and part of the facial bones, the os lunominatum and part of the extremities, and a tomahawk in close proximity to this skeleton.

Now, dear cousins, I intended a long time ago to give you a brief description of my experiences during the first year of my stay in America; but I always found my letters long enough without doing so, until to-day, when my thoughts strayed by chance three years backwards, bringing to my memory those days in which the ocean steamer "Celtic" landed me, then a lonely stranger, on the shores of America. I had made the resolution to communicate to you a few of the most interesting incidents. I told you in one of my former letters that when I first came to this country I was perfectly ignorant of the English language, and that a Frenchman was kind enough to hire me out to a farmer residing not very far from where I live now.

My principal objects in hiring out to work on a farm were to learn American agriculture practically; to learn the English language as quickly as possible, and to earn, anyway for once in my life, my own bread. But soon after I had commenced to work for "Uncle Joe," as everybody called him, I found out that I could not easily realise my anticipated hopes and wishes under his guidance. For he was the most peculiar man I ever met in my life; he cannot write or read a single word, but that don't seem to bother him much; on the contrary he feels proud of his ignorance, and he forbade me several times to read some English newspapers and books which I borrowed from my neighbors for the purpose of learning the orthography, pretending that a farmer has no need of any learning; that he himself got along very well without it, and that other folks could do the same.

And indeed he got along well enough in pecuniary regard without having the faculty of distinguishing one letter from another. He has accumulated during the past fifty years an estate containing over 700 acres of good land.

During the year 1876 he was appointed postmaster of this place, and as he was himself unable to fulfill the duties he charged me with the transaction of the business. One day when I was making out the quarterly report for the Post Office Department at Washington, Uncle Joe got mad on account of the small salary that he received for such an important office, and he ordered me to write a letter to General Washington notifying him that in case his salary should not be speedily increased he would shut up the post-office at once, and let old Washington run the risk for the whole "consarn." I remonstrated, that as far as I knew, General Washington died a long time ago, and that it would be hardly fair and legal to shut up the post-office and to throw all the risk that might grow out of such a proceeding on the shoulders of the deceased Father of America.

But all my expostulations on this subject were in vain: he replied very positively, that he knew General Washington to have been head postmaster for several years with two or three of his "sisters" in his employ. (He thought furthermore that those "sisters" must be old maids now by this time). After I reasoned with Uncle Joe for two or three hours on national history and Post Office business I commenced to see into all mistakes. In his dignity as P. M. he received occasionally official letters from the Postmaster General at Washington or from the assistant Postmasters General. I always had to read the letters and to report to him their contents. I generally remarked that such a letter came from Washington (meaning of course the capital) and such a letter from the 1st. 2d. or 3d, assistant. Now, Uncle Joe, thought all the time that I meant by Washington the famous General and by the assistants the General's sisters.

On another occasion a beggar woman desired to stay in his house over night, and before he would permit her to, he asked her, if she was of French or Irish *consent*. The poor woman did not know what to answer, until I explained to her, that Uncle Joe did not mean consent, but he only desired to know her descent or origin of nation.

Shortly after this incident my employer got thrown off from a mowing machine, while taking a nap mowing, hurting himself very badly and in consequence of this, he was obliged to keep the bed for a long time. He was in a very dangerous situation, when the Minister of the Gospel called on him one day, to bring him consolation and the blessings of the Church. Uncle Joe took this reverend gentleman for a whiskey drummer and inquired of him, how he would sell a barrel of whiskey to him, pretending that he wanted it only for his own use. The minister expressed his astonishment and explained that he was not that kind of a drummer, whereupon Uncle Joe dismissed him, unwilling to enter into any other relations with him.

When winter came my employer sent me cutting timber and gave me the advice, to build a fire in the woods, if I should find it too cold there. After I found myself all alone in the forest, I thought that a fire would feel very comfortable indeed, and I commenced to look around for some dry kindling wood, which I soon found in sufficient quantities in the shape of about 100 wooden buckets scattered all over on the ground, around an old fire-place. These buckets were used for the gathering of the sap in the manufacture of sugar, but at that time I was ignorant of this fact, having never seen nor heard of any maple sugar before in my life. I observed quite a number of the same kind of buckets all over in the woods and came to the conclusion finally, that they must be used during summer for the purpose of watering the cattle. Concerning the buckets around the fire-place, I thought they were thrown away, perhaps as useless or superfluous to be burnt up on this place at some time. I took my axe and in less time than it takes to describe it, a dozen buckets were smashed up in small fragments. I set fire to them and the heat thus produced was so gratifying to my cold nose and ears, that I repeated the same exercise every day, until the buckets were all gone.

The following spring when Uncle Joe and I went out together in the woods to make sugar, he wondered very much, what had become of all his sap-buckets, and only then commenced I to understand the extent of my mistake in burning up said buckets.

On another occasion, when cutting down a hollow tree, I found it to be inhabited by a long-tailed animal. I had visited in time a great number of menageries and zoological gardens all over Europe, but never had I met with a specimen of this kind before, and, as it was quite tame, I resolved to take it home alive, to show Uncle Joe what a precious treasure I had found. I caught the animal very carefully by the neck and traveled with it homewards; from time to time my nose caught the impression of a most peculiar smell, and I was often tempted to let the animal go again. But curiosity and self-denial succeeded at last, and I brought the animal home alive and unhurt, in Uncle Joe's parlor. At the sight of my gem which I held up in my hands, the ladies commenced to scream and to run from one part of the house to another; Uncle Joe ordered me very harshly to take that skunk (for that appeared to be its true name) outside the the building and to kill it there. With a heavy heart I obeyed his orders, and with tears in my eyes, I gave my poor pet the death-blow. This remarkable event wrought a good many changes in the family: Uncle Joe kept all the doors and windows open for a fortnight; the ladies would not smile any more upon me, and to please them, I was obliged to dress in my best Sunday clothes, until I had a chance to buy another suit.

Having finished now my skunk adventure, I do not think that the cousins of the tender sex will care about hearing any more of my stories, and I will close this letter, expressing the wish that my young relatives will follow my example and open their hearts before our circle, for I think it would be better to write nonsense than not to write at all, as it almost appears to be the case now. I admire "Ivy's" poetical strain in her last letter very much, and hope to hear from her again; furthermore, I expect some more details of "Jumping Jack's" travels. I would like to get acquainted with Uncle Mark, because I like his letters very much. I never knew before that we have two uncles, and I hope that all the cousins will fire off their guns speedily, and if they are aimed right, I warrant you that they will find their way to the "True Mark." JOHN SCHWYN.

Clinton Co., N. Y.

TO THE SONS OF THE FARMER.—No. 4.

REV. A. W. MANGUM.

A WORD of caution is necessary, on account of the great number of occupations that court the attention of an American youth in this enterprising age. The number and diversity being so great, it may reasonably be expected that callings which are very different as to utility and profit, may appeal with special force to the same taste. One who is endowed with talent to excel in the highest department of Fine Arts, may have a fancy, in earlier years, for the lowest and simplest work that can engage a mind whose æsthetic power is entirely undeveloped. You are admonished not to follow any pursuit unless you can give other reasons besides your inconsiderate preference.

You should expect and be prepared for discouragements and difficulties in any work that you may choose. If you wait for a field that is free from all that tries patience and spirit, you will wait forever. This is taught by the nature of man and the world in which we live, and is exemplified by universal experience. So true is it, that one who cannot bravely struggle with opposition and surmount dread obstacles, is regarded by all the wise as utterly unfit for any important undertaking. Be not appalled! Difficulties bring discipline; discipline gives strength and experience; and these promise success in still greater struggles in behalf of nobler, vaster interests. The following suggestions are respectfully urged upon your attention:

Seek the opinions and advice of your parents; for they desire your highest success, and have much more knowledge of life and labor than youth is likely to have. But you must remember that it is natural for them to have preferences that are caused by the peculiarities of their own lives and fortunes. Hence, you should seek not only their views and counsels, but also their reasons. Avail yourselves of the experience and discretion of other intelligent, prudent, and successful people, provided you can find such among your special friends. When you have obtained their advice and their reasons for it, you must calmly weigh all, and make your decision upon the great question in accordance with certain important principles. Be careful to consider that the question of respectability is decided favorably as soon as the fact of utility is established. Lord Bacon truly said that, "Usefulness is the measure of greatness." None but the vain and foolish entertain different notions now-a-days. If that which is not useful is to be avoided, of course that which is hurtful and corrupting is to be shunned as the deadly plague. True dignity, pleasure, and peace are utterly impossible to him who pursues a calling that debases himself and others, or a calling that tends directly to poison human enjoyment and destroy sweet peace of mind. Money and flattery may seem, for a time, to compensate for the evils incurred and the injuries inflicted; but, soon or late, the vain delusion will be dispelled, the baneful consequences will appear, and the nights of bitter remorse will begin. No man can afford to pursue a vocation that will make good parents and a pure family ashamed. Low, hurtful, corrupting occupations drive the best blessings that money is expected to obtain, far beyond the purchasing capacity of money. Bear this in mind: The occupation that you choose for a life-work should be one susceptible of development and expansion. As you grow older and learn more of the world, your conceptions and desires will be enlarged, and your wants are almost sure to be much increased. If you enter upon a kind of work that, in itself, can be carried to only a certain limited degree, you must not regard that as your highest, your real calling, but only as introductory to something more worthy of your growing talents and experience. I am glad to say that there are few, if any, vocations that are really and absolutely restricted to a certain measure of skill and ability. Probably those that bear such an appearance, are only seeming illustrations. From the highest round of any ladder of enterprise, there is, perhaps always, another ladder whose lowest round is in easy reach of the eager, determined step. Therefore, whatever your calling, while careful not to abandon it without sufficient cause, let *progress* be your watchword, and do not fear that you will reach what is absolutely the highest right.

To be faithful to you, and to cover all the ground at once, I must add that the one all-governing question that is to guide your choice is, *What is it my* DUTY *to do?* That alone brings the matter to the proper test. What are the real ends of my existence? In what can I best fulfil those ends? Philosophers have given sundry answers to the question, "What is the true end of life?" I assume that while you will naturally consider what will best promote your individual interest, and then look with magnanimous concern to the privilege of doing the most and the best you can for the welfare of others, you will bring every thought and purpose into complete allegiance to the one sublime thought that you must do what you sincerely believe that it is the will of your Creator that you should do. Governed by this, your choice will be wisely made. It will be a safe choice; for "the path of duty is the path of safety." It will be a discreet choice; for it will carry with it the assurance of constancy, the fountain of contentment and cheer, and the best guarantee of success. It will be a fortunate choice; for he who humbly, steadily performs the will of his God, is sure therein to best subserve all his own interests and to truly promote, in the noblest and most lasting way, the welfare of his fellow-beings.

LETTERS FROM BOYS AND GIRLS.

DEAR COUSINS:—In making our first visit to you, we feel as if we were leaving mamma and papa—going off alone on a long and hazardous journey, where our faults will appear magnified because so many hundred miles from our native home. Yet we hope that you will pass our imperfections by, and as our friendship matures we will feel a warm interest in each other, trying to fulfill our Saviour's command, that ye "love one another." If we meet with encouragement, we will tell you, in our next, of our home by the sea side. From

THE TWO SISTERS.

DEAR UNCLE TRUE AND COUSINS:—As this is my first attempt at writing to you, I hope you will not criticise me too sharply. I hope all of you will welcome me into your noisy circle. Perhaps noisy is too strong a term, for of late there has been no excitement whatever. Why can't we renew the stirring controversy of last year. Wonder if Slayer of conceit has stopped his subscription? If he has (poor fellow), let's pass around the hat, and renew it for him! Some one spoke of getting up a collection of relics. I have fourteen whole, and ten broken, Indian arrow heads, besides three broken tomahawks. If this letter does not go into the waste basket, you may hear from me again.

West Salem, Wis. RELIC SEEKER.

DEAR RURAL COUSINS:—Can I be welcomed as one of your number? I should very much like to be so welcomed. My father has long taken the RURAL, and the letters from the Cousins I have always read. Jumping Jack's letter was very interesting. I have not much to talk about, so I will say a few words about my pets. The principal one is the cat, Chub. He is a large gray cat, and very cunning. One of his cutest tricks is to have a chair to sit in by the window, and if it is not there, he will beg until he gets it. My other pets are the chickens, of which I am very fond. I have one pheasant hen that is six years old and a great pet. Nearly all our hens know their names, and come to eat out of the hand. I have had quite an experience in taking care of chickens, and I wish some one of the Cousins would write a letter, telling something more about chickens or other pets. As this is my first attempt, and as I am not yet Cousin, I will make this letter short. Yours truly, with all cousinly love, MINNIE S. WHITE.

Erie Co., N. Y.

Sabbath Reading.

BEFORE THE REFORMATION.

THOSE "good old times," which were all change by the Luthern Reformation, may be understoo by reading such a passage as this by Dr. Hagenbuck in his History just published:

We have already, in our History of the Middle Ages, made mention of the religious plays, the fools' and asses' feasts, and the therewith connected mummeries and banquetings in the churches. In spite of ecclesiastical prohibitions, these disorderly proceedings continued and increased. Let us transport ourselves for an instant to th Cathedral at Strasburg. High mass is about being celebrated. The nobles make their appearance magnificently attired, wearing peaked shoe that clatter as they walk, and accompanied by hounds and falcons, the latter of which they occasionally let fly, by way of pastime, during the service of God. Here merchants are settling their worldly affairs, yonder a magistrate publicly administering justice, in the church. For the sake o shortening the way, sucking pigs from the marke close by, are carried through the sanctuary, so tha the noise and bustle thereby occasioned, force th priest to pause in his conduct of the mass. Above the minster organ was placed a grotesque figure, called the "ape of the pipes."

During Whitsun-tide some wag would conceal himself behind this, and amuse the multitude by howls, course jests, and comic songs. From the feast of St. Nichols to Innocents' day (to Adven and Christmas time) it was customary for a boy, dressed as a bishop, to read mass; the rest of the people who frequented the church likewise appeared disguised in various costumes within its consecrated walls. Processions were held and secular songs were sung. Of a still madder character were the proceedings at the feast of the consecration of the cathedral, on St. Adolphus's day (August 29), which was the time for the annual fair. Casks of wine were placed in the chapel of St. Catherine, the high altar served as a table, and the most immoderate indulgence in wine completed orgies which surpassed those of the heathen in unruliness.

THE LOGIC OF A HOLY LIFE.

SOME years ago a young man who gave clear evidence that he was truly a subject of the regenerating grace of God, was asked what had led to the change in him, as he had been wild and thoughtless. Was it any sermon or book that had impressed him? He answered, "No!" "What was it, then? Did any one speak to you specially on the subject of religion?" The same response was given.

"Will you then state what first led you to think of your soul's eternal welfare?" The reply was:

"I live in the same boarding-house, and eat at the same table with J. Y."

"Well, did he ever talk to you about your soul?"

"No, never till I sought an interview with him," was the reply. "But," he continued, "there was a sweetness in his disposition, a heavenly-mindedness, a holy aroma about his whole life and demeanor, that made me feel that he had a source of comfort, and peace and happiness to which I was a stranger. There was a daily beauty in his life, that made me ugly. I became more and more dissatisfied with myself every time I saw him; and though, as I said, he never spoke to me on the subject of personal religion till I myself sought the interview, yet his whole life was a constant sermon to me. He was 'a living epistle,' speaking by action so clearly that I could resist no longer; and accordingly I went and sought an interview with him. We held repeated conversations with each other. Then he pointed me to Jesus Christ, prayed with me, counseled me, watched over me."—*National Baptist.*

It is a pitiful thing to see a young disciple going about and asking everybody how much he must "give up" in order to be a Christian. Unfortunately, many of those who take it upon themselves to instruct him give him the same impression of Christian discipleship—that it consists chiefly of giving up things that one likes and finds pleasure in. But a man in solitary confinement might as well talk about what he must "give up" if he is pardoned out of prison, or a patient in consumption about what he must "give up" in order to get well. The prisoner must give up his fetters, and the invalid his pains and his weakness—these are the main things to be sacrificed. It is true that the one has the privilege of living without work, and the other the privilege of lying abed all day; these are privileges that must be relinquished, no doubt. And so there are certain sacrifices to be made by him who enters upon the Christian life, but they are "not worthy to be compared" with the liberty and dignity and joy into which the Christian life introduces us; and to put the emphasis upon this negative side of the Christian experience, as so many are inclined to do, is a great mistake.—*Sunday Afternoon.*

"Whosoever," is written on the outside of mercy, and "Whatsoever," on the inside. The "Whosoever" takes in all classes, ages, every individual of our race. The "Whatsoever," covers the whole range of each individual's time and eternity. Hasten to get inside mercy's golden gate, if not already there, and when admitted to her banqueting house, grasp firmly the promise, "Whatsoever ye shall ask in my name, I will do it"

PERSONAL ITEMS.

The Delaware Senators are both tall. Mr. Saulsbury measures six feet three and Mr. Bayard six feet two.

Wade Hampton now goes out hunting every clear day. He rides almost as well as before his unfornate experience, but never tackles a mule.

Mrs. Alfred Tennyson Dickens, one of the young daughters-in-law of Charles Dickens, was killed in Australia a few weeks ago. She was driving out with her little daughter when the horse ran away, killing both the occupants of the carriage. Alfred Tennyson Dickens, son of the novelist, has been living in Australia for several years.

Fertilizers.

STOCKBRIDGE
MANURES

Originated by Levi Stockbridge, Professor of Agriculture in the Massachusetts Agricultural College. They have been extensively used for six years. Send for a little book describing them and giving directions for cultivating farm and garden crops. Every farmer, gardener or cultivator of a kitchen garden should send for a copy *mailed free*. **BOWKER FERTILIZER COMPANY, 43 Chatham St., Boston; 3 Park Place, New York; and 21 North Water St., Rochester, N. Y.**

Real Estate.

Don't go WEST. 250 Eastern Md. Farms. Low prices; easy terms; convenient to R. R. & Steamers. Catalogues. J. C. PLUMMER, Cambridge, Md.

IF YOU WANT A FARM OR HOME with independence and plenty in your old age, the
BEST THING IN THE WEST
is the ATCHISON, TOPEKA, AND SANTA FE R. R.
LANDS IN KANSAS
Circulars with map, giving full information, free.
A. S. JOHNSON, Acting Land Com'r, Topeka, Kan.

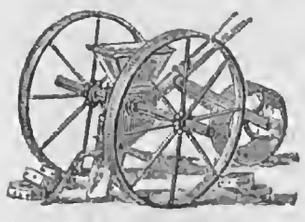
KANSAS FARMS AND FREE HOMES.
HOW TO GET THEM in the best part of the state. 6,000,000 acres for sale. For free copy of "Kansas Pacific Homestead," address **Land Commissioner**, Salina, Kansas.

FARMS IN MINNESOTA AND DAKOTA HOMES
W. & ST. P. R. R.
OVER 1,000,000 ACRES OF
FINE FARMING LANDS
IN MINNESOTA AND DAKOTA,
For sale by the WINONA & ST. PETER R.R.CO., At from $2 to $6 per Acre, and on liberal terms.
These lands lie in the great wheat belt of the North-West, and are equally well adapted to the growth of other grain, vegetables, etc. The climate is unsurpassed for healthfulness.
They are Free from Incumbrance.
Guide Book, Maps, etc., containing full information, sent free.
CHAS. E. SIMMONS, Land Commissioner, Gen'l Offices C. & N. W. R'y Co., CHICAGO, ILL.
Mention this paper in writing.

LANDS AND HOMES
GOOD WATER — TIMBER & FRUITS
IN SOUTHWEST MISSOURI.
1,000,000 acres of well watered, timber and prairie lands adjacent to the St. Louis and San Francisco R'y for sale, at from $2.50 to $5 per acre, on seven years' time. Excellent for stock, fruit, and agricultural purposes.
Free transportation to those who purchase land. Send for maps and circulars to
W. H. COFFIN, LAND COMMISS'R
TEMPLE BUILDING, ST. LOUIS, MO.

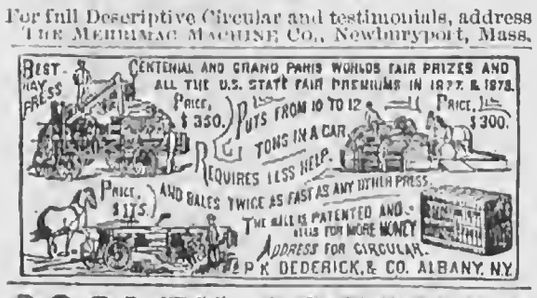
Implements and Machinery.

The Monitor.

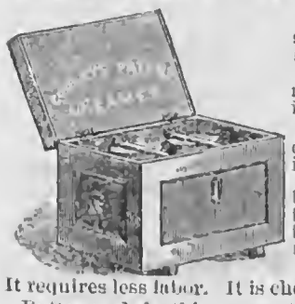


A Perfect Seed Drill.

For full Descriptive Circular and testimonials, address THE MERRIMAC MACHINE CO., Newburyport, Mass.



COOLEY CREAMER



Supersedes large and small pans for setting milk.

It requires no milk room. It requires capacity for one milking only.

Impure air, dust or flies cannot reach milk set in it.

It makes more butter, because it raises all of the cream, and the quantity is never lessened by unfavorable weather.

It makes better butter. It requires less labor. It is cheaper.

Butter made by this process took the HIGHEST AWARD at the INTERNATIONAL DAIRY FAIR—and brings the highest price in all the great markets.

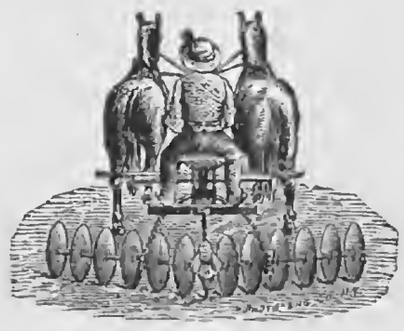
☞ Send stamp for the DAIRYMAN to

Vermont Farm Machine Co.,
Bellows Falls, Vt.

Implements and Machinery.

LA DOW'S JOINTED
Pulverizing and Smoothing HARROW.

Light, Simple, Cheap. Durable and Flexible



Will pulverize and leave ground smoother and in better condition and cover seed better, by once going over, than twice with ordinary Harrow. Acknowledged the best in use. Being jointed in the center, it accommodates itself to uneven surfaces, such as dead furrows, ridges, &c. Made with both Chilled Metal and Cast-Steel Discs.

Responsible agents wanted where we have none. Manufactured by **WHEELER & MELICK CO., Albany, N. Y.,** for the United States, except New England States. EVERETT & SMALL, BOSTON, Mass., Manufacturers for the New England States.

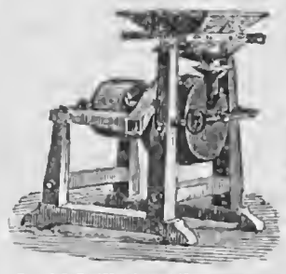
PATENT SPARK-ARRESTER.
8—H. P. Mounted, $550.
10 " " 750.
12 " " 1000.

ESTABLISHED 1840.

2-H. P. Eureka, $150.
4 " " 250.
6 " " 350.

Send for our Circulars.

B. W. Payne & Sons, Corning, N. Y.
State where you saw this.



Mill Manufactory
Established 1851.
Grist Mills
OF
FRENCH BUHR STONE
Portable Mills for Farmers, Saw Mill Owners, etc. Price from $60 up. Complete Mill and Sheller $95. A boy can grind and keep in order. Adapted to any kind of suitable power. Complete Flouring and Corn Mill very cheap.
NORDYKE & MARMON CO.
Indianapolis, Ind.

Implements and Machinery.

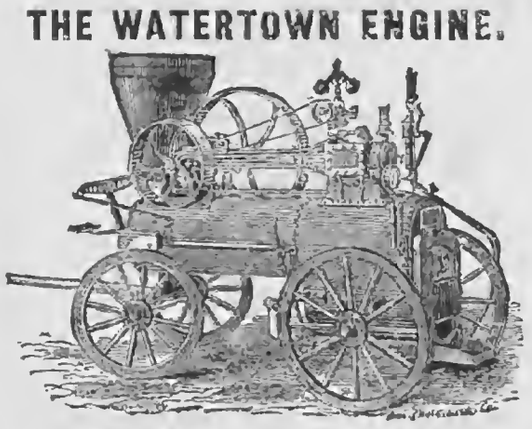
CENTENNIAL
SWIVEL PLOWS!

Triumphant Everywhere!

Accepted by the New England and Maine State Agricultural Societies. Superior to any for Level Land and Hillside.

AMES PLOW COMPANY,
SOLE MAKERS,
53 Beekman St., New York.
Quincy Hall, Boston, Mass.
☞ Liberal discount to dealers and agents. Send for Circular.

THE WATERTOWN ENGINE.



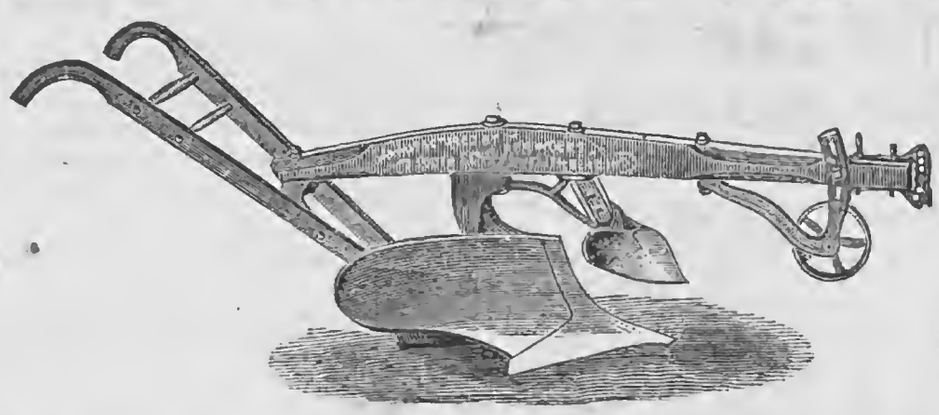
The simplest, strongest and safest. Cheap, durable and economical in use. *Has improvements found on no other Engine.* SPEED ADJUSTABLE WHILE RUNNING. It does not foam. The Governor is self-oiling

IT IS SAFE

from explosion; from causing fire by sparks, or slipping or breaking belt. Proved by an experience of 30 years. New improvements constantly making; all sizes constantly on hand. We have Engines running in all parts of the country and Agents in all States.
☞ Cheap freight rates to all points. Address for Circulars and prices,
WATERTOWN STEAM ENGINE CO.,
Watertown, N. Y.

OLIVER CHILLED PLOWS

Nearly 300,000 now in use.



Warranted to give satisfaction.

Are the only perfectly chilled Plows made, and with our new Jointer and Coulter are positively unrivaled

BEWARE OF WORTHLESS IMITATIONS,

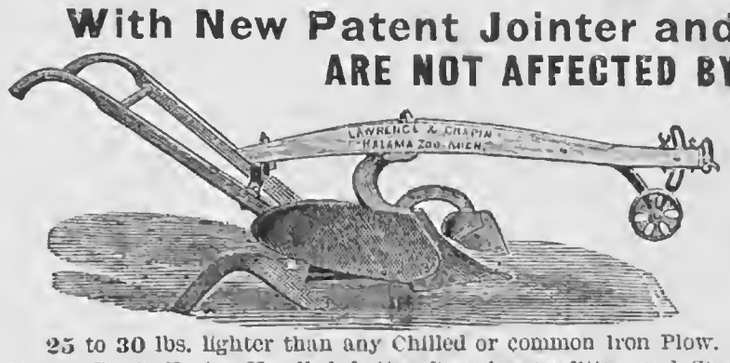
sold as "Improved Oliver Plows," by unprincipled parties Who seek to sell inferior Plows on the reputation of ours. ☞ Look for the name "OLIVER" on the beam.

BRANCHES: Mansfield, Ohio. Harrisburg, Pa. Indianapolis, Ind. Dallas, Texas. Rochester, N. Y.

OLIVER CHILLED PLOW WORKS,
South Bend, Ind.

DIAMOND IRON PLOWS.

With New Patent Jointer and Coulter that ARE NOT AFFECTED BY CHANGE OF BEAM.



The only Plow WITH Wrought Iron JOINTER STANDARD
ADJUSTABLE TO ANY DEPTH.

25 to 30 lbs. lighter than any Chilled or common Iron Plow. Harder, Stronger, More Durable Lighter Draft, Easier Handled, better Scouring qualities, and Stay in the Ground better than any other Plows made. All wearing parts are made of same metal. Every Plow warranted.

Made only by **LAWRENCE & CHAPIN, Kalamazoo, Mich.**

DISTRIBUTING AGENCIES: JOHN B. CROFT, Mansfield, O. C. B. ROGERS, 133 Market St., Philadelphia, Pa. HEWITT, FIELD & CO., Louisville, Ky.

THE BOREL & COURVOISIER SWISS WATCHES

HAVE BEEN AWARDED

THE GOLD MEDAL

at the Paris Exposition of this year, based on the greatest superiority of of performance during the test made manufactured of the best material and finished by skilled hand labor er beyond peradventure. Messrs. B tion in prices, so as to bring their Great care is taken in the finishing those adjusted for railroad use. Call improved B. & C. Watches. The relative merits of Swiss Watches, as manufactures. Can a country that *Hundred* years be ignored? Give and they will demonstrate to you you to institute an impartial com-

The Jury of Awards' decision was workmanship and extreme accuracy by the Judges. These watches are and made with improved machinery, thus insuring an accurate time-keep & C. have made a still further reduce watches within the reach of all of their movements, particularly on your jeweler and ask to see the public is asked to investigate the compared with those of American has made watches for the past *Two* the Borel & Courvoisier fair play, that none can excel them. We ask parison before purchasing.

QUINCHE & KRUGLER
17 MAIDEN LANE, New York, Sole Agents for the United States.

Implements and Machinery.

MATTHEWS' SEED DRILL

The Standard of America.
Admitted by leading Seedsmen and Market Gardeners everywhere to be the most perfect and reliable Drill in use. Send for Circular. Manufactured only by
EVERETT & SMALL, Boston, Mass.

Miscellaneous.

Price 50c per box. **SALICYLIC DIPHTHERIA LOZENGES.** 3 Boxes for $1.00.
CELEBRATED EUROPEAN SALICYLIC TREATMENT. PARIS & LEIPZIG.
CROUP CATARRH COUGHS COLDS TRADE MARK
SORE THROAT, BRONCHITIS,
AND
All Diseases of the Throat, Head, Chest or Lungs.

DIRECTIONS.

Children may take as many as 3 or 4 in an hour; grown persons 6 or 8; in severe cases to be used in conjunction with gargles and doses of Salicylica Powders, price $1 a box, containing 30 powders, both sent by mail to any address, on receipt of price. The only antidote for preventing the spread of Diphtheria and Croup in families. Address

WASHBURNE & CO., Sole Agents,
212 Broadway, New York.
Cor. Fulton St., (Knox Building.)

ELEGANT PANEL CHROMO FREE.

Greatest offer ever made. To obtain the name of every one interested in decorating Pottery, we will send 200 Embossed Pictures with Catalogue for 15 Cents and a Lovely Panel Chromo Free. Stamps taken. ST. NICHOLAS PUBLISHING CO., 80 Beekman St., New York.

50 Chromo, Gold-Border, &c., no 2 alike, 10c; or 20 Lace Cards, 10c. DIME CARD CO., Nassau, N. Y.

50 *Perfumed, Chromo & Snowflake* Cards, elegant case name in Gold, 10c. DAVIDS & CO., Northford, Ct

50 Perfumed, Snowflake, Chromo, Motto Cards, name in gold and jet, 10c. G. A. Spring, E. Wallingford, Ct

60 CHROMO, PERFUMED, SNOWFLAKE & LACE CARDS, with name 10c. Gems Authors 15c. Lyman & Co., Clintonville, Ct

25 of the **PRETTIEST CARDS** you ever saw, with name 10c. post paid. Geo. I. Reed & Co., Nassau, N. Y.

CATARRH.

THE NORWEGIAN BALM

acts upon the mucous membrane of the Nasal passages the same as SOAP and WATER act upon the skin of the body. It immediately cleanses, softens and opens the pores, admitting of a free secretion of mucus, and if the body is kept clean and the bowels regular, the worst features of CATARRH will soon be overcome. Cleansing the Nasal passages of all foul matter *immediately restores the breath to its natural purity.*

EXTRACTS FROM TESTIMONIALS.
(For full text see Pamphlet).

PATERSON, N. J. December 16, 1878.
Mr. N. B. PHELPS,—Dear Sir; We are pleased to inform you that we are selling more of your *Norwegian Balm for Catarrh* than all other remedies for that disease, and find that it gives good satisfaction.
VAN DALSEN & SYKES, 131 Market St.

19 MURRAY ST., NEW YORK, Jan. 8, 1879.
Members of my family have used your NORWEGIAN BALM with great satisfaction. It really seems to have all the merit that you claim for it. *We surely should not know how to do without it.*
SAMUEL HOLMES, Treas. Bridgeport Brass Co.

905 Eight Ave., New York, Dec. 17, 1878.
I think your remedy for Catarrh "One of the greatest discoveries of the age." Before using the NORWEGIAN BALM my wife *suffered untold misery for years.* We sought medical aid, far and near, but to no effect. Our regular Physician, distinguished for his knowledge, skill and honesty, pronounced the disease incurable; that it would extend from the nasal organs to the throat and bronchial tubes, and finally to the lungs—and that death would be the result at no distant day. This was well nigh the case. But in your NORWEGIAN BALM *she found immediate relief;* the extremely offensive odor of her breath, from which she had suffered so many years *entirely disappeared within two weeks* after she commenced to use the BALM. After having used only one bottle, if not fully cured, she feels well on the way.
C. C. SULLIVAN,
Produce and Commission Merchant,
155 Chambers Street, New York.

IMMEDIATE RELIEF GUARANTEED.
Quart Bottle, $1.00. (*sufficient for Two Months' use*). Trial Bottle, Twenty-five Cents.
Ask Your Druggist for it, or send for Circular to
N. B. PHELPS, Prop'r., 6 Murray St. N. Y.

Stock and Poultry

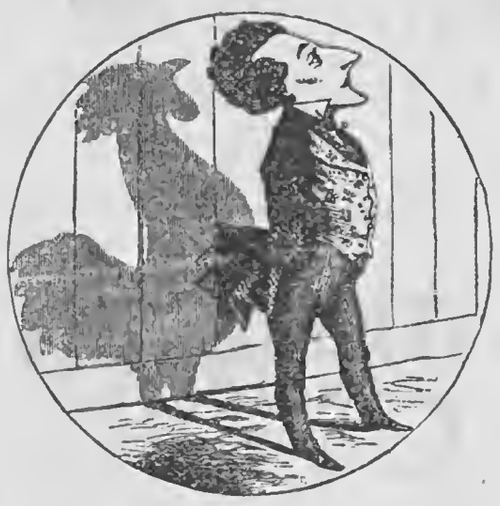
EGGS. EGGS.
L. BRAHMA and P. ROCK.
Exclusively. Carefully selected from two years' breeding. Price $1.50 per 13. Carefully packed for shipping. C. S. COOPER, Schralenburgh, Bergen Co., N. J.

HIGH-CLASS POULTRY.
Send for New Practical, Valuable Circular.
GEO. S. JOSSELYN, Fredonia N. Y.

EGGS FOR HATCHING A SPECIALTY
THOROUGHBRED POULTRY
BROWN LEGHORNS, WHITE LEGHORNS,
PLYMOUTH ROCKS,
PEA-COMBED PARTRIDGE COCHINS.
J. T. LOVETT, Cornwall-on-Hudson, N.Y.
ILLUSTRATED PAMPHLET FREE.

EGGS FOR HATCHING
From high-class PLYMOUTH ROCKS, W. and B. LEGHORNS and WHITE POLISH. $1.50 for 13.
Address O. S. FARWELL, Mayville, N. Y.

STRANGE RESEMBLANCES.



No. 7.

No. 8.

On our Most Distant Frontiers,

As in our busiest and most populous cities of the seaboard and interior, Hostetter's Stomach Bitters is pre-eminently popular. Wherever civilization plants its foot on this continent, thither the great tonic soon finds its way. Nor is this surprising, for it is the medicine of all others best adapted to the wants of the Western immigrant, be he miner or agriculturist. It is an incomparable remedy for the diseases to which he is most subject, and which are liable to be brought on by a change of climate, hardship, exposure, unaccustomed air and diet, and miasmatic atmosphere and water. Among these are disorders of the stomach and bowels, rheumatic ailments and malarious fevers for all of which Hostetter's Bitters is a certain specific. A course of the Bitters before departing for the new field of labor, or on arriving, will have the effect of preventing the evils for which it is such a signal remedy.

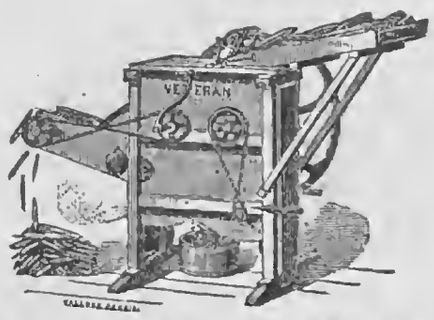
TREES ROSES SHRUBS

The largest and most Complete Stock of Fruit and Ornamental Trees in the U. S. Priced catalogues sent as follows: No 1, Fruits, with colored plate, 15 cts; plain, 10 cts. No 2, Ornamental Trees, etc., with plate, 25c; plain, 15c. No 3, Greenhouse, Vines, No. 4, Wholesale, Free, and No. 5, Catalogue of Roses, with plate, 10c; plain, Free. Address,

ELLWANGER & BARRY, Rochester, N.Y.

Portable Farm Engines

Using Patent Angular Driving Belt.
TAYLOR MF'G CO. Westminster Md., U. S. A.
Or U. S. Section, Ag'l Dept., Paris Exposition, France



Veteran Corn Sheller

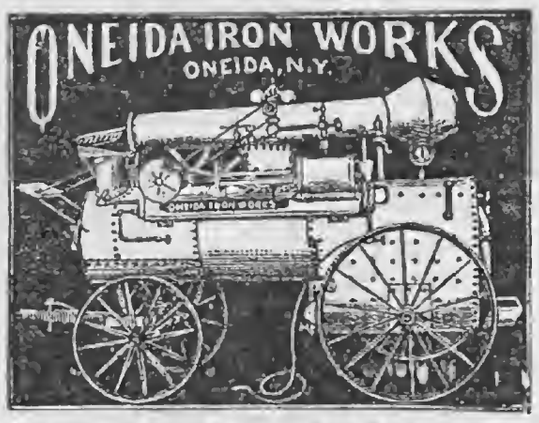
FOR HAND OR POWER.

Just the Thing for Mill, Farm or Plantation.

Power and Hand Corn Shellers of all sizes and to suit all wants.

HORSE POWERS, JACKS, &c.

Write for Descriptive Circulars and prices. Address SANDWICH MANUF'G CO., Sandwich, Illinois.



Portable Steam Engines.

Five to Twelve Horse Power.

Especially adapted for Cheese Factories and Creameries. Also, AGRICULTURAL and STATIONARY ENGINES. Send for Circulars. Address as above.

APPLE GRATER.

This Grater is first-class in every respect; has iron cylinder, iron frame, steel knives, adjustable concaves, and is not surpassed for quantity or quality of work. **Price Reduced to $40.**

For Catalogue of Cider Machinery and other information valuable to cider makers, address

BOOMER & BOSCHERT PRESS CO., Syracuse, N. Y.

Every Man His Own Printer. THE EXCELSIOR **$3 Press** Prints labels, cards etc. (Self-inker $5) Larger size For business, pleasure, young or old Catalogue of Presses, Type, Etc for 2 stamps. KELSEY & CO., Meriden, Conn

TEAS EXTRA CHOICE, 35c. per lb.

All Express Charges Paid on 30 lbs. and upwards. Direct from the Importer to the Consumer. No Middlemen.

CONSUMERS IMPORTING TEA CO., 8 Church Street, P. O. Box 4236 New York City.

PAINT YOUR HOUSES

WITH THE

Rubber Paint.

Send for Sample Card and Circular to THE RUBBER PAINT COMPANY, New York, Cleveland Chicago or St. Louis.

BURNETT'S

PERFECTLY PURE HIGHLY CONCENTRATED

Standard Flavoring

EXTRACTS

CLYDESDALE & HAMBLETONIAN

STALLIONS, Mares and Colts.

ALSO

HOLSTEIN CATTLE.

All of the finest breeding to be found in the United States or Europe, several of which were prize animals at the recent New York State Fair.

PRICES AND TERMS EASY.

Also a large NURSERY STOCK of best quality. Catalogues free.

SMITH & POWELL, 199 West Genesee St., Syracuse, N. Y.

A GOOD SAW-MILL for $188.

Our No. 1 Plantation Saw-Mill is designed to be run by 8, 10 or 12 horse-power Agricultural Engines. With this power from

1,500 to 4,000 Feet

of lumber can be cut in a day; a product 25 to 50 per cent. greater than can be cut with any reciprocating saw-mill. The mills are complete, except saw, and will be put on the cars in Cincinnati for the low price of $188, and warranted in every particular. Saw-Mills of all sizes, Engines and Boilers, Shafting, Gearing, etc. Illustrated Circulars sent free.

LANE & BODLEY CO.,

JOHN AND WATER STS., Cincinnati, O.

CIDER PRESSES AND GRATERS. BOOMER & BOSCHERT PRESS CO., Syracuse, N. Y.

My Annual Catalogue of Vegetable and Flower Seed for **1879**, rich in engravings, from original photographs, will be sent FREE to all who apply. Customers of last season need not write for it. I offer one of the largest collections of vegetable seed ever sent out by any seed house in America, a large portion of which were grown on my six seed farms. *Practical directions for cultivation on each package.* All seed *warranted to be both fresh and true to name*; so far, that should it prove otherwise, *I will refill the order gratis.* The original introducer of the Hubbard Squash, Phinney's Melon, Marblehead Cabbages, Mexican Corn, and scores of other vegetables, I invite the patronage of all who are anxious to have their seed direct from the grower: *fresh, true, and of the very best strain.*

NEW VEGETABLES A SPECIALTY.
JAMES J. H. GREGORY, Marblehead, Mass.

GIFFORD'S SWINGING SPANCHION. Self-closing, self fastening. First farm right in each town for sales in stables. For Illustrated Circular, address W. C. GIFFORD, Jamestown N. Y.

State you saw this in the RURAL NEW-YORKER.

TEAS. AHEAD ALL THE TIME. The very best fresh goods direct from the *importers* at *half* the usual cost. Best plan to Club Agents and large buyers. All express charges paid. Quality guaranteed. New terms free.

THE GREAT AMERICAN TEA CO.
P. O. Box 4235. 31 and 33 Vesey St., N. Y.

THIRTY-THIRD ANNUAL

STATEMENT

OF THE

CONNECTICUT MUTUAL

LIFE

INSURANCE COMPANY,

OF HARTFORD, CONN.

NET ASSETS, January 1, 1878		$45,072,083 57
RECEIVED IN 1878:		
For Premiums	$6,249,133 84	
For Interest and Rent	3,141,429 50	
Balance Profit and Loss	29,861 06	
		9,420,424 40
		$54,492,507 97

DISBURSED IN 1878.

TO POLICY-HOLDERS:		
For claims by death and matured endowments	$3,407,593 28	
Surplus returned to Policy-holders	2,346,137 71	
Lapsed and Surrendered Policies	1,559,037 10	
		$7,312,768 09
EXPENSES:		
Commission to Agents	$347,633 18	
Salaries of Officers, Clerks, and all others employed on salary	88,712 24	
Medical Examiners' Fees	11,908 36	
Printing, Stationery, Advertising, Postage, Exchange, etc.	170,651 56	
		618,905 34
TAXES		335,652 10
		8,267,325 53
BALANCE NET ASSETS, DEC. 31, 1878		$46,225,182 44

SCHEDULE OF ASSETS.

Loans upon Real Estate, first lien	$26,383,983 26
Loans upon Stocks and Bonds	30,453 28
Premium Notes on policies in force	4,720,535 17
Cost of Real Estate owned by the Company	7,515,066
Cost of United States Registered Bonds	2,963,764
Cost of State Bonds	723,400
Cost of City Bonds	1,988,720
Cost of other Bonds	500,000 00
Cost of Bank Stock	76,205 00
Cost of Railroad Stock	26,000 00
Cash in Bank at interest	1,231,548 86
Cash in Company's office	6,119 88
Balance due from Agents, secured	54,209 85
Bills Receivable	5,176 57
	$46,225,182 44
ADD:	
Interest accrued and due	$1,571,808 46
Rents accrued	16,541 29
Market value of stocks and bonds over cost	147,668 11
Net premiums in course of collection....NONE....	
Net deferred quarterly and semi-annual premiums	37,928 04
	$1,953,945 90
GROSS ASSETS, December 31, 1878	$48,179,128 34
LIABILITIES:	
Amount required to reinsure all outstanding policies, net, assuming 4 per cent. interest	$43,131,708 00
All other liabilities	1,643,343 59
	44,775,051 59
SURPLUS, December 31, 1878	$3,404,076 75
Ratio of expense of management to receipts in 1878	6.57 per cent
Policies in force, Dec. 31, 1878, 64,979, insuring	$170,319,164

JACOB L. GREENE, President.

JOHN M. TAYLOR, Secretary.

D. H. WELLS, Ass't Secretary.

PHILIP S. MILLER

General Agent for N. Y. City, Long Island and New Jersey,

194 Broadway, New York.

THE RURAL NEW-YORKER

A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME

VOL. XXXVIII. No. 14. WHOLE No. 1523. | NEW YORK CITY, APRIL 5, 1879. | PRICE FIVE CENTS. $2.00 PER YEAR.

[Entered according to Act of Congress, in the year 1879, by the Rural Publishing Company, in the office of the Librarian of Congress at Washington.]

The Herdsman.

OUR ANIMAL PORTRAITS.

In continuation of our series of portraits of distinguished animals, we this week present to our readers two excellent likenesses of beasts that have won for themselves a wide reputation and for their owners no small amount of prize money and *eclat*. That of the cow Gaily, is a full representation of the animal of which a partial view only was given in our issue of February 15, as she stood nearly fronting the spectator on the extreme left of the group of Mr. McCombie's polled Angus cattle from the Paris Exposition. She is four years old and a fine specimen of a breed which has lately been attracting a great deal of attention in this country, as being specially adapted, owing to their horuless state and their fattening qualities, to the exigencies of our foreign and domestic cattle trade.

The portrait of Empress represents a fine specimen of the admirable Hereford breed, which are daily gaining popularity, especially as beef animals, wherever they are known in the United States. Empress is barely two years old, and was bred by Mr. John Morris, of Ludham, Madley, Hereford, England. Her sire was Sir Charles (4959), dam, Cowslip 3d, by Bangus (3667), etc. Empress took the first prize in a large class of yearling heifers at the last Bristol Show of the Agricultural Society, and it is rarely that an animal so closely approaches the form of the ideal parallelogram, which it is the ambition of all breeders of beef animals to produce.

Both likenesses were engraved from photographs for the English Agricultural Gazette, from which they have been transferred to these pages as very fine portraits of famous animals.

LATE MILKING A CAUSE OF ABORTION.

The last number of the Rural was received by this morning's mail. In perusing it I find an article on "Abortion in Cows,"—a matter of great importance to stock raisers and dairymen. On this subject I would like to give an opinion, however little it may be worth. Several years ago, I was in Herkimer Co., N. Y., when dairymen were suffering serious loss by the trouble above referred to, and could discover no cause or remedy. I visited and examined a number of stables, made many inquiries, and formed an opinion and told the dairyman how I believed it could be avoided.

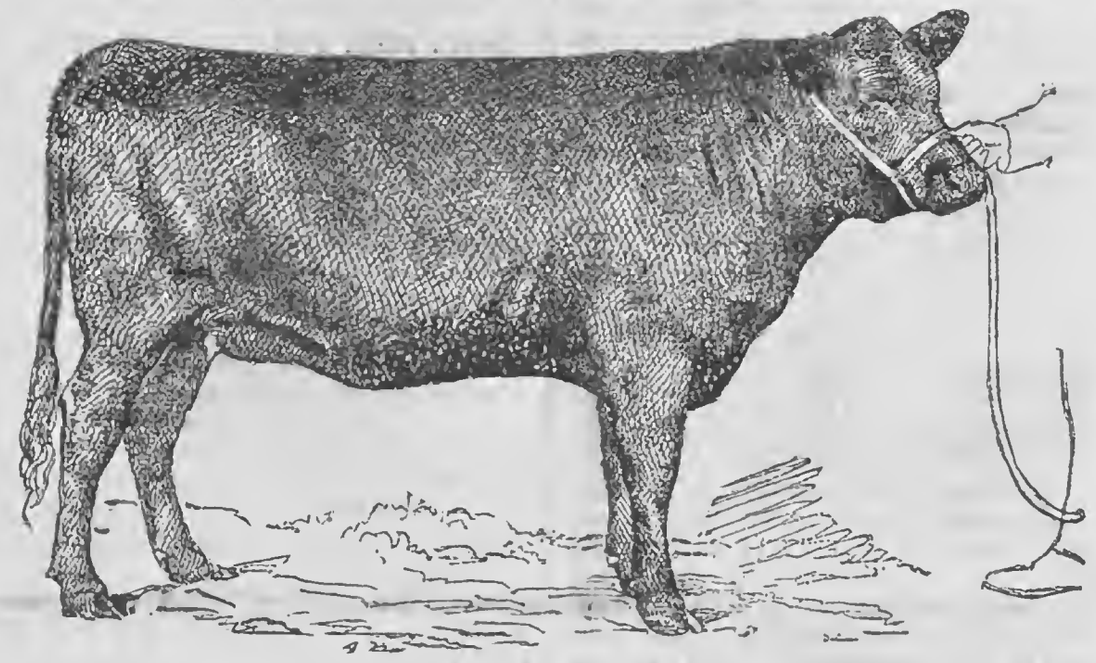
The cows had been well fed, and were in good condition. The water furnished them was the best well or spring water. They were well cared for—only large numbers were stabled together in well and closely-built barns. But I found that the cows were milked very late before calving, and I reasoned that, no matter how well cows were fed or kept, sufficient nutriment could not be supplied to nourish the fœtus and furnish milk at the same time. Acting on this hint, the trouble was stopped. While the statements made by the Rural's correspondent may have weight, and may be true, none of the conditions he mentions were found in the region I refer to.

Hammonton, N. J. H. E. Bowles, M. D.

DOES IT PAY TO KEEP HOGS?

That depends upon circumstances. If your hogs are the long-legged, slab-sided, long-nosed "elm-peelers,"—no. Such hogs will not pay at any time, still less when pork is 2½ to 3½ cents per pound, dressed. Besides, such hogs are a nuisance to you and your neighbors. They are hard to fatten and their meat is of inferior quality. But it will pay any farmer to keep a few pigs of some improved, small-boned, early-maturing breed, like the Berkshires, Essex or Chester Whites. They can be kept and fattened on little besides the waste from the kitchen and dairy. The best way is to have the pigs come early in the spring and turn them off in the fall. It will not pay to keep them longer. A litter of pigs can be kept in good growing condition through the summer on the waste from the kitchen, together with a little skim milk, if they have the run of a good pasture. In the fall they can be easily fattened on pumpkins and a little corn. If you want nice pork, don't confine your pigs in a pen, but give them as large a run as possible.

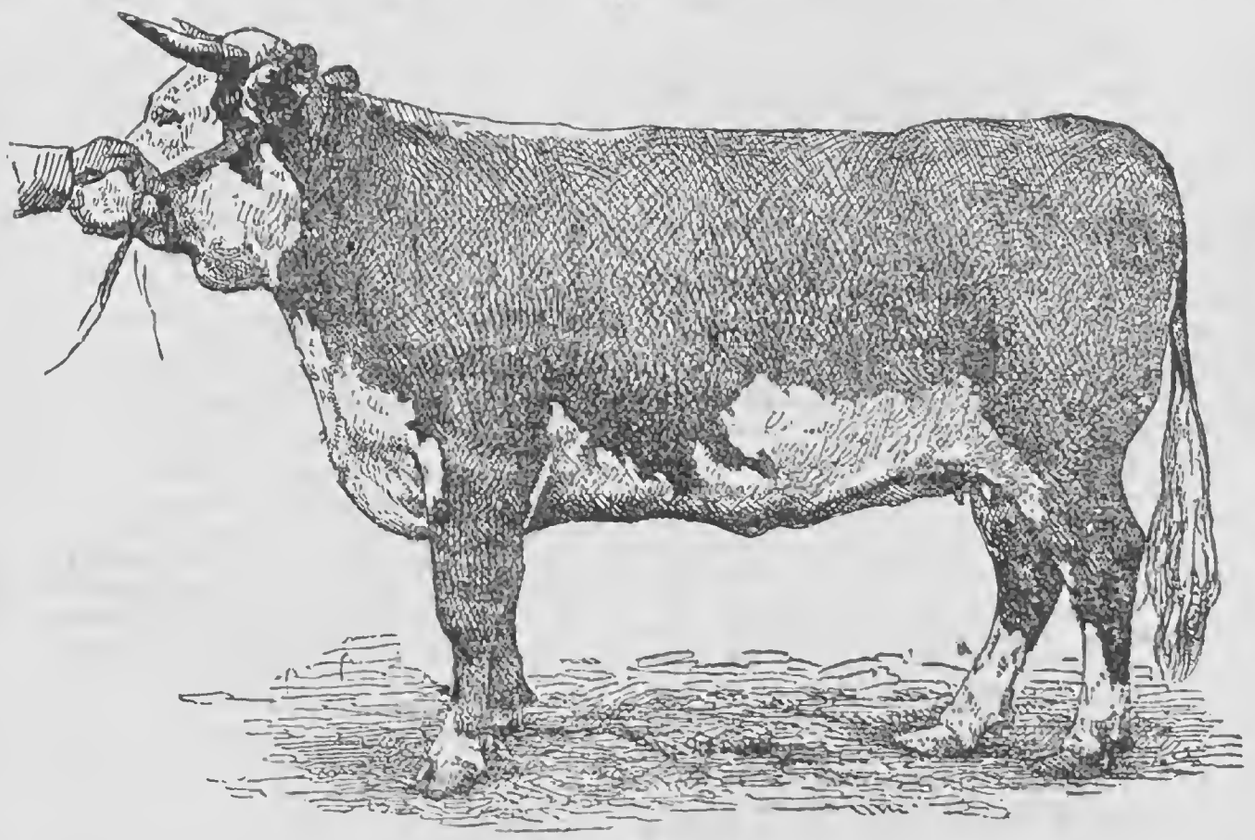
Some people object to giving pigs a large range for fear that they will not fatten so fast as if confined. I think that this is a mistake. None of the small, improved breeds will roam enough to work off much fat. But even if they did, the quality of the pork is so much improved by having a large range that the improvement would compensate for the slight loss of fat. The nicest pork that I ever ate, was made from a hog that had the free range of a thirty-acre field. Now all cannot give their pigs as much liberty as that, nor is it necessary; but give them as much as possible. Above all, don't keep your pigs too near the house, especially if they are confined in a small yard. Hogs of a good breed, well cared for, will always pay as well or better than any stock on the farm, and they can be kept with less trouble and expense. V. J. Emery.



POLLED ANGUS COW, GAILY.

Fattening Sheep for Market.—An article appeared in the issue of January 18th on the above subject, that, I think, takes a wrong view of stock-raising. If it ever pays to keep our best stock, it is when prices are low; and instead of selling off the well-formed and best stock at poor figures, I would keep them at home until they are fully ripe, while I would get clear of all poor stock just as soon as possible. When stock is low, it will only pay to keep the best, and I think the best always returns the most profit. I do not mean by this that we must buy fancy stock; for that will never pay, to any great extent, in the hands of the ordinary farmer. The farmer that keeps sheep, will, by selecting the best ewe lambs and coupling them with a good buck of good stock, soon raise a flock that he need not be ashamed of. I. J. B.

Jottings.—The cows from the Blissville stables have all been sacrificed to the public apprehensions with regard to pleuro-pneumonia. Some of the buildings have been destroyed, and all disinfected. Hogs, instead of cows, will in future be fed on the distillery swill, at least until more peaceable days. . . . Vigorous measures have at length been adopted for stamping out pleuro-pneumonia in New Jersey. Infected animals will be remorselessly slaughtered, exposed animals rigidly quarantined, and inoculation, as a preventive, prohibited. Farmers should be paid well for beasts slaughtered for the puplic good.



HEREFORD COW, EMPRESS.

Dairy Husbandry.

TURNING COWS TO GRASS.

T. H. HOSKINS, M. D.

Wintering Stock badly a cause of "accidents" in spring; other ill effects from it; running dairies the year round; treatment of cows in spring; using the card and brush; repairing of pasture fences; supplying salt.

Cows that have been well wintered are half summered. Under the old method, unhappily not yet altogether extinct, cattle lost so much in flesh and condition during the winter that half the grazing season was required to put them where they ought to have been when they left the barn. Cows so weak in April that they have to be "tailed up" are not yet unknown in New England, while our newspapers find many a local item in which we are told of the "misfortunes" of this and that farmer who have lost more or less of their horned stock in the spring of the year "most unaccountably." But the old *regime* is dying out, and with greatly accelerated speed in consequence of the low prices of dairy products. "Scrub-farming," if it ever paid, has now ceased to pay. Scrub-stock goes out with the scrub-farmer, and the dairyman who adheres to the customs of the past, finds that "Jordan's a hard road to travel."

The large majority of our farmers, however, yet follow the practice of drying off their cows early in the winter, and having them "come in" from March till May. Cows that have been fed, under these circumstances, with liberal rations of good hay and corn-fodder, without grain, ought at calving time to be in sufficiently good condition. But if after they become dry, straw is put before them as their main diet, and no grain-feed is allowed them, there will necessarily be a great loss in condition; the calf will be small, the cow in danger of serious trouble at calving, and the flow of milk will be so much less in quantity and poorer in quality than it ought to be, that profit is out of the question.

In the new dairying which is being, in a manner, forced upon us, both by the decline of prices and the changed taste of consumers, especially in butter, good winter-feeding and care are above all essential. With the necessity for these comes upon us, in a pressing manner, the inquiry whether we shall not be also forced to run our dairies through the year. If we must feed well during the cold weather, have light, warm, clean and airy stables for our cows, and devote much of our time to them all through the winter, must we not also arrange things so as to have a continuous income from them? Then comes a careful study of the feeding question, and how we shall not only make winter butter, but how we shall manage to make it resemble as nearly as possible the butter of June. When this point is reached by the larger portion of our dairymen, writers upon dairy topics will have but little to say upon the subject which forms the title of this article. Or if they still continue to write upon it, will be from a different stand-point altogether.

A cow should come out in the spring in as good condition as she went to the barn in the fall. She ought rather to gain than to lose in flesh after drying off. If she will not do it upon hay, she should have grain-feed of some sort. Though it is possible that a cow may be too fat at calving, it very rarely happens that she is so. Immediately after calving, her rations should be light but nourishing, and as soon as the danger of fever is past, her feed ought to be increased continuously until she has reached a full flow of milk, and maintains

it without losing much flesh. As soon as the grass shoots in the warmer and moister parts of the pastures so that a moderate bite can be had, it is better, it seems to me, to turn out the cows than to keep them in the stables or yards. They smell the spring, and, wearied by long confinement, they are eager and restless until they feel the sod under their feet again. But, of course, they must not be expected to fill themselves from the scanty growth. Unless a good feed is given morning and evening (a part of which ought to be of grain), there will be in the milk of fresh cows a decline that it will be very difficult to recover. Besides this, there is the danger of the cows' filling their hungry bellies with the dead grass out of which all nutriment has been soaked by the winter's rain and snow. A good many "accidents" happen from this cause.

The cows are shedding their coats at this season, and it pays well to use card and brush upon their hides. Not only does it greatly add to their comfort, but it obviates much danger of contamination to the milk. Strainers are good things, but it is not really necessary to let dirt fall into the milk so as to be sure that there will be something to strain out. In fact, all of our best dairymen are coming to the conclusion that the card and curry-comb rightly used upon cows, are a "paying institution," and will actually add both to the yield and the selling value of the butter.

But before turning out the cows, see that the pasture fence is sound and strong at all points. This is the time when cattle are very restless. Also, I feel like strongly advising every cow-keeper to procure a number of large lumps of salt, and place them conveniently about the pasture upon cheap stands, with a roof over them, so that all the cows may have free access to lick them at will. It is by far the best and handiest way of providing them with this necessary substance, and its being there adds both to their comfort and contentment.

HISTORY OF A POOR FARM.—No. 7.

Feeding for Milk.

"It has been said that feed has no apparent influence upon the quality of milk; that however high we feed with rich food, the milk will be no richer for it. Many prominent writers and lecturers upon dairy matters have indorsed this idea, but few dairymen or farmers will agree with such a statement. It is controverted every day in practice. The poor farmer who feeds straw and corn-stalks gets poor milk, and the farmer who feeds his cows with early-cut hay with all its nutriment preserved, along with corn meal, middlings, malt sprouts and oil meal, produces not only a larger quantity of milk, but more cream and butter."

"Everybody should know that," remarked my old neighbor; "I have had no experience in feeding oil meal or malt sprouts, but I have with grains, buckwheat bran and corn meal, and I know buckwheat bran makes more milk, but the milk is very poor and the butter from it is very white. William would not feed buckwheat bran if he had it for nothing."

"Let us hear what Fred has to say on this point. Fred has taken charge of my dairy and is carrying on a series of experiments with various sorts of food. Bring your dairy record for the month of January, Fred."

Fred took the record from the hook where it hangs in the office. And here let me give a hint to farmers about the usefulness of a small building conveniently situated, to be used as an office. I have such a one at a central point overlooking the barnyard and the orchard, with windows on three sides and a glazed door, so that from the table in the center one can see everything that comes and goes. Here are kept a few standard books; files of a few leading papers; a few simple medicines; and such small things as are always required about a farm; a sideboard with nests of drawers in front and furnished with scales and weights, measures and milk-testing tubes; and a few chairs to accommodate the friends and neighbors who drop in to talk over matters in the way I am recording in these pages, in which manner some pleasant and profitable evenings are spent.

Fred read from the record as follows:

Week ending Jan. 7..... 955 lbs.; av. per day, 136 lbs
" " 14.....1,097 " " " 156 "
" " 21.....1,219 " " " 174 "
" " 28.....1,265 " " " 181 "

TABLE OF FOOD AND YIELD OF MILK.

Date.	Cows.	Food.	Av. milk.
Jan. 7	10	9 quarts of ground corn in the ear and oats	136 lbs.
" 14	10	9 quarts of ground shelled corn and rye	156 "
" 21	10	6 quarts of corn and rye meal and 3 quarts of malt sprouts steeped.	174 "
" 28	10	Same as above with 1 quart of palm nut meal added to the sprouts...	181 "

"What is the next change to be?" asked Mr. Martin.

"I have got to the end of my tether, at present," I replied. "I don't know how I can add any more to the yield, or make richer milk, and I am content to stop for the present. I cannot afford to spoil matters as they now are. But let us consider what has been done, and if feed has no effect on the milk.

"Up to the end of December, 1878, the same ten cows were given, pretty regularly, 70 quarts or 154 pounds a day. They were fed nine quarts of meal of corn in the ear and rye or wheat middlings, with a peck of beets at noon. The beets were all used up in that month; and the first week afterwards on nine quarts of corn in the ear and oats ground together, the milk fell off to 136 pounds a day—a loss of 18 pounds, or nearly nine quarts a day for that week. When the feed was changed to shelled corn and rye ground together, the milk came up to 156 pounds daily; when three quarts of malt sprouts, steeped twelve hours in water to saturate them, were changed for the same quantity of meal, the milk was raised to 174 pounds daily; and with the addition of one quart, or two pounds, of palm-nut meal, the milk increased to 181 pounds daily; but a much larger proportionate increase in cream resulted. The whole gain was equal to 45 pounds or 20 quarts of milk, worth $1.40 per day. The other feed was two bushels of cut corn fodder and a little loose hay once a day."

"How do you account for it?' asked my old neighbor.

"Well, it is plain that nothing can come out of a cow that does not first go into her; that the milk is a product of the food, after the vital necessities of the animal are supplied, so that if the food happens to be richer in nutritious qualities than is needed for supply of the vital functions, the rest will, *in some animals*, be changed into milk and cream. Corncobs chiefly consist of indigestible woody fiber, and oats contain one-third of indigestible husk, so that corn in the ear and oats make poor feed. Shelled corn and rye make a much more nutritious food, malt sprouts are rich in nutriment, and palm-nut meal contains from 10 to 18 per cent. of fat. Put in tabular form these foods appear thus:

	Water.	Ash.	Flesh-formers.	Fat-formers.	Crude fiber.
Corn-cob, per cent.....	14.3	2.8	1.4	44.0	37.8
Oat chaff.....	14.3	18.0	4.0	29.7	34.0
Corn.....	14.4	2.1	10.0	68.6	5.5
Rye.....	14.3	2.0	11.0	69.2	3.5
Malt sprouts.....	8.11	6.8	23.0	44.7	17.5
Palm-nut meal.....	10.0	2.6	40.0	45.0	2.4

"It is very evident that the last two substances must be vastly richer food than the first two: besides, the so-called fat-formers in the first two consist nearly all of cellulose, which is the least nutritive of carbo-hydrates, while in malt sprouts and palm-oil meal these exist largely in the form of oil and fat which are the most valuable of these fat-forming elements."

"Dr. Voelcker," said Fred, "in a recent paper, mentions a series of experiments by Mr. Struckmann, a German, who found that two pounds of oil-cake, given daily to dairy cows, increase both the quantity and the quality of the milk. He also mentions that the cows of the Cirencester Agricultural College, when brought in from grass and fed hay, roots and meal, increased the yield of butter from 3½ per cent. of the milk to 4½, or nearly one-third."

"What is the use of bringing more evidence when the case is proved?" said Mr. Martin. "I don't think any one who has kept cows and fed them for a living, will deny what you state, or doubt the facts you give from your milk record. The better you feed, the better the cows will milk and the more and the better the butter will be. My daughter Mary, who is dairymaid at my house, can tell as soon as the feed is changed and when the cow is stinted of its meal."

"There is something in the cow," said William. "You only waste good food on a lanky, long-legged, narrow-bodied, high-bellied, hard-skinned cow, and there is where your plan won't work."

"Precisely," I replied, "just as you might throw good manure on that hard-packed road and look in vain for a crop equal to that from a well-plowed, mellow field. You would be disappointed in either case. There must be favorable conditions to work upon, else there will be no result.

"There are two profits to be made in feeding farm animals and in the management of any farm, be it poor or rich; both should be looked to. Milk carries off from the food, nitrogen and phosphoric acid chiefly. It is, therefore, a wise thing to use such food as is rich in these two elements, and these are the principal constituents of the soil which are taken up by crops. In the table given, the ash of malt sprouts is stated as 6¾ per cent or 136 pounds in a ton of 2,000 pounds. This ash contains 42 pounds of potash and 30 pounds of phosphoric acid; the nitrogen, already mentioned, amounts to 75 pounds. If all this went into the manure, it would be worth $26.25. But all that is not used in the increase of the milk, is left in the manure, so that at the least, the value is recovered one way or the other. In substituting three quarts or about 2½ pounds of sprouts, costing 17½ cents, for the 10 cows, in place of three quarts or five pounds of corn and rye meal each, costing 50 cents, a saving of 32½ cents in cost, and a gain of nearly nine quarts of milk worth 60 cents, are made each day; equal to 92½ cents, or the wages of my best paid man, so that in feeding the sprouts, there is that gain in addition to the value added to the manure, which may be figured as follows: In 100 pounds of nitrogen in the food of a cow, 63½ pounds are found in the manure, and in 100 of mineral matter 97 pounds are recovered, so that from the use of 2,000 pounds of sprouts, there would be found in the manure 47½ pounds of nitrogen, 40 pounds of potash and 35 pounds of phosphoric acid, worth in money at market prices of these materials, $11.90; $2 80 and $3.50 respectively, in all, $18.20. Sprouts can be purchased for $12 per ton, so that the profit of using them is, perhaps, more than that from any other purchased food whatever."

"I have been told there is danger in feeding small sprouts to cows," said Mr. Martin. "If they happen to be given dry, they will swell and pack in the stomach."

"There is danger in feeding anything recklessly," I replied. "If a cow is permitted to help herself at the meal bin, she will suffer for it, and so if dry sprouts are given in excess, there is certainly danger of mischief. I put a bushel of the dry sprouts in a 40-gallon barrel, and fill up the barrel with water; the sprouts will swell and soak up the water, and a peck of the steeped sprouts is given to each cow every day. When thus fed, there is no danger."

Miscellaneous.

NOTES FROM THE RURAL GROUNDS.

How to Treat the Seeds of our Seed Distribution.

HUNDREDS of our readers have asked such questions as the following: "Why do you not give the English or familiar names of your seeds?" Will not you tell us how to treat the seeds which you are sending to your subscribers?"

We have desired to comply with these many requests for several weeks past, but an unusually busy subscription season, the several seed distributions themselves and our special numbers have absolutely prevented our doing so. For all except our Southern friends, however, our reply must still prove timely, and so we proceed to give it in as few words as possible.

DEFIANCE WHEAT.—In nine cases out of ten, we presume this wheat will disappoint the planter. Our seed will be found somewhat shriveled—some of it unclean. But we have purchased the best that *could be* purchased. The yield of this wheat has, in *some* cases, proven immense—almost, if not quite, unparalleled; in many other trials, it has proven nearly worthless. We do not doubt it will prove a valuable variety in most parts where spring wheats thrive. It may do well in some sections where other spring wheats fail. Nevertheless, in the latter case, except as an experiment upon a small scale, we *should not try it*. In order to obtain the best results we should advise drilling it in as thinly as possible and making the drills a foot or more apart so as to cultivate during its early growth.

PEARL MILLET.—Plow and harrow and roll thoroughly, and plant *two* seeds every *four* feet either way. As soon as the plants are up, destroy one (where both appear) in a way not to disturb the other. A good method is with a pair of coarse shears to cut the plant off just beneath the surface. The ground should be rich and kept clean during its growth. The botanical name of Pearl Millet is Penicillaria spicata. It is known in certain parts of the South as "Cat-tail." The seed which we have sent out will, we should judge, plant half an acre, an ample area to enable our friends to experiment with it as they will.

BEAUTY OF HEBRON.—Suggestions as to planting this potato will not be required. We wish those who have received it would test it beside Early Rose or any other excellent potato and report to us its comparative value. As we have no interest in it, or any other new or old plant, beyond wishing to popularize a better for a poorer variety, we shall publish the bad just as freely as the good reports.

THE VOORHIS WATERMELON should be planted and cultivated the same as any other.

GOLDEN RURAL AND ACME.—These may now be sown in hot-beds, cold-frames, in flower-pots in sunny windows, or in box-flats. In any case, they should be transplanted two or three times before their final disposition in the garden. This transplanting induces a stronger growth of fibrous roots and heavier stems. Do not hasten to plant them in the garden. It is better to wait until the weather is warm and settled, and then to thump them out of their pots into the prepared ground, with the balls of earth intact. We suggest to all that they try *trellises* the same as if the tomato were a grape-vine, and tie them up to it in lieu of the usual stake-support which, by crowding the vines, retards the ripening process.

THE BRONZE RICINUS beans may be planted in rich soil, where they are to grow, not, however, until warm weather. This is a variety of the well-known Castor-oil plant—a cross between Gibsonii and Sanguineus—bearing leaves of a metal-bronze hue.

HIBISCUS MOSCHEUTOS (Marsh Hibiscus), Callicarpa Americana (the French Mulberry), Hibiscus militaris (the Halberd Rose Mallow), Geranium sanguineum (Blood Geranium), Yucca filamentosa (Adam's Needle-and-thread), Vitis heterophylla (the variegated different-leaved Vine) and Rural Hybrid Aquilegia (Columbine), all of which are entirely hardy, may all be planted just the same as a Balsam seed. Light, mellow soil should be selected, and the seeds covered according to their size. Several of the above-mentioned do not germinate in so short a time as Balsam Seed. We have known the Vitis, *e. g.*, to require not less than three months. The Chater's Hollyhocks may be similarly treated. Sown now they will not bloom until next year. They should receive, however, clean cultivation, and would be the stronger for a little light protection next winter, though quite hardy without.

WEIGELA, which is indeed the familiar name of this plant—Diervilla being the botanical name—has seeds which can scarcely be seen with the unaided eye. For this reason the pods were crushed and no attempt made to separate the seed. Our friends will sow this powder the same as they would sow seeds of Portulaca. The young plants may be pricked out into two-inch pots when they have formed second leaves, and changed for larger pots as needed. Or they may be at once planted in the open ground in beds or where they are to remain. A little shade and moisture will alone be required. The seedlings grow vigorously and will bloom the second year. Deutzia crenata fl. pl. (the double-flowering, crenate-leaved Deutzia) may be treated in precisely the same way.

ERYNGIUM LEAVENWORTHII (Leavenworth's Eryngo) is an annual, the seeds of which sometimes germinate slowly. They should be started in a hot-bed now, as, planted in the open a little later, they fail to develop their beautiful fall colors and singular flower heads.

The above are all of the sorts first offered to our readers. At that time it was stated that some varieties would be discontinued and others added as the distribution progressed. We have added the following in place of several as the supply of them became exhausted:

PINUS EDULIS (the Edible Pine, referring to its sweet nuts). These seeds are as large as the seeds of peanuts and might, in fact, be planted the same. It would be as well, however, to place these nuts in three-inch pots about an inch deep and plunge in the ground as soon as the rosette of needle-leaves appears. The second year they may be planted out permanently;—Amorpha fruticosa (Lead Plant, hardy), Calycanthus floridus (Sweet-Scented Shrub, hardy), Aristolochia Sipho (Dutchman's Pipe, hardy), may all be treated the same as Yucca or Hibiscus. We have also, among our reserve seeds, sent out a new Lettuce, a new Japan Cockscomb (Celosia), the remarkable ornamental Beets described in the RURAL of last year, and several others, all of which are of such very simple cultivation as to need no other reference from us.

Simple Method of Starting Seeds.

To those who have not provided either hot-beds or cold-frames and who intend to plant our seeds either in sunny windows or in the open ground, we offer the following effective and excellent plan for forwarding them: Provide pots from six to twelve inches in diameter—fill in with *ample* drainage and then with light, rich soil to within *an inch of the rim*. Plant the seeds and plunge these pots *up to the rims* in the earth of the sunniest, warmest part of the garden. Cover them with bits of glass and keep the soil *always moist*. As soon as the seeds break the earth, remove the glasses during the heat of the sun, replacing as soon as it loses its power in the evening. This method is as good as any cold-frame and for small lots of seeds is, we think, to be preferred.

The First Seed Distribution

of 1879 is now about completed. Hundreds of letters have been received without names—without addresses—with illegible addresses, &c., &c. Of course, such of our friends will not receive the seeds. According to the best of our abilities we have liberally filled every application, and we are free to express our belief that the undertaking has been one of the most extensive and costly ever attempted by any similar journal. According to our means and ability so to do, we propose in every way that presents itself to us, to continue our endeavors, to promote the interests of agriculture and horticulture—grateful to our friends that they seem grateful to us, and happy that we are at least striving to aid in a noble work.

Aristolochia Sipho.

IN the way of hardy vines cultivated for their flowers chiefly, probably the Clematis stands first. But for vines cultivated for their immense leaves, for their amplitude of foliage, as we may say, which utterly conceals whatever it is trained over, there is no other more desirable than the Dutchman's Pipe—Aristolochia Sipho. It is a strange thing that this vine of

really tropical luxuriance, is rarely seen in our Northern or Western homes. The leaves are heart-shaped, nearly round, often a foot in diameter and growing closely enough together to form, in effect, a shingled roofing over whatever they cover. The flowers are of a dull brown color, with a curved, tubular perianth and a trilobate limb which forms a flat border bearing altogether a rude resemblance to the typical Dutch pipe. With us this vine breaks bud in late April, if it can be said to have any buds, as the new growth shoots out of last year's petiole-scar, like a Crocus from the earth. It blooms in late May. It is found wild in some parts of Pennsylvania, Kentucky and the more Southern States, always in rich woods, growing from twenty-five to thirty feet in hight, while its stems sometimes attain a diameter of two feet.

We have never been successful in striking this plant from cuttings, though, in truth, we have never tried very hard. It grows very slowly during the first two years after transplanting, and then very rapidly. It is a twiner and cannot support itself, like the Ivy or Trumpet Creeper, and ought therefore to be planted at the base of trellises or arbors. We have never known it to be injured by our severest winters.

"Geranium New Life."

We are far from wishing to injure the sale of any new plant, provided it has any merits in keeping with the price asked for it. When, however, the contrary is the fact, we make it a part of our business to present the case as it seems to us, and then our readers may the more discriminatingly judge for themselves. This Pelargonium is offered in this country the present season, by most of our progressive florists, at an average price of $1.50 each. Its leaves and habit are similar to those of any other of the dwarfer sorts. The flowers are borne in very small trusses. Thus far we have nothing very novel. The novelty is in the flowers, and consists, we should say, in the peculiarity that no two are alike. Indeed upon the same umbel the flowers are often strikingly unlike. In a plant before us, of five flowers, one has two petals crimson lined with white, one petal crimson, the other two half crimson and half salmon; another flower has three petals white shaded with rosy-salmon, one petal half crimson and half rosy-white, and a fifth crimson; another flower has four petals crimson splashed and lined with white or rose, and a fifth petal salmon; while the two remaining flowers are rosy white with a salmon center. The variety does not seem possessed of much vigor, and the flowers, aside from the oddity of being so singularly marked, are neither well formed nor durable. The RURAL has often urged upon its readers that they send for many catalogues and compare prices. We find that in one catalogue this "New Life" is quoted at 50 cents; in another at $2.00. Such differences would more than justify the soundness of our advice. We do not believe that "New Life" will live long.

A Poultry Record.

There is one phase of the poultry question that, it seems to us, has never been sufficiently dwelt upon; namely, that all persons if so disposed, can keep a few hens with profit, if they have a space of 50 feet square, or even less, in which to keep them. In order to write from experience we, last year, began the experiment of confining a few birds in a small space and noting the results. In early spring four Plymouth Rocks, three Black Hamburgs, one Partridge Cochin and five cocks of the several breeds were hatched out. Without loss or sickness they were reared by two mothers all confined in an area of about 40x40 or 1600 square feet. The house is nearly square 7x7 feet with a roof slanting ten degrees, built of hemlock boards with lights in the front (south) about 6x3 feet. In this are plain board nests and ordinary perches. The inclosure is of pine pickets.

Care and Food.

Their water has been changed daily;—besides wheat, a little corn etc, their food has been everything from the table, raw meat occasionally and green stuff almost daily. We have purposely avoided such stimulants as red pepper and hot boiled food, even in the coldest of the past winter. The house has been cleared of the droppings almost daily—the task of a moment merely, a hoe being always at hand—the nests have had flour of sulphur scattered about them every two or three weeks, and kerosene has been poured into the cracks and supports of the perches every month, or thereabouts. The entire care of these fowls, though it seems much greater as we write out the details, has required the services of a man scarcely fifteen minutes per day during the winter.

Egg Record.

The Plymouth Rocks began laying first; the Black Hamburgs second, the Partridge Cochins last. For reasons that need not be explained, no account of the eggs was kept until Feb. 1st. We may say, however, that the average for six weeks previously was greater than since. From Feb. 1st until March 24th these eight hens have laid 278 eggs—an average of six and a half per day. We have neighbors to the right and left of us, who, during the past winter, have kept from 25 to 75 fowls that have for the most part been obliged to take care of themselves. We state what we know to be the truth when we say that the highest number (75) have not laid twice as many eggs as ours have during the same period, and that the smallest number (25) have not laid so many during the same period. At our own farm, the average of fowls, from one year to another, is over 100. They are of mixed breeds. There they have been *kept* the same as nine farmers out of every twelve keep theirs,—with the exception of the grain thrown out to them every morning, they have been left to themselves. The entire flock is more or less lousy, and is always so. Diseases carry off considerable numbers during every year. We are confident that these fowls, kept in this way, *do not pay*, and it would be money saved were we to *buy* the chickens and eggs needed by the family. Our experiments with small numbers and with all sorts of breeds (always thoroughbred) will continue. We are now erecting another house and inclosure 25x25, and propose to add one or two each of four additional breeds for this and next year.

Special Trees.

Among the trees of this place are several for which we have a special liking. We make brief mention of them now that those who desire to purchase may do so at this season of general planting. We have always regretted that the Lawson's Cypress is not hardy enough for this climate, as it has always seemed to us one of the most perfect of Evergreen trees. Retinospora pisifera, Japan Cypress, resembles it in many respects and this we have chosen to fill its place. Whenever a tree by nature possesses marked peculiarities which seem to be the work of human hands, that tree is certain to provoke a good deal of remark, if not of admiration. Abies excelsa conica (or stricta) is such a subject. It is a dwarf variety of the Norway Spruce and grows in such a completely conical form that one can scarcely look at it and believe it has never been shaped by the pruning knife. For small lawns or among evergreens of smaller size, it is most desirable.

Menzies's Spruce (Abies Menziesii) is of rapid growth and of that whitish-blue-green which few evergreens, otherwise desirable, possess. This is a conical, compact grower with sharply-pointed, rigid leaves.

From time to time we have written in detail of Magnolias—those noble trees that seem to be planted only in the inverse ratio of their surpassing beauty. There is no other tree so well fitted as this to form pleasing contrasts by its breadth of leaf, its wealth of flowers, its majestic form and distinctly tropical appearance. There are several new species of fine promise, to which we have no space further to allude. Magnolia acuminata (the Cucumber Magnolia) is one of the hardiest species and, if cut back for a year or so, forms a pyramidal tree with the lower branches sweeping the ground. M. macrophylla bears the largest leaves of any of this family, growing sometimes three feet in length. M. auriculata (Fraseri), tripetala (Umbrella), conspicua and glauca are all hardy each possessing peculiarities of size, leaf and flower. Among the later varieties M. Soulangeana and Lenné are the most beautiful. The Purple Beech—the Purple Birch—the Japan Maples, any one or all, and the Fern-leaved Beech (Fagus heterophylla) are the other trees which we desire to specialize.

Arboricultural.

EVERY-DAY NOTES.

SAMUEL PARSONS.

The Sweet-Scented Shrub.

EVERY one knows the Sweet-scented Shrub, (Calycanthus). As children we have doubtless rolled its chocolate-colored flowers in our handkerchiefs and inhaled their sweet odor, and that of its camphor-scented wood; but do we realize the plant's full excellence? It has become so common that, like all familiar things, it has failed perhaps with time to retain its proper hold on our regard.

There are several varieties, the best known of which are C. floridus and C. lævigatus. Then, there is C. macrophyllus of the Pacific coast, which is not quite hardy, and several others of less value. The kind, however, that is best known to us and which is at the same time the best plant, is C. floridus. It has the largest flowers and leaves, and is of unquestioned hardiness and vigor, well suited in every sense to do good service on the lawn. It may not have the high degree of excellence possessed by some other shrubs that could be named, but its foliage is rich and shining, quite noteworthy in general character. Its curious reddish-brown, or purplish flowers, moreover, form a feature possessing much interest.

The Calycanthus has been thought in the past a somewhat difficult plant to grow, but it is really not specially difficult to propagate from root cuttings. Seed would, of course, produce it, but seed is not easily obtainable and in other ways, affords a less ready method of propagation. Altogether the Sweet-Scented Shrub (C. floridus), is a fine old hardy plant that we cannot afford to neglect in making up our collections of ornamental shrubbery.

The Siberian Stone Pine.—(Pinus Cembra Mandschurica.)

In Italy we have the Stone Pine (Pinus pinea), somewhat umbrella-shaped in contour of foliage. Switzerland and Northern Europe contribute the Swiss Stone Pine (Pinus Cembra Helvetica), and Siberia, the Siberian Stone Pine (Pinus Cembra Mandschurica,) the tree which I specially wish to note.

The Italian Stone Pine, though picturesque, is not hardy in our climate, and so I pass it without further comment. Swiss Stone Pines are more or less common, and always admired on the lawn. Their excellences have received a fair degree of attention, although no more than they deserve, but I hardly think the same can be said of the Siberian Stone Pine, (Pinus Mandschurica. Yet it is altogether a more noteworthy tree. The leaves are stronger and massed together in a more effective way. Broader contours and greater hight also give it more imposing qualities. It has, indeed, according to Gordon, been known to grow a hundred feet. Pines, in their breadth and masses and drooping grace of clustered needles, are in some sense the Palms of the north, and among Pines few are more effective than the Siberian Stone Pine with its great cones of extraordinary length. These reddish-brown cones of such unusual size are very effective, contrasted in fall with the long heavy hanging pine needles.

Floricultural.

SPRING FLOWERS.

WINTRY snow-storms are still whistling around, and it seems hard to believe in Spring Flowers. Yet they are coming, surely coming; even now down under the snow banks tiny rootlets are stretching, and tiny buds preparing for that kiss

> "which opes the violets' eyes,
> And calls up troops of frail Anemones."

Before we realize it, the tender leaves and flowers will be opening to the showers and shines of April. The beautiful process of *lengthening days* is fairly in operation. Every morning the rising sun steals an atom further north, and every afternoon he lingers with us a few moments longer than he did the day before, so that instead of sitting under lamp-light at half-past four, we can sit by the window and pursue our avocations till nearly six. The "backbone of winter is broken," and we are justified in dreaming of Spring Flowers. It is none too soon for those who are intending to be "Pilgrims of Nature" next season, to be preparing to welcome intelligently the vernal blossoms. Young persons who live in the country, girls and boys who have the delightful privilege of climbing hills and exploring valleys and meadows, who are not afraid of a bit of bog or the wettish places in pasture lands,—these have materials from which to manufacture the sweetest kind of country happiness.

But the simple act of picking wild flowers, captivating as it is, may be made doubly delightful by calling in a little science, by which the searcher for flowers may understand something of the structure and habits of these woodland friends. It is so pleasant to be able to find out to what family a plant belongs, and who are its sisters and cousins; when the different members may be expected to put on their spring or summer dresses, and what localities they select. It is an unfailing delight to feel a personal acquaintance, a friendship for each "fragrant, flower-crowned head;" to greet them when they come; to call them by their *names*, not merely the common names, though many of these are expressive and sweet, but by their scientific names. Though many of these are hard and terrific, yet they are *the* names which learned men have bestowed, and cultured persons must know these names if they would have an accurate knowledge of the inhabitants of the woods and wilds.

A friend of the writer had occasion to lament the strange ignorance of a rural population in these matters. Knowing well the Northern wild flowers and being located during the war in a beautiful Southern region, he was charmed with the prospect of making a collection of Southern flowers, though not having time to study them out. He sought, therefore, to discover either scientific or common names from the natives around, but the only reply to be obtained to any question as to what the beautiful strangers were called, was, "Oh, they're *Posies*,"—a pretty name, it is true, but not very satisfying to a botanical collector. A very desirable preparation for those who hope to spend many a day next season in searching for wild flowers, would be to devote a little time now to becoming familiar with the elements of botany. A small book by Prof. Gray, called "How Plants Grow," gives all requisite information for beginners, and as the student advances, more elaborate books are ready. I wish I could persuade every young person in this land to take up the healthful and delightful study. There are no wearisome hours, no heavy-hanging time for those who love and study Nature. God has thrown around the shaded wood-path, the tangled bog, the open field, the marsh and the meadow, such a subtle and simple charm, influences so sweet and satisfying that, amidst the cool, green and fragrant surroundings, the heart forgets the fashions and follies of the world and puts far away "the crush and din" of its madness.

Horticultural.

OUR GARDEN.

'LIZA LEAFTREE.

"DON'T you think we might have a garden Joel?" I asked it timidly the first week in April in one of the early years of my married life.

"Where is the good?" said my husband, "we have our potato and carrot patch and I guess it's the RURAL has put that into your head." But Joel was really good-natured, and so Anslem, our hired man, had orders to turn in and plow and harrow the last year's carrot patch for my use.

It was a little rough, but with the aid of a reel and line I got the beds into order, and will give you a little idea of the crops we planted and sowed:

All round the edge of the onion bed, planted with Wethersfield Red, I sowed parsley seed, and between the rows of Carter's First Crop peas, we put in dwarf celery for a second crop after the last hoeing. Stout Anslem worked the ground with the horses at the time of the carrot and other green crop hoeing, and made the head-lands of potatoes. I procured strong-rooted Currants and Gooseberries, and planted them out in rows wide enough apart for the horses to cultivate, and grew every kind of vegetables the first year, except asparagus.

Since then, a bed of this has been made and is the most eagerly sought and highly prized of them all. Two rows of Strawberries, planted along the fence, supply us with mammoth Jucunda sufficient for preserves and a good table supply, while by keeping our few Raspberries cut back and trained to a trellis, we have fine large fruit, and enjoy it better than any we could buy. The Early Vermont potato is a superior variety, and we use early and late sweet corn, to prolong the season.

It is astonishing how small a piece of ground will supply a family, if it is properly enriched, and attention paid to planting wide, with a view to a second crop. Radishes among beets, are soon out of the way. So are lettuce among carrots and at the same time this practice tends to keep the garden tidy and free from unsightly rubbish. I sowed some of the low-growing annual flowers along the sides of my vegetable beds, and their bright bloom was always before me when gathering anything for dinner.

Turnips I found did well sown late between the rows of onions which were pulled up late in August and laid to dry. The turnip fly does not seem to like the smell of onions, and left ours unmolested. And for the squashes, both summer and winter, which we grew, I found diluted cow manure effectual in keeping off the bugs and strengthening the plants. Up the side of the house grows a Delaware grape vine now, and half a dozen Damson plum trees, not far off, supply us with this choice preserve.

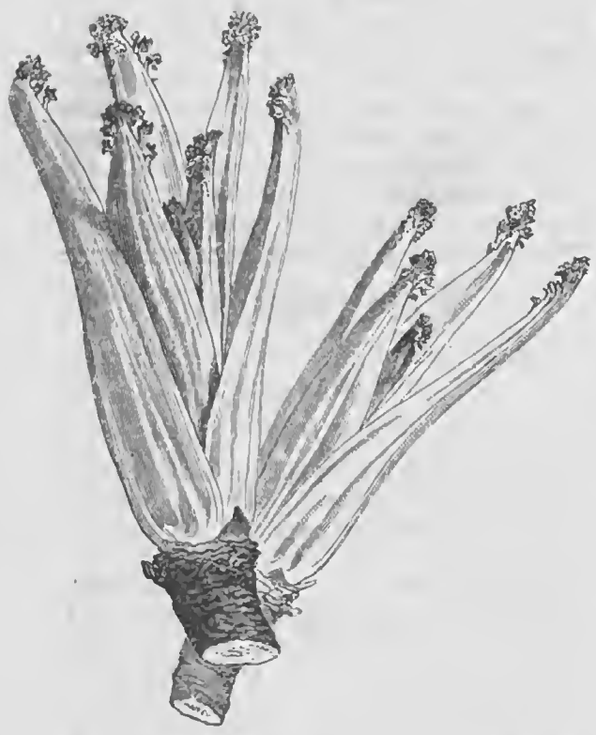
I keep the rubbish in the compost heap all winter, and make it the place for soap-suds and other good things, and when the pile is removed in spring to the garden, its removal leaves a rich spot where one may safely drop a few melon and cucumber seeds, and if covered with a pane of glass placed over a bottomless box, the melons ripen a week earlier than in the open air. Half a dozen tomato plants put into a warm, dry, not too rich corner, supply us for first use, and a few later plants, a second crop, for preserving and canning, may be put in after any of the early vegetables—spinach, beets or radishes—are pulled. Cabbage and cauliflower are grown in small quantities, the trouble with the caterpillar being so great that we have to apply air-slaked lime several times, and then if the plants chance to be neglected for a few days, we find the leaves are riddled.

Still, Joel now thinks we cannot do without our garden plot, and counting up, the other night, the profits and benefits therefrom, he concluded by saying: "Well, 'Liza, the garden and the RURAL NEW-YORKER are worth more to us than if we had "struck ile."

SEA KALE (Crambe maritima).

THIS is a vegetable that is very seldom found in the farmer's garden, though in Europe it is

a delicacy without which, in its season, no table can be considered complete. Its cultivation is similar to that of the artichoke. The old plants are divided in the spring and the roots set three feet apart in well prepared ground. During the summer, they must be kept clear of weeds, and in the fall, on the approach of hard frost, each plant must be covered with ten to twelve inches of leaves or long manure.



Sea Kale can also be raised from seed sown in the spring, thinned out to six inches when the plants are a few inches high, and in September transplanted to their permanent place in the garden, and treated like those produced from roots.

It is the young leaf-stocks that are eaten, but they must first be blanched like celery. To this end, heap the soil up around them, when they appear above ground in the spring, or invert pots or boxes over them, to exclude the light. When cooked, they have a flavor much superior to cauliflower. The engraving shows two shoots prepared for the kitchen.

Farm Topics.

WORK FOR APRIL.

This is truly a busy season. There are many things which can be done to good advantage, and some things which must be done now, or a loss will be incurred. He who has studied and been industrious all winter, will get along easily at this time; but the man who has been idle and who has no plans, will work to poor advantage and neglect many things. The approach of warm weather, green pastures and spring-buds, will stimulate any man to go to work if he have a spark of ambition left. Be careful on the start not to work too hard.

The Stock.—Cattle, sheep and horses are anxious to get to the field for a taste of grass, and will dig away all day for almost nothing. They should not be allowed to go to the pastures. It destroys their appetite and damages the young grass. Feed them regularly. They will eat less than in cold weather. Lambs and calves need milk; bran and roots are excellent to enable the mothers to furnish a supply. Feed working animals generously and use them moderately on the start, until they become hardened, shed their coats and get used to the warm weather. Horses should be blanketed for a time after work, unless the weather is quite warm. Do not be in a hurry to curry off the old hair; let it remain as long as it will, and the new coat will be all the better for it.

The Road.—We repeat the advice of last month. Just as the mud has dried partially down—before it is hard and stiff—run a scraper over the roads to fill the ruts with the little projections and ridges. This will allow the water to run off readily and prevent the road from "cutting up." A half day in scraping just in the right time, on several different occasions in spring, will save five times the amount of work along in summer.

Prepare the Fields.—Manure can be drawn and should be spread at once for corn, and the land plowed. Oats can be put in, and barley too. There will be nothing gained by cultivating heavy land when it is not in proper condition. Stones must be picked up in the meadow before the grass gets up to hide them. They can be drawn from any field which does not contain a crop. Stumps and old logs should be cleared up. The former come up easiest when the ground is soft in spring. This is a good time to repair fences, or make new ones. Strive to do all work well, that it may not soon need to be done over again. This is an excellent time to plan the ditches and places for tiling Compare drained and undrained lands and see how much earlier and better the former can be worked in spring. Keep up the comparison till after harvest, and make note on the difference of crops.

Weeds.—On the farm and in the garden, annual weeds will soon make their appearance. They are harmless, inoffensive little things to begin with. Then is just the time to fight them. Cultivate often and do not allow them to get a start. Perennial weeds should be watched for all through the growing season and not allowed to go to seed.

The Orchard.—This is the time for grafting and setting trees. The trimming is all done by this time. See that the trees are not suffering for manure or cultivation. If young trees lean over, cut in on one side, take out some dirt and straighten them up. Set trees leaning towards the prevailing wind. Look for borers. At the end of the month, remove the mounds made last autumn to keep mice away.

The Garden.—Hot-beds are in full blast and need attention on warm days as much on cold days. Young plants are started, transplanted and hardened preparatory to being moved into the open air. In the open garden, as soon as the land can be got in good order, sow lettuce, peas, onions, beets, carrots, salsify, parsnips. Potatoes for early crop can be hastened by allowing them to sprout in a warm place before planting. Plant Strawberries, Raspberries, Gooseberries and Currants. Attend to rhubarb, asparagus and horse-radish.

Farm Economy.

USES FOR WASTE FRUIT CANS.

Millions of used fruit cans go to waste every year, and every back-yard is cumbered with a collection of them. But by a little ingenuity these cans may be turned to good account. By placing them on a hot stove, top downwards, the solder is melted and the top may be removed. We have then the material for several useful purposes. By cutting a few small notches in the tin, as shown at Fig. 1, filling the can with water, covering it with a small plate or flower-pot saucer, and suddenly

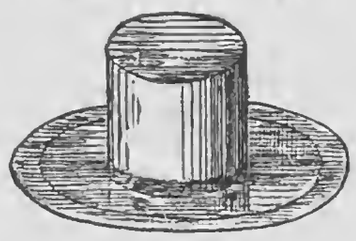


Fig. 1.

WATER FOUNTAIN FOR CHICKS.

inverting it, we have a water-fountain for young chicks, which will prevent them from fouling their drink by paddling in it, as they so frequently do. By attaching a few wires to holes punched near the edge of the can, (Fig. 2.) making a hole in the bottom and filling the can with rich soil, we can make numerous hanging pots for drooping vines, which may be hung on the shade trees, or to walls or trellises, and which will soon be covered with beautiful verdure. By cutting the tin in the shape shown at Fig. 3, and fixing a handle on to the bottom, we may have a useful scoop for flour or sugar, or other purposes. The handle may be one of the common door-stops which are usually fastened to base-boards to prevent the door-handles from striking the wall. A small nut may be procured at any stove shop, which will fit the screw, and

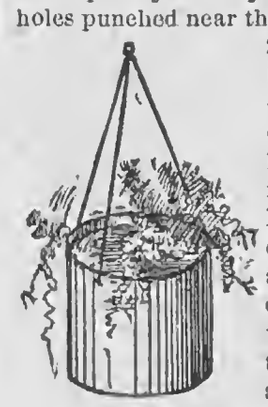


Fig. 2.

HANGING FOWER-POTS.

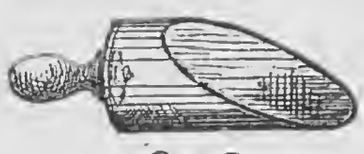


Fig. 3.

FLOUR OR SUGAR SCOOP.

by using two round pieces of tin in the shape of washers, in the manner shown in the engraving—inside the scoop and through the opening broken for that purpose—the junction of the handle and scoop is greatly strengthened. By melting the bottom off and loosening the side joint in the same way, we have open tubes as shown at Fig. 4. These may be placed around peach trees and small apple trees, and pressed into the ground an inch, when they will effectually preserve them from the dreaded borer.

Fig. 4.

OPEN TUBE.

Many other uses for these open tubes will occur. If they are cut into strips two or three inches wide, they may be used as seed-beds for tomato plants or early melons. To use them in this way, the ends of the strip should be bent down for a quarter of an inch on opposite sides, so as to form a catch which will hold the hoop together. Fig. 5. The hoops are placed on a board or on small shingles, and filled with soil in which the seeds are sown early, in the house. When ready for planting out in May or earlier, the plant in its ring, is taken to

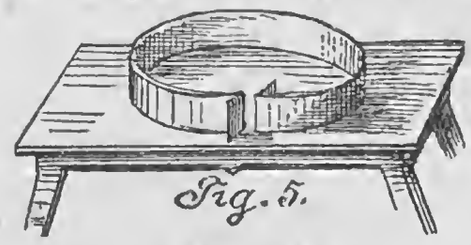


Fig. 5.

FASTENING THE RINGS.

the place prepared for it, and the ring is slipped off the board or shingle, without disturbing the plant in the least: the ring is slipped up and removed, the soil is heaped about the plant, and the business is finished. The rings may also be fastened by punching a hole through both ends with a sharp nail, and putting a wooden peg through them, or by punching one hole at one end, and cutting a small tongue on the other, which may be put into the hole to fasten the ends together. Lastly, an excellent grater for horse-radish may be made by spreading out the sheet of the loosened can, tacking it on to a soft plank, and punching holes all over it with a square-pointed tenpenny nail, or the three-cornered end of a file. The perforated sheet is then tacked on to two pieces of board cut half-round, as shown at

Fig. 6.

HORSE-RADISH GRATER.

Fig. 6, and the grater is finished. If we considered what a vast amount of varied labor is expended in procuring and making the material, and forming one of these fruit cans, we should dislike to see them utterly wasted without finding some useful employment for them before the termination of their existence.

The Apiarian.

OUR BEE HINTS.

What Bees to Keep.

We are often asked by beginners in bee-keeping "What kind of bees shall we keep?" To all such our answer will be to *keep Italians*. If it is not possible, or even convenient, to obtain Italians at the start, begin with the common black bees, and, later, procure one or more pure Italian queens with which to Italianize the stocks. It is now almost universally conceded—almost, for there are still some practical bee-keepers who prefer the black bees—that under similar circumstances the Italians are the most profitable. Professor Cook, in his Manual of the Apiary, enumerates no less than eleven points in favor of the Italians over the black bees. Some of these points may not weigh heavily in the scales, but others are of prime importance. The main ones are: First, that they have longer tongues, and can therefore gather from many flowers from which the black bees cannot. Second, they are more active, and, with the same opportunities, gather more honey. Third, the queens are more prolific. Fourth, the yellow abdomen makes her majesty more conspicuous, and she can therefore be readily found when looked for. Fifth, the bee-moth does not easily gain foothold among the Italians. Sixth, they are more amiable.

Transferring.

When bees are purchased, either in boxes or in a style of hives different from the one the bee-keeper has decided to use, it becomes necessary to transfer them. This may be done at any time, though it is best not to attempt it too early in the season, as they cannot so readily repair the comb. Choose a warm day in the latter part of April or the beginning of May, when the bees are active gathering honey. On such a day blow some smoke into the box-hive, invert it, and above it place the movable-frame hive, in which should be put some brood and a few frames of comb for the bees to adhere to; wind a blanket around the junction to prevent the bees from escaping, and drum on the box. In a few minutes the bees will have deserted the box and gone into the hive above, which should then be placed on a bottom-board and carefully removed to the colony's former stand in the apiary. Now the bees are in the new hive adhering to the few frames of comb previously placed there, and there being brood in one or more of these, the bees will not desert the hive. Next, take the box into some building to avoid being bothered by the bees, and with saw, chisel and hammer, carefully take it to pieces, with as little injury as possible to the comb.

The comb must now be put in frames and these placed in the hive with the bees. Cover a table, or a piece of board serving as such, with a thick cloth to prevent injuring the brood; on this lay the comb, lay the frame on it, and letting the knife follow the inside of the frame, cut out a piece of comb that will fit it exactly. No worker brood should be wasted, as every worker that can be reared will be needed to carry honey to the hive. Drones, on the other hand, are a tax upon the hive instead of a help, and at no time should a large number of drones be tolerated in the apiary; all drone comb and brood should therefore be cut out. Proceed thus till all are transferred. Save all the little pieces of comb that are cut off—they are handy to use for guide-comb in other frames. The inexperienced can easily distinguish drone comb from worker comb, the former having the larger cells; and if there is capped brood, the drone brood projects further out than the worker brood. The comb can be better fastened in a small frame than in a large one, hence in this respect, the Gallup frame, which measures 11¼x11¼ inches, is to be preferred. In fastening a small piece, place a piece of lath beneath the comb, and support it by a string tied over the top bar of the frame. Be careful not to drop any honey about the apiary, as the bees will soon learn that it is much easier to gather honey when found in bulk, than laboriously to collect each little particle by traveling from flower to flower, and their greediness being thus aroused, they will assail and rob the weak colonies.

Everywhere.

EUROPEAN CORRESPONDENCE.

Taganrog, Caucasus, February 17, 1879.—I have just returned from a tour along the shores of the Black Sea and the Caucasian Mountains, to this quaint town on the Sea of Azof. The climate is delightful and the vegetation most remarkable. Between Poti and Tiflis I rode for miles and miles through forests of Rhododendrons, Azaleas and Andromedas, so dense in foliage that they afford shade and shelter for man and beast at any season of the year. During the months of May and June, when they are in full bloom, the sight must be grand and magnificent. There are also many other trees and shrubs of beauty and utility. Among the latter is pre-eminent the Boxwood tree which attains here considerable size. Large numbers of these are annually cut and transported to Poti and Taganrog, thence shipped to England and there disposed of at large prices for shuttle making, it being the most desirable wood known for that purpose From here I shall return *via* Moscow to St. Petersburg. W. R. Berghoiz.

RURAL SPECIAL REPORTS.

Kentucky, Owensboro, Daviess Co., March 22.—Farmers are very much behind owing to the unfavorable winter. Some oats have been sown and some potatoes planted. Wheat is looking well on good land. Tobacco has advanced somewhat, which I think will cause strenuous efforts for a big crop. Seeds are lower this season than for many: clover, $4 10; timothy, $1 50; orchard-grass, $1 35; red-top, 45c.; oats, 30c.; corn, 30@35c. Pneumonia prevails to some extent, and is quite fatal. That terrible malady, "the-worst-cold-I-ever had-in-my-life," prevails to an alarming degree. but a few good days and ditto stews will cure most cases. J. W. S.

Nebraska, Purple Cane, Dodge Co., March 22.—Wheat is going in everywhere in this country. The ground is quite dry and rain must fall before seed can sprout *well*. Dust follows the harrow and seeder, but even that is more pleasant working than sowing on muddy land. But to half quote a great poet, and wholly quote a small one,

"Hope springs eternal in the human breast,"
"We are bound to have a good crop in the West."

You see it took two of us to concoct that, but two heads are better than one, if one *is* only fit for sour-krout. S. R. M.

Kentucky, Milton, March 19.—Some of our farmers were planting potatoes last Thursday and the next day were out in their over-coats and furs, looking decidedly blue, whether from *sympathy* with their potatoes I do not pretend to say. Potatoes that were "holed up" escaped frost and kept well; while those in cellars froze badly. They are now worth 50c. to 75c. per bushel;—Scotch Nobles in the lead. Our tobacco growers have "*raised*" immense crops this winter. There is, however, a fair prospect of an increased acreage being planted this summer. S. E. H.

Michigan, Bloomingdale, Van Buren Co., March 19, 1879.—Our principal crop—logs and wood—is very heavy and we could not have wished better weather for harvesting it. Stock of all kinds have wintered well and are in good condition. Cows are worth $18 to $25; hogs, 2c. per pound; sheep, $3 to $4 per head; corn, 30 to 35c.; wheat, 90c.; oats, 30c.; potatoes, 50c. per bushel. We had a very heavy apple crop last year, and at present the prospect is good for a fair one the coming season. M. W.

Kentucky, Fern Creek, Jeff. Co., March 24. After a severe winter the snow went off the last

of January, and the ground has been fit for plowing the larger portion of the time since. Some have finished plowing for corn and sowing oats. It looked like spring the first week of this month, but has been March sure enough, for the last week. Prices are as follows: hogs, 3½ to 4½c. per lb.; wheat, 85 to 90c.; corn, 35c,; oats, 27c.; potatoes, home grown, $2 to $2.25 per bbl.; Northern, $2.75 to $3 per bbl.

H. H. T.

WISCONSIN, Clinton, Rock Co., March 17.—Farmers are busy preparing for spring work. Farm hands are plentiful at from $12 to $16 per month, with board and washing. Wheat is selling here at 85c. per bushel; barley, 30c. to 60c; rye, 40c; corn, in the ear, 75 lbs. 26c; oats, 22c. to 24c; timothy seed, $1; clover seed, $5 to $3.60: butter, 10c. to 16c; per lb; eggs, 12cts. per doz. Hay is plenty with but little demand. Farmers are hoping and working for that good time coming in the sweet bye-and-bye. P. J.

NEW YORK, Kinderhook, March 24.—Snowbanks hereabouts are two rods wide and from four to six feet deep on each side of the fences, while the snow still lies a foot deep on a level. The prospects for an early spring are not therefore very good. Rye is selling per bushel for 50c: corn, 45c. for 60 lbs; oats, a cent a pound; hay $5 to $8 per ton; butter, 16c. per pound; eggs, 16c. per doz; wages, $13 to $16 per month; taxes high; farmers poor; potatoes $1. per bushel. A. J.

INDIANA, Newton's Retreat, Tippecanoe Co., March 21.—Land hereabouts is low. Land that sold for $50 per acre one year ago, can now be bought for $30, and everything else is down proportionately. White wheat is selling at 88c: red, at 85c; oats, 20c; rye, 40c; corn 30c; butter, 12½c. to 15c. per pound; eggs, 10c. to 15c per doz; hogs, $3.50; per 100 pounds: hay, $6 to $7 per ton; wood, $4 to $5 per cord; wages for farm hands, $12.50 to $15 per month are the highest figures paid. D. C. A.

VIRGINIA, Derry Church, March 24th.—We have had extremely cold weather this winter, with much snow; farmers are not able to plow yet on account of it being too wet and the frost not being entirely out of the ground. Prices of farm produce are as follows: wheat, $1; rye, 45c.; corn, 42c.; oats, 25c.; clover seed, $3 75; timothy seed, $1; butter, 12c.; eggs, 12c.; and potatoes, 65c.; E. E. B. S.

ILLINOIS, Risdon, St. Clair Co., March 20.—Most farmers are through sowing oats; and the others are busily preparing for doing so. Wheat looks splendid. It is abundantly thick and growing finely. Some few farmers have begun gardening; but most of them fear another cold snap before spring fairly opens. Wheat is worth 95c.; oats, 30c.; potatoes, 40c.; corn, 35c. N. J. S.

MARYLAND, Easton, Talbot Co., March 22.—Wheat now covers the ground from spring growth. Clover and grass are generally green. We feel we are in the garden spot of the world. Our waters and soil furnish all delicacies the human family need. Mild winters and pleasant summers are the rule here, the air in the heated season being tempered with ocean breezes.

T. B. B.

NORTH CAROLINA, Brookston, March 20.—Tomato seeds, &c., received, and my plants have come up finely; are now nearly two inches high. Did not count the seed, but think Prof. Beal will not find any reason to expose the RURAL as a distributor of worthless seeds.

M. B. P.

VIRGINIA, Thoroughfare, Prince William Co., March 23.—Grass and buds have started nicely. Many farmers have been plowing sod land for corn. Folks generally are busy seeding oats. Potatoes in hills were mostly a loss here. We are feeding beets to stock yet. E. K.

Various.

CATALOGUES, &c., RECEIVED.

ALFRED BRIDGEMAN, 876 Broadway, N. Y. Market Gardeners' List of seeds. Free.

G. H. & J. H. HALE, South Glastonbury, Conn. An interesting circular of small fruits.

PAMPHLET. The Beet Sugar Industry in the United States, by Ernest Th. Gennert, 38 Maiden Lane, N. Y.

PAMPHLET. The Brown Leghorn Fowl—how to rear, manage and breed—by Chas. R. Harker, Rochester, N. H. Price 30 cents.

WM. S. LITTLE, Rochester N. Y. This old establishment presents its semi-annual circular of wholesale prices for the spring of 1879.

SCHEDULE of Prizes offered by the Mass. Hort. Society for 1879. Competition open to all. Address Robert Manning, Secretary, Boston, Mass.

TUISCO GREINER, Naples, N. Y. Second Annual Catalogue of home-grown vegetable and flower seeds, plants, seed potatoes, etc. Free to all.

PAMPHLET. Additional facts and information in relation to the Catalpa Tree, Catalpa bignonioides, and its variety speciosa; by E. E. Barney, Dayton, Ohio.

JOHN SAUL, Washington City, D. C. This is a very comprehensive Catalogue of 112 pages with a handsome colored plate of the Rose "Queen of Bedders." To those who wish to keep up with the times in flowers and plants of all kinds, this Catalogue seems all but indispensable. Free to applicants.

SORGO HAND BOOK.—A treatise on the Chinese and African Sugar Canes, varieties, culture and manufacture by the Blymyer Manufacturing Co., Cincinnati, O. Free to applicants.

CATALOGUE OF FRUITS of the Michigan State Pomological Society—prepared by T. T. Lyon. The Secretary, Chas. W. Garfield, of Grand Rapids, Mich., remarks that the Society desires to place a copy of this catalogue in the hands of as many fruit growers as possible. It will, therefore, be sent to any address on the receipt of a three-cent stamp.

HOOPES, BROTHER & THOMAS, Cherry Hill Nurseries, West Chester, Pa. We always take pleasure in alluding to the catalogues of this good old firm, who for many years have made their specialty, "all plants that are handsome, whether cultivated for the beauty of the leaf or flower." We feel confident that any of our friends dealing with them will be treated in the most liberal and satisfactory manner. The present catalogue is accurate, interesting and comprehensive, and has to do chiefly with Bedding and Greenhouse plants. Free to applicants.

F. M. HEXAMER. Catalogue of small fruits, seed potatoes, etc. New Castle, Westchester Co., N. Y. Dr. Hexamer is well known to our readers as an occasional contributor, and to us (if not to them) as one of our most experienced horticulturists. In the present catalogue a select list of Strawberries comes first—a list which he has fully tested—then Raspberries, Blackberries, Currants, Grapes, vegetables, etc. Seed potatoes are specialties with him, and first in the list is the Beauty of Hebron, of which he speaks as follows: "A most valuable variety, in quality second to none and in earliness ahead of all the older leading kinds. Its shape is elongated and flattened, somewhat bluntly cut at the ends; color light pink, nearly white; size large and very uniform; flesh pure white and mealy; a good keeper and immensely productive." The catalogue will be sent free to our readers.

J. M. THORBURN & Co., 15 John St.—Catalogue of seeds for the vegetable, flower garden; for the lawn, farm and nursery. This establishment is one of the oldest and best in the country, and the catalogue is free to all. We take this place to make a remark or so respecting what we have called *Blunt's* White Prolific corn. We first learnt of its productive powers through Mr. Blunt himself, then through several of our correspondents and the Agricultural Dept. at Washington, and, finally, through our contributor, Mr. Henry Stewart, who (receiving his seed from Mr. Blunt direct,) raised last year, as we have already stated, at the rate of 150 bushels per acre. This determined us to secure the entire stock in Mr. Blunt's and Mr. Stewart's hands for free distribution among our subscribers. Both lots proved to be more than we should probably need. The surplus was handed over to Thorburn & Co. at exactly the price we paid for it, and this firm (having a very small quantity to sell,) now offer it at the high price of $10 per bushel, as long as it may last. Now we have merely this to say: Since the CORN number of the RURAL, we see that several persons are advertising "Prolific"—"White Prolific," &c., corn. We would state to our readers that the supply, in any *one* individual's hands, of the corn which we have called BLUNT'S WHITE PROLIFIC and which we have offered free to our subscribers, is necessarily small—*too* small (so far as we can judge) to enable them to advertise it for sale, and supply with the genuine seed the orders which, no doubt, would freely follow.

"NEW AND RARE FRUITS IN 1878."—A paper read before the Western N. Y. Hort. Society, by William C. Barry, of the firm of Ellwanger & Barry, Rochester, N. Y. Of some of the newer Peaches, Mr. Barry says:

"Waterloo—The first very early peach ever raised in Western New York. It was originated in Waterloo, by Mr. Henry Lisk, and fruited for the first time in 1877, when it ripened several days earlier than the Alexander or Amsden.

THE WATERTOWN WAGON.

In 1878 the first specimen ripened July 14, and all the fruit was gathered July 19th, about a week in advance of the Alexander and Amsden. The fruit is of medium to large size, good specimens measuring nine inches in circumference and weighing five ounces. The skin is whitish-green in the shade, marbled red deepening into dark purple crimson in the sun. Flesh greenish-white with an abundance of sweet vinous juice, adheres considerably to the stone, like Hale's, Amsden, etc. It is a remarkable keeper, and will undoubtedly be of great value for distant as well as home markets.

"Conkling—Among fifty varieties which we had the pleasure of seeing in fruit the past season, I think this might be justly regarded as the most attractive of them all. The fruit is large, good specimens measuring 9¼ and 9½ inches in circumference, and weighing 6½ and 6¾ ounces. Skin beautiful golden yellow; very juicy, vinous, and of very good quality. It succeeds Crawford's Early. This is another Western New York peach, having been raised in the town of Parma, N. Y., and fruited for the first time in 1873.

"Alexander's Early and Amden's June, in which a great deal of interest has been manifested, have proved so nearly identical as to make it impossible to distinguish one from the other. They are the largest and earliest of the very early sorts, not taking into consideration the introductions of 1878, of which the "Waterloo" is thought to be nearly a week earlier. The time of ripening of the newer sorts has also been satisfactorily determined. Alexander, Amsden, Honeywell and High's Early Canada bear such a striking resemblance to each other as to be considered almost identical, and all ripen at about the same time. Then follow in the order named Brigg's Red May, Early Beatrice, Early Louise, Early Rivers, Rivers's Early York, Early Silver, Magdala, Dr. Hogg, etc."

WE have before us the Scale Catalogue and Price List of Jones of Binghamton, N. Y. Mr. Jones is nothing loath to sound his own horn, and says so. He is, too, ever ready to put a beam in his neighbor's eye, if it is understood that it shall be a scale-beam, with Jones engraved upon it. The manufacturer of Jones's Scales is frank and open in his dealings. In the catalogue it is clearly explained how and why he can sell as good scales as can be made, so cheaply, and ending by avowing that he wishes no one to accept his goods on mere representation. They are always sent on trial with absolutely no conditions. If the scales do not perform well, there is no sale. Any one who has had the pleasure of meeting Mr. Jones, will see the man reflected throughout the catalogue. He is as honest as his scales are trustworthy.

Industrial Implements.

THE WATERTOWN WAGON.

WE have had occasion to mention the Watertown wagons, made by the Watertown Spring Wagon Co,, of Watertown, N. Y., and at the time stated that, owing to the thoroughness of the work and the soundness of the material used in conjunction with the moderate prices at which they are sold, a vehicle was put within the reach of farmers, that could not but yield very great satisfaction. We have had an opportunity of closely noting the performances of a wagon similar in design to the illustration given, and we think it is well adapted to general country use. It weighs but 450 pounds, and is ironed with the best American refined. Patent wheels, well-riveted and machinery-set boxes, on coach-shaped axles, with solid hammered collar and solid end nuts, make a running-gear proof against very rough usage. The springs are full ground and warranted, and, in fact, all the iron and steel used are carefully selected and the best adapted to the purpose. The pole or shafts that go with each wagon, have bent cross-bars and whiffletree, and eveners have cock-eyes and plates, and are well braced.

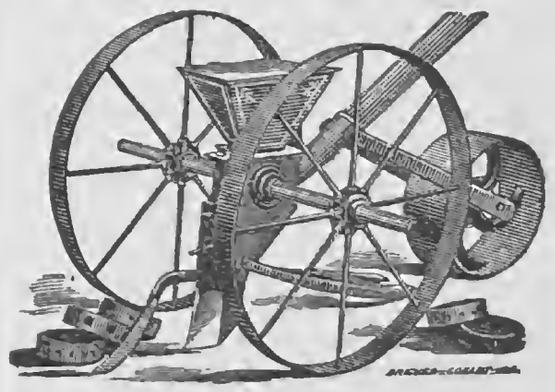
In appearance the wagon is very stylish. The box has rounded corners, is ornamented with moldings and protected on its entire upper edge with a strip of oval iron, that is broken only by the drop tail-board, that is one of the minor conveniences of the conveyance. The cushions are of corduroy, well-made, with "falls" of the same material. The paint is thoroughly well put on, the wagon continuing to look bright and neat after long use. The way in which the steps are placed makes ingress and egress easy. The wagon will carry a thousand pounds with safety, and is in every way "handy," being serviceable for work, and equally presentable when it is desired to use it as a pleasure conveyance.

THE VICTOR SEWING MACHINE.

WE call the attention of our readers to the striking and well displayed advertisement of the "Victor" Sewing Machine which appears in this paper. The extensive manufactories and principal office of the Victor Sewing Machine Company are located at Middletown, Conn., where ample facilities are to be found for producing machines of the finest quality. From the beginning of their business, this company has been governed by a determination that none of their work should be offered to the public except that of the highest class, and to this end, provided themselves at large expense, with machinery of the latest and most approved patterns, and called to their service the most skillful and intelligent mechanics. The wisdom of this course has been fully verified, as their machines have been subjected to long and severe service without becoming disabled, while giving to the purchaser the most complete satisfaction. Notwithstanding the present popularity of their machine, the Victor company have resolved to make it still more attractive and desirable, and now offer to the public a *new* "Victor" which has several important improvements. They have adopted a more simple upper tension, and added to the shaft pully a "stop motion" by which the bobbin may be wound without removing the work; but the chief and most important improvement is in the movement of the shuttle driver whereby all friction is reduced to a minimum. The "Victor" as now constructed must commend itself to the judgment of those in pursuit of a simple, durable and light-running machine, while it will challenge the admiration of those interested in the product of mechanical ingenuity and skill.

A NEW SEED DRILL.

OUR engraving of the "Monitor" seed drill displays some new features in this class of implements, that are likely to prove very serviceable. The wheels are large, and being movable on the axle, serve as markers while they turn the axle to which the seed-cup is attached. The seed-cup is an iron disc, with holes bored into the circumference, of a size proportioned to the seed that is to be sown. The delivery



is perfectly adjustable and very accurate. Leaving the seed in the ground with entire uniformity, opening the ground and clearing it of trash (by means of the coulter in front) dropping, covering and rolling the seed and marking the next row are all performed in one operation. The drill is very thoroughly made, and has but few pieces, runs smoothly and is sold at a very attractive figure, we believe. Any kind of seed may be sown. It has been used in the vicinity of Newburyport for some years, but it is only recently that its merits have attracted more general attention. The Merrimac Machine Co. of Newburyport, Mass., are the makers, and circulars may be had on application, free.

WELL-BORING with the new mechanical appliances, has become a profitable employment, and many have quitted other businesses to prosecute this one. It does not require much capital to begin with, and if successful, the operator, at the end of a fair season, is likely to have regained his original investment, with a fine set of tools representing his interest. Many who are dissatisfied with present surroundings or occupations would find the "Well-Borer's Guide," issued by Loomis & Nyman, Tiffin, Ohio, very interesting reading, containing, as it does, a complete exposition of the subject with full illustrations of machinery. It is sent free to all applicants.

The Querist.

ANSWERS TO CORRESPONDENTS.

Non-smoky Chimney; Tarred Paper; Bavarian Rennets, etc.

A Subscriber—address mislaid—asks, 1, how to build a chimney that will not smoke; 2, what is tarred paper, will it do for outside coverings, where can it be had and at what price; 3, would sprouts do as well as buds for grafting, and whether the "heart-root" would be better; 4, what are Bavarian rennets and how are they prepared, and in what do they differ from domestic rennets.

ANS.—1. Have plenty of draft, with the fireplace set in deep, and the back receding backwards to the flue or passage for the smoke. Place a flat stone over the top, resting at the corners on bricks, with open spaces at least four inches high and as wide as possible. This will prevent the wind from blowing down the chimney, which forces the smoke into the room. Make the flue not less than a foot square in the narrowest part. 2. Tarred paper is paper run through hot coal-tar and saturated with it. It will not do for any outside covering, as it will not stand wetting. Can be had at hardware stores, and costs from two to three cents a pound. 3. Sprouts are not good for grafting from any trees. The ends of healthy, bearing limbs are the best, and these should be taken, if possible, from trees in full bearing vigor and growth. Sprouts from grafted trees would be more likely to bear sooner than from seedlings. The "heart-root," by which is meant, we suppose, the tap-root, would not make any difference. 4. Bavarian rennets are calves' rennets, and are cured by being blown up like a bladder filled with air instead of being cured in salt, as most of the rennets are prepared in this country. Undoubtedly all sold here as such are not imported from Bavaria, but from all Germany and France and other European countries, although they have the name of Bavarian rennets. They are better than our domestic rennets and sell in much larger quantities. We do not know why they are better and stronger—whether it is in curing them or on the condition of the animal. Most American rennets are from veals slaughtered in the cities, which have been kept without food until their stomachs are empty and more or less inflamed. This may make the difference.

A Comprehensive Hog-House.

C. T., Millersville, Sandusky Co., Ohio, asks for information as to the construction of a hog-house for from 15 to 25 hogs, so "fixed" that the animals can be easily separated. There must also be a wagon-way across the width of the building, with doors on each side; and a place overhead large enough to hold, say 500 bushels of corn; and also room for a small workshop in some part of the building.

ANS.—A building 30 feet long and 26 feet wide, would furnish ample room for a wagon-way of 12 feet on one side with a passage, four feet wide, in front of the pens which would be 10 feet wide and 30 feet long. The space for the pens for 25 hogs can be subdivided into pens 8x10, or smaller, if any are desired for breeding purposes. A sliding door in the partitions between the pens will allow of the passage of hogs from one pen to the others. A part of the pen space can be used for a potash kettle, or for a shop, or the latter can be located in the chamber. The posts should be 13 feet high, which will admit of a high ceiling and plenty of space overhead for corn. There should be two trap-doors over the wagon-way to the chamber. The wagon-way should be closed at each end by sliding doors, and need not have any floor. There should be windows at each end and opening from the pens, and doors also. The chamber to such a building will hold 1,000 bushels of corn. One much smaller would be ample for one wagon and pigs not for breeding. The cost varies so much in different localities, and according to material used, that we will not attempt any estimate.

Stretches in Sheep, etc.

L. B., Mayville, N. Y., has a small flock of sheep that have spells of lying down and stretching themselves as far as they can, with their noses extented. The spells last from one to three days; otherwise the sheep are in good condition and always recover, and he asks the cause and a remedy. 2. He wants to know whether hemlock leaves and twigs are good for sheep. The animals like these in winter; some people have told him they were good for his flock, while others said that such feed would make them shed their wool.

ANS.—This is a case of what is known as as "stretches" which is, in fact, indigestion. This causes discomfort and pain in the bowels and the sheep stretch themselves out to find ease. A dose of one ounce of linseed oil, repeated the second day, generally relieves this complaint, and its return is prevented by feeding a pint of linseed oil-cake meal daily. 2. Hemlock is not wholesome for sheep; it affects the kidneys unfavorably, at least such has been the writer's experience, and after one season's trial of it as a sort of test af the popular opinion, its use was considered objectionable. There can be nothing better for sheep than good sound clover hay, a little oats and corn and, if possible, a few turnips. If these are provided there is no need for trash, such as hemlock or pine branches.

Care of Sheep.

E. G. R., East Varick, Seneca Co., N. Y., is 16 years old and has a flock of 18 sheep, part fine- and part coarse-wooled. They are troubled slightly with ticks which do not injure the sheep much, but attack the lambs when they come, and he asks 1, the best way of getting rid of the pests before the lambs are dropped; also, 2, what kind of food in addition to good clover hay, would be best for ewes that have lambs; 3, how many ewes can one ram serve properly; 4, at what time should the ram be turned with the ewes to have lambs ready for early market.

ANS.—1. It is not at all impossible to rid the sheep of the ticks, unless they are very badly infested with them, and then it is a poor prospect for the lambs; as the ticks will destroy them. If these ticks are not very numerous, an easy way to kill them is to take a pair of sharp-printed scissors and, opening the wool of the sheep, to clip every tick in two parts. The ticks cannot be picked off easily, but can be killed in this way with little trouble. The writer has cleared a sheep of more than a hundred in three or four minutes. It is a small matter to go over 18 sheep in this manner. 2. The best feed for the ewes in addition to the hay, would be a mixture of equal parts of oats, corn and rye; or one of bran and corn meal is very good for them. One pint a day will be sufficient for each ewe. 3. One ram will attend to 30 or 40 ewes or to 50 if fed with one quart of oats and corn daily and only turned into the flock in the yard at night. 4. The ewes should be coupled in August and September to have lambs in January and February, which will be ready for market in April and May.

Bee Querries.

H. L., Youngstown, N. Y., asks 1, how to handle bees without getting stung; 2, how to keep moths out of hives; 3, what is the best shape for hives in order to winter safely; 4, what advantage has the Italian bee over the Black bee; 5, is the bee in common culture, a native of this country; 6, how to control swarming.

ANS.—1. No one can handle bees without being stung more or less. Protect the head with a bee veil. Perform all operations on warm days while the bees are busy gathering honey. It is a good plan to drum on the hive for a moment, and blow in some smoke before opening it, the bees will fill with honey, and, like people with full stomachs, be more amiable. Avoid all quick motions; never strike at them, or run from them. Keep perfectly cool, even when electrified by a few stings, and the bees will respond with good behavior. 2. The most effective means of keeping it out is to keep the stocks strong. The moth seldom gains foothold in a hive full of busy, buzzing bees. 3. See Our Bee Hints of March 22d. 4. See article on bees in this issue. 5. No, it is probably a native of Asia, whence it spread over Europe, and from Europe has been introduced into this country. 6. Skill and watchfulness alone, on the part of the bee-keeper, can prevent bees from swarming. Destroying all queen cells as soon as they appear, if not wanted for nucleuses, and dividing the swarms artificially, are the main points in controlling swarming. To answer this question fully necessitates the explanation of many other points, and would take too much space at present. We shall later have an article on the subject.

Sheep Husbandry in the South.

W. S., Boston, Mass., asks which part of the Southern States would be the best locality in which a young man with a small capital could start in wool-growing and sheep husbandry; what kind of sheep would be the best to start with; the price of such sheep by the hundred; the price of full-blooded Merino rams; the address of H. S. Randall, author of Sheep Husbandry in the South and one of the former editors of the RURAL.

ANS.—The best location for sheep husbandry in the South is doubtless in Georgia, in what is known as the piney-woods region. This is a large tract of open woodland covered with a growth of wire-grass and other native herbage upon which sheep can subsist the year round. These lands can be purchased in large tracts at one dollar or less per acre. The common native ewes are the best to begin with, and the progeny of these crossed with pure-bred rams, are soon bred up to an equality with the full-blood. Common ewes can be purchased in Georgia for $2 per head and pure rams will cost from $30 to $50 each. Henry S. Randall is no longer living; he died about two years ago. His book on Sheep Husbandry in the South is now out of date, because things have changed greatly since it was written. The only modern book on this subject is Stewart's Shepherds' Manual, which covers the whole ground; price $1.50; to be had through this office.

Raising Sweet Potatoes and Peanuts.

G. H. F., Granville, Mass., asks how to raise, 1, sweet potatoes and, 2, peanuts.

ANS.—If both seed and plants are easily procurable it would perhaps be well for a novice to try both. In the latitude of Massachusetts it will be necessary to start the plants in a hot-bed. Place the tubers on the soil of the bed, cover them lightly with sandy soil and treat them as tomatoes or other plants grown in heat. When the sprouts are four or five inches high, pull them off carefully, leaving the potatoes undisturbed, when another growth will soon appear, which serve in the same way, and so on until late in the season. Select a plot of ground more or less sandy, run furrows three feet apart, apply well-rotted manure or ashes or both in the furrow, throw up with a small plow a ridge over this and set the plants singly about 18 inches apart. If properly handled, the sets will be ready for planting out about six weeks from the time of planting in the bed. Defer planting out until there is no danger of frosts.

2. Plant on slightly-raised hills of sandy soil two feet apart each way—two to three nuts in each. If the outside shell is removed, germination will sooner occur. As the plants spread, gradually cover slightly with loose soil, commencing at the center of the hill, leaving the extremities of the shoots free.

Butter Coming Slowly.

Mrs. S. T. B., Kansas, finding her butter coming soft, and only after much labor, asks the cause and a remedy.

ANS.—If the trouble is, as intimated, peculiar to Kansas, then the feed may be in fault. But the same difficulty is not uncommon elsewhere, and the season of the year when such trouble occurs is either winter or summer—the time when the greatest variations of temperature occur. At such times the cream rises slowly, and undergoes changes unfriendly to success in butter-making. The surest remedy is setting the milk in deep cans placed in ice-water or in a tank of cold, running water that is being constantly changed by a stream running in and one running out, so as to keep the temperature even. But one great cause of soft butter that does not gather well, is in churning the cream at too high a temperature. A thermometer is an essential instrument in any dairy, even the smallest. The best cream will give trouble, if churned at too high or too low a temperature. It should be kept as low as 62° in summer, and not higher than 68° in winter. A partial remedy, where cold-setting cannot be used, is found in scalding the milk (temperature of 135°) before setting. The evener the temperature of the milk-room, the better always.

Pearl Millet and Grasses.

J. B., Union, Broome Co., N. Y., asks, 1, whether Pearl Millet is as valuable as hay for feed, and the price of seed; whether it should be sown like oats or drilled in like corn; the kind of land suitable for it; 2, whether Kentucky blue-grass would do well on his place, and what kind of grass would give a rich, heavy pasture, and afford a heavy sod.

ANS.—Pearl Millet is not at all like hay; it grows much like sorghum or broom corn, but has a close spike in which the seed is borne. Its mode of culture is precisely the same as that of corn, and a warm, dry, rich, sandy loam is a suitable soil. The seed is sold at one dollar per pound; two pounds are required for an acre. 2. Kentucky blue-grass would not do well in your locality. It grows there already and is known as June-grass, and makes poor hay and pasture and a very thin sod. You can have nothing better than orchard-grass and red clover, as these give early pasture or hay, and a thick second growth in July and up to September.

Lawn Mowers.

S. C. A., Hempstead, L. I., asks if the Philadelphia Lawn Mower is the best. If so, where can it be purchased so as to save the exorbitant commissions of agents?

ANS.—There are now many different kinds of lawn mowers, each possessing its superior points. Most of them will do good work, though each is better adapted to some kinds of work than others. We cannot answer the question, "Which is the best?" and, considering that all of us are readily prejudiced in favor of the machine we have been using, it would not be just that we should. The Philadelphia is a simple, durable, excellent machine. R. H. Allen & Co. of this city are agents for it here, but we are not aware that they would sell a single machine for less than accredited sub-agents.

Treatment of Strawberries in Early Spring.

M. L. A., Sheboygan Falls, Wis., has a young bed of Strawberries, which he neglected to cover with long manure last fall, and consequently finds it in a poor condition now. He has been advised to cover the bed with straw for some time and then burn it off, and asks if this is the right course to pursue.

ANS.—If the plants are *fire-proof*, the plan may be commendable. We should prefer to cover the bed with horse manure, having some short straw in it, which may be laid over the plants to protect them during the freezing nights and from the sun on hot days. When the frost is out of the ground, remove the straw and with a pitchfork carefully work the manure into the ground without disturbing the roots.

Wolves in Sheep.

A misconception as to the insect to which the above name is locally applied, led us into an error in this department in the last issue.

The "wolves," J. W. L., Smith's Grove, Ky., asked about, are not the *acarus scabiei* but the larvæ of *œstrus bovis*, which burrow under the skin and appear as white grubs at this season. There is no preventive but to kill off all the grubs by squeezing them out of the tumors in the skin and destroying them. If left in, the grubs will soon work out and pupate, when they will emerge as the perfect fly, and proceed, next July or August, to lay eggs in the backs of the cattle which will produce more of the so-called "wolves."

Plymouth Rocks.

L. A. C., Brunswick, Me., asks how early Plymouth Rocks lay, and 2, whether they will lay more eggs than the Leghorns.

ANS.—They will average, perhaps, a little over six months. There are records of their having laid in less than four. The Plymouth Rock may be relied upon to lay as early as any other breed. 2. Experiments have been tried, which show that the Plymouth Rocks will lay as many eggs as the noted layers, the Leghorns; but the Leghorn egg is the larger.

Propagating a Sport From a Hemlock.

J. H. T., Burnt Hill, N. Y., asks how best to propagate a peculiarly marked sort of Hemlock (Abies Canadensis). The branches, or new growth, are very prettily tipped with a light yellow or nearly white, which gives the tree a very fine appearance.

ANS.—This Hemlock sport will have to be propagated by grafting.

The Irish Juniper.

M. F. J., Uniontown, Pa., asks for a description of the Irish Juniper.

ANS.—Irish Juniper (*Juniperus communis Hibernica*) is a variety of the common Juniper, of a very erect, pyramidal growth, with short angular branchlets. Its leaves are shorter and less pointed than those of the species, and its branches are not so compressed as those of the Swedish Juniper. It is found on the hills in Ireland.

Amorpha fruticosa.

H. B. W., Ellsworth, Kansas, asks for a description of Amorpha fruticosa and Pinus Edulis.

ANS.—Amorpha fruticosa is a handsome, ornamental, hardy shrub. It attains a hight of 10 to 12 feet, and has pretty, compound leaves of 15 to 25 oval or oblong leaflets. In early summer it bears violet or purple flowers. For Pinus Edulis see Editorial page of last week's RURAL.

Miscellaneous.

F. F. R., Beloit, Wis., asks, 1, how to apply salt to wheat lands and whether such application is lawful; 2, what kind of seed wheat would be the best for his part of Wisconsin—Lost Nation, White Russian or Fife.

ANS.—There is no law which prevents the use of salt as a fertilizer, although there is a wide-spread popular idea to that effect. Salt is frequently useful and helps to stiffen the straw and produce a clear-skinned berry. It can be used now, and about two to five bushels per acre, is the usual quantity. Coarse, cheap, refuse salt from the saltpans is generally used. Fife wheat brings the highest price in the market. Lost Nation and Russian wheats are soft and have a bad reputation among the millers. Fife is a hard wheat and rates No. 1 in the markets.

F. C. S., Gainsville, Fla, asks, 1. the names of a few good commission merchants in this city, who deal in vegetables; 2, the name of some large millinery house, likey to buy the plumes of the white heron; 3, the name of some one who will buy alligators' teeth.

ANS.—C. W. Idell, 333 Washington St; J. V. Thurston & Co; C. P. Woodworth. These are among the best known com: dealers in that line of business; but we cannot guarantee their responsibility or that they will always give satisfaction. They will doubtless send satisfactory references on application; 2. Try Worthington & Smith, 507, or Ira Beard, 457 Broadway, this city. 3. Fred J. Ballard, St. Augustine Fla.

Many Inquirers desire us to sell in quantity some of the seeds we have distributed among our subscribers.

ANS.—We have never yet *sold* a seed or a plant. Our business is to extend the influence of the RURAL NEW-YORKER and thereby to promote the interests of horticulture and agriculture. We are in the anomalous situation of having absolutely no axe to grind.

E. W. P., Syracuse, N. Y., asks where can he get the Black Mexican table corn referred to in RURAL—"Corn Number"—Brevities.

Does it yield as well as Early Crosby or Evergreen?

ANS.—Of any of our seedsmen. It does not.

T. J., Mt. Morris, Genesee Co., Mich., asks whether several seeds of Pearl Millet should be put in one hill, when the hills are six feet apart.

ANS.—Each plant ought to have as much as 16 square feet—not 16 feet feet square—to itself. Now if more than one seed be planted in a hill, all but one strong plant should be destroyed.

B. F. M., Penryn, Placer Co., Cal., asks the name and price of a good work on architecture and rural homes, one from which he would obtain some good plans for buildings.

ANS.—Bicknell's Village Builder and Country Homes, Bicknell & Co., N. Y., price $12 is an excellent work. The same publishers have other works at less price.

W. P. G., Chicago, Ill., asks how far north is the Mulberry tree hardy.

ANS.—There are several kinds of Mulberries. The Black Mulberry, is not hardy in a climate more severe than that of this city; the Red Mulberry is found from New England southward; the Paper Mulberry is hardy in New York and southward.

L. P. N., Orumb Hill, Madison Co., N. Y., asks where can he obtain the following apples for planting: Wealthy, Meader's Winter, Magog Red Streak, Scott's Winter.

ANS.—From Dr. T. H. Hoskins, Newport, Vt. He will send free Price List on application.

B. M., St. Louis, Mo., asks for the name of some book on training dogs.

ANS.—Lewis's Youatt is as good as any. It was published by Leavitt & Allen, N. Y.—but we do not know if it can now be procured except at second-hand book stores.

W. M. F., Dunkirk, N. Y., asks whether he can graft Quinces, Pears, or sour Cherries on sweet Cherries?

ANS.—No for Quinces and for Pears and yes for sour Cherries, although we would rather use sweet Cherries on sour Cherries.

J. D., Brooklyn, L. I., wishes to know where she can obtain seeds or bulblets of Hyacinthus candicans.

ANS.—We do not know the variety at all. Some of our readers may.

J. H. L., Shelby Center, N. Y., asks where can be got a double furrow plow.

ANS.—Apply to R. H. Allen & Co., 189 Water street, this city.

J. W., Warwick, Mass., asks what he can do to break his hens of the habit of eating their eggs.

ANS.—Decapitation is the only certain remedy. See Querist, last issue.

A Subscriber, asks where can the Kenerson butter packages described in a late RURAL, be obtained.

ANS.—From J. R. Kenerson, Peacham, Vt.

W. B., North Parma, N. Y., asks who has the late Mr. T. B. Miner's stock of Strawberries, Grapes, etc., for sale.

ANS.—Mrs. A. R. Miner. Linden, N. J.

COMMUNICATIONS RECEIVED FOR THE WEEK ENDING SATURDAY, MARCH 29th.

T. H. H.—M. B. McC.—T. C. T.—Prof. W. J. B.—D. C. A.—Prof. L. B. A.—M. G. R.—Dr. A. C. W.—M. C.—E. L. T.—H.—P. L. C.—H. H. T.—M. B. P., thanks—O. N. C.—W. C.—E. J. B., thanks and yes—B. P.—B. H.—Nell.—A. F. S.—M. J. S.—M. O. —Clinton, thanks.—I. B. R.—Wide-Awake—H. N. —C. M. S.—L. B.—E. G. F.—C. R. S.—J. C. R.—I. P. R.—S. H. R.—R.—J. H.—H. C. H.—F. S. D.—T. O.—L. Y.—B. S. T.—A. N. M.—T. L. T. B.—I. A.—M. F. G.—F. O. A., thanks.—C. F. R.—L. H.—N. S. —Daisy.—W. L. H.—C. G. C.—J. L. H.—G. T. F., yes.—C. L. I.

New Publications.

5 MUSIC 5 BOOKS 5

Piano Arrangement of **H. M. S. PINAFORE,** By H. MAYLATH. $1.00.
Contains 25 pieces taken from the attractive composition. Those who prefer the Vocal Score, can have it at the same price.

THE SORCERER, Words and Music. $1.00.
THE SORCERER is by the same composers as Pinafore and, musically, quite as good. Piano arrangement by MOELLING; also for $1.00.

HULL'S TEMPERANCE GLEE BOOK, 40 Cts.
Contains a large and well arranged collection of SACRED and SECULAR songs for Temperance meetings.

CUPS AND SAUCERS, By GROSSMITH. 25 Cts.
A delightful Parlor Operetta, needing but two performers. Very good music.

THE GEM GLEANER, By J. M. CHADWICK.
$1.00. An unusually good collection of Anthems. All choirs should have it.

OLIVER DITSON & CO., - - Boston.

Implements and Machinery.

Every Man His Own Printer. THE EXCELSIOR $3 Press Prints labels, cards etc. (Self-inker $5) 9 Larger size. For business, pleasure, young or old. Catalogue of Presses, Type, Etc., for 2 stamps. KELSEY & Co. Meriden, Conn.

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Battle Creek, Mich.
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THRESHING MACHINERY.

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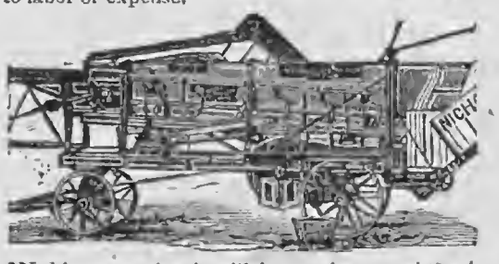

IN this connection it will be pertinent and timely to warn the public against **Cheap** Threshers and **Cheap** Portable Engines. The superiority of our machinery, in all particulars, is now so generally acknowledged that our competitors have no resource but to present the attraction of low prices and long credit. Their goods being inferior, they have to sell them for what they can get. Times are hard; and purchasers, without fully considering the subject, will sometimes allow a lower price to decide them. Manufacturers of "cheap" machines are so set on carrying out competion to its utmost—competition of **Cheapness,** not of Excellence—that they meet "bargain hunters" half way, and furnish them cheerfully with inferior machines at the cheap rate they are asked for.

WE are much mistaken if this is what the public wants or expects of us. Good machinery cannot be made when neither workman nor employer has pride in his occupation; interest and pleasure in the work are both wanting, and both are essential in making good machinery.

OUR mission and business is, to build Threshing Machinery **of the Highest Excellence,** whatever the cost, and, holding firmly to this single purpose, we have added improvement after improvement, until the reputation of our Machines has become co-extensive with the grain-raising regions of the continent.

THRESHING machinery cannot be made for nothing, even with the aid of machinery. Our prices are as low as they ought to be, and, without doubt, as low as they ever will be. Do not be deceived with mere cheapness—**quality always descends faster than price.** Low price, especially in Threshers and Portable Engines, means **Low Quality, with Low Performance and High Repairs.**

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Selected ears, 25 cts.; 3 lbs., by mail, post-paid, $1; shelled, $1.50 peck; $4 per bushel.
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Ten Packets for 25c. RURAL NEW-YORKER with *Extra* Premium for ‡2. Also Rabbits, etc. Send Postal for Circular.
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SATURDAY, APRIL 5, 1879.

REMINDERS.

For this climate probably the present is the best time of the entire year for transplanting. Keep the roots moist; protect them from the wind and sun from the time they are dug up until they are planted. Dig holes at least large enough to secure the roots without cramping them; fill in with good soil so as to have the roots in contact with it and rest in their natural positions. Never shake a tree up and down while it is being set. It may do much harm by bending, breaking the roots and abraiding the fibers, while it can do no good. Fix the tree or shrub firmly in its bed. If small, pressing the earth firmly about the roots will suffice; if large, staking may be necessary. Generally one stake is enough. Stick it diagonally in the ground and fasten the upper end to the main stem by bands that will prevent chafing.

That it is well to cut back the tops of trees somewhat in the proportion that their roots have been lost or mutilated there can be no doubt. But on this subject no definite rule can be laid down. There is no other way of transplanting a Tulip tree (Liriodendron tulipifera) from the woods or fields, except by cutting it back nearly to the roots. The Virgilia or Yellow-wood (Cladrastis tinctoria) will stand any amount of cutting back; while the Salisburia or Ginkgo, or a five-year-old apple tree would be injured or killed by the same treatment. Life is more distributed and irrepressible, so to speak, in some plants than in others, the same as in the animal kingdom. Many people determine to do their transplanting with great care when they order their trees or shrubs and while yet everything is wintry and there is no pressing work on hand; but when the plants arrive, all sorts of work press, and planting is too often hurried through in a slip-shod manner. We would simply remind our readers that this is poor judgment. If plants are to answer the purpose for which we purchase them, we must provide the conditions of their healthy existence.

PLANT TREES.

Spring-time has come again. This is the season when every one begins to make some improvements. There are but few farms that contain enough ornamental trees about the buildings.

What trees shall the owner plant? For deciduous trees, select from open places Young Elms, Maples, Lindens, Ashes, White-woods. For evergreens, get from the nursery stocky trees about two feet high. Unless the planter is an expert, let him begin with well-tried sorts, such as Norway Spruce, Hemlock Spruce, White Pine, Austrian Pine, Scoth Pine, Arbor-vitæ, Red Cedar, Siberian Arbor-vitæ, Savin, Irish Juniper, and the like.

Where shall he plant? Seldom in straight rows, or within thirty feet or more of a building. Rows of deciduous trees may extend along the margins of the highway. Plant them thirty or forty feet apart; protect them from cattle and mulch heavily, or keep them cultivated. In the direction of the prevailing cold winds plant evergreens for protection. Here and there about the grounds put in groups, with now and then an isolated specimen. Leave some broad, open lawn without any trees or shrubs. Take up the trees well; keep the roots from the sun and wind; keep them damp till they are well planted. Now mulch *at once*, before dry summer comes on; or, instead of this, cultivate every week or ten days till September. It is a good plan to plant thickly, if the proprietor can remember to thin in the proper time before any of the trees are injured by crowding. Keep up the mulch, or better, keep up the thorough cultivation for five or six years. Besides this, the trees will need but little care. With good cultivation, the tops will run up and the limbs spread out; the owner will be gratified and surprised to see how fast his trees grow. To keep the evergreens stocky, with thick tops, they should be trimmed. They may be sheared, or, better still, some of the limbs should be cut back to where they leave other limbs. This may be done at any time of the year. Have no fears of cutting off the leader. Cut away anywhere you desire, and watch the result. The more they are cut back, the thicker they will grow. From year to year a few new choice kinds can be added, as the farmer becomes satisfied that he wants them.

Trees increase the value of a place, whether the owner wishes to sell or to use it for a home. Trees shelter the dwelling and the barns from piercing winds; they add comfort and joy to man and beast; they economize the food of animals; they save fuel in the sitting-room; they harbor birds; they afford shade in summer. Plant trees for yourself, for your wife, for your children and grandchildren. Plant trees as a good example to your neighbor and the stranger who passes by your farm.

We know a pleasant old man who has a large family. All of them have settled near him, and have not deserted country life. He is cheerful, and makes everybody about him happy. At a public meeting, the other day, he made a remark that impressed itself on the mind of every person present. We cannot give his exact words, but he substantially said: "Several years ago I planted a lot of evergreens about my house. I took good care of them. People laughed at me and thought I was wasting time. They said I would never live to enjoy them. The trees are already the admiration of all who see them. I feel that I have set a good example for all to follow. Some neighbors have done so. I am an old man, and my body will soon be laid away in the country cemetery. A tomb-stone will be erected, on which, now and then, some one will read my name. Far better than this: the evergreens I have planted will last for many years and serve as a landmark. Neighbors, as they ride by, will say to strangers and their friends, 'old Mr. —— planted those evergreens.'"

The beautiful trees will serve to constantly remind every one of the thoughtful and generous hand that planted them. What can be more desirable than to have one's name associated with a fine lot of choice trees?

Then be encouraged to plant trees along the highway and about your buildings. Plant them for shade, for shelter, for ornament; plant them to set a good example and to increase the value of the farm; plant them to make country life attractive to your children and to strangers; plant them that when you are gone every one shall bless you for the noble work you have done.

A PURPOSE IN LIFE.

A story is told of a Connecticut Yankee who, when a young man came to him to make application for his daughter's hand in marriage, engaged and held him in conversation about his personal matters, his propects, hopes and fears until the bit of pine stick upon which the suitor had been employing his knife, had dropped in shavings to the ground. He then replied: "Young man, I have known your family for many years, and have always thought well of you, and had you made anything of that stick you have been whittling, even if it had been no more than a tooth-pick, you should have had my girl; but I don't want for a son-in-law one whose tendency is to go through life whittling to no purpose."

How many do we see every day who are wasting their time, spending days, weeks, months and years without profitable result, and often, perhaps we may say nearly always, because they have no fixed purpose in life,—no object at which they aim, no goal to be attained. A few, fortunately, in their younger days have a controlling desire to fill certain positions, or accomplish certain ends. Such are almost sure to succeed, no matter what obstacles may be in the way. A patient and steady struggle with adverse circumstances may be necessary, but an advance step by step, upward and onward, slowly if it must be, will finally bring one to the desired position and insure success.

There are few, however, who at the time they should be directing their attention to their life's work, have any decided preference as to what that work shall be, and therefore most people are the more likely to float down the stream of life without a rudder.

If the choice of pursuit is made by parent or friend, it is more likely to be in accordance with the hopes or desires of the director, than with the adaptation or fitness of the subject, and the result is the latter goes through life vainly striving to fit a square bolt to a round hole. In such case there is no purpose in the matter. The subject is set to work out the plans of others, with no purpose of his own.

Every young man is better fitted by nature to engage in one class of business than in another that requires ability of a different kind. Such natural tendencies should be sought for, carefully watched and cultivated. To thwart them is certain failure. Said Dr. Chapin: "Many a man whom God has fitted to occupy an honest and honorable position as a good shoemaker, has endeavored to override God's decrees and turned out a poor clergyman of no use to himself or to any about him." The services of a competent phrenologist can in many cases be employed to advantage, for while such men may not be possessed of the definite ability they sometimes claim, they would not send one with constructiveness, small, to a machine-shop, or one in whom mathematical talent is obvious, to an engraver's room. And, in a great majority of cases, they would point out the calling or pursuit in which the person under examination would be most likely to work with a will and a purpose, and that purpose would insure success.

Perhaps it is true that there are comparatively more inefficient men engaged in agriculture than in any other pursuit. They take to the farm either from force of circumstances or want of enterprise to do anything else. They are human machines, and work with little thought. But Mother Earth is kindly, and as human mothers sometimes do, gives her children from her bounty for the mere asking. But such men are never successful. They live, to be sure, and so do the beasts of the field. The true farmer is he who starts out with an object in view, and gives the labor of both brain and muscle to achieve it—he who is not content to gather the natural product of mountain or valley, but, by care and culture, improves in quality and increases in quantity every crop that he supervises. With a purpose steadily pursued, such a one can attain almost any desirable result, even though it be apparently as difficult as to gather grapes from thorns or figs from thistles.

AN OLD THING WITH A NEW FACE.

Occasionally we congratulate ourselves that as a race we are becoming better and better—that we are leaving off our vices and becoming virtuous. We no longer love prize fights or desire to see the human face divine battered out of shape, and call it sport. It is true, that is something to be proud of; but have we not discarded the old love and taken on a new one, just as reprehensible? A few days ago, thousands of persons crowded a place of popular resort to see three men walking against time and persisting to the very verge of human endurance. Had one fallen to the ground and expired of exhaustion, no one would have been surprised. Wan and weary; sore and wounded; sick and miserable; a poor wretch tottered and limped, drawn together with pain, around the course, impelled by the hope of gain. More than $50,000 were paid by the public to see the contest. The victor in the exhibition received for a week's work more than $20,000, and yet within a few blocks of the scene there were men, women and children starving for want of food, and shivering for want of clothing and fuel. It may well be asked, "To what purpose was this waste?" Previously, a similar exhibition, with young women for the actors, had been very popular, and even as we write, half a dozen similar affairs, with women testing their powers of resisting pain and exhaustion, are in progress. It is a question if we really are any better than we should be; or if we have really made any improvement upon the manners of the past generation, when it was as common that men tested their endurance by resisting blows upon the head and body, as they are now doing by walking up to the threshold of death's door in the shortest possible time, and just stopping there, or showing how near they can approach it without passing in.

A HINT FOR THE SPRING.

Now that the season for the active labors of the farm and garden has arrived, it is well to recall the fact that an early start will win, all other things being equal. If we look around among our neighbors, we may note that he who was first in the field, and who was on the look-out for new improved varieties of seed, was the first in the market and had something new and better than usual to show, and consequently received the top price. This advantage once gained, runs through the whole season, and as step follows step, so the first being in advance, the last keeps its place, as well as the intermediate ones. So we see our neighbor at work in his drained field, while our plow may be idle on account of sodden soil and water-soaked lands. These lessons are taught year after year, and some learn them, but others do not, and perhaps some never will; but it is still our duty to keep on reiterating them, and still recalling the fact that to be prepared when the time comes, is essential to success in whatever business or walk of life we are occupied.

BREVITIES.

Plant, plant, plant—the spring is marching!

Mr. J. J. Thomas mentions the Sharpless and Cumberland Triumph as his choice of the newer Strawberries.

We shall be very happy to receive early notification of the dates fixed upon by county fair organizations for holding their annual fairs.

Have you ever tried harrowing your winter grain? If not, harrow a small piece of the field that it may be compared with the rest at harvest.

A. Darwinii is the most floriferous Abutilon we know of—it is never out of bloom. The flowers, however, are of the old brick-red color, though of goodly size.

Those planting Grape-vines, Blackberries and Raspberries, should cut down the canes to within a few inches of the ground. A bud, or so, is all the disturbed root can support.

One of the handsomest lawns we have ever seen was seeded with Red-top alone. If the ground is rich and well prepared, this seed will produce a very respectable-looking lawn the *first* season.

The veteran editor of the Germantown Telegraph evidently thinks highly of Blunt's White Prolific corn. Mr. Blunt gave him a quart of it and the editor distributes one dozen kernels among his farmer subscribers as far as the quart will go.

The severity of the past winter is specially evident among lawn trees that have broad leaves. Rhododendrons and several new hardy foreign shrubs of a somewhat similar character are much injured. Half a dozen varieties of Rhododendrons remain notably intact.

You gentleman of leisure who like the country and who do not know exactly how to pass all of your time, let us advise you: Build a nice poultry house and yard and keep a few thoroughbreds. There is more in poultry to interest you than you ever dreamed of.

Nursery stock of all kinds is extremely—shall we say discouragingly?—low. We hope that the present spring will show a reawakening to the importance of planting fruit and ornamental trees and shrubs that shall gladden the hearts of all good nurserymen who for years past have been sick with hope long deferred.

Ellwanger & Barry say that Figs may be grown as bushes in the garden in the Northern States, if they are taken up annually, the first week in November, with a ball of earth attached to the roots, and placed in a cellar till about the middle of May, when they should be taken out and replanted. Almost all of them ripen in August

Three years ago we commenced removing the terminal buds of an Austrian Pine—twisting them out sometimes in fall, sometimes in late winter. This tree is now so rosetted, so dense, that it might well be mistaken for a distinct variety. The Austrian Pine (and the Scotch, too) will stand cutting back, we believe, as well as the Norway or Hemlock Spruce.

"What are *sports* but the operations of natural laws which we do not comprehend?" asks Mr. Talbot. That is just exactly what they are, and instead of eliminating the word, as he suggests, in favor of scientific terms, to render what is already inexplicable thrice more obscure, it would be well if we used this short word, which is very expressive of our ignorance, a good deal oftener than we do.

Under Notes from the Rural Grounds, Aristolochia Sipho (The Dutchman's Pipe) is spoken of as a most desirable vine. It will be found that though most nurserymen and florists catalogue the plant, few have it in stock. We tried to procure enough of the seed to offer them in our free seed distribution. But we secured but a small quantity, which has been sent out in place of others, our supply of which became exhausted. We have never raised it from seed, but learn from those who have that it germinates freely.

Our advertising columns during this, the busy advertising season, encroach upon several of our usual Departments. These advertisements will be found the best of their class and to fill most of the needs of the country home. We respectfully ask that our readers will give them a careful looking over before making their purchases, and that in communicating with our advertisers they will mention the Rural New-Yorker, whose recognized aims and standing should secure the most favorable terms. Such mention will increase our own influence with the best class of advertisers and will indirectly be of benefit to our readers.

Our rather recent remarks respecting the Hemlock (Abies Canadensis) will be remembered by interested readers. As corroborating our estimate of that tree, we find the following in Mr. Hooper's Book of Evergreens: "We have often lingered admiringly in the contemplation of a group of these (Hemlock) trees, watching the play of light and shade as it increased or diminished through their verdure, and mentally compared these claims on our notice with the rarer introductions from abroad; and such meditations invariably resulted in the same conclusion, that, so long as they were *common* (an American term for native trees), men of more means than taste would prefer the latter class. Let them enjoy their preference; but so far as we are concerned, were we restricted to one tree, we would far rather have a fine specimen of the Hemlock Spruce, than all the Deodars and Cryptomerias ever introduced."

Mr. Meehan remarks of the Hemlock "It would not be exaggeration to pronounce this the most beautiful evergreen in cultivation."

Literary Miscellany.

LEAVE THE FORT.

BY A. VAN DYKE.

"Hold the Fort, for I am coming!"
This has been the cry too long;
We must now put on our armor,
And go forth to meet the wrong.
Let the feeble and the cowards,
Still the walls and earthworks shield,
But the strong and valiant soldier
Loves to fight in open field.

Leave the Fort, howe'er securely
All its mighty towers are made,
Plants, whose natures crave the sunlight,
Cannot prosper in the shade;
So the soul of noble impulse,
With a firm and manly port,
Boldly marches forth to battle;
Brother, sister, *Leave the Fort!*

There are evils past enduring,
There are victories to be gained;
Leave the Fort, howe'er alluring,
There's no siege to be sustained.
Let our warfare be aggressive;
Duty, danger, let us court;
Then our life will be progressive.
Brother, sister, "Leave the Fort!"

All along the line of action
Let this *better watchword* ring,
Scorning party, creed and faction,
Loyal *only* to our King—
"No man's man, but God and country's,
Honest, and of good report—
Let us walk "as in the daylight."
Brothers, sisters, "*Leave the Fort!*"

[*The Inter-Ocean.*

AN UGLY GIRL.

CHAPTER I.

"NOT there yet, Noel? How slowly we move! This is certainly the worst railway in every respect that I ever traveled on!"

Noel Estcourt, aroused from a reverie by the complaint of his stepmother—a large, fair, well-preserved woman, who would have still been considered handsome but for the fretful lines around her mouth—strove to soothe her with the assurance that another twenty minutes would find them at their journey's end.

"Twenty minutes! Is it possible? Why, we shall be nearly a quarter of an hour behind time," she commented, in the same peevish strain, "and the funeral is fixed for four o'clock, and it must be five miles from the station to Carlsforde Park. Here's railway punctuality for you! They ought to be made to keep better time!"

"And never have any accidents, nor lose luggage, nor in any other way disoblige an *exigeant* public," Noel retorted, with a smile. "After all, we shall not be more than five minutes late, so we can afford to forgive the guilty cause of the delay, whoever he may be."

"Ah! yes, you are fond of talking in that careless strain and forgetting *me*. I ought to have at least an hour to myself when we reach the Park. How can I make my appearance before strangers with my face brick-red with heat and dust, and my heart palpitating like—like I don't know what, and all through somebody's carelessness?"

"That unfortunate somebody!" muttered Noel, between his teeth. "It's well for him he's not here."

"What are you saying? Quoting poetry? If there is anything I detest it's having stupid verses quoted at me. Another stoppage! This makes the twentieth station we have called at, I'm sure of it! Anyone but you, Noel, would write to the directors, and ask them if this is what they call studying the convenience of the public?"

"And point out that when you and I condescend to make use of their line everyone else ought to make way for us. Would they set me down as a madman or a fool?" he queried, with such a quizzical look that it offended her.

"How can you talk such sheer nonsense, Noel!" his stepmother responded, with an important air. "A week ago it was very different, and I daresay your letter would not have been noticed, for you have never asserted yourself as you ought to have done. You have never been one of those energetic men who will get on in the world, no matter how."

"Your last three words convey the reason for it," he retorted, with a slight frown, for this was a subject on which they never agreed. "I have always considered it better to put up with a small salary, honestly earned, than listen to offers of help or advice which I should soil my conscience by accepting."

"My cousin Barnett means you well, and is a very clever man," Mrs. Estcourt replied, severely. "I am sure the money he has made is something wonderful, and, as he has told you again and again, in business it is no use being so over scrupulous, especially when there's such a large family as your poor dear father left me with to be provided for."

"I have always done my utmost to prevent you or my half-sisters feeling your loss too sensibly," Noel reminded her, his brow contracting a little as countless sacrifices of his own needs and wishes made for their sakes rushed into his memory, and he remembered also how seldom they had been appreciated.

Mrs. Estcourt winced, but quickly made answer: "Oh! yes, you have been very kind; but it isn't generous to remind me of these things, and you are running away from the subject we were discussing—this horrid railway! We shall be late; they will be waiting for us, for of course the funeral cortege cannot leave the house till you arrive to take your place as chief mourner; and I shall be flushed and perhaps hysterical."

"I hope not," interposed Noel, in alarm. "If you think there is any danger of that, you had better stay at the hotel in the village till the evening."

"I have made up my mind to be present," Mrs. Estcourt answered, deliberately, "and *nothing* shall prevent it. Why do you interrupt me so rudely? You know as well as I do, that the train ought—do you hear, Noel?—*ought* to be in to its time, and as for saying that a remonstrance from you would be not listened to, you cannot forget that you are now the Viscount Carlsforde, a peer of the realm, and one of the first men in the county."

Noel made her a low bow, and merrily thanked her for keeping him in mind of his new dignities; but the next moment he looked thoughtful again.

"I scarcely realize it yet. It seemed so strange to wake up one morning a banker's clerk in a shabby coat, and be told that I had inherited the title of a man whose name I never remember to have heard my father mention above once or twice in his life!"

"Your poor papa had so many queer notions," said Mrs. Estcourt, disparagingly. "He carried his humility and forbearance to such a ridiculous excess, that——"

"He was a wise man as well as a good man," interrupted her stepson, in a tone that warned her she was going too far. "I have no doubt that as he knew there were then living two comparatively healthy men nearer of kin to the Viscount than we were, he abstained from mentioning remote contingencies, lest they should raise hopes that might never be realized. But here we are at Cotby!"

"Why didn't you tell me we were so near?" demanded the lady, peevishly. "If there's anything I detest, it's being hurried in getting out of a railway-carriage: one is sure to drop one's handkerchief or one's shawl, or leave something behind altogether! How thoughtless you are, Noel!"

However, it was by Noel's care that any such disasters were prevented, and ere long they were bowling along the road to Carlsforde Park—the fair and almost princely domain of the late Viscount—in the handsome carriage and pair sent to the station to meet them.

Mrs. Estcourt leaned back on the cushions with a complacent air. For some years past she had been forced to content herself with taking her constitutionals, and paying her visits by the vulgar medium of a cab or an omnibus, and the change from genteel poverty, which in her case meant bad management and continual grumbling, shabby dresses, a slip-shod servant, and a small house, to the luxuries she expected to enjoy in the mansion of her stepson, promised to be a very delightful one.

Already in fancy she saw herself at the head of a large household, receiving and returning the calls of the county families. Already she saw the children whose romps and squabbles had been an endless source of worry and discomfort, banished to a nursery; and Irene, her eldest daughter, the awkward, unmanageable, eccentric girl of sixteen, who obeyed no authority, listened to no remonstrances but her half-brother's, placed under the surveillance of a governess, and taught to deport herself like a young lady with expectations of a handsome dowry.

A glance at the sober face of her companion, and another at her own deep mourning, reminded her that these day-dreams were scarcely suited to so solemn an occasion, and she sat silent for a few minutes. But Mrs. Estcourt was of too restless a disposition to remain so for a long period.

"You're sure, Noel, that you did not ask the lawyer who brought the news of your succession to the title, what would be the amount of the annual income?"

"Quite sure; he was in haste, and I was too much astonished to question him much."

"Still he ought to have informed you; or you should have called me into the room. I should not have been simple enough to let him go away with his tale but half told."

"Does it signify?" asked Noel, wearily. "Lord Carlsforde's will is to be read after the funeral, and it will give us all the information we require. I know that the bulk of the property was at his own disposal, and that I am the only relative he had to inherit it. Will not that suffice?"

"Who will do the honors of your house to-day?" was the next query. "Ought I not to take up my position as its mistress as soon as I enter it? I daresay the servants have had it all their own way, and robbed us shamefully ever since they have been left to their own devices! They'll not find me easily hoodwinked, I can tell them. I shall insist on having lists of every article under their charge, and seeing for myself that nothing is missing."

Noel was tempted to tell her that if the noble mansion they were approaching was to be his future home, it certainly would not be hers. As the widow of his father, she had claims upon him which he would never ignore; but he neither liked nor respected her; he was weary of her exactions, her fretful murmurings, her continual appeals to him when her children proved contumacious, and he would gladly allow her an ample income for the pleasure of being master of his own house, and freeing himself from the thraldom of her presence.

However, he contented himself with asking whether any arrangement they might enter into would not be rather premature, and Mrs. Estcourt, seeing they were close to the house, said no more, but composed her countenance into a becoming expression of grief; shook out her skirts, smoothed her crape, and hoped, in an audible whisper, that tiresome Irene would remember all her injunctions and not let the little ones fly paper kites out of the attic window, as they were in the habit of doing be it said, to the terror of the neighbors and the imminent risk of their own lives.

CHAPTER II.

Half-a-dozen elderly gentlemen, including the late Viscount's solicitor and medical man, were awaiting with some curiosity the appearance of the new lord. His family history had been already whispered by one to another; everyone knew that his father had died suddenly and in difficulties, caused by unavoidable losses, and that this young man had bravely taken upon his shoulders the burden of the fretful stepmother and her unruly little ones; but they were scarcely prepared to see him personally, at all events, so well fitted for his new position.

His cares and the drudgery they entailed had neither made him splenetic nor prematurely old. He carried himself with the manly ease of one whose mind is as vigorous as his body, and who, under all difficulties, has preserved his self-respect.

A little round-shouldered he might be from stooping over the desk, and his eyes dulled and sunken from being over-tried, yet only requiring a few weeks' repose and fresh air to carry off these signs of business life and brown the cheek, which had gained a sallow tinge in the close streets and offices of the city.

While a few necessary arrangements were being attended to, Noel entered into conversation with the other gentlemen, and learned a few particulars respecting the kinsman he had never knowingly beheld.

Lord Carlsforde, they told him, had been a shy, studious man, never keeping up any intercourse with his neighbors. On the few occasions when he could not avoid mingling with them, he had been courteous, but *distrait*. His happiness was only to be found in his library or his picture-gallery; if he left home, it was but to secure some rare tome or relic of the old masters.

The consequence was, that his house was filled with beautiful and valuable articles, whilst the weeds grew up to the door, and his face had been comparatively unknown to those who dwelt upon his estate.

Noel's informants were politely congratulating themselves and him that all these things would now be altered, when they were summoned to take their places in the funeral cortege.

With all due reverence the remains of the deceased peer were borne to the little church that stood at no great distance from the house, and laid in the family vault.

Every one who assisted at the ceremony was feasted in the usual fashion, and then Noel, the present Lord Carlsforde, accompanied the solicitor and an old friend of the late Viscount—a gray-haired Lieutenant-colonel in the dragoons, who had journeyed from the Curragh to pay the last rites to the comrade of his youth—into the drawing-room, where Mrs. Estcourt awaited them.

The housekeeper was bearing her company, and endeavoring to perform the duties of hospitality in a satisfactory manner; but the injured expression of her countenance, and the consequential manner in which Mrs. Estcourt sipped her tea, revealed to the experienced Noel that his stepmother had been giving herself airs already.

She beckoned Mr. Whitely, the solicitor, to her side as soon as he entered the room, intending to subject him to a searching cross-examination; but the lawyer was in haste, and begged that he might be permitted to read at once the testamentary papers he held in his hand.

(To be continued.)

WEAKER THAN A WOMAN.

(Continued from page 206.)

CHAPTER XLV.

ALL Loamshire was shaken to its very center. Such news had not been heard in the neighborhood for years; there was a general sentiment of rejoicing. Lady Maude Arlington was going to be married—Lady Maude, whom all the inhabitants of the country looked upon as a princess. Whom was she going to marry? That was the question every one asked. And the answer gave universal pleasure. It was the hero of the Victoria Cross—Major Rawson. Every one was delighted with the alliance. Lady Maude was so beloved; while the name of Major Rawson was known wherever bravery or valor was honored.

The county awoke suddenly. There had been many queens since Lady Maude first began to reign, but none were like her; and Loamshire awoke to the knowledge that it was about to lose its chief ornament, and that the time was come to do all honor to the Earl's daughter.

No one was more delighted than Felix. In his heart he thought no one good enough for the noble, beautiful woman whom he admired, and who had been to him the best and truest of friends. He was sorry to lose her; he knew that Bramber Towers would never again be what it had been while she reigned there; at the same time he was delighted that her noble life had its reward in a noble love.

Lady Maude could have told how she had loved the brave soldier before he went to the war in which he had gained such renown. She could have told how she had garnered her love in her heart, and had kept it as a priceless treasure, never dreaming that it could have a happy ending, yet preferring to love a hero, and love in vain, than to be the wife of a peer.

But Major Rawson loved her, and there was no obstacle to their marriage. He was heir to an ancient title, too, and a large fortune. She had a fortune of her own. So all Loamshire awoke and roused itself to do honor to the marriage of its queen.

The marriage was to take place at the old parish of Lilford. Lady Maude would have it so. The Countess of Arlington had suggested London, and St. George's, Hanover Square. Lady Maude had laughed.

"Let it be in the old church on the hill, mamma," she had said. "It is an odd fancy, but I think I should not feel that I had been married unless those solemn old oaks had shaken their heads over me, and the rooks had held a conference about my wedding.

So, as Lady Maude had had her way all her life, she had it now, and the ceremony was performed in the old church.

The rejoicings were great and many. It would have done any one's heart good to have seen the ceremony, and the crowds of children with flowers to strew before the bride—to have seen the poor, the old, the infirm, all going up to the church to have one last look at her who had been so good to them all. It was a magnificent ceremony. Peers and peeresses, with some of the first people in the land, were there. The little gray church seemed to be filled with smiling faces and costly dresses. But to Lady Maude nothing on her wedding-day was so dear or so precious as the blessings of the children and the poor.

The wedding-breakfast was given at Bramber Towers—and so goodly a number had never sat there before. Mr. and Mrs. Lonsdale, with Felix, were invited. Of all the guests who clustered round the beautiful bride to bid her farewell, she gave most heed to Felix. She went aside with him for a moment, for she read in his face that he longed to say something to her. She never forgot the few words that he did say. She laid her hand in his for a second; he bent down and kissed it, with tears in his eyes.

"How am I to thank you, Lady Maude," he said, "for all that you have done for me? You came to me in the darkest moment of my life; and I owe to you, after Heaven, all that I am. How must I thank you?"

She looked up with a smile into the handsome face that was full of emotion.

"You can thank me best," she replied, "by being, as the story-books say, good and happy now and henceforward."

"I will try," he said; "and no one, Lady Maude, says 'Heaven bless you' more fervently than I do—I whom you saved from ruin."

As they drove down the long avenue, amidst cheers, and shouts, and good wishes that were enough to deafen them, Major Rawson turned with a smile on his lips to his wife.

"I did not know that you had such a royal dowry, Maude."

"What dowry do you mean?" she asked

"The dowry of blessings from young and old, rich and poor. What have you done to make these people all love you so?"

She raised her eyes to his.

"I have done nothing but my duty," she replied.

"Then you have done it with grace and sweetness," he said. "Teach me to do mine as well. If I could hear as many blessings follow me as follow you, I should be happy."

"Are you not happy now?" she asked with a charming smile.

His answer was prompt and decisive.

Knowing Miss Lester's secret predilection for hearing news, that she was too proud to seek, Felix went over to the Outlands a few days afterwards. He had not seen Eve lately, and was anxious about her. He had heard Kate say that she was not looking well—that she had grown thin and pale, and seem to have lost some of her old bright spirit; and those few words had made Felix anxious. Finding one evening that he had an hour's leisure, he thought that he could not do better than devote it to her.

Miss Lester was looking a little more cross and impatient than usual when the young lawyer greeted her, and he asked what was the matter.

"I am not pleased about the corn," she replied briefly.

"I am sorry to hear it. What is the matter with it?"

"It does not ripen as it should," she replied.

"That must be the fault of the sun," said Felix.

"No matter what is to blame, the misfortune is just the same," returned Miss Lester. "What has brought you here to-night, Mr. Felix? I saw your name in the Loamshire Gazette. You were present at all the gay doings at Bramber Towers."

"Yes," he replied, "I was there."

"Then tell me all about Lady Maude's marriage. It is not often that one has the opportunity of hearing about such grand affairs; tell me everything that you remember."

"I came on purpose to do so," said Felix. "I thought you would be pleased to hear about it. But shall we not wait for Eve? Perhaps she would be interested too."

"No," replied Miss Lester, "she would not—unless it were about a marriage in the moon. I tell her always that she is waiting to marry the man in the moon. Sit down here by these bee-hives. Never mind the bees; they will not sting you unless you interfere with them. As I sit here I can see what is going on around me; and no man is idle while my eyes are on him. Tell me about Lady Maude first. Do you know, I heard a foolish rumor once, Felix Lonsdale?"

"I am afraid you have heard a great many false rumors in your time, Miss Lester," he remarked. "It seems to me that the world is full of them; What was the one you refer to?"

"I heard that you were in love with Lady Maude, and that she liked you," said Miss Jane solemnly.

He laughed so heartily that she felt at once there was no truth in it. Her grim face relaxed at the sound of his mirth.

"How absurd!" he said. "There is no lady in England whom I hold in higher reverence and esteem than Lady Maude. As for being in love with her, it is sufficient to say that she is an earl's daughter; and in my own fashion I am as proud as a king. I would no more marry a rich woman, and live on her money, than I would cheat or steal."

He marvelled why Miss Jane looked so intently at him.

"I wonder if you will always think so?" she said earnestly,

"I am quite sure that I shall. I think independence a noble quality, and one to which Englishmen especially may lay claim. I have a great respect for it, and shall ever exercise it."

"Now tell me about the wedding," said Miss Lester. And Felix gave her a most animated account of it.

She was delighted, and would have listened to him for another hour, but that her keen eyes de-

tected a dairymaid enjoying the homage paid by one of the reapers.

"Go into the house and find Eve," she said. "I shall be with you directly."

Felix found Eve in the garden; and so intently was the girl thinking that she never heard his footsteps until he stood by her side.

"Eve!" he said gently; and he was startled by the sudden change in her face when she saw him. It was dyed crimson, and the sweet earnest eyes fell before his. She could not speak to him at once; and a sudden conviction flashed across his mind that at the moment he had accosted her she was thinking of him.

"My dear Eve," he said, "are we such strangers that you should be so startled at my presence? The *tante* told me you were not looking so well, and I am come to see."

"I am quite well," she answered in her sweet low voice, "and very pleased to see you."

"You look well enough just now. You have the color of a rose in your face," he told her. "May I find a seat here? I have an hour to spare, and am come to spend it with you."

He sat down on a little garden chair, under the luxuriant jessamine, and began to talk to her. A sense of peace and repose always came over him when he was with Eve—a sense so sweet that he never cared to disturb it; and the same magical feeling was stealing over him now. When they had been talking for some time, he looked at her; and then he saw how true Mrs. Lonsdale's words were. The sweet face had grown very thin and pale; there was a dull look in the tender eyes, as though she had wept bitter tears. She was much changed, and Felix was pained to see it. He marvelled as to the cause, and then decided to question her.

"Eve," he said gently, "you are not well. Why do you not go to the seaside for a change of air?"

"I am happier here than I should be anywhere," she replied.

His ears detected a tone of patient weariness in her voice.

"Eve," he said impulsively, "I do not believe you are happy. Have you any trouble or sorrow? Trust me, as I trust you."

The sweet face looked up at him.

"I have no trouble," she answered—"and Heaven has been very good to me."

But long after Felix had gone away she sat under the luxuriant jessamine, and once she cried—

"Oh, my love, you will never know in this world how I love you!"

CHAPTER XLVI.

One fine morning in September a letter came to the office of Lonsdale & Son which presented very familiar features to those who received it. The creamy color of the envelope, the delicate handwriting, the faint perfume of violets, the crest on the seal—each and all were familiar.

"It is from Lady Chevenix," said Felix, as he placed it before his father—of all the letters that had been received from her he had never opened one.

Mr. Lonsdale read it, and then looked at his son.

"She is coming home," he announced. "She will be at Garswood by the end of the week, and wants me to see that everything is ready for her. I had better go over to the Hall at once. Ah, here is a postscript—there is sure to be one in a lady's letter!—'Remember me kindly to Mrs. Lonsdale—and Felix.'"

"She is very kind," said Felix, as he sorted his papers. "I suppose you told her what an accumulation of business awaits her?"

"Yes. I thought it time she either returned or gave me fuller powers of acting," replied Mr. Lonsdale. "I am glad she is coming home. I do not like the Hall to be closed; it makes the whole neighborhood dull."

Darcy Lonsdale rode off at once with his good news; and very pleased the household at Garswood were. Their young mistress had been worshipped amongst them, and they were delighted at the thought of her return. Mr. Lonsdale gave all necessary orders, so that Lady Chevenix should not miss any comfort or luxury.

He called on Mrs. Haye, and found that she also had heard from her daughter, and that she was going to Garswood to be in readiness to receive her. Mrs. Haye had very ambitious views for her daughter; she had plenty of good advice to give her. Now that she had secured wealth and a title, she must look for something higher still.

"She ought to marry a duke next," she said to her husband; but Francis Haye answered—

"It is just possible she may not care to marry again."

His wife laughed at this.

"After proving herself so sensible, do you think she intends to retire upon her laurels? You may depend upon it, Francis, her second marriage will be far more brilliant than her first."

"You know best, of course, my dear," said Francis Haye meekly. "Violet owes a great deal to your training."

"I flatter myself," remarked Mrs Haye," "that I have made her what she is. My prudence and diplomacy, during her first foolish engagement to Felix Lonsdale, made her Lady Chevenix."

"That I believe; but I doubt if she has ever been really happy since. Do you remember how she used to smile and blush when Felix came?"

"It was childish nonsense; she has something better to do than smile and blush now," replied Mrs. Haye severely. "I hope when she does come you will not encourage her in any nonsense. Only imagine if we should live to see her a duchess! I always knew that she would be fortunate in life. What a cruel thing it would have been if she had married Felix Lonsdale!"

At the end of the week another letter came to the office at Lilford, asking Darcy Lonsdale to go over to Lady Chevenix at once. He went and on his return he said to Felix—

"There is a terrible accumulation of work at Garswood. Lady Chevenix wishes me to remain at the Hall for a week, and clear up all arrears. It will occupy a week—the Michaelmas accounts are always heavy—but, Felix, I cannot spare a week. Lord Arlington's rent-dinner and many other things are close at hand. I do not think I can spare a week. I made a suggestion to Lady Chevenix, which she seemed very pleased with; it was that, instead of my going to the Hall for six days, we should both go for three—that is, of course, if you are willing."

"It is a matter of indifference to me, father," he replied. "Whichever plan suits you best, or pleases you best, I will follow."

"Then we will both go. It is far easier to go to Garswood and take a clerk with us than have all that mass of documents brought to the office."

So it was settled that they were to go to the Hall, and do all the business as quickly as possible there.

"I shall prefer sitting up at night," said Felix. "I can always work better when there is perfect silence. A few hours' extra work each night, and we shall soon have finished."

He little dreamed to what that sitting up would lead.

They went on the Monday evening—a beautiful autumn evening, when the sunbeams fell on the gray walls and lighted up the picturesque mass of buildings. Several visitors were at the Hall. Captain Bell, Mrs. Haye, Miss Hethcote—who seemed as though she would never leave Lady Chevenix again—Lady Browning, and Miss Fern—all guests whom Lady Chevenix had invited.

Father and son were taken at once to her boudoir, where she sat alone; and never in her whole life had Violet looked so charming. The year of quietness and repose in the climate of Normandy had been marvellously beneficial to her. While there she had not a shadow of care; she had studied nothing except to forget the past, to realise her good fortune, and to recruit her health. The consequence was that she returned with a lovely and dainty bloom. There was no longer the faintest shadow on her face; it was full of radiant, laughing light; the violet eyes were clear and bright as stars, the scarlet lips untroubled.

Felix looked at her as she stood in the light of the setting sun, and his eyes were dazzled by her beauty and loveliness. She wore a dress of rich black velvet cut square, so as to show the white neck, on which a diamond cross gleamed like fire. She wore diamond bracelets on her arms; diamond stars shone in the coils of golden hair.

In kindliest greeting she held out her white jewelled hands to Mr. Lonsdale and his son; but her marvellous beauty had for a few minutes stricken them dumb.

"I am so delighted!" she said; and truth shone in her beautiful eyes. "I thought I would see you here first, away from the other guests, because I wanted to talk to you. Mr. Lonsdale, take this easy-chair. Felix"—she had quite fallen into the old fashion of calling him Felix—"sit here. I did not see you"—to Felix—"to bid you good-bye; but I am well pleased to see you on my return. There is no place like home, is there, after all? Normandy is very beautiful, but Garswood is home. Now tell me all that has been done in Lilford since I left. You were at Lady Maude's wedding—tell me about it, Felix. I am so glad she married her hero after all."

They spent one of the pleasantest hours that could be imagined. The same idea struck both father and son. Lady Chevenix seemed to have grown young again; her sunny smiles, her unusual laughter, her quick, clever repartee, her keen enjoyment of their society—all were noticeable. She had indeed altered; she was like Violet Haye; all trace of the quiet, cold Lady Chevenix had vanished.

Then her smiles died away for a few minutes as they talked of the terrible trial they had gone through together. She looked with soft luminous eyes into Darcy Lonsdale's face.

"What old friends we are!" she said thoughtfully. "And how strange it seems that you should have been with me when he died—that Felix should have been my chief comfort! What a riddle life is to read!"

After a few minutes Mr. Lonsdale remarked—

"You must not charm us into forgetting our work, Lady Chevenix; there is so very much to be done."

"You can begin as early as you like in the morning," she said, "but this one evening you must give to me. Think what a pleasure it is to me to talk to such old friends. I shall get up early too, and see that you have breakfast before you begin. I shall make your tea; I am sure no one else could make it nicely enough."

Darcy Lonsdale told her laughingly that she would spoil him; and both gentlemen were surprised to find that they had been talking for an hour instead of a few minutes.

They rose when the first bell rang for dinner, and Lady Chevenix, looking at Felix, asked him—

"How is Evelyn Lester?"

He told her that she was not looking either bright or well lately; and then they separated.

Long after father and son had left her, the beautiful woman sat with happy brooding light in her eyes, and a smile like summer sunshine on her lips. And when she rose to return to her visitors she murmured to herself—

"At last, my love, at last!"

(To be continued.)

SMALL POINTS OF TABLE ETIQUETTE.

THERE are a few points of table etiquette not directly connected with the giving and receiving of dinners and teas, but which are of the first importance, as they concern individual behavior. We would be inclined to think every one acquainted with them, and allusion to them a matter of supererogation on our part, if it were not that we see them so frequently violated. Those of our readers who are, or have always been familiar with them, will perhaps pardon our speaking of them for the sake of those who are not.

We do not expect to see these *gaucheries* in the best society; but there are many people perfectly well-fitted for the best society but for ignorance concerning these things, which although trifles in themselves, are of such infinite importance on the whole. For instance, where all the requirements are not fully known, if a general cessation of conversation should suddenly supervene upon the serving of the soup, would there be silence in the place? Not at all; the gap would be filled with a continuous bubbling sound from the mouth of some one or other unlucky wight, whose mother never taught him to take soup properly, and who is possibly disturbing and disgusting all those that do better and who know how easily the trouble might be avoided. Soup is to be taken from the side of the spoon, not from the tip, and it is not to be sucked in, but the spoon being slightly tilted it is rather poured into the mouth than otherwise, the slightest silent inhalation being sufficient for the rest.

Another generally neglected obligation is that of spreading butter on one's bread as it lies on one's plate, or but slightly lifted at one end from the plate; it is very frequently buttered in the air, bitten in gouges, and still held in the face and eyes of the table with the marks of the teeth on it. This is certainly not altogether pleasant, and it is better to cut it a bit at a time, after buttering it, and put piece by piece in the mouth with one's finger and thumb.

Let us mention a few things concerning the eating of which there is sometimes doubt. A cream cake and anything of similar nature should be eaten with knife and fork, never bitten. Asparagus—which should always be served on bread or toast, so as to absorb superfluous moisture—may be taken from the finger and thumb; if it is fit to be set before you the whole of it may be eaten. Peas and beans, as we all know, require the fork only. Potatoes, if mashed, should be mashed with the fork. Green corn should be eaten from the cob, but it must be held with a single hand.

Celery, cresses, radishes, and all that sort of thing are, of course, to be eaten from the fingers; the salt should be laid upon one's plate, not upon the cloth. Fish is to be eaten with the fork, without the assistance of the knife; a bit of bread in the left hand sometimes helps one to master a refractory morsel.

Berries, of course, are to be eaten with a spoon. In England they are served with their hulls on, and three or four are considered an ample quantity. But then in England they are many times the size of ours. There they take the big berry by the stem, dip it into powdered sugar, and eat it as we do the turnip or radish. It is not proper to drink with a spoon in the cup; nor should one, by the way, ever quite drain the cup or glass. Spoons are sometimes used with puddings, but forks are the better style. A spoon should never be turned over in the mouth. Ladies have frequently an affected way of holding the knife half way down its length, as if it were too big for their little hands; but this is as awkward a way as it is weak; the knife should be grasped freely by the handle only, the forefinger being the only one to touch the blade, and that only along the back of the blade at its root, and no further down. In sending one's plate to be helped a second time, one should retain one's knife and fork, for the convenience of waiter and carver. At the conclusion of a course, where they have been used, knife and fork should be laid side by side on the plate—never crossed; the old custom of crossing them was in obedience to an ancient religious formula. The servant should offer everything at the left of the guest, that the guest may be at liberty to use the right hand. If one has been given a napkin-ring, it is necessary to fold one's napkin and use the ring; otherwise the napkin should be left unfolded. One's teeth are not to be picked at table; but if it is impossible to hinder it, it should be done behind the napkin. One may pick a bone at the table, but, as with corn, only one hand is allowed to touch it; yet one can usually get enough from it with knife and fork, which is certainly the more elegant way of doing; to take her teeth to it gives a lady the look of caring a little too much for the pleasures of the table; one is, however, on no account to suck one's fingers after it.

Wherever there is any doubt as to the best way to do a thing, it is wise to follow that which is the most rational, and that will almost invariably be found to be the proper etiquette. There is a reason for every thing in polite usage; thus the reason why one does not blow a thing to cool it, is not only that it is an inelegant and vulgar action intrinsically, but because is may be offensive to others—can not help being so indeed; and it, moreover, implies haste, which, whether resulting from greediness or from a desire to get away, is equally rude and objectionable. Every thing else may be as easily traced to its origin in the fit and becoming.

If, to conclude, one seats one's-self properly at table, and takes reason into account, one will do tolerably well. One must not pull one's chair too closely to the table, for the natural result of that is the inability to use one's knife and fork without inconveniencing one's neighbors; the elbows are to be held well in and close to one's side, which cannot be done if the chair is too near the board. One must not lie or lean along the table, nor rest one's arms upon it. Nor is one to touch any of the dishes; if a member of the family, one can exercise all the duties of hospitality through servants, and wherever there are servants neither family nor guests are to pass or help from any dish. Among the English nobility an old custom has been lately revived in which at a certain point of the dinner the servants are dismissed and the ladies of the family take their place. This is very pretty for a scenic occasion; but it does not suit the luxury and ease of modern times, and is a reminiscence, however hospitable, of the old degradation of women that will meet with no wide favor. Meanwhile in America, destitute of knights or castles, there is no excuse for it whatever.—*Harper's Bazar.*

Prince Battenberg of Germany has abandoned his scruples relative to the acceptance of the throne of Bulgaria and his election is regarded as certain.

MAGAZINES.

LIPPINCOTT'S MAGAZINE for April has the following attractive table of contents: A visit to the Shrines of Old Virginia. Illustrated. David H. Strother ("Porte Crayon"); English Vignettes. Illustrated. H James, Jr; Women's Husbands.—II. The False Prince. Part I; Folk-Songs. W. W. Young; Moliere. The Life and the Legend. Illustrated. J Brander Matthews; Trees in the City. Edgar Fawcett; The Hoosiers at Home. Mary Dean; Through Winding Ways. Chaps. XXVIII. XXXI. Ellen W. Olney; Ancient Decorative Stuffs. H. M. Benson; Our Beaux, Sarah Winter Kellogg; My Village in the South. Part II. Annie Porter; A Bit of Old Satsuma. William Elliot Griffis; A Lady's Life in Brazil. M. C. W; Our Monthly Gossip; Literature of the Day.

THE TOOTH MARKET.

Americans of old families are peculiarly light, wiry and well knit. Chinese art and Egyptian monumental sculptures show that the long-continued civilizations were perpetuated by just such slight bodily frames. Redundancy is no evidence of endurance. Our sinewy outlines are a proof not of feebleness, but of refinement and vigor. There is no physical deterioration among Americans. Nevertheless, our teeth, according to statistics, are eight times the worst in the world. This is the result of pure and unadulterated ignorance. Books, newspapers and magazines have plenty of dissertations on the care of the physique—on exercise, respiration, care of the feet, best way to walk, proper quality of clothing, treatment of the eyes, physiological arrangement of houses, and so on—but nothing is said about the teeth. Ignorance is never bliss. From lack of knowledge on this subject everywhere are seen persons whose shrivelled or distorted and expressionless mouths betray the absence of natural teeth. Columbia might be represented as a lady with false teeth. This state of things implies awful suffering. It implies premature old age, fractured and necrosed jaws, tumors, abscesses, neuralgia, tic douloureux.

There are in the Union about sixteen thousand dentists, of whom only about two thousand are of the slightest benefit to their patients. Ignorance permits fourteen thousand men to live among us by uselessly torturing their fellow-beings. They are worse than Macbeth; they murder more than innocent sleep—good temper, beauty, youth and health. They should write over their doors, "Cease to laugh, all ye who enter here!" for those who walk in funereal gloom with pale and anxious faces through their portals will come forth toothless or soon to be so."

The dentists who advertise false teeth at ten dollars a set practise horrible barbarisms. All the appliances of dental science do not save as many priceless organs in ten years as these miscreants sacrifice in six months with their bad tooth-fillings, tooth-pullings and fillings. Notwithstanding all that has been done to stay the waste of teeth, there are as many destroyed this year as there were last, and *more* dentists. I know a woman who had twenty teeth extracted by a country dentist because they were somewhat loose, and false ones substituted. The timid and uninformed are swindled out of their teeth by mercenary wretches who persuade their patients to submit to permanent injury and lasting mutilation, when the hand of conservative skill would do them abiding good.

The ignorant are persuaded that their teeth are worth about fifty cents apiece, and that it is an act of bravery to have one pulled out. To have a tooth pulled out is as monstrous as to have an eye pulled out. A good dentist will never extirpate a tooth. Were all dentists able and conscientious, there would be a panic in the tooth market. False teeth do not supply the loss of real ones—do not restore the original contour of the face nor the ability to speak correctly and agreeably: a false tooth can be detected as far as it can be seen.

Uncleanliness is the main cause of tooth decay. Food acidities if left in the mouth, and there are acids and alkalies in our food and in allopathic medicines that go on the principle, You eat me and I eat you. Where the enamel is cracked by extremes of heat and cold in the food, or where the teeth have never been perfectly matured, and there are minute crevices in the enamel, then acids will penetrate to the limy interior of the teeth and destroy them, unless prevented by perfect cleanliness. If tartar accumulates on the teeth for lack of brushing, it causes recession of the gums and loosening of the teeth. It must be removed by some sharp instrument. Dentifrices that will remove tartar will remove teeth. All liquid dentifrices devour the teeth. The white-ashes of a wood-fire gently rubbed on the teeth with a small stick will remove yellow streaks. Friction of the brush, cold water and a little soap are all that are necessary to greatly improve the worst of teeth and gums.

We do not belong to the rodent species; our teeth, once broken or lost, do not grow again. Still, let all who have defective teeth hope, for their teeth may be in a measure restored. Nutrition goes on in every living structure. The crystals of the enamel are living structures. The teeth are subject to the law of waste and supply, as are other organs. Poor teeth will improve with a good diet. Toothache is often followed by health of tooth and nerve. Juicy beef and mutton, eggs, oysters, milk, and the like, have good tooth-material; starch, fat and sugar have it not. The mineral element that sustains the hard portions of the teeth exists largely in the hull of grain. If our food contains plenty of this earthy matter, our teeth will not be soft and chalky, but dense and capable of resisting decay, and built up atom by atom like hard stone; and will so remain until supplies are diminished. Americans feed to animals or throw away the part of their wheat which contains the tooth-element. The teeth of a foreign peasant that have been built on black bread will break down on a diet of pork, pickles, preserves, pastry and superfine flour.—*Lippincott's for April.*

AMERICAN NATURALIST for April, contains Animal Music, its Nature and Origin, Xenos Clark; The Artificial Mounds of the Island of Marajo, Brazil, Orville A. Derby; Native Bitumens and the Pitch Lake of Trinidad, W. O. Crosby; Notes on an Extensive Deposit of Obsidian in the Yellowstone National Park, Wm. H. Holmes; Recent Literature, Macfarlane's Geologists' Traveling Handbook—Recent Books and Pamphlets; General Notes; Botany.—The Number of Stamens in Brasenia peltata.—A Fairy Ring.—Insects as Unconscious Selectors of Flowers.—Botanical News; Zoology.—The Oviposition of the Queen Bee and Dzierzon's Theory—Merrill's Ornithology of Southern Texas—An Insect Borer in Powder Barrels—A Large Saw-Fish—Wrens and the Bee Moth—An Owl's Revenge; Anthropology.—The International Congress of Anthropological Sciences held in Connection with the Universal Exposition at Paris, August 16-21, 1878—List of some Anthropological Catalogues of the Paris Exposition, 1878—Anthropological News; Geology and Palæontology.—The Genus Coelodon—Dawson on Eozoon—A New Genus of Perissodactyla.—A New Genus of Ichthyopterygia—Muschelkalk Fossils in Idaho; Geography and Travels.—The Dutch Arctic Expedition—The Norwegian North Atlantic Expedition—Geographical News; Scientific News; Proceedings of Scientific Societies; Selected Articles in Scientific Serials.

For Women.

CONDUCTED BY MISS FAITH RIPLEY.

THE WOMAN'S CLUB.

A "CLUB REVIEW."

I HAVE been very much interested in reading the different letters published in the Woman's Club, and although I acknowledge my inability to write anything worth printing, I would like to notice a few ideas that have been presented—I would like to say to Free Lance that "there is at least a small minority who will be interested in hearing a little about the Boston Society to Encourage Studies at Home." All honor to "the ladies who first conceived the thought of this Association." I think the thought carried into effect is splendid, and that this society will be the means of educating and refining a number of ladies throughout the land. I am sorry that there are any women who do not care to avail themselves of such good opportunities for mental improvement. Though I believe that the "life is more than meat, and the body than raiment," I cannot close my eyes to the fact that we have both to care for, and however commendable and beautiful it is to be found at the feet of Jesus, having "chosen the better part," Martha's position must also be filled. Our physical natures demand both food and raiment.

I would say, too, that the fashion articles and designs for fancy work are very acceptable, especially to invalids, who are compelled to remain at home so much. They like to know something of what is going on in the outside world as to the fashions, and they find that the designs for fancy work help to make bright many an otherwise cheerless hour; for there are many in out-of-the-way places where the RURAL goes who cannot afford magazines and similar helps. The combination of so many interests in one paper and at a price attainable, is one of the RURAL'S strongest recommendations. It is *one* of the best papers for a family to take, when they can afford a variety of periodicals, and when they can have but *one* it is *the very best*. I would not have it different from what it is now, except I would prefer to have it printed on paper strong enough, so that we could read it all we want to and still have it preserve its crisp and neat appearance. So do not complain F. L. until we women get more time than half the paper. I, for one, will be willing to relinquish a few columns of our side of the paper, to pictures of the latest style of dress-coats, smoking-caps, &c., when we women have so far degenerated as to make it necessary for you men to remain in-doors and fashion and *make* your own garments.

Jacquelina commands my admiration for her courage in expressing what many others would like to, I would add that it is a truth too glaring to pass without notice, that the Gospel is in many ways too dear. How many, think you, of the poor are hindered from attending where the "glad tidings" are told, "because the church is too fine and the people too well dressed?" I have been answered thus in reply to "Why do you not come to church and Sunday-school?" I know many who persistently keep away from the house of worship, because they feel so common that they shrink from going where they will feel so keenly the contrast between themselves and their surroundings. Again, I have heard persons say, "Oh, I cannot attend church regularly, for I do not always have the ready funds for the contribution-box, and I will not go and be made to feel so cheap." I pity *all* possessed of such a weakness, and would that all of us could have the strength and courage to dress as neatly as circumstances will allow, take gifts in our hands for the altar if we can, and if not, go without; but in either case endeavor to take the sacrifice of a "broken spirit, a broken and a contrite heart," remembering that we are frail creatures, and need to assemble where prayer and praise is wont to be made, and partake of the bread of life broken in the sanctuary. Another way in which the Gospel is dear, is in the literature of the church. While I admit that the publishers of religious periodicals are doing a noble work: a work that will tell in eternity, yet I would like to be informed why it is that so many, if not nearly all, of the aforesaid periodicals remain at the same price or a little above what they were when a dozen of eggs or a pound of butter cost twice as much as it does now? One will say, what have eggs and butter to do with religious reading matter? This much, that it takes much less to support the publishers than it did years ago, and where subscribers have the produce of the farm to sell, and must put up with reduced prices, it is plain that something in the list of needfuls must be left out. In many instances it is the religious paper with the remark that "it's too dear, anyway; we'll have to do without it." I have in mind now a nice, little Sunday-school, that found itself compelled to do without the childrens' papers for several months, because they could not raise the means to get them. God speed the day when all lovers of Christ's kingdom shall be willing to make sacrifices, in order to proclaim the good news "to every creature." SARAH.

TEMPERANCE IN POLITICS.

WASHTENAW, in her letter to the Feb. Club, seems inclined to ridicule the members because they "*don't discuss*," and she throws out several personal challenges, as well as a general one on the subject of temperance in politics. She says, "I don't see why temperance should have anything to do with politics. This is a *moral reform*, and we want to *persuade* men to be temperate." Yes, but when persuasion is of no avail, what then? If men could be *persuaded* to abstain from *all* wrong and crime, it would be unnecessary to have any laws for their punishment, but unfortunately, depraved appetites and deadened consciences are not always to be persuaded, and the strong arm of the law becomes necessary to remove the temptation to wrong-doing. But leaving the habitual drinker entirely out of the account, would not the danger to young men and boys, under the prohibitory system, be very much less than if a rum hole were allowed to flourish on every corner? We know that vice begets vice, and statistics show that where there is no legal restraint put upon the sale of spirituous liquors, there drunkenness and crime abound to a much greater extent than in places where there is a prohibitory law in force.

Chief Justice Noah Davis of the Supreme Court, in a recent speech on temperance, cites so many incontrovertible facts in support of this that I will quote from him, feeling that his arguments are stronger, and more unanswerable than anything which I can offer. He commences with this assertion: "Among all the causes of crime, intemperance stands out the unapproachable chief," and establishes the truth of what he claims by a mountain of evidence. But as temperance in politics is what I wish to deal with more particularly, I will only quote a little of what he says about the "Benefits of Prohibition."

"The relation of intemperance to crime is also plainly manifest where drunkenness is repressed by partial, or complete prohibition. The cases of towns and villages where, by the arrangement of their founders, no liquors or intoxicating drinks have ever been allowed to be sold, furnish strong evidence. Vineland, with its 10,000 people, without a grog shop, and with a police force of one constable who is also overseer of the poor (with a salary for both offices of $75), reports in some years a single crime, and a poor rate swelling to the aggregate of four dollars a year. Greeley in Colorado, is another town of 3,000 people, and no liquor shop. It neither uses nor needs a police force, and in two years and a half, seven dollars only was called out of its poor fund. Bavaria, Illinois, a town of the same population, with absolute prohibition, was without a drunkard, without a pauper, and without a crime. In Maine, under the prohibitory law, the convictions for crime in 1870 were one for every 1,589 population, while in our own State during the same time, the average was one in 620. In Connecticut under the prohibition law of 1851, crime is shown to have diminished 75 per cent. On the restoration of license in 1873, crime increased 50 per cent. In a single year, and in two years in Hartford, crime increased 400 per cent. In New London the prison was empty, and the jailor was out of business for a while after prohibition went into effect. In New York, the Metropolitan Excise law of 1866, was absolutely prohibitory on Sunday. Prior to that law, there had been no material difference in the number of arrests on that, and on other days of the week. After the law went into effect, the number of arrests on the Sabbath was diminished more than one-half. On the day of our annual elections, a statute draws around each polling place a circle of absolute prohibition, within which no intoxicating drinks may be sold or given. Contrasted with former days, who fails to recognize the change from excitement, disorder, and crime, to almost universal quietude and peace? And who does not see that the measure of peace depends upon the vigilance with which the police enforce the statute?"

The address contains many more statistics that are just as convincing, but these ought to suffice to prove to any reasonable person that a prohibitory law can be effective in the suppression of the sin of intemperance and its attendant evils, as well as for the prevention of other crimes.

MRS. W. C. G.

TOO PEACEABLE BY HALF; BEAUTIFUL WOMEN; UGLY MEN.

SO ERMENGARDE has offered to "make up" with her old antagonist! There is nothing left for us but to settle down to a "preaching" club. No quarrels, no excitement, nothing but humdrum moralizing. It's all wrong. I have too, an uneasy consciousness that I was instrumental in bringing Ermengarde to a public acknowledgement of her change of sentiment toward Free Lance. Why must we be a "happy family"?

As being terribly in earnest about something or other seems to be the ruling idea of these feminine gatherings, I suppose I may as well fall in line, don my moralizing cap and begin. I shall take a speech of the lately deceased Sir Owen Chevenix—the brutal husband in Weaker Than a Woman—for my text. When he announces his desire to enslave an unfortunate woman for life (only he don't put it exactly in that way) he says, "I would rather marry a woman of great beauty with a thousand faults than a plain woman with the virtues of an angel."

The gentleman but voiced the sentiment of his sex. Men insist that women shall be beautiful. No speech is too coarse or too bitter to characterize their utter contempt for plainness in a girl. Even the refined and kindly Dr Ludgate in George Elliott's Middlemarch, regarded ill-favored women "as something to be faced with philosophy and investigated by science." (It did my vindictive soul good to have his beautiful Rosalind make his life a burden to him.) It is natural to admire loveliness and to prize it, but why make the lot of ugly women all but unbearable by insisting that not having fulfilled the first requisite, no amount of moral excellence or intellectual brilliancy can make amends for their lack of physical charms?

To the sins or ignorance (sometimes both) of their ancestors, children are indebted for bodily imperfections, and yet one would suppose, to read what men say, that ugly girls were responsible for their own plainness.

Is it any wonder that every possible device is resorted to by these unfortunates to improve their appearance? Yet even these endeavors are made the subject of no end of satire, and men take immense delight in detecting the false coil or the rouged face.

So long as women must be beautiful above all things, they are justified in using every contrivance—whether artificial hair or teeth, powder or rouge—which will add to their attractiveness. (Now I suppose in imagination you'll picture me as most awfully "made up." Even, however, at the risk of your holding such an opinion, I still maintain that if we *must* be pretty, let's use all means at our command to accomplish the desired result.)

Men arrogate to themselves the monopoly of physical hideousness. A man may be utterly devoid of beauty and yet it is not counted as a reproach to him. He may be as plain as it is possible for a man to be, and he is not made to feel that his life is a failure on that account. And then the presumption of them! They mate womanly beauty with masculine ugliness and call it an equitable match. Have women no taste for masculine beauty? Do coarse red skins, bristly beards and misshapen forms enchant us? Is a plain-looking man a more engaging-looking object than a homely woman? WASHTENAW.

A SUGGESTION OR TWO.

WOULD it not be well if parents regarded more scrupulously than many of them do, the little personal rights of their children? In one of the best families I ever knew, each boy and girl had a little fund of his or her own, acquired in various ways by the help of their parents, and if the boys wanted a knife, letter paper, stamps, or any such thing, they bought it out of their own resources, with a proud sense of responsibility; if the girls wished a ribbon, or a magazine, it gave them a pleasant sense of personality to purchase for themselves. And if their mother, in any of her business transactions, needed some extra money they were pleased to be able to lend it to her, and she always repaid it as carefully as if she had borrowed it from an outside individual. It was practice as well as precept with them to be not only affectionate, but just to each other. These children are now nearly all grown, and are doing business on their own account, and the young men are proverbial for their exact business habits, their high sense of honor, and general excellence of character; the young women are held in equal estimation by all who know them. The happy mother when questioned as to how this result was brought about says that if it is her doing, she thinks it was owing to their being trained in *little things* to regard others' rights as well as their own.

A never-failing source of amusement to the little folks of all ages, is the making of scrap-books. The materials are almost always at hand. Volumes of patent-office reports, or even small pamphlets which have become useless lumber in so many houses can be made use of in this way. Cut out as many leaves as seem necessary, perhaps every other one, and you have a foundation. Provide the little ones with a pair of blunt-pointed scissors and let them cut out and trim neatly, the pictures from papers you do not care to preserve, circulars of farm machinery or anything they fancy, and then, armed with a cup of boiled starch and an old tooth brush (if you have one), let them exercise their ingenuity in filling the book with their collections. Quite small children find enchantment in this kind of work. A large picture may be put in the center of the page, and the space around it filled with small ones, or short pieces of prose or poetry. I have seen very pretty ornaments for these juvenile scrap-books cut out of the illustrated books for children, which had become badly tattered with use so that the pictures were all that was worth preserving. When two pages are full the book should be left open until dry before going on. This amusement need not make much litter about a house, and the little workers can easily learn to pick up their scattering scraps after themselves, and wash up the starch-cup and brush after using it, so that it will be ready for the next rainy day. B. C. D.

SILK DRESSES, DISH-WASHING AND HOW TO COUNTERACT BANEFUL INFLUENCES.

I AGREE with Miss Harvey on the "silk dress" question, though I should hardly think anyone would need a silk who had not "a second best." Everybody should own one nice dress suitable for extra occasions. I do not think Miss Harvey intended to convey the idea that the "black silk" should be worn for "traveling" and to choir-meeting and on all ordinary occasions; but that it should be ready so that one might be saved the vexation and annoyance that often arise from having nothing suitable to wear. I am willing "Jicks" should don her short skirts and "pantaloons," but I think them—abominable.

Should there be "anything satisfactory in removing the dreadful necessity of dish-washing," I fear something as terrible would stare us in the face. I like washing dishes much better than cooking, but dislike housework generally. Yet it is through our dislikes that we are disciplined, and I think that the cares and trials of us housekeepers are sent to make us nobler and better women. It is those who have suffered most and learned the great lesson of endurance who speak the sweetest words of sympathy. Many a wife and mother learns daily to "suffer and be strong" through "seas of trouble" that would drown dish-washing. If we reject the small trials, heavier ones will be sure to come. Let us then accept the inevitable, and

> "Cheerfully take what God bestows;
> And, like His own fair flowers,
> Look up in sunshine with a smile;
> And gently bend, in showers."

I truly sympathize with Mattix in regard to her husband's influence. Let there be no contentions before your boy. They will do much harm. If your husband speaks what you know will hurt your boy if he follow it, be still in his presence, but take the first opportunity you have alone with your child to counteract that influence; but not to the detriment of his father. Choose your words wisely, if you study a long time to do so. Be sure you have and keep your child's confidence. Above all, teach him the great principle of right; let it be thoroughly inculcated in his mind. Plead with God that your efforts may be blessed and your child saved from all evil-doing. BITTERSWEET.

SUGGESTIVE.

IN these days of bankruptcies and failures, the Prohibition city of Portland, Me., gained in valuation in 1878, $180,000; while Boston, with its wilderness of saloons, lost in valuation $70,000,000. It will not do to say the "almighty dollar" longer, for there is a duty more powerful than the dollar. What is it?

Two Ways of Eradicating an Evil.

A THISTLE took root, flourished, and bore fruit in the fair field of a farmer. The winds of autumn scattered the feathery seed far and wide, and when spring came again, all over the fields and gardens the green plants of the thistle came peeping through the sod.

"This will never do," quoth the farmer; "a thistle plant here and there may be pretty and picturesque, but who wants a harvest of thistles? No other crop can flourish while these vile, crowding things monopolize the soil."

So he set to work bravely to cut down the plants all over the farm, preserving only a few of the thistles in the garden; but alas! these *seed bearers*, with the roots of the old plants, despite all the watchful care of the farmer, brought forth a harvest so plentiful that the poor man was ready to fold his hands in despair.

"You remind me of some temperance workers," said a brother farmer coming forward to the help of the sorrowing man. "Your fields bring forth bad fruit; so does the broad field of humanity. Ever since Father Noah discovered, to his shame and sorrow, the mischief contained in the fermented juice of the grape, the deadly plant has been scattering its poison seed, till the world is full of evil. Now some good and intelligent people say, 'License the high-toned saloons—preserve the garden plants, and put down the low groggeries.'"

"Well, you hit hard my friend. It is a pity if I can't take care of a few plants. They are quite curious and pretty."

"Especially when your land is covered with them so that nothing else will grow, eh?"

"Confound the flaunting things. If they cannot stay where I wish them to I'll turn them out—root and branch."

"A very wise, and the only safe decision."

MRS. E. J. RICHMOND.

IN DEFENCE OF BEAUTIFYING OUR CHURCHES.

DEAR FRIENDS.—Please let me speak a few words in behalf of the sewing girl who was so severely criticised (I might say condemned) by Jacquelina at our February meeting. Our friend must have forgotten about the "Widow's Mite" and how when Moses was building the Tabernacle the women gladly gave their jewelry to him to be made into ornaments for the House of God. I do not suppose the splendor of any of our modern churches equals the magnificence of the Temple built by Solomon. God gave him special directions how to build it, yet Jacquelina would have us believe that He does not approve of our beautifying our places of worship. I believe we should give the best to God for has He not given us every good thing that we possess?

Jacquelina need not fear that she will have to contribute towards the support of that girl, for surely the good Father above will not let her want because she denied herself to help along His cause. I do not believe in people being improvident, but if a girl chooses to give her money for a good purpose instead of spending it on fashionable gewgaws etc, (as most of the girls do who sew, stand in stores and support themselves in other ways) I think she is to be commended for it. There is a happiness and satisfaction in denying ourself for others or for a good cause that the rich can never know. Well! Washtenaw will not have to lament any more that "each writer discharges her load of ideas and retires without provoking any return fire," but I do not write this for the sake of arguing but because I think the weight of Jacquelina's remarks was thrown in the wrong scale. There is too little given to the church and for charitable purposes instead of too much. I was once visiting a very rich family where there were several girls and when we were getting ready for church I had the coin I expected to put in the collection plate on the table, when one of the girls said "Why do you put more than a penny on the plate? *It never do.*" Yet I have seen those same girls spend two and three dollars at a time for candies oranges etc., and think nothing of it. People would be happier if they spent less money for their own selfish gratification and more for the good of others. HELIOTROPE.

Domestic Economy.

CONDUCTED BY EMILY MAPLE.

PEN THOUGHTS FROM EVERY-DAY HOUSE.

ANNIE L. JACK.

"THE strange sweet days are here again,
The happy, mournful days.
The songs that tremble on our lips
Are half complaint, half praise."

THIS verse always comes to my mind as spring draws near when the mid-day hours resemble the soft, balmy spring days, and the evenings and mornings are sharp reminders of winter. The busy housewife seems to find the lengthening days all too short as the remodeling of spring garments occupies her time and she is apt to wish that dinner and tea did not follow each other in such rapid succession. A very useful and labor-saving plan is to prepare stock for soup beforehand and keep it ready for use. The basis for Julienne soups can be made as follows:

Put into a stew-pan four pounds of shin of beef or knuckle of veal, any bones, trimmings of poultry or other meat, two ounces of butter, two onions, each stuck with cloves and unent, one turnip, two carrots, one head of celery, salt, pepper, mace, and a bunch of savory herbs, with four quarts of cold water. Rub the butter over the pan before putting in the ingredients; cover all closely and place over a sharp fire, stirring occasionally. Simmer five hours. Remove all scum and strain through a fine sieve. For all ordinary purposes this stock is very useful, can be available when one is not in the humor for cooking, or unexpected company makes an additional course needed, when soup has not been especially prepared.

A nice relish for those fond of such things at this season, is common garden *cress*, which can be raised to cutting-length in any sunny window during March or April. It is a pungent ingredient in a winter salad, which can be nicely made of a tender beet leaf, a few stalks of celery and a little cress, chopped together and mixed with a little vinegar and cream. The cress makes a very nice tea dish to be eaten with bread and butter. It is no trouble to grow it. Ours sown in sand, in a saucer, was ready for use in fifteen days.

Eggs are now coming in quite freely and form one of the luxuries that can be enjoyed by any farmer's family. There are so many ways of cooking them, that I almost hesitate to give one that if tried faithfully will, I am sure, give satisfaction. It is poached eggs with cream. Put into a frying-pan one pint of water, a pinch of salt and two teaspoonfuls of vinegar; break each egg to be used (this quantity cooks four) into a teacup, and when the water boils, slip the egg gently in without breaking the yelk. Simmer three or four minutes and, with a slice, lift them out, place on a hot dish and trim the edges. Prepare at the same time in a saucepan, half a gill of cream with salt and pepper, brought to the boiling-point; add an ounce of butter broken into small pieces. When this is well-mixed, pour over the eggs and serve. Small pieces of dry toast cut into one particular shape and placed round the dish, add to its appearance, and are very good. In this way, with a little care and not much more trouble, the simplest dishes can be made palatable, and at no time of the year is this more needed than in early spring, when the appetite is often variable, and we begin to miss the full store of winter, and cannot yet attain the richness of the summer fruits which, if there is, as there should be, a full supply in every farmer's garden, render us during the heated term half-independent of the kitchen fire.

LOG-CABIN SKETCHES; OR, JESSIE SEABRIGHT'S DIARY.—No. 3.

MAY MAPLE.

Home-made Conveniences.

How much I have longed for my old, easy sewing-chair, since we have been in our new home; and then I have wondered how those old friends, away East, could get along, year after year, with only those hard, old benches and stools. I remember I used to think when seated on one of them, that if I were so poorly off for chairs, I would do without other comforts till I had comfortable seats in my house, for myself and my guests. And yet I don't know what they could dispense with; for they had neither luxuries nor fineries, and only food enough to keep hunger from the door, and clothes enough to cover them decently—not enough to be well clad on a cold day, for the children were often compelled to remain at home, when they should have been in school, for the want of boots, shoes and comfortable wraps. We are well fed and comfortably clad for winter or summer; but the prospect for even a new set of chairs, is very slim for a long time to come. Is it a judgment upon me for thinking unjustly of others? If there were only some way for me to earn a few dollars; but my neighbors are all like myself—too poor hire work done. The country is new, and every dollar must be saved for farm improvements and family necessities.

A few hours later,

"I'll do it! I'll do it!" I exclaimed, as I threw down an old number of the RURAL NEW-YORKER, which I had found in a trunk upstairs. Mother had put in a whole year's subscription, when she was helping me "pack up" for my new home, saying: "They will help you to pass away many an otherwise lonely hour; and, no doubt, you will gather from their pages many hints that will assist you in your life journey." And I have found a number that suggests what will be to me a luxury; and yet it is so simple and easily made that I wonder I had not thought of it before finding the hint in the paper."

Barrels, hammer, hand-saw, a few short nails, a piece of rope, a bit or small auger, one of the old quilts that mother gave me when mine were burned, till I could make new ones, an old double-skirted dress, and a few hours with busy fingers and active brain, and behold! my room is adorned with two luxurious easy-chairs, fit even for a farmer or an editor to rest his weary self in, after a hard day's-work.

"Now you and pa have bof nice chairs; can't you make one for me out'n somfin'?" says Bertie. And I answer, "Yes, my boy. There's that long shoe-box that papa brought home full of groceries the other day, I think I can make a nice, little, high-back chair for you out of that. I'll set it up on one end, take out the upper-end board, and saw off the side boards about half-way down, put in the seat-board about six inches lower down, so that the side boards will come up high enough for arms; nail a slat across the front just below the seat, to make it strong; then cushion and cover it with some calico like my big apron. Then I guess Bertie will have a very good resting-chair."

"When will you make it, mamma?"

"To-morrow, if we are all well, and nothing happens to prevent."

DOMESTIC RECIPES.

French Pound Cake.

Five cups of powdered sugar; two cups fresh butter; two cups sweet milk; six eggs; ten cups dried and sifted flour; three nutmegs; teaspoonful of soda; one pound raisins; quarter-pound of citron. This makes four loaves. Bake one hour and then ice them.

Lemon Snaps.

One cup of butter; two cups of sugar; one-third cup of milk; three eggs; two teaspoonfuls of lemon extract, and one of soda.

URSULA.

QUESTIONS ANSWERED.

Hoe-Cake.

Mrs. D. L. B., wishes to know how the genuine Southern hoe-cake is made.

ANS.—It is simply corn-meal and sweet milk, with a little salt added, stirred to the thickness of a stiff batter, spread on a baking-pan and tipped up to bake before an open fire. The name "hoe-cake" originated from the fact that on the plantations this cake was often baked upon the broad field-hoes.

To Color Madder-red.

Reader wishes a recipe for the above.

ANS.—Three pounds of madder, one-half pound alum and one pound of cream-of-tartar to ten pounds of woolen cloth. Dissolve the alum and cream-of-tartar together in water to cover the cloth. Put in the cloth, boil up and let remain on the back of the stove for two hours. Then wet the madder in warm water and put into a boiler of clean water; when blood-warm put in the goods wrung out of the alum and cream-of-tartar water and keep stirring until the dye is boiling hot; let remain in for three hours, after which take out the cloth, stir into the dye one quart of soft-soap, put the goods back and let stand until cool. Then rinse and dry.

To Keep Eggs.

Mrs. R. L. asks how eggs may now, while cheap, be preserved so as to be good for cooking purposes next fall and winter.

ANS.—To keep eggs for any length of time it is necessary that they should be fresh at the time of packing and that the pores of the shell should be sealed air-tight whether by dipping into melted suet or wax, flax-seed oil, a solution of gum-arabic or any air-proof varnish and then packing in bran, oats, salt, or charcoal powder. Another method, and perhaps the most common, is to pack the eggs in a stone crock or half-barrel, covering with a solution of lime, salt and water. One pound of good stone lime slaked in two gallons of pure water with a pint of salt added when cold, will be found about the right proportions. If the lime be too strong it will destroy the shells. Pack the eggs into the crock, small end down, and be careful to reject any eggs that may be cracked. Pour over them the clear lime-water free from any sediment. See that all are under the solution. Cover the crock tightly and place in a cool temperature where they will not be disturbed until wanted for use.

News of the Week.

MISCELLANEOUS.

Monday, March 31, 1879.

IN Congress nothing has been done in the way of legislation; but a good deal in the way of President-making. It should be impressed on our Representatives that there is ample time for the latter, and that the main thing the country needs at present is either to stop law-making, so that the industries of the nation may have some firm basis for investing capital; or, better still, to pass laws to foster and encourage those industries. There is a great likelihood that the extra session of Congress will be prolonged much beyond the time at first supposed necessary and that both parties will draw fat salaries, not for promoting the good of the united nation, but for advancing party interests.

There seems to be an absolute necessity that the hangman should soon be busy in some parts of the country, especially in the South. A little over a week ago, a drunken desperado, in Marshall, Texas, shot and killed, without a particle of provocation, a member of a Northern theatrical company, who had been acting in the town and were just waiting for the midnight train that was to carry them out of the State. Another member was dangerously wounded by the ruffian, and one of the actresses only saved her life by piteously entreating the scoundrel's forbearance. He was from Kansas, has few friends in the Lone Star State, and as a good deal of excitement has been aroused thoughout the country by the outrage, it is not impossible that his crime will bring him to the halter. At Frankfort, Ky., Thomas Buford, a high-toned gentleman, who had already, with immunity, attempted his brother's life, and gained a reputation in other ways as a dangerous character, shot to death Judge Elliott, who, with other members of the court, had recently decided against him in a case involving a large sum of money. In Richmond, Va., a young blood, feeling agrieved because a young lady friend conceived herself insulted by a clerk in a shoe-store, went with his brother to horsewhip the insulter, and because the latter objected to the proceeding, shot him dead. These are only a few specimens of the cases that call for the hangman's interference.

FOREIGN.

In Egypt, the Khedive has been so criminally extravagant, that the debts he has piled on the country are so heavy that it can pay neither principal nor interest. The fellahs, or peasantry of the country, are ground to the dust by enforced labor from which they are allowed only just enough to keep body and soul together. They can never save anything, so that when misfortune happens, they have nothing to fall back upon. The Nile, as stated here at the time, rose unusually high some months ago and now famine has resulted from its overflow. In some villages, the naked inhabitants are eating grass, roots, offal and anything that will prolong in pain their wretched existence. Vast numbers, especially in Southern or Upper Egypt, have died of starvation, and that entire part of the old "Granary of the World," is a scene of misery and death. Meanwhile, the ruler whose costly dissipations, wild speculations and gross misgovernment, have brought these horrors on his people, has fallen under the control of representatives of his English and French creditors, who collect the taxes, make all outlays and are trying to pay something to those who loaned the old reprobate the wherewithal to indulge in his excesses. Of course, the income of the latter is pinched somewhat, and he is now plotting and scheming once more to get the finances of the country into his own hands. His chief grievance at present is, that while his subjects are enduring unutterable sufferings, he has actually been deprived of 600 of his harem women who have been married off to the under-officers of his army.

In England, strikes and distress are still rampant. From present indications it would seem that in agricultural matters a radical change must soon take place. Already those who invest as landlords in the purchase of farming property, only get from 1½ to 2 per cent. on their capital; yet tenants seem unable to make a livelihood paying the low rent that yields only so small a return. Farms are going begging for farmers to work them; and the cry for "protection" for home productions is gradually growing louder all over the kingdom. No fresh news of importance either from the Zulu or Afghan war. In France the main question at present seems to be whether the Legislature shall move from Versailles to Paris. The Assembly has voted for the measure, but the Senate is opposed to it. The movement means simply a concession to the radical, red-hot republican faction, and while it will please the inhabitants of Paris and other large cities, it is sure to arouse apprehensions among the more conservative dwellers in the country. The thing is more important as an indication of the tendency of the government than on account of the direct consequences that may result from it.

HERMAN.

$25 in Doctor's visits, will do you less good than one bottle of Hop Bitters.

A Household Perfume. Every family able to appreciate and enjoy the pleasure afforded by a really healthful and delicious perfume, should supply themselves with the genuine MURRAY & LANMAN'S FLORIDA WATER. It is the most delightful and most lasting of all fragrant Waters.

Bronchitis. Throat Diseases often commence with a Cold, Cough, or unusual exertion of the voice. These incipient symptoms are allayed by the use of "*Brown's Bronchial Troches*," which if neglected often result in a chronic trouble of the throat. **25c. a box.**

THE MARKETS.

PRODUCE AND PROVISIONS.

NEW YORK, Saturday, March 29th, 1879.

BEANS AND PEAS.—There is a fair export demand for marrows at late rates. Mediums are firm, choice something in sellers' favor. Red kidneys have become good property again; stock concentrating and very firm at the advance noted. White kidneys and pea only nominal; black firm with small sales. Green peas have advanced under the West Indian demand; quoted at $1 $1.50@1,55. Southern B. E. without special inquiry at $2.50 per 2 bush. bag. Canadian, in bulk and bond, 72@73c. Medium beans, choice, $1.30@1.35; fair to good, $1.15@1.25. Marrow, prime, free on vessels, $1.40; fair to good, $1.20@1.35; pea, $1.20@1.35; white kidney, $1.35@1 60; red, $2.40@2.70; black, $2 10@2.50. California Lima, $4@4.25.

Receipts for week, beans, 2,940 bush.; exports, 973 bbls.; do. peas, 930 bush.

BUTTER.—The market is without new feature, and is not likely to exhibit much steadiness while we are between the two crops. Old is scaling down every day to prices that help to get it out. No selections of State above 18c., and best line dairies can be had at 15c. Now white is lower, Western creamery which shows grain strength as firm as before. The quality of new State is not regularly good. Farmers make the usual mistake of shipping carelessly made weak stock, thinking the word *new* will sell it. These inferior grades are slower, if possible, than poor old. Even the best hay butter falls off in price, if it misses sale a day or so. There will be a liberal offering of new this spring, as it is likely that cheese-making will not be hurried, and as prices will rule in buyers' favor, best grades will realize most money for producers.

NEW BUTTER.—State pails and half tubs, choice, 20@22c.; good, 16@18c.; Welsh tubs, 16@17c.; very poor, 9@14c; Western Creamery, extra, 28@29c.; fair to prime, 23@27c.; poor, 19@21c.; imitation, 17@21c.

OLD.—Best half tubs, 17@18c.; fair to prime, 12@16c.; dairies, full, 12@15c.; do., firkins, 10@15c.; common State 7@9c.; fair to best; State creamery, best, 18@20c.; poor, 12@15c.; Western dairy, 14@17c.; indle packed, selected, 14@15c.; factory, do., 13@15c.; other, 6@10c.; grease, 4@4½c.

Receipts for week, 19,993 pkgs.; exports, 6,911 pkgs.

BRESWAX moves out slowly but quoted steady at 24@25c. for Western and Southern.

Exports for week, 2,378 lbs.; since Jan. 1st, 11,978 do.; same time last year, 30,860 do.

BROOM CORN.—Receipts are small and prices are held very regular.

Short broom, choice, ₹ lb., 5½@6½c.; do. common good, 4½@5½c.; hurl, good to choice, 3½@4½c.; do., common to fair, 3@3½c.; red and crooked, 2@3c.

CHEESE.—The stock is larger than desired at this late period, and an effort to sell with a moderate export trade, gives irregular prices; partly this and also from deterioration of quality from long holding, has given a decidedly lower range for some grades, as compared with several weeks since. Most of the business is in low grades at from 4 to 6c. The quotation of really fancy stock is rendered somewhat nominal by their scarcity.

The quotations are: 8c. for fancy; 8¼@8½c. for fine lots; 7¼@7¾c. for good; 3@4c. for skimmed; 5½@6c. for half skimmed; State, farm dairy at 8@8¼c. for fine; 7@7½c. for good to prime. Wisconsin factory, fine and fancy, at 8½@9c.; do. good to prime, at 7½@8¼c. Western factory, fine 7¼@7¾c.; good and prime, 6¾@7c.; do. full skimmed, 3@4c.; do half skimmed, at 5@6c.

Receipts for week, 18,733 boxes.

Liverpool cable, 40s.

Steam to Liverpool, 30s.

Estimated stock of cheese in this city, 100,000 boxes

COTTON.—The Liverpool market has been better, and there has been a much more active movement here with prices higher. Closing prices are for March, 10.53c.; April, 10.54c.; May, 10.55c.; June, 10.81c.; July 10.94c.; August, 11 02@11.03c.; September, 10.85@10.86c; October, 10.53@10.54c.; November, 10.26@10.28c.; December, 10.19@10.25c.

Quotations for spot cotton are based on American standard of classification, and on cotton in store running in quality not more than half a grade above or below the grade quoted:

	Uplands	*N. Orleans.*	*Texas.*
Ordinary	8 13-16	8 15-16	8 15-16
Strict ordinary	9 3-16	9 5-16	9 5-16
Good ordinary	9 11-16	9 13-16	9 13-16
Strict good do	9 15-16	10 1-16	10 1-16
Low middling	10 3-16	10 5-16	10 5-16
Strict low middling	10⅜	10⅜	10⅜
Middling	10½	10½	10½
Good middling	10⅝	11	11
Strict good middling	11⅛	11⅛	11⅛
Middling Fair	11⅜	11⅜	11⅜
Fair	12⅜	12⅜	12⅜

STAINED.

Good ordinary	8⅞	Low Middling	9⅜
Strict good ordinary	9⅜	Middling	10 3-16

DRIED FRUITS.—In apples export interest has diminished and there are freer sellers of quarters at rather easy prices; best sliced and evaporated stock have a good demand and prices firm. Peeled peaches are in good demand and rule firm. Blackberries are dull; other small fruits are unchanged.

Alden's evaporated apples are at 12c.; Williams's at 11@11½c.; new process apples at 9@10c. State plums, 14@14½c.; blackberries quoted at 4½c. Peaches—Peeled Georgia, 7@7½c. for poor; 8½@9½c. for fair to good; 10c. for prime; choice North Carolina, 12@13c.; good do., 9@10c.; unpeeled halves, 3@3½c. quarters, 2½@3c. Pitted cherries, 20c. Apples—New, 2¼@2½c. for southern quarters in bags; 3½@4½c. for prime sliced; do., fair at 3@3½c. State at 3½@4½c. for new sliced; and 4@4½c. for quarters; Western at 3½@4½c. for new quarters. Raspberries, 26@27.

Exports since Jan. 1st, 14,729 bbls. apples; same time last year, 2,593 do.; showing an improved business.

EGGS.—Receipts for week, 14,187 bbls.; do. last week, 9,917 do. The quotations of the close have ruled steady most of the week. Prime barreled stock still holds the preference. Dealers look for steadier business than was noted last spring when the market was so severely glutted. A good trade for Easter is expected at the latter part of next week unless holders injudiciously crowd up prices. Country shippers should buy with a view to fair New York rates.

Near points, 15@16c.; State, 15c.; Western, 14½@15c.; Southern, 14@14½c.; poor stock, 13@13½c.; duck, 23@24c. goose, 45@50c.

FRESH FRUITS.—Rail arrivals continue free and sudden advances are thus prevented. Single barrels of extra Spitz, make $2.75; but commercial loads are quoted as high as they will bear; Spitzenburgs, $2@2.75; Greenings, $2@2.25 for State; $1 75@2 for Eastern; Russets, selected, $1 62@2; Baldwins, $1 75@2; Eastern lots range, $1 25@1 50. The retail trade is somewhat curtailed by cheap and good business. Cranberries dull; bakers use a good deal of picplant instead. Made barrels, $7@8 50; crates, $2 25@3. Strawberries are lower but not yet down to a quick rolling rate; 60@70c. quart. Florida oranges scarce, fancy half-barrel boxes, $5 50; inferior to fair, $2@4 50; hot-house strawberries, $1 50@1 75. Peanuts firm with another advance; fancy Va. hand-picked, $1 20@1 25; other, 90c.@$1 10; pecans, 6@8c.

Exports of apples for week, 7,211 bbls.

FLOUR.—The advices from the other side have been more encouraging to exporters, who have been buying quite freely. Home demand is moderate. There are free sellers on full supplies at steady figures.

Quotations are $3.35@3.70 for inferior to very choice superfine State; $3.70@4.00 for very poor to good extra do., odd lots and lines; $4.00@4.25 for good to choice do.; $3.35@3.70 for inferior to fancy superfine Indiana, Iowa, Michigan, &c.; $3.70@4.00 for inferior to good shipping extra do. and $4.00@4.25 for good to choice extra do.; common to about choice white wheat extras, $4.25@5.35; choice to fancy do. at $5.35@6.15; red and amber winter wheat, very inferior to very choice trade and family, at $4.10@5.75 (fancy held higher); round hoop Ohio at $3.90@4.35, and trade and family brands of do. at $4.30@5.85, the latter rate for very choice (a few fancy lots held higher); St. Louis, $4.25@5.10 for very inferior to good extra; $5.10@6.00 for good to very choice (with a few very fancy brands in high favor with the jobbing trade) quoted up to $6.50@6.75; Minnesota clear, very inferior to very fancy, at $3.75@5.10; few brands going above $4.75; Minnesota "straight," very poor to very fancy at $4.50@6.00; and patent poor to strictly fancy at $5.25@8.25, few brands going above $7.50@7.75; unsound stock at from $2.25@5.25; city mill extra at $4.85@5.20 for West Indies (the latter rate for fancy in new packages); do. for England $3.80@4.00; do. trade and family extras, $5.25@6.25; do. for South America, $5.15@5.65 for fair to

very choice: No. 2 at $2.35@3.15 for poor to very choice.

GRAIN.—Wheat has shown only a moderate export movement, with prices variable, closing easy. Latest sales are of No. 2 spring at $1.02½@1.03; No. 3 spring at 94@95c.; No. 4 spring at 90c.; rejected spring at 78@79c.; ungraded spring at 91c@$1 03; Nebraska spring at $1, delivered; ungraded amber at $1 12@1 13½; No. 2 amber at $1 12½@1 13; No. 1 red at $1 15½; No. 2 red at $1 14½@1 15; No. 3 red at $1 10; ungraded red at 92c.@$1 14; ungraded white at $1 12@1 13; White State at $1 14½; No. 1 white at $1 13@1 13½; No. 2 amber, April option, at $1 13; No. 2 red, March option, at $1 15; do., April option, at $1 15½; do., May option, at $1 15½@1 16; No. 1 white, March delivery, at $1 13½; do., April option, at $1 13½; do., May option, at $1 14. Corn has been fairly active and about steady. Latest sales are of New York No. 2 at 45¾@45½c.; New York No. 2 old at 46@46½c.; New York steamer mixed at 45c.; ungraded western mixed at 44@45½c.; No. 3 quoted at 44½@44¾c.; New York steamer white at 46c.; New York steamer yellow at 45½c.; roundyellow at 46c.; New York No. 2 white at 50@51c. for old; Jersey yellow quoted at 46c.; No. 1 white quoted at 49@50c.; yellow western at 46c.; white western at 48½c.; New York No. 2, March, at 45½c.; do., April, at 45½c.; do., May, at 46½c.; steamer mixed, March, at 45c.; do., April, at 44½c.; do., May, at 44½c. Oats are not active and have rather favored buyers, closing firm, however, at for New York No. 1 at 32@32½c.; New York No. 1 white at 36c.; New York No. 2 at 31½c.; New York No. 2 white at 33¾@33½c.; No. 3 quoted at 31½c.. New York No. 3 white at 32@32½c.; No. 2 Chicago, afloat, quoted at 32@32½c.; do., in store, quoted at 30½c.; white State at 35@40c.; mixed State at 42½c.; white western at 31@35½c.; mixed 31@32c. Barley nominal; State, 6-rowed, 70@80c.; do., 2-rowed, 55@65c.; Canadian, 90c.@$1 05.

MAPLE SUGAR.—Demand rather better than usual for the early part of the season. Prices not strong. Vermont, 14@15c.; Ohio, 10@11c.; old, 6@8c.

HAY AND STRAW.—Receipts are not excessive, demand fair, and prices well sustained.

Sales at 40@45c. for shipping, and 70@80c. for retail qualities. Straw quoted at 40@45c. for long rye, and 35c. for short rye, and oats at 35@45c.

Exports since Jan. 1st, 15,649 bales; do., last year, 17,230 do.

HOPS.—The demand this week has run almost entirely upon low and medium grades at from 5@7c., and as a good many useful hops could be found at the latter figure, buyers did not care to look at higher priced goods. Shipments have been 370 bales.

Quotations are for New York's, new crop, choice, 9@13; New York's, new crop, medium, 7@8; New York s, new crop, low to fair, 5@6; Eastern, 6@9; Western, 6@9; Yearlings, 2@4; Olds, all growths, 1@2; Pacific coast, 10@14.

LEATHER.—Hemlock sole is quoted at 18@19½c. for light; 18½@21c. for middle; 19@21c. for heavy; and 14@18c. for good damaged.

OIL CAKE.—Western is quoted at $27@27.50 per ton.

PROVISIONS—Have shown rather more firmness on a better inquiry. Mess pork closed at $10.25 bid and $10.35 asked for new for March, $10.20 bid and $10.30 asked for new for April, and May at $10.30 bid and 10.40 asked, and June at $10.40 bid and $10.50 asked. Bacon at 5½c. for long clear and 5½c. for short clear. Lard—Western steam at $6.52½ for spot lots; $6.50@6.52½ for March and April; $6.57½@6.60 for May, and $6.62½@6.65 for June. Stearine at 6½@6½c. Tallow at 6¼@6 9-16c. for prime. Beef Hams at $18@18.50.

POULTRY AND GAME.—Southern spring chickens have sold at 75c. $1 pair. fowls and turkeys firm and higher. N. J. fowls, 12@13c.; western, 11@12c.; southern, 10½@11½c.; roosters, 5½@6½c. Turkeys, N. J., 13@14c.; western, 12@14c. Ducks, choice, 95c@$1; other, 65@75c.; choice geese, $1 75@2; southern and western, 75c.@$1.87. Pigeons, 35@40c.

Dressed poultry in good demand; very few poor lots in market. Frozen makes a very acceptable offering. A noticeable point in the N. Y. spring market is the prolonged use of turkeys. Capons higher. Frozen turkeys, choice, 19@20c.; fair to good, 17@18c.; frozen chickens, 11@12c. Dry-picked winter chickens, 9c.

Turkeys, best, 19@20c.; the latter for Pa. dry-picked; other, 14@18c.; chickens, best, 15c.; other, 11@15c.; fowls, choice, 13@15c.; capons, 26@27c.; slips, 22@24c.; ducks, best, 16@17c.; other, 14@15c. A few State chicks, 8@10c.

Eng. snipe are the best fancy birds in the market, they sell readily at $1 50@1 62. Plover also; small snipe, 50@90c. Wild pigeons lower, $1@1 12 for Missouri; quality not good. Wild ducks dull generally of thin, rough grade. Canvas-backs, 50c.@$1, the latter for Have de Grace; Red heads, 50@75c.; Mallard, 40c; Black, 25@30c.; Teal and common, 15@25c. There have gone to Europe from our market since Jan. 1st, 493 pkgs. game.

SEEDS.—Clover is slow and easy in price; Western quoted at 6¼@6½c. for prime and choice. Timothy is slow, quoted at $1.30@1.40.

SUGAR.—Refined at 8½c.; crushed and cut loaf, 8¼@8¾c. for granulated and powdered; 7¾@8¼c. for soft white and 6@7½c. for soft yellow.

TOBACCO.—Exporters are doing but little, and the home trade is slack; values are a little unsettled, but show no quotable change.

VEGETABLES.—Exports potatoes, past week, 2,875 bbls; of onions, 50 do. Potatoes steady; strictly choice seem scarce: holders certainly would not keep them from the trade at this late date, Southern truck is pushing old northern aside.

Bermuda onions, $5@6 crate; do., beets, $1.50@1.75 crate. Norf. onions higher. Charleston asparagus, $7@7.50 doz. Florida green peas, crate, 50c.@$2; Virginia kale, 50@75c. bbl. do. spinach, $2@2 50; Baltimore, do, $1.25@1.50. Virginia radishes, $1.25@1.50. Hot-house rhubarb, ₰ 100, $4@5; radishes, $3.50@4; cucumbers, $2@4.50 ₰ doz.; mushrooms, ₰ lb., 50c.; lettuce, selected, 25@75c. ₰ doz. Bermuda potatoes, choice, $8@9 per bbl.; Early Rose, Nova Scotia, $3@3.25; Eastern, $3@3.25; State, choice, at $2.50@2.75; fair to good, $2@2 25; Peach Blow, white, in bulk, $2.50@3; red, $2.25@2 75; Prolific, $2.25@2.75; Peerless, State, $1.75@2; in bulk, $3@3.12; Jackson white, $2@2.37; Mercer, $2.25@2.37; (outside rate per double heads). Sweet potatoes, Md. & Del., $2 50@2.75. Bermuda tomatoes, 90c.@$1 box. Onions, Eastern, white, ₰ bbl., $4@6, red and yellow, $4@5; Chester, $4@4.50. Squash, Hubbard, $3@3.50; marrow, $3. Cabbages per 100, $4@6; R. turnips, per bbl., $1@1.25; beets, 75c.@$1.00; carrots, $1@1.12; celery, per doz. bunches, 50@75c.

WOOL.—As the season for the new clip approaches, and especially as there is nothing encouraging in the position of the goods market, prices are unsettled and rather easy on other than the best grades of fleeces.

LIVE STOCK MARKETS

Saturday, March 29, 1879.

BEEVES.—Receipts for the week, 9,390 head; do., last week, 7,689 do. Prices have held up well regardless of increased receipts. Quotations fell to the present point last Wednesday and the business has ruled steady. A car-load of extra Illinois, 1,578 average, sold for 11c., dress 57 pounds. The ruling top figures were 10½c., to dress 56 pounds; ordinary to heavy steers, 8½@10½c., dress 55@56 pounds.

Exports for week, 6,120 quarters beef; of mutton, 1,500 carcasses.

COWS AND CALVES.—Very few prime milkers are showing, in fact with the new butter season opened good stock is worth quite as much at home as here. Nominal range, fair to good, $35@60.

VEAL CALVES.—Hog dressed calves abundant and low. The weather will soon have a souring effect upon this class of stock, and holders have fresh sales. Extra, 8c.; fair to prime, 5½@7½c.; inferior or small, 3@4c. Live calves easier, though not in heavy receipt. Choice State and N. J., 6c.; fair to good, 5@5½c.; poor, 3½c.; bobs (when saleable), $1.02 per head.

SHEEP AND LAMBS.—Receipts for week, 18,416 head; do. last week, 22,323 do. Good sheep are firm at 5½@6¼c. for Western; N. J. ewes, 5@5½c. Winter lambs, 5¾@6½c.; spring lambs, fancy, $6 ₰ head; other, $2@5.50.

SWINE.—Receipts for the week, 25,757 head; do. last week, 18,536 do. No late sales reported; a recent range was 4@4½c.

Dressed hogs in light supply, not largely wanted; country, light, 6¾@6¾c.; medium, 6@6¼c.; heavy, 5¾c.; city, 5¾@5¾c. Pork tenderloins, 9c.

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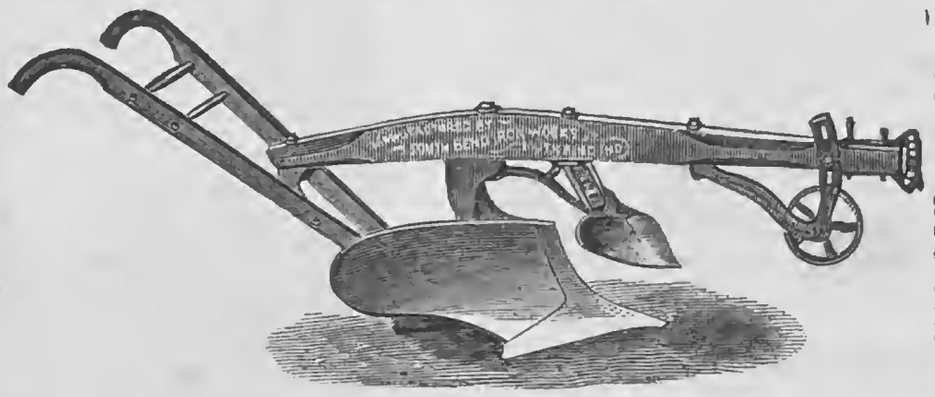

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sold as "Improved Oliver Plows," by unprincipled parties Who seek to sell inferior Plows on the reputation of ours. ☞ Look for the name "OLIVER" on the beam.

BRANCHES: Mansfield, Ohio. Harrisburg, Pa. Indianapolis, Ind. Dallas, Texas. Rochester, N. Y.

OLIVER CHILLED PLOW WORKS,
South Bend, Ind.

HALL, ELTON & CO.,
Electro-Plated Ware, German Silver and Britannia Spoons.

The "REGENT."

Factories, Wallingford, Conn. Salesroom, 75 Chambers St., New York.

THE JOHNSTON HARVESTER CO.,
Brockport, N. Y.,

75 FIRST PRIZES

Taken in actual Field Trials during the Season of 1877-78.

THE
King of the Reapers
AWARDED
THE HIGHEST PRIZES
EVER OFFERED.

MANUFACTURERS OF
REAPERS, MOWERS,
and Combined Machines.

35 Reapers competed at the Paris Exhibition trials, and out of them only one, the

"Wrought Iron Harvester"

took the FIRST and ONLY PRIZE.

Reading for the Young.

LITTLE HARRY'S LETTER.

A POSTMAN stood with puzzled brow
And in his hands turned o'er and o'er
A letter, with address so strange
As he had never seen before.
The writing cramped, the letters small,
And by a boy's rough hand engraven.
The words ran thus: "To Jesus Christ,"
And underneath inscribed, "In Heaven."

The postman paused; full well he knew
No mail on earth this note could take;
And yet 'twas writ in childish faith,
And posted for the dear Lord's sake.
With careful hand he broke the seal,
And rev'rently the letter read;
'Twas short, and very simple too,
For this was all the writer said:

"My Lord and Saviour, Jesus Christ,
I've lately lost my father dear,
Mother is very, very poor,
And life to her is sad and drear.
Yet thou hast promised in thy Word
That none can ever ask in vain
For what they need of earthly store,
If only asked in Jesus's name.

"And so I write you in His name,
To ask that you will kindly send
Some money down; what you can spare
And what is right for us to spend.
I want so much to go to school;
While father lived I always went,
But he had little, Lord, to leave,
And what he left is almost spent.

"I do not know how long 'twill be
Ere this can reach the golden gate;
But I will try and patient be,
And for the answer gladly wait."
The tidings reached that far-off land,
Although the letter did not go,
And straight the King an angel sent
To help the little boy below.

Off to his mother he would say,
"I knew the Lord would answer make
When He had read my letter through,
Which I had sent for Jesus' sake!"
Ah! happy boy, could you but teach
Our hearts to trust our Father's love,
And to believe where aught's denied
'Tis only done our faith to prove!

[*National Baptist.*

LETTER FROM UNCLE MARK.

DEAR BOYS:—I am not certain that any one among you will recognize the boy in the picture, but I hope, at least that his employment is familiar to you, and that you all are as studious and improve your spare moments as assiduously as he does. Apparently he has just come in, perhaps, from school or from some errand, and, as he has not removed his hat, he evidently expects soon to go out again, perhaps to feed the sheep, or to water the horses, or to split and carry in the kindlings, or may be to milk, or he is waiting for instructions to go on some errand, or to do any of the many things that nobody can do so well as boys. But he cannot waste the few moments he has to spare. He has picked up a paper, and to judge from his sober features, he reads in good earnest. That boy will some day take a leading position among his fellow men.

Let me tell you that it is just such boys, who seize every opportunity to learn all they can, that become our foremost scientists, who go to the legislative halls to make our laws, who rise above the general level of mankind, and distinguish themselves in every branch of business, in every honorable pursuit. Strange as it may seem, the majority of our great men, those who shape the affairs of the country and of the world, were farmers' boys, brought up on farms, and who, many of them, had to struggle with adversity and hard work before they rose to their present position. The boys that are on farms now, the type of boys shown in the picture, will, in a quarter of a century, be the leading men, socially, financially and politically. Bear this in mind, boys; now is the the time for you to lay the foundation for your life work, and the better you spend your spare moments now, the more influence will you get in the future.

UNCLE MARK.

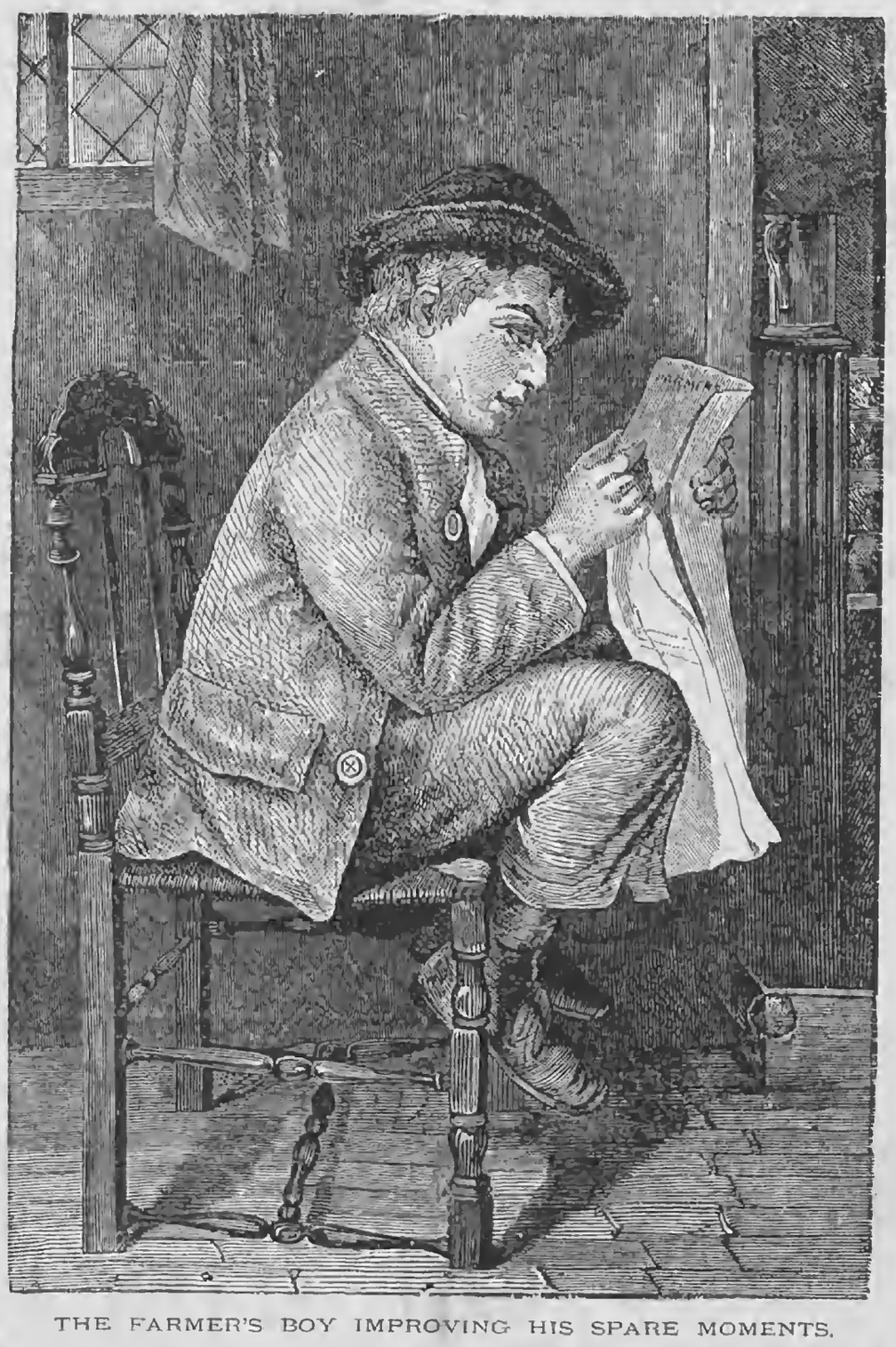
ABOUT TOMMY.

TOMMY is not a naughty little boy who is continually getting into mischief and involving his friends in a variety of unpleasant situations, but a little red lizard that lives, or that did live, in my aquarium. I named him Tommy, after one of Kingsley's "Water Babies," for he always reminds me of a little baby, with his pink skin and tiny hands. In color he is salmon pink, paler underneath, and the head, back, and outside of the legs, are thickly spotted with black. In form he is very slender and graceful, but his small, pale, brown eyes are very ugly. The name of this species is Spelerpes rubra, or Red Chameleon, and it is commonly found in running streams or springs; but it is not very common in this part of New Jersey. Like most of the reptile tribe, Tommy is easily affected by music. On hearing the sound of a piano, or even of a person whistling, he comes to the top of the water, and slowly turns his head from side to side. I treated him exactly like a gold-fish, not placing any food in the water at all, but letting him feed himself. He certainly thrived under my treatment, for during the nine months I kept him, he grew at least half an inch.

The plants in the aquarium were several sprays of Mermaid Weed, common in most ponds, and a pot of Aponogeton. Tommy appeared to have a great affection for the last named plant, and spent many hours coiled up on its pot. Another favorite position was to hook his tail over a floating branch of Mermaid Weed, and hang downwards in the the shape of Hogarth's line of beauty, a long S. In this position, with his small, pale eyes upside down, he looked very malicious, not to say goblin-like.

Alas, he will amuse me with his eccentricities no more! During a period of domestic disorder, consequent on moving, he was placed in a greenhouse, and one morning he was missing. Whether he had climbed out of his jar, and paid the penalty of his rashness with his life, like many other adventurers, or whether some predatory, but short-sighted cat mistook him for a gold-fish, and seized him, is a mystery; he has never been seen since. Peace be with him! E. L. T.

Maywood, N. J.



THE FARMER'S BOY IMPROVING HIS SPARE MOMENTS.

THE LITTLE SENTINELS.

KING Henry III. of France was in the habit of spending every year large sums upon pet dogs. Among these he had three favorite lap-dogs, called Lilline, Mini, and Titi. These little animals, which were very beautiful, and had been brought with great trouble and expense from Turkey, were such darlings of their master that the King used to keep them in a basket hung by a splendid chain from his neck. He even trained his little dogs to act as sentinels, and keep guard over him when he slept. Stationed beside the head of the King's bed, the three little dogs stood sentry in turn, each for a time standing on its hind legs, and supporting itself against the tester of the bed, which served instead of a sentry-box. The sound of a whistle—a very welcome music, it may well be believed, to the poor little tired dog—told each small sentinel in turn that the time of its watch was up, and it might go to rest. Before doing so, however, it gave a little gentle bite to the ear of its sleeping companion whose turn came next. In this manner Lilline, Titi and Mini kept up by turns an uninterrupted watch over the King, from the time he went to bed until morning; and he could not have had a more careful or faithful body-guard.

One of these little animals might have been the means of saving her master's life. Henry III., as is well known, was not a good ruler, and had many enemies. One of these was a priest of the name of Jacques Clement, who came from Paris to St. Cloud on purpose to kill the King. Being shown into the sovereign's chamber, he took out a paper, which, as a pretext, he handed to Henry. Meanwhile little Lilline rushed out from her watch-house and began to bark very loud, for this gentle little creature, who never hurt or attacked anybody, had yet, in some wonderful manner, found out that harm was about to be done to her master. Henry had the dog taken into an adjoining room. She began to bark still louder, and in a short time the unhappy King was found dead, stabbed by Clement to the heart.

A BEAUTIFUL EXPRIMENT.

PERHAPS some of the boys and girls may be interested in the following experiment. It is easily performed, and will give some idea of the manner in which crystals are formed. Remember that the solution is a poison, and must be kept where it can not possibly be taken through mistake.

Procure from an apothecary half an ounce of sugar of lead, sometimes called lead-acetate. Put this into a wide-mouthed bottle, an empty horse-radish bottle will do well, and fill the bottle nearly full with water. When the sugar of lead is all dissolved, push two or three pieces of copper wire into the cork, and let them run down into the liquid in the bottle. Bend the lower ends into hooks, and hang on them a small piece of sheet zinc, taking care that it touches all the wires.

After the bottle has stood for a few hours, crystals of lead form upon the lower ends of the wires. These rapidly increase, and soon the entire bottle is filled with beautiful fern-like crystals. Looking carefully at them, the branches are all found to start out at the same angle, thus showing that the force which produced them acts constantly in the same direction.—*Chicago Standard.*

The Puzzler.

CHARADE.

My first, a most delicious treat,
In many a place abounds;
My second is removed with care
From the thrifty farmer's ground;
My whole, I oft have noticed,
Within my first is found.

☞ Answer in two weeks. MARY WALEY.

DROP-LETTER PUZZLE.

Th-- sh-lt n- -t st- -l.

Fill the blanks with vowels and find one of the commandments.

☞ Answer in two weeks. LITTLE ONE.

WORD-SQUARE ENIGMA.

1. AN insect. 2. One who speaks falsely. 3. To win by industry. 4. A river of Europe.

☞ Answer in two weeks. DR.

DROP-LETTER PUZZLE.

P-t -h- r-g-t -e-t-r- l- a-d - a- c-m-l-t-.

☞ Answer in two weeks. MERMAID.

PUZZLER ANSWERS.—March 8.

BEHEAD AND CURTAIN.—1, Acute, cut; 2, Wish, is; 3, Tramp, ram; 4, Troth, rot; 5, Yearn, ear; 6, Travel, rave; 7, Tribe, rib; 8, Trollop, Rollo; 9, Trump, rum; 10, Truth, rut; 12, Trunk, run; 13, Trusty, rust; 14, Trash, rash; 15, Prate, rat; 16, Zinc, in; 17, Yore, or; 18, Youth, out; 19, Yoke, "O. K."; 20, Tripe, rip; 21, Drown, row; 22, Earth, art; 23, Drouth, rout; 24, Shed, he; 25, Revile, evil.

CROSS-WORD ENIGMA.—Honeysuckle.

TRIPLE ACROSTIC.—Primals, Bantry; centrals, Dublin; finals, Dingle.

MAGIC SQUARE.—

4	3	8
9	5	1
2	7	6

Stock and Poultry.

CLYDESDALE & HAMBLETONIAN
STALLIONS, Mares and Colts.
ALSO
HOLSTEIN CATTLE.
All of the finest breeding to be found in the United States or Europe, several of which were prize animals at the recent New York State Fair.
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Send for New Practical, Valuable Circular.
GEO. S. JOSSELYN, Fredonia, N. Y.

FIRST PREMIUM S. S. HAMBURG EGGS. $2 for 13. CHAS. BENINGTON, Garrattsville, Otsego Co., N. Y.

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Don't go WEST. 250 Eastern Md. Farms. Low prices; easy terms; convenient to R. R. & Steamers. Catalogues. J. C. PLUMMER, Cambridge, Md.

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BEST THING IN THE WEST
Is the ATCHISON, TOPEKA, AND SANTA FE R. R.
LANDS IN KANSAS
Circulars with map, giving full information, free.
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W. & ST. P. R. R. FARMS MINNESOTA AND DAKOTA HOMES
OVER 1,000,000 ACRES OF
FINE FARMING LANDS
IN MINNESOTA AND DAKOTA,
For sale by the WINONA & ST. PETER R.R. CO., At from $2 to $6 per Acre, and on liberal terms.
These lands lie in the great wheat belt of the North-West, and are equally well adapted to the growth of other grain, vegetables, etc. The climate is unsurpassed for healthfulness.
They are Free from Incumbrance.
Guide Book, Maps, etc., containing full information, sent free.
CHAS. E. SIMMONS, Land Commissioner, Gen'l Offices C. & N.W. R'y Co., CHICAGO, ILL.
Mention this paper in writing.

CHEAP FARMS AND FREE HOMES IN KANSAS
HOW TO GET THEM In the best part of the state, 6,000,000 acres for sale. For free copy of "Kansas Pueblo Homestead," address Land Commissioner, Salina, Kansas.

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GOOD WATER — TIMBER & FRUITS
IN SOUTHWEST MISSOURI.
1,000,000 acres of well watered, timber and prairie lands adjacent to the St. Louis and San Francisco R'y for sale, at from $2.50 to $5 per acre, on seven years' time. Excellent for stock, fruit, and agricultural purposes.
Free transportation to those who purchase land. Send for maps and circulars to
W. H. COFFIN, LAND COMMISS'R
TEMPLE BUILDING, ST. LOUIS, MO.

Miscellaneous.

AGENTS WANTED FOR
"BACK FROM THE MOUTH OF HELL,"
By one who has been there!
"RISE and FALL of THE MOUSTACHE,"
By the Burlington Hawkeye Humorist.
Samantha as a P. A. and P. I.
By Josiah Allen's wife.
The three brightest and best selling books out. Agents, you can put these books everywhere. Best terms given. Address for Agency, AMERICAN PUBLISHING CO., Hartford, Ct.; Chicago, Ill.

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ACUTE OR CHRONIC
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SURE CURE.
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Only Importers' Depot, 23 Cliff St., New York.

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AGRICULTURAL INSURANCE CO.
OF Watertown, N. Y.,
The largest Company in the country which insures only farmers' property and residences. Over twenty-six years old.
Capital $200,000 00
Net Surplus, over $216,000 00
Assets, Jan. 1, 1879 .. $1,098,623 24

50 *Perfumed, Chromo & Snowflake* Cards, elegant case, name in Gold, 10c. DAVIDS & CO., Northford, Ct

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60 CHROMO, PERFUMED, SNOWFLAKE & LACE CARDS, with name 10c. Game Authors 15c. Lyman & Co., Clintonville, Ct.

25 of the PRETTIEST CARDS you ever saw, with name 10c. post paid. Geo. I. Reed & Co., Nassau, N. Y

PERSONAL ITEMS.

It is now stated that Eugenie sent Prince Napoleon to South Africa to get him away from the low company in which he has been disgracing himself.

Philip Arnold, banker, died at his beautiful home in Elizabethtown, Ky., a few days ago. He is the Arnold whose diamond mine speculation gave the whole world a sensation in 1872. He spent $37,000 for rough diamonds in London, and took them to California. There he found a little unfrequented valley, in which he "salted" his precious stones. It soon became noised about that Arnold had found a diamond valley. He took a bag of the gems to New York and there organized a company, with capital of $10,000,000. Before the fraud had been discovered Arnold got $350,000 in money, and compromised by surrendering half of it.

For Neuralgia, Pains and Aches in the Back, Kidneys or Limbs—Hop Bitters.

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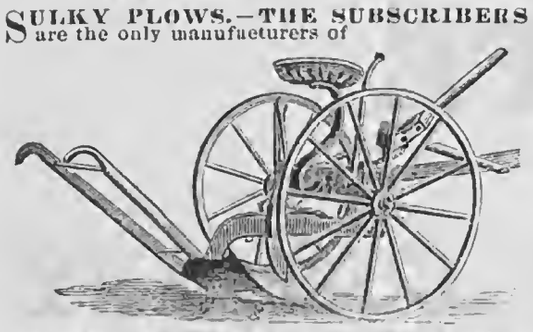
SULKY PLOWS.—THE SUBSCRIBERS are the only manufacturers of



OSBORN'S SULKY PLOW,

the only Plowing Machine that has proved a perfect success in all kinds of soil. Any kind of plow can be attached. The plowman rides and handles the plow with ease, regulating the depth and width of furrow. The draft for the team is materially less, and the ordinary laborious mode of plowing is reduced to one of comfort and ease. Also, manufacturers of

THE MEADOW KING MOWER,

and other Agricultural Implements.

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State you saw this in the RURAL NEW-YORKER.

Horse-Powers,

For One, Two and Three Horses.

MACHINES FOR
Threshing and Cleaning Grain and Sawing Wood.

Patented, Manufactured and Sold by
A. W. GRAY'S SONS,
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The machines with the improvements are the result of more than thirty years' careful study and experiment.
The proprietors are the inventors, ever have been and still are the sole manufacturers.
We have labored from the first to produce machines that will be durable, tasty, compact, portable, and that will run with the least possible friction.
We believe that we manufacture the best machine of the kind in the country.
Our machines have never failed to receive the highest award at all competitive exhibitions.
Circulars and Price Lists free. Address as above.

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THE ONLY PERFECT SWIVEL PLOW.

WALPOLE, N. H., April 13, 1878.
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Yours in haste, O. J. HUBBARD.

Manufactured only by
THE HIGGANUM MF'G CORPORATION,
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The Standard of America.

Admitted by leading Seedsmen and Market Gardeners everywhere to be the most perfect and reliable Drill in use. Send for Circular. Manufactured only by
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most practical implement in America for *sharpening* mowing machine *knives in the FIELD.* Weighs but *5 pounds.* Requires no *WATER, and is always ready.* 25,000 in use. Sold by Agents and Dealers. Send $2.25 for sample. Circulars mailed free. Address H. FISHER, Canton, Ohio.

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Consisting of Carrier, Grappling Fork, Pulleys and Hooks. For unloading Hay, Grain, Beans, Corn Stalks, loose or in bundles, etc. Can be used in any barn. Also, Improved Stacking Apparatus. Send for Circular, and get valuable information.
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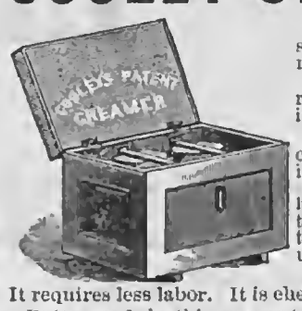

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It makes more butter, because it raises all of the cream, and the quantity is never lessened by unfavorable weather.
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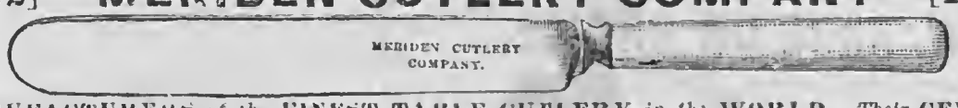

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Send for Descriptive Price List.

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With New Patent Jointer and Coulter that
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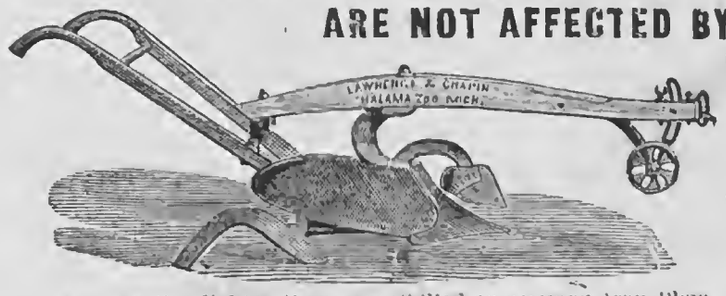

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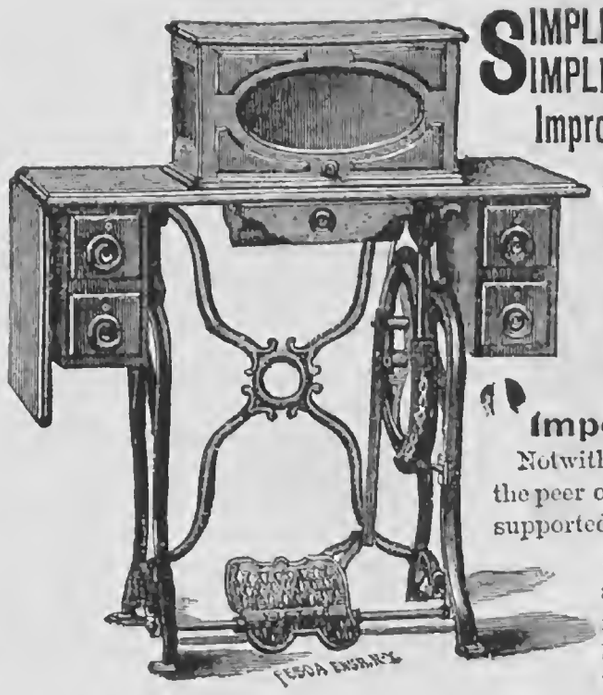
25 to 30 lbs. lighter than any Chilled or common Iron Plow. Harder, Stronger, More Durable, Lighter Draft, Easier Handled, better Scouring qualities, and Stay in the Ground better than any other Plows made. All wearing parts are made of same metal. Every Plow warranted.
Made only by LAWRENCE & CHAPIN, Kalamazoo, Mich.
DISTRIBUTING AGENCIES: JOHN B. CROFT, Mansfield, O. C. B. ROGERS, 133 Market St., Philadelphia, Pa. HEWITT, FIELD & CO., Louisville, Ky.



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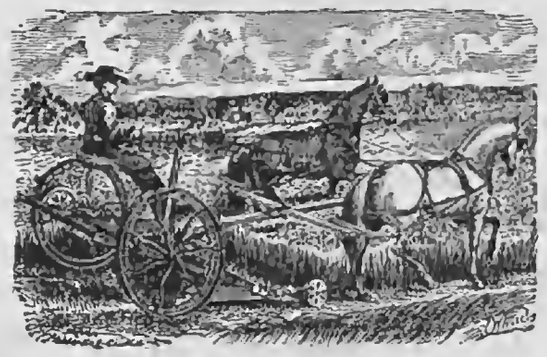

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The Best Mower in the World.
LIGHTEST DRAFT.
Great Capacity for Rapid Work.

A Six-Foot Swath Cut with less draft than the average side-cut mower USES IN CUTTING FOUR FEET.

Grass cut by the Eureka cures one-third quicker and more evenly than after any other Mower.
Oats and Barley harvested successfully and with great saving in time and labor when cut with the Eureka.

Prices Reduced. Terms Reasonable.

CASH, the Farmer's most profitable Agent.
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EUREKA MOWER CO.,
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A. P. Dickey Fanning Mill.

The Best Fanning Mill in the World. Obtained Centennial Award and Grand Medal. It cleans perfectly Oats, Chess, Cockel and all foul matter from Wheat and Barley. It grades and separates for Seeding and Market, cleans all kinds of small seeds, and will save any farmer its cost annually. Agencies will be established throughout the Middle States this season. Address
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THE CHAMBERLIN
SCREW STUMP MACHINE,
AFTER TEN YEARS' TEST, HAS PROVED

its superiority over all others by its great exhibition of strength and durability, combined with cheapness and ease of stumps. The Company's Challenge of $1,000 for a Stump Machine which would excel theirs, has stood since 1867, without being taken. We also manufacture Submoil and Blind Ditching Plows. sizes of machines.

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The CHAMBERLIN MF'G CO., Oleau, N. Y

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elevates perpendicularly, and conveys horizontally any desired distance. Many Thousands in Use. The cheapest, strongest, most convenient, and durable Carrier made.
THE NOYES GRAPPLE FORK handles fine, coarse, or loose hay, is cheaper than a harpoon, easy to handle, strong, durable, and guaranteed the best Horse Fork made.
Send for sheet containing 23 ENGRAVINGS AND DRAWINGS—designs for tracking and arranging barns, bill of lumber, and full details for making Field Stacking Frame, etc., etc.
U. S. Wind Engine & Pump Co., Batavia, Ill.

THE "ILION" RAKE

The Best Self-Discharging Rake in the market. Its simplicity makes it very desirable: being less number of pieces, which all duplicate, can be put together quicker than any other rake before the public. Has a wide range of quick adjustment. No grass ratchets, etc., exposed to the wind. It is controlled by the will of the operator, leaving both hands free, and is so easily handled that a child can operate it. *Farmers, before purchasing, are invited to give this Rake a close inspection;* and if there is not one in your vicinity, write for full particulars to
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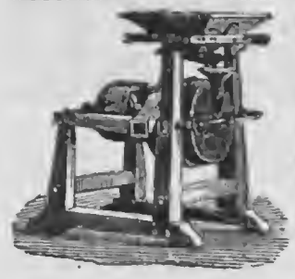

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Portable Mills for Farmers, Saw Mill Owners, etc. Price from $80 up. Complete Mill and Sheller $96. A boy can grind and keep in order. Adapted to any kind of suitable power. Complete Flouring and Corn Mill very cheap.
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Indianapolis, Ind.

BLUNT'S PROLIFIC FIELD CORN.

We have been fortunate in seeuring from the originator his entire stock of the above.

Prof. Blunt has made his eorn what it is, by *science.*

First—A thorough knowledge of the *habits* of the plant;

Second—A thorough knowledge of the *laws* that govern the plant;

Third—Its *demands*, viz., what plant-food is best suited to it;

Fourth—Soil, &c.

In regard to the prolific nature of the plant, his theory is, that *every joint that has a groove* should bear an ear, and further, that the *top ear* bears the only true seed, by reason of the close proximity to the tassel, the pollen from which falls upon and fertilizes the silk, and the silk the grain. Acting upon this theory, he has increased the yield of this eorn from one and two ears on a stalk, to from four to six.

J. M. THORBURN & CO.,
15 John St.,
NEW YORK.

PRICE, Post-paid by Mail: 1 lb., 75 cents; 3 lbs., $2.

By Express or Freight, delivered in New York: One-half peck, $2; One peck, $3.50; One-half bushel, $6; One bushel, $10.

WILBOR'S COMPOUND OF
PURE COD LIVER OIL AND LIME.

Cod Liver Oil and Lime.—That pleasant and active agent in the cure of all consumptive symptoms, "*Wilbor's Compound of Pure Cod-Liver Oil and Lime,*" is being universally adopted in medical practice. Sold by the proprietor, A. B. Wilbor, Chemist, Boston, and all druggists.

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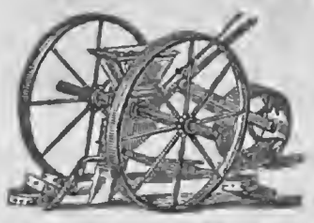
The Monitor.



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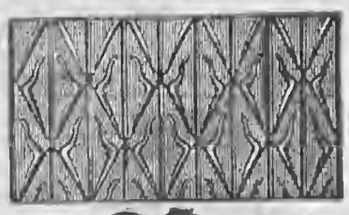

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75 per cent. saved in freight, with no breakage in carriage or putting on. ☞ Will last a life-time. Send for full description and prices to the

IRON-CLAD MANUFACTURING CO.,
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NEW, RARE OR CHOICE.

TO FARMERS AND GARDENERS.—I offer the following NEW, RARE or EXTRA CHOICE Vegetable Seed, postage paid by me.

Marblehead Early Sweet Corn.—Decidedly the earliest of all varieties of sweet corn. Per package, 15 cents.

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Marblehead Mammoth Sweet Corn.—The largest of all varieties, and the earliest of the extra large kinds. Per package, 15 cents; per pint, 33 cents.

Longfellow's Yellow Field Corn.—Kernels and ears, extra large, not suited to the South. Per package, 10 cents; per quart, 55 cents.

Early Amber Sugar Cane.—Samples of the sugar, and full instructions for cultivation and making of sugar, sent with each lot. Per quarter pound, 15 cents; per pound, 45 cents.

Bastian's Early Blood Turnip Beet.—The best of the earliest; a great acquisition. Per ounce, 12 cents; per pound, $1.25.

Hancock Early Peas.—The best cropper, and purest of all the extra early sorts. Per package, 10 cts.; per quart, 60 cents.

Tailby's Cucumber.—Large, very handsome and very prolific. A prize for any garden. Per package, 15 cents; per ounce, 35 cents.

Marblehead Champion Pole Beans.—15 cents per package. *The earliest* of all varieties.

Kentucky Wonder Beans.—15 cents per package. Compared with scores of varieties, they have *proved the most* prolific.

Butman Squash.—20 cents per ounce; 10 cents per package.

Marblehead Squash.—20 cents per ounce; 10 cts. per package.

Hubbard Squash.—20 cents per ounce.

As the original introducer of these three splendid winter varieties, I offer seed grown specially for purity.

Cocoanut Squash.—10 cents per package; 30 cents per ounce. Excellent in quality and an elegant ornament for the parlor. Very prolific.

Danvers Carrot.—$1.50 per pound; 15 cents per ounce. Forty tons have been raised to the acre.

Sill's Melon.—A cantelonpe; sweet, spicy, delicious. Per ounce, 20 cents.

Vick's Early.—20 cents per ounce; 10 cents per package. The best of the early Water Melons.

Excelsior Melon.—25 cents per ounce; 10 cents per package. Has been raised in Massachusetts to weigh 75 pounds. Quality excellent.

White Egg Turnip.—The new American turnip. Early, large, and of excellent quality. Per oz. 15 cts.

My Seed Catalogue, treating of all the above varieties in detail, and an immense collection of Vegetable and Flower Seed, will be sent *free* to all who write for it.

J. J. H. GREGORY, Marblehead, Mass.

Sharpless Strawberry.

The Largest, Best Flavored and Most productive, Berries grow with ordinary culture, 6 to 12½ inches round. 40-page Catalogue of **Greenhouse Plants and Small Fruits** FREE; with colored plate of Sharpless, 10c. Address **J. L. DILLON, Bloomsburg, Pa.**
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50 CHROMO, Gold-Border, &c. 10c. no 2 alike, or 20 Cupid cards, 10c. J. B. HUSTED, Nassau, N. Y.

RASPBERRY PLANTS.—MAMMOTH CLUSTER BLACK-CAP.—Strong roots at $4 per 1,000. Can furnish a million or more plants. Cut this out. E. E. & D. W. Buchanan, Riverside Farm, Athens, Pa

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Manufacture this Plow of the *best Car Wheel Iron;* also of *Patent Hard Metal.* The handles vibrating from one side to the other as the plow is turned at the end of the furrow, enables the plowman to walk squarely behind the plow—a feature not possessed by any other Side-Hill Plow. It does as good work as any Land-Side Plow. For further particulars and prices, send for our new *Illustrated Catalogue.* Address

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Chicopee Falls, Mass.

THIRTY-THIRD ANNUAL
STATEMENT
OF THE
CONNECTICUT MUTUAL
LIFE
INSURANCE COMPANY,
OF HARTFORD, CONN.

NET ASSETS, January 1, 1878		$45,072,083 57
RECEIVED IN 1878:		
For Premiums	$6,249,133 84	
For Interest and Rent	3,141,429 50	
Balance Profit and Loss	29,861 06	
		9,420,424 40
		$54,492,507 97

DISBURSED IN 1878.

TO POLICY-HOLDERS:		
For claims by death and matured endowments	$3,407,593 28	
Surplus returned to Policy-holders	2,346,137 71	
Lapsed and Surrendered Policies	1,559,037 10	
		$7,312,768 09
EXPENSES:		
Commission to Agents	$347,633 18	
Salaries of Officers, Clerks, and all others employed on salary	88,712 24	
Medical Examiners' Fees	11,908 36	
Printing, Stationery, Advertising, Postage, Exchange, etc.	170,651 56	
	618,905 34	
TAXES	335,652 10	
		8,267,325 53
BALANCE NET ASSETS, DEC. 31, 1878		$46,225,182 44

SCHEDULE OF ASSETS.

Loans upon Real Estate, first lien	$26,383,983 26
Loans upon Stocks and Bonds	30,453 28
Premium Notes on policies in force	4,720,535 17
Cost of Real Estate owned by the Company	7,515,066
Cost of United States Registered Bonds	2,963,764
Cost of State Bonds	723,400
Cost of City Bonds	1,988,720
Cost of other Bonds	500,000 00
Cost of Bank Stock	76,205 00
Cost of Railroad Stock	26,000 00
Cash in Bank at interest	1,231,548 86
Cash in Company's office	6,119 88
Balance due from Agents, secured	54,209 85
Bills Receivable	5,176 57
	$46,225,182 44

ADD:		
Interest accrued and due	$1,571,808 46	
Rents accrued	16,541 29	
Market value of stocks and bonds over cost	147,668 11	
Net premiums in course of collection... NONE		
Net deferred quarterly and semi-annual premiums	37,928 04	
		$1,953,945 90
GROSS ASSETS, December 31, 1878		$48,179,128 34
LIABILITIES:		
Amount required to reinsure all outstanding policies, net, assuming 4 per cent. interest	$43,131,708 00	
All other liabilities	1,643,343 59	
		44,775,051 59
SURPLUS, December 31, 1878		$3,404,076 75

Ratio of expense of management to receipts in 1878..... 6.57 per cent
Policies in force, Dec. 31, 1878, 64,979, insuring..... $170,319,164

JACOB L. GREENE, President.
JOHN M. TAYLOR, Secretary.
D. H. WELLS, Ass't Secretary.

PHILIP S. MILLER
General Agent for N. Y. City, Long Island and New Jersey,
194 Broadway, New York.

THE RURAL NEW-YORKER

A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME

VOL. XXXVIII. No. 15.
WHOLE No. 1524.

NEW YORK CITY, APRIL 12, 1879.

PRICE FIVE CENTS.
$2.00 PER YEAR.

Ralph Evans 1490

[Entered according to Act of Congress, in the year 1879, by the Rural Publishing Company, in the office of the Librarian of Congress at Washington.]

Rural Architecture.

A COUNTRY HOME.

QUITE too little attention is paid in this country to our country homes and their surroundings. Well-to-do farmers and gentlemen that live in rural districts are too often satisfied with inconvenient and anything but ornamental homes. The engraving represents a dwelling-house, plain, substantial and convenient, yet ornamental and not expensive. Its elegance does not consist in fanciful ornaments, but rather in the novelty of the design, and its evident fitness for the surroundings. In front we find a few hot-beds, and sashes under which flowers and vegetables may be grown, while the walls of the building are graced with trees and vines, and ornamental shrubbery is in close proximity.

The ground floor (see Fig. 2) provides for the rooms usually found in the lower story. The bed-rooms are on the second floor, not here represented. The front entrance is by the porch, A, leading into a short hall, from which doors lead to the principal rooms. On the right is the parlor, B. The sitting-room is at E and the dining-room at C. At D is a spacious kitchen. H can be used for a milk-room, and K is designed for a wash-room. The rooms are light and spacious, well suited to supply the occupants with all desired conveniences. This engraving originally appeared in a late number of the Gardeners' Chronicle, and is here reproduced with some alterations.

DESIGN OF A CONVENIENT POULTRY-HOUSE.

THE following is a brief but clear description of the ground-plan of a poultry-house, given on page 231:

No. 1. Nest boxes, one foot square, and nine inches high; made higher at one side than at the others so that when the boxes are placed against each other, with the higher side of each coming against the low side of the next, a hen is in a measure, secluded.

2. Roosts, consisting of inch boards, three inches wide, two and a half feet from the floor.

3. A slide door on the inside just large enough to admit of the droppings being shoved through it into a box or wheelbarrow on the outside, provided the building is high enough for that purpose.

4. An opening for the entrance and exit of the fowls. The little trap-door on the outside, is raised or lowered by a string passing inside over pulleys, and held by a nail when open.

5. Feed boxes, three inches wide, two and a half inches high, or deep.

6. Sitting, or hatching boxes, after the style of an old-fashioned writing desk, with sloping cover to shed rain, or to be lifted up when necessary. In one side is an opening large enough to pass in and out. If thought best, it may be without a bottom, the nest being on the ground inside.

7. A box, open at one end; tolerably long, and otherwise large enough for a hen to occupy with her brood during the night, or through a storm.

8. The entrance to a long and narrow passage, formed by strips nailed to cleats under the floor at the rear end of the building. This is the prison for hens it may be desirable to break of their sitting propensities.

9. A square iron dish for water.

D, doors; W, windows—sliding.

My principal objects in this design have been cleanliness, and a quick and easy adaptability. On entering the building, you enter an apartment quite fit for anybody's reception, it being perfectly clean. You have only to stoop a little, slip your hand between the slats in front of the nests, and take out the eggs. The short white lines seen along the frame-work in this part of the interior, are narrow strips nailed to cleats on the floor, and carried to, or near the roof inside, fastened half way up to a cross frame, to make it firm. These strips are four inches apart. It will be seen that the feed boxes being placed on the side of this fencing opposite the fowls, the latter can readily put their heads through and eat out of

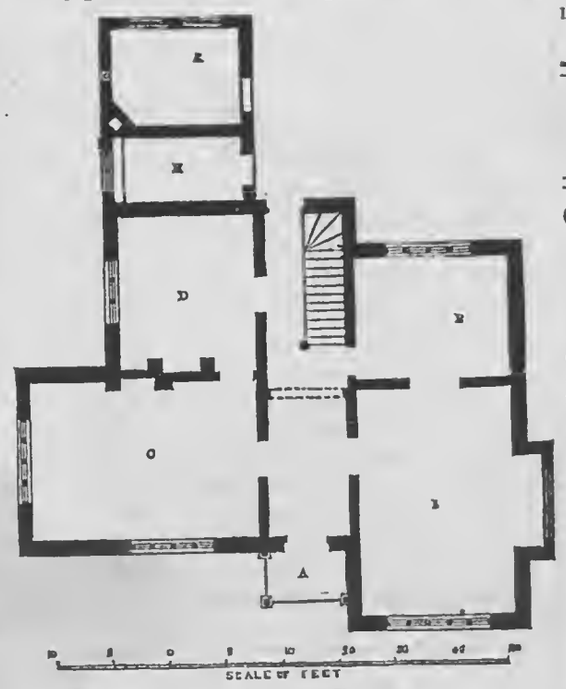


FIG. 2.—GROUND PLAN.

the troughs, thus keeping everything clean. Where the feeding conveniences on the floor are not sufficient, a wide board may be placed at a proper hight above, and a feed box outside, as below.

The three 6x6 feet square parks against the rear of the building, are for the purpose of doing away with the little inadequate "hen coop." The hatching box is placed in one corner, so that during her sitting, the hen may step out occasionally into her neat little park, without being disturbed, shake herself and partake of a little food, and then return to her nest. When the chickens are hatched, the hatching box is taken away. The hen will then have the run of her park, while the chickens can run outside as much as they please, returning occasionally to greet her ladyship, and to retire with her at night into box No. 7. The box should be so placed that the entrance to it might be as much as possible away from storms.

My hennery is above the ground enough to allow of two large boxes being put underneath, upon flat stones, to keep them from the ground. These are filled with gravel and ashes for winter use, thus making provision for cleanliness in the house above. J. SAGAR.

Ontario Co., N. Y., Feb. 17, 1879.

A COUNTRY HOME.—Elevation.

Field Crops.

CULTIVATED FORAGE PLANTS IN KANSAS

L. J. TEMPLIN.

As was to be expected, the vast abundance of nutritious native grasses of the Western prairies furnish such a bountiful supply of both pasturage and hay, that people have been very slow to introduce the cultivated forage plants of the Eastern States. It has been a very prevalent opinion among people here that the cultivated grasses would not succeed in this part of the country. But as the country is occupied and people are compelled to keep their stock on closer range, it is found that the native grasses will not endure very close grazing. When closely grazed, most of these grasses gradually disappear, and are replaced by different species of worthless and troublesome weeds. The introduction of the cultivated grasses is, therefore, gradually becoming a necessity. The most profitable meadow grass yet introduced, so far as I have learned, is common

TIMOTHY (*Phleum pratense.*)

This is considered the most valuable grass for hay in nearly all the Northern and Western States. It grows fairly on a great variety of soils, but succeeds best on moist, rich clay loam. On such soils it often produces from 2½ to 3½ tons per acre, and has been known to produce six tons, or more, at a single cutting. It yields a large percentage of dry hay which, according to Way's analysis, gave a larger percentage of albuminous, fatty and calorifacient matter than any other grass upon which he experimented. According to Wolf and Knap, the hay, when cut in flower, yields the following percentage of ingredients:

Water	14.3	Carbohydrates	48.8
Organic matter	81.2	Crude fiber	28.7
Ash	4.5	Albuminoids	9.7
	100.0	Fat, &c.	3.0
			81.2

According to C. L. Flint, timothy hay contains the following elements, economically considered:

Albuminoids, or flesh-formers	11.36
Fatty matter	3.55
Carbohydrates, or heat-producers	53.35
Woody fiber	26.46
Mineral matter or ash	5.28
Total	100.00

Analysis shows that timothy hay from grass cut in seed is more valuable than that from grass cut in flower, in the proportion of 23 to 10; but, while I do not question the correctness of these chemical analyses, I do seriously question whether the chemistry of a cow's stomach will bear out the results of tests in the chemist's laboratory. In the production of seed, a large part of the nutritive matter—starch, sugar, etc.—is converted into woody fiber. In the process of analysis it is probable that a portion of this is reconverted into carbohydrates, while in the animal's digestion such a change does not take place. At any rate, I think every feeder will find in experience that stock will do better on hay cut in flower, or just as it is going out of that stage, than on that which has matured its seed.

The opinion has been quite general that the prevailing soils of this State are too light and dry for the successful growth of timothy, and this has had its influence in holding men back from engaging in its culture. But the success that has crowned the early efforts to introduce and cultivate it, has proved that it will do well even on these light soils, and under our bright sunshine. The following table shows the acreage, product and value of timothy meadow in Kansas for the years indicated:

	Tons.	Acres.	Val. of crop.
1874	34,067	29,601	$252,817
1875	24,002	21,218	170,466
1876	19,109	16,259	129,093

As the assessment is made on the first day of March, the figures of each year show the product of the year before; 1874 was the great "grasshopper year," which resulted in the destruction of much of the meadow and the discouragement that caused a decline in this product for the next two years. But in 1877 the acreage had bounded back to 25,312 acres, and in 1878 to 40,121. This rapid increase in the amount of this crop shows that the late experiments with this grass have been satisfactory. In addition to this, there was of timothy pasture in 1877—4,202 acres; and in 1878—8,820. This gives an aggregate acreage of timothy for these two years of 29,414 in 1877; and 48,941 in 1878, being an increase of 19,527 acres, or over 66 per cent.

Another important forage crop is

RED CLOVER (*Trifolium pratense.*)

Wherever this crop can be grown, there good farming and the renovation of poor soils are possible. Where clover enters into the list of cultivated crops to a large extent, it is generally found that remunerative crops are produced, and the soil does not suffer serious deterioration. When two crops of hay have been carried from the field, it still leaves more fertilizing matter in the field than is carried away. But it is more as a forage than a fertilizing crop that it is to be regarded in connection with the agriculture of Kansas. The great amount of hay this will produce, and the excellence of the quality, make clover a favorite forage crop without regard to its excellence as a fertilizer. Red clover has produced, under extra favorable conditions, over six tons of dry hay per acre. This, according to experiments made in England, gives nearly one ton of nutritive matter per acre. This, according to Wolf and Knap, contains of water, 16.7; organic matter, 77.1; ash, 6.3. The organic matter is composed of albuminoids, 13.4; carbohydrates, 29.9; crude fiber, 35.8; fat, &c., 3.2. This

represents that cut in full bloom. When left till ripe, it is slightly less nutritious than the above. Economically considered, red clover hay consists of—

Flesh-formers	22.55
Fat-formers	44.00
Accessories	24.00
Mineral matter	9.45
Total	100.00

The value of clover hay depends not only on the time it is cut, but also on the manner in which it is cured. A slow process of curing makes a better quality of hay, while a thorough curing, so that the large stems may be well dried out before it is put in the stack or mow, is of great importance to the future excellence of the hay. The great difficulty in growing clover in this part of the country, is in getting a catch, as every season is not favorable to the germination of the seed and the growth of the plants while very young. The locusts also prove very destructive to the growing clover, eating it down to the crown of the roots and thus killing it. This is seen in the decrease resulting from their visitation in 1874. The report of the acreage of clover meadow on the first of March in that year, shows 13,967 acres, while the report for the next year, 1875, shows but 6,303 acres in this crop, a falling-off of more than half. The severe injury caused by the young brood that hatched out in the eastern part of the State in the spring of '75, in connection with the discouragement resulting from their ravages, resulted in reducing it in 1876 to 4,973 acres. But since that year there has been a steady improvement, 1877 showing an area of 9,797; and '78, 12,429 acres.

The amount of clover pasture for these two years is set down at 1445 acres for '77, and 3770 for '78, making the total area devoted to this crop for the two past years, 11,242 for '77, and 16,199 acres for '78, being an increase of 4957 acres or over 44 per cent.

Another hay crop that is considerably cultivated here is

MILLET AND HUNGARIAN-GRASS.

These are annuals. The advantages of their cultivation are, they may be sown at almost any time during the spring or forepart of the summer, and produce good crops; they flourish on almost all the soils of the State; they produce large crops and, when well saved, they make a very nutritious and palatable hay. The area devoted to this crop the past two years was, for '77, 164,529 and for '78, 144,081 acres, being a decrease of 20,448 acres, probably owing to the extreme wet that prevailed during last June.

OTHER FORAGE PLANTS.

Corn fodder is little used here on account of the dryness of the winters, that makes it impossible to handle it without crumbling it well-nigh to dust. Wheat straw, of which we have millions of tons, is largely used as rough feed by farmers, and is fed with good results.

As a pasture grass, the Kentucky blue-grass, (Poa pratensis), is meeting with considerable favor. It prefers a rather moist, rich, limestone soil, and in a light, porous soil, it is apt to suffer from heat and drought. It is quite difficult to get a "catch" of this grass in our loose soils; but when once established, so far as my observation has gone, it succeeds quite well. There are some other grasses that are being tried to some extent, but those I have named constitute the principal part of our cultivated forage plants. According to the latest reports at hand, the following area was devoted to these crops in the State during the past two years:

	Pasture.		Meadow.	
	'77	'78	'77	'78
Timothy	4,202	8,820	25,212	40,121
Clover	1,445	3,770	9,797	12,429
Millet, etc.	—	—	164,529	144,081
Blue-grass	21,399	27,877	—	—
Prairie (fenced)	553,657	701,421	503,612	667,460

The last item explains the comparative meagerness of all the others.

Where a majority of the people have access to prairies heavily clothed with grass for either pasture or hay, and where hay can be put in the stack for from one to two dollars a ton, and in the barn for twice that sum, it is hardly to be expected that very general attention will be given to the cultivation of the tame grasses. But their adaptability to the soil and climate is being tested, and when the time comes for them to be a general necessity, the people will know just what they can do with them, and experience so far shows that when needed, they can be depended upon.

Reno Co., Kan.

CALIFORNIA REPORT ON FIELD CORN.

THE small farmers in our richer valleys are each year planting more corn. Fields which, under a steady wheat culture were failing, are thus renovated, and the farmers find a more constant employment. In Alameda and Sonoma counties, in the Pajara valley, which lies partly in Monterey county and partly in Santa Cruz county, in the Lompoc valley, Santa Barbara county, and around the city of Los Angelos, the corn crop is very large and appears to be each year increasing. In almost every neighborhood of this State the local demand is good, and corn and hogs have secured many a farmer's prosperity.

Only three kinds of field corn are planted to any great extent—the large white Flint, the small yellow Flint, and the large yellow Dent. For several years past the white has brought the highest price. The yellow Flint is popular among our Portugese farmers, and they plant it almost exclusively. In our rich river bottoms the yellow Dent holds its own, being, on such soils, the most productive. This variety cannot be shelled as soon as husked, and cribs must be provided in which to store it for some months; but we have seen both the white Flint and the yellow Flint shelled in the fillet without injury, the autumn being so dry. Late-planted corn seems to do best, on account of not tasseling out until the early summer heats are over. The rule we used to follow in Alameda county was, "plant in May-day week." Last year corn planted as late as June 20th made a fine crop, and we hear of even later plantings elsewhere. In dry seasons, a common practice is to plant with a spade, thrusting it down and forward, and dropping the corn behind.

Hardly one farmer out of ten thousand makes any pretense of manuring his corn land. In a few cases barn-yard manure is used. There are signs of a revival in this direction. It used to be said that "manure ruined the land here;" that "the climate was so different that it would not assimilate," and various other absurdities. But our progressive farmers now admit the absolute necessity and profit of properly applied fertilizers, of which corn will come in for its share. CHAS. H. SHINN.

Niles, Alameda Co., Cal.

Farm Economy.

MORE ABOUT PEAT MUCK.

GEN. NOBLE is altogether wide of the mark in regard to muck in his remarks on page 166 (March 15). Lest some farmer, guided by those remarks have the experience which I have had, and lose his time by spreading fresh muck on his land, I beg to give a caution and a reason for it

First, muck that is "muck" and is not mixed with a large portion of sand, is nearly all vegetable matter and, as such, is no more fit food for plants than gravel or other mineral matter would be food for an animal. The nitrogen contained in it even, is not fit for use until the muck is decomposed and mineralized and the ammonia formed in the decomposition is set free. The mere fact that the muck is disintegrated and reduced to a fine powder is of no effect further than that it can be spread the more easily. I have been handling muck for years, and know a good deal about it. Of course, there are different kinds of muck, but I refer to that kind which cuts out in solid blocks and consists of a dark, brownish or black fibrous vegetable matter. Now only to-day I have been passing along the banks of ditches which were dug a year ago, and the blocks of muck which were thrown out then are now almost as solid as at first, and for a very good reason. They have dried or have frozen, and when dry or frozen they do not rot; in fact, dry peat is next to imperishable.

To decompose, any vegetable substance must be kept moist and warm, or it must be subjected to a chemical process by a means of some caustic alkali, as lime or ashes. When piled in heaps, vegetable matter will be kept moist and will ferment and become warm and the presence of lime or ashes in the heap will greatly hasten this fermentation and heating. Some years ago I spread hundreds of loads of muck upon a 10-acre field during the winter and lost a whole winter's work of two men and four horses. The muck remained in lumps for years and seemed to resist water and keep as dry as if it were as well protected as a duck's back. It was plowed in and out and torn up and dragged here and there with harrows, and was, in fact, of no use whatever. And such I am sure will be the effect anywhere, of spreading fresh muck upon land in the manner advised by Gen. Noble. So, too, it will be useless to heap it in piles and expect it to be available as a fertilizer within one year, unless a liberal portion of lime or wood ashes is mixed in with it. Further, I would explain that the yellow deposit seen in the ditches in peat swamps is not by any means always iron. When it is, it is generally carbonate or oxide, and useful; and not the sulphate (copperas) and hurtful. The sulphate is very rapidly oxidized, and iron ores or iron rocks are generally impregnated with oxides and not with sulphates, so that, except where alum shales are present, or near-by, copperas in the soil is very rare indeed. But most often the yellow mud consists of infusorial growth, as may be seen by an examination under a microscope of not very high power; and this matter contains considerable amount of nitrogen. A WESTERN FARMER.

BEET SUGAR.

THERE is a very general discussion of late of beet sugar, its manufacture and the advantages thereof. Allow me to ask how far these discussions are based on practical experience and how much has its basis only in speculative theories. It may seem very illiberal, but this is a matter of too great practical importance to be let pass without some comment. If my memory serves me, every attempt in this country to make beet sugar on a large scale has proved a failure. Such, at least, was the result in the extensive works in Illinois a few years ago. The failure was attributed in part, I believe, to inferiority of the beet roots, those grown on prairie soil containing less than the average amount of sugar; but, as there have been failures under other circumstances, I suspect that there must be some inherent difficulty. The loss in the Illinois experiment was, I believe, borne in part by the farmers of the vicinity, who had been led by flattering prospectuses to invest in the enterprise. It may be that the projectors of new experiments have obviated difficulties heretofore encountered. If this be so, they will do well to explain what new grounds they have for expecting success. So far as I have seen, the project seems visionary and the details are scarcely referred to. We have been treated to essays on the great importance of the beet-sugar industry and the success of the French therein; but the fact is ignored that the French Government imposes a heavy—almost prohibitory—duty on foreign sugar, and this alone compels its extensive manufacture at home. In France, also, labor is cheaper than here, and with dear sugar and excessively cheap labor, French success is no criterion for us.

It is nothing to me how much money large capitalists may choose to invest in beet-sugar making, but until we hear of some absolute successes, instead of promises of success, farmers will do well to keep their hands over their pockets. It is not even safe, as some Illinois farmers learned, to make contracts for growing beets, as the experiment may fail before the crop can be sold.

My own belief is that beet sugar, unless with new and expensive apparatus for refining, is inferior to cane sugar; that the best sugar-beets contain a smaller percentage of sweet than cane, and that less valuable, and finally that the cost per pound is such that the product can never be sold here profitably unless our government imposes much higher duties on sugar than at present, or than it is ever likely to do. I shall be very glad to be convinced of error on either of these points.

Monroe Co., N. Y. W. J. FOWLER.

Farm Topics.

JOTTINGS AT KIRBY HOMESTEAD.

COL. F. D. CURTIS.

Nuts for Planting.

THE fall of the year is the time to save nuts for planting. They are too dry now to grow. None of ours which had become dry, grew last year. They should be planted in the autumn as soon as ripe, or covered with a mulch on the ground, or put into a box with sand, and left out of doors. Last year was a very poor nut year, and nuts were scarce. These remarks are for inquirers.

Swamps Not Necessary.

It had always been a swamp and stood, the year round, full of water fed by springs in the banks. We saw it thirty years ago, worthless; now it cuts three tons of excellent hay to the acre. An open ditch, all around it, with a good outlet, made it a meadow, and two hay crops paid the cost. You who have worthless swamps, do likewise.

To Make Rich Milk and Manure.

The cream from the milk, when the cows were fed a peck of buckwheat bran, each, was light-colored and thin. Now, when they are fed four quarts of corn meal, the cream is thicker and more yellow. This means more butter. Bran of all sorts is better for young animals, as it makes muscle; but meal is best for cows, as it makes fat, and milk is fat; that is, milk which will make good butter, contains a large per cent of fat. The bran will make the best manure, because there is more of it which goes into the manure pile, and this furnishes a supply of nitrogen. The farmer, then, who feeds plenty of bran, will have a rich manure heap, and so it is cheaper to buy bran and feed it liberally than to stint one's animals and buy commercial fertilizers. Commercial manures do not furnish much nitrogen. This must come largely from grain, and the bran is the nitrogenous part, and without nitrogen there will not be a perfect plant growth. The lesson we would teach, is to save all of the bran for the growing animals, and the meal for the fattening ones and the cows. To make them all healthy and to utilize and assimulate both bran and meal perfectly, roots should always be fed. This is an important part of the system, and helps to make perfect digestion, Good digestion insures health and vigorous appetite. These are the foundations of profit.

Prickley Comfrey.

WE have had an experience on Kirby Homestead with Comfrey of the common sort, for almost a hundred years. We suppose the *Prickley* is the same so far as habits, taste, etc., are concerned, only perhaps more so; and if it is, it is all the worse for it, for the Comfrey without the Prickley is a pest. We never knew an animal to taste of it, and they have often run in the lot where it grows when the feed was very short. The roots are excellent for a tea, or to make into a sirup by steeping them and extracting the mucilage contained in them. This is what it was planted for by an old slave woman at her cabin door. It is an old-fashioned medicinal herb, and that is its only value.

On the other hand, it is a nuisance, for its propensity to spread taxes the patience and skill of any one who has it; for, once rooted, it is almost impossible to get rid of it. Every bit of root or fragment of a root will grow, and the more it is mutilated, the more Comfrey. The old slave woman has been gone almost a century, but the Comfrey "goes marching on," and has reached far out into the field. A more lasting memento could scarcely be.

LUGUBRIOUS EXPERIENCE WITH CHUFAS AND ANGORA GOATS.

MRS. T. L. LAMB, in a late RURAL, seems to murmur much at the manner in which C. H. Spaulding disappointed her in the piano trade; and then goes right on to inquire where she may find "some things in which she may be dealt honestly by." First, she asks where she may procure some of the

Chufas

she saw spoken of in the RURAL of December 28. Permit me to offer the tubers of the chufa gratuitously, if your fair correspondent will employ a *cheap* hand to dig them.

I think it was in 1854 that I procured a package of chufas from the Agricultural Department, Washington, D. C. I was particularly careful to select the best place in my garden and put it in the best possible shape for the *valuable seed*. The seed was put in and carefully "watched and tended" during the summer. In the season of digging I attended to that job myself, and from the half pint planted, I harvested about eight quarts of inferior nuts or roots, which in taste resembled, a very little, a poor almond; but in size and shape they were so nearly like the root of what is here known as Lake grass (which grows from the muck drawn from the shores of our Lake Chautauqua onto our up, or dry, land), that it took an expert to tell them apart. I dug them, as I supposed, clean, getting every one it was possible to find.

The next season I found that hundreds of plants made their appearance where they were grown the year previous. I hoed them, weeded them, pulled them, but they thrived beyond my desires, and the surface covered was nearly double the space sown the year before. I exercised all my wits to eradicate them. I salted; I used the hot suds from the washings; and finally seeded the ground to clover; but it was chufas all over. When I built my house, I covered this spot at least two feet deep, in grading, with earth taken from the cellar, and yet the last season I had about one rod square of chufas. One thing is a certainty—I am a miserably poor eradicator of nuisances, or the chufa is very tenacious of life; and in my opinion a very worthless pest.

Next, our friend desires a pair of fancy pets—in the form of

Angora Goats.

A few years ago, a dear friend of mine sent me a pair of pure-bred Angora goats—the goat "Billy" and mate—the famous goats which produced the fiber from which the celebrated dress was made and worn, all complete, in 13 hours 8 minutes. They were beauties—if one can call such creatures beauties. They were manageable if confined inside a fence six feet high, made of tight boards or sharpened pickets. But let them loose among your shrubs or young trees, and if you do not execrate the very shadow of an Angora goat, you are more philosophical than your humble servant. Leave a gate open, or a bar down, and they will be through before you can say "Jack Robinson," and then you may call "Ca nan! Ca nan!" and run until you are weary, and yet they will remain at liberty.

I had a very fine row of 12 pear trees of about six years' growth in a yard next to the goats, and a friend went into the yard to *admire* the the goats, when Billy, not liking the intrusion, paid his "*kompliments*" in a hearty butt, which sent Mr. Inspector out of the gate and the gate wide open, and, though hobbling on as fast as he could, William barked the entire 12 pear trees before our friend could obtain assistance to cage the "bird." With his horns he would give one scrape and bark, and straightway go for another, serving it in the same way. Two years' experience taught me they

were too expensive pets for a *poor man* like me, so I swaped them with a horse-jockey for a pony to eat hay and oats, and though the pony does nothing by way of paying for his "keeping," it was a profitable barter.

Now all who want chufas and Angora goats may have my interest in them for the perusal of this article. I enjoy (!) honest swindles, but from such preposterous ones as these, deliver *poor me*. W. A. WHITTEMORE.

Chautauqua Co., N. Y.

Arboricultural.

TREE PLANTING.

PROFESSOR C. S. SARGENT.

A GREAT deal has been said of late years on the subject of tree planting and vast numbers of trees have been planted both at the West and in the Atlantic States, especially in New-England. But in New-England, and presumably in other Eastern States, the planting has, with few exceptions, I suspect, been done by wealthy and public-spirited land-owners, who have been glad to demonstrate that it was not only a proper but a perfectly practicable thing to cover worn-out and otherwise unproductive land with plantations of valuable timber trees. Now that we know pretty well what sorts of trees to plant; that planting is neither difficult nor expensive, and that it is, in the long run, about as profitable a way as any man can find to invest a small sum of money, it is time that the habit of planting trees on a smaller or larger scale, according to the means of the planter, should become established among all agricultural classes.

One reason why this habit is not general and is still confined to those large proprietors who plant by the ten or hundred thousand trees, is the difficulty, no doubt, which farmers have heretofore experienced in procuring the right sorts of trees, in small quantities and at reasonable rates. To meet this difficulty, it has been suggested to the Messrs. Douglas & Sons, of Wankegan, Ill., the largest and most successful growers of forest tree seedlings in the United States, that they could greatly facilitate a general planting of trees among all classes of farmers by sending out by mail, for a specified price and in small numbers, the best kinds of timber tree seedlings. They now offer, therefore, by a circular which I have no doubt can be obtained on application to them, dollar packages, post-paid, containing from 50 to 100 of the best kinds of forest trees. Their reason for doing so will be best set forth in their own words. "In order to facilitate tree planting," they say, "among those who have only the time or means to plant each year a few trees, we offer the above packages, post-paid, for $1 each. The postage on 100 trees and the labor of packing them cost nearly 50 cents, so that our direct profits will be very small; but our experience teaches us that once a man begins to plant trees, he is sure to keep on doing so; so that from these small beginnings we hope to build up among farmers all over the country the habit of planting every year a few hundred or thousand trees, and of considering tree planting a part of their regular farm work."

In speaking of the Messrs. Douglas we are naturally led to say something of the Catalpa as a subject for forest planting, as this firm, convinced of its great value, is preparing to raise many million Catalpa seedlings. About a year ago, Mr. E. E. Barney of Dayton, Ohio, having become impressed with the idea of the value of the wood of the Catalpa, published a pamphlet on the subject, in which he collected a great deal of interesting information about this tree, and especially in regard to the durability of its wood. Mr. Barney, encouraged by the success of his pamphlet, has found it necessary to publish a second on the same subject. "Through the notices," he says, "made of the pamphlet on the Catalpa, published in various periodicals, attention has been awakened on this subject to such an extent that I have received letters of inquiry from every State in the Union, amounting in the aggregate to thousands; also from England, South Australia and New Zealand. As a result, if seed can be obtained, enough will be planted the coming spring to produce millions of Catalpa trees."

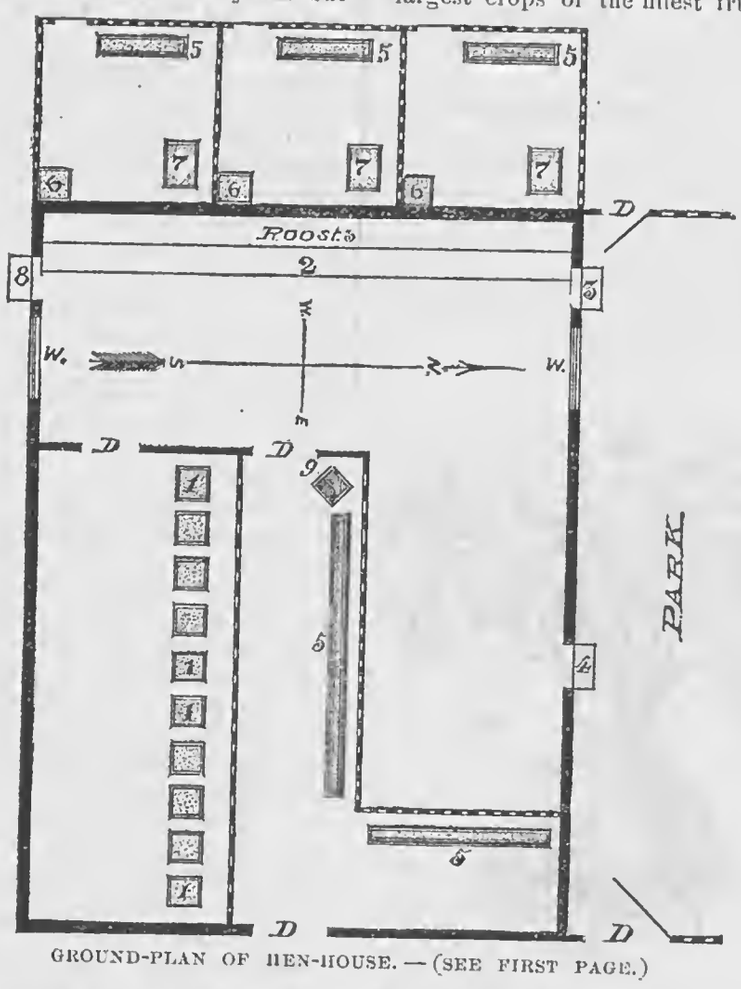
Mr. Barney is able to show that there are two well marked varieties of the Catalpa tree, if not two distinct species, in the United States; the one Eastern, the other Western. It has been found, as was to be expected from its geographical range, that this Western Catalpa, or as it called at the West, the *Speciosa* or "Early-blooming" (because it has been noticed that it blooms some weeks earlier than the ordinary *Catalpa bignonioides* in the streets of Dayton, where the two are associated) is much the hardier of the the two. We learn from Mr. Barney's pamphlet, that the Catalpa can be planted with perfect safety in strong, rich lands in every part of the United States south of the 42d parallel; but it is not recommended for New England, where the soil is not rich enough, to develop it rapidly except in favored situations, like the Valley of the Connecticut.

The wood of the Catalpa is very light, but close-grained, easily worked, and susceptible of a beatiful polish. It resembles chestnut, but, unlike chestnut, it is easily filled, and does not warp or start in seasoning. For the Cabinet-maker the Catalpa will be found one of the most beautiful of North American woods, and rank with or surpass the black-walnut, wild cherry and butternut. But the best quality of this wood and the one in which it surpasses all other North American woods, is its durability when exposed to contact with the soil. So many examples of its durability when so employed, have been collected by Mr. Barney that there can no longer be any question that it possesses this quality to a remarkable degree. Its durability, together with the fact that the Catalpa grows in good soil with astonishing rapidity, will make it the most valuable tree farmers can plant for fence posts or for hop or vineyard poles, or generally for out-door construction. Catalpa will have no rival for telegraph poles, nor probably for railway ties. Indeed it is for the latter employment that this tree will be most generally planted, especially as it is found to succeed better than almost any other in Southern Nebraska and Kansas, where there is and always will be a very great demand for ties. I hear of very large plantations either started or proposed in these Western States, and thanks to Mr. Barney's disinterested and patriotic efforts, it is probable that this Western Catalpa will receive, during the next few years, more attention at the hands of planters all over the country, than all other forest trees combined. All interested in trees or in rural affairs in general will find much of value to them in this publication, which I will add, for the convenience of those who may desire to see it, Mr. Barney will forward to any address on receipt of two three-cent postage stamps.

But valuable as the Catalpa undoubtedly is, it should not be forgotten in the desire for novelty, that there are other North American trees of an equal or even greater value, which must not be neglected by the planter. Some years ago and after having paid considerable attention to the subject, I came to the conclusion that of all our trees, the White Ash was the most valuable native tree which our farmers could plant; and as yet I have seen no reason to change my opinion. It can be grown over a very large portion of the United States; it is easily raised from seed; grows very rapidly, and has a market value when less than ten years old. No known wood combines such strength with such lightness; and these qualities cause it to be eagerly sought for both at home and abroad, where there is already a rapidly growing demand for American White Ash. It supplies the navies of the world with their oars, and in light carriages and agricultural implements, especially shovels, goes everywhere with the advance-guard of civilization. The consumption of ash is enormous and is fast destroying this tree all over the country, so that he who plants it can be perfectly sure of a market for all that he can raise, and at prices probably much higher than those which prevail at the present time.

A few years ago it was impossible to procure white-ash seedlings for forest planting; but now they are regularly raised in large numbers, and are sold at such low rates as to be within reach of every farmer who may desire to plant this tree. For their own sakes and for the general prosperity of the country, it is earnestly hoped that the number will be large.

Director, Arnold Arboretum,
Harvard University.



GROUND-PLAN OF HEN-HOUSE. — (SEE FIRST PAGE.)

Miscellaneous.

WHAT OTHERS SAY.

EXTRACTS FROM PROCEEDINGS OF N. T. S. H. S.

WITHOUT a single exception we find those orchards that have received the most abundant supply of barn-yard manure have yielded the largest crops of the finest fruits. *No exceptions to this rule.* We find also the same orchards yielding more or less, just in proportion to the supply given. . . . We also find that peach growers are learning that the Peach responds liberally to the manure supply, by giving more bushels of superior fruit; and many of our peach growers are using large quantities in connection with good cultivation. . . . It would appear to your committee that the number of those who keep their orchards in grass, or pasture with sheep or hogs, or fertilize their trees with muck or manure or compost, is increasing, as this course seems to keep the trees in vigor and produce good apples abundantly. . . . I never have seen an orchard doing well where it was kept seeded down and the grass cut and carried off for hay, but I think it might be done if sufficient fertilizing material was drawn on to replace the loss by the hay; but the trouble is that those that practice this system do not draw on the manure. . . . I have also a small dwarf pear orchard that has been in grass for over ten years, the grass being cut once a year and allowed to remain as a mulch. It has also had a surface-manuring twice in that time. This orchard grows well and produces good crops of fruit. As a rule, however, I think that orchards kept under cultivation until they are twenty-five years old at least, will be found to do the best. . . . I think that generally apple orchards over twenty years of age have been in the past, and will be in the future, much more profitable than ordinary farm crops; but I wish to impress upon the planter of an orchard that he must look for his profits after, rather than before, that date; there are thousands of orchards that, from various reasons, never prove paying investments. . . . One member of your committee (Mr. Swan) sold the product of less than one-fourth of an acre of Quinces for $100, and with the experience of several years in growing this valuable fruit, he is fully confirmed in the opinion that "growing Quinces for profit" is a reality. . . . Farmers upon the prairies, who have had to contend with winds and storms, which came to them over vast areas not broken by timbered lands, and who have suffered the loss of crops, buildings, stock and valuable lives from this cause, are impressed with the fact that they must have screens and fruit protection before they can be comfortable or safe. Their efforts will, I doubt not, be crowned with success, and we *may see*, before many years, that they surpass us in the possession of valuable timber, as far as they now excel us in the growing of abundant grain crops. They have sharply suffered from hail-storms and hurricanes coming over their treeless regions, and been parched and frozen by winds which should have been moderated by passing through wooded sections, until they are ready for the work and cost necessary to protect themselves and their children.

TREES IN GRASS.—A correspondent of the Gardener's Monthly, living in New Hampshire, furnishes an example of a successful orchard, with trees standing in grass. The land was never plowed, the ground being unusually rocky. The trees, however, have been regularly and liberally manured. The writer seems to have overlooked the fact that it was the manure and not the grass that made the trees grow and bear so well. We have heard of the farmer who found sawdust pudding an excellent feed for his cows; all that was necessary was to add liberally of Indian meal—and, in fact, the larger the proportion of Indian meal, the more satisfactory was the effect of the sawdust. We are reminded of this anecdote by much that is said in favor of grass in young orchards.—Country Gentleman.

BUTTER "COMING."—I have had some difficulty in getting my butter during this very cold weather. Although the cream was warmed up to 60 degrees, as usual, the butter was two hours coming, and crumbly. It occurred to me that possibly the fat globules do not get thoroughly warmed through when the cream is very cold, and warmed only just before churning, so I tried an experiment. I warmed the cream the previous night up to 70 degrees, and left it in the kitchen all night; in the morning the temperature was 50 degrees—I warmed it up again to 60 degrees and churned. This was completely successful. The butter came, as usual, in three-quarters of an hour, nice and firm, but not crumbly. Perhaps this may be useful to your readers, as I often see complaints of difficulty of getting butter in cold weather.—London Agricultural Gazette.

USE OF FERTILIZERS.—The Scientific Farmer says: "We have known farmers to act as if they thought a purchased fertilizer had some secret magic about it which would enable it to "boost" the crop out of a slough, or bring water to the crop from the heavens. We have seen crops put on land which could by no possibility develop a full harvest, in the full expectation that the fertilizer could serve as a Jack-of-all-trades, and would obediently furnish the plant with drainage, with warmth, with food, and with a machine to keep down the weeds. Because the harvest doesn't pay for the fertilizer in these cases, there is blame attached somewhere, but never where it belongs, —on the farmer himself, whose stupidity led him to put his plant in a field where he knew from experience manure could not make up for location, fertility, and season, all at once."

SINCE man has been endowed with power over the lower animals, it is only just on his part that he should exercise that high privilege with due consideration for the subjects which compose his vast dominion.

"It is excellent
To have a giant's strength; but it is tyrannous
To use it like a giant."

It has been asserted that brutes are insensible to suffering, and that it is only refined human beings who have sensitiveness to pain. We hold that this theory is totally unsupported by proof, and maintain, with the great dramatist, that

"The poor worm we tread upon
In corporal sufferance finds a pang as great
As when a giant dies."

[Dublin Farmers' Gazette.

CATALOGUES, &c., RECEIVED.

FROM Prof. S. W. Johnson's Annual Report of the Connecticut Agricultural Experimental Station for 1878, we make a few extracts:—

SPECIAL MANURES OR FORMULAS FOR PARTICULAR CROPS.—Special Fertilizers appear to have been first prescribed in detail by Prof. J. F. W. Johnston of Scotland. . . . The "worn out soils of New England" are various in their crop-producing qualities. Many of them are able to supply potash in excess of all ordinary demands. Many of them require lime and sulphuric acid in order to feed crops, and most of them fail to yield rather on account of mechanical or physical deficiencies, or defect of water supply, than because they are exhausted of the nutritive elements of crops. With this diversity of soil it is vain to expect that we can rationally or successfully adapt special manures to our various crops. Even if our soils had been all originally alike in texture and composition, the different treatment they have undergone in what we politely term "cultivation," has been such as to draw upon their natural resources very unequally, and make it needful to adapt the manure to the soil as well as to the crop. . . . In British agriculture it was found some thirty years ago, in many localities, that soluble phosphoric acid was fairly a specific for the turnip crop, and that nitrogen acted with especial energy on wheat. . . . In the world-famed field experiments of Mr. Lawes, nitrogen alone has wonderfully kept up the wheat crop for many years, while it failed totally to make turnips after three seasons; and soluble phosphates alone gave a large yield of turnips for a succession of crops; but had little effect on wheat. Many farmers on land similar to that of Mr. Lawes obtained like results . . . In honest truth there is no possibility of compounding special fertilizers adapted to each of our various crops, or even to our various classes of crops. There are no principles of science as yet discovered or conceivable, nor are there any results of practical experience attained, or presumably attainable, which can lead to such a result. On the contrary, experience

and science most fully agree as to the vanity and folly of such attempts. Special Manures for particular crops are, in fact, least heard of where agriculture is guided by the clearest light of science and the widest range of experience.

BIENNIAL REPORT of the State Agricultural College, Manhattan, Kansas. In this report Professor Gale says: "The tree planters of the East are looking to us for results; and it will be wise in all our plans for the future to remember that we are located almost in the middle of the great central region where forest-culture, upon as grand a scale as the world has ever known, must some time be accepted as a necessity. In recognition of this fact, Prof. Sargent, of the Harvard Botanical Gardens, has forwarded to us about one hundred species of trees and shrubs. These have been planted out and the results will be carefully noted. We should accept it as a fact, that experiments undertaken here in forestry and fruit-culture will interest a large number of people, and facts deduced at this point will benefit a larger region of country than probably has ever been instructed by the experience of any other section."

Among the farm experiments conducted by Professor E. M. Shelton is the following, which goes to show that the removal of suckers from corn is a losing operation:

"In this experiment eight strips or belts were staked off through the center of that part of a field devoted to corn the past season. Each belt occupied 1-20 of an acre; every alternate strip had the suckers carefully removed on June 10th and July 2d, the plants in the remaining strips being allowed to grow according to their natural inclinations. The result of this experiment is shown in table No. 3.

TABLE NO. 3.

Plats.	Yield of plats in lbs.	Yield per acre in bush. of 70 lbs., ears.
Plat A—natural	181	51.7
Plat B—suckered	169	48.2
Plat C—natural	170	48.5
Plat D—suckered	160	45.7
Plat E—natural	159	45.4
Plat F—suckered	154	44.0
Plat G—natural	182	52.0
Plat H—suckered	159	45.0

In table No. 4 the yield of the suckered and natural plant belts are grouped for comparison.

TABLE NO. 4.

	Aver. yield of plats, lbs.	Aver. yield per acre in bushels of 70 lbs.
Natural	173	49 4-10
Suckered	160½	45 9-10
Increased yield of natural plats	12½	3 5-10

The ground upon which this experiment was conducted was selected because of the uniformity of its soil. The result seems to show, however, that the soil became progressively poorer from plat A to plat H. A glance at these tables will show that the removal of these suckers was a positive injury to the crop, and that, not in occasional cases, but uniformly through the series, there being only one exception to the rule of the experiment, that the 'natural' plats yielded larger than either of the suckered plats adjoining. It would seem from this that the practice of removing the suckers from the growing corn is not well founded."

PROCEEDINGS of the Twenty-fourth Annual Meeting of the Western N. Y. Horticultural Society; P. C. Reynolds, Sec'y., Rochester. We shall have several occasions to refer to this again.

CONNECTICUT AGRICULTURAL EXPERIMENT STATION.

BULLETIN 21.

Fertilizer Analysis.

243. Refuse from paper manufactory.

From R. E. Pinney, Suffield. A wet, pasty mass.

Water	39.5
Sand	1.5
Caustic Lime	2.5
Carbonate of Lime	46.6
Carbonate of soda	6.1
Sulphuric Acid, Magnesia, Alumina and oxide of iron	3.8
	100.0

None of the ingredients of this refuse give it any value as a direct source of plant-food, except lime. Its uses for agricultural purposes are those to which lime is commonly applied. The carbonate of soda acts like lime, but more rapidly, and requires caution in its use. This refuse may be serviceable as a top-dressing on grass or to compost with swamp muck. Strikingly good effects rarely appear from lime until the second year. The commercial value of this material, as a fertilizer, is that of the equivalent amount of the cheapest lime.

244. Animal scrap manure.
245. Corena settlings.
246. Rotted bone manure.

Made by G. W. Baker, Williamsburgh, L. I.; sent March 14, by W. J. Jennings, President Green's Farms Farmers' Club.

	244	245	246
	44.0	29.0	39.0
Water	1.9	4.1	2.4
Nitrogen	1.0	trace	2.8
Phosphoric acid	$6.25	$14.00	$12.41
Estimated value per ton	15.50	14.00	17.00
Cost			

S. W. JOHNSON, Director.

Horticultural.

CELERY (Apium graveolens).

THE RURAL has repeatedly urged those of its readers that own gardens, to cultivate a full line of vegetables, and not merely a few cabbages, beets and turnips, as is too often the case. The plant that forms our present subject, should never be looked for in vain in any vegetable garden. Its cultivation is easy, and it is decidedly a relishable addition to the table during the whole winter season.

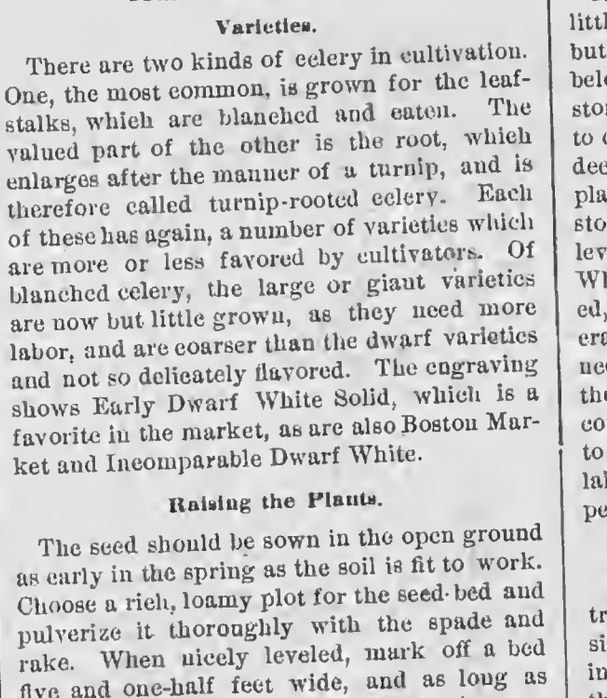
TURNIP-ROOTED CELERY.

Varieties.

There are two kinds of celery in cultivation. One, the most common, is grown for the leaf-stalks, which are blanched and eaten. The valued part of the other is the root, which enlarges after the manner of a turnip, and is therefore called turnip-rooted celery. Each of these has again, a number of varieties which are more or less favored by cultivators. Of blanched celery, the large or giant varieties are now but little grown, as they need more labor, and are coarser than the dwarf varieties and not so delicately flavored. The engraving shows Early Dwarf White Solid, which is a favorite in the market, as are also Boston Market and Incomparable Dwarf White.

Raising the Plants.

The seed should be sown in the open ground as early in the spring as the soil is fit to work. Choose a rich, loamy plot for the seed-bed and pulverize it thoroughly with the spade and rake. When nicely leveled, mark off a bed five and one-half feet wide, and as long as needed, on which sow, rather thinly, six rows of seed nine inches apart. On a bed 10 feet long, may readily be raised 800 to 1,000 strong plants. The seeds are very small and somewhat slow to germinate and should therefore scarcely have any covering. It usually affords sufficient covering to pat the bed down with the back of a hoe or a shovel, after sowing. If the weather is dry, the bed must be kept moist by watering. As soon as the plants put in an appearance, the bed should receive a light hoeing, which should be repeated as often as necessary. To produce strong, stocky plants, it is well to shear off the top to within an inch of the ground, once or twice before planting.



EARLY DWARF WHITE SOLID.

Planting and Blanching.

Market gardeners generally grow celery as a second crop; that is, on land on which have been raised early cabbage, peas, onions, etc. These crops will be cleared off about the middle of July, at which time the celery should be planted. Celery delights in a rich soil, but if the land was liberally manured for the early crops, it will not be necessary to manure it again now. Plow or spade the land deeply, and dress it evenly with a rake. The plants are then set in rows three feet apart, and six to eight inches apart in the row. Plant them like cabbage, with a dibber or pointed stick, and pack the soil closely about them. Planting firmly is of importance during warm weather, and, indeed, in all out-door planting, as it prevents the plants from drying out so rapidly. If the weather is dry, and only a few hundred plants are set out, it will pay to give them a good watering. This will settle the soil about them and keep them moist for a couple of days until new fibers are formed.

After planting, there is nothing further to be done for about seven weeks than to keep the plot clean and to water if necessary; but at the end of that time, which will be in the first half of September, the plants should receive the first banking up. This must be done carefully. The plants are spreading out considerably, some of the leaves resting on the ground. These must be gathered up in a bunch, and the soil drawn up about them with the hands, so that they remain upright. But little soil should be heaped about them the first time; a little later, the celery which is to be used early in the fall, should receive the full banking up, which must be done with a spade, but what is to be stored away for winter, should not be banked until the first of October. Of course the fit time for this operation will vary with the locality; where hard frost sets in about the latter part October, the plants must be banked up earlier. The old way of planting the celery in a trench, to facilitate the blanching, has gone out of date since the dwarf varieties have become popular. If the larger varieties are grown, they must either be planted five feet apart, to give room to bank them up, or they should be planted in a trench about eighteen inches deep.

Storing.

It must be understood that celery will bear a little frost—about 10°—without any injury, but when the thermometer is disposed to sink below this, the crop must be taken up and stored for winter. The best way to keep it is to dig a trench not over 18 inches wide and as deep as the celery is high. In this pack the plants closely, in an upright position as they stood in the ground, so that the tops will be level with the surface of the surrounding earth. When wet or frozen, they should not be touched, as handling them in that condition accelerates their decay. Here they remain till needed, when they are taken up as used. As the cold weather increases, they should be covered with leaves or straw sufficiently thick to exclude the frost, and on top of this may be laid boards which will prevent the rain from percolating through to the plants.

Turnip-Rooted Celery.

This variety is but little known in this country, but in Europe it is grown far more extensively and is considered of much more value in the kitchen than the blanched celery. Like the latter, the seed is sown in early spring, and the plants are set out in the latter part of June. The land should be rich and deeply pulverized, and as they require no banking up, the rows may be one and a half foot apart, with one foot between the plants. Use the hoe vigorously between the rows during the summer, and in the full, when the other celery is taken up, this also should be lifted, the earth shaken off, the roots shortened and the outer leaves cut off, when it will appear as in the engraving, ready for wintering or for market. It may be stored in trenches, like blanched celery; but it is more convenient to set it in moist sand, laid about six inches thick, in a cool but frost-proof cellar. Here the plants are packed closely together, with the tops upward, as when growing in the garden; thus they are handy at any time. The roots are cooked in a score of ways, and for soups they are certainly far superior to any turnip ever raised.

Everywhere.

RURAL SPECIAL REPORTS.

MISSOURI, Oregon, Holt Co., March 24.—Just 19 years ago the weather started to acting exactly as it has been doing for two months; that is, every time the signs of rain became undoubted, around whirls the wind to the northwest, and farewell all hopes of rain. During 1859 we had no rain from about Feb. 1st until October. Literally, nothing was produced off the lands save from those within eight or ten miles of the Missouri River. These lands yield unfailingly if properly cultivated. We had hoped, and hope yet, that our climate, where abundant rains during the past six or eight years have given us great crops, has been changed permanently by the breaking of the heavy matted sod over immense areas, and by the planting of great forests. But how, if not? I have repeatedly said that if the climate is not so changed, our comparatively regular seasons of the past ten years will prove to be a terrible misfortune. For, if we shall have such a season as that of 1859 while there are at least six hundred thousand people living where then not over thirty thousand resided on soil where nothing grew and the very cattle perished, what can be done? To relieve those 30 thousand was a big job then, and those who saw some of them coming over the river from the Arkansas and Kaw valleys, never can forget the sight. We are a most reckless, unwise people. During the past four years we have had crops unequaled, and have by legislation compelled low prices, and *therefore* immense exports. Soon we shall have inflation and high prices. But not a thing is laid by for the years of famine. Moreover, we have crowded our population into regions having climates different from the favored portions from the Atlantic to Missouri—regions subjected to such seasons of drought and visitations from locusts, as must leave the people literally nothing to eat. And still, the mighty tide of emigration pours westward. If the climate has not been changed, (or indeed, if we shall have a locust visitation), some day we shall see millions of people occupying a vast region suddenly made as unsupporting as Central Sahara. Would it not be wise, in view of such an event, to make some preparation for the year of famine that seems inevitable? One thing is certain; if this drought of two months lasts several more, we are going to have an experience we are not likely to forget. HOLT.

MARYLAND, Brighton, March 28.—Within the memory of some of our youngest farmers, the dairy has become a branch of the mixed husbandry always followed by men in our section, and owing to our nearness to Washington, it is now the leading interest, returning more profit to the farmer than any other branch. This interest has been fostered by the introduction of the Jersey cattle, and since there has been a general infusion of Jersey blood into the herds in our section, the butter product has risen from about 150 pounds per cow to from 200 to 300 pounds. Until within the last two years, most of our best brands have been delivered to customers, realizing fifty cents per pound the year round; but the last summer we were not able to maintain this price, many retailing at 40c.; while the bulk sold for 30c. or less.

It is in times like these that the thoughtful man will so change his system as to have the largest quantity for sale when there is the most demand—say from October to May. With farm produce at present prices (hay, $10 per ton; bran, $15 or less and corn 50c. per bushel), and fresh cows to commence the winter, a man can make a moderate profit at even 40c. (wholesale), and brands that are well known have never in the last ten years commanded less. This system, besides furnishing a much larger amount of rich manure than would be made by only running a summer dairy, leaves the farmer more time to attend to his harvest, as at that time his cows will require the least attention.

I throw out these few ideas as being the result of experience here, and doubtless they would apply elsewhere, and thus relieve our markets of the glut that occurs through June and July, when more butter is forced on the market than can possibly be used and at a time when most of the wealthy citizens are seeking a cooler resort. G. L. S.

RURAL GROUNDS, Bergen Co., N. J., April 4.—The ground froze three inches in depth last night and is not thawing much to-day. Up to this time we have been transplanting evergreens from one place to another. One of these was a Scotch Pine ten feet high and twenty-five feet in circumference at the base. To-day we received, for this season, our first invoice of Pears. Awaiting a change in the weather, they were covered with sand as received, a foot in depth, where they will remain unharmed for several days if necessary. The season is extremely backward, which especially in this happy valley, we have as a good promise of fruit in abundance. But we find that many of our strawberry plants have suffered by blight, which only began to show itself late last fall; that many of our raspberry canes are killed to the ground so that, in so far as those fruits are concerned, we are prepared for a light crop in spite of a late spring. Hyacinths and Tulips are up two inches, and there they remain as if bewildered what to do next. Crocuses bloom here and there. Spring work in the ground is at a standstill, and Randall (our foreman), having discharged his extra help, has put on a long face and returned to those never finished winter employments, of cutting wood, making labels and whitewashing the hen-houses. But the sun will shine to-morrow and then we shall have two days of work to do for every day that is lost now. Late springs have their advantages and their disadvantages.

NEBRASKA, Keene, Kearney Co.—Here in the West are thousands of acres of wild buckwheat which causes a loss of many thousands of dollars to the farmers in short crops and extra

labor. I should like to tell those who are suffering from that plant how easily and profitably they can get rid of it once and forever—if afterwards they will be careful to sow clean seed. Ground that has been seeded down to wild buckwheat should be well cultivated with a cultivator, then harrowed any time in April. On no account should the ground be plowed either in spring or fall, as it turns some of the seed under to such a depth that it will not sprout. After harrowing, the ground should be left till about the first of June, when the buckwheat will commence to blossom. It should be immediately plowed and *well* turned under, then harrowed. Next, sow on it from 16 to 18 quarts of either millet or Hungarian. Harrow it well and then roll the ground. If this plan be followed to the letter, there will be a splendid crop of grass. It should be cut when it is in the blossom, as it then makes finer hay. The reason why Hungarian or millet should be sown is this: it makes a very rapid growth and smothers any seed buckwheat that may have been turned up to the surface in the last plowing, and after the crop is cut the frost kills the buckwheat before it can mature its seed. S. S. B.

VERMONT, Williamsville, Windham Co., March 31st, 1879.—The winter here has been a long but not a cold one. Owing to a severe freshet, the business of road building has been and is in a most flonrishing condition. Our heaviest storms have come this month, and snow now is three feet deep on a level. March 27th gave us 12 inches of snow; it was very moist, clinging to the branches until all kinds of tree resembled the Weeping Willow—in shape. Sugaring comes on late, and but part of the tapping has been done. The quality of the sugar thus far made, is good; sells at 12c. to 14c. Produce is low: butter brings 18c, to 20c. per pound; eggs, 12c. a doz; potatoes, 75c. a bushel; oats, 45c. and Northern corn 75c. Wheat is hardly quotable here, as but little is raised—average yield 20 bushel to the acre. Western meal is $1.10 and wheat bran $1.05 per hundred. Hay $10 a ton and plenty of it. Dressed pork is 5c. and dressed beef 6c. per pound. A narrow-gauge railroad is now being built to run through the center of the town. It is to be completed Oct. 1st 1879. Until that is finished we are 12 miles from a railroad. S. M.

ALABAMA, Newmarket, Madison Co., March 29.—The prospects for wheat, fruit and the grasses are very flattering in this country. We had for this region a very cold and unusually long winter. Much corn has been planted, and some of it is up and worked over. Preparations are being made for a large cotton crop. Clover, timothy, orchard grasses are luxuriant—half leg-high. Asparagus, lettuce, radish and onions are plentiful; peas are nearly on hand. Provisions low; butter, 10c.; eggs, 5c.; beef 5c.; pork, 3c.; lard, 6½c.; bacon, 6½c.; corn, from 40 to 60c.; oats, 30c.; wheat, 90c. The practice of potting Strawberries is becoming general. I have adopted a new plan which succeeds admirably and costs nothing. In all our towns large numbers of oyster-cans are thrown away. They make excellent pots. Put them in the fire and unsolder them. You now have a cylinder which only needs a small string to keep it in shape, and it is easily pushed into the soil near a plant, and as easily removed. By merely making a hole, inserting the can, removing the string, you have all the advantages of pots. Indeed such a device is much better than an ordinary pot, as there is no bottom, and the plants suffer less from drought. Such contrivances will also answer for melon, cucumber, egg plant and tomato seeds. N.

COLORADO, Fort Collins, Larimer Co., March 31.—I have already put in fourteen varieties of spring wheat and shall sow some more next week. I shall test the corn question in Colorado; but expect a failure on account of the cool nights. Over 1,000 people are arriving in this State weekly. A train of 300 from the East has just passed down to Denver and Leadville. Prospectors are filling the mountains by hundreds all along this line. Our college will open in September. We are expecting a large and extensive patronage from the East. Our place is already filled with Eastern people and some invalids, some of whom have children they will put into our institution. We shall make our college equal to any, in a *practical* point of view. So fast as our means allow, we shall adopt not only agriculture in all its bearings, but every department of science, mechanics, telegraphy, etc., etc. A. E. B.

VERMONT, Randolph, March 27.—The snow is very deep, and but a very few warm days have as yet beamed upon us. Sugaring is two weeks later than last year, certainly. It has been a good winter for business, as there has been sledding all the time. Many farmers have hauled their manure into the fields since getting up their wood. Market prices for produce of all kinds are very low. Corn, 60c. per bushel; oats, 1c. per pound; potatoes, 65c. per bush.; butter, from 15 to 18c. per pound; pork and beef are doing a little better; veal calves are only $4 per hundred, live weight; seed wheat of the Lost Nation variety is still at $2 per bush.; Golden Sheaf at $1.75. Wood, lumber, shingles, etc., are very cheap. Hired help is abundant and wages very low, from $8 to $15 per month for good help. Resumption of specie payments has not effected much change as yet. R.

NEW YORK, Charlton, Saratoga Co., April 1.—Last year plowing began about the middle of March. Potatoes were planted and oats sown in March; now the snow is seven feet deep between the house and barn and people travel with sleighs. North and south, roads are full of snow. Winter grain is all covered up and has been all winter; can't tell how it looks. Robins came the middle of March, and since then we have had two severe snow storms, snow six inches deep; am afraid the birds are dead. To-day the wind is cold and freezing, from the west. The crows held a council the other day, hundreds being present. We never knew so many to winter here before. Farmers are worried to know what potatoes to plant. Peach-blows do not yield well, and Early Rose are also running out. F. D. C.

OHIO, Cardington, Morrow Co., March 28.—The winter has been admirable for our wheat. I do not think it has been injured in the least. Still for success we shall require a favorable season from this time on. Provisions of all kinds are cheap; hay, $5; wheat, 95c.; corn, 30c.; oats, 22c.; potatoes, 75c.; butter, 12c. per pound; good stock cattle, 3 to 3½c. per pound; hogs, $3.30 per hundred; sheep, $3.75 to $4.25 per hundred; horses from $75 to $225. Stock of all kinds look well. Money seems a little easier and business men seem hopeful for the coming season. Indeed, the outlook is encouraging. Economy and perseverance will soon bring about better times. J. G. G.

CALIFORNIA, Carpenteria, Santa Barbara Co., March 25.—Grass and grain are looking well—more than knee-high and thick on the ground. Fruit trees never looked so fine. Apricots and Peaches are in bloom. Pears and Apples begin to blossom. Early potatoes look well. Farmers have their land nearly ready for planting corn and beans. Corn is worth from $10 to $12 per ton at the crib; beans, 1¼c. to four cents per pound; barley, ¾c, per pound; potatoes, one to two cents per pound; pork and beef, four to five cents; hay, $5 to $8 per ton. O. N. C.

KANSAS, Scapo, Republican Co., March 29.—I immigrated to this State five years ago, but have been farming on my own account only four years last November. I have raised as high as 80 bushels of corn per acre without any manure whatever. The corn in most parts of this country is badly "mixed." I've devoted much time and care to the selection of seed-corn, but have not yet been successful in making it a pure seed. I am certain, however, that we have a good corn country. G. W. C.

NEW YORK, Whitney's Point, March 29, '79.—Weather moderating. Snow disappearing fast. Roads impassible; neither wagoning nor sleighing. The drifts are softening so that it is nearly impossible to get through them. Wages, by the month, $13@15; maple sugar, 14c. per pound; potatoes, 60c. per bushel. The depth of snow that has fallen during the last winter is about six feet. Stock looks well hereabouts. Dry in spite of the long, steady winter. M. B. D.

NORTH CAROLINA, Ashville, March 29.—The tobacco crop has been quite a success in western North Carolina this season. The crop has passed off at exorbitant prices. In fact nothing like it has ever been known in any sections of the South. It was nothing uncommon for a farmer to make $300 per acre, without manure.

As predicted by me ten years ago, this is destined to be the finest section in the world for yellow wrappers. Thousands of acres of original forest stand among these mountains, which only wait to be cleared to yield a rich return. Nothing but virgin soil will grow the fancy wrapper to its perfection. S. C. S.

AMHERST, Mass., March 29.—We have had but little extremely cold weather during the past winter, the coldest time being 6 deg. below zero. About half of the peach buds are killed. There is about six inches of snow still on the ground, which is slowly going off. But little frost in the ground, even in open fields. L. W. G.

VERMONT, Newport, April 3.—We are buried in snow here more than at any time during the winter. But our seasons change so abruptly that next week we may be making garden. Last year at this time we were plowing T. H. H.

OHIO, Hillsboro, March 31.—Weather changeable; mud roads impassible; wheat looking well where properly fertilized. Corn, 30c; oats, 25c; wheat, 95c; potatoes, 40c to 80c; J. B.

Industrial Implements.

SCREW STUMP-PULLERS.

IT is hardly necessary to enumerate the advantages to be gained by clearing the land of stumps. They are unsightly, a constant annoyance when there is plowing to be done, and render the land unproductive and unprofitable in proportion to their numbers. To remove them partially by burning, and then counting upon time and decay to do the rest of the work is poor economy, hence a multitude of mechanical devices have been employed to accomplish the work at a saving of time, labor and expense. One of the most successful machines is the stump-puller illustrated in this

THE WATERTOWN ENGINE.

without any great leverage or strain, irresistibly lifts the most stubborn roots out of the ground. The motion is so steady and progressive that although the operation would seem a slow one, the work is accomplished with celerity. From an economical point of view,—and who does not look in that direction now—the

Chamberlin Stump-puller is a good improvement to buy, as the irons and screw are shipped independently of the woodwork, with simple directions that are sufficient to direct the most inexperienced how to supply and fit the former. A saving in first cost and freight is thereby realized, that makes it an object for any one plagued with unsightly, heavy obstructions, to think attentively of the cost and profit of their taking off. Pamphlets and other pertinent matter are sent out by the manufacturers on application.

THE WATERTOWN ENGINE.

THE first manufactory of portable and mounted steam engines established in the country, was that founded thirty years ago by Hoard & Bradford, to whom the Watertown Steam Engine Co. are successors.

This engine received the Medal of the New York State Agricultural Society in 1850, and a few years later Messrs. Hoard & Bradford appeared upon the State Fair Grounds at Rochester, N. Y., with the first traction farm engine ever built in this country.

The reputation of the firm has been amply sustained by their successors, and we give this week an illustration of the latest improvement, a new mounted engine that combines many superior advantages. The engine has a strong bed, that relieves the boiler of strain from the working of the engine, permitting it to be removed from the boiler and placed on a separate foundation if desired. The frame, cylinder head, guides, and boxes for main shaft, are cast in one piece, avoiding strain, and rendering it impossible for these parts to work out of line. The dome of the boiler contains the heater, the base of the cylinder being joined to the dome. The heat of the boiler is thus imparted to the cylinder. The steam passages are reduced to a minimum, the condensation of steam in the cylinder is effectually checked, and the greatest possible economy of steam is secured. Another distinct feature is the placing of the engine frame in a direct line, the connecting rod taking hold of a double crank shaft with driving pulleys on each end, thus doing away with all side strain. Particular attention has been given to the improvement of the "governor." By the simplest device, and without the intervention of cams or levers, weights, a perfect stop motion, has been added, which on the breaking or slipping of the belt, will at once shut off steam and stop the engine without jar or strain. This is an improvement over all previous devices. In work of differing amount and for different purposes, with varying power, it is often necessary to change the speed of the engine to suit the nature of the work or the amount of power required. To meet this there has been added to the governor a spring balance, operated by a hand wheel, instantly changing and adjusting the speed to any rate required, and that without stopping the engine. This improvement is found on no other engine, we believe.

The "pop" safety valve with which this engine is equipped should be found on every farm engine, as it is conducive to safety and beyond the reach of tampering by inquisitive ignorance.

The company also make a dairy engine that has all the important features of the farm engine, but is built with a view to fitness for its purpose. The boiler is of the return flue pattern, has ample steam and water room and no crown sheet, to expose to danger of explosion by low water. In short, it is just adapted to the purposes for which it is intended.

Anyone about making a purchase, and who finds himself in that state of indecision that is the outcome of a lack of definite information, will find it to his advantage to "post up," and it will be a stamp used to good advantage to get the circular of the Watertown Steam Engine Company.

The Querist.

ANSWERS TO CORRESPONDENTS.

Treatment of Stock.

"*Farmer*," *Oaks, Pa.*, has a mare with foal; every few days she seems to have great pains in her stomach and pelvis, rubs against the stall, and wants to roll very badly: but the fit passes off in a few hours, and he asks for a preventive and remedy. 2. Another mare dropped her colt all right; but immediately afterwards was taken with severe pains and died within four hours; the colt lives and is doing well—what ailed its dam? 3. A cow of his in good condition refused to eat, or ate very little, and in two weeks was so weak that she could hardly stand; an examination of her mouth showed nothing wrong—what treatment should she receive?

ANS.—1. The mare was undoubtedly affected with spasmodic colic caused by indigestion or a cold. Hot applications should be made to the outside—rubbing with hot water, or hot bricks held against the stomach and on the loins. Injections of warm water are good and doses, every half hour until relieved, of sulphuric ether and laudanum—one ounce of each in a pint of water. Follow this treatment with six ounces of solution of aloes—one drachm of aloes to each ounce. A quart of strong ginger tea will relieve mild cases, and should be given if the other medicine is not at hand. A horse subject to such attacks should, every three days, to strengthen the action of the stomach, be fed powdered gentian ½ ounce, powdered ginger 1½ drachms, carbonate of soda 1 drachm. 2. More data are needed to come to a clear conclusion on this point. 3. Give the above daily in a warm bran mash to a cow with poor appetite, and if the animal does not improve, give an active physic followed with the above. For physic, one pint of raw linseed oil every twelve hours until there is an operation. Feed bran and roots freely, with a little salt.

Grinding Long Forage, Etc.

J. W. M., Citronelle, Ala., asks: where can a machine, able to grind long forage, hay, corn-stalks, etc., into meal, be purchased; 2, the address of the manufacturer of the automatic gate.

ANS.—1. A practical machine for grinding long forage into meal has not yet been invented. There are some difficulties in the way, chiefly mechanical, because hay and corn-stalks are fibrous, and not starchy and granular, like grains; and cannot be reduced to meal or even chaff, by grinding, without the exertion of so much power as to cost more than the product would be worth. The nearest approach to any such mill we know of is the Big Giant mill of Field & Co., St. Louis, which grinds corn in the husk, tearing the husk into fragments. Cut corn stalks may be chopped in this mill, but not long ones. 2. There is no really automatic gate that has been successful in use; the nearest approach is gates that are opened by levers or cords pulled by the person in the carriage. A really automatic gate would be useless, because it would open for a cow or a pig, as well as for a horse in a carriage.

Relative Value of Farm Products.

S. A. C., Havana, N. Y., asks, 1, for some idea as to the comparative values of 10 acres of clover and the same number under wheat; 2, which are the most profitable products—cows and butter, or sheep, lambs, mutton and wool; or wheat; 3, how many sheep can be kept on pasture for one cow.

ANS.—1. Ten acres of good clover are worth more than so much wheat, if the value of what is left in the ground by the clover is taken into account. When a crop of wheat is taken, the ground is exhausted of so much of its fertility as is carried off in the wheat; but when a crop of clover is taken, the soil is actually in better condition than before, and is good enough to yield a crop of wheat or corn. 2. Sheep, lambs and wool are more profitable products than cows and butter or wheat. There is less profit in wheat than in any other crop; it costs more in proportion; but, for the cost and labor involved, a flock of sheep produce more value than any other farm stock or crop. 3. Five sheep can be kept where one cow can be pastured.

Lime on Sulphur-impregnated Soils, etc.

J. W. L., Smith's Grove, Ky., asks, 1, where he can get a pocket memorandum-book, suitable for a farmer; 2, his soil has a good deal of sulphur in its clay, and he wants to learn how to apply lime to it so as to get that and the sulphur to combine in the soil.

ANS.—A very useful memorandum-book for a farmer is one of the common diaries which contain a page or half a page for each day; together with monthly cash accounts at the end. Each day's business can then be noted and memoranda made ahead for the particular day for which they are needed. It can be purchased at any good book-store. 2. The sulphur in the clay is doubtless in combination with alumina or iron as sulphate of alumina, or iron pyrites, which are frequent in shale soil. As these gradually decompose the sulphur becomes oxidized and forms sulphuric acid. Lime applied to the soil is then useful to neutralize the acid, and will do this if used in a caustic state; that is, dry-slaked after coming fresh from the kiln; 40 bushels per acre might be used.

Mardi-Gras, Etc.

T. J. E., Luling, Texas, asks 1, the origin of *Mardi gras*; 2, is the Great American Tea Company of this city a reliable firm; 3, are the teas it offers at so low a price, good; 4, how far apart should two fields of corn be planted to prevent "mixing."

ANS.—1. *Mardi-gras*—fat Tuesday—was introduced into this country—mainly into Louisiana and Florida—by the old Spanish and French colonists. It is a form of the Carnival—farewell-to-flesh-meat—during which the inhabitants of southern Europe indulge in wild merriment just before Ash Wednesday, by way of compensation for the six weeks of Lenten mortifications which the Catholic Church imposes on her adherents as a preparation for Easter. Shrove or Pancake Tuesday is the English equivalent. The former name owed its origin to the old Catholic canon law, which ordained that all Catholics should on that day shrive themselves, or, in other words, go to confession. The name Pancake-Tuesday needs no explanation. 2. It has the reputation of fair dealing. 3. They are reported to be as good as can be reasonably expected for the figure. 4. Corn *may* "mix" if planted miles apart; that is, the wind may carry the pollen from one variety to another if miles intervene. In ordinary farming several fields apart will prevent mixing to any serious extent. It is well to select fields out of the line of, or at right-angles to, the prevailing winds.

Detecting Oleomargarine.

G. W. S., Davenport, Iowa, asks if there is any way to tell manufactured butter from tallow without having it analyzed.

ANS.—To tell oleomargarine from *tallow* is not difficult, since it is colored and put up to resemble *butter*. But if our friend means to write "butter" in place of "tallow," we should say that three senses, sight, smell and taste, will each reveal clear differences between the best oleomargarine imitation and genuine butter. The suet taste and smell are never entirely absent, and the "grain" shown on breaking open a print of oleomargarine is quite different from that of butter. In short, oleomargarine, however carefully manufactured, is distinguishable from butter by the absence of every sensible quality that characterizes a good article except color, which is sometimes very closely imitated. No one at all accustomed to handling butter could ever be deceived into taking oleomargarine for anything else but an imitation, and that only to the eye.

Starting a Quince Orchard, etc.

W. B., Susquehanna, Pa., asks, 1, the best method of starting a quince orchard; where seed or cuttings can be obtained; 2, how to clean onion seed.

ANS.—You can purchase one-year old plants of any of our nurserymen for $10 per hundred or thereabouts. This would be the best method unless you prefer to raise your own plants. Cuttings may be taken in the fall or spring, a foot long, or eight inches would answer. Plant them in a compact soil, leaving a bud or so, above ground and pressing the earth firmly about them. By the subsequent fall or spring, many of these will be found to have rooted and may be transplanted. Seeds can be purchased of such nurserymen as Thomas Meehan of Germantown, Pa., for about $2 per pound. Cuttings may be obtained of any fruit nursery. The young trees should be transplanted to nursery rows for a year or so, and then set as desired in the orchard. The land should be well prepared and rather moist than very dry. 2. Thrash out the seed, or rub it out with the hands, and clean it on a fanning mill with sieves suited to the size of the seed. A small quantity may be cleaned by sifting and blowing without the use of a mill.

Grasses for Seed.

A Subscriber, N. Bennington, Vt., asks whether we would advise sowing 2½ bushels of orchard-grass; 10 pounds of clover, and a peck of timothy seed per acre. Would not the clover choke the orchard-grass? Would the latter get its growth as soon as the former, and whether it is as permanent as timothy—land, a clayey loam.

ANS.—With 2½ bushels of orchard-grass and 10 pounds of clover, the timothy could be dispensed with. In fact, 10 pounds of clover would be one-third too much, if the soil is good and a good catch probable. As clover and orchard-grass blossom, and are ready to cut and in their prime together, it is not advisable to sow timothy with them, unless there is some special reason for it. Orchard-grass is as permanent as timothy if it is cut early in June, and before its seed is set. To let it ripen greatly weakens the plant and prevents a rapid after-growth.

Scours in a Cow.

R. P. O., Winfield, Ohio, has a fine cow that for a year has been periodically troubled with the scours until she has been reduced to a skeleton, and nothing checks the ailment except fresh slaked lime, mixed with wheat flour and made into a pill. He feeds good hay and corn and oats mixed and ground, and he inquires what he should do for the animal.

ANS.—It is most likely that the cow's stomach is disordered and is too acid. It might be useful to give a pint of linseed oil and remove any crude matter from the intestines; then make a mixture of one pound of salt, eight ounces of carbonate of soda and one pound of prepared charcoal; mix these well together and give a handful in her meal at each feed. The lime will do more harm than good as soon as its alkaline and astringent effects have worn off, and no more should be given.

Laying out a Barnyard.

A Subscriber, Pleasanton, Iowa, asks how many square feet, in laying out a barnyard, should be allowed for different sizes of stock—calves, yearlings and older cattle—in order to best save the washing of the yard for manure.

ANS.—For 10 cows, 2500 square feet is not at all too much; that is, a yard 50 feet square. If there is straw enough to litter the yard abundantly, four times the space would not be too much. A yard for calves and yearlings should have at least 100 square feet for each. Older cattle require the more space on account of their pugnacious disposition towards each other, and the weaker should have ample room to escape the attacks of the master cattle.

Reviving Frozen Vinegar.

Subscriber, Plattsburgh, N. Y., has two barrels of vinegar that have been frozen to death, and he inquires whether there is any way of reviving it.

ANS.—If the vinegar had been separated from the ice while frozen, it would have been found very good and highly concentrated, in the center of the mass or distributed in numerous cells through it. After having been thawed, the best way to revive it would probably be to add a few pounds of sugar or molasses to it, and then add a few quarts of good cider vinegar, or some of the "mother" from cider vinegar. That will start a new fermentation which will in time produce vinegar.

Improving Yellow Corn.

F. R., Dundee, Ohio, asks whether yellow corn is not as susceptible of improvement as white.

ANS.—It is. Experiments on Penn. Yellow for four years prove that yellow corn can be improved. Dent and Soft Southern varieties, however, are much more difficult to improve than hard, flinty kinds. The more deteriorated corn becomes, the softer it grows and the more cob it makes. The stover is much more grass-like. No corn can be improved under pressure. Too much manure is as bad as none at all. The Yellow varieties demand that more and more care be exercised in feeding them, and attending to their demands.

Planting for Corn Premiums.

H. F. R. of Orrville, Ala., who competes for the corn premiums, desires to know whether the seed we send shall be planted within 33 feet square, neither more nor less, or simply that it shall not exceed that space?

ANS.—Simply that it shall be within *one* plot of 33 feet square. How much or how little within is not material to us. We would state that many who have received the seed corn, state that there are imperfect kernels. We were obliged to send the seed we received. As will be seen hereafter, the number of imperfect kernels will be so provided for as to render the distribution of premiums entirely equitable.

Bloating in Pigs.

W. S. H., Lavalle, Sauk Co., Wis., asks for a remedy for bloating in pigs. After the bloating begins, they gradually lose their appetite and die in about 10 days.

ANS.—The pigs are made sick by eating too much corn. The corn is heating, and indigestible when too much is fed to such young animals. It causes flatulence, which makes the bloating, and will produce inflammation of the bowels and death. They may be relieved by a dose of a teaspoonful of powdered ginger mixed with charcoal followed by some strong purgative, say, a tablespoonful of castor-oil, or more, according to the size of the animals. Feed no more corn, but oats or bran.

Fish as a Fertilizer.

A. P., Put-in-Bay, Ohio, asks how fish can be pulverized for fertilizing purposes.

ANS.—There is no need to pulverize the fish scarp; it is pulverized in the operation of drying it. If you refer to the use of raw fish as manure, and not fish scarp, that can be used by composting it with earth, swamp muck or coarse manure, and it will rot down and break up in the course of two or three months, when it is ready for turning over with the shovel. Any kind of fish, and even muscles, may be spread upon the ground and plowed in without any preparation.

Pearl Millet.

N. S. H., Waukegan, Ill., asks, 1, whether there is any danger of Pearl Millet "mixing" with corn, if they are planted near each other; 2, will the former mature seed in that locality; 3, if it is intended that it should ripen seed, should its treatment differ from what it should be if the plant is designed for feed.

ANS.—1. None. They are of different genera and species. 2. No. 3. For fodder only, it may be planted closely together, the same as corn. In this case we do not think it would show flowering heads at all. If planted for seed each plant would need at least 10 or 12 square feet.

When and How to Sow Clover.

W. P., Kent, Portage Co., Ohio, asks the best time for sowing clover, and whether the young plants are injured by frost.

ANS.—Much clover seed is wasted by sowing too early and also by scattering it upon the surface without covering. All seeds should be covered, although under very favorable circumstances, they would sprout and grow, even if not covered. If you harrow your wheat, that should be done as soon as the ground is dry; then sow the clover immediately after the harrow; the gradual leveling down of the little furrows made by the harrow teeth, will cover the seed. When clover seed is sown on the surface too early, a warm rain will sprout it; then a frosty night will destroy the young rootlets which have not yet penetrated into the ground, and the seed is wasted.

Ground-Bone. Manure for Corn.

T. B. B., Easton, Talbot Co., Md., asks, 1, whether ground bone will answer the purpose of lime on land that has had no lime for years; 2, the best manure for corn in the hill after or before plowing.

1. Bone will not be a substitute for lime unless an enormous quantity is used; it may be used with lime beneficially, as the lime will help to decompose it. 2. Peruvian guano is an excellent fertilizer for corn; and a good substitute for that may be made by mixing poultry manure, wood-ashes and gypum together.

Java Rice.

Mrs. J. S., Starke, Fla., asks for information about Java rice—where it can be obtained, etc. She has written to the Department of Agriculture, Washington, D. C., for some, but none could be supplied from that quarter.

ANS.—If any considerable quantity is required it could easily be procured through any of the coffee importers who have business with that country. There is no rice in the world that is better in quality than that grown in S. Carolina, while the Java rice is very inferior.

The Lady Grape.

H. B. R., New Canaan, Conn., referring to our allusions to the Lady Grape, asks if it is hardy; if it is white or black; when it ripens, and who sells it.

ANS.—It is with us as hardy as its parent, the Concord. It is white and ripens about Sept. 10. Nearly all of our nurserymen sell it. It is generally esteemed the best of the newer and not thoroughly tested varieties. That is our opinion. Geo. W. Campbell of Delaware, O., of whom it may be procured, was the originator.

Seed Drills

C. F. K., Tonawanda, N. Y., wants a machine that will sow all kinds of seeds, from onion seed in the garden to beans and corn in the field, and asks whether the "Monitor" could do such a range of work, or whether the Albany Cultivator would be preferable.

ANS.—The "Monitor" seed drill will answer the above purpose in garden and field; but the Albany planter is best for the field, as a horse can be attached to it, so as to greatly lessen the labor.

Paint for Wire Fence.

E. A. M., Wills's Point, Texas, asks what kind of paint should be use on barbed-wire fence that is corroding from wet weather.

ANS.—Any good mineral paint will answer the purpose. There is a paint made in Cleveland, Ohio, the iron-clad paint we think it is called, that is made from pulverized ore and would answer the purpose here mentioned. The Rubber Paint Co. of Cleveland, or H. W. John's Mfg. Co. of New York, have paints that will also suit exactly.

Baugh's Superphosphate.

D. E. H., Meadville, Pa., inquires as to the phosphate manufactured by Baugh & Sons of Philadelphia. Is it pure?

ANS.—We have to say that we know this firm to be trustworthy and have no doubt that the analysis which they print on every bag, accurately represents its contents.

Miscellaneous.

C. T., asks whether the RURAL NEW-YORKER ever went by the name of the Genessee Farmer; 2, where can he get good cane seed for making molasses; 3. He has been feeding corn-stalks all winter until there is a layer of them, 12 to 15 inches deep all over the yard and as there has been little rain thereabout, they are quite dry and he asks the speediest way of converting the lot into manure; 4, the lowest price of binding a yearly volume of the RURAL.

ANS.—1. No. The RURAL is the successor

of the Genessee Farmer. 2. Amber sugar cane can be procured of any seedsman who advertise in the RURAL, see adv. of J. J. Gregory in last issue; it is the best variety now grown; the cultivation is precisely like that of corn and it is worked up in the same manner as sorghum. 3. There is nothing to be done with the corn stalks but to leave them to rot, which they will do through the summer; and so get them ready for use in the fall. It is a poor way to use corn fodder. It would pay to buy and use a fodder cutter, and run the stalks through it, before they are given to the cows. The waste is then fine and can be used early in the spring for manure. 4. It can be nicely bound for $1.50

C. E. B., New Milford, Bergen Co., N. J., asks: 1. Whether rye, mixed with cut hay, is an injurious feed for cows giving milk, that will come in about Aug. 1st? 2. Why is new-made butter flinty? 3. His packet of seed-corn contains 128 kernels, and as he wishes to compete for premiums and the packet looked as if it might have been tampered with, he inquires whether he has about the right number.

ANS.—1. Too much rye would cause heating and liability to bowel derangement. Such concentrated food should be mixed with coarser substances—such as bran—two of the latter to one of the former. In this form, rye may be fed without danger. 2. Because not churned at the right temperature—60 to 65 deg. Fahr.—and by not being properly worked. The cream should not stand too long—not over three days. 3. We have not time enough to count the precise number of kernels in each of the thirty to forty thousand packages we expect to send out before the close of the distribution; but each subscriber gets precisely the same quantity by measure.

S. A. H., Burr Oak, has examined a berry of Defiance wheat with a microscope and has found on it minute cocoons. He sends us specimens of the wheat and inquires what insect produced the cocoons and how to destroy it.

ANS.—We found no cocoons in the kernel, only pellets of fecal matter such as are left by the larvæ of the little grain-moths of the family Tineidæ. These were quite abundant in 1877 on wheat procured the previous year at the Centennial Exposition. As the insects speedily disappeared, we presume they found the climate too cold for endurance. We think our correspondent need have no fear.

W. W., Courtney, Grimes Co., Texas, asks the pedigree of a stallion said to be sired by Rubel, and Rubel by Lexington; dam, a full-blooded Morgan mare.

ANS.—Close investigation into this matter leaves little, or no doubt, that there never was any such horse as Rubel by Lexington. We do not keep the records of racing or, indeed, of trotting horses; but inquiry of those who are "posted" on such matters, leads directly to the above conclusion.

Rural Reader, has a six-year-old Century Plant, the leaves of which die nearly as fast as they grow, and he asks 1, the cause; also, 2, what soil is best for such a plant; 3, how should the slips be taken off; 4, does it need much water.

ANS.—1. Examine the roots. It is probable they are attacked by worms or grubs. 2. Sandy loam; but almost any soil will answer. 3. The offshoots should be taken off in spring or fall, or, if under glass, at any time. 4. No.

J. W. C., Lowellsville, Loudoun Co., Va., asks what do we think of the new works of Conrad Wilson; would we advise him to get them to become a more successful farmer.

ANS.—Mr. Wilson has studied farming through a long life. Just exactly what view of farming he proposes to discuss we cannot at this moment tell. Special views of farming are all that can be taken in small works—the subject is one of an immense deal of cubic contents, if we may so speak.

B. S. P., Hudson O., asks our opinion of the Gregg Raspberry.

ANS.—We have not had it long enough to speak of it from experience. Reports, which we have printed from time to time, make it out of one the best of the Black-caps.

P. H., Lynn, Mass., asks how to graft young peach trees.

ANS.—The same as any other trees (See RURAL, March 15, '78)—but grafting here in the North seldom succeeds with the Peach. Bud in summer.

R. A. W., Genesee, N. Y., asks of whom can he obtain catalogues or circulars describing the varieties of Grapes mentioned in this Department, in RURAL of March 22.

ANS.—T. S. Hubbard, Fredonia, N. Y.—Ellwanger & Barry, Rochester—D. S. Marvin, Watertown, N. Y.

L. S. D., Booneville, Ky.—It is the rule of this office to answer every question received, either in this Department of the paper or by mail.

[For continuation of Queries, etc., see page 240.]

COMMUNICATIONS RECEIVED FOR THE WEEK ENDING SATURDAY, APRIL 5th.

C. I.—M. B. D. J. G. G.—N. M. S.—S. H. R.—S. A. S.—A. P. A.—W. I. C.—F. H. D.—F. D. C.—A Reader.—F. H. J S. T. L.—E. A. H.—G. H. I. T.—M. C. H.—Thanks and welcome.—H. R. T.—E. D. S.—J. S.—F. C. P.—E. H. P.—S. L. H.—T. H. N.—L. A. R.—W. H. L.—L. S.—W. H. B.—H. E.—O. S. G.—G. M. R.—T. H. H.—H. S.—W. N. K.—T. L. M.—S. R.—N. K. D.—F. K. H.—H. F.—J. O. S.—J. M. R.—J. Q. T.—F. D.—J. L. T.—M. O. L.—

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[Mention this paper.]

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THE
RURAL NEW-YORKER.

PUBLISHED EVERY SATURDAY.

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78 Duane Street, New York City.

SATURDAY, APRIL 12, 1879.

IS THE BREED IN THE FEEDING TROUGH?

Replying to this query, we are inclined to make the paradoxical answer that it is foolish to think it is, and yet dangerous not to know it is. No profitable breed was ever made without liberal feeding. But feeding alone, however liberal, will not make a profitable breed. Feeding, care, and intelligent selection, are all required for the improvement of farm stock. And after a valuable breed is thus produced, its excellence can only be continued by a continuance of all these. Nothing is more wretched and worthless than a degraded thoroughbred of any kind. This is one reason why thoroughbreds are not more popular with the "old-fashioned farmers." They are creatures of high art, and in farming, high art and old fashions are strangers to each other. To take a fine Jersey cow, a choice Essex pig, an Oxford-Down sheep, and subject them to the methods that have developed the scrub cattle, the "elm-peelers" and the "fence scalers" of our pens and pastures, is not the way to show them off to a good advantage.

The old breeds are tough, for the same reason which the Dutch farmer gave for his wife's resignation to die: "Mine Gott," said he "She hat to be!" Now the very methods taken to develop the profitable qualities of improved stock, —the liberal and varied feeding, the rich pasturage, the warm stables—all have a tendency to lessen their power of resistance to extreme hardship. It is simply a question whether it is better to have "tough" cows that will make 100 pounds of butter a year, or such as must have more care and better feed, but will return 300 pounds in the same time.

Probably nine-tenths of the farmers, even of New England, New York and Pennsylvania, have as yet little or no blood of foreign breeds in their stock. Yet they possess many beasts that are good and profitable. Our "native" animals are as easily improved by proper care, feeding and breeding, as those of any part of the world. The *judicious* introduction of foreign blood will often hasten the development of desired qualities. But never, *never*, NEVER will it do so unless, along with it, we take the methods that made it what it is. And *with* those methods it is simply a question of greater or less time to make as good or better thoroughbreds upon the basis of our "native" animals. This is most important to be known. It is not yet by any means so well known as it ought to be.

CONCENTRATED FERTILIZERS—OUR ADVICE.

Parties advertising concentrated fertilizers usually present, in circular form, a long list of recommendations from those who have used them. Our readers ought not to be influenced by such recommendations, no matter how well the names may be known to them. The commercial fertilizer sold this year may be very different in its valuable ingredients from that sold last year—and the commendation of a neighbor as to how much a certain brand benefited a certain crop in his field, is no guarantee as to its effect upon the same or a different crop in another field.

If your neighbor uses 1000 pounds of superphosphate on his acre of corn, and produces 100 bushels, that is no proof that 1000 pounds of superphosphate will produce 100 bushels of shelled corn on *your* field—it is no sort of evidence that it will.

The readiness with which one farmer will buy the same fertilizer that seems to have helped his neighbor's crop, brings to our mind a fanciful case like this: Farmer A. up to Jan. 1st, 1877, weighed 175 pounds. During the year he gained in flesh so that by Jan. 1st, 1878, he weighed 225 pounds. Now farmer B., whose weight was only about 150, knows of this change, and seeking farmer A. asks: "What have you done to gain 50 pounds in one year?" "I will tell you," replies farmer A.: "It happened that during 1877 I ate about twice as much *fish* as ever before in the same length of time, and, no doubt, my increase of weight has been due to that. At least there was no other change in my diet or life to which I can attribute it—therefore, I say, no doubt it was the *fish*." Farmer B., impressed with the force of this reasoning, eats thereafter two fishes where previously he had eaten one; but the end of 1878 found him in weight just 150 pounds. Accosting farmer A., farmer B. says: "I have followed your fish diet during the past year, but I am no fleshier than at its commencement." "Well," retorts farmer A., "I am not the less satisfied that it was the fish which added so much to my weight. It only goes to show the truth of the old adage that what will kill one will cure another."

In the first place, there is no proof that it *was* the 1000 pounds of superphosphate that produced the 100 bushels of shelled corn. The large yield *might* have been due to one or to fifty other less apparent causes. But even if the superphosphate *were* the cause of the large yield, the same amount upon farmer B.'s field might produce no manifest increase of yield while, perhaps, had he used nitrate of soda or potash, his yield might have been as great as that of farmer A.

We say to our farmers who propose to buy concentrated fertilizers: "First—*Be sure what you are buying. See that you get what you pay for.* Chemical analysis may assure you of this. One superphosphate at $20 per ton may be worth to you less than one-quarter of the value of another superphosphate that costs twice as much. Second—We say do not conclude that *your* land needs nitrogen, potash or phosphoric acid because either one or all of them seemed to produce fine crops for your neighbor's. Last, we say, before you purchase special fertilizers at all,—experiment in a small way for yourselves with fertilizers of the simplest composition; such as burnt bone, nitrate of soda, muriate of potash. There are a number of trustworthy firms in New York, Chicago, Boston, Philadelphia or Baltimore, who will supply any or all in small quantities which will enable you thus to experiment in a small way and at a small cost. In this way, (*if at all*) you may learn *approximately* what your land needs. You can learn in no other way except by a probably ruinous waste of money."

TREATING.

Some time ago (July 27, 1877) we suggested in the Rural that the friends of temperance might promote the cause for which they are laboring, by inducing young men to abstain from the common practice of treating, and proposed that a society be formed, the members of which should pledge themselves to pay for no liquor to be drank by others, and to drink none that another paid for. Such a society is now established in New York, and is, we understand, in successful operation with good results. Perhaps the originators of it, however, were as little aware that we had suggested it, as we were that the same thing was advised by one of the Governors of New England nearly two hundred and fifty years ago.

We recently found in Cotton Mather's "Magnalia Christi Americana"—a quaint, curious and rare old book—the following: "There was one civil custom used *in* (and in few *but*) the English nation which this gentleman [Gov. Winthrop] did endeavor to abolish in this country; and that was *the usage of drinking to one another.* For although by drinking to one another, no more is meant than an act of courtesie, when one, going to drink, does invite another to do so too, for the same ends with himself; nevertheless the governor (not altogether unlike to Cleomenes, of whom it is reported by Plutarch *Nolenti poculum nunquan præbuit;*)* considered the *impertinency* and *insignificancy* of this usage, as to any of those ends at all, but only to provoke persons unto *unseasonable* and perhaps *unreasonable* drinking, and at last produce that abominable *health-drinking* which the Fathers of old so severely rebuked in the Pagans, and which the Papists themselves do condemn, when their casuists pronounce it, *Peccatum mortale provocare ad æquales calices, et nefas respondere.*† Wherefore in his own most hospitable house he left it off; not out of any silly or stingy fancy, but merely that by his *example* a greater temperance, with liberty of drinking, might be recommended, and sundry inconveniences in drinking avoided; and his example accordingly began to be much followed by the sober people in this country, as it now also begins among persons of the highest rank in the English nation itself; until an order of Court came to be made against that ceremony in drinking, and then, the *old wont* violently returned with a *Nitimur in Vetatum.*"‡

*Never urged the reluctant to drink.
†It is a deadly sin to challenge another to a drinking match, and it is impious to accept such challenges.
‡A bias toward a forbidden indulgence.

THE REVOLUTION IN DAIRYING.

It is scarcely more than a year since the Western people were complaining that the brand "Western" upon their dairy packages conveyed an inference of inferiority of quality, and was accompanied by a decided inferiority in market value. Eastern men said patronizingly, "raise the quality of your goods and the market will respond at once;" "make Western butter equal to ours, and the prices will regulate themselves."

At the same time they rested confidently in the opinion that such a state of affairs could never occur. They slept on that idea just as the hare in the fable slept on the idea that the crawling tortoise could never overtake her in the race. But Eastern dairymen have been awakened in a most startling manner. Western creamery butter stands at the head of the market, and Western dairymen carry premiums at the exhibitions. As usual, the West has gone ahead. It is a Western habit to do that. With all their pertinacity and vim born of their Eastern origin, together with the surpassing advantages of their locality, Western men have left their Eastern competitors in the rear, simply because they discovered what was wanted by consumers of their produce, and then went to work and produced it.

They found that sweet, fresh butter was wanted in place of "State firkins" and tubs packed in June, and they went to winter dairying; had their cows fresh in the fall; fed them on early-cut hay and their rich and cheap corn; used all their natural advantages and acquired the necessary skill; turned out an excellent product and swept the market. And now the Eastern men are cogitating how they may recover their lost ground. They are in the rear just now, and "a stern chase is always a long race;" but whichever wins in the end, the public, who consume the butter and cheese, will be the gainers.

ROSE CULTURE.

One of the first secrets of success with the Rose in guarding against its several persistent insect enemies, such as the rose-bug, green-fly, rose-slug, etc., is to keep the plant healthy and in vigorous growth. To insure this, a rich soil is indispensable. Let it be composed of old decomposed sods or thoroughly rotted manure. This earth should never be permitted to *bake;* but should be kept friable by frequent stirring. The aphis, or green-fly, first attacks the young, tender shoots, feeding upon their juices. The pests may be killed by placing a barrel over the infested plant and burning tobacco in a flower-pot or other vessel underneath. The rose-slug, that green-bodied, jelly-like pest that feeds upon the surface of the leaves, leaving only the the veins and ribs, may be kept in severe check, if not destroyed, by dusting the plant with fine coal ashes. The rose-bugs may be brushed off into a pail of water, or picked off separately by hand and destroyed. As much as has been written about the culture of the Rose and about its insect enemies and their destruction, the above, in our experience, embodies the whole story.

A suggestion to those who have received a packet of the Pearl Millet we have sent them, is this: Take a three-inch pot and plant therein one of the seeds. By the first of June the plant will have grown to some size. Turn it out in the middle of a flower-bed, the soil of which has been made as rich as can be. It will make an immense plant by midsummer, that will prove, for the rest of the season, as ornamental as many others that are cultivated for ornament alone. In this way, too, no doubt Pearl Millet will seed freely. We should like to hear from those who act upon this suggestion. Our largest plant last year (without extra care or a rich soil) grew to the hight of ten feet one inch, and girthed about sixteen feet. We should much like to know what *can* be done with this plant if given the *best* of garden culture.

BREVITIES.

The hard frost of last spring which so injured Grapes, all small fruits, potatoes, melons, cucumbers, beans, etc., etc., was on May 14.

Mr. F. Corbin states in his interesting little work about Plymouth Rocks, that this breed is by the best authorities thought to be a cross between a single-combed Dominique cock and a Black Java hen.

Our Querist Department is so full this week, chiefly with timely inquiries, the condensed answers to which will be very useful to many of our readers at this busy season, that it has forced out our "News of the Week," a mishap the less to be regretted, inasmuch as the news of the past week has been of little general interest.

By the use of the words *ensilage* and *silos*, needless mystery has been thrown over the preservation of cut-up green corn stalks and leaves, through the winter for stock. It will be seen that the corn leaves and stalks are treated upon much the same principle on which celery is stored in trenches for the winter. And that is about the whole story.

A friend asks us: "What commercial fertilizer shall I buy for my oat field?" The question is a simple one—it is as plain as the nose on one's face. We wish we could answer it. It would seem that information as to such questions lies at the end of a long, rough road, and that at the end of it, each field, by experiment, must give that information.

The Gartner-Zeitung, speaking of a reminiscence of the Tulip Mania, says that two houses in the main street of Hoorn, near Amsterdam, were offered for sale for demolition. These houses were purchased during the Tulip trade which flourished from 1854 to 1637, with the proceeds of three Tulip bulbs. The record of this purchase was preserved in a stone inserted in the gable of one of the houses.

Dr. Sturtevant reminds his readers in the Scientific Farmer that "when a farmer plows a furrow of seventy-eight yards in length when he could as well plow a furrow two hundred and seventy-four yards in length, he is getting a waste of three hours and twenty minutes out of a day of eight hours; or, if the day's labor of men and team be reckoned at three dollars, he is losing by the short length of furrow about $1.25 a day. This, though an extreme case, does not lessen the force of the argument."

Prof. Brewer says that farmers, as a general rule, are not good gardeners. He says that the time when a large field is waiting to be sown, upon which field the farmer expects to raise a crop from which his income is to come, is the very time when his garden needs attending to; and while his garden is an important thing for his own table, it is not his business, and if either is neglected, it is his garden rather than his field. Farmers do not raise as good vegetables as gardeners do, because it conflicts with their regular business.

Our readers will remember the frequent references we have made to that excellent work, "The Native Flowers and Ferns of the United States," by Thomas Meehan. We are gratified to learn that the series finished "has proven so acceptable to the public that another series has been prepared and will appear about midsummer." And then we hope another and another will appear, for it is at once the most elegant, interesting and instructive work of its kind that has ever been published to our knowledge. The colored plates alone are worth the cost of the work.

Four years ago we made tests with all of the good and promising new sorts of cucumbers—not for pickling but as cucumbers to be sliced up and eaten with vinegar, etc., as they are usually prepared. Our report was that "Tailby's Hybrid" was the tenderest, had the fewest seeds, was, in short, the best. Ever since that time we have made occasional references to it in the hopes of securing for it a general appreciation. We are glad to see that our friend Mr. Gregory, of Marblehead, now advertises it as a "prize for any garden." We should prize the cucumber, more had Mr. Tailby called it by any other name than a "Hybrid."

The old system of cutting cemetery grounds into small lots surrounded by hedges, bids fair to pass away entirely. All over the country, the park landscape or lawn system is gaining favor. It consists in a series of plantations of shrubs and trees, so arranged that the effect of the entire cemetery, from the main drives, is that of an extensive park, all evidence of existing burial grounds being shut off by foliage. Of course, in this system, the hedge-and-fence monstrosity finds no place. Vaults or catacombs are excavated in the hillsides, and memorial buildings of all kinds erected in retired nooks. More land is required for this arrangement, but its attractive, rural character seems to commend it to all.

Mr. J. S. Woodward reports to the W. N. Y. Hort. S. as follows: "One part of the orchard, belonging to Mr. Haynes, of Newfane, was badly infested with the canker-worm, or something like it. He procured a force-pump and sprinkled the trees with water containing Paris-green. This not only entirely rid them of the canker-worms, but to his surprise those apples which grew in that part of his orchard were entirely free of codling-moth worms, and though he and his family have eaten freely of the fruit, they have found no trouble from the poison, and he is very sanguine in thinking this a cheap and very effective remedy for this pest." Now we earnestly hope that these recommendations to use Paris-green will not be heeded. The destruction that its free use *may* cause is beyond our powers to surmise. Its use to exterminate the potato-beetle may be excused, perhaps, but even in in this case it may lead to ills which we have never dreamed of.

It is a poor sort of philosophy that sets itself up to negative the plans offered by thinking men, without offering better ones in their place. Nevertheless, the belief is strong upon us that the many sorts of bands used to exterminate the Codling-moth will never appreciably lessen their numbers and that the use of them is, consequently, time and money thrown away. Unfavorable conditions of the weather or a natural enemy would do more to exterminate them in one season than any such measures of our own, in a lifetime. It is natural to the earnest horticulturist to work unceasingly for the benefit of horticulture; but we respectfully ask that the natural increase of the Codling-moth, as compared with the numbers which are likely to be killed by the general use of bands, be fairly considered. Is it not best to oppose all labor or appliances which evidently cost more than they are worth?

For Women.

CONDUCTED BY MISS FAITH RIPLEY.

OVER THE BARS.

'Twas milking time, and the cows came up
From the meadows sweet with clover,
And stood in the lane, while pretty Jane
Had a quiet chat with the drover—
Such a quiet chat that it scarcely seemed
That a single word was spoken;
While a magic spell with the night dews fell,
And the rythm of song was unbroken.

The cattle stood at the lovers' side,
Without any show of vexation,
As though impressed with a five-bar rest
Was a part of their rest-oration.
And as Jane listened to the notes that came
Right under the bars and over,
Her heart took wing, the silly thing,
And nestled up close to the drover.

She heard him say his home was poor,
That he'd nothing but love to give her;
And she smiled content, as though Love had spent
Every arrow he had in his quiver;
She smiled content, when the evening air
With voices of birds are ringing,
And her lips confessed that a lowly nest
Should never prevent her singing.

So over the bars the lovers lean,
In the joy of their sweet communion;
And their looks declare that poverty ne'er
Shall be a bar to their union;
O, sweetest music, go thread your rhymes,
Now under the bars and over;
Where pretty Jane, in the fragrant lane,
Bewitched the heart of the drover.

DESCRIPTION OF ENGRAVINGS.

No. 1.—Easter Egg. A hen's, goose's or duck's egg may be used. Make a hole in the center and empty the contents; then lay the shell in vinegar for five minutes; this gives it a delicate whiteness. Then take a fine saw, separate the egg-shell

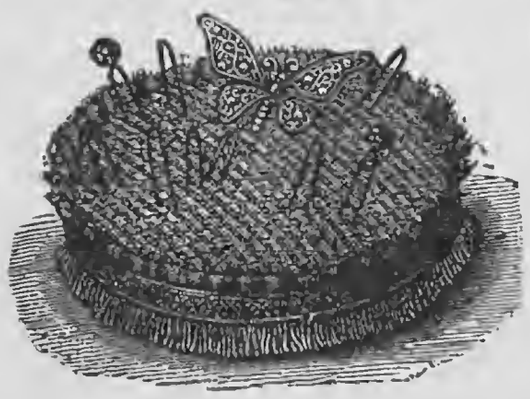

FIG. 3.

lengthwise, cutting the inside skin with a sharp knife. The shell is ornamented with a painted monogram, and fastened with very narrow ribbon. It should be filled with pink jeweler's cotton and may contain any small present.

No. 2.—Basket to hold Easter Eggs. The foundation of the basket is of cardboard; the bottom is oval, measuring seven inches long and five inches broad; the side is two and one-half inches high, and long enough to go round the oval bottom. The cardboard for the handle is one inch wide and twelve inches long. The embroidery for the side is worked on Java canvass in cording stitch, with blue crewel. The cardboard must be lined with blue silk and sewn neatly together; then the embroidery sewn at the sides, the edges of which may be made neat by a row of button-hole stitch. The basket is filled with dried moss, and the eggs arranged in it according to taste.

No 3. Hair-pin Receiver. Small paste board box is used for a foundation. Top covered with two or three thicknesses is of ordinary worsted crocheted; a yard of ribbon, ornamented on each edge with worsted fringe completes the "Receiver."

No. 4. Fashionable Fan. Marabout feathers ornamented with a hand-painting of a rose.

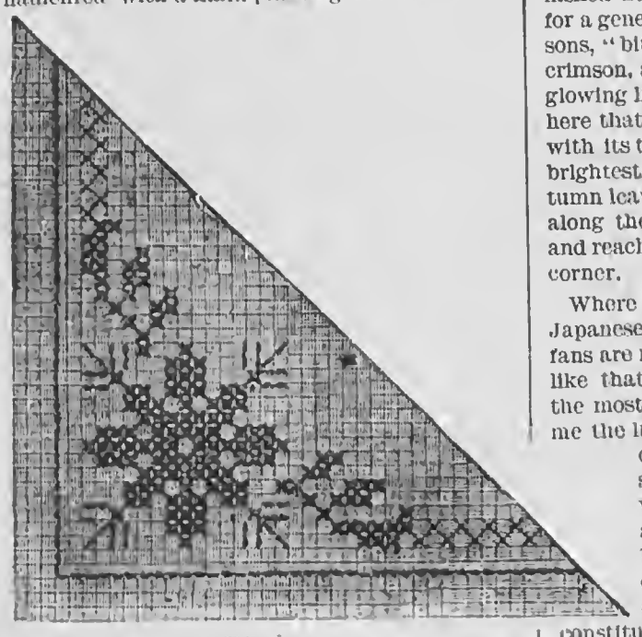

FIG. 6.

No. 5. Fancy Waste Basket. Frame is of ebony, sides of blue silk or satin embroidered in two shades of the same color. Handsome silk tassels finish the corners.

No. 6. Design in cross-stitch embroidery. This is suitable for corners of table covers or towels.

CORNERS.

ELLA RODMAN CHURCH.

What is there about corners that make them so irresistibly attractive? From childhood's earliest game of "Puss-in-the-corner," until the period when the time-buffeted man looks forward to a "snug corner" as the goal of his earthly hopes, there is a strong prejudice in favor of them. Corner houses, corner lots, corner wedges of pie (especially pumpkin baked in square pans), are all objects of desire; while to "corner" any one is decidedly to get the better of him.

One's own corner at home, with chair, writing-table and book-shelf—with the addition of work-basket, or meerschaum, as the case may be—how dear it grows to one's heart! And how the interloper who presumes, in the serene power of ignorance to appropriate it, is inwardly, at least, frowned upon! Who ever thinks, though, of becoming attached to the middle of the room? This seems by general consent to be regarded as a sort of Tom Tiddler's ground, or unsettled waste; while all the encampments are made in corners.

The soft nothings that have been whispered there!—ah! if walls had ears or were echoes, it would be seen that stair-cases are nothing to them. "In a Corner" would be an admirable title for a romance, and how much might be made of it.

One objection, perhaps, to corners is the unpleasant fact that spiders like them, too; but a persevering application of essence of broom will always succeed in dislodging these aborigines, and persuading them that the comfort of those particular corners, at least, is intended for their betters.

In the arrangement of a room, corners are not sufficiently honored; very few people understand them. Of a broken or shabby thing, it will be said, as a matter of course, "Put it a corner—it will never show there;" or of superfluities, "They will do to fill up odd corners;" when an "odd corner" should be treated as a valuable background for whatever of rich or rare in the way of small articles one may happen to possess. Indeed, I might almost go so far as to say, "Take care of the corners, and the rest of the room will take care of itself"—but will restrict it to the assertion that, if corners were treated as they should be, many a dull-looking room would bloom into beauty.

The line made by the joining of two walls should never be left bare.—art, if not nature, abhors such a vacuum; and this is the particular spot where, in that most delightful of all rooms, one not furnished according to any particular rule and used for a general gathering place at all times and seasons, "bits of color," in the shape of scarlet and crimson, are most effective. It is here that the glowing lines on the plain-tinted paper show best; here that the scarlet, or crimson, draped bracket, with its trailing ivy, or other creeper, gleams the brightest. A pillared stack of richly-glowing Autumn leaves, sumac, maple, oak and beech, fringed along the sides with quivering, shadowy grasses, and reaching from dado to ceiling, is beautiful in a corner.

Where grasses and leaves are not to be had, Japanese fans are. For it is an exploded idea that fans are meant to fan with: their legitimate use is like that of sunshine, to glorify a room. One of the most cheerful-looking rooms I ever saw gave me the impression, on first entering, that a swarm of mammoth butterflies had taken possession of the corners, and expanded their wings contentedly over the pictures. But a closer inspection revealed the fact that brilliantly-tinted folding-fans were spread out, butterfly fashion, over the modest engravings and heliotypes that mostly constituted the works of art; while the corners of the room were ornamented with stacks of the round-handled kind, on which the most gorgeous tints in the most impossible of combinations ran riot. The carpet was dingy, and the furniture principally ditto; but there was a general effect of cheerfulness and beauty.

That endlessly-accommodating plant, the ivy, is especially at home in corners, and gracefully clothes the naked lines with a robe of lovely green. A corner cupboard is always bewitching—whether it be of carved ebony or of painted pine. Triangular shelves, too, are delightful, something in the way of a surprise: and a row of three, like a set of steps, will furnish any corner appropriately. A vase, or bust, on the upper one—books on the lower—a cup and saucer, perhaps, on the one between—and your corner is complete; especially, if the vase holds a vine that pursues its winding way to the ceiling,—or the grotesque figures on a stack of Japanese fans climb obligingly down to meet it.

I love corners dearly; and when I see them empty and uncared for, I always feel like putting the owner of the room into one of them,—more as punishment, however, than in the way of decoration.

CORRESPONDENT'S CORNER.

Mrs. L. M. Shields, Otsego Co., N. Y.—Yeast

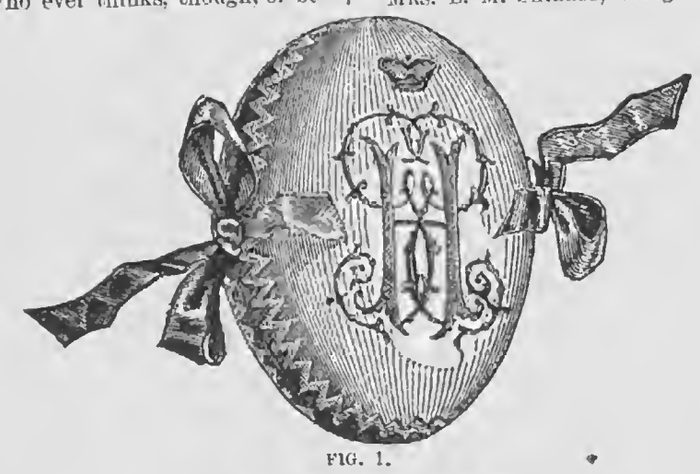

FIG. 1.

poultices are made in New York hospitals as follows: Mix a pound of linseed-meal or oat-meal into a half pint of yeast. Then heat the mixture over a gentle fire, stirring carefully to keep from burning. When it becomes warmed through it can be spread on linen like any other poultice. Unless expressly ordered by a physician, I should give the preference to slippery-elm or flaxseed for poultices.

Will some one who has tried it for herself give "Farmer's Wife" a good recipe for staining or painting her kitchen-floor? Send answer to Rural office, care of Faith Ripley.

Mrs. M. M. W., Pittsfield, Mass., would like some experienced Rural housekeeper to tell her how flannels can be washed without shrinking. Send answer as above.

Literary Miscellany.

AN UGLY GIRL.

(Continued from page 224.)

Mrs. Estcourt drew her chair nearer to the table, and laid her hand, with a very demonstrative "Bless you, my dear boy!" on the shoulder of her stepson. Noel averted his face a little, and shaded it from her view: he could not but feel very much agitated; for he was as full of hopes and aspirations as any other healthy, handsome young fellow of four-and-twenty would be. Hitherto he had, as he confessed, scarcely realized all that lay before him; but now, as he sat with the attributes of luxury around him, obsequiously addressed as "my lord," his opinion deferred to, and all the harassing worries and makeshifts endured during weary years of pinching economy sinking into insignificance, his heart began to swell with exultation.

FIG. 2.

But Mr. Whitely was clearing his throat, and, as he unfolded his papers, he cast such a penetrating glance at Noel, that the latter could have fancied this shrewd lawyer divined the thoughts that had been passing through his mind.

"Before reading the late Viscount's will," his solicitor premised, "I have a revelation to make which will, I think, very much surprise you."

"Nothing that my poor friend did could very much surprise me," muttered Colonel Jenkinson, pulling his long, white moustache. "After being told that he was in the habit of letting his servants give him whatever they pleased for dinner, and shutting himself in his rooms from month's end to month's end, I shall not be astonished to hear that he committed still greater eccentricities."

"The act of which I am about to speak can scarcely be classed under that term," answered Mr. Whitely, dryly; "although the Viscount's conduct since it occurred must be termed odd and unusual."

"Couldn't we hear the will first, and all these trivial details afterwards?" demanded Mrs. Estcourt, who was impatient of any delay.

"Permit me, madam, to finish what I was about to say. It has always been supposed that the late Viscount was an unmarried man; but this is not correct."

Mrs. Estcourt gave a faint shriek, and sat upright in her chair, while Noel felt the blood recede from his cheek.

"About twenty years ago," the lawyer went on, satisfied that he had now secured attentive auditors—"about twenty years since, Lord Carisforde, during a visit to Rome for the purpose of purchasing some rare antique, met with a young English girl, governess in the family of one of the Roman nobles, and married her for her beauty."

"Married! Alas! my poor children!" moaned Mrs. Estcourt. "Cruel, disgraceful man!"

"Lord Carisforde brought his bride to England, but only to jealously seclude her in a country house he rented near Dorking; for she was so exquisitely beautiful, that he was quite annoyed by the notice she attracted wherever she went. Within a year of their marriage, however, this poor young lady, whose brilliancy of complexion was, it appears, owing to incipient decline, gave birth to a daughter, and faded away soon after."

"Then there is an heiress in existence!" cried Mrs. Estcourt, panting with vexation. "But the title—they cannot take that away from you, Noel! and some of the property *must* go with it!"

"A poor five hundred a-year," interposed the Colonel. "I have heard Carisforde mention it frequently."

This the lawyer confirmed; and Mrs. Estcourt, more noisily affected than her son, complained of being faint; but no one noticed her, for Mr. Whitely had gone on to say:

"It is only within these last few months that I have been made acquainted with the facts I relate to you, for Lord Carisforde was a very reserved man."

"And was ashamed of the low marriage he had contracted!" cried Mrs. Estcourt, vehemently.

"Hush, mother!" exclaimed Noel, annoyed at the virulence with which she spoke; and Mr. Whitely flatly contradicted her.

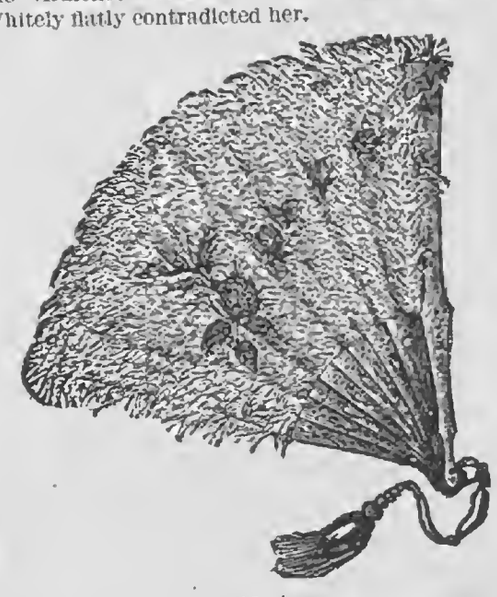

FIG. 4.

"You are quite mistaken, madam. My client attached no importance to birth or station; but he adored beauty in all its forms, and he married because the young lady bore an extraordinary likeness of an exquisite statuette of Psyche that stands in a niche in his dressing-room. He had a fancy that to such uncommon loveliness of form and face great purity of mind must be allied; and in this case I have every reason to believe that he was not mistaken. Lady Carisforde's death was a terrible shock to her husband: and he felt it all the more because unfortunately, her little daughter inherited none of her charms. He confessed to me that when he first saw his child, her ugliness so revolted him that he could not endure to behold her again."

"But surely he strove to overcome a feeling that must have inflicted such pain on its object!" exclaimed Noel.

"He never did overcome that horror, my dear sir, till he was siezed with his last illness, and his physicians hinted to him that his recovery was hopeless. Then, and not till then, he told me of his marriage, and permitted me to send for Miss Carisforde."

"How old is she? Does she inherit her mother's weakly constitution?" asked Mrs. Estcourt, in a tone that disgusted her hearers.

"The young lady is about nineteen, and enjoys robust health," the lawyer rather maliciously replied.

And Mrs. Estcourt turned from him, protesting that the Viscount must have been insane.

"Eccentric he may have been," the solicitor brusquely retorted; but his mind was as sound as my own. Depend on it, ma'am, any attempt to upset his will would be unsuccessful."

FIG. 5.

"No such attempt will be made," interposed Noel, with decision. "You were speaking of Miss Carisforde. Is she here?"

"Yes, she was brought from the secluded house at which her mother died, to witness the last moments of the father whom till then she had

not known. I am informed that she did not leave his side, except to snatch a few hour's rest, until he expired."

"Perhaps her looks had ceased to shock him," suggested the Colonel. "They may have improved with her growth."

"I believe not. I have not seen Miss Carisforde, for she shuns strangers; but the Viscount, when dictating his last bequests, told me with a sigh that, in spite of her goodness, he has found it very difficult to reconcile himself to her appearance, for she was in all respects the very antitype of her lovely mother."

"The will, sir—let us have the will!" cried Mrs. Estcourt, who detested suspense.

"You shall, madam; but as Miss Carisforde is a party concerned, I should wish her to be present;" and at the lawyer's request Noel touched the bell at his elbow. "All that I have to say in conclusion is, that the young lady's filial attentions made her father regret that he had estranged himself from her so long, and he bade me tell you, Lord Carisforde, that in framing this, his last will and testament, he bore in mind not only your claims as the successor to his title, but hers as his only child; and he has so worded it as to atone to his daughter for past neglect, and to your lordship for his inability—consistent with justice to another—to give you the estates as well as the peerage."

"Young man," exclaimed Colonel Jenkinson, turning solemnly to the half-stunned Noel, and shaking his hand, "I am very sorry for you. It is hard—extremely hard upon a lad of spirit to be pulled up short just as he thought he had a fair field before him. But discipline your mind to endure defeats. There's nothing like discipline; nd if you feel inclined to enter the army—it's the finest profession in the world—why, come to us. We'll give you a hearty welcome, and make a good soldier of you."

"Oh! this is dreadful!" wailed Mrs. Estcourt, drawing out her handkerchief. "My poor children! what will become of you if your unnatural brother deserts you? He ought not to have exposed me to this dreadful—dreadful disappointment!"

"The lady talks as if she were the party aggrieved," the Colonel observed, in Mr. Whitely's ear; while Noel, by hinting that she must consent to leave the room unless she composed herself, prevailed upon her to be silent.

A servant now appeared, who was sent to request the presence of the Honorable Ada Carisforde; and Noel Estcourt reseated himself, his curiosity to know the precise position in which he would find himself, overcoming in some measure his regret that he had cherished expectations which were not to be fulfilled.

CHAPTER III.

THE READING OF THE WILL.

The servant sent to summon Miss Carisforde to the reading of her father's will returned in a few minutes with her excuses. She would much prefer, she said, to leave her interests in the hands of the gentleman who had guarded the Viscount's so faithfully; but if it was absolutely necessary that some one should be present, might she not be represented by her friend and companion, Miss Hillian Gray?

Mr. Whitely demurred a little. He preferred to do business with the principal, he observed, rather stiffly. If, however, Miss Carisforde felt incapable of appearing, why there was no help for it, though he still hoped she would make the effort.

The messenger returned a second time to say that his young lady did not feel equal to the effort, and Mr. Whitely muttered a peevish expression as he looked at his watch.

"Then by all means let us have Miss Gray, for my time is up. I wish ladies would remember that a professional man can ill afford to be kept waiting while they are making up their minds."

"I should have liked to see my old friend's daughter," Colonel Jenkinson observed, regretfully.

"Poor thing," said Mr. Whitely, already repenting his testy speech; "I am told that she is so very sensitive about her looks that she has not taken an occasional airing in the grounds since she has been here without hiding her face behind a thick veil. They do hint that she is positively repulsive. A great—a very great misfortune for a girl in her position. Perhaps if Mrs. Estcourt, as a relative, were to kindly go to her——"

"I am not a relative," was the prompt reply, "and my nerves are in such a weak state that I really could not expose myself to further shocks. It was very inconsiderate of Noel to bring me here, knowing how unequal I am to any agitation."

Her stepson opened his eyes, but said nothing. It was not worth while to remind her that she had literally forced herself upon him; and there was a short pause, during which the Colonel had recourse to his moustache. Noel, growing restless, rose and walked to the window; Mrs. Estcourt sighed and sniffed dolorously, while Mr. Whitely fidgeted with his papers, and finally jumped up to ring another peal on the bell.

"The companion is as thoughtless as her mistress. Anyone would think that my time is of no consequence. Oh! here is Miss—Gray, isn't it? You are very welcome, young lady; for I have an appointment at eight o'clock, and cannot afford to be kept here any longer."

He spoke so brusquely, that the shy, pale girl who had timidly hesitated on the threshold, appeared half inclined to retreat again. When Mr. Whitely placed a chair for her, she advanced a few steps; but only to make another doubtful pause as the voice of Mrs. Estcourt reached her ear.

"I neither understand why we have been kept waiting for this young person, nor why she is here at all. In a family-meeting, such as this ought to be, it is not pleasant to have one's most important concerns discussed before a dependent."

The girl to whom this gratuitous insult was directed shivered and retreated. But while she did so, instinctively she cast an appealing glance at the male occupants of the room, as if in mute entreaty that they would protect her from the shrill-tongued woman who thus coarsely protested against her presence. Perhaps her eye, attracted by the tall figure standing at the window, may have rested there a moment longer than on the others, and Noel answered the appeal it conveyed by crossing the room and placing himself beside her.

"You forget, madam," he said to Mrs. Estcourt, in tones stern enough to frighten her into better behaviour—"you forget that this young lady accepts this unpleasant office to oblige Miss Carisforde and me."

Taking Illilian Gray by the hand, he lead her to her seat, and then, by asking a few trivial questions of Mr. Whitely, gave her time to wipe away the tears that were stealing down her pale cheeks.

But for his stepmother's ill-nature, he might neither have wasted look nor thought on the modest little companion of the Honorable Ada Carisforde; but now he could not resist glancing across the table once or twice to see if she had recovered her composure. From these furtive glances he discovered that she had one of the sweetest faces he ever beheld. By no stretch of imagination could she have been called beautiful, for her features were irregular; taken separately, none of them were good except her eyes, which were so dark a hazel as to be almost black. Noel thought that timid, tearful Illilian Gray, with her black dress dusty and crumpled—as if she had been lying down with a headache when summoned to the drawing-room—and her hair rough and partially unbraided, had one of the most feminine, winning countenances that he had ever beheld.

But while Noel was thinking this, Mr. Whitely was wading through the customary preamble, reading with a deliberation that provoked Mrs. Estcourt terribly. The will was unusually short and simple, for Lord Carisforde had formed no friendships during the latter years of his life, and had outlived those of his youth, with the exception of his *camaraderie* for Colonel Jenkinson, who was remembered with a massive service of plate.

To each and all his servants he bequeathed twelvemonth's wages, but to the heir to his title, nothing; for all his property, real or personal, was devised to his beloved and long-neglected daughter Ada.

Though Noel's heart sank when he heard this and knew that he should leave the Park as poor a man as when he entered, his regrets were trifling ones compared to his stepmother's. Fortunately for everyone present her warring emotions deprived her of her power of speech, and the lawyer was able to proceed with the reading of a codicil he now produced.

After giving directions that a favorite horse should be shot, the Viscount had appended an explanation of his motives for the seeming injustice which rendered his heir a landless peer.

"Since I have known and loved my child," were the words of the document, "I have craved to live for her sake. This is denied me, but I cannot die till I have made some reparation for the past as well as a fitting provision for her future. Her misfortunes debar her from being sought in marriage for herself, and therefore I feel that I shall best secure her happiness by leaving to her all I possess, subject to the condition that she shall give it with her hand to my successor in the peerage, Noel Estcourt."

"I solemnly enjoin the said Noel Estcourt—of whom I have heard such a good report that I can have no hesitation in trusting him—to be a good and faithful spouse to Ada my daughter, and not to slight or neglect her on account of her unhappy want of comeliness; to treat her always with the consideration and courtesy due to her rank; and if she continues to think it best that she should live in seclusion, to let her fix her residence wherever she pleases; and also to take care that she has a sufficient annual allowance to enable her to gratify every reasonable desire."

"I believe this is all, my lord," the lawyer slowly said, as he came to the bottom of the page. "I must beg you to understand that I had no part in the wording of this will. I hope," he added, with a faint attempt to be jocular, "that the young lady and gentleman whom it most directly concerns, will find no difficulty in complying with its behests. Then your lordship will be able to keep up the ancient *prestige* of your name, and Miss Carisforde will—I say this without a thought of flattery—have to thank her father for providing her with a bridegroom who will do honor to his position."

"It's—it's dreadfully unjust!" groaned Mrs. Estcourt. "The property ought to have gone with the title."

"It will do so if the present Lord Carisforde agrees to the arrangement proposed by the late one," Mr. Whitely reminded her.

"But this girl must be hideous—positively hideous! What a sacrifice for Noel to make! and I had planned everything so nicely! We should have been very happy here, especially if we could have kept him to ourselves for a few years; but I am doomed to be unfortunate!"

"Hush, mother!" said Noel, taking her hand kindly. "We will still try to be happy. At what time will you be ready to return to town?"

Mrs. Estcourt's face lengthened.

"Must we go back directly? No, no! Why should we? Of course, the will must be acted upon. I will be the first to see Miss Carisforde, and endeavor to accustom myself to her; and then you——"

"Pay any kind attentions to Miss Carisforde that your heart dictates," Noel interposed. "Remain here with her if she feels her loneliness, and wishes you to do so; but do not imagine for a moment that I could ever be so despicable as to entertain the idea of marrying a girl I have never seen, and whom it would be impossible to love."

"Hush—hush! my dear lord," whispered the lawyer. "Don't make rash resolves, nor forget that we are not alone."

Noel glanced in the direction of Illilian Gray but was only in time to catch a glimpse of her black skirts as she noiselessly flitted from the room.

However, he did not doubt that she had heard his last words, and would repeat them to the heiress; and so far from regretting them as rash, he rejoiced that neither Miss Carisforde nor her friends would be able to accuse him of any mercenary wavering. He wished, though, on second thoughts, that he had not spoken of the poor recluse as a girl for whom it would be impossible to feel any affection. Had not her affliction been brought before her forcibly enough without its bitterness being increased by his emphatic declaration?

"It's a splendid property," Mr. Whitely went on to say. "Lord Carisforde occasionally spent large sums; but his estates were productive and would bear it. I hope, my lord, I shall live to see you master of Carisforde, not in name only——"

"Listen to me—pray listen for one moment!" cried Mrs. Estcourt, who had been vainly endeavoring to get a hearing, and now saw that her stepson was on the point of repeating his former declaration. "Noel must have time given him for consideration. It will never do for him to be bound by anything he has said to-night. He is vexed—disappointed; he is smarting under a sense of having been unfairly treated; he cannot view the Viscount's will in the favorable light in which I am beginning to regard it. We shall stay here, Mr. Whitely; we shall make the acquaintance of our young relative, and if she is as amiable as you describe her——"

But Noel would hear no more. He flung off the hand that lay on his sleeve, and entreated Mrs. Estcourt to desist.

"It is impossible, mother, for me to act as you wish. The late Lord Carisforde's money was his own, and he was justified in bequeathing it to his only child. Remember, that if it were not for her sex, she would have inherited with it the title that is so useless to me."

"It would not be useless if you——"

"If I consented to become a pensioner on the bounty of my young kinswoman? Never!"

Mr. Whitely was so interested in the young man's decision, that he forgot his haste, and stayed to say:

"But, my dear sir, if you will not embrace the opportunity offered to you—if you will not try and win the heiress, what will you do?"

"Yes, Noel—yes; Mr. Whitely is quite right in asking this!" cried Mrs. Estcourt. "You must not let your pride make you selfishly forgetful of *my* claims."

"I will never be that," he answered, with a sigh. "But neither will I stoop to a mercenary marriage. I would rather go back to London and return to my situation, if Messrs. Nivett will consent to reinstate me."

"Viscount Carisforde, the last of an ancient line, a clerk in a banking house! Oh! it is too absurd!"

"Nay, mother; when I quit this house I shall lay aside a title which is useless to me."

Mrs. Estcourt wrung her hands.

"And leave this splendid estate to a chit of a girl who never ought to have lived! Don't tell me it's unfeeling to talk in this way! I hate her!"

"But I do not," answered Noel, quietly. "I owe her no grudge. I shall try not to covet aught she possesses, but regard what has passed as one of those delusive dreams with which Fortune sometimes tricks us."

"But to go back to town!" sobbed Mrs. Estcourt—"to the old house—the old life—to be as poor, as pinched as before! Oh! Noel, is there no middle course? Have you no pity for me?"

"Yes, yes! there is—there shall be!" said Mr. Whitely, melted by her tears, even though they were shed solely for herself. "I will make a point of having a little talk with Miss Carisforde on the subject. She is bound to do something for your lordship. She would be the most ungenerous of girls if she did not agree to settle a handsome annuity on you."

Noel drew himself up proudly.

"I beg that you will not do anything of the kind. I have already said that I distinctly decline to be Miss Carisforde's pensioner. Had her father and I been more nearly akin, or if he had ever held out hopes that I should receive any legacy at his death, I should then have reason to consider myself aggrieved. As it is, though I may regret that your professional reserve or ignorance of my real position prevented you from warning me that my real portion would be an empty title, I will not impute blame to any one."

Mr. Whitely was a kind-hearted man; and, though he thought the young man too scrupulous in refusing to woo an ugly bride, whose tocher would be such an ample one, he felt truly sorry for him. But he was in a hurry, and contented himself with shaking Noel by the hand warmly, and begging him to write to his address if he altered his mind, or there were any other way in which, by his advice or influence, he could serve him.

Noel thanked him gratefully, and they were separating with mutual expressions of good-will, when a stifled shriek and a heavy fall made them both turn hurriedly to Mrs. Estcourt. She, poor woman, never accustomed to exercise much self-control, and now compelled to see that Noel was determined to act for himself, was suffocating with rage and disappointment. She wanted to detain Mr. Whitely, to induce him to aid her in one more appeal to her obstinate stepson; but her emotion robbed her of speech, and she fell upon the floor, writhing and moaning so convulsively, that Noel, who had learned to endure her hysterical attacks with stoical composure, saw that she was now really ill, and hurried to her assistance.

Mr. Whitely rang for the housekeeper, the nearest doctor was sent for, and his remedies abated the violence of the attack; but as he recommended that his patient should be removed to bed, and positively declared her return to town or even removal to a hotel impossible, the intensely annoyed Noel saw that he should be compelled to spend this one night, if no more, beneath the roof of the heiress for whose sake his own claims had been set aside so completely, and, we may add, so provokingly.

(To be continued.)

WEAKER THAN A WOMAN.

(Continued from page 222.)

CHAPTER XLV.

It was a pleasant evening; the dinner-party was bright and cheerful, and after dinner the guests had music, cards, and conversation. More than once Lady Chevenix made room for Felix near her and talked to him. But, if Lady Chevenix was unusually kind, Mrs. Haye was unusually cold to him; whenever she saw her daughter talking to him, under some pretext or other she interrupted the conversation. She tried to patronise him; but all efforts at patronage recoiled upon herself. There are some men who never will be patronized, and he was one; his natural pride and dignity of character quite prevented it.

The evening was a pleasant one. Lady Chevenix was a charming hostess; she neglected no one. She had the rare gift of making every one feel perfectly at home, and each one separately seemed to be her most favored guest. Felix could not help contrasting that visit with his last, when she had suffered such tortures of anxiety and humiliation. He could not help thinking of the unhappy man who had died so young, a victim to his own folly—the man who had once been master of all this wealth and had made bad use of it.

It was a pleasant evening. If Felix had been more vain, he must have seen with what great respect and consideration he was treated—how Lady Chevenix deferred to him on every point—how she consulted his tastes, his wishes, his convenience. If he had been more vain, he would have been more flattered by it—he would have seen it. But he did not. The chief thing that struck him was the coldness and reserve of Mrs. Haye.

During the next few days father and son worked hard; they rose early and did not leave work until it was time to prepare for dinner. Darcy Lonsdale declared that Lady Chevenix would spoil him. She devoted herself almost entirely to their comfort; she studied them.

At the end of the third day there yet remained three or four hours' hard work.

"We must go to-morrow," said Darcy; "we must leave the first thing in the morning, let what will happen."

Felix decided to go back to his writing immediately after dinner, and not to pause again until he had finished. That was the only plan. Lady Chevenix smiled thoughtfully when she heard it.

"It will be best," she agreed. "I will see that Felix has a cheerful fire and refreshments. How good you both are to work so hard over my affairs!"

So when the dinner was ended, Felix went back to the library and began to write. Lady Chevenix sent him a cup of her favorite *cafe noir*. Later on a servant carried in a refreshment-tray, which was placed on a table near him. He heard the sound of music and laughter, which, as night drew on, ceased. His father came in and said, "Good night" to him; and then silence fell over the house.

CHAPTER XLVII.

As Felix Lonsdale wrote busily, there came to him the memory of a story he had read in which a lawyer like himself had sat alone in the library of a country-house, and the spirit of its dead owner came to tell him of some wrong that he had done in his life.

"It is a pleasant thought;" smiled Felix to himself; and then he was startled for a moment. A faint odor of violets floated near him, and, looking up, he saw Lady Chevenix.

She was standing by his side, looking down on him with a light on her face that had not shone there for long years. Never had this beautiful woman looked more beautiful than now, with her charming head bent over him, standing in the half-darkened room like a vision of light. The crimson glow of the fire and the soft radiance of the lamp on the table fell over her. She wore a very handsome dress, which showed her lovely shoulders, her white neck and rounded arms—a dress that in the ruddy firelight presented most marvelous hues. With it she wore a diamond necklace, and diamond stars shone in the golden hair.

There was something more than beauty in her face; he knew it the moment he raised his eyes and saw her. There was love—love such as had not shone there since she had bidden him farewell. The firelight gleamed on her jeweled hands, on her marvelous face, her golden hair. She stood before him in all the pride and magnificence of her wealth and her loveliness, a vision such as rarely greets the eyes of men. And, as he looked at her, with somewhat of wonder and inquiry on his face, she sank slowly on her knees, and bent her head before him.

"Lady Chevenix," he cried, "you must not do that! I cannot allow it!"

She laid her hand on his arm—the hand on which shone her wedding-ring.

"Listen to me, Felix," she said—and the sweet voice stirred unwontedly his heart and soul. "I have waited impatiently for this hour. You are going away to-morrow; and I must speak to you to-night. Marian is in the ante-room; there; I brought her with me. I told her I must speak to you to-night, and she came at once. Felix, will you listen?"

"How can I help but listen?" he replied. "What do you wish to say to me, Lady Chevenix?"

With a charming gesture of impatience she laid a finger on his lips.

"You must not call me 'Lady Chevenix,'" she said. "I am 'Violet' to you. Say 'Violet,' and then I will tell you what I came for."

Perhaps, if he had had time to prepare himself, to think matters over, to take some precautions, he would have known better how to listen and what to say. As it was, she seemed suddenly to have taken possession of him, of his whole nature.

"You make me say what you will, Violet."

She clasped her hands, and laid them upon his arm.

"I want to tell you a story, Felix," she said—"give me your attention while I narrate it. Years ago there was a girl—young, foolish, and, the world said fair. She was vain too of her beauty, and expected to achieve great things with it. She loved with all her heart some one who was more than worthy of her love, and she promised to be his wife. But sorrow and misfortune came to him, while a wealthy wooer sought her—one who offered her wealth and title, houses and lands—and she—well, I am ashamed of her, Felix. She was vain, and much weaker than a woman; she was young too, and not over-wise. She had nobility enough, however, to see what was right though not to do it. She was tempted by her love of luxury and comfort—she was badly advised, wrongly influenced; and she, weaker, I say again, than a woman, gave up her lover—the one man in the world whom she loved—and married the wealthy suitor. How she suffered no one knows, no one can tell. Her marriage turned out to be a most disastrous one. She had money, luxury of every kind, but she never had one moment of happiness—one moment of peace, of rest. She had outward gaiety, outward brilliancy and pleasure; but her life was one round of lamentation and anxious sorrow. No one knew what she suffered; no one knew how she regretted the lost true dear love who would have made her life a heaven on earth. After she was married she met him again, and—well, he was always cold and distant to her. What she thought and what she suffered was known to herself. Then, after long years of humiliating servitude, she was alone again, and free. What do you think she did, Felix?"

"I cannot say," he replied in a low hoarse voice.

"I will tell you. After those long years she found that she still loved the dear companion of her youth. She said to herself that he had never married—perhaps he still cared for her—and one night, when he was sitting alone, she went to him—as I have come to you—knelt by his side—as I kneel by yours—and prayed to him—as I pray to you—'Oh, my lost love, my dear love, forgive me, and take me to your heart again!'" And the lovely head drooped until it lay upon his arm.

He made no answer just then. His whole soul was stirred within him—his whole heart touched. After a few minutes she raised her face to his, and he saw tears upon it.

"Violet," he said, "I do not know what to say to you. You have taken me so completely by surprise. I am lost—bewildered. I cannot collect myself."

"I thought you would say 'Yes' to me at once," she returned sadly. "Oh, Felix, have you not forgiven me? Tell me that first. Have you forgiven me?"

He looked at her thoughtfully, watching the firelight gleaming on her golden hair and on her rich jewels.

"Yes; I have forgiven you, Violet—I forgave you long ago."

"Quite, or was it only a half forgiveness, Felix?"

"Quite," he replied. "I am sure of it. My heart was full of hot anger for many long months, but it died away; and then, when I saw that you were not happy, I forgave you."

"With all your heart, Felix?"

"With all my heart," he answered; and then there was silence for a few minutes between them.

"You forgave me? Then, Felix, why will you not take me into your heart again?"

His face grew deadly pale—his hands trembled. She saw such deep emotion in his face that her own grew pale.

"You see but one side of the question," he said. "Now listen to me. I loved a girl, Violet—ah, heaven, how I loved her! She was the very light of my eyes! She was the pulse of my heart! She was the very soul of my life—my one priceless jewel! She loved me—her fair face brightened for me—her sweet eyes rained love and kindness on me—her voice made all my music! I had no life outside her sweet life! Heaven forgive me, I worshipped her—no man ever worshipped a woman so madly, so blindly, or so well! If at any time my poor life would have served her, I would have given it. If at any time I could have died for her, I would have died. And she was kind to me. It drives me mad even now, when I remember that she once placed her arms around my neck and promised to be my wife. Then over the heaven of my content what clouds came! I was working—as man seldom works—to make a home for my darling and place her in it. I was seeking every picture, every ornament that I thought would beautify a home, for one who would herself adorn it most. What happened? A wealthier lover came—not, mind you, one who loved her more, not one whom she could love—a man, to say the best of him, coarse of soul and hard of heart; he could not even appreciate the exquisite loveliness of my love. He held out his hands to her, and they were filled with gold; he offered her title, money, jewels—everything that women love. He laughed to scorn the notion that any tie to me bound her. 'Leave him,' he said—'he is poor. Come to me—I am rich.' What did she do, this love of mine, who held my heart in her hands?"

The beautiful head drooped lower and lower.

"Have pity on me, Felix," she cried—"have pity!"

"I do not mean to be hard; I am only telling the truth. This is my version of the story, Violet. What did she do? Did the first noble instincts of true womanhood come to her? Did she turn with fidelity to me? No. She flung my love back in my face, she trampled my life under her feet, and she crushed my heart in her hands—she jilted me! Nay, do not shrink from the word, Violet; it is the only one. She jilted me—left me to be the subject of men's laughter and women's jeers—left me a burning fire of anguish that nothing could slacken or cool—left me with my life ruined."

Again she raised her hands to him, and cried—

"Have pity on me! You are terribly hard."

"Nay, I am but just, Violet. And then this woman who had left me to laughter and ruin came to me with a smile, and asked me to take her into my heart again. The past, which had been one long agony to me, was to be condoned by a smile, the torture of years to be soothed by a few kind words!"

He stopped; the passion of his own words mastered him.

"You said you had forgiven me, dear," and Violets hands touched his clustering hair.

"Yes; I have forgiven you. Listen to me, Violet. She came to me again, this woman who had betrayed me, with the dead man's spoils in her hand. She came to me bright with jewels, radiant with their magnificence his wealth had provided for her—the wealth for which she left me. She held out her hands laden with treasures; she brought to me the spoils her perfidy and falsehood had won for her. I should be less than a man if I shared those spoils with her—should I not, Violet? When you left me, and men laughed because you had left me for money, my very sorrow had a dignity in it. What should I be now, even in your eyes, if I took you back to my heart with the same money that your falsehood had won? I should be less than a man."

"I cannot understand you," she said, piteously.

In his passion he seemed to rise to a hight which that weak soul could not reach; but the pitiful pleading voice touched him and made him gentle again. He looked down into the lovely face.

"Violet, you will understand this. Suppose that when you loved me most I had left you and had married a rich woman—a woman whom I did not love, but married solely because she was rich—that she died after a few years, and I came back to you with her money in my hands, and asked you to share it—would you do so?"

"Yes, I think I should, Felix."

"Perhaps I might have expected such an answer from you. I would not act in such a fashion. I would be less than a man now to take dead Sir Owen's gold, and with it you.

She looked at him with a half-bewildered air, yet still seemed to think that she could persuade and soften him by sweet words.

"I have been so unhappy without you, Felix," she murmured. "You do not know all; it seemed to me as though I had lost the half of my soul when I lost you—it is not wrong to say so to you now. I was very unhappy, Felix. I found out soon afterwards that I never could be happy without you."

He made no answer, and she took courage. She laid her face on his arm. The waves of golden hair fell over his hands.

"Do forgive me, Felix," she said. "I was so young, and so thoughtless. I did not understand."

So she knelt, while the firelight played over her, and the face of Felix Lonsdale was turned from her.

"I am sorry for it all, Felix," the sweet voice went on—"so very sorry. You see, dear, there were great excuses for me, though they do not seem great to you. I was very vain—every one flattered and praised me, and I was led away. I thought my beauty was great enough to merit any station. Then, Felix, I was so young—oh, my dear, forgive me, I was so young—and foolish! I have repented of it ever since. I love you now just as much as when we stood in the moonlight together."

He raised her face and looked into it. It was beautiful enough to tempt any man to forego honor. He looked into the depths of the violet eyes.

"You are sorry for it, Violet," he said—"really and truly sorry?"

"Yes; I am indeed, Felix;" and her hands were clasped round his own. "I am, dear—my life has been all regret."

"Answer me truly—if the time came over again, would you act in the same manner?"

The soft eyes wavered half a moment, and then fell.

"I cannot tell; it cannot come over again. That is a strange question. Answer me one—truly, Felix. Do you love me?"

She saw the sudden gleam of passion light in his face and deepen in his eye.

"Do I love you? Yes. Heaven help me, I do! If I did not love you, I should not suffer."

"You are quite sure that you have not met any one since whom you liked ever so little, Felix?"

"No," he answered; "when a man has loved a woman like you, Violet, it is not easy to forget her."

"Then, Felix, if you love me and I love you, why should we not be happy? What stands between us?"

"My own honor," he replied—"my dignity as a man, my pride as a gentleman. If you were penniless, Violet, I would kneel to you, I vow, and pray you to be my wife."

"What stands between us, Felix," she asked again.

"Your dead husband's gold—the gold for which you broke your plighted troth and left me. You say, Violet, that you were young and thoughtless when you sinned, that you hardly realized all you were doing. I believe that. Suppose now I believed in you, and again let myself drift upon the golden sea of hope and love. Some wealthier suitor might come—an earl this time—and you would leave me once more."

"No, never again," she cried, clinging to him—"never again!"

(To be continued.)

CAMPHOR BALLS.—Clarify a pound of mutton suet and add to it three pounds of spermaceti, two of white wax, and one of gum camphor cut into very small pieces. Melt these together with gentle heat and stir until the camphor is dissolved, then pour it into molds. Frequent applications of this emollient will prevent disagreeable roughness of the hands. Should they become chapped, a most effectual but slightly inconvenient way of healing them is to wrap them in wet cloths with an outside bandage of flannel, first making a free application of the camphor balls. This treatment will soften and whiten the roughest skin, and it is also an excellent application in chronic rheumatism.

VOICES OF THE NIGHT.

WHEN bed-time comes and curtains fall,
And round I go the doors to lock,
Ere lamps go out my wife doth call,
"Remember, dear, to wind the clock!"

When boots are off, and for the day
All irksome cares seem put to rout,
I hear wife's voice from dreamland say,
"Be sure you put the kitten out!"

When stretched between the sheets I lie,
And heavy lids have ceased to wink,
From trundle-bed there comes a cry,
"I want a dwink! I want a dwink!"

Chicago Tribune.

RECENT LITERATURE.

Spiritual Songs, with Music for the Church and Choir. REV. CHAS. S. ROBINSON, D. D. New York: Scribner & Co. Price, in cloth, $1.50; in American gros-grain silk, $2.50.

This is a choice collection of songs for religious worship, judiciously classified and unusually well indexed. The type and paper are excellent; and the silk binding makes a most beautiful as well as a unique cover. The book meets a long-felt want in the churches, viz: a work that shall be equally good for choir use or congregational praise. There are nearly eleven hundred hymns in the collection, very fully indexed, and an unusual number of tunes. The author has shown a wise discrimination in his omissions as well as in his insertions. All the old favorites are to be found, as well as newer pieces of undoubted merit. Altogether the work is beyond peradventure the best collection of hymns ever offered for church service.

MAGAZINES.

SUNDAY AFTERNOON FOR APRIL has the following table of contents: My Cup Runneth Over, Lucy Larcom; The Mormons, T. L. Rogers; Christianity and the State, Oliver Johnson; Calvin the Sinner, V., VI., VII., Josephine R. Baker; Why? Elaine Goodale: The Tenement House Question, Helen Campbell; The Outer Gate, E. C. Gardner; Provided For, Elizabeth A. S. Chester; Dives and the Angel, Elizabeth Akers Allen; The Howgate Scheme of Arctic Discovery, S. J. Douglass; Jack, Margaret H. Eckerson; A New Chapter on Wages, D. W. R.; Palissy the Potter, Isabella T. Hopkins; Did God make that Man in Vain? Henry P. Goddard; What the Toucan said to the Macaw, Lizzie W. Champney; The Still Hour; Editor's Table—Mint, Anise and Cummin: College Frauds; Our Laws and our Law Makers. Literature.

OUR LAWS AND OUR LAW MAKERS.—The close of the Forty-fifth Congress suggests a few sober reflections upon the quality of current legislation. Probably the late but not much lamented national legislature was no worse than many of its predecessors: but when we consider the nature of the enterprises to which it has devoted the larger part of its time and energies, the prospect of wise and safe legislation is not so bright as we could wish. It is a fact which no member of Congress would think of denying that the main occupation of the last session has been politics and not law-making. In other words the principal concern of the great majority of both parties has been to prepare for carrying future elections rather than to attend to the present business of the government. The main question of the average Senator or Representative is "How can I inflict the most injury upon the other party and make the most capital for my own?"

* * * * *

It must be remembered that this is a representative government, and that the people are likely to choose legislators who fairly represent them. If they are ignorant and brutal, their ignorance and brutality will find voice at Washington, and in the State Capitols. And by the rapid immigration of great masses of ignorant Europeans and the sudden admission to the suffrage of some millions of ignorant negroes, the average intelligence of our voters has been greatly lowered. The percentage of the wholly illiterate in the voting population is much larger than it was fifty years ago. Of course the result of this change will appear in all the current legislation and administration. The stream will not rise higher than its fountain, and the people are the source from which political morality as well as political power is derived.

In view of these facts the only adequate remedies that suggest themselves are these: a more self-denying devotion of educated men to public affairs, and a more thorough education of the people.

The educated classes ought to have more influence in public affairs than they now have; though they are in a minority the power which their training gives them can be wielded with great effect if they will only put themselves in contact with the people, and, divesting themselves of the scorn of ignorance, work patiently for the enlightenment of their fellow-citizens. In such service as this they will encounter no end of discouragements: but this is the kind of service to which patriotism and Christianity unite in summoning them, and the urgency of the summons can hardly be overstated. The college instructors will do well to teach their young men political science; but they will do better if by precept and example they teach them the supreme obligations of citizenship, and so train them that they shall seek to carry into politics not only the learning that they have gained, but sound moral principles and patriotic sentiments.

Not only by the participation of educated men in political affairs, but also by vigorously prosecuting the work of elementary instruction in the common schools, the people must be educated.

The churches, too, have something to do in this work. They ought to be, as they always have been, educators of the people in the great concerns of government; but, better than this, they ought to be strengthening the bond that is suffering just now a severe strain—the bond that unites in one community of interest rich and poor, learned and ignorant. By preventing the segregation of classes in our society, by keeping the people of all grades in fellowship and sympathy, the church may furnish a medium for the communication not only of kindly feelings but also of intelligence from one class to another. To the churches themselves, as well as to the nation, this kind of work is of vital importance.

By the faithful use of all these means we may trust that the average intelligence and morality of the whole people will be gradually increased, and that thus our legislatures will grow wiser, and our laws more just. The process will be slow, and there will be need of faith and patience, but there is no reason for despair.—*Sunday Afternoon for April.*

A LIBRARY FOR THE PEOPLE.—In another column will be found the advertisement of H. W. Derby & Co., of Columbus, O., the proprietors of the People's Library. The collection of the People's Library is a happy thought. The books are judiciously selected and are printed and bound in the best style, and the appearance of the whole collection of one hundred volumes is at once pleasing and attractive. The works of the best known and most popular writers have been carefully examined, and some of their choicest productions have thus been selected for a place in the People's Library. Schools, colleges, families, lodges and societies of all kinds will find the People's Library a wise and economical expenditure of the small sum requisite to obtain it. Purchases are most easily effected by means of the co-operative plan. A club of twenty persons, for instance, by an individual payment of $5, can secure the Library, and for the payment of this small sum each member has the use of one hundred dollars' worth of books. A plan more simple and feasible can scarcely be devised. Every rural district by co-operation may establish in its midst a choice library. The larger the membership of the club or society, the less the expense to members, and the more extended the usefulness of the library.

CONTENTS OF HERALD OF HEALTH, FOR APRIL, 1879.—General Articles — Physiological and Sanitary Marriages and Parentage, by the Editor; A Hygeian Farm Home, by the Editor; Disease Germs. Our Dessert Table — His Temperance Pledge — An M. D's Love Poem; Topics of the month — James Parton concerning the Health Habits of Bayard Taylor; Mr. Gladstone's Habits —William Howitt; Mr. Alcott's Summer School of Philosophy—Rev. C. H. Brigham; Letter to the Editor; Studies in Hygiene for Women — Healthfulness of Bread made from Unbolted Wheat-meal; Bread from Minnesota Flour; Meat for Children; Oatmeal Crackers; Society and Solitude; Paint and Paper for Houses; A Respiratory Vail; Physical Deterioration of New-Englanders; Current Literature — Health Foods.

PAINT AND PAPER FOR HOUSES.—In another part of this magazine we have given some general directions for building a healthful farm-house. We should like to add a few words applicable to any house, on the subject of paint and paper. In the first place, all the painted wood-work should be varnished; in this way the deleterious ingredients of the paint are rendered harmless, and the cleaning is much more easily accomplished. In regard to paper, it may be said that all rough papers should be avoided, because they collect, absorb and retain too much dust. All papers containing arsenic or Paris-green in their coloring should be avoided. The smoother the surface of the paper the better. Whenever rooms are to be repapered, all the old paper should be removed.—*Herald of Health for April.*

SCRIBNER'S MAGAZINE for April, is a most attractive number, as will be seen by the following table of contents: Actors and Actresses of New York, Illustrated, J. Brander Matthews; Haworth's, VI., Illustrated, Frances Hodgson Burnett; In a Snailery, Illustrated, Ernest Ingersoll; Holy Russia, Edna Dean Proctor; The Stickeen River and its Glaciers, Illustrated, W. H. Bell; Anemone, Elaine Goodale; Admonition, Augusta Moore; Falconberg (conclusion), Hjalmar Hjorth Boyesen; The New Moon, Andrew B. Saxton; A Trip to a Political Convention; John Ericsson, Illustrated, William C. Church; The Tendency of Modern Thought as seen in Romanism and Rationalism, C. C. Tiffany; Half-witted Guttorm, Kristofer Janson; Henry Bergh and his Work, Illustrated, C. C. Buel; The Portrait, David S. Foster; Fraulein, Adeline Trafton; The Token, Richard Henry Stoddard; The Measure of a Man, Illustrated, William Page; A Canticle of Spring, Mary E. Bradley; Departments.

STONE PLANING MACHINE.—A machine for planing granite and other hard stones has been brought out that promises to prove of value in reducing the cost of preparing building stones. It consists of an oblong frame of iron, supported at the corners, and carrying a movable platen, somewhat after the manner of iron-planing machines. On this is placed a strong head-piece or tool-holder, and by means of a system of long pulleys and corresponding belts, power may be brought to the tool whatever its position during the work. The block of granite to be planed is placed on a hand-truck and rolled under the machine and raised by means of jack-screws to the proper level for the work. The revolution of the cutting tool planes down the stone at about the pace of the iron planers, and performs the work in a manner fully equal to hand labor. The tool is fed to the work by hand, one man being sufficient for all the work.—*Scribner for April.*

THE hair of a mummy examined by Mr. Frank Buckland, the English naturalist, was found to be 'banged' in the way common to modern youn ladies. Then they want to tell us the girls of the present day are more frivolous than their ancestors!

Domestic Economy.

CONDUCTED BY EMILY MAPLE.

HOUSE-MAIDS.

As a class, are those who serve us, treated with due kindness? Are we not sometimes indifferent to their feelings, and to their comfort? It is so natural, so easy to see faults, that the mistress is apt to overlook the good qualities that her maid possesses. The fact that she is obliged to labor, entitles her to some consideration. The "maid of all work" is often compelled to labor beyond her strength, and at unseasonable hours, as if the employer was determined to get full value for wages.

The room that is assigned to the maid, is not always attractive and homelike. If there is a ragged spread in the house, it is thought good enough for *her* bed. If there is a broken chair, it is put into *her* room. A bit of broken looking-glass will answer for *her*. Perhaps there are no conveniences in the apartment for making a thorough toilet; so she must make a dressing-room of the kitchen, which ought never to be used for such a purpose. And who thinks of putting a plant in her window, or of hanging a picture on the wall? A bright painting of flowers, inexpensive though it be, would have a good effect upon her. In regard to meals, she is as a rule, easily pleased. She carries the fragrant tea and coffee, and the tender steak and hot vegetables to the table. The family partake leisurely of the well-ordered meal, she fasting and working, until her turn comes, when she must be satisfied with the remnants.

Domestics have *rights* that ought to be respected. If they wish to go to the church of their choice, on Sunday, they should be allowed, if possible, to do so. If they desire to go out for an evening in the course of the week, it is best that they be gratified, so that they are in, at the proper time for retiring.

Now let us look at the other side. There are domestics who do not seem to appreciate kindness. Like over-indulged children, the more done for them, the more they expect, and the less gratitude they show. But such instances are, I believe, rare. There are few persons who go out to service in kind families who cannot be impressed by a genuine interest shown in their welfare, by those who employ them.

The management of hired service is an *art* that requires patience, firmness, and watchfulness. The mistress of the household should never allow herself to be taken advantage of, by yielding her views and ways to those of her maid. A very competent girl sometimes gets the idea that her services are so valuable, that rather than lose them, her employer will give up her own authority, or increase the girl's wages. When the house-maid reaches such a conclusion, her speedy dismissal will be the best thing, all around.

Two maids are more difficult to get along with than one alone. They rarely agree, as one may be ill-tempered, the other, a shirk. I would rather work harder myself, than to increase my cares by keeping two, except temporarily. Of course, only small private families can be so independent as to the number of domestics kept.

A lady should know how to do all kinds of house-work, that she may be better able to instruct those she employs. And not only that, but in case they leave her suddenly, she will not be perplexed or embarrassed like one ignorant of domestic affairs. M. G. R.

Lyons, Iowa.

NASTURTIUMS (Tropæolums).

We hope to impress upon our housewives at this time the desirability of planting nasturtiums for pickles. This excellent salad-plant deserves more popularity than it has ever yet received, as we think a trial of it this season will satisfy most of our friends. The tender shoots and buds are a pleasant addition to any salad, while the flowers furnish high-colored garnishing for many dishes. But it is of the young fruits preserved in vinegar that we particularly write. Gather the fruit on a dry day when about two-thirds grown, with a part of the peduncle (flower stalk) attached and drop into cold vinegar. When a sufficient quantity has been gathered to fill a bottle, pour off the vinegar, add a little salt, scald up, return and seal. They may be used for stuffing mangoes or peppers, with cabbage, cauliflower, beans, little onions, etc., and they will be found a very good substitute for capers in drawn butter. But as pickles these nasturtiums, properly put up, are as spicy and appetizing as anything that we know of among the many vegetables used for such purposes. As to culture, when the production of fruit is the first consideration, the soil need not be rich. The dwarf varieties are best. These may be planted in rows in the garden the same as peas, supported by a little brush on either side, or they may be planted in double or triple rows, in which case each row will sufficiently support the other.

HOW TO POP CORN.

Put in a pan a heaping teaspoonful of butter or clean lard, a good pinch of salt and a small handful of pop-corn; cover and put over the fire. Butter or lard improves the popping qualities of the corn and it pops better than on the wire or screen hoppers. There are several other methods of popping corn, but this has given satisfactory results to those who have employed it.

DOMESTIC RECIPES.

Short-Cake.

I did not "brew or bake forty years ago," but my good, old New-England mother did, and I will give you her rule which I have always followed, for making short-cake. To one quart of flour add three teaspoonfuls of good baking powder and one teaspoonful of salt; mix thoroughly and wet it up with good, sweet cream as soft as you can roll it out—it should be handled as little as possible. If it is to be used without fruit, the dough should be rolled a little more than half an inch thick and cut with a biscuit-cutter and baked in a very hot oven. But for genuine strawberry short-cake, I roll the dough a little thinner and to fit a round, tin pie-plate; place it on the buttered tin and butter the top; place another layer on top of that and bake. The top layer can be lifted off without cutting, to spread the fruit between. L. R. S.

Dusty Carpets.

If those ladies who do not use a carpet-sweeper will sprinkle damp, coarse salt over a dusty carpet first before sweeping, they will find the dust much less annoying. Mrs. D. L. B.

Nunda, N. Y.

Asparagus Salad.

Wash and cut off most of the white part; tie up in a cloth and boil until soft in salted water; take up, remove the cloth, turn over two-thirds of a cupful of good vinegar; sprinkle with pepper and salt and set where it is cold. Before serving arrange the asparagus so the heads all lie in the center of the dish, and mix with the vinegar drained off from it, half a cupful of melted butter, the yelk of two hard-boiled eggs, and a teaspoonful of mustard, and pepper and salt if needed. Pour over the asparagus and serve. The water should be well drained from the asparagus before the vinegar is poured over. This dressing is enough for one good-sized bunch of asparagus.

Salad Dressing.

No. 1.—Stir a teacupful of butter until very light; add to it gradually the beaten yelks of four eggs; mix in a teaspoonful of made mustard, a little pepper and a large teaspoonful of salt; next stir in slowly a teacupful of thick, sweet cream, and last, half a teacupful of clear vinegar—a little more vinegar may be added, if the dressing is not thin enough. Pour over the salad just before it is served.

No. 2.—The yelks of two hard-boiled eggs, rubbed fine and smooth and beaten into the yelks of two raw eggs; a teaspoonful of made mustard, salt and sugar, with a little cayenne pepper; add the freshest olive salad oil, drop by drop, beating the meantime as long as the mixture continues to thicken, and then add vinegar till as thin as desired. Mary B.

Garlic Taste in Butter.

The disagreeable garlic taste in butter, which in spring time in many sections almost spoils butter otherwise good, may be destroyed by putting into the pail, each time before milking, as much pulverized saltpeter as will lie on a five-cent silver piece. Mrs. James Tieman.

QUESTIONS ANSWERED.

Vanilla and Coffee Extracts.

Mrs. J. D., Brooklyn, wishes to know how the above extracts are made.

Ans.—For vanilla: cut one ounce of fresh vanilla beans into thin shavings and triturate with two ounces of loaf sugar; put into a bottle and pour over ten ounces of deodorized alcohol of 95 deg., and four ounces of pure water; cork and set in a warm place for ten or twelve days, shaking occasionally. This makes a very good domestic extract, and answers for all cooking purposes. As for coffee extract, we are sorry to say that although we have diligently tried to find out the process, it seems to be a secret which those possessing it are unwilling to disclose.

To Bleach Wax.

Mrs. R. Lake desires to know how the ordinary yellow beeswax can be made white.

Ans.—Slice the wax into thin flakes and spread on sacking or any coarse cloth stretched on frames resting on posts, or anything to raise them from the ground. Stir the wax frequently, and sprinkle occasionally with soft water. The wax should bleach in from three to four weeks. Should the flakes, upon breaking them, still appear yellow inside, it will be necessary to melt them again, flake and expose as before.

ANSWERS TO CORRESPONDENTS.

(Continued from page 237.)

Grafting Fruit Trees, Etc.

C. T., Millersville, Ohio, asks 1, can Pearl Millet be cut with a machine; 2, full information about grafting fruit trees; 3, does soaking corn in any kind of solution keep the wire-worms and cut-worms from spoiling it; 4, which are best for seed—large or small potatoes.

Ans.—1. No, not if left until it has attained its full growth. 2. There are several methods of grafting fruit trees, which may all be successful if skillfully executed. The method in common use is the so-called cleft or split grafting, which is especially adapted to Pelargoniums and plants known as soft-wooded, but it is altogether too barbarous for fruit trees. What is known as bark grafting is not so violent an operation, and is, if anything, more successful. By this method grafting should be done as soon as the bark is loose. The stocks may be of any size and age, and the cions should be young, vigorous shoots of the previous year's growth. Cut off the stock with a saw from four to ten inches above ground, and at a smooth spot make a longitudinal slit in the bark, from the top of the stock downward about an inch and a half. With the handle of a budding-knife, or with a piece of hard wood similarly shaped and very smooth, loosen the corners of the bark a little at the top. On the bud end of the cion, and diagonally through it, make a clear, smooth cut, about an inch and a half long. In shape the lower end of the cion will thus approach that of a wedge, gradually tapering to a point, and having a clear, flat surface on one side, and the bark on the other. Now shorten it in to two or three vigorous buds, and it is ready. Next insert it under the bark of the stock, in the slit previously made, with the cut surface against the wood of the stock, pressing it down firmly, then wind some yarn about it to hold it in place, and cover the whole with grafting wax to exclude the air. Re-grafting old fruit trees is done in the same manner, but it is not advisable to remove all the branches in one year. Leave two to four, according to the size of the tree, to draw the sap. If it is desirable to graft before the bark can be loosened, or if the young stock is very small, prepare the cion as before, but instead of putting it under the bark, cut away the bark and wood of the stock, with a smooth cut, over an area similar to the cut on the cion. Now tie the cion to the stock, being careful that bark fits to bark, at least on one side, and cover it with grafting wax as before. For full description of grafting, see lengthy illustrated article in Rural of March 15, 1878. 3. A correspondent of the Rural writes us that he has used the following solution with entire satisfaction as a preventive against the wire-worms: 4 ounces of saltpeter, and 4 ounces of copperas dissolved in water. This is enough to soak one bushel of corn. 4. We should prefer medium-sized potatoes for seed. Small potatoes have seldom such vigorous buds as the large ones, and do not give the plants so good a start.

Sick Heifer.

J. W., Smith's Grove, Ky., says: "A heifer was turned out with the herd in the morning apparently well, but came home at night behind the herd, and looking dazed out of her eyes. During the night she lost the use of her limbs and moaned piteously at intervals through her illness—she had a capricious appetite, stools gradually changing from hard to soft and from that to diarrhea with no apparent cause. Her death occurred in eight days after first illness; there was some blood mixed with her last voidings of excrement, and froth about her mouth the morning after she was taken sick. Post-mortem examination showed yellow gall bladder and tallow stained with the same color; lungs were pretty large with dark spots in and on them. Please diagnose the disease.

Ans.—This is one of those cases in which our correspondent has not been sufficiently careful in his enumeration of symptoms and appearances. The frothy mouth, diarrhea, bloody excrement, yellow gall and tallow, and paralysis, point to disease of the digestive organs and liver, but nothing is said of the post-mortem appearance of these organs with the exception of the gall. We are told that the lungs contained dark spots, but we doubt if the essential disturbance was there, as in inflamed lungs, animals retain the use of their limbs and remain standing. A professional man examining such a case, would determine the condition of each set of organs, and very soon decide the nature of the trouble. We are inclined to think it a case of the so-called *wood-evil* or red water of cattle, said to be caused by eating the young shoot of resinous trees or irritating plants. It often occurs in cattle which pasture on rich, wet land, and may be avoided by drainage or by keeping up the animals and feeding on good food till grass has taken a good start in spring.

Wood ashes, Bone-dust, Barnyard Manure.

F. R. C., Wiarton, Canada, asks, 1, how much hard-wood ashes per acre should be applied to small fruits; 2, would it be well, as an application for Strawberries and Raspberries, to plow coarsely ground bone well under, then sow the ashes with some fine bone dust and plow both four inches under, and then sow a little superphosphate to give the plants a start; 3, which will pay better—a good article of ground bone at $25 to $30 per ton, or barnyard manure at 70c. per two-horse load.

Ans.—Ashes may be used in any quantities from 10 to 40 bushels per acre for any crop. Ashes are useful, so far as their potash is concerned, for all crops, and never come amiss. Bone-dust should not be plowed under deeply nor should any manure. It is best to keep all manure near the surface, more especially those that are fine; these should be harrowed in after plowing. Stable manure at 70c. per two-horse load is the cheapest fertilizer to be purchased.

Mozambique Current.

A. P. M., St. Stephens, Ohio, asks 1, which way does the water flow through Mozambique Channel; 2, are there two currents, one upper and one lower, and do they flow in opposite directions; 3, if so, what causes them to do so.

Ans.—1. It is a warm, northeasterly current, following the coast of Africa towards the southwest. 2. There is but one current. The South Equatorial current flows across the Indian Ocean, with the southeast Trade Wind, from Australia to Madagascar, striking this island on the east and northeastern shores. Here it divides into two branches, one following the eastern shore of the island towards the south, the other, flowing by the northern point of Madagascar, is augmented with a branch of the North Equatorial current, and both form the powerful Mozambique current through the channel of the same name. Near the Cape of Good Hope it unites again with the branch that flows east of Madagascar, and finally in about the 40th parallel S. L., it is turned by the cold Antartic Drift current, and influenced by it and the there prevailing southwesterly winds, again flows towards Australia, whence it started. 3. Currents flowing in opposite directions are seldom very strong. The main cause is that the warm water, being lighter, flows away on the surface, while the heavier cold water flows in an under-current to take its place. These may be augmented by the wind and peculiarities in the ocean bed.

Catarrh.

A. S. B., Wythe, Va., asks whether there is any sure cure for nasal catarrh.

Ans.—We cannot say positively that any special mode of treatment will affect a cure in all cases. A friend of ours was sadly afflicted with the ailment, and of all the "sure cures" he tried, the most efficacious consisted of crushed cubeb berries smoked in a pipe. They can be bought at any good druggist's. The best way in all such cases is to consult a physician of established reputation, who will be able to prescribe with a full knowledge of all existing conditions. It is seldom advisable to experiment on one's-self with unknown nostrums without competent advice.

Grain for Orchard, etc.

J. H. S., Shelby Center, N. Y., has seen a Double Furrow Plow in the columns of the Rural a few years ago, and asks where he now can get one. 2. He is thinking of seeding down his apple orchard and would like to know what kind of grass he had better put in.

Ans.—1. Apply to R. H. Allen & Co., 189, 191 Water St., N. Y. 2, put in a mixture of June grass, 5 pounds; Orchard grass, 8 pounds; Perennial rye-grass, 3 pounds; Red top, 3 pounds; White clover, 2; Timothy, 4 pounds.

L. B., Maville, N. Y., asks whether we have tested the new early field corn Queen of the Prairie, which it is claimed is the earliest in cultivation.

Ans.—We have known of this variety for a year or so. We have never tried it. To say that it is the *earliest in cultivation* is to say what is not proven at all.

M. L. R., Morrisonville, N. Y., having found that the Paris-green purchased from local dealers last year was poor stuff, intends clubbing with some of his neighbors in their purchases this year, and asks the name of a reliable dealer.

Ans.—F. W. Devoe & Co., 101 Fulton St., N. Y.

G. W., Bay Shore, L. I., asks where can he get a white Cheshire or Suffolk boar old enough for service.

Ans.—Try W. Atlee Burpee & Co., Philadelphia, Pa., or Thos. Cooper, Coopersbury, Pa., who will give all information.

Breeders of Fine Dairy Stock

Should at once investigate the PERFECT CREAMER advertised in another column. It will enable them to realize the largest possible yield per cow, and thus enhance the value of their stock, as well as increase *the value* of the product.

Makers of Gilt Edge Butter

Or those that desire to become such should use THE PERFECT CREAMER, advertised in another column. Butter made by its use, is always rated Gilt edge, and commands ready sale and an extra price.

The great permanency of Murray & Lanman's Florida Water gives it a wonderful advantage over nearly all other perfumes; days and weeks after its application, the handkerchief or garment exhales a soft, rich fragrance, agreeable, refreshing, and healthful.

Hop Bitters give good digestion, active liver, good circulation and buoyant spirits.

THE MARKETS.

PRODUCE AND PROVISIONS.

NEW YORK, Saturday, April 5th, 1879.

BEANS AND PEAS.—With the advance of the season considered, there is a fair trade in mediums. At this time buyers want best grade and prefer to pay highest rates than risk a bargain in irregular parcels. Exports of marrows fair, with larger sales looked for. Red Kidneys are good property; new rates firm; sales small. W. kidney and pea beans quiet, the former too much above marrows for activity. Black drm, with light but useful demand. Green peas higher; quoted at $1.30@1.75. Southern B. K. without special inquiry at $2.50 per 2 bush. bag. Canadian, in bulk and bond, 72@73c. Medium beans, choice, $1.30@1.35; fair to good, $1.15@1.25. Marrow, primo, free on vessels, $1.40; fair to good, $1.20@1.35; pea, $1.30@1.35; white kidney, $1.35@1.60; red, $2.40@2.70; black, $2.10@2.50. California Lima, $4@4.25.

Receipts for week, beans, 3,772 bush.; exports, 1,066 bbls.; do, peas, 5,146 bush.

BEESWAX.—There is a considerable quantity held here on a limit of 25c.; bids do not exceed 24c., and at this lower price small lots have been secured.

BUTTER.—Supplies of new are fortunately light. Buyers will not risk free purchases of white, and if stock can be kept from heaping it is better for producer and seller. Receivers are emphatic in repeating the caution given in our last: the point being to make good quality paramount to every other consideration. By so doing, dairy-folks can play the market for all it is worth; while poor toneless stock has no better chance than common remnants of old—in fact, trashy soft white has not an equal commercial hold with summer or fall yellow; asshippers will use the latter and reject the other at similar figures.

Prices for now are still easy, and likely to be so until growing shades appear—but even then, the outlook does not indicate a much higher lasting top than is now quoted.

Old has sunk into a condition of inertness that will require liberal calls from exporters to revive it. Prices for the bulk of it are out of the question—each owner has a scale of his own, or will make an accommodating one on short notice when an actual buyer appears.

NEW BUTTER.—State pails and half tubs, choice, 19@20c.; good, 16@18c.; Welsh tubs, 15@18c.; very poor, 8@13c.; Western Creamery, extra, 25@26c.; fair to prime, 23@270.; poor, 19@21c.; imitation, 17@21c.

OLD.—Best half tubs, 15@16c.; fair to prime, 12@14c.; dairies, full, 13@14c.; do., firkins, 10@14c.; common State, 14@5c.; fair to best; State creamery, best, 15@17c.; poor, 11@14c.; Western dairy, 15@16c.; factory choice, 13¼@14½c other, 5@10c.; grease, 4@4½c.

Comparative receipts and exports past three years:

	Receipts, pkgs.	Exports, firkins.
June 1, '78 to April 1, '79	1,273,638	266,289
" 1, '77 " " 1, '78	1,056,993	160,670
" 1, '76 " " 1, '77	1,085,238	135,409

Receipts for week, 18,665 pkgs.; exports, 4,620 firkins.

BROOM CORN.—Offerings are small of short brush and broom, and generally supplies not excessive, with prices steady.

Brush and short broom, choice, ₱ lb., 5½@6½c.; do. common to good, 4½@5½c.; hurl, good to choice, 3½@4½c.; do., common to fair, 3@3½c.; red and crooked, 2@3c.

CHEESE.—Exports for the week, 28,125 boxes; this slack movement, a fair stock for this late period, and a loss of quality on a good many parcels through long holding gives so much irregularity, that quotations at present are not definite as us is desired.

Nominal for fancy; 8@8½c. for fine lots; 6½@7½c. for good; 5½@6c. for fair; 2@3½c. for skimmed; 4@6c. for half skimmed. Wisconsin factory, fine and fancy, at 8@8½c.; do. good to prime, at 6½@7½c. Western factory, fine 7@7½c.; good and prime, 5½@6½c.; do. full skimmed, 2@4c.; do. half skimmed, at 3@5c.

Receipts for week, 14,160 boxes.

Liverpool cable, 44s.

Steam to Liverpool, 25@27s. 6d.

COTTON.—There is rarely ever a period, characterized by as much excitement and so sharp an advance in prices, as has prevailed the past week. The position of supplies, the generally confident temper at the South, where prospects of continued light deliveries from the interior, and apprehensions that the dissatisfaction among the laborers there will interfere somewhat with the extent of the new crop, together with the encouragement received through a steady response of the Liverpool market to the situation here, have caused the upward movement. Closing prices are for April, 11.10@11.12c.; May, 11.21@11.22c.; June, 11.35@11.37c.; July 11.48@11.50c.; August, 11.60@11.61c.; September, 11.41@11.43c.; October, 10.96@10.98c.; November, 10.62@10.63c.; December, 10.58@10.60c.

DRIED FRUITS.—Apples have been offered easier, and have had but little attention. Peaches have a good sale and rule firm. Small fruits are slow.

Alden's evaporated apples are at 11½c.; Williams's at 11@11½c.; new process apples at 8½@9½c. State plums, 13½@14c.; Blackberries quoted at 4½c. Peaches—Peeled Georgia, 7@7½c. for poor; 8½@9c. for fair to good; 10c. for prime; choice North Carolina, 12@13c.; good do., 9@10c.; unpeeled halves, 3@3½c. quarters, 2½@3c. Pitted cherries, 20c. Apples—New, 2½@2½c. for southern quarters in bags; 3½@4½c. for prime sliced; do., fair at 3@3½c. State at 4@4½c. for new sliced; and 4@4½c. for quarters; Western at 3½@4c. for new quarters. Raspberries, 25@27.

Exports for week—1,450 bbl. apples.

EGGS.—Receipts for week, 19,900 bbls.; do. last week, 14,200 do. The market has been unsettled, but with Easter week upon us, there has been some reaction in favor of sellers which probably will be supported. Receipts are larger, but the trade does not anticipate an over supply.

Near points, 15c.; State and Penn., 14c.; Western, 13½@14c.; Southern, 13c.; inferior, 12@12½c.; duck, 23@24c. goose, 45@50c.

FLOUR.—Shippers have drawn more freely upon the supplies, and there has been more life to home trade wants, with demands met promptly at barely steady prices. A full quantity of flour goes direct from millers' hands to the other side, and thus through-freight business seems to be gaining steadily.

Latest prices are $3.25@3.60 for inferior to very choice superfine State (fancy lots a shade higher); $3.65@3.90 for very poor to good extra do., odd lots and lines; $3.90@4.25 for good to very choice do.; $3.25@3.60 for inferior to very choice superfine Indiana, Iowa, Michigan, &c.; $3.60@3.90 for very inferior to good shipping extra do., and $3.90@4.25 for good to very choice extra do.; common to about choice white wheat extras, $4.25@5.35; choice to fancy do. at $5.35@6.25; red and amber winter wheat, very inferior to very choice trade and family, at $4.00@5.75 (fancy at higher figures); round hoop Ohio at $3.85@4.25, and trade and family brands of do. at $4.65@5.75, the latter rate for very choice (a few fancy lots held higher); St. Louis, $4.10@5.00 for very inferior to good extra; $5.00@6.00 for good to very choice (with a few very fancy brands up to $6.50@6.75; Minnesota clear, very inferior to very fancy, at $3.65@5.00; few brands going above $4.60; Minnesota clear, very inferior to very fancy, at $3.65@5.00, few brands going above $4.60; Minnesota "straight," very poor to fancy at $4.50@5.00; and patent poor to strictly fancy at $5.25@6.50, few brands going above $7.50; unsound stock at from $2.25@5.00; city mill extra at $4.85@5.20 for West Indies (the latter rate for fancy in new packages); do. for England $3.80@4.00; do. trade and family extras, $5.25@5.25; do. for South America, $5.15@5.65 for fair to very choice; No. 2 at $2.35@3.15 for poor to very choice.

FRESH FRUITS.—There is a steady sale for fine apples; inferior sorts dull, and in many cases at buyers' option. Eastern Baldwins, $1.37@1.50; do. Greens, $1.75@2; State Spitz and Greens, $2@2.10; Baldwins, $1.63@2; russets, $1.62@2. Exports of apples for week, 3,489 bbls. The remaining cranberries are chiefly owned by N. Y. parties, who can afford to quote old figures regardless of light trade. Made bbl., $7@8.50; crate, $2.25@3. About another week will use up the crop of Florida oranges; a few choice half bbl. boxes bring $5.50; corky and dingy qualities, $2@4. Florida strawberries in good supply and cheaper at 50@60c. per quart; Chas. do., 50@60c.; hot-house, $1@1.25. Peanuts quiet, the weather being against retail trade.; Virginia hand-picked, $1.20@1.35; others, 60c.@1.05; shelled, 4½@5c.; pecans, 6@8c.

GRAIN.—Weather reports have exercised a sharp influence upon the grain markets this week, particularly as respects wheat. For a day or two we had reports that the winter wheat crop was being injured, and especially in Kansas, where a severe drought was mentioned; speculators operated with confidence and succeeded in placing prices on a decidedly better basis; then later came reports that the weather was very favorable in most sections, and the market was sent back again. With conflicting statements and a consequent feverish condition of the market exporters do not care to enter into negotiations extensively. Latest sales of wheat are of No. 1 red at $1 15½@1 16; No. 2 red at $1 15@1 15½; No. 3 red at $1 10@1 10½; ungraded red at 96½c.@$1 13½; No. 2 amber at $1 13@1 13½; ungraded amber at $1 12@1 13; white State at $1 14@1 14½; No. 1 white at $1 12½@1 13½; do., steamer grade at $1 11; No. 2 white at $1 11@1 11½; ungraded white at $1 12½@1 13; No. 2 spring at $1 05@1 06; No. 3 spring at 94@95c.; No. 4 spring at 88@90c.; ungraded spring at 85c.@$1 02; rejected spring (to arrive) at 79c.; No. 2 amber, April option, at $1 13½; do., May option, at $1 14½; No. 2 red April option, at $1 15½@1 16; do., May option, at $1 16@1 16½; No. 1 white, April option, at $1 13@1 13½; do., May, reported at $1 14½c. Rye at 58½@59½c. for Western, and 61@62½c. for State. Corn at for New York No. 2 at 45¼@45½c; New York No. 3 at 44½c. for car lots; New York steamer mixed at 45@45½c.; ungraded western mixed at 44@45½c.; steamer yellow at 45½c.; Jersey yellow and southern quoted at 45½46c.; No. 2 white at 48@45½c; yellow western quoted at 45½@46c.; round yellow quoted at 46½@47c; white southern at 50c.; New York No. 2, April option, at 45½@45½c.; New York No. 2, May option, at 46c.; New York No. 2, June option, at 45½c.; steamer mixed, April option, at 44½c.; do., May option, at 44½c. Oats at for New York No. 1 at 32½c.; New York No. 1 white at 35c.; New York No. 2 at 31½c.; New York No. 2 white at 34c.; do., May delivery, at 34c.; New York No. 3 at 31½@31½c; New York No. 3 white at 32½c.; No. 2 Chicago quoted at 32@32½c. afloat.; mixed western at 31@33c.; white western at 34@36½c.; white State at 35@41c. Barley steady; State, 6-rowed, 70@80c.; do., 2-rowed, 55@65c.; Canadian, 80c.@$1 05.

HAY AND STRAW.—Offerings are full, demand fair, and prices sustained.

Sales at 40@45c. for shipping, and 70@75c. for retail qualities. Straw quoted at 40@45c. for long rye, and 35c. for short rye, and oats at 35@45c.

Exports for week—1,372 bales.

MAPLE SUGAR.—With a moderate offering of fine prices are well supported. New State, 12@13c. Ohio, 10@12c.; per ₱. Some State marks have a settled good reputation, and can be placed as readily as Vermont boilings. Vermont small cakes, 14c. per ₱.; old sugar, 6@8c. ₱ ₱.

POULTRY AND GAME.—A light supply of live and an extra demand for Hebrew holidays have put prices where they are; an earlier time expected after Monday. Spring chicks, 62@$1 ₱ pair; N. J. fowls, 15c.; Western, 14@15c.; Southern, 13@14c.; roosters, 7@8c. Turkeys, N. J., 17@18c.; Western, 16@17c. Ducks choice, 95c.@$1; other, 65@75c.; choice geese, $1.75@2; southern and Western, 15c.@$1.37. Pigeons, 35@40c.

Very few lots of fresh killed arrive and prime frozen has the sway of the market, at full late figures. Selected Vermont turkeys, 21c.

Frozen turkeys, choice, 20c.; fair to good, 17@19c.; frozen chickens, 12@13. Dry-picked winter chickens, 27@30c.

Turkeys, best, 18@20c.; the latter for Pa. dry-picked; other, 14@17c.; chickens, best, 20@22c.; other, 14@16c.; fowls, choice, 16@18c.; other, 10@14c.; capons, 23@30c.; slips, 24@25c.; ducks, best, 17@20c.; other, 15@18c.

There is a fair call for game, but it wants fine quality. Pigeons scarce. Southern snipe do not bring more than half price. English snipe, $1.12@1.25 ₱ doz.; plover, $1@1.25; small snipe, 40@50c. W. pigeons, $.25@1.37; canvas backs, 75c.@$1; red head, 50@60c.; mallard, 30@40c.; black, 30@35c.; common, 10@20c.

PROVISIONS—Have been very slow and without important change. Mess pork closed at $10.60 bid and $10.70 asked for new for April, and May at $10.65 bid and 10.75 asked, and June at $10.70 bid and $10.80 asked, and July at $10.70 bid and $10.80 asked. Bacon at 5¾c. for long clear and 5 7-16c. for short clear. Lard at $6.60 for new lots; $6.57½ for April; $6.62½ for May; and $6.70 for June. Stearine at 6¾c. for Western. Tallow at 6 9-16c. for prime. Beef hams at $18@18.25. Beef—Extra India mess, $10@21, as to quality; packet, $11@11.50; plain mess, $9.50@10.25; extra mess at $10.50@11.50.

VEGETABLES.—Exports potatoes, past week, 577 bbls. Choice potatoes continue firm, but with the ends of lots a good many small Early Rose are turning out. Seed demand fair; sweet potatoes higher. Contributions of early produce from the South are steadily increasing, and where prices are quoted up to previous rates quality is in favor of the buyer. California asparagus is quoted at 20c. per ₱.

Bermuda onions, $6@6 crate; do., beets, $1.50@1.75 crate. Charleston asparagus, $7@7.50 doz.; Florida green peas, crate, $1@1 50; rad., do., $3@4 50; Virginia kale, 75@$1 ₱ bbl.; do. spinach, $2@3 Baltimore. do., $1 50@$2. Virginia radishes, $3 ₱ 100 bunches. Hot-house rhubarb, ₱ 100, $4@7; radishes, $3@4; cucumbers, $2@2.50 ₱ doz.; mushrooms, ₱ ₱., 50c.; lettuce, selected, 25@75c. ₱ dozen. Bermuda potatoes, choice, $9 00 per ; bbl.; Early Rose, Nova Scotia, $3 00@3.25; Eastern, $3@3.25; State, choice, at $2.50@2.75; fair to good, $2@2.75; Peach Blow, white, in bulk, $2.50@3; red, $2.25@2.75; Prolific, $2.25@2.75; Peerless, State, $1.75@2; in bulk, $2@2.13; Jackson white, $2@2.37; Mercer, $2.25@2.37; (outside rate per double heads). Sweet potatoes, Md. & Del., $3.50@3.75. Bermuda tomatoes, 90c.@$1 box. Onions, Eastern, white, ₱ bbl., $4@6; red and yellow, $4@5; Chester, $4@4.50. Squash, Hubbard, $3@3.50; marrow, $3. Cabbages per 100, $4@8; R. turnips, per bbl., $1@1.25; beets, 75c.@$1.00; carrots, $1@1.12.

SEEDS.—Clover is easy, quoted at 6@6¼c. for prime and 6¾c. for choice. Timothy at $1 30@1 40.

TOBACCO.—Demand is slack, the export urges for meagre amounts and home trade light.

WOOL.—With the close approach to the new clips of Texas and California and the slow goods market trade has been very light, and prices unsettled.

Ohio, Pennsylvania and Virginia—XXX and picklock, 36@37½c.; XX, 33@35c.; X, 31@34c.; No. 1, 33@35c.; No. 2, 31@33c.; common, 28@30c.; combing, 34@36c.

New York, Michigan, Indiana and Wisconsin—XX, 30@33c.; X, 29@31c.; No. 1, 31@33c.; No. 2, 27@30c.; common, 26@28c.; combing and delaine, 33@37c.

Iowa, Vermont and Illinois—X and XX, 28@30c.; No. 1, 30@33c.; No. 2, 27@28c.; combing, 33@36c.

Missouri, Kentucky and Tennessee—Washed fleece, 30@33c.; unwashed fleece, 18@24c.; unwashed combing, 22@25c.

LIVE STOCK MARKETS

Saturday, April 5, 1879.

BEEVES.—Receipts for the week, 9,751 head; do., last week, 9,390 do. The market has ruled rather tame. In early sales at the close prices were ¼c. better than on Wednesday, but even this moderate advance was soon lost. Quality of cattle even nothing very common or very choice. Ordinary to prime steers ranged at 9c., to dress 55 lbs, to 10¾c. to dress 57 lbs. Most sales at 9¼@10¼c.

Exports for week, 7,700 quarters.

COWS AND CALVES.—The demand is very limited, and the nominal range is lower for ordinary to good cows; $30 to $50 per head are now full rates.

VEAL CALVES.—Supplies are large, prices lower and weak. Prime N. J., live, 6c.; best State, 5½c.; others, 3½@5c.; very poor, 2@3c. State calves run poor. Hog-dressed calves have declined fully 1c. on choice. Extras this afternoon, 7c.; fair to prime, 5@6c.; poor, 3@3½c.

SHEEP AND LAMBS.—Receipts for week, 18,064 head; do. last week, 18,416 do. The receipts of sheep exceed the wants of trade as the market is so generally well stocked with meats. Decent to prime sheep sold yesterday at 5¾@6¾c.; yearling lambs b ought 7c@7½c. Trade drags at these prices at the close. Prime to choice lambs, $4.50@5.50 per head.; poor, $2.00@3.50.

SWINE.—Receipts for the week, 31,678 head; do. last week, 25,757 do. Supplies go mostly direct to killers; a few sales are noted at $4.10@4.30 per 100 lbs. Country dressed pork, light, 6¼@6½c.; medium, 5¾@6c.; heavy, 5½@5½c.; city dressed, 5½@5½c. Pork tenderloins, 9c.

SPECIAL NOTICES.

E. & J. C. Williams, MONTCLAIR, N. J., have a reputation for honest dealing. Send for their Catalogue of Fruit Trees, Vines, Plants, &c.

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Manufacturers of
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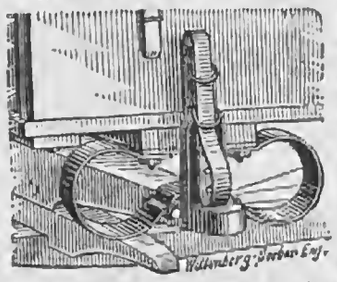
Pulliam's Patent Bolster Springs
FOR FARM AND FREIGHT WAGONS.



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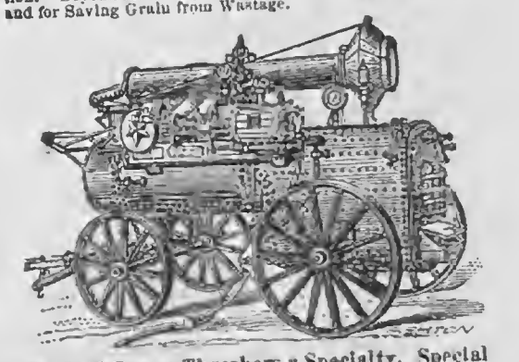

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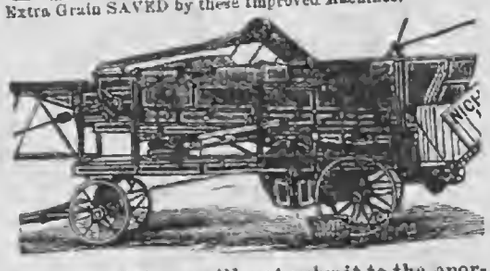

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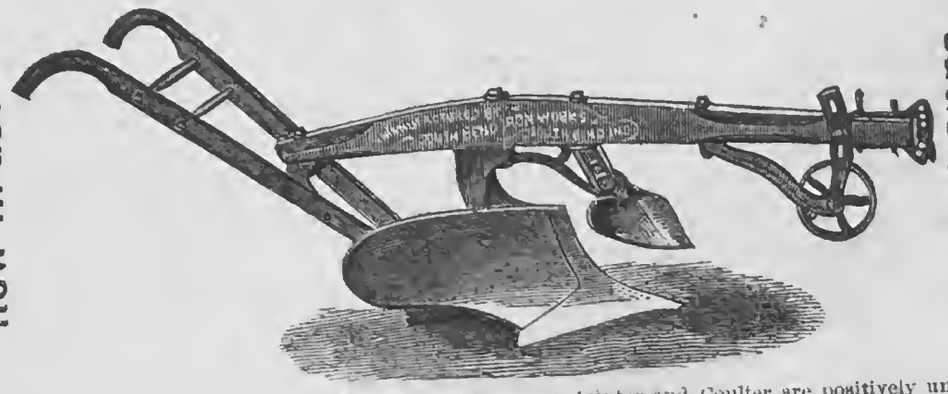

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Reading for the Young.

TO THE SONS OF THE FARMER.—No. 5.

REV. A. W. MANGUM.

BELIEVING that, under proper influences and favorable circumstances, a young man will be led to the calling to which his tastes and talents are adapted and which it is his duty to follow, I still deem it important to point out the danger of disastrous mistakes in making the momentous decision. Sheer accidents and extraneous considerations will sometimes exert more power over the mind than will the most essential and appropriate facts and principles. Family pride, governed by false notions of what constitutes higher respectability, will urge the eager, anxious youth to enter a field of enterprise that promises special distinction before the public. Hence many young men are in professions to which they are, in every respect, unsuited; and, consequently, they do not and cannot excel. Some desire to be and to do what they admire in some successful persons; and misconceive the nature of their desire, believing it to be an indication of their taste and special endowment. They do not remember that merely to enjoy music is no evidence of capacity to become a skillful musician; or that pleasing astonishment at the feats of an athlete is no indication of the ability to rival his performances. Habits of indolence often exert a sad control over the inclinations and efforts of the young. He who cultivates an indisposition to any severe exercise of his powers, physical or mental, need not expect to find the right sphere in life or to accomplish success for himself or benefits for others. Many a young man lies down in idleness under the deep shades of obscurity, and slumbers away the priceless hours of promise and opportunity, almost in sight of the blooming fields of grand achievement, in which the buoyant toilers of various degrees of talent are sowing the seeds of perennial hope and reaping the golden harvests of rapturous triumph. Unworthy dreams of vain and unprofitable pleasures too often seduce the sensuous nature of youth into paths of pitiful folly, leading to failure and disappointment. Let the young man consider what it is, in his nature, that peculiarly inclines him to any special course in life. If it be his lower appetites, his misguided or inordinate passions, or any of the dictates of ignoble selfishness, he must know, on second thought, that he dare not yield to such a propensity.

The young American of to-day is too apt to form his life-plans under the impulse of that uncalculating, sanguine eagerness which characterizes the age. He is impatient under the slow though surer and more healthful progress of those departments of labor and enterprise that requir time for their development. Youth generally, and especially in this day, needs to learn the royal lesson, "to labor and to wait." Adventurous speculation is always a hazardous policy and always liable to result in ruinous losses and disappointments. It is most to be deplored when it rules in the choice of a vocation that is to be pursued and depended upon, for support and success, through the varying fortunes of life and the inconstancy and irregularity of the many interests that, in divers respects, affect individual prosperity. Hence one should choose a calling that promises to be fruitful and worthy of pursuit through all ordinary changes.

Some are too much affected by a desire for novelty. The plain, familiar objects and scenes of home lose their power to please the deluded mind, and are regarded inferior to those that exert a charm simply because unknown. All change is not improvement. "All is not gold, that glitters." "Things are not what they seem." Those who act hastily under the dazzling influence of mere appearance, often have great cause to mourn over their folly with bitter regret and self-reproach. Many are moved to the formation of purposes by the glowing opinions which others (really as little informed as themselves) express about certain occupations and opportunities for profit or promotion. Some are led astray by the unscrupulous and designing; and learn, only when it is too late, that this world has many counsellors and pretended friends that one cannot safely trust. Now, every person is endowed with the power of self-persuasion. It is dangerously easy to find pretexts for doing what one really desires to do. When the heart is under the influence of vehement appetency, the will is liable to be prompted to turn the intellect to the work of justifying the gratification of the pressing passions. How true it is that "the wish is often father to the thought!" It is a matter of the highest importance to "be sure you are right" before you "go ahead." It is bad to be deceived by others; it is most censurable of all to be self-deceived. Such folly becomes most grievous when it goes to the extent of perpetrating violence upon truth and conscience, and dares to make that which is hurtful to self or others pass for the choice not of rational judgment only, but of the moral mentor likewise. Such a course is a shocking calumny upon Him on whom man depends for all blessing. In deciding upon your life-work, it is difficult, but it is profitable, (and it certainly is your duty) to divest yourself of all unwarranted inclination and prejudices, and to be sure that your determination is fixed by considerations worthy of a being gifted with reason and conscience, and placed under the tremendous responsibility of self-care and self-direction.

An occupation is not to be chosen because it is thought to promise extraordinary reputation and public consequence; neither is it to be shunned because it is commonly associated with retirement and comparative obscurity. Distinguished public men are not always the most contented or the most useful; while those who choose the quiet walks of humble industrial pursuits frequently escape many of the sorest vexations and disappointments of life, realize the fulfillment of many of the brightest dreams of youth, and achieve a truly enviable name as patriotic citizens and noble Christian philanthropists.

To be sure that you are right, "Acknowledge *Him* in all thy ways and He will direct thy paths."

THE HORTICULTURAL CLUB.

So far, the organization of the club has been a success. Many of the cousins have sent in their names and stated their determination to have gardens of their own. Some have also related their experience in gardening in previous years, and, from the way they have managed to succeed, I feel assured that no such word as fail is known to them. But the club is still in its infancy, and not nearly as many have joined yet, as I think will be benefited by joining. It must be borne in mind that such a society cannot have too many members. A thousand names might be added to the list, and still leave room for other thousands. The more members the club has the more interesting it will be.

Those who have already joined have, I doubt not, begun operations in their gardens, and all who desire to join should begin at once. As I have previously mentioned, it is best to begin with a small garden. A piece of land fifteen or twenty feet long, by the same number of feet wide, is abundantly large enough to begin with. Later, if any one should feel able to cultivate a larger garden, it can easily be extended. It is better to begin in a small way and grow in the business, than to start on a magnificent scale only to discover that the enterprise surpasses one's powers. Of course, I am now talking of those only, who have gardens for pleasure. If any boy lives near a town, and he intends to raise vegetables and small fruits, as, for instance, onions, celery and strawberries, to sell in the market, then he cannot expect to do all the work himself, and his garden may be as large as he can cultivate.

If you have a choice as to situation, choose your land in a corner of a field or garden, so that it will not be in the way of the plow and harrow; it should also be a corner that the chickens do not frequent. Give the land a good coat of manure, spade it in, and level the ground nicely with a rake. Digging is hard work, but the soil is pulverized much better with a spade than with a plow, and then, how sweetly one sleeps after a day's hard work with the spade. It is best not to spade more than is seeded down at once; if spaded several days ahead the surface dries and the seed does not germinate so readily.

In the selection of vegetables to plant, one must, of course, be governed by his tastes. Plant cabbage, cauliflower, celery, potatoes, melons, carrots or whatever you are fond of. Among the varieties that should be sown as soon as the ground is fit to work, are onions, early peas, radishes, spinach and a little later, lettuce. Do not bury the seed too deeply. A good rule for the smaller seeds, is to cover them with a layer of soil, about twice their own thickness, but the larger seeds, such as peas and beans, may be covered with an inch and a half to two inches of soil. I will give you some more hints next time.

UNCLE MARK.

DREAM OF FAIR WOMEN.

BY MRS. H. G. ROWE.

"I'VE read the poem over and over again, but I never really understood who all the characters were after all. Now who is this first one,—this

'Daughter of the gods, divinely tall
And most divinely fair'?"

"Why, that was Bert Stacy I I should 'a' thought you'd known *her*."

Auntie, Madge, even Will, laughed outright, much to literal Bess's bewilderment.

"I did'nt mean who took the character last night, but who the character really is," explained Madge, with a glance at her aunt's interested face.

As you may already have guessed, Bangor had been holding a "Carnival of Authors," and like many others, Madge had been delighted, interested, and in many cases puzzled to locate many of the quaintly costumed characters.

"Do explain this one poem, auntie," she pleaded. "I hate to be ignorant about such things that everybody is expected to understand."

Aunt Lou took the little blue and gilt "Tennyson" in her hand, and read again the lines that Madge had indicated:

"A daughter of the gods, divinely tall,
And most divinely fair."

"That refers to Helen, wife of the Greek king Menelaus, who was tempted by Paris the son of King Priam of Troy to forsake her husband and country for his sake. There is a pretty legend connected with this affair, that Madge must tell us, for I know that she has read it in her Grecian mythology.

Madge blushed a little as she asked timidly, "Do you mean the story of the 'Golden Apple,' auntie?"

"Yes, please tell us about it."

And Madge, with a glance at Will's quizzical face, complied:

"Why, the story is, that once upon a time the gods and goddesses gave a party, and some disagreeable neighbor who didn't get an invitation thought she'd spite 'em by getting up a contention among them. So she threw a golden apple into their midst, and the three principal goddesses, Juno, Minerva and Venus, all claimed it, and the consequence was a dreadful squabble in which everybody took sides, and got as mad as they could be about it. But at last they agreed to leave it to Prince Paris, of Troy to decide; and Juno promised him power and riches if he would give it to her; Minerva wisdom and skill in arms; and Venus, the most beautiful woman in the world for a wife. So he gave the apple to her, and she sent him to the court of King Menelaus to win the love of his beautiful queen."

"What a flat he must 'a' been!" sneered Will, contemptuously, while auntie, taking up the broken threads of her own story, went on:

"The wronged king called to his aid all the other Grecian kings, and a great army was raised, with his brother Agamemnon as general-in-chief to proceed against Troy, chastise the seducer, and bring back the missing beauty."

"What did they want her back again for?" interrupted Bess.

"I'm sure I don't know. But at any rate it was considered cause enough for a war, and on the strength of it, the allied Greeks besieged Troy for twenty years; and at length, despairing of success, they resorted to the famous strategem of the "wooden horse;" you must tell us about that, Will."

Will was interested enough by this time. "Why, you see, they made a whopper of a horse out of wood, and hollow inside, and offered it to the Trojans as a present. They must 'a' been an awful green lot not to see that something was up, but they didn't, and were tickled half to death to get it, and dragged it into the city and set it up in the market-place for all the people to look at. But when it came night, and everybody was asleep, the Greek soldiers that had been hidden inside the horse crept out and opened the gates of the city to their friends outside—so the Grecians rushed in, and sacked and burned the city."

"No wonder," said Madge, "that she is represented as saying—

'Where'er I came, I brought calamity.'

But who is the next one, who accuses Helen of being the cause of some great misfortune to her?"

"That is Iphigenia, the daughter of Agememnon, who was sacrificed to avert the wrath of the goddess Diana. Agamemnon, as the story goes, gave at one time great offence to the goddess, and to propitiate her he vowed to sacrifice the most beautiful thing born within the year. It chanced that this was his only daughter Iphigenia. Naturally, the father delayed to perform his horrible vow, but when, on their Trojan expedition, the whole Grecian fleet lay becalmed for weeks, the seer Calchas declared that it was in consequence of Diana's anger against Agememnon, and that Iphigenia, now a beautiful maiden, must be sacrificed immediately.

"The allies—the stern, black-bearded kings with wolfish eyes—concurred in this decision; and the ill-fated maiden was placed upon the altar, when suddenly she disappeared, and a snow-white hind lay bound in her stead. Diana, moved with compassion, had transported her to Tauris, to serve as a priestess in her temple."

"That's a kind of Abrahnm and Isaac story," remarked Bess, but nobody noticed her, for Madge exclaimed triumphantly,—"I know without telling who this means:

'A queen with swarthy cheeks and bold, black eyes,
Brow-bound with burning gold.'

That's Cleopatra, of *course*."

"Right, Madge! This is certainly that same Egyptian queen,—that 'serpent of old Nile,' as Shakespeare calls her; a cruel, wanton, wicked woman, in spite of all the glamour that romance and poetry have contrived to throw about her. Egypt during her reign was under the control of the Romans, and after the death of Julius Cæsar, Antony, Octavius and Lepidus determined to divide the empire between them. Taking the East as his share, Antony established himself at Alexandria, and summoned the Egyptian queen to his presence. She came, sailing up the river Cydnus, with the greatest magnificence and pomp of barbaric royalty. Her barge, with its purple sails and golden prow, was a miracle of richness and beauty; while her attendants were dressed to represent nereids, or mermaids, and beautiful little boys representing Cupids fanned and hovered about her as she reclined upon her perfumed silken cushions. As to herself, we may rest content, I think, with Shakespeare's charming description:

"For her own person,
It beggar'd all description: she did lie
In her pavillion (cloth of gold, of tissue,)
O'er picturing that Venus, where we see
The fancy outwork nature."

Antony was so completely enamored with the voluptuous queen that he divorced his own wife,—who being the sister of Octavius, brought the enmity of the powerful Cæsar upon him,—married the Egyptian, bestowing Roman provinces upon her, and acting like a demented man generally.

"In spite of his infatuation, he seems to have feared as well as loved her, for it is told that, on one occasion at a banquet, he refused to taste certain dishes, believing she had arranged to poison him in them. She took no notice of his abstinence, but as the feast went on, she snatched, in mischievous glee, the garland of roses from her head, and shaking some of the petals into her goblet of wine, challenged her guests to do the same. Of course every one obeyed, Antony among the rest, but just as he was raising the glass to his lips, she stopped him, and ordered a slave who waited at table to drain the cup instead. He did so, and fell down dead in an instant; the flowers contained a subtle and deadly poison. In this way the wily queen signified to him that it was useless for him to think that he owed his safety to anything but her love for him."

"I'd 'a' bounced her, an' made tracks for Rome mighty sudden," remarked Will, in his choicest school-boy slang, while Madge asked eagerly,—

"Who comes next, Aunt Lou?"—[To be continued.

CHILDREN'S RUGS.

I LATELY saw a pretty rug, made by a ten-year-old girl, of pieces of cloth an inch square, from old cast-off garments. These pieces she slipped closely on a twine string with a coarse needle, arranging them with several inches of light or mixed colors, with as much of dark, with bright colors in the center of the dark. These were then wound in a circular form and sewed firmly on a piece of coarse cloth. It is better to line the rug with straw matting, or similar material, to keep it in place. These rugs are quite durable and much prettier than some that I have seen made by older and wiser folks. Besides the children are pleased and amused while making them. Even the little boys are delighted to help. JULIA M. W.

Sabbath Reading.

RECLAIMED.

BY S. B. LEVERICH.

ONE day, my conscience smiting me,
I said, "O Lord, I'll follow thee."

But hearts are changeful, and God knows
How oft our love the feebler grows
Through years with blessings filled;
And so one day, it must be told,
I found my heart grown strangely cold,
With gratitude unthrilled.

One midnight, while the household slept,
A shadow o'er the threshold crept,
And settled in the gloom
Above the couch where dainty form
Of baby May, our latest born,
Lay sleeping in the room.

And on my heart a terror lay,—
Was it a dream, or would the day
Make true what I would doubt?—
The morn that brought the sunshine in
Cheered not the room where death had been
And taken sunshine out.

With aching heart and weary tread
I turn from ways which late have led
My feet in paths of pain;
Nor count such grief too hard to bear,
If born of it shall be this prayer
That makes me Christ's again.

To-night I cry, "Christ helping me,
Dear Lord, for aye I'll follow thee."

CONDESCENSION OF CHRIST.

In the plenitude of his grace, the Redeemer stands knocking at our out door, making choice of our sinful hearts as the banqueting hall in which he will preside and feast with us. That he should propose to "sup with us," seems even more wonderful that we should be invited to "sup with him." That he should so condescend to share our poor provision, our imperfect sorrows for the past, our faint aspirations after higher things, our faltering prayers and promises, our poor and sin-stained services, so as to find joy and complacency in these, this is a measure of grace, the riches of which surpass all our comprehension. And, for him who so "overcometh" the deadly fascination of sin and Satan, as to embrace the divine offer, what dignity, what glory in the promise, "he shall sit with me in my throne!" What felicity can be more exalted, than that assigned to the once "wretched and miserable and poor and blind and naked," the deeply erring, but now believing and contrite soul?"—*Rev. J. W. Finlay.*

THE TIGER IN THE SOUL.

A GENTLEMAN in India once raised a tiger cub. His kindness seem to eradicate the ferocity of its nature, and it grew up as a pet. One day its owner, being alone with it in his library, caressed it, and gave it his hand to lick. The rough tongue of the animal grazed his skin and gave it its first taste for blood. Then its ferocious nature awoke. Fury gleamed from its eyes, and crouching, it made ready to spring upon its master. Fortunately, the gentleman had a loaded pistol on his table, and saved his life by shooting his former pet.

Human nature is fallen and the propensity to sin is lurking in every human soul. It may appear at times to be dead, or dormant, or not to exist, but in the moment of temptation, unless the grace of God interpose, it will spring into life, and woe be to the soul in which the evil nature is not kept down by the almighty hand of God. A new heart and constant Divine restraint is the only hope.

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PERSONAL ITEMS.

The Pope has sent $1,000 in aid of the sufferers from the inundation at Szegedin.

Gen. Moulin, who ordered his band not to play the "Marseillaise" during a review by Gen. Lefebvre, has been placed under arrest, and it is supposed that the French Minister of War will suspend him.

The German emperor is exceedingly popular at present. He can hardly enter any theatre without the audience rising to their feet to hurrah and chant the national hymn. His affectionate subjects have been so inundating the palace with gifts that he has been at last forced to remind the public of a half-forgotten order in Council, forbidding the presentation of books, music, objects of art and industry, etc., without leave being previously asked for and obtained. The only outward signs retained by the Emperor of the two murderous attacks made upon him are a certain paleness, and a scarcely noticeable sling by which his right arm is supported.

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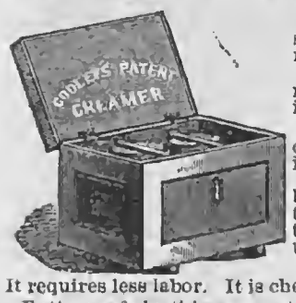

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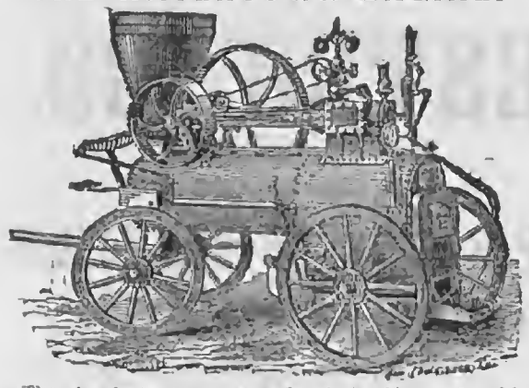

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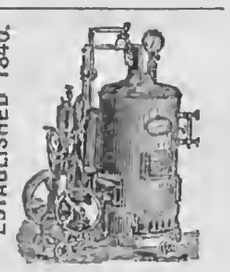

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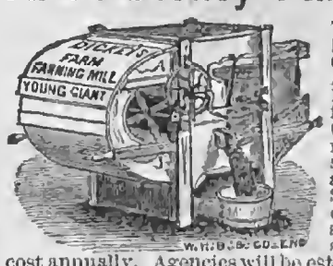

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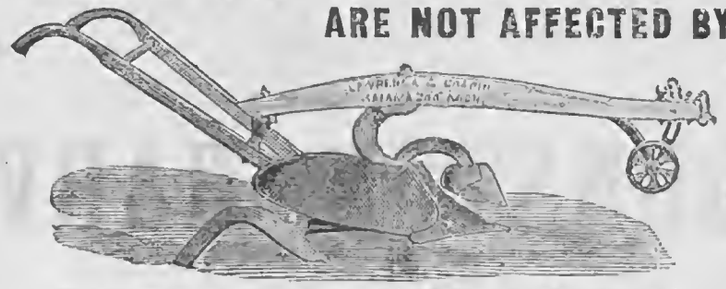

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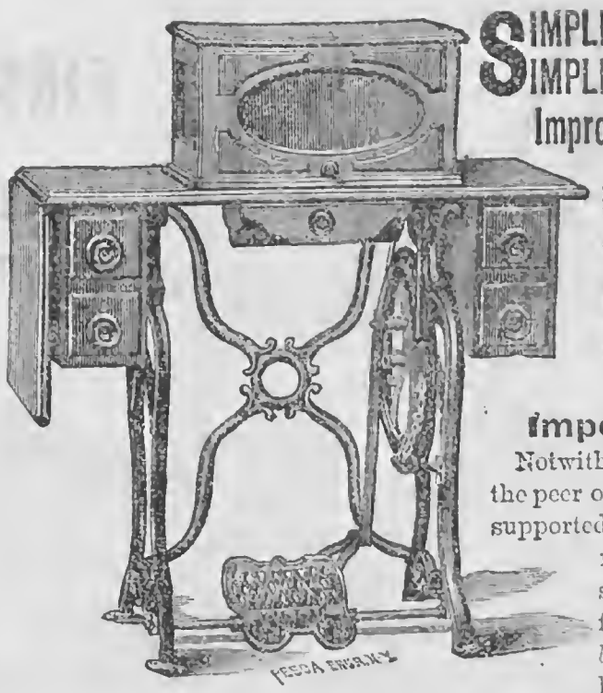

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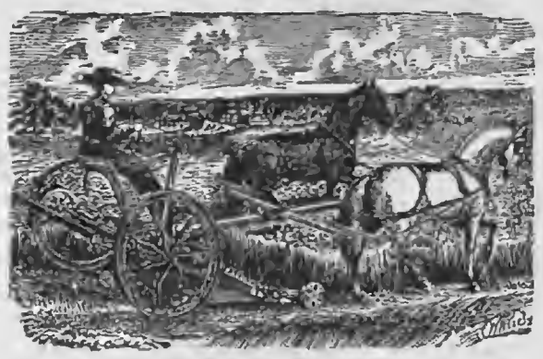

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LIGHTEST DRAFT.

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A Six-Foot Swath Cut with less draft than the average side-cut mower USES IN CUTTING FOUR FEET.

Grass cut by the Eureka cures one-third quicker and more evenly than after any other Mower.

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Pulverizing and Smoothing HARROW.

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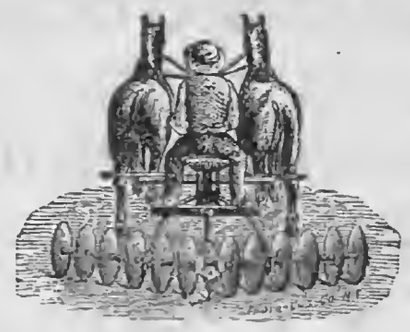

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Will pulverize and leave ground smoother and in better condition and cover seed better, by once going over, than twice with ordinary Harrow. Acknowledged the best in use. Being jointed in the center, it accommodates itself to uneven surfaces, such as dead furrows, ridges, &c. Made with both Chilled Metal and Cast-Steel Discs.

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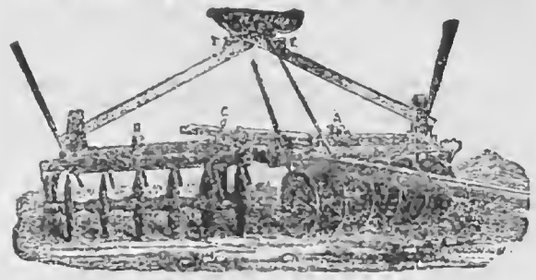

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OVER 30,000 IN USE.

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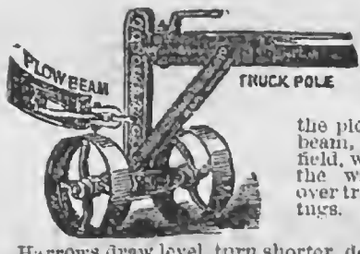

Saves the Gage Wheel, half the labor of holding, 12 to 15 per cent. of the draft, team can back the plow, no riding the beam, plow taken to the field, whiffletrees out of the way, no stepping over traces or letting out tugs.

Harrows draw level, turn shorter, do ⅓ more work. Holds Shovel Plow, prevents jumping and dodging. On Scraper saves man and team. Handles never get muddy. Will pay its cost in one week. Just the thing on Stone Boat, Horse Fork, etc., etc.

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WIT AND HUMOR.

THIS is the walking year; the next will be leap year.

SHAKESPEARE'S conundrum, "What's in a name?" is answered by the Syracuse Times: "If it is a Russian general's name the whole alphabet is in it."

Everything Goes Wrong

In the bodily mechanism when the liver gets out of order. Constipation, dyspepsia, contamination of the blood, imperfect assimilation are certain to ensue. But it is easy to prevent these consequences, and remove their cause, by a course of Hostetter's Stomach Bitters, which stimulates the biliary organ and regulates its action. The direct result is a disappearance of the pains beneath the ribs and through the shoulder blade, the nausea, headaches, yellowness of the skin, furred look of the tongue, and sour odor of the breath, which characterize liver complaint. Sound digestion and a regular habit of body are blessings also secured by the use of this celebrated restorative of health, which imparts a degree of vigor to the body which is its best guaratee of safety from malarial epidemics. Nerve weakness and over-tension are relieved by it, and it improves both appetite and sleep.

The Perfect Creamer is a great success. It excels all other systems in quantity and perfect quality of butter made from a given quantity of milk. The increase in value of product will pay for it in one season. See adv. in another place.

The best method of setting milk is by use of the PERFECT CREAMER OR BUREAU MILK PANS. It maintains a uniform temperature at all seasons, excludes flies and dust, uses but a very small quantity of ice. Is the most economical in time, labor, and money of any system ever devised.

"OUR FAILURES."

Husband.—"I say Lizzie, what on earth did you make this mint-sauce of?"
Young Wife—(who has been "helping" Cook). "Parsley, to be sure!"

Lord & Taylor

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PERFECTLY PURE HIGHLY CONCENTRATED
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CELEBRATED EUROPEAN SALICYLIC TREATMENT. PARIS & LEIPZIG.
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SORE THROAT, BRONCHITIS,
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All Diseases of the Throat, Head, Chest or Lungs.

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A GOOD SAW-MILL for $188.

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of lumber can be cut in a day; a product 25 to 50 per cent. greater than can be cut with any reciprocating saw-mill. The mills are complete, except saw, and will be put on the cars in Cincinnati for the low price of $188, and warranted in every particular. Saw-Mills of all sizes, Engines and Boilers, Shafting, Gearing, etc. Illustrated Circulars sent free.

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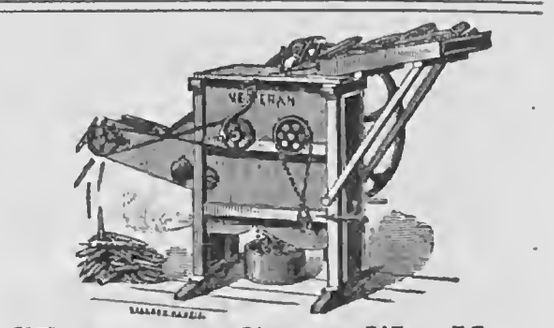

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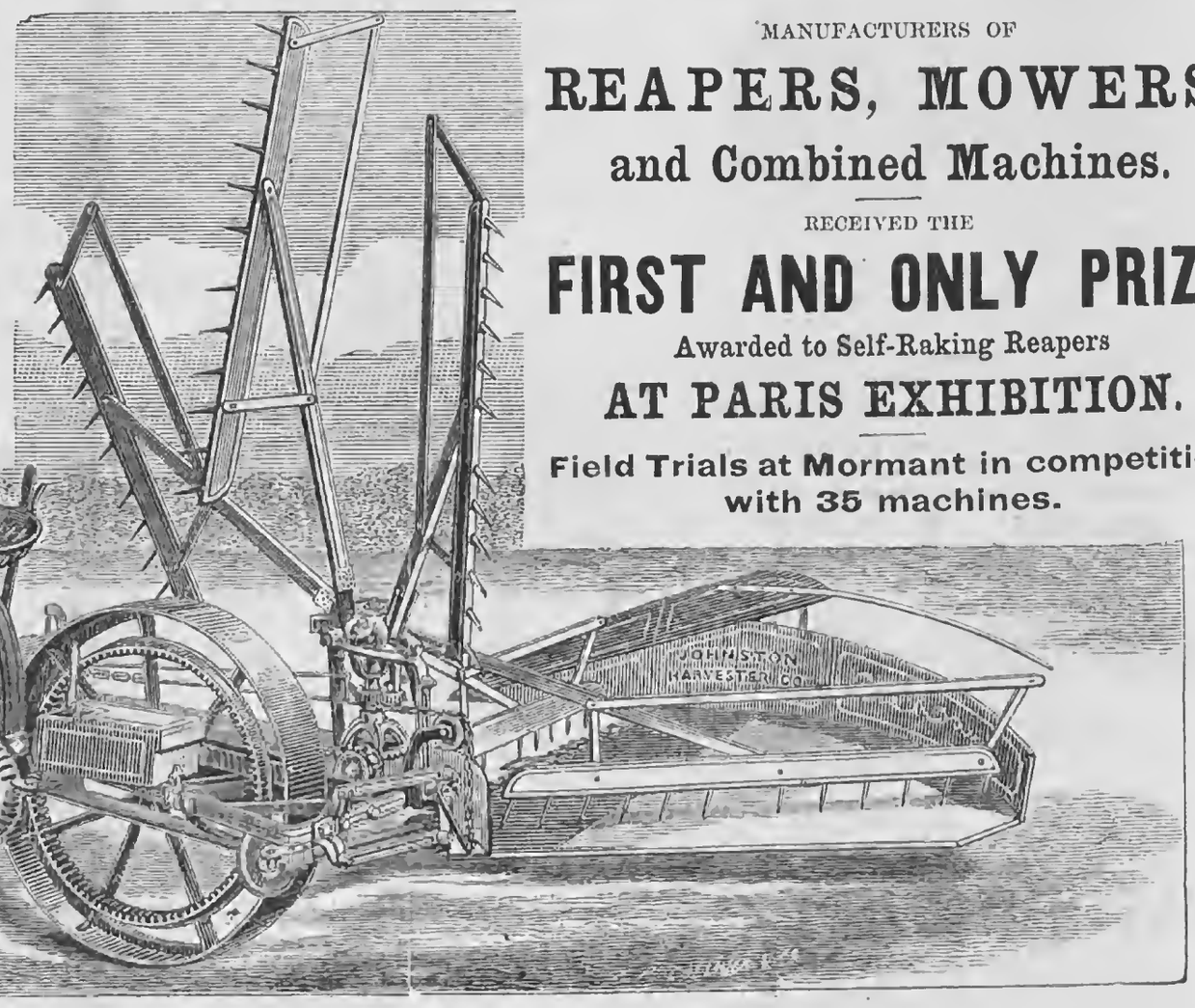

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A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME.

VOL. XXXVIII. No. 16.
WHOLE No. 1525.

NEW YORK CITY, APRIL 19, 1879.

PRICE FIVE CENTS.
$2.00 PER YEAR.

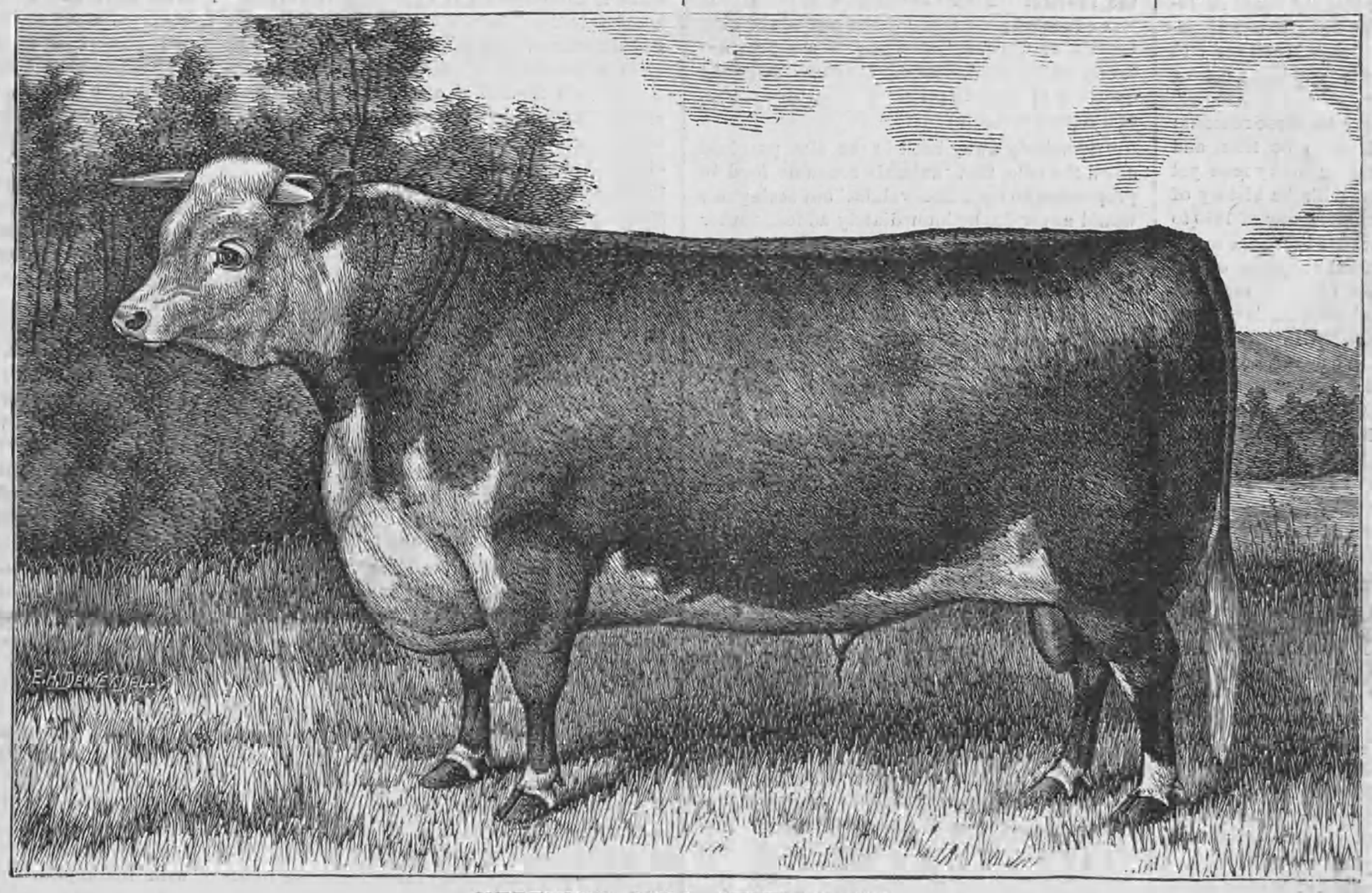
[Entered according to Act of Congress, in the year 1879, by the Rural Publishing Company, in the office of the Librarian of Congress at Washington.]

The Herdsman.

OUR ANIMAL PORTRAITS.

In the issue before last we presented to our readers an illustration of the Hereford cow, Empress, a trans-Atlantic celebrity; this week we give them a couple of excellent likenesses of the Hereford bulls, Success and Seventy-six, fine specimens of the cis-Atlantic branch of the breed. The portrait of the former was taken when he was six years old, and that of the latter when he was two years old.

Success has been at the head of the Hereford herd belonging to T. L. Miller of Beecher, Ill., for the last five years; Seventy-six follows him on his heifers. Mr. Miller, we learn, has been very successful with the Herefords and has now a herd of nearly 300 head of thoroughbreds, 150 of which are females. He writes us that he has bred during the past year 150 head of thoroughbred calves. The rapidly growing popularity of this breed, especially in the great beef-producing regions of the West, has led us to place before our readers, in the following article, what one of the most prominent breeders of that strain in the country, has to say in their behalf.



HEREFORD BULL, SEVENTY-SIX.

HEREFORD CATTLE.

In speaking for the Herefords, I would say that as dairy cows they stand well, giving rich milk; but crossing them upon native cows produces a better dairy cow than the thoroughbred. There are records of their dairy qualities, that give them a standing among the best of dairy stock.

But it is as a beef breed that they stand preeminently above all other breeds. Considered as to their market value, they always bring the top price. Considered as to their grazing qualities, they are clearly the best grazers—the best grass animals in the world. Considered as to their feeding qualities, on high feed they will give larger returns than any other breed for the amount of feed consumed. Their competitors are the Short-horns, Scotch and Devons.

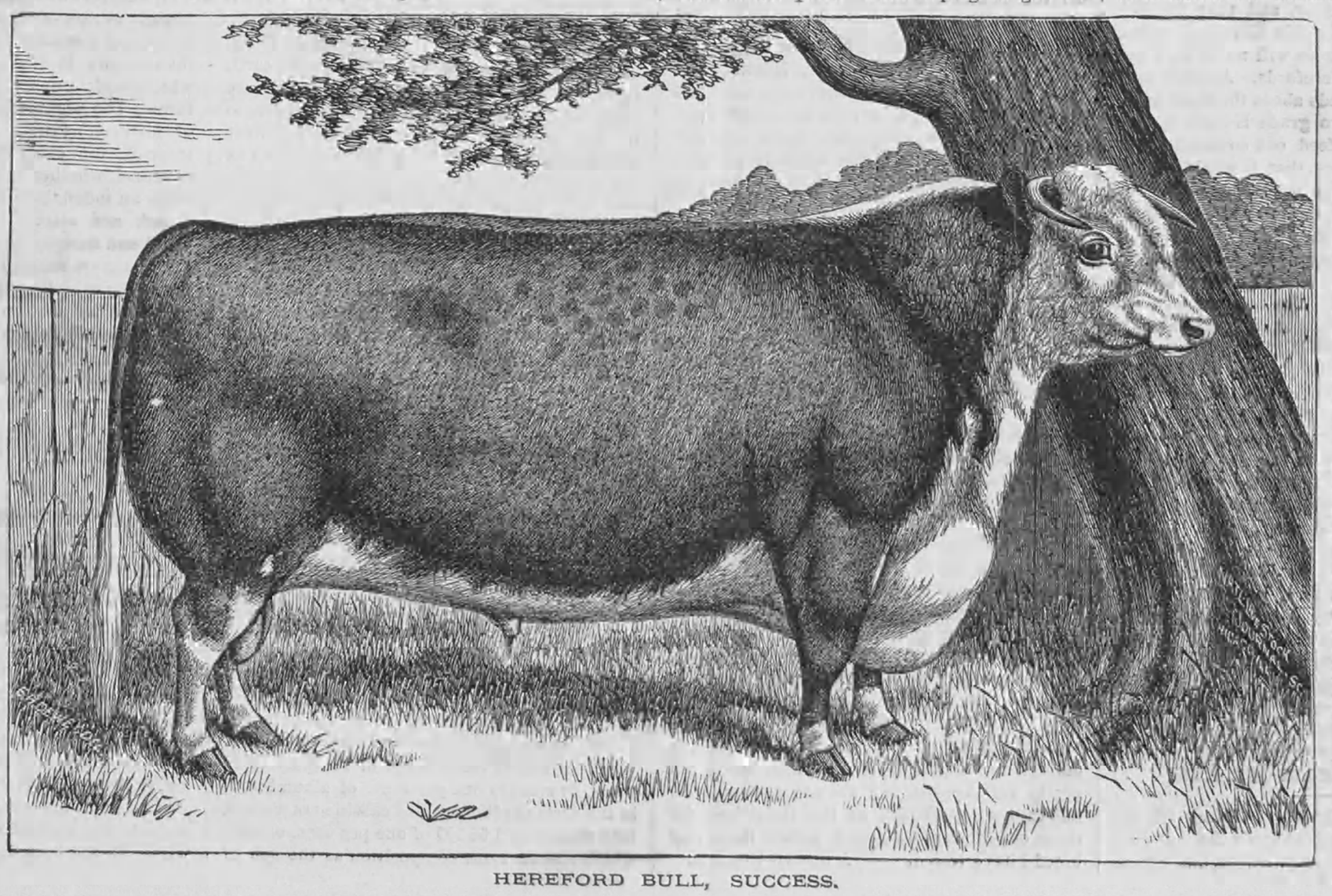
The Short-horns will mature as early; they will make equal weights, but to secure early maturity and equal weights, *they will require from 10 to 25 per cent. more feed, whether of grain or grass*, and the carcass is never worth as much per pound by 5 to 10 per cent. The Scotch and Devons will not mature as well at three years as the Herefords will at two, or at four years, as the Herefords at three years. The Scotch and Devons, when matured, are of good quality, and will command on the market an equal price with the Herefords. It is possible that from the stall they will command a shade better price; but from the pasture the Hereford has no equal.

I believe that this is a fair statement of the standing of these four classes of cattle. This standing has been maintained for 100 years. And still in America the progress of the Hereford has been slow; he has been overshadowed by the Short-horn. About the beginning of the present century the Herefords were selling in England as butchers' beasts for often as high as $500 for a single animal, and at the Smithfield show, in London, they commanded for several years the leading premiums, and always the best market price. I am hoping to get the data by which I may discover the process by which the Short-horns have secured their more general adoption in England and America. I have secured this data to some extent for this country; but this is not conclusive, as their popularity had, to some extent, begun in England before it appeared here.

In the year 1840 the first large importation of Herefords was made by Mr. W. H. Sotham, Mr. Erastus Corning, of Albany, having an interest with him in this importation. Soon afterwards another and larger purchase was made by the same parties, but this entire purchase was lost on the way from England. Besides this effort there had been from one to four or five animals brought over at different times by different parties. The Hon. Henry Clay, of Ky., imported some animals in 1817; so did Aston & Humphries, of Ohio, in 1852; and F. W. Stone, of Guelph, Canada, in 1860 or 61. The Clay importation made many friends for the Herefords.

Aston & Humphries' importation made considerable progress; so did Mr. Stone's. But of this it may be said that the Herefords were overshadowed by the Short-horn interest in Mr. Stone's hands, as he was largely engaged in the breeding of Short-horns at the time he imported the Herefords. It is of the Sotham importation that I will speak more particularly.

Mr. Sotham, in 1840, made an importation of 12 Herefords. From that date the Hereford-Short-horn controversy continued for 20 years, more or less, with varying fortune. The descendants of these cattle are now bred in their purity in many parts of the country; the most prominent breeder being the Hon. John Merryman, of Cockeysville, Md. He has made several importations from England, and several purchases from Mr. Stone, of Canada, and also from the Aston & Humphries' importation and one from myself, thus keeping up his outcrossess, and to-day he has a very fine herd. Representatives of the Corning and Sotham importations may be found in different parts of the country, from Maine to Colorado. And as the Herefords are coming to the front and their merits are being recognized, these cattle are taking a prominent position.



HEREFORD BULL, SUCCESS.

I met a gentleman at one of our State Fairs

two years since, who, had had some of these Corning and Sotham cattle in Vermont. He told me that he had owned them years ago, that they were the best dairy cows that he had ever owned, and that the young stock were always fit for the butcher.

Such men as Randall, E. P. Prentice, Roach, John Johnston, C. N. Bement, Van Rensselaer, Geo. Vail, Delavan, and other prominent farmers, breeders and politicians were engaged in the breeding of Short-horn cattle. With these might be named Ambrose Stevens, an importer of Bates stock; Allen, publisher of the Short-horn Herd-Book, and Page, the delineator of Short-horn lines. These were the men that Mr. Sotham met when he brought his Herefords to New York.

In 1841 the New York State Agricultural Society held its first fair at Syracuse. In 1842 it held its second fair at Albany, and I find that of the exhibitors who took premiums over 50 had exhibited Short-horns, while only two had exhibited Herefords. Among the Short-horn exhibitors were the names I have given, except Allen, Stevens and Page. I name these facts to show the influence that the Herefords were obliged to meet at their advent into New York State, and for another purpose, to wit: to show that the organization of the New York State Fair was effected in the interest of the Short-horns, so far as the cattle department was concerned. And this has been true of the different State organizations from that time to this. Discriminations are usually made in favor of the Short-horns and against the Herefords in the making up of classifications and premium lists and in the appointment of judges.

I raise these questions here for these reasons: first, because I believe them to be true, and second, because there must be many men yet living that will be familiar with the history of the Hereford-Short-horn controversy of 1840 to 1850. I refer to it also because there are many who believe that the general adoption of the Short-horns is an evidence of their merit as beef animals. As compared with Natives, they are good; but as compared with Herefords, they are not good. As dairy stock, compared with Natives, they may be good; but as compared with the Ayrshires, they are not good. And when the history of the Hereford-Short-horn controversy in England shall be brought out, it will appear that the Short-horns have taken their position by other means than merit. I do not wish to be misunderstood on this point.

A Bonner or Vanderbilt values a horse for the speed there is in him. If it is 2:15, they will pay thousands for him; if it is 2:50, they don't want him at any price. It is not because the 2:50 horse has no value; for my service he is all I want. So, if the Hereford will produce meat at 15 to 25 per cent. less cost than the Short-horn, and that meat is worth from 5 to 10 per cent. more money, then the Short-horn has not a value that the careful breeder and feeder will recognize. I am in receipt of letters from feeders in the Eastern States, who wish to feed for the purpose of keeping up their farms. Many of them would be satisfied if they could get the cost of the feed; but they say they cannot do it on grade Short-horns, and inquire as to the merits of the Herefords as feeders. To such I reply that there is a good profit in favor of the Herefords. And on this point I have a letter before me from a feeder in Missouri. He says that for several years he has been a feeder of about 100 steers a year, and that for two years past he has fed grade Herefords raised in Colorado, and that he will never feed any others, if he can get Herefords. Another man in this State, who feeds about the same number, says: "I had two grade Herefords in a lot of 100, and they feed out so much better than any of the others that I would like to know more about them;" and he raises the question as to whether their exceptional thrift was accidental, or whether the breed have so much better feeding qualities. Another says: "My grade Herefords and Short-horns have grazed together during the summer and fed together during the winter, the Short-horn grades making 400 pounds gain and the Hereford grades making 600 pounds, the Short-horns selling for $4.40 per 100 pounds, the Hereford grades selling for $5.12½."

I fed a pair of three-year-old grade Herefords from June 1st to December 1st, making a gain of 1,000 pounds, and a pair of two-year-olds during the same time, that made a gain of 1,200 pounds. The cattle-breeders on the plains in Wyoming, Colorado and New Mexico are crossing Hereford bulls on their herds, the produce of which are coming forward to our markets, though the demand for bulls is such that many of the calves are being kept for use. These white-faced steers will always command a better price than others that have been bred with them.

T. L. MILLER.

Will Co., Ill.

"WHAT COWS SHALL WE KEEP?"

IN the article in RURAL of March 22, the writer takes great pains to exalt the Ayrshire an top disparage the Jersey, Dutch, and Short-horn breeds of cattle. I care not how much the Ayrshires are praised, but when a writer undertakes to exalt his own favorite breed, by pulling down others, our suspicions in regard to his fairness are at once excited.

The position taken in this article, that animals consume food in proportion to their weight, has for a long time been an exploded fallacy. There is no class or breed of animals, from man downwards, that consume food in proportion to their weight. Every man as he sits at his table, discovers the fallacy of this assumption. A man of two hundred pounds' weight will often eat, day by day, no more food than the man who sits at his side weighing fifty, seventy-five, or even one hundred pounds less. Among horses, food is not consumed in proportion to their weight. Some horses will keep fat upon a given amount of food that would scarcely keep alive another horse of equal weight. Every observing farmer is conversant with this fact. The truth is the amount of food consumed by animals, depends as much, to say the least, upon their activity and nervous excitability as upon their weight. The difference in ability to digest and assimilate food, also enters largely into the problem of food-consumption. Some animals will digest and assimilate to their uses nearly all the constituents of their food, while others of the same class will assimilate a much smaller proportion even in the same conditions of life.

I do not learn at what Agricultural college the fanciful "Fred" mentioned in the article was educated; but I know that one of the Professors at Cornell University, in a recent address, utters the following language upon the question of consumption of food by animals of different weights:

"Somebody away back in the dim past laid down the rule, that 'animals consume food in proportion to their live-weight,' but seeing this would never do, he immediately added, 'other things being equal.' This amendment effectually annuls the rule, for other things never are equal. Can any one imagine that two twelve-hundred-pound, well-built Short-horn cows will consume as much as three coarse-headed, Gothic-ribbed, eight-hundred-pound ones? The chances are that two of the smaller ones would consume more than the two larger ones. The truth is, animals never consume food in proportion to their live-weight."

The figuring made by the fanciful "Fred," between Mr. Lewis's Short-horns, and Mr. Crozier's and Dr. Sturtevant's Ayrshires, is all based on the fallacy "that animals consume food in proportion to their live-weight." Certainly, if he knows as much of other farm business as he has learned about cows at college, he is a marvel, and "an agricultural college is a good place," indeed, "for a young man to" keep away from.

Another character brought forward by the writer of this article is nearly as fanciful as "Fred." I refer to "Mr. Martin." He is represented as saying: "These Jerseys, or Alderneys, as I call them, have ruined the stock of cattle here." This statement is put forth as the wise conclusion of a practical farmer, and there are those who will read it and imagine that it is a fair, unprejudiced opinion, indorsed by THE RURAL. The author of the article in question undoubtedly knows that "these Jerseys or Alderneys" are among our most valuable breeds for the improvement of the milch cows in our country, yet he has stooped to this childish attack that he may exalt his favorite breed above them.

Then the Dutch cow comes in for her portion of "blarney." Neither "Mr. Martin," nor even "grandfather," can believe the story of a yield of 16,274 pounds of milk in a single year. Mr. M—— and "grandfather" have probably been milking their favorite Ayrshire all their lives, and so the story is "tough," in the light of their experiences.

S. HOXIE.

Jefferson Co., N. Y.

A PROTEST IN BEHALF OF HOLSTEINS.

IN the RURAL of March 22, under the caption, History of a Poor Farm, No. 6, a brief space was devoted to remarks on the above breed of cattle, and as these deprecatory remarks are so opposed to my own experience of that noble race, I must enter an emphatic protest against the slur therein cast upon it. In my dairy I have had Holstein cows that have made 10 pounds of butter a week in winter, and gave me from 45 to 60 pounds of milk per day. I have some Jerseys and Short-horns, and my Holsteins make a better use of their feed than either, or indeed than any cattle I ever owned. Moreover, they thrive well on coarse feed. For three or four years I sold more or less of their milk to the local milkman and he assured me it was the best milk he bought, and that which gave his customers the greatest satisfaction. I got the Jerseys and Durhams to try them, but I am pretty well satisfied they are not as profitable, all things considered, as the Holsteins; for these combine more good points than any breed I have tested.

A RURAL READER.

Dairy Husbandry.

COMPARATIVE EXHAUSTION OF SOIL BY CHEESE AND BUTTER-MAKING.

A. B. C., Westfield, Chautauqua Co., N. Y., asks for analyses of butter and cheese, so that by noting the ingredients of each, it may be seen which tends most towards impoverishing the soil. In a recent meeting of the local Farmers' Club one member stated it as a fact, that the sale of cheese from farms robbed the soil of plant-food, while the sale of butter had no such effect; and accordingly urged his hearers to quit making cheese, but to make all the butter they could; and our correspondent asks whether this view of the matter is correct; and, if so, what should be applied to the soil to supply the plant-food removed in the manufacture of cheese.

ANSWERED BY PROFESSOR L. B. ARNOLD.

Agricultural chemists are pretty well agreed that of the many substances taken from the soil in the growth of plants, but three are necessary to be returned to it to maintain its fertility. These are phosphoric acid, nitrogen, and potash. The most important of these is phosphoric acid, because of the large amount used in plants and the small quantity the soil contains. Nitrogen is just as essential in the organism of the plant, but then the earth absorbs it from the air in which it very sparingly exists in the form of ammonia and nitric acid, and showers of rain and snow bring it down in quite appreciable quantities. Potash enters largely into the ash of all plants, but the soil usually contains it in much greater abundance than the other two substances. There is often so much that the drain made by vegetation is not felt for long periods, and hence it is sometimes omitted in fertilizers for particular localities.

The different ways in which milk is disposed of affect the exhaustion of these substances unequally. The dairyman who sells his milk to consumers outside of the farm, makes the heaviest draft upon them. While we know this general statement to be true, we cannot with precision say just what the drain is in any particular instance, because milk is such a variable product. Its analysis shows that it is different in different animals, and in the same animal at different times. It will be an approximation to a general average to say that it contains 86.50 per cent. of water, 4.50 of sugar, 4.25 of fat, 4 of albuminoids, and .75 of ash. The material which enters into the composition of the carbohydrates, sugar and fat, need not be considered, since plants can derive them from the air. The ash and the albuminoids only need be regarded.

From the figures in our census for 1875, we estimate the annual yield of milk per cow in this State to be 5,128 pounds, but for the sake of convenience in estimating, we will put it in round numbers at 5,000 pounds. The ash of this weight of milk at .75 of 1 per cent., will amount to 37.5 pounds of which .6 or 22.5 pounds, are phosphates. To restore the phosphoric acid contained in these phosphates, will require one and a half times their weight of bone meal—33.75 pounds—which at $35 per ton, will cost 59 cents. soluble acid would cost more; but the slowly soluble bone is sufficient. The 5,000 pounds of milk, reckoning albuminoids at 4 per cent., will contain 200 pounds of nitrogenous matter, of which 16½ per cent. is nitrogen, causing an exhaustion of 32.5 pounds, worth 26 cents a pound, and is worth $8.45. But by reason of ammonia taken into the earth from the atmosphere and from showers, we need not return the whole of this nitrogen to the soil. Practically it is found that a fertilizer which contains one-third as much nitrogen as the weight of the phosphoric acid it contains, will keep up the productiveness of the soil, so far as nitrogen is concerned. We need therefore return only that much. One-third of the phosphoric acid in the phosphates in the milk is 3.75 pounds, and this weight of nitrogen at 26 cents will cost 97½ cents. The potash carried away in milk is small and variable, and hardly need be taken into account. It is liable to vary from 5 to 8 pounds in 5,000 pounds of milk. Its restoration would be amply covered by 14 pounds of German potash salts at 3 cents a pound. The whole expense of restoring the waste will be 59 cents plus 97 cents plus 42 cents, equal to $1.98 per cow yearly.

If this quantity of milk had been carried to a cheese factory, and after being made into cheese its whey had been returned and consumed on the farm without loss of its fertilizing power, the exhaustion would have been much less. To determine what the loss to the farm would be, we must subtract the value of the whey, as a fertilizer, from the value of milk for that purpose, which we see is worth $1.98 for the milk of a cow one year. Dr. Voelcker makes the average of 15 analyses of whey, to contain one per cent. of albuminoids in the form of albumen and caseine not worked into cheese, and 65-100 of one per cent. of ash, which has the same composition as the ash of milk. The quantity of nitrogenous matter in the whey as given by Voelcker, is believed to be larger than usual, and we reduce it to 9-10 of one per cent. As the four per cent. of nitrogenous matter in the milk gave us 32.5 pounds of nitrogen, .9 will give 7.31 pounds. But this is too large, because there is not as much whey returned as there was milk taken away, by about 15 per cent. Reducing the nitrogen 15 per cent., we have 6.2 pounds to return to the farm. But we have found by examining the per cent. of nitrogen in good fertilizers, that this is a larger proportion of what has been taken away than need be restored to keep up productiveness in grass lands especially, so that we shall have no occasion to count any loss in nitrogen on account of making the milk into cheese.

The ash in the whey returned is .86 of what it was in the milk. The phosphates in the whey will be, .86 of 22.5 pounds or 19.5. Reducing this 15 per cent, we have 15.575 pounds as the phosphates returned to the farm in the whey. Subtracting this from the phosphates carried away in the milk, we have 6.925 pounds, as the loss which can be restored with 20 cents, worth of bone meal at the wholesale price of $35 a ton. Following the same course with the potash, the loss will be covered by 13 cents, making the whole loss, at current rates for fertilizers, amount to 33 cents per cow a year. If the milk of this cow had been devoted to butter making, and the skimmed milk all used on the farm, there would be nothing lost on account of the sale of the butter. There is a small loss of nitrogenous matter in butter but it does not average more than 1-2500 per cent of the milk, and is too insignificant to be reckoned.

The foregoing will answer the question of A. B. C. in regard to the comparative losses to the resources of the soil, so far as milk, in its different uses, is concerned, but it by no means covers all the causes of exhaustion upon dairy farms. In the practical operations of dairy management, much larger losses than those growing out of the different uses of milk, are common. The food which the cow derives from the farm is a steady source of exhaustion, unless it goes back into the soil again. This seldom or never happens. The liquid manure from the herd nearly all goes to waste on most farms during one-half of the year at least. The waste from this source is large and tells heavily on the fertility of the farm. A cow is estimated to void more than double the quantity of urine that she does of milk, and it contains much valuable plant-food. The milk of a cow giving 5,000 pounds a year, we found to contain 32.5 pounds of nitrogen. The urine of such a cow, for only half the year, would contain three times that amount, half as much phosphoric acid, and more than five times as much potash as the whole year's milk.

The dairyman who declines making cheese of his milk because of the 33 cents' worth of exhaustion to the soil, and carelessly allows the waste of half or more of the urine from his herd, is saving at the tap and spilling at the bung. The solid droppings often share loss with the liquid. Whether piled under the eaves or lying in the open yard, water from the heavens usually carries away more or less, often one-half, of the most soluble and available part of the solid excrement and, with the liquid, sinks it out of reach, or washes it into some depression to make a mire-hole and a stench when hot weather comes on.

It requires the closest attention to every detail in the care of all animals fed on the farm, to prevent a much greater waste of plant-food than occurs in the most unfavorable use to which milk can be put—selling it from the farm. The avenues of loss in the restoration of fertility cannot, in any case, be wholly stopped, for every young animal sold from the farm, whether calf, pig or poultry, carries away an indefinite amount of phosphoric acid, potash and nitrogen in the form of bones, blood and flesh.

It is a good thing to have attention called to the losses which may occur in the different uses of milk, and how to restore them. We are glad to aid all we can in this direction, but we would not have the other prolific sources of exhaustion overlooked.

Industrial Topics.

CONSTRUCTION OF THE PLOW.

PROFESSOR S. M. TRACY.

Early Forms and Improvements.

AT a very early day our ancestors learned that in order to render the soil productive, they must make it loose and friable to give free ingress to air and moisture, and to give the tender rootlets room to develop themselves. For thousands of years the loosening of the soil was the only object that was sought to be accomplished by plowing. The only plow used was made on the principle of a pointed stick to scratch the surface of the ground, and only within the last four hundred years did the plow

begin to assume any resemblance to its present double-wedged form.

The first improvement in the shape of the implement was to make it in the form of a wedge acting horizontally, so as to push the furrow to one side and so give room for the next furrow. At about the same time another modification of the plow was introduced, which, instead of pushing the furrow to one side, raised it up and allowed the plow to pass under it. Both of these modifications were valuable, and it is largely to a combination of the two that we owe the plow of to-day. Pushing the furrow to one side was a convenience, and raising it up and allowing it to fall back was a benefit by securing greater pulverization; but still another feature was to be added before the plow could approach perfection. So long as the work was performed by a plow acting either horizontally or perpendicularly, the same soil always remained at or very near the surface, and soon became exhausted by repeated croppings. To insure the greatest fertility, the soil must not only be loosened, but fresh soil must be supplied by bringing the earth up from below and burying the exhausted portions until they are so recruited by the action of the elements as to be capable of producing another crop. This can easily be accomplished by inverting the furrow, an operation which requires something more than a simple wedge. From this we have the three mechanical operations to be performed by the plow, namely, to raise, move to one side and to invert the furrow-slice.

From about the year 1500 these three objects have been kept in view in the manufacture of plows, but until quite recently with very indifferent success, as there were no definite rules for giving to the share and mold-board their proper shape. All blacksmiths and most farmers were plow-makers guided entirely by the eye, and no two plows were made having exactly the same form.

Origin of the Present Plow.

Thomas Jefferson, third President of the United States, was the first one who attempted to apply mathematical rules to the construction of the plow, and was the first to introduce into America the use of cast-iron mold-boards. Jefferson's theory was that the form of the mold-board should be that of a regularly curved surface, presenting straight lines in a direction parallel to that in which the furrow-slice moves over it. This plow was rude and imperfect, but his work was of inestimable value, and it is to his efforts more than to those of any other one man that the plow owes its present form. By a somewhat complicated formula he attempted to make a "perfect plow"—one which should be a universal model—and succeeded in making a plow which was a great advance upon any other in use.

Since his time, numberless improvements have been made, but this principle has been kept in view in them all—that the raising and turning of the furrow slice should be gradual and continuous from the moment when the share enters the ground.

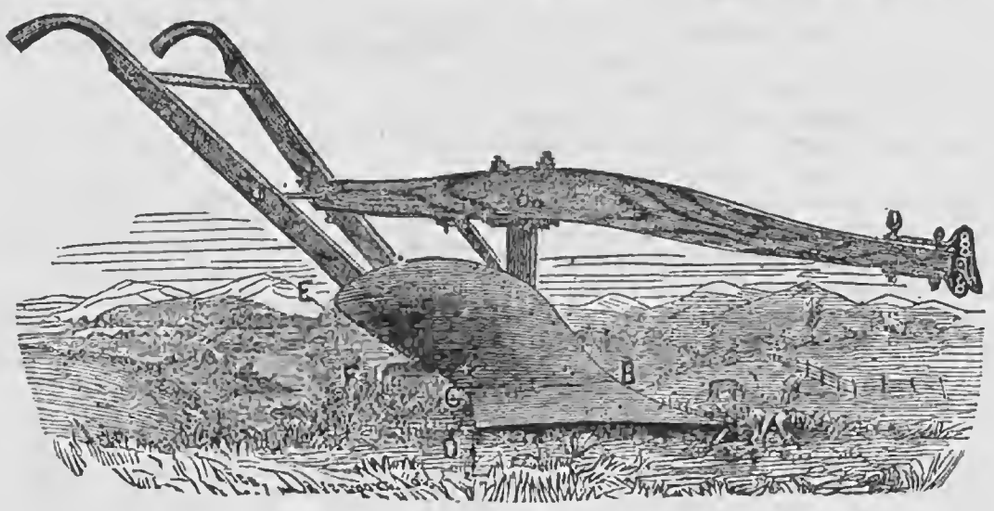
General Principles of Construction.

A "model plow" is an impossibility, as its form must vary with the work to be accomplished and the soil in which it is to be used. There are, however, a few general principles which will apply to all plows. A body will fall more rapidly on a curved surface than on an inclined plane, and more rapidly on a cycloidal curve—that is, a curve formed by a point on the circumference of a wheel when the wheel is rolled upon a flat surface—than on the arc of a circle. We may, therefore, infer that a body will be more easily raised and thrust to one side on a cycloidal curve than when moved in any other direction. As a matter of fact we find that plows in which this curve is employed—the point of least curvature being at the point of the share where it enters the ground, the curve extending from there nearly or quite to the top of the wing where the furrow-slice leaves it—raise and turn the furrow more easily than do plows of any other form. In many plows, especially in those made by country plow-makers, we find this line a segment of a circle, a very serious fault, as it increases the draft from twenty to twenty-five per cent.

With plows having the same width of share, the degree of pulverization effected will vary greatly with the distance from the point of the share to the end of the wing, the greater the distance and the less abrupt the twist given to the furrow-slice, the less it will be broken and crushed. For this reason, plows intended for breaking sod ground where it is desired to lay the furrow as flat as possible, are often double the length of those used where thorough pulverization of the soil is desired. The longer the mold-board and the sharper the wedge form of the share, the more gradual will be the raising and turning of the furrow-slice and, theoretically, the lighter will be the draft; but, practically, we find when the length of the mold-board exceeds a certain proportion to the width of the share, that the increased friction of the furrow-slice more than makes up for its lengthened curve, so that even when we desire to lay the furrow-slice perfectly flat, we cannot economically increase the length of the mold-board to more than about three times the width of the share. The exact

Proportion of Length to Breadth.

has never been definitely settled, but in nearly three hundred careful tests made during the past two years, plows having the following measurements have shown the lightest draft, while their work has been fully equal to that of any of nearly fifty patterns which have been similarly tested. Nos. 1, 2, and 3 were all tested



on stubble ground and were required to pulverize thoroughly a furrow eight inches deep. Nos. 1, and 2 were common two-horse plows. No. 3. was a sulky plow. No. 4 was a sod plow made by the manufacturers of No. 3. No. 5 was a two-horse sod plow. Nos. 4 and 5 were tried on blue-grass sod and were required to turn a furrow eight inches deep. Measurements are given in inches:

	No. 1.	No. 2.	No. 3.	No. 4.	No. 5.
From A to B	22	22½	25	20	17
" A " E.....	35	36	41½	44	42
" A " F.....	33	30½	33	36	31
" A " D.....	9	10	10	8½	10
" B " C.....	5	5½	5½	6	3
" C " D.....	15	15	16	10½	9½
" B " landside.....	14	14	15½	14	10
Draft per square inch of furrow section.....	4.15	4.31	4.96	4.86	8.63

In the plows noted above. No 1. showed the lightest draft on stubble ground. Of the two sod plows, No. 5 showed much the heavier drafts. The draft is given in pounds. It will be seen that the draft of No. 5 was very heavy—nearly double that of No. 4—but its work was by far the best. Had the wing of No. 4 been extended to, say, 48 inches instead of 44, so as to turn the sod more evenly, it would have done very much better work with but a slight increase in draft. and a plow having nearly or quite that form will be found to be the most satisfactory sod plow.

Between Nos. 1 and 2 there is but little difference. No. 2 is longer from A. to B. and from A. to E. and the draft is a trifle greater. No. 3 is shorter in proportion to its width, gives the furrow slice a more abrupt twist and has a heavier draft. The best form for an old-ground plow for general use is very nearly, if not quite, that of No. 1. If a wider or narrower share is used, of course, the other measurements must vary in proportion. The only object of the "landside" is to hold the plow steady in the furrow; but this cannot be accomplished by the straight bar of iron which is often used for the purpose. Neither the bottom nor the outside of this bar should be straight. If the bottom is straight, the plow may run well in level and uniform soil, but whenever the draft is increased by harder and more compact soil, the plow will run too much on its point or "root into the ground." A straight outer face to the landside makes no difference in the quality of the work, but it increases the draft. Both the outside and bottom of the landside should be slightly concave—from one-eighth to one-fourth of an inch.

The Line of Draft

is an important point in the construction of a plow, and one to which far too little attention is given. The line of draft is a straight line passing from the point where the traces are attached to the hames, to the plow at a point in the center of the furrow-slice. In a plow cutting a furrow 6x12 inches, the line would strike the mold-board at a point six inches from the landside and three inches above the bottom of the furrow. With the clevis attaching the doubletrees to the plow anywhere out of this straight line, the draft is increased and the plow runs unsteadily. The position of the clevis will, of course, be fixed by the shape of the beam, and the shape of the beam is entirely immaterial so long as it places the clevis directly in the line of draft.

Kinds of Plows for Different Soil.

In stony and sandy soils, cast-iron plows will do excellent work; but for the black, waxy soils of the great wheat and corn-growing regions of the West, a plow must not only be of fine-grained and very hard material, but it must receive the highest possible polish before it will "scour." The best material for such plows is found in the hardest of steel, steel so hard that glass can be cut with it as with a diamond. Plows made of this steel not only last longer, but do their work more easily than those made of iron or common steel. Many farmers object to having the share made of this hardened steel, because when taken to the blacksmith to be sharpened the temper is invariably spoiled and the share made softer than ordinary steel. This objection is a very slight one, however, as the share can be sharpened on the grindstone as well and as quickly as it can be done by the blacksmith, and the temper is preserved uninjured. Manufacturers of hardened steel plows usually make the share of either hardened or soft steel, as may be preferred, so that the customers can have their choice. For

The Beam

both wood and steel have their advocates. Wooden beams are frequently sprung by the plow striking a root or a stone, often without the plowman noticing the fact, and the clevis is thus thrown out of the line of draft; but as the plow will still do fair work, the owner is tempted to continue using it. Steel beams are never sprung out of shape, but are sometimes broken. They can be replaced, and *must* be replaced before the plow can be used again, and on this account many prefer the steel beams. The most important attachments to the plow are

The Coulter

and the sulky. Of the former there are three forms, one being merely a flange rising from three to five inches from the point of the share, and which only divides the furrow-slice from the land and does nothing toward cutting manure or muck which may be on the surface. Another form is a straight bar of iron passing from the point of the share to the beam and sharpened on the front edge. This coulter divides the furrow-slice from the land completely and pushes away the manure or rubbish, but does not cut it, and is very liable to clog. The rolling coulter now becoming quite common, is by far the best, as it not only divides the furrow-slice from the land, but when it meets any obstruction, it presses it to the ground and divides it like a knife. By its use cornhills can be split and piles of manure or straw cut so as to render clogging impossible. On stony ground such a coulter is liable to be dulled or broken, and for such soils the straight coulter is preferable, but on soils free from stones, even if filled with roots, the rolling coulter will be found better than any other.

The Sulky Plow.

In using the common plow, the weight of the plow and of the furrow-slice rests on the bottom of the plow, which is dragged along with a considerable amount of friction. The design of the sulky plow is to transfer the weight of the plow and furrow-slice from the bottom of the plow to the wheels, thereby greatly lessening the friction and holding the plow more steadily, and furnishing an opportunity for the driver to ride. Such plows are usually intended for three horses, and turn an eighteen-inch furrow, thus enabling one man and three horses to do three-fourths of the work which can be done by two men and four horses with common plows, besides doing the work in a better manner. Although the sulky plow is much heavier than the common plow, and the weight of the driver is added, the draft per cubic inch of earth turned is less, on account of the greatly lessened friction. In twelve trials of the same plow, used separately and attached to a sulky, a difference of about five per cent. has been found in favor of the sulky.

Sulky plows require large and moderately level fields for their economical use, but in such fields they will accomplish the work much more rapidly and better than it can be done with the common plow. For plowing among trees or stumps they are too large and awkward to handle well, and are not to be recommended. Many of the so-called "sulky attachments" are merely devices by which wheels and a seat are so arranged that the driver can ride and guide the plow, but unless the weight of the plow and furrow is borne on the wheels the draft is greatly increased, and the sulky is utterly useless except for cripples who cannot walk. The essential points in the sulky are: first, it must be so constructed that the entire weight is borne on the wheels; second, it must be easily adjustable, so that the plow will be perfectly level when run at any depth; third, it should be possible to secure the plow at any required depth, so that it cannot run out when going through unusually hard spots of ground.

Points to be Sought in a Plow.

In the construction of a plow, of course the first point to be considered, is the quality of the work done. Good work is the *sine qua non* of a good plow. The next point is the draft which is too often overlooked. In one series of tests with a large number of plows, many of them having but a slight difference in form, a difference of nearly ninety per cent. in draft was found between plows doing equally good work. With the best plow ten horses could do the work of nineteen with the poorer plow. Durability is another point and a plow costing from fifteen to twenty dollars, made of the best material, is often cheaper than the ten-dollar one "made to sell." Ease of management is also to be considered, but this is dependent entirely upon the form, and no plow which does its work well and with little draft, will run unsteadily or be hard to hold. These

Remarks

are not sufficiently technical to be of use to the manufacturers of plows, and they are designed only as a guide and stimulate to inquiry for those who buy and use them. If the success which farmers seek in their crops fails to reward their labors, the fault may often lie where they have been accustomed to exercise little thought and judgment—in the manner in which the plow has prepared the soil for receiving the seed. The best plow is the cheapest, and the man who aims at science and success in farming, should not willingly be ignorant of the principles which enter into the construction of the implements upon which his success so largely depends.

Agricultural College, Columbia, Mo.

Field Crops.

HISTORY OF A POOR FARM.—No. 7.

Seeding to Grass.

THE swamp which has been ditched and cleared of brush, is now dry and perfectly free from surface water, the drains running freely. The tussocks are now being cut off with a broad, heavy hoe and piled up in heaps to dry, so that they can be burned off by-and-by. It is intended to cut up the surface of the swamp with a disc harrow, instead of plowing it, by which it will be prepared for the seed in a much better manner than by turning furrows. This is a new method of reclaiming a piece of swamp land, and the work has been closely watched by my neighbors. It was on a sunny day in March when some of my frequent visitors were examining the effect of the drains, and my plan was discussed very freely. My old neighbor was dubious about the economy of the process.

"What do you expect it to cost?" he asked.

"I suppose when it is all done that it will cost as much as the first year's crop or perhaps just a trifle more; and if it does not cost much more than that, it will be a remarkably cheap job," I replied.

"What crop do you intend to put into it?" asked Mr. Martin.

"Fred and I have been discussing that. I propose to seed it down to grass alone, and Fred thinks a crop of oats, to cut green for fodder, would be better, seeding down to grass with the oats."

"There would be two crops in place of one," said Fred.

"Oats will do very well in that mucky soil," remarked my old neighbor.

"That is very true," I replied, "but suppose the ground was sown with oats and then with six quarts of timothy and one bushel of red-top per acre, cutting the oats green so as to give the grass a chance to make a good growth in the fall, what would be the result?"

"There should be at least two tons of oat-fodder which would be equal to hay, and perhaps a late cutting of hay, if you had a good catch," replied Mr. Martin; "but that depends upon what grass-seed is sown. I would seed down with two bushels of orchard-grass and one bushel of red-top per acre."

"Orchard-grass is the best grass one can grow; it comes in early and it lasts until late," remarked the old gentleman; "I have had it growing in my orchard for some years, and it is the first that is green in the spring and the quickest to start after having been cut, of any grass I have seen; and it does well in wet places, too.

"There is a variety of grasses which grow well upon moist ground," said Fred; "of these timothy is first in value, being the richest of all the grasses in carbohydrates or heat-forming and respiration-supporting matters; but it has the disadvantage of being exhaustive of the soil. Orchard-grass comes next to timothy in nutritious value, while it has the great advantage of being more leafy, of earlier and more rapid growth and furnishing, in conse-

quence, a larger amount of green fodder for cutting or for pasture."

"That is precisely what I want, and what the majority of the farmers want in a grass," said I: "it is the qualities of earliness and lateness, of rapid growth and of leafiness, rather than 'stalkiness' that are the most desirable, and my experience of orchard-grass is that it possesses these qualities to a greater degree than any other grass. It has the habit, however, of growing in bunches unless it is thickly sown or it is mixed with other varieties; so that it would be better to mix some red-top and tall fescue with it to overcome this tendency. My idea is to proceed as follows: Break up the surface with the disc harrow and mellow it as much as possible, and sow one bushel of orchard-grass, half a bushel of red-top, half a bushel of tall fescue and four quarts of timothy per acre. This, I think, would give a close growth, which would produce early and good hay, and, if necessary, frequent cuttings for feeding green, which would be worth more than the crop of oats and the possible crop of aftermath."

"How would you seed it down?" inquired my old neighbor.

"That is a question which requires consideration. I am inclined to think it would be better to sow the grass seed alone and without any grain crop, such as oats, as you and Fred seem to advise."

"Won't the oats shade the grass and protect it?" asked the old gentleman.

"I don't think the young grass needs any protection, especially early in the season. When grass is sown with a grain crop, it is usually sheltered too much, and we get a weak, thin growth which is greatly injured or destroyed altogether when it is suddenly exposed to the hot sun and dry weather of July. This has the effect of killing out many a seeding which would otherwise succeed. On the other hand, when grass—or clover either—is sown by itself, the spring rains start the seed and the growth is substantial, strong, and hardy; and the crop becomes well rooted and firmly established before the hot weather arrives. I have tried this plan more than once or twice without any failure, while in seeding with grain there have been many failures.

"I am inclined to think that we make a mistake in our usual method of seeding to grass. The complaints of failures to catch are quite frequent, and a really good catch is the exception."

"I have not had a really good catch of grass and clover in 20 years. I think the weather in spring is drier than it used to be," remarked the old gentleman.

There is always a good excuse for avoiding a true reason, and most people are very ready to deceive themselves," said Mr. Martin. "All the supposed reasons why grass seed misses are, to my thinking, nothing but evasions of the well known fact that the soil is poorer than it used to be. There is something in that idea that grass should be sown by itself. It is the only crop grown that is permitted to be sheltered to death and smothered in the process. When the soil was fresh and rich, it was well able to sustain both the grass and the grain crops, and perhaps the grain crop was all the better for what the grass took from the soil; but now the soil is able only to grow one crop at one time, and the weaker one 'goes to the wall' when an attempt is made to grow two at once."

"Farming is poor enough business now, and how can we make it pay expenses, if we lose a crop every time we seed down?" said the old gentleman.

"What do we lose?" I replied. "You usually seed down with rye or wheat. You get perhaps 12 or 15 bushels of either, and that scarcely pays for the seed, harvesting and thrashing. Besides, every time a catch of grass is missed, you lose the value of the seed and the labor of sowing it. Now, if the rye or wheat crop is abandoned and the care given to that, is devoted to getting in the grass and clover in good condition, you would have a crop of hay to cut the first season, if a good catch is secured, and for three or four years afterwards you would have double returns from the hay or pasture. This will be worth more than the loss on the grain crop, I think.

"The truth is, we do not make half the use we should of our natural grass lands. A moist soil with abundance of decaying vegetable matter in it, is the best land for grass, and there are millions of acres of just such land abandoned to reeds and rushes and frogs. These swamps remain useless and positively injurious, because we either will not drain or reclaim them, or know not how to go about it. Again, it is a general opinion that our climate is unfavorable to grass, and that permanent pasture is something we can never hope for. I cannot believe it. We have never given it a fair trial. We are continually breaking up our grass lands instead of manuring them and encouraging an abundant growth of grass. As soon as we get a fair sod, the plow is put into it, and it is turned under to get a good crop of corn; and the work of years is thrown away and made useless just at the time when it is bringing forth its slowly-maturing fruits. I feel sure that if all our swamps were reclaimed, seeded to the proper varieties of grass, and reasonably managed, they would produce as much grass as is now grown on the uplands, leaving these to be plowed and made fertile with manure made in great part from the products of these natural-grass lands.

EXPERIMENTS WITH SEEDS FROM BUTTS AND TIPS OF CORN EARS.

I HAVE experimented somewhat in planting butts and tips of ears of corn. Never plant them unless for an experiment. My experience is that the butts produce shorter and thicker stalks and ears, a shallow and broad grain, a big shank, the ear apt to stand up when ripe. The tips' stalks are slender, the ears generally have fewer rows than the seed, and possess more of the Flint-corn nature. An old farmer told me he could run Dent corn into Flint in three years by saving only an inch of the tip of the ear. I think that perhaps he could effect the change, but not in that length of time.

Another reason for shelling off butts and tips of ears here is that we use horse planters, generally planting two rows at a time four feet apart, one man riding to drive, another to work the drop lever. We want from two to four grains in a hill, and those shelled from the butts and tips, owing to the unequal size of the grain, would make the hills unequal, some with too much and some with too little. A good-sized, perfect grain from the middle of the ear, has a larger germ and more substance to nourish a sprout.

The plant from it comes up quicker and is healthier, more vigorous from the start than that from the grains from either end of the ear, and, I think, holds its own through the season. I. O. A.

Freedom, Ia.

EXPERIENCE WITH WHITE PROLIFIC CORN.

I HAVE already ten bushels of White Prolific Corn raised from seed received of the Department of Agriculture last year, but I presume that it is one of the conditions required of all who enter for premiums, that the corn shall be received directly of you and of a certain quantity, so that all contestants shall share alike.—(Yes. Eds.)

As it may be of some use to RURAL readers, I here make a note of the result of my experiment with this corn last season. I planted half an acre of it on the 20th of April, 1878. Supposing from the small size of the grain, that it was one of the low-growing kinds, I drilled it in rows three feet apart with two feet between the drills. To my surprise, the corn grew unusually tall, and as a consequence, the planting was much too close. The situation was an unfavorable one, and the season proved to be cold and wet throughout. Notwithstanding these drawbacks, the plants averaged two ears to the stalk, and I noticed some standing by themselves which bore four ears. It would take from 175 to 200 of these ears to shell out a bushel. The corn was ripe about the 15th of September. Two days later, at least two-thirds of it were carried off by a great flood of New River, and I have therefore no means of knowing precisely what the yield would have been. I am not prepared to say that it will yield more than some other varieties which I could mention, but I am sufficiently pleased with it to give it a fairer and more extended trial this coming season. HUGH L. WYSOR.

Pulaski Co., Va.

Miscellaneous.

CONNECTICUT AGRICULTURAL EXPERIMENT STATION.

BULLETIN 22.

Fertilizer Analysis.

248. Dissolved Bone.

Manufactured and sold by Booth & Edgar, N. Y. Sampled March 20, 1879, by W. E. Wheeler, Stratford.

249. Stagg's Superphosphate of Lime.

Made (1874) and sold by John J. Park, Stratford. Sampled by W. E. Wheeler.

Analysis fixed to the packages as follows:

Moisture, organic and volatile matter	36.74
Sol. Phosphoric Acid	8.16
Insol. " "	19.35
Total Phosphoric Acid	27.51
Bone phosphate, equivalent to Phos. Acid	41.90
Nitrogen	2.31
Ammonia equivalent to Nitrogen	2.80

	248	249
Nitrogen	0.32	1.67
Sol. Phos. Acid	1.10	3.83
Reverted Phos. Acid	2.12	5.99
Insol. Phos. Acid	2.29	6.01
Ammonia equivalent to Nitrogen	0.38	2.03
Bone phosphate equivalent to total Phos. Acid	12.00	34.56
Estimated value per ton	$11.06	$35.45
Cost per ton	20.00	45.00

CORRECTION.

Mr. G. W. Baker, of Brooklyn, N. Y., writes under date of March 28, as follows:

"In relation to the Animal Scrap Manure (No. 244 reported in last Bulletin) there was a mistake in sending sample, as my foreman in putting it up, put up the wrong lot. The sample he sent was the lowest priced manure I put up, and which sells for $7.50 per ton.

The report as corrected stands:

	244
Water	44.0
Nitrogen	1.9
Phosphoric acid	1.0
Estimated value per ton	$6.25
Cost	7.50

Instead of $15.50.

S. W. JOHNSON, Director.

PLAN OF ORGANIZATION OF AN EXPERIMENTAL STATION AT CORNELL UNIVERSITY.

WE have received the following from Professor G. C. Caldwell of Cornell University:

I. The Station shall be called the Cornell University Experiment Station, and its object shall be the promotion of agriculture by scientific experimentation and investigation.

II. The Faculty of Agriculture of the University, together with the President of the State Agricultural Society, the Master of the State Grange and the Presidents of the State Dairyman's Associations, the Western New York Horticultural Society, of the Western New York Farmers' Club, the Central New York Farmers' Club, the Elmira Farmers' Club, the American Institute Farmers' Club and the Ithaca Farmers' Club shall constitute the *Board of Control* of the Station, till the next regular annual meetings of these Societies, when they may appoint delegates to represent them on the Board, one for each Society.

III. An annual meeting of the Board of Control shall be held at the University on the Friday following Commencement. Six members of the Board shall constitute a quorum for the transaction of any of its business.

IV. The officers of the Station shall consist of a President, Secretary, Treasurer and Director. Till the first meeting of the Board of Control these officers shall be as follows:

President.—Prof. I. P. Roberts.
Director.—Prof. G. C. Caldwell.
Treasurer.—Prof. A. N. Prentiss.
Secretary.—Mr. W. R. Lazenby.

At the first meeting of the Board of Control appointments shall be made by the Board to fill these offices, and the officers so appointed shall hold office till the next annual meeting of the Board, or till their successors shall be appointed at such regular annual meeting.

V. The duties of the President, Treasurer and Secretary shall be such as usually appertain to those offices. The Director shall be charged more particularly with the collection of the materials for the annual report of the Station, and the preparation of that report.

VI. The immediate management of the affairs of the Station shall be vested in an executive committee of the Board of Control, which shall consist of the four officers already named, and one other person to be appointed by the Board at its annual meeting.

VII. The Executive Committee shall be charged with the proper disbursement of the funds of the Station, and the general direction of its work, and shall carry into effect as far as practicable, the suggestions and wishes of the Board of Control as expressed at the annual meeting of the Board.

RURAL SPECIAL REPORTS.

(Continued from page 251.)

NORTH CAROLINA, Henderson, Granville Co. March 31.—We have had no snow all winter and this month on the whole has been mild and spring-like and, vegetation, is advancing rapidly. Peach trees are mostly in full bloom. The prospect is good for a very large crop for pears, apples, plums, and cherries, with the usual great promise of grape crop. Wheat at one time was thought to be much injured by the few very severe spells of frost we had in January and February, but it is uninjured and now looks splendid, wherever proper culture has been given. Fall oats have mostly been killed out, but spring-sown are promising finely. The continued low price of cotton—the staple crop here at present—is acting very unfortunately in regard to the profits of the planters and almost stopping entirely the immigration to this State, that a few years since promised to be very considerable. The land jobbers, however, have done more towards this stoppage than all other causes combined. Anyone intending to settle in this certainly beautiful and salubrious climate should consult the Northern people already settled here, and buy only of the owners themselves. There are good chances with cheap and good lands. Taxes here are only about one-third of what they are North and although our staple products are at present very low, yet they are proportionately not lower than Northern products. Then again, while cotton is about as good as gold when fit for market, we can also raise about every Northern production as well and, with proper culture, as much to the acre. Moreover, many around here, often realize handsome sums from tobacco for which Granville is so celebrated, and anyone visiting Henderson might be rather astonished at the numerous fine Tobacco Warehouses, Manufactories and handsome residences that have sprung up within the last five years. This is also a splendid fruit region especially for Grapes and Peaches, and it posseses every facility for exporting them to all the prominent Northern markets and in advance of many other fruit-growing localities, thus securing in general, high prices. H. S.

KANSAS, Seneca, Nemaha Co., April 7.—During March we have had repeated changes—from "very warm and pleasant" to "cold and blustering," and the mercury has by turns been down to zero, or up to 85° or 90° in the shade. We have scarcely had any rain this winter, and the high winds are making the soil very dry. Winter wheat in this country, at this present writing, looks very well. Spring wheat is all sown, and that which was put in early, is up, but needs the benefit of a good rain. Where the dead grass has been burned off, the prairies are having a greenish tinge. During the prevalence of the high winds, prairie fires have been very frequent and destructive, and much loss of property and even of life has been the sad result. Many of these fires are started by careless persons, or by the fire which flies from the passing locomotives. The immigration to this State is very great. Nearly every train which comes into Kansas, and every public highway to the vacant lands of the frontiers, are filled with swarthy and dirt-begrimed travelers for the "homestead region." Some of these have good "outfits" and some hard cash, while others have "very sorry rigs" and a limited supply of money, and are badly prepared for any reverse of fortune. For the sake of all such, it is to be hoped that the good Lord will not "go back" on Kansas, and that the year 1879 may be added to her years of prosperity. In this country, while there is the general complaint of "hard times," yet there is more than the usual amount of house-building going on. Quite a number of small dwelling-houses are being built, both in town and country. One evidence which I will note of a healthy prosperity among our farmers, is the general desire to procure better stock. Quite a large number of thoroughbred bulls, and a few fine horses have recently been imported here, and the determination seems to be pretty general to "grade up" all kinds of farm stock. The RURAL NEW-YORKER and other leading journals, are doing much to stimulate the people in this—the right direction. G. H.

NEW YORK, Rome, April 3.—In the spring of 1878 we were plowing the first of April. In fact, some farmers had been plowing in March; now we have only partially cleared fields of snow; the roads do not afford good sleighing, but no one has yet used a wagon on them in this vicinity outside of the town. There both wagons and sleighs are used. "When shall we be able to start the plows?" is a question asked by the farmers, but not easily answered. We have plenty of feed for stock. The prospect is that we have reached the bottom in prices of farm produce. There has not been a time in the last forty years when farm produce was so low in proportion to cost of production as the present, neither were taxes ever so high, not even in war time, considering the value of property then and now. Farms that were worth $100 per acre and over, during the war and later, have been sold this spring for less than one-half, and, in some instances, for about one-fourth the prices of inflation times. Many forced sales did not bring the assessor's valuation of the farms the past year. The outlook is gloomy to all farmers who are in debt for their lands, and in many instances the accumulations and savings of years will be swept away by the relentless mortgagee, who has, in many cases, had in payment more money than the farm will now bring when sold. It is a pity that farmers got into debt in times of high prices, only now to be sold out and left without house or home. If we learn wisdom by the present depression consequent on inflation and sure to follow, our hardships may be a blessing in disguise; but it will be a hard lesson for very many of us farmers to learn. If our legislators would enact a few useful laws, and reduce their salaries, thereby reducing our taxes to the lowest possible standard, and then adjourn for about four years, the country would then have a chance to recuperate and we should then be on the high road to prosperity once more. J. T.

KENTUCKY, Hedges Station, Clark Co., April 7.—Our wheat has withstood the long and hard winter better than we expected. The area sown last fall was greater than usual and the seed was selected with more care—a precaution mainly due to the teachings of the agricultural papers. If the suggestions and experiences these are constantly laying before their readers were judiciously adopted according to the circumstances of each farmer, our crops would be largely increased, our lands rendered more fertile or at any rate kept from becoming impoverished, and our own work made lighter. Clark County ranks first in this State, especially in live stock. The raising of

thoroughbred cattle, horses, sheep and hogs has become a greater industry in this county than in any other county of like size in any State on the continent. Yet the ordinary modes of feeding practiced by most of our farmers, show a sad lack of proper education and economy. Some of the finest fat cattle sent to Europe last year were fed on the blue-grass pastures by hauling the corn from the fields, stalks and all, and scattering it on the ground once a day. In this whole operation the waste was enormous. Lands and all kinds of stock are on the rise. Corn is selling at 60c. per bushel; wheat, 90c. to 95c.; hogs, 3½c.; best cattle, 5c. Blue-grass will in a few days be fit for pasture. P. L. C.

COLORADO, Bennett's P. O., April 6.—I live 34 miles east of Denver on the plains where very few of the ranchmen make gardens—not one in ten. I have two acres of garden, however, which I water by means of a windmill; for without artificial watering everything would be burnt up by July. I have tried corn here, but it has never grown well. I also tried potatoes with the same variety of seed for three successive years, but the third year they "ran out" completely. Peas, beans, parsnips, onions and turnips, all do very well with me, and so do a good many sorts of flowers. I have also tried trees in this treeless country. I find the Lombardy Poplars and Balm of Gilead, raised from cuttings, do as well as Cottonwoods. The latter are the only trees we have right here; but 30 miles away there are Pines. Last year I raised a few Scotch Pines and soft and hard Maples from seed; but this is rather a hard region for gardening: the hot sun and drying winds draw the life out of any plant that has not had a good start. We have had a hard winter in this region; a good many sheep have perished, and cattle are badly scattered and in very poor condition. Grasses are coming up well, but we need rain to give all vegetation a good start. J. W. S.

MINNESOTA, Winona Co., April 8.—We are getting ready for farm work hereabouts, and shall commence in a couple of days. A large number of farmers about here purchased *fruit* trees of a nursery at Dayton, Ohio, last fall. All of these trees have been winter-killed, although they were said to be iron-clads. They were mostly Duchess, Haas, Huzza, and Nicholas trees—all Russians. At the same time those purchased at a home nursery in this county, at a quarter of the price, though planted under the same conditions, are doing well, and are all alive. I think the farmers have learnt a lesson, and will purchase trees at home in future. Farm produce is low in this section: wheat, from 50c. to 90c.; oats, 20c.; barley, 50c. to 60c.; corn, 20c.; wheat bran at the mills, $3 to $4 per ton; shorts, $5 to $7 per ton according to grade. J. G.

WASHINGTON TERRITORY, Snohomish City, March 31.—After six weeks of rain, this is our first spring-like day. Money is hard to get. There's not much sale for logs, and logs are our chief commodity. Potatoes, 50c.; wheat, $1; barley, 50c.; oats, 1c. per lb.; corn, $1 a bush.; The Lost Nation wheat is mostly sown. A Mr. Le Day, sowed on a plot 8 by 12 feet, 235 kernels of Tenn: Headed wheat—something new here—and harvested 10 pounds, or at the rate of 57 bushels per acre. HARPER.

OHIO, New London, Huron Co., April 8.—Our spring is very backward. Roads very bad. Sugar weather comes slowly. We are selling maple molasses for $1 per gallon; but some sells as low as 80c. per gallon. Our large crop of fodder will be pretty nearly all fed, owing to the duration of wintry weather. Wheat is looking pretty well, considering the late sowing. Grass roots look well. Stock will come out of winter-quarters in good condition. B. P.

PENN., Annville, Lebanon Co., April 7.—Cold weather has prevented the farmers from plowing and working the ground as much as usual at this season. Still some oats have been sown, some potatoes planted, and some gardening done in this neighborhood. Winter wheat looks well, coming up green. Wheat sells for $1; rye, 50c.; corn, 25c.; clover seed, $3.10; potatoes, 75c.; hay, $7 to $8 per ton. J. A. B.

MICHIGAN, Grand Rapids, April 10.—We have promise of a good crop of fruit in this State. Peaches are injured on low grounds in the southern sections, but on our west shore, and as far North as Grand Traverse, the thermometer has not gone below zero, and tender fruits are all right. Where Apples did not overbear last year there will be an excellent crop. C. W. G.

KANSAS, EVERETT, April 8.—Winter wheat is looking fair. Oats are growing slowly. We need rain badly. Some farmers are planting corn and all are busy getting ready to plant. The peach crop in this vicinity will be a failure this year, on account of the cold winter we have had, and the cold weather now prevailing has injured plum blossoms. J. J. D.

WISCONSIN, East Troy, Walworth Co., April 6.—Stock are doing well. About the first of March the snow left us, and, thinking we were going to have spring right away, we plowed sod on the 11th. Since then it has been cold and backward. We are plowing again now, however, though it is snowing. Clover looked well before the last snowfall. H. A. T.

KANSAS, Oswego, Labette Co., April 4.—Anxiously looking for rain. Ground unusually dry for this time of year. Farmers busy plowing for, and planting corn. Some planted the last week in March. Oats coming up. Wheat looking well. Fruit buds injured, but not all killed. E. F. B.

NEW YORK, Brooklyn, April 14th.—During the past week the weather in this neighborhood has been extremely variable. We had a heavy snow-storm on Friday, sleet on Saturday morning, sunshine in the afternoon, clouds and cold on Sunday, and to-day a fine spring day. H. W. D.

IOWA, Conway, Taylor Co., April 5.—Fall wheat looks well here; spring wheat was all in by the 20th of March. Oats are about all sown. Fears are entertained that much fruit has been killed by the freeziug weather of this week. L. W. B.

NEW YORK, Worcester, Otsego Co., March 31.—This is a poor corn section. We have frosts in June, and our seasons for corn are often very short. It's too cold yet for making maple sugar, and there is plenty of snow. J. D. W.

NEW YORK, Fluvanna, April 8.—Ice 14 inches thick on Lake Chautauqua. Ducks, geese and swans, however, make their appearance around the mouths of streams running into the lake, and afford good sport to hunters. H. A. W

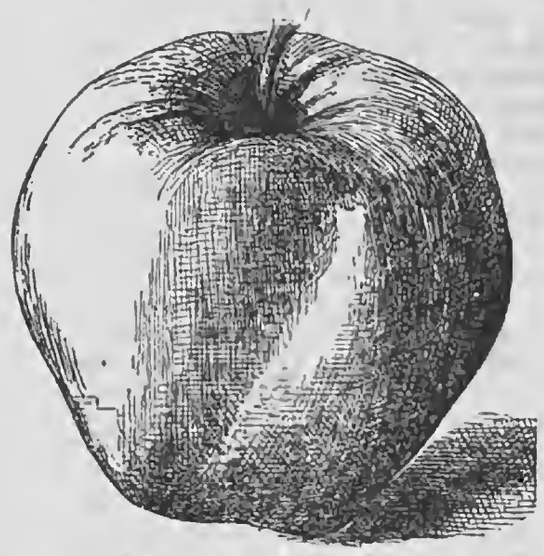
NEBRASKA, Beatrice, Gage Co., April 8.—There are 10,000 sheep within 20 miles of this place and plenty of room for more. A wool-buyer would do well around here this summer. R. L. B.

NEW JERSEY, Metuchen, Middlesex Co., April 9th.—Spring is backward; but grain is looking very well considering the hard winter we have had. S. W. H.

Pomological.

HIGHLAND BEAUTY.

E. P. ROE has a seedling Apple which he proposes to call "Highland Beauty," the accompanying sketch of which was made from specimens sent to this office a month or so ago. Under date of March 17th, he writes: "I send you to-day a few of my seedling apples. No special effort has been made to keep them over. The tree is a good grower but inclines to dwarf itself by overbearing. Many of the branches were like ropes of onions last year."



The apples were as perfectly preserved as if they had just been picked from the tree. The shape of the Highland Beauty is shown by the engraving. The color is a light, clear yellow, sometimes with and sometimes without a red cheek. The flesh is quite tender, the least bit acid, and of an agreeable flavor.

Will it take the place of the Lady Apple? is the question, no doubt, which has determined Mr. Roe as to its propagation and sale. We only present it to the reader as a new fruit, possessing peculiar merits, which will insure it a place among recognized varieties.

Floricultural.

GERANIUM NEW LIFE.

IN your criticism of "New Life"—in RURAL for April 5, you speak of it as not possessed of vigor. We think you must be mistaken, as in our experience with *it* we have found it an extra-vigorous grower. We now have fine specimen plants in seven-inch pots, which were taken from cutting bed not five months ago these and many smaller ones are now in bloom, and we cannot see why in vigor of growth or size and duration of bloom, it will not compare favorably with old well-known sorts. The great demand for it has led florists to push its propagation to the utmost. For this reason many plants sent out, after having been so forced, will grow but slowly for a time. We do not wish to see any *new plant* either praised too highly, or cried down, until it has had a fair trial. "Many men of many minds;" so with "New Life;" while some do not care for it, many call it beautiful and want it in their collections. We do not write this for publication, but only to admonish that the RURAL which is usually right, is sometimes mistaken. Keene, N. H. ELLIS BROS.

[We take the liberty to publish the above because several have spoken to us regarding "New Life," and we have received other communications all to the effect that we are much mistaken in our own estimate of the plant.—EDS.]

GERANIUM NEW LIFE.—*Eds. Rural*: Permit us to state that your estimate of the new Geranium "New Life" is quite astray. It *is* vigorous—bears fair-sized trusses and is with us the admiration of all who see it. Perhaps you have judged it too soon after receiving it from the florist. A. R. D.

New York City.

Various.

CATALOGUES, &c., RECEIVED.

R. DOUGLAS & SONS, Waukegan, Ill.,—We have received from this firm, the most extensive growers of evergreens from seed in this country by far, their circulars, catalogues, &c. for the present year. There are points in them to which we desire to call special attention, because they possess unusual interest, not only to our readers in general, but to the nurserymen of this as well as of other countries.

First. Among their thousands of evergreen seedlings have, from time to time, occurred sports which have been propagated and will be for the first time offered for sale in the autumn of this year. These are numbered, 1, 2, 3, 4 and 5, specimens of which were sent to us by Mr. Douglas two years ago to be tested in our grounds. They are very distinct and may be purchased entire by any enterprising firm that desires to control their entire propagation and sale.

No. 1 is a golden American Arbor-vitæ that remains conspicuously golden during three-quarters of the year.

No. 2 is also an Arbor-vitæ tipped with white.

No. 3 is a deep, though bright green Arbor-vitæ of a very compact and dwarf habit.

No. 4 also an Arbor-Vitæ, we ourselves mistook for a Retinospora.

No. 5 is a beautiful golden Juniper (Communis) of prostrate manner of growth.

Among other coniferous seedlings to be offered next fall are Abies Engelmannii—Abies Parryana, the A. Menziesii of Colorado—Abies Douglasii which withstands 30 deg. below zero without injury—Picea concolor—Pinus ponderosa—Sciadopitys verticillata (See RURAL of Nov. 24, 1877.

These will have completed their second year's growth in the fall. These evergreens, as well as deciduous forest trees, are sent by mail all over the country as safely as if they were securely packed in boxes. We have no space for further reference to the specialties of this immense seedling establishment. The circulars, pamphlets &c., will be sent gratuitously to all who apply.

WHAT OTHERS SAY.

GRATIFYING ACKNOWLEDGMENTS. — Among the late letters from our patrons, expressive of their satisfaction with the results of advertising in the RURAL NEW-YORKER, we select the following for the reason, first, that their words carry with them the weight which attaches to establishments of national reputation; and second, for the reason that they are proofs that the influence of the RURAL is confined to no special State or part of our country:

RICHMOND, Ind., March 5, '79.

RURAL PUB. CO., Gents:—Our last advertisement in the RURAL NEW-YORKER paid us very well indeed, as we have already traced several good sales to it, with a prospect of still more. Yours very truly, RICHMOND CITY MILL WORKS.
L. T. LEMON Sec'y.

SANDWICH, Ill., March 28, '79.

RURAL PUB. CO., Gents:—We can trace to our advertisement, now running in the RURAL NEW-YORKER, many good sales, and, all things considered, we believe it to be as valuable a medium as we have ever used for reaching the better class of farmers. Yours truly, SANDWICH MFG. CO.
J. P. ADAMS, Sec'y.

BATAVIA, Ill., March 29, '79.

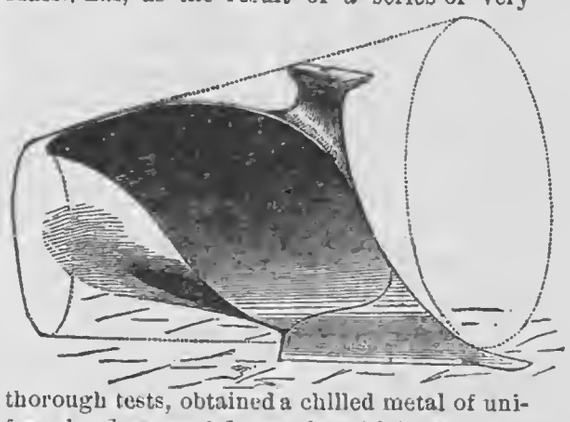
RURAL PUB. CO., Gents:—For several years we have advertised in the leading agricultural papers of the country, and can positively state that the "RURAL NEW-YORKER" has brought us more letters than any other weekly we have made use of. We consider it one of the best mediums for reaching the leading farmers. Yours truly,
UNITED STATES WIND E. AND P. CO.

THE BEST RED RASPBERRY.—Charles Downing tells the N. Y. Tribune that the TURNER is probably the best red Raspberry. Of course much depends upon the location and taste of consumers.

Industrial Implements.

A NEW HARD METAL PLOW.

MR. GEO. TAYLOR, the agent of the Belcher and Taylor Agl. Tool Co., of Chicopee Falls, Mass., has, as the result of a series of very



thorough tests, obtained a chilled metal of uniform hardness and fine grain which the company will introduce this season. It has been subjected to the roughest usage in the field and has withstood the most persistent efforts made with a view to detect undesirable qualities. The conical plow made by this corporation will be cast in this metal this season. This plow, the shape of the mold-board of which we illustrate, is making a very handsome record in all kinds of soil. The conical pattern is found to promote a very light draft. Another plow in great favor is the Oneonta Clipper, an iron-beam swivel plow that combines some very important improvements, notably the shifting handles, which bring the coulter in position at each turn of the mold-board. The plow can be turned without taking the hands from the handles—a very convenient and labor-saving arrangement. These and other plows are fully described in the spring catalogue (now ready) sent out free by the company

MR. W. P. EMMERT, Freeport, Ill., seems to be a collector of inventions that may be best appreciated in the household. His catalogue now before us gives answers to a large number of questions asked us by our correspondents. There are scores of these little inventions, simple in themselves, that are a great help in the daily routine. He has devised a plan by which purchasers may club together and get a liberal discount from the list price on orders so sent.

In addition to his catalogue, he has published a new treatise on butter-making, which he is willing to give free to those interested in the dairy, if they will be at the pains of asking for it, which is certainly liberal, as the book contains some good ideas.

C. AULTMAN & Co., of Canton, Ohio, issue two very pretty catalogues this season, one descriptive of the improved "Buckeye" mower and reaper, and the other explaining the advantages of the "Sweepstakes" thrasher. Such literature is important to every farmer who proposes to keep informed of improvements in machinery—and those who do not keep "posted" will, in the end, regret the oversight.

TOLLEY'S New Patent Champion One-horse Cultivator is a new implement being introduced by the Wheeler and Melick Co., Albany, N. Y. Its peculiar feature is a screw-shaped tooth that can be set to throw the soil to or from the plants. Besides this unique improvement it embraces other features that make a cultivator valuable. It is sold at a low price.

THE Dexter spring, to which our attention was directed during the Centennial, is a very durable, easy and cheap spring, and one that people living in the country can appreciate. It will stand the most severe usage, is very cheap in price, and when mounted under a vehicle, it is handsome in appearance. The Dexter Spring Co., Hulton, Pa., is the maker.

THE Walter A. Wood Mowing Machine Company has been awarded the contract by the Secretary of the Interior to supply the Indians in the Indian Territory with mowing machines and reapers. The contract will amount to about $8,000. This is the first time the government has furnished the Indians with mowers and reapers.

BRADLEY & Co., of Syracuse, N. Y., and Chicago, Ill., have their catalogues of mowing and reaping machinery now ready for the season of 1879. Their machines are very thoroughly made and have merits that every practical farmer will approve of.

THE Little Giant Tile Mill, made by Baylies Vaughan, & Co. of Richmond Ind., seems to be the subject of very general comment among "tilers" at present, and the pamphlet issued by the firm will be found of interest. It is sent out free on application, we believe.

THE catalogue of Russell & Co., of Massilon, Ohio, for 1879, just received, is very attractive in appearance and illustrations, and describes the new thrasher made by this company very clearly. It may be had on application.

The Querist.

ANSWERS TO CORRESPONDENTS.

Queries About the South.

B. F. J., Townsend, Schuyler Co., N. Y., asks, 1, whether the timber on the pine lands of Georgia is of any value at present; 2, will the lands produce good crops after having been cleared; 3, what proportion of the population are negroes; 4, what are good rice and cotton lands in Louisiana and Alabama worth, and whether much rice is grown there; 5, what can be said as to the healthfulness of the above three States.

ANS.—1. Certainly it is; besides a great amount of it used for domestic wants, a heavy export trade is done in it, from Savannah, Darien and St. Mary's. The part of the country in which it is chiefly found is a sandy belt a short distance inland from the sea coast. 2. Yes, with proper seed, tillage and manuring. The pine lands of Georgia, and indeed of all the Southern States, are by no means the most productive parts of the country. They are usually sandy and yield but scant crops with what care they receive. 3. At the time of our last federal census, in 1870, Georgia had a population of 638,926 whites and 545,142 colored. Since then the relative proportion has altered little, if at all. 4. The production of rice in Alabama is comparatively small, it having yielded only 222,945 pounds in 1870, while Louisiana yielded 15,854,012 pounds, and South Carolina and Georgia 32,304,825 pounds and 22,277,380 pounds respectively. A comparatively small part of the States is suitable for rice cultivation as rice fields need to be drained and flooded at will. They must be above salt or brakish water and below the reach of freshets, so as not to be flooded at unseasonable times. The best rice lands are on the banks of rivers having a deep soil, chiefly of decomposed vegetable matters, and so situated as to be overflowed by the opening of tide-gates. The price varies so much in accordance with situation, character of soil, facilities of transportation, and improvements, that it would be unsafe to mention any particular figure. Lands suitable for cotton cultivation can be bought all the way from 25 cents to $75 or even $100 an acre according to fertility, improvements, &c. Rice lands can be bought cheaper in Louisiana, perhaps, than in either of the other States. 5. Georgia, especially the elevated interior of the State, has a good reputation for healthfulness. Chills and fever, however, are by no means uncommon on bottom lands and Yellow-Jack occasionally scares the seaboard. Much the same remarks apply to South Carolina. The pine lands of Louisiana are healthy enough, but the most productive parts of the State are very unhealthy for immigrants, while on most of the lands suitable for rice cultivation bull-frogs and alligators alone feel safe against chills and fever. Rice lands everywhere in the South are the most unhealthy parts of the country for Northern immigrants.

Blood Poisoning by Distemper.

R. S., Dunville, Va., has a thoroughbred mare that had the distemper badly but seemed to have recovered from it, and was put to work. Suddenly, however, after a light day's labor on a cold day, she was taken sick, her legs swelled, her body was marked with knots and lumps and she has become so very stiff as to be hardly able to move, though she still has a fairish appetite, and he asks for the cause of the ailment and a remedy therefor.

ANS.—Distemper is a specific fever in which the blood is seriously affected and a morbid product is thrown off from it through tumors beneath the jaws. If by any means—and exposure to cold is the worst possible that could occur—the process of throwing off this morbid and diseased product is arrested, it is returned to the blood, and this becomes poisoned. The consequences are just such as are set forth above. A dropsical condition of the legs and abdomen occurs from the gravitation of watery matter from the disorganized blood, into the tissues; nodular swellings, similar to those of farcy, appear in the skin, or the swellings become patchy and a rheumatic condition of the muscles produces stiffness. The treatment proper in such a case is to give diuretics, with antiseptics, to remove the poisonous matter from the blood, and to sustain the strength by nutritious food and tonics. The following may be recommended: half a drachm of iodide of potassium to be given in the morning, powdered and mixed with honey and placed on the back of the tongue to be swallowed; one ounce of hyposulphite of soda given in the evening in the food, which should be nutritious but laxative, such as boiled oats, linseed meal with oatmeal, scalded, and mixed with cut hay. The limbs should be well rubbed with a coarse woolen cloth frequently and for a considerable time. The drinking water may be made distinctly sour with sulphuric acid. This treatment may be continued for several days until improvement takes place when the iodide may be stopped, the soda be reduced one half and one ounce of gentian powdered be given once a day, with one ounce of carbonate of iron if the animal is weak and the appetite is poor. Care should be taken not to break the skin where it is swollen, as in that case sores difficult to heal might occur. If the skin is itchy and irritable, it may be sponged with a solution of bicarbonate of soda. A curry-comb should not be used until the skin becomes normal again.

Formulas for Fertilizers, of Very Doubtful Utility.

W. G., Trappe, Talbot Co., Md., sends us three formulas for making fertilizers named "Home Fertilizer," "Powell's Formula," and "Star Bone Phosphate" and asks which is the best for wheat and corn. He already has the "right" of making one of them, and is thinking of buying the right of making the better of the other two. In case we should not wish to give the names, he suggested that in naming our preference we should employ the figure prefixed to each formula.

ANS.—Answering the last remark first, we say once more what we have said before, that the object of this Querist Department is to benefit our readers generally by therein answering honestly to the best of our ability, all questions of general interest or importance to them. In the present instance this could not be done, if we concealed the names of the formulas about which our opinion is asked. These look very much like a humbug or a fraud. To sell such a formula for money, is something like charging an equal sum for information on such a common matter as putting butter on bread or using salt with food. There is nothing of value in these methods of mixing ordinary fertilizers, and any ordinary farmer who reads an agricultural paper should be well able to compound a better mixture for himself. To call common salt "muriate of soda" is a disguise which looks suspicious, and to advise a single mixture of bone dust and oil of vitriol is a palpable and injurious fraud, because it would be a dangerous thing for any person to do, and it would be injurious instead of beneficial to vegetation, unless the combination was made in such a way as to effect a chemical action which would neutralize the sulphuric acid entirely and leave none free to exert its exceedingly corrosive effects. A mere mixture would not do this. Our opinion is here given and our advise is not to give one cent for the "right"—as it is called—to make a mixture which would be worth much less than its cost, when it is made.

A Foul Well. Mole Plows.

S. G. T., White Plains, N. Y., asks, 1, how to purify a well rendered thoroughly foul by the percolation into it of the contents of a broken sink drain. All the adjacent ground is probably equally foul from the same cause. 2. Having read that a mole plow is used in some parts of the country for the purpose of making tileless drains, he inquires whether it would "work" where the sub-soil is a sort of hard-pan. He thinks a flat meadow of his would be greatly benefited by drains made in this cheap way.

ANS.—1. The well is spoiled and should be abandoned, as the use of the water is dangerous to health, and might cause fatal disease. It is a matter in which life is at stake, and there should be no hesitation in abolishing the danger at once. This is an example of what exists in many cases without suspicion of the danger involved. 2. A mole plow is useful where there is a very retentive sub-soil. Its effect is only to break up the soil and not to open continuous passages for the water as in draining, because it is impossible to avoid following the contour of the surface, and no level can be kept by which the flow can be led away. Where there is a general slope, the mole plow may do good service by opening passages by which the water can more easily percolate and flow off more quickly. As the implement is cheap, and its use has certainly the advantage of sub-soiling, and possibly of draining to some extent, more or less of the ground, it would be generally of advantage.

A Cow's Period of Gestation.

A Subscriber, Xenia, Ohio, asks what is the average period of a cow's gestation, and how much over or under that average have cows been known to calve.

ANS.—The average period is held to be 285 days. Of 575 cows observed by Mons. Tessier, 21 calved between the 240th and 270th days, the mean time being 259 days; 544 calved between the 270th and 299th days, the mean time being 282 days, and 10 calved between the 299th and 321st days, the mean time being 303 days Earl Spencer's record of the period of gestation in 764 cows gives: the least period 220 days; mean, 285 days; longest period, 313 days. But he was not able to rear any calf produced at an earlier period than 242 days. Our own countryman, L. F. Allen, reports the period of gestation in 50 cows for a single year as follows: shortest period, 268 days; mean, 284 days; longest period, 291 days. These cows were Short-horns, Herefords, Devons and their grades, together with some "Natives," but no difference was noted that could be attributed to breed. It has been noticed that bull calves are oftenest dropped when the average period is overrun, and cow calves when the period of gestation falls short of the average. In reality there is not much difference between the number of calves dropped each day from the 280th day of gestation to the 290th.

The Washington Potato.

M. L. D., Sherman N. Y., inquired in our issue of March 29 about the merits of the Washington potato, and we replied that we had never tried it. We thank Mr. Jonathan Talcot of Rome, N. Y. for the following information on the subject. He says:

"I suppose M. L. D. has reference to the new potato to be sent out this season by the Messrs J. M. Thorburn & Co., 15 John Street, New York. If so, I will say that through the kindness of that firm I received a sample in the spring of 1878 from them, with a request to cultivate and test them and report in the fall. This I did. I wish also to state that I have tested most of the new sorts of potatoes sent out the past twenty years, and paid out hundreds of dollars for the seed, only to be disappointed in the majority of cases. I have, however, found a few sorts that have proved valuable to myself and the country at large. Accordingly I think I know something of the merits or demerits of new potatoes, and my advice to M. L. D. is to try the Washington. If it does as well under general cultivation, as it has done with me, it will prove a decided acquisition. In our past unfavorable season for potatoes, it did well in yield, appearance and quality with only ordinary cultivation—much better than other sorts on our trial grounds."

Planting Currants.

L. B. D. R., Backland Mass., asks whether in putting out an acre of Currants it would not be best to have half of them Red Dutch, with Cherry or La Versaillaise; at what distance apart should they be planted; and whether white Currants have only a limited market.

ANS.—The Currant is the most hardy, prolific and accommodating of fruits, for which reason (there can be no other) it is of all fruits the most neglected. If well pruned and cultivated, the fruit will grow to thrice the size of that which neglected bushes yield. The Red Dutch under such care becomes as large as the Grape or Cherry when neglected, and being more prolific, in fact the *most* prolific of Currants, should be given a proportionate share of our grounds. We have no doubt that the Red Dutch, cared for as we have intimated, will, year in and out, prove the most profitable variety. Four feet apart each way would be our choice of distance. About 2700 plants would then be required for an acre. There is less market demand for white than red Currants.

Coloring Instead of Painting Plaster.

M. E. C., Spring Hill, New Brunswick, is building a new house and having heard that there is a way of coloring the finishing coat of plaster instead of painting it, asks for a recipe for doing so.

ANS.—There are some very agreeably colored preparations made for the purpose above mentioned, known as prepared kalsomine. These are kept for sale by painters, and directions are given on the packages for using them. The materials consist of Spanish white, glue and mineral coloring matters of the desired shade, or the finishing coat itself may be colored of any desired shade by adding to it, and working up thoroughly with it the proper pigments, always choosing those which would not be changed by the action of the lime or plaster. It would not be easy for an amateur to make a neat job, as the coloring should be perfectly even all over the work, and that will require much skill.

Mulching.

B. J. U., Sandusky, O., asks whether in view of the chances of a dry season, he shall heavily mulch a number of plants which he names.

ANS.—It is hard to get at facts in many seemingly simple things. There is no doubt that in dry seasons a heavy mulch or covering of manure, straw, or other substance will be of decided advantage to many plants, such as Currants, Strawberries, etc., in the way of producing larger fruit. We once thought, however, that several of our Magnolias were killed by mulching, and have since thought that several other plants were harmed by it. Mulching produces a sour condition of the soil and the growth of fungi, which may be injurious to the roots underneath.

The English Walnut.

M. J. C., Bewleyville, Ky., asks where she can procure English Walnuts of one or two years' growth, and whether they would thrive in western Kentucky.

ANS.—Any fruit nursery can furnish them, such as Ellwanger & Barry or W. S. Little, Rochester; Thomas Meehan, Germantown, Pa., etc. The European Walnut (Juglans regia), commonly known here as the English Walnut, has not been very extensively introduced into this country yet, where indeed it rarely ripens fruit. As it is a native of Asia, and probably also of Greece, and grows abundantly throughout Europe, it would, very likely, find a congenial home in Kentucky.

Propagating a Pelargonium Sport.

C. A. H., Akron, O., asks how he can propagate a variegated "sport" taken from a Geranium (Pelargonium). He says it roots freely, but the cuttings lose their color and become green.

ANS.—The only way is to make cuttings from the shoots most variegated and then, as soon as these are large enough, to make cuttings from them, and so on until the variegation becomes fixed. The variegated blood or taint is sometimes so feeble that it cannot be fixed. In some plants—we have in mind a Willow and a Begonia—well-defined, variegated sports occur which, when cut off and rooted, remain variegated while the new growth is entirely green and healthy.

Shingle Roofing.

J. T., Jamestown, N. Y., asks whether for farm buildings there is any better roofing than shingles, cost considered.

ANS.—There is no roof that is better, cost considered, than shingles. A well-laid shingle roof will last thirty years, and if the shingles are of pine and are steeped in crude petroleum before they are laid, and receive a fresh coating outside once in six years, they will last twice as long. The shingles should be laid upon lath or narrow strips and not upon boards; the exposure to the air keeps the under side free from damp and prevents decay.

Tucket Corn.

E. C., North Platte, Neb., asks where can he obtain Tucket corn. It is a sort of pop-corn he used to raise years ago in Vermont. It made a growth of three feet, had on each stalk several ears from two and a-half to three inches long, the grain being small, flinty and yellow.

ANS.—This is a local variety and some Vermont reader can doubtless give the information. Yellow pop-corn can be procured of Thorburn & Co. All pop-corn has the habit of caring at most of the joints and has small ears.

Miscellaneous.

R. B. A., Germantown, Pa.—1. We cannot name varieties of Pelargonium with any certainty. The flower resembles Asa Gray. 2. It is the rule of our office to answer *every* question either in these columns or by mail. In the former case they must await their turn. 3. It was impossible for us to foresee which of the varieties of seeds we offered to our subscribers would prove the most popular. In more than one instance, those which we fancied would receive the fewest applications, received the greatest number. Hence our supply was soon exhausted. This possibility, however, was foreseen and we took pains to state that "Some of the above will be withdrawn and others added." Now our *reserve* seeds were fully as valuable and *rare* as those at first offered, yet many of our friends are disappointed that they did not receive *just* what they *selected*. The simple truth is that in *any* free seed distribution of the magnitude of that we have just passed through, it is impossible to please all. Still we have learnt a thing or two by our late experience and have a plan for our next offer, which will at least secure to each applicant the kind of seed announced.

J. B., Jamestown, N. Y., asks, 1, where can he obtain seeds of the Dutchman's Pipe; 2, are the ornamental beets useful or merely decorative; 3, can the seed end of potatoes be cut off now and kept until planting without injury, and, if so, how should they be treated?

ANS.—1. We do not know. It is hard to be found. Try Woolson & Co., Passaic, N. J. 2. The roots do not grow large. The leaf stalks (see Domestic Economy, p. 544, in issue of Aug. 24, 1878) make an excellent substitute for Asparagus. Otherwise they are for ornament. One of the showiest beds we have ever seen was made of these beets. 4. Should say, no.

C. McN., Union Springs, N. Y., says he has had a Weeping Silver Fir for five years, and that with the exception of one shoot every branch grows downward. This one shoot is "as straight as a pike-staff." He asks: "Is this common?"

ANS.—The Weeping Fir is itself what is called a "sport," and it is not improbable that the straight shoot is a reversion to the species. But perhaps it grows from *beneath* the graft, in which case, of course, the "straight shoot" *is* the species. Please examine and let us know.

I. G. M., Charleston, S. C., asks which book on bee-culture we consider the best, and what style of hive he should adopt.

ANS.—Cook's Manual of the Apiary, published by T. G. Newman & Son, Chicago, Ill., is as good as any we have seen. Get a movable frame hive. The Langstroth hive, with frames about one foot square, is perhaps the best style that can be adopted.

F. W. S., Baden, Pa., asks which method is the best for grafting large apple trees—cleft grafting or bark grafting. He grafted 75 trees in the bark last year and they are

doing well, but he fears the young branches will not cover up the old limbs and unite well and strongly.

ANS.—We prefer grafting in the bark. By this method the cion will unite as firmly with the stock as by cleft grafting. See answer to C. T. in last issue; and also Rural of March 15, 1878.

M. M. S., Big Valley, Beiber Co., Cal., asks whether we can procure for him and forward seed of the forage parsnip, an account of which is given in the RURAL of March 15.

ANS.—As yet the parsnip has not, so far as we know, been imported into this country, though some seeds taken to England, are reported to have done well there. There is no purchasing agency connected with the RURAL NEW-YORKER.

J. D., Brooklyn L. I., who in our issue of the 5th, inquired where seeds of Hyacinthus candicans could be obtained, is hereby informed by L. A. G. that they can be procured from Hovey & Co., 16 South Market St. Boston, Mass. This variety is a Cape bulb, and throws up a stem three feet high with white flowers; said to bloom the second season from seed—in midsummer.

R. S. P., Bolster's Mills, Me., asks whether the corn sent out by the RURAL would do well "away down in Maine," and in the northern part of it at that.

ANS.—Probably not.

COMMUNICATIONS RECEIVED FOR THE WEEK ENDING SATURDAY, APRIL 12th.

S. R. M.—A. F.—V. J. E. thanks.—E. E.—K. S.—J. F. L.—D. E. S.—F. D. C.—A. W. M.—B. C. D.—L. E. R.—H. C. H.—F. S. D.—C. B. C.—C. C. V., too long.—J. H. B.—W. J. F.—M. G. R., thanks.—M. L. S.—T. H. H.—E. J. B.—A. L. J.—N. R. S.—J. E. E.—S. R. M.—T. H. B.—W. N.—S. H. C.—W. C.—L. W. L.—T. D. W.—C. D. F.—T. M. B.—R. S. T.—N. P.—A. S. L., no address.—T. R.

Everywhere.

NOTES FROM CENTRAL ILLINOIS.

HOW TO GROW NICE SWEET POTATOES.—Sweet potatoes are easily grown when once the method of their growth is understood. I have had a good deal of trouble in their cultivation owing to their growing in the shape of long strings instead of tubers, and it is only of late I have learnt the cause of my failure. I chose good, light, sandy soil; worked deep, cultivated well, and yet got strings. An extensive grower tells me he formerly had a like difficulty in securing good sweet potatoes, but after years of experiment, he is now able to grow a large crop with the same certainty as corn. As he took the first premium for that crop at the Chicago Exposition, I believe he is right, although his practice is opposed to my old theory which insisted on working the soil deeply. He claims that the sweet potato is a gross surface feeder, and adapts his culture to this characteristic. Having chosen suitable soil, he scatters well rotted stable manure, broadcast, on it in February or March, and when he is ready to plant the potatoes, he *plows very shallow*, leaving the subsoil undisturbed, and then he works and pulverizes very finely the soil thus turned. In this, he claims the plant feeds, and when, on reaching the subsoil, it meets with resistance, it at once begins to develop nice tubers. If the soil is pulverized deeply, he says, long, rambling strings, instead of tubers, are the result.

THE DEFIANCE WHEAT was counted, to get the number of grains, then mixed in a fine leaf mold and sand, in a box, and then set out to freeze and thaw, taking the weather as it came. Meanwhile, in the second week in March we had some nice days, the soil working well, and a plat was prepared large enough to plant the wheat one foot apart, in rows two feet apart. As soon as it sprouted, it was put in and is now up—most of it. This locality has not proven well adapted for spring wheat; but I believe if the seed were prepared as above, it would do a great deal better, but would have to be sown before sprouting much.

COVERING VINES.—All my briers were laid down last December and covered. Owing to this precaution, they will not only escape being winter-killed—a fate that has befallen all others here—but they will have a good crop of berries. About the middle of March the Snyder Blackberries were fresh and green. This seems wonderful, since all the exposed briars of Dorchester, Wilson's Early, Lawton, and Kittatinny, were killed and black to the very crown. Taylor's Prolific came out all right.

DR. A. C. W.

INDIANA, Roanoke, April 7. — Rain, snow and ice alternately; some fine, warm days; many frosty nights. Our Peaches and many of our Cherries have been killed. Trees, shrubs, Raspberries and Strawberries are coming out of the hard winter looking well.

A. C. H.

(See page 248 for continuation of Everywhere.)

Implements and Machinery.

NICHOLS, SHEPARD & CO.,
Battle Creek, Mich.
ORIGINAL AND ONLY GENUINE
"VIBRATOR"
THRESHING MACHINERY.

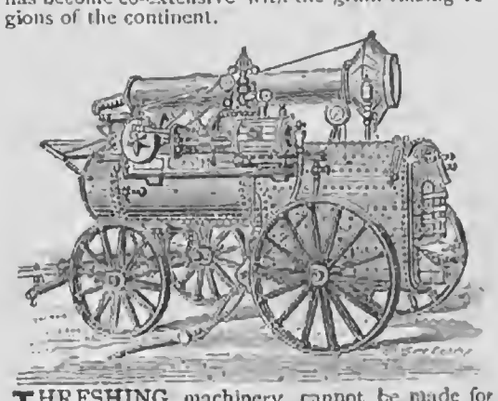
WE are sometimes asked why the prices of our goods are apparently higher than some others of inferior make, and we avail ourselves of this opportunity to place the matter in its true light.

OUR "VIBRATOR" Threshers and Portable Engines embody the best results of our experience and study during our long business career. Whatever would add to their durability, efficiency, and solid excellence, in any particular, has been eagerly seized upon and utilized without regard to labor or expense.

IN this connection it will be pertinent and timely to warn the public against **Cheap** Threshers and **Cheap** Portable Engines. The superiority of our machinery, in all particulars, is now so generally acknowledged that our competitors have no resource but to present the attraction of low prices and long credit. Their goods being inferior, they have to sell them for what they can get. Times are hard; and purchasers, without fully considering the subject, will sometimes allow a lower price to decide them. Manufacturers of "cheap" machines are so set on carrying out competion to its utmost—competition of **Cheapness**, not of Excellence—that they meet "bargain hunters" half way, and furnish them cheerfully with inferior machines at the cheap rate they are asked for.

WE are much mistaken if this is what the public wants or expects of us. Good machinery cannot be made when neither workman nor employer has pride in his occupation; interest and pleasure in the work are both wanting, and both are essential in making good machinery.

OUR mission and business is, to build Threshing Machinery **of the Highest Excellence**, whatever the cost, and, holding firmly to this single purpose, we have added improvement after improvement, until the reputation of our Machines has become co-extensive with the grain-raising regions of the continent.



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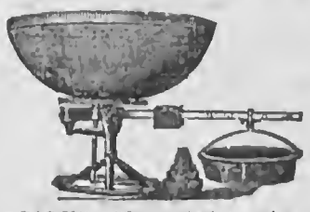

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The MOST PROLIFIC VARIETY IN EXISTENCE; from 2 to 9 ears on one stalk; average 3½ ears; 100 bushels to the acre on poor land; selected seed. *Per bu.*, $10; *by mail, $1 per qt.; 75 cts. per pint; 40 cts. per ½ pint.*
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The best and earliest perfectly hardy **White Grape** in America. Ripens in August, and is hardier than Concord. Two strong vines, post-paid, by mail, for $1. One dozen 1 yr., $4. Also Delaware, Concord, Brighton, Moore's Early, and all other valuable varieties, over 60 kinds, at greatly reduced prices. Raspberries, Strawberries, Gooseberries, Flowering-plants, &c.
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Can obtain it by sending 25 cts. for 1 package, or $1 for 5 packages, to J. S. CROWELL, Manager FARM & FIRESIDE, Springfield, Ohio, but send all subscriptions to FARM & FIRESIDE, Springfield, Ohio, as usual.

Send for N. D. Batterson's Berry Basket Circular, Buffalo, N. Y

It is a mistake to suppose that any department of a paper may be slighted. The most important information is to be found, at times, under the guise of an advertisement; and it is agreeable to the advertiser and a courtesy to the publisher to mention the source of your information—in other words, to mention the paper.

THE
RURAL NEW-YORKER.

PUBLISHED EVERY SATURDAY.

Address RURAL PUBLISHING CO.,
78 Duane Street, New York City.

SATURDAY, APRIL 19, 1879.

ANNOUNCEMENT.

ALL who intend to compete for our CORN PREMIUMS will be expected to write to us to that effect before the TENTH of May.

EARLY MATURITY.

IT is a well-known fact, although it has been proved but recently, that an animal makes its most profitable growth in the earliest part of its life. A noted example of what we wish to illustrate was given a few years ago by the Hon. Geo. Geddes, in regard to a steer fed by an Orange Co. (N. Y.) farmer. The figures given in the very particular statement furnished by Mr. Geddes, showed the cost of the animal from the first month of its existence up to the period of four years, when it was slaughtered. At two years of age, the steer showed a profit in its feeding, but from that time the cost gradually exceeded the growth in weight, until at the end of the four years there was a serious loss. It has been found by trustworthy experiment that a young animal will gain one pound in weight from the consumption of three pounds of corn meal or its equivalent in food of similar quality as to digestibility and nutriment; that four pounds of meal will be required for a pound of increase at six months; four and a half pounds at 12 months; five and a quarter pounds at 18 months; and six pounds at two years. By judiciously generous feeding a calf may be made to gain 100 pounds in a month; while a three-year-old animal consuming twice the food which supplies the calf, will increase only 50 pounds in a month.

There is no occasion to enforce the application of these facts; they are suggestive enough to attract the attention of all those whom they may concern. But at this season when we are preparing to plant and sow our fields, it may be pertinent to allude to the analogy which exists between animal and vegetable life. The latter exists by food as much as the former, and the manner of growth in each is parallel with that of the other. The laws which control the healthful growth of an animal may well be applied to our culture of plants, and from the former we may learn that the early forcing of a crop may be done at the least cost. Our method of fertilizing, or feeding, crops may be open to the objection that we pour into a weak organization a vast surplus of food by which its growth is stunted, or we starve it by giving food as yet unfitted for its wants, or by neglecting to supply food at all. Generally the whole supply of fertilizers is added to the soil before the crop is planted. This must certainly be a wasteful practice, because active decomposition and diffusion are going on, when there is nothing in the shape of roots adequate for the utilization of the products. If we believe there is any analogy existing between animal and plant growth, we should feed our crops accordingly. Let us apply barnyard manure before the planting, if we will, because we cannot avoid that, and leave it to decompose and become available as the roots may reach it; but we should apply some active fertilizer in the hill, or drill, or near the seed, in small quantity, suited to the feeding capacity of the young plant, and in quality fit for its actual need at this period; and afterwards, as may be proper, add a further supply at each cultivation (of cultivated crops) to be worked into the soil or occassionally to be carried in by rains. In these limits the subject can only be hinted at, but it is presented as food for thought and a work for experiment.

UNPRODUCTIVE CAPITAL.

ONE of the most serious losses in farming is from unproductive capital. Auctions have been rather plentiful this spring, as many farms have changed owners or have been rented, and at those which have come under our notice, the fact which has most impressed us has been the large amount of old traps, worthless for every practical purpose, but which insensibly accumulate on every long-occupied place. It is a good plan to sell off this stuff occasionally and turn it into money; but buyers are rather shy of late years and not even long credits will tempt them to buy unproductive articles. Generally, those who do buy are the least thrifty farmers in the neighborhood, and they generally have more need to make an auction than to attend one.

The trouble with farmers stocked with this idle capital is that they are usually the very ones who most need money to carry on their farms as they should. Not one farmer in fifty has working capital enough, and investing money in such a way that it will produce nothing is the sure way to keep in that condition. Extravagant expenditures are justly censurable; but it is practically the same, so far as profit is concerned, if the farmer heavily in debt, keeps two or three supernumerary horses which he is not able to employ and which cost him fifty dollars a year above all that he can realize by using them, or invests seven hundred dollars in pianos, fine carriages and household luxuries. In the latter case he is presumably the gainer. He gets something for the money expended, and his family derive some pleasure and advantage therefrom. Yet there is many a farmer who has several hundred dollars invested where it is practically of no value to anybody, who would be horrified at the idea of expending one-half or one-quarter the sum in ways that his family at least would appreciate.

To make the best possible uses of his money is the necessity for all whose capital is deficient. Some years ago we knew a shrewd German who owned a valuable yearling colt. He wished to keep it, but being offered a fancy price, sold it and invested in a sow with pigs and a cow. He bred pigs for sale, and as the demand happened to be good, his profits on the pigs and from the butter and milk of the cow were probably five times as great as they would have been on the colt. In a year or two he purchased a mare with foal, had for the time a more serviceable horse than the colt would have been, and was ready to make another payment on the place which he had bought. It is scarcely necessary to add that this man, though he bought when prices were high, is steadily making money. All successes in farming in these times must be won by as shrewd and close attention to details as is here recorded. Nothing is easier than by leaving a portion of a farmer's capital entirely unproductive, to waste more than the small profits on the remainder.

THE MILK QUESTION.

THE milk producer is a hardly used person. His reputation is held in question, if indeed he is not set down as being no better than he should be by those self-constituted censors of public morals, the universal grumblers. His product is taxed by the public carrier and by the middlemen, of whom there are at least two, who come in between the producer and the consumer; and the latter fares unusually well if he is not defrauded by the considerable dilution of his daily supply. Indeed, it may truly be said that the consumer shares with the producer the misfortune incident to his position, and is alike the victim of the middlemen. For between the two, the difference of the two or two and a half cents per quart received by the one and the eight to ten cents paid by the other, is swallowed up by those who carry and distribute the milk.

Thus the producer receives one-fourth of the final value of his product in payment for his labor, the food consumed by his cows, the daily deterioration by age and otherwise of his stock, the cost of utensils and all the other necessary adjuncts of his business; while the middlemen receive for their share the remaining three-fourths. And this plain fact certainly brings up the question as to the relative value of the services performed by each, and the inadequateness or excessive amount of the compensation. There are other staple products besides milk that would offer equally interesting subjects for contemplation.

THE GLADIOLUS.

WE should feel lost without the beautiful Gladiolus. It has been our favorite among flowers of its class ever since the first improvements were made by seedling cultivation twelve years ago. Then five dollars were not an exhorbitant price for a single bulb of a new sort and, indeed, even now nearly that price is charged for the finest, latest varieties. But *then* high prices were paid freely, while now very few are sold for more than a dollar each. The climax of improvement has not yet been reached, however, in this charming flower; at least there is no doubt but that new colors and combinations of color and new forms will yet be originated to maintain, for years to come, the intense interest which lovers of the Gladiolus have shown from the beginning. We were the first to tell, we believe, of a light-*blue* variety which originated on the grounds of a florist on Long Island, and was exhibited for a few days in this city. Several English journals commented upon our statement as one which they could not credit. There were many others who saw the flowers, however, so that, sooner or later, we may count upon the remarkable addition of a blue variety. *Double* flowers, also, occur here and there, though we have not heard of any instance in which they have been *fixed* or perpetuated by seedling cultivation; and judging from the double flowers which have occurred among our collection, such a variety would prove no great acquisition. It does not seem to us that the Gladiolus can be improved by such a change.

There is no better time than from now until the first of May to plant the bulbs, though for succession of bloom they may be planted as late as the first of July, and still bloom before frosts severe enough to harm them.

To those of our friends who have never cultivated the finer varieties of Gladioli—which we should prefer to the Lily, were their flowers as delightfully fragrant,—we would mention the following as being among the finest, and yet of a comparatively low price: Mary Stewart—Princess Alice—Shakspeare—Addison. If a yellow is desired, Eldorado is as good as any.

WORK AND PLEASURE.

IT is not uncommon for those who have much work to do to complain that they have little or no time for enjoyment. This is especially true of the young. The very name of play or pleasure has a magical transforming power. That name makes toilsome pastime a delight; while the idea of work often makes the easiest tasks seem oppressive. It is not to be denied that there is wisdom in proper recreation and diversion for the laborer. They are necessary to keep up the spirits and maintain somewhat of the charm of freshness in one's occupation, whatever it may be. It is well, now and then, to "lay down the shovel and the hoe," and turn the mind away to the quiet scenes of the home and to the exhilarating pleasures of a holiday.

But very unfortunate are they—young or old—whose real enjoyment is limited to those rare occasions when work is, for a while, relinquished, and so-called pleasure is sought in extraordinary ways. Now, we are so constituted that, under the law of habit and the peculiar effect of conscious usefulness and promising engagements, we may come to love our work and find in its legitimate prosecution the very essence of contentment, hope and joy. To work with the right purpose and in the right way is to convert work into pleasure. What a fortune is possessed by the man that has attained to that desirable experience! His work-days are more than holidays; for they add to the pleasure of the common holidays the cheering assurance of gain and progress.

Glucose in Sugars.—The sugar refiners are all of them now making grades of crushed and granulated sugars purposely adulterated with about ten per cent. of glucose or "corn sugar," a sort of sugar made by a chemical process from corn-starch, and costing about five cents a pound. The glucose is only about one-half as sweet as cane sugar; but, when properly made, it is just as wholesome, and as good in all other respects. As the mixture of this with refined cane sugars is usually for the purpose of underselling, the refiners do not make a great profit out of it; and although the retailers in many cases keep the price up, at least at first, competition there also tends to force down prices so that profits are equalized. But consumers ought to know the fact of this admixture of an inferior sugar with that which they have heretofore been using. Detection of the fraud by ordinary inspection is difficult, yet the glucose sugars are usually damper and somewhat "off-color," compared with pure cane sugars. When buyers understand the matter, and insist either upon pure sugars or a less price for that which is so mixed, the temptation to the adulteration will be greatly lessened.

BREVITIES.

MR. EVANS writes to us: "I, too, think the Plymouth Rocks the general-purpose fowls."

WE wish we had in our N. Y. Horticultural Society a little more of the vim, earnestness, generosity and ability that characterize the directorship of the Mass. Hort. Society.

DANA'S Hovey is one of the very best of Winter Pears, the only objection to it being that it is rather small. It is of a bright yellow color when ripe, with a little cinnamon russet. The flesh is buttery and melting and of finest quality.

To play is to labor. It is pleasant because it is the work of our choice. The great problem is to make all work play—then Jack will never be a dull boy. There is just so much work for everybody to do. Let us do it in accordance with the moral and physical laws of our being—and it will be as play.

Is it not remarkable that statements so diametrically opposed should be made by those who have tested the value of Prickly Comfrey? The present season will unquestionably determine who is right. If it appears that this plant possess any especial claims to cultivation, we shall doubt if it be safe to express an opinion, no matter how well it may be supported by our carefulest tests.

COL. WELD tells the writer that he considers the Plymouth Rock the earliest to mature of any of the thoroughbreds, but that the offspring of a cross between a P. R. cock and Asiatic hens will prove decidedly earlier than the Plymouth Rocks. This he knows from his own experience. It is a bit of valuable information for those who raise fowls and eggs for market.

FROM all over the country come cheering accounts of reviving business and easier times. True it is, these accounts come chiefly from middlemen—from store-keepers, wholesale or retail—but the middleman must "feel good" before either the producer or consumer can expect to realize a satisfactory profit. That, according to his own account, he "feels good" to-day, is a hopeful sign that his victi—his customers may "feel good" to-morrow, or perhaps the day after, or at any rate some time in the not very distant future.

MR. HAINES says that the Raspberry, "Pride of the Hudson," has not proved as hardy as it was at first thought would prove to be the case. Protection helps it. We are sorry if this report should be the average report for this climate, for one reason, if for no other, that hundreds of plants have been purchased under the belief that it *would* prove hardy. We find that the word 'hardy' is an exceedingly meaningless word as applied to Raspberries in general, and to the red varieties in particular. We have not a single plant in our collection that has not been harmed by the past winter.

PROF. Law agrees with the RURAL that other parts of the country, especially the West, should be willing to pay a part of the cost of stamping out pleuro-pneumonia in the Eastern States. The reasons he gives therefor are the same as previously stated here—that our foreign cattle trade benefited mainly the West; that its speedy resumption would therefore be specially beneficial to that region; that in case of the spread of the disease to the unfenced plains there, the losses would be enormous; that the stamping out of the malady here would be a benefit to the entire country, and that the entire country therefore should be willing to pay for the blessing, those parts paying the most which derive the greatest advantage from it.

A NEW OIL-CAKE, prepared from the seed of the sunflower, has been introduced into Denmark and Sweden and meets with decided approval. "Ugeskrift for Landmænd," a weekly Danish agricultural paper, gives the results of analyses by Prof. Bergstrand of Stockholm and Dr. Wolff of Germany, which show it to be rich in albuminoids, fat and carbo-hydrates. It is also stated that the proportionate value of rape-cakes, linseed-cakes and sunflower-cakes is much in favor of the last, it being both cheaper and more nutritive. Thus when a given weight of rape-cakes is worth $7, the same quantity of sunflower-cakes will be worth $8.13. Feeding experiments in Sweden with this new product show that the cattle will eat it greedily, that it increases both the quantity and richness of the milk, and that the butter from such milk is of the best quality.

A BILL introduced into the U. S. Senate appropriates $250,000 for the purpose of stamping out contagious diseases among cattle in this country. It proposes to investigate all contagious maladies among stock, slaughter all animals infected with pleuro-pneumonia and take prompt and vigorous measures for eradicating this standing menace to our vast cattle interests. Some sticklers for State rights doubted as to the constitutionality of an act empowering the general government to interfere in measures, the adoption of which, according to them, properly belongs to the States individually, and so the bill was referred to the Committee on Agriculture, with instructions to report it promptly. A month ago we pointed out editorially the justice and necessity of such a measure, and we trust that no Quixotic scruples as to State rights will be permitted to delay its speedy adoption.

THE heavy emigration of the Southern negroes to the West is pretty certain to result in not a little temporary distress to the "whites" of the abandoned regions and to the emigrants themselves. If the former are "planters"—the aristocratic Southern equivalent of "farmers"—they will lose by untilled fields, ungathered crops, empty purses and general out-door and in-door thriftlessness; and if they are store-keepers, they will suffer from the lesson that the absence of competition cannot always justify the exaction of exhorbitant profits even from "niggers." The improvident and impecunious emigrants will have to endure the hardships that always await upon the advent of the pennyless new-comer in any frontier region, and these hardships will be aggravated by disappointment at the downfall of the bright hopes whose only foundation lay in his own ignorance or credulity. But the Caucasian and Negro are likely to be benefited by the movement in the long run, the former by the lesson that forbearance and honesty are more profitable to their owner in the end than intolleranee and chicanery, and the latter by the higher manhood that is always developed by the necessity for provident labor and a sense of independence.

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CONDUCTED BY MISS FAITH RIPLEY.

SPRING FASHIONS.

No. 1.—Ladies Costume.—This costume is composed of two shades of drab suiting, trimmed with white worsted braid. The skirt is four-gored, short and round. The overskirt, before it is draped, is like a six-gored walking-skirt; but by following the label-directions for draping, it is transformed into the pretty washerwoman style of overskirt here illustrated. The reversed portion has a short panel at each side outlined with braid, and decorated with buttons and simulated button-holes, while along the top of the portion, between and back of the panels, six flat rows of braid are arranged. The flowing drapery of the back is bound with braid, and where the reversed portion is caught together over the back, a cascade bow is fastened. The pattern is No. 6,523; price, 25 cents. It may be made of bunting, Summer flannel or de beige. If costlier goods are used, pipings of satin or rich gimp may be substituted for the braid, The basque has a deep vest and a short cutaway front, each fitted by a single dart. The front is extended in a back collar-portion, and turns back from the shoulder nearly to the waist-line in a pretty lapel. Below the latter it closes with two button-holes and buttons, and then slopes away to a deep point, back of which it extends in an arched outline to the side-back. After a skirt portion of the dark vest shade has been joined to the vest, the skirts of the under-arm gore and side-back are allowed to fall over it in a continuation

No. 2.

of the front, and then the added portion, the back and the side-back skirt, are joined by the side-back, while the corners of the side-back are reversed and caught to the corresponding corner over the center seam of the back. These *revers* are faced with the dark goods, and fastened under a ribbon. The vest and added skirt are decorated with braid and buttons to correspond with the overskirt, and the bottom of the jacket portion is bound with braid. The lapels and collar are also faced with dark goods and bound with braid. Pattern of basque, No. 6,522; price 30 cents.

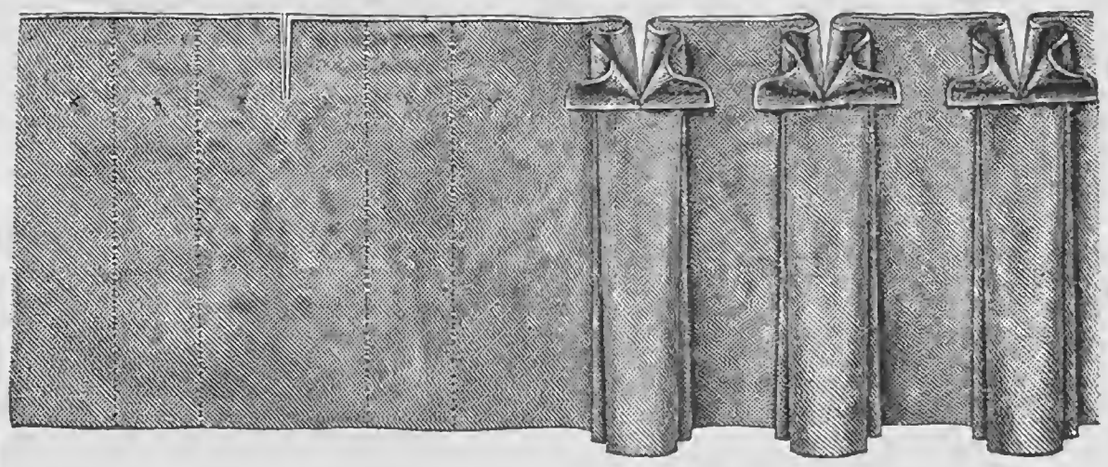
No. 2.—Alsacian Bow.—This represents a style of head-dress which is extremely popular at present. It is easily made. Ribbon about two inches wide and a yard and three-quarters long was selected to make this bow; but any fancy material, silk or velvet, may be used by cutting bias strips for the loops, and either fringing the edges or lining them. The bow is arranged in front of the braid, puffs or comb worn in the hair, with the loops extending backward, around and over the *coiffure*, which should be small and close at the top when the bow is worn. Make the bow of broad, rich ribbon on a foundation of lace or crinoline, to the ends of which add illusion or tulle, ornament the top with an ostrich tip or two, or a mass of roses, and behold, your Alsacian bow is transformed into a most charming evening bonnet.

6549

No. 6,549.—Ladies' Wrap.—The materials selected for this wrap were *Armure* silk and velvet, and the trimming consists of pipings, satin ribbon and French lace. Satin may be substituted for the velvet and gros-grain for the *Armure* silk. Spanish lace is very fashionable, and as a garniture is much more elegant than French lace. This wrap can be made up in any of the fashionable materials, and trimmed with pipings or plaitings of silk and fringe. Price of pattern, 30 cents.

No. 6,622.—Ladies' Basque.—Plain and striped goods are united in the construction of this basque, and the decorations consist of pearl buttons and pipings of the plain goods. Any two materials may be united in a basque of this style. The parts represented as plain goods, may be of cashmere or any woolen suiting and the striped parts of silk, satin or woolen material in contrasting shade. If washable textures are used, the striped portion may be of plain color and the remainder of figured material. Price of pattern, 30 cents.

No. 6543—Ladies' Princess Walking Skirt.—This skirt is noticeable for its completeness, as it includes not only the skirt proper but also a handsome overskirt drapery permanently attached. The prevailing taste for contrasts and combinations is very tastefully exemplified in this garment, there being plain and striped goods united in its formation. The little *tablier* pieces down the front are bordered with narrow plaitings of plain goods at their lower edges, and are among the most effective decorations that can be suggested. This style of skirt is admirably adapted for the



No. 3.

remodelling of two partly worn dresses. Price of pattern, 35 cents.

No. 3.—Skirt Decoration.—This flounce is cut crosswise of the goods, and after the width of the double plait has been decided upon, the top is cut in the manner represented, so that the top of the outer plait is in the form of a scollop. The distances may be first calculated by folding a piece of paper in two or three plaits of the desired size, cutting the scollop in each, and marking the edge of each plait and where the edges are to come when the plait is made; then unfolding the paper and duplicating upon cloth the marks made and the scollops cut, the plaits may be correctly calculated. Then, after the top of the flounce is lined with silk, velvet or a contrasting color, the plaits may be formed. Each scollop is turned down on the outside and tacked to position after the flounce has been attached to the skirt.

No. 4.—Skirt Decoration. The flounce is cut bias and from fifteen to eighteen inches deep when it is to form all the trimming except a heading. At intervals of three or four inches tiny shirrs are made in tuck style from the top to about half the distance to the bottom and drawn just enough to to produce a wrinkled appearance. Any heading desired may be used.

In our issue of April 26, will be given a review of fashionable goods with prices.

CORRESPONDENT'S CORNER.

This "Corner" is designed to promote sociability among our readers. They are to feel at liberty to ask any questions that may suggest themselves and it is desired that the answers be made by some of the readers, and not by the editor.

C. L. A., Felicity, Ohio, wants the sequel to "Betsey and I are Out." Will some reader oblige him by sending a copy of the verses to Literary Editor?

A Rural Reader, Alabama, asks that cuts of fashions suitable for washing-goods, may be published. In our issue of May 10, the desired cuts will appear.

Mrs. J. E. S., Tompkins Co., N. Y., says: "I had become very much interested in Margaret B. Harvey's most excellent letters, I am hoping she will tell us how to do *plain netting*. I understand the various kinds of filling in, but do not succeed in making the foundation.

A Reader, Nunda, N. Y., asks that "Rock Me to Sleep, Mother," may be published, and suggests that perhaps some of our readers will supply us with a copy of the poem.

Mrs. Annie Wittenmyer of Philadelphia, President or the Woman's National Temperance Union, lectured before the ladies of Binghamton College last week, organizing about a hundred of them into a Young Ladies' National Temperance Union, before leaving the College, including seventeen seniors and forty-two juniors.

Literary Miscellany.

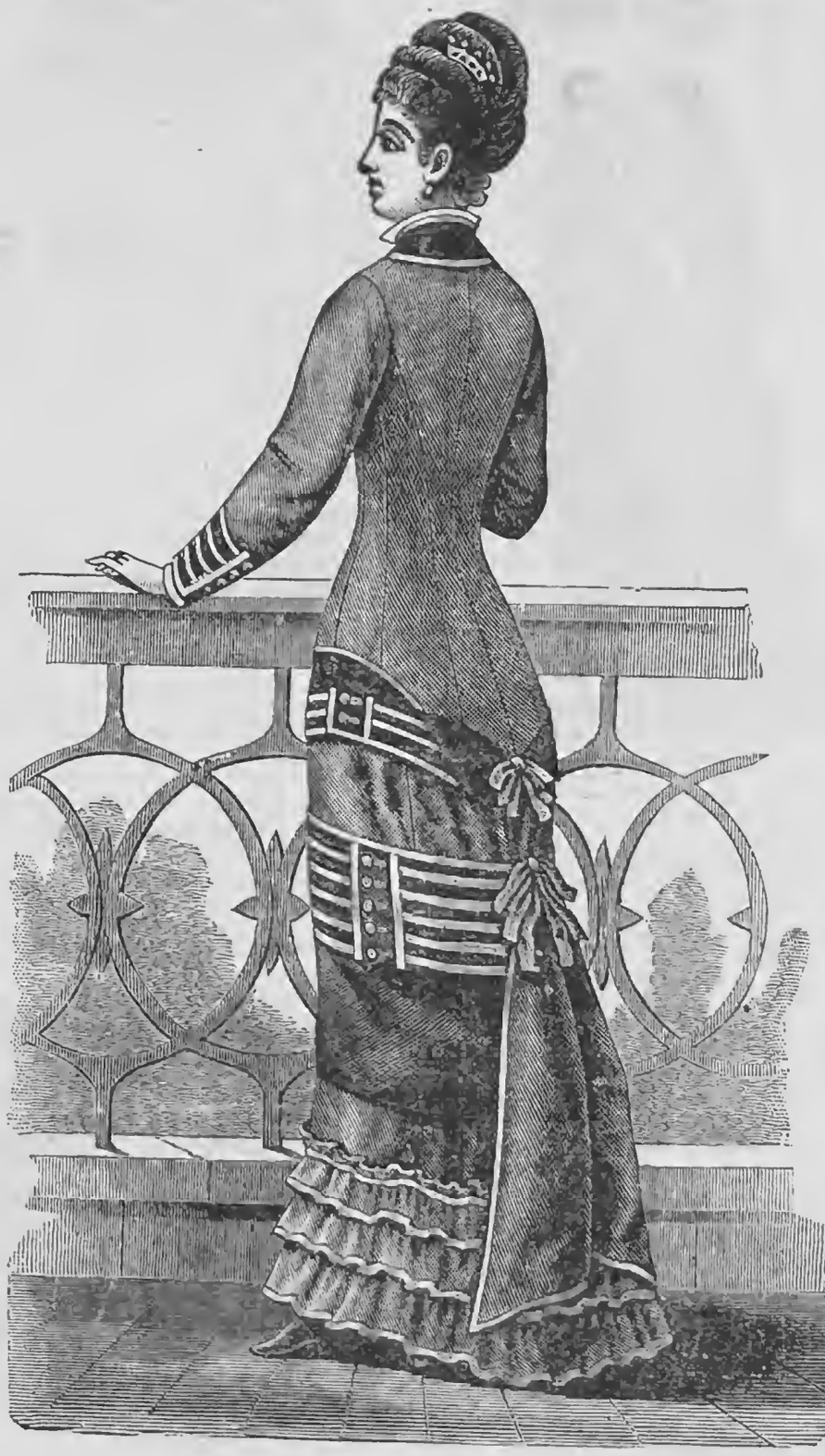
AN UGLY GIRL.

(Continued from page 238.)

CHAPTER IV.

NOEL MEDITATES UPON HIS POSITION.

When Mrs. Estcourt had been taken upstairs, and Mr. Whitely, with many expressions of regret, had departed to fulfill his long-deferred engagement, Noel found himself at last alone, and was unutterably thankful for it.



No. 1.

It would be absurd to pretend that he was reconciled to his disappointment. The late Lord Carisforde's will could only be characterized as an egregious blunder, if not positively an injustice to his heir-at-law, who, by all the rights of equity, ought not to have been left without the means of supporting his rank. As to the proposed union of the peerage and estates by the marriage of their inheritors, this Noel stigmatized as the greatest absurdity of all, an idea that could only have emanated from the brain of a man who had outlived all youthful feelings. No one else would have proposed to atone to his daughter for years of neglect by giving her his all, if at the same time he enjoined her to marry a man she had never seen, and of whose fitness or unfitness to espouse her he could know nothing; while, on the other hand, though he certainly showed Noel how he could exchange his landless condition for one of great riches, he seemed to ignore that the way in which it must be accomplished was one that only an unprincipled knave could adopt.

"What ought I to do next?" he asked himself. "As circumstances compel me to throw myself and Mrs. Estcourt on Miss Carisforde's hospitality, I certainly ought to apologize to her for it. But how? Through the housekeeper or by letter? or would it be better to ask for Miss Hillian Gray, and explain to her how awkwardly I am situated? A message through a servant might be misconstrued; a note to a young lady I have never seen is not easily written; while to that quiet little companion I could say enough to set Miss Carisforde's mind at rest, if she is inclined to fancy that I am stopping here with an unworthy motive."

6549

Still Noel hesitated awhile, wishing he had had the presence of mind to request Mr. Whitely to do this for him, and finally rang the bell, and desired the footman who answered, to inquire if he could have five minute's conversation with Miss Gray While waiting for the lady to appear, Noel continued his meditations on the peculiar situation in which he was placed.

There was something so ludicrous in this sudden transition from poverty to a peerage, and *vice versa*, that Noel—half in mirth, half in bitterness—laughed aloud; then as the sound echoed through the lofty room, he bit his lip at his own folly, glanced sharply towards the door, and saw Hillian Gray standing at no great distance.

"I beg your pardon, Miss Gray," he stammered, as he hastened to place a chair for her, a civility she declined, preferring to retain her former attitude. "My mirth must have sounded strangely ill-timed; but you must remember that the ancient sages took two views of the trials that beset us—the sad and the ludicrous; just as you found me I had inclined to the latter."

"It is fortunate that you can do so," she answered. "I hope you will not think me over-officious if I take upon myself to assure you that Miss Carisforde was as much surprised at the contents of her father's will as you were. It will relieve her very much to know that you are not so—so *cast down* by it as she feared you would be."

"I am obliged to her for the interest she testifies in me," answered Noel, with some constraint; "but it does not require any very great amount of fortitude to resign what one has never enjoyed, except in anticipation."

"But will you—can you bear so great a loss as this with philosophy?" she asked, wistfully.

"I'll try," said Noel, affecting more cheerfulness than he felt. "I shall tell myself that I am spared many temptations, or setting aside all pretence of indifference to so great a loss, try to remember always that it would be folly to grieve over what cannot be altered."

"It is a pity, a great pity," cried Hillian abruptly.

"What is? My escape from the snares of wealth?" asked Noel.

"No; I was thinking of Miss Carisforde. If she had died in her infancy, as every one about her hoped she would——"

But Noel checked the impulsive speaker.

"Pray do not say that! Who knows but that she has been spared to rule over these estates more prudently than I should have done."

Hillian Gray shook her head.

"There are reasons why this would be impossible. Her responsibilities will be oppressive to her. She acknowledges this already.

"Because she is depressed by her father's death, and the fatigue of waiting on him. With the aid of an experienced steward, she will easily keep her subjects in order. If she has a talent for governing, now will be the time for exercising it. If not, she must marry some gentleman who is her equal in fortune as well as birth, and be content to reign as vice-queen."

Hillian winced.

"Miss Carisforde married! Ah! the jest is too—

too hideous! You are ungenerous, sir, to forget her afflictions, and to speak thus to *me!* Pardon me if I leave you!"

And she retreated without bestowing another glance on the disconcerted Noel.

CHAPTER V.

NOEL APOLOGISES.

The door was closing on the departing form of Hillian Gray, when the young man, recovering his presence of mind, darted in pursuit and laid his hand on hers.

"A thousand pardons, Miss Gray, he breathlessly exclaimed. "You have misunderstood me, you have, indeed! Pray, return. I spoke thoughtlessly, but no covert insult, no impertinent jest was implied in my words."

"But you spoke of Miss Carisforde marrying," retorted Hillian, permitting him, however, to lead her back to the room; "and spoke as lightly as if you did not know that even the man who has been offered with her hand the inducement of a splendid fortune instantly rejected the bribe with horror, and preferred poverty to such a bride."

6522

Noel colored at this significant reminder, but his answer was prompt and frank.

"Here again you have misunderstood me. Had Miss Carisforde been as beautiful as an angel, I should have acted in precisely the same manner. My objection was not to the lady, but to the monstrous profanation such a marriage between two persons who are total strangers to each other, would be. I do not prefer poverty to wealth, Miss Gray, but I should loathe myself if I gained my riches by taking false vows at the altar."

Hillian Gray's pale cheek flushed, and she nodded approval.

"You have decided just as I think I should have done—just as I fancied you would. Miss Carisforde will be pleased to know that you had higher motives for avoiding her than a mere repugnance to behold one so afflicted. You will believe my assurances that she was not in fault concerning the will?"

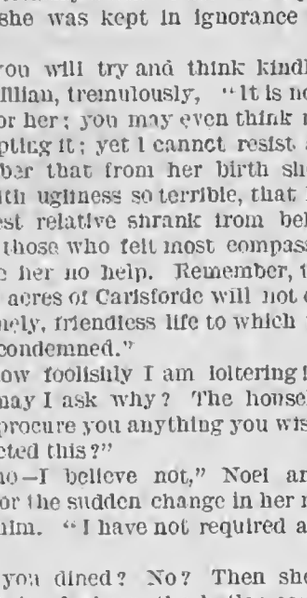
"Most certainly I will—I do. Have you not told me that she was kept in ignorance of its contents?"

"And you will try and think kindly of her?" pleaded Hillian, tremulously, "It is not my place to plead for her; you may even think me officious for attempting it; yet I cannot resist asking you to remember that from her birth she has been banned with ugliness so terrible, that her nearest and dearest relative shrank from beholding her face, and those who felt most compassion for her could give her no help. Remember, too, that all the broad acres of Carisforde will not compensate for the lonely, friendless life to which this unhappy girl is condemned."

"But how foolishly I am loitering! You sent for me—may I ask why? The housekeeper has orders to procure you anything you wish for. Has she neglected this?"

"Yes—no—I believe not," Noel answered, at random, for the sudden change in her manner had confused him. "I have not required anything for myself."

"Have you dined? No? Then she has been neglectful, for Jephson, the butler, says you have not touched anything but one glass of sherry since you came. It shall be attended to. I will go and speak to her."



6522

Again Noel had to explain and apologise. He ought not to have detained Miss Gray so unconscionably, but he could not feel easy till he had asked her advice; and then he proceeded to set before her his dilemma. The medical man, hastily summoned to Mrs. Estcourt's assistance, had pronounced her too ill to be removed, yet thus to trespass on Miss Carisforde's hospitality——

He paused, and Hillian Gray's lips parted into a slight smile.

"I don't think you have experienced much of that, have you? In the first place she did not know she was to be mistress here, so she would not take upon herself the duties of hostess; and now that she finds that they have devolved upon her, she feels incapable of fulfilling them, especially to a lady guest."

Noel colored.

"Then you advise me to remove my mother, at all risks."

"Oh, no! What have I said?" cried Hillian Gray, looking startled and uneasy. "I am afraid I am a sad bungler. Miss Carisforde would be vexed indeed if you did that. She would like you to remain as long as you feel inclined, only she hopes you will not think her discourteous if she continues to seclude herself in her own apartments."

"It is not a question of inclination," Noel gravely replied. "I should prefer to quit Carisforde Park at once. I shall most certainly do so to-morrow morning if I may leave Mrs. Estcourt here until she is sufficiently recovered to follow me."

"Oh! please don't!" cried Hillian Gray, with a look of genuine alarm. "Pray stay till she is well enough to go too! I beg your pardon," she added, penitently, when she saw Noel's face flush, "I am afraid what I have been saying sounded very rude; but you know Mrs. Estcourt resented my presence this afternoon, and—and, honestly, I shall be afraid to encounter her if you are not by."

"I could not ask you to pay any attentions to a person who has treated you so discourteously; but the housekeeper——"

"Impossible!" was the prompt reply. "Miss Carisforde's guest cannot be left solely to the care of her servants. That would be a greater discourtesy than any I have encountered. If Mrs. Estcourt remains, I must do my best to perform the duties delegated to me; but if you would stay and help me, it would be such a relief."

Noel could scarcely help laughing, though it was irritating to find that his step-mother had created such a very disagreeable impression. However, he could not wonder that timid, sensitive Hillian Gray, thrust by the infirmities of her lady into a position for which she was ill-fitted, should dread being compelled to play the hostess to a person who had treated her with marked ill-breeding.

"I am in a very awkward position, Miss Gray. If I pleased myself I should return to London this evening; but I cannot burthen you with the charge of a sick stranger. I will, therefore, crave Miss Carisforde's hospitality for this one night, and hope that to-morrow Mrs. Estcourt will be well enough to bear removal."

"Thank you," said Hillian, simply. "The house will not seem so lonely when I wake in the night and remind myself that you and Mrs. Estcourt are here. For the last few days the silence, the gloom has been almost intolerable. Good evening, sir; I ought to say my lord, but I cannot bring my lips yet to giving you the title by which I have been accustomed to address another."

"Pray do not apply it to me at all; I shall never adopt it. It would be a mockery to call myself anything but Noel Estcourt."

6543

Hillian regarded him sorrowfully, mused awhile and then came back from the door to whisper, timidly:

"May I tell you what I know to be in Miss Carisforde's thoughts? She is meditating offering you half her fortune. You would accept that, wouldn't you?"

Noel shook his head.

"Miss Carisforde is very liberal, but she is not of age; she cannot carry out her generous intentions, nor could I consent to avail myself of such an offer. Pray make her understand that I am very proud and obstinate, too much so to take from a woman's pity aught for which I could proffer no equivalent."

"After all, it is *not* nice to be rich," Hillian Gray concluded. "Ada Carisforde would have been happier if her father had left her a respectable annuity, and let the estates go with the title."

"Is it any use dwelling on this?" asked Noel, impatiently, for the subject was a sore one.

"I suppose not, only—I am very, *very* sorry for you."

She said this so sweetly, that Noel raised to his lips the hand she tendered, an act of gallantry that drove her—blushing and embarrassed—from the room.

(To be continued.)

GEN. LEE asked a straggler one day, whom he found eating green persimmons, if he did not know they were unfit for food. "I'm not eating them for food, General," replied the man. "I'm eating them to draw my stomach up to fit my rations."

VETERAN AND RECRUIT.

E. W. HAZEWELL.

He filled the crystal goblet
With golden-beaded wine,
"Come, comrades, now, I bid ye—
'To the true love of mine!'

"Her forehead's pure and holy,
Her hair is tangled gold,
Her heart to me so tender,
To others' love is cold.

"So drain your glasses empty
And fill me another yet;
Two glasses at least for the dearest
And sweetest girl, Lisette."

Up rose a grizzled Sergeant—
"My true love I give to thee;
Three true loves blent in one love,
A soldier's trinity.

"Here's to the flag we follow,
Here's to the land we serve,
And here's to the holy honor
That doth the two preserve."

Then rose they up around him,
And raised their eyes above,
And drank in solemn silence
Unto the Sargeant's love.

WEAKER THAN A WOMAN.

(Continued from page 239.)

CHAPTER XLVII.

His face softened into deepest tenderness as he looked at her. The old love so long trampled down and repressed seemed to leap into new and vigorous life.

6543

"Never again!" she repeated. "I love you—and I would be true to you!"

"Then give me a proof. I hate this wealth for which you forsook me! I hate this splendor and magnificence for which you bartered your truth and fidelity! I will never benefit by them. They robbed me of you, they destroyed the best part of my life—I will have none of them! No man shall say of me that I profited by your falsehood and enjoyed the price of your sin—for it was a sin, Violet. Listen to me, my darling. This is what my honor dictates—and my honor is dearer to me than my life. I love you, and ask no higher gift from Heaven than to call you my own; but you must come to me unfettered by dead Sir Owen's wealth—I will have none of it! You must give up your mansion, your jewels, your servants—all the magnificence furnished by him. I will provide a beautiful house for you—not grand and stately like this, but a home that shall be a heaven of love. You married for money, Violet—money did not bring you happiness. Now marry for love—that will."

She looked up to him with a bewildered air.

"I do not understand. Do you mean that I am to surrender all the fortune my husband has left me?"

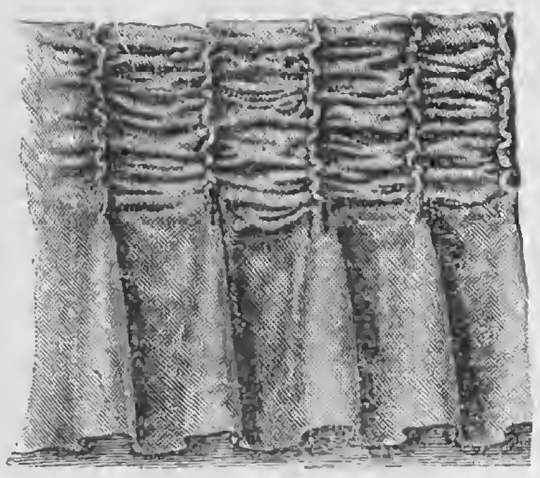
"I mean just that, Violet; I will never share it."

"But Felix," she said, "that would be absurd, now that it is all mine to do as I like with. What could I do with it?"

"Build hospitals, churches—anything you like, except keep it."

She looked at him thoughtfully.

"Do you not think that that is very hard?" she said.



No. 4.

"No, I do not; to share it, to benefit by it, would seem to me like sharing a sin. There is the true test of love, Violet. I forgive with all my heart the fault that you say was committed in the thoughtlessness of youth—now I give you the chance of redeeming it. Give up the wealth that tempted you to do me wrong, and I will bless the day that brings you to me again."

He looked at the diamond necklace she wore; unclasping it, he laid it upon the table.

"Your neck is a thousand times more beautiful," he said, "without that circlet. Can you give up all such deckings, Violet?"

"It is such a thing to ask me," she said.

"It is a true test of love. You had to choose once before between me and money—then you chose money. I place the two before you again—which will you choose? You cannot plead youth, or ignorance, or vanity, or even undue influence now. You have learned many things; and I say this is a true test of love. But, Violet, it is not fair to ask you to decide hurriedly—take time over it. It is much to ask, I know; but I offer something better in return—and you shall never repent the sacrifice."

"All the world would laugh at me," she said.

"The world would say you had given up all for love. But, Violet, mind, I do not wish to persuade you. I leave the decision to yourself. For the second time in your life you have to choose between love and money. Ponder it, and tell me in a few days what you have decided upon."

She looked up at him wistfully.

"Is that your final decision, Felix?" she asked.

"Yes, I cannot change it, Violet. Most men make an idol of something; my idol is self-respect," he replied.

"Could you not make an idol of me?" she whispered.

"Yes, if you are not framed in a gold setting," he answered.

She was silent then for a few minutes, while the firelight played over her golden hair, and he drew the long shining tresses through his fingers. She laid her head on his breast and closed her eyes.

When she raised her eyes to his, they were wet with tears.

"Felix," she said, "I must go now; it is growing late. Will you kiss me before I go?"

He bent down and kissed the lovely face—not once, but many times. Then she rose to quit the room. He remembered long afterwards how she kept her eyes fixed on his face until she reached the door.

"Good-bye, Felix," she said—and the very tone of her voice was like a sigh.

He had kept himself outwardly very calm during the interview. Violet did not know what a terrible tempest was raging within him. He threw aside paper and pen when the door was closed.

"I can write no more!" he said.

His heart beat fast and his brain seemed to be on fire—every pulse throbbed wildly, every nerve was strained.

"I must go out into the air," he told himself; "these walls are stifling me."

He went out through the window; and he spent the night as he had spent many another, in walking rapidly, so that he might beat down the temptation that was come to him.

For it was a temptation. So loving and so lovely, so gracious and fair, was Violet that he could have clasped her to his breast, and have cried out in rapture that she was his. But honor stood between them. He would never accept the dead man's gold.

In the morning he did not see Violet at the early breakfast. Miss Hethcote came down and made tea. Lady Chevenix had sent her, she said. She did not seem quite well. Miss Hethcote looked inquiringly at Felix, as though she would fain ask what had passed between them; but no word was spoken, and Darcy Lonsdale left Garswood quite unconscious that it had been offered to his son.

The next two days were days of torture to Felix. How he passed them he never knew. On the third came a letter in the well-known hand-writing, with the faint familiar odor of violets. He knew it was Violet's answer; and, though he was a strong, brave man, he trembled to open it. Within that folded paper lay the words that might effect the whole of his future life. Either Violet had written to say that for his sake she would give up wealth, luxury, and magnificence, or she had decided on giving him up to retain that to which perhaps her heart clung.

"It was the only test," he said, as he took the letter in his hand.

CHAPTER XLVIII.

This was Violet's response to Felix Lonsdale's request about dead Sir Owen's wealth—

"My dear Felix,—I have thought well over the matter recently discussed by us, and I have decided. I know that I am weaker than a woman—but I cannot give up my fortune. It seems to me such a foolish thing to do. After being accustomed to every luxury, I could not give it up. I love you, and shall always love you; but the test was too hard. I have pictured myself back in the old scenes, leading the old life, and I could not undergo it. I would most cheerfully share all I have with you, but I cannot give it up for you—do you think it was quite right to ask me?

"I do not suppose I shall ever be happy—but you will. I am not noble enough for you; and if you had married me, your disappointment would have been great. You will meet some day a noble woman whom you will love and marry, I know that, in saying 'good-bye' now, I say it for ever; but forever I shall be your unhappy "VIOLET."

He laid the letter down and looked at it. He had almost expected such an answer, yet his disappointment was great, and his eyes filled with tears. It had been very sweet and very dear to him, this precious love-story—and the end was sorrow; still he could not be surprised.

"She has chosen that which she loves best," he said; "and I cannot blame her now. I must try to forget her."

He did it bravely, as he had done it before. He threw his whole heart into his work, and fought inch by inch with the great master-passion of his life.

For some time after that it was rumored in Lil-

ford that Lady Chevenix was not well; that she had lost her color and her spirits; that she was ill and saw no one. Then quite suddenly she sent for Darcy Lonsdale, and told him that she had come to the conclusion that the air of Garswood did not suit her; that for the future she intended to divide her time between London and Paris. To his surprise, she added that the Marquis of Renmore had offered to buy the Garswood estates, and that she thought of selling them to him; but it would be only on condition that he retained Darcy Lonsdale as his agent.

After some months, during which Lady Chevenix and Felix never met, this was accomplished; but her ladyship's removal was prevented for a time by the sudden death of Francis Haye. Then Mrs. Haye sold the Limes and went away with her daughter. So it came to pass that, before six months were over, the names of Chevenix and Haye were no longer to be found in the county.

Great had been the surprise. The whole neighborhood was stirred. It was much to be regretted that such a change should take place. But Lord Arlington and Captain Hill said gravely that it was the best thing Lady Chevenix could do. She had suffered much at the Hall—she would probably begin quite a new life in an unfamiliar place.

The new occupants of Garswood—the Marquis of Renmore, with his two maiden sisters and a large household of servants—gave more satisfaction to the public in general than the wealthy Baronet had done. It was an excellent agency for the Lonsdales, who, by dint of industry and perseverance, were rapidly amassing a fortune. Darcy was growing old, and did not go so often to the office. The "small army" were rapidly growing up. Everything was prosperous and happy where so many trials had once seemed to threaten general destruction. Kate was one of the leading ladies now in Lilford—and very much she enjoyed the position. Time had softened Miss Lester, while Eve had grown more beautiful.

Felix worked on steadily. He still made his home with his father; but Katie, in speaking of him, said, with tears in her eyes, that some day Providence would reward him for his goodness to them, and that he would find a wife worthy to be his partner for life.

He went to see Evelyn when he had an hour to spare; they were the best of friends. Years afterwards he saw how she had guided him without ever seeming to advise—how she had influenced him without ever seeming to use her influence; and when he began the great battle of political life she was his right hand.

The time that had been foreseen and prophesied had arrived. The borough of Ordstone was vacant, and through the interest of Lord Arlington, Felix had been returned.

It was no surprise, for every one had prophesied it. Genius must and will make its way to the front when it is allied with perseverance and industry; genius alone does little.

"M. P. for Ordstone." Felix Lonsdale was pleased—he exulted as men exult. He had now a foremost place—he had made a name. Like all other men worthy of anything, he was ambitious; and it seemed to him that his ambition would be realized.

On the evening of the day of his election it was some relief to him to escape from the noise of the crowd, and spend a quiet hour with Evelyn. How she rejoiced with him! How she exulted in his success! How wise and sweet she was in her counsel! It seemed to him as though his soul had found one more than a friend.

"My foot is on the first step of the ladder. Eve, how high shall I climb, do you think?"

He never forgot the beautiful earnest look on her fair face as she answered—

"As high as heaven, I hope."

And those few words, spoken by the tender lips of a noble woman, were to him like an eloquent sermon. From that hour his life seemed to have higher aims; and into it came no dream of love, until one day, Katie having some leisure, had a long conversation with him."

"Can you understand an allegory, Felix?" she asked him."

"Yes, I think so," he replied. "Try me, *madre*."

"There was once a man," began Kate, "who stood with his feet firmly planted upon the earth and his eyes very often looking up at the clouds. At his feet lay a most beautiful pearl of priceless value, and at a distance lay a worthless piece of shining glass. This man of whom I speak trod upon the pearl until it was almost hidden in the dust, while he went eagerly in search of the bit of glass. Do you understand, Felix?" she asked, after a few minutes,

"Only very vaguely, *madre*. I am the man. I recognize the bit of shining glass but not the pearl."

"Not the pearl!" repeated Kate. "Well, that proves what I have often thought, that, while men may be clever and keen and intellectual, they may, at the same time, be blind as bats. That pearl has been under your eyes for many years. Ah, I see you do not understand!"

Nor did he. Kate went on talking to him.

"You will be a man of mark, Felix—every one says so. But you will be like all other men; you will want a good wife. If the facts could be got at, it would be found that some of the greatest men of the day owe much of their fame to the wise guidance of a wise wife."

"I believe that," he replied; "but—ah, well, we need not talk about it, *madre*. I suppose a man's fate is settled for him."

"A man's fate is just what he likes to make it," declared Kate, "When you are inclined to marry, never mind beauty; look out for a noble woman—nobility of character is far better than beauty."

The words struck him as being but the repetition of other words written to him.

"The world is full of noble women," Kate continued. "Look at Eve Lester, Where would you find one sweeter, more gracious or noble? She is true and tender and earnest; she has a fund of clear, common sense; she has a vivid, bright imagination, a quick, poetical fancy; and, as for beauty, I see more in her sweet fair face than in any face I have ever seen."

"Eve Lester!" he cried. "Certainly no woman could be nobler. Oh, *madre*, is she the pearl?"

"Yes, you most blind, most dear, most obtuse of good boys! She is the pearl, and you never saw her in your hurry to pick up the worthless shining colored glass."

Eve Lester. How blind he had been! He looked up at Kate.

"Do you know, *madre*," he said, "she has been so much part of my life—all my life—that I have never thought of her apart from myself."

A wise woman always knows when she has said enough. Kate turned the conversation; nor could he persuade her to say more about Eve. But the idea had taken hold of him; and Kate smiled softly to herself on seeing how deeply he was engrossed in thought during the remainder of that evening.

Felix had never realized until then what Eve was to him. He went back over all his life. She had been his adviser, his counselor, his friend. She had aroused all noble thoughts in him, all great desires, She had fired his ambition; she had shown him his road in life. He had never dreamed how much he owed to her influence until he thought all this over.

He remembered how, in the darkest hour of his father's life, when earth was all cold, and the heavens seemed made of brass, she came to his house like an angel of light and consolation. She had offered him her all, and was honestly grieved because he would not take it. As Felix sat thinking of her, he recalled a thousand instances of her sweet wisdom and goodness.

"It is true," he mused! "we are sometimes perfectly ignorant of our greatest blessings. I should never have known all that Eve has been to me until I lost her."

Under this new light, he said to himself that he must see her, he must go over and talk to her, he must discover that she really was to him—how dear, how needful—and he would do it at once: there should be no delay.

He went the next day, and the result of their conversation was that he did not leave her until she had promised to be his wife; for he found out that she loved him, and had loved him only all her life—he found out that he had indeed been blind and foolish, for she was really the one great treasure of his life.

The engagement afforded the greatest of pleasure to all their friends; there was not one dissentient voice. And now indeed Kate Lonsdale was happy.

"I shall be the dowager Lady Lonsdale," she said to Eve, with a happy laugh. "There has been only one mistake from the beginning. Felix ought to have chosen you from the first."

Eve asked him one day—

"Why do you always call me 'Pearl,' Felix? It is not my name."

"It is my name for you," he replied, "and I shall use no other." But he never told her why; the past conversation between Kate and himself remained a secret.

There could have been no happier marriage. Felix had a beautiful house prepared for his wife—not the pretty cottage orne where his golden-haired love had stood and decided that it was not good enough for her, but a fair and pleasant mansion, standing in the midst of sunny grounds—a home that a princess might have envied because of its artistic beauty and bright aspect.

It was a quiet wedding, but Eve would have it so. She would have neither carriages nor a train of bridesmaids, nor children strewing flowers, nor any of the ceremonies that attend a country public wedding. She walked quietly to the dear old church at Lilford, looking very fair and sweet, with the light flush caused by the morning air on her face. The sunlight streamed in at the windows as she plighted her faith to the only man she had ever loved, and whom she was to love for ever.

Then Felix took her away to the Lakes, and they were very happy.

They were sitting one day on the border of Windermere, when Eve raised her sweet face to her husband and said—

"Felix you love me very much now?"

"Yes, my pearl—more than you know," he replied.

"Do you—do not be cross with me because I ask the question—do you ever think of Violet?"

He took her hands in his own and kissed them.

"Listen, darling," he said. "I will answer you in other words than my own—sweeter indeed than any words that I could say—

"'Within the kingdom of my soul
I bid you enter, love, to-day—
Submit my life to your control,
And give my heart up to your sway.

"'One only thought remains apart,
And will for ever so remain;
There is one chamber in my heart—
There even you might knock in vain.

"'A haunted chamber, long ago
I closed it, and I cast the key
Where deep and bitter waters flow
Into a waste and silent sea.

"'Dear, it is haunted. All the rest
Is yours; but I have shut that door
For ever now. 'Tis even best
That I should enter it no more.

"'No more. It is not well to stay
With ghosts; their very look would scare
Your joyous loving smile away—
So never try to enter there.

"'Check, if you love me, all regret
That this one thought remains apart;
Now let us smile, dear, and forget
The haunted chamber in my heart.'"

When he had finished, he bent down and kissed the fair face, and Eve, knowing the way to his heart, said—

"I am quite content, and I can trust you."

And they talked of other things, while the sun shone over the lake and the birds sang their sweetest. THE END.

A HAPPY CONCEIT.

When to the flowers so beautiful
The Father gave a name,
Back came a little blue-eyed one
(All timidly it came),
And standing at its Father's feet,
And gazing in His face
It said, in low and trembling tones,
"Dear God, the name thou gavest me,
Alas! I have forgot!"
Kindly the Father looked him down
And said, "Forget-me-not"—
"My Peach Bud."

[*From the Golden Era.*

UNITED THEY STOOD.

The Only Day Upon Which the Americans and English Fought as Allies.

An English paper published in Shanghai, China, gives this reminiscence: Thursday, the 4th of April, was the anniversary of the battle of Muddy Flat, which occurred in 1854, and is, we believe, memorable as the only occasion when the American and British flags were united or allied against an enemy. The volunteers' flag, destroyed at the fire at the British consulate, bore these words: "4th April. Defence not Defiance." Few remain now in Shanghai who were present and took part on that memorable occasion, and a few scraps from memory of the event may not be uninteresting to the volunteers of the present day. For some time previously the Imperialist soldiers (or as they really were—rabble) were encamped outside the Defence Creek, their camps extending from the Joss House at the Soochow Creek nearly up to the turning of the race course at Probst's Garden. They had made several fruitless attempts to drive the rebels from the city.

The Imperialists were, however, a continual source of annoyance to all foreigners, for as their encampment was on the edge of the creek they would insult foreigners and even ladies while walking on this side of the creek. They for several days cut off our market supplies, compelling us to fall back on Crosse & Blackwell. Notwithstanding repeated remonstrances from the consuls to the Chinese commanders, they refused to retire to a distance, or stay their insults or encroachment. One source of great danger was, that they used to place their targets for ball practice in such a position that the ball would come hissing near the persons of foreigners while taking exercise on the road. At last, becoming emboldened, they assaulted a lady while being carried in a chair, and wounded her husband, and it was determined to expel the intruders by force. It was, therefore, arranged by the American and British Consuls that they should unite their forces, call out the volunteers and all foreigners to assist the naval force to drive away the Imperialist army.

The volunteers to a man turned out under Captain Wade, then her Majesty's vice-consul. The force, under the command of Captain O'Callagan, of the Encounter, and Captain Kelly, of the Plymouth, marched out to the spot on the Maloo, between the Racket Court and the old Grand Stand, the American force taking ground where the municipal stud are stabled. It had been duly notified to the Imperialist commander that they would be given up to three P. M. to move off, but as there were no signs of their complying, at the moment of three o'clock, as if by magic, a shell from each gun fired by the American and English forces fell bursting into the encampment, a general stampede followed, and the country to the westward, so to speak, blackened and blued with the figures of hurriedly retreating soldiers. Not one of the foreigners had the slightest idea that the camp contained so many soldiers.

After the first shelling, when the soldiers had apparently evacuated the position, the foreign forces approached the works; in doing so they were fired upon by the soldiers stationed at the guns pointing from concealed port-holes, when Mr. Gray, of Russel & Co., was wounded, losing a leg. Captain Pearson, of the American ship Rose Standish, received a mortal wound in the face. The carpenter of her Majesty's ship Encounter was killed, also a seaman of the United States ship Plymouth. Mr. Brine, an English merchant, one of the volunteers, received a mortal wound in the head. Some minor casualties were also received. It was not ascertained how many men were killed of the Chinese. Their encampments were completely destroyed. In consequence of the determined action of this handful of foreigners, the Chinese commander considered it prudent to move off to a more respectful distance. The whole affair was very pluckily carried out. About 400 foreigners in all bravely left their houses, and attacked, it was estimated, about 15,000 Chinese intrenched with several large guns in position. And so vast the number of Chinese who followed the rear of the foreigners, and remained between them and their homes, that, had they had any sympathy for their countrymen they had only to oppose their return, and the foreigners would have been attacked front and rear, and not one could have escaped. The rebels, seeing the success of the foreigners, came out and completed the destruction of the encampment.

SCIENCE GOSSIP.

The Milk of the Cow Tree.—Alexander Humboldt remarks that among the many very wonderful natural phenomena which he had during his extensive travels witnessed, none impressed him in a more remarkable degree than the sight of a tree yielding an abundant supply of milk, the properties of which seemed to be the same as the milk of a cow. The adult Indians would go each morning with their slaves from the village or station on the slope of the mountain chain bordering on Venezuela, where Humboldt was stopping, to a forest where they grew, and, making some deep incisions into the trees, in less than two hours their vessels, placed under these incisions, would be full. All present would then partake of the milk, on which the slaves grew fat, and a quantity would be carried home to be given to the children and to be mixed with cavassa and maize. The tree itself attains a height of from 45 to 60 feet, has long alternate leaves, and was described by Linden as *Brosimum galactodendron*. The milk which flows from any wound made in the trunk is white and somewhat viscid; the flavor is very agreeable. Some time ago, on the occasion of M. Boussingault going to South America, Humboldt requested him to take every opportunity of investigating this subject. At Maracay the tree was first met with, and for more than a month its excellent qualities were daily tested in connection with coffee and chocolate; but there was no opportunity for a chemical analysis. Nor does such appear to have occurred till the other day, when amid many curious things exhibited by the Venezuelan Government at the Paris Exhibition, there happened to be several flasks of this milk, and after a long period M. Boussingault has been enabled to complete his analysis of this substance, which is unique in the vegetable world. In a memoir laid before the Academy of France he gives a detailed analysis, and concludes by stating that this vegetable milk most certainly approaches in its composition to the milk of the cow; it contains not only fatty matter but also sugar, caseine and phosphates. But the relative proportion of these substances is greatly in favor of the vegetable milk, and brings it up to the richness of cream, the amount of butter in cream being about the same proportion as the peculiar waxy material found in the vegetable milk, a fact that will readily account for its great nutritive powers.

What comets may really in structure and character be, remains almost as difficult confidently to state as it was two centuries ago. That they are not solid masses every one is agreed. It seems probable that even the nucleus, when brightest and apparently most condensed, is, if a single body, a quantity of glowing gas, not a solid or even a liquid substance. It is remarkable that not only the tail, so called, but even the nucleus itself, is as a rule so thin that a bright star can be seen through it scarcely dimmed. What the tail may be is even more perplexing than the question of what the head and nucleus of the comet may consist. The tails have sometimes extended over more than a quarter of the heavens; that is to say, have reached from the zenith to the horizon, and from their ascertained distance have been calculated to occupy a length of not less than ninety millions of miles, or very nearly the distance of the earth from the sun; so that when the head of the comet was passing the sun in his immediate neighborhood, the extreme end of the tail might be almost in the immediate vicinity of our planet.

A correspondent of the London Garden says, "Many years ago a friend gave me a simple receipt for ink for writing on zinc, which I have constantly used since. It is twelve to sixteen grains bi-chloride of platinum dissolved in one ounce distilled water. If kept corked, a small bottle will last many years. The zinc labels must of course be cleaned before using. This is readily done by rubbing either with fine emery paper or with very dilute oil of vitriol. Then simply write the name and allow the ink to dry. I have used labels of this description for years, and have never lost a name since adopting them. They have been found equally suitable for the house or the open air."

A valuable glue can be made from chestnuts by freeing them from the shells, grinding the kernel into a flour, mixing it well and washing in water and passing through a sieve. The fine floury mass so obtained is washed in clear water several times and allowed to settle. The sediment or starch thus deposited is dried in the air, and again treated with chlorine water, washed again and made into a glue similar to that made from starch. The advantage of this glue is that it will retain its liquid state even at a cold temperature, while common glue must have a constant fire to keep it ready for use.

A hint to those who may have occasion to break up stone or use stone-breaking machines may be found in the announcement by Tournone of the result of certain experiments in regard to the crushing of stone. In the experiments with chalkstone dried in the air and wet, it was found that the ratios of crushing force required were in the proportions of 36, 23 and 18. Another experiment gave 36, 23 and 12, and still another gave 52, 26 and 21. It will thus be seen that by wetting the samples the force required for crushing was considerably reduced.

A new method of treating fish has lately been patented by Mr. Samuel Bliss, of Chicago, the object of which is to preserve the fish with a less quantity of salt than is usually required. This consists in the addition of a little glucose to the salt, by means of which fermentation or any souring or putrefaction is said to be readily prevented, and without imparting any taste to the flesh. It is claimed that no matter how long the meat is kept in the pickle, it will be sweet and retain much of its original flavor.

The application of the cones of certain species of pine in tanning has lately been made very advantageously in France, the leather prepared with them being in every way equal to that in which oak bark has been employed. These cones are gathered in the pine plantations, and quite a limited district has furnished one hundred tons annually.

"Sympathetic pipes" are a recent novelty. The bowl of a meerschaum may be colored in five minutes, by first tinting it with a solution of nitrate of silver in ether and alcohol, to which essence of roses and camphor are added. Figures of any pattern are produced by the heat of the tobacco, and when produced are permanent.

A Boston telegraph clerk smiled when he gave a man this message from his wife: "Unto us a child is born, nine feet long by two feet wide;" but the man understood it meant that he should buy an illuminated Easter text.

Domestic Economy.

CONDUCTED BY EMILY MAPLE.

LOG-CABIN SKETCHES; OR, JESSIE SEABRIGHT'S DIARY.—No. 4.

MAY MAPLE.

Self-Helpful Woman.

MARCH, 15, 18—Evening.

IT is something less than a month since Mrs. White came for the first time to spend the day with me. I think it will be a day long to be remembered; to her do I owe the suggestion, "Help thy neighbor, and in so-doing thou shalt help thyself." She is not without means, as so many are. But she has not one bit of ingenuity in her make-up. She cannot make herself comfortable without going directly to the market, upholsterer and mantuamaker; and in this country none of these is to be found. She knows nothing of self-reliance and is therefore dependent almost entirely upon hired help, and servants are not always prudent, especially with other people's property. I had heard of this lady long before I became acquainted with her; and sometimes had been selfish enough to wish that she were a near neighbor—she lived several miles from us—for I believed we might help each other.

She had not been in the house an hour before she said: "Mrs. Seabright, I wish you and your husband would come to my house and make me a couple of easy-chairs, like yours. I see you have half-a-dozen good enough for the President. I think your John must be a pretty good carpenter."

I very soon informed her that John had nothing to do with the manufacture of my easy-chairs.

"But you don't make the frames yourself?" When told they were old barrels and boxes, she fairly shook with laughter.

"Well, if you will come and make me a couple, I'll give you a dozen yards of good calico, and more if that does not pay you. I haven't had so comfortable a seat since we left our home in Ohio, two years ago."

Of course, I said that I would help her in any way I could. Yesterday I had an opportunity to ride over to Mrs. White's, and when I came away she had two handsome easy-chairs, and I was rich with my twelve yards of new calico and a bundle of half-worn clothes to make over for Bertie when he should need them, and some old, bright flannels which she said I could and would find use for; while if she kept them, they would be in the way and furnish food for the moths.

To-day I have made a lounge. Almost every day I thank my "lucky star" that I was a so-called hoiden in my youth; and learned, with my brothers, to use the hammer, axe and saw. How I wish girls were more frequently encouraged to use the tools of the carpenter and the farmer, instead of being ridiculed if they show any aptitude in driving a nail or spading a bit of ground. But my lounge! First a half-dozen sticks of wood, which chanced to be bird's-eye maple, were selected from the wood-pile. These were about fourteen inches long, and after they were hewn off smoothly, were about two inches square. These made three legs to each side; for, in the absence of boards, the rest of the frame must be made from my pile of "shakes" that was growing beautifully less; and, of course, it would take two lengths for a side, one at each end, and one in the middle for a brace. These pieces were nailed firmly to the legs; then some strips or cleats were placed lengthwise inside, an inch or two lower down than the top of the frame to serve as slats, which were also made of the shakes, sawed the right length, and then tacked to their places, and the frame was completed. Bertie claps his hands and hurrahs for "mamma's 'ittle bed-'ted."

A tick was quickly made of a coarse sheet; and then Bertie and I took a stroll down to the woods, basket and tick in hand; for I had neither sea-grass, hair, nor straw for a mattress. But there was plenty of nice long moss growing on the north side of the old forest trees. And this would make very good cushioning till we could raise some nice bright straw. The spring air was soft and balmy, and I fancied fragrant with the sweet odors of some far-off southern clime. My little boy and I really enjoyed the out-o'-door exercise; for while I gathered the long fringy moss from the stiff old dowagers and their liege lords, Bertie managed to put quite a quantity into the wide-mouthed sack; and it was not long ere we returned, he with the basket, and I with a well-filled cushion, which I doubted not might need refilling several times before the harvest. Now for the covering. My new calico was a neat, small figure with a brown ground, and would correspond very well with my chair covers. Two yards were torn off and then cut in two lengthwise for the valance. The raw edge was turned down, then laid in plaits and tacked to the upper edge of the frame work; another piece was torn off nearly the length of the tick and a strip six inches wide was sewed on around the breadth; the lower edge was fastened to the under side of the cushion with strong thread after the cover was put smoothly over it. When it was all completed, I viewed my handiwork with a good deal of satisfaction, and I must say pride. It was strong, looked neat and comfortable, and I knew it would be an excellent resting-place. And oh! how many times it would save me from mounting the ladder with Bertie in my arms, to put him to bed on a hot summer day. One thing still is lacking, and that is a pillow. I will make that to-morrow if the weather keeps fine, so that Bertie and I can go out to the woods for more moss.

"Jessie, why didn't you make this comfortable piece of furniture a long time ago?" says John, as he awakes from his evening nap and stretches full-length upon the lounge. "If you have any more such pleasant surprises, bring them along. I expect to come home some night from the woods and find our log cabin turned into a palace."

SOME OF THE MANY WAYS TO COOK SPINACH.

No. 1.—Wash and cook twenty minutes in salted water and then drain and chop fine. Put into a pan over a slow fire with a tablespoonful each of butter and cream, with pepper and salt to taste; stir constantly while heating. Turn over thin slices of buttered toast.

No. 2.—Boil, drain and chop same as in No. 1.; put back on the stove, with a spoonful of butter, and pepper and salt to taste; beat until hot and turn into a deep dish; cover with a dressing of the yelks of four hard-boiled eggs, rubbed and mixed to a paste, with a tablespoonful of melted butter, one of cream, and lastly one of vinegar. Spread this dressing over the top and garnish with a border of ringed whites.

No. 3.—While the spinach is boiling prepare a teacupful of butter beaten to a cream, after which add the raw yelks of two eggs, salt and pepper and a teaspoonful of made mustard; mix thoroughly and add a teacupful of thick cream. Stir this dressing with the chopped spinach; return to the fire to heat, being careful to take off just as soon as hot, that the egg may not separate.

No. 4.—Cook twenty minutes, drain and chop fine; return in a sauce-pan to the fire, with a tablespoonful of butter and three of good gravy; salt and pepper to taste. Stir lightly until quite dry; then fill egg-cups, which have first been dipped into hot water, with the mixture; press down and turn upon a flat dish. Place a slice of egg upon each cup-shape.

MARY B.

COFFEE EXTRACT.

ALLUDING to our remarks on the above named extract in RURAL of last week, a friend sends us the following:

"ESSENCE OF COFFEE.—A highly concentrated infusion of coffee, prepared by percolation with boiling water, gently and quickly evaporated to about ⅓ or ¼ its bulk, and mixed with a thick aqueous extract of chicory and sirup of burnt sugar, so as to give the whole the consistence of treacle. The proportions of the dry ingredients should be: coffee, 4 parts; chicory, 2 parts; burnt sugar, 1 part. It should be kept in well corked bottles in a cool place. This resembles the advertised essence of Dunn and other makers. It is convenient for extemporaneous coffee; but the beverage so made is inferior in flavor, aroma and piquancy to that made at home."

ANOTHER. — "SEARLE'S PATENT COFFEE.—This is prepared by evaporating skimmed milk mixed with 1-40 part of sugar, at a low temperature, and, when nearly solid, adding a *very concentrated essence of coffee*, and continuing the evaporation at a low temperature (in vacuum if possible) until the mixture acquires the consistency of sirup, (Coffee Sirup) paste (Coffee Paste), or candy (Coffee Candy.) The last may be powdered, (Coffee Powder, Dry Essence of Coffee)."

BARLEY FOR BUCKWHEAT.

MRS. COL. F. D. CURTIS, of Kirby Homestead, writes as follows to the N. Y. Tribune: "Baunocks o' bean meal, bannocks o' barley: Hey! for the Highland man's baunocks o' barley!" Burns believed in barley cakes, and so do we. It is now time to put buckwheat aside, and there is no better substitute than barley. They are light and wholesome. Dyspeptics who cannot digest buckwheat cakes, have no trouble with barley. They can be eaten all summer. Every farmer ought to sow a couple of acres in order to have barley flour, which will make a good saving in the cost of wheat, besides being more wholesome, especially for children. Barley and oatmeal are staples in every Scotchman's home, and help to make the stalwart forms and rosy cheeks which characterize the men and women of that land. Barley biscuit are nice and more healthful for supper than those made of wheat. Flour (the Colonel says so) will be high another year, and this spring is the time to prepare to supplement it with barley."

QUESTIONS ANSWERED.

Scrambled Eggs and Mending Crockery.

WILL you please give me through the columns of your department recipes for the above. ANNIE HOPKINS.

ANS.—For scrambled eggs: Have a frying-pan hot and buttered; break half a dozen eggs into a flat dish and carefully slip, without breaking the yelks, into the hot pan; sprinkle over a very little salt and add a piece of butter the size of a walnut. When the eggs begin to whiten, stir carefully from the bottom until cooked to suit. Care must be taken not to have the pan too hot. The mixture when done should be in large flakes of mingled white and yellow. Three tablespoonfuls of rich cream may be substituted for the butter.

To mend crockery: Lime and the white of an egg mixed thoroughly together make one of the strongest cements as also one of the easiest to apply. Shave off a small quantity of lime and mix only enough with the egg to mend one article at a time. Apply quickly to the edges and place firmly together when it will very soon set and be strong.

Blue on Cotton.

I took the recipe for coloring blue on cotton to my brother, who is a druggist, and he did not know which of the two kinds of prussiate of potash to use. Will you please tell me?

M. I. M.

ANS.—Yellow.

News of the Week.

MISCELLANEOUS.

Monday, April 14, 1879.

On Friday the 4th inst., subscriptions to the 4 per cent. loan amounted to $59,000,000, enough to redeem all the outstanding 5-20, 6 per cent. bonds. On Jan. 1st last, there were outstanding of the latter $350,000,000, and all these have now been replaced by bonds at 4 per cent. interest, making an annual saving of about $7,000,000 to the country in its interest account. The army appropriation bill has passed the House with that "rider" prohibiting the presence of U. S. troops at the polls. It will undoubtedly pass the Senate too. Then will the President veto it on account of its "rider?" And if so, will Congress refuse to grant money to pay the army, and in that way cause its collapse? These are exciting questions for politicians, but the country at large seems pretty confident that in any case, the nation is in little or no danger. As surmised here five or six weeks ago, Andrew D. White, president of Cornell University, has been nominated to succeed Bayard Taylor as our Minister at Berlin. His appointment has been confirmed by the Senate and gives general satisfaction. Clarence King has been appointed and confirmed as Director of the newly-created Geological Survey, whose object it is to thoroughly explore and map out all the geographical features of the country, especially of the Great West. That Advisory Board of officers appointed to investigate the grounds on which Gen. Fitz-John Porter was brought in as guilty of misbehavior in the field and consequently cashiered away back in 1862, has officially reported that his conduct during the Pope campaign was in every way praiseworthy and that he contributed largely to the salvation of the army. The evidence and "finding" reflect severely on Gen. Pope and still more so on Gen. McDowell.

One of the most remarkable social phenomena of the times is the exodus of negroes westward from some of the Southern States. Hitherto the movement has been chiefly confined to Louisiana and Mississippi, but it is rapidly spreading into other Southern States, and especially into those sections where bull-dozing is reported to have been practiced at elections. In the Pelican State whole parishes are denuded of their best laborers, planters are unable to obtain advances from their factors owing to the uncertainty of their being able to raise a crop through lack of laborers; real estate is rapidly depreciating from the same cause, and embarrassment and ruin are staring the helpless planters in the face. Fully 5,000 colored emigrants are reported already to have passed through St. Louis on their way to Kansas, and this is deemed merely the commencement of the movement.

In some parts of the South a species of mania appears to have seized upon the colored population impelling them to quit the land of their bondage and to seek elsewhere the Promised Land which they at present seem to think located somewhere in Kansas. Numerous causes have contributed to this hegira. There has been a glut of labor, in comparison with capital to utilize it, in some parts of the South for years, hence low wages; among planters there has been a great reluctance to break up large estates, so that the negro might get a chance to own a roof-tree and garden patch of his own; in many cases the rents charged to colored men have been ruinously high so that after a year's hard work and scanty rations, nothing is left to reward their toil and economy; retail dealers have been in the habit of charging exhorbitant prices for poor merchandise, their greed being limited only by ability of the negro customer to pay; all chance of social amelioration of their condition is nearly everywhere denied them; political troubles often endanger their lives, and the dread of them is a constant disturber of their peace. For all these reasons it is only natural that in their ignorance they should be willing to flee from the evils which they know of in search of the blessings which they hope for.

Then, again, there is ample reason for believing that the exodus has been strongly stimulated by disreputable tricksters who hope to make money out of it, and by unscrupulous politicians who desire to make political capital from it. The former are still promising those "forty acres and a mule" which have been the negro's hope since the late "unpleasantness," and the latter are urging him westward in order to lessen the population of the South by the time the census is taken next year, and so diminish the number of Congressmen from that section. Kansas is reported to be making exertions to afford ready employment to the swarms of negro immigrants. A National Emigrant Aid Society has been established in Washington, under the auspices of a number of "stalwart" Republicans, to encourage the emigration and aid the emigrants. Branch offices will probably soon be opened elsewhere, and a vigorous effort made to depopulate the strongholds of democracy in the South and "colonize" with stanch Republicans weak democratic sections in the West.

FOREIGN.

In England the reduction of wages is still being steadily enforced by employers in spite of the fierce opposition of workingmen. The former insist that to preserve the trade of the country they must manufacture goods cheaply enough to be able to compete in prices with those made elsewhere, especially by the cheap labor of Belgium, Germany and France, and by the machinery of this country. The men say cut down the profits of manufacturers and middlemen but leave the producers the bare livelihood they now get. Upwards of 30,000 coal hewers are now on strike, but the distress among them is so great that they must soon resume work on any terms. Agriculturists also are in a sorry plight, farms are going begging for tenants to work them and within the past year upwards of 1,000,000 acres have gone out of cultivation. Heavy snows still prevent active operations out in Afghanistan. Negotiations are still in progress with Yakoob Khan, but making slow headway. On the advent of milder weather some lively fighting is expected as it is not thought likely that the Khan, will submit without at least one defeat, and the half-savage mountaineers in rear of the British are reported to be ready to fall on them so soon as active operations are renewed. Down in Zululand about 5,000 Zulus fell upon a supply train of 105 English and killed nearly all of them. Col. Pearson is still surrounded by vast masses of Cetywayo's followers, and although a relieving force is being hurried forward as rapidly as possible, fears are entertained that it may arrive only after another massacre. *Per contra* Cetywayo's brother with 300 followers, has unconditionally surrendered to the British. The Zulu ruler years ago, killed the rest of his brothers, lest they should aspire to his sovereignty, and he is now probably sorry he didn't kill this one also, as the submission was probably prompted by a hope that the British may substitute him for his brother as ruler of the country after the latter has been crushed.

A vote of censure against Sir Bartle Frere, whose hasty action brought on the Zulu war, and against Lord Chelmsford, to whose military incapacity the British misfortunes are attributed, was introduced during the week in the House of Commons, but Disraeli's Cabinet contrived to have it defeated, though by a smaller majority than they usually command. The Khedive has finally dismissed the English-French-Egyptian Cabinet which has, for some time back, been endeavoring to extricate the country from the financial difficulties brought upon it by its ruler's extravagance. A ministry composed entirely of Egyptians has been appointed in its place. The English and French governments to whose subjects the country is mortgaged, protest vigorously against the change as likely to lead soon to national bankruptcy. Under their influence the Sultan, the Khedive's suzerain, is disposed to remove him and appoint his brother to rule in his stead. Some years ago, however, the Khedive paid a large sum to the Porte for a firman, guaranteeing to his descendants the government of the country, and at present it would seem like a breach of good faith to recall this firman without refunding the price paid for it. But, after all, no dishonesty or lack of good faith seems to deserve surprise or indignation in Oriental affairs. It is also supposed that Russia and Germany, chiefly through the instrumentality of Italy, are strengthening the Khedive's backbone in his opposition to the demands of his English and French creditors.

HERMAN.

Balmy sleep, good digestion, rich blood, elastic step and cheerfulness in Hop Bitters.

The Perfume of a Hemisphere. — Throughout an area occupied by more than one hundred millions of civilized beings, Murray and Lanman's FLORIDA WATER is to-day the standard perfume in society.

Sore Throat, Cough, Cold, and Similar troubles, if suffered to progress, result in serious pulmonary affections, oftentimes incurable. "*Brown's Bronchial Troches*" reach directly the seat of the disease, and give almost instant relief. **25c. a Box.**

Breeders of Fine Dairy Stock

Should at once investigate the PERFECT CREAMER advertised in another column. It will enable them to realize the largest possible yield per cow, and thus enhance the value of their stock as well as increase *the value* of the product.

Makers of Gilt-Edge Butter

Or those that desire to become such should use THE PERFECT CREAMER, advertised in another column. Butter made by its use, is always rated Gilt Edge, and commands ready sale and an extra price.

THE MARKETS.

PRODUCE AND PROVISIONS.

NEW YORK, Saturday, April 12th, 1879.

BEANS AND PEAS.—The market for beans rests about where we left it. Mediums depend upon a limited trade for local use. Marrows are going out fast enough to make some firmness. Red kidneys are concentrated and holders make the price. White kidneys will have to drop closer to marrows to sell. Pea beans dull. Green peas steady at $1 70; So. B. E. peas, $2 50@2 55 per 2 bush. bag; Canadian in bulk and bond higher, 75@77c. Medium beans, choice, $1 30@1 35; fair to good, $1 15@1 25. Marrow, prime, free on vessels, $1 40; fair to good, $1 20@1 35; pea, $1 20@1 35; white kidney, $1 25@1 35; red, $2 50@2 70; black, $2 15@2 25. California Lima, $4@4 25.

Receipts for week, beans, 7,872 bush.; exports, 3,000 bbls.; do. peas, 6,675 bush.

BEESWAX—Has but little inquiry with 24@25c. quoted for Western and Southern.

BROOM CORN.—Offerings are not excessive and prices held steady.

Brush and short broom, choice, ₰ lb., 5½@6½c.; do. common to good, 4½@5½c.; hurl, good to choice, 3½@4½c; do., common to fair, 3@3½c.; red and crooked, 2@3c.

BUTTER.—Fresh stock is now the feature of real demand. Old has fallen into that uncertain position where "what will you give?" is the first question at the opening or closing examination of a lot. A few special savings for coastwise use, and a small line of home consumptive trade that insists on low-priced yellow at all seasons, brings more than our extreme. The bulk of both State and Western old must go out low. New butter fails to give general satisfaction. There is a marked difference in the quality compared with this spring and the early grass of '78. Most of the State seems purely hay-bodied. A few Delaware Co. and other marks show careful dairying and perhaps some grain feeding; these sell upon arrival. With weak stock it is the old spring story: the first indication of staleness starts it on a downward grade of prices.

OLD BUTTER ranges at 7@14c. for State, whole tubs, half tubs and firkins: creamery, 10@17c.; best Western dairy, 15@16c; other Western, 5@13c.; prime firkins, 7½@8½c.; grease, 4@4½c.

NEW BUTTER.—State pails and half tubs, choice, 17@18c.; good to prime, 15@16c.; fair to good, 13@14c.; Welsh tubs, choice, 16c.; good to prime, 14@15c.; fair to good, 13@14c.; poor to fair, 8@12c.; State creamery, best invoices, 22@24c.; good to prime, 20@21c.; fair to good, 18@20c.; Western, best invoices, 25@26c.; good to prime, 23@24c.; fair to good, 20@23c.; poor to fair, 18@20c.; imitation creamery, 14@20c.

CHEESE.—The export demand is slack, and the market is still unsettled.

Nominal for fancy; 8@8¼c. for fine lots; 6½@7½c. for good; 5½@6c. for fair; 2@3½c. for skimmed; 4@6c. for half skimmed. Wisconsin factory, fine and fancy, at 8@8½c.; do. good to prime, at 6½@7¼c. Western factory, fine 7@7½c.; good and prime, 5½@6½c.; do. full skimmed, 2@4c.; do. half skimmed, at 3@5c.

Liverpool cable, 41s., which is a decline.

Liverpool, steam 27s. 6d.

Receipts for week, 11,573 boxes.

COTTON—Has tended higher again thoough the week. On the fear that the ex ent of the new crop will be affected by the dissatisfaction among the laborers South. Closing prices are for April, 11.39@11.40c.; May, 11.49@11.50c.; June, 11.64@11.65c.; July 11.78@11.79c.; August, 11.90@11.91c.; September, 11.66@11.67c; October, 11.27@11.28c.; November, 10.93@10.94c.; December, 10.90@10.91c.

Quotations for spot cotton are based on American standard of classification, and on cotton in store running in quality not more than half a grade above or below the grade quoted:

	Uplands.	*N. Orleans.*	*Texas.*
rdinary	9 11-16	9 15-16	9 13-16
Strict ordinary	10 1-16	10 3-16	10 3-16
Good ordinary	10 9-16	10 11-16	10 11-16
Strict good do	10 13-16	10 15-16	10 15-16
Low middling	11 1-16	11 3-16	11 3-16
Strict low middling	11¼	11⅜	11⅜
Middling	11⅜	11½	11½
Good middling	11½	11⅝	11⅝
Strict good middling	12	12⅛	12⅛
M'dd'ling Fair	12⅜	12½	12½
Fair	13⅜	13⅝	13⅝

STAINED.

Good ordinary	9⅜	Low Middling	10¼
Strict good ordinary	10¼	Middling	11 1-16

DRIED FRUITS.—Apples are easy in price, and have a moderate trade demand. Peaches are held firm, but trade quiet. Small fruits are inactive.

Alden's evaporated apples are at 11½c.; Williams's at 11c.; new process apples at 8½@9c. State plums, 13½@14c.; Blackberries quoted at 4½c. Peaches—Peeled Georgia, 7@7½c. for poor; 8½@9c. for fair to good; 10c. for prime; choice North Carolina, 12@13c.; good do., 9@10c.; unpeeled halves, 3@3½c. quarters, 2½@3c. Pitted cherries, 20c. Apples—New, 2½@2½c. for southern quarters in bags; 3½@4½c. for prime sliced; do., fair at 3@3½c. State at 4@4½c. for new sliced; and 3½@4½c. for quarters; Western at 3½@4c. for new quarters. Raspberries, 27@28.

Exports for week, 1,607 bbls., apples.

EGGS.—Receipts for week, 19,937 bbls. Supplies have been materially below last Lent's open season. Sales have been liberal for Easter; but a lull must be expected after the Fast is over. The market has been kept lively by popular rates; annexed quotations have been current most of the week.

Near points, 14c.; State and Penn., 13@13½c.; Western, 13c.; Southern, 12@12½c.; poor lots, 11½@12c.; duck, 23@25c.; goose, 50c.

FEED.—Sales at 40 to 60 lbs. at $14.50@15.50; 80 lbs. at $14.50@15.50; 100 lbs. at $16@16.50.

FLOUR.—There has been more of a pressure to sell, and prices have ruled easy at a decline.

Latest prices are: $3 25@3.60 for interior to choice superfine State (fancy lots a shade higher); $3.65@3.90 for very poor to good extra do., odd lots and lines; $3.90@4.25 for good to very choice do.; $3.25@3.60 for inferior to very choice superfine Indiana, Iowa, Michigan, &c.; $3.60@3.90 for very inferior to good shipping extra do., and $3.90@4.25 for good to very choice extra do.; common to about choice white wheat extras, $4.25@5.35; choice to fancy do. at $5.35@6.25; red and amber winter wheat, very inferior to very choice trade and family, at $4.00@5.75 (fancy at higher figures); round hoop Ohio at $3.85@4.25, and trade and family brands of do. at $4.35@5.75, the latter rate for very choice (a few fancy lots held higher); St. Louis, $4.10@5.00 for very inferior to good extra; $5.00@6.00 for good to very choice (with a few very fancy brands up to $6.50@6.75; Minnesota clear, very inferior to very fancy, at $3.60@5.00, few brands going above $4.00; Minnesota clear, very inferior to very fancy, at $3.60@5.00, few brands going above $4.00; Minnesota "straight," very poor to fancy at $4.50@6.00; and patent poor to strictly fancy at $5.20@8.00, few brands going above $7.50; unsound stock at from $2.25@5.00; city mill extra at $4.85@5.20 for West Indies (the latter rate for fancy in new packages); do. for England $3.75@3.90; do. trade and family extras, $5.25@6.25; do. for South America, $5.15@5.65 for fair to very choice; No. 2 at $2.35@3.15 for poor to very choice.

FRESH FRUITS.—Apples have advanced, but the highest rates are only named for specials. The season is too close to detrimental weather to warrant holding or better figures. Exports for week, 4,300 bbls. New rates as follows: Spitzenburgs, $3@3.25 bbl.; Greenings, State, $2.50@3; do. Eastern, $2@2.50; Baldwins, $1.50@2.50; Russets, $2@2.25; common apples, $1.50. Cranberries are nominal at $7@8.50 for bbls. and $2.25@3 for crates. Strawberries are in market supply and prices are down to moving rates. Charleston and Florida, 25@35c. ₰ quart; hot-house, do. $1@1.25. Fla. oranges no longer of importance. Peanuts were pushed up in price anticipating the usual active spring trade. The weather, however, has been unfavorable, and with large receipts to come, sellers will be apt to shade prices. Va. hand-picked, $1.20@1.25; other, 90c.@1.05; shelled, 4½@5c. Pecans, 6@8c.

GRAIN.—All articles have been freely offered on tame English advices, and prices easier. Latest sales of wheat are of No. 2 Milwaukee spring at $1.04; No. 3 spring at 93@93½c; No. 4 spring at 86@88c.; rejected spring at 76@77c; ungraded spring at 81@86c.; ungraded amber at $1.10@1.11½; No. 2 amber at $1.10½@1.11½; ungraded red at $1@1.14½, higher price for fancy; No. 1 red at $1.14½; No. 3 red at $1.08½@1.09; No. 2 red at $1.13½@1.14; white State at $1.14; No. 1 white at $1.11½@1.12; No. 2 white at $1.09¼, ungraded white at $1.10@1.11½; New York No. 2 spring, May delivery, at $1.02½; No. 2 amber, April option, at $1.10½@1.11; do., May option, at $1.11@1.11½, do., June option, at $1.11½; No. 2 red, April option, at $1.15; do., May option, at $1.14; do., June option, at $1.14@1.14½; No. 1 white, April option, at $1.11½; do. May option, at $1.11½; do., June, at $1.12½; do., July at $1.12½. Rye at 58@60c. for Western, and 59@62c for State. Corn at for New York No. 2 at 45@45½c. New York steamer mixed at 44½@44½c.; No. 3 at 44c.; ungraded Western mixed at 43½@45c.; New York No. 2 white quoted at 48c.; round yellow at 47½c.; Jersey and Southern yellow at 45½@46c.; New York steamer yellow at 41½c.; white Western at 47½@48c.; New York No. 2, April option, at 45c.; do., May option, at 45½c.; do., June option, at 45½c., steamer mixed, April option, at 44½c.; do., May option, at 44c. Oats at for New York No. 1 quoted at 32½@32½c.; New York No. 2 white at 31½@31½c.; New York No. 2 at 31½@31½c.; do., May option, at 32c.; New York No. 3 at 31c.; New York No. 1 white at 33c.; New York No. 3 white at 31½c.; white Western at 33½@36½c.; mixed Western at 31½32½c.; white State at 36@40c.; No. 2 Chicago, afloat, quoted at 22c.; do., in store, at 30½c. Barley—No settled quotations at the close; feeding barley, 40c.

HAY AND STRAW.—Supplies are liberal and prices are easy on other than prime grades.

Sales at 40@45c. for shipping, and 70@75c. for retail qualities. Straw at 40@45c. for long rye, and 30@35c. for short rye, and oats at 35@45c.

Exports for week, 1,750 bales. The best hay now coming forward is Jefferson Co. This is used in first-class stables and is the only grade that brings our top retail price. River counties are losing their old-time prominence for choice supply hay; not that it is not raised, but the increased use along the river owns gives it a nearer market than New York.

HOPS.—Emmet Wells in his circular says: "A very fair trade has been doing, considering the advanced stage of the season. The shipments to Europe this week exceed the receipts by a little over a hundred bales. The scarcity or choice State hops has led to more inquiry for Pacific coast hops, but the prices asked for them are still above the views of holders, and but few transactions have taken place. It may now be safely said that the market has touched bottom on low grades; that is to say, merchantable hops will not be likely to go below five cents. Should the root and vine show signs of weakness in June, prices may materially advance. Vegetation is nothing like as far advanced now as at this time last year, probably owing to the wet, soggy condition of the ground, caused by the heavy body of snow; its effect upon the hop root will be known a little later on."

Quotations are for New York's, new crop, choice, 9@13; New York's, new crop, medium, 7@8; New York's, new crop, low to fair, 6@6; Eastern, 6@9; Western, 6@9; Yearlings, 2@4; Olds, all growths, 1@2; Pacific coast, 10@14.

MAPLE SUGAR.—The demand continues fair: retailers have this season adopted the common sense system of putting their price closer to wholesale figures. There is no good reason for a pound of this valuable product being carried over, if distributors will handle it without giving it the phase of luxury it once held. The same remarks will apply to honey and several other productions that have a crop magnitudes these later years. Vermont small cakes, 12@13c; State and Ohio, light, 11@12c.; dark, 9@10c.; old, 6@8c. Syrup in tin cans, 75c.@$1 ₰ gallon.

OIL CAKE.—Western is quoted at $27.

POULTRY AND GAME.—In live, prices have been well sustained, with a good demand and moderate supply. Spring chicks, 62@$1 ₰ pair; N. J. fowls, 15c.; Western, 13@14c.; Southern, 13@13c.; roosters, 7@8c. Turkeys, N. J., 16@17c.; Western, 15@15c. Ducks, choice, 90c @$1; other, 65@75c.; choice geese, $1.75@2; southern and Western, 75c.@$1.37. Pigeons, 35@40c.

The demand for dressed will be apt to increase after to-day, and with little offering prices are higher. Frozen are scarcer, which help the market.

Frozen turkeys, choice, 22c.; fair to good, 19@20c.; frozen chickens, 12@13. Dry-picked winter chickens, 25@30c. Spring, 35@38c.

Turkeys, best, 19@21c; the latter for Pa. dry-picked; other, 15@18c.; chickens, best, 20@22c.; other, 14@16c; fowls, choice, 15@16c.; other, 11@13c.; capons, 28@30c.; slips, 23@25c.; ducks, best, 20@22c.; other, 17@19c.

There is no extra demand, but prices are steady as supplies are moderate. English snipe, $1 25@1.37 ₰ doz; plover, $1.25@1.37; small snipe, 45@50c. W. pigeons, $1.50@.62; canvas backs, $1@$1.25; red head, 50@70c.; mallard 50@60c.; black, 50@55c.; common, 15@25c. Season must over for wild ducks.

PROVISIONS.—Have been in more active export demand, but at the close have tended lower on full offerings by speculators. Mess pork quoted at $10.40 for new for April; May at $10.40@10.45; June at $10.50, and July at $10.60. Bacon at $5.15@5..0 for long clear and 3½c. for short clear. Lard at $6.45 for spot; $6.42½ for April; $6.42½ for May; $6.50 for June, and $6.60 for July. Stearine at 6½c. for Western. Tallow at 6@6c for prime. Beef—Extra India mess, $19@23, as to quality; packet, $11@11.50; plain mess, $9.75@10.50; extra mess at $10.50@11.50.

SEEDS.—Clover is quiet at 5@6½c. for prime and choice Western.

TOBACCO.—There is a somewhat stronger feeling as to prices, but no absolute change.

	Light.	Heavy.
Common lugs	2½@ 3	3½@ 3½
Good lugs	3½@ 4	4 @ 4½
Low leaf	4½@ 5	5 @ 6½
Medium leaf	5½@ 6½	6½@ 7½
Good leaf	6½@ 8	8 @ 9
Fine leaf	8½@10	10 @11
Selections	— @—	12 @12½

SEEDLEAF.—CROP OF 1877.

New England wrappers,	common	10	@12
do. do.	medium	13	@15
do. do.	fine	18	@25
do. do.	selections	27½	@35
do. seconds		10	@13
do. fillers		7	@ 9
Pennsylvania assorted lots,	common	9½	@10½
do. do.	fair	11½	@14½
do. do,	fine	15½	@18
do. wrappers		20	@40
do. fillers		7½	@ 8½
New York assorted lots, common to medium		8	@10
do. do. do. good,		12	@15
Ohio assorted lots		9	@12
Ohio wrappers		12	@18
Wisconsin assorted lots		7½	@10

VEGETABLES.—Exports potatoes, past week, 1,550 bbls. There has been a general advance in potatoes. Few remnants expected to remain in market by the time the South begins to deliver new. Onions are easier; Bermuda stock now takes some of the local trade. Southern produce holds pretty stiff prices.

Bermuda onions, $2 50@2 75 bushel; do., beets, $1.50@1.75 crate. Charleston asparagus, $9 doz.; Florida green peas, crate, $1@2; Sav. and Chas. 12 50@3; Virginia kale, $1 50@1 75 bbl.; do. spinach, $3@3 50 Baltimore, do., $2@2 25. Virginia radishes, $1@1 50 ₰ 100 bunches. Hot-house rhubarb, ₰ 100, $1@3; radishes, $3@4; cucumbers, $2@2.50 ₰ doz.; mushrooms, ₰ lb., 50c.; lettuce, selected, 25@75c. ₰ dozen. Bermuda potatoes, choice, $10@11 per bbl.; Early Rose and Eastern, $3 37@3 62; State, choice, at $2 75@3 25; fair to good, $2 50@3; Peach Blow, white, in bulk, $3@3 50; red, $2.75@3.25; Prolific, $3; Peerless, State, $2 37@2 62; Jackson white, $2 50@2 75; Mercer, $2.25@2.37; (outside rate per double heads). Sweet potatoes, Md. & Del., $3 50@3 75. Bermuda tomatoes, $1@1 25 box. Onions, Eastern, white, ₰ bbl., $4@5; red and yellow, $4@4 50; Chester, $4@4 50. Squash, Hubbard, $3@3 50; marrow, $3. Cabbages per 100, $4@6; R. turnips, per bbl., $1@1.25; beets, 75c.@$1.00; carrots, $1@1.12. Horseradish per bbl., $3@7.

WOOL.—Trade has been sluggish through the week, but no concessions have been made in prices. The disposition among buyers is to await the appearance of the new clips.

Ohio, Pennsylvania and Virginia—XXX and picklock, 35@38c.; XX, 33@35c.; X, 32@34c.; No. 1, 34@36c.; No. 2, 30@32c; common, 28@30c.; combing, 36@36c.

New York, Michigan, Indiana and Wisconsin—XX, 30@32c.; X, 28@31c.; No. 1, 31@33c.; No. 2, 27@30c.; common, 26@28c.; combing and delaine, 33@37c.

Iowa, Vermont and Illinois—X and XX, 28@30c.; No. 1, 30@33c.; No. 2, 27@28c.; combing, 33@36c.

Missouri, Kentucky and Tennessee—Washed fleece, 30@33c.; unwashed fleece, 18@24c.; unwashed combing, 27@35c.

LIVE STOCK MARKETS

Saturday, April 12, 1879.

BEEVES.—Receipts for the week, 9,125 head; do., last week, 9,751 do. Friday was quite generally observed as a holiday, and the attendance at the yards was light and competition not vigorous. An early brisk demand is looked for as slaughterers' wants will now increase for a time. Bulls and rough oxen sold at 3½@4½c. The main trade in good to prime steers was at 9@10c, the extreme range, 8½@10½c. to dress 55@57 lbs.; 4,580 quarters of beef go out by to-day's steamers. A small drove of live sold for London.

COWS AND CALVES.—The reduced range, $30@50 per head for common to good milch cows with calves by their sides, does not perceptibly increase the demand.

VEAL CALVES.—State live continue to run poor. Prime calves a grade firmer than through the week. N. J. and Bucks Co., 6c.; good do. and best State, 5½c.; other grades, 3@4½c. Dressed calves not largely wanted, as the weather may soon turn souring; best, 7@7½c.; fair to prime, 5@6½c.; common, 3@4½c.

SHEEP AND LAMBS.—Receipts for the week, 16,107 head; do. last week, 18,572 do. The first clipped sheep of the season brought 4½c.; common to prime, unshorn, 5½@6½c.; yearling lambs, 6½@6½c.; fine spring lambs, $4.75@5.50 per head; poor and small, $2.50@3 50 do.; supplies not oppressive.

HOGS.—Receipts for week, 24,568 head; do. last week, 31,678 do. No live on sale. Nominal and full rate, 4@4½c. Country dressed pork, light, 6@6½c.; medium, 5½@6c.; heavy, 5½@5½c.; city, 5½@5½c. Pork tenderloins, 8@9c.; no more wanted.

TERMS FOR 1879.

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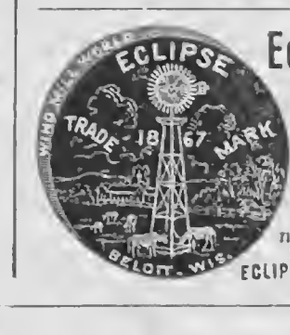

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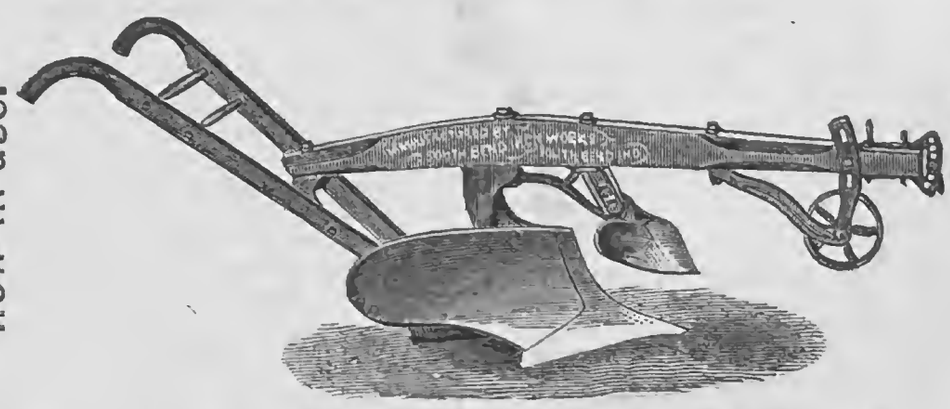

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Reading for the Young.

THE HORTICULTURAL CLUB.

AMONG the letters from boys and girls published this week, is one that gives a short account of how a little gardener raised 85 bushels of onions on half an acre of land. This shows indisputably what boys, and even small boys, can do when they have the opportunity and go to work with a will. I hope that many of the members of our club will take the hint and "go and do likewise." It will not only be pleasant work, but a snug little sum of money may be realized. It need not necessarily be onions; it may be cabbage, celery, tomatoes, or anything that will sell. Of small fruits, Strawberries are, perhaps, the best paying and most easily cultivated. Now is the time to plant them. Give the land a good coat of manure. Secure young plants and plant them in rows twenty inches or two feet apart and eighteen inches between the plants. Monarch of the West, Charles Downing, Triomphe de Gand and Wilson are good varieties. Pinch off the flowers that may appear this year, except a very few just to show you the fruit, the plants will be so much stronger for it next year.

But I want to speak this time more particularly about

FLOWERS.

And of these I will first take up annuals, and those treated as annuals, or that class of plants that grow from seed, blossom, bear fruit, and die in one year. There are a large number of varieties, but, of course, in a small garden you can only grow a few of the choicest. The seed of all of them may be sown in the open ground, but for most of the varieties it is better to sow it in boxes three or four inches deep, filled with a mixture of leaf-mold, sand and soil from decayed grass sod. Shake the soil down rather firmly, moisten it with a sprinkler, sow the seed and cover it lightly with sandy soil scattered on with the hand. But the very finest seed, such as Lobelia, should not be covered; simply pat it down with a small piece of board. Keep the boxes in a warm, though not sunny place, till the seeds germinate; but after germination the plants should have all the light they can get. When large enough they are transplanted to the garden. Asters, Stocks, Cockscomb, Phlox, Verbena, Petunia, Gomphrena, Zinnia, and the pretty little blue-eyed Lobelia, are best treated in this way. Mignonette may be sown in the open ground.

Of the perennial flowers, or those that last several years, always select such as are perfectly hardy, which you can find out from a Catalogue when you select your seed. Most of them can be raised from seed like the annuals, but in that case only a few will bloom the first year; others are propagated by dividing the roots. Hollyhock, Lily of the Valley, Paonia, Aquilegia, Hesperis and Campanula are examples of this kind of plants.

I wish to say also that you must be careful to label everything, so you can always know the names of your plants. Learn the Latin names. These are the names that all plants are known by the world over, in all languages; the common names are only local, and therefore, not of so much importance.

The Club is growing very popular. Names of new members are constantly coming in, and I hope that ere long *all* the cousins will join. As I have stated before, I will answer all reasonable questions in regard to the treatment of your plants. I will also say that I am propagating a number of rare plants, which I will send free of all charge to those members who send me the best notes of what they are doing in their gardens, and who take the most active, stirring interest in the club. This will be a standing offer.

Numerous essays have been sent by the competitors for

THE PRIZES

I offered; but I am sorry to say that there are but few good ones, and none really excellent. There are many points to be taken into consideration in writing an essay, but as instruction in this line does not fall within my sphere, I will leave that to your respective teachers. 1st prize was taken by E. P. Powell, of Clinton, N. Y., who wrote on Blooming Trees and Cuttings. 2d prize was awarded to Miss Lizzie Hay, of Seneca, Kansas, who wrote on Flowers and Fruits. Miss Mabel C. Hoskins of Newport, Vt., took 3d prize. She entitled her essay, "What I have Learned about Flowers in One Year;" and 4th prize was gained by Miss Minnie S. White, of Alden, N. Y., who wrote a short but neat essay on Strawberries. The seed will be forwarded immediately, together with the congratulations of UNCLE MARK.

CHAT AMONG THE FLOWERS.

MRS. E. J. RICHMOND.

"HEIGHO, Miss Crocus. What are you about there, stirring so uneasily in your bed?" cried Miss Tulip, in a voice smothered by the mold which covered her still.

"Here you have been snuggled so cosy and comfortable all the long cold winter. Why can't you be quiet now?"

"The sun has kissed me, and I am glad to awake," said Crocus in a clear voice, for she had peeped above the leaf mold and had seen the brown earth once more."

"Oh Tulip, if you could but see the dear Pansies looking so green and comfortable, and the pretty Hyacinths just showing their little heads, you would stop grumbling and try to wake up too. Even Madame Paony over there by the walk, is crowding her red hood through the brown withered grass, to see how the young plants are getting on."

"Time enough by-and-by," muttered Miss Tulip. "The Winter King wrapped the Pansy tribe so close and warm in his great drifts. A poor return for all his kindness, I think. I do not admire pushing-forward people. Modesty is becoming even among the flower people."

"Ha, ha! what is that you are saying down there?" said gay little Daffodil, tossing her long, green leaves. "Grumblers are always vulgar, disagreeable creatures, I think. Wake up here and enjoy yourself like the rest of us."

"Oh, my dears, do not quarrel so," said Miss Pink, who, like the Pansy family had been so closely wrapped by the friendly drifts that she had not lost her summer dress. "We gain nothing I am sure by finding fault with each other. And Miss Tulip, it does seem nice to peep out from that dismal snow-shroud, and see all the dear friends again. "We are waiting patiently for you my dears."

"Well, well, all in good time, little pet," ejaculated Miss Tulip. "I'll be up and dressed in my gayest robes before you now, see if I don't." And true enough, when the flowers one after another came timidly forth, there stood Miss Tulip all in gold and scarlet robes like a queen waiting to receive them.

DREAM OF FAIR WOMEN.

Continued from last week.

AND Aunt Lou read aloud from the book in her hand:

"The daughter of the warrior Gileadite.
A maiden pure; as when she went along
From Mizpeh's towered gate with welcome light,
With timbrel and with song.

"Grandma must help us here, if she will. Please turn to the eleventh chapter of Judges from the thirtieth to the thirty-fifth verses."

Grandma kindly complied, and read in her sweet, tremulous tones, the simple, touching story:

"And Jephthah vowed a vow unto the Lord, and said, If thou shalt without fail deliver the children of Ammon into my hands,

"Then it shall be that whatsoever cometh forth of the doors of my house to meet me when I return in peace from the children of Ammon, shall surely be the Lord's, and I will offer it up for a burnt-offering.

"And Jephthah came to Mizpeh, and behold his daughter came out to meet him, with timbrels and with dances; *and she was his only child; beside her he had neither son nor daughter.*"

"And did he kill her?" cried Bess, with wide-open, horror-struck eyes.

"Modern commentators," and Aunt Lou looked a little apprehensively at grandma, who was understood to be the principal Bible critic of the family, "think that he simply dedicated her to the service of the tabernacle, and consequently to perpetual maidenhood. There were a class of women set apart from others, whose whole time was employed in weaving and embroidering the draperies of the tabernacle and the beautiful sacerdotal garments for the priests, and it is thought that this was the life to which her father devoted her. It must have been a terrible trial to him, an ambitious and warlike man, to thus give up all hope of perpetuating his name and family in Israel."

"But the poem represents her as dying 'for God and for her sire,'" objected Madge, who had all a school-girl's love for the tragic.

Aunt Lou smiled.

"A poet and a commentator are two very different persons, my dear; and the poetic idea is best embodied in this translation of the story. But we must leave the heroic Hebrew maiden to make the acquaintance of an altogether different character:

'I am that Rosamond, whom men call fair,
If what I was I be.'"

"Oh, I know all about *her*, too!" exclaimed Madge, with no little pride. "She was the Lady Rosamond Clifford, and she was so beautiful that King Henry II. saw and loved her. And he built a splendid palace at Woodstock for her, with a labyrinth of walks and avenues all about it, so that no one could get in or out that hadn't the clue. And one day his queen, Eleanor, who was always mistrusting something about everybody, noticed a thread of floss silk, such as ladies used in their embroideries, sticking to one of his spurs. She didn't say a word, but she just followed that silk in and out, in and out, and at last it led her to the palace at Woodstock, where she found a lovely lady in one of the turret chambers, busy with her embroidery. Just as quick as she put her eyes on her, the jealous old queen knew in a minute that this was the Fair Rosamond that she had heard of; and she was so mad that she held a cup of poison to her lips and made her drink it, and it killed her right there on the spot."

"Good for you, Madge! I didn't mistrust you knew so much," declared Will, admiringly. "But honestly, Aunt Lou, how much of that is fiction and how much fact?"

Madge looked rather indignant, but Aunt Lou soothed her wounded vanity by saying in a careless tone,—

"*Most* of it is fact, I suppose. Only the story of her death at the hands of her indignant rival cannot be true, as the fair but frail lady retired of her own accord to the nunnery of Godstow, where she lived for many years, a sincere and humble penitent; and was buried in the chapel of the convent, where her tomb was to be seen as late as the time of Cromwell, when some Puritan fanatics broke into the chapel, destroyed the monument, and scattered the bones of the poor lady in every direction."

The young people were silent for a moment; the sad story of poor Rosamond had, for the moment, saddened and touched their hearts. But Madge at length broke the silence with, "Of the three others, I can tell only one, Joan of Arc. Who was it that

'Clasped in her last trance
Her murdered father's head'?

and who the one, that

'Kneeling, with one arm about her king,
Drew forth the poison with her balmy breath,
Sweet as new buds in spring'?"

"The first is supposed to refer to Margaret More, the daughter of Sir Thomas More, a man of great wisdom and sanctity, who was beheaded by the tyrannical Henry the VIII., because he would not give his approval to the king's divorce from Katherine of Arragon. This devoted daughter is said to have gone at night, with only one faithful attendant, and taken her father's head from a turret of London Bridge, where the brutal king had ordered it placed, and carried it home in her own arms, where it was reverently deposited in the family vault.

"The other was Eleanor, queen of Edward I. The king having been wounded by the poisoned dagger of an assassin, his wife sucked the poison from the wound at the risk of her own life."

"Ugh!" and Bess's dainty nose took an upward curl, but Madge whispered, with a tender mistiness in her thoughtful eyes: "Thank you, auntie; but I think Tennyson ought to have put his last first, and made that sweet, brave Margaret More, and Edward's faithful, loving queen the *most* instead of the *least* prominent among his 'fair women.'"

"So do I."

And to this, grandma and even Will nodded a decided approval.—*The Watchman.*

LETTERS FROM BOYS AND GIRLS.

DEAR UNCLE MARK:—I like your project real well of forming a Horticultural Club composed of the boys and girls who read the RURAL NEW-YORKER. My father has plowed a large piece of land in our front yard, and this spring, mother is going to set out in it some pretty shrubs and choice trees, and my little sister and myself are going to have a real nice, little garden of our own there, in which we shall have a few vegetables and some Raspberries and Strawberries, and where we shall try hard to raise some beautiful flowers. Pa got five packages of choice shrub seeds from the Seed Distribution of the RURAL NEW-YORKER, and we shall plant them in our little garden, too, and hope we may be able next fall to tell you how finely they grew. Please put Nellie Hay's name on the list for your "Horticultural Club," as also the name of your young friend, LIZZIE HAY.

Nemaha Co., Kan.

DEAR UNCLE MARK:—I will tell all the little boys how my brothers and I raised a half acre of onions last year. My father hired a man to plow the ground in ridges about three inches high and 18 wide, so that a small cultivator could go between the rows. We leveled the tops of the rows off with a rake and planted the seed with a hand-seeder. In a short time we could see the little needle-shaped plants coming up double through the ground, and then we began to weed them, and we had hard work to keep ahead of the weeds. But the plants soon got big enough to cultivate with our old white mule that father lets us use to cultivate the garden, because "she's safe," he says. And I think every boy who has a market garden should have just such a mule. Ours is 23 years old. Well, we cultivated and hoed our onions three times and they grew finely and were nice large onions; and when we came to pull them we made a "bee" and invited my little sister and two cousins, so there were six of us. We made jolly times, and short work, too. Next we gathered them up and sorted them for market. We had 85 bushels. My father was not well, so my brother, who is 13 years old, had to take the onions to market ten miles off. He sold $70 worth besides saving plenty for home use. And now when we have them cooked, I believe they taste sweeter to us for having raised them all ourselves. BERTIE PARK.

Waukesha Co., Wis.

P.S.—I am 10 years of age and I wish to join your Horticultural Club. B. P.

The Puzzler.

HIDDEN STRAITS.

1. Mamma, Totch-kine are a new breed.
2. Yes, Mac, as Sarah has promised.
3. It is dismal Acca I assure you.
4. As it is damp, I earnestly coax you to stay.
5. Hear the pigeon coo, Katie?
6. If oyeaux are not birds, what then?
7. Ida, visions come to many.
8. Try the river bank Samuel.
9. What a thud Sonia made in falling.
10. Wilhemena is dead.
11. If "rob" is her design I'll frustrate it.
12. Don't blab Able, man, Debby loves you.
13. Mamma, Galilean spoke to me to-day.

☞ Answer in two weeks MAY.

A MALTESE CROSS PUZZLE.

Top—A species of cheese; a toilet article; an insect's egg; a consonant. Right—A highway robber; a small fruit; a vegetable product; a consonant. Bottom—A fish; convenient; wicked; a consonant. Left—A sort of flour; to rob; part of a drama; a consonant. Center, top—To sleep lightly (beheaded). Center, right—A European river. Center, bottom—Three consonants. Center, left—Ancient. Center—A vowel. Centrals both down and across form two countries in Europe. LITTLE ONE.

☞ Answer in two weeks.

PUZZLER ANSWERS.—April 5.

ANSWER TO CHARADE—Peach stone.

ANSWER TO DROP-LETTER PUZZLE, 1—"Thou shalt not steal."

WORD-SQUARE ENIGMA.

F L E A
L I A R
E A R N
A R N O

ANSWER TO DROP-LETTER PUZZLE, 2—Put the right letters in and I am complete.

Sabbath Reading.

A SUPPLICATION.

THE following is a most remarkable composition. It evidences an ingenuity of arrangement peculiarly its own. Explanation—The initial capitals spell, "My boast is in the Glorious Cross of Christ." The words in *italics*, when read from top to bottom and bottom to top, form the Lord's Prayer complete:

MAKE known the gospel truths, *our* Father king,
Yield us thy graces, dear *Father* from above,
Bless us with hearts *which* feelingly can sing,
"Our life thou *art* for *ever*, God of Love?"
Assuage our grief *in* love, *for* Christ we pray.
Since the bright Prince of *Heaven* and *glory* died,
Took all our sins and *hallowed the* display.
Infant *being*, first a man *and* then was crucified.
Stupendous God! *thy* grace and *power* make known,
In Jesus' *name* let all *the* world rejoice.
Now labor in *thy* heavenly *kingdom* own
That blessed *kingdom* for thy saints *the* choice.
How vile to *come* to thee *is* all our cry.
Enemies to *thy* self and all that's *thine*,
Graceless our *will*, we live *for* vanity.
Loathing the very *being*, *evil* in design,
O God, thy will be *done from* earth to heaven;
Reclining *on* the gospel let *us* live,
In *earth* from sin *delivered* and forgiven,
Oh! *as* thyself *but* teach us to forgive,
Useless *it's* power *temptation* doth destroy,
Sure *is* our fall *into* the depths of woe.
Carnal *in* mind, we've *not* a glimpse of joy
Raised against *heaven*; in *us* hope can flow.
O *give* us grace and *lead* us on the way.
Shine on *us* with thy love and give *us* peace,
Self and *this* sin that rise *against* us slay,
Oh! grant each *day* our *trespasses* may cease,
Forgive *our* evil deeds *that* oft we do,
Convince us *daily* of *them* to our shame.
Help us with heavenly *bread*, *forgive* us too,
Recurrent lusts, *and we'll* adore thy name,
In thy *forgive*ness we *as* saints can die.
Since for *us* and our *trespasses* so high,
Thy Son, *our* Saviour bled on Calvary.

THE LIFE TO COME.

IF we were able to look into the great world beyond, we might repine at being obliged to remain here so long. Just as God has placed great gulfs of space between the planets, so that the inhabitants of each shall only know the affairs of its own globe, he has also placed a gulf between this world and the future life. Thus, he makes it our duty to think, not of dying, but of living; not of the hereafter, but of the here; not of the world to come, but of the world that is. Every day we are to prepare, not for death, but for life; for if we live well and wisely here we may certainly trust God as to our hereafter. This, however, I think we may say, that death, when it comes, must be considered not a bad thing but a good thing. Since the Almighty sends death to every one of His creatures to whom He has given life, since death is as universal as life, death must be a blessing as well as life. Some great advantage must be connected with this event which we call death. It is made fearful when we look forward to it from a distance, that we may not too rashly seek it, before we have had enough of the discipline of this world.

When it comes it usually is welcome; and it may be that, when we look back upon it from the other world, we shall smile to think that we should ever have been afraid of it. This also we know of the other world: That it is created by the same being who has made this world; it is another mansion in the house of our Father. Consider, then, what He has done for us here, if you wish to know what He will do for us there. If there is infinite variety in this world—day and night, sleep and waking, changing seasons, flowers and trees, lakes and rivers, mountains and plains—a vast flora and fauna—then there will, no doubt, be an equal or a greater variety there; for surely the Creator has not exhausted Himself in making this world. There, as here, there will beauty for the eye and ear; problems for the intellect to investigate; work to do, full of utility; society, intercourse, affection; the power of progress; the sight of goodness and greatness above us to aspire to and reverence. There will be enough to ponder, enough to do, and enough to love.—*James Freeman Clarke.*

HOME RELIGION.

HOME religion is a thing of the heart—which is the same as saying it is a thing of love. It may exist in connection with forms; and it may exist in its sweetest unfolding, independent of forms. It may say grace at the table; and it may not say grace at the table. It may be gifted to sustain a family altar; and it may not have the gift requisite. But if the heart be right, there shall be grace and prayerfulness albeit forms be lacking in the family. There is a way of eating your food which thanks God better than any grace-saying that can be devised. There is a way of kissing the wife after the meal and the husband is leaving for office, which covers the whole ground between husband and wife intended to be covered by the influence of the family altar. We have known a man ask a blessing on food which he himself condemned in the very next breath. To thank God for food, and scold your wife or the cook in the next breath because the steak is overdone, or the cakes not browned to your suiting, or the tea too strong, is something more, my friend, than impiety; it is indecency.

Home religion should be loving first of all, and last of all it should be—loving. It should be very patient, too—especially on those days when it is hard to be patient. It should be cheerful, especially when it takes wit to invent occasions of mirthfulness. It should be brave, not to face the troubles that are without, but the troubles that are within. A kindly word, a pleasant speech, a cheerful or sympathetic look, a touch of the hand in the old tender fashion of the courting days, a stroking of the cheek and the soft movement of the palm over the hair—"Foolish tricks?" You are a fool if you say it, friend. You didn't think they were foolish tricks once, and you were wiser then than you are now that you have dropped them. A little more courting in married life would keep married life what courtship is. The foolishness of love is wiser than the wisdom of hate; and the more foolish you are in these directions, the happier will your homes be, and the sweeter will be your home religion.—*Northwestern Christian Advocate.*

PERSONAL ITEMS.

Edward Kinney, a negro, and Mary Hall, a white woman, were senteneed to five years in the State-prison this week, at Hanover Court-House, Va., for marrying.

Madame Patterson Bonaparte, who died at Baltimore Friday, left an estate valued at over a million and a half, saved by parsimony. It goes to her grandsons, Charles and Jerome Bonaparte.

Justin McCarthy, the novelist, was elected a member of the House of Commons for the county of Longford, Ireland, by the Home-rulers last week without opposition, in the place of Miles William O'Reilly, appointed Commissioner of Education.

The Pope is making great reductions in his personal household, observing that it is useless to keep up an enormous kitchen where nothing is cooked. His dinner consists of a soup and one plate. Of personal service he requires very little, so that his retainers will be reduced to one-third of their number.

Of the 362 Congressmen, 241, or two-thirds, are lawyers, 24 are merchants, 16 *farmers*, 12 bankers, 10 editors, 9 manufacturers, 7 doctors, 5 railroad men, 3 teachers, 2 preachers, and 18 are without occupation. There are 4 Union and 20 Confederate soldiers in the Senate and 50 Union and 65 Confederate in the House.

Mr. Browning's only son is not a poet, but a painter, and his first picture in the Royal Academy was sold for £300; the only son of M. Gonnod, the composer, is not a musician, but also a painter, and is about to marry the daughter of a painter; of Mr. Tennyson's two sons, one acts as amanuensis for his father and the other is in the Indian civil service. But Dickens's son is an editor, and is also about to appear as author of a "Dictionary of London."

When the now famous Zulu Cetywayo, who is now giving the Britishers so much trouble, was Prince Imperial he gave his father great trouble, for instead of looking after the royal cattle, his special duty, he passed nearly all his time at Greytown, the nearest English town. There he amused himself after his manner, drinking brandy, which he could not get at home, and smoking pipes, which his dignity prevented his doing among his own people. He paid court to the ladies, and had the reputation of going the pace, so far as to propose to a barmaid and vow vengence against a missionary who refused to marry them, because the sable prince put restrictions on the reverend dominie's dealings in cattle with the natives.

No Costiveness, Diarrhœa or any Bowel complaints where Hop Bitters are used.

Implements and Machinery.

NEW IRON TURBINE

WIND ENGINE

The Strongest and Most Durable Wind Engine in the World. Sold by Dealers in nearly every County. Inquire for it. Every Wind Engine Fully Warranted.

Send for Circulars, Price-List and information to

MAST, FOOS & CO.,
Springfield, Ohio.

Horse-Powers,

For One, Two and Three Horses.

MACHINES FOR
Threshing and Cleaning Grain and Sawing Wood.

Patented, Manufactured and Sold by
A. W. GRAY'S SONS,
Middletown Springs, Vt.

The machines with the improvements are the result of more than thirty years' careful study and experiment.
The proprietors are the inventors, ever have been and still are the sole manufacturers.
We have labored from the first to produce machines that will be durable, tasty, compact, portable, and that will run with the least possible friction.
We believe that we manufacture the best machine of the kind in the country.
Our machines have never failed to receive the highest award at all competitive exhibitions.
Circulars and Price Lists free. Address as above.

The Anti-Friction Hay Carrier,
elevates perpendicularly, and conveys horizontally any desired distance. **Many Thousands in Use.** The cheapest, strongest, most convenient, and durable Carrier made.
THE NOYES GRAPPLE FORK handles fine, coarse, or loose hay; is cheaper than a harpoon, easy to handle, strong, durable, and guaranteed the best Horse Fork made.
Send for sheet containing 23 ENGRAVINGS AND DRAWINGS—designs for tracking and arranging barns, bill of lumber, and full details for making Field Stacking Frame, etc., etc.
U. S. Wind Engine & Pump Co., Batavia, Ill.

Implements and Machinery.

"KING OF THE LAWN."

A Want supplied. A Cheap Lawn Mower that Does Good Work.
14 Inch Cut; Weight 35 lbs.
The Cheapest, Simplest, and Easiest-Running Machine in the Market.
Self-Sharpening; Requires no Adjusting; Never gets out of Order.

NO GEARS IN THE WHEELS

Fewer Pieces by Three-Fourths than in any other Lawn Mower IN USE.
Thoroughly tested for Two Seasons.
EVERY MACHINE WARRANTED.

THREE SIZES.

10 inch.
12 inch.
14 inch.

Send for Illustrated circular to

GREGG & CO., Trumansburg, N. Y.

COOLEY CREAMER

Supersedes large and small pans for setting milk.
It requires no milk room. It requires capacity for one milking only.
Impure air, dust or flies cannot reach milk set in it.
It makes more butter, because it raises all of the cream, and the quantity is never lessened by unfavorable weather.
It makes better butter. It requires less labor. It is cheaper.

Butter made by this process took the HIGHEST AWARD at the INTERNATIONAL DAIRY FAIR—and brings the highest price in all the great markets.
☞ Send stamp for the DAIRYMAN to

Vermont Farm Machine Co.,
Bellows Falls, Vt.

The Charter Oak Swivel Plow.

THE ONLY PERFECT SWIVEL PLOW.

WALPOLE, N. H., April 13, 1878.
HIGGANUM MF'G CORP.:—You wanted to know how I liked the Charter Oak Swivel Plow No. 130. I would say that I have used it on all kinds of land, and think it the best plow I ever saw or used. I have used seven or eight different kinds of swivel plows and this beats them all in doing good work, and draws much easier I would not exchange it for any plow I ever saw.
Yours in haste, O. J. HUBBARD.

Manufactured only by
THE HIGGANUM MF'G CORPORATION,
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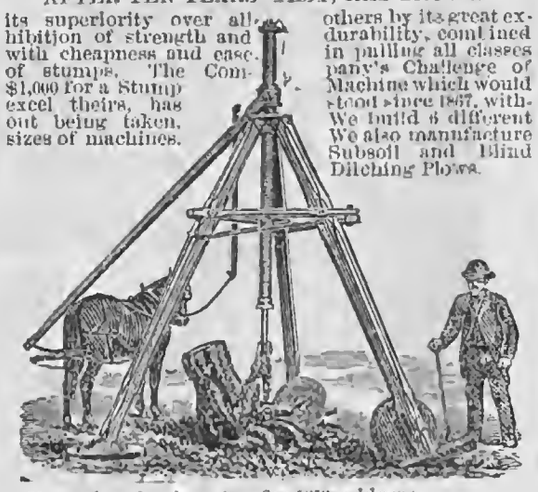
THE CHAMBERLIN
SCREW STUMP MACHINE,

AFTER TEN YEARS' TEST, HAS PROVED

its superiority over all others by its great exhibition of strength and durability, combined with cheapness and ease of stumps. The Company's Challenge of $1,000 for a Stump Machine which would excel theirs, has stood since 1867, without being taken. We build 6 different sizes of machines. We also manufacture Subsoil and Blind Ditching Plows.



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The CHAMBERLIN MF'G CO., Olean N Y

THE PERFECT CREAMER.

Bureau Milk Pan and Refrigerator

Makes more and better Butter, with less labor, than other systems. Adapted to hot or cold seasons, or any situation; strongly recommended by best authorities; excludes flies and dirt; keeps cream and butter perfect. Received highest prize at New-England Fair and at many others. Prices low and terms easy. Illustrated Circular free. Bureaus furnished for any large pans. J. F. FERGUSON, Patentee, Burlington, Vt.

PORTER'S Wood Track and Champion Wire-Cable or Iron-Rod Track Hay Carriers are the acknowledged standard carriers of America. The first successful carriers introduced. Thousands now in use. Made of malleable iron, they are light, strong, durable, easy to put up, and have no inside gear or springs to get out of order. The Porter carrier travels on scantling, 2½x3½ inches. The Champion is the only carrier that can be transferred from barn to field and used on Porter's patent wire cable derrick. Send for circulars to

J. E. PORTER, OTTAWA, ILL.

RECTANGULAR & SQUARE BOX CHURNS.

Cheapest and best. No inside fixtures, and *always reliable*. Six sizes of each kind made. Three sizes of the Lever Butter Worker made. Best material used and every Churn and Butter Worker *warranted* exactly as represented. One Churn at wholesale where we have no Agent. *Send Postal for Circulars.*
CORNISH & CURTIS,
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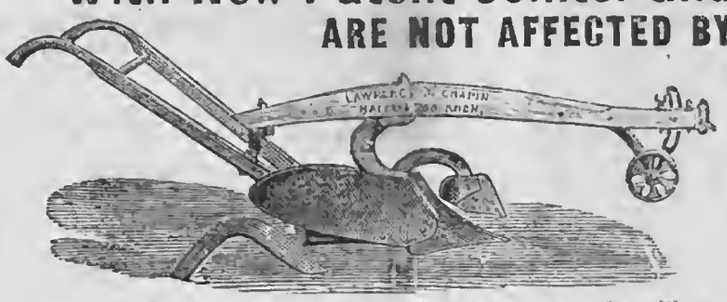
DIAMOND IRON PLOWS.

With New Patent Jointer and Coulter that ARE NOT AFFECTED BY CHANGE OF BEAM.



The only Plow
WITH
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JOINTER STANDARD
ADJUSTABLE TO ANY DEPTH.

25 to 30 lbs. lighter than any Chilled or common Iron Plow. Harder, Stronger, More Durable, Lighter Draft, Easier Handled, better Scouring qualities, and Stay in the Ground better than any other Plows made. All wearing parts are made of same metal. Every Plow warranted.

Made only by **LAWRENCE & CHAPIN, Kalamazoo, Mich.**

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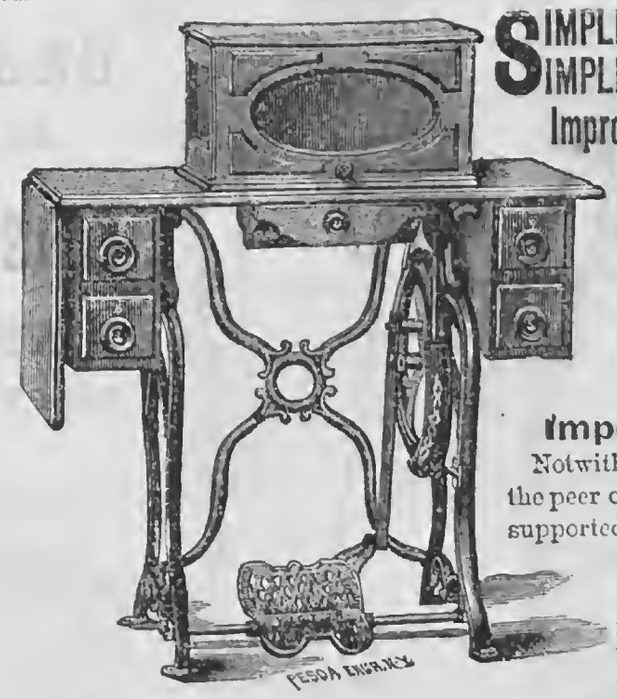

SIMPLICITY SIMPLIFIED! SUPERIORITY MAINTAINED!
Improvements September, 1878!

Having regard for the demand of this progressive age, we now offer to the World the

NEW VICTOR

WITH SEVERAL

Important Improvements.

Notwithstanding the VICTOR has long been the peer of any machine in the market—a fact supported by a host of volunteer witnesses—we now confidently claim for it greater simplicity, a wonderful reduction of friction, and altogether a *Rare Combination of Desirable Qualities.* For sale by Merchants and others.

☞ Send for Illustrated Circular and Prices. Liberal Terms to the Trade. ☜

Don't buy until you have seen the lightest running machine in the World,—the Ever Reliable "VICTOR."

VICTOR SEWING MACHINE COMPANY,
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Send for N. D. Batterson's Berry Basket Circular, Buffalo, N. Y.

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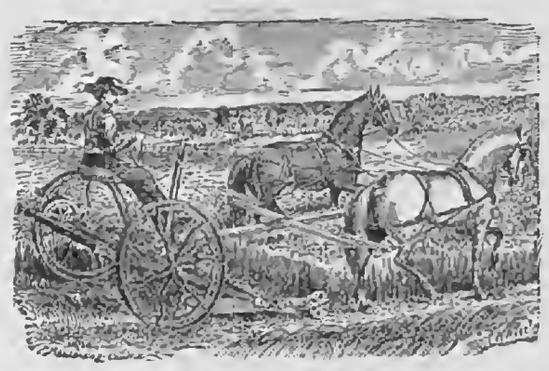

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The Best Mower in the World.

LIGHTEST DRAFT.

Great Capacity for Rapid Work.

A Six-Foot Swath Cut with less draft than the average side-cut mower USES IN CUTTING FOUR FEET.

Grass cut by the Eureka cures one-third quicker and more evenly than after any other Mower.
Oats and Barley harvested successfully and with great saving in time and labor when cut with the Eureka.

Prices Reduced. Terms Reasonable.

CASH, the Farmer's most profitable **Agent.**

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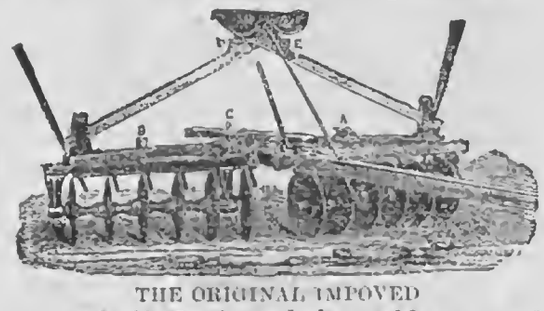
THE "ILION" RAKE

The Best Self-Discharging Rake in the market. Its simplicity makes it very desirable, being less number of pieces, which all duplicate, can be put together quicker than any other rake before the public. Has a wide range of quick adjustment. No grass ratchets, etc., exposed to the wind. It is controlled by the will of the operator, leaving both hands free, and is so easily handled that a child can operate it. *Farmers, before purchasing, are invited to give this Rake a close inspection;* and if there is not one in your vicinity, write for full particulars to

REMINGTON AG'L CO.,
Manuf'rs of Agricultural Implements, Ilion, N. Y., or 57 Reade St., New York.

N. B.—Also manufacturers of the celebrated Remington Patent Steel Shovels, Scoops, Spades, &c.

Warrior Mower Co.'s Specialties.



THE ORIGINAL IMPROVED
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OVER 30,000 IN USE.

Chilled Iron or Steel Disks, *Center Jointed.* Improved Stiffener Bar. Angle of Gangs adjusted by a Lever. Adjustable Scrapers. The most convenient, durable and effective harrow made.

☞ **NEW CORN CULTIVATOR!** ☜

Most Efficient and Perfect Implement for working rowed crops. Gives more than universal satisfaction.

THE UNRIVALLED WARRIOR MOWER!

Lightest Draft, Easiest Managed, Most Durable Mower made. OVER 40,000 IN USE. Challenges competing machines for any work or endurance.

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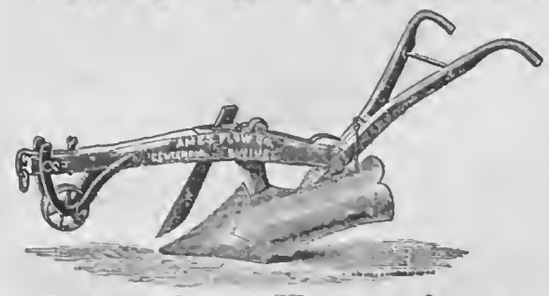
SWIVEL PLOWS!



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Accepted by the New England and Maine State Agricultural Societies. Superior to any for Level Land and Hillside.

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☞ Liberal discount to dealers and agents. Send for Circular.

The Best Paper, and the Best Premiums to Agents, is our motto. We ignore Chromos and all other cheap colored pictures, preferring to put our money *in the paper* and in Premiums to All.

Wit and Humor.

THE COMICAL CROW.

BY GEORGE COOPER.

"Caw! caw!" sang a crow on the edge of a wood;
"The corn that you gave us is wonderful good;
But why don't you lay it there all in a heap?
You scatter it round and you plant it so deep,
Good farmer it's tiresome to find it, you know,"
Said this comical crow.

"Caw! caw! You have stretched, in a zigzaggy way,
A string round your acres. I see it to-day.
'They'll think it a snare,' said you, chuckling outright,
Your cord is no use, sir, as I'm not a kite.
Sweet farmer, I'd have you continue to sow,"
Said this comical crow.

"Caw! caw! You have set little boys on the fence.
They shout and amuse us—our joy is intense.
You give yourself plenty of trouble for us.
We're only plain folks. Prithee, don't make a fuss!
Kind farmer, we're not used to much of a show,"
Said this comical crow.

"Caw! caw! You have put an old coat on some sticks
You want to delight us with all sorts of tricks.
Unmerited kindness we tenderly feel;
But why don't you leave till we finish our meal?
Dear farmer, you're not in a hurry to go,"
Said this comical crow.

"Caw! caw! You have brought out a neat little gun.
You're going to shoot at the sparrows, for fun.
Oh, fie! we shan't wait till you've loaded it up,
But hie us away to the next field and sup.
Bad farmer, sad farmer, your end will be woe,"
Said this comical crow. *Independent.*

An old bachelor says he's been so often deceived by the chicken of the restaurants and boarding-houses that he calls it "the mocking bird."

One reason why more people did not go into the ark is that Noah neglected to advertise in the daily papers. There is a great moral lesson in this fact.

The immorality of the age says one, is with some men a standing topic of complaint. But if any one likes to be moral I can see nothing in the age to prevent him.

Sympathizing stranger—"Bless me! How did you manage to fall like that, sir?" Irritated equestrian who has come to grief: "Confound it! I couldn't remain hanging in the air after the horse ran away from me, could I?"

A cat's eyes are said to be the largest at midnight. We never made an examination; but we are positive that its voice is about seventeen times larger at that hour than at any other period during the twenty-four.—*Boston Globe.*

Paper napkins to the number of 250,000 have been sold by one Boston firm since they were introduced a year ago. Take paper napkins at five cents a dozen, and stamped wooden plates at ten cents a dozen, and you have a reasonably inexpensive table outfit that does not require washing.

The following anecdote was told by an American preacher for a fact: He was praying, and in his prayer he said, "I pray that the power of the devil may be curtailed." Just then an old darkey in the congregation cried out, "Yes; amen! Bless me! Cut him tail right smack, smove off."

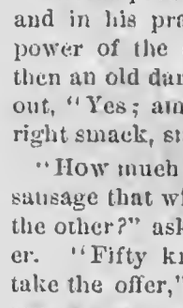
"How much shall you charge for a bologna sausage that will reach from one of my ears to the other?" asked a soldier of Berlin of a dealer. "Fifty kreutzers," was the reply. "I take the offer," replied the soldier. "One of my ears was cut off in a battle a thousand miles from here." There was a compromise.

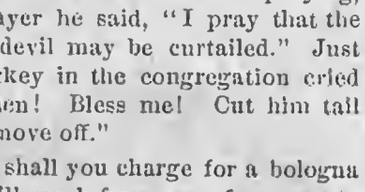
Wretched and Racked.

By the pangs of rheumatism, the joints eventually become grievously distorted, and sometimes assume an almost grotesque deformity. To prevent such results by a simple and agreeable means is certainly a wisdom. A tendency to rheumatic ailments may be successfully combatted with Hostetter's Stomach Bitters, a medicine with the prestige of a long and successful career, of unbounded popularity, and of emphatic professional endorsement. It removes from the blood those inflammatory impurities which pathologists assign as the cause of rheumatism, and not only purifies the life current, but enriches it, promoting vigor by fertilizing its source. Digestion, the action of the bowels and the secretion of the bile, are aided by it, and it impels the kidneys and bladder to a regular and active performance of their functions. It is besides a thoroughly reliable remedy for, and means of preventing periodic fevers.

METALLIC SHINGLES.

Gold Medal Awarded at Paris Exposition, 1878.





Make the best roof in the world. Superior to Tin. Cheaper than Slate, and less than ⅛ the weight Cannot Crack. Fire Proof. Can be put on by any Carpenter.

75 per cent. saved in freight, with no breakage in carriage or putting on. ☞ Will last a life-time. Send for full description and prices to the

IRON-CLAD MANUFACTURING CO.,
P. O. Box 2528, New York City.

CIDER PRESSES AND GRATERS.
Boomer & Boschert Press Co., Syracuse, N Y.

WHICH WAS MASTER.

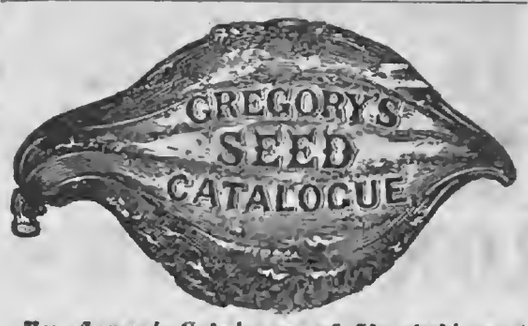
Wife.—Will you come out now? Husband.—Be jabers, no! I will show you I am master of the house.

The Perfect Creamer is a great success. It excels all other systems in quantity and perfect quality of butter made from a given quantity of milk. The increase in value of produet will pay for it in one season. See adv. in another place.

The best method of setting milk is by use of the PERFECT CREAMER OF BUREAU MILK PANS. It maintains a uniform temperature at all seasons, excludes flies and dust, uses but a very small quantity of ice. Is the most economical in time, labor, and money of any system ever devised.

WILBOR'S COMPOUND OF
PURE COD LIVER OIL AND LIME.

To Consumptives.—Wilbor's Cod-Liver Oil and Lime has now been before the public twenty years, and has steadily grown in favor and appreciation. This could not be the case unless the preparation was of high intrinsic value. The combination of the Phosphate of Lime with pure Cod-Liver Oil, as prepared by Dr. Wilbor, has produced a new phase in the treatment of Consumption and all diseases of the Lungs. This article can be taken by the most delicate invalid without creating the disgusting nausea which is such an objection to the Cod-Liver Oil when taken without Lime. It is prescribed by the regular faculty. Sold by the proprietor, A. B. Wilbor, Chemist, Boston, and by all druggists.



My Annual Catalogue of Vegetable and Flower Seed for **1879**, rich in engravings, from original photographs, will be sent FREE, to all who apply. Customers of last season need not write for it. I offer one of the largest collections of vegetable seed ever sent out by any seed House in America, a large portion of which were grown on my six seed farms. *Printed directions for cultivation on each package. All seed warranted to be both fresh and true to name; so far, that should it prove otherwise, I will refill the order gratis.* The original introducer of the Hubbard Squash, Phinney's Melon, Marblehead Cabbages, Mexican Corn, and scores of other vegetables, I invite the patronage of all who are *anxious o have their seed direct from the grower: fresh, true, and of the very best strain.*

NEW VEGETABLES A SPECIALTY.
JAMES J. H GREGORY, Marblehead, Mass.

The BELCHER & TAYLOR Ag'l Tool Co.,

Manufacture this Plow of the *best Car Wheel Iron*; also of *Patent Hard Metal*. The handles vibrating from one side to the other as the plow is turned at the end of the furrow, enables the plowman to walk squarely behind the plow—a feature not possessed by any other Side-Hill Plow. It does as good work as any Land-Side Plow. For further particulars and prices, send for our new *Illustrated Catalogue*. Address

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OUR LINES OF DRESS GOODS ARE LARGE, VARIED, AND IN CHOICE SELECTIONS. IN SPRING FABRICS WE ARE EXHIBITING LATE

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EMBRACING
CASHMERE DE L'INDE, PLAIN AND RAYE.
DRAP DE CHEVRON, CREPE MOULINE,
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THE MORE POPULAR GRADES OF DRESS GOODS, INCLUDING STRIPE AND CHECKS, AT UNUSUALLY REASONABE PRICES.
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☞ SAMPLES OF PIECE GOODS, WITH PRICES DISTINCTLY MARKED, SENT ON APPLICATION TO ANY PART OF THE COUNTRY, SPECIAL ATTENTION TO ORDERS BY MAIL.

Broadway and Twentieth Street, Grand, Chrystie and Forsyth Sts., N. Y.

Every Man His Own Printer. THE EXCELSIOR $3 Press Prints labels, cards, etc. (Self-inker $5) 9 Larger sizes. For business, pleasure, young or old. Catalogue of Presses, Type, Etc for 2 stamps. KELSEY & CO. Meriden, Con

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Manufacturers of
House Furnishing and Plain and Ornamental Iron Work.

Aquariums. Fernieries. Fountains. Vases. Window Boxes.

Flower Stands. Flower Pot Brackets Lamp Brackets. Chandeliers.

Bird Hooks, &c., &c.
S. FREEMAN ON, Props., Racine, Wis.
Send for new Illustrated Catalogue and Price List Liberal discount given to dealers.

FISHER'S "PRAIRIE" MOWER KNIFE GRINDER.

The most practical implement in America for *sharpening* mowing machine *knives in the FIELD.* Weighs but 5 *pounds.* Requires no *WATER, and is always ready.* 25,000 in use. Sold by Agents and Dealers. Send $2.25 for sample. Circulars mailed free. Address H. FISHER, Canton, Ohio.

Mill Manufactory
Established 1851.
Grist Mills
OF
FRENCH BUHR STONE
Portable Mills for Farmers, Saw Mill Owners, etc. Price from $80 up. Complete Mill and Sheller $96. A boy can grind and keep in order. Adapted to any kind of suitable power. Complete Flouring and Corn Mill very cheap.
NORDYKE & MARMON CO.
Indianapolis, Ind.

FINE TEAS supplied to *consumers* at prices *lower than ever known before.* These *fine qualities* seldom reach the interior, being sold only in large cities and among the very wealthy. Send for *reduced price-list*, and compare with other houses.
CONSUMERS IMPORTING TEA CO.,
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P. O. Box 4236 New York City.

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RHEUMATISM
OR GOUT
ACUTE OR CHRONIC
SALICYLICA
SURE CURE.

Manufactured only under the above Trade Mark, by the **European Salicylic Medicine Co.,** of Paris and Leipzig. *Immediate Relief Warranted. Permanent Cure Guaranteed.* Now exclusively used by all celebrated Physicians of Europe and America, becoming a Staple, Harmless and Reliable Remedy on both continents. The Highest Medical Academy of Paris report 95 cures out of 100 cases within three days. Secret—The only dissolver of the poisonous Uric Acid which exists in the Blood of Rheumatic and Gouty Patients. $1 a Box; 6 Boxes for $5. Sent to any address on receipt of price. *Indorsed by Physicians. Sold by all Druggists.* Address WASHBURNE & CO.,
Only Importers' Depot, 23 Cliff St., New York.

State you saw this in the Rural New-Yorker.

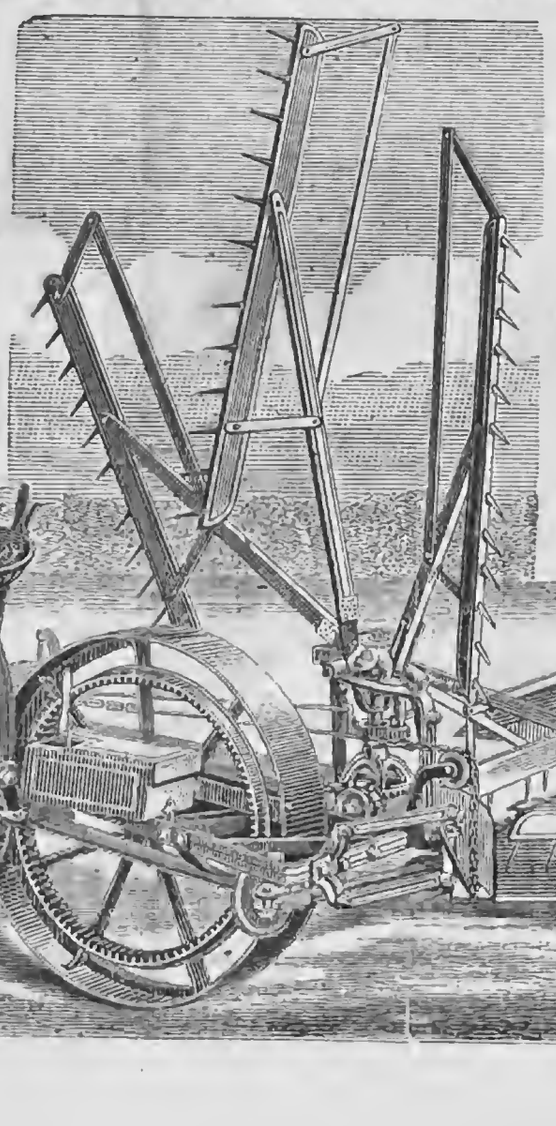
TEAS. AHEAD ALL THE TIME. The very best fresh goods direct from the *importers* at *half* the usual cost. Best plan to Club Agents and large buyers. All express charges paid. Quality guaranteed. New terms free.
THE GREAT AMERICAN TEA CO.
P. O. Box 4235. 31 and 33 Vesey St., N. Y.

THE JOHNSTON HARVESTER CO.,

75 FIRST PRIZES

Taken in actual Field Trials during the Season of 1877-78.

Grand Object of Art
AND
2 Gold Medals,
AT
PARIS EXHIBITION.



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Awarded to Self-Raking Reapers
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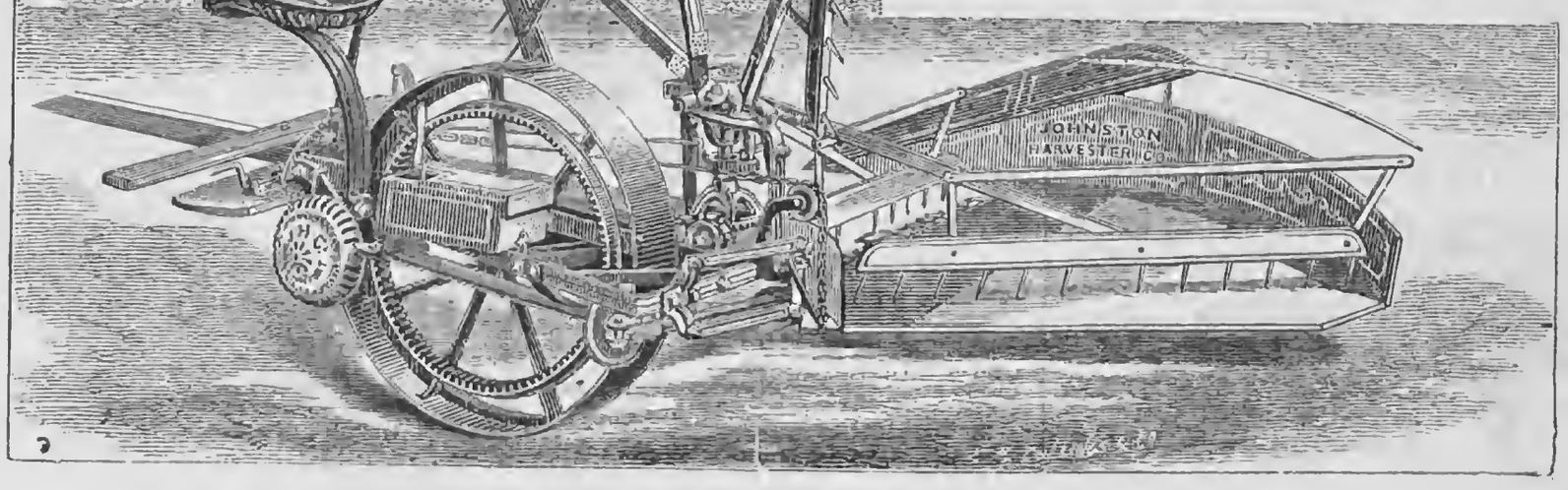


THE RURAL NEW-YORKER

A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME.

VOL. XXXVIII. No. 17.
WHOLE No. 1526.

NEW YORK CITY, APRIL 26, 1879.

PRICE FIVE CENTS.
$2.00 PER YEAR.

[Entered according to Act of Congress, in the year 1879, by the Rural Publishing Company, in the office of the Librarian of Congress at Washington.]

Horticultural.

VITIS INDIVISA.

Vitis heterophylla var., is the species described and figured in the Rural New-Yorker of Nov. 9. This scarcely deserves to be called *variegated* because the variegation is not constant. We have never seen an old plant that was variegated in every leaf, or one in which variegation did not appear in some part. The variegated blood, though diffusing itself, as it were, in channels, is yet very potent—for of 100 seedlings from it, as many as 75 will show variegation which cannot be said of the seedlings of any other variegated plant that we now recall. Vitis indivisa, or entire-leaved Grape, differs from the other in having, as its name implies, leaves that are rarely lobed, but which are rather coarsely toothed. The berries are much the same, having a wax-like appearance and being, according to their stage of ripening, light-blue, pink, white or green, speckled with tiny dots of brown, so that all of these colors may be shown in a single raceme. The V. heterophylla is an Asiatic species, but we cannot doubt that both have the same origin from the fact that both in seedlings and in old plants we have seen leaves which were both entire and toothed. Vitis indivisa, the subject of our present sketch—which is a free drawing from a colored plate in Meehan's "Native Flowers," grows wild on the river-banks of West Virginia, Ohio and southward. It is a fine ornamental vine and well worth cultivating for its waxy, variously-colored berries alone. Seedlings start in a few days or weeks if the seed be planted fresh from the berry. If not, they (the seeds) may be sown in the fall and, exposed to frosts, they will germinate in the spring.

NOTES FROM THE RURAL GROUNDS.

Eulalia Japonica Zebrina is one of the few novelties that has proven of great value. It is one of the hardiest and the most striking of grasses, and has here passed three winters in safety without any protection.

"Happy Thought."—This is the Pelargonium introduced about five years ago in this country with leaves having white discs and green margins—just reversing the markings of the old silver-margined varieties. We have raised quite a number of seedlings from it, but not one has ever shown a sign of variegation. We have never learnt whether this variety is a "sport" from an old variety, or whether it was produced directly from seed. It would be interesting to know.

"Fascination."—This new Coleus, offered this season for the first, is really beautiful, and seems to merit all that the descriptions in catalogues claim—which is phenomenal.

In Light Soil, plant the corms of Gladioli, if large, six inches deep. This will so support the flowering stalk that it will need no stake, unless growing in an exposed situation. A mulch of old barn-yard manure, applied about the first of July, will be found to increase the size and durability of the flowers. Scarifying the surface of choice bulbs will induce the formation of bulblets which will bloom the second year and bear flowers true to the parent name.

Cut Flowers.—For a bed of flowers to make bouquets from during the season, few plants are better than Verbenas and Pinks. Of the latter, Heddewigii, Diadem-flowered, Cut-leaved and the Chinese double are the best. They will bloom (if the seeds are sown now) during the summer, and by the aid of a little protection will again bloom freely another year. Verbenas may be bought for seventy-five cents per dozen, which, if pegged down, will soon fill a bed six feet in diameter. No other colors are more brilliant than those of choice Verbenas. Both the flower itself and its freshness of color endure well. Years ago, thousands were propagated and sold where one is now. But we can do no better than to apologize for our neglect and restore the plant to its old favor.

Petunias of all kinds are thrifty growers and abundant bloomers, but they are rather coarse for our choicest beds, and the flowers, though striped and blotched, are still rather dull in their limited range. They are excellent for rockeries or for hot situations where other plants would need far more care.

Pansies.—The secret of *large* Pansies, like that of large Strawberries, is rich soil, good drainage and moisture. Both are benefited if they escape the mid-day sun. There are many pretty bedding flowers from which to choose, but we should feel lost without Pansies—they are to the garden what the clown is to the circus.

Herbaceous Plants.—Fashion, like history, repeats itself, and glad are we that there is on every hand a disposition to return to hardy herbaceous flowers. One tires of ribbon beds. They are expensive and monotonous. They are showy—that is all—and it is showiness maintained at a wicked cost. Herbaceous plants give us an endless variety of form and color and they bloom from earliest spring till latest fall. When once planted, they are planted for years, and need no further care than the circle of earth about a tree. Those of our readers who are poor and lazy, and yet fond of a pretty garden, are advised to procure hardy herbaceous plants. The following are a few which we have selected as suitable for general cultivation:

Phalangium Liliago. Anemone Japonica and fulgens, all of the Aquilegias, Dicentra eximia and spectabilis (Bleeding Heart), Ipomæa leptophylla, Asclepias tuberosa, Geranium sanguineum, Aster Novæ-Angliæ, Delphinium azureum and formosum, Astilbe Japonica, Campanula rotundifolia, Centranthus ruber (Jupiter's Beard), Gentiana Andrewsii, Chelone obliqua (Turtle-head), Clematis recta, Gillenia trifoliata, Convallaria majalis (Lily of the Valley), Coreopsis lanceolata, Iris Kæmpferi, Cypredium spectabile (for boggy places), Funkia ovata and subcordata (blue and white Day Lily), Liatris (Blazing Star) scariosa and punctata, Lobelia cardinalis and syphilitica (Cardinal Flowers), Lychnis Chalcedonica (Maltese Cross), Lysimachia nummularia (Moneywort), for vases, carpets or rockwork; Mertensia Virginica (Virginia Lungwort). Yucca filamentosa and angustifolia, Vinca minor (Periwinkle), which will make a beautiful evergreen carpet where grass will not grow; Spiræa Aruncus (Goat's Beard), Sedum Sieboldii (Siebold's Stonecrop), Pyrethrum tchihatchewii, which will cover the soil if too poor for grass; but it ought to be in every collection on account of the "dimuition sweetness" of its specific name if for no other reason; an assortment of the French Lilacs (Phloxes), Pentstemons.

VITIS INDIVISA.

We know of no other catalogue of herbaceous plants that offers a more varied collection than that of Woolson & Co. of Passaic, N. J. The long list is one also which, so far as we are capable of judging, is absolutely correct as regards its botanical nomenclature. For the benefit of our readers we regret that their attention has not been called to this catalogue earlier in the season. This firm does *not* advertise in the Rural and is not likely to, for which reason our readers may deem that the above notice is made wholly in their interests. We notice, also, that the Climbing Hydrangea (Schizophragma Hydrangeoides) figured for the first time in this country in Rural of February 15, '79, is offered (small plants) at twenty-five cents each.

Improvement of the Tomato.

It is to be hoped that seedsmen will no longer advertise new varieties of tomatoes as "earlier than any others yet brought before the public." Such new varieties are no longer desirable. We have reached the *limit of earliness* in this important fruit except at the cost of some other quality more valuable than earliness. Up to the present time, the "Little Gem," if we may judge of it generally by our own comparative tests with all of the leading sorts, is the earliest tomato in cultivation. But it is "only this and 'scarcely' more." Watery, soft, quick to rot, sour, it really has no claim to a place in the garden except, indeed, for the *market* where anything that *looks* like a tomato will meet with a readier sale for being the first of the season. In the improvement of the tomato we should consider form, size, flavor solidity and keeping qualities.

The favorite Trophy, is too irregular and too large, and ripens imperfectly. It is, of course, late, though it keeps well and is among the best for canning purposes. The Acme is really a decided advance towards perfection Its shape and size are all that could be desired. Its lobes are so slight as to prove no hindrance to those who prepare it for the table, and it ripens evenly in every part. But in its flavor (which is too acid), solidity and keeping qualities there is still much room for improvement. The degree of acidity of tomatoes is, in a measure, due to the season; but it is in a greater measure due to too close planting, and to confining them too closely by stakes and hoops or strings, or to leaving them without support of any kind, in which case the vines fall upon the ground, and the fruit ripens beneath their dense shade.

We have not the slightest doubt that a more painstaking method of cultivation awaits this fruit (the ultimate value of which can only be guessed at by its rapidly growing importance), for the reason that the difference between the best and the poorest of tomatoes is as great as the difference between the poorest and best of any other fruit whatsoever.

Among the foremost steps to be taken are, first, to cast aside the *earliest* varieties altogether as worthless, and to select seed only from those of the best-flavored, firmest and shapeliest sorts; second, to treat the young plants differently in the seed-bed or frame. They are planted too thickly together, and become too drawn and enfeebled. Stockier plants, heavier stems and more roots would, no doubt, produce firmer and better fruit. Finally, we again recommend trellises for the tomato. Let them run north and south, and train the same as we would a grape-vine. By this method, as all of the fruit is exposed to, and ripens in the sun, the yield will be greater and the quality immeasurably superior.

CURRANTS FOR PROFIT.

I find that nothing pays better than Currants. The majority of people will not be at the trouble of dusting the bushes with a little hellebore, thus losing their fruit; yet nearly

every one needs and will have a few for jelly, jam, or for immediate use. The peculiar acid is invaluable in hot weather and almost every one craves it. I find no difficulty in selling all I can raise, at four dollars per bushel. At three dollars they abundantly pay. It is desirable to plant the white in preference to the red varieties, as they are not seen by the birds.

The most profitable varieties I should set down in the following order: White Dutch, Versaillaise, Cherry, Victoria. The ground should be well drained in order to prevent frost-heaving, as the bush is easily pried out when there is much freezing and thawing with little snow. My plan is to set the bushes in rows ten feet apart: and six feet in the row. Between the rows corn or any hoed crop may be planted. In the rows, plant beans or potatoes. Cultivate and hoe the whole ground. Always slightly hill the Currants at the second or last hoeing.

It is a good plan to have a patch of Gooseberries near the Currants. The worms will appear first on the Gooseberries, and can be promptly disposed of with two dustings of hellebore. They will then not appear to any extent, if at all, on the Currants. It is best to apply the hellebore when there is dew on the bushes. E. P. POWELL.

Pomological.

CERTAIN APPLES.

W. S. CARPENTER.

I SEND the RURAL a few notes respecting the Apples forwarded to it.

MONMOUTH PIPPIN.—(See cut from Mr. C.'s specimens). This Apple originated in Monmouth Co., N. J. It is about the size of the Rhode Island Greening. Color, pale-yellow ground, with a beautiful red cheek. Flesh juicy, fine, brisk, aromatic sub-acid. Rated by Downing very good to best. The tree forms a beautiful head, and bears good crops annually and keeps well. Ripens from April to May.

EVENING PARTY.—(See cut from Mr. C.'s specimens) This originated in Berks Co., Pa. The tree is a fine grower and a great bearer on alternate years. Fruit medium, yellow, lightly splashed and striped, with red; very juicy; remarkably tender, almost buttery, with a brisk saccharine, somewhat vinous, aromatic flavor; one of the best dessert winter apples.

Valuable Kinds.

I select the following from my collection, having tested them for several years. I think they are worthy of more general cultivation.

FANNY.—I received cions of this beautiful Apple from my friend Charles Downing, who informed me that he considered it a very promising Apple. The RURAL published a cut of this fruit some months ago. I will add that it is one of the most promising new Apples in my collection, bearing a good crop every year; an Apple of great beauty and very fine quality.

WASHINGTON STRAWBERRY.—I first saw specimens of the fruit of this fine Apple, in Boston, at the Horticultural show. In a collection of nearly 100 kinds, this was considered by the judges, one of the best. Fruit large; yellow ground, splashed, and mottled with rich red. Flesh yellow, crisp, very tender, juicy, mild sub-acid. One of the best Apples in my collection. The tree is a good grower, and bears fine crops annually. Fruit ripens from September to October.

TITUS PIPPIN.—Origin, near Hempstead, Long Island. Tree a strong grower; very productive and profitable for market. Fruit very large, pale-yellow, with a blush. Flesh yellowish-white, juicy, tender, brisk sub-acid. February to March.

STREAKED PIPPIN.—This originated in Westbury, Long Island, N. Y. Tree a strong grower and very productive. Fruit very large, shaded, splashed and striped, with rich red. Flesh yellow, crisp, tender, juicy, pleasant sub-acid, and aromatic. A very fine late-keeping apple. February to April.

RICHARD'S GRAFT.—Originated in Columbia Co., N. Y. A very fine Apple, worthy of extensive cultivation. Tree a moderate grower; very productive every year. Fruit medium; color, yellow, nearly covered with splashes, marblings, and shades of rich red. Flesh yellowish, very tender, juicy, pleasant, rich, aromatic sub-acid. One of our very best autumn Apples. September to November.

PRIMATE.—An old Apple, of unknown origin. Tree a good grower, and bears, annually, a good crop. The fruit is one of the most delicious and valuable summer sorts in the entire list. Fruit large, greenish-white, with often a crimson cheek. Flesh white, very tender, sprightly, refreshing, mild sub-acid. July to September.

NICKAJACK.—A very popular Apple in the Southern States, and one likely to prove valuable here. Tree a strong grower, and productive. Fruit large; color yellowish, striped, shaded and splashed with two shades of red. Flesh yellowish, compact, tender and juicy, sub-acid. It is a long keeper, keeping better than the Baldwin. March to May.

MOTHER.—Origin, Massachusetts. Tree moderately vigorous; a good bearer, every year. Fruit medium to large, yellow, nearly covered with rich red. Splashed and marbled with deeper shades; flesh yellow, tender, juicy, rich, aromatic sub-acid. One of the best of apples for the dessert. November to February.

LAWYER.—Introduced by George S. Park, of Parkville, Mo., and said to have been found in an old Indian orchard in Kansas. It has come into bearing with me, and promises to be very valuable. Fruit large, color, dark bright red. Flesh white, firm, crisp, sprightly, aromatic, mild sub-acid. It is a late keeper, keeping well up to May.

HUBBARDTON PIPPIN.—Origin uncertain. Tree a strong grower. Fruit very large, yellow, shaded and striped with red. Flesh tender, yellowish, crisp, juicy, mild sub-acid, aromatic. A very promising apple for market; keeps well to March.

HICK'S—Originated at Hempstead, L. I. Fruit large; color yellow, beautifully striped and splashed with crimson. Flesh whitish, tender, juicy, rich, sweet, aromatic. A fine and very handsome dessert apple. The tree bears every year. A new Apple of good promise.

BEAUTY OF KENT.—Originated in England. Tree a strong grower, and wonderfully productive. Fruit very large, often weighing a pound each; yellow, marked with large, broken stripes of bright red. Flesh juicy, crisp, tender, with a pleasant sub-acid flavor. An apple of good quality. Its large size and beautiful appearance make it one of the most profitable market apples I have yet seen. October to December.

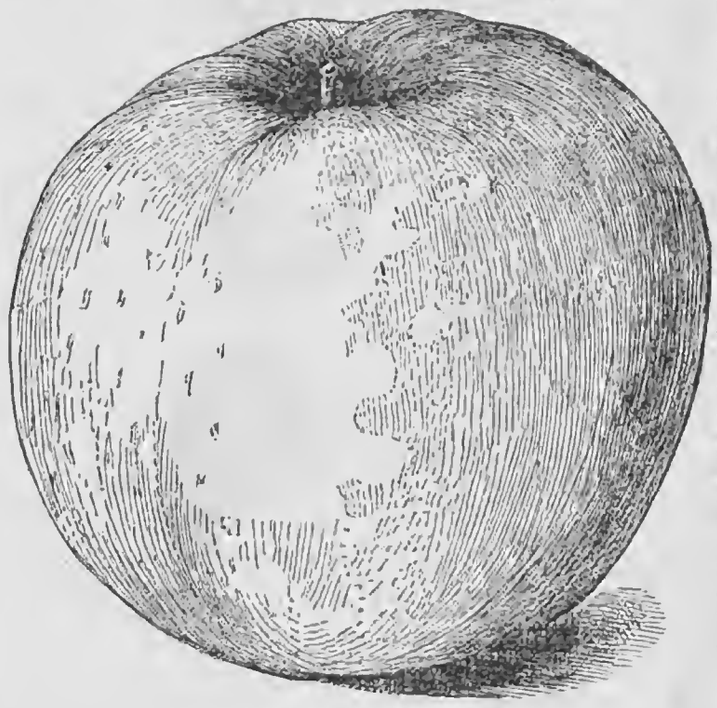
BAKER.—Originated in Connecticut. Tree very strong, and a good bearer. Fruit very large, yellowish, mostly covered with crimson; flesh yellowish, juicy, pleasant sub-acid, very good. This apple is highly esteemed for market, keeping to March.

PARK SPICE.—This valuable Apple originated in this county—Westchester, N. Y. Tree a strong grower. Fruit medium to large, whitish yellow, shaded with red, splashed and striped all over. It is a prodigious bearer, often breaking down with the load of fruit; flesh yellow, rather firm, juicy; mild sub-acid, aromatic, one of our best long-keeping apples. March to May.

MCKABE.—A seedling, originating in this neighborhood. Tree a good grower and bearer. Fruit, medium to large, yellow ground nearly covered with bright red, strongly resembling a good specimen of Spitzenburgh, and about as good. A very promising new Apple. March to May.

FERRIS.—An Apple of unknown origin, and perhaps but little known outside of Westchester Co., N. Y. The tree is a strong grower, a great bearer every other year and a moderate bearer in intermediate years. Fruit very large, shaded, splashed, and striped lightly with crimson. Flesh white, very tender, juicy, mild sub-acid. An apple of high quality. November to January.

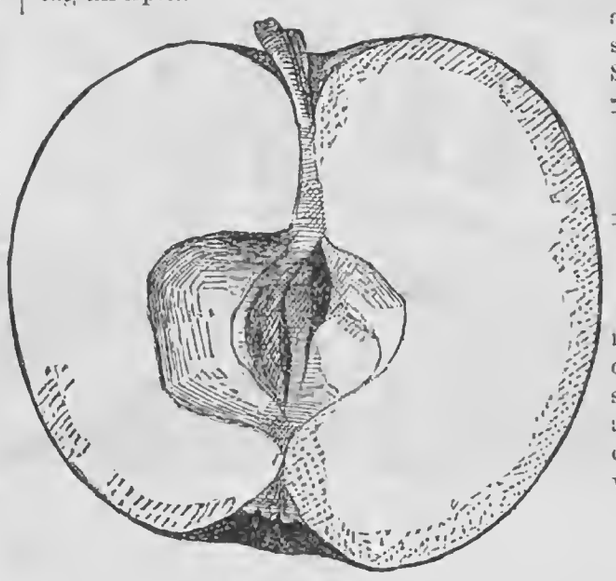
EARLY PENNOCK.—A Western Apple which is likely to prove of much value in eastern New York. Fruit large, light yellow, splashed, mottled and shaded with bright red. Flesh whitish, juicy, with a fine sub-acid flavor. A very promising summer Apple. Very handsome and productive. August to September.



MONMOUTH PIPPIN.

KIRKLAND.—I received cions of this fine Apple fifteen years ago. Fruit large, oblong, yellowish-white. Flesh yellowish, tender, sub-acid; a good table apple. The tree is a good bearer annually, and the fruit keeps till April.

BEN DAVIS.—A favorite Apple in Kentucky, where it is supposed to have originated. My trees have come into bearing, and the variety promises to be profitable here. Fruit large; color yellowish, splashed and striped with two shades of red. The Ben Davis is larger than the Baldwin, and hangs well on the tree. I think this is a promising market apple, keeping till April.



EVENING PARTY.

CORNELL FANCY.—Originated in Pennsylvania. Tree productive. Fruit medium; color, yellow, nearly covered with crimson. Flesh white, tender, crisp, juicy, with a fine sub-acid flavor. One of the finest early-autumn Apples. Rye, N. Y.

OPINIONS OF EXPERTS ON THE MONMOUTH PIPPIN AND EVENING PARTY.

IN reply to our inquiries as to the merits of these Apples, Charles Downing writes:

"MONMOUTH PIPPIN originated in the town formerly of Freehold, now Manalapan, Monmouth County, New Jersey, many years since, on lands of Kinneth Hawkins, now in possession of John R. Perrine, where, I am informed, the original tree is still standing. The tree is a vigorous grower, bearing abundant crops on alternate years, and much esteemed where well known. The fruit is of medium to large size, generally fair, of very good quality, keeps well, and is valuable either for the market or family use.

"The EVENING PARTY Apple is said to have originated in Berks Co., Pa., and is a pretty and pleasant fruit, of medium size, or less and valuable mainly for the amateur and for family use. The flesh is whitish, fine, tender, moderately juicy, with a peculiar mild sub-acid flavor, almost saccharine. It is in eating during December and January. The tree is moderately vigorous with numerous rather slender branches, requiring moderate pruning; the foliage and fruit adhere well and late to the tree, and the fruit should remain on the tree till well colored and matured, to have it in perfection. The tree is such an abundant bearer on alternate years, that if not well thinned out there will be much inferior fruit; so far it has not proved to be profitable as a market fruit."

T. T. Lyon, President of the Michigan Pomological Society, writes us:

"MONMOUTH (RED CHEEK) PIPPIN is so old a fruit that an expression of opinion respecting it (except, possibly, with reference to its success in Michigan) would seem to be little other than an invitation to criticism. Hence these remarks are to be understood as only intended for this State. My own experience with it would indicate that the tree is healthy, and generally satisfactory, although rather a tardy bearer. When old enough it is a medium bearer, generally each year, of fair, even-sized, beautiful fruit, by no means of high quality; but good and firm enough to prove satisfactory and even profitable as a winter market fruit.

"EVENING PARTY has much the appearance and quality of that old favorite, the Rambo. When the lamented Dr. Brinckle introduced it, he characterized it as strictly and peculiarly a dessert apple—a characterization in which I freely concur; although while we have Melon, Shiawassee Beauty, and even Jonathan or Hubbardston Nonsuch, in Michigan, we are not likely to greatly regret the absence of this. Indeed, I am unable to learn that, even in its native region, it has been able to attain any noteworthy prominence.

"I have reasons for the assumption that these, in common with most varieties, when carried far northward of their places of origin, lose something of quality, and possibly of size and color also."

C. W. Garfield, Secretary of the same Society says: "The MONMOUTH PIPPIN is a very promising market Apple for Michigan. It has been tested in nearly all parts of the State. In a scale of ten points it is marked in our Michigan catalogue seven for dessert, six for cooking and eight for market.

"The EVENING PARTY may have been tested, but we know very little of it for any purpose. I notice in our catalogue upon the same scale it is marked seven for dessert, four for cooking and two for market, but it has only been tested, so far as I know, in the eastern part of the State."

Floricultural.

PINKS. DIANTHUS.

THERE is hardly a class of flowers, excepting the Rose, that enjoys greater favor with lovers of flowers, than the genus Dianthus, with its several species and endless varieties. They are all valued for their showy many-colored flowers, their delightful perfume and the ease with which they are cultivated. The Chinese Pinks,

D. DIADEMATUS.

Dianthus Chinensis, D. Heddewigii, D. imperialis, D. diadematus, D. laciniatus and many other varieties, are cultivated as annuals, though they will bloom the second year if covered during the winter. They are excellent

D. IMPERIALIS.

for bouquets, for massing together in groups, and vigorous specimens are unsurpassed for pot-culture. The seed should be sown in boxes or in an open seedbed in the spring. When the young plants have a few leaves, they

D. HEDDEWIGII.

should be pricked about three inches apart on a nursery bed, and, later, transplanted to the group or flower bed with a ball of earth adhersing to the roots. They are set at distances varying with the size of the varieties, the dwarfs about six inches apart. They require a light rich soil.

D. CARYOPHYLLUS.

The Carnation Pink, Dianthus Caryophyllus, is cultivated for winter-flowering and is one of the florist's most staple plants for this purpose. The seed is sown as above; but the plants are set on a nursery bed until the fall, when they are taken up with ball, planted in pots and transferred to the house. They are also propagated by layering and cuttings. The latter are taken off during the winter or early spring and set in moist sand in the greenhouse where

the temperature is comparatively cool. In May they are planted in the open ground and treated like seedlings. The Picotee and the Garden Pink are varieties of D. Caryophyllus. They have both large flowers and differ mainly in that the Picotee has the stripes running around the edge of the petals, instead of from the base to the outer edge. They may be grown from seed; but to preserve the many excellent varieties, they are mostly propagated by layering. This is done in July. The lower leaves are removed from a young branch, and with a small, sharp knife a cut is made on the under side about half way through the stem, and then upwards, lengthwise about an inch. This portion of the branch is then bent into the ground and covered with about two inches of soil, the tongue cut loose pointing directly downwards. When the layers are rooted, they are cut loose from the old plant and in the fall planted in pots and wintered in a cellar or cold-frame. These are great favorites in Europe.

Dianthus barbatus, Sweet William, and D. plumarius, Plumed Pink, are very common throughout the country, especially the former. They are hardy perennials. The seed should be sown now; the young plants set on a nursery bed, and next spring transplanted to the border. The Plumed Pink grows low, and its petals are deeply cut so as to give the flower a feathery appearance.

The Garden.

WHAT OTHERS SAY.

About Seeds.—From Mr. J. J. H. Gregory's instructive lecture upon the "Culture of Vegetable Seeds," we make the following extracts, only regretting that we have not space for the lecture entire as given in the Report of the Secretary of Conn. Board of Agriculture: "The old, rough-hewn idea of farming was, that the foundation of successful agriculture was found in the manure-pile. We, in our movement towards accuracy, which we call science, have gone beyond that, or back of it, and we say now that it lies in the seed planted. . . . Hence we go back of all and say, first of all, give us good seed. . . .

"Of the seventy species of vegetables catalogued, less than twenty enter into the general consumption of the people, the remainder being mostly confined to the inhabitants of the large cities, and but rarely wandering outside the grounds of the market gardener. . . .

"Where the seed sold by American seedsmen is grown is, for the most part, a question of cost and of climatic condition. Of the seventy species of vegetable seed, more or less of over half the varieties are imported. Of mangold-wurtzel, about all; rnta-baga, about nine-tenths; spinach, about nine-tenths; cauliflower, nearly all; lettuce, about half; carrots, about half; egg-plant, about half; parsnip, about one-third; radish, about all, with the exception of those of Messrs. Landreth & Son, who practice raising their own. It is the general belief of American seedsmen that foreign-grown radish seed is larger and better than home-grown. Parsley seed is largely imported, Brussels-sprouts, broccoli, chickory, endive, kohl-rabi, and Swiss chard are almost wholly imported, as is salsify, to a large extent.

"Of celery, the finest varieties are grown in this country in the vicinity of our large cities. Of cucumbers, but a few, and those of the fancy-frame sorts, are imported. Of peas, most of the hard sorts are home-grown, and probably rather more than half of what are called the softer, or wrinkled varieties. The Dutch or rough-leaved turnip seed are all home-grown. Of cabbage seed but few varieties are imported, and these are confined almost wholly to a few early sorts. Onion seed is almost wholly an American crop. . . .

"There are certain vegetables that are peculiarly American, of which our English cousins know nothing, or next to nothing. There are over forty varieties of beans, forty varieties of corn, forty varieties or tomatoes, fifteen varieties of squashes, while of our fifteen or twenty varieties of cucumbers, and thirty-five or forty of melons, they know nothing, as an open-air crop. In England, the melons are all grown under glass, and cucumbers the same. They hang in glass-houses, as grapes hang here. I recollect, while there, going out to one of their great parks and seeing some large plants growing under glass, evidently carefully tended, and upon examining them, I found they had our common bush-bean,—one or two plants, I think,—under glass. They have no corn in England; they do not grow any squashes there worthy of the name, the vegetable-marrow being their standard of excellence, and almost their only variety; and whoever has traveled in England knows the poverty of an English table. Go to the best hotels, and you miss the delicious melons, sweet corn, cucumbers, and the great variety of other vegetables that are found on almost every table here. This brings up the question of the duties of the seed-dealer to the public. The box trade has demoralized the business greatly. When a man sends out a box of seed to be sold on commission, and has it returned to him, it is a severe strain on his morals to throw that seed away, if it is bad, or partly bad. He is very loth to come to the point of throwing that seed away; and, of course, if he sells it, the risk is on the part of the planter. A remedy for this evil would be to require the country dealer to pay for what he orders. In that case, the dealer would be likely to order only what he wants and can probably sell; whereas, under the present system, he orders indiscriminately, because he has simply to return what he does not sell, and takes no risk in the business. . . .

Mr. Gregory, in the course of his remarks, was questioned by several.

Professor Brewer asked: "In regard to drying seed, you will find many farmers who believe that they should be dried in the sun, and many others who believe they should be dried in the shade. I should like to know what Mr. Gregory's experience has been in that regard, particularly as there have been most elaborate rules published by the Agricultural Department, which advocated the drying of all seeds in the sun. While that may be true in England, is not the sun rather too hot here for the vitality of certain garden seeds?"

Mr. Gregory replied that he had no fear at all of sun heat on seed, so far as he had tried it, or of a temperature of seventy-five or eighty degrees.

Prof. Brewer said: "Seed spread on a cloth in a metal pan and exposed to the sun, as one will see farmers dry seed, will reach a temperature of 150 degrees, as can be tested."

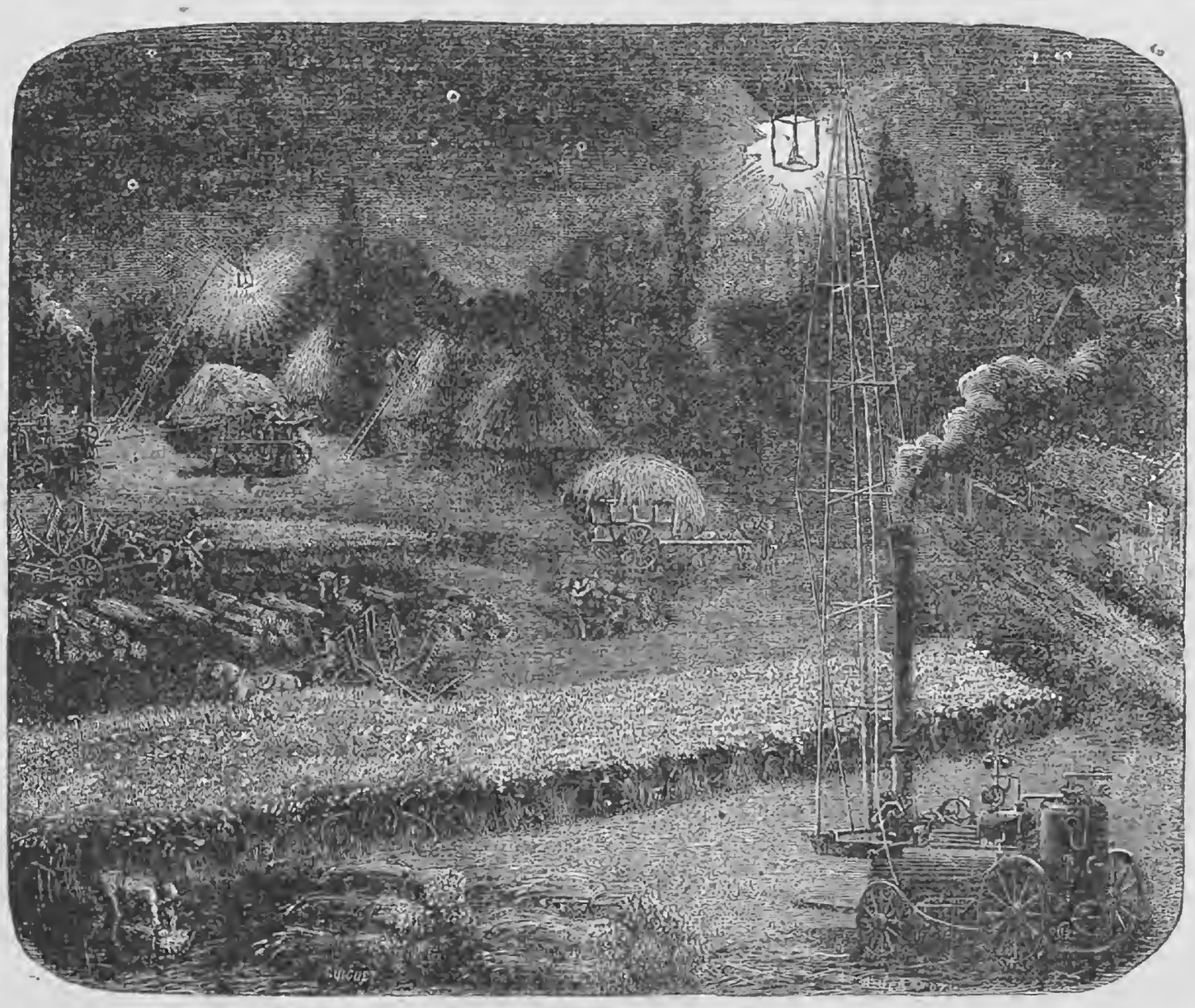
Mr. Gregory said that he should want to test seed dried in that way. . . .

Mr. Angur—"I have listened with a great deal of pleasure to Mr. Gregory's lecture, and I would like to ask one question. Many of us have the impression in saving seeds, if we take the seeds of the earliest tomatoes, for instance, that ripen, the tendency will be to give us early-ripening progeny; and so with beets and other things. I would like to ask Mr. Gregory's experience in that direction."

Mr. Gregory—"That is, I think, the tendency. That is the way we get our early kinds, by saving the seeds of the earlier vegetables. There is a tendency of 'like to follow like.' Let two men take the same strain, and one exercise care in saving early seed, and the other not, and you will find, in three or four years, that the crop of one ripens a week or ten days before the crop of the other. Any one can satisfy himself in regard to that."

Nearly at the close of Mr. Gregory's lecture, Dr. Sturtevant requested him to give the history of the varieties of American squashes.

Mr. Gregory—I will tell it in brief, as far as known. The Hubbard squash was brought into Marblehead when an old lady 90 years old was a little girl, by a dealer named Green, from Boston. One day he said to the mother of this lady, "Ma-am, you have been kind to me in many ways, and I have brought you a present." So he goes out to his wagon and brings in this



HARVESTING AT NIGHT BY ELECTRIC LIGHT.

curious squash, as she describes it, like a Chinese shoe. The aunt says, looking on: "Don't eat it, Jane! it is a gourd; it is poisonous." The man begged her to cook it, and if she did not like it, give it to the hogs. So, to oblige him, she cooked it, liked it, and saved the seed. That is as far as I can trace the Hubbard squash. We named it "Hubbard" in honor of the old lady who first brought it to our notice. The variety I named the Marblehead was sent to me from the West a few years ago. It was stated to me that the seed was bought in New York under the name of "Custard" squash, which name, as every seedsman knows, belongs to a variety closely allied to the vegetable-marrow squash, a very coarse affair of the pumpkin class. On planting the seed I found that the crop of squashes was just about the same as I had raised some years previously from seed brought home from the West Indies by Captain Stanley of Marblehead. The captain had so badly mixed his seed, growing it for years in his garden side by side with the Hubbard, I was unable to obtain it pure for introduction. This new-comer having no name of its own, I therefore called it the "Marblehead" squash. The Marblehead undoubtedly came originally from the West Indies.

Carnations.—Rev. H. W. Beecher tells the Gardener's Monthly that there is a prevalent notion that much skill is required to raise Carnations. Any man who can raise lettuce or peas can succeed with Carnations. He obtains the best seed possible; sows it thickly in rows, in June, as he would salad. It comes speedily. When about one or two inches high, prick it out upon a prepared bed, about eight inches apart and let it grow till frost comes, then very slightly draw earth enough to it to cover the collar, and let it alone for the winter. When he used to cover it with straw or brush he lost half his plants. But by leaving them open and unprotected they come through the winter without bleaching, and go to work early.

The great difficulty in blooming Carnations is the want of good seed. In some seasons, buying the best seed in market, he has not raised a single double. It does look as though foreign seedsmen sometimes adulterate their carnation seeds; for that it should be done in New York is not to be thought of.

Duration of Asparagus Beds.—We have known of Asparagus beds *twenty* years old, but Col. Curtis tells the N. Y. Tribune of one a *hundred* years old—"a pleasant reminder," he says, "of the thoughtfulness of ancestors." Those who follow this suggestion not with asparagus only, but with other lasting farm improvements, generations yet unborn shall bless.

Miscellaneous.

THE FUTURE OF AMERICAN FARMING

It is probable that in the near future the approach of storms of rain or wind will be announced by our Signal Service everywhere throughout the country. A forewarning of this kind would serve, even with our present conveniences, to greatly diminish the heavy losses entailed on the farming community by the unexpected advent of stormy weather. Approaching discoveries in science and the useful arts will doubtless enable farmers to turn such warnings to still greater advantage. The accompanying sketch of a field electric light shows one method by which the farmers of the future can hurry up farming operations on the approach of unfavorable weather. Nor will this be the only benefit derived from such a convenience; for whenever it shall be widely introduced, many labors in the fields, which are now wearily performed during the torrid heat of our midsummer days, can then be pleasantly done in the cool summer nights. Then again, such heavy and expensive machinery as thrashers, etc., can be utilized all the time in the busy season, by means of relays of men; and thus a considerably larger profit will be realized from the capital invested in them. Favorable spells of weather, too, can be utilized to the utmost and the evil consequences of a paucity of labor will be reduced to a minimum. There is no class for whom the future holds so much social and intellectual advancement; so much assured prosperity, and so much rational happiness as for those engaged in the various departments of agriculture, and in no country in the world are the farmers so well prepared as in this by intelligence, energy, enterprise and political as well as natural conditions, to pluck the earliest benefits from the treasures of the future.

CONNECTICUT AGRICULTURAL EXPERIMENT STATION.

BULLETIN 23.—March 11, 1879.

Analyses of Hay.

XLVIII. Cut first week in July, 1877. From dry, rich upland, plowed about forty years ago. Consists of fine grasses. Large amount of Kentucky blue-grass (*poa pratensis*), and timothy (*phleum pratense*). Considerable red-top (*agrostis*).

XLIX. Cut second week in July, 1877, from rich, moist upland. Mostly timothy and Kentucky blue-grass. Some red-top.

L. Cut last week in July, 1877, from rich moist upland. Mostly timothy. Some red-top.

LI. Cut last week in July, 1877 from moist upland. Mostly red-top and timothy.

LII. Cut first week in August, 1877 from intervale meadow, sometimes overflowed. Coarser than the preceding four. Mostly timothy and red-top, some red clover and white weed (*Chrysanthemum vulgare*).

LIII. Cut about the middle of August, 1877, from wet lowland, sometimes overflowed. Contains a good deal of sedge grass (*carex sterilis*), and some fern. Other weeds, such as brunella vulgaris. Very little timothy.

All the above were sent by Hon. T. S. Gold, West Cornwall. Except in case of XLVII the meadows have never been plowed or seeded.

LVII. Cut July 1, 1878, when about one-fourth part was in bloom. Very heavy, rank grass. Almost all timothy, a very little Kentucky blue-grass.

LVIII. Cut July 11, 1878. A half or more had ripened enough so that the seeds would scatter out a little in handling. The grass was of the same species as LVII.

LVII and LVIII, were both sent by J. W. Sanborn Esq., Hanover, New Hampshire, from the Agricultural College farm, and cut from the driest part of a fine heavy clay yielding two, and under good culture, three to four tons of hay per acre.

The water contents of these hays when received at the laboratory were as follows:

	Per cent.		Per cent
XLVII	14.86	LII	13.55
XLIX	13.08	LIII	15.08
L	15.38	LVII	8.97
LI	12.97	LVIII	9.29

All but the last two were received apparently in about the usual marketable condition.

To render the result comparable with other analyses on record, they are all reckoned on a

water content of fourteen and three-tenths per cent. For comparisons, are given Wolffe's averages of German hay from Menzel and Leugerke's Kalendar for 1879. See also report of this station for 1878, page 57.

	TIME OF CUTTING.		
Water			
Ash			
Albuminoids			
Fiber			
Non-nitrogenous Extract			
Fat			
14.3	July, 1st week.	XLVII.	West Cornwall, Ct., 1877.
5.1			
10.6			
24.9			
42.4			
2.7			
14.3	July, 2d week.	XLIX.	
4.7			
7.0			
26.9			
45.4			
1.7			
14.3	July, 4th week.	L.	
4.6			
6.9			
26.8			
45.4			
2.0			
14.3	July, 4th week.	LI.	
4.9			
7.5			
26.3			
45.3			
1.7			
14.3	August, 1st week.	LII.	
5.1			
9.0			
24.9			
44.9			
1.8			
14.3	August, middle.	LIII.	
5.4			
6.7			
26.2			
46.1			
1.3			
14.3	July 1st, 1878.	LVII.	Hanover, N. H.
4.1			
6.2			
25.3			
48.1			
2.0			
14.3	July 11th, 1878.	LVIII.	
3.8			
5.3			
27.5			
47.2			
1.9			
14.3		Inferior.	Germany and Austria.
5.0			
7.5			
23.5			
38.2			
1.5			
14.3		Medium.	
6.2			
9.7			
26.3			
41.4			
2.5			
16.0		Extra.	
7.7			
13.5			
19.3			
40.4			
3.0			

Mr. Gold states that his samples stand in our list above, in about the order of their value, as judged practically, beginning with XLVII. The crops were light, owing to the weather of 1877. XLVII and LIII yielded not over one ton per acre. The others yielded one and a half to two tons. All were harvested at what was regarded as the right time or stage of growth except LIII which was let stand too long. The hay was of very good quality, as compared with that of former years, but contained a less proportion of timothy.

The two samples sent by Mr. Sanborn have been employed in some feeding trials, the results of which he will publish in due time.

It is thought by some authorities, that hay deteriorates on long keeping to a degree that affects its chemical composition. Although such a fact does not appear to be fully authenticated, it is possible that Mr. Gold's samples, which were received at the station in November 1877, and have been but recently analyzed, are not as rich nutritively, as when new. Mr. Sanborn's samples cannot have suffered seriously from keeping.

The most obvious result of the above figures is, that the New England samples are of inferior quality as compared to those of Germany and Austria which have been analyzed in the European Experiment Stations. Of forty-six of the more recent analyses which are given in Dietrich and Koenig's tables, 1874, the lowest figure for albuminoids is 7.6 per cent, the average is 10.1 and the maximum is 14.4. But one of the New England samples is above the German medium quality, and but three of them surpass or equal the inferior German hay in respect to albuminoids. The three samples produced on "wet lowland," LIII, or on land that "needs draining," LVII and LVIII, are most deficient in albuminoids. The early cut is scarcely better than the later mowed, as shown by analysis and the feeding records give no greater actual value to the former, while the early cutting is reckoned to diminish the crop on seventy-five acres by some twenty tons. These poorer hays are scarcely more than sufficient for the mere support of mature animals at rest, and require an addition of a proportion of highly albuminoid food, such as beans, linseed or cotton cake in order to make them economical fodder for growing, working or milk animals.

S. W. Johnson, *Director*.

CATALOGUES, &c., RECEIVED.

The Silk-worm, a manual of instructions for the management of silk-worms and the production of silk. This neat pamphlet of 38 pages is a report of Prof. C. V. Riley to the Commissioner of Agriculture on the above topics. It gives full estimates of the possible profits of sericulture, drawn from the labors of practical men; a full account of the different sorts of silk-worms, their food and general management, reeling of the silk, etc. To those who desire to raise silk-worms in this country for profit, there are three ways open: Either, 1, to ship the cooked cocoons to Europe; 2, to reel them here; 3, to raise eggs and sell these. More money has been made by the last method than by either of the others. Eggs raised here are free from disease and fetch as high as $6 or $8 an ounce in France, which paid us 114,000 francs for silk-worm eggs in 1876 and as high as 1,691,400 francs in 1877. These works are got up especially for the benefit of those interested in the subjects they treat of, and can be had gratis by our friends through their respective Congressmen.

Ellwanger & Barry, Rochester, N. Y.—It is rather late to make extended reference to the catalogues of this old and worthy establishment. The fruit catalogue presents the usual almost exhaustive list of Pears, Apples, etc, Among small fruits Sharpless's Seedling Strawberry is prominent. A colored plate is presented of the Crimson Tea Rose, "Duchess of Edinburg."

Among many new or rare plants we find the Double Purple Wistaria, the flower of which is shown in the accompanying engraving. Until the present season we have never had the plant in our collection. Messrs. E. & B. speak of it as follows: "A rare and charming variety, with perfectly double flowers, deeper in color than the single, and with racemes of remarkable length. The plant is perfectly hardy, resembling the Wisteria Sinensis, so well known as one of our best climbing plants."

DOUBLE WISTARIA.

Fish Culture in North Carolina, is another of the useful pamphlets used by L. L. Polk, the energetic Commissioner of Agriculture of the Old North State. The present brochure of 26 pages is a report on fish culture by S. G. Worth, and would be of interest and utility to other sections of the country also. Is the day far distant when the fish-pond shall be as common as the orchard near the farm-house?

Sheep Husbandry in the South, an instructive pamphlet of 130 pages, issued by the Department of Agriculture, Washington, D. C. Most of the information has been compiled in the Department, but to it is added an article by Jno. L. Hayes, Secretary of the National Association of Wool Manufacturers. Every one interested in the subject should write for the work at once to the Congressman of his district.

Early Amber Cane, a paper from the fifteenth annual report of the Massachusetts Agricultural College, by Prof. C. A. Goessmann. Boston, Rand, Avery & Co., 117 Franklin St. Here are 15 pages full of information very useful to those interested in sorghum culture.

D. M. Ferry & Co., Detroit, Michigan.—A costly catalogue of seeds and plants of 144 pages within highly illuminated covers. A bewitching colored plate of Pansies and another of their new Tomato, "Triumph," which is as round and smooth as an apple and as red as—as a new brick, are among the showy parts of this work which are first to strike the eye.

Catalogue of imported and thoroughbred Ayrshire cattle, the property of J. D. W. French, North Andover, Mass.

Report of the Central Board of Agriculture of Nova Scotia for 1878. A bulky pamphlet of 179 pages full of interesting local statistics and other information.

T. C. T. Thurlow's Address before the Essex Agricultural Society, at Lawrence, Mass., Sept. 25. 1879.

Catalogue of Trotting Stock, the property of B. J. Tracy, Ashland Park, Lexington, Ky.

RURAL SPECIAL REPORTS.

(Continued from page 267.)

New York, Whitney's Point, April 11.—We have had five days excellent "sap weather." Clear and warm; wind in the W. N. W. Snow has nearly disappeared from the hills facing the southwest, but is still quite deep in the woods facing the east and northeast. Wheat looks very well. Butter is selling at 14c. per pound; eggs, 11c. per dozen; veal calves, alive, $2.50 to $4.

A local paper has compiled, from the census of 1875, some figures, a condensation of which will be of interest to readers of the Rural. The first table gives the average product per acre for some of the leading staples, for the county having the largest average, for Broome county, and for the State at large.

	Largest.	Broome.	The State
Hay, tons—Herkimer	1.35	1.12	1.13
Barley, bush.—Saratoga	32.87	24.82	22.83
Buckwheat—Steuben	19.99	17.40	15.14
Corn—Yates	47.82	34.04	32.33
Oats—Monroe	36.97	30.93	28.59
Rye—Herkimer	21.63	11.46	11.82
Wheat—Kings	24.11	14.73	16.16
Potatoes—Kings	153.64	110.81	102.22

In the following table is given the average number of pounds of butter per cow per annum, in fifteen counties, which take the lead in amount of product—two and a half pounds of cheese, or three gallons of milk, are estimated as equivalent to one pound of butter:

Orange	172	Broome	139		
Westchester	144	Cortland	136		
Wayne	142	Putnam	136		
Delaware	142	Onondaga	135		
Chautauqua	141	Tioga	134		
Tompkins	141	Jefferson	132		
Queens	140	St. Lawrence	131		
Dutchess	139	The State	124		

The following table gives some miscellaneous agricultural statistics for Broome county:

Number of farms	4,837
Area, acres	422,669
Value of farms	$18,507,899
Value of buildings, other than dwellings	2,005,141
Value of stock	2,436,770
Amount gross sales, 1874	1,752,829
Area plowed, acres	47,165
Area in pasture	116,573
Area mown	94,450
Hay, tons	105,913
Number cows	27,943
Butter made in families, lbs	3,608,435
Number horses	10,983

Of course the work of the average census enumerator must be taken with some grains of allowance, but even then the figures afford food for reflection to our farmers. M. B. D.

North Carolina, Brookston, Warren Co., April 14.—So far, April has been cold. There have been several severe frosts, and one morning the ground was frozen in places too hard for plowing. Peaches are much injured and our highest hopes can only look for a short crop. Other fruits are safe. Farmers are well along with their work. Corn is mostly planted, and now we are preparing for cotton. Notwithstanding the low price, the full average acreage will be planted. Several farms are changing hands, nearly all the purchasers being planters who have been growing fine yellow tobacco on rented land, and have made money enough in two or three years to buy good farms. These bright wrappers can only be made on light sandy soil, with a light-colored and somewhat porous sub-soil, which is included in but two or three counties; and should the demand for that quality of tobacco continue at anywhere near the present prices, the lands on which it can be successfully grown must advance in price. Much more will be planted this year than heretofore. More knowledge and skill are required than in growing red tobacco, all through, from sowing the seed to marketing. Thus the crop cannot be left to the care of the ordinary darkey, consequently there is not much danger of over-production. M. B. P.

Texas, San Antonio, April 7th.—Our spring thus far is very dry—little or no rain since November. Grass in the heavy land is very poor, but in our immediate locality, amongst the "Black Jacks," on loose, sandy soil, it is fine, and stock fat. But our grass is always better here than on heavier land. Last year the growth was very heavy and this winter we have had lively work, fighting fire. All early-planted crops look well, but owing to its being so dry, many have not planted yet, but our season is long. Fruit looks well. We have some peach trees one year old from the seed, which are full of fruit. (?) Our climate is generally very healthy, and the heat is not so oppressive as a New-Yorker would suppose. We had a setting of Brown Leghorn eggs brought from Central New York last summer in a trunk, and all the "baggage-smashers" on the route could not keep mine from hatching. Chicks from them commenced laying at the age of four months. They are a success, but oh! how mischievous! Mona.

New York, Rye, April 12.—As spring opens many sad sights meet my view as I pass through my garden. My Rhododendrons have suffered greatly. (Ours have likewise. Eds.) Some of the new kinds I imported three years ago from Anthony Waterer, have proved hardy for two winters, but are now nearly killed, buds and leaves all destroyed. Joseph Wilworth, H. W. Sargent and Caractacus have suffered much, and I fear I shall have to give them up. They are all beautiful kinds. H. H. Honeywell, Scipio, Mrs. John Clutten, Charles Bagley, Charles Dickens, Lady Armstrong, all of which I imported three years ago, are in fine condition. Last spring I wrote to Anthony Waterer, of England, the originator of these fine Rhododendrons, that they had passed through two winters in fine condition. He now wishes to know how they look this spring, and with the Editors' permission I will do so through the Rural. W. S. C.

[Please do so.—Eds.]

Chateaugay Basin, Hillside, Quebec, April 11, 1879.—The weather here is very unpromising. On this Good Friday the ice is strong on river and lake. We have snow-drifts ten feet deep in front of the door and *not one bare spot* in the garden. Yet, true to the promises, yesterday the children heard robins and saw one of them in the vicinity of "last year's nest." Some days the thermometer goes above freezing point; but there are many mornings when it is only 15 deg. above zero. To show the variableness of our seasons, I may state that last year we had asparagus for dinner on the 17th of April. A. L. J.

New York, Flushing, L. I., April 13.—How has the winter treated the Experimental Grounds' evergreens? Ours are much injured by frost and sun, especially the Hemlocks. Many kinds of Rhododendrons also are looking badly. Japanese Maples, however, have stood the test bravely—nothing better; nor do any complaints of them come in. S. P.

Farm Topics.

WORK IN MAY.

NEED OF THOUGHT AND FORESIGHT.—As in April, so in May, there is much to be done. There will be a constant temptation to hurry and overwork, and not to do everything well. This is not economy in any sense of the word. Take time to think over everything before attempting to do it. Look ahead. When one piece of work is done, think what next, and then what is to follow that; and will these all go off smoothly and to good advantage. Every man should consider his circumstances and his materials to work with. He should study the nature of his soils and his markets and raise such crops and such stock as are best suited to his situation. If his soil is thin, he will not plow deep and turn up the poor subsoil to the surface. He may stir up the subsoil and leave it where it is. If his soil is deep, rather heavy or good for a foot or more, he will occasionally, at least, plow very deep and get larger crops by so doing. He will use good judgment every time, and not adopt any one set of inflexible rules.

MEADOWS.—Before the grass starts, pick up all the stones and loose stumps, or stick stakes by them that the mower may be safely used. Sow plaster, and top-dress the poorest patches, at least, with a little manure. We know of one man who has derived great advantage from mulching his meadows with materials from old straw stacks. Bone-dust is worth trying and many other fertilizers. Keep off the cattle and sheep in spring.

INDIAN CORN, OATS AND BARLEY.—The oats and barley are sown early in May, or earlier in some portions of our country. With these two crops, wheat succeeds best after barley. Try a piece of peas or beans instead of summer fallow and sow to wheat. Indian corn goes in about the 10th of May, in many States at the North. The soil should be well warmed first. There is nothing gained in planting very early. The corn should be well cultivated before it is planted. By this we mean, it is the best way to cultivate and pulverize the soil nicely before planting. The work can then be done to the best advantage. There is nothing in the way. Too few men think of this when fitting the ground.

CALVES.—The calf is "father to the ox." As the calf is, so will the mature animal be, good or poor. A calf well summered is half wintered. Calves want milk, but the quantity can be reduced by using middlings in the milk. Begin moderately by using a few spoonfuls at each feeding. Allow them good, rich pasture. Flax-seed tea or oil-cake meal is excellent to use in small quantities. A calf should be kept growing all the time till it reaches maturity. Winter and summer, there should be no halting.

SHEEP.—They should go to grass gradually to prevent disease. They should be tagged and looked after every day. Most wool-growers have decided that it is best to shear early and not wash the wool while it is on the sheep. Early shearing stimulates an early growth of wool, and a larger clip is obtained than when cut in June or July. The fleece should be done up rather *loosely*, and tied with small twine in moderate quantities. The tags should be carefully washed and kept in a separate lot.

PASTURE.—The grass should be allowed to get a good start before feeding begins, and then it should be allowed to keep the start all summer. Some soiling crop, as corn or barley or millet, should be started to feed when dry weather comes on. In our climate, it is well to remember that pastures nearly always fail or run short for a month or so some time nearly every year.

THE ORCHARD AND VINEYARD.—The former needs constant attention if it is expected to produce something for the use of the land. A young orchard may be planted to corn, potatoes, beans or some hoed crop, but never to a sowed crop, like wheat, oats, barley or grass. Feed the land unless it is naturally strong. Raise up grape vines and tie them in place before the buds start. Cultivate early and often till about the middle of August.

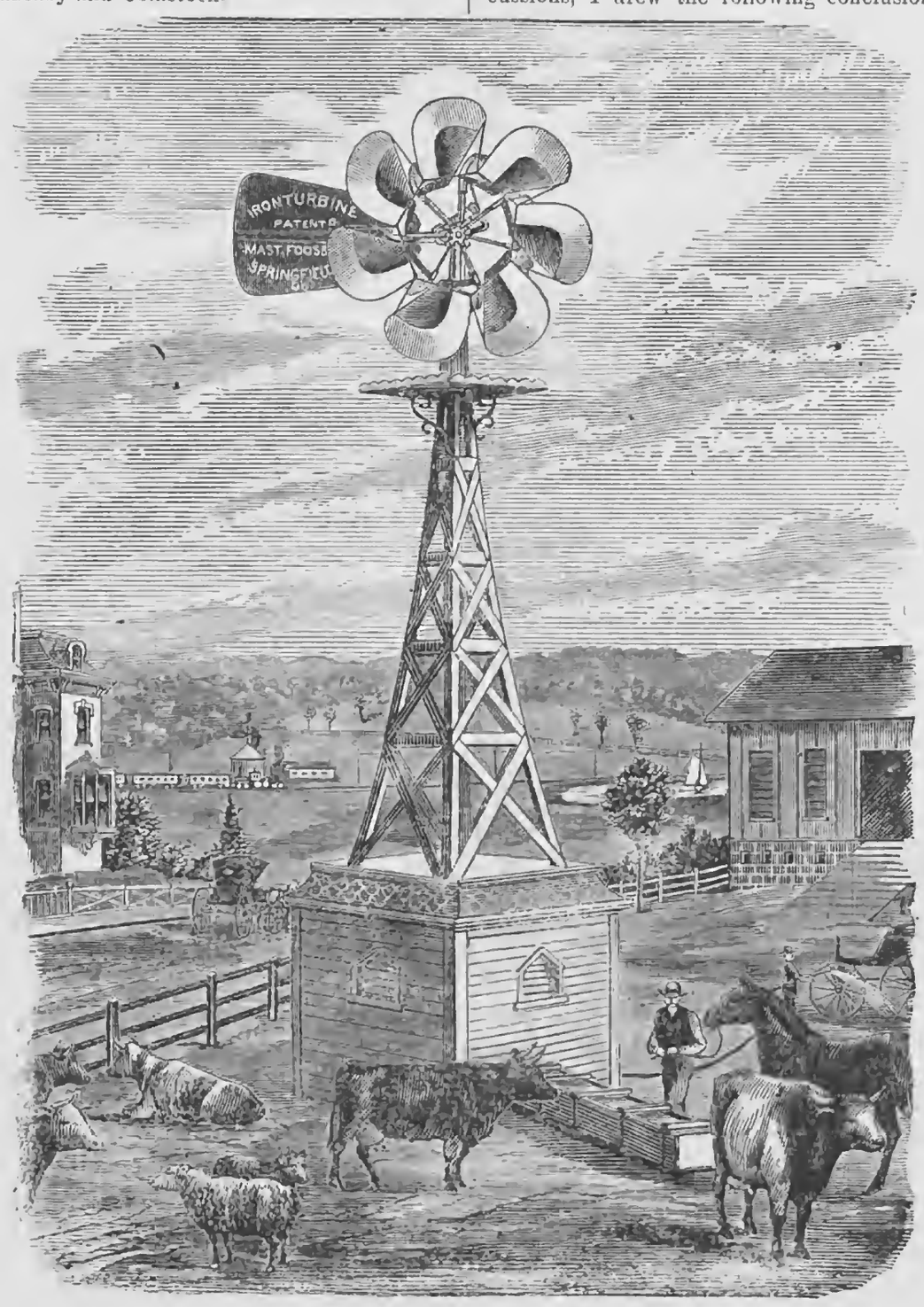
THE VEGETABLE GARDEN.—Many people never know the luxury or value of a good vegetable garden. They live from youth to old age without learning how to manage one. They never taste the best products except at the tables of others. People are too apt to forget to plant a succession of vegetables. The soil must be rich, the land well cultivated every week or oftener. We need not here repeat the special directions for the time of sowing and the treatment of each vegetable. Every seed catalogue gives these directions; and a catalogue can be had for a postal card. Plants which thrive only in warm weather must not be put out too early. Wait till the sun comes out hot. Tomatoes, squashes, sweet potatoes, corn, egg plants, will grow then as if by magic

EVERGREENS.—These are best transplanted in spring when the buds are pushing. Do not forget the thorough cultivation.

REPORT OF SORGHUM AND BEET-ROOT SUGAR MAKERS' CONVENTION.

Gen. Le Duc has high hopes of sorghum sugar; Prof. Caldwell by no mean dispairs of sugar beets; Mr. Stewart tells of his experiments in crystalizing cane sugar; an interesting discussion and conclusions drawn therefrom.

The Convention called to meet at the Courthouse in Elmira on the 10th inst. assembled at 10 A. M. Pres. Hoffman in the chair. The meeting was well attended by practical men of the immediate locality with a goodly number from a distance, Cornell University being represented by Profs. Roberts, Caldwell, Lazenby and Comstock.



NEW IRON TURBINE WIND MILL.

Naturally, the central figure was our Commissioner of Agriculture, Gen. Wm., G. Le Duc, who spoke in an informal way for several hours, answering many questions in regard to the details of raising various plants adapted to the production of sugar. He also set forth in plain and forcible language, the benefits to be derived from adding a new industry by which we might retain the large sums now paid to foreign nations for that indispensable article, sugar. While giving statistics in regard to the constantly increasing industry of growing and manufacturing the sugar beet in other countries, he called particular attention to the advancement that had been made during the last few years in the crystallization of the sorghum product. Although little had been said, the work had gone on, until, he believed, it was an assured fact that the cane sugar in sorghum could be as easily granulated and refined as the product of the true sugar cane or beet.

Prof. Caldwell spoke of several analyses which he had made of beets (as yet unpublished) and said that some years since he had tried to awaken an interest in this subject, but had failed to interest capitalists sufficiently so that they would embark in the undertaking. His opinion was, that the sugar beet is the most promising plant yet tried for Northern localities, but that it is not yet settled that sugar at present prices can be profitably manfactured from it, in this country. He urged repeated and thorough trials which he trusted might result in establishing a new industry on a firm basis.

Mr. F. L. Stewart of Murryville Pa., gave an account of some interesting experiments which he had conducted in making sugar from both cornstalks and sorghum, and claimed that he had discovered a method of treating the expressed juice of both plants while evaporating it, by which from eight to nine pounds of good brown cane sugar could be produced from a quantity equal to one gallon of deuse sirup. Prof. Englehart, of Syracuse, read a paper composed largely of valuable statistics which are for the most part available in various published forms. Prof. Roberts gave his experience as to the cost and methods of raising sorghum, beets, and mangolds, and compared the cost per acre with that of corn. Many questions were asked and discussed some of which proved too knotty for an accurate solution at the present.

Of these, the following are fair samples:

How much is a fair yield of gross product per acre of sorghum or beets? What is the average per cent. of cane sugar in the raw product? What is the average net profit to the farmer? While these with many other questions could not, in the nature of the case, be answered with certainty, yet from the discussions, I drew the following conclusions:

That the cost of producing an acre of sorghum is equal to that of two acres of corn; that it costs three times as much to harvest the former as the latter; that land which will produce good corn is adapted to sorghum and will give a good yield without extra fertilizers; that a good average yield is 160 gallons per acre of sirup, weighing 13¼ pounds per gallon; which is, under favorable circumstances, composed of cane and grape sugar in the proportion of seven to three; that from this we can obtain (if Mr. Stewart is correct) from seven to nine pounds of cane sugar per gallon. But our best chemists claim that in practice, this amount cannot be obtained, as no method has been discovered by which grape sugar can be converted into cane sugar.

The discussion also led to the conclusions: that the prospect is encouraging that sweet corn may be very profitably raised by using the ears in a milky state for drying and working the juices of the stalks into sugar; that these sugar plants are peculiarly adapted to localities of meager summer rain-fall; that the sugar-beet requires a rich, friable, loamy soil not full of undecomposed vegetable matter, and that, if the refuse is returned to the land, no exhaustion of the soil takes place; that if root culture becomes common in our rotation, it will materially improve the crops that follow: that the cost of raising roots on a given area is nearly three times as great as that of raising corn, with present methods, and that we have yet much to learn in economical production; that there is no difficulty on limited areas in getting an average yearly yield of 20 tons; while on large areas the yield may sink to 15 tons and on extra-fertilized small pieces it may rise to 30 or even 40 tons; that the manufacturer can afford to give $5 per ton for beets raised under proper conditions, which will result in a handsome profit not only to purchaser but producer.

The general feeling among farmers is, that most farm products are now selling at or below cost of production, and that a new industry which promises so well, and which, if successful, would furnish employment for idle labor and hoarded capital should be fostered by both national and State governments; that instead of building jails and poor-houses we had better be employed in building sugar mills; that the investigation of the intricacies of sugar production and the appropriation of money therefor, are far higher labors for the true statesman than the investigation and spending of money for——well—something that we already know all about. R.

The Apiarian.

PROVIDE HONEY PLANTS FOR PERIODS OF SCARCITY.

THERE is a period after white clover and bass-wood flowers have disappeared, from about the middle of July till some time in August, when bee pasturage becomes very scarce. This is particularly the case in dry seasons and in districts not favored with honey plants.

The beginner in bee-keeping may not be aware of this fact, or of the disadvantages that follow; we therefore offer a few suggestions as to how these may best be obviated. Whenever bees are compelled to live on reduced rations, the activity of the colony falls off. The queen stops laying, and the rearing of young bees consequently cannot go on. But the breeding should, under all circumstances, be stimulated at that season, so as to have a large army to gather honey from the fall flowers, and to make the colony strong for wintering. Bee-keepers, therefore, during this period of scarcity either feed back part of the honey gathered earlier in the season, or supply the needed pasturage by cultivating plants that will furnish a continuous bloom.

Feeding does well enough; but it is not the normal state of bees to require feeding. They are active, independent creatures that can be in a perfectly thrifty condition, and perfectly happy—if we may use the expression—only when they gather nectar from the stores of nature. And, besides, feeding causes some trouble and a loss of honey which they have spent time and work in gathering and the bee-keeper in extracting. The best plan is, therefore, to provide a pasturage to carry them through periods of scarcity. There is a large number of honey-producing plants that might be cultivated for this purpose, many of which we have tried: we shall, however, recommend only those we consider to be most valuable.

These are Mignonette, several members of the Mint Family and the Cruciferæ. Mignonette, *Reseda odorata*, is probably the best one of all, on account of its furnishing a continuous bloom from June until checked by the autumn frosts. It is very profuse in its yield of nectar and has the additional quality of perfuming the air most deliciously over a large area. Next in value we should put the members of the Mint Family, and of these especially Catnip, *Nepeta Cataria*, and Motherwort, *Leonurus Cardiaca*. These do not bloom so long as the Mignonette, but while they last they are perhaps richer in nectar than the latter. We have seen no plant so frequented by bees as the Motherwort, and that at all times, wet and dry. The cruciferous plants, Mustard and Rape, are also good. Rape blooms the earlier, and as it is in flower in about four weeks from the seed, it can be made to furnish a continuous pasturage from June till frost. Seeds of these should be sown now near the apiary, on a patch varying in size with number of colonies, from a few square rods to one acre. Prepare the land well and sow them all in rows; Mignonette about seven inches apart, the Mints and Rape nine inches, and tall Mustard 18 inches apart. Catnip and Motherwort are perennial.

There are but few flowers to bridge the period from fruit blossoms to white clover. The Honey Locust blooms then and also White Sage. The latter might be cultivated without much trouble.

Industrial Implements.

THE NEW IRON TURBINE.

As the value of wind-power becomes better known, farmers and suburban residents begin to appreciate and avail themselves of its advantages. As the demand has increased, inventors have set to work improving on the old-fashioned wind-mill until at present one would never—that is, hardly ever—suppose the latest improvement—the Iron Turbine Wind Engine—bore any relation to the flapping monstrosity against which Don Quixote shattered a lance. The greatest objections to wind-mills have been their proneness to blow over in a gale of wind, the insufficient quantity of water supplied during the calm months, owing to slow motion in light winds, and that ordinary wear and tear rendered them useless in from two to five years. The subjoined engraving of a wind-engine made by Mast, Foos & Co., Springfield, Ohio, is novel in almost every respect and combines many excellent features. The entire machine is made of iron, well braced. The turbine principle carried out in the wheel gives great power, and as the whole apparatus is fitted with extreme nicety, it is compact, durable, not apt to shake to pieces in a high wind, shrink or rattle. Nothing is added to its weight over that of other mills because it is made of iron, so there can be no objection on that score.

The machinery, or engine proper is constructed of the best materials and careful attention is given to details. The explanatory diagram of this wind-engine now before us gives a very clear idea of its construction and we think it would interest our readers to send for it if only to note the improvement in this class of machinery.

The Querist.

ANSWERS TO CORRESPONDENTS.

Queries about Stock.

P. E. K., Hutton's Switch, Md., has a mare with a swelling on the inside of one of her hind legs, extending partly to the hock joint. The cords extending upwards on the inside of the leg seem feverish and swollen. For three weeks she had not been working, and about 10 days before he wrote the swelling appeared without any premonitory lameness. She had the "scratches" during the winter, and is not entirely rid of them yet, and is heavy with foal, and he asks a cause and remedy for the ailment. 2. He has a horse that is an inveterate kicker in harness but quiet in other ways, and he inquires whether there is any cure for a kicker. 3. He asks whether rye bran feed will injure ewes that have yeaned.

Ans.—1. The injury is a sprain of the perforans tendon and is usually called *thoroughpin;* it was possibly caused by running or jumping while in the field. A sprain is best treated in its early stages by cooling applications to remove the inflammation; these may consist simply of cold water, of a solution of common salt in water, or of more complicated and costly mixtures, such as tincture of camphor and tincture of arnica, of each two ounces, tincture of iodine one ounce, to which one drachm of iodide of potassium has been added; alcohol, three ounces. This may be mixed with an equal quantity of water when used. It is sometimes necessary to give a purgative (Barbadoes aloes, four drachms) and follow with nitrate of potassa in half-ounce doses, three times a day, for a few days, to fully subdue the inflammation. Then blister repeatedly till all lameness is removed with cantharides ointment (one part cantharides to five of lard). The so-called blood sprain is a distension of the joint, the swelling appearing on its forward and inner surface. 2. Kicking in harness is a difficult habit to overcome; it requires good horsemanship and considerable practice, and even then such a horse is seldom safe afterwards. 3. Rye bran is no more injurious than other articles of food of the same class (bran); if fed in considerable quantities it will be better to mix it with corn-meal.

Restoring "Strong" Butter.

Subscriber, Plattsburg, N. Y., has 10 tubs of "strong" butter, and he asks whether it can be worked over and made fit for use.

Ans.—"Strong" or rancid butter cannot be fully restored to its original sweet, aromatic condition; but the rancid taste may be removed and the butter be so improved that it will pass for a second-class article. There are several ways of effecting this object. First, is that known as the Robbin's method. According to this the butter is first thrown into a tub constructed for the purpose, and from a reservoir placed above, warm water at a temperature of a 100° Fah. is allowed to fall in a shower upon the mass until it assumes a melted form. Then it is stirred to separate the buttermilk and other impurities, when a stream of cold water is showered over the mass until it takes a firm consistency. The butter is then laid on a butter table and fine salt worked into it by means of a corrugated roller. Second: rancid butter may be improved by churning it in fresh buttermilk, and if the butter is only slightly affected, it may in this way, with proper manipulations, be made palatable. After the churning, however, it must be again treated in the usual manner, to expel buttermilk, etc. Third: butter which has become quite rancid, can be restored to good flavor by softening it with warm water—say about the temperature of 100° Fah.—and then stirring it thoroughly in a quantity of sour milk. The acid condition of the milk is supposed to act chemically in taking up or removing the rancid flavor, in the same way that it serves to remove the flavor which is often imparted to the milk of cows fed upon turnips, and, at the same time, the milk imparts its aroma, thus tending to restore the flavor that belongs to freshly-made butter. Afterwards the butter must be worked, salted, etc., like fresh butter. Want of space prevents us from mentioning other methods.

Raising an Osage Orange Hedge, etc.

M. U. S., Stryker, Williams Co., Ohio, asks, 1, what pearl millet is used for: 2, how to plant and tend an osage orange hedge.

Ans.—Pearl millet is a forage plant, as we thought every reader of the RURAL knew. The grain is excellent food for chickens as well as for all kinds of stock. 2. The strip of land where the hedge is to be planted should be plowed in the fall and again in the spring. Plants can be procured from a nurseryman at less expense than they can be raised by the ordinary farmer, as they only cost from about $1.50 to $5 a thousand, according to size. When the land is ready, stretch a line to get the row straight, and set the plants with a hoe about 10 inches apart. Dig a hole for the first plant, which place in it at an angle of about 45 degrees, and with the hoe cover the roots with soil, taken from the hole of the next plant, and so continue till the line is finished. It is very essential that the hedge should be close at the bottom, and it is with this end in view that the plants are set at an angle. Keep the ground cultivated and mellow on both sides of the hedge. All weeds springing up in the row should be removed, and if cattle are running at large, the hedge should be protected with a fence. Next spring replace all missing plants with extra-strong ones; keep cultivating and allow them to grow undisturbed for three years. In the spring of the fourth year cut off the hedge a few inches above the ground and that summer it will make a growth which ordinary cattle will not have courage to break through. After this it must be kept in check with the shears, aiming to make it broad at the base and as tight as possible.

Precautions Against Sunstroke.

H. K. M., West Mansfield, Ohio, asks what is the best way to prevent sunstroke while working in the fields.

Ans.—Wear a broad-brimmed hat with ample ventilation, and on hot days carry in its crown a wet handkerchief, a fresh cabbage leaf, or something else of that sort, to keep the head cool. The use of liquor, over-exertion and mental excitement are all promotive of sunstroke and should be avoided in the heat of the day. Whatever tends to keep the body, and especially the head, cool, should be adopted and all that promotes heat, should be shunned. Most cases of sunstroke occur in the afternoon, partly because that is the hotest part of the day, and partly because the subject has been generally laboring for many hours and his vital powers are more or less exhausted; accordingly more care should be exercised then than at other times during the day. The attack is not always sudden; sometimes there are premonitary symptons, such as pain and a feeling of fulness in the head and oppression at the pit of the stomach, sometimes accompanied with nausea and vomiting and a feeling of weakness in the lower extremities, vertigo and dimness of vision. In all such cases the subject should at once discontinue labor, seek the shade and have the head and neck bathed with the coldest water obtainable.

How Strawberries and Raspberries "mix."

N. B., Brandon, Vt., asks, 1, if different varieties of Strawberries or of Raspberries trained to trellises, be set three feet apart, whether the blossoms will so fertilize each other as to change the general appearance and taste of the berries; 2, if so, how far apart should they be placed to prevent "mixing." He wishes to find out which varieties are best adapted to his soil and climate.

Ans.—There would be no perceptible change either in appearance or taste. Crosses would occur without doubt, but the seed alone would be notably changed, and this would manifest itself only in the fruit borne by plants raised from such seed. Of Strawberries we would mention Hovey's, Wilson's, Triomphe de Gand, Agriculturist. We would recommend you to *try* also Sharpless's Seedling and Cumberland Triumph. Of Raspberries, Davison's Thornless, Cuthbert, Gregg, Mammoth Cluster.

How to Bud in Summer.

L. B., Washington Co., Mich., asks if budding cannot be done in the spring as well as in the summer.

Ans.—The trouble is to get *buds*. Cions may be cut off now and placed in a cold room or ice-house, and if kept uniformly moist so as to prevent them from shriveling, buds from the cions may be used later.

Miscellaneous.

S. W. H., Metuchen, Middlesex Co., N. J., says: "My sow dropped 10 live, plump pigs and then died within an hour. For a week before she littered she seemed weak in the limbs. She discharged a mass of coagulated matter resembling beef lights immediately before the after-birth. Though not very fleshy, she was in good condition. What ailed her?"

Ans.—Probably uterine hemorrhage previous to pigging caused the weakness, and so reduced the sow that she had not sufficient strength to rally from the exhaustion of labor. The hemorrhage might have been caused by a fright, a strain, jam, or other injury.

B. F. McC., Carroll Co., Md., has a compost of equal parts of well rotted hog manure and hen-house droppings, well mixed together, and asks whether the same quantity of slaked wood-ashes would be a benefit or not.

Ans.—If the wood-ashes are mingled with the mixture before it is ready to be applied to the crop, they will liberate the rich ammonia of the hen manure, and most of it will escape. But if the ashes are added just before the mixture is used, it will be a decided advantage, as the soil will then retain the liberated ammonia until it is taken up by the crop.

N. C. D., Mt. Airy, Ohio, asks what are malt sprouts.

Ans.—The refuse grains that remain after the wort and the subsequent water are drawn off from the mash in brewing. The are called "sprouts" because in "couching," the second stage of brewing, the fibrils of the radicle sprout from the tips of the kernel, and, 24 hours later, the plumule appears at the same point and turns back under the husk, towards the end of the seed, where it would issue as a green leaf, if further germination were not arrested.

W. R. A., Williamantic, Conn., asks whether pearl millet will grow again if cut when about two feet high.

Ans.—Yes, but much depends upon the date of cutting and whether it is planted closely or otherwise. The season for this plant is very short in the above climate. It does not grow until settled warm weather and is checked by our first frosts.

W. B. McC., Corpus Christi, Texas, asks where he can find a market for dried rose leaves.

Ans.—There is a brisk demand for such goods in this city, but the price can be fixed only on inspection of sample. Apply to Hall & Ruckel, 218 Greenwich street, N. Y.

C. L. M., Fort Meade, Florida, asks where he can procure willow cuttings for basket-making.

Ans.—Of Parsons & Sons Company, Flushing N. Y.

COMMUNICATIONS RECEIVED FOR THE WEEK ENDING SATURDAY, APRIL 21st.

W. J. B.—A. L. J.—F. C. B.—M. B. I.—S. W. J.—M. W., Thanks—N. R.—I. P. R.—E. P. R.—H. S.—Bitter Sweet—E. S. L.—J. P.—May Maple—P. P. H.—E. K. L.—J. L. D.—J. R., Thanks—C. C. V.—I. V. T. H.—S. C. A. T.—M. O.—W. L. H., no—S. H. R.—J. P.—J. A. S.—F. P. R.—H. J. S.—R. N., come again—O. S. B., thanks—J. B.—Mrs. S. A. M.—M. E. T.—T. B.—J. V.—S. H. R.—W. L. H.—D. O'L.

Everywhere.

NOTES FROM NORTH CAROLINA.

For several days the weather has been quite cold and much anxiety has been felt about the fruit. In some parts of the State the frost has been very destructive to the early vegetables, as well as the fruits. In this section we have, still, very good evidence that the gardens and orchards will not disappoint us. The strong winds of the coldest nights, and the extreme dryness that prevailed, prevented the injuries which the thermometer indicated. It has now turned warmer, and our hopes are much encouraged. I do not remember to have seen heretofore such striking proof of the statement that the frost is not likely to destroy the buds when the air is dry. There is also reason to believe that the northeast wind is more destructive than the northwest. Perhaps it is because the former is more freighted with moisture.

Our people find themselves under the misfortune of a scarcity of corn. The price at this place is about 80 cents per bushel, and the poor have had to pay at the rate of $1 per bushel for meal. The causes are found in the shortness of the last crop and in the vast consumption of grain by liquor-distilleries. Different parts of our State are infested with reckless characters, known as blockade-distillers. Many if not all of them are men of desperate characters, who seem to be determined to carry on their illicit work at every hazard, no matter what the penalty. As long as they can evade those who are faithful officers of the government, they find money in the business; and they, of course, do not care how much their victims suffer, or to what extent all classes are made to feel the effects of such wholesale destruction of bread. It is certainly a crying evil. There is, apparently, an alarming increase in the intemperate use of intoxicating liquors by our people—perhaps I may say, especially by the laboring classes. I saw, the other day, a young farmer reeling with drunkenness, in his little wagon, as he was carrying home a load of commercial fertilizers. What hope is there that he will succeed on his farm this year? Twice recently I have seen a long train of wagons, loaded with fertilizers, passing through our village. It made me sad when I considered how poorly such farming as ours can afford so great an expenditure for such a purpose.

The months of February and March have been very favorable for early plowing. Repeatedly the ground has been exceedingly dry. April is proving true, and it is now raining. This spring is much more backward than the last. My rye is not quite ready for the sickle, whereas, last year, I began to mow it on the 9th of March.

Our farmer-legislature reduced the office of State Geologist to a sort of appendage to the Agricultural Department. The Commissioner of Agriculture was subjected to a severe investigation; and, though the Department was continued, it is embarrassed with the prospect of smaller receipts and new expenses. The Fertilizer Control Station, etc., is continued at the University. Dr. Ledoux, the chemist, is winning an enviable reputation and challenging the confidence and gratitude of all our people. As I prophesied, the legislators were afraid to do their duty by providing for the protection of sheep against dogs. The Legislature's friends (I mean the dogs) appear to be encouraged by the favor shown them by their high protectors, as I hear of murderous raids on the small flocks in this county. M.

Chapel Hill, April 7, 1879.

NORTHWESTERN ILLINOIS.

The first attempt at seeding here this spring was made on the 11th, 12th and 13th of March, when some wheat was sown; but the weather turning cold, and the ground freezing solid, nothing more could be done until about April 1st, when seeding was again resumed. Then three or for inches of snow fell on the 2d, and work was again suspended until the 7th and 8th, when some more wheat was sown; a copious rain on the 9th and 10th inst. completely saturated the ground and stopped work for a while; but now the soil is in good condition and seeding is progressing rapidly. Some have finished sowing wheat; very little oats or barley have yet been sown, but if the weather continues favorable for a week, most of the seeding of the small grain crops will have been finished.

The acreage of spring wheat will be somewhat diminished here this season, as the crop has not proved profitable the past few years, having been damaged by chinch bugs, rust, etc. I think, too, there will be somewhat less barley and oats sown than usual, as the season is now late and the farmers do not feel like risking much in late-sown spring crops. There will be a corresponding increase in meadows and pasture lands, and about the usual acreage of corn, potatoes, etc. The success attending the sowing of salt on wheat land, in the vicinity of Rochelle, Illinois, last season, has encouraged others in that locality to try the experiment this spring, as I am informed that a number of the farmers there are sowing salt on their land—about one barrel of salt to one and a half acre. It is claimed that the salt has a beneficial effect in stiffening the straw and preventing damages from chinch bugs and rust. After harvest I shall let you know the result. Winter wheat and rye have a promising appearance in this section. The large amount of snow the past winter, and the uniformity of the weather (there being but few sudden changes of alternate thawing and freezing), favored the winter grain very much. The acreage, however, of winter wheat in northern Illinois is not large. The number of acres in cultivation in 1878, of the different crops, in Ogle County, according to the estimate of the State Board of Agriculture, was as follows: corn, 134,868; winter wheat, 4,299; spring wheat, 40,427; oats, 63,377; meadow, 44,718; pasture, 18,977; orchard, 966. Acreage of other field crops (in 1877), 6,676; woodland, 16,129; improved lands, 415,839. Those last three items are from the Assessors' returns for 1877.

The total number of acres in cultivation in 1878, in the State, was as follows: corn, 8,672,088; winter wheat, 2,032,843; spring wheat, 291,912; oats, 1,560,120; meadow, 2,368,845; pasture, 3,983,459; orchard, 412,140. Acreage of other field crops (in 1877), 711,228; woodland, 5,607,990; improved lands, 25,338,072. The last three items are from the Assessors' returns for 1877.

These figures convey an idea of the extent of Illinois crops, but the immense live-stock and dairy interests should not be overlooked, and should be seen to be appreciated. We still hear the chronic complaint of hard times; but how thankful all should be that the "hard times" (?) are not caused through a famine.

Baileyville, Ogle Co., Ills., April 12. W. B. D.

RURAL SPECIAL REPORTS.

New York, Croton, Del. Co., April 12.—The winter just passed has been an uncommonly severe one in this locality, and as a consequence of this, or from some other cause, there has been an unusual amount of sickness. We had about three months continuous sleighing, from about Christmas till the latter part of March, and even yet there is a heavy body of snow on the hills about us. Very little maple sugar has been made as yet, and there is nothing to indicate a very rapid approach of "ethereal mildness." Farmers are badly discouraged at the butter prospect for the coming year.

E. J.

Michigan, Joyfield, Benzie Co., April 11.—Winter wheat looks well; farmers are preparing for sowing spring wheat and oats. Wheat is worth 75c. to $1; oats, 35c. to 40c.; corn, 40c. to 45c.; pork, 6c. per pound; land from $2 to $50 per acre. Quite a large number of newcomers arrived here last fall, but there is plenty of room for more. G. D.

Ohio, Bennington, Morrow Co., April 12.—Early sown wheat looks well; late sown, however, looks badly. Peach trees and raspberry canes are greatly injured by the cold winter. Many sheep look thin and sickly; other kinds of stock have wintered well. Apples are killed. Wheat, 95c.; corn, 32c.; oats, 22c.; butter, 12c.; eggs, 9c., and yet we are hopeful. J. L.

Musical Instruments,

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A $375 13-Stop Parlor Organ for only $97.00

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The price of this beautiful Grand Parlor Organ is $375 or, in other words, this is about the price asked for such an instrument by the **Monopolists** Agents I have been offering at wholesale at **$105**, as my very lowest net cash price. I am determined that all shall see my celebrated instruments and judge for themselves, and therefore I offer this beautiful, neat design, to the readers of this paper, **FOR ONLY $97.** Order the instrument, and **pay only after you have tested it at your own home.** Don't want the money until you are entirely satisfied. This is a very fair offer for you. ☞ Description of this magnificent instrument is as follows: **Beatty Organs, Style No. 2100.** A beautiful Celtic style of architecture in this case strikes the eye of the connoisseur and stamps it at once as the most beautiful case extant. Dimensions: Height, 74 ins; Width, 48 ins.; Depth, 24 in.; Weight, when boxed, over 350 pounds. **Three (3) Sets of Reeds. Five (5) Octaves. Thirteen (13) Stops.** (1) **Grand Organ**; (2) Principal Forte; (3) Dulcet; (4) Diapason; (5) Hautboy; (6) Principal; (7) Vox Humana; (8) Flute; (9) Violina; (10) Dulciana (11) Echo, (12) **Vox Celeste**; (13) Clarionet. Beatty's Celebrated **Grand Organ** Knee Swell, and Beatty's New and Improved Double acting Knee Swell. The case of this instrument is solid Walnut, full French Veneer, and finished in the **highest style of art.** The musical combination excelled by none. All things considered, it is the most desirable style that can be selected. I challenge its equal. ☞ Regular Retail price asked for such an instrument by the Monopolists' Agents, about.....$375-00

I will sell this beautiful Organ to the readers of this paper, in order to have it introduced, boxed and delivered on cars, **FOR ONLY $97.00**

Please send your order by letter or telegraph. **No money required until you are entirely satisfied.** Pay for the instrument only after you have tested it at your own home. If it is not as represented, return at my expense, I paying freight, charges both ways. This certainly is a fair offer. I positively will not deviate from this price ☞ **Fully warranted for 6 years.** I want this instrument introduced hence this unparalleled offer. Remember, I have no agent, but sell direct, hence this remarkably low price. **You can order direct from this Advertisement, which will not appear again.** Nothing can be saved on this instrument by correspondence. **Order at once.** If you do not want one yourself, order one and make your friend a handsome present. Every Beatty Organ when introduced into a new locality, sells others, **as it is a standing advertisement.** Please remember, the above unparalleled offer is good for a *limited period only*, and is made solely with a view of introducing this superb instrument. Trusting that by offering it at this very low price, I shall induce very many to buy this beautiful new style, thereby building up a demand that will eventually repay me for this sacrifice. **New Rosewood Pianos, $125, $135, $145 and upward.** Large Illustrated Newspaper, about cost of Pianos and Organs, sent free, post-paid.

Address, **DANIEL F. BEATTY, Washington, New Jersey, U. S. America.**

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☞ P. H. Hann, Cashier First National Bank, Washington, N. J., (Piano); J. L. Everitt, Cashier National Broadway Bank, New York City, (Organ); Wm. Underdown, Cashier Mechanics National Bank, Phila., (Organ); Rev. Josiah Swett, D. D., Highgate, Vt., (Piano); Rev. J. B. Good, D. D., St. Joseph, Mo., (Piano); A. J. Lowery, of Wells, Fargo & Co's. Express, Placerville, Cal., (Organ); and thousands of others throughout this country and Europe, are now using in their families Beatty's Celebrated Pianos and Cabinet Organs. ☞ Send at once for long list of testimonials from persons, some of whom you may know.

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In no case will I make a discount from these offers on a single instrument. Those who desire and will forward the cash with the order, will receive with the instrument free of charge a fine Stool and Beatty latest instruction book. I will not give away a Stool and Book when parties pay only after testing the instrument at their own houses. Please do not ask it.

$1,000 3-String Grand Square Piano for Only $255.00.

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Address, **DANIEL F. BEATTY, Washington, New Jersey, U. S. America.**

Wisconsin, Fort Howard, Brown Co.—In the Rural for Dec. 14, I claimed that a wet soil for an orchard was a preventive against root-killing on the ground that water could never get below 32° Fah. any more than it could rise to a greater temperature than 212°. The Rural objected to this statement, still it is a fact that trees hereabouts whose "feet" were wet stood the severe winter weather better than those on a dry soil. I don't want my trees in a sour soil, but I do want their feet to be wet when they freeze. Van.

[Water confined in a vessel in which expansion is impossible, and under several other conditions also, can be reduced to a temperature much below freezing point, without being frozen. The temperature of ice, too, is frequently many degrees below 32° Fah. on our cold winter days, and many degrees below zero in the long nights of arctic regions, and can be artificially reduced to a temperature so low as to produce a sensation of severe burning in the hand on touching it. Although under ordinary atmospheric pressure at the sea level, water is converted into steam at 212° Fah., still if the pressure is increased, as at the bottom of a deep mine, or by artificial means, it requires a proportionately higher temperature to vaporize the water.—Eds.]

Conn., Poquonock Bridge, April 12.—Farming here is hardly thought of yet. Occasionally a solitary old man may be seen trundling his little wheelbarrow about, and loading it with small stones after rapping them out of the frozen earth with the toe of his boot. Instead of taking the stones to the beach close by, where they would be out of the way of the team in plowing, he deposits them in small heaps a few rods apart all around the lot.

M W.

Vermont, Waterbury, April 10.—Sugar-making in this State is very late. Many sugar-maple orchards were not tapped until the present week, and very little sugar has been made hitherto. Potatoes are worth 65c. per bushel; corn, 50c.; oats, 25c.; eggs, 1c. each.

A. A. L.

Vermont, Brandon, Rutland Co., April 11.—Our mountains are still snow-clad and our valleys about half-covered with their winter mantle. Hitherto the ground has been frozen too hard to permit of the planting of peas even, unless a hole for them is prepared with an axe.

N. B.

Kansas, Sedgewick, Harvy Co., April 7.—Farmers hereabouts have finished sowing oats; some are planting corn, others plowing for it. Early wheat looks well; late-sown is all dead. Weather very dry. A. H. G.

(See page 291 for continuation of Everywhere.)

Stock and Poultry.

FOR SALE AT AUCTION!

Registered Swine & Jersey Cattle.

Having decided to give up stock breeding, my entire stock of Registered Small White Yorkshire Swine, and Berkshires and Jersey Cattle, will be sold on my place April 29th, 1869, at Auction.

"Brightside" is reached from New York *via* Harlem Railroad from Grand Central Depot hourly, to Morrisania Station; or by Morrisania Boats from Fulton Slip, Grand St., East 23d Street Docks, connecting at Harlem River with New Rochelle Branch of New Haven Railroad to Hunt's Point.

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Fine Fowls. 20 Thoroughbred Brown Leghorns. "Bonney's Strain." For Sale Cheap.
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L. BRAHMA and P. ROCK.
Exclusively. Carefully selected from two years' breeding. Price $1.50 per 13. Carefully packed for shipping. C. S. COOPER, Schralenburgh, Bergen Co., N. J.

HIGH-CLASS POULTRY.
Send for New Practical, Valuable Circular.
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New Publications.

5 MUSIC 5 BOOKS 5

Piano Arrangement of **H. M. S. PINAFORE,**
By H. Maylath. $1.00.
Contains 25 pieces taken from the attractive composition. Those who prefer the Vocal Score, can have it at the same price.

THE SORCERER, Words and Music. $1.00.
The Sorcerer is by the same composers as Pinafore and, musically, quite as good. Piano arrangement by Moelling; also for $1.00.

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Contains a large and well arranged collection of Sacred and Secular songs for Temperance meetings.

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A delightful Parlor Operetta, needing but two performers. Very good music.

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RASPBERRY PLANTS. All the leading and new varieties in large quantities and at low prices. Descriptive Catalogue Free. Address
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EVERGREENS
FOREST TREES,
Very Large Stock.
All Nursery Grown
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LOOK! FREE BY MAIL FOR $1, LOOK!
20 beautiful and scented Gladiolus in 20 varieties; 20 Double Tuberose, flowering bulbs. Millions of other good things cheap. Descriptive Fruit Circular **FREE.** Please mention this paper.
Address GIBSON & BENNETT, Woodbury, N. J.

NEW ROCHELLE AND CAROLINE—Two new Raspberries, hardy as an oak, producing 500 bushels to the acre, three times as much as any other kind. 1,000,000 Strawberry Plants. Rhododendrons, Kalmias, Azalias, New Clematis, Roses and Evergreens. Send for Catalogue. W. S. CARPENTER & SON, Rye, Westchester, Co., N. Y.

STRAWBERRIES. 15,000 Quarts
per acre. The genuine Parmelee Crescent Seedling has produced the above amount; is perfectly hardy and healthy; never known to rust or blight, this variety stands without a rival. Send for free Circular, giving full history and directions for culture.
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ARTICHOKES.
Red Brazilian and White French varieties; cheapest hog food known. Send for Circulars.
E. F. BROCKWAY, Ainsworth, Iowa.

Miscellaneous.

AGENTS WANTED New Devotional Work. By President Champlin. Will be bought by almost every Christian family. Circulars free. Address Am. Pub. Co., Hartford, Conn.

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50 Perfumed, Snowflake, Chromo, Motto Cards, name in gold and jet, 10c. G. A. Spring, E. Wallingford, Ct

60 CHROMO & PERFUMED CARDS [no 2 alike]. Name in Gold and Jet, 10c. Clinton Bros., Clintonville, Ct

60 CHROMO, PERFUMED, SNOWFLAKE & LACE CARDS, with name 10c. Game Authors 15c. Lynan & Co., Clintonville, Ct

25 of the PRETTIEST CARDS you ever saw, with name 10c, post paid. Geo. I. Reed & Co., Nassau, N. Y

It is a mistake to suppose that any department of a paper may be slighted. The most important information is to be found, at times, under the guise of an advertisement; and it is agreeable to the advertiser and a courtesy to the publisher to mention the source of your information—in other words, to mention the paper.

Trees, Seeds, Plants, &c.

Send for N. D. Batterson's Berry Basket Circular, Buffalo, N. Y.

SEEDS.—S. H. MARTIN, Marblehead, Mass.

VERBENA BASKETS, BERRY BASKETS, AND CRATES.
Write to MILFORD BASKET CO., Milford, Del.

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BEAUTIFUL EVER-BLOOMING
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THE BEST IN THE WORLD.

Our Great Specialty is *growing* and *distributing* these **Beautiful Roses.** *We deliver* **Strong Pot Plants,** suitable for *immediate* bloom, *safely by mail* at all post-offices. **5 Splendid Varieties,** *your choice,* all labeled, for **$1; 12 for $2; 19 for $3; 25 for $4; 35 for $5; 75 for $10; 100 for $13.** ☞ Send for our **New Guide to Rose Culture**—60 pages, elegantly illustrated—and *choose* from over **Five Hundred Finest Sorts.** Address
THE DINGEE & CONARD CO.,
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BLUNT'S IMPROVED PROLIFIC WHITE
SEED CORN.
The Most Prolific Variety in Existence; from 2 to 9 ears on one stalk; average 3½ ears; 100 bushels to the acre on poor land; selected seed. *Per bu.,* $10; *by mail, $1 per qt.; 75 cts. per pint; 40 cts. per ½ pint.*
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THE ALBANY SEED STORE, Estab'd 1831.
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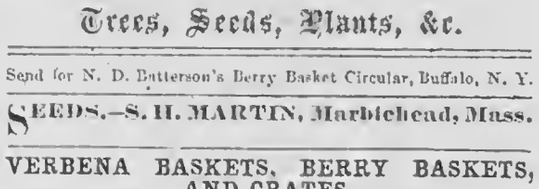

Spring Catalogue—250 illustrations—mailed on receipt of six cents in stamps, to prepay postage, which will be allowed on first order. 80 State St., Albany, N. Y.

Trumpet Creeper or Bugle Vine.
Grows 10 feet in one year. Perennial; hardy. 50c. per vine; seed 20c. per packet. S. A. E. WOLFE,
Canal Lewisville, Coshocton Co., Ohio.

JOHN SAUL'S
Catalogue of New, Rare and Beautiful Plants,
was ready in February, with a colored plate.—Many new and beautiful Plants are offered, among Dracænas, Crotons, and other fine foliage plants, with a rich collection of Green-house and Hot-house Plants; Bedding Plants; new and choice Roses; Dahlias, etc. Well grown and at low prices. Free to all my customers, to others 10c., a plain copy free.
JOHN SAUL, Washington, D. C.

10 ROSES MAILED FREE FOR $1
Splendid assortment of Plants sent safely by express or mail, any distance. Satisfaction guaranteed. Send 3 cent stamp for catalogue. Address,
R. C. HANFORD & SON,
Columbus Nursery, Columbus, Ohio.

Send for N. D. Batterson's Berry Basket Circular, Buffalo, N. Y

THE
RURAL NEW-YORKER.
PUBLISHED EVERY SATURDAY.

Address
RURAL PUBLISHING CO.,
78 Duane Street, New York City.

SATURDAY, APRIL 26. 1879.

CASH vs. CREDIT.

"Pay as you go" is an old saw but a wise one. It is the cheapest way and the safest. To run in debt is an American habit and there is no other nation in the world where credits are so popular as with us. We borrow with the greatest facility. The thought of pay-day rarely troubles the intending borrower; and the borrower and the debtor through purchase stand precisely in the same position; they are both borrowers in fact. It is only rarely that we come across a man who has the reputation of being a "solid" man, without any bubbles of credits in his business, and buying only for cash. The practice is so general that business is built up on that basis; sales are made in anticipation of a year's credit or even more, and public sales are never, or hardly ever, announced unless with the heading "CREDIT SALE" preceding them. At a cash sale one gives the actual value of what he buys and many who are tempted to buy at credit sales, will avoid a cash sale from habit if not from necessity.

The difference in the cost price of articles so purchased is an *enormous* tax on industry, self-imposed, it is true, but none the less onerous for that. This is poor management. "The destruction of the poor is their poverty." If we consider this ancient, but true proverb, in its narrowest sense, we shall miss its most valuable lesson. There are poor men financially considered; but for one of these who becomes so by unavoidable necessity, there are a hundred who make themselves poor. There are poor managers of their affairs; poor business men; poor farmers; poor readers; poor thinkers, and those with poor memories upon which the results of mistakes sit but lightly or rest not at all; and these are each and all worse off than the man who is poor as regards money alone. A man with brains and the capacity to use them; who can foresee chances of profit and who can seize them as they come; who is shrewd, prompt in action and enterprising, is a rich man as compared with one who possesses none of these advantages, but who has only money at command. There are rich poor men, and poor rich men; and these soon change places. "I have entered into a patnership" said one, "my partner finds the money and I find the experience." After a time this one said "I have dissolved partnership; I have now the money, and my partner has the experience." It will always be thus: the poverty of the man who is poor in business ways, destroys him.

There are some maxims in business which a man, and especially a farmer who is generally defective in this respect, should write on the first page of his memorandum-book or diary, and read over every day. Some of these are: "Owe no small debts." "*It is better to borrow money on a note, or a mortage and pay a moderate interest on it, than to have a number of small debts out.*" "BUY FOR CASH." "SELL FOR CASH." "*Do not buy a thing that you do not want.*" "*Do not want a thing because it is cheap.*" "AVOID AUCTION SALES." "*Never endorse a note.*" "If you wish to oblige a friend and have the money, loan it to him; but put your name on no man's paper." "An endorsed note comes due always at an inconvenient time." "Never count your money until it is in your pocket." Many others might be added: but here are enough. If you want good authority for these, we may refer you to Solomon first, in whose ancient writings all these, and many more of similar import, may be found. Since his day these maxims have been iterated and reiterated until they are trite enough, but yet the great majority of men ignore them.

A man becomes prosperous by attention to small details. "Small leaks sink a ship." A habit of looking after small matters causes a man to carefully regard larger affairs; while on the contrary, looseness in the former respect, produces carelessness in regard to the latter. A business man who regards economy and safety, will never fail or become embarrassed; and there is nothing else in the way of business that is so economical or safe as dealing for cash. There may be men who consider that a debt, is a debt; that there are no degrees or differences in this respect. But there are debts and debts; and some are excessively more costly and burdensome than others.

We consider this subject of so much importance, that we think it a duty to devote some effort to put it in the clearest light before our readers, so that they may see it to their interest to go hereafter on a cash basis in their dealings. We expect to use figures to elucidate the subject, and having devoted here as much space as can be afforded to introduce it, we leave it for the present for our readers' consideration.

PROFIT OF CORN-GROWING, EAST AND WEST.

OUR Eastern agricultural papers and their correspondents, and the talkers at agricultural meetings, are very fond of arguing from statistics—which show larger average yields in the East than in the West—that Eastern farmers can grow corn as cheaply as their Western brethern. There is no bottom to such statements so long as corn can be grown in the West without manure or fertilizers. Neither, when it comes to manuring, can our hill farmers ever grow corn as cheaply as it can be grown upon prairie and plain lands. But there is no doubt that, by the adoption of Western methods of tillage, a great reduction can be made in the cost of our corn crops. The gang plows, the planters, smoothing harrows and two-horse cultivators used at the West, can as well be used on all moderately level Eastern lands, and thus one man can tend about as many acres of corn in one section as in the other.

There are already many instances where crops of corn have in this way been made at very low cost even in New England. And time, which "sets all things even," is working for this kind of equalization with the lapse of each succeeding year. The fertility of Western corn lands is declining; the increase in cattle both for beef and for the dairy in that section, the demands of a rapidly-growing city and village population there, the uses of grain for sugar-making, distillation and other manufactures, all point to higher prices for Western produce; while the adoption of Western methods of culture, the improvement of seed, and greater skill in fertilization of the soil and the handling of large crops, all tend to cheapen Eastern corn to the growers. Therefore we may look for a continous increase of the corn crop on all suitable Eastern lands, and a consequent decrease in the demand for Western corn on our farms, if not in our towns and cities. This is well for both sections; for the West ought to make its corn into meat and other compacter forms before shipping it. That is the way to prevent further decline in the fertility of Western farms, and to give more profit to Western farmers.

THE FARMER'S ROAD TO SUCCESS.

"You must be sure of two things," said Caleb Garth to Fred. Vincy. "You must love your work and not be always looking over the edge of it, wanting your play to begin. And the other is you must not be ashamed of your work, and think it would be more honorable to you to be doing something else. You must have a pride in your own work and in learning to do it well, and not be always saying, 'There's this and there's that—if I had this or that to do, I might make something of it.' No matter what a man is, I wouldn't give two-pence for him," here Caleb's mouth looked bitter and he snapped his fingers, "whether he was the Prime Minister or the rick-thatcher, if he didn't do well what he undertook to do."

We have often wished we could impress these ideas upon the minds of every young man in the country, and especially of young farmers and farmers' boys. Every one who will bring his life in accordance with them, will most assuredly win success. "You must love your work." This you can easily learn to do if you will give your thoughts proper direction. There is not in the whole list of industries one that has so much of real interest as farming. It embraces the whole list of sciences—chemistry, geology, physiology, animal and vegetable; minerology, botany, entomology—there is not one that does not belong directly to the farmer and upon which he cannot, if he chooses, draw at will. In what is more pleasure than in gaining information? To the farmer the whole exhaustless book of Nature is open, for him to read as he labors. Every hour of every day turns a new and interesting page. If he will but read it, he cannot fail to love his work.

"You must not be ashamed of your work." Why should you? It shows a weakness one should blush to own, when the very best men of our own and all other times have united in its praises. "The most healthful, most useful and most noble employment of man" deserves better than that any one should be ashamed of it.

"You must have a pride in your own work, and in learning to do it well." It is just this that makes all the difference between success and failure. The farmer who works constantly under compulsion and goes to his labor with the feeling of a slave, without ambition, without enterprise, *is* a slave, and will always remain so, and his wife and children are with him in servitude bound down by the bonds his want of pride in his work impose upon him. But let such a man determine he will raise a better crop than his neighbor, and his ambition is at once aroused, his energy is excited, his success nearly assured, and a pride awakened which is the promise of better work in future. And it is better work in all departments of agriculture that is needed—better soil, better seed, better culture.

To do well what one undertakes to do is a duty. No matter what the task may be—plowing a furrow, planting a seed, building a bridge, painting a picture, writing a sermon, teaching a child, anything from smallest to greatest, he who fails to do it as well as he can, is guilty of fraud. No man worketh for himself alone. The laborer is certainly worthy of his hire, but the world has a right to demand that the products of his labor shall be as good and as great as he can make them. The man who, being able to work, remains idle, defrauds the community by just so much as he, by his productive labor, could contribute to its wealth, and he who produces less than he might, owes a debt to society he can never repay.

The path of duty, then, for the young farmer is a plain one. He must love his work and not be ashamed of it; he must take pride in what he does and he must do well what he undertakes to do. Besides, the path is not only a plain, but it is a pleasant one. An occasional Thistle may obstruct the way, but it will be easily removed, while Roses blossom on either side and the end is success.

THE TULIP TREE.

IT has occurred to a writer in the London Gardeners' Chronicle that our Tulip Tree (Liriodendron tulipifera) would form a valuable tree for town planting, "as it is a robust grower, and I should think from the smoothness of its bark and polished foliage, it would stand smoke, smut and dust almost as well as the Plane and Poplars." "What grand objects they would be," he says, "along the Thames embankment, and along our public parks and squares!" This Tulip Tree is one of the noblest trees in cultivation, and it shows how little our people study such matters that it is so seldom seen in *our* parks and squares." The same writer says: "It is in the autumn, however, that these trees are the most striking, their leaf coloration being then grand in the extreme, and I have regretted that I could not preserve the leaves with all the rich and beautiful tints they then assume." Do the leaves of the Tulip Tree assume such beautiful fall tints as this writer describes? All that we have ever seen turn yellow, the ordinary color of dead leaves. Or do the leaves assume richer colorings in England than here?

Economy.—This will apply to labor of all kinds. It is economy to have every thing ready before beginning work. It is economy to have good tools, a good start, a fast-walking team and a good hired man. It is economy to feed the teams well and take care of them. It is economy in order to raise good crops to sow good seed of the best varieties. It is economy to ditch or tile-drain heavy land and all land which is springy, if it is to be sown with crops. In other respects many farmers could with profit practice more economy. They should save more, and waste less. They should shelter tools and keep them in good repair. They should secure crops in season. They should continue to use up all materials to the best advantage. Manufacturers understand this and learn to save the refuse materials and waste nothing.

A Wild Garden.—At this season of the year, again the early spring flowers and ferns are putting forth their tender growth. Every lover of Nature admires these beauties of the vegetable kingdom. Select some nook in the garden or in the yard, and transfer some of these favorites where they may be often seen and studied. Remember to study the nature of the plants which are removed. If they like shade, or sun, muck, wet or dry soil, give them their choice of these. With a very little encouragement and an opportunity, the children will delight to do this part of the work. It will keep them busy, teach them to love Nature and their rural homes. Give our wild plants a chance.

BREVITIES.

HINT FOR THE SEASON.—"Now or never."

UP with the Lark and to bed with the Robin!

GOOD reports regarding hardiness of the Snyder Blackberry reach us from the West.

MR. J. J. THOMAS finds only a slight difference between the Peaches "Amsden" and "Alexander." Mr. Geo. Husmann, of Missouri, prefers "Amsden."

PROF. BEAL states in the Fruit Recorder, and Mr. Thomas, of the Country Gentleman, inclines to the same view, that scraping the stems of Apple trees is worse than useless.

THE Large-leaved Hemlock is one of the most desirable of dwarf evergreens. While the species has been seriously injured by the past winter, the above variety (macrophylla) has not been harmed in the least.

ONE of the hardest things for horticulturists to do is to displace the Concord Grape and the Wilson Strawberry. They have an immense "constituency" all over the country, and their friends stick to them like leeches.

DO not forget to sprinkle the nests of sitting hens with sulphur. When they come off their nests for their daily bit of recreation, have ready for them all that they *need*, so that they may return to their work contentedly.

TWO of the mistakes made in our seed distribution were these: A subscriber applied for ten varieties of seeds and specified that he did not *want* any potato. He received ten potatoes and *no* seeds. Another subscriber who wanted all potatoes received the ten varieties of seeds.

WE asked Mr. S. B. Parsons, who has devoted years to the study of the Queen of Flowers, what Hybrid Perpetual Roses he would choose could he have but two? His answer shows that he is not carried away with the late "improvements" of that flower, viz., Gen. Jaqueminot and Madame Plantier.

MUCH was said last year about the advantages to be derived from harrowing wheat in the spring. But many trials seem to show that it is not specially helpful.

> "Oh! friendly to the best pursuits of man;
> Friendly to thought, to virtue and to peace,
> Domestic life in rural pleasure passed."

A CAREFUL look over our Raspberry plantation shows us; first, that it has not been so much injured as we had supposed; second, that several varieties which are believed to be among the *hardiest* have been injured more than some other varieties which are generally believed to be among the *less* hardy sorts. The best definition of a hardy Raspberry is "that from which in the long run we can pick the most berries."

MR. E. E. BARNEY, who is at so much pains to enlighten the public respecting the durability &c. of the Catalpa, and especially of the variety *Speciosa*, quotes from the RURAL NEW-YORKER of fifteen years ago: "The Catalpa is the most durable wood known, excelling Black Locust, Red Cedar, and Mulberry in that it has no sap wood, so that trees of three or four years' growth would not rot when set in the ground for fence-stakes, hop or bean-poles."

WEAKER THAN A WOMAN has won golden opinions from our subscribers. For several months we have been in daily receipt of letters praising it in unstinted terms, which has been very gratifying, as we are at great pains and no little expense to secure stories which, in our opinion, deserve a place in our columns. It is extremely difficult to find a story that is dramatic, intense and at the same time pure in tone. The average author is seemingly impressed with the idea that, to make his tale piquant, he must either introduce impossible adventures and caricatures of ordinary humanity, or (what is still more to be condemned) the morality (?) that disfigures most French novels. Our present serial will be completed in the course of six or seven numbers, when we will begin another which we have no doubt will rival in popularity the old favorite, Weaker than a Woman.

WE CALL the attention of *every* reader to the remarks on this page under "Cash against Credit." Read it every one, trite as the subject may appear. *Credit* is becoming the *bane of farmers* to a degree that few who ask and accept it realize. The borrowed dollar of to-day is looked upon as if it were in part a gift, and the fact that to-morrow we may have two dollars to pay for the use of it, is not considered. We propose so to present this subject in a series of articles, as to oblige farmers to *feel* its vital importance. We therefore urge our request that both old and young—but more especially the latter—will read what we have to say patiently and thoughtfully even though, at the outset, they may deem that we can offer them no instruction upon a subject which from early times has been uphorized to death. That millions of dollars are squandered yearly in the purchase of agricultural implements alone, that, if these were bought for cash, might have been saved to the farmer and his family, is stirring proof that the lessons of these aphorisms, like the most self-evident laws of health, are by many disregarded the same as if they had never been written. Agricultural implements are necessities to modern agriculture. No other journal has more persistently set this forth than the RURAL NEW-YORKER. But in the business of farming there is no margin of profit which allows the farmer to pay double the value of an implement for the privilege of using it a year before it must be paid for. A mortgaged home with us stands foremost among the dreaded things of life. But it is the part of wisdom rather to pay seven per cent. on a mortgage-debt than twenty-five per cent. for the privilege of not paying for goods when purchased.

Literary Miscellany.

CRUMBS.

BY MRS. BETTIE KEYS CHAMBERS.

THE lesson which once has been learned,
Is never so hard to repeat;
And the lane which once has been turned,
Is never so rough to the feet.

Tho' over and over again
We're learning the lesson of life,
There's something we long for in vain,
'Mid folly, and tumult and strife!

But why are we never content
If Faith in our bosoms we keep?
Tho' false with the true may be blent—
'Tis better to smile than to weep.

Each day we may gather some bliss,
Which close to our hearts we may bind;
To make us courageous in this,
While waiting the next life to find.

Each day has its shadow and shine,
Tho' mingled with tempest and rain;
Each evening must surely decline;
The night with its rest come again.

Each footstep we make in the snow,
Is weary and chilling, my dear:
But nearer the valley below,
Is smiling our spirits to cheer.

And under the snow, 'neath our feet,
May, dormant, lie some little seed,
To spring up all lovely and sweet
Because of our step it had need.

There's many a gladness we lose,
Which love to our clasping has led,
Because we reach farther and choose
To grasp at a shadow instead.

Then do not be gloomy, nor sad,
Whatever our lives have in store—
We cannot unmix good and bad
Till landed upon the bright shore.

I know there are times when the heart
Is yearning for something above,
All joy which on earth hath a part,
All peace which is gathered from love.

I know 'tis but symbol and sign
Of what we shall hereafter be—
My spirit but asks the Divine
One boon—to be folded with thee.

Then do not be gloomy, or sad,
But let us walk steadily, friend,
And look up—our bosoms made glad
With cheerfulness unto the end.

[*For the Picayune.*

AN UGLY GIRL.

(Continued from page 254.)

CHAPTER VI.

MISS CARISFORDE'S DUENNA.

AN elegantly-served dinner was set before Noel, and the servants in attendance treated him with as much respect as if he had been really their lord and master; but he had no appetite, and the civilities of his attendants were so irksome to him, that as soon as he had ascertained Mrs. Estcourt was sleeping comfortably, he asked to be shown to the chamber he was to occupy. On the following morning in a more equable frame of mind, he was met in the breakfast-room by a comely, elderly matron. She was in deep mourning, like the rest of the household, but a penchant for bugles had led her to introduce them into her costume so profusely, that from head to foot she glittered at every movement. This lady bustled forward to meet the guest, and volubly introduced herself as Mrs. Hurst.

"H-u-r-s-t," she spelled, tapping her palm with her forefinger the while. "I like to be exact on these points: we are not exact in this world, are we? Mrs. Hurst, relict of a very worthy man, and the lady under whose care Miss Carisforde was placed some years since. My dear niece Hillian has described your lordship to me, so we will waive all formality, and proceed to breakfast. You'll not object, perhaps, to communicating with me by signs? It commenced with the mumps, and ended in deafness—temporary, of course, but extremely inconvenient, just now, too, when I might have been of so much service to the poor child. You take sugar?"

Noel moved to the seat to which Mrs. Hurst pointed, and then glanced at the door by which he hoped to see Hillian Gray enter; but she did not appear, nor, although he exerted all his ingenuity, could he make the lady understand his inquiries for her niece. When he asked if Miss Gray would not join them, she smiled blandly, and begged him not to make any further apologies, for it wasn't of the least consequence; she had not minded the delay at all; it had given her time to decide whether she ought to put him on the right hand or the left, whether he would prefer the window to the fire, or *vice versa*. In fact, now she came to think of it, she had only waited three minutes and a half precisely.

"And if it had been twice as long," she added, as she poured out the coffee, "the pleasure of your society would have compensated for it. We have been so low ever since the event—so frightfully low and depressed. It ought not to have happened, you know, at only fifty-nine and the Carisfordes such a long-lived family. You look very healthy yourself, my lord; an excellent constitution, I should say, judging by appearances, which are not always deceitful. Yes, so very low, that it's really delightful to be able to to enjoy a little cheerful conversation once more."

The good lady appearing quite unconscious that she was indulging in a monologue, Noel could only nod and smile, and submit to be reduced to absolute silence by his inability to make himself heard.

"I shall visit your good mamma," Mrs. Hurst told him presently, "as soon as Hillian can go with me to interpret. It is not every one I can understand as quickly as I do you; but then your eyes and gestures are very expressive. Yes, I shall take Hillian with me; but with one of her frightful headaches—which is sure to end in cloths dipped in vinegar and a darkened room if she persists in exerting herself—how is it to be done? Unless Mrs. Estcourt is equal to a slate, then, indeed, I could go to her directly. What do you say?"

Noel had to consider awhile before he comprehended that Mrs. Hurst proposed holding a conversation with his step-mother by the help of a slate and pencil, and could, by a grave shake of the head, put a negative on her proposal. Much as he regretted the indisposition of the good-natured little Hillian, he could not help feeling glad that Mrs. Estcourt would be left to herself till she had partially recovered from the shock of her disappointed hopes, and would be less likely to disgust all who heard her with the peevish virulence of her lamentations.

"Not equal to it? Poor soul!" cried Mrs. Hurst, sympathizingly. "Just my own case when I was robbed at the railway-station; three large trunks, beside bonnet-boxes, and all Hillian's wardrobe—it was a great responsibility, you know—and couldn't remember for the life of me whether my desk, with a fifty-pound note in it, was in the stolen trunk or one of the others. Whenever I spoke I screamed—not intentionally, of course; and I'm sure I felt as if I should have dropped when I saw the porters clap their hands over their ears. Very distressing, wasn't it? I wish you would try another egg, my lord—pray do!"

But Noel was not to be persuaded, and Mrs. Hurst, rising from her seat, came to his side, and laid the fat little forefinger, with which she always pointed her discourse, on his coat-sleeve.

"Then I'll tell you what we'll do. I will go to the housekeeper's room and superintend the making of some jelly for Mrs. Estcourt; highly restorative, and from my own recipe. I tried it first on a favorite dog, and the effect was wonderful! If the poor pet had not died suddenly in a fit—which will happen, you know, and no preventing those attacks—I'm sure I should have brought Fido—did I tell you that his name was Fido?—yes, I should have brought him round. And while I make the jelly, Mrs. Martin shall show you over the house. You'll find plenty to amuse you; and if Miss Carisforde really will not come down to dinner—which I think a mistake on her part, and I mean to tell her so—we will have a cosy evening *tete-a-tete*."

The smiling, talkative, self-satisfied but really warm-hearted old lady trotted away to fulfill her intentions, and Noel, learning that his stepmother was not ready to receive his proffered visit, gladly availed himself of the services of the prim housekeeper, who came at Mrs. Hurst's suggestion to escort him through the principal apartments of the mansion.

Mrs. Martin was not accustomed to play the cicerone, and filled the office so badly, that when she had led the way through half-a-dozen dreary though magnificent saloons, and opened the door of the library, Noel was glad to civilly give her her dismissal. She was not an old servant, and had none of those quaint legends stored in her memory that we generally hear from the custodians of our ancient halls and castles. The late lord's suite, which communicated with the library, was full of pictures and statues, she said, and his lordship was at liberty to go wherever he pleased, except into the tower. Miss Carisforde was occupying the principal rooms in that, and might not like to be disturbed.

Promising to respect the heiress's retirement, Noel wandered at his leisure from picture to statue, from statue to cabinet, sometimes admiring the rare works of art the Viscount had collected, but not unfrequently wondering at the taste that preferred whatever was antique to the equally beautiful productions of our own times; and when his head and eyes ached with gazing, he opened a glass door, and stepped out, to take from the gardens a survey of the exterior of the mansion.

Carisforde was an imposing structure. It had originally consisted of the tower already mentioned and a square block of buildings, to which in the Elizabethan age considerable additions had been made, irregular in their shape and very picturesque; but neglect had made sad havoc. The stonework must have been decaying for years, and nothing had been done to arrest it. Even to the unpractical eye of Noel several portions of the wall looked positively unsafe, and, if left in their present state much longer, would require taking down and rebuilding. It was grievous to see so fine a place in this condition; the grass-grown avenues, the wood-choked *parterres*, the moldering gateways, and crumbling doors and casement frames, giving it the air of having been untenanted for many years.

The deserted, uncared-for appearance of the house was so depressing, that ere long the young man was glad to return to the library, which Lord Carisforde's affection for his books had induced him to keep in something more like repair.

Here he found plenty to amuse and employ him till a message from Mrs. Estcourt summoned him to her presence. She was dressed, and sitting in an arm-chair by the window, yet in answer to his hope that she felt sufficiently recovered to return to town at once, fretfully protested that she felt worse than on the previous day.

"But I did not send for you to speak of myself," she added, beckoning him to draw nearer. "I have seen Miss Carisforde. Yes, she has been here, and I have pleaded your cause well and boldly."

"My cause!" cried Noel, knitting his brows. "Surely you have not led her to think that I complain of her father's will."

"I told her the plain truth: that it was her duty to give up the property to you; that she could not, in common justice, act in any other way. Is it your fault that some extravagant ancestor alienated it? Are you not the rightful heir? and have we not been scandalously deceived about it? Now don't look at me in that manner, Noel. Some one must fight your battles for you if you haven't spirit enough to do it yourself. You know very well that if you were left alone you are simpleton enough to go back to town as poor a man as you left it!"

"I wish to heavens I had not listened to the doctors; but put you into the fly and carried you away last evening," retorted the incensed Noel. "How could you make such a coarse—such an inexcusable attack on the feelings of this poor girl; or how could you imagine that, even if she were willing to relinquish her rights at your dictation, I should take advantage of her inexperience and generosity?"

"You talk romance, whilst I practise common sense," his step-mother replied. "If I contrive to make good terms for you, I suppose you will be grateful?"

"What do you mean by good terms?" asked Noel, scornfully. "Do you forget that guardians are named in the Viscount's will, who will take care that Miss Carisforde is neither teased nor persuaded into any follies? Did she not remind you of this?"

"She scarcely spoke; she only cried, and wished her papa had bequeathed this hateful money to anyone but her. Anyhow, Noel, I am sure I contrived to prepossess her in your favor. If you could but make up your mind to marry her! It seems madness to fling away such prospects."

"Does it?" said her stepson, dryly. "Do you think if my father had lived, he would have sanctioned an act so mean—so base as the wedding of this poor young creature solely for her money? Pray hear before you interrupt me, Mrs. Estcourt. It may save both of us some trouble if I make my intentions clear to you at once. Your interference is useless. I will do nothing of which my conscience disapproves. The few hundreds that Mr. Whitely tells me I can claim, I will immediately make over to you; with these you must be satisfied; for I have resolved to leave England."

"Of course, any addition to our income will be acceptable, although this is very little compared with what I expected from you," murmured Mrs. Estcourt, with her handkerchief to her eyes. "Irene is so careless with her clothes, and the boys are beginning to be frightfully expensive, that I'm afraid I cannot do much with a few hundreds, especially as one must live in something like style now you have succeeded to a title. How much per annum will it really be?"

She was beginning to find consolation in her prospects, as Noel had predicted that she would.

"I will tell you more particulars when I have seen Mr. Whitely again," he answered, briefly. "What time can you be ready to accompany me home?"

Mrs. Estcourt cast a rueful glance at the weather.

"Not to-night, Noel. It rains; the wind is rising, and I—I can't bear the jolting of a railway-carriage while my nerves are in this state."

"Then I must go without you. I cannot and will not remain in this house any longer. Miss Carisforde may think I am in league with you to annoy her."

"I never was spoken to in this manner, not even by your papa," whimpered Mrs. Estcourt. "It's downright unfeeling to propose dragging me away on such an evening. It would be the death of me, and then my poor children would be orphans."

"Pray say no more," interposed the vexed Noel, who saw that she was on the verge of hysterics. "I should be sorry to treat you with any lack of consideration. Only promise that you will not attempt to have any more interviews with Miss Carisforde, to whom I shall make your excuses and my own, and I will defer our departure until eleven o'clock to-morrow morning; but not a moment later. You will be ready?"

His step-mother sullenly assented, and Noel went away to pen a polite note to Miss Carisforde, merely thanking her for her hospitality, and stating that he and Mrs. Estcourt proposed leaving the Park by an early train on the following day, signing himself, with best wishes, her obliged kinsman, etc.

This done, he set himself to while away the remainder of the day as best he could. Mrs. Hurst did not return; doubtless she was in attendance on her niece, and he dined alone, returning as soon as the cloth was removed to the library. As the night closed in the wind rose to a hurricane, whirling and eddying around the old house till its roar was almost deafening. Once or twice Noel opened a shutter, and looked out; but the darkness was so intense that he could see nothing but the glimmer of a lamp in the windows of an apartment in the tower, to which the housekeeper had pointed as occupied by her young mistress.

Returning to his seat, he endeavored to forget the storm in the pages of a favorite author; but he was unable. The rattling of the casements and the moaning of the blast continually disturbed him, for mingling with these sounds he seemed to hear others; the sobs of a woman at no great distance, and the rolling of carriage wheels, as if, despite the lateness of the hour, visitors were arriving.

At last he could not refrain from opening the door of the library to ascertain whether a carriage had actually approached the house; but all was so still, that, half-ashamed of the tricks his imagination was playing him, he snatched up his book once more, determined to concentrate his attention upon it; but studying became impossible, when a conviction stole over him that he was not alone; that in a distant corner of the room, to which the lamp hanging above his head did not penetrate, a shadowy figure was standing—a female figure with glittering eyes that watched him with unwavering intensity.

CHAPTER VII.

THE STORM INCREASES.

Noel—Lord Carisforde—was as brave as most men, but to sit quietly reading while the wind was raging tempestuously around the house, and some voiceless shape hovered in the obscurity, was more than she could do. Starting from his seat, he crossed the room to where the figure stood; but it vanished as he approached—vanished so suddenly and utterly, that he was confounded, especially as he could find no door by which this person could have escaped him. Still he felt convinced that somewhere in this part of the library there must be another and carefully hidden mode of egress, for a current of air swept across his face as he drew near, such as would be created by the sudden closing of one.

Confounded by so strange a circumstance, he returned to his seat, but not to read. It was possible that Miss Carisforde had been seized with a curiosity to behold the man who had been selected by her most eccentric parent as her bridegroom, and had resorted to this manner of gratifying it: but if so, how odd—how peculiar. Neither was it pleasant to find himself the object of a scrutiny indulged in this manner; and so distasteful did the apartment become in which he was liable to be stolen upon at any moment, that Noel would have rung for a candle, and retired to his chamber, if the fury of the blast had not only rendered sleep an impossibility, but reminded him more forcibly than agreeably of the ruinous state of several parts of the mansion.

Presently a terrified maid-servant appeared to beg his lordship to go to Mrs. Estcourt, who had been so alarmed by some bricks falling down the chimney of the room she occupied, that she was screaming for him, and could not be persuaded that she was in no danger.

When Noel reached his step-mother's chamber, he found Mrs. Hurst with her, as well as the housekeeper; both were essaying to convince her that she was as safe in bed as she would be in the cellar, to which she was begging them to conduct her, but with no more success than usually attends efforts to reason with a most unreasonable woman.

"I'll not say that I think the tower quite safe," the housekeeper confided to Noel, "for there were some gentlemen here a little while ago—engineers and surveyors they were—who came to see my lord about a railway that is to cross a part of the property, and I heard them saying something about its insecure condition. I wish Miss Carisforde could have been persuaded to leave it till the gale is over. And she is quite alone, too."

"Have you told her your fears, and begged her to exchange her present quarters for safer ones?" asked Noel, a little startled by these tidings. "If not, pray go to her at once."

Mrs. Martin shrugged her shoulders and tossed her head, as she answered in acrimonious tones:

"I have told Mrs. Hurst, sir—my lord, I've made her understand; and indeed it's no light task to have to write down everything you want to say, but there's no help for it, as Miss Carisforde don't give any directions, or hold any communication with me, except through this person. It's not what I've been accustomed to, and I've always lived in the best of families, and know how things ought to be; and I certainly don't intend to stay here if I can't take my orders from my lady direct."

Leaving the housekeeper to ruminate over her offended dignity, Noel drew out his pocket-book, and wrote on a page of it the query:

"Should not Miss Carisforde be prevailed upon to quit the tower till the storm is over? I am informed that it is considered unsafe. Has she been made aware of this?"

Mrs. Hurst read these lines, and her comely face assumed an anxious expression as she laid he forefinger on Noel's arm.

"It is very thoughtful of you, my lord, and if persuasions would move her she would be here at this present moment; for, as I said when I was remonstrating with her, if we must perish through being buried alive under bricks and mortar, and nobody at hand to dig us out directly — which might be effectual—why not let us die together?—which is rather unusual when one comes to think of it, being buried first and dying afterwards; but in this life we are always meeting with curious contrasts, or undergoing something, aren't we? And she is that obstinate this evening, you cannot think! Nothing to be got from her but a kiss, and 'Do leave me to myself!' and no sooner outside the door than the key turned, and so how can I get at her?"

"Does she understand her danger?" wrote Noel again.

"My dear sir, I've shouted it—literally shouted it to her through the keyhole. What more can I do? She sent me away, insisted on my going; and though she is a dear child, and I am very fond of her, and haven't a word to say that isn't in her praise—mentally, of course—for she has been a most promising pupil, and for her external appearance I cannot be considered answerable beyond sunburn, and the care of her teeth in childhood, can I? Let's see, where was I? Oh! speaking in her praise, which I can do conscientiously, but with the reservation of temper, which certainly does incline to firmness, and that is not always a valuable quality, as I remember telling her when she refused to touch food for two days because she had forgotten to give her canary some seed, and it was starved. She was quite ill in consequence, and would not be pitied, which was a great anxiety to me."

Overwhelmed by the flow of words which his question had brought upon him, Noel said no more.

If Miss Carisforde so positively refused to be advised, nothing could be done but hope that her retreat would escape any damage from the storm, and he returned to the task of pacifying his stepmother. She—though fortified with camphor, smelling salts, and weak brandy-and-water—still shrieked, hid her face in the bed-clothes, and moaned out thrilling predictions that she should never see her children again, every time the wind put forth its force and howled its loudest along the corridors.

Presently there was a lull, and everyone was thankful for it. Mrs. Estcourt's eyes insensibly closed; the tired housekeeper remembered that it was after midnight, and went away to send her maids to their needful rest. Mrs. Hurst disappeared also; and Noel, after slipping some of his ill-to-be spared silver into the hand of the woman

who was to remain in attendance on his step-mother was about to follow their example, when a tremendous crash resounded through the building, paralyzing with terror everyone who heard it.

What had happened? As soon as he could quiet Mrs. Estcourt, Noel hurried to ascertain, and was met by half a dozen scared servants, all asking the same question. No one could answer it—no one knew more than that the sound came from the direction of the tower, and that the roof of the billiard-room connecting it with the more modern part of the house had been destroyed by a mass of masonry that had fallen upon it.

Thither, followed by the boldest of the party, Lord Carisforde hastened, and found his progress impeded by such a heap of fallen stones, broken rafters, etc., that any attempt to gain the ordinary entrance to the tower must be very difficult if not impossible. As far as could be ascertained in the darkness of that awful night, one wall of the building had given way entirely, leaving the remainder of the building in such a perilous condition that it was doubtful whether the next blast of wind would not bring it down also.

And where was Miss Carisforde? No one knew; no one had seen or heard anything of her since she peremptorily dismissed Mrs. Hurst some hours previously. A servant, who from a safe distance reconnoitred the outside of the building, reported that a lamp was still burning in the upper story, which the young lady occupied. Yet the floor above this chamber appeared to be entirely destroyed; and she, if still there, might be lying dangerously hurt beneath the rubbish with which it must be partially, if not entirely covered. who would go to her aid?

The two or three men-servants shrank back aghast when Noel said that a search must be made immediately for Miss Carisforde, and one of them declared promptly that nothing could be done till daylight; that in the present condition of the tower, and with the wind still blowing at intervals so furiously that a strong man could scarcely stand against it, why, it would be madness to make any attempt to enter the tottering building.

In these opinions his companions coincided; but Noel was not so easily convinced. That it would be hazardous, and very hazardous, he admitted; but to permit hours to elapse, which might be hours of agony to this unfortunate girl, was not to be thought of.

"I shall not ask either of you to risk your lives," he told the men; "but I cannot permit such selfish considerations to influence me while a woman's life is at stake. I shall therefore make the attempt to enter the tower myself. There is a window on the north side which I could reach with a ladder. Get me up one as quickly as you can."

The men demurred. The r young mistress was a stranger to them, so that no affection for her spurred them to put aside their fears for their own safety, and risk their lives for her sake; while Noel stood before them, young, handsome, generous, and inspiring the feeling that it would be ten thousand pities to encourage him in so rash an enterprise. One of them, therefore, endeavored to dissuade him from attempting it, pointing out how unlikely it was that she still lived, and that even if he succeeded in finding her remains, it would be impossible to remove them till the morning.

"If I were sure that Miss Carisforde was no more, I would be guided more by your advice," was Noel's reply. "As it is, I must act, and promptly. Find me the ladder and a lantern; and if either of you have courage to go with me, well and good; if not, I will do my best unaided."

And neither of them proving willing to run into such great, and as they deemed it, unnecessary, peril it was alone that Noel Estcourt commenced his search for the heiress.—To be continued.

VARIETIES.

WHY SHE NEVER TOLD HER LOVE.

Could it be virgin bashfulness
That still concealed the tender thought?
Or fear she might perchance confess
A love that was not sought?

Was it mere woman's caprice?
Or pride, or maidenly reserve?
Was it respect for mental peace
Or merely want of nerve?

She could not choose but understand
He thought, his little game of sighs,
Slow parting pressure of the hand,
Soft words and "speaking eyes."

The reason why (this was above
Ten years ago) he now knows well:
She simply never told her love,
Because—*she'd none to tell!*

How the Women Vote in Kansas.—A Hoosier sees in Kansas many new and unfamiliar sights, but none more interesting than that of the ladies voting. They have the privilege of voting in all matters pertaining to schools. As far as my observation goes, the ladies here have minds of their own. They neither vote for the handsomest man nor the ones their husbands tell them to vote for, unless the candidate is, in their own opinion, the proper one. Their votes can not be bought.

They are universally on the side of morality and temperance; hence the workers in the temperance cause are warm advocates of equal suffrage. Election days pass quietly. If there is any drinking or fighting done, it is not at the polls. Everything is orderly there, notwithstanding contrary reports circulated by anti-suffragists in the Eastern States.

Candidates keep carriages running for the accommodation of the ladies, but a great many walk up and deposit their votes. As the result, so far, has been very satisfactory, even to the men it will probably be but a short time till equal suffrage is granted.

The gentlemen show their gallantry and faith in the ability of the ladies by appointing them to office. The enrolling clerks of the Legislature are ladies, also a large proportion of the County Superintendents, who, in every instance, discharge their duties in a manner that gives universal satisfaction.—*Indianapolis Herald.*

Pauperism in Ireland.—It is terribly on the increase. From the Irish Times we learn that, out of a population of 5,000,000, nearly 300,000 are supported by public relief; and the paupers, we are told, are increasing at the rate of 1,800 a month: To support this vast army of paupers the labor of Ireland is taxed $1,000,000 a year. Of this sum the salaries of workhouse officials and the cost of the prisons eat up nearly $2,000,000. It used to be said Ireland was over-populated. Well, famine killed off 1,000,000 of the people, and scattered 3,000,000 more all over the globe; yet here is Ireland to-day in her rags, with her begging-bag over her shoulder, and her beggar's hand extended for relief! Ireland has natural resources sufficient to support comfortably 50,000,000 of people. Independent of the millions of acres which have been robbed from people, there are millions more of reclaimable land, which, under a wise and a beneficent government, would be sustaining in comfort a happy people instead of what we now see—a pauperized population. Restore the people to their natural inheritance; educate them in the science of agriculture; put improved implements into their hands; enable them to utilize the mineral resources of the country; push on manufactures—in a word diversify industry and abolish landlordism—and in ten short years Ireland will present to the world a picture of contentedness such as no country ever before exhibited, but which, indeed, every country under a system of government conformable to the laws of God may and can exhibit as well.—*Irish World.*

American Exports.—The report of the Bureau of Statistics contains some very surprising figures to show the decline of American commerce, and the gradual but steady manner in which foreign ships have monopolized our carrying trade. The following statement shows the percentage of imports to and exports from the United States carried in vessels of domestic build, from the year 1821 to the present date:

PERCENTAGE CARRIED IN AMERICAN SHIPS.

1821	88.7	1841	84.3	1861	66.5
1822	88.4	1842	82.3	1862	65.2
1823	89.9	1843	77.1	1863	50.0
1824	91.2	1844	78.6	1863	41.4
1825	92.3	1845	81.7	1864	27.5
1826	92.5	1846	81.7	1865	27.5
1827	90.9	1847	76.9	1866	32.2
1828	89.9	1848	77.4	1867	33.9
1829	89.5	1849	75.2	1868	35.1
1840	89.9	1850	72.5	1869	33.1
1831	96.5	1851	72.7	1870	35.6
1832	93.1	1852	70.6	1871	31.8
1833	93.8	1853	69.5	1872	29.1
1834	93.0	1854	70.5	1873	26.4
1835	91.5	1855	75.6	1874	27.2
1836	94.3	1856	75.2	1875	26.2
1837	92.6	1857	70.5	1876	27.7
1838	91.2	1858	73.7	1877	26.9
1839	94 3	1859	66.9	1878	26,3
1840	92.9				

In striking contrast to this has been the growth of the foreign commerce of the United States. While the carrying capacity of American bottoms has grown less and less every year, the demand upon it has increased rapidly, and has been responded to by foreign shipowners. The growth in the export trade of the United States has been enormous, particularly within the last decade. In 1790 the value of domestic exports from the United States was $19,666,000; in 1800, $31,840,903; in 1810, $42,366,675; in 1820, $51,683,640; in 1830, $59,462,029; in 1840, $113,895,634; in 1850, $136,046,912; in 1860, $373,189,274; in 1870, $120,500,275.

Now, mark the progress for the last eight years:

1871	$562,518,651	1875	$613,694,767
1872	549,219,718	1866	644,956,406
1873	649,132,563	1877	676,115,593
1874	693,032,654	1878	722,811,815

The lack of increase and the falling off during the depressed condition of American industries from 1873 to 1876 will be noticed, as returning prosperity is shown in the exports for 1877 and 1878.

Of the total exports last year $557,743,827 were carried in foreign vessels, while only $159,772,720 were carried in vessels of American build.

A Novel Feat in Dentistry.—Scalp-grafting has become a quite common performance, but it will be news to many that teeth may be similarly transplanted and made to grow in other mouths than the original owner. Dr. Thomas of Detroit, details in the Dental Cosmos a case in which he successfully performed this operation; inserting in the mouth of a gentleman, who had lost a right superior cuspidate, a solid and healthy tooth that he had removed from a lady's mouth four weeks previously. He opened into the canal and pulp chamber of the tooth, from the apex of the root only; cut the end off one-eighth of an inch (it being that much too long), reduced the size somewhat in the center of the root (it being a trifle larger than the root extracted), filled and placed it in position. He states that the occlusion, shape and color were perfect, so much so that several dentists who saw the case were not able to distinguish the transplanted tooth from the others. The two features in the case that he calls particular attention to are: first, that although the tooth had been in his office four weeks, there is to-day no perceptible change in color; and, second, that the re-attachment is as perfect as though it had been transplanted or replanted the same day of extraction. Dr. Thomas knows of but two obstacles in the way of the perfect practicability of "transplanting;" first, the difficulty of obtaining the proper teeth at the proper time; and second, the possibility of inoculation. The latter is the more formidable of the two, and, to escape the ills that might follow, the greatest caution is necessary. The first difficulty is more easily gotten over, for it is not necessary that the tooth transplanted should correspond exactly in shape and size to the one extracted; if it is too large, it may be carefully reduced; or, if too small, new osseous deposit will supply the deficiency. Neither is it necessary, as we have seen, that the transplanted tooth should be a freshly extracted one.

In his "True Law of Population" Doubleday points out that "Populations are universally found thin in pastoral countries, where the food is chiefly animal; denser where it is mixed; still denser where vegetable but plenteous; densest of all where it is vegetable and scarce." The natural inference is that in the plethoric state productiveness is arrested, while in the depletheric it is reinvigorated. In the poorest time Irish families subsisting on potatoes and meal, averaged seven, against five in England and three in France. In rice-eating countries the population is dense.

HYGIENE.

The Treatment of Burns.—Experiment and reflection led Dr. Waters to the conclusion that *pressure upon the nerves* is the cause of the pain in burns. He says, "Heat contracts albumen, hardens, stiffens, and thus closes the pores and produces pressure upon the nerves. The application of bicarbonate of soda gives its quick relief by dissolving or softening the albumen in or surrounding the pores, and allowing the restrained contents to escape, relieves the pressure. That the pain is due to pressure is shown by the fact that position is all important in giving relief. If the burnt limb is poised so that the blood will gravitate toward the heart, the relief from pain after applying the alkali is more complete than with the limb in other positions. The practical directions for the treatment are then summarized as follows: My treatment is to apply to the burned surface bicarbonate of soda in fine powder, if it is a wet surface; but if it is a dry burn, use a paste of bicarbonate of soda and water, or a strong solution of the bicarbonate of soda in water, and apply to the burned surface. This relieves sunburns as well as burns from hot coals, melted sulphur, hot iron, steam etc. Always dispose the burned surface so that the blood can gravitate toward the heart if possible, as otherwise a continuous pain may be felt, due to the dilation of the blood vessels from the weight of the contained blood. If bicarbonate of soda is not at hand, bicarbonate of potash is the next best. Then the emulsion of lime water and oil makes a good dressing where the skin is broken. But vaseline is preferable, as there is no odor from it, and it is quite as bland.

Phosphatic Food.—The Manufacturer has the following plea for the special feeding of the brain: "Man is being perpetually renewed; the old and used-up particles are removed from the system, and their place is supplied with the same element newly presented to the organism. Motion destroys a portion of the integrity of a muscle, sight a something from the retina of the eye, and 'thoughts which breathe and words which burn,' literally burn and change into another chemical formula a certain portion of the phosphorous of the brain. Hence arises the necessity of supplying the system with an element on which the mental functions depend more than any other organic ingredient. Experience shows that highly phosphatic and easily digested food, such as soft-boiled eggs, the flesh of fowls, oysters and kale food (phosphorized more than other grains and vegetables) is especially suitable to persons whose minds are overtaxed by intellectual duties, and in purely nervous affections it is recommended by physicians who understand their business. Very recommendable for this purpose is the liquid acid phosphate, because it contains the phosphorous in a condition in which it is most easily assimilated. The idea of partaking of particular kind of food or beverages to nourish the nervous system is rapidly gaining ground, or theoretically accepted as correct. Said a physician lately to us, with whom we conversed on this subject, 'What a fool was I in my ignorance to laugh at the idea of brainal food! Why, sir, it is the most valuable one I ever put in practice. I thank you chemists for it.'"

Medical Effects of Onions.—A mother writes to an English agricultural journal as follows: "Twice a week—and it was generally when we had cold meat minced—I gave the children a dinner which was hailed with delight and looked forward to. This was a dish of boiled onions. The little things knew not that they were taking the best of medicine for expelling what most children suffer from,—worms. Mine were kept free by this remedy alone. It was a medical man who taught me to eat boiled onions as a specific for a cold in the chest. He did not know at the time, till I told him, that they were good for anything else." The editor of the journal adds: "A case is now under our own observation in which a rheumatic patient, an extreme sufferer, finds great relief from eating onions freely, either cooked or raw. He asserts that it is by no means a fancy, and he says so after having persistently tried Turkish baths, galvanism, and nearly all the potions and plasters that are advertised as certain alleviatives or cures."

Cure for Scorpion Sting.—According to Dr. Lucas, a very curious remedy is used in India for the cure of the sting of the scorpion, which is so agonizing to the victim. The first sensation is that of a prick of a finely pointed needle, which is extremely distressing, and is accompanied by a shooting up the limbs, along the course of the main nerve trunk. If a pinch of powdered alum is introduced into the eye on the side affected, the secondary symptoms cease almost instantly, as the conjunctival mucous membrane begins to smart. The local pain is also much less severe than it was, and loses its force in a few hours, this being expedited by firm and steady pressure.

Treatment of Baldness.—A gentleman having lost nearly all his hair after fever, consulted a French doctor who had acquired great reputation in the treatment of such affections. The prescription was a drachm of the tincture of phosphorous to one ounce of castor-oil; the bare scalp to be rubbed with this mixture three times weekly for half an hour each time, after the skin of the head had been thoroughly cleansed with warm water without soap. In about six months the hair began to grow, and in a year was as thick as ever, the new hair being about two shades darker than it had been before.

Houses that have become empty may become fever-breeders when they come to be reoccupied. An English sanitary officer alleges that he has observed typhoid, diphtheria, or other zymotic affections to arise under these circumstances. The cause is supposed to be in the disuse of cisterns, pipes and drains, the processes of putrefaction going on in the impure air in them, the unobstructed access of this air to the house, while the closure of windows and doors effectually shuts out fresh air. Beware of an unoccupied house.

Carbon for Consumption.—A Minneapolis physician recommends this highly carbonaceous mixture in the treatment of consumption: One-half pound finely cut up beefsteak (fresh), one drachm pulverized charcoal, four ounces pulverized sugar, four ounces rye whisky, one pint boiling water. Mix all together, let it stand in a cool place over night, and give from one to two teaspoonfuls, liquid and meat, before each meal.

RECENT LITERATURE.

Victoria Britannica; Or, Celebrate the Reign. By Hollis True. A. Barnes S. & Co., N. Y. Price 75c.

This little volume appears in an exceedingly neat and tasty binding of cloth and gilt. The object of the author is to call attention to the claim the present reign has upon the love and patriotism of the British public, to incorporate certain political changes which shall be an enduring monument to the affection and gratitude of the people to their Queen, and to impress the general public with the "stupendous advantages" accorded by a permanent citizenship of the British Empire. He thinks that though this reign will ever be famous as a glorious era in British History, some fitting manifestation should be incorporated during the the life of the reigning sovereign and gives his views as to the best means of giving expression to and immortalizing the appreciation of the "forty-six millions" of subjects. Those interested in the matter will find suggestions which in time may bear the desired fruit. The book is enthusiastically and generally well written, but its pages are interspersed with some very unique and remarkable original poems. We quote two stanzas from one of these:

Forty-six millions of Britannians are we,
Though scattered the world over—still Britons we'll be;
For Britannia, we love thee, we'll heed no alarms—
Thou hast prairies and forests and orchards and farms.

We're forty-six millions of Britannians—all told—
Each soul is immortal, and cannot be valued at forty-six millions in gold.
What will ye do—ye rich, ye noble, ye chivalrous, brave,
The dying, the hungry, the perishing Briton to save?

Dress. By Mrs. Oliphant, Philadelphia: Porter & Coates.

The most striking characteristic of the book is the common-sense way in which the author treats her subject. She is the golden mean between the radical dress reformer who would sacrifice grace and beauty to health, and the art enthusiast who insists on grace and daintiness, and leaves out of the count the rather important item of appropriateness. The author is unique in that she finds much to admire in present styles—the graceful and charming polonaise, especially receiving a generous meed of praise. It is so much the fashion to hear the prevailing modes railed at that it's quite a delightful surprise to read that our grandmothers did not have a monopoly of taste and common sense in dress. As Mrs. Oliphant very pertinently remarks: "The indiscriminate and unceasing condemnation of critics of every fashion that appears, has anything but a reformatory effect on the object of their satire." Dress is treated by Mrs. Oliphant historically, poetically and practically. The book contains much useful information and many admirable suggestions.

Wood and Steele's Fourteen Weeks in Botany. Published by A. S. Barnes & Co., 111 and 113 Williams St., New York. Cloth. Price, $1.25.

This book is designed for beginners in botany, and it is admirably adapted to introduce this interesting science to the youthful mind. The authors commence the book with simple, familiar plants, and, as the pupil advances, gradually take up the more perplexing features of the study; each step preparing for what follows. Particular attention is given to scientific terms, but they are introduced only when needed, and profuse illustrations throughout the work serve to fix them in the memory.

The Mail Carrier. By Harry Castlemon. Porter & Coates: Phila.

The boys who became interested in the fortunes of Dave Evans, and Don and Bert Gordon, in the former books of the Boy Trapper Series, will hail with delight the opportunity given in The Mail Carrier to follow those young heroes and their compeers through further adventures.

We know of no writer whose stories for boys are more charmingly told or better calculated to interest his young readers than Harry Castlemon's.

MAGAZINES.

Demorest's Magazine for May is brimming over with good things. Two of its most excellent features are the "Correspondents' Class" and the Ladies' Club. In the former all queries relative to art are answered; in the latter, is given information as to literary matters, fashions, household and social interests, in reply to questions. "House and Home" is another department which must commend itself to every lady. In it all affairs pertaining to home, from washing windows to doing the artistic in the way of mantel and bracket draping, are intelligently presented. "The Kitchen" has five columns of most attractive recipes. The number is profusely illustrated. There are thirty-seven fashion cuts, besides engravings of fancy work, designs for working on canvas, a May-day scene, and a colored view of the Harbour of Julie, which latter is an exceptionally pretty picture. Numerous short stories and two serials serve to give spice to the more serious articles. Prominent among these, is Mrs. C. S. Nourse's interesting sketch of Hawthorne; a pleasant talk about Fans, by Mayor L. Ramel; Jennie June's Committee Work in Woman's Club, which contains many admirable suggestions.

For Women.

CONDUCTED BY MISS FAITH RIPLEY.

"TO THEE ALONE!"

A LOVE SONG SET TO MUSIC BY H. R. H. PRINCE LEOPOLD OF ENGLAND.

PRINCE LEOPOLD, who preferred to remain at Darmstadt with the orphans of his sister the Princess Alice rather than attend the wedding of his brother, the Duke of Connaught in Lent, inherits the artistic tastes of his father the Prince Consort, and like his brother the Duke of Edinburgh is a passionate musical amateur. He is something of a composer too, and has just set to music the following pretty love song:

I sat upon the purple hill
And watched the world beneath,
And laughed at love, as cynics will,
When one came o'er the heath.
There was no need to say 'twas she,
No need of sound or sign,
For all the heart leaped out of me
And murmured, "*Dir allien!*"

She spoke—her voice rang silver clear,
The birds hushed in the grove,
The earth stood still that I might hear
The first words of my love.
Ah woe is me I crossed that heath,
For she may ne'er be mine!
Yet must I bear through life and death
This motto, "*Dir allien.*"

I fain would speak, yet dare not, for
Her gentle soul's distress;
What is to me one sorrow more,
So that she have one less!
Yet I could wish when I am dead
Her eyes should look through mine,
And on my heart engraven read
This motto, "*Dir allien.*"

SOME SPRING NOTES.

BY THE EDITOR.

SHOPPING, that pastime so dear to the feminine heart, is fast becoming an art. The "art" consists mainly in an ability to combine taste and judgment in the selection of goods. To enter a store, whose counters overflow with the most exquisite tints and materials—silks, woolens, laces and hosiery—scattered about in seemingly boundless profusion, is simply bewildering. There is nothing displayed which would not be most appropriate and pretty under some circumstances, and it requires considerable skill to choose that which will yield the most satisfaction to the possessor. Ladies who live at long distances from the large centers of trade cannot indulge in the delights and fatigues of shopping, but thanks to the courtesy of city merchants, they need not on that account be deprived of a sight of the novelties that delight their city sisters. The large dry-goods houses furnish samples of their newest and most desirable goods, gratis, to all applicants. I wish just here to contradict a statement which appeared lately in a leading fashion journal, to the effect that only samples of old stuffs were sent out, as houses could not afford to cut up new and expensive goods for samples. This is contrary to the truth. New, costly and elegant dress goods, as well as the plainer grades, are sent out freely to applicants, and no lady who receives samples need fear they are other than new.

READY-MADE COSTUMES.

Ready made costumes are offered in every possible combination of color and material except that a union of woolen goods and plain silk is not to be seen. Satin, satinet, *damasse*, moire-antique and corduroy, have superseded silk as a garniture. Street costumes are almost invariably made with short walking skirt, over-skirt with panier effect and long jacket. The polonaise is mostly used for home and reception dresses.

A brief description of some of the costumes shown me, will serve to give a fair idea of some of the leading styles. Among the more expensive goods was shown a charming costume of gray camels hair with plaided shawl drapery finished with fringe. The effect of the shawl overskirt was pretty and unique. An olive cashmere combined with plaided silk had a curtain overskirt; which style of overdres bids fair to become very popular. A very pretty costume was of blue camel's hair trimmed with blue and gold striped satin and mixed fringe. The jacket and overskirt were trimmed with folds of the satin, the vest was also composed of the same material, and a fold of the satin ornamented the flounce of the skirt. A black bunting trimmed with French lace, showed to good advantage among the gayer fabrics. The popularity of bunting is apparently on the increase, and costumes of it in all colors are shown. In lower priced goods were many charming suits. Gray, *ecru* and brown being the leading shades.

An *ecru* mohair, trimmed with striped satinet, was offered at $15. A gray cloth, trimmed with buttons and ornamented with machine-stitching and black ribbon bows, a comfortable dress for traveling, can be had for $14. A dress of *ecru* camel's hair had the prettiest decoration imaginable. It consisted of broad box-plaitings of brown silk, about three inches wide, and extending from the waist to within four or five inches of the bottom of the overskirt. The three front seams only were ornamented with these box-plaitings, the back of the overskirt being simply draped. A gray cloth suit was tastefully trimmed with blue satin polka dot—vest, cuffs and pipings constituting the trimming—and a black camel's hair was made most elegant by the addition of striped watered silk. The house which furnished me with information for this article have on hand always a full line of mourning outfits—dresses, wraps, gloves and bonnets—so that those living out of town need experience no delay in having their mourning made ready.

WRAPPERS, CHILDREN'S SUITS AND WORSTED SHAWLS.

A pretty wrapper of French nainsook was made in Princess style and trimmed with Italian lace and Chinese ribbon; *a jabot* of the lace and ribbon extending the whole length of the back had a very pleasing effect. The bits of brightly flowered ribbon peeping out from the folds of lace had an exquisitely dainty appearance. Lawn wrappers, trimmed with lace around the neck, wrist and pockets, and with double row down the front, cost from $3 to $6.

One particularly pretty wrapper of lawn had a flounce edged each side with Torchon lace and trimmed with bands of insertion, the neck being finished with a yoke of tucks and insertion. For little people there are some charming slips of lawn and nainsook. One a French nainsook box plaited trimmed with insertions and edgings of Russet lace was offered at $3.75. White lawns trimmed with Maltese and Italian lace can be had in all sizes for children at $3, $4, $5. A pretty little Princess of light blue silk, cut in points and trimmed with Breton lace suitable for child of 6 years was shown, price $15. Cashmeres in all colors piped with silk and edged with lace in all sizes, from $10 up. Cheviot Princess dresses with embroidery and lace from $4. Bunting suits, cutaway jacket, and kilt skirt, navy blue and cameo from $7.25. Silk and worsted suits *ecru*, same style as bunting suits from $7.25. Checks, all wool and silk and wool from $5. *Piques* in Princess style with embroidery $3 in two pieces for misses $8.25. Cambric slips for children from 3 to 7 years 70c; large sizes in three pieces for misses of 16 from $5. Cambric suits trimmed with lace or embroidery size for 10 years from $2.

A most charming variety of light worsted shawls is exhibited. The Algerine stripe, satinet, cashmere, Woolloomooloo are a few of the novelties. They make a pretty addition to the toilet in summer and as they come in all shades from the daintiest of blues to the most aggressive of reds, including many of neutral tints, ladies need have no fear but that their complexion or dress can be "matched." In price they range from $2.50 to $11.

WRAPS.

The materials used for outside garments are silk, camel's hair Imperial cloth and cashmere. The most popular shapes are the dolman and the mantle. The dolman is really a mantle with sleeves. Lace, fringe, *passementerie* and embroidery are trimmings most in use. The wraps are all short, some hardly extending below the waist line, and even the largest of them fall only a little below the hips. The fronts are usually long, reaching to the knee; but in some instances even these are curtailed. Pretty embroidered mantles come from $9 to $18. These are simple and elegant. A novelty is the lace fichu; it resembles the old-fashioned "Bertha." The foundation is netting embroidered with braid; French lace, fringe and satin bows complete the pretty garment which sells for $12.50. A grenadine wrap, trimmed with three rows of plaited lace, and a jet beading, with long tabs in front, made a ladylike and tasteful wrap. Cashmere trimmed with plaited French lace, and pipings and bows of satin; Sicilienne silk, finished with deep, rich fringe and a profusion of handsome lace; light cloth ornamented with grass fringe, Imperial cloth with crimped fringe, French lace and bows as a garniture; and camel's hair, trimmed with silk and fringe, are a few of the many elegant designs in wraps which are to be seen. The prices range from $8 to $30. Some very rich garments come, of course, much higher. The walking jackets, marvels of simplicity and stylishness are made in diagonal cloths, trimmed with buttons only. They are deservedly popular. The price ranges from $8 to $15. A hint now to the judicious. Cloaks and wraps carried over from last season, can be purchased at one-third the price previously asked for them. The material used is of the best. The head and front of their offending is simply that they are not the very latest novelties. A little alteration will, however, transform them into the most fashionable of garments. A wrap of this class, composed of cashmere, beaded *passementerie*, and moss trimming is now offered at $17, price last year $18. Children's cloaks are made of camel's hair or other soft cloths in *ecru* or gray, and trimmed with bows and buttons. There are two styles, walking coat and sacque, sizes from four to fourteen years. For four years, price $2 and $7, according to style chosen. For fourteen years, price $4 and $9. Ulsters are made in a great variety of fancy mixed cloths, and small checks as well as plain cloths. They are abundantly well supplied with pockets, that heretofore neglected item in womanly attire. The comfortable and useful ulster comes at from $5 to $12.

The inexorable compositor announces that my space is "used up." I shall therefore have reluctantly to postpone for another week the discussion of millinery, woolen goods, cambrics, organdines, lawns and hosiery. I shall also publish quite an elaborate article on silks, plain and colored, *damasses*, satins, &c., with full list of prices.

Thanks are due Messrs. Lord & Taylor for their courtesy in supplying me with information as to styles. In reply to questions, they stated that samples of all goods were furnished to applicants, and that out-of-town orders for ready-made garments could be promptly and satisfactorily filled if parties ordering would state bust and waist measure, length of sleeve, and limit of price they are willing to give.

MR. G. A. Sala, writing in the Illustrated London News, of the "higher education of women," holds that if clever girls were "taught to paint on porcelain, to model in clay and wax, to turn, to carve, and especially to draw on wood, they would be a hundred times better employed and fifty times nearer the possibility of earning from three to ten pounds sterling a week than in 'spanking' the piano."

LETTERS FROM A COUNTRY GIRL.—No. 12.

MARGARET B. HARVEY.

HOME STUDY.

OVER and over again do we read very kind, sympathetic articles addressed to women who are burdened with many cares, advising them to make some little effort, whatever happens, to keep up with the times and increase their knowledge. The writers of most of these fully recognize the difficulties which will be likely to beset any woman who undertakes to follow their advice, and indeed they are many—so many, that some of our toiling sisters think such exhortations of little value. Perhaps some are not of much, fair friends, to *you*; but if they have done as little as inspire within you a *desire* for broader culture, they have accomplished a great deal, for the desire is half the battle. I do not hesitate to say that this is a subject upon which it is almost impossible to write too much.

In attempting to talk, as I want to, about studying at home, I shall present to your consideration a few thoughts upon which we may all ponder with profit. First of all, the duty of everyone of you is to yourself as an individual soul, and all your duties to others grow directly out of your right performance of this one. It is incumbent upon you to make every effort to ennoble yourself to take care of your health, to have a proper pride in your appearance, to feel that it is your primary obligation to be a lady, to take into account every factor which can aid in giving as a result a beautiful, refined, cultured woman. So, then, it must be your work to hold subordinate to your higher development, every toil and care and anxiety, and to determine that you will be to your dear ones a creature whom they can love, not only because she is their very own and their best friend, but also because they can take a rational pride in her as one who has conscientiously tried to make the best of herself. We read often of hard-working mothers who "slaved their very hearts out" for their families, only to be despised by them at last, and then follows a long string of commentaries upon the ingratitude of children. Well, I say, those same mothers could not have expected anything else, for it was all unnatural. Any ordinary set of growing young people—newly-fledged ladies and gentlemen—would twenty times rather see their mother, with her pretty dress, graceful manners and intelligent conversation, entertaining visitors around a simply-spread table, than to have her dowdy, worn and illiterate, seated with them at a sumptuous repast. And I cannot blame them.

Remember, then, that your duty to your children begins with your duty to yourself. That you may not stint them of what they can reasonably require of you, you must never lose sight of the fact that mind is superior to matter—your mental development and theirs must transcend every physical consideration. Body is servant; soul, master. The master must find opportunity for receiving the honor due to his position, even if he thereby must occasionally order a suspension of the labors of his servant.

A LITTLE KNOWLEDGE.

You believe all this, and have decided to accomplish something. What? The mastery of any one art, or language, or science, or even general literature? Very well, if you have *decided*, you probably will. But, generally speaking, I would not advise you to determine all at once. You will probably find it far more difficult than you had anticipated, and so grow discouraged and give up altogether. The better plan is to be modest and say that you will be content with learning a little, and as you find your field widening, you will be better able to say what you will undertake in earnest. You will make an effort, not because you ever expect to paint a wonderful picture, or spend years abroad, or make any great discovery, or accumulate a vast library, but because you wish to add something to your general culture. And the smallest amount of study will enable you to do this.

You have been told many a time, perhaps, that "A little learning is a dangerous thing," and you hear a great deal of talk about "a mere smattering" and "a very superficial knowledge." Well—but some of my friends believe that "half a loaf is better than no bread." When all is said and done, what does the wisdom of all mankind amount to, but "a little learning?" And then, too, does not every one at first have to acquire "a mere smattering" and "a very superficial knowledge" of anything before he can go any further? And, even stopping at that point, does he not know a little more than he did before? And does not a little fact or circumstance which we *do* know, often help us wonderfully in what we do not, throwing light on a dark place, and aiding us to discover what, perhaps, we otherwise never should? Be sure of a "little," at any rate, and then go on and "drink deep," *if you can*.

HOW TO STUDY.

Just *how* you will study depends upon yourself, but if you try, you will find that you can wring assistance out of the things around you. And this is far different from having any certain hours set apart for your books, which only a very extraordinary woman, I believe, can do and keep them unbroken, if she has any other interests. Take as many hours—full, precious hours—as you can, but don't despair if you never can find one. Listen a little, if you will, to a few passages from my own experience.

When I was very young an old copy of Mrs. Lincoln's Botany for Beginners accidentally fell into my hands. The system taught in it had been superseded, but I did not know that. For months I could think and talk of nothing but Botany; and in my morning walk to the village school, and my evening errands after the cows and down to the spring-house, I would pause for an instant to gather a "specimen," just as you do to pluck a wild-rose or daisy which pleases your fancy. Analysis took the place of tatting, and as a child, I learned many, many names which I never had to unlearn. As I grew older I procured suitable works—Mrs. Lincoln's latest edition, Coultas, Darlington and Gray—and continued my researches. Instead of excursions merely for pleasure, I had my "scientific explorations." I never felt that my Botany took an instant of my time, and to day I believe I am "pretty well up" in the Flora of my own district.

To learn my French conjugations, I had the book lying wide open on the end of the ironing-board. Every time I crossed the floor to change an iron, I glanced at the page long enough to take in one tense, and this I repeated, over and over to myself, until I needed to change my iron again. I did not give up this practice till I knew them all. And the law of association is so strong that I cannot see an ironing-board now, without involuntarily running over in my mind, "*J'ai, tu as, il a.*" And my ironing was not spoiled, either,—I always had the reputation of doing it beautifully, even if I never could believe that "towels and dish-cloths ought to look *just as nice* on the horse as ruffled petticoats."

The same way with my Latin paradigms. When I had on hand that most useful and necessary, but at the same time, most tedious and trifling employment of darning stockings, I elevated it by having the grammar on the stand beside me. As I worked, I recited aloud what I had read an instant before, just as with the French, and so, too, does every pair of mended hose sing, "*Amo, amas, amat.*" And so far from slighting my needle, I felt then that I could afford to give more time to it, and the darning done under these circumstances looked as even and regular as Java canvas. And the whole while I was teaching, just in the few minutes intervening between breakfast and "train-time," I would run my fingers up and down the keys, not attempting to practice any portion of a "piece," for just a simple scale, persevered in, is far better than nothing at all, and does one a great deal of good giving freedom.

You must not *think* about studying you must *do* it. While you are questioning and cogitating, "Had I better? Ought I not do something else? While I am learning that rule I might be finishing Jessie's apron, etc.," the opportune moments have gone. If you were thirsty, you wouldn't stop to say, "Ought I get some water now? Couldn't I get along without? Mightn't I be doing something else?" You would take up your bucket in an instant, without the slightest parley. Yet you wouldn't, in an aggregate of your time, count the minutes you had spent in going to and from the pump. And this is the way in which you must study. Wherever you feel like it, open your book, as a matter of course, on the very instant, without stopping to consider, and,—that is, if you are judicious,—you won't lose anything which you cannot easily pick up again.

Have a book always on your bureau, on your centre-table, on your mantel-piece, on your kitchen-dresser. Run to the piano, even if you stand at it, while you are waiting for the kettle to boil or the dust to settle. Look up a little fact as you are dressing to go out, think over it during your walk, and on your return verify all the suggestions it has given you, while you are putting away your things. Take a book in your satchel to read in the waiting-room at the depot—read in the cars, even, unless the characters or the scenery about you form a far more interesting study, as they often do. Associate one name and one date and one event with another, and all with a certain article of furniture, or corner of your place, so that you cannot think of one without all, and then build upon these until you have a whole series constituting the very skeleton of some particular branch of human knowledge. A thousand little devices will present themselves to you—the only caution I can give is, don't encroach upon your needed rest, or upon the attentions your family require. You have all heard of Elihu Burritt, the learned blacksmith, who mastered thirty languages by having always a book upon his forge. Perhaps you do not know quite so much of Miss Grace Anna Lewis. Her home is right in the wilds of Pennsylvania, three miles out in the country from Kimberton, a little place so remote that it holds communication with the outer world by only one or two trains a day, through Phœnixville, itself a small town twenty-eight miles from Philadelphia. She has lived here almost all her life, with no more opportunities than any country woman has. Yet she to-day, is the greatest living authority on birds in America. No one need be ignorant.

In the columns of the RURAL a short time ago, was given as much as I can tell you of the Boston Society to Encourage Studies at Home. The yearly fee, as you remember, is two dollars; courses on different subjects are marked out and help is given by correspondence. I think it a very good idea for a woman to connect herself with this association. Plans of study will be sent her by those experienced, far better than she could have made for herself, and her feeling obliged to write a monthly letter containing a report of her progress, will give her, from time to time, a present, definite object for which to work.

What has been done, can be done.

A HINT FOR FORGETFUL ACTORS.

WE commend to amateur actors who are troubled with bad memories, the happy idea of our friend C. Though still a young man, he was to play the father, and the daughter chanced to be a very handsome woman. So when he forgot his part, he could think of nothing better than while holding his "child" to say:

"Kiss your father."

And each time when he felt that his memory was about to fail, he would save himself by crying out:

"Come to my arms, my child."

The husband of the "daughter" said that he thought that the "author repeated himself very often."

Maud Miller, daughter of Joaquin Miller, has made her first appearance in a speaking part on the stage in Oregon.

"THE RURAL" CORN PREMIUMS.

Classification of Premiums and Conditions to be fulfilled by

ALL COMPETING FOR THEM.

Conditions of Cultivation.

ANY fertilizer or manure may be used in any quantity. The method of cultivation is optional with the cultivator. Our only restriction is that the area planted be WITHIN *one-fortieth of an acre*, or 33 *feet square*. We have kept an account of the *average* number of kernels sent out to each applicant. In each package, unsound kernels will be found. These may, of course, be rejected. But *the exact number of kernels* (whether 125 or 145 or any other number) *planted*, must be stated in the statement of results obtained.

It will be well for each contestant to provide himself with *proof* of his entire proceeding, such as the evidence of a Justice or other competent authority.

We shall want to know the *quantity* of shelled corn and its *weight* produced from our seed, the weight of fodder, average number of ears to stalk; what kind of fertilizer was used, if any, the distance between rows and plants, time of planting and mode of culture. When these statements shall all have reached us and been carefully examined and compared, we shall announce the distribution of the following premiums:

Prizes.

No. 1. $100 in gold given by the proprietors of THE RURAL NEW-YORKER for the yield that shall have most successfully fulfilled all the conditions, and attained the highest general average of points.

No. 2. A FEED AND MEAL MILL (value $65), given by the CHALLENGE MILL CO., of Batavia, Ill., for the yield that is next in order.

[NOTE.—This mill is adapted to wind- or horse-power and has a capacity of 20 bushels per hour at a speed of from 800 to 1000 revolutions per minute. It is equipped with "shake feed" attachment, and has an established reputation for the excellence of its work and the substantial manner in which it is constructed. Circulars fully descriptive will be sent by the company on application.]

No. 3. The improved BIG GIANT FEED MILL (value $45), contributed by J. A. FIELD, SON & Co., St. Louis, Mo., for the third best result accruing from the competition.

[NOTE.—This is one of the best corn and feed mills before the farming public. It is adapted to horse-power. It grinds corn with the shuck on without extra attachments, and while grinding shelled corn fine enough for family use, it will also grind corn and cobs successfully. The mill has taken the highest premiums at the St. Louis Fair, and has been likewise honored wherever exhibited. It will be shipped on boat or cars at St. Louis, free of charge. The firm will send particulars on application.]

No. 4. The "VETERAN" CORN SHELLER (value, $35), made by the SANDWICH M'F'G CO., of Sandwich, Ill., and given by them as a prize for the fourth best result.

[NOTE.—This is a very complete sheller and perfect separator, that works satisfactorily as a power machine. Indeed, it may be fitted with a band-wheel and feed-table, making it a very convenient small power sheller. It has a revolving wire cob-rake, and a fan for cleaning the corn. We refer our readers to the company for fuller particulars.]

No. 5. The WHEELER & MELICH CO., of Albany, N. Y., give a choice of their LA DOW'S PULVERIZING HARROW, or a two-horse DISC CORN CULTIVATOR (value, $30), for the fifth prize.

[NOTE.—Both of these implements have been illustrated and described in THE RURAL, the Corn Cultivator in the issue of March 8. They are thorough pulverizers, and fit the soil for the best results to be derived from cultivation. The implements contain novel practical features that are commended to farmers' attention, and either the corn cultivator or harrow is one of the most attractive prizes in the list.]

No. 6. For the yield of corn, sixth in order of merit, MESSRS. RUMSEY & CO., of Seneca Falls, N. Y., offer a choice of anything from their catalogue to the value of $25.

[NOTE.—R. & Co., are very extensive workers in iron castings, and suggest that our competitors may find one of their Garden Engines, Hydraulic Rams, Force-Pumps or Farm Bells an appropriate prize. The Catalogue from which to select is at the service of all who may choose to apply for it.]

NOS. 7 AND 8.—TWO HAND CORN-SHELLERS (value, $5 each), donated by LIVINGSTON & Co., of Pittsburgh, Pa., for the seventh and eighth best results from the Corn Distribution.

[NOTE.—These small shellers are convenience itself. We have had one in constant use at the RURAL EXPERIMENTAL FARM, and have found it to fulfill everything claimed for it by the makers.]

Farmers' Publishing Company.

1. For best weight of Shelled Corn per bushel, to be weighed three months after harvest, 30 vols. of Harper's Half-hour Series.
2. For second best, Dicken's Works, in 19 vols., (D. Appleton & Co.)
3. For third best, books from Scribner's Catalogue to the amount of $5.
4. For fourth best, The Wilson Series of Agricultural Works, in cloth.
5. For fifth best, one year's subscription to RURAL NEW-YORKER.
6. For sixth best, Miles's Stock-breeding.

Total value not less than $30.

All who intend to compete for the above premiums must give us notice of their intention so to do before June 1st, by postal card or letter.

Domestic Economy.

CONDUCTED BY EMILY MAPLE.

HOUSE-CLEANING.

AMBITIOUS housewives usually begin spring renovation entirely too early. By doing so, they expose their families to colds and general discomfort. The disorder that frequently reigns throughout the house at such a time, makes the husband and children feel as if there were "no place to stay." Ladies have told me that weeks and months of illness were brought upon them by taking cold when house-cleaning while the weather was still wintry, except in name. But they couldn't endure dingy windows and dusty carpets any longer, and so imprudently went to work in the face of "chill airs and wintry winds," and suffered in consequence.

How disagreeable to take up carpets and clean floors and windows, and to hear the scrubbing-brush and the splash of suds at a season when the outside air chills one through! By cleaning house very thoroughly in autumn, there need not be so much haste about the spring house-cleaning. In that case, the house will keep tolerably clean until the weather becomes settled and warm enough to warrant us in undertaking this annual domestic revolution.

There is much truth in the saying, that "*One* keep clean is worth *two* make cleans." Some people can't learn that handles are put on doors to open and shut them by. If they would, we should be spared seeing ugly finger-marks above and below the knobs, and the paint washed off in the attempt to remove the stain. The stoves are almost always taken down and put away at house-cleaning time, but it is a bad plan not to leave at least *one* up, besides the kitchen stove, unless there is a grate in the house. There are days in summer when a little fire in the morning and evening is very agreeable. The preparations for house-cleaning should be made some days before the work actually begins. A supply of all the articles needed should be on hand, to save time after the work is under way. Time and again, I have heard ladies say, "I could have finished putting down the carpet yesterday, but the tacks gave out, and there was nobody to send for more, and I was too tired to go myself." Ammonia is a labor-saving agent in house-cleaning, but must be considerably reduced with soft water, for if too strong, it is injurious to the paint. It should be very weak, also, for washing window-glass. Use a large sponge, rinse well, dry with soft linen and rub with paper or chamois, and they will be very clear. Housekeepers will find that by cleaning only one room at a time, and using a little womanly tact a general uproar may be avoided, and that the entire house may be renovated with comparatively little inconvenience to themselves and family.

M. G. R.

Lyons, Iowa.

DOMESTIC RECIPES.

Asparagus Omelette.

Boil a good-sized bunch of asparagus until tender; let get cold; cut off the green part only and chop fine. Beat six eggs until very light; add two tablespoonfuls of thin, sweet cream and the chopped asparagus. Have ready a frying-pan with a tablespoonful of butter melted in it, but not smoking hot, and pour in the mixture. Shake from the bottom as it forms, and loosen from the pan with a broad knife. Fold over in the middle and turn on to a hot platter. Sprinkle over salt and pepper and serve.

MARY B.

Cress Salad.

Cut up, but not too fine, and pile into a salad-bowl. Sprinkle with a little powdered sugar. Then prepare a dressing by working up a half teaspoonful each of salt, pepper and made mustard, with two tablespoonfuls of oil or melted butter; when thoroughly mixed, add drop by drop—beating all the time—four or five tablespoonfuls of vinegar. Pour over the salad and toss up with a fork.

MRS. JAMES PRINE.

QUESTIONS ANSWERED.

Worcestershire and Caper Sauces, Commercial Citron and Fruit Jars.

Mrs. M. Wilhite, S. C. says: "Can you give through your Household Department a recipe for making Worcestershire and Caper sauces like what we buy? Also a recipe for making citron like that we buy? What kind of melon must I use, the nutmeg, Jenny Lind or what, and how can I keep the fruit green and firm, how flavor etc?

At the Centennial I remember seeing a fruit jar, and I think it was patented by Mrs. Haller of New York, which varied in size from two or three ounces to one quart or gallon. Now if possible, can you tell me where I can find them? I think they were called the 'Vacuum Self-sealing Cans.' The Vacuum was in the glass stopper or top."

ANS.—WORCESTERSHIRE SAUCE: One quart of *thin*, tomato catsup made and spiced the usual way with the addition of more cayenne pepper and a sufficient quantity of crushed garlic, added to the catsup while boiling and before it is strained, to give it a decided garlic taste. Then add enough soy sauce—to be obtained at almost any good grocery store—to make the catsup a deep chocolate color, two tablespoonfuls will probably be sufficient. This is an original recipe and one which has taken the place of Worcestershire and other sauces in our family off and on for twenty years, and we wish you would give it a trial.

The recipes given in encyclopedias are a little too complicated and "fussy" for home manufacture. We append, however, the best at our command.

WORCESTERSHIRE SAUCE: Mix together one and one-half gallon of white-wine vinegar, one gallon of walnut catsup, one gallon of mushroom catsup, one-half gallon of Madeira wine, one-half gallon of Canton soy, two and a half pounds of moist sugar, nineteen ounces of salt, three ounces of powdered capsicum, one and one-half ounce each of pimento and coriander, one and one-half ounce chutney, three-fourths ounce each of cloves, mace, and cinnamon and six and a half drachms assafœtida dissolved in one pint of brandy 20 deg. above proof. Boil two pounds of hog's liver for twelve hours in one gallon of water, adding water as required to keep up the quantity; then mix the boiled liver thoroughly with the water; strain it through a coarse sieve, and add to the sauce.

CAPER SAUCE: The flower-buds of *Capparis spinosa* and other species of this Mediterranean shrub are preserved in salt and vinegar and are known and exported as Capers. For a home substitute Nasturtium fruits, see RURAL of April 12, answer very well.

CITRON: The commercial citron is the preserved rind or flesh of the genus Citrus, to which the orange and lemon belong. It is imported in large quantities from Italy and is prepared by first being slightly cooked in a rich syrup and then partially dried and packed as seen when imported.

A substitute for the above may be made by boiling the *Citron melon* as for preserves, then spread on dishes to dry slowly, sprinkling several times with powdered sugar and turning until it is dried enough. Pack in jars with sugar between the layers. Or, boil in the usual way until the syrup is very thick, turn into jars and instead of covering, leave them open for the air to enter and dry the preserve gradually.

VACUUM FRUIT JARS: We do not know where said jars can be purchased.

News of the Week.

MISCELLANEOUS.

Monday, April 21, 1879.

Gen. John A. Dix is at the point of death; no hope is entertained of his recovery. Our Congressional spouters are reported to be tongue-tired and willing to go home. The Committee on Agriculture has reported back the bill granting $250,000 towards suppressing contagious diseases among stock. It is urged that the several affected States should be permitted to spend the money in proportion to the ravages in each. Gen. Patrick, who is charged with the duty of stamping out pleuro-pneumonia in this State, on April 19 issued an order peremptorily prohibiting the importation into New York of cattle from New Jersey, after April 23. This action he takes "having full evidence that the contagious pleuro-pneumonia of cattle is extensively prevalent in New Jersey, and that the herds of New York are being infected thereby."

But while Congress, the States of New York and New Jersey, our Department of Agriculture and best veterinarian authorities agree that there are in isolated parts of this country a considerable number of cases of genuine pleuro-pneumonia, and Great Britain's action in regard to our cattle trade strongly confirms this authoritative opinion, a few agricultural papers here and there still affect to doubt whether the disease declared to be pleuro-pneumonia on this side of the Atlantic is the genuine article. They do not pretend that they have made any personal investigation into the matter or that they are qualified to do so, but they base their views on the opinions of a few second-rate veterinarians here who were privately paid for those opinions, and on the fact that a Scotch veterinarian who has a book to sell, cheaply advertises himself by expressing a doubt whether the American cattle killed at Liverpool on the plea that they were effected with pleuro-pneumonia, were troubled with a Simon-pure form of that disease. Here's richness for you!

Gigantic Offers.—Your attention is called to the mammoth new advertisement of Mr. Daniel F. Beatty of Washington, New Jersey, in this week's paper. Mr. Beatty's celebrated Pianos and Organs are so well known throughout the civilized world that they require no word of commendation from us. Lowest prices, superior workmanship and complete satisfaction have brought this maker prominently forward, until to-day he stands the only man in his trade who dares to ship his instruments on test trial, and if unsatisfactory refunds not only the price, but all freight paid. No fairer offer can ever be made or even suggested. His sales now amount annually to several millions of dollars, and when it is taken into consideration that a few years ago he was only a poor plow-boy, it must be evident to every reader that Mr. Beatty is the possessor of rare talent in his vocation. A saving of 5 per cent. can be made when two instruments are ordered at the same time, therefore talk over among your friends and neighbors these unparalleled offers on the celebrated Beatty Pianos and Organs, and try to secure for yourselves this special discout.

We believe the cause of the wonderful success of our MURRAY & LANMAN'S FLORIDA WATER may be found in the fact that the principal aim in its preparation has always been to give the simple *natural perfume of flowers*, without any chemical addition whatever, and so avoid, by all means, the great error of making a heavy, sickly, sweet perfume.

The Perfect Creamer is a great success. It excels all other systems in quantity and perfect quality of butter made from a given quantity of milk. The increase in value of product will pay for it in one season. See adv. in another place.

The best method of setting milk is by use of the PERFECT CREAMER OR BUREAU MILK PANS. It maintains a uniform temperature at all seasons, excludes flies and dust, uses but a very small quantity of ice. Is the most economical in time, labor, and money of any system ever devised.

All your own fault if you remain sick or out of health, when you can get Hop Bitters.

THE MARKETS.

PRODUCE AND PROVISIONS

NEW YORK, Saturday, April 19th, 1879.

BEANS AND PEAS.—The call for marrow beans is not so sharp as it was at our last, but prices are repeated. Mediums steady with light sales of best. Red kidneys quoted as high as before with sales. White kidneys dull at the moment, may sell later on. Pea beans without inquiry. Green peas $1 70 from store; truck lots easier. Southern B. E. peas, $2 50@2 55 per 2 bushel bag; Canadian, in bulk and bond, 75@77c. Medium beans, choice, $1 30@1 35, fair to good, $1 15@1 25, Marrow, prime, free on vessels, $1 40; fair to good, $1 20@1 35; pea, $1 20@1 35; white kidney, $1 35@1 55; red, $2 50@2 70; black, $2 15@2 25. California Lima, $4@4 25.

Receipts for week, beans, 7,644 bush.; exports, 752 bbls.; do, peas, 4,100 bush.

BROOM CORN.—Offerings are freer, but prices hold fairly steady.

Brush and short broom, choice, ₽ lb., 5½@6½c.; do. common to good, 4½@5½c.; hurl, good to choice, 3½@4½c.; do., common to fair, 3@3½c.; red and crooked, 2@3c.

BUTTER.—The situation is merely a repetition of ordinary early spring business. Irregular quality of new keeps buying down to actual daily wants of distributors. Stock the least rapid is at once rejected. Enlarged arrivals give buyers more independence and shade prices for best fresh sweet-flavored lots. About all the merit that hay butter possesses is fleeting sweet flavor, and receivers are forced to yield or risk a break in their line of customers. The spring hereabouts is backward; this is a kind of salvation for some lots of old. That is, it gives it a chance to work out. The question of prices is another matter. Buyers at this time always talk up the precedence new has obtained and dictate terms for old. When a shipper is negotiating, dictation is certain to form part of the transaction.

OLD BUTTER ranges at 7@14c. for State, Welsh tubs, half tubs and firkins; creamery, 10@17c.; Western prime firkins, 7½@8½c.; poor to fair factory, 5@6c.; grease, 4@4½c.

NEW BUTTER.—State pails and half tubs, choice, 16@17c.; good to prime, 14@17c.; fair to good, 12@14c.; Welsh tubs, choice, 14c.; good to prime, 14@15c.; fair to good, 13@14c.; poor to fair, 8@12c.; State creamery, best invoices, 22c.; good to prime, 20@21c.; Western, best invoices, 20@22c.; fair to prime, 17@19c.; imitation creamery, 14@17c.; Western, dairy, fair to best, 11@15c.; factory, 10@14c.; common, 7@9c.

CHEESE.—The export movement is limited, only about 16,000 boxes taken for the week. Receipts are small, however, and the stock is reduced, with prices held steady.

Sales at 8@8½c. for fine lots; 6½@7½c. for good; 5½@6c. for fair; 3@3½c. for skimmed; 4@6c. for half skimmed. Wisconsin factory, fine and fancy, at 8@8½c.; do. good to prime, at 6½@7½c.; Western factory, fine 7@7½c.; good and prime, 5½@6½c.; do. full skimmed, 2@4c.; do. half skimmed, at 3@5c.

Receipts for week, 5,618 boxes.

Liverpool cable, 41s.

Liverpool steam, 27s. 6d.

COTTON—Has tended higher again this week, and active speculative demands based chiefly on the general statistical position. Latest prices are for April, 11.80@11.82c.; May, 11.91@11.92c.; June, 12.03@12.04c.; July 12.24c.; August, 12.36@12.37c.; September, 12.09@12.10c.; October, 11.54@11.55c.; November, 11.14@11.16c.; December, 11.07@11.09c.

Quotations for spot cotton are based on American standard of classification, and on cotton in store running in quality not more than half a grade above or below the grade quoted:

	Uplands.	*N. Orleans.*	*Texas.*
Ordinary	10 3-16	10 5-16	10 5-16
Strict ordinary	10 9-16	10 11-16	10 11-16
Good ordinary	11 1-16	11 3-16	11 3-16
Strict good do	11 5-16	11 7-16	11 7-16
Low middling	11 9-16	11 11-16	11 11-16
Strict low middling	11⅞	11⅞	11⅞
Middling	11⅞	12	12
Good middling	12⅛	12⅛	12⅛
Strict good middling	12⅜	12⅜	12⅜
Middling Fair	13⅛	13⅛	13⅛
Fair	14⅜	14⅜	14⅜

STAINED.

Good ordinary	10⅛	Low Middling	11⅛
Strict good ordinary	10⅜	Middling	11 9-16

CORN MEAL.—Sales are of Western yellow at $2.00@$2.35, and Brandywine at $2.50.

DRIED FRUITS.—Shippers have been freer buyers of quarters and for desirable stock meets strong prices. Peaches are steady and unchanged. Small fruits are generally slow.

Alden's evaporated apples are quoted at 11¼c.; Williams's, 10¾@11c.; new process apples at 8½@9c. State plums, 13⅝@14c.; Blackberries quoted at 4¼c. Peaches—Peeled Georgia, 7@7½c. for poor; 8½@9c. for fair to good; 10c. for prime; choice North Carolina, 12@13c.; good do., 9@10c.; unpeeled halves, 3@3¼c. quarters, 2¼@3c. Pitted cherries, 20c. Apples—New, 2¾@2¾c. for southern quarters in bags; 3¾@4¼c. for prime sliced; do., fair at 3@3½c. State at 4@4½c. for new sliced; and 3¾@4¼c. for quarters; Western at 3¼@4c. for new quarters. Raspberries, 23c.

Exports dried fruit, 1,055 bbls. apples.

EGGS.—Receipts for week, 17,500 bbls.; do. last week, 18,500. The surplus from Easter supplies usually keeps retailers away from receivers several days of the week following the holiday. This week, however, the market has been well attended, and prices are easy enough to protract the moment. Ducks eggs are cheaper, 15@18c.; pretty tint or shell does not count for much after the feast. Goose eggs have declined nearly one-half; quoted, 25@30c.

Near points, hen, 12@13c. doz.; State and Penn., 12@12½c.; Western, 12c.; Southern, 11@11½c.; inferior S. and W., 10@10½c.

FLOUR.—There has been more of a pressure to sell on lower wheat values, and prices have eased off a little.

Latest prices are $3.25@3.60 for inferior to choice

superfine State (fancy lots a shade higher); $3.60 @3.90 for very poor to good extra do., odd lots and lines; $3.90@4.25 for good to very choice do.; $3.25@ 3.60 for inferior to very choice superfine Indiana, Iowa, Michigan, &c.; $3.60@3.90 for very inferior to good shipping extra do., and $3.90@4.25 for good to very choice extra do.; common to about choice white wheat extras, $4.25@5.25; choice to fancy do. at $5.50@6.25; red and amber winter wheat, very inferior to very choice trade and family, at $4.00@5.75; round hoop Ohio at $3.85@$4.25, selling mostly at $4.00@4.15; and trade and family brands of do. at $4.35@5.75, the latter rate for very choice; St. Louis, $4.00@5.00 for very inferior to good extra; $5.00@6.00 for good to very choice (with a few very fancy brands up to $6.50); Minnesota clear, very inferior to fancy, at $3.60 @4.75, few brands going above $4.50; Minnesota "straight," very inferior to strictly choice at $4.25@ 5.75; and patent poor to strictly fancy at $5.25@8.50, few brands going above $7.00; unsound stock at from $2.25@5.00; city mill extra at $4.70@5.15 for West Indies (the latter rate for fancy in new packages); do. for England $3.75@3.90; do. trade and family extras, $5.25@6.25; do. for South America, $5.15@5.65 for fair to very choice; No. 2 at $2.35@3.35 for poor to choice.

FURS AND SKINS.—Muskrat have declined to 7@ 10c. for fall; 10@15c. for winter; 13@18c. for spring.

FRESH FRUITS.—In apples an advance in greenings is noted. Some ice-house red fruit bring new rates quoted. Exports for week, 4,469 bbls. New rates as follows: Spitzenburgs, $3@3.50 bbl.; Greenings, State, $3@3.50; do. Eastern, $2@2.50; Baldwins, $2.25@2.75; Russets, $2@2.25; common apples, $1.50. Cranberries, $7@8.50 for bbls. and $2.25@3 for crates. Strawberries arrive in poor condition and have a wide range; poor, 5@10c. ₩ quart; fair, 15@20c.; choice, 25c.; hot-house do., $1@1.25. Demand light for peanuts; inside rates generally accepted. Fla. oranges no longer of importance; a few selections for Broadway are $6@7 per box. Virginia hand-picked, $1.20@1.25; other, 90c.@1.05; shelled, 4½@5c. Pecans, 6@8c.

GRAIN.—Prices are generally lower on tame English advices, and free sellers on speculative account. Latest sales are of No. 3 spring at 9.@10½c; rejected spring at 75@76c.; ungraded spring at 85@89c.; No. 2 spring at 93c.@$1 01; ungraded amber at $1 18@ 1 20; No. 2 amber, in lots, at $ 00½c.; ungraded red at 97c.@$1 11; No. 3 red at $1 07; No. 2 red, in lots, at $1 12½, ungraded white at $1 10; No. 2 white at $1 0.½; extra white $1 12@1 12½; No. 1 white at $1 09½ @1 10; No. 2 white at $1 0.½; No. 2 Northwest spring, June option, at $1; New York No. 2 spring, May option, at 93½c; do., June option, at 9.½@99½c.; No. 2 amber, April option, at $1 10; do., May option, at $1 10; do., June option, at $1 10; No. 2 red, April option, at $1 .2½; do., May option, at $1 12½@1 12¾; do., June option, at $1 12½@1 13; No. 1 white, April option, at $1 09¾; do., May option, at $1 10½@1 10¾; do., June option, at $1 10¾. Rye at 57@58c. for Western, and 58@61½c. for State. Corn at for New York No. 2 at 44½c.; New York steamer mixed at 43½c.; No. 3 at 42½@42½c; ungraded Western mixed at 43½@44½c; New York No. 2 white at 46½c.; round yellow at 45½c.; New York steamer yellow at 43½@44½c.; New York No. 2 April at 44½c.; do., May at 41½c.; do., June at 45c.; steamer mixed, April, at 43½c; do., May, at 43½c.; do., June, at 43¾. Oats at for New York No. 2 at 31½c.; New York No. 3 at 31c.; white Western at 33½@34c.; mixed Western at 31c@31½c; white State at 35@36½c.; new York No. 1 white at 37c.; New York No. 2 white at 33½c; New York No. 3 white at 32½c.; New York extra white quoted at 38@39½c.; New York No. 1 quoted at 31½c; No. 2 Chicago quoted at 32c. asked afloat, and 30c. in store. Barley—no quotations for State. Canadian has sold at 95.c@$1; feeding barley, 40c.

HAY AND STRAW.—Offerings are full of most grades and buyers have the advantage, strictly prime stock alone excepted.

Sales at 40@45c. for shipping, and 70@75c. for retail qualities. Straw at 35@45c. for long rye, and 30@35c. for short rye, and oats at 35@45c.

Exports for week, 1,173 bales.

HOPS.—There has been less done this week, the shippers buying very sparingly, but prices are sustained.

Quotations are for New York's, new crop, choice, 9@12; New York's, new crop, medium, 7@8; New York s, new crop, low to fair, 5@6; Eastern, 6@9; Western, 6@9; Yearlings, 2@4; Olds, all growths, 1@ 2; Pacific coast, 8@12.

HONEY.—Retailers can name very popular prices with present wholesale figures, and there is some demand for local use. Clover comb, 8@10c.; buckwheat, 7@8c.; strained, 6@7c.

MAPLE SUGAR.—Supply moderate; demand good though somewhat restricted by several rainy days this week. Vermont small cakes, 11@12c.; State light, 10@11c.; dark, 8@9c.; old, 6@8c. Ohio has shipped little as yet. Sirup, 75c.@$1 ₩ gallon, in tins.

POULTRY AND GAME.—Couped fowls weaker with better shipping weather. Trade is good, as city killers have begun operations. Turkeys firm.

Spring chicks, 30c.@$1.25 ₩ pair; N. J. fowls, 14½c.; Western, 13@14½c.; Southern, 12@13c.; roosters, 7@8c. Turkeys, N. J., 16@17c.; Western, 15@16c. Ducks choice, 95c.@$1; other, 85@75c.; choice geese, $1.75@2; southern and Western, 75c.@$1.37. Pigeons, 35@40c.

Dressed poultry is scarce, hardly supplying more than first-class shop, hotel and steamer trade.

Frozen turkeys, choice to e, 24@25c.; fair good, 20 21@c; do. large, 23@25c. Dry-picked winter chickens, 35@40c. Spring, 5@65c.

Turkeys, best fresh killed, 19@22c.; the latter for Pa. dry-picked; other, 15@18c.; fowls, choice, 14@15c.; other, 11@13c.; capons 26@27c.; slips, 23@25c.; ducks, best, 20@22c.; other, 17@19c.

For game the market is generally lower. Stock must be in fine order to sell at all.

English snipe, $1@1.12 ₩ doz.; plover, $1@1.12; small snipe, 40@50c. Wild pigeons, $1.50@1.62; canvas backs, 90c.@$1; red head, 50@60c.; mallard, 40@50c.; black, 40@50c.; common, 15@25c. Season most over for wild ducks. Tame squabs, ₩ doz., $3.

PROVISIONS have declined sharply on the full stocks, closing active. Mess pork closed at $10 bid and $10 10 asked for new for April; May at $10 bid and $10 10 asked; June at $10 10 bid and $10 20 asked; and July at $10 15 bid and $10 30 asked. Bacon at $5 for long clear and 5 3-4c for short clear. Lard at $6 15 for spot lots; $6 10 for May; $6 15 for June; and $6 20@6 22½ for July. Stearine at 6¾@6¾c. for western. Tallow at 6¼@6¾c. for prime. Beef hams at $17 75@18. Beef—extra mess, $10@22, as to quality; packet, $11@11.50; plain mess, $9.75@10.50; extra mess at $10.50@11.50.

SEED.—Timothy is quiet at $1 30@1.35. Clover is in small demand; quoted at 6@6½c. for prime, and 6¼@ 6¾c. for choice Western.

VEGETABLES.—Exports potatoes for week, 308 bbls. Market strong. Southern stuff sells fairly; the weather has not given it a good chance yet. Early Rose and Eastern, $3 50@3 75; State, choice, at $2 75 @3 25; fair to good, $2 50@3; Peach Blow, white, in bulk, $3@3 50; red, $2 75@3 25; Prolific, $3; Peerless, State, $2 37@2 62; Jackson white, $2 50@2 75; Mercer, $2.25@2.37; (outside rate per double heads). Sweet potatoes, Md. & Del., $3 50@3 75. Onions, red and yellow, $2 75@3 50. Squash, marrow, $3 50@4 00. Cabbages per 100, $4@6; R. turnips, per bbl., $1@1.25; beets, 75c.@$1.00; carrots, $1@1 12. Horseradish per bbl., $5@7. Southern items—String beans, Fla., per bush., or., $3 00@3 25; green peas, Ch'n and Sav., small, $2 25@2 50. Ch'n and Sav., large, $2 00@2 25; Fla., ₩ bush. crate, $1 00@1 75; asparagus, Ch'n, ₩ doz. bunches, 75@9c.; kale, Norfolk, ₩ bbl., $1 75; Baltimore, ₩ bag, $1 25; spinach, Norfolk, per bbl., $3 00@3 50; Baltimore, ₩ bbl., $2 00@2 50; radishes, Norfolk, ₩ 100 bunches, 75c.@$1 25; cabbage, Sav., new, ₩ bbl., $3 00@3 50; onions, Bermuda, ₩ crate, $1 75@2 00; tomatoes, box $1 25@1 50, potatoes, $10@ 11. Hot-house rhubarb, ₩ 100 bunches, $4@5.; radishes, ₩ 100 bunches, $1@6; cucumbers, large, ₩ doz., $1 50@2 50; mushrooms, ₩ lb., 50c.; lettuce, selected, 37@75; ₩ doz.

TOBACCO.—No change has occurred in the market, prices essentially as last week, with a slack trade.

WOOL.—Demand has been very slow the past week, buyers holding off awaiting the marketing of the new Texas and California clips; prices are not changed.

Ohio, Pennsylvania and Virginia—XXX and picklock, 36@37½c.; XX, 33@35c.; X, 33@34c.; No. 1 33@ 35c.; No. 2, 32@33c; common, 29@30c.; combing, 36@ 38c.

New York, Michigan, Indiana and Wisconsin—XX, 30@32c.; X, 29@31c.; No. 1, 31@33c.; No. 2, 27@30c.; common, 26@28c.; combing and delaine, 33@37c.

Iowa, Vermont and Illinois—X and XX, 28@30c.; No. 1, 30@33c.; No. 2, 27@28c.; combing, 33@36c.

Missouri, Kentucky and Tennessee—Washed fleece, 30@33c.; unwashed fleece, 18@24c.; unwashed combing, 22@25c.

LIVE STOCK MARKETS.

BEEVES.—Receipts for the week, 8,084 head; do., last week, 9,125 do. There was a strong feeling in beef cattle, the close of Lent recalling considerable market demand. At the tho close there was considerable competition for upper grades of stock, and prices at the main pens were fully ½c. higher than on Wednesday. For London 245 choice steers were sold yesterday. Shipments for week ending Saturday April 19th, 5,172 quarters of beef, 517 live cattle, 1,380 carcases of mutton, 610 live sheep 135 dressed pigs. For the island of Bermuda, 90 head have were taken. Quotations: common to prime, 8¼@10¼c. ₩ lb., to dress 55@57 lbs. to the gross cwt.; 2 car-loads of still-fed bulls, at 4@4½c. ₩ lb., live-weight; plain but fat Colorado and Montana stillers at 9¼@10¼c., to dress 56@57 lbs., mainly at 10@10¼c. Yards were cleared at an early hour.

COWS AND CALVES.—Sales do not exceed $30@50; a cow worth more here would do as well at home.

VEAL CALVES.—Market quiet for live with the usual liberal spring supplies. Prices weak. Receipts of country-dressed begin to fall off. N. J. and Buck's Co., 5@5¾c.; good do. and best State, 4¾c.; other grades, 3@4½c. Hog-dressed best, 6½@7½c.; fair to prime, 5¾@6c.; common, 3½@5c.

SHEEP AND LAMBS.—Receipts for the week, 20,145 head; do last week, 16,107 do. The market is steady and rather firm in anticipation of moderate receipts. Transactions include pour to prime unshorn sheep at 4¾@6½c. per lb.; ordinary to choice clipped do., at 4¾@5¾c.; and ordinary to extra yearling lambs (unshorn) at 6¼ 7c. About 201 fat sheep, 116 lb. average, were taken for export (dressed) at 6½c.

LAMBS, choice, $5 50 per head; fair, $3 50@4 50; poor, $2@3.

SWINE.—Receipts for week, 30,964 head; do. last week, 24,568 do. The range is nominally $3 60@4 10 per 100 lbs.; fair to good hogs have sold at 3¾@4c.

Country dressed pork light, 6@6¾c.; medium, 5¾@ 6c.; heavy, 5¾@5¾c.; city, 5@5¾c. Pork tenderloins 7c; lower and not wanted.

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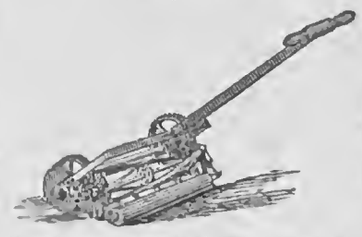
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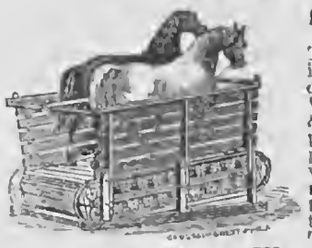
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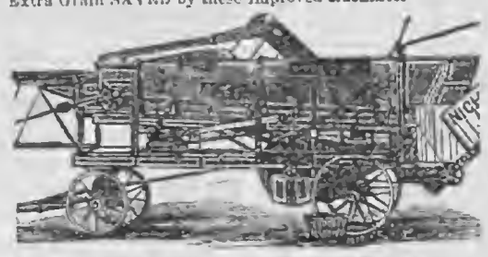
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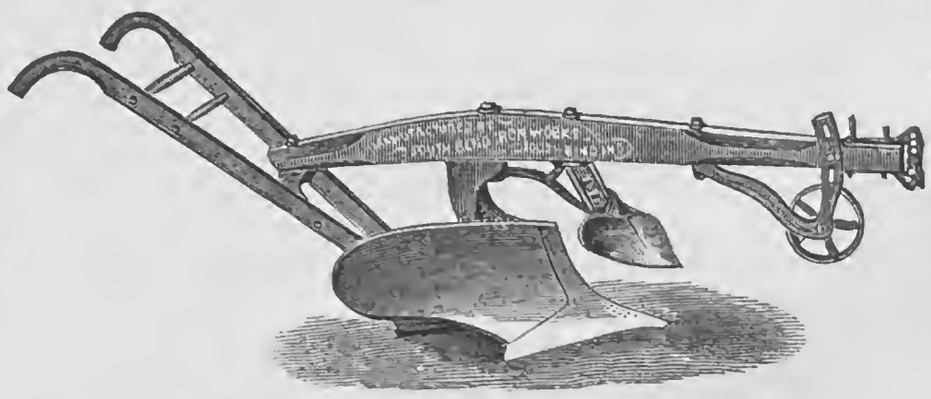
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TO THE SONS OF THE FARMER.—No. 6.

REV. A. W. MANGUM.

KNOWING the effects of certain unfortunate impressions and opinions, as to the choice of an occupation, I consider it advisable to give you additional admonition on that subject. First, you may have inclination to some work for which you have the requisite natural talent, but for which you may think your circumstances render it impossible for you to prepare. If such be your case, you are in an important crisis of your life. You ought not to be presumptuous, and you ought not to be faint-hearted and irresolute. It is true that, with many, the obstacles in the preferred way often appear virtually insurmountable; at least, for a considerable time, a most hazardous venture. But the history of the past is crowded with examples of the power of talent, industry, resolution and perseverance to conquer all ordinary difficulties. A penniless boy with these qualities will, in case of his fidelity, certainly outstrip the wealthy boy who has money, and money only to help him in life. If education is necessary to the accomplishment of what you wish, you can get education; provided you are willing to practice self-denial for a season and make extraordinary efforts. Of the two gentlemen who to-day represent my State in the Senate of the United States, one obtained an education through the indulgent liberality of friends; and the other (probably the abler of the two) had no scholastic facilities but six months in a common school in the mountains. He read and studied, and educated himself; and to-day he is in the front rank of the highest legislature in our great country. I might fill not pages, merely, but *volumes*, with the names and careers of those who have literally *made* the means that enabled them to be educated; or, by assiduous exertion, achieved all the advantages of learning without the aid of schools. What so many have done, you certainly may reasonably hope to do, if you are willing to make such sacrifices and efforts as they made. It is grand, yes, grand even to sublimity, for a young man to throw aside all the embarrassments of self-indulgence, and bravely, proudly grapple with frowning misfortune—never yielding till the laurel of triumph, trembling in the admiring shouts of thousands, crowns his chivalrous brow.

What is thus shown as to general education, is equally applicable to the special training required for the successful prosecution of any of the arts, sciences, or professions.

But, secondly, your talents and circumstances may plainly point you to some industrial pursuit, to which you may have unjustifiable objections. That pursuit may involve manual labor; and there is an old and foolish prejudice against living "by the sweat of the brow." Is manual labor less respectable than intellectual? What is the former but the utilization of the latter? What is theory worth, unless it is reduced to practice? What can thinking accomplish, if it is not carried out in working? Only consider that agriculturists and mechanics on the one hand, and the book-makers and brain-workers on the other, are clearly interdependent. The most learned men in every department study, in proportion to their wisdom, to subserve the interests of the vast laboring masses. These laborers ply their plain but arduous task that they may have the necessities and comforts of life for themselves, and also furnish them to the multitudes of non-producers or (in the restricted sense) non-laborers in the world. Of the two great classes, the laborers are really the most independent. A man can make bread without books; but he cannot make books without bread. A man can be a successful mechanic without the learning of the philosopher; but the philosopher can not boast of usefulness and distinction without the aid of the mechanic. The scholar in his study has wrought out incalculable benefit for the toilers in field and workshop; but those toilers have been producing those things which were absolutely indispensable to the very existence, not to say success, of the scholar. The humble laborers, then, are the real masters. They are not only the necessary agents of all progress, but are the veritable life-preservers of all society. They are not only worthy of the respect due to the useful, but are to be gratefully revered as the grand almoners who dispense the help without which the very race of mankind would perish.

Then, let the intelligent youth blush to think that he was ever ashamed of being known as a follower of any industrial occupation! The most independent people in America are the faithful, intelligent, and, consequently, successful farmers.

Of course you are not to conclude that, because you are engaged in industrial work, you will have no need of mental culture. For many reasons you should train your mind to strength, and store it with varied and useful learning. The better your education, the more success you may expect in your work. Your hands must be directed by your mind. The management of a farm or factory requires the effective exercise of the same mental faculties that enable men to be great in public and professional enterprises. Patient and minute observation, accurate memory, inventive imagination, facility in combining and classifying, sound judgment, ability to reason promptly and clearly, self-control, and a strong resolution, are all of as much importance, relatively, to one occupation as another; if the person engaged in that occupation pursues it to the best advantage and with the purpose to go forward and rise higher. To make a plow or run a furrow, to build a wheel or plant corn, to make a horse-shoe or drive a wagon, involves the exercise of the powers that are developed by the study of high branches of mathematics, and are really the practical application of essential principles in geometry. Everything that pertains to farming has some important connection with the several departments of natural history. The buying and selling which attend the life of a farmer or mechanic, make it desirable to know as much as practicable about the laws and principles governing trade, the bearing of public regulations upon individual rights and interests, and, indeed, everything that can help to correct mistakes, avoid troubles and losses, and improve, to the best advantage, all the means and opportunities at command. Education will, likewise, furnish you with an unfailing source of enjoyment. Knowledge is pleasure as well as power. With an active, strong, well-furnished mind, you will always have present with you the means of self-entertainment. It will render you a far more agreeable and helpful companion, at home or abroad. It will qualify you to secure for yourself, or impart to others, innumerable and invaluable pleasures, that otherwise could not be enjoyed.

Furthermore, education will bear you up, probably, to more public work. The sad destitution of sound, practical knowledge, in those who govern the vast and varied interests of our country, is a potent cause of the financial troubles which afflict us. We need wise, practical men in high places. Educated theorists, merely, are not as well fitted to legislate for our population, as are those who have the knowledge that books give and, also, the knowledge that nothing in the world but practical experience can impart. You may be needed in positions that demand better legislature for the protection and promotion of the work of production and utilization. For these and other reasons that I might mention, you ought to make great exertion, great sacrifices, if necessary, to obtain a liberal education. You may have an aversion to your proper occupation because, while it involves much hard work and self-denial, it may give promise of only small and slow profits. As to this, I must admonish you, to remember that every person is liable to set an extravagant estimate upon money. I do not deny its importance, or teach that you should not make it a factor in your calculation about your life work. But do not give it more importance than it relatively deserves. Certainly it is not to be sought and prized as an *end*; but only as a *means*. The Dutchman's advice to his son, on the subject of matrimony suggests the true theory. Said he, "My son, do not marry *for* money; but do not marry *without* it." I say to you. Do not choose an occupation because of the money it will enable you to accumulate; but do not make a choice that will probably result in your failing to obtain the means to meet your reasonable wants and to accomplish reasonable hopes of usefulness. A calling should not be followed for money as the object; but money should be sought that, while it meets consistent demands as to our general well-being, it may be made auxiliary to the grand, supreme aim that challenges our main devotion. A man, with little means, engaged in his proper work, will be happier and more successful, than he, who, with large posessions, is where he ought not to be, attempting what he cannot do, or doing what should never be done.

But a just comparison of industrial and strictly professional occupations, will show, probably, that the objection to the former which we are now considering is not well-founded. That must be deferred to the next number in this series.

THE HORTICULTURAL CLUB.

To those members of the Club who received the prizes, I wish to say, that although I promised nothing but flower seeds, on second thought I concluded that it would be too many varieties for so small a garden particularly, as in all probability some flower seed had already been provided from other sources. I therefore substituted a few choice varieties of vegetable seed, hoping thereby to serve their interests better.

The Hollyhock seeds are selected from plants of Chater's strain, and each seed will make a plant bearing different-colored flowers, all as double as possible. The Balsam was imported from F. & A. Smith, of England, six years ago. Old seed of Balsam is supposed to be best—the older, the more double. Smith's prize Balsam is the best strain of Balsam known at present. Each of the six seeds will produce a different-colored flower. I should like to receive a report from each prize taker of the success or failure met with in the cultivation of these plants.

I wish to call the attention of the members of the Club, and indeed of all the cousins, to a bulb very desirable for their gardens; it is the Tuberose. The only objection to this lovely flower is that it is tender, but it fully repays all extra care and trouble expended upon it. It sends up a stem about three feet in hight, bearing twenty or more beautiful pure white, wax-like and very sweet-scented double flowers. In southern latitudes the bulbs may be set in the open ground in the beginning of May; but those who live in the North should plant their bulbs in boxes now, and set them in the hottest part of the house till the beginning of June, when they may be planted in the open ground; they will then bloom in the fall. None but the large bulbs will flower. The small ones should be set in rows on a nursery bed, tended carefully all summer, taken up in the fall and kept in a warm place during the winter; they will then be ready to bloom next summer. UNCLE MARK.

BLOSSOMING TREES.

ESSAY BY E. P. POWELL.

IN planting for pleasure trees may not be chosen for foliage only, but for their blossoms. Superb groups may be established of trees whose fragrance will fill the air for an eighth of a mile. (1.) The Magnolia (the Glauca, a shrubby variety is especially showy and sweet) (2) The Linden, hardly any tree surpasses this for exquisite odors wafted about especially at dew time. The bees appreciate its delightful sweetness and make a grove of it as profitable as it is charming. (3.) The Locust, for some reason this tree has lost its popularity. But there is nothing to equal its pure and showy tufts of racemes, its wealth of floral display. The Locust is peculiarly adapted to a new place, growing as much in five years as any other in ten. (4) The Scarlet Maple. I should not overlook the beauty of this variety of maple, which is both noble in foliage and very bright in its early blossoms. (5) The Tulip Tree. In many of the States this tree succeeds admirably, where it is not indigenous. If a tulip mania was excusable the tulip tree might well set a nation wild with its glory. (6). The Cornus Florida. This is a small tree but adapted to a wide range of territory. I have seen it grown in Michigan as a street tree. (7) The Catalpa. In New York City and in St. Louis the Catalpa does well for shade, while its clusters of bloom are universally admired. It is somewhat tender in the Northern States if planted where the winter winds work upon it. (8) The Cherry. There is no tree that combines the advantages of fruit bearing with beauty of form suitable for a lawn like the cherry. In blossom it is as lovely as tree can be, and in fruit is a living poem.

This list can be enlarged, but it furnishes a sufficient variety for any small lawn.

Cutlings.

(1). Select new growth, but not too succulent and feeble shoots. (2). Cut smooth under a joint so as to leave it about three or four inches long. (3). Strip off nearly all leaves and cut off the tip. Especially remove blossom buds. (4). Plunge it into the soil about one and a half or two inches; pressing the soil hard down about the cutting. (5). Let the soil be thoroughly wetted one-half hour before using, but not sticky at the time of inserting the slips. (6). For Geraniums do not water the soil again for a week or two, but set the box where it will not become dry. Fuchsias, Achyranthus and some others do best in sand. Roses will root most readily in a hot-bed or cold-frame. (7). Label carefully as you strike the cuttings, and thus save trouble and confusion. (8). Pot off soon after the plants begin to grow; always selecting very small pots.

These hints will help many a puzzled housekeeper who does not know how to propagate and multiply her plants.

LETTERS FROM BOYS AND GIRLS.

DEAR UNCLE AND COUSINS.—I have been amused and interested in reading the many letters written by the cousins and Uncle Mark. I have often thought I would like to become a correspondent to the RURAL. We have taken the RURAL since I can remember, and I always look forward to its coming with great delight. Perhaps some of the cousins would like to know what kind of weather it is here in Canada, where I reside. There is quite a lot of snow here yet, and we are all longing for its departure. The most of the farmers are starting to make sugar. That is the pleasantest time of the year, and a time that we young folks enjoy to our heart's content. I suppose that most of the cousins that write to the RURAL know all about sugar-making, and if they don't I will recommend them to look in the RURAL of the 22d of March. They will there find a description of the business that is worth any of the cousin's while to read. I would like very much to be where there is 1,000 trees in one camp. But it is not right to be discontented with one's lot. Our mode of farming in Canada is quite different from what it is in many of the United States. We farm two hundred acres of land, and keep a large number of cattle, rather too many to give their names. I noticed in one of the cousin's letters that he had some canaries. We have four, and it is delightful to hear them sing. If the cousins who have no canaries would get at least one bird they would be highly pleased. They are among the nicest of pets. I have started to learn to play the organ and find that it not half so easy as I thought it was. I am almost discouraged, and sometimes feel like giving it up, but nothing worth having can be obtained without effort. I will, therefore persevere. But I have written enough for my first letter. If it is worthy of a place in the RURAL I will write again and tell you more about the farm and my garden, so no more this time. WIDE-AWAKE.

Fountain Head Farm, Canada.

DEAR UNCLE MARK:—I would like to join your Horticultural Club. I am thirteen years old, but never worked in the garden very much, so I don't know much about it, but I like flowers very much, and intend to plant some next summer. We have a south window in the sitting room, which ma keeps filled with flowers in the winter. She has ten different kinds now, and all but one are in blossom. Her Calla lily measures 49 inches from the tip end of the blossom to the pot in which it stands. The Petunia and the Fuchsia are about as high, and full of blossoms. Besides these, she has in bloom Oleander, Lantana, Cineraria, Heliotrope, Pink and Chinese Primrose. The Camellia isn't in bloom now. I helped set out a Strawberry bed last fall; a friend gave my sister the plants. They are "Monarch of the West." It was dry weather when we set them out, so we dug little holes and filled them with water, put the plants in, and pressed the earth around them with our hands. The bed is on the side of a hill, or rather at the foot of it. The ground is rich. There were in all three hundred and fifty plants. We had to put the bed away from the house, so the chickens and turkeys would not bother it. My brother has a turkey that weighs 35 pounds; it is but nine months old, and when it gets its growth he thinks it will weigh 45 pounds. I suppose I cannot expect to write a prize essay the first time, but if you are pleased with my letter, may be I will write again.

Johnsons, Orange Co., N. Y. BERTHA H.

DEAR UNCLE TRUE AND COUSINS:—As Uncle Mark has proposed to give the cousins a chance to join his Horticultural Club, I hope we may have a good many interesting letters on that subject. We have planted peas and radishes in our garden, but the snow is now six inches deep (April 3d), and the thermometer is eight deg. above zero. On March 26th, we put our flower seeds in the hot-bed, and on the 20th our vegetable seeds, which are now up. My brother and I can do considerable in the garden, and we like to work in it very much. Our grandpa gives us a piece of land every year and lets us take care of it. I noticed another letter from our Swiss cousin. I can furnish you with some more of your fancy pets, in the summer, if you wish them, John, but don't know as they would be profitable pets if you have to bury a suit of clothes every time you caress them. I have a few bulbs of Gladiolus which I would like to exchange for those of the Amaryllis. If any of the cousins would like to exchange and will send to box 1968 with their address, I will send them mine as soon as possible. BOB WHITE.

Rockford, Winnebago Co., Ill.

Sabbath Reading.

RISE, for the day is passing,
And you lie dreaming on;
The others have buckled their armor,
And forth to the fight are gone.
A place in the ranks awaits you,
Each man has some part to play;
The Past and the Future are looking
In the face of the stern To-day.

THE FIFTY-FIRST PSALM.

SINCE the publication of "Gray's Elegy," the fifty-first Psalm of David has been translated into all the languages of the civilized world. New versions of it, in the English, French and German tongues, have been multiplied beyond former precedent. So soon as the language of a pagan tribe has been reduced to writing, it has been made the vehicle for carrying this Psalm to the Pagan mind. When the "Elegy" is translated, it parts with many of its original beauties; but this Psalm retains its glow and power when it is transferred to even the rudest language of the rudest men. It is the favorite Psalm of slaves and freemen, the poor and the rich, the ignorant and the learned. Some of the most beautiful passages in modern literature have been suggested by it, some of the choicest hymns in our devotional poetry are grounded on it. Its words have been repeated by men as they were dying on the battle-field, in prisons, on the scaffold, and also by the kings of the earth as they were breathing out their life in their palaces, and by the ministers of religion as they were bidding farewell to their churches. It was the sacred poem of the Jews; it has been the still more sacred poem of the Christians; it promises to be more and more the fresh utterance of good men in all tribes and all times.

In what manner, now, had David been educated for composing—and he had no leisure for spending eight years in composing—the Psalm which was to touch the sensibilities of the race? We first hear of him as pursuing the occupation ordinarily assigned to "females or to slaves, or to the despised of the family." He is represented to us as carrying around his neck a scrip or a wallet. We read of him as in a conflict with the lion and the bear, as fighting with the giant, as a busy warrior; a fugitive and outlaw, a statesman, a king. He lived in a dark and barbarous age—not only without the aid of universities and libraries, but without the stimulus of literary companions or a refined public sentiment. Still the poem he indited will live, when the poem written by a master of the sciences and of the arts will have been forgotten, and the Psalm will speak to the heart of millions, while the beautiful "Elegy" will be speaking to a select few, and the Psalm will be the more highly prized, as the sentiment of man becomes the more choice and pure.

On what theory shall we explain this difference between the ancient and the modern poem? Various theories have been invented, but that one which most easily explains the disparity is that the modern poet wrote under the impulse of his own genius, and under the influences of his multifarious learning; but the ancient poet was elevated above his own ingenuity by communion with the Divine mind and his powers were spiritualized by the inspiration of God more than they could have been by the largest human erudition.—*Prof. Park.*

FAITH, Hope, and Love were questioned what they thought,
Of future glory, which religion taught.
Now Faith *believed* it, firmly, to be true;
And Hope *expected* so to find it too;
But Love replied, with smiling, conscious glow,
Believe? Expect? I *know* it to be so
T'is heaven wherever Jesus doth abide;
And where He is, I shall be at His side!

FAIR-WEATHER CHRISTIANS.

DISAGREEABLE Sundays sift churches as honestly as the test of "lapping water" sifted the ten thousand troops under Gideon. Those who really want to get to God's house on a wet or wintry Sabbath usually do get there. The richest spiritual blessings are often obtained by those who submit to some hardship in order to do their duty. And what a melancholy spectacle to the eye of our loving Lord must be the sight of His own sanctuary on disagreeable days; and of His own "upper rooms" of communion when His disciples have turned their backs upon Him! For one, I honestly confess that all the trash of the skeptics, from Renan or Huxley down to Ingersoll, do not inspire such misgivings of Christianity as a heart-power as are awakened by the spectacle of delinquent Christians in unfavorable weather. Next to that is the sight of a contribution-box after it has gone the rounds of a congregation who live in "ceiled houses" and keep their own carriages.—*T. L. Cuyler.*

BEGIN all thine actions with prayer, that thou mayest be able to accomplish them.—*Pythagoras.*

PERSONAL ITEMS.

Garibaldi is down sick in Rome, and it is said that he has gone there to die.

Senator Bruce will shortly issue a letter to his colored constituents, advising them not to emigrate to the West.

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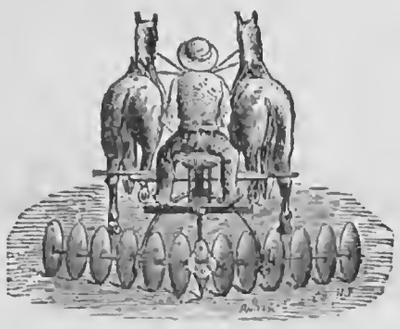

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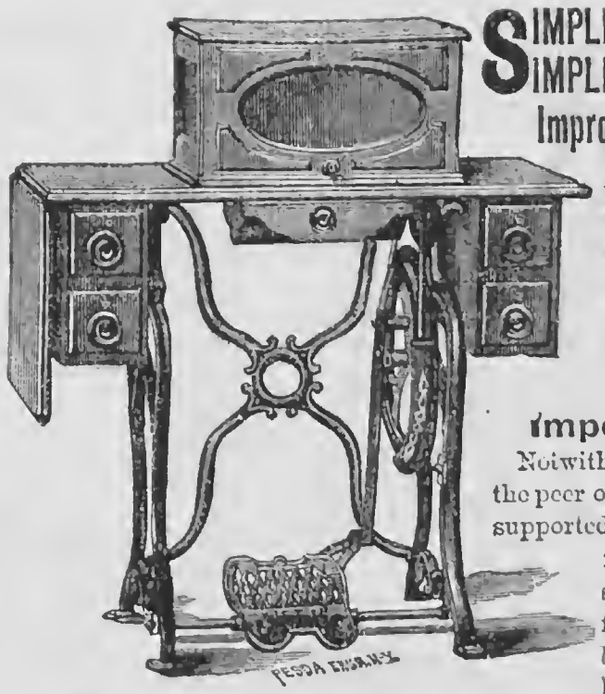

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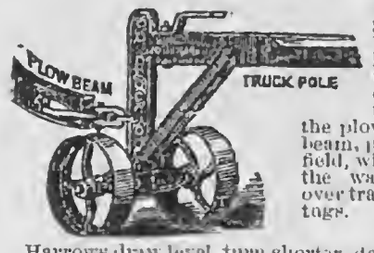

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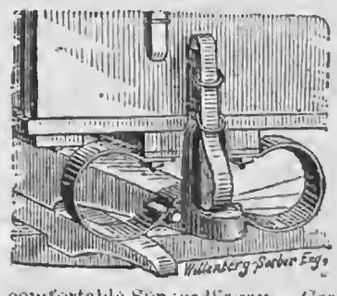

They are for wagons hauling from 1,000 to 3,500 lbs. Made of the finest tempered steel and warranted. Attached by bolts through the bed. Can be put on any wagon by any person. Remain on the wagon for all uses and work equally well empty or loaded. Springs set not needed. Transforms a farm wagon to a comfortable Spring Wagon *Great for hauling grain* and *bully for going to church* Equally comfortable for one or twenty persons. A fast selling thing for Agents. We want Agents in every county. Send Postal for terms. Circulars free. Ask your hardware dealer for them, or address Semple & Birge Mfg. Co.,
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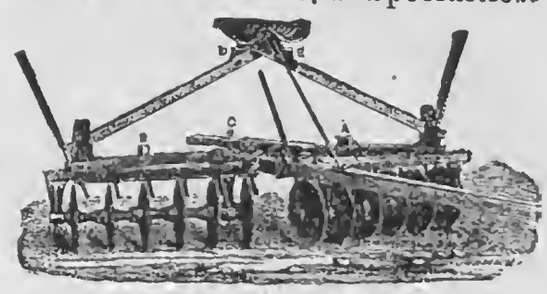

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Randall Pulverizing Harrow!
OVER 30,000 IN USE.
Chilled Iron or Steel Disks, *Center Jointed.* Improved Stiffener Bar. Angle of Gangs adjusted by a Lever. Adjustable Scrapers. The most convenient, durable and effective harrow made.
NEW CORN CULTIVATOR!
Most Efficient and Perfect Implement for working rowed crops. Gives more than universal satisfaction.
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Lightest Draft, Easiest Managed, Most Durable Mower made. Over 40,000 IN USE. Challenges competing machines for any work or endurance.
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Threatens every man, woman and child living in a region of country where fever and ague is prevalent, since the germs of malarial disease are inhaled from the air and are swallowed from the water of such a region. Medicinal safeguard is absolutely necessary to nullify this danger. As a means of fortifying and acclimating the system so as to be able to resist the malarial poison, Hostetter's Stomach Bitters is incomparably the best and the most popular. Irregularities of the stomach, liver and bowels encourage malaria; but these are speedily rectified by the Bitters. The functions of digestion and secretion are assisted by its use, and a vigorous as well as regular condition of the system promoted by it. Constitution and phisique are thus defended against the inroads of malaria by this matchless preventive, which is also a certain and thorough remedy in the worst cases of intermittent and remittent fevers.

Breeders of Fine Dairy Stock

Should at once investigate the PERFECT CREAMER advertised in another column. It will enable them to realize the largest possible yield per cow, and thus enhance the value of their stock as well as increase *the value* of the product.

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Or those that desire to become such should use THE PERFECT CREAMER, advertised in another column. Butter made by its use, is always rated Gilt Edge, and commands ready sale and an extra price.

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OUR Spring and Summer assortments of suits, comprise the following desirable garments, at the very reasonable prices below quoted:

Fancy Bouclette and Serge Suits	$8.00
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New Summer materials, trimmed with Silk	19.00
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Fancy Camel's Hair Suit, silk skirt	30.00
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Fancy Silk Walking Suit	22.00
Plain Silk, trimmed with brocade	38.00
White Swiss Suits	6.00
Cambric Suits, from	2.50
Organdie Suits, from	16.00

Wrappers.

Calico Wrappers, Spanish flounce	75c.
Tycoon Reps Wrappers	$1.80
Fancy Flannel Wrappers	2.95
Cashmere Wrappers	4.85
White Lawn Wrappers	3.00
White Lawn Wrappers, trimmed with lace	4.00

Misses' Suits.

In Cambric, from	50c.
In Pique, from	$1.50
In Plaid, kilt skirts, from	5.00
In White Swiss, from	4.50

These Suits are all of this season's materials well-made, tastily trimmed, and will bear the closest examination.

Cloaks and Wraps.

CUT-AWAY JACKETS AND WRAPS, IN LIGHT-COLORED CLOTHS; WRAPS IN CAMEL'S HAIR CLOTHS, WOOL SILICIENNES, DIAGONALS, &c., IN ALL THE BEST SHAPES FOR EARLY SPRING WEAR, SILK GARMENTS IN DOLMAN AND MANTLE SHAPES;

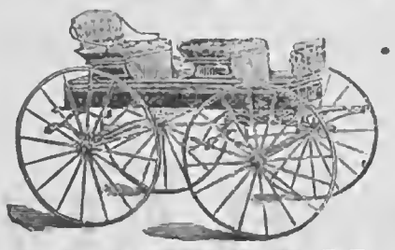
ALSO,

ULSTERS IN CLOTH, FOR LADIES AND MISSES IN SPLENDID VARIETY. SACQUES FOR CHILDREN FROM 3 YEARS, IN ALL THE NEW MATERIALS. PRICES IN THIS DEPARTMENT ARE EXCEEDINGLY REASONABLE, AND MUCH LOWER THAN FORMER SEASONS.

☞ SAMPLES OF PIECE GOODS, WITH PRICES DISTINCTLY MARKED, SENT ON APPLICATION TO ANY PART OF THE COUNTRY, SPECIAL ATTENTION TO ORDERS BY MAIL.

Broadway and Twentieth Street, Grand, Chrystie and Forsyth Sts., N. Y.

WATERTOWN



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EVERY WAGON FULLY WARRANTED.

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AGENTS WANTED.

Correspondence solicited. Address

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PERFECTLY PURE HIGHLY CONCENTRATED

Standard Flavoring

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BOOMER & BOSCHERT PRESS CO., Syracuse, N Y.

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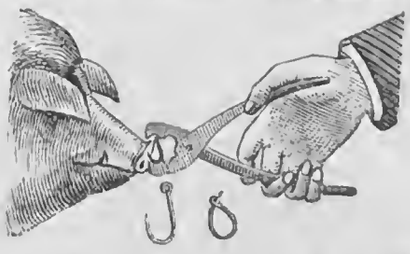


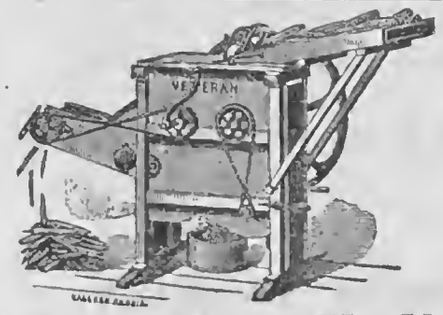
THE PERFECT HOG RING

Combines more good points than anything yet brought out for the prevention of rooting. This Ring, in passing clear through the snout, forming the joint and lock on the top of the nose, prevents the soreness which is unavoidable when the two ends of the Ring meet in the flesh.

IT IS SURE TO SUPERSEDE ALL OTHERS.

Sample Ringer and 100 Rings sent on receipt of $1 prepaid.

J. H. Brown, Mfr. "Perfect" Hog Ring, **Ottawa, Ills.**



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FOR HAND OR POWER.

Just the Thing for Mill, Farm or Plantation.

Power and Hand Corn Shellers of all sizes and to suit all wants.

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Write for Descriptive Circulars and prices. Address SANDWICH MANUF'G CO., Sandwich, Illinois.

FINE TEAS supplied to *consumers* at prices *lower than ever known before.* These *fine qualities* seldom reach the interior, being sold only in large cities and among the very wealthy. Send for *reduced price-list*, and compare with other houses.

CONSUMERS IMPORTING TEA CO.,
8 Church Street,
P. O. Box 4226 New York City.

My Annual Catalogue of Vegetable and Flower Seed for **1879**, rich in engravings, from original photographs, will be sent FREE, to all who apply. Customers of last season need not write for it. I offer one of the largest collections of vegetable seed ever sent out by any seed house in America, a large portion of which were grown on my six seed farms. *Printed directions for cultivation on each package.* All seed *warranted to be both fresh and true to name*; so far, that should it prove otherwise, *I will refill the order gratis.* The original introducer of the Hubbard Squash, Phinney's Melon, Marblehead Cabbages, Mexican Corn, and scores of other vegetables, I invite the patronage of *all who are anxious to have their seed direct from the grower: fresh, true, and of the very best strain.*

NEW VEGETABLES A SPECIALTY.
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BIG GIANT CORN MILL.

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CHECK SPRING

used on the tube to

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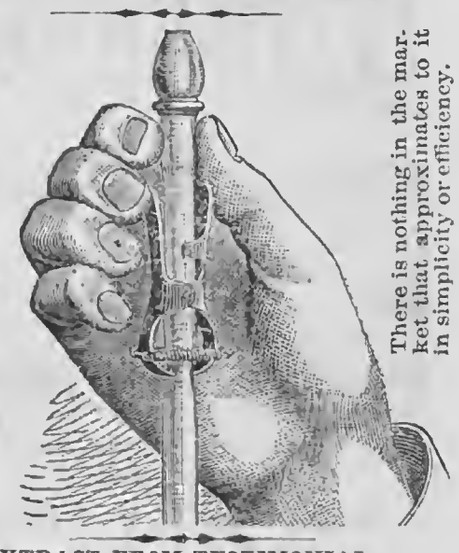
NORWEGIAN BALM

FOR

CATARRH



Pressing upon the wings of the check-spring, opens its mouth, which allows the dilution to flow, and when the pressure is taken off, the flow immediately stops.

There is nothing in the market that approximates to it in simplicity or efficiency.

EXTRACT FROM TESTIMONIAL.

903 Eight Ave., New York, Dec. 17, 1878.

I think your remedy for Catarrh "One of the greatest discoveries of the age." Before using the NORWEGIAN BALM my wife *suffered untold misery for years.* We sought medical aid, far and near, but to no effect. Our regular Physician, distinguished for his knowledge, skill and honesty, pronounced the disease incurable; that it would extend from the nasal organs to the throat and bronchial tubes, and finally to the lungs,—and that death would be the result at no distant day. This was well nigh the case. But in your NORWEGIAN BALM *she found immediate relief;* the extremely offensive odor of her breath, from which she had suffered so many years *entirely disappeared within two weeks* after she commenced to use the BALM. After having used only one bottle, if not fully cured, she feels well on the way. C. C. SULLIVAN,
Produce and Commission Merchant,
155 Chambers Street, New York.

Quart Bottle, $1.00, (*sufficient for Two Months' use.*) Trial Bottle, Twenty-five Cents.

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REAPERS, MOWERS, and Combined Machines.

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FIRST AND ONLY PRIZE

Awarded to Self-Raking Reapers

AT PARIS EXHIBITION.

Field Trials at Mormant in competition with 35 machines.

75 FIRST PRIZES

Taken in actual Field Trials during the Season of 1877-78.

Grand Object of Art

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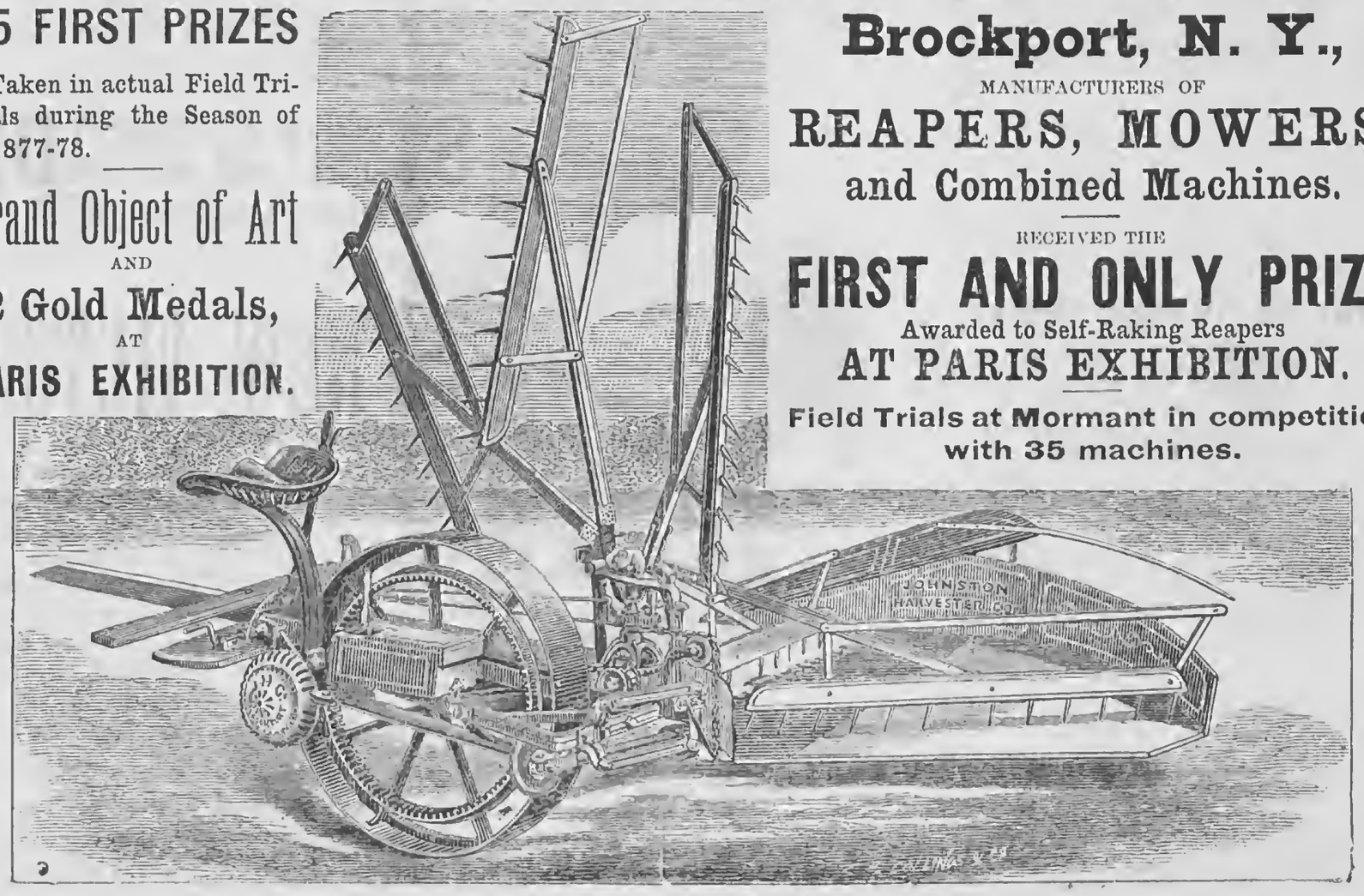
2 Gold Medals,

AT

PARIS EXHIBITION.



THE RURAL NEW-YORKER

A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME

VOL. XXXVIII. No. 18.
WHOLE No. 1527.

NEW YORK CITY, MAY 3, 1879.

PRICE FIVE CENTS.
$2.00 PER YEAR.

[Entered according to Act of Congress, in the year 1879, by the Rural Publishing Company, in the office of the Librarian of Congress at Washington.]

Field Crops.

THE CULTURE OF TOBACCO IN THE NORTH.—No. 1.

G. A. GOFF, JR.

TOBACCO-GROWING has been slowly but steadily increasing in favor among farmers in the Chemung valley during the last twenty years. Its culture has proved profitable and it is coming to be among the leading products of our farms. Much has been said and written against its cultivation and use, but the demand for it continues to increase, and our country is receiving more than $30,000,000 annually for leaf and manufactured tobacco, from foreign lands, besides a large internal revenue.

Tobacco is an exacting crop, and success in producing it profitably depends, in a great measure, upon the diligence and thoroughness of the grower, as a little negligence will sometimes cause much loss. The best soil for tobacco is considered by growers in this valley to be river or creek bottom lands consisting of a sandy or clay loam, though good uplands where clay does not prevail, may be made to produce a good leaf. If the soil is not rich, it must be made so by an application of some kind of manure. Barnyard manure is considered the best, though commercial fertilizers are used in some soils with good results. In this latitude it requires about five months for the tobacco plant to make its growth. One-half of this time the plants remain in the seed-bed, during which time they require much care and attention. If a tobacco-grower has a bed of good, strong, healthy plants, enough to set his entire patch, and large enough to be set by the first part of June, he may consider his crop about half raised. A failure in producing plants must necessarily cause loss, as growers are not willing to part with plants until they have made their own settings, and then it is often too late.

For producing the plants, the ordinary cold-frame used by gardeners is employed. It consists of a low box or frame covered with glass. The bed should be prepared in the fall by an application of fine manure, and thrown into a ridge to hasten drying in the spring. Early in the spring, the glass is placed on the frame to exclude sun and rain, that the bed may the sooner become in condition to "work." The soil in the bed is made rich and mellow with muck or well-rotted manure and the use of the hand-rake. A few days before sowing, the seed is mixed with fine muck or sand, and placed by the stove till sprouted. One-third of a pint of seed mixed with four quarts of muck or sand, will sow two hundred square feet of bed and, with good success, will furnish enough plants to set three acres. Much care is required to keep the bed moist while the plants are young and tender. In warm weather the bed will require daily watering, and for the first week or so it is better to use tepid water. When the sun shines hot, the glass must be raised to prevent the plants from burning. If the plants are late, they may be forced by sprinkling them with manure water, or liquid manure.

The task of weeding begins as soon as the weeds are large enough to pull, and must be continued as long as they appear. The glass on the bed may be dispensed with entirely after the plants get well started and the nights become warm. The plants should be large enough to be set by the first part of June, and plants of the best size are those having leaves about two inches long. While the plants are growing, the ground where they are to be set should be prepared to receive them. The soil is usually plowed twice, once in the fall and again in the spring just before setting time.

Chemung Co., N. Y.

Rural Architecture.

A FARM DAIRY BARN.

AFTER the dwelling-house, the most important convenience on the farm is a good barn. Indeed in some parts of the country, notably among the Pennsylvania Dutch and along the Shenandoah Valley, the barns are far more pretentious and costly structures than the dwelling-houses. In view, therefore, of their utility, the amount of money often expended on them and the length of time they last, it is very desirable that they should be well constructed on a good plan at the outset. Hence we have of late thought it to the interest of our readers to devote a considerable amount of our—of their—space to the topic of barn-building, and now place before them a representation in detail of a convenient farm dairy barn.

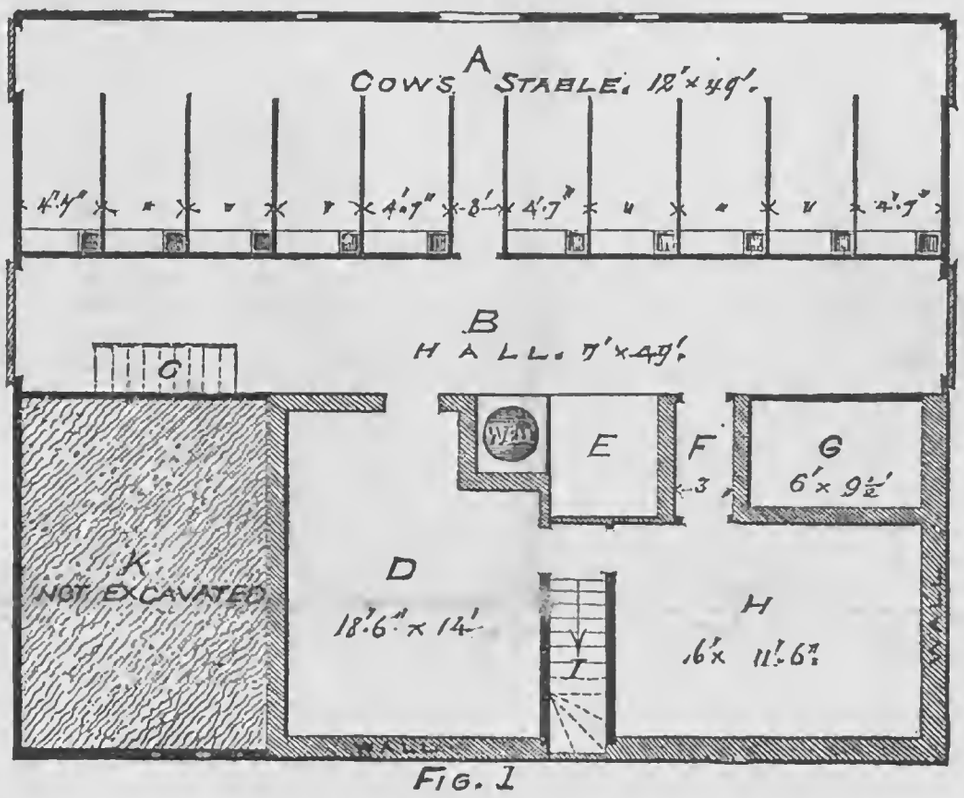
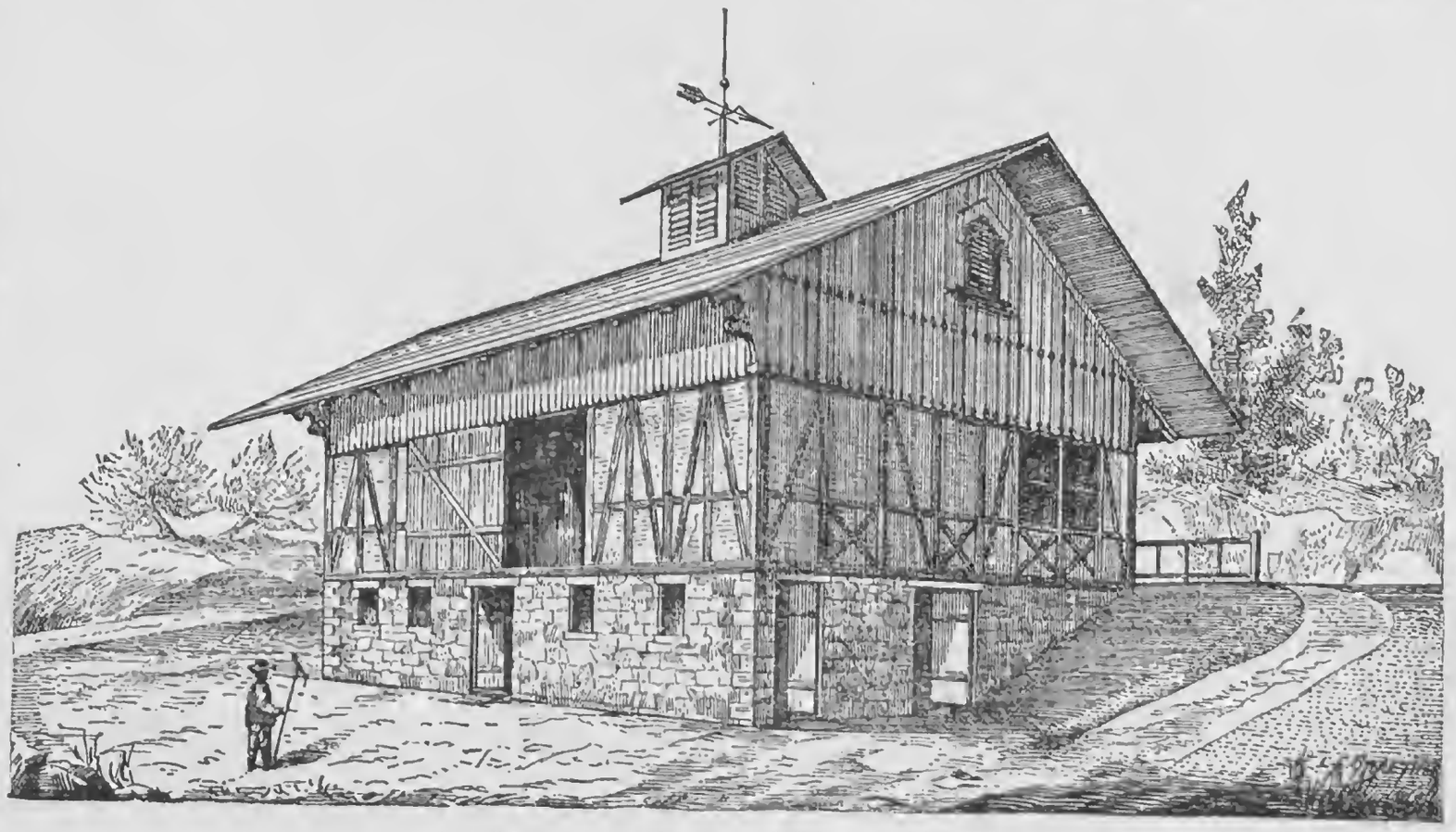


FIG. 1

PLAN OF FIRST FLOOR.

The elevation shows a side and end view of the building which is 40x50 feet. The basement story is eight feet high in the clear; the upper story, sixteen feet from sill to plate. The sketch shows the material and method of construction so plainly that a lengthy verbal description is unnecessary.

Fig. 1, is the ground-plan. A, is the cow stable affording room for ten cows. B, is the hall-way, wide enough to drive a wagon through on removing the movable stairs at C. D and H are frost-proof root and feed cellars; the latter is also designed to contain a root-cutting machine. E is the landing for hay and cut feed from above, and next to it is a well from which the stock can be supplied with water. F is a passage three feet wide, and G a bin or box for mixing feed. At I is the stairway leading to the floor above, see Fig. 2 page 279. On this floor A, B, C, and D, are grain bins. E is the harness room, and F the stairway to basement. G is the horse stable, the entrance to which is on the back side of the barn. H is the spacious barn-floor, and I, I, bays for the storing of hay, straw, etc., while K is a cutting room and L a shoot for passing feed to the basement. The dimensions of each part are marked thereon, and the clearness of the pictured plan obviates the necessity of further description. The building, the plan of which is here given, stands on the farm of C. E. Ross, Hamer, Paulding Co., Ohio.



FARM DAIRY BARN.—Elevation.

Horticultural.

HARDINESS OF RASPBERRIES.

E. P. ROE.

I WAS interested in your paragraph on the hardiness of the "Pride of the Hudson," and of Raspberries in general. I would like to give you the history of my Raspberry in respect to its endurance of frost. For three years, in the garden at Newburgh, where it originated, it never received the slightest protection, and during the winter of '75-6 the mercury sank to 25 degrees below zero on one occasion. In the fall of '75, preceding this same severe winter, I removed a number of canes to my place at Cornwall, and left some standing, from three to six feet high, as I particularly wished to test this question of hardiness. I naturally thought that if the variety was weak in this respect, canes that had been moved and set out just before winter, would show it. They were planted, also, on top of a hill and in an exposed place. Not a bud was killed, and both on my place and in its original home, they were alive to the tip. In May, '76, I put out quite a number of pot-grown plants that had been started in a greenhouse, and they averaged three feet of growth by fall; and these young plants, and those remaining in the variety's original home, were not injured at all in the winter of '76-7.

In the mild winter of '77-8, there was a change in this respect. That I did not wait for any one else to discover and state this fact, is proved by the marked passages taken from my catalogue, sent out in September '78, by the thousand. As *soon* as my Raspberry developed faults, I stated them plainly, and in advance of any one else. Its good qualities never rested on loud praise from myself, for I invited the most *experienced* fruit growers in the country to see it, and give *their disinterested opinions*. From first to last, I have told the public all that I knew about it, and think I should be given credit for this candor. The Pride of the Hudson has been injured again during the past winter, but scarcely more than the Brandywine growing near it. I think it will be found that the Pride of the Hudson will flourish wherever the Franconia thrives, and under the same treatment, and that its beauty, size and delicious flavor, will always give it pre-eminence for the home garden. The fact that it surpassed everything at Boston last summer, and received the first prize from the Mass. Horticultural Society, is something that cannot be explained away.

I now ask with you; "Is there any hardy red Raspberry?" I know that even the Turner has been killed in this region during the past winter, and the "*Cuthbert*," which for years has been tested in the East and West, the light sand of New Jersey, and the heavy soil of our region, and was thought to be "iron-clad," has been found injured in two instances to my knowledge this spring. I am, perhaps, at present more interested in this Raspberry pecuniarily than all other parties put together, for I have invested in it largely, and yet I candidly state this fact, in accordance with my rule to give the *faults* as well as the good qualities of fruits, as fast as I learn them. And I shall show no more favor to my own pets than to other people's. Never before have I heard of the Cuthbert receiving the slightest injury. For several years and in widely separated localities it has been entirely unharmed, but I can learn only of two instances where it has been injured during the past winter, that, as you say, has injured everything in your Experiment Grounds. In the severe climate of Michigan, it has escaped unharmed. I *now* regard it as one of the most hardy Raspberries in existence and the coming market berry. I prove my faith by my works, as I am planting it more extensively than all other Raspberries together. But if any one should ask, "Is it absolutely hardy?" I would answer, "No, nor do I know of any absolutely hardy red Raspberry, and I have tried about everything."

Cornwall-on-the-Hudson.

[We should be pleased to hear from any of our readers who have tested the Pride of the Hudson, how it has stood with them. Mr. Roe, as well as ourselves, merely desires to place the facts before the public. We have half-a-dozen plants received from Mr. Roe last spring. But it was late when they were received—they did not make a fair growth during the summer, and so we covered them last fall.—EDS.]

THE FARMER'S GARDEN.

THE garden is not a luxury only, but a necessity to the farmer who wishes to have an attractive and healthful bill of fare; and it seems very strange, indeed, why it is so badly neglected by many farmers. One reason, however, I think is, that it is usually in some corner near the house, and so small, and planted in such a manner, that all the labor of weeding and hoeing has to be done by the hand. Now, I believe in a large garden and in planting the rows the whole length, leaving space enough between the rows to work a cultivator. By this method most of the work can be done by the horse, and in such a garden it is a pleasure to work, while in the old-fashioned one of one or two rods square, it is a back-aching, disagreeable job, and no wonder it is left to grow up to weeds.

The location of the garden is of great importance. I prefer a gentle slope to the east or south, so that the young plants may receive the sun early in the morning. It should not be very steep, for if it is, much damage will be done by the rains of summer; and it should also be protected from the north and west winds, by a high fence, or evergreens set along the border.

The garden should be of sufficient size to allow of experiments being tried there, before being carried into practice on the farm or on a larger scale. New varieties of seeds should also be tested here. No one can have better vegetables than the farmer; and a good supply should be provided for the farmer's wife to prepare for the table in summer, as well as a lot stored for winter use. With a good garden to go to, the housewife need be at no loss to know what to get for dinner; and it is cheap fare as well as being wholesome and easily prepared. F. H. D.

Meadowbrook Farm, N. Y.

THE CLEANEST ROOT.—In a RURAL editorial an inquiry is made for the cleanest root, one which will not hold the dirt. Webb's Yellow Globe comes the nearest to this standard. They have but a single (tap) root, and may be gathered when the soil is not too wet, perfectly clean. They also yield largely and are very nutritious. The next in order is the Mangel, and the last the sugar beet. If Mangels are allowed to get dry and are then knocked together, the most of the dirt will fall off. There are so many fibrous roots on the sugar beet that the dirt is retained. Lane's Improved does not have so many small roots and may be gathered cleaner. This variety is the result of a careful selection for several years of the French Imperial Sugar Beet by a Vermont farmer. It is claimed that from 30 to 40 tons are raised per acre, at a cost of eight cents a bushel. F. D. C.

THE GREGG RASPBERRY. — Writing from La Porte, Ind., Mr. J. L. Bodge tells us follows of the new Gregg Raspberry: "I have seen twelve plants growing on a bleak, barren drift by the side of the Mammoth Cluster, last spring. I think this the time to judge of its hardiness. It stood the winter as well as the Mammoth Cluster. I pronounce it hardy (not iron-clad). Several others were killed nearly to the ground."

Floricultural.

GERANIUMS.

THE Geraniums most generally advertised at present are very fine, but decidedly inferior to some that are in the country and not for sale. Mr. White, of Chicago, has imported from time to time, the best selection I have seen. As they are not for sale, I will name a few of them with a few others procured by me from other sources: (1.) Sir John Moore—bright scarlet, white-eyed. (2.) General Outram—very dark crimson. (3.) Sir Thomas Hammersley—good enough for any one. (4.) Marginata—an exceedingly fine flesh and white. (5.) Napoleon—much like Outram in flower, but not otherwise. (6.) White Clipper—now well disseminated, very fine. (7.) Mercy Grogan—white-eyed. (8.) Attraction—finer than General Grant. (9.) Marthus, (10.) Princess of Wales, (11.) Santley, (12.) Metcalf. — all four most admirable. These make a good dozen that will gratify one who really loves flowers and understands them. Many of the newest varieties are in no way an improvement. Although the list of doubles has been generally enlarged, Gloire de Nancy stands well to the front.

A Geranium should have character. A slightly larger flower at the expense of a well-formed truss is no gain. A failure, like Le Nigré, should not be sent out. It never opens, and has no beauty—a mere twist of dark-colored petals. Startler is very large-petaled, but in no way equal to others of the same style. All that I have named are really distinct, superior and well individualized every way.

Of the dark-zoned, Black Douglass is the best. Lady Pollock holds her own well among those of that style now so well known. A few of the fruit-scented Geraniums are to most exceedingly agreeable both for house and garden.

There is no plant now before the public more to be relied on in rain or drought, in all soils, with bad culture and, better still, with good treatment, than the Geranium. In summer and winter it is always bright, not tender and so easily propagated. It is not tawdry but bright and cheerful. It is not likely to grow tiresome like Dahlias, and, above all, it affords great pleasure from the ease of raising new and fine varieties from seed. I have received several that are quite equal to imported varieties.

Those who would grow cuttings must remember to put them in moist soil and then, without letting them get positively dry, not water them any more than simply enough to keep the dirt from cracking. If you try seed, sow in a cold-frame and transplant after they are three or four inches high. Cuttings do well thrust into the open ground in May, and they will soon bloom.

To preserve them through the winter, denude them of leaves mainly, and crowd the plants into a shallow box of earth and set it in a dry cellar. E. P. POWELL.

Oneida Co., N. Y.

IVY.

IF Ivy plants, that have been kept in doors during winter, be put in the ground, on the north side of the house, for the summer, they will be benefited by the change. Such treatment renews the strength of the plants, making them better for house culture, the following winter. The Ivy is so hardy that it will bear being put out-of-doors very early in the spring. I find it better not to take the plants out of the pots, but to "plunge" them. A little common lime put under the pots, serves to keep earthworms out. When ready to remove ivy plants to the house in autumn, replant if necessary, but in pots only a size larger than those they are taken from. The scale insect that sometimes infests these and other hard-wooded plants, can be destroyed by washing in soapsuds, but they must be rinsed immediately after in clear, soft water. The Ivy must be kept free from dust, to preserve the rich gloss of its leaves. Ivy plants should have the support of trellises, to which they can easily be trained in any form to suit the taste. M. G. R.

Arboricultural.

GROWING TREES FOR TIMBER.

PROFESSOR Beal writes as follows with reference to planting trees in Michigan: "There is a long list to select from, both natives and exotics, but there is more or less doubt about the most of them. We must consider the value of the timber of each after it is grown, the rapidity of its growth, its hardiness and freedom from insects. White Oak grows slowly, and for wagons, the quality is inferior to that grown in Indiana and Ohio. The same is true of Hickory, if we take the word of our carriage-makers. There is some land in two or three of the Southern counties of our State, which produces Hickory of the best quality. For this purpose it needs strong clay land, which is valuable for other purposes. There is still some question whether European Larch will thrive in all parts of our State.

Our most valuable timber is Black-walnut, and it is getting scarce. The tree grows rapidly. It thrives south of the center of the State and in favorite places much farther north. The nuts cost something and will not always grow. The squirrels sometimes take out the nuts which are planted. They should be planted in a group by themselves, for they injure some other trees. I feel safe in recommending Black-walnuts. My first choice of trees for timber is White Ash. It is hardy over a wide range of country and on a variety of soils. It is of rapid growth and has very few enemies. The seeds are easily obtained and are sure to grow. It is one of our most valuable trees for cabinet-ware, finishing houses and for farm implements.

I believe the man who plants and takes good care of a small plot of Black-walnuts or White Ashes, will be well pleased with his experiment and receive ample reward by what he learns. I think he will receive in money value full returns for all his time, and the interest on the worth of his land."

PRUNUS SEROTINA. — Robert Douglas (of Waukegan, Ills.) says that this is the most rapid grower of all our valuable Northern hardwood forest trees, making lumber almost equal in value to the Black-walnut; grows freely on any dry land, even if too poor for agricultural purposes; healthy, of upright growth; transplants easily, running its roots deep into the subsoil; consequently well adapted for alternating with Larch, Pines or White Ash, which feed principally in the surface soil. It is commonly known as the Wild Black Cherry.

Pomological.

NURSERY TREES vs. CHANCE SEEDLINGS.

E. J. BROWNELL.

As the season for planting trees is at hand, many will no doubt be asking themselves which will be the most profitable mode of starting an orchard — to purchase nursery-grown trees, or pick up a lot of chance seedlings wherever they can be found, and, after they are well started in the orchard, top-graft them with such varieties as they wish to obtain. Even in this age of improvement there are many who will claim that the latter is the better course, but I propose in this article to review some of the arguments in favor of both sides of this question, and then give some results of my experience and observation.

The advocates of chance seedlings will claim that they get a hardier tree, and that by this mode they can make sure of securing such varieties as they wish, which they often fail to do when ordering from a distant nursery. But is their claim of superior hardiness well founded? I claim that, as a rule, it is not, provided proper care be taken in the selection of varieties that are suited to the climate where they are to be planted. I had almost said nine-tenths, and think I might safely say four-fifths, of all the trees picked up here and there all over a farm, where they may chance to grow, are of stunted growth and irregular in form, and whatever future care may be bestowed on them, they will in the end disappoint the one who attempts to secure an orchard in this way. As to the other objection — the failure to secure the varieties ordered — this can be avoided by purchasing only of such growers as have a well-established reputation; either buying directly from the nursery, or only from its well-accredited agents, for whose transactions the company is responsible.

In my own experience I have never planted a great many of these picked-up trees, though a number of years since I did make the attempt to fill out a few vacancies with such, and it proved in my case both unsatisfactory and unprofitable. The trees were about equal in size to first-class, three-year-old nursery trees; but I presume some of them had been growing at least eight or ten years to attain this size, and I believe that this is often the case with this class of trees. An acquaintance of mine has a fine young orchard, just coming into bearing, all nursery-grown trees, and, being very favorably located, they are remarkable for thrift and productiveness. Some three or four years after this orchard was planted, a neighbor of his gave him the privilege of digging, from a field of his, a lot of seedling trees of suitable size for transplanting. Thinking this would be a chance to enlarge his orchard more cheaply than by buying trees, he accepted the offer. He planted them in a field adjoining the young orchard of which I have spoken, in a situation in every way as favorable, but in the result he was sadly disappointed, a large proportion of these trees now being dead, and those which have survived having made but slow and feeble growth. In another case a friend of the writer planted an orchard of some fifty apple trees, three years ago, about half of them nursery trees and the remainder picked up around the farm. He allowed that there was very little difference to him in the first cost of the two lots, when he took into account the time spent in digging the seedlings. And, after seeing them grow for two years, he also allowed that if he could have had the seedlings transplanted without cost, he had better have paid the full price for the nursery trees.

These and other cases that have fallen under my observation, have convinced me that the nursery trees are the cheapest and most satisfactory; and if I might be allowed to give a word of advice, I should say: "If you wish to plant an orchard, secure your trees from some responsible nursery, buying direct from the nursery, if possible; if not, buy only of a well accredited agent. Be sure that your stock is in good condition before paying for it; then plant properly on suitable land, and give the necessary attention thereafter, and, my word for it, you will not be disappointed. If you wish to utilize the seedling trees on your farm, give them a little care where they grow, and, after they get to a proper size, graft them where they stand, and they will be much more profitable than if you attempt to transplant them to an orchard."

Delaware Co., N. Y.

REASONABLE FRUIT GROWING.

MORE fruit trees will die or be torn up this year than will be planted in Western New York. This is especially true of Apples, which have been for the majority of farmers an unremunerative crop for several years. Large numbers of old orchards have been grubbed out, the owners thinking that a half-dead tree, bearing worthless fruit when it bears any, is an unproductive cumberer of ground. More regard is now had to the lay of the ground on which an orchard is to be located. It will be years again before we see farmers devoting their best lots—five, ten to twenty acres of level, easily worked land—to growing Apples. It takes too long to get trees in bearing, and on such ground the profits lost from not cropping, will be, for twenty years at least, greater than could be got from apples. It is generally understood that a well-managed apple orchard in full bearing is profitable; but in growing trees from the nursery, so much time is lost that wherever land is valuable, it cannot be afforded. We must learn to discriminate in our planting. Lands where the stone crops out frequently, or is very near the surface, are worth little for cultivation, and yet are often strong enough to support good trees. Instead of culture, the ground may be mulched while the trees are young, so as to promote vigorous growth. Then on almost every farm there are odds and ends of places, good for little else, where trees may be planted. In this way fruit may be really made a surplus crop, taking nothing from the production of anything else.

Some other fruits promise better returns than Apples. Wherever Peaches can be grown one year in three they will pay. Here, I think, that with proper care in selecting localities, Peaches may be grown three years out of four. They come into earlier bearing than Apples, and the price of the fruit is always higher. Of course, the trees do not last so long as apple trees; but when they fail, it will amply pay to replace them. The same is true of pear trees. No care or system of cultivation will always avoid the blight, but if the trees are properly managed, the losses from this cause will never be very severe.

Quinces do not succeed in all localities, but where they do, no fruit is more profitable. Quinces are so good for canning, that they will always be in demand, and there are so many places where they do not succeed, that the fruit will always bring a fair price. The quince tree is tender, especially its roots. This is one reason why the trees thrive better by the sides of fences. There they are safe from mangling by the plow, and the snow banks, which in our Northern winters accumulate around fences, protect them from the severest cold. So we should plant quince trees, by preference, along fences, and in out-of-the-way places, not only because they will thus grow where the land would otherwise be unoccupied, but also because these are the best places for them.

As for Grapes, it is safe to hope that the wild excitement which prevailed a few years ago with regard to this fruit, will never be revived. Large vineyards will be planted in localities where the soil and climate are especially adapted to grape growing, and by men who thoroughly understand the business. But so many novices have been badly bitten by planting largely on unsuitable ground that this sort of thing is not likely to be repeated. The great benefit which will remain after all the failures in extensive grape growing, will be the ascertained fact, that some variety is adapted to each locality, and that everywhere all who have even a small piece of land can grow Grapes enough for home use.

Monroe Co., N. Y. W. J. FOWLER.

The Herdsman.

HISTORY OF A POOR FARM—NO. 8.

THE practice of soiling stock is one that specially commends itself to the owner of a poor farm. In no other way can the same area of land feed so many animals, and in no other way can so much manure be saved from an equal number of cattle. With artificial fertilizers to begin with, it is not difficult to grow such crops as will furnish feed for cows in succession throughout the season, so that they may be kept in stables and yards, and all the manure be saved.

With this end in view, I sowed fall rye from early in October up to the end of November, and now when the warm spring weather has started growth, the earliest sowing looks very thrifty and the latest is already covering the ground with green. As a test of the permanent or possibly evanescent effects of artificial fertilizers, this is valuable. This ground has received no manure of any kind since 600 pounds per acre of the Mapes' potato and corn fertilizers were used last year on those crops. I see no better rye upon any of my neighbors' fields, and my friend, Mr. Martin, who is well-to-do, and a forehanded farmer who manures liberally, confesses my early-sown plot is as good as his best. By invitation of Mr. Martin, our usual little *coterie* visited him at his pleasant home across the road. A plain, white-painted house, with the usual green blinds common to New England and by New England people introduced even into the western country, was cosily shaded by evergreens of different kinds. A tasteful lawn lay in front of the house, with winding paths bordered by flowering shrubs, of which the yellow-flowering Currant and the frequent Forsythia or Yellow Bells, were already showing their heads. It was here that we fell into conversation on fodder crops. My old neighbor, averse as he generally seems to be to what he calls new-fangled notions, thought the practice required too much labor for profit.

"Soiling cattle, and cooking food for them, are played out," said he. "How many farmers are there now who cook the food for their cows, as we heard so much of, some years ago? Here's Mr. Martin himself has his steam-boiler in his barn basement and his steam chest is now a house for his Pekin ducks, I believe."

"That is so," laughingly replied Mr. Martin. "I confess I tried steaming food for my cows and gave it up, because I thought the advantage did not warrant the expense, and the steam chest was put out of the way in a corner of the basement where the ducks found it, and appropriated it for their quarters at night."

"What has this to do with soiling cattle?" I asked. "In this case one has no choice, it seems to me; while with regard to cooking or not cooking, the case is otherwise. When there is no pasture, what is one to do? All the pasture possible for me is a few acres of clover which would be eaten down in two weeks, and I expect to make it to last two months by cutting it and feeding it in the stable after the rye has been eaten and before the oats are ready. Here is my plan: The rye from present appearances will be ready to begin cutting in a month or less. There are six acres. If two square rods will feed a cow a day, the six acres will feed 10 cows 48 days. In less than 30 days from the middle of May the clover will be ready to cut. Five acres will last 10 cows 40 days, but before that time has expired a second cutting will be ready on a part of the ground. By the time the clover is finished, or before, the oats I have been sowing to-day, will be in ear and may be begun. After these have been used, the next sowings will come in, and then sweet corn sown on the rye ground first cut, will be ready. A succession of this crop will furnish feed until late in September, with Hungarian-grass sown on the first cleared oat ground, and Long Early Blood beets on the second cleared rye ground for a change. You see there will be two or three crops on some of the ground and a large portion of these that cannot be used, will be left to cure for winter feed. Then there will be several acres of sugar beets and mangels for next winter. There will be six acres in rye; five in clover; five in oats and five in roots, and the rye ground will be planted in corn and the oat ground as well, and there will be some second crop of clover to be cut. I do not doubt I can feed more than 10 cows the entire year on those 21 acres, considering that all the manure that will be made will go on to the land and some artificial fertilizer besides. The 10 cows bring in $3.50 a day, counting among the 10 the dry ones as well, and will continue to do that. Two men costing together $45 a month, and three horses, will do all the work of the farm and the dairy, and there are 44 acres left to be made available for such other crops as can be grown. I cannot say as yet what can be done, but at present, I see no reason to doubt that the plan will pay and leave something in addition. How it may turn out will be a matter for future report."

"Let us change the subject," said Mr. Martin. "I see Fred has got into hot water about his Ayrshires, and that Mr. Hoxie is 'giving him fits' for saying that animals consume food in proportion to their live weight. Here is the RURAL for last week, in which Mr. Hoxie "gets mad" because his favorite Holsteins (he ought to call them Dutch, I believe) are 'sat upon' as you might say, in favor of the Ayrshire cows. Let me read what Mr. Hoxie says:

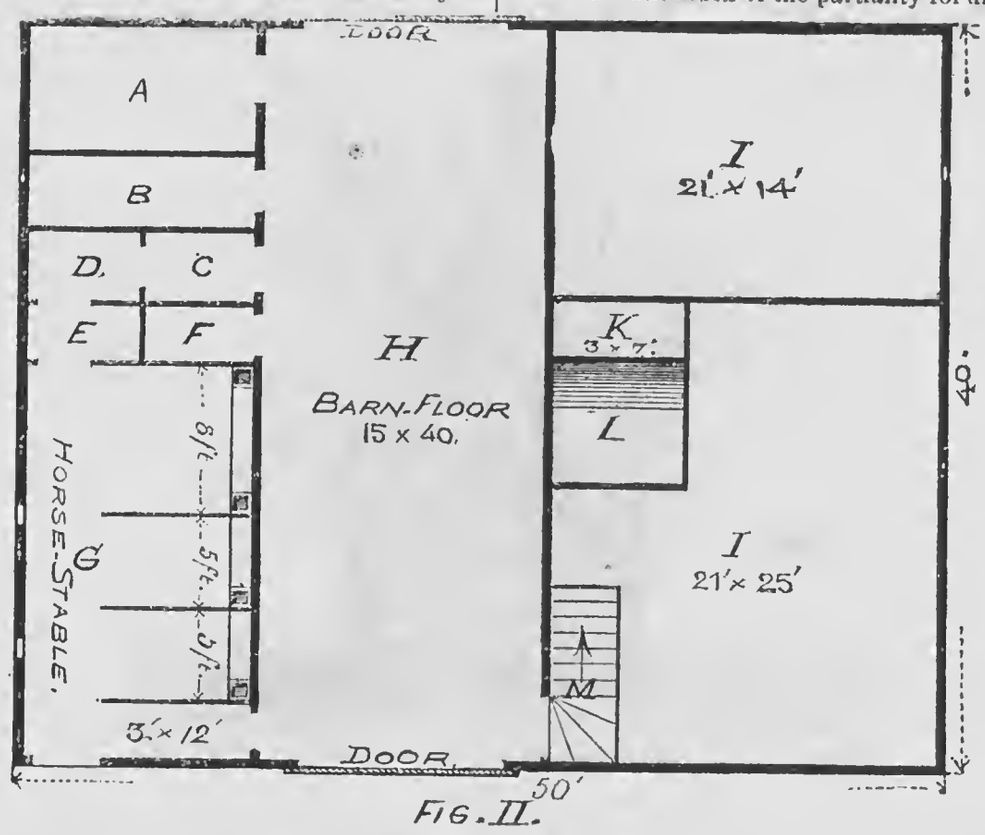


FIG. II.

PLAN OF SECOND FLOOR.—(SEE FIRST PAGE.)

"Well, what of it?" remarked the old gentleman. "Fred is right. Mr. Hoxie does not fight fair. He compares well-built Short-horns with 'coarse-headed gothic-ribbed' ones. I don't know what 'gothic-ribbed' means; but I suppose he means pinched-in, unthrifty ones. That is hardly honest, because if Mr. Hoxie knows anything about cattle, he knows a fine-headed, fine-boned, well-built animal, will consume less food in proportion, than a coarse unthrifty one. There was no comparison of that kind made by Fred. On the contrary, it was of a well-bred, heavy Short-horn or a Dutch cow, with a smaller but equally well-bred Ayrshire. There is no ground for any fair objection in this case. As for my opinion that the Jerseys have ruined the stock of cattle here, I know it to be true and scores of farmers who were induced to change their natives for light grade Jerseys, are now very sorry for it. I think the RURAL should give farmers an opportunity of stating their opinions as well as those who breed cattle to sell to them. We do not want to be led too much by breeders of stock, and I should doubt the judgment of any man who thinks any one breed is the best for every place and every use."

"Mr. Hoxie breeds Dutch cattle for sale," I replied, "and of course he feels more interested in them than he does in any other breed. Like many men who have strong convictions, he fails to give others credit for having equally strong ones which differ from his, and that leads him to criticise unfairly. I know very well, for instance, that 'Jerseys are *among* our most valuable breeds, etc.,' (I excuse the bad expression because the gentleman was a little "mad," no doubt) but to say that they are not the best for milk is not a 'childish attack' nor is it devoid of truth. No milk dairy can use Jersey milk, for good reasons, and it is a question whether Jerseys or Ayrshires are the better for butter; while there is no question at all that no experienced butter dairyman can easily be induced to keep Dutch cows for that purpose, and especially on a poor farm. But where is Fred? Let him come and defend himself."

"Never mind Fred," said his grandfather "he is discussing dairy matters with Miss Martin in the kitchen, and I guess he won't care about Mr. Hoxie's criticisms just at present. He has something in his red book that will meet the case some other time."

"Mary is my dairymaid," said Mr. Martin, "and she has something to say on these matters one of these days. She milks the cows, cares for the milk, makes and packs the butter, and doesn't think it hurts here in the least. She is not compelled to do it in any way, but she chooses to do it, and I have no objection. It is useful knowledge and if a girl fancies it, there are certainly less useful and more objectionable ways of spending time."

CRITIQUES ON CATTLE.—Cattle breeders and owners are immemorially sensitive to disparaging remarks made on their favorite animals or breeds. In this connection a friend writes: "You can't touch a breed without all its friends assailing you; and you can't befriend one, without all its enemies attacking you, too. The more criticism the better; for in a diversity of opinions there is often much instruction. I can show you a pure Ayrshire heifer, two years old, that milks 14 quarts a day and makes eight pounds of butter a week besides giving cream for tea, coffee, pies and things. The best Ayrshires in the country are the herd of W. Crozier, of Long Island. One of his cow's milk was carefully tested the other day and it beat in quantity of cream that of a Jersey cow which he sold a few days afterwards for $1000—there were 2½ inches of cream on 10 inches of milk. But much of the partiality for different breeds is merely a matter of liking; for a man is often apt to look on his own favorite cow or breed as the best, just as in his honeymoon he is likely to consider his own wife the best woman in the world, while regarding his neighbor's as a very ordinary "critter"—though afterwards he sometimes changes his opinion both as regards wives and cattle."

Dairy Husbandry.

ROOTS FOR COWS IN MILK.

M. OAKEY.

A counterblast against their use; objections to them; an excellent substitute; the two compared.

No more roots for me. From this time henceforth I will grow no more of them for feeding cows in milk. From first to last my experience, is against their employment, despite the belief in their merits of the agricultural world. They have, in my opinion, usurped a place which of right belongs to another kind of feed; for cotton-seed meal has the right to the supreme affections of the dairy public, which roots have usurped and are striving to maintain. Here are the counts of the indictment against them.

First; roots are a bother to keep, causing some expense, much inconvenience and sometimes loss. It is a nuisance to dig them out of the frozen pits in which they must be kept, unless one builds a cellar especially for them.

Second; it is an expense of time always, and of either muscle or money, or perhaps of all three combined, to properly prepare them for feeding.

Third; they are dirty and gritty, injuring the teeth and the feed, and hurtful to the membraneous lining of the stomach, while to cleanse them requires so much labor, and is so disagreeable a job in cold weather, as to be a serious objection. It is generally not attempted.

Fourth; they are so cold when taken into the stomach of the cow as to be wasteful of flesh and milk, because the chill they occasion requires considerable vital heat to counteract, and a certain amount of nutriment consequently is lost.

Fifth; they are too watery, and though water is good, too great a dilution of the nutriment in any article of diet is objectionable, requiring too great an expense of vital force to separate the little nourishment it contains, and to cast off the great amount of worthless matter.

Sixth; I have derived very little benefit from their use. If I did not use ground feed, of course there might be more profit in them, but my experience when feeding half a bushel per day of beets or carrots is, that there is hardly a perceptible difference in the yield of milk; That is, it has not increased materially over the yield I obtained from ground feed alone—corn, oats and bran.

Seventh; they do not "pay," for the extra expense is not returned in milk, while they cost more than cotton-seed meal which does pay both in milk and butter, and which also answers the same purpose usually assigned to roots, with far better results and with none of the drawbacks stated above. The meal is not a nuisance to keep; is not troublesome to prepare; is not dirty; is not cold and wasteful, but warm and economical; is not diluted, but concentrated and easily digested; and, furthermore, it returns more than its value in milk. In addition to this, it may also be said that it requires no cultivation to bother one when other farm crops demand attention.

The best statement of beet-growing I can find gives an average yield of 900 to 1,600 bushels to the acre, costing 10 cents per bushel. This beats my efforts "by a long shot," but I accept it as an average in order, in the comparison, to lean as much as possible to the weaker side. Feeding a half bushel per day is an outlay of five cents per cow—result, a little more milk, certainly not over a pint, worth here four cents which do not pay the cost. Cotton-seed meal costs me 2½ cents per pound. I feed three-quarters of a pound in the morning and the same at evening, mixed with the same quantity of ground feed used with the beets or carrots. Cost of 1½ pounds, 3¾ cents per day—result, one cow yields an increase of three quarts; another, 2½ quarts; and this is a pretty uniform average increase. The profit is a saving of 1¼ cents per day in expense and a gain of from 16 to 20 cents in milk. This may be more than the milk is worth elsewhere.

Perhaps I am a very poor root grower. Very well, that would be objection number eight against roots. I am not the first writer, however, who has declared beets have been of no benefit. It would be too cruel to mention the extra value added to the manure, for then think how harassing it would be to the "authorities" who support the use of beets for milch cows, so I refrain from saying anything about it. But no more roots for me. Cotton is king.

Middlesex Co., N. J.

VAN'S VIEWS.

Claims and Performances of Dairy Cows.

IN the recent lively discussion in the RURAL concerning the merits of dairy cows, many statements are made anent the large yields of milk and butter given by some of them. But I am tempted to ask whether any reader of the paper ever bought a cow, of which it was said that she gave a barrel of milk or two pounds of butter a day. If any one has made such a purchase, didn't she deteriorate suddenly after the transfer? I bought a cow that was in prime condition according to the statement of the man who sold her to me; his wife, he declared, made ten pounds of butter a week from that cow's milk.

As none of our cows was able to give milk which would make over seven pounds in that time, I thought the new-comer would prove a bonanza. We kept her nearly one year, and her product during that time was only about four pounds of butter per week for the time she was giving milk. A neighbor who bought a two-pounds-of-butter-a-day cow from a kid-gloved farmer who had sold his farm to be laid out in building lots, paying $100 for her, when common cows were selling for $25, was also disappointed. His cow had a pedigree like that of a race-horse, a broad, straight back, a fine milk mirror, etc., etc.; but she did not perform as well at the pail or churn as some of his "scrubs." Now, both of these cows were put on feed as good or better than they were used to; they were bought of men of good reputations for integrity, so it's charitable to suppose that these men did not accurately weigh their butter but "judged it."

I owned and milked a cow that would fill a fourteen-quart pail (I have measured the pail, it is called a fifteen-quart pail) twice a day from calving time in April till July drought. She was as poor a butter cow, however, as I ever milked. Now, it may be a confession, but I have never known a cow that would average one pound of butter per dry for nine months in the year, and among the Short-horns I have known, I never knew one which would do half that. We bought a cow once, which was a well-bred, large, fine-looking animal. She was seven-eights Short-horn; she was from famous stock; the man who owns her now brags of her—but we had natives which were much better cows.

Now, my friends, these Short-horn breeders out here in Wisconsin are able to control our State fairs. It is impossible to get a fair premium or competent judges for any other breed. One of the judges of Jerseys at our State fair remarked that he knew nothing about Jerseys, and the more Short-horn and the less Jersey a cow had in her, the better he liked her. These breeders are rich and with their fine catalogues and splendid displays (unmerically) at our fairs, they manage to keep up a factitious interest in their ponderous animals. Many a farmer has ventured some of his hard-earned dollars in this breed, only to find, after years of patient, skillful feeding and care, that his butter yield was growing less and less, and that nothing was sure but disappointment.

It is worth one's time to go forty or more miles to look over a herd of this breed. You will be surprised, or at least I was, to find how often the "show" animals fail to breed, and the number of three-teated and otherwise deformed cows that are among the breeders.

"Hasten slowly." Read Mr. Hardiu's article in the RURAL for Dec. 7 1878. Study his table. An old Englishman of my acquaintance, who has a wide experience, says that table is about as he found the breeds to be.

Brown Co., Wis.

Everywhere.

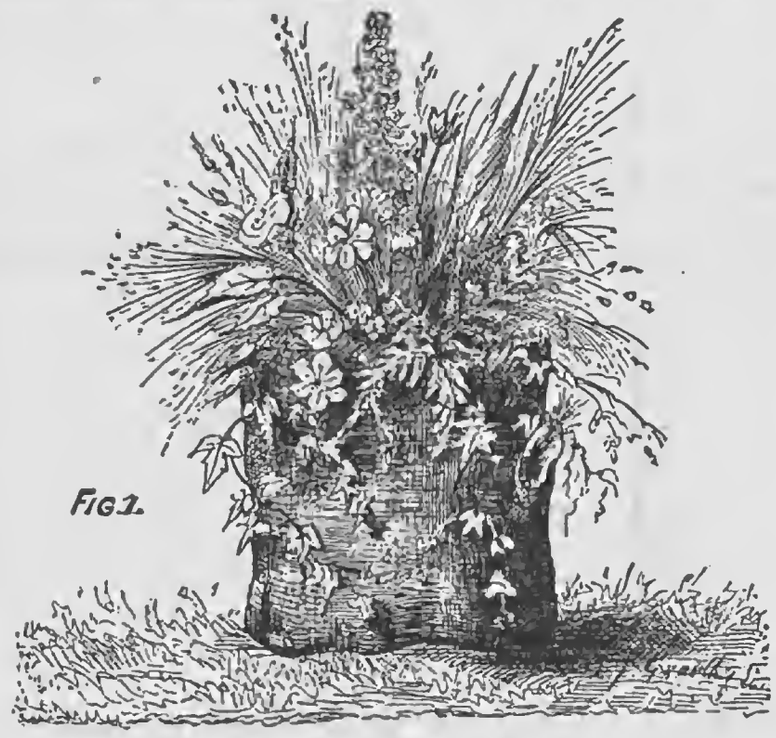
RURAL SPECIAL REPORTS.

KANSAS, Parsons, Labette Co., April 14.—We are not surprised here at our coutinuous and changeable winds, for they are almost of certain occurrence in the spring and the fall, but we *are* surprised with a dry spring. Usually there is great difficulty in having weather dry enough to plant. This year we have not had more than one inch of rain, excepting the December snows, some of which entered the ground in January. There is supposed to be enough moisture in the ground now to cause the seeds to germinate when sufficient heat has been received. Oats are up and look well. Some pieces of winter wheat (no spring wheat here) look fairly; others look poorly. Castor beans and corn will be nearly all planted at the end of this week, four-fifths of the whole being now in the ground. The seed was never placed in a more fitting condition of soil, and it is an excellent aid to a big crop. Our season is fifteen or twenty days later than last, but is as early as the average season. Our Peaches and Blackberries have been affected injuriously by the severe winter, and already there are signs of higher prices for dried fruit. Away off towards Colorado, in the western and northwestern portions of this State, the drought has been felt more than here. The splendid wheat crop of that region last year induced an unprecedented immigration this spring, and there are signs of damage to the crops there, by the return from that region of quite a number of emigrants. The newspapers, of course, say that there has been a splendid rain all along the line, but if not more than we have received during the same storm, it will hardly do any good. The land beyond the 100th degree of longitude must have plenty of rain to make a crop. Two or three wet years have set men to generalizing on the change of the climate, just as they did last winter, when the winters were said to be getting milder, and this winter found their generalizations fallacious. People, however, must have the fatal 160 acres; while, if they would survey the State through, they would discover that of every 160 acres that are settled, an average of over 40 acres are a loss to the owner. Corn in the northern portion of the State sells as low as 10c. per bushel, and as this rate is less than $3 per ton, and as coal is from $4 to $6, the corn of course is the cheapest fuel, and it is thrown about as if it were chips, or weeds, or rubbish. In regard to grass, it can be bought at 10c. to 25c. an acre for hay, and stock are herded and salted for 25c. per head per month. So, forty acres in cultivation at 10c. per bushel for corn, is bad enough, but the product of the grass will not even pay the taxes, so people that *must* have 160 acres are "land-crazy." J. B.

TEXAS, McKinney, April 13.—Our prolonged drought was brought to an end by a heavy hail storm, the like of which was never witnessed here by a white man. I've been a resident of Texas for 30 years, and hail in drifts three or four feet thick, 12 days after it fell, with thermometer often at 70° Fah., I consider a remarkable phenomenon. The belt along which this scene could be witnessed, however, was only from three to four miles wide. We are now busily engaged in planting cotton, having finished drilling pearl millet this week. The Stormproof cotton seed is in great demand, selling as high as at the rate of 75c. per bushel, with a limited supply. There's a fine opening in this country for manufacturers of wood work of all kinds for wagons, reapers and mowers, plows, axe-helves, hoe-handles, etc. We have here an abundance of Bois-d'are, the best kind of wagon timber; still, Racine, Wis., sends us our wagons; while reapers and all wooden implements are likewise sent us from the far North. Fine Pecans, Ashes, Oaks, etc., abound in our bottom lands, still, we go to the wooden and hardware dealers for the implements made of such wood, so that lack of enterprise or capital may be justly attributed to this section. Real estate was never so low here since the troublous days of the Texan Republic, away back before '45. Farms once valued at $20 per acre, could now be bought for one-fifth of that amount. Money is so scarce that usury is popular; for men in debt are glad to be able to borrow enough to pay off old mortgages, at 20 to 24 per cent., and to get it at this rate they readily burthen themselves with new mortgages. Just now we are having copious showers, and farmers are jubilant over their crop prospects. W. N. W.

NEW YORK, Corning, Steuben Co., April 19.—We are having an unusually backward spring, snow to the depth of two inches covers the ground. No seeding has been done yet, and the excessive moisture in the ground will not admit of it within several days. The fallacy of sowing winter wheat late on account of the depredations of the Hessian Fly, is apparent this spring in the innumerable fields which show scarcely any top at all. It is strange how readily farmers adopt almost any new theory at the outset.

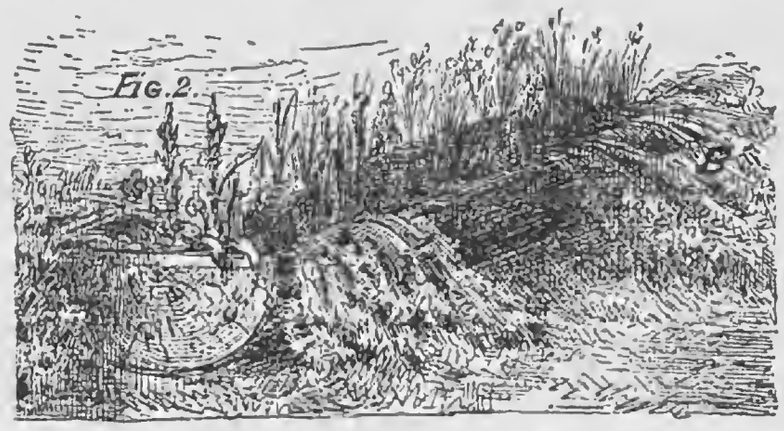
I had intended to sow the barley this week, but a cold storm of rain and snow has changed



SECTION OF HOLLOW TREE USED AS A VASE.

my intentions. I have always been most successful when my seed was sown early, yet it is poor policy to get seed into the ground before it becomes warm and sufficiently dry to be thoroughly pulverized. I shall sow the six-rowed variety; for what is lost in difference in price between that and the two or four-rowed, will be more than made up by the heavier yield. Any good corn land will produce barley and its culture in this section is gaining in extent every year. Nearly as much barley as oats can be grown on an acre, and while oats bring but 30c., barley I have never sold for less than 80c. per bushel. Added to this, the straw is fully equal to that of oats for feeding purposes, the grain superior, while the land is left in fair condition for any other crop. I know men who consider barley stubble fully equal to summer fallow for wheat. In proof that oats are very exhaustive to the soil, we have but to observe the farms about us whose owners grow oats as a principal crop. J. L. N.

NEW YORK, Upper Red Hook, Northern Dutchess Co., April 19.—Winter seems to be unwilling to allow spring to assert her supremacy, and has accordingly presented us with a snow storm of nearly four inches. Farmers are anxiously looking forward for good weather so that plowing may be commenced in earnest; but little of that has been done as yet, and a little garden alone has been made. About ten days later than this last year, the trees were commencing to bloom; but as appearances indicate at present, the buds will not open in a month yet: A larger quantity of manure than usual was made during the winter, owing mainly to the greater amount of straw, and the low prices it has been selling for. Most farmers are realizing that it is far better to convert straw into manure, than to sell it at $5 and $6. per ton. Winter grain generally looks very well, though we have not so large an acreage as last year. Wheat is again growing into favor among us, more being sown each season. Apples have kept a great deal better than usual and are now quite abundant. We have scraped a large number of young apple trees this spring and for this purpose have found that an old iron candle-



HALF OF HOLLOW LOG, WITH UPRIGHT AND TRAILING ANNUALS.

stick is an excellent thing—the most convenient instrument to handle, and one that will do the work to perfection. The small end can be used in the joints of the limbs, and will effectually remove all sorts of dirt. The edges, if too sharp, may be filed a little, so as not to injure the young bark. In cases where the old bark is very stubborn, a glove should be worn to protect the hand, though in most instances this will not be necessary. W. S. T.

VA., Henrico Co., April 22.—The past winter has been quite severe here. We have had but little snow; the ground was frozen only about six inches. Wheat and rye wintered well and are now looking fine. Winter oats did not do so well; spring oats are all up early. Potatoes are about coming through. Fruit trees are all in full bloom, and I do not think they are much injured by late frost. On the 11th of March I took a trip to Wayne Co., N. Y. I found the roads in a fearful condition. There was neither sleighing nor wheeling, while here the weather was like summer, and the roads were dusty. We want more men from the North to come here to take up the land that is lying idle and can be bought for from $2 to $30 per acre. It is true it needs improving, but it is easily bettered and holds improvement. Here we can raise anything that can be raised in any other States, except tropical fruits and some other things that cannot be produced North. I have been here two years, but I do not talk like Holt from Missouri or borrow trouble, because the weather does not act just to suit me. We are looking forward to better times; economy and perseverance will soon bring those happy days about. W. B. H.

OHIO, Tontogany, Wood Co., April 20.—Weather pleasant now; very little frost. Wheat looks well. Last year's crop was good, the average yield in this part of the country having been from 20 to 30 bushels per acre. Corn was a medium crop, average yield 30 to 50 bushels per acre. Oats, too, were only an average crop. Wheat sells for $1 per bushel; corn, from 30c. to 32c.; oats, 20c to 22c.; hogs, $2.75 to $3 per 100 lbs.; clover seed, $3.90 to $4. The farmers in this neighborhood are getting along well with their spring work. They are now sowing oats and spring wheat and making gardens. Farms here are being drained extensively. Tiles are always used with much advantage. Six years ago my farm of 70 acres was lying in the bush, and now it is all improved except 13 acres. I have built a house, barn and other necessary buildings. Land here is a sandy soil with clay bottom and is good for every sort of crop. We have a fine outlet for draining and plenty of all kinds of "privileges" that contribute to make a country prosperous. W. H. B.

WISCONSIN, Arcadia, April 20.—Our spring opened about the usual time, although much later than last year. Seeding for wheat is nearly completed. Many are selling out and going West. Few improvements are being made hereabouts at present—all are waiting for better times. This is a good place to come to settle, if one wants improved farms at a moderate price, together with school and church privileges. There is plenty of wood and water; the soil is a sandy clay and loam. Prices are about as follows: wheat, 80c.; corn, 30c.; oats, 20c.; potatoes, 40c.; butter, 8c. to 10c.; eggs, 6c. per doz.; hay, $8 per ton. F. A. R.

TEXAS, Caldwell, Burleson Co., April 21.—My children as well as myself are great lovers of flowers; the experience derived from the outlay of $100 spent in three years for trees, flowers and vegetable seed, teaches me to go slowly. The weather has been dry for six weeks or more; still everything looks well on land that was broken early and thoroughly. Wheat and Apples scarcely pay their expenses in this county; but all other grains and fruits, as well as vegetables, do well. Our "branch" and river bottoms are the cane-growers' paradise. With a little winter care Oranges bear some fruit here. Wheat is worth 80c.; corn, oats, rye, barley and sweet potatoes, 50c. per bushel; golden millet, $1.80; bacon, 6c. to 8c. per pound; butter, 10c. Chickens and eggs find no market. D. H. H.

MINNESOTA, Howard Lake April 20.—Winter still lingers in the lap of spring. Farmers managed to sow quite an amount of wheat in March by doing it at intervals of good weather. After having a remarkable scarcity of water—wells going dry so that people from the country for miles around, draw water from the Lake here—we had a pleasant rain in just the way the wheat needed it. Slowly and quietly it fell on the 10th inst. but the wells do not fill yet. No 2. wheat from yesterday fell a trifle. It is only 73 cts; corn, 30c; oats, 30c; potatoes, 25c; best butter, 15c. S. A. M.

NORTH CAROLINA, Henderson P. O., Granville Co., April 12.—We had splendid weather during March, and on the 30th Peaches, Pears, Plums, Crab Apples and Cherries and some of the early Apples were in full bloom. On the following night a cold north wind chilled us, and since then the nights have been bleak and frosty, so that our prospects for fruit are entirely blighted. W. M.

OHIO, Atlanta, April 20.—Spring late. Farmers very busy plowing. This time last year some were planting corn. Prospects for wheat, good. Grass, fine but late. Apple trees beginning to bud; all sorts of fruit apparently uninjured. Corn, 35c.; oats, 20c.; wheat, 85c.: horses from $50 to $125; cows from $40 to $60; land from $40 to $60 per acre. A. L.

NEW YORK, Cornell University, Ithaca, April 20.—We have had no spring weather yet worth the mentioning. Ground still covered with snow; no seeding or planting done. President White leaves us in a week. We are sorry that he is leaving us, but rejoice that our country is to have so able a representative at Berlin. N. B. L.

NEW YORK, Sharon Center, Schoharie Co., April 19.—Two feet of snow fell here yesterday and it is still snowing. Prospects for an early spring have all vanished. Hay is abundant; stock scarce; cows are worth $25 to $35; butter, 12c. to 14c.; eggs, 10c.; wages, $10 to $15 a month and board. S. L.

NEBRASKA, Brownsville, April 19.—I have already planted nearly 40 acres of orchard and am still at work. Fruit prospects in this section are good. R. W. F.

Miscellaneous.

A GOOD USE FOR OLD LOGS.

WITH very little trouble hollow logs can be made to serve a good purpose in the rustic decoration of lawns. In Fig. 1 is shown one plan of utilizing a section of a hollow tree. A part, from one to two feet in diameter, with a solid rim from two to four inches thick, is cut to a length of about two feet, set upon end in any desirable spot, filled with good soil in which seed may be sown of plants either of a trailing, or a low upright habit, like Candytuft, dwarf Asters, etc.

Should a larger surface for planting be required, a section may easily be cut six or eight feet in length, and divided lengthwise some distance above the center. Then strips may be nailed across the ends of the larger part; the hollow filled up with earth, and set with such free bloomers as the Petunia and Verbena; or, a strip through the center may be devoted to low-growing annuals, and the sides and ends to trailing vines, as shown at B. in Fig. 2. Leave the bark on, and in the split section bore small holes in the bottom to let off superabundant moisture. When the plants are well established, it is a wonder to many how such mounds are kept in position, as their floral embellishments seem to grow from mounds of solid earth. L. D. SNOOKS.

WHAT OTHERS SAY.

HYGIENIC VIEWS.—At a late meeting of the W. N. Y. Farmers' Club as reported in the American Rural Home, Mr. P. C. Reynolds said that one cause of weakened digestion leading to dyspepsia, is the habit of eating, in hurrying seasons, when very weary. The farmer is laboring hard in the field, the dinner-horn blows, he hastens to the house, sits down to the table and hastily eats his meal. The body is so exhausted that the vital forces are drawn from the stomach, and digestion proceeds slowly and imperfectly; the system is not properly nourished by the food, and, after a while, the horrors of dyspepsia are experienced. No man has a right to allow the urgency of work or

business to override the claims of the laws of health. In the first place, he should not push his labor to the extent of physical exhaustion; and, in the second place, he should, most scrupulously, insist upon resting a few minutes before eating his meals. . . Mr. John R. Garretsee said he had ventilated his cellar by accident. When he married, his wife had always been accustomed to baking in an oven, and so he made an oven in his cellar. She used it for baking once, but it always served as an excellent ventilator. We hear every year of sickness in farmers' families from decaying vegetation in the cellars. . . Mr. Glass said that some years ago, while digging a canal in Pennsylvania, every one employed had the ague, excepting the superintendent, and he never went out until after breakfast.

MR. MECHI'S NOTES.—The following are among the recent notes of the distinguished Tiptree Hall (England) farmer to the agricultural press:

"Manured our land for mangel direct from the covered yard where each young man filled twenty carts in ten hours. Six acres were thus quickly manured without the intervention of a dung heap and twice handling. The manure is now being spread, after which the land will be plowed and subsoiled. . . .
In our thirteen acres (chapel land) the powerful steam plow in 1874 left us a legacy of hard work in every subsequent tillage. It was a great and unprofitable mistake to bring to the surface so much of the glutinous yellow plastic subsoil, and many have had to regret their indulgence in disturbing too deeply these tenacious soils. . . . We suffered less where the land was only steam plowed, and then next year again steam plowed, so that the bad soil was sent down again; but where after steam plowing, the land was steam cultivated, the bad subsoil got inextricably mixed with the better soil, much to the injury of the crops."

CAUSES OF DISEASES.—Mr. Vick says in the April number of his magazine, that our wisest physicians are now looking more to the cause and prevention of disease than to its cure. A few years ago, on the arrival of the physician, after inquiring for the symptoms, the next inquiry was, "Let me see your tongue." Now it is, "Let me see your cellar." He thinks that one-half the diseases of the world are caused by bad ventilation and want of proper drainage, and nearly all the other half by improper food eaten in an unreasonable manner, and by insane pleasure-seeking, foolishly called recreation. Again he remarks, that if air changed color when impure and unfit for breathing, and became red or blue, what a revolution would be made in our houses, and how uneasy and frightened the people would become in some of our public halls and churches. In such cases, Mr. Vick thinks that many long-talkers would be left to teach wisdom to empty seats.

Farm Topics.

SUGAR FROM SORGHUM.

Present Condition of the Industry.

A WONDERFUL interest in the manufacture of sugar from sorghum is arising throughout the length and breadth of the United States, and the production of sugar from this source now bids fair to become one of our most important industries. This subject not only attracts the attention of farmers, but it is a question of national importance; for when we reflect that the enormous sum of $100,000,000 is annually paid by this country for foreign sugars, it may well be desired that the industry should assume such dimensions as will enable the country to retain at least the greater portion of this sum. And apparently there is no reason why this cannot be done.

Competent gentlemen in many different States have, by repeated trials, produced from sorghum, especially from the variety known as Minnesota Early Amber, sugar that is pronounced as good as the best quality of New Orleans sugar. Moreover, cultivators of this cane assert that the production of leaves and seed per acre, irrespective of the stalks from which the sugar and sirup are manufactured, is equal both in quantity and quality, for feeding purposes, to that of corn. So, if the cane is grown as a fodder crop, the sugar and sirup, which may be had for the manufacture, are thrown into the bargain.

The great drawback that has prevented an earlier rise of this industry, has been the inability to crystallize the sugar. This difficulty seems now also to have been obviated, inasmuch as Prof. F. L. Stewart, of Pennsylvania, has discovered a solution which he claims will every time produce crystalization of the sugar both of sorghum and corn-stalks. Moreover, he asserts that by his method of manufacture 2,000 pounds of sugar can be produced per acre. Whether this is substantiated by facts we are not prepared to say, though as yet, we are not aware that it has been contradicted. In February last, sugar-makers from many of the inland States, and gentlemen interested in the business, to the number of nearly forty, met in convention in St. Louis, Mo., for the purpose of organizing a permanent society. A society was formed, to be known as the Mississippi Valley Cane Growers' Association; a constitution was adopted, officers elected, and a general exchange of views took place. Great interest was manifested by the members in the subject of their meeting, and many of these practical men, who had made sugar and sirup from sorghum for upwards of twenty years, expressed the belief that the industry would speedily assume colossal dimensions.

This convention, in connection with the interest taken in the subject by the Agricultural Department at Washington, the perfection reached in the necessary machinery and Prof. Stewart's discovery, all unite to give an impetus to sugar-making, that we trust will prove most wholesome to the country. A staple commodity like sugar, if of good quality, will always find a ready market, and so far, cane growers have been able readily to sell their sugar and sirup at considerable profit. To attain the best results requires, however, experience and some considerable outlay in crushing mill, evaporators and other apparatus. The

Cultivation of the Cane and the Manufacture of the Sugar

appear to be in brief, the following: Though sorghum will grow on any soil, it prefers a rich, sandy, upland one. The land is prepared as for corn, and the cultivation of the crop throughout does not deviate materially from that of corn. The seed is planted either in drills three feet and a half apart, or in hills at the same distance. If planted with a drill, it should be set to drop about six or eight seeds to the foot. Later on the rows are thinned to three or four plants to the foot, and ten to twelve canes may grow in a hill. While the seeds are still soft, just before they ripen, the leaves are stripped from the stalks, the seed clusters cut off, and the canes brought to the mill for the extraction of the juice. At this stage of maturity the stalks have been found by experiment to contain the most cane, or crystallizable sugar, while the proportion of glucose, or sugar from which only sirup can be made, gradually decreases during the growth of the plants, till at this period it is smallest. The percentage of sugar varies much with the variety of sorghum, and the soil upon which it is grown; and the relative proportion of the two sugars will also vary with the same causes; but ordinarily, the Early Amber contains, at this period of growth, while the seed is in the dough, about 13½ per cent. of sugar of which eight to ten per cent. is cane sugar and the rest glucose. It is also found that the crystallizable sugar gradually changes to glucose, if the canes stand for some time after they are cut before the juice is extracted. The juice should therefore be pressed out soon after the canes are cut, if it is desired to make sugar. During the whole process of manufacture, the juice should be exposed to the air as little as possible, as such exposure accelerates souring and hinders crystallization.

When the canes have gone through the mill, the juice is conveyed to a tank large enough to hold as many gallons as can be handled at one time. For the reason stated above this conveyance should be either through pipes or a covered wooden conduit, and the tank should also be covered. A sufficient quantity of juice having been extracted, it is brought into the heater, a large kettle of iron or copper, and here heated to 170° or 180° F., as ascertained by immersing a thermometer in it. As the heating proceeds, part of the albumen in the juice coagulates, rises to the top and is removed by constant skimming. But another portion is held in solution by the free acid in the juice; so, in order to coagulate this, the acid must first be neutralized. This is done, at the temperature named (about 180°) by adding milk of lime, from six to seven pints to every 100 gallons of juice. This being thoroughly stirred in, another layer of scum will soon be formed.

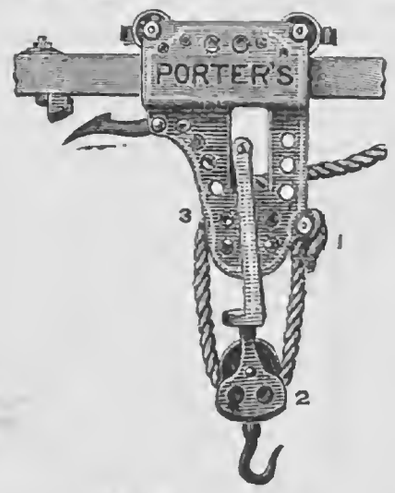
When all of this is removed, the contents of the heater is run into another tank to settle. Here the lime and other impurities sink to the bottom, while the clear liquid is siphoned into the evaporator. This should all be done before it has cooled down below 150° F. At this temperature the sulphurous solution discovered by Prof. Stewart, is added in sufficient quantity to neutralize the lime which otherwise would prove injurious, and to bring the juice back to a slightly acid state, as ascertained by litmus paper. Next, the juice is evaporated as rapidly as possible and put into a cooler for granulation. To facilitate crystallization a machine called a centrifugal mill, has been invented. It is worked by hand, and is similar in its action to the honey extractor. The sirup is put into pans with numerous small holes. These pans are made to revolve at a rapid rate, which throws the sirup out and the granulated sugar remains in the pans.

One hundred and fifty gallons per acre are considered a good average yield, though, perhaps, it falls below this oftener than it rises above it. The Early Amber Cane is superior to the Chinese sorghum, inasmuch as it ripens earlier and furnishes better sirup.

Industrial Implements.

PORTER'S WOOD-TRACK CARRIER

PORTER'S Wood-Track Carrier, of which we give an illustration, is light, strong and durable. It runs on four rollers that work with the least amount of friction, as they travel to and fro over 2½x3½ timber. The "stop" may be placed at any point on the track, and the



construction admits loading either within or from the outside of the barn. The implement as will be seen, is not intricate; there is little to get out of repair; it cannot jump the track, and being made carefully of selected material, it will be found to meet all reasonable demands satisfactorily. Mr. J. E. Porter, of Ottawa Ill., makes an extended line of haying machinery which he would like to submit to the judgment of our readers. Circulars will be sent on application.

METALLIC SHINGLES.

OF the accompanying engravings, Fig. 1 represents the form of an improved metallic shingle, which, when alternately laid, overlaps so as to form a double and water-tight metallic and therefore fire-proof roof. The method of this overlapping is represented in Fig. 2. It is easily seen from these figures that the point of each shingle is held down by the slot or projection at the shoulder of the two shingles of the next course below, while the elevated ridges fit into one another. It will also be seen that the point E of the shingle in each course passes under the raised projection H made for it in the next course below, while the corrugated edge A fits over the corresponding corrugation B in the body of the shingle, and is securely held in place by the point E in the projection H, and also by the manner of nailing, it is impossible for storms to beat under while the point E being settled down, the thickness of the iron fits closely on the central rib of the shingle underneath it. Thus the roof is storm-proof, as the shingles lie closer, have a full three-inch lap, and are fitted to one another. The edge C of the shingle fits closely to the central rib D, while the upper corner of the shingle J, being flattened, serves as an additional guide in laying the roof, as the shingles touch loosely when rightly laid. The corrugation I serves to strengthen and stiffen the shingle. The pitch may be the same as for slate or ordinary shingle roofs, but two inches to the foot are sufficient.

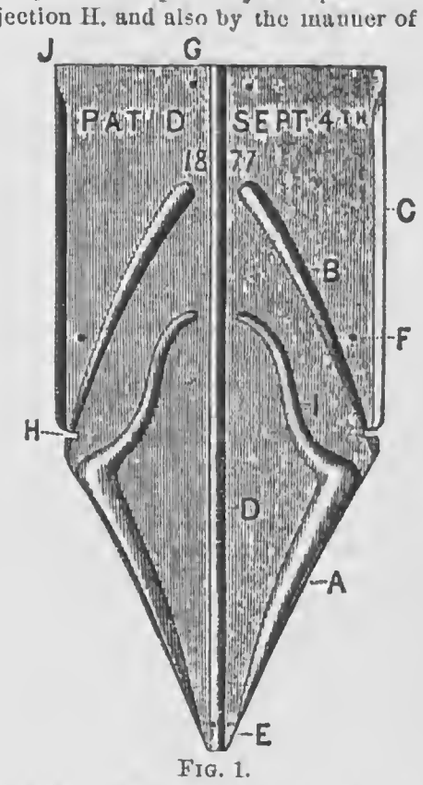


FIG. 1.

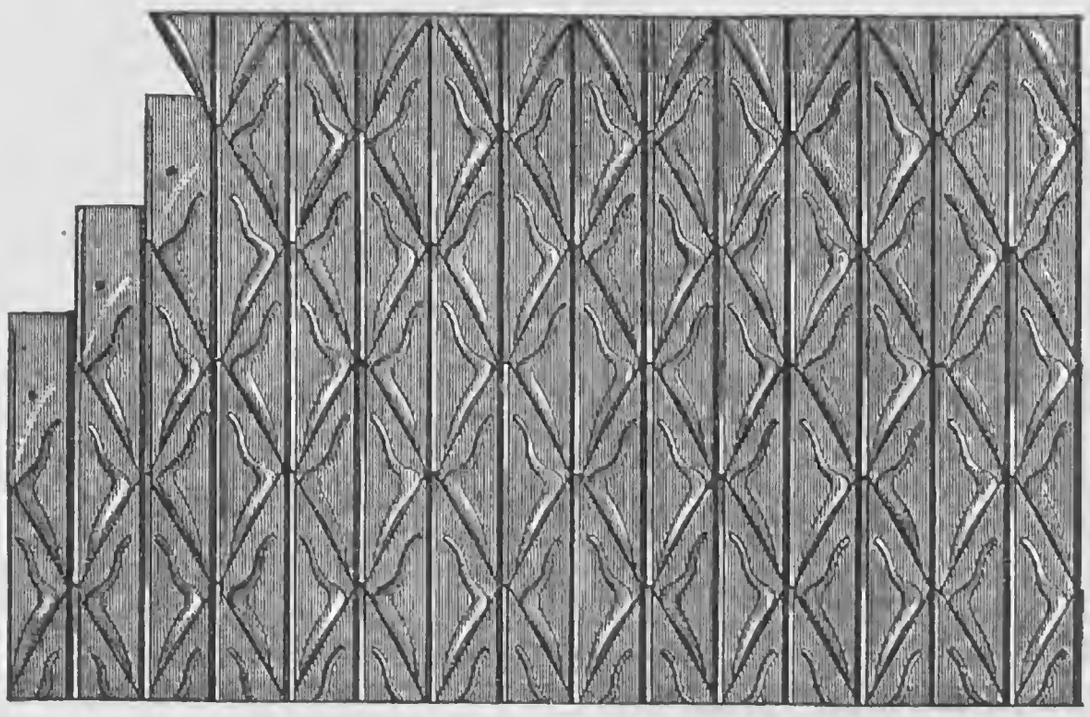


FIG. 2.

The advantages of such a roof over slate are that it is lighter; being less than one-fourth the weight of an ordinary slate roof, it allows the use of much lighter roof-timbers, and produces much less strain on the frame of the building. It is made of wrought metal, and readily adapts itself to the formation of the roof without breaking, and from the peculiarity of its construction, lies much tighter and closer. It is more thoroughly fire-proof. If slate be heated by fire in an adjoining building, it flies into pieces, leaving the building exposed, and this is especially the case if water is thrown upon it while hot. This shingle, being of wrought metal, will not crack or come off, but immediately cools when water is thrown upon it, thus continuing its protection to the building. It will not crack from the action of frost, nor will the nail-holes become worn and broken from the action of heavy winds; neither will it break from the falling of any weight upon it. It requires no solder in laying, as does a tin roof, and, being of thicker and heavier material, will last as long as the building.

The shingles are made of iron and prepared for use in two ways: One is by covering them before they leave the factory with a coat of metallic paint. Experience has shown that they will not rust on the under side, nor in the laps, and if, when they are laid, they receive a coat of paint, to make good any scratches that may have occurred to them while laying them, they will last for years without further expense. An occasional coat of paint will keep this roof in perfect order. They are also made "calamined," a process similar to galvanizing; it is the result of long and patient study and experiment, and is now made public after having been thoroughly tested under varying circumstances, and always with the very best results.

These slates or shingles will not rust; they will stand exposure to the weather on our seaboard, or in any climate, and give entire satisfaction. Iron coated with this composition has been put on trial with galvanized, tinned, and leaded iron, and in every instance the last three have given way and begun to rust, while the calamined shingles have shown no indication of corrosion. A roof covered with these slates or shingles will cost nothing for repairs or painting, unless it is desired to paint them for the sake of color.

The size of each slate or shingle is 8¼x16 inches; a square is enough to cover 100 square feet of roof, or a space 10x10 feet. They are packed in cases for transportation, one square in a case, weighing 140 pounds, and shipped at the lowest freight rates.

The paint is made of well-known and approved material, dries quickly, and will not wash off in storms, or in any way taint or discolor cistern water.

The shingles are in first cost almost as cheap as the usual kind, while the protection afforded against fire, their durability, and attractive appearance, make them the most desirable roofing that has been yet offered to farmers.

The above described shingles and paint are made by the Iron-Clad Manufacturing Company, of Greenpoint Avenue, Brooklyn (E. D.), N. Y.

The Querist.

ANSWERS TO CORRESPONDENTS.

Tobacco Culture in the South.

A Subscriber, Dalton, N. C., being a newcomer there, asks how to cultivate and cure tobacco in that section.

ANS.—The cultivation of tobacco materially differs in different sections of the country. In those States where the cigar tobacco is cultivated, it is the universal practice to make as many pounds per acre as possible. Heavy manuring is the only road to success. Not so where the fancy Gold-Leaf is produced. Not more than six hundred pounds per acre can be made, if the color and texture are retained. If more than this grows, it is too coarse. Furthermore, the finest tobacco of this class is grown on virgin soil without manure. The first step in making a tobacco crop of any kind, is to secure a full supply of early, vigorous plants. This can only be done by taking pains and by exercising judgment in the selection of the land and locality. The plant beds must be in warm places protected from cold north winds.

The preparation of the land must also be done with great care. In fact no crop, and no tobacco crop especially, will admit of slip-shod work. The planting should be done by the first of June and the cultivation should be thorough at every stage. The crop should be topped as it comes in, to eight and ten leaves, as the plant will admit, taking care to prune off the bottom leaves some three inches from the ground.

The crop should be "suckered" and "wormed" at least once a week. Take care that none of the worms or suckers get a start. A flock of turkeys will earn good wages in keeping the worms down. The gathering should commence as soon as the crop matures. Do not go about this in a hurry. Take pains not to bruise or tear the tobacco to pieces. Much is lost at this stage by carelessness. Handle it just as if it were silk.

The different methods of curing are so numerous as not to admit of their being described in a newspaper article. The fancy Gold-Leaf is cured by artificial heat graded by a thermometer which is always kept in the house where the tobacco is cured. The success at this stage is very uncertain to one who does not know how to proceed. It is doubtful whether the fancy wrapper can be made further north than Virginia, Kentucky and Missouri. This however, is not quite certain. The subject of tobacco culture and curing is too extensive to admit of adequate treatment in a brief article such as can alone find admittance here. A full account of the entire matter appeared on pages 486, 518, 538, 550 and 663 of RURAL for 1878. An excellent pamphlet of 27 pages on the matter will be sent *gratis* to our friends by our contributor S. C. Shelton, Ashville, N. C.

Removing an Obstruction in a Cow's Teat.

B. B. K., Fort Wayne, Ind., has a fine butter cow, one of whose teats was useless last season on account of a hard obstruction therein; and he asks what caused it, and how to remove it.

ANS.—Obstructions in cows' teats are by no means uncommon, especially among young animals. The trouble is supposed to result, in many cases, from an improper drying off of the cows in the fall, or from neglect in milking clean. Particles of coagulated milk are arrested in the milk duct, a tissue forms about this matter and adheres to the walls of the passage, in time entirely closing the duct. There are probably other causes, but these are supposed to be the most common. The only remedy is to break through the obstruction so as to unite the two portions of the milk duct, which have been separated by the obstacle. An instrument has been manufactured especially for this purpose. It consists of a small, round tube, inclosing either a double-edged knife or four blades at right angles to each other. The tube, or sheath, is pushed up the orifice of the teat until it reaches the knot, when the blades are pushed out of the sheath, cutting through the obstacle and re-establishing a connection between the parts, for the passage of the milk. Care is imperative to avoid cutting through the walls of the milk duct, and thus causing inflammation of the teat and udder, which might permanently injure the cow for milk. For a few days after the operation it is often necessary at milking time to use the tube—the knife having been taken out—by working it gently up the duct of the teat and through the opening made in the obstruction, in this way keeping it open until the parts are healed. Such obstructions are sometimes removed by using a large knitting-needle, with the point sharpened, to cut through the obstruction; but the operation is a risky one, and many cows have been completely spoiled for milk by an unskillful attempt to remove obstructions in the teats.

Tomatoes on Trellises, etc.

O. T., Millersville, Ohio, says: "In speaking of the Pinus edulis you said: 'Plant in pots an inch deep and plunge into the ground as soon as the rosette of needle leaves appears,'" and he asks whether it is the pot, plant or seed that is to be plunged into the ground; 2, what becomes of the seeds raised on the Department of Agriculture's Experimental Grounds at Washington; 3, will tomato vines run up a trellis like any running vine; 4, in a late RURAL it was said that a yearly volume of it could be bound here for $1 50, and he inquires whether express charges are included in that sum.

ANS.—1. You may plunge the pot into the soil up to the rim and keep it watered, or thump its contents out and plant the same as if it were a tomato. In the first instance, it would be easier to take up the plant in the fall if it were desired to keep it in the house. It would then be already potted, without any disturbance of the roots. 2. The seeds are given to Congressmen and sent to many different centers for general distribution. 3. It will not "run" at all. The vines or stems must be tied to the trellis. It is best to pinch out the shoots so as to direct the strength of the plant to several *main* stems, which may be trained directly up the trellis, which (in this case) is placed directly *over* it. We hope you will give the plan a good trial and let us know how it pleases you. 4. No. That is the bookbinder's lowest price for the style of binding.

Malt Sprouts.

The explanation given as to what malt sprouts are, in the RURAL last week, is not exactly correct. They are really the rootlets, and the plumule, or sprout, which appear in the first process of germination which occurs in malting barley. In making malt, the barley is steeped in water and spread in a layer a few inches deep in a warm room until germination occurs. When this has advanced up to a certain point, which is when the starch of the grain has in large part changed to sugar—and this is the object of the process—the sprouted grain is spread to dry on the floor of a kiln, which is heated from below. Here it is repeatedly stirred and shoveled over until it is dry, when the sprouts fall off or are broken off by the friction. The malt is screened and the sprouts become a waste product. As they contain much nutriment they are a valuable article of food for milch cows, or ewes suckling lambs. They contain as follows:

Water	8 per cent.
Mineral Matter	6.8 " "
Albuminoids	23.0 " "
Carbohydrates	44.7 " "
Woody Fiber	17.5 " "
	100.00

In the carbohydrates is included 2½ per cent of oil or fat. Linseed cake contains 28.3 per cent of albuminoids and 41.3 per cent of carbohydrates of which 10 per cent is fat. It will be noticed that malt sprouts have nothing to do with brewing. The brewers' waste is called "grains" and these are the crushed malt (and corn) which have been infused to make the wort or the liquor which becomes beer when fermented.

Twin Fruit.

W. L. H., Lebanon, Ohio, asks why half of a certain seedling apple tree bears twin fruit annually.

ANS.—We can no more answer this question than we can the question why a plant bears fruit at all. That two apples should grow together is no more singular than that two branches, two peduncles, two leaves, two roots, two tubers, two flowers (corollas), two petals or two carpels should grow together. And examples of the above are often enough met with by those who search for them. The formation of twin apples is owing to the fact that two calyxes or receptacles (whichever theory is preferred) cohere. A longitudinal section shows the ovaries to be distinct. Botanically speaking, the edible portion of the apple is not the fruit, which term is confined to the matured carpels, and as the ovaries are within the calyx tube (inferior), we do not see how twin apples, or any other rosaceous fruit with inferior ovaries, could become twins except by the coherence of the calyxes.

Blind Staggers in a Horse.

J. W. L., Rocky Hill Station, Ky., asks about blind staggers in a horse.

ANS.—Blind staggers is a very indefinite term applied to very different disorders. It may mean vertigo or megrims, sometimes caused by too rich feed and at other times by the collar compressing the veins of the neck and hindering the return of blood from the head. In some parts of the country, especially in the South, a disease is generally meant which consists essentially of congestion of the brain or spinal cord, and in regard to the causes of which little is known, as no competent practitioners have ever studied it. The symptoms generally mentioned in connection with it, might result from overloaded stomach, from impure water, disease of the liver, &c. As treatment of the latter form, give a good purge (five to six drachms of Barbadoes aloes) and follow with one-half ounce each of bromide and nitrate of potassa three times a day till improvement results.

Applying Liquid Manure.

A Subscriber, Keefer's Corners, N. Y., asks how to use liquid manure in a garden, on grass land and about young plants; how strong may it be for grass seed just sown for a lawn.

ANS.—In applying liquid manure to large areas a watering-cart, like those used to water streets in cities, may be employed. For smaller areas and about plants, a watering-pot or other small apparatus would be more convenient. The liquid should be diluted to the color of ordinary tea before application. It is a trifle troublesome to liquify sheep, hen, or other manure, but there is no doubt but that it is the best form in which to apply manure to grass lands and in the garden. It would be well to draw away the earth from about the roots of the plants, apply the liquid manure, and when it has soaked away, replace the earth. It should be used only on growing plants; for if employed when plants are checked by drought, it will be injurious. A couple of times a week is quite often enough to apply it.

Planting Our Corn Gift.

H. C. B., Waldron, Ark., thinks that the amount of corn received by him is not large enough to plant thirty-three feet square of ground, and inquires whether he can use his own judgment as regards the area to be planted, or is it necessary to plant the entire plot.

ANS.—We have a plan to secure justice to all who compete for corn prizes, that it is best we should not make known. Our object is to be able to *detect* any attempt at unfairness. We impose the condition that the corn we send must be planted within a plot thirty-three feet square. It will not answer that part be planted in *one* place, part in *another*. We do not care *how* much of the plot of thirty-three feet square is cultivated—only that the seed we send shall be planted *within* that area. As we have said before, each competitor must write us, when he sends his results, how many kernels he received and planted.

Abscess of the Gutteral Pouches in a Horse.

B. G, J., Decatur, Ill., asks for some cure for a horse that for more than a year has been troubled with a cough and often discharges phlegm from his nostrils, especially when drinking.

ANS.—As near as we can judge, the horse has what is known as *abscess of the gutteral pouches*. Turn him to grass, and always feed from the ground so that the discharge will find its way out of the pouches. As medical treatment the following may prove useful: Take sulphate of iron and gentian root, of each five ounces, bicarbonate of soda, one ounce, iodide of potassa, one and one-fourth ounce. Have these well powdered and mixed, and divide into twenty powders and give one twice daily. If this does not succeed, the pouches will probably have to be opened by a surgical operation which only a *first-class* operator can safely perform.

Keeping Horse Manure.

A Long Island Farmer, has a large pile of horse manure and asks how to prevent it from being burnt up by overheating, until wanted.

ANS.—Horse manure that is free from litter needs the most careful management to prevent dry rot, or what is known as fire-fanging. This is occasioned by the evaporation of the moisture by the heat of the fermentation. The drying up of the water carries off all the ammonia that has been formed, and has been dissolved by it. The consequence is that burned, or fire-fanged, manure is nearly worthless. To prevent this injury it is necessary to pile the manure in flat heaps, out-of-doors, where it can receive the rain or be watered when necessary, and to trample or pack it down very tightly; it should then be turned over occasionally and repacked again as solidly as possible. When managed in this way the manure is kept in the best condition and retains all its valuable qualities.

An Injured Frog in a Horse.

W. M. K., Washington, D. C., has a horse made lame in the foot through the blacksmith's ignorance or stupidity in paring away the frog, so that it has become hard, dry and a little cracked, and he asks for a remedy.

ANS.—The condition of the frog which our correspondent mentions, would scarcely, of itself, produce lameness, and we presume the foot has sustained some injury that has escaped his observation. We would advise the removal of the shoe and a careful examination for the seat of the disease. A coating of warm wood tar, by preventing evaporation and softening the horn, will assist to restore the frog, but this part should never be touched with the knife in shoeing. It is impossible for us to give fuller information without a more definite description of the nature of the disease.

Miscellaneous.

L. M. P. Indianapolis, Ind., says: "The RURAL has very kindly and satisfactorily replied to several of my inquiries so that I am not without hope that it will indulge me in still another favor [It is a pleasure. EDS.] A friend of mine has given me a few seeds of what we, for want of a "real" name, call a *Choice Vine*. She has consulted a botanist in the city, but the vine is a stranger to him, and I come to you for a name. Your circle of acquaintances among flowers and vines is so extensive that I shall be greatly pleased if the following description and inclosed seed be sufficient to suggest the name: The vine is hardy; grows to the hight of six feet or more; has foliage something like the Passion Vine; particularly are the textures alike. The blossom appears in July, and then follows a green ball, probably a half inch in diameter, covered with seeds, to each of which is attached a plume an inch and a half long. When the blossom first comes, it is small and green; as it approaches maturity it becomes larger and white; when fully ripe it is grayish-white.

Father received the vegetable and flower seeds and corn package, for which we thank you. I say *we* for the flower seeds he handed over to my care. I have already sowed most of them in a hot-bed, *all my own*. Am anticipating great pleasure from my flowers this summer. I shall make seedling Geraniums a specialty. I have a great admiration for the Glaucium you sent me last summer. But, unfortunately, I have but one plant remaining. Your article in the RURAL last fall stating that it was a *hardy* plant, did not appear until after I had secured mine safely (as I supposed) in the cellar—all but the one mentioned above which I left in the garden as an *experiment*. Those that I took up *all died*. I shall guard the living one very carefully, hoping to increase my stock therefrom."

ANS.—The seed is that of a Clematis—perhaps C. Virginiana. Perhaps you may desire to send us a flower when it blooms, in which case we could tell positively as to the *species*. C. Virginiana blooms July-August. We hope that you may have success in your seedling pelargonium culture. Probably you know that the flowers are easily crossed. It is better to cross them than to raise seeds indiscriminately, as one can then select parents and produce a larger proportion of desirable seedlings. At least that has been our experience. You will observe that the pollen and pistil of any particular flower do not ripen simultaneously.

D. H., New Milford, Pa., asks, 1, where can he buy Holstein cattle at a reasonable price; 2, if apple and pear trees make a long growth the first year, should they be cut back before the next, and if so, how much.

ANS.—1, Smith & Powell, Syracuse, N. Y., advertise Holsteins in the RURAL, and are a reliable firm; 2. it will depend much upon the natural strength of the variety, and upon the form in which the trees are to be trained. As a general thing it is well to cut off about half or two-thirds of the young shoots, and always cut them over a bud that points in the direction in which the branch is desired to grow.

E. P. F., Farisville, Ks., asks, 1, whether the White Prolific corn advertised in the RURAL by J. M. Thorburn & Co. is the same as that distributed by the RURAL; 2, whether hen manure put on top of a corn-hill would be beneficial, and if so, how much should be used on each hill; as corn there is planted with a two-horse corn-planter, the hen droppings cannot be put in the hill.

ANS.—Yes; as already explained in these pages, the RURAL sold its surplus corn to the above firm; 2, yes, a handful scattered on the hill would be enough in most cases.

M. S. C., Pekin, N. Y., has an English Ivy three yards long in a five-inch pot, and she asks 1, if it should be repotted this spring; 2, her purple Fuschia looks dead, except thrifty, little shoots which come out from the main stalks; is there any cure?

ANS.—1. A pot a size larger will do no harm. 2. There is nothing very alarming in this case. Part of the top of Fuchsias often dies away during the winter rest. Give it fresh earth and cut it back to the young shoots.

E. S. McN.—no address—asks what to mix with harness oil to prevent mice from destroying the harness.

ANS.—By mixing bitter aloes, or jalap in powder with the oil, the mice will be deterred from gnawing the harness or else they will be so physicked that they will never repeat the mischief. The strong, disagreeable smell of these drugs repels the mice.

O. W. F., Blackstone, Mass., asks if he planted pearl millet from the first to the middle of May, whether he could get a crop for hay and another later one for seed.

ANS.—Pearl millet will not seed north of Virginia to any extent. It will not seed at all in the above latitude unless planted in the house or under glass.

Mrs. H. de B. K., Philadelphia, Pa., asks where she can get "Kidney Potatoes."

ANS.—*Kidney* has reference to shape only. A large number of varieties are called Kidney Potatoes. They can be had of any seedsman.

B. F. W., Cambria, N. Y., asks where can he obtain Norway Oats for seed.

ANS.—From B. K. Bliss & Co., 34 Barclay street; J. M. Thorburn & Co., 15 John street, New York.

M. W., Poquonock Bridge, Conn., has a bulb Maderia Vine and, wishing to put it out in

different places, she asks whether the sets can be separated for planting as one cuts a potato.

ANS.—Yes.

J. C. C., no address, asks where can he get stencil tools for cutting his name on plates.

ANS.—Of W. F. Hyatt, 230 Beekman street, or of the Stafford Manufacturing Company, 66 Fulton street, this city.

J. A. S., Gallatin, Mo. As nearly as we can make out from specimen, it is a narrow-leaved variety of Arbor-vitæ. Send us a sprig of this spring's growth, please, when made.

C. M., Colinville, P. O., Ontario.—We cannot tell from the seed what the variety of Lettuce is. We will sow some of it and let you know.

COMMUNICATIONS RECEIVED FOR THE WEEK ENDING SATURDAY, APRIL 26th.

F. A. R.—M. L. S.—"Hector Bertram"—N. B. L.—M. M. B.—E. P. P.—C. C. J.—W. J. F.—Jacqueline.—L. M.—C. T. J. S. T.—R. W. E.—W. C. B.—H. T. K.—R. E. D.—H. P. H.—S. L. B.—R. F. C.—C. C. G.—Never, Sir.—J. S.—L. H. N.—T. H. H.—H. R.—Wiseacre'—P. H.—S. J.—J. J. M.—C. R.—L. H. K.—J. H.—Yes.—H. H. G.—G. E. thanks.—E. S. G.—Yes.—B. N. E.—A. D.—M. A. S.—C. D.—C. T.—D. C. E.—W. G. F.—M. G.—A. G.—J. McD.—

The Poultry Yard.

OUR CHICKENS.

MRS. M. G. RAND.

WE do not keep poultry for profit, as our home is on ground purchased by the foot—not by the acre. It is a *habit* with us to keep chickens, and one we would give up reluctantly, for it is a pleasure to see them about and to attend to their wants.

The poultry-house is twelve feet square, and is never occupied by more than eight or ten fowls at one time. It fronts east, and that side of the coop is nearly all glass. The chickens look very comfortable in their pleasant quarters, and when on the perches they always *face* the window, which proves that they like a cheerful outlook.

Our chickens are regularly fed, principally on wheat and corn, and pure water is always before them. The drinking dish is scrubbed with suds and a stiff brush two or three times every week. A common flower-pot saucer, holding a quart or more, makes a good drinking vessel for chickens. Invert a small flower-pot in the saucer, which will leave room at the edge for the chickens to drink with ease. Such an arrangement prevents the fowls from running through the water. Shallow boxes of air-slaked lime, ashes and gravel, are kept in the coop and renewed often. The perches are washed occasionally with alum-water, and the ends rubbed with coal oil.

When wishing to set a hen, we take a box of suitable size for the nest which is made of clean straw, and sprinkled with sulphur. During the time of incubation, we avoid disturbing the hen, in order to indulge her natural inclination to privacy. Her food while sitting consists of wheat and corn-meal wet with water. The little chickens are not fed until twenty-four hours old, and then on coarse corn-meal. If they are kept in a small coop on the ground, it is moved along a few inches every day or two, to give them a clean place. It is well to open the coop entirely, late each afternoon, to allow the hen to roam at large for an hour, to scratch for the chicks. Food ought not to be left near the coop over-night, lest rats be attracted to it.

Fowls that have to be confined in summer, on account of the garden, should have a yard attached to the coop to run in, and a daily supply of green food and raw meat. A spadeful of earth and a green sod now and then, will give them something to do.

If the poultry-keeper does not wish the hens to sit, they should be put in a small, but comfortable coop for the day, and back on the roost at night. Persevere in this plan *patiently* until the hen is over the "notion." There is no necessity for the cruel practices of some persons in regard to sitting hens. Another lack of humanity is often shown in allowing poultry to go without water in winter, because there may be snow on the ground. The man who is guilty of such neglect, might try *snow* as a substitute for tea and coffee. At all seasons pure water and plenty of it, should be kept within reach of the poultry.

During the molting process fowls need the best of care, as it is a great tax upon their strength to get new plumage. Give raw beef as often as they will eat it, and keep a rusty nail, or any bit of iron, in their water-dish.

We have kept several varieties of fowls, but our preference thus far is for the Light Brahma. We are never without a trio of White Bantams; the dainty little creatures look so pretty on the lawn and are so useful among the flowers, that we could not consent to give them up. It is said that a "sentimental idea prevails that Bantams do no harm." Our experience satisfies us that a few do more good than harm. If allowed among the verbena beds, the flowers will not be destroyed by the cut-worm so troublesome in the month of June. Every family that can do so, should keep a pair of Bantams for the children, but never wound their feelings by serving up their pets for dinner. Sooner keep them until they die of old age. We never find it difficult to get good homes for our surplus Bantams.

There has seldom been a case of sickness among our chickens, owing probably to the regular care they receive, feeding, etc. The poultry-house is so constructed that it is ventilated all the time, without the currents of air reaching the fowls directly. Chickens are not apt to suffer from disease unless neglected. One of the many results of neglect is parasites on the legs. If remedies are not used in time, the fowl becomes unable to stand. The cure is turpentine and sweet oil, equal parts, applied to the scales of the legs. For this trouble turpentine alone is often recommended, but it is too strong, and no more effectual than when mixed with olive oil. So much has been written on poultry that it would seem as if nothing new could be said on the subject to enlighten any one. However, those who engage in poultry-raising naturally like to know something of each other's experience.

Clinton Co., Iowa.

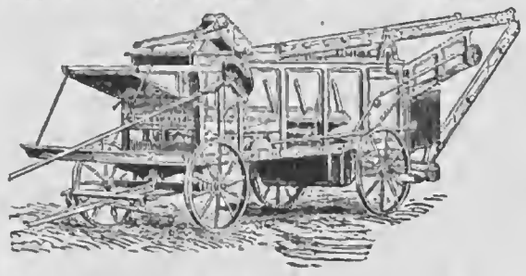
RAISING GEESE.

WHY is the interest in raising geese so small? How can a poultry yard be complete without them? I raised three broods of goslings from one goose last year. The same goose has laid 32 eggs this year. Her time for hatching the second setting is up now. The first setting was destroyed by a new man on my farm, who shook the eggs, thinking they were addled, not knowing that they need four days longer than usual in December and January. Goslings raised last July are hatching now. Every batch of four geese should have one gander with them. I find that when there is only one gander to six geese there are too many infertile eggs. I've had only two eggs of that sort that failed to be detected by testing, since I began keeping geese. My geese are of a pure breed—grayish-brown, knuckle-billed Chinese birds, with large bodies. I consider them a profitable addition to the poultry yard. Unlike the Toulouse and white geese, they are not roamers.

E. J. F. B.

Implements and Machinery.

COMBINATION GRAIN SEPARATOR.



Ten years in advance of all others.

The vital portion of the vibrating device is **perfected by the combination of Picker and Open Rake attached,** thus it has the vitals of both Apron Machine and Vibrator.

The Friends of Each Style Agree to its Perfection.

Straw subjected to Three Distinct Motions.
No parts to break or get out of order.
Simplicity, ease of draft and quantity of Work.
Best Cleaning Mill ever made.

EACH SEPARATOR TESTED BY MACHINERY.

New Circulars, giving Terms and Price, sent free by addressing

UPTON M'F'G CO.,
BATTLE CREEK, MICH.

MYERS' Improved Wind-Mill.

Perfectly self-regulating, and the only Wind-Mill that stands on the derrick in perfect balance, in and out of gear. It is warranted to be well made and to stand the most violent storms. Every farmer, stock-raiser, and dairyman should have one for pumping water, grinding feed, etc.

Send for Circular and Price-List.

Silver & Deming Mfg. Co., Salem, Ohio.

PORTER'S HAY-LOADER

In the Field. The Team Lifts the Hay. Ask your dealer for descriptive circular, or send stamp to **J. E. PORTER, Ottawa, Ill.**

Eclipse Victorious

at Paris Exposition.

Awarded 1st Prize Medal over all others.

We build 17 sizes Wind Mills for Farm Pumps and Power Purposes.

The strongest Wind Mill in the world.

Send for Catalogue No. 4.

ECLIPSE WIND MILL CO., Beloit, Wis.

CIDER PRESSES AND GRATERS.
BOOMER & BOSCHERT PRESS CO., Syracuse, N. Y.

Implements and Machinery.

THE WATERTOWN ENGINE.

The simplest, strongest and safest. Cheap, durable and economical in use. *Has improvements found on no other Engine.* SPEED ADJUSTABLE WHILE RUNNING. It does not foam. The Governor is self-oiling

IT IS SAFE

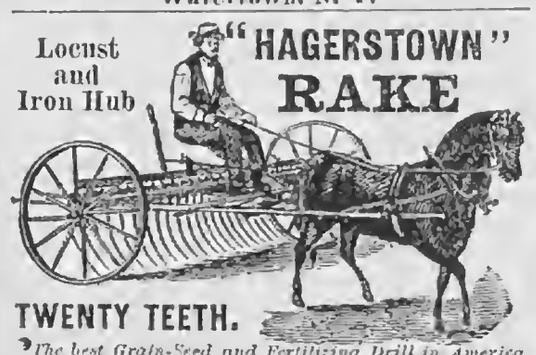
from explosion; from causing fire by sparks, or slipping or breaking belt. Proved by an experience of 30 years. New improvements constantly making; all sizes constantly on hand. We have Engines running in all parts of the country and Agents in all States.

☞ Cheap freight rates to all points. Address for Circulars and prices,

WATERTOWN STEAM ENGINE CO.,
Watertown, N. Y.

Locust and Iron Hub

"HAGERSTOWN" RAKE



TWENTY TEETH.

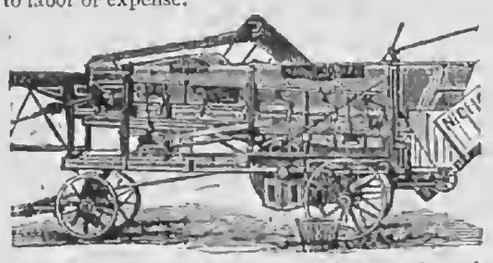
The best Grain-Seed and Fertilizing Drill in America with Pin or Spring Hoes and Grass Seed Sower, and "Victor" Double Hiller Clover Machine, the *best in the world.* Send for descriptive circular and price-list.

HAGERSTOWN AGRICULTURAL IMPLEMENT MFG. CO.
State where you saw advertisement. Hagerstown, Md.

NICHOLS, SHEPARD & CO.,
Battle Creek, Mich.
ORIGINAL AND ONLY GENUINE
"VIBRATOR" THRESHING MACHINERY.

WE are sometimes asked why the prices of our goods are apparently higher than some others of inferior make, and we avail ourselves of this opportunity to place the matter in its true light.

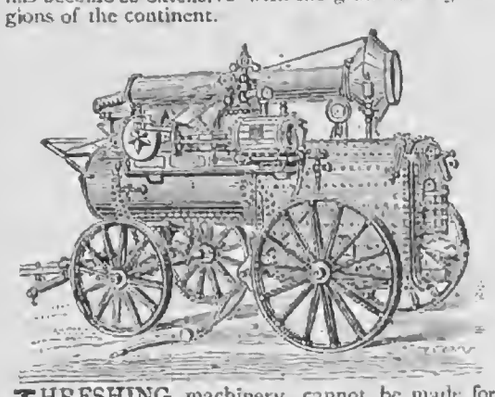
OUR "VIBRATOR" Threshers and Portable Engines embody the best results of our experience and study during our long business career. Whatever would add to their durability, efficiency, and solid excellence, in any particular, has been eagerly seized upon and utilized without regard to labor or expense.



IN this connection it will be pertinent and timely to warn the public against **Cheap** Threshers and **Cheap** Portable Engines. The superiority of our machinery, in all particulars, is now so generally acknowledged that our competitors have no resource but to present the attraction of low prices and long credit. Their goods being inferior, they have to sell them for what they can get. Times are hard; and purchasers, without fully considering the subject, will sometimes allow a lower price to decide them. Manufacturers of "cheap" machines are so set on carrying out competion to its utmost—competition of **Cheapness,** not of Excellence—that they meet "bargain hunters" half way, and furnish them cheerfully with inferior machines at the cheap rate they are asked for.

WE are much mistaken if this is what the public wants or expects of us. Good machinery cannot be made when neither workman nor employer has pride in his occupation; interest and pleasure in the work are both wanting, and both are essential in making good machinery.

OUR mission and business is, to build Threshing Machinery **of the Highest Excellence,** whatever the cost, and, holding firmly to this single purpose, we have added improvement after improvement, until the reputation of our Machines has become co-extensive with the grain-raising regions of the continent.



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SATURDAY, MAY 3, 1879.

THE WAY TO MAKE FARMERS.

JOURNALS "devoted to the interests of country homes" can do no better service than that of inspiring a love for plant life in the hearts of those upon whom the future of the farm depends, namely, the children. It has often seemed to us that children are, in many instances, sickened of farm life because they are required by their parents to do work in which they cannot interest themselves; work which they dread to begin and are glad to end. It is not, indeed, in the nature of children to like work that has no attraction. It is to them synonymous with punishment to the extent that it conflicts with their inclinations. It is not in the nature of any living creature to be pleased with an arduous employment which brings with it no sort of compensation, not even the satisfaction which love for the work insures. Now, if we desire to educate a child, so as to inspire him with a fondness for a special pursuit, we must show that its reward will amply compensate him for the study and labor which it involves. That there is a bright side to farm life none can dispute. That farming or horticulture, if rightly pursued, will—in this country at least—secure to the farmer or horticulturist an ample reward, admits of no manner of doubt. Our object is so to present these occupations to farmers' children in so true a light that they shall have before their eyes the bright side, the reward, instead of the forbidding impressions which naturally arise while performing the hard and dreary work which unthinking parents too often impose.

It has occurred to us that the formation of a "Youths' Horticultural Club" might prove a step in the right direction. First, we would induce the children of our readers to arrange and plant a little garden of flowers, vegetables or small fruits. It matters not how small the beginning. This first garden need be no larger than a hoop. Success with a single strawberry or grape vine, with a single cabbage, tomato, or flower of any kind, would encourage another trial, while failure from attempting too much would, perhaps, discourage from further attempts. In these first trials we seek, first, to amuse the child, and through the amusement to instruct in such a way that amusement and instruction shall finally render all necessary work a labor of love.

In the Youths' Department, as conducted by Uncle MARK, we propose to offer simple, seasonable suggestions in gardening and elementary botanical teachings, in the hope that with many of our young friends a desire to know something of the structure of plants, how they grow, and how best to make them grow, shall manifest itself as the natural consequence. Every spring and fall we receive hundreds of plants, which are sent to be tested in the Experiment Grounds connected with this journal. Of course, as these grounds are already well filled, older plants must be removed to make room for the new ones. Should the Youths' Horticultural Club meet with general approval, we shall be very happy to distribute these plants from time to time (without charge, of course,) among those of the members who seem the most enterprising and deserving, and also to provide them with several varieties of choice seeds every spring.

We now put the questions to parents: "Do you approve of this plan? Do you believe that it is calculated to prove of any real benefit to your children, either simply as an innocent pastime or as possibly influencing them to a higher and more intelligent appreciation of the orchard, garden and farm?" If so, we should ask that you assist us in the carrying out of this plan. We should ask you to explain it to your children; to provide for them a little plat of ground and anything else they may need, such as a watering pot and a small spade and rake. We should hope, in short, that you would take an interest in their work, and even put yourselves out to encourage them in their efforts; assist them in writing to us of what they attempted, how they succeeded or failed.

Finally, all who write for the RURAL might assist in rendering this instructive and entertaining to both old and young, by contributing any notes or suggestions which occur to them. All communications on this subject should be addressed to Uncle Mark, and the names of would-be members should be sent in at once. He will superintend the registry of names, answer all letters that require answers, and promptly attend to the awarding of premiums.

JAPANESE MAPLES.

NOVELTIES are the order of the day. Much of our lives is spent in seeking them. For many of us, indeed, novelty alone affords amusement. Time-worn objects and methods are looked upon with indifferent eyes. As a result of this tendency of the age, we find horticulture also striving for variety of effect. The production of marvels and monstrosities of the propagator's art is of almost daily occurrence. The papers herald them, and chromos emblazon their charms for a presumably delighted world. Naturally, however, some of us become satiated by this *embaras de richesse* and look somewhat askance at all new plants.

We know, indeed, how good some of the old ones are, and remember, moreover, sundry dire disappointments with the new. We confess, for instance, that on first having our attention drawn to Japanese Maples, two or three years ago, our appreciation of their beauty was modified by the consideration that it was not possible that such delicate forms and colors could stand the rigorous changes of American seasons. We fancied the summer alone would scorch their delicate leaves. However, we tried one or two, though the price was high, and soon learned to estimate more fairly their excellent qualities. One, the Sanguineum, had the richest red purple hues in summer we had ever seen. Others were cut and divided into the most fantastic shreds of delicate tissue, rainbow-dyed in color. Again, specimens were shown us so dwarf, as to scarcely reach three feet in a score of years, while others, if well-established, would some seasons grow a foot or more. The leaves in one case were small, almost minute, in another broad and round, suffused with golden shadings in the most exquisite manner. Nature had outdone herself in creating what are technically called "sports." We also began to discover that these seemingly delicate little plants were rugged and tough as an Oak—tougher than some Oaks. Then they were not mere variations of well-known old forms of Roses, Geraniums, and the like. On the contrary, they bade fair to constitute a positively new feature for the lawn. They were not shrubs, but regular dwarf trees with as much of the tree-like development as the Scarlet Maple, only in miniature fashion. This, with their wonderful hues and forms mingling in diverse manner on every leaf, we began to realize, must in time win for them a very distinguished and unique character.

On investigation we found there were a score or more varieties very many of them belonging to the polymorphum species, but others distinctand peculiar types in themselves. All of them, we learned, were very difficult to propagate for various reasons, and some some, as far as we could hear, had not been reproduced out of Japan, except perhaps from seed. The method of propagating variegated-leaved plants by seed is not really satisfactory, as all experts know, on account of the divergence from the original type that is ever apt to occur. Grafting is evidently the true method. We found, in fact, that Japan, in sending her Maples to us, has really much increased the obligations we already owed her for many valuable hardy plants. We felt that in Japanese Maples existed qualities to be developed by combination of colors and otherwise, that might do much to disenthrall us from the overpowering and ubiquitous ribbon planting of the day. Fancy easily pictured beautiful effects of color varied to the utmost, and devoid of all crudity produced by tasteful arrangement of these Maples on the lawn.

It will be readily inferred from the above remarks that our conversion to a belief in horticultural novelties like Japanese Maples, was complete. We do not know but we were betrayed into the weakness of terming them "little beauties" in certain instances. Well, we intend to make up for this lapse into excessive enthusiasm for a new thing by renewed vigilance in recognizing weaknesses in other novelties. Or, rather, should we not say that while we hail with delight a really fine "new plant," the innumerable novelties having few distinctly valuable and differing qualties, must be relegated to the more or less obscure positions where there they belong.

GOOD HORSES—POOR ROADS.

Now that we have got the country so well railroaded, is it not time to put some work, money and "gumption" into the building of our highways upon improved principles, so that we may have permanent, smooth level tracks upon which to draw our loads and drive our nice horses and carriages? We are decidedly of the opinion that our farming towns will find smooth, dry roads, with moderate grades, worth as much to them in money, to say nothing of pleasure and comfort, as the railroad connections for which they have been so anxious, and for which many of them have been so profusely taxed. No country in the world has such good driving horses as ours, but, save in our village streets, no country in Christendom has so few places where they can be driven at a good pace with comfort and safety. And a village street is the "wrongest" place of all for rapid driving.

But, in order to have good roads, we must employ men to plan and superintend them, who understand the business. This ought not to be extremely costly at this time. Our scientific schools and colleges have of late turned out a good many graduates in their civil engineering courses—far more than have been able to fine employment. They ought to be able and willing, and doubtless are, to show about home their skill in their business at a moderate compensation. Give them a chance to do this, and it will encourage others to take up the study. There ought to be, and would be if they could find business, a competent road builder upon scientific principles in every town in the country. And they ought to be, and would be, content to serve their fellow-citizens at a price equivalent to what is paid a minister or a teacher in the same community. The work now expended to a poor advantage for want of skillful direction upon our highways, would, when properly "bossed," make them as good again. The saving in the wear and tear of vehicles and teams, the larger loads that could be carried and the quicker trips that could be made, would very much more than pay the cost of skilled direction. Let the farmers think of this. It is worth while. It will lead to the most needed and most profitable improvement that can be made for the pleasure, comfort and profit of country living.

RURAL EDUCATION.

THERE is a necessity now for a higher grade of education in rural schools. For a few years past there has been a wonderful increase in the number of local journals, as well as in the circulation of special journals published in the large central cities. For one newspaper published a dozen or twenty years ago there are now ten; and for every reader of newspapers or other journals of that time, there are now twenty, if not more. The result of this kind of popular education—and a most valuable kind of education it is—has been to largely increase the stock of information, and to give scope to an immense energy of thought. Where formerly the plainest and most matter-of-fact information only could be received, now matter suggestive of original thought is sought for, and the popular mind is able to entertain and discuss many heretofore unapproachable questions.

It cannot be permitted that the education gained in the school should be of a lower grade than that picked up in the family circle or from papers and books. The school should lead in this respect, and should always be in advance of every other source of information. At no previous time in human history have science and practical industry made such enormous progress. In that respect a thousand years of the past have been as but one day now, and the probability is that the future will completely overshadow the present. Under these circumstances, the system of education needs to be of the most thorough kind. It is certainly true that the day has passed away forever when reading, writing and arithmetic should be thought sufficient knowledge for a farmer's boy. The farmer's boy of this day needs a far higher education than that.

HARDINESS OF PLANTS.

IT is generally understood that "rolling off a log" is one of the easiest things to do. But there is another thing just as easy. It is misjudging the hardiness of any plant. For instance: we have two Globe Arbor-vitæ transplanted at the same time, growing in the same soil and only ten feet apart. Both are exposed alike. One is half-killed by the past cold season—the other has not one leaf injured. If we had had *only* the former, we should have told our readers that "this variety is not hardy with us." If we had had only the latter, we should have said "this variety is hardy with us." It is the same with the common Hemlock. We have not less than thirty trees in various parts of our grounds. Some of them have not been harmed in the least. Others have been seriously harmed. In this case it is evident that those growing in moist soil have suffered the least—though of the others it is impossible to see why some should have been injured a good deal more than others. We might multiply instances. The fact is the word *hardy* is too generic to be of much service to us in conveying trustworthy information respecting the many influences which affect the vitality of plants during the wintry season.

BREVITIES.

HAS anybody ever raised fine Clairgeau pears upon the quince?

SOMEBODY has called the English sparrow "a dissolute, unmusical rover."

DR. WARDER praises the Celestia apple highly, and Mr. M. B. Bateham says he is right.

PROFESSOR CYRUS THOMAS will *not* go to the Agricultural Department in place of Professor Riley, as the papers have reported.

PINUS AYACAHUITE has stood the winter without injury. According to Messrs. Ellwanger & Barry this is not hardy in Rochester.

WE are obliged to say to those still intending to send us novelties to be tested, that we have all we can give proper attention to the present season.

"How to Bud in *Summer*" was the incorrect heading given to a question and answer in last week's issue. *Summer* ought to have been *spring*.

AT this busy season our "News" Department suffers once more from a press of other matter. In future, however, we shall try to give ample space to it.

WE have received a copy of the Report of the Michigan State Pomological Society for 1878. As usual it is brimming over with good things, to which we shall make a more extended reference hereafter.

MR. MANNING, the Secretary, tells us that the meeting of the American Pomological Society will be held in Rochester, this State, at the invitation of the Western New York Horticultural Society. The precise time, however, has not yet been decided upon.

A FRIEND who has had occasion to complain that the present season's small-fruit trade has been entirely *too* small, writes to us in the following affecting strain:

"Where, ah, where do the *trade* winds blow?
Not a tithe of what ought to, comes here I know.
There is a good deal of shopping done——
But *where* the buying is done deponent saith not!"

MR. S. B. PARSONS writes us: "Thanks for your complimentary remarks in Editorial Brevity of last issue. I fear I misunderstood your question. I thought you meant the two best hardy Roses. For Hybrid Perpetuals, my answer was not correct, as Mad. Plantier is a June Rose. Gen. Jacqueminot only is Hybrid Perpetual."

THE new Magnolia Halbana (stellata) is now blooming with us. It began to bloom the 21st of last month. The flowers bear about eighteen petals, white, with an occasional rose-tint, an inch and a half long and half an inch wide, and the fragrance is that of the Tuberose. The species is dwarf and bushy; blooms while but two or three years old, and is, at the "Rural Grounds," perfectly hardy.

IT'S an easy matter for readers of our "Everywhere" to learn what farming operations are under way in all parts of the country. Each reader has in this department greater advantages than if he had in each section friends who reported weekly to him on the subject nearest to his heart and pocket; for in the latter case he would have to puzzle occasionally over cramped handwriting, and often to read a good deal of miscellaneous matter, before finding the scattered items about farming; whereas all the choicest information is here culled from hundreds of letters and placed plainly before him in lucid print.

CORN MEETINGS OF FARMERS' CLUBS.—The late corn number of this journal seems to have been widely suggestive in more ways than one. We find that quite a number of farmers' clubs have set apart special meetings for discussing this topic, and there is certainly no subject more important, and no season of the year more timely. The Amer. Inst. Club of this city, at their last meeting, carried out the programme previously indicated, and ventilated this many-sided question in the presence of a numerous attendance. Pres. Heath, in his opening remarks, brought together the main points of interest with a clearness and brevity showing great power of condensation. Col. Henry, of Tenn., and other prominent agricultural men, took part in the debate, after which Mr. Conrad Wilson called attention to a method of field experiments more comprehensive and systematic than usual, and which evidently excited much interest in the audience. Mr. Wilson has given special attention to this line of investigation for many years, and he now presents his conclusions in a practical form and invites the scrutiny of practical men. After briefly explaining some general principles, and illustrating them on the blackboard, he proposed to enter more fully into the subject and to develop it more clearly at the next meeting. As the limit of time made it impossible then to go through and illustrate the chief points in the argument, this proposition was hailed with satisfaction. As we shall perhaps be able, in the next issue, to give to our readers a clearer statement of the subject, we prefer to present it then entire rather than offer an installment now.

Literary Miscellany.

AN UGLY GIRL.

(Continued from page 270.)

CHAPTER VIII.

SEARCHING THE TOWER.

ALTHOUGH accustomed from his boyhood to athletic exercises and not only agile, but courageous, Noel knew that the feats which are easy enough in the daylight are very difficult when undertaken in the darkness of the night, and with a rough wind to battle against. Even the mere steadying of the ladder by which he proposed to ascend was no easy matter. However, it was finally accomplished; and when he had succeeded in forcing an entrance through the casement on the first story of the building, the men below raised a feeble cheer. The sound was inspiriting, and he went boldly on although the clouds of dust continually eddying round, and his ignorance of his whereabouts almost bewildered him.

A few moments given to exploring the small circular chamber in which he found himself, and then he discovered a door leading to the staircase. It was on the side of the tower next to this that the gale had done most mischief. The outer wall was entirely gone, and in several places some of the steps above and below had been carried away, leaving wide gaps; and added to this the wind poured in through the fissure it had rent, whirling and roaring with a hideous noise that almost deafened him. Yet up this broken staircase was the only way to the chamber in which the lamp Miss Carisforde had lighted at twilight was still flickering. Whenever the gale abated, Noel shouted her name, then listened intently; but either he failed to make himself heard, or she was incapable of replying; yet the next minute the pitiful yelping of a dog faintly reached his ear, and he determined to proceed.

Fastening the lantern to his arm with a rope which one of the men had given him, he now commenced the ascent; taking every step cautiously, for the loosened stones were often dislodged by the slightest touch of his hand or foot. On and on he went, clinging close to some projection, as often as the fierce gusts threatened to hurl him from his exposed and perilous position, but never losing his presence of mind or growing faint-hearted and swinging himself at last to the landing at the head of the flight of stairs with a thankful ejaculation that he had achieved so much of his self-imposed task.

Two doors were now before him; the one yielded to his touch, but on entering, a chaotic scene presented itself. The heavy, antique roof, as well as the highest story of the building, had been dragged down with the fallen wall, and a heap of rubbish encumbered the floor of this chamber which, on the further side, was completely open to the air. Noel shuddered as he thought that the lonely girl he had come to seek might be lying at that moment buried beneath the confused mass of boards, tiles, and furniture on which he was gazing, and he summoned up courage to examine it as well as he was able; but no signs of her presence were to be found, and after calling again without eliciting any reply, except the faint yelp of the invisible dog which now seemed to be as far off as at first, he proceeded to the other door.

It was locked, but feeling that this was no time for studying outward observances, he did not hesitate to burst it open, and found himself in Miss Carisforde's dressing-room. It was here that the lamp burnt as steadily as the gusts to which a casement, shattered by the blast allowed free admission, would permit, but the lady who had tenanted the apartment so lately—one of whose gloves lay at his feet, and one of whose filmy handkerchiefs, steeped in tears, was on the table beside an open writing-desk—was not visible.

Again Noel vainly shouted her name, and then passed into the adjoining bed-chamber. The bed had not been occupied; strange to say, there were tokens to be seen on every side, that some one had been employed in packing for a journey. A small hand-bag, filled with toilet appendages, lay on a chair with a lady's waterproof and umbrella; the half-open drawers of the wardrobe appeared to have been hastily denuded of their contents; a trunk partially filled with books and drawing materials stood near the window, and the carpet was covered with valueless odds and ends generally disinterred at such times.

These things struck Noel with surprise, till he reminded himself that Carisforde Park would doubtless possess no charms for its young mistress, until she had shaken off her grief for the loss of her father, and that nothing could be more probable than that she was meditating a removal to some pleasant watering-place.

But the astonishment which these reflections were banishing returned, when, as he re-entered the dressing-room—satisfied that Miss Carisforde must have quitted the tower earlier in the evening—he happened to glance at the writing-desk already adverted to; for now he saw three or four letters—sealed with the Carisforde arms, and directed in a hand unusually legible for a lady's—lay upon it, and with them a hand-book. A second glance showed him that one of these letters was directed to himself.

What could this mean? He examined the other missives, and saw that they were for Mr. Whitely the solicitor, Mrs. Hurst, and the housekeeper. There was some mystery here which he could not fathom, and trimming the lamp, he tore open the letter addressed to himself.

"My cousin," it began, "you have not only been disappointed but wronged; your mother has told me so, and convinced me that it is my duty to repair the injustice with which my dear father, misled by his affection for me, has treated you. There is but one way in which I can do this, and that is by renouncing the wealth which, believe me, I never wished to possess. Lest you should in your unselfishness oppose my intentions, I am on this point of leaving Carisforde secretly, never to return. To you I resign all that can be called mine, *freely* and *cheerfully*; so do not hesitate to accept it. I shall be miles away before you receive this. I have stated my wishes to Mrs. Hurst and my servants; be good to them, I entreat you, and try to think kindly of ADA CARISFORDE.

Noel was profoundly affected by the few and simple words of this note; in what a pleasant light it placed the mental qualities of this much-to-be-pitied young creature! and how sad was the fate that had married such a noble mind to positive deformity of person! As he refolded the paper, he vowed that if she could be traced to the retreat to which only a few hours since she must have hurried, he would endeavor to win her esteem, and be to her the faithful friend she certainly deserved to possess. As to accepting her romantic renunciation of her rights to the Carisforde property, he knew very well that he could not do so, even had he wished it. The law would interfere to protect her from the impulses of her kindly heart; and he felt seriously angry with Mrs. Estcourt for having, by her silly, avaricious speeches, led her troubled auditor to rashly fly her home in this manner.

The war of elements, as well as the suspense of the servants who waited at the foot of the ladder were forgotten while Noel mused over Miss Carisforde's unhappy fate, and anathmatised Mrs. Estcourt for having driven her away. It was plainly to be seen that she had taken no one in the house in her confidence, fearing, doubtless, that they would oppose the course she had resolved upon. Mrs. Hurst, who was sincerely attached to her, would be as much grieved as astonished; but still she might be able to furnish some clue to the heiress's refuge and wherever it might be he determined to follow her, and insisting on an interview, use no means untried to induce her to return to Carlsforde. If he failed, Mr. Whitely must then step forward and explain to her that, being still under age, her generous scheme to enrich another at her own expense was impracticable.

Perhaps she had not departed from the Park quite alone, as he had been imagining. Hillian Gray was her chosen friend and companion, and the headache alleged as an excuse for remaining in seclusion all day might have been an excuse invented to give her time to carry out the necessary arrangements for this secret flight. It had been no freak of imagination when Noel thought that he detected the rolling of carriage wheels: in a vehicle hired for the purpose Miss Carisforde must have departed; neither could it have been mere fancy that a shadowy figure appeared to him in the library. It must have been on her way to the vehicle in waiting that she entered the room, to bid him a mute farewell. How very much he now regretted that he had not succeeded in preventing her escape. Half a dozen words frankly interchanged might have taught her that he was no party to Mrs. Estcourt's efforts to awaken her compassion for a disinherited peer, and induce her to believe it was her duty to remain where she was.

Musing over these things, he put the letters into one of his pockets, and prepared to return to the house with the astounding tidings that its owner must have quietly slipped away soon after the storm commenced. But he had scarcely reached the landing when the pitiful voice of the dog fell upon his ear once more.

Reproaching himself for having so completely forgotten the poor animal, he now prepared to search for it, and presently was guided by the sound to a narrow passage leading to the turret, in which the steps to that upper floor—now entirely gone—had been situated. The turret had also disappeared, and only a yawning chasm remained to show where it had once been. Was it down this the creature had fallen?

Moving with the caution that was so necessary, he drew as near the brink of the chasm as he dared, and looked over. A few feet below there was a narrow ledge of masonry, and he held the lantern down so that its light might fall upon this, the only projection betwixt his own frail support and the heap of stones on the sward far beneath.

One long, searching gaze, and then a cry of horror burst from his lips, for the first object that met his view was the white and agonized face of Hillian Gray! Intense surprise claimed all Mrs. Estcourt's faculties for some moments. Hillian Gray here!—Hillian, whom—when he had thought of her at all—he had supposed to be safe in her own chamber, or else far away with Miss Carisforde! Great heavens! How came she in such a frightfully dangerous position?

With this question he roused himself to the necessity of rescuing her from it, and all his natural self-control returned to his aid. Flashing the lantern again across her ghastly countenance, he saw that she was unconscious of his presence—that her upturned eyes were glazed with terror, and saw him not; and he feared to speak lest he should startle her into slackening the convulsive grasp of the little hands, which he now observed to be clinging to the woodwork, at which she appeared to have grasped while falling from above.

One incautious movement on her part, and her destruction was inevitable for the ledge on which

THE OFFERING TO THE NILE.

she stood was so narrow, that it scarcely afforded foothold for the unconscious girl and the dog that crouched beside her, moaning with the pain of a broken leg. It was a desperate position, both for Hillian Gray and her would-be-deliverer, and for a few seconds he felt tempted to hurry away and endeavor to procure assistance; but the thought that during his absence her frenzied clutch might relax, nerved him to attempt her rescue unaided.

Fortunately, he still possessed the cord with which the butler had thoughtfully supplied him, and in this he made a slip knot, which he contrived to throw over the girl's head and shoulders. Then, and not till then, he spoke to her, and roused her from the stupefaction of horror into which her frightful danger had thrown her.

"Hillian!—Miss Gray! Look up! take courage! Be brave, and I can help you; but don't let go—don't stir till I bid you!"

The glazed eyes began to stare at his eager face, first vacantly, then with a light in them of returning reason.

"You know me?" he asked, eagerly.

"Yes," was the faint reply. "It is—it is Lord Carlsforde. Oh! save me!"

A rude gust of wind compelled him to draw back and take up a less hazardous post himself till it had whirled by; the dog, with a pitiful cry, slid over the ledge, and disappeared, but Noel retained his hold of the cord, and Hillian was comparatively safe. As soon as he could make himself heard, he addressed her again, and had the satisfaction of learning from her reply that hope was steadying not only her voice but her nerves, and she was able to attend to the directions he gave her.

Fortunately, she was both light and active; but for these aids to his efforts he could not have raised her by his own unassisted strength. As it was, he wound the cord firmly around his body, and then succeeded in getting hold first of one of the young girl's hands and then the other, thus gradually drawing her upwards, till she found herself breathless but unhurt on the small yet comparatively protected space on which he had taken his own stand.

Hillian Gray sank on her knees, and remained in that attitude so long, that Noel at last gently raised her. The storm seemed to be increasing again, as if gathering all its forces together for one last furious attack on the dismantled tower, which was in no condition to withstand it. Every moment they lingered where they were was but exposing themselves to be buried in its ruins, and Noel urged his companion to rouse herself and let him assist her to attempt the descent of the broken staircase.

But she was faint with exhaustion, and her limbs trembled so violently that they refused to sustain her. She murmured a feeble entreaty that Lord Carlsforde would think only of himself and leave her; yet she clung pitifully to his supporting arm, and it was evident she dreaded his obeying her injunction.

To pilot her down so perilous a descent while she was in this prostrate state would be madness, and so he half led, half carried her to Miss Carlsforde's chamber, where he thought he might be able to find a restorative in the shape of eau de Cologne or ammonia.

Hillian's eyes wandered round the room with such a bewildered look in them, that he thought it would be only kind to gently break to her the fact of Miss Carlsforde's departure.

"Do not be alarmed about your friend. She must have quitted the tower some hours since, for I am sorry to tell you that she has, in her mistaken generosity, left Carlsforde secretly. But pray do not give way to any uneasiness on her account. I will go and see Mr. Whitely before I return to London, and steps will be taken directly to discover where she has gone, and convince her that it is her duty to return."

"I do not understand," said Hillian, confusedly. "If Miss Carlsforde leaves the Park—"

"She has left it in consequence, I fear, of some thoughtless remark made by Mrs. Estcourt. These speeches appear to have preyed on the feelings of my young kinswoman, and led her to imagine that she ought to renounce her rights in my favor. When Mr. Whitely or her guardians have seen and made her understand that she is not at liberty to do this, she will be restored to you; so pray do not be unhappy; her absence is only a temporary one, and I shall ask you to make her understand that, although I cannot avail myself of her kindness, I shall always cherish a grateful recollection of it."

Hillian made no reply. Indeed, she had dropped into a chair so pale, so nerveless, that she seemed scarcely able to attend to what he was saying, and Noel reproached himself for having suffered his thoughts to dwell upon his own concerns at a time when her condition ought to be his only consideration.

In one of the essence bottles on the toilet-table he found a few drops of sal volatile, which he persuaded her to swallow, and soon had the satisfaction of seeing a tinge of color return to her lips.

Every moment that they tarried here was now so fraught with peril, that directly Hillian Gray was able to stand, Noel urged their immediate flight from the crazy building. He dared not hint to her how difficult it would be to leave it lest her terrors should revive, and render her incapable of the effort; but, speaking as cheerfully as he could, he guided her to the stair-case.

When, however, her first dismayed glance revealed its ruinous condition, she would have recoiled, if Noel's outstretched arm had not prevented it.

"Courage, Miss Gray," he exclaimed. "I would not ask you to run these risks if I did not know that we may incur greater ones by lingering here. If you will but trust to me as implicitly as you did a few minutes ago, I think I can promise to guide you safely."

"But at what danger to yourself!" she murmured. "Encumbered with a helpless girl, how can you take proper precautions? Ah! if anything befalls you, how shall I ever forgive myself?"

But Noel would not hear this. He pointed out to her how unlikely it was that the tower would stand much longer. The last gust of the blast had brought down another mass of the masonry, and loitering was a folly. At the same time, he told her in emphatic tones that he was firmly resolved not to stir without her. It depended on herself, therefore, whether they endeavored to make their way at once from their terribly insecure quarters, or waited at all hazards till the morning.

Convinced by his arguments, Hillian immediately slipped her cold hand into his. Her heart sank within her, and in her present state of fatigue she felt that it would be easier to passively meet the death that menaced her than make fresh exertions; but another life was at stake besides her own, and by an heroic effort she assumed composure, and pronounced herself ready to follow wherever he chose to lead.

How they compassed the descent of that broken staircase, Noel could hardly tell. It is true that the light feet of his companion carried her safely wherever there was a resting-place strong enough for his own; but there were gaps over which he had to lower her, and then swing himself, which looked so terrible in the darkness, that he dared not meet the piteous questioning in her looks, lest they should unman him. By slow degrees, and not without receiving many contusions from falling stones, they descended until, to his inexpressible relief, he was able to swing her across a fissure into the circular chamber by which he first entered the tower.

Here Hillian would have made a brief pause, but still Lord Carlsforde hurried her on, and having ascertained that the ladder was still there, he assisted her to climb to the casement at which it was placed. But ere she stepped through it, some impulse or presentiment of impending evil, he knew not which, induced him to draw his trembling charge into his arms.

"In case we never meet again, I will say my farewell now. God bless and make you happy always, little Hillian!"

The next instant he had lifted her through the window, and was steadying the ladder and encouraging her to descend it.

"But you will come, too," she pleaded.

"As soon as you are safe, I will follow. For Heaven's sake don't delay!"

Thus adjured, she obeyed him, sinking, almost fainting, into the arms extended to receive her as soon as she reached the ground. But she refused to let Mrs. Hurst—who had pressed forward to embrace her darling—lead her away till his lordship had joined them, and she strained her eyes to watch him as he came rapidly down the ladder.

He had scarcely taken half a dozen steps when the wind came tearing round the building, and Noel was lost to view in the clouds of dust that it brought with it.

Involuntarily the young girl he had just rescued shrank closer to her aunt, who uttered a terrified ejaculation. It was echoed by a shout from the servants, and sounds that struck fresh terror to the excited Hillian. A block of stone dislodged by the gale had struck the ladder to which Noel was clinging, breaking it in half just below where he stood, and when the dust cleared away, there was nothing to be seen but a confused heap of humanity lying motionless amidst the *debris* with which the base of the tower was surrounded.

(To be continued.)

MAGAZINES.

SUNDAY AFTERNOON for May, has the following table of contents: The Room's Width, by Elizabeth Stuart Phelps; The Kingdom of Heaven, by John Bascom; Six Stories in One, by Helen Campbell; Calvin the Sinner, VIII, IX., by Josephine R. Baker; The King's Advent, by Mary Bradley; The Humility of Positivism, by Rollo Ogden; The Mormons, II., by Thomas L. Rogers; Women's Experiments in Economy, by Julia McNair Wright; Making Out, by M. E. Bennett; The Present Standing of Political Economy, by Francis A. Walker; An Excellent Mathematician, Philosopher and Divine, by Susan D. Nickerson; Meg, by Julia C. R. Dorr; A Blessing in Disguise, by J. T. Tucker; A Curious Phenomenon of the Plains, by Alfred Terry Bacon; The Year, by Annie E. Cole; A Night on the "Bitter Lake," by David Ker; A "Neighborly Interest," by Helen E. Smith; The Still Hour, Editor's Table.—Christianizing the Churches; Some Abuses of Journalism; Strategy in Debate; the Current Crazes; Literature.

GIVE US LESS NOISOME NEWS, MESSRS. EDITORS.—Lately we have had a disgusting trial in Washington; the private relations of a base old man and a vile woman have been exposed to public view by one of the most indecent of criminal lawyers, and the newspapers, all over the country, have been printing this delectable stuff for the instruction of their readers. What interest is subserved by defiling white paper with nastiness like this? There is absolutely no justification for it; it is an offense against common decency; it is a disgrace to journalism that it trades in wares of this description and makes money by hawking filth and corruption.

Not only do our newspapers offend by the publication of the vile details of great crimes, but also by picking up and spreading abroad little scandals, little unpleasantnesses in society, little bits of gossip that no sensible or honorable person wishes to know or would suffer himself to repeat. Much of the space of many weekly papers and of not a few dailies is devoted to matters of this description. The tittle-tattle of the neighborhood that is not only silly but poisonous in the extreme is gathered and served up in as appetizing a manner as possible for the entertainment of the whole community. If a woman behaves indiscreetly, the fact, more or less embellished and sufficiently disguised to whet the appetites of the gossips, is likely to appear in print the next day.

If a man commits an error of which he is pretty sure to be ashamed, and concerning which he would be glad of the indulgent silence of his neighbors, there is no mercy for him; he will have a chance to read the record, a good deal magnified, in the local columns. Domestic infelicities with which the public has no business at all afford material for spicy items; business complications are worse complicated by unauthorized reports concerning them; little troubles in the churches which those who have the care of their interests are doing their best to compose are fanned into grave dissensions by references to them in the newspapers. Sometimes, when the details of these small scandals are not given, there are little hints and innendoes that serve to put all the prurient and meddlesome noses in the community on the scent for indecency or mischief. "The skeleton in a certain house in Ward Blank is likely to get an airing pretty soon." "There is a prospect of a row about the music in one of our churches,"—and so on. What excuse or justification can there be for the publication of such items as these? Who is profited by reading them? What interest of intelligence, of morality, of decency is promoted by spreading abroad these miserable details of gossip? The only reason for printing them is that many people like to read them; they make a sale for the papers. But the taste that craves them is a vicious and degraded taste, and the business of gratifying and stimulating such a taste is a bad business.

What is thought of the woman who goes from house to house in her neighborhood rehearsing bits of intelligence like these? What is said of the man who devotes his leisure to the circulation of the current rumors? If it is disreputable for a man to go about ringing his neighbors' door-bells and reciting to them such scandals by word of mouth it is more disreputable for him to print them in a widely-circulated newspaper. The story that a gentleman would not stoop to tell in good society, no gentleman ought to print in his paper. Meddling and mischief-making is just as reprehensible in a reporter as in any other man. The fact that such stuff makes his paper sell is a poor justification. And until the managers of newspapers learn to discriminate with a little more care between the news which the public has a right to hear and the news which is simply noisome or injurious scandal, the business of journalism will suffer a serious loss of respect and influence.—*Sunday Afternoon for May.*

For Women.

CONDUCTED BY MISS FAITH RIPLEY.

A "POSTCRIPT" TO SOME SPRING NOTES.

BY THE EDITOR.

Millinery.

IT would be hard to name the leading style or styles in the way of bonnets and hats. Broad-leaf narrow brim, no brim, flare, cottage, high crown, and low ditto, all are to be seen in endless variety. Even the poke bonnet of other days, or, as it is now called the Madame Jarley, is in the market. No two hats are precisely alike. The shapes may originally have been identical, but the trimming or a deft bending of the shape a little on this side or that has completely transformed its appearance. Every lady can suit her bonnet to the requirements of her face and the result is some very pretty and piquant styles of millinery. If only women with withered faces or high cheek bones, could be induced to wear large bonnets of dark colors, instead of making guys of themselves in dainty, little chip hats with white marabout tips and satin ribbon as trimming, the beholder would be spared many painful sights. So great is the latitude allowed this season to individual taste, that every woman can have a becoming hat, if she will only exercise some taste in the matter. Leghorn, Tuscan, chip and fancy open-work braids are most fashionable. The blended straws also come in for a goodly share of favor. Blue and gray, black and white, cardinal and straw color, black and straw are a few of the combinations in mixed straws. Ostrich tips and feathers are largely worn, as are also flowers, of every hue, and no hat is complete without the addition of a handsome ornament in crystal, crystal and gilt, crystal and silver, or gilt and steel. For shirring and pipings satin is usually employed, while the scarf may be of fancy ribbon-velvet, Breton lace, or some one of the lovely gauze or grenadine fabrics.

A large flare bonnet bent so as to fit closely to the neck was faced with black satin trimmed profusely with jet; the outside had a scarf of silk, a long black ostrich feather, and a cluster of deep flesh roses. A Leghorn with a wide brim was trimmed on the outside entirely with maize, satin ribbon, feathers and large roses, being all of this color. The front was faced with wine-color velvet. A brown and gray mixed straw hat, narrow brim, rolled up on one side, was ornamented with pipings of brown silk, two brown ostrich feathers and a small crystal star. An elegant and unique bonnet to be worn with an olive silk and *damasse* suit, was a cottage shape covered with olive silk; around the crown was a wreath of Brazilian beetles, without a blade or leaf of foliage; an ostrich tip of olive, finished the decorations. A Leghorn, Madame Jarley (or old style poke) bonnet, was a marvelous sight. With its aggressive peaked front, its long maize color ostrich feathers, large bows and cascade of tea roses, it transported one to the Sunday school concert hall, where the "original" Madame Jarley is wont to display her wares. A fine black straw hat, high crown and narrow brim, rolled a little on the left side, was trimmed with jet and pipings of satin, and a long black ostrich feather. At the left side a cluster of half a dozen half-blown bright red silk buds had a very pretty effect. A broad brim hat was edged with fancy crystal braid and had pipings of black satin, crimson roses and feathers for trimming. A novel effect was produced on a maize-color straw by a spray of grasses and exquisitely pretty hazelnuts. For street wear, the "Pinafore," a broad brim, moderately high crown, rolled on one side, promises to take the lead.

Woolens, Cambrics, Organdies and Hosiery.

The fashionable colors in woolen, and woolen and silk goods are *ecru*, peacock blue, sapphire, gray, brown, navy blue and dark garnet. This has reference solely to the *leading* shade, for all of the novelties come in *bourrette* effects. *Momie* cloths have a crape-like surface, and come in either solid colors, or in stripes with brocaded patterns. Chuddah cloth is to be had in all the newest shades. Plain French bunting, 48 inches wide, at $1, is soft and fine, and very much superior to both English and domestic manufacture. It comes in the most delicate as well as the darker shades, and promises to be extensively used in combination with silk. A line of goods—a mixture of silk and wool—has alternate stripes of silk and variegated wool. One design had a pale blue silk stripe, through the middle of which ran a fine cord of blue with a raised design in blue and brown wool, at intervals of about two inches. The alternate strip was of mixed white, blue, cardinal and maize in wool. This style comes also in many other designs, the most *distingue* of which are those in white silk, and gray and black wool. They are 48 inches wide and cost $2 per yard. Soft gray and wood color cloths with brocaded silk stripes in mixed colors, cardinal usually being the leading shade, cost $1.62; width, 24 inches. Pin checks are much worn. In blue with checks of white silk, they make charming costumes for little folks. The tendency to raised designs, which give the goods the appearance of being "tufted" at irregular intervals with bits of bright worsted, is very marked. A mixed white silk grenadine and wool of shaded pale and dark-gray, is simply exquisite. It is composed of alternating stripes; the shaded gray stripe giving the fabric a unique effect. In less pronounced goods there is a great variety, stripes and checks are the principal designs, and gray, wood, *ecru*, are the prevailing colors. Cashmeres are to be had in all the novel as well as the old colors, and the moderate price at which they are offered, combined with their serviceableness, make them a most excellent investment. Many will be glad to meet an old-time favorite in the all-wool *mousselines*, they being, in fact, nothing else than all-wool delaines. They are manufactured in sapphire violet, blue, lavender and in darker colors. An all-wool *mousseline* Princess wrapper in pale blue, made with Watteau plait, and ornamented with satin bows and pretty lace, is a most dainty morning costume for cool days.

Cambrics come in chintz colors and designs with borders and without. English cambric, a more closely and heavier article, is also shown; prices range from 25 to 30 cents. Some lovely Scotch ginghams are shown; large plaids and gay, small figures, on well-covered ground, being leading varieties. Lattice Stripe, something new both in design and material, is so delightfully pretty, that to see it, is to be ensnared into buying it. Imagine something between a cambric and a muslin, white ground, with open-work stripe about an inch wide, the spaces between the lattice stripe being covered with a fine, black vine, and small, purple flowers. They come in some half-a-dozen different designs, and cost from 12½ to 20 cents a yard. English jaconet, a fabric heavier than muslin and a little lighter than cambric, is shown in numberless pretty Chinese patterns. Cost 20 cents per yard.

Linen lawns present the same features that have distinguished them in past seasons, having escaped the bourette effect mania. They come in one or at most two delicate shades and a fine vine or leaf or spray is the design usually shown. They range in price from 10 to 20 cents a yard; the price being determined by the fineness of the material. Organdies are quite as beautiful as ever, but no very new or striking effects are shown in them. Price, 25 to 40 cents.

Momie cloth, satinet and cotilline are the latest novelties in washable materials. The *momie* cloth presents a crinkled surface closely resembling crape. Satinet has a glossy, satin-like surface, which is guaranteed to successfully withstand laundrying. Cotilline is traversed by fine reps of coarser texture, and is covered with fine leaves and flowers. In these goods—*momie*, satinet and cotilline—the figures are small, the ground well covered, and either plaided, striped or mottled. They are nearly a yard wide and cost from 35 to 45 cents per yard.

The display of hosiery is something calculated to delight the soul of the artist in color. More and more is it becoming the custom for ladies to clothe their feet elegantly, and the effect of this tendency has been to stimulate the manufacture of beautiful designs in stockings. The Idlewild Stripe is in lisle thread and composed of alternate stripes of white, black and red. Cost $1 75 per pair. Plain grounds with polka-dots in silk come in all colors at $2 per pair. Madras Cluster is thin and elastic and the rib stripe gives it a showy and pretty effect; price, $1 to $2 per pair. Perforated hosiery in pink and blue, for evening wear, cost $1. They are so sheer that the skin can be plainly distinguished through the open-work. Black spun silks are offered for $1. Unbleached, beautifully embroidered in silk floss, designed to be worn with low shoes, come at $1 50. Mourning stockings in great variety; blacks, purples and grays are sold at from $1 to $3 per pair. Cotton hosiery, in all colors and patterns, cost from 50c. to $1 25 per pair. Balbriggans, excellent quality with clocks, 25 to 50 cents. In children's stockings there is a very great variety. All possible combinations of color are used, but in design they are usually "mottled" and striped with embroidered fronts. In price they range from 25c. to $1 25. Ordinary white and unbleached stockings can be purchased if desired, but very few in these days invest in such unpretentious hosiery.

Silks, Damasses, Foulards.

To own at least one black silk, is the ambition of every woman, and as many of us as can accomplish it, are sure to possess one for church, and a second rather longer and finished with more elaborateness for semi-dress occasions. Every wife should insist on a black silk as a *right*, and neither sullenness, ridicule nor a point-blank refusal on part of the chancellor of the family exchequer, should make her waver in her fixed determination to own a gown of this most desirable material. The prices at which it is offered are too tempting to be resisted. Think of it, those of you who have

had to pay $2 50, $3 and $4 for only a fairly good quality of silk, $1 25 will buy a rich looking, closely woven silk, 21 inches wide, with a pretty lustre. For $1 50 a richly corded silk, 23 inches wide, is procurable, and an investment of $1 75 secures for one an elegant quality of silk. The more expensive grades, $2, $3, $4 and $5, are superior to anything ever before offered. That at $5 equalling in weight and finish what has heretofore cost $7 and $8. A word of caution. The competition is so sharp and the facilities for weighting silks with poisonous dyes are so perfect, that many unscrupulous manufacturers do not hesitate to avail themselves of any and all means to produce *cheap* silks, leaving out every other consideration, and the result is, there are many lines of these goods in the market which are not worth making up. It is well to be familiar with the names of some of the reputable manufacturers. Goods from the looms of any of the following makers can be relied on to give complete satisfaction: *Bonnet, Ponson, Tapissier, Guinnet, Giraud & Co.*

Three lines of silks that seem to me to be especially adapted to those who want rich looking and durable dresses, are the Pride of France, manufactured by *Guinnet*, the American Cashmere Indestructible, and *Giraud & Co.'s L. & T.* Family Silk. The prices range from $1 50 to $5 per yard, being graded according to quality and finish. No mere description of a fabric, however realistic and elaborate, can convey a correct impression of it; to say of a silk that it is rich, or elegant, or heavy, gives one at best but an indefinite idea of it, and those who contemplate purchasing should not omit to supply themselves with samples of standard grades.

In plain colored silks the leading tints are named after the precious stones, Sapphire, garnet, pearl, emerald, amethyst, mosaic, turquoise, and cameo. The idea is a pretty one and the high finish of the silks with their lustre, and sheen reminding one of the lights and shades of the jewels makes the simile not unapt. Peacock blue, peacock green, and some eight shades of cameo—ranging from the most delicate wheat color to almost a brown—are the most pronounced novelties. The prices range from $1.25 to $3.00. For combination with plain silks there come great variety of fancy *damasses*, Pekin stripes, satins &c. Striped fabrics are extensively worn to give tone and style to plain goods. Vestings, cuffs, *tabliers* and broad folds of these showy materials appear on all fashionable costumes. Some of the combinations in satin are navy blue and gold, wine and gold, green and gold, gray and gold, black and gold, brown and gold and black and white. There are satin and watered stripes, satin and *moire* and satin and raised stripes. These come in navy blue and cream, cream and wine, *paon* and green *paon* and blue and in all other possible combinations. The satin and Ratdzmire stripe is a most beautiful fabric. No more elegant costume could be devised than one of cameo silk and satin and Ratdzmire stripe either the same color, or of garnet or some other contrasting shade.

The *damasses* and corduroy stripe, at from $1.75, the raised and narrow satin and gros-grain Pekin stripe, at from $1.75 to $3.50 are also very elegant goods.

In *damasses*, combination of old gold and garnet, gray and blue, gold and olive, and peacock blue on a plum ground are shown. Both in variety of design and of combination, the *damasses* offered this season are superior to any goods ever before put on the market. The samples of black shown me were marvellously beautiful. The designs were as artistic and exquisite as any intended to be developed in water colors or oil.

The highly finished satin surface displays to excellent advantage the raised designs, the effect in some lights being that of embroidered patterns on velvet foundation; in others, velvet embossing on satin. Instead of the small, closely figured designs heretofore so much in vogue, in these newer *damasses* long, graceful ferns, and exquisite, rare, hot-house favorites, are used. Flower, leaf, stem, vine, whatever is attempted is portrayed with amazing fidelity.

Foulard, that favorite of other days, has again come to the front. It will be used mainly for the seaside, house-dresses, and for vestings. Very few street costumes are made of foulard throughout. They come in navy blue, garnet, plum, dark-green, satin face with polka dots, at $1.50 per yard. The foulard stripes for trimming, (a novelty) are in blue and white, cream and gold, blue and gold, and in other combinations; price $1.50 per yard. In summer silks, are the *Jaspe*, ehlutz, *chene* and *Jaspe*, and quadrille effects. There is a great assortment of fabrics of this class, and those who recall the dreary, characterless summer silk of other seasons, cannot but be thankful for what the artist and manufacturer have done in the way of improving these goods. The most diverse and seemingly utterly irreconcible colors are so blended and shaded, and so skillfully introduced, that the beholder is conscious only of most delightful effects. Lying before me is a sample of what I consider the most charming summer silk I ever saw. The colors are plum, sapphire, white, cardinal, and gold; the pattern is quadrille,—but what idea of the beauty of the fabric is communicated by such a bald statement?

This display of novel and beautiful products is pleasing not only as a spectacle, but it is also gratifying as an evidence of improved taste on the part of purchasers. Now, that Fashion has called in the aid of Art, there is no need to fear a repetition of the glaring inconsistencies in color which have offended the eye of taste in past seasons. Every year witnesses an advance in good taste and refinement in dress, and it is not too much to hope that in a little while the purchaser will fitly supplement the work of designer and manufacturer, by evincing as keen a perception of the truly artistic in modelling and embellishing the dress, as is shown in the preparation of the material.

For a view of the very many useful and beautiful fabrics and articles mentioned in this review, I am indebted to Messrs. Lord & Taylor, of Broadway and Twentieth St., New Yotk,

EDITORAL ANNOUNCEMENT.

THE "Correspondents Corner." is crowded out this week.

In response to three or four requests for a model of a garment suitable for an elderly lady I will publish in our next issue cuts of three dresses, two of which can be adapted to ladies of almost any age and the third is essentially an old ladies' gown. I give the three because it is'nt quite clear to me how old an "elderly lady" is. A young lady has petioned me to show her a stylish model for a costume to be worn at a full-dress wedding reception and her reasonable request will be gratified next week.

If the lady who wrote asking for cuts of patterns suitable for washable materials, will send me her name and address, I will forward some illustrations. I cannot offer to furnish them in RURAL, as we have had so much fashionable intelligence lately. If the correspondent can wait until about the 1st of June, I can promise the illustrations about that date.

THE OFFERING TO THE NILE.

OUR engraving on page 285, illustrates the sacrificial rite practiced annually to propitiate the God of the Nile. In earlier ages a young and attractive girl was selected garlanded with flowers, and at a given signal consigned to the cruel waters, but latterly an effigy is made to do service instead of a girl. Whether or not His Spiritual Excellency of the Nile is cognizant of the deception practised on him, is not recorded. The inundations however continue much the same as when humans were the victims.

THE WOMAN'S CLUB.

THE TRUE SERVING OF GOD DOES NOT CONSIST IN BUILDING COSTLY CHURCHES.

HELIOTROPE calls on me to bear in mind the "Widow's Mite" and the jewels the daughters of Jerusalem contributed to the building of Solomon's Temple. I do not find it recorded that the "treasury" into which the first named cast her all was disbursing funds for the erection of a synagogue, and before my statement about Christ's having set us an example in being content with "upper rooms" can be disproved, Heliotrope must be prepared to state postively that money was being collected for some such purpose. If she cannot, the reference to the Widow's Mite proves nothing at all in this controversy. If the ladies of Jerusalem chose to give their jewels, for the beautification of the Temple, they were giving what was necessary neither to their happiness nor their well-being and no one could object to their so doing. My argument in the communication to which Heliotrope took exception, was directed against encouraging and commanding people to deprive themselves of necessities to help defray the cost of expensive churches. The system of religion which enjoins the "ornament of a meek and quiet spirit" as preferable to costly apparel can hardly be made to countenance the building of churches out of the sufferings and privations of the poor and (as not infrequently happens) by fraudulent representations. If a woman should spend all her substance on "Sunday clothes," and claim that she was serving and honoring God by appearing in His house handsomely attired, would we be at all blinded by her statement? Would we not know that vanity or a love of beautiful clothes and not a desire to honor God was the main spring of her course of action? And to apply the same test to churches are we serving God or simply gratifying our own pride or delight in sumptuous surroundings when we call to our aid all that art can devise and money command to embellish the sanctuary?

I'm at a loss in what spirit to take Heliotrope's statement that "the good Father will not let her (the sewing girl) want because she denied herself to help along His cause." That she means it seriously is evident, but that any one who has had the least experience in the life that surges around us, can make a statement so utterly opposed to fact is certainly amazing. If there is one lesson which is being constantly impressed on our attention, it is, that there are no providences in matters of worldly advancement. It is not the godly man, the one who gives his all to the Master, but the man of talent, enterprise and industry who secures wealth and achieves distinction. He may also be a holy man, but that element contributes not at all to his success. The woman who inherits, marries or makes a competency is "provided for" whether she is religious or not, while her poor sister who through lack of energy or opportunity has never succeeded in saving money, ends her life as a public burden though she has served God from her youth.

Our hospitals and poor houses are filled with those who have lived near to God, and who have sacrificed much for the Master. Not infrequently godly people have absolutely starved to death. How would Heliotrope like to be thus "provided for?" There is no truer saying than that "The Lord helps those who help themselves." If one is willing to sacrifice health, strength and money for the cause of Christ, his reward will consist in the consciousness of well-doing, and not in the possession of comforts or money acquired through Divine interposition. The Lord will most certainly not work miracles in finance for the benefit of good people. "What ye sow that also shall ye reap." The seeds which produce material comforts and worldly prosperity are, as I said before, talent, industry and energy; they may be accompanied by the highest spiritual excellence, but quite as often they are not.

Personally, I admire beautiful church edifices, and think them in keeping with our advance in civilization and refinement. The exquisite appointments and charming artistic effects, minister to our love of the beautiful and cannot fail to refine us; but I do object most strenuously to its being insisted on that it is a matter of *duty* to adorn the church, and that we are *serving Christ* by subscribing money toward buying a carpet for the altar steps. Ladies will neglect their family duties for weeks, and work themselves sick preparing for a fair, the proceeds of which are to be devoted to paying for a new organ, all the while deluding themselves with the idea that they are working in the service of the Lord.

Probably Archbishop Purcell was possessed by the same idea, when he furthered (?) the cause of Christ by building churches and theological schools out of the funds entrusted to him, thereby reducing thousands of worthy people to pinching want.

Be honest in the matter. We want a fine church, not because we can worship better in it, nor because we have reason to believe we are doing God's will by building it, but it will gratify our pride or our taste for elegance and beauty to worship in a handsome edifice. JACQUELINA.

TEMPERANCE; CHURCH BUILDING; CHURCH ATTENDANCE. ROUGE FOR THE LADIES.

"A GLASS of sherry wine added just before serving is a great improvement," "is part of a recipe clipped from a leading paper. It may be an improvement, but I venture to affirm, it is a dangerous one. I am glad the RURAL does not publish such recipes, and I wonder how mother's can prepare food from them and serve it to their sons, with no fear of the consequences. How can they make wine and beer, and giving it to their sons and daughters and claim that "it is perfectly harmless" contending, perhaps, the while for Prohibition? Our young men and (I may safely add) young women are not safe; though, every saloon should be closed, throughout the length and breadth of our land, until wine and liquors are swept from every table and side-board. It is woman's work to do this, and when we have accomplished it, "the axe" will strike the root of the evil, "and we may cry Prohibition," with bright hopes of success.

I wish somebody could give us the history of the "church edifice" that the sewing girl contributed "quite liberally" for. All churches are not "artistically frescoed," nor do they all have "costly altar-pieces." I remember the self-denying efforts, made a few years ago, in a Western town, to build a plain church structure; and more than one "Widow's Mite" was cast into the "treasury" before the work was completed, with nothing indispensable. A young lady was censured for contributing more than her friends thought expedient, but she is far above want to-day, and I would say to those who hesitate to give, through pecuniary fears, "Wherefore, if God so clothe the grass of the field which to-day is, and to morrow is cast into the oven, shall He not much more clothe you, O ye of little faith?" I think with Sarah—many are "hindered from attending" church, yet I think the fine churches and rich dresses would hardly keep them away if they were made to feel, they were welcomed. Have we no responsibility in the matter? I once heard the remark, "I never go to that church, they're too stuck-up to suit me." I remembered I had heard similar remarks from others in reference to the same church. Soon after a new church was organized, when a good number entered the poorer fold, that might have been gathered into the richer one. A kindly word, a pleasant smile, would cost us nothing, yet would be of value to our poorer sisters, and they would forget their plain dresses and be made to feel at home though their surroundings were beautiful and costly. Now, my dear Washtenaw, as far as I have had experience, "happy families" are much more desirable than "fighting" ones; consequently I think as Dr. Watts does, about "children of one family," yet I think you are decidedly wrong when you say "women are justified in using powder or rouge." I cannot see how it will "add to their attractiveness." Lady Maude said she had done nothing but her duty (in "Weaker than a Woman") when asked what she had "done to win such a royal dowry of blessing from young and old, rich and poor?" "It is the little deed of love, the little act of kindness" unselfishly bestowed, that makes up a beautiful life, and the lady is most attractive who has the greatest charms of mind and heart.

I am encroaching, yet if criticising the gentlemen, is in order, I would like to express my high appreciation of Professor W. J. Beal's letters on "Country School-houses." Education, &c. I have been much interested in them, as every country woman, (and man, too,) should be—they certainly ought to be heeded, and I hope will do much good. BITTER SWEET.

A TALK ABOUT DISH-WASHING.

THERE seems to be a low murmur of dissatisfaction, like the rumbling of distant thunder, heard from the numerous wives and daughters of farmers, because there are so many dishes to wash, and only one way to perform the, to them, disagreeable task. In large establishments like penitentiaries, and reform schools, the dishes are washed by steam, but such an appartus cannot be kept in every house. Occasionally we read of a machine being invented which does the work well, but for some unknown reason, it does not exhibit itself in hardware stores, and agents fail to bring it to our doors. So we conclude the invention is a failure. We might apply to Edison, his genius would doubtless soon supply the kitchen with the desirable article, but most likely it would be like some of the patent churns in that it would require as much time and labor to cleanse the machinery, as to wash the dishes in the old way.

But why need we complain so bitterly of washing dishes three times a day? How much better off would each housewife be, provided the dish-washing could be dispensed with. In nine cases out of ten, there would be no higher culture, no greater advancement in morality no more physical strength acquired. Instead, there would be a great deal more gossip retailed, and scandal would be rife throughout the length and breadth of our land, to such an extent, that true friendship would be unknown. Families would be still more frequently broken up by harsh words, and petty quarrels caused by jealousies; and the courts of justice would find longer lists of divorce cases to be tried.

As it is the custom of all civilized people to use dishes, at meal times, it behooves us as housekeepers to be thankful if we have an abundance of pretty china-ware. To complain because we must with our own hands, make it clean after using, seems a sin. Mothers often teach their little daughters to do fancy work, such as embroidery, drawing or music, that they may please papa and their friends, with some of their artistic work. The child is eager to learn because she likes to do what she sees her mother do, with seeming pleasure. Now if she never heard mamma complain of those dreadful dishes and was allowed to work with her at the kitchen table, and taught to do the work in the neatest and best manner because *this* work was just as much of an *accomplishment*, and added even more to the comfort and happiness of the family, than a pair of handsome slippers, a beautiful drawing, or a brilliant rug with impossible cats and dogs, that have occupied months of time, there would be less complaining, by the future housekeeper, at least.

Occasionally one repines because she has no time for intellectual pursuits. Just to think of all the best part of one's life being spent in washing dishes for a half a dozen persons—more or less. "It is too great a sacrifice;" says one. It is a great pity that those who have a gift for higher work, provided there is any—"higher work"—could not find it out before they take upon themselves wifely duties and family cares. But let us see about this sacrifice of time, for whom do we wash the dishes? For husbands, fathers, mothers, brothers and sisters, and they in return are working for us. In most cases doing all in their power, to make our lives comparatively happy. Would we consider it a sacrifice of time and talents to wait upon any one of them during a long and severe illness, even until our physical strength was completely exhausted? or would we consider it a sacrifice if we were required to give up life itself to save the family from destruction. Now when we wash dishes, we are adding to the comfort of our loved ones just as much as though we were nursing them through a long and tedious illness. And we have besides their society, and know that they are able to converse, with us, advise us when we need counsel, and cheer us when we are inclined to despondency.

Washing dishes is undoubtedly woman's work, and I have no doubt Mother Eve clapped her hands for joy when she found she could occupy a part of her time in washing the dishes, which I imagine she found in quaint patterns just outside of the Garden of Eden.

Even in these days of inventions and progress, Eve's daughters must follow the old, old occupation, though it does take the time we would like to spend in intellectual culture. But if we are exceedingly anxious to cultivate our minds or to develop certain God-given talents we can dispense with something less than the prescribed number of changes in a fashionable wardrobe and with several yards less of trimming to each suit, and thus gain quite an item of time for home culture. MAY MAPLE.

LIGHT ON THE SUFFRAGE QUESTION.

A SAPIENT local editor of an adjoining town has brought the closing argument against woman suffrage, in reviewing, and with a certain cautious reserve, praising a lecture of Susan B. Anthony's on the subject of the ballot, he says, "*but* in spite of her arguments there yet remains, besides the bearing of arms, *the mending of the highways*, rather an unfeminine accomplishment, but always associated in the public mind's eye with the qualifications of an elector." Miss Anthony might better, after this, stay at home and call her mission a failure, if the majority of her audiences are to be men of such calibre.

However, in the village where this same editor resides, not one of the lawyers, doctors, merchants, bankers or editors, were ever known to injure their spines, or take the starch out of their collars, by working on the roads; and it would be as surprising a sight to see one of that class holding a scraper, or taking the stones out of the highway with a hoe, as it would be to see the milliners and dressmakers of the same place engaged in the business; although every woman owning property there is promptly called on to pay her tax for the repair of those same highways. The work is let out by contract to individuals, who hire such assistance as they need, and the work is done much more efficiently than any lily-handed clerk or dignified editor could do it if he were inclined. And when men, who on other subjects are counted candid and intelligent, are capable of using such arguments against women, there is something warped about their judgments and sense of fair play. It is what we call the "Old Adam" cropping out with stately hypocrisy, trying to make out a case where there is none. It is the same sentiment, manifested in a less straightforward way, that I heard a man express a few years ago, a man who had a wife and grown-up daughters, who said "he hoped he never should have to go to the polls with a woman or a nigger."

Fortunately for human progress people are not all alike, and there are many fair-minded men who do not feel as if they lost any masculine dignity by owning that taxation without representation is just as wrong in principle where women are the sufferers, as if they themselves were concerned. There are many, too, who freely admit that women ought to vote on the temperance question, because it so closely affects their welfare; and it looks as if the time were not far distant when men who have survived the indignity of going to the polls with the despised colored man, will have to endure the presence of a woman there also. B. C. P.

Domestic Economy.

CONDUCTED BY EMILY MAPLE.

PEN THOUGHTS FROM EVERY-DAY HOUSE.

ANNIE L. JACK.

Fruit in Spring.

"PLEASE, more beets!" It is the cry of the little ones these days, when the stomach claims something as a blood purifier, and it is always best to keep on hand a store of sound onions, carrots, beets and celery for spring use. I think every mother has noticed, at this season of the year, how the children of her household are subject to slight billious attacks, how a small cut is hard to heal, and pimples abound. There are not, at least in this climate, the usual facilities for exercise and ventilation, hence these small disorders appear on the surface of the body. Apples in New York are cheap; it is surprising to read the markets and see that a barrel can be bought for two dollars. It is wisdom for every household to use this nutritious fruit as freely as bread, and while pleasanter to take than drugs, the constaut use of apples by children is often a preventive of doctors' bills.

Fruits, raw or cooked, contain sugar in large proportion and possess those very necessary ingredieuts in the structure of the body—phosphorus and sulphur. So, it is plain to be seen that the child who has access to the apple barrel will not need so much the "brimstone and treacle," or other blood purifier that was once deemed necessary every spring. Of all fruits the apple is most easily digested when properly masticated, and the person who for his supper partakes of bread and baked apples, will furnish more healthy nutriment to his system thau if he had chosen broiled steak. The use of all kinds of fruit is conceded as valuable in their action on the blood, in scrofulous and scorbutic habits, and it is to be hoped the day is past when a farmer's home will be considered complete without its wealth of fruit, more valuable than gold.

HINTS FOR THE HOUSEKEEPER.

MARY BEAL MC'LOUTH.

WHEN "Harvest apples" are two-thirds grown, and before the seeds ripen, cut them up and core. Cook with the skin on a few minutes, over a quick fire. We consider this a rich treat.

Fruit of any kind has a much better flavor if the sugar be added before cooking it. Small fruits are good dried, if sugar is added and the fruit scalded; then skim out the berries, boil the liquor down and pour over. Soak a half hour in cold water before cooking for the table.

You can make of an old candle mold a punch for taking out the cores of apples for baking. File it in two in the middle and sharpen the small end of the upper half.

Graham flour must be kept bug-tight, or, before you are aware, it will be full of webs and worms. A butter tub is very safe and convenient to store it in. Have a tight-fitting cover, hoops tacked on and the outside painted.

Have a tin pail made with a cover to keep your bread in. The diameter should be the same as that of your bread-tins; the same size at top as at the bottom, and sixteen inches high. It can stand on the floor in the pantry, and so save many steps down cellar. Bread and cake will keep moist, and do not mold as soon as they would in stone.

Gem irons should be greased and smoking hot when bread, biscuit or cake dough is put in.

We, as a family, prefer cracked wheat to oatmeal. Sift, and put the coarest over the fire in a large amount of cold water. Cook two hours, salt, and stir in the remainder. Do not make it as thick as meal mush. Eat warm with sugar, or if cold, a sirup made of sugar. Mush of any kind is nicest taken out in bowls, and covered with a plate to prevent the surface from getting dry.

Buttermilk is best, and sour milk the next best for freshening beef, pork or fish, and will preserve beef for several hours. I soak salt fish eighteen hours in buttermilk, with perhaps one quart of water; change every six hours; then rinse, dip in flour and fry in as little grease as possible, until well cooked through and very brown. Many cooks swim fish in grease, and do not cook long enough. Better put in a little more pork gravy or suet when half done than so much at first. In freshening, always put the skin side up so the salt can have a chance to settle to the bottom of the dish.

If you have beef, either fresh or corned, that is tainted, soak the same as fish, boil an hour or so, throw away the water and put in fresh to finish. When it comes to the table, you will be surprised that so good a dish was made out of such poor material.

Always pour water over potatoes before paring them. It's so much cleaner, and will save paring them the second time.

From now until time for new potatoes—unless your potatoes are very mealy when cooked—draw off the water, dry thoroughly, running a fork through them to let the moisture pass off, sprinkle over them a little salt, pour over some rich cream, and let come to a boil.

To prepare raisins for cake, chop in a wooden bowl, with a chopping knife.

Cotton flannel is nice for iron-holders. Cut them *round*, and save burnt corners.

Pour the water out and set the tea-kettle where it will freeze. The lime will crumble off.

Have a hole bored through one end of the molding board, so it can be hung up. Always use the same side and have the other side painted.

Paint the outside of the butter bowl; I think its a preventive against its checking.

Quicksilver mixed with white of an egg and applied with a feather to every crack and crevice in a bedstead, will kill bed-bugs. If you are moving into an old house, put some around the mop-boards and in the cracks of the room and under the edges of the paper, if there be any loose. You'll never see any more of the pests unless they come from some other place.

Burn or bury, in some deep, secluded place, those old boots and shoes, and don't have the the back yard filled with an unsightly "mess" of rubbish. Take the old tin-ware to the creek, if you can't get rid of it any other way.

Study how to economise time and labor, consider *once*, how many steps you take getting breakfast, and see if you can't do the same work with less labor to-morrow.

When leaving a room always wait, and ascertain if there is any article which you ought to take with you.

A WORD TO MOTHERS.

WE all know that the early spring weather is trying to the health, and that children particularly need watching over, to protect them against colds, sore throat, etc. Imperfectly ventilated school-rooms and unsuitable clothing, are fruitful causes of sickness among the little ones. The mother may not be able to control the former trouble, but she can the latter. Many mothers think they are doing their children justice, by sitting at the sewing machine hour after hour, making ruffllings and plaitings as numerous as useless. Sometimes they keep on stitching until they become so weary and nervous as to speak impatiently to the children they are toiling for. Would it not be better to think less of ornamentation and more of comfort? Garments ought always to be neatly made, and if convenient, trimmed to a reasonable extent. The matter of elaborate trimming is often overdone, with no better motive than a desire to excel. The writer has seen little girls that tottered under a weight of velvet and ermine, yet they actually shivered with cold. Surely, it was not the lack of clothing, but the unequal way in which it was distributed that made them uncomfortable. The furs kept the head and throat unnaturally warm. The sensitive feet and limbs which needed the most warmth, were barely protected by the thin stockings and fine kid shoes. If the little girls so dressed live to reach womanhood, the delicacy of their health is wondered at. If they die early, there is a great deal of talk about "mysterious Providence." It is important in the dress of little children, and girls in particular, that the weight of their clothing should be supported by the shoulders; that the entire dress should be loose about the waist, and the limbs and feet so protected as to be always warm and dry.

M. G. R.

Lyons, Iowa.

DOMESTIC RECIPES.

Mint Sauce.

CHOP up enough fresh mint to half fill a teacup; add a tablespoonful of moist sugar, two-thirds of a teacupful of vinegar and half a teacupful of water. Let the whole stand a few hours, that the flavor of mint may get into the vinegar.

MRS. KATE BRADY.

Butter Sauce for Boiled Fish

Beat one cupful of butter to a cream with a tablespoonful, not heaped, of flour and a small teaspoonful of salt. One must judge, however, of the quantity of salt by the freshness or saltness of the butter. Chop two hard-boiled eggs into dice and put into the sauce-tureen. Just before taking up the fish, pour a cupful of *boiling* water over the creamed butter and flour, and stir over the fire until it thickens. Let it boil up and turn at once over the eggs in the tureen. Stir together and send to the table.

MARY B.

Baked Shad.

Stuff with a dressing of bread crumbs, seasoned with butter, pepper and salt, and wet with milk; sew up carefully, lay in a dripping pan, and pour over a cupful of hot water; cover and bake one hour, basting in the meanwhile with butter and water. When done, take off the cover and brown; add the juice of a lemon to the gravy, and thicken with a spoonful of browned flour. Garnish the fish with thin slices of lemon.

MRS. GARDNER.

Maple-Sugar Sauce.

Shave off half a pint of sugar; add a small teacupful of water and let simmer; add three tablespoonfuls of butter, mixed with a small teaspoonful of flour; grate in a little nutmeg, boil for a few minutes, and serve with puddings, waffles, etc.

VERMONT GIRL.

QUESTIONS ANSWERED.

Crisped Crackers.

Mrs. L. McCurdy wishes to know how crisped crackers are made.

ANS.—Split butter crackers in half with a sharp knife; butter and place on tins in a *quick* oven to brown. They are very nice served with coffee and fruit for dessert, or for luncheon with coffee and cheese.

Canning of Fruits, Corn and Okra.

New Beginner asks how to dry and can blackberries and other fruits. Also, how to can corn and okra, and which kind of cans to use, glass or tin.

ANS.—TO DRY BLACKBERRIES: They may either be spread in shallow boxes and covered with mosquito netting, to prevent flies reaching them, and left to dry in the sun and wind, protecting from rains and dew; or, to ten pounds of berries allow one pound of sugar, and enough water to just dissolve the sugar; put over a slow fire and scald; dip out the berries onto earthen-ware dishes, and boil down the juice, when a few spoonfuls may be added to each dish. We prefer to dry them prepared in this way in the oven and on the back of the stove.

TO CAN BLACKBERRIES, &c.: For preserving fruits of all kinds, we think glass jars preferable to tin, and those jars with a glass top, rubber band and a screw-ring have given with us, the best satisfaction. Fill the cans with perfect fruit, sprinkled with sugar in the proportion of one-half pound of sugar to a pound of berries; lay the glass covers on and place on straw or broken plates in a wash-boiler of luke-warm water. The water should come within an inch or two of the tops of the cans. Let come to a boil, note the time and boil twenty minutes. Draw to the back of the stove; take out the cans and if the berries be not covered with their own juice, pour in a little diluted sirup of sugar and water to fill them to the very rim; wipe the top of the can perfectly dry, put the rubber in place and screw on the ring as tightly as possible. Screw down again and again as the cans cool, causing contraction of the glass. Some prefer to cook their fruit in a porcelain kettle with sugar added in the proportion of one-fourth or one-half pound to a pound of fruit. There are several ways for preparing glass cans for hot fruit. The jars may be filled with cold water and gradually heated or placed empty in a cool oven and in that way heated. Again, many are successful and never break or crack a jar, by simply placing it on a towel wrung out of cold water and wrapped closely about, so as to exclude the air. Place a silver spoon inside and fill.

TO CAN CORN.: Cut the corn from the cob when not too old; fill tin cans and seal up by soldering on the lid; punch a small hole in the lid and place in a large pan of boiling water, which should come almost to the top of the can. Boil in this bath one-half hour, or until the steam escapes freely from the aperture. Take out and seal up with a drop of solder. Return to the hot water and boil from three to four hours. When cool, if the canning has been perfect, the ends of the can will be slightly concave.

OKRA: We have never seen or heard of its being canned, but know of no reason why it could not, as well as asparagus, beans, peas, etc.

THE HAGERSTOWN (Md) AGRICULTURAL IMPLEMENT MANUFACTURING COMPANY, are the only manufacturers of a Horse Rake with a locust hub and twenty steel teeth. They also manufacture a Grain-Seed and Fertilizing Drill, and a new "Victor" Double Clover Huller. See new advertisement in this issue.

In Murray & Lanman's Florida Water the most debilitated and nervous can find relief. Used freely in the water of the bath, its effect is almost marvelous, so strengthening and bracing, and withal so exquisitely agreeable.

The vigor of youth given to the aged and infirm by using Hop Bitters. Try it.

THE MARKETS.

PRODUCE AND PROVISIONS.

NEW YORK, Saturday, April 26th, 1879.

BEANS AND PEAS.—The demand for medium beans has the tameness of spring; selected most saleable. Business in marrows is steady enough to support late figures. White kidney a shade easier; reds have again advanced. Pea beans nominal. Green peas $1 70 steady, with light receipts looked for. Southern B, E, peas, $2 50@2 55 per 2 bushel bag; Canadian, in bulk and bond, 75c. Medium beans, choice, $1 30@1 32½; fair to good, $1 15@1 25. Marrow, prime, free on vessels, $1 40; fair to good, $1 20@1 35; pea, $1 20@1 35; white kidney $1 35@1 55; red, $2 80@3 00; black, $2 15@2 25. California Lima, $4@4 25.

Receipts for week, beans, 6,816 bush.; exports, 410 bbls.; do. peas, 1,547 bush.

BROOM CORN.—Most of the offerings are of low grades; the stock is at firm prices.

Brush and short broom, choice, ₰ ℔., 5½@6½c; do. common to good, 4½@5½c.; hurl, good to choice, 3½@4½c; do., common to fair, 3@3½c.; red and crooked, 2@3c.

BUTTER.—The movement in new is quicker and steadier as quality is more in consumers' favor. Sellers dare not trifle with prices as spring weather seems to be set, and accumulation mean loss. Supplies have sold out quite clean; sales for near-by outside use adding to local wants. With better lines of State tubs and fresh Western dairy, creamery butter has dropped comparatively close to selections of other styles. No dealers express faith in better entry prices than the present ruling ones. Old has merely its former position of catch trade. Purchasers mark low for fair or season-worn grades, and are usually met by holders. Orange Co. pails will lead best demand for a time. They formerly ruled the summer, but creameries have dethroned them.

OLD BUTTER ranges at 7@12c. for State, Welsh tubs, half tubs and firkins; creamery, 10@11c.; Western June firkins, 7½@8½c.; poor to fair factory, 5@6c.; grease, 3@4½c.

NEW BUTTER.—State pails and half tubs, choice, 16c.; good to prime, 14@15c.; fair to good, 12@13c.; Welsh tubs, choice, 15c.; good to prime, 12@14c.; fair to good, 13@14c.; poor to fair, 8@11c.; State creamery, best invoices, 19c.; good to prime, 15@18c.; Western, best invoices, 18@19c.; fair to prime, 16@17c.; imitation creamery, 12@15c.; Western, dairy, fair to best, 12@13c.; factory, 9@13c.; common, 6@8c.

CHEESE.—Shipments for the week, 1°,3'9 boxes. The stock is working down slowly, but yet there is every prospect of the old supplies being well closed out within a fortnight, and the market will be in a position to receive the new make. Prices are easy, but no very sharp changes occur.

Quoted at 7½@8c. for fine lots; 6@7c. for good; 5@6c. for fair; 3@5c. for skimmed; 3½@5½c. for half skimmed. Wisconsin factory, fine, at 7c; do. good to prime, at 6@7c.; Western factory, fine 7c.; good and prime, 5@6c.; do. full skimmed, 2@3½c.; do. half skimmed, at 2@4½c.

Receipts for week, 6,850 boxes.

Liverpool cable, 49s.

Steam, 25@27s. 6d.

COTTON—Has, with frequent fluctuations, reached a higher basis, with much the same line of influence referred to latterly in the general statistical position, and the fear that the new crop will be affected by the exodus of laborers to the West. Closing prices are for April, 11.73@11.74c.; May, 11.74@11.75c.; June, 11.94@11.95c.; July 12 11@12.12c.; August, 12.25@12.26c.; September, 11.83@11.84c.; October, 11.33@11.35c.; November, 10.9.@10.99c.; December, 10.72@10.93c.

Quotations for spot cotton are based on American standard of classification, and on cotton in store running in quality not more than half a grade above or below the grade quoted:

	Uplands	*N. Orleans.*	*Texas.*
Ordinary	9 15-16	10 1-16	10 1-16
Strict ordinary	10 5-16	10 7-16	10 7-16
Good ordinary	10 13-16	10 15-16	10 15-16
Strict good do	11 1-16	11 3-16	11 3-16
Low middling	11 5-16	11 7-16	11 7-16
Strict low middling	11¼	11⅝	11⅝
Middling	11⅝	11¾	11¾
Good middling	12	12⅜	12⅜
Strict good middling	12¼	12⅜	12⅜
Middling Fair	13⅜	13	13
Fair	15⅜	14	14

STAINED.

Good ordinary	10	Low Middling	11
Strict good ordinary	10⅛	Middling	11 5-16

DRIED FRUITS.—New process apples, all grades, are lower, being plenty. Shippers are working coarse-cut stock of the best quality moderately. Raspberries are higher. Peaches are slow. Cherries and blackberries are quiet. Quotations are for evaporated apples, 10½c. for best; do. fair at 8@8½c.; State plums, 13½c; Blackberries quoted at 4½c. Peaches—Peeled Georgia, 7@7½c. for poor; 8½@9c. for fair to good; 10c. for prime; choice North Carolina, 12@13c.; good do., 9@10c.; unpeeled halves, 3@3½c. quarters, 2½@3c. Pitted cherries, 20c. Apples—New, 2½@2½c. for Southern quarters in bags; 3½@4c. for prime sliced; do., fair and good, 3@3½c.; State at 3½@4c. for new sliced; and 3½@4c. for quarters; Western at 3½@4c. for new quarters. Raspberries, 30c. bid.

Exports for week, 100 bbls. apples. A sale of 10,000 bbls. unpeeled peaches, halves, reported at 3c.

EGGS.—Receipts for week, bbls.; do. last week, 17,500. A good list of fairly cheap spring items in market calls off a good portion of trade, that would be otherwise directed to eggs. Receipts are moderate, but there is some accumulation in store, and buyers are aware of it. Duck eggs, 14@15c.; goose, 20@22c.

Near points, hen, 12@13c. doz.; State and Penn., 12@12½c.; Western, 12c.; Southern, 10½@11½c.; inferior S. and W., 10c.

FLOUR.—Slight concessions in prices gives more vigor to home trade dealings, but the exporters move slowly. There are full supplies, as the close winter extras have found more favor, and they are difficult to get, except at an advance.

Latest sales are within the range of $3 25@3 60 for inferior to very choice superfine State (fancy lots a shade higher); $3 00@3 85 for poor to good extra do., odd lots and lines; $3 85@4 15 for good to very choice do.; $3 25@3 60 for inferior to very choice superfine Indiana, Iowa, Michigan, &c.; $3 50@3 25 for very inferior to good shipping extra do., and $3 85@4 15 for good to very choice extra do.; common to about choice white wheat extras, $4 00@5 00; choice to fancy do. at $5 15@6 15; red and amber winter wheat, inferior to very choice trade and family, at $3 90@5 75; round hoop Ohio at $3 80@$4 15, selling mostly at $3 90@4 10; and trade and family brands of do. at $4 25@5 75, the latter rate for very choice; St. Louis, $4 00@5 00 for very inferior to good extra; $5 00@5 85 for good to very choice (with a few very fancy brands up to $6 50); Minnesota clear, very inferior to fancy, at $3 60@4 75, few brands going above $4 50; Minnesota "straight," very inferior to strictly choice at $4 25@5 75; and patent poor to strictly fancy at $5 25@8 50, few brands going above $7 50; unsound stock at from $2 25@5 00; city mill extra at $4 70@5 25 for West Indies (the latter rate for very fancy in new packages; chiefly at $4 70@4 90; do. for England $3 60 3 85; do. trade and family extras, $5 25@6 25; do. for South America, $5 10@5 10 for fair to very choice; No. 2 at $3 35@3 15 for poor to choice.

FRESH FRUITS.—A recent turning over of apples has shown Baldwins to have kept the best. Some fine ice-house lots are offering. These have to be used so quickly after being opened, that all retailers do not like to handle them. Spitzenburgs, $3@3 50 bbl. Greenings, $3@3 50. Baldwins $2 75@3 for fair to choice lots; sets, $2 25@2 75. Exports of apples thus far this year, 82,600 bbls.; same time '78, 14,700 do. The remnant of cranberries quoted, $7@8 50 ₰ bbl; do., crates, $1 25@3. Elegant specimens of Char strawberries are coming; some crates equal the appearance of northern summer pickings. Supplies have run liberal, and easier rates have ruled than quoted to-day. Good to prime, Char. and Fla., 50@75c.; poor to fair, 15@25c. Pecans are doing better, as retailers have stocked up to some extent. Hand-picked Va., $1 25@1 50; other, 9 @12 15; shelled, 4½@5c.)

GRAIN.—Wheat early in week was low r, but reports of drought at some western points towards the close impart more vitality to lower in winter wheats and they closed stronger; spring stock continues weak.

Latest sales are of No. 2 spring at 98c @$1 01; No. 3 spring at 90@91c.; rejected spring at 75@75½c.; ungraded spring, in lots, at 84@88c; ungraded amber at $1 07@1 10; No. 2 amber, at $1 09½@1 10, ungraded red at $1 05@1 12; No. 2 red at $1 12½@1 13; No. 3 red at $1 07½@1 08; ungraded white at $1 09@1 11½; No. 2 white at $1 09; extra white $1 13; white State at $1 11½; No. 1 white at $1 11@1 11½; New York No. 2 red, May option at 99½c.; No. 2 amber, May option, at $1 10½; do., June option, at $1 1 ½; No. 2 red, April, at $1 13 do., May, at $1 12½@1 13; do., June, at $1 13; No. 1 white, April, at $1 10@1 11½; do., May at $1 11; do., June at $1 11½. Corn has been declining but left off active at a reaction in prices; sales at the close are of New York No. 2 at 43½@43½c. afloat; New York steamer mixed at 42@42½c; No. 3 at 40@40½c.; ungraded western mixed at 42@41½c; New York No. 2 white at 43½@46½c.; New York steamer white at 42½@43½c.; New York low mixed at 43½c., and yellow Western at 44c.; New York No. 2 April at 43½c., do., May at 43½@43½c.; do., June, at 43½@44c. steamer mixed, April, at 42½@42½c.; do., May, at 42½@42½c. do., June, at 42½. Oats have declined with fair sup

plies offering: sales of New York No. 2 white at 34½c.; New York No. 2 at 31½@31½c.; do., June option at 32¼c.; New York No. 1 white at 37¼c.; New York No. 3 white at 33½c.; New York No. 1 at 32c; New York No 3 at 31½c.; white Western at 33@35c.; mixed Western at 31½@32c; white State at 34½@37c.; No. 2 Chicago in store quoted at 30½c. Barley, feeding, 46c., other grades quiet.

HAY AND STRAW.—Prime hay is wanted at spring prices, but other qualities are freely offered and are easy in price.

Sales at 40@45c. for shipping, and 70@75c. for retail qualities. Straw at 35@45c. for long rye, and 30@35c. for short rye, and oats at 35@45c.

Exports for week, 2,100 bales.

HONEY.—Comb nominally, 7@10c.; strained, 6@7c.

HOPS.—Emmet Wells says: "There has been a moderate call from brewers, but the export traffic has dwindled down to almost nothing. Prices remain the same as last quoted. Stocks are not heavy here, yet they are ample enough for the little business doing, and, with a knowledge on the part of buyers that they can fall back upon the inter or for supplies at any time when needed, no apprehension is felt of a famine in hops, and trade will most likely jog along in the usual quiet way for the next two months to come, without any important change for the better, unless the market in the meantime should become influenced by unfavorable crop reports.

Quotations are for New York's, new crop, choice, 9@12; New York's, new crop, medium, 7@8; New York s, new crop, low to fair, 5@6; Eastern, 6@9; Western, 6@9; Yearlings, 2@4; Olds, all growths, 1@2; Pacific coast, nominal, 8@12.

LEATHER.—Hemlock sole is quoted at 18@19½c. for light; 18½@21c. for middle; 18@21c. for heavy; and 16@18c. for good damaged.

MAPLE SUGAR.—Recent receipts have deprived the market of novelty, and prices are in buyers' favor. Fair to best, light quality, 7@10c.; strup, 75c. in tin.

OIL-CAKE.—Western is in better demand, quoted at $27.25@.7.50 per ton.

POULTRY AND GAME.—Supplies larger and prices falling. This market room obtains a surplus, as city killers do not operate heavily while there is a chance for steady competition in country-dressed.

Spring chicks, 75c.@$1.25 ₩ pair; N. J. fowls, 12c.; Western, 12@12½c.; Southern, 12c.; roosters, 6@7c. Turkeys, N. J., 15@16c.; Western, 14@15c. Ducks choice, 90c@$1; other, 65@75c.; choice geese, $1.50@1.75. Southern and Western, 75c.@$1.37. Pigeons, 25@40c.

Frozen poultry out of market. Prices in buyers' favor, but still good for owners.

Turkeys, best fresh killed, 19@20c.; the latter for Pa. dry-picked; other, 15@18c.; fowls, choice, 13@14c.; other, 11@12c.; capons 26@27c.; slips 23@25c.; ducks, best, 17@20c. Dry-picked spring chucks, 45@50c.; winter broilers, 30@45c.; do. roosters, 21@22c.

The game law stops the sale of wild ducks after May 1st. Shot pigeons $1@1.37. Pigeons in good demand with scant other game.

English snipe, $1@1.12 ₩ doz; plover, 90c.@$1; small snipe, 30@40c. Wild pigeons, $1.75; canvas backs, 75@90c.; red head, 50@60c.; mallard, 35@45c.; black, 35@40c.; common, 15@25c. Season most over for wild ducks. Tame squabs, ₩ doz., $2@2.50.

PROVISIONS have tended higher with a freer demand for supplies. Mess pork quoted at for old mess on the spot for ordinary at $9.12½@9.25, and new mess, ordinary, at $10 25 10 10 and $10 15 asked for new for April May at $10 10 bid and $10 15 asked; June at $10 20 bid and $10 30 asked; and July at $10 25 bid and $10 40 asked. Bacon at $5 for long clear and 5 3-16 for short clear. Lard—Western steam, at $6 27½ for spot lots; 6 25 for May; $6 32½ for June; and $6.37½ for July. Beef hams at $17@18.25. Stearine at 6¾@ ¾c. for best. Tallow at 6½c. for prime. Beef—Extra India mess, $20@22, as to quality; packet, $11@11.50; plain mess, $9.75@10.50; extra mess at $10.50@11.50.

SEEDS.—Grass are slow; clover quoted, 6@6½c. for prime and 6 @6¼c. for choice Western. Timothy at $1.35.

SUGAR.—Refined at 8¾@8½c.; for cut loaf and crushed, 8½@8¾c. for granulated and powdered; 7¼@8c. for soft white and 6@7¼c. for soft yellow.

TOBACCO.—Export movement is higher, and the inquiry from the home trade slack, with prices steadily held.

VEGETABLES.—Exports potatoes since Jan. 1st 49,041 bbls., do. '78, 76,217. Market fairly firm. Warm weather has started some sellers in the inside rate, but very choice stock is unchanged. Southern truck abundant and in good demand. Early Rose and Eastern, $3 50@3 75; State, choice, at $2 75@3 25; fair to good, $2 50@3; Peach Blow, white, in bulk, $3@3 50; red, $2 75@3 25; Prolific, $3; Peerless, State, $2 37½@2 75; Jackson White, $2 75@2 87; (outside rate per double heads). Sweet potatoes, Md. & Del., $3 50@3 75. Onions, red and yellow, $2 75@3 25. Squash, marrow, $3 50@4 00. Cabbages per 100, $6@10; R. turnips, per bbl., $1@1.25; beets, 75c.@$1 00; carrots, $1@1 12. Horseradish per bbl, $6@7 Southern items—String beans, Fla., per bush, cr., $2 00@3 50; green peas, Chas. and Sav., small, $1 50; asparagus, Chas. and Norfolk, doz. bunches, 50@75c.; kale, $1 75; Baltimore, ₩ bag, 75c @$1; spinach, Baltimore, ₩ bbl., $2 00@2 25; radishes, Norfolk, ₩ 100 bunches, 25@75c.; cabbage, Sav., new, ₩ bbl., $3 00@3 50; Fla. cucumbers, crate, $3@6; onions, Bermuda, ₩ crate, $1 25@1 50; tomatoes, box, $1 25@1 50, potatoes, $8 Hot-house rhubarb, ₩ 100 bunches, $4 00@6 00.; radishes, ₩ 100 bunches, $4@6; cucumbers, large, ₩ doz., $1 50@2 50; mushrooms, ₩ lb., 50c.; lettuce, selected, 37@75; ₩ doz.

WOOL.—There has been a very sluggish market this week, and prices have ruled easy on account of the advanced season to the new clips.

Ohio, Pennsylvania and Virginia—XXX and picklock, 36@37½c.; XX, 34@34c.; X, 33@34c.; No. 1, 33@35c.; No. 2, 32@33c; common, 28@30c.; combing, 36@ 38c.

New York, Michigan, Indiana and Wisconsin—XX, 30@32c.; X, 29@31c.; No. 1, 31@33c.; No. 2, 27@30c.; common, 26@28c.; combing and delaine, 34@37c.

Iowa, Vermont and Illinois—X and XX, 28@30c.; No 1, 30@33c.; No. 2, 27@28c.; combing, 33@36c.

Missouri, Kentucky and Tennessee—Washed fleece, 30@33c; unwashed fleece, 18@21c.; unwashed combing, 22@25c.

LIVE STOCK MARKETS.

BEEVES.—Receipts for the week, 9,629 head; do., last week, 8,084 do. The market lulled on Wednesday, and has not revived since. Buyers aim to keep their stock down to a sure selling limit, as the weather is bad for meats that cannot be readily protected. To-days steamers take out 520 quarters beef. Light, medium steers sold at 9@9¾c. ₩ lb., to dress 56 lbs.; fair to good do., including several car-loads of Colorado cattle at 9¾@10c., to dress 56 lbs., and prime steers at 10¼c., to dress 56@57 lbs. And a car-load of fat, still-fed bulls changed hands at 8¼c. ₩ lb., live-weight. Exporters were not operating.

COWS AND CALVES.—No new features; the style of stock arriving ranges, $30@50. No inquiry for fine milkers.

VEAL CALVES.—Market decidedly lower; 4¼c. is seldom quoted as the top for live. N. J. and Buck's Co., 4¼c.; good do. and best State, 3¾@4c.; other grades, 2½@3c. Hog-dressed best, 5½@6c.; fair to prime, 4½@5c.; common, 3@4c.

SHEEP AND LAMBS.—Receipts for the week, 20,823 head; do. last week, 20,145 do. Demand moderate, but supplies not heavy enough to force concessions from sellers, quoted, 5½@6¼c. for wool sheep and $4.25@5.70 for clipped. Selections of Ohio have sold for England. Lambs, fair to choice, $@$ head; common, $2@3.50.

SWINE.—Receipts for week, 28,923 head; do last week, 30,904 do. Firm at the close at $3.75@4 ₩ 100.

Country-dressed pork, light, 6@6½c.; medium, 5½@6c.; heavy, 5@5¼c.; city, 5@5½c. Pork tenderloins, &c.

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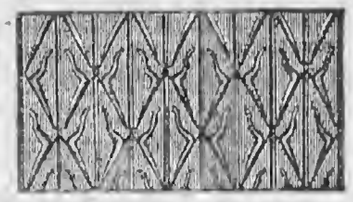

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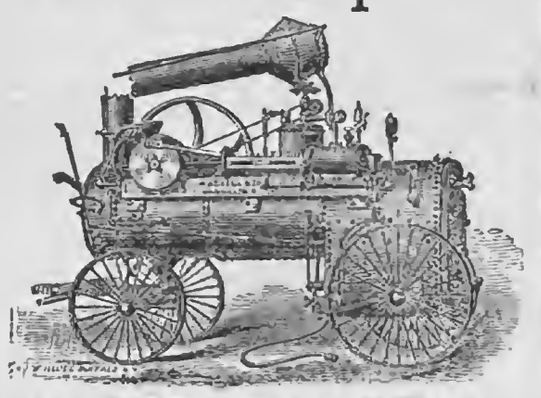

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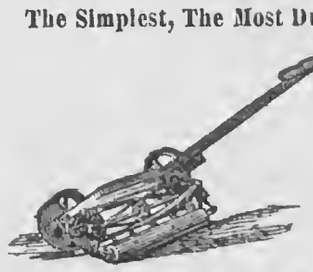

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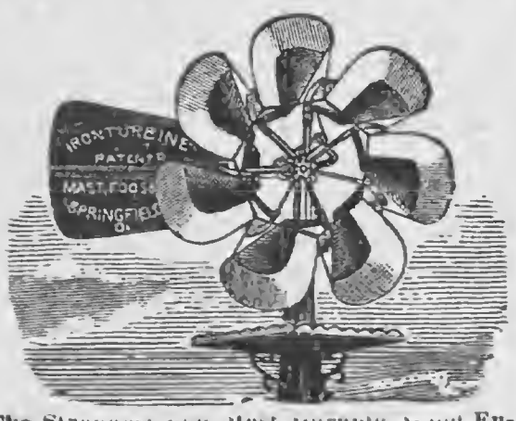

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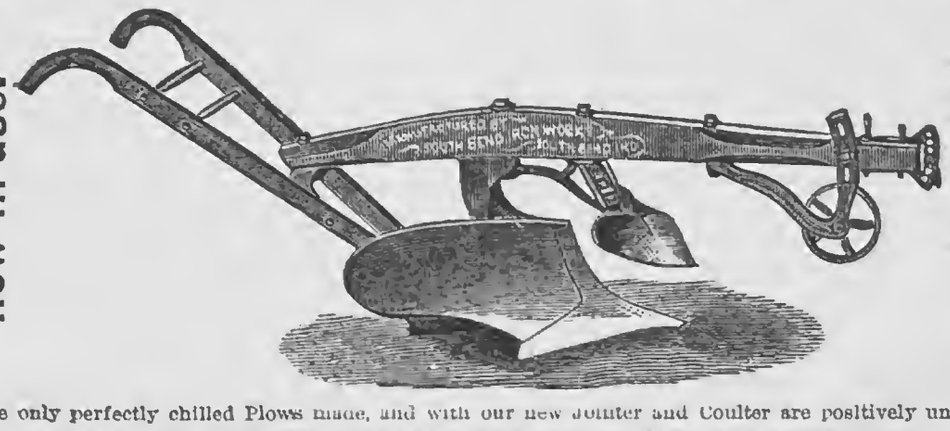

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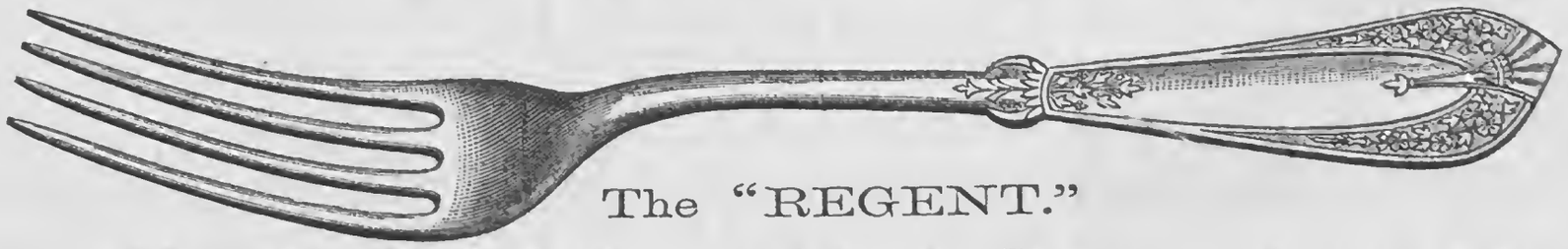

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Reading for the Young.

IMAGINARY TRAVELS.

My Dear Nieces and Nephews:—A very clever Frenchman, a long time ago, diversified the humdrum of life by falling ill, and indulged in the excitement of trying how near he could approach Death without actually falling into his skeleton arms. During his convalescence time dragged its slow length along, and to break the tedium he amused himself by imagining that he was making a series of the most delightful voyages. He would select some familiar object in the room—a chest of drawers, for example—and the wood of which it was made readily suggested the country in which it grew. Here, then, was the vehicle; it only remained to equip it with the wings of fancy, and the sick man was instantly leagues away in some delightful land, where "it was always afternoon." By the time he had become well again he had made many such trips, and exhausted the resources of the room. He published an account of his fanciful wanderings, under the title of "Travels Around My Room" (*Voyages Autour de ma Chambre*), and to this day De Maistre's is one of the most entertaining books in the French language. Anglo-Saxons are restless beings. From the earliest times they have indulged their propensity for roaming, and there are few places that the intrépid Englishman or inquisitive Yankee has not visited. The result is that those whom circumstances compel to remain at home have at their command a very extensive library of travel, that, rightly used, can be made to yield almost as much enjoyment as if the reader had visited personally the scenes described. Few, to use a mining term, do more than work a surface claim in this mine of amusing and instructive knowledge. The greater number, even of the shoals of tourists that annually leave our shores for foreign countries, go and return with no addition to their information. The most lasting souvenir of Paris is the memory of a good dinner at the Cafe Anglaise, or the splendid bargains in silks to be had at the Bon Marche, while they are within a few minutes' walk of the Place Vendome, without thinking or taking the trouble to learn anything concerning the stirring events commemorated by the column that adorns the locality.

What I wish to suggest from the foregoing, my dear young friends, is that we, perhaps, may travel at home in imagination, with almost as much pleasure, and certainly more profit, than scores of our envied friends who make the Grand Tour. Our preparations for the voyage need *not* include an infallible remedy for sea-sickness, but our luggage should comprise a good atlas, a traveler's hand-book (Harper's European Hand-books are as good as any), and books of travel that are explanatory of the places we propose to visit.

It has been wittily said that most good Americans when they die, go to Paris. We will do better; we will live and travel farther. We will make incursions into lands where there are dates not half so dry as those of history, mount camels and ride over arid wastes without incurring the expense of a dragoman; experience a fair amount of the pleasure of a trip up the Nile and go to Rome, staying as long as inclination prompts with no uneasy forebodings that our letter-of-credit has become exhausted, or that the malaria is dogging our footsteps.

Aside from the pure pleasure of such an imaginary tour, the young traveler, with the aid of atlas and itinerary, has had photographed on his mind a clear impression of many countries, physically, politically, and socially. He will be able to talk entertainingly to his friends, and he will form habits of study and reflection, that will always be a safeguard against senseless and mischief-making gossip.

My idea is to suggest a tour, naming the points to be visited, rapidly sketching the principal historical and physical features, and then giving a list of the books to be consulted for extended descriptions. After the lapse of sufficient time, the Rural would expect an account of the trip in the shape of correspondence, embodying the result of what had been learned concerning the places, with reflections suggested by books perused.

Perhaps this little plan may not appeal very strongly to my relatives. In that case we will not travel this summer. If, however, you care to embark with me, I shall expect you to apply for passage not later than May 17th, and those who conclude to go, must promise to remain with me until the voyage is ended. We will send an account of our journey to the Rural, that the lazy boys and girls may read of the good times we are having, and be envious accordingly. While we are becoming bronzed by foreign suns, (through the medium of the library), Uncle Mark may cheer us with moral disquisitions on the advantages of having a "good time."

I shall not start with less than a party of fifty of my relatives. Uncle True.

A TRIP TO THE WOODS.

In every-day life, it is often the ease, that people have golden opportunities and precious pearls, lying at their feet, which can be had for the trouble of picking them up, but are rejected from the very ease with which they can be obtained; while something of much less value, but beyond reach, is eagerly grasped at. So it is with our flowers. There are many treasures in the woods and meadows, which we perhaps pass by daily without giving them the least attention, while we seek the pets of the garden that are more difficult to obtain, but otherwise may be no better than their sisters of the fields. I have thus seen plants cultivated in greenhouses in Europe, that may be found on every field and by ever roadside here in America. Among others the very common Poke or Garget Weed, *Phytolacca decandra*. If the members of the club are willing, we will cast aside this prejudice and take a trip into the woods and meadows on one of these fine days of early May, in search of flowers. Each member must provide him or herself with a pair of thick boots, a small spade or a trowel, and a basket in which to carry home the plants. In meadows and near streams in sandy soil we may find our four wild species of Lilies, all well worth cultivation. The leaves are of a light-green color and grow in whorls or circles around the stem. In June and July they bear large bell-shaped flowers that vary in color with the species, from a light yellow to scarlet. The Canada Lily (*Lilium Canadense*) grows two to five feet high with spotted flowers. The American Turk's Cap (*L. superbum*) is also spotted within, of a red color and grows from four to six feet high. There are still two others found mostly in the South. If planted in the garden now and supplied with water, they will bloom during the summer.

The violet family has a great many representatives in the fields, that may be grown in the garden. They bear white, yellow and blue flowers. The Pansy and Sweet Scented Violet belong to the family; it will aid you in finding the wild ones if you study the appearance of these. They are of low growth, some of them creepers and nearly all bloom in April and May.

Among the Lobelias are also several worth cultivation, especially the Cardinal Flower (*Lobelia cardinalis*). It grows along streams and in low places, throwing up a stem two to four feet high, which bears large, showy, dark red flowers. The Virginia Creeper must be well known to all of you. It is one of the handsomest vines found in the temperate zone and ought to grace every farm-house in America. Dig up young plants and plant them near the wall of the house, or by some old cedar trunk in the garden. Tie the vine to the wall or trunk till it gets a good start, then it is usually able to hold itself up. It can also be used to inclose your gardens. Plant young plants about a foot apart, and with hooks keep the vines in place on the ground. I must here caution you against mistaking Poison Ivy (Poison Oak) for this beautiful climber, as people who are not good observers, will sometimes do. Poison Ivy has *three* small leaves (leaflets) on each leaf-stem (petiole), while Virginia Creeper has *five* leaflets.

The Columbine (*Aquilegia*) is also a handsome flower for your gardens. It grows about two feet high and blooms in spring and early summer. It is common in rocky woods.

The Marsh-Marigold, sometimes called Cowslip, which blooms in marshes in the spring, the little blue Forget-me-not, found near streams, and many others may be gathered; but those named will be enough for our first trip. Dig them up carefully with a ball of earth adhering to the roots, and when planted, shade them from the sun for some time. You can find many others worth planting. The real lover of plants sees beauty in every flower. Above all, you should strive to become good observers. Use your eyes well. When a flower, leaf, or plant attracts your attention, notice how it looks; its color, shape and manner of growth, so you can recognize it when you meet with it again in some other place. To use the senses well forms the basis of all scientific investigation, and is a privilege open to everybody, yet how few persons there are who improve this privilege.

PEANUTS.

All of my relatives are, no doubt, acquainted with peanuts, as at least one stand for the sale of this article may be found in every village in the country. Some of you may have sent envious glances at the peanut-man who, of course, can eat as many as he pleases while standing all day behind his little counter, cheerfully turning the crank of the steaming retort. You need not be envious, however, for you can raise enough yourself to roast and eat, and besides learn something about the curious manner in which these nuts grow. Fill three-inch pots with light, loamy soil, and plant one nut in each, about an inch deep, first cracking the shell, but do not remove it. If the pots are set in a warm place, the nuts will soon sprout. In the latter part of May or the beginning of June, thump out the plants and set them in a warm, sunny place in your garden, and watch their growth. The plants bear small yellow flowers, and when these drop the pistils elongate, pushing themselves into the ground where the nuts are formed. If in its growth the pistil strikes a stone, a piece of board, or for any reason it is prevented from entering the ground, no fruit will be formed, showing that though the nut is a real fruit, the result of a flower, it is still necessary for it to develop in the ground like a potato.

Uncle Mark.

EARLY VINES.

A hint to those who are desirous of early melons, tomatoes, cucumbers and squashes will be of value, I think. Go to a pottery and have a hundred or two hundred small pots, two inches across the top and one at the bottom. Plunge these in your cold frame or hot-bed, in rows; fill with dirt, and put two seeds in each one. If both come up, destroy one. Let them grow here till the second or third leaves show; then transplant to their hills in the garden. The advantage is that you can transplant vines without disturbing the roots or checking growth. Lima beans and vines are especially in need of some such method. In this way a month of growth can be secured from middle of April to middle of May. The vines will then be out of the way of bugs before they appear. Nast can picture the surprise of the striped bugs when they find themselves too late for breakfast.

This method is quite superior to the use of inverted sods. It is, of course, understood that beans and vines cannot be started in a hot-bed in the usual way. It is better even for tomatoes, peppers, cauliflowers, &c., to start them in pots. The cost of the pots will not exceed two dollars a hundred, and they will last, if well baked and stored properly when out of use, for ten years. I have them in use since 1867, and three-fourths are still sound.

It will still be well to make sure against all failures by having on hand a few boxes, with mosquito netting closely tacked over the top. Press these down over the transplanted hills. Most of the advertised plant protectors are perfectly reliable. P.

PATCHES AND HEROES.

"Three! four! five! How funny!" cried the girls. "Hurrah!" shouted the boys. What were they counting? Yes; the patches on poor little Constance's dress. She heard every word and the boys' loud laugh. Poor little heart! At first she looked down, then the tears came with a great rush, and she tried to run home.

"Cry-baby!" said the boys.

"Don't want her to sit next to me," said Ella Gray.

"What right has she to come to our school?" whispered proud Lily Gross.

"There! don't mind a word they say," exclaimed Douglas Stewart, leaving the group of rude boys and trying to comfort Constance. "Let me carry your books," he continued. "Cheer up! It is only a little way to your home, isn't it?"

Constance looked up through her tears to see the bravest boy in school at her side.

"I live in the little house under the hill," said Constance. "It isn't like your grand house."

"No matter for that. It has pretty vines, and climbing roses, and it's a very nice house to live in," said Douglas. "I dare say you are happy there?"

"Yes; I don't want to come to this school again," said Constance, softly.

"Oh, things will be all right in a day or two," said the boy, kindly. "Never mind them just now."

They had been talking of heroes a little while before; they had been wishing to be like Alexander and Cæsar and Napoleon. There was not a hero among them except this same Douglas Stewart, who dared to stand out before all his schoolmates and befriend this poor, forlorn little girl.—*S. S. Visitor.*

HIDDEN GULFS.

1. 'Tis his mat I assure you.
2. Ence evoked a promise.
3. Can a barrack be comfortable.
4. Yenise is killed.
5. At Karska I asked for food.
6. He wore a sprig of bay on a black ground.
7. Try "Stehu ante-pectoral" for your cough.
8. Such jargon Chagua makes use of.
9. Mamma, Baca Tho and Dan have arrived.
10. On the dish-pan a match is lying.
11. 'Twas called Le Dramatique.
12. Did you call pap a gay old boy.
13. See this cala, Nova.
14. I saw Sis at Allantha's wedding.
15. Grandma cried.
16. Call this my "z," Nathan.
17. Hadra my "t" takes the prize.
18. Have you read "Secor on mind?"
19. While bathing in the Vat, Nannie sank.
20. She had R in O's place.
21. I saw Messrs. Cass and Ray.

☞ Answer in two weeks. Little One.

CROSS-WORD ENIGMA.

My first is in big but not in small,
My second is in short but not in tall;
My third is in snow but not in rain,
My fourth is in killed but not in slain;
My fifth is in hat but not in cap,
My sixth is in tree but not in sap;
My seventh is in aim but not in shoot,
My eighth is in prize but not in boot;
My ninth is in sell but not in buy,
My tenth is in tear but not in sigh;
My eleventh is in bear but not in cub,
My twelfth is in spokes but not in hub.
My whole is a temperance organization.

☞ Answer in two weeks. M. S.

HIDDEN WEIGHTS AND MEASURES.

1. That's a bad ram.
2. Down the area Mary hid.
3. She inquired for you.
4. Lake Chamomile.
5. The staff at Nome lies hid.
6. Lea, guests are coming.
7. Is this the proper change?
8. Shadrach made friends.
9. For her penny weigh twice as much. L. O.

☞ Answer in two weeks.

MISCELLANEOUS ENIGMA.

I am composed of 20 letters:
My 6, 12, 10, 13, 17, 11, 19 is insulting language.
My 20, 14, 10, 18, 19 is a bandage.
My 4, 5, 7, 8 is a kind of fuel.
My 1, 2, 9, 15, 16 is to breed teeth.
My 3, 17, 11, 1 is to coin.
My whole is what everybody should be.

☞ Answer in two weeks. M. Smith.

PUZZLER ANSWERS.—April 19.

Maltese Cross—

SAP SAGO
TOWEL
O NIT B
AS T BR
TTA OZE OEI
MECKLENBURG
EAT DRS TRA
AL L YN
L BAD D
HANDY
SARDINE

Centrals form "Switzerland" and "Mecklenburg."

Hidden Straits—1, Matotchkine; 2, Macassar; 3, Malacca; 4, Dampier; 5, Cook; 6, Foveaux; 7, Davis, 8, Banks; 9, Hudson; 10, Menai; 11, Frobisher; 12, Babel Mandeb; 13, Magalhaens.

Sabbath Reading.

"THE COURT OF JESUS CHRIST."

Although "church courts" are a thing quite unknown to the New Testament, they are sometimes justified upon the ground of their practical advantage in making all things to be "done decently and in order" in cases of discipline. The court recently in session upon the case of Mr. Talmage, Brooklyn, can certainly not be cited as an example in proof. Here is a glimpse of its proceedings:

"There was one very ludicrous scene, when the Moderator tried, during one of the pauses in the middle of the drollery, to have a hymn sung. The opening line of that which was suggested, "Blest be the tie that binds," fairly brought down the house, and a suggestion of the Lord's Prayer was equally mirth producing. But nothing excited so much merriment as the Moderator's proposal that, on the failure of the hymns, they should pass a few moments in "sacred silence." This was more than the audience could bear, and they doubled themselves up with laughter."

The wranglings and bickerings of the counsel were equal to those of any police court; and the whole thing a farce and disgrace, not alone to the Presbyterians, but to the Christian name, and ought not to be permitted to pass without general rebuke. These outrageous proceedings, be it remembered, took place in a tribunal whose official title is "the court of Jesus Christ."—*The Standard.*

PRESS ONWARD TOWARD THE MARK.

Certainly if there is any man in the world who has a right to look for success and to go forward with the assurance, that success though delayed, will come at last in answer to persevering effort, it is the man who puts his trust in God, and uses all the appointed means with diligence to the end. If other men, by mere force of will, bending all their energies through life to the accomplishment of a single definite purpose, have succeeded at last in winning triumphs which have sent their names down through history with honor, what incouragements has the Christian to attempt great things and to expect great things, ever knowing that while he works, it is God himself who is working in him and by him! In this battle of the good against the evil, no true labor is ever lost. In the battle of truth and right, which is always God's own battle, as well as ours, success is bound to come, success is assurred from the beginning. In this battle, all we have to do in order to feel the inspiring incentive of certain victory at last, is just to know that we are on the Lord's side, and then to fight on manfully to the end. And what if we fall in the conflict? It is only to wear the crown of success at last.—*The Interior.*

"BEHOLD YOUR KING."

Go back to the day of the Crucifixion; follow the feeble and fainting steps of the Victim as He passes through the streets of Jerusalem on His way to Calvary; witness the scene of torture and ignominy which followed. Is this the King that was promised? Is this His coronation? All experience all history, all our affections answer, "It is." To a suffering, and not to a triumphant Christ the thoughts of a tempted, perplexed and sorrowing race instinctively turn. It is the memory of that love which was stronger than death, mingled with the consciousness that the sacrifice had become necessary to our reconciliation with God, that has enthroned the Crucified One forever in the heart of man.—*Dr. James Walker.*

An evil-minded and malicious professor of religion always appears worse to the public view than an evil-minded and malicious person who is not a professor of religion. This fact has often attracted attention, and it is attributed to a contrast between a black life and a white profession. But there is certainly more in it than this. One who has been trained in the doctrines and morals of the gospel, when he gives way to envy and malevolence and hate certainly can exceed depravity, in its crude state, in all the arts of those evil passions, and he scarcely ever fails to do it. Like a wandering star, the greater distance the fall the profounder will be the plunge. It took Lucifer, Son of the Morning, the brightest star in heaven, to become that ineffibly contemptible criminal, the Devil. So it takes a professing Christian, when he surrenders himself to evil and malevolent passions, to excel all other men in evil conduct.—*The Evangelist.*

Say, what is honor? 'Tis the finest sense
Of justice which the human mind can frame,
Intent each lurking frailty to disclaim,
And guard the way of life from all offense
Suffered or done. *Wadsworth.*

We picture death as coming to destroy; let us rather picture Christ as coming to save. We think of death as ending; let us rather think of life as beginning, and that more abundantly. We think of losing; let us think of gaining. We think of parting; let us think of meeting. We think of going away; let us think of arriving. And as the voice of death whispers "You must go from earth," let us hear the voice of Christ saying, "You are but coming to me!"—*Norman McLeod.*

For a long time I felt myself to be a lost sheep, not knowing on whom to rely; and now, with the deepest consciousness that I have at last attained rest, I exclaim, "The Lord is my Shepherd. What is there that can harm me?" And as I look forward into the future, I exclaim, with David, "I shall not want."—*Tholuck.*

So surely as the day and the night alternately follow one another, does every day when it yields to darkness, and every night when it passes into dawn, bear with it its own tale of the results which it has silently wrought upon each of us, for evil or for good.—*W. E. Gladstone.*

PERSONAL ITEMS.

Alexander H. Stephens was so poor when he commenced the practice of law, that he had to live on $6 per month.

Gen. "Dick" Taylor, son of President Zachary and a brilliant confederate leader during the civil war, died Saturday week in New York where he was visiting, at the age of 53. Richard Taylor studied at Edinburgh and graduated at Harvard in 1854; he was for a time his father's private secretary in the campaign in Mexico, and became a planter in Louisiana, his native State, soon after. He was the most fiery of secessionists when the time came, distinguished himself in the Shenandoah valley and elsewhere, but especially in his defeat with 8,000 troops of Banks with 40,000, near Mansfield, La., in May, 1864; and when the Confederacy surrended he was lieutenant-general in command of the department of Alabama and Mississippi. Gen. Taylor was a richly gifted, attractive and companionable man, so that he had very many warm friends; he was brave, honest and enthusiastic, and a most conscientious rebel; he thought that he was a competent historian, and has acted accordingly in magazines and now in a book. But while death removes him from the temptation to write bad history, it also deprives the country of one of the brightest minds and best fellows it contained.

Parents, do not use vile drugs or nostrums in your families, but use pure Hop Bitters.

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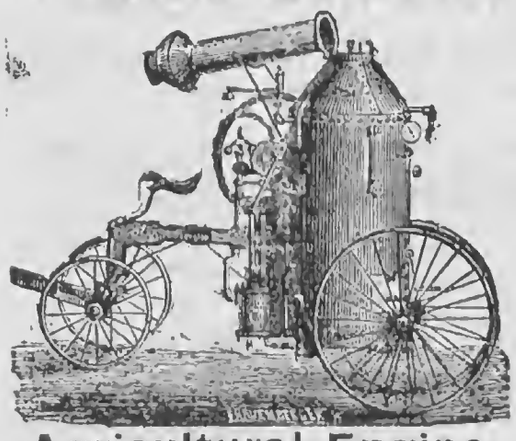

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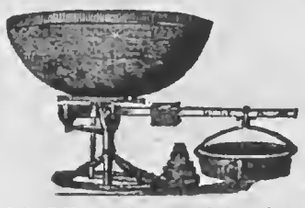

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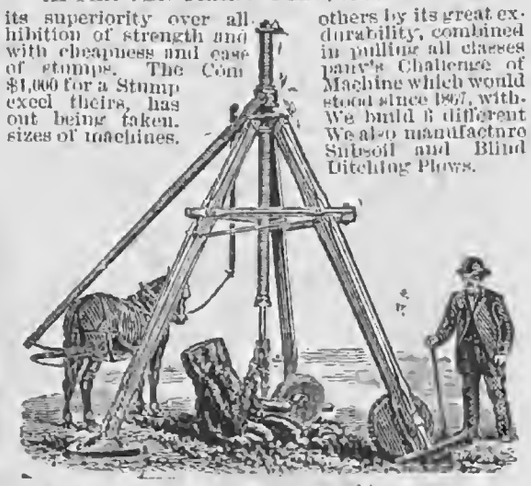

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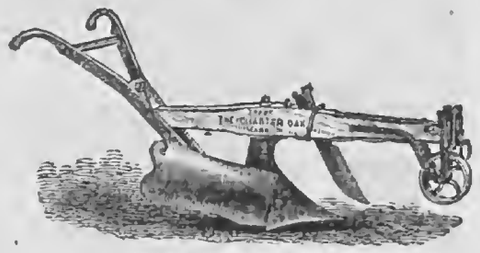

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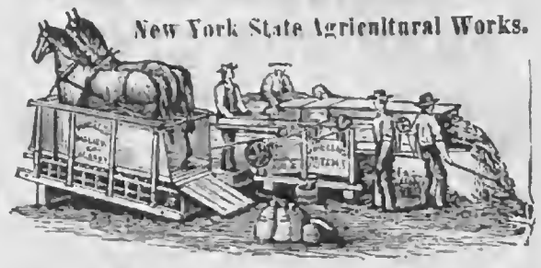

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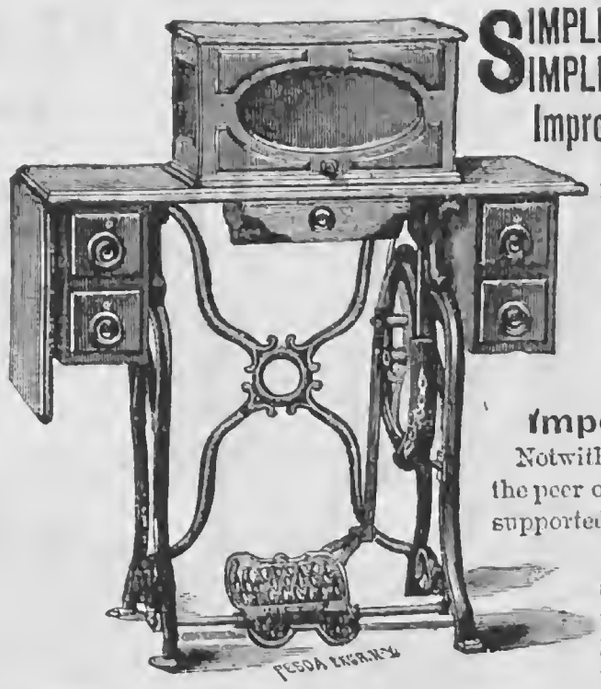

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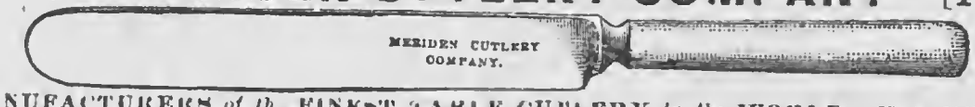

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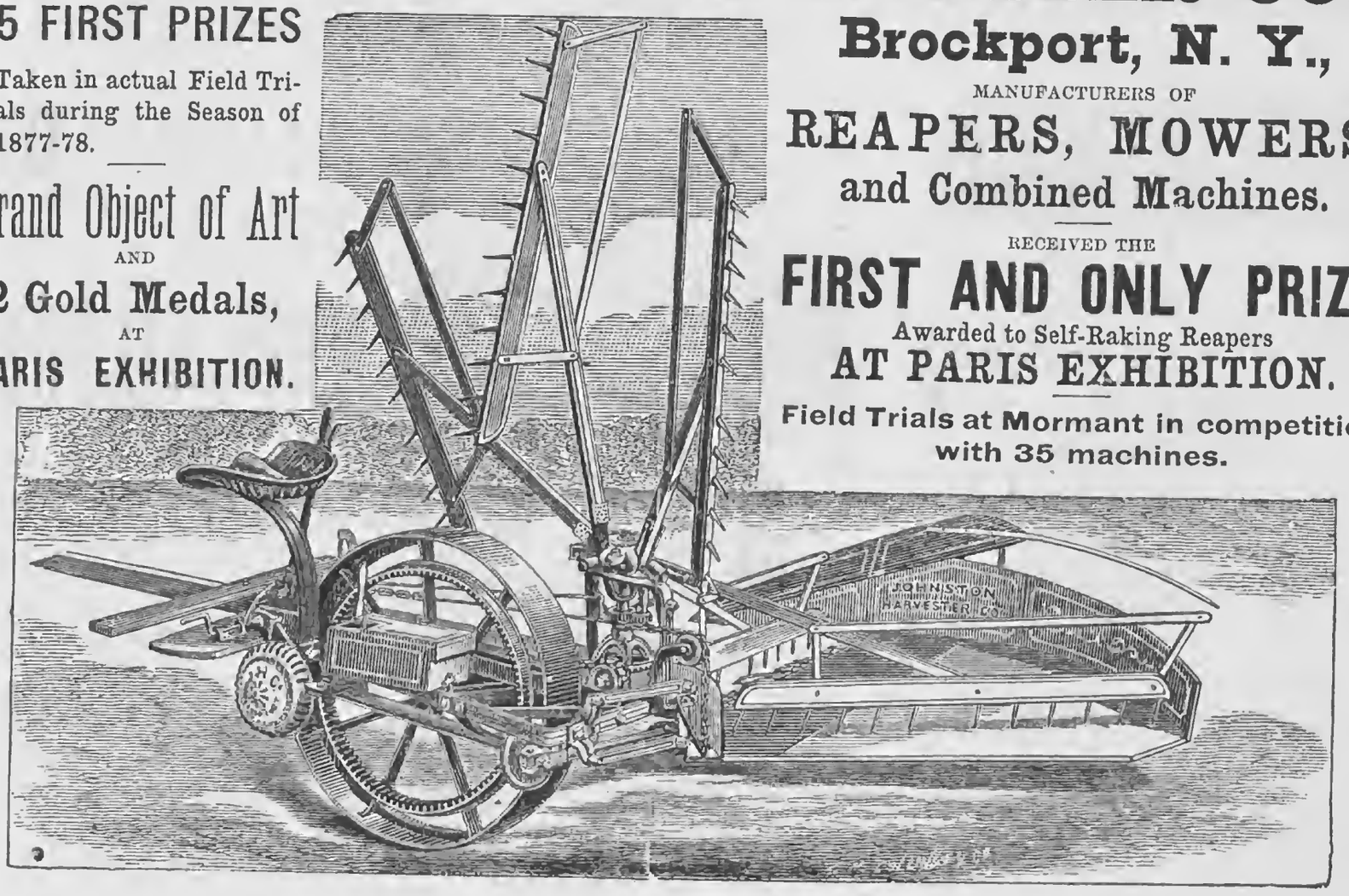

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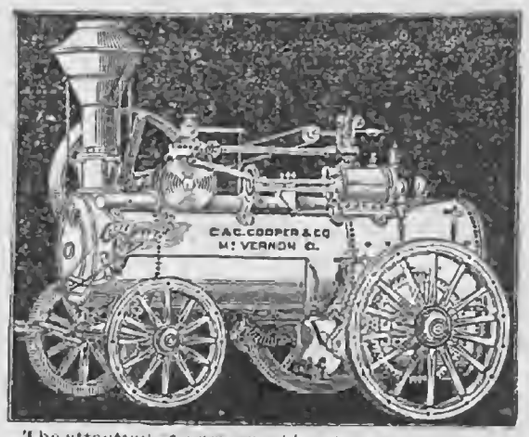

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THE RURAL NEW-YORKER

A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME

VOL. XXXVIII. No. 19.
WHOLE No. 1528.

NEW YORK CITY, MAY 10, 1879.

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$2.00 PER YEAR.

[Entered according to Act of Congress, in the year 1879, by the Rural Publishing Company, in the office of the Librarian of Congress at Washington.]

Rural Architecture.

PLAN FOR A CREAMERY.

A CORRESPONDENT asks for a plan for building a creamery, with information as to appliances, furniture and method of working. Just now there is considerable attention given to this subject on account of the low price of milk and cheese. We consider it of doubtful utility to "change horses when crossing a stream," and just now farmers are certainly in the water up to their chin, and some are in danger of going under. Perhaps it might be well to consider how far greater economy and effectiveness in the management of present business might avail to better one's condition, rather than risk the hazardous experiment of a change just now. But there are doubtless many who could well consider economy and effectiveness in connection with the use of a creamery, as there is certainly no other method of handling milk and cream for butter-making so cheaply and efficiently as in a creamery.

A creamery will cost from $1500 to $3,000 fully furnished for 150 to 600 cows. It is obvious to one with but inconsiderable experience, that the cost is in a smaller ratio the larger the creamery may be; a small one may cost $10 per cow, while one four times the capacity may cost but $5 per cow.

The building may be plain, but should be made with double walls having an air-space between them for the purpose of keeping the temperature even, although with the present methods of keeping milk in refrigerator vats or coolers, the temperature within the factory may become of secondary account. A house with a wing would probably be the most convenient, as it would furnish room for the creamery in the main building and for the cheese factory and store-room in the wing. The upper floor of the main building would serve as living apartments for the dairy people. The plan would be something like that shown at fig. 1. The main building (*a*) would be 75 feet long by 25 feet wide for a large creamery, and 50 by 16 for a small one, and the wing (*b*) 50 by 25 feet with an engine-house (*c*) as shown. A covered drive-way (*e*) is at the front, where the wagons deliver the milk. The milk is received on to a platform where it is sampled and weighed, and then run through a long tin spout into the vats in the milk-room (*a*). It is necessary to sample the milk of each patron, so that it may be tested as to its quality each day in the usual test glasses, or cream gauges. It is obvious that in a creamery the value of the milk is regulated by its richness, more or less, in cream.

When in the vat the milk is cooled and left for the cream to rise. It is then skimmed and the cream taken to the churns in the butter-room (*d*), where it is made into butter in whatever churns may be selected, these being operated by a belt from the engine in the room *c*, in the rear. A rail track is laid around the milk-room and into the butter-room *d*, upon which a light car can be run for the conveyance of the cream to the churns. Two churns should be provided. If the common dash churns are chosen, these are operated by a rocking arm attached to a crank; if rotary churns are used, a pulley on a shaft placed between the two, as shown, will convey the required motion. After the milk is skimmed, it is pumped into the vats in the cheese-room, where it is curded, and where the curd is prepared for the press. An elevator is placed in one corner of the room by which the cheeses are conveyed to the curing-room above. An ice-house (*f*) is to be provided and supplied with a sufficient stock of ice for use in the summer. This should have a communication

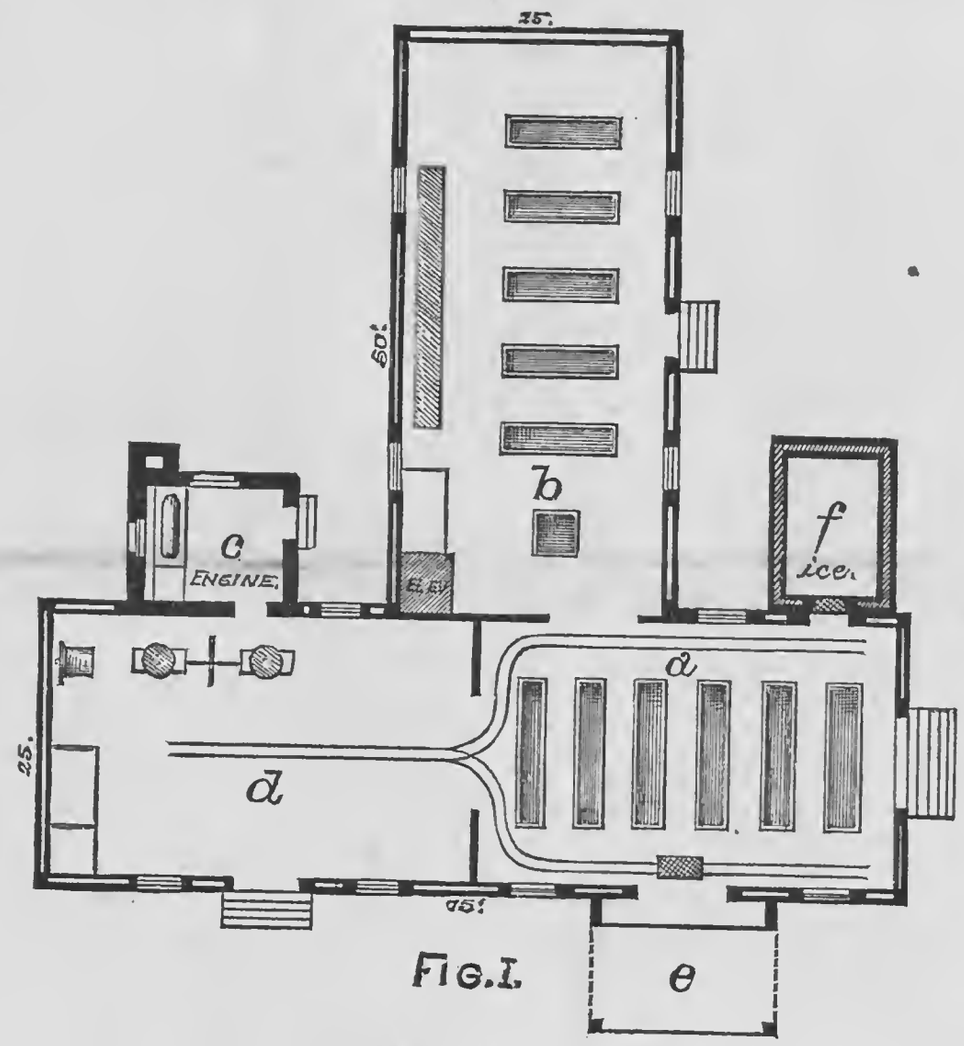


FIG. I.

CREAMERY.—GROUND PLAN.

with the milk-room for convenience in procuring ice, and the rail track may be laid to the door. The elevation of a building suitable for the purpose is shown at fig. 2.

A three or four horse-power engine and boiler are sufficient to furnish steam for heating, and for doing all the mechanical work. The methods of operating a creamery and cheese factory, which should be worked in conjunction, are varied according to circumstances, and the amount of capital that is invested. The most economical and profitable methods include all the labor-saving appliances and the most effective processes for securing quality in the product. It is in the proper use of these that the advantages lie, which turn the balance to the side of profit. For instance, in a recent case which comes to our knowledge, a part of the milk which was operated under the best of the ordinary methods, returned $1.21 per 100 pounds, while the remainder worked up under an improved process, returned more than $1.50 per 100 pounds. It is obvious that we cannot here describe these different processes; but those whom it may concern can easily become acquainted with them by visiting a few of the best creameries, which can be pointed out if required hereafter. For before investing in a new enterprise in which skill is needed to make capital productive, one should always seek the practical information obtainable only by inspection of similar undertakings successfully conducted.

FIG. II.

CREAMERY.—Elevation.

Dairy Husbandry.

THE RAISING OF CREAM.

O. S. BLISS.

SEVERAL days ago my attention was directed to an article in the RURAL of the 29th ult., entitled "The Raising of Cream," but the pressure of more immediate duties has prevented even the reading of it till this sitting. I can ill afford the time for a discussion of the subject, and but that a very earnest appeal has been made to my duty to the dairy interest to do so, I should insist on being excused from it. The writer truly says there has been a great striving to understand the true principles of cream rising, and a detailed account of the labors and studies in that field would supply matter for the dairy columns of the RURAL for more than fifty-two weeks.

A fundamental error of most of these "strivings" is indicated by the term "cream rising" or the "rising of cream." There is no such thing as "cream rising." Cream in common with all other matter is inert and cannot act or move except as it is impelled by some external force. Cream does not rise but is raised. The object of these "strivings" should be to determine what force does actually raise the cream and what influences may economically be brought to bear upon it to render it efficacious.

One prominent source of error resulting from experimenting in this department, is the standard of judgment in testing results. To illustrate: I am reported as saying at one of the Utica meetings this winter, that I always used the same quality of milk in making my experiments. I did not say any such thing. But, in answer to the question how many pounds of milk it would take to make a pound of butter by a certain described process, I said that I never applied that test on account of the variable quality and condition of milk, depending upon breed, feed and other circumstances; that I esteemed it, with possibly one exception, the most fallacious of all tests; that in all my operations the test was applied to the quality of the residuum; that this was not determined by setting the skimmed milk aside to see if cream would rise on it after it had been treated for cream, and often so treated, that the cream could not rise, however much there might be of it; but by the most exact scientific method available to practical men in their own dairies—the determining of the specific gravity by actual weighing in a properly-adjusted bottle and with a delicate balance. This test covers the whole ground, whereas the amount of cream or butter produced, however large, may still be only part of the whole, and lead to erroneous conclusions.

The writer of the paper under consideration asserts that "pure cream is simply ungathered butter," and that the mechanical gathering of the cream makes butter. There are chemists and microscopists who hold to the same opinion; but the preponderance of opinion on the part of this class of observers, is very largely in favor of the theory that the butter globule is surrounded by a pellicle of nitrogenous matter. The various specific-gravity determinations of milk, cream, butter and butter-milk, strongly corroborate that view, and the quality of the butter-milk fully confirms it. If the merely mechanical gathering of the butter were the whole of churning, there would be no material

difference between the skim-milk and the butter-milk; whereas, under every circumstance in which butter is produced, whether from new or old milk or cream, the quality of the residuum is very different from skim-milk. It has been reported the past season, that there is a cow in Ohio whose cream is pure butter. I would go farther to see such a cow than to see all the elephants, white-mice, *et cetera*, that Barnum ever owned.

The writer discusses specific heat. He says: "For under this law when milk is rapidly cooled, the cream globules cool faster than milk." The fact is, milk absorbs or radiates heat much more rapidly than cream, as I have proven by hundreds of experiments, while the capacity of cream for holding heat—technically known as its specific heat—is *said to be* greater than that of milk. This is only an apparent contradiction which, though not inexplicable, must be passed over at this time.

The theory that currents in milk obstruct the raising of cream, and that only an uniform temperature is effective, is in direct conflict with the facts in the premises. Cream is raised by the effect of gravitation, but not when the influences affecting this law are conflicting. There is good authority for saying that the whole of cream is never raised by the best method. Few persons appreciate the waste attendant upon the most popular of these. Milk freshly drawn from the cow, at blood heat, is in its best physical condition for separating out its cream under the operation of gravitation; but, kept at that temperature, it will not do it. If the milk be kept from parting with its cream by agitation, and the temperature be raised or lowered to the "fixed and uniform temperature" of the writer, no matter what it may be, and then set till Doom's-day, it will not part with its cream. Different milks act differently under such circumstances. All will throw up some of the cream; a few will throw up a considerable part, but none will throw all or nearly all.

Cream rises best under a falling temperature, and much better when cooled at the top than when cooled either at the bottom or sides. There is nothing mysterious about this either. It is in strict conformity to natural laws. When uncreamed milk is cooled, the milk, or serum, parts with its heat much more rapidly than the cream, and is contracted first, and the difference in the specific gravity of the two is increased, favoring the rising of the cream. But when the cooling influence becomes "uniform and fixed" the opposite effect is produced. The actual expansion of cream under the influence of heat, or contraction under the opposite influence, by the change from one "fixed temperature" to another, averages about as two to one in skim-milk.

If the milk is cooled at the top, as it is to a greater or less degree, of necessity, in all the quick systems, uniformly favoring currents are established throughout the mass under the law of convection; whereas, bottom cooling tends to impede this favorable action, but does not entirely prevent it on account of the specific levity of the larger globules of the cream. Side-cooling induces a system, or rather two systems of cross currents, one inward at the bottom, and another outward at the top of the mass, which to a greater or less degree, according to several circumstances, counteract the favoring influence of direct vertical currents.

The theory that cream is carried down by the descending currents, is untenable. It is due to the failure of the theorist to distinguish between the force of a stream flowing along, as a river between its banks, and the mere interchange of position between particles of a mass in a close vessel. The downward current is produced by the excess of the force of gravitation exerted upon one portion or particle of the mass over that exerted upon another lighter one, lying lower down in the mass, which must give way and move upward before the first can go down. Gravitation always acts downward, but there can be no downward motion or current without a corresponding upward current and *vice versa*. If the particle of milk going downward could attach itself to the lighter particles of cream, it would by this means buoy itself up as often as it would carry the cream down. There is, in milk, a sort of viscidity which prevents the free motion of the particles among one another, and which is a great obstacle to cream raising; as the temperature falls it is intensified, but it does not amount to any such attaching force as is implied in this theory. On the other hand, the action of cold does actually increase the natural repugnance of cream for milk, which is only in degree unlike that of oil for water, and causes mutual repulsion between the two, instead of attraction. Another writer, thinks this principle of repulsion sufficient to account for all the effects of cold upon the milk—a necessity he is driven to by his persistent adherence to the specific-heat dogma, and an unavoidable admission that cooling does cause the separation of the cream in some, to him, mysterious way.

Our writer says: "Cold setting is effective, not because it is *cold* setting, but because it is setting *at a fixed and uniform temperature*." The statement is wholly untenable. Everybody who practices cold setting knows that the best results are obtained by putting the milk into the setters just as soon and as warm as possible from the cow, and persistently cooling it *after* it is so set. Nobody ever practices setting in the manner advocated, and nobody could if he would, unless he kept his milk at the natural temperature. Cold setting is progressive cooling—nothing more, nothing less. The allusion to the common experience of every dairyman, that in cold weather he experiences difficulty in getting his cream in the common pans, does not prove anything for his view of the subject. The difficulty with the common pans in winter is that the cooling is upon all sides alike, and the milk sooner attains that happy "fixed and uniform temperature," with absence of currents, which the writer has so long and so arduously sought for, and of course, without motion or action among the particles of the milk, there can be no separation or rising of the cream. If instead of the common tin pan, which is an excellent conductor of heat, the old-style, thick, non-conducting earthen pan, warmed before straining the milk into it, were used, there would be little difficulty in getting the principal part of the cream in cold rooms in cold weather, especially if the pans were deep enough so that the cooling from the atmosphere of the room did not take place before the necessary currents were fully established.

But the winding-up sentence of this theorist caps the climax. He says: "The sole and only point to be observed is the entire abolition of currents in the milk by the preservation of an absolutely uniform temperature." That, of course, implies the abolition of cream, for until Nature's laws are suspended, no cream can be raised without both an upward and a downward current in the mass. I still believe it will be found better policy to work in harmony with Nature than to attempt to nullify or divert her efforts in our behalf.

The Herdsman.

RELATION OF WEIGHT TO PRODUCT IN DAIRY STOCK.

PROFESSOR E. W. STEWART.

Lack of Experimental Investigation Here.

DAIRYMEN are now beginning to inquire anxiously as to the most profitable dairy stock, and they seem interested in all the incidental questions relating to that subject. Among others the effect of size upon the economy of milk production is now under discussion; and each side seems to find a solution of this in accordance with its own practice or predilections. The keeper of Holsteins, Short-horns, or their grades, believes the larger cows produce the larger profit; but those who delight in the deer-like, little Jersey, and the moderate-sized Ayrshire, are tenacious in the opinion that the small cow yields the larger profit; that is, that the smaller cow yields more product for a given amount of food. The views of both sides, however, on this subject appear to be mere matters of opinion, not being based upon comparative experiments of their own.

But this question has been pretty well settled, in some of its important phases, by experiments in Europe; and it is a little surprising that there is no accurate experiment with any of the dairy breeds on record in this country, showing the relation of food to product. It is certainly discouraging that among all our agricultural colleges, many of them located in dairying States, not one has carried out an experiment to solve this question. A few days' feeding with the weight of animal, amount of food and product, noted, would be of little use. The experiment needs to be carried on for months, carefully noting the weight of the cow at the commencement and at various periods, the daily ration of food and product of milk, with chemical analyses of the milk at stated periods, and the result in butter and cheese. This, carried out for a season, with at least ten of each breed, would furnish a basis of facts upon which this question could be solved; and it is an economical problem second to no other relating to any specialty of agriculture.

European Experiments.

The relation of weight of animal to food and product of milk has received considerable attention in Germany and France.

Baron Ockel of Frankenfelde, experimented with Ayrshires and Hollanders. The average weight of the Ayrshires was 806 pounds, and of the Hollanders 1,016 pounds. The experiments proved that the Ayrshires eat 3 3-10 pounds of hay to every 100 pounds live-weight, whilst the Hollanders consumed 2 8-10 pounds. The Hollanders required 1-60th of their live-weight as food of support; while it required 1-50th for the Ayrshires. He then tested the principle on different sizes of the same breed. He took four Holland cows, the two heaviest of which weighed 2,112 pounds on June 14, and the lighter two weighed 1,537 pounds. He fed them in two lots—the heavier in one and the lighter in the other. The experiment lasted sixteen days, with the following result:

	Lucern eaten by the cows.	Milk given by cows.	Milk for 100 lbs. of Lucern.	Lucern eaten per 100 lbs. live-weight.
Heavy cows	4,921	310 qts.	7.4 qts.	14.6 lbs.
Light cows	3,859	240 "	5.5 "	16.0 "

Here heavier cows of the same breed, with the same treatment, consumed relatively less food than the lighter, and, besides, yielded a greater return of milk from it. In 1852 a series of experiments was carried on at eleven different places in Saxony, by order of the Royal Agricultural Society, through a period of five years, the cows selected being some of the best "scrubs," together with Allgaures, Oldenburgers and Hollanders, the latter two being of the same breed. The results per year were reported as follows, with common feed and common care:

The scrub cows averaged	1,437	quarts	per year.
" Allgaures "	2,334	"	"
" Oldenburgers "	2,220	"	"
" Hollanders "	2,062	"	"

With the best feed and care:

Scrub cows averaged	2,365	quarts	per year.
Allgaures "	3,060	"	"
Oldenburgers "	3,712	"	"
Hollanders "	3,232	"	"

One dairy of Hollanders, of 190 cows, averaged 4,076 quarts per cow per year. In regard to the size of cows, Caspori made eighteen experiments in feeding milch cows with a view to ascertaining how many pounds of hay, or its equivalent, it required to make 100 pounds of milk. He found that in Prussia, 100 pounds of hay given to Hollanders, made 25½ quarts of milk; and the same quantity fed to the Allgaures, made 30.98 quarts of milk. At eleven dairies in Saxony, the value of 100 pounds of hay produced in Oldenburgers 25.40 quarts of milk; in Hollanders, 26.10 quarts; in Allgaures, 30 quarts; and in scrubs, 23.65 quarts.

Villeroy's experiments resulted as follows:

Hollanders	28.93	quarts	per 100 pounds hay.
Yorkshires	27.45	"	"
Devons	19.13	"	"
Herefords	15.97	"	"
Jerseys	26.33	"	"
Allgaures	27.61	"	"

These experiments nearly all point the one way, and show that the heavier the animal the less proportional food it takes to support life and the greater the surplus to be made into milk, or into flesh in animals designed for the butcher. This also appears philosophical and what might be expected. And it is probable, to say the least, that careful experiments, carried out on a large scale, will corroborate this view. The point as to the economy of small cows for the production of butter, is not settled by these experiments. It may well be that the small Jersey cows, bred especially for yield of butter, are the most economical for that specialty; but let us not assume this till it has been thoroughly proved. In feeding for beef or mutton, there can be no doubt that the larger animals are the most profitable in localities to which they are adapted.

FOUNDATION OF A GOOD JERSEY HERD.—Mr. Charles L. Sharpless, Philadelphia, has sold to T. S. Cooper, Coopersburg, Pa., the Jersey bull Chelten Duke, price $500. This was the bull of the Centennial Prize Herd, and was out of imported Duchess, that made 13 pounds of butter per week on grass alone, and if pushed with grain, would have made a much larger yield. He was got by Pilot, jr., whose dam was imported Jenny that made at the rate of 17 pounds of butter per week. Mr. Cooper has also engaged to arrive, heifer calves out of the imported cows Milkmaid (that was bought at Mr. Gilbey's sale), Black Bess and Tiberia, three of the four cows winners of the Centennial Herd Prize; so that he will soon have the foundation upon which to build one of the best herds in the country.

The Horseman.

HORSE DELUSION.

COL. F. D. CURTIS.

GRADUALLY it begins to get into the mind of the average farmer that raising trotting horses doesn't pay—at least for him. It may pay somebody, but that somebody is not himself. 'Tis true the papers say that "Joker" has been sold for a thousand or more; but young "Dexter," now five years old, that has a very "promising gait," and has never earned a cent, for he was too valuable to work, has not been sold. "The price for such a colt is low—not a bagatelle of his true worth. Such a stepper as he is worth $500. Why people ought to snap at him at that figure." "He will go one of these days, when a man comes along who can appreciate him." "Why, I should not be surprised if he brought several thousands yet. See what Bonner pays, and this colt is a grandson of 'Hambletonian.'"

And so the delusion is kept up until young "Dexter" "eats himself up" several times, and the skeleton buggy is worn out, and then in despair and disgust the owner sells him for $125—all he is worth—and the trotter goes into the horse market and wears out before some light wagon or perhaps a street car.

Not one "promising colt" of trotting stock in twenty-five is ever worth any more than the average value for horses designed for drudges before light carts and trucks and street cars. Here they are really unfitted for the work required of them, as they are generally too light in bone and muscle, and consequently break down early. The time spent in fussing over trotting colts by the time they are five years old, and in training them, is worth all they will average in price when sold, take the country through. Such a colt must not work, as it would spoil its gait and spirit; so it does not earn anything, and grows up a dead loss and leaves the breeder in debt. The account might be made up in this way:

YOUNG DEXTER.	Dr.
To use of sire	$25 00
" keeping dam one year without work	20 00
" wintering first winter	15 00
" keeping second year, hay and oats	40 00
" do third do do	40 00
" do fourth do do	40 00
" do fifth do do	40 00
" skeleton buggy or sulky	73 00
Total	$305 00

If a colt had been raised large enough for a carriage or cart horse, or to be used on a heavy truck—which kind of horses have a fixed value and are in constant and permanent demand—at three years of age it might have been put to work and earned its keeping, and, when five years old, it would bring from $200 to $300, according to its style and size. These are the colts for farmers to raise, especially in the Eastern States. They will always bring a paying price, for they are good for farm work or any sort of service. They must be not less than sixteen hands high, with as much natural style and action as possible. It is not necessary that they should be "trotters," but they should be good easy travelers. Let the breeding of trotting horses be confined to the large breeding farms, where the business is systemized and expert trainers can handle them; and then a large proportion of the demoralization connected with fast horses, and much of the damage to farmers in trying to breed and train them, may be avoided.

The Swine-Herd.

HOG PENS AND HOG CHOLERA.

Now that summer is approaching, hogs, if confined, should be turned out to pasture. Many a farmer keeps his pigs in a little yard or pen, often near the house, where the mud is as deep as they can wallow through. He throws their feed in the mud, from which they must pick it as best they can, and clean water is something that they do not get from one year's end to another. Yet such a man will wonder why his family have the fever and his hogs the cholera! I have seen hogs kept in this way, or, worse yet, in floored pens which were never cleaned, until at killing time their bellies were full of small ulcers; and such meat is packed and shipped to the East as prime mess pork! Places where filth always reigns supreme are the fattening pens connected with distilleries. I believe that such places have as much to do with spreading disease among hogs as among cattle. So far as I have ever known, when cholera makes its first appearance in any district, it has nearly always been among the swill-fed hogs of distilleries or flocks treated as described above. I do not claim that in great cleanliness we have an infallible preventive of cholera; but I do claim that with cleanliness and proper variety of food, the appearance of the malady would be less frequent and its victims fewer; that farmers by little care and attention might save themselves much loss. Men shut a pig up in a filthy pen and give him filthy garbage to eat, and then abuse him because he is an unclean animal; but let them give him a clean place to stay in, clean food and clean water; in short, treat him as well as other stock, and see if he is not as clean as other animals. Now, farmers, try a little wholesome cleanliness with your hogs and see if they do not pay better. V. J. EMERY.

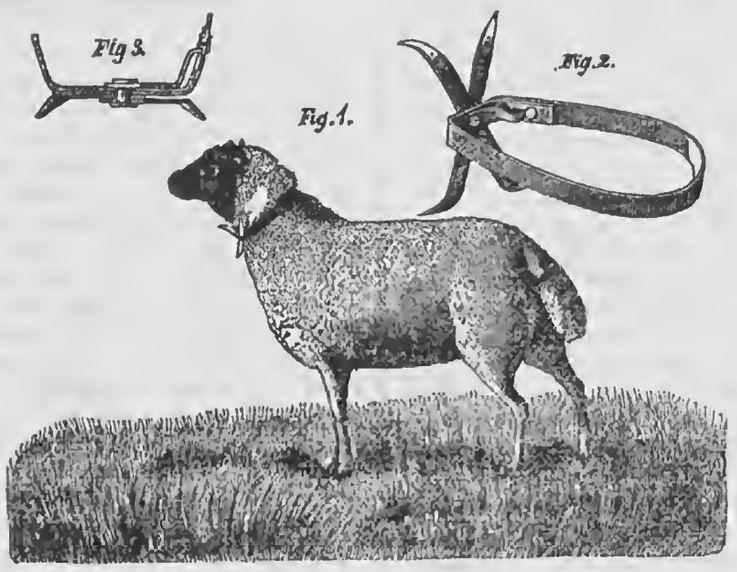
Henry Co., Ohio.

Sheep Husbandry.

PROTECTION FOR SHEEP.

Dogs are the greatest obstacle to the successful keeping of sheep. As there is no other kind of farm stock that may be made so profitable as sheep,—to say nothing of their value as furnishing a material for a useful domestic manufacture in the shape of spinning woolen yarn and knitting woolen goods, occupations which have unfortunately fallen into disuse mostly on account of the decline of sheep-keeping—it is not too much to believe, that the United States could profitably support 100 millions of these animals, if the ravages of dogs could be prevented. This is not at all impossible. It is our business to surmount difficulties. The greater intelligence of mankind is made of poor account, if it cannot find a way to overcome the sagacity or the instinct

of a brute; and it is one of the chief ends of man to overcome the difficulties that are met with in procuring subsistence and the means for comfort in spite of the injurious attacks of the lower animals, insects included, with various other pests which interfere with the success of our labors. We believe that a way may be found to overcome all these; and every hint to this effect is useful. We give herewith a method described in a German paper, by which sheep may be enabled to resist the attacks of dogs. It consists of a metal collar furnished with sharp, steel spikes, as shown at Fig. 2, and applied as shown at Fig. 1. At Fig. 3 is shown more in detail, the manner of fastening the spikes and the collar. The collar may be made of light hoop iron, and the fastenings may consist of small bolts with nuts. The spikes are held in the same way, and the collar is opened and closed by removing and replacing the bolt shown on one side. A strap of harness leather may be used in place of the iron band, and this would be more easily managed. While this may not be a thoroughly effective preventive, it will, at least, be a great protection to the sheep. Dogs will attack the animals by seizing them by the leg or hindquarters, but the throat is the most vital point; and if this is well protected the sheep will not be killed, although they may be injured.



COLLAR TO PREVENT DOGS FROM KILLING SHEEP.

The Apiarian.

HOW TO ITALIANIZE.

THE excellent qualities of the Italians as compared with the black bees, are so much in favor of the former that all amateur bee-keepers should supersede their common stock with Italians as soon as practicable. The Italians have been cultivated for many decades, perhaps centuries, in the valleys of Northern Italy, and in appearance differ from the common bees only in having the three first segments of the abdomen of a bright yellow color.

To Italianize a colony, it is by no means necessary to sell or kill off the black bees. All that is required is to remove the old queen, and in her place introduce a fertilized, pure Italian. The queen is the mother of every bee in the hive. She lays the eggs from which all workers, drones and queen-bees are developed. Hence, when a pure Italian queen becomes sovereign in a hive, her progeny will be pure Italians, and as the life of those bees that are hatched in spring, or early in summer, and have to collect the honey of the season, is but about three months, while those hatched in the fall, that go through the winter, live only about seven or eight months at the most, it will take but a comparatively short time until the old bees have disappeared from the stage and their places are filled with the children of the new queen.

If one has no pure Italians from which to raise a queen, the only alternative is to procure a young, tested queen from a reliable breeder. By a "tested queen"—a colloquial phrase among bee-keepers—is understood a queen that has been fertilized, and the purity of whose progeny has been ascertained. An investment in such a queen is a valuable acquisition to the apiary. An untested queen, though she can be bought cheap, is at best but a game of chance—a lottery—upon the fortunate turns of which no prudent bee-keeper will stake the value of his stock. Many and plausible arguments have of late been brought forward both for and against the practice of selling "dollar queens." We would advise those of our readers who may desire to purchase queens, that in the choice between quality and cheapness, they should invariably choose quality. If a breeder can furnish a tested queen, young and healthy, and warranted to be fertile, pure and prolific, for one dollar, then well and good; she is all that can be wished for; but if there is the least chance of her having imperfections that will interfere with her fruitfulness, or of having met a black drone, or that she has not been fertilized at all, she should be rejected; and rather than buy such a mother, one should pay from three to five dollars for one that is known to be perfect.

A pure queen obtained, it remains but to introduce her to the colony. On a mild day, when the bees are busy gathering honey, and most of them are absent in the fields, blow a little smoke into the hive to quiet the bees; then carefully take out and examine one frame after another till the old queen is found. Having found and destroyed her, together with all queen cells that may be under construction, the frames should be replaced. Next catch the new queen by the wing (always by the wing, as she may be seriously injured if grasped about the body), and inclose her in a small wire-gauze cage, made by bending the gauze over a finger and uniting the edges, leaving it open at one end, and close up this opening with a wooden plug or by bending the edge. When thus caged, place the cage between two frames, so that her majesty can help herself to honey from the comb. Only in very rare instances, when the bees have been a very long time without a queen, and have lost all hope of rearing one, is it advisable to introduce a valuable queen to a colony without caging her; but having been in the cage from thirty-six to forty-eight hours, the bees will have made her acquaintance, and she can then be released. Again, blow a little smoke into the hive, and if the bees should be much agitated, sprinkle them with a little peppermint water; then open the cage, daub her back with a drop of honey, and let her go out among them. If they take but little notice of her—content themselves with sipping off the honey, and then go on with their work—she is safe, and can be left without fear; but if they clinch her, and form a ball around her, she must again be put into the cage for a day or so, when the trial may be renewed. Once acknowledged ruler of the colony, she is out of danger, and in due process of time the black bees will die out and the hive be filled with active, amiable Italians.

BEES AND HONEY PLANTS.

I HAD 200 colonies of hybrid bees last autumn, and I have not lost more that six. The winter having been unusually cool, bees have not been out as much as usual and consequently losses have been less. Our bee season commences in February and continues till near December, giving us a long working season, when we take care to keep a succession of flowers for pasturage. In September we usually have the greatest drought of the season and nearly all our wild flowers are dried up. During this dry season if nothing is prepared by cultivation for pasturage, the bees get scarcely enough to subsist upon. Our lucerne meadows give great help, but generally as soon as the plants get well in blossom, the mower spoils all the prospects of honey from that source.

In all my experience with bees, I find Mignonette the most valuable for bee pasturage. This I announced through the bee journals several years ago, and continued experience has strengthened that conclusion. That plant blooms early and continues to blossom till nipped by frost. I have not a shade of doubt but that a well cultivated acre of this plant would give abundant employment for 500 colonies.

Sweet Clover comes next to Mignonette, in value for bees. There is little doubt but that this plant will yield honey faster than Mignonette, but being a perennial, it costs double what the other does that blossoms annually and is self-seeding after having once been started. There is still another very valuable plant for bees, known as the "American bee plant" that was introduced into the East in 1858. It grows in sand, is a wonderful bloomer and honey-producer, but the honey from it lacks the fine flavor of that collected from the first-named plants. I. E. JOHNSON.

St. George, Utah.

Entomological.

PARASITES ON DOMESTIC ANIMALS. No. 1.

PROFESSOR A. J. COOK.

I THINK that in all the vast realm of insect life, there are no other species so justly abhorrent and so miserably disgusting as the external parasites on man and the lower animals. Their very look is repulsive, their habits intolerable, in sooth they are fit companions of the dirt and filth which ever serve as the kindly foster-mother to these most repellant of animals. Well may the neat housewife start aghast at the sight of the nasty bed-bug, or blush with shame and confusion at the news that her own fond kin are nourishing those repulsive pigmies, the head-lice. The thrifty farmer also dreads the presence of these terrible blood-thirsty minions on his kine, for he knows that the prosperity of his animals is well-nigh impossible, if they must give of their substance to nourish these enervating parasites. But it is well to be acquainted with lice, and even with Satan himself, if acquaintance means riddance. Hence I make no apology for introducing, and even dwelling upon the habits and character of these noxious pests of the barn and poultry house.

Fleas, Family Pulicidæ, Sub-Order Diptera.

As the immature fleas live upon the organic matter of dirt and filth, these animals can only thrive as the companions of antidyness and neglect. Hence, we have more than one reason to congratulate ourselves that our State is not much troubled by these irritating pests. I have yet to see the human flea in Michigan. But, with neglect and filth, the dog, cat and hen fleas will put in an appearance even in our goodly State, and it is an unwelcome fact that these latter are nothing loth to take a sip from our own precious blood, if opportunity offers. The flea, structurally speaking, is a kind of nondescript among insects, and hence has been ranked by many able entomologists in a distinct sub-order—Aphaniptera. Others, and I think wisely, have regarded it as a degraded dipteron. The fact of its being apterous is certainly no objection to this, as all sub-orders have members that are wingless. The possession of labial palpi (Fig. 1, f), which are wanting in all other dipterous insects, would seem a stronger reason for separation, yet such differences are wanting in other groups. When we take into consideration their whole life economy, we are quite warranted, I think, in grouping them with our house flies, mosquitoes, bot-flies, etc.

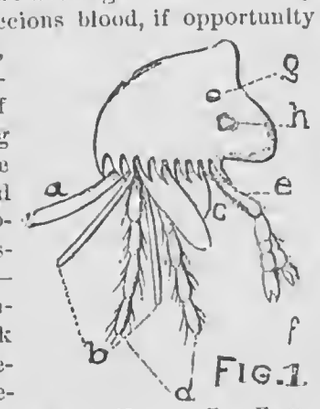


FIG. 1.—HEAD OF DOG-FLEA.

Family Pulicidæ.

The Family Pulicidæ, only includes fleas and the closely related insects, the curious jiggers, which are if possible still more degraded. These insects have only simple eyes, (Fig. 1, g) a slim labrum (Fig. 1, a) or upper lip, while the labial palpi, usually absent in dipterous insects, are always present.

Pulex Canis.

As all fleas are much the same, I will only describe the dog-fleas, Pulex Canis, (Curtis), which is our most common species. This species (Fig. 2) in common with all of the genus, is slim, and has a hard crust, hence the rapid transit of these animals, even through the densest fur, and their general exemption from hurt. The wings of all fleas are very abortive, and by the aid of the thickened thighs (Fig. 2) of their posterior legs, they ever remain as champion jumpers. Their antennæ (Fig. 1, h) are three-jointed, and concealed in pits, just behind the simple eyes. The joints of the antennæ are broad, flat and lobed. The mouth-parts are in general like the same in the mosquito, though they have the four-jointed labial palpi (Fig, 1, d) which are wanting in all other diptera. These organs form a firm but slender lance, by aid of which the insect is able to pierce the toughest skin, and through a tube formed by a union of these self-same parts, the blood is forcibly pumped up by a strong, muscular engine, their sucking stomach.

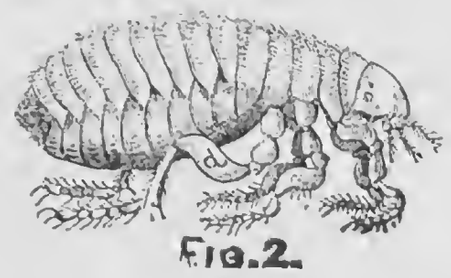


FIG. 2.—DOG-FLEA.

The dog-flea (Fig. 2) is so named as it prefers to satiate its blood-thirsty appetite from the dog. If dogs are permitted to harbor these annoying pests, the latter will gain admittance to houses, will hide in carpets, mats, etc., and anon, as occasion permits, will slake their thirst with human blood. A single flea may pierce and suck a half-dozen times in quick succession, and so agile are they that it seems to take them hardly as many seconds. "Biting as they run," they quickly inflict their painful wounds on various parts of the body. The color of the dog-flea is dark chestnut, darker than the human flea, and unlike the latter, it has sharp spines (Fig. 1) projecting from the lower lateral borders of its head, and the posterior edge of the first thoracic ring. The small, oval white eggs are laid on the animal, or in the dust of the kennel. The larvæ (Fig. 3) are footless maggots with lateral hairs, and live in dust and dirt where they feed upon the organic matter which these contain. They mature in about two weeks, when they spin slight cocoons in which the inactive pupas may soon be seen. In two weeks more the mature fleas hop forth. There are several broods in a season. They pass the winter certainly as imagos or mature fleas, and perhaps in other stages

FIG. 3.—LARVA OF FLEA.

Pulex felis, (Bouché) or the cat-flea, is very similar and perhaps identical with the dog-flea. Pulex gallinæ, (Schank) or the hen-flea, infests the poultry house and attacks the hens. Other species live on pigeons, bats, etc. All of the species will test the quality of human blood, if opportunity offers. The fact that larval fleas love and only flourish in dust and dirt, accounts for the lively appearance of the dust often noticed in poultry yards and about gardens, where the dogs, cats and poultry lie or roll. From being seen in such localities, the mature insects are sometimes called sand-fleas.

Remedies.

To thrive, aye to live, the incohate fleas must have dirt, hence cleanliness is a first-class preventive. The straw in kennels should frequently be burned and clean straw added. Frequent sprinkling of the poultry house and yard with a strong solution of carbolic acid will destroy the larvæ. I have found that a mixture of kerosene oil and lard, placed in three or four places about a dog, would immediately free it of the pests. A wash made by mixing one part of kerosene or benzine to ten parts of water, or three parts of carbolic acid to 100 of water, or a strong decoction of tobacco water, formed by steeping two pounds of tobacco in ten gallons of water, if applied to the animal and thoroughly rubbed in, will be completely efficacious, and do the animal no harm.

The Sarcopsylla penetrans, Linn., or jigger of the tropics, is a serious pest to the inhabitants of those regions. They feed, breed and live under the toe nails, where they cause distressing sores which in rare cases are so serious as to demand amputation.

[The above drawings of the insects described, are by Mr. Sherman Upton, of the Michigan Agricultural College.—EDS.]

Horticultural.

A NEW RASPBERRY DISEASE.

SOME time ago we received from an extensive nurseryman in Illinois a section of a Black Cap Raspberry cane affected by an unknown malady, which is proving very disastrous to the raspberry vines in that section. Said our correspondent: "I first noticed the white patches on the Davidson's Thornless, three or four years ago, and now there is scarcely a plant of that variety left in this vicinity. For the last two years the spots have appeared on all the Black Caps, and the only way to obtain a crop from that sort, is to destroy all the old vines and to make new plantations; for the visitation does not affect the vines until they are three years old. Many who raise the fruit here for market have never noticed the white mold on the canes, and instead of attributing the loss of their vines to it, they merely suppose they are dying out naturally." Our friend says the disease is universal throughout that State, and he asks its cause and a remedy.

From inquiries we learn that in parts of New Jersey, also, the ailment is playing havoc with the Black Caps and threatening the others. Last season the New Rochelle was seriously affected on one extensive plantation, the owner of which sent specimens of the affected cane to several eminent authorities, and asked their opinion as to the cause of the malady and a remedy therefor. To him we are indebted for the following information collected in this way:

Prof. Hazen, the entomologist connected with the Agassiz Museum, says: ". . . I have discovered in the Rubus stem nothing resembling an egg of an insect, nor anything affording proof that a larva had lived there. The beginning of the mischief is a puncture—a small hole going through the bark and per-

foratiug the wood. This puncture is round, and the epidermis is raised a trifle. Around the puncture is a dark ring, appearing, under a stronger lens, to consist of a number of cells, irregularly filled with dark, reddish-brown matter. The whole has strikingly the appearance of a bark pierced by some insect, which it sucked and left for auother spot. This could only have beeu doue by a hemipterous insect. . . . There are several small hemiptera—Cicadellina and others—that could have done it."

Dr. G. W. Harlow, of the Bussey Institute, Mass., says of it. . . . "On examining the specimens of the raspberry canes sent, I expected to find the fungus not uncommon on Raspberries; namely, Aschochyta pallor. A microscopic examination, however, although showing the mycelium of some fungus, did not give any evidence of the presence of the particular species expected. The impression derived from examining the stems, was that the trouble was uot originally produced by a fungus. . . . The specimens sent me were not in the proper state to decide the matter absolutely, but it seems probable that the trouble originated in the sting of some insect. Whether in a later stage the fungus, Aschochyta pallor, may not be developed, is still an open question. . . . The existeuce of the disease has not yet been called to my attention by Raspberry growers of this region, but it may hereafter turu up near Boston."

Prof. Chas. H. Peck, State Museum of Natural History, Albany, N. Y., writes: "I have no doubt the affection of the raspberry canes is fungoid in its character. I find fungoid filaments in the spots, and in some of them there are miuute brown or blackish dots, scarcely visible to the naked eye. These do not occur in all the spots, from which circumstauce I infer that some of the spots are sterile; that is, they do not perfect the spores of the fungus, but are, nevertheless, as injurious to the plant. The blackish dots produce spores, and from their character I should refer them to the genus Phoma—one species of which has proved injurious to Grapes, and another to garden Lobelias. . . . Until I can learn more of the disease, the only remedy I can suggest is the obvious one of cutting up aud burning all the affected canes, so as to prevent the spread of the disease. If this be done before the spores mature and are disseminated, it may have this effect.

"But there is another point on which we need light. Do the spores lodge in the canes, and germinate and penetrate their tissues? or do they fall on the ground, and, when a young shoot is first pushing its way to the light and comes in contact with them, do they then enter it and live in its tissues until it is fully developed, and then burst forth? I suspect the latter is the case with the raspberry rust, and that *it* can be overcome only by rooting up the whole plant. This cane fungus may be different, but by watching it to see if it is confined to the same tuft or cluster of canes from year to year, the question can be settled. Those fungi that live in the inner tissues of plants are difficult to deal with except by destroying the plant with the fungus; for external applications cannot reach them. In case of external growers, like mildew, the sulphur remedy is available."

The nature of the disease and the best remedy therefor will be further investigated by each of these gentlemen, and doubtless by other experts also; and we shall continue from time to time to luform our readers of any fresh discoveries in that connection.

AN EXPERT'S OPINION OF THE MONTCLAIR RASPBERRY.

The following correspondence with regard to this new Raspberry will doubtless be of interest to many of our readers:

CROTON, N. J.

DR. F. M. HEXAMER—DEAR SIR: I saw the seedling Raspberry of Messrs. Williams, of Montclair, this season, aud was favorably impressed with it. I learned from them that you had been to see it also, and I would like, as the RURAL NEW-YORKER has described and illustrated it, to have you give its readers your impression in regard to it, being a disinterested and competent authority. W. W. WARD.

New Castle, Westchester Co., N. Y.

I have seen this seedling Raspberry—now named Montclair, I think—at the nursery of Messrs. E. & J. G. Williams, Montclair, N. J. At the time of my visit the hight of the bearing season was already over; but, nevertheless, the long rows of strong, upright canes, covered with large, dark-green leaves, and literally loaded down with large berries, were a sight to behold. The main character and appearance of the plant and fruit are much like those of the Philadelphia, only more vigorous and larger, and even more productive. On closer examination, however, the berries are found to be finer-grained, more conically shaped and firmer. In color there is hardly any difference between the two varieties. In quality the Montclair is, although not equal to the foreign varieties, decidedly more sprightly and aromatic than the Philadelphia.

That the berries carry well and will stand a good deal of rough handling without spoiling, I know from personal experience. In a temperature of 101° in the shade I picked a quart basket full of ripe berries, covered it with paper and tied it up. This basket I took with me on a carriage ride of several miles, then by rail to New York, through the city in a street-car, on another railroad trip of thirty-five miles, and on another wagon ride. The basket was then kept in a warm room and not opened until two days afterwards, when the berries were found to be in good eatable condition.

Messrs. Williams' soil is a stiff clay, apparently not very favorable for the best development of Raspberries, and the plants, growing on the ridge of a slight elevation, seemed to have had no more than ordinary cultivation—rather less. They have never received winter protection, and from the fact that half-hardy kinds — Hudson River, Antwerp, Brinckle's Orange, and even Brandywine and Highland Hardy—are winter-killed on these grounds, I should consider this new variety entirely hardy.

If the "Montclair" Raspberry will succeed elsewhere as well as in its native place, the Messrs. Williams stand a fair chance of making as valuable an addition to the list of Raspberries as they have given to that of Blackberries, with the introduction of the far-famed Kittatinny. F. M. HEXAMER.

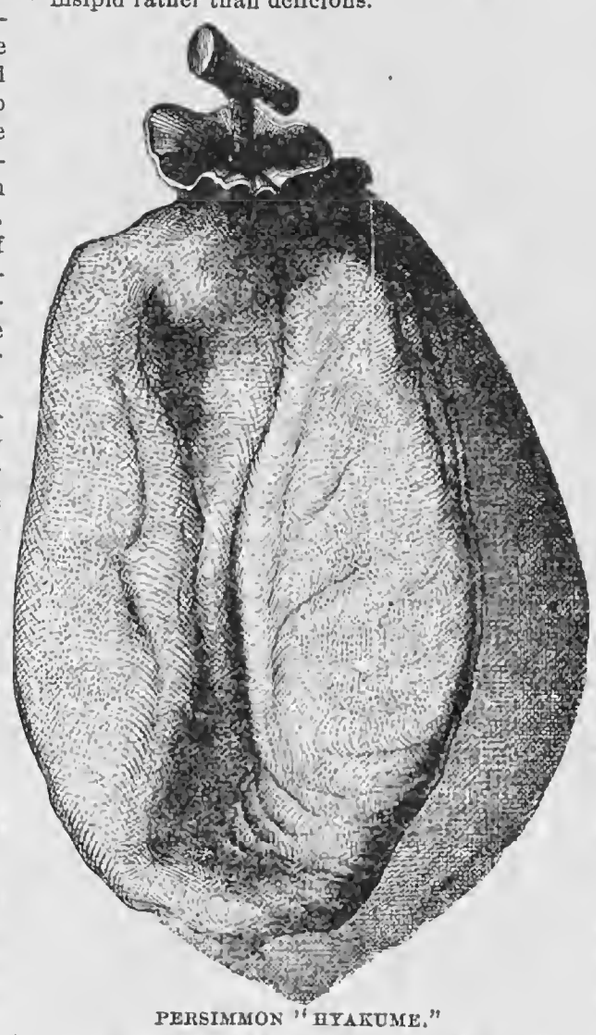
[Reference is made elsewhere to how the Montclair has stood the past winter. We are glad that Dr. Hexamer so nearly repeats our own impressions, as stated last year.—EDS.]

THE JAPAN PERSIMMON OR KAKI—(Diospyros Kaki.)

FOR two years past this plant has been advertised in this country, and is now for sale by leading nurserymen. What is it good for? A trustworthy answer may now be given, since some of the best varieties have fruited in this country.

The fruit of the largest varieties, when ripe, is about the size of the Acme tomato, though not so flattened "at the poles." In other words, it is deeper from the stem vertically through, and not so wide. The color is much like that of the tomato—in some varieties red, in others yellow.

When not fully ripe it is very "puckery," and in some varieties even the ripe fruit is astringent. In Japan this astringency is removed by packing in tubs of bran, a method of packing with the details of which we are not familiar. The flavor of the best sorts is sweet, and, from all we can learn, somewhat insipid rather than delicious.



PERSIMMON "HYAKUME."

The Kaki will not perfect its fruit in this climate; that is, in a climate similar to that of New York City. The latitude of Washington will probably prove its northern fruit limit. We have lately received from Mr. Charles Shinn, the obliging editor of the California Horticulturist, a small box of dried Japan Persimmons, of the largest of which, called "Hyakume," we have made a correct copy. These remind us, in flavor, both of the fig and the date, though they are inferior to either. In appearance one might easily mistake them for figs. The flesh, however, is tougher, and the seeds, as large as dimes, are flat and as hard as stones. Mr. Shinn writes us: "The Persimmons were from a box of dried fruit recently received from Japan. They should have been in very much the state of the ordinary Smyrna dried figs sold in all of our markets—were they so? The fresh fruit is, of course, not ripe at this season (April 3d) unless under glass. Very few trees are yet bearing in California. We send herewith one specimen of the largest dried Persimmon received—the 'Hyakume.'"

CUCUMBER CULTURE.

ALTHOUGH the cucumber is pronounced by physicians to be very unhealthy, yet it is very generally cultivated; and, in fact, no kitchen garden can be complete without it. It usually sells for a good price in market, and I, for one, am very fond of it, especially in the form of pickles, if these are put up as they should be.

My mode of culture is to dig out good-sized holes, six feet apart each way, and place about one peck of well-rotted manure in each; then fill up somewhat higher than the original surface, so that after the dirt settles, it will be about level with the surrounding ground, and plant eight or ten seeds in each hill. If very dry, I give them a sprinkling each evening after sunset, before they come up as well as through the season, for they are plants which require considerable moisture. I hoe often, and after danger from the striped bug is passed, thin to four plants in a hill.

The striped bug, Diabrotica vittata, seems to be a natural enemy of the cucumber, and against him I have tried all sorts of remedies which I have seen recommended. Boxes with thin cloth tacked over the top, are effectual preventives, but if one has many hills, devices of this sort are expensive. The last season I kept vines free from bugs by the use of ashes and kerosene. I moistened the ashes with kerosene and applied a handful to the center of each hill. It seemed to spread too strong an odor for them, and they beat a retreat. After commencing to bear, we look them over every day and gather some for pickles, saving a few of the earliest and most perfect ones for seed, and when they are ripe we pick them off and place them in the sun a few days; then the seed is taken out, washed clean, dried and put in paper bags for the next spring's planting.

CLIFTON.

Floricultural.

A WINTER'S EXPERIENCE WITH A CHEAP GREEN-HOUSE.

LAST season Mrs. Annie L. Jack gave in these pages a description of a cheap green-house she had built. Being a new venture it was impossible at the time to foretell how the little winter-garden would stand the rigor of a Canadian winter with the slight amount of fire heat she intended to give it. But now that spring sunshine furnishes quite sufficient heat, and the trouble is to keep the place cool without a fire, she gives our readers the following account of her winter's experience:

"We had built this small lean-to at the south side of the kitchen, and opened a door from there into it. A small office stove and the heat from the cooking stove have been amply sufficent to keep therein an even temperature, as all the chips and small bits of wood were used in the day-time and a fire of small coal put on about five o'clock in the afternoon in cold weather. The consequeuce has been that we have had fine, thrifty plants, and a constant succession of bloom, all winter, the Chiuese Primroses, Geraniums and others of that kind doing well in a cool bin at a distance from the fire, while our Heliotropes and Calla Lilies blossomed just above the fire, and a stand, all the length with five rows of shelves, gave extra heat and light to plants that needed them. Roses, red, yellow, and white, the rich Maréschal Niel, and the ruddy James Sprunt with many other sorts, have been a delight to us in many ways, while we have enjoyed the pleasure of giving away thirty-six bouquets during the long dreary winter.

All the girls and boys of the household own plants and have enjoyed their blooming, while at the time of birth-days among themselves or their little neighbors, they have delighted in giving away a pretty blossoming plant.

The door into the kitchen is always open except when that apartment is to be swept; *then* the door is carefully closed to exclude dust. It was a very pleasant bit of summer in which to work, or sit with a book or a friend, and if one of the children seemed to need quiet, or complained of some slight ailment, the usual prescription has been to send the ailing one to our *Italy* to sit in the sunshine that seemed to make summer all the time on that side of the house. Even little two-year-old walks about there without doing any mischief and regularly admires his own plants, and tells us which is "my flower." Such a greenhouse is a luxury many can attain, and in early spring is useful for raising cuttings, and seedlings, while lettuce, cress and radishes supply salad, that cannot then be otherwise raised. Perhaps the money it cost, might have bought us other luxuries, but that is a matter of taste, and I am satisfied with its success. Of course, one need not expect to keep stove plants in such a cool house, and some Crotons I purchased came to grief. But all the plants usually raised in window gardening, did well with us. Yellow Jessamine flowered, Begonias, too, have been full of blossom, while Sweet Alyssum, lifted in the fall, has been white all winter, and not the least of our floral treasures have been plants and cuttings sent us from the Rural Grounds."

Field Crops.

BLUNT'S WHITE PROLIFIC CORN.

WE copy the following article from the Weekly New York Sun because we desire to make a comment or so:

"BLUNT'S PROLIFIC CORN.—Quite a little breeze has of late sprung up among the seedsmen of this city over the above-named corn. It seems to have been pretty widely distributed by the Agricultural Department some two years since, and was well thought of, especially by the farmers of New Jersey, a number of whom had a good crop of it the past season. One farmer in Bergen County wrote to his favorite agricultural paper, describing this new corn, but at the same time was feeding it out to his stock, never dreaming that it was worth more than other varieties for seed. (1) But when his letter appeared in print, the editor of a rival sheet bought up the remaining stock of this corn, and sold the greater part to one of our seedsmen (2) as a new, valuable, and very scarce variety. The latter party announces:

"'We have been fortunate in securing from the originator his entire stock of the above;' and then proceeds to name the price, ranging from 75 cents per pound by mail to $10 per bushel by express. Of course, this announcement of a new variety of corn of such great value made all the other seedsmen a little uneasy, as it was evident that a brisk demand would follow so much talk about the merits of this new sort. But after a little inquiry, they discovered that there was more than one farmer in New Jersey, and probably elsewhere, who had cultivated Blunt's prolific corn, and had a limited supply on hand. A reduction of prices (3) followed among rival seedsmen, and the first drop was from $10 to $8; and then a third party offered it for $4 a bushel, at which figure it will probably remain for this season. The variety is certainly a very promising one, especially for the Middle and Northern States. The grain is very white and slightly indented, and the ears of medium size and well filled. It is claimed that on good, rich soils, each stalk will bear from four to six ears, and in some instances double this number, a hundred bushels per acre being but a moderate yield."

(1) Mr. Blunt described his corn in the RURAL NEW-YORKER of January 11, some time before the letter above referred to appeared in the "favorite journal of a farmer in Bergen Co." We, at that time, knew very little of Mr. Blunt. As his article to us made several statements respecting the yield of his corn, which we could scarcely credit, those statements were elided. Had we known him then as well as we now know him, his article would have appeared in print as it was written.

(2) We secured of Mr. Blunt his entire stock for one of our New York seedsmen, only stipulating with the latter that we should be provided (at cost) with a sufficient amount to supply the demands of our free distribution of it among our subscribers. As it is our invariable rule *never* to *sell* seeds or plants, the bill was presented to, and paid by this N. Y. seed firm. (3) As regards the reduction in price from $10 to $4 per bushel (if such is the case), we have only to say that we are confident the supply of the genuine variety in the hands of any one person is necessarily small and that we should greatly prefer to procure seed from Mr. Blunt's stock direct.

CARROT CULTURE.

THE carrot prefers a light, sandy loam of medium fertility. A good coat of manure applied to the soil the previous year, will prove of advantage; but if it is manured the same season, it should be with guano after the crop is up.

As a Garden Crop.

For garden culture the earliest crop should be sown as soon as the ground is fit to work. Late crops for winter use can be sown any time before the middle of June. The seed should be soaked a couple of days in water, and immediately afterwards mixed with a small quantity of ashes or plaster. This will prevent the seed from adhering together and it can then be sown more evenly. Sow in rows fifteen inches apart and cover the seed with about half an inch of soil. Later, the young plants should be thinned to three inches apart in the row. Cultivate diligently, and remove all weeds from the rows. The carrot crop is one of those crops that are irrevocably damaged if the weeds are allowed to get the start. The Early Horn and Atringham are among the best varieties for cooking purposes. For win-

ter use, carrots are most conveniently kept in a cellar packed, in dry sand.

As a Field Crop.

But the carrot is more extensively cultivated as a field crop for food for cattle and horses. For this purpose the Long Orange and Large White Belgian are the best. In good soil these may attain a size of twelve inches long and three inches thick, and give a yield of from 1,200 to 1,400 bushels to the acre. The land, which though light must not suffer from lack of moisture, should be thoroughly pulverized by deep plowing and repeated harrowing. Soak the seed and mix it with ashes or plaster as before, and sow it from the middle of May to the first of June, in rows two feet apart with a seed-drill, taking care that it does not clog in the hopper. Hoe the crop as soon as the rows can be seen, and when a couple of inches high, the plants should be thinned to six or seven inches apart. After this, the horse cultivator should go through the plat at least once a fortnight, as long as the crop is growing. In the fall, when the roots are taken up, they should be allowed to dry in the sun for a couple of days after the tops are cut off, before they are put up for winter use. They may be stored in a cellar, out-of-doors, or in pits, like potatoes and turnips, but having a greater tendency to decay than these, when put together in large quantities, they should be placed in small heaps only.

A crop of carrots is somewhat more expensive to raise than a crop of turnips, but for winter and spring feed both for horses and cattle, they are said to be better than any other root crop. Fed in moderate quantities, they strengthen the digestive organs of the animals and help to assimilate other food eaten in connection with them. Experienced dairymen have maintained that carrots fed to milch cows, not only increase the flow of milk, but that they impart a flavor to the milk similar to that from green pasturage, and that the butter from cows fed on the Orange varieties acquires a color like summer butter. The following analysis gives the composition of carrots:

Water	87.5
Albumen and casein	0.6
Sugar	5.4
Fat	1.2
Gum	1.0
Woody fiber	3.3
Ash	1.0
	100.0

Farm Topics.

FIELD TRIALS IN FARMING.

How to Increase their Certainty, and the Value of their Results.

CONRAD WILSON.

In this discussion of Experimental Farming, I propose to illustrate the true arrangement of the factors in field trials so as to get the greatest number of results, and the largest possibilities of yield and profit. In unfolding this argument I shall be able to show not only that better results and greater certainty are attainable in field trials, than we have yet reached, but to indicate also the *method* of obtaining them.

For this purpose, let me briefly submit here a form of experiment that is exceedingly simple, and that will tend to make the final conclusion entirely clear. The plan and outline of the experiment now presented is especially adapted to show the relative value for the corn crop of the leading chemical elements, both separately and combined, and also at the same time to test most thoroughly and exhaustively the needs of the soil. It will thus be seen how many and how marvelous are the results that every tiller of the earth can extort, even from obstinate soils, by experimental processes when rightly devised.

Let us take for this illustration six or seven of the chemical elements that enter most largely into the composition of crops, and which are also found more or less wanting in the soil. These are nitrogen, potash, phosphoric acid, soda, magnesia, lime and sulphuric acid. These elements are comprised in the following ingredients which are furnished by nearly all dealers for the use of the farm; viz., sulphate of ammonia, muriate of potash, dissolved bone, sulphate of magnesia, and lime. These fertilizers, though comprising seven or eight elements of plant nutrition, make but six factors in the experiment. Yet I propose to arrange them in such a variety of combinations that they will present not less than 70 or 80 distinct factors, out of which will flow more than 100 separate results, each with a definite meaning, and more than 100 facts of experience, each of which will be new to the farmer.

Thus from six or seven factors, with their legitimate results, he may get a harvest, not only of corn and stover, but

A Harvest also of Facts, Figures and Conclusions,

out of which he will be able to build up a method for the ensuing season, and if he will take a little trouble each following year to keep the method in good working order, he can make it permanent and valuable for the rest of his life. To show the working of this plan, let the field for the trial be divided into 10 plots running north and south, each 20 feet wide and 200 feet long. Let the plot at the left side of the field remain unmanured, while on the next six, the fertilizers above named are to be applied, at the rate of 20 pounds on each, except the lime, which is five bushels.

Let us now suppose these elements to be evenly distributed, each through its own strip of land, and the corn to be uniformly planted through the whole field, which, being 200 feet each way, contains a little less than one acre. At this stage of the trial we have six-tenths of the field planted with corn, and fertilized with six different materials, while four of the strips still remain without manure. Hence there are, as yet, but seven factors, one represented by each fertilizer and one by the natural fertility of the land. If the experiment should terminate here, there would still be 13 obvious results, viz: the yield from each fertilizer, and the yield from the unmanured land, plus the increase of yield for each fertilizer. But there are still other results not quite so obvious. For example, if the natural soil gives 20 bushels per acre, the lime 50 bushels and the bone 90 bushels, we then have not only these three results, but also the increase from the lime, the increase from the bone, and the difference of yield between the lime and the bone. Thus three factors show six results, and yet the limit of increase is not reached. For if you now count in a fourth factor, say nitrogen, the results would number not merely eight but ten.

But this part of the experiment, though evidently instructive, useful, and valuable, is only a beginning. It brings us to a point where the peculiar feature of the plan may now be developed.

Across the field from west to east are now to be applied the same fertilizers as before, on strips of the same width but only in half the amount.

This Feature of the Plan

leads at once to many and valuable results, that would hardly be suspected by those who have not examined it. It not only more than doubles, but it more than squares the number of factors, and it multiplies in a still higher ratio the number of final results to be revealed at the harvest. One of the points here gained that deserves especial notice, is this: By repeating the several elements in a cross direction, and in half the amount, we not only distribute each form of plant food through different parts of the field, but also in three different quantities duly adjusted to each other, and in addition to this, we combine each one with all the others, and in more than one proportion.

For example, sulphate of ammonia will be found by itself in some of the plots at the rate of 100 pounds per acre; in other plots at the rate of 200 pounds per acre, and again also at the rate of 300 pounds. In another part of the field it is found in combination with magnesia, at the rate of 200 pounds of the former with 100 pounds of the latter, while in other plots the same two elements are combined in proportions exactly reversed; and so through the entire series.

Now the importance of applying fertilizers

In More than One Proportion

is strangely overlooked in most experiments, and yet it is so essential that no field trial is at all complete without it. It appears from the wheat experiments of Mr. Lawes, that when he varied the quantity of ammonia, while the other elements were left stationary, the difference of yield was not only surprising, but very instructive. For example, the addition of 100 pounds of ammonia increased the yield from 17 bushels per acre to twenty-one bushels; while the addition of 200 pounds gave a product of 26 bushels, and the addition of 400 pounds brought the yield up to 35 bushels. Beyond that limit the further increase from ammonia fell off at once so decidedly that the use of it was nearly a total loss.

If, now, the ammonia in these trials of the great English farmer had been used only in one quantity, who does not see that the chief value of them for practical purposes would have been immensely dwarfed? In the light, then, of this illustration, is there any room for a doubt as to the advantage of the method here presented, by which not only one factor, but every fertilizer in the experiment, is exhibited in three different quantities, and is also combined with every other in two or more proportions? This may seem, at first view, to make the trial somewhat complex or difficult, but the moment it is examined, the difficulty vanishes. In fact the easy facility of performing the experiment, as well as the economy of it when compared with the results, can hardly fail to commend it to the attention of practical men.

A brief word yet remains as to

The Cost of this Experiment,

and the amount of extra work it may be supposed to involve. On these points the farmer will be agreeably disappointed. The peculiar arrangement by which the second series of plots are made to overlap the first, in a different direction, and by which also the fertilizers are made to cross the field, not only in different directions but in different quantities, while increasing amazingly the variety of conditions, and the final number of results, does not increase the difficulty of the experiment, but, on the contrary, simplifies the work and reduces the cost.

Six different fertilizers are here applied to six different sections of land, a 20-pound bag to each, (except the lime which is measured by bushels,) and the same materials, in half the amount, are again applied on similar sections over-lapping the first series; this tells the whole story, and the cost is scarcely over $8 for the materials, even at retail prices, although some dealers offer them for this purpose, at wholesale rates.

Now, farmers, here is an experiment covering nearly an acre, and exhibiting seven or eight chemical elements under more than 100 conditions, without any preliminary trouble or delay in measuring or weighing the materials; for you will find that by this plan the various elements, in the very act of distributing them, are made to fall in the right positions and proportions in every part of the field, and that every hill of corn, wherever it stands, will have its appropriate share and quality of plant food for securing the final purpose intended.

Now suppose you should attempt to reach these same results by having this numerous series of combinations previously mixed in an endless series of bags, and should then drag them about the field to find for each its proper place; would such a process give you a paying experiment? On the other hand, by the method here offered, you have your corn growing under more than 100 various conditions of plant-food. These conditions you have an opportunity of studying all through the season, and in the fall you will be able to put the results from them on record as tests for the soil and for each separate fertilizer, and these tests will be more complete and exhaustive than any chemical analysis, and yet the whole effort and the outlay when compared with the total result, are so trifling that you are almost unconscious of them.

A FIELD TRIAL FOR TESTING FERTILIZERS AND SOILS.

	1 No Manure.	2 Lime 5 bush.	3 Sulph. Ammon. 20 lbs.	4 Mur. Pot. 20 lbs.	5 Dissolved Bone, 20 lbs.	6 Sulph. Soda, 20 lbs.	7 Sulph. Magnesia, 20 lbs.	8	9
A ..... Sulph. Magne, 10 lbs.									
B									
C									
D ..... Sulph. Soda, 10 lbs.									
E ..... Dissolved Bone, 10 lbs.									
F ..... Mur. Pot., 10 lbs.									
G ..... Sulph. Ammon. 10 lbs.									
H ..... Lime, 2½ bush.									
I									
K									

Miscellaneous.

CONNECTICUT AGRICULTURAL EXPERIMENT STATION.

BULLETIN 24.—APRIL 25, 1879.

Fertilizer Analyses.

251. Ammoniated Superphosphate. Made and sold by the New Haven Chemical Co., New Haven, Ct., Sampled April 4, by J. J. Webb. Guarantee: Phosphoric Acid 6–7 per cent., Ammonia 3½–4½ per cent., potash 5-7 per cent., contains also Sulphuric Acid, lime, magnesia, etc.

256. Upton's Superphosphate of Lime. Made by George Upton, Boston, Mass., sold by C. B. Farley, assignee, Boston, sampled and sent April 14, by Geo. Maxwell, Rockville, Ct. Weight claimed per barrel, 230 pounds, actual weight of two barrels, 459 pounds.

252. Chicago Bone Dust. Manufactured by Thompson & Edwards, Chicago, Ill., sold by John S. Welles, Hebron, Ct. Weight claimed per bag 200 pounds, actual weight of one bag 205 pounds. Very dry and fine, 73 per cent. passing holes of 1-50 inch, but 4 per cent. coarser than 1-12 inch.

STATION ANALYSIS.

	251	256	252
Nitrogen	2.59	3.08	1.77
Phos. Acid soluble	4.57	5.49	
Phos. Acid reverted	1.70	4.58	26.03
Phos. Acid insoluble	3.77	1.13	
Estima'd val. p. ton	$36.70	$35.87	$41.45
Cost p. ton	38.00	30.00	30.00

The question is often asked, what are the other ingredients of a superphosphate besides those upon which its valuation is based?

This question is answered by the nearly complete analysis which follows:

251 AMMONIATED SUPERPHOSPHATE.

	Per cent.
Water	8.05
Organic (animal) matter	30.23
Phosphoric Acid soluble	4.57
Phosphoric Acid reverted	1.70
Phosphoric Acid insoluble	3.77
Sulphuric Acid	14.13
Chlorine	7.50
Potash	7.31
Lime	14.83
Magnesia	1.37
Soda, oxide of iron and alumina	1.28
Sand and insoluble earthy matters	5.28
	100.00
Nitrogen in organic matters	2.59
Ammonia equivalent to nitrogen	3.14

As to the state of the ingredients, the acids are united to the bases, lime, potash, magnesia, soda and oxide of iron, so far as the latter suffice, but the soluble phosphoric acid exists as an acid-salt, or, perhaps, to some extent, as free phosphoric acid. The sulphuric acid is present mainly as sulphate of lime (gypsum), the potash merely as muriate (potassium chloride). The reverted and insoluble phosphoric acids exist as phosphates of lime, magnesia and iron.

It is seen that a superphosphate like this contains all those elements of plant food which are derived by vegetation from the soil, and in that is a "complete fertilizer."

The question might be asked, do not the lime, magnesia, sulphuric acid, etc., present in this fertilizer add to its fertilizing power and influence its agricultural value? The answer must be, yes! It then may be asked—should not the substances, which are unnamed in the usual analyses, but which are admitted to have an agricultural value, be recognized in computing the commercial value?

The answer is—the three elements which serve as the basis of the valuation, viz.; nitrogen, phosphoric acid and potash, cannot be had separate from organic matters, sulphuric acid, lime, etc., and therefore the commercial value of the latter is included in that of the former. It is true that in different fertilizers, nitrogen phosphoric acid and potash are associated with different quantities, and to some extent with different kinds of other elements, but the latter are of very subordinate commercial value, and their variations do not sensibly affect the valuation of the fertilizer.

Another question often put is—why must the farmer buy so many pounds of water, organic matter, sand or even of sulphate of lime, in order to get the few pounds of valuable fertilizing matter? The answer is that the raw materials from which the manufacturer must obtain nitrogen, phosphoric acid and potash, in most cases, cannot be made to yield those valuable elements in a more concentrated state, without increased cost to the purchaser.

S. W. JOHNSON, Director.

Industrial Implements.

A NEW KNIFE GRINDER.

A NEW knife grinder for sharpening mower-sections and doing general work is shown in the annexed engraving.

Its advantages are its extreme simplicity, solidity and portability. The rest that holds the knife to be ground, is adjustable to any angle, and the emery-wheel, having a convex grinding surface, it is easy to grind up into the "jaw" of the knife-section, and, in fact, thoroughly go over the cutting-edge of the entire knife with great rapidity and thoroughness. An entire section may be ground during the pauses of mowing or harvesting. The Emery is a new patent that will not glaze on its grinding surface during the entire time of its use. A very important feature this. It is the invention of a practical farmer who perceived its necessity in his own farm work. The Wood Mfg. Co., of Worcester, Mass., are the manufacturers.

The Querist.

ANSWERS TO CORRESPONDENTS.

Queries About N. C. and Va.

E. E. R., Shioclon, Wis., asks a number of questions about N. C. and Va., as suitable places for Northern emigrants.

Ans.—The Western part of North Carolina is noted for healthfulness, and would prove, as to climate, safe and pleasant to settlers from the North. As in other States, society varies in different localities. There are places in the Piedmont section and also over the Blue Ridge, in which schools, churches, &c., offer good advantages. Honey of the best quality is produced in that part of the State. The mountain honey is proverbial for its excellence. Species of the Pine abound in different parts of the State. The question whether a Northerner would find North Carolina society congenial, depends very much upon the Northerner himself. The man who goes South with good purposes, acts prudently, and shows himself friendly, will be sure to find friends and win favor and kindness. A railroad will soon be finished that will connect Ashville with the well-known North and South lines of trade and travel, and will render that highland town a place of great resort. We advise any one, however, before he moves South, to be sure to have a thorough knowledge of the place which he selects. As worthy to be consulted for information with regard to North Carolina, we mention Maj. W. C. Kerr, State Geologist and Col. L. L. Polk, Com. of Agriculture—both of whom may be addressed at Raleigh, N. C. Much of what is here said of North Carolina as regards climate, society, etc., is also true of Virginia. There has been a pretty heavy immigration of Northern people and Europeans into the latter State since the war, and during several trips through the State a few years ago, the settlers generally spoke highly of the country and its inhabitants. Of course, the character of different parts of the country and also of the dwellers therein varies considerably, so that in speaking of the State as a whole, generalities only can be employed. For accounts of different parts of the State, we refer our correspondent to "Everywhere" *passim*. Kentucky and Maryland both offer many advantages of soil and especially of climate, to those who dislike the extreme severity of more Northern winters, but even if we were well acquainted with the circumstances of our correspondent, we should hesitate about advising him with regard to the choice of his future home, and as the case stands, we must decline doing so.

Diarrhœa in Horses, Etc.

J. W. L., Owensboro, Ky., asks 1, the cause of diarrhœa in a colt, also a preventive and remedy; 2, what will start sweet potato slips to running; 3, do we coincide with Dr. A. C. W.'s plan of pulverizing the soil only shallowly for sweet potatoes; 4, is sod land good for them.

Ans.—There are several causes for such an ailment, among which may be mentioned: indigestible and irritating food; too much water; purgative medicine; disorders of the liver; cold; over-exertion, and a natural tendency. In the present query no information is given to enable us to decide to what cause to attribute the ailment. As a preventive, avoid the above causes where possible. The nature of the most suitable remedy depends greatly, of course, upon the character of the disease and its cause, and as not a word is said on this head, no special prescription can be given. In most cases, however, a safe remedy is rice boiled until quite soft and mixed with warm water until of the consistency of a thin liquid. If not taken voluntarily it should be given as a drench. For a severe case one or two ounces of laudanum may be added to a quart of rice milk, and given every time the bowels act violently. Or instead, a thin gruel may be made with wheat meal, and the laudanum mixed with it. In all queries about the maladies of stock, care should be taken to detail at full length all the symptoms of the disease and circumstances connected with its appearance. In the absence of such necessary information, no satisfactory answer can be given in any special case. 2. A dryish sandy loam is best for the sweet potato. If planted in such a soil with enough manure, they require *heat* only to make them start. 3. That depends upon the depth of the *soil* and its richness. Our idea is to use a subsoil plow if the soil is deep, and to pulverize thoroughly by repeated plowing and harrowing. 4. Yes.

Raising Watermelons.

J. M., Lyn, Ont., wants to know how he can raise the largest crop of watermelons; at what time to plant the seed; how far apart; how to apply the manure and what varieties are the best.

Ans.—The seed should not be planted till all danger of frost is over and the ground is warmed up somewhat by the sun; say about the middle of May. Select a warm, rich, sandy loam and plant the seed in hills eight by ten feet apart. It is a mistake to put all the manure in a small heap just under the seed in the hill. Dig out the hills broad and deep, and mix the manure thoroughly with the soil. If night-soil can be obtained, this is the best fertilizer; otherwise use well decomposed horse manure or a mixture of horse and cow manures. The roots of melons do not confine themselves to the hill, but run out for several feet in the surrounding surface soil; it is therefore well to give the whole patch a dressing of manure, if it can be spared from other crops. Leave four plants in each hill, and when they have three rough leaves, water them with liquid manure, two pounds of guano to a barrel of water. The plants will fruit better if the tips of the leading shoots are pinched off occasionally. Phinney is an early variety. Black Spanish, Mountain Sweet, and Mountain Sprout are all good.

Specimen Apples.

W. H. H., Poughkeepsie, N. Y., sends us a box of beautiful apples, rarely well preserved. He desires our opinion. They are of medium size, oblong, a little conical—yellow, sometimes with a blush. Flesh crisp, sweet, though with a peculiar acidity—not juicy. We forwarded a specimen to Mr. Charles Downing who kindly replies as follows:

"The apple, although rather small for a profitable market fruit, has a fine appearance, but the quality is not good enough for a first-class eating apple, and in comparison with a Newtown Pippin, Northern Spy, Swaar, &c., it is wanting in juice and rich flavor. This is only an opinion as to this specimen which may not be a characteristic one, but if it is, I would not think it worthy of introduction now that we have so many fine kinds."

Preventing Roots from Obstructing Tile Drains.

H. B. S., Rockport, Ohio, asks how can a fruit garden, orchard or vineyard be drained with tiles in such a way that the roots will not enter the drain and prevent the flow of water. Recently he took roots of the Elder from a four-inch tile drain which had been put in at a depth of three feet and a half, three years ago. The roots, he finds, enter a very small opening at the joints and then throw out laterals that soon fill the space inside the tile and stop the flow of water.

Ans.—This question has been pretty thoroughly discussed of late by the Agricultural press and by farmers' clubs. We know of no other practicable method of preventing roots from entering tile drains, except by cementing the joints, or by using double tiles one inside the other, the joints of the inner occurring about the middle of the outer.

Bark Grafting.

C. T., Millersville, O., says that we advised bark grafting in the RURAL of the 12th of April, and asks what time of the year the bark will be loose, and, 2, if the cions should be cut in the fall, and if so, how they should be preserved through the winter.

Ans.—The bark is loose now in the spring while the buds are swelling. 2. The cions may be cut off in the fall and kept in a dry cellar during the winter with the bud ends set in moist sand; or they may be buried in dry ground out-of-doors, so deep that the frost cannot reach them. This is the best way; but they can also be cut off during the winter or spring before the buds begin to swell.

Miscellaneous.

C. T., Millersville, Sandusky Co., O. asks for a remedy for the squash and cucumber bug; 2, if it would be of any benefit to potatoes to put a handful of bran in each hill. 3. He desires a recipe for good grafting wax.

Ans.—The only successful remedy we know of for this pest is to catch and kill the bugs early in the season, before they lay their eggs. They may be caught by placing small pieces of boards, bark or chips close around the plants: they will conceal themselves under these objects during the night, and can be gathered early in the morning before they leave their hiding-places. Also examine the leaves of the young plants for the eggs, which are laid in clusters on the under side. 2. We have not tried it. It may help the growth of the potatoes, but the crop will hardly be increased enough to warrant its use as a fertilizer instead of using it as feed for stock. 3. Downing recommends a grafting wax made of three parts of beeswax, three parts of rosin and two parts of tallow. If an equal portion of tallow, or even a little more than of the others is added, the wax will be more pliable.

Mrs. C. E., North Linndale O., would like to know, 1, how long it takes palm seed to germinate and, 2, how to destroy angle-worms in pots.

Ans.—It will vary with the species and the hardness of the outer seed coat—generally from two to four weeks. 2. Angle-worms may be removed by turning out the ball of earth and picking them out, or if the soil is agitated with a long needle stuck into it, they will come to the surface and can be removed. Lime-water will also drive them out, and if applied only in moderate quantity it will act as a fertilizer as well. Slake a small piece of lime in a little water, and water the plants with it a few times.

W. M. R., Hubbardsville, N. Y., asks, 1 where can he find a list of "Next of Kin" who have claims on property in Great Britain; 2, will the corn the RURAL sends out mature in Central New York.

Ans.—We have seen such lists advertised in London (Eng.,) newspapers. They professed to be compiled from advertisements that had appeared during a number of years in papers in various parts of the country and from records of probate courts; we do not now remember, however, where they can be had, nor can we learn by inquiry here among those who are generally "posted" in such matters. 2. Yes.

D. and S., Little Rock, Ark., having tried in vain to raise currants and rhubarb, ask, 1, the probable cause of their failure; 2, how long will it take currant seedlings to bear fruit; 3, they ask the RURAL to send them a few seeds.

Ans.—We cannot help you at all. Both plants should do well with you, and both are among the easiest to cultivate. 2, Some seedlings will bear fruit in two or three years; some in not less than ten years; some not at all. The seeds are slow to germinate. 3. We could send them to you in the season.

Mrs. P. W. D., Park Place, Ark., asks what Amorpha fruticosa is, as she cannot find it in any of her guides.

Ans.—Amorpha fruticosa has been referred to several times in the RURAL. It is an ornamental shrub, of middle size, with compound leaves and violet or purple flowers in early summer.

COMMUNICATIONS RECEIVED FOR THE WEEK ENDING SATURDAY, MAY 3d.

T. H. H.—P. S.—C. L. S.—R. D.—"Jenny Joy"—Lucy Larcom—Lizzie L.—S. H.—Free Lance.—M. B. P.—A. L. J.—R. H.—Aptartan—H. F. B.—M. C. H.—R. H.—L. H.—M. B. D.—G. G., Jr., too late for this issue—E. P. P.—Clyde Raynor—G. C. C., thanks—E. W. S.—J. W.—H. S.—F. S. D.—C. C. V. W. H. L.—H. N.—G. G.—R. L. O.—"Saucy"—T. H. R.—M. C.—H. R.—L. H.—M. M.—T. H. S.—M. R. N.

Everywhere.

RURAL SPECIAL REPORTS.

KANSAS, Washington, April 24 1879.—Washington County raises as much corn as the State of New Hampshire. It is well watered with excellent springs, and there is not an acre of swamp land in the county. Our lands are divided into upland prairie and bottom land on the creeks which are numerous, with good water and mills on them. The soil is a rich, black loam mixed with silica; the sub-soil on the prairie is clay, about four or five feet down, particles of magnesia and limestone permeating it, and to this it owes its reputation for the production of wheat and all the cereals. Wheat averages 20 bushels to the acre, sometimes reaching 40; oats, 90 bushels, and rye, 30. Corn is worth to-day 17c. per bushel; wheat, 75c; oats, 15c; pork, $2.40 to $3.00 per 100 pounds. We have two railroads in the county—the Central Branch and the St. Joseph and Denver R. R. Stock of all kinds do well; there is plenty of range for stock on the grass; and hay can be hired put up in the stack for $1.00 per ton. Our winters are mild, and it is a very healthy country, for invalids often get a new lease of life in breathing the pure air of these elevated plains. Sheep husbandry is quite a success. The first time a bee was seen in this county was five years since, and now I have a successful apiary. Last year from an investment of $50, I realized about $125 from the honey and increase. Golden German millet on the high prairie yielded me last year 3½ tons of hay after thrashing, and 50 bushel of seed to the acre. It is the best forage plant that has ever found its way to Kansas. Our timber on the creeks is Elm, Walnut, Cottonwood, Ash, Hickory, Oak and Locust. Apples Peaches, Grapes and small fruits are a success when the tested varieties are planted. Osage Orange is hardy here and will make a good fence in three years from planting. We have a herd law, and save the expense of fences. Any man that is willing to work and is temperate in his habits, is sure to succeed. There is work for everybody that is willing to work. The idle croaker that sits on dry-goods boxes and toasts his shins by the merchant's stove or in the smoky, whiskey-scented atmosphere of the saloon, is a failure here as everywhere. I speak this after 25 years' experience in the State. Beginning without a cent in my pocket, I am now in the midst of a community of well-to-do farmers who began their careers here in the same way. There are in this county to-day men who came here with an ox and cart, nine years since, that are now shipping their products of grain and cattle by the carload. And yet in our county to-day, there are thousands of acres of land that can be bought at from two to ten dollars per acre, and school lands at three dollars per acre, one-tenth down with interest at 10 per cent, the principal to be paid in ten years. These invite every poor man wherever he may live to come and do as we have done. We have the best of schools; we have our churches, our lyceums, our lectures and our Sabbath schools. The new-comer here should secure the advice of some reliable and honorable old settler before trusting himself to the tender mercies of the land agent in in the selection *of his future home*. Of course we have reliable agents, who are honest gentlemen, but my advice will still *hold good*.

C. W.

TENNESSEE, Humboldt, April 26.—In Notes from Chapel Hill, N. C., in the RURAL just received, the writer, speaking of fruits and vegetables in that section, says: "The strong winds of the coldest nights, and the extreme dryness that prevailed, prevented the injuries which the thermometer indicated," and also, "the frost is not likely to destroy the buds when the air is *dry*." My observation leads me to differ with him. The worst frost I ever saw, and the most destructive for fruits and vegetables, was when the air was unusually dry. This season, in April, the thermometer was 12° below freezing point with heavy showers of rain for several days previous to frost, and the ground has not been in good working order in our clay lands half the time during this month; yet our vegetables have not suffered from frost and we have some varieties of Peaches—the Beatrice, for instance,—that have a fair crop. The Alexandra has but few. The peach crop will be light generally with us, and so will pears. The apple and plum crops are a fair average. In the year 1848 we had freezing weather sufficiently severe to kill oak trees in the forest, English peas in the pods, and all kinds of fruit; yet it was an extremely dry time. There had been no rain for a month previous to the frost on the 16th day of April, nor was there sufficient moisture in the ground to bring up corn or cotton. We have come to the conclusion from our observation, that when there is plenty of moisture in the atmosphere, frost will not damage fruit as much as when the air is dry. The winds may have, and doubtless have, some effect, but on some of our large rivers and lakes, where there is plenty of moisture, fruits scarcely ever fail.

B. F. T.

IOWA, Grand Junction, Greene Co., April 22.—As specimens of tree growth on the prairie, I send the RURAL a few extracts from my memorandum book of the growth of trees on my place. The trees mentioned all sprang from seeds planted in the spring of 1875, and had attained the sizes specified at the dates given:

	—Fall of '77.— Hight.	Girth.	—Fall of '78.— Hight.	Girth.
	ft. in.	*in.*	*ft. in.*	*in.*
Green Ash	8	5¾	10 6	6½
Catalpa	8	10½	11 6	11½
Box Elder	7 to 7		11	7½
Cottonwood	9 8	7	11 2	9½
Honey Locust	3 6	2½	5	3
White Elm	8 4	5	10	5¼
White Maple	11 4	7	14 2	8

The snow-storm and freeze in May, '78, destroyed the new growth on the Catalpa and Ash; but the other varieties were not injured. In the spring of '76 the Catalpas were found to be nearly all killed at the top, from four to twelve inches. A majority of the terminal buds of Box Elder and White Maple were destroyed, causing them to throw out heavy side branches. During the winter of '76-7 all of the Honey Locusts and some of the Catalpas were girdled by rabbits. These trees were planted in drills six feet apart, and have had good cultivation. They have grown on the open prairie, with no protection. D. S. S.

NEW YORK, Corning, Steuben Co.—A neighbor has been experimenting with Early Amber Cane the past season and, he asserts, with most flattering results. He has manufactured, on a small scale, sirup of excellent quality, and intends this year to greatly extend his experiments. He is sanguine that cane sugar will, after a few years, become the chief product of the Chemung Valley. The soil seems to be especially adapted to its successful growth, and the early-ripening qualities of this particular variety, make its successful culture a certainty. There is no doubt but that this country will, in a few years, produce all her sugar, either from beets or cane, perhaps from both, for home consumption, and probably largely for export. Another neighbor has also obtained sugar of good quality from beets. Cane sugar can be produced with less expensive machinery, however, and will no doubt have the preference here, with small growers. J. L. N.

ILLINOIS, Risdon, April 21, 1879.—Weather continues cool, and farmers are busy planting corn. Wheat looks first-rate. We were beginning to need rain badly, but had plenty last week. Oats are coming up well. We shall have plenty of apples, but very few peaches. Gardens are backward, the cool weather keeping vegetation from growing. Wheat is worth 97c.; corn, 45c.; potatoes, 50c. We have a stock law in this county, and a large number of farmers have taken up their fences along the road, and are only fencing what fields they want to pasture. M. J. S.

NEW YORK, Whitney's Point, May 1st 1879.—The month of April has been cool with high winds mostly from the northwest. Highest temperature 74 deg. Lowest temperature 32

degrees; mean temperature for the month 35 deg. Number of days clear 10; number of days cloudy or mostly cloudy 6; number of days of storm, rain or snow, 4. The greatest fall of snow was on the 11th, six inches; greatest fall of rain, on the 28th, one inch. The above is for the last twenty days of April. Farmers are sowing oats. Very cold to-day wind in the northwest, and a few flakes of snow flying. Seed oats 36c; per bushel; eggs 9c. per doz; potatoes, 75c. per bushel. M. B. P.

GEORGIA, Stockton, Clinch Co., April 23.—We have a fine climate here; cattle, sheep and other stock are never housed during winter. We work out-of-doors twelve months in the year. We have pure, soft water and enjoy excellent health. In connection with sheep husbandry and stock-raising, we grow fine oats, corn, cotton, sweet and Irish potatoes. Garden truck can be sent forward from this locality to the North as early as from Jacksonville, Florida. R. S.

NORTH CAROLINA, Brookston, Warren Co., April 28.—Crops, such as are growing, have improved very much in the last two weeks. Wheat promises as about last year, not so good as two years ago. Some peach orchards will give a fair yield, while in some localities the fruit is nearly all destroyed Roses, Snowballs, etc. are in bloom. The late advance in the price of cotton, and the high rates at which our fine tobacco is selling, combine to give planters more courage and higher hopes than they have enjoyed for several years past. M. B. P.

KENTUCKY, Owensboro, April 24.—Peaches will be scarce here this season—no budded ones at all. Apples, Pears and Cherries are uninjured yet. Early Vermonts are peeping through the ground ahead of Beauty of Hebron, but of course I can't say which will be ready for the table first. J. W. S.

MICHIGAN, Schoolcraft, April 24, 1879.—The weather is very dry here. Late sowing has proved very injurious to our winter wheat. The prospects for all kinds of fruit is excellent. H. C.

PENNSYLVANIA, Bryn Mawr, April 28.—The past week of warm weather has changed the landscape wonderfully. Foliage has rapidly clothed our naked trees, and everywhere the views are lovely. M. W. F.

ILLINOIS, Dover, Bureau Co., April 25.—Spring rather cold and dry. Most of the small grains are sown, and we are now planting early potatoes. J. B.

The Poultry Yard.

DORKING FOWLS.

EVERYONE seems to have heard that Dorkings have five toes, a feature for which the poor birds have frequently incurred not a little reproach from censorious souls who looked at the extra member as an enormity, a malformation, a useless appendage, etc., and yet there are other breeds that wear the same liberal equipment of toes without exciting any special interest or "coming in" for any consequent blame. Among these may be named the Houdans, which are always furnished with as many toes as the Dorkings, and other French breeds also are often similarly equipped. So are Polands, although in their case the extra toe is not a recognized characteristic as it is in those mentioned, as well as in the Sultans, the Silkies and the Fur-fowls.

Dorkings have a few more peculiarities, which it may be well to state. Among these it can hardly be enumerated that they are "persistent sitters," as a correspondent of the RURAL has alleged; for that propensity is milder in them than in any breed of the Asiatics—and I can speak confidently on this matter, as I have kept them all. As to their laying, they will outlay birds of any Asiatic breed by long odds. As to their being tender in winter, I acknowledge they will not stand the cold as well as the Asiatics; but neither will any other single-combed breed. But with moderately good care, and comfortable quarters—things all single-combed fowls must have in winter—they will well repay the care they receive, by beginning to lay very early in spring—if not in winter—and continuing to do so during the the hotest days in summer, when Brahmas spend half the time broody on the nest, and the other half under the corn-crib waiting to see the door open, while the gray Dorking hen is busy foraging or laying.

There is little need of saying anything about the table qualities of the Dorkings, for it is conceded that for that purpose they have no equal, not only as regards flavor, but also the size of the breast, the smallness of the bones, and the juicy tenderness of the meat. As mothers, too, they are entirely unrivaled, being very docile to their keepers, and very careful with their chicks. Indeed, it is as mothers that I value them most; for in this capacity I have never found a breed to equal them—and I keep eight different breeds, most of which are raised under Dorking hens. I feel nearly equally interested in all the breeds I keep, but plain facts should be recognized with regard to each of them.

Dorkings, it is true, are not the most prolific layers, being surpassed in this respect by the Leghorns and Hamburgs; but they certainly outlay most other breeds, and retain their prolificacy several years longer than Asiatics.

HENRY HALES.

Various.

CATALOGUES, &c., RECEIVED.

EIGHTH Annual Report of the Secretary of the State Pomological Society of Michigan, 1878, Charles W. Garfield, Secretary, Grand Rapids, Mich., 526 pages. We should like to write a page in review of this book, and we would that a copy of it might be placed in the hands of every one of our readers. The Secretary seems to have had in mind, as a first consideration, the importance of rendering educational service to the reader and of making an invaluable work of reference to the horticulturist—using the word in its broadest sense—as well as to the pomologist. It is divided into two parts. Besides the usual reports, discussions and essays, nearly half of the book is made up of the "Secretary's Portfolio," consisting of a selection of articles from the current literature of the year, which in fact amounts to a choice *resumé* of the world's horticultural progress during that period.

FROST & Co., Rochester, N. Y.—No. 1. Catalogue of fruits, illustrated. No. 2. Illustrated catalogue of ornamental trees, shrubs, &c. No. 3. Descriptive catalogue of green-house and hot-house plants—bulbs, Dahlias, &c. No. 4. Wholesale catalogue of fruits, ornamental plants, &c. Also a wholesale list of green-house, bedding plants, vines, &c. The above valuable catalogues were received at this office too late for a more timely notice. They will any of them be forwarded upon the receipt of a three-cent stamp.

"A NEW TREATISE ON BUTTER MAKING," by W. B. Derrick. Published by W. P. Emmert, Freeport, Ill. A pamphlet of 30 pages treating of butter-making in general and of the Climax Churn in particular. It will be sent free to any one who applies to the publisher for a copy.

DYER'S Nursery Catalogue and Price-List, Providence, R. I. Trees, Shrubs, Flowering Plants, etc.

Implements and Machinery.

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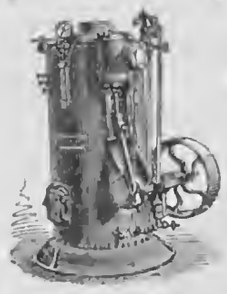

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Engine and boiler complete, including governor, feed-pump, drive-pulley, etc., etc., at the low price of

3	Horse power....	$215
4½	" "	245
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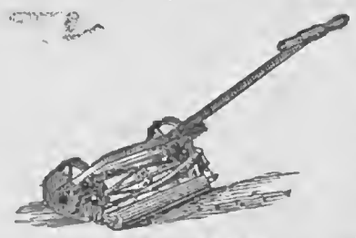

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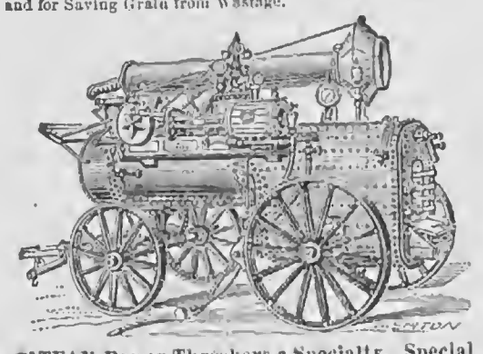

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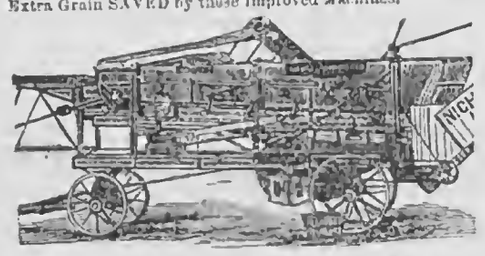

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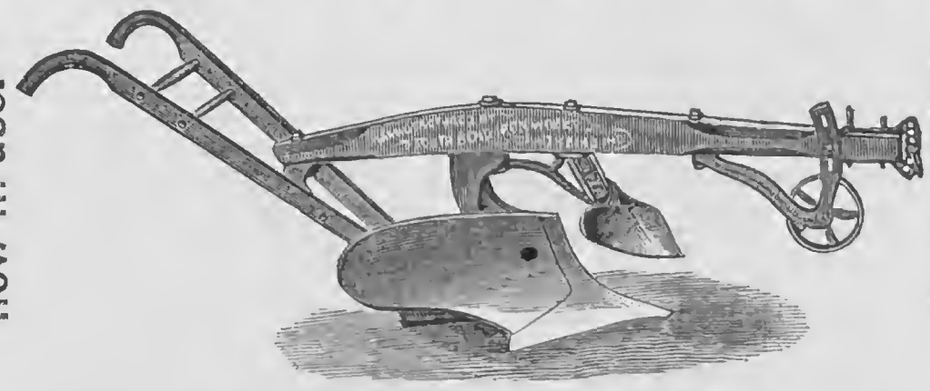

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THE
RURAL NEW-YORKER.
PUBLISHED EVERY SATURDAY.

Address
RURAL PUBLISHING CO.,
78 Duane Street, New York City.

SATURDAY, MAY 10, 1879.

CASH AGAINST CREDIT.—No. 2.

THE COST OF CREDIT.

CREDIT is a marketable commodity and costs the purchaser precisely what it is worth to the seller. In estimating its cost, there are several things to be taken into account besides the mere matter of interest. Interest is defined by the scientific political economist as remuneration for the use of money, which is property accumulated by labor, just as a house, or cleared land, or a ship, is property produced by labor. For the use of a house or land, rent is paid; for the use of a ship, freight is charged; and for the use of money interest is charged. This is just and inevitable. When a person obtains the use of any money or money's value, he is called upon to pay, and is morally bound to pay a reasonable sum for this use, and from time immemorial, this has been called interest. But delays in payment incur many other expenses than this. If every debtor were certain to pay his debt when due, there would be no necessity for the seller of goods or lender of money to calculate upon, or require, any other charge than the interest. But debtors fail to pay in an uncertain proportion to the number of them; but every year there are more or less of them who do not meet their engagements in time, or fail to pay at all; and actually—speaking literally and to the point—cheat their creditors, perhaps not intentionally, but none the less effectively, out of their just dues. In business this risk of loss enters into the estimates of expenses as inevitably as interest upon the use of the money, and must be provided for out of the cost price of goods made and sold.

Again: A credit business involves the use of a greatly increased capital; several times larger than would be required if cash were paid on delivery. This is evident and can be made plain to a farmer who would for a moment consider what would happen if circumstances were changed, and he were obliged to wait a whole year for the money for his pork, wheat, butter, cheese and other products. He would have to double that part of his capital which represents all this property; that is certain, or he could not pay wages, meet expenses, provide seed and fertilizers and sustain the numberless charges which fall upon his business in the course of a year. The people from whom he buys are then placed in precisely this predicament, when he buys on a year's credit. It is necessary that they should purchase and carry two years' stock of materials, and find money to pay for two years' labor, and this also involves larger buildings; the risk of depreciation in value; cost of extra insurance and other onerous charges. No business man can afford to take risks; security is the life of business, and he must provide against whatever event *might* bring a loss to him, and it is only common prudence that would estimate the charges which thus arise, in a sufficiently liberal manner to be on the right side, and so avoid uncertainty. Then, a year's credit involves the necessity for the keeping of many accounts, and for collecting many debts, and these are troublesome and expensive services done for the debtor, for which, of course, he must pay.

It is hardly necessary to pursue this point further. Any thoughtful person can see through it, and can realize to what a large extent it enters into all kinds of business. Let such a man put himself in the place of another forced to do a large credit business; to suffer constant harrassing anxieties, to be ever on the most lively watch; to keep himself informed continually on hundreds of important points; to meet hundreds of otherwise needless expenses; and he will acknowledge readily the seriousness of this consideration. What all this costs the purchaser, can hardly be told. But one can form an idea of its cost, if he will think of it in this light: Let him sell a cow to this man; a bushel of wheat to that; a load of corn to another; and so distribute his year's production among a thousand people, opening accounts for every one, watching when these come due, writing off lost accounts of defaulting debtors; and, in fact, selling just as he buys, and then figure up the result. This will be the cost of credit business from the seller's point of view; but a much worse condition of circumstances can be shown to exist from that of the buyer, and to appropriate the pertinent words of Hamlet: "Thus bad begins; but worse remains behind." The truth of this we shall endeavor to show hereafter.

KNOWLEDGE IN DAIRYING.

OUR present low prices ought to work a complete revolution in the dairyman's plan of operations. The great mass of dairymen heretofore have counted on the number of their cows, instead of the amount of their product. In fact, they have not studied the individual character of their cows—nor have they established any standard by which these shall be tried. They are judged as a herd, and no effort is made to determine the value of each cow. With butter at fifteen to twenty cents per pound, and cheese at seven to nine cents, a poor cow is the poorest kind of investment. A yield of 2,500 to 3,000 pounds of milk will pay, after deducting the expense of delivery at the factory and cost of making, only from $12.25 to $15. This will not pay the cost of keep in any part of the country. A loss of from $10 to $15 per cow would be incurred with each animal. But the dairyman has other cows that pay even in these times, from $25 to $35, and it is these better cows that prevent a disastrous failure. How utterly inexcusable in a dairyman it must be to go on, year after year, retaining his unprofitable cows to eat up all possible profits from the better ones! What would be thought of a chair manufacturer who should make a style of chairs, year after year, and sell them at 25 per cent. below the cost of production, simply because he had not taken an account of the cost of manufacture?

Yet the dairymen who have an accurate knowledge of the production of each individual cow in the herd, do not amount to more than one in a hundred. But if the dairyman would study his business thoroughly, he would fix a standard below which no cow can pay him a profit, and consequently any animal whose yield falls below this, must be discarded. With the most satisfactory prices, a cow giving less than 4,000 pounds of milk pays no profit worth having; and now, when prices are very low, the standard should be advanced to 5,000 pounds per cow. Selected herds average 6,000 to 7,000 pounds, and there is no insuperable difficulty in raising the standard for the poorest cow to 5,000 pounds.

A cow that will not, under good food and care, reach this standard, should be fattened and sent to the butcher. She has no value to the progressive dairyman as a milk-producer for cheese. For the cheese factory she is judged wholly by her weight of milk; but if the standard is to be fixed for butter, then the weight of good butter and not the weight of milk is most important. This requires a separate test of each cow for butter. And here it may frequently happen that the cow that would be discarded for cheese, would be accepted for butter-making. A yield of 200 pounds of butter per cow should be the lowest standard for a butter cow; 200 pounds of the best butter will bring as much money as 500 pounds of the best cheese. Some cows will average a production of one pound of butter to 20 pounds of milk, and thus 4,000 pounds of milk from such a cow will reach the standard.

The first test—that of weight—is so easily made that no dairyman can have a valid excuse for omitting it. A small spring scale, hung in a convenient place in the cow-stable, with a small book, containing the name of each cow, and a pencil attached, will enable the milker to weigh and record the yield of each cow, one day in a week, with no appreciable loss of time. These weighings added, and the sum divided by the whole number of weighings, will give the average yield per day with sufficient accuracy. There is no reliable way of determining the butter yield, except in churning the cream and weighing the butter.

The future successful dairyman must study and fully understand all the factors in the problem. Skill is the sign by which he must conquer. Knowledge and skill are required in the successful engineer, navigator, ship-builder, surgeon, lawyer, statesman, and these are no less needed by the successful dairyman.

ARE THERE TOO MANY FARMERS?

IT is a no more common complaint of farmers than of men in other avocations, that their business has been overdone or that, as one of them recently said to us, "Prices of farm produce will never reach paying rates again until a great many engaged in farming find work at something else." We believe that this is a serious mistake, and that it leads to other mistakes quite as serious. The idea is, that there are too many farmers because too much produce is grown. Obviously then, the world would be benefited if every farmer would produce less. A step farther, and we should all be more prosperous, if our soil were poorer. Fertility then, is found to be a curse and barrenness a blessing! About here a clear-headed thinker will see that there must be a fallacy somewhere in this logic. Let us briefly point out wherein the fallacy consists.

The trouble of this country is, not that there are too many farmers, or too many producers of any kind, but that there are too many producers who cannot sell in the markets of the world because they produce too expensively. So, we see that, after all, it is because our land is too poor rather than too rich, and produces too little rather than too much, that American farmers are suffering. We cannot have too much production of anything provided it is produced cheaply. There are not too many farmers, but too many poor farmers and too much poor farming. When we get the cost of production here down below that of other countries, we can always undersell them and there will never be any glutted market.

Despite the large areas of new lands brought under cultivation at the West, the number of men employed in farming rather decreases. Every year a larger proportion of our people live in cities and villages. It would be strange, indeed, if too many farmers were the cause of hard times, when there are undoubtedly fewer farmers in proportion to the whole population, than there were twenty or thirty years ago.

DO THE BEST YOU CAN.

WHERE is the farmer that comes up to his own ideal; who succeeds in accomplishing his own plans to his own satisfaction? There are too many incidental matters that come in to modify our fond expectations. The weather, the interruption of sickness, the reasonable claims and frequent necessities of family and friends, social obligations, accidents to tools and machinery and horses; unavoidable losses by flood or other causes, and, perhaps, many other things that cannot be anticipated, often, if not always, prevent the fulfillment of "the best laid schemes." But there is one very prominent difficulty that every farmer must encounter. He cannot get laborers that will faithfully follow his directions. Those whom he employs may strive to please him while he is looking on; and some may even do their best at all times; but many will prove careless when the directing eye is turned away; and even the truest are almost sure to bring disappointment and trouble because of their want of knowledge and skill. Perfect work cannot be done by any one who is not, himself, perfect. Unfortunately, many on whom we must rely to carry out our wishes, are destitute of the active desire and intention to improve—being content to move on in future as they have done in the past. Many seem to have no capacity for better work than that which they have long performed, and only disappoint those who strive to instruct them.

What can be done to meet this great evil? First, as you know that it will come in some form or degree, be not disheartened by it. Secondly, keep trying—make your mark high; give all practicable attention; and rest assured that, though you do not see it, the workman *is* learning, and the character of the work *will* improve. Try on! Hope on!

TEOSINTE.

LAST fall we tested Teosinte, reporting that as a forage plant it is not to be compared to corn. But in warmer climates different accounts are given. M. Durien experimented with it in the south of France, and pronounced it to be a plant *d'une vegetation prodigieuse*, as every seed produced 100 stems which reached the hight of ten feet! Still the climate was not warm enough to induce seeds. In Egypt it bears seeds abundantly. The London Gardeners' Chronicle says that "it flowered in the Water-Lily house at Kew last year, its stems attaining the hight of fifteen feet. If M. Durieu's statement is to be credited, it ought to prove of value in our Southern States. Its botanical name was first given as Reana. It is now referred to Euchlæna, and is nearly allied to corn.

BREVITIES.

THE CRESCENT SEEDLING is the most prolific variety Mr. Roe has ever seen.

ROGER'S 19 and 53, (Merrimack and Salem) says Mr. S. B. Peck, make the very best raisins—not inferior to any imported.

MR. J. J. THOMAS considers the Sharpless Strawberry "marvelous." He says "a dish of the berries would be mistaken for tomatoes."

PROFESSOR BEAL, writes us "your editorial, Cash *versus* Credit, on page 268, is all right, even to the italics. The credit system is too common and the privilege much abused."

THE FAIRS.—HORSE-RACING.—If you are opposed to horse-racing at Agricultural fairs, use your influence with your neighbors not to attend unless it be prohibited, and do not attend yourself.

WHEN there are only a few Pansies and spring bulbs in bloom, the leaves of Spiræa sorbifolia are invaluable for the green of little bouquets made of those flowers. Spiræa sorbifolia is almost the first shrub to leaf out, and the leaves are as fresh and feathery as those of ferns.

MR. ORSON GROVER of Michigan sends us an 18-rowed white Dent corn peculiarly colored. The outside of the cob is of a deep claret color—the inside white. The husk is also of a deep claret color. The combination is new to us. Mr. S. W. Howe sends us an ear of 8-rowed yellow flint, within a fraction of fourteen inches in length. The tip is covered.

IN this column last week Magnolia Halleana was printed Magnolia Halbana. We believe it is decided that the specific name should be stellata. At all events this Magnolia is hardy at the Rural Grounds, and because of its compact growth, shrubby, dwarf habit, small, glossy green leaves and abundance of white semi-double flowers, must prove a choice acquisition.

FOR corn, if no hint to the contrary has been obtained by experiment, superphosphate of lime will prove in most cases the most effective of the chemical fertilizers, and muriate of potash next. If a complete fertilizer be desired, add nitrate of soda. As a top-dressing, all or any of these, if thoroughly mixed with sand, using as much sand as time and convenience permit, may be spread more evenly and consequently more economically.

THE London Garden tells us that the true Paradise stock is that on which nearly all dwarf apple trees are now grafted and the amount of fruit that is gathered from these dwarf trees is astonishing. Cox's Orange Pippin, Stirling Castle, Hawthornden, Warner's King and Lord Suffield are mentioned as among the best varieties to work upon the Paradise stock. We are having splendid success with these dwarf trees, and what we would like to understand is why Paradise-dwarf apples are not valued for small places the same as quince-dwarf pears.

THE MONTCLAIR RASPBERRY.—In the RURAL NEW-YORKER of Oct. 12 appeared an engraving of a new variety of Raspberry, the Montclair. We are are always glad to be the first in presenting new varieties of plants which we have ourselves tested and found to be possessed of qualities valuable beyond those of older and better known varieties. We need not now repeat what was then said. But we may now say what could not then be said, that in our grounds it has stood the past winter, which seems to have been an unusually trying one to the Raspberry, without the slightest injury. It is, no doubt, a seedling of the Philadelphia, and if our report of its hardiness should be supported by reports from other sections, there can be no doubt of its superiority in all essential respects over that well-known variety.

WE asked a prominent director of one of ou "agricultural" fairs why horse-racing thereat was not abandoned? He replied: "Because it is the *life of the fair*." "Many good people seriously object to it," we remarked. "Not so many as pretend," he said. "If horse-racing is the life of the agricultural fair, why not give up the agricultural part of it?" we asked, "and make it a horse race pure and simple." "Because the agricultural part of it gives an excuse for coming, to many people that would not come otherwise," was the prompt answer.

We ask our readers to test this question during the approaching fair season. If horse-racing is to be a department of the "agricultural" fair—stay away and use your influence upon your neighbor to stay away. If the Agricultural fair has no bottom of its own—if horse-racing be the life of it—let it sink. It does not deserve to live.

"IS IT POSSIBLE that a fruit grower can establish a reputation" for the fruit he may send to market for sale; and if so, how is it to be done? is a question which Mr. Whitlesey asks and answers in the late Report of the Mich. Pomological Society. "By always putting his fruit up honestly as to quality in fair-sized packages, the fruit to be as good on the top of the package as it is in the middle or bottom. Then be sure to ship his entire crop to one responsible, honorable, and reliable commission house, and to no other; give this house the handling of all your fruit this year and next year; and so on, year after year, or so long as you may grow fruit for market, reserving however, the right to discontinue when not fairly dealt by. I feel well assured this is about the only way a reputation can be established. It cannot be done in my judgment by to-day consigning to half a dozen houses, and to-morrow to as many different ones. Send to one house for a term of years, and in this way it will begin to tell. Purchasers will soon inquire for this man's fruit, and will purchase it in preference to any other, for they will know just where to find it. My own experience after fifteen years' trial of shipping fruit, as above stated, demonstrates to me, I am on the right track." We would add this suggestion to the above: Let the packer have slips printed as follows and let him place one or more in every barrel or package of whatever sort: "This fruit was grown and packed by Jones of Jonesville. If you are pleased with it, ask for his fruit another season."

For Women.

CONDUCTED BY MISS FAITH RIPLEY

DESCRIPTION OF CUTS.

No. 6524 is designed especially for old ladies. The material used is soft gray goods, and the decorations consist of silk bands and pipings and bows. Eight and three-eighth yards of material twenty-two inches wide are required to make the garment.

Nos. 6437 and 6189 represent Princess dresses which can be used to advantage by ladies of almost any age. They are graceful, not at all trying to the figure, and by the omission or addition of trimming they can be made suitable for home use or for more dressy occasions. Price of patterns 30 cents.

No. 6487. Ladies' Trained Princess. Three materials are used in its construction, two of them being plain goods in two shades, and the third *damasse*. It comprises a basque and skirt which are permanently united. With the pattern are sent full directions for cutting, fitting and arranging, so that there is no necessity of my giving any information of that kind here. A most fashionable and elegant combination would be two shades of cameo silk and *damasse* or Radtzmier stripe. Pearl silk, sapphire velvet, pearl and sapphire Pekin stripe is another combination. A very showy toilet of maize silk, ruby velvet and maize *damasse*, and a tasteful, French-looking one of blue silk in two shades, and apple-blossom Radtzmier stripe are a few of the many elegant and showy combinations which look admirably made up in this style. To make the garment will require eleven and five-eighths of light goods, and four yards of

6487

dark, each twenty-two inches wide, together with two yards and three-eighths of the fancy goods—either *damasse* or some one of the fashionable stripes. Price of pattern 50 cents.

ST. PAUL'S ADVICE.

A Troubled Woman of Timberville Wants Light.

EDITOR "WOMAN'S KINGDOM," INTER-OCEAN—TIMBERVILLE, April 2.—You know, or will when I have told you, that Timberville has always been a very quiet town, with orderly and sedate inhabitants—that is, the majority of them. For myself, I was blessed with a Christian mother, who, I trust, taught me my womanly duties well, and early to read the Divine word. The teachings of St. Paul sunk deep into my heart. I felt, with him, that it was "better not to marry," unless I could greatly better my condition. As no such opportunity offered, the memory of my sixteenth summer had grown dim in the shadows of the past, and I was still in maiden meditation fancy free, when a "woman's rights woman" awakened quite a turmoil in our midst. Not by anything she said to us, for she was only a woman, and we paid but little heed to her words. But she aroused the opposition of Elder Jenkins, who is a powerful Scripture expounder, and he preached a long and lucid sermon from I. Corinthians xiv., 35: "And if they will learn anything, let them ask their husbands at home." I liked the sermon, but I must confess to great perplexity. I had followed St. Paul's advice in not marrying, and therefore had no husband to ask, and there were so many things I wanted to know. Concluding the next best thing would be to ask the opinion of wives who had learned of their husbands, I sallied forth. Mrs. Sam Jones was the first on my list. "Yes," she said, "that was a very fine sermon yesterday. It would be all well enough to ask our husbands if St. Paul had only directed them to answer. But so long as he didn't and they won't, we're precious well off, I can assure you." Here Paul says, "And if they will learn anything." Now, there are lots of things I want to know—for instance, how much Sam pays a year for cigars, when he says times are so hard that I must wear my old bonnet this season. I'd like to know if it is at the lodge he stays so late so many nights in the week.

The other day I went down town for a bottle of soothing sirup, for baby had fretted all night and was so cross that day I couldn't get my work done, and what should I see but Sam talking as cosy as could be with a mighty pretty girl. He was so interested he never saw me as I hurried past him, so anxious was I about my poor teething baby at home." "Now, I'd like to know who she was, but, my sakes, you ought to see how mad Sam gets when I ask him such questions." "Then, again," she ran on, "if we want to learn anything we must ask of our husbands at *home*—if we could only ask 'em in company they wouldn't dare to answer us so. It may be Paul didn't marry himself, but he knew mighty well how to please the men who were married." "And then, to add insult to injury, he must say, 'If they will learn anything,' as if it were a matter of doubt whether such stupid creatures as we would ever want to know anything." "But, Mrs. Jones," said I, as soon as I could get a word in edgewise, she was so excited. "Perhaps St. Paul meant only those things that concern our spiritual well-being." "Oh! that is what you think he means," said she; "well, you ought to hear Seth Green's wife tell how Seth comes home nights all scented up with tobacco and whisky, and when he hears the children sing their little hymns and say their baby prayers, Seth breaks in with 'We won't go home till morning, till daylight does appear,' and when she, to quiet him down, asks him about the mystery of salvation by faith, or the efficacy of prayer, he will say 'When a man comsh home tired (hic) he don't (hic) want to talk nonshens (hic).' A nice teacher of spiritual things, he is!" "And there's Melinda Smith," says she; "her husband tells her that she has five senses as well as he—brains—if she will only use them, and what sense is there in asking him about things she ought to understand better than he, he told her; her lungs were smaller than his, and probably of more delicate texture, and there would be just as much sense when she wanted a breath of fresh air for her to send him out walking and then take his breath when he came in. He says she must eat for herself, breathe for herself, and think for herself." I went home discouraged, and now dear Editor, you will see why I appeal to you. If you can give me any light on this, there are other things Paul said I want to ask you about. But now I want to know chiefly what women who have no husbands shall do, and next, how shall women who have husbands find out things?

Your inquiring sister, DORCAS ALLEN.

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A DENTAL HINT.

PERHAPS among RURAL readers there may be some who, like myself, cannot take medicine through a tube and it is possible the following suggestion may be of some benefit to them. Having occasion lately to take some very acid medicine and knowing by experience I could not use a tube, I applied to two or three druggists for something that would neutralize the effect of the acid. (I meant of course to take the medicine and simply rinse my mouth out with the neutralizer.) With great unanimity they recommended me to use first clear cold water and then prepared chalk. I followed their directions, using quarts of water for rinsing purposes and chewing a pound or so of chalk. The result was far from satisfactory. My teeth ached and the acid "feeling" never left them. I remembered that on one occasion a dentist had ordered me lime-water to correct acid saliva. I determined to give the lime a trial, and purchased two cents worth of it. I slacked a small portion and used it with the most beneficial results. I pour the medicine into one goblet and have the other filled with the lime water. The medicine I drink as rapidly as possible and before the last of it is fairly down I take a mouthful of the lime-water and do some very industrious work in the way of rinsing. All acids are injurious to the teeth and those who eat a great deal of fruit would do well to take a lime-water rinse quite frequently. L. M.

Literary Miscellany.

AN UGLY GIRL.

(Continued from page 286.)

CHAPTER X.

AFTER THE FALL.

THE torture consequent on the reducing of a bad fracture awoke Noel Estcourt from the lengthy period of his insensibility that followed his fall.

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At first he had no distinct recollection of what had happened, and made an effort to raise his head and look round: but it was pressed gently down on the pillows of the bed to which he had been carried, and the violent pain that followed the effort extorted from him a groan. Then he felt tears falling on his face, and heard a voice exclaim pitifully:

"Ah! he suffers so. Can nothing be done to give him ease?"

"Nothing more than we are already doing, my dear young lady," answered one of the busy surgeons, coming to the side of the speaker, and feeling the pulse of his patient. "Lord Carisforde is seriously, if not dangerously, hurt. His right leg is fractured in two places, but the injuries to his head and side are of more importance than a broken limb. Still, if his constitution is good, and neither fever nor erysipelas ensue——"

"Why speak of what may happen?" was the impatient reply. "Is not the evil of the present enough to grapple with? Cannot you suggest anything to alleviate the pains that now rack him?"

"Pray don't agitate yourself!" said Dr. Monson, kindly. "He is not conscious. As yet he does not feel the effects of his accident as acutely as you do."

"Then, I have had an accident," muttered Noel, endeavoring to collect his senses. "Yes, I recollect: the ladder broke, and I fell with it. But Miss Gray?"

"Is safe—quite safe," answered Hillian herself, with a sob. "Yes, I am here. Let me hear you say that you forgive me for being the unfortunate cause of your sufferings. If I had not gone into the tower to look for Fido—poor Fido, whom I did not save, after all—this might not have happened."

"No, no; you are quite mistaken," Noel feebly insisted. "Do not reproach yourself: no blame attaches to you. I did not know you were there. It was to find—to rescue—Miss Carisforde."

He could say no more, for a deathly faintness was creeping over him; but still he could hear, though indistinctly, the surgeons conferring together as they stood by his bed.

"We must have a regular nurse from one of the hospitals. Nonsense! my dear Miss Gray. Your

will is good, but your strength would soon fail if you undertook such a task single-handed. We should not be justified in permitting it; and Mrs. Hurst's deafness renders her of very little use; while that mother—step-mother, did you say?—of the poor, young fellow, who has done nothing but shriek ever since we came, is more likely to do him harm than good."

"And so Miss Carisforde is absent?" the other medical man observed. "That is unfortunate. However, I suppose Mrs. Hurst or you are empowered to act for her?"

"I believe," answered Hillian, promptly—"or, to speak more correctly, I am sure—that Miss Carisforde would be very angry if her absence from home induced any one to neglect her kinsman. Perhaps, Dr. Monson, you will mention this to the household, and let it be understood that as long as Lord Carlsforde is here, he is to be treated in every respect as if the place were his own."

"As it will be, if he lives, I dare say," whispered Dr. Monson to his colleague, but quite loud enough to be overheard. "He would be a very foolish youth if he rejected such an estate solely because the bride, who must be taken with it, is not the most comely of maidens. I think we may safely leave our patient in your charge, Miss Gray, while we go and take a little refreshment."

Then Noel, in the stupor with which he was wrestling, heard their steps die away, and Hillian sob uncontrollably, exclaiming, as she did so:

"What cruel, cruel things they say! Oh! miserable Ada Carisforde, had you but perished in your infancy, these things would never have been!"

He tried to address her—to entreat her not to make herself unhappy on her friend's account; but his compassion for Hillian Gray was swallowed up in the struggle to endure the pains that racked him. He was fearfully bruised, and after these few minutes of consciousness he remembered nothing more for several days, alternating between delirium and the deep yet feverish slumber of exhaustion.

The first time he awoke with cool skin, temperate pulse, and comparative freedom from pain, the sun was shining in at his open window, the church bells were ringing merrily for a village wedding, and he knew that the pleasant sounds had been mingling with his dreams for some time. He lay listening to them still, until by slow degrees his brain grew clearer, and he was able to recall all

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that had happened: Miss Carisforde's secret flight, the storm, the partial destruction of the tower, the rescue of Hillian Gray, and his own narrow escape from instant destruction when the block of stone fell upon the ladder.

An attempt to raise himself in bed taught him that he was not only as weak as a child, but swathed in bandages, and his head so curiously dizzy as soon as it was lifted from the pillows, that he was glad to close his eyes, and resume his former position. He was trying to lose the sense of his helplessness in sleep, when some one stirred and coughed, and pulling aside his curtain, he found that Mrs. Estcourt was dozing in a comfortable arm-chair beside him.

She started up when he spoke, and laid her hand on a bell that was at her elbow; but by a gesture, he arrested the movement.

"Don't ring. I am not in want of anything. How long have I lain here?"

"You are sure you are not light-headed?" asked his step-mother, dubiously. "Because I told them when they asked if I had any objection to take the nurse's place for an hour or two while she rested—although I must say that as Miss Gray takes turns with her, there could be no occasion for it—that my nerves would not let me remain in the room if you raved."

"I'll not rave, if I can help it," said Noel, with a smile that reassured her. "Have I been delirious?"

"Dreadfully so," responded Mrs. Estcourt. "No rest to be had night nor day; and though I have had a screen put betwixt my bed and the door, and always filled my ears with cotton-wool when you were at the worst, I could not keep out the sound of your voice. I don't suppose I shall ever recover the shock it has given me." And she cast up her eyes with the air of a martyr. "I asked Dr. Monson if the port wine he prescribed for me could not be supplemented with something more soothing. I am sure he could have sent me some sedative drops, if he had liked; but he does not strike me as being very clever; and an attentive man he is *not*, for he will scarcely stop to hear one describe one's symptoms."

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"How much trouble I must have given!" ejaculated Noel, who might be pardoned for thinking more of his own condition just then than his step-mother's fancied ailments.

"You have indeed!" she replied. "My anxiety has been almost intolerable. I'm not looking half as well as when we came. I can see the alteration myself. My dresses begin to fit me quite loosely."

Passing over this piece of information, the invalid continued his queries.

"Have you had any news of Miss Carisforde? Have any efforts been made to discover where she has gone?"

"Not yet. I told Mr. Whitely I dare say she would rather be brought back by you than anyone else; so he agreed with me that we had better take no steps in the matter till you were well again."

"Nonsense!" cried Noel, abruptly. "Let the guardians selected by her father be apprised of her departure; they are the proper persons to be consulted. Tell Mr. Whitely to write to them at once."

"Ah! but one of them died a few days before the late Viscount, and the other is in the West Indies; so you see there is no alternative but to wait till you are well enough to look after the young lady yourself."

Noel did not feel equal to the subject; so he lay silent while Mrs. Estcourt refreshed herself with some biscuits and a cup of jelly. But his thoughts were busy, and presently they prompted the inquiry:

"Did I not hear you say that Miss Gray has been nursing me?"

"Partly. We have had a trained nurse here as well; but I do not like her; she is too consequential. Once or twice when I have wanted a few little services rendered to myself, she has not scrupled to tell me that she was here to attend to you only, and could not undertake the charge of two patients. Miss Gray is the more obliging of the two, and she is not as attentive as she might be."

"She is very kind," said Noel, remembering her tears and piteous entreaties to the surgeons to alleviate his sufferings.

"Well, I don't know," Mrs. Estcourt retorted. "These people are paid for what they do. I've no doubt that this young person has an excellent salary, and her duties must be merely nominal. It's almost a folly for Miss Carisforde to keep her, especially as Irene might come and stay with her; for the present, at all events," a reservation her step-son did not notice at the time, although it recurred to his memory afterwards. "That would be a nice arrangement for both of them—don't you think so?"

"How much longer shall I have to be here?" asked Noel, instead of replying to such a difficult question.

"How can I tell? It will depend in a great measure, I suppose, on the doctors. Now they have pronounced you out of danger I shall ask them if they do not advise my going to the seaside. I am sure that a few weeks at Bournemouth or Hastings would do me incalculable good, especially if some one would look after those tiresome children. Irene isn't a bit of good; her last letter was so full of complaints of the trouble they gave her, that it made me quite ill to read it. Ted has set himself on fire twice, and Maggie was lost for three days, and only recovered through the police; my domestic trials will be the death of me."

Noel compressed his lips, for his temples began to throb, and he knew not how to be sufficiently grateful, when a light foot crossed the floor, and he learned from the half-whispered conversation that followed, Mrs. Estcourt was being relieved from the duties she assumed with such reluctance, and performed so badly.

"He has been talking rather more sensibly," he heard her aver; "but his mind must be still wandering, for he speaks of nothing but himself, and dropped off to sleep before I had been able to say half-a-dozen words to him."

With which somewhat exaggerated assertion she complacently sailed away.

CHAPTER XI.

FIRST HOURS OF CONVALESCENCE.

Noel was not only fatigued by his chat with Mrs. Estcourt, but depressed as well. The mere sound of her voice—that fretful voice which had so often irritated him beyond endurance—brought back all the harassing duties which devolved upon him, as the main support of his step-mother and her young family. He never felt her intolerable selfishness more keenly than he was now doing, for he had never before been so weak and excitable, so utterly unable to shake off the nervous irritation she contrived to produce; and he lay thinking over her revelations concerning the incapable Irene, and the turbulent little flock she was left to manage as best she could, till his vexation vented itself in a heavy sigh.

"You are suffering," was murmured in low, compassionate accents. "May I bathe your temples, or arrange your pillows more comfortably?"

It was Hillian Gray who spoke, and his heavy eyes unclosed to gaze upon the kindly face of his young nurse.

"I have heard from Mrs. Estcourt how good you have been to me," he murmured; "some other time, if I live, I must thank you for it; just now—"

He had not strength to say more; but his looks were so eloquent, that she colored with mingled pleasure and pain.

"Did you not save my life?" she answered; "and though there are few, very few, to whom it is precious, I am more grateful to you than I can express. But you are feverish; something has distressed you. May I ask what it is?"

"I should like to see Mr. Whitely," said Noel, speaking with extreme difficulty, for he was too weak to bear more. "I must make my will, and secure to my step-mother and her children the little I have to leave."

"Cannot you trust their future to Miss Carisforde?" asked Hillian, hesitatingly. "They are her relatives as well as yours, and believe me, she is neither selfish nor ungenerous."

But, as he persisted in his request, she promised that it should be attended to; and, soothed by this assurance, he slept again till evening.

But he did not awaken as refreshed by his slumbers as those who watched over him had been anticipating; and the doctors in attendance questioned Mrs. Estcourt, and lectured her so sharply for permitting him to talk and be excited, that, in high dudgeon, she absented herself from his chamber for the next two or three days.

It was fortunate that she did so, as it gave Noel time to gain strength for the next infliction. Those days were such calm, soothing ones that he often looked back to them with regret long after his

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health returned. Too weak to raise himself without help, he lay hour after hour—seldom suffering much pain, but unequal to the slightest exertion—sometimes dozing, sometimes dreamily watching Hillian Gray, as she moved with light foot about his chamber—careful that it should always be fresh and gay with flowers. The nurse was stolid and silent; while Mrs. Hurst, who was eager to be of service, was only admitted to the sick chamber on condition that she did not open her lips as long as she was in it, an arrangement for which she compensated to herself by so many nods and smiles, and pantomimic gestures, that Noel was amused.

Under these circumstances, the carefully-modulated tones of Hillian Gray were the sounds that most frequently met his ear; and to one who for years had had his leisure broken in upon by the din of a large, unruly family, and the maundering complainings of their mother, such an interval of calm was unutterably delightful.

He could not refrain from making a grimace when Mrs. Estcourt, having learned that he was considerably better, announced her intention of paying him a visit. But when he heard Hillian whisper the query to Mrs. Brown; would it be prudent to admit a visitor whose presence had such an unfavorable effect on their patient? he swallowed his reluctance, and answered the question himself.

"Pray, let Mrs. Estcourt come, if she will. She was my father's wife, and I must not fail in courtesy towards her; but at the same time," he added, faintly smiling, "if you can hint to her that I haven't my nerves under control yet, and can neither talk nor listen long, I shall be grateful."

Warned, therefore, that she would not be permitted to remain for more than a quarter of an hour, Mrs. Estcourt came to the bedside of her step-son, and contrived in the first five minutes to raise his blood to fever heat, and bring back the acute pains in his head, which were amongst his worst symptoms.

"Really, Noel, you look worse instead of better than when I last saw you! I don't believe that you are properly attended to; and if it wasn't for my own health being in such a weak state, I would insist upon taking charge of you myself. It's just as I predicted. The young woman Gray knows nothing about nursing the sick; and it's my private opinion that Mrs. Brown drinks."

"I am feeling considerably easier," Noel told her.

"Ah! but that's not always a good sign," was the cheering reply. "I'm often worse myself after my spirits have been unusually good; and Dr. Monson says that your leg was so badly shattered, that it will be weeks and weeks before you are able to stand on it. I should not be at all surprised if he has to amputate it, after all."

Noel shuddered, and put up his hand to beg her to forbear.

"Pray don't discuss my condition; I am not strong enough yet to contemplate the loss of a limb with composure. Have you heard from Irene lately?"

Mrs. Estcourt's reply was a startling one.

"Don't speak of her! Heartless, unnatural girl! Knowing, too, how I am situated! With you lying here helpless, the entire charge of a great house like this resting upon me—for, as I told that impertinent Mrs. Martin yesterday, as long as poor dear Miss Carisforde is away from home, I shall consider it my bounden duty to look after things for her——"

"Never mind that just now," said Noel, wincing at the idea of his step-mother's uncalled-for interference in the affairs of a stranger; "but do tell me about Irene. What has she been doing?"

Mrs. Estcourt applied her handkerchief to her eyes.

"Doing! Her best to lay me on a sick bed! My anxieties are really too much for me! I'm sure your rashness, which was really inexcusable, as there are all those poor children looking to you—"

"Irene!" groaned Noel, impatiently. "Tell me of her! We ought to have foreseen that she was too young, too inexperienced to be left alone. Why keep me in suspense? What has she done?"

"Why, nothing as yet. How absurd it is of you to agitate me so! If you only would have had patience to listen to me, I should never have told you the substance of her letter; or you can read it yourself, if you like. I have it here—at least, I think so."

After making a long search in her pockets, and nearly driving Noel wild by hunting about various parts of the room—which, by-the-by, she had never approached—Mrs. Estcourt decided that the missing epistle must be on the mantel-piece in her own apartment, whither, at her step-son's urgent entreaty, she went to seek it. When found, it proved to contain a mutinous protest that Irene would not endure the annoyances of her position any longer.

"I'm sure I've done my best," she went on to say; "but with no money—for what you left wasn't half enough—and no servant—for Ann has heard of a better place and left us—and the children hungry as well as tiresome, I'm as mad as the March hare and the hatter together. I would not have put up with it as long as I have done only for Noel. How is he? You said so much in your letter about your own fright, that you did not leave yourself room for more than about two lines about him, and those were so blotted that we can't make out whether he has broken his neck or his leg. And so, mamma, this is to let you know that I can't and won't be left here any longer, and have quite—*quite—quite* made up my mind to run away. I have packed a bag to carry with me, and I shall take out of your dressing-case the bracelet you are always promising to give me whenever you want me to do anything for you very particular; and I mean to sell it and live on the proceeds as long as they last; so if you are not at home within twenty-four hours you'll find the children locked up in the kitchen—it's the safest place I can think of—and the key at the baker's; and this is the firm resolve of your affectionate but exasperated daughter,

I. E."

"P. S.—If Noel is very ill, don't tell him till you are obliged: it will worry him; but I have stayed as long as I could.

"P. S. S.—It is your own fault, mamma. It is three days since I wrote, telling you how I was situated, and begging for an immediate reply. Some one else might have written if you couldn't. If you knew how miserable——"

A great tear had effaced the rest, and Noel breathed a compassionate "Poor child!" as he saw it.—To be continued.

EQUAL TO THE EMERGENCY.—A young lady was sitting with a gallant captain in a charmingly decorated recess. On her knee was a diminutive niece, placed there *pour les convenances*. In the adjoining room, with the door open, were the rest of the company. Says the little niece, in a jealous and audible voice, "Auntie, kiss me, too." I leave you to imagine what had just happened. "You should say twice, Ethel dear; two is not grammar," was the immediate rejoinder. Clever girl, that.—[*London World.*

THE COTTAGE GATE.

BY ETHEL TANE.

In the sultry time of mowing,
When the fields are full of hay,
Pretty Janet brings her sewing
To the gate, at the close of day.

Do you wonder that she lingers—
Often glances down the lane?
Do you ask me why her fingers
Seem to find their work a strain?

Love-dreams hold her in their tether;
Love is often (as we know)
Idle in the summer weather,
Idlest in the sunset glow.

Now the toil of day is over:
Janet has not long to wait
For a shadow on the clover,
And a footstep at the gate.

How is this?—The slighted sheeting
Has been taken up anew;
Very quiet is her greeting,
Scarcely raised those eyes of blue.

Now he leans upon the railing,
Tells her all about the bay;
Still his pains seem unavailing—
Very little will she say.

If you think it strange, my reader,
Learn a lesson from the rose,
She, from the garden's queenly leader,
Fairest flower that ever blows.

Not at once she flaunts her petals;
First a bud of sober green;
By-and-by the stretching sepals
Show a dash of red between.

Breezes rock her; sunbeams woo her;
Wide and wider does she start;
Opens all her crimson treasure,
Yields the fragrance at her heart.

Ah! the rose buds will not render
All their secrets in one day;
And the maiden, shy and tender,
Is as diffident as they.

SOME FEATURES OF NEW YORK LIFE.

NEW YORK RESTAURANTS.

A New Departure—Its History.

NEW-YORK has lived without cooks for a longer time, probably, than any place with pretensions on this planet. In private families and boarding-houses steak has been given over to ignorance, and boiled potatoes, as they should be boiled, are as unknown as the whereabouts of the "Lost Tribes." Among the many doubtful favors bestowed on this land of freedom by the Emerald Isle is included the female cook. God has given us the food—and delicious it is—but Ireland, alas! has sent the cooks. The miseries of the New-York boarding-house deserve a chapter all to themselves, every word printed in capitals, but I prefer, like the Celestials, to commence with the dessert, by speaking of the pleasant reform that is now operating in favor of a better *cuisine*.

The new, cheap restaurants may be said to have a mushroom growth, so quickly have they appeared and multiplied on the face of the earth. We have always had our Delmonico, and latterly an active rival, the Brunswick, while several hotels have acquired more than local fame because of excellent cooking. These may be called the library editions, lavishly bound, only to be enjoyed by those whom fate has equipped with a pair of shears and a barrel of four-per-cents; the cheaper paper cover editions, so to speak, are of very recent date, but it is now a very pleasant fact that one may enjoy a good dinner at several restaurants on the payment of one dollar; more moderate gastronomic aspirations find satisfaction, even, for only sixty cents! It is as curious as pleasant to trace the rise and progress of such an admirable order of things.

Queer to relate, the man who first attracted considerable attention as a *restaurateur* with low prices, was an Irishman named Donovan. An illustration of the laws of compensations. He converted a private house in West Twelfth Street into a bower where an excellent *table d' hote* including wine was provived, for $1.50 per head. This was the first gun for freedom and a good dinner. Numberless young men deserted boarding-house tables, established themselves in furnished lodgings, and realized that for a long time they had lived without dining.

Presently an Italian, Morello, established himself in the Fourth avenue, directly under a photographer, and it was not long before it became generally known that one could worship at this shrine of Epicurus on the payment of only eighty-five cents. What gay memories entwine themselves about those stuffy little parlors. There, any evening, one saw clustered around the little tables cozy parties of four or less, intent upon eating a good dinner, well served. The waiters were polite, attentive, noiseless; could take orders in a half-dozen tongues without letting their linguistic accomplishments betray them into the impropriety of taking a too active interest in the sprightly talk of the guests. All climes, all classes, all degrees met there to dine. The well-regulated German brought the entire family and a friend, and the tongue of the fatherland became almost agreeable to listen to under the emollient effect of crisp salad, dressed with Lucca oil. The journalist who had made a "strike," and the artist who had been fortunate in disposing of a "pot boiler," paid tribute to Morello, who was the living expression of a beatitude as he sat behind his little desk. He seemed to know that his mission was to do good, and looked as if he was convinced that he had hit upon the right means, and was receiving his reward in advance of the hereafter.

A countryman of Morello, Martinelli, urged on by the spirit of competition, presently displayed his banner on the outer wall further up the same avenue, and instead of inscribing on it "still higher," announced that *seventy-five* cents was the price of his *table d'hote*. Here, then, was an embarrassment of riches. A good dinner and poor wine for three-quarters of a dollar! Trade was immense. Martinelli confined himself more strictly to Italian methods of cooking; hence attracted the larger number of his countrymen. It was funny to see Americans trying to eat macaroni after the most approved Italian manner. To the native it was a simple matter to transfer this toothsome dish from plate to mouth. It was simply a continuous stream of macaroni. Like those optical toys designed to show the phenomena of light, when the slatted disc is violently set spinning, the separate colors blend into a white streak, so with the elusive vegetable—it was merely a white streak extending from mouth to plate, the fork playing a running accompaniment. The Yankee, on the other hand, had to submit to awkward breaks in the process, that left the macaroni suspended from his mouth in very ungraceful strings, while he struggled to put out of sight a dangling and palpitating mass. But it was very good, once down. Martinelli has made money, moved up town, opened a larger and more pretentious establishment, and by adding a few nuts and raisins to the *menu*, has had the audacity to increase his tariff to one dollar. I don't pray for his success, especially as the latest addition to this brotherhood of benefactors has opened a charming place and gives an admirable dinner for *sixty cents!* How can worth and cheapness any further go?

The Hotel Hungaria was originally started as an enterprise of a wine merchant who took this means of popularizing Hungarian wines. Here there was capital with which to build, and as a consequence, it is a spot where a good dinner is served amid inviting surroundings. Flanking the tables are candelabra of the most ornate kind interspersed with vases and hanging baskets filled with growing plants. A miniature fountain plashes musically, and the slippered waiters glide about noiselessly, like the ministering angels that they are, while the guest leisurely looks over the papers, daily, illustrated and foreign, before his soup is served. The wine here is extra. But what does one get for sixty cents? I append the *menu* for one day, with the remark that the viands are good, excellently cooked, and bountiful: Soup—Julienne; Fish—Cod, oyster-sauce; Roast—Beef; Vegetables—Potatoes, string beans; Game—Roast duck; salad; Dessert—Blanc-mange, wine sauce; Cheese—Neufchatel; Coffee.

After having discussed this satisfying meal, and lighted one's cigar, there is just about time to consume it before the play commences at some one of the theatres in the vicinity, or if the diner is not in the humor for histrionics, he may saunter up Broadway reflecting the while on the satisfaction he has secured for so small an outlay, and being in too happy a frame of mind to harbor resentment, he thinks of his old boarding-house days in a spirit of mild contempt, while apropos of the restaurateurs the ever recurring conundrum is: How can they afford to give so good a dinner for so little money? But they need never answer the question if only they will continue to demonstrate the fact. RACONTEUR.

SHE SAW "PINAFORE."

(Letter from Doll Boffin to Her Cousin Primrose.

BOSTON, May 4th, 1879.

MY DEAREST PRIM.:—Why don't you write oftener? It has been an age since I received a single line from you. Let me see. Your last letter was dated April 30th. You know you promised to write awfully often. But that was not what I was about to say. My dear, I have seen "Pinafore!" To be sure, I have seen it about twenty times in New York, but this is quite another thing. It is the "Ideal" Pinafore, if you please. Lucy and I were out shopping. You remember Lucy—such a *dear*, good girl, but wears such positively frightful hats! She says it doesn't signify about what is on the top of one's head, so long as one has something *inside*. You should *hear* her talk French. Real New England French. Well, no matter. As I said we were shopping and I saw posted all over the city, in great, big letters, "H. M. S. Pinafore—the 'Ideal'—our Boston favorites; for a limited season!" I said to Lucy that I must see *that* or *die*. And then she told me all about them. There were Myron Whitney and Barnabee, Tom Karl and Miss Beebe, and oh, a whole battery of the most *tremendous* church canons. Really quite *swell*, you know, for Boston; and that it was just perfectly splendid. She didn't say it in just those words—Lucy abhors slang. She said it "was an uncommon combination of Boston's best musical 'culchar,' for the purpose of rendering in an idyllic manner the most truly clever serio-satirical-comic work that has of late been offered to refined and appreciative Boston audiences." That decided it, my dear, I should have seen *that* "Pinafore" if I had had to go in last winter's bonnet! And we went, Lucy and I. It's too funny to see the girls going alone to the theatre. You know the men are so scarce—at any rate, so Lucy says—that it is awfully hard to get an escort, so they just go in couples by themselves. We went to the box-office and purchased our tickets just like little men. Think of it! a reserved seat for seventy-five cents. As we entered the lobby I saw any number of young fellows, and I thought Lucy must be mistaken about there not being enough of the article to go round. I think it's because there are not a *quantum suf.* of pretty girls to make it an object. There! don't you breathe a word of this. Not even to Flora Jones. It's *very* confidential.

I thought the curtain never would go up, but I did not mind that so much, as I was talking away, as usual, at least thirteen to the dozen. I noticed that Lucy was very quiet, but I was so well pleased at listening to my own gabble that I thought nothing about it until I suddenly turned to ask a question. Well, you will *never* believe it, but, my dear—*she was chewing gum!* You could have wafted me away with a zephyr (is that *right*. It's so much easier to say these words than to spell them—and I would'nt ask Lucy *for worlds!*)

Well, the curtain did go up finally and there was the "Ideal" crew of the "Pinafore" all "Boston Favorites." They hitched up their trousers in real nautical style and began the opening chorus. Then "Little Buttercup" appeared. She *looked* the character better than any Buttercup I have seen. That woman was five and thirty *if she was a day!* Then she carried an "ideal" basket, just such an one as you would expect a "Boston Favorite" to have, real American make with patent tin fastenings on the corners; instead of getting something that looked as if it might have been made in England. She sang pretty well, but her feet were too large—much too large. Then Mr. Tom Karl—"Rackstraw"—appeared. It was too amusing. He thought he had the real sailor roll. But that was all right. The only sea he ever saw was a Bishop's See, probably. He sang very well, also. Oh! you dear old Prim., if you had only been along what fun we should have had! "Josephine" was killing. She's as *pretty*, as pretty as—well, as a Bostonian, an "ideal" Bostonian, and a "Favorite" into the bargain. Her idea of expressing emotion is to clap her hands to her ears and sway up to the foot-lights with a motion that commences at her feet and goes up as if there were four concealed hinges worked by springs somewhere about her dress. "Rackstraw" had the same gait, and when they did the emotional together they bobbed about like travelers riding on camels. And "Sir Joseph Porter,"—well he was the sickest Sir J. P. I *ever* saw, a regular *stick*, and he thought he was too "ideal" for anything. I know he did.

Up to this point I had behaved very well, but when the "sisters, cousins and aunts" appeared, I *exploded*. It was a sight for gods! "Hebe" was a *perfect* fright. Her form—well, I'll tell you about that when I reach home. It was "ideal." You never saw anything like it unless it was in some collection of antiquities. The other relatives afforded me food for amusement during the remainder of the opera. I can't tell you about them, I shall have to act it out for your special delectation.

Poor Lucy! She thought it was all *very* fine, and spoke in the *highest* terms of the "Favorites."

Primmie, you may just thank your *stars*, that you live in New York and are invited to see a *real* good play occasionally. By the way, did Charlie Macguffin call this week? I met his cousin here. He wears eye-glasses and says "cawnt" for can't. Did you get my gloves? I received the lace *nicely*, that you sent folded in the *Home Journal*. Grandpa says its wrong to cheat the mails, and I said we always fooled the males when we could, and Lucy said puns were not intellectual. I am afraid you won't consider this letter *very* intellectual, considering I've been in Boston a *whole* week, but then I'm not a "Favorite," you know.

Write soon, there's a dear, and believe me your *awfully* affectionate DOLLY.

P. S. Did Frank say anything about me Sunday Why don't he write? Yours till death.

D. B.

HOW TO MAKE COLOGNE WATER.—With no trouble at all, any one can make in her own storeroom a better article of cologne than that which is usually bought, by thoroughly dissolving a fluid drachm of the oils of bergamot, orange and rosemary, each with a half a drachm of neroli and a pint of rectified spirits. As good as can be made out of cologne itself, however, is also prepared by mixing with one pint of rectified spirits two fluid drachms each of the oils of bergamot and lemon, one of the oil of orange, and half as much of that of rosemary, together with three-quarters of a drachm of neroli and four drops each of the essence of ambergris and musk.

If this is subsequently distilled, it makes what may be called a perfect cologne, but it becomes exceedingly fine by being kept tightly stopped for two or three months to ripen and mellow before use.—*Chemist.*

MAGAZINES.

CONTENTS OF LIPPINCOTT'S for May: Why do We like Paris? Two Papers.—I. Illustrated, Sarah B. Wister; Erythronium (Dog's-tooth Violet), E. S. F.; From Norway to York, Illustrated, H. M. Robinson; Through Winding Ways, Chaps. XXXII.-XXXV., Ellen W. Olney; The Tramp in Four Centuries, Octave Thanet; Women's Husbands.—II. The False Prince. (Concluded); My Village in the South. Part III., Annie Porter; The Home of the Two Widows, Oscar Fay Adams; My Hero, Isabella Alderson; Myra's House, C. C. C.; Consummatum est, Paul H. Hayne: Beach-Birds, Illustrated, Nathan Clifford Brown; Cardinal Richelieu as a Dramatist and Stage-Manager, Lucy H. Hooper; Our Monthly Gossip—On Proposals of Marriage—A Literary Nestor—Two Naughty Little Boys—Shelley and Lesser Vegetarians—Some Oriental Superstitions—What the English Schoolboy Learns about American Geography; Literature of the Day—Hamerton's Life of J. M. W. Turner—Lady Anne Blunt's Bedouin Tribes of the Euphrates—Perry's History of the Church of England—Ballard and Thayer's American Plant-Book.

WHAT THE ENGLISH SCHOOLBOY LEARNS ABOUT AMERICAN GEOGRAPHY.—A few items of United States geography, gleaned from a standard English school-book, may, we think, prove fresh to our readers. This book, which was recently put into the hands of an American boy at an English school, is entitled Elements of Geography, and is from the learned pen of Dr. Alexander Mackay, who writes the letters LL.D. and F.R.G.S. after his name. It is a small, closely-printed volume, between whose modest covers an astonishing amount of information is accumulated, its scope embracing the whole science of geography, physical, political and mathematical. It is no new and untried production, but bears proudly on its title-page the record of its thirty-seventh thousand, while an abridgment, entitled Outlines of Geography, is already in its hundred and sixth thousand. A brief preface informs us that the greatest care has been taken to put the Elements fairly abreast of the new and improved edition of the author's Manual of Geography, which we presume is equivalent to a promise of its being abreast of the times. Evidences of this care are not wanting. Our own civil war and the Franco-Prussian war both receive due mention, with the difference that the final results of the latter are recorded, while the former, we are left to infer, is only at the commencement of its end. A brief but thrilling summary of its events leaves it with the curtain just about to descend: "After a lengthened contest of the most sanguinary character the fleets and armies of the North *have* at length triumphed—Richmond *has been* evacuated, most of the Confederate generals *have* surrendered, and President Davis *has been* captured." This past tense of yesterday has the vividness of an historical present. We advance a little beyond Richmond, however, on another page, where we find this latest bulletin: "Many slaves were set free during the late civil war, while by a *recent* proclamation of President Lincoln liberty has been extended to the entire remainder."

Turning from history to geography proper, we find that Albany, which we had regarded as a quoit-stake for New York "rings," is "a large, thriving city, most advantageously situated both for foreign commerce and inland trade;" also that "its university is the principal educational establishment of the United States." Harvard takes a more modest place as the "oldest and best-endowed *seminary* in the Union," though, as a partial consolation, its library is stated to be the largest in America. Providence is likewise noted as a literary and educational center, while Pittsburg in its mountain-retreat is credited, in addition to its iron industry, with an extensive activity in shipbuilding. Washington enjoys two claims to distinction: first, as the capital of the District of Columbia; secondly, as the metropolis of the United States. Detroit is still more remarkably characterized. In addition to a shipbuilding fame which it shares with Pittsburg, it is distinguished as "the landing-place of hosts of emigrants from Europe."

Thus are our cities arbitrarily exalted or made low, till we begin to suspect that some artful Yankee, with his own ends either of business or pleasure in view, has submitted the worthy doctor to the process known in slang phrase as *stuffing*. Not less bewildering is his mode of "locating" some American towns. It is a pretty broad statement to mention Toronto, Hamilton, Cleveland, Detroit and Chicago as towns on the St. Lawrence, but when we find Portland on Massachusetts Bay, and that saline body of water classed among the rivers, we scent a new "element" in the book, and doubt if Dr. Mackay's forte does not lie rather in the direction of *mental* than of *physical* geography. In a somewhat curious division of States the District of Columbia is placed among the North-Eastern States, while Delaware and Maryland are not discoverable till later in a list of those of the South-East. A description of our coal-fields ignores the Pennsylvania bed of anthracite coal, though it is tacitly included in the general area of the coal-regions. We have little to complain of, however, as regards omissions where there is so much that is novel and instructive, especially as the space accorded to the American matters is much more generous than that grudgingly allotted in our own school geographies to the celebration of any European country. Whether Dr. Mackay is more careful in his statements regarding those neighbors who are nearer home we have not looked far enough to say. We are content to leave the rights of others to their own guardianship. Ignorance is a lame excuse for a Fellow of the Royal Geographical Society, though we once cheerfully forgave on that ground a Paris *sergent de police*, who, on being informed that we came from Philadelphia, surveyed with wonder our Saxon features and naively remarked, "Mais vous n'etes pas noir, vous!"—*Lippincott's Magazine.*

ECLECTIC MAGAZINE.—The May number of the *Eclectic* is embellished with an excellent steel-engraved portrait of M. Grevy, the newly-elected President of the French Republic. This is accompanied in the letter-press with a detailed and interesting sketch of his career, and of his character and habits in private life. The leading article of the number also deals with the same subject, and records some highly-suggestive First Impressions of the New Republic, by Frederic Harrison. The other articles in the number are as follows: Psychometric Facts by Francis Galton; Godwin and Shelley, by Leslie Stephen; A Cremation in China, by Herbert A. Giles; On the Migration of Birds, by Dr. August Weissmann; Loves's Promise, a Poem; Chapters on Socialism, II., by John Stuart Mill; Charles Lamb—Five New Anecdotes; Mademoiselle de Mersac, chapters VI. and VII; Why do we Eat our Dinner? by Professor Grant Allen; Cruel Fate; Ancient Egypt, III, by Reginald Stuart Poole; A Romance of Royalty—Lady Arabella Stuart; The New Religious Movement in France, a very striking and suggestive paper; The Two Lights, a Poem; Literary Notices; Foreign Literary Notes; Notes On Science and Art; Varieties.

THE CHRISTIAN UNION for April 16th contained the first of a series of articles on French Cookery of To-day, by L. Delmonico. It defined and explained what French cookery really is, contrasting it with American, and afforded considerable information in regard to its history and growth, both in its native land and in the climes of its adoption, with special reference to its hygienic and economic features. The second will analyze the system of the French dinner, and explain the philosophy of its service, whilst the remainder will contain specific directions for the preparation of those light dishes which are tasteful and wholesomely appetizing, yet inexpensive; and which in themselves constitute the chief attraction to gross feeders when occasionally indulging at Les Freres' Provenceaux or Chevet's, during a visit to Paris. Both to master and mistress of the house we venture to predict this series of articles will be especially welcome and suggestive of pleasant fare in that trying time to housekeepers—the heated term.

Domestic Economy.

CONDUCTED BY EMILY MAPLE.

LOG-CABIN SKETCHES; OR, JESSIE SEABRIGHT'S DIARY.—No. 5.

MAY MAPLE.

An Unwoven Rag Carpet.

MAY 5th, 18—. Very many of the long winter evenings I spent in sewing carpet rags. Of course, we had an occasional cast-off garment, but not enough to keep one busy. When my neighbors found that I was saving all my little scraps for a carpet, they thought it would be a niee idea to have some of the rough, old cabin floors hidden from sight. And although it might be some time before they could have the rags woven, they would be less trouble if they were cut and sewed and wound into snug balls; and as they offered me a share if I would prepare them for the weaver, I accepted the proposition at once.

It was not the most pleasant work in the world, but then I was not looking for dainty employment, away here in the wilderness. I was anxious to have my humble home a pleasant abiding-place; and I was not afraid or ashamed to take hold of work, however lowly, so I could accomplish my purpose. Our floor was made of rough, unplaned boards—for pioneers are usually glad enough to get a roof over their heads, and seldom spend time for the niceties; for, of course, they will build a good house in a year or two at most—a pretty ideal, but seldom realized. The green lumber soon shrank, and made wide spaces between the boards. So, no matter how much pains I might take with my floor, it would never look nice. And although there were many old giants in the forest close at hand, that would have made most charming flooring, yet they could not be utilized at present; for the sawmill was too far away to think of hauling logs to it, or of drawing lumber, except for pressing necessities. John sometimes asked why I was so much engaged in sewing carpet rags, when there was not a loom in the whole country round. How did I ever expect to get a carpet made under such circumstances? "Wait and see," was my invariable reply. And the balls continued to grow from evening to evening.

But after I had secured a certain number of pounds for myself, I began slowly to unwind them from day to day, when Bertie and I were alone. My carpet was growing slowly but surely, and in pretty stripes. I was never lonely now, although there were weeks together when John was away to work all through the day, and guests were not numerous, for the snow was too deep to permit of much pedestrianism. My mind was as busy as my fingers. I was looking forward to the glad spring time, that at length arrived.

And now my house-cleaning is all done; wall freshly covered, with clean newspapers, and bordered with fresh evergreens; window panes glistening; the long curtains bleached as white as can be; lounge and chair covers washed, starched and ironed, look as fresh as new, and my floor is nearly all covered with my new carpet, which is bright and neat in appearance. And all the work of my own hands! To be sure, it will not wear for a quarter of a century, for it was *knit* garter stitch, on coarse, wooden needles, in breadths half a yard wide; the dark stripe, was "hit and miss;" while the fancy stripe was of red, shading to a light pink in the center, with a dash of orange at the sides. I am quite sure it will wear long enough to pay me for all my trouble.

You should have seen John's eyes open wide, when he came in from the field just as I was driving the last tack in the carpet upon the floor.

"Who wove that carpet for you?" was his first inquiry, but not his first exclamation.

"Mrs. Jessie Seabright, your honor," was my reply. "Isn't it pretty?"

"Why, yes! it's as handsome as a picture. But how did you weave it, is what I want to know." And when I told him all about it, he said:

"Well! well! it is strange how many ways a woman will devise to make a cabin look almost luxurious."

THE WIFE'S ECONOMY.

IT is astonishing to see how well a family can live upon a small income when the wife and mother is handy, industrious and economical. The husband may earn but ten or twelve dollars a week, yet they make a far better appearance than their neighbor who earns twice or thrice as much. This neighbor does his part well, but the wife is good for nothing. She will even upbraid her husband for not living as nicely as her neighbor, while the fault is entirely her own. The difference is, that the one wife is a neat, capable woman, while the other is a whirlpool, into which many silver cups might be thrown and the appearance of the waters would remain unchanged. For such a woman to talk of her love and devotion to her husband is but an insult to him. MARY B.

DOMESTIC RECIPES.

Cooling Drinks.

LEMON BEER.

Put into a keg one gallon of water, two sliced lemons, one tablespoonful of ginger, a scant pint of good sirup, and one-half pint of yeast. In twenty-four hours it will be ready for use. If bottled, the corks must be tied down.

SODA BEER.

A very cooling summer drink may be made by adding to two quarts of water two pounds of white sugar, the beaten whites of two eggs, two ounces of tartaric acid, two tablespoonfuls of cornstarch, mixed smooth in a little of the water. Put over the fire and boil two minutes. When cold, flavor with wintergreen. Bottle, and when wanted for use, dissolve in half a glass of cold water a third of a teaspoonful of soda, and then pour into it two tablespoonfuls of the bottled mixture. It will foam to the top of the glass.

GINGER DRINK.

Put to six gallons of water eight pounds of loaf sugar, the beaten whites of three eggs, and three ounces of the best ginger. Powder the ginger finely, and mix with a little water before adding it to the mass. Boil gently for three-quarters of an hour, removing any scum which may arise to the surface. Let cool; add the juice of three or four large lemons and a teacupful of yeast. Put into a cask and bung it very tightly. It will be fit to use in ten days.

RHUBARB TEA.

Boil, or rather simmer, two pounds of rhubarb for an hour or two in a quart of water; strain into a pitcher, adding water to make up the quart. After it is cold, add the juice of a lemon, and sugar to sweeten.

GINGER BEER.

Ten pounds of sugar, nine ounces lemon juice, one half pound of honey, eleven ounces of bruised ginger root, nine gallons of water, and three pints of yeast. Boil the ginger half an hour in one gallon of water and then add the rest of the water and the ingredients and strain. Add the beaten white of an egg, one-half ounce essence of lemon and let stand four days when it may be bottled.

GINGER POP.

Boil two ounces of best, white Jamaica ginger root in six quarts of water for twenty minutes, strain, add one ounce of cream-of-tartar and one pound of white sugar. Put over the fire and stir until all of the sugar is dissolved and then put into an earthern jar. Now put in one-fourth ounce of tartaric acid and the rind of one lemon. Let it stand until one can bear his finger in it with comfort and then add two tablespoonfuls of yeast. Stir well, bottle and tie down the corks. Make a few days before wanted for use.

WHITE SPRUCE BEER.

Dissolve ten pounds of loaf sugar in ten gallons of boiling water; add four ounces essence of spruce, and when almost cold, add one-half pint of good yeast. Keep in a warm place, and the next day strain through flannel; put into bottles and wire the corks. A. E. M. B.

Livingston Co., N. Y.

Hoe-Cakes.

The genuine Southern hoe-cake is made of corn-meal and water, with a little salt, and worked with the hands until stiff enough, so that it will neither run nor crack when patted down and made into little loaves an inch or two in thickness. Bake as already described as also in the ashes, when it is called ash-cake It is as innocent of sweet or any other kind of milk as is the Potomac river, and is mighty poor food at the best. M. B. P.

Pine-Apple Pie.

Pare and grate one good-sized pine-apple; cream, one cup of sugar, and a third of a cup of butter; beat the yelks and whites of five eggs separately. To the cream, butter and sugar add the yelks, then the apple, and lastly, the whites.

Bake in open shells of paste. Eat cold.

Canned Pine-Apple.

Make a sirup in the proportion of three pounds of granulated sugar to three pints of water; boil five minutes, skim and add the sliced pine-apple; boil until clear and tender. Have the cans hot, fill and seal as quickly as possible. MRS. KATE BRADY.

Baked Cup Custards.

Scald one quart of new milk and pour it over the beaten yelks of five eggs; sweeten to taste, flavor with vanilla and stir in the whipped whites of two eggs. Pour into stoneware cups, place in a pan of boiling water and bake until the custard is set. Make a meringue of the reserved whites and a little powdered sugar, and spread over each cup. Bake until of a delicate brown. Serve when cold in the cups in which they were baked.

MISS EMILY HALL.

Short-cake.

Short-cakes, as made fifty years ago by an aunt of mine, were made by adding one-half pound of butter to one quart of tepid or warm water, with flour to make the dough just right to knead a long time—from one to two hours—as therein lay the secret of lightness. About one-fifth of the butter should be reserved to roll in just before putting the cakes to bake, which was done by placing the pie-tins against a long stick of wood lying on the hearth before the kitchen fire. The cakes were made three-fourths of an inch in thickness, or less, and about eight inches in diameter, and placed on the tins facing the bright fire, which would soon roast one side a nice brown, when they were turned and roasted on the other side. The slashing an inch apart which these cakes received before baking, made them break easily without mangling, when they were put on the table. I give this bit of New England cookery of years ago in answer to an inquiry. If we now must have short-cake, we can do no better than to mix with cream not too old.

Minnesota. AUNT FLORA.

Brown Thickening for Gravies.

Take half a pound of flour and sift it after drying it thoroughly on a newspaper before the fire. Melt half a pound of butter in a porcelain saucepan; skim the top and pour off all that is as clear as good salad-oil. Wash out the saucepan and pour in the melted butter and flour; stir over a quick fire with a wooden spoon. The stirring must be continued until the whole mass begins to change color. As soon as of a light fawn color, take from the fire, throw in a large slice of onion—this will give the thickening a nice flavor—and keep stirring until it stops bubbling; take out the onion and turn into an earthen pot. When cold it has the appearance of light-colored chocolate, and very little will give a rich brown look to gravies. If rightly made it will keep good for weeks, and as brown thickening is almost a necessity where gravies and sauces are properly made, I have found it convenient to prepare two or three pounds of butter at a time.

MRS. ATKINSON.

News of the Week

MISCELLANEOUS.

Monday, May 5, 1879.

Professor Comstock, of Cornell University, succeeds Professor Riley, as Entomologist of the Agricultural Department, Washington. Twin Le Ducs is the latest news from that quarter. We have a strike here of upwards of 3,000 longshoremen, against a reduction in their present wages of 25c. an hour. If they could get steady work, they'd accept the cutting-down, but most of them can get work only for two or three days a week. The loading of ships accordingly is greatly delayed, while green-hands do the work so unskillfully that there will be danger of the cargo shifting at sea, thus endangering the safety of the vessel and its passengers and crew. All quiet hitherto. Both parties still confident of victory. We are to have a new telegraph company called the Union, with Jay Gould at its head. 'Twill gobble up all the small telegraphic fry not already swallowed by the Western Union. 'Twill reduce charges on messages and be a public benefactor generally, until the shrewd speculators that run the "machine," can see their opportunity for making a "pile," by "bleeding" the ordinary stockholders or "selling out" to their gigantic rival. April reports to the Department of Agriculture show that all classes of farm animals came out of winter-quarters in unusually good condition. The diseases are not of very great extent or virulence, except among hogs in the South and West. Large losses from so-called hog cholera are reported in some counties, but in most of these cases the mortality may probably be traced to a bad sanitary condition and deficiency of feeding. Four counties in New Jersey, one in New York, one in Pennsylvania and one in Maryland note the presence of pleuro-pneumonia; but the cases are believed to have nearly all originated in the dairy stations of the cities.

Openly hippophagy, or eating horse flesh, has not been practised to any extent in this country hitherto; but the health officer of Jersey City has just discovered that the makers of "fine country sausages" in that burgh, have been very extensively mixing that kind of meat with the other ingredients of the sausages designed for the markets of this and the neighboring cities. New Orleans has got rid of half a million of its debt by going quietly into the market and buying up its own bonds at 25c. on the dollar—a justifiable case of shaving one's own paper. 'Tis a pity that one of the best enterprises in the South has come to an unsuccessful end—a cotton factory started with high hopes in Atlanta, Ga., some time ago, has just been sold out by the Lowell parties who sold it the machinery, but couldn't get their pay.

The Supreme Court has just decided that a juror in the South who may be challenged and asked whether he took part in the rebellion, is justified in refusing, to answer and in the absence of proof of his participation therein, that he is competent to serve. Judge Field went further and declared the law requiring a test oath from jurors as to past conduct unconstitutional in time of peace. Judge Strong alone dissented from the opinion of the Court. The negro exodus from the South still continues. It is estimated that 8,6000 of the emigrants have arrived in St Louis since the opening of the year, most of whom were too poor to continue their journey to Kansas. Wayondotte Kansas, has 5,500 of them encamped in the suburbs, sick, helpless and penniless, a burden, and menace to the community. Vigorous efforts are being made here and there throughout the country among old abolitionists and ardent young Republicans to raise money to relieve the destitute and, still more, to add to their numbers. Fred Douglass, Pinchback of La., and Senator Bruce of Miss., the three most prominent representatives of the colored race, are strongly opposed to the movement.

As feared by the Democrats and hoped for by the Republicans. Pres. Hayes has vetoed the bill passed by both Houses of Congress, appropriating money for keeping up the army. His chief objection to it was that it was loaded with a "rider" prohibiting under any circumstances the presence of U. S. troops at the polls on State or Federal election days, except to resist foreign invasion. A Democratic caucus has just decided to present this obnoxious "rider" in the form of a separate bill, "railroad" it through both Houses, and withhold action on the appropriation Bill until it is seen whether the President will veto the measure thus presented. If he doesn't, the appropriation for the army will be granted, and the fight renewed over that for paying the expenses of U. S. Courts. But should his backbone remain stiff long enough to veto this bill also, then the present indications are good for a lively struggle between the Legislature and executive branches of the government.

There is a rush of emigrants from Southern Arkansas, Kansas and Missouri into the Indian Territory, and another appropriation of Indian lands, like that which lately occurred in the Black Hills, is very probable. The President has issued a proclamation strictly *forbidding* any occupation of lands belonging to the aboriginies, and ordering the military to expel those who have already settled there; General Pope has declared that he has troops enough to enforce the order; but the rush still continues, and it's not likely that Pope will be more successful in driving back the immigrants than he was in driving back the Confederates.

FOREIGN.

There is a reign of terror in Russia After the attempt to assassinate the czar the other day, the police increased their zeal in making arrests of all those suspected of Nihilism. The jails are thronged with prisoners of all ranks, but chiefly of the middle class. Vast numbers are banished weekly to the mines and desolate steppes of Siberia. All assemblages of the people after dark are prohibited in St. Petersburg. The Czar and his chief officers go about surrounded by strong guards, and fears are lively of a popular insurrection at any time. In Germany the chief agitation is still over the tariff question. Bismarck is vigorously pushing the imposition of duties on foreign goods in order to protect home industry, while the advocates of free trade, are earnest in their opposition to such a measure. The latest advices indicate the probability of a tax on the importation of grain from this country and the prohibition of cattle importations from this side of the Atlantic.

The Bulgarians have elected as King, Prince Alexander of Battenberg, a German princeling, whose chief merit appears to consist in his being the nephew of the Empress of Russia. Great agitation still continues in Eastern Roumalia, the object of which is to force a union of that Turkish Province with the brand-new kingdom of Bulgaria. Such a union is only a question of time anyhow. Greece has got all she asked for from the Porte except the town of Zanina, and her persistent demands will probably secure that too.

Distress, especially among the agricultural classes, is still the chief feature of Great Britain's domestic affairs. Col. Peason, who was beset by the Zulus in Africa, has been released from his dangerous position, and with the rest of the English forces, has retreated from Zululand. Cetywayo and his chiefs are suing for peace, and a speedy settlement is not unlikely. Yakoob Khan is also disposed to come to terms out in Afghanistan, so that the cessation of foreign wars will probably soon leave the government time to attend to home affairs. HERMAN.

VARIOUS.

Portable gas is sold and delivered in England like milk. People in the country and in villages receive it in copper vessels from large cities. This method is additionally popular from the fact that it dispenses with the erratic and depraved meter.

One hundred and sixty-two authentic cases of living burial are put on record by the eminent French physician, Dr. Josat. The period of unconsciousness before burial, in these cases, lasted from two hours to forty-two. The causes of apparent death were these: Syncope, hysteria, apoplexy, narcotism, concussion of brain, anæsthesia, lightning, and drunkenness.

COLLEGE-BRED CONGRESSMEN—Including senators and representatives, the prominent colleges are represented in Congress by graduates as follows: Harvard 6, Yale 6, Bowdoin 5, Union 6, Dartmouth 5, Princeton 4, Brown University 4, West Point Military Academy 5, Michigan University 4, Williams 1, Hamilton 2, Rutgers 4, Dickinson 6, Western Reserve 2, Antioch 2, Oberlin 2, Miami 3, Kenyon 2, Asbury University 3, William and Mary 2, University of Virginia 7, University of Alabama 4, University of Georgia 8, academic education 116, common school education 43.

Facts about the city of London are always interesting, and we find a few in the Cornhill Magazine. London is spread over about 7,000 square miles. There is one death there every six minutes, and one birth every four. The growth of the population is at the rate of 75,000 a year, or 205 each day. The total length of streets in London is about 7,000 miles; there are built every year about 9,000 new houses, by which the length of the streets is

increased twenty-eight miles. In the jails there is an average of 75,000 prisoners. The foreign-born residents of London number about 100,000; but thirty-seven per cent. of the whole population were born out of the city.

The verdict of half the World.—The entire western hemisphere pronounce Murray & Lanman's FLORIDA WATER the most delicious perfume for the boudoir, the ball-room, and the bath, that chemistry has yet succeeded in extracting from living flowers.

That furred tongue, bad tasting mouth and miserable feeling, says you need Hop Bitters.

THE MARKETS.

PRODUCE AND PROVISIONS.

NEW YORK, Saturday, May 3d, 1879.

BEANS AND PEAS.—Marrows are quiet, Cubans having little to encourage large purchases. Mediums steady with moderate sales. White kidney and pea beans continue quiet. Red kidneys strong, with stock giving out. Green peas firm and well controlled, $1.75; Canadian in bulk and bbd nominal at 75c. B. E pea-, $2.50 ₱ 2 bush. bag. Medium beans, choice, $1 30@1 32½; fair to good, $1 15@1 25. Marrow, prime, free on vessels, $1 40; fair to good, $1 25@1 35; pea, $1 20@1 35; white kidney, $1 30@1 50; red, $2 80@3 00; black, $2 15@2 25. California Lima, $4@4 25.

Receipts for week, beans, 5,021 bush.; exports, 926 bbls.; do, peas, 1,197 bush.

BEESWEEX.—Small transactions are in progress, and 24@25c. quoted for Western and Southern.

BUTTER.—There is a tame feeling in all grades of new. The closer we approach grass the more independent buyers become, and to prevent accumulation of white hay stock sellers are forced to make concessions. All useful old is about gone. There is a movement for the purpose of reducing the quantity of returnable creamery pails this season. Dealers assert that they could handle surplus creamery for export use with more ease if it were packed package free. Exporters are already using some new fine creamery.

OLD BUTTER ranges at 7@12c. for State, Welsh tubs, half tubs and firkins: creamery, 10@14c.; Western June firkins, 7@8c.; poor to fair factory, 5@6c.; grease, 3@4½c.

NEW BUTTER.—State pails and half tubs, choice, 15c.; good to prime, 12@13½c.; fair to good, 10@12c.; Welsh tubs, choice, 12@14c.; good to prime, 10@12c.; poor to fair, 8@10c.; State creamery, best invoices, 17@18c.; good to prime, 13@16c.; Western, best invoices, 17@18c.; fair to prime, 15@16c.; Imitation creamery, 12@14c.; Western, dairy, fair to best, 11@13c.; factory, 10@12c.; common, 6@8c.

COMPARATIVE RECEIPTS AND EXPORTS.

	Receipts, pkgs.	Exports. firkins.
June 1, '78 to May 1, '79	1,364,178	284,427
" 1, '77 " " 1, '78	1,170,768	173,431
" 1, '76 " " 1, '77	1,160,169	148,985
" 1, '75 " " 1, '76	1,049,973	33,060

Receipts for week, 23,232 pkgs. Exports, 5,223 do.

CHEESE.—The receipts of new are of small lots only, and transactions are more of a jobbing nature in them; 6@6¾ are about the best general rates, but there is here and there a parcel running up to 6¾, from this to 3 for the commonest, represents the market. It is estimated that the stock of old is in the neighborhood of 20 000 boxes, and there is every prospect of getting them cleaned out in a few days.

Quotations for old are 7½@8c. for fine lots; 6@7c. for good; 5@6c. for fair; 2@3c. for skimmed; 3½@5½c. for half skimmed. Wisconsin factory, fine, at 7½c.; do. good to prime, at 6@7c.; Western factory, fine 7c.; good and prime, 5@6c.; do. full skimmed, 2@3½c.; do. half skimmed, at 3@4½c.

Receipts for week, 8,580 boxes.

Liverpool cable, 40s.

Steam, 30s.

COMPARATIVE RECEIPTS.

	Receipts, pkgs.	Exports, lbs.
June 1, '78, to May 1, '79	3,017,000	135,209,154
June 1, '77, to May 1, '78	2,382,864	107,182,584
June 1, '76, to May 1, '77	1,940,641	84,210,570
June 1, '75, to May 1, '76	2,348,549	95,307,211

CORN MEAL.—Sales at $2.50 for Brandywine, and $2.10@2.25 for Western yellow.

COTTON.—The market has on the whole tended higher and leaves off strong, with the English markets to lowing close the improvement. A brisk business has been done. Latest prices are for May, 12.01c.; June, 12.19c.; July, 12.36@12.37c.; August, 12.49@12.50c.; September, 12.09c.; October, 11.49@11.50c.; November, 11.10@10.11c.; December, 11.03@11.04c.

Quotations for spot cotton are based on American standard of classification, and on cotton in store running in quality not more than half a grade above or below the grade quoted:

	Uplands.	N. Orleans.	Texas.
Ordinary	10¾	10¾	10¾
Strict ordinary	10⅞	11	11
Good ordinary	11¼	11¼	11¼
Strict good do.	11⅝	11⅝	11⅝
Low middling	11 11-16	11 13-16	11 13-16
Strict low middling	11¾	12	12
Middling	12	12⅛	12⅛
Good middling	12 5-16	12 7-16	12 7-16
Strict good middling	12 9-16	12 11-16	12 11-16
Middling Fair	13¼	13⅜	13⅜
Fair	14⅜	14⅜	14⅜

STAINED.

Good ordinary	10¾	Low Middling	11 7-16
Strict good ordinary	11⅜	Middling	11 11-16

DRIED FRUITS.—Apples have shown a moderate export inquiry, but otherwise trade has been very slack; prices are unsettled, and for most grades rather easy. Peeled peaches are held steady, but they have but little attention; small fruits have been quiet and prices unchanged.

Quotations are for apples, evaporated, Alden's & William's 10½@11c. for best; do. new process at 8@8½c. State plums, 13½c.; Blackberries quoted at 4½c. Peaches—Peeled Georgia, 7@7½c. for poor; 8½@9c. for fair to good; 10c. for prime; choice North Carolina, 12@13c.; good do., 11@10c.; unpeeled halves, 3@3½c. quarters, 2½@3c. Pitted cherries, 20c. Apples—New, 2½@2¾c. for Southern quarters in bags; 3¾@4c. for prime sliced; do., fair and good, 3@3½c.; State at 3½@4c. for new sliced; and 3¾@4c. for quarters; Western at 3¾@4c. for new quarters. Raspberries, 30c. bld.

Exports for week, 788 bbls. dried apples.

EGGS.—Receipts for week, 16,500 bbls.; do. last week, 14,480. There is a fair demand, quality being much superior to stock last spring, when so much stored, fresh and limed was in market. Prices are low, as there is an abundance of spring produce in that cuts up the local trade. Dealers do not look for much lower prices.

Near points, hen, 12½@13c.; State and Penn., 11½@11¾c.; Western, 11¼c.; Southern, 10½@11c.; poor, 10c.; duck, 12c.; goose, 18@20c.

FLOUR.—There has been a more active trade from home sources, and shippers are buying moderately with prices the turn stronger.

Latest prices are $3 25@3.65 for inferior to very choice superfine State (fancy lots shade higher); $3.60@3.85 for poor to good extra do., odd lots and lines; $3.85@4.25 for good to very choice do.; $3.25@3.60 for inferior to very choice superfine Indiana, Iowa, Michigan, &c.; $3.50@3.85 for very inferior to good shipping extra do., and $3.85@4.25 for good to very choice extra do.; common to about choice white wheat extras, $4.00@5.00; choice to fancy do. at $5.15@5.15; red and amber winter wheat, inferior to very choice trade and family, at $3.90@5.75; round hoop Ohio at $3.85@4.25, and trade and family brands of do. at $4.25@5.75, the latter rate for very choice; St. Louis, $4.00@5.00 for very inferior to good extra; $5.00@5.85 for good to very choice (with a few very fancy brands up to $6.50); Minnesota clear, very inferior to fancy, at $3.60@4.75, few brands going above $4.50; Minnesota "straight," very inferior to strictly choice at $4.25@5.75; and patent poor to strictly fancy at $5.25@8.50, few brands going above $7.50; unsound stock at from $2.25@5.00; city mill extra at $4.70@5.25 for West Indies (the latter rate for very fancy in new packages); chiefly at $4.70@4.90; do. for England $3.60@3.85; do. trade and family extras, $5.25@6.25; do. for South America, $5.15@5.65 for fair to very choice; No. 2 at $3.35@3.25 for poor to very choice.

FRESH FRUITS.—Best apples are becoming tender and holders are shading prices. State russets, Baldwins and Ba dwins prime, $2@2.25 per bbl.; very poor, $1@1.50. Exports for week, 2,050 bbls. Cranberries nominal at $7@8.50 per bbl.; crates, $2.25@3. Strawberries have run poor this week. Good Chas., 70@4c.; good but useful, 15@25c. Peanuts have advanced with a speculative demand; sales for consumption only moderate. Va. hand picked, $1.2?@@1.40; other, $1.15@1.25; shelled, 4¾@5¼c.; pecans, (Texas) 6@8c.

HOT-HOUSE PRODUCTS.—Sales restricted to few buyers at this season. Black Hamburg grapes, $2@2.50. Strawberries, 75c.@$1.50. Radishes, 100 bunches, $1.50@2. Cucumbers, doz., $1.50@2. Mushrooms, 50c. Lettuce, $2@6 per 100.

FURS AND SKINS.—At the Leipsig there was a decline of 10@20 per cent. on the principal goods, compared with the London sales of March. A large portion of the offering was withdrawn.

GRAIN.—The reports of dry weather at the West have been seized upon by speculators to influence values, and some help has been given the rising tendency by improved export demands. Latest sales of wheat are of No. 2 spring at 99c.@$1 03; No. 3 spring at 90¼@92c.; No. 4 spring at 85c; rejected spring at 76@78½c.; ungraded spring 80c.@$1 02; mixed winter at $1 13¾; ungraded amber at $1 08@1 11¾; No. 2 amber, at $1 11¾@1 12¾; ungraded red at $1 05@1 13; No; 2 red at $1 14¼@1 11¾; No. 3 red ungraded white at $1 10@1 12; No. 2 white at $1 10@$1 11; No. 3 white at $1.08; No. 1 white at $1 11¾@1 12; New York No. 2 spring, June option at $1 09¼; No. 2 amber, May option, at $1 13@1 13¾; No. 2 red, May option, at $1 11¾@1 14¾; do., June option at $1 14¾@1 15; No. 1 white, May option, at $1 12; do., June option, at $1 12¾@1 12¾. Rye at 58¾@61¾c. for State. Corn at the close selling at for New York No. 2 at 43¾@44¼c.; New York steamer mixed at 42¾@43¾c; No. 3 at 41¾c.; ungraded western mixed at 42¾@43½c.; New York No 2 white quoted at 47c.; New York steamer white at 46c.; New York steamer yellow at 45¾@46c.; New York low mixed at 44@44½c.; yellow southern at 42c. for very poor; New York No. 2 May at 43¾c.; do., June, at 44c.; New York steamer mixed, May option, at 42¾c.; do., June, at 42½. Oats at for New York No. 2 white at 35¾@35½c.; New York No. 3 white at 34c.; New York No. 2 at 33@33¾c.; New York No. 1 white at 38¼@39c; New York No. 1 at 33½c. bid and 34@34½c. held; New York No. 3 at 32¾@32¾c.; white Western at 33@37c.; mixed do., at 32¾@33¾c.; white State at 37@37½c.; No. 2 Chicago at 33¾@34c., afloat, and 32@32½c., in store. In Barley transactions are chiefly of a private character. Quotations understood to be easier than before.

HAY AND STRAW.—Receipts generally are small and a very fair call for supplies tends to place prices upon a firm basis.

Sales at 40@45c. for shipping, and 70@80c. for retail qualities. Straw at 40@45c. for long rye; 35c. for short rye, and oats at 30@35c.

Exports for week, 2,675 bales.

HOPS.—There has been a freer demand from brewers and a light call from exporters; the shipments this week only 360 bales; prices have not varied, with most of the business in grades at 5@7c.

Quotations are for New York's, new crop, choice, 9@12; New York's, new crop, medium, 7@8; New York s, new crop, low to fair, 5@6; Eastern, 6@9; Western, 6@9; Yearlings, 2@4; Olds, all growths, 1@2; Pacific coast, nominal, 8@12.

LEATHER.—Of hemlock sole sales at 18@19¼c. for light; 18@21c. for middle; 19@21c. for heavy; and 16@18c. for good damaged.

MAPLE SUGAR.—Market well supplied and trade not sharp. Prices, of course, easy. Fair to choice, 7@10c.; sirup, 75c. ₱ gal., in tin.

OIL-CAKE.—Western quoted at $27.25@27.50.

POULTRY AND GAME.—Prices for live poultry will be apt to rule easy. Receipts to show the usual increase of spring. The recent decline in fowls has brought some export call for the W. I.

Spring chicks, 75c.@$1.25 ₱ pair; N. J. fowls, 10½@11c.; Western, 10c.; Southern, 10c.; roosters, 5@6c. Turkeys, N J., 15c.; Western, 12@14c. Ducks choice, 90c@$1; other, 65@75c.; choice geese, $1.50@1.75; Southern and Western, 75c.@$1.37. Pigeons, 35@40c.

Country-dressed poultry is barely a special market item. The few parcels of near points and dry-picked are handled by those who have steamer and hotel trade to depend on. For local use city killers can supply all that is needed. Market easier.

Turkeys, best fresh killed, 17@18c.; the latter for Pa. dry-picked; other, 15@16c.; fowls, choice, 12@13c.; other, 9@11c.; capons 26@27c.; slips, 23@25c.; ducks, best, 17@19c. Dry-picked spring chicks, 50@55c.; winter broilers, 35@38c.; do. roosters, 21@22c.

The supply in small and chance birds are firm.

English snipe, $1.25@1.50 ₱ doz.; plover, 1.12@$1.37; small snipe, 30@40c. Wild pigeons, trapped, $1.75@2; do. shot, $1.25@1.50. Tame squab, $2.50@3.

PROVISIONS—Have tended a little higher and demand fairly active. Latest sales are for Mess pork, May at $10 10 bid and $10 20 asked; June at $10 10 bid and $10 30 asked; July at $10 15 bid and $10 30 asked, and August for at $10.?5 bid and $10.40 asked. Bacon at $5 for long clear and 5 3-16 for short clear. Lard—Western steam, at $6 25 for spot lots; $6 28½@6 25 for May and June; and $6 30 for July. Tallow at 6½c. for prime. Stearine at 6¾@7c. Beef hams at $15@15.25. Beef at for extra India mess, $20@22, as to quality; packet, $11@11.50; plain mess, $9.75@10.50; extra mess at $10.50@11.50.

SEEDS.—Clover is in moderate demand, with Western quoted at 6@6½c. for prime and 6¾@6¾c. for choice. Timothy is quiet at $1.35 for prime.

SUGAR.—Refined at 6@7¼c. for soft yellow; 7¼@8c. for soft white; 8¼@8¾c. for granulated and powdered; 8¾c. for crushed, and 8¾@8¾c. for cut loaf.

TOBACCO.—Trade has been very slack this week in both Western leaf and Seedleaf, but offerings not urgent and prices generally steady and as quoted last week.

	Light.	Heavy.
Common lugs	2½@ 3	3¼@ 3¾
Good lugs	3¾@ 4	4 @ 4¾
Low leaf	4¾@ 5	5 @ 6¾
Medium leaf	5¾@ 6¼	6¾@ 7¾
Good leaf	6¾@ 8	8 @ 9
Fine leaf	8¾@10	10 @11
Selections	— @—	12 @12¾

SEEDLEAF.—CROP OF 1877.

New England wrappers, common	10	@12
do. do. medium	13	@15
do. do. fine	18	@25
do. do. selections	27¼	@35
do. seconds	10	@13
do. fillers	7	@ 9
Pennsylvania assorted lots, common	9¼	@10¼
do. do. fair	11¼	@14¼
do. do. fine	15¼	@18
do. wrappers	20	@40
do. fillers	7¼	@ 8¾
New York assorted lots, common to medium	8	@10
do. do. do. good,	12	@15
Ohio assorted lots	9	@12
Ohio wrappers	12	@18
Wisconsin assorted lots	7¾	@10

VEGETABLES.—Potatoes weak from natural cause, advanced season and varied stock of other stuff. Best are about 25c. off. Southern truck has arrived in rather uneven order. We quote only marketable stuff. Southern Early Rose and Eastern, $3 25@3 50; State, choice, at $2 75@3; fair to good, $2 50@3; Peach Blow, white, in bulk, $3@3 25; red, $2 75@3.25; Prolific, $3; Peerless, State, $2 50; Jackson White, $2 75@2 87; (outside rate per double heads). Sweet potatoes, Md. & Del., $3 50. Onions, red and yellow, $2@2 75; Squash, marrow, $3 50@4. Cabbages per 100, $6@10; Rhubarb, 100, $1 50@3; R. turnips, per bbl., $1@1.25; beets, 75c.@$1.00; carrots, $1@1.12. Horseradish per bbl., $6@7. N. J. Asparagus, $3@6; Southern, $3@4 50. Southern Items—Fla. potatoes, $5@6; do., $2@3; String beans, Fla., per bush, or., $1@2 25; green peas, Chas. and Sav., small, $1 50; asparagus, kale, $1 75; Baltimore, ₱ bag, 25c; spinach, Baltimore, ₱ bbl., $1@1 25; radishes, Norfolk, ₱ 100 bunches, 25@75c.; cabbage, Sav., new, ₱ bbl., $3@3 50; Norfolk, $1 50@3. Fla. cucumbers, crate, $2@3 50; onions, Bermuda, ₱ crate, $1 25@1 50; tomatoes, box, $1@1 25, potatoes, $7@7 50.

WOOL.—There has been but little interest shown by manufacturers the past week, and they have been buying only as supplies were forced at easier prices. There is a general effort to clear out supplies before the new clips come to hand.

Ohio, Pennsylvania and Virginia—XXX and picklock, 36@37½c.; XX, 33@—c.; X, 31½@32½c.; No. 1, 32@34c.; No. 2, 32@33c.; common, 29@30c.; combing, 36@38c.

New York, Michigan, Indiana and Wisconsin—XX, 30@32c.; X, 29@31c.; No. 1, 31@32c.; No. 2, 27@30c.; common, 26@28c.; combing and delaine, 33@37c.

Iowa, Vermont and Illinois—X and XX, 28@30c.; No. 1, 30@33c.; No. 2, 27@28c.; combing, 33@36c.

Missouri, Kentucky and Tennessee—Washed fleece, 30@33c.; unwashed fleece, 18@24c.; unwashed combing, 22@25c.

LIVE STOCK MARKETS.

NEW YORK, Saturday, May 3d,

BEEVES.—Receipts for the week, 10,042 head; do., last week, 9,769 do. Medium grades of stock have done best for owners. Prime and heavy grades are relatively low. Poor to fair steers sold at 8¾@9¾c. per lb., to dress 55@56 lbs.; good and prime do. at 10@10½c., to dress 56@57 lbs.; few tops at 10½c., to dress 57 lbs. A car load of poor straw-stanked-wintered Michigan steers reached the low mark of 8¾c. per lb., followed by 3 cars of still-fed Colorado cattle at 9c., to dress 55 lbs. An experiment will be made this week by shipping dressed meats in a patent compartment containing dry air, thought to be a great improvement upon the use of ice.

COWS AND CALVES.—There are hardly receipts enough to make a market, but there is no encouragement for increased supply. Nominal rate, 30@50c. for fair to good milkers with calves at side.

VEALS.—A better feeling has prevailed this week and moderated arrivals have strengthened prices. N. J. and Buck's Co., 5¾@6c.; good do. and best State, 4@5½c.; other grades, 3@4c. Hog-dressed best, 7@7½c.; fair to prime, 5½@6½c.; common, 4½@5c.

SHEEP AND LAMBS.—Receipts for the week, 22,900 head; do. last week, 30,823 do. The market has dragged and the prices were not cleared. A car-load of poor unshorn sheep, 52 lbs average, went as low as 4¾c. per lb., and the best unshorn reached 6¾c. Clipped sheep sold at 4½@5¼c. per lb; some Jersey lambs at $4@4.50 per head, and a small bunch of good Virginia do. at 9c per lb.

SWINE.—Receipts for week, 27,925 head; do last week, 28 923 do. Supplies going mainly to packers. Nominal N. Y. rate, $3.90@4.00 per 100 for good corn hogs.

Country-dressed pork, light, 6@6¼c.; medium, 5¾@6c.; heavy, 5@5¼c.; city, 5@5¾c.

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Reading for the Young.

TO THE SONS OF THE FARMER.—No. 7.

REV. A. W. MANGUM.

Let us see if there is as much difference as is often assumed between the income from a useful industrial pursuit and that from a learned profession. Take the occupation of the farmer as an example of the first. Suppose a young man, of sound body and mind, with good habits, begins at the age of twenty-one. The first year he hires for wages, receiving $10 a month and his board. That board is worth $125. He also has the use of his room and necessary furniture. He enjoys many opportunities of improving his mind, and is gaining information about farm life in the experience of every day. He is not subjected to any current loss, as he works with utensils and horses that belong to his employer. Granting that he has spent half of his receipts for clothing and incidentals, he closes the year with $60 and his experience and improvement as his profit. This is the result of no investment, but simple labor, and that labor such as we may call uneducated. If he is faithful he is likely to receive increased wages; or, at any rate, to have opportunities to turn extra pennies. If he shows himself true and profitable to his employer, he will soon be at a premium. Continuing to discharge every duty well, he will be able, at the age of twenty-six, to procure a small farm of his own. He has thus, with little or no investment, made a living, established a character, won experience, earned a home, and secured a basis for independence and a permanent livelihood. By the time he is thirty, he may reasonably hope, he will have a good little farm, stocked with all the requisites for its successful cultivation. When he counts up his gains at the end of the year, after he is thirty, he may be discouraged to find that he has only a small amount of actual money, or only a few surplus products that he can sell. But consider. He has lived on the products and proceeds of his farm through a whole year. If he has tried, he has improved several acres of land. He has another year of instruction in direct experiment. He has, probably, made additions of value to his implements or his stock of some kind. Thus he goes, from year to year, all the while making the support of himself and those dependent upon him, and all the while enjoying for himself and bestowing upon others many comforts that he has not recognized in his account of profits and losses; but such comforts as others, who are engaged in different occupations, must purchase with money or fail to obtain.

Now take a young man, aged twenty-one, just entering the practice of the law. If he has no more to invest than the farm-boy had, he must inevitably fail from the start. But we will concede that he is educated, in the common sense of the word. Still, years must elapse before he will be as well prepared for his work as the farm-boy was for his simpler task. He has no experience. He may possibly have a few clients during his first year. They are not likely to be of the paying class. Men who have money are apt to seek well-known talent and experience in an advocate, when sacred rights are in peril. The young lawyer is dependent upon incalculable uncertainties. Still his expenses run on every day. He must pay for all he enjoys. His profession must board him, clothe him in style, rent and furnish his office, buy his books and fuel, pay all his sundry little bills, and defray his hotel and traveling expenses. How much clear gain will he probably have at the end of the first year of his professional labors?

He has been forced to make formal purchases of a number of things that the young farmer received regularly and without cost. Even after ten years have passed away, it is uncertain whether the average young lawyer will have a title to a home with as many conveniences and comforts as belong to the farmer's little possessions; and whether the said young lawyer will have a settled, trustworthy practice, that will meet his current wants and guarantee as much clear gain as the farmer had at the end of his tenth year. I am willing to concede that much has been gained by the lawyer in the way of reputation and experience. Granting all that can be reasonably claimed, the comparison is not discouraging to the farmer.

You may wish to consider the comparison, when the young farmer is educated as well as the young lawyer. In that instance the farming ought to be done more intelligently, and, in consequence, more profitably. There will be many more methods of making extra gains, realizing enjoyment, increasing reputation, and gaining pleasant and useful influence. Educated farmers are greatly needed to-day; not only on the farm, but in various public positions. This is repeated, that it may be duly appreciated. The farmer is not an exile or a monk. He is in the very throbbing center of society; and has a multitude of approaches to the masses around him, favorable to the enlargement of his own fortune and the improvement of their own condition.

The great truth is that so much does not depend on the character of one's occupation as upon the manner in which he pursues it. Signal success is achieved by the *few* only, in any department of human labor and enterprise. What are the principal reasons of this? While these reasons are numerous, and different in different cases, still we may mention, as one of the most prominent, the truth that so few are really and persistently faithful to the requirements of the work they have undertaken. History has made it an adage: "A sure reward to the faithful." We may add: success is impossible to the unfaithful. There is no effect without an adequate cause. There are no resultant advantages for those who have neglected the indispensable conditions. Nature is generous, society is often forbearing, and Providence is wondrously kind; but man must *work*, if he would *win*. Many fail, because they are not willing to pay the price of success. Many do not make, because they have not energy to labor, or self-denial to say *no* to unnecessary and expensive pleasures. Others make, but spend in foolish indulgence of self or others. Some follow costly habits of vice or fashion. Frequently one forms associations that are essentially baneful to his true interest in every respect. Keep your calling, and your calling will keep you. Be as loyal to your chosen sphere, as the worthy man is to the bride he has espoused. Let no vain influence come between you and your work.

"Let all the ends thou aims't at,
Be thy Country's, God's, and Truth's!"

A CUNNING DOG.

Dogs sometimes exhibit traits that are almost human; and we sometimes wonder whether Pythagoras was very far wrong in his theory that the souls of men at their death, and also before their creation, inhabit the bodies of animals.

Certainly, if so, the soul of a certain little black spaniel named "Nig" must originally have belonged to some greedy boy whose indulgent parents fed him upon knicknacks until he died, for never was there an animal more particular in his taste in regard to food. Many times Nig would go supperless to bed because his master insisted upon his eating plain bread and butter instead of cake; and he was known to fast an entire day on one occasion, because his breakfast consisted of fried potatoes and beef bones rather than hot rolls, of which he was extravagantly fond.

But little boys learn to get their own way, and little dogs are quite as apt.

After a time Nig concluded that the only sure method of obtaining what he wanted was to eat, or hide away what was given him and then beg for more; and, therefore, he would carry off the crusts which he found upon his plate, bury them at the foot of the garden and then return, and with wagging tail ask for a doughnut or a cookie, which he seldom failed to receive.

By this and other tricks the spaniel generally managed to secure such food as he best liked, and for a long time the shrewdness which he exhibited and the hearty laughs which he excited made his master forget how bad were the habits which he was forming. But one day Nig made too great a fuss about the supper which was placed before him, and, as a punishment, a severe order was issued:

The dog was to eat just what was left from the table and nothing more. What was good enough for the family must do for him.

That night Nig slept in happy unconsciousness of the new rule; but when morning came, and breakfast was over its full import became known to him. For his master had eaten codfish and potato, and codfish and potato was all that was left for master Nig.

A plate with the fishy food was prepared and placed in Nig's corner, and he was invited to partake. At first he approached with evident hunger and delight, sniffing eagerly at the offered plate; but when his nose told him what it contained his countenance and his tail both fell. He looked at his master in a reproachful manner and turned sadly away. He was called back and ordered to eat. Slowly he returned, but, instead of eating, he carefully pushed every particle of food from the plate to the floor, crowded it close under the rim of the dish, and again retired to a chair where he seated himself, looking soberly at the plate and then at his master as though entering a remonstrance against such a breakfast.

But his master was obdurate and spoke sternly:

"Nig, you must eat that fish and potato before you have anything else."

No sooner were the words spoken than the dog leaped from the chair, ran to the door, and disappeared.

For two entire days nothing was seen of him, and his master began to fear that the little fellow was lost, when early upon the morning of the third day Nig presented himself at the door and began to beg for his breakfast as usual.

Hoping that the dog's hunger had overcome his scruples, the fish and potato were again presented to him. He regarded it for a moment with a sorrowful air, ears and tail drooping low, and then quietly walked out of the door without tasting it.

This time he was gone nearly a week, and when, at last, he returned, his master succumbed. The obnoxious fish and potato were thrown away, and Nig fared sumptuously upon fresh beef and hot rolls.

Since that time the spaniel has eaten only such food as he prefers. Like many children he had fought the battle out and conquered.—*Wide Awake.*

WHY THE PEOPLE LAUGHED.

ALICE P. ADAMS.

It happened many years ago at Miss Crell's Floral Concert. The hall was gaily festooned with evergreens; all the girls wore white dresses and wreaths of flowers while the white trowsers of the boys were decorated with red stripes, and each hopeful fondly sported a necktie of the patriotic colors.

The entertainment opened with a duet by the King and Queen of the Floras, followed by a chorus in which all of the performers took part. The fresh young voices were well trained, and it was a pleasing sight to look upon the sprightly faces; many a mother's heart throbbed with pride as she singled out her blithe boy or gladsome girl from the others.

The last selection on the first half of the programme was a song by Annie Macleod. She was a wee little dot about six years old and her white dress was trimmed with sprays of periwinkle (or myrtle, as it is frequently called by the children.) She looked so cunning when she stepped out on the stage and made her diminutive bow that the people became very quiet, and listened intently that they might catch every word. This is the way her song began:

"There was a little maiden,
And she wore a little bonnet:
She had a little finger
With a little ring upon it."

She had sung these four lines, when, chancing to look down, she saw a great hornbug slowly crawling up her dress. (You have often seen them on a summer evening, children, flying about the room attracted by the light; and do you remember how they frightened you when you were small, and you begged papa to kill the "pinchbugs?")

When little Annie saw the beetle, she forgot about singing the next verse but screamed at the top of her voice, "Oo-oo-h! there's a bug on me!" and ran from the stage crying with fear and mortification at having "talked out loud."

How the folks did laugh! No studied witticism ever called forth such a torrent of hilarious mirth and applause in that old hall as this poor child's terrified exclamation. Very fortunate was it that the accident occurred just before the short intermission, as it would have been impossible for that audience to sit quietly in their seats and listen gravely to a ballad without an opportunity for getting rid of some of their jollity.

When the commotion had partially subsided there were calls for "Annie Macleod!" and "the rest of that song!" Miss Crell then appeared on the stage, and waiting till all was quiet, informed the assemblage that little Annie had been taken home, and said they would proceed with the programme without further delay.

But during the remainder of the entertainment more than one with difficulty repressed a laugh as he recalled the child's consternation and ludicrous outcry when she discovered the intruder.

A few days later, the weekly paper contained a notice of the concert, which ended thus: "But we consider little Annie Macleod's song and *speech* the happiest effort of the evening."

THE HORTICULTURAL CLUB.

It has given me much pleasure to be able to send to each member of the club, except to those who have recently won prizes, a Gladiolus bulb, which I hope will have been safely received by the time they read this. The bulbs were some that could be spared from the Rural Grounds, and I could think of no better way to dispose of them than to distribute them among my young friends.

We commonly call the Gladiolus a "bulb," but, speaking more strictly in accordance with the definition given in botanies, it is a "corm" or solid bulb; that is, a fleshy, underground stem, of a rounded or oval form, and a compact texture. The real bulb consists of layers or scales, like the Onion and the Lily. If you will compare one of these with the Gladiolus you can readily see the difference.

The Gladiolus is a tender plant, and the bulbs should therefore not be set in the open ground till about the middle of May. Each bulb sends up a stem two feet high, which, in August, bears a spike of six to twelve large flowers of the most brilliant colors imaginable, from dazzling scarlet and orange, through all intermediate shades to almost white, though there are none of a pure white or of a bright, unspotted yellow. A scarlet or orange ground, splashed and spotted with some other tints, is the most common. The bulbs should be set six to nine inches apart, in rich, mellow, garden soil, and five or six inches deep. When the stem is ten inches high it should be tied to a neat stick to prevent the wind from blowing it over. In the fall, before frost, the bulbs are taken up, dried for some days in the sun, the tops cut off and the bulbs kept in a warm, dry place during the winter. UNCLE MARK.

LETTERS FROM BOYS AND GIRLS.

DEAR UNCLE MARK:—The seeds came all right, and I am very much pleased with them. Will you tell me 1st, what is Mentzella ornata? 2d. Is the "Rose of Sharon" really a rose? 3d. Should the Hollyhocks have a rich ground, and how deep should I plant them? 4th. Are the Aquilegias hardy?

I had an asparagus bed last year, and sold the asparagus at the village; I made $6.50 out of that. Father intends to plant a larger one this year.

Please put my name on the list of your Horticultural Club. Your young friend,

MABEL C. HOSKINS.

ANS.—1. Mentzella ornata is an ornamental, perennial, flowering plant. It bears large, white, fragrant flowers, that open only at sunset or on a cloudy afternoon. The flower has ten petals arranged in two circles, the inner petals narrower than those in the outer circle, and a great many—200 to 300 stamens. 2. No, it is not a rose, but a very handsome shrub, that in late summer bears large, rose-colored flowers; the botanical name is Hibiscus Syriacus. 3. The Hollyhocks will give you the best satisfaction in a rich soil. Cover the seed about half an inch. It will not flower the first summer, and can therefore be grown in a nursery bed till next spring, when it should be planted where it is desired to bloom. 4. Yes.

DEAR UNCLE MARK AND RURAL COUSINS:—I would like to join the Horticultural Club, as I have had a little experience in gardening. To begin with, I am ten years old, and I want to tell you what I did last summer. My father gave me a small place that had been used for a pig pen. I spaded it myself, planted radishes, onions, cabbages, lettuce, etc. My mother told me if I could make enough out of my garden I might subscribe for a paper. So I began in good earnest. My radishes came on very soon; I tied them in small bunches of ten or twelve in each bunch, and took them to the nearest town, where they sold for from four to five cents per bunch. Next came my lettuce, onions and cabbages; to be sure I did not realize a large price for them, but as I worked in my little garden nights and mornings, and did not neglect my school duties, I made enough to enable me to take the dear RURAL this summer. Father has given me a different piece of ground to work this year. It is twenty-four feet long and twenty-two feet wide. Now, dear Uncle Mark, if I see this in print, I will tell you from time to time how I am getting along with my garden. I shall always love your dear paper and work for its interest.

Lucas Co., O. WALTER C. GAYHART.

Sabbath Reading.

NEED OF MORAL DISCERNMENT TO APPREHEND GOSPEL TRUTHS.

The great truths of the Gospel require for their apprehension some moral discernment. How can a thoroughly selfish man understand the truth of Christ's divinity? Divinity to him means force or quantity rather than quality of being. How much would you know about the Apollo Belvidere if one should simply tell you that it consisted of so many cubic inches of white marble, and weighed so many pounds? What idea of its beauty would those words convey to you? Some such quantitative notion of Christ's divinity a selfish man may get, and it is the only idea of him that we find in the writings of many theologians. Such a notion may well be disputed about, but it is of no practical value. To apprehend the beauty of Christ's character, in which His divinity chiefly resides, one needs much schooling in the services of obedience and love. And the more men know of this the less they will be inclined to dispute about it.

Christ is our example; but he who supposes that Christ's work consists simply in furnishing us an example has a very inadequate idea of what man needs and of what Christ is. It is true that we have some power of copying, by observation and volition, the conduct of those that are better than we are; but it is also true that the lives which are mainly the result of imitation are defective and unlovely lives. "That peculiar character," says Dr. Mozley, "which we admire in another, would become quite a different one in ourselves could we achieve the most successful imitation. The copy could never have the spirit of the original, because it would want the natural root upon which the original grew. We ought to grow out of our own roots; our own inherent propriety of constitution is the best nucleus for our own formation." This, then, is what we need—the healing, the quickening, the replenishing of our spiritual life. It is not a model to grow by; it is "more life and fuller that we want." That is what Christ came to bring: "I am come that they might have life, and that they might have it more abundantly." By faith in Him we are made partakers of His nature, and thus the very elements of virtue in us are reinforced. The tulip bulb does not need a full grown tulip to look at that it may learn how to blossom; it needs to feel at its own heart the warmth of the sun and the moisture of the soil. Not Christ before you as an example, but "Christ *in* you," communicating to you the vitalizing energy of His own eternal life, is the power of God unto salvation.—*Sunday Afternoon.*

WHEN JESUS COMES.

There is one very sweet sense in which "Jesus comes" to His own followers in these days. He does not come in fleshy form, as He did eighteen centuries ago; nor does He come amid clouds and celestial splendor, as He will at the final judgment. But in spirit, seen by the eye of faith, Jesus draws delightfully near to those who seek for His presence. He comes to the awakened penitent, who cries out to Him: "Come and take away my stony heart, and make it a heart of flesh." Already you may hear His knock at your heart, and His loving voice: "If thou wilt open the door, I will come in unto thee and sup with thee, and thou with me."

Hasten to let Him in! He will not be satisfied with a closet or a corner of your heart, or with a paltry share of your thoughts, grudgingly given. He wants every room—your faculties, affections, and will, must all be surrendered to Him. The key of your purse must be His, too. Don't plead that you are not worthy that He should come under your roof. He loves to stoop to the lowly in spirit. He will bring His own entertainment with Him when He "sups" with you. You will be fed with more than angels' food when the King sitteth at the table. This is the very essence of conversion; to turn sin out of the door and convert your heart into a dwelling-place for the sinner's friend.

"Admit Him, for the the human breast
Ne'er entertained so kind a guest;
Admit Him, and you won't expel,
For where He comes, He comes to dwell."

The richest and most joyous hours in a believer's experience are those in which he tasted of Christ's presence in close spiritual communion. The believer feels the warmth and the light of His countenance. His left hand is under our head, and His right hand doth embrace us. We can roll off our cares and worries and doubts upon His everlasting arm. Such times of close companionship with Jesus are our holiest and happiest hours this side of heaven.

Into sick rooms where His children lie, Jesus often comes. No physician visits so faithfully. Noble old Halyburton, of Scotland, said one morning to his family; "Jesus came to me in the third watch of last night, walking upon the waters. He said to me, 'I am Alpha and Omega, the beginning and the end, and I have the keys of hell and death.' He stilled the storm in my soul, and lo! there was a sweet calm!"

When Jesus comes in the house of sorrow, He speaks the same wonderous words which He spake to the mourners at Bethany. He allowed death to come there first to make ready for His own coming. Is not this one reason why death is allowed to take our loved ones? Then we are ready to send for Jesus!—*Southwestern Presbyterian.*

PERSONAL ITEMS.

Bishop Edward R. Ames, of the Methodist Episcopal Church, died in Baltimore last week, at the age of 73. He was born at Amesville, O., and graduated at the University of Ohio, in Athens. He was elected bishop in 1852. He was noted for his executive ability.

Gen. Butler offers 20,000 acres of land in Wisconsin to the negroes fleeing from the South, to be divided up into small farms, and Bob Ingersoll will lecture on the exodus to raise money to help the colored people to accept the offer. A Philadelphia Quaker chips in $10,000 to assist the sufferers to settle in the West.

Mark Gray, a stage-struck, half crazy fellow, tried to shoot Edwin Booth while he was acting in McVicker's theater at Chicago last week, but his bullet went aside of the mark. Gray says Booth had injured a friend of his and that his act was one of vengeance, but he is obviously insane.

Princess Christina, infanta of Spain, died at Seville last week. She was the second daughter of the Duke de Montpensier by his wife, the Infanta of Spain, Marie Louise Ferdinand, was born at Seville, October 29, 1852. She was a sister of the late Queen Mercedes, and of the Princess Marie Isabelle, the wife of Count de Paris.

H. J. Jewett, president of the Erie railway, has a salary of $40,000 a year; Tom Scott, president of seven railroads, draws $100,000 salary, $24,000 from the Pennsylvania road alone; J. W. Garrett, president of the Baltimore and Ohio, has a nominal salary of $4,000 a year. There are to-day 15 general managers of railways in the United States, whose salaries run from $10,000 to $15,000; nine general superintendents, with a salary of $7,000 to $10,000 yearly, and a number of officers in the same rank who receive over $8,000 apiece.

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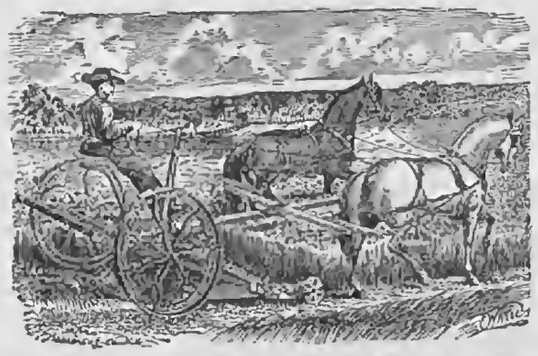

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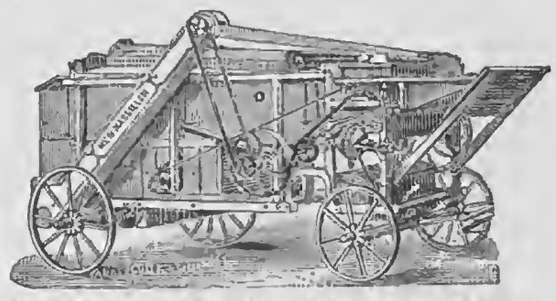

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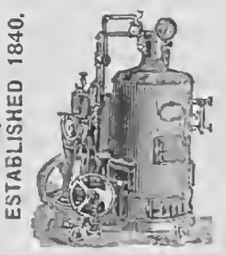
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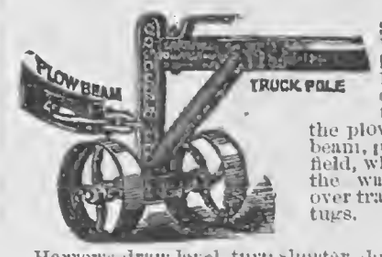

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at the Paris Exposition of this year, based on the greatest superiority of performance during the test made manufactured of the best material and finished by skilled hand labor er beyond peradventure. Messrs. B tion in prices, so as to bring their Great care is taken in the finishing these adjusted for railroad use. Call Improved B. & C. Watches. The relative merits of Swiss Watches, as manufacture. Can a country that *Hundred* years be ignored? Give and they will demonstrate to you you to institute an impartial com-

The Jury of Awards' decision was workmanship and extreme accuracy by the Judges. These watches are and made with improved machinery, thus insuring an accurate time-keep- & C. have made a still further reduce- watches within the reach of all of their movements, particularly on your jeweler and ask to see the public is asked to investigate the compared with those of American has made watches for the past *Two* the Borel & Courvoisier fair play, that none can excel them. We ask parison before purchasing.
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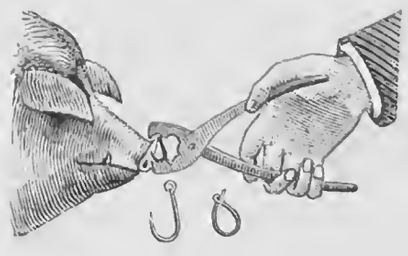

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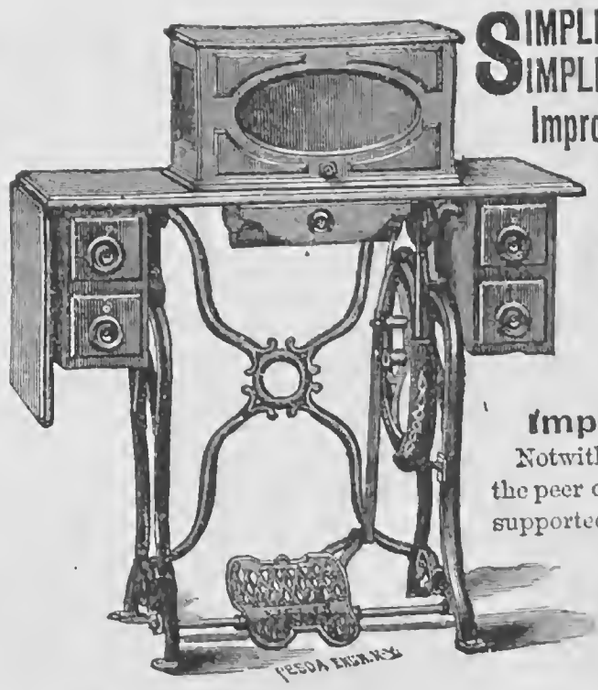

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A SCHOOLMISTRESS, while taking down the names and ages of her pupils and the names of their parents at the beginning of the term, asked one little fellow, "What's your father's name?" "Oh, you needn't take down his name; he's too old to go to school to a woman," was the reply.

WHEN Oxford University conferred on Longfellow the degree of D. C. L., an under-graduate called out for "three cheers for the red man of the West." Which goes along with a story the late Thomas Corwin, a member of President Fillmore's Cabinet, used to tell of himself. At an English reception given in his honor, an elegant lady kindly inquired of the rather dark-complexioned American: "Is your tribe at peace with the whites?"

A MAN who married a scold witnessed the play of "Taming of the Shrew" the other night for the first time. He went home full of inward chuckles, and mentally resolved that he would also embark in the "taming" business before the sun again glided the western horizon. So the next morning he procured a cart-whip and when his wife ordered him to take his feet off the mantel-piece, he snapped the whip defiantly, smashed a coffee pot, a sugar bowl, a dollar pitcher and two plates, and—and that was all. He says Shakespeare was a colossal fraud, and he is is glad he is dead.—*Norristown Herald.*

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We know Hop Bitters are above and beyond all as a nutritious tonic an curative.

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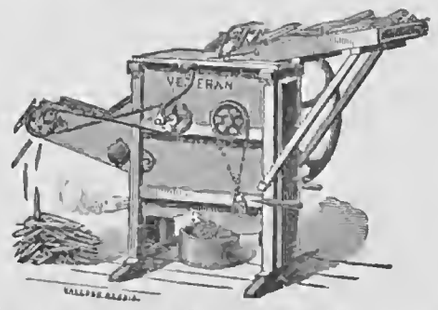

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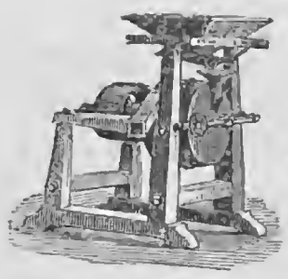

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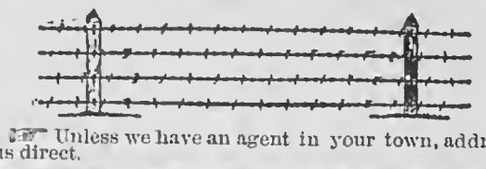

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Grinds twice as fast as any other Mill of same size and price. Manufactured by

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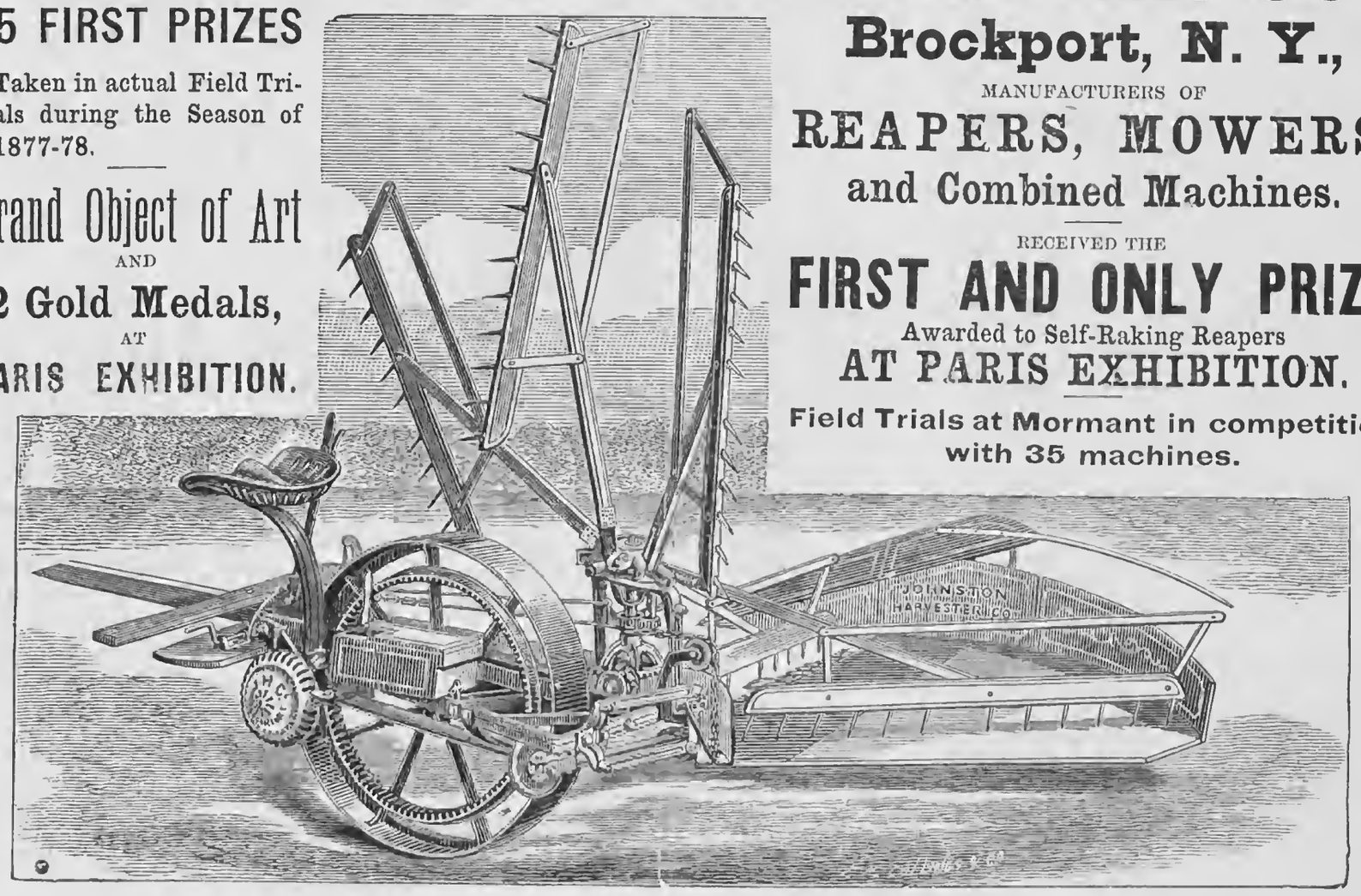


THE RURAL NEW-YORKER

Ralph Evans 1490

A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME.

VOL. XXXVIII. No. 20.
WHOLE No. 1529.

NEW YORK CITY, MAY 17, 1879.

PRICE FIVE CENTS.
$2.00 PER YEAR.

[Entered according to Act of Congress, in the year 1879, by the Rural Publishing Company, in the office of the Librarian of Congress at Washington.]

Rural Architecture.

DESIGNS OF A COUNTRY HOUSE.

Now that the building season is at hand we give to our readers another original plan of a handsome country house designed by our artist, L. F. Graether, C. E. The description of the plan is as follows:

FIRST STORY: A, plazza; B, balconies; C, vestibule; D, hall, with main flight of stairs; E, library, 10x15 feet, with bay window, a; F, F, bed-rooms, 15x20, and 12x15 feet: G. parlor, 15x15 feet; H, dining-room, 15x30 feet, with bay window, a; I, kitchen, 12x15 feet; K, back stairs to servants' bed-room; L, pantry, 10x15 feet; M, passage-way from dining-room to kitchen with wash-stand and drawers; N, N; closets. An open arch between C and D, is marked by dotted lines.

SECOND STORY: A, represents the hall; B, balconies; C, C, bed-rooms; D, servants' bed-room; E, bath-room and water-closet; H, sky-light; N, N, closets. As will be seen, there are open fire-places in E, F, G and also in H and I. The design of the elevation is readily intelligible on comparing it with plans.

Just a few hints to those who intend building homes the present season. Before deciding on a plan take the ladies of the household into council. It is they who will have the chief control of the dwelling-house and upon whom its comfort will mainly depend, and it is but proper therefore that their opinion should have due weight in deciding upon its situation, surroundings, and especially on its internal arrangement. Mature your plans carefully so that no subsequent alterations will be rendered necessary through errors in the original design, for by such changes the contract with the builder is broken and the door thrown wide open to charges for "extras," than which few things are more unsatisfactory, however trifling they may be. The best time for examining the proposed site of the building is in the worst kind of weather; for its faults are then most obtrusive, while whatever advantages it may possess at such a season, will be certainly increased under more favorable conditions. While a house crowning an elevation commands the widest prospect, and would therefore be in the best position, if picturesqueness of view alone is to be considered, yet as it would thereby be exposed to high winds, and dashing rains and all inclemencies of the weather, while its approach would always be difficult, a less conspicuous position is generally preferable. A situation of moderate elevation, however, admits of easy drainage both of sewerage and surface water, and while free from the disadvantages of lofty position, is also exempt from the malaria and other frequent annoyances of a low or level site.

If the building fronts towards the southeast, the most pleasantly sunny aspect is generally secured. Care should also be taken to so place it as to command the finest view in the neighborhood, when other conditions will permit, and thus enjoy a perennial source of pleasure and

refinement. A heavy, tenacious clay should be by all means avoided, as on such a foundation it is almost impossible to keep the house dry unless at a heavy expense. A gravelly soil is the best site, but whatever the nature of the place chosen, thorough drainage is essential. A house built near the road is made cheerful by the passing travel, but there are other considerations that often should outweigh this. There is a vulgar boldness in the position of a house pitched close to the road and obtruding itself on the notice of the passers-by. While large trees close to the house are insalubrious, a background of trees and shrubbery is desirable.

RURAL RESIDENCE.—Elevation.

FAULTY PROPOSITIONS IN REGARD TO BARN BUILDING.

CHARLES E. VERNIER.

IN the RURAL of February 15th, was an article entitled, "A few axioms in barn building." The propositions which are stated in the first and second axioms as general and self-evident truths, are true only when certain conditions exist. For fear that the so-called axioms may be taken for what they are represented, I will proceed to point out the errors involved in them:

The First Axiom

was as follows: "Money is saved by increasing the contents perpendicularly (vertically) not horizontally. "Let Fig. 1, (page 310) be an end section of frame with posts 13 feet high—the statement is then made that if the hight is doubled, the capacity is doubled without a corresponding increase of expense. It is evident as he says, that no extra expense for roofing will be required, and he apparently assumes—otherwise his proposition could not be true—that the cost of framing is directly proportional to the hight; that is, that it will simply cost twice as much to construct a barn-frame 26 feet high as to construct one 13 feet high. Now, a very little study of the experiments made regarding the strength of materials, and of the mechanics of framing, would have shown him that to construct a barn frame 26 feet high equally as strong as one 13 feet high, would have taken for all upright pieces, *nearly four times as much material.* The labor of constructing the upper 13 feet is much in excess of that of building the lower 13 feet, so that in practice the cost of the vertical pieces of a barn frame 26 feet high, is four times the cost of those in one 13 feet high. Then, it is found that the breaking load on the end of a post 13 feet high and 5 inches square, is 11.4 tons, while that of a post 26 feet high and 5 inches square is but 3.4 tons.

It is thus seen that his proposition which he calls "a self-evident truth," is not true at all, unless a man can build the vertical portions of three barn frames cheaper than he can one roof. That he can do this, as a general thing, I do not doubt, especially when the hights are not excessive; but in accordance with the axiom, a barn a mile high would be cheaper than one a mile long, of the same capacity, whereas the fact is, that the cost of the timber increases much faster than the hight, and in a short time is sufficient to overbalance the saving from less roof. In regard to

The Second Axiom

that it pays to build one barn rather than several covering the same space, I would say, that so far as the mere question of economical construction is concerned, *this is seldom true.* In this axiom, as in the other, the important fact is overlooked that large structures are more weak relatively than small ones, and that much heavier timber must be used in them. In this case, there is a saving in the siding, as stated; but there is a great loss in the timber for the frame.

Let Fig. 2 (p. 310) represent a barn-frame, equal in width to two smaller barns, shown by dotted lines; if the frames are

in every respect similar (except as to hight of posts), it will be seen that the span of roof and length of horizontal beams in the larger frame, are just twice the length of those in the smaller one. Now, under such conditions, an equal load, similarly placed, produces four times the strain on the roof timbers and horizontal pieces subjected to downward pressure in the frame of the larger barn that it does on those of the smaller. The result is, that to make the frames of equal strength, the roof timbers and most of the horizontal timbers, must be four times as large in the larger frame as in the smaller one. Now, whenever the saving on siding and eave projections is sufficient to pay three times the cost of the timber previously mentioned, then will there be economy in converting two small barns into one large one. It is to be noticed that so long as the pitch remains the same, the amount of shingles and roof boarding required is unchanged, whether the space be covered by one or any number of roofs. Thus, in Fig. 2, the distance a d f is equal to the distance a b c e f.

As a *general* thing (with some exceptions), so far as economy of structure covering an equal area is concerned, those buildings having the most roofs, are the most economical to construct. An example of this is seen in bridge building, where it has long been known that two structures of 20 feet each (not considering the abutments) can be erected for about one-half the cost of one structure, 40 feet long, of the same width and strength. The conclusion in regard to what the writer terms his second axiom, is that it is of extremely limited application and true only when the cost of siding makes up a large proportion of the expense of building the barn. The most economical size of any barn for a given capacity can be determined only by knowing the cost of material and labor in any given locality. This much will usually be found true in any locality, that the most economical means for providing a given capacity will be found in buildings with a moderate hight and a moderate span of roof rather than in a less number of larger buildings, or in a greater number of smaller ones. The length of a building may be increased indefinitely, provided the hight of the building and the span of the roof are unchanged, without increasing the strain on the timbers of the frame, except very slightly at the end, and consequently by such an operation there is a saving of siding at the ends with no counterbalancing expense. Thus, in Fig. 3, A B H G represents the plan of a barn formed by putting the ends of the barns A B D C, D C E F and E F H G together, and this is the only way in which a barn can be indefinitely extended without incurring an expense far out of proportion to the benefits received. It is hardly necessary to say that, as a general thing, our conclusions sustain the common practice of erecting moderate-sized barns as more economical than larger ones.

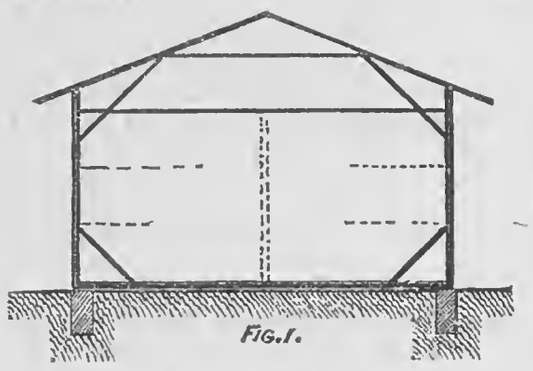


FIG. 1.

Practice in England.

In England the high price of material has made the question regarding the economy of barn buildings a live one, and we find that considerations, both of economy and convenience, are leading them to construct barns of moderate hight and moderate span of roof, but in effect of considerable length by constructing them around an open yard, or by constructing a series of small barns, side by side, with seperate roofs, as shown by the dotted lines a b c e f in Fig. 2.

Fig. 4 shows the plan of a barn actually built on the farm of Thomas Magraw, near Bay City, Mich. The part inclosed with double lines, is the main building, the portions in single lines make up a shed for horses and cattle. Though this is not presented as a model barn plan, either for convenience or economy, it is believed a careful study of it will do much good. This barn, it is claimed, is built after German models; it certainly was erected by an intelligent German, and shows unusual compactness and economy of construction.

The Other Axioms.

Of the remaining propositions stated under the head of axioms, three, four and five are open to little objection. [Briefly these are as follows: third, "The barn floor should run crosswise not lengthwise of the barn;" fourth, "It is economy to utilize the space covered by the roof, and therefore the whole basement should be inclosed;" fifth, "We should make the force of gravitation work for and not against us, and therefore by constructing a bank barn, so arrange that the load should be pitched down rather than lifted up."—EDS.] Axioms four and five contain much excellent advice. I feel, however, like entering a protest against the use of the word "axiom" in such a sense. Even though the propositions involved were general truths—which they are not—the very fact that argument is used to establish them proves them not self-evident, and hence not axioms.

Lansing, Mich.

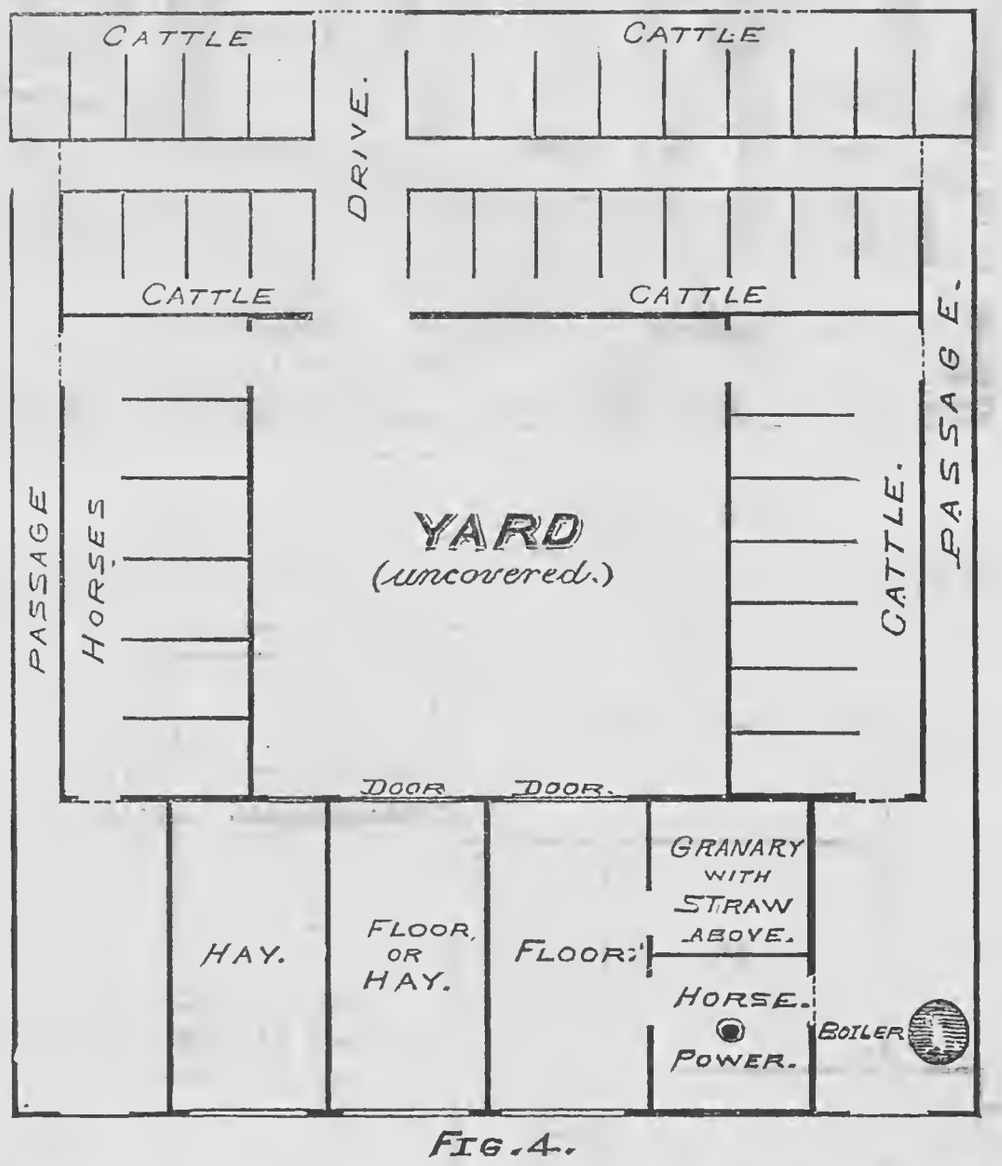


FIG. 4.

Field Crops.

HISTORY OF A POOR FARM—NO. 9.

The Value of Roots and How to Grow Them.

"WHAT has made English agriculture the most productive in the world," remarked Mr. Martin; "if it is not the root crops? No other nation, unless it be the French, give so much attention to roots. This crop occurs in the rotation as a regular member of it, and it is regarded as the chief source of manure. It is either fed off from the ground by sheep penned or hurdled upon the fields in plots in regular succession, or it is carted to the feeding sheds where fattening bullocks are kept amply littered with straw, and is given to these at the rate of one or two bushels per day along with various concentrated foods. This is done for the purpose of making the large supply of manure without which the tenant farmers could not pay the high rents charged for the use of the land. Mr. Mechi makes 200 pounds of beef or mutton per acre every year for every acre of his farm, besides selling butter, grain, hay and vegetables. Two hundred pounds of beef or mutton are equivalent to $30 per acre and this is from a secondary portion only of the product of his farm, which is worked under a system which they call high farming."

"Mr. Mechi is a rich man and farms for pleasure, I suppose?" said my old neighbor.

That is a mistake" I replied. "Mr. Mechi was formerly a very successful business man, and purchased his farm, which was as poor as mine, and worse in fact, because it was a hard, sterile clay fit only to make bricks of, wet, cold and unproductive. It cost him about $125 per acre when fair farming land in England was worth $500. I saw the farm some years ago before it was wholly underdrained or broken up—"smashed," is the term used—by steam cultivation; and then the hard clay rang under a person's tread almost like a burned tile, and there were deep cracks in the bare fallows, two inches wide; since then Mr. Mechi's business has suffered from disaster, and he is now a poor man, compared with what he once was, and depends for his daily bread upon the profits of his farm. The history of his farm, is decidedly, a "history of a poor farm;" but there are few others in England or elsewhere that can now show a better yearly account than his. Friend Martin is right. Without roots Mr. Mechi would never have succeeded, and I hope to profit from his success."

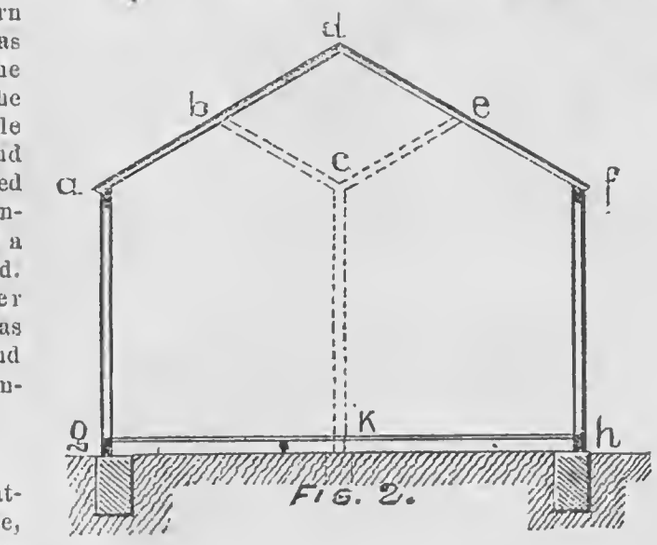


FIG. 2.

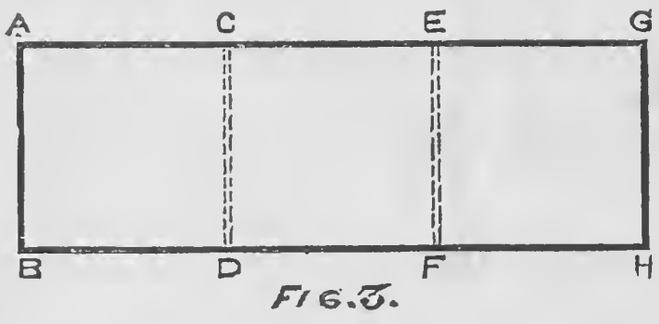


FIG. 3.

"If we grow roots, we can't grow corn; and how can we do without corn?" remarked the old gentleman. "Corn is our great crop. It fattens nearly all our beef, and makes all the pork, poultry, and eggs we raise, and corn can be grown with less trouble than roots. I never grew a crop of turnips that paid me."

"That is because you sow them broad-cast and never weed them," replied Fred.

"It would not pay to weed them; the labor would come to more than the crop, if we hired it, and we have not time to do it ourselves. Half a crop raised cheaply is better than a dear full crop" rejoined the old gentleman. "Corn is our grand crop, and it feeds everything."

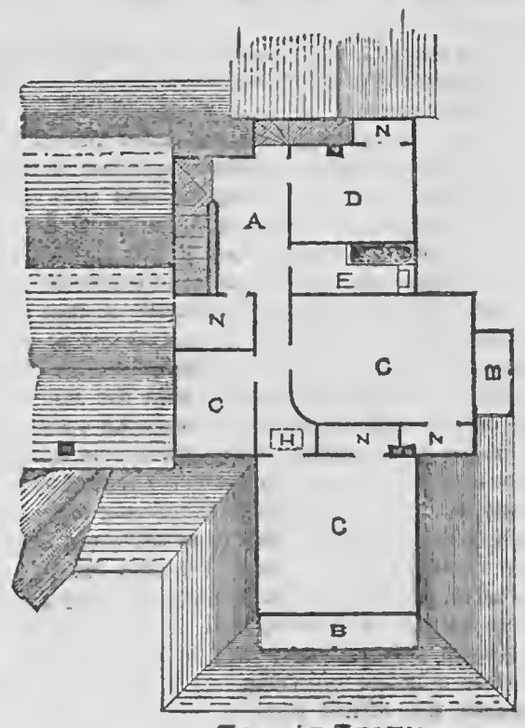
"You are very wrong to suppose that half a crop raised cheaply, is better than a full dear crop. That is contrary to general experience and is a baneful idea. But you are right as regards corn." "It is a grand crop," replied Mr. Martin; "1,342,558,000 bushels raised in one year, or over 30 bushels for every man, woman and child in the country, is something vast to think of. But you do not think of how much of this is wasted by not being fed as profitably as it might be. There is no need to grow one bushel of corn less than we do, should we grow roots. The two crops can be grown and used together. We cannot feed all corn; we need some succulent food to preserve healthfulness. It is highly probable that nearly all the fatal diseases of our stock—hog cholera as it is called, for one—are due to feeding corn, and corn only. With soft, laxative food, such as roots, I believe these diseases would disappear. Besides, we can't grow a crop of roots successfully without killing an enormous quantity of weeds, and that is a benefit."

"I don't see how we are to do it; where would you put your roots?" asked the old gentleman.

"On the oat stubble, grandfather," replied Fred; "instead of wheat or rye. A good crop of turnips was grown on the college farm after the oats were taken off, and barley was sown in the spring and seeded down to grass and clover. We had 960 bushels of turnips per acre; the ground had 10 loads of manure per acre and 300 pounds of superphosphate of lime, and we had 48 bushels of barley to the acre the next year, and a fine catch of grass. You see the turnips were nearly all clear gain."

"And the rag-weed did not seed in the oat stubble, I dare say," remarked William.

"That it did not," I replied, "if the turnips brought nearly 1,000 bushels per acre. But I consider turnips only a catch crop to fill a gap such as this. I agree with Mr. Martin that we can and should grow roots in our regular rotation. Put corn on the sod, if you like,—although I don't consider that necessary and would just as soon put it on stubble land,—then take oats or barley; fall-fallow the land, which I think an admirable practice, and grow mangels or sugar-beets, using as much manure as can be spared, and at least 500 pounds per acre of artificial manure. From 1,000 to 1,200 bushels per acre may be expected, if the seed is put in early and the crop is well cultivated and the season is not very unfavorable. The next season you have a clean field which is well prepared for barley, and no other crop is so good a one as this to seed down to clover with. Then the second year the clover may be turnedunder for wheat with a light manuring and some superphosphate, if possible, and the ground seeded to timothy and clover for two or three years' hay. This would give an eight-years' rotation in place of six now, or seven, if turnips are taken after oats, instead of waiting for mangels the next spring. There would be three manurings, two cultivated crops and two smothering crops—grass and clover—by which weeds would be kept down. The feeding of the roots would make a large quantity of manure which would be useful for potatoes or corn the next season. This would be my plan if I were farming in this way; but as I am situated, roots are a positive necessity. I must have green winter feed to produce milk. Turnips will not do on account of the disagreeable flavor they give to the milk. Beets and mangels are free from this objection. Last year on one acre, as an experiment, I raised 1,200 bushels at a cost of five cents a bushel. This year I am sowing five acres which, I hope, will at least produce 4,000 to 5,000 bushels.



FOR DESCRIPTION SEE FIRST PAGE.

For 25 cows, which I expect to feed next winter, these will last 200 days or six months, at one bushel per head per day. I do not know of any other crop which will feed so many cows, for so long, from five acres, as this. With one bushel of beets or mangels and three quarts of feed, I should hope for as much milk as from six quarts of feed and three quarts of malt sprouts, at a saving in cost of about 10 cents per head each day, and more than that including the hay saved. But while roots are invaluable for a dairy farm, they are equally indispensable for every other farm upon which it is requisite to make manure; and I don't know where the farm is where this is not required."

"There is no doubt of it," rejoined Mr. Martin, "and the great point is to have the right kinds, and grow them in the right manner. With such a large choice it is difficult to determine which is the best."

"The best is not always the biggest, nor the most prolific. I am now sowing several different kinds—the Mammoth Red, the Red Globe, the Yellow Globe, the Yellow-fleshed Tankard, and Webb's Intermediate mangels, with Lane's Improved sugar-beet, the common white sugar-beet, Vilmorin's Improved French sugar-beet, Landreth's Improved rutabaga, and the Early Blood turnip beet. Of these hereafter I shall

choose the best, which I expect will be the Blood beets, Lane's sugar-beet and the Yellow-fleshed mangels, coming into use in the order named from September up to April or May. This will give a long season and some very valuable feeding."

"You had some mangels last year that weighed 24 pounds each, but there was no substance in them; they seemed to be nearly all water. A bushel of those would be cold feed for cows, I think," remarked the old man.

"Twenty-four pounds is an excessive weight," I replied. "A full crop of such beets in rows three feet apart and two feet apart in the rows, would amount to 84 tons per acre. That is an unheard of yield, and although a few roots may reach that size, the majority are smaller, weighing eight to twelve pounds. I aim to grow roots of six to eight pounds each, in rows three feet apart and eighteen inches in the row. If there is not more than one-fourth of the spaces vacant, the yield will be nearly 30 tons, or 1,000 bushels, per acre, and these roots will be solid, yet contain perhaps 95 per cent. of water. A bushel of them will contain 57 pounds, or nearly seven gallons of water. But water is food, and goes to nourish the system of an animal which consists of 75 per cent. of water, and I don't know of any better way of giving seven gallons of water of a cold winter's day than in a warm barn, and in roots comparatively warm from a cellar. It is certainly better than giving the water from a trough about which the ice is several inches thick, or from the creek through a hole cut in the ice. There is much less cold for the stomach to neutralize."

TOBACCO CULTURE.—No. 2.

G. GOFF, JR.

In preparing soil for tobacco, it should be remembered that there is, perhaps, no crop on the farm that will so well repay a thorough and careful preparation, and that a fertile and well prepared soil is essential to the production of a good quality of leaf.

When the soil has been properly prepared by being well manured, plowed twice, and thoroughly pulverized by the use of the harrow and roller, it is marked one way, in rows three feet and a half apart, with a common corn marker. In old times the plants were set on a hill or "spat" made with a hoe; but the method followed by most growers at present is as follows: A ridge is formed along each mark with a plow or cultivator. The Alden thill cultivator is in more general use hereabouts than any other, the outside teeth only being used. These are so placed as to move the earth inward, thus forming the ridge. These ridges are then passed over with a light roller, on the outside of which are fastened small cleats which serve to mark the points where the plants are to be set. The roller commonly used for this purpose is made in two parts, each two feet in length and about the same in diameter. These are hung in a frame far enough apart so that two ridges may be rolled at once. Thills are attached to the center of the frame so that the horse may walk between the rows. The plants should be set about 20 inches apart in a row. The rollers, therefore, should be about five feet in circumference, having three cleats fastened at equal distances.

The best time for setting the plants is considered by growers here to be during the first two weeks of June. Nothing is gained by setting small, weak plants. They should remain in the seed-bed until the proper size for setting. They should be set immediately after a rain while the soil is wet. Boys are usually employed for this work, and are paid by the hour. One boy goes ahead and drops a plant at each mark made by the cleats in the rollers, and others follow and set them. One boy can drop enough for two to set. Care should be taken in setting the plants to have the roots set in straight. If the soil is hard or stony, a dibble is useful in making the hole for the plant. Where the soil is mellow and free from stones, the finger is the only dibble that is needed. The droppers are instructed to drop occasionally an extra plant. These extras will be needed to fill vacancies later in the season. The seed-bed should be heavily sprinkled with water before commencing to pull the plants, so that the roots will not be injured. If a little dirt sticks to the roots, they are more likely to grow and do well. The cut-worms sometimes do considerable damage by eating off the plant at the surface of the ground. When they are troublesome, they should be hunted for and destroyed. The morning is the best time for this work, as at that time they are usually found on, or near, the top of the ground. The tobacco field should be gone over frequently and plants from the seed-bed set in wherever any are found lacking. It is well to have plenty of plants left in the bed for this purpose.

Tobacco is at best a risky crop. When a good quality of leaf can be produced, it generally commands a ready sale at a price that will be profitable to the grower. But good crops cannot always be grown, even by the best planters, as much depends on "wind and weather." A single hail-storm will sometimes nearly destroy a whole crop, and a heavy wind will often cause much damage. Tobacco-growing is a trade in itself. There are things about it that can only be learned by experience. In order, to avoid serious mistakes it would be well for those intending to begin tobacco-growing to employ some reliable man who has had experience in the business, to oversee the work, so that it may be done correctly.

Chemung Co., N. Y.

Early-Cut Hay.—It is not too soon to consider this subject and to prepare for it. In this country especially, when prairie hay is cut in September and October, it has become too ripe for milch cows during winter. For several years I have cut a few tons very early, say in June, put it up as green as it is safe to do so, and begun to feed it out in December. The flow of milk is promptly increased and kept up as long as the hay lasts. When this hay "gave out" some time back, there was a loss in the quantity as well as in the quality of the milk—a strong proof of the value of early-cut hay for this purpose. S. R. M.

Purple Cane, Dodge Co., Neb.

Horticultural.

NOTES FROM THE RURAL GROUNDS.

Picea Pichta (Abies Sibirica).

We wish to call the especial attention of all interested in Arboriculture, as confined to ornamental grounds, to this evergreen. It comes from the Siberian mountains where it is said to be found at an elevation of from two to five thousand feet, forming entire forests and growing to the hight of from 25 to 50 feet. Its leaves are of the darkest and average nearly two inches in length. It bears a general resemblance to the Balsam Fir and to the European Silver Fir, of which latter it was thought by Don a variety. But it is very distinct. The leaf arrangement is different; the leaves are thicker, more curving and less silvery underneath. The habit is more compact and, what is of more consequence, indeed, of the utmost consequence, it is not only hardier than either, but it is one of the hardiest evergreens among our collection. We have yet to notice that a single twig or even leaf, has ever been injured either by the severities of winter or the heat of summer, and we beg to remind our readers that our situation, being in a valley open to the north, and ten miles from any considerable body of water, gives a very trustworthy test of a plant's powers of endurance. For instance, the Norway Spruce is here often severely injured. The Silver Fir is always injured more or less, and Balsam Firs, ten years old, in neighboring grounds, have had their lower foliage so scorched by the past winter as to hasten the loss of the lower branches which, in the fine specimens to which we refer, would probably yet have remained for several years. The Nordmann's Fir, too, is here so often scorched that it never can develop the beauty and grandeur which belong to it under less trying circumstances. People who have given little thought to the subject, upon being called upon to select trees for their homes, almost invariably choose the Norway Spruce, the Balsam Fir, the Arbor-vitæ and perhaps, the Common or Irish Juniper. This would have been well enough ten years ago; but now such a selection would surely prove a cause of regret in the not distant future. The same as the newer varieties of fruits have in numberless cases taken the place of the old, so new and well tested kinds of evergreens of unquestionable superiority, are supplanting those we have just mentioned. As within the past two or three years we have said all we could to make known the value of scores of new plants as well for the farm as for the vegetable and flower garden, so now we press upon the attention of our readers the comparatively new evergreen Picea Pichta, as promising to take a foremost place among the evergreens of the future with which our tastiest grounds will be adorned.

Magnolia Lennei.

Soulange's and Lenné's Magnolias are now, May 5, in bloom at the Rural Grounds. The first has always been considered about the best of the foreign Magnolias, but this can no longer be said now that we have Lenné's which, as to hardiness,—the only respect in which we feared it might prove inferior,—has now been well tested. In every other respect it is the equal of Soulange's and in one, its superior, viz., in the color of its flowers. These are a dark reddish-purple outside and nearly white within. As we write this note, we count upon a tree before us, only five feet in hight, fifty flowers, more or less opened, while half as many buds have still to unfold. These flowers bear nine petals about four inches long, of a balloon shape. When fully developed, the flowers are about six inches across. The reader may judge for himself how showy even so small a specimen must be at a time when few flowers other than spring bulbs, are in bloom, and while yet even the leaves of trees are too small to enliven the landscape. Few trees are so entirely beautiful as Magnolias. Groups of the best sorts are superb. While the trees should be arranged closely enough together to enhance the beauty of all by individual contrasts, they should not be placed so closely together as to interfere with each other's growth or with the form it may be desirable to give them by cutting back. For some of the Magnolias, the free use of the pruning knife is indispensable, while for all a more compact growth and better adaptation to the lawn are thus assured.

The Endurance of Hyacinths as Determined by Color.

Six years ago we imported about 250 Hyacinths of the various colors. These bulbs gradually deteriorate, seldom blooming the second year or in any succeeding season as well as during the first. As many as half of those referred to have ceased blooming. Some of them bear a flower or so. About fifty still bear racemes of goodly size. It is a notable fact, that a large proportion of the latter are blue, and the rest red or rose. Our friends in ordering their Hyacinths another season, may therefore bear in mind that those bearing blue flowers are the most enduring, as they are certainly the most showy.

The Season

is extremely backward. Peach buds are still intact, while cherry trees are only beginning to blossom. Spring and summer are coming more nearly together than ever before since we have lived in this Happy Valley, and one of the results is the promise of one of the most abundant fruit crops "known to the oldest inhabitants."

HINTS ABOUT GARDEN WORK.

Trees have no business in a farmer's vegetable garden; that is to say, a tree there is a weed and a nuisance, however valuable in its proper place. The fruit garden is itself not less important or valuable than the vegetable garden, but the two do not go well together. In close village lots there may be too little room for both in separate places; but a farmer's garden presupposes plenty of land and room enough to do what one wishes. Even the perennial vegetables, as asparagus and pie-plant, are better off in one corner or by the side of the garden out of the way of the plow, harrow, roller and cultivator.

Starting with smooth ground free of encumbrances, one should aim to get everything in long, straight rows, and, as far as possible, with distance enough between them for a horse and cultivator to pass through. For some things this wastes land, but it saves work which, on a farm where land is abundant and labor scarce, is much more important. Weeds grow fastest in a garden, and here, if anywhere, the farmer needs every advantage in keeping them down. At least once a week the cultivator should be run through the rows. This will destroy most of the weeds, and, if there is nothing in the way, will take very little time. The few vegetables which absolutely need to be in beds may be put on one side of the garden—a row of beds to be cared for wholly by hand labor. This little part of the garden will, without doubt, be more trouble than all besides.

Nothing is gained by too early sowing of any garden vegetable. Some kinds are hardy and will start to grow before the ground is fit to work. My self-sown lettuce is always earlier than that which I can get from sowing in the spring; but I sow it, so as to have a later and better supply. Of peas I sow the early and second crop at the same time—the Little Gem for early and the Advance for later, and in two weeks after the first sowing, I put in some more of the Advance for the latest. I have never been able to do much with melon or cucumber seeds planted in bits of sod, as they do not start quickly in such soil and are difficult to transplant. The better way is to wait a little longer and force the plants rapidly forward by putting a square box over them to keep the hills from the cold winds. In this way seeds planted the middle or twentieth of May, are strong, well-rooted plants by the time warm weather comes and the boxes have to be removed.

Few farmers have or need to have hot-houses, and it is cheaper to buy the few tomato plants needed to supply the family than to try to grow them. More depends upon the stockiness of the plants than on their hight. The same is true of cabbage and celery, though if large quantities are wanted, these may be grown at home, as they can be planted in the open ground and grown at small expense. To make the plants stocky, cut off the tips of the leaves after they get a few inches high, and at the same time run a sharp knife among their roots. This will have nearly the same effect as transplanting in pushing side roots, without in any way injuring the plants.

Monroe Co., N. Y. W. J. Fowler.

Floricultural.

FLOWERS.

When we take into consideration the beauty of flowers and see how much they add to the attractions of homes where they are cultivated, does it not seem strange how anyone can neglect to cultivate them? I do not see how anyone can help loving flowers and taking pleasure in training them and caring for them. A home may have all the luxuries human hands can fashion, but unless flowers are there cultivated, it will not be remembered by the children who go out from it, with so much tenderness as the home that is surrounded by flowers. Therefore, parents, is it not for your interest to cultivate flowers and encourage your children to do so also?

All that has a tendency to make us happier and better should have a place in our sympathies; therefore, it should be made a point by all to have at least a few flowers. How refreshing, after laboring in the field all day, to spend a little time at evening among the flowers and breathe their delicate perfume; it seems to refresh and rest us. Their cultivation need take but little time, and what little time it does take, is very well spent. In fact, I think, it could rarely be put to any better use. The majority of farmers' wives love flowers, and a great many more of them would have flowers, if they had the conveniences; but the front yard on many farms is filled up with old, broken-down wagons, plows, harrows, mowing machines and other implements, besides the wood-pile and chips, thus leaving no place for flowers, which should always be found there. Every farmer should provide a good wood-pile, but I have been thinking, lately, that instead of having a big wood-pile, with a lot of chips scattered about the yard, it would be better to prepare the wood at some out-of-the-way place, and not haul it to the house until ready to be piled up in the wood-house. By this method a large amount of litter would be kept away from the door, and if one must have farming implements out-of-doors, let it be about the barn, and not in front of the house.

Steuben Co., N. Y. F. H. D.

Abutilon insigne.—This is a fine variety of the Abutilon family, which, though old, is still quite rare, and deserves to be more generally grown. In a November number of "The Garden" it is figured under the name of "Abutilon igneum," but later on in December number of the same paper, it is spoken of under its proper name of A. insigne. As long ago as 1860 we had fine, large plants of this variety, which we had grown purposely for winter blooming, producing large, pendulous clusters, of velvety, crimson flowers, veined with dark maroon, in great profusion all winter long. Unlike any other variety, this throws its flowers well out from the foliage, each terminal shoot being literally loaded with perfect, bell-shaped flowers. The leaves are of a rich, dark-green, of thick texture, and prominently net-veined on the under side. This variety is quite distinct in leaf and flower from any other, and deserves to be in every collection. C. H Hovey.

Arboricultural.

A RULE TO BE REVERSED.

When most people buy trees, or engage them, they are very particular about the tops. They want big tops. They never say anything about the roots. The rule should be reversed, and the roots should be the subject of anxiety. Half of the trees which are transplanted every year, are murdered outright. Their roots are so mutilated and broken off that their lives are destroyed, no matter how well they may be set out. If all such trees only have large and thrifty tops, the guileless buyer thinks he has the worth of his money, and forthwith digs a hole and *sticks* his stubs in. The trees, all tops and no roots, contain sap enough to leaf out, and then they begin to dry up, and before mid-summer they are dead. Every tree received by the purchaser, without good roots, should be sent back to the shipper. How many times has it been urged upon those who purchase trees to cut away the tops, so that they will conform in bulk or size to the roots. Many trees might be saved if the tops were thoroughly cut away, even if the roots were feeble. The tops should not extend from the body an average distance any greater than the length of the roots, and the limbs should be thinned out, so as to reduce the amount of foliage down to the strength of the roots relatively, so that one can support the other, as this is the way trees grow. The roots are the stomach and the leaves the lungs. A tree all lungs cannot grow. There must be blood (sap), and this comes from the roots. A tree with good roots will make leaves, whether there is any top or not. The sap, active and vigorous, will

force latent buds out from the bark of the body, and these will grow into limbs, and form handsome and thrifty tops.

The important thing, then, in setting trees is to have plenty of roots, and to have the earth so placed around them that there will be no lack of moisture. This can best be done by putting the richest soil next to the roots, and then filling up the hole with manure, well rotted, and soil on top. If a dry time should come, cover the surface of the ground around the trees with manure, or some other mulch. A good rule for trimming fruit trees is to cut the tops down when transplanted, so that a half-bushel can be put over them. This is as good as any arbitrary rule can be, and it will be found to be on the safe side. Fully one-third of the trees set out each year never come to bearing, and some careful observers put it as high as one-half. This ought not to be so, and would not, if there was more care in digging and close pruning of the tops. It is also a mistake to buy large trees. Smaller ones are more apt to live, and will generally bear fruit first, because they have more roots. They will also make longer-lived trees.

F. D. C.

Farm Topics.

BUYING IMPLEMENTS FOR CASH; CO-OPERATIVE PURCHASE OF COSTLY TOOLS; PARTNERSHIP FARMING.

T. H. HOSKINS, M. D.

THE rapidly-increasing use of mechanical appliances in agriculture is becoming a most serious matter, especially to small farmers, and I am glad to see it discussed editorially in the RURAL. A vast amount of the almost hopeless indebtedness now weighing, like an incubus, upon the hopes and prospects of farmers of moderate means, was incurred for tools and machines that they thought they must have, because their neighbors had them. The agricultural implement "drummer" is on every farm; he is generous in giving credit at a generous price; but pay-day comes quicker than the money can be made out of the machine, and pay we must. Having contracted the debt, it is better to pay it, but how much better, even if the farm must be mortgaged to raise the money, would it be to buy for cash, rather than to pay 50 or 100 per cent. advance in price for a twelve-month's trust!

A farm machine agent was in my house yesterday. In reply to questions, he said the business went hard, and he found those most willing to buy were men so heavily in debt that they knew they could never pay. "Hard business," said he, "to sell dairymen anything, with butter bringing only 15 cents a pound." Men are becoming prudent, but many of them are doing so too late to save themselves. Thousands of farms in Vermont must go under foreclosure within a year, if the mortgagees dare to sell. Lots of them will never bring the amount for which they are bonded; for, besides the decline in value, the embarrassed farmers have, in their poverty and discouragement, let fences, buildings and land run down until the buyer must be prepared to add to his purchase many a heavy balance for immediate repairs and fertilizers. Many of these over-mortgaged farmers also owe largely for implements and supplies. Of some of those who have died in my neighborhood within the past few years, supposed to be quite well-off, the estates have paid less than fifty cents on the dollar. The commercial press which has been congratulating the farmers on the superiority of their position over that of the business classes, shows great ignorance of the true situation. An indebted farmer hangs on long, especially when his creditor delays, in order to coax a few more years, interest out of him on an investment from which he fears that he cannot realize the principal. It appears to me that half the farming land must change hands in the next two or three years. The most puzzling question is, who is there to buy it? It would seem that all the land, as well as all the money, must be in comparatively few hands when settling-day is over. We have servilely copied England's financial methods, and are realizing England's results. But for those of us who have not been caught in the nip, who can pay our debts though by the hardest effort, whom the usurers have not quite skinned alive, but who are left for the "next haul," what lessons have we learned? Mainly what the RURAL has so forcibly put in its editorial, "Cash versus Credit." These ideas were the fundamental ideas of the "Grange," and their promulgation, seven or eight years ago, had weight with many, who owe their financial safety to-day to these principles reduced to practice. If more had come into the ark then, there would have been less wailing now.

Certainly we must buy no more of anything on time. We must consider well before buying any new implements whatever. Let us fix up what we have, and take better care of them. Some of them are in the fence corners now, with a mourning drapery of dead weeds over them. The wastefulness of the flush times must come to a dead halt. The economical practices of our fathers must be revived. And, O brother farmers, had we not better study the science of government, and send somebody other than lawyers to Congress? Something of our "hard times" is due to our own personal short-comings; but how much more to ignorant and venal legislation!

What costly implements we must have, let us buy for cash, and as much as may be in partnership, and let us see if we cannot use partnership property honestly and carefully enough to make it profitable. It is only honest and careful men whom we can afford to join in such purchases. One scalaway will burst up the whole thing. Let us have some sound rules as to the use of company implements, and live up to them. Don't keep them idle when another is waiting for them. If one is broken, have it repaired at once. And when the season of use is over, don't allow everybody's business to be nobody's business; but clean, polish, oil and paint, and put safely away till the next season. Why cannot we be as careful and proud of the company harvester as firemen are of their engine?

Many of our unfortunate farmers who have lost their land, have yet some property saved to them under exemption laws. These may sometimes rent land, and sometimes why may they not rent or buy in company, and till in company? Farmers are too independent, we are told, to do well in business association. They pull all ways, quarrel, and break up. These times ought to bring—with their other lessons—the lesson that such "independence" is utter folly. If good men will join to farm together as a company under the general laws of many of the States, with simple but strict rules and sharp penalties for their violation, there is no reason why five or ten men cannot take hold of a piece of land sufficient to give them profitable employment, hang together, and make a living and more too. It is a good school, not only of fellowship but of farming, and all having the benefit of what each knows. Such a "farmers' club" ought to make co-operation a success.

EVILS OF THE CREDIT SYSTEM.

"GO IN debt if you want to make money," was the advice which a successful old man once gave me, but he immediately added, "You must know what to buy, how to buy, and where and how to place your indebtedness so that it will neither annoy nor cripple you."

What are the debts that annoy and cripple? First: Store bills, grocery bills, shoe bills, butchers' bills, printers' bills and, last and greatest, farm machinery and implement bills. If you purchase on credit, the chances are that many things will be bought which you could do without, and some which will result in positive damage. At the end of the season, there will be owing twice as much as you counted upon; for the man who habitually runs in debt, always guesses at things. Who ever guessed high enough on a store bill? The result is, he never has any money that is his own, and never knows when he will have, but guesses he'll have some next week and makes promises on the strength of his guess. Of course, he breaks them and dodges around the corner to avoid his creditors. He is accounted by good business men a liar, and I think the term is not too strong. But this is only one of a score of debts due and promises broken. How long can the debtor thus prevaricate before he *becomes* a sneak, a liar and possibly a thief? With all manhood and dignity gone, how can there be any noble aspiration, energetic effort or true enjoyment? Who can be a man and yet be ashamed and afraid to look his neighbor in the face? This is what the old man meant, I judge, by debts that annoy and cripple.

But in the course of human events it is frequently necessary to get into debt. I have even, by implication, advised doing so. Let us suppose that some farmer this spring finds himself without money. In looking over his fields and herds, he judges that in all probability he will have one thousand dollars' worth of products to sell during the year; even with a bad season five hundred can certainly be realized. Suppose, now, he makes arrangements to borrow a hundred dollars on the first day of each month for five or six months, beginning with June, giving his note or other good paper payable within one year, or before, with interest; what will be the result? In the first place, he preserves his manhood; for who was ever ashamed to meet his neighbor because he owed him a hundred dollars which were properly secured, for the use of which he was paying a fair compensation? I speak from actual knowledge when I say that ten per cent can be saved, on an average, by paying cash as against credit; and at least another ten per cent will invariably be saved by doing without those things that can as well be dispensed with as not, but which are too frequently purchased when *charged*. What prevarications; what sleepless nights; what dodgings and squirmings; what loss of Christian character and manhood; what law-suits and quarrels; what hatred and misunderstandings between neighbors; what sacrifice of property; what long lists of failures and figures might be avoided, and what vast sums of money saved, if all would only pay CASH or its equivalent, and thus fulfill the scriptural law, "Owe no man anything."

R.

PAY AS YOU GO.

I THINK one of the worst evils the farmer has to contend with is going into debt. Many and many of them are always in debt, for their machinery from year to year and to their blacksmith and their merchant from one year's end to another. Men of this class always have to sell their wheat as soon as they can thrash it, and haul it to market, their corn as soon as it is ripe enough to gather, and their stock as soon as the animals are salable. They have no choice. They cannot wait for a better market because if they keep the merchant waiting too long, they know there will be no chance of getting credit another year, and it takes all they have got this year to square up old accounts. As a rule such farmers are obliged to sell at low prices and pay the highest price for what they use, and therefore lose on both sides. Most farmers will find it far easier and a great deal more profitable to pay as they go. There is no question but that they can get goods cheaper for cash. Any merchant will tell you he can afford to sell goods for less money, if he gets the cash every time instead of waiting six months. Precisely the same is the case with all with whom the farmer deals, and it will pay any one to live close for one year in order ever after to be free from the galling pressure of debt. Do without everything that you possibly can live without. Do not buy a new plow, or a new harrow or any other new implement simply because you can buy it on credit. Wait, and wait patiently, until you can pay as you go, and you will be surprised how much you will save in a year; for I honestly believe any farmer will buy more, when he is buying on credit, than he will if he pays cash every time. It is those who are in debt, head over heels, that feel the hard times so severely. We farmers who are out of debt now, are the most independent class of men in the country. Keep out of debt.

N. J SHEPHERD.

Entomological.

PARASITES ON DOMESTIC ANIMALS. No. 2.

PROFESSOR A. J. COOK.

Sheep-Tick. (Mellophagus ovinus, Linn.)

THIS insect is a degraded Dipteron of the family Hippoboscidæ. Some members of the family, like the horse-tick or forest-fly, have wings; but the sheep-tick is apterous. The body is not compressed laterally as is that of the flea, but from above. The head is not sunken, as stated by several authors, as will be seen by Fig. 1, which represents the head and its organs. The antennæ (Fig. 1, c) are minute, sub-globular, and deeply sunken into pits. They are covered with very fine hair over their entire surface, while from the front project quite coarse hairs. It is stated by some entomologists that these organs are close together, which, as will be seen by the figure, is not true. The eyes, (Fig. 1, d) are long and narrow. The proboscis, (Fig. 3, a) is plainly visible, and as long as the head, and is really a tube within a tube. The outer tube consists of

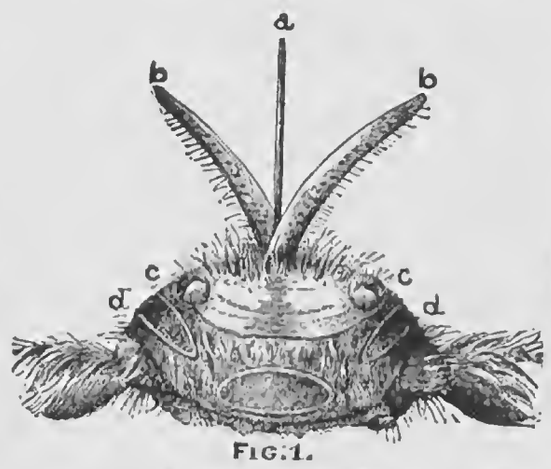


FIG. 1.

HEAD OF SHEEP-TICK.—MAGNIFIED 25 TIMES.

two semi-cylindrical pieces, (Fig. 1, b, b,) probably the mandibles, though some authors call them the maxillæ, which, when close together, form a very perfect tube (Fig. 3, a), within these is the second tube (Fig. 1, a) which is twice as long as the other, though, when not in use, it may be so withdrawn as not to extend to the middle of the other tube. I have seen this inner tube protruded to double the length of the other while I have been holding the insects in my hands. This central tube (Fig. 1, a) consists of three pieces; one, the larger—without doubt the labium—is grooved, and so receives the other slimmer lancet-like pieces—the maxillæ, I think—as to complete the tube.

These spider-like ticks move with equal facility forwards, backwards or side-wise. Their claws (Fig. 2, e) which terminate the feet, are

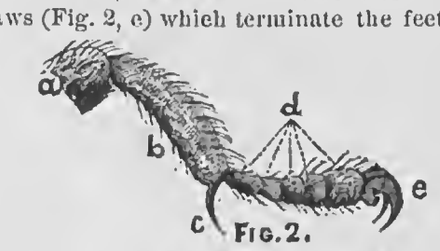


FIG. 2.

TIBIA AND TARSUS, WITH CLAWS.

sharp and strong, and so toothed as to enable the insects to hold persistently to the wool or hair of the animals they infest. The insects of this family may almost be said to be viviparous. The oviduct of the female expands into a sort of uterus, where the one or two larvæ are developed. These are nourished by a kind of milk secreted by the inclosing organ. They pupate at once after birth, in the larval skin, which then assumes a brown color.

The sheep-tick (Fig. 3) is a gray-colored,

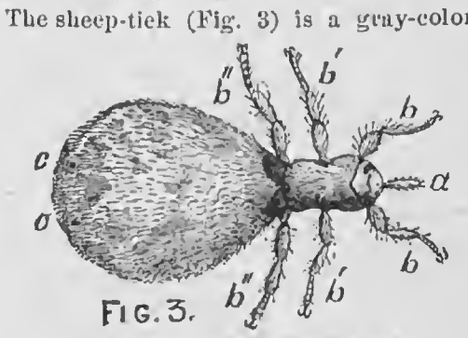


FIG. 3.

SHEEP TICK, MAGNIFIED FIVE TIMES.

spider-like insect, about five-sixteenths of an inch long. The gravid female is lighter-colored, a little the larger and mottled, (Fig. 3). The head is broader than the thorax, while the abdomen is rounded, leathery, and with no appearance of rings. In the axle of the legs on the femur, (Fig. 2, a) near its union with the tibia, (Fig. 2, b) are elongated, transparent areas, where may be seen a distinct pulse.

Just back of each leg on the thorax, may be seen the stomata or breathing mouths. These spiracles extend along the side of the abdomen, not merely to the posterior lateral angles, (Fig. 3, c, e), but even form a crescent on the posterior extremity about the vent.

FIG. 4.

The pupa (Fig. 4) is brown, spheroidal, and exhibits the two rows of spherieles very distinctly.

This insect is a serious annoyance to sheep and especially to lambs. It is note-worthy, that it attacks coarse-wool sheep much more seriously than it does the fine-wool breeds, and the long-wool varieties worst of all. This is doubtless owing to the less amount of oil in the wool of the long-wool breeds.

Remedies.

Prof. James Law recommends the following for ticks and also for scab: "Tobacco, 16 pounds; oil of tar, 3 parts; soda ash, 20 lbs.; soft soap, 4 lbs., water, 50 gallons. Boil the tobacco and dissolve the other agents in a few gallons of boiling water, then add water to make up the fifty gallons. This will suffice for fifty sheep. Each sheep is kept in the wash for three minutes." One pound of tobacco steeped in five or six gallons of water is an effective cure. The lambs and newly-shorn sheep are to be immersed in the decoction. I have no doubt but that the kerosene and carbolic acid washes recommended for fleas would avail equally well for ticks. I do not think they would be too strong, as I have kept a poodle dog in such a fluid for some minutes without hurt, and I should expect a lamb or sheep would have no more tender skin than such a dog. Tobacco smoke is sometimes recommended; but it is difficult to make the application sufficiently thorough. To apply this nothing is better than than the patent bee smokers. The smokers should be applied at least three times at intervals of a week, that pupæ may all develop, and the successive broods be killed. — (Drawings by S. Upton. —EDS.)

Mich. Agr. College.

Miscellaneous.

CONCENTRATED MANURES vs. CONCENTRATED FODDER.

PROFESSOR G. C. CALDWELL.

IN all good farming, except what passes for such on our Western prairies, the draft made on the stock of plant-food in the soil by the exportation of produce from the farm must, as all good farmers know, be made good in some way, or else partial exhaustion of the soil will follow, and along with that, poor, unremunerative farming. This restoration of exported matters may be accomplished by the importation either of commercial, or, as they are better called, concentrated manures, or of concentrated feeding-stuffs.

Of these two methods of maintaining the fertility of the soil, the latter is more largely practiced than the former in England, as is shown by the following tabular statement,

compiled from a very valuable and interesting article on present British agriculture by John Algernon Clarke, in volume XIV. of the Journal of the Royal Agricultural Society of England, in which the expenditure per acre for manures and fodder is given for several large farms.

	For Manures.	For Feeding-Stuffs.	Total.
1.	....	16.50	16.50
2.	1.50	2.15	3.65
3.	2.50	8.50	11.50
4.	3.20	11.10	14.30
5.	1.75	5.00	6.75
6.	....	11.10	11.10
7.	3.50	3.50	7.00
8.	2.00	10.20	12.20
9.	....	15.00	15.00
10.	2.00	8.50	10.50
11.	2.00	10.00	12.00
12.	....	11.50	11.50
13.	.50	4.50	5.00
14.	....	5.00	5.00
15.	2.10	4.00	6.10
16.	3.00	14.00	17.00
Mean.	2.18	8.78	10.96

On one of these farms, with 180 acres of arable land and 240 acres of pasture, $7,000 are expended annually for feeding-stuffs; on another estate, with 820 acres of arable land and 70 of pasture, the annual outlay for oil-cake is $6,000; on another farm over 300 tons of oil-cake are consumed annually.

This purchased fodder consists mostly of oil-cake, with some grain, although in some instances more grain than cake is purchased. The use of oil-cake in Great Britain has increased rapidly within the last few years. In the first five months of 1873, 57,168 tons were imported, and in the corresponding portion of 1875, 91,000 tons. In 1878, 201,300 tons of imported cake were used for fodder, besides the large quantity made in the country from imported seed.

The cake that is used in England is made from linseed, rape seed and cotton seed, and it is the use of the last-mentioned kind of cake, especially, that is increasing so rapidly; the quantity of it imported in 1878 was one-third greater than that of 1877. We ourselves send across the water large quantities of both linseed and cotton-seed cake; the value of the cake exported during the last fiscal year is stated to exceed $5,000,000.

In the following table the composition of several varieties of oil-cake is given, including the results of some recent analyses.

I. Rape cake, ordinary composition as used in Germany.

II. Linseed cake, ditto.

III. American linseed cake in England in 1873.

IV. English cake, ditto, eleven samples.

V. Peanut cake, average of 23 analyses in Germany, 1877.

VI. Cotton-seed cake, not decorticated, manufactured by a French firm in Marseilles, that turns out 150,000 tons per annum.

VII. Cotton seed cake, decorticated.

	Water.	Albuminoids.	Fat.	Carbhydrates, etc.	Fiber.	Ash.
I.	11.3	31.6	9.66	29.4	11.0	7.1
II.	12.2	29.5	9.88	29.9	9.7	8.9
III.	11.0	27.0	11.8	30.6	12.7	7.0
IV.	12.6	29.1	12.6	26.4	13.1	6.3
V.	11.5	45.8	7.0	27.2	3.6	4.8
VI.	13.	24.3	5.0	31.6	22.6	5.6
VII.	11.2	38.6	13.7	19.4	9.3	7.6

Of all these varieties of oil-cake, the peanut or ground-nut cake, with its very large albuminoids, its fair proportion of fat, and very small per cent of useless fiber and ash, may justly be ranked first in respect to value, and next to that comes the cotton-seed cake with its large proportion of both albuminoids and fat. The peanut cake is prepared from the kernels alone; it is claimed that the butter from the milk of cows fed with it, is only entirely free from any bad flavor, but is of a superior quality, while rape cake communicates a bitter taste to the butter. Ground-nut cake made from the whole nut, shell and kernel, is, like cake made from whole cotton seed, inferior to that made from the kernel alone, and is used to some extent in England for the adulteration of linseed cake.

Cotton-seed cake, also, communicates no bad flavor to the milk or butter, and it is considered in England the cheapest kind of concentrated food for fattening animals. A writer in a recent number of a French agricultural journal, comparing the cost of albuminoids in different kinds of concentrated fodder as sold in France, estimates that, calling the cost of a pound of albuminoids in cotton seed cake 100, its cost in linseed cake would be 170, in Indian corn 350, and in barley 380.

Even he that runs may read a useful lesson from these facts and figures. The much greater prominence given to the purchase of feeding stuffs than to concentrated manures in England, where some of the most careful farming in the world is practiced, and where commercial fertilizers can be had that are generally of a better quality than we can usually get in this country; the abundance of material, cotton seed and peanuts, in our own country for the manufacture of the two best and cheapest kinds of oil-cake; the greater cheapness of albuminoids, the most important constituent of concentrated fodder, in oil-cake as compared with grain; all these considerations taken together with that of our large exportations of oil-cake, unite in indicating that American farmers do not make the best use of all the resources within their reach. We should send to other countries less of crude products and more of manufactured products; these abundant supplies of concentrated fodder should be more largely worked up into meat, butter and cheese, and, through the manure produced, into wheat, and these should be exported instead of the fodder itself.

EVERY-DAY NOTES.

Late Spring Planting.

A LATE spring, like the present one, causes many expressions of alarm lest there be insufficient time left to plant the lawn after snow and frost have gone. There is, however, much less danger in thus planting late than is generally supposed. If only thrifty shrubs and trees are used abounding in fibrous roots, little danger of failure need be apprehended, if the roots are moistened and protected at once after digging. One sees not unfrequently much useless care—in the way of watering, etc.—expended on plants that have already received their death-blow under exposure to sun and wind. As a rule, superficial watering helps the plant but little, after it has been once set out. Indeed, unless applied in enormous quantities, evaporation in the open air soon dissipates the effects of water. The advice to buy only young plants is almost as old as the hills, and applies specially to late spring planting. Yet the temptation to obtain a large tree in a short time overcomes us continually. Each hopes to be the favored one who will succeed in making such a tree grow, forgetting that if it does grow, it will hardly ever equal in perfect development a plant of more plastic nature.

The Best Time to Transplant Magnolias.

There exists a common impression even among experts, that Magnolias should be transplanted as early as possible in the spring. The experience, however, of those whose experience has been most extended, teaches just the contrary. In fact, a Magnolia should not be transplanted until the leaves begin to show signs of pushing out, which, in the case of Chinese Magnolias, is while the flower is in full bloom. There is a sluggishness in the spongy texture of the Magnolia roots, which, like that of the roots of evergreens, needs warming up before transplanting can be attempted with the greatest certainty of success.

Late Pruning.

"Better late than never" applies to pruning with at least as much force as to anything else. Wood full of sap will, of course, bleed a little after the use of the knife; but it soon heals and, in any case, acquires less deformity than it would if left over the season without pruning. To neglect hard-wood pruning, therefore, entirely during the spring, is mere unnecessary procrastination, and cannot be excused on the plea that it was forgotten until too late. Summer pruning is another thing, and should not be done in the hard-wood, but converted rather into a system of pinching back excessive soft growth.

S. PARSONS.

WHAT OTHERS SAY.

AN IMPROVED METHOD OF STRIKING CUTTINGS.—A short notice has appeared in a St. Petersburg journal, says Mr. Henslow in the London Chronicle, of my paper on the absorption of water by the green parts of plants; and it appears to have suggested to Mr. G. Weidenberg a method of striking cuttings. After inferring that the frequent fading of cuttings, before they have struck root may be accounted for by a too great transpiration, he proposes making the cuttings longer than usual, and burying some of the leaves as well as the stalk, so that about a third remain above out of the earth. Those leaves in the ground may thus undertake the function of absorbing moisture, and so help to balance the loss of water from the exposed leaves. The ground, he adds, in which cuttings stand should be, if possible, porous, in order that the air may have access, and that the rotting of the leaves may be prevented. This process enables the cutting to make roots before the leaves decay. Weidenberg appears to have found that Roses of all sorts, Pinks, and other cuttings of plants thus made very good roots, which are usually hard to grow. In my paper I only alluded to cut flowers having leaves attached to the stalk and plunged into water, but the principle is the same as for striking cuttings, and it is so easy to try that gardeners can readily put it to the test and see if their results will accord with Weidenberg's experience."

SURE DEATH TO MOTHS.—We find the following in the N. Y. Tribune: A set of furniture is mentioned in Massachusetts papers that became infested with hundreds of moths. The seven pieces were put in a room by themselves, and three gallons of benzine, costing 90 cents, thrown over them, out of a small watering-pot with a fine rose, "saturating them through and through." In a few hours they were dry; all odor disappeared in three or four days; no injury was done to varnish, wood, fabric or hair-stuffing, and now, months after, not a sign of moths has since been seen. The carpet was also sprinkled all around the sides of the room with equally good effect. This is said to be "a sort of trade secret among upholsters."

THE FUTURE OF THE HOME DAIRIES.—B. F. J. concludes an article in the Country Gentleman thus: "As an illustration of what is meant, let us take the butter and cheese industries of the country. If we look at the matter closely, we shall see the time is rapidly approaching when the practice of the home manufacture of butter and cheese will have been abandoned as completely as that of woolen or cotton cloth, and the farmer will sell his milk, as he sells his wool, and perhaps buy butter and cheese as he now buys cloth and yarn."

CATALOGUES, &c., RECEIVED.

DISEASES OF LIVE STOCK and their most efficient remedies, including horses, cattle, sheep and swine. This work, of 469 pages, is a popular treatise giving in brief and plain language a description of the diseases common among stock and the treatment therefor, culled from the works of the best American, English and Europeans veterinarians, together with a great deal of miscellaneous veterinary information of use to stock-owners. Every farmer's library should contain a reliable work on the diseases of stock, to whose lucid description and prescriptions he can at once refer on first appearance of any ailment among his stock. The present compilation is the work of L. V. Tellor, M. D., and sold only by subscription at $2.50 per copy. Philadelphia, N. C. Watts & Co.

Industrial Implements.

PULLIAM'S BOLSTER SPRING.

THE bolster spring is an invention of decided merit and usefulness. It adjusts itself to heavy and light loads, and under each condition meets the requirements demanded of a good spring. It is particularly adapted to farm and lumber wagons of any size. Its attachment is simple, being fastened to the bed with four bolts—and the spring goes with the bed when the latter is lifted off. An over-load or sudden jolt will bring the bed down to a rest on the bolster, and this not being the full tension of the spring, it may be surmised how very difficult it would be to break it. Indeed, the spring cannot be strained to its fullest tension.

Its application to a wagon saves wear and tear of the running gears, does away with the necessity of a spring seat and makes an ordinary heavy wagon ride as easily and comfortably as a light conveyance. They range in capacity from 2000 to 3500 pounds and are made of oil-tempered steel, and warranted. It is some time since our attention has been called to an improvement of this kind that has so many excellent features. Those of our readers who have a prejudice for working as comfortably as circumstances will permit should write for the circulars with which we have been favored. They show the application of the bolster spring much more satisfactorily than can be indicated in a brief mention. The makers are Semple, Birge & Co., St. Louis, Mo.

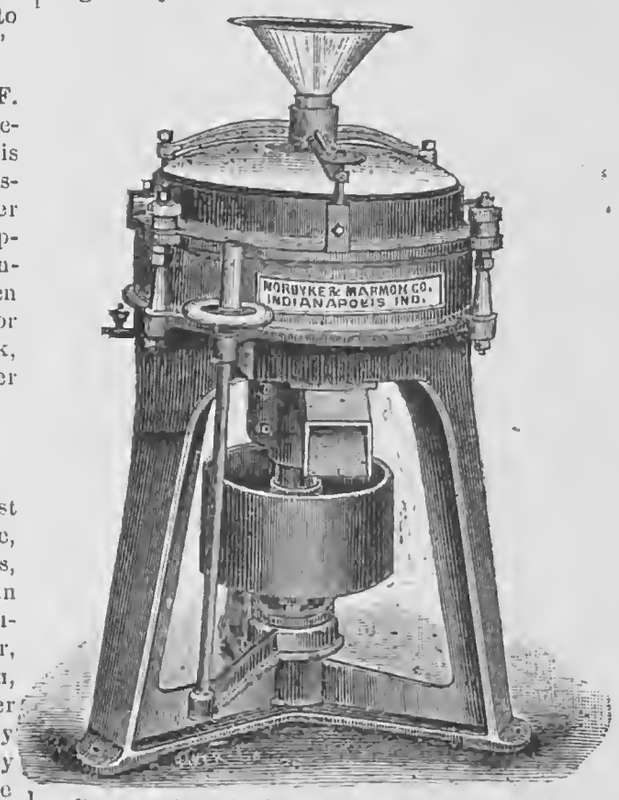
THE "NEW ERA" PORTABLE MILL.

WE illustrate herewith the twenty-inch mill, "New Era," which the Nordyke & Marmon Co., of Indianapolis, Ind., have lately perfected.

Careful study and experiment in the premises have led them to design the mill represented by our engraving, and to adopt for the same a quality of French buhr-stone which they import expressly for the purpose. This mill is placed in an iron hurst frame, and every part so accurately fitted that should the material be exhausted from the hopper, the mill will continue to run without detriment, even though empty. As all of the material entering into construction of this mill—with the exception of the stones—is either iron or steel, and every part accurately and perfectly adjusted and balanced, the utmost steadiness of motion and durability are thereby attained. As the bearings are perfectly fitted, and all provided with suitable receivers from which oil is at all times supplied to them while in motion, the utmost lightness of running is attained, and the stones being of equal thickness and in perfect running balance, insures against all trouble from that source.

In flouring middlings, wheat or grinding corn on this mill it is only necessary to keep the furrows and faces straight and follow the special instructions sent with each mill; the instructions having been carefully prepared for the particular material to be treated in each case.

The buhrs, when faced and operated as directed, are so true, it is claimed, that they will run to within a thousandth part of an inch and not touch, and as the French buhr stone used in their construction is of a special quality not liable to glaze or get smooth, they will retain their sharpness a very long time, and upon wheat or middlings do as nice flouring as any other mill.



But one size of this mill is being manufactured, the stones of which are twenty inches in diameter. The improved silent-feed attachment is provided and used with this mill, as shown in the engraving; and in fact each and every feature and detail requisite for the attainment of the best and most satisfactory results, in the smallest possible compass and at least expense for first cost and maintenance, has received the careful attention of, and been adopted by the manufacturers.

For particulars and special information we refer our readers to the firm, as above.

THE OLIVER PLOW.

THE success of this plow has been an event in the annals of farm implements. During a period covering only nine years, there have been made and sold over 250,000 plows, and today the works cover a larger area than any other establishment of the kind in the world, we believe, devoted to a like purpose. This result has been attained by introducing a new feature in the manufacture—chilled metal—and giving the most careful attention to the design and construction of the implement. The managers are idealists on the question of plows and constantly strive after perfection. We are glad to be able to say this, as it is only meet that the most important interest of our country—farming—should be supplied with the most effective tools. The Oliver Chilled Plow Works, South Bend, Ind., will send, on application, a description of their process of chilling metal which is interesting of itself.

AMONG the many new mowers of this season, the "Pennsylvania," made by Lloyd, Supplee & Walton, Philadelphia, Pa., commands attention. It has lightness combined with strength, is easily adjusted, not likely to clog in any kind of grass, and is very handsome. The cutters are all steel, bent and tempered in dyes under hydraulic pressure, giving a true and uniform curve. The circular sent out by the makers, is almost pretty enough to be framed, and in it will be found particulars.

THE Penn. Agricultural Works at York, Pa., are under extraordinary pressure this season, so it is reported. They have not as yet caught up with the orders booked, and have been working over time. Mr. Farquhar, the proprietor, has been very successful in devising machinery that meets with popular approval. The many inquiries we have had for light thrashing machinery, might well be directed to this firm. The catalogue issued this season is extensive and complete.

THE BOOMER AND BOSCHERT PRESS CO. of Syracuse, N. Y., write us that there has been a very considerable reduction in the prices of their apple-graters. These graters have in the past sold at prices ranging from sixty to eighty dollars, but such was the efficiency of the machines that large numbers were introduced despite the cost. This reduction will be good news to cider-makers for whose benefit we chronicle it.

MR. J. R. WHITTEMORE of Chicopee Falls, Mass., is making a rake that is equipped with a patent tooth. Its shape causes it to avoid scratching up the dirt, so it is claimed, and in addition to this feature, it has many others found in all good rakes. A reference to the advertisement in this issue will give a correct idea of its shape.

The Querist.

ANSWERS TO CORRESPONDENTS.

Culture and Preparation of Horse-Radish, Etc.

M. S. M., Lynhaven River, Princess Anna Co., Va., asks, 1, how to raise and prepare horse-radish; 2, can asparagus beds be removed, or new ones be made from old beds, or do they become too thick after a while; 3, is the Royal Mfg. Co., Broadway, this city, a reliable concern; 4, in our issue of Jan. 25 was an advertisement of J. T. Clymer, offering a recipe for increasing potato crops from 50 to 100 per cent., to be paid for after the crop had matured, and he asks whether the party is trustworthy, as he wrote to him, but received no answer.

ANS.—Horse-radish will grow in any soil, but, as with most vegetables, the better the soil, the better the crop, and the best results can be obtained only when the plants are grown in very deep and rich garden mold. Market-gardeners in the vicinity of New York generally grow horse-radish as a second crop; that is, the sets are planted between the rows of early cabbages, beets, or other crop, and the top subdued till the growing crop has been removed. The sets are the slender roots from one-fourth to one-half inch thick, that are removed from the main roots when taken up in the fall. They may also be produced by planting the "crown" (that is a couple of inches of the top-end of the old root) in the spring, from which will shoot out an abundance of just such roots as are required for sets. But whichever way they are grown, they are taken up in the fall, tied in bunches and either buried in the ground or kept in sand in a cool cellar through the winter. On the opening of spring they are again taken up and prepared for planting, which consists in rubbing off the side roots with a piece of coarse cloth, and in cutting them off at the proper length—eight to twelve inches. In planting, make a hole at an angle of about 25 degrees, with a sharpened stick. Into this hole drop the set and press the soil closely about it. Care should be taken to plant the set with the root-end downward, for though it will grow when reversed, it does not attain as large a size as when put right-end-up. The plants are set in rows one by two feet apart; if planted among another crop, the distance can be varied to suit the space. During summer the culture consists simply in keeping the patch clean by frequent hoeing. It is dug late in the fall, care being taken to remove all small rootlets, as they will grow and prove troublesome weeds if allowed to remain in the ground. The sets for next year are cut from the marketable roots, and these are sold or stored in a cellar convenient for use. In Europe, to facilitate the digging in the fall, this vegetable is generally planted on raised beds two feet wide. When horse-radish is planted on very rich ground, under the most favorable circumstances, as much as four or five tons can be obtained per acre, but three or four tons may be considered a fair crop. Twenty sets planted every spring will be enough to supply an ordinary family. In preparing the article for market, the roots are taken from the pit—the tops and small roots having been trimmed off before they were stored in the fall—thrown into a wash-tub, and, with the aid of a scrubbing-brush, thoroughly cleaned. In this state the roots are sent to market. 2. It is not practicable to plant old asparagus plants, as the roots must necessarily be mutilated to a greater or less extent in digging them up. Strong one-year-old plants are best. The roots do not generally become too thick in the bed; the shoots become smaller in time, because the roots lose vigor and the soil becomes exhausted. 3. We would advise our friends to have nothing to do with a firm with so magniloquent a name. 4. This is the first complaint we have heard in that connection.

Malignant Anthrax.

S. E. W., Tiptinville, New Mexico, say: "I found one of my work steers dead in the corral and on opening the body I found the melt (spleen) very much enlarged with a portion of it decayed, or rather it would fall to pieces when handled and was covered with purple spots. The steer seemed to die without a struggle—no symptoms, only a disposition to lag behind when driven to the house on the night previous. My stock graze on the open prairie and have good running water to drink. I fed some of the meat to my hogs and, though they ate but little of it, five of them have died and I expect to lose three or four more. It made my dogs sick. Can you tell me what the disease is? Is it catching? and is there any remedy for it? One of my neighbors pronounced it Texan fever."

ANS.—This is one of the many forms of *anthrax* and is generally known as *splenic apoplexy*. Within the past year the RURAL has given very full information in regard to this disease, having devoted over a column of space to its consideration on two occasions. We will repeat for the benefit of those who cannot refer to back numbers, that all animals and man are subject to the disease; that the disease is usually contracted by cattle feeding on rich soils which are underlaid by an impervious subsoil; that the prevention consists in draining such lands or keeping the cattle from grazing on them, particularly in spring and autumn. Treatment is generally unsatisfactory because the animals die so soon after they are observed to be sick. The disease may be contracted by people or other animals, but chiefly by contact with blood or other liquids from affected animals or by eating their flesh. It is very dangerous to open or skin animals which have died from this disease. The carcasses should be buried to prevent contagion.

Pearl Millet.

G. H., Seneca, Nemaha Co., Kan. says: I have recently received from the Department of Agriculture, a supply of pearl millet seed. If it is the productive forage plant that Peter Henderson says it is in a late RURAL, it will be of great benefit to this State, not so much, however, in its green condition as when cured, for the difficulty with us stock raisers is more in procuring an abundance of fodder for the winter months, than in securing plenty of rich summer pasture. Wishing to give the pearl millet a fair and exhaustive trial, I would like to have the RURAL'S opinion as to the proper time of sowing it, and the best way to cultivate it by which satisfactory results can be obtained. Here, labor is scarce and land abundant, so that the way that would give us the largest amount of fodder for the least labor would be the best for us. If intended as fodder for winter, when should it be cut, and what is the best way of curing it and putting it away for winter use? By the way, I think Com. Le Due has done a good thing in attending personally to the distribution of Department seeds, instead of furnishing them to members of Congress, who, too often, sent them as favors to political partisans and friends, without any regard to carrying out the intention of the Department.

ANS.—In the above part of the country, pearl millet should be sown about May 20. It may be cut for the first time as early as the latter part of July. Then it will have time to make a growth of from four to six feet before frost. We should advise planting in drills—the drills three feet apart, the seeds two feet apart in the drills. It will not seed in that latitude, and the last cutting may be made not until after the first frost. It should be cured precisely the same as corn.

Dahlias and Gladioli.

E. K., Oxford Center, Ontario, asks: 1, will Dahlia cuttings bloom the first year if started early? if so about what time in the season? 2, should flower buds be picked off to have them in bloom about the 15th of September; 3, which will give the best flowers—cuttings or dry roots; 4, does the size of Dahlia bulbs have any influence on the flower, or will small bulbs produce as good flowers as large ones; 5, at what time should dry bulbs be planted to be in flower from the 15th of September to 10th of October; 6, about what time should Gladioli be planted in the open ground to bloom about 20th of September; also, depth to be planted; 7, give names of twelve best varieties for exhibition purposes.

ANS.—1, They will flower, if not too weak, in September just before frost. 2, No. 3, Dry roots. 4, No, the size of the roots vary greatly with the variety; if the roots are otherwise strong, the size will have no influence on the size of the flowers. 5, Dahlias do not usually flower well till the nights become somewhat cool; so the time here named is their natural period for flowering. They should be planted about the middle of May. 6, The 25th of June. Six inches, if the corms are large and the soil, light; less in proportion as the soil inclines to heaviness and the corms or bulbs are smaller. 7, Shakspeare, Princess Alice, Addison, Newton, Benvenuto, Mary Stewart, Stella, Reine Blanche, Charles Dickens, Phedre, Mad. Desportes, Rosea Perfecta.

Apple Pomace.

S. E., Galesburg, Mich., asks, 1, what is the value of apple pomace as a fertilizer, and what is the best way of preparing it for that purpose; 2, would it be practical to save it in silos for stock feed in winter; 3, where can the best and cheapest root-cutter be obtained.

ANS.—Apple pomace is of very little value as a fertilizer; if used for that purpose, it would be best prepared by composting it with lime to neutralize the acid contained in it, and to hasten decomposition, for while fresh, it would do more harm to vegetation than good. It may be very easily preserved in barrels, casks or boxes, by packing it down tightly, and is eaten eagerly in moderate quantities by horses, cattle, sheep and pigs, and it is undoubtedly a wholesome food for them unless given in excess. One peck at a feed has been given with benefit to dairy cows, and a bushel or two would be a proper quantity for 40 or 50 sheep. When kept in clean flour barrels, or crockery or sugar hogsheads, it will remain good during the whole winter. Or, it may be pitted just as roots are, which is, in fact, ensilage.

Compensation for Service of Bulls.

T. B. L., Camden, S. C., asks for precise information with regard to the rules governing the stud service of bulls. A party engaged to secure him a calf for a specified sum; after the first leap of the bull, application was made for the sum agreed upon; and our correspondent inquires whether the debt was then due.

ANS.—The services of stud animals, whether horses or bulls, are generally insured, and if they fail, they are repeated without extra charge, but the money is not returned. The custom is for the owner of the animal receiving the service to pay on the performance; if necessary, the service is repeated until effective. In the above case, the owner of the bull was right in requiring payment at the time of service. The insurance consisted in repeating the service in case of failure.

Hyssop.

M. L. D., Sherman, N. Y. asks: how is hyssop cultivated, and for what is it chiefly used; 2, is the plant now cultivated the same as that of which we read in the Scriptures?

ANS.—Hyssop is a hardy perennial herb from 18 inches to two feet high. Sow the seed in the spring and set the young plants in rows a foot and a half apart. It is used in medicine as a gentle stimulant. It promotes expectoration of the mucus and is used as a remedy for chronic catarrh. 2. The hyssop of the Scriptures is the caper tree—Capparis spinosa. It grows abundantly in the countries around the Mediterranean Sea.

Grafting Wax.

C. T., Millersville, Ohio, who inquired about grafting wax in our last issue, is hereby informed by L. A. R. that the following article cannot be beaten: Resin one pound; tallow two ounces. Melt together and add one tablespoonful of turpentine and two ounces of alcohol well mixed, and the wax is ready for use.

Miscellaneous.

J. L. V., Wilksbarre, Pa., asks where he can get dynamite cartridges suitable for blowing up stumps, and where they are manufactured.

ANS.—Dynamite cartridges can be got from Varney and Doe, 61 Park Place this city. One of the most extensive manufacturers of them is the Atlantic Giant Powder Co., located here also. As a rule it would be better to procure them through some local dealer in gun-powder and other explosives.

Mrs. F. T., Maine, Broome Co., N. Y., asks where can she get an instrument for removing obstructions from a cow's teat, such as that referred to in Querist Department in our issue of the 3d inst.

ANS.—From Whitman & Burrell, Little Falls, N. Y., or The Dairy Supply Co. of this city.

COMMUNICATIONS RECEIVED FOR THE WEEK ENDING SATURDAY, MAY 10.

W. J. F.—J. S.—T. E. W.—A. L. J.—M. G. R.—Thanks.—M. L. D.—J. M. S.—I. P. R.—E. D. S.—G. G., Jr.—W. J. B.—Frizzle Top.—W. I. C.—C. D.—C. F.—J. B. R.—M. L. W.—L. J. A.—E. S.—M. A. B.—S. C.—Mrs. F. M.—J. J. T.—D. W. C.—N. W. B.—C. F.—F. G.—Jenny Joy.—Clover Blossom.—Bob Steele.—T. H. R.—W. S. N.—F. C. K.—C. M.—C. H. R.—M. B.—Thanks.—R. N.—L. J. T.—Mrs. B. C. D.—L. H. R.—C. R. B.—T. H. O.—X.—L. R. M.—W. H. T.—A. J. B.

Everywhere.

RURAL SPECIAL REPORTS.

KANSAS, La Cygne, Linn Co., May 4.—A mistake is frequently made by those coming West, in supposing that the more uncivilized a location is, and the more remote from places of habitation, the better it is for a newcomer. Such is not the case. It is not necessary for immigrants to "rough it," to secure success. The point that I wish to make is this: that to secure good land, cheap land, well timbered and abundantly watered land, it is not necessary to push West in this State. As an instance of the folly of going to the extreme of Horace Greeley's advice, let me give the following: a party of some hundred came out to Kansas last spring, were dropped off the cars at their destination in the West and found themselves miles away from supplies of any kind. Not being particularly anxious to starve, they were compelled to stop a freight train on its way to Denver and take possession of several barrels of flour. The trouble with them was, they were not content with coming West, but had to go "Wester." It is a fact, that a great majority of those who go so far West, return to a more easterly point.

The county of Linn, where I live, is in the southeastern part of the State. It is considered one of the most productive counties in Kansas, and is one of the oldest settled. In the times of the Kansas troubles, it attained considerable historical interest, it being a border county and consequently easy of access for the Missouri raiders, who overran it perhaps more than any other county in the State. The county is remarkably well watered by the Marais Des Cygnes River and its tributary creeks which form many belts of rich, valuable and varied timber. In nearly all parts water is reached with very little labor, and it has to be an unusually dry season for the wells to fail. All the staple crops can be, and are raised, and the average will compare favorably with that of any part of this immensely productive country. One peculiarity about this section is worthy of note: there are varieties of soil here precisely adapted to the successful growth of every kind of fruit, large and small, early and late. I have seen the finest small fruits here that I ever gazed upon, and Linn county can to-day boast of some of the handsomest apple and peach orchards. A significant fact under this head is that the earliest Peach there is, and a great beauty at that, originated in this county. It is called "Brice's Early June," ripened June 5th last year, and was originated by Dr. Brice of Mound City, the county-seat of Linn.

In addition to the county-seat, there are two thriving business and live towns; La Cygne and Pleasanton, where are stores which would do credit in their variety and abundance of stock, as well as in their mode of conducting business, to any city, East or West. At the point I write from, La Cygne, we are about sixty miles distant from Kansas City, the great center for Western trade and produce, and you will thus see that in this respect, we have an immense advantage over those who have pushed so far West. D. W. C.

MISSOURI, Kingston Furnace, May 6.—Hogs have been so low the past winter that corn can no longer be raised even in the West at a figure at which it can be profitably fed to them. The Granger consequently is in trouble. He wishes to raise hogs, for they are easily raised, and their number and weight are quickly increased or decreased, and then they are usually turned into cash at just that period of the year when the proceeds will enable the producer to pay his taxes and buy the Christmas presents for his family. The necessity now is to find some food for hogs cheaper than corn. For one, I think I have found that food in alfalfa. Instead of cutting it two or three times during the year for soiling, as the RURAL stated it could be done, I cut it four times last year *for hay*, and could easily have cut a fifth hay crop; for I pastured it for 60 days after the fourth cutting. For soiling purposes I could have cut it to advantage every two weeks from April 15 to Dec. 1. I expect to cut each morning what I shall feed the next day or next day but one, according as it sours. Run it through a cutting box as soon as mown; sprinkle it with meal or bran; heap it up to sour and feed it three times a day. It has been the regular practice to do this in Germany for many years in a climate as cold as Wisconsin. If we cannot observe and learn something from our neighbors, we ought to emigrate to China, where the practices of forefathers are sacred to their descendants for untold generations; but in these days of change the example of the rapid improvement of the Japanese just across the channel, might in time force a change for the better even there. N. W. B.

OHIO, Millersville, Sandusky Co., May 3.—Although the weather is a little too dry for oats, yet as a rule the crop is up nicely. Prices of all kinds of grain are low. Clover seed, per bush., $3 50; wheat, per bush., $1; corn, shelled, 32c.; corn, in the ear, 30c.; oats, 20c. Butter makers will not get very rich at the prices, from 6c. to 12c. per pound. Eggs, per doz., 9c.; wool, per pound, 25c. to 30c.; hogs, dressed, $3. Grass is up so as to furnish a living for the stock. The farmers are busy plowing for corn, and if it does not rain there will be considerable corn planted by the 10th of this month, which is early enough for this part of the country. Wheat looks splendid and it will well repay the farmers for their extra care last fall in cultivating the ground better and giving outlets to their ditches. Clawson is taking the lead here now. Pringle's spring wheat is up three or four inches and looks well. Potatoes are up also, but have to be covered up every night to keep them from freezing. I planted my tomato seeds a month ago in boxes, and now by the time that we could have sowed the seeds out of doors, I shall have strong, healthy plants instead. Father and I have been trying a few experiments this spring with potatoes. The variety is the Extra Early Vermont. To two rows we applied a handful of bran to the hill, as a writer in an agricultural paper had said that by this means he had increased his potato crop by one half. To the next two rows we applied leached ashes. Then we planted two more rows, putting half a pint of hen manure in each hill. Later on I will give the result of our experiment, if the RURAL wishes. C. F.

[We are always pleased to obtain any information likely to benefit or interest our friends. —EDS.]

NEW YORK, Elmira, May 4.—Our spring maintains its backward position, though the weather has been more favorable the past week. The period of "full bloom" will be at

least two weeks later than last year. Farmers of late have been pushing forward their work of seeding as rapidly as possible. Some have finished sowing their spring grains and have commenced preparing their corn ground. Barley was a profitable crop here last year, and for that reason a large increase of acreage is being sown this spring. If the season proves favorable, the price will be likely to fall to a low figure when the new crop begins to come in. Business in general is improving. We hear less complaining of low prices and "hard times" than formerly. Good hay sells readily at $10 per ton; oats at 30c. per bush.; corn, 40c. for 60 lbs.; potatoes, wholesale, 80c. per bush. G. A. G.

NEW YORK, Ithaca, Tompkins Co., May 7th, 1879.—Cold and dry on the surface, grass and grain would be much benefited by a warm rain. Oats and barley mostly in the ground which is inclined to be cloddy and requires frequent rolling. Some are plowing for corn but none have planted. Winter wheat is not looking well except a few highly fertilized pieces; it is thin on the ground, and makes but a slow start. No Hessian Fly at work so far as I can learn. Stock has wintered well and will go to pasture in a few days in a profitable condition. Everybody on the drive trying to make up for the long winter and late spring. R.

NEBRASKA, York, York Co., May 1.—Farmers hereabouts have finished seeding, and are now planting their corn. We have had a few gentle showers lately which have given the numerous grain fields a lively green appearance, and the prairies are dotted with herds of cattle. There will be about one-third more acreage in small grains the present season than there has been heretofore. Wheat is worth 64c; corn, 20c; oats, 16c; hogs, $2 00 per 100 lbs. York is a fine growing city, and I think it cannot be beat for a place of its size in the amount of business done there. The railroad is to be extended from here to Hastings, the present summer. I have just seen a man that spent last summer here; since then he has been to Kansas, Missouri, and Iowa and is now back here and says he finds nothing to equal York Co. We are having very pleasant weather here now. BEE.

ILLINOIS, Salem, Marion Co., May 9.—My present farm of 150 acres I bought at $45 an acre. The land hereabouts is rolling and has good drainage. In this respect it has an advantage over most of the lands in Southern Illinois, for, as a rule, these are flat, and consequently, the facilities for draining them are poor. Farmers here are very negligent about taking care of their manure. Some never haul it out, while others thrash their grain out in the field, then set the straw on fire and let what isn't burnt rot where it lies, thus securing a fine crop of weeds. Occasionally a man moves his stable in order to get it away from the huge piles of manure that have accumulated about it. G. H. W.

NEW JERSEY, Burlington, May 8.—Spring was so late that a number of my neighbors are somewhat behindhand with some of their work, but as a general thing, they are well up with it. Fall wheat is poor, except that sown very early and on extra good land. Rye is splendid. We have about an acre that stands from 15 to 20 inches high. Oats are up and looking fine. There will be a heavy crop of hay this year; grass is looking very good. The prices of farm products are as follows: wheat, $1 15 to $1 20; rye, 50c.; oats, 30c.; corn, 45c.; chickens, 18c. to 20c.; capons, 25c. to 30c.; eggs, 15c. to 20c.; butter, 15c. to 30c.; potatoes, $1. Pear trees are in full bloom and the Maples have leaves as large as cats' ears. I. W.

MISSISSIPPI, Okolona, May 6.—Crops here are very backward on account of the continued wet weather. It is also unusually cold for the time of the year. Corn and cotton crops are almost all planted, and the most forward are now ready for the first working, and if the season be henceforth favorable, the loss from late planting will to a great extent be made up by good cultivation. Oats are looking well, and if the weather turns out seasonable, the yield promises to be large. Wheat is looking very poor—too much rain. A. M.

NEW YORK, Sherman, May 5.—The weather for the past few days has been cold and dreary. Farmers are very busy at present with their spring's work. Wheat and oats and other small grains are being put in at a rapid rate. A cool breeze is to-day blowing. Snow still remains in some places, but is fast vanishing. Grass has taken a small start, and young cattle can now get a living in the pastures. Cows bring $25 to $30; corn, 50 cts. a bushel; potatoes, 80 cts. a bush.; peas, $2 per bush.; eggs, 9c. per doz. M. L. D.

NEW YORK, Youngstown, Niagara Co., May 10.—Lying along the Niagara River and Lake Erie are thousands of acres of good land on which nothing grows but grass and weeds, neither of which are valuable enough to pay the taxes on the land that produces them; yet there are hundreds of idle men in all our towns and villages, who could at least make a livelihood for themselves and add to the wealth of the country by cultivating them. J. M. S.

IOWA, Lyons, Clinton Co., May 6.—We have had very few warm days thus far this spring. These few, however, have been sufficient to make the grass fresh and bright. Deciduous trees are showing considerable foliage. Tulips and Hyacinths have been in bloom nearly two weeks. Farmers in this vicinity have finished sowing wheat, and are now preparing the ground for corn planting, which will begin about the middle of the present month, should the weather prove favorable. M. G. R.

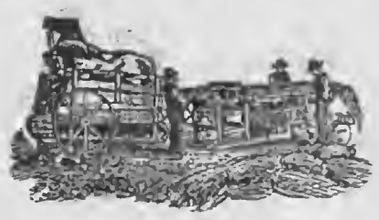
NEW YORK, Dundee, Yates Co., May 8.—Farmers hereabouts are getting down to hard work again. Grain has been sown on fall-plowed land and sowing is now going on at a lively rate. On eastern exposures fall wheat is looking well; but that on northern and western is not so promising. Grass is starting slowly. The prospect for fruit is good, buds being in fine order. W. H O.

CANADA, Chateauguay Basin, Province of Quebec, May 4.—We have yet two feet of snow at our back-door where at this season it is generally dry and sunny. I walked across it this morning and it bore my weight well. We have hitherto done nothing, therefore, in gardening. A. L. J.

VIRGINIA, Van Buren Furnace, Shenandoah Valley, May 6.—We are having very dry weather; grain and grass are suffering for want of rain. Corn planting is nearly finished. I think there will be more than an average acreage. F. K.

Implements and Machinery.

Horse-Powers,



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This machine embraces all the advantages of a light and durable Lawn Mower. Points of superiority claimed: Lightness combined with strength in construction; easiness of adjustment; least liability to obstruction from clogging; lightness or easiness of running; its attractive appearance. Every machine warranted.

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ORIGINAL AND ONLY GENUINE

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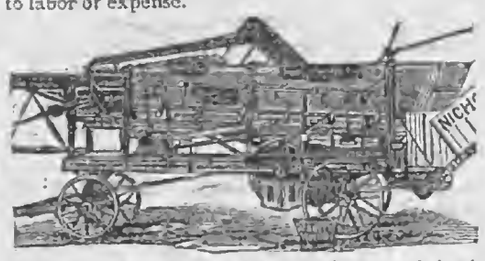
THRESHING MACHINERY.

WE are sometimes asked why the prices of our goods are apparently higher than some others of inferior make, and we avail ourselves of this opportunity to place the matter in its true light.

OUR "VIBRATOR" Threshers and Portable Engines embody the best results of our experience and study during our long business career. Whatever would add to their durability, efficiency, and solid excellence, in any particular, has been eagerly seized upon and utilized without regard to labor or expense.



IN this connection it will be pertinent and timely to warn the public against **Cheap** Threshers and **Cheap** Portable Engines. The superiority of our machinery, in all particulars, is now so generally acknowledged that our competitors have no resource but to present the attraction of low prices and long credit. Their goods being inferior, they have to sell them for what they can get. Times are hard; and purchasers, without fully considering the subject, will sometimes allow a lower price to decide them. Manufacturers of "cheap" machines are so set on carrying out competion to its utmost—competition of **Cheapness**, not of Excellence—that they meet "bargain hunters" half way, and furnish them cheerfully with inferior machines at the cheap rate they are asked for.

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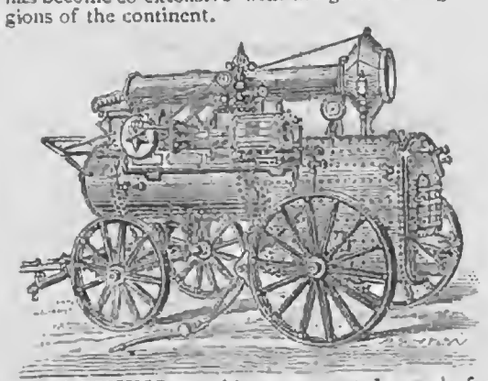
OUR mission and business is, to build Threshing Machinery **of the Highest Excellence**, whatever the cost, and, holding firmly to this single purpose, we have added improvement after improvement, until the reputation of our Machines has become co-extensive with the grain-raising regions of the continent.



THRESHING machinery cannot be made for nothing, even with the aid of machinery. Our prices are as low as they ought to be, and, without doubt, as low as they ever will be. Do not be deceived with mere cheapness—**quality always descends faster than price.** Low price, especially in Threshers and Portable Engines, means **Low Quality, with Low Performance and High Repairs.**

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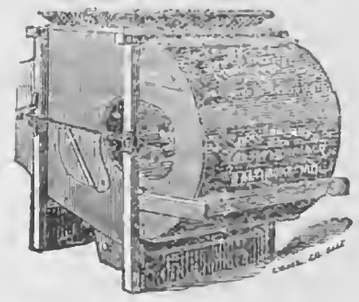

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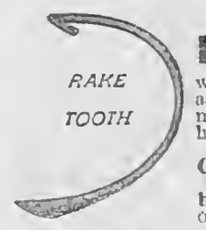

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which does not scratch the ground and dust the hay. **Best Rake made.** Buy no other rake and have clean hay.

New **Victor Lever Feed Cutter.** *Largest and Best made.* The best **Champion Vegetable Cutter** made. Cut a bushel of potatoes in 23 seconds.

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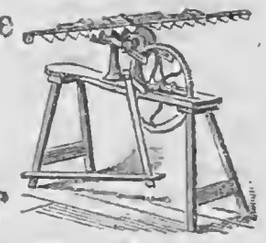

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A responsible party wanted *immediately* to manage the sale in every town. Send for Circular and terms.

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The Anti-Friction Hay Carrier,

elevates perpendicularly, and conveys horizontally any desired distance. **Many Thousands in Use.** The cheapest, strongest, most convenient, and durable Carrier made.

THE NOYES GRAPPLE FORK handles fine, coarse, or loose hay; is cheaper than a harpoon, easy to handle, strong, durable, and guaranteed the best Horse Fork made.

Send for sheet containing 24 ENGRAVINGS AND DRAWINGS—designs for tracking and arranging barns, bill of lumber, and full details for making Field Stacking Frame, etc., etc.

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Taken in actual Field Trials during the Season of 1877-78.

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THE
RURAL NEW-YORKER.
PUBLISHED EVERY SATURDAY.

Address
RURAL PUBLISHING CO.,
78 Duane Street, New York City.

SATURDAY, MAY 17, 1879.

TO EVERY READER.

We respectfully and urgently call the attention of our readers to the *necessity* which exists that they should address their communications to the Editors or the Publishers of the Rural New-Yorker, if they would insure prompt responses. Letters addressed to individuals are often delayed in this office for weeks. Mr. Moore, to whom letters intended for us are still occasionally addressed, has had no connection with this journal for several years.

CAPITAL, CASH AND CREDIT.

No business can be carried on without capital. A laborer works with his hands; when he procures a tool or an implement he at once makes use of capital which is literally the accumulated labor of himself or others, or rather the product or result of it. In business one has fixed and floating capital. The fixed capital is that which remains year after year permanently invested; it may be in the shape of a house, a farm, a ship, or a railroad. Floating capital is that which is always changing its form; it may now be a pair of horses, a mowing machine, cows, sheep, seed, fertilizers, money spent for wages, or merchantable goods of any kind. This kind of capital is more productive than the other, because it can be turned over oftener, sometimes several times in a year, and if well used may bring a profit every time it is returned.

The floating capital of the farmer exists chiefly in the shape of stock and implements. When in the form of implements, it may be made the most productive. For instance, a seed drill costing $80 or $90, will sow 100 acres of wheat in ten days, and will save not only 50 bushels of seed in doing this work, but will do the work better than if done by hand, and save at least one dollar per acre in labor. So that the investment of $100 in a seed drill can be made to return 150 per cent. profit in one year. A mower will cut five to ten acres of hay in one day, at a cost of only one-fourth of the labor of a man with a scythe; costing $75 or $80, the expenditure will be repaid in the cutting of 40 acres, which can easily be done in one week. A fodder-cutter costing $25, will cut the feed for ten or twenty cows, and will save one-fourth of it. It may easily save five tons of hay, straw, or fodder in one year, and will thus pay 100 to 150 per cent. It is the same with the whole category of farm machinery; and a farmer cannot use his capital in any manner that is so profitable as this, and knowing this, he is frequently tempted to purchase implements and machinery on credit, hoping to pay the bills out of his savings. But unfortunately there is nothing so dear or demoralizing as debt, the more especially with regard to floating debt. Debt is in any respect something to be avoided. If a farmer has a hundred bushels of wheat in the granary, or a cow or two that he can spare, he had better turn these into cash and buy what he wants than to buy on credit. "Easy come, easy go," is a true old adage, and a thing bought on credit begins a habit of buying on credit, until the purchaser is tied up and struggles like Laocoon in the folds of the gigantic python. The old fable is even more apt: for the victim of the deadly serpent was enfolded along with his sons; and the family of the involved debtor shares his fate with him.

The use of labor-saving machinery is imperative. We cannot make our farms pay without them. But, as has been shown heretofore, in buying these, or anything else, on credit, we buy them very dearly. The extra price paid in this way, as we have hinted, is by no means the greater burden on the farmer. He pays again and again for the mistake of going into debt. He lays a burden upon his mind which paralyzes his energy. The free man holds up his head and encounters his daily labor with elastic energy. His step is firm; his heart is light, and he is full of vigor and hope. But the slave never feels as a free man; he drudges, not works; hope and he are strangers to each other, and he is careless of results. The involved debtor is a slave and is bound as with a chain. He looks ahead, not in hope, but in dread. He fears disaster before it comes upon him. A threatening outlook for his crops is a miserable nightmare to him, which "murders sleep" and haunts his waking hours. The free man may whistle down his care, and if short crops threaten he is thankful that he has enough and to spare, and looks hopefully for another year. The wife and children, sharing the husband's fortune in the one case, suffer every day; but in the other case may sing and laugh while the skies lower and the rains fall in the midst of harvest.

This is one way in which the farmer in debt pays an extra price, and it is without doubt a bad way. In another way he pays. He gives a note due in a year, trusting to favorable crops for the means of paying it. If there is any way by which a period of time passes more quickly than another it is to have a note coming due. Before one thinks, the day is at hand. If not prepared for, it is renewed; perhaps it is in the hands of a grasping broker who exacts usurious interest as "a shave." By-and-by the original amount is doubled. This happens too frequently. Perhaps in time it is paid through much pinching and saving, but at what a sacrifice of money and happiness! This is another way in which the farmer in debt pays an extra price for his purchase. We need not lengthen out the homily. Many of of our readers know too well how it is themselves. The cost of it all is as the physical reaction after an active stimulant and leaves the victim poor and depressed in far greater proportion than he had been elevated by the enjoyment of possession and use.

"But must one never go in debt?" We do not say that. But we say deliberately *do not buy anything on credit.* Borrow the money if absolutely necessary, on a sufficiently long time, and buy on the best terms. You can save the interest on the money in purchasing for the cash. The seller will meet you with eagerness, if you show him the cash, and will hesitate long to let you go without buying. The positions are reversed. The man with the cash *confers* the favor; the man without it, *asks* it. Buy, borrow and use with judgment; not recklessly. Then your indebtedness may become a stimulus to economy and energy, and the man who incurs a debt after due deliberation and foresight, may be as a boat ballasted and made to ride safely in rough waters. John Johnston, the model farmer of New York State, when a young man, borrowed money to buy land, and borrowed more to drain it; but having the shrewdness and skill to succeed, he laid in this way the foundation of as grand a success as the history of agriculture affords. But he bought his tiles and materials for cash, and had no floating debts to worry him day by day.

Spending money is as the sunshine of a man's life to most people; pay day is the rainy day against which he must lay up and provide. To have rainy days ever occurring, as with small and growing debts falling due this month, and the next, and the following, will cast a damper upon any man. Believing, as we honestly do, that it will pay, indeed that it must pay, to use every mechanical facility for economical work upon the farms, we do not hesitate to advise our readers to borrow money to purchase needed implements and machines, so that they may pay cash for them, and buy on the lowest and best terms, provided they have sufficient time wherein to meet their liability, and have a fair prospect of succeeding in their venture.

WHY IS HEN MANURE SO GOOD?

The answer to this question is full of instruction in divers ways. The food of fowls while at large (and also when confined, if they are to continue healthy), consists of seeds and animal substances. They catch vast numbers of insects and insect larvæ. Indeed, for this purpose one chicken is worth a hundred robins or sparrows, and they seem particularly to like the very insects that are most harmful to crops—putting them into *their* crops upon the homeopathic principle, perhaps. This rich, concentrated diet makes rich, concentrated manure—which is the first lesson worth any farmer's while to ponder upon. Rich food judiciously given, not only keeps our stock in good order and in a thrifty state, but it makes rich manure. This is an object to be kept in mind in choosing between different feeding materials. Our farmers do not use enough of such feeding stuffs as are very rich in plant as well as animal food. Wheat bran and oil-cake are made extensively, and fed out but little, in America. The English buy the latter, freight it 3000 miles, and feed it to profit for the production of staples that must be sold in a free market in competition with our own. They get the most of their profit in the manure. How many of our farmers give this point due consideration?

Then again, fowls are so organized that the evacuation from their kidneys, in a semi-solid state, mixes with the dung before it is dropped, and is thus wholly saved for fertilization. Chemistry assures us that more than half (and the best half), of the plant-food in the excrement of all domestic animals is to be found in the urine. Now, if our cows and horses were like our hens, in this respect of passing off their renal secretions as a semi-solid in connection with their dung, our stable manure would be found vastly superior to what it proves to be as we usually see it. Most of our farmers make hardly any effort to save the liquid manure, and of those who do the success is not always what it should be, by lack of proper knowledge, or proper conveniences.

Col. John B. Mead, the State Superintendent of Agriculture in Vermont, recently stated at a public meeting that in five years after he had made suitable provision for saving the urine of his stables and applying it to the land, the crops of his farm were doubled. A doubled crop means a doubled power of carrying stock, and with a doubled herd comes again a double quantity of fertilizing material. What a vista of progress is here opened to the ambitious farmer!

These two lessons, then—the value of high feeding for the production of rich manure, and the necessity of saving the liquid as sedulously as we save the solid manure—are pressed home to us by what we know of the value of hen manure and of the "why" of it. There can be no mistake about it. Every thoughtful farmer must see the profit there is in these lessons, if he will only reduce them to practice. They shine like beacon lights on the path of agricultural progress.

ARTIFICIAL FOODS.

Millions of dollars' worth of so-called artificial foods, cotton seed-oil meal, linseed oil-meal, pea-nut meal and other refuse materials are sent to Europe from this country every year. This is as though we furnished our enemy with a sword wherewith to slay us. We supply our competitors with the most effective means for meeting us in competition. We give our adversaries material help in doing this. Of these foods they make meat, butter, cheese, grain, grass and manures to make more of these; all of which, directly or indirectly, we are making and selling in the closest competition with them. In a ton of cotton-seed meal, there are 500 pounds of beef, as much cheese and as great a value of manure as the meal costs to purchase. Linseed-oil meal is equally as valuable. By using these ourselves, we should secure the benefit of all this production, while we should prevent its use by our competitors in business. Some may say we cannot afford to use these. This excuse is obviously groundless, when we see that they are purchased by English farmers who pay rentals for their land of $10 to $50 per acre yearly, and pay the cost of freight from our shores across the Atlantic upon these feeding stuffs, with the expenses and profits of at least two intermediate dealers, and yet use them with sufficient advantage to make them an object that is earnestly sought after. The fact is, by neglecting these home-made products, we are throwing away an immense advantage which cannot amount, in a money value, to less than a hundred million of dollars annually.

EARLY vs. LATE-FLOWERING MAGNOLIAS.

Most people will acknowledge, if they will be frank in the matter, that they object to Chinese Magnolias, so-called, on account of their peculiarity of blooming before the development of leaves. We miss the foliage which attains such beauty later, and while we would not sacrifice the wonderful beauty of the flowers in early spring, we cannot help wishing that fine foliage might go with such fine flowers. It is probably for this reason that the late-flowering Magnolias are so popular notwithstanding the comparative inferiority of their bloom. That of M. cordata is yellow, of medium size, attractive, but not extraordinary in any way. The same may be said of M. glauca, except, perhaps, that it is sweet-scented, while the flower of M. macrophylla is noteworthy only for its immensity. What we want is an attractive sweet-scented, good-sized Magnolia flower that develops at the same time as the leaves. M. hypoleuca is such a species, as well as one other variety not yet named. Yet so few of even the first of these Magnolias have been offered to the trade that it is not strange they are overlooked. It behooves us, however, to seek such plants in order to give our lawns the most rich and varied attractiveness, and we are happy to note the increasing taste for extended collections of hardy trees and shrubs.

Square Bolts.—Why will implement-makers evoke maledictions and cause farmers to be profane! Surely these latter have enough of trouble of all kinds that cannot be avoided, to be pestered with the abominable nuisance of round-shanked, and what is even worse, round-headed bolts, in their machines. As a matter of course, the nuts rust fast and when a bolt is to be removed, it turns in the hole. Then two wrenches held by two persons must be used and the ill-used farmer finds most frequently that the bolt has a round head that cannot be held. Then it is sometimes well for the maker of that bolt that he is too far away to hear the fluent remarks which fall from the irate man. Why cannot the manufacturers use square bolts in square holes in all tools, implements and machines?

BREVITIES.

Buy for cash.

Harris goes back on the pig!

Duncan is the first of our Strawberries to bear blossoms.

A writer in the London Garden finds that the cracking of pears is prevented by grafting more than one variety on the same stock. He is very positive about it.

Commissioner Le Duc is more hopeful of corn and sorghum than of beet roots as the plants which are to aid the success of our sugar producing industry.

The farmers of our neighborhood take much trouble to collect the leaves of the Skunk Cabbage (Symplocarpus fœtidus), to feed their pigs at this season of the year.

Tree Peddlers.—Trees of all sorts are now being sold from street stands about the city. Some of these trees are kept on hand for three weeks with their roots more or less exposed.

Last fall the best authorities advised the late sowing of wheat to avoid the ravages of the Fly; this spring farmers complain in in "Everywhere," that late-sown wheat is much inferior to early-sown.

Mr. Thomas Hogg in the Gardener's Monthly explains to Professor Sargent the difference between "introduced" and "first introduced" and calls attention to the fact that Cercidophyllum is spelt Cercidiphyllum is Miquel's Floræ Japonicæ.

Let every one of our young friends who loves plants join our Youth's Horticultural Club and send in his name to Uncle Mark. Let parents carefully read the leading editorial of the Rural New-Yorker of the 3d inst. We are raising hundreds of plants to distribute among all good members another season—perhaps in the fall.

There is a time in the life of every child when he or she must have a garden to take care of—to own. It is one of the noblest intuitions of childhood. The parent who is unwilling to aid its development, neglects a duty. Better encourage gardening in a willing pupil than constrain a child to practice from two to four hours a day upon the piano.

Mr. Beecher says, in the Gardener's Monthly, that he has fallen in love with Tom Thumb Arbor-vitæ for borders. He says: "It is hardy, dwarf, bears clipping well, is beautiful in winter, and, if not in too rich soil, keeps its fine foliage without apostatizing to the original species." It *does* bear clipping well, but is far from hardy, being always injured and often killed in this latitude, which is forty miles south of Mr. Beecher's country residence. It must be confined to a foot in hight, or the feathery foliage above that becomes as coarse as that of its parent. Our opinion from six years' experience is that it is a worthless, nondescript plant.

Apparently Winter-killed Trees.—Do not uproot too soon seemingly winter-killed trees. Many a Rhododendron has been thrown away, because its leaves were brown, that with a little patience would have put forth new and vigorous foliage. Ordinary evergreens recover more slowly, sometimes only in years, if they recover at all. In any case, it is always wise, if you value the tree, to wait until at least the middle of June, so that you may note its behavior during the growing season. As a rule, however, an evergreen that has lost all its leaves seldom, if ever, recovers, Rhododendrons and one or two other plants excepted. Removal of dead wood, of course, assists the plant to recover.

Miner's Grapes. As reference to our Query column will show, we are in receipt of many inquiries respecting the seedling Grapes of the late Mr. T. B. Miner which were figured in the Rural September 30, 1876 and have since occasionally been referred to. Mr. Miner a year before his death sent us his most valued varieties to be tested. As soon as they fruit, we shall be able to tell our inquiring friends all about them. The engravings above referred to were made from specimen bunches grown upon his grounds. The stock of these Grapes, selected as we have before stated from 1500 Concord seedlings, is now controlled by Mrs. T. B. Miner of Linden New Jersey who would, no doubt, answer all pertinent questions regarding them.

Literary Miscellany.

SOWING THE TARES.

A PRISONER in the penetentiary, who heard Mr. Moody's remarks last Sunday, retired after the discourse to a cell and soon emerged with verses hastily written in the meantime, which had been suggested by the discourse, and handed them to Mr. Moody, who, in the afternoon, had them read at the Maryland Institute, as follows:

Sowing tares, when it might been wheat,
Plucking the bud of life's wreath all complete,
The night sinks down, amid darkness and fears,
While we are so cruelly sowing the tares.

Sowing the tares of malice and spite,
Words of black import—Plutonian night;
We might have sown roses amid life's sad cares,
But we turned from their beauty to sowing the tares.

Sowing the tares—how dark the black sin,
Mingling a curse with life's sweetest hymn;
Heeding no anguish, no piteous prayers
While we were so cruelly sowing the tares.

Sowing the tares to bring sorrow down
That robs of its jewels life's fairest crown;
Turning to silver the once golden hairs
That grew whiter and whiter as we sowed the tares.

Sowing the tares under cover of night,
When we might have sowed joys cheery and bright.
Oh! heart, turn to God, with repentance and prayers,
And plead for forgiveness for sowing the tares."

[Baltimore Sun.

AN UGLY GIRL.

(Continued from page 286.)

CHAPTER XII.

THE RESULT OF IRENE'S LETTER.

"THAT'S just like you!" observed Mrs. Estcourt, fretfully. "You always do side with that girl, no matter how rebellious and troublesome she may be. It's very hard upon me."

"Why did you leave her letter unanswered?" asked her step-son, sternly.

"I do not choose to be questioned in this style, Noel!" was the dignified reply. "It's very impertinent of you, and submit to it I will not. But if you must know, Irene wrote for money, and I had none to send her."

"My purse is—is somewhere—in one of my pockets, I suppose. Pray search for it, and let her have whatever it contains."

"I have already had that trifle, and spent it," Mrs. Estcourt was obliged to confess. "You must have known that I couldn't stay in such a house as this without getting myself another dress or two."

"And the children wanting food!" Noel reminded her.

Mrs. Estcourt burst into tears, but laid all the blame on her daughter's bad management, and summed up by declaring Irene was behaving shamefully.

"In refusing to be neglected in this cruel manner?" demanded Noel, so passionately, that the sound of his voice penetrated to the adjoining room, and brought in Hillian Gray and the nurse to put an end to a conference that was disturbing him to such a dangerous degree.

"Don't find fault with me!" cried Mrs. Estcourt, in reply to their reproachful looks. "I could not prevent his exciting himself. He knew the state into which I should be thrown by his violence; but he is like the rest. Anyone can see that my children have no consideration for me."

"One moment!" gasped Noel, laying his hand on the nurse's arm, as she would have taken his step-mother away. "Miss Gray, will you do me a great favor? Will you see that a carriage is procured to take Mrs. Estcourt to the station in time for the next train to London? She must return there immediately."

"And leave you, Noel? How can can I? What would people think of me?" she asked, helplessly.

"Don't study appearances, nor worry me with arguments; think of your little ones, and go. Good heavens! woman, how can you be so utterly forgetful of their claims upon you?"

He had never accosted her in such a strain before, and Mrs Estcourt began to cry and declare that he was very unfeeling to speak to her so rudely.

As to the children, she was sure—as she had told him again and again, only he would not listen to her—that Irene must have managed very badly, and—

But nurse Brown had by this time led her to the door, and the rest of her self-bewailings were spoken outside it.

Hillian was, however, terrified at the state in which she found Lord Carlsforde, and acted with a promptitude and good sense that did much towards reclaiming him.

"Pray lie still; the wish you have just expressed shall be obeyed. I will neither forget nor let anyone else do so, that by Miss Carlsforde's commands you are to be considered master here as long as she is absent. Mrs. Estcourt *shall* be ready for the train, and shall go to town by it, or my name is not Hillian Gray! Will that content you?"

He nodded, and she glided away; her aunt who had been hovering near the door, trying to glean what was amiss from their faces, instantly taking her place; but Noel could not obey Hillian's injunction and compose himself till Mrs. Hurst, from her post by the window, announced that his step-mother was just departing, and that Hillian herself was driving with her to the station. Then a regret that he had been betrayed into speaking more sharply than dutifully mingled with his fears that she might reach home too late to prevent the flight of Irene, the self-willed mad-brained girl, whose eccentricities had always been a source of anxiety to him.

He began to chafe at his own inactivity. There were so many duties unfulfilled which only he could perform: there was Miss Carlsforde to be tracked, for Mr. Whitely was not half active enough in the matter to satisfy his impatient client; his own affairs to be settled and put in train for his departure from England; Irene and the little ones to be placed in better hands than those of their improvident, selfish mother; yet here he lay, unable to do anything but chafe at his own weakness, and with the prospect of being just as helpless for some time to come.

He was still brooding over his troubles when Hillian Gray came back, bringing with her a lovely bunch of wild flowers, and such radiant looks, that Noel was insensibly soothed before she began to speak. What arguments she had used to prevail with his step-mother he could not guess; but that they had been conclusive was evident.

"Mrs. Estcourt had quite recovered her spirits when she started," Hillian assured him; "and she had almost forgiven you for sending her away so cavalierly. In fact she said, as she bade me adieu, that it had been a great relief to her when you consented to let her go, as between her longing to be with her children, and her fears that you would think her unkind if she proposed leaving you, she had been in a terrible dilemma."

"If she is but in time," said Noel, uneasily. "Irene is headstrong enough to carry out a rash resolve upon smaller provocation than the present one."

"Why anticipate trouble? Mrs. Estcourt has promised to telegraph as soon as she arrives at her own home. Are you fond of your half-sister, Lord Carlsforde?"

"Fond enough to feel very unhappy about her now I know she is on the verge of committing a rash act, which I cannot exert myself to prevent."

"Then you will forgive me for dispatching a telegram to Miss Estcourt, assuring her that her mother was hastening to her. My aunt, whose deafness does not prevent her from exercising her wits for the benefit of others, suggested it, and I acted upon the suggestion."

"It was very kind, very thoughtful," cried Noel; but, without waiting to hear his thanks, she went on:

"And you will be pleased to hear that as Mrs. Estcourt cannot herself remain with you, she proposes to send this young lady to Carlsforde."

"Send Irene here! She will worry you to death!" was Noel's impulsive exclamation; but Hillian's gay, little laugh was so reassuring, that he reconciled himself to the threatened infliction.

After all, Irene was always more endurable than her mother, and she would be safer here than with Mrs. Estcourt, who, when free from the controlling influence of his presence, was apt to keep up a perpetual "nagging" that made her high-spirited daughter utterly unmanageable. This thought proved so consoling, that Noel was able at last to look forward to the coming of his half-sister with something like pleasure.

Irene Estcourt's arrival took place, however, in rather peculiar style. Hillian Gray had been taking the exercise on which her aunt insisted, at the close of a pleasant but chilly afternoon, when she was startled by a female figure suddenly emerging from the thick belt of evergreens surrounding the lawn, and abruptly accosting her:

"Do you belong to the house?"

"I certainly am living there," said Hillian, doubtfully regarding the speaker, whose attire was concealed by a very shabby waterproof-cloak, the hood of it being drawn over her head. The face beneath the hood was the fair and rosy one of a girl younger than herself, and would have been pretty, but it was smudged with the tears that had been wiped away with a hand which bore the marks of having wielded at no distant period a blacklead-brush, while a black from the engine of a railway-train had lodged on the extreme tip of a very piquant little nose.

"Oh! you live at Carlsforde, do you?" queried the new-comer, after indulging in such a long and comprehensive glance that at last Hillian shrank from the prolonged gaze of the black eyes that contrasted so oddly with the fair hair and pink-and-white complexion. "Then take me there, will you? I'm Noel's—Lord Carlsforde's sister. Slip me in through a side door, if there is one."

"Is it Miss Estcourt to whom I have the—the pleasure of speaking?" asked Hillian, when she had overcome her astonishment.

She was answered with a nod and a sigh of weariness.

"Yes, it's me, and here's my bag; my arm aches with carrying it. You're not one of the housemaids, eh? You'll not be offended with me for asking."

"My name is Gray," was the quiet response.

"If I wasn't just beginning to think so! Then you're the young person who takes too much upon herself?"

"Is that Mrs. Estcourt's report of me?" queried Hillian, dryly.

"Yes; but then no one takes any notice of what ma says, so why should you? Where's the side door? My feet ache so I can't walk much farther!"

"Why were we not apprised when to expect you, that the carriage might be sent to the station?"

"Do I look like carriage company?" asked Irene. A question so difficult to answer, that Hillian passed it by, and asked another:

"Have you made the journey alone?"

Irene nodded again.

"Third class; and hadn't money enough to carry me all the way, so I had to get out about four miles from Corby, and walk the rest. Look at my poor shoes! they were bad enough before I started; and now they're in holes—actually in holes!"

"I cannot understand—how Mrs. Estcourt could let you come in this manner," Hillian was about to add, but checked herself.

However, Irene comprehended her meaning, and promptly gave the required explanation.

"I'll tell you how it was. Ma wanted to keep for herself the money she brought from here. Who gave it to her? I don't know; do you?"

Hillian crimsoned, but was silent, so Irene went on.

"Well, and so she wanted me to borrow some of —of never mind whom; but I wouldn't. Never no, never; and so we had a great quarrel, and mamma called me names—but that I didn't care for—and then she said Noel was dying, and that I was an unnatural sister not to want to see him again; and that"—here the excited speaker had to struggle with her sobs—"that made me come off in the middle of my work. You see the servant left us suddenly, and I've had to do everything. I'd have walked all the way, rather than have missed seeing Noel again, for he's the best, the dearest of brothers. Is he really dying?"

"No, no: he is recovering, though very slowly. But, my dear girl, you don't mean to say that you came away without Mrs. Estcourt's knowledge?"

"Oh! no. I put my head in at the door—she always goes to bed after anyone has offended her—and said, 'Good-bye, ma; I'm going to Noel. Wish me a pleasant journey!' But she wouldn't, so off I came."

"And borrowed the money, after all?"

"Not I, indeed! Noel detests anything of the kind, and so do I. I knew Matilda Jenkins coveted my new hat. Noel chose it; and it had the loveliest long, drooping ostrich feather you ever saw! I wouldn't have parted with it only for his sake. But I offered it to her for half the cost, and came without one. I suppose I look a regular guy, don't I?"

"What would you have done if Miss Jenkins had declined the purchase?" inquired the amused Hillian.

"Sold my hair," said Irene, pushing back her hood, and shaking down a mass of pale-brown tresses. "It's more trouble to me than it's worth. Noel does fuss so about my keeping it in nice order."

"I do not wonder at that; it is such lovely hair."

"Is it?" queried Irene, holding up a tress, and surveying it critically. "Ma says it's not at all a fashionable color. Oh! how tired I am! and so awfully hungry!"

"Let me take you to my room," said Hillian, kindly. "There you can rest and have some tea."

"Not till I have seen Noel," was the emphatic response. "Ma distinctly said that he was dying, and though she may be wrong—she often is—I don't feel as if I could enjoy anything—no, not even thin bread-and-butter and potted ham—till I have satisfied myself that he is as well as you describe."

"You are quite right to be anxious to see your brother at once," Hillian observed; "but don't you think he would feel troubled if he saw you in this plight?"

A remark that made Irene glance at her dusty wrapper and her dirty hands, inquiring, doubtfully:

"Am I so very untidy? But what matters? Noel knows me of old. He would scarcely recognize his harum-scarum sister if I was as prim and neat as you are. Do take me to him at once! How came he to be hurt so badly? I know very little about it, for ma hates to be bothered with questions. Wasn't it in trying to save that troublesome Miss Carlsforde, who turned up all in a sudden to be a nuisance to us? Only to think of poor dear Noel nearly losing his life for a girl who had robbed him of all his property!"

"Hush!" said Hillian, in troubled tones. "Remember that you are in her father's house—the father who gave her his all out of the depth of the love she never succeeded in winning till the hand of death was separating them. Pity her, Miss Estcourt—pity her a little, for there is not a creature on the face of this earth more unhappy amidst her wealth than Ada Carlsforde."

Awed by the seriousness of the speaker's manner, Irene said no more, but followed her through the conservatory, by means of which they entered the house unobserved. From thence they passed across the wide hall, and up the principal staircase to the corridor, into which opened the guest's chamber, the richly-furnished suite of rooms hastily prepared for Noel's reception.

But when, with a reassuring smile, Hillian paused at the door, and turned to her companion, she had disappeared.

CHAPTER XIII.

NOEL GROWS IMPATIENT.

In a dark corner at the foot of the staircase, crouching on the floor, Hillian Gray found Lord Carlsforde's half-sister. She had been suddenly seized with an unconquerable dread of the scene she expected to witness. Noel, no longer strong, healthy, and smiling, but wrapped in surgical bandages, hollow-eyed, and ghastly, perhaps unable to recognize him when she approached him, was the picture her imagination drew; and it filled her with such horror that she was now as unwilling to behold him as a few minutes earlier she had been anxious to do so.

It was not till patient Hillian had repeated again and again her assurances that there was nothing painful in her brother's appearance, that she agreed to be taken to him; and when she did consent to rise, it was only to drop back in her former position, and quietly faint away. Here was the explanation of the fit of nervous terror at which Irene herself had marvelled. Long abstinence from food, and the fatiguing walk, had been too much for the strength of the ill-fed, rapidly growing girl; and she did not regain her senses till after she had been conveyed to Hillian's bedroom.

Irene's delight, when admitted into Noel's presence and warmly thanked for coming to him, would have risen to an exuberant height, if nurse Brown had not been there to check it. She was eager to be allowed to wait on her brother, and never happier than when permitted to be of some service to him; but her zeal outran her discretion, and, as she upset or threw down everything she came in contact with, it was considered only prudent to forbid her free access to his chamber till he was stronger.

Irene penitently admitted her awkwardness, endured nurse Brown's lectures good-humoredly, and set herself to work to find amusement for the hours that must otherwise have hung heavily on her hands. Fortunately for Hillian, to whom she had thought proper to attach herself, she was easily pleased, and, as soon as she had received permission to inspect the whole house, commenced the tour of the principal rooms, dragging Mrs. Hurst with her to assist in her explorations.

The result of these voyages of discoveries was always imparted to Noel in the evening; and though one day his little sister would come to him full of the wonders of a cabinet of shells and corals from the Pacific, and on the next was equally engrossed in the illuminations of some quaint old missal, she always provided the little party that assembled at twilight beside his couch with pleasant topics of conversation.

"It's regularly jolly here!" Irene declared. "If Noel were well, and mamma would not fidget and expect such long letters, and the fullest answers to all her tiresome questions, and I could make myself quite easy about the children, I shouldn't care if I never left Carlsforde again."

But Noel, though he smiled at her enthusiastic speech, could not think as she did. When alone he often ruminated on the curious chain of events that had occurred to detain him in a house he had been anxious to turn his back upon for ever. At the present time he was the real though unwilling occupant of Carlsforde Park; for its young mistress neither answered the advertisements inserted by his request in all the leading newspapers, nor had Mr, Whitely succeeded in obtaining any clue to her whereabouts; while Mrs. Hurst, if the subject was mooted to her, went off into such long tirades concerning Ada's obstinacy, and the trials she had undergone with her wilful pupil, that Noel, for his own comfort's sake, grew careful not to advert to it.

More provoking still, Miss Carlsforde's guardian, a certain Major Blenkinsop, then in the West Indies, to whom, at his instigation, Mr. Whitely had written and acquainted him with his ward's disappearance, addressed his reply to the young peer, and empowered him to act as his representative.

"I am endeavoring to settle the affairs on a widowed cousin," he wrote, "who has large sugar plantations in this island, and am so harassed with conflicting claims and entangled accounts, that I really cannot be of much use to you. So, taking into consideration that your lordship is on the spot, and will doubtless eventually wed your naughty runaway cousin, I don't think I can do better than beg *you* to attend to all such affairs—repairs of the house, appeals from tenants, etc.—as present themselves to your notice. I should be sorry to think that anything is neglected through my absence from England, but feel sure, my dear lord, that I may rely upon you to take care that the orphan child of my old friend does not suffer by my inability to hasten to her."

It seemed as if the fates were conspiring to force Noel into relations with the heiress, and he was not altogether sorry that the state of his health afforded him an excuse for delegating all the questions that were referred to him for decision to Mr. Whitely.

It chafed him to see that Hillian Gray did not approve of this, and delivered his messages or wrote the notes he dictated with unfeigned reluctance.

"I wish we could reconcile you to your imprisonment," said Hillian, wistfully.

"Nay; would you not despise me if I were content to endure it, while my work is waiting for me? Yet do not imagine that I am unmindful of the kindness I have received since I have been here. I shall often recall the days spent with you and your aunt. Do you intend to remain at Carlsforde, Miss Gray?"

To his surprise, Hillian was slightly disconcerted by the question.

"You forget my aunt's infirmity. While she is so very dependent on me, how can I leave her? While she persists in thinking that she ought to stay, I must try to be contented to do so too."

"I do not like to question you too closely respecting Miss Carlsforde," Noel said, after a pause; "because you are so loyal to your friends, that I believe you think you ought not to give one any information that might lead to the discovery of the lost damsel. But I should feel easier in my mind if you could give me reason to hope that she is with some friend or other."

Hillian mused.

"I never knew her to have any friends but my aunt."

"And yourself—I am sure Ada Carlsforde has not a firmer, truer one than you."

"Do you think so?" she answered, with unusual bitterness in her accents, "or do you say this because politeness seems to demand it? In either case you are wrong. My likes or dislikes—my hate or esteem are of little consequence to any one; for I am of no account to the world. Yet I cherish them as strongly as more fortunate people, and I hate—yes, I hate the name of Carlsforde! I wish I could go where I may never hear its odious sound again!"

And then averting her crimson face, she hurried away, leaving Noel to muse over this revelation of the life she must have led as the dependent of his unknown cousin. To what capricious usage must she not have been forced to submit, before the gentle, sweet-tempered Hillian was taught to detest the very name of her employer!

CHAPTER XIV.

ENGAGED.

Irene's letters from home—spider-like scrawls, full of complaints of Mrs. Estcourt's domestic trials with those dreadful children, and the servants, who were equally unmanageable—were generally read in haste, and tossed to Noel for him to dictate the reply, or write an answer himself when he felt equal to it. But one morning Mrs. Estcourt's epistle was perused with more than ordinary care, and slipped into the reader's pocket from whence it was produced when she seated herself in the twilight on the low stool beside her brother's sofa.

"Noel, there's something I haven't told you yet," she cried, abruptly. "I am engaged."

Hillian started from a reverie, and looked so surprised, that her aunt saw it, and inquired the cause.

"Indeed!" exclaimed Noel, in a serious tone. "When did this arrangement take place? and why was I kept in ignorance of it?"

"Well, it was just before you came here, and ma said you were not to be spoken to about it till you had settled your own affairs. Of course, we then thought you would be able to give me a dowry and a *trousseau*. That dreadful Miss Carisforde has spoiled all our plans, hasn't she?"

"Dont chatter of things that you do not understand," said her brother, sternly; "but tell me the particulars of this precious engagement."

"I am not going to be scolded when I am not in fault," cried Irene, pouting angrily. "Ma knows all about it; and I am her daughter. If she sanctions my marriage, you have no business to object to it. Girls as young as I am marry every day, don't they? I am very fond of you, Noel, and I submit to your lectures like—like an angel; and I can't let you spoil my chance of making a good match with your scruples. Ma says I oughtn't; and I wont!"

"I think we had better leave Mrs. Estcourt's name out of our discussion," said Noel, striving to curb his annoyance at this exposition of Mrs. Estcourt's sentiments. "Will you tell me who the gentleman is? and how long you have known him?"

The answer was rather an incoherent one.

"Matilda Jenkins' cousin; and it's a twelvemonth and more; though, as he never took any notice of me, and even assured her that I was too loud for his tastes, I considered him a regular prig, and gave her leave to tell him so. His name, did you ask? Clement Dunforth, the young lawyer. Oh; Miss Gray, he is such a handsome man! Not so tall nor broad-shouldered as Noel, but ever so much better-looking; and we're to be married, directly. Well, what now? How disagreeable you are! If I had heard that you were going to be married, I should have said something civil, not glared and grumbled as you are doing."

"The cases will bear no comparison. You are a child, and a very absurd one. Mrs. Estcourt must have been——"

He stopped; but Irene coolly finished the sentence for him.

"*Mad*, when she gave her consent! Fiddle-dedee! She cannot manage me herself, and she would be only too glad to make me over to some one who can. Besides, Clement Dunforth isn't the sort of fellow to whom anyone would like to say 'No.' I tried to, for I was rather frightened at first; but he wouldn't hear of it, and when I got used to the idea of becoming a married lady, I liked it. You'll come and stay with me, Miss Gray, when I am settled in a house of my own. I'll have such glorious cookeries, and make cakes and toffy as often as I'm in the humor."

"But my dear Irene, do let us talk seriously!" remonstrated Noel.

"No, thank you; why should we? It's all settled, except the day; and I don't want to be made miserable or preached to respecting my responsibilities. Clem must take all those upon himself. My idea of marriage is to have a prettily-furnished house, all one's own—no little brothers and sisters continually wanting bread-and-butter cut, or falling down and hurting themselves; no one to nag, nag, nag till the sound distracts me—as many new dresses and hats as Matilda Jenkins can boast of, and a gallant, good-looking husband to take me out whenever I ask him. Oh! Noel, it will be absolutely delightful! I shall be as happy as a queen!"

Hillian bent forward and kissed the glowing face of the speaker; but Noel grew graver and more annoyed than before. Why had Mrs. Estcourt sanctioned an engagement entered into so hastily? and why had she kept it a secret from him? His surprise and vexation at the course she had adopted drew from him the question, why were the plans of the mother and daughter revealed to him now?

"As you have kept me in ignorance so far, what is the reason for honoring me with your confidence this evening?"

Irene put up her lip, and slipped her hand into Hillian's.

"Isn't he horrible, Miss Gray, when he takes that sneering tone? I wouldn't tell him another word, only Clement's written to say that he's coming to Carlsforde to see me, and so I'm obliged."

"Then it is to Mr. Dunforth's impudence I owe the confession of your engagement!" exclaimed the angry Noel. "Who gives him leave to come here? You had better write and remind him that we ourselves are only the guests of Miss Carlsforde, and that I consider his proposed visit an impertinence."

"Oh! but I daren't!" cried the dismayed Irene. "Besides, he says that business will bring him into the neighborhood; and if he chooses to take advantage of that and call to see me, Miss Carlsforde would be a disagreeable thing to object to it—wouldn't she?"

This appeal was to Hillian, who promptly replied that her aunt was empowered by Miss Carlsforde to receive and hospitably entertain any relative or friend of her kinsman whom he chose to invite to the Park.

"But this young man is neither!" retorted Noel. "I have met Mr. Dunforth on one or two occasions, and exchanged with him a few civil speeches, but nothing to warrant him in regarding me as more than the merest acquaintance."

"But will you not, for your sister's sake, try to know him better and like him?" asked Hillian, gently.

Noel was silent, for he could not bring himself to accede to this. He knew too well the miserable life Irene led under the peevish tyranny of her mother to be surprised at her readiness to embrace the first opportunity to escape from it; but she was so young, so ignorant, so thoroughly unfitted in every way to take upon herself the duties of a wife, that he felt he should not be justified in furthering such an early and hasty marriage as this would be.

He tried to recall his own impressions of Clement Dunforth, and remembered him only as a reserved, shrewd-looking young man, endowed with none of the social talk and gallantry most likely to recommend him to a girl like Irene. Yet what motive but love could dictate his courtship, seeing that she had no fortune, and was never likely to have one?

Presently he questioned her respecting the position and prospects of her suitor, and was still further dismayed to find that neither she nor Mrs. Estcourt knew much, if anything, concerning them. When he began to express his astonishment that a mother could act with such extraordinary want of caution, Irene grew restive, and angrily interrupted him.

"Oh! Noel, don't fuss so. I suppose we shall do as well as other young couples; and if you must know all mamma said about it, she told me that you would be sure to come round by-and-by, and marry the ugly heiress. Now, don't be cross; I'm only repeating her words; and she added that if you did not marry Miss C., still, as a peer of the realm, you would have it in your power to advance Clement's interests. Get him some berth abroad, will you, Noel? Do, dear! I should so like to go to Paris, or Vienna. Matilda Jenkins says those are the places to see life."

Noel burst into a laugh; but there was not much merriment in it. The more he heard concerning the projected match, the more it provoked and perplexed him. At last he decided to put no obstacles in the way of Mr. Dunforth's proposed visit. If Mrs. Estcourt had been dazzling the young man with false visions of the prosperity to be attained by wedding the half-sister of an earl, it was only fair that he should be undeceived as speedily as possible.

"You can write to Mr. Dunforth," he told Irene, "and say that when he comes into this neighborhood, your brother will be glad to have an interview with him."

"There's my dear old boy!" was the rapturous reply. "And you will be civil to him, and recollect what I said about living abroad, and——"

"Gently, Irene. My first task must be to make Mr. Dunforth understand that he will have nothing to gain by marrying my little sister. If it is not for the mere love of her that he comes a-wooing, the engagement must be nullified at once."

"And I shall have to go back to ma, to be worried into my grave with her ill-tempers and the tricks of those tiresome children," cried Irene, bursting into passionate tears. "I won't submit to it, Noel! I'll elope first!"

"You had better go away till you can behave more sensibly," retorted her brother, restraining his compassion for the foolish child. "I hope, for your sake, as well as his own, that Mr. Dunforth will bring a little more common-sense to bear on the subject than you are evincing. When you have some conception of the solemn nature of the ties you are so eager to enter into, it will be quite soon enough for you to marry."

The severity of this speech made Irene put her fingers in her ears and dart out of the room. Hillian followed to console her, and Mrs. Hurst to have the curiosity satisfied which their perturbed looks had awakened. So Noel was left to his own reflections.

CHAPTER XV.

A MYSTERY.

Irene soon recovered her equanimity, and finding that her brother made no further allusions to the subject of her engagement, she was content to be silent too, and requite herself for her forbearance by drawing such pictures to Hillian of the freedom and pleasure she expected to enjoy, that the latter was sometimes amused at her simplicity; but more frequently inclined to ask herself how the inexperienced girl would endure the realities of married life when plunged into them thus suddenly, and with no wise mother at hand to give her good counsel. Mrs. Hurst, when made acquainted with the state of affairs, shook her head gravely, but proposed to help the little bride-elect prepare herself for her new station. Her offer was gratefully accepted, till Irene found that Mrs. Hurst would have taught her to make and mend her own clothes, and intended to initiate her into the mysteries of house-keeping accounts, besides supplying her with recipes to be copied from her own. Against such teachings the foolish girl unhesitatingly rebelled,

"Why, it would be like serving an apprenticeship—and a hateful one, too!" she exclaimed. "I know when a dinner is well cooked, and when a dress fits, or a hat suits me. The servants and the milliners must do the rest. Why should I meddle with their work? If I am to drudge in the kitchen, and make my own clothes, I may as well stop with ma.

"But if Mr. Dunforth is not a rich man, it is quite necessary that you should know how to economise."

"Nonsense! It is he who must do that," Irene persisted. "If he cannot afford to give me all I expect, why did he ask me to have him; I told him plainly that I did'nt care much about him; but that I should dearly like to have a nice little home and a pony-carriage of my own—my very own. So, you see, Miss Gray, we quite understand each other."

"If she would but take a few lessons in cooking!" sighed Mrs. Hurst, when Irene's decision was communicated to her. "Having been a wife myself, although for so short a time that three days over the two years is exaggerating the term of my wedded bliss, as poor dear Hurst expired within twenty four hours, with no greater warning than 'Martha, I'm going to leave you,' which might have meant that he had made up his mind to try a change of air, his cough being troublesome; but I had quite enough experience to know that no married man is happy whose wife is careless of the gravy and doesn't order appetising dinners."

"Oh! yes; I'll learn to cook, with pleasure!" cried Irene, "Nothing could be more delightful than making tarts and pies—except eating them. I'll begin to-morrow morning."

But it is doubtful whether Irene ever did enjoy the fruits of her culinary labors, for by some heedlessness on her part nothing she attempted proved successful.

Under these circumstances, Irene soon came to the conclusion that she was not born to be a cook, and returned to the more agreeable occupation of turning over the contents of sundry cabinets and cases, in the small room adjoining the library, which the late Lord Carisforde had once intended to convert into a museum. For this purpose he had gathered together a large number of natural curiosities, and though Irene cared for nothing that did not attract her by its beauty, she was sometimes infected by the enthusiasm of Hillian, who frequently joined her in her retreat, and whose deeper reading and more enlarged mind enabled her to see beauties in stones or fossils, or antique marbles, that her companion had carelessly passed over as not worth a second glance.

But Hillian's visits to the museum or library were hurried ones; for, unlike the more idle Irene, she was always fully employed. Although so quiet and unobtrusive, everyone looked to her for aid. Miss Carisforde had enjoined that the poor on the estate should be well looked after. Who was to do this but Hillian Gray? Then there were household cases in which Mrs. Hurst—rendered suspicious of the servants by her deafness, and the housekeeper's unwillingness to take orders transmitted by "a dependent, like herself"—was continually in need of some one to explain or act for her. And who could do this as well as Hillian? Lord Carisforde, too, proudly declining to take upon himself the business matters that cropped up daily, referred them to his little friend Hillian, who must conquer her timidity, and, to the best of her ability, answer letters, hear appeals, and decide how this or that was to be arranged till the lady of the estate could be consulted. Nor was this all. Noel was still the invalid; and, though Mrs. Hurst sat always beside him during the greater portion of the day, and believed that she was a welcome and cheering companion, she did not know how often he feigned sleep to silence her loquacity, or with beseeching looks asked Hillian to read to him or play chess, to relieve the monotony of the hours that hung so heavily upon his hands.

Never more pleased than when she saw that she was of use to some one or other, Hillian Gray contrived to find time for all her occupations, and, however many or urgent the calls made upon her, always took care to be at leisure to sit with the invalid at that twilight hour just before dinner which Mrs. Hurst spent at her toilet. It was then that Noel, wearied with the length of the day, and therefore most inclined to be low-spirited, required a little cheerful society, and Irene was never to be depended on. She would often be seized with compunction for having left her brother at the mercy of Mrs. Hurst so long, and yet let some trifle draw her in another direction before she was half-way to his room.

On the evening before Mr. Dunforth was expected, Hillian's tap for admittance was answered with an eager "Pray come in, Miss Gray, I have not seen the human face divine since luncheon; for Mrs. Hurst has been engaged with the housekeeper upon some important question of pickling or preserving, and no one else has been near me."

"I am sorry," said Hillian; "but when I went to visit a sick woman, whom Dr. Monson asked me to call upon and relieve, your sister faithfully promised to stay with you. Where is she?"

"I am here," exclaimed Irene, coming suddenly into the room, and speaking in such tremulous accents, that Noel inquired what ailed her.

"Nothing—I mean I don't know," was the incoherent reply. "I have been frightened—terribly frightened!"

"My dear Irene, what has alarmed you?" asked her brother and Miss Gray in the same breath.

"Tell me first," she cried, "If anyone—any female, I mean—lives in this house whom I have not seen?"

"Certainly not," answered Hillian, promptly.

"Then it is as I supposed," faltered the trembling girl, hiding her blanched face on Lord Carisforde's shoulder. "The figure I have just seen in the library was not a creature of this world. Don't laugh, Noel; for it was a terrible—terrible sight! Heaven forbid that I should ever behold it again!"

—[To be continued.

RECENT LITERATURE.

The School Garden. By DR. SCHWAB, Director of the Vienna Military Gymnasium, etc. From the German, by Mrs. Horace Mann. New York: Holbrook & Co.

WITHIN a few years the idea has gradually become a conviction in the minds of many educators that the rising generation must be educated by labor as well as study. This, however, must not be made a severe task, but a delight. Froebel, with his kindergarten, gave this thought a great impulse, and now little children in thousands of kindergartens all over Europe and America are trained in their earliest years by organized play and work; and under the hands of good kindergarteners these children are as happy as they can be, and learn to use their hands and limbs and mind in a way that prepares them when older to use them profitably and joyously in the work of life.

"The School Garden" takes up the same idea and adapts it to older children as they are found in all our public and private schools after they have left the kindergarten. In France, Austria and Sweden it is no longer an experiment. In France, we are told, there are already thousands of schools with gardens attached to them, under the care of properly qualified teachers. In Vienna, where Dr. Schwab started the movement, the authorities appropriated land and money rather reluctantly for the experiment, and three years later willingly and enthusiastically doubled the land in order that all the children of the city might come under its cheering, refining, ennobling influences. In Sweden every school has its garden, and the unsightly schoolhouses and yards of America would be looked upon there as a disgrace. In Cambridge, Mass., the experiment has also been tried, and Mrs. Mann writes that it made the children as happy as they could be, and some of the boys even laid down on the grass lawn they had made and actually hugged and kissed it. Dr. Northrop, one of the living educators of Connecticut, and many others are advocating tree-planting by the children of the schools, and thus practically bringing them into contact with Nature and work. Dr. Seguin, one of the foremost of our medical educators, is advocating school gardens with great earnestness. This little book by Dr. Schwab, translated by Mrs. Horace Mann, is intended to awaken an interest in school gardens, and make them in America what they have become in Europe, a highly prized educational force.

School gardens in city and town are destined to be a great educational force in America. This book, full of spirit and enthusiasm, will materially hasten the day.

MAGAZINES.

CONTENTS OF SCRIBNER'S MONTHLY FOR MAY, 1879.—Portrait of Oliver Wendell Holmes, drawn from life by Wyatt Eaton, engraved by T. Cole; The New Museum in Rome, Sofia Bompiana; The Pastoral Bees, John Burroughs, illustrations by Mary Hallock Foote; At Odds with Life, David L. Proudfit; A Story of the Latin Quarter, Francis Hodgson Burnett; A Day on the Docks, Charles H. Farnham; The Voyager, Richard Watson Gilder; Village Lawn-Planting, Samuel Parsons, Jr.; False and True, J. G. Holland; A Narrow Street (In Two Parts), Part I., Adeline Trafton; Two Sermons, Austin Dobson; Brazil (I.), The Metropolis of the Amazons, Herbert H. Smith; April, L. Frank Tooker; Chimney Swallows, Horatio Nelson Powers; "Haworth's," Chapters XXXIII—XXXVII, Frances Hodgson Burnett; The Four Konans—Wales, A. D. 560—Charles de Kay; A Pilgrimage to Valambrosa, T. R. Bacon; A Man without Enthusiasms, A. A. Hayes, Jr.; The Frozen Fields, Lloyd Mifflin; Richard Henry Dana, James Grant Wilson; The Descent of the Angel, S. M. B. Piatt; Wilhelmj and Remenyi, J. R. G. Hassard; Oliver Wendell Holmes, Francis H. Underwood; On a Late Learned Advocate, Master also of Music, Thomas W. Parsons; Broken Strings, E. Norman Gunnison; Three Days in Sussex; Nature's Lover (To John Muir), Marie Mason; Topics of the Time, Home and Society—Boys of the Family, III.; How to become a Mechanical Engineer (William H. Rideing)—The Maternity Society—A Design for Fireplace, with Diagram (W. R. Corson). Culture and Progress. The World's Work. Bric-a-Brac.

TREES AND SHRUBS FOR THE LAWN.—There must be a catholic taste shown in selecting plants, if the lawn is to be properly laid out. The tendency to follow mere fancies, or to use only particular and favorite plants, must be kept in strict abeyance. Many and various plants should be employed intelligently. Hardy deciduous trees, shrubs, evergreens, herbaceous and bedding plants,—in short, everything that conduces to the beauty of the lawn, must be united into one harmonious whole. Doubtless there are occasions when a mass of color, obtained by using many plants of one kind, is desirable, but generally a variety of plants and methods of combination is more desirable. The eye thus never becomes sated, and is ever renewing its pleasure. But what is the actual condition of lawn-planting as practiced to-day on myriads of small places throughout the country,—places, moreover, that belong to intelligent people? The entire collection consists frequently of a few fruit-trees in the background, an elm, a Norway spruce, an arbor vitæ hedge, with a bed of the glowing coleus. All these plants, be it noticed, are of the most pronounced and coarsest type. They may be and are valuable in suitable positions or in other combinations, but are decidedly ill-fitted for the interior of a small place, both from the character of their beauty and their habit of excessive growth. We intend no disrespect for either of these varieties, many of their qualities being, in their own way, most admirable; but we do say that if other and good selections were made after studying parks or nurseries, fewer poor lawns would exist. Were this the general practice, the ubiquitous tree dealer, with his wonderful plates of impossible plants, would be forced to seek for pastures new, and leave the field open for intelligent lawn-planting. Landscape gardening (or lawn-planting, which in a sense is a synonymous term, although the latter treats specially of planting, while the former includes also drainage, road-making, etc.) seems very difficult to some, and is practically considered a myth by others. To one class we can only say, practice it yourself and difficulties will soon disappear; it has no arcana into which you cannot pierce. To the other we answer, lawn-planting exists, and has its æsthetic laws, just as taste in general has definite laws.—S. PARSONS, *in Scribner for May.*

ATLANTIC MONTHLY for May: Labor and the Natural Forces, Charles Carelton Coffin; Witchwork, Harriet Prescott Spofford; To Leadville, H. H.; English Civil Service Reform, George Willard Brown; A Fancy; Irene the Missionary—VI.-IX.; The Ship from France, C. L. Cleaveland; The Abolition of Poverty, Alfred B. Mason; The Faience Violin, W. H. Bishop; Seven Wonders of the World, C. P. Cranch; George's Little Girl, M. E. W. S.; The New Dispensation of Monumental Art—The Decoration of Trinity Church in Boston, and of the new Assembly Chamber at Albany, Henry Van Brunt; Our Florida Plantation, Harriet Beecher Stowe; Emile Zola as a Critic, Clara Barnes Martin; Americanisms—VIII., Richard Grant White; The Contributors' Club; Recent Literature.

OLD TIMES.—A half century ago, a large part of the people of the United States lived in houses unpainted, unplastered, and utterly devoid of adornment. A well-fed fire in the yawning chasm of a huge chimney gave partial warmth to a single

room, and it was a common remark that the inmates were roasting one side, while freezing the other; in contrast, a majority of the people of the older States now live in houses that are clapboarded, painted, blinded, and comfortably warmed. Then, the household furniture consisted of a few plain chairs, a plain table, a bedstead made by the village carpenter. Carpets there were none. To-day, few are the homes, in city or country, that do not contain a carpet of some sort, while the average laborer by a week's work may earn enough to enable him to repose at night upon a spring bed.

Fifty years ago, the kitchen "dressers" were set forth with a shining row of pewter plates. The farmer ate with a buck-handled knife and an iron or pewter spoon, but the advancing civilization has sent the plates and spoons to the melting pot, while the knives and forks have given place to nickel or silver plated cutlery.

In those days the utensils for cooking were a dinner-pot, tea-kettle, skillet, Dutch oven, and frying-pan; to-day there is no end of kitchen furniture.

The people of 1839 sat in the evening in the glowing light of a pitch-knot fire, or read their weekly newspapers by the flickering light of a "tallow dip;" now, in city and village, their apartments are bright with the flame of the gas jet or the softer radiance of kerosene. Then, if the fire went out upon the hearth, it was rekindled by a coal from a neighboring hearth, or by flint, steel, and tinder. Those who indulged in pipes and cigars could light them only by some hearthstone; to-day we light fire and pipes by the dormant fire-works in the match safe, at a cost of one hundreth of a cent.

In those days we guessed the hour of noon, or ascertained it by the creeping of the sunlight up to the "noon mark" drawn upon the floor; only the well-to-do could afford a clock. To day who does not carry a watch? and as for clocks, you may purchase them at wholesale, by the cart-load, at sixty-two cents a piece.

Fifty years ago, how many dwellings were adorned with pictures? How many are there now that do not display a print, engraving, chromo, or lithograph? How many pianos or parlor organs were there then? Reed organs were not invented till 1840, and now they are in every village.

Some who may read this article will remember that in 1839 the Bible, the almanac, and the few text-books used in school were almost the only volumes of the household. The dictionary was a volume four inches square and an inch and a half in thickness. In some of the country villages, a few public-spirited men had gathered libraries containing from three to five hundred volumes; in contrast, the public libraries of the present, containing more than ten thousand volumes, have an aggregate of 10,650,000 volumes, not including the Sunday-school and private libraries of the country. It is estimated that altogether the number of volumns accessible to the public is not less than 20,000,000! Of Webster's and Worcester's dictionaries, it may be said that enough have been published to supply one to every one hundred inhabitants of the United States.—*New Atlantic.*

BRIC-A-BRAC.

THEY MET BY CHANCE.

They met. Deep in the starry depths
Of August's cloudless sky,
Fair Luna trod her golden path
In matchless majesty;
The cricket chirped, the firefly
Pursued his fitful dance;
'Twas in the slumbrous, balmy night
That those two met—by chance.

They met. She was a tender thing
With lustrous, shining eye,
And down the garden path she moved
Warbling sweet melody.
He paused to listen. On she sped
With foot-falls soft and light,
They met upon that tennis lawn,
That peaceful summer night.

With throbbing pulse and beating heart,
He spoke in accents low,
Into her glancing eyes there came
A stronger, deeper glow.
Then up the apple tree she swarmed,
And there, vindictive spat,
For these two were my bull-pup and
My next-door neighbor's cat. [*Lampoon.*

BIBLE ERRORS.—Here is a bit of information which will do for that conventional scrap-book which is the property of every well-regulated household. Many editions of the Bible have been published during the last 300 years, and into not a few of them some peculiar errors have crept. What is known as the "Breeches Bible" (Geneva, 1560) was so called because Genesis iii., 7, was translated: "They sewed fig leaves together and made themselves breeches," instead of "aprons," as in the English version now used. In the "Treacle Bible" (1568) Jeremiah viii, 22, was made to read: "Is there no treacle in Gilead," etc., instead of "balm," and in 1609 the word was changed to "rosin;" "balm" was first used in 1611. The "Vinegar Bible," printed in Oxford in 1717, by John Basket, derives its name from the heading of Luke xx., which was made to read: "The parable of the vinegar." The book had many other errors, from which it has also been called, after the printer's name. "A basket of errors," in 1631 a Bible was printed in England, and in 1732 another appeared in Germany, both of which made the seventh commandment read: "Thou shalt steal," the word "not" being omitted. It has been very appropriately called the "Wicked Bible."

LORENZO DE MEDICI ON HIS DEATH BED.—The dying man said he had three sins to confess, for which he asked absolution—the sack of Volterra, the money taken from the Monte dell Fanciulle, and the blood shed in punishing those who were implicated in the Pazzi conspiracy. While speaking of these things he became greatly agitated, and Savonarola, to calm him, kept on repeating: "God is good, God is merciful. But," he went on, "you must do three things." "What are they, father?" asked Lorenzo, The countenance of Savonarola became grave as, extending the fingers of his right hand, he replied: "First, you must have a great and living faith in the mercy of God." "In that I have the greatest faith." "Secondly, you must restore all that you have wrongfully taken away, or instruct your sons to make restitution for you." For a moment this demand seemed greatly to distress Lorenzo; but, at last, making an effort he signified his assent by an inclination of his head. The third requirement was yet to be made. Savonarola became still more solemn in manner, and seemed to increase in stature, as with terrible earnestness, he continued; "Lastly, you must restore liberty to your native country, as it was in the early days of the Republic of Florence." It was touching the root of the man's family pride and ambition. Summoning his remaining strength he angrily turned his back upon the friar and refused to utter another word. Savonarola departed without pronouncing absolution, and Lorenzo died soon afterward, on the same day, April 8th, 1492.—[*Savonarola: His Life and Times—Clark.*

THE discussion of the doctrine of evolution has stimulated an interest in monkey poetry; the "classic" given below is one of the most popular of this school of poesy:

THE MONKEY'S WEDDING.

The monkey married the baboon's sister,
Smacked his lips and then he kissed her.
Kissed so hard he raised a blister.
She set up a yell.

The bridesmaid stuck on some court plaster,
It stuck so fast it couldn't stick any faster,
Wasn't that a sad disaster?
Pretty soon it got well.

What do you think the bride was dressed in?
White gauze veil and a green glass breastpin,
Red kid shoes; she looked quite interesting.
She was quite a belle.

The bridegroom wore a blue shirt collar;
A black silk stock that cost a dollar,
Large false whiskers, the fashion to follow.
He cut quite a swell.

What do you think they had for supper?
Black-eyed beans and bread and butter,
Ducks in the duck house all in a flutter;
Pickled oysters, too.

Chestnuts boiled and raw and roasted,
Apples stewed and onions toasted;
Music in the corner posted,
Waiting for the cue.

What do you think was the tune they danced to?
Old Dan Tucker and sometimes Jim Crow,
Tails in the way and some got pinched, too,
Because they were too long.

What do you think they had for a fiddle:
An old banjo with a hole in the middle;
A tambourine made out of a riddle,
And that's the end of my song. —*Tennyson.*

HOW A TOAD UNDRESSED.—A gentleman sends to an agricultural paper an amusing description of "How a Toad Takes Off His Coat and Pants." He says he has seen one do it, and a friend has seen another do the same thing in the same way:

"About the middle of July I found a toad on a hill of melons, and not wanting him to leave, I hoed around him. He appeared sluggish and not inclined to move. Presently I observed him pressing his elbows against his sides and rubbing downward. He appeared so singular that I watched to see what he was up to. After a few smart rubs his skin began to burst open along his back. 'Now,' said I, 'old fellow, you have done it;' but he appeared to be unconcerned, and kept on rubbing until he had worked all his skin into folds on his sides and hips; then grasping one hind leg with both his hands, he hauled off one leg of his pants the same as anybody would, then stripped the other hind leg in the same way. He then took his cast-off cuticle forward between his fore-legs into his mouth and swallowed it; then, by raising and lowering his head, swallowing as his head came down, he stripped off the skin underneath until it came to his fore-legs, and then grasping one of these with the opposite hand, by considerable pulling, stripped off the skin; changing hands, he stripped the other, and by a slight motion of the head, and all the while swallowing, he drew it from the neck and swallowed the whole. The operation seemed an agreeable one and occupied but a short time."

WON'T LET HIM OFF.

And so this traitor-lover strives
To turn her love to hate;
With the Order of the Mitten she
Him will not decorate.
For girls are many and beaus are few,
With him she will not quarrel;
She hath up in her bureau-drawer,
'Mid gauds of jet and coral,
And handkerchiefs, and ties of lace,
And snowy cuffs, and collars,
Letters which in a breach-of-promise suit
Would be worth ten thousand dollars.

FINLAND LOVE SONG.

I saw the moon rise clear
O'er hills and vales of snow,
Nor told my fleet reindeer
The track I wished to go.
Yet quick he bounded forth;
For well my reindeer knew
I've but one path on earth—
The path that leads to you.

The gloom that winter cast,
How soon the heart forgets,
When summer brings at last
Her sun that never sets!
So dawned my love to you;
So fixed through joy and pain,
Than summer sun more true,
'Twill never set again.

IN a late German story the hero gives a rhapsodical description of "the first kiss" in these ebullient words: "'Am I really dear to you, Sophia?' I whispered, and pressed my burning lips to her rosy mouth. "She did not say yes; she did not say no; but she returned my kiss, and my soul was no longer in my body; I touched the stars; the earth went from under my feet." All of which is very pretty and very poetic, but very indefinite. What the practical American reader wants to know is, if that is the transcendental German way of saying that he was at that particular moment lifted by a paternal boot-toe?—*Scientific American.*

For Women.

CONDUCTED BY MISS FAITH RIPLEY.

ORDER FOR THE BOYS.

M. A.

THE formation of orderly habits is usually defailed to the girls of a family. Boxes and bureaus are furnished them for the safe keeping of their toys and apparel; the careful arrangement of which is early and patiently taught them, for the mother sees disgrace in the future for her disorderly daughter. Disorder seems to be considered the boys' exclusive right, and not at all discreditable to them; hence, little pains is taken to teach them to be orderly. They may receive now and then a general lesson in the shape of a scolding at some rare display of disorder, but it is usually considered a matter of jest that the boys make mops of their caps and cushion the chairs with jackets and coats. It is only natural that every rainy day, the boys should bring out the old RURALS and Harpers and leave them strewn about the house for their mother or sisters to arrange and replace. Mother's bureau will do for the boys' clothing and so she assumes the whole care of it. I see no reason for this unjust distinction and, believe that mothers are doing themselves and their boys a great wrong in allowing it.

I readily admit that disorderly girls are a disgrace to themselves and their families, but hold that disorderly habits in boys are quite as reprehensible. Order is mostly a habit resulting from education, and boys are quite as tractable in acquiring the habit as are girls. Mothers would save themselves a vast amount of time and trouble if they would begin with their boys while they still have perfect control over them, and while habits are easily formed, and, providing a place for everything, *insist* that everything shall be put in its place.

As an example of what can be done in this way, I have in my mind a lady friend, a farmer's wife, the mother of five active, mischievous *boyish* boys.

It is a matter of wonder to many of her acquaintances that with so much work to do and so many wild boys to care for, she still manages to keep her home tidy. The writer happens to know that she is assisted in this by the habits of order which she has instilled into these same boys. A hook is provided for the hat and coat of each of the boys, and upon this these garments must always be hung. Her boys have as many playthings and papers as other boys and use them as freely, but it is a fixed law in this household that whoever uses these shall replace them. Paying a visit there not long since, I was surprised at the order and neatness which the boys displayed in caring for their own clothing and in making a change of suit, without any help or even a word from the mother; the suit doffed being carefully folded or hung away. On expressing to the mother my surprise at such an unusual proceeding, she said, "Oh! yes, they always do so. It took some time and patience to teach them, but it was time and patience put on interest."

If many mothers had the time which they spend "picking up" after their boys, it would give them leisure to read the family papers into which now, they have scarcely a chance to glance. How many husbands ever think of conveying a discarded garment farther than the bed or the first chair, while to brush and put away a garment for future use would be an undreamed of thing; it is only the boy grown into the man. Slatternly farm yards, tumble down buildings, pigs in the garden, these trials that are a continual vexation of spirit to many a woman, are only the results of disorderly habits. A wife cannot instil order into her husband, it is too late; the trite illustration of straightening the crooked tree would be appropriate, but I forbear its repetition. It is a work that must be done for the boys. Teach and require your boys to be orderly; help them to make Heaven's first law one of the ruling principles of their lives. They can not succeed without it, for it is one of the elements of prosperity. See to it that your boy as well as your girl, acquires orderly habits and thus lay one sure foundation stone for the happiness of a future family.

CORRESPONDENTS' CORNER.

DEAR FAITH RIPLEY:—You wished some inquiries as to what the readers of the RURAL would like. We country women need some nice-looking overdresses to ride, walk and fish in—something that looks well and is thick enough to protect us from the dust; a garment that sitting down on will not make it look as if rolled up for ironing. Would you recommend some sort of striped debeige or will coarse linen do? Fine linen of a pale color is a fright after it is worn a few times. Can't we have something better? We want also some picnic and excursion hats; we must make them ourselves and we would like your judgment as regards beauty. The very fine styles you city ladies enjoy, will not stand the sun, wind and rain, we country girls get. Summer is more trying than winter, for it is five hours hot, and cool night and morning. It is so breezy here (near Niagara river and falls) that there is almost always a brisk air, and we really need to be pretty well clothed all summer to enjoy anything.

Tell every lady who has to scrub and scour her floors, if she will wash all the cast-off winter garments and set herself and the children to work making nice sewed balls of carpet rags, that toward September 1st I will send our recipes for home-made colorings for carpets, and the family can all enjoy having a nice carpet that will wear five years and be dry and warm for the winter.

Youngstown, Niagara Co., N. Y. J. M. L.

Flannel or all-wool delaine in woolen goods and bunting, either French or good quality of domestic manufacture, are what I would suggest. These goods come in all colors and shades. Later in the season you might have a toilette or two of some of the pretty Scotch ginghams. If made of woolen goods, you can have one skirt, kilt-plaited, and a jacket and vest. The polonaise is not so popular this season; however, if you prefer that style, I would advise a plain one, as the much draped ones are apt to get out of order, and when one is on an excursion it is rather irksome to be "pinning up" fallen loopings. If you like, I will send you samples of woolen and washable materials for country wear. As to hats, now that straw ones are sold as low as 30, 40 and 50c., it seems almost a waste of time to make them. A wide brim, coarse black, brown or drab straw, trimmed with a scarf of veiling, same color as the suit or grenadine, or silk, and ornamented with a stiff wing or breast, makes a pretty, stylish, economical and serviceable hat. Streaming ribbons, flowers and ostrich feathers, are poor investments for every-day hats.

ROCK ME TO SLEEP, MOTHER.

Backward, turn backward! oh, time, in your flight;
Make me a child again, just for to-night!
Mother, come back from the echoless shore,
Take me again to your heart as of yore.
Kiss from my forehead the furrows of care,
Smooth the few silver threads out of my hair:
Over my slumbers your loving watch keep,
Rock me to sleep, Mother, rock me to sleep!

Backward, flow backward, O swift tide of years!
I am weary of toil, I am weary of tears:
Toil without recompense, tears all in vain,
Take them, and give me my childhood again!
I have grown weary of dust and decay,
Weary of flinging my soul-wealth away.
Weary of sowing for others to reap;
Rock me to sleep, Mother, rock me to sleep!

Tired of the hollow, the base, the untrue,
Mother, O, Mother, my heart calls for you!
Many a summer the grass has grown green,
Blossomed and faded, our faces between:
Yet with strong yearning and passionate pain,
Long I to-night for your presence again:
Come from the silence so long and so deep—
Rock me to sleep, Mother, rock me to sleep!

Over my heart in the days that have flown,
No love like mother-love ever has shone:
No other worship abides and endures,
Faithful, unselfish and patient like yours!
None like a mother can charm away pain
From the sick soul and the world weary brain.
Slumbers soft calm o'er my heavy lids creep,
Rock me to sleep, Mother, rock me to sleep!

Come, let your brown hair, just lighted with gold,
Fall on your shoulders again as of old;
Let it drop over my forehead to-night,
Shading my weak eyes away from the light!
For with its sunny-edged shadows once more,
Happy will throng the sweet visions of yore.
Lovingly, softly, its bright billows sweep,
Rock me to sleep, Mother, rock me to sleep.

Mother, dear mother! the years have been long
Since last I was hushed by your lullaby song.
Sing then again,—to my soul it shall seem
Womanhood's years have been only a dream.
Clasp to your arms in a loving embrace,
With your soft lashes just sweeping my face,
Never hereafter, to work or to weep;
Rock me to sleep, Mother, rock me to sleep!

[*E. E. W., Cooperstown, N. Y.*

FAITH RIPLEY—Dear Madam:—I send you an answer to an inquiry in the correspondents' corner, how to paint the kitchen floor. When I began housekeeping I had but one room, which had to answer for parlor and kitchen both, and in trying to make it look its best I became quite an expert in painting floors, and nothing ever gave me greater satisfaction when it was done. I hope I have made the directions plain enough. I was afraid of making my article too long.

Have you any patterns for zephyr work on railroad canvas, not too elaborate for a little girl of 10 to execute?

We have a youth's department at our county fair, held in September, and my children like to compete.

ANSWER TO INQUIRY, HOW TO PAINT FLOORS.

I have had considerable practice in painting floors, and have always been better satisfied with results when I have mixed the paint myself. Use boiled linseed oil; it needs a little japan put in to make it dry quicker. A druggist will know the proportion of drying to a gallon of oil. Stir French yellow into the oil until it is thick enough to spread easily with a brush. Paint spreads better when mixed over the night before using. I also put in some white lead—about the size of a hen's egg to a gallon of oil. It gives the paint a hard, glossy surface, and adds both to the looks and durability. Red lead can be used instead, but I prefer the shade given when white is used. Put on one coat, and the next day examine it, and if it is dry enough put on the second coat. When the paint becomes too thick, thin it with a little more oil. It is better if one can keep from living on a floor for a week after it is painted; but if it rubs off some, after it has been mopped a few times it will not be noticed. The first week or two the floor should be mopped with skim-milk, and water. It makes it smooth. It is not much trouble for a woman to do it all from beginning to end, and a good painted floor looks well and saves a great deal of hard labor. AUNT RACHEL.

[Can any of the RURAL ladies send Aunt Rachel patterns for zephyr work on railroad canvas? Address her, care of Faith Ripley, RURAL NEW-YORKER office.]

CAN any one give a recipe for imitating black walnut or rosewood, with full directions for use?

Richland, Ia. E. T.

F. B., Belle Plains, Iowa, asks for a recipe for coloring white kid gloves, black or slate-color.

L. S. B. wants the words of Peleg Arkwright's Love in Oyster Bay.

S. M. would like Betsy Bobbin's views on the question of suffrage for women.

Domestic Economy.

CONDUCTED BY EMILY MAPLE.

LADIES AND HOUSEWORK.

It is a mistake to suppose that to be a lady implies ignorance of all that pertains to the kitchen or to the household in any of its departments. I once heard a mother say with a toss of the head, on hearing that her daughter would tease the laundry woman to let her iron the little things, like pocket handkerchiefs and napkins, "eh! I am afraid I shall never make a lady of her."

Florence Nightingale, with all her philantrophy, was well versed in the arts of culinary life by practice, or she would have been at a loss to know how to nurse the sick soldier herself or to guide others.

There is nothing in the act of domestic labor, in any of its departments, which can prevent the person so occupied from allowing her mind to be engaged in something elevating. Burns followed the plow and composed his Highland Mary; verses which have made him immortal. Bunyan, in Bedford jail, wrote the Pilgrim's Progress, and, while so occupied, made tagged boot-laces to support his wife and children. A girl may eat the bread of luxury and be clothed in velvet and satin and if she be without any aim or object in life, her mind may become a foul mass of hideous deformity, so that the atmosphere around her will be painful to all the pure-minded. It is not the outward act which degrades, but the thoughts of the heart. Solomon understood this well when he said, "Keep thy heart with all diligence; for out of it are the issues of life." Teach your children that an hour spent in physical labor in the home, may be as conducive to a good development of muscle and sinew, as an hour spent in a gymnasium. The dignity and great importance of labor should be intelligently imparted to the young, and that strength, and beauty will be developed by a proper exercise of the body.

Children educated to look on household, or any labor as honorable will be respectful to servants who will love them and be more likely to treat them with the kindness and deference which their higher social position entitles them to. If the servant sees that her mistress looks with disdain on her child for wishing to work in the kitchen, the effect would be to lower her own self-respect, and this would work an evil. What we need is to increase self-respect in servants without which their daily tasks will have a tendency to lower instead of elevating them. The servant should have a room with its book shelf, its work-basket, pictures on the walls and the many nameless things which go towards making a room home-like, and attractive, which are eloquent when alone, elevating the thoughts of the occupant unconsciously. I know a few women at the heads of families who appreciate the great importance of looking well to the comfort of their servants, and at the same time seek to supply the soul's needs, knowing that even if no higher motive than thankfulness for kindness, control her action, such a servant will not be as likely to be unfaithful to her responsibilities, as the servant who is made to feel that her comforts and needs have no part in her mistress's thoughts. There is nothing in servitude in itself degrading, for we are all, both rich and poor, dependent in some sense.

It will be far better for all, when the servant knows that coal-oil should not be used to kindle fires with, thus endangering the life of herself and others. Will it not be a relief when a mother can leave her infant with a nurse who cares or has the sense to know that the child should be fed before hunger makes it irritable? Will it not be a comforting thing for parents to feel sure that their children are in no danger from hearing superstitions stories about ghosts or, far worse—what every parent shudders to contemplate—the impure stories which the low, the vulgar, the ignorant revel in?

Let us therefore, seek by words and actions to raise, not to lower, the minds of the domestics in our homes. Don't fear that they are going to know too much; don't be afraid to let them see that you are dependent upon them for comforts and that you appreciate most highly their faithfulness. That pretty, neat, modest girl may be a mistress herself: let her learn as a servant that self-respect which will enable her to dignify any position in life.

FANCY FREE.

CHIPS FOR THE HOUSEKEEPER'S BASKET.

Use kerosene to clean unvarnished furniture.

Try benzine for removing paint spatters on window glass.

Blankets, and indeed flannels of any kind, should not be washed with soap which has resin in it.

If cheese gets too dry to eat, grate it, pour on brandy and pack into jars.

An excellent wax varnish for furniture is made by dissolving over a gentle heat, three ounces of wax in one quart of oil of turpentine.

Use waste paper for cleaning stoves, tinware, knives, spoons, windows, mirrors, lamp-chimneys, etc.

Dissolve four or five pounds of washing soda in boiling water and throw down the kitchen sink to prevent the pipes stopping up with grease, etc. Do this every few weeks.

Sweet oil is recommended for polishing pianos. Apply with a chamois skin and rub with different skins as they become saturated with the oil. It requires one or two hours of hard rubbing to restore an instrument to its original luster.

TO RELIEVE CORNS ON THE SOLE OF THE FOOT.

Cut a piece of stout card-board to fit the inside of the sole of the shoe. The card-board must be large enough in every way to prevent it shifting under the foot in walking. Cut a round hole in it exactly where the corn rests but a little larger than the corn. This arrangement relieves the corn from the pressure and allows of its cure and at the same time gives immediate relief in walking.

Remedies for Corns.

A bit of linen dipped in turpentine and wrapped around the corn night and morning, if persevered in, will give relief. Arnica applied likewise will alleviate the pain. Lemon juice is also beneficial, softening the hard skin so that with a blunt knife a considerable portion of the corn may be removed. The easiest way to apply it is to cut off a piece of lemon, then nick it so as to let in the toe with the corn and bind on at night. Repeat twice or thrice. A good corn plaster can be made by dissolving by heat two ounces of yellow wax in two ounces of purified ammonia and just before it is cold add six drachms of acetate of copper. Spread this ointment on a piece of soft leather. Before applying, soak the corn for some time in a solution of soda and pare as closely as possible. Corns are entirely owing to continued pressure on some one part. At first they are the production of the outer skin alone, but by gradual thickening they become connected not only with the true skin beneath, but even with the adjacent muscles, and, like many another evil, prevention is better than cure.

MRS. CLAYTON.

DOMESTIC RECIPES.

Baked Rhubarb.

If rhubarb be *baked* according to a recipe given in a RURAL of last year, it will be found much better than if *stewed*.

Wash and peel the rhubarb, and cut each stalk into square pieces. Place in a porcelain sauce-pan; cover the pie-plant with sugar, and add enough water to moisten the sugar. Cover the pan, and bake the rhubarb until it becomes tender and clear. The oven should be only moderately heated, as the pie-plant will lose its shape unless baked slowly. It should be very cold when served. It is best if prepared in the morning and kept in a cold place until wanted.

Strawberry Short-Cake.

Stir two teaspoonfuls of baking-powder into one pint of flour. Rub one-fourth of a teacup of butter into the flour. Mix soft with sweet milk. Roll into two thin cakes and bake on round pie-tins. As soon as taken from the oven, put one of the cakes on a large plate. Butter the cake, and cover it with strawberries; sprinkle thickly with sugar. Then put the other cake on the strawberries, and proceed as before. Set the short-cake into the oven for a few minutes, which will increase the juice of the berries.

Any good biscuit dough will answer for fruit short-cakes, only that it must be a little richer with shortening, than for plain biscuit.

Lyons, Iowa. MRS. M. G. R.

Pressed Corned Beef.

Soak over night, and the next morning put to boil in *cold* water. Boil gently four or five hours: let stand in the liquor in which it was boiled until somewhat cool, but not cold. Take out of the pot and with a knife and fork divide and shred it into bits, mixing the fat and lean together. Season with pepper and a little ground cloves. Pack into a small pan—arrange a heavy weight on top to press it down, and set it aside until the next day. It is excellent cut in thin slices for luncheon or tea.

E. M.

Essence of Herbs for Gravies, Soups, etc.

Take of winter savory, sweet marjoram, lemon thyme and sweet basil each one ounce; grated lemon peel and eschalots each one-half ounce; crushed celery seed one-fourth ounce, and proof spirit one pint. Shake frequently for two weeks, when the clear liquor may be poured off from the sediment. A very little will give a superior flavor to soups, gravies, etc.

MRS. ATKINSON.

Boiled Cod.

Sew the fish up in a thin cloth and cook in boiling water twenty minutes to the pound. Remove the cloth, and when ready to serve pour over a sauce made by adding to a cup of boiling water three even tablespoonfuls of butter mixed with one dessert spoonful of flour, the beaten yelk of an egg, the juice of one lemon and two dozen capers. Boil for an instant and turn over the fish.

MARY B.

Maple Sugar and Sirup.

We are indebted to Mr. W. I. Chamberlain of Hudson, Ohio for a sample of sugar and a jug containing two gallons of sirup manufactured according to his directions in RURAL of March 22. The light color of the sirup is noteworthy and we do not think the quality of either can be excelled.

News of the Week.

MISCELLANEOUS.

Monday, May 12, 1879.

The 'longshoremen's strike is virtually over here, most of the steamer lines having taken on their old hands at old rates. Out in Winnepeg 1,000 railroad operatives are on strike against a reduction of wages by the Canadian Pacific railroad. On April 23d the body of Harry Burrell, of Little Falls, N. Y., well known in connection with the manufacture of dairy implements, was stolen from the tomb in which it had just been deposited. It was soon recovered, however, and now the body-snatchers are penitent in "quod." By the way, although no definite announcement of the matter has been made, there is no doubt but that the "remains" of A. T. Stewart have been restored to his friends, and now rest in the grand new cathedral donated by Mrs. Stewart to Garden City, Long Island. Legislatures seem to have hit upon a new way of drawing extra pay, by refusing during the regular sessions, to pass appropriation bills, thus rendering an extra session necessary to carry on the government, State or national, and pocketing the comfortable mileage and big pay for little work during such extra sessions. The Texan legislature is the last to adopt this method of lining their pockets with the earnings of their constituents. The government seems determined to dam that tide of immigration into the Indian Territory and to roll back the first wavelets that have passed the frontier. Sheridan has been ordered to see to the matter, with full powers and instructions to tolerate no "humbug." Kansas folks, however, seem not to think much of the government's backbone and are still pushing the project ahead. At last the police are certain that they have captured one of the robbers of the Manhattan Bank of this city. It will be remembered that some months ago this institution was burglarized in day-light one Sunday morning, and cash and securities to the amount of nearly three million dollars were stolen. Congress has since issued fresh bonds instead of those stolen, on the bank guaranteeing that no loss should accrue the government, and the legislature of New York has replaced the stolen State securities on the same condition. The other day John Dobbs, alias Kerrigan, a notorious burglar, tried to pass $5,000 worth of the bonds in Philadelphia, and was arrested and handed over to the police authorities of this city.

The report of the Commissioners of Immigration at this port for the year ending March 31 shows an increase in the number of immigrants who landed here of 60 per cent over last year; or 88,000 instead of 54,000. The immigration of 1878 was the lowest in 30 years. Of all the immigrants to this country since 1847, 70 per cent have landed at this port, and since that date Germany has sent more settlers here than Ireland, although it is only within the last ten years that the annual influx of the former has exceeded that of the latter. From 1874 to 1878, 2,973, 769 Protestants have come among us against 2,699,080 Catholics, and the disproportion both in religion and nationality is yearly increasing. The Castle Garden authorities estimate that since the establishment of the depot, the immigrants have brought with them $389,000,000; to say nothing of the rapid development of the wealth of the country by their labor.

The exodus of the colored people from the South still continues. Lately a convention of whites with a few colored men among them met at Vicksburg to discuss the causes of the movement and try to put an end to it. The resolutions they reported attribute the emmigration to: "The low price of cotton and partial failure of the crop of the past year; the rotational system of planting adopted to some sections whereby labor was deprived of intelligence to direct it and the absence of economy to make it profitable; the vicious system of credit fostered by the laws permitting laborers and tenants to mortgage their crops before they were grown, or even planted; apprehension on the part of many colored people produced by insidious reports that their civil and political rights are in danger; the false rumors diligently disseminated that by emigrating to Kansas the colored people would obtain land, mules and money from the goverment without cost to themselves, and become independent farmers; many retail country storekeepers engaged in the business of selling whisky to laborers and tenants, whereby their morals have been corrupted, their labor rendered insufficient, and the pleasant relations between them and their landlords and employers destroyed." They agree that many mistakes have hitherto been made both by "whites" and "blacks" and counsel burying the past and starting afresh on a more friendly line. This burial of the past, however, all experience, even that of the late Confederacy, shows to be a most difficult kind of entombment.

FOREIGN.

Journalism has nothing more unique than the Semla Svabodr, "Land and Liberty," the organ of the Russian Nihilists. Their conspiracy differs from any other in history in publishing a newspaper twice a month, with its subscription price $4.50 a year, under its caption. This sheet has been in circulation for a year, and goes everywhere. High officers of the state find them folded in their official papers, soldiers come across them in their knapsacks, they are picked up in the imperial palaces, copies are suddenly discovered in the police stations, literally no place in St. Petersburg is free from them, but editor, publication office and carriers remain a puzzling secret to the police. The place where two printing presses were concealed was betrayed by one of the carriers, and the next number of the paper announced the carrier's sentence and his execution. He had been stabbed in his hotel. An editorial in the same issue spoke of the "inconvenience" to the editor of having lost his "editorial portfolio" by this betrayal, but the loss, the article went on to say, was avenged. From such incidents as these alone a fair conception can be formed of the disturbed state of society in the Empire of the czar.

HERMAN.

VARIOUS.

The Prussian Ministry of Agriculture has just issued the annual return of the ravages of diseases of all kinds among the flocks and herds of Prussia during the past year. Foot-and-mouth disease caused the death of 18,589 cattle, 2435 sheep, and 2047 pigs, or in all 23,701 animals, many of which were slaughtered. There were 1980 cattle attacked by pleuro-pneumonia, which died or were slaughtered. Inflammation of the spleen caused the death of 70 horses, 1903 cattle 1327 sheep and 202 pigs. There were as many as 2848 horses, which died or were killed on account of glanders or farcy. The pock carried off 3888 sheep, and 85 cattle and horses, while 1309 sheep died of scab. Finally, besides 132 cattle, 33 sheep, 16 pigs and 6 horses found suffering from rabies, there were killed 1098 dogs, attacked by rabies or hydrophobia.

Dr. Russell, who, at the opening of the war of the rebellion, visited this country as correspondent of the London Times, and is popularly known here as "Bull Run Russell," is to be knighted and to receive a valuable appointment. This has been effected through the influence of the Prince of Wales and Duke of Sutherland, who are attached friends of Dr. Russell.

It removes wrinkles and softens the skin. The regular use of MURRAY & LANMAN'S FLORIDA WATER at the toilet tends to prevent and remove wrinkles, the softness of the skin produced by it taking away the natural inclination of the cuticle to form into ridges and furrows.

Oh, why will you let that invalid friend suffer that Hop Bitters will so certainly cure.

THE MARKETS.

PRODUCE AND PROVISIONS.

NEW YORK, Saturday, May 10th, 1879.

BEANS AND PEAS.—There has been some activity in marrow beans at 2½c. decline. Some holders still asking 40c. Prime mediums are scarce and firm, trade mainly at 25@30c. Pea and w. kidney dull, the latter preferred for sale at inside figures. Red kidney tending higher, late prices named for lots to arrive. Black easy. Green peas strong at $1.50. S. B. E. peas quiet at $2.50 per 2 bush. bag. Canada field, in bulk and bond, 75c. Beans, marrow, prime, $1.37½; fair to good, $1.25@1.35; medium, prime, $1.30@1.32½; fair to good, $1.20@1.25; pea, $1.20@1.35; white kidney, $1.30@1.50; red kidney, prime, $2.85@3; black, $2.10@2.15.

Exports for week, 1,125 pkgs.; receipts do., 4,424 bush.

BEESWAX.—There is a light trade in progress, with Western and Southern quoted at 24@25c.

Exports for week, 1,600 lbs.

BUTTER.—Arrivals of State moderate. Very little of late receipts left over, but there is some accumulation of poor State white that is difficult to place. There is some trade in lines where quality favors wholesale buying, but such lots are not plenty. As we are so close to pasture, flavored and tinted stock, dealers do not look for a sharp, large demand for present style of quality. Exporters are looking at some marks, but at the moment sellers will not shade rates down to their views, as the grade wanted can be better sold for local or Eastern use. Western dairy made is not showing its usual superiority to State. Western creamery leads the best trade; some selections for fancy grocers' use, 20c. Artificial coloring is generally condemned; few succeed in the art, and there is not much time for profitable experiments.

NEW BUTTER.—State pails and half tubs, choice, 15c.; good to prime, 13@14½c.; fair to good, 11@13c.; Welsh tubs, choice, 15c.; good to prime, 13@14½c.; fair to good, 11@13c.; State, tubs, poor to fair, 8@11c.; State creamery, best, 18c.; good to prime, 16@17c.; fair to good, 14@16c.; Western do., best, 13@19c.; good to prime, 16@17c.; fair to good, 14@16c.; imitation creamery, 13@15c.; Western, dairy, best, 13@14c.; good to prime, 11@13c.; fair to good, 10@11c.; poor to fair, 6@10c.; factory, best, 12@12½c.; good to prime, 8@10c.; fair to good, 7@8c. Old ranges, State, 7@12c.; Western, 5@8c.; grease, 3@4c.

Exports for week, 5,127 firkins. Receipts, 21,000 pkgs.

CHEESE.—The receipts have been somewhat freer, but the exporters have stood ready to take all of the choice grades and have met steady prices. The old stock is pretty well cleared out, and the advices from the other side are encouraging. Shippers on the new make.

Prices for new are 6½@7c. for best; 6@6½c. for good; 4@5½c. for half skimmed, and 2@3½c. for skimmed; and for old as follows: 7½@8c. for fine lots; 6@7c. for good; 5@6c. for fair; 2@3c. for skimmed; 3@5. for half skimmed; Western factory, fine, 7@7½c.; good and prime, 5@6½c.; do. full skimmed, 2@3c.; do half skimmed at 3@4½c.

Receipts for week, 14,561 boxes.

Liverpool cable, 42s.

Steam, 30s.

COTTON.—The tendency has been upward again the past week, with speculation brisk, and the foreign markets following the improvement. Latest prices are for May, 12.40@12.42c.; June, 12.51@12.52c.; July, 12.69c.; August, 12.35c.; September, 12.52@12.53c.; October, 11.76@11.77c.; November, 11.37@11.38c.; December, 11.26@11.27c.; January, 11 29@11.30c.

Quotations for spot cotton are based on American standard of classification, and on cotton in store running in quality not more than half a grade above or below the grade quoted:

	Uplands.	*N. Orleans.*	*Texas.*
Ordinary	10 15-16	11 1-16	11 1-16
Strict ordinary	11 1-16	11 7-16	11 7-16
Good ordinary	11 11-16	11 13-16	11 13-16
Strict good do	11 15-16	12 1-16	12 1-16
Low middling	12⅛	12⅛	12⅛
Strict low middling	12 5-16	12 7-16	12 7-16
Middling	12 7-16	12 3-16	12 9-16
Good middling	12⅝	12⅝	12⅝
Strict good middling	13	13⅛	12⅝
Middling Fair	13 11-16	13 13-16	13 13-16
Fair	14 11-16	14 13-16	14 13-16

STAINED.

Good ordinary	11 3-16	Low Middling	11⅛
Strict good ordinary	11 9-16	Middling	12⅛

DRIED FRUITS.—Trade has been very light the past week in all articles; shippers neglect apples and home demands are slack.

Prices generally are steady. Apples—evaporated Alden's & William's 10@10½c.; do, new process at 8@8½c. State pi'ms, 13½c.; Blackberries quoted at 4½c. Peaches—Peeled Georgia, 7@7½c. for poor; 8½@9c. for fair to good; 10c. for prime; choice North Carolina, 12@13c.; good do., 9@10c.; unpeeled halves, 3@3½c. quarters, 2½@3c. Pitted cherries, 20c. Apples—New, 2½@2½c. for southern quarters in bags; 3½@4c. for prime sliced; do., fair and good, 3@3½c.; State at 3@4c. for new sliced; and 3@4c. for quarters; Western at 3@4c. for new quarters. Raspberries, 30c.

Exports for week, 326 bbls. dried apples.

EGGS.—Receipts for week, 14,750 bbls.; do. last week, 16,500 do. The market has ruled weak. Loss off may soon be demanded; Western already show two grades: strictly fresh are held. Canadian are in market but not offered at the prevailing rates. Duck eggs quoted same as hen. Near points, dozen, 12@12½c.; State and Penn., 11½@11¾c.; Western best 11¾c.; other, 10@10½c.; Southern, 10½@11c.; goose, 18@20c.

MAPLE SUGAR.—Quiet at low prices: 7@9c. fair to best cakes; 75c. for strup in tin.

HONEY.—Peddling at 7@10c. for comb; 6@8c. strained.

FRESH FRUITS.—Bananas cut off a good deal of the spring demand for apples. Baldwins to make $2 75 must be faultless. Russets and fair Baldwins, $2@2 25; inferior lots, $1@1 50. Exports $1,030 bbls. for week. Cranberries nominal at last rates. Strawberries have been in light supply and high prices have ruled. N. C., 40@50c. quart; Norfolk, 25@50c.; Chas. good to prime, 35@45c.; other 15@25. The late advance in peanuts seems established; there is, however, no further speculative movement. Va. hand-picked, $1 35@1 40; other, $1 10@1 25; shelled, 5¼@5½c. Pecans, 6@8c. Hot-house Black Hamburg grapes, $1 50@2 lb. Strawberries, 75c.@1 50 quart.

FLOUR.—There has been a good full business the past week, and prices advancing, the stimulus being the rising tendency of wheat.

Latest prices are $3.45@3.90 for inferior to very choice superfine State; $3.85@4 00 for poor to good extra do., odd lots and lines; $4.00@4.35 for good to very choice do.; $3.45@3.90 for inferior to very choice superfine Indiana, Iowa, Michigan, &c.; $3.65@4.00 for very inferior to good shipping extra do., and $4.00@4.35 for good to very choice extra do.; common to about choice white wheat extras, $4.35@5.45; choice to fancy do. at $5.50@6.65; red and amber winter wheat, inferior to very choice trade and family, at $4.25@6.25; round hoop Ohio at $4.60@4.40, and trade and family brands of do, at $4.50@6.25, the latter rate for very choice; St. Louis, $4.35@5.35 for very inferior to good extra; $5.35@6.25, for good to very choice (with a few very fancy brands up to $6.75); Minnesota clear, very inferior to fancy, at $4.85@4.85; Minnesota "straight," very inferior to strictly choice at $4.25@5.75; and very fancy as high as $6; and patent poor to strictly fancy at $5.35@8.87; few brands going above $7.50@7.65; unsound stock at from $2.25@5.25; city mill extra at $5.00@5.25 for West Indies (the latterrate for very fancy in new packages); do. for England and $3.70@4.00; do. trade family extras, $5.25@6.25; do. for South America, $5.35@5.85 for fair to very choice; No. 2 at $3.50@3.45 for poor to strictly fancy.

GRAIN.—Wheat has shown a sharp advance through speculative manipulations chiefly, and has been very active. Latest sales are of No. 1 white at $1.16@1.16½; white State at $1.17; No. 2 white at $1.13½@1.14; ungraded white at $1.12@1.15; white Canada in bond at $1.49; No. 1 red at $1.18 in store; No. 2 red at $1.17½@1.18; No. 2 red at $1.14; ungraded red at $1.05@1.15; No. 3 amber at $1.15@1.17; ungraded amber at $1.12½@1.17; mixed winter at $1.16½; No. 2 Spring at $1.04@1.05; No. 3 spring at 95@96c; rejected spring at 81@84c.; ungraded spring at 91c.@$1.03½; No. 1 white, May, at $1.15½@1.15; do., June, at $1.15½@1.16¼; No. 2 red, May, at $1.17¼@1.17½; do., June, at $1.17¼@1.18; do., July, at $1.15¼@1.15½; No. 2 amber, June, at $1.17½; New York No. 2 spring, June, at $1.03@1.01. Rye at 58@60c. for Western and 61@63½c. for state. Corn is higher also and active. Sales of New York No. 2 at 46¼@46¾c.; New York steamer mixed at 45¾@45¼c.; No. 3 at 44@45¾c.; ungraded western mixed at 44¾@47c.; New York No. 2 white at 45¾@5c.; New York steamer white at 49c.; white Western at 46¾@47c.; New York No. 2, May option, at 46¾c.; do., June option, at 45¼c.; do., July option, at 45¾c.; steamer mixed, May option, at 44¾c.; do., June option, at 43¾@43¾c. Oats are higher and in good demand. Latest sales of New York No. 1 at 35¾c.; New York No. 1 white at 40c.; New York No. 2 at 35¼c.; New York No. 2 white at 37@37¾c. New York No. 3 at 31c.; New York No. 3 white at 35c.; No. 2 Chicago afloat at 35¾c., and do in store at 32½@31c.; mixed Western at 34¾@35¾c.; white do. at 36@39c.; mixed State at 35@35¾c.; white State at 38@40c.

HAY AND STRAW.—Receipts are small and demands full, with prices well sustained.

Sales at 40@45c. for shipping, and 70@85c. for retail qualities. Straw at 40@45c. for long rye; 35c. for short rye, and oats at 30@35c.

Exports for week, 198 bales.

OIL-CAKE.—Western is higher, quoted at $27.75@28 per ton.

HOPS.—Exports for the week 122 bales. Emmet Wells in his circular says: "A fair trade has been doing this week, chiefly with brewers, at unchanged prices. Exporters would take more hops could they find the quality to suit. It is said that western brewers have made quite an inroad upon stocks of choice hops in the interior, and better prices have ruled there than here during the last few weeks. Formerly these brewers got their supplies from Wisconsin and other Western States, but as there are no good hops remaining in those districts they have to send their orders East."

Quotations are New York's, new crop, choice, 8@12; New York's, new crop, medium, 7@8; New York's, new crop, low to fair, 5@6; Eastern, 6@9; Western, 6@9; Yearlings, 2@4; Olds, all growths, 1@2; Pacific coast, nominal, 8@12.

POULTRY AND GAME.—Live fowls and chicks have a good, steady sale. Supplies are likely to be liberal, and sellers do not press for high figures. Turkeys lower, being chiefly old Toms. Ducks steady. Few prime geese coming.

Spring chicks, 75c.@$1.25 ₱ pair; winter, 65@87c.; N. J. fowls, per lb., 11@11½c.; Western, 10½@11c.; Southern, 10@10½c.; roosters, old, 5@6c. Turkeys, Western, 11@13c. Ducks J'y, N. Y. & Pa., ₱ pair, 65@80c.; Western and Southern, 50@70c. Geese, N. J., ₱ pair, $1.50@1.75; N. Y. & Pa., $1.25@1.50; S. & W., 75c.@$1.13. Pigeons, 45@90c.

Country-dressed poultry is in light supply and prices are something higher. Light supplies of game give fancy poultry and extra call.

Turkeys, Jersey, prime small, 16@18c.; State and Western, do., 15@17c.; fair to good, large, 13@14c; Phila., dry-picked, 7@18c. Spring chickens, do., 45@50c.; winter, broilers, 30@35c. Fowls, Jersey, choice, ₱ lb., 13@14c.; State and Western, prime, 11@12c.; fair to good, 10@11c.; Phila., dry-picked, 13@15c. Capons, large and choice, 27@28c.; small, 23@25c. Slips, ₱ lb., 23@23c. Ducks, Jersey, 18@19c; State and Western, 17@18c.

Snipe and pigeons comprise the supply of game; quoted:

English snipe, $2.25@2.50 ₱ doz.; Dowitch, $1.50; plover, 1.75@$2; small and sand, 50c. Wild pigeons, trapped, $1.75; do. shot, $1.50. Squabs, $3.25.

PROVISIONS—Have been active and closed strong. Mess pork quoted for May at $9 95 bid and $10 00 asked; June at $9 95 bid; July at $10 05 bid and $10 10 asked, and August at $10.10 bid and $10 20 asked. Bacon at $4.90 for long clear and 5¾ for short clear. Lard—Western steam, at $6 30 for spot lots; $6 27½ for May; $6 27½ for June; $6.32½ for July, and $6 35@6 37½ for August. Stearine at 6¾c. for choice. Tallow at 6¼@6½c. for prime. Beef hams at $18@18.25. Beef—Extra India mess, $20@32, as to quality; packet, $11@11.50; plain mess, $9.75@10.50; extra mess at $10.50@11.50.

SEED.—Grass is quiet at 6@6¾c. for Western clover, and $1.30 for timothy.

TOBACCO.—The markets abroad appear to be fairly well stocked, and demand at present from shippers is very slack. Home trade demands are also tame. Prices are without change,

	Light.	Heavy.
Common lugs	2½@ 3	3¼@ 3¾
Good lugs	3¾@ 4	4 @ 4¼
Low leaf	4¼@ 5	5 @ 6¾
Medium leaf	5¾@ 6¼	6¾@ 7½
Good leaf	6¾@ 8	8 @ 9
Fine leaf	8¼@10	10 @11
Selections	—@—	12 @13¾

SEEDLEAF.—CROP OF 1877.

New England wrappers, common	10	@12
do. do. medium	13	@15
do. do. fine	18	@25
do. do. selections	27½	@35
do. seconds	10	@13
do. fillers	7	@ 9
Pennsylvania assorted lots, common	9½	@10½
do. do. fair	10¾	@14¼
do. do. fine	15¾	@18
do. wrappers	20	@40
do. fillers	7½	@ 8½
New York assorted lots, common to medium	8	@10
do. do. do. good,	12	@15
Ohio assorted lots	9	@12
Ohio wrappers	12	@18
Wisconsin assorted lots	7½	@10

VEGETABLES.—Old potatoes are going out lower; Southern will soon be a feature. Many of present receipt of the latter are badly sorted and prices are thus rendered irregular. Bermuda, choice, per bbl., $6.00@6.50; Savannah, new, $5.00@5.50; Florida, new, choice, $5.00@6.00; culls, $2.00@2.50; early ross, Eastern, per 4-h bbl., $3.25@3.50; State, $2.87@3.12; Western, $2.50@3.00; do, bulk, per 180 lbs., $2.50@2 75; Peachblow, do., per bbl., $3.00@3.25; State, $3.00@3.25; Prolific, choice, $2 75@3 25; peerless, State, $2.62@2 75; in bulk, per 180 lbs., $2.50@2.62; Jackson white, $3.75@3.00; sweet potatoes, Del., $1.50. Near by gardens begin to blend products with the South, but all prime stuff sells fairly. Tomatoes from Florida are here. Asparagus keeps even prices, although New Jersey and Oyster Bay are contributing. Old crops not of much account. Cucumbers, Fla., per crate, $1.50@2.50; string beans, round, $1.0@1.50; flat, 75c.@$1.25; green peas, Norfolk, per ½ bbl. box, $2.50; N. C., per ½ bbl. crate, $2.00@2 25; per bush. crate, $1.00@1.37; Chas. and Sav., 50@75c.; asparagus, Oyster Bay, per doz., $3.00; Jersey, per doz., $1.50@2.50; Norfolk, Maryland and Delaware, $1.50@2.25; tomatoes, Bermuda, per box, 60c.@$1.00; radishes, Norfolk, ₱ 100 bunches, 75c.@$1 00; cabbage, Southern, ₱ bbl., $2.00@3.00; turnips, Southern, 100 bunches, $4.00@5.00 rhubarb, ₱ 100 bunches, $1.@2.00; onions, Bermuda, ₱ crate, $1.50@1.60; Dom., old, ₱ bbl., $2.@2.50; squash, Fla., per crate, $1.00@1.25; turnips, Russia, ₱ bbl., $1.50@1.75; beets, Bermuda, new, per crate, $1.75; carrots, ₱ bbl., $1.50@1 75.

WOOL.—The dealings here are still small and prices easy. The new clips in California, Texas and remote Western points are showing very strong prices; X and XX Ohio, old fleeces, are selling here at 31@33; No. 1. do, at 36; X and XX State, at 29c. Texas at 14@19c.; spring, California, at 13@20c.

LIVE STOCK MARKETS.

NEW YORK, Saturday, May 10th.

BEEVES.—Receipts for the week, 9,736 head; do., last week, 10,012 do. The market closed early after a sharp demand with Wednesday's prices, more than supported. Quality was in sellers' favor in the latest droves. Leaving out some bruised steers and a pair or two of coarse stags sold at 9c. ₱ lb., and about two car-loads of prime bullocks at 10¾c., to dress 56@57 lbs., the extreme range was 9¾@10¾c., to dress 56 lbs., and general sales were at 9¾@10c. ₱ lb., including sales of 15 car-loads of stillers at nearly to 9¾c. ₱ lb. average.

MILCH COWS are featureless as a market. A valuable cow would depend upon a chance sale here. Ordinary stock has merely a quoted range of $30@$50.

VEAL CALVES.—With an abundant offering prices are weak. Best Bucks Co. and N. J., live, 5½c.; do., State, 5c.; others, 3@4¾c. Hog-dressed calves, choice, 6¾@7½c.; poor to fair, 4½@5¾c.

SHEEP AND LAMBS.—Receipts for the week, 20,748 head; do. last week, 22,920 do. Some lots were left over and the market wound up easier. Clipped sheep brought 4¾@5¾c.; unshorn, 5¾@6¾c.; a few yearlings, 7¾@7¾c.; N. J. lambs, choice, 10@10½c. ₱ lb.; poor to prime, 7@9¾c.; Virginia, 7¾@9c.

HOGS.—Receipts for week, 34,305 head; do. last week, 27,925 do. Fairly firm, without many public sales, at 3¾@4c. for good corn-fed.

Dressed pork, State, light, 6@6¾c.; medium, 5¾@6c.; heavy, 4¾@5c.; city, 4¾@5¾c.

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Inside, 14th and 15th pages (Agate space)	40c.	per line;
" 13th page	50	"
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Single Copy, per Year	$2 00
" Six Months	1 10
Great Britain, Ireland, Australia and Germany, per Year, post-paid	$3 04 (12s. 6d.)
France, " "	3 04 (18¾f.)
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HIGH PRICES
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To meet the demand of the times, we have commenced the manufacture of

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TWENTY DOLLAR
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WE GUARANTEE
the following Analysis, which will be printed on every bag:

Ammonia, from	2¾	to 3	per cent.
Bone Phosphate, Soluble	10	" 12	"
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Price, $20 per 2,000 lbs., in New Bags of 200 lbs. each.

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Sole Manufacturers, PHILADELPHIA.

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Rhododendrons, Hardy and Greenhouse Azaleas, Camellias, Roses, Magnolias, Purple Beeches, Fruit Trees, Shrubs, Vines, etc.
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PARSONS & SONS CO. (Limited,)
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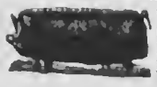

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1879 NO ROCK PHOSPHATE USED.

The large and extensive Works of the BUFFALO FERTILIZER, destroyed by fire in July last, have been entirely rebuilt and supplied with new and Improved machinery.

It is the leading Fertilizer now in use by the farmers of the States of New York, Ohio, Pennsylvania and Vermont, and the Canadian Provinces.

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L. L. CROCKER, Proprietor.
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The strongest Wind Mill in the world.
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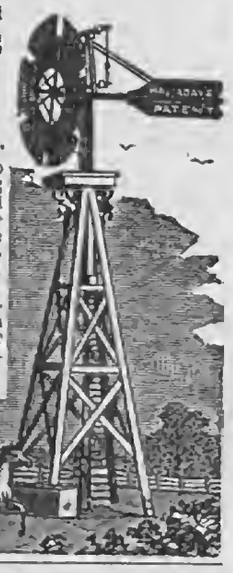
CENTENNIAL JUDGES.
Every machine warranted to be well made of good material; to do good work in any kind of wind; to be perfectly self-regulating; to possess more power and to be more reliable than any other Wind Mill made.
Each piece is fitted and numbered so that a stranger can put the Mill up, using our drawings and printed instructions for a guide.
Send for Catalogue "B" and Price List.
U. S. WIND ENGINE & PUMP CO.,
BATAVIA, ILL.



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GEO. S. JOSSELYN, Fredonia, N. Y.

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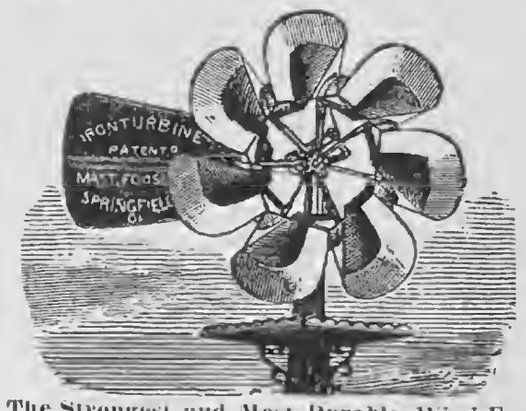
WIND ENGINE



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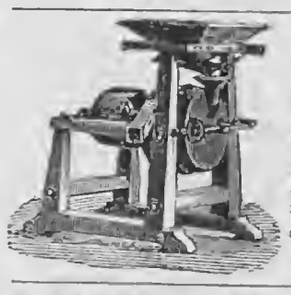

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A GREAT OFFER!!! 100 PIANOS AND ORGANS
at EXTRAORDINARY LOW prices for cash. SPLENDID ORGANS $35, $40; 5 Stops $45, 7 do $50, 9 do $55 & $60, 11 do $65, 12 do $70, 13 do $80. 7 Octave SQUARE AND UPRIGHT PIANOS $125 do $130, 71-3 do $140, not used SIX Months. Warranted 5 years. AGENTS WANTED. Illustrated Catalogues Mailed. Music 1c. per page. HORACE WATERS & SONS, Manufacturers and Dealers, 40 East 14th., Street, New York.

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UNSURPASSED FOR MAKING
LIGHT BREAD,
Biscuit, Rolls, Cake and Pastry.
It is Better and Healthier than ordinary Baking Powder, Cream Tartar or Yeast.
The cost of raising Bread, Biscuit, &c., with it is only about half as much as by ordinary Baking Powder, and the result is much better.
It restores the nutritious elements which are taken from the flour in bolting. No ordinary Baking Powder or anything else used for raising bread does this.
Universally used and recommended by prominent Physicians.
If you cannot get it of your Grocer send a three-cent stamp to the manufacturers for a sample.
Manufactured according to the directions of Prof. E. N. Horsford, by the Rumford Chemical Works Providence R. I.

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LESS WEIGHT! LIGHTER DRAFT!
It has been adopted and can be seen in PRACTICAL OPERATION in the PUBLIC PARKS of NEW YORK, BROOKLYN, BOSTON, NEW HAVEN, CLEVELAND, CHICAGO, and almost all the Prominent City Parks in the United States and Canadas.
Roller Mowers, 7 Sizes; Side-Wheel Mowers, 6 Sizes; Back-Wheel Mowers, 5 Sizes; Horse Mowers, 4 Sizes.
10-Inch Popular Croquet Mower, $10.
Our New Horse Mower is conceded to be the Lightest and Best Horse Lawn Mower ever made
N. B.—Horse and Hand Lawn Mowers are alike guaranteed in every respect. Address
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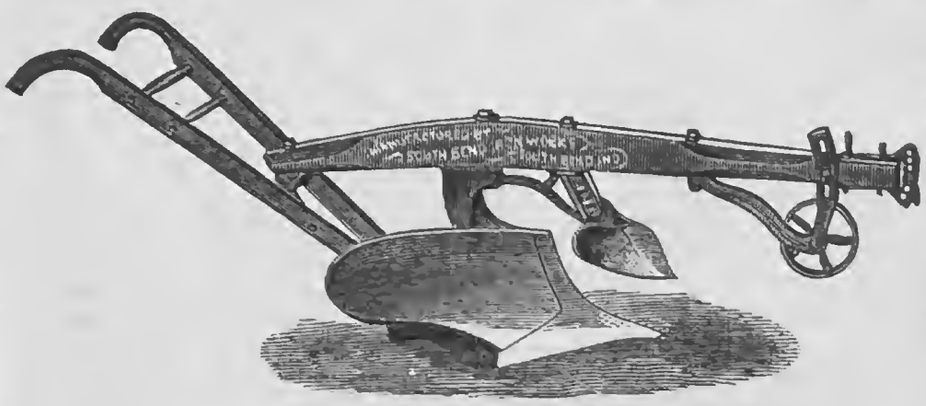

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Are the only perfectly chilled Plows made, and with our new Jointer and Coulter are positively unrivaled
BEWARE OF WORTHLESS IMITATIONS,
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Reading for the Young.

TRAINING FOR FARMERS.

M. OAKEY.

"WELL, my boy, what kind of a farmer are you going to be," I once asked of an intelligent looking lad who lived on a farm. "I don't know, sir," he replied. Since then, many similar cases have forced me to the conclusion, that the majority of boys brought up upon the farm are allowed by their fathers and permit themselves to grow up to manhood without forming any definite plan, or making any special preparation, for the future. Such boys drift along, and up into farmers, the same as they do into manhood, possessing only the requisite number of years, and it is morally certain that the manhood and farmer—"hood" without practical training will be only of the average grade.

Boys, this ought not to be so. You are expecting to engage, by-and-by, in the business of farming. Then why not make special effort to be fully prepared to take up that calling creditably and successfully. You should not be content with being only an average farmer, when you have abundant opportunity to make yourselves the head men in your occupation. You have every advantage and "chance" in your favor, and your course of training will be just as pleasant as it can be profitable. Determine that you will be the best farmer in your neighborhood, and master of your profession in all its details and then set about preparing yourself for and learning your business perfectly with perseverance, and you will meet with all the success you may desire.

Perhaps you are not ready to decide what particular branch of farming you will follow, but that is of no present importance and may safely be left to the future. You can, however early decide as to the kind of a farmer you will make—that no one shall be superior to you and that you will use every possible means to make such a decision the better. As steps in that preparation I offer you in brief the following general suggestions knowing they will call to mind other special means which will vary according to the circumstances and situation of each reader.

First, think. Do a great deal of it. Be constant with thought. Do not perform the slightest act of farming routine without some useful thoughts accompanying it. Do not be careless or ill-natured in thought about it, for that will spoil all, but study the operation in each detail however simple. Ascertain its "why" and its best "how," and try to improve on the method. Learn the principle of the machinery you handle and study how it applies to the use you make of it. Learn if some other machine does not apply the principle better, or learn why yours is best. Think it all out.

Second, study. Study the soil, its nature, adaptability and fertilization, etc. Study the crops and their culture, the stock and their treatment. Compare your father's method with others. Learn in what they differ and why the difference. Suggest properly and politely what you think would be improvements, and give your reasons for your belief. Always remember here, however, that those older than yourself have experience to guide them and maturer minds to judge of the merits or the systems they follow, so if you make suggestions be sure to be respectful to your elders. Then study books and do not think this a terrible bore. In them you will find the digested wisdom and experience of ages, and almost always in an attractive form. Study all those which treat on subjects relating to your occupation so far as you are able to purchase or borrow them, and you would do well to copy all items which impress you strongly, favorably or otherwise. Then study some agricultural paper. I don't advise you to read it but to study it. From it you will receive intelligence from all parts of the country, and the experience of others, which will give you a great deal to study. I would advise you also, to cut out and paste in a scrap book, under proper heads, all items you find in such papers that seem reliable and useful, or to which you may wish to refer.

Third, work, not for your father alone—of course he will expect that—but work for yourself. Get your father to give you a piece of land, a quarter, half, or even a whole acre, but begin small and increase afterwards. Now learn farming practically. Make that land yield you a profit. Be ambitious enough to pay rent to your father for it after you get started, in order to put yourself to the highest test. If you can start with sod land, do so, and put it the first year all in corn, charging yourself with all the manure you think best to use. Give it the best of care, and study and work that crop till it surpasses any acre your father has. Next year follow it with the usual rotation—perhaps one-half in roots and the other in oats; next with oats and barley, and next barley and wheat and clover, returning again to corn. By this means you will be practicing farming in a way that will be of great benefit to you. Take the whole responsibility of the crop upon yourself, and don't expect father to tell you when it needs cultivation. Learn that yourself, asking, perhaps, his advice. This acre will enable you to take a paper or two and purchase what books you desire for your further improvement. Do not be afraid to use part of your land for experimenting and carrying out your own ideas, or those you gather, never mind how odd they may seem to others. Tell your father that farmers are very negligent in omitting thus to train their boys. There is no doubt, however, that he will be one of the thoughtful ones to give his son every advantage possible.

Fourth, keep an account of your operations—your expenses—everything that costs you money: rent for the land, and your time, too, valued at the current wages of your neighborhood, and balance it with the sum derived from the sale of produce. From this simple example you will have learnt the whole practice of farm accounts.

Fifth. Sell your own products yourself. Here is a matter that is often entirely overlooked by farmers, and I would lay special emphasis upon it. Learn to be a salesman. "What kind of a salesman are you going to be?" is almost as important a question as the introductory one. Farming is a business that is two fold in its nature, like all other businesses. The merchant must learn to buy and then to sell. The same is true of the farmer. He must invest and then sell. The merchant will at least partially learn this, but it is of equal importance to the farmer, and should not be neglected. Now, selling father's products is not sufficient, though better than nothing done. You must feel a personal interest in the transaction, and by constant practice make yourself a first-class salesman, so that when you come to depend for a living upon your own farming you will understand how to handle the market most profitably.

If you have a desire for stock farming, then let your operations and your study and work be with them and of them, applying the same suggestions.

In a great measure your future is in your own hands. "What kind of a farmer are you going to be?"

MORE ABOUT THE GLADIOLUS.

DEAR UNCLE MARK:—You say the Gladiolus is a *tender* plant. We have had the bulbs remain in the ground during winter when the thermometer sank to 10 degrees below zero and yet grow the next season as well as ever. I know, however, that only *some* varieties will thus stand the winter. You say also that "each bulb sends up a stem *two feet* high." Now, except several dwarf varieties like Anies, the stems (flowering stalks) will average at least three feet high—at least *ours* will. You say also that each stem bears "a spike of from six to twelve flowers." Ours will average twenty.

Can it be that Uncle Mark is wrong, or are *our* Gladioli different from those of other people? In either case I hope you will publish my note. If *I* am wrong, I want to know it; if you are wrong, you must own up. I am proud to be one of the good RURAL'S Horticultural Club, and thank you sincerely for the bulb (or *corm*, as you call it) which I received in good order through the mail. Long may the club live, and long may you live to conduct the department and dispense among us the seeds and plants from the "RURAL Grounds." My mother says it is a generous undertaking, but only in accordance with the entire management of the RURAL NEW-YORKER. Yours, in the bonds of the Y. H. C. of the R. N. Y., JOE STEELE.

I thank Joseph for his criticisms. He is not entirely wrong in his statements, though they must be taken with some latitude. He would certainly convey a wrong idea of the Gladiolus to those who are not acquainted with it, if he in a brief general description of this flower should say that the flower stalks average at least three feet in hight, and that each spike will bear twenty flowers. I am loth to exaggerate things, so, although I have often seen Gladioli three feet high with a spike of twenty flowers or even more on strong specimens, I should mislead my young friends if I stated this as being always the case. I surmise that Master Joseph is a good gardener, who selects the best corms, grows them in a rich, light soil, and gives them the best culture, so to this extent his may be "different from those of other people."

Gladiolus Gandavensis, the one commonly cultivated in the gardens, is a hybrid of several species from the Cape of Good Hope, chiefly of the species Psittacinus. At the Cape the mean temperature throughout the year is 67 degrees, that of the coldest month being 57 degrees and of the hottest 79 degrees, so that hardy Gladioli do not spring from the Cape species; I have therefore reason to believe that the corms our friend found to be so hardy have descended chiefly from the hardy European species. UNCLE MARK.

A FEW SHRUBS AND WHAT TO DO WITH THEM.

(1.) THE TARTARIAN HONEYSUCKLE.—Of all shrubs this is the finest for a screen or an ornamental hedge. It needs no pruning whatever. It has a wonderful profusion of flowers, which can be cut to any extent without damage. If a single plant dies down from any cause, it will send up vigorous shoots from the roots and fill the breach within six months. It is not ferocious like bush thorn or hawthorn. It has no enemies whatever that destroy it, and few that ever take from it a leaf. It is a cleanly, bright-looking shrub, apart from the blossoms. Set the plants about two or three feet apart, and the growth will surprise you. In two years you will have a fine screen. Mulch with weeds or sawdust or chip manure. There are at least three varieties—white, red and pink. The white is dull in blossom and poor in growth. The red is handsome in bloom and fair in growth. The pink is incomparably the finest of all, for all purposes. You cannot plant it too freely.

(2.) A GROUP OF SHRUBS FOR BRIGHTNESS IN EARLY SPRING AND LATE AUTUMN.—A group of this kind adds greatly to the pleasure of a country home. Plant about ten feet apart, the Forsythia viridissima; the Red-Barked Dogwood; the American Euonymus; the Purple Filbert; the Mahonia; and the Golden Yew and Golden Arbor-Vitæ. An additional charm will accrue from a few low-trimmed Hemlocks scattered among the rest. The Forsythia is covered with bright, yellow blossoms, very early in spring, while its leaves in late autumn give us the rich purple, found nowhere else except in the Ash. The Dogwood is superb in crimson scarlet, both in April and November. The Euonymus extends the glory of autumn through November. The Mahonia is a glossy, rich evergreen, with bright red and yellow shades to the new wood. The Berberry and Filbert open the season early in May or the last of April, with a very pleasing purple. E. P. POWELL.

SHE APPROVES OF THE HORTICULTURAL CLUB.

DEAR UNCLE MARK:—I heartily approve of the Youth's Horticultural Club, and sincerely believe it will prove a grand success. I inclose a letter from each of my two little girls, hoping you will pardon poor writing as their school privileges have not been as good as I could wish for. I have generally the best vegetable garden in the neighborhood, and am also a great lover of flowers. I am thinking of having a small greenhouse erected this fall for the accommodation of my tender plants, also to start early cabbages and tomatoes. With best wishes, I am MRS. L. A. ABBOTT.

Clermont Co., O.

LETTERS FROM BOYS AND GIRLS.

UNCLE MARK:—Although I did not write for the prizes I should like to join your Horticultural Club, and send you a few garden notes. About two years ago I had a great fancy for making a little pocket-money by gardening, and papa prepared a piece of ground by plowing, rolling and harrowing, until it was quite fine. I chose thyme, lavender and sage, as they would keep all winter if not sold. The sowing of seed is the most particular work, because the fate of your crop depends on it. If too deep they are likely to rot, if not deep enough, to dry off; and it is not always one can strike a "happy medium." The thyme and sage grew quickly, but the lavender was delicate all the season, and only rewarded me with some very pleasant perfumed leaves. My thyme, after frequent back-aching warfare, was ready to cut in early September. It was tied in small bunches, hung head downward in the dark graucry to dry, and sold to the amount of $4.75, which was a very good return from one ounce of seed, besides supplying our own house, and some to give away. But it was the sage that caused me sorrow, and yet it grew and was harvested the same as the thyme. About a dollar's worth had been sold, when one day, being anxious to get some particular thing, I asked mamma to buy it from me. She gave me all I asked, $1.50, and no more attention was given to it until a young man, who had found a small desert of Sahara on the top of his head, came to ask if we would sell him some sage as a specific for that trouble. With her usual generosity, mamma gave him all he could carry home, and imagine my grief when the next day he brought her a bag full of butternuts, and it, too, in a poor nut year, when we had none in our own woods. Every time these butternuts went round and I received my share, instead of being able to distribute them as my own, I thought of the many people there are in the world who would like "to eat their cake and have it too." And to this day, whenever I see that youth whose hair is returning with sage results, I reflect and moralize. MARY JACK.

DEAR UNCLE TRUE: This is the second letter I have written to the RURAL. It seems as though the RURAL cousins were asleep. Come cousins, you must wake up or we shall not have any fun. The RURAL editors were so kind as to give us three columns, and I think we ought to occupy a part of this space at any rate. Relic Seeker must think he is going to over-awe us with his big talk, but he will find himself very much mistaken. There is Slayer of Conceit; poor fellow, I suppose he has gone to sleep and forgotten all about the RURAL and its cousins; he started in as though he was going to scare us. I sincerely hope that Relic Seeker and Jumping Jack will not do as that conceit slayer did.

It has occurred to me that we might possibly induce him to return to our circle if we renewed his subscription. I therefore move that we pass around a hat for this charitable purpose. Be liberal cousins; he was a good fellow. Until we hear from him, I sign myself

SLAYER OF CONCEIT'S SUCCESSOR.

DEAR UNCLE MARK:—I have received the prize which you sent me, and was very well pleased with it, and thank you for it. Mamma and I planted a little of each paper of the flower seeds. We have a piece of ground that papa prepared in front of the house nearly all filled up with flower shrubs, strawberries and grapes, and also a few evergreens. I am going to try and do my best with the seeds you sent me, and will let you know in the fall how I succeed. We have set out on our prairie home this spring about 3000 cuttings of cottonwood and willow, besides planting about a thousand small maple and ash trees, as also some apple, pear, and cherry trees. I hope all the cousins who belong to our Club will do all they can to add to the beauty of their homes. LIZZIE HAY.

Nemaha Co., Kansas.

The Puzzler.

HIDDEN INSECTS.

1. A thorn Ethel got in her fingers.
2. I cannot broach the topic.
3. Get up! Is mire poison?
4. Vincent, I pedestrianize.
5. I have a penchant for fruit.
6. The patent clasp I derided.
7. I tell ye L, low Jack etches well.
8. Do you love a beet, Lewis?
9. You are rich in children.
10. Do not chafe, Rufus.
11. Tom, it eases me.
12. Mother is not with us.
13. I shall cater Pillarino.

PUZZLER ANSWERS.—May 3.

HIDDEN WEIGHTS AND MEASURES.—1. Dram; 2. Ream; 3. Quire; 4. Mile; 5. Fathom; 6. League; 7. Perch; 8. Drachm; 9. Pennyweight.

HIDDEN GULFS.—1. S. Matias; 2. Nuevo; 3. Anabarra; 4. Yeniseisk; 5. Karakla; 6. Bayona; 7. Tehuantepec; 8. Gonchagua; 9. Maracaibo; 10. Panama; 11. Amatique; 12. Papagayo; 13. Scalanova; 14. Satalia; 15. Macri; 16. Smyrna; 17. Adramytta; 18. Corn; 19. Varna; 20. Drino; 21. Cassandra.

MISCELLANEOUS ENIGMA.—Temperate in all things.

CROSS-WORD ENIGMA.—Good Templars.

Sabbath Reading.

THIS SIDE AND AND THAT.

A GODLY BALLANT.

THE rich man sat in his father's seat—
Purple an' linen an' a' thing fine!
The puir man lay at his gate i' the street,
Sairs an' tatters an' weary pine.

To the rich man's table ilk dainty comes:
Mony a morsel gaed frae't, or fell;
The puir man fain wad hae dined on crumbs,
But whether he got them I canna tell.

Servants prood, saft-fittit an' stoot,
Stan' by the rich man's curtained doors;
Maisterless dogs 'at rin aboot
Cam to the puir man and lickit his sores.

The rich man deed, and they buried him gran';
In linen fine his body they wrap;
But the angels tuik up the beggar man,
An' laid him doon in Abraham's lap.

The guid upo' this side, the ill upo' that—
Sic was the rich man's waesome fa';
But his brithers they eat, an' they drink, an' they chat,
An' carena a strae for their father's hat'.

The trowth's the trowth, think what ye will;
Ah! some they kenna what they wad be at;
But the beggar man thought he did no that ill,
Wi' the dogs o' this side, the angels o' that.

[*George Macdonald.*

CHRISTIANIZING THE CHURCHES.

EVEN those churches that may be fairly said to belong to Christ show in many of their doings a deplorable lack of respect for the fundamental principles of His religion. The social relation of many of them can hardly be called Christian. The pride and exclusiveness, the lack of friendly sympathy, the division of the body into distinct classes of rich and poor, cultivated and illiterate, between whom no real bond of brotherhood exists—all this is in direct disobedience to the organic law of the Christain church. And not only by these unseemly gradations of rank and caste, but also by the spirit that is manifested in the relations of Christians when they are brought together in the churches, is this law set at naught. There are a great many petty quarrels about small matters, and the inconsistency and shamefulness of this state of things does not seem to be recognized by many church members. Each man wants his own way, and is ready to fight if he cannot have it. In many churches there are chronic dissensions. Are these Christian churches? Look at that wrangling and raging church court now in session in Brooklyn! Is there anything in that city that more needs Christianizing than that Presbytery?

The financial methods by which these churches are often managed find no authorization in the New Testament. The principle of competition upon which the commercial operations of society rest, and which is also brought in to regulate the financial affairs of most of our churches, is not a Christain principle. And it can hardly be said that Christian principle has much to do with the secular side of our church organizations. So long as the man who has the money gets the best seat in church, so long as the whole business of distributing sittings proceeds upon a selfish basis, and the aim of each is to get for himself the best accommodations that the place affords at the lowest possible price rather than to seek the comfort and pleasure of the rest, so long as many practices of questionable honesty are resorted to for the replenishment of the treasury of the church, there will be room for a question whether these churches belong to Christ. Indeed there is nothing that stands more in need of Christianizing than the secular affairs of a good many of our churches.

It must also be said that there are certain portions of the Sunday services that can scarcely be called Christian, or even religious, in any sense. To assert that the music which is commonly heard in our churches is worship, or answers any of the purposes of worship, would be hazardous. It is sometimes good art, and sometimes it is not; but it is generally a performance; it is rarely an act of worship. And it is a serious question whether the interests of pure religion throughout the land would not be promoted by abolishing music from all our churches. If it is not to be abolished, the sooner it is Christianized the better.—*Sunday Afternoon.*

QUIET LIVES.

CHRIST'S lowly, quiet workers unconsciously bless the world. They come out every morning from the presence of God and go to their business or their household work. And all day long as they toil they drop gentle words from their lips, and scatter little seeds of kindness about them; and to-morrow flowers from the garden of God spring up in the dusty streets of earth, and along the hard paths of toil on which their feet tread. More than once in the Scripture the lives of God's people in this world are compared in their influence to the dew. There may be other points of analogy, but specially noteworthy is the quiet manner in which the dew performs its ministry. It falls silently and imperceptibly. It makes no noise. No one hears it dropping. It chooses the darkness of the night when men are sleeping, and when no man can witness its beautiful work. It covers the leaves with clusters of pearls. It steals into the bosom of the flowers and leaves a new cupful of sweetness there. It pours itself down among the roots of the grasses and tender herbs and plants. And in the morning there is fresh beauty everywhere. The fields look greener, the gardens are more fragrant, all life glows and sparkles with a new splendor. And is there no lesson here as to the manner in which we should seek to do good in this world? Should we not strive to have our influence felt rather than to be seen or heard? Should we not scatter blessings so silently and so secretly that no one shall know what hand dropped them? The whole spirit of the Gospel teaches this. "When thou doest thy alms, let not thy left hand know what thy right hand doeth, that thy alms may be in secret." We are not to seek praise of men. We are not to do good deeds to receive rewards from men. We are not to sound trumpets or announce our good deeds from the housetop.—*Dr. Bushnell.*

PERSONAL ITEMS.

Lord Beaconsfield never owned a watch or an umbrella.

Senator Gordon's sheep ranche at Ty-Ty, Ga, comprises 40,000 acres of good land.

Gov Seymour again, in formal answer to the Belmont conference asking him to run for governor of New York, announces his permanent retirement from public life.

Dr. Isaac Butt of Limerick, the well-known leader of the Irish home-rule party in the House of Commons, died this week at the age of 66. Dr. Butt was a graduate of Trinity college, Dublin, and made his career at the bar, whence he was elected to Parliament in 1852, 1871 and 1874.

For sinking spells, fits, dizziness, palpitation and low spirits, rely on Hop Bitters.

Miscellaneous.

WE ADVISE YOU TO INSURE YOUR property in the

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60 Cards—20 Chromo, 10 Motto, 30 Ocean Shells, Snow flake, &c. Name on, 10c. Clinton Bros. Clintonville, Ct

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Send for N. D. Batterson's Berry Basket Circular, Buffalo, N. Y.

SWEET POTATO PLANTS. 2,000,000. Lowest prices. Write for circular. W. W. RATHBONE, Marietta, O.

SEEDS.—S. H. MARTIN, Marblehead, Mass.

Choice Imported FLOWER SEEDS.

Only the very Best! Ten Packets for 25 cents. Also Reliable Vegetable Seeds.

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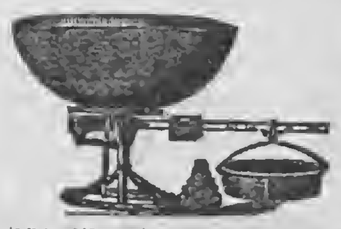

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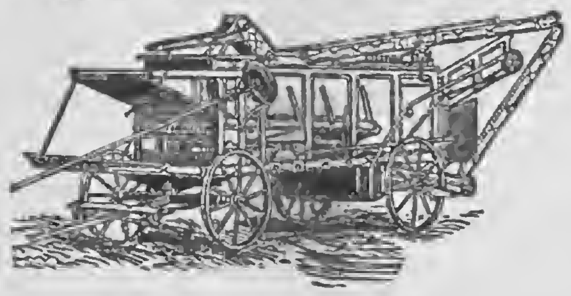

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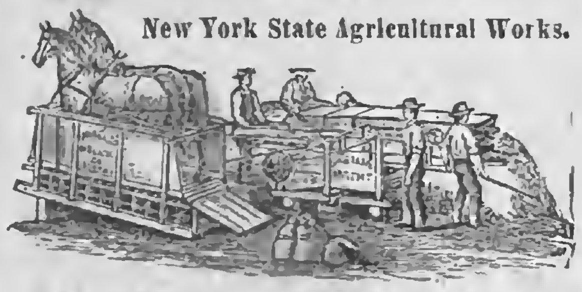

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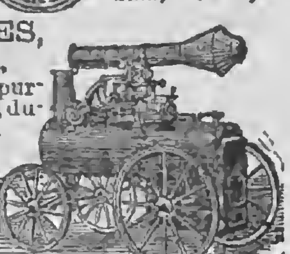

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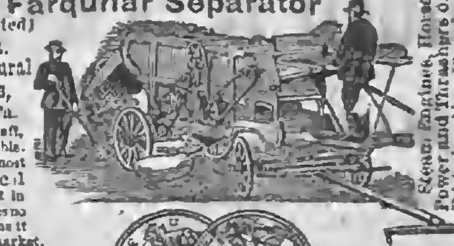

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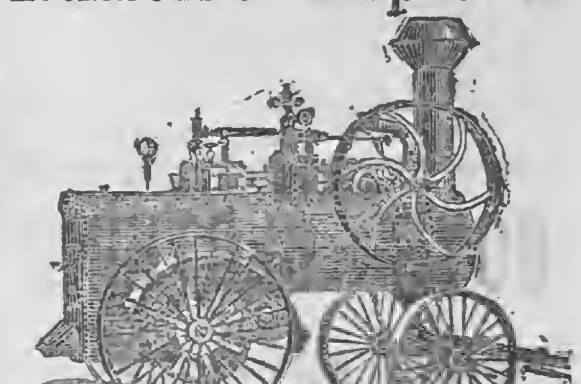

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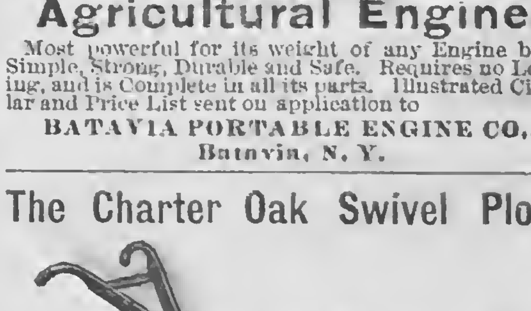

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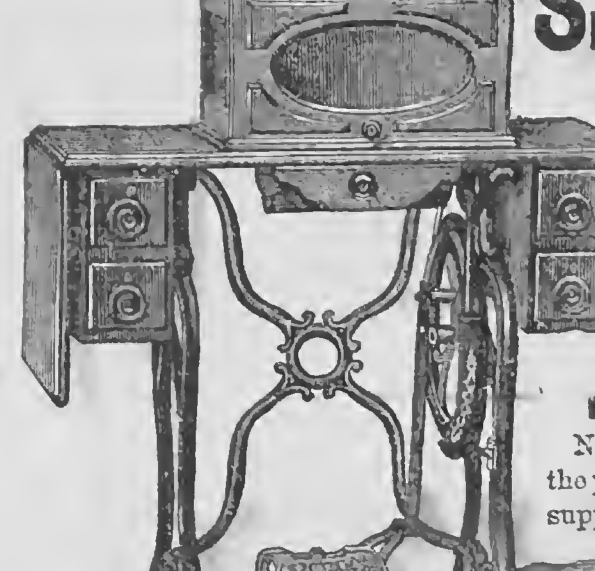

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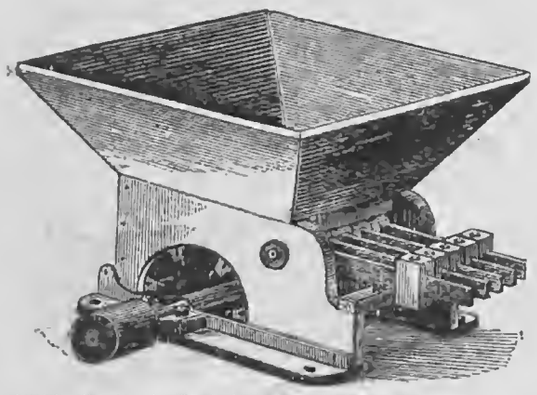

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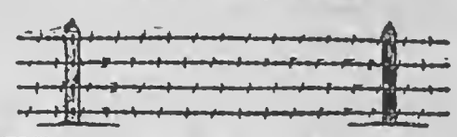

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THE RURAL NEW-YORKER

A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME

VOL. XXXVIII. No. 21.
WHOLE No. 1530.

NEW YORK CITY, MAY 24, 1879.

PRICE FIVE CENTS.
$2.00 PER YEAR.

[Entered according to Act of Congress, in the year 1879, by the Rural Publishing Company, in the office of the Librarian of Congress at Washington.]

The Naturalist.

THE FLYING FOX OR ROUSETTE BAT.

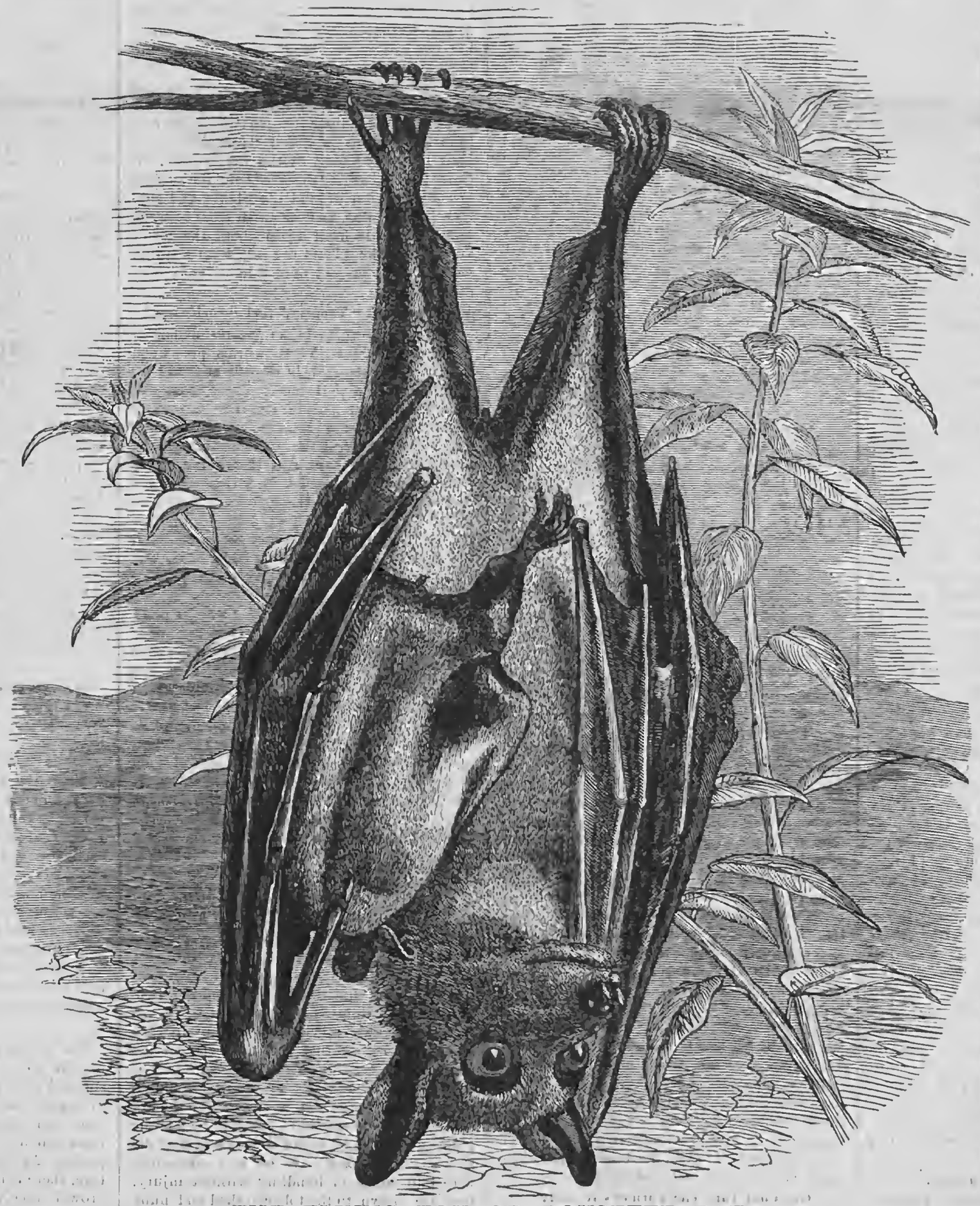
THE different genera of bats constitute the order of Cheiroptera or wing-handed animals, a term compounded of two Greek words meaning hand and wing. Common as they are all the world over, no kind of animated beings have been such a puzzle to zoologists as these strange, weird, grotesque creatures. Aristotle Pliny and other ancient naturalists held them to be birds, an opinion religiously followed by most people during the Ages of Faith and even now entertained by many persons. But just as there are always some opponents of every established belief, so from time to time there have arisen sceptics who refused to accept this classification, having a very natural preference for one of their own invention. Some of these were as quaint as the animals to which they related, such as that which placed the bat and the ostrich in the same order because one could fly and the other couldn't.

As with hundreds of other enigmas of by-gone ages, it was left to modern investigators, by careful anotomical research, to discover that the true position of the bat tribe in the scale of nature is that of mammiferous quadrupeds. In the order there are many genera, some restricted to certain circumscribed localities, others of continental diffusion, and still others to be met with in all parts of the world except the arctic regions. The most remarkable feature of the whole of them is the wide and delicate membrane, thin and semi-transparent, that serves the purpose of wings and renders them the connecting link between Birds and Mammals.

This consists of an expansion of the skin of the flanks and other portions of the body. In structure it is double, so that with ordinary care, the upper and lower surfaces can be seperated from each other. The conformation of the entire body is subsidiary to the efficiency of the wings thus formed. Very active in the air, a bat is always awkward and helpless on the ground. When it attempts to walk, the wings are shut and become fore-feet, the hook terminating one thumb is fixed to some object ahead, and by it the body is pulled forward and to one side, the next step being taken by a similar movement by means of the hook on the other thumb. The length of the wings renders it difficult and disagreeable for the animal to rise from a flat surface, and as a rule it seeks some slight elevation before beginning flight.

The diminative size of the eyes of bats is familiarly expressed in the common saying "as blind as a bat." This characteristic belongs to the active, large-eared insectiverous group whose minute eyes are placed almost within the auricle and concealed by the hair; but in the fruit-eating genera the eye is of the usual size as is also the ear. The diminative eye is compensated for by the great development of the sense of hearing. The organ of smell in many insectiverous bats is exceedingly acute. In these the nose is provided with folds of the integument of great size and most grotesque forms, rendering their physiognomy like that which would be produced by a nose turned inside out and complicated by a hare-lip. Bats have such an extraordinary development of the sense of touch, that Spallanzani was led to believe that they had a sixth sense. In his experiments he extracted the eyes of some of the creatures, stopped up their ears and noses completely, then confined them in a room across which numerous strings were drawn in various directions, and yet they all flew about among the entanglement of obstacles without ever coming in contact with any. Cuvier discovered that this exquisite sense of touch lies in the flying membrane and that the bat is made acquainted with the distance of bodies by the different modifications impressed upon this membrane by the impulse of the air.

Bats vary in size from pigmies no larger than bee to monsters nine inches long with a spread of wings fully five feet. Probably the most famous of the race is the large South American species, the Vampire, about whose deadly blood-sucking propensities so many exaggerated "travelers' yarns" have been told. Its natural food is insects, but when pressed by hunger, it will suck the blood of poultry, cattle and even man. The blood is obtained by suction from the capillary vessels, and not by any wound made by the teeth. The subject of the accompanying engraving is the Roussette or Flying Fox, one of the species of the genus *pteropus*, an inhabitant of the East Indies where it is largely used as food. A full-grown specimen is about eight inches long with a spread of wings of about four feet. According to the fashion usual among the bat family, it is snugly resting, head-downwards, clinging to a support by the sharp claws terminating its hind legs. If disturbed while in this position, it is excellently situated for immediate flight, as all it has to do is to loosen its hold and it is at once launched into the air. The recesses of a cave or a ruin are their favorite retreats.



THE FLYING FOX OR ROUSETTE BAT.

Farm Topics.

NOTES FROM THE RURAL FARM.

WE are planting corn (May 14). That for home use is upon a five-acre field—from which a large average of hay has been taken for three years past. This is one of those fields of which there are several upon this old farm—which, let the season be what it may, will produce at least a fair average yield, and in some seasons an immense one. Thus, should the summer prove wet, we shall harvest not less than 40 bushels; should it prove dry, not less than 60 bushels—perhaps a good deal more. Our land here is decidedly of three sorts. The first (upland) is a sandy-gravelly loam; the second, (midland), a mucky loam, and the third (lowland) is pure muck, yielding from two to three tons per acre of a fine quality of salt-meadow hay. The five-acre field of which we began to write, was plowed and harrowed. Then 1,800 pounds of superphosphate of lime were sown and harrowed in. Then the field was rolled with a heavy roller and the corn planted, four kernels to a hill, the hills four feet apart. Our readers will remember the request we made last year that they would send us ears of the corn which they had raised with the best success. So many were the responses of our good friends that the collection at length became one both curious and instructive, exceeding in variety any display we have ever seen at our best agricultural fairs. The best of these ears were sent here and *these we have used as seed* for the above corn-field. Of course, these many varieties will intermix immeasurably, and although we look to the result as one that will gratify our curiosity more than it promises to impart any useful lesson, yet, if it should turn out otherwise, it would not prove the first time that instruction was gleaned when least expected. In a measured quarter-acre plot of the *midland* belt we have planted our

Blunt's White Prolific.

Having been mowing ground for the past two years, 6 loads of coarse barnyard manure were spread over the sod and plowed under. Then it was harrowed each way and rolled alternately three times. The area of this plot is 132x82½ feet, and a kernel of corn was planted every 14 inches in the row—the rows four feet apart. We used what might be called a compound dibble to insure uniformity of depth and distance. This consisted of a strip of wood two inches wide 74 inches long upon which five wedge-shaped pieces were securely nailed, the points of which were precisely 14 inches apart. By a pressure of the foot upon either end of the contrivance while held vertically, the pickets were forced into the ground up to the cross-strip, making five holes two-and-a-half inches deep. Thus the entire plot was gone over. Into each of these holes a single kernel was dropped and covered over rather compactly to a level with the surrounding soil, so that

when completed and when the newly-moved earth had dried, there was nothing to indicate that any planting had been done. Instead of marking the earth, a cord, 83 feet long, attached at either end to a four-foot stake, was stretched across to guide the use of the dibble. The corn, we may mention, was first placed in hot water and tar and then covered with ashes and passed through a sieve. In this section of country, the blackbirds and crows (especially the former) are so numerous that we never feel safe without adopting this precaution which is quite effective. Our friends will conclude that this quarter-acre crop of corn will cost us more than it will be worth. Probably. But we are anxious to determine how much corn we can raise by giving it every needed care without regard to cost or trouble. It is well to determine how much it is *possible* for us to do, so that we may know how much it is wise to attempt. Besides, if by an intricate method of corn culture we find we may double the yield—perhaps the yield might still be doubled and, pursued upon the same principle, the method greatly simplified. We have sent thousands of envelopes of this Blunt's corn to our subscribers. Many of them have advised us of their intention to compete for the "RURAL" premiums. We, of course, do not desire to enter for the prizes—but we do desire that our yield should not fall far behind those yields which secure them. Holding ourselves up as instructors of the agricultural public and frankly avowing that we intend to do our best, it might cast a cruel reflection upon the proprietors of the RURAL FARM were they to be distanced by their less pretentious competitors. In another letter we shall tell our friends how our *Cultivation* of wheat progresses.

WORK FOR JUNE.

IN this lovely month the country usually puts on its most attractive dress. The warm weather pushes on vegetation and there is no lack of work. Some will be so absorbed in this that they can see little beauty in vegetation as it is displayed in innumerable forms. A little better planning; a little less hard work; work for fewer hours in the day, and a knowledge of botany would make every farmer enjoy life better. The botanist sees something to admire in every plant, and plants make all or support all that there is of much interest in any country.

Corn.

Indian corn is a beautiful plant, whether we view it in the tender blade, in the full-grown plant, or when harvested. Nothing is more useful or more beautiful than a crib well filled with good sound corn. In June, the corn should be well tended. The cultivator should start as soon as the rows can be seen, and be kept running for some weeks. The land should be well prepared before planting, and the rows be made straight, then all or nearly all the work can be done with the horse and cultivator. It will seldom be a profitable crop if much hard labor is given to it. For fodder or for using in the dry weather of August and September, it is a good custom to drill in the rows about two feet and a half apart, and then run the cultivator. The stalks grow larger; they often bear small ears and the crop is worth more. A small piece of corn for this purpose is almost indispensable on a well-managed farm.

Stock.

Stock of all kinds should now be thriving and doing their best. The sheep and lambs should be looked after every day. The swine should have some grass. Keep the calves growing by rich pasture, milk, and a little ground feed. More attention should be given to selecting and raising good heifer calves to improve the milking qualities of our herds of common stock. This should be kept up for years with a definite end in view. Good males should be used with the same object.

Making Hay.

For profit much depends on good management, and, of course, something on the weather. There are advantages in using a hay-tedder. Hay can be cured much more quickly and in good weather can be cut and drawn in on the same day. This saves cocking up, and avoids risk of getting wet. Begin to cut grass early. Professor Beal gives the following good reasons for this practice. "Stock prefer hay made of grass just before, or as soon as it is in blossom. The chemist has found that grass at such times contains a greater proportion of nutritious or digestible materials than when cut later. This plan leaves a longer time for the next growth, which may be used for pasture or for mowing again. It exhausts the roots less."

Meadows hold out better when the grass is not allowed to go to seed or to get old before cutting. Very often the crop can be well secured if cut early, while if cut late, bad weather may come on. If a farmer begins early, he has a longer time to work in case of bad weather.

Care of Trees and Gardens, &c.

Trees which have been recently planted, should be well mulched or frequently cultivated. Tie up straggling canes of Black Caps or cut off a part of the top. Mulch Strawberries to make them endure the dry weather and keep the fruit clean. For this purpose there is nothing better than clean straw worked down among the plants. If there are oats or wheat in the chaff, the seeds will grow. If old hay is employed, seeds will grow and make trouble. If leaves are employed, the wind will scatter them. Saw-dust is bad for the soil. Corn-stalks, unless chopped or cut up, are a poor material for mulching Strawberries. For a successful garden, it is necessary to plant a succession of beans, beets, corn, lettuce, peas, radishes, spinach etc. It is usually most convenient to leave a spot for each sort and so keep each kind of vegetable by itself. For cucumbers and radishes and squashes, if but few are raised, take advantage of coops of young chickens which should be brought out in season and scattered about the garden. To start melons and other vines, a depression may be made in the soil over the hills in the following manner: Plant the seeds, then place a block over the hill and pack the dirt closely around it. Remove the block by a handle attached to it. A pane of glass, or a piece of very thin muslin stretched on a frame, may be placed over each hill and left till the plants crowd it. The plants thus get a good start without trouble from any insects.

Miscellaneous.

JOTTINGS AT KIRBY HOMESTEAD.

COL. F. D. CURTIS.

Butter Cows,

WE had to go with Esquire Davidson to his stable and help him admire his Jersey cows. They are all grades, from half-bloods up to fifteen-sixteenths, and are beauties every one of them. The Esquire thinks, for a butter dairy, they are the most profitable cows a farmer can have. They are hardy and give good messes of exceedingly rich milk. People come to his house and offer five and ten cents more than the market price for his butter on account of its excellent quality. The Esquire is one of a few neighbors who have had the forethought and good judgment to send their best native cows to our Jersey bulls, and he is now reaping his reward. Mr. Heaton did the same thing, and he has a half-bred Jersey heifer, which at two years of age, made nine and a quarter pounds of butter in one week, and when three years old, from a week's milk, made twelve and a half pounds of butter. A four-year-old made in one week eleven and a quarter pounds. These are all small cows, and give milk nine months out of the twelve. These results were from grass alone. We are now making nice yellow butter from the milk of one Jersey cow, and enough of it for our family, besides using nearly half of the milk. We have seen a great deal lately about Holstein cows, but when the amount of food consumed is taken into the account, the Jerseys and the Ayrshires will be found to be ahead for profit. An Ayrshire cow has raised two calves this winter, and they are large and in fine condition.

Sick Animals, Medicines.

We had a spring lamb which stood one side in the flock and did not seem to eat. We concluded it was constipated and immediately administered a tablespoonful and a half of castor-oil, with a teaspoonful of sweet spirits of niter, mixed with a gill of milk. The lamb was put in a clean crate by itself, and the next day, there being no evidences of a passage from the bowels, an injection was given which brought no relief. The lamb had refused to eat for three days. Another dose of oil was given, and two gills of milk poured down its throat. In the evening more milk was given, and the next morning the bowels had moved and the lamb began to eat, and was soon well again. It would have died but for the repeated doses of castor-oil. The lamb did not bloat but was gaunt and growing weak very fast. Spring is the season when animals are very liable to be constipated, and every farmer should be on the lookout for this kind of trouble, and treat every case as soon as discovered. The next stage for constipation is inflammation of the bowels, and when this condition is reached, a cure is almost impossible. Constipation is the natural result of a long diet on dry food. A farmer should have his medicines on hand and ready for use. He should always have castor oil, which is the best physic for young animals, and where there is any cold or inflammation, the best for any animal. There should be Glauber salts for the horses, as they act both on the bowels and kidneys, and small doses, a table-spoonful every day, are excellent, nothing better to tone up a horse's stomach and help to put him in good condition. A farmer should never be out of niter, mustard, alcohol, good liniment, laudanum, carbolic acid, and, last but not least,

Gas Coal Tar—The Farmer's Remedy.

This is our sovereign remedy for all cuts and wounds, and is the best cure for all kinds of sores. It is the cheapest and most efficacious application which any one can use. If applied to a fresh wound, however severe, it will prevent the growth of proud flesh, and promote healthy granulation. It coats over a flesh wound or cut with an adhesive covering which keeps out the air and prevents smarting or pain. It will keep the flies away, and is self-adhesive. The best way to buy it is by the barrel. It is a durable paint for tools, fences, a hay rigging, a farm wagon, or anything exposed to the weather. Wood will last a great deal longer when painted with it. It should always, when used as a paint, be put on hot. It is a durable and preserving paint for an iron fence. A barrel of it should not cost more than $1 50.

CASH vs. CREDIT.

A FRIEND, living within a few miles of Cincinnati, O., writes us as follows: "We have a neighbor who must fail before long, his farm being mortgaged. He also owes many people, and keeps them from pressing him too hard by paying them a little now and then. Nevertheless, he can buy, and has this spring bought farm implements, on time. Those he has bought this spring cannot have cost less than $200. Now the injustice is that as he does not intend to pay in full, he can and does sell his early truck at a lower price than his prompt-paying neighbors can afford to sell for. I hope that your articles, Cash vs. Credit, may induce him to compromise with his creditors, and begin again upon an honest, cash basis."

Field Crops.

TOBACCO CULTURE.—No. 3.

O. GOFF, JR.

Cultivation of Young Plants.

TOBACCO requires thorough and frequent cultivation. About one week from the time the plants are set, or as soon as they have commenced growing, the cultivating should begin, and it should be continued at intervals, as long as the work can be done without injuring the leaves. Especially is cultivating important in dry weather, as there is no better remedy for drought than to keep the surface of the soil mellow by frequent stirring. The best growers hoe their tobacco twice. The first time the process is called "scraping," and should begin as soon as the weeds start. It consists of skimming the weeds and the surface of the soil, from around the plants, and substituting the fine, mellow earth from between the rows. It is hoed again about the 1st of July, when the plants are hilled up slightly, and the "extras" not needed to fill vacancies, removed.

"Worming," "Topping," and "Suckering."

The tobacco-worm is the greatest enemy of the tobacco plant. These worms prey upon the tobacco in the months of July and August, and the utmost vigilance is necessary to prevent them from greatly injuring the crop. "Worming" tobacco, is a task requiring much time and patience. Each row should be passed over as often as once a week, and the leaves examined for the worms. A little experience will enable one to tell where they are most likely to be found. Turkeys will devour the worms greedily, and are very useful to aid in the work of hunting and destroying them. The chief reliance must, however, be in picking them off by hand.

In order to throw the energies of the plant into a few large leaves, the top is broken off at the time of flowering. This process is called "topping." It consists of breaking off the flower, with a few of the upper leaves which cannot become fully developed. Experience is required to tell just how much of the plant should be taken off, as it depends, somewhat, upon its strength and forwardness. As soon as the plants are "topped," suckers will start out at the base of the leaves, which, if allowed to grow, will also form buds and blossom. The plants should be gone over at least twice, and all the suckers removed.

Cutting.

About twelve or fourteen days after the plants are topped, they should be fit to cut. Experience is required to tell the exact time when the tobacco should be harvested to yield the best results. All good growers agree that it is important that the cutting should be done at the proper time, as delay even of a day will sometimes cause much loss. When ripe, the leaves become spotted and the color of the lower leaves turns brown. The plants are cut with a hatchet and laid upon the ground to wilt, but they must not be exposed to the hot sun. Great care should be taken to handle the plants carefully, so as not to break or tear the leaves. When they have become sufficiently wilted to admit of handling without injury, they are drawn to the tobacco shed and hung up to cure. The cutting should be done principally in the morning and evening, to prevent "sunburning." It is not safe to leave plants cut upon the ground between the hours of ten in the morning and three in the afternoon on a hot day. Only as much therefore should be cut in the morning as can be taken care of before ten o'clock, when, if the sun shines hot, the cutting must be suspended until two or three in the afternoon.

Curing.

The plants are hung in the shed upon poles, with twine. The poles are placed as near each other as possible still permitting a free circulation of air—usually from twelve to eighteen inches apart. The ends of these poles rest upon joists, which are placed from four and a half to five feet apart. The tobacco sheds are built so as to receive three or four tiers of these poles on which the plants are suspended. A free ventilation is secured from the sides of the building by having the boards placed vertically, and every third or fourth board hung on hinges. The building also should admit air from beneath. Ventilators are placed in the roof to further encourage a circulation of air when needed. The size of the tobacco shed should vary with the number of acres cultivated. A building 48 feet long, 28 feet wide and 16 feet high, will receive three tiers of plants and will store the tobacco grown on two acres. There is doubtless much yet to be learnt about the curing of tobacco. The natural laws that govern it are not well understood even by our best growers. Many different opinions exist on the subject, but it is the common belief that tobacco *can* have too much air during the process of curing. The important question yet to be answered, is: How may the tobacco be cured so as to insure good colors and still escape the danger from "pole-burning?" If the drying is too fast, the colors will be too light, and without proper ventilation, loss from "pole-sweat" will almost surely occur. The method followed by our best growers is to keep the doors of the tobacco shed open except in dry or windy weather. Tobacco will cure in about three months from the time it is harvested. When it has become thoroughly cured—which is known by the stems of the leaves becoming free from sap—it is taken down and piled in a double rank, with the butts of the plants extending outward and covered over to prevent drying. This work is done in damp weather when the leaves are soft and pliable. The leaves are next stripped from the stalks and tied up in small bundles and carefully packed away and covered over, where they remain until assorted. It is better to do the stripping in damp weather, as it is essential that the tobacco should retain its moisture.

Assorting the Tobacco

furnishes the grower with pleasant employment at a time of the year when he has little else to do. The work is usually done in the winter in a tight room built in, or adjacent to, the shed. This room is made comfortable by a fire and provided with benches or tables on which the tobacco is assorted. A kettle of water should be kept on the stove, the evaporation from which will prevent the air in the sorting-room from becoming dry. The leaves are handled over one by one, and sorted into different qualities and carefully packed away and covered with boards or slightly dampened carpets. From twelve to eighteen leaves are tied together, which form what is called a "hand." Four qualities are usually made, viz: first and second wrappers, binders and fillers. It is important in handling tobacco that it should be kept from drying. It is unfortunate if artificial moistening is ever required, as it occasions unnecessary labor and danger. If the tobacco is in proper order when it is taken down from the poles, and not allowed to dry while handling, it will not need further moistening. But when it is necessary to dampen it, much care and judgment must be used. The water must be used sparingly, and, put on in a very fine spray, so that it will not spot the leaves.

Packing.

When the tobacco has been assorted it is packed in cases, each quality by itself. This work should also be done in damp weather. From 375 to 400 pounds should be pressed into each case, and the tobacco should be in proper condition as regards moisture when the "packing" is done. Some growers assort their tobacco as it is stripped from the stalk. This is the more rapid way, and with small or poor crops, perhaps the best; but it is then almost impossible to do the work as well, and therefore it is not usually considered the best way where the work needs to be well done.

Profits.

The tobacco in this valley is principally bought up by New York houses whither it is shipped when prepared for market. A number of buyers usually come here at about the same time, and some competition is formed among them which enables the growers to get better prices. As regards the profits of tobacco culture, there is much to say. The prices which growers receive for their crops have been and probably will be subject to great fluctuations.

The readiness with which tobacco has been sold for the past ten years, while the market for nearly all other farm products is so stagnant, will cause a decided increase of acreage for the coming crop. It is to be feared that a time is approaching when the price of seed-leaf tobacco will reach lower than for many years past. The tobacco business requires a considerable outlay of capital, and it will not pay for farmers to invest in the necessary outfit unless they propose to make it a permanent branch of their business. Our best farmers are learning that it is not best to strive to produce the largest possible number of acres; that a few acres with good culture and proper management, will give more profit than a large number of acres which suffer from want of proper care. Doubtless the best rule for growers to follow is for them to produce no more tobacco than they are able to thoroughly fertilize with barnyard manure and to give such culture and care as to make it of the best quality. Managed in this way, we have found that tobacco does not exhaust our soil. The heavy manuring and thorough cultivation which the crop receives, leave the soil loose, friable, free from weeds, and in excellent condition for other crops.

The cultivation of tobacco will be found more profitable in localities where the business is already followed to a considerable extent. In such localities there is usually some competition among buyers, which is a decided advantage to the growers. The demand for the best qualities of tobacco will probably continue, even though the market for the lower grades may fail. A few acres of the best part of the farm devoted to this crop, with extra culture and proper management, so as to obtain a large percentage of good sound leaves, will doubtless prove remunerative. The prices that have been paid for tobacco during the past five years, in the Chemung valley, range from ten to fifteen cents per pound for running lots, according to quality, without much fluctuation. The yield received per acre varies all the way from 1,400 to 2,000 pounds, according to the condition of the soil and culture given the crop.

Chemung Co.

RAISING AND HANDLING BEANS.

I WOULD like to give through the RURAL the method most commonly practiced hereabouts of handling a crop of beans, and in so doing I will give my experience with seventeen acres.

Planting and Cultivating.

The ground, which is a sandy loam, was plowed right after corn planting, harrowed until it was in good condition and immediately drilled on the 24th and 26th of May with a grain drill using 40 pounds of seed per acre, the rows being 35 inches apart. To the drill I attached a plank which was dragged after it on the ground, leaving the surface smooth and making it much better to cultivate while the beans were small. As soon as they were fairly up, I started a small cultivator with shield attached to the side next to the row and running close to the ground, to prevent lumps from falling on the row. By working slowly and carefully a good job can be done in this way, while the vines are very small, which I have found to be a great advantage in keeping the start of the weeds. I cultivated three times, finishing while the beans were in blossom, and as no more culture was given, they ripened early and quite evenly, which is a great advantage, as they can often be put on the market early and sold for nearly twice what they would bring two or three months later on.

Gathering and Thrashing.

The dry weather shortened this crop to a considerable extent while the beans were setting; but they were ripe enough to commence harvesting the 12th of August, and were gathered and thrashed with flails at an expense of $25. This expense could have been reduced at least four dollars, if the weather had been as favorable as it commonly is at that time of year, but it was a bad season with very few hot, sunny days. My method of gathering the crop I consider more easy and expeditious than by pulling. I started a man and team with a plow without wheel, as that would shell the beans, the team spreading the row and the plow running an inch and a half or two inches deep, just deep enough to cut the roots but not to turn a furrow. The vines will slide to one side and stand almost in the same position they occupied in the row, leaving them in nice shape for the "hands" to follow with forks, gathering them up and throwing three or four rows in one. I consider it an object to have plenty of help and drive this business when the weather is favorable. If the beans are quite ripe and the sun bright and warm, they can be dug in this way in the forenoon and thrashed very fast in the afternoon. I have known one man to thrash three acres in half a day, but it was exceptionally fast work. Thrashing usually costs from three to five cents per bushel. The beans having been thrown in small windrows, a team with wagon was driven between them, a hand loaded from each side and the load was drawn to the barn where four men thrashed the crop on a double floor. Managed in this way, the work is lively, and a set of hands will thrash in the afternoon what they can dig and gather in the forenoon.

Marketing.

I think it a good plan to allow the beans to lie in the chaff two or three weeks, but in this case I had an offer for them as soon as they were thrashed, and, cleaning them through the fanning mill, they were straightway drawn to market. They yielded twelve bushels per acre and I received $1.92 per bushel for them. My book shows that I received money for them Aug. 25th, making only three months from the time of drilling until I had the money in my pocket. There are not many crops from which the returns come so quickly. A short time after I sold my crop the market dropped, and in the winter beans were only worth one dollar a bushel. I wish to show by this that it is well to have them ripen early, and necessary to thrash them as soon as the weather will permit, in order to take advantage of any market which may be open for them.

Remarks.

I should have said that this ground was corn stubble, and I think we can insure the ripening by a suitable selection of ground and proper cultivation. The only bean crop I have ever raised that failed to ripen early, was on a June-grass sod. I am very chary of bean straw, as I consider it worth fully as much as clover hay for sheep, and I have never fed them anything they seemed to relish as well.

Mendon, St. Jo. Co., Mich. G. A. A.

Horticultural.

ECONOMY IN HORTICULTURE.

E. P. POWELL.

As a rule there is no economy in crowding crops; that is, berries do better without having vegetables between the rows, and can be kept in better cultivation. But there are plans for encouraging labor in the garden, that are seldom practiced. For instance, plant with your early potatoes your early peas; say the Early Rose potato and the Alpha pea. This pea will grow to about the hight of two feet. It will not be in the way of the first hoeing, which should be very thorough and a partial hilling. Neither will it be in the way of the plow, which should do the final hilling about June 1st. It now falls over the side of the drills or hills, and will be ready for picking about June 20th. By this time set your celery plants in the furrows between the drills, and let them get a good start by the time the potatoes are taken out for early use. The pea vines are then pulled and fed out; the potatoes dug and the trenches utilized. The dirt is also ready to hand, as soon as the potatoes are used, to be drawn up to the celery. In this way three crops are taken from one piece of soil. The labor is, at least, one-third less than what it would otherwise be; I think even less. There is, in the same way, no difficulty in disposing of our early beans in the same hills with our sweet corn.

There is but little economy in buying a lot of expensive tools and improved machines which cost more than all the vegetables or crops will return for five years. As a general thing, few tools are used, and the most of them are in the way. But every gardener needs a light one-horse plow, an adjustable cultivator, and trowels to assist in planting and weeding. Weeding should invariably be done, trowel in hand. The trowel loosens the soil where the hoe cannot be trusted, at the same time removing the weeds. The economical rule is—buy few tools, but buy those you learn from experience that you need. Never borrow and never lend.

Economy of time also requires that the gardener or farmer keep a memorandum of what is to be done. He should have this always in his pocket, and jot down what he sees will be required. Let him then each night mark his work for the next day, and he will find at the end of a month that the little odd jobs, instead of having accumulated, are strangely decreased, and have been worked off without observation or worry.

There may also be a large saving of time in the method of culture of many of our vegetables and fruits. For instance, we may save the expense and trouble of poling our Lima beans by growing them low, like bush beans. They will require no more pinching in than by the old method, and will give about the same crop. Raspberries may be grown two feet high, or a little more, and built up into snug shrubs, thus saving stakes and wire. They are more easily handled and bear equally well.

In keeping up an ornamental homestead, hedges add greatly to the beauty, while they enable us to grow many trees otherwise too tender, serving as wind-breaks. But most hedges require so much toil to keep them in order that they become unsightly or a positive incumbrance. The Buckthorn, so fine in all other respects, must be trimmed when we are sure to be very busy in regular farm work. But the Tartarian Honeysuckle, the Arbor-vitæ, the Hemlock, make no sharp demands upon us. I know of only one shrub that needs no trimming and is always a beauty when grown as a hedge; I mean the Tartarian Honeysuckle. The evergreens named above can be trimmed at almost any season, and clipped as well with a sickle as with shears.

The above hints are meant only as a finger-post to point in the direction of economical horticulture. The experienced and thoughtful grower has learned a long list of time-saving expedients that in no way shirk the requirements of honest work.

OKRA (Hibiscus esculentus).

THIS vegetable, so highly favored in the South, so healthy, nutritious and of easy culture, is totally unknown to thousands of Northern families, while a Southern dinner—in season—without it, would be considered incomplete. Served as soups, with green corn and tomatoes, it has no equal; nor has it when stewed, fried, or prepared in many other ways. It is also cut in rings or sliced and dried for winter use.

The Okra is a tender herbaceous annual, resembling the Hollyhock plant, bearing its flowers and edible pods, like it, in the axils of the leaves. The flowers, also, in shape and size, resemble that of the single Hollyhock. Its color is a creamy white, and it is related to both the Hollyhock and the Cotton plant. The culture of Okra is a simple field culture, and since it feeds principally on mineral matters, it requires as fertilizer but six hundred pounds of good wood ashes or four hundred pounds of some good commercial fertilizer to the acre. The soil for Okra should be light and warm. It should be broken deeply, as early in spring as practicable, with spade or plow, as circumstances demand. The fertilizer should then be scattered and harrowed in. As soon as soil and weather get warm enough to plant corn and beans, the land is laid off in rows three feet apart, and the seed—having been previously soaked—is planted from four to six inches apart, according to its quality. It would be proper here to remark that the seed does not germinate freely, and under unfavorable conditions, such as cold, wet weather, it will frequently rot in the ground. As soon as the plants are three inches high, thin to eighteen inches. All that is now requisite till frost is a clean, shallow culture.

As soon as the pods have attained two-thirds of their full size, they are ready for gathering. This is done at first once a week; later, twice, and when the plant is in full bearing, as often as once a day, in order not to allow the pods to get too old and tough. The pod is in proper condition for gathering when it breaks easily from the stalk, or when its point breaks when held under a light pressure of the thumb. The rough, hairy surface of the plant is very irritating and produces a burning sensation, and persons with tender skins, when gathering Okra without gloves, frequently get swollen hands from its effect. Where the skin is exposed, this burning may be partly or wholly relieved by bathing the hands in strong salt water.

CHAS. DECKNER.

Fulton Co., Ga.

Floricultural.

DAHLIAS.

THOUGH rather a coarse flower for cutting, the Dahlia, if properly grown, is a very showy plant, and is very desirable in some situations. It is very easily grown, though many are not at all successful with it. Those who dig a space six inches square in the middle of a grass plot, and in it plant roots which have been started in the house or hot-bed in February or March, sometimes leaving a dozen stalks in a cluster, need expect no success whatever. The tubers should not be taken out of the cellar until May; then they should be cut up with only one eye, if possible, in each piece. These should be planted in a rich soil—I have never found it could be made too rich—two and a half or three feet apart. A stake should be driven by each one, with the label attached, and when the plants are grown, they should be tied to the stakes with strips of cloth. Hoe them to keep the weeds down and to loosen the soil. Dahlias will not succeed near grass.

My Dahlias yielded last year a larger crop, according to the number of hills, than my husband's potatoes did. Last winter our cellar was colder than it had ever been before and my tubers froze. They will not bear a touch of frost. It is said that the best way to preserve the tubers is to stow them away beneath potatoes in a frost-proof cellar.

LORETTA E. K. TURNER.

WHAT AILS MY CALLA: IT WON'T BLOSSOM? is a question often asked of me by my neighbor lady amateurs, and to which I almost as often answer, "It needs a far smaller pot and a much more porous soil." But as different cases may require different cures, I will merely mention the treatment appropriate to Callas generally: When you repot your Callas, say in August or September, put the biggest crowns into one pot and the smallest into another, using small pots in preference to large ones, and drain them well. For soil use a rough, open spongy but rich material, that any amount of water cannot clog. Endeavor to get the pots well filled with roots before winter sets in, and give water liberally. Promote a stocky growth by free ventilation and a sunny place near the glass. If they have grown rankly, so much the better, as they will have male roots in proportion to their crops, and when they taste starvation then they will blossom. When flowers appear and you are satisfied the roots have consumed the fatness of the soil, a mulching of manure, or occasional waterings with manure water will enhance the quality and quantity of the blooms and maintain the vigor of the herbage, but under no circumstances should stimulants be applied to flowerless plants. The wide-spread notion of setting Calla-pots in saucers filled with hot water, and of applying scalding libations as you would ordinary waterings, with the view to forcing the Callas, and the like, are the most ridiculous nonsense, a libel on vegetable physiology, and murderous cruelty to the subjects operated on.

RENOCLAF.

Entomological.

EXTERNAL PARASITES.—No. 3.

Lice.

AMONG hemiptera we have, as external parasites, the nasty, disgusting and too common bed-bugs (Cimex lectularius, Linn) and the even more repulsive lice. As I am not treating at present of the human parasites, I will only say that the bed-bug is exceedingly tenacious of life, as they have been kept in glass bottles for years without food, and through all this long fast seemed to lose none of their activity or appetite. The best remedy for bed-bugs is a free use of the thoroughly rectified benzine. This will not injure bedding and is quick death to all the bugs that it touches. It should be poured into all suspicious crevices. Old houses that harbor these obnoxious pests should be closely shut up, and then thoroughly fumed with burning sulphur, which becomes a fitting insecticide for the bugs. It would be better if the house were entirely empty during this operation. Thorough ventilation should succeed the fumigation.

FIG. 1.

BED-BUG, MUCH MAGNIFIED.

Louse Family—Pediculidæ.

The parasitic lice (Fig. 3) of man and other animals are apterous bugs. The head and thorax are small and narrow, the latter indistinctly segmental, while the abdomen is flask-shaped with its nine rings often plainly marked. The eyes are simple and very small; the antennæ five-jointed and prominent, while the tarsi or feet are two-jointed, the last joint of which (Fig. 2) is modified into a hook for grasping the hair. The sucking tube of lice—the *casus belli* of most of the hardest scrathing of the world—is very complex and curious. The whole of this organ, when not in use, is drawn into the head. So all lice are criminals in the sight of the law and subjects for conviction on the ground of bearing concealed weapons. The lower lip is thrown out, as we would push out the finger of a glove that was drawn in upon drawing the glove from the hand. Inside of this are numerous hooks which, when the tube is rolled out to its utmost, attain the outside and point back like the barbs of a fish-hook. When these barbs are pushed through a sweat pore, each hooks on to the wall. We thus understand the tenacious hold which characterizes a louse while at dinner. When, preparatory to sucking, the hooks have been duly adjusted, two other tubes, one within the other, spy-glass-like, are extended, the maxillæ, forming the inner or terminal point of the extension, and the mandibles the remainder. The whole proboscis has been compared to an elastic probe. This is forced into the skin till it pierces the blood vessels, when by the forcible action of the strong muscular sucking-stomach, these ir-

FIG. 2.

FOOT OF OX-LOUSE.

repressible blood-suckers are enabled to take a quick meal.

There are three species of lice that disturb the peace and quiet of the human family. The head louse, (Fig. 3) Pediculus capitis (De Geer), is the most common. It is said that in old times it was thought no disgrace, but fashionable and desirable, to harbor and nourish the crawling pigmies of the head; now they are only common among such people as neglect personal neatness. The most cleanly person may be so unfortunate as to possess specimens not pinned in an entomological cabinet, but he will soon banish them according to the fashion well understood in all civilized society. The Grayback, Pediculus corporis (De Geer) is not confined to the head, and was the irritating pest of our brave soldiers in the late war. It is apt to be a source of annoyance in lumber camps and on shipboard. This species is so like the head louse in appearance that were not the habits so different, we might almost regard them as identical. The Crab-louse, Phthirius pubis (Leach),

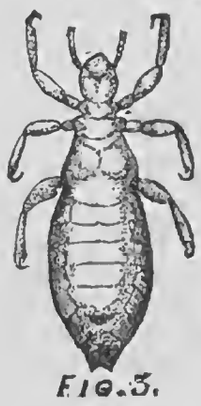


FIG. 3.

HEAD LOUSE,

FIG. 4.

CRAB LOUSE.

receives its common name from its close resemblance to the crab, and its specific name from the region of its attacks.

Both of the last-mentioned may be banished by the use of a little mercurial ointment, which is a poison and should be used with care, or of kerosene and sulphur, which are to be applied to the part of the body attacked. As the eggs will continue to hatch for a time, the application will need to be repeated at intervals of six or seven days for two or three weeks. Cleanliness is the great preventive, which in this case is certainly better and vastly more pleasant than cure.

The genus Hæmatopinus includes, among many others, the cattle louse, H. vituli (Denny), (Fig. 5), the horse louse, H. euristernus (Denny) the hog louse, H. suis (Leach), and the dog louse; H. piliferus (Denny). In form these are much like the common head louse. The five-jointed antennæ are stout, the eyes are very minute, the head obtuse in front, while the posterior legs are the longest.

FIG. 5.

CATTLE LOUSE.

Bird Lice—Mallophaga.

These lice, although the sucking tube is replaced by jaws, are nevertheless degraded Hemiptera, or bugs. The body is flat and horny, the head is broad, the antennæ, four-jointed. Unlike other bugs, they have both maxillary and labial palpi. The species are very numerous. Nearly all birds have one or more species to annoy them, while the hen has five or six.

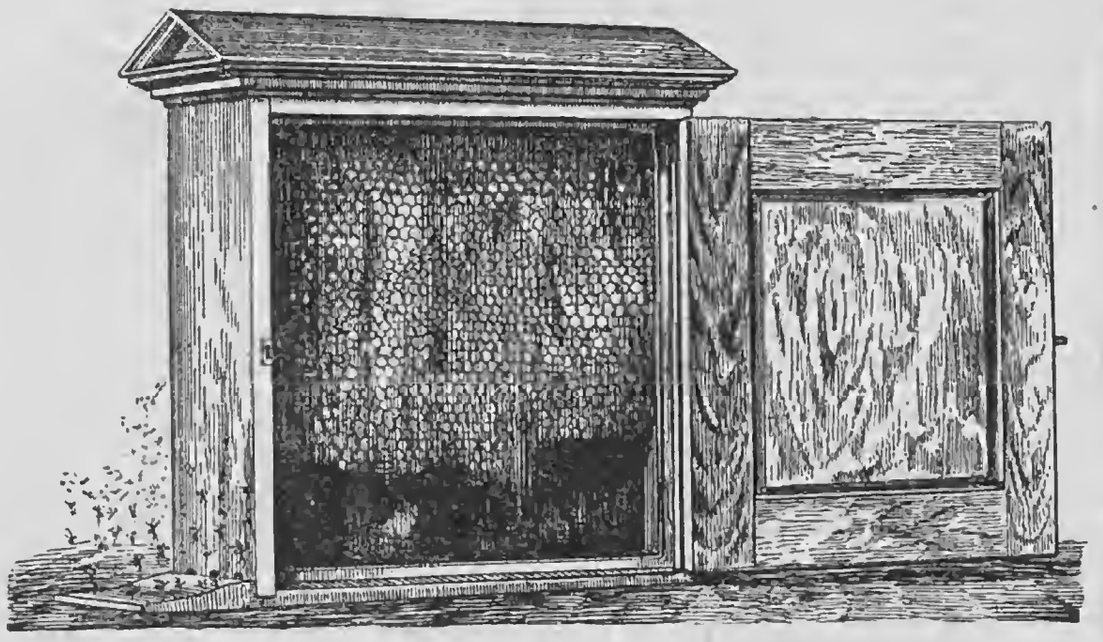
Remedies.

The washes already described for fleas are also efficacious in destroying lice. If the decoction of tobacco, or the kerosene and water, is to be used in cold weather on cattle or calves, especially the latter, they should be kept in a warm room, or well blanketed until thoroughly dry. If an ointment made of sulphur, lard and kerosene, be applied to the heads and under the wings of fowls that are annoyed with lice, the latter will soon disappear. The nests should be sprinkled with sulphur, the roosts washed with kerosene, the house and yard sprinkled with carbolic acid solution, and the poultry house frequently whitewashed. Persian Insect Powder dusted onto, or rubbed into the hair and feathers of animals attacked by lice, will destroy the pests without harm to the animals. Ointments may be easily applied with the common brushes used in grooming horses. No good farmer or fancier will allow his animals to suffer from these enervating parasites, if he but knows of these cheap and effective remedies. During the past season I permitted my poultry and their house and yard to be overspread with countless myriads of these foes to comfort and prosperity—purposely permitted it—that I might learn by actual test, of the difficulty of procuring a riddance. In a few days after inaugurating the measures suggested above the disgusting pests were wholly banished. A little care will work entire prevention; while but little labor is required to work a radical cure.—[Drawings by S. Upton. EDS.]

The Apiarian.

PROTECTION AGAINST STINGS.

PERHAPS the greatest obstacle to a more general adoption of bee-keeping for recreation and pleasure, as well as for profit, is the dread most persons have of the sting of the bee. To

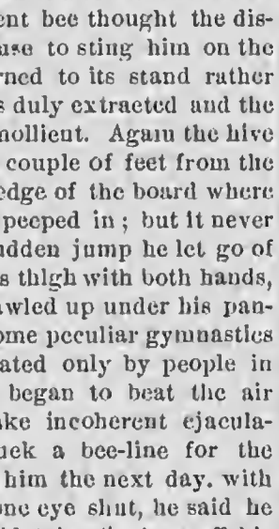


the nervous amateur it is, indeed, anything but encouraging when he suddenly finds himself surrounded by thousands of infuriated bees that madly dart at his face and hands, and hardly touch the skin before that keen, penetrating, painful sensation is felt, which seems entirely to control the action of the nerves. On such occasions one must keep cool. To strike at them only augments their fury, yet this is too often the remedy to which the amateur resorts.

We once knew a venerable gentleman who had been seized with a sudden enthusiasm for bee-keeping, and, acting on the impulse, he purchased a few colonies with a view to experiment. We happened to be present when he made the first examination of the new-comers the day after their arrival. With more eagerness than caution he attempted to lift the box-hive in his arms, desiring to look in from beneath. Having raised it a few inches from the ground, an impudent bee thought the disturbance sufficient cause to sting him on the hand. The hive returned to its stand rather quickly; the sting was duly extracted and the spot rubbed with an emollient. Again the hive was lifted, this time a couple of feet from the ground, almost to the edge of the board where it should rest while he peeped in; but it never got there, for with a sudden jump he let go of the box and grasped his thigh with both hands, an intruder having crawled up under his pantaloons. Then, with some peculiar gymnastics that can be well imitated only by people in similar situations, he began to beat the air with his hat, and make incoherent ejaculations, and finally struck a bee-line for the house. When we met him the next day, with a deformed face and one eye shut, he said he wished somebody would take the bees off his premises.

Such is, indeed, too often the experience of those who neglect to protect themselves. Everybody to whom the sting is painful, and especially those on whom it causes a swelling, should wear a good bee-veil when working among the bees, such as the one shown in the engraving. Then nobody need carry about a swelled face and a resentful spirit.

The veil should be made of some strong but sheer fabric, and be black or brown, as it tires the eyes to look through a white veil. It can be sewed to the rim of the hat, as is the case in the engraving; or it may be supplied with a rubber cord, that can be pulled over the crown of the hat; it can then be removed when not in use, thus making any hat one happens to wear, serve as a bee-hat. The lower end of the veil is most conveniently gathered in under the coat.



To protect the hands, gloves can be worn, though after some experience one generally finds that they can be dispensed with. India-rubber gloves are manufactured for the purpose, and can be obtained from dealers in apiarian supplies. To prevent the bees from crawling up under the pantaloons, it is a good plan to put these inside the boots or to tie a a cord around them at the ankles. The poison is an acid, and can sometimes be neutralized, and the evil effects of the sting prevented by applying strong ammonia or a solution of soda in water.

Another little contrivance which affords as much interest as instruction, and one which every beginner in bee-keeping should have, is an

Observing Hive.

The accompanying engraving gives a faithful representation of one used by Professor Cook, of Michigan Agr'l. College, in his observations. It is simply a miniature hive, large enough to hold three frames. The sides are doors that can be opened and shut at pleasure, and inside each is a pane of glass through which the observer can look at the bees when the door is open. The hive measures twelve inches long and five inches wide inside, allowing room for three frames, each one and a half inch wide. Anybody who can use a saw and drive a nail can make an observing hive. Make each of the inside dimensions half an inch longer than the frames that are to be used, and make it wide enough to hold two or three frames. The upright end pieces can be grooved or simply nailed to the bottom-board. To give it more rigidity, a strip the length of the hive and one and a half inch wide, should be fastened at each side at the top between the end pieces. The panes of glass can next be inserted, the doors hung, and a movable cover fitted to the top. In such a hive one can observe the whole mystery of the interior workings of a bee-hive. If a couple of frames of comb, one of them having some worker-brood and eggs, are inserted with a few hundred bees, the latter will not only remain, but they will go to work to rear a queen from one of the eggs or young larvæ. When the queen is hatched and fertilized, she will begin to lay, while the workers will build comb, gather honey and pollen and attend to the brood, operations which can all be seen. The hive can be placed in any convenient place; on a table in the garden, on the piazza, or, better still, on the sill outside one's window. There is no danger that the bees will attack anybody in the room when the window is opened, and such a position affords excellent opportunity to observe their work.

Pomological.

CLOSELY-PLANTED ORCHARDS.

WHEN we plant another orchard—if we ever do so—we shall set the trees nearer each other than we have done heretofore. An orchard should never be expected to produce a grain crop in addition to the fruit, after the trees become large. We think twenty-five, instead of thirty-five or forty feet each way, to be nearer the most profitable distance—and this question of profit, is the one the small farmer must consider. In our experience we have found low-trimmed trees the most productive. And how is it possible to cultivate a crop of any kind in an orchard of low-headed trees, even if they are set at a distance of two rods apart.? Let the land calculated for an orchard, be used exclusively for that purpose, and more clear cash will be realized than when too much is expected of it.

Another serious mistake that many farmers make when selecting trees for an orchard is, that they choose too many varieties. Where only enough are grown for home consumption, this may not be disadvantageous, but where the farmer intends ultimately to make of his orchard a constantly increasing source of revenue, he commits a grievous mistake. When they are of one variety mainly; that is, of winter fruit, there is much less labor required to put them in presentable shape for market, and a much more ready and profitable sale is made. Besides, the trouble of keeping the different varieties apart is avoided.

A properly managed orchard is, without doubt, the surest source of income to its owner. In some seasons, like the last, there may be exceptions to this. Yet even during the past season apples have been a paying crop. A neighbor of mine shipped his apples at one dollar per barrel. That was a very low price for fine fruit, yet the result showed a good profit and the advantage of closely-planted trees. On an acre 108 trees may be set 20 feet apart. At the low average of four barrels to the tree, we would have 432 barrels from an acre, at one dollar per barrel. We can raise no other crop with so little care, which would give returns so large. Now, supposing the trees to be planted at a distance of 40 feet from each other, we could get only 27 trees on an acre, and in the same proportion as the others, only 108 barrels of fruit. The objection may be that the trees will not bear as well if set close. It has been our experience that they will, until twelve or fifteen years after planting, when, should the branches become interlaced, every alternate tree may be removed. All things considered, we deem closely-planted orchards the most profitable. Moreover, the trees are less liable to injury, for they furnish for themselves a protection.

HECTOR BERTRAM.

Ornamental Quince as a Stock for the Pear.—Paradise Stock for the Apple.

WE take the liberty to publish the following remarks made in a private letter by Mr. Charles Downing in answer to our inquiries:

"I have never tried the ornamental Quince as a pear stock, and know nothing except what Mr. Strong has published. It is worthy of a trial, and I see no reason why it should not succeed. As to the Paradise stock for the Apple I never made but one trial which was not successful, mostly, I think, because I did not know how to manage them properly, and think I could do better with another trial. They require much time and are only fitted to the amateur and for small gardens. One orchard tree will give more fruit than twenty of these dwarfs, and with much less labor.

The Poultry Yard.

A CHEAP DRINKING VESSEL FOR YOUNG CHICKENS.

So many and so varied are inventions in this line, that anything more seems almost superfluous. Yet something that can be made by any one, and is within reach of all, never comes amiss; especially so in these days of economical expenditures.

None of the various so-called water-fountains is adapted alike for old fowls and young chicks, although most all of them may be used for both. The writer's experience has led him to devise numerous drinking vessels designed to keep young chicks from getting into the water, as they are sure to do if given an open pan or similar vessel to drink from. The above has been in use now two seasons, and "improves on acquaintance."

The materials and tools necessary are two old fruit or preserve cans, a pair of tinners' snips and a small hammer. Cut one can off, one and a half inch from the bottom. In the other, simply remove the opened end, leaving the sides as near full-length as possible. Cut the side into strips of three-fourths, and one or one and one-fourth inch wide, alternately, to within one and a-half inches of the closed end: cut off the three-quarter strips, leaving only enough to turn in; turn this down smoothly with the hammer. To use, fill either end with water and invert the other over it, always letting the cut ends go *inside* the rim of the other.

This width of opening—three-quarters of an inch—is enough to admit the heads of the chicks until they are a week to ten days old. If made an inch wide, some of them will squeeze through and get into the water. After the first week, give them one with larger-sized openings. The same device may be used for feeding. It is quickly and easily filled; as quickly and easily cleaned, keeps both food and water clean, and almost every one who keeps chickens has the cans within reach. Fifteen minutes' work at the nearest tin-shop, will give one half-a-dozen of them, which will answer the purpose intended as well as any that can be bought.

A. M. HALSTED.

Rye, N. Y.

"DOES IT PAY?"

WAS ever an undertaking proposed involving any expense of labor or money where this question was not asked? I had occasion to ask it last fall and will tell the RURAL readers about it. I was walking over the grounds of a friend with him, and my attention was drawn to the large number of little chickens just then feathering out. I asked how it happened that he had so many late chickens? He said he didn't get as many as he had intended to. I opened my eyes at this and he explained. These chickens in his warm house

grew rapidly and well all winter, were ready for market early in the spring, even before chicks hatched in January and February, and were sold at the top of the market. Many of the pullets would lay a dozen or more eggs before their turn came to die. He says they cost him less per pound than any that are hatched before May first. He evidently has faith in his business, as his fall chicks will eat three tons of corn-meal from the time they are hatched until they are sold. This, at $17 per ton, will be $51 for winter feed on an experiment, as many would call it. For my part, I will this year set my hens as often as they wish to sit, up to September 1st, and try my friend's plan and see "how 'tis myself." Who else will try the same? A. M. VAN AUKEN.

HENS WANT COAL ASHES.

Not having had an opportunity to get oyster shells enough to supply our hens, we have been giving them coal ashes with the cinders left in, and have been surprised to see how much they will eat. They eat the charred portions. We have a great deal of confidence in the instinct of animals. They know what they want. Our hens, 50 of them, eat a panful of coal ashes every day, notwithstanding they have lime before them all the time. F. D. C.

Dairy Husbandry.

THE RAISING OF CREAM.

T. H. HOSKINS, M. D.

WITH all your readers, dear RURAL, I cannot but feel under some obligation to Mr. O. S. Bliss for yielding (notwithstanding the heavy pressure of other duties to which he refers) to that "sense of duty to the dairy interest" which has impelled him to write the interesting paper in which he exposes the fallacies of my article upon cream-raising. To one who knows, as I do, the exacting nature of Mr. Bliss's duties as a vice-president of nearly every dairy organization on the Continent, the pressing demands of his great dairy farm, etc., etc., the obligation so incurred is greatly enhanced. But the pressing cares to which he refers have caused him to forget some items, both of science and of fact, which I will beg a little space to mennmention. Mr. Bliss intimates that I am ignorant of physical science. In a paper with which I am editorially connected I recently permitted him, without remark, to speak of me as "a writer who insists upon occupying positions directly in conflict with all the well-established laws of physics." I did so, because I thought I could safely allow my readers to judge between us on that point. To the larger circle of RURAL readers I might do the same, were I equally well known to them; and I will here only say that a full college course of earnest study under a teacher of such eminence as to have been lately raised to the seat rendered vacant in the French Academy of Sciences by the death of Sir Charles Lyell (Prof. J. Lawrence Smith, of Louisville, Ky.,), to say nothing of years since spent in study and labor in the same field, *ought* to qualify me in some degree to treat a physical question of even such acknowledged intricacy as the one under discussion.

First, Mr. Bliss says, "there is no such thing as 'cream-rising.'" He might with equal truth say that there was no such thing as balloon rising. The laws involved are the same in both cases. According to Mr. Bliss's idea (I will not say theory) a balloon could not rise in still air. It would be necessary to create currents in the atmosphere in order to get up the balloon.

Mr. Bliss speaks of me repeatedly as a theorist, with the object of insinuating that my views on the subject are a mere hypothesis. I certainly have a theory (*i. e.* a rational explanation) regarding the matter, but it is based upon carefully studied facts, developed by a course of experimentation which I explained in detail at a recent meeting of the Vermont Dairyman's Association, in Mr. Bliss's presence and subject to his questions. Replying to one of these, I distinctly stated that I had seen the cream rise perfectly in my apparatus where the milk was kept at the temperature at which it had when drawn from the cow. Mr. Bliss says, "it will not do it." This approaches omniscience.

My critic says, "the theory that currents in milk obstruct the raising of cream is in direct conflict with the facts," and in the next sentence he says, "cream is raised by the effect of gravitation, *but not when the influences affecting the law are conflicting*," (italics mine) Here seems to be that sort of self-contradiction which comes from lack of clear thinking, excusable in Mr. Bliss's case by the pressure of business under which he wrote.

That a long-continued agitation of milk will induce a condition of the fluid in which entire separation of the cream by gravity, when it is finally left at rest, is rendered difficult or impossible, is certainly no argument against my "theory." There are probably still other causes, physical and chemical, that will have a similar effect. My "theory" applies only to normal milk. I agree with Mr. Bliss that under no conditions so far secured, can *all* the cream be brought to the surface and retained there. The fine oil (butter) globules remain suspended under any condition of stability in the fluid practicable to be obtained. This in large-globuled milk is so slight as to be practically of no importance, while in small-globuled milk it is a decided advantage for cheese-making, to which that class of milk is best adapted.

The difference between buttermilk, the residuum of butter made from entirely sweet cream and sweet skim-milk, quite manifest to the senses, (and to which Mr. B. refers), is both a mechanical and a chemical one. As usually found, such buttermilk contains small masses of butter, which affect its taste as they come in contact with the palate. The agitation of churning, by promoting extensive contact with the air, also generates a slightly acid condition, even in the sweetest buttermilk, evident both by tests and to the sense of taste.

In regard to the relation of the law of specific heat to the rising of cream, Mr. Bliss, in a confused way, seems to adhere to the original mistake made about it, which Dr. Sturtevant, in his manly way, at once acknowledged when the facts were brought to his notice by a correspondent. It is an unquestionable fact that so far as this law acts at all, it acts directly against the idea that cream rises best in a falling temperature.

Mr. Bliss says, "The theory that cream is carried down by the descending currents is untenable," and again, referring to my explanation that cold setting is effective because it is setting at a uniform temperature, "this statement is wholly untenable." Dogmatism is not argument. But it is quite true, as found in practice, that the more quickly the newly-drawn milk is put in the cans, and the more quickly it is brought to the temperature of the water, the more quickly and perfectly the separation of the cream is secured. And this entirely agrees with, in fact, confirms my "theory."

As to the climax which Mr. Bliss finally finds to be capped in my statement, that the sole point to be observed in practical cream-raising is the abolition of currents in the milk, and which he thinks he renders absurd by saying, that "until Nature's laws are suspended, no cream can be raised without both an upward and a downward current in the mass," let me suggest to him a little experiment. Let him string half-a-dozen small beads, each upon a string by itself with a knot in the end. Let him deposit the beads in the bottom of a tall glass vessel, having the threads drawn straight and secured to a cross-piece resting on the open top of the vessel. Then let him fill the vessel with alternating layers of differently-colored sand. Then let him slowly (cream is from four to 12 hours in rising) draw the beads to the surface, pulling directly upwards. What will he find on examining the sand through which the beads (representing butter globules) were raised? Has there been any mixing of the layers? Has there been anything more than a slight lateral to-and-fro motion of the particles of sand as the beads passed slowly upwards? Just so it is in the rising of cream; only, in place of the upward drawing force exercised through the strings, we have the force of gravity which presses (through the particles of the milk) upon the butter globules, and they in turn press upon the milk. But as the butter globules are the lighter, they do not press so strongly as the milk in the downward line, and so they are, as it were, extended upwards as we extrude the seeds from a grape by pressing it between the thumb and finger. There is, necessarily, no motion in the milk particles except the lateral one, to and fro, as the butter globules pass along, and a settling together of the whole mass equal at last to the thickness of the layer of cream that accumulates on the surface—the milk occupying the spaces before occupied by the globules. I feel I have taken too much space for this article, yet it is really important that the true mechanics of cream-raising should be understood, however much it may be to the interest of some individuals to muddle the facts.

Various.

CATALOGUES, &c., RECEIVED.

WHAT NORTHERN MEN SAY OF THE SOUTH.—This pamphlet of 63 pages contains the proceedings of the Convention of Northern residents of the South, held at Charlotte, N. C., Jan. 15th, 1879; also letters giving individual expressions of opinion and facts relative to products per acre, social life in the South and a good deal of miscellaneous information with regard to the South and its people. Although, of course, the views herein given are a trifle one-sided, yet it would be well for all intending to immigrate to the South to send for this pamphlet, and learn what settlers from this section think of the country. It will be furnished *gratis* on application to N. Dumont, Charlotte, N. C.

QUARTERLY REPORT of the Kansas State Board of Agriculture for the quarter ending March 31, 1879. This pamphlet of 77 pages also contains much useful and interesting information relative to industries, population, etc., etc., by counties. Alfred Gray, Sec'y, Topeka, Kansas.

BULLETIN OF AMERICAN Berkshire Association, Springfield, Ill. This is the first number of a neat periodical of 30 pages, devoted to the interest and record of this fine breed of swine. Price, $1 per annum; edited by P. M. Springer, Secretary of the Association at Springfield, Illinois.

LIST OF PREMIUMS, ETC., for the Oregon State Fair, to be held on the grounds near Salem next Sept. or Oct., as shall be decided by the Ex. Com. in June; 154 pages. E. W. Waite, Sec'y, Salem, Oregon.

FOWL BREEDER'S GUIDE and Descriptive Circular, from E. E. Hardin & Co., Scotia, N. Y., giving full details as to breeding, etc., as accomplished on their experimental farms.

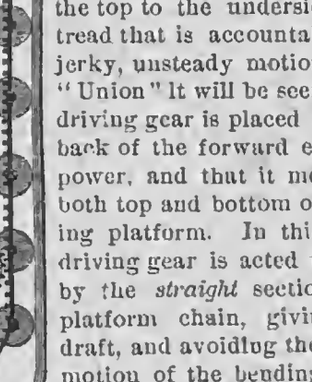
PROGRAMME of the Seventh Annual Exhibition of the Inter-State Industrial Exhibition, to be held at Chicago from Sept. 3 to Oct. 18. J. P. Reynolds, Sec'y.

REPORT of the Committee of the Georgia State Agricultural Society, at its convention held at Hawkinsville, Feb. 18-20, 1879.

Industrial Implements.

RECTANGULAR AND BOX CHURNS.

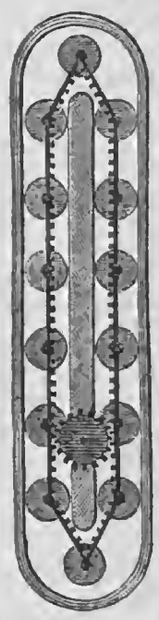
AT the International Dairy Fair held in New York last winter, Western dairymen won some twenty-one premiums on butter. Eighteen of these prize exhibits were made in the Rectangular and Square Box Churns Messrs Cornish & Curtis, of Fort Atkinson, Wis., who make them have introduced the Churns very successfully. Starting with Whipple's Rectangular Churn, they addded a lever butter worker, then the square box churn, and are now doing an extensive business in all three. The Rectangular has met with as much favor in factories and creameries as in farm dairies, and been spoken of by practised dairymen as being a very satisfactory churn. We have used



the butter worker on our Experiment Farm during two seasons. As we are very particular, not to say hypocritical, in such matters, this fact is indicative of our appreciation of the worker. The Churns have no internal machinery, the cream is precipitated from corner to corner, or side to side with a concussive force that is likely to develop every grain of butter in the fluid. More particular information may be had by applying to the manufacturers direct.

UNION RAILWAY POWER.

WM. L. BOYER & BRO., of Philadelphia, Pa., have a horse-power that combines many excellent points. A recent inspection of the machine has led us to illustrate the device for overcoming the tension on the moving platform as it passes around the ends. It is the uneven tension at the points where the platform passes from the top to the underside of the tread that is accountable for all jerky, unsteady motion. In the "Union" it will be seen that the driving gear is placed somewhat back of the forward end of the power, and that it meshes into both top and bottom of the moving platform. In this way the driving gear is acted upon only by the *straight* sections of the platform chain, giving steady draft, and avoiding the irregular motion of the bending end sections. As the bottom, or returning sections are at the same time propelled *up* the inclined track and around the front end there is little wear or friction, or loss of power expended by the animals in getting the platform into position to transmit their power to the motor. It may be worth mentioning that the chain links and wheel bearings are hardened, reducing the chances of the links wearing and consequently lengthening, or the axles wearing, large faults that soon disable a machine. There are several sizes of this power made, particulars of which may be had on application.



THE English trade journals are very sedulously urging the importance of reorganizing the patent-laws, reducing the costs especially. It is claimed that the fees required to fully secure an invention amount to prohibition.

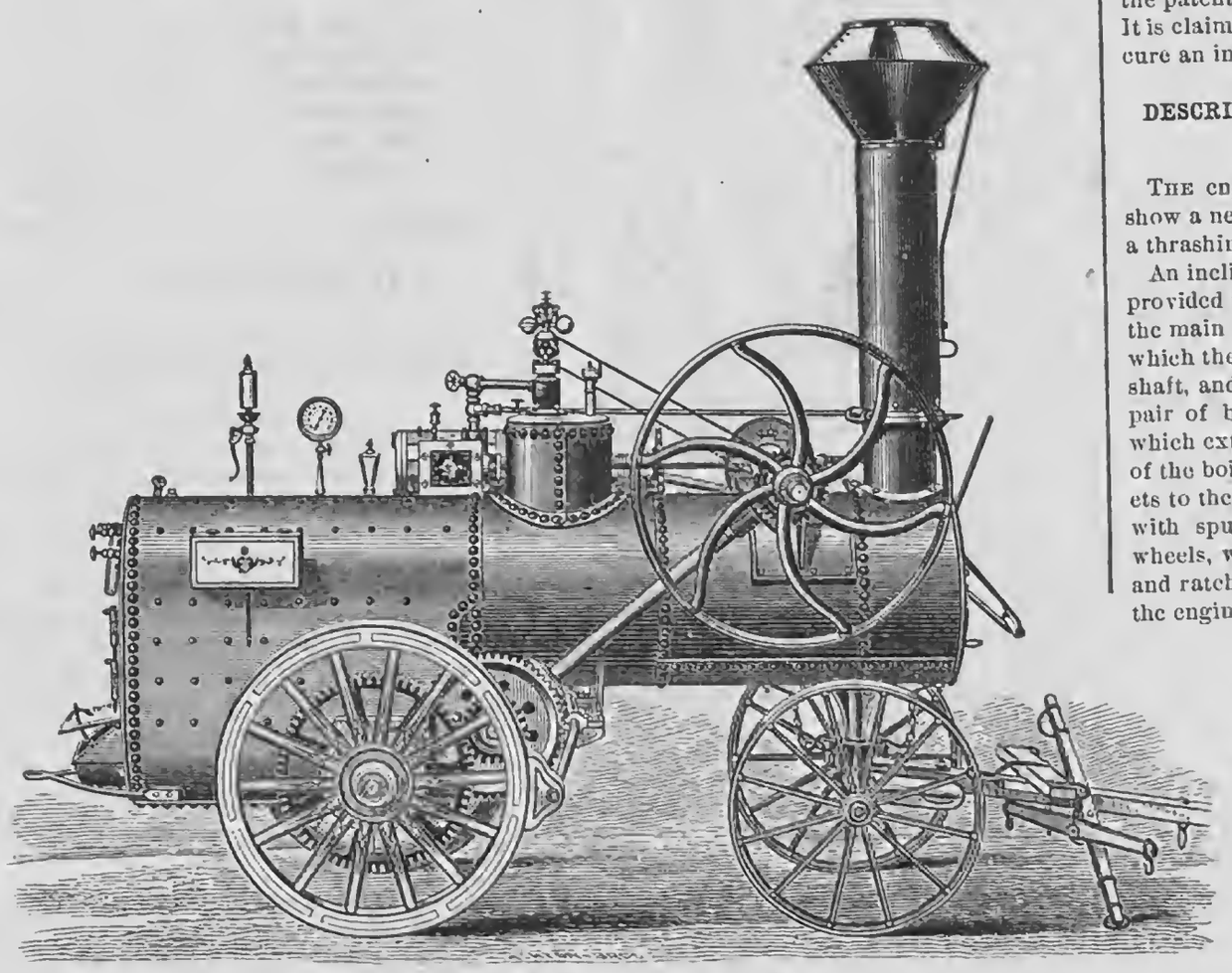
DESCRIPTION OF A NEW TRACTION ENGINE.

THE engraving we give, has been made to show a new traction attachment applicable to a thrashing, or farm engine.

An inclined shaft on the side of the boiler is provided with bevel wheels at each end. On the main shaft is also a bevel wheel through which the power is transmitted to the inclined shaft, and from thence—by means of another pair of bevel wheels—to a horizontal shaft which extends across and under the cylinder of the boiler. This shaft is attached by brackets to the fire-box, and at each end is provided with spur pinions which drive large spur wheels, which are connected by suitable pawls and ratchets to the hubs of the hind wheels of the engine.

The bevel wheel at the upper end of the inclined shaft is held by a "feather," or fixed key, and two set-screws, and can be quickly thrown in or out of gear by these means. Whenever the engineer desires to use the traction attachment, he merely slips this bevel wheel up into gear with the bevel wheel on the main shaft, tightens up the set screws, and is ready to apply the whole power of the Engine to the driving wheels.

This device has proved itself equal to all practical requirements. Messrs. Nichols, Shepard & Co. of Battle Creek, Mich., have perfected this attachment for use on their thrashing engines, and this season it will be included in the outfit if the purchaser so desires. The engine itself is thoroughly well made and has, among thrashermen, become very popular. Circulars may be had on application.



NICHOLS, SHEPARD & CO.'S NEW TRACTION ENGINE.

Everywhere.

EXPERIENCE WITH SEEDS OF FREE-SEED DISTRIBUTION IN FLORIDA.

I HAVE delayed writing to thank the RURAL for its gift of seeds, not because we did not appreciate them, but because I thought I would report our success with some of them at the same time, knowing that a report from this quarter must be in advance of any from colder climates.

THE BEAUTY OF HEBRON potato we planted, and from the pieces raised nineteen hills. They did not do as well with us as the Early Rose; the potatoes were smaller though a little earlier, and, I think, superior in taste; but we do not consider it a good test, as Irish potatoes do better here on new land, and our land has been under cultivation for ten years. Next fall we intend to send North for more seed and give them a trial on new land.

OF VOORHIS WATERMELON we have five hills, some of them in bloom. The vines are looking better than any others we have. The favorite melon here last year, was called the Iceland. The seed was brought from Pittsburg, and they produced some immense melons. This is a great watermelon country.

THE BLUNT CORN we planted about the 5th of April, and nearly every seed came up; but the birds pulled some. I counted to-day 99 good stalks, some of them were 18 inches high. My husband says he never saw corn grow so fast, although it is on a very poor piece of land. We have but fifteen acres under cultivation, and the other crops were nearly all in when the corn came, so, in order to put it where it would be least likely to mix with the other corn, we had to take a poor place; but we will try to make up in fertilizing and cultivation, for we are anxious to get a better variety than any raised here. The sort grown here only averages one ear to a stalk, and a small one at that.

THE PEARL MILLET we did not know how to plant, so my husband drilled in some of it, and some he planted in hills. When we learned from the RURAL that it would not make seed in that way—and seed for another year is what we want—we thinned it out to one seed in a hill; I could not bear to have it wasted, so I transplanted some of it, just to see if it would live. We had no rain for a long time after it was transplanted and I supposed it would all die. To-day, however, I have been looking at it, and, to my astonishment, found two-thirds of it growing. I have put one plant in the middle of my nasturtium bed which I had made very rich, and I hope to astonish people with it after a while.

THE FLOWER SEEDS have not been very successful with me. Some of them I could prevail upon to grow, and some I could not. Perhaps it is because I am so much interested in the farming operations that my flower-garden has had to suffer somewhat in consequence. I have some very fine plants of the Hibiscus militaris; a few of the Hollyhocks; some Columbines, and two nice little trees of the Pinus edulis. As this is a pine tree country, I think they will do well, perhaps. I have saved some of most of the seeds, to try again after the hot weather is over.

THE ACME TOMATO I had nearly forgotten to mention. We planted the seeds at the same time we planted those of Gen. Grant. Plants of the latter are in bloom, but the Acmes are not, though the vines are looking thrifty. We had to leave them in the seed-bed too long, on account of its being too dry to transplant them. We had scarcely any rain here all through April. In Illinois everything would have been dried up with so little rain and such hot weather, but here the heavy dews we have every night, keep things growing.

REMARKS.—It is splendid cotton weather, they say. We have a little cotton, sugar-cane and rice, all of which are looking well. We are only farming a little while waiting for our orange grove to grow, but what we do, we are anxious to do in the best way, and to test the capabilities of the soil and climate to the utmost. The soil here is very poor, and will not pay for cultivation without plenty of manure. Our land never had any at all, until we began to cultivate it. We do not buy commercial fertilizers, but keep horses, cows, goats and chickens, all the manure from which is carefully saved and mixed with black muck. We also keep a compost heap into which we throw everything which we think will be of any use to the land. I keep a leach for liquid manure. My husband says it is my hobby. I always used it a great deal in my flower-garden in Illinois, and I find it of great value here.

Starke, Bradford Co., Fla. MRS. J. S.

RURAL SPECIAL REPORTS.

FLORIDA, Tallahasse, May 6.—As information from all sections is in order I "drop a line" not to catch fish, (by the by, our lakes are full of them), but to say thus far we have had a most delightful spring. Oats are good; corn is doing well; gardens are superb and cotton, now being hoed out, promises to be all right. The "Pearl Millet" seed sent us, I find to be what every farmer here has been raising all the time, and we would as soon think of doing without the never-failing "Collard Patch" as our little field of "Cat-tail" Millet so-called, as it resembles when reaching maturity the Cat-tail Flag of Western New York. In our warm climate but few kinds of green food can be given to horses and mules during plowing season without danger of sickness. Big, or Cat-tail Millet, while it is nutritious, is perfectly harmless. We plant it about March 1st in rich ground, stalks six inches apart. When eight inches high, we cut it two inches from the ground. The oftener you cut it the faster it will grow. Cultivate sufficiently to keep down grass and weeds, and render the ground soft. With us it will bear cutting six times during the summer, and seed plentifully in the fall. There is money in furnishing seed here at $2 per bushel. Whoever cuts it for hay, will do a losing business. I would not give one dollar a ton for it when dry, except for the manure bed. The Acme tomato proves to be the "Large Red Smooth." We have for the past four weeks been luxuriating in Irish potatoes, green peas, beets, snap beans, and lettuce, and will in a fortnight have plenty of tomatoes—and when I see by the papers that Cayuga Lake was frozen over April 8th—I wonder who would not live in Florida.

A SUBSCRIBER.

MISSOURI, Kingston Furnace, May 10.—This whole region is suffering for want of rain. Oats are doing miserably, and many acres will be turned under and corn substituted. Much corn will have to be replanted. It is cold as well as dry. Wheat on the uplands is injured; in the bottoms it still looks well and is almost ready to head out. There are no peaches, except a few on very high land. Apples bid fair to make a crop. There are some cherries. The winter killed the grape buds, above the snow, of the Ioua, Delaware, Herbemont and Catawba. Clinton, Concord, Norton's Virginia, Ive's Seedling, Cunningham, Hartford Prolific and Taylor's Bullet do well here under ordinary vineyard culture; but Iona, Delaware and Catawba make no growth and do no good under like treatment. Taylor's Bullet will do to cover arbors or trees and its fruit is delicious.

N. W. B.

BAILEYVILLE, Ogle Co., Ill., May 9.—The weather is very dry and cold here; nights frosty; unfavorable to vegetation. Crops are suffering, especially the late-sown spring wheat and barley and oats, which have been injured by recent frosts. Grain seeding was about all finished by the 25th ult., and corn planting began on 29th, and now a large amount is planted; nearly all in this section will have finished planting by the last of this week. Unless rain comes soon, all crops will be light. We have had no rain for a month, except a very light shower on 24 ult. and another on the 3d inst., but not enough either time to "lay the dust." Cherry and plum trees commenced blooming here by the 1st of May and are full of blossoms; but I think most of the tender varieties of fruit are injured by frost and will fall off. W. B. D.

TEXAS, San Antonio, May 4.—Our drought was broken on the 22d ult., and in three days there fell six inches of water. It came with a sufficient moderation to penetrate the earth, but we were nearly deluged. There was no damage done, however, except a little washing of crops. Three days before the rain a fire swept over thousands of acres, licking up every spear of grass, green or dry; but after the rain, in eight days, the grass was three to six inches high all over the burned stretch. Crops, early planted, look well. Some corn is knee-high, while in other parts of the same field, folks are just planting. Watermelons, muskmelons, etc., are blooming, but they are late owing to the spring drought. M.

NEW YORK, Pitcher, Cheuango Co., May 12.—The weather here is cool and very dry. Grass has started but very little as yet. We have to feed our cattle almost as regularly as in winter. The old land-marks of winter have not all been removed, as there is occasionally a snow-bank to remind us of what we have had to encounter of late. Small grain is mostly sowed; many are planting potatoes, while some think they are growing much faster in the cellar than they would be in the ground. I don't know of anyone that has ventured to plant corn yet. Produce is very low; butter, 12c.; eggs, 10c. per doz.; potatoes, 75c. per bushel; oats, 35c.; maple sugar, from 7 to 10c. per pound. L. W. S.

CANADA, Fernhill, Ont., May 9.—The weather here is very cold and dry. With a few exceptions we have had very hard frosts every night until date. Trees are showing very few signs of greenness. Peaches are badly damaged in this neighborhood. Bees have done very poorly this spring and winter; very many were frozen to death, and others died of diarrhea; but they are doing better now. Hay will be a very poor crop unless we soon get some rain, of which all crops are in need. A great many have started in the grazing business in these parts, but the prospects for success now look very slim.

J. M. W.

VIRGINIA, New Market, Shenandoah Co. May 9.—We are having a very dry season here, the ground having been too wet for cultivation only once since March 1st. Farmers have finished planting corn; fruit trees of all kinds have already blossomed. The prospects for plenty of all sorts of fruit are fine. Weather pleasantly cool, with slight frosts. Wheat 95c. to 96c; corn, 45c. to 50c; butter, 10c; eggs, 8c; bacon, 8c. to 9c.

P. S. W.

NEW YORK, North Lawrence, May 9.—The birds came in good season this spring, but the snow-banks remained till the end of April. The weather is cold and raw most of the time, yet some have planted potatoes; but if the seed escapes rotting, most likely the plants will be injured by frost. A new creamery opened here to-day, and another, about three miles away, will open next week. A. H.

MICHIGAN, South Lyon, Oakland, Co., May 12.—Wheat is not looking as well as usual at this time of the year. The Fly thinned many fields, and cold, dry weather has held what is left in check. Buyers are paying to-day 99c. per bushel for wheat, and many are waiting for the even dollar. Corn is plentiful at about 40c.; oats, 30c.; potatoes, scarce, at 75c.; store hogs are again in demand. Fat steers bring 4½c. per pound; butter, 10c.; eggs, 7c. A. B.

NEW YORK, Harris Hill, Erie Co., May 10th.—Early-sown wheat looks well; late sown, however, looks badly. Stock of all kinds look well. Farmers in this vicinity are all about through sowing. Farm products are as follows: Wheat, 97c.@$1; barley, 65c.; corn, 42c.; oats, 32c.; butter, 14c.; eggs, 12c.; and yet we are more hopeful in the future.

B. F. S.

ILLINOIS, Dear Park, La Salle Co., May 10.—Weather cold and dry. Had frosts the first five nights in May, with no rains for the previous month. Corn planting in full swing; but the ground is so dry that much of the seed will not germinate until rain comes. Small grains look sickly and grow but slowly. The prospect for small fruit is good; but apple trees are almost without blossoms. U. S. E.

PENNSYLVANIA, Muncy, Lycoming Co. May 12.—Spring is very backward here; fruit buds are just opening out. There is a prospect of an abundant fruit crop of all kinds this season. Most of the corn is planted. I think there will be a large area planted to potatoes. Wheat does not look promising—too dry. R. F. S.

ILLINOIS, Wheaton, May 12.—The weather has been very cold and dry for some weeks, with frost every night until within the last three or four days. Since then, however, there has been a warm change and planting is progressing rapidly. O. F. S.

ALABAMA, New Market, Madison Co. May 9.—Corn is 10 inches high and looks well. Fine prospect for crops of all kinds. Fruits, however, are many of them killed; but vegetables are abundant. Strawberries are ripening. G. D. N.

ILLINOIS, West Derby, Starks Co., May 9.—Weather cold and dry; nights frosty. Apples and cherry trees are gay with blossoms, but I fear the cold weather has blighted a good deal of the fruit. Farmers are busy planting corn, of which a large area has already been planted.

H. E. MC'C.

The Querist.

ANSWERS TO CORRESPONDENTS.

Concerning Sheep.

B. F. C., Elkton, Ohio, asks, 1, whether fine-wooled and coarse-wooled sheep do well together, or should they be kept separate; 2, should breeding ewes be "grained" during gestation; if so, what kind of grain and how much of it should they have; 3, at what time of the day should it be fed to them; 4, when wool is 30c. per pound, and corn 40c. and oats 25c. per bushel, will it pay to feed stock sheep the year round; 5, how often should sheep have salt, or should they have access to it all the time; 6, what is the best remedy for foot-rot; 7, with Spanish sheep which will pay the better—to wash the wool on the sheep's back or to shear without washing; 8, what is the best time for shearing sheep.

ANS.—1. As different breeds require different treatment, they should be kept separately. 2. Breeding ewes in lamb should by all means have a little extra food, half a pint of rye, corn and oats mixed in equal proportions for each day may be useful. 3. At noon is a convenient time for feeding grain, but any time may be chosen, being careful to maintain regularity in the feeding, else much of the benefit is lost. 4. It will not pay to keep sheep without pasture; cheap land and grazing are necessary for profit in sheep keeping. 5. Once a week at least; they may be supplied continually, if the supply is regular and sufficient. 6. Paring the hoof and removing all dead bone and dressing the diseased parts with blue vitrol. 7. It is more profitable to sell the wool in the grease without washing; usually the deduction for unwashed wool is less than the loss of weight by washing. 8. As soon as the settled weather arrives; one hot day does not make a summer, it must be remembered. Full information on these and other points are given in Stewart's Shepherd's Manual.

Treatment of Corns in a Horse.

M. A. B., Springfield, Mass., has a horse whose usefulness and value are seriously impaired owing to lameness due to corns contracted three or four years ago. Blacksmiths say they can shoe him so as to prevent the lameness, but have always failed to do so and he asks what can he do for the animal.

ANS.—Corns in a horse are different from those on the skin of a human being. They are first produced by blows or bruises which start inflammation and formation of matter under the sole, or cause a deposit of horny matter which presses painfully upon the sensitive inner parts of the foot. They are frequent in flat-footed horses, the frogs of whose feet have been pared away so as to bring the sole to the ground and subject it to continued bruises from stones. The usual mode of shoeing is one that protects the tender spots on the sole from blows in traveling. This is to put a shoe of sole-leather under the iron shoe and stuff under the leather with tow soaked in glycerine to keep the sole cool and moist. If the sole is very tender, the feet should be prepared for shoeing by keeping them upon a puddle of wet clay for a few days, and by frequent dressings of cold water and by giving the horse a cooling medicine, as eight to twelve ounces of Epsom salts.

Sore Eyes in a Horse.

A. H., North Lawrence, N. Y., has a horse with sore eyes, which are attributed to the sunlight streaming in through the large high windows on the east side of the stable, the manger being on the west side. To modify the light a cotton screen has been used, but this is considered injurious by neighbors, and our opinion is asked as to the cause and treatment of the malady.

ANS.—The trouble is not the result of the sunlight or heat; in all probability it is due to the strong ammoniacal vapors which are frequent in all stables. The best place for a window in a stable is on the north side, and if possible the stalls should be so arranged as to have the sunlight in front of the horse. A side or rear light is bad, but not so much so as to irritate the eyes. If the light has that effect in the stable, it would be worse out-of-doors. We would suggest that the window be covered with lime-wash, in which some indigo is mixed, to give it a deep blue shade; that the stable be kept free from pungent scents by sprinkling plaster freely over the floors and upon the litter; that the horse's eyes be bathed in a solution of five grains of sulphate of zinc twice a day; and that a pinch of burnt alum be blown into each eye through a quill once or twice daily to start a suppurative discharge before the zinc is used.

Stocking a Fish Pond.

H. B., Greenville, S. C., asks the cheapest and best way to stock a mill pond with fish, and whether the pamphlet lately published on fish culture by L. L. Polk, and noticed in the RURAL, would give helpful information on subject.

ANS.—What kind of fish? The proper kind depends upon the character of the pond and the temperature of water. If the pond is supplied by springs and the water is cool, black bass might be kept in it: if the bottom is muddy and the water warm, perch, either white or yellow, will thrive in it; carp is a pond fish and a good one. All that is necessary is to first determine what kind of fish can be kept successfully in the pond and then procure a supply of live fish of that kind from streams, other ponds, or dealers, to stock the water. Commissioner Polk's pamphlet gives a good deal of useful information on most branches of fish culture. Write to him, at Raleigh, N. C., for it.

Applying Guano to Corn.

J. M., Saltsburgh Pa., asks which is the better way to apply guano to corn—to sow it broadcast or put it in the hill.

ANS.—In sowing guano it is dangerous to place it close to the seed, lest the tender shoots be injured by the corrosive nature of the fertilizer. If a small quantity only is used, a teaspoonful for instance, it may be scattered in the hill, a little earth dropped on to it, and the seed then sown. If 250 pounds or more are used per acre, it would be best to sow it broadcast and harrow it into the soil before planting.

Rural Flower Exchange.

Mrs. J. G., Forest Grove, Washington Co., Oregon, and quite a large number of others, ask about the RURAL Flower Exchange, or send communications intended for that Department. To all such we regret to have to say

that we were obliged to discontinue our "Exchange," as we ascertained that, in some instances, the names thus procured were used for trade and other purposes. The necessity for the discontinuance of the Department is regretted by us as much as by our readers.

Ensilage.

C. A. L., Warren, Ohio, asks us to describe what is meant by the word Ensilage, and to furnish him through the RURAL with a plain description of the process.

ANS.—Our friend is referred to the RURAL of February 1, for full particulars. Briefly, the following are the important points: The word Ensilage is used to designate the method of preserving fodder in a pit. Corn or any green plants used for fodder may be preserved during winter by burial in such pits. The system was discovered by one Auguste Goffart, who has since become quite distinguished therefor in France. His plan perfected, as he claims, only after many years of experimentation, is to dig pits or trenches, called silos, in the earth, so situated that the rain can not enter. The sides are plastered with cement, and the pit covered as air-tight as possible. The stalks are first cut into half-inch bits, so that they may be placed more compactly in the pits and so as better to exclude the air. They should be placed in the pit as compactly as possible, indeed, the exclusion of air is that upon which the value of the ensilage chiefly depends. When filled, a couple of inches of short straw are spread, and upon this close-fitting boards are placed crosswise so as to be removed one by one as the silo is vertically cut down. Upon the boards heavy weights are placed to preserve the density of the material underneath.

Management of Hen Manure.

A Subscriber—no address, asks, 1, whether hen manure which has been wholly or partially exposed to the weather, is of any use; 2, how is that which has been saved under cover best applied in the garden in the absence of muck which is recommended for tempering it; 3, how is it best prepared for use as liquid manure; what proportion of water should be employed in making the latter; how often should it be applied and what is the best time of day for doing so; 4, would it be good for cabbages and potatoes; 5, how can a new iron kettle used only for heating rain water be prevented from rusting.

ANS.—1, It is still of some use, the value depends upon the amount of exposure and loss thereby. 2. It may be sown broadcast and harrowed or raked into the soil. 3. Put one pailful in a barrel of water and use the water in the usual manner for watering plants in the evening after a rain, if the weather is dry double the water. 4. Yes. 5. Grease the kettle thoroughly until the iron has absorbed all it will; then scour it thoroughly and it is fit for use.

Remedy for Sheep Scab and Ticks.

L. S. M., Wyandotte, Kan., asks for information concerning scab and ticks in sheep, and the best means of getting rid of the pests.

ANS.—In the RURAL of May 17 will be found an illustrated description of the parasite that causes sheep scab. We have found Buchan's Cresylic Sheep dip most effective in the treatment of scab, as also of ticks. It is sold in a concentrated form in small packages, and can be used conveniently. A strong solution is made by mixing one pound of the "dip" to five gallons of water. It gives no pain to the animal and is not dangerous to handle. In treating for scab, the parts should first be softened and the dry scab removed by washing in soap-suds. Then apply the dip. After shearing, the ticks go from the sheep to the lambs. If the latter are dipped twice, it will rid them of the pests. There should be a week's interval between the dippings.

Oyster Shells as a Fertilizer.

R. F. S., Muncy, Pa., has several barrels of oyster shells which he wishes to use as a fertilizer and he asks whether it would be better to burn them or get them ground in a plaster mill, and then on which crop would they have the best effect, potatoes, corn, strawberries, tobacco or grass.

ANS.—Oyster shells consist almost wholly of carbonate of lime; nothing is practically lost by burning them into lime and much is gained in the cost of preparing them for use. As they are nothing but lime when burned, they are not of much benefit to any crop but grass.

Miscellaneous.

J. M. W., Fernhill, Ont., Canada, asks, 1, the names and prices of the best works on the following subjects: 1, sheep husbandry; 2, cattle; 3, horse furriery; 4, he describes a climbing shrub and asks its name; 5, and the best time to bud trees; 6, also, when should pearl millet be planted to mature seed; 7, and why doesn't the RURAL reach him regularly.

ANS.—There are several excellent works on some of these subjects, and whichever we might name as the best, many, with good reason, would prefer some other. We shall not, therefore, decide which is best, but merely mention those likely to prove satifactory: 1, Stewart's Shepherd's Manual, $1.50; 2, Allen's American Cattle, $2.50; Youatt and Martin on Cattle, $1.00; 3, Coleman on Pathological Horse-shoeing, $2.00; Miles on the Horse's Foot, 75c.; Stonehenge on the Horse, $2.00. One of the most comprehensive and lucid works on the diseases of stock is Law's Farmer's Veterinary Adviser, $3.00. All the works can be had through this office. 4, Send specimen; we cannot name the shrub from the meager description. 5, The proper time for budding trees differs with the sort of trees. Mention the kind, and we'll name the time. 6, Pearl millet will not mature seed in that latitude. 7, The RURAL is mailed from this office regularly every Tuesday to all our subscribers, and if it fails to reach its destination, the fault must rest with the P. O. folks.

COMMUNICATIONS RECEIVED FOR THE WEEK ENDING SATURDAY, MAY 17.

G. G., Jr.—"Gloddp's Wayne."—J. T.—A Subscriber.—O. S. B.—A. H.—U. S. E.—Yes.—R. F. S.—L. W. S.—A. E. S.—A. S.—E. L. T.—P. S. W.—Mrs. J. S.—Thanks.—A. H.—E. B. W.—S. E. L.—E. W. S.—H. W. B.—J. M. W.—Crab Apple.—J. M.—M. B. M. L.—V. J. E.—E. W. S.—J. C. H. F.—J. W. N.—O. H.—W. C.—R. N. G.—"Turvey Drop."—W. L. H.—F. C. M.—T. D.—M. R. O.—"Chatterbox."—J G.—T. H. H.—J. B.—X. L.—W. D.—L. S. W.—F. S. D.—Free Lance.—Jacquilena.—Thanks.—C. C.—C. E. S.

Implements and Machinery.

A GOOD SAW-MILL for $188.

Our No. 1 Plantation Saw-Mill is designed to be run by 8, 10 or 12 horse-power Agricultural Engines. With this power from

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of lumber can be cut in a day; a product 25 to 50 per cent. greater than can be cut with any reciprocating saw-mill. The mills are complete, except saw, and will be put on the cars in Cincinnati for the low price of $188, and warranted in every particular. Saw Mills of all sizes, Engines and Boilers, Shafting, Gearing, etc. Illustrated Circulars sent free.

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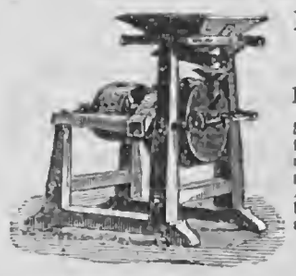

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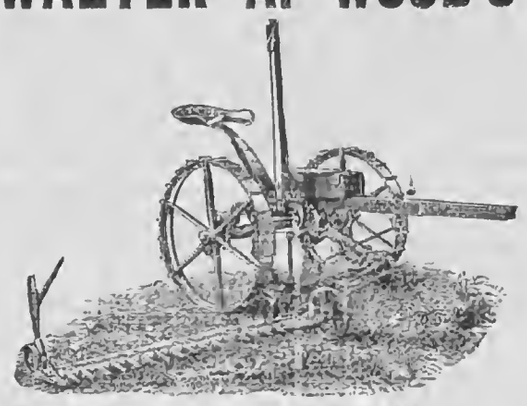

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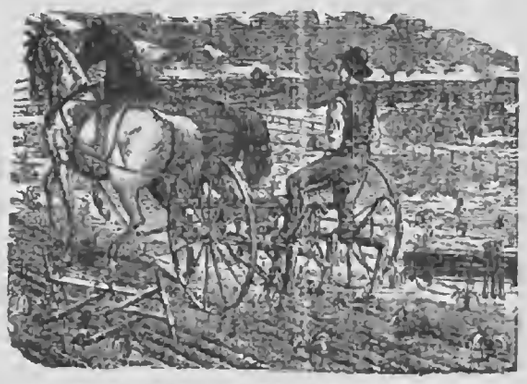

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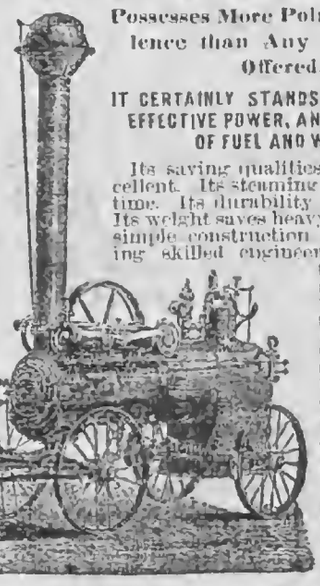

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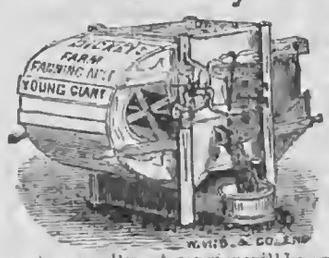

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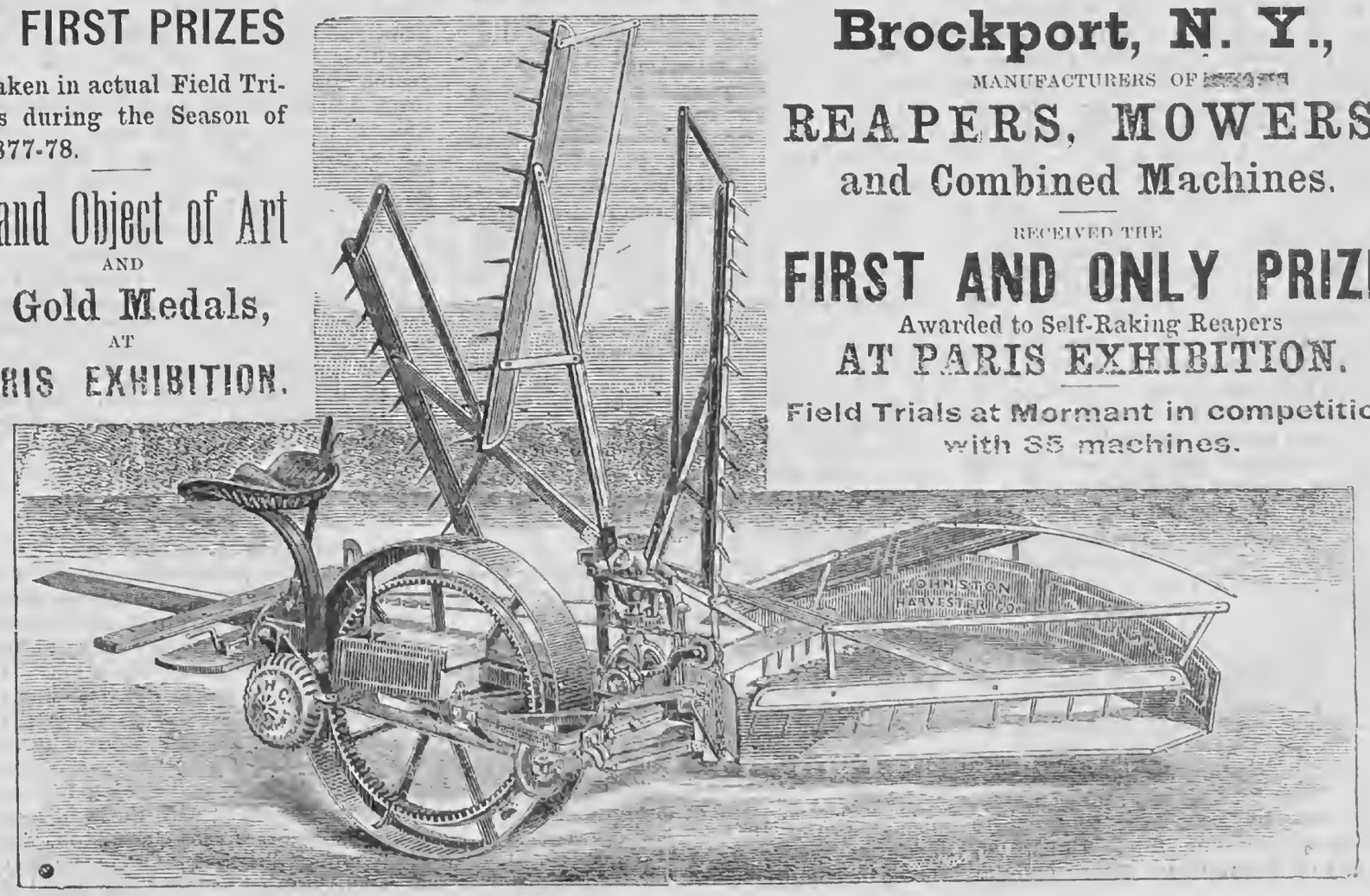

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THE
RURAL NEW-YORKER.
PUBLISHED EVERY SATURDAY.

Address
RURAL PUBLISHING CO.,
78 Duane Street, New York City.

SATURDAY, MAY 24. 1879.

TO EVERY READER.

We respectfully and urgently call the attention of our readers to the *necessity* which exists that they should address their communications to the Editors or the Publishers of the Rural New-Yorker, if they would insure prompt responses. Letters addressed to individuals are often delayed in this office for weeks. Mr. Moore, to whom letters intended for us are still occasionally addressed, has had no connection with this journal for years.

HAY.

The much that has been said and written about the value of early-cut hay has unquestionably had its influence upon the practice of many, if not of all farmers. The current of opinion has been changed, and there are few who do not now hold, at least in theory, that early-cut hay is best, though some yet doubt its being, on the whole, the most profitable.

But no great step in advance can be taken in regard to a single matter without its being revealed that many other things must be made to keep step with it, in order that the expected benefit may be fully realized. The mowing machines called for smooth fields. The importation of improved domestic animals necessitated better housing, feeding and care. The new methods of setting milk for cream cannot yield their full advantage without more care in milking and in making butter. And so it is with regard to the early cutting of hay: before it can be put in practice with the surety of reaping all its advantages, we must abandon some old ideas and take in some new ones. We must cease to look upon the grass crop as a free gift of nature, and begin to regard it as a cultivated crop; one not to be stolen from the ground after a full yield of grain, but to be made a primary object in our culture, the same as corn or potatoes.

The proper complement and conclusion of the theory of early cutting are that we must have two, and sometimes three full crops of grass from the same land in one season. We can only get them by manuring and seeding for them. It is of no use to talk of early cutting and two crops upon land in such poor heart that the early quick-growing grasses, like June-grass and orchard-grass, cannot make a crop on it, and where timothy, weak and scattering, does not get strength to head out before the middle of July. On such land we must wait for the grass to "thicken up," or we shall not be able to see it after the machine has passed over the field.

There are farmers who say that June-grass is worth nothing for hay; and we have seen farmers cutting it at the rate of two tons to the acre the first week in June. It would be a good thing to bring these two kinds of farmers together in a farmers' club, and have the latter tell the former how it was done. Orchard-grass and clover will usually be fit to cut about June 12, and all that will dry on the ground may be grown on it, if one knows how. Directly adjoining such a crop, with only a board fence between, on land equally good by nature, we have seen about six spears of timothy to the square foot struggling with sorrel, daisy and five-finger, all together making perhaps one-third of a ton of "good horse hay" to the acre about the last of July. It was of no use to talk to the owner of that field about early cutting, for there was nothing there to cut early.

In the good old times, before mowing machines, tedders and horse rakes, it would have been cruelty to talk about two or three hayings in one summer. But now that the handling of grass is reduced to so small an item, there is no difficulty about it, if we can raise the grass. Can we do it? Is it "all humbug" to talk about carrying a herd of 25 cows on the feed of a 50-acre farm? We know a practical dairyman who keeps that number on 25 acres, but he soils instead of pasturing them. There are thousands of farms better suited to dairying than his, yet we will not frighten our readers by proposing to them to stock up at the same rate. But we do think any of us might be smart enough to make 50 acres carry a herd of twenty-five, if we would only make a study of the subject. It will take manure to do it, and knowledge and skill as well.

No farmer that wastes all or half the liquid manure of his stables, will even make hay at the rate of four tons to the acre. Nor will he do it by the usual routine of seeding timothy and clover with grain. An old colored brother was once observed fishing from the long bridge at Washington, and throwing overboard everything he took except the bull-heads, or what they call cat-fish. On being asked why he threw back the bass and other fish he answered. "Well, you see, boss, when I goes a-catting, I goes a-catting." We must be inspired with this old man's method, a little more intelligently applied, if we want to be eminently successful growers of grass. The objective point on all dairy and stock farms should be grass, and every process of the farm should have the grass crop in view above everything else. When we have learned how to grow four tons of hay in two or three cuttings, we shall all be "early cutters," and late cutters, too. On moist meadows we shall still grow single crops of timothy, red-top and fowl-meadow grass; on all arable upland we shall learn the value of rye-hay, oat-hay and Hungarian, as well as of clover and of fodder corn properly grown for forage; while on our permanent mowings we shall learn what June-grass and orchard-grass can be made to do by the use of manure and primary seeding—that is, seeding without grain. There are lands of an intermediate character, moist and and rich, yet well drained naturally or by art, where two heavy crops of timothy may be cut every season. It is just as true that we go over too much ground for our grass as that we do the same for other crops. But the change in either case is not so easily made. We do not exactly believe what we read about it; we have too few visible examples for our encouragement and instruction. Yet we ought to perseveringly experiment in this direction. Those of us, especially, who are perforce "small farmers" with our ten to fifty acres apiece, must try to learn how these things are done, and surprise our big neighbors with our big barns filled with big crops from small areas of ground.

MAKE THE AGRICULTURAL COLLEGES EXPERIMENTAL STATIONS.

The agriculture of the nation has reached a stage in its development where the need of scientific facts upon which to base its further progress, has become not only apparent but eminently pressing. Solutions of many puzzling questions, and facts that may guide to more assured success, are loudly called for by our agricultural and horticultural societies, by scientific men, and by all progressive tillers of the soil. They call for experiments that will determine the best methods of breeding and feeding stock, and that will throw the needed light on obscure questions in grain raising, in pomology, and in gardening. Experiments, too, are needed to develop more effective methods of culture and prevent our running in ruts. Agriculture is no longer restricted simply to plowing, sowing, and breeding cattle, but it also includes the knowledge of how and what to breed and plant in order to receive the best possible returns from our efforts.

How can this knowledge be best obtained? The people naturally look to our Agricultural Colleges for answers to all questions of an agricultural interest, but too often they are disappointed. It must be remembered however, that it requires capital to experiment. Under the very economic (?) management of the State Legislatures, many of the colleges are barely able to exist as educational institutions, to say nothing of the carrying out of extended and expensive experiments. Experiments are, indeed constantly under way in many, perhaps, in all the colleges; but these institutions being pinched for want of means, their efforts in this direction must necessarily be limited. The question has occurred to us, would it not be true economy and prove a universal blessing if the respective State Legislatures should establish and maintain an experiment station at each Agricultural College? What an amount of effective work might then be accomplished! Thirty-seven States have availed themselves of the land grants of Congress; think of as many stations, not only teaching what is already known, but constantly searching for new facts, revealing new truths and testing new methods! What encouraging progress might then be made! Stations have, indeed, sprung up here and there in the country, but to be of much value they must be comprehensive and thorough-going in their labors, and this, of course, requires means. Many of the colleges offer all the facilities that can be desired. By no other plan could experiment stations be so cheaply maintained and so effective in their work. The needed land is already connected with the schools, few having less than 200 acres, while many have 600 or more. The ordinary farm crops are raised by most of them, and stocks of different breeds kept. A force of scientific men is already connected with each institution, and the young men who will probably in future take a prominent place in the ranks of agriculture are there congregated. It would be well that these should have the benefit of carrying out extended experiments in the business in which the life-time of most of them will be passed. Systematic experiments thus carried on, under the direction of competent men, each station communicating with the others and all having a central guide in the Department at Washington, cannot fail to confer on American agriculture an impetus that is yet undreamed of.

VIRTUE IN WORK.

Work ennobles; luxury enervates and demoralizes. This is the verdict of history, awarded in every notable case in which the question has arisen. Simplicity of life and honorable industry have ever brought forth a condition of private and public virtue, have produced comfort and every desirable aspect of wealth, with contentment and happiness. It is curious to note the change which has occurred of late years in the condition of the people both in the agricultural and other industries, not only in our own country but in Great Britain—the greater condition of luxury and expensive living which now exists and the painful turmoil of grumbling and dissatisfaction with present circumstances. At home we are complaining that business is very bad; that farming no longer pays; that expenses eat up profits; that produce sells for nothing and that, on the whole, everything seems to be going to the bad.

Abroad the same occurs, but to a greater degree. In England agriculture is in desperate straits. Every week a hundred or more farmers are published in the official "Gazette" as bankrupts or insolvents. Ground between the millstones of high rents and high wages, under the operation of the effects of ruinous competition with cheaper American products, the English farmer is in a sad plight. And now comes Joseph Arch, who is the prophet of the period in this case, and who says, "farmers must return to the old-fashioned and homely beer, in place of the new-fangled costly wine; must dismiss the piano, and put their daughters to the churn as in the olden time, in order to revive agricultural prosperity." And the "Jeremiad," although bitter to think of, seems to point to the only course which can be pursued.

Is there no food for reflection for Americans in this? Not long ago, we traveled in the West for a day in company with an agent of an extensive manufacturer of parlor organs. He was returning suddenly and unexpectedly, having already taken more orders for instruments than his firm could make in a year to come. His customers were Western farmers. Every family required an organ, and the principal reason was because the next neighbor had one. All were sold on a year's credit. The young ladies who learned to use these instruments doubtless no longer milk the cows or manage the dairy; spin the wool from their fathers' flocks; knit the family hose, or rarely make their own dresses. One luxurious habit, especially if it causes work to be thought inconvenient or degrading, leads further and becomes disastrous in the end. The young men, too, require a fast horse and a costly wagon and more expensive attire; and then the help of a hired man in the field is as needful as that of the help in the kitchen. And under the pressure of all these self-inflicted taxes, farming does not pay, and it is to be feared that it never will until these taxes are repealed.

Agricultural Education.—It is evident that, to equalize the production of our various industries, agriculture must soon receive an impetus in some shape or other. This must certainly come in the way of a better technical education. It requires as good a man in every way to make a successful farmer now-a-days as to make a lawyer, a doctor, a preacher or an engineer. Yet if we compare the numbers or the students in the law, medical or theological schools with those in agricultural colleges, what a contrast is offered! We must learn this lesson, namely, that our boys must be as well prepared for the first of all professions, viz, that of agriculture, as for any other, and that the farmer who lavishes all his spare income for some years on John to make a preacher or a lawyer of him, and keeps James at home with no more than the simplest rudiments of school knowledge to make a farmer of him, does this boy the gravest injustice. And yet in spite of this, James will probably be called upon to assist John in after years to maintain his station of assumed superiority! It may be that this division of the paternal resources may be thought equal, and that the inherited farm may be considered an equivalent for the cost of the college education. But it is an injustice that a young man should be left unprepared by sufficient education to make the most of his resources in after life, and this idea should be kept so prominently before the public as to lead in time to the perfection of a system of agricultural education in the public schools and the thorough utilization of the agricultural colleges.

The Preservation of Timber.—An easy and simple method of rendering timber unusually durable, if not practically indestructible, is of the greatest value to the agricultural community. Fence posts, sills of buildings and other timber exposed to influences which cause rapid decay, last but a few years under ordinary circumstances. It has long been known that lime is an effective preservative, acting in this way by coagulating the albumen in the cellular tissue of the timber. An easy method of preparing the timber has been applied practically by a French mining engineer. A pit was made in which the timber was placed; quick-lime was scattered over it and then slaked with water. After being exposed a few days to the action of the lime, the timber was removed and used as supports for the roofs of a mine. Where unprepared timber lasted but two years, that prepared in this way has been in use for several years without the least appearance of decay. This method of preservation commends itself for its simplicity and cheapness for farm use.

General Information, as a test of qualification in our public-school teachers, is almost wholly left out of the examination by School Commissioners. This is a very grave omission. Only broad, well-informed minds are fitted to mold the plastic minds of children. Teachers, who have only a routine knowledge of the common school branches, without any proper understanding of the history and progress of their age, are quite incapable of imbuing the young mind with a desire for knowledge. The inspiration of the teacher often lifts the child's mind to a higher plane, and gives an impetus that is felt through life. The profession of the common-school teacher sadly needs elevating; and this higher standard must be introduced by the School Commissioners, into whose hands the qualification of teachers is committed. Farmers are greatly interested in this, and they should look to the character and qualifications of the Commissioners whom they elect.

BREVITIES.

Verbenas are now selling in this city at 50 cents per basket, containing one dozen of assorted colors.

One of our most prosperous farmers is that particular as to the tidiness of his barn, that soiling the floor with tobacco juice is strictly prohibited.

Professor Cook tells us that thoroughly rectified benzine, poured into all suspicious crevices, is the best remedy for bed-bugs; as may be seen in another column—a useful bit of information in summer-time.

We have never seen the Japan Quinces so loaded with flowers as now. These are fine shrubs and groups of the white, rose, red and deep-red—blooming as they do at the same time—form brilliant objects upon the lawn.

Feed the young chicks often—bread wet with milk is as good as any food for them. Give them clean water twice a day in clean, shallow vessels. Flower-pot saucers answer the purpose nicely.

Without plenty of live stock, says Mr. Mechi, fed on purchased foods, and, in addition, some purchased manures, there is very little hope for the British farmer on ordinary soils in competition with the foreigner.

Artificial Tallow! Now that artificial butter has been made from tallow, it is in order that the tallow should be produced artificially so that consistency may be preserved. This has been effected and a patent has recently been granted for making tallow from a mixture of 60 pounds of castor oil, 10 pounds of animal fat, 10 pounds of vegetable oil and 20 pounds of wheat flour. Perhaps no one will object, much less the juveniles who would rejoice if all the castor oil in existence were disposed of in this way and the product were used by the artificial-butter factories.

Literary Miscellany.

THE ANDRE MONUMENT.

Mr. Cyrus W. Field has purchased the land at Tappan, where Major Andre was executed October 2, 1780, and is having prepared to be placed on the same, a stone, on the front of which will be inscribed:

Here died, October 2, 1780,
Major JOHN ANDRE, of the British Army,
who, entering the American lines
on a secret misson to Benedict Arnold
for the surrender of West Point,
was taken prisoner, tried and condemned as a spy.
His death,
though according to the stern code of war,
moved even his enemies to pity,
and both armies mourned the fate
of one so young and so brave.
In 1821 his remains were removed to Westminster Abbey.
A hundred years after his execution
a citizen of the States against which he fought
placed this stone above the spot where he lay;
Not to perpetuate the record of strife,
But in token of those better sentiments
Which have since united two nations,
One in race, in language, and in religion;
With the earnest hope that this friendly union
Will never be broken,
[*Arthur Penrhyn Stanley, Dean of Westminster.*

[*On the back.*]
Supt lacrymæ rerum et mentem mortalio tongunt.
[*Virgil, Æneid*, 1, 462.

[*On the left side.*]
"The spy of the neutral ground,
Who died as he had lived,
Devoted to the service of his country."
[*Fenimore Cooper.*

[*On the right side.*]
"He was more unfortunate than criminal;
An accomplished man and a gallant officer."
[*George Washington.*
"He died universally esteemed and universally regretted."
[*Alexander Hamilton.*

AN UGLY GIRL.

(Continued from page 286.)

CHAPTER XVI.

THE PHANTOM.

It was neither easy to pacify the trembling Irene nor to discover what had thrown her into such a state of alarm; but when the lamps had been lit, and she sat close to her brother, with one hand in his, the other in Hillian Gray's, and Mrs. Hurst's comely, sympathising face beaming upon her, she regained her courage.

"Yes, I dare say it was foolish of me to be so easily frightened," she said, in reply to one of Noel's rallying speeches; "and yet I think I had cause for my fears."

"No doubt; but was that cause anything more terrific than a spider or a rat?"

"Indeed, Noel, it was, as I told you, a human figure—or what looked like one—that I saw in the library."

"Or thought you saw," he hastily made answer, though the recollection of what he had himself beheld in that apartment, made him give more credence to Irene's tale than he chose to admit. "I dare say there are ghosts innumerable in this old house; headless knights, and ladies in flowing robes, besides a skeleton or two that haunt some special chamber, and generally make their appearance about midnight—'that witching hour when churchyards yawn——'"

"Oh, don't, Noel! If I thought there were an atom of truth in what you are saying," the pale Irene protested, "I would go back to mamma rather than remain here! Do talk common sense, and leave the ghosts alone."

"Certainly, if you will set the example," her brother promptly replied; "but when you rush into the room, startling Miss Gray with a wild story of supernatural appearances, I think it is only kind to supply you with a little corroborative evidence. I may have seen your ghost myself. Describe her.

But Irene, who did not like his raillery, unceremoniously turned her back upon him, and addressed herself to Hillian.

"Do they say that spirits haunt this house, Miss Gray?"

"I have not been here long enough to learn the legends of Carlsforde," was the amused response. "But surely, dear Irene, you do not place any faith in such idle nonsense?"

"N-no," she answered, in very hesitating tones—"at least, I never have done so; but when one has such extraordinary adventures oneself, who can help feeling a little—just a little credulous?"

"May we hear what this adventure was?" asked Noel, who was really curious to know whether his sister's experiences coincided with his own; "or are you bent on raising our expectations to a tremendous pitch, only to lower them again with the confession that it was a stray cat or a screech-owl that drove you here with these white cheeks?"

"If you would leave off making fun of me, I would tell you directly," she pouted. "I had gone into the library more than an hour ago to find some engravings I wanted to show you, and in turning over the folio I came upon a copy of those verses Miss Gray quoted last evening. I don't care much for poetry: but these were so stirring, that I had a fancy to learn them: and, carrying the paper to one of the windows—for the light was beginning to fade even then—I laid it on the cushioned window-seat, and knelt down to read them over and over till I had committed them to memory."

"Well?" queried her brother, finding that she had paused. "What are you pondering over?"

"I am trying whether I can remember any of the lines," said Irene naively; "I'm afraid not, for I forgot them in watching the men who are clearing away the rubbish from the foot of the tower, and scarcely thought any more of my verses till they had put on their jackets and gone away. Then I should have resumed the task I set myself, if I had not heard a sound like the rustle of a woman's dress at the other end of the room."

"Do ghosts wear silken robes that rustle? Aren't you clothing your spiritual visitor in rather substantial garments?"

"Be quiet, Noel, and let me finish. At first I thought it might be Mrs. Hurst, come to remind me how I was neglecting you; she is the only person here who wears a silk dress; but then she always has shoes that creak, and walks heavily, whereas, this person's footsteps were inaudible. So I peered round the arm-chair that hid from me the further and duskier end of the room, to see who it could be."

"Ah! now your narrative really grows interesting," muttered Noel, who knew that whoever this person might be, she had shown herself to Irene in the same spot where he had beheld her some weeks previously.

"Do you mean this, or are you ridiculing me?" his sister doubtfully inquired. "I assure you, Miss Gray, that there was the figure of a woman dimly to be seen at that end of the library, and my first impression was that it must be you, and that you were in search of me."

"Go on," cried Noel, impatiently. "Miss Gray was here—just returned from a walk to the village."

"I knew she had gone out on one of her errands of mercy, but forgot it at the moment, and said carelessly, 'I am here; did you want me?' As soon as I spoke, the figure uttered a stifled cry, and disappeared."

"In what manner?" asked Noel, still veiling his deep interest in the subject under a semblance of amusement. "Did she fly through the keyhole?"

"She disappeared," repeated Irene, emphatically; "but how, I cannot tell you; for there is neither door nor window near the spot where she stood. Am I quite sure of this? Yes; and Miss Gray will tell you the same; and yet the figure was there one moment, and the next it was gone. Its disappearance was so sudden and extraordinary, that I was seized with a panic, and rushed here."

Noel asked no more questions, for Mrs. Hurst was demanding to know what had happened; and he sat reviewing what he had heard till his sister and Hillian, by their united efforts, had contrived to give her the required information.

"I daresay it was one of the women servants who had gone in to close the shutters before it grew later," was the good lady's comment on the tale told her. "They are silly, timid creatures, afraid to move about the house after dark, and Jane or Hannah would be quite as much startled by your sudden appearence, my dear, as you were to find some one in the room."

"Let Jane or Hannah explain how she vanished from my sight, and I shall believe this," cried Irene, incredulously.

"Miss Gray does not give us her opinion on this extraordinary occurrence," Noel observed, and Hillian started from a reverie.

"Is not Mrs Hurst's explanation the most feasible one? I cannot imagine that any person would be so wicked as to secrete him or herself in the library for the purpose of terrifying Miss Estcourt."

She spoke with a little impatient scorn of the terrors which it was evident that she did not share, for she offered to go with Mrs. Hurst and make a close and careful examination of the room; very sensibly observing that it would not be prudent to mention Irene's adventure to the domestics, who were already quite superstitious enough to attach greater weight to it than it merited.

No one likes to be laughed at, and the male sex are proverbially averse to anything in the shape of ridicule; therefore Noel was careful not to reveal to either of his fair companions that he firmly believed all Irene had asserted. He was not weak enough to imagine that there was anything supernatural in the vision; but that there was some mode of entry to the library beside the legitimate ones, and that it was used by the female he and Irene had beheld, he was firmly convinced; and he chafed at his inability to descend thither and search the paneling for the spring that enabled the unknown to glide in and out with such bewildering rapidity.

As Irene confessed that she still felt nervous enough to dread sleeping alone in the large and rather isolated chamber she occupied, Hillian generously offered to give up to her the pretty little room adjoining and communicating with Mrs. Hurst's.

The offer was thankfully accepted, and at the usual hour for retiring, the house was closed, and Noel, who now refused any other attendance than that of one of the men-servants who slept close by, was left to repose. But he was more than commonly restless, for he could not feel satisfied until he had obtained some more tangible explanation of the occurence in the library.

Could it be Miss Carlsforde herself whom he and Irene had seen? Was it possible that there were secret apartments in the house in which she was secluding herself, and thus contriving to be perfectly cognizant of all that was passing under her roof, while supposed by everyone to be miles away?

For some time Noel felt inclined to adopt this solution of the mystery; yet when he came to reflect, he saw that it was an untenable one. However closely Miss Carlsforde might confine herself to her place of concealment, it would be impossible for her to be within these walls without taking some one or other into her confidence. She would require food and attendance; and, more than this, a motive for such seclusion was altogether wanting.

It could not be to avoid her kinsman; he was still a prisoner to his chamber, and she was mistress here, free to receive or decline the visits of anyone else who might be disposed to invade her solitude. No; Miss Carlsforde's reluctance to take advantage of the will that disinherited the male heir might induce her to quit the Park altogether, and keep the place of her abode secret until she attained her majority; but it could not have induced her to play these ghostly pranks. In fact, such levity would have been very ill-timed in a house, where her father had so recently expired.

Must he then believe that Mrs. Hurst was in the right, after all, and that the strange apparition twice seen in the library was due to the accidental intrusion of a servant? No: he could not do this, until he had found out in what manner the woman contrived her sudden flight; and he lay regretting his inability to personally investigate the matter, till fatigue weighed down his eyelids and he sank to sleep.

CHAPTER XVII.

ANOTHER ALARM.

The voice of Irene entreating him to awake aroused him from his brief slumbers, and he started up to find his sister, wrapped in a dressing-gown, her hair lying disheveled on her shoulders, standing by his bedside.

"What does this mean?" he asked, for she was trembling excessively. "Are you ill, or have you suffered some fresh alarm?"

"The library," she panted, in a hoarse whisper; "some one is there. Who can it be? Oh! Noel, I wish we were safely away from this dreadful house."

He did his best to calm her, and partially succeeded; for when he began to question her more closely, she was half ashamed to be obliged to confess how very small a foundation she had for the terrors that had brought her back to his room.

"Hillian insisted that I should have her chamber, which was very kind," she said; "and I was glad enough to make the exchange, as my room is so far away from you all; but Mrs. Hurst is the loudest sleeper I ever heard, and kept me awake till I grew so hot and uncomfortable with my restless tossings to and fro, that I crept out of my bed to shut the door of communication. Before returning to it, I drew the curtain aside to look at the sky, and saw that my casement faced those of the library on the other side of the quadrangle. You are listening, Noel?"

"Of course I am. Pray continue."

"Well, then, as I stood there I assure you that I saw a light suddenly appear in those windows."

"May it not have been your fancy? A ray of moonlight, perhaps."

"The moon is not shining to-night; and it was not fancy," Irene persisted. "I saw the library suddenly illuminated as plainly as I now see you; and while I stood fearfully gazing at this light—for I knew everyone in the house had gone to rest long before—a shadow was thrown on the window nearest to it."

"The shadow of a man?" asked her brother, excitedly.

"I could not tell. The person whose reflection I saw appeared to be clothed in long, shapeless garments that resembled nothing so much as a shroud. Oh! Noel, it was horrible! What can the creature be that haunts Carlsforde? Will it come here, Noel?" and she cast a fearful glance around her, and crept closer to her brother. "If it approaches me, I shall die with terror!"

Noel, whose arm was thrown around her, gave her a little shake, and spoke sharply; for she was growing hysterical.

"Pshaw! you foolish child! What would harm you? There are plenty of people at hand to protect you from burglars; and their visits are all we have to fear. Calm yourself, and help me to discover who this intruder can be. Try to remember what attitude the figure you saw yesterday evening had assumed when you caught sight of her."

"She was standing in front of an old-fashioned cabinet, in which Mrs. Hurst once told me that some of the family jewels are kept."

This information had an electrical effect on her auditor. Seizing the silver bell, with which he was accustomed to summon the servants in attendance upon him, Noel exclaimed, with a little triumph in his tones:

"Ha! now you have given me the clue I wanted! It is to obtain possession of the contents of that cabinet that the library is secretly visited, and your wakeful night may enable us to frustrate the would-be robbers."

Jephson, a quiet, elderly man, shuffled into the room, yawning and rubbing his eyes, expecting nothing more than a request for some lemonade; but his drowsy aspect vanished when Noel eagerly imparted such strange tidings.

"I am afraid there are thieves in the house, Jephson, and that their object is to possess themselves of Miss Carlsforde's jewels. They have made their way to the library, where the cabinet stands. Miss Estcourt has fortunately discovered this in time. She tells me that the room is lighted up; they are even now busy there. Haste and arouse the rest of the servants; but be cautious as well as quick, lest these scoundrels make good their escape. Ah! what torture it is to lie helplessly here, while others have the free use of all their limbs!"

Almost before he had finished speaking, the startled Jephson hurried away to carry out Lord Carlsforde's directions, while Irene, sobbing and shivering with unconquerable dread of a regular conflict between the burglars and their would-be captors, rolled herself up in one of the bed-curtains, and hid her face on her brother's shoulder every time she heard the slightest sound.

"Some one comes!" she gasped, presently. "If it should be some dreadful ruffian, how are we to protect ourselves?"

But it was only Hillian Gray. She had heard the servants pass her door, and had risen directly, imagining that Lord Carlsforde was worse, and her aid might be acceptable.

She looked surprised and incredulous when she heard the cause of the *emeute*.

"I cannot believe that anyone has entered the house. Rely upon it, you are mistaken. Mrs. Hurst always goes round it at night with one or other of the men, and satisfies herself that every door and window is secure."

"But what will you say, Miss Gray," persisted Noel, "when I tell you that I as well as Irene have seen a stranger in the library? You start; but it is true. On the night of the storm I beheld the figure of a person who is, I am satisfied, acquainted with the existence of some sliding panel or hidden door, which enables her to disappear with marvelous celerity. I firmly believe that she is now availing herself of her knowledge to introduce her confederates—base wretches, perhaps, who have deliberately planned this robbery."

Hillian's face began to lose its composure.

"You shock—you terrify me, Lord Carlsforde. What would they steal? The family jewels? I had forgotten those. What shall I do? This excitement is not good for you, and I—and I——"

She wrung her hands as if overwhelmed at the thought of her own inability to render any efficient service; but her agitation was not so great as Irene's, who screamed aloud as voices and the tread of many feet were heard on the stairs.

However, it was only Jephson and the two footmen, who had armed themselves with pokers, and now came to report that there was no one to be found in or near the library, and that everything there was in precisely the same condition as when it had been left on the previous evening.

Noel, stupefied by these assertions, looked at his sister, who, seeing herself suspected of romancing, began to declare vehemently that she had not been mistaken; that she was as positive as ever that she had seen some one moving about in that room.

"There's not a creature there," Jephson reiterated, with equal vehemence; "and, begging your pardon, miss, there can't have been; for I locked the door myself before I went to bed, and as I left it then, so I found it five minutes ago."

"Except——" one of the footmen began, then paused again; but Irene, who was beginning to feel angry at the incredulity with which she had been heard, insisted on his proceeding.

"I was only going to say, miss, that one of the lamps seemed to me as if it had been lighted quite lately; for I happened to put my hand on it, and the oil was quite warm."

"Or you fancied so," interposed Jephson, gruffly. "People can't very well get in an' out of a library when the windows is fourteen feet above the ground, and doors double-locked, and the keys in my pocket, where I have always carried 'em since there has been valuables in that cabinet. Miss Estcourt has been dreaming, that's all. A touch of the night-mare, I'll be bound. I used to be subject to it myself when I was young, especially after hot suppers."

Irene looked angry, and her brother but half convinced; for he happened to know that Jephson's carefully-secured doors were not the only means of egress or ingress the library contained. It was Hillian who suggested a plan that satisfied all parties.

"If Lord Carlsforde still feels any uneasiness respecting the safety of the jewelery, will it not be as well for John or Mark to sleep in the library for the remainder of the night? To-morrow the cabinet can be brought up here. We shall all feel relieved to know that it is under his lordship's charge; for I have heard my aunt say that some of the ornaments deposited in it are heirlooms, and of great value."

Everyone agreed that this would be an excellent arrangement; nor could Noel dissent from it though he asked, rather bitterly, if they should not have chosen a more efficient custodian of a lady's jewels than himself.

But when Hillian Gray softly said that she thought Miss Carlsforde would be pleased when she heard that he had taken them under his own care, he felt glad that he had not rejected an opportunity, small though it was, of testifying to the unfortunate heiress his readiness to requite her hospitality by any services that were in his power.

Another half-hour, and those inmates of the house whom Irene's alarm had aroused returned to their slumbers; but Noel did not follow their example till dawn; and his sister must have been equally wakeful, for the first time he stirred he found her beside him, her face crimson with eagerness.

"At last!" she exclaimed. "I thought you would never open your eyes."

"Is it so late?" he demanded.

"Yes—no. It must be nearly eight o'clock; but I have been up these two hours."

"Indeed! I thought you detested early rising, Irene."

"Ah! yes, as a rule; but I was determined to examine the library thoroughly as soon as the footman who kept guard there had quitted it; and I have carried out my intention."

"Not a bad idea," said Noel, approvingly; "but have you made any discoveries?"

"You shall hear, and form your own opinion. One of the lamps—the one nearest the cabinet—had certainly been lit, for I picked up the tiny wax vesta that had been used for that purpose. Now, you are as well aware as I am that no one sat there yesterday evening; and when Mrs. Hurst visited the room after my fright she carried the small hand-lamp she generally uses."

"Go on," said Noel. "Whatever others may say or think, I agree with you in believing that some person or persons entered the library after midnight; but why or wherefore, we have yet to find out."

"That's my good brother!" cried Irene, giving him a hearty kiss. "It's a great relief to find that you think this for it is dreadfully aggravating to be doubted, and told that you have dreamed what you know all the while you saw plainly enough. But I have not finished my report."

"Ha! you discovered the secret of the hidden door!"

"Is there one?" asked Irene. "No; I found nothing but this, lying at the foot of the cabinet;" and she held towards him a small yellow envelope, which, when held up to the light, appeared to con-

tain a slip of paper, half written, half printed, that looked like a certificate. Upon the envelope was inscribed, in faint, feminine characters, "From my dearest husband, June the third, 18—;" and in one corner it was endorsed with the name of Ada Carlsforde.

Noel did not feel justified in examining the inclosed paper, and he carefully placed the envelope and its contents in his pocket-book, there to remain till he should find some opportunity of returning it to its owner.

"Then you don't think this of any consequence?" inquired Irene, who was impatient for his opinion. "You don't think with me that it must have been let fall by some one who went to the cabinet? I am positive it was not lying where I found it when I was last in the room yesterday afternoon."

Yes, Noel did agree with her, though he advised her to say nothing respecting the finding of this paper until he gave her leave to do so. He now felt tolerably certain that it was Miss Carlsforde herself who had visited the library, and, having been frustrated by the presence of Irene in the purpose, whatever it might be, that brought her thither, had returned later at night, and then removed from the cabinet certain papers or other articles she wished to have. But whether she was residing in the neighborhood, or actually in the house, he was puzzled to decide; and after pondering over the eccentricity of her conduct till Irene had tired of his grave silence and left him, he resolved to dismiss the subject from his thoughts till he could discuss it with Hillian Gray, whom he was half inclined to suspect of being in the heiress's confidence.

CHAPTER XVIII.

CLEMENT DUNFORTH.

Noel was still in too weak a condition to endure fatigue and excitement without suffering from the reaction; and Dr. Monson, when he paid his daily visit, found his pulse so high, that he peremptorily banished everyone but Jephson from his patient's chamber, till the sedative he prescribed had reduced the feverish symptoms.

If Noel had been left to himself, he would have rebelled against these restrictions, for this was the day Clement Dunforth had fixed for his visit to Carlsforde, and Irene's brother was extremely anxious to see the young man to whom the heedless girl had so hastily pledged herself. But Jephson who was an old soldier, and prided himself on never disobeying orders, guarded him so jealously, that not even his prime favorite, Hillian Gray when she came to the door with some flowers, was permitted to cross the threshold.

"Beg pardon, my lord," he said, when Noel declared that he must see Mr. Dunforth, if only for a few minutes: "but orders is orders, you know, and I had mine direct from Dr. Monson. He's commanding officer just at present, and I'm answerable to him; discipline must be observed, sir."

"If you will do nothing else, at least you can recall Miss Gray," the invalid urged.

"Very sorry my lord," said Jephson, "but it's 'gainst orders to let you talk too much, and you wouldn't be able to avoid it if I let a woman into the room."

"Don't speak disrespectfully of Miss Gray!" exclaimed Noel, sternly.

"Certainly not, my lord; she's a young lady I admire too much; and you'll never find we military men impertinent to the fair sect, my lord; but truth is truth, and there's no denying that, betwixt Mrs. Hurst, and Miss Gray, and Miss Estcourt, there is a deal more talking goes on in this apartment than is good for your lordship, with a broken leg, and a head that's been one mass of confusions; let alone that Dr. Monson forbids it."

After which harangue Jephson withdrew into the dressing-room, and left his patient to his own reflections.

Yet, vexed as Noel had been at missing Clement Dunforth, he was far from gratified to learn on the morrow that Mrs. Hurst had pressed the young man to remain at the Park till Lord Carlsforde was able to see him. Irene's suitor might be the most amiable of men, the most devoted of lovers; yet, until Noel had satisfied himself that he could welcome him as a brother-in-law, it was not pleasant to know that he was domesticated with her; and when Dr. Monson paid his next visit, his patient told him with such vehemence that he must be permitted to see Mr. Dunforth, that the surgeon consented to the interview, for he saw that he would do as much or more harm by forbidding, as by permitting it.

Clement Dunforth's appearance was certainly in his favor, though Noel could not help thinking that this grave young lawyer was the last person to have won the affections of one so thoughtless as Irene. He had none of those ready smiles and little gallantries at hand which would have recommended him to her, and occasionally there was a flash in his deeply-set eyes, and a stern knitting of his brows, that would have made a more sensitive girl feel half afraid to offend him. Yet the impression that he had a stern, ill-restrained temper, was generally forgotten when he began to speak, for he had such a low, well modulated, and thrilling voice, that some had been heard to say Mr. Clement Dunforth would owe to it his successes at the bar.

He evinced no embarrassment when ushered into Noel's room, though he must have seen how keenly and anxiously he was being surveyed; and it was with a happy blending of self-respect and cordiality that he made a few polite inquiries, and congratulated the invalid on the progress he had made. Yet, in spite of the favorable impression his address created, Noel was conscious of being repelled by an intangible something in his visitor's look and manner for which he could not account. No one could express himself in choicer language, no one appear more desirous to win his esteem, or more deserving of it, and Noel, searching in his heart for the reason why he could not reciprocate these friendly advances, began to think it must lie with himself; that his long illness, and his annoyance at Mrs. Estcourt's reticence, had combined to render him irritable and distrustful.

"Irene has given me no satisfactory reason," he said, presently, "why I have been kept in ignorance of an engagement to which she tells me that her mother has consented:"

"Yes," said Mr. Dunforth, answering the latter part of this speech only, "Mrs. Estcourt consents, and I hope we shall see more of each other, Lord Carlsforde. Irene is so proud and fond of her brother, that for her sake you and I must be good friends."

This was very pleasantly said, but it did not touch upon the sore topic of the concealment that had been practiced; and Noel returned to it.

"I hope with you that we shall be able to be friends; but why, I ask, have I not been made acquainted with the engagement?"

"Pardon me, you did not ask me why; nor could I have answered, if you had. You must not make me answerable for any of Mrs. Estcourt's arrangements."

Noel bit his lip.

Was it, then, wholly the fault of his step-mother? and had she been foolish, nay, wicked enough to lead this young man into a proposal made perhaps in the belief that Irene would be handsomely dowered. The suspicion had already crossed him, and he felt that Clement's mind must be immediately disabused.

"I may not discuss Mrs. Estcourt's motives for her silence; doubtless they are good ones, and she has a right to dispose of her daughter as she pleases; but, as Irene's nearest relative, I hope I may be permitted to inquire if you are aware that she is wholly without fortune?

Clement bowed.

"She has herself been impressing this fact upon me within the last hour."

"But you were not aware of it when you declared yourself. You imagined, naturally enough, that as the sister of a peer she would have a marriage portion."

"My dear Lord Carlsforde, you forget that I was paying my addresses to Miss Estcourt before you succeeded to the title," was the suave reply.

"And yet I knew it not," muttered the perplexed Noel. "Why did I not hear this from you, Mr. Dunforth? Did Mrs. Estcourt request you to keep me in the dark?"

"Certainly not; but, on the other hand, she did did not refer me to you; and by the time I began to think it odd that you testified no interest in an affair that so nearly concerned your sister's happiness, I learned that Viscount Carlsforde was dead, and you had quitted London."

"As Mrs. Estcourt practises so much secrecy," exclaimed her aggrieved step-son, "she may not have thought proper to tell you the position in which the late Lord Carlsforde's will has placed me."

Clement Dunforth looked politely attentive, and Noel briefly explained how her father's remorseful affection for his child had rendered the heir to the title penniless.

"But you will marry the lady," was the comment, spoken so confidently that Noel reddened with angry emotion.

"No, sir; I certainly shall not attempt to wed an unfortunate girl solely that I may enjoy her properly. Never! And Miss Carlsforde has testified a repugnance to the scheme as great as my own, by withdrawing from the house until I am sufficiently recovered to quit it. As this is a very distasteful topic to me, we will now take leave of it for ever, Mr. Dunforth. I should not have alluded to it if I had not felt that it was only just to you to make you understand that Irene brings you nothing but herself."

"Thanks for your candor, but the explanation was quite uncalled for. I am not mercenary, and some of my legal friends are wont to say that those fellows often succeed most who have nothing to back them but their own energies. We will hope that this will be my case."

"Then, as yet, you have no standing at the bar?"

"No standing!" Mr. Dunforth coolly echoed. "I have my reputation to make, as well as my fortune."

"And yet you meditate marriage. Isn't this rather rash?"

"It would be very," was the smiling reply, "if I contemplated rushing into wedlock before the tables and chairs are purchased. Irene must be content to wait till I can make her a home."

Realizing how positively his sister had assured him that Clement would hear of no delay, Noel did not know how to reconcile such conflicting speeches; but, at the risk of being considered over officious, he asked if, under these circumstances, Mr. Dunforth had acted wisely, or even rightly, in persuading Irene to agree to what might be a long and therefore unsatisfactory engagement.

"I might answer that, as Mrs. Estcourt consents to entrust me with her daughter's happiness, no one else has a right to interfere," Clement answered, but in so smiling and suave a manner, that it would have been difficult to take offense; "but, to Irene's brother, I shall only say—yes, I am forced to admit that it was a selfish act on my part; but I cannot wish it undone."

"Irene is so young," her brother expostulated. "I fail to see how you, at least ten years her senior in age, and double that in worldly experience, could have been attracted by my childish sister."

"Am I the first man who has had a fancy for educating a wife to his mind," laughed Clement, rising from his seat. "You will find a spice of romance, Lord Carlsforde, in the most matter-of-fact of our sex. But your attendant is making signs to me that I have overstayed my time. May I come and see you again to-morrow? I am collecting some information at Corby, and Mrs. Hurst kindly invites me to spend all my leisure here. Do you indorse the invitation?"

"Impossible! I am not in my own house," answered Noel, shortly.

"Well then, I shall accept without your doing so, and spare you the responsibility of answering for my good behavior. Adieu, till to-morrow."

But when Clement Dunforth reached the door, he suddenly returned to lean over the bed, and, with suppressed eagerness, exclaim:

"One question before I go. That girl—Hillian Gray! It is not the first time that I have met her. What is she doing here?"—To be continued.

SCIENTIFIC TEMPERANCE.

This is the new basis on which, we are persuaded, temperance doctrine will win brilliant victories in the near future. Scientists are giving close and successful study to the action of drinking habits on the structure of the brain. Within a few years great progress has been made in giving us the physiology of drunkenness. We have long known what are the general moral and mental effects of intemperance. The destruction of conscience, judgment and will, and the wider physical and social results are patent to the commonest observation. It makes wonderful transformations of the mind, body and social organism. The world has long known it is the most gigantic evil in the way of the world's progress and happiness. In a general way the world has long known how thoroughly drunkenness wrecks the body and mind. The evidence is too common and the demonstration too appalling to leave room for ignorance of these final results. But late scientific investigations have given us the physiological and chemical reason of these last results.

It is in these the world should be profoundly interested. The scientific basis will furnish new temperance arguments and people who are too coarse to feel the appeal based on sentiment or morals may bow to one rested in science.

Microscopic examination has shown the effect of alcohol on the blood. Dr. Harriman in a series of experiments in Boston showed that alcohol produced these among other essential changes in red blood corpuscles. It acts specifically on the coloring matter, making it colorless. It distorts and in some cases wholly breaks up the red corpuscles and produces a parasitic vegetation in the fluid of the blood and hydro-carbon substances can readily be detected by the microscope. In throwing upon a screen magnified corpuscles, both of healthy blood and of that which had been subjected to the action of alcohol, the difference was marked and striking. The effect of the alcohol was thus shown to be destructive of the very life currents of the body and, of course, having a deteriorating effect upon the whole system.

But as the vigor and tone of the brain is largely dependent on the purity of the blood with which it is supplied, it is manifest that the effect of alcohol would be deleterious to the brain and to all mental action in precise ratio to the quantity taken into the system. Recent investigations have made it clear not only that alcohol is bad for the brain, but that it is specifically on the brain that it does its most harmful work. It is sometimes said of the drinker, "the liquor has gone to the brain." That is precisely where all liquor goes, not as a sanitary or tonic agent, but as a steadily and scientifically destructive agent.

It may work slowly, well-nigh imperceptibly in its hardening and deadening effect, but it surely goes to the brain of all who use it, it surely weakens that brain, and if taken in sufficient quantity will as certainly destroy reason and conscience, as it will destroy the body. Indeed, it has been shown that it acts first on reason and afterward on the body. It benumbs and confuses the drinker's brain, before it makes him stagger, or puts him to sleep. He is garrulous in a partially dethroned mind before he falls into the gutter.

There is a corollary to this scientific fact. Of course these experiments are made on the brains of inebriates. But the logic of them goes farther back, and infallibly points out the peril of moderate drinking. If alcohol goes to the brain to work destructively, it will do its work in the exact ratio of the amount of it. Proof alcohol will work faster than that which is diluted; distilled liquor, faster than fermented; but each will do its utmost to break down the man. Brandy will shoot the drinker most swiftly to the grave. But wine will slowly, and scientifically, according to the amount of alcohol it contains, work toward the same result.

If the conclusions of doctors are correctly drawn, they overturn totally and forever the idea advanced by moderate drinkers, that wine and beer are wholesome, but whiskey is ruinous. The difference is only one of degree.

A further argument for total abstinence is herein suggested by the fact that the taste for diluted alcohol is the precursor of a taste for purer alcohol. The moderate drinker uses wine for its alcohol. It is the alcohol effect he prizes. It will lead him on to seek more of it. But even should this not be the case, out of his wine he can in the course of years distil alcohol enough in his brain to weaken intellectual action and deaden moral sensibility. Thus science points the way of the Bible when it declares the unwisdom of the man who allows either wine or strong drink, either fermented or distilled liquors, to deceive him.—*The Interior.*

RIPPLES.

"Oh tell me, Leander," she said,
"Now what would you do were I dead?"
The warm glance of her eye
Begged some tender reply,
And she blushed as she hung down her head.

"I'd remember thee always, dear Jane;"
Then, biting the head of his cane,
He added in this saddening strain:
"For darling, you see
I never could be
Such a fool as to marry again."

THE TROUBLES OF A POET.

While Col. Bangs, editor of the Argus, (American) was sitting in his office one day, a man whose brow was clothed with a thunder entered. Fiercely seizing a chair, he slammed his hat on the table, hurled his umbrella on the floor, and sat down.

"Are you the editor?" he asked.

"Yes."

"Can you read writing?"

"Of course."

"Read that then," he said, thrusting at the colonel an envelope with an inscription on it.

"B——," said the Colonel, trying to spell it.

"That's not a B; it's an S," said the man.

"S? Oh, yes, I see. Well, the words look a little like 'Salt for Dinner,'" said the Colonel.

No, Sir," replied the man, "nothing of the kind. That's my name—Sam'l H. Brunner. I knew you couldn't read. I called to see about that poem of mine you printed the other day, on the 'Surcease of Sorrow.'"

"I don't remember it," said the Colonel.

"Of course you don't, because it went into the paper under the infamous title of 'Smearcase To-Morrow.'"

"A stupid blunder of the compositor, I suppose."

"Yes, sir, and that is what I want to see you for. The way that poem was mutilated was simply scandalous. I haven't slept a night since. It exposed me to derision. People think I am a fool. Let me show you."

"Go ahead," said the Colonel.

"The first line, when I wrote it, read in this manner:

'Lying by a weeping willow, underneath a gentle slope,'

That is beautiful, poetic, affecting. Now, how did your vile sheet present it to the public? There it is. Look at that. Made it read in this way—

'Lying to a weeping widow, to induce her to elope,'

That is too much—it's enough to drive a man crazy!"

"I'm sorry," said the Colonel; "but—

"And then take the fifth verse. In the original manuscript it said, plain as daylight—

'Take away the jingling money; it is only glittering dross,'

A man with only one eye, and a cataract over that could have read the words correctly. But your pirate upstairs there—do you know what he did? He made it read—

'Take away the jeering monkeys, on a sorely glandered hoss,'

By George! I felt like braining him with a shovel! I was never so cut up in my life."

"It was natural, too," said the Colonel.

"There, for instance, was the sixth verse. I wrote:

'I am weary with the tossing of the ocean as it heaves.'

It is a lovely line, too; but imagine my horror and the anguish of my family when I opened your paper and saw the line transformed into—

'I am wearing out my trousers, till they're open at the knees.'

That is a little too much! That seems to me like carrying the thing an inch or two too far. I think I have a constitutional right to murder that compositor: don't you?"

"I think you have."

"Let me read you one more verse. I wrote—

'I swell the flying echoes as they roam along the hills,
And I feel my soul awaken to the ecstacy that thrills.'

Now what do you suppose your miserable outcast turned that into? Why, into this—

'I smell the frying shoes as they roast along the hills,
And I feel my soul mistaken in the ecstacy that whirls.'

Gibberish, sir, awful gibberish! I must slay that man. Where is he?"

"He is out just now," said the Colonel. "Come in to-morrow."

"I will," said the poet; "and I will come armed."

Then he put on his hat, shouldered his umbrella, and drifted off down stairs.

An estimable Louisville young man who teaches a class at Sunday-school and occupies a prominent position in the choir has a fancy for the maiden who sings the alto. The last time he called on her he found her, with her father and mother, entertaining the minister. Concealing his disappointment with as much grace as he could command he joined the dignified circle and maintained his share of the conversation very creditably, considering the untoward circumstances. The minister who had been something of a traveler in his time, turned the talk to his hobby, and was reveling in a gorgeous description of his favorite country, Brazil, when the small boy of the family, who was building a block church on the floor spoke up: "Ma, has sister Floy ever traveled any?" "No, child, no—you mustn't speak when others are talking." "Then, when I was a-lyin' under the sofy Sunday night, and sister and Mr. John come in from church and was a-settin' in the big rockin'-cheer, how come her to say that the nicest land she ever was in was Lapland?"

"On one occasion when Phœbe Cary was at the museum in New York, looking about at the curiosities," says Barnum, "I preceded her and had passed down a couple of steps. She, intently watching a big anaconda in a case at the top of the stairs, walked off (not noticing them) and fell. I was just in time to catch her in my arms and save her from a dangerous fall. 'I am more lucky than the first woman was who fell through the influence of the serpent,' remarked Phœbe, as she recovered herself."

An old gentleman, without tact, on meeting some ladies whom he had known as girls in his boyhood, cordially remarked: "Bless me! How time flies! Let me see. It is fifty-two years come next April since we used to go to school together in the red school-house. I was a little chap, then, you remember, and you were fine young women." The old man could never understand why his cordial greeting was received so coldly.

"George," she said, to the perspiring young man, "I love you just the same, but as our city relatives are coming next week, mother thinks you'd better stay away, because your long hair and

freckled face might make them think our acquaintances weren't very high-toned." The young man is staying.

JULIA A. MOORE, the sweet singer of Michigan, was nearly paralyzed with astonishment when recently informed that *eclat* didn't rhyme with "he cat." She has not sufficiently recovered to finish her half-completed poem "On the Birth of a New Spring."—*Atlantic Monthly.*

AN ounce of honey consumed at luncheon costs the bee who manufactured it 960 miles of travel, and he gets no belt either.

RECENT LITERATURE.

Higher Education, and a Common Language. By PHILIP GILBERT HAMERTON, President McCOSH, Prof. ANGELO DE GUBERNATIS. New York: A. S. Barnes & Co. Price 40 cents.

The necessity for a common language which shall hold the place that Latin did in the Middle Ages; a language which shall make all the educated world akin, in speech at least, must be evident to the most indifferent observer. French is the language of polite society, and it is made the medium of communication in most diplomatic circles, but as Mr. Hamerton shows few, very few even among the educated classes ever *master* French. Latin, it is claimed, is too dead to be available, and there is a movement to make Greek the universal language. Modern Greek is near to the Greek of Plato, and a strong argument in its favor is its perfect adaptability to the expression of new ideas and the nomenclature of new things. Mr. Hamerton's paper is most interesting and suggestive.

The Reform in Higher Education, an anonymous article, presents the serious defects of our college education very forcibly, and the facts showing wherein lies the superiority of foreign methods, and the suggestions as to how our system can be best improved should obtain for the article the serious consideration of those who have the cause of education at heart. In Upper Schools, President McCosh, among many other recommendations, strongly urges that religion should be taught in our colleges by the ablest men in them. His views in this connection are liberal and his suggestions judiciously expressed.

Study of the Greek and Latin Classics, by Chas. Elliott, is an able defense of the study of the classics, one which it would be as well for those who sneer at dead languages to at least glance over. The remaining papers, The University System in Italy, Universal Education and Industrial Art Education in the United States, are carefully written and well worth a reading.

The Voyages and Adventures of Vasco de Gama. By GEO. M. TOWLE. Boston: Lee & Shepard.

This excellent work should meet with a cordial welcome from parents. The boys will read, and long ago they revolted from the milk and water literature of the average S. S. library. The good little boy who leads an exemplary life and dies at an extremely immature age, is nothing more than a monstrosity to them. They may respect his good qualities, but all the same they regard him as a "muff." What they want are tales of stirring adventure, with men of force and character for heroes. Failing to find anything to their taste in the books provided for them, they subscribe liberally for the newspapers which contain everything calculated to give them distorted views of life; to incline them to lawlessness, and to develope a contempt for parents, home and the refinements of civilized life. Brigands, cut-throats, tramps, are their ideals of manhood. It is to supply these same boys with wholesome, interesting reading, and to wean them from the pernicious literature of the flashy newspaper, that Mr. Towle has consented to write the Heroes of History, of which Vasco de Gama is the first. De Gama's history is full of striking adventures, thrilling incidents and perilous situations, and Mr. Towle, while not sacrificing historical accuracy, has so skillfully used his materials that we have a charmingly romantic tale, beside which the Indian blood and thunder stories of the "Boys' Weekly" are drivelling imbecility.

Emergencies; How to Avoid Them and How to Meet Them. Compiled by BURT. G. WILDER, M.D. New York: G. P. Putnam's Sons. Price, 15 cents.

This pocket manual is worth many times the price asked for it. Every family must, at times, feel the need of some such helpful little book. A review of the contents will give a fair idea of the scope of the work. Poisons in general, special poisons and ready antidotes, snake-bite, mad-dog bite, insects bites and stings, bleeding, kerosene and other combustible liquids, fire, burns and scalds, lightning, sunstroke, railway accidents, broken bones, shocks, blows, falls, lost, starvation, fainting, apoplexy, sea-sickness, foul air, coal gas, fire-damp, burning gas, choking, exhaustion, sudden fever, croup, diptheria, convulsions, taking cold, colic, toothache, icy sidewalks, morass, infectious diseases, drowning—how to rescue, how to restore—hot water method, Michigan method, holding the tongue, Harvard method, Sylvester method, inflating the lungs, hot iron method, electro-magnetic method, oxygen method, traction over the ribs, rolling on a barrel, rate of movements in artificial respiration, test of correctness, result of long submersion, when is a case hopeless? need of well-described cases of resuscitation, signs of death. The directions given are full and simple.

Meg: A Pastoral and other poems. ZAHEL BARNES GUSTAFSON. Boston: Lee & Shepard. New York: Charles T. Dillingham. Price, $1.50.

THE author has charmingly condensed the merits of an attractive romance in the agreeably measured poem, "Meg," the winning shapliness of which rhyme-clad story delightfully enlists the interest of the reader. The tribute to our lamented Bryant is artistically jewelled with poetic taste. "Not Peace, but a Sword," is written with some dramatic power. Altogether the chain with beautifully wrought links is richly chased with elegance of topography and binding.

For Women.

CONDUCTED BY MISS FAITH RIPLEY.

A FLOWER FOR THE DEAD.

BY JULIA C. R. DORR.

You placed this flower in her hand, you say!
This pure, pale rose in her hand of clay!
Methinks could she lift her sealed eyes
They would meet your own with a grieved surprise!

She has been your wife for many a year,
When clouds hung low and when skies were clear;
At your feet she laid her life's glad spring,
And her summer's glorious blossoming.

Her whole heart went with the hand you won;
If its warm love waned as the years went on,
If it chilled in the grasp of an icy spell,
What was the reason? I pray you tell.

You can not? I can; and beside her bier
My soul must speak and your soul must hear—
If she was not all that she might have been,
Hers was the sorrow, yours the sin.

Whose was the fault if she did not grow
Like a rose in the summer? Do you know?
Does a lily grow when its leaves are chilled?
Does it bloom when its root is winter killed?

For a little while, when you first were wed,
Your love was like sunshine round her shed,
Then a something crept between you two,
You led where she could not follow you.

With a man's firm tread you went and came;
You lived for wealth, for power, for fame;
Shut into her woman's work and ways,
She heard the nation chant your praise.

But ah! you had dropped her hand the while;
What time had you for a kiss, a smile?
You two, with the same roof overhead,
Were as far apart as the sundered dead.

You in your manhood's strength and prime;
She worn and failed before her time.
'Tis a common story. This rose, you say,
You laid in her pallid hand to-day?

When did you give her a flower before?
Ah, well! What matter when all is o'er?
Yet stay a moment; you'll wed again.
I mean no reproach; 'tis the way of men.

But I pray you, think, when some fairer face
Shines like a star from her wonted place,
That love will starve if it is not fed;
That true hearts pray for their daily bread.

[Sunday Afternoon.

LAMBREQUINS.

PANSY RAY.

IT is surprising now that lambrequins have become "the rage," the various shapes, sizes and materials we see them in, and the many different articles we find them adjusted to—windows, doors, mantels, tables, ottomans, brackets of all sizes—and yet, one can scarcely decide where the graceful drapery is most effective. I presume that the greater number of the women who read this have some chamber of their brain hung with idealistic lambrequins, which they have in vain essayed to bring before the admiring eyes of their lady friends. For your benefit I will give a few "hints" picked up by observation and experience, in the hope that they may aid you in bringing to light your preconceived ideas.

A pretty cheap window lambrequin to heighten the effect of unbleached curtains, was made in the following way, by a young lady who possessed a greater supply of contrivance than of blue delaine. There was a remnant of the delaine trimming, which, when cut in two, was only sufficient for a width of the goods to go perfectly plain across the window. However, nothing daunted, it was put up, and in the center three plaits made turning up, the plaits commencing at the lower edge; this made a point at each side but drew the lambrequin over so that quite a margin was left on each side; fortunately there was another remnant about six inches wide, which she had hitherto considered of no use, but which was now readily seized, cut in four pieces, for the sides of the two windows; the pieces then doubled together so as to form loops, a plait made in the top, and fastened on to the sides of the lambrequins at the top, the loops extending down to within a few inches of the points. Thus the pattern made from necessity became as pleasing as though cut after the most approved style. Where cretonne-stripes are used on curtains the lambrequins may be made of the same material, and are very beautiful; they could be made like those described above, without the loops at the side, if preferred, by making them wider across the bottom than top, that is, cutting them off sloping on the sides towards the top.

Two window curtains, of the latest pattern, with lambrequins to match, were noticed side by side in one of our large establishments a few days ago. The one of elegant maroon velvet, the curtain full at the top underneath the lambrequin, but the lambrequin plain, without a plait fastened on a rod by means of rings, and as straight across the bottom as the top, it being but a width of the velvet, the breadth of the window, without garniture of any kind. The other, a short distance away, was thought to be of the same expensive material, but on closer observation was found to be drab canton flannel. This curtain, about an inch from the front edge, was trimmed with a band of delicate pink canton flannel. The lambrequin was made similar to the velvet one, except it was hemmed across the bottom, and a band of the pink flannel set on above the hem to match the curtain. This curtain hung in as rich deep folds as the velvet one, and formed a striking but beautiful contrast to its companion.

A handsome mantel lambrequin may be made as follows: Take two pieces, say eighteen inches wide—they could be cut wider or narrower to suit your mantel—and fifty-five inches long, they should be of black satine or silk; satine if you wish to applique a design in cretonne embroidery, and silk if you want to paint on it, as the silk presents a much better surface on which to paint; these for the side pieces. Then cut a piece of crimson satine the length of the side pieces, and wide enough so that when they are sewed on, the lambrequin will be the width of your mantel. Where the black pieces are sewed to the crimson, cover the seams with herring-bone stitch in gold silk floss. In the center of the crimson piece, make three plaits turning up and fasten with silk cord and tassel. The effect of the mantel thus draped is very pleasing. One mode of embellishing lambrequins in general is to paint designs on cloth, cut them out and applique them on the lambrequins in medallions. White and gray storks are popular designs.

Another pretty mantel lambrequin, with the additional charm of being inexpensive, is of pink cambric covered with coarse, white swiss. Cut it out square in the center, eight inches or so from the shelf, and about the same distance across; then cut six inches down and six inches straight across toward the edge; then cut a scollop the same length down. Cut again straight across, make another scollop, and so continue until you reach the edge on either side. The straight edges are trimmed with cheap, fluted swiss, edged with lace, such as is often worn in dress necks; the scolloped edges are simply hemmed. Dark crimson roses with brown and green leaves are then cut out of cretonne, and basted in a graceful pattern over the entire lambrequin. A dressing-table, covered in like manner combined with it, gives warmth and tone to the room.

Bracket lambrequins can be made of almost any material, from handsome velvet painted in water colors, to those embroidered in Berlin wools on bed-ticking. For a pretty cheap corner lambrequin take three-quarters of a yard of Turkey red calico, blue delaine, or any other material you may prefer, gather in plaits at one end, fasten on the wrong side and sew on a tassel of Germantown wool. Let this come about mid-way below your bracket shelf, then let the cloth extend across the shelf, and up the corner of the wall any distance you like, having a box plait run up the center where it is tacked to the wall; at the top place a bunch of autumn leaves or Spanish moss, allowing the moss to trail gracefully down the sides. Some object to Spanish moss on account of its sombreness, but when used with discretion, and with here and there a tiny bunch of red berries or autumn leaves peeping out among the gray, it will have an effect quite the reverse of gloomy and must be classed by all as a fine decorator. When your statuettes or vases are dark they should be thrown out by covering the lambrequins with swiss, but Parian marble ornaments when placed on brackets draped as those described above seem warmed up.

Persian embroidery is beautiful for lambrequins as indeed it is for anything. Quite a pretty lambrequin was made of three pieces of opera flannel the edges notched, and in the center of each piece was a black velvet palm leaf embroidered in applique with oriental colored silk floss. A narrow band of white flannel followed the windings of the edge, put on with applique, with herring-bone-stitch worked through the center. Another, the center piece was of white opera flannel with a bunch of green velvet oak leaves in gold floss, appliqued above the leaves was a black velvet butterfly. The two side pieces were of black flannel, with a design in scarlet flannel appliqued on with gold floss. Around the edges and the shelf was a frill of the flannel scarlet and white cut bias, with the edges raveled and put on with herring-bone-stitch through the center. Ticking makes real pretty lambrequins, and of course cheap ones. The white strips are all worked in a variety of colors in zephyrs, and in different stitches as: chain, herring-bone, cat-stitch, etc., finished with a parti colored fringe of wools.

A BEAUTIFUL COLOR.

THERE is a proverb that "necessity is the mother of invention," and it has proved a true one in the method of producing one of the loveliest shades of a light brown, that I ever saw. We were tired of washing white worsted and woolen hose, and determined to make a change in the programme, so I took about four quarts of butter-nut shucks (that is, after the nuts were cracked I took the shells, with the bark on them), and put them into an iron kettle, poured on a pailful of soft water and boiled them three-quarters of an hour. I then strained out all the shucks, put the liquid on the stove, and went to get a piece of copperas to dissolve so as to set the color. But I found there was none to be obtained short of four miles' travel, so I dissolved a tablespoonful of saleratus, and poured into the kettle of dye. I then washed the hose in warm soapsuds, wrung and put them into the dye. I stirred them frequently, then took them out, cooled, wrung, and hung them up to dry. The next day, I washed them thoroughly in hot soapsuds, and they are certainly the prettiest shade of light-brown I ever saw, and they grow brighter each time they are washed. I have tried the dye twice since with the same result. It colors cotton beautifully, and its great beauty is its durability. It would make a beautiful shade for a carpet, and it does not spot. Had I been able to obtain the copperas, I would have had a very dark-brown color; that was what I expected, when I commenced the operation. With the aid of saleratus the result was an entirely new color that is just as durable, and far prettier than the dark-brown. I clocked some of the hose with blue, and some with magenta worsted, and they are very handsome. I have often wondered if many of our household recipes were not the result of necessity or accident. Housekeepers have the opportunity of trying innumerable experiments, and it is very pleasant to have the result a success. When we cannot obtain what we wish, it is very nice to have a substitute that we can use, that will answer our purpose just as well, and prove more satisfactory. Once when I was coloring with anatto, I had no soda to set the color, and instead, took some lye, and found it so much superior that I have used it ever since in coloring. FARMER'S WIFE.

HER MAJESTY'S SHIP PINAFORE.

"AND do you really think that we could give a representation of this opera, in our dead-and-alive village?" So writes a young correspondent.

There seems to me no reason why the young folks, in any village, may not amuse themselves by rehearsing and giving *Pinafore*. The music, though bright and pretty, is by no means difficult and one "who can carry a tune" ought to be able to sing the score correctly after a little practice.

The costumes are simple, and there is but one scene, which represents the deck of the *Pinafore*. As the ship is supposed to be at anchor, instead of a boundless expanse of the deep, blue sea, at the back, there should be a view of a town in the distance. At the back of the stage runs the bulwark of the ship; at one side is the captain's cabin, a small house. Flags and sails can be arranged so as to relieve any bareness.

The crew are attired in plain sailor costume, and the sisters and the aunts and the cousins can wear yachting suits; but this is a matter in which they can exercise their own taste. Some of the costumes produced in N. Y. theaters have been marvelous. One worn by a female relative of Sir Joseph Porter's lives in my memory. She reminded me of that "creature in pink with a mother in green," with whom David Copperfield flirted so desperately. A muslin or lawn dress, a fancy garden hat, and long, lisle thread gloves, is an appropriate costume. Cousin Hebe can be arrayed more showily. One costume serves throughout the opera for the sisters, aunts and cousins. Josephine wears a walking costume in the first act, and a bridal one in the second act. Buttercup should be made to look fat, rosy, and forty, and have a peddler's basket on her arm. Sir Joseph Porter should be dressed in full court costume, and Capt. Corcoran in a captain's uniform. There is little "acting" to be done. The whole affair is farcical in the extreme, and any attempt to be *funny*, quite spoils the effect. A certain jollity of manner and roguishness of expression are all that are required. I know whereof I affirm when I say that an effort to be comic will fail of its object, for I saw the opera burlesqued by a minstrel troupe, and about the only amusing feature in it was not intended to be funny. That was, the inability of the "minstrel" who played Ralph Rackstraw to sing his part. One of the crew had to step to the front and do Ralph's singing. Trouble was Ralph was a baritone, and the music is written for a tenor. For the rest the burlesque was poor, and at times coarse.

One dollar will buy Oliver Ditson & Co.'s (of Boston) admirable book of the opera. It contains the *full* opera, songs, concerted pieces, piano accompaniment and the words that are spoken, all properly arranged.

I shall be most happy to answer any other "Pinafore" questions, that the young folks may feel disposed to ask. FAITH RIPLEY.

LET WOMEN HELP WOMEN.

EDITORS JOURNAL:—Women do too much for men and not enough for their own sex. Ladies of means who make bequests usually give their propty to men. Poor young men have education societies to help them along. Why cannot we have an education society for poor young women who are thirsting for knowledge, but have not the means to obtain it? Will not some of our benevolent ladies start one? I will promise to make myself a life member, if it does not exceed thirty dollars to do so.

There are many men, called respectable, who employ poor women and take advantage of their poverty.

Oh, how base! Let us all, dear ladies, who have means, do more for our own sex, and less for the men. Let the men take care of themselves for the present. They will not give us our rights. If we should lay down our lives for them, as many women have already done and will, no doubt, continue to do.

Three men who live in Boston have lately asked me to help them. One wanted me to help him get his poetry put into a book; the other two had some pamphlets to be printed. I was so hard-hearted that I did not help either of them. Many men think women were made to do for them. We had far better take care of our own sex, get our education society going to aid poor girls, and institutions to afford a refuge from the intrigues of men. To parents in the country I say, keep your boys and girls at home; this general rush to the city for employment, which has been going on for years past, is to be deplored. You had far better bring them up as parents used to, forty years ago, with good principles and some knowledge of getting an honest living.—*Mrs. Tiffany in Woman's Journal.*

FELONS.

FELONS are usually caused by a bruise which loosens the flesh from the bone, and then the part becomes the seat of a gathering, and is sometimes very painful. Sometimes felons last a long time and have to be lanced, causing terrible pain; but if taken as soon as they can be determined to be felons, they may be cured. The remedy to be applied is a soap poultice. Put some soft soap over the fire in a small dish; when it boils thicken with bread crumbs and apply as warm as you can bear it. Two or three applications usually effect a cure; but if it is obstinate, continue the remedy until a cure is made. When quite painful, this poultice will usually ease the felon in a few moments. On removing the poultice, if a drop of water appears above a tiny orifice in the sore, the felon is removed and no further trouble need be taken about it. LORETTA E. TURNER.

Domestic Economy.

CONDUCTED BY EMILY MAPLE.

LOG-CABIN SKETCHES; OR, JESSIE SEABRIGHT'S DIARY.—No. 6.

MAY MAPLE.

A Home-made "What-not."

MAY 16th—18th. A house without ornamentation is scarcely a home, but adornments must not be too numerous in a small log cabin, lest they become a nuisance. Our books, which kind friends sent us, and papers, of which we had no lack, were getting, not too plentiful for our enjoyment, but too abundant for our small table, as they had to be moved from that to a chair, or perchance the floor, whenever the table was needed for breakfast, dinner or tea. So I determined to have a corner "what-not" that should be ornamental as well as useful. But the next thing was to find the materials, at least the lumber. After searching house and barn, and finding nothing that would possibly answer my purpose, I came to the conclusion that I should be obliged to do without the much-desired piece of furniture.

My old motto, "where there's a will there's a way," seemed to be at fault this time. I sat down by the south window, which commanded a view of my flower garden, which had been only recently laid out and, as yet, was merely a promise of future pleasure, to get over my disappointment; when suddenly I heard the thud of horses' feet and the rumbling, rattling sound of wagon wheels, approaching the house, and looking up I saw the pleasant faces of Mr. and Mrs. White. Instantly my vexation vanished, for these friends were always welcome guests.

After assisting his wife out of the wagon, Mr. White took out a square wooden box, and brought it to the door saying:

"Here's a box o'traps Louise has packed in for you; I don't know what it all may be, but I hope you won't find any of the young ones, for we haven't any to spare." And away he went to meet John, who had just come from the field. As soon as we were alone, and the usual compliments of the day were passed, Mrs White said:

"Our folks, have just sent us a barrel of dried fruit, from Ohio, and I thought probably your supplies might be getting low, and so I brought you a little package of each kind. And in the bottom of the box are some old clothes that I thought would do for carpet rags—but if you haven't got your carpet all made and down! Well, well! you deserve to prosper; and surely your ingenuity and industry will bring you a fortune."

After looking over all the packages and nearly emptying the box, I very demurely inquired if she wanted to take it back.

"Oh, no! I selected a good-sized box, on purpose for you, because I knew you had a perfect mania for old boxes. But won't you tell me what vision of convenience is haunting your dreams?"

After thanking my generous friend for her favors, I told her of my morning's vexation.

"Well," said she, "this afternoon the men are going to the Corners, to attend a business meeting, and if you will make your stand so thas I can see what it is like; perhaps I can have one too."

How we visited while we cleaned sauce and set the table for dinner. I say *we*, for Mrs. White and I work together, no matter which chances to be the guest, and that is the way with most pioneer friends. There is but very little folding of the hands or putting on ostentatious airs. In most cases there is no "best room," in which to shut up one's friends while the matron prepares the frugal meal; so they come into closer communion with one another, better understand the necessities of their friends, and thus learn to be more charitable.

After our dinner service was cleared away, I told Bertie he might hunt up all his long strings of spools, that had been given him to play with, and we would see how pretty we could make them look in something useful. Then some coarse wire that had come around bales, was brought and measured off in three pieces of suitable length, and what was to be the lower end of each wire was given a square bend, making a little foot about half an inch long. Six three-cornered shelves of graded sizes were sawed out, and holes bored in each corner with a good-sized gimlet—and the hardest part of the work was done. Three large spools of the same size were strung upon each wire, and then the largest shelf. Then followed eight spools for each wire, and another shelf; and soon, graduating shelves and spools until the last shelf was placed, which was only large enough to hold a small vase of flowers, and three tiny spools finished the top of each wire. After slightly bending the front wires toward the back, leaving the latter straight, the "machine" stood up boldly and in fair proportions. Some gum-shellac dissolved in alcohol made a very good varnish, with which we soon had it shining. To hide the edges, I tacked on around each shelf some brown fringe, that had done duty for dress-trimming, and the really pretty piece of furniture was ready to be placed in its appointed corner. The work had occupied a good part of two hours, and yet not one bit of our visit had been spoiled. Very soon books and papers found a convenient and appropriate place, as also did many curious "specimens" that Bertie and I had gathered in our woodland rambles, and a few holiday gifts added much to the beauty of our "what-not."

When we had it all arranged satisfactorily, Mrs. White said: "I'll hunt up all the materials, and the next time you come to our place we'll have another such a visit, for I have enjoyed this immensely.

DOMESTIC RECIPES.

Plain Puddings and Cakes—Tapioca Pudding without Eggs or Milk.

Put one teacup of tapioca and half a teaspoon of salt into a pint and a half of warm water. Keep them on the back of the stove for four hours, where they will be warm, but do not cook. Pare and core six apples and place in a deep pudding dish. Sprinkle sugar and grated nutmeg over the apples; add one teacup of water; bake until the fruit is soft, but not broken. When the tapioca is sufficiently soaked, turn it over the apples and bake one hour. To be eaten with a sauce made according to the following: One-half teacup of butter and one-half teacup of sugar stirred until smooth; set the dish in a pan of hot water; add a large spoonful of hot water to the butter and sugar, and stir until the sauce is like foam.

Rice Pudding without Eggs.

A little less than one teacup of rice in one quart of rich milk. Add one teacup of sugar; one-half teaspoon of salt and a little grated nutmeg. Bake two hours, or until the rice is soft. The pudding should be stirred frequently while boiling to prevent the top from burning. More milk can be added if the pudding seems too dry while baking. Best eaten cold. No sauce required.

Bread Pudding.

Place slices of buttered bread in a deep pudding dish. Cover the bread with thin slices of tart apples; then put on another layer of bread and apples, and continue thus until the dish is full. The top layer must be bread and butter, with the buttered side down. Pour milk over the whole until thoroughly moistened. Cover the pudding dish with a plate and bake two hours. Take off the plate, sprinkle the pudding with any spice liked, and bake another hour, or until brown on top and the apples soft.

Sauce—Make a [illegible] paste with two spoonfuls of flour, a [illegible] it into a half pint of boiling water. Stir until the flour is well cooked, make the sauce very sweet and let it boil up once. Take it off the stove and add a tablespoonful of strong vinegar or lemon juice and a piece of butter the size of an egg. If too thick, more water may be added.

[illegible]hite Cake.

Two cups of sugar; one-half cup of butter; the whites of four eggs; a little less than one cup of sweet milk; three cups of flour; three teaspoons of baking powder, sifted with the flour. To make: Stir the butter and sugar together until light, then stir in the milk, then the flour, mix thoroughly and add the beaten whites just as the cake is to be put into the oven. Flavor, if liked.

Golden Layer Cake.

One and one-half cups of sugar; one-half cup butter; one-half cup sweet milk; one egg and yelks of four. Two cups flour in which two teaspoons of baking powder have been stirred. Bake in five cakes, and spread with jelly to which the juice and grated rind of a lemon have been added. Keep the cake closely covered with a tin pan or several folds of cloth until wanted. Either of these cakes is fine, with canned fruits, for dessert.

Lyons, Iowa. MRS. M. G. R.

Best Cake.

One pound of sugar; six eggs; one cup of butter; one cup of milk; four cups of flour; one large teaspoonful of soda and two of cream-of-tartar.

Black Cake.

Twelve eggs; one pound of butter; one pound of sugar; three pounds of currants, two pounds of raisins; one tablespoonful of cloves, and flour to make quite stiff. Put the fruit in last.

Small Sponge Cakes.

Beat two eggs well, then stir in one teacup powdered sugar, beat five minutes and add one cup of flour. Bake in small cakes.

Crullers.

One and one-half cup of sugar; two eggs; one spoonful of butter; one cup of sweet milk; one teaspoonful of cream-of-tartar; one-half teaspoonful of soda.

A Tea Dish.

A nice dish for tea is made by putting six or eight butter crackers in a dish, pour boiling water over them and grate loaf sugar and nutmeg or lemon over, and lay on slices of jelly. Pour enough sweet cream over them to make a nice sauce.

Mock Mince Pie.

One cup chopped raisins; one nutmeg; one cup of water; one tablespoonful of cinnamon; two cups of sugar; one-half cup of vinegar; one cup of sweet boiled cider; butter the size of an egg and eight crackers rolled fine. Cook well together.

Jumbles.

One-half pound of butter; three-fourths of a pound of flour; three-fourths of a cup of white sugar and two eggs well beaten. Add a little nutmeg, make into a soft dough. Break off in small pieces, roll in sugar and bake in rings.

Ginger Snaps.

One pint of molasses; one cup of butter; one teaspoonful of ginger; one teaspoonful of cloves and one of soda. Put all together on the stove, let it come to a boil, and when scarcely cool add flour sufficient to roll out.

LORETTA E. KNAPP TURNER.

QUESTIONS ANSWERED.

Vinegar Pie.

C. T. Gaylord wishes a receipe for *old-fashioned* vinegar pie.

ANS.—We append two receipes trusting that one or the other upon trial will prove to be the one you are in search of: No. 1. One large-sized cup of sugar; one cup of vinegar not too strong; a heaping tablespoonful of flour and a little lemon peel. Bake with two crusts. No. 2. One teacupful of sugar, one egg and one heaping tablespoonful of flour beaten well together; then add two tablespoonfuls of sharp vinegar and a scant teacupful of cold water. Flavor with nutmeg, if liked, and bake with two crusts.

Black and Violet Ink.

C. T., Millersville, Ohio, asks for a receipe for making black and violet ink that will last a good while.

ANS.—*For Black:* To one quart of clean soft water add four ounces of Aleppo galls well bruised; bottle, cork tight and let macerate for ten days, shaking the liquid each day. Then add one and one-fourth ounce of gum-arabic dissolved in a wine-glassful of water; one-half ounce of lump sugar; mix well and further add one and one-half ounce of sulphate of iron (green copperas) crushed fine. Agitate occasionally for two or three days, when the ink may be used; but it will be much better if left to digest from one to two weeks before it is decanted. This makes one quart of good ink, writing pale at first but soon turning very black. The addition of a few bruised cloves or a little oil of cloves will prevent any tendency to moldiness in the ink.

For Violet: We gave in the RURAL of Nov. 9, 1878, the best recipe we know of for this ink and will again publish it: Mix one drachm of the desired aniline color with one and a half ounce of alcohol in a glass bottle; let it stand three or four hours and then add thirteen ounces of distilled or filtered water. Subject to a gentle heat until no odor of alcohol is perceptible, after which add four drachms of gum-arabic dissolved in three ounces of water. Mix and strain.

Barley Coffee.

Mrs. M. G. L., asks for a recipe for barley coffee.

ANS.—Wash the barley, dry it and brown carefully without burning. Grind, mix with an egg and pour over boiling water. Boil gently for a few minutes and strain. Drink with milk and sugar or as best liked.

S. B. Philson: the recipe for coloring blue on cotton was given in RURAL of Feb. 8, page 97.

News of the Week.

MISCELLANEOUS.

Monday, May 19, 1879.

The prevalence of pleuro-pneumonia among the cattle of Greenwich, Conn., reported by Prof. Cressy and two Connecticut experts, while not very alarming, should lead to a careful watch over the health of neat animals and every precaution against the spread of the disease. Secretary Sherman transmitted to the House Tuesday recommendations submitted by the commissioner of internal revenue and a detailed report of the operations of his bureau in the suppression of illicit distillation of liquors. Since July, 1876, 2638 stills have been seized, 5422 persons arrested, $109,135 expended for special deputies, 19 persons killed and 35 wounded. The operations have been principally in Georgia, Alabama, Tennessee, Kentucky, South Carolina, North Carolina and Virginia, in which seven States the seizures numbered 2283 and the arrests 4915. The nine Northwestern States cast 1,800,000 votes in 1874, 2,400,000 in 1876, and they will probably cast 3,000,000 in 1880; if population grows in the same proportion, these nine States, whose territory came into the Union with Virginia and Louisiana, will have at the next apportionment more votes in the House than all the South put together, solid or not. A purse trotted for is gambling, under the laws of Pennsylvania. The winner cannot recover the premium, purse, stakes or prize unless the company chooses to pay him. The horse of each contestant is forfeited, the whole arrangement being a palpable evasion of the law. Eleven cheese factories have been built at Sheiboygan, Wisconsin, during the past winter. It is estimated that six million pounds of cheese will be made during the present season. A correspondent in Walterborough, S. C., describing the recent cyclone there, cited as a remarkable occurrence, that "a sheep was found lying in the road with every particle of wool taken from it as cleanly as a razor could have done it."

Gen. Sherman has received advices from Gen. Sheridan to the effect that everything in the West is in good order, and that there is no danger of any troubles. The Indian Territory is well in hand, and the Indians of the North-west, who are the most turbulent, show no signs of restlessness. There are reports of some stealing by Indians on the Yellowstone, but the thieves are thought to be reservation Indians. Gen. Sherman says military affairs were never so well arranged in the West as now. Gen. Sheridan has reduced everything to an admirable and effective system. There is great anxiety among cattle owners in Bridgehampton, L. I., in consequence of the discovery, through official investigation, that pleuro-pneumonia prevails there to a much greater extent than had been supposed. Prof. Law and Dr. McLean have examined several herds, and found the disease in its worst type, as proved by the condition of the lungs of a number of cattle after they had been slaughtered. The disease is supposed to have been propagated by a drove of cattle driven into the Hampton by Isaac Bullard last December, a hundred or more of them having been sold by him. During April vessels arrived at New York from foreign ports almost at the rate of one every hour, the whole number being 714. Of these there were 259 American, 227 British, 68 Italian, 66 Norwegian, 34 German, and 21 Austrian. Of the whole number 132 were steamships, and over 85 of these the British flag floated. The American steamers numbered only 20 The arrivals of coastwise vessels numbered 1,245, giving a grand total of 1,959—a goodly number of ships to sail into one port in the space of 30 days.

Both branches of the New York Legislature have passed a tenement house act intended to prevent overcrowding and insure ventilation. The bill forbids any tenement house which may hereafter be built from occupying more than 65 per cent of the lot on which it stands, and a clear space between it and the building next to it must be left, varying with the hight of the tenement-house. The windows in every room must equal in size one-tenth of it superficial area, and each room must communicate by a window, air-shaft or ventilator with the open air. Overcrowding is prevented by requiring an allowance of 600 cubic feet of air to each occupant. A society already organized in this city stands ready to see to the enforcement of these provisions, whose violation by any owner or agent is made a misdemeanor. The spring drought extending throughout the Eastern States has been the occasion of many forest fires and much consequent damage. About 7000 acres have been burned on the Catskill Mountains near Rondout. Pike, Schuylkill and Berks counties, Pennsylvania, have also suffered. About 1000 acres have been burned over on "the Dome," a mountain north of Williamstown, Mass, while Pelham and Dedham also lose by forest fires.

The report of the Department of Agriculture on the morning of the 17th inst., contains the following: "The acreage of winter wheat now growing is about 1¾ per cent. greater than last year. In the Southwest the area has been reduced since sowing. The Atlantic coast States from Maine to Georgia as a whole show a declining area. Of the Southern States only Mississippi reports a diminished area. Of the Northern and Western States, Michigan, Minnesota and Kansas fall off from last year. The other great wheat-growing States show an increase. California is not included in the estimates of winter wheat area. The crop of the country taken as a whole presents a promise of at least two per cent. below the average. The New England States reach a full average. The rye crop, taken as a whole, is four per cent. below the average. It is about the average in New England and in nearly all the West and Northwest. The condition of sheep throughout the country is very good."

The endowment fund of $250,000 for the Drew Theological Seminary, which was swept away by Daniel Drew's failure, has been replaced by new subscriptions aggregating $248,000. It is proposed to raise in all $300,000.

Five steamships, four British and one German, carrying freight, which sailed from the United States last winter, and one which sailed from England, are missing; also, ten sailing vessels, grain laden.

FOREIGN.

Several conflagrations, attributed to Nihilists, have lately occurred in east Russia towns, causing great distress. Seventy arrests have been made in Orenburg on the charge of incendiarism. Four male and six female prisoners are now undergoing court martial at Kieff, including three Russian noblemen, a Prussian subject, and the daughter of a privy councellor. Among the other arrests are a titled lady and a leading Nihilist. The streets of Kieff, near the court house, are to be closed during the trial. Another incendiary fire occurred at Irbit on the 13th inst., by which four of the poorer quarters were destroyed.

The governor of Orenburg, has telegraphed that another fire occurred in that city on the 8th inst., which was quickly extinguished. Another fire also broke out in the Cossack quarter, which was about half consumed thereby. The governor of Uralsk, in the same government of Orenburg, telegraphs on the 11th inst. as follows: "A fire here has destroyed a considerable portion of the town and is still raging."

Queen Victoria of England, who has returned home from her continental trip, is a great-grandmother. A daughter was born Monday to Princess

Charlotte of Prussia, wife of Prince Bernhard of Saxe-Meiningen and daughter of the crown prince of Germany.

The season is as backward across the ocean as here, and threatens to spoil the fruit and injure cereals in Great Britain, and has kept back the mulberry leaves on the Continent, on which the silk-worm feeds, so that there is a prospect of a diminished silk manufacture.

John Henry Newman has at last formally received the cardinal's hat, the Pope in bestowing it expressing in strong terms his sense of the service he was rendering to the Church, to society, and to the College. The fact is that Newman is not only perhaps the most distinguished Englishmen of his time—that is, the Englishmen whom all other Englishmen most delight to honor—but the most serviceable Catholic the Church has had to show within the present century. That he should have been forty years in her ranks without receiving any signal mark of favor is a curious illustration of the nature of the Papal regime since 1848. No one has done so much to make Catholicism attractive, and no one, we might add, of modern theologians has done so much to make faith and devotion respected by the sceptical. Not the least powerful of the instruments by which he has charmed two generations of his countrymen is his English style, which in simplicity, purity, clearness, and grace may fairly be called matchless.

It was announced in the German Reichstag, Wednesday, that Austria and Russia had consented to become parties to the Anglo-German treaty for the prevention of the slave trade on the African coast, but France and the United States, though asked to do so, were hardly expected to join, as they were unwilling to admit the mutual right of search.

Floods have destroyed 300 houses in Kottori, Hungary. The harvest prospect in that district are ruined.

An order requiring all swine from the United States to be slaughtered at the port of landing in Great Britain takes effect the 16th of May.

The situation in India does not improve. Anxiety has existed for a long time because of drought in the Punjaub, Oude, and the Northwest provinces; and although rain has fallen, uneasiness has not been completely allayed. Of late serious apprehensions have been excited regarding the crops in Lower Provinces; and in a portion of the Eastern Deccan, not yet recovered from the late famine, excessive and unseasonable rains first, and a plague of rats next, have destroyed the local harvests. Under these circumstances there is need for the most rigorous economy. Orders have been issued cutting down expenditure on public works, and forbidding the undertaking even of works already authorized, without special instructions.

Murray & Lanman's Florida Water.—We earnestly urge every purchaser to ask for that which is prepared by Messrs. Lanman & Kemp, New York, who are the sole proprietors of the true perfume. All other so-called Florida Waters are only ordinary Colognes.

For close confinement, want of air, sedentary habits and brain and nerve-tire, trust in Hop Bitters.

THE MARKETS.

PRODUCE AND PROVISIONS.

NEW YORK, Saturday, May 17th, 1879.

BEANS AND PEAS.—There is no marked change in the bean market. Marrows have as good an export outlet as can be expected in spring. Mediums steady with small sales. White kidney and pea beans in their old rut of inactivity. Red kidneys quiet; for parcels in export order, 6@10c. to be added. Considerable red are to come, but it is thought they will all be used. Turtle soup beans slow. Green peas quiet but firmly held at $1.80. So. B. E. peas nominal at $2.50 per 2 bush. bag. Canada field, in bulk and bond, also 15c. Medium beans, prime, $1.30@1.32½; other, $1.10@1.25; marrow, prime, $1.37½; other $1.25@1.35; pea, $1.20@1.35; W. kidney, $1.20@1.60; R. kidney, $2.85@3; black, $2.10@2.15.

Receipts for week, 5,512 bush. beans.

Exports, 1,161 pkgs.

BEESWAX.—The movement has been light; sales at 24@25c. for Western and Southern.

BROOM CORN.—Offerings of brush are small and full prices made; otherwise dealings are light.

Brush and short broom, choice, per lb., 5½@6½c.; do., common to good, 4½@5½c.; hurl, good to choice, 3½@4½c.; do., common to fair, 7@3½c.; red and crooked, 2@3c.

BUTTER.—Light supplies, especially of Western have kept up a steady tone, and prices, though no higher, have been paid less reluctantly than is usual when the market is on this end of white. A good point of the situation this spring is the possible relief that will be felt by absence of light surplus of hay-butter. The easy figures that seem settled will enlarge trade for consumption and export when rich flavored and *naturally* colored grass qualities appear in stock. Fine dairy pails at the moment take the precedence of creamery; there is not the additional 3c. worth of excellence in grades of the latter at this season. One or two sudden hot days during the week have depreciated the value of long-shipped parcels. It is fortunate that at that particular time supplies were not heavy. Exporters have used up about 5,000 pkgs., taking high grades of State and Western when they could get them and paying full. Quotations.

NEW BUTTER.—State pails and half tubs, choice, 16@17c.; good to prime, 14@15c.; fair to good, 12@14c.; Welsh tubs, choice, 15@16c.; good to prime, 14@15c.; fair to good, 12@14c.; State tubs, poor, 8@10c.; State creamery, best invoices, 18c.; good to prime, 17@18c.; sweet cream, best, 17@17½c.; fair to good, 15@17c.; Western creamery, best invoices, 19@20c.; good to prime, 17@18c.; fair to good, 15@17c.; imitation creamery, 14@16c.; Western, dairy, best invoices, 14@15c.; good to prime, 11@13c.; fair to good, 10@11c.; poor to fair, 6@10c.; factory, best invoices, 13@14c.; good to prime, 10@12c.; fair to good, 7@9c. Old ranges 7@12c. for State; and 5@8c. for Western; grease, 3@4c.

CHEESE.—The exports for the week have been 29,166 boxes. The market early in the week, or on the receipt of advices from the country sales, went up about ¼c., with 7¾c. reached for the choicest, and an occasional lot going at 7⅞c. These figures have been fairly well held through the week, although there has been the feeling to put out the receipts as promptly as possible, on account of the possible effects of the warmer weather on the early make this. The market closed, showing the increased supplies pretty well sold up, and promises to be in good position to receive the larger amounts which are looked for the coming week.

Quotations are 7@7½c. for best; 6@6½c. for good; 3½@5½c. for half skimmed, and 2@3½c. for skimmed; western factory at 6½@7c. for fine; 3½@5c. for half skimmed, and 2@3c. for skimmed, and for old as follows: 7½@8c. for fine lots; 6@7c. for good; 5@6c. for fair; 2@3c. for skimmed; 3@5. for half skimmed: Western factory, fine, 7@7½c.; good and prime, 5@6½c.; do. full skimmed, 2@3c.; do. half skimmed at 3@4½c.

COTTON.—Has continued on the upward turn, and has been active, leaving off strong at for May, 12.81@12.83c.; June, 12.89c.; July, 13.06c.; August, 13.18@13.19c.; September, 12.85@12.89c.; October, 12@12.01c.; November, 11.55@11.56c.; December, 11.45@11.46c.; January, 11.48@11.49c.

Quotations for spot cotton are based on American standard of classification, and on cotton in store running in quality not more than half a grade above or below the grade quoted:

	Uplands.	N. Orleans.	Texas.
Ordinary	11 7-16	11 9-16	11 9-16
Strict ordinary	11 13-16	11 15-16	11 1-16
Good ordinary	12 3-16	12 5-16	12 5-16
Strict good do	12 7-16	12 9-16	12 9-16
Low middling	12 9-16	12 11-16	12 11-16
Strict low middling	12¾	12⅞	12⅞
Middling	12⅞	13	13
Good middling	13 3-16	13 5-16	13 5-16
Strict good middling	13 7-16	13 9-16	13 9-16
Middling Fair	14¼	14¼	14¼
Fair	15⅛	15¼	15¼

STAINED.

Good ordinary	11⅛	Low Middling	12 5-16
Strict good ordinary	12	Middling	12 9-16

DRIED FRUITS.—Trade drags as usual at this period of the year, no export demand of movement and otherwise slack operations; prices are in most cases rather nominal.

Apples—evaporated Alden's & William's 10@10½c.; do. new process at 8@8½c. State plums, 12@12½c.; Blackberries quoted at 4½c. Peaches—Peeled Georgia, 7@7½c. for poor; 8½@9c. for fair to good; 10c. for prime; choice North Carolina, at 12@13c.; good do., 9@10c.; unpeeled halves, 3@3½c. quarters, 2½@3c. Pitted cherries, 20c. Apples—New, 1½@2½c. for Southern quarters in bags; 3½@4c. for prime sliced; do., fair and good, 3@3½c.; State at 3@4c. for new sliced; and 3@4c. for quarters; Western at 3@4c. for new quarters. Raspberries, 30c.

EGGS.—Receipts for week, 13,261 bbls.; do. last week, 14,753 do. Cheap fish, including shad, and a variety of green stuff in market give eggs a second rate position and prices are low. Western begin to lose in count, owing to nest eggs and warm transportation. Canadian eggs scarce, and likely to be while our low figures prevail.

Near points, dozen, 12½c., State and Penn., 11½@12c.; Western, choice, 11½c.; Southern, and poor Western, 10@11c.

FLOUR.—The market advanced further immediately subsequent to our last, but for a day or two has been weak and lower on a decline in wheat.

Latest sales are at $3.40@3.90 for inferior to very choice superfine state; $3.75@4.00 for poor to good extra do., odd lots and lines; $4.00@4.35 for good to choice do.; $3.35@3.90 for inferior to very choice superfine Indiana, Iowa, Michigan, &c.; $3.70@4.00 for inferior to good shipping extra do., and $4.00@4.35 for good to choice extra do.; common to about choice white wheat extras, $4.35@5.45, choice to fancy do. at $5.50@6.15; red and amber winter wheat, inferior to very choice trade and family, at $4.35@6.25; round hoop Ohio at $4.10@4.40, and trade and family brands of do. at $4.50@6.35, the latter rate for strictly fancy; St. Louis, $4.40@5.50 for inferior to good extra; $5.30@6.35 for good to very choice (with a few very fancy brands up to $6.75); Minnesota clear, very inferior to very choice, at $4.10@4.8; Minnesota "straight," very inferior to strictly choice at $4.35@5.85; and very fancy as high as $6@6.25 asked, and patent poor to strictly fancy at $6.40@8.75, few brands going above $7.50@7.65 unsound stock at from $2.25@5.5; city mill extra at $4.50@5.25 for West Indies (the latter rate for fancy in new packages); do. for England and $3.70@4.00. do. trade and family extras, $5.25@6.25; do. for South America, $5.35@6 for fair to very choice; No. 2 at $2,50@$3.50 for poor to strictly fancy.

FRESH FRUITS.—Apples are falling into a chance trade. Exportation has stopped and local wants are limited. Russets form the chief offering. Prime Baldwins, Russets and a few Spy, $2@2.50; common and cooking stock, $1@1.75. Cranberries have a small jobbing call. Strawberries in better supply, Nearer gardens begin to supply. Virginia has opened with large lots. N. C., 20@25c. quart; choice Norfolk 20@23c., common, 12@18c. Hot-house grapes, B. Hamburg, $1@1.50 lb. Peanuts firm, most sales for other points. Va. hand-picked, $1.35@1.40; other, $1.10@1.25; shelled, 5½@5¾c.; Pecans; 6@8c.

GRAIN.—Wheat has shown for a day or two a subsidence of the speculative activity, and the market has dropped 2@3c. from the best figures of the week. Latest sales are of No. 3 spring at 94c.; ungraded amber at $1.14@1.15; ungraded red at $1.13@1.17½; No. 2 red at $1.16@1.17¼; ungraded white at $1.11@1.15½; white State, very poor, at $1.07; No. 1 white at $1.14½@1.15¼; No. 2 white at $1.13; New York No. 2 spring, May option, at $1.06½; do., June, at $1.05@1.05½; No. 2 Northwest spring, June, at $1.06; No. 2 red, May, at $1.17@1.17½; do., June, $1.16@1.17½; No. 1 white, May, at $1.14½; do., June, at $1.14@1.14½; do., July, at $1.13½. Rye at 60@66c. for Western and 62@64½c. for State. Corn closed strong and active, with sales of New York No. 1 at 45½@46c.; New York No. 2 at 45½@46c.; New York steamer mixed at 45c.; No. 3 at 41@44½c.; ungraded Western mixed at 43@45½c.; New York No. 2 white quoted at 50@51c.; New York steamer white at 47@47½c.; round yellow at 48@49c.; low mixed at 40c.; New York, No. 2, May, at 44½@45c.; do., June, at 44@44½c.; do., July, at 45½c.; do., August, at 46½c.; New York steamer mixed, May, at 44c.; do., June, at 42½c. Oats are having a good inquiry and prices higher. Sales of New York No. 1 white at 41c.; New York No. 2 white at 38½@39c.; New York No. 3 white, 37½c.; New York No. 3 at 31½c.; white Western at 37½@39c.; mixed do. at 34@35½c.; white State, 40c.; No. 2 Chicago in store at 31@34½c.

HAY AND STRAW.—Receipts have been small, demand good, and prices higher.

Sales at 45@50c. for shipping, and 70@90c. for retail qualities. Straw at 45@50c. for long rye; 40c. for short rye, and oat at 30@40c.

HOPS.—The warm weather of the last few days has had a beneficial effect upon the hop trade, especially on the demand, which has been considerably augmented. The price, however, shows no change, the range still being between 5c. and 12c. ℔ lb., the latter figure being almost entirely nominal. Exports for the week, 307 bales.

Quotations are New York's, new crop, choice, 9@12; New York's, new crop, medium, 7@8; New York's, new crop, low to fair, 1@6; Eastern, 6@9; Western, 6@9; Yearlings, 2@4; Olds, all growths, 1@2; Pacific coast, nominal, 8@12.

MAPLE SUGAR.—Supply has been used up better this season. Prices low; 7@9c. cakes; 75c. sirup in tin.

OIL-CAKE.—Is wanted, and is strong at $27.50@28 per ton.

POULTRY AND GAME.—Most country-dressed turkeys run large and are slow of sale. Spring chickens lower. Shipments of dressed poultry should hereafter be ice-packed.

Turkeys, State and Western prime small, 16@18c.; fair to good, large, 13@14c.; Phila., dry-picked 16@18c. Spring chickens, do., 35@40c.; winter, broilers, dry-picked, 25@30c. Fowls, Jersey, choice, ℔ lb., 14@15c., State and Western, prime, 13@14c.; fair to good, 11@13c.; Phila., dry-picked, 14@16c. Capons, large and choice, 30c.; small, 20@26c. Slips, ℔ lb., 22@25c. Ducks, Jersey, 18@19c.; State and Western, 17@18c.

Live fowls active and firm. Hurry to realize on small chickens is a mistake.

Spring chicks, 50c.@$1.12 ℔ pair. Fowls, Jersey, per lb., 13c.; Western, 12½c.; Southern, 12c.; roosters, old, 6@7c. Turkeys, Western, 11@13c. Ducks, J'y, N. Y. & Pa., ℔ pair, 65@75c.; Western and Southern, 5@65c. Geese, Jersey, ℔ pair, $1.50@1.75; N. Y. & Pa., $1.25@1.50; Western, 75c.@$1; Southern, 75@78c. Pigeons, 40@50c.

In game pigeons form the chief supply; baited, ℔ doz., 12; trapped, $1.50@1.75; shot, 40c.@$1. Ice-house English snipe, $2.25@2.50; plover, $1.75@2; Doni cli, $1.50; sand and small, 40@50c.; tame squab, $3.25@3.50.

PROVISIONS.—Have been less active and unsettled in price. Mess pork closed for May at $10.15 bid and $10.10 asked; June, $10.10; July at $10.10 bid and $10.20 asked, and August at $10.20. Bacon at $4.95 for long clear and 5⅛ for short clear. Lard—Western steam, at $6.40 for spot lots; $6.37½ for May and June; $6.42½ for July, and $6.45 for August. Stearine at 6½@6¾c. for Western and 7c. for city. Tallow at 6⅛c. for prime. Beef hams at $18.00. Beef—Extra India mess, $20@22, as to quality; packet, $11@11.50; plain mess, $9.75@10.50; extra mess at $10.50@11.50.

SEEDS.—Grass are dull; clover quoted at 6¼@6½c. for prime and choice; timothy at $1.30@1.35.

TOBACCO.—Has shown a very slow export movement, but the home demand has been good; prices generally are very steady.

VEGETABLES.—Sound prime old are steadier, as no late supplies have been added to the stock. New Southern are gaining a place. Asparagus lower. Florida tomatoes, $6 crate, made good. Green peas are in large supply and low in price. Stiff prices for extreme Southern produce can hardly rule long, as nearby States will soon be preferred competitors. Bermuda, new, choice, per bbl., $6.50@6.50; Charleston and Savannah, new, choice, $4.50@5.50; Florida, new, choice, $4.50@5.50; culls, $2.00@2.50; early rose, N. S. and Eastern, per d-h bbl., $3.50@3.75; State, choice, per d-h bbl., $3.00@3.25; State, poor to fair, per bbl., $2.50@2.75; Western, per d-h bbl., $2.75@3.25; do., bulk, per 180 lbs., $2.50@3.00; peachblow, Western, per d-h bbl., $3.00@3.37; State, per bbl., $3.00@3.37; Prolific, choice, per d-h bbl., $2.75@3.25; peerless, State, per d-h bbl., $2.62@2.87; do., in bulk, per 180 lbs., $2.50@2.75; Jackson white, per d-h bbl., $2.75@3.00; sweet potatoes, Del., per bbl., $1.50. Cucumbers, Fla., per crate, $1.00@1.50; string beans, Savannah and Charleston, per crate, $3.00@3.50; Florida; round, $1.00@1.50; Florida, flat, 75c.@$1.25; green peas, Norfolk, per ½ bbl. box, $1.00@1.25; N. C., per ½ bbl. crate, 75c.@$1.00; N. C., per bush. crate, 50@62c.; asparagus, Oyster Bay, per doz., $1.25@1.50; North N. J., per doz., $1.10@1.25; Southern, 75c.@1.25; tomatoes, Bermuda, per box, 60c.@$1.00; radishes, per 100 bunches, 75c.@$1.00; cabbages, Chas. and Sav., per bbl., $2.00@3.00; Norfolk per bbl., $1.50@2.00; turnips, Norfolk, new, per 100 bunches, $2.00@3.00; rhubarb per 100 bunches, $1.00@2.00; onions, Bermuda, per crate, $1.70; squash, Fla., new, per crate, 50@75c.; turnips, Russia, per bbl., $1.50@1.75; beets, Bermuda, new, per crate, $1.75; carrots, per bbl., $1.50; lettuce, per bbl., $1.00@2.50; mushrooms, per lb., 50c.

WOOL.—There has been a pretty sharp demand for the moderate supplies here this week, and prices have advanced. This is encouraged by the more active movement in the goods market, and as well by the higher rates being paid for the new clips in California, Texas and at such Western points as have shown offerings. X and XX Ohio fleeces have sold here at 35@37½c.; spring California at 15@25c.; spring Texas at 15@25c.

LIVE STOCK MARKETS.

NEW YORK, Saturday, May 17th.

BEEVES.—Receipts for the week, 10,290 head; do., last week, 9,736 do. Warm weather and heavy supplies at the end of the week took the vim out of trade on the hoof and in the dressed meat market. At one period yesterday buyers almost made the price. Poor and common steers and oxen sold at 8@8¾c. ℔ lb., to dress 55 lbs.; medium to prime steers at 9@10c., to dress 55@56 lbs.; extra do. at 10½@10¾c., to dress 57 lbs.—outside figure or about 30 selected steers, 1,501 lbs. average, taken for export, alive. Week's shipments, 429 live cattle and 4,126 quarters of beef.

COWS AND CALVES.—A few good State found a buyer at $40; the range is as before, $30@50.

VEAL CALVES.—Have been plenty and low, but are a little firmer at the close. Choice N. J. & Buck's Co., 5½@5¾c., prime including State, 4½@5c.; poor to fair, including buttermilk, 3@4c. Hog-dressed not quotable.

SHEEP AND LAMBS.—Receipts for week, 31,543 head; do last week, 20,748 do. Sheep and lambs favored buyers. Many lambs sent in altogether too early. Clipped sheep ranged at 3½@5½c., the extreme for fancy State wethers; lambs, 6@9½c.

HOGS.—Receipts for week, 28,333 head; do last week, 31,295 do. No public sales. Common to good corn-fed quoted at $3.00@4.10 per 100 lbs. City dressed hogs, 4¾@5¼c.; a few State, 4½@5¼c.

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Inside, 14th and 15th pages (Agate space)	40c.	per line.
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Any one sending a club of ten is entitled to one copy, one year, free.

Agents will be supplied with canvassing outfit on application.

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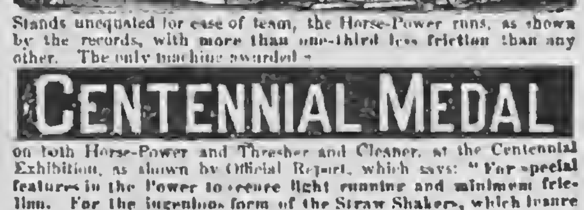

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A GREAT OFFER!!! 100 PIANOS AND ORGANS at EXTRAORDINARY LOW prices for cash. SPLENDID ORGANS $35, $40; 5 Stops $45, 7 do $50, 9 do $55 & $60, 11 do $65, 12 do $70, 13 do $80. 7 Octave SQUARE AND UPRIGHT PIANOS $125 do $130, 7 1-3 do $140, not used SIX Months. Warranted 5 years. AGENTS WANTED. Illustrated Catalogues Mailed. Music 1c. per page. HORACE WATERS & SONS, Manufacturers and Dealers, 40 East 14th., Street, New York.

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It is Better and Healthier than ordinary Baking Powder, Cream Tartar or Yeast.

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It restores the nutritious elements which are taken from the flour in bolting. No ordinary Baking Powder or anything else used for raising bread does this.

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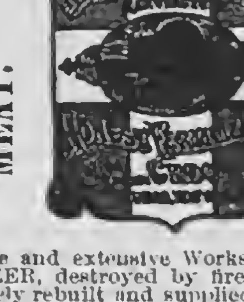

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This Fertilizer is guaranteed for its purity, being manufactured entirely from ANIMAL MATTER. No rock or mineral phosphate or refuse acid from oil refineries enter into its manufacture.

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Reading for the Young.

OUR COMING GUEST, JUNE.

A FAIR young maiden, who makes us an annual visit, has sent some sure tokens to give notice of her speedy arrival; and it behooves us, one and all, to be prepared with a joyous, heart-felt welcome. Her radiant beauty is the theme of every tongue; and to secure the gratitude of even the most insensible, she brings precious gifts, which none are too poor to be precluded from enjoying, none so rich as to undervalue.

Her eyes are of the deepest blue, cradled beneath lids of snowy whiteness. Her hair floats around her like a mist, by the sun tinged golden-hue. She wears a robe of green, varying from the most delicate shade to the richest emerald color, and at sunrise, when she appears the loveliest, her drapery is covered with tear-drops, which her lover, the day-god, as he ascends in his strength, kisses away. Her breath is like the odor of new-mown hay, and about her, as she moves on, floats the perfume of innumerable flowers which spring up at her feet. Upon her brow she wears a chaplet of white lilies, while in her hand she carries a cluster of roses—roses of every tint, for these most exquisite of Flora's offerings are the maiden's pride and chief ornament—some of unsullied white meet to adorn the tresses of a bride, others of varied hues, from the most sanguine purple to a shade as faint as that which dyes the cheek of girlish beauty. The starry blossoms of the strawberry, which spangle the meadows, at the touch of her rosy fingers blush into perfect ripeness and, with the floral treasures she brings, offer this fruit of a flavor so rare and delicate as to render it meet for the banquets of the dwellers on Mount Olympus.

Nor is she unattended by music. Birds of a thousand hues, and with notes as diverse as their plumage, chant their glad carols in the soft atmosphere which floats around her. Especially do the merry bobolink, the dear domestic martin and the solitary woodthrush rejoice in her presence. The first seems actually dizzy with happiness, for he makes no pause in his song, even when on the wing, but, careering in mid-air, pours forth a gush of sweetest melody; then, slowly descending, he alights upon the top of a tall herb, and while it sways under his fairy weight, he continues to warble those strains, so liquid, so enrapturing in their flow, that the listener may well address him, as Shelley does the English skylark:

"Teach me half the gladness
That thy brain must know,
Such harmonious madness
From my lips would flow,
The world should listen then, as I am listening now."

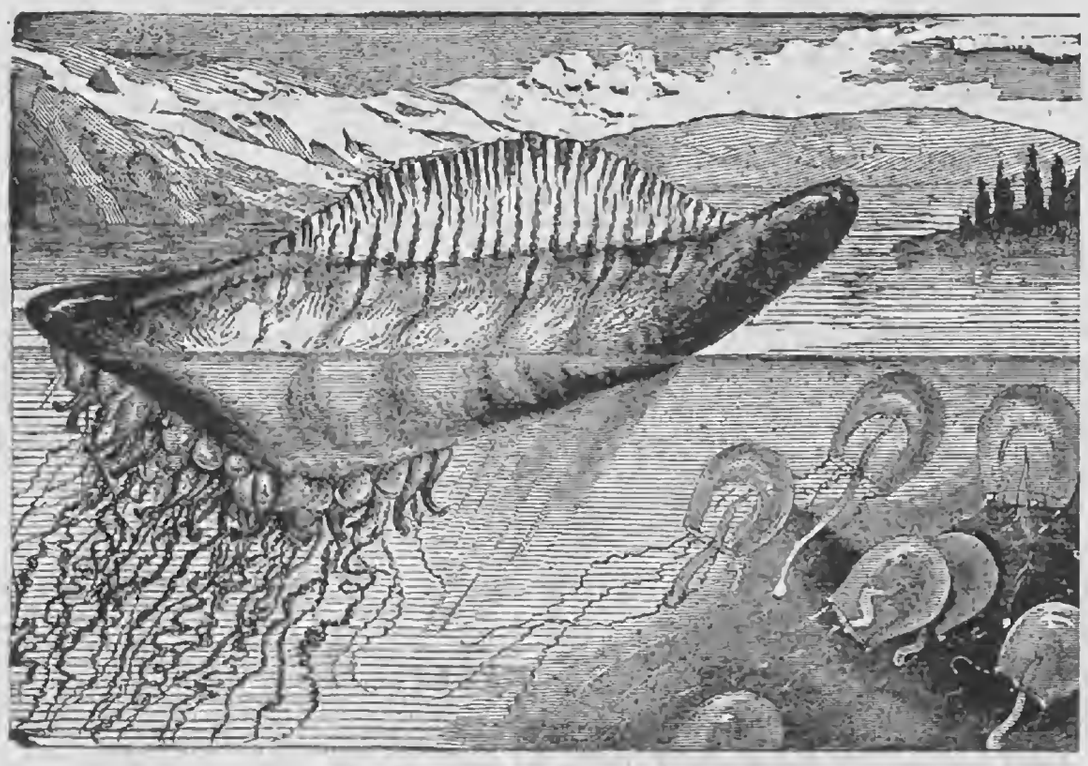
Assuredly do all the feathered tribe appear given up to joyousness while our gentle divinity stays. But her visit will be brief, and shall not we as well as the birds and flowers, make the most of her fleeting though blessed presence? Let us not confine ourselves to narrow walks and dusty streets, but go forth into the fields and upon the hills to gaze with unobstructed vision on all her loveliness. Let us open our hearts to imbibe her precious influences. A long period of scorching heats, or storms and snows, and piercing blasts will intervene ere she can return to gladden the earth. Before that time arrives, some of us who welcome her now may have received a summons to that better land of the glories of which her beauty is a faint type. May we then dismiss from our minds all envy, hatred, strife, and earth-born cares, all murmurs and repinings. May we learn from our radiant visitor new lessons of love, hope and cheerfulness. May gratitude to the Giver of all good, Who sends her to bless His unworthy creatures, warm our hearts. While the birds make every leafy arch resound with their untaught hymns of praise, shall we whose lips have learned a loftier strain remain silent? Shall we not bring the sacrifice of kind deeds and gentle words, the perfume of holy hearts, to lay upon God's altar? Then as we watch the roses withering—for wither we surely know they must—and see the lovely maiden depart, her emerald robe dimmed with the dust of earth, we can lift our thoughts to that fair land, whose flowers are unfading, whose pastures are ever verdant. Hail, then, bright type of perennial joys, thou fairest of summer's trio, thou freshener of the earth, cheerer of man's heart, hail to thee, sweet month of roses, thou ever-blooming June. CLOVER BLOSSOM.

THE PORTUGESE MAN-OF-WAR.

DID you ever hear of a Portugese Man-of-War? If so, and no explanation was given you as to what kind of vessel it was, you no doubt pictured to yourself a large ship with magnificent rigging and many guns. There is, however, another kind of ship called the Portugese Man-of-War, which is shown in the picture. It is not at all an imposing vessel, as it is at best only a few inches long and does not carry a single gun. It is a little animal that inhabits the tropical and adjacent seas, and one of the most lovely of the many beautiful creatures that live in the water. It is related to the jelly fishes, and its scientific name is Physalia, but from its habit of sailing about it is commonly known as the Portugese Man-of-War. Its body is an air-sack or bladder, the colors of which are very beautiful, being mostly of rich shades of blue and purple. The fringe-like crest is often of a pink or rosy hue. Beneath the air-sack are a great number of fleshy tentacles, which hang down like tassels and threads of blue silk. These are studded with starry pearls of the color of indigo, which form borders and spirals of an elegance hardly to be conceived.

In fair weather, these beautiful creatures may be seen sailing along upon the surface of the sea, the upper part of the body being inflated with air and acting like a sail; but in tempestuous weather they descend to the quiet depths of the ocean.

This and many others of the same class of animals have a peculiar power to sting very severely when touched. This power was doubtless given them as a means of defence, so that, although they are frail creatures and have no organs of locomotion that will enable them to avoid their pursuers by flight, they should not be left entirely at the mercy of their enemies. The sting is very painful, much more so than that of the nettle, and is caused by numerous cells, called thread-cells, found on the tentacles and other parts of the body. These thread-cells are very minute bags, each of which is armed with an exceedingly fine and sharp sting, which they can extend and draw in at pleasure. In



PORTUGESE MAN-OF-WAR.

the bag is a poison that flows through the sting into the offending body and produces a burning sensation. The motion of the sting is interesting. It is not thrust out by means of elastic cords, but the whole cell is turned or rolled out, like the turning of the finger of a glove. Large numbers of these animals are sometimes driven upon the temperate shores by the wind. UNCLE MARK.

LEARN TO WORK.

"You will always have a living, boys," I said, as I stood in the orchard watching their horticultural operations. "If you learn a profession and then find the field overcrowded, there will be nothing to hinder your hiring out to work in orchards, to take care of hot-beds and greenhouse—to plant, prune, graft and bud—all the little, nice work of an orchardist, and you may thank a good father for making these things pleasant and easy for you. To know just when, and how, and why to do things, from the experience of the early part of your lifetime will be a recommendation if poor, and in need, and a boy that keeps his eyes open, and his hands willing, on a fruit farm can learn a good deal of use to him all through life. It is a critical period in the life of a boy when he begins to think and talk of the future

'The thoughts of youth are long, long, thoughts,'

and he builds bright air castles that are doomed to fall, but are pleasant in the building."

"I talk as if I expected you were going to be *poor*, do I? Well, who knows. There are plenty of men who have been wealthy and by a sudden turn of fortune lost it all. Yet none have a better chance of a comfortable, *steady* living, than the farmer and fruit-grower. Their produce is always needed, it *must* be had; and, although all years are not alike, the chances of sudden downfall are less than in any other occupation. 'Have to work hard, you say.' Ah! but it is healthful, life-giving work, and I am sure not so wearing to soul or body as to drudge in a dark office, or behind a counter, with its opportunities for evil, its petty temptations and perplexities. While you sleep, the trees are growing, the garden is ready to unfold new beauties when you wake, you have God's grand aviary all around you, and a thousand blessings follow your steps. Pure air and water, milk and honey at a trifling cost of money and labor, rich returns of the choicest fruit and flowers, and the influence of a pleasant home."

ANNIE L. JACK.

A LITTLE SINNER.

LITTLE Goldlocks sat on a cricket at her mamma's feet, hearing papa read the Bible. He read all about the flood, and the ark, and Noah, and the animals. When papa shut up the book, Goldlocks sat with her chubby hands folded, thinking very hard.

"The rain fell and fell," she said to herself, "and then the ark went into the deep water, and Noah and his folks and all the cattles and sheeps went, too. If Jimmy will be Noah, I will be Noah's wife, and we can have the bath-tub for the ark, and the shower-bath will make rain 'nough, I guess."

Goldlocks didn't say one word out loud, but she sat there on her cricket, thinking and thinking. At last after everybody had left the room, she went to look up Jimmy. He was only four years old, and Goldlocks was six. You see, she was two years older than her little brother, and ought not to have led him into mischief.

"Want to make a flood, Jimmy?" asked Goldlocks.

"What kind of a fud?"

"Why, like Noah's! We'll play that all the folks in the house are naughty, and we are good; and I 'spose we might have the canary for a dove, and the geranium for an olive-tree to light on. Come up here in the bath-room, and I'll show you."

So off trotted that little mischief of a Goldlocks, up to the bath-room, as fast as her short, fat legs would carry her, and Jimmy trotted after her.

"Now, I'll show you," she said. Then she got into the bath-tub. But she soon saw that she wasn't in the right place.

"The wicked folks ought to be in here," she said, "'cause the good ones didn't get wet. We'll have the clothes-basket for the ark."

So Jimmy climbed into the basket, and Goldlocks turned on the shower-bath.

"Where am the bad ones?" asked Jimmy.

"We'll have the gray cat for one," said Goldlocks, "'cause she scratched me t'other day."

"She scratched me two, free, six times," said Jimmy.

Then Goldlocks caught the gray cat and took her oldest dollies, and put them in the flood. Jimmy sat in the ark, and laughed and clapped his hands. Kitty didn't like being a sinner in the flood, and she struggled hard to get out; but the little girl held her down stoutly.

"Jump out of the ark, Jimmy," she said, "and open the bird-cage door; we must have a dove. You can climb on the sewing-machine. Mamma lets Dick out quite often."

Jimmy obeyed, and then ran back to his refuge. But just as he was safely seated in his ark there was a splash and a cry, and nothing was left of Miss Goldlocks but her feet sticking up in the air. She had fallen into the flood. Jimmy screamed as hard as he could, and mamma came in a great fright. The poor half-drowned cat rushed out as mamma opened the door, and the canary came very near going too.

"What's all this?" asked the mother, as she pulled poor streaming Goldlocks from the water.

"It's the fud, and I'm Noah," said Jimmy.

"And I meant to be Noah's wife," said Goldlocks, "and the cat was one of the sinners."

"And you got into the sinner's place?" said mamma.

"Yes," sobbed the child.

"Well," said mamma, as she put the birdie back into his cage; "you were doing just as the people did in Noah's time. They disobeyed God and you disobeyed me; so you got into the right place after all."

"Well, I dess I'm saved, anyhow," said Jimmy, scrambling out of the ark.—MRS. M. F. BUTTS, *in Christian Register*.

IN THE BLACK MARIA.

NOT long ago a lad of nineteen came up from the country to one of the sea-board cities, and secured a position in a large and well-known importing house. He was a gentle, blue-eyed young fellow, almost womanish in his tastes, and in his love for his home and his family.

Unfortunately, he had no friends in the city. His evenings were passed in absolute solitude, or in the vulgar society of a cheap boarding-house.

The boy became depressed, gloomy. He fancied he needed "bracing up," and fell into the habit of dropping into a cheerful restaurant for a glass of wine.

He soon made friends there who would join him in a bottle. As with most men not accustomed to intoxicating liquor, he was maddened by a little.

One night, being drunk, he quarreled with his companion, and stabbed him with a knife which lay on the table. The wound was not serious, but the lad was arrested and kept in the police-station until morning.

He was then led out (being now sober and in his right mind), and ordered to get into the prison van (known to the town as the Black Maria), which waited to convey him to prison. He shuddered and turned ghastly pale, muttering—

"What will my father say?"

But he was thrust in and the door locked. There was no one else in the van. When they reached the gate of the prison the door was opened. The boy lay dead beside it, the blood from the throat clotting the face which his mother so lately had kissed.

This is an absolutely true story. It teaches to young men the madness of tasting that first glass of liquor, of yielding to the temptations which beset friendless boys on every side in a great city. But has it no meaning to those older men, Christians and fathers, who leave such lads without a friend, and put out no kindly hand to hold them back from temptation?—*Youth's Companion*.

BE busy in your garden; now is the time when your skill, endurance, and industry will be put to the test. Water, weed and cultivate your plants with untrammeled fervor.

Sabbath Reading.

GALLING THE ANGELS IN.

WE mean to do it. Some day, some day
We mean to slacken this fevered rush
That is wearing our very souls away,
And grant to our goaded hearts a hush
That is holy enough to let them hear
The footsteps of angels drawing near.

We mean to do it. Oh, never doubt,
When the burden of daytime broil is o'er,
We'll sit and muse, while the stars come out,
As the patriarch sat at the open door
Of his tent, with a heavenward gazing eye,
To watch for the angels passing by.

We see them afar at high noontide,
When fiercely the world's hot flashings beat;
Yet never have bidden them turn aside,
And tarry awhile in converse sweet;
Nor prayed them to hallow the cheer we spread,
To drink of our wine and break our bread.

We promise our hearts that when the stress
Of the life-work reaches the longed-for close,
When the weight that we groan with hinders less,
We'll loosen our hearts to such repose
As banishes care's disturbing din,
And then—we'll call the angels in.

The day that we dreamed of comes at length,
When tired of every mocking quest,
And broken in spirit and shorn of strength,
We drop, indeed, at the door of rest,
And wait and watch as the day wanes on—
But the angels we meant to call are gone!

[*Christian Weekly*.

LOVE AND DUTY.

REV. J. E. WELTY.

NOT long since we heard a person express the following sentiment: "Away with the idea of duty. Duty is so cold, formal, lifeless. I do not believe in any one being a Christian from a sense of duty. I want a man to be a Christian from love, pure love, and from love only." It is not too much to say that this is mere sentiment. Perhaps we should say it is bosh. Love and duty are cardinal virtues. Neither is to be exalted at the expense of the other. It must be admitted that where love predominates, where love prompts, there we shall have the higher type of Christian life. Love makes the warmest, most ardent, and most energetic disciple, as it makes the fond and steadfast friend. Love admires, adores, and is even ready to make great sacrifice. Such was the love that permeated the heart of John, the beloved disciple. Where love like this is the ruling power in the heart, there duty becomes an easy task. When love leads duty keeps no idle pace. The loving disciple not only performs cheerfully what is duty, but seeks also opportunities for new activity.

Love was the superior motive in the person of the Lord Christ. It was the first great bond between the Father and the Son. But, let it be observed, that closely related to this was obedience. Jesus delighted to do the will of God. And whilst He so loved us as to give Himself for us, His devotion to duty was so great that He humbled Himself and "became obedient unto death, even the death of the Cross." But mens' hearts are not, by nature, warm with love to the Father, nor to the Lord Jesus. "Herein is love, not that we loved God, but that He loved us, and sent His Son to be the propitiation for our sins." The great demand on us is love. "Thou shalt love the Lord thy God with all thy heart, and with all thy soul, and with all thy mind. This is the first and great commandment." But with this God also demands obedience. "Fear God and keep His commandments, for this is the whole duty of man." This is the Old Testament form of a demand that is made all through the Scriptures. "My son, give me thine heart." And it is nowhere taught or implied that obedience is to be withheld till love first makes us feel like doing. The sinner, in his coldness, is met with the demands of the gospel. Love, service and worship, are required at his hands. If he would render all his tribute he must turn into the path of obedience. He must follow along that path. In his wicked way, and under the dominion of his unrighteous thought, the sinner cannot have warm impulses of love. Yet for all this he is to flee from the wrath to come.

How, then, is he to begin? By turning, in obedience to the Lord, to the word of his grace, and to the demands of His love. In the rendering of this obedience there will be a drawing near to Christ, and a learning of Him. And those who are learners of Christ are in the highway that leads to admiration, to sweet communion, to fond attachment, to love. It is so, then, that love and duty are two phases, or activities, of the Christian life. They complement each other. They are both necessary. Duty rendered leads to love, and love enkindled makes duty a pleasing task. Some very excellent people are much concerned, and often lament greatly, because they do not have warm, gushing feelings of love. Though they go along in an even way and are attached to the Christian cause, yet they conceive that their love is so cold. They do not have that sensible delight they imagine others have. But it should be remembered that love is not warmed by lamenting over love's poverty. The heart is not delighted by pondering over its want of delight. Dismiss such reflections about the measure and intensity of love. Turn unto the Lord. Meditate in His law and delight shall be the return. You will warm love by steadily and cheerfully discharging duty. Follow devoutly and prayerfully along the path of obedience, ever remembering that the path of obedience is the path to higher degrees of love, of happiness and of peace.—*The Interior*.

IF we do not subdue our anger, it will subdue us; it is the second word that makes the quarrel—*A. James*.

PERSONAL ITEMS.

Senator Kernan's oldest son has gone abroad to study for the priesthood at the same institution at which General Sherman's son, Thomas, is now a student.

General Butler, although not in Congress, intends to spend his winters in Washington. He will occupy his mansion on Capitol Hill, which has been rented for some years to Senator Jones, of Nevada.

King Thackombau, of the Fiji Islands, is one of the finest-looking figures ever done up in bronze, but there is no use talking, he is not a bit regal when receiving visitors—he lies at full length upon his stomach, on a mat.

"Look pleasant," said the photographer, to Charles Francis Adams; "smile a little." Mr. Adams slowly and frigidly smiled. "Mother of Pluto!" howled the artist, "cry, cry a little! That'll help your expression some."

Henry Russell, the singer of the "Life on the Ocean Wave," the "Maniac," the Ship on Fire," "Cheer, Boys, Cheer," and other popular songs of thirty years ago, is still alive and hearty, and appeared on the stage of the Haymarket on the occasion of Mr. Lamar Blanchard's benefit.

General Grant is the owner of two Arabian horses of the purest blood—a gift from the Sultan of Turkey. One is of a dapple gray color, and is called "Djeytan" (the panther), and the other is a magnificent black follow with a white star on his forehead, and named "Missirli." They are on board a steamer on the way from Constantinople to New Haven.

Old Harrison Davis, from Davis' Bend, Mississippi, who was over seventy, fell sick at Lawrence, Kansas, the other day. He was one of the searchers for the Promised Land. He refused medical aid, saying: "Why, bless you, children, de Lord has smiled on me, and I'll close dese ole eyes in de land ob promise," and, with a "Bress de Lamb," the light left his old face and his days were ended in the happy land he had sought in Kansas.

Nearly a quarter of a century ago Todleben (who is a German) said to a young friend: "To get ahead in Russia you have only to write a book. Never mind the contents; he who has written a book can reach any position." This, says the Railroad Gazette, is quoted apropos of the present Minister for Railroads. Some years ago a young man wrote as a thesis for his degree, "The Economies of Railroads," at least one-half of which is said to have proved his utter ignorance of railroad management. Nevertheless he became a professor and the head of the department in the Ministry of Finance in which railroad affairs are concentrated.

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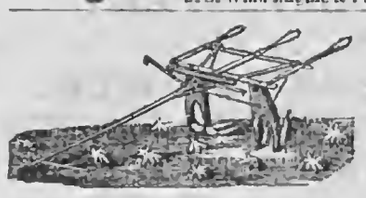

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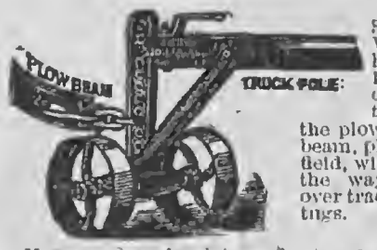

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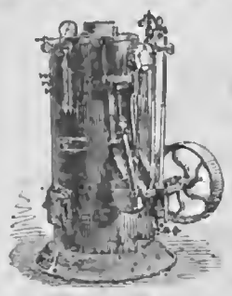

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3	Horse power....	$215
4½	" "	245
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8—H. P. Mounted, $650.
10 " " 750.
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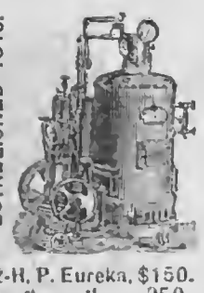

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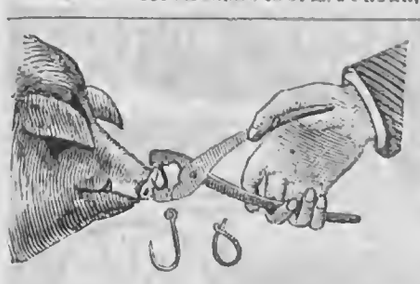

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IT IS SURE TO SUPERSEDE ALL OTHERS.
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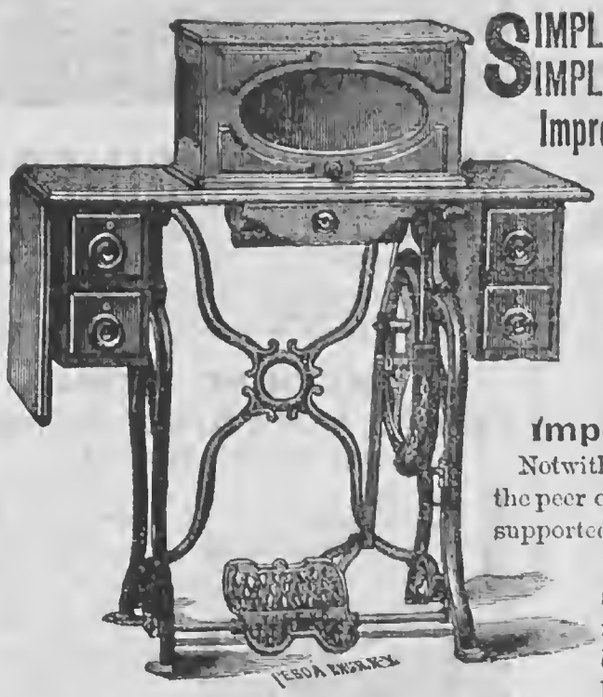

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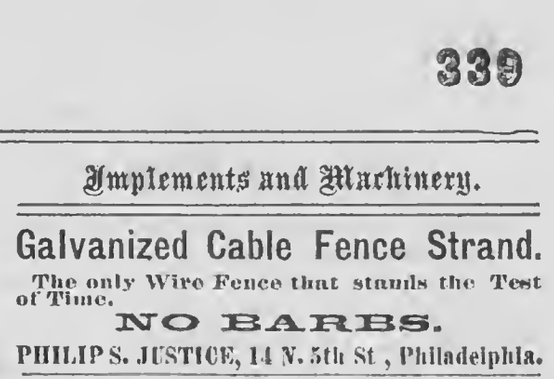

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USES IN CUTTING FOUR FEET.
Grass cut by the Eureka cures one-third quicker and more evenly than after any other Mower.
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Only the very Best! Ten Packets for 25 cents. Also Reliable Vegetable Seeds.
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Write to MILFORD BASKET CO., Milford, Del.

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"It's only a spring opening, ma," exclaimed that awful boy, as he exhibited his torn trousers after a leap over a picket fence.

A WESTERN editor speaks of his rival as "mean enough to steal the swill from a blind hog!" The rival retorts by saying: "He knows he lies: I never stole his swill."

MISS BONCŒUR (who has been reading to her Sunday-school class): So you see, children, the good man Aaron's swallowed up all the other rods. Tommy (with a heartfelt sigh): Gorry, don't I wish dad's old tickler had been there!—*Harvard Lampoon.*

Oh, he is a legislator,
For he himself has said it,
But it's hardly to his credit
That he is a legislator,
For he might have been a plowman,
A banker or a showman,
Or perhaps a tax collector;
But in spite of all temptation,
To fill some useful station
He remains a legislator,
A rooster legisla-tor.—*Phila. Times.*

"JOHN, did you go round and ask how old Mrs. Jones is this morning, as I told you to do last night?" "Yes, sir." "Well, what's the result?" "She said that seeing as how you'd had the impudence to send to ask how old she was, she'd no objection to telling you that she's twenty-four."—*Almanac.*

Protect the System from Malaria.

It is possible to do this even in regions of country where miasma is most rife, and where the periodic fevers which it causes assume their most formidable types. The immense popularity of Hostetter's Stomach Bitters is very largely attributable to the fact of its efficacy as a remedy for chills and fever, bilious remittents, and as a preventive of the various forms of malarial disease. In those portions of the West and South where complaints of this nature prevail, and in the Tropics, it is particularly esteemed for the protective influence which it exerts; and it has been very widely adopted as a substitute for the dangerous and comparatively ineffective alkaloid, sulphate of quinine. Physicians have not been among the last to concede its merits, and the emphatic professional indorsements which it has received have added to the reputation it has obtained at home and abroad.

THE FORCE OF EXAMPLE.

Aunt Emily.—"Why, Nellie, don't you know it is unkind to catch hold of your Sister and Pull her Hair?"

Nellie (who doesn't see it).—Well, Auntie, I saw you holding Cousin Frank round the neck quite tightly, yesterday, when Mamma was out, and Pulling his Hair, and he didn't say anything!"

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STEEL BARB FENCING

THE BEST AND CHEAPEST FENCE for Railroads, Farmers, and Stock Raisers.

BARB FENCE diminishes outlay; increases protection; shelters no enemies of the crops; accumulates no snow drifts.

24,000 Miles of Barb Fence erected in last three seasons.

For all enclosures in the treeless States; for a better Fence economy in the older States; **BARB FENCE** is everywhere approved as safe and efficient.

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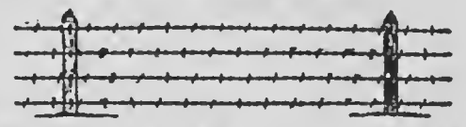

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State you saw this in the RURAL NEW-YORKER.

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Will cut, rake and deliver in good condition for binding ANY GRAIN that grows, lodged or standing. Adjustable Track, Self-Oiling Pitman, carries bundle around corners. The most SUCCESSFUL light Reaper in market.

BRADLEY'S CHANGEABLE SPEED MOWER,

The lightest draft Mower in the world for length of cut; has enclosed Gearing, Center Draft, Perfect Balance, Rocking Bar, Perfect Pitman and Connections. Has more good points and less complication than any other.

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Dumps the Easiest, Rakes the Cleanest, any boy can operate it, is acknowledged the best made Rake in use
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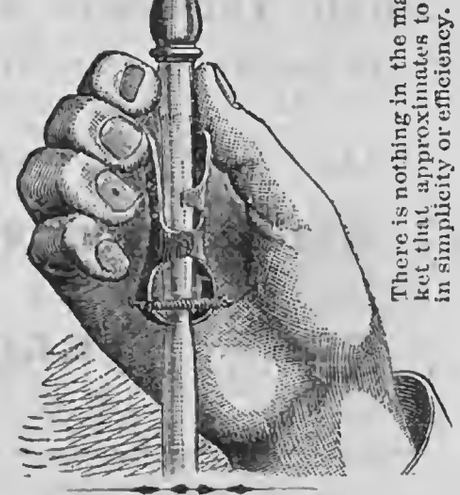
CHECK SPRING
used on the tube to
Phelps' Nasal Douche
for administering the
NORWEGIAN BALM
FOR
CATARRH



Pressing upon the wings of the check-spring, opens its mouth, which allows the dilution to flow, and when the pressure is taken off, the flow immediately stops.

There is nothing in the market that approximates to it in simplicity or efficiency.

EXTRACT FROM TESTIMONIAL.

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I think your remedy for Catarrh "One of the greatest discoveries of the age." Before using the NORWEGIAN BALM my wife *suffered untold misery for years.* We sought medical aid, far and near, but to no effect. Our regular Physician, distinguished for his knowledge, skill and honesty, pronounced the disease incurable; that it would extend from the nasal organs to the throat and bronchial tubes, and finally to the lungs,—and that death would be the result at no distant day. This was well nigh the case. But in your NORWEGIAN BALM *she found immediate relief;* the extremely offensive odor of her breath, from which she had suffered so many years *entirely disappeared within two weeks* after she commenced to use the BALM. After having used only one bottle, if not fully cured, she feels well on the way. C. C. SULLIVAN,
Produce and Commission Merchant,
155 Chambers Street, New York.

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Ask Your Druggist for it, or send for Pamphlet
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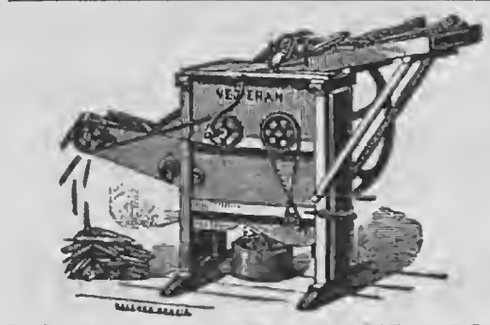

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Power and Hand Corn Shellers of all sizes and to suit all wants.
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Every Man His Own Miller.

The only Mill that will grind Corn with Shuck on without extra expense. The only Mill grinding Corn and Cob successfully that will grind Shelled Corn fine enough for family use.
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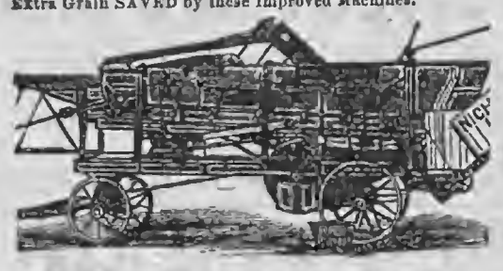

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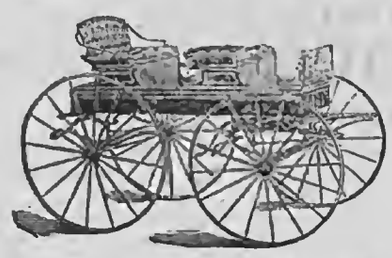

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The Ne Plus Ultra.
EVERY WAGON FULLY WARRANTED.
This is the best, handsomest, lightest and strongest wagon of its kind in the market. Every Farmer and Dairyman should have one.
AGENTS WANTED.
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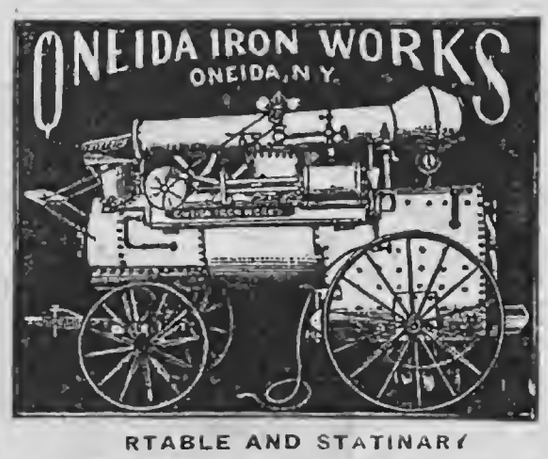

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STEAM ENGINES!
Of all Sizes and adapted to all Purposes.
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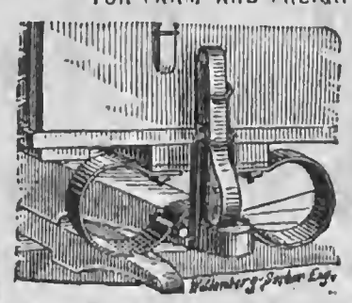
Pulliam's Patent Bolster Springs
FOR FARM AND FREIGHT WAGONS.



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THE RURAL NEW-YORKER

A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME

VOL. XXXVIII. No. 22.
WHOLE No. 1531.

NEW YORK, MAY 31, 1879.

PRICE FIVE CENTS.
$2.00 PER YEAR.

[Entered according to Act of Congress, in the year 1879, by the Rural Publishing Company, in the office of the Librarian of Congress at Washington.]

Biographical.

MARSHALL PINCKNEY WILDER.

Col. Wilder's recent accident has awakened wide-spread sympathy and solicitude, and while it gives us great pleasure to state that the latest bulletins report that he is recovering—being able to move about with the aid of crutches—we feel that there are many among our readers who would appreciate a brief *resumé* of the life and work of the honored President of the American Pomological Society. Hence, we this week present his portrait in continuation of our series.

Marshall Pinckney Wilder was born Sept. 22, 1798, at Rindge, N. H. He is the eldest son of Samuel Locke Wilder, Esq. The family has been conspicuous since revolutionary times, Col. Wilder's grandfather, among other honors, having been one of seven delegates from Worcester County in the Convention of Massachusetts, who voted in favor of adopting the Constitution of the United States. The old Worcester Magazine said: "Of all the old Lancaster families, there is no one that has sustained so many important offices as that of Wilder."

Young Marshall went to school at the age of four years, and at twelve entered New Ipswich Academy. He was there one year, and, returning home, was put under the tuition of Rev. Joseph Brown; it being his father's idea to give him a collegiate education. Mr. Wilder preferred an active life, and when he was sixteen his father gave him the choice of either qualifying himself for the life of a farmer or merchant, or to fit himself for college. He chose the first, and among the lakes and forests of his native place laid the foundation of that enduring health to which he has in no small degree been indebted for the mental and physical energy that are among his chief characteristics.

At the age of twenty-one his father took him into partnership, which continued until 1825, when, in search of a wider field, he moved to Boston. The firm of Wilder & Payson was at once formed, and under various modifications of firm names, Mr. Wilder has continued a merchant of Boston to the present time, honored and successful.

But trade and the acquisition of wealth were not the all-engrossing pursuits of his mind. After devoting a suitable time to business, he gave his leisure to horticulture and agriculture, for which he had a peculiar taste. He spared no expense; he rested from no efforts to instil into the public mind a love of employments so honorable and useful. He cultivated his own grounds, imported seeds, plants and trees, and, by his example, endeavored to encourage the labor and elevate the rank of the husbandman. In his pursuits, Col. Wilder seems to have realized and practised one of the principles which have such an influence on one's life—the philosophy of habit. He is an early riser and devotes the morning to reading, writing, or rural affairs. In the middle of the day he attends to his mercantile business in the city, and the evening is spent with his family and books. His leisure—if so busy a man may be said to have any—he has devoted to his pen, which has already filled several large volumes with descriptions and delineations of fruits and flowers proved under his own inspection. Floriculture was one of Mr. Wilder's favorite pursuits. His camellia-house is supposed to have contained the best collection in the country. Two seedlings, "Camellia Wilderi," and "Mrs. Abby Wilder" were named in his honor by the Mass. Horticultural Society. Soon after the organization of this Society, he became identified with it, and for eight successive years he presided over it. In fact, Col. Wilder has been so prominently associated with all progress in agriculture and horticulture, that his name is indissolubly connected with their advancement.

But it was in Pomology that he was most successful and most widely known. The Pear in his orchard of 2,500 trees and 800 varieties, became as noted as the Camellia in his conservatory.

In 1848, as President of the Mass. Hort. Soc., he headed a circular calling a convention of fruit-growers throughout the country. This resulted in the organization of The American Pomological Society. The writer can but regret that space limit forbids any but the baldest mention of many of the societies Col. Wilder was mainly instrumental in projecting, and the history of whose formation so clearly portrays the energy and resources of the man. To him Amherst College is indebted for its existence, and the State Board of Agriculture (Mass.), is the lineal descendant of the old Norfolk Agl. Soc., which was created by Col. Wilder. He is at present the President of the American Pomological Society, senior Member of the State Board of Agriculture, senior Trustee of the Massachusetts Agricultural College, Honorary President of the Norfolk Agricultural Society, a member of the Executive Committee of the Massachusetts Horticultural Society, President of the New England Historic-Genealogical Society, a member of the Government of the Institute of Technology, a Director of the New England Life Insurance Company, and of the National Insurance, and of the Hamilton National Bank; positions which he has held for thirty-five years, and senior partner of the firm of Parker, Wilder & Co.

The life of Col. Wilder is a striking instance of what may be accomplished by industry, and the concentration of one's intellectual powers upon one grand object, that of raising the standard of terraculture to a higher rank among the great pursuits of a nation. He has excelled in all he undertook, because he knew the measure of his own abilities. His plans were matured by deep thought and executed with a zeal resulting from a clear, practical head. From the stand-point of the Massachusetts Horticultural Society, he originated the American Pomological Society; then the Norfolk Agricultural Society; then the State Board of Agriculture, and the Massachusetts Agricultural College, and finally the United States Agricultural Society. His military title is the result of his interest in various militia organizations.

After the death of his first wife in 1831, he sought retirement in Dorchester, where he has re-married twice, and now lives blessed in the most delightful domestic life, and surrounded by all influences that contribute to the charm of existence. The accident to which we have alluded, was occasioned by a fall in the State House, resulting in a fractured thigh.

When we look at his success in the arts of cultivation, and then turn from these more humble objects and consider those other memorials, especially the noble institutions which owe their origin and success, in a great degree, to his influence and efforts, it cannot be doubted that in the roll of the benefactors of mankind, one of the most prominent names in this age and country, will be that of Marshall Pinckney Wilder.

Marshall P. Wilder

Pomological.

THE PEAR BLIGHT.

CLINTON.

The article on the pear blight, by Mr. B. Batcham, which appeared in the Rural of March 22, arrested my attention, more especially as the writer professed to speak of the cause of the malady, and the means of its prevention. As I had given the subject much study for many years, I hoped to gain more new light in relation to it, and thus be enabled to reach satisfactory conclusions in regard to a matter which has hitherto seemed to be involved in considerable mystery. When I say frankly that I have failed to do so, it may be equivalent to an admission of my own obtuseness of intellect; but I can't help that.

That the soil has much to do with the health and vigor of the pear tree is undoubtedly as true as it is of most other trees and plants. It has long been understood that a deep clay soil, or a calcareous loam is suitable for the pear tree, and also that the soil should be reasonably dry and entirely free from stagnant water. But that a clover sod is essential, or even of any special advantage, is not yet fully proven. Further observation is necessary to confirm the opinion in the mind of the studious cultivator. In speaking of the Ohio State Pomological Society, Mr. Batcham says: "We have paid but little attention to theories, for in most cases they are not sustained by the facts." This is certainly wise, and the rule would, I think, exclude the clover theory, at least for the present. Facts that have come under my own observation, during many years' experience, do not go to sustain the theory. In an article of my own, on the "Twig Blight," which chanced to appear in the Rural, simultaneously with the article on pear blight, which I am now considering, I took the liberty to caution your readers against a "confusion of terms, and the confounding of diseases which are quite dissimilar in character, although they may be productive of similar results." I think your correspondent has fallen into the very error thus referred to, when he says the frozen sap blight "only differs from what is termed the fire blight, in its predisposing cause." My own observation satisfies me that they are essentially different in character as well as in cause. The sap blight is distinguished by its appearing earlier in the season, usually not later than June, and by the viscous, clammy sap, which exudes from the wounds made by the knife, emitting that smell of fermentation of which Mr. B. speaks; also, by the appearance in the spring, of dark, shriveled and dead blotches of bark on the trunk or branches, which may not be noticed until the leaves begin to show signs of the disease, but by careful examination they may be discovered some time sooner. This blight is not confined exclusively to the pear, it being quite likely to appear on apple trees of rapid growth, like the Baldwin and Greening, for instance, while slow growers, like the Northern Spy, are very rarely injured by it. It appears more frequently on the pear than on the apple, the pear being of a more tender and delicate growth.

There is but little difference of opinion as to the cause. If the tree makes a late growth in the fall, so that the new wood does not become properly matured before an ensuing severe winter, there is always danger of the sap blight as a consequence. But it is not always the mere freezing of the wood and sap that causes the injury. The sudden thawing of the bark, by the direct rays of a bright sun, aided perhaps by a strong reflection of light from a crusted surface of snow while the main body of the wood and bark is still frozen, adds materially to the injury. As evidence of this, it will be found that this kind of blight, quite generally, appears on the southerly side of the trunk or branch affected. In some cases, when young trees are affected, the bark will be found to be ruptured, and partially loosened from the wood on each side of the rupture. But the more serious injury is produced when the bark is killed without being ruptured. In such cases, as spring opens, the tree or branch puts forth its leaves as usual, yet as the season advances, the leaves, while showing but little discoloration, begin to droop and wither; and on examination a black spot on the bark will be readily discovered, and if sufficiently extensive, that portion which is above the affected part speedily dies; the vigorous putting forth of the leaves previously noticed having been but a futile effort of nature to utilize the sap remaining in the trunk or branches, to repair the damage.

For this form of blight there seems to be no remedy. The best preventive I have ever known is to shade the southerly side of the tree, so that the direct rays of the sun shall not reach it. The trunk of the young tree is most likely to be affected. A piece of board, of suitable length, placed against the southerly side, and fastened there, will be sufficient. Some cultivators have been at the pains to wind the trunk with twisted ropes of hay or straw, with satisfactory results. Covering

with a piece of cloth is also effectual. Acting on the same prineiple, I have always recommended, for the protection of any tender tree or shrub during the winter, that the protection be placed on the south and east sides of it, in preference to the north or west sides. It is not the severe freezing which injures the tree, but the sudden *thawing* of a portion of the surface which works the mischief, as I have already intimated.

The pear blight proper is no new disease. It has been noticed and described at different periods during the past 150 years. Heretofore it seems to have prevailed but for a few successive years at the most, in any one locality, while during the years of its absence, the trees have become vigorous and fruitful. This fact alone is sufficient to prove that it is not produced by climatic influences, and that it is entirely distinct from the frozen sap blight, which is liable to appear after any unusually mild fall, which chances to be followed by a severe winter. It is also, as already intimated, distinct, in its appearing later in the season, frequently as late as August, or even in September, after the fruit is partially or fully formed. The progress of this blight is usually rapid, so that in a very few days after the first indications of it are discovered, the leaves become blackened, and die, without any previous withering, and the wood becomes shriveled, dry and hard, so that it is difficult to cut it with a knife, and there is none of that fetid smell in either the wood or bark, which usually accompanies the sap blight. A careful observer will rarely be at a loss to determine to which class any particular case of blight properly belongs. I am aware that pomologists have heretofore been quite inclined to attribute the latter form of blight which I have described, to the work of an insect, which some have even attempted to describe. But as that theory seems now to be pretty generally abandoned, I will not occupy space by repeating what I have so recently said in regard to it, in the RURAL of March 22.

Mr. Bateham assumes "the fact as established, that the blight is of a fungus nature." This, I submit, is adopting a theory "not fully sustained by the facts." He admits that the theory is not new, but believes "it has not been distinctly stated before." By examining the Report of the U. S. Department of Agriculture for 1872, at page 188, he will find an article on pear tree blight, by "Thomas Taylor, Microscopist," in which the theory is distinctly stated, and the article has the merit of giving evidence of careful study and patient, scientific investigation. And yet *he* falls into the too common error of confounding the several terms, frozen sap blight, leaf blight, summer blight, twig blight, etc., some of which I claim are entirely distinct. To quote his own words, he says: "My experience leads me to suppose that the pear blight is a local fungus fermentation of the genus Torula, and which may be developed under any one of a number of causes." These causes he specifies to some extent.

Now this fungus theory, although seemingly founded on careful, microscopic examination, under varied circumstances, is still not put forth by him with any great degree of positiveness, as the language I have quoted will show. Undoubtedly he discovered, in some cases, fungi in the diseased parts of the tree, as he asserts, yet they were not always thus discovered, for he admits that he "failed to find any fungi inhabiting those portions of the blighted bark, which seemed deficient in albuminous matter." And even if there were no exceptions of this kind, is it certain that the fungi originate the disease? May it not be that the fungi are only one of its consequences? By many it has been claimed that the black-knot disease which blights our plum and cherry trees is of fungoid origin, while others have argued with equal pertinacity that it is caused by an insect, because the larva of the curculio or other insect is often found in them, the insect having punctured the excrescence with its ovipositor while it was in the soft or spongy state. But Dr. Fitch, our N. Y. State Entomologist, after careful investigation, arrives at the conclusion that "these excrescences are not of insect origin, and are not a vegetable fungus, but are properly a disease of the tree, in many respects analagous to the cancer in the human body."

Now, may not the opinion of this learned entomologist, furnish us with a key to the solution of the vexed question as to the cause of the pear blight? May we not well consider that, also, to be a disease of a cancerous nature, spreading and extending, and causing ultimate death, if not checked in its progress? The fact that the most certain remedy yet discovered is the prompt and thorough excision of all the affected parts, would seem to give color to that view of the matter. The theory seems certainly more plausible than either the fungoid or the insect theory. The *twig blight* of which I spoke in my recent article, by its not extending downward, thereby affecting the matured wood, shows itself to be lacking in that cancerous character which so generally marks the pear blight.

Oneida Co., N. Y., March 25.

Horticultural.

HOW I PLANTED MELONS.

THE difficulty in starting melon, squash and cucumber seeds early, is in getting the ground warm enough to force an early growth. Market gardeners grow cucumbers in hot-beds where the soil is heated by steam pipes, and in such circumstances the vines thrive luxuriantly. I have sometimes made a deep hole where the seed was to be planted, filled it two-thirds full of coarse manure and then put enough fine earth to even it with the surface and make a good seed-bed. The manure ferments and furnishes heat early, but it is apt to become excessively dry late in the season and thus prove a positive injury. This spring I thought I would try an experiment. Digging a hole not so deep as usual, I filled it partly with fine manure mixed with earth and on this I strewed some good unleached ashes to liberate the ammonia, which it did quite freely. Then I poured in a quart or more of water as nearly at the boiling point as I could get it, covered quickly with fine rich earth to the depth of two or three inches, and in this I planted the melon seeds. Of course, this heat will rise, and if unchecked, be radiated from the surface, but I provided against that by covering the hill, or rather the place where the seed was planted, with a shingle. This serves in part to keep the ground moist and warm during cool nights. Of course, the covering will be removed before the plants are up.

The effect of this hot water will, I think, be manifest through the season. It takes a long time for the sun to warm the earth downward, as the natural tendency of heat is the other way. The water was purposely made hot in order that less might be required. Possibly a better way would be to dig a much deeper hole and place in the bottom some heated stones. Burying stones is often an economical way of getting rid of them, and if they can be heated very hot and buried where some plant needing much heat is to grow, two good purposes will be accomplished with little extra expense.

The effect of ashes on highly ammoniated manure may be objected to. I used hen manure and though partially mixed with earth before the ashes were put on, there was a perceptible smell of ammonia, showing that some was escaping. But I am sure that much more was absorbed by the earth in contact with the manure. So soon as the hot water was put on and the whole covered with dry earth, all smell of ammonia ceased. Yet the effect of the potash in liberating ammonia was going on the same as before, and probably more rapidly from the effect of the heat. The result is, that under the hill the roots of the melons will revel in the richest kind of plant food. It is probable that being covered up from air and light, the potash and ammonia will form a nitrate of potash, one of the very best manures for any plant. In fact, I used the ashes so as to economize manure. Two or three shovelfuls of rich manure on ground already rich from frequent manuring, are a waste for a hill of melons or cucumbers. By no possibility can the plants need so much, and we only apply this superfluous quantity because it is better to waste some than have the plants suffer a lack. Thus we waste fertilizers which are always scarce and needed elsewhere, because they are not in shape to be used. I never put so little manure under melon and cucumber hills before; but I have no doubt that the vines will be as thrifty as usual.

Plants which have been forced as above described, should be protected after they are up by square boxes over the hills which should be covered at night to retain the heat. The boxes may be kept on until the plants are nearly ready to run, by which time the weather will be warm enough for them to grow rapidly in the open air. W. J. F.

Monroe Co., N. Y.

NATURAL HYBRIDIZING.

SOME thirty years since while visiting in the south part of Albany County, N. Y., I was presented with some very large white pale or climbing beans, a kind I have never seen in market. I was much pleased with the produce from them. A friend visiting the fair of the American Institute of New York a few years after, obtained a dozen of the beans called the "London Horticultural." He thought them a new variety but they were known to me as the "Cranberry Bean." From these I planted one hill at the end of a row of my pet whites, but did not think enough of them to save any of the produce. The next season I was surprised to see the blossoms of my beans, which were before of a snowy white, mixed in with bright scarlet ones and the beans mixed nearly one half with beans of the same size and shape as the whites, but in color delicately mottled with purple on a dark, nearly black, ground. This was accompanied with an increased yield but no change in flavor. I have occasionally raised them since, but they dwindle in produce and are now nearly seven-eighths colored.

I raise a few watermelons for family use and always save seeds from the best, and when I plant I take all the seeds I have, and mix them, plant what I want and save the rest till next year, so that some of the seeds are likely to be quite old. I often had melons with white cores and black seeds, but think I never saved seeds from them, but am not sure. My melons were generally small with red cores and dark-brown seeds. I never saw white seeds till this past year when all my melons were either large or of good size, all white seeds, red cores, skin delicately striped or clouded with green and milky white, melons weighing 20 to 35 pounds and of excellent flavor. There being no other melons within 100 rods for years before, I must conclude that there is much benefit from the mixing of seeds, or that Nature has taken special pains to improve my melons. S. B. PECK.

WEEVIL-EATEN PEAS.

SOME time ago we noticed a short article in a contemporary in which the writer pronounced weevil-eaten peas utterly worthless for seeding purposes. Later we read in an article by Prof. Riley a statement entirely contradictory of the above, saying that such peas would grow almost as well as sound ones.

To satisfy ourselves on this point we selected 70 weevil-eaten peas and carefully planted them. Of these 70 peas only one grew, producing a very sickly plant, so we cannot endorse Prof. Riley's statement in regard to the vitality of such peas. Sometimes the embryo is injured, at others not; but it stands to reason that though the plumule should be untouched the vitality of the peas must necessarily be weakened, as a considerable portion of the nourishing matter in the cotyledons is eaten away.

The pea weevil, Bruchus pisi, is a very small beetle only about one-tenth of an inch in length. It pierces the pod and deposits its eggs in the peas within as soon as these are formed. The larva is footless and lives within the pea, feeding on the rich juices; though very small, it is large enough to be readily seen with the naked eye. By the time the peas ripen it eats through the seed coats, and, remaining in its cell, assumes the pupa state. During the winter it changes to the imago, and on the arrival of spring leaves the pea, mates, and is ready to begin its destructive work as soon as the young peas begin to form.

Dairy Husbandry.

CREAM-RAISING.

L. S. HARDIN.

LIKE Brother Bliss, I too have received a pressing call to say something on the subject of the "cream-rising" of Dr. Hoskins or the "cream raising" of Brother Bliss. One trouble with me in giving a learned opinion on this subject, is that I have written several articles lately wherein I expressed the opinion that nobody had yet discovered the correct theory of cream "appearing at the top of milk." It hardly becomes me, therefore, to settle this question finally and for ever, as my learned cotemporaries have done. The fact is, the theories of both these gentlemen seem to possess so little solid matter that no man need feel oppressed with their profundity. Now, if Mr. Bliss's butter globule does not "rise," then a balloon doesn't. In fact, nothing can rise, according to this philosopher. He tells us that "cream, in common with all other matter, is inert and cannot act or move except as it is impelled by some external force." Why cannot the cream rise up as well as the milk go down? Perhaps it is the rising of the cream that causes the milk to go down. Such things have been. Webster, for instance, tells us that a fog rises from the river. Here is something (water) heavier than air, actually forcing its way up, so that it rises and compels the lighter air to go down. May there not be some similar trouble between skim-milk and cream? However, I am getting too profound now for the average dairyman, and am not exactly certain I understand what I am talking about myself.

Mr. Bliss says he is not willing to test milk by the number of pounds it requires to make a pound of butter, because he can name some objections to this method, as the breed of the cow, time since calving and quality of feed, all tending to change the quality of the milk. Theoretically this is true, but practically outside of the Jersey cow—which can easily be avoided—it is not hard to find ten cows that yield collectively an average quality of milk in midsummer. Cows' milk is a crazy substance at best, and it is a rare thing to get similar results from a couple of given sets of experiments, but the idea of weighing the skimmed milk, as Mr. Bliss says he does, to determine whether or not the milk is fully creamed, strikes me as the most impracticable of all methods. Is not the skimmed milk of a Jersey heavier than that of a Holstein or Durham? Is the skimmed milk of a cow nearly dry the same in weight as that of the same cow when she is fresh? Does food cut no figure in the quality of skimmed milk? Is it possible that all these conditions affect the quality of the cream, but have no effect on the cheese quality of milk? Mr. Bliss, you must prove this before we will believe it. It is hard at best to let go of an old practice that has served us long and well.

I must still insist that Mr. Bliss's pet theory of "currents" will "carry" butter down as well as up. A current, to use his own philosophy, "impels inert matter by external force," so to speak. I agree with him that no process of "creaming milk" gets all the cream. It would require the nicest chemical analysis to accomplish this, but at the same time there are few who appreciate the quantity of cream they daily lose by imperfect methods of setting milk. This, however, can readily be discovered by a few experiments in different methods of setting. Apply the test of number of pounds of milk to the pound of butter, and if Mr. Bliss does not always use the same quality of milk in his experiments, then how can he tell whether or not by weight his skimmed milk is always the same?

I think he makes a good point on Dr. Hoskins when he asks why butter-milk and skimmed milk should differ in quality if cream is only butter ungathered. This would be a very simple way of disposing of the butter question, but I fear the doctor is not the appointed man to settle this mixed question. There are a good many things in cream that even churning does not get out.

I cannot imagine how Doctor Hoskins ever got it into his head that any temperature, so it be "fixed," would get all the cream out of milk. This theory certainly has the merit of novelty. This is bringing us around to the incubating theories of egg-hatching, where a variation of two or three degrees in temperature sometimes raises more "Cain" than chickens.

The impossibility of this theory being correct will appear readily to the mind of the practical dairyman when he remembers that milk set in summer in thin sheets, so that it responds to the slightest change of the atmosphere, will throw up all the cream in forty-eight hours, while at the same time milk set in large, deep cans that hold the milk warm and at nearly a fixed temperature, yields but one-half or less the quantity of cream. There is no theory about this—it is a solid fact. The larger the body of milk, the less variation or change in temperature and the less the yield of cream. I would risk my neck before a jury of dairymen on that proposition. I cannot admit that the doctor has made such a discovery as he seems to think he has; but, under proper conditions, I think his fixed temperature theory is correct. If I could take the milk as soon as it comes from the cow, and by an instantaneous shock reduce the temperature to 33 degrees in a vessel with a small top to collect the cream, I would expect to accomplish better results than are now attained by any method of setting milk. My notion is that Mr. Bliss and Dr. Hoskins are both wrong in thinking that cream does not come up in shallow pans in winter. It does come up, but cream raised in a cold atmosphere is so thin that its consistency is little greater than skimmed milk, and it is, therefore, when spread out, in such a thin layer on top of the milk that it is very hard to secure and separate it from the skimmed milk below. It is a practical and not a theoretic trouble that meets the dairyman at this point. This is why I want the milk set in deep vessels.

The fixed temperature I want also, but it must be a very low fixed temperature if the milk is set deep. If it is set shallow, then I should want a fixed temperature of about 60, so that the cream would take on sufficient consistency to be easily secured and the milk be in so thin a layer that the cream could all get up before the milk got too thick to let it up.

These milk theories are interesting as matters of speculation, but, so far as I have been able to see, no practical good has yet come out of them. I am, however, still in hopes that some of these theorizers will do something.

About all I have been able to determine in my own mind on this subject, is that milk set in shallow pans not more than three inches deep and at a temperature ranging from 60 to 80 degrees, will in 48 hours throw up all the cream, while milk set in deep cans below 40 and above 32 degrees will throw up all the cream in 24 hours. These are, according to my experience, the strict limits within which milk can be handled to procure the best results in raising all the cream. Others, of course, claim wonderful results; but while there can be no earthly objections to men inventing systems of cream-raising, and also inventing theories for raising it or getting something else to raise it, yet there is a limit to the profit in this sort of thing to the dairyman. We have had pretty nearly as much theory as we want, but there is a dreadful poverty of facts to build on. We ought to know what the average quality of milk will do under all circumstances of heat and cold. These things could be tested and tabulated with comparative ease, if only some one of the hundreds who are paid by State and

nation to do it, would take the trouble to give us a little practical information.

I wish, with a view to this end, that Mr. Bliss would reorganize his challenge and bring it to a head, so that some practical good could come of it. There is a field for both fun and information in the substance of his suggestion.

SPECIFIC HEAT AND CREAM RAISING.

O. S. BLISS.

A FAITHFUL mentor, who, though he never writes, often criticises me pretty severely and thus renders me invaluable aid, insists that I shall not leave the discussion of "cream raising" till I have farther elucidated its relations to the doctrine or law of specific heat. I undertake the task thus imposed upon me with very great reluctance because the doctors have got into an almost inextricable muddle over it.

In the article of March 29th, which was the occasion of the preparation of my former contribution to the RURAL, it is said under the sub-head, "Law of Specific Heat:"—"For under this law when milk is rapidly cooled, the cream globules cool faster than the milk, consequently they would have a less tendency to rise, rather than a greater, as their greater condensation or contraction makes them relatively heavier than before the cold was applied. As it does in fact rise much quicker, those theorists who have been seeking for a motor power in aid of gravity to account for the observed facts, are at a non-plus in regard to the matter."

The Scientific Farmer for November 1878, in an article on the "Philosophy of Milk Cooling" says:—"It takes longer to cool down the milk whose specific heat is represented by 0.847, than the cream whose specific heat is 0.78, and, longer still the water, if the can contained water instead of milk."

A correspondent of the same paper for January 1879, commenting upon the above-mentioned article says:—"It is stated that if the water outside the can of milk were cooler than the milk, then the fluid portion of the milk 'would be cooled two degrees while the globules of oil were being cooled one degree.' But as the specific heat of oil is less than that of milk, exactly the reverse of this is true. The oil will cool two degrees while the milk cools one degree. This is correctly stated in the next sentence—'it takes longer to cool down the milk than the cream.' The cream therefore cools more rapidly than the milk. But this being the case, the cream, which at the beginning of the process is a little lighter than the milk, will, as the cooling proceeds, approach it in density (the more rapid cooling of the cream producing a more rapid specific gravity) so that as far as the agencies invoked in this explanation are concerned, cooling may be expected to prevent the rapid rising of the cream. Therefore the very reverse of what this article states is the truth." The editor accepts the "correction" and says:—"Bodies which have the greatest specific heat cool the most slowly. The specific heat of water being 1.000, that of milk is 0.847; that of cream is 0.780. Thus water cools slower than milk, and milk, than cream.

Specific heat is defined in the books as "The quantity of heat required to raise the temperature of a body one degree, taking as the unit of measure the quantity required to raise the same weight of water one degree." The relative quantities of heat required to raise cream, milk and water respectively one degree, according to the figures quoted above, are 0.780, 0.847 and 1.000. But absorption and radiation are reciprocal. Bodies radiate just as much heat in falling one degree in temperature, as is required to raise them one degree. We find, then, that under the law of specific heat cream radiates heat under a falling temperature, from any one degree to another, in the proportion of .780 to .847 as compared with milk, or 1. as compared with water, which is directly the reverse of the conclusions of the three writers quoted above. Tyndall in his lectures illustrates the principle involved, by a simple yet very striking experiment. He takes a cake of beeswax, half an inch thick, and from a vessel of hot oil places upon it balls of different metals. He says: "At present they all possess the same temperature, namely, that of the oil. I lift them out of the oil, and place them upon this cake of wax, which is supported by the ring of a retort stand; they melt the wax underneath and sink in it. But they are sinking with different velocities. The iron and the copper are working themselves much more vigorously into the fusible mass than the others; the tin comes next, while the lead and the bismuth lag entirely behind." Their specific heat in the order in which they stand above, is represented by the following numbers: 0.1138, 0.0952, 0.0562, 0.0314, 0.0308; the impression they make upon the wax exactly corresponds with them. The iron and copper go completely through the wax, while the lead and bismuth only sink a little way into it.

But neither time nor space is at my service, and I may not pursue the subject, though much more might well be said. I trust enough evidence is herein produced to establish the fact that, so far as the abstract principle of specific heat is concerned, so far is it from conflicting in any manner or degree with the theory of the cold setting of milk for cream raising, that it is in perfect accord with it. If the only principles involved were the radiation of heat in proportion to the specific heat of the respective bodies, and contraction followed in the same proportion, the increase in the specific gravity of the milk would be to that of the cream as 0.847 to 0.780, which would materially contribute to that "motive power in aid of gravity," so sneeringly spoken of by Dr. Hoskins.

The Herdsman.

A BREEDER'S OPINION OF DAIRY COWS.

WILLIAM CROZIER.

Marvelous reports of dairy successes; the Jersey; the Guernsey; the Ayrshire.

I HAVE just returned home from a short trip for the purpose of visiting farmers and breeders. It may be said: "This is not the time for a farmer to be away on a visiting tour; at this busy season he should be about the homestead taking care of his stock and farm work in general." This remark I believe, as a rule, to be just; yet we are all the better and wiser for investigating the work on other farms, and to me this seemed the best season for doing so. I have read and heard so much of late about wonderful crops, marvelous cows and other phenomena, that I was anxious to seek knowledge from those who had raised those wonderous crops, owned those cows and were the happy possessors of the other agricultural marvels. My search, however, has not been very satisfactory, so far as obtaining proofs of these wonders is concerned. So much has been said of the quantity and quality of dairy produce from some herds and of the high price obtained therefor, that nearly all who own a herd of milch cows have been worked up to fever heat to get a dash of some puffed-up breed in their yards. The expectations indulged in by some of these seem to me to resemble somewhat the musings of the milk woman who, while trudging along with a pail of milk on her head, thought that by sale of it she would gain double what it had cost her, then by-and-by she would buy a cow, and that cow would have a calf, and so her wealth would go on doubling yearly until she could ride in her carriage—all from that pail of milk!

We read of small herds that make 450 pounds of butter a year per cow, and that that butter sells for one dollar a pound! Why the owners ought to be rich in a short time! Just think of it—450 pounds of butter to a cow, none of it selling for less than one dollar a pound and some of it bringing as high as $1,25 per pound! Then the calves are selling for from $100 to $175 each, so that there's no end to the profits! Yet, strange to say, some of the noble, kind-hearted writers who are generously willing that the public should share their advantages "for a consideration," although they had the best of land under their control for 10 or 12 years without paying for it, would have been bankrupted had not the rich man's full purse been opened for their relief. They were from $12,000 to $14,000 behind, and yet they are still preaching to young men to follow their example.

For myself, I am a breeder and importer of Ayrshires, Guernseys and Jerseys. I have also tried the Dutch, or so-called Holsteins, but found it profitable to quit dealing in them. There are many good Jerseys and a great many more poor ones. When I say poor ones, I mean that many of them will not exceed the rate of half a pound of butter a day the year round. Many will make a pound of butter a day for the whole year, but it is not the very pretty-looking ones that will do this. To get such a one a man must select an animal with a good, large frame, an excellent feeder, and fine all over. By fine I do not mean fine-looking. Looks are nothing. The good cow has a fine countenance, a light neck, good withers, with full crops, well-spread ribs, deep naval, broad back; not backed like a fish, nor with little delicate hind-quarters; but with good, deep quarters behind, wide between the thighs with a fine set of limbs. Such cows well selected, will breed well and milk well; but, alas! beauty now-a-days counts high—far too high—in the selection of a cow, no matter how much or how little milk she may give.

Guernseys now seem to be much sought after by the rich men of the East, and they are running the Jerseys hard. There are a few good cows of this breed, with rich milk like that of the kindred Jersey. There is, however, no breed that can be compared with the quiet, little Ayrshire, and when the lassie calls Mollie she comes pleasantly, not to lick or play or be petted, but to give a good, large mess of rich milk, which will make butter or cheese or fill the milkman's pocket. She needs no "puffing;" she speaks for herself; she will not disappoint her owner. Ayrshires make excellent butter, cheese or beef, and for working cattle they cannot be excelled even by the beautiful Devons. Their milk is rich in quality, and large in quantity. They are easy keepers and in every way a most profitable breed of cattle, and wherever they find a home they become permanent favorites.

Suffolk Co., N. Y.

TREATMENT OF MANGE.—The half-bred Berkshire pigs are nearly all white. They became mangy when only a few weeks old. We tried carbolic soap, tobacco tea, lard and sulphur. We also washed them clean several times with soap and water. Each time we thought we had conquered; but in a few weeks the disease would break out again. In looking over the scrap-book we found a clipping from the RURAL of several years ago, in which the writer stated that outside applications were useless without some inside remedy. Finally, when our pigs were about four months old, we gave the six two tablespoonfuls of sulphur per day, for three days; then skipped three days and repeated the doses, in the interim making a thorough application of lard and sulphur to the surface, and now we believe the cure is effected, as two months have since elapsed and they are still clean and nice. The dog was afflicted with the mange, too. We treated him in the same manner, giving a teaspoonful of sulphur at a dose, and he is cured. M. B. PRINCE.

The Apiarian.

A GOOD MOVABLE COMB BEE-HIVE.

WHILE there are many forms of bee-hives, each one of which has its advantages and advocates, and while each one is good, still some have a greater number of advantages than others. These few are the hives which should be described in our various agricultural papers, and the readers left to exercise their own judgment in choosing what one they shall use. I trust I will be excused for selecting the Langstroth-Doolittle Hive, as the one to be described. Perhaps it is because it is my preference, or perhaps simply because I know it to be a good hive, and feel sure that every practical apiarist will succeed well with it.

The Manner of Using this Hive

I will describe as follows: In the spring or summer, whenever your bees commence gathering honey, place two cases, one above the other, on each side of the brood nest, placing the separation-side away from the partition; shove the followers up against these and key them up snugly. Examine the hives in a few days, and as soon as the bees have built out the combs and stored honey in these boxes, so as to be well started, move the cases away toward the ends of the hive, and insert two more between them and the partition, key them up again, turning the key flat-wise. As soon as these side boxes are nearly full and ready to ripen, raise them up to the top, resting the cases upon the strips of wood (Q), and place empty cases at sides. When the top boxes are capped, remove them, and raise the partly-filled side cases to their place, supplying empty cases at sides again. In this way, work all the hives. The empty boxes, are, of course, to be provided with starters of either natural or artificial comb. The reasons for raising the side cases to the top are: honey is stored, and comb built much faster at the sides than at the top, and honey ripens much faster at the top than at the sides. The boxes are, of course, to be removed as soon as filled. Toward the close of the honey season be careful not to put on too many cases, as the bees may be able to fill them all, and thus you will have a lot of unfinished boxes. For wintering, remove all cases, wedge the followers against partitions, pack the spaces at ends with chaff or cut straw, stuff the cap with long straw and put it in place; if then the entrance is contracted with the entrance blocks, the bees will generally winter well. Now as to the

Description of the Hive.

I have decided to give a list of the number and size of pieces, and this, together with the engravings will, I think, enable anyone to make these hives.

A—Two pieces, forming the front and back of the hive, 12 inches wide, 24 inches long, 1 inch thick.

B—Two pieces, 12 inches wide, 14¼ inches long, ⅞ inch thick.

E—Two pieces, 25¼ inches long, 8 inches wide, 1 inch thick.

F—Two pieces, 16½ inches long, 8 inches wide, ⅞ inch thick.

G—One piece, 27 inches long, 18 inches wide, ⅞-inch thick.

H—One piece, 25 inches long, 20 inches wide, 1 inch thick.

K—One piece, 25 inches long, 5 inches wide, 1 inch thick.

I—Two pieces, 25 inches long 3 inches wide, 2 inches thick.

D—Two pieces, 16¼ inches long, one inch wide, ⅞ inch thick.

C—Two pieces, 25 inches long, one inch wide, 1 inch thick.

T—End pieces, 30 pieces, each 6 5-16 inches long, 2 inches wide, ⅞ inch thick.

T 1—Top pieces, 15 pieces, each 12⅛ inches long, 2 inches wide, 3-16 inch thick.

T 2—Bottom pieces, 15 pieces, each 11⅜ inches long, 2 inches wide, 3-16 inch thick.

P—Two pieces, 17 inches long, 2⅜ inches wide, ⅜ inch thick.

S—Top bars, 9 pieces, each 13¼ inches long, 1 inch wide, ¼ inch thick.

S 1—Side bars, 18 pieces, each 10¾ inches long, 1 inch wide, ¼ inch thick.

S 2—Bottom bars, 9 pieces, each 11¼ inches long, ½ inch wide, 3-16 inch thick.

O—Two boards, 12⅛ inches long, 14 inches wide, ¼ inch thick.

O 1—Two cleats, 14 inches long, 3 inches wide, ⅜ inch thick.

R—Two boards, 11½ inches long, 4½ inches

R 1—Four cleats, 4⅜ inches long, 1 inch wide, ½ inch thick.

N—Two pieces, 12¾ inches long, 10¼ inches wide, ¼ inch thick.

Q—Two pieces, 14 inches long, 1½ inch wide, ¼ inch thick.

X—Tin, two pieces, 13¾ inches long, 2½ inches wide.

X 1—Tin, 15 pieces, 11¼ inches long, 5 inches wide.

W—Tin, one piece, 28 inches long, 20 inches wide.

L—One piece, 13½ inches long, 11½ inches wide, ⅜ inch thick.

M—Four pieces, seven inches long, 5 inches wide, ⅜ inch thick.

U—Sides, 60 pieces, 6¼ inches long, 2 inches wide and ⅜ inch thick.

V—Top and bottom, 60 pieces, 5 inches long, 1¾ inch wide, ⅛ inch thick.

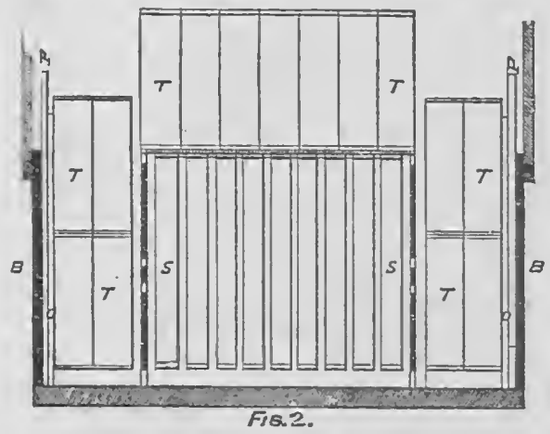


FIG. 2.

Some of the pieces are so placed in the hive that they cannot be lettered.

The complete hive is seen at Fig. 1—all except the entrance blocks—which are simply two hard-wood blocks, one inch square and seven inches long—are beveled back on one edge two inches, so as to guide the bees to the entrance.

A part view of internal arrangement is seen at Fig. 2. The brood-frame, at Fig. 6. The case, at Fig. 8. The slotted partition brood, at Fig. 3. The follower, at Fig. 5. The key, at Fig. 4. The small board that closes up the opening of the top cases, where they extend above the side cases, at Fig. 7.

To Put the Hive Together,

after you have cut all the pieces exactly the size given in the list, take the two pieces A, which are the front and back of the hive, and cut a groove across each end, five inches from the end, one-fourth of an inch square. The grooves are to receive the slotted partitions. Next, rabbet out the upper inside edges of these pieces, ⅜ inch deep and ⅛ inch back, the rabbet extending from one groove to the other. These rabbets are for the frames to rest in. Take the pieces numbered M, and nail one to each lower corner, so as to be even with the bottom and extend to the groove. Take L and nail it to the back, so as to come even with the bottom and be between the grooves. Cut out an entrance in the front, ⅜ inch high and 13½ inches long.

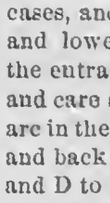
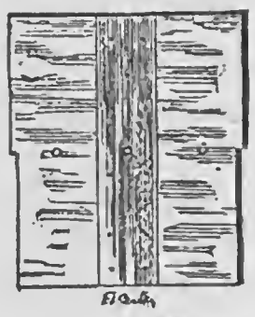


FIG. 3.

Now put the end of B to A, so as to make an oblong box. Slip "I" into the grooves until it is ¼ of an inch below the top of the hive, and then fasten it in place by nailing small blocks in the grooves below it. The slats in these boards should correspond with the spaces above the tin separators of the lower side cases, and the space between the upper and lower side cases. These slats are the entrances for the bees to side cases, and care should be taken to see that they are in the proper places. Nail C to front and back of hive, ½ inch from the top, and D to the ends of hive one-half inch from the top. These are for the cap to rest on. Now nail F to the ends of E, and nail G on top of this for the cap. Lay the sheet of tin W on top of this, and bend the edges down evenly and nail them with tacks to the edges of the roof. Nail H to I (I to be beveled off five inches back, as in Fig. 1), and nail K to I for the bottom and alighting boards.

Now to make the nine brood frames: Nail the top bar (S) to the ends of the side bars (S^1) letting the ends of the top bar project one inch beyond the side bars, and nail the bottom bar to the ends of the side bars, so as to have a frame $11\frac{1}{4}$x$11\frac{1}{4}$ inches outside measure. For



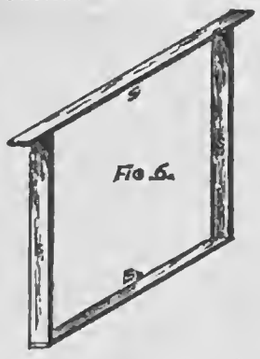


FIG. 5.

comb guides, fasten a strip of comb foundation, $\frac{1}{2}$ inch wide and $10\frac{1}{2}$ inches long, in the center of the under side of each top bar. To make the cases (T), nail the top bars to the ends of the side bars, allowing the ends of the top bars to project beyond the side bars, and nail the bottom bars to the ends of the side bars, so as to make a case $10\frac{3}{4}$ inches long and 6 5-16 inches high inside. The bottom bars of cases are to be cut out on edges nearly the whole length, so as to make them $1\frac{3}{4}$ inch wide and give entrance room for the bees. The tin separators (X) are to be nailed to one side of cases so as to be 21-32 of an inch from both top and bottom.

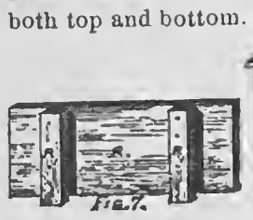


FIG. 7.

FIG. 8.

To MAKE THE SECTION-BOXES (U), nail the sides to the ends of the top and bottom bars, so that the sides will project $\frac{1}{8}$ of an inch on each side of the top and bottom bars. Two sections are pushed inside of each case,

To PUT THE BOXES, ETC., IN PLACE, now that the hive is all made, proceed as follows: Hang the nine brood frames in place in the middle space, or brood nest, and lay the strips (Q) on top, one at each side of the hive so as to cover the ends of the top bars. Hang two cases at each side, on the rabbets—I forgot to say that these cases all have two nails, driven through the top bar into the side bars of each; they should be driven close to the side the tin separator is nailed to, and should project above the top bar $\frac{1}{4}$ of an inch, so as to avoid crushing bees when the upper tier of cases is placed upon the lower—set two, at each side, on top, turning the side of the cases having the tin separators on away from the partition. Place seven cases on the top of hive, resting on the strips; they will just fit between the tops of side cases. Put the tins (X) between the top and side cases, the ends of tins resting on top of sides of hive, so as to prevent the bees from bridging the combs across. Put the followers in place at sides—they should have been previously fitted and cleated as in Fig. 5, so as to come within $\frac{1}{8}$ of an inch of bottom board. Push down the keys (P) at sides, and these will wedge up the cases snugly in place. Place the little boards (R) in place at the opening caused by the top cases extending above the side cases. Now the hive is complete. This is the hive used by Mr. G. M. Doolittle (the inventor, in part) with such great success, and the one that is regarded favorably by many of our best bee-keepers.

APIARIAN.

Entomological.

PARASITES ON DOMESTIC ANIMALS. No. 4.

PROFESSOR A. J. COOK.

Spider-ticks and Mites.

Some of you will remember an old-time disease, happily very rare in our times, which, as surely as the traditional peck of dirt, would come to make its seven years' sojourn, not only in the best of families, but as the guest of the fairest. This disease, very appropriately christened the itch, of those—ought we say "good old times?"—was caused by the irritating presence of a wee animal, the itch mite. A near relative causes the mange, or scab, of our domestic animals, which are more polite terms of the same thing, the itch. The "red spider" or "red louse" of our poultry houses and the large wood ticks, whose bite is so painful to ourselves and the lower animals, are also near congeners.

Order Arachnida, or Spiders.

These tormenting pests are not insects at all, but belong with the spiders. They have only two divisions of the body, head and abdomen. Their eyes are simple; they are without antennæ, and when mature always have eight legs.

Sub-Order Acarina.

The mites (Fig. 6) have rounded, non-articulated abdomens, can suck as well as bite, while many have at first but six legs.

The habits of mites are very varied. Some, like those in question, are parasitic; others, like the wee red spider, are very destructive to plants on whose juices they subsist. Still others, like the cheese and sugar mites, are destructive to the articles which give them their names. They are often met singly and as often in great numbers. A lady of my acquaintance has been much annoyed of late by noticing myriads of these minute creatures upon her windows.

Ixodes (Ticks)

The largest of these animals are the ticks, which are often found on cattle that feed in the woods. Nor do the "wood ticks" confine their blood-thirsty attacks to our domestic animals, as many of us well know by painful experience. Often, as a boy, did I have to pay a painful penalty for those delightful strolls in the grand old forests, laid on by one of these same ticks "Ixodes unipunctata, (Packard.) One feels the darting pain and upon immediate examination finds the cruel tick deeply buried, and so firmly anchored that the attempted liberation tears the head from the body. As a lad I wondered at this firm hold, but as I came to know the structure of the mouth organs, I ceased to wonder. Both their jaws and their glossoid or tongue are covered with teeth, each of which takes hold to prevent the extraction of its possessor. The ticks at first have but six legs. They are not enough of a pest in the Northern States to warrant a further consideration at this time.

Mites.

The red mite (Fig 6) which attacks our poultry in such alarming numbers, is the Demanyssus gallinæ. It is soft-bodied, oval in form, and, though very small, is from its crimson hue easily discerned without a microscope. The young have only six legs. I have found by actual experiment that they could inflict quite a painful bite even upon our own persons. I have reason to believe that they may cause horses much annoyance, when the horse stable and hen roost are one and the same. The ointment made of sulphur, lard and kerosene works a speedy cure of this evil among the poultry. I have no doubt but that this same ointment or the kerosene-wash would rid larger animals if attacked by these Lilliputian pests. Other species attack turkeys, pigeons, and even the cage birds of our houses.

FIG. 6.

HEN-MITE MAGNIFIED.

The mange in horses is only another term for itch. It is caused by a small but visible mite, the Dermatophagus equi, which often swarms on horses. The D. ovis causes the scab in sheep, while the D. bovis affects in like way our cattle.

Remedies.

I have already given the cure recommended by Prof. Law for these pests. I presume the kerosene-wash, made quite weak, would also be effectual. The ointment made of kerosene and sulphur would certainly be a good remedy.

The itch mite, Sarcoptes scabei, (Latr,) is so small as to be almost microscopic. It lives, feeds and reproduces its kind in small, subcutaneous galleries which its own feasting prodnces. As a consequence of the intolerable itching and the incessant irritation, disgusting pustules are formed, which are not things of beauty or joys forever.

A still smaller mite, the face mite, Demodex folliculorum, (Owen,) lives in the pimples, or diseased follicles about the chin and nose of the human face.

For all the parasites I have referred to, Prof. Verrill recommends a solution of sulphuret of potassium, two to four ounces to the gallon of cold water, varied to suit the character of the skin of the animal to be treated.

Farm Economy.

FARM HELPS.

ONE of the easiest made, and most useful implements on the farm is the stone boat; the accompanying sketch shows one that anybody can make. The writer had for several winters charge of from forty to fifty head of cattle that were fed on cut feed, and one or two hundred pigs for which the feed was all cooked.

FIG. I.

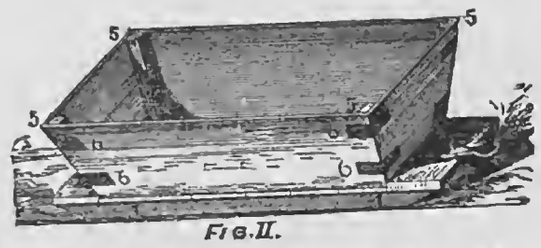


FIG. II.

The cattle and pigs were in two or three different buildings, and one hundred feet or more from the cutting-box and swill-cooking room. A stone boat like the one represented in the sketch, was made and loaded with barrels of the cooked food which were thus drawn along in front of the pens and dipped out into the troughs. For the cattle a box, like fig. 2, was made to set on the stone boat drawn up to the pile of cut stalks, hay, etc., shoveled full, then drawn along in front of the cattle and shoveled into the mangers.

The stone boat has solved one of the hardest problems in the question of feeding cattle cut feed. The necessity of having the cattle, the feed to be cut up, and the cutting box near together, is in some measure obviated by the use of the stone boat and box. With these it takes but little longer time to feed cattle cut feed or roots, and pigs swill, scattered around in different places, though they are some little distance apart, than if they are near together. The boat and box were also used to draw out the manure. It is less work to draw out the manure from the stable in this way and to have it left in a snug pile in the yard, than to throw it out of a door or window; thus exposing it to the drippings of the roof, to say nothing of the rotting of sills and boards where the pile rests against the barn. The box being narrower at the bottom than at the top, can be easily tipped over, and then lifted off from the manure and set back on the boat.

The stone boat for ordinary use (Fig. 1) is made as follows: For the runners 1, 1, take any hard wood 4x4 or 4x5 inches, and seven feet long, chamfer off the ends, on the lower side, and across each end on top, nail a piece two feet long, nine inches wide, and $1\frac{1}{2}$ or two inches thick, (Fig. 1, 2, 2), of hard wood. Through each end of the cross pieces and of the runners put a $\frac{3}{4}$ bolt, shown by the dotted lines, 3, 3, with the head let up into the runner, and the nut on top. The other boards are one inch thick nailed on; if they break they can be easily replaced. Round poles for the runners, with the upper side hewed flat, answer the purpose as well as planks. The hitching irons at the ends 4, 4, can be made of old iron by any blacksmith, for 25 cents for the pair. They are fastened on with four bolts. In place of the irons a two-inch hole may be bored through the plank for a chain to pass through.

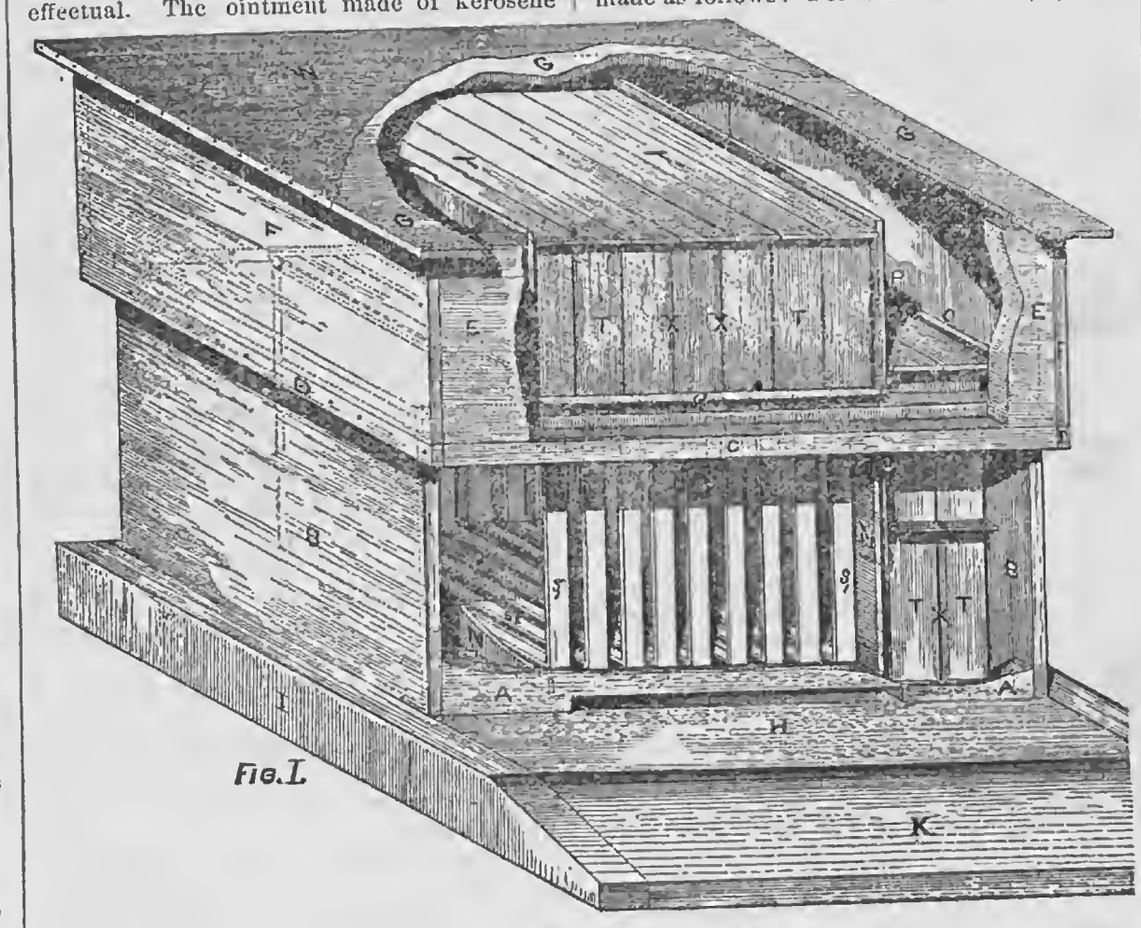


FIG. I.

LANGSTROTH-DOOLITTLE HIVE.

The box, (Fig. 2), is two feet wide and five and one-half feet long on the bottom, and three feet wide and six and one-half feet long on top. It is made of three-quarter-inch soft, or one-half-inch hard wood, the corner posts, 5, 5, are two inches square and of hard wood to hold the nails. The pieces outside, 6, 6, to hold the corners from drawing apart, may be cut out of an old stove-pipe, and put on with small nails. One board is left off from fig. 1 to show the runners.

F. A. GULLEY.

Mich. Agr'l. College.

Miscellaneous.

CONNECTICUT AGRICULTURAL EXPERIMENT STATION.

BULLETIN 26.—MAY 16, 1879.

Fertilizer Analyses.

258. Stockbridge Onion Fertilizer. Sold by Hubbell & Wakeman, Saugatuck. Sampled and sent April 19, by T. B. Wakeman, Greens Farms, Ct. Weight claimed and found 200 lbs. per bag.

269. Raw Bone. Manufactured by J. O. & E. Smith, Canterbury, Ct. Sampled from stock of Charles Backus, Andover, Ct., April 28, by John S. Welles, Hebron, Ct. Weight of bag 194 lbs., weight claimed 200 lbs.

	258	269
Nitrogen	3.91	4.07
Sol. Phos. Acid	5.73	
Reverted Phos. Acid	.63	20.40
Insol. " "	.13	
Potash	8.32	
Chlorine	18.99	
Estimated value	$38.77	36.94
Cost,	50.00	30.00

263. Sulphate of potash, containing 75 per cent. of sulphate or 41 per cent. of actual potash, by analyses of Drs. Ulex and Gilbert.

264. Sulphate of potash, 55 per cent.

265. Muriate of potash, containing 80 per cent. of muriate or 56 per cent. of actual potash.

The above potash salts are imported and sold by the New Haven Chemical Co., and were sampled by J. J. Webb, April 26.

	263	264	265
Potash	37.21	27.44	48.20
Sulph'c acid	9.77	7.21	
Chlorine	36.07	37.24	
Soda		12.05	
Lime		1.44	
Magnesia		4.79	
Inso'ble in water		3.85	
Water, by difference		14.37	
		108.39	
Deduct ox. equivalent to chlorine		8.39	
		100.00	
Cost per ton	$35.00	$29.00	$35.00
Cost per lb. potash	4 7-10c	5 3-10c	3 6-10c

The above figures express the percentages of potash, sulphuric acid, etc., as found in the analyses. In case of 264 the analysis was made complete, and thus exhibits the quantities of all the ingredients present. Since, however, potassium, sodium, and magnesium are partly in combination with chlorine instead of oxygen, stating them as potash (potassium oxide), soda (sodium oxide), and magnesia (magnesium oxide), makes the footing exceed 100 by an amount of oxygen chemically equivalent to the chlorine present (8.39 per cent.), which is therefore deducted.

In the following statements are given the percentages of the several compounds that do or may actually exist in the samples so far as the analyses enable us to calculate them. Only in case of 264 is the analysis sufficient to make the statement complete.

	263	264	265
Sulphate of Potash	21.27	15.70	
Muriate of Potash	40.69	30.01	76.35
Common Salt		26.63	
Chloride of Magnesium		11.38	
Chloride Calcium, etc.		1.92	
Water		14.37	
		100.00	

Reckoning all the potash in 265 and 264 as sulphate, we would have 68.80 per cent. and 47.80 per cent. of sulphate, respectively, instead of 75 per cent. and 55 per cent.

Of the 37.2 per cent. of actual potash in 263, only 11.5 per cent. can exist as sulphate, while 25.7 must exist in the form of muriate. Of the 27.44 per cent. of actual potash in 264, but 8.5 per cent. can be present as sulphate and the remaining 18.95 per cent. is in the state of muriate.

We observe that the amount of potash actually existing in these samples, as received at the Station, is several per cent. (4 to 8) less than claimed by the dealer.

The dealer's guarantee is based on the analyses of the Hamburg chemists, and the deficiency may be fairly attributed to absorption of moisture during or since importation.

We notice again, that the samples 263 and 264, sold as sulphate of potash, contain less than one-third of their potash as sulphate, and more than two-thirds as muriate.

Sulphate of potash is therefore a trade name, and, like many other trade names, involves a fiction more to the advantage of the seller than of the purchaser. The notion is prevalent that sulphate of potash is a better fertilizer than muriate of potash. Some experiments have been published going to show that potatoes and tobacco raised with sulphate are of better quality than when raised with muriate. Whether this be the fact generally, may well be doubted and since these samples of "sulphate" both contain more chlorine than enough to make a muriate of all the potash, they cannot be expected to make better potatoes or better tobacco than a pure muriate.

We see, finally that the cost of potash in the high grade muriate is considerably less than in the sulphates; evidently, therefore, muriate of potash is the cheapest source of potash. The common salt chloride of magnesium and water which make up more than half of 264, and more than one-third of 263, have no commercial or agricultural value corresponding to their cost. S. W. JOHNSON, Director.

"THE RURAL" CORN PREMIUMS.

[WE are daily in receipt of so many inquiries regarding our Corn Premiums and the prescribed method of cultivation, that it has become necessary again to publish the gist of what was published at length in RURAL of April 26.]

Conditions of Cultivation.

Any fertilizer or manure may be used in any quantity. The method of cultivation is optional with the cultivator. Our only restriction is that the area planted be WITHIN *one-fortieth of an acre*. We have kept an account of the *average* number of kernels sent out to each applicant. In each package there have been unsound kernels. These may, of course, be rejected. But *the exact number of kernels* (whether 125 or 145 or any other number) *planted*, must be stated in the statement of results obtained.

It will be well for each contestant to provide himself with *proof* of his entire proceeding, such as the evidence of a Justice or other competent authority.

We shall want to know the *quantity* of shelled corn and its *weight* produced from our seed, the weight of fodder, average number of ears to stalk; what kind of fertilizer was used, if any, the distance between rows and plants, time of planting and mode of culture. When these statements shall all have reached us and been carefully examined and compared, we shall announce the distribution of the following premiums:

Prizes.

No. 1. $100 in gold given by the proprietors of THE RURAL NEW-YORKER for the yield that shall have most successfully fulfilled all the conditions, and attained the highest general average of points.

No. 2. A FEED AND MEAL MILL (value $65), given by the CHALLENGE MILL CO., of Batavia, Ill., for the yield that is next in order.

No. 3. The Improved BIG GIANT FEED MILL (value $45), contributed by J. A. FIELD, SON & Co., St. Louis, Mo., for the third best result accruing from the competition.

No. 4. The "VETERAN" CORN SHELLER (value, $35), made by the SANDWICH M'F'G Co., of Sandwich, Ill., and given by them as a prize for the fourth best result.

No. 5. The WHEELER & MELICK Co., of Albany, N. Y., give a choice of their La DOW'S PULVERIZING HARROW, of a two-horse Disc CORN CULTIVATOR (value, $30), for the fifth prize.

No. 6. For the yield of corn, sixth in order of merit, MESSRS. RUMSEY & Co., of Seneca Falls, N. Y., offer a choice of anything from their catalogue to the value of $25.

NOS. 7 AND 8.—TWO HAND CORN-SHELLERS (value, $5 each), donated by LIVINGSTON & CO., of Pittsburgh, Pa., for the seventh and eighth best results from the Corn Distribution.

Farmers' Publishing Company.

1. For best weight of Shelled Corn per bushel, to be weighed three months after harvest, 30 vols. of Harper's Half-hour Series.

2. For second best, Dicken's Works, in 19 vols., (D. Appleton & Co.)

3. For third best, books from Scribner's Catalogue to the amount of $5.

4. For Fourth best, The Wilson Series of Agricultural Works, in cloth.

5. For fifth best, one year's subscription to the RURAL NEW-YORKER.

6. For sixth best, Miles' Stock-breeding.

Total value not less than $30.

All who intend to compete for the above premiums must give us notice of their intention so to do before August 1st, by postal card or letter.

EFFECTS OF THE PAST WINTER UPON TREES.

ONE of our most experienced arboriculturists writes us as follows: "Copious notes might be made about the severe winter-killing, or spring-killing, of 1879. The devastations of the season develop more and more. American Arbor-vitæs have died by thousands, and Irish Junipers in still greater numbers. Yews are browned but never killed. Hemlocks look badly, smitten very often to death. Some Silver Firs also are gone, but the Nordmann's Silver Fir stands grand and unscathed. The same is true of Piceas firma, compacta, Weeping Hudsonica, Pichta and Silicica. To tell the truth, I am sick of common evergreens—deciduous shrubs and trees for me, intermixed with a decided minority of choice evergreens. Pines have generally behaved well, especially Massoniana and Massoniana variegata (Sunray Pine), but then Pines are such unsatisfactory things to transplant, and people are so idiotic about buying *large plants*. In fact, the desire for immediate effect by the setting up of great specimens, which are destined to be stunted or die in a few months or years, is the curse of lawn-planting. People will be idiots, and think that the ways of Nature—that is, of God—can be traversed by means of gold."

The Poultry Yard.

THE BEST FOWLS.

IN settling this question more things are to be considered than number of eggs.

(1.) Eggs, their weight and number.

(2.) The hardiness of the fowls.

(3.) The quality of the fowls for table use.

(4.) The habits of the fowls as to strolling and scratching.

(5.) Their ability to endure confinement.

(6.) Their shape and color, or their beauty.

(7) Their domesticity, which involves also their tendency to "steal nests."

(8.) Their quality as sitters and mothers.

For No. 1, we may set down as among the best the White Leghorn, Plymouth Rock, Brahma, Houdan.

For No. 2, next to the old barn-yard fowls, we class the Asiatic breeds, and as less hardy the European stock.

For No. 3, the very best is the Plymouth Rock, which is a sound, solid meat bird. The Brahma runs too much to fat, but is heavier on the average than the preceding. The Dorking is also a good table fowl, especially when crossed with Brahma.

For No. 4, all light-built, long-legged birds, like Black Spanish, are in three or four places at the same time, rendering themselves very troublesome to a gardener.

For No. 5, we know that Brahmas and Plymouth Rocks, although quiet fowls, are not able to endure close confinement. It will stop their laying very quickly. Hence, as hens are sometimes cared for, these breeds make poor winter layers.

For No. 6, we should class the Dominiques, Plymouth Rocks, Black Spanish and Leghorns as especially handsome.

For No. 7, The Brahmas are incomparably best; Plymouth Rocks next. Dorkings crossed make also a good home-keeping fowl.

For No. 8, There is nothing to equal, considering reliability, persistency and light weight, the little old-style top-knots. The Brahmas vary exceedingly in this respect, but, like Plymouth Rocks, are generally very persistent.

All things considered for eggs, table, beauty and domesticity, give us the Plymouth Rocks. They are not voracious, lay on flesh with remarkable ease and in a fine style. There is no waste about them in the line of legs, wings, necks, feathers. They are hardy, but dislike confinement. Their eggs are large and in wonderful supply.

Considering number of eggs alone, the Leghorns and Houdans excepted, the mongrels generally raised by farmers, surpass the fancy or pure breeds. A farmyard generally shows a cross of Spanish Dorking, Brahma and one or two more stocks mixed with old style dunghill fowl. These are good layers and frequently exceedingly pretty. E. P. POWELL.

Industrial Implements.

A WIND-MILL FROM NEW DESIGNS.

CUSTOMARILY improvements on existing machinery are in the line, or follow the general plan of the original, but the Myers Windmill, made by the Silver and Deming Mfg. Co., of Salem, Ohio, is quite novel and an interesting study. Our illustration shows the mill out of gear. The regulating vane, here depicted, is again under the control of the smaller vane poised at one end. The vane lies directly in front of and across the wheel, which stands behind the mast—a decidedly new departure. When at work, or in gear, the main vane lies horizontally, presenting no surface on which the wind can act, but the little regulating vane takes its full force, standing erect until the wind over-balances the iron ball weight, when the regulating vane is turned forward and by a connection turns the main vane against the wind, and the wheel is thrown out of gear where it remains until the decreasing wind allows the ball weight to right itself, when the above-described operation is reversed and the wheel again revolves. The operation is very simple and automatic, but the same result may be brought about from below and the wheel held from revolving, by a brake.

The wind mill is constructed lightly, but very strongly, wrought-iron pipe being used in place of solid iron bars.

The balance is particularly adjusted, so that the mill stands in equipoise on the mast in any position. The engine, pump, etc., are fitted with all the mechanical skill the circumstances demand, and the best pumps and material, are used. Circulars giving dimensions, and particulars may be had on application.

THE LION RAKE

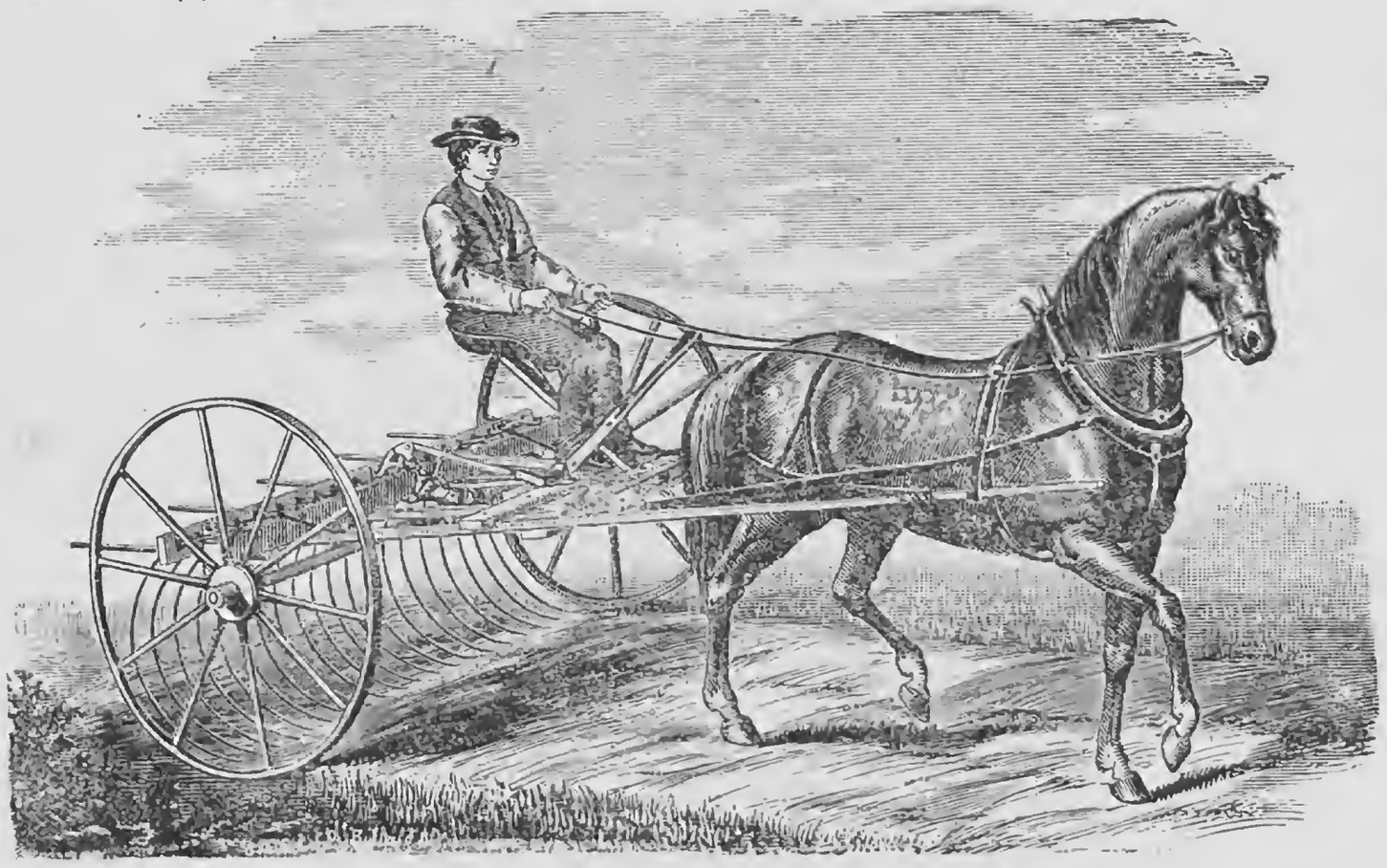
IS a new self-operating sulky rake made by A. W. Miner & Co. Belmont, N. Y. Its success has been very flattering, and we are told that at the present time the factory is running on double time, with something like orders for one thousand rakes in arrears. Following our habitual practice, we here epitomize the claims made on behalf of the implement, that our readers may be kept informed of everything that is new.

The chief characteristics of the "Lion" are simplicity, combined with durability and ease of operating. A double crank and two independently-acting clutches elevate the teeth in a way to withstand severe strains. This lifting device is said to be proof against damage by an accidental throwing the clutches into gear while the teeth are falling. The gathered load is discharged by pressing the foot upon a pedal conveniently placed; the horse completes the operation. A slight pressure is enough to hold the the teeth firmly to the ground when "bunching" or raking large windrows. The action of the teeth is quickly responsive to the motion of the driver's foot, and being articulated in iron holders, and shaped so as to insure running smoothly over the ground, the hay is neatly carried instead of being pushed along. The teeth are elevated by both wheels; the axle is above the center of the wheel, and the rake is adjustable to large or small windrows. The twenty steel teeth are oil-tempered, and there is an entire absence of ratchets, pawls, gears and springs in wheels, and similar minutiæ. The rake dumps from the center, avoiding side-draft. The construction is thorough.

THE COMBINED "CLIMAX"

THE Gibbs and Sterret Manufacturing Co., have made notable improvements in their "Climax" machines and this season will offer a changeable speed mower in addition to a center-cut self-rake reaper attachment which, applied to the mower makes a serviceable reaping machine. The advantages of a quick and slow motion for grass cutting are appreciated by any one having had experience in heavy or light grass; and to have these qualities combined in one machine, and under the control of the operator is no slight benefit. The changeable speed is produced by a shifting lever sliding a clutch to the left or right, while moving the same lever to position in the center throws the machine out of gear entirely. The whole operation is performed in a moment and without stopping the mower.

The Self-rake is a combination of improvements. The center cut may be attached to any of the Climax mowers. The cut being in the center, attaching the pitman to the knife by a rocking-bar, enable the driver to, at all times, watch the cutting apparatus. The driving chain is done away with altogether, the rake being driven by a universal coupling joint connecting directly from the axle of the mower to the bevel gear on rake head. The motion produced by this device is very steady and regular. The center cut, universal coupling joint, and changeable speed are the main improvements. Minor excellencies, such as enclosing the gears in boxes and having all adjustable parts fitted with mathematical accuracy, so as to insure smooth working, strength and durability can only be fully appreciated after a trial.



IMPROVED "LION" SELF-DUMP SULKY HAY AND GRAIN RAKE.

Everywhere.

RURAL SPECIAL REPORTS.

KANSAS, Parsons, May 17, 1879.—In about a month the sun will take the back track, and yet we learn, that in the Northwest, it is freezing nearly every night. Our weather as regards temperature, has not differed from the average season, say 50 to 80 deg. during day; but till this evening, we have had 20 days of dry weather. Turnips, peas etc., and even apple trees were beginning to show the yellow leaf, but 1¼ inch of rain which has just fallen will set things going for three weeks. The fruit trees were suffering from the scant rainfall of the last nine months—nine inches—the spring rains not having reached their roots, excepting partially. There never has been a better season for planting, and it has all been done two or three weeks. Corn is a good stand and is up as high as a foot in a few cases. Most of it has been cultivated once. There is what *I* consider an inveterate prejudice amongst many of our farmers against pulverizing the ground. I do it as thoroughly as I think necessary, and they laugh at me, saying if there come a rain, it will be all paste and bake hard. Probably it would, perhaps I might more properly say *possibly* it would, but in that event could not I break that cake with the cultivator? I have never seen our soil bake, if attended to as soon as it was dry enough to stir, and if it be absurd to make the soil fine, why then I suppose the more and bigger the lumps, the better. Now, could you raise onions or lettuce or radishes amongst big lumps? If the lumps in these cases prevent germination and growth, would they not also, to a great extent at least, prevent the germination and growth of corn, beans, etc? But if it were true that pulverization will sometimes cause a failure to germinate by reason of a big splash of water, are we to *every* time risk our seeds by throwing them on lumpy ground? Still, the best argument I can adduce is for them to examine my ground and my crops. If my plan fails to secure as good crops as other plans, then my plan is a wrong one. At present I feel eminently satisfied and am content to be placed with those who laugh *best* because *last*. The weather has been favorable to wheat, but I find the crop is extremely irregular, but the men who use harrows and rollers and strong horses are the men who have the good wheat. Corn is a good stand and the acreage is unprecedentedly large. We have been using lettuce, radishes, turnips and onions two or three weeks—all raised on the open ground. We shall have early peas in three days and early potatoes in ten days. Our fruit seems nearly a total failure, consequent upon the branches being encased in ice three weeks in December. Rye and wheat have been headed out two weeks. Our village is prosperous, the population (3100) increasing 20 to 25 per cent yearly.

J. B.

NEW YORK, Clyde, Wayne Co., May 19th.—The weather up to May 10th was very cold and backward. Snow storms occurred all through April, and a little snow as late as May 2d. Almost every night the thermometer stood below 40° up to May 9th, on which night we had our latest frost. Very warm growing weather began with May 10th. When the tillers of the soil quit work Saturday night, nothing hindered their eyes from long stretches of vision, except the naked forests on the hills; but when Monday night came, the foliage had leaped from every branch, so that the wooded hills had become grand bulwarks of verdure, the swamps jungles impenetrable to the eye. As it were in a day, we find ourselves suddenly hedged with walls of foliage into a little separate world.

The Burlington Hawkeye's late account relating to the sudden changes in central N. Y., whereby a man was sunstruck right at the end of a snow storm because he couldn't get his ulster off quick enough, was somewhat overdrawn. However, after cold weather with snow and frost up to the 11th, the 12th, 13th and 14th were days in which the heat was very severe, the thermometer reaching 98° in the shade every day. Imagine how near it came to a sunstroke to the young barley and oats, just beginning to deck the fields with green, also remembering that we have had no heavy rain storms this spring and the ground is very dry. Who could expect to see the plants stool out on thinly-clad wheat lots in such weather, when the dark-green blades turn yellow. How the fine-wools panted and the fowls of the yard held out their wings and parted their bills! but to-day the welcome rain came in torrents, and all nature smiles.

The Pear, Plum, Cherry, Grape, and rarest and best of all, the Peach, are loaded with blossoms throughout Wayne Co. From present reports and indications, apple orchards will not blossom very abundantly. Wheat in this locality is good, though a small growth in autumn illy fitted it for winter. No spring grain was sown before the 20th ult. Some had not sown a kernel by May 1st. Perhaps there are three pieces of corn planted in all this vicinity now; but few are ready to plant, and some have not struck a furrow for corn ground. Clover is thick on the ground and fine. That sown this spring caught well. Wheat, $1; potatoes, $1; corn, 40c.; butter, 10c.; eggs, 8c.; day's labor, 50 to 75c.

W—X.

FLORIDA, Fort Meade, Polk Co., May 19th.—The farming interests of this part of the country have been kept in the back-ground, owing to the fact that stock-raising has been all the rage. Of late there has been more attention given to agricultural pursuits, which I feel confident will prove very remunerative to those who push ahead in their chosen calling. We have lands here that will equal those of almost any part of the State, if not of the United States. Our seasons are such that we can plant something every month in the year. The principal crops that are grown here are: corn, oats, sugar-cane, peas and sweet potatoes. Stock of every kind do well with us. It is truly a poor man's country; the remark is often made among us that a man coming here poor will never have enough at one time to pay his way out of the country. However, this only a saying, for those who try, will of a certainty have everything that heart can wish. Having twelve months in which to work, with a soil and climate unsurpassed, it would be hard for a man with common industry to fail in having every necessary of life. We need here more rapid transportation to give us direct communication with the outer world.

L. S. M.

WISCONSIN, Pleasant Hill, May 12, 1879.—We have had a refreshing rain just in time to save the wheat and grass from injury. Farmers began to plant corn on the first of the month, and are still at it. There will be a large acreage this year. All crops look well, farmers are beginning to pick up a little and improvements are apparent everywhere. This is a healthy climate, and we have good soil, good farms and good farmers in the main, but not enough of them. I have noticed that those who get discontented and go to Kansas from here, in nine cases out of ten come back again, penniless and satisfied. Fall wheat yields as high as 40 bushels per acre here, corn 60@80 bushels per acre, oats 50 bushels. Prices at present are, for wheat, 85c.; corn, 35c.; oats, 15c.; potatoes, 50c.; day laborers, $1; by the month, $14. A good crop of small fruit is promised. Roads are in fine condition.

J. H. F.

NEW YORK, Pittsford, May 15.—After three weeks' drought, a rain has greatly enlivened vegetation. The crops which have suffered most from the drought are grass and wheat. Both will be light this year. Much wheat was injured by the severe winter, and the drought, since spring opened, has been very injurious. Oats and barley have been well got in, though fully two weeks later than last year. Fruit promises fairly, and even Peaches are in full bloom. This is the off year for Apples, and the crop will not be large. Preparations are being made for an unusually large potato planting, the high price last fall and this spring producing its usual result. Good potato seed is scarce, and much inferior seed will be planted. Herein lies one possible cause of another light potato crop.

W. J. F.

ALABAMA, Gainesville, May 18.—For over 40 years I have been planting Black Millet for feeding milch cows and calves. It is the best feed in this country—better than Pearl Millet. It can be cut three or four times in the spring and summer, and it will continue growing until frost. When cured, just before the seeds ripen, cattle eat it greedily. The seeds are the best food in the world to make hens lay. With regard to Prickly Comfrey, I can't find any animal in this country that will eat it. Geese will eat tobacco; but will run noisily off if you throw them Comfrey. I tried to persuade a cow to test it, but after eating two leaves out of the three I handed her, she indignantly "made for" me and chased me out of the yard and all the other stock therein seemed to get "mad" by sympathy and threatened to tear the place to pieces.

W. M. L.

TEXAS, Caldwell, Burleson Co. May 13.—This is our busy month. Grass in the corn; grass in the cotton; grass on the brain! Oh! what shall the harvest be? More help and better help is the cry now. My corn is tasselling; cotton is forming squares to bloom. My neighbors are cutting wheat; oats are nearly ripe; several are laying by corn. A great many farmers will have green corn in three weeks from the field. Garden corn will be fit for the table in ten days. Peaches and watermelons will be on hand in two weeks. Millions of large, luscious dewberries all over the woods and prairies are ripe now. The grass is just jumping out of the ground. Since the 22d of April we have had rain in superabundance, nearly ruining the cotton.

D. H. H.

MICHIGAN, Dayton, Tuscola Co., May 14.—Fine weather, although very warm—thermometer for three days past has ranged from 85 to 90 degrees above zero. Fruit of all kinds looks well. The prospect is fine for an abundance of all sorts, except of wild raspberries and blackberries, which were killed by fire. From these hundreds of bushels were marketed yearly. Crops of all kinds, on an average, are good. Plowing and planting corn and potatoes are the business of the day.

E. W. G.

MICHIGAN, Adrian, May 21.—Spring, cold and backward. Wheat is looking fairly. Last year our wheat hereabouts yielded from 30 to 40 bushels per acre, but we hardly expect to do quite so well next harvest. Oats are not in good condition owing to the cold weather. Peaches, and indeed all other fruits, will be abundant this year in Michigan. Prices here are: Wheat, $1 00; oats, 29c.; corn, 40c.; butter, 13c.; eggs, 8c.; land from $50 to $100, according to improvements, quality and location.

N. Y., Clinton, May 18.—Thus far this week the mercury has stood at from 85 to 90 degrees in the shade at mid-day, and vegetation is suffering from lack of rain. The ground is so dry and hard that many farmers have been compelled to discontinue plowing sward land, and much of the planting will be delayed in consequence. Winter wheat is suffering, and grass is making but little progress in growth. A diminished dairy product is the result.

L. R.

ALABAMA, New Market, May 19.—Prospects for field and garden crops hereabouts were never better. Fruit is also abundant. I have experimented with many strawberries and find that Wilson's Albany suits my soil and this climate best. It is the most productive, and besides, requires little or no care.

IOWA, McGregor, May 19.—Weather fine here of late. Wheat looks well, though it needs rain badly. Corn planting is not all finished yet.

J. R. J.

MINNESOTA, Fairbault, May 14.—Our wheat has been benefited 25 per cent. by the rains we have had during the past week.

R. B.

The Querist.

ANSWERS TO CORRESPONDENTS.

Orchard-Grass.

C. H. H., Castile, N. Y., asks when and how to save the seed of orchard-grass and other information with regard to it.

ANS.—Orchard-grass cannot be compared with clover in any way. It is a grass that blossoms once in each year, just as timothy does, but two or three weeks earlier. It may be cut with the cradle and bound in sheaves or mown with the scythe and tied in bundles and thrashed with the flail or a thrashing machine, and cleaned by sifting from the straw. As the seed is very light it cannot easily be separated from the chaff. A bushel of the seed in the chaff weighs but 14 pounds. The season for cutting is in June, early or late, as may depend upon the season. When left for seed and ripened, orchard-grass makes rather poor hay, but when cut early, the hay is equal to any and is eagerly eaten by horses and cattle. When cut early and before ripening the seed, a second crop may be had, but not if left to mature seed.

About Corn.

R. F. M., Jackson, Mich., asks 1, how can he tell a sterile corn tassel from a fertile one; 2, how can he know when the seed is in a condition to be fertilized by the pollen; 3, will it answer to fertilize pollen year after year with seed from the same kind of plant; 4, is it advantageous to occasionally or always use seed brought from a distance.

ANS.—1. a sterile corn plant is one that has a tassel but bears no silk; the tassel is the male blossom and the silk is the female; a fertile plant is provided with both organs; otherwise, if growing alone, it could produce no fruit or seed. 2. The silk is ready to receive pollen from the tassel as soon as it protrudes from the husk. 3. Corn may be inbred with advantage and has been grown upon the same farm for 80 years without the introduction of any new seed and without any deterioration, but with conspicuous improvement. 4. In experimenting to improve corn, it is best to keep the seed pure from admixture with any other variety.

Castrating a Colt.

O. A. S., Macon, Mo., asks whether there is much risk in castrating his colt, as he has had no experience in such an operation, and there is no one else at hand to perform it.

ANS.—The operation may be safely performed by any person who has had successful experience with other animals. In making the operation, it is safest to use an instrument called an *ecraseur*, by which the separation of the cord, arteries and veins, is effected by torsion and not by cutting. This tends to prevent loss of blood and to encourage healthful healing. You must be your own judge of your capability for performing the operation, but we should think there is little risk if the wound is made to open to the bottom of the scrotum, so as to permit the pus that will form, to escape with ease, and if the weather is not too warm. It will be safer to prepare the colt by a cooling laxative, such as eight ounces of epsom salts a day or two previously.

"Puts," "Calls" and "Straddles."

A Subscriber, Newville, Ohio, asks whether a named firm in this city, who advertise that they do a peculiar sort of banking business, is trustworthy, and whether their method is founded on a sound basis.

ANS.—The whole system of "puts," "calls" and "straddles" done by the firm is sheer gambling, and anyone who ventures his money in such illegitimate transactions, takes the chances, of course. But the odds are so great against out-of-town operators, it is safe to say that in nine cases out of ten they are sure to lose their investments. We would strongly advise all our friends to stick to their legitimate business and let all such ventures severely alone.

Ventral Hernia in a Horse.

E. L. B., Lamb's Corners, N. Y., has a colt with a bunch, about the size of a duck's egg, on its belly and where it sticks out there is a hole the size of a couple of fingers, and he asks how to treat it.

ANS.—This is a case of ventral hernia or a rupture of the walls of the abdomen, through which the gut escapes. This may be replaced by pressure and working the bowel back through the opening, and it may be retained in its place by means of a pad and a bandage around the body. After the rupture has been existing for some time, the evil is more difficult to cure than when the injury is fresh. It would be best to consult some veterinary surgeon or other competent person as to the probability of cure.

A Weakly Colt.

S. B. P., Berlin, Pa., has a week-old colt which cannot rise without assistance, and he asks what ails it.

ANS.—The colt will probably become stronger as it grows older. In the mean time nothing can be done more than to assist it to rise when necessary. This is not unusual in the case of a colt whose dam has been overworked, previously to foaling.

Miscellaneous.

J. W. L., Smith's Grove, Ky., asks, 1, for a recipe for mixing paints and how to use varnish with them so as to produce a walnut finish on poplar furniture; 2, from what source does red clover draw its ammonia: 3, if an orchard is sown to some crop every year and grass is allowed to feed on the crop, would such treatment injure the trees; 4, is a large beetle called the "cow-bug" that deposits its young deep in the litter of stock, a mere scavenger or does it fertilize the soil.

ANS.—An excellent walnut stain may be made of asphalt varnish thinned down with turpentine. It should be tested on sample pieces before the work is begun, so as to procure the desired shade. After the stain has dried in, it may be rubbed with linseed oil and varnished precisely as walnut wood. 2. Clover is supposed to draw much of its ammonia from the atmosphere. 3. The best way to treat an orchard is to keep the ground fallow, plowing it twice each season. If too much wood is made, the land may be seeded to clover and the clover cut for hay for two or three years. You cannot grow two crops on the same ground at the same time successfully. 4. The larva of the beetle referred to, feeds upon the manure in in which the egg is deposited by the parent; it does nothing to fertilize the soil.

N. J. E., Birmingham, Ala., 1, asks how many grown "red-horse" fish can be shipped alive in a 40-gallon barrel of water over a distance of 65 miles; 2, what kind of screen should be used for the outlet of a fish pond to prevent the escape of young fish 3. Having planted his Blunt's corn in a row, the row flanked by potatoes, three feet away on one side, and by beets the same distance on the other, he asks whether he can compete for premiums.

ANS.—1. Probably 25 moderate-sized fish could be sent in a barrel of water. If air were pumped or blown into the water before the fish were started, it would refresh the fish considerably. 2. A screen for a fish pond, to restrain young fry, should be of galvanized wire net of one-eighth of an inch mesh. 3. For reasons, the corn *must* be planted *within* a plot equal to or *less* than 33 feet square.

B. L. B., Buckville, S. C., asks who is considered the maker of the best pianos and organs; and how do those made by D. F. Beatty compare with others.

ANS.—It would be difficult, if not impossible to answer this question. Many of the pianos and organs now on the market are excellent, and a choice is as much a matter of fancy as of judgment. Of two instruments equally good, it would puzzle the buyer to explain in what particular his selection was the best. Invite the kind offices of an agent to aid you in your selection, and you will perhaps understand what we mean. The Beatty piano and organ are sold at a very low figure; hence their popularity. We do not think them as good as some others that sell at a higher figure.

L. W. S., Chenango Co., N. Y., asks whether Mollie Faucher, of Brooklyn, is still alive, and whether the almost incredible stories told about her, are true.

ANS.—The young woman is still alive, and as healthy as she has been for some years, during which, according to her own account and that of her friends, she has eaten or drank little or nothing. It is claimed by some that under certain conditions she is gifted with clairvoyance; while others scout both her marvelous abstenence from food, and her spiritualistic pretentions. Several medical experts are at loggerheads about her condition, and we do not wish to anticipate their final verdict with regard to the matter, by straightway definitely deciding the question.

C. C. A., Providence, Pa., who says he had already obtained three crops of sprouts from our potato premium, and would have another in a few days, asks, 1, whether coal ashes are good to mix with barnyard manure intended for potatoes, before hauling it out; 2, where can he get some darts for the parlor air-pistol furnished by us as a premium to agents.

ANS.—1. The coal ashes would have no appreciable effect. Coal ashes may change the mechanical condition of the soil—that is all so far as we know. The good effect often attributed to coal ashes may sometimes be due to the *wood* ashes intermixed therewith. 2. From the Pope Mfg. Co., Boston, Mass.

F. D. P., Rome, N. Y., says that for two years his Delaware and Sweetwater grape vines have been stricken with blight, so that the leaves fell and the grapes wouldn't ripen. Dusting with sulphur has had no good effect, and he asks for a preventive.

ANS.—If the injury is caused by mildew, we know of no better remedy than sulphur. Should the vines be similarly affected this season, please send us a leaf and a section of vine.

J. M., Fredonia, N. Y., asks our opinion with regard to the Eureka Mowing Machine.

ANS.—The "Eureka" Mower is a very efficient machine, of which we have had very satisfactory reports from those who have used it. The Company has passed through several crises, but is now organized on a very substantial basis, and the "Eureka" will probably soon be in very general use.

W. H. T., Elmdale, Kansas, and several others, ask whether they can procure back numbers of the RURAL.

ANS.—We are in the habit of printing a considerable number of extra copies every week; but during the past season so heavy have been the orders for back numbers by new subscribers that our store of many issues is entirely exhausted.

H. K., Copper Hill, N. J., asks whether the barb wire fence advertised in the RURAL is a good article, and whether it would be likely to injure stock.

ANS.—The barbed wire fence advertised by the Washburn & Moen Mfg. Co., is a very serviceable, durable fencing, and highly esteemed wherever used. There is no danger of its injuring stock.

G. H., Seneca, Nehama Co., Kan., asks where can he obtain a good root-cutter.

ANS.—Higganum Mfg. Co., Higganum, Conn.; Belcher & Taylor Agl. Co., Chicopee Falls, Mass., and R. H. Allen & Co., New York. Either has excellent root-cutters.

COMMUNICATIONS RECEIVED FOR THE WEEK ENDING SATURDAY, MAY 24.

S. B. P.—C. T.—F. D. C.—L. A. R.—E. S. T.—S. M. L.—G. E.—H. S. C.—G. P.—M. M. W.—J. B.—W. M. L.—S. L. M.—G. D. N.—W. S. M.—H. A. B.—H. A. T.—J. S. B.—R. F. L.—O. P.—W. L. H.—N. R.—Thanks.—L. J.—R. H.—"Wide-awake."—M. R.—J. H. B.—W. N.—W. H. W.—W. J. H.—F. W.—B. O. D.—A. C.—C. A. E.—W. A.—T. M.—R. H.—T. W. I.—L. P.—T. H. G.—R. N.—W. L. H.—F. M. C.

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Grist Mills
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Portable Mills for Farmers, Saw Mill Owners, etc. Price from $80 up. Complete Mill and Sheller $96. A boy can grind and keep in order. Adapted to any kind of suitable power. Complete Flouring and Corn Mill very cheap.
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VICTORIOUS AT
Phila., 1876—Paris, 1878,
25 Years in Use.
GUARANTEED SUPERIOR
To any other Windmill Made.
17 SIZES—1 MAN TO 45 HORSE POW.
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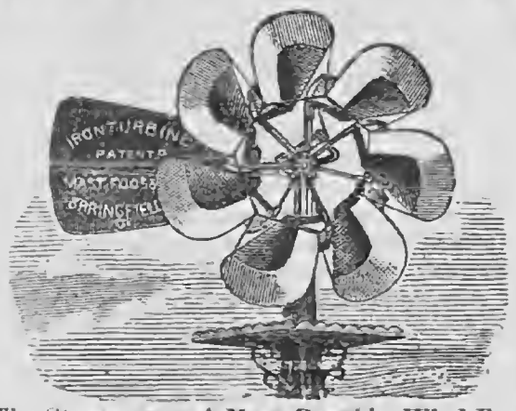
WIND ENGINE



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NICHOLS, SHEPARD & CO.,
Battle Creek, Mich.
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"VIBRATOR"
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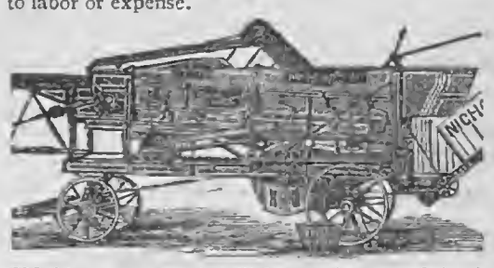
WE are sometimes asked why the prices of our goods are apparently higher than some others of inferior make, and we avail ourselves of this opportunity to place the matter in its true light.

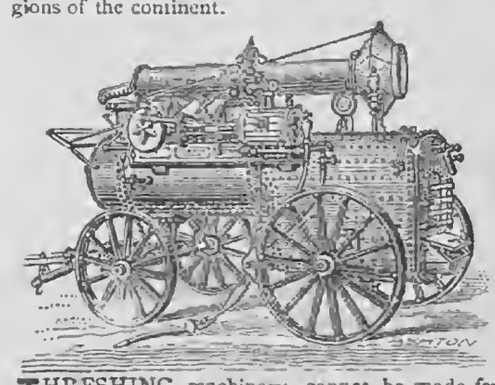
OUR "VIBRATOR" Threshers and Portable Engines embody the best results of our experience and study during our long business career. Whatever would add to their durability, efficiency, and solid excellence, in any particular, has been eagerly seized upon and utilized without regard to labor or expense.



IN this connection it will be pertinent and timely to warn the public against **Cheap** Threshers and **Cheap** Portable Engines. The superiority of our machinery, in all particulars, is now so generally acknowledged that our competitors have no resource but to present the attraction of low prices and long credit. Their goods being inferior, they have to sell them for what they can get. Times are hard; and purchasers, without fully considering the subject, will sometimes allow a lower price to decide them. Manufacturers of "cheap" machines are so set on carrying out competion to its utmost—competition of **Cheapness**, not of Excellence—that they meet "bargain hunters" half way, and furnish them cheerfully with inferior machines at the cheap rate they are asked for.

WE are much mistaken if this is what the public wants or expects of us. Good machinery cannot be made when neither workman nor employer has pride in his occupation; interest and pleasure in the work are both wanting, and both are essential in making good machinery.

OUR mission and business is, to build Threshing Machinery **of the Highest Excellence,** whatever the cost, and, holding firmly to this single purpose, we have added improvement after improvement, until the reputation of our Machines has become co-extensive with the grain-raising regions of the continent.



THRESHING machinery cannot be made for nothing, even with the aid of machinery. Our prices are as low as they ought to be, and, without doubt, as low as they ever will be. Do not be deceived with mere cheapness—**quality always descends faster than price.** Low price, especially in Threshers and Portable Engines, means **Low Quality, with Low Performance and High Repairs.**

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NEW EXCELSIOR LAWN MOWER.

Reduction in Price!
LESS WEIGHT! LIGHTER DRAFT!
It has been adopted and can be seen in PRACTICAL OPERATION in the PUBLIC PARKS of NEW YORK, BROOKLYN, BOSTON, NEW HAVEN, CLEVELAND, CHICAGO, and almost all the Prominent City Parks in the United States and Canadas.
Roller Mowers, 7 Sizes; Side-Wheel Mowers, 6 Sizes; Back-Wheel Mowers, 5 Sizes; Horse Mowers, 4 Sizes.
10-Inch Popular Croquet Mower, $10
Our New Horse Mower is conceded to be the **Lightest** and **Best** Horse Lawn Mower ever made
N. B.—Horse and Hand Lawn Mowers are alike guaranteed in every respect. Address
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Taken in actual Field Trials during the Season of 1877-78.
Grand Object of Art
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2 Gold Medals,
AT
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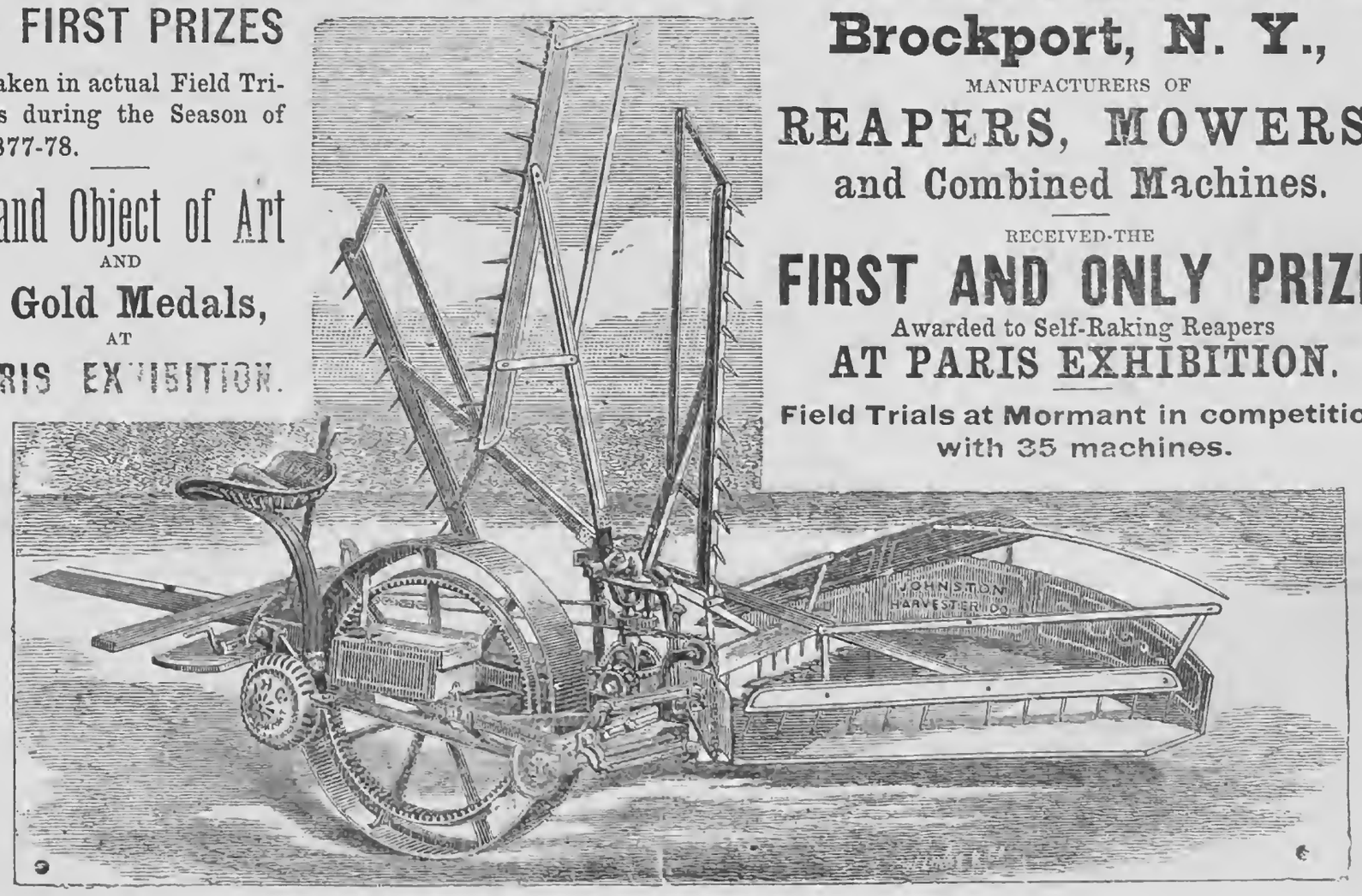

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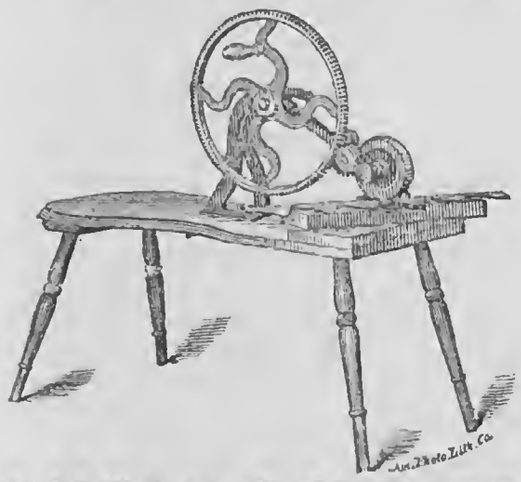

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THE
RURAL NEW-YORKER.
PUBLISHED EVERY SATURDAY.

Address
RURAL PUBLISHING CO.,
78 Duane Street, New York City.

SATURDAY, MAY 31, 1879.

TO EVERY READER.

We respectfully and urgently call the attention of our readers to the *necessity* which exists that they should address their communications to the Editors or the Publishers of the Rural New-Yorker, if they would insure prompt responses. Letters addressed to individuals are often delayed in this office for weeks. Mr. Moore, to whom letters intended for us are still occasionally addressed, has had no connection with this journal for years.

DRINKING AT MEALS.

We were once told by a shrewd old college professor that the most foolish thing a man of intelligence can do—from the worldly point of view—is to "butt his brains out against a popular prejudice." Still we are sometimes dreadfully tempted to pound our cranium against a hurtful notion, and have never been more so than while reading the advice so often insisted on in the papers against drinking water at meal-times. The chief and most plausible argument against this practice is that it dilutes the gastric juices, and so delays digestion. It is not often in a scientific discussion that we can so easily as in this case appeal to the individual consciousness of the uninstructed reader in proof of the fallacious character of the assumption in question. Who that reads this has not had a thousand proofs forced upon his attention that water taken into the stomach remains there but a few seconds, is quickly taken up by the blood vessels, and, if in excess, almost as quickly thrown out of the blood again through the kidneys? Yet there is a small grain of truth in the midst of this gross error. Large draughts of very cold water taken into the stomach with the food, by chilling the stomach during its rapid progress through the walls of its vessels, do arrest the secretion of the digestive fluids until the proper warmth is re-established. Large draughts, also, of tea and coffee, by the astringency of the former and by the nervine action of the theine they both contain—as well, also, as by the peculiar narcotic action of coffee—derange and hinder digestion. Alcoholics, however diluted, have a like effect.

With these limitations, we but declare the consensus of all physiologists when we say that a full response to the calls of thirst, at meal-times as at other times, is wise and proper. And for these reasons: The sense of thirst is given to us not only that we may keep the fluids of the body duly supplied with solvent and diluent material, but also that, through the excretory organs, all soluble offensive substances may be quickly washed away. In the digestive process the demand for water in aid of both these necessary purposes is urgent. In nearly everything we eat there are soluble substances that are in excess, and this excess should be promptly carried out of the system. Perhaps the most abundant among these, usually, is the common salt so freely taken. It is, however, by no means the only one; and they all, unless promptly removed, act as irritants. Their action upon the stomach will in a very short time decrease and soon arrest the flow of the gastric fluids and disturb the muscular action by which the stomach "churns," so to speak, its contents, that every portion may receive its due admixture of digestive material. This disturbance of muscular action is seen at its highest in vomiting, by which the offending substance is ejected summarily, together with all the contents of the organ.

Now, it is best not to over-eat, and it is best to eat simple food, with as little excess of seasoning or of objectionable elements, as possible. But, under all circumstances, it is both wrong and dangerous to give refusal to nature's call for nature's remedy in such cases. Plenty of drink is what is demanded, and a free supply of fluids must be given, if serious consequences are to be avoided.

The consequences of refusal are not all immediate. The irritation from lack of drink, as well as that from improper drinks, becomes in time chronic, passing to inflammation, the result of which is dyspepsia and the symptom of which is pain. Then, for want of diluent fluid by which offending soluble substances are quickly removed, these often assume insoluble forms, and are deposited in various parts of the body, to remain there, constant sources of pain and danger. Gravel and stone in the urinary organs, biliary concretions in the liver, calcareous deposits in the joints and elsewhere, and possibly tubercular deposits in various organs, are, we may say with much certainty, due in some degree, to a foolish fear of water-drinking.

OVER-PRODUCTION.

It is to be regretted that any economists should intimate the belief that there is, or threatens to be, over-production of the fruits of the farm. Already our agricultural interests have too much and too many kinds of opposition. The prevailing low prices of the articles raised by the farmer are not to be accounted for on this ground. Neither is the widespread financial trouble to be attributed to such a cause.

It is readily admitted that local or general markets may easily be over-stocked with various kinds of manufactures, and also with those articles of consumption that are regarded as luxuries; but these bear to the community an entirely different relation from that sustained by the usual products of agriculture. All kinds of articles of commerce have shown a corresponding decline in price. If farmers need much that they cannot buy, the same is true of those engaged in all other occupations. The low prices of farm products are not attributable to the absence of a demand for them, but rather to the want of the money with which to purchase them.

All over this vast land there are now, and probably always will be, districts which need far more meat and grain than they have or can obtain. Taking a broader view, the worn and denuded lands of the Old World are scourged with terrible famines from time to time. China, in a few years, has lost millions of her people from this cause. Syria and India have been—and the latter even now threatens to be again—the scenes of horrible mortality and desolation from the same calamity. Brazil and Morocco have also been greviously affected by famine during the past year.

For the following reasons we believe that no section need to fear over-production of the necessaries of life: The means of transportation are so rapidly multiplying that there are always near or distant communities that may be reached, that are in immediate and urgent need of what the farmer raises. These means of transportation are constantly increasing. The growth of population and the vast extension and multiplication of non-productive callings will prevent any diminution of the demand for the direct and indispensable means of subsistence.

The nature of the products of the soil is such that in many instances they can be converted into other forms that may prove more marketable. If there be more corn than is needed, there may be a scarcity of good beef, butter, mutton, pork, etc., and these can readily be raised from the corn. Again, there is such wonderful adaptation in our soil and climate, that, at least in many parts of our country, there is a vast privilege of choice as to what articles shall be produced. This ought to protect the intelligent farmer from the disappointment of an overstocked market.

Millions of our people do not have a pound of fresh fruit of any kind for a great part of the year. Millions do not have a pound of butter for months. Millions scarcely know the taste of good, rich milk. Millions are living almost entirely without meat. Millions are to-day without a single article produced in the garden. Millions do not taste mutton once a year. Millions have to live nearly or quite without wheaten flour. Millions have not enough corn-bread. Does that look like over-production?

CAREFUL PACKING ALWAYS PAYS.

Coming up Fulton street a few days ago, we noticed, in front of a fruit dealer's store, several boxes of oranges, some of which were put up in the ordinary style, while in others the oranges were wrapped variously, some in red, some in blue, and others in the ordinary white papers, and packed in the order that gave the most pleasing appearance. Being attracted by the novelty, we inquired of the proprietor if the fruit so packed was of a superior quality. "No," was the reply, "it is all alike; but," he added, "that style of packing makes it sell quicker."

Here, we thought, is a lesson for the readers of the Rural, and one by which they can profit. We have previously often called attention to the fact that time spent in properly preparing for market all articles that are offered for sale, whether they are productions of the factory or the farm, is time well spent. Taking fruit for an example, one having a hundred barrels of apples will send all in one lot. The smaller ones give an undertone to all the others. If four or five barrels of the smaller and imperfect ones were selected and kept at home, the balance of the lot would sell for more money than all together would bring, and if those sent were divided into two lots—extra and fair—they would probably sell for still more than if sold in one lot.

Two or three cents a pound more can be readily obtained for butter of the same quality when care is taken to pack it nicely. Appearances may be deceitful in many cases, but they go a great way in fixing the market price of any commodity. Perhaps there is as much difference in price made by "looks" in poultry as in any article sent to market. A walk through Washington Market any day in the week, would prove to the satisfaction of any ordinary observer that the profit or loss of poultry-raising depends not so much on the management of the fowls before as after they are killed.

A case in point occurs to us. We visited, a while ago, a friend in the Connecticut River Valley, whom we will call A. His farm adjoined that of B. A was known as one of the neatest farmers in the neighborhood; B was the reverse. Both raised tobacco. A had sold his for a good price; B could get no offer for his. One day he came to A and said, "My tobacco grew as well as yours; was as well ripened and cured, but it doesn't sell. What is the matter?" "Because it doesn't look well," was the reply. "When stripped, you put it in hanks carelessly and with no regard for appearance. If you will overhaul it and do it up nicely, you can easily find a customer." The advice was followed, and in a few days the crop was satisfactorily sold to a dealer who had previously seen it and declined to purchase.

Everybody knows that neatness and order are everywhere attractive, and should readily infer that they pay well in the end.

THE CROPS.

The latest information from different parts of the country gives assurance of heavy crops everywhere. The recent abundant and widespread rains have removed the alarm of farmers, especially in the West and Northwest, with regard to the injury likely to be caused by a prolonged drought. From all sides confidence is now expressed of an unusually fine harvest. The accounts from Ohio, Indiana, Illinois, Minnesota, Dakota, Iowa, Kansas and Nebraska indicate a large increase in the production of cereals. Throughout the great wheat region the acreage under wheat is considerably larger than last year, owing to the new land taken up and cultivated, and because the dryness of the early part of the season enabled farmers to plow land not tillable in a wet spring. Spring wheat, as a rule, looks well, but the production of this sort is yearly diminishing. The corn crop will be larger this year than ever before, according to present estimates. Here and there fruit has been somewhat injured by late frosts, but on the whole a heavy yield is confidently expected. The reports with regard to barley and oats promise heavy crops. The welcome rains have given the grass a fine start, and the fears entertained early in the season of a short hay crop are now replaced by high hopes of an unusually abundant one. Out West the cultivated or tame grasses are being extensively introduced with very satisfactory results. The outlook for agriculture this year is, on the whole, highly encouraging.

BREVITIES.

How beautiful the world is now!

Cherries are now in the New York market.

The Plymouth Rocks make the best of mothers.

Keep the growing canes of Grape-vines well tied to their stakes or trellises."

Dendrobium nobile is one of the best Orchids and one of the easiest to cultivate.

Those who wish to have a fine display of Zonal Pelargoniums for next fall, should strike cuttings now.

The cunningest little chicks in the world when first hatched out, are the White-crested Polish.

In our wheat fields, or in those of our neighbors, there is no appearance of injury by the Hessian Fly.

Pinch off blackberry and raspberry shoots, the laterals when two feet long, the leaders when three or four feet high.

Young grape-vines that have pushed many buds, should now have all rubbed off but one or at most two of the strongest shoots.

Phlox reptans is now one of our showiest, hardy herbaceous plants. The flowers are of a reddish-purple borne, in corymbs. The plant will grow anywhere.

"Alas!" says Mr. Crozier, "beauty now-a-days counts high—far too high—in the selection of a cow, no matter how much or how little milk she may give." 'Tis true.

Rural Farm Note.—Weather showery and warm. Cherries and Peaches have set well, and there seems scarcely any further danger to be apprehended from frost.

We are pleased to see that some of our contemporaries are cordially supporting our advocacy of children's gardens. Meantime the Rural's Horticultural Club of Youngsters is growing thriftily.

As we state in another column, 70 weevil-eaten peas were planted at the Rural Grounds two weeks ago. One only germinated—a sickly plant. How fond many of us are of stating mere impressions as facts!

"Professor" Henderson of the Rural Farm requests us to state that he finds lamp-black, applied with a woolen cloth, the very best substance for burnishing the brass or silver-plated mountings of harness.

We have had occasion to notice that plants which have been wintered in cellars, pots or greenhouses are often planted too deeply in the open ground. This is often a fatal mistake with such tender plants, the same as it is with fruit trees.

Those who received the lettuce we sent to them in the Free Seed Distribution, are asked to cut it off to the ground as often as the leaves are large enough for table use. The quantity that a small bed will thus supply may surprise those who do so.

X. A. Willard says: "Putrid water is often the only kind by which the cow can slake her thirst, and yet it is productive of disease. We have a law to prevent watering milk, and yet a farmer is not prohibited from permitting his cows to quench their thirst in the most filthy and poisonous water."

Make a Note of This.—Plant, next fall or spring, in one group, the following: The Golden-leaved Spirea, the Purple-leaved Hazel-nut (Corylus Avellana purpurea), the Golden Elder (Sambucus nigra aurea). In another group, plant the variegated Rose of Sharon (Hibiscus Syriacus), the variegated Dogwood (Cornus Mas.), and the variegated Coral Berry (Symphoricarpus vulgaris).

The imported cabbage-worm, Pieris rapæ is rapidly progressing westward. It was observed at Quebec in 1859. Thence it passed southward along the Atlantic coast, and having once gained a good foothold, it commenced its westward march. It seems to take longer strides with each year. It has now reached Iowa and is rapidly advancing into Missouri. The butterfly is white with one or two clearly defined black spots on each fore-wing. Hot water, or one pound of whale-oil soap dissolved in six gallons of water, thrown upon the plants will kill the larvæ.

With Beets we have been most successful in those of our fields the soil of which we have described as a sandy-muck. For field culture, the rows should be three feet apart and the plants thinned out in the row to ten inches at least. For garden culture, the rows need not be over two feet apart. There is now a tendency to plant all crops further apart than in bygone days, and the tendency is no doubt good. In our desire for large yields, overlooking the importance of air and sunlight, as well as the extent of ground which the roots should be permitted to traverse freely, we are too prone to estimate the yield of the crop by the *number* of plants cultivated. The proper cultivation of beets has especially been ignored in this country.

Our plants of Prickly Comfrey, which we cut three times last summer, are growing vigorously now and are truly objects of some general beauty and of great symmetry. They are nearly five feet tall, compact, conical, prickly—very prickly. Prickliness and symmetry, however, do not add much to the value of the plant as fodder. A gentleman wrote us a little while ago that his advertisement of Prickly Comfrey in the Rural did not pay him very well, while the reverse was the case in other agricultural journals which do not claim so large a circulation. Had our friend been interested in the Rural otherwise than as an advertising medium, he would probably never have sent us the advertisement at all. We have several times stated that we could find no animals that cared for it, and this, one would suppose, was enough to have condemned it in the estimation of such of our readers as have not tried it for themselves.

Mr. Barron, of England, instituted a few years ago some experiments to gain, if possible, more light upon the influence which the stock exerts upon the cion and *vice versa*. A certain number of stocks of each kind were allowed to grow without let or hindrance, and the others were grafted with the Blenheim Orange, it being desirable to know what effect the different stocks would have on the same variety of Apple. At the present time, according to the London Chronicle, the results of the experiment are very clearly apparent, the young trees on the French Paradise and Doucin stocks being full of bloom, while there is none on those worked on the Crab, and but very little on those grafted on the English Paradise. It is also worthy of record that the same results were experienced last year. So much for the influence of the stock on the cion. Another singular fact which these experiments have brought out bears upon the opposite question—the influence of the cion upon the stock, and it is this, that during the winter of 1877-8 several of the unworked French Paradise stocks died; and during the past winter the remainder followed suit; thus proving (1) that in a state of Nature the French Paradise is a short-lived tree; yet (2) when grafted with another variety it lives for years—in fact, for an indefinite period.

Literary Miscellany.

LINES.—TO THE FIRST FLY OF 1879.

DANCE on my nose with your tickling feet,
Blue-bottle fly!
Sing in my ears with your buzz to greet
Me, as I lie.
You will seek me out in my dark retreat,
With an eager zeal that no screen can beat,
And I try to slap you clear into the sweet,
Sweet bye and bye.

I haven't seen you since seventy-eight,
Little house fly;
And I see you now with the bitterest hate
You can defy.
Oh, how I hate you, nobody knows,
Author of half of my summer woes;
Oh, how I prayed that you might be froze,
Villainous fly!

All through the winter you did not freeze,
Not much, Mary Ann.
Now all the summer you'll do as you please.
That is your plan.
When in the warm afternoons we would sleep,
Near us your wakefulest vigils you'll keep,
Precious is sleeping, but waking is cheap.
Sleep, man, if you can.

Oh, how I wish that my two broad hands,
Spread left and right,
Stretched from the poles to Equator's bands,
Giants of might:
Some summer day in my wrath I would rise,
Sweeping all space with my hands of size,
And mash all the uncounted millions of flies
Clear out of sight.

Vain are my wishes, Oh, little house fly!
You're hard to mash;
Strong men may swear and women may cry,
*Teething their gnash;
But into the house your friends you'll lug:
You'll bathe your feet in the sirup jug,
And your cares you'll drown in the baby's mug,
Cheeky and brash.

Still, precious lessons, dear little house fly,
You teach to me.
Hated or loved, you tell me that I
Happy may be.
Why should I care, when I tickle a nose,
Whether its owner's conduct shows
That he likes it or hates it, just so it goes
Pleasant to me.—[*Hawkeye.*

* This should read "Gnashing their teeth," but a little poetic license was necessary to bring it in the rhyme.

AN UGLY GIRL.

(Continued from page 334.)

CHAPTER XIX.

COULD IT BE TRUE?

THE abruptness of Mr. Dunforth's inquiry was not so startling to Noel as the words in which it was couched. At one and the same time he was surprised, displeased, and penetrated with a sharp pang of suspicion.

Who and what was Hillian Gray? The answer to that seemed simple enough. She was an orphan, who through her relationship to Mrs. Hurst, the heiress's duenna, had obtained the post of companion to Miss Carlsforde; and, in her conversations with Noel, she had referred once or twice to the quiet life spent at the country house in which the late lord had immured the daughter, whose ugliness he could not endure. She had also spoken of the sorrowful weeks that followed their hasty summons to the Park; but it was also true that she had never lifted the veil from her earlier years. She was an orphan, and Mrs. Hurst was the only relative she possessed: this was all that Noel knew concerning her. Yet another had recognized her and boasted that the present was not their first *rencontre*. Why did it pain him so much to be told this? Why did he feel that it would have annoyed him less to hear her name on any other lips than those of Clement Dunforth?

Where could they have met. Clement was a Londoner, who rarely quitted the metropolis. Hillian Gray—as long, at all events, as she had held her present situation—had dwelt in the greatest seclusion. There was something so perplexing in the affair, that Noel could not resist putting in a few questions in his turn.

"I suppose my sister has told you what position Miss Gray occupies here? Are you sure that you have seen her before?"

"Quite sure; hers is one of those faces not easily forgotten," was the emphatic reply.

"But where have you met?"

"In town," said Clement, curtly.

"Impossible! Miss Carlsforde resided till lately in a village in Devonshire, and Hillian Gray was her constant companion."

"Possibly. But it is two years since I saw the young lady. You seem to be so completely in her confidence, that I wonder she has not spoken to you of a certain time when she most decidedly was *not* residing at the obscure village you mention."

Noel felt embarrassed by the disagreeable significance with which this was said, but his annoyance made him answer with promptitude that he was not in Miss Gray's confidence at all, and therefore he saw nothing surprising in her silence concerning her own affairs.

"If you are so well acquainted with her as you profess to be," he added, "why did you question me?"

Clement smiled, and seemed quite amused by the irritable tone Noel was taking.

"You are laboring under a mistake. I have not boasted of any acquaintance with Miss Gray; I merely told you that I recognized the young lady again, and seeing her here—the last place where I should have dreamed of encountering her—made me naturally feel curious to learn by what name she is known to you."

By what name! Those words seemed to imply that Hillian had stooped to a deception, and it was with darkening brow that Lord Carlsforde commented upon them.

"That was rather an equivocal speech, Mr. Dunforth, and as Miss Gray holds the post of companion to my kinswoman, I think I am justified in asking you to explain it."

"I know nothing to Miss Gray's discredit," answered Clement, quickly, "except——"

And then he made so long a pause that Noel's impatience became intolerable.

"For Heaven's sake continue. But no! I will hear no more! I could stake my life that Hillian Gray is as good and pure as she appears. Why should I pry into any sorrow or trouble she wishes to keep concealed?"

"I beg your pardon; I thought your anxiety to hear the little I had to tell was prompted by no personal feelings, but consideration for Miss Carlsforde."

Noel felt the blood rush into his face, for Clement Dunforth spoke with a sneer and a significant glance that was not pleasant.

"Both feelings have weight with me," he frankly replied. "I lie under great obligations to Miss Gray, and remembering this, I repeat that I would rather hear no more; unless you, as an honorable man, feel that there is aught which I, as Miss Carlsforde's friend and kinsman, ought to know."

Clement shrugged his shoulders.

"How am I to answer this? It was only on two occasions that I saw Miss Gray, till I arrived here yesterday; once in a lawyer's office, where I might not have noticed her—for I was only there to deliver a message—if she had not been weeping excessively, and begging some boon with clasped hands from the head of the firm; the other time—don't be shocked—was near St. Giles's, and Miss Smith, as she then called herself, was in the hands of the police."

"Great Heavens! on what pretext?"

"I really can't say. I heard something about a stolen chain—a gold one, with a diamond cross appended; but such cases are so common in the streets of London, and a crowd so soon collects, that I did not stay to hear more. Of course the little girl may have been innocent; but you cannot feel surprised, after this, that I was considerably startled on finding her here, and under another name."

He went away when he had whispered the last few words, leaving Noel alternately hot and cold with dismay. Hillian, the gentle, right-minded Hillian, whom he had been inclined to regard as a pattern of women, a *thief!* Incredible! It was—it must be a case of mistaken identity. He would himself tell her of the young lawyer's foolish mistake, and they would have a hearty laugh over it together.

He was eager for an opportunity of doing this; but Jephson stubbornly refused to let him have any more visitors, alleging, with truth, that the long conference with Mr. Dunforth had left him with all those feverish and restless symptoms Dr. Monson was endeavoring to allay. Baffled by his attendant's firmness, and his own helpless condition, Noel feigned to submit, and presently contrived to obtain one concession. Jephson consented to set his door ostensibly ajar, that the room might be cooler; he did not guess that his charge's actual reason for asking this was that he might be able to hear the light foot of Hillian pass by, when she came up stairs to make a few changes in her simple toilet, before the bell rang for dinner.

Fortune favored his wishes. Jephson, deceived by his silence and closed eyes into the belief that he was sleeping, went off guard for ten minutes to enjoy a whiff of tobacco in his pantry, and had scarcely disappeared when the step for which Noel listened drew near.

He raised himself on his elbow, and his beseeching "Miss Gray pray come here!" was answered by her appearance at the door.

"Don't ask me to come further," she said, with a pensive smile, as she flung him a lovely little bunch of autumn flowers. "If you had heard Jephson's tirade on the mischief our thoughtless chattering has done your lordship, you would not wonder that we tremble to approach you again."

"Jephson is an old idiot, and makes me worse by penning me up here," was the vehement reply. "My own thoughts only harass and excite me, into forgetfulness of them."

"If you think so—if I might read aloud——"

"No—no, I want to converse with you. Remember that you are the only person in the house with whom I can hold any rational conversation."

"True; that accounts for what you said just now." Hillian replied, the glow fading from her cheek; "but Dr. Monson forbids——"

He would not let her finish.

"Dr. Monson does not know how terrible it is to lie here brooding over circumstances which worry me by my inability to find an explanation for them; unless, indeed, you—yes, you—consent to help me."

Hillian gazed at him uneasily, as if his agitated manner and strange expression inclined her to fancy that he was light-headed, and she came and stood at the foot of the bed.

"My dear Lord Carlsforde," she said, soothingly "you are to blame to worry yourself in this way respecting your sister's future. Mr. Dunforth cannot refuse to wait for your decision till you are quite recovered; until then, pray try to dismiss the subject from your mind. May I give Irene a hint that your are really not well enough to discuss it yet awhile?"

Then she imagined that it was of Irene he was thinking. He did not stay to undeceive her; for Jephson might return at any moment, and it would be terribly exasperating to let her leave him with his doubts unsolved.

"You have not told me what you think of Mr. Dunforth? By-the-way, this is not the first time you and he have met?"

Hillian opened her eyes widely.

"What makes you say this? Mr. Dunforth is a stranger to me—quite a stranger."

"You are sure of it?" demanded Noel. "And yet he spoke of recognizing you."

Hillian recoiled, and grew rosy red; then her face as suddenly blanched, and her voice was tremulous, as she faltered:

"No, no—impossible! You would not speak in this way, if you knew; but what did he say concerning me?"

"Could he tell me anything which you would not like me to hear?" asked Noel, in tones as uncertain, as troubled as her own.

The silence that followed made his heart sink. Was Dunforth right? and were there mysteries in this girl's life that savored of degradation and shame? He lay back on his pillows, breathing heavily, and afraid to ask more.

"Will you kindly answer my question, Lord Carlsforde?" she said, presently; and then Noel remembered that he had no right to catechise her—that it was dishonorable to attempt to make her criminate herself. Whatever she might have done, to him she had been so kind, so attentive, that the line of conduct Clement Dunforth's revelations had tempted him to pursue was inexcusable.

"I beg your pardon, Miss Gray; I am selfishly forgetting that I—I am detaining you. Did you ask what Mr. Dunforth told me? It was this: he said that he believed he had seen you twice in London about two years since."

Hillian's perturbed face was almost sufficient reply.

"I can neither recall his features nor his name," she said, in tones so low, that her auditor could barely distinguish them.

"Probably not; as he says they were chance meetings. Shall I tell you where he saw you?"

But Hillian extended her hands with an imploring cry.

"No, no; let me forget the miserable weakness—the folly which I have never ceased to repent? I hoped that no one—no one whose respect I prize—would ever know, ever hear——"

She broke down in sobs, and fled the room.

CHAPTER XX.

WITH IRENE.

WHEN Jephson came back, he found Lord Carlsforde lying in much the same position as he had left him, and did not notice that his face was pressed into the pillow, or his hands tightly clenched, and his whole frame frequently convulsed with emotion. How could he, ignorant of what had happened during his absence, guess that Noel—when, from Hillian's half-made confession, he learned of her unworthiness—discovered at one and the same moment that she was so very dear to him, that it was agony to be forced to despise her? She was so sweet, so gentle, she so completely realized in all but beauty his ideal of woman, that insensibly she had stolen into his affections; and every moment of her absence had been employed in recalling what she had said, or how she had looked, and counting the hours that must elapse before he would again behold her—in fact, he could not hide from himself that he loved her, but with so quiet, so equable an affection, that he had not guessed its existence till the miserable hour in which he learned that Hillian was not what she seemed.

Then he became furiously angry with himself for having yielded to such weakness. What excuse had he—penniless, and encumbered with Mrs. Estcourt and her children—to waste his time in a romantic fancy for a young girl whom he had never seen till he came to Carlsforde? Did he not deserve all the vexation and disappointment it was entailing upon him?

"Let me be thankful," he told himself, with quivering lips, "heartily thankful that Hillian Gray is not all my imagination painted her. Now that I am disenchanted, I shall soon contrive to forget that she was very dear to me. But, if I had remained in ignorance of the truth, what might not have ensued? At some unguarded moment I should have confessed my love—I, who must not, dare not, think of marrying till my father's second wife and her little ones are provided for. It would have been madness to try to win the heart of a young creature to whom I had nothing but a title to offer!"

But presently Noel, growing more composed, came under the dominion of softer feelings. Perhaps he was judging Hillian Gray too harshly. She had been powerfully affected by the allusion to those events of which the particulars were known only to herself; but, in her incoherent exclamations, the word "Guilt" had certainly had no part. She had declaimed against her own conduct, and expressed her grief that it should have become known; but was it at all likely that a girl, who in the daily intercourse of the last few weeks had invariably proved both right-minded and refined, would allude to a crime, a positive crime, as a mere folly?

"I will wait till I know more," he decided. "It would be a base return for her ministrations, if I were the first to look coldly upon her for some deed committed in the past, and bitterly repented. Clement Dunforth may have done me a good turn in opening my eyes to the truth, but he shall not lower her in my estimation or that of others. His tongue shall not run as glibly to strangers as it did to me."

But, as he resolved to sternly give Irene's lover warning of this, his brows contracted, for could he not divine how it would be received? Would not the astute, self-possessed lawyer demand to know in what way he had satisfied his conscience that it was right to permit a person like Hillian to continue to hold a position of trust in Miss Carlsforde's household? And how could he answer?

"Hillian herself must tell me all, and enable me to defend her," he exclaimed; and, although the next moment found him doggedly declaring that it was no business of his, he soon returned to his former determination.

He would seek to win her confidence, or wait patiently till she volunteered an explanation; and this he was the more inclined to think she would do, because he felt sure she must have detected in his looks and words how much it had cost him to hear a slur cast upon her.

By dint of a great deal of coaxing, Irene on the morrow procured permission from Dr. Monson to visit her brother; the grave, but kindly Doctor, who was half ashamed of yielding against his better judgment, first extorting a promise that she would not touch upon any exciting topics.

Irene thought she was strictly keeping her pledge when the first question she put to Noel was, what did he think of his determined opposition to to the match? a piece of ill-nature for which, by-the-bye, she had scarcely forgiven him.

"You foolish child! Was I suffered to have a voice in the affair? Was it not arranged before I had an idea that it was in contemplation?"

"Oh! don't go over that old grievance again," she entreated. "Have it out with ma, and let you and I stick to the pleasanter things."

"Does Mr. Dunforth approve of your talking in this inelegant style?" her brother demanded.

"Why, that's worse and worse!" objected Irene. "Please to leave my errors of language alone, and answer what I asked. What do you think of Clement?"

"He appears to be a very shrewd, prudent young man, and——"

But Noel was stopped before he could say more.

"Oh! don't call him that! Shrewd men are always prying and snappish, and sensible young men part their hair the wrong side, wear shabby coats, sew on their own buttons, and develop into fussy old bachelors! I hate prudent people! and sensible ones are my abhorence! If you cannot give Clement better praise than that, why, don't praise him at all."

"Then I will be silent till I know him more intimately," answered Noel. "But I suppose I may tell you that I was very glad to find him so reasonable on the subject of your marriage."

"Oh, yes; he is reasonable enough," was the careless reply. "He says that if you cannot settle anything on me we must contrive to do without it. Mrs. Hurst is delighted with him."

"And Miss Gray—is she equally pleased with him?" Noel was tempted to inquire.

Irene's rosy face clouded.

"Miss Gray can be very disagreeable when she chooses. Ay! you may look; but I do call it downright disagreeable of her to tell me that she was not impressed in Mr. Dunforth's favor. She knew I had set my heart upon her liking him."

"Would you have had Miss Gray deceive you?"

"Need she have gone and prejudiced herself against the very person I was so anxious for her to admire?" retorted Irene, with a pout. "You see, Noel, she knows almost everything—in the way of housekeeping, I mean—and as I am determined never to consult ma, as it would give her an excuse for coming and interfering, which she never, never shall, I thought it would be so nice to ask Miss Gray to come and stop with me till I can manage for myself; and how can I, if she refuses to be friendly with him?"

"I suppose Miss Gray is polite to Mr. Dunforth," Noel observed.

"Was it polite to treat him so distantly that he bit his lips and whispered something which I daresay it was as well I didn't hear? It's all the more annoying, because I feel myself compelled to resent her treatment to Clement, and yet I hate sulking. Why can't people like each other when I wish them to?"

"I'm afraid Mr. Dunforth must have given Miss Gray some cause for treating him with a coldness so much at variance with her usual manner," said Noel sharply. "If he thinks that what has happened gives him license to behave to her with impertinence, I shall soon teach him his mistake."

"What nonsense are you talking now?" cried the vexed Irene. "Every one seems at cross-purposes. I will fetch Clement, for he can defend himself against your unjust remarks better than I can. I'm sure he did his utmost to conciliate Miss Gray, as well as her aunt. Is he to be blamed because she would sit aloof and say nothing?"

Noel mused.

Did Hillian fear the revelations it was in Clement Dunforth's power to make, that she was so anxious to avoid him?

The baffled thinker felt that there was but one course open to him, and that was to let the matter rest.

He apologized for his pettishness to his sister, who was easily induced to forgive it, and soon rattled on as before.

"She was going to write to ma that day and ask her to let the dressmakers commence her *trousseau*. Where was the money to come from? Oh, it must be managed somehow, for whoever heard of a girl being married without one. The wedding-robes must wait till she had made up her mind which would be the most becoming."

"But my dear Irene, there is time enough for thinking of these things——"

"Time enough, when Matilda Jenkins's first cousin's bride was obliged to defer her nuptials for a week because the *trousseau* was not ready! Only think how unlucky and disappointing."

"But has not Mr. Dunforth explained to you that he is not in a position to marry at present."

Irene looked her dismay.

"No—no! he has not said anything, except that he supposes we must be patient till you are sufficiently recovered to give me away. I suppose it wouldn't look well for you to go to church on crutches. But, don't try and infect him with any of your old-fashioned notions about waiting; pray don't, Noel! Think how frightfully depressing it would be for me to have to go back from Carlsforde to mamma. Here I am treated as a lady, waited upon by the servants, permitted to do as I please; there I am taken to task for all the servant's shortcomings, scolded for the children's faults as well as my own, and mamma is never pleased with anything I do. Oh! Noel, I'd rather die than go back to the old life!"

"But my dear sister, a hasty marriage might bring worse sorrows in its train."

"It couldn't—it couldn't," Irene persisted. "I should at least be mistress in my own home."

"But Clement Dunforth might prove a very tyrannical master; do you forget that?"

"I hate such suppositions?" was the pettish reply. "He would not beat me; he is too much of

a gentleman; nor nag me as mamma does, for he is too manly; and the long and short of it is," Irene added, with a very passionate stamp of her foot, "I am determined not to be put out of conceit of my engagement. If Clement Dunforth had not loved me—really loved me, would he have chosen an ill-dressed, half-educated girl like myself for his wife?"

Noel was silenced, if not convinced, for Irene's argument sounded unanswerable, backed, as it was, by Clement Dunforth's assurance that he was aware of her poverty when he wooed her. He could only suppose that the distrust he still felt it impossible to overcome, was engendered by his own irritable nerves; and, drawing his half-sister to him, he kissed her tenderly, and uttered such a fervent prayer for her happiness, that Irene wept while she hung about his neck, and relieved her warm heart by making all kinds of extravagant promises.

"I shall never forget you, my own dear brother, never be ungrateful to you. As soon as we are rich enough, Clement shall help you to get rich too; and there shall always be a home for you at our house; and I shall go to mamma's once every week to put your clothes in order, and, if you very much wish it, I'll take one of the children off ma's hands."

She was affectionately kissed, and assured that her brother had the greatest faith in the excellence of her intentions, but Noel could say no more. He could not but sympathize with the poor girl, in her unwillingness to return to a life to which Mrs. Estcourt never did anything to reconcile her; yet neither could he look forward to her marriage with any genuine satisfaction. Why had not Clement Dunforth explained to her that it was impossible for it to take place at present? He had been succinct enough with her brother, yet he was permitting her to believe that it only awaited Noel's recovery.

"Perhaps he thinks to break the truth to her by degrees," was the only conclusion at which the anxious invalid could arrive, and, bidding her go and bathe her eyes before her lover's arrival, he was dismissing her, when she surprised him by saying:

"Yes, I'll go and wash away these tears. Has crying reddened my nose? But Clem *is* here already; he breakfasted with us by Mrs. Hurst's invitation. He is at leisure to-day, so we are going to picnic on the summit of yonder hill, under the clump of fir-trees that crown it. I wish you could go with us."

"Mr. Dunforth appears to be making himself quite at home here," Noel exclaimed.

"He does not come without being invited," retorted Irene. "I told you that Mrs. Hurst is charmed with him. What ungracious speeches you do make!"

Noel, ashamed of his ill-humor, once more begged her pardon, and bade her go and enjoy herself. She was nothing loth to obey, but returned ere she reached the door to say, in a cautious whisper:

"Brother mine, do you think Miss Gray is quite truthful?"

"Has Dunforth been poisoning your mind against her already?" he asked, angrily.

"Clem? Why he hasn't mentioned her name to me! It's very odd that you will persist in turning everything to his disadvantage."

"Then, why do you malign Miss Gray?" she was sternly asked.

"Oh, brother! I declare you are growing quite ill-tempered!" Irene complained. "I simply asked if you consider her quite truthful. If she is, why did she speak in such slighting tones of Clem, and yet walk in the shrubbery with him for an hour before breakfast, and let him take her hand? I'll not be sure that he didn't kiss it before they separated."

And then Irene ran away leaving her brother to solve this new riddle, if he could.—To be continued.

COUNTRY SCHOOL-HOUSES AND GROUNDS.

Professor Beal's description of these (Feb. 4) shows them unattractive, uncomfortable and forlorn, as they usually are. In the voluminous report of the French Commission appointed to visit the Philadelphia Exposition and to render a description of American schools and school procedures, M. Buisson speaks with apparent surprise of the *loneliness* of the American school-house. In France, Belgium, Germany, etc., the teacher lives either in the same building or within the same inclosure, and is responsible for the "keeping" of the whole; and this "keeping" is held to include not only external as well as internal tidiness, but some degree of ornamentation; and there is always a garden attached, in which it is becoming more and more the practice to give out-door lessons in plant culture.

This sort of arrangement, however desirable, seems beyond our reach, while teaching is, as at present, a merely temporary occupation—a second stepping-stone toward something else, the first being "*going* to school." But as the population increases, and as the necessity for general and adequate education becomes more and more pressing, the office of the teacher who builds and strengthens those pillars of the republic—"men, high-souled men"—will rise in estimation, and will certainly stand as high as that of the professions of law or physic which may be called in comparison destructive. Then, a teacher who finds congenial occupation in guiding young minds and hearts, will decide to be a teacher *for life*, and will feel safe in making the decision, because then, if old age or disability puts a stop to his work, he will have pensioned support here, as in the older nations of Europe.

Another point of school economy, as to which M. Buisson's report shows equal surprise, is the absence of exercises in what the French call *dictee*, that is in writing (spelling) dictated *sentences* in which the words show their meanings and the manner of use, changes of endings, to suit grammatical concords, and changes of position to best present the sense. Thus the rhetorical and grammatical dispositions of the living words are rendered familiar by the only means of doing so—that is, by *practice*—and the art of punctuation and the correct use of capitals, etc., are similarly familiarized. Besides these advantages, the main object—that of acquiring expertness and precision in spelling—is thereby vastly promoted. What is with us generally the daily toil—the dull, dreary, senseless and stupifying reiteration of the letter-names of columns of dead, isolated, contextless words in the spelling books—becomes not only a comparatively brief, but a lively, stimulating and cheerful exercise—pleasant because it exercises in turn all the faculties of the little learner; all but that of "making a noise." Whole months of time are saved for the acquisition of really useful, mind-expanding and hand-employing practical knowledge, such as cannot be reached at all in our old grandame way of teaching.

The ingenious French have made as great an improvement in the mode of dictation as in the dictation itself. By an ingenious device, which will be described in another paper, they present the pronunciation of the words to the eye without at the same time showing the spelling. Neither do they show any mis-spellings, to confuse the learner by presenting spurious images to his "inner vision" instead of the true forms. Thus all the disadvantages, the noise, the faulty rendering, the waste of time that attends oral dictation are avoided, and the teacher is left free to attend to other classes while the spellers are quietly busy. W.

Purifying Water.—Different waters, like different diseases, require different treatment to purify them; and all waters, no matter how impure they may be, can be made quite pure for drinking or other domestic purposes without distillation, providing the proper materials be used, and sufficient time allowed the reagents to act; but in many samples of water I have found distillation to be the cheapest and quickest mode of purifying them. All filters in use that I am aware of only purify the water from solid impurities mechanically suspended in the water. The following is a description of a filter that I have often used, which purifies foul water from organic impurities as well as from suspended solids. Take any suitable vessel with a perforated false bottom, and cover it with a layer of animal charcoal; on the top of that spread a layer of iron filings, borings or turnings, the finer the better, mixed with charcoal dust; on the top of the filings spread a layer of fine clean siliceous sand, and you will have a perfect filter. Allow the foul water to filter slowly through the above filter, and you will produce a remarkably pure drinking water. Before placing the iron filings in the filter they must be well washed in a hot solution of soda or potash, to remove oil and other impurities, then rinse them with clean water; the filings should be mixed with an equal measure of fine charcoal. If the water is very foul it must be allowed to filter very slowly. The deeper the bed of iron filings is the quicker they will act.

The above is a simple, cheap, and very efficient filter, superior to any other that I know of, and it has the advantage of being free to every one who chooses to make it. I have not taken out a patent for it, and I am not aware of any other person having done so; I think I am the only person who has ever used it. A very good test for the efficiency of any filter is to add some urine to the water before passing it through the filter, and then testing the filtered water to see if the urine passes through unchanged; if it does, then the filter only acts mechanically. The addition of permanganates to water will not destroy Bacteria, but the addition of hydrochloric acid will. If you have to purify water containing Bacteria, you must first add hydrochloric acid to the water till it is slightly acid to test paper; that will destroy the whole of the animalculæ; then add sufficient lime-water to neutralize the acid, then precipitate the lime with oxalate of ammonia, and filter through the iron filter described above. The foulest ditch water, treated as above, is rendered quite pure and fit for drinking. I may mention that I have made it a practice during the last twenty-seven years to boil all my drinking water. It is the safest plan for a man moving from place to place. You cannot always carry a filter and chemicals about with you, but you can always manage to get boiled water; people talk about it being vapid and tasteless, but I am used to it, and like it.—*English Mechanic.*

AN ORIENTAL NOVELETTE.

Under the reign of the first Caliph, there was a merchant in Bagdad equally rich and avaricious. One day he had bargained with a porter to carry home for him a large basket of porcelain vases for ten paras. As they went along he said to the man:

"My friend, you are young and I am old; you can earn plenty. Strike off, I beseech you, a para from your hire."

"Willingly," replied the porter.

This request was repeated again and again, until, when they reached the house, the porter had only a single para to receive. As they went up stairs the merchant said:

"If you will resign the last para I will give you three pieces of advice."

"Be it so," said the porter.

"Well then," said the merchant, "if any one tells you it is better to be fasting than feasting, do not believe him. If any one tells you it is better to be poor than rich, do not believe him. If any one tells you it is better to walk than to ride, don't you believe him."

"My good sir," replied the astonished porter, "I knew these things before; but if you will listen to me I will give you such advice as you never heard."

The merchant turned round, and the porter throwing the basket down the staircase, said:

"If any one tells you that one of your vases is unbroken, do not believe him."

Before the merchant could reply the porter made his escape, thus punishing his employer for his miserly greediness.

The man who "stuck to his colors" was a painter who sat down in one of his paint pots.

Shakespeare probably had the present style of female hair-dressing in mind when he said, "Hang out your banggers."

A Nevada tramp applied to a doctor for some work, and the doctor asked him what he could do. "Well," said he, "I could dig graves."

RECENT LITERATURE.

The Lady of the Aroostook. By W. D. Howells. 12mo, cloth, $2. Boston: Houghton, Osgood & Co.

One who reads a book merely for its startling incidents, extraordinary characters or curiously-contrived plot will be likely to turn these pages hastily and conclude there is little in them. On the other hand, those who delight in seeing pen portraitures of common lives drawn with a master hand; to read recorded conversations with a feeling that the parties thereto, under the circumstances, could have said nothing else; that describes people so fully and clearly we can hardly feel they are creatures of the imagination, will read it carefully and wonderingly reverence the genius that created it. The story is a simple one of a New England girl who, going to meet friends in Italy took passage on a ship, where three young men were the other passengers. The characters are not overdrawn nor the situations improbable. It shows the difference in the situations, manners and morals of the old and new worlds, and that intimate acquaintance may exist between young people of different sexes without resulting in injury to themselves or society. There are hundreds of New England girls who, under the same circumstances, would be as unsuspectingly innocent, and as self-protecting by virtue of true womanhood as was Lydia Blood, and of young gentlemen whose true manhood would insure to any lady the same delicate attention she received from Stanford and Dunham. We are sorry to say that Hicks, poor fellow, is not without his counterpart. In New England, as elsewhere, are sometimes found men, genial, kind, whole souled, who want to be gentlemen, but of whom the demon Alcohol has possession, and for whom there is scarcely a hope left.

We have seldom read a story we more thoroughly enjoyed, and know its other readers will join us in thanks to Mr. Howell for this his last and best contribution.

Practical Instruction in Animal Magnetism. By J. P. F. Dezulé. Revised Edition. 12mo, pp. 524. Cloth, $2. New York. S. R. Wells & Co.

In the early part of the present century the scientific world was much interested in a subject then new and known variously as Animal Magnetism, Mesmerism, Vital Magnetism. It was found that certain persons had the power of relieving pain and curing diseases by making passes with the hands over the parts affected, and not only this, but patients could be put into a sleep during which they were subject to the severest surgical operations without their consciousness.

The discovery of anæsthetics and their introduction to general use seems to have checked investigation in Animal Magnetism, but within a few years past more attention has been paid to it, and it now seems likely to receive the attention it deserves. The republication of the book above named gives an opportunity for those who choose to learn much of this neglected subject. In it the author considers the principles of Magnetism and gives the processes employed in magnetising, treats of Somnambulism, or Clairvoyance; of the application of magnetism for healing purposes, and gives many cases of remarkable cures. The results of the examination of the subject by eminent scientists are such as to leave no doubt as to the value of mesmerism properly applied to many of the conditions of human life.

MAGAZINES.

Contents of St. Nicholas for June.—Frontispiece, "Summer has Come;" A Second Trial, Sarah Winter Kellogg; Mignonette, Poem, Susan Coolidge, (Illustration by Helena De Kay); Bossy Ananias, Louise Seymour Houghton (Illustration by Mrs. J. S. S. Daniell; Chub and Hoppergrass, Charles Stuart Pratt (Five Illustrations by the author); Anna Letitia Barbauld, Kate Brownice Horton (Illustration—Portrait of Mrs. Barbauld); A Jolly Fellowship, Chaps. XV, XVI, Frank R. Stockton (Three Illustrations by James E. Kelly); How the Lambkins went South, Mrs. E. T. Corbett (Illustration by L. Hopkins); Longitude Naught, W. L. Sheppard (Seven Illustrations by the author); The Fairies Gift, Verses, Palmer Cox (Illustration by the author); A Curious Box of Books, H. D. M.; The Schnitzen, M. A. Edwards (Illustration by James E. Kelly); The Shower, Poem, Anna Boynton Averill; A Puzzling Picture, C. B. (Illustration by J. F. Runge); Robin Goodfellow and his Friend Bluetree, Howard Pyle (Three Illustrations by the author); Eyebright, Chapter VI, Susan Coolidge (Illustration by Frederick Dellman); The Boy and the Brook, Verses, L. C. R. (Illustration by J. A. Mitchell); A Fish that Catches Fish for its Master, John Lewees (Three Illustrations by Daniel C. Beard); The Royal Bonbon, Nora Perry (Illustration by Walter Shirlaw); Two Little Travelers, Louisa M. Alcott; How a Comet Struck the Earth, Edward C. Kemble (Two Illustrations—one by George Bell, one by Howard Pyle; For Very Little Folk—the Little Mothers, J. L. (Seven Illustrations by Miss Mary A Lathbury); Jack-in-the-Pulpit (Illustrated); The Letter-Box (Illustration—"Just You Dare!"—by a Young Contributor); The Riddle-Box (Two Illustrations).

A Peripatetic Professor.—Writing of the University of Berlin in Scribner for June, and especially of Ernst Curtius, Mr. H. H. Boyesen thus describes his interesting method of teaching history:

"Professor Curtius has a very agreeable voice and a clear and lucid manner of lecturing; he is frequently in the habit of conducting his auditors through the Greek division of the Royal Museum, and illustrating by the veritable objects many of which he has himself excavated at Olympia, the manner of life and thought among the ancients. It is needless to add that these peripatetic lectures are very popular, being really themselves a venerable tradition from the days of Plato and Socrates. You seem to breathe the breath of Greece. These objects—some of them two or three thousand years old—may have been touched by the heroes who came to participate in the Olympian games. Here, for instance, is an urn or pitcher of burnt clay, or terra cotta, the fragments of which Professor Curtius discovered in an Olympian tomb. It has now been carefully joined together, and no piece was found lacking. The form is light and graceful, and the sides decorated with hasty-colored sketches, representing scenes of every-day life. There is the picture clearly drawn, and the colors yet bright and warm. Notice the wonderful grace and the soft distinctness of the few simple lines which go to make up this figure; and these pitchers were made and decorated by common artisans, not by men who laid claim to the title of artists. Imagine, then, what the average artistic culture must have been among a people whose artisans could draw lines like these. The fact that they are not the work of educated artists is proved by various circumstances: in the first place, the material is very cheap; and, secondly, the pitchers are found in great abundance in the tombs of a certain period. They are a kind of mortuary vessels, which were thrown into the grave, and thus purposely broken; the breaking having some symbolism, and being a part of the burial ceremony. In these lectures, whatever Professor Curtius touches is made to tell, not only its own history, but the history of the people who fashioned and used it. Antiquity revives under his hands, and begins to breathe and move in a human and intelligible manner. We feel our own blood pulsing in its veins, our own emotions and passions animating its actions.

The Voice.—A Monthly devoted to Voice Culture, with special attention to Stuttering and Stammering. One dollar a year. Published at 161 Broadway, Albany, N. Y.

This is a venture in a hitherto untried field. The publishers intend to give prominence to the severer forms of speech defects, and besides will treat of voice culture in an elocutionary and musical aspect. Their aim being to include everything pertaining to the voice, in its perfections as well as imperfections.

THE DIFFERENCE BETWEEN STUTTERING AND STAMMERING.

Most English and American writers use the terms stuttering and stammering synonymously. We, however, think that there is a great difference between them, and give Prof. Klencke's definitions as those by which we shall be governed. The professor draws the parallel as follows:

STUTTERING.	STAMMERING.
I. The stutterer immediately begins to stutter violently when he is observed, and shows a spasmodic fear and oppression.	I. The stammerer usually speaks better when he is observed and thus forced to pay attention to himself, and only under peculiar circumstances does he show fear and oppression.
II. The stutterer does not betray his defect in slow, measured declamation and singing, and in talking in syllabic measure.	II. The stammerer betrays his defect when careless, in singing, declamation and measured talking.
III. The stutterer exhibits an agitation of his respiratory organs, and congestion of the blood in the chest and head, which is increased in proportion to his efforts to overcome the difficulty; and there appears a convulsive action of the chest, throat and head.	III. The stammerer never exhibits an agitation of his respiratory and blood-circulating organs; neither nervous nor convulsive action, and by the exercise of his will he can partly or wholly overcome his defect.
IV. The stutterer can accurately form all consonants as separate sounds without a loud tone, or in a whisper; but begins at once to stutter if he attempts to join certain consonants with voice, or with a vowel. His voice evidently fails by the wrong action of the mechanism of the muscles, respiration and voice-formation.	IV. The stammerer does not have the slightest difficulty in the formation of his voice. He betrays his defect as much in loud talking as in whispering, and the combination of his defective consonants with a vowel meets with no hinderance.—*The Voice.*

Sunday Afternoon (Springfield Mass.,) for June has several seasonable articles; How Civilization Benefits our Birds, which is one of the papers for which that bird lover Ernest Ingersoll is becoming so widely known; a story of the war appropriate to Decoration Day entitled Was He a Traitor; a poem by Thomas L. Collier entitled Decoration Day; and some timely verses by Sarah O. Jewett, author of Deephaven. There is a story, The New Minister at Brayton; a sketch, Letters from Cape Cod; and a somewhat tragic installment of Calvin the Sinner. Mrs. Helen Campbell gives another chapter from her experiences among the New York tenement houses.

Of the more solid articles the longest, from the *Journal des Economistes*, relates to Conflicts of Labor and Capital in England. It traces the history of the English Trades-unions from their beginning to the present time; tells of their organization and numbers, of co-operative societies, of strikes, and discusses these various points at some length. George M. Towle has Republic and Church in France; there are suggestions as to how the Old Catholic movement should be judged by Rev. Dr. Wm. Chauncy Langdon, and Four Elements of a Great Art, the art of imparting ideas as to religion, by Rev. Geo. T. Ladd.

The usual departments conclude the number, the Editor's Table containing: Murder as a means of grace; Materialism in Reform; Is Faith Blind? and American Art.

How Civilization Benefits our Birds.—The result of all this is that the aggregate army of

singing birds east of the Mississippi has been very considerably enlarged during the last two centurics, and is still on the increase. This can only be owing to the fact that by cutting down the forests, etc., man has tempered the rigor of the winter, has multiplied the sources of their food, has appended many additional places suitable for rearing their young, and has enabled them to bring more fledglings to maturity by reducing the ranks of their enemies. This has not only augmented their numbers and modified very appreciably their habits of nesting and migration, their physical natures and mental characteristics, but probably has even changed their voices. There is little doubt in my mind that in making their lives less laborious, apprehensive and solitary, man has left the birds time and opportunity for far more singing than their hard-worked, scantily fed and timorous ancestors ever enjoyed; a privilege a bird is not slow to make use of.

But on the other hand it seems equally certain that the music of our more domestic birds, though greater in volume, is not so sweet in tone as that of their wilder brethern. Our street sparrows are naturally, I suppose, rather harsh-voiced, but whatever they might have been a thousand years ago they could hardly be otherwise now, when the rattle-te-bang of the city pavements has been their only teacher for many centuries. The mocking-bird has learned to imitate the creak of the farmer's wheelbarrow—no dulcet sound—and the scream of the farmer's boy. Many of the sounds constantly uttered by men and evoked by their work are anything but melodious, and young birds born and bred in their midst must surely turn out less sweet and accomplished singers than if reared among the gentle whisperings of leafy woods, and learning music only from the golden-mouthed minstrels of the sylvan choir.—*Ernest Ingersoll in Sunday Afternoon for June.*

THE ATLANTIC FOR JUNE. Contents: Study of a New England Factory Town. Art in Engraving on Wood, W. J. Linton. Rhymes in Many Moods: I. April, Emily E. Ford; II. Avril, Louis H. Frechette; III. Daisy's Fortune Telling, E. M. Bacon; IV. Presentiment; V. Loves, Juliet C. Marsh; VI. Fleeting Youth, Sylvester Baxter; VII. Good-Morrow and Good-Night, John Bolt; VIII. Betrothal, Edgar Fawcett; IX. Archery, Susan F. Wallace; X. Two Views of It, C. P. Cranch; XI. Be Like the Sun, Caroline A. Mason. Physical Future of the American People, George M. Beard. The People for Whom Shakespeare Wrote, I., Charles Dudley Warner. Buying a Horse, W. D. Howells. Recent American Novels. Irene the Missionary, X.-XIII. Dobson's Proverbs in Porcelain, Thomas Bailey Aldrich. The Two New York Exhibitions. A Sunday on the Thames, Richard Grant White. Miss Martin, Annie Porter. The Contributors' Club. Recent Literature.

THE BLESSING OF LABOR.—I believe that for most men more than eight hours' work per day is required for the maintenance of physical, mental and moral health. I think that for most men, including operatives, mechanics, farmers and clergymen, more than eight hours' labor per day is necessary, in order to keep down and utilize the forces of the animal nature and passions. I believe that if improvements in machinery should discharge men from the necessity of laboring more than six hours a day, society would riot in measureless and fatal animalism. I have worked more than ten hours per day during most of my life, and believe it is best for us all to be compelled to work. It would be well, I think, if we could make it impossible for an idler to live on the face of the earth. Religious teachers are not without responsibility for having taught that the necessity of labor is a curse. The world owes most of its growth hitherto to men who tried to do as much work as they could. Its debt is small to the men who wished to do as little as possible.—*June Atlantic.*

THE ECLECTIC for June: On the Choice of Books, by Frederic Harrison; The Egyptian Crisis, by Edward Dicey; On Sensation and the Unity of Structure of the Sensiferous Organs, by Professor Huxley; Mr. Ruskin's Society; The Defense of Lucknow; with a Dedicatory Poem to the Princess Alice, by Alfred Tennyson; Bodily Illness as a Mental Stimulant; The Southern States of the American Union, by Archer Anderson; Contemporary Literature—Biography, Travel, and Sport; Mademoiselle de Mersac, Chaps. VIII. and IX.; Chapters on Socialism, by John Stuart Mill. Conclusion; A May Song; The King's Secret; An Irish Idyll, by the author of The Queen of Connaught; Uphill Work; The Vizier and the Horse; Professor Baird, Secretary of the Smithsonian Institute (with Portrait), by the Editor; Literary Notices—Cassel's Library of English Literature: Plays—Destruction and Reconstruction—The Dawn of History—Wanderings in Patagonia—The Great Italian and French Composers; Foreign Literary Notes; Science and Art: Proceedings of the Geographical Society—Prehistoric Discoveries—Sunspots and Rainfall—Air-Flushing—Electric Light Screens—The Sphygmophone; Varieties: Antiquity of Gloves—A Hymn from the Rig Veda—Mortality—Between two Posts.

EARLY RISING.—A German physician has demonstrated that early rising is a very bad habit. He has taken the trouble to collect information as to the habits in this respect of several persons who have lived to an advanced age, and he finds that in the majority of the cases the long livers have indulged in late hours. At least eight of ten persons who attained the age of eighty years and upward were in the habit of not retiring until the early hours of the morning, and of remaining in bed until the day was far advanced. On the other hand, he has failed to discover, after careful observation of the health of several early risers, that it was in any degree better than that of a similar number of late risers. He thinks that so far from any decided benefit being gained by getting up early in the morning, it rather tends to exhaust physical power and to shorten life.—*Eclectic.*

For Women.

CONDUCTED BY MISS FAITH RIPLEY.

GOOD-NIGHT.

BY MARY H. HIGHAM.

God keep you safe, my little love,
All thro' the night;
Rest close in his encircling arms
Until the light.
My heart is with you as I kneel to pray;
Good-night! God keep you in His care alway.

Thick shadows creep like silent ghosts
About my head;
I lose myself in tender dreams,
While overhead
The moon comes stealing thro' the window-bars,
A silver sickle gleaming 'mid the stars.

For tho' I am far away,
Feel safe and strong
To trust you thus, dear love—and yet—
The night is long—
I say with sobbing heart the old fond prayer,
Good-night! Sweet dreams! God keep you everywhere!

LETTERS FROM A COUNTRY GIRL—No. 13.

Painting in Water Colors.

MARGARET B. HARVEY.

Now that spring has come back to us, and floral beauties again adorn our fields and woods, giving to our amateur artists the most exquisite of models, perhaps I can talk a little while with profit about painting flowers in water-colors. I believe there are hundreds of women all over the land, who wait only for some suggestive leading, who believe they could, and could indeed, paint well, if they only knew just how to get about it.

Well, *try*. Make up your minds to try just as hard as you did to learn that new crochet stitch, or to embroider that tedious yoke. Start out with the determination to make Nature your teacher.

So far, good. You must realize once for all, that though you must ever try to imitate Nature, you *never* can do it. The deeper you penetrate (or think you do) into her secrets, the more will you be convinced that she is as Herbert Spencer says, "unknowable." The best you can possibly hope for is to paint with an humble fidelity at a great distance, making those who see your work *believe* that you have fully attained to the power to interpret perfectly. Having thus acknowledged a limit to your capacities, you have neither room nor right to be discouraged. Select your materials without any more ado.

And I warn you that they are expensive, they will make unjustifiable holes in your pocket-book, unless you are thoroughly in earnest. But, oh,—who can tell the exquisite pleasure of holding a lily on paper, up beside a lily in a vase, observing that the shades, the curves, the veins are so alike that you might almost deceive your own eyes into the belief that they grew from the same root? And when this is all for one dear as your life, what do a few dollars count?

I said you could not imitate Nature, and I say now, that a painting and the model might look alike. There is no contradiction here. The copied flower ought to look like the living one. But there is a vast difference in copying hair-stroke for hair stroke, with a painful exactness, after the manner of counting stitches in Berlin-wool work, and in seizing the general effect, catching and imprisoning the invisible spirit. The first is patchwork, the last art. The first is describing a friend by his hairs and pimples, the last by his soul shining out through his features. You cannot imitate Nature in the sense that you can give contour and texture and line and marking, in every particular, and at the same time retain the character ruling over them; you may, in a certain sense, in that you can, by loving touches, mutely say, "Behold, I suggest humbly, so far as in me lies, that thing of beauty, or its glorified soul, which Earth delights to adorn with her choicest colors, which I would proudly lay at the feet of my one beloved, and which our Lord Himself disdained not to give to us an example."

In painting an anemone, it is enough to tell us that it is an anemone—not that this particular anemone happened to have two spots in a petal, or a swelling on the stem. We do not care for portraits unless there is some special reason why we should have portraits. Give us the general likeness of the species always, save when some individual characteristic towers far above the specific—which seldom occurs in anything short of an heroic human soul.

You have decided to spend considerable of your pocket money—perhaps to do without your usual allowance of cologne and ice-cream and caramels. Very well. Get Whatman's drawing paper, costing fifteen cents a sheet—you must have a thick, stout foundation to bear repeated washings. Sable brushes are ten cents apiece, you may do a long time with one, and I would get a fine one—No. 1. The best colors come in moist pans, varying in price according to the pigment. It is not wisest to get a box of paints, for you will be almost certain to have some which you will never use. Get one pan at a time as you happen to want it—gamboge, vermilion, madder, Chinese white, etc., cost fourteen cents a pan, while carmine, cobalt, etc., run from thirty-five up to seventy-five cents. You will be likely to accomplish satisfactory results if you have the following colors: chrome, cobalt, blue, green blee, (little used) vermilion, madder, gamboge, indigo, (little used) Chinese white, Vandyke brown and black. No rule can be given for mixing, you must work your paints on the palette until you see what you want, and you will soon be surprised at the accuracy with which you can judge. Different proportions of cobalt and gamboge ought to give you any shade of green you can desire, while madder and white will result in almost any pink. And indeed, I can direct you but little, I can't do your work for you. All I can say is, try. If you can draw at all, you must have learned that the golden key to everything is, practice. But this much I insist upon. Never attempt to paint without a flower before you.

Take your flower and *study it*. I think many artists fail just here because they are not, or will not be, for the the time being, botanists. Count the petals, the sepals, the stamens and the pistils, even if you don't put them all in with mathematical precision. Observe the relative lengths of the stems, the curves of the leaves, and the situation of the bracts. Get at the anatomy first. Then arrange your flower as most convenient, stand it in a vase, or pin it against the wall, or lay it down on the table, and see what modifications the light and position produce upon its color, size, shape and whole effect. Note the shadows, the curves, the hues, the veinings and the high lights. Do all this as quickly as possible, even while you draw, for remember, your model is changing every second. Now you begin to understand why you cannot imitate Nature, largely because you can't have her an instant to imitate, yet your memory from moment to moment, and above all, your sympathy, will enable you to put yourself in very close communion with her.

Having finished the outline, rub it all over with bread-crumbs, so as to absorb all the blackness. The bread must not be too stale, or it will scratch the paper, nor too fresh, or it will smear it. Next make a mixture of the leading colors and wash in a thin coating of each for a ground work. Now perhaps you will have an opportunity to exercise your patience, for you must not attempt to do anything more in a particular spot until it is perfectly dry, you may fill in the time by working in another part, or by studying the model, or by mixing the colors you will want next, taking care to have them match, as nearly as possible, those in your flower. Alas, how feeble is man! The brightest pigment he can manufacture is dull when placed against its supposed counterpart in Nature. Ah, that unapproachable example!

When you have put on a second, perhaps a third or fourth coating of the local color, and when in the broad mass, your flower begins to resemble the living one, you must work in the touches which will give your flat daubs roundness and fullness, and transparency and delicacy and naturalness, but just how, you know, or can know, or if you don't and can't no one can tell you. By your own persistent effort alone can you discover where and how to shade, and to spread and to lighten, where and how to lay on your brush leaving broad strokes, or twisted masses, or tiny hair-lines. But it may take you a whole summer to find it all out, don't be afraid of time, for by persevering, you can conquer it. Your only guide is the model—work on, until you can paint something whose entire effect resembles it.

A flower painted on neutral-tinted paper will stand out much more life-like if you put in the shadow which it casts. Make this just as you see it beyond the model according to the position in which it is, and in which you view it when so placed as you would be looking at the picture held in the most natural way. I mean, if your flower lies flat on the table, don't put in the shadow as it would appear if you stood so as to see more stem than anything else. The best way to regulate all this, I think, is to stand the flower in a vase to paint, and hold a sheet of paper behind it to catch the reflection, then you get everything as it would most nearly represent an illustration in the page of a book, or a painting framed on a wall. As to the hue of the shade, make it a soft, pale gray, produced by mixing white and black.

Now, what do you want to paint? Fans, mats for *passe-partouts*, Christmas, New Year and birthday cards? A very slight proficiency will be enough to give an exceedingly high degree of satisfaction in these simple things, handkerchief-boxes, satin-covered bottles for toilet-sets, albums and then pictures. How lovely to think of a beautifully yet inexpensively-furnished room, adorned by the taste of the lady herself from the fairy sweetness she found in the woods. I am sure that such a boudoir is somewhere.

RUGS.

MRS. J. E. S.

Now that rugs are fashionable as well as useful, it may not be out of place to say a little about them. They are decidedly useful to lay before the stove, the bureau, the mirror, the couch and the large chairs that are much used: First, to preserve the carpet in those places if it is new, or, if it is worn, to cover the worn out or worn off places; and second, because of their additional warmth in cold weather. They are made in various ways, of various materials and in various styles. Some are oblong, some square; some are round while others are oval. The form depends on the material out of which the rug is made, and the place for which it is designed. Before a couch an oblong one is desirable, while in front of a stove an oval one does nicely. A few are quite elaborate and seem altogether too nice to be trampled upon—others have a comfortable look and the feet are quite at home on them. Rugs are made of such a wide range of material that everybody can afford one of some kind, if they have genius enough to utilize the material that they have on hand. Leaving the elaborate, the ornamental and the expensive ones, I hasten to explain how rugs can be had without paying out money. To make a "*caterpillar rug*," take all the little bits of all kinds of cloth in all colors and cut them into strips one-half an inch wide. Then with a strong thread and coarse needle make a row of stitches through the center of each piece separately, lengthwise; then draw the thread until the cloth comes close together. After several pieces are thus "strung" and drawn together, twist them slightly and trim; when trimmed, their resemblance to the caterpillar gives the rug this name. After all the cloth is thus strung, take something for a lining and sew the several strings upon it. Begin in the center and sew round and round closely together until you have the size desired. In this way you get a "hit and miss" effect; of course one can arrange her colors according to her taste. I have a rug with a center all hit and miss, then two rows of black, two rows of hit and miss, finished with three rows of black. Another that I have is oval in form, with each row cut and sewed so as to have no break in the rows. It has a center of three hit and miss rows, then one brown and one black, one hit and miss, two brown, another hit and miss, finished with three black rows.

The *crocheted rug* is made by tearing or cutting the cloth into strips, then sewing them together the same as for rag-carpet. The cloth thus prepared is crocheted similar to crocheting thread mats and tidies. This kind of rug does very well but is not as durable as the caterpillar one, neither is it so much trouble to make.

The *braided* rug, however, is the most durable, and although considerable work to make, it is not difficult. The cloth is torn or cut into strips, then braided into a flat braid consisting of three strands. The braid is sewn together good and firm with a strong thread into an oval or round form. I have an oval rug 33x49 inches—that has been in daily use six years, and is still so good that it will probably be serviceable two years longer. In making a rug, if you keep in mind that the better it is made the longer it will last, you will be more pains-taking and somewhat less in haste to finish it up at once and get it on the floor, just to see how it is going to look.

Still another kind of rug is made from the "mild cloes." Take a coarse burlap lining, cut your cloth into narrow strips, and with a strong hook draw the strips through the burlaps and cut, leaving the ends an inch or so upon the upper side of the burlaps which has already been fitted to a frame similar to the way quilt linings are fitted. The rags are drawn in so closely that the rug is thick, warm and durable. This style of rug is generally oblong and mostly made in diamond pattern. A variety of rags, ravellings from woolen stockings and knit goods work up in these very well. I might enlarge upon the material used, and upon the manner of making rugs, but as I set out to write more particularly about those, the making of which would not involve the paying out of money, I conclude by saying that a bare floor with a rug or two on it is cool and comfortable for the summer's heat that will soon be here.

THE SUCCESSFUL HOUSEWIFE.

S. B. SAWYER.

THE first step towards success must be learning to love the work. If a girl brought up in the city and used to the ways of city life marries a thrifty young farmer and undertakes to do the house-work necessary for her to do, or to over-see it done, she may be astonished to find it disagreeable. Thinking, in her innocence, that she is willing to do anything for him she loves, she by degrees finds she is not. Tired, discouraged and heart-sick, she longs for her old home, but knowing she has chosen her lot and must abide by her choice, she assumes an indifference to her work which soon becomes a reality and she plods around as a machine might, could one be invented to do house-work. Her husband knows things do not go right in the house, but can devise no means to better them and also grows indifferent, and when children begin to add their noise to the general confusion, he flees to the field by day and the village store by night, and the poor wife has another grief to add to her catalogue of woes. By learning to love her work the young housewife (and old one too, perhaps,) may avoid much misery of mind and body—I say of body—for we well know the body sympathizes with the mind and often one feels sick, when one is only worried. The farmer's wife has much work to do that the mechanic's wife knows nothing of. It amuses me to hear women tell how much work they have to do, and when you get at the root of the matter, they hire their washing done; hire their dresses cut and perhaps made, and have no milk to take care of!!! I sometimes wonder what they would do if the care of the milk of half-a-dozen cows was added to their work. We farmers' wives have one advantage. We can see nature in all its beauty. Our work requires us to be up in the morning with the birds, and as we step about skimming milk, working up butter, washing and scalding pans and pails, no one can hinder our drinking in the beauty of the morning, but when tired (and shall I say it *cross*), we wilfully deny ourselves a glance out at the open door, and when husband comes in fresh from the dewy fields and while tracking our clean floor woefully, speaks of the fineness of the morning, we see only the dirty boot marks and answer accordingly, we have not learned to love our work. There is nothing that will help us so much as a hearty, genuine love for what we are doing, and I believe that love, may be born, reared and matured wherever we find our life-work. If we consider ourselves martyrs, drudges, overworked women, &c., &c., we cannot be successful. Our work requires an earnest, thoughtful, loving spirit, a patient but energetic persevering hand, and a pleasant, smiling face.

POUCH FOR CLOTHES PINS.

ONE of the latest conveniences, which I have noticed for housekeepers, is the apron for clothes pins. It is a trivial affair, but nevertheless quite useful. It takes nearly one yard of calico to make it, the apron or pouch being fifteen inches in length and nearly as wide. Round the corner at the bottom. At the top, on each side of the front, two inches from the middle, cut out a strip nine inches long and one and one-half inch wide for pockets. Bind them with lighter colored fabric than the apron, that they may be readily seen. Gather into a band and button at the back, or, if preferred, put on strings and tie.

L. S.

Domestic Economy.

CONDUCTED BY EMILY MAPLE.

MY NEIGHBOR'S BREAD.

MARY BEAL M'LOUTH.

"Mrs. Kindness, I am dreadful sorry to come borrowing the first thing after we moved here, but your boy was at our house this morning, and I heard him tell my Johnnie that *his* mamma never had any poor victuals, and I thought, 'Now there's my chance,' for it's been such cold weather that I have had two bakings of sour bread in the house now, and our flour is all gone, and a fussy aunt of mine, who was never known to have anything wrong, has come to see us and brought two city cousins right from Boston, and I know they'll think my taste wretched poor because I don't make yeast bread, and besides, we expect woodcutters this afternoon, and oh, dear! I didn't know what to do, so I just came over here to see if you could help me."

"Why, bless you! child, you are welcome to some bread, if that is all. *I* never eat yeast bread, either, but husband likes it best, and I made some yesterday, so you can have enough to supply your present wants. But you look so tired, do sit down and rest in this easy-chair, and we will see what can be done for your future needs."

"Well, this is a comfort I don't get every day, for we have but one easy-chair in the house, and that is in the parlor, where *I* don't get a chance to sit down very often."

"This is all the easy-chair I have, Mrs. Trouble, but I think if *any* one needs such a piece of furniture, it's the busy housekeeper, when she does get a chance to rest."

"I believe that is so, but I'm in an awful hurry, so please tell me how you manage never to have any sour bread."

"My dear, good woman, I am a little older than you and have had a trifle more experience, perhaps. When first married, I had many misgivings as to my abilities, but succeeded in having good bread the first year. The next our wheat was very poor, and I had as long a siege of perplexities as you have just named. The two maxims, 'Practice makes perfect' and 'Perseverance conquers all things,' are worth a small fortune. Don't you think so, Aunty?"

"Indeed they are, and I think if housekeepers made their work a study and were not afraid to ask questions, as our neighbor has done, there would in the future be more good cooks, more tables laden with plain but wholesome food. If the whole world had been more temperate in all things, there would not to-day be so many melancholy, broken-hearted people fighting that dreaded disease, dyspepsia. It's of little use for invalids to take medicine when they continue to live on rich pastries, puddings and hot rolls, to say nothing of meats which are seasoned so highly as to be very unwholesome, besides destroying the natural flavor. I hope, Mrs. Trouble, you will get directions for cooking with Graham flour of my niece, for her receipes are all good."

"I should be very glad to, I am sure. And now, Mrs. Kindness, I'll listen to you and try and remember your directions."

"Very well; I will first of all tell you, briefly,

"How to Make Scalded Rising.—It is sure, and I don't believe you will have any more trouble. You want a pinch of salt and two spoonfuls of cauaille. Pour just enough boiling water on to wet it, and beat until the lumps are all out, just as you would make flour starch, thickening for gravies, etc., with *cold* water. Then put in a trifle more water, and stir again, repeating until it is about the consistency of griddle-cakes. In this way it can be made in a moment's time, but if you stir in all the water at once it takes much longer to mash the lumps. Set on bricks over the oven, and at noon stir thoroughly. If kept very warm, it will be light at night or the next forenoon. Then put in a pitcher two cups of warm water, all the flour you can stir in, salt, and two spoonfuls of the scalded rising off the top of what is in the bowl, throwing away the watery substance in the bottom. Beat three minutes and set in a pail of warm water. This will rise in two hours. When light, take out a good large cupful for Graham bread. For the sponge, pour on the fine flour one pint of boiling water, cool with one pint of milk, put in your flour emptyings, rinse your pitcher and beat all together hard. Sprinkle over a little flour, cover and put in a warm place. I always salt my bread, for I think it helps to keep it moist. The lighter the flour emptyings and the sponge get, the whiter the bread will be. But don't let the loaves get too light, and if you do not want the bread to be porous, and wish to keep it moist a week, mix the loaves pretty hard, or so they will keep their shape. Most people bake bread too long, or with too much fire. After I set this sponge I take one small pint of warm milk, one-half cupful of sugar, one large cupful of rising, and stir in Graham flour until as thick as common stirred cake, Put in a deep bread-dish and let stand until light. The top will be flat. If it rises higher than the edge of the tin it will run over when baking. Like cake, it is best baked on the lower grate first—unless *very* light—and finished on the upper. Bake until a good brown, and try with a broom splint.

"Graham Bread No. 2.—Two and one-half cups of buttermilk, one-half cup of cream—unless the buttermilk is very rich, one-half cup of sugar, salt and soda, and Graham flour as above. If thin, it will settle when done, and if too thick, so that there are little bunches on the top when baked, it will be dry and taste too 'branny.' If the flour is ground too fine, the bread will be sticky. Avoid these mistakes, and you will have bread the whole family will call for.

"Dyspeptic Bread.—One and a half cup of sweet milk, two-thirds of a cup of sweet cream, salt, and three cups of Graham flour. Bake in a very hot oven, in gem irons which have been greased and heated, first on the lower grate and then on the upper, until of a rich brown. Take out on a plate and partly cool before eating. If you do not succeed the first time, follow directions for thickness of Graham bread No. 2.

"Stirred Biscuit.—Two cups of buttermilk, one-half cup of butter or one cup of cream, salt and soda. Stir in all the flour you can, and drop on buttered tins. Bake in a quick oven, so they won't spread, or, what is better yet, in gem pans, for then you don't need so hot a fire."

"Sakes alive!" says Mrs. Trouble, "I can't remember all that."

"I'll write it down for you if you wish."

"Oh, do; but I must go home. Good-day. Much obliged for the bread."

DOMESTIC RECIPES.

Currant Ice.

Add to three pints of water one pound and a half of sugar, boil until reduced to a quart, skim and add two coffee-cups of currant juice. When partly frozen, stir in the beaten whites of four eggs.

Tea Ice-Cream.

Scald four tablespoonfuls of Hyson tea in a pint of sweet cream—it is best to scald it either in a custard-kettle or in a tin pail placed within a kettle of boiling water. When partly cool, strain it into a pint of cold cream, bring to a scald and stir in four beaten eggs and three-quarters of a pound of sugar. Let cool, and freeze.

I have found that in making water-ices, if the sugar be not well stirred in before freezing, it will sink to the bottom and give the mixture a sharp, unpleasant taste. It is best to make a syrup of the sugar and water by boiling, and when cold, to add the pure juice of the fruit.

MARY B.

Strawberry Sauce.

One and a half teacupfuls of sugar, half a teaspoonful of butter beaten to a cream; then stir in a pint of strawberries mashed until juicy, and the beaten white of an egg. Nice for puddings. MRS. BRADY.

Gooseberry Jam.

Simmer the fruit in a very little water, press through a sieve and return to the kettle. Then add to each pound of the pulped gooseberries three-fourths of a pound of sugar and boil one-half hour, stirring constantly. MRS. TERRY.

Ginger Beer.

A cooling summer drink is made by adding to six quarts of water one pound of sugar; one ounce of cream-of-tartar and one bottle of Jamaica ginger extract. Put over the fire and stir until the sugar is dissolved, but do not heat. Take from the fire, add a teaspoonful of good brewers' yeast; stir together, bottle, and wire the corks.

It will be fit to drink in two or three days.

MARY B.

News of the Week.

MISCELLANEOUS.

Monday, May 26, 1879.

Tilden seems likely to be remined of his income-tax for some time to come. Thomas Harland and William P. Healey, the lawyers who spirited away from the court-room at Marquette last fall the books showing his income from the New York mine at Negaunee, Mich., have been indicted by a Michigan grand jury. The death at Philadelphia of Judge Asa Packer, of Mauch Chunk, Pa., removes one of the most prominent of the "coal barons." He had long been president of the Lehigh Valley railroad, and as such was one of the pillars of the old coal combination, but to him more than to anybody else in that monopoly was due its final disruption. His age was 72, and the accumulations of his long and active business life are very large. Ohio's Legislature has been in session so long that the treasury is drained of money to pay the State officers, and from the governor down to the Solons themselves no one can draw any cash until further appropriations are made. William Lloyd Garrison has just died in this city.

The news of the veto of the anti-Chinese bill by President Hayes excites conflicting comments in China. Americans throughout the country express satisfaction at the rejection of so summary a plan for disposing of the question at issue; Europeans merely evince surprise, having in most cases anticipated different action; while the Chinese differ among themselves. In the immediate neighborhood of Hong Kong, the port of emigration, where the friends and relatives of the Chinese now in America live, much gratification is shown, and the notion appears to prevail that future persecutions are impossible; but there is no indication of increased departures. Around Shanghai the populace are apparently indifferent, and the officers reticent. It is believed that the veto is not received with unmixed pleasure at Pekin, as the goverment, it is thought, would have been glad of an opportunity for inaugurating an extreme anti-foreigner or anti-American policy.

During the ten years of work upon the Sutro Tunnel in Nevada, the lives of the operators have been carefully guarded, and but five or six deaths by accident have taken place. During the boring of the Hoosic Tunnel 185 men were killed, and the accidental deaths in the St. Gothard Tunnel have averaged one a day, and in the Comstock one a week. The low rate of accidents in cutting the Sutro is attributed to the strict system under which the work has been carried on. The contempt which is bred of familiarity is the real cause of most explosions.

Mrs. Kate Cobb and Wesley Bishop have both been sentenced to State prison for life for the murder of Mrs. Cobb's husband; Mrs. Jenny Smith and Covert D. Bennett were on Saturday found guilty by a jury of having deliberately murdered Mrs. Smith's husband. Mrs. George H. Mack of Rock County, Wisconsin, is in State prison for life for the murder of Mr. Mack, and Frank Dickerson, Mrs. Mack's boy paramour, on whose testimony Mrs. Mack was convicted, is now on trial as an accomplice in the murder. In Lowville, in this State, Mrs. Harriet Merrihew is in prison for the murder of her husband's brother, and attempted murder of her husband, whose life was fortunately saved by the timely dismissal of Mrs. Merrihew from her position of nurse of the sick man. Mrs. Merrihew has confessed her guilt, and her alleged accomplice is under arrest. A singular feature of all these cases is that there is no pretence that the victims were otherwise than good husbands.

Col King, a Texas cattle man, has a fence 75 miles long, enclosing about 337 square miles, on which range 110,000 beasts. The House Committee on Agriculture will, at the first opportunity, report a bill to give growers of tobacco the right to produce it in any quantity and for any purpose free of taxation. The bill is opposed by the Internal Revenue Bureau and the manufacturers of tobacco. Mr. Kimball, Chief of the Tobacco Division of the Internal Revenue Office, says that the bill, if passed, will be disastrous to the States where tobacco is grown as the money crop of chief agricultural product. He says that tobacco can be grown without difficulty in most of the States of the Union, and if it can be disposed of, exempt from all taxation, either special for selling or specific, farmers everywhere will engage in the cultivation of the plant. Consumers can buy the leaf direct from the producers and manipulate it themselves. They can thereby avoid payment of the tax of sixteen cents per pound on tobacco which is granulated for smoking, or twisted by hand for chewing, and also the tax of $6 per 1,000 on all home-made cigars. Manufacturers oppose the bill, because it will, if it becomes a law, greatly diminish their business. The Treasury authorities are opposed to it, because it will diminish the revenues. Tobacco producers everywhere desire the passage of the bill for obvious reasons.

The regular order in the Senate to-day is the consideration of the bill relating to the transportation of animals, reported favorably from the Committee on Commerce. The bill is of interest to humanitarians as well as cattle dealers in the East. It provides that cattle, sheep, swine, or other animals shall be unloaded for food and water, and seven consecutive hours of rest once in every twenty-eight hours. When comfortable cars are provided for transportation of live stock, and the animals are well fed and watered once in every twenty-four hours, the animals may be confined in cars for sixty consecutive hours, without unloading for rest. Severe penalties are provided for violations of this act, and the carriers of the animal are required to execute the provisions of the bill if their owners do not. At present cattle are brought from Chicago to New York, a ride of nearly four days, without being fed or watered. When the animals reach Jersey City, they are half starved, feverish, and in this condition are slaughtered. The meat is not perfectly healthy, and will not keep well. Mr. McPherson's bill was adopted by the Senate at the close of the last session of the last Congress, but it failed to pass the House because of the expiration of the session.

FOREIGN.

India is one of the sore spots of the world just now. Famine, pestilence and misgovernment in the Punjaub, the Deccan and Bombay have been followed by riot and threats of the massacre of officials and Europeans. These evils usually appear in their most aggravated form in India, the people being improvident, their products and industries lacking variety, and their rulers having too little interest in their welfare. They suffer, too, from the general business depression of the world, and the silver question affects their interests more perhaps than those of any other people. Garibaldi, the Italian patriot, has decided to live permanently in Rome. Full reports from the correspondents with Lord Chelmsford's force, which marched to the relief of Ekowe, make a bad showing for the English troops. The attack upon the relief force was made by an inferior force of Zulus, one of the first instances on record in which a white disciplined force of large numbers has awaited the attack of savages behind intrenchments. After the attack, in which the Zulus showed a gallantry the British officers say they never saw equaled by British troops, the Zulus retired in good order, and with a trifling loss from pursuit, although they were unprovided with cavalry, and Lord Chelmsford had a comparatively strong force. The British commander, according to the London Times correspondent, contented himself with "confending the impudence" of the inferior force which was charging to the edge of his intrenchments. The same correspondent, by the way, pronounces the men making up the British line mere boys, without the stamina to stand a campaign.

England has one great place of agricultural education—Cirencester College. It is erected in an elevated spot, facing Lord Bathurst's immense and splended park in Glostershire, while its south front has a wide view of Wilts. It contains accommodation for eighty-five students, a museum rich in specimens of geology, botany, &c., and near by is one of the best laboratories in England, formed out of an old barn. The farm buildings are on a very extensive scale. Gentlemen distinguished in the sciences connected with agriculture, in addition to the regular staff, give lectures. The college is now thirty years old. Mr. Pusey, a leading agriculturist (elder brother of the Doctor), was one of its main promoters, and the undertaking was carried out at the instance of the Royal Agricultural Society of England. The Prussian Government appears determined to make sure that the army shall not, like the French soldiery, be permeated by the leaven of democratic ideas. The troops stationed in Berlin have been forbidden to read the liberal newspapers, and their quarters are to be searched at regular times for the prohibited journals and for other objectionable publications. Severe punishment is promised those with whom such articles are found.

Murray & Lanman's Florida water.—The most delicate invalids, the greatest sufferers with sea-sickness, and those whose nervous systems are most sensitive, prefer it before all others, and use it to the exclusion of all others, not for a time only, but always and continuously. The sense of smell never tires of its soft, refreshing odor.

Ladies, do you want to be strong, healthy and beautiful? Then use Hop Bitters.

THE MARKETS.

PRODUCE AND PROVISIONS.

NEW YORK, Saturday, May 24th, 1879.

Beans and Peas.—The export demand for marrows is steady enough to support late prices, with extra qualities a trifle higher. Since Sept. 1st, 1878, to date the exports of beans add up 42,800 bbls.: this total is considerably in excess of previous three corresponding periods. Mediums move fairly. Red kidneys in few hands and firm. White do and pea quiet; a few selected of the latter made $1.37½. Black beans a shade firmer. Green peas in light stock; firm at $1.80@1.85. B. E. peas dull at $2.50 per 2 bush. bag. Canadian, in bulk and bond, 75@77c. Beans, marrow, prime, $1.37½@1.40; fair to good, $1.25@1.35; medium prime, $1.30@1.32½; fair to good, $1.20@1.25; pea, $1.20@1.35; white kidney, $1.30@1.50; red kidney, $2.85@3.10; black, $2.15.

Butter.—Supplies have materially increased, but prices have held up extremely well. Up to this week the offering has not been over free, and with what exporters have called for and the demand for other outside use, in consequence of the late spring, there has been a steady outlet. Now, as we approach the grass season, it will be difficult to handle streaked or white lots. At this time local buyers especially regulate their purchases in keeping with lowest requirements. There may be consequently a glut, as the West continues liberally, and weak general quotations may be expected. A good export demand is promised, but as last season taught the buyers low figures, a cheap basis will have to be conceded. The annexed range does not vary much from last week, but at the close inside rates are as much as the market will stand for wholesale business. State tubs and half tubs, choice, 15@16c.; good to prime, 14@15c.; fair to good, 12@14c.; Welsh tubs, choice, 15@16c.; good to prime, 14@15c.; fair to good, 12@14c.; poor, 8@10c; State creamery, best invoices, 18@18½c.; good to prime, 17@17½c. sweet cream, best, 17@18c.; fair to good 15@17c; Western, best invoices, 18@19c.; good to prime, 17@18c., fair to good, 15@17c.; imitation creamery, 13@16c.; dairy, best invoices, 14@15c.; good to prime, 11@13c; fair to good, 10@11c.; poor to fair, 8@10c.; Western, factory, best invoices, 12½@13c.; good to prime, 10@12c.; fair to good, 8@10c.; poor to fair, 6@8c.; grease butter, 3@4c. Receipts for week, 31,910 pkgs.; do. last week, 24,582 do.; exports for week equal 6,027 firkins.

Beeswax.—There have been small sales at 24@25c. for Western and Southern.

Exports for week, 5,000 lbs.

Broom Corn.—Offerings fair except of brush, and manufacturers not doing much.

Brush and short broom, choice, per lb., 5½@6½c.; do., common to good, 4½@5½c.; hurl, good to choice, 3½@4½c.; do., common to fair, 3@3½c.; red and crooked, 2@3c.

Cheese.—Exports for the week, 35,135 boxes; this increased movement has been at decidedly higher prices. The marked advance at the country sales, and the better English markets have tended to the enhanced vigor. Shippers have about confined buying to the choicest grades, paying 7¾@8, and occasionally 8. At the close prospect of early larger supplies tends to rather less strength.

Quoted for new factory: 7¾@8c. for best; 6½@7¼c. for good; 4@6c. for half skimmed, and 2½@4c. for skimmed; dairy at 6@7c. for good and fine; 5@6c. for fair to good, and 4@5c. for skimmed: Western factory at 7@7½c. for fine; 4@5½c. for half skimmed, and 2½@3½c. for skimmed, and for old as follows: 7@7½c. for fine lots; 6@6½c. for good; 6@6½c. for fair; 2@3c. for skimmed, 4@6c. for half skimmed; Western factory, good and prime, 5@6c.; do. full skimmed, 2@3c.; do. half skimmed at 3@4c.

Liverpool quotation for new, 41s.

Steam, 32s. 6d.

Cotton.—Early in the week a further sharp advance was made, but for two or three days there has been pressure to sell and prices lower; latest prices are for May, 12.94@12.96c.; June, 12.97@12.99c.; July, 13.15@13.16c.; August, 13.29@13.30c.; September, 13.05@13.06c.; October, 11.8c.; November, 11.32@11.33c.; December, 11.25c.; January, 11.27@11.29c.

Quotations for spot cotton are based on American standard of classification, and on cotton in store running in quality not more than half a grade above or below the grade quoted:

	Uplands.	*N. Orleans.*	*Texas.*
Ordinary	11 11-16	11 13-16	11 13-16
Strict ordinary	12 1-16	12 3-16	12 3-16
Good ordinary	12 7-16	12 9-16	12 9-16
Strict good do	12 11-16	12 13-16	12 13-16
Low middling	12 13-16	12 15-16	12 15-16
Strict low middling	13	13⅛	13⅛
Middling	13⅛	13⅜	13⅜
Good middling	13 7-16	13 9-16	13 9-16
Strict good middling	13 11-16	13 13-16	13 13-16
Middling Fair	14⅜	14⅝	14⅝
Fair	15⅜	15⅝	15½

STAINED.

Good ordinary	11⅜	Low Middling	12 9-16
Strict good ordinary	12⅛	Middling	12 15-16

Dried Fruits.—The general market is spiritless, as usual, at this period of the year; in apples there is a fair jobbing trade in evaporated, but beyond this nothing of moment done, and peaches and small fruits generally are somewhat nominal. Following are the quotations:

Apples—evaporated Alden's & William's 10@10½c.; do. new process at 8@8½c. State plums, 12@12½c.;

Blackberries quoted at 4¾c. Peaches—Peeled Georgia, 7@7½c. for poor; 8½@9c. for fair to good; 10c. for prime; choice North Carolina, at 12@13c.; good do., 8½10c.; unpeeled halves, 3@3½c. quarters, 2½@3c. Pitted cherries, 20c. Apples—New, 2¼@2½c. for Southern quarters in bags; 3½@4c. for prime sliced: do., fair and good, 3@3½c.; State at 3@4c. for new sliced; and 3@4c. for quarters: Western at 3@4c for new quarters. Raspberries, 30c.

Exports for 252 bbls. apples.

EGGS.—Receipts for week, 11,380 bbls.; do. last week, 13,261 do. There has been a low tone to the market throughout the week, and the close shows no improvement. Buyers demand "loss off" for Western and obtain reclamations in some instances.

Near points, dozen, 12½c.; State and Penn., 12c.; best Western, 11@11½c.; second grade, Western and Southern, 10@10½c.

FRESH FRUITS.—A few choice marks of apples keep firm, but the bulk of the remnant is weak even at an easy range. Ice-house Baldwins, $3@3 50; prime State and New Hampshire Russetts, $2 50@3; other parcels, $1@2, as to condition. Strawberries are down to popular prices. Size and flavor greatly improved since last week. Del. and Md. 10@15c.; N. C., 10@14c.; best Norfolk, 11c.; poor to fair, 3@6c. qt. Georgia peaches will be in market next week; one crate has arrived. N. C. Cherries, common to choice, 9@16c. lb. V. gooseberries, bush., $1 50. Hothouse peaches, doz., $6@7; do., grapes, B. Hamburg, $1@1 25 lb. Peanuts quiet, holders willing to shade late figures. Va. hand-picked, $1 37½@1 37½; other, $1 10@1 25. Pecans, 6@8c. lb.

CORN MEAL.—Sales at $2.50 for Brandywine, and $2.10@2.35 for Western yellow.

FLOUR.—It has been necessary to reduce prices to effect business on the larger supplies and lower wheat market.

Latest sales are at $3.40@3.90 for inferior to very choice superfine State; $3.75@4 00 for poor to good extra do., odd lots and lines; $4.00@4.25 for good to choice do.; $3.35@3.90 for inferior to very choice superfine Indiana, Iowa, Michigan, &c.; $3.65@4.00 for inferior to good shipping extra do., and $4.00@4.35 for good to choice extra do.; common to about choice white wheat extras, $4.35@5.45; choice to very fancy do. at $5 50@6.75; red and amber winter wheat, inferior to very choice grade and family, at $4.35@6 25; round hoop Ohio at $4.10@4.35, and trade and family brands of do. at $4.35@6 25, the latter rate for strictly fancy; St. Louis, $4.40@5.50 for inferior to good extra; $5.50@6 35 for good to very choice (with very fancy brands up to $6.75); Minnesota clear, very inferior to very choice, at $3.65@4 85; Minnesota "straight," very inferior to strictly choice at $4.35@5 85; and very fancy as high as $6.25 asked, and patent poor to strictly fancy at $5.40@$8.15, few brands going above $7.50@7.65. unsound stock at from $3.25@5.25; city mill extra at $4.10@5.25 for West Indies (the latter rate for fancy in new packages); do. for England and $5.70@4 00; do. trade and family extras, $5.25@6 25; do. for South America, $5 35@6 for fair to very choice; No. 2 at $2.35@3.25 for very poor to strictly choice.

GRAIN.—Wheat has generally tended lower, the No 2 red grade alone excepted, which is under speculative control and wanted for contract delivery. Latest sales are of; No. 2 spring at $1 03@1 04½; No. 3 spring at 92@96c.; rejected spring at 75@76c.; ungraded spring at 87@96c.; mixed winter at $1 15@@1 16½; ungraded amber at $1 15@1 15½; No. 2 amber at $1 15@1 15½; ungraded red at $1 10@1 15; No. 2 red at $1 18@1 18½; white Canada in bond at $1 11½; ungraded white at $1 11½@1 13½; No. 2 white at $1 12@1 12½; white State at $1 15@1 15½; No. 1 white at $1 13@1 13½; New York No. 2 spring, May option, at $1 04½; do., June, at $1 05; do., July, at 1 06; No. 2 red, May option, at $1 18½; do., June, $1 17@1 17½; do., July, at $1 16½; do., August, at $1 13@1 12½; No. 1 white, May option, at $1 13½; do., June, at $1 15½. Rye active at decline; sales of State at 62@63½c. and No. 2 Western at 60@61c. Corn is unsettled, favoring buyers and fairly active; latest sales of New York No. 1 at 46c.; New York No. 2 at 45@45½c.; New York steamer mixed at 44@44½c.; No. 3 at 43@43½c.; New York No. 2 old at 45½@45¾c., mainly at 45½c.; ungraded Western mixed at 44@44½c.; do., yellow, at 46c.; New York No. 2, May option, at 45c.; New York No. 2, June option, at 44½@44c.; New York No. 2, July option, at 45½c.; New York No. 2, August option, at 46@46½c.; New York steamer mixed, May option, at 45½c.; do., June, at 43½c. Oats are active and higher; latest sales of New York No. 2 white at 38½@3 ½c.; do., July option, at 35½c.; New York No. 1 white at 40c; New York No. 3 white, 37½@37½c.; New York No 1 at 35½c.; New York No. 2 at 35c.; do., July option, at 35½c.; New York No 3 at 33½@34c.; white Western at 34c.; mixed do. at 34@35½c.; mixed State, at 37@38½c.; No. 2 Chicago afloat at 35@35½c.; do., in store, at 35c.

HAY AND STRAW.—The receipts are small, demand good and prices generally favoring sellers.

Sales at 45@55c. for shipping, and 75@90c. for retail qualities. Straw at 45@50c. for long rye; 40c. for short rye, and oat at 30@40c.

Exports for week, 562 bales.

HONEY.—Clover comb offered, 6@8c.; buckwheat, 5@6c.; strained, 5@7c.

HOPS.—Emmet Wells says: brewers have been moderate buyers this week but exporters have for the present withdrawn from the market. Five to twelve cents is still the ruling price, the latter figure being reached only in extreme cases. It will be seen by the reports published from our exchanges that the reduction of hop acreage, of which there has been a good of talk, will be small, and hardly sufficient to affect prices favorably next fall. With the prospect of another season of ruinous prices growers will give very little attention to their yards, and the range in values will be even wider next season than now.

	Bales.
Receipts for the week	682
Total receipts since Sept. 1, 1878	63,465
Total receipts for same period in 1877	129,110
Export clearances for the week	none.
Total exports since Sept. 1, 1878	25,981
Total exports for same period in 1877	75,097

Quotations are for New York's, new crop, choice, 9@12; New York's, new crop, medium, 7@8; New York's, new crop, low to fair, 5@6; Eastern, 6@9; Western, 6@9; Yearlings, 2@4; Olds, all growths, 1@2; Pacific coast, nominal, 8@12.

OIL CAKE.—Quoted at $27.75@28 per ton for western.

MAPLE SUGAR.—Supply not large, but the season is advanced and prices will not be apt to improve. Fair to best, cakes, 7@9c.; sirup, 75c. gal. in tin.

POULTRY AND GAME.—Live fowls scarce and high. Prime spring chicks in demand. Some sales now by the lb., at 25@35c. Many of the arrivals are too small for use. Choice good-sized sell quicker at $1 pair than poor at 50c. Good hen and tom turkeys have a place.

Chickens, spring, per pair, 50c.@$1 12. Fowls, Jersey, per lb., 13½@14c.; western, 12c.; southern, 12@12½c. Roosters, old, 6½@7½c.; Turkeys, western, 12@13c; Ducks, Jersey, N. Y. and Pa., per pair, 65@75c.; western and southern, 50@65c.; Geese, Jersey, $1 50@1 75; N. Y. and Pa., $1 25@1 50; western, 75c.@$1; southern, 75c@87c.; pigeons, 40c.

The offering of dressed is down to almost hot weather limits. Prices fair, but as the demand is more or less special at this time, transient or remote shippers have little interest in the market here.

Turkeys, prime, small, 16@18c; fair to good large, 13@14c.; Chickens, spring, dry-picked, 35@37c.; Fowls, Jersey, choice, per lb., 14@15c.; State and western, prime, 13@14c.; fair to good, 11@12c.; Phila. dry-picked, 14@16c.; Capons, large and choice, 30c; small, 24@26c; Ships, per lb., 22@25c.

Supply of game limited. Market firm for choice birds. Wog Snipe, doz., $2 25@2 50; Plover, $1 75@2; Dowitch, $1 50; sand, 50c.; brited pigeons, $2; flight, best, $1 50@1 75; Mo. flight, 90c.@$1; tame squab, $3.

TOBACCO.—There has been no improvement in trade this week; but some looking around by shippers at the close leads to an expectation that something important will be done. Prices are unchanged.

PROVISIONS.—Have tended a little higher on more active dealings. Mess pork closed at for old mess on the spot at $9@9.12½ for ordinary, and new mess at $10 10@10.25; May, $10 June, $10.05; July at $10 10, and August at $10.15. Bacon at $5 for long clear and $5.05 for short clear. Lard—Western steam, at $6.35 for spot, May and June; $6.40 for July, and $6.45 for August. Stearine at 6¾@6¾c. for Western and 7c. for city. Tallow at 6 3-16@6¼c for prime. Beef hams at $17.50. Beef—Extra India mess, $20@22, as to quality; packet, $11@11.50; plain mess, $9.75@10.50; extra mess at $10.50@11.50.

VEGETABLES.—Fine old potatoes are firm. Common sorts are lower, as there has been an enlargement of stock from other points. New held good prices. Well ripened Florida tomatoes bring $4@5 per crate. Some items of tender southern produce have had hot weather on both ends of the trip and quality has been against sales. Asparagus has been a cheap feature. Bermuda, new, choice, per bbl., $6@6.50; Charleston and Savannah, new, choice, $5 50@6; Florida, new, choice, $5.@5 50; culls, $2.@3; early rose, N. S. and East., per d-h bbl., $3.00@3 75; State, choice, $3.00@3.25; poor to fair, per bbl., $2.25@2.75; Western, per d-h bbl., $2.75@3.00; bulk, per 180 lbs., $2.25@2 87; peachblow, choice, per d-h bbl., $3.12@3.37; bulk, per 180 lbs., $2.75@3.25; inferior, per bbl., $2.25@2 75; State, $3.00@3.37; Prolific, choice, per d-h bbl., $2 75@3 25; peerless, State, $2.75@2 87; do., in bulk, per 180 lbs., $2.40; Jackson white, per d-h bbl., $2 62@2.75; sweet potatoes, Del., per bbl., $4.00; cucumbers, Fla., per crate, 75c.@$1.25; green peas, Maryland, per bbl., $3 00@3 50; Norfolk, per ½ bbl. box, 50@75c.; asparagus, Oyster Bay, per doz., $1.50; Shrewsbury, $1@1.25; South N. J., Md. and Del., 50c.@$1.00; tomatoes, Bermuda, per box 50@60c.; radishes, near-by, per 100 bunches, 30@75c.; cabbages, Norfolk per bbl., 75c.@$1.50; beets, Norfolk, new, per 100 bunches, $1.00@3 00 rhubarb, per 100 bunches, 50c.2.00; onions, Bermuda, per crate, $1.25; squash, Fla., new, per crate, 50@75c.; turnips, Russia, per bbl., $1.15; carrots, per bbl., $1.75.

WOOL.—The desirable lots from the old stock have been pretty well cleared up and the new clips go off well. Manufacturers are free buyers. Prices generally are strong.

Sales at 34@35c. X and XX Ohio; Michigan at 33@34c.; State fleeces at 31@32c.; spring Texas at 17½c.; spring California at 14@20c.

LIVE STOCK MARKETS

NEW YORK, Saturday, May 24th.

BEEVES.—Receipts for the week, 11,061 head; do., last week, 10,290 do. The offerings were again in excess of the demand, and though something better than Wednesday's prices were obtained in early instances, there was a dragging weak feeling at the close. Common native cattle sold at 8c. to dress 55 lbs; best grades to dress 57 lbs., 10c. Ten carloads of Cherokees, 900 lbs. average, brought 8¼c, dress 56 lbs. Mixed Colorado and Cherokee cattle sold at 8¼@9c. to dress 55@58 lbs. Exports for the week comprise 3,500 quarters of beef and 464 live cattle. Reports from England are still adverse to large shipments of live stock.

COWS AND CALVES.—Ordinary milkers range $30@50; a better grade depends upon a chance customer. Parties wanting fine stock deal directly with first-class dairymen or breeders, and there is consequently not much success in peddling a fine animal through the down town streets to meet a merchant customer.

VEAL CALVES—Have been plenty and easy rates have ruled. At the close the feeling is a little better but 5½c is the top for N. J. and 4¾c. for State; poor to good stock, 3@4½c. Buttermilk, 2½@3½c.

SHEEP AND LAMBS.—Receipts for week, 23,966 head; do. last week, 31,543 do. Lambs are active at 6¾@8c. for Southern and Western, and 8¼@9¼c. for N. J. Sheep prime; clipped, 3¾@5¾c.; unshorn, 3¾c.

HOGS.—Receipts for week, 31,751 head: do. last week, 28,303 do. No late sales to establish a rate for live. City dressed western, 4¾@5¾c.

State dressed pork, 5@6c.

New Advertisements.

ADVERTISING RATES:

Inside, 14th and 15th pages (Agate space)	40c. per line;
" 13th page	50 "
Outside or last page	60 "
Fifty per ct. extra for unusual display.	
Special Notices, leaded, by count	70 "
Reading "	1.00 "

Discount on 4 insertions, 5 per ct.; 8 ins., 10 per ct. ins., 15 per ct.; 26 ins., 20 per ct.; 52 ins., 25 per ct.

☞ No advertisement inserted for less than $3.

TERMS FOR 1879.

THE subscription price of THE RURAL NEW-YORKER is

Single Copy, per Year	$2 00
" " Six Months	1 10
Great Britain, Ireland, Australia and Germany, per Year, post-paid	$3 04 (12s. 6d.)
France, " "	3 04 (16¼f.)
French Colonies, " "	4 08 (20¼f.)

Any one sending a club of ten is entitled to one copy, one year, free.

Agents will be supplied with canvassing outfit on application.

Lord & Taylor

DRESS GOODS

WE INVITE THE EXAMINATION OF A NEW FABRIC—GAZE DE LAINE—RECENTLY INTRODUCED; A MOST BEAUTIFUL PRODUCTION, LIGHT IN WEIGHT, SOFT IN FINISH, FIRM IN TEXTURE, EVERY WAY SUPERIOR TO BUNTING, (WHICH IT IS INTENDED TO SUBSTITUTE,) AND YET RETAILED AT A VERY LOW PRICE, VIZ.: 32c. YARD, SINGLE WIDTH; 60c. YARD, DOUBLE WIDTH, FULLY WORTH 25 PER CENT. MORE. THIS GAZE DE LAINE IS IN ALL COLORS, AND WARRANTED NOT TO PULL OR FRAY OUT.

ALSO,

AN INVOICE OF DARK-GROUND FRENCH PRINTS AND MOMIE CLOTHS, CONSIGNED TO A LARGE PARIS FIRM, BUT SECURED FOR OUR HOUSE, MOST ELEGANT GOODS, THAT CANNOT FAIL TO BE APPRECIATED BY ALL LOVERS OF THE BEAUTIFUL, AS THEY ARE ENTIRELY NEW, AND POSITIVELY EXCLUSIVE IN PATTERNS AND STYLES.

Colored and Fancy Silks.

100 PIECES COLORED AND FANCY SILKS, IN GOOD QUALITY, SPLENDID ASSORTMENT, AND MORE THAN GOOD VALUE AT THE PRICES TO WHICH THEY HAVE BEEN MARKED.

SPECIAL AND BONA FIDE REDUCTIONS FOR THE COMING WEEK—FROM $1 TO 85c., FROM 85c. TO 75c., FROM 75c. TO 65c., FROM 65c. TO 50c.

THAT THE ABOVE ARE POSITIVE BARGAINS DOES NOT EXPRESS THE INDUCEMENTS WE OFFER, AND ONLY AN EXAMINATION CAN IMPRESS THE PURCHASER OF THE GRADE, PRICE, AND QUALITY OF THE GOODS.

ALSO,

BLACK SILKS

FROM THE BEST LYONS LOOMS, AT THE LOWEST AVAILABLE PRICES. OUR SPECIALTIES—GERARD SILKS—FROM $1.05, NEVER BEFORE EQUALED IN ANY PARTICULAR.

FINER GRADES AT PRICES CONSISTENT WITH QUALITY AND FINISH OF THE GOODS.

☞ SAMPLES OF PIECE GOODS, WITH PRICES DISTINCTLY MARKED, SENT ON APPLICATION TO ANY PART OF THE COUNTRY, SPECIAL ATTENTION TO ORDERS BY MAIL.

Broadway and Twentieth Street, Grand Street, cor. Chrystie N. Y.

SURE CURE FOR FOOT ROT.

BEST AND CHEAPEST!

BUCHAN'S CRESYLIC SHEEP DIP prevents and cures SCAB and all Parasisitic Diseases of the Skin. Buchan's Cresylic Ointment is CERTAIN DEATH to the Screw-Worm or Grub.

For further particulars, send for Price Lists and Circulars to

KIDDER & LAIRD 83 John St., N. Y.

1879. 1879

BONE. BLOOD. MEAT.

NO ROCK PHOSPHATE USED.

The large and extensive Works of the BUFFALO FERTILIZER, destroyed by fire in July last, have been entirely rebuilt and supplied with new and improved machinery.

It is the leading Fertilizer now in use by the farmers of the States of New York, Ohio, Pennsylvania and Vermont, and the Canadian Provinces.

This Fertilizer is guaranteed for its purity, being manufactured entirely from ANIMAL MATTER. No rock or mineral phosphate or refuse acid from oil refineries enter into its manufacture.

L. L. CROCKER, Proprietor.

☞ Send for Circulars, with full particulars.

Office, - - - - No. 252 Washington St.

WORKS—Babcock St., E. BUFFALO, N. Y.

THE CHEAPEST and BEST FERTILIZER in the World, because it is pure bone (nothing else) ground in its natural state, retaining those elements that will surely restore exhausted land. Just the article for Wheat, Grain and Grass farms, Gardens, Conservatories, Hothouses, and Household Plants. Once using fully demonstrates its value. Sold in any quantity Circulars free. Address

Excelsior Fertilizing Co.,

SALEM, OHIO.

THE CLIMAX MOWER AND REAPER.

Send for Catalogues and Price Lists.

Gibbs & Sterrett Mfg. Co.,

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47 & 49 SOUTH CANAL ST. - CHICAGO, ILL.

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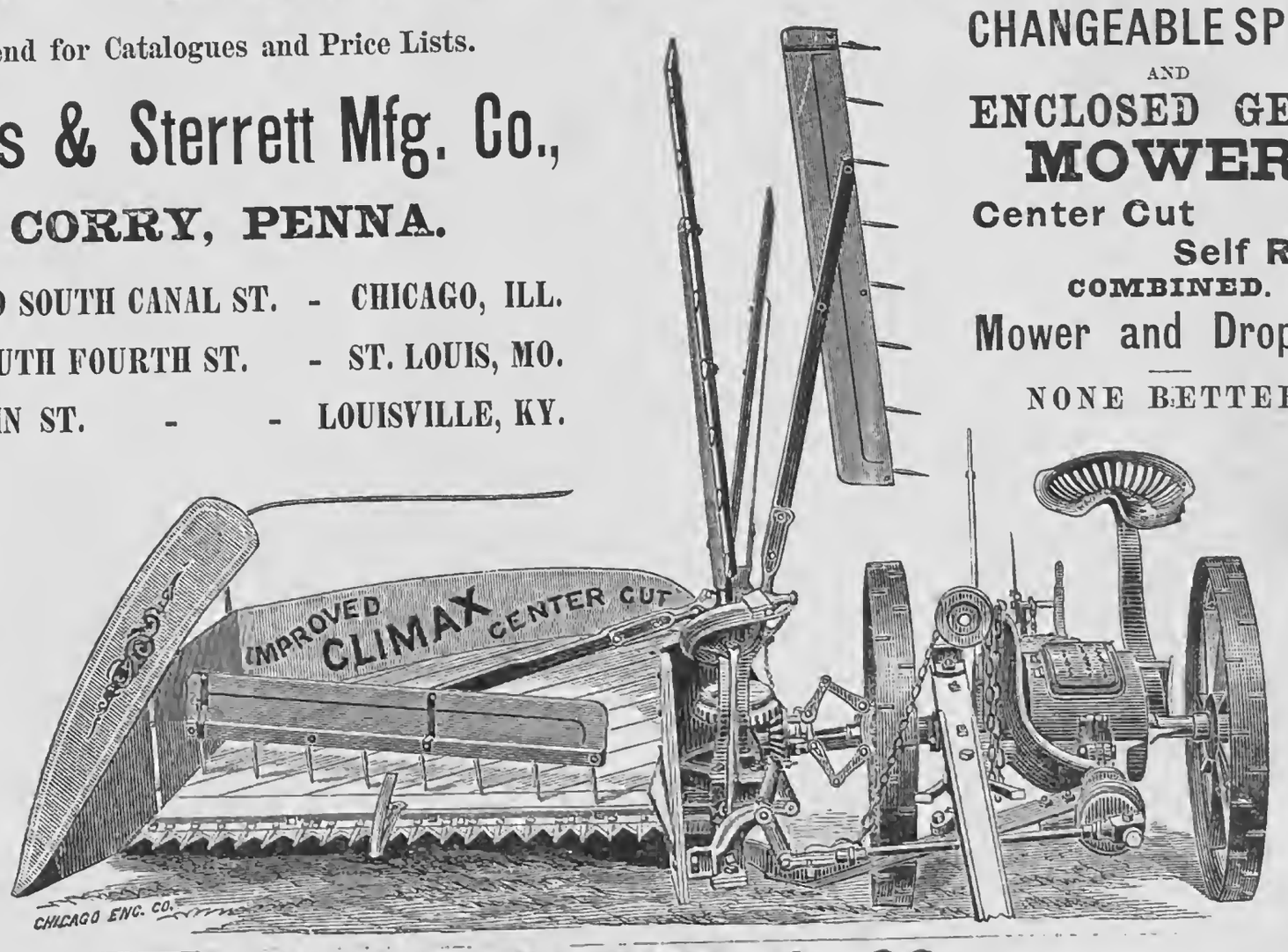


CHANGEABLE SPEED AND ENCLOSED GEAR **MOWER.**

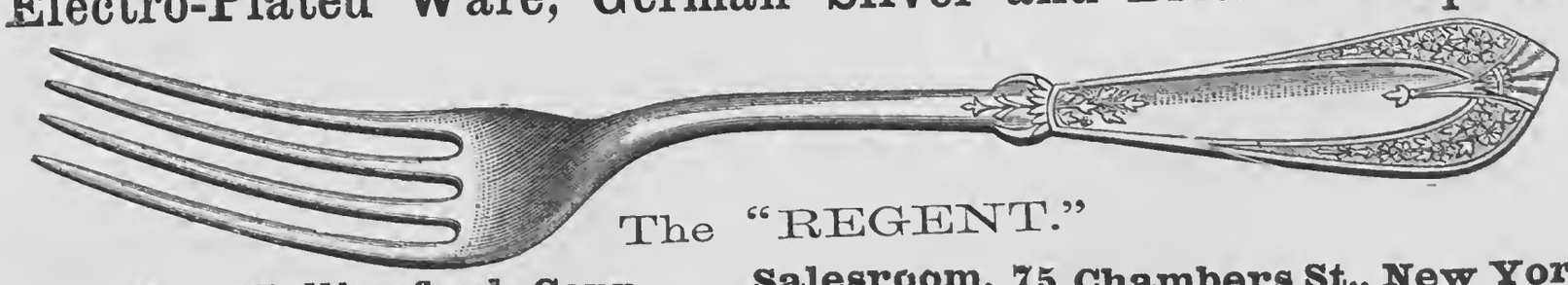
Center Cut Self Rake COMBINED.

Mower and Dropper.

NONE BETTER!

HALL, ELTON & CO.,

Electro-Plated Ware, German Silver and Britannia Spoons



The "REGENT."

Factories, Wallingford, Conn. **Salesroom, 75 Chambers St., New York.**

Reading for the Young.

WHAT SHALL THE YOUNG FARMER STUDY?

REV. A. W. MANGUM

This question has been propounded by a subscriber of the RURAL. To answer it satisfactorily is difficult, if not impossible, as so much depends on the peculiarities of each case—on the extent of one's education and what he has already acquired. Still, some general directions may be given, which may prove of value.

First, for immediate use and current advantage, it is important to take several first-class periodicals: one on industrial interests (as THE RURAL NEW-YORKER); one giving that part of the history of the day, on reputable and useful subjects, worthy of being published and read; and a religious journal of the church with which one is most nearly connected. The cheapest literature in the world is, perhaps, a well-edited newspaper. If the papers are filed, the young reader should note number, page, etc., of every article that appears of special value or interest, so that he may refer to it at once. A bound volume of a paper like the RURAL, with its well-arranged table of contents, is a rich, miscellaneous library, in itself. If the papers are not kept on file or bound, the pieces that are prized should be cut out, at once, and pasted in a scrap-book; the index being made as the articles are put in. A respectable scrap-book can be made of any old statistical work such as most families may have received from some of the departments at Washington. When such is used, at least every second leaf should be cut out, so that the book will be properly shaped when closed. But, for several reasons, the newspaper is not sufficient. Its articles are too short to give full connected instruction on any subject. It contains such great variety that the reader is not so apt to carefully digest and appropriate any part. Hence, the young man should seek *books* on the special subjects in which he is most interested. These, as to various kinds of industrial work, may be obtained through the publishers of leading agricultural journals, or through a trustworthy bookseller. Some time ago the RURAL NEW-YORKER contained a list of valuable works on various practical subjects. Be sure to get a good work on Political Economy, Wayland's or Walker's is very good. As to general information, beyond one's particular work, the field is broad—boundless. A general history ought to be read, in chronological arrangement. Some universal history, like Tytler's is suitable. For its size, Freeman's Outlines gives the most valuable sketch of that part of history with which our civilization is connected. Some good history of the United States and (if there be one) of one's own State, should be studied. Beyond this, special histories can be read according to taste, means, and opportunity. At least a brief work on ecclesiastical history is important. In general literature, it is easier to tell what not to read. Shun all trashy story-papers, dime novels, sensational works of fiction of large size. Much novel reading wastes time, corrupts the tastes, makes one superficial, destroys the relish for more valuable works, demoralizes the character, and often leads to still more serious evils. Read books that will pay for the reading.

A hand-book on English and American Literature will give much knowledge of authors and their works. Chambers' Cyclopædia of English Literature can now be obtained for a small sum. For its size, I know no book on American literature that will suit a young farmer better than Hart's larger edition. Various departments of Science are now popularized so as to be entertaining and profitable to the common reader.

A periodical like the Eclectic Magazine will keep one, in some degree, advised of the progress and tendency of modern thought.

Every one who can afford to buy it, ought to get Appleton's American Cyclopædia, or some similar work. The comprehensiveness, variety, trustworthiness, and convenience of a set of such volumes render them of incalculable value. Those who cannot get the new edition (and the many cannot) will do well to purchase even a second-hand copy of the older editions. Either Appleton's, Johnson's, or Chambers's may be esteemed a treasure in this age when knowledge is so vast and time so precious.

Any minister or other religious friend of educational attainments can give directions as to a course of reading in religious literature.

Last of all, yet most emphatically of all, I commend to the young farmer the study of the greatest of all books. I need not name it, in other words. It teaches every one how to be best and to do best for himself and others. The wonderful Book of Proverbs is at least one of the best treatises on private and political economy that has ever been written. The whole Bible ought to be studied in youth, while the character is forming, in riper years, while duty makes its ceaseless demands. It teaches the direct way to godliness; and "godliness is profitable unto all things, having the promise of the life that now is and of that which is to come."

CHILDRENS' GARDENS.

ANNIE L. JACK.

THE timely remarks of RURAL Editor, regarding the new Horticultural Club, have interested me very much, all the more I suppose because it is one of our little home peculiarities that I should be glad to see adopted in other families. In the interest of the club, with Uncle Mark's permission, I will tell you what for the last eighteen years has been our plan: When our babies are too young to know what it means, their tree loving papa has planted for each a fruit tree—cherry, apple, or pear, and the spot around it is called the garden of the baby to whom the tree belongs. It is a treasured spot in their eyes, and at the age of *two*, I have seen the little ones out with a few peas, or seed of morning glory, or anything else that was at hand to plant in "mine gardy." As they grow older, this becomes a sort of experimental ground, cuttings are planted, roses set out and each strives to outvie the other. It was my own custom in autumn to plant a bulb or two, hyacinth, crocus or snowdrops, without any remark, and the wondering eyes that have met mine when the first spring days came, are still in memory, while the little one would whisper or shout, according to the several disposition, "There's something coming up in my garden already." Older sisters and brothers coming home from the woods with treasures, share them with baby in the latest garden, and there you are sure to find the earliest hepatica and violets. The children have learned the names of flowers in this way, and highly amuse my visitors by asking them to go and see their portulacca, or some other name equally long. The trees thrive and grow with the digging around and care the flowers receive, and some of the elder children now harvest a barrel of choice apples, which is sold, and the money of course becomes their own pocket property. It is an important point in this matter for parents to respect the garden of each child as they would that of a neighbor—not to appropriate a single plant or fruit with the careless remark, "Oh! Joe has some fine melons, let us taste them," this will be quite enough to discourage the little gardener, who would be proud to make mamma a present of the same. When my little girls have sown their seed too thickly and have a surplus of anything I can use, I make a point of buying or exchanging with them, this is encouragement and an assertion of their individuality. Yes, plant flowers, fruit, vegetables or anything you fancy, children, and learn their nature and habits, as they grow, for does not your own beloved Whittier say:

"Who sows a field, or trains a flower,
Or plants a tree, is more than all."

FROM A PARENT.

DEAR UNCLE MARK:—The little ones are very anxious to join the Club. Each one has selected some flowers and vegetables to nurse. I will get them to take notes and put them in shape for you. Some have selected wild flowers, the names of which they wish to know; can you help them to names? I will write again when the grass-killing fever subsides. I inclose the list of names; only six. Truly yours,

Caldwell, Texas. D. H. H.

[I shall be glad to assist the members in naming their plants. Send the plants, or, if these are too large, some flowers and a branch with leaves of each. In sending specimens so long a distance there is danger that they may be crushed, or dry out and spoil, unless well done up. Pack fresh specimens in damp moss in a tin can or a light wooden box; paste-board boxes are often crushed in the transit, and if their contents are damp, may meet with some opposition from the P. O. officials.

UNCLE MARK.]

LETTERS FROM BOYS AND GIRLS.

DEAR UNCLE TRUE:—As the cousins are all writing to Uncle Mark, I thought you might feel slighted, so I will write to you. In a recent paper I noticed a letter from Bertie Park, in which he told how many onions he raised from half an acre, I would like to tell how many we boys raised from *one-fourth of an acre*. We first manured the ground heavily, and then plowed it, smoothed it, and sowed the seed in rows fourteen inches apart. The weeds came up in due time, but these we kept down with a cultivator made for the purpose. (Bertie's mule would have had to be pretty sober to have walked between those rows). We would then get down on our knees with a knife and cut the weeds from around the roots. This operation had to be repeated four or five times, but we were well repaid, for in the fall we harvested 198 (one hundred and ninety-eight) bushels of onions. Besides these, there was ten or twelve bushels of scullions that were unfit for sale. We received 60 and 65 cents per bushel in the town of La Crosse, 12 miles away. Tell Uncle Mark I would like to join his Horticultural Club, though I have enough farm work to occupy most of my time. Our Swiss cousin has had such delightful experience with a skunk, that I think he had better get the picture of one, standing on a sugar bucket, taken, and hang it around his neck. As you printed my last letter signed Relic Seeker, I feel encouraged to write again. Your nephew,

ROBERT HARRISON.

DEAR UNCLE MARK: I have been longing to join your club for some time, so I thought that I would write a letter to you and to the cousins. I suppose a great many of the boys and girls who belong to the Horticultural Club live in the country; but I do not, I live in New York. We have a nice yard in which are some grape-vines and some roses. Papa is going to set out some flowers of different kinds, and I am to have a bed of flowers all to myself. I am a constant reader of the boys' and girls' letters who belong to the club, and would like to hear how Lizzie Hay's flowers are getting along. Please put my name on your list. Your niece, LIZZIE E. BLAIR.

New York City.

DEAR UNCLE MARK: I have been very much interested in reading the letters in the RURAL NEW-YORKER, from the girls and boys, and have thought many times I would try and write, but did not have courage. Now, as I was reading of the way to make farmers, in the RURAL of May 3d, and of the Youth's Horticultural Club, I will send in my name for a member of your club, if you will accept it. I have been very busy since the warm weather preparing my flower beds and sowing the seeds we received from the RURAL seed distribution and others, and hope to send you a favorable account of the product of my labors in due time. Very truly yours. VIOLET M. V.

Carthage, Jeff. Co., N. Y.

DEAR UNCLE AND COUSINS,—As this is my first letter, I present myself with the wish to be one of the cousins. My father has taken the "Dear RURAL" ever since I was big enough to read it. I have no pets, but I will tell about my quilts. I have pieced two quilts and have commenced another. I have three sisters and one brother, but I am the oldest of them all. We take great pleasure in reading all the letters. I like those from John Schwyu, and hope to hear from him again. The "Beauty of Hebron" potato and the seeds were received to our satisfaction. My letter is getting pretty long. I am afraid it will go into the waste basket. If not I will write again. SUSIE N. S.

Erie Co., N. Y.

DEAR UNCLE MARK:—I have read your letters regularly every week, and I would like to join your Horticultural Club, as I am a great lover of flowers and of gardening. Our garden is about in the middle of the town, and we have not very much land but still enough for a little garden. I generally go out every year into the woods and get a collection of wild flowers and transplant them into the garden and most of them are in bloom now. I am going to work this year and make some rustic flower-stands, hanging-baskets, etc., from which I hope I shall make a little spending money. I like the idea of having hollow logs for flowers, and I think I shall try and get a few.

Georgetown, Ont. FRANK H. STARR.

DEAR UNCLE MARK: I am not quite 14 years old, and I have a pretty large garden to tend this summer, a great deal larger than a hoop. I have planted onions, lettuce, peas, radishes, cabbage, beans, cucumbers, beets, tomatoes and parsnips, they all look thrifty. I am not raising them to sell, as we have market for them at home. I have four brothers, and each of them have two sisters; now, cousins, how many of you can tell how many there are in the family? As this is my first attempt to write, I hope you will not criticise me too much. Please place my name on the list for your Horticultural Club. S. P. SNELL.

The Puzzler.

BEHEAD AND CURTAIL.

1. Behead and curtail a firclock, and find employment.
2. One who makes gloves, and find to regard with affection.
3. A cutting instrument, and find to perceive by the ear.
4. A narrow passage, and find a weapon for a bow.
5. A grasp, and find to tear.
6. The seat of love, and find a spike of corn.
7. Perfume, and find to act.
8. To collect, and find an instrument to row a boat.
9. Gay, and find to wander.
10. A turner's instrument, and find a spy.
11. Pure, and find to strike.
12. Watery, and find a kind of tree.

☞ Answer in two weeks. M. SMITH.

HIDDEN INSECTS.

14. Oh, Lou, see there?
15. How big Nathan has grown.
16. Tell me if lye is made from ashes.
17. I ask a trifle at your hands.
18. What a butt Eryin (our ram) gave him.
19. Must Remus quit on Saturday.
20. How tumid George's hand is.
21. Seta ran Tula's race for her.
22. Do be easy.
23. Last night in bed Bu gave a scream.
24. Was Peter victorious.
25. I bought my license.

☞ Answer in two weeks. O.

TRANSPOSITION.

W'ast eth ginth ferobe Cithrsams, newh lal 'orth net shouse,
Ton a carerute saw ritsgrin—ont veen a smoue;
Teh kotcsgins rewe gunh yb eht michyen with race
Ni shope natt T's Nolchsia noos lowdu eb heret.

☞ Answer in two weeks. LITTLE ONE.

DIAMOND PUZZLE.

My first is a consonant; my second is a utensil; my third is a town in New South Wales; my fourth is a lady's name; my fifth is a continent; my sixth is the answer; my seventh is a fruit; my eighth is a man's name; my ninth is an animal; my tenth is part of a play; my eleventh is a vowel. My whole read horizontally and vertically will give the name of a celebrated Scottish king.

☞ Answer in two weeks.

ANAGRAMS OF CAPES.

1, Great Lo; 2, Swilons; 3, Goalhue; 4, I or a man; 5, Hug a sal; 6, Sall Gain; 7, Ram sty; 8, Part in stove; 9, Sap on her; 10, T fry tall; 11, Pars let; 12, Polen hen; 13, Our Ted; 14, Skin a durn; 15, Tis slew; 16, Fir load; 17, Ace sent on; 18, Full to can mire; 19, I blaze tho; 20, Herbert G; 21, Our man a; 22, So can; 23, As I crag; 24, Three stop in.

☞ Answer in two weeks. M. S.

PUZZLER ANSWERS.—May 17.

HIDDEN INSECTS.—1, Hornet; 2, Roach; 3, Pismire; 4, Centipede; 5, Ant; 6, Spider; 7, Yellow Jacket; 8, Beetle; 9, Chinch; 10, Chafer; 11, Mite; 12, Moth; 13, Caterpillar.

Miscellaneous.

HORSFORD'S Bread Preparation

UNSURPASSED FOR MAKING

LIGHT BREAD, Biscuit, Rolls, Cake and Pastry.

It is Better and Healthier than ordinary Baking Powder, Cream Tartar or Yeast.

The cost of raising Bread, Biscuit, &c., with it is only about half as much as by ordinary Baking Powder, and the result is much better.

It restores the nutritious elements which are taken from the flour in bolting. No ordinary Baking Powder or anything else used for raising bread does this.

Universally used and recommended by prominent Physicians.

If you cannot get it of your Grocer send a three-cent stamp to the manufacturers for a sample.

Manufactured according to the directions of Prof E. N. Horsford, by the Rumford Chemical Works Providence R. I.

JOHNSON'S NEW METHOD OF HARMONY.

By A. N. JOHNSON. ($1.00,) Just Published.

This new book is so simple and clear in its explanations, that any music teacher or amateur can get an excellent idea of the science, by simply reading it through. At the same time a most thorough course is marked out for those who wish to be composers, including work for many months, without, or still better, with a teacher. *Thousands can now learn that have not hitherto been able to do so.*

THE GOSPEL OF JOY is received with the greatest favor by all who have examined it, and is, in itself, already a great success. Send for it. Use it in Conventions, Sabbath School Gatherings, and "Congresses," Camp, Praise and Prayermeetings. (35 cts.)

GOOD NEWS. By J. M. McINTOSH. (35 cts.)
SHINING RIVER. By H. S. & W. O. PERKINS. (35 cts.)
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LIVING WATERS. By D. F. HODGES. (35 cts.)
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Five Sunday School Song Books that it is hard to beat, and which contain a great deal of fine music to be found nowhere else.

Any book mailed, post-free, for retail price.

OLIVER DITSON & CO., Boston.

C. H. Ditson & Co., 843 Broadway, New York. J. E. Ditson & Co., 922 Chestnut St., Phila.

YOUNG MEN WANTED! $50 to $125 a Month. For Business Men, Farmers, Mechanics, Workingmen, Property Owners, Tenants, everybody, every business, all the States. Saves many times cost. Selling fast. Low price. Great success. One agent sold 152 copies first 36 days. Send for circular and terms. P. W. ZIEGLER & CO., 1900 Arch St., Philadelphia, Pa.

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AGENTS WANTED New Devotional Work. By President Champlin. Will be bought by almost every Christian family. Circulars free. Address Am. Pub. Co., Hartford, Conn.

18 ELEGANT New Style Chromo Cards with name, 10c. postpaid. Geo. I. Reed & Co., Nassau, N. Y.

50 Perfumed, Snowflake, Chromo, Motto Cards, name in gold and jet, 10c. G. A. Spring, E. Wallingford, Ct

60 Cards—20 Chromo, 10 Motto, 30 Ocean Shells, Snow flake, &c. Name on, 10c. Clinton Bros. Clintonville, Ct

Stock and Poultry.

IMPROVED **Small Yorkshire Pigs,**

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Splendid Berkshire Boar

EIGHT MONTHS OLD, $20.

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FARMS $400 to $1000. JOIN OUR COLON! *Maps and pamphlets free.* J. F. Mancha, Claremont, a.

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IN CENTRAL ILLINOIS.

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OVER 1,000,000 ACRES OF FINE FARMING LANDS IN MINNESOTA AND DAKOTA,

For sale by the WINONA & ST. PETER R.R. CO., At from $2 to $6 per Acre, and on liberal terms. These lands lie in the great wheat belt of the North West, and are equally well adapted to the growth o other grain, vegetables, etc. The climate is unsur passed for healthfulness.

They are Free from Incumbrance.

Guide Book, Maps, etc., containing full information sent free.

CHAS. E. SIMMONS, Land Commissioner Gen'l Offices C. & N. W. R'y Co., CHICAGO, ILL.

Mention this paper in writing.

PERSONAL ITEMS.

Senator Matt Carpenter was doing chores for Governor Dillingham, of Vermont, forty-five years age.

Apostle Frank Murphy, new in 'Frisco, has raised his voice against the Chinese. He visited Chinatown soon after his arrival on the coast, and declares the Mongolian quarters a burning shame and disgrace.

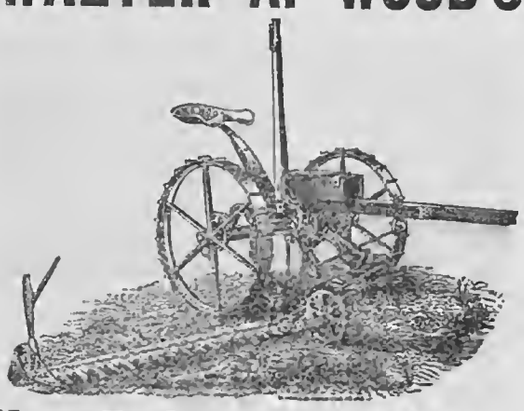
The grandfather of Henry James, Jr., the novelist, was a keen-witted Irish immigrant who had eleven children, and provided all of them with a fortune out of his own accumulation of several million dollars, derived in part from the Syracuse salt works.

Mr. Colfax tells the following story of President Lincoln: "On one occasion during the war he was closeted with three generals when General Tom Thumb was announced. Turning from the business of the interview, the President gave instructions for the immediate admission of the dwarf. On the latter's entrance Mr. Lincoln turned his back on the three generals, and after greeting his new visitor, held him in conversation for several minutes, much to the chagrin of the officers. On the dwarf's departure, one of the generals ventured to remark that Tom Thumb was a very small man, whereupon the President replied: 'My generals, judging by results, are considerably smaller.'"

The greatest appetizer, stomach, blood and liver regulator on earth—Hop Bitters.

Implements and Machinery.

WALTER A. WOOD'S



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ONE AND TWO HORSE.

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New Sweep Rake Reaper.

[2 Sizes—5 feet and 5 feet-6 inch cut, with and without Mowing Attachment.

with new Automatic device for controlling the rakes. This is the most perfect, lightest draft, and stillest running Reaper made.

Walter A. Wood's Chain Rake Reaper.
" " " Self-Binding Harvester.
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Circulars and Price Lists sent on application. Made only by the

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New York City, 34 Liberty Street.
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FARM ENGINE.

The best, the cheapest, most efficient and durable Engine in the market. Every Engine is tested and diagram cards taken before shipment, and every Boiler is insured for *one year*

Our Engines will give from 25 to 33⅓ per cent

MORE POWER

With the same amount of fuel and water, than many of the engines now in the market. Send for our catalogue and prices.

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Gold Medal at Maryland Institute and 15 First Premiums at other Fairs in 1878.

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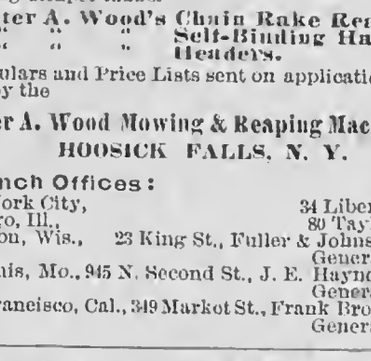

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The most perfect and substantial Fan made. It will grade, separate and thoroughly clean any grain raised upon the farm, and has been victorious in every contest over most all Fans made. An ordinary farm hand can operate it! It will save its cost in one season. Responsible Agents wanted where not introduced. Address the manufacturers for price lists and circulars.

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DOUBLE HARPOON
HORSE HAY-FORK.
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Descriptive Catalogue sent free.
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AGRICULTURAL INSURANCE CO.

Of Watertown, N. Y.,

The largest Company in the country which insures only farmers' property and residences. Over twenty-six years old.

Capital..... $200,000 00
Net Surplus, over.....$216,000 00
Assets, Jan. 1, 1879..$1,098,623 24

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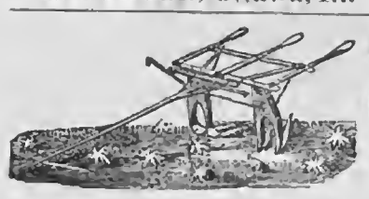
In the Field. The Team Lifts the Hay. Ask your dealer for descriptive circular, or send stamp to **J. E. PORTER, Ottawa, Ill.**



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Agricultural Engine.

Most powerful for its weight of any Engine built. Simple, Strong, Durable and Safe. Requires no Leveling, and is Complete in all its parts. Illustrated Circular and Price List sent on application to

BATAVIA PORTABLE ENGINE CO,,
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The Charter Oak Swivel low.

THE ONLY PERFECT SWIVEL LOW.

WALPOLE, N. H., April 13, 1878.

HIGGANUM MF'G CORP.:—You wanted to know how I liked the Charter Oak Swivel Plow No. 160. I would say that I have used it on all kinds of land, and think it the best plow I ever saw or used. I have used seven or eight different kinds of swivel plows and this beats them all in doing good work, and draws much easier I would not exchange it for any plow I ever saw.

Yours in haste, O. J. HUBBARD.

Manufactured only by
THE HIGGANUM MF'G CORPORATION,
Higganum, Ct.

Implements and Machinery.

MYERS' Improved Wind-Mill.

Perfectly self-regulating, and the only Wind-Mill that stands on the derrick in perfect balance, in and out of gear. It is warranted to be well made and to stand the most violent storms. Every farmer, stock-raiser, and dairyman should have one for pumping water, grinding feed, etc.

Send for Circular and Price-List.

Silver & Deming Mfg. Co.,
Salem, Ohio.

Horse-Powers,

For One, Two and Three Horses.

MACHINES FOR

Threshing and Cleaning Grain and Sawing Wood.

Patented, Manufactured and Sold by

A. W. GRAY'S SONS,
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The machines with the improvements are the result of more than thirty years' careful study and experiment.

The proprietors are the inventors, ever have been and still are the sole manufacturers.

We have labored from the first to produce machines that will be durable, tasty, compact, portable, and that will run with the least possible friction.

We believe that we manufacture the best machine of the kind in the country.

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FOR MOWERS AND REAPERS.

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The simplest, strongest and safest. Cheap, durable and economical in use. *Has improvements found on no other Engine.* SPEED ADJUSTABLE WHILE RUNNING. It does not foam. The Governor is self-oiling

IT IS SAFE

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☞ Cheap freight rates to all points. Address for Circulars and prices.

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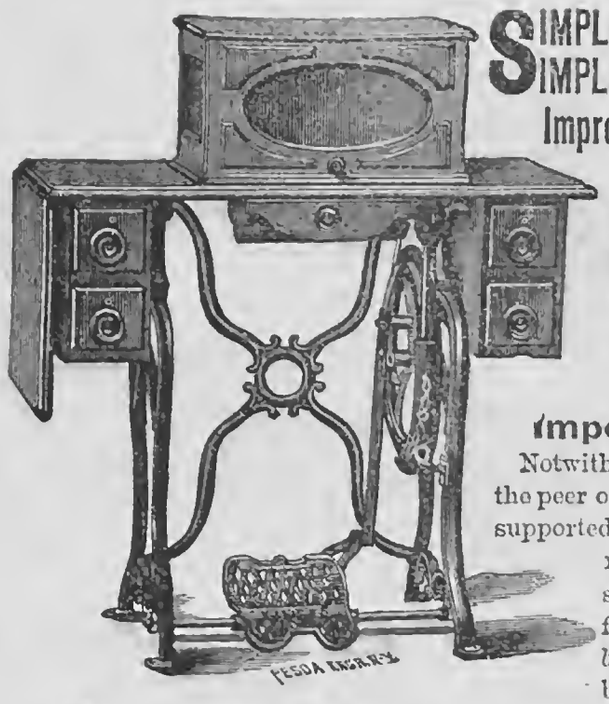
The Best Paper, and the Best Premiums to Agents, is our motto. We ignore Chromos and all other cheap colored pictures, preferring to put our money in *the paper* and in Premiums to All.



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Improvements September, 1878!

Having regard for the demand of this progressive age, we now offer to the World the

NEW VICTOR

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Important Improvements.

Notwithstanding the VICTOR has long been the peer of any machine in the market—a fact supported by a host of volunteer witnesses—we now confidently claim for it greater simplicity, a wonderful reduction of friction, and altogether a *Rare Combination of Desirable Qualities.* For sale by Merchants and others.

☞ Send for Illustrated Circular and Prices. Liberal Terms to the Trade. ☜

Don't buy until you have seen the lightest running machine in the World,—the Ever Reliable "VICTOR."

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MIDDLETOWN, CONN., and Nos. 199 and 201 Wabash Avenue, CHICAGO, ILL.

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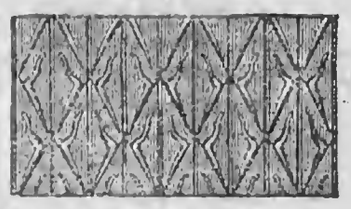
METALLIC SHINGLES.

Gold Medal Awarded at Paris Exposition, 1878.



Make the best roof in the world. Superior to Tin. Cheaper than Slate, and less than ⅛ the weight. Cannot Crack. Fire Proof. Can be put on by any Carpenter.

75 per cent. saved in freight, with no breakage in carriage or putting on. ☞ Will last a life-time. Send for full description and prices to the

IRON-CLAD MANUFACTURING CO.,
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MEDAL MACHINES.

New York State Agricultural Works.

1st Premiums at all Competitive Trials.

Railway, Chain and Lever Horse Powers, Threshers and Cleaners, Threshers and Shakers, Clover Hullers, Feed Cutters, Wheel Horse Rakes, Horse Pitchforks, Shingle Machines, Straw Preserving Rye Threshers, Portable Steam-Engines, Cider and Wine Mills and Presses, Dog and Pony Powers, Etc., Etc.

WHEELER & MELICK CO.,
ALBANY, N. Y.

Send stamp for Circular and report of Centennial trial.

Osgood's Patent.

5 TON SCALES.

Special Price, $25

Brass Beam and Poise. Iron Attachments, with **Steel Sockets and Pivots.** Adjusted and Sealed to U. S. Weights. Fully warranted.

To be paid for when **proved correct and satisfactory to you.** Two days' work to set them in complete order.

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OSGOOD & CO., Binghamton, N. Y.

Gardner's Railway Pitching Apparatus.

Consisting of Carrier, Grappling Fork, Pulleys and Hooks. For unloading Hay, Grain, Beans, Corn Stalks, loose or in bundles, etc. Can be used in any barn. Also, Improved Stacking Apparatus. Send for Circular, and get valuable information.

E. V. R. GARDNER & CO.,
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"KING OF THE LAWN."

A Want Supplied. A Cheap Lawn Mower that Does Good Work.
14 Inch Cut; Weight 35 lbs.

The Cheapest, Simplest, and Easiest Running Machine in the Market.

Self-Sharpening; Requires no Adjusting; Never gets out of Order.

NO GEARS IN THE WHEELS

Fewer Pieces by Three-Fourths than in any other Lawn Mower IN USE.

Thoroughly tested for Two Seasons.

EVERY MACHINE WARRANTED.

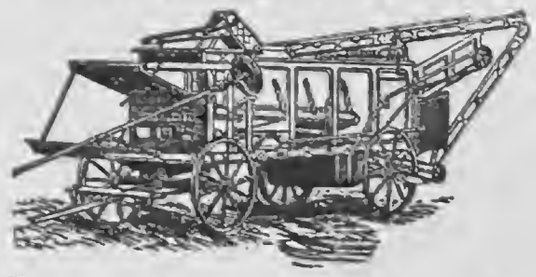
THREE SIZES.

10 inch.
12 inch.
14 inch.

Send for Illustrated circular to

GREGG & CO., Trumansburg, N. Y.

COMBINATION GRAIN SEPARATOR.



Ten years in advance of all others.

The vital portion of the vibrating device is perfected by the **combination of Picker and Open Rake attached,** thus it has the vitals of both Apron Machine and Vibrator.

The Friends of Each Style Agree to its Perfection.

Straw subjected to Three Distinct Motions.
No parts to break or get out of order.
Simplicity, ease of draft and quantity of Work.
Best Cleaning Mill ever made.

EACH SEPARATOR TESTED BY MACHINERY.

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UPTON M'F'G CO.,
BATTLE CREEK, MICH.

Wit and Humor.

A PRETTY girl won a musket in the French lottery. When they gave it to her she asked, "Don't they give a soldier with it?"

"ALWAYS pay as you go," said an old man to his nephew. "But uncle, suppose I haven't anything to pay with?" "Then don't go."

CURIOUS TRANSFORMATIONS.—When a pretty bonnet becomes a pretty woman; when a man turns a horse into a pasture; when a door is found to be ajar.

"Is that dog of yours a cross breed?" asked a gentleman recently, of a countryman. "No sir," was the reply; "his mother was a gentle, affectionate cretur."

"MY soul's at the gate," is the title of a new piece of music. He had better be careful, or he may find the old man's sole at the gate, too, some of these fine evenings.

'TIS old but true: "Trying to do business without advertising is like winking at a pretty girl in the dark—you may know what you are doing, but nobody else does."

A SHORT time ago a Danbury man had $40 stolen from him. The thief was subsequently struck with remorse, and sent back $20, with a note to the effect that as soon as he received more remorse he would send back the rest.—*Danbury News.*

THE comedy of "Our Boys" has been played 1,350 times consecutively at a London theater, and will soon be followed by "Our Girls." It is different in this country. Here our girls are followed by our boys. But perhaps it is leap year in England.—*Norristown Herald.*

REALISTIC.

GRANDPAPA: Can't you understand anything at all, Tilly? Imagine I have $5 in one pocket and $3 in the other, how many dollars have I got.

TILLY: Show them to me, first, grandpapa.

THE LARGEST ASSORTMENT OF
Weather Vanes
IN THE COUNTRY.
MANUFACTURED BY
HARRIS & CO.,
54 BROMFIELD ST., BOSTON, MASS.
☞ *Send for Price List.*

FINE TEAS supplied to *consumers* at prices *lower than ever known before.* These *fine qualities* seldom reach the interior, being sold only in large cities and among the very wealthy. Send for *reduced price-list*, and compare with other houses.
CONSUMERS IMPORTING TEA CO.,
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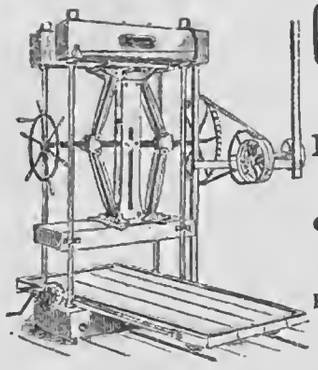
P. O. Box 4236 New York City.



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Power or Hand.
Double Platform
ELEVATORS.
Grater Reduced to $40.
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PARIS EXPOSITION, 1878.

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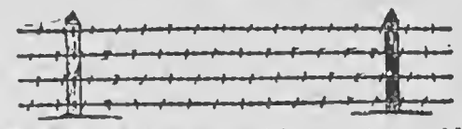
PATENT
STEEL BARB FENCING
THE BEST AND CHEAPEST FENCE for Railroads, Farmers, and Stock Raisers.
BARB FENCE diminishes outlay; increases protection; shelters no enemies of the crops; accumulates no snow drifts.
24,000 Miles of Barb Fence erected in last three seasons.
For all enclosures in the treeless States; for a better Fence economy in the older States; **BARB FENCE** is everywhere approved as safe and efficient.
For the Gardener, the Stock Grower, the Vineyard proprietor, **BARB FENCE** is the only perfect fence.
SEND FOR ILLUSTRATED PAMPHLET.
WASHBURN & MOEN M'F'G CO.
Worcester, Mass.



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HIGGANUM WINDMILL.

Something New.
A Perfect Automatic-Working Wind-Wheel.
NEW PRINCIPLES.
NO OLD CLATTER-TRAP.
The Simplest Mill Built.
Cheap, durable and not liable to get out out of order. Warranted to work well in all winds.
☞ Send for Illustrated Circular and Price List. Manufactured only by
THE HIGGANUM MANUF'G CORP.,
Higganum, Conn.

State you saw this in the RURAL NEW-YORKER.

TEAS. AHEAD ALL THE TIME. The very best fresh goods direct from the *Importers* at *half* the usual cost. Best plan to Club Agents and large buyers. All express charges paid. Quality guaranteed. New terms free.
THE GREAT AMERICAN TEA CO.
P. O. Box 4235. 31 and 33 Vesey St., N. Y.

THE IMPROVED "LION"
Self-Dump Sulky Hay and Grain Rake.

They are light of draft, with no side draft, and no weight on horse's back.
Their superiority is conceded by all farmers and dealers.

They are made of the Best Seasoned Timber.
They are finely Oiled and Varnished.

They have Iron Axles and Iron Hubs.
They are free from all ratchets, pawls and gears.

THE BEST IN THE WORLD.

☞ They have defeated all competitors in all contested field trials, and are specially strengthened and improved for the campaign of 1879. ☜

EVERY ONE FULLY WARRANTED.

Manufactured by A. W. MINER & CO.,
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THE RURAL NEW-YORKER

A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME

VOL. XXXVIII. No. 23.
WHOLE No. 1532.

NEW YORK, JUNE 7, 1879.

PRICE FIVE CENTS.
$2.00 PER YEAR.

[Entered according to Act of Congress, in the year 1879, by the Rural Publishing Company, in the office of the Librarian of Congress at Washington.]

AVERAGE CULTIVATED WHEAT PLANT, (CLAWSON.) See pp. 358 and 359.
Reduced to 7-16 of natural size. Plant selected May 18.

Farm Topics.

NOTES FROM THE RURAL FARM.

What will be the effect of thorough cultivation upon the wheat plant? Will it pay to cultivate it? That is the question our present experiment is intended to, and we doubt not will, solve—at least as to our own farm. The plot is one-eighth of an acre, and was planted October 1st. It was plowed, harrowed and raked, then marked off 12 by 18 inches and three grains planted at the intersections an inch or so apart, two of which (where all lived) were afterwards pulled up. Thus the plants were 12 inches apart in the row and the rows 18 inches apart. It is supposed that the mass of leaves in a broadcasted or drilled wheat field gives protection to the individual plants; that is, that each protects the other. It may be so. As we looked at our little field last fall, just before freezing weather, the belief could not be escaped that few of those spires, so few and far between, could pass the winter in safety, much less make their cultivation necessary in the spring in pursuance of the object of the experiment. But the belief was ill-founded. The plant on our first page, half the natural size, was selected May 18, as of the average size of those of this plot, while that on the opposite page, is an average plant taken from a field sown broadcast. Both are of the same variety, viz. Clawson.

Our selection of a plot for this experiment was unfortunate. When too late to go over the work again, we found that it was infested with Rye-grass which in this remote and neglected part of our farm, had been permitted to obtain complete possession. But should we harvest a fair amount of grain from the plot, the presence of this pest will give additional weight to the desirability of the method. Of course, we should need special implements for seeding and cultivation. But the ingenuity of our implement men would not be long or severely taxed to furnish them as soon as needed.

The appearance of this plot of wheat at this time (May 26,) is peculiar. The ground is so well covered that cultivation from now on would not be advisable. But instead of the upright, spiral appearance of the ordinary wheat field, this looks coarse, bushy, rank and uneven.

Shriveled Wheat Seed.

Our readers may remember that our Defiance (spring) wheat of last season, was so shriveled that it was not worth thrashing.

It was the same with all of the six varieties of spring wheat which we sowed last year. But Defiance was shriveled most, though the straw and blades were heavier than those of any of the other sorts. If an ordinary wheat grain were cut lengthwise into four equal pieces, each one of these would be as large as the average grain of our Defiance. We desired to know if such shriveled seed would germinate at all, and if so, what difference there would be in the size, strength and yield of the plant. To test this, we sowed (broadcast) a quarter-acre. So far as we can judge, it has germinated as well as any other, so that it only remains to be seen how much influence the quantity of albumen of the seed exerts upon the strength and fruiting powers of the future plant.

An Asparagus "Belt."

This part of the country ought to have been the native home of asparagus, for, escaped from cultivation, it grows wild in hedge, field, wood and meadow. Thousands of acres are in asparagus, and twenty-acre fields are not uncommon. As here cultivated, there is no such thing as a preparation of the ground to endure for years. Sandy soils are preferred. The roots are planted ten inches apart and the rows four feet apart. Late in the fall or early in spring a furrow is plowed directly over the plants, and this is filled with farm manure. A furrow between the rows covers this, and the whole is leveled with wood hand-rakes. Thus its cultivation is continued from year to year upon the same field. No doubt even our Western readers know of the celebrated Oyster Bay asparagus, as if that were a distinct variety. We hear little of it now, not because it is less esteemed, but because hundreds of acres are now cultivated in various parts of Long Island, of the best quality, where one acre was cultivated in years past. The asparagus "belt" may be considered as confined to the south portion of the island. This receives the salt vapors from the sea. Some farmers deem it necessary to sow salt, others do not, and both seem to obtain abundant crops.

Weather Prospects.

We are having rains as often as needed. Our wheat, rye and oats were never looking better at this season. Potato beetles, of which we have a great abundance, seem that entertained with each other, just at this time, that they lose their appetites, while the potato vines, with only here and there a piece nibbled out, are growing vigorously. We have 15 different varieties of potatoes planted side by side for comparison. Corn, owing to the moist ground, to fewer cut-worms than usual and to tarred seed, has come up with exceptional regularity, and is now four inches high. Dourra has just appeared above the surface. Pearl Millet has not yet shown itself.

We are to-day sowing "Webb's new Kinver Yellow Globe Mangel" beside "Mammoth Long Red." The first sort is highly prized by those who have tried it; the second makes up in size what it lacks in quality, and never fails to attract notice at the fairs.

THE MOISTURE OF THE SOIL.

D. E. SALMON, D. V. M.

The experiments of the Rural on the above subject, some time ago, certainly produced a most excellent effect—they brought out the opinons of our leading thinkers on agricultural science, and showed what a frail foundation many of these opinions have; and it is to be hoped that they will demonstrate to our farmers the importance of having these foundation principles of their business determined in a definite and satisfactory manner. The idea of such simple observations putting a whole nation of agriculturists at their wits' end to explain them!

It is very surprising to see how many of those who have criticised and tried to explain these experiments have considered them defective, because the moisture condensed from the air was not taken into account. A writer in a contemporary paper lays great stress on this condensation, and attempts to show that it takes place, and for what reason. As his arguments cover the whole subject, I shall confine myself to a consideration of them. He commences by relating an experiment in mulching apple trees with three inches of sawdust; the trees were newly set and suffering from a long drought. In twelve days after mulching all had started into leaf, and on examining the sawdust the lowest inch and the surface of the ground were found almost saturated with water, although when the sawdust was applied, both it and the surface of the ground were very dry, and there had been no rain in the meantime.

No farmer who uses his eyes will doubt the accuracy of this observation; but let us examine the writer's explanation. The thought occurred to him that the temperature might assist in solving the question. On trial, the earth under the sawdust was found from 7 to 10 deg. cooler than the atmosphere, from which he concludes the water was the result of condensation of atmospheric moisture, since we know that a pitcher of ice-water set in the sun on a warm day will soon be covered with moisture. To show that it was not drawn up by the capillarity of the soil, he cites the Rural's experiments, which "appear to show that a loose, pulverized surface increases the evaporation, which might be interpreted that the placing of sawdust on the surface would cause the evaporation from the earth below to be more rapid; that is, that the moisture, if any, drawn up by the capillary attraction would be passed off more rapidly on account of the mulch!"

If this is not a *reductio ad absurdum* without the author intending it, it certainly has that appearance. Does this gentleman expect us to believe that evaporation of water is increased by restricting the circulation of the air about, and hindering its access to, the water? If we wish to dry wet hay in the quickest manner, do we pile it together to increase evaporation? or do we spread it thinly in order to give it free exposure to the air? Will water evaporate more rapidly from a pan if covered with a cloth than if freely exposed to the circulating air? And if not, how can it be expected to evaporate more rapidly from the surface of the ground when this is covered with sawdust than when freely exposed? The idea is too absurd for serious consideration.

The writer made some other observations, which I will mention before taking up the question of condensation. He found the well-worked soil of a garden two inches below the surface seven deg. cooler than the border which had not been worked; the latter was three deg. higher than the air, the former four deg. lower. Soil well worked six inches deep, the day after a fresh working, showed a temperature six to eight deg. below that of the atmosphere. I give these points because they are of value, and whatever conclusion we reach in regard to his theories, we will not neglect to give due credit and credence to his observations.

Now, permit me to ask if it is true that there is a *free* circulation of air through sawdust or freshly-worked soil, as several writers have assumed? In his article, the gentleman I have been criticising says: "We leave an air space between two walls to prevent the conduction of cold or heat into the interior of the building, and when the walls cannot be made tight, we fill the space with sawdust or other porous substance, and this prevents the conduction of heat in summer." Very true; but why fill with sawdust if there is a free circulation of air through it? Air is a bad *conductor* of heat, so if we can confine it in a space like the above, we have a non-conducting wall; but if there is a free circulation of air, heat is carried by *convection* and the air-space is no longer of value; consequently, we can see why filling with sawdust has even a better effect than making an air-tight space—*the air is confined between the particles and its circulation is prevented.* The same explanation is sufficient to show why the soil under the sawdust was cooler than the atmosphere, and why the same was true of the soil where the top was loosened by cultivation. If there were a free circulation of air, the soil through which it circulated would soon reach the temperature of the atmosphere; and this would take place the sooner if there were a condensation of aqueous vapor, because heat is given out during this process.

In regard to the condensation of atmospheric moisture, it must be remembered that there is a difference of over 50 deg. between the temperature of the surface of a pitcher containing ice water, and that of the air on a warm, summer day; while between that of the newly-worked soil six inches deep and the air, this difference is reduced to from six to eight deg. It may well be asked if so slight a difference would, under ordinary circumstances, be sufficient to cause a condensation. The water of my spring has a summer temperature of 55 deg., and very often when the air is 20 to 25 deg. warmer, there is no condensation of moisture on the sides of a tin or earthern vessel containing it; and I know that this seldom, if ever, takes place when the difference is no greater than eight deg. Here, in the mountains of North Carolina, we often have very heavy night fogs in summer, caused by the great difference between the atmospheric temperature during the day and at night, and I have often examined newly-worked soil early in the morning succeeding these fogs, to see their effect. The surface of this soil would seem very moist, as though a light rain had fallen, but the moisture scarcely penetrated a half inch, the soil underneath being as dry as powder; the effect on vegetation was certainly very slight as it did not reach the roots and was evaporated by an hour's sun. Connected with my earth closet, I have a room for drying the earth in order to use it a second time; here I often have it piled ten inches to a foot deep, but so far from condensing moisture from the air, which is freely admitted by open windows, it rapidly dries out and remains in the form of dust. I have often looked here for condensation but could never see any signs of it except on the very surface. On the contrary, a similar pile of earth in contact with the soil, though protected from rain, will seldom dry as thoroughly even in the hottest and driest weather. Again, in preserving ashes, I have found that when piled on the earth under cover, they soon become almost saturated with water, while if similarly situated, but put in boxes or barrels and kept from the earth, they remain as dry as when freshly burned; and I have often seen boxes of dry sawdust to which the air had free access but which, nevertheless, remained dry for a long time.

I mention these simple facts, which may be readily confirmed, because they bear directly on the question and are just as decisive as any experiments can be. Who does not know that a layer of dry sawdust or cut straw three or four inches deep on a barn floor, will remain dry for an indefinite time, but if placed directly on the soil, it becomes moist in a few days? The fact is very plain that the moisture comes from the soil and not from the atmosphere; and this is very fortunate, for otherwise the hay and straw which we store in our barns would become saturated with moisture, and rot.

I occasionally put out a great many cabbage and tomato plants, and in doing this follow the advice of our best market gardeners, which is to plow the land just before setting, *and pack the earth around the plants.* Though often done in a dry time, I have seldom lost more than two or three per cent.; and have been surprised on going out in the morning, to see how moist was the packed ground about the plants and how dry it was where loose. My explanation of the success of this plan has been that the packed ground allowed the moisture to rise around the roots, which at first do not reach the unstirred soil. If this moisture is derived from the atmosphere, how can such facts be explained? Why is the compacted soil more moist than that which is loose? Further, it has been shown by recent investigations that it is doubtful if this condensing power of the soil has any significance as a measure of supplying crops with water. (Report of Connecticut Ex. Station, 1877, p. 81).

But do not the Rural's experiments show that moisture is evaporated more readily from a loose, pulverized soil than from a compact one? Undoubtedly; how can any sensible man think otherwise? If we loosen the soil we increase the surface exposed to the air; we assist the circulation of the air through the soil, and of course we favor evaporation. In our stirred soils, we do more than this; we prevent the water rising by capillarity to the surface to be evaporated; we place a mulch of loose, dry earth over the soil holding the roots of our crops, which has the same effect as the sawdust or cut straw on the surface. These experiments show what every farmer ought to know, viz.: that loose soil evaporates the water which it holds more rapidly than compact; but the conditions of the experiment were such that capillarity, as it exists in our soils, had no influence upon the results.

The experiments of farmers all over the world, added to those of such scientists as Nessler, Wagner, Schleh (Rep. Ct. Ex. Station, '77, p. 95,) and Grandeau (Rural for 1878, p. 774), are sufficient to show that, in the vast majority of soils, stirring the surface does not as a mulch, does prevent the water rising through the loose part to be evaporated, does increase the water available for the use of the plant. I see nothing inconsistent with this view in the results of the Rural's experiments.

Horticultural.

STRAWBERRIES.

G. GOFF, JR.

Garden Culture.

Strawberries are becoming more popular every year. The ease with which they are produced, and the great variety of soils and climates to which the plants are adapted, make the fruit a general favorite wherever it is known. In this latitude, strawberries are the first fruit of the season, and ripening as they do at the commencement of hot weather, when the human system craves and needs a refreshing acid, they are highly appreciated by everyone. It would be interesting to know the number of bushels of strawberries that are usually consumed by some of our large cities. The quantity is certainly immense, and the commercial value of the strawberry crop doubtless runs into the millions. But, on the other hand, there are thousands of families both in city and country that seldom indulge in the luxury of a dish of this fine fruit.

Every farmer's garden should contain a strawberry bed. Many are deterred from setting out the plants because they are ignorant of their culture and think the trouble and expense required to produce the fruit are more than it is worth. But this is not the case. It requires only a small outlay of labor and money to start and care for a strawberry bed, and that outlay will be abundantly repaid by supplying the table liberally every day with this delicious fruit during its bearing season. Strawberries are so easily grown that there is no good reason why every person having land suitable for producing good corn or potatoes, should not have an abundance of this fruit.

The best soil that could be named for strawberries, is probably a deep, rich sandy loam; but almost any soil, if properly prepared, may be made to produce a good crop of very fine berries. In starting a strawberry bed, if the soil is not already rich, it should be made so by applying some kind of manure. If the soil is naturally heavy, well rotted barnyard or stable manure should be used, which will make it lighter and more friable. The ground should be plowed or spaded as deep as possible without mixing it with the subsoil, and should be free from weeds.

Spring is generally considered the best time to set the plants, though they may be set with good results in the fall; but when set in the spring, they will bear a full crop the next season; whereas, if set in the fall, but a partial crop may be expected the next summer, and there would be more danger from winter-killing.

For garden culture, the plants should be set in rows two feet apart with plants a foot apart in the rows. Keep the soil mellow and free from weeds by frequently stirring it with a hoe or cultivator. When the runners start, they may be allowed to take root in the rows, but not between them. Thus "matted rows" will be formed, with a space between for a path to stand in while weeding or picking the fruit. Great care should be taken not to allow the grass and weeds to get started among the plants; for if they once get a foothold, it is almost impossible to exterminate them without destroying the bed. Mulching is of great advantage, especially on dry or bakey soils. The strawberry bed should be covered in the fall with straw, leaves or coarse manure, for winter protection. In the spring the plants should be uncovered, the mulching removed, and the soil between the rows and around the plants loosened up with a spade or a cultivator. When the fruit begins to ripen the ground should be mulched, that the fruit may be kept clean.

In selecting strawberry plants to set, varieties should be chosen that are best suited to the soil in which they are to be planted. The Wilson is noted for its reliability; it will succeed where almost any variety will, but there are other kinds in cultivation, larger in size and superior in flavor. It is impossible to name the varieties best suited to all soils and localities. A variety may do well on one kind

of soil and in one locality and fail almost entirely in another. The best way is to try a few of the kinds that are the most highly recommended and choose those that succeed the best. It is unwise for any person to condemn a variety as worthless because it refuses to do well on his grounds. The strawberry season may be extended considerably by selecting a number of varieties which ripen at different times, thus making a succession of early, medium and late.

Floricultural.

HOW TO DETERMINE THE SIZE OF THE FLOWER GARDEN AND THE PLANTS TO EMPLOY.

THE kinds of flowers which a person selects for his garden ought to be determined by the time he is willing to devote to them and by his means. There are many kinds, such as Zinnias, Portulacas, Linums, Petunias, Pinks, Phlox, Poppies, etc., that, let the season be wet or dry, will take care of themselves after they are well started. Beds of hardy herbaceous perennials also, such as those noticed in a recent RURAL, require little care when once established. A pleasing display may be secured throughout the season at the cost of merely keeping the plots free from weeds and the borders trim and true to their original shapes. But so-called ribbon or carpet beds exact from the beginning a great deal of time and care and, after all, are better suited to extensive grounds in which it is desired to display the wealth of the owner and the skill of the gardener, than to the quiet surroundings of the average country home. We cannot have too great a variety of choice plants, providing we can supply each with all its needs to keep it in health. But a bed of thrifty Petunias is more creditable to the owner than one of sickly exotics, though of the rarest specimens known. We say therefore that there is neither gain nor glory in a neglected bed of flowers or in any garden that shows plainly that the gardening enthusiasm awakened by the inspiriting air of spring, has been dissipated by the enervating heat of summer. A flower garden is a luxury, costly in proportion to its extent and to the class of flowers employed therein. Let us determine its extent by our means, our spare time and by our floricultural enthusiasm.

DESIRABLE WILD PLANTS OF TEXAS.

IT might be said about plants, as the saying went about prophets, they are the least esteemed in their own country. This just calls to my mind a few fine indigenous plants, well worthy of a place between their more coveted exotic brethren. There is, for instance, what is here known as the Mountain Laurel (Sophora speciosa), an evergreen, highly ornamental, hardy shrub, with whitish-yellow or blue racemes of highly fragrant flowers. It abounds in the hilly portions of western Texas, whence it ranges even down to Matagorda Bay. Although a fine and ornamental plant, it is very seldom met with in plant collections and shrubberies. When old, it is rather difficult to transplant. This might in some measure account for its scarcity in ornamental grounds. Its seed, a bright-crimson bean, will, when planted, lie dormant in the ground for months, but, soaked in hot water for a few days, it sprouts almost immediately.

Another fine wild plant of the bulbous class is the Bayou Lily (Crinum Americanum). I have seen this plant grown in hot-houses in Europe and the greatest care bestowed upon it. The large, pure white flowers, with their wavy long petals, or rather divisions of the perianth, are arranged round the scape by fours; they exhale a powerful perfume. They do well in any rich soil, provided the bulbs are planted very deep. Not unfrequently I found the base of them twelve inches below the surface in their natural habitat.

There is a pretty Bignonia growing in some places adjacent to the coast; it differs from the well-known Trumpet-flower (B. radicans) by its flowers being of a clear yellow, spotted with brown. If a different species, or only a variety of the last-mentioned plant, I leave for botanists to decide. (B. cupreolata?). There are many other fine wild plants in Texas, that, planted among the rarer exotics, need not take a back rank. But generally they are not appreciated for no other reason except that they are growing wild.

But it is not in the South alone that beauteous wild flowers, common in woods and pastures, are neglected on account of their frequency, for all over the country there are floricultural beauties disregarded, despite their fine appearance and odor, merely because they are so common and easily obtained, that few at home appreciate their real worth. For a just perception of the merits of these every-day flowers, one has to go where they are rare; for the value of all things—of the diamond as well as of the flowers which find the choicest place in lawn or greenhouse—depends not on intrinsic worth alone, but also on their rarity.

Harris Co., Texas. G. MARTI.

Arboricultural.

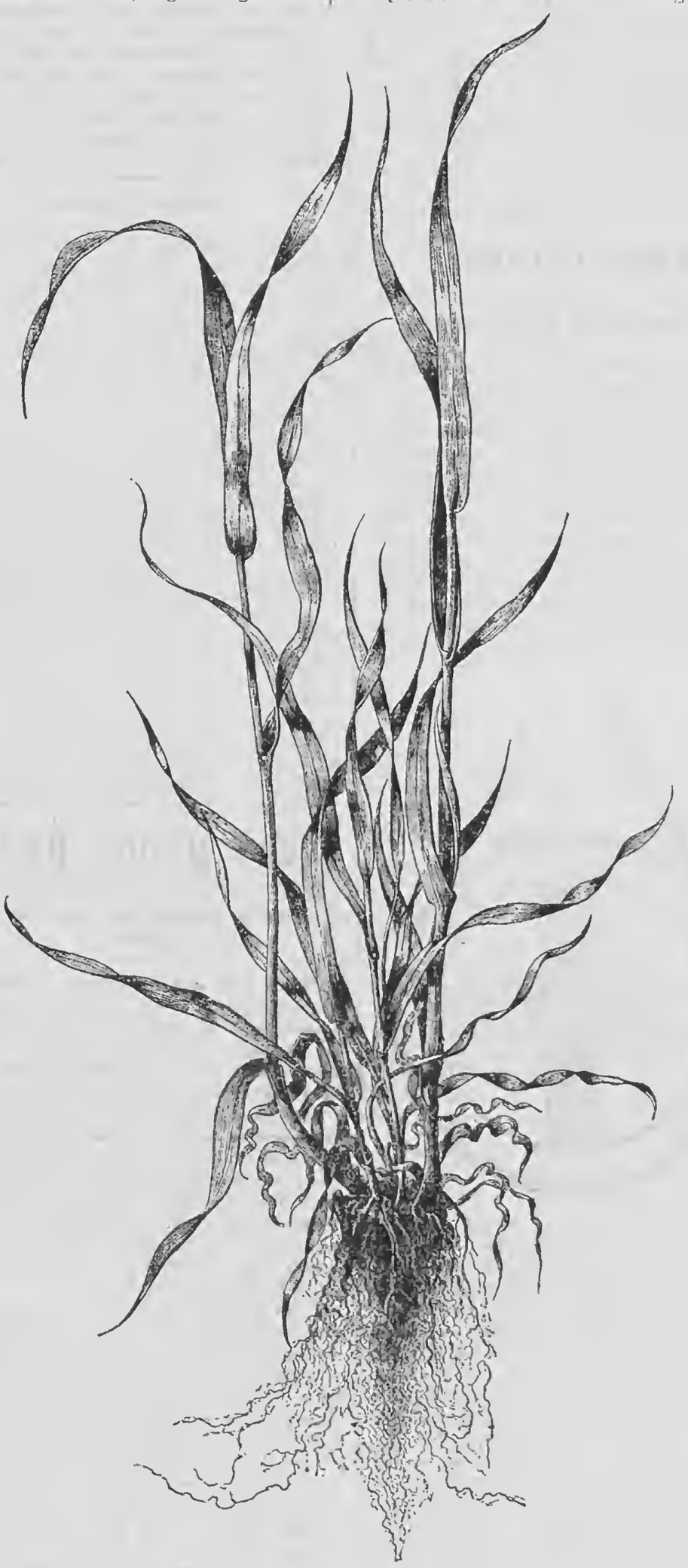
THE CALIFORNIA BLACK-WALNUT.

I HAVE seen few trees which, for ornamental purposes, are more worthy of culture than the California Black-Walnut, Juglans nigra Californica. Trees of this kind were found growing only in one locality in the foot-hills of the Sierra Nevada, but from there they have been introduced into nearly all sections of the State. The tree is a slow grower, and has to be from eight to ten years old before producing fruit, but after it has once borne fruit, it will never fail to set a yearly crop. The tree grows from twenty to forty feet high, is strong, hardy, and well branched. The foliage is of a rich, dark green, and quite different from that of the English or Eastern Walnut; it is unequally pinnate, compound, from ten to fourteen inches long, the leaflets, of which there are fifteen to thirty-five on a leaf, are lanceolate in shape, about three-quarters to one inch across at their broadest portion and from two to three and a half inches in length; the foliage is very densely set on the tree, much more so than in the English Walnut.

The nut is from three-quarters to one and a quarter inch in diameter, being inclosed in a thick husk, which dries on the nut and has to be removed with the aid of a knife or other instrument. The shell is rather hard, requiring the use of a hammer to break it. The meat of the nut is rich and pleasant to the taste, and is not only relished by children, but the "old folks" too, go after it. The tree is much hardier than the English Walnut, growing and producing fruit in sections where the latter will not even grow. As a shade tree, it is much handsomer than the other Walnut varieties and far ahead of Locust, Willow, or such trees. The tree holds its foliage until after frost, and, unlike other trees throughout the summer, the ground under it is always clean, never littered with leaves or other refuse. The nuts should be planted as soon as ripe, without removing the husk, when they will germinate in from five to eight months. The first two seasons in very cold climates, I would advise a slight protection in winter. The nuts are ripe in September and October. In our grounds we have six bearing trees, which are the admiration of all who see them. When known in the East this tree cannot be otherwise than popular.

Wm. C. L. DREW.

El Dorado, Cal.



WHEAT PLANT REDUCED TO 7.16 OF NATURAL SIZE.—NOT CULTIVATED.

Entomological.

THE CODLING-MOTH.

SOME one says: "All that is wise has been thought already; we must try, however, to think it again."

So much has been written upon agricultural matters, that one may well hesitate before advancing one's own opinions, lest he write upon an already exhausted subject. The question: "How shall we exterminate the Codling-moth?" is not a new one certainly, and yet, I desire to offer a few observations upon it. We are advised to keep swine or sheep in our orchards, or to pick up and destroy all wormy fruit. This is a partial remedy, but is insufficient of itself. More than fifty per cent. of the worms escape from the apples before the fruit drops. How shall we capture the fugitives? Bands about the trees are generally recommended.

By this plan we capture a large number of worms, but the majority fail to enter our trap. Burning lights in the orchard is sometimes advocated, but this is not advisable. For several years I have observed that the Codling-moth was very partial to particular varieties of Apples, as the Swaar, Gilliflower, Rhode Island Greening, etc. For some time I gave the pests credit for being able to select varieties suiting their tastes—as the robin will select the Delaware from less finely-flavored grapes—but this spring, while scraping my trees, I discovered that the varieties most inclined to be wormy, were those that had the roughest bark, and which, of course, furnished the most convenient hiding places, and upon which they could spin their peculiar cocoons with most safety. Many fruit-growers suppose that the worms, after leaving the apples, enter the ground, and there change into moths, but that they do this is, to say the least, doubtful. There is plenty of evidence that they hide under the loose bark and moss of the trees.

In scraping off this rough bark, I have found hundreds of their cocoons. Trees with a smooth bark, like the Red Astrachan, Pound-Sweet, Sweet Winesap, etc., have very few wormy apples.

My plan—as at present advised—is to scrape off all loose bark—there is no moss in my orchard—from the trunks and large branches, and then wash with whale-oil soap—one pound of soap dissolved in about three gallons of water, and applied with a stiff brush. As soon as the blossom buds start, apply the "bands," so often recommended, of course to be followed by the destruction of all wormy fruit. If the above plans fail—especially the first—then I confess my inability to manage the Codling-moth.

NELSON RITTER.

The Apiarian.

OUR BEE HINTS.

Artificial Swarming.

THE month of June is a very busy one for the bee-keeper as well as for the bees. The rich stores of nectar found in the white clover stimulate the breeding, the hives become crowded, and unless artificially divided, the bees will follow their natural instinct and swarm freely during the next few weeks. The apiary may be managed with special regard either to storing as much honey as possible, or to a large increase in colonies; but the young bee-keeper will perhaps attain the best success if he does not throw his whole energy into either one of these directions, but rather be content with a moderate increase of colonies, and get what surplus honey he can without resorting to special management. Artificial swarming consists in removing part of the bees of a colony to another hive and supplying them with a queen, thus making two colonies out of one, or three out of two, according to their strength. This is the method now resorted to by nearly all practical bee-keepers, and it has the advantages over natural swarming that no swarms abscond, and the breeding, which should never suffer interruption at this season, may be continued with but little loss of time.

When a colony becomes very populous and exhibits symptoms of swarming, it is time that it should be divided. In the middle of the day, while the bees are busy gathering, blow a little smoke into the hive, then look it through to find the queen, and, when found, either cage her for the time or set the comb on which she is in a secure place. This point is of importance. By removing frames from one hive to another, without seeing the queen, one runs a great risk of losing her. It is not enough to look over each frame as it is removed. If a large number of bees adhere to it, she can easily be overlooked, as we have learned by dear experience. Next, take out as many frames of brood, with adhering bees, as can be spared without making the colony weak, and place them in an empty hive which should be set close to the other. The open space occasioned in the mother colony, should immediately be filled up with empty combs or frames having startings of comb foundation. Destroy or cut out at the same time all queen cells that may be found. In like manner take a few frames from one or two other hives and place in the new hive till it has the requisite number of combs; and, if necessary to obtain a sufficient force, shake into it a few bees besides what may adhere to the frames.

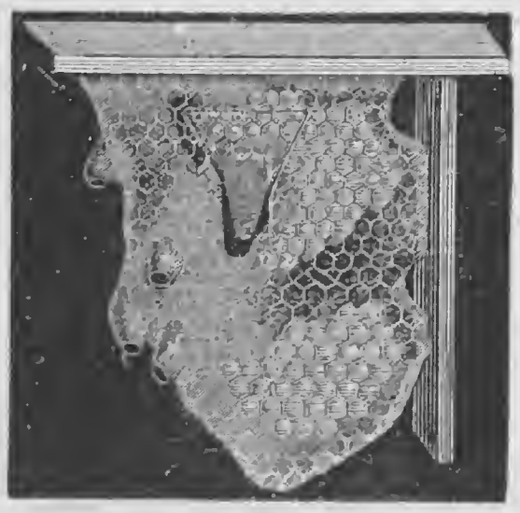
The old queen may be left in her own hive, or she may be removed to the new hive, which will sometimes cure her of her swarming fever, but in either case, a new queen should be introduced to the queenless colony after the lapse of a day or two. During the summer season, the bee-keeper should always have a few extra queens on hand, which may be accomplished as described below; but if he has none, place a frame with a capped queen cell in the middle of the nest, putting those frames having the most brood next to it, and in due time the colony will have a queen. When all is ready, close up all the frames snugly, cut off the vacant space in the hive, if any, with a division board, and the work of dividing is done.

Another mode of artificial swarming is by

The Formation of Nuclei and the Rearing of Queens.

In apiarian language the somewhat technical

term "nucleus" signifies a small number of bees put into a hive with a view to make them the beginners, or first settlers of a new colony, or simply for the purpose of rearing a queen. Practical bee-keepers are at variance as to the best style of hives for nuclei. Some advocate to make small boxes six or eight inches high, wide and long with frames to suit; others prefer small hives, but so adjusted that the frames used in the apiary will fit into them; and still others hold that the common-sized hive is the



QUEEN CELLS.

best, if the space is so contracted by division boards that it will suit the small number of bees. As there should always be some empty hives on hand, and the trouble of making smaller ones, as well of transferring the bees, can thus be avoided, the use of the ordinary hive employed in he apiary is perhaps the best plan. The present busy honey season is the best time for the formation of nuclei and the rearing of queens. Now is the time that queens are wanted; later in the season the demand for them will be limited, besides, those reared in the fall may fail to be fertilized, and if they remain virgins till next spring they will be worthless. A quart of bees and three or four frames containing some brood are sufficient for a nucleus. These may be taken from several hives wherever they can be spared. If there are eggs or larvæ not over three days old, among the brood, the bees will soon construct queen cells around one or more of these, and raise a ruler. But this method is not to be commended when queens are reared on a large scale, though it will do very well when only a few are wanted. In the latter case, to insure that the queens are reared from eggs, which are better for the purpose than young larvæ, and also to get the eggs from a pure and prolific queen, place three or four frames of empty worker-comb in the middle of a hive having a queen worthy to propagate from; these will soon be filled with eggs, when they should be given to the nuclei, one to each, and marked so they can easily be recognized. On each side should be placed a frame having no eggs, and whose larvæ are too old to be transformed into queens, which they are generally acknowledged to be when more than three days old. This precaution will insure that the young queens are hatched from eggs laid by a pure and prolific mother. Under normal conditions an egg in a queen cell will hatch in three days; in five more the cell will be capped, and in about 16 days later her majesty will come forth fully developed, making altogether about twenty-four days.

When queens are reared on a large scale it is desirable to have them develop from the nuclei more rapidly. To this end the colony having the best queen in the apiary is selected from which to breed. Remove the queen to another hive and in three or four days queen cells to the number of fifteen or twenty will be started. Go through the hive carefully every day and as soon as they are capped cut them out with a triangular piece of comb adhering. In another frame having some brood a similar piece of comb should be cut out and a queen cell inserted as represented in the engraving. The cells should be handled with the utmost possible care, as the least indentation of the wall may deform the larva within; and it should not project to either side but hang downwards in the frame, so it cannot be touched by the adjacent comb.

Another necessary requisite to successful queen-rearing is an adequate number of pure drones. These the thoughtful apiarist can easily procure by destroying all drone comb from the beginning of the season, except that appearing in colonies having pure and prolific queens. The queen mates on the wing; and five days after she is hatched, if the weather is pleasant, she will take her wedding trip, otherwise on the first pleasant day thereafter. Having mated, she returns again to her nucleus and in a couple of days will begin to deposit her eggs. It is only when bees from these first eggs appear that one can pronounce with certainty on the purity of a queen. Every bee must have the three distinct yellow bands in order that the mother can be entitled to be called "pure Italian."

If queens thus tested are raised for the market, they are now ready to be sold, and the bees and frames of each nucleus should be returned to some hive as soon as their ruler is sent off. But if the bee-keeper has reared them for his own apiary, they may be used for what is known as

Nucleus Swarming.

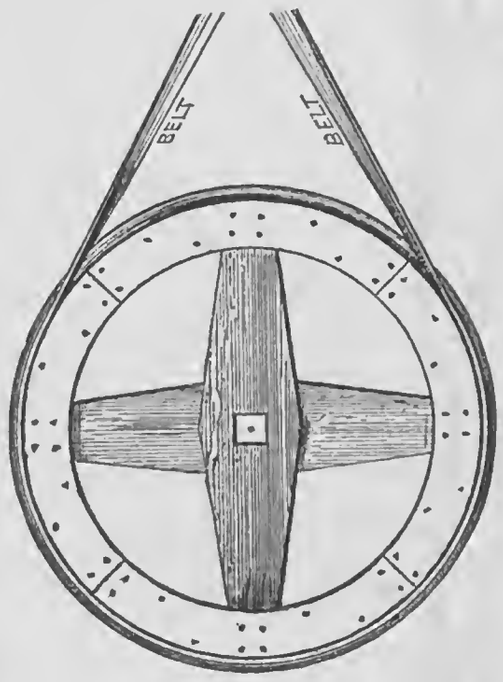
This consists simply in letting the young queens remain in the nucleus and reinforcing them with bees and comb from hives that have become so populous that a division is necessary if they are to be prevented from swarming. This is done as described above, and will be much more rapidly performed when full-sized hives are used for nuclei instead of small boxes. One who raises his own queens and takes all precautions to get them pure, need not wait till they are tested before he increases the nuclei to full colonies. Additions may be made as soon as the queens are fertilized, or even before.

Farm Economy.

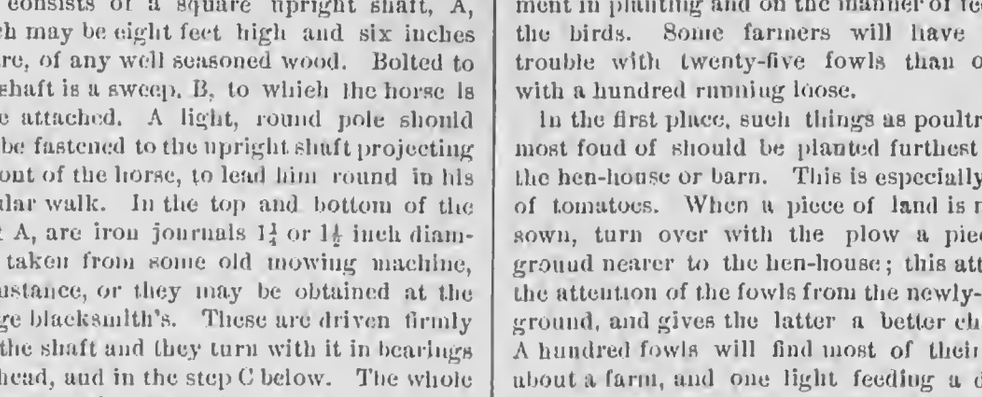
A HOME-MADE HORSE-POWER.

The convenience and value of a simple horse power on the farm are felt by the average farmer far oftener than the convenience itself is enjoyed. With the majority of men the item of first cost is the great obstacle to the possession of such a device. Herewith I present an illustration of what I am confident will be found a valuable home-made power, the cost of which will be but a trifling drawback to its possession.

The sketches show its construction very clearly, and the short description will enable any farmer to erect a good and serviceable machine. One day's work by an intelligent carpenter would, however, be of assistance to some.



It consists of a square upright shaft, A, which may be eight feet high and six inches square, of any well seasoned wood. Bolted to this shaft is a sweep, B, to which the horse is to be attached. A light, round pole should also be fastened to the upright shaft projecting in front of the horse, to lead him round in his circular walk. In the top and bottom of the shaft A, are iron journals 1¼ or 1½ inch diameter, taken from some old mowing machine, for instance, or they may be obtained at the village blacksmith's. These are driven firmly into the shaft and they turn with it in bearings overhead, and in the step C below. The whole arrangement is supposed to be erected in the barn or shed; D, representing a beam, and E the floor. Fastened to the upright shaft is a wooden pulley F, at least six feet above the floor and seven or more feet in diameter. The thickness of this wheel should be four or five inches, with a flange on the bottom one inch thick.



The wheel may be constructed by nailing together segments of plank, the arms also being built as the segments are nailed together. Depending from the beam, D, is a strongly-braced frame G, carrying two loose pulleys H, one only is shown) over which the belt I, passes thence downward to the pulley on the machine to be driven. In this case a corn-sheller is represented. The loose pulleys should be on a level with the center of the driving wheel, and just outside the circle described by the sweep B. It will be seen that gearing is entirely dispensed with, and the motion will be smooth and noiseless. Should a higher motion be wanted than could be got by attaching directly to the machine, an auxilary shaft or "jack" could be easily interposed. For shelling corn, cutting feed, cleaning grain, pumping water, sawing wood, churning and numerous other duties, this simple device will be found an invaluable addition to the farm conveniences.

Ontario Co., N. Y. WILLIAM ROBT. BROOKS.

RAISING TURNIPS.

We are going to cut the clover on a part of a field and then plow under a good coat of manure for a crop of Swedish turnips. We shall sow broadcast over the patch blood guano at the rate of 300 pounds per acre, and put the seed in drills made by hand, with a hoe, an inch deep, and cover the seed with a hoe at this uniform depth. Three-quarters of a pound of seed is enough for an acre. The first week in July is the time set to put in the swedes, but it would do to put in a crop as late as the middle. We have old turnips now on hand hard and good, for table use. This crop will require but one hoeing, and can be utilized to feed pigs, sheep and cattle. The tops are worth a great deal to keep up the flow of milk in the late fall. The ground must be plowed deep and made mellow. We shall soak the seed at least three days before planting, and then roll them in plaster and cover them as fast as dropped. This will make a gain in the time of coming up, and get the turnips just so much ahead of the weeds, which will help in the care of them. The drills will be on a ridge made by turning two shallow furrows together. F. D. C.

The Poultry Yard.

SUMMER FEEDING OF POULTRY ON FARMS.

Poultry will find a great part of their food when at large about the farm during summer. Scarcely anything comes amiss to them. They eat not only all the insects they can find, but they will eat all the cabbage and fruits they can reach, as well as turnip tops when first up, tomatoes and even pumpkins and cucumbers. The question arises, how many hens may a farmer let run without damage to his crops? Few people who have not tried the experiment can believe how much this depends on judgment in planting and on the manner of feeding the birds. Some farmers will have more trouble with twenty-five fowls than others with a hundred running loose.

In the first place, such things as poultry are most fond of should be planted furthest from the hen-house or barn. This is especially true of tomatoes. When a piece of land is newly sown, turn over with the plow a piece of ground nearer to the hen-house; this attracts the attention of the fowls from the newly-sown ground, and gives the latter a better chance. A hundred fowls will find most of their food about a farm, and one light feeding a day is all that many get; but the question comes, how does it pay to let them find nearly all their food? If the house is surrounded with woods or meadows, it will pay to feed fowls lightly; but if the farm is mostly laid out in fruit or market truck, then it will pay to feed your poultry with all the grain they will eat, rather then confine them in a small yard. And if grain is left all the time before them, they will eat but little more than if it were fed regularly to them, while they will so far satisfy their hunger that they will do little injury to the growing crops.

However singular it may appear, their pecking at everything they see is, to a great extent, habit with fowls, a fact I proved by experiment. I had a great many fowls running loose, and they seldom did much mischief to the crops except by scratching, but I always had corn or wheat accessible to them. One day a neighbor remarked that it was not necessary to feed them oftener than once a day, and then only lightly. I thought I would try the experiment, but it was a sad mistake. My hens pecked everything within reach, even unripe melons, pumpkins, cucumbers, turnips, etc. The damage done soon amounted to ten times as much as the cost of feeding them as I had done for years. So I again returned to feeding them all they wanted with grain, leaving it always before them; but the mischief was done—the habit of pecking at everything, once contracted, could not be cured that season. Irregular feed will also produce this effect on fowls; for when they get hungry they will attack the crops, and soon contract the habit.

HENRY HALES.

Miscellaneous.

OUR NEXT FREE SEED DISTRIBUTION.

So far as we can now judge, most of our readers have been greatly pleased with our Seed Distribution of this year.* But some of them have not, and the fault is ours; or rather it is the fault of inexperience in an undertaking which proved greater than we had counted upon. We shall never again offer our subscribers a *choice* of seeds, but send to each our entire list of such varieties as we may select. It was this *choice* of ten varieties out of the twenty, which caused the disappointment expressed by some of our readers who did not receive the varieties which they had selected. We knew when the first announcement was made, that we did not have a sufficient supply of several of the varieties to fill all orders, for which reason it was stated that when any of the kinds of seeds mentioned became exhausted, we should select varieties in their place from our reserve stock. Had it been possible to purchase the seeds of which we fell short, we should have done so. But they could not be purchased of the chief seedsmen either in this country or in Europe. Besides, three of the sorts offered originated in the Rural Grounds, viz., the Bronze Ricinus, Golden Tomato and Voorhis Watermelon.

The announcement of our next Free Seed Distribution will be made as soon as we can settle upon what seeds to offer and secure the necessary amount, and this time—life spared—there shall be no cause for disappointment, while we shall strive to make it even more valuable than our last. Meantime, we hope to hear from all as to their success or failure, etc. From such communications we may be guided as to future selections.

* We do not refer to, or include, the distribution of Blunt's Corn.

CONNECTICUT AGRICULTURAL EXPERIMENT STATION.

BULLETIN 27.—MAY 27, 1879.

Fertilizer Analyses.

259. Mapes' Onion Fertilizer. Sampled and sent by T. B. Wakeman, Greens Farms, Ct.

271. Ammoniated Superphosphate. Made by New Haven Chemical Co. Sampled from stock of E. W. Pierce, dealer, Plainville, by T. N. Bishop. Sent May 7th.

ANALYSES.

	259	271
Nitrogen	5.70*	3.01
Sol. Phos. Acid	2.05	6.32
Reverted Phos. Acid	4.35	1.37
Insol. " "	2.53	1.57
Potash	7.47	3.18
Chlorine	8.44	4.07

*3. 2 p. c. as Ammonia Salts, 4. 5 p. c. Organic matter.

Estimated value	$47.26	35.37
Cost,	50.00	38.00

270. Charter Oak Fertilizer. Manufactured by Charter Oak Paper Co., Parkville, Ct. Sampled and sent by Paul Thomson, West Hartford.

ANALYSIS.

	Per cent.	Value per lb.	Value per ton.
Moisture	24.34		
Carbonic acid comb'd water and organic matters*	26.16		
Chlorine	.13		
Phosphoric acid	1.02	9c.	$1.84
Sulphuric acid	.95	4-10	
Lime	30.91		3.49
Magnesia	11.76		
Potash	.30	4½c.	.27
Soda	.24		
Sand	3.49		
	100.00		
*Containing Nit'n	0.47	20c.	1.88
Value est'd per ton			7.68
Cost per ton			15.00

This material is mainly a refuse magnesian lime, such a lime as is burned from the rock of the quarries in Canaan and elsewhere, in Northern Connecticut. In making a valuation, the lime, magnesia and sulphuric acid are reckoned together at 4-10 cents per pound; because burnt lime containing magnesia, and gypsum containing lime and sulphuric acid, can be got at that rate or for $8 per ton.

S. W. JOHNSON, Director.

THE PEARL MILLET.—I received a package of this last spring, and as there seemed to be some doubt about its ripening its seeds in this latitude, I planted some in a hot-bed in April and transplanted in May or June: I sowed some in a corn field, too, at the time of planting corn. For the latter I waited till the weeds were well up before I could find any millet plants and they were not only few and far between, but very small and sickly; so weeds and plants were rooted up together. The hot-bed plants were specially cared for, but I only got about a foot growth and this spring when the snow went off, the tops were green and looked as though they wished to try it on another year which I shall magnanimously allow them to do. S. B. P.

Muskegon, Mich.

BOOKS RECEIVED.

REPORT OF THE FRUIT GROWERS' ASSOCIATION of the Province of Ontario for the year 1878; to which is appended the Annual Report of the Entomological Society of the Province of Ontario for the same year. The horticultural part of this pamphlet embraces 57 pages of useful and practical information on horticulture. The entomological part, including 61 pages, is also replete with interesting information on that subject.

TRANSACTIONS OF THE MASSACHUSETTS HORTICULTURAL SOCIETY for the year 1878. Part II. This pamphlet, 162 pages, is taken up almost entirely by the names of prize-winners at the different shows, a list of members, etc., all, doubtless, of interest to those whose names are here glorified in print, but not of much benefit to the public. Robert Manning, Sec.

REPORT on Condition of the Crops and Live Stock. April, 1879. Issued by the Department of Agriculture.

PREMIUM LIST of Broome Co., N. Y., Agricultural Society.

CREAM RAISING AND BALLOON RAISING.

I HAVE read the rejoinder of Dr. Hoskins, and there are in it one or two things to which I desire briefly to allude. He says: "Mr. Bliss says there is no such thing as cream rising. He might with equal truth say there was no such thing as balloon rising; the laws involved are the same in both cases. According to Mr. Bliss's idea, a balloon could not rise in still air. It would be necessary to create currents in the air in order to get up the balloon."

The cases are not precisely analogous, but they are so nearly so that it is not worth while to take any exceptions to the comparison. In the free air the currents are not so marked as in a close vessel, but they exist nevertheless, and the balloon cannot be raised without them. A balloon does not rise, never did rise and never will rise—Dr. Hoskins to the contrary notwithstanding—till it is raised by an external force. The law of inertia never was and never will be suspended for his accommodation. As for the still air, in which he assumes that a balloon rises, there never was such a thing in nature. But I will not take time and space to discuss any side issues. A balloon is raised by atmospheric pressure, just as a globule of cream is raised by the pressure of the fluid by which it is surrounded. The atmosphere presses in every direction with equal force at the same level; but this pressure decreases as we rise above or increases as we descend below the assumed level. The bottom of the balloon is in one level and the top of it in a higher level, hence the upward pressure upon the balloon is greater than the downward: and this difference in pressure—which is known as the buoyant effort—is exactly equal to the weight of the air displaced by the balloon. If the balloon has less specific gravity than the air it displaces—which is usually the case when set free—it is forced upward, displacing a portion of the atmosphere above, while the pressure from below is maintained by a constant influx of the surrounding air. If Dr. Hoskins's eminent preceptor has taught him how this can be accomplished without establishing currents, even in still air, he deserves further promotion.

What possible analogy there is between drawing a string of beads up through a vessel of sand and the subject under discussion, I am unable to see. That illustration may have its special use somewhere, but our learned friend has certainly mistaken its application.

O. S. BLISS.

[The following paragraph should have closed Mr. Bliss's article "Specific Heat and Cream Raising," in our last issue, but was omitted by a printer's slip.—EDS.]

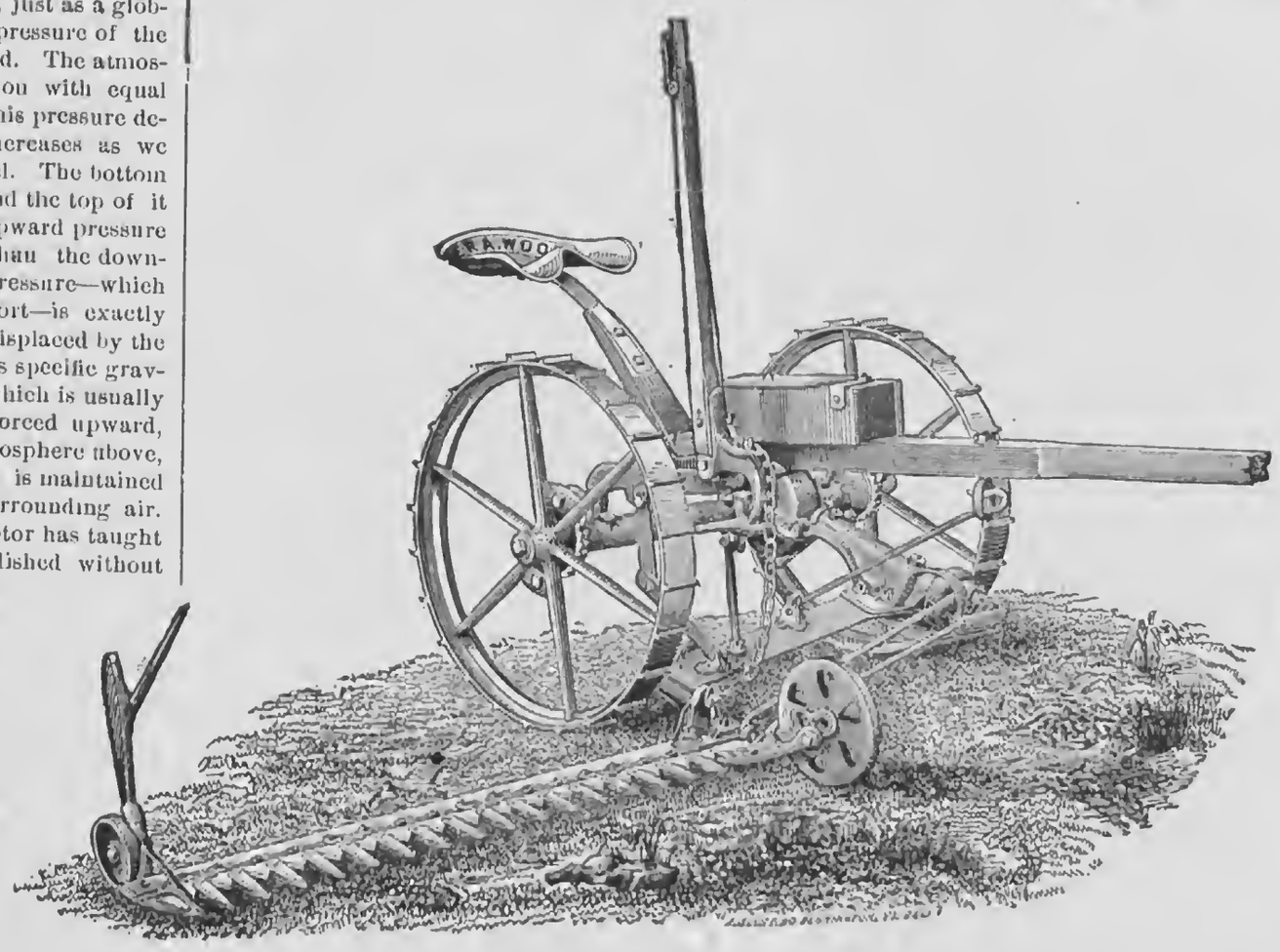
But there are other principles involved and they are infinitely more potent than that of specific heat. Every body has a power of absorption and radiation peculiar to itself and wholly independent of its specific heat. The expansion and contraction of bodies under the influence of heat and cold, though constant so far as each individual body is concerned, are not the same in any two—the element of time and the principle of convection both have an important bearing upon the subject. Now, it is a fact as well established as any other, though evidently not so generally understood, that milk absorbs and radiates heat with greater power and greater rapidity than cream, and the poorer the milk or the richer the cream, the greater the difference. On the other hand, cream expands and contracts more than milk under the same changes of temperature. Now is apparent the value of time and celerity of action, especially when the heat is radiated from the surface of the mass. Tyndall says, no objection need be made to the use of the phrase "conduction of cold," if it be used with a clear knowledge of the physical process involved. The same may be said of the "absorption of cold" and "the convection of cold," and these terms though not strictly correct, may be better understood in this connection. A colder body placed in proximity to the surface of a vessel of milk, at once begins to absorb its heat and the milk in turn absorbs cold from the other. But the milk having greater power of absorption than the cream, and greater specific gravity, at once seizes upon the cold and with the increased energy thus acquired, before the cream is affected at all, under the operation of the law of convection, carries the cold with it to the bottom of the vessel to force up in turn the more passive cream. This interchange of temperature proceeds till an equilibrium is established, greatly facilitating and aiding the separation of the cream. This view of the subject, unlike those alluded to above, is in perfect harmony with the law of specific heat, the law of specific gravity, the law of absorption and radiation of heat, the law of expansion and contraction under variations of temperature and the observation and experience of practical men. It is moreover, the first exposition of the laws which govern cream-raising, which does not leave something to be accounted for—something which, on the face of it, requires a suspension or evasion of well-established principles in physics.

Industrial Implements.

WOOD'S NEW INCLOSED GEAR MOWER.

OF late years the drift of improvement in mowing and reaping machinery has led to an effort to reduce weight and to simplify mechanism. A recent inspection of the new inclosed gear mower, made by the Walter A. Wood Mowing and Reaping Machine Co., of Hoosick Falls, N. Y., developed some important and novel modifications, which are partially shown in the accompanying engraving of the two-horse machine.

The striking advantages of this mower over the popular iron frame heretofore made by the same firm, include greater lightness and better distribution of weight; removal of gearing from the driving wheels to the main axle, where it is compact, and inclosed by perfectly-fitting shields that exclude all injurious matter. The width of tread is increased, the driving wheels are larger in diameter and the draft in consequence made easier. The cutting apparatus has been modified and improved by a new device that more perfectly connects it with the main frame, while the pitman is equally well protected. The draft is direct from the frame of the mower, instead of from the pole, and the greater part of the weight of the machine is on the left hand drive wheel.



WOOD'S NEW INCLOSED GEAR MOWER.

Last season a few thousands were introduced in the Eastern States, and so popular and successful were these trial mowers that it has been decided to supply this mower exclusively the present season. The most frequent objection to a very light mower is made on the score of its inability to stand severe work, but in the Wood machine the decrease in weight has been effected by substituting tougher substances, such as steel, cold rolled and malleable iron, for inferior and more weighty grades of metal. The workmanship is very thorough.

Their Senior and Junior Sweep Rake Reapers have been improved this season by the application of an automatic gear—a train of gears, that absolutely control the successive action of the rakes by means of a lever. The driver, in his seat, can set the machinery so that every alternate rake, or every third, fourth or fifth rake, will act as a rake, while the others will act as beaters.

THE ROBBINS CULTIVATOR.

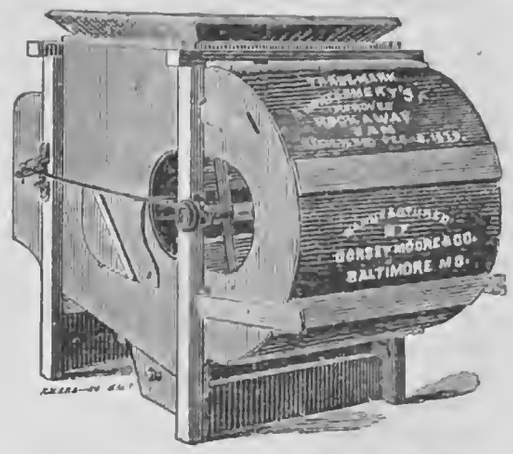
Not many years ago the belief was universal, and is still quite general amongst Eastern farmers that, compared with the sub-soiling, cross plowing, summer fallowing and almost constant cultivation of the growing crop which they found necessary to secure fair returns from their planting, the lot of the Western tiller of the soil was a mere play-day. "Tickle the ground with a harrow and it will laugh with a crop," was believed to be a fair statement of the kind and amount of labor required of him. Against such a competition in crop farming, the Eastern farmer found a paying refuge in stock and the dairy. But a change has been taking place which makes it necessary for Eastern farmers to seek some other means of getting a profit out of their acres. Eastern grass lands, grown cold and sour and less productive through long lack of cultivation, can no longer compete with the boundless ranges of Nebraska, Kansas and Colorado, having easy access, as they now do, to the markets of the world. What direction our farmers propose to give to the new departure rendered necessary by the changed condition of affairs is shown by the greatly increased breadth of land being put under the plow and thoroughly worked by other farm implements. One of these tools—the Robbins cultivator, made by the Robbins Cultivator Co., of Jackson, Mich.—which is now being extensively introduced through the East, especially New York State—is worthy of a careful examination by farmers. The Robbins is a two-horse riding cultivator, but is so arranged that the operator may ride or walk at pleasure. The wheels are four feet four inches in diameter, and the axle-wood, being set some distance above the center of the wheel by means of an angular axle-arm, is enabled to pass over corn at the last working without breaking it down. The cultivator has seven shovels, three of which, with the frame to which they are attached, are removed when cultivating corn and similar crops, leaving two shovels on each side of the row. For breaking up, fall plowing, working fallows and covering grain, all the shovels are used, giving a cultivator of four feet width of cut. The cultivator is furnished, when desired, with a seeding attachment which will sow all kinds of grain broad-cast in front of the shovels—so that it may be sown and covered at the same time—in any desired quantity to the acre.

Nearly 10,000 of these cultivators and a very large number of seeding attachments are now in use in Michigan.

THE ROCKAWAY GRAIN FAN.

THE advantages of a good fan are not only manifested in the improvement of the grain as a marketable commodity, but its intelligent use will save a farmer not only annoyance from weeds, but spare him the necessity of extra cash outlays to fight them. Few consider to what extent they sow, with their insufficiently cleaned grain, the seeds of the weeds they are so prone to anathematize later.

The fan we illustrate first attracted the writer's notice a year ago, and a careful examination of its principles and construction impressed him very favorably. It has been in very general use for years in some parts of the



country, and has not therefore to make a name. It has been put to severe competitive tests and has separated successfully from the grain all weed seeds. The motion is easy, yet rapid, and the screens are susceptible of various combinations and adjustments adapting them to any kind of work. Messrs. Dorsey, Moore & Co., of Baltimore Md., are now the exclusive makers, and to them all applications for circulars and information should be made.

THE "KING OF THE LAWN."

AT no time do we remember having seen so many new lawn mowers offered for sale as this season. In addition to the brand-new ones, some of the established manufacturers have produced modifications of the styles already in vogue. These together with the new machines seem to aim primarily at simplicity and lightness of draft. The "King of the Lawn" mower made by Gregg & Co., of Trumansburg, N. Y., is one of the machines we have been testing at the RURAL Horticultural Grounds. We are greatly pleased with the simplicity of its mechanism, and the extreme ease with which it may be pushed about over the lawn. A little girl can manage it. The 14-inch cut weighs but forty pounds. We should think from the excellence of the material employed in its construction that it would be a most durable mower. It cuts satisfactorily, and, in short, is a very nice and cheap machine.

THE NOYES SYSTEM of Haying Tools made by the U. S. Wind Engine and Pump Co., of Batavia, Ill., are very clearly illustrated and explained by a sheet of engravings that are being sent to all applicants without charge. A vast amount of information is conveyed in regard to tracking and arranging barns, with details for making a field stacking frame. Of their hay carriers both rod and anti-friction there are many thousands in use, the anti-friction being the greatest favorite. The Noyes Grapple fork is two, four, and six-tined for farm use while a monster for use in paper mills has been constructed, capable of taking up a half ton of rye straw at a forkful.

The Company, which is in every respect trustworthy, sends to every inquirer a postal card containing a series of questions which, on being answered, enable it to furnish an estimate of the exact cost of what the farmer may deem necessary in his particular case.

A RECENT visit to Concord, N. H., led to an inspection of the churn factory of Messrs. P. Blanchard's Sons. The most striking things were the celerity with which churns were made, and the labor-saving devices employed to secure uniformity, and cheapness combined with excellence. The novelties were a cylindrical factory churn and a power butter-worker—the only implement of the kind made. It is new, being a recent invention of Mr. Blanchard, and it does its work splendidly. In the future we shall give an extended description of it and its eccentric manner of thoroughly and rapidly working butter.

THE Empire Agricultural Works of Cohleskill, N. Y., seem to understand and appreciate the advantage of printing what they have to say in the most attractive form. The "Fearless" thrashers and horse-powers, made under Mr. Harder's supervision, are highly esteemed by those who have tried them, and they have secured medals and diplomas at the Centennial and elsewhere.

Everywhere.

CALIFORNIA NOTES.

THE rainy season commonly ends with April, when we plant our corn and other spring crops. Up to May 1st the season's rainfall was 29.50 inches, enough to make good crops all over California, except in the desert region along the west side of the San Joaquin, and southwardly. Our hay crop is not timothy and clover, as those grasses do not grow here; but we sow wheat, or a mixture of wheat, barley and oats, put in as if for a crop of grain, and at this time of the year, it is ready to cut. Ours stood about four feet high the day before yesterday, headed out, and the grain in the milk. The boys cut down fifteen acres, and got some of it in cock last evening; but the sun, an hour before setting, gathered dim masses of watery-hued mists, and later went behind a sullen wall of fogs and clouds, resting far out on the Pacific and spreading its black wings out of sight along the horizon. During the night a few drops of rain pattered on the roof. This morning the sky was ridged with slate-colored clouds drifting rapidly inland, and the rain began to pour steadily. The writer thought of his hay, and consoled himself with the knowledge that it takes a good deal of rain to spoil wheat hay. So we go. A rain storm is almost as much of a surprise now as was the adoption of the new constitution.

There will be a fine crop of all sorts of fruit in this valley. Take our place, for example: we have just finished hand-picking and thinning the fruit on peach trees. It is about as large as hulled walnuts. Cool weather thinned out pears, plums, cherries, apples, nectarines, apricots and almonds, but left quite enough fruit and nuts. At some exposed points the vineyards have been touched with frost. However, there will be a large crop of grapes. It is our largest industry, except farming and mining and dairying. This county produced last year nearly 3,000,000 of gallons of wine, or its equivalent in brandy and raisins.

Pastures are magnificent. They spread, knee-deep, from mountain top to mountain top, across the valleys, and are dotted over with cattle and sheep. This is the great natural advantage of California. From October to June the pastures are green. Afterwards, the dried herbage is as nutritious as hay, because no rain falls on it. If pastures are not overstocked, they will produce fat bullocks the year around without other feed. From inquiry among my friends engaged in the sheep business, I learn that the increase during the past season of lambing, may be set down at seventy-five per cent. The favorite sheep ranches are rough, foot-hill lands costing from five to ten dollars an acre. The sheep are shorn twice a year, giving the fleece for expenses and the increase of flock for profit. The business is better, and surer than any other; but it requires a small capital, say from five to ten thousand dollars.

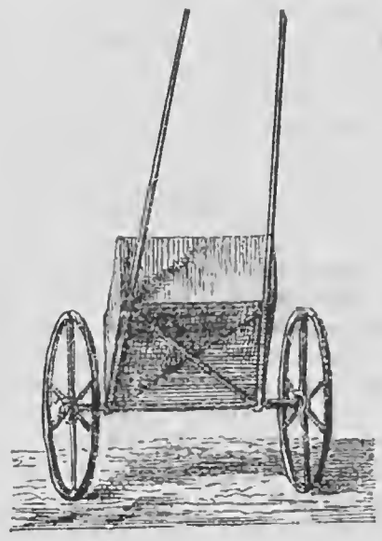
The daily overland trains are crowded with immigrants. They pour in by rail at the rate of over one hundred daily, besides those coming by sea. For a year or two there was a halt. We cannot imagine what started it up again. Permit the writer to address a few honest, plainly-spoken words to those visionary men and women who are coming to California without means to pay their return passage, and without duly considering these matters. In the first place, this coast is overcrowded with certain kinds of labor, and there is much poverty and suffering. A large number of families receive aid from the poor fund, at the expense of a crushing tax on the thrifty. There is no demand for teachers, or for any kind of professional men or women. There are ten times too many folks trying to make a living without labor. There are too many credulous, visionary, "ne'er-do-wells" striking out for this coast. We do not want them. They only come to swell the cry of "hard times." But we do want farmers who have means enough to purchase lands and are willing to work them. There is room for such men, but not for genteel tramps. This coast is the hopper into which are sifted the idle, the vicious, the men of desperate fortunes, from every country in Europe and every State in America. There are thirty thousand Chinese and ten thousand five hundred Irish voters in San Francisco, a little city under 300,000 population. It is alive with communism—a political volcano. Therefore, people unable to hold their ground, have no business here. They must go to the wall. But let it be said there is one honest man here to warn the thoughtless back; though this publication will provoke a howl from land sharks, whose business it is to lure the unfortunate here. SPECS.

Santa Rosa, Cal., May 20.

NOTES FROM NORTH CAROLINA.

THE colt, now two years old, was accustomed to the tethering rope when less than a month old. Last year we had a fenced pasture for her, but now we have her tethered again, and though it is eighteen months since her last experience, she has not forgotten it, especially the trick of giving a quick jerk to throw the ring off the pin. We find it a great convenience to have horses and cattle, too, trained, so that they will not get injured by the rope or chain. A few half-hour lessons when quite young, are usually sufficient to teach a colt or calf to take care of itself. Where, as here in North Carolina, the farm is nearly or quite all in one field, the family cow can be managed in this way much more profitably than by any other—except perhaps by soiling. Two or three ordinary trace chains connected with a ring at one end to put on the pin and large enough to turn around readily, answer a good purpose. To remedy the trouble we had with our colt, bore a hole through the pin near the top, and insert a strong pin long enough to prevent the ring from slipping over. We have found this a good way to keep a bull, being much better for his health than long confinement in the stable. Bulls require exercise, and for their own benefit, they should work in harness, and it would be to the interest of the owners if the animals were trained to do so.

Not a small proportion of the farm work in this State is performed by oxen worked singly. Many of them will not weigh over seven hundred pounds, but they do a vast amount of work in a year. A two-thousand-pound Shorthorn would move a tremendous load. The carts used are very simple affairs—two wheels and an axle to which are attached the shafts, braced to prevent motion sidewise. A short yoke—with the usual bow—is used, to each end of which is attached a ring large enough to receive the ends of the shafts, which are secured by a movable pin in front and either a pin or shoulder back of the ring. The accompanying sketch will show the arrangement.



For plowing we use the common plow gear, the same as for a horse with the collar and harness reversed. We drive with one line or two attached to the horns, a halter, and sometimes to a bit in the mouth. In the case of a bull, the ring in his nose would be the place in which to put the lines. M. B. PRINCE.

RURAL SPECIAL REPORTS.

ALABAMA, Elkmont, Limestone Co., May 24.—I came from northern Indiana to northern Alabama a little over one year ago, and like the country and climate so well that I have entered a quarter section of government land in this county and am going to try and make a home here. Having no money to buy improved land, I took Uncle Sam's offer to homestead. There is much more good government land in this vicinity, but it is being taken up rapidly by Northern farmers. This part of the State is one of the finest sections I ever saw in a timbered country for raising stock and sheep. Times are hard and money scarce among old settlers, and new ones, too. Wheat is $1; corn, 50 to 60 cts.; Irish potatoes, 75 cts. to $1; eggs, 7 cts.; butter, 10 to 15 cts.; cow, $15 to $20; young cattle, $5 to $15; sheep, $1.50 to $2.50 per head. Wheat is now putting on its golden color and will be ready for the harvester in a week or ten days. In some localities the rust is doing great damage to it. Corn and cotton are looking finely, and farmers are busy now working them. W. M.

WISCONSIN, Fort Howard, May 24.—At the last session but one of our State legislature a very stringent dog law was enacted. It provides that the assessor shall list all dogs. Every one who owns or keeps a dog shall be assessed. The Town Clerk shall put in the tax roll a tax of $2 for each male and $3 for each female, and the Treasurer shall collect it the same as any other personal-property tax. A fine of $20 per day is imposed on each and every officer mentioned for each and every day such officer shall refuse to perform the duties required by the act. I told our assessor that he must assess. He was here to-day and says he is sending to me all the folks who growl, as I happen to have been elected Town Clerk. One man whose entire tax last year was $1.13 is on for two dogs, which will make four dollars. If you fail to hear from me for a long time and the "Associated Press" has a dispatch recounting "an assault resulting in death," you may know for what cause I bit the dust. Our spring is rather backward and work drags. VAN.

MICHIGAN, Litchfield, Hillsdale Co., May 27.—Our spring has been cold and dry, although at present the weather is moist, as we have had a good rain; but it is rather cool for the crops. Corn has been about all planted—some cultivated. Wheat looks better, and prospects are more favorable than earlier in spring; some of it is showing signs of heading out. Straw will be short. Oats are looking well with few exceptions. I think I can boast of having the nicest potatoes in this neighborhood; they are about twelve inches high. The old pest "Bug" doesn't fail to put in an appearance, but I do not think much harm will be done, unless the pests are left entirely to their own devices. Onions are receiving more attention this year than any year previous, to my knowledge; one man has set out twelve acres of them, another, two. I think there will be an abundance of fruit, to judge from present prospects. D. K.

KANSAS, Elmo, Republic Co., May 20th.—Farmers hereabouts are expecting over an average crop. Winter and spring grains look very fine; rye is in head. Corn is growing finely; most of the farmers have their corn cultivated. Wheat is worth 75c.; corn, 25c.; oats, 20c.; rye, 33c.; hogs, $2 70 per 100 lbs. This county is well adapted to cattle raising, as it is well watered by the Republican River and its valuable tributaries. The soil is not surpassed in the State. There are also good facilities for shipping, as the U. P. R. R. has extended a branch up here from Concordia. Grain, therefore, always commands a good and ready sale, as we have Kansas City, Chicago and St. Louis for markets. The weather is pleasant and we are having seasonable rains. R. H. H.

PA., Clearfield Co., May 26.—We are having fine growing weather here now, but only a few days ago, we were visited with severe frosts, which nipped off our early corn and potatoes in kitchen garden, and which I have no doubt, have injured the fruit more or less. Wheat is not looking as well as it did a year ago; it has been too dry for it. Corn planting is pretty well through, still there will be some planted up to first of June. Seed potatoes scarce and high; oats, which were plenty last fall at 30c. per bushel, now command 40c. H. F. S.

ILLINOIS, Mazon, Grundy Co., May 26.—In this part of the country, corn is undoubtedly King. But few raise any other crop for market. Some raise a little oats, and others a little rye to sell, but diversified farming is here limited to this narrow range. So far, the weather has been very favorable to the corn crop. The cool, dry days have permitted the farmers to put the ground in fine condition, and now that planting time is upon us, the sun is quite warm while there are rains just enough to force up the corn rapidly. M. S. D.

MICHIGAN, Muskegon, May 26.—This is not an agricultural country, but there is quite an amount of fruit and farm crops raised in the vicinity, more especially tree fruits, grapes and berries. The season is rather late, which is here always favorable. Fruit and farm prospects were never better, and if the codling-moth and the plum curculio are starved out, as we hope, by the failure of these fruits by frost last year, our prospects are good. The potato-beetle, though, never fails to put in an appearance. S. B. P.

MISSOURI, Gallatin, May 23.—We had a fine rain on the 19th, and everything is now growing finely. We have for dinner to-day Early Rose potatoes and Philadelphia early peas; the "Beauty of Hebron" are about the same size as Early Rose—1½ inch through. Voorhis watermelon has its first rough leaf and grows rapidly; Canada Victor tomatoes are in bloom; they are earlier than Acme, but not as good. I raised both last year, and think the Acme the best tomato grown. Blunt's corn is growing well since the rain. S. T. B.

OREGON, Tangent, Linn Co., May 20.—We are very backward with our sowing this spring on account of late rains. Very few of our farmers have yet finished sowing. So much rain at this time of the year is very unusual here. Growing crops look well. Prices of produce are: wheat, 80c; oats, 40c. to 50c; potatoes, from $1 to $1.50 per bushel; eggs, 16; per doz; good butter, 25c. per pound. R. L. S.

PENNSYLVANIA, Emporium, Camden Co., May 27.—On the mornings of the 23d and 24th, and again this morning, we had a heavy white frost. Thermometer, on the 23d, 30°; 24th, 32°; 27th, 34°. Cherries and Peaches are killed; Pears injured; Apples appear all right yet J. D.

NEW YORK, Sharon Center, May 24.—Cold and dry here. Ice and hard frost yesterday morning. S. L.

NEBRASKA, Brownsville, May 24.—Crops, except fruit, are in fine condition with us. R. F.

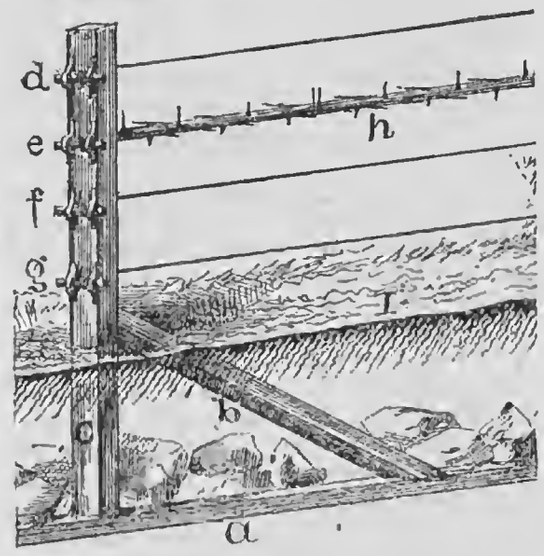
The Querist.

ANSWERS TO CORRESPONDENTS.

Wire Fence, Summer and Winter.

A Subscriber—address mislaid, says he built a wire fence along a lane formerly blocked every winter with snow drifts. He finds it a success as a preventive of drifts, but he had a good deal of trouble in stretching the wires, and probably got them too tight at first in summer time, so that the cold of last winter naturally made them as tight as fiddle-strings; while the warmth of spring and summer has made them so loose that the cows poke their heads through to eat the grass within reach. He finds the patent stretchers furnished with the wire insufficient or unhandy, and asks information or advice.

ANS.—In building the fence, the wires are seized at any required point, several feet from the end post, by a little clamp, and stretched nearly tight enough with an ordinary small rope pulley fastened to the end post. The ends of the wires are then passed through holes in the end post, at proper distances apart, and the final tightening is done by the following little device: It is simply an iron roller or windlass ⅜ inch in diameter, six or eight inches long, of round rod iron, the end hammered square, so that it can be turned with a wrench or crank, and two ⅛-inch holes punched through it, each about an inch from the middle of the roller. The rollers lie horizontally on the *outside* of the end post. The wires are passed through the post and through one hole of each roller. Then the rollers are turned and the wires wound around them till they are of the required tightness, and are held firmly by an iron pin or nail passed through the other hole in the roller, so as to prevent its turning back when the wrench or crank is removed. The device is simple, convenient, and not patented, we think. At least we do not see that it is patentable, as it is simply an application of the roller-windlass in general use, in many forms; as for example, in the rear end of hay racks or straw racks, for tightening the binding rope; in wells, in barns, etc., for butchering purposes, etc., etc.



a, "Mud Sill"; c, post; b, brace; d, e, f and g, rollers for tightening the wires; h, barbed wooden strip; i, dotted line showing the level of the ground. All below that is bedded firmly.

The looseness of the wires mentioned by our friend, may result from the moving of the end posts. They should be very firmly braced. The best way is to mortise and pin firmly a strong post at least six inches square, perpendicularly into a "mud sill," as it is called, and brace it firmly. Then sink the mud sill three feet deep and weight it with heavy stones and dirt, so it cannot lift or move endwise, and the post will never lean or heave with frost, and slacken the wires. The mud sill should be eight or ten feet long, to be firm enough for a long stretch of fence. The cut shows in general the position of sill, post, brace tightening rollers, etc. The wires may be loosened in fall and tightened in spring if necessary.

Worms in a Horse; Currant, Gooseberry and Cabbage Worms, Etc.

D. K., Litchfield, Mich., asks, 1, the cause and remedy for itching tail in a horse; 2, a cure for stretches in sheep; 3, a remedy for currant worms, one for gooseberry worms and another for cabbage worms; 4, is it exhausting to breed a mare every year?

ANS.—Worms are the chief cause of itching about the anus, indicated by a desire to rub the tail against the wall or other object. Apart from bots, there are two kinds of these—the round worm, which dwells in the intestines proper, and the thread worm, which lives almost exclusively in the rectum. The former is from eight to ten inches long, and sometimes much longer, the latter an inch or two. The symptoms of their presence are: a rough coat, irregular appetite and such itching as that here mentioned. If worms are suspected, it is advisable to give a purge and watch the feces for their appearance. As a remedy for round worms, give: Tartar emetic, 1 drachm; powdered ginger, ½ drachm; make into a ball with linseed meal; give one every morning for a week, on an empty stomach, and then follow

with a purge of aloes. Then let the horse rest a week and repeat the above, unless assured of a cure. For thread worms—the more common cause of itching—inject at the rectum every morning for a week, a pint of linseed oil containing two drachms of spirits of turpentine. The itching may also arise from vermin, irritation of the anus, a foul sheath or uncleanliness. As an antidote to these causes, cleanse thoroughly and apply mercurial ointment to destroy the vermin or the eggs of the worms. 2. A full account of stretches in sheep appeared in this Department in our issue of April 5th. It is due to indigestion. A dose of one ounce of linseed oil, repeated the second day, generally relieves the complaint, and its return is prevented by feeding, say for a week, a pint of linseed oil-cake meal daily. 3. The Currant and Gooseberry are so nearly related, that most of the injurious insects that attack one, are common to both. There are about half-a-dozen of these, some of which injure the leaves, and others, the stem. For the former dusting the leaves with powdered white hellebore, as soon as the pest first appears, and repeating the operation daily until it disappears, is an effectual remedy. A dusting with dry, fresh-slaked lime is also recommended. To destroy stem borers, the plants should be closely examined every fall and winter, and every shoot that bears the borer's mark should be cut off and burned. In making cuttings, too, every infested shoot should be destroyed. The cabbage worm proper is the imported Pieris rapæ. For this an experienced horticulturist recommends 20 parts superphosphate of lime, one part carbolic powder and three parts of fresh air-slaked lime; mix thoroughly and throw a small quantity of the compound into each head of cabbage. Repeat three or four times, or oftener, if necessary. 4. It is not an uncommon practice to introduce the male to brood mares a few days subsequent to delivery; but even under the most favorable treatment such frequent pregnancy must be exhausting not only to the mother that has to supply milk to one foal while bearing another, but also to both the young and still unborn offsprings which are thus stinted in needed nourishment. Of course, if the mare is worked hard, or has no extra food to help her along, the evil of the practice is increased.

Hydraulic Rams.

H. W. C., Staunton, Va., wants to convey water about 100 yards from a never-failing spring, and then to raise it vertically about 50 feet up an incline to a tank, for household purposes and for watering stock, and he asks whether a hydraulic ram would be likely to do the work satisfactorily, as there is a considerable fall abruptly from the spring; what are the best length and caliber for the drive pipe; what proportion of the water received from the spring would be raised to the tank at the hight mentioned; what should the caliber of discharge pipe be; and what would be the probable cost of the whole arrangement.

ANS.—That will depend upon the quantity of water discharged from the spring, the amount required at the tank, and the fall that can be used for "driving" purposes. The greater the fall applied, the more effective the motive power, the higher the water can be raised and the greater the proportion that can be delivered at the point desired. It is seldom well, however, to apply a greater fall than ten feet, as the greater the fall the more violent the force with which the ram works and the more speedily the wear and tear of it unfits it for use. With a view to economy of repairs and replacement, therefore, no greater fall should be applied for propelling the ram than is sufficient to raise the requisite supply to the place where it is needed. This may vary from 18 inches to 10, or, occasionally, 15 feet. To calculate the fall that should be applied to raise a given proportion of water to a given hight over an ordinary distance, say 50 or 60 rods, it may safely be estimated that one-seventh part of the water received from the spring, can be raised and discharged at an elevation above the ram ten times as high as the fall applied. Thus, if the ram is placed under a head, or fall, of five feet, of every seven gallons drawn from the spring, one will be raised 50 feet above the ram, or half a gallon, 100 feet; or, with a fall of 10 feet applied to the machine, of every 14 gallons drawn from the well two gallons may be raised 100 feet, one gallon 200 feet, or four gallons 50 feet, and so on proportionately as the fall or rise is increased or diminished. The ram should be placed far enough from the spring to make the drive-pipe, say, 25 to 30 feet long, in order to secure the best results. The best calibers of the drive and discharge pipes depend entirely on the quantity of water furnished per minute by the spring or brook, the quantity to be delivered, and the hight at which it is to be discharged. But little force is needed to counterbalance the *friction* caused by the horizontal passage of water through the pipes. Where only four gallons a minute are delivered, a three-quarter-inch drive pipe is large enough and three-eighth-inch discharge; whereas, for a stream of 25 gallons a minute, the drive pipe should be four inches and the discharge two. The chief part of the cost lies in the price of the pipe, whether wood, lead, wrought-iron or tin-lined lead. The price of ordinary rams varies from $9 to $225 and upwards, the former receiving from the spring four gallons a minute and the latter 250. The next good plumber should be able to give detailed information as to the cost in each case.

Thrush.

W. S. M., Bendersville, Pa., has a five-year-old horse whose frog appears to be affected with thrush, and he asks for a remedy.

ANS.—Thrush is generally due to standing in fermenting filth and foul litter; sometimes it arises from frost-bite, internal disease, irritating applications or "stoppings" to the feet. In it there is a fetid discharge from the cleft of the frog, sometimes accompanied by lameness and a disorganization of the horn. For treatment, place the animal in clean quarters with a dry floor well littered. Thoroughly water, remove all the ragged parts of the frog, cleanse the seat of the disease with soap and Take of calomel one-half ounce, and of sweet oil two ounces; mix, spread on a piece of lint or oakum and insert in the cleft of the frog, and over any other diseased part. The whole should be covered with a layer of wood tar, or a leather shoe may be used for a while with advantage.

Miscellaneous.

S. G., Dwight, Livingston Co., Ill., sends us for name a specimen of grass which grows abundantly on foot-paths and similar places in that section; also a fungus of the Red Cedar, and asks if it will destroy the tree.

ANS.—The grass is Poa annua. It is a very common grass, but not of much value as a fodder plant. It is annual, and keeps flowering all through the summer. It does not resist drought well. The fungus is Podisoma macropus, sometimes called the fruit of the Cedar. It will not destroy the tree, but may interfere somewhat with the growth of the branches to which the balls are attached. If it is desired to rid the tree of it, the best way will be to pick it off.

S. N. A., Freehort, Washington Ter., thinking of engaging in sheep-husbandry in the South, asks of whom he would be likely to obtain correct information about the prospects for that industry in Georgia and Texas.

ANS.—Apply to Dr. T. P. Janes, Com. of Agriculture, Atlanta, Ga., and to T. A. Guthrie, M. A., Agricultural College, Bryan, Brazos Co., Texas.

A. R., Shelby, Ohio, asks whether Pearl Millet is an annual or perennial; at what period of its growth does it produce the best fodder?

ANS.—It is an annual. It may be cut several times according to climate, soil and cultivation. We should suppose it would produce the best fodder if cut rather early, for the reason that the stalks, later in the season, become reed-like and hard.

A. J. B., Clarksfield, Ohio, asks what is meant by the term fodder.

ANS.—It embraces whatever is fed out to cattle, horses and sheep, such as hay, straw, corn-stalks, etc., as well as various vegetables. In common parlance, however, its use is chiefly restricted to long fodder, such as corn-stalks, hay, millet, &c.

R. L. S., Tangent, Oregon, sends a flower for name, known as Curly Lily in that locality.

ANS.—It is Erythronium albidum—White Dog-tooth Violet.

COMMUNICATIONS RECEIVED FOR THE WEEK ENDING SATURDAY, MAY 31.

L. D.—M. W. N.—M. G. K.—W. J. M.—O. S. B.—W. F. W.—C. J. F.—R. L. S.—J. B. A., thanks—R. H. H.—S. T. B.—R. T. D.—Van—J. G. J., thanks—H. H.—H. S. C.—W. M.—D. K.—S. B. D.—S. B. P.—H. T. J., thanks—F. H. D.—I. A. H.—U. T. S.—L. A. R., thanks—D. E. S.—A. E. W.—"Gaston"—E. J. R.—E. L. M.—M. E. A.—W. S. F.—L. W.—S. W.—S. W. J.—S. R. M.—W. E. M.—A Subscriber.

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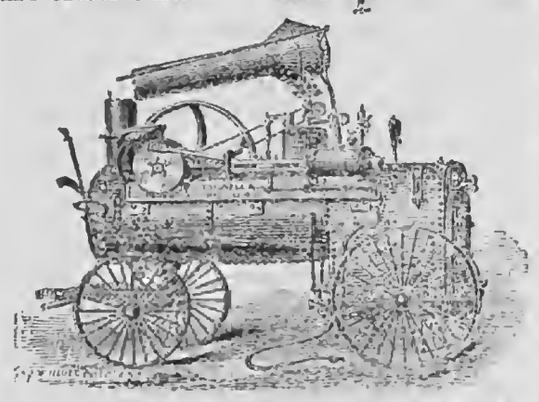

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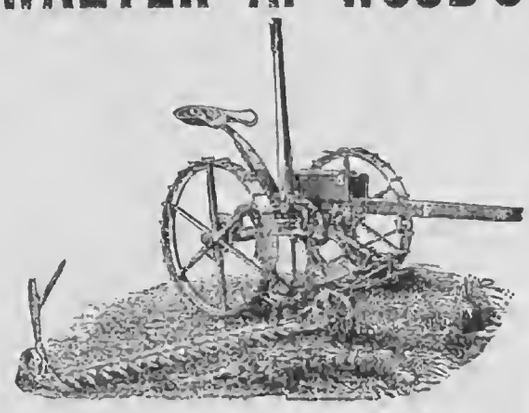

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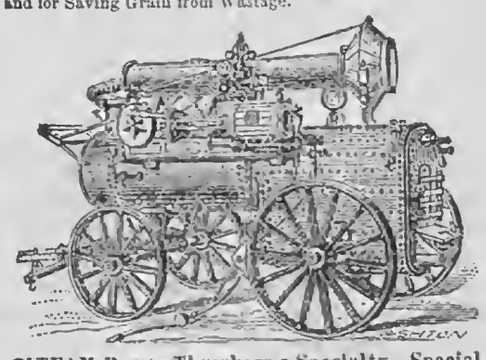

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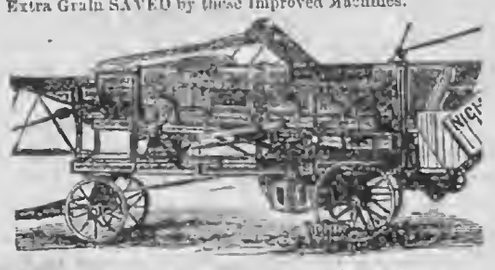

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SATURDAY, SUNE 7, 1879.

TO EVERY READER.

We respectfully and urgently call the attention of our readers to the *necessity* which exists that they should address their communications to the Editors or the Publishers of the Rural New-Yorker, if they would insure prompt responses. Letters addressed to individuals are often delayed in this office for weeks. Mr. Moore, to whom letters intended for us are still occasionally addressed, has had no connection with this journal for years.

THE AGRICULTURAL INTEREST.

An old fable relates that the other members of the body once fell foul of the stomach, as an idle vagabond which subsisted uselessly as a parasite on their industry. Finally they "*struck*"—to use a common phrase—and refused longer to support the idler. Alas! the tables were quickly turned and it was found that the wrongly maligned member was the secret, but modest and quiet support of the whole of the family; while, in fact, themselves depended for their living upon the labors of this hitherto despised coworker. This story may be pertinently applied to the agricultural industry; but unfortunately, it does not go far enough. This industry is not only considered as unworthy the notice of the more respectable—so considered—members of society, who are supported by it, but it is actually made a prey and a spoil by these, and it actually remains passive and content under their contumely and oppression. Who ever heard of a threatened strike of the farmers? But what a terrible result would occur from a general refusal of farmers to work. The world, like the human frame, in the fable, would be paralyzed. The wheels of commerce would stop. Mouths would open, but there would be no bread to fill them. The old soakers, even, whose subsistence consists of beer or whiskey, would be forced to come to honest water, and on the whole, there would be a sad state of things in one short week, after the plows were stowed away, and the farmers glowered sullenly but defiantly over their fences at the hordes of those who have been so ready to squeeze them. This is no over-wrought idea. From the moment the farmer prepares to sow his seed, a vast army of parasites, (some may be legitimately so, but the majority are otherwise,) stand eagerly prepared to swoop down upon his harvest.

Let us exhibit a tableau: The scene is in a hall which has a narrow marble entrance in a narrow street in our largest city where bankers and brokers "most do congregate." A stone stairway leads to a gallery protected with a low ballustrade. We look down into a place beneath which, except for want of the poles in the center, might well be a bear garden in a zoological collection.

There is a crowd of men wildly gesticulating, throwing arms about madly, shouting and screaming at the top of their voices; a mad hubbub, in which not a word can be distinguished; a roar as of a vast hurricane through a forest; men dashing down figures upon slips of paper and throwing these at each other as gages of deadly strife, as it were. "Madness rules the hour" in that room, without a doubt. What is the reason? When we come to discover this, we find the "Granger stocks" in Wall street are "booming" upwards. There is an active speculation in them, and prices are advancing with a rush. The cause is said to be the bountiful rain which recently fell all over the Western country and wonderfully helped the wheat crop. You may ask, what had this to do with these leeches which suck the blood of honest industry—the stock speculators? Only this: if there should be a handsome crop, the railroads would get the lion's share for carrying it to market; rates would go up; pools would be formed; money would be raked into the coffers of the railroads and out of the farmers' pockets; dividends would be declared, and so a rise in the values of the stocks would result. This may have been seriously intended, or it may have been a simple trick of the stock gamblers. Either way, the idea existed; the farmers were to be victimized by means of a combination, as they have been thousands of times. So with strikes of all the scores of dissatisfied workers—all struggling to get a larger slice of the farmer's profits, for all these piled-up costs come out of the handling or the use of his crops.

It is an unheard-of thing to see a combination among farmers to protect their own interests. A partial combination a few years ago resulted in a victory for the time being; but, as in a guerilla and unorganized warfare, the victorious army melted away on the very day of the victory, and gathered no fruits from it. The superior organizations of their opponents overcame them, and the unusual combination fell to pieces and is heard of no more except in history. Combined, the farmers could rule the world, because they keep the keys of the provision chest; without organization, they are the prey of every other combination, and fall victims every time without a struggle or resistance. In business, in taxation, in legislation and in social matters they hold the position of the under dog in the fight, because they are not organized so as to use their strength to exact justice for themselves.

WANTED—GOVERNORS AND DIRECTORS.

Look at the machinery of a watch. There is, first, the main spring, or motive power, constantly exerting itself. Its force is communicated to this wheel and the other, and they in turn affect more wheels, until every part of the machinery is affected. But look closely and you will find all of this power controlled and governed by the action of a very small part of the whole machinery. Three or four wheels connected more closely with the hands are really the time-keepers, and these must be just exactly right. The other wheels, or what we may call the motive power, are necessary, to be sure, but they may be coarse or fine in regard to workmanship, with little effect on the watch as a time-keeper. Not so with the governing wheels. To secure accuracy of movement, these must be adjusted and finished with the greatest precision, for they have not only to do their duty as wheels, but they have also to serve as regulators for the others, distributing properly the power they receive from them. A slight defect in one of these wheels ruins the watch, while one of the motive or power wheels might be severely injured—bent, lose a tooth or a cog—and its effect upon the working of the hands be unnoticed.

We use the watch merely as an illustration of what is always going on in the world of labor, where bone and muscle are the motive power and brains the regulators or governors. It has been stated that of the whole population of any State in the Union—and the same will prove true to a greater extent in countries of the Old World—not more than one man in twenty is able to procure, unaided, a good support for himself and family. The majority fail, not because of any want of willingness to work, or bodily strength, but merely because their powers, being undirected, are of little use, and go to waste for want of proper direction.

Nature is kind, and yields bountifully of her productions to those who properly seek them; yet how many are there who, if put in possession of a good farm to-day, would fail to get from it a support! But there are some who not only plan for themselves, but for hundreds of others. The head of a large commercial establishment, by his planning, makes a fortune for himself and at the same time enables hundreds, and perhaps thousands, at home and abroad, to earn a livelihood while aiding him in carrying out his plans.

See Ericson, at thirteen, having direction of six hundred laborers on the Grand Canal, each one of whom was far superior to him in muscular power. But the power needed his young but intelligent brain to give it proper direction, that it might attain desired results. And so, all the world over, the steam engine, the telegraph, all mechanical contrivances are but illustrations that power always requires a governing direction to compel it to subserve man's interest. So with the power of men—the few must be governors of the many, as the few wheels of a watch regulate and control its machinery. The competency of the superintendent often decides if the manufacturing establishment shall be a profit or a loss to its owners. And this is none the less true on a farm. The superintendent, be he owner or employe, who directs the laborers, is the regulator of the whole business. It is well known that one man with the same hands will accomplish a much greater amount of work than another, and that with really less labor, doing it by merely planning where each can work to the best advantage. It may not be out of place to suggest here that one reason why the business of Government is so expensively and unsatisfactorily managed is because sufficient care is not taken to select proper men for the positions they are to fill. Given a set of Congressmen who know their business and are capable of doing it, sessions would be shortened at least by one-half, while the business accomplished would be fourfold.

Directors and Governors are, then, especial needs of the age. Like poets, they are born, not made. The appointment of one to a place of trust does not fit him for it. It is not, except to a limited extent, a matter of education. It must exist in the man and have become his by birthright. The qualities needed are often found where least sought for. The lowly house more often shelters them than does the elegant mansion. Wherever you find a full, high forehead, protruding eyebrows and sharp, keen eyes, a head high and thick, measuring from the opening of the ear, giving firmness, conscientiousness and executiveness large, there you find a man fitted to be your superintendent, and whatever be his rank in life, you may be sure your confidence in him will not be misplaced.

Such men should be sought for. There are many who have never found their proper places among the world's workers, because they do not understand themselves or their abilities, never having been in situations where they could give exercise to the powers they have. But they are wanted in the front rank, and, in justice to themselves and the world, should be placed there.

SPECIALTIES IN EDUCATION.

The tendency of late years has been toward practical as opposed to theoretical education. It is but a few years ago that scientific or practical teaching was discouraged, and our colleges were opposed to giving academic degrees except for a full literary course. The aim was at the Universal instead of the Special, and consequently the knowledge acquired could properly only be a *smattering*. In opposition to the course adopted by colleges and universities, nearly all the great men—those to whom the world is most indebted—became useful and acquired celebrity from a devotion to specialties.

Had Faraday received a general classical education, it is highly doubtful if the world would have known him in the character he worked out for himself. Without scholastic education, but with a great bent toward the natural sciences, he rose to the highest position.

Audubon had a bent toward ornithology, and, without a general education, produced the most remarkable work upon this subject the world had ever seen. His specialty was magnificently executed. Who knows but he might have been diverted from his great task, had he been crammed in the popular way?

Robert Fulton had a bent toward mechanics, and the development of his specialty gave to the world steam navigation, while George Stephenson, owing to a similar bent, gave the world railroads. All the world's great benefactors have been specialists—have educated themselves practically, worked out their theories, embodied the creations of the brain in works of the hand. This age is growing practical, and we trust it may grow more and more so. We trust our agricultural colleges will all become practical schools, and earnestly work out the problems of agriculture that need solution. Let them really make "agriculture and the mechanic arts the *leading object*," as the law requires, instead of attaching these, as some of them do, as the tail to the literary kite. Then we shall turn out specialists in agriculture and mechanics, who will honor their calling and devote their lives to its elevation, instead of those young men who look with contempt upon agriculture and aspire to the honors of the learned professions, which they seldom reach.

SENSATIONAL FARMING.

Some injury is done to the plain, simple-minded folk by the reported statements of enormous agricultural enterprises in California, Minnesota and Dakota, with vast profits growing out of the fabulous operations. One Californian *farms*, or rather skins 45,000 acres yearly by sowing it in wheat. His harvest is said to have produced 900,000 bushels of wheat, netting him $765,000 in one year. One would suppose this man would have realized a moderate competence at least out of his one year's operation; but we now learn that after 10 years' exciting business, he owes about a million dollars and is practically a bankrupt; "land-poor," with a white elephant, which he can neither keep nor let go, on his hands. So in the Northwest, we have had reports of great tracts of land sown to wheat and large sums of money realized. But we are slow to think of the expenses and waste of this sort of agriculture, of the large capital required to produce a crop; of the enormous interest on loans needed to carry on the business and meet current expenses, or on the inevitable final result of ruined land, barren fields, wasted opportunities and a general wreck which alone is left behind of the baseless fabric of a grand vision. It is a great gambling transaction; the weather, season and markets being the largest which are risked, and possible success, barren at the best; a cheap notoriety, or final ruin, are the alternatives. It is well that the facts should be known, and that these glittering stories should be understood, as mere speculative ventures in which there is but one ending, and that a grand crash, a mountain of debt toppling over and crushing the whole fabric; speculators, farms; crops; armies of laborers; troops of horses; parks of machinery; all these involved in one general ruin. This has been, will be, and must be, the end of this illegitimate use of the bountiful soil which is made to pour out its life in a few short years of wasteful, riotous agriculture.

BREVITIES.

The first brood of potato beetles is not yet hatched.

We are in receipt of a box of latest-keeping apples of the season, from Ellwanger & Barry. We are having specimens of each engraved.

Mr. John Saul, of Washington, D. C., sends us a large box of plants, many of which are both new and rare. We will report in due season.

We are surprised that so many of our subscribers should compete for the corn premiums. We wish that all might be entitled to them.

A friend to whom we had given Blunt's Corn, remarked to us that "it came up the soonest and grew the fastest of any corn he had ever planted."

Dr. Salmon's, in our humble judgment, comes nearer to a just estimate of the Rural soil experiments, than any other of the many criticisms that have appeared upon it.

A few days ago we presented to our fowls a nest of Tent Caterpillars. As many as forty examined them in a cautious manner at the distance of a foot or more, and then withdrew.

While birds sometimes destroy weed seeds, it must be also borne in mind that they often disseminate them. Observation and experiments amply prove that many, if not most, of the seeds excreted by the feathered tribes, still retain vitality enough to germinate.

Pearl Millet is just appearing above the ground—a single, slender spear of grass. It is hard to keep the ground free of weeds, so that the rows may be determined. Most of our friends, we find, plant it too early. Now (June 2) is plenty early enough for this climate. If planted earlier, either the weeds smother the little plants or the seeds rot in the ground.

State Fairs.—The New York State Fair, it is about decided, will be held at Utica, September 9-13. The Illinois State fair will be opened Sept. 29-Oct. 4, at Springfield. Virginia will hold her nineteenth exhibition at Richmond, Oct. 28-31. The Rhode Island Society will inaugurate their fair at Narragnsett Park, near Providence. It will last three days, Sept. 9-11. The Oregon State fair will be held at Salem, some time in Sept. or October.

One of our Brooklyn friends relates that he has accidentally discovered a very efficient remedy for gapes in chickens. It is dry, caustic lime. One of his chickens got the gapes; he caught the fowl and with a pen-knife dropped some caustic lime that happened to stand by, into its throat, and let it go. Next day the fowl had recovered. He mentioned his success to a friend of his, who applied the same remedy to three chickens with the gapes with the same result.

We glean from our English exchanges, and more especially from the trustworthy London Agricultural Gazette, that the prospects of crops in England are by no means such as to brighten the timid hopes of the English farmer. Wheat fields, 'tis said, present a deplorable appearance. "It is several weeks since we began to fear and now we quake." "How," they ask, "can plants which scarcely tinge a hill-side seen half a mile off, produce ears of wheat in six weeks' time and a fair harvest by August?" The plants are not only "thin but weak and badly colored."

Variegated Wild Plants.—Last week we found a beautifully variegated Red Clover plant, white and green. Last year we found two variegated wild plants. One was a Skunk Cabbage, variegated with a bright yellow—the other a variegated Plantain (Plantago Major), also splashed with yellow. The Skunk Cabbage was removed to our wild garden—the Plantain to a flower border. The seeds of the latter were collected and planted to ascertain if seedlings would also prove variegated—but they did not germinate. This spring the Plantain is as brightly variegated as it was last year. The Skunk Cabbage died.

For Women.

CONDUCTED BY MISS FAITH RIPLEY.

HER LAST WORDS.

No! Let me go alone—'tis better so.
My way and yours are widely far apart.
Why should you stop to grieve about my woe?
And why should I not step across your heart?
A man's heart is a poor thing at the best,
And yours is no whit better than the rest.

I loved you once? Ah, yes! perhaps I did.
Women are curious things, you know, and strange,
And hard to understand; and then, besides,
The key of her soul's music oft doth change.
And so—oh, do not look at me that way—
I loved you once, but that was yesterday!

Sometimes a careless word doth rankle deep—
So deep that it can change a heart like this,
And blot out all the long sweet throbbing hours
That went before crowned gold with rapturous bliss;
So deep that it can blot out hours divine,
And make a heart as hard and cold as mine.

Nay do not speak. I *never* can forget;
So let us say good-bye, and go our ways.
Mayhap the pansies will start from the dust
Of our past days—the slumbrous, happy days
When I was trusting, and life knew no grief,
But blossomed with my clinging, sweet belief.

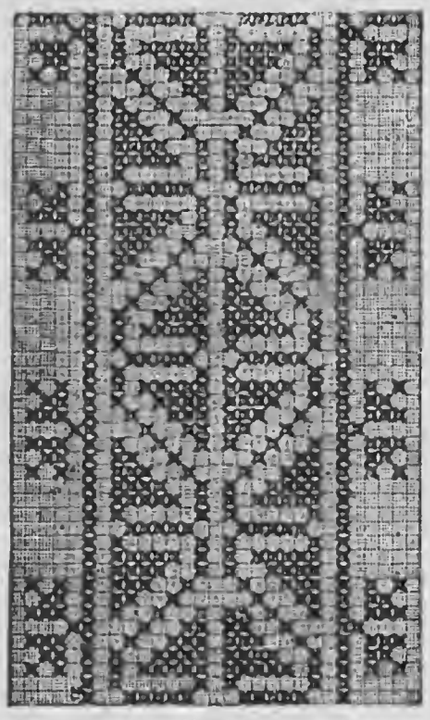
Good-bye! good-bye! Part of my life you take—
Its fairest part. Nay, do not touch my lips.
Once they were yours; but now, oh, my lost love,
I would not have you touch my finger tips,
And saying this I feel no chill of pain;
I cannot even weep above my slain.

If God cared ought for women who have loved
And worshipped idols false, I trust he will
Keep us so far apart that never more
Our paths may cross. Why are you standing still?
Good-bye, I say. This is the day's dim close;
Our love is no more worth than last year's rose,

[*Lady's Journal.*

DESCRIPTION OF CUTS.

No. 1.—SHOE-POCKET.—This pocket, which is intended to hang on the wall of a bed-room or dressing-room, is made of undressed holland, the back, and flap that turns down at the top, are cut in one piece, measuring twenty-eight inches in depth, and twenty-two in width. The pockets are cut ten inches in length; they are sewn to the foundation. Each pocket is formed by one large pleat, and ornamented with a braiding or embroidered design. The lower flap is cut separately, and measures seven inches in depth, this is ornamented to correspond with the pockets, and is scalloped and buttoned at the edges.



No. 3.

No. 2.—CHAIR-COVER EMBROIDERED IN CROSS-STITCH.—This cover is of crash, embroidered in cross-stitch with colored ingrain cotton. The cover is finished at both ends with fringe, and is tied to the chair with strings, as shown in the engraving. Covers of this kind are pretty, and serve to preserve the backs and seats of delicate chairs or to hide evidences of wear and tear.

NOS. 3 AND 4.—BORDERS IN CROSS-STITCH.—These borders are woven with colored ingrain cotton, and are suitable for table-covers.

THE WOMAN'S CLUB.

HOME STUDY.

As some of the "clubites" have from time to time referred to the Boston Soc. for Enc., of Home Study, perhaps a word or two from one of its students may be of interest to some one.

In December last I decided to join and I selected as one course, a history of the fifteenth and sixteenth centuries and was directed to begin with Seebohm's History of the Protestant Revolution. It is surprising what an amount of interesting and useful information one can extract from this book by a little study. It is admirably arranged for purpose of study. The marginal notes which appear on every page serve to fix the most important events in the memory.

To how many of us busy housewives are Savanarola, Chas. V., Francis I., Leo X, Lorenzo de Medici, Zwingel and Luther more than names? What do we know of their lives and times? And yet each of these men exercised an immense influence in his day and generation, an influence in many cases that we of to-day feel. Many of us doubtless know of Luther that he was an obscure Romish Monk who attempted to reform the church and who at the Diet of Worms defied emperor and pope, are we wise about his particular dogmas for which men have fought and died? Did he draw his inspiration direct from the Scriptures or did he merely amplify, emphasize, and secure a larger hearing for a doctrine already in existence? When this man stood before the proud emperor, surrounded by princes, and distinguished ambassadors from the court of Rome and dared all for conscience sake, did he strike a blow for religious freedom simply? Feudalism, what was it? How was it abolished? Is it true as claimed by a "Greenback" paper lately that gold and silver as mediums of exchange are relics of feudalism? I feel assured that not one farmer's wife in two hundred could answer all of these questions and yet a few hours reading would make any woman intelligent on these and a myriad of other topics.

I like the way of studying recommended by Miss Margaret Harvey in one of her letters lately. She says in effect (what is most true) that the mother of a family can not find time to seclude herself for a stated time, but if she only "studies as she goes," ironing, washing, baking, sweeping or sewing, she can accomplish much and lighten the drudgery of every day life.

One delightful feature of the Boston Society is that when in studying the books recommended in the regular course, if you become especially interested in an individual, a city, a system or an epoch, you can by asking your lady correspondent find out the books which will give you precisely what you want to know. For example, I wanted a portrait of Florentine manners in the fifteenth century and was directed to read George Eliots' Romola. Those of you who have read the book, know how excellently it suited my purpose. So, to give me an idea of the social life and times of Luther, Schonburg Cotta Family, was recommended. Shakespeare's Henry the Eight, was suggested when I was reading the history of Henry VIII's matrimonial complications. All this was outside of the regular course.

Ladies, one and all take my advice and join the society next October, even if you can only study ten minutes a day, Cordially.

MRS. TEMPLINE.

WHAT A DELEGATE FROM THE OIL REGIONS HAS TO SAY.

I AM very much interested in the RURAL, and especially so in the "Woman's Club." I have often thought I would like to join although I don't know as anything I could write would be of benefit to any one, however, I always had a desire to see myself in print, and if this letter is not consigned to the waste basket (that bug-bear of aspirants to literary fame,) I may be able to assist some poor, weary sister, as I have been encouraged many times by reading hopeful words written by some of the other club members.

I agree with Sarah. There are a few—one at least—interested in hearing about the Boston Society to Encourage Study at Home. I wish those who understand its workings would write more about it. I am a very warm friend of education, whether it be book learning, kitchen learning, or that taken from the great book of Nature and taught by the Great Master who knows all things.

I should love to take a course of study from this society, but have not the courage to undertake it and I fear not the strength to carry it through if I did. With delicate health and three little children clamoring for mama's constant care, and a farm-house and husband (?) to overlook, I hardly have time to avail myself of the Society's liberality.

I find, however, that it is not necessary to settle down into a domestic drudge and nonentity, even among the hills and rocks of Pennsylvania's oil region, where strangers suppose there is nothing but rocks and oil. I live in a beautiful farming neighborhood in the middle of Oildom. From my home we can see gaslights from oil wells in every direction. We have the best of markets, and with fourteen towns of greater or less size within a radius of twelve miles, we ought to be happy, but we are not. We poor mortals always want a "little more" or something a little different. We are too far from railroad (four miles;) too far from church (one mile;) too near some great rocks in the woods, etc., etc. Why can't we be satisfied with what the Great Giver of All sees fit to give us? Especially ought we to be happy when for a trifle the RURAL PUBLISHING CO. furnishes first-class reading matter of every kind, and even allows us *poor down-trodden women* to condole with each other and air our pet hobbies; then it makes us the recipients of so many favors, viz.: clocks, seeds, etc. I can't imagine what this Company's next freak will be; possibly each subscriber will be forced to receive a lease of Western farm land, or a residence on Fifth Avenue.

Now, I have written a great deal without even hinting at the subject I set out to discuss, viz.: "carpet sweeping." This subject of carpet or no carpet I find is agitating the public mind considerably. I, for one, am in favor of a good rag carpet on the sitting-room floor, and with reasonable care there is no need that the room be filled with dust at every sweeping.

In the RURAL of April 12, Mrs. D. L. B. suggests the "use of salt for dust." Allow me to give my experience with it: Three or four years ago, a young lady boarding with me sprinkled salt on the carpets of the sitting-room and chambers, for the weekly sweeping. Afterwards I noticed that in the corners of the rooms the carpet was sticky, and the castors of the bedstead were so rusty they would not move. The pedals of the sewing machine were also covered with red rust. I was at a loss to account for it for some time, but Mary explained it, and I stopped using salt, as a *disinfectant*. I have always found it worked well to dip the broom in a pail of clean water occasionally, while sweeping. This will keep down the dust pretty effectually. Shake the broom well out of the water, and do not use all the strength at command, and so send the dirt across the room at once, but take your sweeping easy. Also take your carpet up and give it a good beating every six months. C. E. J. OF OILDOM.

ENGLAND'S QUEEN.

I WONDER if there lives a woman who has been more over-praised than this one? The anniversary of her birthday, which occurred lately, was made the occasion for such a flood of adulation as was positively nauseating to one who stopped to reflect on the unworthiness of the subject of it. She is praised for being a good wife and mother. Are mothers and wives of this class so rare that a woman is to be extolled for simply doing her duty in these relations? If it is claimed that people of her rank have temptations which do not assail those in the lower walks of life, one can very promptly dismiss this by pointing out that we do not live in the eighteenth century, and the profligacy which characterized the courts of this woman's ancestors would not be tolerated now. Whatever her inclinations, she would be compelled to conduct herself with propriety. As to being a good mother, the eldest son, to say the least, does not reflect the brightest luster on her training. This, so far as I can understand, is about all that there is to be said in her favor, that she is negatively *good*. Not grandly good, but she simply does her duty by her immediate family. Rather a remarkable characteristic of the head of a nation; the nominal ruler of millions of people.

Washington and Lincoln are revered in this country not for their loyalty to their wives, but for the noble services they rendered their country; and likewise the memory of an Arnold or a Tweed is execrated for the crimes committed against society, and the fact of the man's being a loving husband or father does not lessen his condemnation in the least. Victoria is avaricious and petty to a degree which would disgrace her meanest subject. When her children marry she comes like a pauper before the people and asks for a settlement on them. Asks, too, when she knows that the burden of the extra expense will fall on her poorer subjects. Want, squalor and wretchedness are almost at her palace gates, and not only does she refrain from relieving the poverty, but she will not provide for her own children out of her abundance.

Think of a woman in her station giving time and attention to devising just how low in the neck and how short in the skirt, gowns worn at her receptions must be! Then, too, she showed her inexpressible littleness when she slighted Mr. Gladstone in not inviting him to her son's wedding. "This is my wedding, and I intend to invite whom I choose." As the English people paid the bills, it seems to me it was hardly her wedding, and besides it was in rather bad taste to insult a statesman who has rendered such glorious services to his country. The trouble with Mr. Gladstone is that he lacks that obsequiousness of mind and manner which is such incense to the vanity of those small souls.

Contrast this compound of arrogance, pettiness and avarice, who has had all the advantages of living in this cultured age, with Zenobia, that desert queen, who, though born seventeen centuries ago, challenges the admiration of every generation. Brave, generous, noble, *there* was a queen to worship. By her side how insignificant appears this much extolled Victoria?

One who believes in giving
"HONOR TO WHOM HONOR IS DUE."

No. 2.

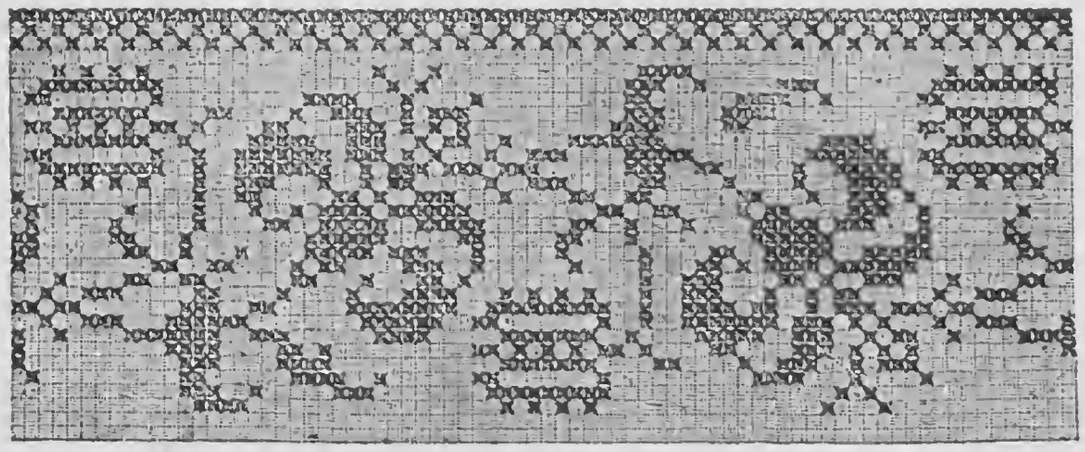
SOME REMARKS.

I HAVE been reading Washtenaw's article in the "Club" of April 5, and I cannot but wonder what sort of men she has known all her life. I am curious to know where she lives. Let me quote a little: "Men insist that women shall be beautiful. No speech is too coarse or too bitter to characterize their utter contempt for plainness in a girl."

There is no doubt that men admire beauty in a woman, I think we all do. I know that a beautiful woman is as much an object of admiration to me as to any man who ever lived. I gaze upon her with never-wearying delight; and if, with beauty, she has good sense and a good heart I glory in her as an ornament to the sex.

Washtenaw says that Sir Owen Chevenix but voiced the sentiment of his sex when he declared he preferred beauty to excellence of character in a woman. Perhaps it may be the preference of some of the more coarse and sensual among men, but spiritual and mental worth seeks its kind. While I see plain, yes, *homely* women wooed and won, in preference to belles and beauties, by men of excellence and talent, I cannot but feel that Washtenaw's sweeping criticism is unjust.

It is in no censorious spirit, my sister that I write these words but just for this reason: I have noticed that men in writing and speaking of women are apt to put a *part* for the *whole*. Are some women frivolous and silly?—they at once issue a proclamation—"Women are vain creatures, with no thought above a fashion-plate." Is one woman inefficient and weak? The flat goes forth, "Women are helpless and incapable." Of course I do not say that *all* men are so unreasonable.



No. 4.

Now, I want women to be above doing such injustice. I believe our sex is worthy of being vindicated in a dignified, candid manner. That the subject is not so weak as to need vituperation or sophistry; but that it may rest solely on an impartial statement of its merits. And I do not think it necessary for us to assume an attitude of hostility. That is another fault of some masculine writers. They say things of women in general that they would not hear said about their own mothers, or wives, etc., without anger. Now when we arraign mankind we include our fathers, brothers, etc., men that we love and honor. Let us, while asserting our rights, do it in the spirit of dignity, candor and charity. Hoping Washtenaw will "suffer the word of exhortation" in the spirit in which it is offered, I remain cordially,

CLYDE RAYNOR.

CORRESPONDENT'S CORNER.

LOVE IN OYSTER BAY.

[The following poem is sent in response to an inquiry in the "Correspondent's Corner."]

I AIN'T anybody in particular,
And never cal'lated to be;
I'm aware that my views doesn't signify
Except to Belinda and me;
But I'm heavy on openin' oysters—
In regards to them I am free
To remark that, for shellin' of Blue Points,
There is few that can lay over me.

Excuse my perfessional blowin',
It isn't the point I would make,
But I'm feelin' particular airy,
And uncommonly wide-awake;
And I've got to be talkin' about it,
It won't lay quiet, you see;
Which the name of the girl is Belinda,
That's took an affection for me.

It's surprisin'—the fact is surprisin'—
Just cast your eye over this frame!
Is there anything 'specially gallus
Which characterizes the same?
As a model for makin' wax figgers,
I shouldn't make much of a stir;
But I ain't a-goin' to worry,
So long as I'm pleasin' to her.

An impediment hinders my speakin'
As I should admire to do;
As an elocution professor
My scholars would likely be few;
But she said, when I mentioned it to her,
"Why, dear, don't you fret, for, you see,
You tell me you love me, my darling,
And your voice is like music to me."

I was never indicted for intellect,
Nor never arrested for cheek;
But I'm holdin' my head elevated
Since Thursday night was a week;
For that was the date when Belinda
Allowed she was partial to me
And give me a relish for livin',
And a notion of workin' for she.

She isn't exzactly a beauty,
And also she uses a crutch;
But the eyes of that dear little cripple,
The heart of an oyster would touch.
They is wonderful soft, and so lovin',
A good-lookin' face on the whole,
For the light in them eyes seems to travel
Right out from a beautiful soul.

If she had been lively and hearty
I couldn't have helped her, you see;
And similar, then, it ain't likely
That she would have took up with me;
And I shouldn't have know'd her and lov'd her,
So patient and gentle and sweet,
And I wish that the whole of creation,
I could lay at her poor little feet.

I was never so chirk and gallaptious,
And never before felt so spry:
And I've just took to noticin' lately
How amazin'ly blue is the sky:
And how gay is the stars in the night-time,
A-winkin' an' glimmerin' down—
Good gracious! I come near forgettin'
That barrel of oysters for Brown!

PELEG ARKWRIGHT.

AGUE CURE.

A NEVER-FAILING remedy for ague in the breast, is to wear a very small bag filled with alum. It must be worn continually while nursing a child. A neighbor has practiced it for the period of twenty years, and is now nursing the sixth child. After the birth of this last child, she did not at first think of using the alum until reminded of it by husband one day, when she immediately had a bag made, holding about a large thimbleful of the alum, and attached it to a string, suspended it about the neck, slipping it down next the skin between the breasts. She now washes in cold water, and does all manner of imprudent things, such as hanging up clothes, bare-headed, bare-armed, but has had no return of ague. A number of others to her knowledge have used it with the same good results. This simple remedy is, indeed, worth being known by the masses of the people, when we consider how much some women suffer with this distressing and sickening complaint.

I have seen salt recommended to be eaten with walnuts, so as to prevent indigestion, but I think I prefer eating the walnuts without any such condiment. If lovers of nuts of any kind, will drink a cup of sweet milk after eating them, they will not experience any unpleasant sensations, and can eat a great many more with impunity.

BROWNIE.

I WOULD like to have some of your readers send the words of the beautiful poem

'The Flowers that I saw in the Wildwood,'

and have them printed in the dear old RURAL.

A. E. S.

WANTED.—The words of a little poem, in which the boy-lover calls his little lady-love his "heartsease." The sentiment is charming. I would like to see the poem in the RURAL. Also, which is correct,—"When Greek *meets* Greek then comes the tug of war, or, "When Greek *joins* Greek, etc. H.

Literary Miscellany.

AN UGLY GIRL.

(Continued from page 365.)

CHAPTER XXI.

THE MISSING BOOK.

IT certainly seemed as if Hillian Gray was conscious that her actions wore a doubtful air, or else that she was shunning the explanation Noel had hoped she would give him unasked; for, from this time she avoided being left alone with him. Dr. Monson, finding his patient's pulse more equable, removed his embargo; Noel was daily lifted into a reclining chair, and this was wheeled into an adjacent room, where he was permitted to receive as many visitors as he pleased, on the sole condition that he retained a recumbent position, and did not suffer himself to become excited.

Hillian Gray was just as ready as of old to wait upon him, to bring him flowers arrange his cushions, or select books for him from the library; but she always found some pretext for absenting herself during those hours which Mrs. Hurst devoted to the housekeeping, and Irene spent in the society of her lover.

Noel sighed, but endured the change without comment. If she could not explain away the circumstances Clement Dunforth had revealed, it was as well that they should meet as seldom as possible. A little while, and they would be entirely separated; for when once able to turn his back upon Carlsforde Park, he was fully resolved never to behold it more. It would have been very pleasant if he could have carried away with him none but pleasant recollections of his gentle little nurse; but Fate willed it otherwise, and he must be content.

Clement Dunforth continued to pay daily visits to his betrothed, and generally presented himself at Carlsforde soon after luncheon, to accompany Irene and Hillian in their customary ramble.

Hillian Gray appeared to have overcome her dislike to him, or, if she still retained it, the feeling was not permitted to appear, and though it is true that she rarely bestowed upon him the sweet sympathetic smiles Noel had loved to evoke, she treated him in all other respects as a friend.

Sometimes, indeed, Irene evinced a little jealousy of her lover's attentions to "that Miss Gray," complaining that, during their walks, they talked over her head—or, in other words, discussed subjects too abstruse to interest her—and then Hillian would look distressed, and endeavor to excuse herself from being the companion of their walks. But Mrs. Hurst's notions of propriety would have been outraged by the lovers strolling farther than the gardens alone; and Clement Dunforth lectured his betrothed so sternly on the childishness of her complaints, that Irene, frightened and subdued, did not venture to repeat them.

Either the tears that sprang into her eyes awakened his compunction, or he feared that she would report his harshness to her brother, for, with unusual tenderness, he drew her into his arms.

"My dear little girl! do you forget how I told you, under a promise of secrecy, some days since, that our marriage depends on our conciliating Miss Hillian Gray?"

"You told me this, I know, and I thought I understood it at the time, yet—"

"Yet your high spirit and affection for me makes you impatient when you fancy me too attentive to the young lady. Thanks, darling, for the compliment. If you did not value my attentions highly, you would not grow angry without cause."

"I am not jealous, Clem, only——"

"Only you think with me that it is very hard to be forced to waste civilities on a third person when we have so much to say to each other. Quite true, dear; but tell me how it is to be helped. Your brother, though the best of fellows, is over scrupulous. He persists that we must not marry till we are in better circumstances."

"I am not afraid of poverty," cried Irene; but there was a little tremor in her voice as she said this, for she had had some trying experiences of the carks and cares that beset a household when the money comes slowly in.

"Neither am I, for myself, but for you—ah! sweeting, I want to be able to deck you in silk and velvet, to hang jewels in these pretty ears, and see my bride admired in the theatre, and the park, for the elegance of her dress, as well as the beauty of her face. A few hundreds per annum, which Miss Carlsforde with her large income could not miss, would put it in my power to bestow on you all these things; and so, Irene, dearest, we must not offend little Hillian Gray."

"You think she has such very great influence over our rich kinswoman! But how can that be? If Miss Carlsforde were so much attached to her, would she not have taken her with her?"

"By no means. It is precisely because she has implicit trust in the girl that she has left behind. Mrs. Hurst is a nonentity; she appears to rule, but it is only as her niece directs. I have been a close observer since I have been here, and I am firmly convinced that our future depends entirely on whether we win or lose the good opinion of Hillian Gray."

"Oh, but that's nonsense," exclaimed Irene, but rather timidly. "You will always have your professional income, and——"

"And it will barely find us in gloves, you inexperienced child. If we marry on that we condemn ourselves to misery."

"You did not say this at first, Clem."

"My dear, I only say it now to impress upon you the necessity of propitiating our clever little friend. If you will but consent to be guided by me, and not give way to silly fits of temper—which spoil your good looks, by-the-bye—I will so work upon Miss Gray that all our hopes shall be realized. If you will not be quiet and patient, I had better return to town, and let Noel defer our union, as he is now striving to do."

"Of course I shall be guided by you," Irene promptly replied. "I love Noel very much; he is the best of brothers; but when he tries to part you and me, it is more than I can bear. You think, then, that Hillian Gray will prevail upon Miss Carlsforde to settle a handsome sum upon us?"

"Certainly; is it not her duty to do so? You and your brother are the nearest of kin. Only wait another week or two, and rely upon it you will find that I am right."

Irene promised everything he demanded, for her faith in her lover was implicit, and Noel little dreamed that Clement's wily hints were gradually estranging from him the open-hearted, impetuous girl who had been wont to rush to him with all her troubles. Once induced to think that her brother was permitting his pride and his too scrupulous honesty to interfere with her happiness, it was not difficult to persuade her to be silent respecting Clement's schemes on the money-bags of the heiress.

Her brother noticed that she was not so loquacious as she used to be, and that if she chatted to him, it was rarely she named her lover, but he saw nothing suspicious in this. He was endeavoring to absorb himself in the writing of some essays, wisely thinking that to employ his mind would be the surest way of banishing the image of Hillian.

It was while thus employed that he sent Jephson to the library for the second volume of an historical work to which he wished to refer. But the old man was unable to find it, and Noel, who could not proceed without it, had been lying for an hour or more fretting at his enforced idleness, when his sister and Hillian Gray, accompanied by Clement, returned from a ramble.

Irene was peevish; for she had left the others to follow a squirrel, and had contrived to lose herself in the wood, through which they had been strolling, while Hillian was more than commonly distrait; but Clement Dunforth was in excellent spirits, and talked for both so gayly, that Noel, interested in spite of his dislike of the speaker, forgot the missing book till some turn in the subject under discussion reminded him of his unfinished work.

"Jephson is an old stupid!" said his sister, crossly. "It must be on the same shelf from which I brought you the other volume."

"But he assures me that it is not. I wish you would look, Irene; it would much oblige me."

She rose to go, then paused, saying, hesitatingly:

"Will it not do in the morning? It is growing dusk, and I never venture into the library after the shadows begin to gather."

"Let me go with you," said Hillian; and thus accompanied, she no longer objected.

The book was found, and after his friends had left him for the night, Noel, not feeling sleepy, opened it to read the passages he so wished to see. As he turned over the leaves, a sheet of paper fluttered on to his knees, where it lay unnoticed till his studies were over. Then, thinking that some one had used it to mark a place, he was about to return it to the book, when he saw that it was an unfinished sketch in crayon of himself.

Whether the likeness was or was not a good one, he did not attempt to decide. What interested him in it was the fact that this sketch did not represent him as he now appeared; but had evidently been taken the night that he sat in the library, and beheld the inexplicable figure lurking in the gloom. Could he doubt any longer that it was Miss Carlsforde who had stood there gazing at him, or that this book had been in her possession quite lately?

CHAPTER XXII.

NOEL'S LETTER.

THIS discovery engrossed Noel's thoughts during the night, and he debated with himself for a long time what use he ought to make of it. That Miss Carlsforde was either in the house, or dwelling so near that she could enter it whenever she pleased, he was now quite convinced; but who was in her secret? That it was very carefully kept was certain, from the fact that, with the exception of the one alarm in the library, Irene—the restless Irene, who wandered at will all over the mansion—had never beheld anything to excite her suspicions that the heiress was at hand.

The question that now arose was this: ought he to respect her desire to conceal herself, or use the privilege his kinship gave him, and endeavor to persuade her to take her proper place in her father's house? To know that she, the legal owner of all around him, was lurking in the dark, was an unnatural state of affairs, at which he ought not to connive; yet on the other hand, to harass or distress the unfortunate girl, who was already sufficiently tried, would be inexcusable.

If it had not been for that wretched suggestion of a marriage between them, Noel would have felt less delicacy concerning the mode of addressing her; or if Mrs. Estcourt had not unfeelingly given the heiress to understand that she ought to atone for her father's one-sided will, he would have unhesitatingly pressed his friendship upon her. Now he knew not whether to make advances, or behave as if ignorant that she was near. If he did the first, she might resent it as an unwarrentable action, seeing that she so determinedly avoided him; if he took the other course, a much-wished-for opportunity would be lost of reconciling her to her position, and inducing her to believe that he could never be prevailed upon to take advantage of her generous renunciation of her rights.

Once he would have taken counsel with Hillian Gray, and begged her to advise him. Whether she was or was not the confidante of her eccentric patroness, she could not have refused to hear, and aid him in his decision. But those golden hours in which she used to linger beside his couch, always ready to compare opinions respecting some book she had been reading aloud, or amuse him with some morceau of village gossip, were at an end; and he could not resolve to pointedly ask her to grant him an interview, knowing that the request must be made in the presence of Clement Dunforth, who contrived to be always hovering near her chair, and in some inexplicable manner engrossed all her attention.

At last he decided that he would take no one into his counsel but Jephson, and, drawing towards him the desk that stood at his elbow, he commenced a letter to the unseen *demoiselle*, yet, as the first words, "My dear Miss Carlsforde," were written, he paused and laid down his pen. Would it be generous to reveal to her that she had betrayed herself? She had proved by her behavior that she was of a very sensitive nature, shrinking from the notice her misfortunes drew upon her, as much as from the awkward position towards himself in which his accident even more than the terms of the will had placed her.

"I am her guest because I cannot help myself," he muttered, "while she is my hostess because it would have been positively brutal to remove me in my dangerous condition; and thus we two, who would have anything in reason to avoid each other, are by a strange chain of events kept within the same walls. She, poor girl!—terrified, doubtless, by the usage she received from the cold world into which she fled—has crept back here to hide until I quit Carlsforde or accept her noble offer.

"This I cannot do; but ought I to depart without endeavoring to make the acquaintance of the warm-hearted young creature, who would have loaded me with benefits, and whose friendless state is truly grievous? She has sufficient interest in me to steal into the library, that she might see for herself what her father's successor resembled; perhaps she is even now longing to know Irene and myself—for are we not of her own age and blood?—but is restrained by her repulsive appearance. Surely it is my duty to smooth away the obstacles to our intimacy. If I could contrive to make her comprehend that none but kindly motives dictate my wish to know her, would she not accept my friendship?"

At last Noel contrived to finish a note to Miss Carlsforde, that expressed his feelings tolerably well. He began by saying that he had reason to think she had returned to the neighborhood, and he rejoiced at it, as he hoped she would let him have the pleasure of seeing and thanking her for the hospitable treatment he had received at Carlsforde.

"As soon as I am sufficiently recovered," he added, "I intend to carry out a long cherished wish, and go abroad; but ere I leave my native land, pray let me have the very great satisfaction of seeing you reinstated in your own house, and thanking you for the generous though mistaken readiness with which you would have resigned in my favor. I think you would be happier, as well as myself, if you permitted me to convince you by word of mouth that I am not leaving England a discontented or disappointed man."

He was not exactly satisfied with this effusion; but had made so many abortive efforts, that he resolved to let it go; and having sealed and directed it to "Miss Carlsforde," he called Jephson, and bade him carry the epistle to the library, and lay it upon the table on which the jewel-cabinet—now removed to his own chamber—had once stood.

The man's astonishment at the request was so great, that it was plain he knew nothing of the young lady's proceedings. He did as he was bid, but watched Noel afterwards with a grave concern that amused him. He evidently thought that his charge was inclined to be delirious, and hinted as much to Dr. Monson, when he paid his next visit. He looked still more perplexed when, on the morning of the following day, he was desired to go and see if the letter was still lying where he had been told to leave it; but he came back again to demand angrily if some trick was being perpetrated upon him.

"The letter—the letter!" cried Noel, eagerly.

It was gone. Some of those jades of women, the maids, Jephson declared, must have meddled with it. But Noel took another view of the case, and compelled his mystified attendant to promise silence. That it was Miss Carlsforde herself who had seen and taken away his epistle he felt tolerably certain, and he was content to wait until she vouchsafed the reply he had earnestly begged her to send him.

He now resolved to reveal what he had done to Hillian Gray, and gather from her looks and manner while she listened, how far she was cognizant of Miss Carlsforde's presence in the house. But it was not easy to do this. Hillian avoided him, plainly and positively avoided him; and when he did contrive to catch her eye, the crimson flush that stole into her cheek was that of anger. Yet how could he have contrived to offend her.

He was asking himself this question one afternoon, when the change in her manner had been forced upon his notice, while Clement Dunforth, who continued to find time for long and daily visits to his betrothed, was sitting beside him; and the keen-sighted young lawyer must have divined the nature of his thoughts, for he commented, with a sarcastic laugh, upon Hillian's reserve.

"I thought that you and the young lady who had just left us so abruptly were excellent friends. Irene certainly told me as much."

"I am very grateful both to Miss Gray and her aunt for the attention they have bestowed upon me," answered Noel, stiffly. "If Irene told you this, it was quite correct."

Clement suddenly laid his hand on the speaker's shoulder.

"My dear fellow! you must not affront this girl. You really must not!"

"If you are alluding to Miss Gray——" Noel began, with displeasure; but, without heeding him, his companion went on:

"Or, if you have been so unfortunate as to wound her *amour propre*—she has a tolerably large share of it—pray do your utmost, to heal the breach. You have just the soft, caressing manner that goes so far with the sex, and a few civil speeches, or a well-put compliment to her one passable feature, her *beaux yeux*, may induce her to forgive and forget your offence."

"Why do you give me this advice?" asked the annoyed Noel.

"Need you ask? Pshaw! you are less observant than I imagined, or else you have a motive for feigning ignorance."

"I really fail to catch your meaning, Mr. Dunforth," said Noel, more coldly than before. "Oblige me by explaining yourself. You have given me some very unpalatable advice, worded in a style I did not admire, and for what reason?"

"For the simple one that demure, low-voiced, meek, little Miss Gray is not as insignificant a member of this establishment as she pretends to be. I happen to have learned—never mind how—that she stands so high in Miss Carlsforde's favor, that her word may make or mar our fortune."

"Now you talk nonsense!" Noel retorted. "Miss Gray may possess all the influence you assert—I hope she does, for I do not think she will employ it unwisely; but it will never be exercised on my behalf, as I certainly do not intend to lay myself under more obligations to Miss Carlsforde than I am at present."

Clement's incredulous smile was excessively provoking.

"My dear fellow, we do not commonly consider that we are laying ourselves under any tremendous obligations when we make proposals to a lady and she accepts them. If she gives us her hand and her property, we more than requite her with our love, our protection, and so on. But you will most certainly never win the heiress if you do not propitiate her confidante."

"I would not win her by such debasing proceedings, even if I wished to do so," was the indignant reply.

"And yet," he was coolly told—"and yet you have given Miss Gray cause to think that you are anxious to find favor in the eyes of the heiress. At any rate, that is how she has interpreted—but I beg your pardon, I have no right to break the confidence reposed in me, nor to remark upon anything you choose to say or do. I only proposed to give you the friendly warning of which, in your ignorance of Miss Gray's real character, I feared that you stood in need."

"Thank you," said Noel, in anything but a grateful tone.

"I should like to see you master here," Clement went on, quite enthusiastically. "It is your proper place, and you will fill it well. It certainly is hard—very hard that there is but one way of getting at your rights. To a man of an honorable turn of mind, the idea of currying for the smiles of my lady's dependent, before you can get to the ear of my lady, is simply disgusting."

"So much so, that depend upon it, I shall never degrade myself by attempting it," he was angrily told.

"Well, don't flash such indignant glances at me! I did not suggest anything of the kind. If it had not been hinted to me that you had already determined to go in for the heiress, I should not have presumed to warn you that you were making a mistake in affronting the little Gray."

"You pay me a very equivocal compliment when you acknowledge that you believed me to be adopting such a dishonorable course," Noel exclaimed, speaking even more resentfully than before.

Clement only shrugged his shoulders.

"We men of the law hear and see strange things, and you would not be the first who has suffered a handsome dowry to blind him to the imperfections of his bride. But here comes Irene across the lawn," he added, glancing from the window by which for the last five minutes he had been lounging, "and she looks as if she were in trouble; so you must excuse me if I run away to learn what has happened, and console her." To be continued.

MAGAZINES FOR JUNE.

LIPPINCOTT'S MAGAZINE.—Stage and Society in Ottawa, Illustrated; Frederic G. Mather. Why do We like Paris? Concluding Paper, Illustrated; Sarah B. Wister. A Strange Story from the Coast, Rebecca Harding Davis. Housekeeping in Texas, Illustrated; Amelia E. Barr. Two Sonnets, Louise Chandler Moulton. Women's Husband's—III. The Barber of Midas; Part I. With White Hands, Howard Glyndon. My Village in the South, Part IV.; Annie Porter. Through Winding Ways, Chaps. XXXVI.-XXXVIII; Ellen W. Olney. Sir William Johnson, Bart.; Charles McKnight. Played Out; The Author of "The Clifton Picture." American Fiction; M. G. Van Rensselaer. Our Monthly Gossip—An English Husband, A New Poet in London, The American Snob, Ineligible Men, London Society Notes, The Romance of Old Age. Literature of the Day—"Wild Life in a Southern Country," Baker's "English Actors from Shakspeare to Macready," Howell's "Lady of the Aroostook;" Books Received.

AN ENGLISH HUSBAND.—It is a common boast with English people and their admirers that English women are the only wives who are real companions to their husbands. We are told that they can ride, walk, sail, and climb Alps; that they wear stout shoes and sensible clothes; that it is delightful to behold them sharing their husbands' healthy pastimes. It is true that English ladies do all these things; it is touching to think of the trouble they must take from their earliest years to fit themselves to be the companions of men. Anybody who has seen one of them in the full enjoyment of her privileges—coming into Chamouni after crossing the Col du Geant, for instance, hot, draggled, with a cold in her head and no skin on her nose, trudging half a furlong in the rear of a silent, cross-looking man—must have been impressed with their ideal of human felicity. A remarkable example of this perfect union in pleasures and pursuits has lately been given in Lady Anne Blunt's travels among the Bedouin tribes of the Euphrates, noticed in our last number. Lady Anne is an Englishwoman of excellent birth and accomplishments, a musician, an artist, a linguist; she is nearer forty than thirty years old, and the mother of several children; her title and fortune are her own; and whatever rank, wealth and the incomparable English system of female training can do for her sex has been done for her; she is fitted to be the companion of a man. We may learn from her book the use to which her husband, Mr. Wilfrid Blunt, puts her gifts and acquirements.

Mr. Blunt, it would seem, does not like England in winter, nor an indoor life, nor to be balked of anything on which he has set his mind; so he and his wife set out in the autumn of 1877 to pass the winter in Asia, without a notion of where they were going or how to get there. When they were fairly out of sight of Europe, Mr. Blunt took it into his head that he should like to migrate with the Bedouins.

"Wilfrid, without thinking that the answer would be an encouraging one, asked whether it would be possible for a European to tack himself on to a tribe, and so make the journey with them. Mr. S——" (the British consul at Aleppo), "to his surprise, answered that it certainly could be done, and why should we not do it? According to him, it would not even be a dangerous experiment, and only tact and patience would be required in enduring the tedium of Bedouin life during several months, and the courage to be all that time beyond the reach of Christian help. Wilfrid is now full of the idea. For me, I am only afraid of being away from England longer than we intended, and we should get no letters all the time; otherwise, the plan seems agreeable enough." Preparations were set on foot at once, and Lady Anne's work began with superintending the manufacture of a tent, which she made in great part with her own hands. While these were going forward news came from the desert that war had broken out among the tribes: "On the whole, a pretty kettle of fish, and our prospects are growing doubtful. Wilfrid says our best chance is to join Jedaan" (one of the chiefs) "at once, help him in his fight with Ibn Rashid, and then if victorious go down with him South as he pursues the enemy. But this will depend on the chances of war."

They set forth through a thirsty region inhabited mainly by wolves, jackals and hyenas, with an occasional lion, and perambulated by fierce tribes at war with each other, by rapacious Turks and Arab banditti, where there were long days' journeys over sand and stone: in a word, through the desert. They traveled on horseback, Mr. Blunt having a very fine mare, Lady Anne a very rough one: they always started in the morning, as he had determined the day before, whether it were raining pitchforks or blowing great guns.

At first the cold was so bitter that her hands and feet suffered excruciating pain, and then lost all sensation; afterward the heat became so intense that she was glad to dismount sometimes and rest in the shadow of her horse. They habitually slept in the open air, amidst their horses, camels, asses and native attendants, or, for a change, in a khan check by jowl with muleteers and zaptiehs (Turkish soldiers), or in a caravan, or in an Arab camp with men, women, children and animals crowding into their tent all night, mauling and pawing Lady Anne and making inquisitive, impertinent remarks. They lived precariously upon the game which Mr. Blunt shot by the way, on the dried provisions they had with them, or on the fare of the friendly Arabs. "Milk was brought, and dates, with fresh butter rather nastily plastered into the dish by the very evident thumbs of the women. . . . Half-baked loaves of dough set to garnish the edge of the plate, all damp and clammy, and half sopped in the broth. In the middle lay the great fat tail of the sheep, a huge lump of tallow, with bits of liver and other nastiness near it." When they were fortunate enough to find water, it sometimes tasted of asphalt, sometimes of soap. "The water is very muddy, but quite sweet," writes Lady Anne, cheerfully, one day when they were in luck; "it comes from some pools of rain-water, and rain-water is always good."

The hardships of their life were too much for their servants, although the latter were children of the soil, and their party was finally reduced to two besides themselves—the man-cook and a young lad; in which defenceless condition they traversed lonely tracts infested by bands of murdering robbers. Lady Anne was left alone in camp when Mr. Blunt was rowling, and sometimes rode alone, entirely alone, for hours while he went off on a scout or survey. He left her one morning in her tent on the outskirts of Tadmor to get information about a journey of several days which he meant to make without her: during his absence her tent was overrun by insolent people of the lowest class, and her position was beginning to be very unpleasant when she was reinforced by a visit from the mother and the sister of a citizen of some consequence. They told her that the male inhabitants of the place were real "men of Belial," and that they themselves durst not go about alone.

She had plenty to do, altering the stuffing of the saddles when they rubbed the beasts' backs, helping to pack the baggage, saddle the horses, lade the mules, pitch and strike the tents, cut green stuff for the mares' supper, get up in a cold night to cover the quadrupeds or catch them when they broke loose and scampered away. When they fell in with Turkish or Arab dignitaries it was her part to fulfil the tedious exactions of Oriental etiquette as became a gentlewoman, while her husband went hunting with the sheyk. To these tasks must be added that of keeping Mr. Blunt in a good-humor. "Whatever we do had better be done quickly," she observed at one stage, "as Wilfrid is fretting at this life in-doors." Yet in sight of Palmyra he hears a bird sing and becomes homesick. When, after marching for months and riding hundreds of miles, he finds a Bedouin tribe which they can join, he stays with it less than a week. Some of his marital qualities appear in the following story: "We were obliged to alter our course northward and skirt the shore of the lake, looking for a place where we could cross, for the upper part was evidently quite shallow, though about three miles in width. At last we came to the track of a camel leading across the wet mud, which we could trace for a long distance till it disappeared in the mirage, and Wilfrid, impatient to go to the tents, determined to follow it, while the guide" (who was nearly blind) "and the rest of the party should go round the head of the lake. I foolishly went with him, and, doubting the soundness of the bottom, did so on foot; but I had not gone more than a few hundred yards before I was quite exhausted, and my boots and skirts were so clogged with mud that I was unable to get any farther. I confess that I was rather frightened, for already there was such a dense mirage that we could not see anything round us but the uniform expanse of mud, and we had left the camel-track, which meandered about; and I thought we were going to end our days in this miserable place. But Wilfrid would not turn back, and at last I managed to scramble on to my mare, and then found matters less hopeless, for the mud was not really much over her fetlocks, and did not get any worse."

Lady Anne never complains of her husband, who is apparently a hero in her eyes, and she often quotes his wit and wisdom, but we get an impression of his disposition from bits of unconscious testimony. She complains of nothing, in fact, but once or twice betrays her feelings by a laconic "Inshallah!" the Mussulman equivalent of the Italian "C'e vou pazienza!" It is to be observed, however, that her only outbursts of enthusiasm are over a clean, carpeted bedroom and a well-set dining-table.

The reader follows this courageous, good-tempered lady through four months of an existence which differed in no essential from that of a camel-driver. Her sufferings from heat, cold, hunger, thirst and fatigue were severe enough: it is not pleasant to think of what she must have suffered from circumstances at which one can but guess—the close and constant contact with low, dirty, semi-civilized scoundrels, the total impossibility of observing any of the decencies of life. If she felt these things as keenly as was natural in a person so born and bred, it seems almost intolerable: if she did not, it is worse. A high motive lifts mortals above conventional standards. A woman may undergo trials for the love of God or humanity which would degrade her in a lower cause. But the Blunts were neither explorers like the Petherieks and Bakers, nor missionaries, nor even, by their own admission, professional travelers or sight seers. They had no object that can be discovered in their journey except to relieve Mr. Blunt's *ennui* and restlessness. Lady Anne was not a martyr to religion, philanthropy, science, necessity or love of gain. She proved herself worthy of the epithet which her countrymen bestow as their capital commendation upon a woman, "a good fellow," but we cannot help thinking that she was unsexed.

As I began by saying, this book puts the fondness of Englishmen for taking those whom they term "their women" with them everywhere in its true light. They cannot be accused of making woman a toy, but they make her a fag. Lady Anne Blunt's duties and occupations are those of a squaw. Mr. Blunt gives his approbation to the record by editing it himself, and adding a few chapters on Arab life. In one of them there is the following passage, which may be taken as an abstract of his views on the proper position of women: "Women in the desert have their rights, which are respected, and they do not complain that they are ill-treated. It has not yet occurred to them that they should be placed on an equal footing with their husbands or their brothers. They are hard-worked and happy."

Let us hope that Lady Anne is *very* happy.—*Lippincott's for June.*

THE POPULAR SCIENCE MONTHLY. Conducted by E. L. and W. J. Youmans. Contents: The Condition of Women from a Zoological Point of View, Professor W. K. Brooks; Selecting a First Meridian, E. Corlambert, (Illustrated); The Study of Physics in the Secondary Schools, John Trowbridge; Modern Science in its Relation to Literature, William Brackett; Observations on the Chameleon, O. R. Bacheler, M. D.; The United States Life-saving Service, W. D. O'Connor, (Illustrated); Diseased Condition of the Faculty of Wonder, Professor Hairdner; Are Explosions in Coal Mines preventable? Francis R. Conder, C. E.; Chemistry in its Relations to Medicine, Professor Ira Remsen; The History of Games, Edward B. Tylor, F. R. S.; Whales and their Neighbors, Dr. Andrew Wilson; A Problem in Human Evolution, Professor Grant Allen; Sketch of Professor Clifford, (with Portrait). Correspondence: A Correction. Editor's Table: The London "Times" on International Copyright; Curious Survivals of Savagism. Literary Notices: Rood's Modern Chromatics; "American Chemical Journal;" Journal of the American Chemical Society; Emerson's Water-Wheels and Machinery; Comstock's Outline of General Geology; De Varona's Sewer-Gases; Legouve's Reading as a Fine Art; Damon's Ocean Wonders, etc. Popular Miscellany: The National Academy of Sciences; The Growth of a Continent; Storms and Neuralgia; Physiological Action of Aconite; Curiosities of Nervousness; A Botanical Usurper; Explorations in Central Africa; The Annual "Outing," etc. Notes.

ALUM AS AN ADULTERANT OF BAKING-POWDERS.—Dr. Henry A. Mott, Jr., employed as chemist for the Indian Department, having made analyses of different baking-powders, publishes in the "Scientific American" as the result of his investigations, the statement that at least fifty per cent. of the many baking-powders examined by him were grossly adulterated. Dr. Mott found that the injurious powders are composed of alum and bicarbonate of soda, oftentimes containing false terra alba, insoluble phosphate of lime, etc. The best powders are composed of bitartrate of potash (cream of tartar), tartaric acid, carbonate of ammonia, and bicarbonate of soda, held together by a little starch to prevent decomposition. The injurious effects of alum on the digestive organs have been pointed out by chemists and eminent physicians: it produces dyspepsia, constipation, vomiting, griping; it is a powerful astringent, acting chemically on the tissues. Says Dumas, the French chemist: "It is to be feared that this salt (alum) exerts a deadly action by its daily introduction into the stomach, especially in persons of weak constitution." Liebig condemns the use of alum in bread-making on this ground among others, that it combines with the soluble phosphates, forming insoluble salts, and thus the phosphorus of the grain is lost to the system. Dr. Mott's paper exhibits as follows the results of the analyses of four brands of baking-powder:

DOOLEY'S STANDARD BAKING-POWDER.

Burnt alum	26.45 per cent.
Bicarbonate of soda	24.17 " "
Sesquicarbonate of ammonia	2.31 " "
Cream of tartar	None.
Starch	47.07 " "
	100.00

PATAPSCO BAKING-POWDER.

Burnt alum	20.03 per cent.
Bicarbonate of soda	22.80 " "
Cream of tartar	None.
Starch	57.17 " "
	100.00

CHARM BAKING-POWDER.

Burnt alum	30.06 per cent.
Bicarbonate of soda	21.82 " "
Cream of tartar	None.
Starch	38.12 " "
	100.00

BAKING-POWDER MANUFACTURED BY C. E. ANDREWS & CO., MILWAUKEE, WIS.

Burnt alum	22.53 per cent.
Bicarbonate of soda	21.79 " "
Cream of tartar	None.
Starch	55.68 " "
	100.00

[*Popular Science for June.*

RECENT LITERATURE.

Farm Implements and Farm Machinery: By J. J. THOMAS. New York: O. Judd Co.

THIS is a new, revised and enlarged edition of Mr. Thomas's well-known work. The new chapter on "recent machines" embodies mention of most of late improvements in farm machinery. One of the main objects of the work—to present in an intelligible and simple manner, the leading principles of mechanical science, applied directly in the farmer's daily routine, that he may know the reasons of success and failure—is clearly and sufficiently treated. The book is a valuable addition to a farmer's library.

USEFUL MISCELLANY.

PERIODICITY IN COMMERCIAL CRISES.—It may be accepted as pretty well determined that there is a periodicity of commercial and industrial crises; that they occur with singular regularity after a certain lapse of time. Prof. Stanley Jevons has found that in a period of 165 years a crisis took place every 11 years. Why crises thus occur is yet unknown. In Jevons's opinion neither wars, trades unions, excessive speculations, luxurious living or any other of the commonly assigned causes can be regarded as sufficient. Any physical explanation is yet merely speculative. In examining a problem of this kind it appears to be difficult for most writers to avoid confounding the *causa cognoscendi* with the *causa essendi*. Others, departing altogether from the semblance even of scientific method, lay the responsibility of a crisis on the shoulders of some class of persons who are really as unable of themselves to arrest, or occasion it as a mole to influence the inclination of the earth's axis. Most of the pseudo explanations can be readily exposed by showing that they do not take into account all the facts—that what may apparently suffice for what is local and national falls when applied over the whole area of a crisis. The periodicity of crises is yet an unsolved problem of physics and politics.

FEW persons familiar with old books have failed to observe dark specks here and there upon, or rather within, the substance of the paper, which, upon close examination, especially with a lens, are seen to have the same dendritic appearance that we find in moss agates, and upon the natural-fractured surface of other compact rocks. It is well known that such markings on the stone are generally produced by an oxide of manganese; and the similar markings upon the paper are doubtless due to the same cause. The following is suggested as an explanation: Bioxide of manganese is sometimes used in some of the processes of bleaching the pulp. Minute portions of the mineral would naturally remain in the manufactured paper, which by a slow reaction would be restored to an oxide again, in the process of which it would assume its characteristic dendritic form.

M. TENQUEM, a French artisan, has originated a method of writing on glass with common or India ink. The glass is heated over a spirit lamp, or gas, until steam ceases to be deposited on it that is to say, 50 deg. to 60 deg Cent; and a varnish, composed of eighty grammes of alcohol at 35 deg. four grammes of mastic in drops, and a gramme of gum sandarac heated together in a flask, is then applied to the glass, after the filtering of the varnish; the latter is very hard, and becomes brilliant and completely transparent, but, if applied cold to the surface of glass, it remains opaque and absorbs ink. A sheet of glass thus prepared may be written upon with ink, but must afterward be dipped in very thin gum water.

A GERMAN periodical is responsible for the following method of making malleable brass: Thirty-three parts of copper and twenty-five of zinc are alloyed, the copper being first put into the crucible, which is loosely covered. As soon as the copper is melted, zinc purified by sulphur is added. The alloy is then cast into moulding sand in the shape of bars, which, when still hot, will be found to be malleable and capable of being brought into any shape without showing cracks.

INDIA is said to possess a convenient tree, called the "kapas," which is used as a telegraph post. When cut down, its branches partially removed and stuck in the ground, it readily takes root, thus checking the ravages of the white ants and becoming a living telegraph post.

Domestic Economy.

CONDUCTED BY EMILY MAPLE.

THE "RURAL" HOUSEKEEPER'S TABLE.

I MIGHT also call it "The Woman's Friend" or "Treasure," or "Labor-saver," etc. etc., for I expect to receive the thanks of every American house-wife whose aching back and weary feet it shall rest.

It is designed for a "sitting-down" or "standing-up" work-table combined. A, shows the top of the table which may be made with a drop leaf in the ordinary way, which would be desirable in small rooms, to save space when not in use; but where the room is large I should prefer to have the top made solid and substantial for ironing and kneading, supporting the front part with strong brackets as shown in the cut. Under the back part of the table and made solid therewith, is a rectangular box B, which rests upon the floor when using the table in a sitting position. Its hight should then be 24 or 26 inches. This box is to be divided into drawers and compartments for holding flour, spices and other articles, including the utensils usually required in household work.

Fastened securely against the wall are a couple of strong uprights, C, C. These are rabbeted on their inner edges. Fastened to the back of the box B, are corresponding pieces which slide up and down in the uprights, C, C. Therefore, when it is desired to use the table while the person is in a standing position, the whole by means of the lever D, and connecting rod E (fastened to the back of the table), may be raised to any desired hight, and held there by pins in the uprights, or by placing a block of the proper thickness under the box. Any handy carpenter could construct such an arrangement as this at slight expense, and many a handy farmer could do it likewise. The invention is not patented, and, like my other devices and plans, I present it as a free gift to the "RURAL" readers. WM. ROBT. BROOKS.

Ontario Co., N. Y.

WASTE OF TIME IN COOKERY.

MRS. MARY G. RAND.

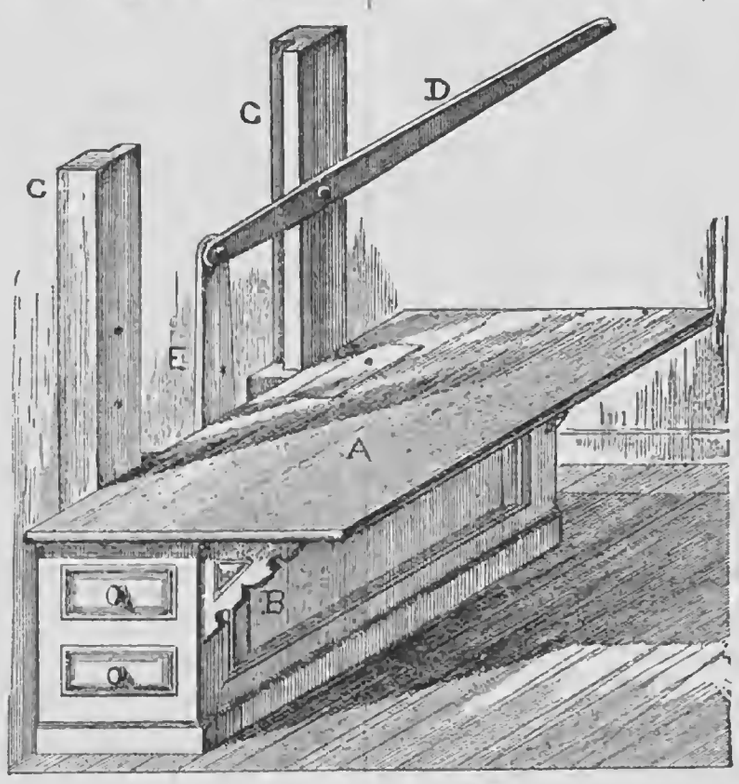
THE housekeeper who devotes a portion of her time each day to the preparation of healthful food for her family—or to seeing that it is done, is not wasting time, neither is she doing anything beneath her dignity. Many ladies have the false idea that domestic labor in any form is incompatible with refinement and intellectual culture. It is far from being discreditable to a lady to act in accordance with her responsibility for the health of the household, by furnishing the table with palatable, well-cooked food. To do so may oblige her to attend personally to the cookery if the domestic cannot be trusted in that line, but the *work* that adds to the comfort of the family, ought not to be regarded as *drudgery*. The family that lives, as too many do, on sour, heavy bread, *fried* meats, badly cooked vegetables, and pastry, can hardly expect to keep in health. The man who eats such food day after day, cannot have physical strength equal to the requirements of his business. The children may, on account of youthful vigor, escape for a time the bad results of habitually eating unwholesome food. All housekeepers do not realize the importance of having good yeast bread for every meal. It is indeed, "The Staff of Life," as would be proved to any one who might be deprived of it for a single week.

Many who have large families to work for, imagine that they cannot spare the time to make bread as it ought to be made. It is true that even with the best of flour and yeast, considerable management and work too, are necessary to insure good home-made bread. Whether the family be large or small, the housekeeper should try to have bread of the best quality always upon the table. She can get the time for bread making, if she will make fewer cakes and pies.

Pie making, as it is carried on in most families, leads to a great waste of time, and as even the plainest pies are unhealthful, nothing can be said in their favor. An excellent writer on Domestic Economy says: "If the laws of health were obeyed, pastry would be banished from every table, for it combines the three evils of animal fat, cooked animal fat, and heavy bread." Comparatively few persons are inclined to believe that fresh, ripe fruits as a dessert, are superior to fruits cooked between layers of paste, in the form of pie. If pie be eaten at all, it should be as the *exception*—not as the *rule*. By the exercise of a little ingenuity, the housewife can prepare a variety of simple dishes for dessert, so excellent that pie will scarcely be missed from the "bill-of-fare." Many puddings are not unhealthful, unless eaten with sauces that are highly seasoned with spices and wine.

A great deal of time is wasted in cake making; for example: sponge cake, some of the recipes for which, call for an hour to prepare for the oven. The cake that is beaten so long, has nothing substantial about it, and will disappear from the table in a fourth of the time required to make it. For some occasions, one may feel justified in giving extra time and work to ornamental cookery. For ordinary use, dishes that are prepared to please the fancy, amount to very little, but involve a great deal of trouble, and a great waste of time.

Lyons, Iowa.



"RURAL" HOUSEKEEPER'S TABLE.

STAINING WOOD.

Mahogany.

To give pine the appearance of mahogany, brush over two or three times, allowing the wood to dry between each application, with a boiling decoction of logwood chips. When thoroughly dry give two coats of shellac varnish, after which carefully sandpaper, polish, and give a final coat of varnish.

Ebony.

Any compact wood coated three or four times with the boiling decoction, as above, and then washed with a solution of acetate of iron, made by dissolving iron filings in vinegar, will be stained in very good imitation of ebony, the wash penetrating so deep that ordinary scratching and chipping do not show the original color.

Black Walnut.

Put pulverized asphaltum into a bowl with about twice its bulk of turpentine and set where it is warm, shaking from time to time until dissolved; then strain and apply with either a cloth or stiff brush. Try a little first and if the stain be too dark thin it with turpentine. If desirable to bring out the grain still more, give a coat of boiled oil and turpentine. When the wood is thoroughly dry, polish with a mixture of two parts shellac varnish and one part boiled oil. Apply by putting a few drops at a time on a cloth and rubbing briskly over the wood.

Maple.

Grayish maple may be whitened by washing it with a solution of oxalic acid, to which a few drops of nitric acid have been added.

Graining.

Beautiful artificial graining may be given to many kinds of wood by tastefully tracing with a camel-hair pencil in raw oil, so as to resemble the rich varying veins of the more rare and expensive woods. The veining should be gone over two or three times, while the rest of the wood need be coated but once with oil thinned with turpentine. MARY B.

NOTES.

Drink cayenne pepper tea for a cold.

May-weed blossoms put into alcohol make a superior liniment.

In cases of ivy poisoning, bathe the parts with sweet spirits of niter.

For burns, bind on moistened baking soda. It will give prompt and permanent relief.

Rub sprains, bruises or lameness with a paste made of salt and the white of an egg.

DOMESTIC RECIPES.

Pineapple Wine.

When making pineapple preserves, or canning them, save the outside which has been cut off, and to every two quarts of peelings allow four quarts of water and three pounds of white sugar. Bring the sugar and water to the boiling point and pour over the peelings. When cold, add to the above quantity the juice of a good-sized lemon and a tablespoonful of yeast. Let stand three or four days in a small tub or crock, covered with a cloth, to ferment. Then strain, put into a cask, and to each gallon of the wine put in a pound of raisins cut in half and a small piece of isinglass. It will answer to bottle in six months.

MRS. CLAYTON.

Potato Cakes.

Work cold mashed potatoes soft with a little melted butter and milk; add enough prepared flour to roll it out half an inch thick, cut into rounds with a biscuit cutter and bake in a quick oven to a nice brown. Rub a little butter over each just before they are done.

Beet Greens.

Pull when young, wash and look over very carefully but do not separate the tops from the roots. Put into a kettle which is half full of boiling salted water and boil from half to three-quarters of an hour; take out and drain in a colander, pressing down with a spoon so as to get out all of the water. Dish and pour over a dressing of vinegar, butter, pepper, and salt. MRS. E. J. G.

Livingston Co.

Broiled Ham.

Cut in thin slices and place in cold water to soak over night. In the morning turn off the water, put into a sauce-pan and pour over boiling water. Set on the back of the stove where it will keep hot without boiling. When all other preparations for the meal are made, take out the slices, wipe dry and broil on a wire broiler over a clear fire. Turn and tend as carefully as you would toast bread. E. M.

Short-Cakes.

In answer to an inquiry I will give my mother's recipe for short-cakes, knowing it to be very good: One pound of sifted flour, one-fourth pound of butter and half as much lard; a little salt; soda as large as a pea, dissolved in half a teaspoonful of vinegar. Mix well together with ice-cold water to a stiff dough. Roll half an inch thick, cut into round cakes, prick with a fork and bake in a quick oven. MRS. KATE BRADY.

QUESTIONS ANSWERED.

Aquarium Cement.

Mrs. A. L. Price asks for a cement that will securely fasten the glass of an aquarium into its frame.

ANS.—Take of Plaster-of-Paris, fine, white, dry sand and litharge each one gill, and powdered resin one-third gill; mix thoroughly and make into a paste with boiled linseed oil to which dryer has been added. Beat well together and apply after it has stood four or five hours—no longer, for it will lose its strength.

Repairing Cracks in Ironware.

L. W. S., Chenango Co., N. Y., asks whether there is anything that will stop a crack in a chaldron kettle, so as to prevent it from leaking when in use.

ANS.—Take of sal-ammoniac two ounces; of sublimed sulphur one ounce; cast-iron filings, one pound. Mix in a mortar and keep the powder dry. When it is to be used, mix with it twenty times its weight of iron-filings, grind in a mortar and wet it with water until it becomes of convenient consistency to apply. It will become in time as hard and strong as any part of the metal.

News of the Week.

MISCELLANEOUS.

Monday, June 2, 1879.

President Hayes sent in his veto of the legislatives appropriation bill on Thursday, reproving Congress for continuing in the habit of tacking political riders to appropriation bills, and joining issue on the policy of weakening in any way the federal safeguards of the ballot. He explains how much the democratic proposition would repeal and goes on to demonstrate that the general government is under clear constitutional obligations to secure the integrity and freedom of elections, where members of Congress are chosen. This veto is the most important of all so far, touching, as it does, the real question at issue, to which those on the army bill were merely preliminary. The Ohio republicans nominated Charles Foster, Wednesday, for governor on the first ballot and Gen. Andrew Hickenlooper of Cincinnati for lieutenant-governor. W. P. Healy and Thomas Harland, the lawyers who ran away with the books of the New York mining company from Marquette, Mich., while the Tilden income case was on trial, have each been fined $200 at Detroit.

The will of Judge Packer the famous coal baron of Pennsylvania, bequeaths for the permanent endowmedt of Lehigh University, Bethlehem, Pa., $1,500,000; for a library for the University, $500,000; to St. Luke's hospital, Bethlehem, $300,000; and St. Mark's Episcopal church, Mauch Chunk, Pa., $30,000. There are several bequests which are kept private for the present. More than 6000 people have left the province of Ontario in the past two months for Manitoba, and there have passed through Hamilton, Ont., 1300 emigrants from Europe, 1000 from the province of Quebec, and 500 from other Canadian provinces, making a total of over 8700 persons who have entered Manitoba within the last 60 days. A Boston emigration company, headed by a number of leading citizens, has purchased 60,000 acres of land in Tennessee, on the Cincinnati Southern railroad, 40 miles from the Kentucky line, and will lay out a city and populate it and its surroundings with Massachusetts colonization. The New York produce exchange has adopted the "cental" system, and the board of managers will now ask the different trades to adopt the system for general use. The fact is admitted all around that immigration to Texas, if not coming to an abrupt close, is greatly on the wane. Immigration agents of the railroads are all discouraged. Real estate in Texas has depreciated in value the last two years fully 8 per cent.

Congress is apparently getting ready to adjourn, but the democrats have been waiting for the veto of the legislative bill, which the president sent to the House Wednesday, before reaching a final decision. The House committee on ways and means have already agreed on June 11 as the date of adjournment, and the probabilities seem to be that the appropriations for the army and the executive departments will be extended to Jan 1, with the proviso that none of the money shall be used to pay marshalls and supervisors nor to transport troops to the polls. The inhuman treatmene to which animals are subjected by railroad companies transporting them from the West to the sea-board was the theme of a very able speech by W. M. McPherson of New Jersey in the Senate on Monday. As he has had long experience as a cattle-dealer he was able to speak from personal observation of the cruel and barbarous treatment of animals, the details of which were extremely revolting. The Senate was aroused over the question, but has postponed its further consideration until next December.

The House finally passed the Warner silver bill on Saturday morning, after an all-night session, the republicans filibustering to secure a vote on a substitute for the bill proposed by Mr. Ryan of Kansas. The democrats finally gave in, voted down the substitute and adopted the bill itself, 114 yeas to 97 nays; 15 republicans and greenbackers voted yes, and nine democrats and greenbackers, no. It is charged that the democrats merely passed the bill for political effect, hoping that it would give them the greenback vote in the coming Ohio election, for if the bill should pass the Senate the President would veto it. The bill fixes the weight of the standard silver dollar at 412½ grains; authorizes the owner of silver bullion to deposit the same at any mint to be formed into bars or standard dollars; makes the charges for coining such bullion the difference between its market value in New York and the legal-tender value of the coin; makes subsidiary silver coin exchangeable at the treasury for legal-tender money to the amount of $20; makes the standard silver dollar legal-tender in all payments at their nominal value; requires the treasury to pay out silver coin without discrimination, the same as gold coin, in liquidation of all kinds of coin obligations against the government; authorizes the issue of certificates to depositors of gold or silver coin or bullion; also authorizes the issue of certificates (representing coin in the treasury) in payment of interest on the public debt, both classes of certificates to be receivable in payment of duties on imports. The certificates for bullion deposited are to be for its average market value in coin of like metal, during the proceeding week in New York and San Francisco. The gold and silver bullion deposited is to be coined to the full capacity of the mints (in connection with other coinage) and if the bullion deposited for coinage does not amount to $2,000,000 per month, the treasury is to purchase sufficient silver bullion to coin that amount.

FOREIGN.

The most interesting piece of recent news from France is the programme of the extreme Radicals as produced by Dr. Clemenceau, who is universally looked on now as the ablest man of that faction, and the man most rapidly rising into power and prominence, and the one most likely to take Gambetta's place, in case the latter as he grows older should become too conservative. In a speech to a large meeting of his constituents of the eighteenth arrondissement, in Paris, he denounced the Senate as a fifth wheel to the coach; demanded more liberty for the press; advocated the conscription of theological students for service in the army; direct instead of indirect taxation; free-trade; a change in the officials of the Ministries of Justice, Finance, and Foreign Affairs; complete amnesty; the pardon of Blanqui. He further reprobated the Ferry bills about education on the ground that the existing laws, if properly enforced, would do the work more efficaciously. He also demanded fair play

between the clergy and the infidels, for, said he, "The Catholics have the right of insulting you in their pulpits, their congresses, and their newspapers, while any one who attempts to reply to them comes into collision with the law for the protection of religious morality."

An International Congress of eminent engineers lately sat in Paris under the presidency of M. Lesseps, builder of the Suez Canal, to discuss the ways and means of carrying out the greatest engineering enterprise yet projected—the piercing of the Isthmus between the Atlantic and Pacific Oceans by a ship canal. The scheme has occupied men's minds in a greater or less degree ever since the Spanish conquest, and the first survey for it was made as long ago as 1829, and all that is necessary for comparison of the merits of the seven or eight rival lines has now been done, and the result is before the Commission. All of them involve either a system of gigantic locks or of gigantic tunnels, but the choice of the Commission lay chiefly between the Nicaragua, or American route, and the Panama-Aspinwall, or French route, one to cost $180,000,000 and the other $240,000,000; and the last has been selected, not a little to the disgust of our folks, and will take twelve years for completion, and probably a great part of that time before money enough can be raised to make an effective beginning. The committee on ways and means are opposed to government assistance of the enterprise, and propose a transit duty of $3 per ton, at which rate it is estimated that the gross receipts of the canal will reach $18,000,000 a year. The commerce committee of the congress consider this rate too high.

Lord Chelmsford, the British soldier whom the disaster at Isandula and his indifferent success in South Africa, since has made so unpopular, has at last been superseded by Sir Garnet Wolseley, who is appointed supreme military and civil commander of Natal, the Transvaal and other districts that adjoin and are included in the seat of war, Sir Bartle Frere remains governor of Cape Colony, and Beaconsfield was kind enough to announce in the House of Lords last evening that, though Wolseley would not be immediately deprived of the latter's services. Gen Grant leaves Yokohama, Japan, the last of June and will reach San Francisco about July 20.

The British have gained every political and commercial advantage for which they entered upon the Afghan war, in a treaty signed at Gundamuck this day week by the Ameer and Major Cavagnari. The British are assigned the Kuram, Sibi and Pishin valleys, giving them control of the mountain passes leading from India, and will hand the surplus revenues over to the Ameer, who is guaranteed a yearly subsidy of $300,000. The British will remain at Candahar till fall and will appoint a resident at Cabul, to which point a telegraph is to be established. The British resident is to have an escort for agents sent to the Afghan frontier on special occasions; the Ameer is guaranteed against foreign aggression; British sympathizers in Afghanistan are to be amnestied and there is to be peace and friendship hereafter between the contracting parties. The competitors in the match for the walking championship of the world, to take place at London, England, June 16, have been reduced to Rowell, Ennis, Brown and Harding of Blackwall. The list will be open until Friday, to give Weston an opportunity to enter.

VARIOUS.

CHURCH PROPERTY IN NEW YORK STATE.—What the freedom of the Church from entangling alliance with the State can effect is shown in the religious condition of the State of New York, according to the official census for 1875. There are 6,320 organizations in the entire commonwealth, and 6,243 church edifices; the sittings number 2,537,470, and the church-members 1,177,470. The churches, with the ground on which they stand, are valued at $101,105,765; the sum of $15,308,231 is paid annually in salaries to the clergy. All these are free gifts of the people. In sittings the leading denominations rank in the following order: Methodists, 700,678; Presbyterians, 372,662; Baptists, 351,308; Protestant Episcopalians, 226,062; Reformed Dutch, 109,815; Congregationalists, 107,847 Lutheran; 77,731. In communicants these same denominations rank as follows: Methodists, 198,900; Baptists, 109,972; Presbyterians, 123,698; Protestant Episcopalians, 78,515; Congregationalists, 30,922, Reformed Dutch, 35,397; Lutherans, 34,439.

Rose Eytinge, the actress, is of partly Jewish descent. The Boston Herald's correspondent says that, while she was lounging in the Union Square Theatre green-room between a matinee and an evening performance, an actor entered just in time to see her yawn. Gazing in affected horror at her widely-opened mouth, he exclaimed, "Oh, don't swallow me." "You are safe," she retorted; "I am enough a Jewess to abhor pork."

Other odorous waters undergo many variations of aroma as they fade into insipidity, but MURRAY & LANMAN'S FLORIDA WATER passes through no such gradations. As it is when sprinkled upon the handkerchief or the garment, so it remains—delicate, refreshing, and delightful to the last.

Clergymen, Lawyers, Editors, Bankers and Ladies need Hop Bitters daily for nerve force.

THE MARKETS.

PRODUCE AND PROVISIONS.

NEW YORK, Saturday, May 31st, 1879.

BEANS AND PEAS.—Trade in beans has been very moderate; prices for both mediums and marrows have an easy tone. Still, extra solid, well-cured stock, that will be safe holding in the coming hot weather, are held above the annexed rates. Other sorts of beans quiet at former figures. Green peas steady at $1.80@1.85; Canadian field, in bulk and bond, 75@76c. B. E. peas, per 2 bush. bag, $2.50. Beans, marrows, prime, $1.37½; fair to good, $1.25@1.35; mediums, prime, $1.30@1.32½; fair to good, $1.20@1.25; white kidney, $1.30@1.50; do., red, $3@3.10; black or turtle soup, $2.15.

Receipts of beans for week, 5,172 bush.; exports, 638 pkgs.

BROOM CORN.—Supplies are full of other straw brush and prices easy.

Brush and short broom, choice, per lb., 5½@6½c.; do., common to good, 4½@5½c.; hurl, good to choice, 3½@4½c.; do., common to fair, 3@3½c.; red and crooked, 2@3c.

BUTTER.—With receipts of 37,000 pkgs. for the week, and hot weather restricting sales, the butter market is not in a strong shape. Quality, however, shows a marked improvement, and with the known wants of Europe and the enlarged local trade that will arise through cheap rates, a perplexing surplus is not at present feared. Exporters have paid full quoted rates, but decline to operate unless allowed a better margin. When settled hot weather comes, butter cannot be shipped as ordinary freight, and cold room adds expense to purchase for foreign use. Over-salting is considerably complained of through the market, particularly in Western invoices. State pails and half tubs, choice, 15c.; good to prime, 13½@14c.; fair to good, 12@13c.; Welsh tubs, choice, 14@14½c.; good to prime, 13@14c.; fair to good, 12@13c.; poor, 9@10c; State creamery, best invoices, 17@18c.; good to prime, 16@17c. sweet cream, best, 16½@17c.; fair to good 15@16c.; Western, best invoices, 18c.; good to prime, 16@17c., fair to good, 15@16c.; imitation creamery, 13@15½c.; Western dairy, best invoices, 13@14c.; good to prime, 12@13c; fair to good, 10@12c.; poor to fair, 9@10c.; Western, factory, best invoices, 13c.; good to prime, 10@11½c.; fair to good, 9@10c.; poor to fair, 8@9c.; grease butter, 3@4c. Exports for week nearly equal 10,000 firkins.

CHEESE.—The market has tended rather easier this week. The shippers have tame advices, and have not been willing to operate freely except at concessions. Receivers have been forced to yield a little since receipts are larger and the weather against holding of stocks.

Prices are: New factory—7¾@8c. for best; 7@7½c. for good; 3½@5½c. for half skimmed, and 2@3c. for skimmed; dairy at 6@7½c. for good and fine; 5@6c. for fair to good, and 6@3 c. for skimmed: Western factory at 7@7½c. for fine; 4@5½c. for half skimmed, and 3@3c. for skimmed and for old as follows: 6@6c. for good, down to 2@3c.

Liverpool quotation for new, 41s.; do. old, 42s.

Steam, 32s. 6d.

COTTON.—The market has fluctuated sharply and has been active, closing strong at for June, 12.90@12.91c.; July, 13.10@13.11c.; August, 13.26@13.27c.; September, 12.97c.; October, 11.97@11.98c.; November, 11.48@11.49c.; December, 11.37@11.39c.; January, 11 38@11.40c.

Quotations for spot cotton are based on American standard of classification, and on cotton in store running in quality not more than half a grade above or below the grade quoted:

	Uplands.	*N. Orleans.*	*Texas.*
Ordinary	11 9-16	11 11-16	11 11-16
Strict ordinary	11 15-16	12 1-16	12 1-16
Good ordinary	12 5-16	12 7-16	12 7-16
Strict good do.	12 9-16	12 11-16	12 11-16
Low middling	12 11-16	12 13-16	12 13-16
Strict low middling	12¾	13	13
Middling	13	13¼	13¼
Good middling	13 5-16	13 7-16	13 7-16
Strict good middling	13 9-16	13 11-16	13 11-16
Middling Fair	14¼	14¾	14¾
Fair	15¼	15⅝	15⅝

STAINED.

Good ordinary	11¾	Low Middling	12 7-16
Strict good ordinary	12¾	Middling	12 13-16

DRIED FRUITS.—In apples evaporated stock is having a very good inquiry, and rules steady in prices, but beyond this the market is lifeless, and nominal.

Apples—evaporated Alden's & William's 10¾@10¾c.; do. new process at 8½@9c. State plums, 12@12½c.; Blackberries quoted at 4¾c. Peaches—Peeled Georgia, 7@7½c. for poor; 8½@9c. for fair to good; 10c. for prime; choice North Carolina, at 12@13c.; good do., 9@10c.; unpeeled halves, 3@3½c. quarters, 2¾@3c. Pitted cherries, 20c. Apples—New, 2¾@2¾c. for Southern quarters in bags; 3¾@4c. for prime sliced; do., fair and good, 3½@3½c.; State at 3@4c. for new sliced; and 3@4c. for quarters; Western at 3@4c. for new quarters. Raspberries, 30c.

EGGS.—Receipts for week, 13,000 bbls. The market is in a better selling condition than it has been for some time past. "Loss off" is not generally accorded, but most dealers in Western make "something good."

Near points, ₱ dozen, single bbls., 14c.; State and Penn., 14@13½c.; Western, fresh, 12@13c.; do., Canada, 12½@13c.; Western and Southern, inferior, 11½@12c.

FLOUR.—Receipts have been large and freely offered at lower prices, with some pressure to sell prompted by lower wheat values.

Latest prices are: $3.25@3.80 for inferior to very choice superfine State; $3.65@3.90 for poor to good extra do., odd lots and lines; $3.90@4.25 for good to very choice do.; $3.25@3.85 for inferior to fancy superfine Indiana, Iowa, Michigan, &c.; $3.60@3.90 for inferior to good shipping extra do., and $3.90@4.25 for good to choice extra do.; common to about choice white wheat extras, $4.25@5.40; choice to very fancy do. at $5.40@5.75; red and amber winter wheat, inferior to very choice trade and family, at $4.25@5.00; round hoop Ohio at $3.85@4.25, and trade and family brands of do. at $4.40@5.25, the latter rate for strictly fancy; St. Louis, $4.30@5.50 for inferior to good extra; $5.50@6.35 for good to very choice (with very fancy brands up to $6.75); Minnesota clear, very inferior to very choice, at $3.65@4.85; Minnesota "straight," a few fancy as high as $5@5.25, and patent poor to strictly fancy at $5.30@5.75, few brands going above $7.50; unsound stock at from $2.25@5.00; city mill extra at $4.85@5.20 for West Indies (the latter rate for fancy in new packages); do. for England and $5.65@6.10; do. trade and family extras, $5.25@6.25; do. for South America, $5 for standard brands (winter wheat product); No. 2 at $2.30@3.25 for very poor to strictly fancy.

FRESH FRUITS.—Russet apples running out at $1.50@2.50 per bbl. The export demand was remarkable last season. Shipments from Jan. 1st add up 89,100 bbls. against 14,850 for corresponding period '78. Strawberries are in full supply. Quotations at the close are specially cheap, owing to the break in regular trade by the holiday of decoration. Md. and Del., 5@10c. per quart. Norfolk, 3@8c. South New Jersey will ship next week. Georgia peaches small, but in fair order, $2 50 per ½ bush. crate. Norfolk gooseberries, frese, $1.50@1.75. Southern cherries, 3@7c. Hothouse peaches, per doz., $5@6. B. Hamburg grapes, $1@1.25. Peanuts are tending lower, with stock going into store. Hand-picked Virginia, $1.35@1.40; other grades, $1.10@1.25; shelled, 5½@5½c.

GRAIN.—Wheat has tended lower on larger supplies and easier foreign advices.

Latest sales are of No. 2 spring at $1.03@1.06; No. 3 spring at 91@93c.; rejected spring at 73@73½c.; ungraded amber at $1.13@1.15; ungraded red at $1.11@1.14; White State at $1.15; No. 1 white at $1.13½@1.14; ungraded white at $1.12@1.13½; No. 1 red at $1.16@1.16½; No. 2 red at $1.15½@1.16; do. steamer grade at $1.14; ungraded red at $1.11@1.14; New York No. 2, May option, at $1.03¼; do., June, at $1 03; do., July, at $1.03; No. 2 northwest spring, June, at $1.01; No. 1 white, June, at $1.13¾@1.14; do., July, at $1.13¼; No. 2, May option, at $1.15@1.16¼; do., June, at $1.15¾@1.15¼; do., July, at $1.15; do., August, at $1.11@1.11¼. Rye at 62@62c. for Western and 63@64¼c. for State. Corn has been active at a decline; latest sales are of New York No. 2 at 43¾@44¼c.; steamer mixed at 43@43½c.; ungraded Western mixed at 42@44c.; New York No. 2 white at 51¼c.; New York steamer yellow at 45@45¾c.; white Southern at 53½@55c.; New York low mixed at 47@48c.; New York No. 2, May, at 43¼c.; New York No. 2, June, at 43¾c.; do., July, at 43¼c.; do., August, at 46c.; steamer mixed, May, at 43¼@43¾c.; steamer mixed, June, at 48c.; do., July, at 43@43¾c. Oats are having a good sale and they rule at strong prices; latest sales are of New York No. 2 white at 38@38½c.. New York No. 1 white at 40¾@41c.; New York No. 3 white at 37½c.; New York No. No. 1 at 36c. New York No. 2 at 35¾@35¾c.; do., June at 35¾c.; white Western at 37@37c9; mixed Western 35@36c.; New York No. 3 at 24¾@31¾c; white State at 40@44c.; mixed do. at 36c.; No. Chicago afloat at 35¾c.

HAY AND STRAW.—There are freer supplies and prices easy, especially for the better grades.

Sales at 45@50c. for shipping, and 75@85c. for real qualities. Straw at 45@50c. for long rye; 40c. for short rye, and oat at 30@40c.

HOPS.—There is a good sale to brewers, but export demand continues slack. Prices are steady and unchanged.

Quotations are for New York's, new crop, choice, 9@12; New York's, new crop, medium, 7@8; New York's, new crop, low to fair, 5@6; Eastern, 6@9; Western, 3@9; Yearlings, 2@4; Olds, all growths, 1@2; Pacific coast, nominal, 8@10.

MAPLE SUGAR.—The season is about over; the remnant will meet only a chance sale; quoted, 7@9c. for cakes; 75c. for sirup in tin.

OIL CAKE.—Western is scarce and wanted; quoted at $28 per ton.

POULTRY AND GAME.—Arrivals of fowls have suddenly increased and they have as promptly declined. Chickens are abundant, the best sell quickly at $1; but small are slow at 40@50c. ₱ pair; by the pound, 25@35c. is quoted.

Fowls, N. J., 10¾@11c.; Western, 10c.; Southern, 9½@10c.; roosters, old, 6c.; turkeys, Western, 10@11c; ducks, Jersey, N. Y. and Pa., ₱ pair, 60@75c.; Western and Southern, 45@55c. Geese, Jersey, $1.25@1.50; N. Y. and Pa., $1.25@1.50; Western, 75c.@$1; Southern, 75c.@87c.; pigeons, 40c.

Dressed is almost nominal for public market purposes.

Turkeys, prime, small, 15@17c; fair to good large, 13@14c.; chickens, spring, dry-picked, 45@50c.; fowls, Jersey, choice, per lb., 13@14c.; State and Western, prime, 12@13c.; fair to good, 10@12c.; Phila. dry-picked, 13@15c.

A few ice-house English snipe and plover left which are selling slowly at weak prices. Dowitch, curlew and bay birds generally are dull in mixed lots and weak in price. Sand snipe and Ox Eye very dull. Wild pigeons not very plenty, but in slack demand and unchanged in prices. Wild squabs from Missouri sold at quotation.

Eng. Snipe, doz., $2 25; plover, $1 75@2; Dowitch, $1 50; small and sand, 50c.; Ox Eye, 10@12c.; baited pigeons, $1.75@2; flight, Nothern, $1.37@1.50; Mo. flight, $1; squabs, Mo. flight, 75c.@$1; tame, $2 2 @2 50, which is lower.

PROVISIONS.—There has been a fair amount of business and prices generally closed strong. Mess pork quoted at for May, $9.90 bid and 9.95 asked; June, $9.95 bid and $10 asked; July at $10 bid and $10.10 asked, and August at $10.10 bid and $10.20 asked. Bacon at $4.42½ for long clear and 5.05 for short clear. Lard—Western steam, at $6.30@6.32½ for spot, and June; $6.37½@6.40 for July, and $6.42½@6.45 for August delivery. Stearine at 6¾@6¾c. for Western. Tallow at 6¾c. for prime. Beef hams at $17.50@17.75. Beef—Extra India mess, $20@22, as to quality; packet, $11@11.50; plain mess, $9.75@10.50; extra mess at $10.50@11.50.

SEED GRASS—Are dull; clover quoted at 6½@6¾c. for prime and choice, and timothy at $1.45@1.50.

TOBACCO—The market has been without much activity the past week, the business in small lots, but prices have been well sustained and show no important change.

	Light.	Heavy.
Common lugs	2½@ 3	3¼@ 3¾
Good lugs	3¾@ 4	4 @ 4½
Low leaf	4¾@ 5	5 @ 6½
Medium leaf	5½@ 6¾	6¾@ 7½
Good leaf	6½@ 8	8 @ 9
Fine leaf	8½@10	10 @11
Selections	—@—	12 @12½

SEEDLEAF.—CROP OF 1877.

New England wrappers, common	10	@12
do. do. medium	13	@15
do. do. fine	18	@25
do. do. selections	27½	@35
do. seconds	10	@13
do. fillers	7	@ 9
Pennsylvania assorted lots, common	9½	@10½
do. do. fair	11¾	@14¾
do. do, fine	15½	@18
do. wrappers	20	@40
do. fillers	7¾	@ 8¾
New York assorted lots, common to medium	8	@10
do. do. do. good,	12	@15
Ohio assorted lots	9	@12
Ohio wrappers	12	@18
Wisconsin assorted lots	7¾	@10

VEGETABLES.—Old potatoes are dull, and recent arrivals have a poor chance; best old quoted at $2.75@2.25; common but useful, $2@2 50 ₱ bbl. New Southern keep to opening rates very well. Bermuda, $6.50@7; Charleston and Savannah, $5 50@6; Florida, $5@5.50 culls, $2.50@3. A few sweets at $3@3.25 As with fruits, green stuff missed a day through the holiday on Friday, and prices are easy. New Jersey has begun to send green peas. Cucumbers, Sav. and Cba., per crate, $2@2.50; Fla., 75c.@1.25; beans, N. C. flat, per bu. crate, $2; Sav. and Ch'n, round, $1.75@2; flat, $1@1.50; green peas, N. J., per bbl., $4@4.50; Maryland, choice, per bbl., $3.50@4.00; poor, $1@2; Norfolk, per ½ bbl. box, $1@1.25; asparagus, Oyster Bay, per doz., $1.50@1.75; Shrewsbury, $1@1.25; tomatoes, Fla., choice, per bu. crate, $2.50@3; prime to fair, $1@2; Bermuda, per box, 25@50c.; radishes, near-by, per 100 bunches, 30@50c.; lettuce, per bbl., 50c.@$1.00; cabbages, Norfolk, per bbl., 75c.@$1.25; turnips, Norfolk, new, per 100 bunches $1@2; beets, Norfolk, new, per 100 bunches, $1.00@3.00; rhubarb, per 100 bunches, 75c.@1.25; onions, Bermuda, per crate, $1@1.12; squash, Fla., new, per crate, 50@75c.; turnips, Jersey, new, per 100 bunches, $5@7; Russia, per bbl., $1.50@1.75; carrots, per bbl., $2@2.25; mushrooms, per lb., 50c.

WOOL.—The sharp competition for supplies has continued the past week, and buyers have been willing to meet almost any reasonable price—the struggle to secure supplies being based upon the marked improvement in trade in the goods market. Much interest is given the marketing of the new clips, and all early arrivals it is probable will find a market at swing figures, since the stocks in manufacturers hands have run down, and they will also come upon market almost bare of desirable lots. XX Ohio fleeces have sold up to 37½c.; spring California at 18@24c.; spring Texas at 20@25c.

LIVE STOCK MARKETS

NEW YORK, Saturday, May 31st.

BEEVES.—Receipts for the week, 11,458 head; do., last week, 11,069 do. Unusually warm weather for the season has curtailed butchers' wants quite early. With heavy supplies prices are lower compared with Wednesday last. Exports very heavy this week; comprising 6,444 quarters beef and 301 live cattle. Among the offerings were upwards of 40 car-loads of stillers, mainly Cherokee, Texas and Colorado steers. The native cattle and fair to good Texans, Cherokees went off slowly at a reduction from Wednesday equal to about ½c. ₱ lb., but the light Texas and Cherokee stock could not be sold except at a ruinous loss, and the greater part remained unsold when the market closed. Four car-loads of light Cherokee cattle, about 900 lbs average, were sold at 6¾@7c. ₱ lb. to dress 55 lbs; otherwise the extreme range was 7½@9 c. ₱ lb., to dress 55@56 lbs. Bulk of transactions at 8@8c. ₱ lb.

The World says: "The difficulty in respect to unloading live cattle at Liverpool has been overcome and exporters are hopeful of finding a chance of profit in shipping live cattle and sheep to Great Britain for the next three months. Time will tell the story."

COWS AND CALVES.—There are no transactions upon which prices for good milk stock can be based.

VEAL CALVES—Dull and lower; milk calves, 4@5¾c. fair to best, the extreme for N. J.; State, choice, not over 5¾c. Buttermilk calves, 3½@3¾c.

SHEEP AND LAMBS.—Receipts for week, 27,638 head; do. last week, 23,966 do. Sheep lower for the week. Lambs barely steady. Decent to good sheep sold at $3.80@4.30 ₱ 100 lbs.; better stock at 4½@5c., and two car-loads of choice, for exportation, reached 5¾@5¾c.—outside figure for extra wethers, 124 lbs. average. Southern and Western lambs ranged from $6.20 to $8 ₱ 100 lbs.; Jersey do., from $8.25 to $9.

HOGS.—Receipts for week, 29,891 head; do last week, 31,751 do. Good corn hogs quoted nominally, $4 ₱ 100. No sales. City dressed State hogs, heavy, to pigs, 4½@6c.; Western, 4¾@5½c.

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CENTENNIAL MEDAL

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THE HORTICULTURAL CLUB.

UNCLE MARK.

THE members of the Club have lately manifested great interest in their plants and gardens, as shown by the letters I have received from all quarters. All report that they are doing their very best, preparing their gardens, sowing their seed, and setting out their plants most carefully. I trust that the warm weather and swarms of musquitoes that are now coming on will not affect their zeal unfavorably, for of all seasons this is the one when the garden must have attention. Next to seeding and planting there is nothing more important in gardening, than culture. The weeds must be killed, the ground loosened, the plants receive stakes and be tied up, or otherwise attended to. Below I will give a few brief directions for the treatment of such plants as you are most likely to have in your gardens and begin with

Musk Melons

as every boy and girl is sure to relish this delicious fruit, and therefore quite apt to have a few plants under cultivation. To protect the plants from their insect enemies, dust them with wood ashes and plaster. If you wish to grow very large and fine melons, allow only two plants to each hill, four by four feet apart. Water them with liquid manure made by stirring half a pound of rich guano in a pail of water; (pulverized hen manure will do as well,) and lead the vines out where they will have room to grow without being entangled with each other. When the melons are as large as a tea-cup, pinch off the ends of all the vines, to lead the strength to the fruit, and cut off all but five melons to each plant. This depends, however, upon the size of the variety; if the fruit is naturally small, more can be grown on a strong plant, if very large only three or four should be left. You will notice that there are two kinds of flowers on your melons, as there also are on cucumbers, pumpkins, and all plants of the same family. One kind has a knot or large swelling just below the flower; this is the ovary or young fruit, and the flower is called a *pistillate* or female flower. The other kind is smaller, generally appear first and has no swelling below it, this is the *staminate* or male flower, and before the fruit can develop, some of the *pollen* or fine dust from the flowers must be brought in contact with the organs in the pistillate flower. This is generally done by insects, but to be sure that your first fruit-flowers are fertilized, so that you can get ripe fruit as early as possible, you can transfer some of this pollen yourselves, with a camel's hair brush. When the pollen is taken from other varieties it is called *cross-fertilization*. Melons are a so common fruit with us that there is danger we do not appreciate them as highly as we ought to.

In England and in middle and northern Europe, where melons can be grown only on hot-beds, they are considered a great delicacy, and can be had only by rich people, who can afford to keep trained gardeners who know how to grow them.

Much more might be said on this subject, but I have already given it too much space, and will, therefore, go on with

The Strawberry,

which is of no less importance. Every one of our members should have a small bed of strawberries, if possible; they are so healthy, so delicate and so easy to cultivate. Beds can be planted at any time during the summer, but it is commonly done in the spring or in the early fall when the runners have gained sufficient strength to be set out.

At present keep the weeds down between your plants with the hoe, and if you do not wish to increase your stock, cut off the runners as they appear. Spread some grass around the plants as soon as the fruit is formed, to keep it clean. Plants that were set out in the spring should not be allowed to bear any fruit this summer. Pick off both flowers and runners; they will bear the better next year. Choice new varieties which you want to propagate may be allowed to send out runners, but cut these off above the *first joint* as soon as the young plant has taken root, and assist it in doing so by placing a small lump on the vine to keep it in place. You will thus get fine young plants, which can be set out next August. There are both white and green strawberries when ripe, but red, as you know, are the most common.

If you have any

Raspberries,

the canes must be tied to the trellis or stakes. The young shoots that are now coming will be next year's bearing canes and should be taken care of; five or six may be left on each strong plant, the rest are superfluous.

Tomato Plants

should never be allowed to lie on the ground, they give less and inferior fruit and it will ripen late if they do. The best way is to train them to a trellis made either of wire or of wooden strips. Every branch should be tied up, and later, when a quantity of fruit is formed, the tips pinched off; you will then be surprised to see the amount and size of the fruit you can gather from a single plant. In lieu of a trellis, you can use low, spreading brush to raise the plants from the ground, but it is not so efficient.

Peas

growing over a foot in height should be supplied with brush on which to climb. Trim each brush with a hatchet into a flattened or fan-shaped form, sharpen the ends so they can easily be stuck in the ground and set a row of brush to each row of peas. In beds of two rows the brush should be set on the outside, the tops leaning a little toward each other.

Radishes

should now be freely supplied with water, otherwise they will be spongy and unfit to eat. To have a constant supply of this excellent vegetable, sow a short row every week, say every Saturday. They can be grown between the rows of cabbage and other vegetables, but *water them freely.*

Some of the members have told us of their success in growing

Onions.

It affords me great pleasure to receive such encouraging reports, and I trust that all who have tried it, and many others who have heard of what an industrious boy can do in a garden, have this year sown a patch of onions. The rows should now be thinned if the seed is sown too thick, and spare no effort to suppress the weeds.

The Flowers

need also constant attention. To all admirers of flowers, this is a labor of love, which is done willingly and with pleasure, and not an imposed task, that is done only from a sense of duty. Work among them in the morning before you go to school, and in the evening after you get home, and at all times whenever you have a few minutes to spare from other duties. Watch their development; notice the difference between different varieties, and be ever on the look-out to tie up and pinch off straying branches, to stir the ground, and to water them whenever necessary. Weeds should never be found in the flower beds. If you have made any attempt at ribbon or carpet-planting on your beds, you must now keep the plants trimmed and of an even growth.

Tuberoses

should be supported by stakes as should also Dahlias, the large varieties of Gladiolus and all other tall-growing plants.

Verbenas

on the other hand should be kept close to the ground. Spread out the branches in all directions so they will cover the ground nicely and keep them in place with small wooden hooks. Thus fastened, the branches will take roots, which will greatly invigorate the plants. The unpretending but sweet little

Mignonette

should be found in every flower garden, sow some seed in a pot or box, set the young plants in four inch pots one in each, and train them up for window decoration. I have transplanted young plants very successfully in the garden by carefully shading and watering them till they began to grow.

The Geranium

in all its varieties is an excellent bedding plant and will generally do well on light but rich soil, when supplied with water.

Fuchsias

can also be used for bedding. They will do pretty well in a shaded place.

Callas that have been flowering indoors during the spring, should now be laid on the side, under the shade of some trees, to rest and dry out, and all other house plants should be set out doors; either planted out or the pots sunk in the ground. Use the hoe and the rake vigorously, give attention to every plant in your gardens, and remember that "whatsoever a man soweth that shall he also reap," is as true in gardening as in the spiritual sense.

THE FRUIT-GROWER'S FAMILY.

HENRY S. CLUBB.

ON the East Shore of Lake Michigan near the center of the celebrated Peach Belt, and not far from one of the best harbors on the lake, there is, nestling in the rear of the range of sand hills that at this point protect the inhabitants from the lake storms, a cozy farm-house and a clearing of about 35 acres mostly planted to fruit, chiefly peach trees. The occupation of the owner of this place is that of fruit-farmer, and in addition to himself and wife he has six children who share with him, as far as they are able, the labors and enjoyments of that rural calling.

The eldest boy is eighteen, and consequently capable of rendering important assistance on the farm. He was named after his uncle William. He had passed through the public schools and had graduated creditably at the high school of the neighboring city. He had acquired, at school, an especial taste for botanical pursuits and was quite familiar with the flora of the Lake Shore region.

Amy is a sprightly girl of 15, and although not quite through school, manages to devote a good deal of time to the collection of botanical specimens, and with the help of her brother William, has, in addition to a large collection of dried specimens, a very interesting, little botanical garden, in which her pet, wild flowers are growing, not in stiff, formal beds or rows, but in something like the charming disorder or romantic mixture and profusion of the wild woods.

The next girl, Esther, 13 years of years of age, is also fond of rambling in the woods with her brothers and sisters, but her taste is in the direction of pet animals and birds, which she delights to tame and train up so that, although of the most opposite dispositions they treat each other with proper consideration and her school of pets, a cat, a Newfoundland pup, a parrot, a squirrel and a canary constitute, with a selection from the barnyard fowls, a sort of "happy family," in the control and management of which she exhibits remarkable skill, and her kind treatment is reciprocated by wonderful affection and obedience on the part of her apt scholars.

Harry, a mischievous boy of 11, is not specially devoted to any pursuit or hobby, like the older children, but is fond of playing tricks on Esther's pet pupils and is generally disliked by them.

Susie nine, and Benny seven, are admitted to Esther's school of pets on school days on condition of obedience as scholars.

As all the children except William are attending public schools, they have only Saturdays during school terms on which to follow their special pursuits, and even that day is encroached on by duties incident to farm and home life.

Saturday afternoons, however, are usually devoted to their favorite rambles in the woods and swamps, botanizing, catching pets and the like.

The peculiar formation of the land in the vicinity of Lake Michigan affords a grand field for the research. Although at a distance, while passing in steamers, the stranger would regard the shore as uninteresting, consisting in many places of almost barren sand hills; still exploration for a mile or so inland, reveals a great variety of hill and dale interspersed with swamps and water courses, in which are found subjects of great interest to students, and even to children, who, without any scientific bias, are simply looking for amusement and recreation.

The hills, although presenting a white sandy front to the passing steamboat passenger are thickly covered on their eastern slope and with rare exceptions their summits, with hemlock, beach, maple, pine and white cedar or arbor vitæ, forming a pleasant shade. Some of the trees are so buried in white sand that only their tips are seen the storms of the lake having, within the period of their growth, piled the sand around them in fantastic shapes to a great depth, say forty to fifty feet. Wild grape vines with roots in the bottom soil are buried year after year in the sand, but their growth outcrops the highest sandhills and vines flourish perhaps 200 feet from their original roots down deep below the drift of sand. But even in the hottest weather this drifted sand is moist within a few inches of the surface and trees and vines flourish with wild luxuriance on what appears nothing but white sand.

It was while rambling on the shore among these fantastic sand-drifts and beneath the forest trees that I, all at once, came upon a scene which awakened my interest and attention. The family above described were enjoying the cool lake breeze and reclining beneath the shade of a half burned hemlock. The youngest children were playing in the sand in which little Benny was more than half buried having been discovered fast asleep by Harry who had piled the clean white sand over his feet and legs. Susie was sitting near Benny with a crown of trailing arbutus around her head. This crown as I subsequently learned had been made by her sister Amy who had a special admiration for this sweet scented wax-like flower, clumps of which she well knew where to find among the hills. Esther was petting a little chipmunk which she had caught in a knothole intending to train it up as an addition to her school of pets. William and Amy were discussing several specimens of ferns and mosses which they had collected in their rambles and examining some beautiful columbines, lady-slippers and other flowers which they were arranging in a handsome bouquet intended for the adornment of their home and a present to their mother. With them they had a basket of roots for planting in Amy's garden.

Being well acquainted with this interesting family I joined them in their discussion and learned the particulars of their various pursuits as given above. I was invited by Amy to come and see her garden and by Esther to see the performances of her pets while William said he would be pleased to show me his nursery of young fruit trees on which he was endeavoring to perfect himself in the art of budding and grafting.

As a matter of fact I must say I have never seen a family more devoted to their special subjects of study and pursuit nor one that seemed so happy in their relations to each other. The idea of domestic felicity in which I had often indulged in connection with rural pursuits seemed to me to be fully realized in this case. The results of a more intimate acquaintance to which this interview gave rise I will give in future papers. My next will be "Amy's Garden."

THE MOUND.

"WHAT are you trying to build, Sarah," said Father Morse, one day to his son's wife, as he saw her leaning on a spade, and ruefully contemplating a miscellaneous collection of stones.

"I want to make a mound," she replied. "I have seen them and they were so pretty that I thought I should like to have one, and I was considering how to manage it."

Mr. Morse's face brightened into a kindly smile. "I'm glad I found out before you wasted your strength, what you wanted," said he, "for I have seen them made, and if you will rest and look on, I will take it off your hands."

After a little search he found an empty salt barrel, removed the bottom, and after placing it on the desired spot, he speedily filled it with rich earth. Then he laid a wall of stone around it, filling all the spaces between them with the same material, packing it well as he went, his early skill in laying stone walls "down east," helping him very much in the construction. It was far from being an unsightly object before it was put to its legitimate use, and Father Morse took almost as much pride in it as did his grateful daughter-in-law; and when, later in the season, the top was filled with Pansies, China-asters, and Geraniums, and from every crevice bloomed a variety of other flowers; and running vines covered the rocks with leaves and blossoms, it was truly a "thing of beauty," and the hard-working woman who had so seldom had an opportunity of gratifying her finer tastes, gathered inspiration enough from it to ease the rugged path of farm labor. She was never too tired after her work was done at night, to water her plants and give each one a loving glance. Father Morse never visited his son afterwards without casting an admiring glance at this triumph of his skill, and the pleasure Sarah took in it was a secret gratification to him; but such is the force of habit with unthinking men, that if his own wife had asked him to construct a mound for her, he would have thought with alarm that if he should gratify one of her individual tastes it would be allowing her too much liberty, and that she ought to regard such things as he usually did, with sublime indifference. But his worthy son, John, seeing that his wife did not neglect any of her household duties, to attend to her favorites, concluded that it was safe, not to say anything discouraging to her about her flower culture, which was quite an advance for him to make. C. B. D.

Sabbath Reading.

THE LOOM OF LIFE.

ALL day, all night, I can hear the jar
Of the loom of life, and near and far
It thrills with its deep and muffled sound,
As tireless the wheels go always round.

Busily, ceaselessly goes the loom,
In the light of day and the midnight's gloom,
The wheels are turning early and late,
And the woof is wound in the warp of Fate.

Click, clack! there's a thread of love woven in;
Click, clack! another of wrong and sin!
What a checkered thing this life will be,
When we see it unrolled in eternity!

Time, with a face like mystery,
And hands as busy as hands can be,
Sits at the loom with arms outspread,
To catch in its meshes each glancing thread.

When shall this wonderful web be done?
In a thousand years, perhaps, or one,
Or to-morrow. Who knoweth? Not you or I;
But the wheels turn on and the shuttles fly.

Ah, sad-eyed weavers, the years are slow,
But each one is nearer the end I know;
And some day the last thread shall be woven in,
God grant it be love instead of sin.

Are we spinners of wool in this life-web—say?
Do we furnish the weaver a thread each day?
It were better, then, oh my friends, to spin
A beautiful thread than a thread of sin.

DORCAS AND PETER.

ONE of the liveliest occasions connected with the recent Baptist anniversaries in London, was the Zenana Breakfast, given at Canon-Street Hotel, in the interest of the Zenana missions in India. The most taking of the speeches made was by Dr. Stanford. We quote some portion of it:

Cardinal Manning has spoken with stately eloquence about the primacy of Peter, but I think something might be said for the primacy of Dorcas. Peter was all very well for a man (of course I now leave out the mysterious element of the supernatural); he was "a rich, rough gem;" he had good sound sense; he was hardy, not fearing to let the wet wind whistle through his hair; he was loud, that superlative quality in a minister, and with a voice accustomed to battle with the hiss and roar of many waters; he was the very man to make everybody hear him in a great crowd, that voice of his being doubtless one reason, along with others, why divine wisdom appointed him to be the preacher to the Pentecostal crowd. With all his distinction, if he had tried to fill the place of Dorcas for only one week, he would have been made to feel his own nothingness. He was no shy violet hiding in the foliage and pouring its fragrance from the shade. A sick-room would not have been his sphere. His hand would have been too clumsy, his voice too noisy, and his foot too tremendous on the stair for a nurse; and he would have provoked a saint to say, if a saint had been familiar with the quotation, "A ministering angel, thou!" Could you have seen him with fumbling fingers and with eyes sweeping the horizon, essay to cut out coats and garments, you would have seen directly that whatever else he might become, he would never become a sempstress. No, but the Lady of Joppa knew how to make the very needle evangelical, and she did such beautiful kindnesses with it for the women and children, that with grateful delight they fondly lingered on her name, calling her "Gazelle." For her dear sake her Saviour got a hearing, and we are quite sure that if there had been any Zenana work to do in her country she would have been the first to do it.—*The Standard.*

THE BOOKS OF THE BIBLE.

THE following metrical arrangement of the books of the Bible, from the Christian at Work, will help children, especially, to remember their respective locality in the Bible:

THE OLD TESTAMENT.

The great Jehovah speaks to us,
In Genesis and Exodus;
Leviticus and Numbers see,
Followed by Deuteronomy,
Joshua, and Judges rule the land,
Ruth gleans a sheaf with trembling hand;
Samuel and numerous Kings appear,
Whose Chronicles we wondering hear.
Ezra and Nehemiah now,
Esther the beauteous mourner show;
Job speaks in signs, David in Psalms,
The Proverbs teach to scatter alms.
Ecclesiastes next comes on,
And the sweet Song of Solomon.
Isaiah, Jeremiah then,
With Lamentations, takes his pen;
Ezekiel, Daniel, Hosea's lyres,
Swell Joel's Amos', Obadiah's
Next, Jonah, Micah, Nahum come,
And softly Habakkuk finds room.
While Zephaniah, Haggai calls,
Rapt Zachariah builds his walls,
And Malachi, with garments rent
Concludes the ancient Testament.

THE NEW TESTAMENT.

Matthew, Mark, Luke and John,
Record the life of God's dear Son.
The Apostles' Acts are next disclosed,
And Paul's Epistle, for Rome composed.
Two other letters to Corinth sent,
Are followed by One, for Galatia meant.
One also is sent to Ephesus,
And one to Philippi, one to Colosse,
Then, Thessalonians, Timothy and Titus come on,
Together with the letter to Philemon.
The Epistle to the Hebrews now comes in view,
Which shows the Old Testament fulfilled in the New.
Now follow Epistles from James, Peter and John,
In numbers reverse, of three, two and one.
And now, at the close, is the Epistle of Jude,
With John's Revealed Vision, which, in Patmos he viewed.

PERSONAL ITEMS.

Mr. Henry, inventor of the Martini-Henry rifle barrel and ammunition, is seeking in vain for adequate remuneration from the British War Office for the use of his patents by that Government.

The Rev. Orion Clemens, brother of Mark Twain, and lately expelled from an Iowa Presbyterian church for heterodoxy, was formerly a writer for the Hartford Post. He was known in the office as "the Great Orion."

Henry Young killed his wife at Pittsfield, Mass., and his insanity was so clearly proved that he was sent to an asylum. His own opinion was that he deserved to be hanged, and one morning he was found suspended by the neck with strips of bedclothes, dead.

The Princess Louise has been making the exciting trip down the slides, near Ottawa, on a raft. Through these slides, or ways, sections of the heavy rafts go down the rapids of the Ottawa River. The passengers usually get scared and wet, but there is not much danger.

Peer, who jumped from the suspension bridge at Niagara Falls, a few days ago, wore a rubber life preserver, to lessen the depth of his penetration into the water a sponge over his mouth and nostrils to prevent the water from being forced into them; and thick cloth over his feet and legs, to protect them from concussion A brass wire, attached to his shoulders, was reeled out as he fell, with just enough tension to keep him in an upright position. To strike the water flatwise would be certain death. Peer dropped 192 feet in four seconds. He was exceedingly nervous just before the feat, and it was thought that his courage had given out.

Lawyer Gallagher of San Francisco was desperately in love with Mabel Curran, but she cared very little for him. He went to her house when she was ill, forced his way to her bedside, and asked her if she would marry him. She replied that she certainly would not. "Then," he said, as he drew a revolver, "you shall be united to me in death," and he fired two shots—one at her and one at himself. Up to this point the affair was dramatic, and Gallagher no doubt intended a real tragedy, but his aim was bad. Mabel escaped the bullet by rolling over quickly, and it simply made a hole in her night-dress, while the wound that he inflicted on himself penetrated only to the breast bone.

Don't use stimulants, but nature's real brain and nerve food—Hop Bitters.

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THE BEST!

THE "HAGERSTOWN" DRILL

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State where you saw advertisement. Hagerstown, Md.

The Robbins Cultivator

AND BROADCAST SEEDER.

CHEAP! The Imp'ement for the Times. CONVENIENT!

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THE ROBBINS is a two-horse riding or walking Cultivator; is especially adapted to breaking up fall plowing and fitting it for spring crops; for cultivating Corn, Potatoes, Beans, or any crop planted in rows or drills, the axle being set high enough to clear corn at the last working; for work on fallows, and for fitting any ground which would ordinarily require cross plowing.

It is provided with an accurate and reliable *force feed* seeding attachment, which sows all kinds of grains *broadcast*, in front of the shovels, in any desired quantity to the acre; and by gauging the depth at which the shovels are allowed to work, the grain can be covered as deep or as lightly as desired. Send for circular.

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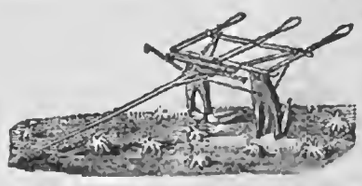

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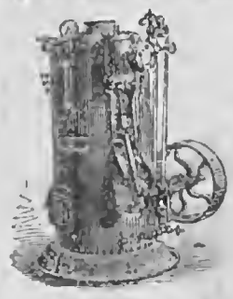

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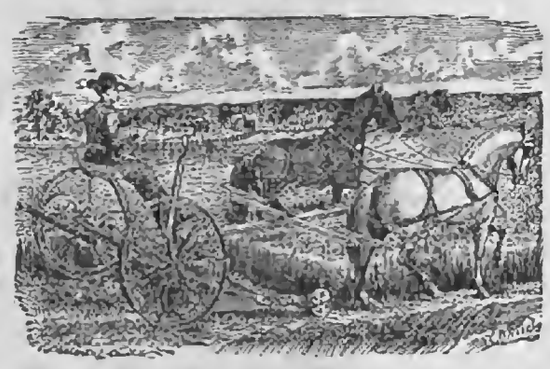

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Pulliam's Patent Bolster Springs
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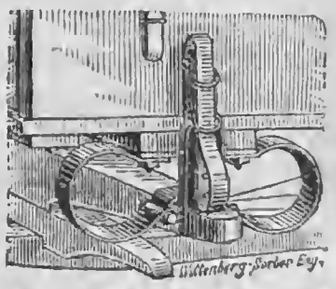

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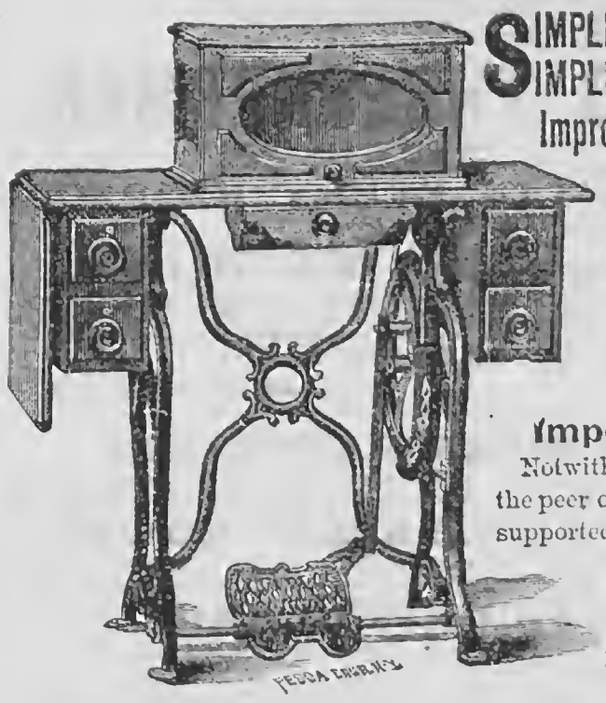

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Wit and Humor.

SHE WAS WILLING TO PAY.

No one can blame her for being mad; and she *was* mad, too.

The little vagabond came into the hall on Fayette street, and wanted to sell some matches. She didn't want any matches; but he drew her attention by asking if her husband's name was John.

"Yes, his name's John, and what of that?"

"Guess I hadn't orter tell," said the match peddler, sliding towards the door.

"O, yes, you had—what is it, my boy? speak right out," replied the woman, struggling with curiosity.

"But I'm 'fraid he'll lick me, said the little wretch.

"O, no, he won't; I'll take care of you;" jealousy was just beginning to warm up; "no, he'll not lick you; wouldn't you like a piece of cake, my boy," and she brought him out a big chunk. "Now, what is it—what did he do?"

"O, not much; he was only a walkin' with her—at first."

That "at first" settled the matter; she was blazing with jealousy.

"Well—well, what did he do next? O, that villain! Come, young man, then what did he do? Do you know who she was? Come, speak up."

The boy opened the door and stood in the opening. He began to whimper a little.

"O, I can't tell you, mum; I didn't know's ye'd care. Yes, I know'd who she was, but I can't tell ye; he'd kill me."

"See here, you young villain, you'll never step out o' this house till you do tell me;" but the boy dodged her and was on the steps. So she coaxed him. "O, come back, my little man; I was only foolin'; jest wanted to see if you'd be scared; come—come back in, and I'll give you something nice."

The boy reluctantly stepped into the doorway again.

"I don't want to tell ye," he sniveled; "I know he'd give me five dollars not to say a word about it, an' I guess I'll go an' see him 'bout it," and he slid toward the door again.

"Hold on—here, what can I give you? I haven't got much money, here—here's a dollar; will you tell me all about it now? Come, that's a good boy; now, what did he do, who was she?"

The boy took the money, looked it over to see if it was good, stuffed it in his pocket, looked up at the woman, and replied in a whisper—

"He kissed her, marm—right here on these steps."

"O, that villainous deceiver!" she cried, wringing her hands "But I'll make her wish she was cremated when I get hold of her! O, John, John, how could you! Here, boy, take this fifty cents; and now tell me who she was."

By this time the boy was down on the steps; but he looked back, smiled compassionately, and said—

"It was you, marm, when he went away to his work," and he went down the street at a high rate of speed.

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Old Gent (in Stage.) "I trust your Rifle is not loaded, Sir, because with this shaking it might go off!"

Militiaman, (nettled). "No, it's not loaded, Sir. And if it were to go off, it wouldn't hit you!"

Old Gent. "Oh, jus' so, Sir. But—you'll pardon me—I was not considering myself so much as the poor Passengers on the Roof!!"

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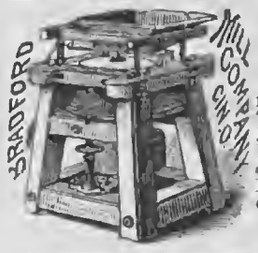

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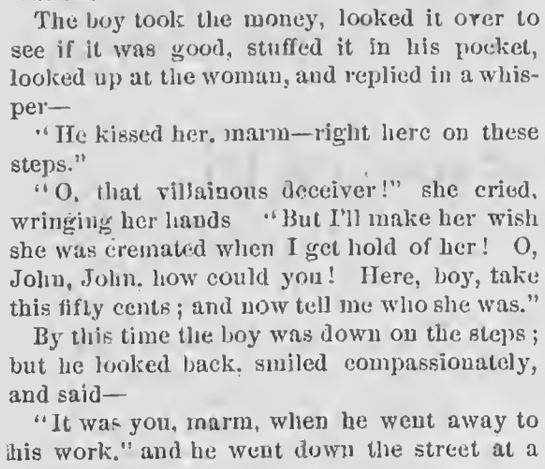

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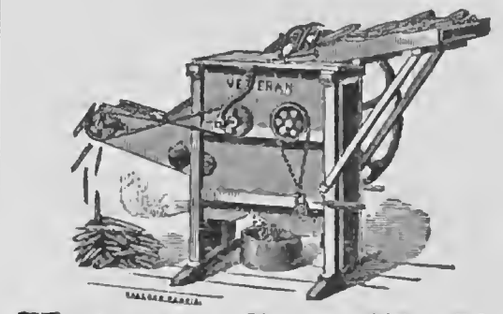

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THE RURAL NEW-YORKER

A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME

VOL. XXXVIII. No. 24. WHOLE No. 1533. | NEW YORK, JUNE 14, 1879. | PRICE FIVE CENTS. $2.00 PER YEAR.

[Entered according to Act of Congress, in the year 1879, by the Rural Publishing Company, in the office of the Librarian of Congress at Washington.]

Rural Architecture.

HISTORY OF A POOR FARM.—No. 10.

A BARN is the farmer's workshop or manufactory, and if it is badly arranged or the yards about it are inconvenient for handling the stock, much time is lost and labor thrown away. When I came into possession of my farm, there was no barnyard, and, practically, no barns. A few tumble-down, "ramshackle," old barracks, and a dilapidated shed, which had done duty in past ages as the local schoolhouse, comprised the farm buildings, along with a small, bright-red-painted building, which was nearly new and which, like a shiny, new hat upon a ragamuffin tramp, only made the general raggedness and wretchedness of the rest of the belongings more conspicuous. No stock had been kept on the place for some years; my old neighbor had informed me that for over 30 years one horse and one cow were the most he remembered being kept there at one time, so that the buildings were hardly needed and a yard for manure, where no manure was ever, or hardly ever, seen, was of course superfluous. The rough sketch given on page 375, represents the character of the buildings and the general appearance of the "key to the farm" at that time. The only vehicle kept about the sheds at that time, was a dilapidated wheel-barrow, which, I suppose, was used to convey the harvest from the fields to the barns. The yard was unfenced, nor was there any use for a fence. Such a yard is not altogether unique; others can be found elsewhere much of the same character, but then there are other poor farms besides the one of whose history I am telling.

The first outlay made after I came into possession, was for building a barn in which to keep some cows. The site of this was chosen where, in the old barnyard, a crazy, old barrack with broken roof, stood at the foot of a slope. Here was a good chance to put a basement stable with manure cellar. This was made 50 feet long, 24 feet wide, 16 feet high, and with a cellar or basement wall of brick, seven feet high in the clear. Part of this basement was intended to receive the manure from the floor above; and at the east end (the barn faces the south) was made a cellar for roots. A long shed was built connecting the brilliant red barn with the new building, and 42 feet long, 20 feet wide, and 12 feet high to the eaves; one end was used for a stable for three horses and the other parts were open sheds for tools, machines, wagons, etc. At the foot of the hill on the west, was a fine spring over which a milk-house was built, and a pipe was laid from the spring to a pump in the yard, before which was placed a long watering trough accessible from both yards. Two barracks were made in the yard east of the barn for storing straw or hay, and these were inclosed half way up and used when needed for calf pens, and pens for incoming cows. The space between these barracks, 20 feet long, and 16 feet wide, was made into a yard for the pure Ayrshire bull which was selected from a first-rate herd, as the foundation for the making of a dairy herd. In the front, at the east of the first yard, was built an office and store-room, and here are held the agreeable chats which go to make up a large portion of the history of this poor farm. The plan has no particular merit, except that it is convenient and cheap. It suited the arrangement of the fields and the character of the ground, and it utilized what there was worth anything in the old arrangement. The yards are perfectly well protected from the north and northwest winds, are sheltered and warm.

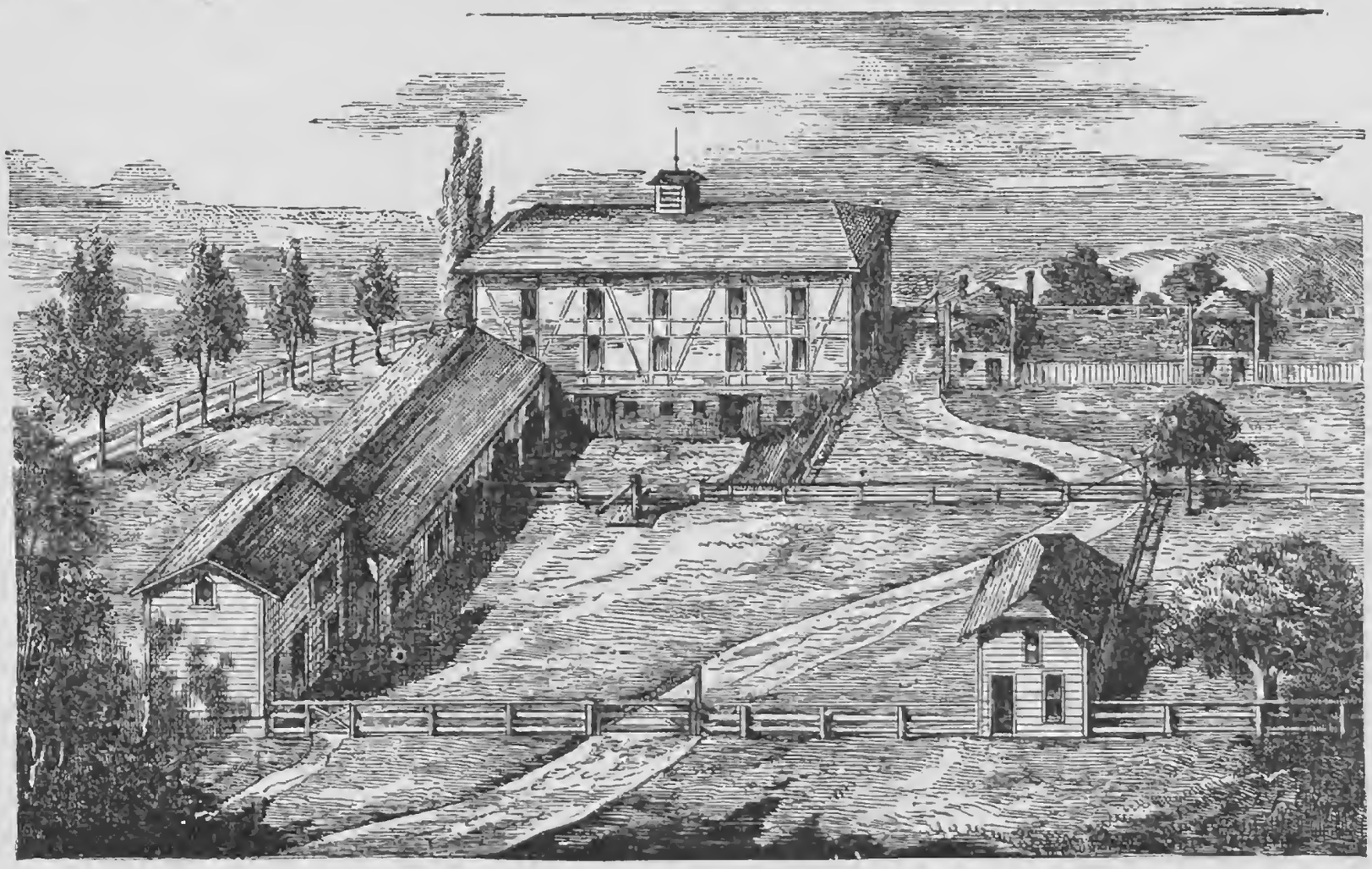
"What do you want of so many yards?" asked my old neighbor, as I was explaining the result of my building.

"I find them very convenient for handling the cows with very little labor," I replied. "The cows are turned out after feeding in the morning into the yard in front of the barn, where there is water and shelter in bad weather, under the open sheds. Here they can stay while the men are at work on the farm elsewhere, and remain until it is time for the noon feed. They are then driven into the next yard, where there are some feed racks, and into which Fred has previously brought a load of rye from the field. The racks are filled, and then the cows are turned into the yard, where they feed during the dinner hour. After dinner they are put into the barn and given, each, three quarts of mixed feed of two-thirds of ground corn, oats and wheat bran and one-third of cotton-seed meal, when they lie down on a clean bed which has been prepared for them, in a clean, cool stable darkened by shutters, and rest until afternoon milking time, which is half after four. The large yard is for the horses and for hitching to the wagons and tools, so that everything is done separately and in order, and no time is lost. When the cows are shut up in the barn, the bull and the calves are turned into the yard and consume what the cows have not used. Not a single dropping of manure is lost and not a leaf or blade of vegetation is trampled upon or spoiled."

"It costs too much money," objected my old friend.

"I don't care for that," remarked Mr. Martin. "If one has the money to spend he can not use it better. I think the plan is a good one, with some exceptions. It was made to save the red barn, and it would have been cheaper to burn that up than to spoil a good plan on account of it. It is like building a new carriage to an old pair of wheels, or making a new coat to suit a set of old buttons."

"I think that old barn you object to worth saving," said I. "In remodeling old buildings, I would save what could be kept and made useful. The old red barn serves to store hay for horses and a door is cut from the loft into a feeding room above the new horse stable, so that in that business, time and work are saved. In stormy weather the men can pass from the old barn through the upper floor of the shed, where tools are kept, into the cow barn, and do their work there without going out-of-doors; and by using the water from the cistern in the rear of the barn, which takes the roof water, and from which a pipe from a pump is brought into the barn, the cows and horses can be watered in-doors, if desired. I have studied economy of labor, and I want to show our old friend that in saving labor I save money. The money laid out in these buildings and yards will save half of one man's time in attending to the stock, which will be equal to $150 a year, and that will pay 10 per cent. interest in the cost of the whole arrangement."



HISTORY OF A POOR FARM.—The Barn-Yard as it Is.—(See p. 375 for "As it was.")

The Herdsman.

JERSEY COWS.

T. H. HOSKINS. M. D.

Claims of their Friends.

A FEW years ago I interviewed a Short-horn breeder upon what he regarded as the objections to Jerseys. I said to him that it was claimed there were no herds of dairy cows in New England which could average 300 pounds of butter a year per cow, except those having Jersey blood in them; also, that there were no herds whose butter was so uniformly of good color, nor, when properly manufactured, of such firmness, perfection of grain and excellence of flavor; that, in short, a Jersey herd would yield more and better butter than a herd of an equal number of any other kind, with the same feed and care.

Charges Against Them.

My Short-horn friend answered—first denying that Jersey butter was any better than Short-horn butter—that the Jerseys are worth little or nothing for beef, or for raising veal calves; that they are of no value for cheese, or for market-milk, or for anything but butter; that the bulls are as dangerous as tigers; that the cows are nervous, high-strung creatures, and very apt to be kickers; that they are not hardy in our climate, and are especially liable to attacks of garget; that they are enormous eaters, and require much grain feed in proportion to the quantity of milk yielded. This was the whole indictment, as made out by my friend. I think he accidentally omitted to charge that their hides do not make so much leather as those of Short-horns.

Charges Investigated.

I then inquired of another friend, who had been an extensive breeder of Jerseys, but who had shifted to Ayrshires because grade Ayrshires give much larger messes of milk, and his sales were mainly of choice village cows, the buyers of which want to sell surplus milk to help pay the cows' keep. I showed him the Short-horn man's charges, and requested his candid criticism thereon, which was given as follows: To the first objection, he said the Jerseys make no pretensions to being a beef breed. The true question was whether, taking two average herds, one of Jerseys and Jersey grades, the other of Short-horns and Short-horn grades, keeping a strict account of cost and keep on one side, and of sales of produce—butter, beef and veal calves—on the other, the profit will incline in favor of either, and if of either, of which? If the milk were made into butter and sold in the same market, it was his judgment that the extra quantity of the Jersey butter, without any allowance for quality or any saving in feed in an equal number of cows, would more than balance any profit from sales of beef and veal. But if the milk were made into cheese, or sold for market milk, the Short-horns, if good milkers, would pay best. This answer to the first count covers the second, also.

In regard to the fierceness of Jersey bulls, he said they are often unruly, especially if kept confined. But he believed that a bull of this breed might easily be so reared and handled as to be quite safe, with ordinary precaution.

The fourth objection, the nervousness of the cows, he said was an objection only with those who make use of milking-stool gestures and cowhide-boot discipline in the cow-stable. He thought kicking men made kicking cows, and that while the Jerseys are not yet so thoroughly christianized as to love their enemies, they know their friends. They are a lady-like breed of cows, and will submit to be handled only by gentle men.

As to hardiness, he observed that the Jerseys will not endure as much roughness as the poorer class of native cows, but they are healthy and long lived under the only trea

ment which is profitable with any kiud of dairy stock. He added that they are uot more liable, in his experience, to suffer injury from garget than any good cows, perhaps less so than the more profuse milkers. Finally, he admitted the charge that Jerseys are good feeders, and cousidered it a merit. They are as hearty eaters as the natives, said he, and will average to make twice as much butter from the same feed.

Increase of Jerseys in Vermont.

Since the above reported interviews were recorded, the number and size of Jersey herds in Vermont have greatly increased, and the progress in this direction continues unchecked. I well remember that when the few Jerseys present were brought into the ring at the Vermont State Fair, held in Rutland in 1873, one of the Winslows of Putney, Short-horn breeders, who was one of the judges, observed, contemptuously, "Well, the scrawnier you get them the better you like them, don't you?" At the two last State fairs the Jerseys outnumbered every other breed, and were treated with the respect they deserve. Now for some of the

Practical Results of Jersey Dairying

in this State. The place where the Jersey stock has longest had a footing among our dairymen is in North Pomfret, Windsor county, where perhaps ten or a dozen farmers have had Jersey herds for the past eight or ten years. These herds have been mostly grades, but have been graded so high—only thoroughbred bulls being used—that very little evidence of native blood is seen in them at this time. Many of the cows are pure-blooded, but merely as butter-makers these are not always thought to be the most valuable. These Pomfret farmers live among the hills; their farms are usually less than 100 acres, and their milking herds vary in number from six to fifteen cows. They are intelligent, educated men, yet men who do their own work, especially in the case of their cattle. They exercise great care in selecting, feeding and handling their cows, and in the manufacture of their butter, and they get prices considerably above the highest quotations. Some, by making fancy prints of two to four ounces for first-class hotels and restaurants, have got what might be called fancy prices—60 cents and upwards, per pound—but that is not the rule.

I will take Mr. E. S. Wood as illustrating the dairying of North Pomfret fairly in his practice. He has his cows come in at all seasons, but mostly in the fall. During the season of pasturage they are yarded at night, and fed one or two quarts of corn-meal, according to age and condition, before milking, they being tied up for that purpose. They are also fed a little hay. Care is taken that milking should be at regular hours, and as much as possible without change of milkers. When the pasturage becomes short in the fall, fodder corn and green oats, or mown grass, are fed until severe frost occurs. Later, the grain feed is increased to two or three quarts of a mixture of equal parts of meal and wheat bran. Cows that come in in fall and winter have a larger ration of the same while in full milk. Early-cut hay and corn fodder are considered good winter feed; but Mr. Wood says straw cannot be made equal to good hay for milk by any addition of meal. Dry cows are kept on coarse fodder until near calving, when they have good hay and two quarts of oats daily. After calving, for a few days they have light feed, with warm water to drink. The stables are kept warm and dry. Mr. Wood does not mention feeding roots at all, but I believe he raises a few, though not enough to make a regular ration for all of his cows. In 1877—the last report I have—Mr. Wood made 3,788 pounds of butter from 13 cows, or an average of 291 pounds to the cow. This butter sold for $1,341.36, an average of $95.39 per cow.

Other Jersey Herds.

But by no means are all of our Jersey dairymen confined to Pomfret. Mr. Nathan Skinner, of Plainfield, Washington county, made in 1877, from a herd of 18, 4,842 pounds of butter, sold at an average of 33 cents—269 pounds of butter, or $88.77 in money, to the cow. E. R. Skinner, of Tunbridge, Orange county, from a herd of five cows, sold, in 1875-76, 1,677½ pounds, and in 1876-77, 2,065 pounds, the average per cow being 335½ and 413 pounds, respectively.

Perhaps the largest Jersey herd in Vermont is that of E. A. Ponks, of Passumpsic, Caledonia county, who in 1878 made, from 24 cows and heifers, 6,900 pounds of butter, or 287½ pounds per head.

These reports are none of them from breeders of Jerseys for sale or from fancy stock. I think few if any of them are registered, and many are only high grades, though there are more or less pure-bred cows among them. The parties are plain farmers, who keep the Jerseys for their value simply as large producers of fine butter that always sells above the market in Boston, when properly manufactured and neatly put up for sale. Our good farmers perceive plainly that the day of "middling-good" dairy products is over, and that a small yield per cow will not pay for the keeping. Therefore they are seeking earnestly for the right cows, and the best methods of manufacture and preparation for market. I believe that the decline of price for dairy products is a scarcely disguised blessing, the prompt result of which is to be such an improvement in our stock and methods of feeding, care and manufacture, as in five years will increase the average product of our dairies fully fifty per cent. in quantity, and absolutely eliminate the lower grades of butter and cheese from among the products of our State. It is "root, hog, or die," among our dairymen at this time, and by "rooting" or "dying"—by improving their method or abandoning the business—our dairymen will soon reach a level far above the highest aspirations of a few years ago. And the Jerseys are a great help in the work.

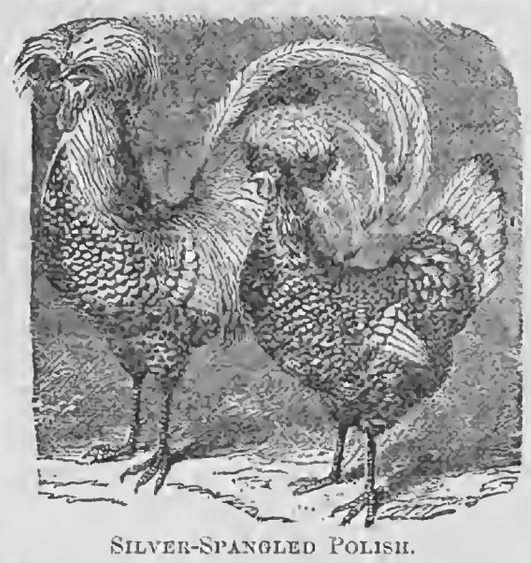
The Poultry Yard.

SILVER-SPANGLED POLISH.

A. M. HALSTED.

The Polish class of poultry consists of seven varieties — the Golden-spangled, Silver-spangled, White-crested Black, White-crested White, Black-crested White, Buff, and Blue Polish.

The Black-crested White are supposed to be extinct, none having been seen for many years. Numerous attempts have been made to develop a new strain of them, but thus far without success. The Buff and Blue varieties are very little known in this country, and comparatively rare, even in England. The Silver spangled—the subjects of our illustration—are probably



Silver-Spangled Polish.

the most common and best known of any, and about the largest, the weight of the cocks being from six to seven pounds, and of the hen from four to five and a-half. The ground color of the plumage is silvery-white; the ends of the feathers having clear, distinct moon-shaped black spangles. The hackle and saddle-feathers of the cock are white-edged and tipped with black; the tail feathers, clear white, ending in a clear black spangle. The wing coverts should also be marked with black, so that the spangles form two distinct bars across the wings. The evener and more perfect these bars, the more the bird is valued. The breast, also, should be evenly spangled with black, not so close together as to appear black, which is a fault. The feathers of the crest are black at both base and tip, the middle of the feathers being white or gray, white being the color most sought for. The crest should be even and regular in shape, not hollow in the center. The ear-lobes are small and white. The wattles are wanting in the bearded varieties; in the others they are small and regularly-shaped.

The feathering of the hens is almost exactly like that of the cocks. In the crest, which should be full and globular in shape, the feathers should fit in so closely together that the appearance is that of a round, spangled ball. In both sexes, white feathers frequently appear in adult birds after the second molt. These are regarded as very objectionable though not a disqualification. Silver Polish are good layers of medium-sized eggs, and of fair quality for the table. They are non-sitters, very quiet, and readily become attached to those who take care of them. They do not attain their fullest development of plumage and beauty until the third season.

The objections to them are: the danger from hawks—their overhanging crest so obstructing their sight, that they do not see hawks until too late to escape; and their tendency to roup and cold. They must be kept dry, both young and old; the crest gets saturated with rain or dew and as the bird cannot dress that part of its plumage, it remains wet and produces roup or cold. It is useless to try to raise them in low, damp localities. They need high, dry yards and ample shelter from the weather.

The young chicks while fledging need stimulating food; the great quantity of feathers which they have to develop is very exhausting to the system, and unless the chicks are supplied with meat or scraps, in addition to the usual grain diet, they are not apt to thrive. Stale bread soaked in sour ale is excellent for both young and old. English breeders say that the young should never be given to a large hen, the top of the skull being very thin, they are much more liable to fatal injury under a heavy hen than under a light one.

Westchester Co., N. Y.

Farm Economy.

BULK OF FOOD AND DIGESTION.

E. W. STEWART.

In the proper nutrition of all classes of our domestic animals, this question of bulk needs careful attention. Numerous attempts have been made, in feeding horses, to disregard the necessity for a given proportion of fiber to be mixed with the grain ration; but the result of feeding concentrated grain, or fine meal ground from it, alone, has brought numerous diseases of stomach, and often death to the animal. The theory, often expressed by physiologists, that the stomach required filling to a certain hight to stimulate the secretion of the gastric juice, is probably faulty in not noting the necessity for the food to be in a porous state, so that the gastric juice can have a free circulation through the contents of the stomach. Fibrous food cannot be compressed into a solid mass, and when meal is fed in connection with hay or other coarse fodder, the fibrous food separates the particles of fine meal and leaves a free passage for the gastric juice throughout its whole bulk, and thus digestion proceeds simultaneously through the whole contents of the stomach. Now, if the concentrated meal is fed alone, it will form into a compact ball, like the housewife's dough; and it is easy to see that the gastric juice cannot penetrate and circulate through this solid mass in the same way as through the porous bulk of hay and meal. And the turning and rolling about of food in the stomach by its muscular action, described by animal physiologists, cannot cause a bolus of meal to become porous so as to facilitate its permeation by the gastric juice; for, as is well known, the mass is too plastic and adherent to be so easily separated. Fine, concentrated food alone, taken into the stomach of a bovine, is not raised and re-masticated, but passes on to the true or fourth stomach in its concentrated state; and, may we not suppose, from its compact condition, often remains undigested for so long a time as to engender fever and other stomach complaints?

Nature has furnished for all our most important domesticated farm animals—(horses, cattle, sheep and swine)—bulky food—the grasses and other forage plants. And, is it not reasonable to suppose that when we feed fine meal, or concentrated grain alone, we do violence to the nature of the animal? It is simple heedlessness, neglect of the proper study of the natural wants of our animals, that leads us to feed concentrated food without due admixture with hay or coarse fodder. Mr. Miller has even become a strenuous advocate of wintering cows on corn-meal alone, and because he has been able to keep cows six or eight weeks in an abnormal condition on corn-meal, he thence infers that the ordinary course of nature may be set at naught with impunity. But, although he commenced this course of feeding some eight years ago and found it very cheap, compared with hay, yet he has never carried his cheap feeding through a whole winter season, as might naturally be expected after he had discovered its great economy. We know that animals may, for a time, be kept in an abnormal condition, and on return to the ordinary ration go on without any serious disturbance of health. Men have been gradually accustomed to the use of deadly poisons and survive their use for many years; but it is not thence argued that this would be a proper regimen to put the whole race upon. It has been found that men may not long be healthy upon very concentrated food without the use of bulky vegetables, and yet the human stomach is especially adapted to the use of concentrated food.

An excellent illustration of the necessity of coarse fodder to the health of cattle is found in the practice of feeding large numbers of cattle in distilleries upon the refuse of corn after using the largest part of the starch in the manufacture of spirits. The food is not lacking in albuminoids, and if coarse fibrous food is not necessary to health, these cattle might be fattened upon the refuse alone. But the universal testimony is that not less than five pounds of hay per day to each animal, will suffice to maintain health and allow profitable progress in fattening. One experienced feeder, who fed a 1000 head per year, stated the hay absolutely necessary to economical feeding to be eight pounds per head. The writer made special inquiry into ten cases and found the amount estimated as necessary, to range from five to ten pounds per head. It will also be noted that the general testimony was that the quality of the hay was not material—that it only required some fibrous food for rumination and to keep the bowels in proper condition.

The writer has never found any serious difficulty in feeding a proportion of very concentrated food to colts after weaning, such as corn and oats, or peas and corn, or rye and oats ground fine together, if the same was mixed with cut hay, in the proportion of two of hay to one of meal in bulk, or better still, equal parts by weight. It does not answer to feed the meal and then give the hay; they must both be fed at once, moistened so that both must be eaten together. This causes the masticated food to go into the stomach in such a porous condition that no ill effects can arise from the meal. Too much grain must not be fed, but a proper amount, given with cut hay, will no more injure a colt than a grown horse.

This matter of bulk in the food of our animals is so important that every feeder should thoroughly understand and apply it.

VITAL PRINCIPLES IN AGRICULTURE.

W. B. DERRICK.

The fertility of the soil must be sustained in some manner, as every good farmer knows, or it will soon become exhausted and barren. This fact has been exemplified perhaps more fully and clearly in "the fertile West" than in any other section of the country. The deep, rich, black soil of the prairies, containing all the elements requisite for the production of bountiful crops of wheat, rye, oats, barley, flax, corn, potatoes, etc. seemed inexhaustible. It appeared as though the bottom could never be reached, and that it would never become "poor" or sterile. The native prairie-grass had been burned off annually, from time immemorial, just as it is yet on our unsettled domain; and so long as the land remained unbroken and uncultivated, those vast sweeping prairie fires did much good in clearing away the surplus vegetation and helping to keep up the fertility through the addition of alkaline matter. In those days, before the white man encroached upon this goodly land and commenced to "subdue it," it had nothing to do but to rest and recuperate after its natural production of vegetation, the most of which was immediately returned to it, so there was nothing lost, but instead of depletion, a constant accumulation of rich vegetable mold. The pioneer came and commenced a system of slow but sure robbery of the soil, by cropping it successively from year to year without resting or renewing it in any way. Concentrated crops of grain were produced and removed, and the straw piled up and burned, as those early prairie farmers had but little live stock, and were more desirous of getting rid of the straw by burning it than of turning it into manure. By such improvident farming they were injuring and killing "the goose that laid the golden eggs." For a number of years, the "rich" prairie soil continued to honor the heavy drafts made upon it, but at last its resources began to weaken and show signs of failing. Spring wheat was one of the principal crops grown in this region, and it seldom failed at first, but after years of successive production, it began to be unprofitable from frequent partial failures. Chinch bugs, rust and various other pests, were the apparent causes of failure, but back of all these, was the great prime cause of causes, viz: the exhaustion of those ingredients in the soil requisite to the growth and health of the wheat plant.

How to Renovate the Soil.

is now the all-important question with many of our Western farmers, but they are learning and becoming wiser as they grow older. We seldom see huge bonfires now from burning straw stacks, though there are still a few. I moved from Eastern Ohio to this part of Northern Illinois in 1869, and among the first strange and unseemly sights that attracted my attention was the burning of straw to be seen in every direction over these beautiful prairies. I am now glad to note a marked improvement within the past nine years, as the farmers are giving more attention to mixed husbandry, the rotation of crops, and to the raising of live stock. It is a well established principle in philosophy and nature that there is nothing lost. Things may be misplaced, scattered, demoralized and rendered incapable of right action, but never annihilated. Stolen treasures may be restored, or their places supplied with others of a similar kind. So, too, in agriculture, the soil that has been robbed of its fertility, may again be recouped by judicious management and the requisite application of manure. It takes both hard study and labor to do this; but it will pay better than money at interest; and the time spent by the thoughtful farmer in reading agricultural papers and books, is the most remunerative and valuable of his life, as it adds both to his mental and his pecuniary wealth. The successful farmer must be intelligent and well informed on all things pertaining to his calling or "profession;" "for knowledge is power," and it will help to drive the plow, as well as govern in matters of commerce and legislation. We have great hopes of the prosperity of this country, as knowledge is increasing and

agriculture is keeping pace with the advancement of the times.

Balleyville, Ogle Co., Ill.

OUR BIRDS.

It takes a good deal of agitation to make the farming community understand what some of their most important interests are. Timber planting, for instance, was written about and talked about for years before anything was effected, and even now the majority of the farmers are only just beginning to réalize its importance. There is another subject of vast importance to the farmer on which little is ever said; namely, Birds. Farmers are aware that they have to contend against insect enemies innumerable, but they cannot realize how much the birds assist them in keeping such pests down, because they have never been without such aid. Some idea, however, of the number of insects destroyed by a single pair, may be formed by watching them while feeding their young. Men think that the robins, for instance, spend a good deal of time in their small-fruit gardens, or among their cherries (and even here they do not confine their attention to the fruit), but they can well afford to spare from their abundance what few the birds take for the sake of their assistance in fighting insects. Prof. Cook says that, after numerous examinations of their stomachs, made with the greatest care, he is convinced that "birds, not excepting even the robin and jay, are the farmer's friends." The blackbird, the much-abused crow, the wood-pecker, and all our common songsters are valuable assistants. And not only are birds valuable aids in combatting insects, but they also destroy great quantities of weed seed. Let any one watch a flock of birds gather about a patch of dried weeds late in the fall and he will be convinced of this. If you appreciate the importance of the assistance rendered by our feathered friends, what do you do to encourage them? Do you have shrubbery for them to rest in? Do you teach your children to respect the rights of the birds? Do you have a bird house? Do you encourage the swallows around your barn? Do you do anything to encourage their presence and increase their numbers? There ought to be in each State a strict law against destroying our common song birds or their nests, and it ought to be strictly enforced. Let every farmer exert himself to secure the enactment of such a law. The game laws, also, are generally too lax and but laxly executed. For instance, one quail cannot be found now in Northwestern Ohio, where ten years ago there were whole flocks; and this is principally owing to the depredations of "sportsmen!" Every man and boy too lazy and shiftless to work, will range the country throughout the season hunting quail. Not to speak of the damage that such characters always inflict on property, they are fast exterminating the quail. Let every farmer work to secure a public sentiment that shall demand the enforcement of the laws against such characters.

V. J. Emery.

Henry Co., Ohio.

THE BARN YARD AS IT WAS. (SEE FIRST PAGE FOR "AS IT IS.")

Farm Topics.

HIGH FARMING AND LOW PRICES.

We have to thank Dr. Lawes of Rothamsted, England, for a copy of an address delivered by him, on May 3rd, before the East Berwickshire Agricultural Association. Parts of it, chiefly of a local character, are of interest mainly to the British farmer, but the bulk of the work, treating of the general principles of economic agriculture, must be extremely interesting and instructive to our readers as well as to intelligent farmers everywhere. Of these parts we have here reproduced the principal ones.

High Farming.

At the outset the speaker reviews briefly the present depressed condition of British agriculture, which he attributes to the combined effects of a succession of bad seasons, cheap grain, dear labor, cheapening meat and close foreign competition, especially with the agricultural products of this country, and the object of his address he declares to be, not to discuss the applicability of all the suggested remedies for this depression, but to examine the advice frequently offered, that lower prices should be met by increased production; in other words, whether a higher standard of farming can be recommended to compensate for a reduction in price. Supposing, for instance, there were a permanent reduction in the price of the salable produce of the farm to the extent of 20 per cent. would the proper remedy be to increase our produce per acre by one-fourth, and so bring up the salable value to the same amount as before. This could only be done by what is termed high farming, which he pithily distinguished as *intensive* in contradistinction to the *extensive* farming commonly practiced here. Farming on the four course system of rotation, consuming each alternate crop on the farm, and in addition to this converting all the straw of the grain crops into manure but without the use of any purchased foods or manures, though sometimes ignorantly called by that name, would not be high farming; but, on the contrary, he considers it one of the main causes of the present depression. "High farming is a very different process. It implies the importation of material from without. All soils are capable of yielding more or less annually from their own substance to the produce which grows upon them. But, the greater the amount of cattle-food and manure purchased and brought upon the land—that is, the higher the farming—the less will the soil itself contribute to the crops. Indeed, in many cases, it contributes nothing at all, but becomes richer by the process. Under such circumstances, the soil may be said to serve mainly as a reservoir for the manures applied, and for the necessary moisture, and to afford support to the growing plants; so that, with the aid of the sun's rays, they may be enabled to accumulate carbon (and other constituents) from the atmosphere. They thus, so to speak, manufacture raw material supplied from external sources. Under such conditions agriculture is a manufacture depending on the products of other soils and on the atmosphere for its raw material, just as much as do the manufactures of wool, cotton, and silk depend on external sources for their material."

This system has found many advocates in England, chiefly on the ground that most of the expenses connected with farming are much the same, whatever the value of the crops grown, and consequently that, with the exception of the extra cost of the manure applied to grow the larger crop, the charges remain much the same whether the amount and value of the produce be great or small. If the application of two or three times as much manure yielded twice or thrice as much increase of crops, then he concedes that this style of high farming would be a remedy for lower prices; but the results of some of the field experiments at Rothamsted conclusively show that the higher you farm, beyond a certain limit, the less is the amount of increase you obtain for a given amount of manure, and therefore the greater the cost of that increase. It is frequently assumed that the manure made by feeding stock costs nothing; that by skillful and judicious management the cost of the food and the other expenses will be covered by the value of the meat produced and sold; and that, this being so, the manure is obtained gratis. But the fact is universal in England, and frequent in the older-settled parts of this country, that the food of an animal will, as a rule, cost more than the meat produced will sell for; and that, consequently, the cost of the food and the other necessary expenses can only be recovered by charging a portion to the manure.

The speaker next gave a highly interesting account of a series of experiments at Rothamsted, on the ordinary four-course rotation of turnips, barley, clover or beans, and wheat. The experiments lasted 31 years. One-third of the land was kept entirely without manure during the whole period of the experiments; one-third received mineral superphosphate of lime alone, every fourth year; that is, for the root crops; the other third received, also every fourth year, a liberal dressing of a complex artificial fertilizer, composed as follows:

	Per Acre.
Rape cake	2,000 lbs.
Sulphate ammonia	100 lbs.
Muriate ammonia	100 lbs.
Sulphate of potass	300 lbs.
Sulphate of soda	200 lbs.
Sulphate of magnesia	100 lbs.
Superphosphate of lime	350 lbs.

Each of the three portions, so differently treated as to manure, had been divided into two experiments. From one half, the whole of the produce, roots and tops, grain and straw, and clover, had been removed. On the other half of each, the only difference had been that the roots were fed on the land by sheep having no other food, and the tops were also left on the land. The results of these experiments concern the European farmer chiefly, and are declared to have been somewhat disappointing, and that to farm still higher, as prices fall, would be a mistake. "We have learnt much," says Mr. Lawes, "respecting the action of manures, the requirements of different crops, and the influence of climate upon them, during the many years of the progress of our field experiments, and among other things, that we can gather up much more of the manure applied, by means of a mangold than of a turnip crop."

The part of the address which will chiefly interest American farmers, inasmuch as its lessons are equally applicable to their own conditions, is that treating of

Experiments with Farm-yard Manure.

"In these experiments," says Mr. Lawes, "farm-yard manure has been applied for many years in succession to different crops. When you are urged to farm higher, the meaning is that you should put more dung upon your land. Consequently, it is of great importance to ascertain, with as much accuracy as possible, the effects of the application of large quantities of dung.

PRODUCE OF WHEAT AND BARLEY, BY 14 TONS FARM-YARD MANURE PER ACRE, EVERY YEAR.

	Average per acre per annum.	
	Dressed Grain.	Straw.
Wheat, year after year on the same land—35 years, 1844-1878.	Bushels.	Cwts.
First Period, 8 years, 1844-1851	28	26⅝
Second Period, 9 years, 1852-1860	34⅛	34⅝
Third Period, 9 years, 1861-1869	37⅞	33⅝
Fourth Period, 9 years, 1870-1878	31	29⅞
Barley, year after on the same land—27 years, 1852-1878.		
First Period, 9 years, 1852-1860	44	26
Second Period, 9 years, 1861-1869	52	30⅜
Third Period, 9 years, 1870-1878	49¾	29⅝

"In the table is given the produce of wheat, grain and straw, and of barley, grain and straw, by the application of 14 tons of farm-yard manure per acre per annum. In the upper division of the table the results obtained with wheat, and in the lower those obtained with barley, are recorded. The experiments on wheat have now been continued for 35 years, and the average produce per acre per annum is given for the first eight years, the next nine years, the next nine years, and the last nine years. The experiments on barley have been continued for 27 years, and the results are given for the three periods of nine years each, corresponding with the last three periods in the case of the wheat.

"Referring first to the wheat, you will observe that the average produce of the first eight years is the lowest, that of the next nine years is higher, that of the third period is higher still, and that of the last nine years again is considerably lower, being only about three bushels more than over the first period, about three bushels less than over the second, and six bushels less than over the third period.

"It is quite obvious from this result, that the produce was not at all in proportion to the accumulation of manure in the land. When the soil was analyzed a few years ago, it was found that the first nine inches in depth were nearly twice as rich in nitrogen as any of the artificially manured plots, yielding as much, or even more, produce. There can be no doubt that whilst, there is a general tendency to increase in produce as the result of this great accumulation of manure in the soil, the fluctuations are greatly dependent on the characters of the seasons. Thus, the third period, which gives the highest produce, included some very productive years, whilst the fourth period included a number of bad seasons, the adverse influence of which the constantly increasing accumulation of manure within the soil only very partially obviated. It will be observed, too, that the amount of straw, the excess of which is a sure sign of excess of manure and over luxuriance, upon the whole increases rather less than that of grain, there being less straw over the third period, with the highest produce of grain, than over the second with a lower produce of grain, whilst the fourth period gives considerably less than either the second or the third. This is the more remarkable since the annual application of 14 tons of dung will have annually brought upon the land the equivalent of from three to four tons of straw. The fluctuations in the produce of straw, as well as in that of grain, further illustrate the influence of season in spite of the accumulation of manure.

"Turning to the experiments with barley, we have, upon the whole, very accordant results over the three periods, compared with the same three periods with wheat. Thus, the last period but one, which included a number of very good seasons, gave more produce than the last period, notwithstanding the greater accumulation of manure in the later years. There is in the barley, too, as with the wheat, no striking increase in the production of straw; for although there was considerable variation in the proportion of grain or straw in individual years, according to season, the average proportion is almost identical for each of the three periods. It is, then, obvious that there is no increase of produce of either wheat or barley over the later years, at all commensurate with the increased accumulation of manure in the soil.

"You will doubtless be interested to know something of the after effects of these great accumulations of dung in the soil, seeing that they increase the crops so inadequately during the period of the application of the manure. The following table affords information on this point. The two upper divisions relate to barley, and the lower one to meadow hay. After 14 tons of farmyard manure had been applied for 20 years in succession on one plot in the field devoted to the continuous growth of barley, the plot was divided. On one-half the annual application of the dung has been continued now for a period of seven years more; whilst the other half has been left unmanured, also now for seven years. In the experiments on meadow hay, the application of 14 tons of farmyard manure per acre per annum was continued for eight years; and the land has since been left unmanured for 15 years. The table shows the produce of barley, grain and straw,

and of hay, during the periods of the application of the dung, and after the cessation of the application. It also shows the increase over the continuously unmanured produce over the respective periods.

SHOWING THE EFFECTS OF THE UNEXHAUSTED RESIDUE OF FARMYARD MANURE.

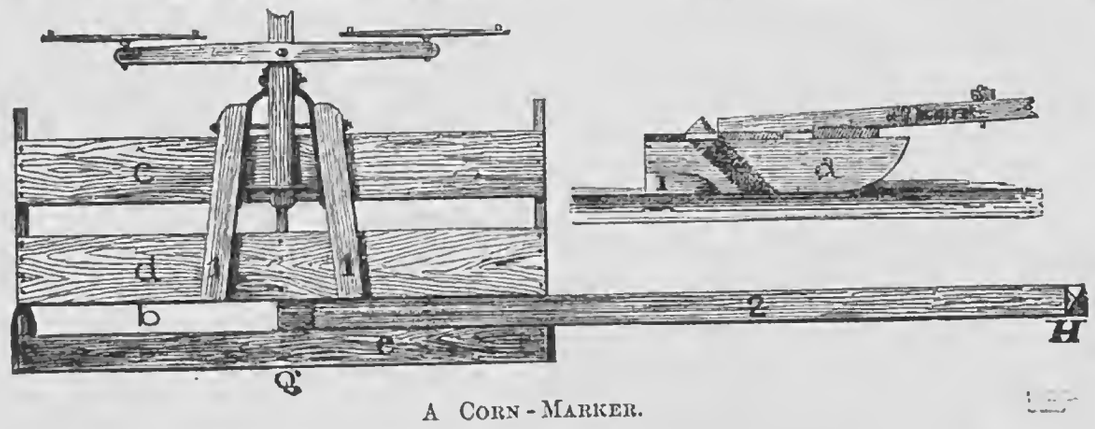
	Av. per acre per annum.	
	Produce.	Increase over continuously unmanured.
Barley Grain.	Bushels.	Bushels.
20 years, 1852-1871, 14 tons farmyard manure every year	48¼	28¼
7 years, 1872-1878, 14 tons farmyard manure every year	49⅛	36
7 years, 1872-1878, unmanured, after 20 years farmyard manure	36¼	22¾
Barley Straw.	Cwts.	Cwts.
20 years, 1852-1871, 14 tons farmyard manure every year	28¼	16½
7 years, 1872-1878, 14 tons farmyard manure every year	29⅞	23
7 years, 1872-1878, unmanured, after 20 years farmyard manure	20¼	13⅜
Meadow Hay.		
14 tons farmyard manure every year, 8 years, 1856-1863	42⅞	19⅛
Afterwards unmanured, 1864-1868	40⅞	19⅝
Afterwards unmanured, 1869-1873	29⅜	10⅛
Afterwards unmanured, 5 years 1874-1878	23¾	6¾

"It will be seen that there is an average of only 1¼ bushel of barley grain and 1½ cwt. of straw per acre per annum, more over the last seven years than over the first 20 years, where the application of the dung was continued. Where the dung was discontinued after 20 years, the produce of grain was, over the next seven years, not quite three-fourths as much, and that of the straw but little over two-thirds as much as where it was continued. The average annual deficiency was 13¼ bushels of grain and 9½ cwts. of straw. Compared with the continuously unmanured produce over the same periods (which, however, declined considerably over the later years), it is seen that the annually applied dung gave an average increase, over the first 20 years of 28¼ bushels of grain and 16½ cwts. of straw, and over the last seven years of 36 bushels of grain and 23 cwts. of straw. And where the dung was discontinued over the last seven years, there was an average increase of nearly 23 bushels of grain and 13½ cwts. of straw over the continuously unmanured produce. In the last year of the seven, 1878, the plot where the application of dung was continued, gave 36¼ bushels of grain and nearly 26½ cwts. of straw more than the unmanured plot; and the plot where the dung was discontinued gave, in the same or seventh year of the discontinuance, nearly 12 bushels of grain, and nearly 10¼ cwts. of straw, more than the unmanured. It is obvious, therefore, that the residue of the 20 years' application of dung is still yielding increase. It is, however, gradually declining. But there is no doubt that the residue will continue to be effective in a still more declining ratio for many years to come. It would, indeed, take considerably more than a century at the present rate to recover in increase of produce all the nitrogen of the manure, which has not yet been so recovered.

"Turning now to the results obtained with meadow hay: as already stated, 14 tons of farmyard manure were applied per acre annually for eight years in succession, and the produce has since been taken for 15 years without manure. The table shows the average annual produce and increase of hay over the eight years of the application, and over the first five, the second five, and the third five years afterwards. It will be observed that over the 8 years of the application the average produce of hay was nearly 2 tons 3 cwts.; and the average increase over the continuously unmanured produce was not quite 1 ton. Over the first 5 years after the cessation of the application, the average produce was about 2 cwts. less; but, substantially, both produce and increase averaged much about the same as over the 8 years of the application. Over the second 5 years, the produce diminished to less than three-fourths as much as over the first 5, and the increase was little over 10 cwts. of hay per acre per annum. During the last 5 of the 15 years, the produce was little more than half as much as its original amount, and the increase over the unmanured produce of the same period was not quite 7 cwts.

During the eight years of the application of the dung there were obtained, in all, 17 tons 3 cwts of hay, corresponding to 7 tons 13 cwts. of increase; over the next 15 years there were obtained 23 tons 7½ cwts. corresponding to 9 tons 2½ cwts. of increase, due to the residue of the previously applied dung. Here, as in the case of the barley, it would require very many years to recover anything like the whole of the yet unrecovered residue of the previously applied nitrogen of the farmyard manure.

"Looking to such results as the above, relating to barley and to meadow hay, it is not difficult to understand why a tenant who has been farming highly for a number of years should endeavor to get out some of the residue of the manure which he has accumulated in the land before he leaves it. But if so small a proportion of the constituents of the manure is recovered in the increase of crop during the years of the application when dung is very liberally used, it is not so evident that higher farming, which means more dung, should be a remedy for lower prices. Nor can I understand why the so-called "lasting" effects of dung should be considered such a merit. The Rothamsted experiments with various crops, agree in showing that a given amount of constituents supplied in dung, does



A Corn-Marker.

less work, and takes a longer time to do it, than when supplied in any other form.

Experiments with Artificial Manures.

"The next illustrations will show the comparative effects of moderate and of large amounts of artificial manures. In the upper division of the table we have the average produce of wheat, both grain and straw, over 27 years—by the complex mineral manure used alone; by the same mineral manure and 200 lbs. ammonia salts; by the same and 400 lbs; and by the same and 600 lbs. ammonia-salts. In the lower division of the table is given the average produce of barley over six years—with superphosphate of lime alone; with superphosphate and 200 lbs; and with superphosphate and 400 lbs. ammonia salts.

SHOWING THE EFFECTS OF MODERATE AND OF LARGE AMOUNTS OF AMMONIA SALTS.

	Average per acre per annum.	
	Dressed Grain.	Straw.
Wheat every year, 27 years, 1852-1878.	Bushels.	Cwts.
Complex mineral manure, alone	15¾	13½
Complex mineral manure, and 200 lbs. ammonia-salts	24½	22¾
Complex mineral Manure, and 400 lbs. ammonia-salts	33¼	33¾
Complex mineral manure and 600 lbs. ammonia-salts	36¾	40⅞
Barley every year, 6 years, 1852-1857.		
Superphosphate, alone	31⅝	16½
Superphosphate, and 200 lbs. ammonia-salts	45⅛	28¾
Superphosphate, and 400 lbs. ammonia-salts	49⅝	34

"Referring first to the wheat, it will be observed that by the addition of 200 lbs. of ammonia-salts per acre per annum to the mineral manure, an average increase of nearly nine bushels of grain is obtained. By the addition of a second 200 lbs. in all 400 lbs. of ammonia-salts, there is a further increase of the same amount; that is, nearly nine bushels. By the addition of a third 200 lbs. in all 600 lbs. of ammonia-salts, there is a further increase of only 3½, instead of nine bushels. In like manner the first 200 lbs. of ammonia-salts give 9¼, the second 11, and the third only about 6½ cwts. increase of straw. Now, assuming that the application of 400 lbs. of ammonia-salts was the limit of high farming with profit with wheat at 6s. per bushel, I cannot see how it could be maintained that a further 200 lbs, yielding little more than a third as much increase as when used in more moderate quantity, should be employed because the price of wheat was reduced to 5s per bushel. On the contrary, the conclusion I should draw from the results of these experiments is, that the application of the 600 lbs. of ammonia-salts could only be profitable if the price of wheat were to rise instead of to fall.

"Again, it will be seen that in the case of the barley, the addition to superphosphate of lime, of 200 lbs. of ammonia-salts gave an average increase of nearly 14 bushels, whilst by the addition of a second 200 lbs., in all 400 lbs. of ammonia-salts, a further increase of little more than four bushels was obtained. It will be observed, however, that whilst with the increase of 14 bushels of grain there was an increase of only 12 cwts. of straw, there was with the further increase of four bushels of grain an increase of 5½ cwts. of straw, or a much larger proportion of straw to grain in the increase by the second than in that by the first 200 lbs. of ammonia-salts. It was, in fact, so evident from the bulk, and the laying of the crop, that 400 lbs. of ammonia-salts was an excessive application, that, after its use for six years, the experiment was abandoned. Here, again, I think it must be evident that it would be higher, and not lower prices, that would justify the higher standard of farming.

Inferences.

"From the various results which I have laid before you, you will have gathered that when farmyard manure is used, and even, though in a less degree, when manure is deposited on the land by animals feeding upon it, there is less immediate increase for a given amount of constituents supplied, and more accumulation within the soil, than when certain artificial manures are employed. You must not suppose that, in bringing this fact prominently to your notice, I wish in any degree to depreciate the importance of, so to speak, natural manures, and to exalt that of artificial manures. The production, and the use, of farmyard manure, are a necessity of the general economy of a farm; and there must be the more of it produced, or at any rate the more of animal manures, the greater the amount of meat produced. Nor would it be possible to rely mainly on artificial manures. I do think, however, that farmers generally do not sufficiently recognise the slowness of the action of the natural manures of the farm; and that, so far as they do so, they frequently even look upon it as a merit rather than otherwise, that it should be as they say, more "lasting." But slowness of action means slowness of return for the outlay; and this will be the greater the more excessive the amount of the manure applied. In my opinion, the object to be attained, and that which I have no doubt will characterize the most successful farming of the future, is to get as quick a return as possible for the outlay in manures, whether natural or artificial. This can only be fully accomplished with freedom in the growth and sale of that produce which is the most profitable, the selection of the crops which are the most suitable to the soils and seasons of the locality and the demands of the market, and such a judicious adaptation of natural and artificial manures to the crops to be grown, as to obtain the maximum increase of produce, with the minimum residue left unproductive in the soil, and subject to loss by drainage and in other ways.

To sum up.

in regard to this first branch of my subject:—It has been shown by reference to the results of experiments on an ordinary four-course rotation with different manures, in some cases carting off the roots, and in others consuming them on the land, that beyond a certain limit, the increase of produce was not commensurate with the increase in the amount of manure accumulated within the soil. The next illustrations showed that, when farmyard manure was used in excessive amount, for the direct growth of either wheat or barley, the increase of produce by no means corresponded with the accumulation of manurial constituents within the soil; that, notwithstanding an increasing accumulation from year to year, the crops even diminished in the later years under the influence of bad seasons, the increased amount of manure in the soil not fully compensating for the adverse influences of the seasons; and lastly, that the unexhausted residue of the previously applied dung, though yielding a considerable increase for many years afterwards, did so in a rapidly decreasing ratio, and only in such proportion that it would take very many years to recover the manure applied; even if, which cannot be supposed, it were ever fully recovered. In like manner it has been shown, that when artificial nitrogenous manures were used in gradually increasing amounts, the amount of increase obtained for a given amount of manure employed, very greatly diminished when the quantity applied exceeded a certain limit, which may be called the standard of high farming; so that, a given quantity of further increase was obtained only at a greatly increased proportional cost for manure.

"The general and uniform result of the whole is, that, whether we go from high to still higher farming with an ordinary rotation of crops, with large amounts of farmyard manure applied year after year for the growth of grain, or with artificial manures in gradually increasing amounts, less increase of produce is obtained for a given amount of manure applied, the greater the excess of it over what may be termed the standard of moderate high farming."—Concluded next week.

A GOOD CORN MARKER.

Every man has his hobby to ride. I have several and one that I frequently mount is the "Common-sense, bee-line, home-made, reversible corn-marker." Take three pine or hemlock planks 2x8, 3½ ft. long, round one end as shown at a. Place them 3½ ft. more or less, as is desired, apart, and spike on in front a plank (of some light wood) 10 inches wide, two inches thick. About the middle spike on a second one which may be a little thinner.

On the rear end nail a piece of hard pine (or some wood that is fairly substantial) c, six inches wide and 1¼ inch thick, leaving the space (b) five inches wide. Two pieces of 3x4 inch

scantling, slightly thinned at the back end (1, 1) spiked or bolted on, (see d), will make hounds for the wagon tongue or one made for the purpose. The tracker (2) is made of some substantial wood 4½ inches wide and 1¼ inch thick and if the rows are to be 3½ ft. apart, it would be 10½ ft. from g to h. Fig. 4 shows an end view and 5 a side view of the outer end of the tracker (2), as seen at H. The tracker 2 is armed on either side with two beveled blocks bolted on the outer end, and at the inner end with reversible hinge (6) which enables it to be turned from side to side.

If it is desirable to have the furrow wider than the 2-inch runners will make it, a small chamfered inch block may be nailed to either side.

The rear view is at 3, the side view at I, the front end of the runners, should be made sharp laterally and covered with small pieces of sheet-iron.

How to use it: Set three or more stakes and drive once across the field *straight*, with the tracker extending fieldward; at the end reverse it; let the driver stand on the marker at (g). This places him immediately in line with the mark the tracker makes, with the tongue of the implement, and with the center runner. No stakes, no bother, no crooked, or alternately narrow and wide rows, but everything lovely and workmanlike. The one we now have has been in use five years and was made by a student and myself in just two and a half hours. A "one or two marker," is too slow. In a "four or five" one the outside runner is so far from the center of draft that the least obstruction readily turns it aside. I have used a five marker but I never could make a mark that the sun did not warp badly before I reached the other end. But with the one I have described any man or boy that could not draw a "bee line" should be sent to Congress or study law.

I. P. Roberts.

Cornell University.

The Garden.

NOTES FOR THE GARDEN.

Death to the Currant Worm.—As the season is now at hand when the currant worm makes his annual visit, it may be of interest to Rural readers to know that the remedy it gave a year ago is both effective and cheap. As some may have overlooked it, I repeat it: To one pailful of wood ashes add one quart each of white hellebore and flowers of sulphur; mix thoroughly—apply by sifting on the bushes. I used nothing else on my plantation of over two acres last season, and want nothing better.

When the Wilson Albany Strawberry is in full bloom, then apply the Codling-moth bands to your orchards. Our most careful fruit-growers think the practice pays. Examine the bands fortnightly to destroy the larvæ of the moth. Many growers use two bands: one near the branches, the other near the root. They find that two bands are a better protection than one.

H. T. J.

Rochester, N. Y.

Coal Ashes.—To those on heavy soils coal ashes will be found an invaluable fertilizer. Their effect, though entirely mechanical, is marvelous and lasting. I find them fully equal to their weight of stable manure. Those who have no other use for their coal ashes can use them to advantage in filling in low spots on the road. They are almost equal to gravel for this purpose.

Keep the Cultivator going in the corn field. It will pay. Frequent stirring of the soil keeps it moist—unlocks the fertile elements so as to be available for the young plants, and keeps the weeds down. To destroy the weeds before they come up, may seem a paradox, but if followed as a rule of practice, it will save the farmer many a dollar.

The Mildew on Gooseberries has discouraged many from planting the choice kinds. A liberal mulching of coal ashes around the roots of each plant, will do much towards warding off this difficulty—and, in many instances, will remove it entirely.

Why are the apple orchards so full of blossoms? Last year was the "bearing year" hereabouts, and yet many of our orchards that gave us their heavy crops promise a bountiful yield this season.

Insect Pests.—If not already done, destroy the nests of the Canker worm in your apple orchard now. Don't delay the job.

Miscellaneous.

VAN'S VIEWS

On Milch Cows.

We have been in the butter business for several years, supplying private families in town, delivering it either once each week or every other week. We have always got the top price and had no complaints. The demand was greater than we could supply, and we often had to send our customers to others. Last year there was a change. We lost our best customers. I did not believe there was a better butter maker than mother in the county, and I don't believe it yet.

I discovered the secret very soon: the man who cut us out of our trade had a herd of Jerseys and their grades. His butter is better than ours. I own it and our own family all own it. If Jersey butter cuts us out in the local market, how long will it be before it will cut out other butter in the general market? We have a class of enterprising farmers in the butter business in this State, as New York men know to their cost. They will soon take advantage of the fact that Jerseys make the gilt-edged butter.

But cheese? You have me there, you think? Well I never made cheese; but one who has and still makes thousands of pounds per year, writes me that "the more Jersey cream and the less Aryshire gristle you have, the better will be the quality of your cheese."

But I keep forgetting! it is milk you are after. I would extend to you the advice my father gave me some years ago. "When you buy a cow, buy one that gives *milk*, it is much easier to pump water into your pail than it is to draw it from a cow's bag." If you consider that Jersey milk is in danger of hurting your customers' stomachs by its richness, do as the proverbial milkman does. Is it more dishonest to water after it leaves the cow than before?

Fodder Corn.

My back aches and my hands are stiff from finishing sowing my fodder corn. It is a favorite crop with me, and I believe—I have no means of weighing and cannot tell exactly—I can raise seven tons per acre. I use Pratt's Early sweet corn and drill with a Planet Jr., in rows two and half feet apart. Cut when it silks out and tie in large stooks and leave till wanted for use: what is wanted for use while green, is cut and allowed to wilt a few hours before feeding "When my ship comes in" I mean to have a large hay cutter with a carrier, to run by horse or steam power and cut my fodder, mixing it with rye straw as I feed it in the machine, and hoping that so stowed it will keep safely.

Tent Caterpillars.

are a nuisance. I have been burning them out all the week, but they are "not all dead yet." It is going to be "war to the knife" if I have to cut the throat of each individual caterpillar. If I had been as good a student as I should have been, I would have known how to find them before they hatched out, and by destroying them then have saved much trouble.

We need rain the worst way in the world. Wheat looks thin, oats are yellow, corn can hardly stand alone and my plum orchard I have just set out, looks as if it didn't like things very well.

Brown Co., Wis.

SHEEP vs. DOGS.

Dogs! dogs! At last I am disgusted. On every side we meet a dog. People who are so poor that they can hardly get enough to eat, must have at least one worthless cur and often two or three, notwithstanding the tax which they must pay; but the tax is not half high enough. It should be so high that a poor man who has no earthly use for a dog, would kill it rather than pay the tax; and if a man has a good dog and a use for him, he can afford to pay a higher tax than fifty cents.

In some places sheep husbandry has been nearly abandoned on account of these worse than worthless dogs. Now, I claim that it costs no more to keep a sheep than to keep a dog, and if the dogs were disposed of and their places taken by sheep, some profit could be had. In the rural districts at least, any one who keeps a dog could keep a sheep, and if this change were made we should hear far less of hydrophobia and its terrible results, to say nothing of the many accidents caused by horses getting frightened by a dog running out and barking at them.

Perhaps I may provoke the ire of some reader, but I can't help it. It can not be disputed that there are far too many dogs, and many evils in consequence, and I say let the number be reduced. F. H. D.

CATALOGUES, &c., RECEIVED.

Mr. Peter Leclair, of Winooski, Vt., sends us pedigrees and particulars of his herd of pure-bred Jersey cattle, imported from acclimatized English stock. Mr. Leclair believes this stock to be superior because it is from fine Island cattle in the first instance, that have been imported into England, and there carefully bred and improved by experienced and intelligent breeders.

The annual meeting of the American Nurserymen's Association will this year be held in the new court house at Cleveland, Ohio, commencing June 18, and continuing three days. There will be interesting papers by well-known men, and altogether a spirited meeting is anticipated.

Twenty-First Annual Fair of the New Jersey State Agricultural Society, at Waverly Park, to commence Sept. 15, 1879, and to continue through the week. P. T. Quinn, Cor. Sec., Newark, N. J.

Schedule of Premiums of the Virginia State Agricultural Society, at its Nineteenth Annual Fair, to be held in Richmond, to commence Oct. 28, 1879. W. C. Knight, Sec. and Treas.

Quarterly Report of the Chief of the Bureau of Statistics relative to the imports, exports, immigration and navigation of the United States for the three months ending Dec. 31, 1878.

Premium List of the Twenty-Seventh Indiana State Fair, to be held at Indianapolis, Sept. 29 to Oct. 4, 1879. Alex. Heron, Sec., Indianapolis, Ind.

Industrial Implements.

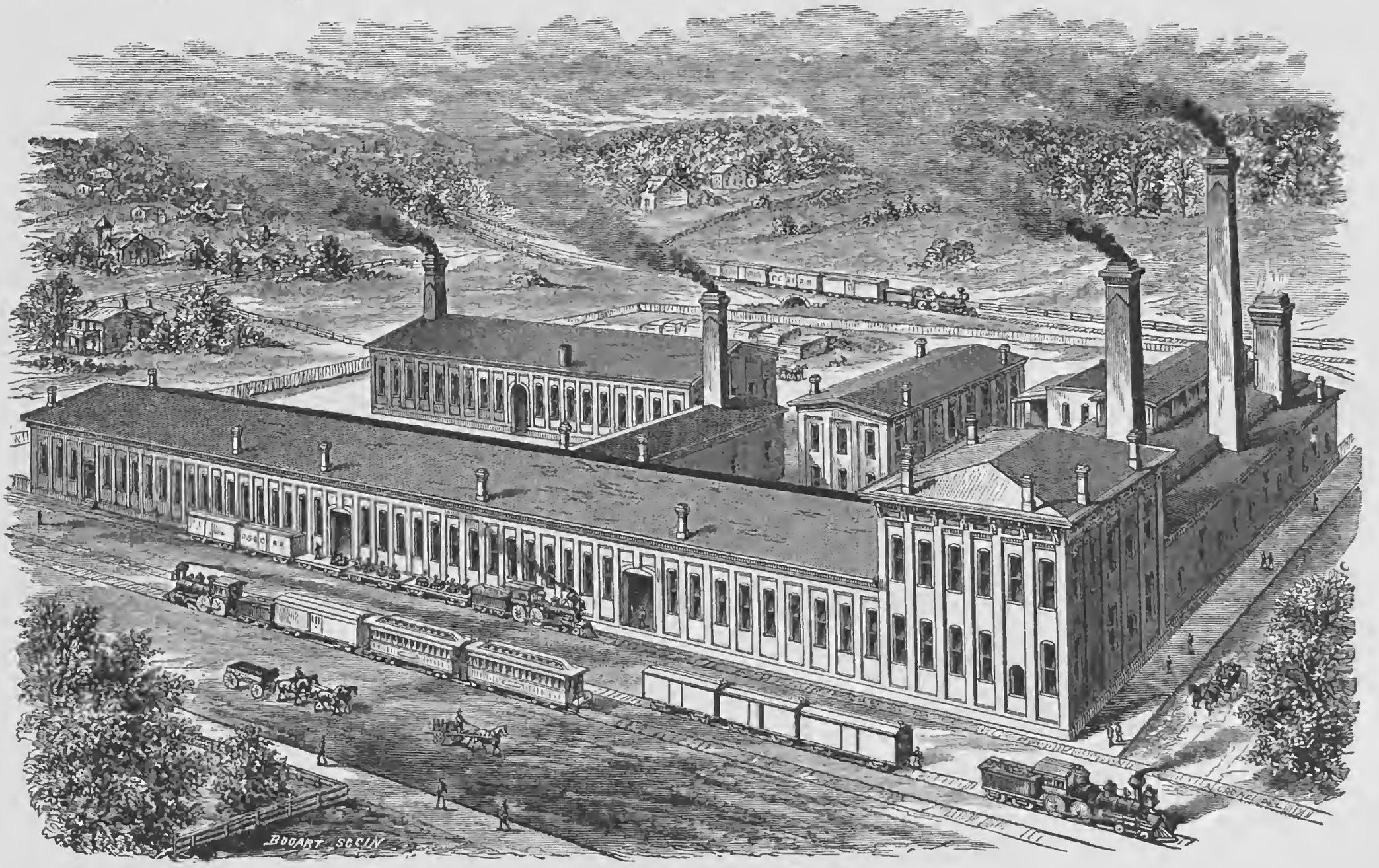
THE NEW SHOPS OF JAS. LEFFEL & CO. AT SPRINGFIELD, OHIO.

The measure of the growth of manufacturing industries is clearly marked by the extent and completeness of the shops in which the business is transacted. Not often are spacious works and an expensive plant, among the first liabilities of new concerns, hence then, monumental establishments, as asserted, are marks of the rising tide of prosperity.

We give, this week, a handsome illustration of the new works of one of the largest firms in Springfield, Ohio,—a place quite noted for its manufacturing industries. The structures cover several acres of ground. The main building is occupied principally by the machine shop, and the "L" contains the foundry. Besides these, there are large pattern shops, blacksmith shops, core rooms, and offices; as well as projected boiler shops, etc., which are detached from the main building. These works form probably the most extensive and thoroughly equipped establishment in the world for the manufacture of water wheels.

The heavy nature of much of the work done by the firm renders it desirable that most of the shops be on the ground floor; a portion of the main building, pattern shops, etc.,—is, however, two stories high. All the departments have ample capacity, are conveniently arranged, and well lighted. There being no available water power suitably located, the power is furnished by an upright double engine. The works are furnished with unusually fine railroad facilities—much better than heretofore possessed inside the city. The trunk line of the C. C. C. & I. Railway passes the door at one side, and the C. S. & C. Railway runs the full length of the shops on the other. In addition there are special side-tracks owned by the firm, all furnishing the most admirable facilities for expeditious loading and prompt shipment.

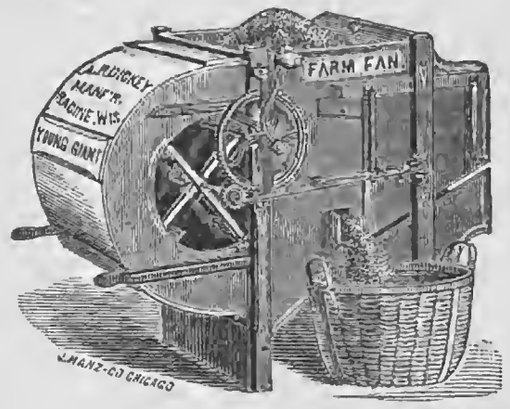
This large area is devoted mainly to producing the two notable products of the firm, the Leffel Turbine Water-wheel, and the Brookwalter engine, both of which are known favorably over a wide extent of territory. These new works with improved facilities, and the low price of the raw material, have enabled the firm to add to the excellence of their work, while at the same time reducing the cost. Price lists and descriptive matter may be had by the interested reader.



New Shops of Jas. Leffel & Co., at Springfield, Ohio.

DICKEY'S FANNING MILL.

While some machinery is valuable because it economizes labor, there are other kinds whose use increases the value of the product



treated. Fanning mills are included in the latter class. A good farm fan mill not infrequently adds as much as five cents per bushel to the price of grain by putting it into cleaner and better shape for market. When the profits have to be calculated so closely as at present, the margin of gain may lie entirely in such saving. The farm fan illustrated this week, is made by Dickey & Pease of Racine, Wis. M. A. P. Dickey is a pioneer in this branch of manufacture and the works at Racine, which have just been enlarged to meet the extra demands made upon them, are among the most important in the country. The mills are made in nine sizes, adapted to all wants, and have a capacity of from 40 to 400 bushels per hour. Extras for cleaning small seeds are supplied additionally. The favor with which this fanning mill is received may be judged by the statement that, in one week, orders were filled and shipped to nearly every Northern State, to California, Montana, Colorado, Texas and New Mexico, as well as to Scotland. But a short time since 26 were sent to Australia. For over forty years Mr. Dickey has been in this business, and it has grown steadily until at the present time, two hundred fanning mills per week are required to meet the demand.

The Lane and Bodley Co.'s farm Engine has many merits that strongly recommend it to farmers and thrashermen. The workmanship is very thorough, and the design combines many good points. The maximum amount of power to be obtained by the least amount of fuel has been one of the chief ends of the constructors. The engines are carefully tested before being delivered to purchasers, and the boilers are insured for one year. Their descriptive pamphlet will be sent on application.

Everywhere.

NOTES FROM NORTH CAROLINA.

This county has a large quantity of grain and cotton planted. The rains have been most timely and not too frequent or heavy. Corn is doing excellently, has a fine stand, is clean, and, to show the stage of its advancement, one farmer about 1¼ mile from Lowell, is getting ready to "lay by" one field. Wheat, oats, etc., will make fair crops; no rust, weevil or insect of any kind. The grain crops would be very full, but for a strange practice our farmers have of pasturing their grain fields all during the winter and until late in spring; for here all small grains are sown between September and Christmas, and out-of-door farm work done every month in the year. Now, if a people expect a grain crop to support animal life half the year while it is growing, they ought to expect short returns for bread findings for humanity. Still, with all this and the shallow plowing, want of cultivating and keeping lands in order, the yields are very fine—wheat will yield over 12 bushels per acre. Cotton fields are all clean; the plant is in healthy condition and is considered safe. The fruit crop was injured by a late frost, and peaches will show perhaps one-third of a crop. The lands about here are cheap and fertile, and the owners desire an infusion of good, working, self-sustaining Northern people who have some means to start with. By working lands here to anything near the extent and way the farmer North does, he cannot fail to lay up a competency. There are now at Lowell two cotton mills, employing over 300 people. These are operated by water power, there being two dams; that is, two powers now in use, either of which is, by demonstration, a better power than the water power at Rochester, N. Y. There are several Northern families now settled at Lowell and in the vicinity, and the change in the appearance of things is manifesting itself. Some neat six-room cottages are being erected, and the owners of the place own the mills and some 1,500 acres of land, and want a diversity of industries.

A cooper who could make a *good* barrel would find a place here where he could sell more ware than he could make, and get cash for his work. There is not a cooper within 70 miles, and cooper's ware is in demand. Timber, of all varieties, is plentiful; oak, ash, pine, hickory, walnut, etc. A good blacksmith who could and would do repair and job work, and who could turn his hand to machinery repairs occasionally in the mills, would find a good, paying business, which would grow. Also a good wagon maker, who would repair wagons, make and repair woodwork of plows, harrows, etc., will find a fine field. Some one who would make spokes, rims, felloes, etc., can be guaranteed a market for his product, abundant material to work on, and good terms as to room and power for his machinery. A woolen mill is needed, and by no means the least worthy of consideration is the making of spools, shuttles, bobbins, etc., for within a radius of eight miles, are four cotton mills besides the two at Lowell, and all these send North for supplies, when the material and power is here on the spot, and within a radius of 40 miles are over 15 cotton mills, all making money, and running night and day. Mill-hands' wages are lower than at the North; but living is cheaper, and no one is extravagant. Building lumber ranges from $8.50 to $10.50 per 1,000 feet, while fine building granite can be had for but little more than the cost of quarrying. Lowell is on the Air Line Railway, 16 miles from Charlotte, has a good depot and store, and a rich country. Lands are cheap; the cotton manufactory has been in operation 27 years; a new mill was finished a year ago. The place and country are very healthful, the days are not too hot, and the nights are always cool and refreshing. GASTON.

Lowell, Gaston Co., May 29th.

RURAL SPECIAL REPORTS.

OHIO, Painesville, June 3.—We have had a sadly dry time hereabouts, and farmers are much discouraged. In view of the probably short crop of hay, farmers will do well to sow a few acres of corn fodder. Hungarian grass is another good substitute for hay and can be sown as late as the 20th of June, though from the 10th to the 15th is better. It is a very sure crop and easily grown, sown like wheat or oats. Grape vines need attention at this season, not only to keep the young shoots well tied up, but to prevent their growing so thickly as to exclude air and sunshine. On examination it will be found that two or three shoots often start from one bud, and in such cases only the strongest one should be left to grow—the others be nipped off while quite young and brittle. After another week or two it will be time to commence thinning off the clusters of blossoms, as the majority of vines incline to bear twice as much fruit as they can well bring to maturity. Wheat is badly injured by the drought, beginning to head with very little stalk. Many fields, it is thought, will hardly pay for harvesting, and with good weather hereafter the average cannot exceed one-half a fair crop. Grass is suffering badly, especially old meadows and pastures. Those of recent seeding will do fairly if good rains come soon; but the hay crop must be light, perhaps half an average. Oats have come up poorly except the earliest sown, and all are backward; with good rains they may yet come on and make nearly a fair crop. Corn, on the best soils, where planted early, came up fairly and may yet do well, but the majority of fields have not come up, and much of the seed has perished after sprouting, hence the land needs to be replanted immediately. M. B. B.

NEW HAMPSHIRE, Winchester, June 2.—We have just had a few very hot days, the mercury being in the neighborhood of 100° some of the time. Peaches promise well, every tree being in full bloom; so are most of the apple, pear and cherry trees, etc. Potatoes are selling for $1.40 per bushel. A good many have been planted; some are up six inches. Considerable planting has yet to be done. Vegetation has grown rapidly and the season comes as early as usual. The Azalea nudiflora is especially noteworthy, with flowers of various shades of pink and deliciously fragrant. Leaving out the Rhododendron, that grows in only two places here, this Azalea is undoubtedly the finest flowering shrub in New Hampshire, and it is a wonder that it has not been introduced into cultivation extensively. It grows some six feet in hight, and is naturally of a roundish form in open places. This is said to be the only species found in this State. Of herbaceous plants, in May, Trillium erythrocarpum, or the Painted Birthroot, takes the lead. The Painted Trillium is a name well given, as all will note who see it in its native haunts. Corallorhiza innata is a rare orchid that I have found here; another rare plant is Mitella nuda, with green, pinnatifid petals, found in a swamp. Plants and flowers have a freshness here unknown further south. Blueberries promise a large crop, and so do Raspberries, Blackberries, Strawberries, etc. At Northfield, in the Connecticut Valley, a few miles from this place, Blackberries are in bloom. The valley presents a vivid contrast to this section, which is made up of steep hills and small mountains, making it a delightfully picturesque summer resort. E. S. W.

NEW YORK, Elmira, June 2.—Chemung Co. farmers have found little in the weather to encourage them this spring. The season has been cold and backward, and for the past month the weather has been very dry, which has been decidedly unfavorable to growing crops. We had but one shower during May, and wheat and spring grains are suffering through the lack of rain. Winter wheat was generally sown late last fall, and, as the weather was dry, it made but little growth before winter. In consequence of this and the cold, dry spring, the wheat crop will be light in this part of the State. Oats, barley and spring wheat are backward, owing to the protracted cold, dry weather. On the nights of May 21, 22, 23 and 26, respectively, we had hard frosts, which did considerable damage, especially to the fruit crops. Corn and potatoes were cut back, and young seedings of clover and timothy are injured in places. Grass is making slow growth. Old meadows will certainly produce sparingly. The high prices received for potatoes last fall and winter have been the cause of a large amount being planted this spring, and if the season is favorable, the crop will doubtless be large and the price low. Tobacco-growers are anxiously waiting for rain, so that they can set their plants. It is estimated that one thousand acres of tobacco were cultivated in this valley last year, and the high prices realized for the crop will cause an increased acreage for the present season. Probably 1,500 acres will be set to tobacco this year. Some attention is being paid to the subject of sugar from beets, and many farmers are planting a small quantity of beet seed by way of experiment.

G. A. G.

NEW YORK, Syracuse, June 2.—We are having a severe drought in this vicinity. During the month of May no rain fell, except a few slight sprinkles, hardly enough to lay the dust. The ground has not been wet down an inch since the middle of April. As a consequence, everything is suffering for rain. Determined to save my strawberry crop, I bought a force-pump and watered the plants well, but on the 23d and 27th we had severe frosts that killed at least one-half of my crop, so that, with the drought and frost, one will earn his strawberries this season. My pump will fill a barrel in four minutes, works easily, but still it is no light task to water an acre or two of Strawberries. Mulch is the cheapest and best remedy against drought. The frost injured my Grapes badly; 400 vines, set last year, look as if a fire had passed over them—not a green shoot or leaf is left. I am fearful that many of them will never grow again, and as a number of them cost me $1.50 each, it is rather disheartening. Plums, Pears and Cherries generally escaped the frost, and will be a good crop. Apples, for the "off year," blossomed very well, and we shall have a partial crop. Grass, wheat and corn look poorly, and the potato crop is not as well advanced as is the crop of potato beetles. N. R.

FLORIDA, Tallahassee May 27.—We are having a good season for working crops. The increased price of cotton has helped the hopes of the planter, as at ten cents per pound, it will pay to raise it, but a poor living is made by it at seven cents. This is the country for the poor as well as the rich man. A small farmer showed me a check yesterday for $174.20 received from New York as the proceeds of a shipment of potatoes raised on 1¼ acre, and this after paying freight, commission etc. He has cotton growing on the same land six inches high, and expects to make a bale of cotton worth $50 or $60. Such land can be bought in lots of from 15 to 100 acres at $5 per acre. I saw last week by one train, nine carloads of cucumbers and tomatoes. Roasting ears are plenty and other vegetables a drug. The negro exodus unfortunately has not reached us. Every town has a few hundred idle ones that could be well spared, and should they go, they will be pronounced "true patriots who left their country for their country's good." But I would advise the chickens to roost high where they settle. A SUBSCRIBER.

RURAL FARM, Queens Co., L. I., June 6.—Too much rain. The Blunt corn plot much injured. Cool, windy weather. Now is a good time to pull up wild radish from oat fields, etc., while it is in bloom. It is impossible to do so after the yellow petals fall, when the plants, being of about the same hight as the oats, can no longer be determined. Pearl millet has made only about two inches of growth. Looking at these slender blades now, it seems impossible that they should grow with such wonderful rapidity and vigor a little later. The rows of Doura are now well marked, and the plants are four inches high. Wheat is looking magnificently. A large hay crop is assured. Dr. T. H. Hoskins, of Newport, Vt., has just left us, after a visit of two days, the pleasure of which was greatly marred by almost incessant rain. While, however, he saw less of the Rural Farm and very little of the experiments we are carrying on, we had a better opportunity of listening to the results of his life's experience, which were freely and very pleasingly imparted.

CONNECTICUT, Berlin, June 3.—The spring was quite late, but vegetation is coming forward very rapidly now. Pear trees gave promise of the greatest yield for years; apple trees, for the non-bearing year, promised well; but heavy frosts on May 9th and 10th injured fruit very much, and, excepting in sheltered localities, fruit will not be abundant. The small fruits suffered some, also wild berries. Grass looks well on rich upland, but on low grounds it will be very light. The currant worm and potato bug are very abundant; so, also, are other injurious insects, except the "tent caterpillar," which is not frequent this year. The frost referred to, injured potatoes, corn, beans, etc., very much, and some have planted their fields a second time. The dry spell, following the frosts, prevented the corn in some fields from coming up, so that has to be planted over. IPSE.

NEW YORK, Whitney's Point, June 3.—May has been cool and dry—only two light falls of rain during the month. Oats were sown from the 1st to the 10th; potatoes planted from the 10th to the 17th; corn, from the 17th to the 31st. Cherry trees are in full bloom; apple tree buds bursting. Light frost on the 22d, 23d and 24th; no damage done to fruit. On the 27th there was a hard frost—ice froze ¼ inch thick; fruits of all kinds were damaged. Sprouts, three inches long, were frozen on grape vines; ash and chestnut trees look as if they were burnt with fire. Oats look very badly, owing to the drought. Grass is very backward, and unless we have plenty of rain during this month, the hay crop will be very light, especially on the hills. Eggs cost at the door 10c. per doz.; potatoes, 50c. @ 65c. per bush.; hay $9 @ $10 per ton. Corn and potatoes just coming up. M. B. B.

PENNSYLVANIA, Wallsville, Lackawana Co., May 29.—The weather has been quite cold for this time of the year—three frosts last week and another four days ago; neither of them, however, were severe enough to do much damage. Pears, Peaches, Cherries and small fruit are in full blossom; Apples, however, are not so far advanced as the others. Corn and potatoes are nearly all planted. Grass and oats look well. But little winter wheat is sown hereabouts, but that little looks well, especially that sown early. The wholesale prices at Scranton, about 15 miles south of this place, are: corn, 56c.; oats, 45c.; potatoes, $1; butter, 13c. to 15c.; eggs, 12c. W. E. M.

ILLINOIS, Deer Park, La Salle Co., May 31.—Weather warm, some days reaching 90°F. The recent rains have proved very beneficial, but the hay crop in this section will be scant. Nearly every farmer who planted corn prior to May 10th, had to replant—the weather was so cold and dry that the corn rotted. Cutworms have been very destructive on sod, in some instances cutting down whole fields. Potatoes look well. Rye is headed out and promises a heavy crop. Strawberries are ripening; the Wilson seedling seems to take the lead, having withstood the drought better than other varieties. U. S. E.

N. Y., Corning, May 28.—We are pleased with the articles on cash payments, that have lately appeared in the RURAL. We know of no topic the advantages of which it would be more beneficial to impress upon farmers and others than "Cash" *vs.* "Credit." We are glad to see the RURAL take up the subject, and believe it will do as much good in that direction as if it could show its readers some new and successful method of getting money out of the ground where before they got none.

B. W. P. & S.

CONNECTICUT, Poquonoc Bridge, June 2.—Weather cold and dry; no rain to speak of since the first of last month. We had two severe frosts last week, and farmers claim that considerable damage was done to their crops. What potatoes are up are already attacked by the beetles; the pests will make quick work with the whole crop, if it is not attended to in season. Money is very scarce hereabouts. Corn, 75c. per bush.; potatoes, $1.50; butter, 20c. per pound; eggs, 12c. per doz. M. W.

ALABAMA, Selma, May 29.—The weather here is warm and dry. Crops are suffering from want of rain; yet all are still doing pretty well and folks are hopeful. I began picking strawberries on the 4th of April, and I am picking them yet. My vines are still covered with young ones together with plenty of bloom. Fifteen miles north of here, however, strawberries have already "given out."

J. M.

WISCONSIN, East Troy, May 30.—Weather very dry here. We have had only one good rain this spring. What winter wheat there is here is looking well. Early-sown spring wheat appears poor, but late sown is good. Spring has been very backward. H. A. T.

KENTUCKY, Sherburne, May 26.—The weather here has been very dry; many farmers have planted corn a second and even a third time. The prospect for the wheat crop, however, is fine in this section. C. E. R.

PENNSYLVANIA, Laceyville, Wyoming Co., May 26.—We are having splendid weather. Crops look well except wheat, which was partly winter-killed. Corn is mostly planted.

P. M. L.

NEW YORK, Rochester, May 31.—I deem the RURAL's editorials on "Cash *vs.* Credit," timely and exceedingly good. They "hit the nail on the head" every time. H. T. J.

The Querist.

ANSWERS TO CORRESPONDENTS.

To all Querists.

We are in receipt of numerous queries from persons who sign either their initials or a *nom-de-plume*. It is the regular rule of journals to pay no attention whatever to such communications. The full name and address are always required to insure notice, seldom for publication, but as a guarantee of good faith and for other reasons. For instance, many of the queries signed in this way are not of such general interest as to deserve a place in our columns, while we should be willing to answer them through the mail were the full addresses given. We wish, therefore, that our friends should in future give their full addresses, in writing to us, and thus comply with the rule which all papers have established for very excellent reasons.

Chicory for Coffee — In-and-In Breeding.

U. T. S., Bear Canyon, Colorado, asks, 1, how to prepare chicory for coffee; 2, has it ever been proved that in-and-in breeding of stock is as injurious as is often supposed.

ANS.—As a substitute for, addition to or adulterant of coffee, chicory is largely used both in Europe and this country. For this purpose it is grown extensively in Yorkshire, England, as well as in Belgium, France and Germany, and of late has been largely naturalized on this side of the Atlantic. For the preparation of the article, the old, stout, white roots are selected, and, after having been washed, are sliced up into small pieces and kiln-dried. In districts where this industry is largely followed, the material in this condition is sold to the chicory roaster, by whom it is roasted until it assumes a deep brown color. It is then ground, when, in its external characteristics, it is very much like ground coffee, but entirely destitute of its pleasing aromatic odor. Neither does the roasted chicory possess any trace of the alkaloid coffeine which gives their peculiar virtues to coffee and some other diet drinks. Chemical analysis shows that chicory possesses few elements in common with coffee, and contains very little of the nutritive properties often claimed for it. Where it has been largely used for a long time, it is said to be

injurious to the nervous system. It gives coffee additional color, bitterness and body, and it is claimed by some that as a sedative, tonic and diuretic, it modifies its stimulant and irritant effects. For a hundred years it has been widely used in connection with coffee, and in Belgium its infusion is largely drunk as an independent beverage. In England the sale of a mixture of coffee and chicory is legalized on the proviso that each package be labeled "Mixture of Coffee and Chicory."

The term in-and-in breeding always indicates the breeding of animals closely related; yet no definite rule has been established as to the degree of relationship, in the breeding of animals, to which it should be applied; consequently, almost every prominent writer uses it with a different shade of meaning. The prevailing differences of opinion as to the results of the practice are—to some extent, at least—due to this diversity of meaning. The opponents of the practice claim that it produces a predisposition to disease, a lack of fecundity and a general delicacy of constitution, and bring forward very marked instances of such results, to illustrate their opinions. Sticklers for the practice, on the other hand, maintain that, from Bakewell's days downward, every breeder who has become distinguished for the results of his labors, has invariably largely practiced in-and-in breeding, and found it an effective means towards realizing his ideal. The best opinion, however, at present seems to be that while close in-and-in breeding is inevitable in the formation of improved new breeds, or on the first introduction of old breeds into any new country or section, the continuous use of the practice is unadvisable, as calculated to produce the injurious effects claimed by its opponents. Very much has been said, and very much more will yet be said, on both sides of the question, which is too broad for adequate treatment within the limits to which each topic in this Department must be restricted.

Budding Roses, etc.

M. A. B., address not given, asks the proper time for budding Roses; also, whether Quinces can be successfully grafted, and when. He has repeatedly grafted Quinces in the spring, but the experiment has invariably resulted in failure.

ANS.—Two requisites are necessary for the budding of Roses—a well-matured eye, or bud, and a thriftily growing plant, or stock; they can be budded at any time whenever these can be obtained. The buds of most varieties are generally not sufficiently mature till July; hence it is the practice to bud Roses in the latter part of July and the beginning of August. Inserted at this season, the buds will remain dormant till next spring. Quinces should be grafted in the spring, the same as other fruit trees. If the stock is young and vigorous, the cion mature and the operation properly performed, we see no reason why it should be a failure. Splice-grafting will, perhaps, prove most successful.

Caponizing Chickens.

Rural Reader, again no address, asks, 1, at what age should chickens be caponized; 2, how long will it take caponized fowls to attain full size and weight; 3, what will that weight be; 4, what feed is best to make them grow rapidly. 5, where is the best market for capons.

ANS.—1. Chickens intended for capons may be operated on at any age, but when they are two or three months old is considered the best time. Old birds seldom survive the operation. 2. Capons should be kept to the age of 15 or 18 months, which will bring them to full size and also into the summer months, when poultry usually fetches a good price. 3. The alteration of a chicken into a capon will nearly double the size of what he would otherwise be, in from ten to twelve months. 4. The ordinary diet for fattening poultry. 5. Large cities or special customers in small towns.

Injured Frog in a Horse.

M. G. R., Thoroughfare, Va., has a horse that trod on a sharp stump, badly hurting the frog of one of the hind legs and at the same time painfully spraining the joint, and he asks what treatment should be practiced.

ANS.—If we knew in precisely what manner the frog is hurt, whether it is torn or only bruised, a definite reply could be given. Now it can only be said that the treatment should be such as would hasten the healing of the hurt, either by poulticing the part to remove soreness, or by applying some stimulant, such as compound tincture of myrrh. The sprain should be treated by frequent rubbing with some active liniment, by bandaging, and more especially, rest should be given. If there is much inflammation and swelling in the joint, these should be reduced by frequent fomentations with cold water.

Uses of Beeswax.

J. M. G., Tullahoma, Tenn., asks us to mention the purposes for which beeswax is chiefly used.

ANS.—Beeswax has so large and varied an employment in the arts that it is a difficult matter to say for what purpose it is of most importance. From time immemorial it has been used for wax figures, flowers and ornaments of all kinds; it is used by tailors, sailmakers, shoemakers and others; it is now used extensively for the manufacture of artificial comb foundation; it is used for candles, for grafting-wax and many other purposes.

Miscellaneous.

A. B. C., St. Mary's, Ont., asks how to make Geraniums bloom in winter; she gets an abundance of fine foliage but no flowers. She has also a Cactus which refuses to bloom, although cuttings taken from it produce flowers.

ANS.—Geraniums must have a season of rest during the summer if they are expected to bloom in winter. Keep the plants in pots out-of-doors, under the shade of some tree, till September and water sparingly. In the beginning of September shake the soil from the roots, replant them in rich sandy loam, and bring them forward to the sun and air. Place them in a sunny window, in-doors, when there is danger of frost, and when they begin to grow give them an occasional watering with liquid manure. They need plenty of sun and air and a comparatively low temperature. In a hot room they will not do well. Your Cactus is probably growing too fast. It needs but little water, plenty of sun, and should have a small pot with light soil.

C. H. J., Eddyville, Ky., a philanthropic old gentleman as he is, has taken the trouble to write us a long letter, in which he explains that he has in his possession a recipe for the cure of hydrophobia—a wonderful recipe; he tells of a man who was bitten by a mad dog in 1780, and a single pill made after his recipe cured him, at any rate he never got mad. C. H. J. is now 75 years old, and as he cannot reasonably expect to live much longer, he wishes to "leave this great remedy to the rising generation," and, although it has once been sold for $10, he offers it to us at the very low price of $1, stipulating, however, that we should pay the postage. We are sorry to be obliged most respectfully to decline this liberal offer; but newspaper men are not good keepers of secrets as a general thing, and we fear this one would be lost if put in our hands.

Mrs. C. S. L., Canyon City, Oregon, tells us that bees at that place cost $40 a hive, and being desirous to obtain some, she asks if pieces of comb with young bees can be sent by mail.

ANS.—Bees cannot be sent by mail. A law has been passed forbidding it. They can, however, be sent by express for short distances, if well packed up and the express will agree to take them. Pieces of comb containing unhatched brood, we should think would not interfere with the Post Office law, if the bees do not hatch before they reach their destination.

H. M. S., Iola, Kansas, sends a specimen of a prairie flower for name. She describes it as of a creeping habit, from three to four feet long and blooming about the close of April.

ANS.—It is Schrankia uncinata—(Sensitive Brier). It is a polygamous plant, and the twig sent, bears only staminate flowers.

A subscriber from Alabama sends us a Rose and asks for its name.

ANS.—It is a sport of some Hybrid Perpetual; farther than this we are unable to name it. The garden Roses are so infinitely numerous that it is no easy matter to pronounce with certainty upon any but the best known varieties.

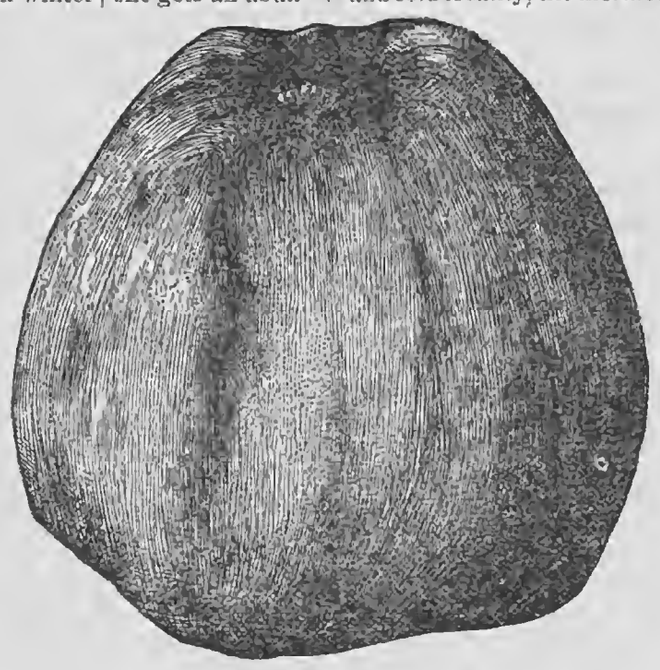
COMMUNICATIONS RECEIVED FOR THE WEEK ENDING SATURDAY, JUNE 7th.

T. I. E.—H. S.—E. W. S.—M. A. B.—U. S. E.—G. W. D.—J. N. J., we will try them.—E. O. N. R.—M. L. S. thanks.—G. A. G. Jr.—N. R. thanks.—M. B. H.—Marian—Grandmother.—Mrs. C. M. C.—A. A. L.—C. D.—Thanks.—J. D. T.—E. S. W.—A. B.—N. C.—M. B. D.—M. W.—A. B. C.—O. C.—S. U.—W. F. thanks.—W. M. K.—M. B. B.—H. B. N.—S. I. G.—R. M. N.—R. B. H.—C. T.—H. C. S.—G. C. W.—T. S. G—J. H.—D. A. R.—R. A—A. R. S.—J. E. L—W. I. B.—N. B.—F. D. C.—S. C. S.—M. L. S.—

Pomological.

SCOTT'S WINTER APPLE.

THIS apple originated as a seedling upon the farm of Wallace Scott, on the west shore of Lake Memphremagog, about a mile south of the Canada line. This is a very exposed and cold locality, the thermometer sinking often in winter to 30 deg. below zero, and in exceptional seasons so low as to freeze the mercury in the bulb. This tree has proved entirely hardy, and nursery trees grown from it have shown no loss of resisting power in equally exposed situations, where some are now in full bearing. The first grafts from the original tree were made by the writer in 1868. The young trees began to bear, on his farm in Newport, Vt., in 1874, and last season yielded at the rate of two bushels to the tree. Specimens sent to Mr. Downing, and later to Mr. Thomas, met their approval for beauty, but the quality was thought too acid for a dessert fruit. This was also the opinion of the writer until the present season, when it appeared that they had been tested too early. The Scotts's Winter is a first-rate keeper, being fresh and crisp up to the middle of June; and after April 1st it mellows, loses it sharp acid quality, and reveals a brisk, spicy flavor beneath it, which was as much a pleasure, as it was a surprise to those who, valuing its productiveness as well as its early and profuse bearing, had mourned its supposed lack of dessert quality. It is now thought by experienced pomologists that Scott's Winter may fill the great want in the colder parts of Canada for a long-keeping apple of good dessert quality to grow for shipment to the English market.



SCOTT'S WINTER APPLE.

Scott's Winter is a fruit medium to large in size, tending, by its habit of overbearing, to run under the dimensions of the cut, which is also rather too conical. On a yellow ground it is heavily splashed and often nearly covered with a dark red. The red color extends more or less to the core. In form it is roundish-conical somewhat ribbed, (but rather less, usually, than in the cut). The core is small, seeds small and dark brown, stem short, in a medium basin; cavity also medium, calyx open. The peculiar merit of this variety is that it is a long-keeping "iron-clad," and when to that are added its free bearing quality, its beauty, and its usefulness as a culinary apple developing dessert quality late in the season, I think it will take a high position among apples for the "Cold Belt." T. H. HOSKINS, M. D.

Orleans Co., Vt.

FRUIT IN NEBRASKA.

THIS State has acquired a "great and glorious name" all over Christendom for its splendid display of fruit, in one or two cases beating the whole United States at fruit conventions, and easily carrying off first premiums. You will hardly believe me when I tell you that this reputation is a miserable myth. It is true that apples, etc., exhibited at fairs, were grown in Nebraska, and were truly and honestly offered, and as truly won the premiums; but it is just as true that the State of Nebraska, as a State, had no more to do with it than the man in the moon. Down in the extreme southeast corner of this State, bordering on Iowa, Missouri and Kansas, are three or four counties where fruit is grown, but to so small an extent that I have never seen, in eleven years' residence, a single specimen, although I have been within sixty miles of the fruit region, and if the Missouri River in its vagaries had crooked around a little more to the northwest, this State would never have been heard from in fruit conventions for probably a hundred years to come, as a fruit-growing State. There happen to be in that quarter a few—a very few—nurserymen who know how, in that climate and soil, to grow fruit, and to them, and not to the State, is due all the honor.

ALL the fruit used here and throughout the whole State (nearly) comes from Chicago. We have plenty of it, but we don't grow it. When the extreme eastern end of the State is 30 or 40 years older, and the soil is thoroughly subdued from its wild condition, we may have a tithe of our demand met at home. It is humiliating to be obliged to say that the grand State of Nebraska has gained its honor in this line by a subterfuge—but so it is.

Dodge Co., Neb. S. RUFUS MASON.

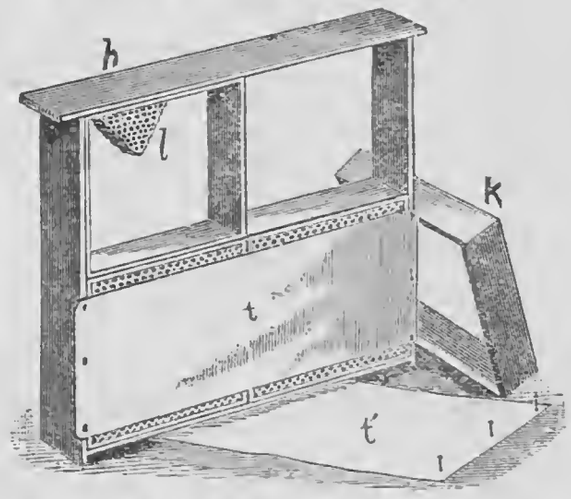
C. W. GARFIELD, Secretary of Michigan State Pomological Society, has forwarded us a circular in which he announces that the tenth annual summer meeting of the society will be held at Muskegon, Mich., June 17th 18th and 19th. Sixteen topics of vital interest to fruit-growers are to be discussed.

The Apiarian.

SURPLUS HONEY SECTIONS.

WHETHER one should mainly produce comb honey or extracted honey must depend upon the market. Comb honey commands the highest price, but considering that the bees gather more if they are relieved of the trouble of capping it, extracted honey may be just as remunerative, especially for a home market. If, however, one intends to patronize a distant market, comb honey is undoubtedly most profitable; it is more attractive and offers no opportunity for adulteration by middle-men.

There are several ways of storing comb honey, which meet with more or less approval by different apiarists. One method is to collect it in sections, or small square frames, each of which will hold about a pound and a half. These sections are placed in the second story, which is but seldom entered by the queen for the purpose of laying, if she has sufficient room in the brood nest. They may be put in



crates which are placed directly on top of the brood frames, put four, six or eight, according to size, in each frame as represented in the cut. The frames consist of strips, two inches wide, nailed together, and are made of such dimensions as to fit the upper story where they are suspended. The sections should fit snugly in the frames. To prevent the bees from building the combs together, two strips of tin, each about five inches wide, are nailed on one side of each frame. If one section in a frame should be capped before the others, it can easily be taken out and an empty one put in its place.

WORK AMONG BEES AND EFFECT OF STINGS.

AT a recent a recent meeting of bee-keepers at Lansing, Mich., Professor Cook said in answer to a query: "I believe the oftener colonies are looked through in summer the better. The bees will get used to it, and will go right on gathering and storing; I have seen the queen keep on laying eggs when I had the combs out. In order not to disturb their operations one must be quiet. Working with the bees will overcome nervousness. When I am feeling nervous and go out to work among the bees, I soon get entirely over it. This matter of fear can be got over by any one. Getting stung gets one used to the poison, so he will not be injured by it. A bee-sting does not swell on me now, and one of the students at the college told me that he was stung yesterday without knowing it, until he saw the swelling some time afterward; yet at first a bee-sting was painful to him. I think this is on the principle of inoculation. Mr. Langstroth said that at first his eyes would swell if he was stung on any part of his body, but he got over this. Mr. Davis does not know when bees sting him, though it sometimes swells on him. Thickness of skin may make some difference."

Now the busy season for the bee-keeper is at hand. From daylight till dark the apiary will resound with the contented hum of the industrious workers. Be vigilant and observing. You must at any time know the exact condition of every colony in order always to be able to perform the right operation at the right moment. Shade the hives from the hot sun wherever it is possible; too high a temperature may cause the bees to desert the hive.

THE
RURAL NEW-YORKER.
PUBLISHED EVERY SATURDAY.

Address
RURAL PUBLISHING CO.,
78 Duane Street, New York City.

SATURDAY, JUNE 14, 1879.

THOSE who are interested in the present crop prospect of the United States will find much to study, in next week's RURAL NEW-YORKER.

IS IT EXTRAVAGANCE?

UNDER the above heading a Western agricultural journal which, by-the-by, carefully avoids mentioning the RURAL NEW-YORKER as the source of the article, criticises, very favorably and fairly, however, our recent remarks upon the system of purchasing on credit. The extensive and generally favorable notice which our articles have called forth from our contemporaries, is proof, if any such were wanting, that they were both timely and pertinent, and that they promise to be useful to a great degree, and in that to subserve the purpose for which they were written.

The journal alluded to professes to believe that we implied that "in order to make their business pay, farmers must deprive themselves of all the luxuries of life and confine themselves to the mere necessities of existence." Nothing could be more uncandid and gratuitous on the part of our respected contemporary. The whole conduct and expression of the RURAL NEW-YORKER forbid any such assumption. If any one particular thought is more frequently or strongly expressed, directly and indirectly, throughout our columns, than another, it is, that farmers should by all means avail themselves of every advantage for comfort, pleasure, and enjoyment in life, that their calling should secure to them. To this end this journal is thoroughly devoted, and we defy any reader, be he or she ever so prejudiced in our disfavor, to rise from a perusal of any number without feeling that the culture of the intellect and of the amenities of social life, are served as faithfully and as energetically as the most practical interests of farm and garden. The fact is, that to a strong sense of what is due to our readers in this regard, they owe the expression of our honest ideas on the subject of dealing for cash only, and the avoidance of credit.

The whole of our remarks have for their purpose the elevation of the agricultural interest to independence, comfort and ease of life. They encourage the saving of money that it may be used to elevate; and discourage the reckless spending of credit which keeps a man poor and heaps discouragements upon him. It is not that we would have him drudge; on the contrary, we would lighten his toil and fill his home with all the refinements of rural life and social culture as soon as he has secured the means therefor. To have all these things and owe for them is not any additional happiness. It is "a worm-in-the bud," which feeds upon the blossom of a man's hopes and blasts their fruitfulness. To try to induce any man, woman or child, born, reared or living on a farm, or any mechanic, artisan or workman whatever, to believe that he can enjoy the pleasures and luxuries of life, except so far as he earns them by labor, is wrong; it is false and must be disastrous to the misled victims. We desire no such sacrifices. We would rather utter a warning voice than tempt to a course that must disappoint in the end. It is not extravagance to possess all these things when they can be procured and paid for without going into debt; but it is extravagance to purchase anything but the actual necessaries of life or anything that can be dispensed with, by the use of borrowed money or on credit.

It is also a great mistake to lead the young people to suppose that work is degrading, demoralizing or "too tiresome for anything." Let them do their duty; occupy the walk in life allotted to them cheerfully, faithfully; and enjoy from the fruits of their industry every possible comfort and advantage. It is their right and we will help them to secure and maintain it. But, in the words of our great Teacher, we would admonish them that "these ought ye to have done, and not to leave the other undone." The spirit of the age is not too favorable by any means to economy, either true or false; it has, on the contrary, rather a tendency the other way, and the whole country has been suffering during a cycle of hard times which has been unexampled for severity and duration, from the effects of this tendency. It is time now to be wise. There are many sore hearts, and broken hopes, and homes bereft of prosperity which was built on a foundation of sand. Those build surely, who build slowly and upon a solid foundation; and although our homily may be flavored with a bitter herb, we would offer that as a tonic which may contribute healthfulness and strength.

BETTER FARMING NEEDED.

THE competition among farmers is much closer and sharper than formerly. The time has gone by in most sections of the country when poor farming could insure even the moderate success of making a living. During the last four or five years thousands of farmers have steadily lost money, and unless they reverse the process, it is only a question of time when they must go under. The losses of farmers have generally been attributed to the times and, with the return of prosperity and general revival of business, it has been supposed that farmers' profits would return and everybody could make money again. Undoubtedly the stress of the times has affected farmers as well as everybody else; but the time will never come when any but the best farming will be successful. The nominal success which has always heretofore attended even the poorest farming has been due to the moderate ambition of most farmers and the little with which they have been contented. So long as men are satisfied with hard work and getting little or nothing for their invested capital, and as an outcome making a bare living, it ought not to be difficult to satisfy them. Yet this is what thousands of farmers have done of late years. During the war, and for a few years after, in our era of high prices, most farmers made some money. Old debts were paid, and in some cases better modes of farming were adopted. But the years which have followed have pinched us all. The more expensive habits of living, adopted ten or twelve years ago, are not readily dropped. Prices of farm produce have fallen as low as before the war, and from almost every quarter we are advised that expenses of every kind must be cut down in a corresponding ratio, or everybody will go to ruin.

Undoubtedly this is sensible advice for a large proportion of farmers. Wherever the soil has been allowed to run down; wherever weeds have crept in, increasing the cost of cultivation; wherever, from any cause, the productive capacity of the farm has decreased, an immediate cutting down of living expenses is a necessity, dire though it may seem. But it is foolish for farmers to look at this subject from the standpoint of miserly parsimony. No class of men work harder and none are better entitled to the comforts and luxuries which hard work should obtain. While poor farming may not, and probably will not, make even a bare living, a better management should give the farmer something more. Prudent saving is always advisable, but a mania for retrenchment, such as is now prevalent, is not wise. Much that is said about saving, under the influence of this mania, is sheer nonsense. We have heard farmers talk about reducing expenses by paying less wages, when it was a solemn fact that they would steadily lose money every year if their hired help worked for nothing. What such farmers need is better management, by which the productive capacity of their farms can be increased. After this they may also find it necessary to decrease expenses as much as possible without decreasing production.

Better farming is the specific for most of the evils of which farmers complain. The competition in farming is now so sharp that we shall need better farming than we have had, to prevent absolute losses. We have no expectation, and scarcely any wish for a return of days when slip-shod farming could make money. Poor farming inevitably tends to sterility of the soil, and it will be a blessing in disguise if we have a return of times when only good farming can succeed. But the misapprehension which so widely prevails that the losses of our present farming should or can be remedied by savings, is working incalculable mischief. The present year, with our currency down to hard-pan, offers better opportunities for moderate profits as the result of well-directed efforts than we have seen in years before. The speculative prices which prevailed in war times must not be expected, but farmers who have land in good condition for cropping, will make a serious mistake if they do not invest the labor necessary to secure a crop. It will probably cost less to produce anything now than in any previous year since the war, and the prices of farm products are likely to be higher rather than lower.

ARE WE PROSPEROUS OR DEPRESSED?

IT has been so constantly reiterated, for a few years past, that we are in a depressed and unfortunately impoverished condition, that our own people have come to believe it without any due consideration of the facts. But when had we more capital in improved lands, in comfortable dwellings, in factories for the production of clothes to comfort the body, in furnaces and mills for the production of iron and steel for the manufacture of machines and implements of every conceivable variety, administering to the necessities, comforts and luxury of the people? When had we a capacity to produce more surplus of wheat and corn for bread? When grew we more animals to supply human food and administer to the pleasures of life? When had we more money capital, or any money that sought investment at four per cent? When before were the people able to loan the Government eighteen hundred millions of dollars? When, in the history of the world could cotton fabrics of all descriptions be produced at so little cost? What element of wealth do we lack? If we are in an impoverished condition, it is the poverty of superabundance—the poverty of too much food, too much clothing, too much machinery, too much of all the commodities that administer to the necessities, conveniences, comforts and luxuries of life. We are unfortunate in having too much, unfortunate in not being able to use or sell all we produce.

During the fiscal years 1876, 1877, 1878 and three months of 1879, we have exported $704,243,518 worth of our own products more than all our importations. This is an average of more than one hundred and eighty-seven millions per year, and the average for the last two years has been more than two hundred and fifty-five millions per year. Does this look like financial distress? Two hundred and fifty-five millions per annum more to sell than we want to buy! A few more such years of distress will make us the richest nation on earth. In 1873, the balance of trade was against us over one hundred and nineteen millions. That was the year of the panic. We had thought ourselves prosperous before that, yet from 1863 to 1873 inclusive, we had run in debt every year from 39 millions up to 182 millions. In 1873 we bought 59 millions' worth of iron and steel; in 1878 only nine millions. Here was a saving of 50 millions. On railroad bars we saved 19 millions. We saved 74 millions on cotton and woolen manufactures. We made enough to supply these millions and all we could sell abroad. We are now diligently hunting up other markets—can sell to any new customer we can find. Our distressing poverty has put us in possession of enormous surplus productions and manufactures. Only tell us where we can sell them and we shall be happy.

ENGLISH AGRICULTURE.

THERE is room in the world for all. The briskest competition should engender no feeling of gratification at the reverses of a rival. Therefore it is a matter for regret to notice the unsatisfactory, not to say disastrous condition of English agriculture. English journals are filled with complaints and forebodings of evil. Agriculture was never in so depressed a condition. Rents are unpaid; farms go a-begging; the owners cannot work them; and tenants cannot make enough out of them to pay for labor and for rent. The English farmers are deluged under a flood of American products. The cheap lands of this great continent and our free system of labor—in which we include the privilege to work without losing caste as a gentleman—have borne the fruit which has been so long a-ripening; and our unfortunate rivals across the water are no longer able to compete with us. The gates are now broken down. Our exports are flowing abroad nearly at the rate of one million dollars each day, over and above the amount of imports. This result is the inevitable effect of a law which no man, or nation, can set aside. We could not help it if we would. The best we can do is to offer to our rivals a position by our side where they can share our advantages. Here is room for all. There, the balance is disturbed; here it is suspended evenly and is not likely to be disturbed until our broad fields and plains are fully occupied. And this cannot occur for a century, perhaps for several of them to come.

BREVITIES.

NONE should fail to read the important address of Dr. Lawes on pages 375 and 376.

OUR respected correspondent, Mr. S. B. Peck, of Muskegon, Mich., is now 74 years of age.

FLUID extract of the leaves of Arbor-vitæ is recommended for intermittent fevers and also for rheumatism.

MR. HOVEY implies in English papers that the Horse-chestnut is a faster-growing tree than the Tulip—which is a mistake.

THE Gardeners' Chronicle says that Madame Vilmorin's improved French variety of the Dandelion is, in fact, a very excellent and agreeable salad plant when properly cultivated and blanched.

NOW is the time to use Hellebore upon currant bushes to destroy the currant worm. Use four tablespoonfuls of the powder to a pailful of water.

MR. E. S. RAND, who has been spending a year or so in Brazil, is so enraptured with the climate that he has "little wish to come home." He says it is "the loveliest and most healthy in the world."

DR. HOSKINS tells the writer that he plants twice as many trees in his orchards as he intends to remain, calculating that the intermediate trees will twice pay for themselves before they seriously interfere with the others, and have to be removed.

As stated last year, the quantity of flour or plaster with which Paris-green is mixed to kill potato beetles, may be much greater than supposed. One farmer told us that he used one pound of Paris-green to 300 pounds of plaster effectually. When so used, care must be taken to mix the two thoroughly.

MR. PETER HENDERSON, in the Gardeners' Monthly, says that his experience has never yet shown him a single instance wherein he was *certain* that plants either absorb liquid manure, or even fertilizing gases by their leaves. He states that plants growing in air so strongly impregnated with the effluvia from fertilizer factories that it is almost unbearable, are not appreciably benefited thereby. The air is a gas or rather a combination of gases, and there are plants which live upon the air and thrive. Don't their leaves absorb the gases?

OUR correspondent, Professor Sheldon, of Cirencester, England, closes a note to the Agricultural Gazette thus gloomywise: "The dread silence of despair pervades the country; people have left off grumbling—they have no heart for even that. We are on the eve of a crisis." When we of this country consider our abundant crops during several years past, and the promise of abundant crops for still another season, and think of the agricultural distress in England, we should be thankful indeed. But *thankfulness* is a rare and a puny plant. It is "smothered out" by the ubiquitous weed, *querulousness*.

"AMATEUR" asks in the N. Y. Tribune: "Are the packages of *garden seed in all the stores* kept over indefinitely from year to year until sold? I never knew a dealer to throw any away on account of age. Ought not the law to compel growers of seeds to print the year on the parcel, so that the buyer may know whether his cucumber or onion seed is a year or forty years old?" Any seedsman unprincipled enough to sell dead seeds, would be unprincipled enough to change the envelope and date from year to year. The best way that we know of is for each purchaser to note carefully how well or ill seeds vegetate, and to purchase of those who by his own experience, he believes to sell the purest, freshest seeds.

A HIGHLY novel mode of transporting live stock over long distances has been lately mentioned in several English and Australian papers. It is proposed to throw the animals to be transported, into a profound state of coma, bear them across the ocean in a state of insensibility and revive them on landing. It is said that an Australian has actually succeeded by the injection of a vegetable poison into the ears of certain animals, in producing a condition of artificial death, then keeping the apparently lifeless bodies from decomposition by confining them in a chamber at a low temperature, and finally reviving them by the injection of a special antidote. The only fear entertained by the discoverer as to the complete success of this method of transporting animals, is that there might be some slight breakage during a long voyage, owing to the hard-frozen, brittle condition of the insensible sleepers!

DESPITE the check put upon our cattle trade with England, our importation not of beef only, but also of live animals into that country, is steadily increasing. On the Mersey the facilities for slaughtering cattle after landing, are entirely inadequate to meet the demands of our increasing importations, and enlarged abattoirs are rapidly being pushed forward to completion, both on the Liverpool and Birkenhead sides of the river. Dead meat from this country has already overcome the prejudice against it in some quarters in the Old Country, and is now largely sold as home-raised beef by the London butchers. English families are rapidly becoming acquainted with this fact; the newspapers speak of it; and public opinion is arraying itself against the butchers, not on account of selling an inferior article as English beef, but because they sell at the full price of English beef an article which, though equally good, can be had in the market at a lower figure. Of course, this underhand style of dealing tends to limit temporarily the sale of our beef; but its effects are sure to result in ultimate good. In this way the last vestiges of prejudice will be speedily removed from all classes, and as shops are soon to be opened everywhere for the honest sale of American beef, thousands who have hitherto been paying for it the price of home-raised beef, will be sure to buy it at lower rates.

Literary Miscellany.

DEAD—YET SPEAKING.

[The following beautiful and seasonable verses, which we copy from the Independent, were read at the services of commemoration of the Confederate dead at Huntsville, Alabama, on the 13th inst., by Miss Lutie Meriwether, daughter of the poet, Mrs. Lide Meriwether, who it will be seen has imbued her lines with patriotic fervor worthy the era of brotherly love. —*Memphis Appeal.*

Where broad Ohio rolls her sands to sunlit shores away,
Within a silent city stands a shaft of granite gray,
Reared by a father's loving hand above two noble boys,
The sunlight of his household band—the crowning of his joys;
One wore the blue, and fought beneath the spangled banner gay;
The other bore the southern cross—he "died and wore the gray.

Inscribed on one side, is the name of him who wore the blue,
His age—the battle where he fell—bearing his banner true;
The other bears the honored name of him who wore the gray;"
With simple record how he fell—first in the bloody fray;
The third side holds no laurel crown, no pæan from the fight,
Only these sad and humble words—"But God knows which was right."

Few words and simple! at whose sound a nation's tears shall start,
Born of a mother's deathless love, a father's steadfast heart;
May Time, the great consoler, the redresser of all wrong,
A nation's resurrection see whose voice shall swell the song—
"All honor to the soldier who, with purpose pure and bright,
In gray, or blue, fell, tried and true, to what he deemed the right."

The true, the tried, the sacrificed, are with us now—at eve
They float around us in the shapes these twilight shadows weave,
Like lulling waters fall their loving voices on the ear,
Their shadow forms float upward, through this glowing atmosphere,
As day, departing, leaves behind the glory of his beams
In purple, on yon mountain sides, and gold upon the streams.

We feel, that though invisible, their true and steadfast eyes
Are looking down upon us from the quiet of the skies;
We hear their voices in each breeze that murmurs softly by,
Its music thrills among the trees, stirred by the winds low sigh,
And spirit voices blent in prayer, float up to heaven's hight!
"Keep these, our brothers, in Thy care! God guide them to the Right!"

Then scatter laurel o'er the brave, and lilies o'er the true;
Enwreathe with bloom each lowly grave—*this soldier died for you;*
And let no martyr die in vain; but from each grave ascend
An Easter flower of new-born Love—triumphant to the end!
Clothed in the perfect panoply of Charity's great might
Uphold us with Thy mighty hand! God, keep us in the right!

AN UGLY GIRL.

(Continued from page 367.)

CHAPTER XXIII.

SUMMONED HOME.

IRENE was indeed in need of consolation, as her perturbed face testified when she came in to her brother's room soon after.

"Was there ever such an unfortunate girl as I am?" she sobbed. "I never was so happy before; but it's all over, and Mrs. Hurst was to have taken me to the flower-show at Corby next week, in a new grenadine, black, with white stripes. I knew it couldn't last! I was sure of it!"

"What? The flower-show? For goodness sake do learn to express yourself more clearly!" cried Noel, whom Clemont Dunforth's observations had thrown into a state of irritability quite foreign to his nature. "At whose expense was this new dress purchased? If at mine, I plainly tell you that it is not in my power to pay for any additions to your wardrobe; if not, I forbid you to accept the gifts of comparative strangers."

"If Mrs. Hurst chooses to be good-natured enough to buy me a pretty dress, and never tell me what she had done till the dressmaker brought it home—and such a beautiful fit! I never looked so nice before!—I don't know why I should refuse," retorted Irene, sullenly; "more particularly as Hillian says that Miss Carisforde wishes every attention paid to me. She may be ugly, but she's very kind, and I've enjoyed myself here immensely; but it's all over. Mamma wants me home, and I must go."

"I thought Mrs. Estcourt agreed to your remaining till I am myself able to accompany you to town," her brother said.

"Yes; but Maggie—poor, little, loving Maggie is ill. She's a dear child, Noel, though she does kick and fight so terribly when you offend her; and she never bites any one but me. It's a fever, ma says, and the child cries for me incessantly; and there's the others to be kept away from the infection; and ma says truly, she can't do everything; not that she's ever tried since I have known anything about it. Oh, dear! there's always something disagreeable happening in this uneven world just when you don't want it to. If ma had written the day after I had that fright in the library, I should have been quite willing to go; but now—"

She finished with a doleful sigh, and Noel, who marveled that Mrs. Estcourt should have been so thoughtless as to send for her daughter and expose her to the danger of catching a contagious disease, began to reassure her.

"I will write to your mother, Irene, and point out to her what she appears to have overlooked—that you may be attacked by this complaint if you go home just now. An experienced nurse from one of the hospitals must be procured."

"No, don't write," cried the girl, jumping up, and dashing away her tears. "I must go, Noel. Though I cannot help being sorry to leave Carisforde, I mean to do so."

"Not if I oppose it."

"Yes, whether you do or do not oppose it," she answered, firmly. "Maggie's my own little sister, and I could not rest here knowing that she was left to the mercy of strangers."

"The child has her mother," said Noel.

Irene gave a contemptuous sniff.

"As if you did not know that ma never is a bit of use in illness! Don't say any more, brother mine. Maggie wants me, and *I will go to her.* You would, if you were in my place; and though I know I am silly and flighty enough in trivial things, whenever there comes a serious trouble, I always ask myself how you would act, and try to do the same."

Noel drew her to him, and kissed her affectionately.

"My dear little sister, I know you are deciding rightly, and yet I cannot bear to let you run into danger. But here is Dr. Monson. Show him Mrs. Estcourt's letter. Perhaps, in her alarm, she has exaggerated the child's symptoms. At all events, he will tell us how we ought to act."

Dr. Monson, who was wont to lay aside his professional gravity when he encountered his patient's vivacious sister, looked serious when the affair was first laid before him; but he did not strengthen Noel's opposition to Irene's departure. On the contrary, he gave her such an approving look, that she blushed and wondered she had never before discovered what fine expressive eyes her brother's *medico* possessed.

"If Miss Estcourt will read, and be guided by a few instructions I will jot down for her," Dr. Monson said, "I see no objection to her nursing the sick child. Some one must do it; and who will set about it as tenderly as her sister?"

"Then I will go with her!" exclaimed Noel. "It will not hurt me to be carried to the railway-station, and I believe that I should bear the fatigue of the journey better than you all imagine."

"Possibly you would," his doctor rejoined; "but please to bear in mind that if you did not, you would have to be nursed as well as the little girl. Miss Estcourt would be in a pretty position truly with two invalids on her hands."

Noel groaned, and acknowledged that he must relinquish this idea; but still he could not endure the thought of letting Irene return home alone, and to such a trying task. He knew too well that far from receiving any help from her mother, the silly, weak-minded woman would increase her difficulties with her own fretful maunderings. He began to hint that he feared his sister would find her task a more trying one than she could perform, when Dr. Monson, who had been looking from one to the other, and cogitating profoundly, interposed in a very peremptory fashion.

"I cannot have you harassed and upset in your present state, Lord Carisforde. My professional honor is concerned in making a perfect cure of my patient; and I shall never be able to accomplish it if your nerves are acted upon in this way. Your pulse is galloping already; so away with you; Miss Estcourt, make your preparations for your journey, and I'll drive you to the station. Then I shall be able to ensure the briefest of leave-takings; more than that, it will enable me to telegraph to a good woman of my acquaintance, who will be very glad to help you nurse your little sister."

"Oh! Dr. Monson, how good you are!" cried Irene gratefully.

"Not a bit of it," was the bluff reply. "I want to get rid of you, and Mrs. Baynes is bothering me to find her something to do; so I shall kill two birds with one stone.'"

Irene, who was hurrying from the room to apprise Mrs. Hurst and Hillian of her immediate departure, came back to look anxiously in the Doctar's face, and ask why he was so eager to hasten her away. Did he think she had done Noel any harm?

"Not half as much as you'll do me if you detain me here, when I ought to be attending to my other patients!" he retorted, so gruffly, that she did not venture to delay any longer; and Noel saw no more of her till she ran in to bid him farewell.

As Dr. Monson had accepted Mrs. Hurst's offer of some luncheon, the brother and sister were left alone.

"Yes—yes; I will write," Irene said, in answer to his injunctions; "and you must answer my letters promptly. I shall be wearying for news of you and dear Carisforde."

"Of course, Mr. Dunforth will escort you to town. Dear Irene, make no one promise before we part; that you will not be persuaded into a hasty marriage."

"There is no danger of that," she pouted. "Clement has quite forgotten what a hurry he was in to call me his."

"I am glad he sees the necessity of prudence," was the reply.

"I'm not!" Irene frankly said. "I liked him a great deal better when he did not make money of so much importance as love. I've no objection to being rich, but if one must scheme to be so, I'd rather remain poor."

What did she mean? her brother inquired; but she shook her head and answered that there was not time to tell him, only that Clement Dunforth was greatly changed since he came to Carisforde, and that it was all owing to Hillian Gray.

"Irene, you are unjust!"

"Am I? You'll tell me next that I'm not justified in calling her deceitful!" cried Irene, angrily. "But she is—she is! or why does she pretend to me that she does not like Clem, and yet talk with him, walk with him, consult him, tell him all her secrets, and monopolize him so continually, that if I were inclined to be jealous, which I am not——. But there is Dr. Monson calling me. Good-bye, dearest Noel! Get well as quickly as you can, and don't be anxious about me."

She dashed away, catching her dress in the handle of the door, and making such a long rent that she had to pin it up before she could go any further, and, when half-way down stairs, came running back for the shawl and parasol dropped by Noel's bedside when she bade him farewell.

Dr. Monson stamped about the hall, his watch in his hand, predicting that they would be too late for the train, even if he drove all the way at a break-neck pace; but when he saw the tears glistening on Irene's eyelashes as he handed her into his carriage, his displeasure melted away, and he sharply snubbed Clement Dunforth, who commented satirically on the length of young ladies' leave-takings.

"My sister has had a miserable day for her journey," Noel observed, with a glance at the lowering sky, when Hillian Gray brought him the evening papers.

"Mrs. Hurst took care that she had plenty of wraps," said Hillian, coldly.

"Thanks; and Dunforth is with her. He will not let her run any risks. By the way, he omitted to come and bid me farewell."

"Mr. Dunforth may have thought it unnecessary, as he will so soon return."

"Return here!" exclaimed Noel, making no attempt to conceal his surprise. "I was given to understand that it was solely on Irene's account that he was lingering so long."

Hillian moved slowly towards the door, and made no reply, till, provoked at her silence, he added, meaningly:

"Perhaps Dunforth has other inducements for his frequent visits to Carisforde."

Hillian's eyes suddenly flashed an angry glance at him.

"You say 'perhaps;' yet who can know better than you, who are in his confidence, why Mr. Dunforth intends returning here?"

"I"—and Noel's tone was as resentful as her own—"in the confidence of a man whom I do not hesitate to tell you I distrust! But, pardon me, Miss Gray; I had forgotten that you regard him as a friend. I did not intend to hurt your feelings by speaking in these terms of a person whom you have admitted to such intimacy that you have scarcely a look or a word to spare for anyone else."

Hillian's cheeks became scarlet, and her lips unclosed as if she were about to utter an indignant retort; but she checked herself, and, gently bowing her head, went away.

CHAPTER XXIV.

ANSWERED AT LAST.

When once more alone, Noel endeavored to take a dispassionate review of those circumstances in the conduct of Hillian Gray, which were not only perplexing and distressing him, but which went so far to confirm everything he had heard from Clement Dunforth. Sometimes he wished that he had never suffered his anxiety to ascertain how far the tale Irene's betrothed told of their former *rencontres* could be true to induce him to question her; she had been so friendly, so charmingly frank with him till then, and the ignorance, that the poet declared to be bliss, was undoubtedly pleasanter in this case than the doubts and reserve that had ensued. He had fancied two or three times lately that her dread of Clement Dunforth's revelations might have been the cause of her changed demeanor; yet, if this were correct, why was she admitting him to her friendship? If Irene's report could be trusted, her betrothed and Hillian Gray were always seeking opportunities for being together; and not even the naturally unsuspicious temper of the little bride-elect had preserved her from twinges of jealousy.

Were these two learning to love each other? Noel ground his teeth, as he thought how he might have to be a passive looker-on, while another act of man's fickleness and woman's weakness was played out before him. He would not pretend that he should regret the loss of such a lover for Irene; but that Hillian—the pure-minded, refined Hillian—should descend from the high place in which he had throned her as a good and almost perfect woman, and accept the heart of one capable of such baseness, was agony.

It was a relief, even while it provoked him, when Mrs. Hurst put an end to his solitary musings by coming in, followed by a servant carrying her work-basket.

"I only just remembered, my dear lord, that you were alone, and that it would never do to let you get low-spirited!" she exclaimed, as she settled herself comfortably beside him; "though, perhaps, camphor would be better for your nerves than my conversation. And your poor, dear sister gone! So cheerful always, that it was quite delightful to have her here; though I could have wished that she had broken herself of the habit of jumping up so suddenly, that the stitches were frequently dragged off my knitting-pins, and the balls of worsted in all corners of the room; which, however, was of no consequence when the dear child happened to see what she had done, but involved a great deal of stooping when she didn't; but always full of mirth, which Hillian is not, much to my vexation; for I do not like to see young people mope; they are so apt to get round-shouldered, which is ruinous to the figure; and wishing one's-self dead, Lord Carisforde, is, as I have often told her, quite contrary to my notions of morality;" and Mrs. Hurst shook her head severely.

Then Hillian was unhappy! Oh! that he knew the cause! He seized his tablets, and, with their assistance, asked Mrs. Hurst if she could not assign any reason for her niece's attack of low spirits.

"No new ones," she answered. "Hillian always had been peculiar; and there had been circumstances in her life that would account for any young girl being grave beyond her years; but what was the use of brooding over the past? The world is before her," Mrs. Hurst went on, making long sweeps in the air with one of her knitting-needles. "If she does not like Carisforde, she need not remain here; there are plenty of advertisements in the papers—to go abroad, you know—a pleasant, intelligent companion, and salary no object, and so on; then why should not she and some like-minded lady—elderly, of course; I shall insist on her being elderly—go to the Alps, or Russia, or Ceylon?—stop, though; do ladies go on tours to Ceylon?—and write a book—Hillian, I mean—afterwards. Don't mind me; as I say to her, I never cared for gaddings, and would sooner sit by an English fireside than visit the court of the Shah of Persia, or any other potentate. Only you must promise to come and see me sometimes, my lord. I shall feel myself sadly deserted when none of the familiar faces are round me. Somehow, your accident, sad though it was, has been—I hope you'll not be offended at a remark that might be misconstrued; but, really, it has been a time that I shall always look back upon with pleasure, though not indifferent to your lordship's sufferings; and it will be something to think about when quite alone."

"But Miss Carisforde?" he wrote; and Mrs. Hurst gave her head another grave shake.

"I don't suppose she ever will make up her mind to live here now, and I don't know who can blame her. Not able to go into society, without friends or parents, it would be frightfully melancholy for one so young to live shut up in this great mansion, wouldn't it? Perhaps, after your lordship has gone back to town—very lively there, isn't it? and what the consumption of gas must be, it quite puzzles me to think; and a great waste of coal, which might be prevented if every one kept better hours and went to bed at ten o'clock, as I do. But what was I saying? Oh! about this great melancholy house. Very likely I shall receive orders to dismiss the servants and shut it up, which I shall not altogether regret, as there's a pretty cottage to let near Torquay, where I could sit at my window and see the visitors and the beach without the trouble of dressing and going out."

"When do you expect to hear from Miss Carisforde?" was Noel's next query.

"When she has decided on her own plans, I suppose she will apprise me of them," was the reply; and then Mrs. Hurst knitted on so tranquilly that Noel almost envied her the obtuseness—or strength of mind, which was it?—that enabled her to be so calm under any circumstances.

Clement Dunforth appeared at Carisforde on the following day, having been, he laughingly declared, so summarily dismissed by Irene, that he had only just had time to exchange a few words with Mrs. Estcourt ere the door was closed against him.

However, a letter by an early post brought the tidings Noel was so anxious to receive. Little Maggie was seriously but not dangerously ill; the nurse recommended by Dr. Monson, was the nicest, kindest of creatures; and the children were so delighted to have their much-enduring elder sister back, that Irene was astonished as well as gratified by the affectionate reception they had given her.

"Mamma is much as usual," the writer added. "She complains of having had to sit up for several nights and being quite worn-out with anxiety and fatigue, but Maggie says she used to snore dreadfully, and be so cross if aroused, that I don't think it's quite true. I should have sent you a few lines by Clem, just to say that things were not as bad as we feared, but he was in such a hurry, having quite a heap of business matters to attend to, that he could scarcely stop to speak to mamma; and he so positively refused to come into the house, that I believe he was afraid of catching the fever, which, by-the-bye, isn't a fever at all."

"The fellow is an arch hypocrite!" exclaimed Noel, scornfully. "A falsehood runs so glibly off his tongue, that it is difficult to decide when he is telling the truth or *vice versa*. If he is so ready to transfer his allegiance from poor Irene, who has at least the merit of being frank and good, to a girl whom his own lips have condemned, why does he not take the step boldly, and at once? He shall not play fast and loose with this little sister of mine. If he no longer purposes to make her his wife, he shall tell me so, and be stung with my candid avowal that I am glad of it. Let him wed Hillian Gray, if he is mean enough to dream that through her he can gain such aid and patronage as it is in the power of Miss Carisforde to bestow? If Hillian is as false as he—and Heaven only knows whether there is truth in women at all—why, they will be well matched."

Noel's suspicions of Clement Dunforth's meditated treachery did not diminish with time and reflection; and when on the morrow he accidentally learned that Irene's betrothed was then walking in the grounds with Miss Gray, with sternly-knit brows, he inwardly vowed that this state of affairs should soon be altered. Mr. Dunforth should no longer scheme under false colors, nor pretend that it was his interest in Irene's brother that brought him to Carisforde. He should either come there the avowed lover of Hillian Gray, or not at all.

As if in answer to his eager desire to have an interview with Clement at once, the servant appointed to attend upon him in the temporary absence of Jephson came in to say that the gentleman who was down stairs wished to know if Lord Carisforde could see him.

"Certainly. Show him up immediately."

And Noel's heart throbbed fast, though he felt the necessity of being calm and on his guard with so wary, so shrewd an antagonist.

Judge, however, his surprise when, instead of the visitor he expected, a stout, bearded German walked into the room, and, with rather a melodramatic start, paused in the middle of the floor and stared at him blankly.

"*Ach Himmel!*" he exclaimed, "here is some

strange mistake. I ask for my good friend the Viscount, and this is not he."

"Was he not aware," Noel asked, "that the title had changed hands?"

The German raised his eyebrows.

"Dead!—you mean that he is dead! Then have I lost the ever-to-be-lamented and much-esteemed companion of many pleasant hours? And, behold! I am here by his invitation."

He produced a letter written by the late Viscount a few days before his last illness commenced, urging Herr Rudolsheim not to forget his promise to spend the autumn at Carlsforde.

"I gave him this pledge when we met at Munich some months since. I come to England to fulfil it, and, alas! he is not here to greet me."

The Herr's regrets were evidently sincere, and his genial manner was so agreeable, that Noel, though ordinarily shy of strangers, soon found himself talking without reserve to this new acquaintance.

One of Herr Rudolsheim's principal motives for coming to England was to gather materials for a work of great erudition, on which he had been engaged for several years, and he proposed to avail himself of some rare volumes in the Carlsforde library, of which the late Viscount had offered him the use. Indeed, so anxious was he to see these books, that as soon as he could with propriety introduce the subject, he mentioned this, and asked permission to visit the library.

Noel reddened. It was not pleasant to have to acknowledge that he had not even the right in this house to welcome a visitor, or grant his smallest request. But the confession had to be made, and, explaining his position as concisely as he could, he referred his new acquaintance to Mrs. Hurst.

Herr Rudolsheim was too observant not to notice and sympathize with the young peer's embarrassment, but at the same time he was too polite not to do all in his power to relieve it; the best way to do which was undoubtedly to make as little comment upon the information as possible.

"Then you send me to the housekeeper? Many thanks; but I much regret that you are prisoner here and cannot be yourself my guide. May I have the great pleasure of returning to you by-and-bye, and telling you how I have fared in my researches? I should like to interest you in the work which has been the most important object of my life."

Assured by Noel that his society would be a welcome boon, he withdrew, and was seen no more for some hours, at the expiration of which time he emerged from the library, flushed and dusty, and could be scarcely prevailed upon to stay down stairs and dine, so eager was he to return to the invalid and acquaint him with an important discovery in the shape of a manuscript volume of which he had long been in search.

"But, stupid and selfish one that I am!" he interrupted himself to exclaim: "I had forgotten that I am the bearer of a letter for you. I have it somewhere. In this pocket? No; it must be in this! Your English servants are well trained, for the one who brought me this, came to my side so noiselessly that I heard no step, saw no person. I sat at a side-table, copying a few items into my note-book, and lo! I raise my head, and this lies at my elbow—superscribed, as you see, 'For Lord Carlsforde: To be delivered to him immediately.' So swift, so silent a messenger, one who disturbs you not in your occupation, is indeed invaluable!"

And then the Herr sauntered away ostensibly to look at a picture on the wall, but really to give Noel time to examine his letter, which, as he had anticipated, was signed "Ada Carlsforde."

CHAPTER XXV.

THE HERR'S OPINION.

It was very disappointing to find that Miss Carlsforde's epistle was not only of the briefest, but most unsatisfactory in its wording.

"If you mean me well, I thank you;" it was thus her tremulously-written note began: "If you do but mock me, I will try to forgive you; but if you make these advances because my wealth attracts you, then may Heaven pardon such cruelty; for I cannot."

Noel's first emotions on reading this were such angry ones, that he crushed the paper in his hand, and longed to be able to quit the house that pertained to the girl who so unjustly suspected him.

The passionate exclamation that broke from his lips made Herr Rudolsheim turn round and come towards him.

"Something disturbs you, my friend. If I can be of service, make use of me. I am trustworthy and sympathizing. If I can counsel well, I do so; if not, I practise the virtue of silence.

"Thanks, said Noel, forcing a smile; "but I was only stung for a moment by the injustice of woman. I was foolish enough to think that in a certain affair with which I will not trouble you, the rectitude of my intentions should have preserved me from being treated as if I were a covettous, heartless rascal."

"The sex is weak and impulsive, therefore apt to form conclusions more hastily than wisely" was the Herr's sententious remark. "But, on the other hand, womankind repents of a wrong so quickly and fully, that we, who are more stubborn must pity and forgive."

Noel was amused at the manner in which this was said; but he conceded that there was some truth in it. Miss Carlsforde, secluded from the world, taking her ideas from others instead of her own observations and experience, might easily be induced to prejudice herself against him; and why should he blame her if, in her humility, her inability to believe that anyone could willingly seek the intimacy of one so repulsive, she had come to the conclusion that he either amused himself at her expense, or was yielding to the attraction of the wealth with which her father had endowed her?

When the Herr had left him, he read the poor, little note again, and saw that it had been blistered by the writer's tears. This discovery softened his heart towards the lonely girl, and he felt ashamed of the resolutions to make no further advances that not an hour earlier he had been forming.

"I will write to her once more," he determined, after considerable reflection; "but I will neither defend myself nor expostulate with her. In few words and manly tones, I will regret that she should have answered my letter in a style I was not conscious of deserving. I will then fix a date for my departure from here, thank her for her hospitality, and conclude with the usual good wishes."

This intention he carried out on the following morning, as soon as he had been assisted to the reclining chair in the dressing-room, in which, as we have before said, his days were now passed; and the mystified Jephson was directed to place the missive on the same table in the library as before, Noel divining that it must be in close proximity to the concealed door by which Miss Carlsforde contrived to enter the room unobserved.

This done, and a long letter of encouragement despatched to Irene, he prepared himself for the interview with Clement Dunforth, which he had resolved to demand. In the meantime, he enjoyed the society of the sagacious German, who came to sit with him for an hour or two before commencing the literary researches, to which he proposed to devote the rest of the day.

Early though it was, he had been exploring the park and gardens, and was quite enthusiastic in his gratitude for the reception he had met with from everyone in the house.

"The good *frau*, the house-matron, the superintendent, Madame Hurst, is a manager admirable! It is to my unspeakable regret, that my not understanding your English tongue more perfectly puts her to the trouble of so much speaking."

Noel did not care to tell the Herr that Mrs. Hurst was always loquacious; but contented himself with an assurance that no one at Carlsforde begrudged attentions bestowed on him, not only as a stranger and a foreigner, but as the friend of the late Viscount.

"They are very good to me; and the little Miss Gray is a never-to-be sufficiently admired cicerone. She has shown me all the art-treasures this house contains, and she testifies an interest in my observations upon them that is most flattering. She is a young lady altogether charming; but——"

The Herr began to ruminate, and was silent so long, that Noel—curious to hear his opinion of Hillian—gently prompted him.

"You were speaking of Miss Gray, you were saying that you think her very charming, and then you paused. What was it you were about to add?"

"Ha! you have reminded me that it is by you I may be enlightened, my dear lord. Tell me then—what is it that makes the smile leave her lips, and her eyes fill with tears, at every break of our discourse? Take her out of herself—arouse her interest on some subject, and she is animated, eager and delightful. Let her relapse into silence—let her think awhile, and there steals over her a sadness so profound, so absorbing, that it astonishes and perplexes me. I am fond of studying character. I will study this young girl's. At first glance it seems to lie before me unsullied and easily read; yet I look again, and there is something on the page which is hidden from my sight."

"But it is not anything evil!" exclaimed Noel, impetuously. "I will not believe that Hillian Gray conceals aught of what she has reason to be ashamed!"

Herr Rudolsheim eyed him attentively.

"Eh! Then are you also interested in this *fraulein?* We shall study her together. Is it not so?"

Noel shrank back, confused at the consequences of his own impetuosity.

"Miss Gray is nothing to—can be nothing to me, except that I am her debtor for much kind nursing. To attempt to penetrate her secrets solely for my own satisfaction, would be an impertinence."

The professor gave him another long, searching glance, under which he was conscious of reddening and writhing, then nodded his head sagaciously.

"So, so; I am treading on ground that is dangerous. Well, then, I draw back. I say no more respecting this study so interesting, and we talk of—what?"

The question inspired another.

"You have given me your opinions of Mrs. Hurst and her niece; have you nothing to say concerning their guest, Mr. Dunforth? I fancy you met him here last evening."

"Truly, yes; and again this morning. You look surprised; you did not hear of his arrival; and yet I tell you truly that he is here. He came to offer to conduct me to some ruined abbey a few miles hence. But I say no, no, my good young sir: I have work that I must do within this library. I may not pleasure myself till it is accomplished; and so we shake hands and converse amicably till Madame Hurst invite us to the morning meal; since then, I come to you, and he walks on the terrace with Miss Gray."

Clement Dunforth must be pretty sure of his footing in this house, to visit it before breakfast, and take upon himself the duties towards its guest, which usually devolve upon the host or hostess. It is true that Miss Carlsforde's resignation of her duties had placed everyone else in an awkward position. But this did not excuse Clement's officiousness; and Noel resented it strongly.

Annoyance kept him mute, till the Herr resumed the conversation.

"Pardon, my lord, if I am inattentive. You did ask me what I think of this gentleman. *Ach himmel!* but he interests me greatly. He is a young man surprising; one of resource, of penetration, of shrewdness, altogether extraordinary. I listen to him and say nothing, but I am filled with wonder."

"You seem very favorably impressed with my brother-in-law elect," he was told.

"Ha! he is so near and dear to you? Yes, I am impressed, but did I say favorably? I think not. With your permission, I study him also; for, truly, human nature presents itself to us in many and wonderful aspects. Your brother-in-law, you say? Eh, hum!"

And again the professor rubbed his chin, and meditated; but he did not give Noel any clue to the nature of the thoughts that absorbed him. As soon as Dr. Munson appeared, he begged to be excused; and, shutting himself up in the library, would have remained till dark without refreshment, if Hillian had not coaxed him away from his precious books, at the ringing of the second bell for dinner.

And where was Clement Dunforth loitering all this while? Still by the side of Hillian Gray? That he had not returned to Corby and his own affairs there, Noel had learned from Jephson; but he did not like to put any more questions to the old man.

Surely he would make his appearance in the invalid's room before long; and, thinking this, Lord Carlsforde waited and waited, till to his unspeakable annoyance he learned that the person whom of all others he was the most anxious to see, had quitted the house an hour earlier.

Determined not to be baffled in this way again, the vexed Noel requested Jephson to give orders that on Mr. Dunforth's next visit to the Park, he should be conducted to his apartments; an order which was carried out on the following morning, when—alert, smiling, and self-possessed—Clement made his appearance.—To be continued.

THE PAST RECALLED.

A Heretofore Unpublished Letter From Pres. Lincoln to Gen. Hooker.

In the Providence Journal of May 6, is printed a letter from Lincoln to General Hooker, written just before the latter had taken command of the Army of the Potomac. The letter was penned in January, 1863, and, while the President yet retained it in his possession, an intimate friend chanced to be in his Cabinet one night, and the President read it to him, remarking, "I shall not read this to anybody else, but I want to know how it strikes you." During the following April or May, while the Army of the Potomac lay opposite Fredericksburg, this friend accompanied the President to Gen. Hooker's Headquarters on a visit. One night Gen. Hooker, alone in his tent with this gentleman said: "The President says that he showed you this letter," and he then took out that document, which was closely written on a sheet of letter-paper. The tears stood in the General's bright blue eyes as he added: "It is such a letter as a father might have written to a son. And yet it hurt me." Then, dashing the water from his eyes, he said: "When I have been to Richmond, I shall have this letter printed." This was more than sixteen years ago, and the letter has just now seen the light of day.

EXECUTIVE MANSION,
WASHINGTON, D. C., Jan. 26, 1863.

MAJOR-GENERAL HOOKER — *General:* — I have placed you at the head of the Army of the Potomac. Of course I have done this upon what appears to me to be sufficient reason, and yet I think it best for you to know that there are some things in regard to which I am not quite satisfied with you. I believe you to be a brave and skillful soldier, which, of course, I like. I also believe you do not mix politics with your profession, in which you are right. You have confidence in yourself, which is a valuable, if not an indispensable quality. You are ambitious, which, within reasonable bounds, does good rather than harm; but I think that during Gen. Burnside's command of the army you have taken counsel of your ambition and thwarted him as much as you could, in which you did a great wrong to the country and to a most meritorious and honorable brother officer. I have heard, in such way as to believe it, of your recently saying that both the Army and the Government needed a dictator. Of course, it was not for this, but in spite of it, that I have given you the command. Only those Generals who gain success can set up dictators. What I now ask of you is military success, and I will risk the dictatorship. The Government will support you to the utmost of its ability, which is neither more nor less than it has done and will for all commanders. I much fear that the spirit which you have aided to infuse into the Army, of criticising their commander, and withholding confidence from him, will now turn upon you. I shall assist you as far as I can to put it down. Neither you nor Napoleon, if he were alive again, could get any good out of an army while such a spirit prevails in it. And now beware of rashness. Beware of rashness, but with energy and sleepless vigilance go forward and give us victories. Yours, very truly, A. LINCOLN.

"SASSING" ROYALTY.

Sir Robert Peel is having a lively bout with royalty. In the course of the debate upon the Zulu war he made a playful reference to George IV., whereupon a society journal, Vanity Fair, took him to task as follows: "Sir Rober Peel's recent speech in the House of Commons has very naturally given great offense, in consequence of his disrespectful allusion to George IV and his personal remarks upon the Queen, and several members of the royal family have declared their intention never to take any notice of Sir Robert Peel for the future." Sir Robert at once sent a letter to the editor of the society journal, which, with the exception of the opening sentence, is reprinted below:

"It is superfluous to observe that such a statement is a very impudent expression of the latest development of the ridiculous imperialism of the present day, and in the official attempt to gag members of Parliament in the free debate of questions of interest in the House of Commons by the published menace of the royal displeasure there is a clear breach of privilege, recalling the most stupid exhibitions of royal misconduct.

Royal displeasure! Imperial censure! And because a member of the House of Commons dares to express his opinion in his place in Parliament, and to quote Thackeray and history in support of that opinion? After all, it is notorious that two members of the royal family indulged in similar threats, and a great deal worse, I am sorry to say, as regards Mr. Gladstone, while the language of the commander-in-chief with respect to the late Governor is too well known to need further comment at this present moment.

You appear to be instructed to make a challenge which, notwithstanding the channel through which it comes, I accept with pleasure; and you invite me to a game which two can play at; one of the parties in the contest may prove a pungent critic of the coming K——& Co.; and by the way, I would advise you strongly, as you profess to be a depository of the imperial confidence, to be a little more discreet in the circulation of your authorized versions of royal messages, or they may get you into trouble, dear Mr. Bowles. Like many others, I have put up with a good deal of your insolence from time to time, and, as your personalities have nothing in common with the honorable and legitimate duties of journalism, you will find me now quite equal to the occasion. But, as in the present instance you act as the plenipotentiary of royalty, go and tell your master that I am not the sort of man to be smothered by imperial menaces, and unless I receive the most ample satisfaction from the royal sources which have made you their most impudent mouthpiece, I shall send a copy of your statement, together with a copy of my reply, to the Prince of Wales and to the Duke of Cambridge. And, as you have published and circulated such a declaration of the intention of the royal family, with respect to my remarks in the House of Commons, I shall also avail myself of a fitting opportunity to publish and placard in London and in the provinces, under the head of "Sir Robert Peel and the rest of the royal family," both your official notification of the royal message and my contemptuous acknowledgment. I am, sir, your obedient servant, ROBERT PEEL."

HOW CHINESE RICE PAPER IS MADE.

Everybody is familiar with those brilliant, quaint pictures of insects, birds and flowers, printed upon a thick, soft, translucent material we have always called "rice paper." This is not made of rice. It is the thin slices of the pith of a plant or tree of the Aralia family—the *Futsia papyrifera* of modern botanists. The tree grows about twenty feet high, and its pith is an extensive article of commerce in China; for it is used in the manufacture of many articles, especially toys and artificial flowers. The cylinders of pith exposed on removing the bark and woody fibre are rarely an inch and a half in diameter, and as the substance is delicate and tender, rare skill and practice are required to cut the whole stick, from circumference to center, into one continuous sheet. A long, thin, very sharp knife is used for this operation. The largest sheets that can be obtained in this way are about fifteen inches long by ten wide. As soon as the sheets are cut they are spread out, all little holes carefully mended with bits of mica, and then they are pressed under weights until dry. The refuse scraps, etc., go to make pillows; the ordinary sheets are dyed brilliantly and sold to the flower makers, while the largest sheets are destined for the foreign market, after being carefully painted by skillful native artists. There is no substance yet discovered that so well represents the delicate texture of the petals of flowers as this paper of pith, and it is exported to some extent by artificial flower manufacturers. The tree could no doubt be grown here, as our climate is much like that of China. One of the most interesting things to see in China is the daily flower fair in a certain street in Pekin. Stretching along the narrow street for more than half a mile is a grand exposition of pith, paper, and silk flowers. Foreigners stand fascinated before the stands, watching the skill of the flower-makers. Each one is provided with an assortment of pincers, some wire, a pot of glue, knives, and some with pith papers of many hues. In a short time, while his deft fingers move with bewildering rapidity, he will counterfeit the dahlia, aster, or whatever real flower lies before him for a model. His skill in cutting leaf, calyx and petals, is equaled only by his marvelous eye for delicate differences of tint. Here the peddlers get their supply for the day. It is astonishing to see how fond the people are of those beautiful counterfeits of nature. The Chinese women wear no bonets or hats, but do their hair up in elaborate fashions and wear flowers instead. In some parts of the kingdom you may know if a woman be a maid, widow, or matron, by the color of the flowers she wears in her hair. The parasol, where the women wear no hats, is of course an indispensable article for any out-door excursion, and the whole family of parasols and umbrellas in China is a marvel. They are generally made of silk or paper, and are often *chefs-d'œuvre* of art.—*Transcript.*

THE DOWN-HEARTED MAN WANTED TO SEE IT.—About ten o'clock in the morning, recently, two men met on Sixth street and began threatening and calling each other names. One finally called the other a liar, and the two were about to grapple when a woman opened the door and said:

"Gentlemen, are you about to fight?"

"We are!" they answered togother.

"Then have the kindnes to wait a moment," she continued. "My poor husband has been sick for weeks and weeks, and is now just able to sit up. He is very down-hearted this morning, and if you'll only wait till I can draw him up to the window I know he'll feel very grateful to both of you."

She disappeared in the house, and after one look into each other's faces the men smiled, shook hands and departed together.

KIND AND TRUE.—When he came he was little, and round, and fat, and "cunning," and everybody loved him for his very helplessness. As he grew in stature and in age he became mischievous

and troublesome, and it was hard to bear patiently with his mad pranks. But time sobered him; there came into his face an expression that told of mingled courage and kindness, he was tender with the little ones, and loving to all, and the other day, when an accident befell him, those whom he had most tried were most devoted in their attentions and sympathy. Humanity would be better if more men had a face as kindly and a heart as true. He is only a dog.—*Boston Transcript.*

BOOKS RECEIVED.

A Hand Book of Nursing for family and general use. Published under the direction of the Connecticut Training School for Nurses, State Hospital, New Haven Conn., 266 pp. 12 mo. cloth. J. B. Lippincott & Co., Philadelphia.

We give this book hearty welcome and would gladly see a copy of it in every house in the land. It has been truly said that a good nurse is of quite as much importance in a sick room as the physician and often renders the service of the latter unnecessary. The work before us recites briefly but comprehensively the duties of the nurse in the sick room and how they should be performed; though brief in language and simple in its form it comprises the experience of years. It is not a medical treatise; there are too many directions for home practice already in the market for the public good: but it is intended to instruct the reader how best to aid the physician by properly carrying out his directions, and giving especial attention to all the surroundings both in and of the house. We have no doubt the publication of this volume will prove the means of preventing much sickness and saving many lives.

Young Folks' History of England. By CHARLOTTE M. YONGE. Boston: Estes & Lauriat.

This is a neat volume, of about 400 pages, printed in large, clear type, and handsomely and profusely illustrated. As the title suggests, the work is written in a style adapted to the comprehension of youthful minds, and the story of England's history, from the time of the conquering of the Britons by Cæsar to the happy and peaceful reign of Victoria, is presented in a manner that can scarcely fail to interest and instruct the reader. Although a young folks' history, its concise style strongly recommends it to older readers, who may wish to refresh their knowledge of English history.

MAGAZINES FOR JUNE.

THE HERALD OF HEALTH—Contents for June: Physiological and Sanitary Marriage and Parentage, by the Editor; How Children become Deformed, by Mary J. Safford, M. D.; Alcohol in Melancholy and Nervous Exhaustion, by B. W. Richardson, M. D., F. R. S. Warning; Castles in the Air; Death Speaks; Seventeen Months on Fruit and Bread; A Sensible Thing to Do; Overworked; Intrusion of Visitors; Gloomy Weather; Opium in China; Unhealthy Intellectual Development; Death of Mrs. Sarah J. Hale; Talent not always Transmitted; George Eliot's Health: Queen Victoria and Dress Reform; Lucretia Mott; Drug taking Mania; Effects of Quinine on the Hearing; Learn to Swim; Attention after Marriage; Current Literature; Health Foods.

DRUG TAKING MANIA.—Women are rather more given to drug taking than men, though both are bad enough in this respect. Here is what one of our most eminent physicians has to say on this subject:

"Dr. Holmes has said that it would be well for the world if most medicines were thrown into the sea; that it might be bad for the fishes, but it would be better for mankind. For this unasked and impertinent suggestion he has received a good deal of orthodox censure, which I am here now to share with him, for I am of the same opinion as Dr. Holmes, and this opinion has long been a part of my Christian faith. That the major part of the world does not agree with us is plain. Indeed most people seem to think that the chief end of man is to take medicine. Babies take it in their mother's milk; children cry for it; men and women unceasingly ask for it. Shrewd men have taken advantage of this instinct, and in most civilized nations it is to-day one of the chief articles of manufacture, and of commerce. It is one of those things which is never permitted to be out of sight; but is thrust upon you in the nursery, in the streets, upon the lampposts and upon the curbstones, along the highways, from the rocks which border the rivers; the medicine chest follows you at sea, as if the sea itself, a vast gallipot of nauseants, were not enough. One might naturally suppose that the supply would at length exceed the demand! but it does not. Everywhere the people are stretching out their arms and begging for medicine, blessing him who gives and cursing him who withholds. They believe, in their simplicity, that if medicines do no good, they can at least do no harm. They imagine also, that there is a medicine which may be regarded as a specific for every human malady, and that these are known to science, and that therefore we have the means of curing all diseases; but the people imagine a vain thing. Whatever medicine is capable when properly administered, of doing good, the same medicine is equally capable, when improperly administered, of doing harm; and drugs often substitute a malady more serious than that which they were intended to cure. The Irishman said his physician stuffed him so with medicine that he was sick a long time after he got well.—*Dr. Frank Hamilton.*

CONTENTS OF THE AMERICAN NATURALIST FOR JUNE: Prof. Hartt on The Brazilian Sandstone Reefs, Richard Rathbun, Rob. A. Bird, Biography, Rev. Samuel Lockwood, On the Morphology of the Semi-circular Canals, Francis Dercum, Texas in its Geognostic and Agricultural Aspects, J. Boll. Recent Literature. General Notes on Botany, Zoology, Anthropology, Geology, Geography and Microscopy.

For Women.

CONDUCTED BY MISS FAITH RIPLEY.

SUNDAY-REST FOR WOMEN.

BERTHA A. WINKLER.

WHEN one considers the additional anxieties and the extra work imposed upon housewives on this day of universal repose from labor, it would seem as though the Divine Law-giver had commanded but the masculine half of the race to "Remember the Sabbath-day to keep it holy." To wives and mothers the approach of Sunday is but the signal for increased activity to supply the special wants of the rest-taking members of the family. A crowning of the week's work in one grand display of domestic skill and industry in stiff arrays of white, glossy shirts, and fluted, ruffled dresses, a sumptuous table of pastry and dainties, and rooms scrubbed and dusted to the highest possible degree. All these labors are, no doubt, a pleasure to a thorough-going housewife, and I heartily applaud her desire to contribute to the cleanliness, comfort and beauty of her home; but when it happens, as is too often the case, that the husband finds fault with the fit and set of his shirt and rewards her labors with a wry face, or the big sons unexpectedly bring a roomful of company home to dinner and the little sons take occasion to be more fastidious and fretful over the coveted dainties of the table, thus involving the poor, harassed mother in a series of discouragements and vexations, I think it is high time she too made an effort to obtain her share of Sunday-rest. The ordinary routine of her week's work, exclusive of the demands which the big and little members of the family make upon her time and attention, is sufficiently heavy to require at least one day's rest for mental and physical renovation.

But, unfortunately, a mother's heart is deaf to bodily exhaustion. She only hears the boys clamoring for good dinners and the girls preparing for church, consequently the cry of nature for rest is hushed and the good, self-denying mother alone remains to do the choring and to prepare the extra supply of good things for Sunday dinners. Perhaps if she knew less of the wants of others and left them to minister a little more to their own comforts, they would be more apt to realize the extent of her labors and learn to evince their appreciation of them in thoughtful moderation of their desires, and in endeavors to live and labor as much for her comfort as she does for theirs.

I see women whose pale, emaciated features and weary, faltering steps plainly betray the life of drudgery to which their blind devotion, their forgetfulness of self has subjected them. Week after week I see them perform the same tasks, bear the same burden apparently cheerful but in reality worn out and wretched, and,when Sunday arrives to bring rest to all the world besides, she alone remains to toil and trudge until late in the afternoon and if then—no wee ones hindering—she attempts to read a book the weary eye lids close and sleep mercifully affords what husband and children have thoughtlessly denied. It is for these women that I plead. They are no iron-clad machines to whom the wear and tear of each day does but little damage. They are your mothers, your wives, your companions, and as such the Divine decree applies to them as well as you. With you they have patiently toiled and suffered through all the various vicissitudes of life; with you they have risen at the dawn of morning and faithfully labored through the heat and burden of each day; and with you let them enjoy the calm and rest of the evening, the peace and quiet of the Sabbath. And if woman's peculiar sphere of usefulness requires more steady activity allowing no stated periods of rest save those at night, how much more should we exercise moderation in our demands for ease and comfort procured at her expense! How much more should we strive to render her duties less onerous. There are a hundred little tasks easily performed in a passing moment of leisure which we thoughtlessly allow to accumulate until they require a day's work at her hands. There are a hundred errands we might run for her on our way to and from the house and thus lessen the drag upon her feet without inconveniencing ourselves, if we but took a moment's thought. Our services to her consist in little things and great results. A cheering word spoken, at the proper time; a ready hand to perform some little office for her when required; and thoughtful forbearance of whatever may increase her discomfort or worriment will contribute wonderfully to her relief and promote the harmony and happiness of that home which she so continually strives to render attractive to us.

Let us therefore endeavor to establish a new order of things in the domestic life, by abstaining from these sumptuous Sunday-feasts, the preparation of which must necessarily require some extra labor which, from a religious point of view, should be conscientiously, if not humanely avoided; by withholding individual desires, and requirements which are not absolutely necessary and by a thoughtful regard and observance of the mother's wishes and convenience.

BABIES.

I HAVE been thinking a good while that I would like to write something for Miss Ripley's department in the RURAL, and I reckon that I have got experience enough to tell some of the young women, things they never thought about; and if there is any one thing that I pity, it is a young mother, trying just as hard as she can, to take care of her little baby, when she does not know anything in the world about it. She worries and stews, because the little thing cries and frets, and she can't stop it. The other day, Nellie Gray came to our house to visit, and she had the cunningest little bundle in her arms; there was edging, ruffles, tucks and embroidered blankets, and such a pile of muslin and ribbons; well, if I had not heard she had a little baby, I could never have guessed what it was, except there was a continued squeaking a way down in the depths, that sounded no more like a baby crying, than it did like a mouse in the wall.

"Sakes alive! Nellie, give me the baby!"

"Oh, grandmother! I shall be so glad to; and do tell me what I shall do with it; cry, cry, from one day's end to the other. Ain't there work in taking care of babies, though? but it is a darling! Just see!" and she took off a cloak, two blankets, and a veil; and smoothed out the beautiful dress that swept clear on to the floor, as the little thing lay in my lap. The baby had on a thick crocheted sacque and all you could see of the little mite, was its bare head, puckered up face, and the tips of its little red fingers.

"Oh, how warm it is!" said the young mother, as she wiped the drops off her face: "I hope baby has not got cold; it is the first time I have carried him to ride."

"Nellie Gray, sit down, and let me tell you something, you don't know no more than a calf about taking care of a baby; no wonder the little thing cries! I wonder it is alive! Just look here! the thermometer stands at 90° in the shade, and you are about melted in your muslin dress, and here is this wee baby, bundled up with as many wraps as it would need in winter, and a thick sacque, and a pinning blanket, two flannel petticoats, a cotton one and a dress; and as sure as you are alive, socks on the little feet! What on earth are you thinking of, to pile all this stuff on a two month's old baby?"

"Why, grandmother! I supposed I must!"

"And Nellie; you have got your waists and bands so tight, that baby can hardly draw a breath. No wonder at all, that baby cries! more wonder that the baby don't die! Now, just take off all these extra fixings; one skirt and the dress, are enough, and loosen your waists, and let the little atom have one good breath and a chance to stretch itself."

Its mother did as I told her, and in a few minutes the little thing cuddled down to sleep. "Let me lay it down Nellie, I'll show you how;" and so I laid it down on its side, a little curled up like a kitten, and there it lay and slept, two long hours, its mother going every few minutes, to see if any thing ailed it. "You let it alone, Nellie! Let her have her nap out, and she will be happy when she wakes up, and you will be rested too."

Baby never cried again all day; she slept two hours at a time, and her mother was as happy as could be. She kissed me when she went away, because I had taught her to take care of her little one.

It is a regular science to bring up babies, and girls should never get married till they have learned how to take care of children. Half of the babies that die, are just killed by ignorance and half of those that live, are made sick and miserable, just because their mothers did not know how to take care of them properly. These babies are little precious creatures, and if they are rightly taken care of, are but little trouble, till they get old enough to creep about, and then the joy of seeing them active and well, pays for all the trouble they make. Some mothers are so foolish, that they will not let the little ones creep, because they soil and wear their clothes. Poor women! No wonder their children are bow-legged, and have weak backs! They have no chance to develop and strengthen their limbs and muscles. Nature knows best how to manage children, and they must have a chance to develop their powers: They do not want to be encumbered with long clothes they want room to kick and stretch; a smart healthy child, is far better, than a puny, feeble baby, trigged out, with all the finery that fashion dictates; and for mercy's sake, don't roast your babies alive in hot weather, by bundling them up so they cannot have a chance to breathe. Their blood circulates fast, and they require but little clothing, if a cool day comes, it is easy to add an extra garment. GRANDMOTHER.

EXTRACTS FROM CORRESPONDENTS' LETTERS.

Some Pleasant Aspects of Farm Life for Women.

HAVING been a subscriber for many years, I appreciate the RURAL, and, like many other things, it improves with age. I prize the free seed distribution—it has a tendency to create a love for flowers and Nature's beauties, which otherwise might be neglected. I was quite amused in reading the article, in the last number of the RURAL, entitled "The Successful Housewife." I indorse the ideas contained in it. I grant that farmers' wives are many times hard-working, slaving, unappreciated women, but then there is a "silver lining" to the dark side of their daily routine work. They have one advantage—they can see Nature in all its beauty, as their work requires them to be early risers. They inhale the fresh, early morning air, so necessary to health, which the city lady deprives herself of by taking her morning nap amid the heat and dust of the city. Then consider that the lot of the farmer's wife is cast in pleasant places, and when her in-door labors are finished, she can find amusement and recreation out-doors by admiring Nature's beauties. The fields, forests, running streams and flowers attract her attention, and she can drink in all their beauties, and, looking from Nature up to Nature's God, say "He made them all for our happiness." True, if we have a love and interest in our work, we shall not find it a disagreeable task. Every kind of work which presents itself will seem pleasant if willing, loving hands will accomplish what might otherwise seem a dreary task. Farmers have the advantage of others in being producers, and in supplying the family needs, and yet they often disgrace Nature's bountiful supply by bad cookery. For instance, the invariable diet of pork and lard pastry seen on farmers' tables counteracts the beneficial effects of country life. If farmers' wives would cook more upon hygienic principles, they ought to be the most healthy and independent people in the land. Allow me to give a few plain recipes, which, in my opinion, are an improvement on those commonly used.

Cream Pie Crust.

Take equal quantities of Graham flour and white flour, wet with thin, sweet cream, roll thin, bake in hot oven as for common pie crust. If preferred, use white flour entirely; or make a crust like common biscuit, roll thin; or, take bread dough after it is risen, knead in butter same as for biscuit, roll thin. Pumpkin, apple, cranberry and peach make excellent pies, made in this way.

Apple Puffs.

Make a cream pie crust, roll thin as possible, cut out with common biscuit cutter, wet one of the puffs around the edge, place in the center a spoonful of apple sauce; take another, cut, with small cracker cutter, a hole in the center about one inch in diameter, place the ring which is left upon the first one, pinch the edges together and bake in quick oven.

Graham Gems.

One egg, one coffeecup sweet milk, 1½ teacup Graham flour, ½ teacup superfine flour, salt, make a batter to the consistency of griddle cakes, and bake in quick oven. MARIAN.

A Letter to the Editor.

DEAR FAITH RIPLEY:—There are many subjects women can interest themselves and others in by having an opportunity to do so; if they cannot talk them over with each other, why not write and give each other the benefit of them? We can, in that way, learn many things that will be a benefit to ourselves and to those who read them. There must be many young ladies among RURAL readers who could make themselves very useful to you and to others, if they had a little confidence in themselves. I am an old housekeeper and have had a great deal of experience in many matters, and to impart my knowledge to others is something I would be happy to do if it could be *done*. Experience is a good school, but teaching is discouraging work, *unless one* is possessed of a large stock of *patience*. Now, that you have called my attention to a very useful work, I will endeavor to help you, and my sister readers, on any subject that I fully understand.

I love to read Log Cabin Sketches; Jessie is a woman after my own heart, she reminds me of my own makeshifts. Any woman who has any ingenuity can make many pretty and useful things with but little cost. Necessity is a good thing to bring out one's genius. Some may never know they have a talent for construction until necessity compels them to bring it out. Young married people now-a-days have too much to begin housekeeping with. It would be better for them if they were in our friend Jessie Seabright's place, for the few first years of their married life. Mothers are the ones to blame in these degenerate days, for not putting their daughters at useful work instead of keeping them in full dress, and they themselves doing all of the work. I have no sympathy for them, if they in after life, are reproached for not teaching their girls something that would make good wives and useful women of them. Many a good man has been ruined by his wife's ignorance, and driven from an uncomfortable home to find his happiness elsewhere. I would like to say a great deal on this subject, but not now. CARRIE B.

A Childrens' Society.

Every Saturday afternoon I have at my house from 15 to 25 children. Our "Busy Bee Club," we call it, and I assure you that it is rightly named, for a more earnest set of workers were never known. Our object is to promote temperance and good morals. It is not a secret society, for I do not believe in secret organizations for children, but we invite all to our meetings and try to entertain them as best we can. Sometimes people say to me, "Do you not get tired of them?" Tired of them! The dear little ones who flood my house with sunshine and joy? Tired of purity and of helping to train those little minds fresh from the hand of God? Ah, no! How can I be tired when our dear Saviour said, "Suffer little children to come unto me, for of such is the kingdom of Heaven?" We have $3.38 in our treasury, and next Saturday week we are to have a strawberry festival. Our motto is, Help each other, and our object is to improve. Yours truly, H. B. N.

Bonnie Repose.

A Southern Letter.

I have a beautiful flower garden, with many choice roses, lillies, shrubs, etc., etc. I would suggest an exchange of plants and seeds; many of your readers may have more of one kind of plants than he or she wishes, and would like to exchange for others. For instance, I have many of the Longiflower Lily, and would like to get the Lily Arratum in exchange. I also have the Laladum Esculentum, Spanish Moss, many grasses, wax plants, etc. I live in Beaufort, S. C. We raise fine bananas and oranges. Our roses are trees, not shrubs. I wish you could see them. The Sofrano, Samarque, Bon Silene, Merechal Neil and Malmaism bloom all the year. I know they would astonish our Northern friends. I enjoy reading the RURAL NEW-YORKER, and will be pleased to correspond with you about other things. Respectfully, S. I. GIVENS.

MANY have written requesting designs suitable for washable materials, and also cuts of children's suits. In response to these requests, I will publish in RURAL of 28 of June the designs asked for.

To those who write concerning samples, I have to say that I can obtain samples of any kind of goods, from prints at 6½c., to silks at $8 per yard, and that the same are furnished gratis to subscribers. FAITH RIPLEY.

Domestic Economy.

CONDUCTED BY EMILY MAPLE.

HOSPITALITY IN THE HOME.

THE character of a private entertainment will have that tone about it and create just such an impression as is imparted by the person who gives it. Who has not observed this? A man may do much towards making his guests feel at ease; he may be cheerful and anxious to please; but, after all, the entertainment will savor of the atmosphere which can come alone from her who is mistress and queen in her own household.

I have in my mind's eye a public man, risen from a low position to hights of fame he never dreamed of when he married a young girl, innocent, true and loving, but with no higher ambition than to keep her husband's heart, and be right royal in her own household. She was happy in her humble sphere when her husband brought home his hard-earned money, and deposited it in her lap, with perfect confidence that it would not be wasted, but spent with far more judgment than he could have displayed, even had he the time at his disposal. In a few years he sat upon a high pinnacle. The wealthy and the gifted paid him homage, and on a certain day a friend came from abroad, a guest he delighted to honor, but who had come unexpectedly, and the husband took him home to dine with his family. It was a warm day in summer, and his wife, expecting no guests, was totally unprepared and expressed herself indignantly that she should have been so treated.

What a pity that she did not better comprehend that that guest who was surrounded with wealth and all the luxuries it brings, cared more for the friendly greeting and the manner of his reception than for all the dainties that could have been placed before him. It was kind in her to desire to entertain her husband's friend sumptuously, but sad that she could not have understood that the hearty welcome, gracefully and easily given, would have compensated in a great measure for any lack in the material wants of his nature. Instead of going to welcome him with a smile, that could have spoken volumes of her heart's interest in her husband and all whom he choose to honor, she went sullenly into the kitchen, and ordered the servants to do the best they could, and absented herself from the head of the table when the meal was prepared. The foreign guest returned to his country with a feeling that something was amiss in his friend's household, but what, he never could tell.

I am here reminded of a story in the life of John Wesley. He had been preaching to a large crowd in the open air, and after the crowd had disappeared, a lady of rank in England pressed forward and said: "Mr. Wesley, I shall be happy to have you dine with me today, although I am sorry we have nothing for dinner;" and then she returned home, where a large number of guests were assembled to meet the distinguished man. But they waited and waited until hours had passed, when he was seen slowly to wend his way over the road leading to the mansion, and on reaching the entrance was greeted by the lady, who said: "Mr. Wesley, we have been long waiting for you, what could have detained you?" "My dear Madam," was his reply, "you said you had *nothing* for dinner, so I have dined with a poor woman, who gave me a good dinner of bread and cheese, with a glass of ale." The great man seized on this opportunity of teaching her a lesson which she doubtless never forgot.

Why is it that we are all so anxious, rich and poor, to put forward that which it is true cannot be disregarded, the material comforts of life; but why seek to smother the hospitable welcome, the cordial look, and the press of the hand, which is so welcome?

I once knew a very good man in the Episcopal Church, of quite ordinary talents, who had such an affectionate way of shaking hands that everybody forgot all about his sermons, and never rested until he was made a bishop.

FANCY FREE.

HORSFORD'S BREAD PREPARATION.

I HAVE received a number of inquiries from Domestic-Economy friends respecting Horsford's Bread Prepartion, several of them expressing much satisfaction with its use. Sometime ago I received a package for trial from the Rumford Chemical Works and since have used it for biscuits, cakes, fritters etc., with the best of results. I did not mix the package with twenty-five pounds of flour as directed; for my family is small and we make and eat few biscuits and cakes, but preferred to measure the soda and acid each time that I used it, with the little tin which accompanies the preparation. E. M.

DOMESTIC RECIPES.

Clam Chowder.

Open seventy-five clams and slice thin two onions; ten tomatoes peeled and chopped; one tablespoonful of minced parsley; a teaspoonful of thyme and sage mixed together; three tablespoonfuls of butter: salt and pepper. Put a layer of clams into the kettle in which you make soup, then one of tomatoes with a little of the onion; sprinkle with all of the seasonings and bits of butter. More clams, tomatoes etc, until all are in. Pour over the liquor, there must be about three pints, cover and let simmer half an hour then let boil briskly for fifteen minutes. While the chowder has been cooking, split open ten or twelve butter crackers, soak in boiling milk until oft, butter, line a hot tureen with them, and pour in the chowder. Pass sliced lemon with it.

LONG ISLAND SOUND.

rrant Catsup.

Four pounds of *ripe* currants; two pounds of white sugar stewed together until quite thick; then add a pint of vinegar, a tablespoonful each of ground cloves and cinnamon, and a teaspoonful each of pepper and salt. Boil up and bottle.

Cherry Catsup.

One pint of pure cherry juice; half a pound of sugar; a teaspoonful each of ground cloves and cinnamon. Boil to a thick sirup and bottle. N. B. P.

Raspberry Short-Cake.

Chop up three tablespoonfuls of butter into a quart of sifted flour; add a small teaspoonful of salt, the beaten yelks of two eggs and enough "loppered" milk into which a teaspoonful of soda has been stirred to mix these ingredients into a soft paste. Roll quickly into two sheets—the crust intended for the upper should be the thicker—strew the under crust thickly with sugared berries, cover with the upper crust and bake about twenty-five minutes. Cut in squares, pile upon a flat dish, split and eat with butter and sugar.

Raspberry Rolly-Poly.

One quart of flour and two teaspoonfuls of baking powder sifted together, two tablespoonfuls of butter; a little salt and sweet milk to make a soft dough. Roll out into one piece one-fourth inch thick. Strew thickly—leaving a margin at the sides—with ripe fruit sprinkled with sugar. Sew into a pudding, cloth, leaving room for swelling, put into a kettle of boiling water and keep boiling an hour and a half. Eat cold with a hard sauce.

MARY B.

IStrawberry ⁼Cake with Meringue.

Make a good puff-paste; cut as large as a pie-tin and bake in a quick oven until as brown as desired; cover with strawberries sprinkled with powdered sugar and then with a thick covering of meringue of the whites of four eggs and three tablespoonfuls of powdered sugar. Return to the oven and bake until the meringue is slightly browned. Let cool before eating.

Sweet Pickled Strawberries.

Remove the calyxes from six quarts of ripe strawberries; put into a stone jar first a layer of fruit, then a sprinkle of cinnamon and cloves, thus alternating until all are in. Bring to a boil two coffee-cups of vinegar with two pounds and a half of sugar, skim and pour over the fruit; let stand over night and in the morning drain off the sirup, boil up and pour over the berries as before. The next morning boil all gently for twenty minutes. Put into jars and cover. MRS. R. BRAYTON.

News of the Week.

MISCELLANEOUS.

Monday, June 9, 1879.

The majority of the committee on the State debt, appointed by the Constitutional Convention of Louisiana, have presented a report recommending that only $4,000,000 be paid, and that the interest be reduced from seven to four per cent. The consolidated debt at present amounts to about $12,000,000, to which sum it was reduced by a scaling process about four years ago. The bond-holders agreed to the reduction because at the same time an amendment was added to the Constitution which secured to them the full payment of their principal and interest as then determined. Now an attempt is made to repudiate most of what was then acknowledged to be the legal debt of the State, on the pretext that the Constitutional amendment was not promulgated according to law, and that the Legislature which passed the Funding Act was an illegal one supported by the Federal military power and not elected by the people. It's everlastingly easy for a tricky customer to find an excuse for refusing to repay the money he has borrowed and spent.

The Catholic archbishops and bishops assembled in New York for the consecration of the new Cathedral have signed an address to the Catholics of the United States asking for subscriptions to enable Archbishop Purcell, of Cincinnati, to discharge his liabilities. The address carefully avoids all defense and extenuation of the archbishop's management of the funds, and expressly disavows all intention of making the proposed relief a precedent in other cases in which ecclesiastics may get into pecuniary difficulties. The prelates distinctly point out that the movement is simply one of charity towards the archbishop, and the tone of the appeal might be called excellent if it were not that it seems to impose on the "honor and charity of the creditors" some sort of obligation to meet the promoters of the subscription half way, "especially as so very large a proportion of the entire debt consists of accumulated compound interest." But then the accumulation of compound interest is an essential feature of the business of savings-banks which the archbishop undertook. All interest not drawn is in law and morals a new loan, and to use the creditor's frugality and forbearance in letting it lie as an argument for his surrendering a part of his whole debt is to put a very unfortunate construction on the prudence of the poor. The assets amount to $1,181,569, from which must be deducted $404,798 of "doubtful" and "worthless" notes. The liabilities, after a surrender by some creditors of one-half their claims, amount to $2,490,881.

Gen. James Shields of Missouri, the genial, old Irish soldier and democratic politician, died suddenly at Ottumwa, Ia., Sunday week. He did good service for his country in the Mexican war, for which he was promoted to the rank of brevet major-general, and was also a general of the Union army in the war of the rebellion. He has been a member of the Illinois Legislature, Auditor and Supreme Court judge of that State, commissioner of the Illinois land office and governor of the territory of Oregon. But his chief claim to political distinction lies in the fact that he has been sent to the United States Senate by three States—by Illinois for six years from 1849, by Minnesota, just after it became a State in 1857, for two years, and by Missouri for a few weeks in the last Congress to fill the seat made vacant by the death of Mr. Bogy. He was 69 years old, and up to within a few hours of his death, was able to attend to the interests of his lecturing business, which has latterly given him support. Mrs. Lucy Stone Blackwell wishes to register at Boston as a voter under the new law allowing women to vote for members of school committees, and insists upon being registered under her maiden name of Stone. The city solicitor has been consulted and says she cannot be assessed or registered, except under the name of her husband. Simon Cameron is running a tobacco farm near Lancaster, Pa. Judge Emerson sentenced John Miles, a polygamist, at Salt Lake City, Utah, this week to pay a fine of $100 and be confined in the Nebraska penitentiary for five years, but an appeal was taken to the Supreme Court of the territory, Miles's bond being fixed at $5,000. This case has attracted unusual attention from the fact of its being the second conviction under the laws of the United States, and that Miles married three young women at the same time with the advice and consent of John Taylor, president of the Mormon church.

Judge Baxter of the United States Circuit Court decides that Memphis is a city still, in spite of the action of the Tennessee Legislature repealing its charter, which he declares to be void. Even if the legislative repeal was all right, Judge Baxter decides that it would not wipe out the city's debt, which was its purpose in going into bankruptcy. The judge holds, not only that the receiver appointed by the governor has no authority to act, but that the federal court may even proceed to levy and collect taxes, but he takes this position that the question may come before the United States Supreme Court for final settlement. There were landed at the port of New York during the last five months 49,592 immigrants, as against 28,145 in the same time last year. The number of cattle driven from Texas during the past 10 years for shipment to western markets is estimated at over 3,500,000, worth some $25,000,000 to the stock-raisers. The biggest drive was in 1870—800,000—but this year's will not be more than 200,000. Portions of Kansas and Missouri were swept by disastrous tornadoes late last week. In the former State over 40 people were killed and twice as many injured. Irving, Frankfort and Delphos were the chief sufferers. The destruction of property is very large. Hundreds of houses have been torn to pieces and the crops in the path of the cyclone are utterly destroyed. The track of the cyclone varies from three-fourths to one mile in width at intervals, as it occasionally left the ground for a short distance and again descended. Wherever it touched ground it swept everything clean—houses, trees and crops. Where it crossed Blue river it lifted every drop of water in its course, and in passing over a well in Irving it scooped it dry. Dead horses, cattle and hogs are to be found all along the line of the storm. Huge trees, two and three feet in diamter, were twisted away, and in one instance it swept along the bed of a ravine and lifted out of its narrow walls every stick of timber and carried them away. The bed of that ravine looks as if it had been swept by fire. Every article made of iron with which it came into contact was broken and twisted out of shape, seeming to confirm the theory that these storms are electric forces and not wind. All the bodies of those killed in Missouri are covered with a thick, bluish, sulphurous mud. Their clothing was striped off, or torn to shreds, their shoes torn off, and their feet and bodies burned and blackened fearfully.

A cyclone struck the earth four miles from Lee Summit, near Independance, Mo., Friday evening, and tore a furrow from the southwest to the northeast through the country 100 yards wide and and 10 miles long, leveling everything in its track and killing and wounding several people. Much damage has also been caused in Holt and Nodaway counties, Mo., by the same cause. But, although the loss has been so great in both Kansas and Missouri, it is more than outbalanced by the good done to the growing crops throughout these states by the rain accompanying the tempest. Gov. St. John of Kansas has issued an appeal for contributions in aid of those made destitute in that state by the cyclone. Money may be sent to John A. Martin at Atchison.

A new colonization plan for assisting worthy poor to find farms in the West has been organized by a number of clergymen and laymen of different denominations in New York city, under the name of the Co-operative Colonization Society. An office will be opened where the deserving poor can apply for information and assistance. Mrs. Thompson, the well-known philanthropist, has furnished funds for the immediate use of the organization. The Senate Committee on Finance has voted to postpone consideration for further action on the Warner silver bill until the first Monday in December. New York pays for police department salaries $3,206,150 annually, and adds $60,000 for supplies and $20,000 for alterations and repairs. The force consists of a president, three commissioners, a superintendent, four inspectors, 36 captains, 27 surgeons, 140 sergeants, 147 roundsmen, 2,290 patrolmen and 78 doormen. The president of the commission gets a salary of $8,000; each of the other commissioners, $6,000; the superintendent, $5,000; each inspector, $3,500; each captain and surgeon, $2,000; each sergeant, $1,600; each roundsman and patrolman, $1,200; each doorman, $900.

Cheap transportation is culminating. Rates on both grain and meats were given last week from Chicago to New York, by all rail routes, at twelve and a half cents per hundred pounds, and bargains were made as low as ten cents a hundred. The distance is a trifle under a thousand miles. This rate then becomes a little more than one-fifth of a cent per ton per mile. Telegrams even report seven and one-half cents per hundred for the entire transmit. The wildest granger can hardly ask for lower charges than these. But if profit can be drawn from these figures, what shall be said of the tariff imposed on local freights? Fair business rates are doubtless somewhere midway. Bills will be presented to the next Georgia Legislature levying a direct tax on dogs and whiskey, ad valorem—all for the benefit of public schools. The State will produce the present year more breadstuffs than for any three years past. The farmers are all in fine spirits, and pushing their business with that systematic energy which never fails to insure success.

FOREIGN.

The route pitched upon by the international congress at Paris locates the canal across the American isthmus near the railroad from Panama. This route, which utilizes the Chagres and the Obispo rivers, is rather more than 40 miles long, and it is calculated that ships can be locked through it in a day and a half. The projects which the congress finally chose between were those for a canal across the Mexican isthmus of Tehuantepec, via the San Juan river, and Lake Nicaragua; the Panama route, and two other routes lower down on the same isthmus,—one involving a mountain tunnel of from seven to ten miles long. The estimated cost ranged from $138,265,000 to $252,200,000, the longest canal, that via Lake Nicaragua, costing the least, and that through the San Blas tunnel costing the most. The Panama line is estimated to cost $208,550,000. Lesseps, who made a magnificent success of the Suez canal, is the prime mover in this undertaking and thinks that, now the route of the canal is decided upon, the money will be forthcoming to build it. This seems very improbable without government aid, but the intention to seek such is disavowed.

Baron Lionel Rothschild, the leading representative in England of the great European family of money kings, is dead at the age of 71. He was not merely a financier, but was conspicuous in politics and was elected to the House of Commons from London for many successive years, as representing liberal ideas and freedom of commerce. He was not allowed to take his seat, however, till 1858, because he was a Jew, and he was the first man of his race to sit in the Commons. He has of late been closely connected with our syndicates in the handling of United States bonds. A great drought prevails in Barbary, and it is feared that the want of water for domestic purposes will give rise to epidemic diseases. Wheat sells for $3 a pound and barley for $2, but animals of all kinds may be bought at one-third their normal price.

The imports of colonial wool into England have doubled during the last fifteen years, and now amount to about 400,000,000 pounds. Half of this is re-exported to the Continent. The home clip of this once staple commodity of England—on which the Lord Chancellor is supposed to be seated—is now of secondary importance. When the Zulus rushed in on the small British detachment of Col. Wood, and while there was yet an open road in one direction, Col Weatherly, an English cavalry officer, clapped his son, a boy of 13 who was with him, on horseback, kissed him, and told him to fly for his life. The lad jumped from the saddle, striking the horse a lash which sent it galloping off, and said: "Father, I'll die with you." The father handed his revolver to the child just as the Zulus reached, over British bodies, the spot where they stood. Weatherly slew five Zulus before he fell, but the son was killed at once. It is said that the Prince of Wales has remitted twenty per cent, of his Cornish rents. This means some $70,000. It is said that the dissensions of the agricultural and manufacturing groups of protectionists in the German reichstag have been compromised by an agreement to raise the duty on grain to 80 pfennings and reduce the duty on iron to 80 pfennings.

The Austrian convention with Turkey relating to the occupation of Bosnia and Nova-Bazar has been published, and to the great surprise of the public the preamble declares that "the fact of the occupation in no way prejudices the sovereign rights of the Sultan." This is a most dextrous and useful stroke on the part of Count Andrassy. It relieves the Porte of the heavy burden of confessing to the Mussulmans of the empire that it has ceded territory to a Power which had not assailed it in arms, which, to a good Mussulman, would have the air of sacrilege; it shuts the mouths of the Hungarians who have been declaring that the occupation would end in annexation, and the Magyars would be swamped by the Slavs; and it gives Austria the air of scrupulous moderation in carrying out the provisions of the Treaty of Berlin. On the other hand, however, nobody—or next to nobody—believes that the sovereign rights of the Sultan have the smallest prospective value,

or that he will ever be able to exercise them. Long before the question of terminating the occupation can arise, the Porte will probably have disappeared from the list of European Powers, and its claim on Bosnia have become as unsubstantial as that which the kings of Sardinia, down to our own day, used to put forward on their coins to the sovereignty of Cyprus and Jerusalem.

There has been a terrible loss of camels in the Afghan campaign. Already the trade between India and Central Asia will be crippled simply for want of means of carriage during the next few years. Thousands of camels have perished from overwork and bad forage; and as these had been got together at high prices and with great difficulty, it is easy to understand the inconvenience that will be occasioned on the frontier. A census of Portugal was taken on Dec. 31, 1877, the previous one having been taken as far back as 1863. The total population is 4,745,121, as compared with 4,343,935 in 1863; and the total increase is 401,189. Quite a commotion has been stirred in the Sultan's breast because Aleko Pasha, alias Prince Vogorides, a genuine Mussulman, appointed both by Abdul Hamid and by the Powers to govern Eastern Roumelia, concealed the fez in his trowsers' pocket when approaching Philippopolis, and put on the Bulgarian hat at his entrance into the capital of the province.

The condition of the Ministry in England does not improve, in spite of the acquisiton of the "scientific frontier" from Yakub Khan. The Duke of Argyll made an attack on them in the House of Lords a fortnight ago, in a speech which has not been matched in power and brilliance in that body within the present generation, and Lords Beaconsfield and Salisbury had nothing to say in reply except that it was indiscreet to assail them at such a critical period, and that they were doing as well as they could. It has come out distinctly in an address of General Obrutsheff, confidential representative of the Czar in Eastern Rumelia, that the Sultan has positively promised Russia that he will not occupy the Balkans—or, in other words, that he surrenders "the impregnable frontier" for securing which at Berlin the English plenipotentiaries got their Garters. Worse than all, this is believed to point to a secret understanding between Russia and Turkey which promises ill for the British protectorate of Asia Minor, and which the progress of the war in South Africa is likely to strengthen.

Photography can give us only the images of the flowers, but in MURRAY & LANMAN'S FLORIDA WATER, chemistry has preserved their aromatic essence. It is literally the bottled breath of the most fragrant products of the richest floral region in the world.

Hop Bitters has restored to sobriety and health, perfect wrecks from intemperence.

THE MARKETS.

PRODUCE AND PROVISIONS.

NEW YORK, Saturday, June 7th, 1879.

BEANS AND PEAS.—There are no new features in beans. Marrows have only a moderate export call, 325 bbls. for the week, and with a liberal stock, prices have an easy tone. Mediums are not abundant, and fine marks are steady at full rates. All other beans quiet, with Red Kidney off from the late extreme. Peas unchanged; green, per bu., $1.80@1.85; Southern fl. f. peas, per 2 bush. bag, $2.50; Canadian field, in bulk and bond, 75@77c. Beans, marrows, prime, $1.35@1.37½; fair to good, $1.25@1.35; mediums, prime, $1.29@1.32½; fair to good, $1.20@1.25; pea, $1.20@1.35; white kidney, $1.30@1.50; do., red, prime, $3.30@3.00; do., fair to good, $2.80@2.85; black or turtle soup, $2@2.15.
Receipts of beans for week, 3,525 bush.

BEESWAX.—Trade is confined to small lots, and 24c. quoted for Western and 24@24½c. for Southern.

BROOM CORN.—Offerings are full and demand moderate.
Brush and short broom, choice, per lb., 5½@6½c.; do., common to good, 4½@5½c.; hurl, good to choice, 3½@4½c.; do., common to fair, 3@3½c.; red and crooked, 2@3c.

BUTTER.—Supplies for the week very heavy, adding up 45,500 pkgs.; for the past fortnight 90,500 pkgs. have been received. These are staggering figures for the early outlet of the market, and prices have ruled decidedly in buyers' favor. It is unusual to see State and Western quoted so nearly alike, as they are at this date. Exporters have drawn liberally, paying full local quotations. English reports do not encourage the sale so desirable here during an oppressive surplus. Shipments abroad for the week, 17,000 pkgs., including many half tubs. A favorable feature is uniform good quality, and the low rates may draw out an enlarged Eastern and other outside trade. Fine State, June dairies are quite as attractive as creamery, and 3c. less to the purchasers will be apt to give that class of stock a good lead.

COMPARATIVE RECEIPTS AND EXPORTS FOR THE PAST THREE YEARS.

	Receipts, pkgs.	Exports, firkins.
June 1, '78 to June 1, '79	1,500,550	313,110
" 1, '77 " " 1, '78	1,293,100	186,208
" 1, '76 " " 1, '77	1,272,200	155,532

These figures show the largest export trade ever obtained for this item.

State pails and half tubs, choice, 14c.; good to prime, 12@13c.; fair to good, 11@12c.; Welsh tubs, choice, 13½@14c.; good to prime, 12@13c.; fair to good, 11@12c.; poor, 9@10c.; State creamery, best invoices, 16@17c.; good to prime, 15@16c., sweet cream, 14@16c.; Western, best invoices, 16@17c.; good to prime, 15@16c.; fair to good, 14½@15c.; imitation creamery, 14@14c.; Western dairy, best invoices, 12@13½c.; good to prime, 11@12c.; fair to good, 10@11c.; poor to fair, 8@9c.; Western, factory, best invoices, 11c.; good to prime, 10@10½c.; fair to good, 9@10c.; poor to fair, 7@9c.; grease butter, 3@4c.

CHEESE.—The market has been rather depressed this week. The receipts have been larger, and the effort to sell them, with the same advices from abroad restraining exporters, brings about a lower range of prices; at the close 7½c. is the general outside rate, but an occasional lot reaching 7¾c.
Sales at: New factory—7¼@7½c. for best; 6¼@6¾c. for good; 5¼@6c. for fair to good; 3¼@5c. for half skimmed, and 1@3c. for skimmed; dairy at 6@6¾c. for good and fine; 5@6c. for fair to good, and 1@3c. for skimmed; Western factory at 6½@7c. for fine; 4@5c. for half skimmed, and 1@3c. for skimmed.
Liverpool cable quotation, 42s.
Steam, 35s.
Comparative receipts for the past three years:

	Rects., bxs.	Exp'ts, lbs.
June 1, 1878, to June 1, 1879	3,130,900	142,243,750
June 1, 1877, to June 1, 1878	2,675,050	117,452,460
June 1, 1876, to June 1, 1877	2,118,850	91,445,320

CORN MEAL.—Sales are at $2.50 for Brandywine and $2.15@2.35 for Western yellow.

COTTON.—There has been a very irregular market and a fair degree of activity, closing at for June, 13.09@13.10c.; July, 13,23c.; August, 13.39@13.40c.; September, 13.13@13.14c.; October, 12.12c.; November, 11.56@11.58c.; December, 11.42@11.43c.; January, 11.44@11.45c.
Quotations for spot cotton are based on American standard of classification, and on cotton in store running in quality not more than half a grade above or below the grade quoted:

	Uplands.	N. Orleans.	Texas.
Ordinary	11⅝	11¾	11¾
Strict ordinary	12	12⅛	12⅛
Good ordinary	12⅜	12⅝	12⅝
Strict good do	12⅝	12⅞	12¾
Low middling	12¾	12⅞	12⅞
Strict low middling	12 15-16	13 1-16	13 1-16
Middling	13 1-16	13 3-16	13 3-16
Good middling	13¾	13¼	13¼
Strict good middling	13⅝	13⅜	13⅜
Middling Fair	14 5-16	14 7-16	14 7-16
Fair	15 5-16	15 7-16	15 7-16

STAINED.

Good ordinary	11 13-16
Strict good ordinary	12 3-16
Low Middling	12¼
Middling	12⅜

DRIED FRUITS.—The market continues slow and is in a good degree nominal, the only exception being for evaporated apples, which have a very fair home trade demand.
Apples—evaporated Alden's & William's 10¼@10¾c.; do. new process at 8½@9c. State plums, 12@12½c.; Blackberries quoted at 4½c. Peaches—Peeled Georgia, 7@7½c. for poor; 8½@9c. for fair to good; 10c. for prime; choice North Carolina, at 12@13c.; good do., ¾@10c.; unpeeled halves, 3@3¼c. quarters, 2¾@3c. Pitted cherries, 20c. Apples—New, 3¼@3¾c. for Southern quarters in bags; 3½@4c. for primo sliced; do., fair and good, 3@3½c.; State at 3½@3¾c. for new sliced; and 3@3¼c. for quarters; Western at 3@3½c. for new quarters. Raspberries, 30c.

EGGS.—Receipts for week, 11,378 bbls.; do., last week, 9,980 do. Supplies are large enough to keep down strong summer prices. There was some firmness early in the week, but at the close there are few sellers at quotations. No regular "loss off" sales are mentioned; it has been customary for the past week or so for sellers to divide losses with the buyers or agree to an average.
Near points, 14c.@14½c.; State and Penn., 13½c.; Western and Canadian prime, 13c.; poor marks, 12@12½c. Southern not wanted.

FLOUR.—There is more doing from shippers, and with the advancing wheat market, prices are rather stronger.
Latest prices are: $3.35@3.80 for inferior to very choice superfine State; $3.65@3.90 for poor to good extra do., odd lots and lines; $3.90@4.25 for good to very choice do.; $3.35@3.85 for inferior to fancy superfine Indiana, Iowa, Michigan, &c.; $3.80@3.90 for inferior to good shipping extra do., and $3.90@4.25 for good to choice extra do.; common to about choice white wheat extras, $4.35@5.40; choice to very fancy do. at $5.40@6.75; red and amber winter wheat, inferior to very choice trade and family, at $4.25@6.00; round hoop Ohio at $3.85@4.25, and trade and family brands of do. at $4.40@6.25, the latter rate for strictly fancy; St. Louis, $4.30@5.50 for inferior to good extra; $5.50@6.35 for good to very choice (with very fancy brands up to $6.75); Minnesota clear, very inferior to very choice, at $3.65@4.85; Minnesota "straight," very inferior to strictly choice, $4.35@5.75 (a few fancy as high as $6@6.25), and patent poor to strictly fancy at $5.30@6.75, few brands going above $7.50; unsound stock at from $2.25@5.00; city mill extra at $4.75@5.10 for West Indies (the latter rate for fancy in new packages); do. for England and $3.65@3.90; do. trade and family extras, $5.25@6.25; do. for South America, $5 for standard brands (winter wheat product); No. 2 at $2.30@3.25 for very poor to strictly fancy.

FRESH FRUITS.—Russet apples nominally, $1.50@2.75, poor to prime. State; a few extra held at $3. Strawberries have ripened suddenly, and are coming from all shipping points. The weather latterly has favored the enlarged supply, but prices have to be kept popular. L. I., S. I. and up-river, 12@14c. ¾ qt.; N. J., best, 10@13c.; other, 3@7c.; N. J. hulled, 12@16c., Del. and Md., good to choice, 8@11c.; common, 5@6c. Cherries, Md., 5@10c.; few good enough for table purposes. Norf. gooseberries, $1.50@2, ₩ bush. Sales slow. Peaches are of better grade, but many have to be repacked; ½ bush. crates, $1.50@2; a few Early Beatrice, $2.50. Hot-house grapes quoted, 75c.@$1 ₩ lb. for B. Hamburg and Muscat, and 40@50c. for sweet water. Peanuts have improved in demand and price. Va. hand-picked, $1.37½@1.40; other, $1.10@1.25; Pecans, 6@8c.

GRAIN.—Wheat has advanced chiefly on speculative manipulation, and closed strong and fairly active.
Latest sales are of No. 2 spring at $1.05@1.07; No. 3 spring at 90½@92c.; rejected spring at 71½@72½c.; ungraded spring at 85c.@$1.05; mixed winter at $1.15½@$1.16; ungraded amber at $1.14½@$1.16; No. 2 amber at $1.16; ungraded red at $1.12@$1.17; No. 1 red at $1.17½@$1.19; No. 2 red at $1.17@$1.18; No. 3 red at $1.12½@$1.13; ungraded white at $1.13@$1.16; extra white at $1.17. No. 1 white at $1.16¼@$1.16½. No. 2 white at $1.14@$1.15½. New York No. 2 spring, June, at $1.06; do., July, at $1.05@$1.05¼. No. 2 red, June, at $1.17½; do., July, at $1.16@$1.17; do., August, at $1.13. No. 1 white, June, at $1.16¼; do., July, at $1.16@$1.16½. Rye at 60c.@62c for Western, and 61c.@61c. for State. Corn is lower on large receipts; sales of New York No. 2 at 44@44½c.; New York steamer mixed at 42½c.@43½c.; New York No. 3 at 40¾c.@41c.; ungraded Western mixed at 41c.@44c.; New York No. 2 white at 51½c.; lower mixed at 48c.; New York steamer yellow at 44c.@44¼c.; yellow Western at 45c.; white Western at 50c.; New York No. 2, June, at 44c.@44½c.; do., July, at 44¼c.; do., August, 46½c.@46¾c.; New York steamer mixed, June, at 45¼c.; do., July, at 45c. Oats are higher on an active trade; sales of New York No. 1 at 39c.; New York No. 2 at 38c.; do., July, option, at 37c. New York, No. 3 at 37c.; New York No. 1 white at 43c.; New York No. 2 white at 39¾c.@40c. New York No. 3 white at 38¾c.@38¾c.; white Western at 38c.@43c.; mixed do; at 36¾c.@38½c.; white State at 41c.@43c.; No. 2 Chicago in store at 37c.; do. afloat quoted at 39c.

HAY AND STRAW.—The market shows full assortments and prices easy.
Sales at 45@50c. for shipping, and 75@85c. for retail qualities. Straw at 45@50c. for long rye; 40c. for short rye, and oat at 30@40c.

HOPS.—Shipments for the week, 458 bales. Emmet Wells says in his weekly circular: "Our market continues in about the same condition as reported for the last few weeks, the change, if any, being in a little better demand without any improvement in prices. Most of our merchants are well stocked with hops, and will find no difficulty in meeting the demands of their customers during the summer months. There is still some talk of slow growth of vine in the interior caused by the late drouth, but the copious rains of Monday night and Tuesday, if extended to the hop districts, must dispel all fears which previously existed of serious damage to the vine from lack of rain, and within the next few days we expect to hear more encouraging accounts."
Quotations are for New York's new crop, choice, 9@12; New York's, new crop, medium, 7@8; New York's, new crop, low to fair, 5@6; Eastern, 6@9; Western, 5@9; Yearlings, 2@4; Olds, all growths, 1@2; Pacific coast, nominal, 8@10.

LEATHER.—Hemlock sole at 18@20c. for light; 18½@21½c. for middle; 19@22c. for heavy and 17@19½c. for good damaged.

MAPLE SUGAR.—Supply nearly out. Remnant quoted low, 7@9c. for cakes and 75c. for syrup in tin.

OIL-CAKE.—Western is quoted at $23.50.

POULTRY AND GAME.—City dressed fowls have been plenty and low, which weakens Philadelphia and country dressed. A lot of Western a little out of condition sold at 8c. Jersey and near-by spring chickens have been plenty and lower because of the competition of the city dressed. Some lots of State and Western sold at quotation. Small turkeys are scarce and have sold up to 20c. when very choice. Large turkeys not wanted; cannot be sold above 12c.
Turkeys, prime, small, 18@20c.; fair to good large, 10@12c.; chickens, spring, Phila. dry-picked, 30@33c.; State and Western, 25@27c.; fowls, Jersey, choice, per lb., 11@12c.; State and Western, dry-picked, 10@11c.; do. do., scalded, 8@10c.; Phila. dry-picked, 11½@12½c.
Early in the week a very heavy supply made low prices for fowls; at the close there is some recovery. Chickens are easy, should be large enough to be quoted by the pound. Turkeys not wanted, especially the old toms now arriving. Southern cooped stock loses heavily on the route.
Chickens, spring, large, per lb., 27@28c.; small, 23@25c.; fowls, N. J., 10@11c.; Western, 9@10c.; Southern, 8½@9c.; roosters, old, 4@5c.; turkeys, Western, 9@11c.; ducks, N. J., N. Y. and Pa., ₩ pair, 60@75c.; Western and Southern, 40@50c. Geese, Jersey, $1.25@1.50; N. Y. and Pa., $1.25@1.50; Western, 87c.@$1; Southern, 75c.@87c.; pigeons, 40c.
Ice-house snipe and plover and choice baited pigeons supply a moderate fancy trade. Frogs' hind quarters are becoming quite a commercial item, quoted at 15@20c. per lb. Frogs should not be shipped alive, and before dressing them the shipper should learn if his consignee wants to handle that sort of "game."
Eng. Snipe, doz., $2@2.25; plover, $1.75@2; Dowitch, $1.50; small bay and sand, 40@50c.; pigeons, baited, $1.75@2; flight, $1.50@1.62; tame squabs, $2.

PROVISIONS.—Hog products have been more active and closed firm. Mess pork quoted for June, $9.85 bid and $10 asked; July at $9.85 bid and and $10 asked, and August at $9.95 bid at $10.05 asked; September at $9.95 bid and 10.00 asked. Bacon at $4.90 for long clear and $5.05 for short clear. Lard—Western steam, at $5.30 for spot lots, $6.27½@6.30 for June; $6.37½ for July, and $6.42½ for August. Stearine at 6½c. for city and Western. Tallow at 6c. for prime. Beef hams at $17.50@17.75. Beef—Extra India mess, $17.50@20, as to quality; packet, $11@11.50; plain mess, $9.75@10.50; extra mess at $10.50@11.50.

SEED-GRASS—Are dull; Clover quoted at 6½c. for prime, and 6¾@7c. for choice Western; timothy at $1.45@1.50.

TOBACCO—Has shown very little activity this week, but has been steadily held in price.

	Light.	Heavy.
Common lugs	2½@ 3	3¼@ 3¾
Good lugs	3¾@ 4	4 @ 4½
Low leaf	4½@ 5	5 @ 6½
Medium leaf	5½@ 6¾	6¾@ 7¾
Good leaf	6½@ 8	8 @ 9
Fine leaf	8½@10	10 @11
Selections	—@—	12 @12½

SEEDLEAF.—CROP OF 1877.

New England wrappers,	common	10	@12
do. do.	medium	13	@15
do. do.	fine	18	@25
do. do.	selections	27½	@35
do. seconds		10	@13
do. fillers		7	@ 9
Pennsylvania assorted lots,	common	9½	@10¼
do. do.	fair	11½	@14½
do. do.	fine	15¾	@18
do. wrappers		20	@40
do. fillers		7½	@ 8¼
New York assorted lots,	common to medium	8	@10
do. do.	do. good,	12	@15
Ohio assorted lots		9	@12
Ohio wrappers		12	@18
Wisconsin assorted lots		7¾	@10

VEGETABLES.—Old potatoes have only a light, special call, few good enough to command the extreme. Poor stock is considered dear at any price at this season, and consumers of moderate means reject them. The first week of June is a very late period to report old potatoes in stock. New South are tending lower, as Norfolk will soon be added to the list. Old potatoes, best, $2.50@3; fair, $1.50@2; very poor, $1.00. Cucumbers, Sav. and Cha., ₩ crate, $2@2.50; Fla., 75c.@1.25; beans, Nor., ₩ ½ bbl. box, $2.50; N. C. flat, $2; Sav. and Ch'n, round, ₩ crate, $1@1.25; flat, 75c.@$1; green peas, L. I., ₩ bag, 87c.@$1.12; N. J., ₩ bbl., $1.25@1.75; Md., $1@1.50; asparagus, Oyster Bay, ₩ doz., $1.25@1.50; Shrewsbury, $1@1.25; tomatoes, Fla., choice, ₩ bu. crate, $1.75@2.25; prime to fair, $1@1.50; Bermuda, ₩ box, 25@50c.; radishes, near-by, ₩ 100 bunches, 25@75c.; lettuce, ₩ bbl., 50@75c., cabbage, Nor., ₩@@$1.50; rhubarb, ₩ 100 bunches, $1@1.50; onions, Bermuda, ₩ crate, $1; squash, Fla., new, 50@75c.; beets, N. J., ₩ 100 bunches, $4; turnips, $3@4; Russia, ₩ bbl., $1.75@2; carrots, $2.50@3.

WOOL.—The arrivals have been larger, but taken up close, and market is very strong at the sharp advance that has occurred latterly. Sales of XX Peunsylvania at 35c.; mixed fleeces at 33@35c.; unwashed Indiana at 25c.; spring, California, at 18@30c.; spring, Texas, at 21@25c.; do., fall, at 15@18c.

LIVE STOCK MARKETS

NEW YORK, Saturday, June 7th.

BEEVES.—Receipts for the week, 9,702 head; do., last week, 11,458 do. Light receipts and prospective limited supply gave a strong tone to the trade this week. Now that the railroad controversies have been adjusted, there will not be the demoralizing rushes of stock to this market which have many times during the past weeks produced uncertain quotations and a vexatious condition of trade. Fair to prime native and half bred Colorado steers, both stillers and corn-fed, were taken readily at an advance of strong ½c. ₩ lb., and light Texans were more than ½c. ₩ lb. higher. A lot of ordinary "through" Texas steers, 965 lbs. average, changed hands at 7½c. ₩ lb., to dress 53 lb.; about 30 car loads of Colorado stillers at 8@8½c., to dress 56 lb., and other sales of natives were at 7¾@9¾c., to dress 55@56 lb. Yards were cleared at an early hour and the market closed firm with an upward tendency.

COWS AND CALVES.—There is no change; there have been a few sales at the range of $30@55—prices which do not encourage free shipments.

VEAL CALVES.—The opening prices of the week have not been supported; at the close 8¾c. is the top for best N. J. and State; fair to good veals, 4¼@5c. Buttermilk calves, 2¼@3½c.

SHEEP AND LAMBS.—Receipts for week, 23,758 head; do. last week, 27,368 do. Demand fair and market steady at 3¾@5c. for common to choice sheep, clipped; common to choice Southern and Western lambs, 6@7¾c.; good to extra N. J., 7¾@8¼c.

HOGS.—Receipts for week, 29,977 head; do last week, 29,931 do. The market is nominally steady at $3.60@3.85 ₩ 100 for medium to good corn hogs; city dressed State, 140 lbs. down, 5¾@6c.; 140 to 180 lbs, 5¾@5¾c.; heavy, 4¾@4¾c.; Western, 4¾@5¾c.

TERMS FOR 1879.

THE subscription price of THE RURAL NEW-YORKER is

Single Copy, per Year	$2 00
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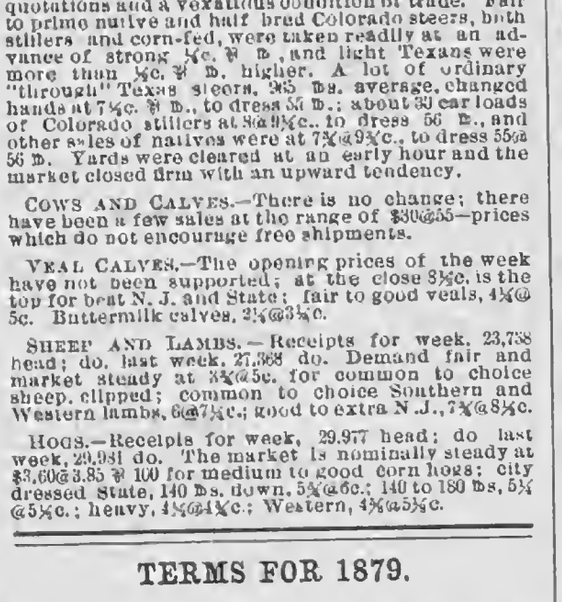

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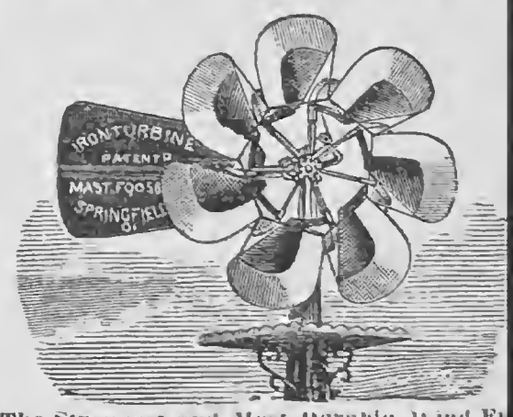

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Reading for the Young.

THE POWER OF KINDNESS.

"THERE is one chapter in my life's history that I have always kept locked in my heart," said John Haviland, as he faced the little group in the parlor; "but to-night I feel as if it were my duty to open it for your inspection; and I do it for the love of woman—for the love of a woman who made me what I am worthy to be, the husband of a good woman."

"Why, John!" said Mrs. Haviland, softly approaching—babe still held tight to her bosom—"you frighten me."

"Let's have the story," said the rest of the group, certain that something good might be anticipated; and John commenced, at first a little timid, but gaining confidence as he proceeded.

"When I first came to New York, at the age of twelve years, to seek my fortune, I can call myself a precocious chap without danger of being accused of an unusual degree of self-appreciation. I was quick to learn everything, the bad as well as the good. My employer used profane language. I picked up the oaths that he dropped with a naturalness that surprised even myself. The boys in the office all chewed tobacco. This was a little the hardest job I ever attempted, but, after two weeks of nausea and indescribable stomach wrenchings, I came off victorious, and could get away with my paper a day with the best of 'em.

"True, every word of it," said the speaker.

"One afternoon I was sent with a note from my employer to a house in the upper part of the city. I hadn't anything to read, but I had plenty of tobacco, and with that I proposed to entertain myself during the two or three hours I must spend in the passage. For some distance I did not notice who were beside me, but by-and-by a lady said, very softly and pleasantly: 'Would you please, little boy, be more careful. I am going to a party this afternoon, and I should hate to have my dress spoiled.'

"I looked into her face. It was the sweetest face I ever saw. Pale, earnest and loving, to my boyish heart it was the countenance of an angel."

"What did you say?" interrupted Mrs. Haviland, her bright eyes filling with tears, as she saw how the memory of this beautiful woman affected her husband.

"Say! There was very little I could say. I think all I did for some time was to look."

"I managed to dispose of the tobacco, however, and wiped my mouth very carefully, all of which I felt certain she saw and mentally commented upon.

"'Have you a mother, little boy?' she next asked, in the same low tone.

"'No, ma'am,' I answered, and I felt my throat filling up, and I knew I must swallow mighty fast to keep from sobbing.

"'You have a father, then, I suppose?' she kept on.

"'No, ma'am: no father.'

"'Brothers and sisters?'

"'Neither, ma'am.'

"'Then the little boy is alone in the world?'

"'All alone, ma'am.'

"'How long has his mother been dead?' and the dear woman looked away from my face, and waited till I could speak.

"'Two years,' I answered.

"'And you loved her?' came next.

"'Dearly,' was all I could say.

"She was silent for a moment, and then she said so sweetly—oh! I shall never forget it—

"'And what do you think your dear mother would say—how do you think she would feel—to know that her little boy was guilty of such a disgusting habit as this?' pointing to my cheek, where the tell-tale quid had vainly tried to stand its ground.

"'I must leave now,' she continued; 'but here is my card, and if you come to me most any evening, I shall be glad to see you, and perhaps we shall be of some service to each other.'

"She gave me her little gloved hand, and to my dying day I shall never forget the sensation of that moment. I could not bear to part with her: without her I felt that I could do nothing—with her I could grow to a man's estate—a man in the truest sense of the word. From that moment tobacco never passed my lips.

"As soon as I could summon courage I called upon the lady. Well do I remember how my heart beat as I waited in the elegant parlor for her to come down, and how awkward I felt as I followed my guide to her private sitting-room. She got at every point of my life, and before I bade her good-by it was arranged that I should spend two evenings of each week at her house, and study on the occasion just what she thought best.

"No lover ever looked forward to meetings with the mistress of his heart any more ardently than I did to these meetings with my friend.

"I grew careful of my personal appearance, careful of my conversation, and strove in every way to be worthy of the noble friendship. Two years passed in this delightful manner—two years that made me. My friend not only attended to my studies, striving also all the while to sow the right kind of spiritual seed, but she procured me a business situation with a particular friend of hers, where I remain to this day. Nobody but God knows what I owe this woman. During the last three months of those two years I noticed that she grew constantly pale and thin; she never was betrayed into speaking of herself. Sometimes, when I would ask her if she felt worse than usual, she would reply:

"Oh, no! I am only a little tired—that is all."

One evening she kept me by her sofa much longer than was her custom, while she arranged lessons, and laid out work enough, it seemed to me, for months.

"'Why so much to-night?' I inquired, conscious that my heart ached, and vaguely suspecting the cause.

"Because, dear,' she answered, 'I do not want you to come for the next week, and I am anxious that you should have sufficient work to anticipate, as well as to keep you busy. I think I can trust you to be a good boy, John?'

"'I think you can, ma'am,' I answered, almost sobbing.

"'If I should see your mother my dear boy, before long, what shall I say to her for you?'

"Then I knew all, and my grief had no bounds. It is no use to go on. She died two days after."

A TINY ENGINEER.

THERE is a certain tiny engineer, who builds bridges across great chasms, bridges floating in space, and bridges suspended from tree to tree; preys on creatures much larger than himself, and builds houses—yes, houses with doors to them, which he closes when he retires into the privacy of his own apartment. This little engineer and architect is the spider. Of course the Cousins have often seen his bridges, but I do not think they have seen the spider that lives in a house with a door. He lives in tropical countries, and is called the Trap-door Spider. His house is usually on the side of a hill, in sandy soil. He makes a little hole in the ground, spins a web over it, with a little passage in the center, leading down into the hole, spins a round door, which he fastens by a hinge to the passage, and then, no doubt, sits in his apartment with the same feeling of satisfaction a housekeeper experiences after the annual cleaning. I feel sure the fabled spider that invited the unwary fly into his little parlor belonged to this species. If frightened, the Trap-door Spider takes refuge in his house, slamming the door after him like a human being.

Another noted member of the Aranea family is the Tarantula, which is found in America, Africa, and the south of Europe. Though there is no doubt the poisonous qualities of its bite have been exaggerated, still it is an insect to be avoided. Fancy the feelings of those men Mark Twain tells of, who upset a box of live Tarantulas in their bed-room! Some of the spiders are very brilliant in appearance. There is one variety common in southern New Jersey, of a bright, canary color, marked with black bars. This web is always of one shape, bars radiating from a common center, and the interstices filled in with delicate lace work. When dew-laden in the early morning, nothing more lovely could be imagined. I shall not speak of that South American spider which is said to be so large that it preys on humming-birds, because I have no accurate scientific knowledge of it, and I wish only to speak of that I know. I might tell you of a terrific combat between a wasp and a spider, and how the spider obtains his food, but that you can find out for yourself any day.

Bergen Co., N. J. EMILY L. TAPLIN.

MAY DAYS.

MRS. E. J. RICHMOND.

JUNE may be the queen of the circle of months, but, coming from the dampness and chill of the long, long winter into the balmy sunshine and beautiful pictures of this lovely May, one can desire nothing more delightful. It seems but yesterday we were eagerly searching over the brown, damp meadows for the first blade of grass; now great stretches of clover and waving grass cover all the meadows, and even the roadside, while blue violets and golden dandelions are peeping forth wherever we may turn. The Crocuses and Hyacinths have come and gone, but the Lily of the Valley holds her graceful, sweet-scented bells still, while the pretty Snow Drop nods approvingly. The Star of Bethlehem shines with steady lustre, while the Polyanthus and the dear old Pansies, though they have been here so long, seem to be holding daily receptions, at which great numbers of people in royal purple velvet and scarlet and gold suits appear. Tulips in gorgeous coloring flaunt proudly before great blooming wreaths of flowering Almond, while the modest Lilac, dear old-fashioned flower, fills the air with sweetness. The Apple and Pear trees wear beautiful crowns of beauty—delicate, rose-tinted flowers, pure white, and now and then a young tree sports a coronal of almost rosy red, while all breathe the sweetest perfume. The birds seem delighted at this gay reception, and sing their blithest strains. Morning concerts and daily matinees are the order of the day, while the distant hills, in their blue, smoky atmosphere, give the finishing touches to a landscape well befitting "the merry, merry month of May." Even the Tinadilla seems to have caught the spirit of the scene, and glides slowly between violet-dotted meadow banks, while she mirrors the graceful, drooping willows in her depths of blue. And the glorious sunshine encircles all, the benignant flowers fall upon all, the love of the Great Father is as a crown of blessing upon all His works and upon all his creatures, in this beautiful month of May.

LETTERS FROM BOYS AND GIRLS.

Frizzle Top Tells About Cranberries.

DEAR UNCLE MARK AND RURAL COUSINS:—I would like to belong to the Y. H. C., and would also like to give a little instruction in return for all I have had. Is there any of my friends who do not like cranberries? I believe not. Now, why not raise some for yourselves. Prepare the ground by plowing or spading, and enrich it with a compost of two parts swamp muck and one part wood ashes. Bone dust is an excellent fertilizer, say, one pound to every square rod. In April, May or June, or in October and November, set the plants four inches apart, and in rows six inches apart, in beds four feet wide. Two square rods will yield four or five bushels, if very good. The vines will soon cover the ground and require no renewing, as the plant is a perennial shrub. The cranberry is one of the best plants for garden edgings or for broad belts or borders for the principal walks. It is in eating from September to June. I saw in RURAL of May 17th, that Slayer-of-Conceit will either have to lose his name or put in an appearance. I think his successor has made a good suggestion, and that we ought to act upon it. I would like to know what has become of Madcap Mollie. Can any one tell? FRIZZLE TOP.

DEAR UNCLE MARK:—I have read how some of the Cousins earn pocket money; I will relate my experience. I have had a garden from the time I was old enough to know what a plant was. My first garden was but a few feet square, and in this were crowded varieties enough to occupy a rod. For two years past I have grown but one kind of vegetable, and have had good success and a ready market. The crop I speak of was white beans. I sow oats in early spring, letting them grow till the 1st of June; they are then plowed under and the beans planted at once. This is our mode of getting a clover sod. My plot is about one-third of an acre. The crop last fall was four bushels, and sold for seven dollars and a half. Please put my name on the Horticultural Club list. WM. J. MASON.

Dodge Co., Nebraska.

DEAR UNCLE MARK:—I would like to join your Horticultural Club, as I like flowers so well. I hope all who belong to our Club will do their best. It gives me great pleasure to have flowers. I think I will try my luck with onions and cabbages, as to flowers, I like all of them. I am a girl twelve years old. My brother found three little hares yesterday; he gave two to his wife and one to me, as I am the youngest. If this is published I will write again. LUDIE STANLEY.

THE HORTICULTURAL CLUB.

I HAVE sent a package of radish seed of a new and curious variety to each member of the Club. The peculiarity of this new variety is, that although the body of the root is red, the long, tapering root, or tail, is white. Sow it now, in light, rich soil, not too severely exposed to the sun, and *water freely*. The membership of the Club has greatly increased, but there is still room for all who may wish to join. Do not forget to give your name and address. UNCLE MARK.

HIDDEN PARTS OF A SHIP OR STEAMER.

1. Give me some starch, Ainsley?
2. 'Twas a sham mockery.
3. She was bedecked with flowers.
4. In the "Bay-state" rooms were engaged.
5. I learned to steer ages ago.
6. The air off ice is cool.
7. In the prison gang Wayland appeared.
8. You'll find it in the big alley.
9. Make your best bows; prithee, why!
10. This crew is unworthy.
11. Ah! Ben, gin ends many a life.
12. Why, man, choruses are fine!
13. Shaly! arduous are your duties.
14. To the bulk he added the whole.
15. I saw Bertha to-day.
16. Dr. Burns, cupper and leecher.
17. Mary is a cook's scullion.
18. It is a staff, railed inside.
19. I saw a log lined with ivy.
20. There's a high bluff on the Irish.
21. Black eels are poison.
22. I trig gin glasses.
23. See the bowl in Eva's room!
24. Friend Maj, I believe you.
25. Stimbul Warks is off at school.

☞Answer in two weeks. LITTLE ONE.

A FRACTIONAL PUZZLE.

One-sixth of Howard; one-tenth of Montgomery; one-fourth of Kent; one-seventh of Carroll; one-seventh of Calvert; one-eighth of Somerset; one-ninth of Queen Anne; one-eighth of Caroline; one-seventh of Harford; one-tenth of Dorchester; one-sixth of Talbot. Take one from each and form a county of Maryland.

☞Answer in two weeks. LITTLE O.

WORD SQUARE.

A pledge or security.
A biblical character.
A seed-bud.
Beautiful shade-trees.

☞Answer in two weeks. UNCLE WILL.

DIAGONAL PUZZLE.

1. A consonant; 2. Duplicate vowel's; 3. Not well cooked (curtailed); 4. Reliable primals and diagonals form two animals.

☞Answer in two weeks. O.

A DROP-LETTER PUZZLE.

Sp-r--s, g—d L-rd. Fill with vowels and form a response in Protestant Episcopal prayer-book.

☞Answer in two weeks. O.

PUZZLER ANSWERS.—May 31.

BEHEAD AND CURTAIL.—1, Fusee, use; 2, glover, love; 3, shears, hear; 4, narrows, arrow; 5, gripe, rip; 6, heart, ear; 7, odor, do; 8, hoard, oar; 9, merry, err; 10, mandrel, Andre; 11, white, hit; 12, Washy, ash.

HIDDEN INSECTS.—14, Louse; 15, Gnat; 16, Fly; 17, Flea; 18, Butterfly; 19, Musquito; 20, Midge; 21, Tarantula; 23, Bee; 23, Bed-bug; 24, Wasp; 25, Lice.

"'Twas the night before Christmas when all thro' the house
Not a creature was stirring—not even a mouse;
The stockings were hung by the chimney with care
In hopes that St. Nicholas soon would be there."

ANAGRAMS OF CAPES.—1, Ortegal; 2, Wilsons; 3, La Hogue; 4, Romania; 5, Agulhas; 6, Gallinas; 7, St. Mary; 8, Spartivento; 9, Apsheron; 10, Flattery; 11, Spartel; 12, Henlopen; 13, Detour; 14, Kinnaird; 15, St. Lewis; 16, Florida, 17, Seaconnet; 18, Mull of Cantire; 19, Elizabeth; 20, Hertberg; 21, Anamour; 22, Canso; 23, Gracias; 24, Three Points.

DIAMOND PUZZLE:

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                R
              P O T
            D U B B O
          R E B E C C A
        A U S T R A L I A
R O B E R T B R U C E
        R A S P B E R R Y
          P A T R I C K
            M O U S E
              A C T
                E
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—A Lunatic (Hill End), J. C. (Hill End).

Sabbath Reading.

PSALM V.

Metrically rendered from the Hebrew by Rev. James K. Gutheim.

1. Unto my words give ear O Lord,
   Unto my thoughts vouchsafe regard.
2. The voice of my petition deign to weigh,
   My King and God, for unto Thee I pray.
3. O Lord, at early dawn Thou'lt hear my voice,
   At early dawn my prayers in Thee rejoice,
   And I look up to Thee, my hope and choice.
4. For Thou art not a God who wickedness desires,
   Evil dwells not with Thee, nor unto Thee aspires.
5. The haughty shall not stand before Thy eye,
   Thou hatest the worker of iniquity.
6. Thou wilt destroy them who speak falsehood vile,
   The Lord abhors the man of blood and guile.
7. But I, sustained by Thy surpassing grace,
   Come to Thy house, Thy sacred dwelling place,
   And worship in Thy holy shrine,
   In fear of Thee, Thy power divine.
8. Guide me, O Lord, in Thine own righteousness,
   That my observers all my course may bless,
   Make straight for me Thy way of holiness.
9. For in their mouth there's no integrity,
   Their inner life is fell malignity;
   Their throat is but an open grave,
   A smooth and flattering tongue they have.
10. Condemn them, God!—through their devices they will fall,
    Their numerous misdeeds will cast them down withal;
    For they've rebelled against Thee, spurned Thy gracious call.
11. But all that trust in Thee will ever sing
    With joy, for Thou wilt shield them 'neath Thy wing;
    And they who love Thy holy name and word,
    Exalt in Thee, their guardian and their Lord.
12. For Thou, O Lord, with blessings wilt the just endow,
    And like a shield Thy love and favor round them throw.

AN OLD TESTAMENT GEM.

IF we were called upon to point out the most wonderful, and, as it regards Christianity, the most important chapter in the Old Testament, we should select the fifty-third chapter of Isaiah. It is no wonder that intelligent minds have been convinced of the essential truth of New Testament Christianity by reading that chapter alone. We know positively that Isaiah lived and wrote many centuries before Christ came into the world. We know that chapter was in existence in the Old Hebrew Scriptures, just as it now stands, in its sublime isolation, and, to the Jewish mind, its unfathomable depth, ages upon ages before there was any solution of it at the cross of Calvary, or any other solution whatever. Outside of the New Testament, and independently of Christ, no single personage has appeared during the twenty-five centuries since the chapter was written in whom its sublime descriptions, its august attributes, and apparent contradictions of character could possibly meet. In Jesus of Nazareth alone, and in Him only as He is Immanuel, God with us, a suffering and dying Savior, but at the same time a Divine and conquering Messiah, has that chapter ever been fulfilled. In Him all the diverse descriptions meet, all the wonderful attributes blend, all the apparent contradictions are perfectly reconciled. The God-Man Mediator fulfills and harmonizes them all.

There is a remarkable parallel and resemblance between this Messianic chapter in Isaiah, and one chapter in the New Testament which stands out with alike prominence. It is the seventeenth chapter of the Gospel according to St. John. The two chapters are alike in their unique and sublime isolation, one for the Old Testament, the other for the New. Each discourse of the person, character, mission, work, passion, and glory of Christ. Each relates to the very central and essential truth of the whole gospel system. It is impossible to find anything in all the Scriptures more fundamental as to the fact, more condensed as to the statement, and more essential as the very key, which once accepted and understood, unlocks all the rest, and explains all the rest. We should say that those two chapters are the ones in which all Divine revelations reach their culminating point, and at the the same time their profoundest depth. These two chapters contain the gospel—not two gospels, but the one saving Gospel of God.

In the first passage the evangelical prophet declares the report which he had received from the Almighty by inspiration, and which was revealed to him as a vision of the coming Messiah in his state of humiliation, incarnation, voluntary obedience to the Divine law, vicarious suffering for His people, sacrificial death, justifying righteousness, and final triumph. The whole wondrous prophecy setting forth these and other affiliated doctrines of the Cross, is contained in fifteen verses, beginning with verse 13. of chapter 52, and running through chapter 53. Here the Lord speaks of the Messiah as "My servant."

In the analogous passage, John xvii, Christ himself is presented on the very eve of His passion, contemplating all He was about to do and suffer for our redemption as predicted by Isaiah. In an exalted intercessory prayer, addressed to God the Father, He speaks of Himself as "Thy Son." In view of the Cross which awaited Him on the morrow, which was to complete the great immolation, make an end of sins, put away transgression, bring in everlasting righteousness, finish His early career, and bring both glory to God and salvation to man, He said, "Father, the hour is come. Glorify Thy Son, that Thy Son also may glorify Thee. As Thou hast given Him power over all flesh, that He should give eternal life to as many as Thou hast given Him. And this is life eternal, that they may know Thee, the only true God, and Jesus Christ whom Thou hast sent;" and so on through the twenty-six verses of the chapter.—*The Interior.*

PERSONAL ITEMS.

Grand Rapids has had its bogus foreign Count. He was handsome, plausible and audacious. The young women were bewitched by him, and he picked out Estina Sexton, married her, took her to Chicago on a wedding tour, stole her money and deserted her.

Mrs. Starch of Surgeon Bay, Wis., desired to get rid of her husband. She put poison in his coffee, but the dose was so small that it made him only slightly ill. She tried again, and made the quantity so large that it did not seriously harm him. Then she experimented on a dog and a cat; but, by the time she had thoroughly mastered the subject, Mr. Starch's suspicion was aroused, and he detected the drug in his cup on the occasion of the third attempt on his life.

A family of four adults, in Northbridge, Mass., have drank enormously of cider since last fall, the quantity being estimated at forty to fifty barrels. They had been unable to sell it at a fair price, and so used it themselves. During the spring and latter part of winter it was very hard, and the drinkers were intoxicated much of the time. Six weeks ago the mother died in a fit, and later one of the sons died in a similar way, while the father has delirium tremens.

Edward Alexander Guy of Cincinnati, was in 1862 possessor of $40,000. He was a well educated, intelligent young man, and particularly pious. Convinced that the scriptural text: "Sell all that ye have and give alms," was a binding injunction, he began to dispose of his property and give the money to the poor. He bestowed the gifts slowly and carefully, and it was not until 1870 that the last dollar was gone. He is now a religious missionary in Cincinnati, penniless, but completely absorbed in his work.

A young man in Norridgewock, Me., dreamed that he was a minister, that his companion was a Judge, and that he opened his friend's court with prayer. The dream was a subject of only passing comment. That was thirty years ago. Lately, the Rev. Dr. Charles F. Allen, the dreamer, dropped into the Supreme Court at Augusta, where his old friend, now Judge Charles Danforth, was presiding. The Judge thought that the whole dream might as well be realized, and so invited the clergyman to open the court with prayer.

Willard Brown was deeply in love with Louisa Rarrott, a servant girl, in his father's family at Martinsville, Ind. She asked him to make for her a mold of a silver dollar, as she intended to go into business as a counterfeiter, and he consented; but her clumsy efforts to produce bogus coin that would pass proved a failure. Her next plan for acquiring wealth was to murder and rob old Mr. and Mrs. Brown, and she coolly requested Willard to aid her. Although her influence over him was very great, he declined to help her kill his parents; yet he promised never to divulge her proposal. One night he suspected that she was about to carry out her project and watched her. He saw her chloroform the old folks and let in Joe Greer, a desperado, who killed Brown with an iron bar and badly injured Mrs. Brown. The crime was attributed to tramps, until Willard, jealous of Joe Greer's intimacy with Louisa, spoke out.

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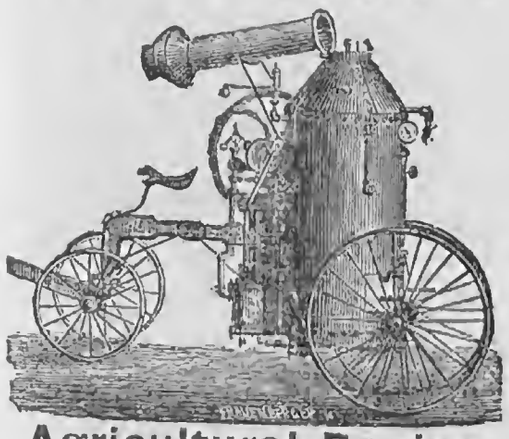

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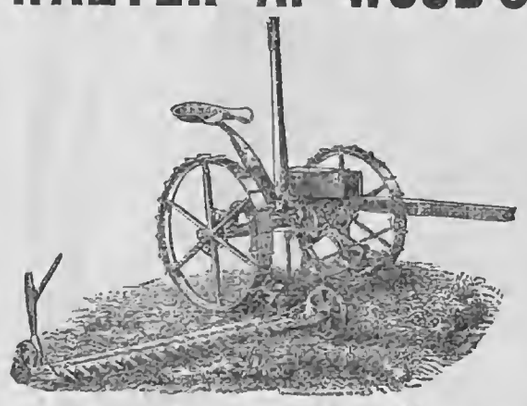

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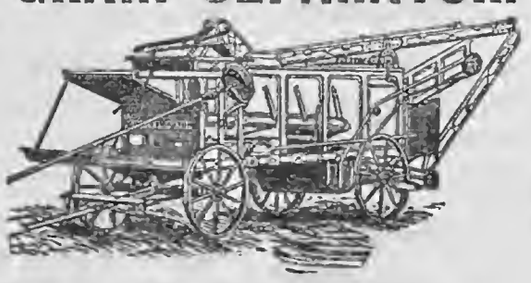

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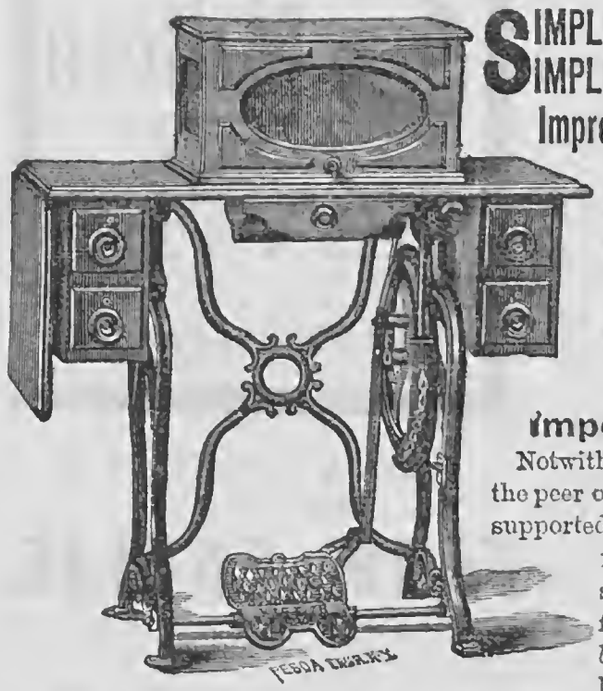

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A NEW SECRET ORDER.

THE other day, after a strapping young man had sold a load of corn and potatoes in the market, and had taken his team to a hotel barn to "feed," it became known to men around the barn that he was very desirous of joining some secret society in town. When questioned he admitted that such was the case, and the boys at once offered to initiate him into a new order called the "Cavaliers of Coveo." He was told that it was twice as secret as Freemasonry, much nicer than Odd-Fellowship, and the cost was only two dollars. In case he had the tooth-ache he could draw five dollars per week from the relief fund, and he was entitled to receive ten dollars for every headache and twenty-five for a sore throat.

The young man thought he had struck a big thing, and after eating a hearty dinner he was taken into a store room above the barn to be initiated.

The boys poured cold water down his back, put flour on his hair, swore him to kill his mother if commanded, and rushed him around for an hour, without a single complaint from his lips. When they had finished he inquired:

"Now I'm one of the Cavaliers of Coveo, am I?"

"You are," they answered.

"Nothing more to learn, is there?"

"Nothing."

"Well, then I'm going to lick the whole crowd," continued the candidate, and he went at it, and before he got through he had his two dollars initiation fee back and three more to boot, and had knocked everybody down two or three times apiece. He didn't seem greatly disturbed in mind as he drove out of the barn-yard. On the contrary his hat was slanted over, and he had a fresh five-cent cigar in his teeth, and mildly said to one of the barn boys:

"Say, boy, if you hear of any cavaliers asking for a coveo about my size, tell 'em I'll be in on the full of the moon to take the Royal Skyfugle Degrees."

A BLUNDER AND ITS REWARD.

DURING his first visit to Paris, M. Lasalle, a distinguished German, presented himself at the house of a well-known lady, to whom he had sent letters of introduction in advance. When the servant opened the door and received his card, she conducted him to the boudoir and told him to be seated, saying: "Madame will come immediately."

Presently the lady entered. She was in *dishabille* and her feet were bare, covered only with loose slippers. She bowed to him carelessly and said:

"Ah, there you are; good morning."

She threw herself on a sofa, let fall a slipper, and reached out to Lasalle her very pretty foot.

Lasalle was naturally completely astounded, but he remembered that at his home in Germany it was the custom sometimes to kiss a lady's hand, and he supposed it was the Paris mode to kiss her foot. Therefore he did not hesitate to imprint a kiss upon the fascinating foot so near him, but he could not avoid saying: "Thank you, madame, for this new method of making a lady's acquaintance. It is much better and certainly more generous than kissing the hand."

The lady jumped up, highly indignant.

"Who are you, sir, and what do you mean?"

He gave his name.

"You are not, then, a corn-doctor?"

"I am charmed to say, madame, that I am not."

"But you sent me the corn-doctor's card?"

It was true. Lasalle in going out that morning had picked up the card of a corn-doctor from his bureau and put it in his pocket. This, without glancing at, he had given to the servant, who had taken it to her mistress. There was nothing to do but to laugh over the joke.

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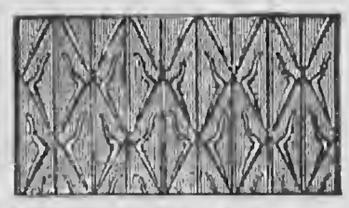

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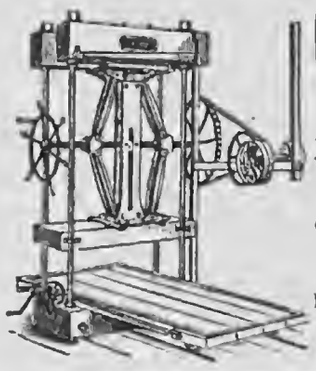

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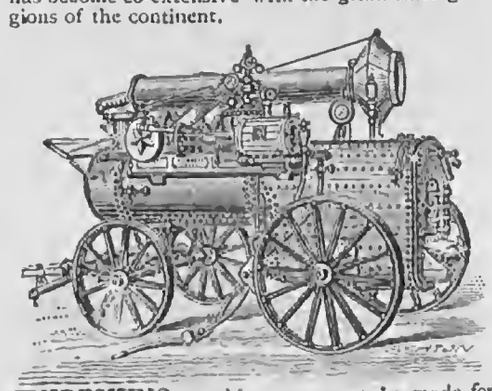

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THE RURAL NEW-YORKER

A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME

VOL. XXXVIII. No. 25.
WHOLE No. 1534.

NEW YORK, JUNE 21, 1879.

PRICE FIVE CENTS.
$2.00 PER YEAR.

[Entered according to Act of Congress, in the year 1879, by the Rural Publishing Company, in the office of the Librarian of Congress at Washington.]

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MIDDLE STATES.

New York.

MOUNTAINVILLE, Orange Co. — Wheat is about a usual crop and on an average quantity of acres. Corn is looking well and promises to be over an average crop. Oats look badly, and are late. Barley looks well, what little there is of it in this vicinity. Potatoes have been planted in larger plots than for several years past, and have come up strong, but the bugs are numerous in the extreme, and the immense quantity of eggs on the under sides of the leaves will necessitate the use of much Paris-green. I made a discovery the other night. I have a garden patch of very early potatoes and had been very attentive in taking off every bug which could be seen at any time in the day, but had not looked at them since morning on that day, so after dark—about 9 P. M.—I took a lantern and found the bugs completely rioting on the tops, and it took two hours to clear them off. There were at least six times as many as ever appeared in the day time. Grass will be light but there is very little manure ever applied even on the meadows which are mowed every year. Clover looks better and is just in bloom. Farmers are disheartened: butter is selling from 14 to 18 cents per pound—the very best. The railroad charges 40 cents per can for taking milk to New York city, 50 miles, and brings flour from the West for 25 cents per barrel—which is an outrageous imposition, which has determined many to give up altogether sending milk. It is probable Orange county, is on the eve of a great revolution in agricultural affairs. Fruit prospects, good; money, scarce. G. G.

DUNDEE, Yates Co.—In this vicinity we are having a very severe drought; we have had no rain of any account for six or seven weeks. All crops are suffering seriously. The wheat crop is already beyond recovery. Many fields are entirely, or nearly, ruined. Farmers think there will not be more than one-fourth of a crop; some put it as high as one-third. Once in a while a piece that came through the winter in good order, will make a fair crop. Oats and barley are very backward, have germinated poorly and are only two or three inches high, and at a stand-still, and, unless rain comes soon, they must be almost entire failures. Grass is short and thin. Clover on some good soils is heading out when four or five inches high. Pastures are already showing the effects of drought. Much of the corn planted two or three weeks ago, lies as dry in the ground as on the day it was planted, and what has come up does not look vigorous. Of potatoes it is yet too early to speak. Some planted early are up nicely, and the "bugs" are waiting for their chance. They did not trouble us much here last year, but that may be all changed this season. The present prospects of fruit are good, except for plums, which seem to be dropping entirely off. Apples, pears and peaches are, at present, promising well, but we are having some days of cold, northwest wind, which may damage them to some extent. Grapes are in fine condition and promising well, but they have not blossomed yet. Sowing corn for fodder might profitably be in order when it rains, so as to give any hope that it would come up. W. H. O.

GREENWICH, Washington Co.—I have been from this to Columbus, Nebraska, and back three times during the months of March, April and May, making six journeys through the States of New York, Pennsylvania, Ohio, Indiana, Illinois, Iowa and Nebraska, and I have just returned from Montpelier, Vt., and I find the crops—grass, wheat, barley, oats, corn, potatoes, flax, etc.,—more forward and looking better in the great Platte Valley than in any other section of the country. The cultivated acreage there is far in advance of any previous year, and their prospects are flattering for an abundant harvest. The farther you come East, the more backward things are looking. I find some farmers in Vermont and in this section yet planting corn and potatoes. Vermont, to a person having been West, looks like a hard country to farm in. The crops, as a general thing, throughout the country, considering the backwardness of the season, are looking very well. In this county but little wheat is raised. Rye is the principal winter crop, and that will be nothing to boast of this season. Many of the farmers, on account of the dry weather, had begun to think the grass and oat crops would be failures; but the late rains have put a different aspect on the outlook, and we may yet get a fair crop. It is not the "bearing year" for apples and a large crop is not expected. The corn crop is not advanced enough yet to enable one to tell much about it. If the potato crop is not destroyed by the bugs and is anything like a fair yield, Washington county can make a big show towards supplying the world with the tubers. The acreage is far more than any in previous years; but the bugs are in abundance, and if not defeated, will be ruinous to the crop. This is quite a famous section for raising flax, and, in view of the backwardness of the season, it is looking well. P. K. R.

NORTON HILL, Greene Co.—This eighth of June morning we are sitting by a cheerful wood fire and find it comfortable. Frost is in the valley and the thermometer stands at 31°. We have had a very backward spring thus far. I live on the border of Greene and Albany counties, and have been about somewhat this spring and find a fair outlook hereabouts, as we do every spring in fact; for this is a country of mixed farming with no one thing as a specialty. On almost every farm there are kept cows, sheep, poultry and hogs. At the same time grain, hay and fruit are sold from almost every farm. Some stock also is raised by every farmer, for sale. I have been in some fourteen States, but have never seen a more prosperous country than this. At present grass looks as if it would be two-thirds of a crop, if we have good weather. Oats now look as if there would be about one half a crop—not more. Winter grain is not one-half what it was last year. Corn has come up badly on account of dry weather, but there is time enough to plant again and have a good crop yet. This is a good corn section. Fruit, I think, will be more of a failure than anything. What few sets there have been on the trees this spring, have been more or less blasted by cold, dry winds; but there will be some surplus fruit in these parts, as there is a great deal of land in orchards. There will be more pears than any other kind of fruit. Potatoes that are up, are well patronized by bugs, but our people are capturing them. On a single hill I got 150. There has been bad luck with sows this spring here: folks lost their pigs so that we are scantily supplied with swine. Pastures are not as good as usual, and there will not be as much butter sold this year as last. Stock came out well this spring; my herd of 10 cows are making 12 pounds of butter a day. They did better than that last year at this time. W. H. I.

JAMESTOWN, Chautauqua Co.—The season has been extremely dry and cold until about the first of the month, when we had rain in sufficient quantity to pretty thoroughly wet the ground. Since that time we have had frequent showers, but the weather has remained very cool, and on the morning of the 7th inst. there was a severe frost, that has done much damage along the valleys of most of the streams. Winter wheat, as a rule, is poor to medium, with an exceptional good piece. Oats promise a full average crop; corn was planted late, and has come up very unevenly, owing to cold and drought. Prospects at present are not very flattering. The prospects are that the apples on the high lands will probably be fully an average crop, unless they are blasted by cold winds. About the usual acreage of potatoes has been planted. Potato beetles promise to be a fine crop. Grass, where not injured by the recent frost, will be no more than a medium crop; many old meadows will be exceedingly light. Times are hard; the best butter sells at 10@15c. per pound, and other farm produce in proportion. W. C. G.

ROME, Oneida Co.—Wheat came out of the winter looking well, owing to the covering of snow that lasted about four months; but the severe drought of May is causing it to head out short and to look uneven. Spring wheat was a failure last year, and but little was sowed this year. Grass is about half a crop, owing to the severe drought. Oats look quite well. Corn is very small. Potatoes are well covered with bugs as soon as the vines are out of the ground. Apples blossomed full, and promise a fair crop. Strawberries and Currants are loaded with fruit. Grapes in exposed places were killed by the frost on May 20th. The weather is quite variable; on June 1st the mercury was up among the nineties; on June 7th we had some frost. Nice rains have fallen during the past week, and they are helping the crops greatly. In a ride of ten miles south to-day, I was surprised at the poor appearance of all kinds of crops, but if we have favorable weather henceforth, they will gain fast. F. D. P.

GENEVA, Ontario Co.—The spring is very backward. In the counties of Cayuga, Seneca, Yates, Ontario and Wayne the wheat and hay crops will not be more than a half yield. Spring crops look fair, but very backward. Fruit was injured in some localities by the late frosts, especially Strawberries. Cherries and plums promise well. Apricots and peaches bid fair to be a good yield. Pears look well, and the apple crop only middling. It is very cold and dry, and unless the warm weather comes soon, spring crops will be poor. Roses and shrubs never looked better, the cool weather has kept off the vermin so that they have had a chance to grow, and the lovers of Roses rejoice. J. H. S.

ALBION, Orleans Co.—The wheat crop in this section bids fair to be a full average one, perhaps the straw will not be as heavy as last year. Corn and potatoes are not sufficiently advanced to enable me to form an opinion as to their yield. It has been very dry, but recent rains are bringing up both these crops and the prospects are now much better for good yields than they were a week ago. I think, therefore, that we have good reason to hope for good fair crops of both. The fruit prospects are good for those orchards that did not bear last year. As many apple trees will not bear this year as last. Peaches and small fruits produce a good yield. J. G.

RURAL FARM, Queens Co., L. I.—We are having showers daily. Wheat that up to this time has looked splendidly, is now showing rust to an extent that may injure the crop materially. Rye, corn, potatoes and all vegetables are all that could be desired. Old hay, of which there is still a heavy stock, does not sell readily at 50 cents per cwt. and the present promise, which is about as good as fulfilled, of another fine harvest, will not tend to raise the price. Our Blunt corn plot, regarding which we indulged in "great expectations" is far behind other fields. We had counted upon a *dry* season—and we counted wrong.

CATHARINE, Schuyler Co.—It was very dry here up to June 1. We have had some fine showers since then. Not more than two-thirds of the corn planted is up, it has been so dry. Wheat is short and very thin on the ground. Will not be half a crop. Apples, cherries and peaches will not be more than half a crop. Pears are good. About the usual amount of potatoes has been planted. They have not come up yet. The prospect is that corn, wheat and grass will be poor this season. Oats and barley are backward and thin on the ground. J. S. H.

FRIENDSHIP, Alleghany Co.—The farmers hereabout are looking rather blue on account of the backwardness of the season. The weather has been very cold and dry. We have had frost to the injury of fruit in many localities, more especially in the valleys. Grass on old meadows is very light; that newly seeded is better. The usual number of acres of various crops has been sown and planted. Not very much old hay is left over. On the 10th and 11th we had the first rain of any amount for several weeks. W. A. H.

BYERSVILLE, Livingston Co.—Weather cold and dry. Some of the farmers in this section have plowed up their winter wheat. The remainder in this township, (West Sparta), will hardly yield an average of over five bushels per acre. Spring crops are very backward. Corn came up very unevenly and has grown but little. There was quite a heavy frost in the eastern part of the town on the 6th inst., which damaged the potato and corn crops quite badly. The prospect for an abundant apple crop was never more favorable. Grass is very short. N. K. D.

NORWICH, Chenango Co.—The season has been cold and dry, and is late, but within a few days we have had rain, and vegetation has changed materially. We have not much of a wheat country, having raised but very little till within two or three years. Now, however, almost every farmer raises enough for his own use. Potatoes that are up look well. Fruit has been killed somewhat by the frost. I think we shall have enough, however, for home use. H. H.

ANDOVER, Alleghany Co.—Late frosts have put everything back here. Wheat looks well

Corn is poor—won't be half a crop. Potatoes are late, but the farmers here planted plenty of them; beetles are abundant. The hay crop will be light here. I think fruit will not be very plentiful here. Apples and cherries will, I think, be good crops, but pears, peaches and plums will be light. Times are dull. Wages are from 50 cents to 75 cents per day. C. F. H.

HIMROD'S, Yates Co.—We have had a cold and dry spell here. It has not rained, to do much good, in six weeks, although it has been raining all around us. Crops look badly. Wheat will be a short crop. Spring grain has not started much yet. Corn is all planted, but it is coming up thin. Clover and grass will be short crops. Seed sown in the spring is all dried up. We shall have to replow this fall unless rain comes soon. G. A. B.

FREDONIA, Chautauqua Co.—During May and the last half of April it was very dry here, which gives us a light grass crop. Most kinds of grain look well. Small fruits and grapes promise full crops. Apples will be a full crop except where late frosts in the southern part of county cut them off. Copious rains during the past ten days have relieved the drought, and everything now looks promising. T. S. H.

SYRACUSE, Onondaga Co.—Spring very backward. Very poor prospects for winter wheat. Spring grains very poor. Corn nothing as yet. Barley is sick; so are oats. Fruits were injured by frosts. Potatoes are very backward but may come on yet. The worst prospects for the farmer in 30 years. No rain to amount to anything for five weeks. J. G.

ADDISON, Steuben Co.—We had quite a hard frost lately, killing all tender plants. Wheat is worth 90c. to $1; potatoes, 50c. and 60c.; oats, 40c. and 45c.; hay, $8; butter at groceries, 9c. to 11c. Although the outlook is not very good, yet farmers are putting the best foot forward. A. M. H.

BESEMER'S DEPOT, Tompkins Co. — On account of the backwardness of the spring and a drought through the month of May, wheat looks very poorly. Corn and potatoes are backward, but we hope for good yields yet. Fruit promises well, except apples which will be a light crop. J. B.

PENN YAN, Yates Co.—The winter wheat will be a light crop—not up to the average. Spring grain promises well. It is yet rather early to judge of potato and corn prospects. Fruit prospects are good—fully up to the average. E. M. B.

Pennsylvania.

DOE RUN, Chester Co. — Wheat generally looks well in this county. Some fields, however, are quite poor, having been injured by the hard winter and the fly last fall, the latter pest having been especially hurtful to early sown wheat. About the usual area has been sown, I believe. Corn is growing pretty well, and has not been injured more than usual by birds or insects, but it is yet too young to speak confidently about the success of the crop—the area under it is about an average one. Of potatoes nearly twice the usual quantity has been planted. In many patches they came up badly—not half thick enough. The potato beetle is doing considerable injury in some places where farmers are either careless or too busy to apply a remedy, and, on the whole, the prospect for a good potato crop hereabouts is not very flattering. The prospect for the hay crop is only middling. As to fruit: in this section the prospect for apples is not good. The fruit is but thinly set on the trees, and of some varieties there are none of any account. Although pear trees were full of blossom in many places, but few fruits are set. In some localities an abundance of cherries are set on the trees, while in other places but a few miles distant, there are very few on the trees, although the latter are young and appear to be thriving. Of this failure we cannot discover the cause. Peaches appear to be plentiful on the trees, but it is too early yet to venture on a prophecy about the crop, for last year the fruit rotted extensively on the trees, when nearly mature. Currants and gooseberries are being badly injured by the currant worms which appear to be getting more numerous and destructive every year, eating the leaves all off the bushes and in this way preventing the fruit from maturing. T. W.

PUGHTOWN, Chester Co.—Wheat is looking well; the usual area has been sown. Rye looks well too, but not a great deal of it is grown here. Corn is eight inches high, looks all right and came up regularly. Oats are as high as corn and the usual quantity has been sown. Clover is coming into bloom. All grasses are promising a good hay crop. No barley is raised here. Double the usual area has been planted to potatoes. The vines are now six inches high, and the Colorado pests are plentiful. Nearly every one uses Paris-green against them. Currant and gooseberry worms are here for the first time. Prices are: wheat, $1 15; rye, 60c.; corn, 50c.; oats, 30c.; old potatoes, $1; hay, $8 per ton; butter, 18c. to 20c. per pound; eggs, 14c. per dozen; chickens, 14c. per pound. We have just had two heavy rains, and some hail in some sections. There will be a few peaches and about a quarter of an apple crop. R. W. H.

AUBURN CENTER, Susquehanna Co.—The winter wheat is in general badly killed out, but has picked up a little since the rains. Corn is looking very well, but the weather is rather cool for rapid growth. A large acreage planted. If July and August prove warm, good crops are expected. Potatoes look well; if the bug does not destroy them, there will be a large crop—a great quantity has been planted. Fruit is scarce in this section, it being the non-bearing year; for other sections it looks more favorable. The hay crop looks well; pasturage is better than usual. A. S.

MCLELLAN'S CORNERS, Erie Co.—During the month of May the weather was very dry. We had several frosts, but not very damaging to growing crops. The general complaint among farmers is that their corn does not come up evenly. They are using more phosphate than usual hereabouts. Potato bugs are numerous. Wages are, by the day, for good hands, 75c., and $15 a month. Prices for produce are: for potatoes, 75c.; beans, $1 60c.; wheat, $1; corn, 50c.; oats, 30c.; butter, 10c. to 12½c.; eggs, 9c. Quite a number of our young farmers are going West. R. R.

EDGEWOOD, Bucks Co.—The prospect for wheat in this section is about an average one; it looked badly in the early spring. Corn has generally come up well, and is growing nicely. Oats must be rather short, owing to the dry weather. We have had good showers, however, within the past week, which may save the crop. Clover grass is very light. Late grass stands well, and is growing fast since the rains. Potatoes from good seed look well—many patches not half up. Fruit will be about an average. J. P.

EMPORIUM, Cameron Co. — The weather through May was mostly cold and dry. We had some frost, too. In June also we have had two frosts thus far, but neither has done much damage. We are now having plenty of rain. Wheat promises well. Corn and potatoes are in good condition. Fruit prospects are extra-fine, especially for pears and peaches. M. M. L.

CAMBRIDGE, Crawford Co.—We have been having plenty of rain and fine growing weather, but the severe frosts on the nights of the 6th and 7th inst., nipped the corn and potatoes on the lowlands, which before looked well. Wheat and oats will be light crops. Fruit prospects are not very good. This is a dairy country. T. T. R.

Ohio.

BUCYRUS, Crawford Co.—Taking the average of crops to be 100, then, according to the present prospects, wheat will be 120; corn, too soon yet to estimate; potatoes, 100; oats, 95; fruit, 65. I speak for this county only. Our rains during the last two weeks will bring the corn crop, at the start, to 100, without doubt. Dry weather caused a great deal of replanting, and this is not yet up—hence that "too soon." The prospects for oats and potatoes are very good, considering the dry weather. Just now our fruit looks rather light, but late rains may bring it up from 15 to 20 per cent. in advance of its present condition. The usual acreage of all crops is out. Grass is doing splendidly. E. G. C.

CHARDON, Geauga Co.—May having been very dry, the grass and wheat crops will be much lighter than was expected last spring. Wheat will be an average crop for this section, however. Early planted corn is looking well where the frost, on the night of the 7th, did not injure it. A great deal of corn was planted late on account of dry weather, but the prospects are fair. Potatoes looked well until the morning of the 7th, when they were badly frosted on low land, but not enough to spoil them. If the season is favorable, potatoes will be plentiful. There will be a moderate supply of fruit, but not half so much as last year. Everything is doing finely since the rain on the 1st of the month. A. T.

NAPOLEON, Henry Co.—Wheat never looked better—the great yield of last year promises to be equaled, if not surpassed. There was a large acreage sown last fall. Corn looks quite well. A great deal that was planted failed to come up, owing to poor seed. I think that this spring's experience will teach farmers to pick out their seed in the fall. Grass promises to be good; timely rains helped both it and the wheat very much. Oats are fair. This is the "off year" for fruit, but the prospect is that there will be enough for home use. Small fruits promise a good yield, Strawberries especially. Prices about as follows: corn, 30c.; wheat, 95c. to $1; potatoes, 60c.; butter, 7c.; eggs, 8c.; land, $30 to $70 per acre. V. J. E.

MILLERSBURG, Holmes Co.—We had no rain for 16 days prior to the 31st ult., but since that date we have been unusually favored generally, which is bringing vegetation on very rapidly. Wheat promises a fine crop and a larger acreage than usually has been sown to it. Corn cannot be a full crop, as much had to be replanted on account of worms or bad seed; but that which came on from first planting is doing finely. Oats are doing well, but not much was sowed. An unusual amount of potatoes was planted, and they are growing finely; bugs scarce. Only enough fruit for home consumption—quite unlike last year. The vintage will be abundant. G. W. M.

CARROLLTON, Carroll Co.—We have had very dry weather here this spring, until within the past week; since then we have had plenty of rain and growing weather. The wheat crop will be a very moderate one. It was partly winter-killed, and the dry weather kept it from stooling, so that it is pretty thin on the ground. A great deal of the seed corn did not grow, and what has grown is being badly damaged by the cut-worm. Potatoes will be a good crop if the weather is favorable. The prospect for fruit of all kinds is very flattering. G. H. A.

CHAGRIN FALLS, Cuyahoga Co.—The prospects are good for large crops of all kinds of fruit. Owing to the long-continued spell of dry weather, wheat will not be more than half a crop, as compared with last year. Corn, too, will probably be a light crop, though a very extensive area was planted to it, from the 3d to the 8th inst. A great breadth of potatoes also was planted; but it is yet too early to predict how they will turn out. Both the oat and grape crops will be light. It has just begun to rain, and if it continues a short time, it will help all crops wonderfully. E. P. M.

OMEGA, Pike Co.—The wheat crop is as good as last year—a good crop. Corn is generally a bad stand, and there has been much replanting; it is small for the time of the year, but looking well. Of Early Rose potatoes a great many have been planted, some farmers having 20 to 50 acres; they are looking well; the season has been favorable; they are now beginning to bloom. Apples will be a light crop. No peaches; the trees generally are badly winter-killed. Not many plums or cherries. Grapes, where protected, are setting well, but many vines have been killed to the ground. The blackberry crop is a failure; buds killed. J. B. R.

YOUNGSTOWN, Mahoning Co.—The stand of wheat was good when the freezing was over, but the drought has very materially injured its growth; perhaps there may be half a crop in this county. Corn is not coming up well, owing to dry weather, and more especially to frozen seed; but there may be time to make a good crop yet. Fruit was considerably damaged by late frosts, though not as much as when the ground and air are less dry. There will be a fair supply of the hardier kinds of fruit. Plenty of time for a good potato crop yet. J. H.

DELAWARE, Delaware Co.—Wheat acreage above average years; prospect good, except for that sown on corn stubble. Corn seed has been defective, necessitating replanting in many cases for a third time; backward on account of drought and cut-worms. Potatoes much affected by drought. Colorado beetles are more harmless than in former years. Fruit prospect good for apples and small fruits. Peaches a failure. Unprecedented drought during April and May. C. M. J.

PAINESVILLE, Lake Co.—Owing to a severe drought during the entire month of May, wheat is heading very short. Corn has not come up well for the same reason; much of it will have to be planted over. Potatoes are looking very well. We are having rain every day now for a week. The ground is well wet, so that the streams begin to rise. Peaches promise a good crop. Apples will be about half a crop, from present appearances. C. R. S.

TEDROW, Fulton Co.—The prospect for an abundant wheat crop in our county is good. There is an increased acreage, and wheat is heading nicely, with not too much straw. We have had considerable rain for a week past, but there are no signs of rust as yet. Corn is looking well, and a full average amount has been planted. Oats look well; so do potatoes. All kinds of fruit are fair, but not abundant. D. A.

FINDLAY, Hancock Co.—The prospects for a good wheat crop are the very best. Corn has been kept back by drought and failure to germinate; very much had to be replanted. Potatoes are hardly far enough advanced to form an opinion as to their yield. The fruit crop will be very short; very few apples or cherries and no peaches. Currants and gooseberries have been destroyed by worms; other berries are fair. D. B. B.

JEFFERSON, Ashtabula Co.—Wheat is 80 per cent. of an average crop. It is too early to form an idea of the yield of corn; it is backward, however, and about the usual amount has been planted. Of early potatoes a light amount has been planted; indications of a good crop are fair; bugs are not as numerous as for the last three or four years. There will be more than an average crop of all kinds of fruit. E. J. P.

MCCONNELSVILLE, Morgan Co.—The present indications are that wheat will be a good crop in this county. Fruit is a failure; there may be a few apples, however. The prospects for corn are not very flattering; a great deal has been replanted within a few days; the yield will depend something upon the outcome of the season. Potatoes are looking well at present, and promise a good yield. T. H.

WAPOKONETA, Auglaize Co.—We never had finer prospects for wheat. Corn has been a little backward on account of drought, but we have had enough rain to bring it out all right. The same may be said of potatoes, but never were more of them planted in our county than in the present year. Fruit prospects are good. S. W. M'F.

MILLERSBURG, Holmes Co.—Wheat moderately good. Corn prospect not flattering, on account of worms and dry weather, the latter of which has caused so much replanting. Potatoes are good—made so by our recent rains. The fruit prospect is poor, except apples, which will hardly be an average crop. G. W. S.

COSHOCTON, Coshocton Co.—The wheat crop will be good, but the straw short. Corn is coming up nicely; most of this crop had to be replanted. Potatoes promise a good yield, and fruit will average about half a crop. Oats will be a short crop—all owing to the drought. G. M.

SMITHFIELD, Jeff. Co.—The wheat crop is fair, but not near as good as last year. Corn is backward; as a rule, it did not start well. Oats and meadows are coming on well—prospects fair. The fruit crop will be light—peaches and plums mostly winter-killed. R. F. H.

NEW LISBON, Columbiana Co.—Owing to the very dry spell during the last month, wheat looks bad. Grass is very short. It is too soon to calculate on the corn crop. Early potatoes will be a failure. Fruit prospects are good. R. A.

PAULDING, Paulding Co.—Wheat is very good in this county. Corn is backward; we won't have more than half a crop. Potatoes are good—a full crop. Fruit also is good—an abundance of small fruits. Grass splendid. A. D.

GREENVILLE, Darke Co.—The prospects for wheat are as good as for years; those for corn are not flattering. It is too early yet to speak of the potato crop. The outlook for fruits is very poor indeed. W. S.

ATHENS, Athens Co.—In this county wheat is good and bids fair for more than an average crop. Corn is late. Potatoes are a good crop. Fruit is a failure, except as to apples, which will be about half a crop. J. B. A.

MARION, Marion Co.—The prospects for the wheat crop are good—better than the average. Oats will be a short and light crop. Corn prospects are not very good at this time. Fruit will be about an average crop. J. E. C.

WELLSTON, Jackson Co.—The peach crop is a failure in this section. Corn is being planted the third time. Wheat looks splendid. Oats were injured by the dry weather. Potatoes are doing finely. A. B. W.

Delaware.

CAMDEN, Kent Co. — Owing to late frosts and dry weather, the strawberry crop will not be over one-third. It has been very dry here until last week, when we had copious rains, accompanied by considerable hail, but not enough to do any serious damage. Blackberries and Raspberries were badly winter-killed, which will cut the crop down below the average. Grapes are promising. Apples, pears and cherries are scarce, but the slugs are abundant. Peaches will be an average crop. Wheat is looking well, but the fly is working on it in some sections; but as it will soon be ready for the reaper, no serious damage is anticipated from that quarter. Corn is standing badly; owing to the weather having been dry when it was planted, it did not come up, so that a considerable amount had to be replanted. The hay crop will be light, owing to the drought. This will cause considerable corn to be sown for fodder. Prices here are: wheat, $1.10; oats, 25c.; corn, 42c.; butter, 15c.; eggs, 12c.; potatoes, $1.25; day laborers, 75c.; by the month, $10 to $12. H. M. D.

ODESSA, New Castle Co.—The prospect for the wheat crop is good, but the acreage is not large. Corn looks well, and so do potatoes. Other crops are good also, all but peaches—of these there will be only about a quarter of a crop. Raspberries were badly hurt by the winter. Strawberries are a very short crop. The prospect for hay is fair. We have had three days of very rainy weather. E. C. F.

MILFORD, Kent Co.—The prospect for wheat is the best for ten years. Corn at present is looking well. Early potatoes are not so good, on account of recent drought. Peaches promise a fair crop. Apples, pears and cherries will not be so good on account of late frost. Apricots, plums and grapes were injured. Strawberries and raspberries are short crops on account of dry weather. C. C. S.

Maryland.

INGLESIDE, Queen Anne Co.—The prospect for the wheat crop is much better than it has been for years. No fly, or nearly none. The heads of wheat are excellent, as compared with the straw. On light lands it is said to be better than usual. Potatoes are pestered with the "potato bug," and are not doing so well. Corn is rather backward for this season of the year. Fruits are plentiful, particularly peaches; but there are fears of their dropping off before ripening. Peaches are the staple fruit here. C. H. J.

DENTON, Caroline Co.—The prospects in this section for both grain and fruit are, on the average, very encouraging. Wheat has a medium-sized head, well filled, and unless a long, dry spell comes, there will be a large yield of corn. We have about two-thirds of a crop of peaches on the trees, and in some instances a full crop, and the prospects for good prices for them are very encouraging.

W. R. E.

BROOKLANDVILLE, Baltimore Co.—Wheat, as compared with last year, will be 30 per cent. less in yield. Corn is looking fine. The prospect for a fine crop is good. The same may be said of early potatoes. Fruit, only fair.

S. B.

WESTERN STATES.

Indiana.

WINCHESTER, Randolph Co.—Present indications promise a more than average wheat crop with a large increased acreage over last year; in fact, some fields look as promising as they did last year at this time, and but few less so. Oats will be short, owing to the drought several weeks ago. The same remark applies also to the flax crop. We are now having some opportune rains which may bring both out, but not to a full crop. Corn does not promise so well, as nearly all has had to be replanted, since from some cause the seed failed to germinate, and we had but little weather warm enough to be good corn weather. Considering the extreme cold of winter and the cold and frosty weather during the first week of May, our fruit prospects are very fine. There will be a full crop of apples—as some trees are very full, while others have but few. Most of the pear trees are full; some young ones were killed by the winter, others were more or less injured; I shall lose about five per cent. out of 800 trees planted some five years ago; the Duchesse and Bartlett suffered most. Grapes are all more or less injured, either by the extreme cold last winter or the frost during the first week in May, so that there will hardly be more than half a crop. Strawberries are ripening and doing well. Raspberries promise a full crop. The Snyder Blackberry is the only one that promises a crop. A fine rain on the night of the 10th. D. E. H.

LA PORTE, La Porte Co.—After four hours' drive through our farming country and getting the opinions of some of our most reliable farmers, I should judge that the wheat crop will be above an average, and equal to that of 1877. I did not see a piece that did not indicate 25 bushels per acre, if the weather continues favorable. The above yield cannot be expected throughout the county, as in many portions the soil is naturally too light. The acreage of wheat, corn, oats and potatoes, is about the same as usual. There is a fair stand of corn. The hay crop is light. Apples, the same. Strawberries were somewhat injured by frost while in blossom, but will give a fair yield of large fruit. Mammoth Cluster promises well. The Kittatinny Blackberry is a failure in this vicinity. It can't stand the winter. Grapes promise everything; but we have no hopes of them on vines over ten years old, except on some ordinary varieties, such as Ives's Seedling, and the like. J. S. B.

ANGOLA, Steuben Co.—The prospect for wheat in this section is very good; the crop of straw, however, will not be heavy; but if the ears fill well, the crop of wheat will be rather above the average. Corn is a little backward here, owing to two causes; first, poor seed, and, second, the cold and wet weather which we have been having; the corn has a good, healthy color, and, should we have a favorable season with a late fall, I see no reason why we may not have an *average* crop, to say the least. Potatoes are looking unusually well at present, and are not, as yet, troubled very much by the bugs. The prospects for a good crop of fruit are most flattering, unless it be peaches, and I think they will not fall much below the average. Oats are not looking very well, but grass is light. M. F. C.

WEST LEBANON, Warren Co.—The crop prospects are very good. Wheat is better than ever before through the county, and a larger acreage is under it. Corn is doing well now; the farmers have replanted almost half the acreage. The replant is doing well; recent rains have removed all fears of a failure of corn in this region if we get rain in earing time. Small fruit is promising; also apples. The acreage is very large. The potato area also is very large, and the crop was never in so good a condition at this time of year. Oats are only ordinary; the weather was a little too dry after sowing. J. F. C.

INDIANAPOLIS, Marion Co.—After a discouraging drought of five weeks, we had a rainfall of from three to six inches, from the 1st to the 6th inst. Wheat is in *splendid condition.* Corn started poorly, and is backward; considerable replanting has had to be done. Cool weather following rains is very favorable for all crops, keeping the ground from baking, and improving the chances for the corn crop. Potatoes are doing well. The oat and flax crops will be very light. Small fruits will be in great abundance, and the prospect for apples is good. Farmers are in good spirits and driving their work. A. H.

MARTINSVILLE, Morgan Co.—The prospect for the wheat crop is at present very flattering, most farmers think the crop will be even better than last year's—better heads and less straw. There has been some complaint of the corn crop; a great deal of replanting has been done, a large portion of the seed saved from last year's crop proving bad. There is an excellent prospect for an extra-large crop of potatoes, notwithstanding the Colorado beetle has put in an appearance as usual. No peaches, and a light crop of apples. Small fruit in abundance. H. A. S.

CONNERSVILLE, Fayette Co.—We had this year the driest May known to the oldest inhabitant. This has been of vast benefit to the growing wheat, retarding its growth, etc., though damaging to corn, oats, hay and flax; of rye we sow but little. The recent rains have greatly improved the prospects of all our crops, and from present appearances, we shall have an unusually heavy crop of wheat, and fair average crops of corn, oats, hay and flax. Clover will be rather short, but good.

A. B. C.

GOSHEN, Elkhart Co.—Winter wheat never looked better; is very advanced; acreage, average. Most of the seed corn failed to grow. Replanting was necessary. The weather has not been favorable for corn. Potato prospect, good; but the potato beetles have begun to work. The high price of potatoes the past winter has increased the amount planted. The fruit crop, in which the northern part of our county is largely interested, bids to be very good. Apples are the only fruit not promising well. J. W. I.

RUSHVILLE, Rush Co.—Wheat is coming out finely since the late rain, and prospects are good for a splendid crop. Bad prospects for corn at present; many are just planting it for the second and third time. The dry weather and bad seed have been the causes of its failure. Oats and flax are very short; they cannot be more than half crops. No peaches or small fruit. Apple prospect an average one. Meadows are short. L. L.

VALLEY MILLS, Marion Co.—Wheat in our section is above the average condition, and the acreage is greater than has been cut for several years. The acreage of corn is less than last year and the crop has been kept back by drought, but there has been abundant rain the past two weeks, and it now looks well. Potatoes will hardly be an average crop. The prospect for apples is good. No peaches. There is a plentiful supply of small fruit.

A. D.

LEBANON, Boone Co.—The wheat prospects in Central Indiana are much above the average. Corn is late, but doing well. With a fair season from this on we shall have a full average crop. Potatoes and vegetables are fair, except that they are a little late. Apples are good; no peaches; small fruit not quite an average for our county. Times are much better than they were two years ago.

J. N.

ELROD, Ripley Co.—For wheat we had the finest prospect we have had for several years; but owing to dry weather through May, the crop has been reduced to about an average one throughout Ripley, Dearborn and Jennings counties. For corn we have a very fair prospect. Peaches are all killed, as are a great many of the trees, but of apples and small fruit, I think we shall have plenty. R. J.

KOKOMO, Howard Co.—In this county and section of Indiana wheat never promised better and the acreage is the largest ever sown. Corn is not promising—all the early planting having had to be replanted. Added to a bad spring, there seems to be a general defect in seed corn. Potatoes will be abundant, as will also all kinds of fruits except peaches. Peach trees were nearly all killed the past winter.

A. N. G.

WARSAW, Kosciusko Co.—Wheat is looking well; there is a large acreage and the crop will be immense. Corn is somewhat backward, but a good yield is always the rule in this section of the country. Potatoes are doing well. Fruit will be a failure so far as peaches are concerned; apples will be about half a crop.

N. H. P.

BOONVILLE, Warrick Co.—Wheat is extra-good. Harvest begins about the 20th inst. The prospect for corn was never better, and it has the largest acreage ever planted in this county. Peaches are very scarce; apples, one-fourth of a crop; no cherries. Early-planted potatoes are good. Tobacco will be two-thirds of a crop. R. W.

LA PORTE, La Porte Co.—From present indications the yield of wheat in La Porte county will be the largest ever known, and is estimated at from 800,000 to 1,000,000 bushels. Corn and potatoes are not sufficiently advanced to base any judgment upon their appearance, but the acreage is as large as on former years, and both are looking well. H. C. S.

ROME, Perry Co.—Wheat in bottom lands looks well; on uplands, short, owing to dry weather. Corn is backward. The apple crop is fair; of peaches there will be none; small fruits, ditto. Oats very short. Hogs healthy. No potatoes planted yet, but a larger crop than usual will be put in. I. L. W.

FORT WAYNE, Allen Co.—The wheat crop in northern or northeastern Indiana never looked more promising at this season. Meadows will be light. Corn is backward; much of first planting failed. The fruit crop is fair, except peaches and cherries. On the whole, farmers' prospects are good. J. D. G. N.

NEW-CASTLE, Henry Co.—The outlook for wheat was never better in this county. The drought in May did it good, while it was an injury to corn, oats, hay and flax. The recent rains have brought the latter out splendidly. The fruit crop will hardly be half the usual one. R. M. N.

NEW HARMONY, Posey Co.—The wheat crop was never looking better in this county than now; much of it will be ready to cut by the 12th inst. Owing to drought, corn has not come up regularly, but recent rains are making it all right. A good prospect for fruit except for peaches. F. D. B.

COLUMBUS, Bartholomew Co.—The wheat crop is somewhat injured by drought, but it will be above an average. Corn is backward. No peaches; the prospect for apples is splendid. Potatoes, too, were injured by drought and by the Colorado beetle. Oats and hay will be short. J. D.

PORTLAND, Parke Co.—Wheat in this county bids fair to be more than an average crop. There is a great deal of complaint on account of the failure of corn; as a general thing, it has rotted in the ground. The fruit crop is promising. G. W. M.

BROWNSTOWN, Jackson Co.—Wheat will be about an average crop; corn, less than an average. Early potatoes, more than an average. No peaches; an average crop of apples.

W. L. B.

Illinois.

WHEATON, Du Page Co.—The weather has been alternately dry and cold and dry and warm, with an occasional shower. The ground was never in a worse condition for planting than this spring, turning up in great, hard lumps when plowed. Owing to this and to poor seed most of the corn has had to be replanted. With a good season we may yet have tolerable crops. Small grains look fair. Rye and what little winter wheat there is, will be very fair crops. Potatoes are extensively planted and look well. This county is the home of the Richmond cherry of which there is a fair crop now beginning to ripen. Other small fruits will be plentiful. Late frosts, after the buds began to swell, will have shortened the grape crop. We are having a gentle and much needed rain now. O. F. R.

WAUKEGAN, Lake Co.—The dry and cold weather we had this spring, kept crops back considerably; but recent rains have started them so that they are looking much improved. There is but very little wheat raised here. What is sown is looking well now, but the chinch bug may destroy it. Oats are fair. Some corn is well up and cultivated out; other fields have just been planted. The weather is too cool for it to look healthy; a large area has just been planted. Potatoes are looking well—lots of beetles. Fruit will be a light crop. A great deal of flax has been sown—some looks well; some, poorly. N. S. H.

PRINCEVILLE, Peoria Co.—In the immediate vicinity of this place, we have had uncommonly dry weather since April 20—only about four inches of rain. Wheat is nearly a failure. Corn will be about an average crop. Oats may be half a crop, but the straw is too short to bind. Potatoes are looking tolerably fair, except that they wilt in the middle of the day. Fruit will not be over half a crop. Pastures are very dry; some are obliged to pasture their mown ground. M. L. B.

KANKAKEE, Kankakee Co.—The prospects for wheat in our county are splendid, both for the winter and spring sorts. Winter oats are especially fair. The farmers have had trouble with their corn seed; nearly all have had to replant, but it is now generally up, and, with seasonable weather, the crop will be good. Potatoes look magnificent; the yield from present appearances will be heavy. Grass is rather light. Fruit will be about an average crop. J. M.

CARROLLTON, Greene Co.—Prospects for wheat are good; for corn, good; for potatoes, very good; for fruit, very poor, as far as Greene county is concerned. Timothy meadows are very short; clover fields, good.

N. J. A.

Michigan.

JACKSON, Jackson Co.—Wheat is looking fair, not very rank, but well rooted by the cool weather of spring. The acreage in Michigan is not as great as last year, nor is it looking as well. There is little complaint of damage by the Hessian fly. Many have been obliged to replant their corn, especially those who planted early; but the moist, though rather too cold, weather of the past two weeks is bringing it forward nicely. Not many potatoes are being planted, but those which are up are looking well. Potato beetles are still with us and are fought with Paris-green. Fruit crops were damaged little, if any, last spring by frosts, but apples hereabouts did not set very full. Peaches are a fair crop. Pears have a good showing, if we escape future disaster. Plums will do well if the curculio is successfully fought, and grapes look finely.

R. T. McN.

LANSING, Ingham Co.—Wheat promises only about three-fourths of a crop, owing to a prolonged drought in May. Corn is backward and a poor stand. Some has been replanted. Potatoes are looking well; but they were slightly cut by frost on the mornings of June 6 and 7, in low places. Grass will be light—not over two-thirds of a crop, and pastures were poor till June 1. Small fruits will be an average crop, if rains are frequent from this time forward. Apple orchards hardly show what the yield will be at this time. C. L. I.

CHARLOTTE, Eaton Co.—Wheat promises hardly an average crop; it is rather thin, and the fly is pretty busy. Corn is looking first-rate, except on an occasional field where the worms have been at work. Potatoes and oats are very fine. Cherries, peaches and apples will be abundant. T. M. F.

BAY CITY, Bay Co.—Wheat prospects are good in this section—too early to speak definitely about other crops yet. D. C. G.

Wisconsin.

LAVALLE, Sauk Co.—The season has been rather backward, with occasional rains, but not sufficient until May 24, when it rained copiously, and corn that was not planted had to lie over a week or more. Crops look well, and the prospects are good for fair yields. Wheat is worth 60@90c.; corn, 40c.; oats, 25c.; barley, 35c.; butter, 6@11c.; wool in the dirt, 20@25c. The acreage under hops is small, but what are poled, look well for the season; prices nominal. Land is worth from $10 to $40 per acre, according to improvements and situation. W. S. H.

SARATOGA, Wood Co.—Wheat looks very promising. A large area has been sown and a full crop is expected. Owing to cold weather, corn is rather backward. A slight frost on the morning of the 7th alarmed the fears of many; no damage was done, however. All kinds of fruit were badly damaged by late frosts; consequently the yield will be light. The weather is dry and warm at present.

J. J. H.

EVANSVILLE, Rock Co.—We had quite a severe drought early in the spring, lasting until May 28, when heavy rains changed the aspect entirely. The crop of small fruit will be good. Apples will perhaps yield 50 per cent. of last year's crop. The prospects for wheat, late oats, corn and potatoes, are good. Early oats are too thin for a crop. Clover is short, but a heavy yield of timothy is expected. G. B.

DARIEN, Walworth Co.—Crops of all kinds look very well in this region at this date, although they are a little late in consequence of dry, cold weather, during the latter part of April and beginning of May. Prospects for the large fruits are poor. Strawberries are just beginning to ripen—a good crop. Cherries are scarce. W. H.

MADISON, Dane Co.—Wheat is growing well, but is thin on the ground. A good deal of complaint is made of seed corn rotting in the ground. No fruit in this vicinity.

G. E. B.

Minnesota.

LE SUEUR, Le Sueur Co.—The wheat crop never looked better than it does at present, both on prairie and timber land. We have had abundant rains, warm days and cool nights. Corn is well up and looks healthy. Farmers in this section have planted an unusually large acreage to potatoes. The crop looks well and promises a heavy yield. No beetles at present writing. Very little fruit is raised in this county, comparatively speaking, but apple trees of the hardy kinds are loaded with fruit. Last year the heavy frosts killed all the fruit, but this season we have not had any hard frosts, and small fruits of all kinds look well. I received some of the Blunt Corn, planted it in my garden without any

extra manure. It is now 18 inches high and grows faster than any corn I ever raised. G. D. S.

LITCHFIELD, Meeker Co.—Our spring has been early and everything is well advanced. From reports from other parts of the country in the RURAL, I judge we have been at least two weeks ahead of New York and New England. I have oats over a foot high, and potatoes nearly ready to blossom. Wheat never looked better. Corn is well up. All kinds of fruit promise well. G. W. F.

Iowa.

BISMARCK, Clayton Co.—The spring with us was unusually dry until May 24, when we had a good shower followed by heavy rains on the 25th and 27th of that month. In the timber regions of northwestern Iowa wheat—winter and spring—cannot make over three-quarters of an average crop. On the prairie region it looks fairly well, and will make an average crop. There is a decrease in acreage of about 10 per cent. Corn is backward. Much of what was planted did not sprout, and had to be replanted. We cannot expect an average corn crop without a very favorable season from this on. There was an increase of acreage planted of at least 15 per cent. Oats and barley have a smaller acreage than usual. In the prairie region both look fair; but in the timber and clay regions, they look poorly. Prospects for potatoes are good, with a larger acreage than usual planted. The bugs are appearing, but not in force yet. Apples will be about half a crop; small fruits, generally fair. The weather has been too dry for strawberries. Hay will be a short crop. Pastures were poor previous to the rains; but they now afford a good bite. On May 30 my son got home from a trip through Iowa into Dakota and northern Nebraska. He says that in northeastern Nebraska there has been no rain since last October, and vegetation throughout that whole region is badly dried up and crops will be short, except, perhaps, in two counties, in northwestern Iowa, where there had been timely rains. Prices are: wheat, 45@80c. per bushel; corn, 30@35c.; oats, 22@25c.; barley, 25@40c.; potatoes, 45@55c.; live hogs, $2.75@3 per 100 lbs.; cattle, $2@4.50. J. E. C.

FAIRFIELD, Jefferson Co.—Propitious rains have been conducive to the growing crops in this county, and all are doing nicely. The stands of corn, wheat, oats and rye, are excellent. More acres than heretofore are in cultivation, and the indications are at present that good, old-fashioned crops will be harvested. The crop of grass will not be excelled. The potato crop is large in acres, and promises an abundant yield. Very few beetles have appeared. Small fruits, with the exception of grapes in some localities, are plentiful and the quality unsurpassed. Apples and cherries will be fair crops, though damaged by the cold and wintry winds of early spring. Peaches will be very scarce—trees killed by the severity of our cold winter. Should the weather prove favorable for a few weeks longer, we shall have no cause of complaint of what the fields and orchards will give us, and another good harvest will make our people happier and more contented than they have been for a long time. J. R. S.

DAVENPORT, Scott Co.—Since the rains on the 15th of last month, the prospects hereabouts are good for immense crops. Wheat is looking splendid, and I think it will be an enormous crop. Corn, too, is very fine, but small for this time of year. There is a good stand and the weather has been favorable to work it and keep it clean. Potatoes are looking first-rate, and I think will be a big crop. The rain that is falling as I write, is just in time for them. The onion crop here bids fair to be immense. The fruit prospect is not very bright; there will be very few apples and cherries, and other small fruits are about half a crop. G. W. S.

BENTONSPORT, Van Buren Co.—Winter wheat is promising a full crop. Rye is about three-quarters of a crop. Corn is a good stand and the ground is clean, promising a full crop. Potatoes, also, promise a full crop. Oats, spring wheat and hay are from a half to three-quarters of a crop, it having been too dry in April and May. Apples are from half to three-quarters of a crop. Grapes that had been winter-protected are half a crop. Of pears and peaches there will be none—the trees are badly injured. Small fruits will be few. Garden vegetables look fine. C. R.

PELLA, Marion Co.—We have had plenty of rain, and everything is growing finely. Corn never looked better, and is entirely free of weeds. Small grains look well. Potatoes promise a full crop—there is no trouble with the Colorado beetle this year. Fruit of all kinds will be a very short crop. Blunt's corn is growing finely, and so are all the other seeds sent out by the RURAL. C. & B.

VALPARAISO, Porter Co.—The crop prospects for wheat in this county are better than usual, and a large acreage is under it. Oats are rather backward. A very large area has been planted to potatoes and they promise well. Times are mending, and farmers are hopeful. S. W. G.

CHARLESTOWN, Lee Co.—Wheat prospects are good. There was not a good stand of corn, on account of dry weather; but the prospect is better now. Potatoes are fair. Peaches are a failure. Apples will be half a crop. Oats are short, and so is grass. M. B. C.

Missouri.

ROCKSVILLE, Bates Co.—The prospect for corn has never been better. The outlook for wheat is for a medium crop; it was winter-killed badly. What remains is filling nicely, and will be harvested about the 15th inst. Oats are medium. Early potatoes are good; late potatoes have only just been planted. There will be no fruit except grapes; the vines are loaded. We had a late freeze that killed the other fruit. J. N. C.

COLUMBIA, Boone Co.—Wheat promises well—straw short, but heads well filled. None but winter wheat is raised here—Fultz and Clawson are the best. Corn is suffering from drought. Potatoes are poor also; we used the first on June the first. Fruit of all kinds are a failure, on account of severe winter and late spring frosts. Peach trees are mostly killed. Began cutting wheat June 9th. S. M. T.

Nebraska.

BROWNVILLE, Nemaha Co.—Wheat is not as good as usual, fall wheat particularly. As a rule, it was planted too late last fall, and therefore was not in good condition to pass the winter ordeal and that of a very dry spring. Spring wheat, for the latter reason, is not as good as farmers desire; but, on the whole, it offers a very fair prospect. The increased acreage this season, in all small grain crops, will more than make up for losses in yield. The potato acreage is smaller this year than before, perhaps, for several years. Crops having been good and prices low, less attention was given to this crop this season. The general fruit crop is short with us this year. The apple prospect is fair; in fact, some of the more reliable varieties are showing fruit, such, for instance, as Ben Davis, Wine Sap, White Winter Pearmain and Rawle's Jannet. Cherries are a moderate crop. Peaches are nearly an entire failure, though some trees, in favorable localities, show a fair crop. Of plums, apricots, prunes and nectarines there will be none. Grapes will be abundant. Strawberries started out with an elegant showing, but seemed to blast when fruit should have set. Blackberry plants were injured last winter, and show scarcely any fruit. Corn, while in some respects somewhat backward, is a good stand, and affords most favorable prospects. R. W. F.

CRETE, Saline Co.,—I have just returned from a two-weeks trip in parts of thirteen Western and Middle States, and I have closely observed the crops. While all crops in Nebraska are as good as, and in many cases better than, those of other States, I think our crops here this year will be below the average, for this State. On account of the dry weather in April and the first half of May, and the appearance of the chinch bugs, the wheat crops will not turn out more than from six to ten bushel per acre, in my opinion. Barley is thin, heading very low and will hardly pay expenses. I never saw a more even or finer stand of corn than in Nebraska. Frosts on the 5th and 6th of May injured the peach crop. Potatoes at present look well. During the latter part of May we had fine rains. The amount of rainfall for the month was three inches. Although the yield of small grain will be less than usual, the increased acreage will enable Nebraska, to turn out more marketable products than ever. H. M. W.

BROWNVILLE, Nemaha Co.—I have just returned from a trip over this county, and I think I never saw the growing crops look better at this season of the year than now. The rains of a few weeks ago revived things wonderfully, and the present cool weather will make the fall wheat (now in the blossom) fill splendidly. Spring wheat is thin on the ground, owing to dry weather in the spring. Corn never looked better. Fruit crop: small fruit, good; apples, fair; peaches, light. Nemaha county has suffered neither from drought nor storms. The harvest fly—sometimes called the 17-year locust—will do some damage to young timber, probably, but it will be very slight. S. A. O.

YORK, York Co.—We have in this county as good prospects as we ever had for fine crops of all kinds. More wheat and corn have been planted this year than at any period before, and the prospects now are good for splendid crops of both. No storms of hail or rain, although we have had severe ones, have damaged these crops at all. Potatoes are troubled somewhat with the Colorado beetle, but not more than usual. But little fruit is grown here yet, men having neglected planting until within a few years. Barley is looking well. Oats are not quite so well as usual. The weather continues fine. We have rain enough to make everything grow well. J. B. R.

PURPLE CANE, Dodge Co.—We have had an extremely dry spring—all small grains are short and thin, and heading out weakly. Corn is late, but quite fair. Potatoes are flourishing. The prospects for a fine crop are good. Grass is short and thin. The weather has been rather cool for the season, throughout—much wind. Strawberries are poor for want of rain. Raspberries are excellent. The soil is so dry and hard as to seriously check breaking. Many of our hardiest trees were killed by last winter's cold. Stock is in very fine condition. Prices of produce are entirely too low. Plenty of young grass-hoppers are doing much damage. There are few potato beetles. S. R. M.

GIBBON, Buffalo Co.—Winter wheat is heading out and looks well, but not much of it was sown. A large acreage of spring wheat was sown, and it gives promise of a bountiful harvest. I have never seen a better prospect. Double the usual amount of corn has been planted. It is a good stand, and has been plowed the first time. Potatoes are not looking as well as last year, and the Colorado beetle is busy depositing its eggs. Plenty of seasonable rains. The prospect never was as bright in western Nebraska as to-day. I have been in the State eight years. S. C. B.

SYRACUSE, Otoe Co.,—Wheat is half a crop. The stand is thin. Winter wheat is filling well. Barley, light. Oats, light; Corn was never better. The stand is good, clean and thrifty; acreage, as large as usual. Potatoes look well, clean and thrifty—acreage large. First new ones on the 9th inst. Early Rose average 23 to the hill. The fruit crop will be light. This is our "off year" for apples. There will be but few peaches. Strawberries, almost a failure. Raspberries show well. Grass and cattle are in good condition. Hogs are healthy. H. T. V.

FAIRBURY, Jefferson Co,—All kinds of small grain promise good crops, especially winter wheat. The warm weather in May checked the spring wheat somewhat, but abundant rains have brought it out all right. Corn was never better—a good stand, and growing well. Fruit gives first-rate prospects. Fruit-growing is in its infancy as yet, but such orchards as are old enough to bear, are loaded with fruit. Small fruits are good. Stock—our specialty—is looking well. Grass is good. A heavy immigration is pouring into this valley. W. W. W.

PEBBLE, Dodge Co.—Wheat looks well; so also do all small grains. Corn never was better at this season of the year, and it is an uncommonly good stand; there is hardly a hill gone in a field of 75 acres near me. Potatoes are good, but were frosted a little—no bugs. This year in this region there seem to be no insects except a few grasshoppers, and they are doing no damage. Plenty of rain, and the farmers all feel happy now at the prospect of such good crops. A. E. M'C.

SEWARD, Seward Co.—Our prospects for good crops of wheat, oats and barley are just about fair at this date. Corn is particularly promising. Of course, it is yet too early to feel certain as to just what the final results will prove with the various crops, as very much will depend upon the kind of weather we get during the next 30 days, with small grain particularly. E. MCI.

SALEM, Richardson Co.—The prospect for fall wheat is excellent. Harvest commences about the 19th inst. Spring wheat is a fair average crop. Corn is in fine condition, and if the weather is seasonable it will be the best ever raised here. Potatoes are good. Fruit will be short—about a quarter of a crop. Grapes, good. J. C. L.

TECUMSEH, Johnson Co.—Wheat was somewhat hurt by dry weather early in the spring, but has recovered somewhat. Corn and potatoes never looked better—all clean and growing nicely; both need rain now, but they are not suffering. J. S. & D.

TEKAMAH, Burt Co.—The prospects for crops in this county are very flattering. All small grains are looking very well, while corn is an excellent stand and growing nicely. We have had plenty of rain. The acreage under crops is large. W. B. W.

WAHOO, Lumkin Co.—Crop prospects here are good. Weather favorable—plenty of rain, and all are hopeful. By the way, this is the "Garden spot of the West." H. D. P.

Kansas.

SENECA, Nemaha Co.—Winter wheat is all headed out, and the grain in the earlier varieties is "in the dough." In some portions of this county, a severe hail storm about the 5th inst. greatly injured the wheat and other crops. Where not injured by this terrible storm, winter wheat promises to be rather better than an average crop. The same may also be said of spring wheat, which is now heading. There is plenty of chinch bugs, but the rain storm has discouraged them for the present. Oats are a good stand, and look well; but some pieces are threatened with rust. The tops of the early potatoes got terribly battered with the storm, and so also did the young corn, but they are recuperating fast, and both give promise of good crops. Peaches, no crop. Apples, a light crop; strawberries, the same. Raspberries and blackberries, a little better. Grass, A No. 1. G. H.

ALMA, Wabaunsee Co.—Fall wheat will not make over 15 bushels per acre on an average for this county. Spring wheat and oats will be total failures or nearly so, according to locality: cause, extremely dry weather in this locality—but two rains since last September; these came about the middle of April; none since to date. Early potatoes will make no yield, from the same cause; late ones will probably make a crop, if we have rains. Heavy, hot and dry winds come from the south continuously. Corn is looking well with a good prospect for a crop, if we get rain in the next two weeks. As to fruit, we had on the last of February a warm spell that started the sap, followed by extremely cold weather; the consequence was that the fruit buds were killed on nearly all apple trees, and on peach trees, wholly so. The same was the case with Cherries and Plums. Blackberries were killed to the ground, and Raspberries badly damaged. Gooseberries and Currants are failures from the same cause. Strawberries, too, in localities where there was no rain, were a failure. The prospect for a crop of grapes is good. Immigration is the heaviest since I have been in the State (over eight years). In some localities there have been seasonable rains so far this season. W. S.

MILFORD, Davis Co.—Winter wheat in this region will not exceed half a crop. Spring wheat does not promise well—some pieces have been badly rusted for two weeks. Corn and potatoes now promise well; corn stands more than usually well, and a very large acreage has been planted. A slight frost nipped the corn leaves on the lowest river bottoms slightly on June 2d—something I have never known to occur so late in the season before. Fruit prospects in this vicinity are not good. Very few apples; few peaches—many peach trees were killed. The cherry crop will be light. Grapes look well. Light crops of strawberries, raspberries and blackberries. E. G.

BURLINGAME, Osage Co.—Wheat harvest will probably commence next week. Owing to late frosts and dry weather, this spring, it will hardly yield three-fourths of an average crop; the grain will be good and plump, though. The prospect for corn is excellent; a larger acreage than usual has been planted. It is a good stand, of good color, and free from weeds, as a general rule. Potatoes, about 10 per cent. below average. The same frost that injured wheat, killed the fruit buds. Peaches, none; apples, a quarter of a crop; cherries, half a crop; small fruit, none to speak of. M. B.

LARNED, Pawnee Co.—Our crops are bad enough. We are suffering from lack of rain. No rain to speak of for *twelve months*. Our fall wheat is almost an entire failure. Summer crops also are suffering, and unless we get rain soon they will be a failure. Corn looks well, now. Oats, barley, flax, millet and Hungarian were extensively sown. An unusually large area was also planted with potatoes and other vegetables, but they must have rain soon. This county is too new for fruit. J. W. A.

LAWRENCE, Douglas Co.—Wheat will be just about a half crop. Oats are almost a failure. The prospect for a corn crop now is good—*above the average* at this season of the year as compared with other late years. Early potatoes are a fine crop; apples will be a half crop. Peaches, a failure. Cherries, almost a failure. Strawberries, a very short crop on account of dry weather about ripening time. Blackberries, none, canes badly winter-killed. Raspberries, a very short crop. J. T. W.

PAOLA, Miami Co.—Wheat straw is short, but the ears are well filled—probably three-quarters of an average crop. Corn prospects were never better at this date. The spring being dry, it was well planted and cared for. Oats are a full average. Potatoes, fully up to the best. Fruit prospects, bad; the winter being very severe, killed peaches and nearly all small fruit. Apples will be about half an average crop. Immigration large, and business good. H. M. M'L.

PEABODY, Marion Co.—Wheat will not average over 50 per cent. of last year's crop. Corn is 100 to-day; it needs rain badly, though; and unless rain does come in ten days it will be seriously damaged. Potatoes are at a stand; young ones have set on early varieties, but the weather is too dry for them to mature. Peaches won't average five per cent. of last year's crop; apple trees are too young to bear much. There will be some, however. Grape vines are well set with fruit. J. H. C. B.

ABILENE, Dickinson Co.—The winter wheat crop in this section will not be over one-half of last year's. Harvest is in full blast now. Corn looks fine and about four times as much has been planted as in any other season. Potatoes are looking well. Peaches are a failure. Small fruits promise well; apples also. The season is rather dry so far. J. B. E.

EDGERTON, Johnson Co.—Although in the midst of a protracted drought, crops are looking remarkably well. Corn is generally a good stand and clean, and there is a larger acreage than usual planted. Wheat and Oats are looking well, although they need rain. Flax—of which there has been a considerable amount sown—does not promise so well. Corn is worth 28c. per bushel; wheat, $1; hogs, $2.80 to $3. With these prices we have no room to complain. A. B. D.

OSKALOOSA, Jefferson Co.—There is an increased acreage under wheat and the yield will be fully up to the average. Corn prospect excellent—a large acreage has been planted to it, and all is in fine condition, the season having been favorable for tending it. Potatoes, good. Apples, one-third of a crop; other fruits, nearly a failure. E. S.

LARNED, Pawnee Co.—It is very dry here, so much so that all oats, barley and millet are drying up. Corn looks well and grows finely, though some pieces roll somewhat in the heat of the day. Wheat is not over one-fourth of a crop in this county, according to present indications. Harvest has just commenced; some pieces will yield about 15 bushels per acre.

S. S. D.

TROY, Doniphan Co.—Fall wheat will average 15 bushels per acre in this county; spring wheat not more than 7½ bushels. The prospects are that apples will be three-quarters of a crop; peaches, a failure; small fruits not more than half a crop. Potatoes will be a full crop. Barley and oats are in good condition.

T. W. H.

NEOSHO FALLS, Woodson Co.—The wheat crop never was better. Of corn a large acreage was planted: it looks well, but needs rain. Early potatoes are nearly a total failure. Fruit is considerably below the average, owing to frost in March. With rain soon we anticipate generally good crops. R. P. H.

GIRARD, Crawford Co.—The wheat acreage in this county is small, but the prospect is fair for a good yield. The corn prospect is extraordinarily good. There is an extra-good stand and the crop has been well worked. Early potatoes are good. Fruit will be an entire failure, except grapes, which are very fine.

J. B.

TOPEKA, Shawnee Co.—The prospects for wheat, corn, oats, rye, potatoes and all kinds of small vegetables are good. Wheat will be ready for the reaper about the 20th instant. Fruit of all kinds will be short—no peaches. The weather is very fine and the general health good. This is meant for this county only.

J. J. F.

CONCORDIA, Cloud Co.—The crops have been injured somewhat by the storm and hail on the 30th ult., but corn and potatoes will wholly recover, and the wheat will make three-fourths of a crop—say an average of 15 bushels per acre. There will be an abundant supply of peaches and small fruit, but no apples.

J. E. S.

HUTCHINSON, Reno Co.—The prospects for good crops this year is very poor. Wheat and oats are almost entire failures. The corn crop looks very well, but grass-hoppers are destroying it in localities. The counties in the southwestern portion of the State will not raise enough for bread and seed. E. S. H.

JUNCTION CITY, Davis Co.—Owing to the dry fall the wheat crop will be short—not more than one-half. Corn and potatoes at present bid fair to be large crops. The unusually cold winter for this section destroyed nearly all the fruit, except small fruit.

A. P. T.

OLATHE, Johnson Co.—Wheat is about half a crop—about 10 bushels per acre. Corn never looked better at this season of the year. Potatoes will be far above an average crop, if nothing happens in the latter part of the season. Fruit of all kinds is an entire failure.

J. M. G.

MOUND CITY, Linn Co.—Wheat is half a crop in quantity—quality above the average. Corn promises well—very clean and in good condition. Early potatoes are poor; late, can't tell. Fruits of all kinds, except grapes, are almost a total failure. A. F. E.

EASTERN STATES

Maine.

SKOWHEGAN, Somerset Co.—We had a backward spring; consequently, our sowing and planting were both late. We have had considerable rain during the first ten days of June, with cool weather and several frosty mornings. Wheat and corn have generally come up well, but make slow growth. The acreage of wheat is on the increase. Potatoes are just breaking the ground. The beetle is abundant everywhere. The apple crop is very promising; many trees that bore well last year are full again this year. Our recent rains have given the grass a wonderful start, and the hay crop will probably be equal to any for several years. Wages by the season are $12 to $16. Butter is worth 12 to 15 cents per pound; eggs, 11 cents per dozen, store pay; round hogs, 5 cents; hay, nice, $10 per ton. J. H. L.

NORWAY, Oxford Co.—Recent rains have made the prospect for hay very flattering. Corn is badly injured by frost, and presents a very discouraging aspect. Wheat and oats look well. Rye and barley are not much cultivated here. A fair crop of apples is anticipated. Pear trees have fruited abundantly. Grapes wintered uncommonly well, and are laying out a big season's work, though they are backward. The issue of the war going on between the farmer and the beetle will decide the fate of the potato crop. U. H. U.

New Hampshire.

TAMWORTH, Carroll Co. — Winter wheat was somewhat winter-killed hereabouts; spring wheat is doing well thus far. Corn and potatoes are just coming up; potato beetles are loitering around waiting for the coming crop. The apple blossoms were abundant, and fruit has set well, but the extremes of heat and cold we have, will, I fear, injure the crop. There was a heavy frost the morning of the 8th inst. No other fruit is grown to any extent in this section. H. A P.

SEABROOK, Rockingham Co.—Not much wheat near here. I think there are more corn and potatoes planted here than last year. Potato beetles are in great numbers. Potatoes planted early look well, those planted late are not up yet. Pears and peaches promise well. Apples blossom pretty well, but are blighting badly, and it is more than probable the crop will be light. Currant worms are very destructive both to Currants and Gooseberries.

E. L. G.

HUDSON, Hillsborough Co.—The prospects are good for corn and potatoes. Little or no wheat is raised in this section. This is the "off year" for apples, yet there is a prospect of a fair crop. Pears promise an abundant yield. A. E. C.

Vermont.

BURLINGTON, Chittenden Co.—The month of May gave us no rain, and at its end we began to fear the consequences of the drought; but the first day of June brought us fine showers, which have continued frequent. The weather has been cool and cloudy. We had damaging frosts in this vicinity on the last week of May, injuring early crops to some extent in some localities. The apple crop will be fair. Corn looks well and promises a usual crop. Potatoes are growing well, and will doubtless be a large crop if the bugs do not cut them down, which is feared, plenty of them having appeared. Paris-green will be freely used if no better substitute is found to destroy them. This is not much of a wheat-growing country. A few farmers grow enough for their own use; but all sowed grains are looking well. All things considered, we look forward to a gratifying harvest. C. C. P.

VERNON, Windham Co.—The season opened in this county about two weeks later than usual. Some warm days, but much cold weather. Rye is in blossom and looks well. Not much winter wheat is raised here. More spring wheat was sowed than formerly, and it looks well. Oats were sown late, but they have made a good start. But little corn has been hoed yet—some farmers have just finished planting. A larger acreage of potatoes has been planted than last year. The beetles are out in full force, and we shall be obliged to use Paris-green to save the crop. For the "off year," the fruit prospect is good; there was a good show of blossoms. A frost on May 24th injured the grapes very much in the valleys. Copious rains of late give promise of a good hay crop. If the balance of the season is favorable we shall have a bountiful harvest.

J. C. A.

NEWPORT, Orleans Co.—I find a sudden change in the weather. It is cold enough for mittens in out-of-door work. Grass is looking well, and my June-grass, orchard-grass and clover are ready for the scythe. Corn is well up; spring wheat is thickening, and spiring upwards rapidly. There are good settings of fruit on apple, plum and cherry trees. In short, everything but prices is looking well for the farmer. Only the best butter can be sold for 12c. to 13c.; the common sorts are slow at 8c. If this is not hard-pan, where shall we find it? On the night of June 7 there was a severe frost, cutting down about all the corn, bean vines and potatoes that were up. Fortunately the season is so late that but little of such crops is yet out of the ground. Those that were will have to be replanted. It did not hurt me much, being so close to the water.

T. H. H.

Massachusetts.

NORTH RAYNHAM, Bristol Co.—The season in this part of the State has been cold and backward. Excepting during the last few days in May — which were very hot—there was but very little rain in that month, and grass had begun to suffer. There will hardly be an average crop even with the best of weather during the rest of this month. A good deal was killed by the white worm last summer. Potatoes are looking well where not killed by the frost, which was not very severe right here. This is the fourth year of the Colorado beetles, and, according to my experience, they have doubled every year. Corn is backward and looks rather yellow. Little or no wheat is raised in this locality. Rye is not looking very well, so far as I have observed. This is the "off year" for apples, and, as trees blossomed very little, there cannot be much fruit. Pears and peaches have set well and promise a good crop, although they are not much cultivated. In regard to grapes, I have made no inquiries, but, judging from my own, I think there will be a fair crop. A good many strawberries are raised in this section, but I cannot say whether a good yield is expected or not generally. One of my neighbors, quite an extensive grower, thinks his crop will be light. Pastures are not as good as usual. The principal money crops in this section are poultry, milk, strawberries, potatoes and cabbage.

T. G. L.

AMHERST, Hampshire Co.—Wheat is not much grown here. Corn-planting is just over and fully as much has been planted as last year. The acreage of potatoes is larger than last year. The elegantly striped gents from Colorado came promptly to time, as numerous as ever, and the prospect for a large crop (of the aforesaid gents) is unusually fine. The acreage of tobacco will be larger than last year, and the Havana variety is gaining in favor and will take the place of seed-leaf to a considerable extent in some places. The prospect for a large hay crop is good. The bloom of apples was unusually good for the "odd year," and the fruit has set well, but is badly punctured by the curculios, which are very abundant this year. The prospect for a large crop of pears is uncommonly good, the bloom being very heavy; standard trees set four years will bear for the first time this year. Peaches, the buds of which were reported (from an examination of a few garden trees) as about half-killed by the winter, prove not to have been materially injured generally, and the crop will be large for this region. Grapes give promise of a good crop. Strawberries are beginning to ripen, and the vines are loaded with green fruit. Plenty of rain during the last three weeks. L. W. G.

SHELBURNE FALLS, Franklin Co. — We do not raise wheat enough in this section to mention. Corn and potatoes are not far enough advanced to tell much about them yet. I think there is a good average amount of both started. Field potatoes are hardly out of the ground yet, but there are swarms of beetles waiting for them. Fruit trees blossomed well, particularly Pears and Cherries. Apples bid fair to be an average crop and there will be an extra crop of pears. Grass is also looking better than usual. Grapes blossom well. L. S. F.

MONUMENT, Barnstaple Co.—Wheat is not raised in this part of the State. Corn is well up and looks well. Early potatoes were injured by a late frost, but have started up and look nicely. This is not much of a fruit section with the exception of cranberries, and it is rather early in the season to form an opinion as to this year's crop. A. W. B.

Rhode Island.

PAWTUXET, Providence Co.—Wheat is not cultivated in Rhode Island; corn is to some extent, and looks well. Potatoes promise well now. It is the "off year" for apples, and there will be very few in New England. The prospect is very good, for a large crop of pears and strawberries. Blackberries and Raspberries were winter-killed badly, and the yield will be small. Peaches are not cultivated largely, but promise more than an average yield. H. G. G.

Connecticut.

HARTFORD, Hartford Co.—We live in a very rich and fertile valley where, in former years, tobacco was King, but of late years in consequence of the decline in price and inferior quality of the above crop, many of the rich acres formerly devoted to it are now cultivated in small fruits, garden products, potatoes, corn, and other grains. Grass has till within the last two weeks, looked very poorly; but the late extremely warm weather, together with timely rains, has had a most surprising effect, and the prospect is now good for an abundant hay crop. The high price of potatoes the past season, has led to the planting of an increased acreage this year. They are looking well and have received one hoeing already. The Colorado beetle is making us its annual visit, but the first crop of potato bugs at the present writing, June 10, is still unhatched. Corn, which is growing in favor and receiving considerable attention, is looking finely (my patch of Blunt's prolific included). Oats, rye, etc., are also looking well. Of strawberries there will be an abundant crop, the first of which was picked in this vicinity, June 7. Grapes, raspberries, currants and other small fruits are looking well or otherwise, according to the attention they have received. Pears and cherries promise to be plentiful, but of apples there is nothing to be said. E. A. G.

WOODMONT, New Haven Co. — Our season in this section is backward by reason of cold and wet weather, but the grass is looking well. Nearly double the usual amount of potatoes is planted, owing to the high prices they brought this spring. The potato bugs are plentiful. Corn planting is not finished yet. Wheat is looking fine, but there is not a large amount raised about here. Rye bids fair to be a good crop. Oats are backward, but if the season is favorable, they may come on and do well yet. Market gardening is carried on about here quite extensively, it being but six miles to New Haven. The milk business is quite an interest here, the farmers raising and peddling their own in and around New Haven. E. P.

BRIDGEPORT, Fairfield Co.—Crops are good in their present condition. Cherries and Pears are in bloom. There will be fair crops of both. Apples did not bloom full this year; many trees hardly made a show. Grass promises a glorious crop. The winter grains look well. Corn has as yet hardly got to a point where one can prophesy its yield. The potato beetle has, so far, been less troublesome than usual this year, though if of last year's sort, there is yet ample time for its appearance. N. B.

WEST CORNWALL, Litchfield Co.—The present condition and prospects of meadows and pastures are very good. Corn is fine; wheat and rye are medium; oats and barley, very good. Potatoes are coming up well. Local rains have injured the crops in some sections; but here we have had just enough. T. S. G.

SOUTHERN STATES.

Virginia

NEWMARKET, Shenandoah Co — We have had a severe drought here this spring; we have had hardly any rain since March. I have traveled over a large part of three counties around me and find the drought pretty general. The season is about a month later than usual. Prospects for wheat are poor; it will be below an average crop. Corn is looking well, but short yet. Oats will be short. Early potatoes are almost a failure. Cherries are in abundance, and there are fine prospects for a large crop of peaches, also for plenty of apples, grapes, etc. The prospects for fruit are far better than last year. We are troubled much with insects of all kinds on vegetables, plants, etc. The Colorado beetle's first brood appeared about the 25th of May. Bees are doing finely, having dry weather and plenty of fruit and clover blossoms. Prices are as follows: wheat, 97c. to $1; corn, 45c. to 50c.; butter, 12½c.; eggs, 8c. Farmers generally are in good cheer. H. N.

MORRISONVILLE, Loudoun Co.—The weather has been quite cool for the last three or four days, owing to a severe hail-storm which occurred on the 6th, destroying in its course wheat, corn, and garden products. Wheat in this part of the county will make an average crop. Corn is looking reasonably well. Our time of planting is from 25th of April to 10th of May. Potatoes are looking well now. The early crop will be fit for use by harvest, which will be about 25th inst. The fruit crop will make a good average so far as we can judge. We are having quite seasonable weather, in consequence of which our meadows and pasture fields are doing well. Clover fields are in full bloom, from which hay will be made about the 15th inst. "Hard times" is the cry of every one; money scarce and produce low. Wheat, $1.12; corn, $1; oats, 25c.; butter, 9c.; eggs, 8c. per doz. G. W. W.

FREDERICKSBURG, Spottsylvania Co.—Wheat on an average in this section cannot be more than three-quarters of a crop on account of the dry spring. The market price for it now is from a $1.12 to $1.20 per bushel. Corn is looking quite well. The market price is 46c. to 47c. per bushel. Oats will be nearly a failure, owing to the dry cool spring. Its price now is 33c. per bushel. There are no late potatoes planted here and the early ones are looking very well: price from 60c. to 75c., according to kind and quality. I think the prospect for fruit is unusually good. The hay crop will not be more than three-quarters of an average. We have some orchard-grass already cut and mostly in the barn. T. F. M.

LOVETTSVILLE, Loudoun Co. — The prospect for wheat is very good—better than last year. The corn is looking very well, but it is yet too early to tell how it will be. We are just planting the late, or the principal crop of potatoes, so that it is too early to prophesy their yield. The prospect for fruit is very flattering. As we had no fruit last year, the trees are very full. The weather is very favorable for vegetation. J. W. C.

West Virginia.

PARKERSBURG, Wood Co.—We had quite an extensive drought until after June, and wheat is short in straw, and has suffered very much;

but the prospects are now that it will fill well and make nearly an average crop. Corn is coming up badly and very unevenly, having been twice replanted. Potatoes are looking well and since the rain prospects are fine for a good crop. From present appearances we expect a good average crop of apples and other fruits. J. G.

MARTINSBURGH, Berkley Co. — The wheat crop throughout this section is very fine; we have now a good stand and large heads. Barring accidents, there will be a large crop. There is a large acreage planted to corn, and it stands very well and so far looks well. The season thus far has been fine. Oats will be a short crop. Potatoes are looking in good condition—an average acreage planted. D.

PADEN'S VALLEY, Wetzel Co.—Wheat is about two-thirds of a crop. Corn is backward—all replanted, and some thrice—and looks poorly. Early planted potatoes promise well, as do also later plantings—beetles not troublesome. No apples at all; but few cherries. There will be some pears, if drought does not dry them up. Excessively dry weather since about April 25. E. K. P.

Kentucky.

GLASGOW, Barren Co.—Indications are that tobacco will be a short crop in this county, say two-thirds of a crop. The oat crop is stunted by dronght; wheat will not be more than two-thirds of a crop, maybe less. Corn is a bad stand, much of it had to be replanted. Potatoes—early crop—short 25 per cent owing to dry weather. Very few peaches. Scarcely any cherries. Apples will be only two-thirds of a crop. E. Y. K.

HENDERSON, Henderson Co.—Wheat in this section will be a good, full average crop. Corn is looking well since the rains. Owing to dry weather immediately after planting, we have rather a bad stand. Potatoes are not cultivated to any extent here. The fruit crop will be a complete failure—there will be a few apples, but all the peaches can be carried in a bushel basket. T. W. W.

CARLISLE, Nicholas Co.—Our wheat in this county is splendid—fully 120 per cent within 20 days of harvest. The corn is backward, we have a good set, however, and it is growing rapidly and looks well. We never had a better show for a crop of potatoes. The fruit crop is about 50 per cent short. Peaches are a failure. Other sections of our country are not so encouraging. C. W. H.

DANVILLE, Boyle Co.—Wheat will be about an average crop—was somewhat shortened by drought in May. Corn is a bad stand and offers the worst prospect I have ever known at this season. The potato prospect is good. No fruit except apples, which will be about a quarter of a crop. W. L. C.

Tennessee.

STRAWBERRY PLAINS, Jefferson Co.—Wheat hereabouts is half a crop — perhaps two-thirds. Corn promises a full crop, though suffering for rain. Of potatoes, Irish, half a crop; sweet, half a crop. Spring and winter oats are a failure. We have had an unusual drought for the last four weeks and are still wanting rain. J. M. M.

North Carolina.

LOWELL, Gaston Co.—Harvesting has begun in this neighborhood, some wheat having been cut five days ago, and ere this is in print the grain will all have been gathered and much of it thrashed, for with us thrashing follows quickly on the harvest. Corn is looking very well, and much is being laid by. Vegetables and gardening generally are in fine trim, and yield well, for our weather has been excellent for crops. For about a week we have had no rain, except one light shower, but the lightning in the north this evening and the heavy banks of dark clouds gathering foretell a good rain. Nothing, however, needs rain, cotton being now the crop to be considered, and it is a plant that requires heat. Our cool nights, with heavy dews for the past week, have hindered the growth of cotton, but the grass and weeds are out, the fields are clean and there is a good stand, and every indication points to a good crop. Our farmers are raising their own bread and meat and other table supplies. They are plowing their lands deeper this year than before, and an era of material prosperity is in sight, with plenty to live on and the cotton for a money crop. Our farmers who are out of debt are laying up money, and others are paying off their mortgages contracted during the period when they only raised cotton and bought their supplies. The cotton mills here are working over-time. There is never a failure in the supply of water. The health of Lowell and vicinity is very good, the highest temperature thus far having been 88° Fah. in the shade, with always a gentle breeze. C.

GREENSBORO, Guilford Co.—The wheat harvest is now commencing in this section. Wheat was thinned by the severe winter, but it has come on wonderfully, and farmers think it will be a full average crop—far ahead of last year's. Corn prospects are good, but the crop has not advanced far enough to tell much about it yet. The prospects for Irish potatoes were never better; farmers are now eating full-grown ones. We are never troubled here with the Colorado beetle. The peach crop is poor—killed out by frost on all low places. In some sections, however, there will be about one-third of a crop. The apple crop is good. A fair crop of cherries and pears—the former now ripe and gone. Winter oats are almost an entire failure, having been killed out by the frosts of winter. Spring oats look promising. J. VAN L.

ASHEVILLE, Buncombe Co.—The wheat crop in this section presents an unfavorable appearance. The severe winter froze out a great deal, and that which remains is low and unpromising. The corn crop, up to this time, is good. Tobacco plants are plentiful, but the planting has been retarded by the dry weather. It is of great importance to get the crop set out by the 10th of June. If planted later than this, the cutting comes too late; and although it may escape frost, the cold winds of October render it almost impossible to cure it a bright golden color. With the growers of fancy gold leaf the color is all, for without color it is held to be a failure. I fear that the crop cannot be as good as last year's. S. C. S.

CHAPEL HILL, Orange Co. — Wheat was thinned by the severe winter, but has had a favorable spring, and will probably be a much better yield than last year. Corn is a good stand and a good start. Frequent rains have caused much grass. Potatoes are doing remarkably well. Fruits will be perhaps from 20 to 50 per cent. of a full yield, the average being from 25 to 35 per cent. Oats, a very light harvest. Cotton starting well, but with less acreage. A. W. M.

South Carolina.

GLENDALE, Spartanburg Co. — So far, up to the present time, the corn and wheat look well in this section of country, and the prospects of good crops are favorable. Potatoes are doing well—I think better than for several years. The prospects for fruit are not very promising on account of late severe frost in spring. J. H.

Alabama.

BIRMINGHAM, Jefferson Co. — The wheat harvest is now about over, and though the stand was injured somewhat by the cold winter, it promises a full average crop. Winter oats were thrown up by the cold, and will not be over one-third of a crop: spring oats are about 90 per cent of an average crop. Clover and pasture are good. The corn prospect is above average. Cotton, too, is above an average. Potatoes are an average crop. Peaches are all killed in the valleys, but we have large quantities of land, "above the frost line," well adapted to fruit culture, on which there is 75 per cent of an average crop. Apples are a quarter of a crop in the valleys and a full crop on high lands. Grapes are a full crop. Gardens are fine. W. J. E.

ANNISTON, Calhoun Co. — The weather has been dry here for months. We have had no rain at all in 24 days. Crops are backward, with the exception of cotton, of which a larger area is planted than ever before. Wheat is very poor. Oats are medium. Corn is small, owing to drought, but if the weather be seasonable it will yet make a full crop for area planted, which is less than usual. Prices are: oats, 55c.; corn, 80c.; wheat, $1.25. All fruits are total failures except apples, of which we may get half a crop. Everybody has plenty to eat, and we have no tramps. C. A. S.

HUNTSVILLE, Madison Co. — We are now harvesting the largest wheat crop that has been raised in this county. The oat crop promises to be very fine. The vegetable gardens have suffered somewhat from lack of rain; but are doing very well. The late freeze in March killed most of our fruit. I have one-third of an acre in tomatoes, that I think will produce 200 or 250 bushels. I picked the first ripe tomato June 2. Corn and cotton are doing very well. Cotton is somewhat later than usual. P. H. M.

Georgia.

SHELTONVILLE, Forsyth Co.—Wheat is being harvested, and the prospects are good for a heavier crop than we have had in this section for years. Corn is growing finely and looks well. Farmers are about up with their work. Our fruit crop will be very short, owing to the frost in April; some orchards are full, while others have none at all. Potatoes are not raised in this section except for family use, though the prospect for a good crop is fine. Other crops are all looking very well. E. P. R.

GRIFFIN, Spaulding Co.—In this section wheat is as fine a crop as we have ever had. Up to the present, corn is promising well. Cotton holds out flattering hopes of a fine crop. Potatoes are only medium. Fruit is almost a failure in this section. Oats are not more than half a crop. Farmers in general are in high hopes as to our main money crop—cotton—both as regards the yield and the chances of high prices in the fall. We have a very large area under it. T. C.

WASHINGTON, Wilkes Co.—It is three weeks to-day since we had rain in this section. The wheat and oat crops are good. Harvesting is about finished. Corn needs rain. Cotton is doing well. The potato crop is backward. I planted the Blunt corn, April 10th, it came up well, and is now nearly six feet high. Planted it on rows I had prepared for cotton. Fruit prospect, poor. J. C. D.

MARIETTA, Cobb Co.—Wheat will likely be above an average crop. Corn looks well, but needs rain—can say nothing definite with regard to it yet. Potatoes are below the average, as we have had a dry spring. I think the fruit crop will be below half a crop of inferior fruit; late frost has hurt it. Cotton, a fair average. J. I. C.

Texas.

WILL'S POINT, Van Zandt Co. — This town, of about 1,200 inhabitants, is beautifully located, and in the middle of a rich and fertile prairie. The country surrounding is composed of prairie and timber pretty equally distributed, and, from the fertility of soil and healthfulness of location, is most admirably adapted to persons from the North who desire to make for themselves cheap and comfortable homes. Improved land can be had at from five to eight dollars per acre, and unimproved, from one to four dollars, according to location and quality of soil. Land is much lower here than farther west, for immigration, as is often the case, to a great extent has passed beyond this, and to regions far inferior in every respect. Wheat, barley, oats, corn and cotton, as well as most kinds of grass, succeed admirably. Fruit of most kinds do well, but for the Grape I do not think any place in the world can excel it. Nearly all the stock sent from here to St. Louis and other markets were raised and fattened entirely on the prairies, without ever having been fed or housed. Hence, with Northern energy and care, what a chance is here offered to make a complete success, by combining farming and stock-raising together! In this mild as well as healful climate, very little feeding or attention would be necessary to rear stock and fatten it for market. The season is dry, and crops need rain badly. Wheat and corn will not make much, if any, over half a crop; but cotton promises finely. E. M.

BROOKSTON, Lamar Co.—Our spring was at first cold and dry, but on the last of April and first of May we had floods of rain. Since the 6th of May no rain has fallen. Corn is suffering. But little wheat is grown, and about all of it is harvested. The oat harvest too has begun—a short crop. The corn crop will be poor, as it is too far advanced for rain to save it. Early corn is tasseling. The Irish potato crop was light. Cotton looks well where it was worked out early. Prices of produce are: wheat and oats, none in market; corn, 35c.; potatoes, 75c. to $1 per bushel; butter, 10c. to 12½c.; eggs, 7c. to 8c. per doz.; green peaches, 50 cents per bushel; apples, do. The fruit crop is good. W. J. N.

HOUSTON, Harris Co.—We are too near the coast for wheat. Cotton and sugar are our staple crops. The latter is doing very well. Cotton looks poorly, and we have news of worms making their appearance in several localities. Corn is suffering from want of rain. New sweet potatoes are now in market, but the crop will be short unless rain is given very soon. Peaches and figs are small crops, having been cut short by the dry weather now prevailing. J. F. D.

LULING, Caldwell Co.—The corn crop is not as good as usual in this county. Wheat is a total failure. Oats are nearly as bad. Our only hopes are now in cotton, which is often badly in the grass and "burrs." The "oldest inhabitant" never witnessed such an unfavorable season for farmers. I. J. E.

[For the very latest reports see page 400.]

The Querist.

ANSWERS TO CORRESPONDENTS.

Treatment of Tree Roses.

Mrs. R. B. H., Baldwinsville, N. Y., has procured some Tree Roses, and wishes some suggestions that may assist her in cultivating them.

ANS.—Owing to our hot summer and the extreme cold of the winter months, rose culture does not succeed as well here as it does in Europe. Shelter the plants from the strong winds, and tie each securely to a stake; it is also well, not to expose them to the full blaze of the hot noon-day sun. If they should suffer from mildew; give them a dusting of flowers of sulphur early in the morning before the dew leaves the plants; if there is no dew, sprinkle them, first, with water. To protect them against the ravages of their many insect enemies, syringe them with a weak solution of whale-oil soap or other insect-destroyer. Though many Remontant Roses are hardy, it is not safe to leave Tree Roses unprotected in winter. A method of wintering which we have successfully employed, is to loosen the Rose from the stake and bend the head to the ground, while an assistant, to avoid breaking the stock, thrusts a pitchfork under the roots on the opposite side and gently raises that side of the plant. Then make a slight hole in the ground in which lay the head and cover it with soil, taking care not to break any branches. As the severity of the weather increases, the plant should be covered with leaves or other litter. In the spring it is again raised to its proper position. Small plants may be potted in the fall and wintered in a greenhouse. Roses will bear severe pruning, and some pruning is necessary to give the head a well-rounded form. Vigorous shoots may be cut back one-half, or even two-thirds, of their length.

Calf Suffering from Indigestion.

U. T. S., Bear Canyon, Col. has a six-weeks-old heifer calf which he allows to suck half her dam's milk mornings and evenings. The other morning it would suck only half a dozen times, then draw back its head, and eject the milk fresh and uncurdled. This it did until it had milked the cow dry, and continued the practice for five days. The last evening of its ailment, it refused to suck, seemed to be in much pain, would lie down and stretch itself out at full length, then rise up and try to kick its sides, take a few steps backward and repeat the whole proceeding. On the third day he gave it a little melted lard. The calf at writing was quite well, and he asks what ailed it, and what was the proper treatment.

ANS.—The calf doubtless suffered from indigestion and consequent irritation of the stomach. Under these circumstances the milk frequently solidifies in the stomach and remains undigested, causing gastric derangement, and wholly stopping nutrition. The remedy is to give one ounce of carbonate of soda dissolved in water, and to pour this down the throat with care to avoid injury. A slender cow's-horn is a good thing to do this with. Pour the fluid down, a little at a time, and let the calf swallow it. An hour afterwards give one ounce of castor-oil and an injection of warm, soapy water. The injection may be be given by means of a bladder to which a tube of elder wood, having the pith removed, and smoothed on the outside, is fastened. Grease the tube before inserting it in the rectum, and inject about one pint.

Yellow Rust on Blackberries, etc.

W. M. K., Washington, D. C., 1. finds here and there in his blackberry patch a bush completely covered with something like red dust or powder; when the plant is shaken, the dust flies around, and he asks the cause of it and a remedy for it. 2. He has had some seed sent him like peach seed, but much smaller, and he sends us a heresay description of the plant and fruit, and asks us to name the tree.

ANS.—1. The trouble is a fungus commonly known as "yellow rust." It frequently prevails on our wild Black-cap Raspberries and on Blackberries, both upright and trailing, and often attacks the cultivated kinds, as in this instance. Its effect is to change the whole character and growth of the plant, making it slender and feeble in growth, as well as unfruitful. It would seem as though some varieties are more susceptible to its attacks than others. A notable instance is that of Mr. Ohmer, of Ohio, who had a famous and profitable plantation of 10 acres of Kittatinny Blackberries entirely destroyed by this fungus and this fate awaits our correspondent's, unless arrested. The flying dust mentioned shows the fungus to be ripe and ready to propagate itself in this way. The only *absolutely safe remedy known* is to dig out and burn every plant, *root and branch*, as soon as the disease is manifest. 2. From the description given, we should *guess* the young trees are Nectarines.

Yellow Rust on Blackberries Again.

N. C., Berlin, Conn, says "After the snow disappeared, last spring, I noticed that some of my raspberry bushes appeared much injured, the bark on many of them being loose near the surface of the ground. I cut them back pretty well when trimming, and the leaves started finely, but the plants did not bud, nor did the leaves on the affected vines attain the size of those on the others. They soon began to look sickly, and the under sides of the leaves became thickly covered with yellow spots. A few days ago, I rooted them all out lest they should affect the sound plants." And he asks whether the severe winter was the cause of the ailment, or if the sickly appearance, as if they had been winter-killed, was due to some disease, and whether the unsound plants would affect the others injuriously.

ANS.—The trouble here is evidently the "yellow rust," alluded to in the foregoing answer. We presume the plants were Black-caps, as we do not remember having ever

seen it on any other kind. It is hardly probable the severity of the winter had anything to do with the *cause*, whatever may have been its effects, if any. How the fungus propagates itself—whether through the ground and sap-vessels, or by the spores flying about and becoming attached to the plant above ground and thence growing and spreading—is, as far as we know, undecided; but, like many diseases, the human family is heir to, it is infectious, and the only safety, as stated elsewhere, lies in cremation.

Training a Colt.

W. N. C., Glendale, Pa., asks the best way to train a colt and how early should the training begin.

ANS.—When a week old, a colt may be halter-broken and taught to stand tied up by its dam. It may be trained to stop at the word "whoa!" and to back up. When two years old, if compactly made, it may be put in the harness and driven slowly before a light vehicle; but, if large and loosely formed, it should not be driven at all before it is three or four years of age, or the joints may be injured. Every colt should be thoroughly subdued and accustomed to the harness on its body and about its legs before being attached to anything. If this part of the training is thoroughly done, the animal will rarely become frightened if any accident happens. A stubborn and unmanageable colt may be made tractable in a few minutes by tying the halter to its tail, and whirling it around in a circle. This is better than the Rarey system of throwing the animal, as there is no dranger of straining. A colt should be taught but one thing at a time.

Mode of Planting Blunt's Corn for Rural Premiums.

A. C. W., Hugo, Ill., says that it is a well-known fact that in Illinois more corn to the acre can be raised in a large field than in a small plot. Now, suppose a person has enough of Blunt's corn to plant, say, 10 acres, and right in the middle of the field he stakes off one-fortieth of an acre, and there plants the seed sent by the RURAL, or plants it just adjoining his large field; he asks whether such a mode of planting would accord with the terms according to which those who compete for the RURAL premiums, must plant their plots.

ANS.—The question here raised is a good one. It would not be fair to cut out a fortieth of an acre from a large plot of corn. The corn which we have sent to our subscribers (it matters not how many kernels each parcel contains, so long as we are informed of the number planted), must be planted within the area of one-fortieth of an acre, and it must not be connected with any other plot. A considerable distance should separate them—say, 100 yards. But, for obvious reasons, we cannot prescribe the exact limit. We insist, however, that the one-fortieth of an acre should not be a part of any other plot.

Mortality Among Bees.

J. D. T., Brookside, N. J., writes us that very many bees have died in that section this spring and summer. No apparent cause can be found, as they have an abundance of honey and there are no signs of disease. One man lost sixteen colonies out of 48; others have lost more or less, and some all. On an average, the loss is about two-thirds of the whole stock. He asks if we can assign the cause and give a preventive.

ANS.—We are unable to give either cause or preventive in this case. If the bees are breeding, are gathering honey, and are apparently healthy in every way, it seems rather mysterions that so many colonies should die. Of conrse, there is a cause, which we doubt not may be found on close observation. It may be possible that it is some new bee-malady hitherto unknown. The human family suffers from epidemic diseases, as do horses, cattle and all other domestic animals. It does not seem impossible that bees, too, might be similarly affected. At any rate, it is worth investigating, and we shall be glad to receive further data on the subject.

Treatment of Night Soil.

J. B., Union, N. Y., asks the best way to treat a lot of night soil—whether to compost it with other manure or to mix it with coal ashes or muck of which he has four acres—or to add lime and salt to it.

ANS.—Night soil can best be composted with earth. To handle it conveniently, prepare a bed of earth or sifted coal ashes a few inches deep, and raise a bank around it of the same material sufficiently high to prevent the soft, semi-liquid matter from flowing over. When the cesspool is emptied or the bed is filled, turn in the earth and mix it with the night soil so as to have it thoroughly intermingled and nearly dry. It would be well to scatter a few bushels of plaster over the compost as it is mixed The heap should stand a few days, when it will become dry, almost odorless and can be handled without inconvenience. It should be used at once, as the oxidation of the night soil goes on very rapidly as soon as it is mixed with the earth, and the value rapidly depreciates. Muck, if dry and fine, will make an excellent absorbent.

Lantanas.

K. D. A., Clinton, Mich., asks how soon Lantanas will bloom from seed. She has some fine young plants raised from seed this spring, and now the questions arise whether they will bloom this summer and how they should be treated.

ANS.—It is best not to expect any flowers till next summer, then you will not be disappointed. Plant them in a bed in the garden this summer, and train them to well-formed, symmetrical plants by tying them up and pinching the most lawless shoots. In September they should be lifted, both roots and branches cut back, and potted for wintering in the greenhouse. Some varieties of Lantana are very vigorous growers; these can be trained in tree form, if desired. Cut off all side branches from the most vigorous shoot and train it perpendicularly to a hight of from three to six feet, then pinch off the tip and let it form a symmetrical head.

Honeysuckles for Hedges.

J. E. L., San Antonio, Texas, referring to an article in the RURAL, which spoke of Honeysuckles suitable for hedges, asks what kind of Honeysuckle would answer the purpose, and when should it be planted.

ANS.—Almost any of the *standard* Honeysuckles is suitable for this purpose, if cut back from year to year. There is a long list in most nurserymen's catalogues. The Tartarian would, perhaps, answer as well as any. It is easily propagated by cuttings, layers or seed, in spring.

Removing Suckers from Corn.

M. D., Coffeyville, Kansas, says his Blunt's corn is sending out suckers, and asks whether he shall cut them off.

ANS.—Whether there is anything gained by removing suckers is a disputed question. Recent experiments go to show that there is no advantage in removing them. The pistils (silk) of corn do not mature simultaneously. Some think that the pollen from the suckers may be serviceable to those maturing plant, which would not otherwise be pollenated. We do not intend to remove the suckers from our plot of Blunt's corn.

Miscellaneous.

A. M. Okolona, Miss., complains that his melon vines have for several years been badly eaten by insects, and asks for a remedy.

ANS.—To apply poisons to melon vines or other vegetable bearing fruit, is too dangerous. Insects may be kept in check, though they are not killed, by a liberal application of a mixture of wood ashes and plaster, scattered over the leaves and around the stems of the plants, If one has but a small plot, it will pay to look all the plants over while young, and destroy all eggs that may be found.

O. A. S., Macon City Mo., has on his lawn several mulberry trees all of which bear fruit except one. The exception is different in appearance from the others, and has a splendid show of fruit in spring, but they all drop off later on. He has dug around it and fertilized it and it is growing vigorously, and he asks for a remedy for the dropping off of the fruit.

ANS.—As the tree is vigorous, we can only suggest root-pruning.

M. W. H. address not given, wishes to know how to destroy the lice on his grape vines; they work on the tips of the young shoots and also on the leaves.

ANS.—Dip the ends of the young branches in a pail of tobacco water, and gently syringe the leaves with the same. A weak solution of whale-oil soap will also accomplish the same end.

P. O., Morristown, N. J., asks who has Lop-eared rabbits for sale and whether the Himalaya or Angora rabbits are dearer than the Lops.

ANS.—A. M. Halsted, Rye, Westchester Co., N. Y. has Lop-eared rabbits for sale. Neither the Himalaya nor Angora babbits are dearer than the Lops. These are the rarest and highest-priced.

W. H., Pitcher, N. Y., asks whether liquid manure direct from the cow stable is a good application for Strawberries.

ANS.—Yes, especially when the fruit is set and swelling; but it must be diluted with, say, thrice the quantity of water before applying it, otherwise it will "burn" the plants.

COMMUNICATIONS RECEIVED FOR THE WEEK ENDING SATURDAY, JUNE 14th.

S. W. G.—L. L.—M. H. P.—G. E. C.—E. Y. K.—N. J. A.—R. W.—J. M.—E. J. P.—D. W. B.—J. H. M.—T. J. E.—C. F. R.—S. G. H.—P. S. W.—C. C. P.—J. B. R.—G. H. A.—S. B.—G. D. N.—K. H.—M. B. C.—S. W. J.—G. W. M.—J. G.—L. S. F.—D. C. S.—V. J. E.—A. D.—D. B. B.—C. M. J.—G. W. S.—J. H. S.—A. M. H.—C. C.—F. D. B.—J. N.—C. B. C.—W. L. B.—E. P. W.—R. L. S.—H. S.—J. B. A.—C. B. D.—M. M.—D. W. McF.—A. N. G.—G. G.—Maria—K. H.—E. L. G—H. G. G.—E. M. B.—J. N. C.—J. J. F.—S. A. O.—H. M. McL.—J. C. D.—J. G.—E. C. F. S. M. T.—A. D.—L. F.—J. C. C.—T. C.—A. R.—E. W.—J. F. D.—R. J.—W. H. B.—T. G. L.—T. H. H.—G. G.—H. C. S.—G. E. W.—J. D. G. N.—J. D.—R. T. McN.—D. A.—Zena Claybourne—M. B.—T. W.—E. P.—H. C. S.—H. M. D.—P. K. R.—E. T. McC.—R. W. F.—J. E. C.—T. H. H.—E. G.—J. W. A.—J. C. A.—G. M.—N, K. D.—W. R. M.—W. W. W.—K. D. A.—T. W. H.—J. E. C.—"Chatham"—W. H. I.—W. L. C.—J. T. W.—J. H. C. B.—A. M. C.—H. A. S.—A. P. T.—E. S. H.—M. F. C.—G. W M.—A. W. B.—R. W. H.—G. W. W.—K. H.—J. S. E. T. T. R.—R. R.—H. D. P.—J. S. B.—G. A. B.—J. G.—J. F. L.—F. D. C.—G. O. S.—D. E. H.—W. H.—E. A. G.—J. R. S.—J. V. L.—J. C. K.—N. S.—E. M.—C. L. I.—C. A. P.—S. C. S.—D. M. S.—J. H.—A. H.—J. W. M.—J. B.—J. J. H.—T. S. H.—J. C. L.—J. L. W.—R. P. H. E. S.—A. F.—H. A. P.—J. S. & D.—J. B. E—W. S. H.—G. B.—J. E. S.—A. W. M.—C. W. H.—E. A. G.—S. R. M.—M. M. L.—C. D., thanks—M. T.—A. B. D.—T. F. M.—M. O.—E. A. B—S. S. D.—S. M. T.—W. W. W.—W. O. G.—V. J. E.—J. J. H.—T. A. P.—A. D.—W. J. N.—L. W. G.—U. H. U.—H. H.—G. W. F.—F. D. P.—A. T.—N. S. H.—W. A. H.—E. P. R.—W. L. W.—J. B. R.—J. P.—C. C. S.—J. H. L.—C. H. J.—C. & B.—G. W. S.—C. R.—T. W. W.—M. L. B.—J. W. C.—A. E. C.—C. F. H.—E. A. McC.—A. S.—E. K. P.—Mrs. McC.—O. F. P.—G. H.—H. T. V.—H. M. W.—S. C. B.—T. M. F.—A. E. B.—W. J. E.—P. H. N.—E. McI.—E. J. P.—J. B.—T. S.—H. F. S.—G. H.—M. S.—J. H. P.—Mrs. J. S., thanks—B. F. D.—C. A. F.—D. A. H.—E. M. B.—J. B. G.—R. E. C.—H. B. D.—R. J. W.—I. F.—S. L. I.—J. C. V.—W. P. S.—T. J. P.—W. M. E.—W. B. P.—Mrs. S.—J. T.

Miscellaneous.

NOTES FROM THE RURAL GROUNDS.

Strawberries.

SHARPLESS.—A dozen plants were sent to us from Messrs. Ellwanger and Barry's. This new variety has been much talked of and extensively advertised. Of all our varieties this, during the past winter and spring up to the present time, has been the most vigorous. The leaves are very large and held up by long petioles. But the peduncles, instead of growing erect until pulled down by the weight of the fruit, often shoot out the same as runners. If this habit be not exceptional, it will make an objection to this variety, since the berries grow and ripen flat upon the ground or mulch. The peculiar shape of this berry is remarkably constant and although as we make these notes (June 8) there is not a ripe berry on the vines, it would be easy among twenty varieties to pick out every Sharpless.

CRESCENT SEEDLING.—(E. P. Roe). Our plants of this variety are so full of berries that it seems impossible that all should ripen. We have just counted 155 upon one medium-sized plant, each raceme bearing from 30@40. None ripe at this date.

FOREST ROSE.—(E. P. ROE) is by no means so prolific. The pedicels are long and few. None ripe.

FROM THE OCEAN CO. AGRICLTURAL SOCIETY of Ohio we received a dozen plants of a variety not yet named. They are strong growers, bearing large leaves and rather short petioles. The berry is much like that of Beauty or Borden 30, except that it ripens evenly and is of excellent quality.

GOLDEN DEFIANCE improves with acquaintance. It is both vigorous and prolific. The berries are of what might be called the perfect strawberry shape, and they are held up finely by strong stalks, so that mulching is scarcely necessary.

THE STRAWBERRY needs moisture, and a rich and well drained soil. We have supplied the draining and the richness, and the season has supplied all the moisture needed. The result is a promise of an immense quantity of the largest berries we have ever raised.

As the season advances and the new varieties develop their merits or demerits, we shall endeavor to furnish those of our readers who intend to form new plantations, with such notes as may guide them in a judicious selection. We are well satisfied that among the many new kinds we are testing there are several which will escape the verdict which trustworthy tests, as a rule, impose upon new plants of all sorts.

Raspberries.

We may now record that of all our Raspberries, Cuthbert, Montclair, Erwood's Everbearing, and Highland Hardy have stood the past winter best; Delaware and Brandywine, next. Brinckle's Orange was killed to the ground, though protected. Florence (yellow), unprotected, was less injured.

THE THWACK, sent to us to be tested by the Messrs. Hance & Son of Red Bank N. J., our readers may remember we regarded as a highly promising market sort, should it prove to be hardy. The berries are large and firm and, though of poor flavor the bushes are thrifty and fairly prolific. We have given it a fair test during three seasons. It seemed unusually hardy during the first and second—but every one of our six plants has been killed nearly to the ground by the past winter.

CONNECTICUT AGRICULTURAL EXPERIMENT STATION.

BULLETIN 28.—JUNE 6, 1879.

Fertilizer Analyses.

272. E. Frank Coe's Superphosphate. Sampled by Buck & Durkee, dealers, Willimantic. Received May 12th.

277. E. Frank Coe's Superphosphate. Sampled May 26th, by Experiment Station, from stock of R. B. Bradley & Co., New Haven.

273. Russell Coe's Superphosphate. Sampled by Buck & Durkee, dealers, Willimantic. Received May 12th.

275. Lombard & Matthewson's Superphosphate. Sampled and sent May 21st, by John D. Gaylord, Ashford.

STATION ANALYSES.

	272	277	273	275
Nitrogen	2.48	2.56	1.99	3.15
Sol. Phos. Acid	9.79	8.76	8.02	2.62
Reverted Phos. Acid	.51	2.16	1.74	9.52
Insol. " "	1.55	1.45	3.46	4.46
Estimated value ₱ ton	$37.49	$38.06	$35.98	$42.53
Cost ₱ ton	40.00	40.00	40.00	38.00

QUESTION.

"Is there a simple chemical test for the detection of coal-ashes in wood-ashes? With the present low price of coal it is quite risky to buy leached ashes."

ANSWER.

Wood-ashes can be tested for coal-ashes most simply by putting a few handfuls in a pan, wetting the whole thoroughly and stirring it under a gentle stream of water. The fine ashes will float away in the overflowing water, leaving, in case of pure wood ashes, merely some charcoal and sand which are always present in wood-ashes. If coal-ashes are intermixed, bits of half-burned coal and lumps of slag or clinker will also remain, which can easily be identified, and from their quantity some idea of the extent of the adulteration can be formed. Suspected samples may be sent to the Station for further examination.

S. W. JOHNSON, Director.

CATALOGUES, &c., RECEIVED.

PACIFIC RURAL HANDBOOK, by Chas. H. Shinn; published by Dewey & Co., San Francisco. Price, one dollar. Mr. Shinn was formerly a contributor to the RURAL NEW-YORKER, for which he still writes occasionally. He is now the able editor of the California Horticulturist, and Horticulture and Gardening, the subject of the little work before us, could not have been treated of by a more competent authority. The book comprises 122 pages, and contains a series of brief, practical essays and notes on the culture of trees, vegetables and flowers adapted to the Pacific Coast; also, hints on home and farm improvement. The book manifests throughout the author's ardent love for the Beautiful in nature, and is well calculated to inflame and stimulate the same sentiment in its readers.

PLANT CATALOGUE from R. S. Victoria and Paradise Nurseries, Upper Halloway, London, England. This is a pamphlet of 128 pages, containing several fine wood cuts and a comprehensive list of Orchids, Ferns, Palms and general stove and greenhouse plants, and of new plants for 1879. Mr. Williams is a well-known author of several works on greenhouse plants and their culture. He makes a specialty of choice stove plants, and brings every year numerous new and valuable plants to the notice of the public. The catalogue contains particularly a large and choice list of Orchids, Ferns and Lycopodiums, a class of plants that is sadly neglected in this country.

CATALOGUE of Dutch Flower roots from Polman Mooy, at Haarlem, Holland. It contains a long list of choice Hyacinths, Tulips, Narcissuses, Anemones, Ranunculuses, Crocuses, Amaryllis, Gladioli and many other select bulbs. The firm solicits its patrons to send in their orders at an early date in order to give each the promptest attention.

PETER HENDERSON & Co. send us their special list of Vegetable Plants and Seeds. The leading varieties of celery, cabbage and cauliflower plants are described, and seeds for present and fall sowing are enumerated.

CATALOGUE of the University of N. C. 1878-9.

A CORRECTION.

IN "Our Bee Hints" of June 7, page 360, it reads, "Under normal conditions an egg in a queen cell will hatch in three days; in five days more the cell will be capped, and in about 16 days later her majesty will come forth fully developed, making altogether about 24 days." It should read, "and in about 16 days her majesty will come forth fully developed, which is five and eight days earlier than workers and drones respectively, the former emerging in about 21 days, and for the latter three days more, making altogether about 24 days." —[EDS.

SHEEP POISONED BY EATING LAUREL.—We occasionally see a query asking for a remedy for the cure of sheep, that have been poisoned by eating Laurel. I will give the readers of the RURAL a very simple remedy that cured several of my sheep, two years ago, after they had become so bad from the effects of the poison, that they could not get up. I made a strong tea from corn cobs and gave it to them. Their recovery commenced at once, and was very rapid. I believe it to be a sure cure for the above poison, and hope that any who are so unfortunate as to have sheep thus troubled, will give this remedy a trial. D.

THE
RURAL NEW-YORKER.
PUBLISHED EVERY SATURDAY.

Address
RURAL PUBLISHING CO.,
78 Duane Street, New York City.

SATURDAY, JUNE 21, 1879.

OUR CROP REPORTS.

To be able to estimate in advance with a fair degree of accuracy the probable yield of various crops throughout the country, is of no small interest to the agricultural community, not merely as a matter of curiosity, out also because such foreknowledge, wisely utilized, will enable the farmers to sell their produce to greater advantage and conduct their affairs on better business principles. Nor are the farmers the only people interested in this question; for there is no class in this country, nor, indeed, in the civilized world, to whom the American harvest is not a matter of great importance. To the railroad and shipping interests, and the whole carrying trade, an abundant harvest means a prosperous season and large dividends; to the mercantile community it means an extensive business on a sound basis; to the manufacturers it means large sales and small losses; to the laboring classes it means plenty of work and paying wages, and plenty of food at low prices, while to the nation at large it is a sure guarantee of comfort and prosperity.

Nor are the blessings of abundant food and low prices consequent upon a fine harvest here, confined to this side of the Atlantic, for abroad also the toiling multitudes are benefited by the surplus products such a harvest enables us to send them. True it is that overflowing crops here cheapen the price of farm products and consequently lessen the profits of farmers elsewhere; but the agricultural community of Europe, and especially of our chief market, England, forms but a comparatively small proportion of the whole population, and there is no single general benefit that does not entail a thousand individual hardships.

Reliable information with regard to the prospects of all crops can be obtained only from those who cultivate them, and who are acquainted with the customary yield in each section and under each method of treatment. In this issue several hundred farmers from as many points scattered all over our broad territory, give well considered opinions on the outlook for crops in their respective neighborhoods or counties. With a very few exceptions, all the writers are practical farmers, each well acquainted with the condition of the crops in his own vicinity. Many of them are the secretaries of the agricultural societies of their respective counties, and these have condensed in their reports to us the results of their investigations and of the local reports made to them. Taken as a whole, therefore, an excellent estimate of the coming harvest throughout the country can be readily formed by a careful perusal of these pithy and interesting accounts.

From these and various other sources of information, including the report of the Department of Agriculture, received this morning from Washington, it appears that the average condition of winter wheat is 90, against 98 last year. The yield on the Pacific coast, from which our special reports have not yet reached us, is considerably above the average, Oregon rising to 104. The States north of the Ohio river average 95, Indiana reaching 103. The crop in the Middle States averages 86; that of New England 94; and of the South Atlantic States 96, South Carolina reporting 108 and Georgia 112—a fine showing for the Empire State of the South. The Southern inland States average 88, the Gulf States 83, and the trans-Mississippi States only 79, as compared with 98 last year. All over the country a late spring and severe drought have been more or less injurious to the crop. Complaints of winter-killing have come from some parts of the South, and of slight ravages by the Hessian fly from the North and West; while grasshoppers have made their appearance, but have not yet done much damage, beyond the Mississippi. The acreage under spring wheat is about four per cent greater than last year. The heaviest increase is in California, which reports ten per cent more; while in the New England and the States west of the Mississippi there is an increase of five per cent., and one of nine per cent. in Minnesota; while the Middle States fall off one per cent. The condition of spring wheat is about the same on the whole, as that of winter wheat all the States being a trifle below the average, the crop having been subjected to the same injurious influences. There is a considerable increase in the acreage under wheat, but the amount of this it is at present impossible to ascertain. In many of the old States the increase is, in the aggregate, not inconsiderable, while in some of the border States, and especially in the Territories, it is of great extent. For instance, in one county in Dakota, which last year sowed only fifty acres, upwards of four thousand acres have been grown this year. It is more than probable, therefore, that this great increase of area under wheat will at least fully counterbalance the slight diminution in the yield per acre of the crop.

Corn is nearly everywhere backward, but the late rains all over the country have already pushed it ahead wonderfully, and unless the weather is very unfavorable a fair crop is among the probabilities. Curiously enough, while our Kansas reports indicate a very poor wheat crop, they all promise a splendid crop of corn. Poor seeds and planting too early appear to be the causes of the present unsatisfactory condition of the crop in the Middle and most of the Western States, and it is to be hoped that the lessons taught by the hard experience of the present season will not be profitless in the future.

The prospects are promising that cotton will be an excellent crop this year. The area planted to it is reported to be at least two per cent larger than last year, while the stand and culture are both fine. Taking 100 as the average of last year's crop, 47 counties in North Carolina report their present crop at 103; 18 counties in South Carolina report 100; 71 counties in Georgia, 102; 12 counties in Florida, 98; 58 counties in Texas, 107; 40 counties in Arkansas, 101; 18 counties in Tennessee, 103. The average yield per acre, however, will be a trifle less than last year, in the proportion of 96 to 99. Like corn, it is in every section about a couple of weeks backward. At present the prospect seems to be that oats, rye and barley will be somewhat less than average in yields; but while the acreage under each is about the same as last year in the old-settled States, there is in the Western States a considerable increase, which will, not improbably, help to bring the aggregate crops out fully abreast of those of last year. The high price of potatoes during the past season has led to the planting of a greatly increased acreage to this crop, and as the yield, on the whole, promises to be abundant, low prices will most likely be more universal next season than good figures have been this. Then it will be at least possible that the low prices realized for potatoes the coming season, may again restrict farmers in planting them on the following year, when another era of high prices will be pretty sure once more to produce so large a supply as again to overstock the market.

Apples will be a short crop, and those who are fortunate enough to have exceptionally good yields, are pretty sure to realize good prices. While reports from the Maryland and Delaware peach regions are highly promising, the peach crop throughout the country will, in the aggregate, be considerably smaller than the apple crop. Of small fruits there will probably be the usual supply, so that there cannot be much difference in prices from those that have ruled during the past season.

On the whole, the prospects for the farming world while not particularly brilliant, are certainly encouraging, and we are glad to notice that from every quarter come words of hope, contentment and good cheer.

FAULTY BREEDING.

We *can* have too much of a good thing. In its way a finely-bred steer, or a sheep or hog is a good thing, and, so far as it becomes profitable to the producer and useful to the consumer, the world is better for it. But when by a course of breeding for several years the end has been reached in these respects, it is time to stop. If the so-called improvement results in the conversion of a fine carcass of flesh into a mass of tallow or lard, and gives the hapless consumer a few bones drowned in a dish of fat for his meal, instead of succulent, tender flesh, he considers himself to be an ill-used man. Formerly the pride of the butcher and the joy of the housekeeper was a cut of Devon beef beautifully marbled with fat and lean intermingled; and the Berkshire ham and bacon, or the Essex market pork, were the *ne plus ultra* of the breakfast table. Then it was the end which ennobled the means to it, and a breeder pointed with pride to the dressed carcass of his well-bred animal.

Unfortunately we have changed all that. Now the talk of the breeder is of the mellow hide and handling of his beeves, significative of a soft layer of fat beneath the skin; or of the short face, turned-up snout, breadth of loin, or enormous weight of his pig, all which mean a mass of fat in place of a well distributed mixture of it with useful lean. And the mischief grows. The beef of a show Short-horn would be rejected from the kitchen of any housekeeper, and already the effect of the crossing of such animals upon our common stock is to be seen in the waste of fat which is thrown off from the butchers' stalls. The yield of lard per 100 pounds of live weight is gradually increasing, and this tendency is not to the greater usefulness of the pig, but otherwise. The result is charged to the influences of the methods of judging stock and the fancy points of professional breeders. But it is time that the other end of the line should be heard from, and those whose money pays for it should give the breeders a piece of their mind.

A NEW PRODUCT FROM BEETS.

The wonders of nature are amazing, and we have to thank chemistry for presenting to us the extraordinary disclosures made through constant experimenting in the laboratory. The common sugar beet, erewhile a mere food for cattle, was, within the memory of some persons yet living, discovered to contain a pure, crystallizable sugar. After many years' labor a successful process was invented to utilize this discovery, and now not far from one thousand million tons of beet sugar are made annually in Europe, with vast, indeed incalculable, profit to agriture. But sugar is not the only product of this homely root. A great quantity of molasses is produced from the refuse of the sugar manufacture; a large quantity of spirits is distilled from the refuse of the molasses; from the refuse of this last potash is made, and used as a fertilizer. Now a more wonderful discovery than all these has come to light. From the refuse of the distillation of alcohol there is now produced a combustible gas which can be condensed into a volatile liquid, known as chloride of methyl. This chloride of methyl has been used in the preparation of some of the brilliant aniline colors, but it has been now found to be a valuable refrigerating agent. By rapidly evaporating it, a temperature of more than sixty degrees below zero can be produced and maintained, and mercury can be reduced to solid metal by this means. But the grand value of the discovery will be in the use of this product of the modest beet root in the manufacture of ice. What vast possibilities may exist in a simple root! and what boundless wonders are enfolded in the commonest products of nature! Surely there can be no more ennobling study for the mind, or work for the hands of man than that which brings to his view the exquisite works of nature, or opens to his intelligence the fairy world, of which he may obtain a glimpse, at least, now and then.

PEARL MILLET—A MISTAKE CORRECTED.

The Maryland Farmer, in commenting upon an article in the Planter and Grange about Pearl Millet, says: "The RURAL NEW YORKER—high authority—will also be taken aback, if after all the expense it incurred in illustrating millets, and this variety especially, it is convinced by the Planter and Grange that it has been dressing up an old ewe in lamb-fashion?" Pearl Millet *is* new to the North, though old to the South, where it is better known by other names. We have never disguised this.

On page 540, August 24, is the following: "Our correspondent, Col. M. C. Weld, tested this plant twenty years ago, and disseminated the seeds for others to try. The reports were favorable; in view of which, as well as of the fact that it has been cultivated in some of the Southern States for many years, it is singular that it has escaped general cultivation, if worthy of it."

Had we space, and it were desirable so to do, we could quote at least a dozen passages to the same effect. Our only object in writing the above is to show our friend, the Maryland Farmer, that we have made no statement regarding Pearl Millet which it is not very easy to substantiate. Mr. Peter Henderson, against whom the article in the Planter and Grange was directed—very unjustly, as we think—estimated from his own tests a far greater yield per acre than we did from our tests. He, too, in an article published in November of last year, states distinctly enough that it has been cultivated "some years in some of the Southern States."

POULTRY EXHIBITIONS.

Miss Tox (one of the pleasing creatures of Charles Dickens's genius) was convinced that all the "crookedness" of disposition evinced by "Rob. the Grinder" was due to his association with pigeons. Was Miss Tox correct? It would seem corroborative of a suggestion that that lady's "head was level" to read in a recent issue of the New England Farmer that if "we were so disposed we could fill a whole page with accounts of tricks practiced to defraud," etc., in poultry exhibitions. This is timely, and pertinent to think of just now. The above-mentioned charge refers to the borrowing of birds to make up trios, and so carry off prizes to which the exhibitors were not entitled. There are tricks in all trades, and while there are many honest poultry fanciers, it is true there are some whom it will pay to watch very closely. But it is not pigeons or poultry alone that exert this demoralizing effect; witness the "stubble-shorn," yellow-ochered sheep; the sand-papered and waxed horns of the cows, their bandaged tails and skins washed with dung-water to confer a rich butter color; the false pedigrees, the stocked udders, and various other tricks and devices to catch the judge's favor. All these—to draw it mild—are not unknown to many breeders; and some medals and blue and red ribbons must recall to some folks reminiscences that will, or ought to, lie heavy upon their consciences one day in the future.

N. Y. HORTICULTURAL EXHIBITION.

The price of admission to the New York Horticultural Society held at Madison Square Garden has heretofore been fifty cents. The price at the last exhibition reported elsewhere, was but twenty-five cents. And yet the attendance was less than ever before, and financially, it was a failure. Many people value plants according to the price they have to pay for them. It seems to be the same with horticultural displays. They have now Gilmore at Coney Island. Perhaps he was a chief attraction.

With lager beer, cigar-smoking, and lounging about prohibited, we should like to know how a strictly horticultural show could be made to pay in New York City. Horticulture is everywhere exciting more interest from year to year, and we are constrianed to believe that if Horticultural exhibitions were properly conducted, there is no reason why they should not be well attended and well supported in this Metropolitan City.

BREVITIES.

Dr. Asa Gray and Professor Sargent have started for a month's tour in the mountains of the Carolinas.

Many excellent crop reports that have just arrived must be kept until next week, through lack of space for them in this issue.

We have never seen such a pest of rose-bugs as there are this season. They even destroy the flowers of late-blooming Magnolias and Clematis.

Among newer kinds of potatoes, Dr. Hexamer does not know of any variety more promising than Snowflake. It is especially adapted, however, to heavy soils.

Mr. J. T. Lovett, who has studied poultry as well as small fruits, tells us that he has settled upon the Brown Leghorns for eggs, and the Plymouth Rocks for all-purpose fowls.

"Probably," says Mr. Wilson in the London Chronicle, "all the wheats which have white grains have leaves of a lighter green than those which have red grains." If this is true, the shade of green is not always an indication of vigor.

Our reports are necessarily much condensed. When from any State there is a general coincidence in reports, we have combined several or more in one. Many of the reports had to be necessarily omitted, as they contained the name neither of the town, county nor State of the writer, and in some such cases the post office stamp was indecipherable.

We may still sow seeds of the following vegetables: squash, pumpkin, tomato, cucumber, nasturtium, musk and watermelon, sweet corn, bush, pole and Lima beans, okra, lettuce, turnip beets, ruta-bagas. Hoe up all blackberry and raspberry canes not needed for next season's fruiting. Set out celery plants. Potatoes may still be planted. If the beetles of the early potatoes have been killed, there will be few to interfere with the next crop. Study our crop reports.

Mr. Peter Henderson gives as the cream of all Strawberries, mentioned in order of merit, 1st, Pioneer; 2d, Forest Rose; 3d, Beauty; 4th, Sharpless; 5th, Monarch of the West; 6th, Borden 30; 7th, Jucunda; 8th, Charles Downing. He places Pioneer first because he deems it the earliest, while it is of as good quality and as large as Monarch. Dr. Hexamer, however, tells us that, like all of Durand's seedlings, it requires high cultivation. He also thinks that either Nicanor, Duchesse or Duncan is earlier. We have not tested Pioneer. Duncan is, with us, the earliest, though little else can be said in its favor.

HIGH FARMING AND LOW PRICES.

(Concluded from page 375, last number.)

To the wide-awake American farmer probably the most interesting and instructive part of Dr. Lawes's address was that relating to

Experiments in Fattening Cattle.

The growing importance of stock-raising in this country lends no small interest to everything connected with their economical feeding; while the absence hitherto among us of any systematic experimentation in this connection leaves us dependent on the results of foreign experiments for instruction on the subject. In the following table is shown what are the probable rate of increase to be expected from cattle of above average quality and liberally fed, and what is the average amount of food required to produce a given amount of increase.

In the table are given, the ages, weights and increase—first, of a number of prize cattle exhibited at Smithfield, in December 1878; secondly, of a number of prize cattle exhibited at the Chicago Society's Show (United States); thirdly, of some French cattle of the Nivernais-Charolais breed; lastly, at the foot of the Table is given, for comparison, the estimate of the average rate of increase during the fattening period, as adopted at Rothamsted many years ago.

AGES, WEIGHTS, AND INCREASE OF CATTLE.

Description.	No. of Class	No. in Class	Aver. Age.	Aver. Final weight per head.	Incr. per Day.	Incr. per 1000 lbs. Live-weight per Week.
Prize Cattle at Smithfield, 1878.			Week	lbs.	lbs.	lbs.
Devons.....	1	9	116	1301	1.60	14.8
	2	7	167	1568	1.34	10.5
	3	5	215	1785	1.19	8.3
	4	3	165	1456	1.26	10.6
	Average,		165¾	1527½	1.35	11.1
Herefords...	6	10	118½	1615	1.95	14.9
	7	5	165½	1964	1.70	10.9
	8	2	221½	2085	1.34	8.2
	9	2	178½	1731	1.39	10.0
	Average,		171	1848¾	1.60	11.0
Short-horns	11	6	120	1698	2.02	14.8
	12	10	160	1960	1.75	11.3
	13	5	163	2352	2.06	11.3
	14	10	172	1876	1.56	10.5
	Average,		153¾	1971½	1.85	12.0
Sussex.....	16	7	116	1588	1.96	15.2
	17	8	151	1818	1.72	11.9
	18	4	203	2390	1.68	9.1
	19	7	160	1736	1.55	11.1
	Average,		157½	1883	1.73	11.8
General average,			162	1808	1.63	11.5
Prize Cattle, Chicago Society, United States.						
1. Steers, 4 years and over, 1st Prize,			268.6	2085	1.10	7.1
2. " " 2d Prize,			271.7	2440	1.28	7.0
3. " 3 yrs. and under, 1st Prize,			182.9	2115	1.65	10.4
4. " " 2d Prize,			174.3	2060	1.68	10.9
5. " 2 ys. and under 3, 1st Prize,			138.4	1705	1.76	13.5
6. " " 2d Prize,			139.7	1600	1.63	13.4
7. " 1 yr. and under 2, 1st Prize,			92.9	1480	2.28	20.0
8. " " 2d Prize,			95.7	1275	1.90	19.1
Average,			170.5	1845	1.66	12.7
Nivernais-Charolais Cattle, French.						
No. 1,.....			134.8	1478	1.57	13.6
No. 2,.....			156.4	1987	1.81	11.9
No. 3,.....			160.8	1893	1.68	11.6
No. 4,.....			174.0	2079	1.71	10.8
Average,			156.5	1859	1.69	12.0
General of all,..... Rothamsted adopted aver.			163.7	1826	1.65	11.9 10–11

"Before discussing the figures given in the table, it will be well to give some explanation of how they are obtained. The ages, and final weight per head, are the actual data recorded. The increase per day is obtained by dividing the final weight by the number of days of age. This is the mode of representation adopted in the United States; and the figures given in this column for the Chicago cattle, are those actually recorded, whilst those for the Smithfield and French cattle are calculated as above described. It is obvious that such a mode of reckoning, however valuable it may be in comparing the rates of increase of animals of the same description, oxen, for example, but of different breeds, or of different ages, is quite inapplicable in comparing the rates of increase of animals of different descriptions, and of different sizes; of oxen, sheep and pigs, with one another, for example. Many years ago, when considering this subject, we felt the necessity of adopting some mode of representation which enabled us to compare the amounts of food consumed, and the amounts of increase produced, not only among animals of the same, but of different descriptions, and of all sizes. Accordingly, the standards we adopted were:

"The amount of food consumed per 100 pounds live-weight per week. The amount of food to produce 100 pounds increase in live-weight. The increase per 100 pounds live-weight per week. But as, on the present occasion, I am dealing with cattle only, I give, as you will see in the last column of the table, the increase per 1,000 pounds live-weight per week. At the foot of this column is given the average increase per 1,000 pounds live-weight per week of all the cases recorded in the table, including the different breeds of the different countries; "babies" of two years and under, and mature animals of four years old and over. This general average of such very varied individual cases shows 11.9, or nearly 12 pounds increase per 1,000 pounds live-weight per week, whilst the Rothamsted estimate, adopted many years ago, is 10 to 11 pounds per 1,000 pounds live-weight per week, as the average rate of increase of oxen during the last few months of feeding on good, fattening food. To go a little more into detail, compared with this Rothamsted estimate of 10 to 11 pounds, the average of the different lots of the Smithfield prize cattle gives 11.5 pounds, that of all the Chicago cattle 12.7 pounds, and that of the four French cattle 12 pounds.

"In making these comparisons it must be borne in mind, however, that whilst in the case of the Smithfield, Chicago, and French cattle the increase is, for want of other data, calculated upon the average live-weight from birth to final weight, in that of the Rothamsted estimates it is taken upon the average weight of the final fattening period only; and as the rate of gross increase upon a given live-weight within a given time is considerably higher in the earlier than in the later periods of the life of the fattening animal, the figures are, so far, not strictly comparable.

On the other hand, a mature animal contains a larger proportion of salable carcass, and a less proportion of internal organs and offal generally, than a young or store one. The mature animal also contains a much higher percentage of dry or solid substance, and, accordingly, a lower percentage of water. These differences are clearly illustrated in the following table, which gives the proportion of carcass in 100 fasted live-weight, and also the percentages of dry or solid substance and of water, in 10 animals of different descriptions and in different conditions as to age and fatness, which were analysed at Rothamsted, now nearly 30 years ago.

COMPOSITION OF VARIOUS ANIMALS.

Description and Condition of Animal.	In Fasted Live-weight. Carcass.	Total Dry Subst'nce	Water.
	Per cent.	Per cent.	Per cent.
Fat Calf.....	62·0	33·9	63·0
Half-Fat Ox.....	64·7	40·3	51·5
Fat Ox.....	68·3	48·6	45·5
Fat Lamb.....	60·2	43·7	47·7
Store Sheep.....	53·3	36·7	57·3
Half-Fat Old Sheep..	53·6	40·6	50·3
Fat Sheep.....	57·5	50·7	43·3
Very Fat Sheep.....	63·1	59·6	35·2
Store Pig.....	66·4	39·7	55·0
Fat Pig.....	76·0	54·7	4.14

"Thus, you will see that even a fat calf contained a much higher percentage of water, and lower percentage of solid matter, than a half-fat ox; whilst the fat ox contained much more dry or solid matter than the half-fat one. Then, again, among the sheep there is a gradually increasing percentage of dry or solid matter, and decreasing percentage of water, from the store to the half-fat, from the half-fat to the fat, and from the fat to the very fat condition. A similar result is observed as between the store and the fat pig. From these facts you will see that, although the gross increase is less in proportion to the live-weight as the animal matures, a larger proportion of such gross increase consists of carcass and of real solid matter, and a less proportion of offal and of water. In fact, the fattening process may be said to consist in great measure in the displacement of water by fat.

Accepting the figures given in the table as giving a fair idea of the rate of increase of well-bred and well-fed animals, the question arises—

At What Cost of Food has the Increase been Obtained?

We have no records on this point in regard to any of the animals referred to in the table. We must, therefore, rely upon other data in arriving at a decision on this part of the subject. Our own estimate, founded on all the data at our command, partly relating to the recorded experience of others and partly to the results of direct experiments of our own, led us many years ago to conclude as follows: "Fattening oxen, liberally fed upon good food, composed of a moderate proportion of cake or grain, some hay or straw chaff, with roots or other succulent food, and well managed, will, on the average, consume 12 to 13 pounds of the dry substance of such mixed food, per 100 pounds live-weight, per week; and they should give one pound of increase for 12 to 13 pounds dry substance so consumed."

In other words, there will be consumed from 120 to 130 pounds of the dry substance of such mixed food per 1,000 pounds live-weight per week, producing on the average 10 pounds of increase; and 1,200 to 1,300 pounds will, therefore, be required to yield 100 pounds increase in live-weight. If the mixed food contain no straw-chaff, and only a moderate amount of hay-chaff, the average amount of dry substance consumed will be the less, and the average proportion of increase the more, or *vice versa*. Accordingly, we have assumed that on a liberal mixture of oil-cake, clover-chaff and swedes, as little as 1,100 pounds dry substance may be required to produce 100 pounds increase, and as much as 11 pounds increase may be produced per 1,000 pounds live-weight per week.

"The articles which you are accustomed to speak of as dry foods, still contain some water. Thus, cakes contain from one-eighth to one-ninth, and grain, hay, and straw, about one-sixth of their weight of water; whilst swedes do not contain more than 10 to 12, or mangolds more than 12 to 13 per cent. of really dry or solid matter; but the monster roots of which we hear so much, sometimes contain only about two-thirds as much dry matter as moderately-sized and well-matured roots should do. Of really dry substance, such as my estimates given above require, 1200 to 1300 lbs., say 1150 lbs., would, in round numbers, be supplied in the following amounts of each of the several descriptions of food enumerated, supposing them to be of fair average composition in that respect.

AMOUNT OF EACH FOOD CONTAINING 1250 LBS. DRY MATTER.

Cakes.....	12¾	cwts.
Grain or Hay.....	13	"
Swedish Turnips.....	5	tons
Mangolds.....	4¾	"

"The question arises—What would be the cost of 1250 lbs. of dry substance, made up of a suitable mixture of these various foods, to yield 100 lbs. increase in live weight, and whether this would be less or more than the 100 lbs. increase would sell for?

"Well-bred and moderately fattened oxen should yield 58 to 60 per cent. carcass in fasted live-weight; very fat oxen may yield from 65 to 70 per cent. But of the increase obtained during what may be called the fattening period of moderately fattened oxen, it may be reckoned that about 70 per cent. will be carcass. Supposing you get 8d. per lb. for this, the selling value of your 100 lbs. increase in live-weight will be 46s. 8d. Now, I think if you try to make up 1250 lbs. of dry substance by a suitable fattening mixture of the foregoing foods, you will find that it will cost you considerably more than 46s. 8d. Even if roots alone were used, which would not be considered good fattening food, the cost would be more if they were reckoned at their selling price, though less if taken at what is called their "consuming value." But with no good fattening mixture of cake or grain, hay-chaff, and roots, could 1250 lbs. of dry matter be obtained for anything approaching the sum I have estimated as the value of the increase it will produce.

Cost of Manure from Farm Animals.

"It is further to be borne in mind that, weight for weight, store stock is generally dearer than fat stock. You have also to add to the cost of the food various other charges, such as rent of buildings, appliances, attendance and risk. Taking all these things into account, I think it is evident that there must always be a very considerable proportion of the cost of feeding, although varying greatly according to circumstances, which must be taken to represent the cost of the manure.

"In 1876, the Council of the Royal Agricultural Society of England appointed a committee to consider the question of the valuation of unexhausted manures, with reference to the provisions of the Agricultural Holding Act; and a table of the estimated value of the manure obtained by the consumption of different articles of food, which I had first published about 16 years previously, and after reconsideration republished more recently, was was much discussed and criticised. The general impression arrived at was, I think, that my estimates of manure-value were too high. Accordingly, Dr. Gilbert and I selected linseed cake as the best known article of purchased cattle-food, and, after deducting my estimate of the manure-value from the cost of the cake, we endeavored to calculate whether the remainder of the cost could be recovered in the increased value of the animal. The best linseed cake was then quoted at £12, 10s. per ton, and deducting the manure-value as given in my table, namely, £4, 12s. 6d., there was left £7, 17s. 6d. to be charged against the animal, and calculation led us to the conclusion that it was extremely doubtful whether this amount could be recovered in its increased value. In fact, linseed cake appeared to us to command what may be called a fancy price. At any rate, it was quite certain that it could not be profitably used, if not fully as much, or even more, than the amount of my estimate were charged against the manure.

"Although in the foregoing illustrations I have confined my attention to oxen, if the same mode of calculation were applied to sheep and to pigs, it would be found in their case also that the cost of their food is more than the value of the increase it produces. Notwithstanding that the contrary view is so frequently assumed, the use of the term "consuming value," as distinguished from selling price, seems to recognize that food stuffs have a value other than as food alone. If restrictions upon the sale of roots, hay and straw, were abolished, these articles would soon cease to have what may be called a fancy price; and the difference between the so-called "consuming value," and the real selling price, would more nearly represent the value of the manure.

Conclusions

"In the former part of my address, I have shown that, beyond a certain limit, the increase of crop does not keep pace with the increase in the amount of manure applied to the land, and that this is especially the case in advancing from high to still higher farming. I have now adduced evidence which must, I think, convince you that the manures of the farm cost money. It seems to me that an obvious deduction from these two facts is, that to apply manure in such quantity as to obtain a diminished produce for a given amount of it, can only be profitable when the price of produce rises, and not when it falls. So far, however, as increased production is to be attained by the exercise of freedom, intelligence, and economy in management, so as to get the maximum amount and value of produce from the manure that is applied to the land, and the maximum amount and value of meat and manure for the outlay in store-stock and in food, increased production is a necessity of the times, and would prove the best remedy for lower prices of farm produce.

"It is a somewhat humiliating admission to make, though so far it has proved to be too true, that the virgin soils and plains of the United States and Canada can produce, and send to this country, grain and meat cheaper than they can be produced on our own soils at home, with all our boasted skill and science. The opinion expressed by some, that we shall again become exporters of grain, is altogether chimerical. But we have at any rate the cost of transit in favor of home production. This, though a less considerable protection in the case of grain, must always be a material item in the case of live animals, and of meat; and the rearing and feeding of stock must always form an important branch of our farming.

'It is such a generally accepted opinion that the agriculture of Great Britain is superior to that of any other country, that you will perhaps be disposed to resent the allegation that there is very much in your practice which requires improvement. During the last thirty or forty years, our knowledge of the productive effects of different manures, of the food requirements of different animals, of the increase they should yield, and of the value of the manure they produce, has made great progress. But comparatively few British farmers pay attention to such subjects, or care to avail themselves of the information at their disposal. It is true that much of the existing data is not yet available in a form which would be easily intelligible to farmers generally, but this is because there is little demand for such knowledge."

Literary Miscellany.

AN UGLY GIRL.

(Continued from page 382.)

CHAPTER XXVI.

CLEMENT DUNFORTH HINTS AT MISCHIEF.

"So you have relented at last," were his first words, spoken in mild reproach. "Upon my word, my dear fellow, this has scarcely been generous treatment. I did not think you would have me feel the loss of Irene's championship so quickly."

"I do not understand you!" the astonished Noel exclaimed.

"Indeed! And yet I speak plainly enough. I repeat that I have felt both surprised and hurt at being kept at a distance from the man to whom I hope, at some not far distant day, to be nearly related. All yesterday I danced attendance here, expecting every minute that you would ask for me, till I confess that I grew out of humor, and went back to Corby in disgust."

"Why do you stand on such ceremony? I was equally desirous of seeing you. You are not always so punctilious," Noel retorted.

"Why did I not walk in here, as so intimate a friend might naturally conclude that he could do unbidden? Because I was given to understand that I was not to attempt anything of the kind. At one time, when I inquired for you, I was informed that Lord Carisforde was engaged; at another that he was resting, and must not be disturbed; and this, although I knew that a greater stranger—the German *savant*—had been in your room for hours."

Noel was perplexed, and half inclined to be incredulous; yet how could he confess this with the speaker looking so boldly into his eyes?

"It may have been one of Mrs. Hurst's well-meant but mistaken arrangements," he said, dubiously. "It is just possible that she fancied two visitors in one day would be too much for me. She forgets that I am no longer the helpless invalid, but almost ready to take flight."

Clement Dunforth elevated his eyebrows.

"Really! Ah! you mean that you are longing to make the tour of the domain, and so on. Well, I dare say, Dr. Monson will not object to your taking a daily drive in the park."

"I mean nothing of the kind," responded Noel, provoked at his tone. "I consider that I am now sufficiently recovered to go back to town; and as soon as Irene writes to say that I can return without any inconvenience to her—poor girl! I do not wish to add to the number of her burdens—I shall leave Carisforde. Till I can do this, I prefer to remain quietly in the apartments I am now occupying."

"But my dear Carisforde, you are not, you cannot be serious. Have you reflected on the position in which you will find yourself if you quit this house, without leaving yourself and opening for returning hither as its master?"

"I have reflected," said Noel, firmly, though his pale cheek flushed, and his brows contracted.. "But I cannot avail myself of the opening at which you hint; and, after all, I shall but find myself in the old position."

"By no means. Your berth has been filled up, and in your present state of health it will be some time before you can hope to obtain another."

Noel knew this but too well, and was silent, till Clement Dunforth, with an appearance of friendly anxiety, inquired what he proposed doing.

"Settling on Mrs. Estcourt and her children the few hundreds which I am informed are all I can legally call mine, and then pushing my fortunes in one of the colonies."

"If your mind is made up to this," said Clement, slowly—"if you are quite sure you *mean* this, I may be able to assist you. I happen to know two or three persons who are connected with colonial agencies. Will you give me permission to address them in your behalf; or is this scheme you are mooting nothing more than a hastily formed plan which may yet be set aside? I cannot forget, if you do, that the heiress is not likely to prove invulnerable, if addressed by such a veritable hero of romance as yourself—still sunken-eyed and interesting—the victim of an enterprise attempted for her sake. She could not prove a hard-hearted damsel, if you said to her, 'reward me for all I have gone through with your hand and fortune.'"

Noel turned from the speaker with a gesture of annoyance. What could be his motive for suggesting such a line of conduct?

"When I want a reward," he coldly replied, "I will remember all you have said; till then, as this mode of speaking of a very unfortunate young lady positively disgusts me, suppose we change the subject."

"Certainly, we will," was the ready response. "And although, as a man of the world myself, I cannot say that you are acting prudently in refusing such a golden chance, still, it is just what I expected of Irene's brother. One more question, which you must please to understand is not dictated by impertinent curiosity, but that my replies to the questions the agents will put to me may be clear and correct: do you propose going abroad alone?"

"Why do you ask? Have you any idea of accompanying me?" queried Noel, with some reluctance.

In many respects the companionship of a shrewd fellow like Clement Dunforth, might be advantageous; but he did not like him well enough to hail the prospect with much pleasure.

"I? No, thank you. There are ways of earning money in London as well as in the gold fields or diamond diggings: and I decidedly prefer relying on my brains to any mere manual labor. My meaning was this: do you intend taking a wife with you?"

"Do you think," was the vehement retort, "that I would be so dishonorable as to ask any woman to wed me, knowing that I have no home to offer her?"

Noel bit his lip, and regretted his hasty speech as soon as he remembered that Clement Dunforth had just been doing the very thing he was reprobating so strongly. But Clement did not appear at all embarrassed. With rather a supercilious smile, he observed:

"You are a second Chevalier Bayard. You ought to have been born in the days of chivalry; for really, my dear fellow, your notions, although very praiseworthy, and all that, are not adapted to such a practical age as the present. Then it is quite understood that you are prepared to go out a free man, without even the incumbrance of an engagement? But—perhaps I am now going too far——"

"I have no ties either to bind me to England or make me impatient to return here," said Noel. "You can say this much respecting me, if it be absolutely necessary to allude to the subject at all."

"But I must not vouch for your being heart-whole," laughed Clem. "We might have known that you would not have been so utterly impervious to the heiress's attractions if you had not been shielded by some pretty Londoner's charms."

Noel heard this with impenetrable gravity, for he was too much annoyed to smile at it. Clement Dunforth might be in earnest with his proffers of service; but he was rendering it a very difficult matter for the man he was obliging, to feel as grateful as perhaps he ought to be.

While Clement jotted down Lord Carisforde's age and a few other particulars, Noel was revolving with bitterness the little pronoun he had employed a few minutes since. To whom did he allude when he said *we*? Could it be Hillian Gray? The thought gave a little acerbity to his tone, as he inquired how much longer the young lawyer proposed remaining at Cornby.

Clement shrugged his shoulders.

"That is a question you must put to my employers, not me."

"But their affairs appear to allow you an extraordinary amount of leisure."

"Ah!" said Clem, carelessly, "it's astonishing how much a fellow can get through by stealing a few hours from the night."

"At all events you may spare yourself the trouble of coming to Carisforde again, as I shall certainly leave here in two or three days, at farthest."

"I have never considered it a trouble; and Irene would be very angry with me if I neglected calling daily to inquire how you are progressing."

"Then, for Irene's sake, come no more:" Noel responded. "It is not just to her that you should spend so many hours by the side of another."

"You mean the little Gray?" asked Clement, tranquilly, "Pooh! Irene and I are quite as one respecting that young lady."

"I must be excused for doubting this," said Noel. "No young girl can be content to know that her betrothed seeks the society of another so continually and persistently as I hear of your being with Miss Gray."

Clement leaned back in his chair and laughed, as if amused at the charge thus brought against him.

"And so you think I am giving Irene cause to be jealous. Pooh! She knows better, if you do not. You have been shut up in these rooms pleasantly unconscious of what was passing around you; but your sister and I have seen enough to know that Miss Gray—meek, modest Miss Gray—is not what she seems, and that we shall do you a good service by unmasking her."

"And to effect this, you walk with her, talk with her, pay her the most flattering attentions, contrive to throw yourself in her way at every opportunity, and insidiously try to win her confidence. By heavens! This is not work fit for a true man, but only for a traitor and a spy, and so it disgraces you."

Clement Dunforth had leaped to his feet, and stood glaring at the indignant speaker, with his hands clenched, and teeth pressed into his nether lip till the blood came; but his wrathful mood quickly passed away.

"Pshaw! what exaggerated views you take of one's proceedings! Would you quarrel with me for doing my best to unmask this girl?"

"Certainly; for the task does not come within your province. You appear to forget, Mr. Dunforth, that both you and I are simply guests here, and that when you interfere in Miss Carisforde's affairs, you act with a presumption that is inexcusable."

"I suppose you are right," was the reply that came after an embarrassing pause. "I daresay I have let the lawyer's tendency to sift any doubtful case that comes in my way carry me too far. I ought to have consulted you first; you must know better than I do whether Miss Carisforde will prefer to be kept in ignorance of the little Gray's antecedents. Then you had rather I came here no more? and you will bear me blameless with Irene?"

The good humor with which he was yielding to Noel's wishes made the latter regret that he had urged them so rudely. But still he would not propose any middle course. It was better, far better, that Clement Dunforth should cause some surprise by thus suddenly ceasing to visit at the Park, than that he should either continue the ignoble espial on which he professed to be engaged, or arouse the suspicions of Irene.

When these reflections had passed rapidly through his mind, Noel extended his hand, with more cordiality than he could generally bring himself to testify, saying, as he did so:

"Pray excuse me if I have appeared ill-natured, and accept my thanks for the readiness with which you have consented to come here no more. I will not forget what I owe to Miss Carisforde. Before I leave here I will have an interview with Hillian Gray, and point out to her that it would not be consistent with my duty to my generous kinswoman to let your revelations pass by without asking her to explain them."

"Must my name be brought into question? Recollect that I did not volunteer this information."

"I will not mention my informant, if I can help it," Noel assured him. "If Miss Gray is able, as I hope she will be, to prove that there has been nothing wrong in her conduct"—Clement's smile and shrug made the speaker wince—"nothing that can reflect on her character, I shall keep her secret."

"And if not?" asked Clement, curiously.

Noel averted his face. It was horrible to think that there were two sides to the question—that if there was any truth in Clement's statement, Hillian could not be as blameless as he wished to think her!

"I must be guided by circumstances," he muttered, agitatedly. "If Miss Gray sees that it will be my duty to inform my kinswoman of what I have heard, I hope she will spare me the pain of doing so by withdrawing from here."

"It is a tangled coil; better let it alone," Clement counselled; "unless you have changed your mind, and wish to ingratiate yourself with the heiress. In that case, you could not have a more favorable opportunity: you deprive her of her friend, but you offer instead—a lover. What, are you growing angry again? Then I will go before the storm bursts on my head. Adieu. Our next meeting will be, I suppose, at Mrs. Estcourt's. Yet, no; I was forgetting that you are still so far from strong. Don't neglect to drop me a line when you propose leaving here, that I may meet you at Corby station, and make what arrangements I can for your comfort on the journey."

Again Noel felt constrained to thank him, and after some further conversation, they parted on more friendly terms than usual; Clement, or so he asserted, to make up by some hours' hard work for the time lost on the preceding day; and the invalid to test his returning strength, sometimes with the aid of a crutch, sometimes with Jephson's arm, up and down the wide corridor, into which his apartments opened.—To be continued.

OUR SCHOOLS.

S. B. PECK.

It is very cheering to one who has battled orally and with pen for years against universal opposition, with full confidence in the correctness of the principles he has adopted and expressed, and fully believing that he has but to wait with patience when his views will be generally adopted, to see at last that he has not labored in vain.

As far back as 1840, when I first sent my daughters to a public school, after having made considerable progress in their education at home under my own tuition, I tried to persuade their teacher to dispense entirely with columns of words in their spelling lessons, arguing thus: a word to be appreciated as of any value must be in a sentence, and that there its orthography and meaning should be associated, each helping to fix the other in the memory, and that the child should never be required to give the orthography of a word that he did not know the meaning of. The reply I got was, "the trustees will never tolerate such an innovation." I considered that I had the best answer that could possibly be given, and continued my home-teaching in my own way. The result is that to-day, though my daughters are matrons, they have never been beaten in orthography. Some years subsequently a wealthy man of Genesee County, N. Y., offered a prize for the best essay on school teaching, which was procured and published in a book and donated to every school district library in the State of New York, and there in that book my ideas of teaching this branch were for the first time seconded.

I have lived to see my ideas on this and many other matters of teaching adopted in high places, but I am specially cheered by the expression of Prof. Beal in the RURAL, 22d March last: "Spelling is best learned in connection with reading." Reading this brought the whole matter forcibly to my mind.

I can heartily agree with Mr. Beal in his ideas of the teaching of grammar and arithmetic, but if in his remarks about "spelling reform" he alludes to the introduction of the Phonetic language, I have not the hope that he expresses of ever seeing this reform adopted, and my thoughts at once recur to a time over twenty years past when a Phonetic tract distributor and myself sat on two big boulders in my garden and argued the case, he for and I against the probability of this, his promised reform, ever being adopted.

It is true that since that time the *c* in the old *scythe* has been dropt, *u* has taken the place of the *ugh* in *plough*, and many other similar changes or reforms have taken place and many other words are likely to be changed, but so far as I have ever learned, these changes have never been made by any vote, or by the action of any association of men, but rather by common assent, the most common if not the best authority for any change in orthography or grammar. I see that the *e* in *height* is lately left out, but can any one set or association of men give a reason why at the same time the word should not have been spelt *hite*? To spell the word *phthisic*, *tizik* would seem to be a reform, but what M. D. seeing the word by itself would ever guess its meaning?

Teaching language, or more properly teaching the "young idea" not specially "how to shoot," but what the child needs to know to qualify him for even a medium station in life, I look upon as a high art worthy the study and investigation of a literary Edison, and I look hopefully forward to the time when great improvements in this branch of science will be inaugurated.

"RAISED."

No barber knoweth whom he may shave, and the man who rushes into a shop and drops into a barber-chair, without seeing who occupies the next chair to the right or left, may get badly left, as a case proved yesterday. A solid old citizen in the wholesale trade was taking it easy, his face covered with lather, when in came a young man who flung off his coat, bounced into a chair, and called out:

"Hurry up, now, for I must get back to the store before old Blank does, or he will raise thunder! Hang him, he won't even give a man time to die!"

The solid citizen turned his face to glance at the other, and the barber noticed a reddening of his face.

"Going on a vacation this summer?" asked the barber who was preparing to shave the young man.

"Vacation! How in Tophet can I get away from old Blank? And if I could he pays such a stingy, contemptible salary that I couldn't afford even a ride on the ferry boat!"

"Why don't you ask him for a raise? queried the barber.

"Why don't I ask for the hand of his freckle-nosed daughter? He'd discharge me in a minute, though he's making money and can afford it. If the old hyena would have a stroke of apoplexy the junior partner might do something, but such chaps always live to be a hundred years old."

Conversation ceased here, the solid man got out of his chair, took a brushing and sat down, and when the clerk arose from his chair and turned around snow-balls would have looked black beside his face. He tried to bow and speak, but something wouldn't let him, and when he started to put on his coat he held it tails up and collar down. He was still struggling with it when the solid man rose up, looked around and walked out, saying never a word. The barber wet the young man's head and held cologne to his nose, but he walked sideways when he went out, and there was an uncertain wobble to his knees. In applying for the vacant position to-day state what shop you shave at.—*Detroit Free Press.*

AS TO TREATING ONE'S FRIENDS.

THE "Methodist" says kind words for the "moderation" reform movement which aims at stopping the habit of treating to drinks. But it would go further and stop the practice of treating to car fares. "It is desirable, we think, to get under the principle of good will and manliness that supports treating. We beg leave, therefore, to say that it is not manly and courteous, but just the reverse, to pay another's bill without being asked to do so, or when there is no reason to believe that the other is unable to pay. The man who pays his neighbor's car fare, lunch ticket, or concert ticket, without express permission, does an ungentlemanly thing, a vulgar thing, which a well-bred man will never do without a sense of personal humiliation. The well-bred man may do these things because he knows they are the custom of the imperfectly-civilized people among whom he lives, but he will feel that he degrades himself by doing them. The principle is a very simple one: when you pay another man's car fare without his request, spoken or implied, you assume the right to create an obligation, and this assumption is bad manners."

CELLULOID is rapidly coming into use as a substitute for ivory, horn, bone, shell, coral, etc., in the manufacture of combs, knife-handles, canes, piano-keys, pen-holders, card-cases, jewelry, harness and carriage trimmings, and a great variety of other articles. Even collars and cuffs are made of it. It is said to be a compound of cotton, nitric acid, and camphor,—a nice little inflammable combination to scatter all about our houses, and wear on our persons, and carry in our pockets. It was invented in 1870, and has grown to great proportions in the field of manufactures. Being neat and cheap and popular, small thought will be given to any stupid considerations of safety. And very likely it is no more dangerous than some of our other favorite goods and playthings.

RAISING CATS IN HOLLAND.—The common cat is largely fed on fish, and bred for its fur, in Holland, where the finest skins are obtained. Large quantities are also collected in Holstein, Bavaria, and Switzerland. In France about thirty thousand cat skins are furnished annually to commerce. This fur is greatly valued, while the supply of good skins is far too short of the demand. The black, spotted, and striped varieties are all much in request for making into wrappers for open carriages, sleigh robes, and for railway traveling.

THE "Sunday Afternoon" says:—"One of the most remarkable things in human nature is the willingness of women to sacrifice a girl's life for the chance of saving a scapegrace man. If a pious mother can only marry her son Beelzebub to some "good, religious girl," the chance of his reformation is greatly increased. The girl is neither here nor there, when one considers the necessity for saving the dear Beelzebub.

MILLSTONES made of glass are a German novelty eight pieces of glass of equal size are used as *nuclei;* a counter piece of granite is bound to the outer form with cement. The advantages claimed are that they run easily, grind cool, and produce finer, lighter flour than French buhrs. But a few are in actual operation.

RECENT LITERATURE.

The Hearing, and How to Keep it. BY CHAS. H. BURNETT, M. D. Philadelphia: Lindsay & Blakiston. Price, 50 cents.

This is the first of the American Health Primer series. The book is divided into three parts. The first treats of the anatomy and physiology of the ear; the second, of the chief diseases and injuries of the ear and the avoidance of their improper treatment, and the third of the general hygiene of the ear. The second chapter of part third is devoted to the care of the ear in disease, including the relief of partial deafness and the education of partially deaf children and deaf mutes. The subject is very thoroughly treated, while the absence of technicalities of language, and the excellent engravings which illustrate the text, serve to make the book admirably adapted for the general reading public. A few extracts will give a faint idea of some of the useful information the book contains: "It may be said, for the comfort of friends and parents, that no bead, button, 'spit-ball,' bean, grain of wheat, maize, or any similar small, smooth object which a child could put in its ear will do any harm, *if let alone* by all save one entirely conversant with the structure of the ear and properly supplied with instruments for examination and treatment. If your child, therefore, gets any such foreign matter in its ear, rest assured such object has not gone beyond reach of surgical skill. The harm in such cases *usually* arises from the unskilful means resorted to, in haste and consternation, for its removal. Let it alone until it can be properly removed." * * * * * "Sweet oil is one of the articles not to be dropped into the ear for earache; for it will not cure the pain, to begin with, and it is greasy, and hence—for the treatment of the ear—dirty: it is heavy, sticky and cloggy." There is also a number of other injurious matters which are often, but should *not* be, put into the ear when it is inflamed and aching. Prominent among these is the core of a roasted onion. "Every one should learn that a poultice over either the ear or eye will act injuriously on the organ. If a poultice of any kind be placed over an inflamed ear for a short time, even for a few hours, irreparable injury may be done. Not only may the hearing be destroyed by such mismanagement of the ear, but a chronic running from the ear may be thus established." The author then proceeds to give explicit directions for properly treating ears that have become diseased. A more useful little book it would be hard to find.

Life of Benjamin F. Butler: By T. A. BLAND, M. D. Boston: Lee & Shepherd. Cloth, $1. Paper, 50 cents.

The author of this eulogy—for it is nothing else—has a most intense admiration for the subject of his praises. Butler, according to this authority, has the brain of a Franklin, the firmness of a Jackson, the intellectual force of a Bacon, the integrity of an Aristides and the ripe scholarship of a Cushing." The life of such a man as Butler cannot fail to have elements of interest in it, however prejudiced the biographer may be, and though one cannot but smile at the extravagant panegyrics lavished so continuously on the General the book is interesting in the extreme.

Songs, Legends and Ballads: By JOHN BOYLE O'REILLY. Boston: The Pilot Publishing Co. Price $1.50.

Mr. O'Reilly is favorably known to a large class of readers through his intensely dramatic pictures of Australian life. His "King of the Vasse" particularly having won for him golden opinions from the press both here and abroad. The poems of this author are conspicuous for earnestness, originality and purity of tone, while their freedom from mawkish sentimentality and affectation make them most delightful reading.

Spiritual Songs for Social Worship: New York: Chas. Scribner's Sons.

This collection of hymns and tunes is an abridged edition of Dr. Robinson's popular "Spiritual songs," noticed in these columns a few weeks ago. These "songs" are designed especially for conference and prayer-meetings. There are 553 hymns 330 tunes. The fine paper, the clear type, the firm and handsome cloth binding make a most attractive volume. The prices at which it is offered (75c. single copy, 60c. in quantities) are marvelously low.

MAGAZINES.

IT is announced that LIPPINCOTT'S MAGAZINE for July will present some extraordinary attractions both in its reading matter and its illustrations. Among the articles there will be a defence of Franklin against his prejudiced English critics, by Thomas Hughes, author of Tom Brown's School-Days; a biography of Joe Jefferson, from material furnished by himself, with potraits of him as seated in his studio, and in each act of Rip Van Winkle, and views of his country-seat in New Jersey; an exquisitely illustrated description of a charming New England village—Stratford-on-the-Sound; and the opening paper of a series by Dr. Felix L. Oswald, giving sketches with pen and pencil of travel and adventure around the wonderful and unfamiliar scenery of the back woods of Mexico and Central America. The whole number will be specially adapted to furnish entertainment alike to the summer tourist and the family circle at home.

For Women.

CONDUCTED BY MISS FAITH RIPLEY.

TRULY SPOKEN.

M. A. B.

THE words of your correspondent, Miss. Harvey, concerning our duty to ourselves as individual souls, are full of truth and worthy of frequent thought. There have been intrusted to each of us certain talents to put to usury. In giving an account of our stewardship, to say that we have had no time to care for our own talents, much less to increase them, and so they have rusted out while we have been spending our strength for others, will it, think you, secure for us the welcome commendation, "Well done, good and faithful servant," &c.? Manifestly, self-improvement is our solemn duty. It is, do unto others as we would that they should do unto us, not, more than we would permit them to do for us, that is required. The widow's mite was so acceptable a gift because she gave her all, not because she gave more than was hers to give, and thus sinned in the giving—for even so commendable a virtue as self-sacrifice may be carried to such an excess as to become a sin. No, not only have we incumbent upon us certain duties, but we have certain rights of which

we are the God-constituted and sole guardians, and which, whatever the claims of others upon us, we cannot blamelessly ignore.

But aside from the moral aspect of the question, we owe it to our children to keep our minds in a vigorous growing state, and we must do it if we would retain their love and respect. That filial love will withstand, unabated, the strain of mortification, is too much to expect of human nature. A case in point occurs to me: A young college friend, a very worthy young man, recently called upon me bringing with him his mother. Now, that mother loved her son almost to adoration, and there was no sacrifice which her gray hairs would have deemed too great to promote his physical comfort. Yet so thoroughly did the mother ignore every rule of grammar and etiquette, while her conversation evinced an ignorance so complete, that the afternoon was evidently one of torture to the young man, and when next he goes calling, he will doubtless choose some more congenial companion or go alone. This mother defers to the smallest wish of her son, treating him as if he was a guest, yet if she had taught him to wait upon himself, even, to say nothing of waiting upon her, and had spent the time thus gained in self-improvement, how much better for the young man, and how much more he would have loved and respected his well-informed mother, whom he could have regarded with a just pride, than his ignorant parent with all her kindly solicitude for his physical well-being!

In still another sense do we owe self-culture to ourselves and to our children. Always pitiful to behold is the imbecility of old age but doubly pitiful is the senility of a mind which has never known anything but vacuity. To have some subject outside of our daily routine of life with its cares and worries innumerable, to which we can turn with interest and mental refreshment, is quite worth while on the score of health—and the importance of health cannot be over-estimated—to say nothing of the resources within ourselves which it gives us in time of sickness or trouble. It may be said that household cares leave no time for self-culture, and that country life affords no opportunities for self-improvement. Let not those who find time for fancy work, delightful as it is, and for those feminine follies, patchwork bed-quilts, be so inconsistent as to say *they* have no time for self-improvement. Though the writer is not fully in sympathy with all that Emily Faithful (who has so well shown in her own life what feminine pluck and perseverance can accomplish) has said, it will do no harm to have her opinion of fancy work: "If the wretched little child's play, which women call fancy work, could at once be blotted out of existence, it would be an incalculable blessing. What would be thought of a man or grown boy, who could deliberately sit down, day after day, and be content to kill time by working ridiculous little pen-wipers, or bead napkin rings which no one ever dreams of using? He would be considered and rightly, either a fool or crazy."

Smith College, Wellesley, Vassar, Mount Holyoke Seminary, and many other institutions for our sex, are constantly demonstrating that, in mental capacity, we are not a whit the inferiors of the sterner sex. Why, then, should we fritter away our time in any less serious employments than they? As to lack of time for self-improvement, there are many household labors which are merely mechanical, leaving the mind unoccupied, and affording time for thinking of topics other than the work in hand. Well does the writer remember some November days when the cream would foam, and the butter wouldn't come, and the hands would blister, but lying upon the churn cover and relieving the tedium of the seemingly interminable operation, was a Latin grammar. In this way, all the rules of syntax were thoroughly learned, and even those long lists of prepositions, which learners love to skip, will always be at the tongue's end, ready to slip off at a moment's warning. So also were many pages of history read. Mrs. Stowe is said to have written portions of "Uncle Tom's Cabin," of world-wide fame, with her portfolio on her knee beside the kitchen stove, in the intervals of domestic labor.

Among the blessings for which De Quincy was wont to be thankful was that he had "lived in rustic solitude." And so it is, the disadvantages of the country with its pure air, fragant scents, its sweet singing of the birds and insect hum, and inspiring sounds and sights of Nature, as compared with the stifling atmosphere, the hurry and turmoil of the city are not so great, or real, as might be supposed. It is not the number of advantages enjoyed, not the amount of knowledge acquired, which constitute the different degrees of intelligence among people, it is the use we make of our advantages, and our wise selection of the things we would know, which counts." Books bring us into ever-renewing communion with all that is best and noblest in the thought of the past, the winnowed and garnered wisdom of the ages;" yet the question is not how many books we can read and study, but how much we can digest and assimilate, and make a part of our mental fabric. While the writer of this article is personally acquainted with the management of the "Society to Encourage Studies at Home," and has the fullest confidence in its beneficent work, she would say to those whose limited time forbids their joining that Society, don't be discouraged. With the present low prices of Harper's publications, and those of many other establishments, a little extra economy will provide all needed books. We all of us think there are some things which we cannot afford, and in many families books are classed among the luxuries of life, instead of among its necessities as they should be. Many a house has its piano, and hundreds of dollars are annually expended for music lessons, with no other result than a waste of time. Where no musical talent exists even mediocrity cannot be implanted. Except in cases of marked musical taste, this money had better be saved, and a tithe of it invested in books would yield much larger returns.

But if there be a bona fide desire to learn, we shall make for ourselves opportunities, and the very obstacles overcome will conduce to mental strength. Daniel Webster's colossal mind won admiration, but it is said that in his boyhood his reading was sometimes confined to the limited range of an old almanac, "I am always learning," was Michael Angelo's motto, and it is a good one. Always keep the mind on the alert. No one can say of any department of human learning, here in lies all knowledge, for knowledge is as wide as the universe. "Of all their faculties," said Thoreau, "many people seem to have found only their hands and feet." So then the completest education consists not necessarily in the fullest acquaintance with the greatest number of books, but in the fullest possession of our own faculties. Neither college nor school room are indispensable to the perfect education. As to books, get a cyclopedia if possible, but by all means get a dictionary, the larger the edition the better, of course, but even a pocket dictionary is better than none, and *use it*. Whatever you read, read carefully, and for every word not perfectly understood, turn to the dictionary. If possible, let no fact, however small pass without understanding it, and let no day go by without some new fact gained.

Keep your books always at hand, and turn to them immediately whenever a question occurs. Aim to cultivate always a habit of thought, a habit of taking broad, common sense views of things, of getting a clear, well defined idea of even the smallest subjects. Have you a taste for Natural History? To hold communion with the visible forms of Nature and listen to the various languages she speaks, is the especial privilege of the country dweller. To be able to recognize, and call by name, the species of our feathered friends, as they come to us year by year, marking the progress of the beautiful spring season, is a pleasure, indeed; so also the annual reappearance of the plants and other forms of animate nature. Text-books, guiding one unaided into the elements of the various branches of Natural History, can now be obtained at from 75c. to $3 each. I shall not soon forget the pleasure with which a lady friend, compelled by circumstances to spend last winter in a lonely Western cabin, wrote me of the time thus gained for her favorite text-books.

No, the half-hour now and then from pressing household labors should not be taken surreptitiously, as wronging others, but claimed, no matter how much work may press, both as a duty and a right. There is encouragement in the difficulties which others have wrested with, and conquered, though the history of the obstacles which our own sex have met and overcome, is largely unwritten. Hugh Miller educated himself for the fame which awaited him as author and geologist, while engaged in the laborious employment of a stone mason. Dr. Hitchcock, of our own country, divine, geologist and college president, gained his education while following the plow. Mary Somerville, with few early advantages, thwarted in her own efforts at self-culture, free to follow the bent of her natural tastes only after she became a widow, made herself a name and fame for great mathematical and other attainments. It was one of Mrs. Somerville's works of which it was said that not more than four men in France could follow its profound reasoning. Nature has not fitted us all, nor could we all expect, if we would, to be fame's favorites. But when we see what seemingly insuperable obstacles others have overcome, we may well take heart. Culture is within the reach of all, and if we persevere, our efforts will conquer reward.

But mental culture is not the only one requisite for a noble character, there is a culture of the heart, of the humanities of life, which must accompany it. We need to eradicate from our characters the remains of the savage, the almost imperceptible inclinations to take advantage by word or deed of others—the little foxes as Mrs. Stowe calls them—and to replace them by the broadest catholic charity and sympathy. Nature has many beautiful features often so charmingly combined as to form the perfect landscape, and even in the invisible atom the microscope reveals beauties which language is too poor to portray; but the most beautiful thing of all, is the symmetrical human character.

WHAT SHALL BE DONE WITH THE CHILDREN?

GLADDYS WAYNE.

One important point is to interest them. Whether it be work or play, once succeed in awakening a lively interest and more than half is accomplished. And let us bear in mind that even the amusements of children must be often varied; sameness seems as inconsistent with their nature as is a life of confinement to the free bird of the forest. This is true of all children. But it is of the country children, more particularly, that I now speak to the mothers.

With the advent of spring, the amusements and little round of duties that served to render enjoyable the winter days and evenings, become irksome. Nature is waking from her ice-bound sleep; every enfranchised rill, each springing blade and swelling bud, each opening flower, the gladsome notes of wildwood birds, sunshine and balmy air—all the mysterious influences of earth and air and sky—call to us, "Come forth."

Often more wise in their instincts than we, in response to the alluring call, every lad and lassie forth will go, unless the "bolts and bars" of dire command or stern necessity intervene. And as the season advances, the more time spent out-of-doors, so that proper discrimination in regard to the weather, etc., be exercised, the better. Then let them be encouraged in all innocent out-door occupations and pastimes. Do not forget that "all work and no play" makes a dull life for any child.

In spring-time, many an object of interest may be found in nature's newly revealed treasures. The pleasant search for early wild flowers has a peculiar fascination that might serve to awaken an interest in the botany which you have been premeditating for them.

In attempting to partially solve our problem, let us go back further than the thought advanced at the beginning. Here are "wheels within wheels." The chief point is to succeed in making home an object of personal though not selfish, interest to your children.

Do you complain that you find no time for the culture of the flowers you used to love so well? Suppose that to each child is given a little plot for flowers—only as much as can be cared for easily and well—to cultivate individually, yourself now and then giving a little advice or assistance, if necessary, not forgetting the word of deserved praise. Perhaps the morning glories would fall to your share; they well repay the loving hand that cares for them.

In the garden, to each child might be given the privilege to choose one or two kinds of plants or vegetables to cultivate. Almost any child could care nicely for a few hills of strawberries, and find more than ordinary delight in the service. But whether in yard or garden, let there be an unchageable law that no more shall be attempted than can be easily performed—that whatever is done be well done.

In many families the principal care of the fowls might devolve on the children, and be a pleasing task if performed with the understanding that a certain number or percentage of the chickens and turkeys were to be theirs, to name, to pet and call their own, and, better still, to be their very own, to sell and invest the precious proceeds in books, papers, pictures, a microscope, stereoscope—whatever serves to instruct, amuse, and to invest home with new interest and charms.

Thought aroused, and love will seek out many ways in which parents may bless their childrens' lives. Rightly blessed, the blessing redounds, through all the after years, to the parents' own peace and happiness. But, dear mothers, "Except the Lord build the house, they labor in vain that build it." Except the "Spirit of Christ" be in our hearts and homes, they lack the vital elements of true peace and blessedness.

Again I urge, beautify home in its appointments and surroundings. Having awakened the enthusiasm of your children, and secured their willing co-operation in the work, you have done much, very much, toward making a pleasant home for them. And one of your greatest aims in life should be that to your children no spot on earth may be so dear as home.

OVER-WORK.

CLAIRE.

Now that the warm days have come and still are coming, I earnestly enter a protest against over-work. Let the tired farmer's wife, if she values health, happiness and long life, make her work now as light as possible. No need of spending the "long, weary day", in unnecessary labor. Shall I tell you how we manage to get our work done in the forenoon, never keeping a fire after dinner until tea time?

There are seven in the family making no allowance for company or extra help in hurrying times.

There are two of us, to do the dish washing, baking, washing, ironing, sweeping and to care for the milk of six cows, the eighth member of the family, Nero, doing the churning. One of us gets up in the morning at five makes the kitchen fire gets the breakfast, puts the beds airing and strains the milk. The other works the butter, skims the milk and does the baking if necessary, while the dishes are washed the sleeping rooms put in order, and the vegetables prepared for dinner. After the dinner is eaten, dishes washed, kitchen put in order, nothing more is done until tea time, and everything requiring time, being made ready in the morning, but little fire is needed to boil the tea-kettle. Washing day, one of us goes to washing as soon as breakfast is over, while the other washes the dishes, and does the rest of the housework, so there is no more confusion or disorder that day, than any other, and the dinner is just as good.

If the ironing is large, it is done in two forenoons instead of taking all day, the baking being done at the same time. Perhaps we don't have the variety of food, that our neighbors do, but we never have poor bread, always make yeast bread and have it baked by nine in the morning. We seldom have hot cakes or biscuits for supper, take our puddings and custards cold, have cold meats, salads, home-made cheese, and never a pie when there are fresh strawberries or fruit of any kind.

We don't profess model housekeeping, there are many things a critical eye would see amiss in our household but I have learned from dear experience that there is often "luck in leisure" and that over-work means a call from our family doctor. It is a very good thing to remember, that it is only required of us to do that which we are able to perform. There is always another day coming and when health and comfort are to suffer in consequence, it is better "to leave until to-morrow" something that could be done to-day.

We bring no tired, cross, heated faces to the table and enjoy our meals just as well. If we have not a great amount of dainties, the preparation of which, takes so much time and strength. We find it very pleasant in the cool sitting room or under the shade of a tree and with sewing or a book, we almost forget there ever was a hot kitchen, or a "weary woman."

HOW TO CLEAR AWAY THE DINNER THINGS.

MRS. M. L. SAYERS.

There should be two persons—and here children's help comes in admirably. The help must must move around the table with a waiter, and take up the knives and forks, placing them all with the handles the same way, that they may not get greased, for it is not *everybody* who has waterproof knife-handles. Remove all things not to be emptied; particularly sweet things, in fly-time. For convenience small jars should be used in putting up fruits, for if preserves and pickles be returned to the jars, they are likely to ferment; if left in open dishes, they will dry out; nor are the dishes, in their daubed condition, fit to be placed upon the table again. Then, on common occasions, set the jars, in which the fruits were wintered, on the table, and save yourself the trouble of dipping to and fro, cooking over fermenting fruits and washing dingy glass-ware. Wait for some grand *fete*, when your best glass and silver may glisten with splendor undimmed by too frequent use and careless washing.

Having removed the fruits to their accustomed dark shelf in a cool closet, remove to the spring-house or refrigerator, in covered dishes, all the vegetables which will make a *mess* for the coming morrow. Smooth over the mashed potatoes into a mass in one end of the dish, in the morning slice and fry brown, in hot grease, for breakfast. Cut up the scraps of cold fowl or beef (or both), and biscuit for hash. The remains of corn, beans, butter, cream, or milk and bread may go together for succotash or gumbo, for to-morrow's dinner, or, the same with tomatoes, chopped potatoes and squash, added, will make a Brunswick stew for breakfast. Bread crumbs, bits of butter, preserves and milk, with fresh beaten egg, will make a nice Economy pudding for to-morrow's dessert—most vegetables, if kept cool, are better the second day of cooking. If there is not time for chopping or preparing, place all the ingredients for each mess, together, and set in a cool place; scrape the plates into a bucket kept for chicken feed, stack and slide to the right hand corner of the table where the pitchers, glass and silver have already been placed by the help. Have a dish-pan full of boiling-hot water and a mop made by tying thread around a wooden handle, (old fringe, now *obsolete*, from counterpanes, makes good ones); when the silver has been washed, add soap and wash those things containing least grease—first: turn them up on a waiter or salver, on the left side to drain, while the help rubs briskly with a dry linen towel, (old table-cloths or wearing apparel make good ones) till they receive a brilliant polish. This must be done while the dishes are hot from the water. When done, wash the oil-cloth or table with the greasy dish-water, wipe dry and carry out the water, empty it into a kettle on the stove, wring the mop and stick it up to dry, wipe the pan and hang it on the wall, and when the kitchen things have been washed and scraped (a clam shell makes a good scraper), pour the top of the water into the chicken bucket on the stove, the remainder into the slop jar.

CORRESPONDENTS' CORNER.

WILDWOOD FLOWERS.

The following poem is sent in response to an inquiry in the "Correspondents' Corner."

The flowers that I saw in the wildwood,
Have since drooped their beautiful leaves,
And the many dear friends of my childhood,
Have slumbered for years in their graves.
But the bloom on the flowers I remember,
Though their smiles I may never more see,
For the cold, chilly winds of December,
Stole my flowers, my companions, from me.

The roses may bloom on the morrow,
And the many dear friends I have won;
But my heart can ne'er part with sorrow
When I think of the ones that are gone.
It's no wonder that I'm brokenhearted,
Or stricken with sorrow should be;
We have met, we have loved, we have parted
My flowers, my companions, and me.

How dark looks this world, and how dreary,
When we part with the ones that we love;
But there is rest for the faint and the weary,
And friends meet with loved ones above.
But in Heaven, I can but remember,
When from earth this proud soul shall be free,
That no cold, chilling winds of December,
Shall part my companions, and me.

Sheltonville, Ga. E. P. R.

MONTGOMERY, Ala., June 7, 1879.

RURAL NEW-YORKER: In the RURAL NEW-YORKER of June 7, I read, under the head "Various," the statements of church property and expenses of maintenance of worship, under the voluntary system, in the State of New York. Now it strikes me that you are thoroughly oblivious of the fact that there is another Christian Church in the State of New York, and that strangers who visit that State must be better informed than the managers of the RURAL NEW-YORKER. I saw a vast Cathedral in the city of New York, in which it would be possible to put half a dozen of the largest churches of the 6,320 you enumerate. Perhaps ten times as many worship daily in its walls as are ever included on Sundays in the walls of the 6,320. There are at least 30 others in the city of New York, and those who built your railroads and canals have constructed hundreds of others in the State. You see the cross and the keys of St. Peter at every village and station, and yet, when writing the statistics of Christian Churches, you omit all mention of them: Perhaps you do not consider them Christians? They may not pay as large salaries to the clergy as some of those you specify, but they furnish a much larger proportion of *real communicants* than any or all of those you name. Please publish this in your paper, to which I am a subscriber, and if you can find a Catholic almanac in the city of New York, add the statistics and compare with those you publish.

HENRY C. SEMPLE.

The number of Roman Catholic churches in the Archdiocese of New York, comprising the city and county of New York and the counties south of the forty-second degree north latitude, is 150. The Catholic population of those counties about 600,000. We cannot find a record of the number of the communicants.—[EDS.

CROP REPORTS.

(Continued from page 394.)

LANCASTER, Fairfield Co., Ohio.—The wheat acreage is equal to that of 1878, and the crop excellent, though a shade less than that of last year—say, seven-eights of last year's crop. The corn prospect was never poorer; the seven-eights acreage under it being about an average one. Much of the present crop has been replanted twice—as, the seed corn of the two first sowings was frozen and would not germinate. It is not likely to be more than half to two-thirds of the usual yield. Many insects are at work on corn. Early potatoes are fair; there is less trouble with Colorado bugs than last year. Late potatoes are not far enough advanced to estimate how they will turn out. Much depends on the balance of the season. Small fruits, berries, etc., are very light, except strawberries, which are abundant. No peaches. Half to two-thirds of a crop of apples. W. D.

FELICITY, Clermont Co., O.,—We have just had a "tremendous" season for setting and handling tobacco. Wheat looks tolerably well. Oats are very bad. Farmers in this vicinity have had a great deal of trouble in getting seed corn to grow. Some planted the crop three times and then did not get a good stand. Last year's corn does not grow well. There was no rain of any consequence in May. The drought and the temperance cause together, have thinned the ranks of the topers in this county. C. L. A.

MOOREFIELD, Harrison Co., Ohio.—We had a very dry spring, and wheat will be short in straw, but the heads are of a good length. We shall have an average crop. On account of bad seed, corn is small, but doing well now, and the prospects are fair. Oats are very short. Potatoes are good, but only a few are planted. There will probably be sufficient apples for home use, but scarcely any peaches or cherries. The worms have destroyed a great many of the currants. The late rains are making plenty of grass. J. N. L.

PETERSBURGH, Lawrence Co., O.—Wheat is very discouraging in Lawrence county. I think it averages about 12 or 14 bushels per acre. The corn is not promising in this section of the country; on account of the frosts and cut-worms, it had to be nearly all replanted. Oats are a very promising crop. J. A. S.

GALLIPOLIS, Gallia Co., O.—The long drought in April and May has been very disastrous to hay and corn. Some are now planting corn for the third time, the seed having rotted in the ground. Wheat will be 75 per cent. of an average crop; corn, 50; potatoes, 90; fruit, 80. J. C. V.

VALLEY MILLS, Marion Co., Ind.—A very large area of wheat promises an abundant harvest. There is a broader acreage than usual of oats and, tho' late, it is looking fair. There is a vast acreage under corn. It is mostly small. Much replanting has been done. As July and August are the months to bring out corn, no reliable prediction of the crop can now be made. Early potatoes have been flourishing, but are now receiving a sad check from the beetles. Many acres of late ones are just planted, and many yet to be planted. There may be half a crop of apples and only a few pears. W. B. T.

PLEASANT LAKE, Steuben Co., Ind.—Wheat looks well in this section—never better. Corn will be backward on account of having had to be replanted from one to three times. Oats bid fair to be a good crop. Apples will be very scarce, but there will be a few in some orchards. Of peaches there will be only a few. We shall have some of late red cherries. There are more potatoes planted than last year; but that bug is on hand as usual, ready for its share of potatoes and Paris-green. We are having plenty of rain now for the late grass. The hay crop will be light. H. B. D.

LA GRANGE, La Grange Co., Ind.—Prospects for wheat are good; it is in bloom. Corn is small; lots of farmers had to replant; but a larger acreage was planted this spring than usual. Potatoes look well; bugs are not very numerous. There will be fair crops of apples and cherries—peaches all gone. Raspberries and strawberries, plentiful. I. F.

DOWAGIAC, Cass Co., Mich.—Corn is looking well, though some had to be replanted. Wheat rather thin, but bids fair for an average crop. Potatoes look as well as I ever saw them. Our old enemy, the beetle, has come again, but has done no injury as yet. Fruit trees blossomed very full and still appear all right. Small fruits in abundance. R. E. C.

DELAFIELD, Waukesha Co.—The winter wheat, of which there is a large area sown, promises well. Say, 25 bushels to the acre. Spring wheat is a medium crop. Oats will be heavy. Barley, good. Potatoes and corn, an even stand, doing well. Meadows are about half a crop. All grain has a good healthy color. H. F. S.

RIVER FALLS, Pierce Co., Wis.—A very dry spring without rain till May 9, affected our wheat and oat crop very much. Drilled wheat is generally good; broadcast sowing, which comprises most of our grain, is thin, and consequently light. What is growing now looks well. Liberal estimates, with the remainder of the season favorable, anticipate two-thirds of a crop. Corn is doing well. Potatoes are in fine condition—with plenty of bugs. Fruit will generally be scarce, except strawberries, which promise abundance. Late frosts have destroyed the fruit. R. J. W.

ENTERPRISE, Winona Co., Minn.—Spring wheat is looking well, but thin on the ground, because poor, rejected spring wheat was used for seed. Corn is about the average for this time of year. Potatoes look promising; a larger acreage is planted than usual. Fruit is poor—about half a crop. Oats and barley are above the average. J. G.

LETTS, Louisa Co., Iowa.—Fall wheat looks very promising; spring wheat is thin on the ground and just heading; the heads are long, and it will probably be an average crop. Rye is thin on the ground—a light crop is anticipated. Oats are coming on fast, and will be an average yield. Corn looks fine; it is being plowed the second time. Apples are a poor crop. Peaches, none. Cherries plentiful, and the same can be said of grapes, gooseberries and other small fruit. Weather delightful. W. M. N.

DAVID CITY, Butler Co., Nebraska.—Our wheat crop in this immediate locality is very materially injured by the continued dry weather, and is being injured also by grasshoppers. Our corn and potatoes are looking fine, and, should we have seasonable weather, both will be good. Fruit has been damaged somewhat by late frosts or cold weather. Some think our wheat cannot make more than a half crop. J. T. M.

RED CLOUD, Webster Co., Neb.—Wheat has been damaged in the last ten days, but still the prospect is good for an average crop. Corn is in first-rate condition—a good stand, with an increase of acreage of about 25 per cent. over last year. Potatoes are looking well. Only a small amount of fruit is yet grown in this section, but enough to establish the fact that it can be grown successfully here. The prospects for good crops are better than a year ago. E. H. J.

JUNCTION CITY, Davis Co., Kan.,—It was thought in early spring that winter wheat, especially the late sown, would be an almost total failure on account of the prolonged drought. The rains of April and May saved it from that, however, though the crop will be light. Harvest has begun. It is estimated that the early sown wheat will yield from twelve to fifteen bushels per acre. Spring wheat will also be a light crop. So will oats. Corn promises well. Potatoes are good. Fruit of most kinds will be scarce. Peaches, of which there was a superabundance last year, were winter-killed to a great extent, though in some localities it is claimed the damage done is not so severe. Apples are not grown here as much as they might be, it would seem, for wherever the trees are planted they appear to do well. A.E.S.

SMITH CENTRE, Smith Co., Kan.,—We have a fine prospect for corn, wheat and potatoes; also for fruit. The cultivation of this, however, is rather limited owing to the newness of our country; but as far as tested it is evident that we have a good fruit country, and farmers are in good spirits L. C. U.

EUREKA, Greenwood Co., Kan.,—Wheat is now being harvested in this section and the weather being dry and fine, it goes up in good shape. The yield will be large, some yields will probably average as high as 35 bushels to the acre with a probable average of 18 or 20 bushels to the acre generally. Corn is in excellent condition. A good stand has been uniformly attained and the season has been exceptionally fine. The prospect for a heavy yield is at the present time good. The yield of early potatoes will not be large. The late ones promise well. Fruit prospects are fair except peaches, which were generally killed by late frosts. J. W. K.

PHILLIPSBURG, Phillips Co., Kan.,—Winter wheat in this county is about 65 per cent of an average crop; spring wheat, 50 per cent; corn, 100 and potatoes 100. This being a new county we have no fruit of consequence. F. S.

JEWELL CENTER, Jewel Co., Kan.—The wheat prospect is below the average—acreage large. The The corn prospect is at present good. Potatoes are good. Peaches and small fruits, the only kind we yet have, are good also. J. T.

ASHERVILLE, Mitchell Co., Kan.—The prospect here for fall wheat is good; spring wheat will be a short crop—unless we have rain soon, it will be nearly a failure. Corn and potatoes are looking nicely. The fruit prospects were never better in this locality. M. S. C.

WICHITA, Sedgwick Co., Kansas.—Prospects for wheat, corn, potatoes and fruit, are good. W. P. S.

WELLSVILLE, Montgomery Co., Mo.,—The prospects for good crops are very encouraging, except for hay and oats, which owing to dry weather all spring (broken now by fine rains) will be only half crops. Wheat looks well and is heading finely. Corn promises well, is very free from weeds and growing fast. Potatoes are nearly ready for use, and free from bugs. Fruit is mostly winter-killed, except apples and grapes, which seem to promise to be quite a fair yield. The outlook for us is very encouraging, recent rains have dispelled all fears for the corn crop—our main crop at present M. A. E.

BUCKLIN, Linn Co., Mo.—There was no rain in this vicinity, to do any good, through April or May. Grass, oats, and spring wheat are very poor. Winter wheat and rye are good—now ripe. Peaches were all killed by the past hard winter. Apples are below an average crop. Grapes promise well. Corn—our principal crop—never looked better; an immense acreage has been planted. If the seasonable rains we are now having continue, we shall harvest one of the largest crops of corn known. Potatoes are looking fair; but little tobacco has been planted. F. M. B.

LONGMONT, Boulder Co., Colo.—The outlook for the wheat crop in this section is on an average equal to last year's, where water can be obtained for irrigating purposes. Where this cannot be had the wheat is burning up. Early corn looks well, late, is taken by cut-worms. Potatoes do well in the mountains; in the valleys it is too warm for them. The season is somewhat later than common. Wheat, as a general thing, is just commencing to head. Fruit in this country as yet is a limited product, though it promises to do well in future. Vegetables of all kinds look well now, and grow in abundance in this country. A. M. A.

AUGUSTA, Woodruff Co., Ark.—The early part of the growing season was wet, throwing farmers in the grass, but at this date crops are clean and looking vigorous. Woodruff county *never* fails in a corn crop. Wheat and other small grains are raised to a limited extent only and for home consumption; this is not, strictly speaking, a wheat county—the soil is too heavy. Early potatoes were a complete failure, the vines being literally stripped of every vestige of foliage and the potatoes small and few. We use Early Rose or Early Goodrich for early and Peach Blow for late. Late frosts have ruined the fruit crop. Of 15 peach and other fruit trees on my place only two peach trees, directly against the house on the south, have any fruit. S. L. D.

VAN BUREN, Crawford Co., Ark.—Wheat will yield a fair average crop, in excellent condition and of fair quality. Corn looks promising. Potatoes, Irish, suffer for want of rains—Sweet, are in good condition. Fruits of all kinds are a good average, as now promised. In fact, all crops are fair to good in this section. Cotton was never better. Hay short, for want of early rains. L. C. W.

CLEVELAND, Bradley Co. — We are now in the midst of wheat harvest. The crop is above an average one. Corn is very small, but in fine condition, and a good crop is looked for. The continued drought has caused an entire failure in the potato and spring oat crops. Winter oats were badly frozen, and about one-third of what we have left is cheat. Fruit of all kinds, a failure—all killed in April. J. H. P.

WAVERLY, Humphrey's Co., Tenn.—Wheat in this section is below an average as to stand and acreage, but the quality is unusually good. The corn prospects are good for better than an average crop. The potato crop promises well. The fruit crop is a failure, generally speaking, and the quality of what little there is, is inferior. Business here is cheerful. J. W. S.

MURFREESBORO, Rutherford Co., Tenn.,—The crops in this section are generally good for the season. Wheat is now about ready to harvest. Corn is looking blue. Very few potatoes are raised here for shipment. There is no fruit of any consequence. Our principal crop for sale is cotton, we have good stands, all worked out, and in fair condition. F. H.

VANDERBILT, Unicoi Co., Tenn.—Wheat in this section will be light, on account of dry weather and rust. Corn looks well. Potatoes are good, especially the late planted. Peaches are good on uplands; all lowland fruit was killed by a late frost. Apples are falling badly. Small fruits are good. J. B.

FERN CREEK, Jefferson Co., Ky.—Corn is not up to an average in quality, but is about an average in acreage. The grain of wheat is good, but the growth is not so rank on the ground as last year. The quantity of potatoes put in is about as usual, and the prospects since last rains are fair for a good crop. Peaches are a failure. Apples, pears and cherries are average crops, but the fruit is not good. Some very hard wind, rain and hail storms have passed over and done a great deal of damage to wheat and young corn. W. C. A.

BENNETT'S MILL, Montgomery Co., Va.,—The wheat in this section can't make a half crop; some say not more than one-third. Corn is looking fine and bids fair to be a good crop. Oats are very short and will not be a full crop. Potatoes are looking well and promise to turn out well. Fruits of all kinds are a failure in this section. In May we had a frost that killed almost all fruit. Grass for mowing is short; we shall have but a small crop of hay. M. D. B.

FRANKLIN, Pendleton Co., W. Va.—The prospects for crops are very unpromising. There has not been rain sufficient to wet the ground since the 1st of April. Of course, all vegetation is suffering. Late in May and on the 1st of June there was a succession of freezing nights and some frosts, that destroyed nearly all the fruit of every kind. W. M'C.

HENDERSON, Granville Co., N. C.—The wheat harvest has just commenced. The crop, on the whole, will be inferior to last season's, a vast amount of rust and blight being prevalent. Where, however, good culture has been given with about 40 bushels of cotton-seeds to the acre as manure, the wheat is very fine in all respects, and promises from 20 to 30 bushels to the acre. About the same may be said of that grown on land in tobacco last season, whilst that grown in the but too often careless North Carolina fashion, will not turn out more than from three to five bushels to the acre, and most of it will not pay for harvesting at all. Oats will be a thin and short crop, the season, on the whole, having been too dry for that cereal. Rye and barley are but little cultivated around here. Both look promising where grown. Corn and cotton promise well, and the late small rise in the price of the latter has stimulated a much greater degree of culture than was given to it last season. Tobacco, Golden Leaf, is at present becoming the all-absorbing crop wherever plots of land are suitable for it, and many persons are realizing handsome returns. Henderson, its market center, is fast becoming a big town of fine and and rather colossal tobacco warehouses and factories. Granville Golden Leaf Tobacco, through London chemical analytical reports, is becoming celebrated as about the best in the world, and often brings at the auction rooms from one to two dollars per pound, and from 15 to 20 thousand dollars' worth is often sold daily in the season. Chufas are attracting considerable attention, and promise to be a valuable crop, especially in conjunction with the falling fruits of the large English Black Mulberry, for the fattening of swine at a cheap rate. Silk worm and silk raising are new industries here. Not far from here is commenced the planting of White Mulberry trees for raising worms for the French and other markets, and so far, the thing has proved very successful and profitable, and the near future will, no doubt, see North Carolina a silk-raising and manufacturing State. China Tea is also commencing to be successfully grown, and in quality it is equal to that of the Celestials, and it only remains for some kind of machinery to be invented for picking it, to render it an industry of no mean importance. Although in the spring there was never a better prospect for an abundance of every fruit grown here, yet it may now be said, upon the whole, that with the exceptions of the promised abundant yield of grapes, all other kinds of fruit are complete failures. Apples and pears were fully expected to be a fine crop, from their having escaped frosts disastrous to all other fruits on the 3d and 4th of April; but mildew and insects have totally ruined them. In some places contiguous to this, the peach crop, either wholly or partially, escaped the aforementioned frost; but the curculioes have already destroyed about two-thirds in those sections, and I think but few marketable peaches will be found in North Carolina this season. From some portions of the eastern sections of this State, and especially around Albemarle Sound, where it appears from recent experiments peaches never are hurt by frosts or insects, some fine specimens of early peaches will most likely grace the northern market. H. S.

BROOKSTON, Warren Co., North Carolina.—Taking 10 as the average of last year's crop, the prospects for 1879 are about as follows:

	Acreage.	Present Condition.
Wheat	9	9
Oats, winter	10	6
" spring	10	9
Corn	10	12
Cotton	12	12
Tobacco	12	10
Rye	10	10
Potatoes, Irish	10	7
Grapes	10	13
Peaches	10	1
Farmers' Gardens	10	10

We have had it pretty dry in this immediate vicinity, but are having a fine rain to-night. We have had no heavy beating rains this spring, consequently cotton came up firmly. The rise in price will encourage planters to give it thorough cultivation, though just now labor is not abundant, and probably some have planted more than they can properly manage, unless the weather proves particularly favorable for the destruction of grass. The wheat harvest has commenced. Oats are in full head. Early Rose potatoes are nearly ripe. Corn is in all stages from six inches to four feet high. M. B. P.

MEZULA PLANTATION, Aiken, South Carolina.—Wheat, corn and potatoes are good in this section. The prospect for fruit is very bad. Peaches were cut off by late frosts. All small grains are good. The prospects for cotton are also excellent. J. F. M'L.

STARKE Co., Fla.—It seems so odd to read that with you Pearl Millet is just appearing above the ground, and that watermelons are only putting out the second leaves, while we have Pearl Millet eight feet high, with heads of seed 15 inches in length. One bunch which we transplanted has 31 large stocks, all from one seed. We have Iceland watermelons measuring 23 inches around. Voorhis are about half as large; the latter, however, we planted considerably later, as we did not receive the seed in time to plant as early. Our Blunt corn is, some of it, badly injured by the drought. We have some of the native corn, with stocks 11 feet high, all tasseled and silked. The Blunt corn, being planted later, did not get as good a start before it became so dry, and therefore could not stand the drought as well. The Acme tomatoes are doing finely; the vines are full of large tomatoes, which are looking much better than General Grants. They have both had the same care and cultivation. I have them trained on trellises, and think it the best way I have ever tried, to keep them from the ground. We have not watered them at all, as our flower garden, tea plants, newly-set trees and the choice cuttings we are starting are all we felt able to water, especially as we had no other way of doing it than with a common garden watering pot; and as we have not had a drop of rain for over a month until yesterday, the 7th, we must have had hard work to keep some things alive, to say nothing about their growing; but, by dint of shading from the hot sun through the day, with a sprinkling and the dews at night, we have kept things looking remarkably well. In many gardens about here everything is completely dried up. One man has ten acres of corn, which is entirely spoiled. Our rice has suffered more than anything we have; some of it has all died down, but we are in hopes it will come up from the roots again. Neither sugar cane nor cotton are hurt at all, we think. There are many families here who came from the North last year with so little means that they have had a very hard time so far, and if their crops fail them this year they will be utterly discouraged. I. S.

COURTNEY, Grimes Co., Texas.—This section is a cotton and corn country, though fruit, such as Peaches and Grapes grow here in abundance, but we have no market for them. Potatoes are nearly a failure this year; but for five years back we have had fine crops; the yield is, say, 15 barrels to one barrel planted. We have had no rain for 2½ months yet, cotton is fine. Corn may suffer a little unless it rains soon. W. W.

SAN ANTONIO, Bexar Co., Texas.—Owing to the long-continued drought all our crops are cut at least one-third. The fruit product amounts to nothing. Wheat is a little better, and oats are on a par with the other things. We have had only one rain since May 22nd. Corn looks *so-so*. I. E. L.

CANTON, Madison Co., Miss.—This county imports more than one-half of all the grain that is consumed; everything is subordinated to cotton, and cotton alone. There are probably not 50 acres of wheat sown in the county. Of oats there is a little—now being harvested. More corn has been planted than usual this season, which has been very favorable, thus far, for both these crops. Potatoes, in family gardens and for home consumption, are unusually fine, but there are none for export—if there were, the railroads would not permit the trade. J. J. O.

HOUSTON, Chickesaw Co.—The wheat crop is very good for this county, averages from eight to 12 bushels per acres—not a great deal sowed. The

corn prospect at this time is very good; rather too much rain; more planted than last year. The potato prospect is good. As for fruit, there is none—the frost killed it. In a county below, adjoining this, there will be a good crop of fruit.

T. S. P.

EXHIBITION OF NEW YORK HORTICULTURAL SOCIETY.

THE annual summer exhibition of New York State Horticultural Society was held at Union Square Garden on the 11th, 12th and 13th inst. There were in all about 150 exhibitors, among whom were distributed nearly $2,000 in 200 premiums. One of the most attractive features of the exhibition was a large Pitcher Plant (Nepenthes Hookerii), sent by John S. Bush, of Tremont, N. Y. It measured about two feet in hight, three feet in diameter, and had 37 large pitchers. The same exhibitor had also a very fine collection of stove and greenhouse plants, among which were several beautiful Crotons, Caladiums Palms, two graceful Aralias—Veitchii and elegantissima—and many others.

Parsons' Sons' Company, of Flushing, L. I., had a collection of 25 Japanese Maples in as many varieties, a collection that is unequaled by any other plant growers in the country. They had also a fine collection of 50 Conifers, in which were all the most elegant and comparatively new varieties. The same firm took first premiums for the best new plant never before exhibited in this country—a Stuartia Japonica. It is a hardy shrub with two-ranked, entire leaves and white flowers.

Mr. Peter Henderson had a large collection of Strawberries and greenhouse plants. A beautiful exhibition of cut Roses was sent by A. DeJonge, an amateur of Staten Island. Wm. Bennet, of Flatbush, Long Island, took first premium for his exhibit of stove and greenhouse plants. Among the Orchids were especially noticeable some very handsome Cattleyas and the beautiful, sweet-scented Aerides odoratum.

The Palms were well represented by a collection from Isaac Buchanan, and Ferns by F. Rosenbeck of Bayonne, N. J. Besides this, there were a large number of floral designs, baskets and bouquets, by various exhibitors. The exhibition was mostly floral. Very few vegetables were to be seen. Of forced fruits, there were some fine clusters of grapes and two varieties of peaches—Jaques' yellow Rareripe and Golden Dwarf.

As a whole, the exhibition was creditable to the Society, though it was patronized by fewer visitors than usual. We would like to see amateurs and our numerous smaller nurserymen take a greater interest in the proceedings of the Society. There seems to be a lack of enthusiasm on their part, which must prove a serious impediment to the progress of horticulture. All the collections that attracted special attention were by our large, well-known firms, who sent them out of their abundance.

Be sure you get the Genuine Murray & Lanman's Florida Water. There are counterfeits, but if you will hold a leaf of the pamphlet which is around each bottle, up to the light, you will see in faint letters, water marked in the paper, the words "LANMAN & KEMP, NEW YORK," and where you cannot find this, you may be sure the article is not genuine.

Robust and blooming health in Hop Bitters, and no family can afford to be without them.

THE MARKETS.

PRODUCE AND PROVISIONS.

NEW YORK, Saturday, June 14th, 1879.

BEANS AND PEAS.—Beans are dull, trade hardly up to the usual small requirements of the season; in fact, all but medium and marrow are simply nominal. Many parcels of stored stock begin to show the effects of hot weather. This fact tends to check liberal purchases. Peas unchanged; green, ₱ bu, $1.80@1.85; B. E. peas, per 2 bush. bag, $2.50; Canadian, in bulk and bond, 75c., as a small selling price. Beans, mediums, prime, $1.30@1.32½; fair to good, $1.20@1.25; marrows, prime, $1.35@1.37½; fair to good, $1.20@1.35; pea, $1.20@1.35; white kidney, $1.30@1.50; do., red, $2.80@3; turtle soup, $2.15@2.20.

Receipts of beans for week, 2,452 bush.; exports, 486 pkgs.

BEESWAX.—Dealings are limited to small lots, with Western quoted at 24c. and Southern at 24@24½c.

Exports for week, 1,100 lbs.

BUTTER.—Receipts for June were never before so heavy; 46,350 pkgs. this week and 45,500 last week. Exporters have taken 16,000 pkgs.; but even with that liberal business the surplus is large for local and other wants. All sections are sending good, even grade, right in hot weather; we find grocers running upon tubs in preference to pails, while creamery as well is quoted unusually close to other fine make. The bother of returning empty pails and large creamery pails, is becoming more and more an objection in the trade in them Prices, as a rule, lower all through; though the decline is not so marked in Western as in State, as the former was down to the most popular rates before. Tone of the market at the close very easy. Firkins quotable this week.

State pails and half tubs, choice, 13½@14c.; good to prime, 12@13c.; fair to good, 11@12c.; firkins, choice yellow, 15c.; fair to good, 13@14c.; Welsh tubs, choice, 13½c.; good to prime, 12@13c.; fair to good, 11@12c.; poor, 9@10c.; State creamery, best invoices, 15c.; good to prime, 13@15½c.; sweet cream, best, 15@15½c.; fair to good, 14@15c.; Western, best invoices, 15c.; good to prime, 13@15½c.; fair to good, 12@13½c.; imitation creamery, 11@13c.; Western dairy, best invoices, 12@13½c.; good to prime, 11@12c.; fair to good, 10@11c.; poor to fair, 8@9c.; Western, factory, best invoices, 11c.; good to prime, 10@10½c.; fair to good, 9@10c.; poor to fair, 7@9c.; grease butter, 4@4½c.

CHEESE.—This has been a severe week for this trade. The English advices have been discouraging to shippers, and they have not been willing to operate extensively, notwithstanding prices were put down. Receivers have been anxious to dispose of the early made stock, especially as next week's arrivals will probably be of better quality, but they are forced to carry over a good deal. For the choicest factories 7 and 7½c. were made early in the week, but at the close 6¾c. is a more general rate for the choicest colored—now and then a parcel reaching 7c.—while for the best of the white it is difficult to exceed 6¾c. Leaving these best lots it is difficult to fix upon values, as it has been necessary to take anything like a reasonable bid. The next grade to fancy is not above 6c., and very good qualities can be had decidedly under.

Quotations are for new factory: 6¾@7c. for best; 5½@6c. for good; 4½@5¾c. for fair to good; 3½@4½c. for half skimmed, and 1@3c. for skimmed; dairy at 6@6¾c. for good and fine; 5@6c. for fair to good, and 1@3c. for skimmed; Western factory at 6¾@6¾c. for fine; 3@4c. for half skimmed, and 1@3c. for skimmed.

Liverpool quotation, 59s., which is a decline. Steam, 35s.

COTTON—Has been subjected to sharp fluctuations through speculation, but closed weak at for June, 12.78c.; July, 12.78@12.79c.; August, 12.84@12.95c.; September, 12.52@12.53c.; October, 11.62@11.63c.; November, 11.22@11.24c.; December, 11.12@11.14c.; January, 11.14@11.16c.

Quotations for spot cotton are based on American standard of classification, and on cotton in store running in quality not more than half a grade above or below the grade quoted:

	Uplands	N. Orleans.	Texas.
Ordinary	11¾	11¾	11¾
Strict ordinary	11¾	11¾	11¾
Good ordinary	12¾	12¾	12¾
Strict good do	12¾	12¾	12¾
Low middling	12¾	12¾	12¾
Strict low middling	12 11-16	12 13-16	12 13-16
Middling	12 13-16	12 15-16	12 15-16
Good middling	13¾	13¾	13¾
Strict good middling	13¾	13¾	13¾
Middling Fair	14 1-16	14 3-16	14 3-16
Fair	15 1-16	15 3-16	15 3-16

STAINED.

Good ordinary	11 9-16
Strict good ordinary	11 15-16
Low Middling	12¼
Middling	12⅝

DRIED FRUITS.—Evaporated apples have had a good sale and are a little higher; beyond this trade drags and the situation is a nominal one.

Apples—evaporated Alden's & William's 10½@11c.; do. new process at 8½@9c. State plums, 11c.; Blackberries quoted at 4½c. Peaches—Peeled Georgia, 7@7½c. for poor; 8½@9c. for fair to good; 10c. for prime; choice North Carolina, at 12@13c.; good do., 9@10c.; unpeeled halves, 3@3½c. quarters, 2½@3c. Pitted cherries, 20c. Apples—New, 2½@2½c. for Southern quarters in bags; 3½@4c. for prime sliced; do., fair and good, 3@3½c.; State at 3@3½c. for new sliced; and 3@3½c. for quarters; Western at 3@3½c. for new quarters. Raspberries, 30c.

Exports for week, 363 bbls. apples.

EGGS.—Receipts for week, 10,070 bbls.; do., last week, 11,378 do. Prices have ruled quite steady during the week, supplies not oppressive. Sellers divide losses in count on Western when full prices are paid.

Near points, 15c.@15½c.; State, Penn., and Canadian, 13@13½c.; best Western, 13c.; second quality, 12@12½c.

FRESH FRUITS.—Russet apples winding up for selected at $2@2.75; Strawberries abundant and have been very low all the week. Trade not as active as it should be. Dealers say that a cheap market is the worst for them to move stuff in. Some extra highly cultivated sorts are in, and have sold at big prices. Great American, Downing's Beauty, brought 50@75c. qt. The market quotations are up-river, 10@12c. qt.; L. I. and S. I., 7@8c.; N. J., good to prime, 5@7c.; poor, 3@4c.; hulled, pints, 3@5c.; do., half pint baskets ₱ hundred, $1@2; Maryland and Delaware, of not much account now, have sold at 3@5c. ₱ quart. Cherries, still of low quality, quoted at 10@15c. ₱ lb, choice table; common, 4@6c. Gooseberries quiet at $1.25@1.50 bush. Small green Georgia Peaches scarce. Charleston supplies the few wanted at $1@2 ₱ bu. bush. North Carolina will ship next week. Black Hamburg and Muscat Grapes, hot-house, 75@$1 lb.; sweet water, 40@50c. Peanuts are active with prices well supported. There is some speculative demand, but a good many bags have gone into use. Va. hand-picked, $1.40@$1.45; other, $1.20@$1.35; shelled, 5½@5¾c.; Pecanas, 6@8c.

FLOUR.—The market has become quite active, trade well distributed to exporters and home trade buyers and rather better prices made.

The quotations are: $3.35@3.80 for inferior to very choice superfine State; $3.75@4.10 for poor to good extra do., odd lots and lines; $4.10@4.65 for good to choice do.; $3.35@3.80 for inferior to very choice superfine Indiana, Iowa, Michigan, &c.; $3.75@4.10 for inferior to good shipping extra do., and $4.10@4.35 for good to choice extra do.; common to about choice white wheat extras, $4.50@5.65; choice to very fancy do. at $5.75@6.75; red and amber winter wheat, inferior to very choice trade and family, at $4.45@5.00; round hoop Ohio at $4.10@4.40, and trade and family brands of do. at $4.60@6.25, the latter rate for fancy; St. Louis, $4.50@5.65 for inferior to good extra; $5.50@6.50 for good to very choice (with fancy brands up to $6.75); Minnesota clear, inferior to fancy, at $3.80@5.00; Minnesota "straight," very inferior to strictly choice, $4.60@6.00 (a few fancy as high as $6@6.25), and patent poor to strictly fancy at $5.25@6.75, few brands going above $7.50; unsound stock at from $2.25@5.00; city mill extra at $5@5.25, about fair to choice, for West Indies strictly fancy in new packages held higher); do. for England, $3.70@4; do. trade and family extras, $5.25@6.25; do. for South America, $5.50@5.65 for standard brands (winter wheat product); No. 3 at $2.35@3.25 for poor to strictly fancy.

GRAIN.—Wheat has shown much more general activity, the wants of exporters have increased through improved foreign accounts; prices are higher and strong.

Latest sales are of No. 2 spring at $1.05@1.06; No. 3 spring at 92@94½c.; No. 4 spring at 85c.; rejected spring at 75@76c.; ungraded spring at 85c.@$1.03; mixed winter at $1.16½; ungraded amber at $1.15@$1.16½; No. 2 amber at $1.16; ungraded red at $1.10@1.18; No. 1 red at $1.18½@$1.19; No. 2 red at $1.18@1.18; No. 3 red at $1.14½; ungraded white at $1.06@$1.15½; extra white at $1.17½; No. 1 white at $1.17; do. steamer at $1.15; No. 2 white at $1.14½; New York No. 2 spring, July, at $1.05; No. 2 red, June, at $1.18½; do., July, at $1.16; do., August, at $1.12; do., September, at $1.11; No. 1 white, June, at $1.16½; do., July, at $1.15½. Rye at 60½@62c for Western, and 65c. for State and Canada. Corn has been more freely offered at a decline; sales of New York No. 2 at 43½@43¾c.; No. 3 at 40½@41c.; steamer mixed at 42½c.@43½c.; ungraded Western mixed at 38@44c.; No. 2 white at 50@50½c.; New York steamer white at 46¼@57c.; low mixed at 47½c.; New York yellow at 45@45½c.; yellow Western at 45½c.; white do. at 48c.; New York steamer yellow at 43@43½c.; New York No. 2, June, at 43½@43¾c.; do., July, at 44½c.; do., August, 45½c.; do., September, at 46½c.; steamer mixed, June, at 43c.; do., July, at 43c.; do., August, at 44½c. Oats after showing unusual activity and much higher prices, based upon the prospects of the crop, have at the close reached a little; sales of New York No. 1 at 39½c.; New York No. 1 white at 43c.; No. 2 at 38¾@39½c.; do., July, at 39c.; New York, No. 2 at 39½@39½c.; New York No. 3 at 37½c.; New York No. 3 white at 38½c.; No. 2 Chicago at 38½c.; and do. afloat at 39½@40c.; mixed Western at 37½@39½c.; white do. at 39½@43½c.; white State at 42@43½c.

HIGHWINES—Are wanted, and $1.07½ offered, with $1.08 asked.

HAY AND STRAW.—The better qualities of hay are plenty and easy in price, while shipping grades are wanted, and hold at very regular prices.

Sales at 40@45c. for shipping, and 70@80c. for prime retail qualities. Straw at 45@55c. for long rye; 45c. for short rye, and oat at 30@40c.

Exports for week, 675 bales.

HOPS.—Emmet Wells in his circular says: "Trade has quieted down considerably this week. Exporters have taken only 223 bales, while brewers have bought probably enough more to bring it up to a thousand bales. Our reports from the hop districts are anything but encouraging. The slow growth of the vine seems to be more the result of neglect of proper care and cultivation than anything else. Should the price open and rule high next fall, growers who are now neglecting their yards will regret it. It is a great mistake to let hop yards run wild and give them no care in times of low prices and depressed markets better abandon the business at once and try something else than raise poor hops. We are likely to be exporters to Europe for some years to come, but we must produce a better article if we wish to compete with Kent and Sussex growers in quality and price."

Quotations are for New York's new crop, choice, 9@12; New York's, new crop, medium, 7@8; New York's, new crop, low to fair, 5@6; Eastern, 6@9; Western, 3@9; Yearlings, 2@4; Olds, all growths, 1@2; Pacific coast nominal, 8@10.

OIL-CAKE—Is scarce and wanted at $29.50 per ton.

PROVISIONS.—Hog products have tended higher with increased export dealings. Mess pork quoted for June, $10.15 bid and $10.25 asked; July at $10.20 bid and $10.25 asked, and August at $10.30@10.35; September at $10.40 bid and 10.45 asked. Bacon at $5.12½ for long clear and 5.38 for short clear. Lard—Western steam, at $6.45 for spot lots, $6.45 for June; $6.50@6.52½ for July, and $6.57½ for August. Stearine at 7c. for choice. Tallow at 5 15-16c. for prime. Beef hams at $17.75@17.50. Beef—Extra India mess, $17.50@20, as to quality; packet, $11@11.50; plain mess, $9.75@10.50; extra mess at $10.50@11.50.

POULTRY AND GAME.—Prices are lower for the whole list of live; chickens have a better demand, owing to the scant game market.

Chickens, large, per lb., 24@25c.; small, 20@22c.; fowls, N. J., 10c.; Western, 8½@9c.; Southern, 8@8½c.; roosters, old, 4@5c.; turkeys, 8@9c.; ducks, N. J., N. Y. and Pa., ₱ pair, 60@70c.; Western, 35@45c.; Southern, 30@35c. Geese, Jersey, $1.25@1.50. N. Y. and Pa., $1.25@1.50; Western, 87c.@$1.12; Southern, 75@87c.; pigeons, 40@45c.

Dressed poultry from the country has a risky market at this season. Choice parcels quoted as follows:

Turkeys, prime, small, 16@18c; fair to good large, 10@11c.; chickens, spring, Phila. dry-picked, 30@35c.; State and Western, 20@25c.; fowls, Jersey, choice, per lb., 11@12c.; State and Western, dry-picked, 10@11c.; do. do., scalded, 8@10c.; Phila. dry-picked, 12@13c.; ducks, spring, Phila. dry-picked, 30c.

The offering of game is small: Eng. Snipe, ice-house, doz., $2; plover, $1.75@2; Dowitch snipe, $1.20@1.50; prime wild pigeons, $1.75; frogs' hind-quarters, ₱ lb., 15@20c., tame squabs, $1.75@2.

SEED-GRASS—Is dull; Clover quoted at 6½@7c. timothy is scarce and would bring high prices.

TOBACCO.—The export demand is still slack, but there is a fair home trade inquiry, which is sufficient to keep prices very regular.

VEGETABLES.—For old potatoes $2@2.50 is now a full range, good, useful and choice only selling. New potatoes have declined. Norfolk now sends supplies that control prices to some degree. Bermuda, $5; Chas. and Sav., $3@4; Norfolk, $3@3.50; Md., $2.50@3; culls, $1 1.50. New Jersey peas will have a short crop; Long Island sends plenty. Cucumbers, Sav. and Cha., ₱ crate, $1.75@2.25; beans, Norfolk, round, ₱ ½ bbl. box, $1@1.25; flat, 75c.@$1; N. C., 50c.@$1; green peas, L. I., ₱ bag, 87c.@$1.12; asparagus, Oyster Bay, ₱ doz., $1.25@1.50; Shrewsbury, $1; tomatoes, Sav., ₱ bu. crate, $1.50@2; Fla., choice, $1.75@2.75; prime to fair, $1.25@1.50; Bermuda, ₱ box, 25@35c.; radishes, near-by, ₱ 100 bunches, 25@75c.; lettuce, ₱ bbl., 50@75c.; cabbage, Norfolk, $1.25@1.50; rhubarb, ₱ 100 bunches, $1@1.50; onions, Bermuda, ₱ crate, $1.25; beets, N. J., ₱ 100 bunches, $2.50@3; turnips, N. J., new, ₱ 100 bunches, $2@3.

WOOL.—The new clips are being marketed as promptly as possible to take advantage of the continued excitement and the consequent high rates. The Ohio growers are getting 33@38c., and they find quick buying at those figures. Such of the Western clips as have appeared here have been taken up close, and although the arrivals generally are much larger, there is no difficulty in keeping the market clear from accumulations. Sales here of XX Pennsylvania at 36½c.; spring, California, at 21@27c.; do., Texas, at 24@30c.

LIVE STOCK MARKETS

NEW YORK, Saturday, June 14th.

BEEVES.—Receipts for the week, 10,631 head; do., last week, 9,702 do. The market demand has fallen to its former limit and the stock yards feel the effect of diminished trade at the stalls. There was a fair demand at the close, especially for good corn-fed steers, and butchers generally rated the market as about the same as on Wednesday, but the pressure of wholesale slaughterers for lower prices was persistent, and closing rates on ordinary and medium steers were certainly $1 per head off from closing figures of last Wednesday. Some old dry cows and thin Texas steers went down to 7½c. per lb., to dress 54 lb @ 55 lb to the gross cwt., and a pair of extra steers reached the high mark of 10½c., to dress 57 lb. Aside from these exceptional sales the extreme range was 8½@10c. ₱ lb, to dress 55 lb @ 57 lb. Nearly 200 were taken for the export trade at 9¾c.@10c., to dress 56 lb @ 57 lb.

SHEEP AND LAMBS.—Receipts for week, 25,831 head; do. last week, 23,738 do. Sheep steady; lambs easy. Sheep 4@5¾c.; lambs 4¾@6¾c. for Southern and Western; 7@8¼c. for Md., Del., and N. J. stock.

COWS AND CALVES.—There is no regular demand. A few sales in lots quoted at the old range of $30@50; $60 occasionally obtained.

VEAL CALVES.—Choice N. J. milk fed calves scarce and firm. A good line of State calves have been brought in, selling mainly at 4½@5c.; best State 5¼c.; do., N. J., 5½@6c.; good N. J., 5c.; poor 4@4¼c.; buttermilk, 2½@3c.

HOGS.—Receipts for week, 26,693 head; do last week, 29,971 do. Fair to good corn hogs quoted at $4@4.20 ₱ 100 lbs.

City-dressed State light, 6c.; heavy to medium, 5@5¾c.; do., Western, 5¾@5¾c.

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Manufacturers of
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☞ Chemical Analyses furnished to each buyer and guaranteed. BAUGH & SONS,
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DAIRY SUPPLY COMP'Y,

261 and 263 Greenwich St.,
P. O. Box 416. NEW YORK.

We are now prepared to furnish Milk and Butter Dairies, and the Trade, with the best as well as the newest implements and apparatus adapted to their needs, especially—

MILK-PAILS.—First among which is our own "Perfect Milk-Pail,"—stool, strainer and pail in one—combining the highest degree of cleanliness and purity of flavor in the milk, and convenience in use, excluding the air of the stable, with odors of the cow and of the milker.

MILK and CREAM-TESTING APPARATUS, Test Tubes, Graduated Tubes and Foot Glasses, Lactometers, Thermometers.

MILK-SETTING APPARATUS of the most approved kinds, viz.: Top-Cooling, Refrigerating, Covered, Ventilating, Creamery Pans, Cooley Creamers, Cooler Pails, Ventilating Submerged Pails, Glass, Earthen and Tin Pans, etc.

BOTTLE AND GLASS JARS, for *individual* delivery; especially the new Warren Bottle, the most perfect ever devised for either milk or cream.

CHURNS—especially our own Pendulum or Monitor Churn oscillating, upon cords from the ceiling. The easiest working and most perfect churn, in all respects, made, especially for granular butter and the brining process.

BUTTER MOLDS, Prints, Presses, etc., particularly the Nesbit, which gives great satisfaction,

BUTTER PACKAGES, large and small, for Lump Butter, Gilt-edge, etc., with or without ice chambers.

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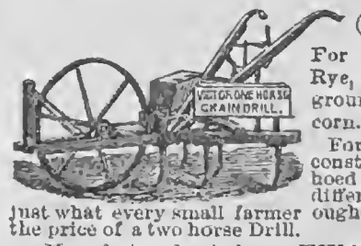
"Victor" one-horse Wheat Drills



(3 and 5 hoed,)
For Sowing Wheat, Rye, Barley, in fallow ground or in standing corn.

Force feed; simply constructed. The five hoed is adjustable for different widths, and is just what every small farmer ought to have, saving the price of a two horse Drill.

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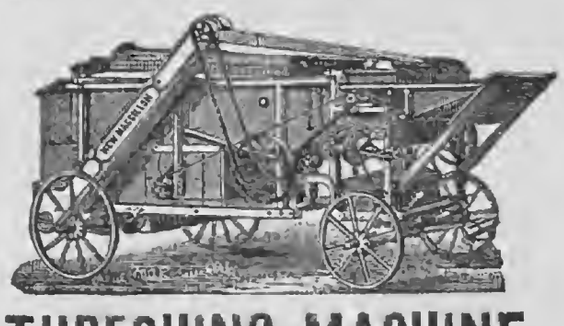

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From G. P. Nelson and others of Beaver Creek, Rock Co., Minn.—We have run the "New Massilon" No. 6, bought of you at Sioux Falls, four weeks, and like it better than any we have ever used. We have run all the leading machines for fourteen years, but the "New Massilon" beats anything we ever saw for lightness of draft and perfect operation in threshing, and for separating and cleaning wheat, oats, barley and flax it has no superior.

We are getting more threshing than we can possibly do. The farmers all want the "New Massilon."

4 Sizes, Capacity from 300 to 1,500 Bushels.
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AGENTS WANTED IN NEW YORK STATE.
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BUCHAN'S CRESYLIC SHEEP DIP prevents and cures SCAB and all Parasitic Diseases of the Skin. Buchan's Cresylic Ointment is CERTAIN DEATH to the Screw-Worm or Grub.
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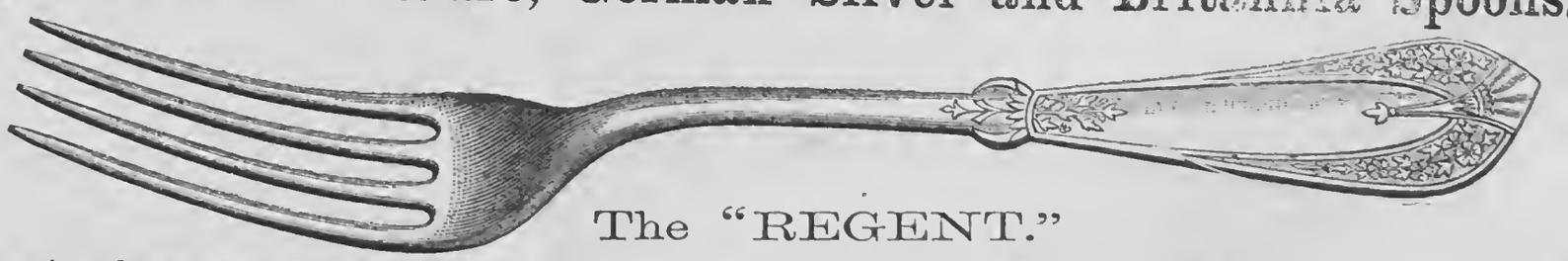

The "REGENT."
Factories, Wallingford, Conn. Salesroom, 75 Chambers St., New York,

Reading for the Young

AMY'S GARDEN.

HENRY S. CLUBB.

In her rambles about the woods that form the natural protection from the storms of Lake Michigan, Amy had found many varieties of flowers that she prized for their own intrinsic beauty and sweetness. She not only took a great interest in them as botanical specimens, but she valued them as pets just as her sister Jenny loved her pet animals. Although her herbarium contained many choice specimens dried, much of their beauty and nearly all their fragrance were gone after they were dried, so she concluded to transplant as many of her favorite flowers, mosses and evergreens from the woods to a little plot of ground which she selected on the north side of the farm-house for the purpose. There was a natural spring of water, which, running past her garden, gave her a chance to rear such of her pets as required a moist locality, while the shade from the house and some ornamental trees enabled her to rear those plants that had been accustomed to the shade of the woods

Amy had such an ardent love for these beautiful forest flowers that she took special pains to transplant them so as to injure their roots as little as possible, and she studied the nature and habit of each one by reference to her botany so that she placed them in just such a soil and situation as was adapted to their growth. In this way she succeeded in removing plants which are usually very difficult to make live away from their native forest or stream.

Near Amy's garden the stream from the spring above, widened out so as to form quite a little lake and it was Amy's ambition to have the white Pond Lily growing in that lake, so she induced John, her elder brother, to go with her one day in a boat, carrying with them a garden rake and a hatchet. When they rowed to a shallow portion of the river which empties into the great lake not far from their home, they found some Pond Lily roots and by means of the rake they raised a root to the surface of the water. It was very large and long. They could not get it all up as it reached a long way in the mud at the bottom, so when they had raised up a piece about six feet long, they chopped it off with the hatchet and then cut it into three pieces about two feet long each and carried them home, immediately throwing them into their little lake. They were soon delighted to see leaves floating on the surface, and the next summer there were about a dozen beautiful blossoms After that they had no further trouble. Every year they had an abundance of Pond Lilies growing at home.

In the pond near the centre there was a little island on which Amy had planted some of her choicest flowers and shrubs. Here was a clump of wintergreens which delighted her every summer with the pretty wax-like flowers and in winter and spring with red berries nestling so beautifully in the dark-green foliage. Near by was another clump of trailing Arbutus the flowers of which appeared in the early spring and continued several weeks. Violets also grew on the island in great profusion, and when the wind was north the fragrance of the Violets was wafted to the house. Around the shore of the island near the water Iris or Blue-flag, grew in great profusion, and when in blossom also sent forth a sweet odor. Among Amy's most cherished pets were the Lady-Slipper and the Columbine, both of which grew well on the island.

At one end of the little lake, where the water was shallow, Amy had planted the Pitcher-plant, and it grew well in the wet place selected for it. When her young friends came to see her she would gather the curious leaves of the Pitcher-plant to play with, as they very much resemble toy pitchers and would hold water quite as well.

On the north side of the pond Amy planted a dozen young Arbor-Vitæ trees from the forest, and they grew luxuriantly. In order to make them grow thick she had to shear them, cutting off the tips. In a few years after they were planted they had grown so thick that they broke the force of the northwest winds and made her little island garden much more secure from the storms.

For several years the only way to reach the island was by wading on stilts as the water was about two feet deep, but when the place began to look so pretty, as the shrubs and trees grew up, there were so many people that wanted to visit the island to see Amy's collection of living specimens, that John concluded to build a foot-bridge across at the narrowest part. He built a pretty rustic bridge of cedar trees with a rail on each side supported by cedar posts and cross-braces.

This little lake with its garden, island and bridge, its Pond Lilies, its wild flowers, ferns, and mosses at various points on its banks, and its overhanging trees, formed a very attractive spot, and being in sight from the highway was admired by all who passed by, and was the scene of many a joyful hour for Amy and her young friends and schoolmates who desired to pay her a visit.

Nothing delighted Amy more than to have a party of her companions assemble under one of the old forest trees within sight of her garden and have a nice talk about flowers. She never tired of telling them about the different species and showing them how to tell the name of a flower by dissecting it and referring to the botanical class-book. They often brought her flowers from the woods to test her ability, and were always surprised to see how quickly she could tell the family to which it belonged, and usually give its common and Latin name without a reference to the botany.

Amy, by these attractions of natural beauties which she thus cultivated and delighted to show to her friends, naturally became the center of a charmed circle. All the very best young people of the vicinity delighted to spend their leisure time in her pleasant home and garden. The influence and sweet companionship of flowers acted charmingly on her disposition, and gradually developed in her that sweetness and grace which delighted her friends. Without any direct effort at moral or religious instruction, her personal influence was such as to lead others unconsciously to themselves into the ways of Wisdom. And "her ways are ways of pleasantness, and all her paths are peace."

THAT PARTY OF TRAVELERS.

At long intervals after the suggestion of an imaginary voyage to Europe, I have received a few queries as to the cost of books, etc, which have shown me the impracticability of my little plan. Clearly the libraries of my young relatives are not as well stocked with reference books as they could wish; and, as nothing was more foreign to my intention than the desire that my young friends should incur any but a nominal expense in the purchase of a guide book or two, I fear, to prosecute our scheme would be paying too dear for the whistle. It was the consideration, of expense, I am now persuaded, that has deterred all but a few from subscribing to the plan. As it is, so few have expressed their willingness to go abroad this summer (in imagination) that I think it best to rest the matter right here, and see if some other expedient may not be devised for our amusement. I shrewdly suspect, moreover, that Uncle Mark has so surely engrossed you in the discussion and cultivation of parti-colored radishes and other rural and horticultural delights that your time during the summer will be fully occupied. There is such a poetic charm about the contemplation of a cabbage, and such real money to be extracted from the garden, as may well affect the moral and material sides of your natures; and to these pursuits, under your painstaking instructor, I commend you heartily. Later, when it will have become inconvenient to work out of doors, we will hit upon something attractive for the long winter evenings in which all may join. Meantime I shall, myself apply for a position in the "Club," as becomes a true uncle, or UNCLE TRUE.

A WISE DOG.

While we sometimes see men acting like brutes, we often see brutes showing intelligence almost human. Animal instinct as it is called seems closely akin to reason at times. A friend of mine Mrs. B. W. of Mt. U. had a fine intelligent dog, also a pet canary of which she was very fond. In caring for the bird, she left one of the seed cups ajar and the bird seizing the opportunity, turned the cup and made his escape. Many times during the day she exclaimed.

"My poor bird, my dear little bird. Oh, if I could only find my bird again."

Prince heard the words, wagging his tail as if to say, "I understand you."

Near nightfall, Mrs W. accompanied by her husband and the faithful dog walked toward a wooded ravine near the house and she again spoke of her lost bird. Prince looked up into her face and then bounded off returning with the lost bird which he laid at Mrs. W's feet. She screamed, thinking the bird dead when away it flew again. The dog followed and soon returned with a yellow and black wing protruding from his mouth. The bird he carried carefully in the hollow of his jaw, and again laid it at his mistress' feet. This time the bird seemed to be quite dead, and Mrs. W., after fondling it awhile, laid it in its cage. When she returned a short time after, the bird was hopping about merrily from perch to perch, while Prince was seated as quietly as though entirely unconscious that he had done any thing at all remarkable. Yet his achievement proves that dogs understand language though they cannot talk. How he caught the bird remains a puzzle. MRS. E. J. RICHMOND.

UNCLE TRUE JOINS THE CLUB.

Pleasure and pain mingle strangely at the contemplation of the article Uncle True sent me for this week's issue; pleasure at the honor conferred upon the Horticultural Club in permitting it to count so venerable and distinguished a personage as Uncle True among its members, and pain at the abandonment of his projected imaginary voyage. I had no small thought of joining the party also, and anticipated a great deal of instruction and amusement from the trip. But in this case, all the enjoyment proved to be in the anticipation and none whatever in participation. Uncle True has concluded to remain at home, and he apprises us of his desire to join the Club. He is as welcome as he is unexpected. There is a poetic charm in the cultivation of plants and rural pursuits, which I fear he has not been aware of until lately, and as yet, his tastes in that direction are very crude. Of all plants, he seems to find the greatest expression of beauty in that humble but useful species of the cruciferæ, the cabbage, probably caused by his love for sauerkraut. But, young horticulturists, let us show him his mistake, and point out to him real beauties of the floral tribe that will send a thrill of ecstacy through his kind, old heart, and awaken a love for horticulture that, though it comes late in life, may still be a source of enjoyment to him through the rest of his years.

UNCLE MARK.

LETTERS FROM BOYS AND GIRLS.

UNCLE MARK AND COUSINS:—My sister and I wish to join the Horticultural Club, if we are not too late.

We have never had a vegetable garden, but Anna has a number of house plants, and I have cultivated a few flowers. Last season I had a bed containing the plants, the seeds of which I got from the RURAL'S Free Seed Distribution, and Pansies, Phlox, Balsams and Asters. This summer I have a bed for the seeds we received this year, and some others, and the last year's bed for self-sowing sorts. I have set out a number of currant slips, but only about half of them lived on account of the lack of rain. How can I start tomato plants without the use of a hot-bed? I have tried several times, but have always failed.

I intend to collect some caterpillars this summer, for the purpose of watching their transformations. When they are butterflies, what shall I feed them?

Our Swiss Cousin's and Hawaii Nei's letters were very interesting. Why do you not write again, cousins? I have not seen a letter from you in quite a while.

I think Hawaii Nei is a missionary's daughter, but some think it is some one who lives in the United States and who writes as though she lives in the Sandwich Islands, to make it more interesting.

Please put my sister's name, Anna Wise, on the list, also mine. With many good wishes for the Club and members, I remain your friend,

Cortland Co., N. Y. LENORA WISE.

[You can start tomato plants without the use of a hot-bed in a pot or box filled with light soil and put in a southerly window of a room with an even temperature. The plants must have all the light they can get. Of course it is too late for this year. It is a good idea to collect caterpillars and watch their transformations. I wish that all of the Cousins who are interested in natural history would do the same thing. In this way much can be learned about entomology that otherwise would remain a mystery to you. Make a breeding cage out of a small box or box frame that has neither top nor bottom. Tack a piece of wire gauze over one opening of the box so the prisoners within may get plenty of air, and on the opposite side, fit a pane of glass to serve as a cover, so you can readily look in. Now put the box on the side, or what was the side before the top and bottom were removed, but which will now serve as the bottom, and, as many insects pupate in the ground, put two inches of dry soil in the box and your breeding cage is complete. In this cage put your caterpillars; keep them well supplied with fresh leaves of the kind on which they were found. Put down in your note book the date when you confined them, how they looked, how many legs they have, and their stripes, dots and other markings. Note also the dates when they spin their cocoons, how long they remain in the pupa state, etc., with such remarks and new facts as you may deem of interest. You will thus learn much of an exceedingly interesting and useful study, and a new field will be opened for your observation and reflection. Butterflies require no feeding—UNCLE MARK.]

DEAR RURAL COUSINS:—It will afford me great pleasure if you will receive me in your circle I should like to ask, what has become of all the boys and girls who used to write. Y. B. and Slayer-of-conceit, for instance. Well, girls, I can tell you, that is, if you care to know. They have been fascinated with some pretty face, and, as the old saying is, jumped the broom-stick. Most of you tell about your pets. I do not have any except my flowers. Flowers and books are my favorites, and I do not care much about anything else. I like to do housework of all kinds. Perhaps I will join your Horticultural Club, or at least write, and let you know what success I have this fall, if life and health are spared. I should like to ask what the expense will be for books for the imaginary voyage. Also where I can get roots or seeds of the Trailing Arbutus and what will they cost. I wish you all good-night. OLD MAID.

Hillsdale Co., Mich.

[Read what Uncle True has to say concerning the voyage. The Trailing Arbutus grows wild in New England and many other parts of the United States. It is very pretty, but somewhat difficult to make it grow. Woolson & Co., Passaic, N. J., offer established plants at 30c. each.

UNCLE MARK.]

DEAR UNCLE MARK:—I hope I may be allowed to join your circle. I like the letters very much. I wrote once to Uncle True, but he threw it into the waste paper basket, I suppose. I go to church whenever I can; I heard two sermons last Sunday. Uncle Mark, you must publish this. I can work lots; I feed horses, cows, sheep and chickens. I hoe, pull corn and pick cotton. I am cousin

SNOW FLAKE.

Uncle True had no doubt a good reason for throwing Snow Flake's letter in the waste-basket, and, as Snow Flake neither gives her name, the place where she lives or even the State, so I have no idea whether it is a snow-flake from "Greenland's icy mountains," or some other cold place, I must say, that I am tempted to do the same. I will take this occasion to ask all who write to me to give their full name and address. I shall not publish their real name if they do not wish me to, but I must, nevertheless, have name and address. Several who have applied for membership in the Horticultural Club have given me only their initials, and others have neglected to give their addresses. Of course, I can send no seeds or plants to them, the same as I do to all other members.

UNCLE MARK.

DEAR UNCLES AND COUSINS:—Hurrah! we are better off than I supposed, we have two uncles instead of one. Uncle True, in case you make your grand tour to Europe this summer, I want to engage my passage if you will take a cousin with as little luggage as I have. I have McNally's system of geography, but in our very small store of books we have no book of travels. As we live on a farm and never know what it is to be out of work, I will not have as much time or money to spend for books as I wish I had. I love to read and study, and want to learn all I can. Will you take me? Cousins, where are you? I miss your letters in the RURAL. Write and brighten up the corner. We received the flower seeds all right—many thanks to the RURAL for them; not knowing how to plant Balsam seeds, I planted the smallest seeds as I would Pansies, in a box in the house, some of the larger ones I planted in a bed in the door yard. CRAB APPLE.

Crawfordsville, Iowa.

DEAR UNCLE MARK:—I take great interest in the RURAL. I have just planted a flower-garden and lots of plants have come up which, I am sorry to say, are weeds. My Pansies I raised in a pot, and transplanted them into the bed after a cool rain, but I forgot to put paper over them and the hot sun dried them out and killed some of them. They were choice seeds too, and I'm real sorry. I have got a collection among which is the horned frog, of which you published an account some time ago. Are any of the Cousins interested in collections? If so, I would like to ask any of them living in California, Texas, or any distant State, that would like to exchange a small package of specimens, for things from this place, to immediately inform me of their address, that I may press a sufficient quantity of flowers.

F. M. A. BROOKS.

Madison, Wis. P. O., Box 1113.

DEAR UNCLE MARK:—I am a little boy out here in Oregon. I would like to join the Horticultural Club, for I am fond of flowers and like to work among them. I have a flower bed of my own in which is a double Hollyhock plant that is about five feet each way. Pa says it is crowding my other plants too much, so that I must have a larger piece of ground. My mother has some nice plants from the Hollyhock seed she received from the RURAL. There are a great many pretty wild flowers here, I have planted many of them in the yard, such as Violets, Mimulus, Lobelias and one other kind I would like to know the name of. When it blooms I will send you a flower and leaf, if I can press them nicely enough. I could write a great deal more about the flowers, but I am afraid this is too long already. Your young friend,

Linn Co., Oregon. ANGUS M. SMITH.

A LITTLE girl, on examining some Bible pictures, had great difficulty in remembering which were angels and which were men; in explanation, her mother told her that those with wings were angels. Showing the same picture to one of her young friends a few days later, Ida remarked, "These are angels, Tottie, don't you see the feathers?"

Sabbath Reading.

THE STILL HOUR.

MEN often give in the hope of receiving again; their charity is bread cast upon the waters that they hope to find somewhere after (or perhaps, before) many days. Of charity that has not paid, many bitter complaints are heard. But God's ways are not our ways. He gives in the hope of giving more. That is his object in giving. "Grace for grace," grace *upon* grace, is his method; one gift is sent to make room for another. As one day's dew and sunshine enables the flower to take more dew and sunshine the next day, so all God's spiritual gifts enlarge the spiritual nature to the end that more grace may be bestowed. If we have received any good thing from him it is not a sign that he wants anything from us: it is a token that he wants to give us something more.

WHEN the two disciples, walking with Jesus to Emmaus, drew near to the village whither they went, it is said that "he made as though he would have gone further; but they constrained him, saying, 'Abide with us, for it is toward evening and the day is far spent.' And he went in to tarry with them." Did he not wish all the while to tarry with them? Did he not know that he should tarry with them? Why, then, did he "make as though" he would go further? Was not this insincerity? Did he not by actions, which are said to speak louder than words, declare that to be his wish and purpose which was not his wish and purpose? Such a small criticism as this might easily enough be made, not only by those who seek to discredit the divinity of Christ, but also by quite another class of teachers. There are those who will not own that Christ ever accommodated his teaching to the defective knowledge of those to whom he spoke. But does not every wise teacher continually do this? Does he not keep back the knowledge that he might give them with no effort, because he knows that it is better for them to find it by searching for it?

An acted ignorance, an assumed curiosity on the part of the teacher, often stimulates a pupil more than many exhortations to study. It is an overnice scrupulousness that would condemn the whole Socratic method of teaching. No other method gives such great zest to learning. And something like this is seen in this case. Jesus does mean to tarry with these disciples; but he does not mean to stop without an invitation, because he knows that their pleasure in entertaining him will be far greater if he is their invited guest than if he invites himself. He wants them to have the reward that comes from the proffer and the exercise of a kindly hospitality. From this point we get a wide outlook over the whole field of prayer. God often withholds gifts that he wishes and intends to give us, simply because he knows that it will do us good to ask for them. It is not his purpose but our relation to him that is changed by our prayers. —*Sunday Afternoon.*

SUBMISSION to the will of God, with experience of his support in pain, sickness, and affliction, is a more joyous and happy state than any degree of health or worldly prosperity.—*Adam.*

IN prosperity many have forgotten God, who, in adversity, have thrown themselves into his arms.

PERSONAL ITEMS.

Lord Beaconsfield has denied the petition of his Hughenden tenants for lower rates, although the nobles of England have generally reduced the rents of their tenants from 10 to 30 per cent.

The celebration of Emperor William's golden wedding began at Berlin Wednesday. The city was gaily decked during the day and illuminated brilliantly at night and thronged with people.

Edward S. Stokes, the slayer of Jim Fisk, is dabbling in the mining business on the Pacific coast. He is mentioned in a Montana City (Nev.) newspaper as selling his interest in one mine for $65,000.

Jefferson Davis was present at a meeting of the Mississippi Press Association last week, and declared that he had never yet seen a "Southern woman reconstructed." A perfect panic of applause greeted the remark.

The Bismarck of to-day is certainly not a handsome man. He is so fat as to be more unwieldy than ever; he has a puffy and unhealthy look, and his appetite hesitates never. Bread and cheese and beer are said to be what he especially likes

Old John was a woodchopper at Austin, Minn. He lived in a cabin that was hardly more than a kennel, wore rags, and appeared to have no thought except to defend himself against hunger and cold. A kindly widow employed him often, and looked after his welfare a little. Lately, when he was at work in her woodshed, she remarked, "John, I'm going to get married next week." "Really?" he exclaimed, with an earnestness that was unusual with him. "Yes, really: but why do you care?" she replied. He muttered something unintelligibly, and walked off into the woods, where he gathered some poisonous weeds, ate them, and died. A photograph of the widow was found in his cabin.

You can save Doctor bills and keep your family always well with Hop Bitters.

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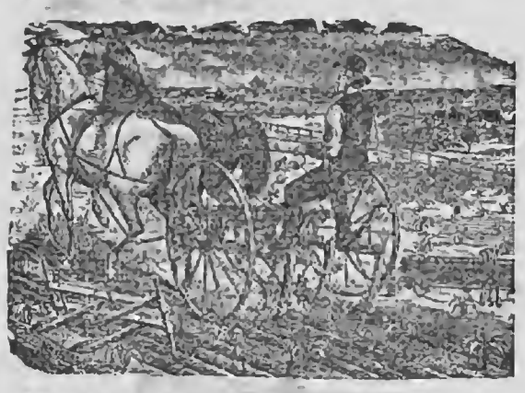
The Robbins Cultivator



AND BROADCAST SEEDER.

CHEAP! The Implement for the Times. CONVENIENT!

Adapted to almost every variety of farm tilling and seeding, and sold at less than the price of a Grain Drill alone.

THE ROBBINS is a two-horse riding or walking Cultivator; is especially adapted to breaking up fall plowing and fitting it for spring crops; for cultivating Corn, Potatoes, Beans, or any crop planted in rows or drills, the axle being set high enough to clear corn at the last working; for work on fallows, and for fitting any ground which would ordinarily require cross plowing.

It is provided with an accurate and reliable *force feed* seeding attachment, which sows all kinds of grains *broadcast*, in front of the shovels, in any desired quantity to the acre; and by gauging the depth at which the shovels are allowed to work, the grain can be covered as deep or as lightly as desired. Send for circular.

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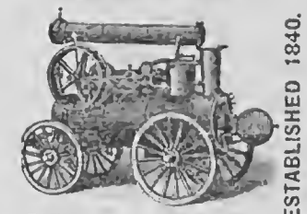

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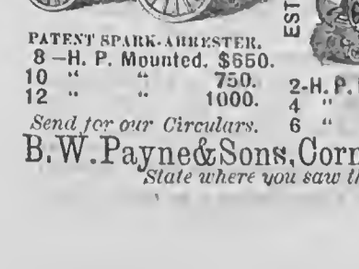
EXTRAORDINARY SUCCESS OF THE

RIDING SAW.

SAWING THE LOG



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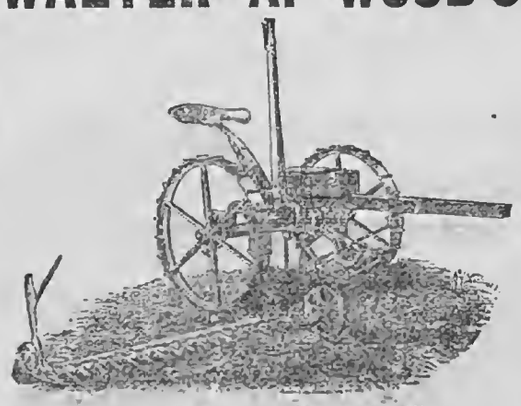

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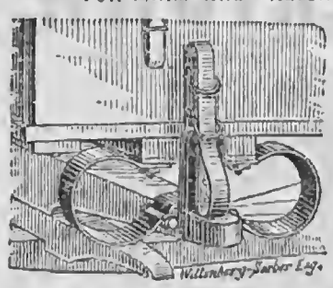

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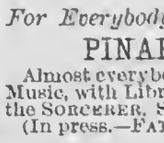

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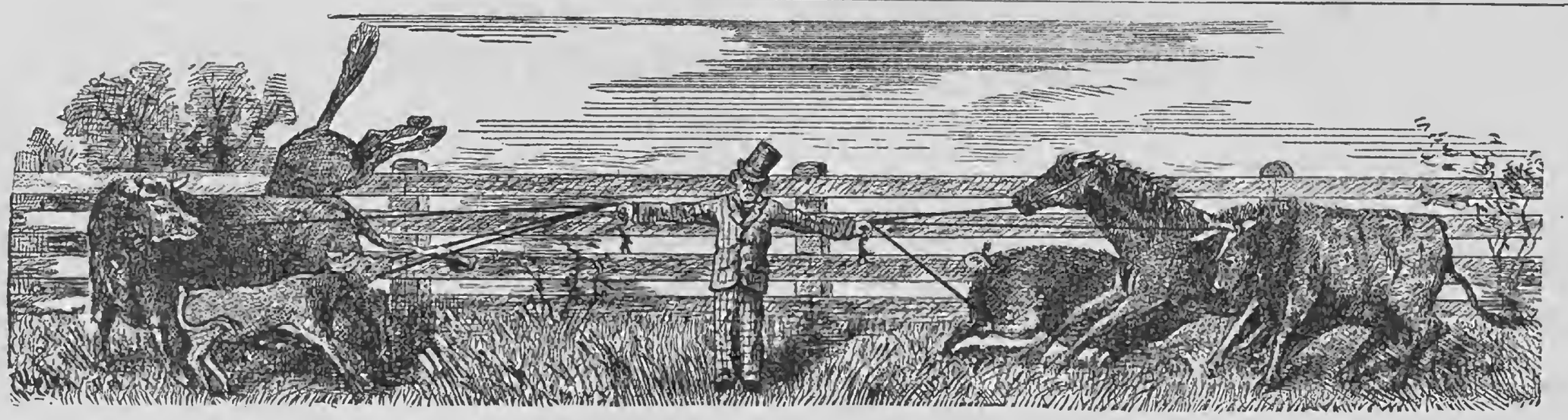

A STOCKHOLDER IS NOT ALWAYS AN ENVIABLE MAN.

Wit and Humor.

"WHAT'S the man yelling at?" asked a farmer of his boy. "Why," chuckled the boy, "he's yelling at the top of his voice."

MRS. Partington has been reading the health officer's weekly reports, and thinks "total" must be an awful malignant disease, since as many die of it as of all the rest put together.

THE weather continues very changeable in central New York. A few days ago a man in that country was sunstruck right at the close of a snow storm because he couldn't get his ulster off quick enough.—*Burlington Hawkeye.*

A VALUABLE INVENTION.—"What a great thing the invention of the steam engine is!" exclaimed a Frenchman, sipping his coffee in one of the Paris restaurants. "Why so?" inquired a friend sitting next to him. "Because it is to that great invention that I owe my fortune. My aunt, who was killed last month by a railroad accident, has left me $20,000 A month ago to-day I was hard at work trying to earn a living; to-day I am a gentleman. What a great invention the steam engine is!"

The Stomach Cannot be Freighted

With greater trash than a violent drastic purgative. True, such a medicine relieves constipation for the time, but at the expense of great injury to the intestinal canal which it both inflames and weakens, thus unfitting it for the performance of its proper functions. Widely different is the action of Hostetter's Stomach Bitters, a tonic aperient which produces effects, prompt, indeed, but never violent and convulsing. The purity of its botanic ingredients, its unobjectionable flavor, its genial influence upon the mind, and the thoroughness of its remedial action in cases of constipation, liver complaint and dyspepsia, combine to render it a most desirable family specific. It increases both physical vigor and substance, tranquilizes and invigorates the nervous system, and gives an unwonted relish for the food. A wineglass three times daily is about the average dose.

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Ask your Druggist if his customers don't say that the NORWEGIAN BALM gives immediate relief, in every case.

Ask your Druggist if his customers don't say that the NORWEGIAN BALM is very agreeable, and perfectly safe to use.

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Ask your Druggist if his customers don't say that the NORWEGIAN BALM is very soothing and healing, and that "it is really a luxury to use it."

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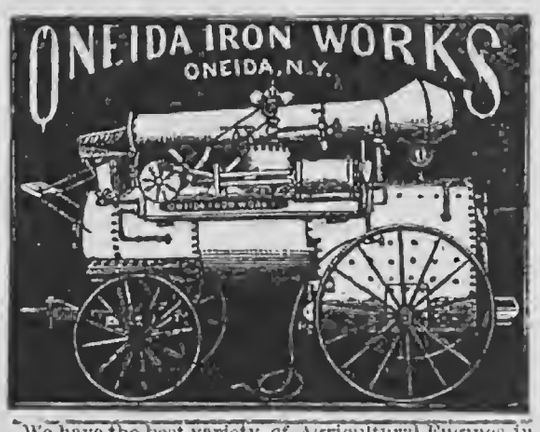

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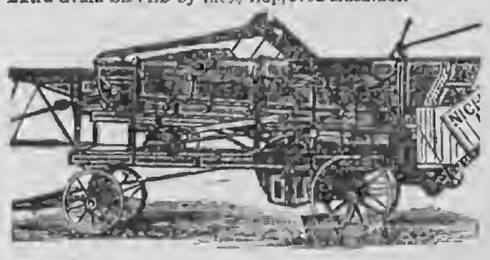

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THE RURAL NEW-YORKER

A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME

VOL. XXXVIII. No. 26.
WHOLE No. 1535.

NEW YORK, JUNE 28, 1879.

PRICE FIVE CENTS.
$2.00 PER YEAR.

[Entered according to Act of Congress, in the year 1879, by the Rural Publishing Company, in the office of the Librarian of Congress at Washington.]

Rural Architecture.

A VILLA.

L. F. GRAETHER, C. E.

THE design here described, exhibits a small villa, which bears a similarity to the "Rural Residence" published in our issne of May 17; in fact, it is a modification of the same. The elevation answers as well for the plans of the "Rural Residence" as it does for those given below, and the sketch conveys also an idea of the manner in which the surrounding grounds may be laid out, so as to be in harmony with the structure.

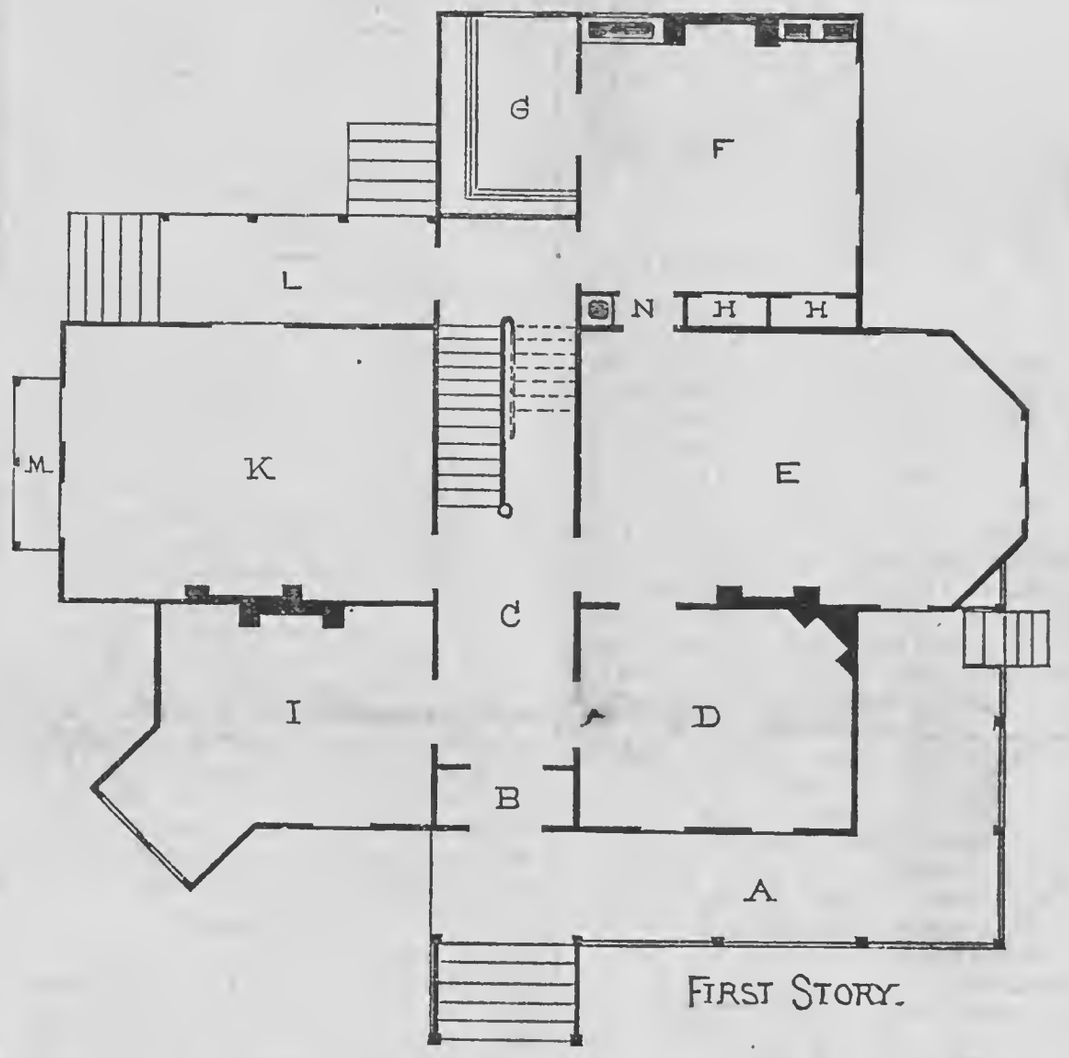
The plans are explained as follows:

FIRST STORY. A, piazza; B, vestibule; C, hall with main flight of stairs to 2d story; D, parlor, (12x15 ft.); E, dining-room, (15x24 ft.); F, kitchen, (15x17 ft.) including closets, H, H, and passage N, from dining-room to kitchen; G, pantry, (8x11 ft.); from the piazza L a passage leads under the stairs to the kitchen. The library I (12x15 ft.), and the sitting-room K, (15x20 ft.) are situated on the left side of the hall.

The SECOND STORY (see page 406) contains in front the hall A, the bedrooms, B, C, and E with closets L, L, and balconies D, D. A few steps N, lead from the stage G of the main stairs to the side hall H, around which the bathroom F, and the bedrooms K and I are grouped. The latter may be used as servants' bedrooms. M, denotes the several roofs above A, I, K and L in the first story.

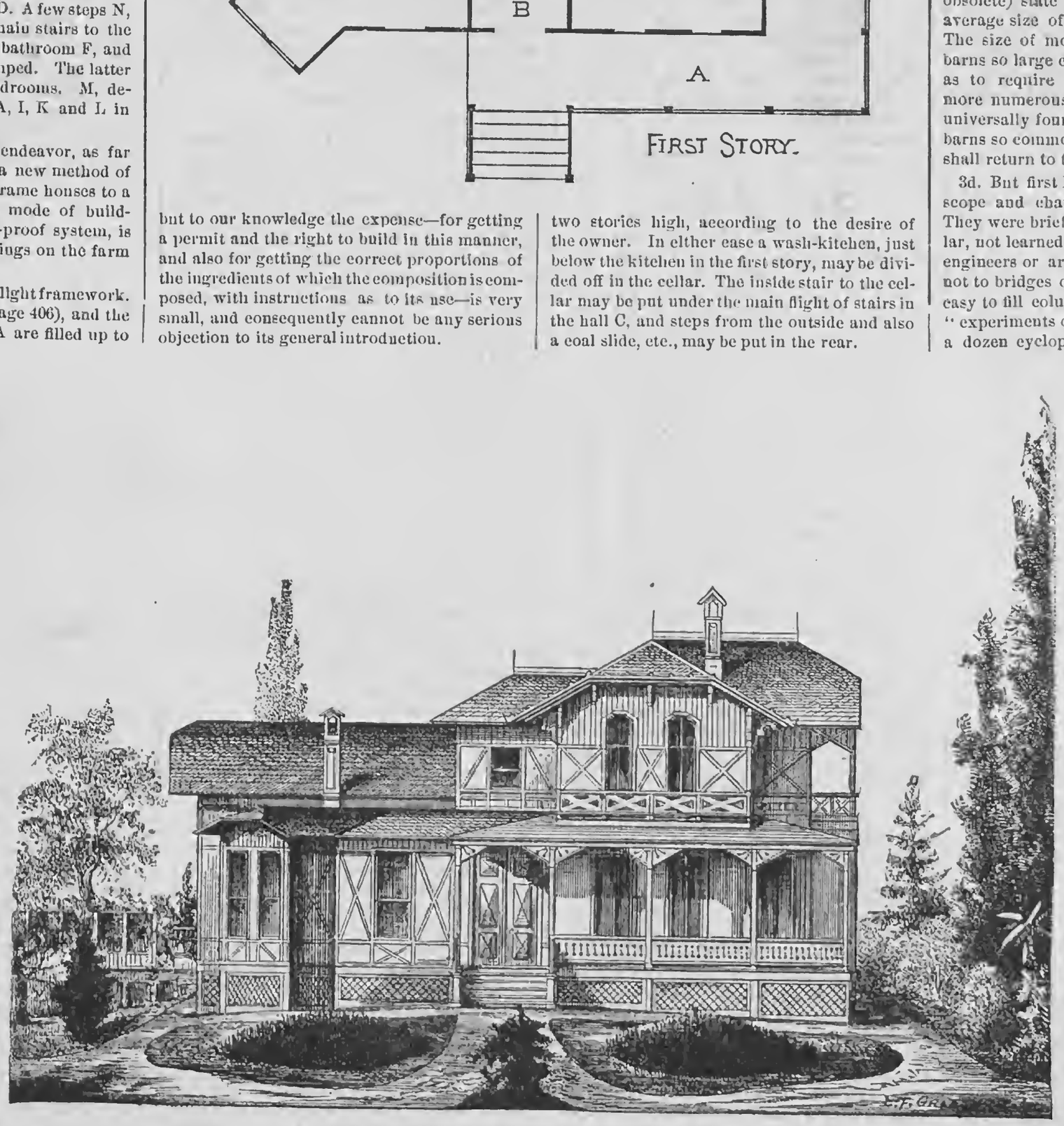
In this connection, I will endeavor, as far as space permits, to describe a new method of making, at a small expense, frame houses to a great degree fire-proof. This mode of building, called the Schillinger fire-proof system, is particularly adapted for buildings on the farm and at watering-places, etc.

Such buildings require a very light framework. This is inclosed (see Fig. 1, page 406), and the spaces between the studds A are filled up to the hight of the plate with fire-proof composition D. The composition consists of a mixture of sand, lime and plaster, or *debris*, and when set it is quite light, yet very tough and firm. Before the composition is applied, the studds, sills, etc., are inclosed with tarred paper B, to prevent dry-rot. The inner side of the studds is covered with slates L, nailed thereon. Clasp-nails C are driven into the studds A, so as to make the composition D adhere firmly thereon. The inner side of the wall receives, after the composition has set, a brown coat and hard-finish E, while the outside may be covered either with a coat of cement, plaster, or a siding F is fastened against cleats C, thus leaving, between the composition and siding, an air-space necessary to prevent dampness. The partitions are constructed in the same manner; the floors and roofs are "deafened" with the composition, as shown in Fig. 1. Each room is thus rendered, to a great degree, fire-proof. Such a building will only cost eight per cent. more than an ordinary frame building of the same dimensions. The foregoing plans, and those of May 17, may, with but little alterations, be made suitable for this fire-proof system. There is, however, one trouble about this fire-proof method, and that is, it is patented; but to our knowledge the expense—for getting a permit and the right to build in this manner, and also for getting the correct proportions of the ingredients of which the composition is composed, with instructions as to its use—is very small, and consequently cannot be any serious objection to its general introduction.



FIRST STORY.

No cut is here given for a cellar plan. A cellar may be either arranged under the whole house or only below the part which is carried two stories high, according to the desire of the owner. In either case a wash-kitchen, just below the kitchen in the first story, may be divided off in the cellar. The inside stair to the cellar may be put under the main flight of stairs in the hall C, and steps from the outside and also a coal slide, etc., may be put in the rear.



VILLA.—ELEVATION.

"AXIOMS" IN BARN-BUILDING AGAIN.

W. I. CHAMBERLAIN.

THE RURAL of May 17th contains a criticism of my "so-called axioms" in the RURAL of February 15th. The writer, I think, fails to give credit for the implied and *expressed* limitations in my articles, for their extreme brevity and consequent lack of fuller limitation and explanation, for their character and scope, and for the average common sense of farmers. He also, I think, falls into some errors in correcting what he deems to be mine. The importance of the subject seems to justify further discussion.

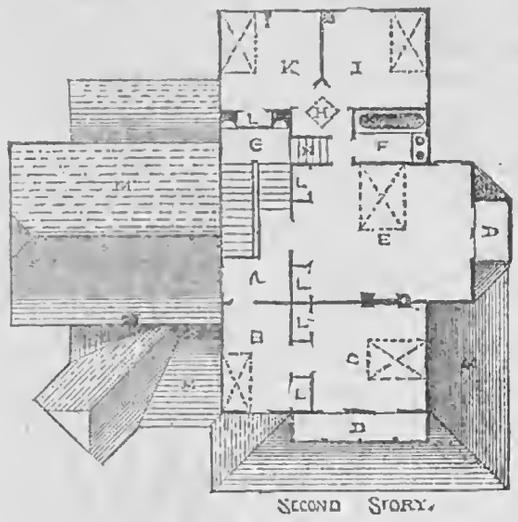
1st. The writer says "the 'axioms' are true only when certain conditions exist." But I said as much distinctly at least once, and implied it all the way. I said, "It pays to economize roof by making the barn as high as possible *without inconvenience*." Now a barn "a mile high" wouldn't be "convenient" in Ohio. Farmers here do not like to pitch hay to that altitude, and are not in danger of building barns that would render it necessary. Their "common sense" can be trusted so far. If the case is different in Michigan, my Lansing critic is right in lifting a warning voice.

2d. The "*implied* limitations" are the common sense of men, the existing (or partially obsolete) state of barn architecture, and the average size of farmers in the United States. The size of most farms here will not call for barns so large either vertically or horizontally as to require timbers materially larger, or more numerous proportionately, than those universally found in the 30x40 or 24x30-foot barns so common everywhere at the North. I shall return to this statement presently.

3d. But first I wish to call attention to the scope and character of my former articles. They were brief, not full; practical and popular, not learned; intended for farmers, not for engineers or architects: applicable to barns, not to bridges or towers. It would have been easy to fill columns with figures, formulas and "experiments on strength of materials" from a dozen cyclopedias, treatises on mechanics, and engineers' pocket or handbooks. But I think I have observed that the less a writer introduces book knowledge in an agricultural paper, the better it is for all concerned. I have also noticed that when formulas or principles are introduced from books, they should be carefully explained and "corrected" for the practical variations that occur. For instance, the writer says "A very little study would have shown him (the present writer) that to construct a barn-frame 26 feet high *equally as strong* as one 13 feet high, would have taken for all upright pieces, *nearly four times as much material*." "Then," he evidently means "for," since this is his only proof of the above statement—"it is found that the breaking load on the end of a post 13 feet high, is 11.4 tons, while that of a post 26 feet high and five inches square, is only 3.4 tons." This amounts to saying that posts half as long are (about) 3½ times as strong. But "a very little study" will show that while this is true (essentially) of posts standing *alone*, vertically, loaded on top and *unsupported laterally* to keep them from springing or bowing, and "crippling." It is absolutely untrue of posts in a

barn, supported, as they always are, by girths, beams, braces and siding, so that they cannot bend in any direction. For how does the "breaking load" on the end of a vertical post break it? Evidently in one of two ways: either by springing or bending it laterally till it splinters on the convex side, and "cripples" or crushes together on the concave side; *or* by absolutely crushing the timber into itself straight down—practically, always in the first, and never in the second way. And so practically for barn purposes a 26-foot post, kept from lateral flexure by girths, etc., (every 3½ feet, say), is as strong as a 13-foot post similarly supported. "Practically," I say, for in barns of either hight we always use (for mechanical reasons) posts and all vertical timber and lumber *immensely stronger* than are required for any vertical strain that ever comes upon them. For a 30x40-foot barn with 13-foot posts, no one uses less than 8x8 main posts, 4x4 girths, and inch boards for vertical siding. Use now exactly the same kind of material in a barn 45x100 feet and 26 feet from basement to eaves, (as large as it is profitable to build, probably, and as large as our farms ever require), and compute the vertical strength of the timber and lumber. By the figures of my Michigan critic a 5x5 post 26 feet high, unbraced laterally, will sustain 3.4 tons. But the "tensile" strengths of posts vary as the area of their cross-sections; that is, the strength of a post 8x8 inches would be to that of one 5x5 inches as 64 to 25 and the 8x8 post would therefore sustain 8.7 tons unsupported laterally from flexure. Support it midway now in both directions at right angles by girths, and, as we have seen, it will sustain 3½ times as much, or over twenty-eight tons. Support each half midway laterally again, and its strength is again more than trippled and equals over ninety tons; support each quarter laterally so that the girths shall be only 3½ feet apart and the strength is again more than trippled, and equals over 270 tons.

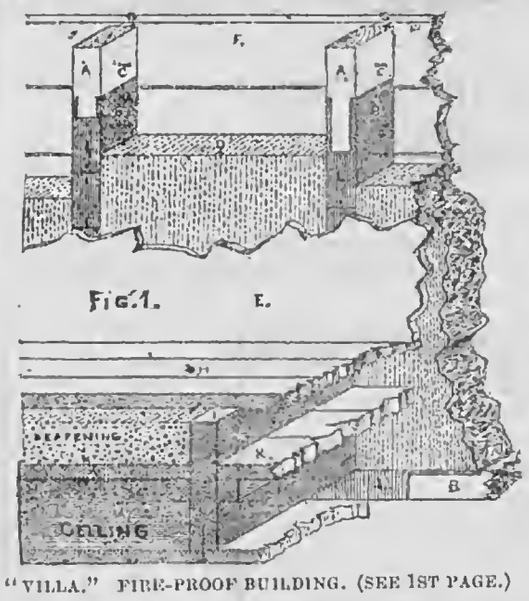
Nearly the same astonishing figures are reached "from the other end" so to speak. Haswell, Trautwine, the American Cyclopedia, and half a dozen other authorities give the "breaking load" or "crushing weight" of posts of several of our hard woods and of yellow pine and pitch pine as *over four tons per square inch* of section. This holds true when the laterally unsupported length of the post is not more than five times its diameter (of round posts) or "side" (of square posts). Now, in an 8-inch post, five times the "side" is 40 inches or 3⅓ feet, the supposed distance between the girths of our barn posts. And four tons to the square inch of a section will give 4x64 or 256 tons; nearly the same as before.



"VILLA." (SEE FIRST PAGE FOR DESCRIPTION.)

Now, in a barn 45x100 feet we have, say, six "bents" and each bent has four main posts; 24 in all, and their combined "tensile strength" will resist a "crushing load" of over *six thousand tons*. But the strength of the inch siding is yet to be added, firmly nailed as it is to the plates, girths and sills and parts of it to posts and benches. The area of a cross-section of the siding is *more than double* the area of the cross-sections of all the posts, and therefore the siding may be set down as able to bear a crushing weight at *least equal* to that borne by the posts, and we shall have as the combined vertical "tensile strength" of the barn the astonishing sum of more than 12,000 tons, or twenty-four million pounds, as the weight which, if evenly distributed would crush down the vertical timbers and lumber of this barn. But "The weakes' spot' mus' stan' the strain" and engineers and architects always divide the "ultimate strength" by some number called the "factor of safety" and for a "dead load," as in this case, *four* is deemed ample. Dividing then by four we have 3,000 tons as the "working strength" of the vertical timbers and lumber, whereas the actual load they ever have to sustain is never over 300 tons—barn, contents and snow on roof all told. And be it remembered the timbers, etc., were supposed to be of the same size, and same (really less) proportionate number as those universally used in barns of about one-eighth the cubic contents. It thus appears that though "a very little study etc." might lead us to suppose we must "quadruple the size of all vertical timbers" a more thorough knowledge of the principles involved and of the requirements and existing facts o the cases considered in my former articles, and of the practical application of the former to the latter, will show that within the existing limits of our American agriculture, no material increase will be required. A similar computation will show the same to be true of the horizontal and roof timbers involved in the 2nd Axiom, and I hope to find time to give it in a future article with diagrams and definite computations.

The above computations are made on the suppositions that all posts, etc., are supported laterally, so as to be absolutely free from lateral "sag" or "flexure," which is not strictly but only approximately true, especially of some interior posts. But abundant allowance is made at almost every step of the figuring, in the "factor of safety," and in the final division *by ten*, to reach the "actual load."



"VILLA." FIRE-PROOF BUILDING. (SEE 1ST PAGE.)

My use of the word "axiom," against which the writer protests, was fully explained at the outset. After defining the word, I said, "Sometimes, however, our attention must be called to it (a given truth) before it is seen to be 'self-evident.' This is the case with some of the axioms of barn-building, to which I propose *to call attention*"—just what I did, no more, no less, by means of a single simple diagram for each briefly and simply *explained*, not argued or debated. I beg pardon for adding that constant use of "axioms" for fifteen years of my life in the school and college recitation rooms, both as pupil and instructor, had not left me ignorant of the meaning of the word. I chose to use it rather in its original sense, as shown by the Greek word from which it comes—a thing "worthy" of belief. And I have noticed that many of the "axioms" of science,—natural, physical, political and intellectual as well as mathematical—are not only not seen to be "self-evident" till attention is called to them, but are constantly disbelieved, or at least disregarded in practice.

Summit Co., O.

Farm Topics.

NOTES FROM THE RURAL FARM.

Mr. Augustus Hewlett is a near neighbor of ours. He is sixty years of age, and has earned the reputation of being "the best farmer on this part of the island." There is no pretense, no fancy farming, no "highfalutin" anywhere to be seen. The buildings are commodious and substantial. They have been built with an intelligent design simply to subserve, in the most economical, labor-saving manner, the uses for which they were intended. Everything—the hennеries, barns, sheds, roads, vegetable and flower gardens, fences—show that there is just that amount of work employed which is necessary to keep all in that grade of systematized order which will bring the most profitable results from the capital invested. Many good farmers have hobbies, so that from a walk over their farms it is easy for a stranger to tell in what department of farm industry the owner is most heartily interested. Not so here. Work, and a sufficiency of it, is given where most needed, and the remotest part of the farm fares as well as that which is seen by visitors or the passer-by. Let us first remark upon the

Orchard.

The apple trees are about twenty years of age, and not more than twenty-five feet apart. Every two years the soil, which is a sandy, somewhat gravelly loam, is covered with from three to four inches of coarse, salt-meadow hay and drift. This preserves the moisture during droughts, and prevents all weeds and grass from growing. Fowls (all Black Cochins) are permitted to scratch in this hay and devour the worms and insects which there accumulate. The earth thus scratched bare one day will be covered the next by the fowls, which know that their food is to be found most plentifully *under* the hay. Thus the entire covering is turned over, so to speak, as often perhaps as once a week; the soil is exposed to the air and fungoid growth to a harmful extent prevented. This hay, of course, undergoes a slow decomposition, so that at the end of the second year it is plowed under, supplying all needed manure to the trees, when it is at once replaced by a fresh covering of the same material. Mr. Hewlett, whose satisfaction with his methods is not so great as to lead him to exaggerate their good results, estimates that in a series of years a one-acre orchard so treated will yield as much fruit as a three-acre orchard in grass. About young trees growing here and there he lays shingles or the bark of trees, six inches or more wide, covering a circle six feet or more in diameter. This is intended to serve as a mulch in place of hay, which the fowls would at once scratch away, as they are permitted to roam whithersoe'r they will.

The round-headed borer (Saperda bivittata), the great enemy to apple trees here, is prevented from depositing its eggs by the use of linseed oil, in which a small quantity of lead is mixed—just enough to show color, in imitation of the color of the bark. It also forms a thin, glazed coating, rendering the paint more durable and effective than if the oil alone were used. A band is painted around each trunk, beginning just beneath the earth, a foot wide. Mr. H. does not believe that the borer is kept away because the paint or oil is offensive to it, but because it effectually conceals the bark from the recognition of the moth. Whitewash would prove just as effectual, he thinks, if applied often enough. But the showers of May and June, when the eggs are deposited, ofttimes wash off the lime, exposing the bark in places which may escape notice. He has used this oil for twelve years, and has never known it to harm the trees. Of course, the bark, when rough and scaly, must be scraped off before the paint is applied.

Hennery.

This is two-thirds under ground. The floor is cemented—the nests either on the floor or elevated only a foot or so above it. It is warm in winter, cool in summer, while the more uniform temperature is favorable to the hatching of eggs and the comfort of the sitting hens. He raises, as we have said, but one breed, viz., the Black Cochins. He values them for all purposes, but especially for their quiet ways, and because, though having the run of the garden, they do not, like many other breeds, destroy strawberries, tomatoes and the like. In order to avoid the necessity of cleaning the floor of the house every few days, wheat chaff is thrown upon it to the depth of three or four inches. The hens scratch about in this, keeping the droppings and the chaff well mixed, so that it is from two to three weeks before it becomes sticky or any unpleasant odor arises. Then it is placed in barrels and used in the drill as a manure for potatoes, and a very excellent manure it has proven to be.

Sweet Potatoes.

These are with Mr. Hewlett a profitable and a very easily raised crop. Furrows are plowed nearly five feet apart and filled with manure. This is then covered rather deeply, and a wide, oval ridge formed nearly a foot high in the middle. Dibble holes are made every two feet apart and filled with water. The roots are thus puddled to within an inch of the collar, about which dry earth is strewn to serve as a mulch. Cultivated in this way, he can raise more sweet than Irish Potatoes to a given area. About the first of September the family begins to eat them, waiting until early frost before harvesting the bulk of the crop. Nansemond is the variety he cultivates—has tried Peabody and deems it worthless, because it is not a *sweet* potato except in name.

Grafting Pear Trees 80 Years Old.

There are upon the good farm of which we are writing, a number of old pear trees between 80 and 90 years of age, that bore very inferior varieties of fruit. Four years ago, Mr. H. began to top-graft them. The old branches were sawed off horizontally about 20 feet from the ground, and they were then grafted by what we have many times referred to and described as "*bark* grafting." Many of the stocks were as large as from three to five inches in diameter, so that any other style of grafting would have been quite impracticable. The bark, as soon in the spring as it will separate from the wood, is cut vertically the same as in budding. The cion is then beveled rather abruptly, so that when inserted between the bark and the wood and pressed down half an inch or more, it will make an angle with the stock of about 25 degrees. From three to half-a-dozen cions were inserted in each stock, according to size, and the whole covered with grafting wax—bast or bandages of any kind are not needed. Grafted in this way not one cion in 25 failed. It is worthy of note that in some instances the *entire* heads were cut off at the same time, so the "pumping" process was left to be carried on by the growth from the cions alone and such suckers as appeared here and there. Four years ago this summer the first of these old fellows was grafted to Bartlett. Last summer (*i. e.*, the third year), it bore three-and-a-half bushels of pears. Another was during the same season grafted to Louise bonne de Jersey. This bore moderately last year. The others have since been grafted to Lawrence and Mt. Vernon.

NOTES FROM THE RURAL GROUNDS.

Additional Strawberry Notes.*

DUNCAN.—Last year's remarks as to this, need not be changed owing to this season's observation. Medium size, good flavor, quite prolific, moderately firm and the earliest sort we have tested.

DUCHESSE.—Average rather larger than Duncan. Ripens nearly with it. More prolific. Not easy to separate the calyx from the flesh.

FOREST ROSE.—Fruit averages large; of an obtuse-conical shape; of superior quality. Ripens through a longer term than most other varieties. The fruit-stems are strong, often holding up from six to ten large berries. Berries firm, light red in color. Vines vigorous, though complaints were made last year that they rust and burn.

CRESCENT SEEDLING.—Our report of this berry will not support the many flattering things that have been said of it. It is marvelously prolific; there is no doubt about that, but a majority of our vines are so weakened by overbearing that they lose their leaves and the berries wither. The berries average small, and the calyx clings. We have just counted (June 15) 126 berries, ripe and unripe upon one plant. But they are sour even when over-ripe. Under field culture or in matted rows, no doubt the Crescent will prove a profitable market berry, since productiveness and firmness are alone required for that purpose.

SHARPLESS.—Probably no other of the newer berries was more praised than this, last year. It is with us one of the latest. The plants are, under high cultivation, over-vigorous. The quality of the berry is fine, the size among the largest and the shape of all sorts, as our engravings (on page 408, this number of the RURAL) will show, the specimens for which were picked June 15 when the berries were still growing as fast and ripening as well as at any previous time. Whether it is a characteristic in other soils or not we cannot say, but here the peduncles shoot out, as we have said, like runners, so that a covering or mulch is the more desirable. The berries are firm, the plants fairly productive. All things considered, we place the Sharpless as first among the newer Strawberries.

GOLDEN DEFIANCE.—Rather late. Plants of sufficient vigor. In bearing a long time. Berry plump and of good flavor and perfect shape, which is constant.

PROUTY'S SEEDLING.—Berry very shiny, narrowly oblong, light red, quite firm, of fair quality; plant prolific, forms few runners, ripens the same sized fruit for a long time. A good sort for family or near market.

CHAMPION.—We have heard this variety so praised that we are unwilling to judge it from our plants, which were set out last fall. We may say, however, that the few berries borne are of goodly size and late in ripening.

Mr. H. Marvin, of Michigan, sent us last fall a dozen plants of an unnamed seedling, which were planted October 3. It seems to us, from a test necessarily not in any way conclusive, that it is a very promising seedling. The berries are many and large, of perfect shape and excellent flavor.

Glendale, Windsor Chief, Cinderella, we can not yet report upon. President Lincoln, Beauty and Great American have again done but poorly here.

Of all the above-mentioned, we should at this time and for this place arrange them in the following order of merit for family use: Sharpless, Prouty's Seedling, Forest Rose, Marvin (unnamed) Seedling, Golden Defiance, Duncan (for earliness), Duchesse (also for earliness), Crescent Seedling.

Sterling, Kerr's Prolific, Harrington Market, Belle de Lyons, Captain Jack are for this place in no respect superior to older sorts. These five varieties we have fairly tested, and shall now discard as unworthy of cultivation.

PIONEER.—The portrait of Pioneer, one of Durand's seedlings, is from an average-sized berry which we begged from Mr. Peter Henderson, who places it *first* in his list among the cream of all Strawberries. We asked him why he placed it first, and his reply was, as we stated last week: "Because, while it is as good and as large as Monarch, it is the earliest berry I am familiar with," or words to that effect. This is high praise, and we hope the berry will merit it, wherever grown. Mr. Durand is said to have devoted years to the crossing and cultivation of strawberries, and to have raised thousands of seedlings. It were a pity if nothing better than the Great American and Beauty were to reward him for his labors.

CHARLES DOWNING.—On the 13th inst., during a visit to the Rural Farm, we called upon a neighbor, Mr. Peter T. Hewlett, a respected farmer and horticulturist, eighty-six years of age. The family showed us a bed of Charles Downing Strawberries, about thirty feet square, made last spring, in April. Onions had been grown there for six years previously. Old farm manure was spread over and spaded un-

* See Rural New-Yorker of Sept. 7, last, for illustration of those varieties not here shown.

der and the plants set two feet apart each way and the runners cut off when they appeared. We have never seen a bed of strawberries that seemed to us of more value, whether size, quality or productiveness were considered. We have seen larger berries, but never before so many large ones, never before such uniformity in size in any bed of equal area. We walked over the plot to find the *largest* berry for an illustration. But there were no "largest berries." All that were ripe were nearly of the size of those represented—the two showing the slight variations in their form. It is a splendid variety, and while growing moderately well everywhere, attains very nearly to perfection in a rich, light soil, which is the character of that of the plot of which we are writing. Another plot in the same garden has been in bearing four years, and, except in a few plants, shows no signs of decadence. We have cultivated the Downing here for the past five years, but our soil and climate are not such as to develop its best traits.

Farm Economy.

FARM WORK FOR JULY.

HAY AND SEED WHEAT.—July is upon us with its long days and oppressive heat. In many portions of the country there is still much hay unent. It is rapidly going to seed, exhausting the roots and becoming of poor quality as the woody fiber increases in quantity. Cultivate corn frequently till the tassels appear. During July the wheat harvest will be successively under way in the various parts of the country. Before cutting, select a piece of the best. Save it by itself, and from this pick some of the best heads by hand for raising improved seed. This will help to prevent wheat from "running out."

INSECTS.—With increased heat insects are numerous and lively. There are so many such foes that a farmer in these days cannot keep up with the times unless he makes it part of his business to wage a systematic warfare on insect enemies. Caterpillars must be hunted and destroyed; white hellebore dusted on bushes infested with the currant worm; Paris-green applied to trees to kill canker worms; trees rubbed over with thin soft-soap to kill bark lice; Paris-green or London-purple in water sprinkled on potato tops; bands put about trees to catch codling moths; the plum trees still jarred to catch the curculios. In the vegetable garden there must be a constant warfare.

VEGETABLE GARDEN.—Keep planting a succession of some vegetables such as will be wanted late in the season, as corn, beets, cabbages, lettuce. Keep cultivating every week at least once, to prevent the weeds from getting a start. There is no royal way to kill weeds; but the nearest way to it is that of very frequent cultivation. Sweet potato vines at the North should be lifted occasionally to prevent them from rooting. Cultivate melons and squashes often as long as the vines will permit. Celery plants should be set out. Place them in soil which will not dry out. Celery is a marsh plant. Break the flowers off from rhubarb to prevent it from seeding, as that weakens the plants. Tomatoes should be trimmed and some low trellis placed near to keep them off the ground.

SMALL FRUITS.—Strawberries will be plowed up after fruiting, unless another crop is expected. If they are to remain another year, give good cultivation. Some fine manure should be added, and the runners kept cut off. Thin out and remove the old canes of Raspberries and Blackberries as soon as the fruit is ripe. Cut the tips of the new canes when about two feet or two and a half feet high, and cut the branches after they have grown a foot or more. Treat suckers as weeds, unless they are desired for planting.

This is the time to layer many plants. A liberal supply of small fruit is an essential part of a good living. It is now possible to have a supply the year round by canning. The house-wife will now be laying in a stock of currants, gooseberries, cherries, and raspberries.

Grape vines will need cultivation for a month yet. Some of the new wood should be pinched off, and some of the smallest branches cut off while young. It is a serious damage to any young vine or tree to bear a heavy crop.

MISCELLANEOUS.—Keep every thing growing in July; trees, shrubs, and young cattle. Attend to trees which were set in spring. Cultivate often if not mulched liberally. Flower beds will often do best if the land is well mulched with fine manure, or even manure a little coarse. Thin Apples, especially where they seem small or too full. It will pay. Attend to the grafts, and cut away limbs which shade too thickly. Rub off young twigs which start where they are not wanted. A little pruning of fruit trees may be done at this time. Mow the lawn often, even a little piece of it just about the house will add much to the beauty of a farm. Take good care of the flowers and shrubs. A few well cared for are far preferable to many poorly attended to. It is a good time to clip evergreens. They need not be formally sheared, but a limb may be cut back here and there to a crotch. The new growth, if cut in two at this time, will set liberally with buds for growth next year. Cut the tops off at least of most sorts, and the bottom will grow the thicker.

GO A-FISHING—The days are long and the work is hard. Do not neglect to take a little recreation now and then. This is especially for the younger members of the family. Even the girls generally like fishing. Perhaps some other recreation may be more agreeable. Very well, anything for a rest once in a while. The mind and body will be all the better for it, and labor will be more cheerfully performed after a day or two of rest.

FEEDING ROOTS TO CATTLE.

THERE is a general want of knowledge in regard to the proper method of feeding roots to cattle. When the roots are grown and well saved, it is of great importance that they should be economically and healthfully fed. The great objections to the use of roots are that it is supposed to be necessary to cut them, and that they are so mixed with earth as to be injurious to cattle, unless laboriously washed. Both of these objections are gratuitous. Mangels and beets contain from 88 to 95 per cent. of water and are very soft in texture, more especially when well grown and large in size, and are easily bitten even by sheep. But it is better to cut them into slices, or run them through a machine which shreds or pulps them. There is then no danger whatever that an accidentally large morsel may choke an animal.

FIG.1.

The work of cutting the roots is easy, and may be done quickly. For five to ten head, it is sufficient to use a spade or shovel with the edge ground sharp. The roots are thrown into a box and 10 bushels may be chopped with ease into slices in as many minutes. A tool made as shown at fig. 1, having cross blades, or one with parallel blades as at fig. 2 may be used. In the latter case the blades should be set so that the cutting edges are closer together than the upper edges; this prevents the slices from becoming fast in the spaces. Heavy blades will make the cutting easier, and it is only necessary to have the edges of steel. To shred the roots a different method is necessary. For the use of those who have many cattle and feed a large quantity of roots, there are machines made which reduce the roots to a pulp, in which condition they may be mixed with the cut hay, straw or corn-fodder and meal, making a very convenient food. The mixture of the succulent roots with the dry fodder is better for both, and renders the former unobjectionable on account of their bulk or watery character.

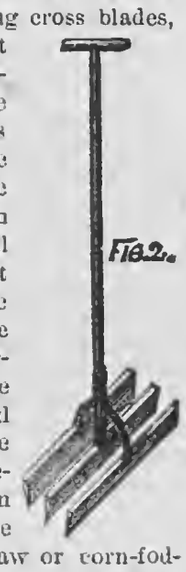


FIG.2.

A very simple root-pulper may be made as follows: A disc, two feet in diameter, is made of hard-wood plank (fig. 3) and filled with teeth made of quarter-inch steel bar ground to a slight bevel, as shown in the illustration. (a fig. 3). This disc is fitted into a box, as shown at fig. 4, and the roots, being thrown into this, are ground into pulp by the action of the sharp teeth, and the pulp is dropped in a box or basket placed under the machine, in which it can be removed for use. A different method, more frequently used, consists in the use of a cylinder armed with similar teeth and fitted in a box, changed somewhat to suit the action of the cutter. The cylinder is shown at fig. 5, and should be made of a piece of hard wood, 12 inches in diameter. The teeth in both cases should be made to just clear the lower edge of the box, so that the roots can be ground up to the last fragment.

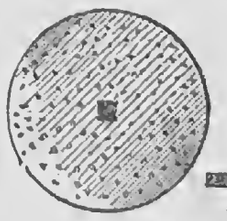


FIG.3.

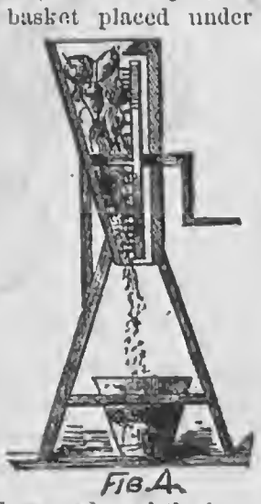


FIG.4.

The second objection, will never be urged by those who have experience in using roots, except under exceptional circumstances, such as unfavorable weather during harvesting, and when the roots are grown upon clay soil and are necessarily gathered while the soil is wet. Roots should be grown upon the lightest soil, to be chosen when the farm is clayey; and when the soil is sandy loam there is no difficulty in regard to adhering soil, if dry weather is chosen for the gathering. Then the roots are turned out either by the plow, or pulled out by the hook or the hoe, with no soil adhering to the fibers, unless these are unusually numerous and close. Mangels are remarkably free from these, and can usually be harvested in a perfectly clean condition. If adhering soil cannot be avoided in the gathering of the roots in wet weather, they may be left to dry upon the ground and in the handling during loading and packing in the pits and removing to the cellar or barn for use, much of the soil becomes loosened and is got rid of. At the worst, the roots should be washed free from soil, but it is very rarely that this is found necessary.

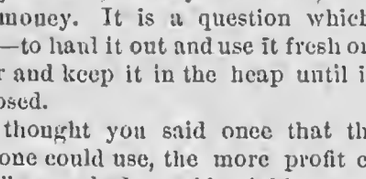


FIG.5.

HISTORY OF A POOR FARM.—No. 11.

Management of Manure.

IN SOILING cattle, the production of manure is very large and continuous. To handle it over several times for the purpose of decomposing it and getting it into such a condition for use as is generally supposed to be proper among farmers, is very laborious, and labor costs money. It is a question which is the better—to haul it out and use it fresh or to turn it over and keep it in the heap until it is decomposed.

"I thought you said once that the more labor one could use, the more profit could be made," remarked my old neighbor.

"The more labor that can be used *productively*, the more profit," I replied; "a man may dig holes and fill them up again, day after day, and yet produce no useful effect; while, if he plants a fruit-tree in each hole, and tends it well afterwards, the more he does, the better it is for the world and himself. Labor may be thrown away uselessly, and often is, in turning over manure and making it as is generally supposed, fit for use. I think manure is fit for use the moment it is taken from the stable; the only question is, can we make it better or more available by turning it over and keeping it rotting in a heap for some months before using it?"

"The decomposition of organic matter—such as stable manure—is a resolution of the matter, into its mineral and gaseous constituents; and as vegetables feed only on soluble mineral and gaseous matters, the decomposition is a necessary process previous to the use of it in the field," said Doctor Jones.

"Let us have that understood," said Mr. Martin, "the doctor is too scientific by half. I suppose he means that before manure is available for use it must be reduced to its inorganic elements; the potash, lime, phosphoric acid, and nitrogen in it, must be separated by decomposition, so that they can be dissolved in water and absorbed by the plants."

"You mean it must be well rotted," said the old gentleman, "if that is what you mean by decomposition, why can't you say so plainly?"

"Let us see if I cannot explain this matter so that we can get to the bottom of it before we discuss it any more," said I. "We take a heap of fresh mixed manure, a cord, if you please, and a cord of wood: the former we pile and let it heat and ferment; the latter we set on fire and burn. There is heat in both piles, but more in the wood pile. The heat is a process of combustion or burning, as much in one case as in the other; the low heat of the manure is a slow combustion, while the fire in the wood is rapid combustion. But with both piles, the effect will be the same in the end, if the manure is given time enough to work its slow process to the same result which the rapid process of the fire produces with the wood. There will be left in the end, simply a small pile of ashes from each cord. Suppose we had a cord of dry beech wood weighing 4,000 pounds, and a cord of manure weighing the same; there would be left of each a certain quantity of ash consisting of the following, viz.:

	In the wood.	In the manure.
Amount of Ash	22 lbs.	124.4 lbs.
Consisting of		
Potash	3.6 "	20.8 "
Soda	0.3 "	6.0 "
Magnesia	2.4 "	22.8 "
Lime	12.4 "	5.6 "
Phosphoric acid	1.2 "	8.4 "
Sulphuric acid	0.4 "	4.8 "
Silica	1.5 "	50.0 "
Chlorine		6.0 "
	22.0 "	124.4 "

"There was some nitrogen and carbonic acid in each, but these have been driven off by the heat, and are lost. The result is, that if we give the manure time to become completely decomposed or thoroughly rotted, we have 124½ pounds of mineral matter or ash, only, left of the two tons. And this is all that can be made available for the use of plants from two tons of manure, except the nitrogen which we have as yet taken no account of, just as the 22 pounds of ashes will be all that is left of the wood. Now, as in combustion, everything is driven off but the ash, we shall have lost out of that cord of manure, 18 pounds of nitrogen, which at first existed in it and which ought to have been saved. It appears then, that as combustion, rotting and decomposition, are, practically, the same processes when carried to the end, a change begins to occur from the commencement, and we begin to lose the valuable nitrogen as soon as a pile of manure begins to heat in any degree. It is true that the change of unavailable organic matter into available mineral matter also begins; but here the question arises: does this advantage compensate for the loss of the nitrogen which is the most valuable part of the manure? This is the whole story as plainly as I can put it."

"It seems to me," replied Dr. Jones, "that the fact that decomposed or, if you wish, rotted manure is immediately available is worth as much to us as the little nitrogen that may be lost in the process of decomposition."

"How much is the loss?" asked the old gentleman.

"That has been ascertained with great exactness by some experiments made by Dr. Voeleker of England," I replied; "but it might be well for us to go through with this matter in some regular order. To begin, let us take the following analysis of fresh mixed barn-yard manure, kept in a heap 14 days:

Composition of the Manure (2,000 lbs.):		
Water	1,323½	lbs.
Organic matter	562	"
(Containing nitrogen	(13)	"
Mineral matter (ash)	111½	"
	2,000	"

"A ton of fresh manure, you see, contains only 13 pounds of nitrogen and 111½ pounds of ash or mineral matter, and of this only about 20 pounds, including 14 pounds of potash and 6 pounds of phosphoric acid, are of any actual value; and in drawing it to the field we carry 1,323 pounds of water, which is practically useless. Now, if we should put 10 tons of this kind of manure in a heap, and keep it exposed in the yard to the weather for 3 or 12 months, there would be a difference in quality, as expressed in the following table, viz.:

	Fresh.	3 mos. old.	12 mos. old.
Weight of manure, lbs.	20,000	17,200	11,500
Contains water	13,234	13,844	7,542
Soluble organic matter	496	200	48
Containing nitrogen	(20¾)	(13¾)	(3⅛)
Insoluble organic matter	5,152	1,984	1,142
Containing nitrogen	(97)	(78)	(41⅛)
Soluble mineral matter	308	174	66
Insoluble mineral matter	810	1,098	2,702
	20,000	17,200	11,500
Total nitrogen, lbs.	126¾	91¾	45
Equal to ammonia	156	117	58

"Now, we can put our finger upon the loss and the gain, such as it is. After three months we have, instead of 10, only 8¾ tons of manure, with 600 pounds more of water; the organic matter has largely disappeared, having decreased from 5,648 to 2,184 pounds, and the soluble mineral matter has decreased from 308 to 174 pounds, while the insoluble has increased 288 pounds. But the nitrogen has gone to the extent of more than one-half of that which was most available, and 10 pounds of the other have disappeared. The losses in the manure kept over one year are positively ruinous."

"Do you mean to say that the manure which is lying in my yard since last summer, has lost nearly all that was good for anything in it?" asked the old gentleman.

"I should say it had lost all it ever had," remarked Mr. Martin; "I saw it yesterday with a foot of water over part of it, and a stream of water soaking from it down the hill into the road."

"Yes; the wind tore the spouts off the barn, and we have been too busy to put them up again."

"Well, all that water has probably washed out of your manure the whole of the soluble organic and mineral matter, leaving it destitute of any immediately available fertilizing properties;" remarked Dr. Jones.

"Made it good for nothing, or next to that," said Mr. Martin.

"If you had used that manure a year ago when it was fresh, you would have saved every portion of it," said I; "and this puts the case very well; for the fresh manure which I am now hauling out from the cellar and plowing under for corn, is safe and cannot lose a particle of its value anyhow, even should the corn not get the whole benefit this year; while, if I had kept it as you did yours, for a year, I might have lost nine-tenths of its value at the worst, and two-thirds of it, at the best; and if I kept it only three months, it would still lose very considerably. In using fresh manure we get the whole of its value in the end, without doubt; but in keeping it over, we lose a portion and get the rest in a more quickly available condition."

"Then you think it best to use the manure as soon as it is made?" said Mr. Martin.

"It depends upon circumstances. I would not like to say that positively. I think it best for me and for any other dairyman. Some time ago I was at a large dairy farm in Westchester Co., N. Y., where 200 cows were kept, and a wagon was kept in the cellar under the trap to receive the manure from the gutter as it was raked out every day, and as soon as it was loaded, it was drawn away to the field and

spread either upon the grass or upon plowed ground and harrowed in for fodder crops. There was nothing lost there, certainly; all that was in the manure was put to use at once. But a practice, however good, cannot always be used in all cases; and some farmers must do the best they can, although they lose something by it."

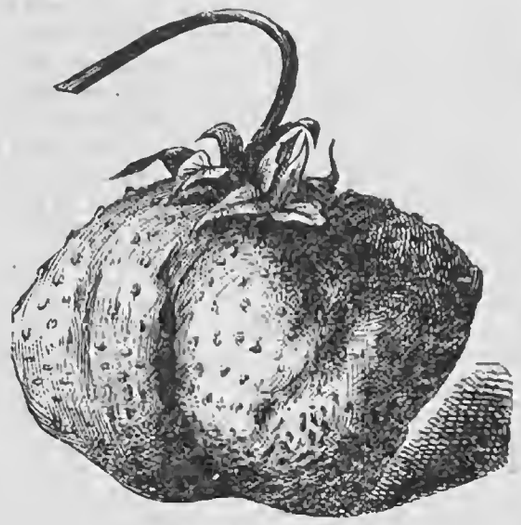
"Just as I did," replied the old gentleman.

Horticultural.

MR. SARGENT'S GARDEN.

BY A VISITOR.

Mr. Sargent's private garden at Brookline, a suburb of Boston, is one of the largest and most beautiful in the country, and famous for its extensive collection of trees and shrubs, including rare coniferæ, Rhododendrons, hardy Azaleas and many handsome deciduous trees. Certain kinds of greenhouse plants, as Indian Azaleas, Palms and Agaves, are also a specialty. About the end of May and first of June is the heyday of Azaleas and Rhododendrons, and in order that the public may avail themselves of such a floral treat, Mr. Sargent at this time freely opens his garden to the public, who greatly appreciate the kindness. And in order to make it more comfortable for visitors as well as to display the plants to better advantage, the Rhododendrons and Azaleas, relieved by graceful Palms, are tastefully arranged in beds and clumps under a spacious tent on the lawn, where also seats are placed whereon to rest and admire.



Sharpless, No. 1.

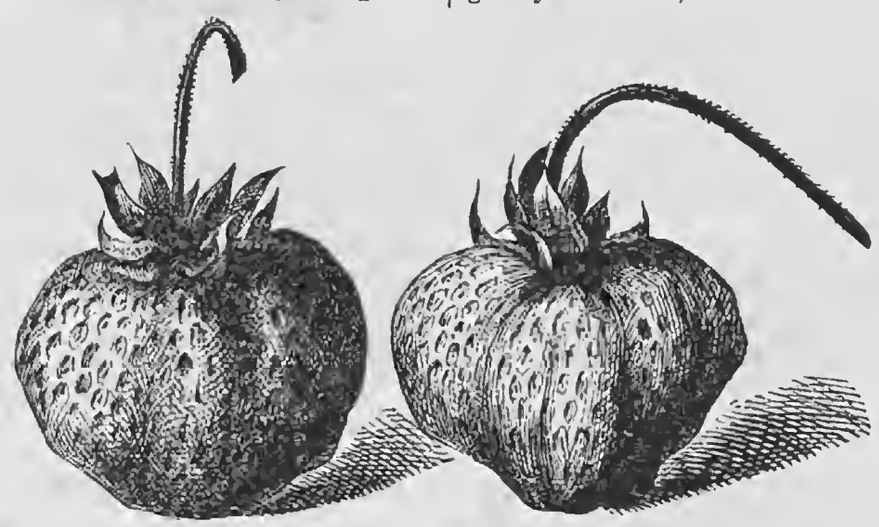
The greenhouse Azaleas are grown in pots, but the pots being plunged out of sight in the grassy turf, only dense floral pyramids, umbrellas and cushions, varying in color from the purest white to the deepest red, are left to view. As a rule, the azalea season would be past by this time, but Mr. S. retards the flowering period of his plants by wintering them in cold-pits, and otherwise, so far as he can denying them premature excitement. Chief among them are King of Holland, Decora, Bride of Abydos, Iveriana, Exquisite, Beauty of Europe, Criterion, Variegata, Flower of the Day, Crispiflora, Beauty of America and Daphne. Scores of plants of that exquisite hardy Japanese species, A. mollis, also honor the occasion. They are covered with creamy-white, yellow and pink flowers, and the tiniest plants blossom.

The Rhododendrons within the tent, are mostly those that are barely hardy enough to survive uninjured our winters out-of-doors. They are wintered in pits, sheds and cellars, transposed to their position under the tent during their blooming season, and then transplanted thence to a faintly-shaded place during the summer. This treatment they bear well and annually lift with better earth-balls. Among the finest are Mrs. John Clutton, white; the Queen, white, changing to blush; Purity, white; Chancellor, purplish lilac; Kettledrum, purplish crimson; Mrs. Milner, crimson; Charles Dickens, dark scarlet; Everestianum, rosy lilac; H. W. Sargent, crimson; John Walter, rich crimson; Michael Waterer, deep rose; Joseph Whitworth, rich lake; Stella, pale rose, with dark blotches; Eclipse, very dark; Katie Waterer, delicate rose; and other beauties, as Anstiu Layard, Mrs. Layard, Wm. Cowper, and the like. Mr. S. regards Lady Eleanor Cathcart as his prettiest Rhododendron, and next to it, Katie Waterer; but my own taste reverts to such intensely dark kinds as Joseph Whitworth. W. E. Gladstone has immense rose trusses, the individual blooms of which are the largest in the collection.

In the beds of hardy Azaleas are interplanted hardy Lilies of many kinds, Hyacinthus candicans, Tigridias, Narcissus, of sorts, and other bulbous plants, and thus a succession of blossoms is maintained during all the summer months. The Lilies, too, seem to enjoy the deep, cool soil of the rhododendron beds around the pond.

A north-and-east-facing bank near Mr. S's. residence, is planted with Rhododendrons, and there are also large beds of them in the neighborhood of a pond in the pleasure-grounds, and from them some curious facts may be gleaned. R. album elegans, a. grandiflorum and other whites usually considered hardy, were considerably injured last winter, whereas such kinds as Everestianum, Alex. Dancer, Charles Dickens, H. W. Sargent and Chancellor, occupying the same beds and growing under the same conditions, have not lost a leaf or bud, but look the very pictures of health.

The garden and pleasure-grounds, comprising some 130 acres, are naturally rolling and



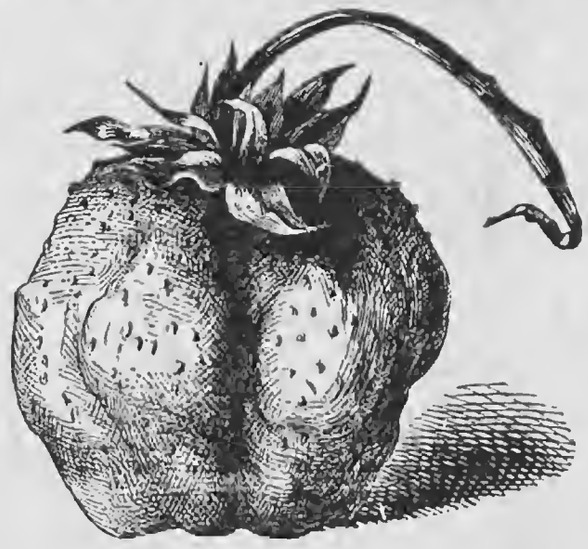
Charles Downing Strawberries.—(See Notes from Rural Grounds, p. 406.)

artificially much enhanced in beauty. Wherever a knoll came in contact to obstruct a view, it has been removed, divided or toned down, imperceptibly, as it were, but with pleasing result, and consequently many fine views of the surrounding country are commanded. The grouping of trees and clumping of shrubs are so disposed as to add tellingly to the effect. Beds are filled with Japanese Retinosporas which are perfectly hardy, and interspersed with Lawson Cypresses.* English Yews and some other less hardy plants, which require cellar or cold-pit winter protection. I also notice that beds which used to be filled with Cannas and other sub-tropical plants, are now permanently filled with hardy evergreen conifers, a change I thoroughly indorse.

Deciduous shrubs are very satisfactory, and just now masses of them are aglow in color. The copper-leaved Japanese Maples are as telling among shrubs as are copper Beeches among trees. Zanthoceras sorbifolia, "new," handsome and hardy, is going out of bloom; Viburnum macrocephalum, handsomer than any Hydrangea, is at its best; many kinds of "new" Weigelas—little bits of things imported from Belgium last year—have grown like Willows, and are full of flowers. Spiræa trilobata in sunny places are perfect snow banks; Paul's double, scarlet Thorn grows thriftily, but so far blossoms sparingly; the bold habit and handsome leaves and flowers of Rosa rugosa commend it for shrubbery clumps; Viburnum lantanoides, though a native, is, nevertheless, at this season one of the handsomest of garden shrubs; so is the Cockspur Thorn, with its wide head of horizontally-disposed branches covered with showy white flowers.

But one of the most commendable features of this garden is the beautification of the wild or uncultivated spots. Such corners and belts are thickly studded with Daffodils and Narcissus, of sorts, Squills, Tulips, Crocuses, Snowdrops and other bulbous plants, Forget-me-nots, English Primroses, some of our bolder composites and many other introduced wild plants.

Mr. Sargent's farm dairy is one of the neatest and most beautiful I have ever seen, and though perhaps beyond the means of the majority of farmers, it is a handsome model for the wealthy, and its arrangement may be equally suggestive to all. But as this is a strictly private department of Mr. S's. establishment, perhaps I have no right to mention it, and I would not, did I not know that his generosity for the welfare of mankind is equally extensive.



Sharpless, No. 2.

Sharpless, No. 3.

Our Strawberry Cuts.—As a rule, the pictures of strawberries and other small fruits displayed in catalogues, are not portraits, but fancy sketches. The faults are smoothed over—the size exaggerated. The above cuts *are* portraits and the reader may safely judge them as characteristic of these varieties and of the average size which they will attain under good cultivation.

*[Does not Lawson Cypress require protection?—Eds.]

Arboricultural.

EVERY-DAY NOTES,

SAM'L PARSONS.

Spiræa Trilobata.

One of our common Spiræas has pleased me greatly this season, viz.: S. trilobata. Though long familiar with the plant, I had, apparently, never before so fully realized the charm of the graceful curves of the branches, the delicacy of the leaves and attractive set of the flower. Spiræa Reevesiana is always beautiful in late spring, both in flower and general habit. It has, indeed, gained the lovely name of Bridal-wreath Spiræa, but to me either S. Thunbergii or S. trilobata merits more justly this honorable title. S. trilobata bends almost into semi-circles, its branches laden with exquisite rosettes of pure white flowers. Scarcely any cluster of sprays is more beautiful for the decoration of rooms than the curving branches of this Spiræa. The delicate texture of the leaf is also curious and very exquisite in its way. Old shrubs, like these, should not be neglected, which I fear is too much the case with S. trilobata. It may not be amiss to note here the importance of pruning Spiræas immediately after they are done flowering. Not only is the bloom rendered more abundant by thus pruning, but the foliage also is greatly improved.

Summer Pruning.

If every one does not know, every one ought to know, that now is the time to cut back the hardy Roses which have just done blooming. Perhaps, also, it is not known to every one that only in this way can a second series of flowers be obtained of any value on the so-called Hybrid Perpetual Roses. Early summer should be a busy time on the lawn in more ways than cutting grass and hoeing weeds. Summer pinching and pruning must be followed up continually, and decayed flowers removed from even Rhododendrons and Azaleas, although otherwise such plants require little pruning.

Rose Bugs.

The present season has brought us a sad pest of rose bugs. Roses generally have been so much injured thereby as to prevent many persons from exhibiting at our yearly rose show for lack of Roses fit for the purpose. The rose bugs had entered in and taken possession. Every one naturally asks: "What is the remedy for this evil?" "What will bring dire destruction on rose bugs?" Of course, numerous ways of getting rid of them are put forth, among which I hear much in favor of turpentine, and especially of picking them off by hand. Yet I imagine many people this year give up the difficult problem in despair.

The Rocky Mountain Columbine.

One of the most beautiful flowers I have blooming in my grounds at present is the Rocky Mountain Columbine—Aquilegia cœrulea. Blue is always charming in flowers, partly, doubtless, from its novelty. The contrast in this case of the white petals with the blue calyx, renders the plant still more remarkable. Odd in form, like all Aquilegias, it seems to be one of the largest of the species, and is, indeed, a very uncommon flower. Remaining in bloom for weeks, it is suited to almost any spot; for it does not grow tall, and adapts itself to very ordinary soil. Indeed, it forms a worthy example of the positive value possessed by hardy herbaceous plants for permanent ornamentation of lawns. We want Geraniums and Coleuses, but do let us have as much variety as possible in our lawn effects. Bedding out plants surely do not make up the sum total of a lawn.

Field Crops.

CORN AND ITS CULTURE.

PROFESSOR A. E. BLUNT.

I am aware that people generally, if they have some extra-fine premium seed, are apt to overdo the thing trying to make it yield enormously. Perhaps it is not too late to give readers of the Rural a hint about corn and its culture.

In some localities there is as much danger of manuring too much as of manuring too little. Corn will not bear being surfeited. It will surely "founder," and grow nothing but stalks. Anybody can make stalks, but everybody cannot make grain. It is a difficult matter to draw that fine line between the manuring that makes stalk food and the manuring that makes the grain. Corn demands but a little wholesome food when properly given. As more than fifty per cent of corn is made up of carbohydrates, cellulose, etc.—the very elements every farmer has on his land—he should endeavor to fertilize his crop with a compost as nearly as possible like that which his corn, grain and stover will make when decomposed. It may be applied to the surface or plowed under. If old and well rotted, apply it to the surface and cultivate in. As no plants will take up green manure, great care should be

Pioneer.

taken in preparing a corn compost. The roots of corn are so delicate and fastidious—if I may use the word—that all plant food must be reduced to a hygroscopic—vapory—form before they will take it up; hence the necessity of exercising great care in manuring and cultivating corn. Highly concentrated commercial fertilizers may be of great benefit, if discretion is used in their application. The safest course for the farmer is to make and apply his own composts. In dry climates level is much better than hill culture. The soil retains moisture and the roots are not exposed.

My Improved Prolific Corn has been successfully raised in almost every State, and I hope the seed the Rural New-Yorker has sent out may be of great benefit to the farming community. In improving and bringing it up to its present reputation, I have endeavored to make as little stover and as much grain as possible. By selecting and saving the seed, by crossing, root pruning, by properly fertilizing and cultivating, the grain has been made much more abundant and better, and the stover smaller and finer. I shall persist in making it better still, if the Colorado climate will permit.

I hope every farmer will take pains to keep up his seed by selecting it in the field and by careful cultivation. As all seeds "run out" or deteriorate by careless selection and thriftless saving, manuring and cultivating, it behooves every one to institute a better system of culture. Put in less land and attend to it better. Put your brain-work and manure on a smaller acreage, and your hand-work will be less heavy, more satisfactory and more remunerative. I have four acres of my Prolific Corn planted. It is doing well. On one acre and a half I have 35 (24 pounds) varieties of spring wheat now nicely heading. I have already cultivated it twice. I also am testing 110 kinds of Irish potatoes.

State Ag. College, Fort Collins, Colorado.

Miscellaneous.

JOTTINGS AT KIRBY HOMESTEAD.

COL. F. D. CURTIS.

Breeding for Sex.

We have received a number of letters from different parts of the country inquiring if anything can be done to regulate the sexes in breeding cattle.

There are several rules which have been practiced, but the exceptions attending their observance are almost, if not quite, equal to the successes; so that we are of the opinion that there is no infallible rule or system of breeding which will control the sexes. The latest theory is the so-called Stuyvesant, which is based upon the idea that every heat in cows is different, and that if the young is a male, at the next heat a female would be born if copulation should take place, and that at each heat there is an alteration of sexes. This system is too full of exceptions to be relied upon. Copulation at the beginning of the heat is said to produce more males, and at the moving off, more females. When the male is fed high and is in a lethargic condition, it is claimed that he will beget more female than male offsprings. Old bulls are preferred by some, for the same reason. Some cows will produce all heifer calves, and others all bulls, and some will alternate; so that it seems that the rule still holds good which tells us that "male and female created He them." Jersey cattle are more precocious than other breeds, and heifers often have young when less than two years old. They also have a larger proportion of males. Colors can be regulated, on the principle adopted by Laban, who produced cattle "ringed, streaked and speckled," by the streaked sticks set before them. A noted Jersey breeder, William Crozier, almost uniformly breeds cattle of solid color by placing a cow of this kind before the one to be copulated, and at the time of copulation.

The fact that females are worth twice as much as males, makes the subject of breeding for sex important to breeders of thoroughbred cattle, and the mystery connected with it makes it an interesting study. It seems as though there must be some general law, but it is as yet undiscovered.

Catalpa Trees.

Our catalpa seedlings were dead at the tops where the wood was soft and immature, but the main portions of the stems were healthy, and already they have grown a foot. As we are one degree north of where this tree is said to live and do well, we are watching our seedlings with a great deal of interest. Robert Douglas, the well known and successful tree man of the West, has sent us some of his Catalpas to test in our latitude (43 degrees). Mr. Douglas wants to test their hardiness before recommending them for general cultivation.

Poultry Care that Pays.

Our hens never did so well as during this season, and they never got such good care. With half the farmers their fowls cost them more than they get from them. They feed them just enough to keep them alive and to enable them to lay an egg now and then. When a dry time comes, very likely they do not have any water, and hens without water do not do well. They should have plenty of clean water always accessible. It is the extra feed an animal gets over and above what is required to sustain life, which makes the profit. With poultry it will make eggs in the season, and with all animals flesh, which is gain, and the gain is the profit.

Cutting Orchard-Grass.

To-day, June 10th, we have been cutting orchard-grass—Dactylis glomerata. It is just right now for excellent hay, but if left until timothy and other grasses are fit to cut, it would be spoiled. This is the principal reason why this grass is not liked by many. They are not ready to harvest it at the proper time, as they are unused to its prompt nature. In a week there will be a good bite of aftermath where we have cut the orchard-grass, and as often as it is eaten off there will be a renewal. In a dense shade it stood three feet high. It is the best grass for shaded places; hence the common name, Orchard-grass.

Keeping Qualities of Sorghum.

Esquire Davidson has proved the keeping qualities of sorghum syrup. Twenty years ago he put some syrup in a bottle and set it away. It was forgotten until now, when it was opened and found to be as sweet and good as when first made.

CONNECTICUT AGRICULTURAL EXPERIMENT STATION.

BULLETIN 29.—JUNE 13, 1879.

Fertilizer Analyses.

274. Stockbridge Tobacco Fertilizer. Sampled and sent by Charles Sanford, Roxbury, Ct., from a quantity purchased of agent and received from W. H. Bowker & Co., 3 Park Place, New York, May, 1878.

	Composition per 100 lbs.—per ton.		Guar. per ton.
Sol. Phos. Acid	.73	14.4	16
Rev. Phos. Acid	.71	14.2	
Insol. Phos. Acid	.27	5.4	
Potash * (as Sul'ate)	7.36	147.0	172
Chlorine	1.34		
Nitrogen as Am'nia	2.85	114.0	119
" of org'ic matter	2.85		

* Valued at 9 cents per pound

Estimated value per ton $40.94
Cost per ton 50.00

276. Dry Ground Fish. Made by Quinnipiac Fertilizer Co. Sampled by Experiment Station, May 26th, from stock of R. B. Bradley & Co., New Haven.

278. Dried Blood. Made by S. E. Merwin & Co., New Haven. Sampled by Experiment Station, May 26th, from stock of R. B. Bradley & Co.

285. Ivory Dust.

286. Buffalo-horn Dust.

285 and 286 were manufactured by F. S. Johnson, Blainville. Sampled and sent, May 29th, by Jacob W. Hemingway, Plainville.

STATION ANALYSES, &c.

	276	278	285	286
Nitrogen	8.18	7.21	5.28	14.44
Phos. Acid	6.40	8.88	24.65	
Est'd value of Fertilizer ℔ ton	$41.88	$41.27	$52.67	$43.32
" Nit'n ℔ lb.	.20	.20	.18	.15
" Phos. Acid ℔ lbs.	.07	.07	.07	
Cost Fertlizer ℔ ton	$40.00	$38.00	$30.00	$30.00
" Nitrogen ℔ lb.	.19	.17	.10	.10¼
" Phos. Acid ℔ lbs.	.07	.06	.04	

The considerable discrepancies between the estimated value and cost of 278, 285 and 286 are partly due to peculiarities of these articles, which affect the popular estimate of their agricultural value. Dried Blood is apt to prove "flashy" from its high state of division, while ivory dust and horn shavings are each perhaps the slowest of their class to become available, on account of the density of their structure. Blood is likely to give the best satisfaction when the weather that follows its application is either cool or wet or both, while if followed by hot weather it may spend too fast to be of much use, may indeed in large doses, injure the crop. Ivory dust, like bone generally, and horn are disappointing on dry light lands, and do best on moist and heavy soils, unless they are rotted somewhat, or fermented by composting with moist loam, or loam and ashes until they heat strongly, previous to application.

S. W. JOHNSON, Director.

CATALOGUES, &c., RECEIVED.

PLANT CATALOGUE from B. S. Williams of Victoria and Paradise Nurseries, Upper Holloway, London, England. This is a pamphlet of 128 pages, containing several fine wood cuts and a comprehensive list of Orchids, Ferns, Palms and general stove and greenhouse plants, and of new plants for 1879. Mr. Williams is a well-known author of several works on greenhouse plants, and their culture. He makes a specialty of choice plants, and brings every year numerous new and valuable plants to the notice of the public. The catalogue contains particularly a large and choice list of Orchids, Ferns and Lycopodiums, a class of plants that is sadly neglected in this country.

ILLINOIS INDUSTRIAL UNIVERSITY, Urbana, Ill., sends the University catalogue of faculty and students. It contains a full explanation of the various courses and the aims of the institution.

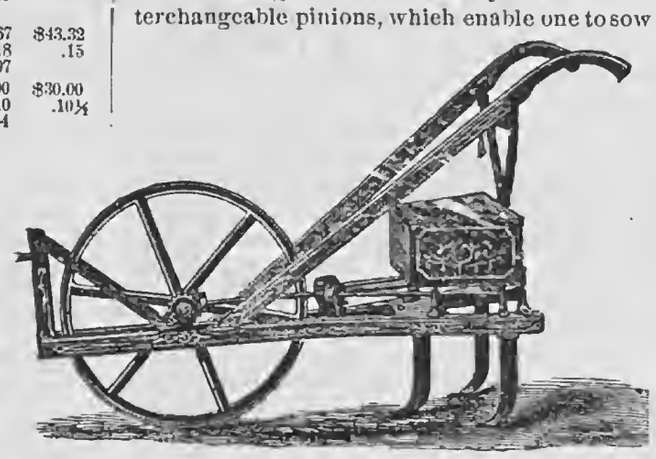
MR. J. E. CROW, Secretary of the Marion Co. (O.) Agl. Society, notifies us that there will be a public field trial of mowers and reapers this season under the auspices of his society. Particulars may be had by writing to him at Marion, O.

Industrial Implements.

A SMALL GRAIN DRILL.

A GOOD one-horse grain drill will find a welcome on hundreds of farms. We have had any number of inquiries concerning such an implement, and we, ourselves, were inconvenienced this season by the lack of such a help. We have lately seen one made by Mr. Ewald Over, of Indianapolis, Ind., which he calls the "Victor," and which seems to meet all requirements in this class of machines. We present an illustration.

The driving wheel connects by means of interchangeable pinions, which enable one to sow



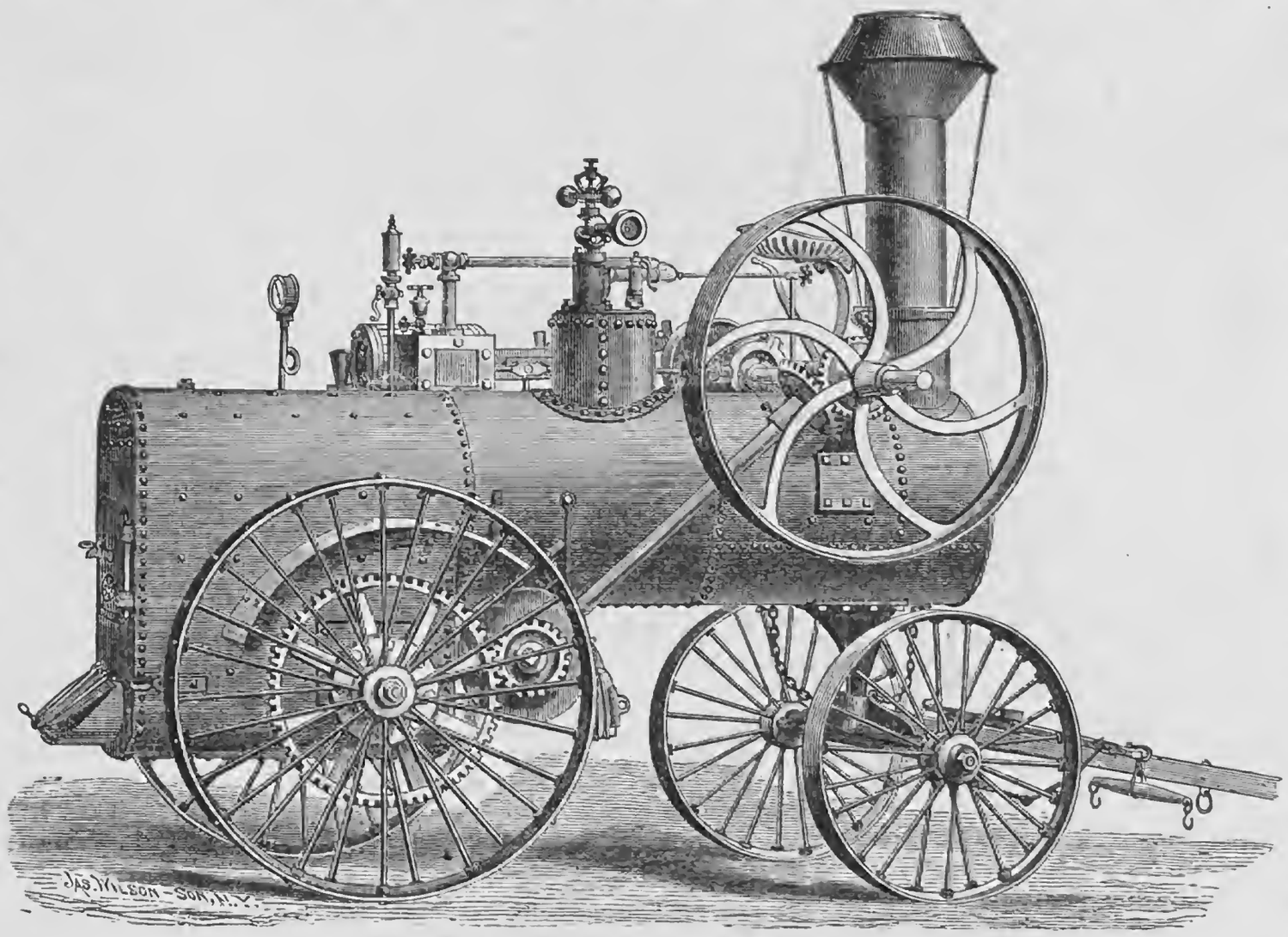
ONE-HORSE GRAIN DRILL.

either one, one and a quarter, or one and a half bushel of wheat to the acre, and a straight ½-inch square shaft into a nest of gears. These gears communicate the power to two other ½-inch square shafts, which convey the power to the force feed wheels, under the wooden feed box. The feed box is divided up into three compartments, one for each feed cup, securing a regular discharge of seed alike from all the cups, whether the ground be even or not. The left feed hole is provided with a cut-off, stopping the sowing of grain the second time of passing between the standing corn when it is wished to sow five drills between each row. A lever is placed under the feed box, by means of which the feed wheels can be thrown out of gear and thus stop sowing, whether the drive wheel moves or not.

The drill complete weighs only 85 to 90 pounds. It is simple in construction and very durable, and can be used for sowing wheat, rye, barley, small beans and oats (if not too bearded). Owing to its small dimensions and lightness, it is adapted to the most uneven ground. Circulars may be had on application.

A FARM ENGINE WITH TRACTION ATTACHMENT.

IN England traction engines are held in great esteem, and do much of the farm work relegated to horses in this country. Recently our manufacturers have, in some instances, improved their farm engines by adding traction attachments, and this week we give an example in the illustration of Russell & Co.'s farm engine, with such an attachment.



FARM ENGINE WITH TRACTION ATTACHMENT.

As originally planned, the attachment was expected to propel the engine only, but in practice it proves that the common plan is to couple the tank wagon to the boiler and the thrasher to this, and move all together. The speed attained on ordinary roads is about four miles per hour, increasing to six where roads are excellent. The horses having almost nothing to do, are always fresh, and come out at the end of the season in better condition, than when they began. The farmer has his thrashing done by steam power, yet has but one pair of horses to feed. In hilly countries the traction attachment has proved a great success, having a propelling power equal to more than four good horses.

The arrangement of this propelling device is very simple. Bevel wheels on the main shaft of engine, and on the inclined shaft of the attachment, transmit the power of the engine to the larger bevel wheel, this wheel moves a shaft which extends across the boiler. Spur pinions at each extremity engage in spur wheels which turn on the axle of truck. By suitable pawls and ratchets the power is transmitted to the truck wheels.

The gearing is so adjusted that the whole can be drawn by the horses, when the engine is not running, or propelled by the engine when in motion, without any change or shifting of gearing. A feather key with steel setscrew, permits of the traction gear being engaged or disengaged at pleasure.

The question will arise how is it possible to protect the crown sheet in descending long hills? In descending hills the damper is closed, steam shut off, and the brake and horses together are used in holding back. The agitation of the water in the boiler has been found to furnish ample protection to the crown sheet.

In stopping, however, the boiler should always be placed so nearly level that the crown sheet shall be covered. On long hills occasional stoppages should be made.

The throttle-valve may be controlled from the driver's seat as shown in the illustration. The engine made by this house is constructed with great care, and only the most excellent material used. Several minor improvements looking to the development of its power by the least expenditure of fuel will commend themselves to thrashermen. The firm write that orders have already been received for a large number of these engines. Circulars descriptive of both engine and attachment may be had on application to the firm at Massillon, Ohio.

AN INEXPENSIVE SPRINKLER.

WE have been using with good results at the RURAL farm a sprinkler sent us for trial by the Troy Stamping Works, of Troy, N. Y. It is a tin cylinder with perforations and a hole covered by a cap at one end, into which water and Paris-green are poured. The handle slides up and down the sides of the can in grooves at will. Carrying the can to the vines when filled, the perforated side is held uppermost. To operate, the can is turned over and the handle slipped along to the other end. By the operation of a well-known law, the contents of the can will not run out when held over the vines, except by a quick jerk up and down, when, with each motion, the plant is showered, and the operator steps to the next hill without wasting material between spaces. The constant agitation holds the poison in suspension, which secures even distribution. It is simple, cheap, effective and a very safe way of handling the poison.

THE Separator made by the Upton Mfg. Co., Battle Creek, Mich., is claimed to be a combination of the best features of the apron machines in connection with the leading features of the vibrating device, which are fully covered by patents granted to Mr. J. S Upton. The machine is marked by great simplicity, compactness and lightness of weight. Care has been taken to supply every labor-saving device that has been approved by practical tests in the field, and the construction has been planned with a view to making the Separator withstand the hardest service with the minimum of breakage. It is said to handle the grain very economically and to yield most satisfactory returns to both farmer and thrasherman. Now is the time to examine claims of such a character and our readers who are thrashermen by trade, should send for circulars, and go over the points more fully than we can in a newspaper mention.

Everywhere.

Continuation of Crop Reports.

LATEST FROM ALL SECTIONS.

Last Week's Reports Corroborated.

RAIN ALL OVER THE COUNTRY.

The Later the Reports the Better.

RURAL SPECIAL REPORTS.

WINTHROP, Kenn. Co., Maine.—There is more wheat sown here this year than has been for many years, and it is generally looking well. Maine is again getting to be quite a wheat-growing State. About the usual amount of corn was planted; but the cold, wet weather makes a good crop doubtful. There is a fair prospect for an average crop of potatoes. The apple blossoms were very abundant—uncommonly so for the "off year." Grass is not as good as last year. P. H. S.

BETHLEHEM, Litchfield Co., Conn.—The grass crop is our main crop, and it is looking very well. Rye takes the place of wheat with us, and it looks better than usual; it is not winter-killed as much as it commonly is. Corn is rather backward; about the average area has been planted. Potatoes are looking well, and more of them have been planted than last year. Apples are not very promising. Pears are better than last year. Small fruits are about an average. A. C. L.

SYRACUSE, Onondaga Co., N. Y.—The long drought appears to be over at last. For several days we have been having fine showers, and crops are greatly benefited thereby. From the present outlook, the grain crop in this county will be below the average, while hay must be light. Our wide-awake farmers will remedy this deficiency in a great measure by sowing corn, millet, etc. Strawberries are ripening slowly, and command a paying price (12½ cents), but in a few day we shall probably have a rush and a decline in price. The apple crop cannot be heavy. Of other kinds of fruit we shall have about the usual supply. N. R.

SANDUSKY, Erie Co., O.—The prospects for crops here are, as near as I can ascertain, as follows: wheat, corn and oats, good; grass, short, on account of dry weather in the early part of the season; potatoes promise a good yield; peaches on the Peninsula promise a larger yield than last year, but on the mainland they were winter-killed; grapes will be an average yield. T. F. H.

SOUTH BEND, St. Joseph Co., Ind.—The prospects for wheat here are good; for potatoes, good; for corn, rather discouraging with the exception of a few fields. The majority of the farmers had to replant. The wire- and cut-worms are playing havoc in many fields. Apples are one-fourth of a crop; pears, one-fourth; peaches, an entire failure; nearly all of the trees were killed by the preceding winter. Small fruits are in abundance. I am testing some of the newer sorts, such as the Lady, Brighton, Champion and Moore's Early Grapes; Sharpless, Glendale, G. American and Crescent Seedling Strawberries; and Gregg Raspberry. T. A. P.

LA FAYETTE, Tippecanoe Co., Ind.—The prospects for bountiful crops in this county were never better; the wheat is the largest acreage and the finest promise ever known in the county. The corn is backward, but the promise good and the acreage very large. The potato crop is very prosperous, the acreage, an average one. Fruits are not more than an average, perhaps below, on account of the severe winter. I have been over most of the county in person. D. R.

STERLING, Whiteside Co., Ill.—The prospects for crops in our county are that wheat and hay will be light; oats, barley and rye about an average; corn and potatoes never had any better appearance at this time. Although our orchards were loaded with blossoms, fruits will be scarce. J. H. B.

LAPEER, Lapeer Co., Mich.—We are having fine growing weather. Wheat looks splendid, and promises a very heavy crop. A large area of corn has been planted and looks fine—farmers are going through it the second time. Potatoes are large and nearly ready to blossom. In fact, there is everything to encourage the farmer. The hay crop is heavy, and will be ready for the mower by the 24th inst. Potato bugs are plentiful. Spring crops look well. R. R.

HART, Oceana Co., Mich.—The weather here is very dry. Wheat is short, but heading quite well. Corn is backward; we are just beginning to cultivate it. Oceana county will have a large crop of potatoes, if the season is favorable. Hay will be a poor crop generally. The reports on fruit have been good, still the frost, on the 6th inst., may have injured the crop in many places. Now the plum, peach, pear and cherry trees are loaded. D. W. C.

MATHERTON, Clinton Co., Mich.—The grain prospects in this section are quite favorable. Wheat is looking very well, although many pieces are not so heavy as last year. Clinton county will probably average from 15 to 20 bushels per acre. Corn and potatoes have been kept back by the dry weather, but promise a fair yield. The fruit crop will not exceed half that of last year. J. T.

UNIONVILLE, Tuscola Co., Mich.—Crops of all kinds are good, with a good fruit crop in prospect. R. A. T.

WEST SALEM, La Crosse Co., Wis.—We are having fine growing weather here now. Wheat looks well, but there has not been as much put in as formerly; more of what has been planted, is winter wheat than has been put in for a great many years. Most of it is the Odessa, which is also used as a spring wheat. There have been more corn and oats put in than usual, as farmers are turning their attention to stock raising. Clover is very heavy. Some have commenced to cut their hay, as a great many cut early on account of their desire to get seed. Potatoes are looking well; there are some bugs on them, but the pests have not hurt them any yet. On low lands fruit is not very plentiful; but on the high ridges it is better. We do not often have to thin out our fruit here. A great many think it cheaper to buy their fruit than to set trees and not have fruit once in three or four years. Small fruit is abundant. M. L. H.

WIOTA, Lafayette Co., Wis.—Corn, a good stand and promising. Wheat, more sowed than for several years, as but little has been raised here for some years, on account of chinch bug, which have now disappeared, as nearly as I can learn. It looks well. Oats, exceptionally good. Potatoes, less than usual planted, on account of scarcity of seed; promise well. Fruit, both wild and cultivated, will be abundant. W. F.

OSSEO, Trempealeau Co., Wis.—Wheat promises to be an abundant crop. Corn is steady. Oats are plentiful. Potatoes are, as usual, a good crop. Fruit is at the present at a standstill, owing to some frosts on the first of the month. Other crops are comparatively good. J. O. E.

INDEPENDENCE, Buchanan Co., Iowa.—Wheat and oats are about the same as last year, with less acres of wheat and more of oats. Corn is looking unusually well for this season of the year, and a larger area has been planted. Potatoes are not as good as last year, but more of them have been planted. There will be a fair crop of small fruit; not many apples are raised here as yet. The hay crop will be light. C. E. C.

SEDALIA, Pettis Co., Mo.—Wheat is a fair crop. We commenced cutting it this week. Corn is growing fine—we never had a better prospect for it. Potatoes are looking fine—Early Rose were fit for table ten days ago. There are no apples or peaches. Grapes promise well. We are having fine rains almost nightly. W. S. H.

FREMONT, Dodge Co., Neb.—The acreage of small grain in this and Saunders county has increased more than 20 per cent. over last year. The prospect for an abundant harvest of small grain at this date was never better at the corresponding period of former years. Wheat, oats and barley stand thick, and more clear of weeds than in former years. Corn is a thrifty and vigorous stand, and promises an exceptionally large yield. Fruit of all kinds had suffered some injury by the late frost that we had, but we expect fair average crops. T. I. E.

FORT COLLINS, Larimer Co., Col.—Owing to a dry May wheat is backward, and heading too early. A good crop is promised in most localities, however. Corn, though not yet sucessfully raised in this State, looks well and promises better than in former years. Ten years ago it could not be raised at all; now 40 to 60 bushels per acre are turned out. Potatoes on these plains are a failure; in the mountains, 1000 to 3000 feet higher and eight miles distant, they are a decided success—better in many respects than they are in the States. A. B. E.

OGDEN CITY, Weber Co., Utah.—Crop prospects in this section of Utah are above the average. This is true both of fruit and small grains, corn and potatoes, on land that is watered by irrigation; but on dry farms; that is, on land dependent on rain, the crops of small grain are mostly dried up; but even there corn and potatoes promise well, a heavy rain having fallen on the eighth, and another such a rain after a few days, will insure a crop of each even on dry farms. J. M. R.

EVERETT, Woodson Co., Kan.—Wheat in this county and part of Kansas, will average about two-thirds of a crop: early-sown wheat which was put in in good shape, will be a full crop, late and poorly sown wheat will be about one-half crop. The wheat was damaged slightly by the drought and frosts of March, and the present dry weather shortened the crop somewhat. Some have already harvested their wheat and the balance will probably be all harvested by the 21st. Oats will not be half a crop, owing to the drought and frosts of March and the very dry weather at the present time. Of corn I never saw better prospects for a full crop than we have at present writing. Corn, that was properly planted and has been well cultivated, stands three to four feet high, while fields that have been neglected do not, of course, look so well. Early potatoes made a splendid growth the fore part of the season, but, owing to the present dry weather, the early potato crop will be nearly a failure, unless we have heavy rains soon. Late potatoes were planted about two and three weeks ago, and it will depend on the coming weather whether we have a late crop or not. The fruit crop for this section and for nearly the whole State will not be worth mentioning. Peach trees are badly winter-killed and there will not be a bushel in the county where there were thousands last year. The apple and nearly all other fruits were damaged by the frosts of March, except a few orchards in high localities. I do not think there will be 50, or at the most, 100 bushels of apples in the whole county. Grapes, as far as I have seen, promise a full crop. We have not had any rain in this section for a month or more and, as a consequence, all gardens and some other things are looking wilted. J. J. D.

WASHINGTON, Washington Co., Kan.—Fall wheat is good; spring wheat is not so good, but will make an average crop. Corn never looked better—a good stand and growing finely. Potatoes look fine, and some are large enough for use. Apples, peaches and small fruits will be above average crops; wild fruits will be a large crop. The weather has been a little too dry until lately; but considerable rain has been falling. Health is good. J. V. B.

OTTAWA, Franklin Co., Kan.—Fall wheat is an average crop. Corn looks well, and has every appearance of a fine crop. The same can be said of potatoes. Apples will be half a crop. Peaches and pears are failures. Grapes will be half a crop. We have had a good season, and crops of every kind are in good condition. About half the wheat is harvested. W. H. C.

GARNETT, Anderson Co., Kan.—The prospects for wheat, corn and potatoes are good in this county. Fruit will be about half a crop. I. W. G.

EASTON, Talbot Co., Md.,—Wheat promises an average yield. It has not so large a growth as last season, but it is better filled. Corn, notwithstanding the cool and backward season, looks well; it is a good stand and has about the average acreage. Potatoes have made a good growth and ought to give a good yield, though the crop is not grown extensively here. Peaches, pears and small fruits promise to be abundant H. C. S.

ST. CLARA, Dodridge Co., W. Va.—We have fine growing weather now. The farmers in this section expect average crops. Most of them had to plant their corn the second time, owing to the frost having injured the first planting, but now it bids fair to do well. Potatoes are looking well; some have had early potatoes and green peas already. Our wheat will be short in straw, owing to dry weather; but will head well. Our fruit crop will be poor, owing to late frosts. Grass is not looking so well as a year ago. Owing to dry weather most of the farmers are working their corn the first time. Prices of produce here are low: corn, 50c. per bushel; Irish potatoes, 50c.; wheat, 70c.; eggs, 6c. per dozen; butter, 6@10c. per pound; cows, $20@$30, according to quality; young cattle, $10@$15; sheep, $2@$3 per head. S. W. W.

OWENSBORO, Daviess Co., Kentucky.—The corn crop of this section, although not as forward as usual at this season, yet looks well, and the prospect is good for an average yield. The wheat crop is the best and largest ever grown here. Harvest began on the 12th inst., and the yield will be 30 per cent. larger than the average crop. Potatoes are doing well. No peaches, and not a full yield of apples. J. M. A.

BLACK HAWK, Nicholas Co., Ky.—Much of the wheat crop of Kentucky will be harvested during the week ending on the 21st. Grain is good; the straw, short; it will average 12 bushels to the acre—not as many as last year, but the acreage will give as much wheat. Corn is a bad stand; fields spotted; from three inches to two feet high. Much has been replanted. With a good season from this out, it will make a fair crop. Potatoes show well for a large crop. Oats and timothy will be half crops. Blue-grass is not first-rate, but there will be enough for the demands upon it by cattle and horses. There is a light crop of strawberries. No raspberries or blackberries. All this applies to northern Kentucky. T. S. P.

ATHENS, McMinn Co., Tenn.—Our wheat will all be harvested on week ending June 21. Wheat was badly thinned out by the cold weather, but it is the heaviest-headed I ever saw here. I think the yield will be above an average. Wheat will start at $1 per bushel. The stand of corn is good; the yield will depend much on the season. Irish potatoes are not much raised here. Peaches are killed on low lands—plenty of them on high lands. Apples will be a light crop. Blackberries are ripening and will be very abundant. S. S. R.

GRIFFIN, Spalding Co., Ga.—Wheat in this section of Middle Georgia is nearly all harvested, and the thrashers are busy getting it out. Some say that the crop is twenty per cent. above an average. The highest yield is forty bushels per acre in different places. Farmers, however, estimate the average yield as varying from ten to fifteen bushels per acre. The quality is good, and its weight about sixty-two pounds to the bushel. The variety mostly grown is Purple Straw. The price of wheat at present is $1 per bushel. Strawberries are receiving considerable attention here, and, owing to the severe cold snap on the 4th of April, were nearly all killed. Monarch of the West is giving more than general satisfaction in this section. It stands cold and heat better than any variety I have ever tested, and I have tried more than twenty. It yields more, and the fruit is finer in size and better in quality. Great American is doing better this season than last, and may prove a valuable new variety with us. Corn is about an average in area planted, and is clean and well cultivated. It has a good color, and in some places is beginning to shoot and tassel. Price, 70c. per bushel. Oats were badly injured by freezing, and the crop will not be an average one. Price, clean, 65c. per bushel. Of Cotton there appears to be an increase in the acreage planted of at least five per cent. over last year. It came up well, is clean and well cultivated, and is now a good stand. There is no appearance as yet of worms. Price, 11½c. for middlings. Peaches and pears are almost an entire failure. Orchard Hill, six miles from here, where there are thirty thousand trees, has not shipped any fruit up to this time, that we have heard of. The Woodruff fruit farm lost nearly the entire crop of peaches and pears by the freeze on the 4th of April. Last year I was gathering fine ripe peaches from my early Beatrice trees, and some from Hale's Early, at this time; this year there is not a peach. The losses from this crop count by thousands, and will be severely felt by fruit-growers. Apples are hardly a factor in our fruit crop, and their loss will not be seriously felt. Irish Potatoes are an average yield, though smaller than usual in size, owing to a dry May—the time in which our earliest mature. My Beauty of Hebron are good in yield and quality, but not as large as Early Rose. The Early Rose is the hardier here of the two varieties; it stands the extremes of heat and cold better. Where Beauties were coming up, or just out of the ground, on April the 4th, they were killed so completely as to never come out, and one patch I had planted on an eastern exposure was totally lost, while one I had planted on a western slope did not get hurt, and were fit to eat May the 4th, and when the sun began to come down in summer style, and the thermometer went up to 89 deg. in the shade, May 24th, my Beauties wilted and the tops died outright, leaving me plenty of small potatoes of fine flavor which I intend to plant again about the 10th of July for a fall crop. The early Rose did not die down so in the hot days, and have made larger potatoes, but they are not so fine in flavor or so mealy as the Beauties. Labor is sufficient for the demands of the farmer, and hands never worked better or appeared better satisfied. There are no emigration agents here, and no exodus of the colored people. If we could avoid politics there would be no trouble among our laboring population. J. G. R.

TWIN LAKES, Orange Co., Fla.—No wheat is raised in this part of Florida, and only a very small amount of corn for local use. Sweet potatoes, too, are raised only for private use. This is an orange country. I don't think the prospect good for a large crop of these. Heavy winds blew off many oranges when quite small; what remains will be larger and finer, though. Thousands of young trees, just coming into bearing, may raise the crop to medium, or perhaps better. O. O. S.

GREENVILLE, Washington Co., Miss.—Corn, potatoes and fruit prospects are good. No wheat raised in this section. Cotton, catfish and blackberries are the main crops, and are good. Dewberries are all marketed at 10 cents per quart; the demand was greater than the supply. Weather, middling; mercury, 90° in the shade, with an upward tendency. E.

JUDSONIA, White Co., Ark.—This is not, strictly speaking, a grain-producing country. Wheat is turning out as well as usual. The prospects for good crops of corn, and also of potatoes, are quite promising. The chief productions of this section are cotton and fruit. The former bids well to be a fair yield, but the

latter, on account of the late frosts, will not be over a third of a crop. H. C. C.

HECKATOO, Lincoln Co., Ark.—Wheat, potatoes and fruits are not grown for market in this section. Corn is in the silk and tassel—but little is grown here save for home use. This is strictly a cotton district, though all the above-named grow and flourish well, and could be made a means of much profit. F. J. R.

DAYTON, Liberty Co., Texas.—Corn and cotton are one month backward. Crops look tolerably well. We had our first Voorhis watermelon yesterday, and the family pronounced it very good. The "Beauty of Hebron" succumbed to cut-worms—we did not save a potato. But the worst of all was the cattle breaking into my garden and destroying Blunt's corn. It grew so finely and gave me so much pleasure! I am surprised to learn that some are dissatisfied with their seeds. Such folks will grumble if ever they get to heaven. Thermometer in the nineties. G. G.

MCKINNEY, Collin Co., Tex.,—This is our eighth week without rain, being the 2nd drought for this season. Most of our wheat is stacked. The oat harvest is going on—not a very good crop. Cotton is looking well, considering that the weather is so exceedingly dry. These are the days that try seed farming in a scorching crucible. W. C. N. W.

CORNWALLIS, Kings Co., Nova Scotia.—The weather about the first of May was warm; but for a fortnight it has been cold for the season, and very dry. Crops look well considering the want of more warmth and rain. Some fields of winter wheat are very good; spring wheat and oats are well set, but suffering from lack of moisture and heat. Potatoes are coming up strongly. Grass is well set and forward. Apples are setting pretty well. Some fruits were injured by frost on the 27th ult. On the whole, farmers' prospects are good. C. C. H.

ORONO, Durham Co., Ontario, Canada.—The wheat crop generally could not appear better than at present, although a few farmers around here have found a grub at the root, and in some cases in the stalk, three or four inches from the ground. Potatoes and fruit of all kinds promise well. Corn is altogether behind, the weather being too cold for this crop on account of frequent cold showers. W. M.

[See page 416 for continuation of Crop Reports.]

The Querist.

ANSWERS TO CORRESPONDENTS.

Trees Suitable for Ornamental Lawn Planting in the South.

J. J. E., Luling, Caldwell Co., Texas, asks what trees would be suitable for ornamental planting on a lawn in that hot climate. Would Japanese Maple, Norway Spruce, Irish Juniper, Arbor-vitæ, Magnolia, Cape Jasmine be suitable. Last fall he put out a considerable number of trees and shrubs for the purpose of testing their adaptability to that section, but the spring was so exceptionally dry that nearly all of them died.

1. Tulip trees, any of the Southern Magnolias, Live Oaks, Buckeyes, Chestnuts, Catalpas, Silver Maples, Mimosa (Acacia Julibrissin), Paper Mulberries, BoxElder, etc., etc., may be used as shade trees; upright and horizontal Cypresses, Chinese Arbor-vitæ and its golden variety; Pittosporum Tobira, Retinospora obtusa and squarrosa, Privets, Japan Quinces, and the like, as evergreens; Althæas, double-flowering Almonds and Peaches, Forsythias, Deutzias, Mock-Oranges, Crape Myrtles, Lavender shrubs, Bridal Wreaths, and many others, as deciduous shrubs.

2. As regards Japanese Maples we have no proof to the contrary, nevertheless we do not recommend them; Irish Junipers and Norway Spruces will not do well; Chinese Arbor-vitæs do splendidly, but American Arbor-vitæs will not thrive; most kinds of evergreen and deciduous Magnolias—even the highly fragrant little banana shrub M. fuscata—do very well, their success mostly depending on the nature of the ground; Cape Jessamines are perfectly hardy at Luling.

3. If you were to utilize some of the multitude of handsome trees, shrubs, and herbaceous plants indigenous to Texas, you could have lovely gardens filled with most suitable material.

4. It would be unwise for us or our correspondents to recommend plants for use in localities where they have not been practically attested; we can suggest, however, and recommend for trial.

5. Many causes occasion failure, and in a dry soil and climate, newly set out plants have a hard battle to fight. But we recommend strong well rooted plants that have been once or twice transplanted before, making no avoidable delay between the time they leave the nursery and when they are set out on your place; plant them in December rather than later; pack the soil firmly around the roots at planting time and keep its surface loose during the summer; also apply a mulching of some open material, over the roots, for the first year, at any rate.

Treatment of Heifer with Sore Throat.

J. C. K., Fredericksburg, Va., has a three-months-old Alderney calf that breathes laboriously, with a rattling noise, apparently in the nostrils, just below the eyes. On pressing the gullet slightly, a trembling motion is felt, but no soreness is apparent. The eyes are somewhat dull and glaring. She feeds well, but does not thrive as well as his other young calves of the same breed. Occasionally she coughs as if there were some obstruction in the throat, and now and then her flanks heave, and he asks what ails her and how she should be treated.

ANS.—The heifer suffers from a sore throat; there is no symptom at present of any more serious disease; nevertheless, the inflammation may easily spread to the bronchial tubes and lungs and turn to bronchitis or pneumonia. The treatment should be active. Apply mustard paste to the throat where the unusual motion is felt, and rub it well into the skin. Wrap a woolen rag steeped in hot water around the throat afterwards. Give a small dose of Epsom salts, and afterwards one dram of saltpeter powdered fine and mixed with honey or molasses, to be placed in the back part of the tongue to be swallowed. If the cough increases, extend the mustard application to the lower part of the throat and the sides of the chest, and continue the saltpeter for two weeks, if necessary.

Sowing Seed for Permanent Pasture.

J. B. B., Miller's Station, Crawford Co., Pa., has four acres of ground he intends to put into wheat this fall. Wishing to seed it down to permanent pasture, he asks whether it will do to sow orchard-grass in the fall; what other kinds of grasses would it be advisable to sow with it, and how much of each.

ANS.—If the grass is of greater importance than the wheat, it might be better to abandon the latter and procure a certain catch of grass by seeding the ground at once, alone and without any other crop with it. This may be done by plowing and thoroughly harrowing the soil and sowing two bushels (25 lbs.) of orchard-grass, six pounds of timothy and six pounds of red clover per acre. This would give an excellent cover of grass and would furnish a cutting this fall and a pasture early in the spring, or a crop of hay early next June and pasture after it. If thought desirable, white turnips may be sown with the grass (two lbs. per acre), and these will give 300 bushels per acre in the fall, and will shade the grass and greatly help its successful growth. If wheat is desired, it should be sown about the middle of August, and the grass seed, above-mentioned, sown with it, leaving the clover to be sown in the spring. But this course would not pay nearly as well in the end as the former one, as the hay gained would be worth more than the wheat, and one year's time would be saved for the pasture.

Rose Chafers.

C. T., Millersville, O., sends us some beetles and asks for their name. He finds them on his corn which they, in some parts of the field, have badly damaged. He states that they have been in that locality three years.

ANS.—The insects are the Rose Chafers, Macrodactylus subspinosus. They have become serious pests to the grape growers of Michigan. Nothing seems to come amiss to them. Not only rose leaves, but the foliage of all fruit trees, together with many garden vegetables, all minister to their voracious appetites. The beetles are slim, ochre yellow in color, three-eighths of an inch long, and possess very long feet—especially long are the last or tarsal joints; hence the generic name Macrodactylus or long-finger beetle. Paris-green would quickly stay their work. It could be dusted or sprinkled on to the corn.

Cheat or Chess.

J. H. P., Cleveland, Tenn., asks whether cheat or chess will reproduce itself if left on the ground.

ANS.—Yes. The notion entertained by many farmers that chess grains will never grow, is just as erroneous as that other whimsey that wheat which has been injured by frost in the fall, or otherwise arrested in its growth, is liable to turn into chess. Often, however, the fallen seeds remain until the ground is broken up, or put in a favorable state for their development. The best preventive of this and similar troublesome pests in grain fields, is to sow none but good, clean seed.

Treatment of Butter that will not Gather.

H. K., Copper Hill, N. J., asks advice as to the treatment of butter that will not gather.

ANS.—When butter will not gather by churning in the usual way, the difficulty begins in the feed or health of the cow. This should be first looked after, and when corrected, gathering will be possible again. In cases where butter will not gather when the churning is properly done, the cream globules have been found to be largely composed of cells filled only with a watery scum in the place of being filled with fat. In other cases the globules are too small to churn, as when cows have been long in milk and are drying off. In such instances an improvement may be effected by an increase of unctious matter in the food, thereby increasing the size of the globules of cream. Heating the new milk to 130°, and cooling quickly, will greatly improve the gathering of butter from such milk. Butter also often fails to gather from being churned too cold, when warming must be the remedy. The cause, in any given case, should be studied to be successfully removed.

The Howell Pear.

A Reader, Brookline, Mass., asks for a distinctive description of the Howell Pear tree, as he is anxious to know whether he has one in his possession or not.

ANS.—Howell: Tree a vigorous grower; hardy; upright at first, spreading when in bearing state; young shoots reddish: an early and profuse bearer. Fruit medium, roundish; pyriform; light yellow, often shaded with red; many minute russet dots, and sometimes patches of russet. Stock medium to long; cavity small. Flesh whitish, juicy, melting, brisk, a little vinous. Quality good to very good, not best. Ripens in September and October.

Paris-Green.

E. O., Georgia, Vt., asks how to apply Paris-green, and if it is safe to use it.

ANS.—We have found Paris-green to be the most effective weapon against the potato beetle. It is applied in various ways. F. W. Devoe & Co., of New York, have issued a very complete treatise on the manner of applying Paris-green, that is replete with useful hints. Any farmer will find it interesting and instructive. It is sent free to applicants.

Miscellaneous.

M. A. C., Attica, Mich., desires to know what experiments we are performing at the Rural Farm. He tries all the new varieties of farm seed that he can procure, and he is at present experimenting with seven varieties of corn and sixteen varieties of potatoes.

ANS.—We have a great many experiments under way at the Rural Farm and the Rural Horticultural Grounds, too many to give an account of each at present. Reports of our experiments are given in the RURAL from time to time, whenever new facts worthy of notice are revealed. Our friend's interest in the progress of agriculture, as manifested by testing new varieties, is much to be commended. We shall be pleased to receive short reports of his experiments.

H. L. C.—no address—asks how long one should wait on an average for flower seed to come up before resowing?

ANS.—It depends entirely upon the nature of the seeds and the conditions under which they are placed. Ordinary vegetable and flower seeds ought to appear in from one to four weeks, if the weather is moist and warm. On the other hand, when the conditions are adverse to germination, seed may remain in the ground for months, and sometimes even years, and still germinate when circumstances become favorable.

E. N. D., N. Bennington, Vt. asks for a description of Hibiscus Syriacus.

ANS.—H. Syriacus is a hardy ornamental shrub, with wedge-ovate and three-lobed leaves and short-peduncled flowers in their axils. Flowers appear in autumn, and are about three inches broad and variously-colored.

E. Z. M.—no address—sends a leaf and flowerstalk of a plant, concerning which he has a dispute; he asks us to give its common and botanical names.

ANS.—Star of Bethlehem. (Ornithogalum umbellatum.)

COMMUNICATIONS RECEIVED FOR THE WEEK ENDING SATURDAY, JUNE 21st.

J. H. S.—A. L.—J. P.—M. M. L.—N. S. H.—M. L. B.—W. J. E.—H. C. S.—W. N. N.—P. H. S.—J. W. S.—R. R.—W. S. H.—D. W. C.—J. W. R.—M. S.—E. H. T.—C. A. M.—G. W. B.—A. W. B.—Grandmother—P. & Co.—T. F. H.—E.—R. R.—J. T.—F. J.—T. S. P.—J. C. D.—H. B. W.—R. I. P., Jr.—J. O. E.—O. O. S.—C. E. C.—J. H. B.—C. C. H.—J. M. A.—L. L.—B. F. R.—R. E. P.—T. J. E.—E. & B. R.—J. T. M.—H. C. C.—F. A. G.—D. B.—M. L. H.—J. J. D.—J. R. S.—W. J. Z.—T. A. P.—E. N. D.—W. F.—J. V. B.—W. H. C.—C. C.—E. H. T.—S. S. R.—W. M.—H. H. M.—S. W. W.—F. W. B.—M. S. M.—D. C.—E. A. C.—R. F.—S. D. P.—C. B.—C. C. C.—E. E. S.—S. C. B.—H. J. P.—A. S. D.—L. C. U.—H. S.—H. H.—J. T., thanks—J. G. R.—T. H. H.—S. W. J.—E. J. B.—W. J. E.—G. W. D. D. K. B. W. F., thanks—M. B. P.—A. E. S. G. B. B. M. G. R.—H. S. N. R.—R. J. W.—C. L. A.—J. W. K. L. C. U.—F. S.—M. D. B.—M. A. E.—J. H.—J. E. L. W. N. J. T. M.—W. W.—J. S. M. W.—R. E. C.—T. J. P.—H. F. S.—J. H.—C. C.—J. W. S.—J. A. S.—W. B. P.—J. T.—E. H. J.—J. J. C.—J. N. L.—W. McC. M. S. C.—J. B.—D. A. H.—U. C. A.—J. G.—E. M. B.—J. H. P.—J. F. McL.—J. M. A.—L. C. W.—W. D.—F. M. B.—H. H. B.—J. C. V.—H. B. D.—N. P. S.—H. S.—M. P. P.—A. E. C.—L. W. G.—C. D.—T. M. K.—J. G. C.—M. F. J.—A. C. R.—E. L. T.—W. B. D.—R. S.—G. M. M.—J. G.—D. H. H.—M. L. S.

The Apiarian.

HOW SHALL SECTIONS BE PUT ON HIVES?

REV. O. CLUTE.

WITHOUT denying that, under some circumstances, other receptacles for comb honey may be serviceable and desirable, I think it is generally conceded that the "prize section" is best adapted for the markets of the larger cities. It is probable that before many years have passed nearly all the comb honey that goes to market will be stored in this, or a very similar section. The method of putting the sections on the hives is a subject of a good deal of practical importance. There are three methods in somewhat wide use.

Those who use a honey-board over the frames often arrange and fasten the sections side by side, until they make a long box, glaze the open ends of this box, and place it on the honey-board, just in the way in which the old five-pound boxes are put on. For those who use a honey-board this method will answer, but for the large number who reject the honey-board it will not do.

Another method advocated by some excellent bee-keepers and used somewhat extensively, is to put the sections in cases, or holders, and to hang the cases in a super, just as a frame is hung in a hive. The super, filled with these cases of sections, is set on the hive, bringing the cases immediately over the brood chamber, with only a quarter-inch space between. At first this seems to be an excellent way. It is easy to arrange the sections in the cases, to hang the cases in the super, and to set the super on the hive. All is done in a few minutes, and everything is snug and tight. But from my own experience I am led to think there are two strong objections to this method.

First, it is not possible to examine easily how work is progressing in the sections. It is important for the bee-keeper to know this, and he needs to make frequent examinations. But by this method of placing sections, such examinations are difficult. Take off the lid of the super and you have only the tops of the cases to look down upon. You attempt to lift out one of these cases, but find that it is not easy work. If the cases have been shoved close together—as they ought to be—it is very probable that the bees have glued them together, so that they must be pried apart. Not unfrequently the bees have fastened the bottom bar of the case to the tops of the frames beneath it, so there is a still greater difficulty in removing it. Hence, by the time you have lifted out a case of sections, you have pretty thoroughly roused the bees and spent a good many minutes of valuable time. This difficulty of examining the sections when hung in cases, would, with me, be sufficient reason for rejecting this method.

But, secondly, there is another objection, equally strong. When you have lifted out your case of sections and find some of the sections filled and sealed, you want to remove these and replace them with new ones. As soon, now, as you attempt to remove these filled ones, you disturb others only partly filled, and you find yourself in the midst of a difficult and perplexing job, which requires more time and patience than it is profitable to bestow. Speaking only for myself and from my own experience, I am sure that this method of placing sections in cases and hanging the cases in supers is not the best method. If I were a prophet I would hazard the prediction that in a few years it will be entirely given up, except when a small amount of comb-honey is desired from the brood chamber. In this case there seems no better method than to hang the sections by the side of the brood combs.

The third method of placing the sections is to have a rack made for holding them, which sits closely over the tops of the frames, and holds the sections firmly in place; but by the removal of a wedge, allows the sections to be easily moved, and the filled ones to be taken out and replaced by others. By this method, when the sections are once in place in the rack, and the end sections in each row glazed, the rack can be instantly set over the frames, and there are then as many tight compartments for surplus honey as there are rows of sections, and these compartments come immediately above the brood. The progress of work can easily be known by lifting off the cap or super, and each section is easily reached and removed. This method seems to me far preferable to either of the others.

The sections should always come so close to the top bars of the frames beneath them as to leave only a passage way for the bees between, as this tends to prevent the building of bits of comb between the frames and sections, and the bees will enter the sections more readily when thus close. The fact that there is an entrance to the sections at both sides of every one of them, except the end ones in each row, has a marked influence to lead the bees to enter them and go to work in them.

Johnson Co., Iowa.

THE
RURAL NEW-YORKER.
PUBLISHED EVERY SATURDAY.

Address
RURAL PUBLISHING CO.,
78 Duane Street, New York City.

SATURDAY, JUNE 28, 1879.

THE MARKETS FOR OUR SURPLUS CEREALS.

This week we pulish a large number of supplementary crop reports from various parts of the country. A few of them were received just as the last issue of the Rural was going to press, and the remainder have reached us daily since then. While furnishing fuller information with regard to the outlook for the next harvest, they do not materially alter the outcome of our last week's summary. The later, however, the date at which they were written, the more jubilant are the views the writers take of the crop prospects. Of late the weather nearly everywhere has been highly favorable to the farmers' hopes, and should it continue so for a few weeks longer, the prices of agricultural products, not their quantity, will alone be matters for anxiety. As there is but little doubt that the yield of our various crops will in the aggregate be at least as heavy this season as last, and as the home consumption cannot have been materially increased, our surplus for exportation will probably be fully as great from the present as from the preceding harvest. It is therefore a matter of no small importance to learn what are the prospects of crops in those countries whose agricultural products come into competition with our own in the markets of the world.

Throughout nearly the whole of Europe the past winter was the severest for the past twenty years; while the spring and early summer have been more backward than at any time within forty-two years. Violent storms of rain and wind have greatly injured all crops here and there throughout the British Isles and along the Atlantic coast of the Continent; while disastrous floods have desolated large areas of country in France, Italy and Austria. Although owing to the backwardness of the season and the unusual variability of the weather this year, it is as yet too early to form any definite opinion with regard to the crop prospects on the other side of the Atlantic; still it can readily be inferred from all reports from that quarter that the harvest will be considerably below an average in Great Britain and Italy; somewhat below in France and Austria; fair in Russia, our great competitor in wheat, and also in Spain and Portugal; much below the average in the wheat-growing regions along the Lower Danube, as well as in that granary of the ancient world, Egypt. Bismarck's measures for protecting home-raised agricultural products in Germany, by imposing a tax on all foreign imports, have stimulated the farmers of the Fatherland to unusual efforts; but there also the season has been so unfavorable that little if anything more than an average crop can be expected. On the whole, therefore, while the European consumption of cereals will be fully as great this year as last, the supply furnished from domestic resources will, most likely, be considerably less, and the market for our own surplus therefore be proportionately better.

Moreover, it is only within the past year or two that our wheat has found entrance into France, Spain and Italy, but in the absence of adverse legislation, it is more than probable that it has secured a permanent market in all these countries. A habit of importing grain once formed by any country can seldom be broken. Either foreign competition lessens the home production, or the low prices of the commodity and its consequent abundance induce a larger general consumption, or, instead of raising grain, the native farmers engage in fresh industries, the profits on which compensate the country for the national loss of money entailed by the importations.

This view of the European agricultural outlook has, doubtless, had some influence in holding the prices of wheat at the present high figures throughout the West. But, inasmuch as the speculative movement which has led to the present "bull" operations in wheat at Chicago, Milwaukee, and the tributary territories, was inaugurated a considerable time before any idea could be formed of what the coming trans-atlantic harvest would be, the high prices now ruling must be greatly due to the approaching culmination of the "corner" which Mr. Keene and his associates have been industriously forming since the beginning of the year. The vast amount of capital at the command of the combination, together with the extraordinarily low rates of freight to the seaboard it has obtained from the railroad companies, doubtless enables it to keep up prices temporarily, especially in view of the gloomy prospect across the water; but with the arrival of the new harvest in market, prices *must* sink, at least at the outset, so that it would probably not be unwise for those of our friends who are holding back grain, to unload during the present era of high figures.

A comparison of our own crop reports with those in our European "exchanges" is an abundant source of gladness and thankfulness. On the whole, our crop prospects are prosperous, our markets promising, our farmers buoyant. Of course, there are a few exceptions, but a perusal of our reports will bear us out in this statement. Our agricultural community is toiling manfully out of the slough of distress in which the nation has been floundering of late years, and bearing on its broad shoulders or dragging behind it the rest of the population. Well may our farmers be proud of the past and hopefnl of the future, and these sentiments frequently find unconscious expression in little "asides" in their reports. Across the water, on the other hand, whenever the farmer speaks of the outlook in his paper, he either grumbles, frets, or despairs. The whole agricultural world there is "out of joint," with no visible means of setting it right.

WHERE THE PROFIT COMES FROM.

Not many farmers know enough about the details of cost and expenditure in their own business, or bestow upon the subject sufficient study and thought, to know where the profit of farming comes from, or what direction their efforts should take in order to increase that profit. The philosophy of farming is little understood or written upon. Most of us stumble along, working by guess or "rule of thumb," without any clear comprehension of the elements with which we must deal in making the farm pay, far less with any real mastery over the elements.

We set it down as a principle, though few may accept it as such at first, that—unless for a short time upon new soil—a farmer's profits do not come from his land. It is very easy for a man to be "land-poor." That is what ails most farmers at this present time. If it were established as a law that every young farmer should begin with five on ten acres, and be allowed no more land until he had brought that to a high state of profitable productiveness, we should see very different farming from that which now surrounds us on every side. Land, indeed, is only valuable as it affords an opportunity to apply labor, and the accumulated product of labor—capital. Without these, land will yield no profit; and just in proportion as labor and capital are judiciously expended upon it, can land be made a means of adding to our wealth—that is, to "pay."

It is mainly for lack of the knowledge of this fact—or of faith in it—and for want of the practical knowledge how to act upon it, that farming fails to pay, or pays poorly. There is nothing that so thoroughly demonstrates a poor farmer as to hear one say he "cannot afford" to employ the labor or the money necessary for the thorough tillage and handling of his crops. One who thinks thus and can not be made to think differently, ought to quit farming,—and the quicker he quits it the better it will pay him.

It is pitiful to see how men act in these matters. They have not the least faith in honest dealing with the soil. Their effort is to cheat the land—cheat nature—out of a living. They have as little faith in the natural reward of good agriculture as sinners have in the spiritual reward of good moral culture. They fear to trust the soil to return them fair pay for good treatment. They fear that if they should properly manure and properly till a field, they would lose both manure and labor. Why is this timidity? Part of it, no doubt comes from conscious incapacity for the business in which they are engaged. But this is not always so. Men who are capable of raising large crops, and raising them with profit, will not habitually follow that kind of farming. Having done it once—having dared once to sufficiently fit a field for grain or roots or grass, and having received their reward, they seem to stand frightened at the result, to doubt its reality, to regard it as though it were a prize drawn in a lottery, an event of chance, that could not be relied on to repeat itself. It is sometimes two or three years before they summon courage to renew the experiment. Sometimes they never repeat it, but content themselves for the rest of their lives with telling about that big crop of corn or hay or potatoes they once raised.

Now, this is not farming. Farming is a legitimate business; not a hazardous speculation. We have a promise which can be relied upon that seed-time and harvest shall not fail, and a world-wide record of experience to show that the faithful, earnest labor of the husbandman is always rewarded. Either one or the other of two things upon the farm is true—that the labor, care and manure expended upon a crop to bring it to a high degree of perfection will pay, or that no less outlay of either will pay. If the use of one load of manure where there ought to be two, and of one day's work where there ought to be two, will pay a profit, the second load and the second day will pay a greater profit up to a certain limit. If it pays a man to put out his own labor on a piece of land, and that labor is not all the crop requires to perfect it, it will pay him still better to hire another man to help him. The second man's labor in such a case always pays better than the first's. If the result will not pay for both, it does not pay for either, and the first man ought to go at something else. And it is just the same of manure as of tillage, and just the same in the care and feeding of live stock. An insufficient expenditure in either of these directions is a wasteful, losing expenditure, whether it be of labor or of capital.

The greatest cause of this kind of bad farming is the possession of too much land in proportion to capital. A farmer cannot bring himself to reduce his land under tillage in proportion to his ability to supply manure and pay for labor, because he fears that he "cannot get a living from so little land." And here, as we began by saying, is the fundamental mistake. *We do not get our living from the land; we get it from the labor and capital laid out on the land.* This concentration of effort upon small areas of soil is something little understood in America. If it were, we should to-day see fewer mortgaged farms, and fewer sad-faced men and women toiling hopelessly upon them. From this point of view, we cannot but think it would be better if we had no legalized credit system in America. Then the young farmer could buy no more land than he could pay cash for, and would have to make the money from that before he could buy more. What a lesson this would be in economy and agriculture! What a revelation it would be of possibilities hitherto unbelieved in! What an opening it would be to many a young man who has in him the making of a good farmer, but who, buying more land than he can pay for, has all life and ambition and capacity for progress crushed out of him by the burden of an usurious debt. From a freeman with a freeman's spirit he is made a slave, and acquires the stolid thriftlessness of slavery.

PROBABLE DEVELOPMENT OF CHOICE ANIMALS.

The Ayrshire (Scotland) Agricultural Association holds an annual spring show for the exhibition of three-year-old cows. The entries for this show are made when the animals are calves, and out of one hundred and eighty-eight entries, eighty cows entered the ring the present season. This shows the proportion of animals which develop favorably to their owners' expectations. Of course no entries are made, or at least few owners go to that trouble and expense, except for such calves as promise, from the excellence of their dams or their pedigree, to become choice cows. The fact that less than half of the animals entered came to the show, proves that "although many be called yet few are chosen;" and probably the result is better than the average fruition of the hopes and expectations of breeders. Blood and breeding are great helps, but there are sports in animal life, as well as in vegetable, and it is not always that a sport perpetuates its special peculiarities.

Nevertheless, to know that out of one hundred and eighty-eight calves from choice cows, one-half hold out the promise of their breeding, is a sufficient proof that merit does not come by accident, and that the breeder's skill does raise the quality and value of the material upon which he exercises it. Besides, these eighty cows are the cream of the Ayrshire stock, and unless each was so excellent as to give hope of success, she would not have taken a place in the exhibition. Moreover, the fact that the first-prize cow of the year is full sister of the first cow of last year, is sufficient to prove that breeding is of value as a test of quality. Lastly, we are of opinion that the proportion of first quality of cows reared from a certain number of good calves, as shown in this example, has very rarely, if ever, been surpassed by any other breed, although some similar and conspicuous instances might be pointed out of excellence becoming hereditary in all well-bred animals.

TO YOUNG READERS.

We have been told by one who was quite successful as a city merchant, and who has been very successful as a farmer, that the average merchant, both clerk and proprietor, works much harder than the farmer. He says, "If the well-to-do farmer would educate his sons as well as does the well-to-do city merchant, they would lead far happier and more prosperous lives as farmers than as city merchants." And we have no doubt that it is so. Young girls and boys who read the Rural, we urge you to study hard to fit yourselves to be farmers and farmers' wives. Farming is susceptible of being the noblest pursuit of man. It is man who degrades it, and it is for you so to educate yourselves as first to appreciate the fact and then to assist in altering it to its highest sphere.

BREVITIES.

There is much less rust upon our cultivated wheat than upon that sown broadcast.

Roe's "Early Ruby" Gooseberry is now in bearing. The berries are half grown, and there is as yet no sign of mildew.

The Western Rural says that it has grown Prickly Comfrey for trial, and has not found an animal that would do more than smell of it.

Cows need exercise as well as men or any other animals. The practice therefore of soiling constantly in close quarters is evidently a bad one.

As fowls are usually kept by farmers, we think it will be found that the greater number of hens, the smaller the number of eggs from each hen in a given time.

Many thanks to many friends for the assistance they have offered in enabling us to present one of the most extensive and trustworthy crop reports ever presented by any American journal.

Mr. James Hogg tells us that 44 years ago, upon land that is now the northeast corner of 10th St., running up to 11th St., in this city, he saw Pearl Millet (Cat-tail) growing vigorously. The patch was about 25x100 feet. No, Pearl Millet is not a "new" plant!

Mr. I. K. Felch states in the American Cultivator that the superiority of the Light Brahmas has been conceded by three-fourths of the whole number now interested in poultry. Do the sales of eggs and fowls show that? If so or if not so, we place ourselves in the one-quarter minority.

Much less is gained by starting tomato plants in the house and setting them out about the middle of May than is by many supposed. Self-sown plants will often overtake them, prove healthier and bear better crops. About nine in ten set out tomato plants too early. The 1st of June is quite early enough.

Cold nights, impregnated with a dash of frost, have killed most of our squash vines which were just beginning to make rough leaves. For the same reason, corn has made little growth during the past week. A good deal planted late that had not made a growth of more than two or three inches, has been killed.

We have to-day (June 20) dug our first Beauty of Hebron potatoes. The largest of them measure about seven by six inches in circumference. They were planted late (the date has escaped us) and the season has been cold and backward. We shall welcome all reports of this variety, good, bad or indifferent. The specimens sent us from Mississippi are among the finest we have ever seen.

Farmers need not ever expect to have beautiful front gardens and lawns until they are willing to invest in lawn-mowers. The Philadelphia, Buckeye, New Excelsior and others, are first-rate machines, and with care will last for from three to five years, according to the amount of work they are called upon to perform. Any of them can be bought for from $15 to $25, and to those who appreciate a velvety lawn and a neat, bewitching garden, they will quickly pay for themselves.

In planting late cabbages, even though the ground is moist, it is best to twist off at least one-half of each leaf. If any one at this time will try the experiment of planting two rows, say of fifty plants each, in one of which the plants are set entire while in the other they are cut or twisted in two, he will be convinced that the trouble of the latter method is more than repaid by the results. These young leaves will die in any event, and they serve only to retard the establishment of the roots by exposing a larger evaporating surface than the roots can possibly supply with moisture.

How things come and go—among plants as among all things else! We are thinking of the beautiful "Tri-color Geraniums" that but a few years ago formed a considerable part of our greenhouse stocks, as well as our bedding plants. They were so beautiful that people would buy them or propagate them year after year in spite of failure upon failure as soon as exposed to the sun and hot winds of summer. Madame Pollock was among the first of these tri-colors, and it is strange that of the thousands since produced by cross-breeding or otherwise, this is still by far the best. But Mad. P., herself, is only fit for the greenhouse.

6504

6504

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6499

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6607

6607

6559

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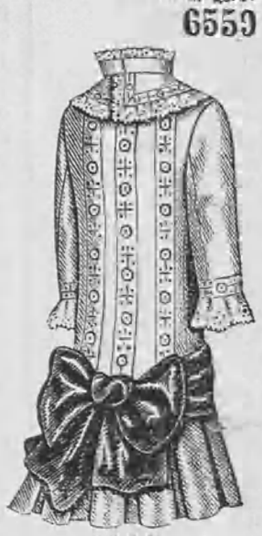

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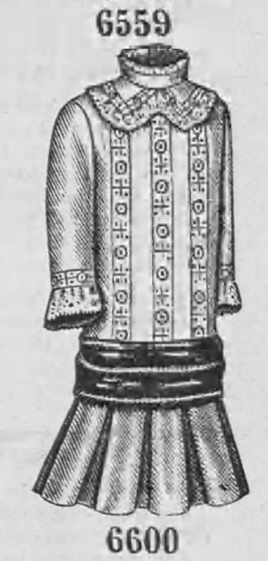

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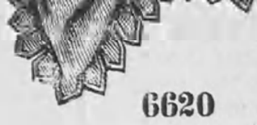

6620

MISSES', BOYS' AND CHILDRENS' SUMMER STYLES.

For Women.

CONDUCTED BY MISS FAITH RIPLEY.

SO OPPORTUNE.

Down drooping to its nest of gold
The day a parting kiss bestows,
Far out upon the verdured fold
The splendor of its blessing glows.
The thrush within the orchard shades
Pours out the tribute of his heart,
And from the bracken ambuscades
The voiceful echoes gently start.

Almost the reign of peace is won;
The kine are at the oaken gate
Where, fondled by the waning sun,
The milkmaid's tender call they wait.
The kitchen door swings open wide,
An image treads across the sill,
And comes a voice like vernal tide
Of some o'er-freighted meadow rill—

"Ho! Brownie! Bossie! Bonnie Bess!
Come home from out your pastures bright,
Come take your mistress' kind caress
And give me of your wealth to-night!"
Then toward her fond-eyed lovers three,
A fairy maid, with tresses brown
And eyes like hue of starry sea,
Speeds lightly o'er the em'rald down.

She sees not, close beside the gate,
The farmer's bronzed and trusted son,
Whose honest eyes with joys elate
The fairy form are fixed upon.
She only sees the patient herd
That silent in the laneway stand,
That mutely wait her every word
And stretch their necks to kiss her hand.

"They say you have no heart," she said,
As Brownie's neck she fondly stroked,
And round the rugged throat of red
Her finely-molded arms are yoked.
"They say you have no heart, but oh!
You answer ev'ry sweet caress
With answers that do seem to glow
With Love's unspoken tenderness!"

"You cannot speak, you Brownie, dear,
But if your tongue could utterance know
You wouldn't wed your love with fear.
But let its fullest glory flow;
You wouldn't be as mute as he
That sees my love by silence bound,
That meets my glances tenderly,
Yet leaves my longings all uncrowned."

"You wouldn't hear me thus set free
My love, and let your heart to sleep,
But then—but then—if you were he,
I wouldn't dare to thus o'erleap
All modesty and break the spell
Of secrecy, as I do now;
But it's relief, e'en you to tell;
Oh! if he only were a cow!"

A scarcely noted fall of feet,
A hand was on her shoulder lain;
"I'll play I was, if you'll repeat
That pretty story o'er again,
With all its show of pettings too,
And that sweet noose about my throat,
There, little one, come, please to do!"
Perhaps there isn't need to note,

If word for word she o'er-confessed
The truth so innocently told,
Or whether 'twas considered best
To silent be, and seek the fold
That offered her its benefice,
But this we'll venture, anyhow,
The lips that left on hers a kiss,
Were not the chattels of a cow.

[*Wade Whipple in Quincy Modern Argosy.*

FASHION NOTES.

Ready Made Suits.

Those ladies who have deferred purchasing their summer outfit until now, are to be congratulated, for, in view of the approaching "close of the season," manufacturers are disposing of their stock at seductively low prices. Messrs. Lord & Taylor in particular seem determined to give their patrons the worth of their money, three and four times over. The reputation of the house is a guarantee that the goods will be as represented, (which is an important item,) while the prices asked for them are such as to make one marvel how, even in these times of cheap goods, any firm can afford to make such liberal offers.

Description of Cuts.

The central figure shows a misses' costume, composed of plaided and plain goods. Pattern of skirt is in six sizes for misses from 10 to 15 years. No. 6527, price 25 cents. The overskirt—No. 6569, price 20 cents—comes in eight sizes. The basque—No. 6570, price 25 cents—comes also in eight sizes.

Girls' costume, ornamented with embroidery. Price of pattern, 25 cents—No. 6565.

Boys' sailor costume. Yachting flannel is most commonly used in constructing this costume. The pantaloons pattern comes at 15 cents—No. 6469; the blouse at 20 cents—No. 6470.

Boys' costume, (shown in lower left-hand corner) of fancy cassimere, trimmed with velvet and braid. Pattern of pantaloons—No. 6498—price 15 cents; the vest pattern is No. 6496—price 15 cents; jacket pattern—No. 6497—price 25 cents. Cheviot, cassimere, flannel or summer cloth may be used.

Child's plain dress, (shown in lower right-hand corner.) This model is made of cambric and trimmed with lace-edged ruffles. No. of pattern, 6607; price 20 cents.

No. 6625. This costume is made of lawn and trimmed with Hamburg embroidery and ribbons. It may be made either high or low-necked, as shown in model. Price 25 cents.

No. 6596. Misses' deep round basque. These engravings illustrate a stylish basque for a miss. Price of pattern, 25 cents.

No. 6501. Boys' single-breasted coat. This model is desirable for cloth, diagonal, cassimere, Tricots, melton, cheviot, or any of the fashionable suitings for boys' wear, and machine stitching is quite as suitable a finish as binding for the edges. Farmer satin, alpaca or Silesia may be employed in lining the coat, and canvas or Wigan for stiffening the fronts.

No. 6569. Misses' over-skirt. The construction of this over-skirt is novel, without being at all complicated or difficult. All kinds of suitings worn by misses will be made up in this way, washable and woolen goods being equally popular for this mode. Price of pattern, 20 cents.

No. 6593. Girls' blouse. All kinds of seasonable textures will be made up in blouses of this style; white lawns, *piques*, jaconets and cambrics being particularly fashionable for waists to be worn over light or dark skirts. Price of pattern, 20 cents.

No. 6166. Misses' gathered blouse, with yoke. This model may be constructed of cashmere, merino, camels'-hair, bourette, or washable fabrics. If preferred, the blouse may be made altogether of plain goods. Price of pattern, 20 cents.

No. 6504. Boys' coat. Any material in use for boys' wear makes up stylishly by this model. Cost of pattern, 20 cents.

No. 6499. Boys' Suspender Pantaloons. The model used for this illustration is the most fashionable shape of the season, and will be chosen for all kinds of material. Price of pattern is 15 cents.

No. 6500. Boys' Single-breasted vest without a collar. This shape is a desirable one by which to make up washable goods, such as linen, Marseilles, duck, &c. Boys' suiting of any kind also makes up stylishly by this pattern. Price 15 cents.

No. 6697. Described above.

No. 6559. Girls' Costume. This pretty model is composed of pale blue Cashmere with trimmings of Torchon lace. A pleasing contrast may be brought out in a costume of this kind by making the center-fronts, the ornamental back-pieces, the pockets and pipings of pale blue and the remainder of navy-blue or *vice versa*. Deep plum and pale blue, dark garnet and primrose pink, dark green and cardinal or pale blue, seal brown and old gold, are also fashionable. Smyrna, Valenciennes, and all kinds of antique laces are fashionable trimmings for materials intended for girls' wear. Cambrics, lawns and *piques* are as much in vogue for children as at any previous season, and will be largely made up in this model. Price of pattern 25 cents.

No. 6600. Girls' Slip with Box-Plaited Ruffle. This slip has a loose body and the skirt consists of a deep box-plaited ruffle, whose joining seam is prettily concealed by a graceefully arranged scarf of blue ribbon. Any material may be used for it. Price of pattern, 20 cents.

No. 6620. Misses' Polonaise. This stylish pattern is a charming mode for fashioning organdies, calicoes, lawns, cambrics, and all sorts of cotton, silk and woolen dress goods. Price of pattern 25 cents.

No. 6526. Misses' Belted Polonaise. A polonaise of this style made of Swiss, lawn, *pique* or white goods of any kind, makes a very pretty and stylish over-dress to wear with a skirt of the same or of some contrasting fabric for holiday and gala occasions. The trimmings might consist of ruffles, lace or knife-plaitings of the goods. For ordinary wear, figured or plain colored fabrics are, of course, more serviceable. Price of pattern, 25 cents.

All of the foregoing patterns come in different sizes; when ordering be particular to state the age of the child. Faith Ripley.

Literary Miscellany.

AN UGLY GIRL.

(Continued from page 398.)

CHAPTER XXVII.

A SEANCE.

That evening, while he rested after his unwonted exertions, Herr Rudolsheim came to bear him company. He was received with unfeigned pleasure, for Noel never felt his loneliness so much as when the twilight came; for it was then that Illillian Gray had been wont to sit beside him, and with cheerful conversation, while the time away. Where was she now? Perhaps sullenly resenting his interference with Clement Dunforth, to whom he could not help fearing that she had listened more confidingly than he deserved. What would she say, if she knew that he was not in love, but in a cruel endeavor to make her betray herself, that the wily lawyer had been seeking her? The more Noel mused over Clement's avowal of his reasons for the attentions he had paid this young girl, the more angry and indignant he felt. It was base—it was unmanly! Such conduct might be considered excusable by a few members of the profession for which Irene's betrothed was qualifying himself; but it would never recommend itself to a man of good and honorable feelings.

Thinking this, it was only natural to revert to Mrs. Estcourts's too hasty acceptance of his proposal for her daughter. If Noel had found it difficult to reconcile himself to this marriage before he had obtained any insight to the character and feelings of Clement Dunforth, how much more so did it become when he found him entering so readily on a course of action which must end either in the disgrace or unhappiness of a helpless girl?

Dwelling on these painful topics had not elevated his spirits, and it was, therefore, quite a relief when the chatty, sociable German came in.

"If I intrude," he gaily said, "send me to the right-about; but just receive my credentials, shall I call this letter, which I bring you? Again has the fleet, noiseless messenger dropped one on my table, and astonished me by vanishing ere I could behold his or her form."

Then Miss Carlsforde had chosen to continue the correspondence, and, with an apology to the Herr, he hastened to peruse her epistle.

To his vexation it merely contained an entreaty that he would accept the stewardship of the estates, residing at the Park, and receiving such remuneration—if he still refused anything more—as her guardian judged it right to give him.

"You need have no hesitation on my account," she added; "as I am in treaty for a house by the sea, which will suit me far better than Carlsforde Park. If you are in earnest in your proffers of friendship, you will close with this offer, which I make with Mr. Blenkinsop's sanction. Let me have your decision by letter, or if you prefer it, address yourself to my guardian, with whom, of course, all the business details of this arrangement must be completed."

Then, as if by an after-thought, she had added: "Why do you wish to see me? Of what use would it be for me to listen to expressions of sympathy and good will, the sincerity of which your own conduct forces me to doubt?"

What did she mean by this? Noel could not accuse himself of an unkind thought towards his hapless cousin, nor could he recall a word uttered to anyone during his residence at the Park, which could be misconstrued. Yet it was plain that some one had slandered him to her, and that she credited the tale, else why did she refuse him an opportunity of justifying himself?

Yet, setting aside the annoyance this note cost him, his feelings towards Ada Carlsforde herself were only those of pity; in spite of her doubts, she was eager to serve him and his, and evidently thought that the plan she now proposed was one that he could agree to without his self-respect or his pride being wounded. It grieved him to disappoint her again, to frustrate such kind intentions; yet his determination to decline—gratefully but firmly decline—was already formed. On no pretense would he be induced to connive at her resignation of her rights; it would be unmanly, dishonorable, to do so, and he would never give anyone cause to call him either the one or the other.

In musing over these things, he had forgotten his visitor, until the Herr, in turning from the window, stumbled over an ottoman, and Noel, who had with difficulty deciphered the note, perceived that the room was almost in darkness.

"I will ring for lights," he said, with an exclamation of regret for his discourtesy.

"Nay, I pray that you will not," cried the Herr, who had found his way to a chair; "this obscurity relieves my eyes, which have been severely tesled to-day. I have been pouring over a manuscript, so faded, as to be scarcely legible, yet would I not lose a word of it, for the information it contains is priceless. Lord Carlsforde did a great work for posterity when he secured this precious tome. It is good to be rich, but to be wealthy and intelligent as well, is better. Truly, he was one of the most fortunate of men."

"And yet the daughter he leaves is one of the most unfortunate of women," observed Noel, unconsciously speaking his thoughts aloud,

"You think so? You have much pity for this *fraulein*, eh?" asked Herr Rudolsheim, abruptly.

"Certainly, I have. Who would not commiserate her?"

"But this is what you English call odd—no, *queer*; or, as I should say, inexplicable. You to speak thus, who have—our much-talking friend, Madam Hurst, assures me—refused, yes, refused, point blank, to make the young miss a happy bride! Pardon me, if I repeat that it is inexplicable!"

"Not at all, *mein Herr*," retorted Noel.

"Nor would you think so, if your informant had told you the whole truth, and nothing but the truth."

The Herr looked curious, and not choosing to hear his actions misconstrued on all sides, Noel went on to say:

"The late Viscount, by his will, gave me permission to woo his heiress; but he forgot that in leaving her the whole revenues of Carlsforde, he put it out of my power to do so honorably. Do you ask why? Because I was, and am a needy man."

"And the lady; have her feelings and wishes been consulted?" asked the Herr, as he helped himself to a pinch of the snuff he carried loose in his waistcoat-pocket.

"Not as much as they ought to have been!" Noel acknowledged. "I am afraid my own incautious speeches have been repeated to her, and have aggravated her keen sense of her uncomely appearance."

"And you despise—you reject her for her unhandsome visage?"

"By no means. Miss Carlsforde has proved herself so generous, so large-hearted, that I have long ceased to think whether she is ugly or pretty. But really, *mein Herr*, I am sick of discussing this subject. No one seems to understand that my objection to the marriage is simply: if I marry, it shall be for love, not for money."

"Why could you not have united the two?" asked the German, profoundly. "Is it not within the bounds of probability that this *fraulein*, this noble lady might, when you knew her intimately, prove to be endowed with so many charms of the mind, that you should love her for them? Aye, love her with that absorbing affection, enduring as it is respectful, ennobling the character of him who entertains it, giving him that 'something to live for,' which is needed to rouse the energy, to incite——But, bah! I prate too much and too fast. You are a man of sense; you comprehend already the advantages of wedding a woman who could appreciate you. Why, then, I ask do you not endeavor to learn whether in Miss Carlsforde this second soul is not to be found?"

"It is too late," said Noel, hastily; "nor, under the circumstances, could I have sought her with a view to our union. But I shall never cease to regret that I am leaving Carlsforde without seeing her."

"Why would you see the lady, if you are not prepared to make her the proposal of marriage?" the Herr inquired.

"Because she has contrived to prejudice herself against me, and thinks that my offers of friendship are made in a mocking mood instead of a serious one."

"Eh, well, the fault of that is hers."

"True; but think how peculiarly she is situated! She shrinks from the cold pity of the world—she has neither brother nor father to protect her. I cannot even feel certain that the one or two persons she believes to be her friends are worthy the name. How, then, can I go away—cherishing the deepest gratitude for her generous efforts to enrich me at her own expense—and not regret that her mistrust prevents me from proving that I would be as trusty, as true to her interest as her only living relative should be."

"See her, then, and tell her this. Speak to her as you have just spoken to me, and I think she must believe you."

"But, *mein Herr*, your advice, however good, is useless. The lady will not grant me an interview."

The German hummed the "Watch on the Rhine," and Noel was again on the point of ringing for Jephson, when Herr Rudolsheim's voice arrested him.

"My friend, are you believer or skeptic? Do you believe in the affinity of souls, or the vagaries of the spirits? Would you mock me if I asserted that by the exercise of my will I believe that I could bring Miss Carlsforde here? You are incredulous. I cannot see your face, but that exclamation tells me so. You think that I am boasting; and it is true that I have sometimes attempted this, and failed; but it is my firm conviction that I could, at this moment, so influence the *fraulein*, wherever she may be, that she should feel herself impelled to come hither and reply to our questions."

"If you are in earnest—" Noel began.

"If? Put me to the proof. Should I fail, laugh at me for a charlatan; should I succeed, then you shall admit, with your Shakspeare, that 'there are more things in heaven and earth than your philosophy dreamt of.' Are you ready?"—To be continued.

ABOUT POISONS.

Some Important Facts Which Ought to be Generally Known.

"Poison: A substance which when taken into the stomach, mixed with the blood, or applied to the skin or flesh, proves fatal or deleterious; anything infectious or malignant." Our scissors make the first clip out of Webster for a definition of the greatest evil as well as the greatest good known in the medical world. For after the fashion of the old saying, "It takes a thief to catch a thief," in public systems, so in the individual system if one poison has stolen away into the net-work of veins by fair means or foul, there is small hope of recovering one's own, save another poison be sent after it.

All medicines seem to be more or less poisonous. But owing to the large doses those classed "less" require to produce death or even deleterious effects, they are by the mass of people regarded as harmless, for arsenic, strychnine, opium, chloroform, mercury, and perhaps a few other prominent remedies cover all, to them, dangerous poisons. Yet we read in a daily paper of a child suddenly attacked by severe vomiting which the usual remedies failing to check, ends in exhaustion and death; and the cause is laid anywhere but at the confectioner's counter, where the boy bought his candies and cakes flavored with bitter almond.

"The bitter almond is a powerful poison." A single drop of the essential oil on a cat's tongue made a dead pussy of a living one in just five minutes, by experiment. Some delicate organizations, especially among children, can bear but little of this essence, the smallest quantity producing an eruption like nettle-rash, if nothing worse, and yet, macaroons are eaten and given to children to eat with impunity, while confectioners are often nowadays using, not the bitter almond, but the essential oil for their flavoring. There is a "family connection" between the bitter and sweet almond, how close is not easily defined, but sufficient to show that on some persons the sweet nut on our tables, if eaten, produces an effect similar to that caused by the bitter almond.

"Fish poison is one of the most singular in all the range of toxicology." Certain kinds of fish in hot countries are looked upon as always poisonous. Other kinds are only poisonous to peculiar constitutions, at certain times, and perhaps depending somewhat on the climate. The richer sort of vertebrate fish, though actually eaten with perfect safety by mankind in general, is nevertheless poisonous, either at all times or only occasionally to peculiar individuals. This fact is self-evident to many of us who have experienced nausea after eating white fish salmon, lobster, etc., at one time or another, and instinct is wise when it heeds the hint and declines the poison in future.

Lead poison we are more familiar with, as some members of our household are more susceptible than others to the injurious effect of water run through lead pipes. But the poison in this case, acting slowly and subtly, is usually classed under the broad, good-naturedly embracing term "malaria." Those who work in lead mines or in any way with lead, and absorb its fine dust into their systems, except by the greatest care, sooner or later have what in general phraseology is called printers' or painters' palsy. The habit of children to bite and wet their lead pencils is often followed by serious results, which are more likely to be traced to a close school room and hard study than to the lead pencils, slate pencils and chalk they have munched on at short intervals five days out of every seven.

Another of the every-day poisons is found in the syrup which is the leading feature of the American breakfast table. "The use of chloride of tin in glucose syrups has been proved by numerous analyses." Think of that, oh, ye who indulge in "golden drip" and "maple syrup" on cold, wintry mornings, on your hot cakes. Beware of any syrup that leaves a metallic taste in the mouth, lest by means of the sweet liquid your stomach gets a tin lining, and you, wondering why on earth you have developed dyspepsia, conclude that it must be the

hot cakes disagree with you. And if the said cakes are made of the raising—easy stuff called baking powder—very likely the disagreement can, in part, be laid to them, for analysis has also shown that baking powder contains a large proportion of desiccated alum.—*Journal of Materia Medica.*

UPON A STOLEN KISS.

Now gentle sleep hath closed up those eyes,
Which, waking, kept my boldest thoughts in awe;
And free access unto that sweet lip lies,
From whence I long the rosy breath to draw.
Methinks no wrong it were, if I should steal
From those two melting rubies one poor kiss;
None sees the theft that would the theft reveal,
Nor rob I her of aught that she can miss;
Nay, should I twenty kisses take away,
There would be little sign I would do so;
Why, then, should I this robbery delay?
O, she may wake, and therewith angry grow!
Well, if she do, I'll back restore that one,
And twenty hundred thousand more for loan.

[*George Wither*, 1500.

RESTAURANTS.

Many of our farmer friends who make only brief visits to large cities, do not, perhaps, realize what an important part the Restaurant enterprise bears in the interest of fine agriculture. There is not a more valuable means of distribution than these places afford. They form, in fact, a campaigning ground for the test of various products. They practically open an avenue of commerce that would prove tedious if the introduction and trial of many commodities had to be gained simply by the slow process of family demand.

Regular residents have been, as a rule, accustomed and satisfied with garden and orchard items in their season; restaurants help greatly to vary this feeling. Besides, in this age of railroads and steamcraft, a miscellaneous congregation of consumers is at all times, to be found in large cities, numerous enough to develop a demand for table-supplies that remind them of home specialties.

Hence, there is an eager spirit of competition aroused among managers of hotels and first-class restaurants, aiming to render their guests contented. With this point gained, another follows: Many busy regular residents choose, or are forced to lunch away from their own tables, and another tributary to increased demand is thus loosened.

Good livers are not slow in taking hints from reputable restaurants in matters of *cuisine*, while they also avail themselves of the bulletins of novelties in market furnished by public lunch-rooms. Of course, we refer to the well-to-do rank and file of citizens. The time was, and not very remote either, when only an opulent few could enjoy expensive hot-house fruit and vegetables. Now, with the enlarged garden culture of the South and judicious selection of varieties in other parts of the country, products that once rated as luxuries have expanded into crop significance.

As this is the case, it is evident how important it is to have the assurance of steady sales, if the grower is to be encouraged and compensated. Restaurants largely effect this; their bills of fare must be underlined so as to make almost a continuous season for many things. There must be Strawberries before May! Ripe Peaches many weeks in advance of Maryland pickings! Green Peas and Asparagus before the frost is out of the ground hereabouts; New Potatoes long before the Fourth of July—a date once regarded as almost miraculous in this section. Apples, Pears, small fruits, Cucumbers, Cabbages, Kale, Spinach and Lettuce, are all stock affairs, weeks and weeks sooner than near by supplies can be obtained. In fact, the market frequently displays the green and tinted splendor of late summer while its patrons are yet winter-clad.

These allusions to the help given by purveyors, must be gratifying to pains-taking producers, as it is pleasant to know that outlet for their labors is widening every new season, and in nearly every case, steady success is promised for what was at one time timid experiments. T. A. G.

Mary had a little lamb,
Its fleas were black as night;
And everywhere that Mary went
Those wicked fleas would bite.

[*Mrs. Hemans.*

PAINTING FLOWERS UPON MIRRORS.

An art revived in Rome within three years past, is the old Venetian art of painting flowers upon mirrors. Birds and butterflies are often added, and the effect of the glass underneath, especially when that is thick and bevelled, is to make them appear as if suspended in air. Tourists remember seeing them in Venetian palaces, but faded and flecked with time, and often also, coarse and heavy in design. To-day the execution is much finer, and besides, our flowers are enriched in quality and variety. Fornari is the best artist for this work in Rome. His flowers are poised and painted with a grace and delicacy that nature, so reluctant to give up her subtle secrets, has herself granted him. This would be a pleasant study for the amateur artists who are springing up all over the United States, like wild flowers in the spring. The design must be traced from natural flowers with a lithographic pencil, and painted in oils with peculiar care, for nothing can be more unlovely when badly done with muddy, ill-assorted colors. These mirrors are usually framed in carved ebony or ebonized frames in the cinque cento style, another fashion revived within a few years. In the house of Arsene Houssaye in Paris, and in some others, the glass of the windows is similarly decorated. One or two centuries ago, it was a fashion to cover the entire walls of boudoirs with bellowered mirrors. One of the prettiest is in the "Favorite" Palace at Baden Baden. Thus do we travel in circles. Art as well as History always repeating its traditionary steps.—*Syracuse Journal.*

RECENT LITERATURE.

"How to Grow Handsome; or, Hints toward Physical Perfection, and the Philosophy of Human Beauty," showing how to acquire and retain bodily symmetry, health and vigor, secure long life, and avoid the infirmities and deformities of age. By D. G. Jacques, author of "The Temperaments," etc. With introduction by Editor of Phrenological Journal. New edition. Illustrated, 12mo. Extra cloth, price $1.00. New York: S. R. Wells & Co.

This is a very valuable book on the subject of physical culture, and especially a work for ladies, but of interest and importance to all, and may be recommended to mothers.

The work is very extensively illustrated with fine plates, consisting of upwards of one hundred illustrations, taking up and elucidating distinctly the structure of the human body, including in brief, a system of anatomy and physiology. The perfect man and woman are held up to view with the contrasts which are found between the two sexes Our author briefly discusses here the temperaments, with illustrations, also the laws of configuration, showing the effects of education, culture, etc. A very important chapter is that on embryology or heredity, showing that conditions are transmissible, with important rules to be observed. Childhood and the culture which should accompany it is amply set forth, the relations to body and brain, the moral and emotional influences as affecting beauty, the influences of the fine arts, social conditions, and occupations with the various causes of deterioration, the effects of climate and locality. Then comes the department of direct physical culture, including proper positions, for sleeping, sitting, standing, walking, running, skating, riding, swimming, rowing, dancing, gymnastic exercises, and all of the best means of physical culture, with directions for remedying the defects usually found. Practical hygiene shows how air becomes impure, the abuses of the stomach, what to eat and what to drink, rules for diet, exercise and rest, cleanliness, etc. A chapter devoted to womanhood contains a strong word for mothers and the marriage relations. The secrets of longevity show the perils of life, what constitutes vital power, human capacity for life, or how long we may live, etc. Dress is discussed, with hints on colors, ornaments, etc. The work closes with the external indications of figure, and a complete index.

The Gospel of Joy.—By Rev. Samuel Alman and S. H. Peck. Boston, Oliver Ditson & Co.

The title page informs us that this attractive collection is for Gospel Meetings, Camp Meetings, and Sunday Schools. Its superiority in character to some former compilations will be sufficiently indicated by several extracts from the preface. "We call special attention to the large number of hymns and tunes that have never before been published." There are nearly eighty of these. "Our aim has been to present such hymns only as contain Gospel Truth; and which are themselves short sermons on given texts." The title first selected was, the Gospel in Song, a most appropriate one; but it was abandoned for the reason that it somewhat resembled the name of another book. "We have striven to avoid the too prevalent dancing style of the so-called sacred music of the present day, and we believe that in our effort to correct this abuse, many will give us their approbation." In so doing, the authors have by no means fallen into the opposite error of producing a dull book. The melodies are unusually bright and musical. "We have also inserted a choice collection of old favorites." No singing book is complete without these, but they occupy only a few pages, and are very well selected. The Gospel of Joy contains 135 Hymns, and about 120 Tunes, all of which are pleasing, and the bright book, with it bright name, can hardly fail to be a great success.

Light in Dark Places; or, How the Camps Lived in their Poverty. By Henry S. Drayton. With illustrations. 12mo, pp. 275, cloth. Price, $1.25. Philadelphia: Claxton, Remsen & Haffelfinger. New York: S. R. Wells & Co.

Some books are written for one purpose, some for another. In one we find a story merely, the author having drawn on his imagination for a plot and exercised his ingenuity in creating novel characters and unexpected incidents. In another there seems to be a desire to argue some point, teach some lesson or advance some theory, and the story, if it may be called such, is subservient. In the book named above, the author seems to have attained the true position of a story-writer. He amuses and instructs at the same time. His recital is of a family in needy circumstances, and his teaching is in showing how they managed to live comfortably on a small income and brought happiness to themselves by conferring benefits on those about them. Without turning aside from the course of the story or detracting from its interest, he manages to introduce brief but instructive lessons on domestic economy, hygiene, cookery, physiology, dress, deportment, etc., so naturally that the reader scarcely suspects he is the recipient of instruction.

Important Transfer of Hymn Book Interests.—Messrs. Scribner & Co., having, under the business management of Mr. Roswell Smith, brought the publishing of Magazines from doubtful experiment to an unparalleled success, have now entered a new field with characteristic energy in the publication of Hymn and Tune Books for churches.

Their recent issue of "Spiritual Songs" by Dr. Chas. S. Robinson, and "Calvary Selection of Spiritual Songs" (for Baptist Churches) by Dr. Robinson and Rev. Robert S. MacArthur, in beautiful style, at very moderate prices, met with universal commendation from the critics. And now comes the announcement that the plates and copyrights of "Songs for the Sanctuary," and all Dr. Robinson's other works, have been purchased by this house from A. S. Barnes & Co.

By this transfer, the works of the most successful compiler of hymn and tune books are consolidated in the hands of a firm which has ample facilities for bringing them out in the very best form at the lowest possible prices.

Dr. Robinson's earlier works, especially the popular "Songs for the Sanctuary," in its various editions, are used in more churches than all other similar collections put together, and yet it is said that the entire income received by Dr. Robinson from his Hymn Books for the past sixteen years has been given back to the churches in various ways for the cause of Christianity.

MAGAZINES.

Atlantic Monthly for July: Massy Sprague's Daughter; Glamour, Wm. O. Bates; Public Balls in New York; The People for whom Shakespeare Wrote. II., Charles Dudley Warner; Recent Modifications in Sanitary Drainage, George E. Waring, Jr.; Juno Ludovisi, Hjalmar Hjorth Boyesen; Irene the Missionary. XIV.-XVI.; The Morning Hills, Maurice Thompson; Our Commerce with Cuba, Porto Rico and Mexico, C. C. Andrews; The Children Out-of-Doors, John James Platt; A Fossil from the Tertiary, Edward E. Hale; Avalanche, H. H.; English Skies, Richard Grant White; The Contributors' Club—Schoff's Engraving of Rowse's Emerson—Men's Women and Women's Women—Over-Production and its Remedy—A Protest on behalf of the Friends and Relatives of Authors—Non-Pecuniary Rewards of Literature—Unreligion of Recent Novels. Recent Literature—Bartlett's From Egypt to Palestine—Burroughs's Locusts and Wild Honey—Motley's The Rise of the Dutch Republic—Paul's Mary Wollstonecraft—Bacon's A Life Worth Living—Pike's The New Puritan: New England Two Hundred Years Ago—A History of the Witches of Renfrewshire. Education—Reports of the Superintendent of Boston Schools.

The People for Whom Shakespeare Wrote.—In nothing was the increasing wealth and extravagance of the period more shown than in apparel. And in it we are able to study the origin of the present English taste for the juxtaposition of striking and uncomplementary colors. In Coryat's Crudities, 1611, we have an Englishman's contrast of the dress of the Venetians and the English. The Venetians adhered, without change, to their decent fashion, a thousand years old, wearing usually black: the slender doublet made close to the body, without much quilting; the long hose plain, the jerkin also black,—but all of the most costly stuffs Christendom can furnish, satins and taffeties, garnished with the best lace. Gravity and good taste characterized their apparel. "In both these things," says Coryat, "they differ much from us Englishmen. For whereas they have but one color, we use many more than are in the rainbow, all the most light, garish, and unseemly colors that are in the world. Also for fashion we are much inferior to them. For we wear more fantastical fashions than any nation under the sun doth, the French only excepted." On festival days, in processions, the senators wore crimson damask gowns, with flaps of crimson velvet cast over their left shoulders; and the Venetian knights differed from the other gentlemen, for under their black damask gowns, with long sleeves, they wore red apparel, red silk stockings, and red pantofles.

Andrew Boord, in 1547, attempting to describe the fashions of his countrymen, gave up the effort in sheer despair over the variety and fickleness of costume, and drew a naked man with a pair of shears in one hand and a piece of cloth in the other, to the end that he should shape his apparel as he himself liked; and this he called an Englishman. Even the gentle Harrison finds it easier to inveigh against the enormity, the fickleness, and the fantasticality of the English attire than to describe it. So unstable is the fashion, he says, that to-day the Spanish guise is in favor; to-morrow the French toys are most fine and delectable; then the high German apparel is the go; next the Turkish manner is best liked, the Morisco gowns, the Barbary sleeves, and the short French breeches; in a word, "except it were a dog in a doublet, you shall not see any so disguised as are my countrymen in England."

This fantastical folly was in all degrees, from the courtier down to the carter. "It is a world to see the costliness and the curiosity, the excess and the vanity, the pomp and the bravery, the change and the variety, and finally the fickleness and the folly that is in all degrees; insomuch that nothing is more constant in England than inconstancy of attire. So much cost upon the body, so little upon souls; how many suits of apparel hath the one, or how little furniture hath the other!" And how men and women worry the poor tailors, with endless fittings and sending back of garments, and trying on! "Then must the long seams of our hose be set with a plumb line, then we puff, then we blow, and finally sweat till we drop, that our clothes may stand well upon us."

The barbers were as cunning in variety as the tailors. Sometimes the head was polled; sometimes the hair was curled, and then suffered to grow long like a woman's locks, and many times cut off, above or under the ears, round as by a wooden dish. And so with the beards: some shaved from the chin, like the Turks; some cut short, like the beard of the Marquis Otto; some made round, like a rubbing brush; some peaked, others grown long. If a man have a lean face, the Marquis Otto's cut makes it broad; if it be platter-like the long, slender beard makes it seem narrow; "if he be weasel-beaked, then much hair left on the cheeks will make the owner look big like a bowdled hen, and so grim as a goose." Some courageous gentlemen wore in their ears rings of gold and stones, to improve God's work, which was otherwise set off by monstrous quilted and stuffed doublets, that puffed out the figure like a barrel.—*Atlantic for July.*

Harper's Magazine for July.—Narragansett Pier, Prof. Charles Carroll, with fifteen illustrations; The Owl Critic, a Poem, James T. Fields, with two illustrations; The Land o' Burns, William H. Rideing, with fifteen illustrations; The Mowing, a Poem, S. H. M. Byers, with one illustration; A Peninsular Canaan, III. Delaware, Howard Pyle, with nineteen illustrations; The Happy Island, a Story, Edward Everett Hale; A Romance of East Hampton, A. A. Hayes, Jr., with three illustrations; The Storming of Stony Point, H. P. Johnston, with three illustrations; Fifty Years of American Art, I., S. G. W. Benjamin, with thirteen illustrations; Young Mrs. Jardine, Dinah M. Craik, with three illustrations; Recollections of Charles Sumner, E. P. Whipple; The Diary of a Man of Fifty, a Story, Henry James, Jr.

Editor's Easy Chair: Blowing our own Trumpet; Carlyle and Scott; Cowardly Good Humor; Revival of the Royal Prerogative in England; A Fallacy of "First-class" Americans.

Editor's Literary Record: Symonds's Renaissance in Italy; The New Edition of Motley's Histories; Le Goff's Life of Thiers; Church's Spenser; Oliphant's Molière; Sharp's Robert Burns; The Epic of Hades; Haywood's Willoughby; That Artful Vicar; Martin's for a Dream's Sake; Payn's Under One Roof; Hassurek's The Secret of the Andes; Boyesen's Falconberg; Zola's L'Assommoir; Porter's in the Mist; Drinkwater's Tessa Wadsworth's Discipline; Airy Fairy Lilian; Wild Life in a Southern Country; Burroughs's Locusts and Wild Honey; The American Plant-Book; Damon's Ocean Wonders; Niebhur's Greek Hero Stories; Cooke's Stories of the Old Dominion; Buckley's The Fairy-Land of Science; Yonge's Young Folks' History of England; Hill's Washington Irving; Mrs. Beecher's Letters from Florida; Flipper's Colored Cadet at West Point; Seiss's Voices from Babylon; Shakespeare's St. Paul at Athens; Kinglake's Eothen; Beerbohm's Wanderings in Patagonia; Brooks's Zophiel.

Editor's Scientific Record: Astronomy; Physics; Anthropology; Zoology; Engineering and Mechanics.

Editor's Historical Record; Political Intelligence; Disasters; Obituary.

Editor's Drawer: Juvenile Humor; An Epitaph; Shuter and Whitfield; Cross-Examination; A Chinese Witness; Plea of a Jerseyman; Anecdote of Judge Kent; Humors from a recent Novel; A medical Anecdote; A disgusted Judge; A French Petition; A Clerical Accident; A Typical American; The Marines in Church; A frightened Chinaman; The Reason why (Illustration); "Listen to dot Mocking-Bird" (Illustration); Country Board (Illustration).

Beaconsfield and Peel.—The alleged growth of the influence of the crown is coincident with a great increase of the court circle by the marriages of the various members of the royal family, so that the court influence in politics becomes more and more evident. A recent incident shows the condition of the public mind in England, and the risks of the Beaconsfield policy. Sir Robert Peel spoke severely in the House of Commons of the Queen's correspondence with Lord Chelmsford, and alluded to Thackeray's unflattering portraits of the Georges, one of whom, and the most reactionary, was the Queen's grandfather. Presently a friend of the Prince of Wales intimated, in a paper called *Vanity Fair*, that the royal family intended to cut Sir Robert. To this foolish assertion Sir Robert replied, in a letter which the editor of *Vanity Fair* begged him to withdraw, and which was privately shown to the Prince of Wales, who caused Sir Robert to be informed that he had not authorized the statement in *Vanity Fair*. This message Sir Robert sent to the *Times*, and the editor of *Vanity Fair* retorted by publishing Sir Robert's letter. It is a letter in which, courtward and Queenward, Sir Robert uses very strong language, calling the statement of *Vanity Fair* "a very impudent expression of the latest development of the ridiculous imperialism of the present day;" "a clear breach of privilege, recalling the most stupid exhibitions of royal misconduct." "You invite me to a game which two can play at: one of the parties in the contest may prove a pungent critic of the coming K—— and Co." "You act as the plenipotentiary of royalty: go and tell your master that I am not the sort of man to be smothered by imperial menaces, and unless I receive the most ample satisfaction from the royal sources which have made you their most impudent mouth-piece, I shall send a copy of your statement, together with my reply, to the Prince of Wales and the Duke of Cambridge."

This is "langwidge" which even James Yellowplush could not mistake, and the courteous disclaimer of the Prince, which did not prevent its final publication, can not change the conviction that there is very deep and strong feeling when a man of the position of Sir Robert Peel, who is by no means a radical, can write in such terms of the court for publication, and when another staid and substantial Commoner can propose a virtual censure upon the Queen. It is not a favorable moment for attempting to magnify personal monarchical power, and the course of events in England shows how singularly out of tune with his own age the Prime Minister is. When he was made Chancellor, a few years since, he exhorted the students to study carefully the spirit of their age, and to conform their lives to it: and by way of illustration he chooses the time in which the idea of monarchy is outgrown among the educated and intelligent classes who inspire and control the age, and in a country traditionally sensitive to the encroachment of prerogative, and in the prospect of the succession of a Prince who is thought too much to resemble his great-uncle the Prince Regent, to revive personal government, to enhance the power of the crown, and to belittle Parliament. There is, indeed, in the opinion of shrewd observers, a reaction upon the Continent against free government. But that is impossible in England. The country has gone too far forward; the suffrage is too widely extended; there is too much real liberty and soundness of thought, too homogeneous a people, too sturdy a national character, to permit any such reaction. There is nothing in the purpose of Lord Beaconsfield which can contend successfully with the spirit of Sir Robert Peel.—*Editor's Easy-Chair, in Harper's Magazine for July.*

The Twenty-fourth Annual Commencement exercises at St. Mary's Academy, Notre Dame, Indiana, promise to be very pretty. The programme sent us, clearly indicates the high standard demanded of the scholars. Mother Mary of St. Angela, the Superior, may well feel gratified at the success attending her efforts to make St. Mary's one of the best schools in the country.

CROP REPORTS.

(Continued from page 411.)

BOLSTERS MILLS, Cumberland Co., Maine.—The weather is cold and wet and everything is backward. Wheat is looking fair. Corn is just coming up, but looks yellow. What potatoes are up, are looking well, but the beetles are very plentiful. The fruit crop isn't started, so that we cannot tell how it will turn out. Small fruit, however, will be quite abundant. All kinds blossomed full. We had a heavy frost on the 8th and it did some damage. R. S. P.

HAVERHILL, Grafton Co., N. H.—Wheat, corn, and potatoes are looking finely, notwithstanding the lateness of the season. Perhaps we may expect average crops. Grass never looked better. Fruit has been injured a good deal. The potato bug has put in an appearance; but what the result will be remains to be seen, as the season advances. H. H. B.

CORNWALL, Addison Co., Vt.—It was very dry here until about the first of June; we have had considerable rain since then. I think hay will be about half a crop. Winter wheat is very good; spring wheat and oats are rather below an average crop. The prospect is good for a great quantity of fruit. Potato beetles are plentiful. Market prices are very low—good butter brings only fourteen cents. W. M. E.

HARWINTON, Litchfield Co., Conn.—Some farmers planted corn in May, as we had a few warm days; it came up well, but a frost on the last of the month cut most of it down. Others waited till June, and on the night of June 7th a frost came, doing some damage in low land. On the whole, corn is looking well. Potatoes are looking well; frost cut them down in May, but they have a good start now; bugs are showing their ambition to be equal to any emergency. Apples blossomed moderately well; but about the time the blossoms were falling, frost and cold winds came on in low lands. There will be no fruit on the hills; that is, there may be a moderate supply, but nothing to what we had last year. Rye is looking well. Oats are from fair to very good. Wheat is but little raised here; more was put in last fall than usual; it is looking encouraging. Grass is looking remarkably well. The weather is cool—just the weather for grass. Butter is selling for from 15 to 20c. per pound; eggs, 12c. per dozen. C. C.

NORTH GUILFORD, New Haven Co., Conn.—We had quite dry weather in May, but lately we have had abundant rains. Potatoes and corn, especially the former, were damaged to some extent by late frosts, though they are growing finely now. There is not much wheat raised in this section, but more than usual has been planted this year and it looks well. Grass is our principal crop. A small crop of apples. Pears abundant. Many old meadows are light, but grass on newly-seeded land will be heavy; on the whole, there will be a fair average crop—more daisies than usual, which are now in full bloom. C. A. F.

ROME, Oneida Co., N. Y.—We have our crops all in the ground, except perhaps turnips, and some other late summer crops. We have had the finest time for getting in crops the past spring; not a rainy day to put back spring's work, as is frequently the case; but, as an offset, we have been suffering from a May drought, such as probably has never visited this section before. The ground not having been frozen much the past winter and the great body of snow on the ground having melted off last spring, the soil was thoroughly saturated with water at that time, and no plowing was done till nearly the last of April, since which time there has been no rain to hinder the labors of the farm, and during the month of May only three light showers, one on the fourth, then pleasant weather till the 16th, when we had a misty day, but not enough rain fell to stop the field work of man or beast, but it kept the ground and air moist for one day. Then we had cool weather with a number of hard frosts the following week, which seemed very discouraging to the farmer. On the 27th, we had a fine gentle rain which helped the newly-planted corn, and was particularly beneficial to grain, spring sown, and winter wheat, of which we have only small pieces in this section. These are looking very well, though they have not made as much growth as they would have done, had there been the usual rainfall during the month of May. Since June has come we have had gentle showers that have revived the fields considerably, and, should we have timely rains now, our crops may still be up to the average, although the crop of hay must be light on most grounds. Some rich moist lands will produce well, and the rowen crop, if we have a moist summer, may be abundant. That, however, will depend upon the later rains. Should these be abundant, there will, no doubt, be a fine crop of rowen this fall, and if the first crop prove short, considerable of the second will be cut for hay. Our farmers are largely engaged in the dairy industry, and a short hay crop is a sore loss to them, as the grass crop is their main dependance for both summer and winter feed for their cows. Our method of fitting ground for corn, is to draw and spread all the manure we can make during winter and spring, on sward ground, spreading it as we draw it, and as soon as spring opens, use either a brush or harrow to go over the ground and break the lumps and smooth the manure as fine as possible before the ground is plowed, which we usually defer till near the time of planting. This year the ground so manured kept moist much longer than when no manure was spread, so that it was more easily plowed in consequence of the moisture retained. Usually the month of May is quite wet so that our grounds are abundantly wet for plowing for corn, but this year it was quite the reverse, and some pieces were delayed for rain to come and soften the ground, so the corn was not planted till the first of June. Some pieces are so dry that the writer was informed, on this 12th of June, that the corn that had been planted some time had not sprouted yet, but that it was thought to be planted too deep. The corn on my farm, planted after the 20th of May, we are now working out the first time. We are also working and shall finish to-day, a field of sweet corn planted thick for feeding purposes. The yellow field corn we shall begin upon to-morrow. Blunt's White Prolific is up and looking finely. I don't expect to get rich from that this year, but intend to give it good culture and report result in the fall. My trial patch of potatoes is looking finely; we have them well worked out once, and as they were planted on a new piece—that is, where no potatoes have been planted during the past few years—they are not infested with the beetle so far to their detriment. The Beauty of Hebron, and Bliss's Triumph are taking the lead in growth so far. We shall watch the race with some interest, and intend they shall have a fair field, and no favor to either; and if they prove a success, I shall report in the fall. I intend to keep off the bugs, and also destroy all the weeds among my potato crop this year, if possible. Last year our potato fields were badly overrun with weeds in this vicinity, and the crop was small. We hope for more potatoes this year and fewer weeds. We have some winter wheat in this town, that is looking much better than the average of a few years ago. We have for the past two years had extra crops of winter wheat. This year the best piece is one where wheat was grown last year, sown on clover sod after harvest. Last year the ground was carefully plowed and the same piece sown to wheat again. A little barnyard manure was spread upon the ground both years and the crop was an extra good one last year, and promises to be equally good this year, with probably a shorter straw. A field on an adjoining farm, sown after oats in the fall of 1877, produced also an extra crop in 1878. It was sown again last fall to wheat, but does not look as well as the first piece mentioned, at this writing, probably from lack of manure, although a barrel of salt was sown to the acre on the last-mentioned piece before sowing the wheat last fall. J. T.

SHARON CENTER, Schoharie Co., N. Y.,—The first day of the month gave us a fine shower, the first to wet a man's shirt, since the snow left. Of the 16 days of this month it has rained more or less on twelve. Yesterday, last night and this morning we had a heavy rain, the first time we have seen water standing in water holes. Grass is too far gone to give us a full crop of hay. Spring grains are looking very well—drilled grain being far the best. Winter wheat is good, but little is raised here. Most farmers, however, sow a little for bread. This was once a wheat section, and with proper care I think we can raise it again. L. L.

CHENANGO FORKS, Broome Co., N. Y.—The whole of May and the first days of June were very dry, with occasional frosts, but since about the 10th we have had frequent showers and good growing weather. H. K.

COLUMBIA, Lancaster, Co., Pa.,—In this part of Lancaster Co., so far as my observations extend, the grain crops are quite promising. Wheat generally is making a healthy growth, and is now promising a full average yield. In some sections the severe hail storm of the 4th inst, nearly ruined many fields, and smashed lots of glass on greenhouses and dwellings. Rye so far looks quite promising. Oats are rather short, having been sown late. Grass too is rather short, but thick on the ground, and will turn out an average crop of hay. Owing to the drought through the month of May, vegetation is rather backwards, but now the late soaking rains are giving it a start. Corn, too, comes up well, and potatoes, so far, are very healthy. Farmers now generally apply Paris-green as soon as the bugs make their appearance, though yet the pests are not as plentiful as in former years. In general, the prospect for good crops are cheering, and farmers have no cause for "grumbling," unless it is at low prices of produce and high taxes. Sweet cherries are very few; sour or Morello cherries, a fair medium crop. Strawberries were a very short crop from the drought in May. Cherries, Peaches, Pears and Plums bloomed profusely, but the fruit is dropping off very much, and will not require thinning by hand-picking. Peaches and Pears may ripen a medium crop. Although Plums are very full of fruit now, by the time it ought to ripen, the "little Turk" will have caused the last plum to drop, as usual! Of apples I might say there are none. The trees bloomed very sparsely. Last year they were white with bloom, still we had no apples, and, of course, we expect none this year. Grapes were never more promising, at this season of the year. T. B. G.

MENNO, Mifflin Co., Pa.—We have fine growing weather after a long dry spell. Wheat is doing well. It is not likely to be a full crop, however. In our township it is pretty good, but in some parts of our valley it is not half a crop, and the wet weather may yet damage it somewhat while it is in bloom. Oats, I think, never looked better, and corn is doing very well. The acreage is about as usual; as farms here are generally small, the proportion to each crop doesn't vary much. Potatoes are more than an average, and are doing well. Fruit is not over an average. Grass is short, but well set on ground. Wheat sells for $1.05; corn, 50c.; oats, 30c.; butter and eggs, 8c. Horses and cattle are doing well. Fat cattle sell from $4 to to $5.50 per 100 pounds live-weight. Cows are very low. D. A. H.

MILL VILLAGE, Erie Co., Pa.—The weather during the past few days has been very cool, and two or three frosts on the creek bottoms have done some damage. Crops are looking well, except wheat which was badly winter-killed. Potatoes are scarce and readily fetch 75 to 80c. per bushel. Wheat is worth $1 10; oats, 30c.; butter, 10 to 12½c.; eggs, 10c. per dozen. A. C R.

SUMNEYTOWN, Montgomery Co., Pa.—In this section all vegetation suffered this spring by an unusual drought, but recent rains give us a promise of a fine crop of grass. Wheat is not quite as good as last year. Corn, oats and potatoes are growing finely; and, the season now being favorable to their maturing, we can expect more than an ordinary yield. Apples, pears and other small fruit indicate a full crop. E. M. B.

REEDSVILLE, Marshall Co., Kan.—Fall wheat will be only half a crop, owing to the dry spring and high winds. The roots of fall grain were left exposed to the latter. Spring wheat, oats, corn, millet, etc., all look well and promise an abundant harvest. Fruit, also, is doing well. J. G. C.

BLOOMVILLE Seneca Co., Ohio.—Wheat is good. Corn is poor, the dry weather injured a great deal of the seed and a great many had to replant. The prospect for potatoes is good. There are some few Colorado beetles to contend with. Apples and peaches will be light crops. The drought has injured the hay crop somewhat. We shall have a good crop of grapes. G. M. M.

VALLEY MILLS, Marion Co., Ind.—A very large area of wheat promises an abundant harvest. There is a vast acreage under corn. It is mostly small. Much replanting has been done. As July and Aug. are the months to bring out corn, no reliable prediction of the crop can now be made. Early potatoes have been flourishing, but are now receiving a sad check from the beetles. Many acres of late ones are just planted. There may be half a crop of apples, and only a few pears. W. B. F.

ANDERSON, Madison Co., Ind.—The spring was very cool and backward and very dry until about the 20th of May; since then we have had plenty of rain. Wheat never looked better, and there is a large acreage sown. Oats are light in quantity and quality. A large crop of flax has been sown, and the prospect for an average yield is good. Potatoes are looking well and about an average crop has been planted. G. W. A.

BAILEYVILLE, Ogle Co., Ill.,—There was very little rain here from April 10, to May 25, and vegetation suffered considerably from the drought, but there came a copious rain on the 25th of May, and frequent heavy showers since then, so the crops have revived greatly and are now in good condition. Winter wheat has headed out well and is very promising; spring wheat, oats and barley look fair, but some fields are weedy and the grain stands too thin. Corn will be a large crop here; it has a better appearance than at this time last year. Potatoes that were planted during the hot dry spell in May, failed to come up well, and some have been replanted. The Colorado beetles are quite numerous this spring, but vigilant farmers can out-general them by picking off the first ones that appear, and destroying the rest with Paris-green, when they become too troublesome for hand-picking. Fruit is a variable—we have a good many cherries, plums, etc., but apples are scarce. Had early cherries ripe on the 10th inst., but the birds have taken the most of them. Grain advanced some in price here of late, and farmers who had any to sell, have sold the most of what they had on hand. Prices are: wheat 85@90c; corn, 28@30c; oats, 28c; butter, 8@9c. for good dairy make; eggs 7c. fish, from the Mississippi River, 6c, per lb., dressed. W. B. D.

JACKSONVILLE, Morgan Co., Ill.—Wheat is generally good and of very good quality. The harvest is in progress. Corn is very uneven, owing to the very dry time we have had since the middle of April. Very little rain has fallen in this part of the county since that time; other portions of the county and State had rain in abundance. Potatoes are scarce and small. Fruits of all kinds are generally scarce. I think severe frost late in the spring is the cause of failure in this part of the State. Blunt's corn is looking first-rate; stands waist-high, and bids fair to give a good yield. M. A. H.

ROGER'S PARK, Cook Co., Ill.,—The spring has been cold, yet corn looks well; grass, spring wheat and oats have suffered for want of rain in this state and Southern Wisconsin. Farther west, as in Minnesota, Western Iowa, and Dakota, the grass is good and also all grain crops. W. H. G.

FLINT, Genessee Co., Mich.—The weather thus far has been quite cool and dry. Corn is rather backward. Wheat will be a fair crop. Hay is a light crop. Potatoes look well—plenty of "bugs." Apples will be scarce in this part of the country, the trees having blossomed very light. Cherries and plums promise good crops. Early cherries are ripening. C. B.

WOODLAND, Barry Co., Mich.—Wheat in this particular locality is thin, owing to a failure to come up well last fall; all there is of it is now heading finely. The State, I believe, expects a good crop. Corn and oats never looked better, despite the cold spring. Potatoes promise well, and fruits, particularly small fruits, are abundant. E. D.

MONDOVI, Buffalo Co., Wis.—The wheat prospects in this township are good. It came up poorly in the spring on account of dry weather, but about four weeks ago the weather changed to wet, and the wheat stooled out nicely and bids fair to be a big crop. Oats also look splendid. Corn looks poorly, yellow and small, on account of wet and cold. Potatoes bid fair to be a big crop. Fruit is good. Hay is the heaviest crop that we have had for years. R. T.

MINNEAPOLIS, Hennepin Co., Minn.—The weather has been rather cool so far in the summer. It was very dry early in the spring, but we have had plenty of rain for the last five weeks. Wheat is doing splendidly; there is every prospect for a big crop if it does not run to straw so much as to lodge. Corn is of a good color, but backward for want of hot weather. Potatoes are looking well; there are plenty of old bugs to stock each hill with eggs, but we don't fear them much as long as we can get Paris-green and water to sprinkle them with. Strawberries will be a very heavy crop—just beginning to come to market. Raspberries, currants, etc., all bid fair to be heavy crops. This is not an apple State. We had a light frost on the 15th. C. C. C.

FARMINGTON, Dakota Co., Minn.—Crops of all kinds are looking finely, and bid fair to give large yields. There is no particular section that looks better than another, but all look well. Grass is heavy and will yield a much larger crop than we have had for years. Fruit is a fair crop; children also. R. C. I.

TROY, Davis Co., Iowa.—This section of the country has been dry through the early part of spring but for the last two weeks, it has been raining every day. Fall wheat is the principal sorts raised here; it is doing very well except late sowing. Oats bid fair for a good crop. Potatoes are largely planted and are looking well. Owing to the dry weather corn had to be largely replanted. It is now too wet to plow, and some of it is getting weedy. Fruit will be scarce. Wheat sells for 55c. to 90c; oats, 48c; corn, 25 to 26c; potatoes 30c; weather, cool to-day J. G.

UNADILLA, Otoe Co., Neb.—I came here about six years ago from West Hoboken, N. J. I liked the country so well, that I bought 80 acres of land and commenced farming. I was here during the grasshopper siege, and had to work hard to make both ends meet; but I think I did better than staying around New York and working three days a week. I am by trade a carpenter. We have had a very dry spring, and small grain is very short and thin, but the corn crop looks fine. Fruit of all kinds will be scarce. We have just had a good rain, and it looks as if we should have more. Corn, hogs, cattle, and wheat bring fair prices—wheat, 75c.; corn, 20c.; hogs, $2.70@$2.80 per 100 pounds; cattle, $4@$4.15 per ditto. Barley and rye are grown here for feed only, as this is a stock section. We raise some fine hogs and cattle. H. J. P.

KEARNEY, Buffalo Co., Neb.—Crops in this section of the country are looking splendid; raising winter wheat here is an experiment this year, but is likely to prove a success, as it is already headed out and looking fine. Spring grain and corn are looking better than on any previous year. Fruit growing is in its infancy here yet, but what little there is, shows good prospects of a fair crop. Plums and grapes comprise our wild fruits, and the present prospects are that there will be an abundance of both, though of both, there has been none of any consequence for the last three years. The prices of country produce are about as follows: wheat, 72c.; corn, 46c.; oats, 40c.; potatoes, 50c.; butter, 12c¾.; eggs, 10c., flour, $2@2 40; hams, 10c.; shoulders, 6¾c.; bacon, 7¾c.; green peas, $1 50 per bush.; radishes, 5c. H. A. W.

SCHUYLER, Colfax Co., Neb.—Crops in this locality are uniformly good. There has been sufficient rain to keep things in good growing condition. In some few localities the wheat has been destroyed, but such instances are merely local. Corn is now from 8 to 12 inches high, and is growing finely. Wheat will be of an unusually good quality. Potatoes here were never known to fail. Of fruit there is very little in this portion of the State. The hay crop will be very large. E. A. C.

PALMYRA, Otoe Co., Neb.,—Wheat will be about an average crop, if nothing happens to it. Corn looks well for the time of year. Of oats very little has been sowed—a fair prospect for what there is. There will be no fruit of any account except strawberries. We are having plenty of rain and a fine growing time. D. C.

COLUMBUS, Platte Co., Neb.—Crops are good. Wheat will be short in straw, on account of dry weather in early spring, but the heads are well formed and filled. Corn, potatoes, fruit, etc., were never better. Everything is very prosperous. J. M. C.

FORT COLLINS, Larimer Co., Colo.—The climate here is very peculiar. The soil is a rich, sandy loam almost everywhere. It consists of alluvial deposits, free of shells and mineral matter. It is level, other than sandstone ledges. The climate, winds, cool nights, an absence of moisture, etc., together with the elements in the soil, all have a tendency to make all vegetation dwarfed. All fruit trees, forest trees, shrubs, flowers and grasses are short. No forest tree is higher than 20 or 30 feet. Garden peas never need sticks, nor do grapes. Beans trail along on the ground, and everything seems to be as prolific as in the East. Cabbage lies flat and spreads out in heads of 40 pounds without ever being troubled by the tortoise bug or green worm. Pumpkins, squashes and all vines flourish without fear of bug or black ant. The wheat crop is very promising and the early varieties are just heading. Immigration into this State is immense. Every State east of the Mississippi River is represented daily. "Everybody" is coming. Some stay, enter land and settle. Others buy town property and set up in some business. The western-bound trains are always full of people destined for Leadville or Oregon. Immigrant trains of wagons are continually passing, each followed by a dog. There seems to be no cry of "hard times" here. Everybody has some money. Wages are good, $1.50 per day of eight to ten hours being the minimum price paid the poorest day-laborers. Wheat does remarkably well in this soil; no less than 30 bushels per acre is the average. Corn does not flourish on account of the cool nights, but since the country has been cut up by ditches, trees planted and land cultivated, we have more rain, warmer nights and more moisture in the atmosphere. All small fruits do better than in the East. Business of all kinds is brisk. Good workmen, mechanics and farm laborers are in demand at good wages. We have, close by us, sheep ranches, cattle, chicken and butter ditto, which pay handsome profits. Sheep pay, clear of all expenses, over 30 per cent.; cattle, do better, and chickens sell for $6 to $6.50 per dozen. Among them there is known no disease. They are very easily raised, and do not cost as much as in the East. Herds of 1,500 to 5,000 sheep are seen all over the foot-hills and plains at this season. Cattle line and cover the banks of every stream on the plains. Sheep are herded every night; cattle, never. Not a sheep has been killed by dogs in this county. Cattle, sheep and horses die sometimes, and their carcasses lie untouched by bird or beast. They waste away by a dry decomposition and seldom emit the least offensive odor. A. E, B.

SALT LAKE CITY, Salt Lake Co., Utah.—The prospect for wheat is not as favorable as last year, owing to lack of rain and scarcity of water from

mountains for irrigating purposes. Dry farming; that is, farming without irrigation, heretofore proven a success in many places, this year is considered a failure. From this cause wheat has advanced 40c. Corn is somewhat backward from the same cause. Potatoes are promising and indications are that the fruit crop will be better than last year, excepting apricots and peaches in some localities. The buds were killed by an early frost. R. T. M.

SILVER REEF, Washington Co., Utah.—So little snow fell throughout these mountain regions last winter that streams are unusually dry, and in some places dried up. Until within four days we had no rain this season and the general prospects have not indicated half a crop. They have had a good rain in the northern part of this Territory recently and this has improved their prospects. Here in the South there has been very little rain and prospects are poor. J. E. J.

ETNA MILLS, Siskiyou Co., Cal.—The prospects for wheat, oats, barley and potatoes are very good. The fruit crop is short, on account of late frosts. Corn is cultivated only as a garden crop; it looks well. Wheat is 1½c. per lb.; oats, 1½c.; potatoes, 2½c. per lb. J. E.

ELLSWORTH, Ellsworth Co., Kan.—The weather here for the past six weeks, has been warm and dry—no rain. Spring wheat and oats are badly damaged. There is much that will not be cut. Winter wheat is about one-third of a crop—much late sown wheat is not worth cutting. Corn is good. With a little rain it will be an average crop. Potatoes are badly damaged by drought. Small fruits will be average crops. H. B. W.

WICHITA, Sedgwick Co., Kas.—The wheat harvest is half through; weather favorable. The crop is variously estimated at from a quarter to a half yield, on account of dry weather from September to April. Late wheat, what there is left, is the best. Corn is three to four feet high; an immense area has been planted, and the season is favorable so far. Wheat now is 90c., corn and oats 30c., on account of home demand by immigrants, who are pouring rapidly into this section this season. J. C. D.

EMPORIA, Lyon Co., Kan.,—Corn is looking well, and prospects are fine. Wheat is only about half a crop. Peaches, a failure this year. Cherries, half a crop. Small fruits not very good. W. R. G.

SWOOPE'S DEPOT, Augusta Co., Va.—Wheat has had some very severe trials in this section; first, from the freezing weather in late winter and early spring, when the ground was bare; then, from the long-continued drought later on. This made farmers very despondent until the last of May, when we had some very refreshing showers, which made a wonderful change in the prospects; and now, within a week's time of harvest, wheat is looking quite well—I never saw it better headed—so we think, that, after all, we shall have more than an average crop. Corn, thus far, promises well, though it is now needing rain. Oats will be short. About half the fruit was killed by late spring frosts, but we will still have an abundance. Strawberries are just done; of them we had a quantity of very fine ones. We are now harvesting our early grass, which makes a fair crop. I noticed a statement, about three weeks ago, in the RURAL that the *pea bug* destroyed the germ of the pea. I have been planting peas for the last fifteen years, and have never planted any other kind than those which had been eaten by the bug, and they always germinate just as well and grow as vigorously as if they had not been eaten by the pest; indeed, it is so common to see the bug-eaten pea, that we never think anything of it. S. C. B.

DUNNSVILLE, Essex Co., Va.—We are now harvesting wheat, but the crop will be short having been killed by a hard winter. We have had a very dry spring and pastures are not good. Corn looks well; there is generally a good stand. Gardens are poor. Fruit is quite abundant, and there is quite a business at this place now canning cherries. The business outlook is not good here; corn and wheat were both short crops last year, and prices have been low. Our section has greatly improved since the war up to last year. This section of Virginia greatly needs good mechanics who would do well among our people. Young farmers would also do well, as land is very cheap and raising cattle and sheep, very profitable. Corn is selling for 50c.; wheat, $1; Irish potatoes, $1; wool, 28c.; sheep, $2 50 to $4. R. S.

HERNDON, Fairfax Co., Va.—We have just commenced our wheat harvest. Wheat is good. Corn is looking very well—a little backward, owing to the cool weather. Potatoes bid fair for an average crop. The fruit crop of all kinds is very promising. W. H. V. D.

WELLSBURG, Brooke Co., W. Va.—The prospects for wheat are below an average. Corn is backward, but a good stand and looks healthy; almost all had to be replanted on account of dry weather. The potato prospect is very good. There will be good crops of apples, berries and grapes. Peaches are a failure. J.

GADSDEN, Richland Co., S. C.—Richland county, of which the city of Columbia is the county seat, (and also the capital of the Palmetto State) belongs to what is termed Middle South Carolina, the term being used to distinguish it from what is known as the low country or tide-water region, and the mountain or Piedmont section of the State. The soil is adapted principally to the cultivation of cotton and corn, though oats, potatoes, etc., are also important products. Some wheat is also raised, though this is done principally in the red-clay country above us. The oat crop, just harvested, has resulted in a more than average yield and farmers are much gratified therein, and I think it will stimulate them in future to pay more attention to that important grain than has heretofore been given it. The present outlook of cotton is a far more cheerful one than it was three weeks ago. A continual cold spring caused very bad stands, and a back-set was given to the sensitive plant, that for a long while made our farmers look very blue. Now, however, the plant has been revived by a spell of warm weather and seasonable rains, and is in an average healthy condition, and this fact, coupled with the advance in price of the staple and comparatively low price of provisions, has greatly encouraged our planters. Corn has been planted somewhat in excess of last year. A great deal of it had to be replanted in consequence of cold, damp weather, and is consequently somewhat backward. The yield, however, bids fair to be a good one, and some farmers have already "laid it by." In this connection I would state that "Blunt's Prolific" is looking well, and I have some stalks in my garden now with four ears upon them. The fruit crop in this section is a complete failure—a killing frost in the early part of April did the damage. It was thought at first that a third or probably a half of a crop would be made, but the result proves that there is not a fifth. Irish potatoes were cut down a great deal by the April freeze, and I presume there has been about three-fourths of a crop made. The "Beauty of Hebron" sent by RURAL, on account of the unfavorable season, has not turned out as well as I had every reason to anticipate at the outset. I think, however, it will do well here, and will try again next season. A. S. D.

ATLANTA, Fulton Co., Ga.—The corn crops in this section of the country promise to make a full average, especially since we are having rains again. The early corn is now in "silk and tassels." Wheat will yield ten per cent. over a full crop; it is now nearly all harvested. Irish potatoes will make seventy-five per cent. of a full crop. C. D.

TALLAHASSEE, Leon Co., Florida.—The continued good weather and seasonable rains have had the effect of giving our crops a "good finish off." The oat crop is harvested and a fine one it is. Corn is made and, I think, is an average crop. Cotton is doing well, and I think picking will commence probably one week later this season than last, I say about August 20th. A SUBSCRIBER.

ELKMONT, Limestone Co., Ala.—We are having fine growing weather, and it has been a good season so far for the farmer. Wheat in this section is nearly all cut and is a good average crop. Farmers are paying more attention to wheat, oats, rye and clover, and not so much to cotton as heretofore. Corn and cotton are looking well, and some farmers are through working the former. Apples and peaches are a failure this year; they came out in full bloom, but some hard frosts, about the 24th of March, took all the peaches and nearly all the apples. New wheat is worth 75 cts a bushel. W. N.

SOUTH LOWELL, Walker Co., Ala.—The wheat crop is good for this country, and mostly secured in good order. Oats and potatoes will be light crops, owing to the dry weather for the past month. Corn promises to be a fair crop. Cotton is small for the time of year, but growing well now. Peaches were nearly all killed by frost the first of April. Apples will be about half a crop. Quinces, none. Small fruit, a fair crop. J. F.

HUTTO, Williamson Co., Texas.—In this section of our State and county the matured crops and the prospects for late potatoes, corn and fruits are poor. The long-continued drought and a very hard hail storm are the main causes. Wheat, about one-third of a crop, and oats one-fourth, many fields not being harvested. Potatoes are almost an entire failure. If we have rains within 10 days, corn will yield half a crop. Fruits about one-fourth of an average. E. E. S.

WHITNEY, Ontario Co., Canada.—I have made inquiries about crop prospects here, and the report I get is good; fall and spring wheats look well. The prospects now for all crops are very good, but it is three or four weeks too early to make a general estimate. The fruit crop will be an average. Corn and potatoes I cannot say anything about so soon—they have come up very well. J. S. M. W.

There are many perfumes which, when applied to the handkerchief, have a very agreeable odor for a few moments and then die away, leaving only a sickly disagreeable smell. Not so with MURRAY & LANMAN'S FLORIDA WATER; the longer it is exposed the more delicate and delightful becomes its rich aroma.

Dyspepsia, Biliousness, Nervousness and miserableness all cured with Hop Bitters.

THE MARKETS.

PRODUCE AND PROVISIONS.

NEW YORK, Saturday, June 21st, 1879.

BEANS AND PEAS.—Local consumptive wants are small at this date. Very few high priced mediums are selling; what demand exists comes from buyers who can use fair sound stock, and of this grade there is a fairly free offering. There is not animation enough to vary prices. Supplies of marrows for export have to be strictly sound, as they go from one hot locality to another, the West Indies being the main outlet. White and Red Kidneys quoted chiefly in a holding sense. Peas unchanged; green, ₱ bu. $1.80@1.85; B. E. peas, per 2 bush. bag, $2.50; Canadian, in bulk and bond, 75c., as a small selling price. Beans, mediums, prime, $1.30@1.32½; fair to good, $1.20@1.25; marrows, prime, $1.35@1.37½; fair to good, $1.20@1.25; pea, $1.20@1.35; white kidney, $1.30@1.50; do., red, $2.80@3; turtle soup, $2.15@2.20.

Receipts of beans for week, 5,300 bush.; exports, 555 pkgs.

BEESWAX.—Demand is slack and prices a little unsettled; quoted at 24c.@24½c. for Western and Southern.

BROOM CORN.—Offerings are moderate and firm at prices quoted; quoted as follows:

Brush and short broom, choice, ₱ lb, 5½@6½c.; do., common to good, 4½@5½c.; hurl, good to choice, 3½@4½c.; do., common to fair, 3@3½c.; red and crooked, 2@3c.

BUTTER.—Were it not for the unwieldy supplies, the market might be noted as enjoying a good movement, but regardless of the low prices a good portion of the receipts remain on hand. In respect to the surplus, dealers latterly have been favored by cool weather, which has permitted them to safely cellar unsold parcels of June of good body and quality. With quotations down where they are, consumption should largely increase, though no one expects it to absorb the full totals that have been pouring in all this month. Under-grade stock is hard to place when fine creamery, pails and half-tubs, can be had without laborious searching at the extreme quoted. There is a lull in the Eastern demand; both buyers and sellers are adverse to heavy transactions while strikes are threatened in several populous localities. Foreign exporters seem in no hurry to send out stock at the rate they might, prices considered. Sales for Europe have become the most sought for of anchor transactions in butter. They are attended with early settlements, and when the property is on board it is permanently out of home calculation. English buyers realize that they have become a power, and this season more than at any previous period, they have to be specially regarded. Recent ranges are repeated, but inside figures mainly represent transactions.

State pails and half tubs, choice, 13½@14c.; good to prime, 12@13c.; fair to good, 11@12c.; firkins, choice yellow, 15c.; fair to good, 13@14c.; Welsh tubs, choice, 13½c.; good to prime, 12@13c.; fair to good, 11@12c.; poor, 9@10c.; State creamery, best invoices, 16c.; good to prime, 15@15½c.; sweet cream, best, 15@15½c.; fair to good, 14@15c.; Western, best invoices, 16c.; good to prime, 15@15½c.; fair to good, 14@15c.; imitation creamery, 11@13c.; Western dairy, best invoices, 13@13½c.; good to prime, 11@12c.; fair to good, 10@11c.; poor to fair, 8@9c.; Western, factory, best invoices, 11c.; good to prime, 10@10½c.; fair to good, 9@10c.; poor to fair, 7@8c.; grease butter 4@4½c.

Receipts, 46,750 pkgs.

CHEESE.—The market has been in poor shape this week. Dull accounts from the other side dispirited exporters, and there was the additional disturbance of large receipts. A pressure to sell gave a fair business, but there is a good deal of stock to be carried over. The closing market on the choice factories is 6@6¼c., and an occasional parcel reaching 6¾c.

Quotations are for new factory: 6@6¼c. for best; 5@5½c. for good; 4@5c. for fair to good; 3@4c. for half skimmed, and 1@2½c. for skimmed; dairy at 5@6c. for good and fine; 3½@4½c. for fair to good, and 1@2½c. for skimmed; Western factory at 5¾@6c. for fine; 2¾@3½c. for half skimmed, and 1@2¼c. for skimmed.

Receipts for week, 82,700 boxes.

Liverpool cable, 37s.

COTTON.—The market has shown a good degree of activity, and left off firm at for June, 12.45@12.46c.; July, 12.45@12.46c.; August, 12.57@12.58c.; September, 12.40c., October, 11.57@11.58c.; November, 11.15@11.17c.; December, 11.07@11.09c.; January, 11.10@11.12c.

Quotations for spot cotton are based on American standard of classification, and on cotton in store running in quality not more than half a grade above or below the grade quoted:

	Uplands	N. Orleans.	Texas.
Ordinary	10 15-16	11 1-16	11 1-16
Strict ordinary	11 5-16	11 7-16	11 7-16
Good ordinary	11 11-16	11 13-16	11 13-16
Strict good do.	11 15-16	12 1-16	12 1-16
Low middling	12 1-16	12 3-16	12 3-16
Strict low middling	12⅛	12⅜	12⅜
Middling	12⅜	12⅝	12⅝
Good middling	12 11-16	12 13-16	12 13-16
Strict good middling	12 15-16	13 1-16	13 1-16
Middling Fair	13⅜	13⅞	13⅞
Fair	14⅛	14¼	14¼

STAINED.

Good ordinary	11⅝	Low Middling	11 13-16
Strict good ordinary	11⅞	Middling	12 1-16

DRIED FRUITS.—In apples evaporated lots are having a very good inquiry and they rule at firm prices; low-grade stock is still dull. Unpeeled peaches are at firm figures. Peeled peaches are dull. Blackberries are somewhat stronger.

Apples—evaporated Alden's & William's 10 ¢@11c.; do. new process at 8½@9c. State plums, 10@11c. Blackberries quoted at 4¾@5c. Peaches—Peeled Georgia, 7@7½c. for poor; 8½@9c. for fair to good; 10c. for prime; choice North Carolina, at 12@13c.; good do., 9@10c.; unpeeled halves, 3@3½c. quarters, 2¾@3c. Pitted cherries, 21c. Apples—New, 2¾@2¾c. for Southern quarters in bags; 2¾@3¼c. for sliced; State, 3@3½c. for new sliced, and 3@3½c. for quarters; Western, 2¾@3¼c. for new quarters. Raspberries, 30c.

EGGS.—Receipts for week, 9,500 bbls.; do., last week, 10,100 do. There has been a very steady market, but at the close prices are a shade weaker. L. I. and other near points, 14¾@15c.; Western and Canadian, choice, 13@13½c.; poor Western, 11½c.

FRESH FRUITS.—Russet apples remain in quotable quantity mostly small stock; the range is $1.25@3. New Jersey strawberries have about run out. Connecticut and the Hudson River points will keep the market supplied until July. Prices have ruled quite sturdy since the glut of last week. Extra Up-river, quarts, 18c.; prime, 12@15c.; thirds, 4@5c.; N. J. remnants, 4@6c.; hulled, small baskets, $2.50@3 per crate. Cherries are a failure hereabouts; the market will depend largely upon State crates. Table sorts, 12@15c. per lb; common, 4@6c.; Southern Black caps, quotable next week. Peaches are not important yet. No stock to quote. Texas watermelons give the market an advanced look; they are worth $35@35 per doz. Gooseberries, per bush., $1.50. Peanuts have a steady market, prices well supported. Va. hand-picked, $1.35@1.40; fancy, 1.22@1.25; extra prime, $1.17@1.20; good to prime, $1.15@1.30; shelled, per lb., 5@5½c.; Pecans, 8@8c.

FLOUR.—Prices have tended a trifle easier on account of a decline in wheat; trade has been very fair.

The quotations are: $3.35@3.85 for inferior to very choice superfine State; $3.80@4.10 for poor to good extra do., odd lots and lines; $4.10@4.35 for good to choice do.; $3.35@3.90 for inferior to very choice superfine Indiana, Iowa, Michigan, &c.; $3.75@4.10 for inferior to good shipping extra do., and $4.10@4.35 for good to choice extra do.; common to about choice white wheat extras, $4.50@5.65; choice to very fancy do. at $5.75@6.75; red and amber winter wheat, inferior to very choice trade and family, at $4.45@5.00; round hoop Ohio at $4.10@4.40, and trade and family brands of do. at $4.60@6.25, the latter rate for fancy; St. Louis, $4.50@5.65 for inferior to good extra; $5.60@6.50 for good to very choice (with fancy brands up to $6.75); Minnesota clear, inferior to fancy, at $4.50@5.00; Minnesota "straight," very inferior to strictly choice, $4.60@6.00 (a few fancy as high as $6@6.25), and patent poor to strictly fancy at $5.25@6.75, few brands going above $7.00; unsound stock at from $2.25@5.00; city mill extra at $4.85@5.15, about fair to choice, for West Indies (strictly fancy in new packages held higher); do. for England, $3.70@4; do. trade and family extras, $5.25@6.25; do. for South America, $5.50@5.65 for standard brands (winter wheat product); No. 3 at $2.35@3.25 for poor to strictly fancy.

GRAIN.—Wheat on the favorable crop prospects tended lower, and there has been a pressure to sell; at the close there is rather more strength.

Latest sales are of ungraded white at $1 12@1 14; No. 1 white at $1 14½; white State at $1 15¾; extra white at $1 15@1 16; No. 2 red at $1 16¾@1 17½; ungraded red at $1 05@1 17; ungraded amber at $1 15; mixed winter at $1 15; mixed spring and winter at $1 05; No. 2 spring at $1 04@1 05; No. 3 spring at 90½@92c.; do. steamer grade at 87½c.; No. 4 spring at 85c.; ungraded spring at 85c.@$1 04; No. 1 white, June, at $1 14½; no. July, at $1 12½@1 13; do. August, at $1 10@1 10¾; No. 2 red, June, at $1 17¼@1 17½; do., July, at $1 12@1 13; do., August, at $1 14; do., September, at $1 07½@1 08; New York No. 2 spring, July, at $1 05; No. 2 Northwest spring, July, at $1 04. Rye at 65@66c. for State and Canada, and 61@61½c. for Western. Corn has been active and closed at strong prices; sales of New York No. 2 at 43@43¾c.; New York No. 1 at 43¾@44c.; New York steamer mixed at 42¾@43c.; New York No. 3 at 41c. for car lots; ungraded Western mixed at 40@43¾c.; New York No. 1 white at 51@52c.; New York No. 2 white at 49@49½c.; New York steamer white at 45½c.; low mixed at 46¾@47c.; New York yellow at 45c; New York steamer yellow at 43½c.; yellow Western at 45c.; New York No. 2, June, at 43¼@43½c.; do., July, at 43¾c.; do, August, 45¾@45¾c.; do., September, at 46¾c.; steamer mixed, June, at 43c., do., July, at 42½c.; do., August, at 41½c. Oats have been active, but have not shown much further change in price; latest sales of New York No. 1 at 38½c.; New York No. 1 white at 41¾@42c.; New York No. 3 at 36¾c.; New York No. 3 white at 37¾c.; New York No. 2 at 38@38½c.; New York No. 2 white at 38@38¾c.; white Western at 38¾@42c.; mixed do., at 36@38½c.; white State, 40@41¾c.; No. 2 Chicago, afloat, at 38¾@39c.

HAY AND STRAW.—There is a very fair business in hay, and strong prices made for both shipping and retail quantities.

Sales at 40@45c. for shipping, and 70@80c. for prime retail qualities. Straw at 45@55c. for long rye; 45c. for short rye, and oat at 30@40c.

Exports for week, 675 bales.

HOPS.—Emmet Wells in his circular says: "The market this week has been fairly active, the demand coming chiefly from brewers. Prices are without any alteration, though choice hops show a good deal of firmness. The reports from the hop districts indicate a very backward condition of the vine; the weather keeps unseasonably cool, thereby checking its growth; this, added to the indifference shown by growers in the care and cultivation of their grounds, render early prospects unfavorable to a large yield. The hop news gathered thus far from our exchanges points to a considerably smaller crop than last year. Should hops open high next September (and early indications tend very much that way) growers who are now neglecting their yards will be sorry for it."

Quotations are for New York's new crop, choice, 9@12; New York's, new crop, medium, 7@8; New York's, new crop, low to fair, 5@6; Eastern, 6@9; Western, 3@9; Yearlings, 2@4; Olds, all growths, 1@2. Pacific coast, nominal, 8@10.

POULTRY AND GAME.—There is a better feeling in cooped fowls. Chickens are running small, and such are hard to sell. Market lower for best.

Chickens, large, per lb., 18@20c.; small, 16@17c.; fowls, N. J., 13½@13c.; Western, 11½@12c.; Southern, 10½@11c.; roosters, old, 5@6c.; turkeys, 8@10c.; ducks, N. J., N. Y. and Pa., ₱ pair, 65@70c.; Western, 35@45c.; Southern, 30@35c. Geese, Jersey, $1.25@1.50. N. Y. and Pa., $1.25@1.50; Western, 87c.@$1.12; Southern, 75@87c.; pigeons, 40@45c.

Dressed poultry is in full supply with the offerings of city killers; heavy chickens are wanted.

Turkeys, Phila. dry-picked, 16@18c.; State and Western, prime, small, 12@14c.; Jersey, small 12@14c.; fair to good large, 10@11c.; chickens, Phila., dry-picked, broilers, 30@35c.; fowls, N. J., prime, 3c.; State and Western, prime, 13c.; fair to good, 10@11c.; Pa., dry-picked, 12@14c.; ducks, Jersey, 14@15c.; State and Western, 12@14c.

Game has almost a nominal position only. Quotations are for strictly sound sorts.

English snipe per doz., $2.25@2.50; Dowitch, $1.37@1.50; small and sand, 40@50c.; plover, $1.75@2; pigeons, wild, netted, $1.25; shot, 75c.@$1; squabs, tame, $1.75@2; soft crabs, Southren, 30@50c.; frogs legs, per lb., 6@18c.

PROVISIONS—Have tended a little higher, with a fair trade in progress. Mess pork quoted for June at $10.15 bid, and offered at $10.25; July at $10.20 bid and $10.27 asked, and August at $10.25 bid and $10.35 asked; September at $10.35@10.40. Bacon at $5.10¼ for long clear and $5.45 for short clear. Lard—Western steam, at $6.42½ for spot and June; $6.45@6.47½ for July, and $6.52½ for August. Stearine at 7¼@7½c. Tallow at 5 15-16@6c. for prime. Beef hams at $17.25@17.50. Beef—Extra India mess, $17.50@20, as to quality; packet, $10@11.50; plain mess, $9.75@10.50; extra mess at $10.50@11.50.

SEED-GRASS—Is quiet; Clover quoted at 6½@7c., as to quality.

TOBACCO.—There is no improvement in export demand, but a fair local trade in progress, and prices essentially as last week.

VEGETABLES.—None but city owners now have any interest in the remnant of old potatoes and we drop them from the list. New are plenty, especially from Va. A late Norfolk steamer brought 14,000 bbls. Garden truck has a cheaper outlook; demand fair. Potatoes, Bermuda, $4@5; do., Charleston, Rose, $4; do., do., Peerless, $3@3.50; do., do., Chili Reds, $4; do., Norfolk Rose, $4; do., Maryland Rose, $3@3.50; do., seconds and culls, $1.50. Green Peas, L. I., bags, 75c.; Beans, Norfolk flat per bbl, $1; do., do., round do., $1.50; Asparagus, Oyster Bay, $1.25@1.50; do., N. J., $1@1.25; Rhubarb, per 100, $1; Tomatoes, Bermuda, per box, 35c.; do., Florida, ₱ bu. cr., 12@2.50; Beets, Nor. 100 bunches, $2; do., nearby, $3; Cabbage, Norfolk, ₱ bbl., $1.25@1.50; L. I., ₱ doz., 75c.; Onions, Bermuda, ₱ crate, $1.75; do., Nor., per bbl., $4.50; Squash, Sav. and Ch. ₱ cr., 75c.@$1; Nor. hf. bbl. cr., $1@1.25; L. I., ₱ bskt., $1.50. Turnips, Jersey, per 100 bun., $2. Cucumbers, Norfolk, hf. bbl. cr., $3.50; do. do. hf. do., $2. Cauliflower, L. I. hot-house, ₱ doz., $1.50@$4; Nor., ₱ bbl., $3.

WOOL.—The Western fleeces have been bought up well, but there have been free sellers on the large receipts, and prices have not varied. In the reports from Ohio State there is less excitement and some easing off of prices, with sales taking place at 35@38c. Quotations are:

Ohio, Pennsylvania and Virginia—XXX and picklock, 43@45c.; XX, 40@42c.; X, 38@40c.; No. 1, 33@40c.; No. 2, 35@37c.; common, 33@36c.; combing, nominal.

New York, Michigan, Indiana and Wisconsin—XX 32@36c.; X, 30@35c.; No. 1, 26@30c.; No. 2, 33@35c.; common, 31@33c.; combing, nominal.

Iowa, Vermont and Illinois—X and XX, 31@35c.; No. 1, 33@37c.; No. 2, 30@32c.; combing, nominal.

Missouri, Kentucky and Tennessee—Washed fleece, 37@40c.; unwashed fleece, 30@35c.; unwashed combing, nominal.

LIVE STOCK MARKETS

NEW YORK, Saturday, June 21st.

BEEVES.—Receipts for the week, 11,598 head; do., last week, 10,634 do. There has been some fluctuation during the week. At the yards, when full supplies were present, prices would break a little compared with Wednesday last. Later sales, however, restored the tone, and full Wednesday's rates were steady at the close. Excepting some Texas stock sold early at 7¼@7½c., the range of the market was 8@10c. with bulk of sales at 8¾@9¾c. For export, 9¾@10c. was paid. The demand is large for the week, as it includes 1,800 head live and 3,600 quarters.

COWS AND CALVES.—There has been some carload business at $35@55 per head. There is, however, no feature to induce heavy supplies.

VEAL CALVES.—A good stiff market is ruling. State milk fed sell on equal to N. J. Prime quoted 6½@6¾c.; poor and skim-milk calves, 4@4½c.; buttermilk, 3@3½c.

SHEEP AND LAMBS.—Receipts for week, 33,739 head; do. last week, 25,831 do. The market for the week opened firm, but has eased up to some degree. Export grades of sheep in good demand. Sheep range 4@5¾c., the high rate for shipping quality. Southern and Western lambs, including Ky., Del. and Md., 5@7c.; N. J., 7@8c.

HOGS.—Receipts for week, 25,659 head; do. last week, 26,693 do. The holding price at the yards at the close was $3.90@4.20 ₱ 100 lbs., the latter for prime 200 lbs. corn.

City-dressed, 5@5¾c. for heavy to pigs.

New Advertisements.

FERTILIZER CHEMICALS.

BAUGH & SONS,
Manufacturers of
Sulphate of Ammonia
"A A NITROGEN."
(TRADE MARK.)

PURE GROUND BONES, BONE MEAL and CHEMICAL FERTILIZING SUPPLIES.

☞ Chemical Analyses furnished to each buyer and guaranteed. BAUGH & SONS,

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SURE CURE FOR FOOT ROT.

BEST AND CHEAPEST!

BUCHAN'S CRESYLIC SHEEP DIP prevents and cures SCAB and all Parasitic Diseases of the Skin. Buchan's Cresylic Ointment is CERTAIN DEATH to the Screw-Worm or Grub.

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Reading for the Young.

NAG'S HEAD;
Or, a First and Last Sea Voyage.

DR. J. T. PAYNE.

TWENTY-FIVE years ago there lived at Stoneham, near Boston, a boy named William Lewis,—commonly called "Bill" Lewis. He was known as an intelligent lad, for one of sixteen years. He had mastered the studies of the common school; his father, who divided his talent between a small grocery store and a farm, set his face squarely against his son's going to a higher institution. "Bill," he said, "can take his choice between farm and shop; but he must follow one or the other."

The boy decided to try the shop. He had not served long behind the counter, when he was one day directed by his father to go to Boston and purchase a hogshead of molasses, and other articles to replenish the stock. Mr. Lewis was desirous of retiring from trade and giving over that business to his son, while he devoted himself to agriculture; he therefore thought that his son, should learn how to buy as well as how to sell. Bill set off with a sum of money in his pocket and driving a fine span of black horses; he was in pretty high glee at the thought of being so much of a business man.

Arriving at the city he drove to the great wholesale house of Day & Knight. Leaving his team before the door, he entered, made known his wants, and was conducted to the cellar, where he tasted of different grades of molasses, priced them, and made a careful selection. He then returned up stairs and with a good deal of talking filled out his list of purchases, closing what he considered a very good bargain.

It should be said that Bill's mother had never liked the idea of his following in the footsteps of his father; she had selected, one after another, at least half a dozen different vocations for her son; the latter, however, assured her that he should one day be a merchant prince, if allowed to succeed to the little grocery.

As he stood in the great Boston store, his pride was wonderfully gratified, and he thought he was just going to show his mother, what was his ability to transact business. Indeed, he had told her on leaving home that by the time he returned she would perceive that he was something more than a boy.

What grief awaited him! On going out to place his team for loading, he found to his dismay that it had been stolen.

Bill hurried through street after street, and spent the remainder of the day in a fruitless search. That night he lodged at a hotel, and in the morning continued his wanderings about town, seeking the black horses and the lost wagon everywhere. He made some inquiries of strangers whom he met, but for the most part was only laughed at. It looked as if they didn't take much stock in his story.

In the afternoon he met two men near the Boston and Maine Depot who took a deep interest in his case and offered to help him. They were sharpers, and before parting company with the country lad, they managed to fleece him of three hundred dollars.

It was this climax of misfortunes which made Bill hasten to the end of T Wharf, firmly resolved upon throwing himself into the water and getting beyond the sufferings of this evil life. His pride was too deeply wounded; he had not the courage to face his family.

As he approached he saw a schooner with sails set, apparently ready for sea. He jumped on board the craft and asked the captain if he would accept a boy as one of the crew.

"I would accept you," replied the captain, "as I am one hand short, but there is no time for you to go after your luggage."

"I'll go as I am," said Bill.

"I'll give you eight dollars a month, and it's a bargain," said the master.

"Very well."

"What is your name?"

"Bill; what is yours, sir?"

"My name is Captain Smart."

"Cast off the lines there," he called to his men; and before Bill had time to reflect on what he was doing, the Pandora was steering down Boston Harbor, whether on a long voyage or a short one, he knew not.

Poor Bill was very sick during four or five days after leaving port, and often wished himself at home. But as he began to recover, his determination returned, and he made up his mind never to return home until he should be able to make good his losses.

Days passed ere he took sufficient interest in the matter to ascertain that they were bound for New Orleans. The craft was off Key West, and one bright, hot day Bill saw the captain "take the sun." The process being explained to him, Bill took a slate and pencil and shortly had worked out the position of the vessel. His effort pleased the captain, and gave the youthful sailor a standing among his companions.

On arriving at the mouth of the Mississippi, the Pandora was taken in tow by a tug and carried up New Orleans. Bill saw strange scenes along the river, one of which was the negroes working in the fields of sugar-cane. Arrived at the Crescent City, the captain pushed the work of discharging his cargo, for he learned that yellow fever was in the city.

Bill risked a walk about town, fever or no fever. In Barrow Street he saw a sign—"Real Estate and Slaves." The building on which the sign was, showed age, and had a yard with a high wall attached. A door was standing open, and there was a strange group of men, white and black, within the yard. Bill entered to see what the place was like, and to observe the oddly-dressed characters. There was an auction-block, and on it were placed by turns negro men, women and children, and sold to the highest bidder. The sight made the boy shudder, and he walked quickly back to the Pandora, with no wish to see more of the Southern metropolis.

The schooner having been discharged and a cargo of molasses taken aboard, the trim little vessel was, in a few days from her arrival, partly drifting and partly sailing down the river on the return voyage. Before they were out of the Gulf of Mexico, the mate sickened and died of some sort of fever. The captain also was sick several days; and it so happened that Bill was the only well person on board who could take the sun.

A ship's chart is much like a map, and when the vessel's position is found at noon, a little o is marked on the chart to indicate the point, and a line drawn with a pencil to the o made on the preceding day. So that the track taken by a ship when marked down on the chart, looks more like a drawing of a fence than anything else. Bill was very proud when the captain appointed him to keep the log during the voyage; which was destined to be shorter than they could wish.

Off Nag's Head, not far from Cape Hatteras, on the North Carolina coast, a terrible storm burst upon the Pandora, and her sails were badly torn by the wind. The captain got up from his sick bed and was much on deck, for he could not rest in a time of danger. As night came on, with wind howling through the rigging, he felt in peril of being driven ashore. At length he saw what he believed to be a ship's light between them and the land, rising and falling with the motions peculiar to lights on vessels subject to the action of the waves. This sight reassured him, for, according to that, his position was a safe one, and he took courage.

But how were his suddenly revived hopes dashed, when one of the sailors ran aft and shouted in his ear, "Breakers! breakers ahead!" Immediately the Pandora struck, and the huge waves commenced pounding her to pieces. The captain's orders were scarcely heard or heeded. They tried to launch a boat, but it was crushed like an eggshell, and a wave that swept the deck carried away one of the crew. The masts had snapped like fagots and gone over the side; cracking sounds told that the vessel was breaking against the rock.

The other boat, a small one, was gotten out, and the crew leaped into it, all save Bill. As he was about to follow, a huge wave broke over him, and carried the boat beyond his reach. As he clung to the wreck, he saw the little boat lifted on one wave and another till, by the light of the moon that just then tried to break through the clouds, he beheld the boat bottom up. A moment more and all trace of it and its freight had disappeared.

Bill tried to consider what was to be done. The timbers were giving way beneath his feet; to linger was surely to perish. Throwing off his clothes, he plunged into the angry sea, that tossed him as if he were a bit of cork. He swam toward the land, and after a prolonged struggle with the waves, found himself in the surf, washed back and forth, his strength fast leaving him. At last he was so fortunate as to crawl out of the water and up the sandy beach.

Seeing a hut close at hand, he went to it. It proved to be the home of Evan O'Neil, fisherman and wrecker, who on being aroused, admitted the half-drowned lad and gave him clothes and food. Then without stopping to hear many particulars, he dashed away to the beach to secure whatever of value might have been brought in from the wreck, while Bill, utterly exhausted, fell asleep.

The vessel was a total loss. All the crew perished; but Captain Smart, having lashed himself to a spar, finally drifted ashore, more dead than alive. With a few days' rest, however, he recovered his strength and set off for Washington, where he had some influential friends, who obtained him a situation in the navy.

What of our hero and the wreckers? The latter gathered at the nearest point to the Pandora, but they got little booty and cursed the lost ship on account of the scarcity of plunder. Wild as these men were, the wrecked lad concluded to make his home with them till better days came. The truth is, he did not for some time understand the character of those he had fallen among. So, for more than a year and a half he shared the cabin of O'Neil, the youngest and smartest of the gang.

Many years ago, a man named Tom Rider was a leading villain of that class. He owned an old white horse that was known as Rider's Nag. To the head of his nag, Rider would attach a lighted lantern, then ride the poor beast, who hobbled, up and down the beach, the false light imitating the motions of a ship's light. It was in just this way the Pandora was led on to her destruction. How many ships have been cast away, how many lives lost on that fatal shore through such wicked practices, the world has no means of knowing. This explains how the place got the name of Nag's Head, which it has kept to this day.

When Bill became acquainted with the secrets of Nag's Head, he tried to break up the nefarious business; but without success.

One night the ship Rosa Duncan was, through the wreckers' lights, stranded on that inhospitable shore. Some of the sailors barely escaped with their lives. Captain Baine commanded the ship, and had with him on the voyage his wife and their only daughter, Kitty, a fine lass of fifteen summers.

Bill Lewis showed real bravery during that night of wreck, and rescued from an impending fate the captain, with his wife and child. The vessel and cargo were a total loss. When Captain Baine reached his home in Portland he did not forget the lad who had saved his life and the lives of those dear to him. One of his first acts was to send young Lewis a present of five hundred dollars. As soon as he received the money, Bill set his face homeward glad enough to part with those evil men.

Arriving in Boston he purchased a wagon and a span of horses superior to those he had lost, and having procured the very same list of articles he had been sent for two years before, drove home to Stoneham. Need I say his father and mother were overjoyed to see him? He had been given up as dead.

Bill was the lion of the day; but somehow, he disliked to remain in that quiet little town. He wanted to travel again, and see more of the world. Receiving a kind invitation from Captain Baine, he went down East and passed some time in the family of the prosperous mariner. Kitty Baine, the little blonde, was very charming, and soon Bill found himself, fathoms deep in love with the captain's daughter. The remainder is easily guessed. Years have passed; Captain Baine has retired from sea-life with a fortune; and his daughter is Mrs. Kitty Lewis. Mr. William Lewis, as he is now called, founded a happy home near Portland, which is none the less happy after these years. A conspicuous object to be seen in his parlor, is a picture of the place where his fortunes changed,—Nag's Head.—*The Watchman.*

DEAR UNCLE MARK:—Words fail to express my thanks for the seeds you sent, for we did not expect them. We sowed them the same day they were received, but as it was rather late, we did not sow all of the peppers or eggplants. Mother was afraid to venture with all of them as we live far North. We were weeding the Defiance Wheat to-day and it looks splendid. Father went to the potato field to see how the Beauty of Hebron potato was getting along, and he found the inclosed insect or beetle on the stake that was in the hill. I send it to you and ask you to tell me its name. Please publish this letter if you think it worthy of publication. Your thankful niece,

Bruce Co., Ont. ADDIE BURNHAM.

[The name of the beetle you sent me is Elater oculatus; it belongs to the spring-beetles Elateridæ. These beetles are peculiar for the power they have of jumping up when they lay on their backs. The name oculatus refers to the large, oval, velvet-black spot, like an eye, on each side of the breast, or thorax. The larvæ of this genus are called wire-worms from their slimness, their uncommon hardness and their brownish color, which give them the appearance of a piece of wire. Where they are numerous they are very destructive to vegetation, feeding as they do on seed when put in the ground, as corn, potatoes, etc., and also on the roots of plants. The best remedy is to expose them to the birds. UNCLE MARK.]

I AM a little girl, ten years old, and I live in the Willamette Valley. Father has taken the RURAL since I can remember. I have been reading the boys' and girls' letters, and like them very much. I have no pets except flowers and chickens. I want to tell you my studies at school: they are reading, spelling, arithmetic, geography, grammar and writing. A writer in the RURAL of April 5, on page 215, mentions a small book by Prof. Gray, called "How Plants Grow," and as I desire to study botany, I think that is the book I want. Please let me know where I can get it, and what it will cost. OLIVE WARD.

Warton Co., Oregon.

[You can get Professor Gray's How Plants Grow, of the American News Company, this city, or through this office. The price is 80c.—UNCLE MARK.]

The Puzzler.

CROSS-WORD ENIGMA.

My first is in grain, but not in rye,
My second is in pen, but not in sty;
My third is in north, but not in west,
My fourth is in bird, but not in nest;
My fifth is in gravel, but not in sand,
My sixth is in earth, but not in land;
My seventh is in arm, but not in leg,
My eight is in cent, but not in beg;
My ninth is in four, but not in five,
My tenth is in bees, but not in hive;
My eleventh is in short, but not in long,
My twelfth is in stove, but not in song;
My thirteenth is in quarter, but not in yield,
My whole is in a General, who died on the battle field.

☞Answer in two weeks. M. S.

MISCELLANEOUS ENIGMA.

I AM composed of 33 letters:
My 30, 29, 27, 3, 14, 19, 4, 7, 2, is to chew.
My 12, 8, 9, 20, 22, 1, is a Jewish coin.
My 31, 25, 32, 6, 10, 4, 21, 24, 26, 18, 29, 1, 14, 11, is a luminous phenomenon.
My 15, 13, 23, 11, 14, 19, is a medicine.
My 17, 28, 5, 2, 16, is to renew.
My 33, 9, 5, is to know.
My whole is a wise maxim.

☞Answer in two weeks. MICK.

A DIAGONAL PUZZLE.

1. A consonant: 2. Two vowels; 3. To move quickly; 4. Part of a slipper; 5. An oriental country; 6. An accident; 7. A slip on the ice; 8. First; 9. A tale;—Primals and diagonals from two fruits.

☞Answer in two weeks. L. O.

PUZZLER ANSWERS.—June 14.

HIDDEN PARTS OF A SHIP OR STEAMER.—1. Chains; 2. Hammock; 3. Deck; 4. State-rooms; 5. Steerage; 6. Office; 7. Gangway; 8. Galley; 9. Bowsprit; 10. Screw; 11. Engine; 12. Anchor; 13. Halyard; 14. Bulkhead; 15. Berth; 16. Scupper; 17. Scull; 18. Taffrail; 19. Logline; 20. Luff; 21. Keel; 22. Rigging; 23. Bowline; 24. Jib; 25. Bullwarks.

A FRACTIONAL PUZZLE.—"Anna Arundal."

A DROP-LETTER PUZZLE.—Spare us, good Lord.

WORD SQUARE:—

G A C E
A B E L
G E R M
E L M S

DIAGONAL PUZZLE:—

H
A A
R a R (rare)
T r u E

Primals form "Hart."
Diagonals form "Hare."

Sabbath Reading.

SILENT SONGS.

WHEN the song's gone out of your life
That you thought would last to the end;
That first sweet song of the heart,
That no after days can lend—
The song of the wind to the trees—
The song of the wind to the flowers—
The song that the heart sings low to itself
When it wakes in life's morning hours.

You can start no other song;
Nor even a tremulous note
Will falter forth on the empty air—
It dies in your aching throat.
It is all in vain that you try,
For the spirit of song has fled;
The nightingale sings no more to the rose,
When the beautiful flower is dead.

So let silence softly fall
On the bruised heart's quivering strings;
Perhaps from the loss of all you may learn
The song that the seraph sings—
A grand and glorious psalm
That will tremble and rise and thrill.
And fill your breast with is grateful rest
And its lonely yearnings still.

DID SHE LOVE MOST?

IT was a sore affliction to Mary and Martha when Lazarus, their only brother, sickened and died. Desolate now was their home, and greatly did they long for the presence of Jesus, their best friend, with them. And now at length he draws near. His coming is announced, and Martha immediately goes out to meet him. Her first words to him are: "Lord, if thou hadst been here, my brother had not died." And Mary kept her place. "She sat still in the house." She waited there till her sister returned and called her secretly, saying: "The Master is come, and calleth for thee." And as soon as she heard that, she arose quickly and came unto him; and as soon as she was come where Jesus was, and saw him, she fell down at his feet, saying in the same words of Martha, "Lord, if thou hadst been here, my brother had not died."

Was it that Martha loved Jesus more than Mary, that she was more forward to go out to meet him? Was this a demonstration of more ardent affection? We can hardly think so. We are assured that "Jesus loved Martha and her sister;" and they both loved him in return. His love was reciprocated, and it was sincere on the part of both. But we regard it as no certain proof that the love of Martha was superior to that of Mary, that she so promptly sprang to meet the Saviour as he approached. We are differently constituted. Our natural temperaments are unlike. One person manifests his love in one way, and another in another. So was it with these sisters; and we doubt not that Jesus, who knew all men, saw that Mary loved him not less than Martha. It may have been that he saw that she loved him more.

And so, too, in the case of Peter. It may have been that Jesus saw that he loved him no more than the other disciples, who were less demonstrative. He was foremost to say to the Saviour: "Though I should die with thee, yet will I not deny thee." And when, after his resurrection, the Saviour appeared to his disciples as they were engaged in fishing, and John said unto Peter, "It is the Lord," it was Peter who, first of all, rushed to meet him. But was this certain proof that he loved him more strongly than James and John and the other four dicipics, who remained at their post, dragging the multitude of fishes that they had caught, to the shore? We are by no means sure that it was so. Peter was naturally impulsive; he was a man of quick and ardent feelings; and yet this love may have been no deeper and stronger than that of his more quiet brethren.

If we judge by the forwardness of men, we may sometimes make mistakes. In a prayer meeting there are those who are always on their feet. Give them the opportunity, and they are always prompt to take a part. They can't keep quiet. It were much more of a cross to them to keep still, like Mary, than to rise up, as did Martha. And yet they may, in fact, love no more than the brother whose voice is rarely heard. Were the matter brought to a test, the latter might stand it better than the former. It was John, and not Peter, who stood firmest in the hour of fiery trial; and who can say but that the same might have been the case with the gentle Mary? "I cannot plead for Jesus," said a diffident lady before an examining church committee, "but I could die for him."

HOW THE APOSTLES DIED.

1. Peter was crucified in Rome, and, at his own request, with his head downward.

2. Andrew was crucified by being bound to a cross with cords, on which he hung two days, exhorting the people till he expired.

3. St. James the Great was beheaded by order of Herod, at Jerusalem.

4. St. James the Less was thrown from a high pinnacle, then stoned, and finally killed with a fullers club.

5. St. Philip was bound and hanged against a pillar.

6. St. Bartholomew was flayed to death by command of a barbarous king.

7. St. Matthew was killed with a halberd.

8. St. Thomas, while at prayer, was shot with a shower of lances, and afterward run through the body with a lance.

9. St. Simon was crucified.

10. Thaddeus, or Judas, was cruelly put to death.

11. St. Matthias; the manner of his death is somewhat doubtful: one says stoned, then beheaded; another says he was crucified.

12. Judas Iscariot fell, and his bowels gushed out.

13. St. John died a natural death.

14. St. Paul was beheaded by order of Nero.

PERSONAL ITEMS.

Senator Matt Carpenter's daily smoke is raised to thirty cigars and a pull at his pipe between times.

General Hickenlooper, the Republican candidate for Lieutenant-Governor of Ohio, began business life as a printer's devil.

Brother Wong Ching, in full Chinese dress, officiated as a deacon at a Congregational communion-service in Hartford. He is a deacon at home in China.

General Hazen, having failed to establish his military record to his satisfaction in a military court, is now to try a civil court and has sued General Stanley for libel.

W. W. Corcoran, the aged banker and philanthropist of Washington, fell this week, breaking his arm and bruising his head, and it is feared that his injuries are serious.

For want of tenants, Sir John Ramsden, who owns Huddersfield, and has an income of $500,000, has been compelled to take six of his huge Scotch sheep farms into his own hands.

John Brown, jr., is going to Kansas to help colored refugees just as soon, he says, as he can get his crop in and in shape, so that he can reasonably hope to keep the wolf from his door while he is absent working for others.

Mr. Weisert was a member of a New Orleans Grand Jury that formally requested the judiciary to enforce the law against concealed weapons. On the following day he was arrested with a revolver in his pocket and fined $25.

James C. Flood draws $62,500 from the National Treasury four times a year, that sum being the quarterly interest on $5,000,000 invested in five per cents. It is said, moreover, that he recently has put another five millions in four per cents.

"Marion," asked young B. J. R. Smith, in that style which a big brother assumes when patronizing a little sister, "do you know that the earth turns round?" "Of tos I does," answered Marion, resenting the imputation of ignorance; "that's the reason I tumbles out of bed."

The will of Garrison gives $300 each to his four sons and daughter for their children, advising that the money be kept in savings banks until the young ones grow up. The rest of the estate, which is not large, is divided equally among the five, except $500 to Berea College, an institution for negroes.

Henry Van Amburg of Howells, N. Y., sold his wife to Joseph Wood for $6, and that would have been the end of the matter, probably, if the woman had not, while drunk, been killed by a railroad train. Both husbands claim the right to sue the rumseller under the Civil Damages Act, as her husband.

Of the leading candidates for the Presidency, Grant is 58; Hayes, 58; Sherman, 56; Conkling, 51, and Blaine, 48. On the Democratic side, Thurman is 66; Tilden, 65; Davis, 64; Hendricks, 60; Bayard, 51. Grant and Hayes were born in the same year, 1822. The average age of the Republican candidates is 54 years, and that of the Democratic 61.

Mrs. Von Lohr, being deserted by her husband in Cincinnati, decided to commit suicide. She laid herself on a bed and fired a bullet into her head. The wound did not cause death, or even unconsciousness. After waiting awhile in vain for the desired effect, she got a hand-glass, lay on the bed, and by means of the mirror shot carefully at her head again. Notwithstanding all this, she lived for several days.

Alanson Stephens was a night watchman at Hunter's Creek, Mich. Approaching his own house while on duty, he saw his wife and John Howe sitting close to a window. They were planning to elope, as he learned by eavesdropping. He shot Howe on the spot, but not fatally. Then he sat down and wrote a long account of the affair, the work occupying two hours, after which he shot his wife, and killed himself. The wife will recover, but says she does not deserve to.

An aeronaut calling himself Count Henri de Gilbert, was to make an ascension in Cincinnati. He stepped into the basket when all was ready, and then leaned over the edge to kiss his wife. Then he kissed another woman, and so heartily that his wife was furiously angry. The balloon was cut loose, and as it went up Count Henri saw that his jealous wife and the other woman were fighting. The spectacle disturbed his presence of mind, and he permitted the balloon to collide with a chimney. A rent and collapse were followed by a quick descent, but the Count was only a little bruised by the fall. His feelings, however, were seriously hurt.

What's the matter with the children, anyhow? In Boston, on Thursday afternoon, Owen Monahan, aged thirteen, fatally stabbed his playmate, Fred De Cain, aged twelve years. It was a spat about a boat, and the jack-knife was used. On Monday afternoon Joshua Squires, aged eleven years, of Sullivan, Tioga County, N. Y., was shot and killed by a nine-year-old son of Gulusha York. There appears to have been no offense in this case, as in that of Charlie Norris, the Rohrersville, Md., lad, who was shot and killed by Lewis S. Miller, because the latter boy had been teazed. Little Frank Williams, a lad of thirteen years, has just been on trial at Aiken, S. C., for the murder of a colored boy who was known as Boisy Bell.

Corbett, the man who recently tried to assassinate several Catholic priests in New Orleans, and who is now in prison, is a brother of the Duke of Edinburgh's assailant. On the 12th of March, 1868, while the people of the town of Wooloewooloo (it's cheaper to whistle or grunt that name than to speak it), in New South Wales, Australia, were honoring the Duke of Edinburgh with a reception, Michael O'Farrel shot the Duke in the left side. O'Farrel was hung within forty-eight hours, much to the regret of the Duke, who afterwards learned that the poor fellow had been more or less crazy all his life. Michael had a brother and sister, who came to this country after the Australian row. The sister is now the superioress of a convent in New Orleans. The brother changed his name at the sister's request.

The late Baron Lionel de Rothschild, the head of the English house of Rothschilds, was a man most generous in giving. Enormous as his income was, it is said that more than a tithe of it was applied in charitable works. He never proclaimed his charities, however, and often made it a condition of a gift that it should not be published. Bound as he was to his seat by physical suffering, which made his manner varying and sometimes harsh, so that the temper of Baron Rothschild grew to be something watched like the weather for its influences on the Stock Exchange, he found his relaxation in giving, and his eyes glistened when he heard that his alms or influence had been beneficially bestowed.

Remember that a little Hop Bitters saves Big Doctor's Bills, and cures when all else fails.

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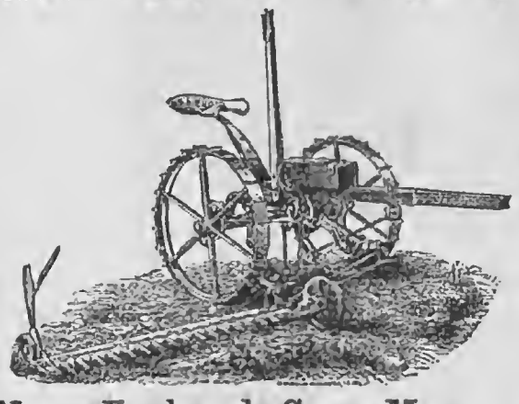

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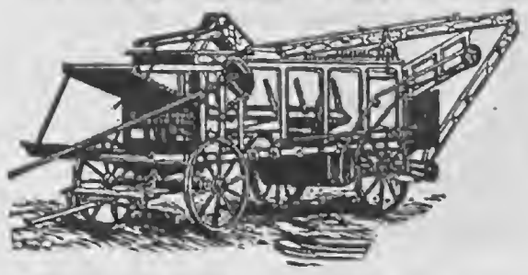

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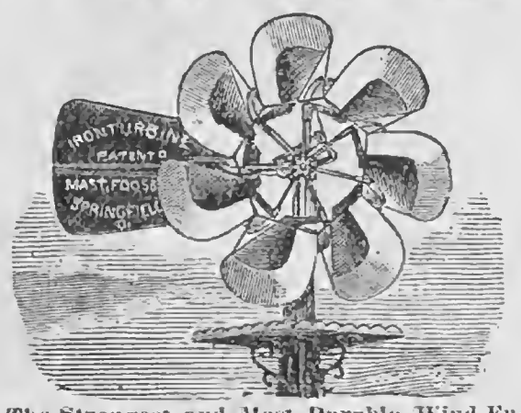

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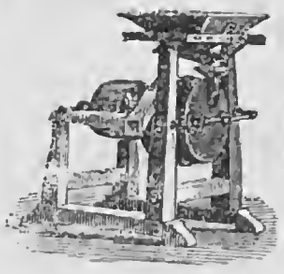

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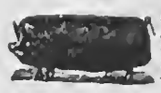

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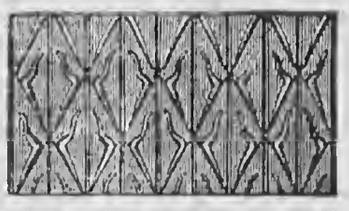

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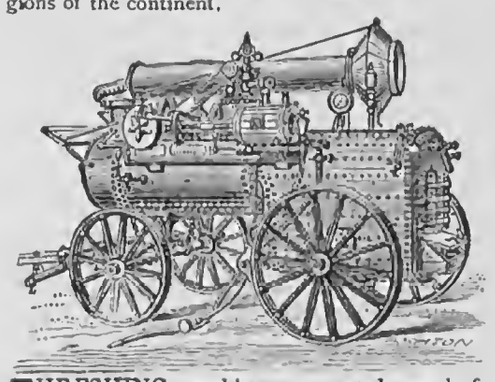

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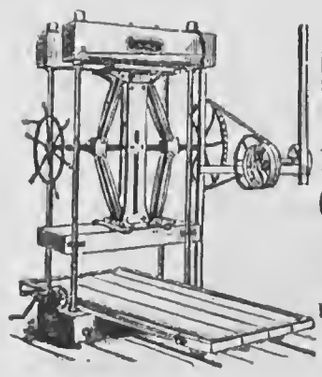

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A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME

VOL. XXXVIII. No. 27.
WHOLE No. 1536.

NEW YORK, JULY 5, 1879.

PRICE FIVE CENTS.
$2.00 PER YEAR.

[Entered according to Act of Congress, in the year 1879, by the Rural Publishing Company, in the office of the Librarian of Congress at Washington. —Entered at the Post-Office at New York City, N. Y., as second-class matter.]

Horticultural.

THE STAGGERBUSH (Andromeda Mariana).

The engraving is a very correct representation of this handsome shrub, the specimens for which we collected a month ago, while riding through sandy woods near the beach, a few miles from the Rural Farm. Many plants were growing thickly together, from 18 inches to two feet in hight, and the thousands of white, drooping, urn-shaped flowers were a pleasing surprise in a district which is never overburdened with floral treasures. This plant is quite common from New York to Florida. The leaves are deciduous, somewhat leathery and of an elliptical shape, acute at both ends. The flowering branches are nearly leafless and as they extend above the flowers, detract somewhat from its value as an ornamental shrub. These cut off, the large nodding flowers in graceful fascicles are valuable for bouquets as they endure well, and the entire plant is one which is worthy of cultivation. It will probably require a shady place and a soil as free as possible from lime.

THE POISONING OF WEEDS AND INSECTS.

Gardening is such an innocent occupation, so promotive of gentle thoughts and ways as to make the idea of using poison even to destroy vermin, produce a shudder of reluctance, at first thought of it. But the survival of the strongest and the fittest is the oldest earthly law. The most ancient marine fossils,—the old Silurian fishes disentombed by Hugh Miller from deposits of incalculable antiquity —show that even before there was dry land or bird or beast, the stronger fishes were qualified and purposely fitted, privateer-like, to prey upon their swarming inferiors. "Self-preservation is the first law of Nature." This adage may have a selfish sound, and is no doubt perverted in application for selfish ends, but it justifies our modern methods of quick extermination to the enemies of the crops which the earth gives us only at the cost of resolute and persevering struggle, and skill. I have just been giving rose bushes a second and currants a third syringing with a dilute infusion of hellebore, using a brass syringe with the rose which gives the finest spray. It is quick sure death to the voracious larvæ, and it leaves the foliage clean, whole, bright, and competent to bring the blossoms and the the fruit to full perfection. It seems effective too, against the white leaf-hoppers that infest Roses and Grape-vines, and suck the juices from their leaves.

With a good brass syringe—an invaluable house and garden instrument—it is easy to keep foliage whole and bright. Such materials as mix intimately (as Paris-green, or sulphur, or soot, or kerosene, with water) are easily churned and foamed into a thorough temporary admixture, and then most easily sent into every crevice and corner in which insect or mildew can lodge, with a force, speed, and directness, too, that nothing else equals. Carbolic acid is now recommended for paved yards etc, where we once strewed salt, to be annoyed with its deliquescence long afterwards; and where we found it look still worse to have a poor woman or boy all day spudding the grass bit by bit from the chinks with an old knife. In contrast to such methods, the application of a spray of very dilute carbolic acid, during sunshine, is a very brief and easy job, and is said to be entirely effective. For strong single weeds in lawns, a drop or two of strong acid is spurted from a little oil-can upon the crown of the plant, which may be pierced with an iron point the better to receive it.

W. G. Waring.

What the Rural said last year of the Golden Defiance Strawberry has been corroborated.

GARDENING ABOUT CHICAGO.

The business of gardening about Chicago is mainly in the hands of Germans. The land

STAGGERBUSH.

south and west is not adapted to garden culture. To the north are low-lying sand-belts and ridges, and considerable prairie, well adapted to garden culture. The light, sandy soil requires liberal manuring, and his it gets on its way in with garden truck, and on its way out with a well-piled load of stable manure. The winter, however, is the great season for manure-hauling. At that season the roads are generally frozen hard for months at a time, and long trains of manure wagons pass in and out every day. These very frequently take in a partial load of cabbage, potatoes, or some other kind of garden produce.

The marketing requires a great deal of time and attention. I am writing eight miles out, and during the summer, autumn and early winter, at almost any moment during the last half of the night, wagons may be heard rolling into the city, full-loaded. These are generally back in the garden again by noon, ready to be re-loaded for the next day. The business is divided into three branches, namely, truck gardening, including the production of all garden vegetables mainly grown in the open air, as peas, potatoes, tomatoes, etc.; hot-house gardening, producing lettuce, cucumbers, radishes, etc., under glass, by artificial heat—generally steam or hot water; and the production of flowers. These are grown in large quantities all through winter, and of course find a ready market.

The gardens are now just beginning to look gloriously beautiful. During every hour of daylight the workers of both sexes may be seen planting, digging, weeding, etc. The succession is ingeniously managed, and much of the land produces two or more crops per year. The early peas are now going forward. The ground occupied by them will be used for late sweet corn. The early potatoes will be followed by turnips, and so on—a dressing of manure generally preceding each planting. The business is profitable. Those following it are gathering estates—indeed, becoming wealthy—but they earn every dollar they make, and are not cultivated in mind or manners half as well as they cultivate their gardens.

W. H. Gardner.

CITY GARDENING.

There are more possibilities in a small city yard than are generally estimated. In St. Louis I tapped the water pipe that ran through my cellar, just inside the wall; then bored through the earth in my yard till by removing a stone in the cellar wall, an inch pipe was run down and soldered to the main pipe. With a faucet the water could be turned on or off at pleasure. Then with a fine nozzle attached to the upper end of my pipe, I could throw a handsome jet ten feet high—at night twenty feet. Around the pipe I built a rockery and set its niches full of flowers. The show was lovely, the spray cooling, and at night the sound of falling water was exceedingly refreshing and soothing. Of course, the water must be paid for; but enough could be had for twenty dollars, or even ten, to keep the fountain in operation mornings and evenings.

It does not pay to undertake too much in a city yard. The Wistaria thrives admirably for a vine, as do Honeysuckles. The best of all bedding plants for a sunny yard are Geraniums. The Gladiolus is one of those glorious helpers that do well everywhere with little care. The main object is always to have something that will look bright and fresh and suggest the country. A lovely shrub for protected positions, especially for yards facing to the north is the Mahonia, a rich glossy evergreen; the young growth of yellow and red, and a very neat bloom. The Hydrangea hortensis is exceedingly useful. The Snow-ball in shady locations becomes infested with black aphis, and is useless. One neat evergreen well grown is always preferable to half a dozen crowded or sheared enormities. One good tree or one fine shrub is better than several stunted. The trouble mainly is the effort to do too much in a small space

E. P. Powell.

Weevil-Eaten Peas.—Will they grow or will a majority grow? What proportion will grow? One farmer tells us that there is one kind of pea that will not grow unless it *is* weevil-eaten! All unite in contradicting the result of the Rural's experiment.

Pomological.

TASTE AS APPLIED TO FRUITS AND VEGETABLES.

S. B. PECK.

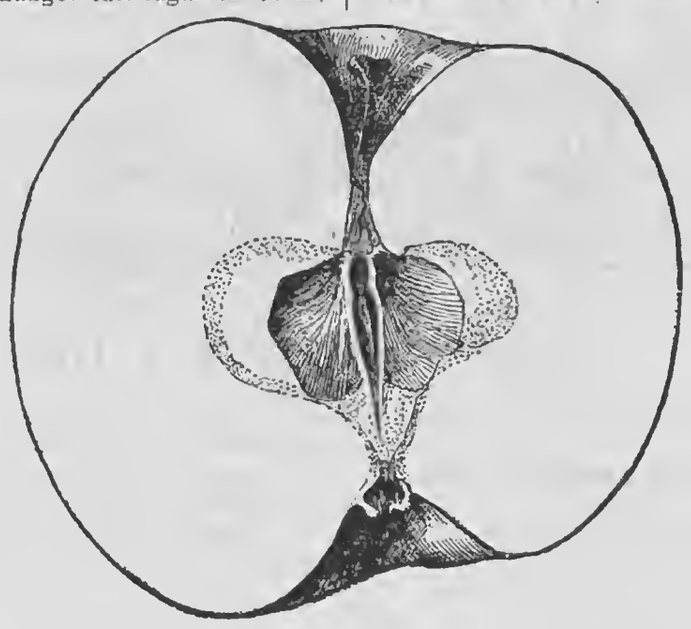
It has been said "there is no accounting for tastes." This may be true in the main, but I think there are many, if not a majority, of the eccentric or abnormal cases that can be traced to a whim, a disordered imagination, or to somebody's remark, that the food was specially healthy or unhealthy. It is most certain that the imagination has much to do with the flavor or supposed flavor of substances taken into the mouth. Cases are related where simple bread pills have caused violent vomiting, when taken under the impression that they were a nauseous emetic, and patients have been known to take easily every day for a week medicines that their stomachs would not have retained a moment had they known what they had taken. And, singular as it may seem, those who have the most confidence in their own ability to detect any such imposition, are often deceived the most easily.

The Baldwin apple has a very high reputation among apple growers, and, of course, among nurserymen who supply them with the trees. So great is the reputation of this apple that several, when asked what kinds they would recommend for an orchard of 100 trees, have answered: "Ninety-nine Baldwins and the odd one another Baldwin." But is it because of any peculiarly delicious flavor of the fruit? No! if tasted in the dark, most persons would, from the mere taste, prefer the Swaar, Peck's Pleasant, Spy, Red Canada, and several of the Pippins, and perhaps the Greening and Spitzenberg. The reputation of the Baldwin is derived, not from any fine flavor, but from the vigor and thriftiness of the tree, the fairness and fine appearance of the fruit, its good handling and keeping qualities; but, most of all, from its extraordinary productiveness, in which, as far as dollars and cents are concerned, it is doubtless superior to any other of the long-tested varieties. Such being the case, those who raise apples for profit, show good judgment in planting largely of this variety, but the consumer, when he goes into market to select fruit for family use, does not show good judgment when he gives a preference in choice, and many times in price, for the Baldwin, simply because of its high reputation. Even the Pennock—about the poorest of all good-looking apples—I have seen selected for home use, because there was stamped on the barrel head, "Baldwin." My object is not by any means to decry this apple, but to show upon what foundation opinions and tastes are formed.

In grapes and other small fruits, it is well for us to consider which of their constituents it is that gives them their luscious flavor, their cooling and thirst-allaying effects. Without going into the naming of the many simple elements of which they are composed in common with all fruits, we may say that what gives them their peculiar relish is a certain proportion of acids, sugar and water. Admitting this to be true, we would suppose, as the office of water is simply to dilute the other ingredients, that those varieties which contain the most sugar and acid would be the most palatable and nutritious, the richest and most satisfactory to the appetite. They certainly contain, per bulk, more of the elements of nutrition, but I think they are not generally preferred as table fruits—and why?

Dr. Grant and Mr. Meade have much to say about the "education of taste," and I must admit that there is much in it, for I have noticed that those persons who have never been fully supplied with our common fruits, see little difference in the different varieties of the same kind. What constitutes the sweet or sour taste of our fruits is not the absence of either of the compounds, but the predominance of one over the other. Of strawberries I have never seen an analysis of different varieties, but my own opinion, judging from what I have seen and tasted, is that the Wilson is at about the hight of richness in sugar and acid, and that when you go above that in size, you get simply an addition to the water, and if you like the larger kinds better because they are less acid, is it not because the sugar and acid are simply diluted? The Concord grape admitted to be "the grape for the millions," but so far as the fruit elements, sugar and acid, are concerned, it is weak, especially in the former, consequently it lacks flavor, and, as compared with many others, it is simply diluted. The Clinton is called by many a poor, sour grape, but in these fruit elements it is one of the richest. I have the analyses of 38 varieties of Northern grapes, in which the Clinton contains the most sugar, almost double that of the Concord, but it also contains over three times as much acid. I do not wish to quarrel with those who cannot bear sour fruits, and who think that excellence in them consists solely in their sweet flavors, but richness in these fruits is certainly a desirable quality, if we can educate our tastes up to a relish of them.

We gather and eat our fruits before they are ripe; the ripening process in fruits consists largely in the transformation of acids into fruit or grape sugar. We of the laity are not expected to be chemists, but if we look into our childrens' school books on chemistry, we shall see that these fruit sugar and acids, are composed of the same elements, differing only in their proportions. Nature is a great chemist. In the green corn she puts sugar, in the ripening process she changes this sugar to starch,



STUART'S GOLDEN APPLE.

but when you plant this corn for a new crop, about the first thing she does is to change this starch back again to sugar, to give nutriment to the new plant, which starch cannot do. So when we eat this ripe corn, nature seizes upon its starch and changes it to sugar before it can act as nutriment to the system. This fruit sugar, however, is not the same article that we suppose we buy for the table, but the kind with which the sugar refiners are now charged with adulterating or rather diluting the common sugar; namely, glucose, or fruit sugar, it being precisely the same as our table or cane sugar, with about ten per cent. of water chemically combined with it.

Muskegon Co., Mich.

THE APPLE IN CALIFORNIA.

MARKETING THE APPLE CROP.

The apple is one of the most popular of all fruits in California, which possesses a climate and soil unsurpassed for the favorable production of this fruit. The foot-hills of the Sierra Nevada constitute the great apple section, although apple trees are cultivated and thrive well in nearly all parts of the State. The flavor of the foot-hill apples, however, is much finer than that of those grown along the coast, while the valley apples are mealy and lack the sprightly acid taste of those from the foot-hills.

Fruit-growers, however, in the foot-hill section labor under the disadvantage of being far from the San Francisco market. From our large apple orchards much of the fruit is shipped to that point, although a considerable quantity is shipped to Nevada. In shipping to San Francisco, even with regular telegraphic communication, it is difficult to know exactly when to ship; for as fruit is sent there from all parts of the State, it is quite difficult for our orchardists to watch the markets closely enough to enable them to get their product in when it would realize the fairest figures. If the fruit arrives when the market is active and not overstocked, it is quite sure to fetch a good price; while, on the other hand, if by sudden and large shipments from other sections, the markets have been overstocked, the fruit is almost a dead loss to the shipper.

Immense quantities of apples are annually dried, and last season the amount disposed of in this manner has been fourfold greater than in any former season, owing to the introduction of numerous patent driers. Although such immense quantities have been shipped and dried, hundreds of tons have been fed to hogs or allowed to rot on the ground.

VARIETIES.

Every section of the country, every locality, has a climate peculiar to itself, so it will be found that every clime will have its own peculiar kinds of fruits, which will attain the highest degree of perfection there only, and will lose some of their good qualities as soon as removed elsewhere. It is impossible to decide the varieties suitable for one clime by those that thrive in another. Early spring Eastern apples, for instance, become summer ones here, Eastern autumn apples change into winter, and of real winter or subsequent spring apples, we have very few.

Early Apples are cultivated only in quantities for the local trade. Red Astrachan is the favorite for either eating or cooking purposes. Early Harvest is a good variety for eating, but remains for such a short time in perfection that it is not cultivated much. Red or Early Junes are in fair demand, and as a succession to Red Astrachans are cultivated in fair quantities.

Summer Apples are cultivated in small quantities being, as a general rule, poor shipping apples. Golden Pippin is in fair demand, being a very tart and highly flavored apple, making it desirable for cooking and drying. Maiden's Blush and Gravenstein are also used for these purposes, the latter being, however, the most desirable for eating.

Early Winter or Fall Apples are always in good demand and are grown extensively. They realize fair prices. The favorites of this class are Belle-Fleur, Jonathan, Rhode Island Greening, Fall Pippin, Santa Clara King, Gloria Mundi, Smith's Cider and Winesap.

Late Winter Apples are in good demand. Those in general cultivation are the Yellow Newtown Pippin, White Winter Pearmain, Nickajack, Large Striped Winter Pearmain, and Baldwin, Swaar, Beauty of Kent and Esopus Spitzenberg.

CULTURE.

The wonderful crops first obtained from California soils gave our farmers an idea that good culture was unnecessary. The same idea got into the heads of orchardists and as a result we find, in many cases, that beyond irrigation, few aids are given to nature. No manure at all, or very little is used. The trunks are seldom scraped or washed, and beyond picking off a few of the thickest, very little else is done to promote the value of the fruit. The days of this style of fruit-growing are past, however. The poorer fruit is rapidly being grafted and good culture is becoming the rule.

The Apple Crop of 1878

was the largest ever known in the State. The quality was very fine in all varieties. I have seen numerous specimens that would weigh two and three pounds apiece, and, as a rule, the size was above the average in all varieties.

Eldorado Co., Cal. W. C. L. Drew.

STUART'S GOLDEN APPLE.

Of this Apple, Mr. Charles Downing writes us: "The specimens of this apple were sent me by J. R. Black, of Bremen, Fairfield Co., Ohio, who informs me that it originated on the farm of William Stuart of that county. The tree is hardy, a good healthy grower, spreading, an early and abundant bearer on alternate years. Fruit, rather below medium in size; oblate, sometimes slightly oblique; skin, bright yellow, with a shade of orange red where fully exposed, and a few brown dots; stalk, short, small; cavity, medium, rather deep, often slightly russeted; calyx, small, closed; basin of medium size, saucer-like shape, slightly plaited; flesh, whitish, or whitish yellow, half fine, tender, juicy, pleasant sub-acid, rather rich, and of very good quality; core, small; in its best condition from February till April. I think it worthy of notice."

Farm Economy.

CHANGE OF SEED.

T. F. FORFAR.

In the Rural of Feb. 15, it is said that "although a man may be a good farmer, and have continued to improve his seed grain [we did not say *grain*.—Ed.] for many years in succession, he will gain a large percentage by procuring seed from another locality and of the same variety as his own, and mixing the two together." It is further said that "this is no mere guess-work, or theory, but is the result of a long series of experiments by Mr. Charles Darwin, and corroborated by Professor Beal."

Now, I have read most of Mr. Darwin's works, but this I have not seen; consequently, the above extracts are all I have to guide me, and the statement appears so strange to me that I must beg to doubt its truth. If it is true, then the percentage gained must result from either of two causes: First, that the mixed seed will be crossed or fertilized one by the other, and so be made more productive than the original improved seed; or, second, that the mere presence of a plant from seed procured at a distance will have a beneficial influence on plants from the improved seed. In regard to the first cause, I do not think there is any difficulty in proving that no mixture or crossing will take place, and consequently there can be no gain from that cause.

If any of the readers of the Rural will go into their wheat fields next spring and examine a few heads of wheat, commencing their examination as soon as the head shows itself and continuing the observations until the stamens fall, they will find that fertilization *always* takes place before the chaff opens, or before the stamens, or what farmers call the blossom, can be seen on the outside of the chaff. This blossom is merely the cast-off stamens, their duty being done usually from twelve to thirty hours before they make their appearance on the outside. They will also find that up to the time these stamens are cast off, the chaff is quite close—so close, in fact, that it is impossible for pollen from another plant to enter, unless by accident the chaff should be opened by some extraneous cause, such as birds, or striking against some hard substance. Even then the chances are not one in a thousand that cross-fertilization will take place in any of our cereals. Artificial fertilization requires the greatest care and patience to make sure of even a very small percentage of crossed seeds; and although I have practiced it, more or less, for the last fifteen years, I consider that I do well if I succeed in getting twenty or twenty-five per cent really crossed.

Again, if we consider the second supposed cause, we find that plants do not create a particle of matter, and therefore do not originate in themselves any of the elements which compose them, nor does one plant exhale any constituent that is available for another plant of the same variety, when placed under the same circumstances; consequently one plant cannot act as a manure to another of the same variety while growing side by side. It may be true that seeds of entirely different varieties, such as peas and oats, mixed and sown together, will produce a greater yield, but the cause of this is well known—they absorb different elementary constituents from the earth. Peas contain more than double the quantity of nitrogen that oats do, while oats have the more carbon; peas most oxygen, and so on. Peas also absorb the greater part of their constituents from the air [?—Eds.] while oats derive most of theirs from the earth. This being the case, peas and oats really interfere very little with each other, and each has, therefore, more room than where the same quantity of either grain is sown alone. Now, where the same variety of grain is sown, each grain requires just the same elements, and acquires these elements in just the same way, either from the earth or air.

But it may be said that I am quite astray as to the cause of the increased yield; that the change of seed from one locality to another is the cause. Then why mix your own improved seed with that procured from a distance, as there would be a still greater increase by sowing the latter unmixed. If Professor Beal, or any of the Rural readers will take the trouble to make the following experiments, he will find that not only will there be no increased yield, but a serious decrease: Select the largest heads from the most prolific plant, and from these select the very largest grains, and sow. The following year do the same from the seed grown from the selected seed. Continue this selection for four or five years, and then procure ordinary seed from a distance and mix with the selected seed. A decrease both in quantity and quality will surely be the result.

Where this selecting process is continued from year to year for a length of time, a wonderful improvement will be observed, notwithstanding the fact that the grain has always been grown on the same farm. This improvement, by selecting the most perfect seeds, holds good in all plants. Where turnip seed has been screened, and the large and small seeds sown separately, but side by side, the large seed will produce the best turnips and the greatest yield. I might mention many experiments to increase the productiveness of our cereals, but this would be wandering from my text and making the sermon too long.

In conclusion, I may say that without further proof I will not believe *this* doctrine of Mr. Darwin's any more than I believe *another* statement of his—that any of my remote ancestors were either monkeys or frogs; but I do believe that where a farmer has improved his seed, either in the way I have mentioned or in other ways, if he change his seed he generally suffers a loss in quantity and quality, and frequently has a gain of a complete stock of weeds.

Ontario, Canada.

[It may be presumed (1st) that the seed procured from a distance would have also been improved by selection, and (2d) that we refer only to varieties of plants which do mix without artificial aid.—Eds.]

GOOD SEED VS. POOR.

Seed may germinate and yet be very poor. Ont-door tests are consequently of much more practical value to the farmer than those made under cover. Seed, to be good, must not only germinate, but must produce strong, healthy plants. My attention was called to this more particularly this spring than ever before. I procured melon seeds from two different firms and planted them in the same field. Of that from one firm, 45 per cent. germinated; of that from the other, 70 per cent. The second lot of seed, though planted two days later than the first, came up as quickly and produced stronger, healthier and faster-growing plants than the first lot. This difference in the growth of the plants will be seen throughout the summer. A great deal of the future value of the plant depends upon the start it receives. It does not pay to plant poor seed, and attempt to make up by quantity what it lacks in quality.

V. J. EMERY.

Henry Co., Ohio.

Farm Topics.

NOTES FROM THE RURAL FARM.

JUNE 19.—Three of us have been to work planting a lot 114x245 feet, or about two-thirds of an acre for the past three days. It might have been planted in half the time. The older we grow, the more we are convinced of the wisdom of that good old adage: "What is worth doing at all is worth doing well." Such sayings which are repeated daily, though conveying solid chunks of wisdom, lose their force from familiarity and, like logarithms or interest tables, the cost of formulation is rarely considered. The cost of disregarding its teaching is nowhere better exemplified than in some portions of this farm. We have no orchard worthy of the name. If, 13 years ago, when the farm was purchased, suitable fruit trees had been selected and properly planted, we should now harvest plenty of apples, pears, peaches and even plums and cherries in favorable seasons. Instead, however, fruit trees were ordered of traveling agents or of careless nurserymen, and when received, were planted rather as if to ascertain how soon they could be disposed of than with any consideration of their future welfare or of the objects of planting them at all. The consequence is that there is not one healthy, *creditable* fruit tree upon the place. The only remedy is to dig up and burn every one and begin anew, in which case, it is doubtful if the present proprietors would live to see their second orchard in profitable bearing. We say to our friends in all sincerity—"Do not plant orchards, or grape-vines, or small fruits unless you are willing to provide in every way for their health and longevity; for, otherwise, they will never prove a paying investment and must always prove a source of annoyance and regret. Better, by far, concentrate your energies upon those farm crops which you have learnt by experience *must* receive due care in order to yield a profitable harvest."

We have said our plot of two-thirds of an acre might have been planted in a day and a half, instead of three days. But the question to be answered was this: The cost of employing three men three days was nine dollars—for a day and a-half, it would have been half that amount: would the increase of crops compensate for the greater time and cost of labor? As there is a limit to the profitableness of manuring the land, so there is a limit to the time we can afford to give to the preparation of the land and the cultivation of the crops raised. But there are certain rules which are as plainly defined as those which guide us in any other work, and we cannot disregard them without paying for the neglect more than their observance would have cost us. In one corner of this little field, a plot 33x33 feet was sown to Cat-tail ("Pearl") Millet. The drills were three feet apart, the seed sown thickly in the drill to be thinned out to three feet apart. Adjoining was another plot of the same area planted to Blunt's corn—one kernel three feet apart either way. Running lengthwise of the field were, first, two and a half rows of the new potato Saranac (Bliss)—potatoes cut to single eyes and two pieces in a hill—the hills two feet apart. Next were Late Snowflakes (Bliss) planted in the same way. Next were a row and a half of Warden Orange Globe Mangel-Wurzel (Thorburn). Next, a single row of Peabody Sweet Potato plants—130 in number. These were planted on a ridge about nine inches high, and nearly two feet apart. A line, in this case as in every other, was extended lengthwise of the entire field, and by it the holes were made in which to plant them. These holes were filled with water by one man, while another set the plants. All were afterwards covered with dry soil for the purpose of retaining the moisture. Planted in this way, sweet potato plants will not wilt in the least, and their roots will at once establish themselves in the moist soil. Next came three rows of True Jersey Navet Turnips (Thorburn); next, three rows of Yellow Malta Turnips; next, the same number of rows each of Green Barrel, Red-top and New Yellow Finland Turnips all sowed in drills three feet apart; next, one row of Extra Early Forcing Carrots—then one of Fern-leaved Parsley; White Hospital Radish; New Thick-leaved Dandelion; another of Extra Early Forcing Carrot; then one of New Extra-long White Spine Cucumber. The last were planted six feet from the Carrots and six feet from the next and last row, which was one of Premium Flat Dutch Cabbage plants. In order to judge by comparison of the more desirable methods, a part of the plants were deprived of their leaves—a part not.

The Apiarian.

ANOTHER GOOD BEE-HIVE.

The accompanying cuts represent a hive that is perhaps simpler in its construction than the one figured and described in the RURAL of May 31, though otherwise no better. It is a two-story Langstroth hive, adapted to the size of the Gallup frame. Figure 1 shows the lower story with the partially filled brood-nest, and Fig. 2 the upper story, which contains the sections for surplus honey. Each story of the hive is eighteen inches long by twelve inches wide by twelve inches high, inside measures. The cover, *a*, is hinged to the upper story and represented as turned back. To make the hive substantial and lasting, it should be made of good inch lumber, free from knots and other defects. A shoulder, on which to hang the frames, must be formed on the inside upper edge of the side-boards of each story. This can easily be done by the buzz-saw (which, by the way, is an almost indispensable machine for bee-keepers who are their own mechanics), by cutting out a strip half the thickness of the board by five-eighths of an inch deep. To prevent the bees from gluing the frames fast, a strip of tin should be tacked on the inside, so that the edge projects a little above the shoulder, thus presenting a sharp edge on which the frames can rest, leaving the bees no chance to glue them fast. This construction is the same for all hives with hanging frames, no matter what their other dimensions may be. To prevent the rain from oozing in, and that the hive may be tight in every respect, the outside upper edges of each story are beveled and a narrow shoulder made on which the story above can rest, this having a corresponding beveling in the bottom.

The bottom board, *d*, is not fastened to the hive, and the entrance is a groove in the bottom board made in the form of an acute angle, so that by drawing the hive back, the entrance can be contracted at pleasure. The slighting board is marked *e*; it can be either loose or be joined to the bottom board, as desired. On the whole, it is a convenient hive that is used somewhat extensively by successful bee-keepers throughout the country.

The above cuts, together with those that appeared under the Apiarian in the RURAL of June 7th and 14th, are from Cook's Manual of the Apiary, Professor Cook having kindly permitted us to use them.

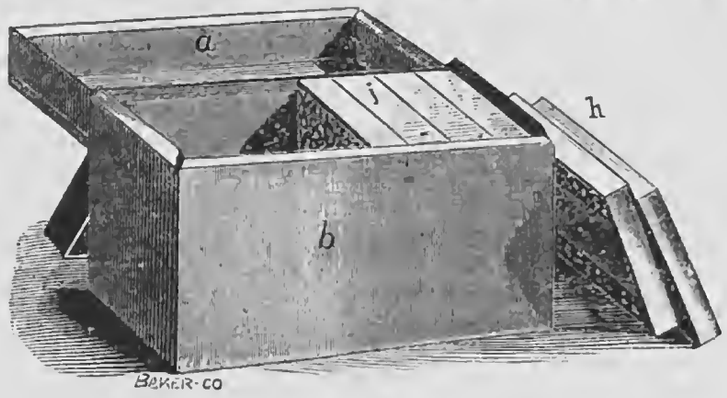


FIG. 2. UPPER STORY.

HOW TO MAKE NUCLEI AND ARTIFICIAL SWARMS.

Mr. G. M. Doolittle, the well-known successful bee-keeper of Borodino, N. Y., writes us the following as being the best method of forming a nucleus and making artificial swarms. "To best form a nucleus, go to a populous colony and select a frame of brood that has plenty of young bees coming out of the cells, and take it, with adhering bees (don't get the queen), to an empty hive and place it therein. If this frame does not have plenty of honey, get a frame of honey with adhering bees and place this next to it. Contract the hive by means of a division board to the wants of the one or two combs, and confine the bees to the hive for forty-eight hours, when the hive entrance should be opened near sundown. The next morning, after the bees are released, a queen cell, reared in a populous colony and which is nearly ready to hatch, should be given them.

The best plan for making artificial swarms, as considered by some of our best bee-keepers, and one which is especially adapted to securing large yields of honey, is as follows: About twelve days before your main honey harvest go to a hive, which I will call No. 1, and shake all the bees and the queen from their combs into a new hive, filled with empty frames and provided with starters of foundation, or, still better, if you have them, empty combs. Place the new hive where No. 1 stood, and put the boxes from No. 1 on the colony thus made. Thus you have a very strong swarm, containing all the bees and queen from a populous colony and the partly filled boxes from No. 1, the bees being ready to take advantage of the honey harvest when it comes. Now take the combs of brood taken from No. 1 and set them on No. 2 stand, having previously removed No. 2 to a new stand a rod or two away. Go to your nucleus (all apiarists should have nuclei with laying queens on hand at this season of the year) and get the comb the queen is on, and take it, bees and all, and shake them off in front of the hive formed of the combs from No. 1, and let them run in; next put on boxes, and the work is done. Swarms should not be made at any time when the bees are not flying briskly, as we depend upon the bees returning from the the fields to make up the swarm. Thus you have two colonies, one composed of a full hive of combs and brood, a good young queen, and workers to protect her, and all the working force from No. 2, making a big, strong stock, which will produce a large quantity of honey. The other, No. 2, has a hive of combs and brood, their old queen, and boxes partly filled, but have lost their working force. In from eight to twelve days they are stocked up with workers again, and are also in fine shape for the harvest."

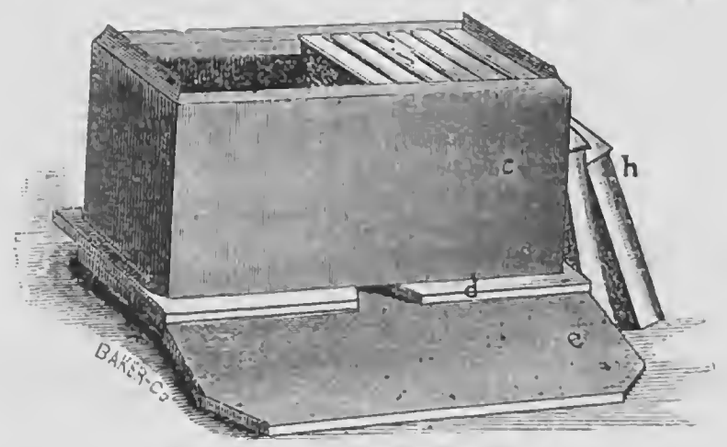


FIG. 1. LOWER STORY.

The Poultry Yard.

HOW MANY EGGS CAN A HEN LAY?

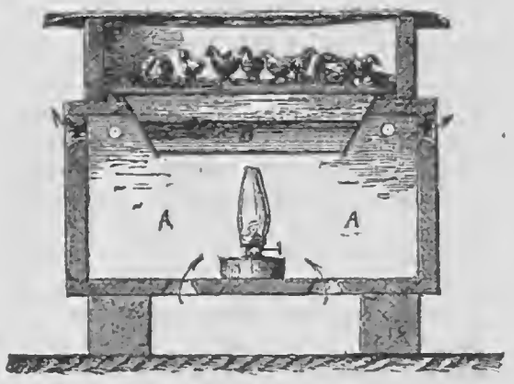
AN estimate upon the subject by Geyelin, and indorsed by Prof. Miles, was published in the RURAL of January 11th, 1878, which if correct, would tend to discourage poultry-keeping. I have a few facts and figures that may be of some service to readers of the RURAL. On the 1st of November last, my flock of poultry consisted of 47 pullets, hatched from the middle of May to the first of July of last year, and 18 hens hatched the previous year, besides cocks. The total number of eggs laid from November 1st, 1878, to May 31st, 1879—seven months—was 4452. Now, Geyelin says that hens, the second year, will lay from 100 to 120 eggs each. Allowing his highest estimate to be correct, my two-year-olds should have laid 1260 eggs in the seven months, leaving 3192 eggs to be credited to the one-year-olds; or nearly 68 eggs each. Supposing that the 18 old ones had laid, in seven months, the highest number Geyelin allows in a year, it would still leave nearly 50 each for the others, or about twice and one-half more than his highest estimate. By this *excess* is where the profit comes in. Six of the hens died in the winter, which lessened the number of eggs; but such accidents must be expected, so in my figuring I consider them as all living.

My hens have also hatched out 170 chickens, while eight more hens are nearly ready to come off. My hens are a mixture of Brahmas, Houdans, Buff Cochins and White Leghorns, etc., the latter largely predominating. The cost of feed—which has all been purchased—in the seven months, has been $37 78. At Geyelin's estimate, it would have been a losing business, but as the facts are, there is a fair, though not a large margin of profit, besides a considerable amount of first-class manure, which, in my opinion, is of consequence.

NELSON RITTER.

A HOME-MADE ARTIFICIAL MOTHER.

NOTICING several inquiries of late in this paper for artificial mothers and incubators, I send the present design of a home-made one, which can be constructed at very slight expense. The entire design is shown in section (except the chicks) in the sketch below. It consists of the wooden box A—a good soap or candle box will answer the purpose well—in the top of which a round hole is made of just the right size to set therein a common milk pan B, partly filled with water. Over the pan put a sheet of tin or iron; or a piece of old zinc can sometimes be found, which has served its mission under the kitchen stove and can



now be utilized for this purpose. On this place several thicknesses of cotton or wool, on which place the chicks. Around this, on top of the first box, place another shallow one without top or bottom, to confine the little fledglings. Over this throw a blanket etc. In the lower box and under the pan of water, place a small kerosene lamp which should be so regulated as only to warm the water to a comfortable temperature for the little innocents above. When the water is once warm, the smallest nursery lamp will suffice. Holes should be made in the top and the bottom of the box to supply air.

This arrangement, if properly attended to, will make a very good incubator. A few holes punched in the metal plate over the pan, would supply moisture—a great desideratum. A thermometer placed in the incubating chamber should be kept at from 105 to 109 degrees Fah.

Ontario Co., N. Y. WM. ROBT. BROOKS.

THE BEST FOWL FOR THE BOSTON MARKET.

THE perusal of Mr. E. P. Powell's article entitled "The Best Fowls," and published in the RURAL of May 31, leads me to send a few words on the same topic from this quarter.

In settling the question as to which breed is the best, he enumerates certain points which should be taken into consideration, the first of which is, "Eggs, their weight and number." As filling this condition, he mentions as among the best, the White Leghorn, Plymouth Rock, Brahma and Houdan, in this order. Now I maintain that the Light Brahma is ahead of both the Plymouth Rock and Leghorn in the size and number of eggs, laying, as she does, nearly throughout the whole year.

His third point is, "Quality of fowls for table use," and in this connection he gives the first place to the Plymouth Rock, placing the Brahma second. The Light Brahma, however, is certainly the best fowl for the Boston market. To obtain the best price there, the bird must be yellow-legged, white-feathered and fat—white, because the pin feathers necessarily left in dressing are less conspicuous. The young roosters should *not* be inclined to couple with the hens at an early age—a great fault with the Leghorns and Plymouth Rocks, and one that seriously injures their market qualities. Boston market has, I think, a weakness for fat meats; I certainly never saw any poultry meat there so fat as to injure its sale, and I have dressed a great many fowls for that market. That the chicks should be yellow-legged, good-sized, fat and smooth, are the only recommendations they need for the Boston market. There are a few English residents who would pay the highest price for five-toed, or Dorking chicks, but the demand for them is

so small that dealers prefer the Brahmas by long odds.

Mr. Powell's sixth point is: "Their shape and color, or their beauty," and he says that he would class the Dominiques, Plymouth Rocks, Black Spanish and Leghorns as especially handsome. Now my idea is that all beauty is in the eye of the beholder, and what more beautiful sight in the poultry line than a flock of well-bred, well-fed Brahmas ranging in the pasture or feeding upon the lawn! They always remind me of the South-Downs among sheep and the Short-horns among cattle. The rule by which I should judge of beauty on the farm is the old adage, "Handsome is that handsome does," and certainly no fowl has done better with me than the Light Brahma. Birds of this breed, as bred in this neighborhood, have no more waste in the way of necks, wings and feathers than have the Plymouth Rocks. They do not scratch as much as any of the other sorts, but range off in the fields like turkeys. As mothers they are excellent, their large, well-feathered bodies affording to the young chicks plenty of much-needed warmth in winter and early spring—the most profitable seasons for hatching them for market in this part of the world. T. G. LINCOLN.

Bristol Co., Mass.

The Querist.

ANSWERS TO CORRESPONDENTS.

"Bugs" and Beetles.

H. F. B., Kalamazoo, Mich., asks how insects are classified, what the difference is between a bug and a beetle, and if our striped visitor from Colorado, the potato "bug," is really a "bug" as it is popularly called.

ANS.—The order *Insects*, which comprises all those little animals having six legs, the body divided into three distinct regions, and which are generally provided with wings, is divided into seven suborders and all insects are classed under these according to their several characteristics, the more highly organized being placed first and the others following in regular order terminating with the Neuroptera, which are the most degraded among insects. Thus wasps and bees, the highest of insects, belong to the suborder Hymenoptera. Then come Lepidoptera including butterflies and moths. Next come Diptera, insects having but a single pair of wings, including the flies. Then follow Coleoptera, (beetles), Hemiptera (bugs and lice), Orthoptera, (crikets and grasshoppers) and Neuroptera of which the dragon-flies are the most common. It will be seen that beetles and bugs belong to different suborders, and that beetles stand the higher of the two. The beetles are easily recognized by the two horny shells or forewings (elytra) which cover the hind wings, and also by having the first segment of the thorax or breast, called the prothoracic ring, greatly enlarged. The gentleman from Colorado, has these characteristics and is therefore a beetle and not a bug. The Hemiptera or true "bugs" have the mouth-parts modified into a sucking tube, the body is generally flattened and is more angular than that of the beetle, and only the first or basal halves of the forewings are horny, while many of them are entirely wingless. These characteristics will be seen in the squash-bug.

Raising Cream in a Spring Milk-room.

W. E. M., Wallsville, Pa., asks the very best method of raising cream in a milk-room through which there flows, from a large cold spring, a stream capable of being made as deep as desired. If deep setting is recommended, he inquires whether the milk should be set in the water, when first strained; and how long should it stand before being skimmed.

ANS.—With such facilities for water, deep setting would be very desirable, as it greatly diminishes labor and facilitates the rising of cream. Deep setting implies *cold* setting, since if deep, the milk must be cold to prevent changing. Cold setting raises cream soonest and most perfectly, and makes a butter which pleases the average taste, and which keeps reasonably well. Hence, we would set in water when fresh, and cover and submerge after the milk has come to the temperature of the air. Twelve to twenty-four hours, according to the temperature of the water, will be long enough to stand before skimming. When milk is set shallow at about 60° in a dry and pure atmosphere, the cream undergoes a ripening process by which new flavors are developed that give the butter an exquisiteness that can not be reached in deep setting, which must be too cold for the ripening process to go on. It is so seldom that the pure, dry atmosphere of the right temperature can be found, that cold setting is generally advised.

Cyclamen and Geranium Culture.

Mrs. J. B., Owasco, N. Y., wants to know how to grow the Cyclamen; she has raised some from seed, but they do not seem to do well. She has set her "Lady Washington Geranium" in the ground, and has no luck in raising slips from it; she would like to know what is the matter.

ANS.—Cyclamens are easily managed. Give the young plants a mixture of fibrous loam, leaf-mold and well decomposed manure in equal parts, with the addition of some sharp sand. Keep the plants in small pots at first, and repot as often as they are filled with roots. During summer, the pots should be sunk in the ground out-of-doors, and watered carefully till the leaves begin to fade, when they should be allowed to rest. In the fall, repot the plants, remove them to the greenhouse or plant room, and water sparsely till they begin to grow; then put them in a warm, sunny place, and water more freely. Cyclamens are among our most valued plants for winter blooming. The "Lady Washington Geranium"—by which we suppose is meant one of the large-flowering Pelargoniums—should be pruned closely after flowering, the pot put on the side in a shaded place, and receive no water for a few weeks. in the beginning of September it should be repotted in fresh sandy soil, and again started to grow. Cuttings can be made in the spring. A flat box, on the bottom of which are a couple of inches of leaf-mold, and this covered with an inch and a half of white, sharp sand, will make a convenient bed for cuttings.

Shrinkage of Packed Butter, etc.

S. S. R., Athens, Tenn., asks, 1, whether packed butter shrinks by holding it some months, and when does the shrinkage begin. 2. Two cows are own sisters; both were served by the same bull, and he inquires what relations are the calves.

ANS.—1, Butter often shrinks by holding from the evaporation of water in its composition, if water is retained in washing. Salt often causes a considerable separation of water from butter, causing it to shrink away from the sides of the package which contains it, occasioning an accumulation of brine. This often occurs when butter has an unusual amount of water in its composition, and is highly salted. Butter also shrinks when exposed to the air, by reason of the oxydation of the carbon in its soft parts occasioning an escape of carbonic acid gas, and the vapor of water which results from the splitting of the fats by the attack of oxygen upon their carbon. The shrinkage is too variable to admit of any rule for estimating it. 2. Half-brothers or sisters, according to their sex. We have no term to express the difference in consanguinity between the offspring of the same male by females related, and females not related by blood.

Canker in Fowls.

W. J. Z., Washington Co., Pa., says: "Our chickens are afflicted with a disease known hereabouts as 'sore head.' It appears to commence in the mouth; the tongue and roof of the mouth, and finally the head become covered with yellow scabs, and the birds get entirely blind. What is the name and what the remedy?"

ANS.—The disease is usually called "Canker." It sometimes affects only the mouth and throat, but more frequently, as in this case, extends to the eyes and head. With a piece of hard wood, about the size of a lead pencil, the end of which should be made spoon-shape, remove all the "scabs" you can, on their first appearance; wash the head, mouth and throat with a solution of chlorate of potash, or vinegar and water, equal parts. Then powder the sore places with flour of sulphur. Repeat daily or oftener. Give soft feed; if the fowl refuses to eat, make the food into pellets, one or two inches long and half an inch in diameter, and put them down the bird's throat.

Destroying Squash-Bugs and Cut-Worms.

D. H., New Milford, Pa., has trouble with the squash-bugs; they and the cut-worms are destroying his squash vines, and he wishes to know how to get rid of them.

ANS.—We know of no better remedy for the squash-bugs than to catch and destroy them, as we have often recommended in answer to similar questions. Paris-green has been recommended by some, and we doubt not it would prove efficient, but it is by far too dangerous a remedy to apply to plants of which the fruit or anything above ground is eaten, and we cannot sanction its use for this purpose. The bugs have the habit of concealing themselves under small objects lying about the plants; hence, placing small boards, chips, pieces of bark, etc., around the plants may induce them to crawl under these, where they, on examination early in the morning, may be caught. The cut-worms should be dug for and picked out by hand. They will also conceal themselves in small bunches of fresh grass placed about the plants.

Seeds that Won't Germinate

M. F. J., Uniontown, Pa., asks why certain flower seeds from the RURAL refuse to germinate. Some were planted early and some late, but both lots are alike obstinately determined not to send a shoot above ground.

ANS.—We have never raised Callicarpa from seed. Yuccas germinate freely. We cannot even guess why yours have failed. Is your soil mellow, drainage good? Have you kept it moist? Are you sure it has not been permitted to dry out? Perhaps you have watered it too much. We have not the least trouble with them, and have now many plants five inches high from the same seed. No, the Hibiscus will not bloom until the second year.

Rust-proof Wheat.

S. A. M., Scooba, Miss., asks whether there is any kind of rust-proof wheat,

ANS.—We do not know of any. If such a variety were discovered or produced, it would be highly popular and a blessing to agriculture.

Miscellaneous.

M. F. McC., Darlington, Pa., sends us numbered specimens of plants for name.

ANS.—No. 1. Gillenia trifoliata, of the Rose family. No. 2. Tradescantia Virginica, common Spiderwort. No. 3. Œnothera fruticosa, Evening Primrose family. No. 4. Valeriana officinalis, Valerian family. No. 5. Please send us a better specimen. No. 6. An Artemesia—must have flower. No. 7. Spiræa opulifolia (now removed to Neillia), Ninebark.

C. H. H., Norwich, (there are seven of them in the country) asks where can Magnolia trees be purchased, and whether they will live in the open air in his latitude.

ANS.—They may be purchased of any nursery. Spring is the best time for transplanting—indeed the only time when they can be transplanted with success. If our friend will advise us of the State in which he lives, we will be glad to name species which are suited to the climate.

W. N., Hancock. Wis., asks the relative prices of Lop-eared, Himalayan and Angora rabbits.

ANS.—The Lops are the most valuable good specimens being worth from $5 to $10 per pair, and extra fine animals suitable for exhibition bringing as high $20 to $25. Himalayans and Angoras are more easily bred and much lower in price; fine specimens being sold at $5 per pair.

D. H. H., Caldwell, Texas, says that in his section the leaves of corn alone are called fodder, and he asks whether in returning account of Blunt's corn, the whole stalk, except the ear, is to be included in that term, or the leaves merely.

ANS.—The leaves and stalks, less the ears.

U. S. T., Ontario, Canada, has planted his premium-corn on ground surrounded by Pearl Millet, to prevent it from mixing with yellow corn, and he asks whether he has infringed the rules of fair-play.

ANS.—We should say, "No."

S. F. B., Buckeye Center, Ill., asks where can a work on archery be bought.

ANS.—Messrs Scribner & Co., of this city publish an excellent work, treating of every part of the subject—price $1.50.

J. P., Guilford Conn., asks how to destroy rose-bugs.

ANS.—We have never known so many rose-bugs as during the present season. We really do not know what to advise.

J. T. M., Lysander, N. Y., sends us a grass, asking for its name and if it has any value for pasturage.

ANS.—The grass is Millet Grass (Milium effusum). It has no value as a forage plant.

COMMUNICATIONS RECEIVED FOR THE WEEK ENDING SATURDAY, JUNE 28th.

S. E. J.—A. S.—G. W. A.—F. A. B.—A. V. D.—R. C. J.—M. M. W.—J. M. C.—E. D.—M. A. H.—C. J. H.—J. R.—J. A. P.—J. E.—W. R. G.—H. A. W.—W. G. W., Thanks—E. L. M.—L. M.—T. B.—S. S. B.—M. S. W.—W. H. H.—R. J. E.—G. O. W.—A. M. H.—A. L.—E. N.—H. T. J., Thanks—B. F. T.—E. S.—L. J. A.—B. P. M.—W. C.—O. S. B.—J. M. LaR—F. D. C., Three—S. K. M.—S. S. M.—O. C. D.—U. T. S.—J. E.—J. T. C.—D. H.—E. H. B.—F. H. D.—W. S. T.—J. E.—A. S. A.—S. B. P., Thanks—G. D. S.—E. S. B.—J. W. K.—"A Subscriber"—Bertha H.—W. B.—L. S.—W. H. N.—T. H. H.—L. A. R., Thanks—A. E. G.—W. H. H.—E. W. S.—H. R., Thanks.

Miscellaneous.

CONNECTICUT AGRICULTURAL EXPERIMENT STATION.

BULLETIN 30.—JUNE 20, 1879.

Fertilizer Analyses.

279. Lister Brothers' Ground Bone. Sampled by Experiment Station, May 26th, from stock of R. B. Bradley & Co.

288. Ground Bone. Royal Jennings, agt., Trumbull, Ct. Sampled and sent May 30th, by Fr. G. Heublein & G. Goessinger.

	279	288
Nitrogen	2.80	3.85
Phos. Acid	10.63	19.46
Estimated value per ton	$23.10	$37.57
Cost per ton	30.00	32.00

280. Stockbridge Grass Top-dressing. Sampled by Experiment Station, May 26th, from stock of R. B. Bradley & Co.

281. Forrester's Cabbage Fertilizers.

282. Forrester's Potato Fertilizer.

284. Forrester's Strawberry Fertilizers. Samples 281, 282 and 284 were received May 28th, from M. S. Baldwin, Secretary Farmer's Club, Naugatuck, Ct.

	280	281	282	284
Nitrogen as Am'nia	3.14	5.99	3.90	2.41
Nitrogen as nitrates	2.79			
Nitrogen, organic	1.17	.28	.73	.60
Sol. Phos. Acid	3.79	3.85	.37	8.22
Rev. Phos. Acid	.30	2.21	5.09	2-12
Insol. Phos. Acid	.36	.45	1.63	.85
Potash	7.52	7.44	9.06	5.91
Chlorine	7.51	2.03	2.66	2.10
Est. val. per ton	$46.10	$51.21	$43.67	$46.66
Cost per ton	50.00	40.00	47.50	42.50

Cost per ton of 288 is reckoned from price per hundred weight, viz., $1.60.

Cost per ton of 280 is reckoned from price per bag of 200 lbs., viz. $5.00.

Sample 279 contains 21.6 per cent. of matters soluble in cold water, mostly "salt cake" (?).

The potash of 280 exists as muriate and is reckoned at 4½ cents per pound.

The potash of 281, 282 and 284 is reckoned at six cents per pound.

S. W. JOHNSON, Director.

WHAT OTHERS SAY.

PRICKLEY COMFREY.—In 1878 a correspondent of the London Gazette planted some of the above plants in a corner by his piggeries. It was a piece of land under trees, and would grow nothing but weeds. He planted in March and it was ready for first cutting in June, and was cut four times last summer, principally for the pigs, a cow preparing for Christmas, and calves. Although the above stock live on the best of grain and cake they eat the comfrey once a day greedily. He has now in a pigstye fourteen caged lambs that suckle a small cow, get cake and grain and prickly comfrey twice a day since the beginning of April, and are doing very well. He considers it a most valuable plant; it seems to take hold of the ground so that neither wet nor drought affects its growth, and it will produce green food for eight months in the year. He thinks it is quite a treat to see the little lambs enjoying their comfrey and also considers it ornamental, and believes no other plant will grow the same amount of produce.

PRIMARY CAUSE OF YELLOWS.—Our friend Mr. E. J. Williams, tells the N. Y. Tribune, that every season quantities of peaches of all questionable sorts are sent to the New York market from the south. If in very bad order they are overhauled, the rotten and unsalable are thrown out, divested of their flesh, the pits washed clean, dried and stored away; in some cases the pits are the only part of the shipment from which anything is realized. At the close of the season these pits are barreled up and exposed for sale labeled "Prime Southern Peach Pits," and find their way to all parts of the country.

Here he contends is to be found the primary cause of yellows and premature decay of peach orchards, so disastrous and discouraging to planters in all sections, for, like consumption in the human family, which is often hereditary, it does not develop itself till arriving at maturity, and an impoverishment of the soil is favorable to this development.

ROADSIDES CULTIVATED.—Mr. Gennert, writing to the American Cultivator from California, says that while he was riding with a farmer to examine the beet fields, he was involuntarily reminded of the intervale land around Fryeburg, Maine, foul with weeds wherever you turn, though richer than any land he had seen yet. He found every patch of land utilized. On the public roads alongside the fences, that part which is not actually cut up by the wheels is, with rare exceptions, sown in grain; although even sugar beets are planted there in some spots. He asked his friend, with whom he was riding, if that paid. He replied, "Well, it just about pays for the labor; but if these strips were grown thick with weeds, which would be the case if not cultivated, it would give us a great deal more work to keep the fields clean."

THE FARMERS' LAWN.—Mr. Hyde says, in the Massachusetts Ploughman, that no one begrudges the chickens a yard in which to run, flirt and frolic, and are not children entitled to equal privileges with the chickens? Whatever makes home attractive, if it is no more expensive than a lawn, is not wasteful. If we wish to keep our boys on the farm, and to train our daughters for farmers' wives, we must make the home pleasant and farm life something besides mere drudgery. We know nothing that adds such a charm to a country home as a lawn; and when, after the labors of the day are over, the boys and girls assemble upon it to play croquet, and the grace of motion and the exhilaration of social life are added to this thing of beauty, the scene is delightful, and if anything will make the farm attractive, this will.

CURIOSITIES IN POMOLOGY.—The Hartford Post says: "some years ago one of our citizens bought and set out some thrifty young apple trees. From one of them he neg-

lected to remove the wooden label which was attached to one of the limbs by a copper wire. Two years later he found that the copper wire was imbedded and out of sight in the bark of the tree, and that year the limb was so heavily loaded with apples that he was obliged to prop it up, while there was not a blossom or apple on any other limb. Last year one of his neighbors, when his apple trees were in blossom, carefully girdled some limbs on several trees, and the blossoms produced no fruit on the limbs thus treated, but this year those limbs have blossomed full, and no blossoms are on the limbs that bore last year. Pomologists may profit by further experiments in that direction."

THE FOUR INDISPENSABLES.—To establish beet-sugar works with reasonable certainty that they will pay, four things are indispensable, Mr. Gennert says in the Pacific Rural Press. These are: Beets, money, fuel and water. Of each of these it requires a liberal supply; if either of them is wanting or but scantily supplied, failure certainly will be the result. Besides a liberal supply of these four articles, all of which exist in great abundance in California, it requires men who understand the business and also the English language, and know the country well enough to avail themselves of the great many advantages which the United States offer to the beet-sugar industry.

BAD EXAMPLES.—A correspondent of the Maine Farmer says that we have a class of farmers among us who do not pursue farming as a means of support, but simply as a pastime. These so-called farmers do not feel the effect of an experimental failure as we do who are obliged from necessity to count the cost of every step before we take it. He is sorry to say we are too apt to follow the lead of such farmers.

PURE WATER FOR LIVE STOCK.—The Chicago Times says that the best dairymen aim to have a constant supply of pure, cold water in the pastures where cows feed during the day and in the yards where they rest at night. It seems to us that there is no interest so great that is looked after so heedlessly by the average farmer, as that of pure water for farm stock of every kind.

DEGENERACY OF AGRICULTURAL FAIRS.—"And so," says the New England Farmer, "the 'farmers' fairs' have, in too many instances, been given over into the hands of those who have very little interest in the welfare of the farming community."

MICHIGAN has been sending large quantities of strawberries to Ohio, and the finest fruit offered there this season. So says Colman's Rural World.

TRUE—And those who pause to rescue a man or woman on the downward road, are the exceptions and not the rule.—The Western Rural.

BOOKS RECEIVED.

TWELFTH ANNUAL REPORT of the Secretary of the Connecticut Board of Agriculture, 1878-9. T. S. Gold, Secretary, West Cornwall, Conn. This Report, of 408 pages, is both interesting and highly instructive. It contains much less dry records than are usually found in such works; but more instructive matter. Among the valuable articles it contains may be mentioned a lecture by Prof. W. H. Brewer, on Varieties of Cultivated Plants, occupying twenty pages, and full of valuable information; another, by Prof. D. C. Eaton, on Hybrids and Hybridism, in which, in thirty pages, is epitomized the latest and best information on the subjects treated of; Farming as a Business, by J. M. Hubbard, in sixty-two pages, gives many practical points to practical farmers; while our friend J. J. H. Gregory, in an address of thirty-two pages, tells all about the Culture of Vegetable Seeds. An interesting extract from this address appeared in the RURAL a couple of months ago. Seed-breeding, by Dr. E. Lewis Sturtevant, is probably as valuable a contribution as can be found in the work, and will well repay a perusal of the forty-six pages in which the Doctor expounds the results of his investigations. History of Animal Concretions; Vitality of Seeds; Propagation of Nursery Stock; Report on Diseases of Domestic Animals; Report on Farms, together with a very useful list of Analyses of Fertilizers, etc., etc., make this a work which should be sought and carefully studied by every Connecticut farmer. The Analyses of Fertilizers are by Prof. S. W. Johnson, Director of the Connecticut Experiment Station at New Haven, and are of the same nature as those published nearly every week in this paper. Appended to the Report of the Board of Agriculture is a Report of the Experiment Station, of 128 pages, containing a summary of the work done thereat during the year, and affording an excellent illustration of the value of such institutions to agricultural science and practice.

QUINBY'S NEW BEE-KEEPING; a complete guide to sucessful bee culture, by L. C. Root, is the title of the latest work on bee-keeping, published by the Orange Judd Company, 245 Broadway, N. Y. Price $1.50. Mr. Quinby, the late well-known apiarian, published a book on bee-keeping in 1866, of which the volume before us is a revised and enlarged edition. Many important discoveries and inventions having been made in the art since the first publication, the author contemplated the revision of his work; but, dying before his design was carried ont, this duty fell to his son-in-law and business associate, Mr. L. C. Root, who has ably completed the task. The book gives a lucid and popular explanation of bee-keeping, and is well worthy of a perusal by all who are interested in the subject. It contains 270 pages, is printed in clear type on tinted paper, and is handsomely bound in cloth.

CATALOGUES, &c., RECEIVED.

MR. J. F. Mancha, formerly of Delaware, has, we learn by the pamphlet under notice, moved to Claremont, Virginia, where he has, with others, formed a colony. Surry County, where the tract of 12,000 acres is located, is an engaging spot. Commercial facilities are unusually good, and the situation is adapted to raising the crops that find profitable markets in New York and other northern cities. The terms, we believe, are extremely reasonable, but any one in a migrating mood, will receive gratuitous information in the little pamphlet sent us.

INDIANA AGRICULTURAL REPORT for 1878. Alex. Heron Sec. Indianapolis, Ind. This is a neatly gotten-up work of 432 pages. The index promises well for the contents; but we have not yet had time to examine it sufficiently to do more here than to acknowledge its receipt.

DESCRIPTIVE CATALOGUE of Southern and acclimated Fruit and Ornamental Trees, Grapevines, etc., cultivated and for sale at the Pomona Hill Nurseries, Greensboro, N. C., J. Van Lindley, proprietor. Early peaches for market orders, a specialty.

AMERICAN ASSOCIATION of Nurserymen, Florists and Seedsmen. Our next issue will contain three columns of condensed original reports.

Dairy Husbandry.

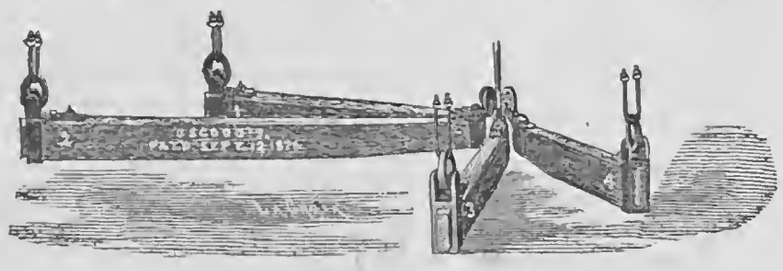
CREAM RISING.

T. H. HOSKINS, M. D.

In my reply to the criticisms of Mr. O. S. Bliss (RURAL, p. 329), a typographical error, at bottom of second column, makes me say that the butter globules are, by the force of gravitation acting upon them through the milk, "extended" upwards; whereas I wrote that they were "*extruded* upwards, as we extrude the seeds from a grape by pressing it between the thumb and finger." I offer this correction as making the sense more clear, but not in the hope that Mr. Bliss will thereby be made to understand my illustrations any better. What I write upon this subject is for the consideration of fair-minded if not impartial readers, and therefore I trust that Mr. Hardin will see that I answered in that article some, at least, of the points in my previous communication to which he seemed to except. My suggested experiment of the beads in the sand was not intended to be parallel in all its conditions to the case of butter globules rising in milk, but only to demonstrate the single fact that the globules might be brought to the surface without anything that could be called a circulatory current; that the only movements really called for by the conditions, are the closing together of the milk beneath the globule and the moving aside from its path of the milk above, as it makes its way upward in consequence of the prevailing pressure of the heavier milk upon the lower semi-circumference of the globule. This will be self-evident to any one competent to discuss the question at all.

No. 3.

A correspondent, addressing me directly, says that while "I should expect the milk used by you in your experiments" (grade Jersey milk) "would conduct itself exactly in the manner reported as regards the rising of the cream, yet I doubt if the same results would be found to follow similar trials with the milk of Ayrshire, Short-horn, or common cows." This is fair and courteous criticism, and to meet it I have arranged to place my apparatus in the hands of one of our most intelligent dairymen, who has a large herd of cows, most of which have no Jersey blood. He will test their milk carefully, and report for the benefit of RURAL readers. With that report I will furnish a sketch of the apparatus, and a description of my method of experimentation. Readers of the RURAL will then have all the facts in the case before them, and, if so inclined, may repeat and verify them for themselves. I study and write upon these subjects solely for the advancement of my own and others' knowledge; and though I have no objections to the criticisms of parties like Mr. Hardin and Mr. Bliss, I address myself chiefly to the intelligent and practical dairymen who read the RURAL.



No. 4.

Field Crops.

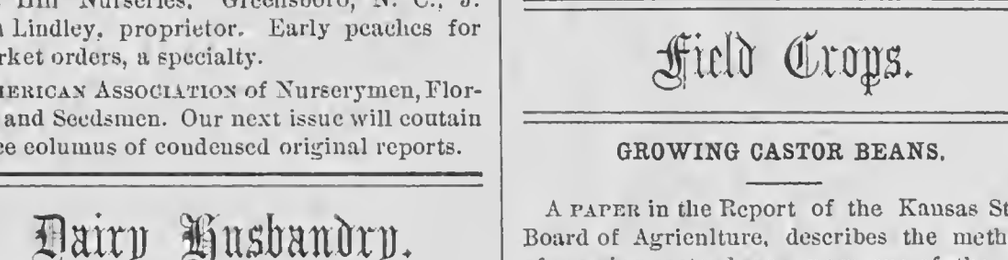
GROWING CASTOR BEANS.

A PAPER in the Report of the Kansas State Board of Agrienlture, describes the methods of growing castor beans, now one of the staples of that productive State. Some of the peculiarities of the process will interest many who have only been accustomed to see how

"Oats, beans, peas, and barley grow."

The smaller bean—the sort grown as a crop—attains to a hight of eight or 10 feet in upland, and has purple stalks, bluish green leaves and green spikes. The ornamental kind, of rich purple and scarlet, grows like a tree, and children climb in the branches six or eight feet from the ground. The field beans are planted four feet apart and thinned to one in a hill. The wagon into which the ripe spikes are thrown, goes along every seventh row bending but not breaking it, if it always goes in the same direction. Sometimes this row is planted with a low crop, as white beans.

The racemes are gathered as soon as part of the pods open and discharge their seeds, as they do under the influence of the sun. A great many are scattered and lost in this way, although five or six successive gatherings are carefully made. The gathered racemes are spread on floors where, in five or six days, they open, and the seeds are popped or expelled to the distance of some feet. Large floors are necessary as the racemes must be laid only one deep. Often the floor is made by putting old hay or straw on a square of old prairie sod burning it thoroughly, and then sweeping off the surface. The grasshoppers won't touch these plants, the chinch-bug avoids them, heavy rains don't hurt them, and they endure drought well. The beans sicken children who are tempted to eat of them, and care is taken not to have any mixed with the feed given to horses. The average yield is 15 to 20 bushels, and they sell at about a dollar a bushel. Formerly, the bean was largely imported from India. The demand for the oil increases, especially for lubricating purposes. Two quarts of seed will plant an acre. G. W.



No. 5.

Industrial Implements.

OSGOOD'S PATENT SCALES.

THE application of steel bearing stirrups and sockets, adjusted for attachment to wooden beams for scale levers, so materially reduces the cost of large scales as to bring them within the reach of farmers, and prove to them a profitable investment. The low price at which they are sold may make it of interest to farmers to know something about their construction.

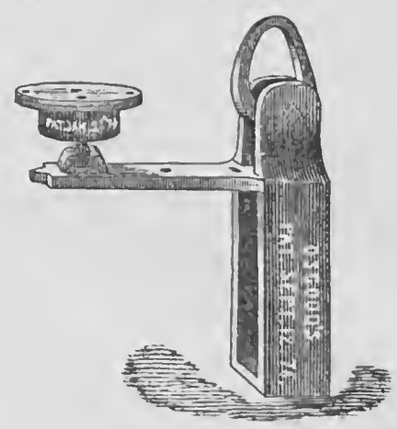
No. 1.

Cuts Nos. 1 and 2 show the stirrups, which are fitted with steel pivots for attaching to wood beams, in order to sustain and accurately transmit weights to the scale-bar.

No. 2.

Cut No. 3 shows a lever with the irons fitted to it. A tenon is made on each end of the lever to fit into the stirrups; and the measure which fixes the distance between these irons is represented on the top of the lever, extending between the irons.

Four levers thus fitted are shown in Cut No. 4, and these are then attached to the wood frame and brass weigh-bar, as seen in Cut No. 5.



No. 6.

Cut No. 6 shows one of the stirrups with the rubber-packed self-adjusting sockets on the fulcrum pivot. There are four of these steel sockets attached to beams upon which the load rests.

When the parts are put together, as seen in Cut 5, each lever is adjusted and sealed with 1,000 pounds of U. S. S. Weights, so that it will weigh accurately on any part of the platform. The irons are then marked, detached from the wood, and boxed with the measuring rods, so that the parts can be attached to any wood anywhere, and weigh any load as perfectly as if the levers were all iron.

The difference between this and all other wood lever scales is, that the stirrups and sockets are constructed in a new and ingenious manner, which admits of their being sealed at the shop and reset anywhere with the same trustworthiness as iron lever scales.

The wood levers when suspended and covered by the platform, can not warp or twist to impair their accuracy, and we cannot see any more objection to the use of wood levers with these iron fittings, than to iron levers with a wood frame and platform to which the irons are attached. We should suppose the wood levers would last longer than any other part of the scale, as they are in contact with nothing but iron.

The direct action of each lever with the scale-bar is so plain and simple, that if the pivots are properly fitted so that the scale will weigh correctly when set, it must continue to do so until the bearings are worn out; this, of course, depends upon how hard the scale is used. For farm uses one of these scales with rubber-packed bearings, will last twenty years by renewing the frame and platform; and the entire cost of timber and scale will not often exceed $40. The directions for building are plain and simple, and the scales can be set in complete order in two days. They are manufactured solely by Osgood & Co., at Binghamton, N. Y., who send them on trial, desiring to have them subjected to the most severe tests before payment is made.

Everywhere.

RURAL SPECIAL REPORTS.

MAINE, Dixmont Center, Penobscot Co., June 23.—The wheat crop in this section bids fair to be a full average one. Corn is very small and backward. This has been a poor spring for corn—cold rain, with frosts on the 8th and 9th, which did some damage to beans and tender plants. About the usual amount of potatoes was planted. The bugs are quite plentiful on some farms, and may damage the crop. The hay crop is quite good—especially on new ground. The fruit crop will not be very good, Last season we had an unusually full crop, which is one cause why trees did not bloom fuller this season. S. B.

NEW HAMPSHIRE, Dunbarton, Merrimack Co., June 23d.—Wheat and potatoes in this section are looking well. The Beauty of Hebron which the RURAL sent me, is in blossom. Corn is not looking as well as usual, on account of so much cold weather. There will probably not be more than half a crop of apples. G. O. W.

MASS., Greenfield, Franklin Co., June 22.—Corn looks badly. Potatoes are poor, but the "bugs" are abundant. Oats look well. Not much wheat is raised here. The hay crop is good; I have one field of orchard-grass that will average five feet. Apples will be an average crop. Quinces set well; so did pear trees, but they blighted afterwards. Cows are plentiful here, and are selling for from $35 to $45. Butter is low—18c.; eggs, 12c. Peach trees were almost all killed last winter, as was a large Concord grape vine on my house. The weather has been cold, wet and frosty all through May and June. A. H.

NEW YORK, Corning, Steuben Co., June 26.—According to present appearances, the hay crop will not be nearly as good as last year, owing to the drought in May. Spring grain is also injured to some extent from the same cause, as well as winter wheat and rye; but winter wheat, as a general thing, was not sown early enough last year in this section. Many delayed sowing till late, hoping thereby to defeat the Hessian fly, and consequently will defeat their own interests by harvesting a short crop. If wheat cannot be sown early, it had better not be sown. Just now it is a fine growing time, with frequent showers keeping the ground moist and in good condition. The apple crop will be short in some localities, by reason of the frosts, which were quite severe in some places, on the 6th and 7th of this month. There seem to have been many colonies of bees lost in this vicinity the past spring from some disease. Nearly all who keep bees have lost more or less, and in some cases their whole stock, and this while they were well supplied with honey. A great many more potatoes have been planted than in many years before, and they are looking well. The Colorado beetles as yet have been far less troublesome than formerly, and we hope their number will not again be so numerous. Strawberries, also, were much injured by the late frosts; but the prospect is fair for an abundant crop of wild raspberries, as well as of blackberries, huckleberries and blueberries. The corn crop is behind time; but, as a general thing, there is a good stand on the ground, and of excellent color, so that if the season is now favorable, it will be likely to come out all right at the end of the season. I find I planted my Pearl Millet too early, consequently it did not come up as well as I could wish, and now it is not of so good a color as I like. Wool is a good product to turn off this year, and, as butter is low, it will be strange if many do not reduce their number of cows and get more sheep, which will be a poor change to make, I believe, for then probably the price of wool will be low and that of butter high. I am very much pleased with the Willows received from the RURAL Grounds last year. They are making a good growth and the foliage is nice. Wool is selling for 35@37c.; eggs, 12c., and butter, 10@14c. F. H. D.

N. J., Harbourton, Mercer Co., June 23.—The hay and wheat crops are a little below the average. Corn is short, owing to cool nights. Potatoes look well, although there are plenty of "bugs." All kinds of fruit are scarce, except Smith's Cider apples, here and there. E. H. B.

PENN., Darlington, Beaver Co., June 21.—Wheat is about half a crop. Corn is very backward. Potatoes are good. Oats, the same. Fruit is about one-fourth of a crop. Meadows are short. R. J. E.

OHIO, Duncan's Falls, Muskingum Co., June 25.—Wheat is about half a crop; the ears are well filled, but the growth is light on the ground. Corn came up badly; much of it had to be replanted, and it has been injured by wire and cut-worms; very cold weather causes it to be small. "Bugs" and potatoes have a hard fight for the mastery, but Paris-green settles the former. The fruit crop is very light, except small fruits, which are doing pretty well. Grass is not more than one-third of what it was last year. Our dry weather seems to be confined to the vicinity of Zanesville, as good showers have been quite frequent south and east of us in this county. W. A. C.

OHIO, Martinsville, Clinton Co., June 23.—Spring is late. Corn is backward, with a poor stand. Oats are short. Wheat is fine—will be mostly harvested this week. There is not so much straw as last year, but the wheat is evener on the ground and better headed. Small fruits are in abundance, blackberries excepted. No peaches, no plums. Grape-vines were badly winter-killed—will give about a fourth of a crop. No cherries of any consequence. The prospect for apples is very good—plenty of summer apples. We cannot tell about potatoes yet. A larger acreage than usual is planted. H. B.

OHIO, Galion, Crawford Co., June 20.—June so far, has been wet, but the month of May was very dry. The wheat crop looks splendid. Corn is a little backward on account of the cold, dry weather in May; we had to do a good deal of replanting, but I think the warm rains now will bring it out all right. Potatoes look well. The apple crop will be poor this fall, as there are but few trees that have any at all. No peaches. Small fruits are abundant. The hay crop will be a little light. Wheat is selling for $1.06 per bushel; oats, 33c.; hay, $6 a ton; wool, 35c. per pound; butter, 10c. per pound; eggs, 10c. a doz. B. F. R.

OHIO, Atlanta, Pickaway Co., June 22.—This has been the latest season ever known here. Corn not all up yet. Some farmers have planted the fourth time. Wheat is a fair average crop; it will be fit to cut in about a few days. Oats are a short crop. Grass is good. Potatoes are fine and there is a large acreage of them. All the grass sown this spring was lost. Apples will be a good crop; cherries, a light one. Peaches and plums are total failures. A. L.

OHIO, Port Clinton, Ottawa Co., June 20.—Wheat looks fine—corn is backward. Spring grain is coming forward since the rains. Owing to the dry weather in May hay will make ¼ less than a crop. Late rains are making the potato crop a success. Wool is selling freely at 35 and 36 cents. Apples will be a quarter of what we had last year. Peaches are half a crop. Small fruit plentiful. L. M.

OHIO, St. Clairsville, Belmont Co., June 23.—Wheat has been injured considerably by late frosts and drought; but will yield a moderate crop. Corn and potatoes are doing very well. The fruit crop has been greatly injured by a severe winter, most of the smaller varieties having been killed entirely. Oats and hay are badly injured by the cold, dry weather of May and June. S. B.

IND., Pennville, Jay Co., June 23.—We have had wet weather during the last six weeks, but April and the first part of May were very dry. We had an uncommonly cool spring. The prospect for corn is as poor as I ever saw it at this time of the year. It was a difficult matter to find corn that would grow. There is a good crop of wheat—nearly as good as last year's. It will be ready for harvesting about the first of July. Potatoes look well. The potato bugs are not doing much damage. Grass is good. There has been too much rain for flax. Oats look well on high ground. Apples and cherries are plentiful, and there is a good prospect for grapes. No peaches. Gooseberries and currants are abundant where they have not been destroyed by worms. E. T.

IND., Hall's Corners, Allen Co., June 20.—The prospect for wheat in this county was never better, and more than an average acreage was sown last fall. Corn is backward in consequence of poor seed, yet an average crop is expected. Oats look well—not as much sown as last year. Potatoes bid fair for a good crop. Fruit is not as plentiful as last year, except small fruits, which are in great abundance. This is the "off year" for apples in this part of this county. W. H. H.

ILLS., Buckeye Center, Stephenson Co., June 20.—Small fruits in this part of the State are a good crop; other fruit, a medium one. S. F. B.

MICH., Kalamazoo, Kalamazoo Co., June 21.—The prospect for wheat in this county is good. Corn is backward and small. Potatoes promise better than usual. Fruit will be about half a crop. J. T. C.

WIS., Freedom, Outagamie Co., June 20.—The prospect for a full wheat crop, both of winter and spring wheat, is good in this part of the State. The cool, dry weather, though favorable to the growth of wheat, has not been so good for corn. A frost on the night of June 17th, cut much of the corn to the ground. Potatoes and other tender crops were similarly injured. We have not had rain enough to make a good hay crop. We shall have a partial crop of fruit. Small fruits are coming on finely. Oats promise well. The army-worm or caterpillar (?) is doing some damage to fruit and forest trees—this is the second year we have had them with us. There is a slight improvement in prices of most kinds of farm produce compared with the figures at this time last year. Wages of farm hands are low—from $10 to $16 per month and board. All crops now are needing rain badly. E. N.

MINN., Champlin, Hennepin Co., June 23.—We have had an abundance of rain this spring and early summer, so far. Wheat, oats, and all kinds of small grain promise fair for a bountiful harvest Corn and potatoes are doing well. Small fruit will be quite plentiful, but apples, plums, and the like, will be scarce, as they were injured by frost. C. H. L.

MINN., Preble, Filmore Co., June 21.—All kinds of grain are looking first-rate. Potatoes I never saw looking better for this time of year. Fruit is rather poor—some trees are badly affected with blight. S. S. S.

IOWA, Washington, Washington Co., June 22.—We have a fair prospect for crops of all kinds. Fruit was much damaged by late frosts. M. S. W.

COLO., Bent Canyon, Douglas Co., June 21.—The wheat crop of Colorado looks most promising. Corn and potatoes are side-show crops in this State; but all crops are looking splendid, and farmers are all feeling in good spirits. There is no fruit to speak of grown in Colorado. H. T. S.

VA., Wellville, Nottoway Co., June 23.—Wheat is an average crop. Corn is rather backward, but stands very well; a large area has been planted. Early potatoes are almost a failure, on account of dry weather; late potatoes are suffering from the same cause. The peach and apple crop prospects are good. Small fruits are not much cultivated. O. C. D.

KY., Owensborough, Daviess Co., June 21.—The wheat harvest is nearly over; the quality of the grain is very good so far as I have seen. The weather is very cool for the season. Planters are backward in getting out tobacco on account of the lack of suitable sets in the early part of the season and of a suitable season now. J. W. S.

TENN., Humboldt, Gibson Co., June 21.—We are now having cool dry weather, very fine for thrashing wheat and hay-making, both of which occupations have been very lively for the past week. The acreage, yield and quality are above an average—cotton, corn, oats, tobacco and all growing crops look well, and if there are sufficient rains in July and August, all will be good. All have been well cultivated and are clean and seasonable up to the first of this month. A dry June almost always insures a good crop in our State, provided we have the later rains. The spring was backward, and cut-worms troublesome, but now crops have about caught up, and look as well as we could wish. Strawberries and raspberries are half a crop, but the amount the shipments realized was nearly equal to the prices for a full crop. Blackberries are very promising, natives not cultivated. Tons could be gathered from every waste place not in cultivation. Enough are gathered and put up in various ways for home use, only, and are very fine. They are put up in almost any way. If we had more North Carolinans, large quantities would be dried for market. Garden truck and potatoes are good. The cantharides, or striped bug, commenced stripping the vines, and generally stop their growth. Does any one know how to get rid of them or a remedy for them? [The only remedy we know of is to shake or brush the insects off the vines into a broad tin pan, or to catch them by sweeping the plants they frequent with a deep muslin bag-net. They should be killed by throwing them into scalding water for a few minutes; then, if they are spread out on sheets of paper to dry, they may be sold to apothecaries for medical purposes, as it is found that our native species of cantharides are as effective for blistering purposes as the Spanish fly?—EDS.] Every few years our crops are badly damaged by the pests. We always succeed well with the sweet potato, however. Apples, peaches, plums, &c., amount to almost nothing with us. Grapes look unusually fine now; but, as with every thing else, we can't tell what the future will be. B. F. T.

MISS., Scooba, Kemper Co., June 14, 1879.—We might have had some of the Beauty of Hebron potatoes on the table one month ago, but I wished to save the seed and have let them fully mature. I dug them to-day, and intend planting them again for a fall crop, and if they do well, I will advise you. The Pearl Millet looks fine and would do to cut now, but as I wish to save the seed I will not cut it. The Defiance Wheat is rusting badly, as all the white wheat does in this country. The birds and rust are the great enemies we have to contend with. The Blunt corn promises fairly. J. A. M.

FLA., Rixford, Suwannee Co. June 20th.—The general outlook for crops is good. Corn generally is doing well. Cotton is rather backward, but healthy—the long staple is mostly grown here. The vegetable business has proved a success, though it had to be learned. The transportation companies have given better facilities than heretofore but they are yet far from perfect. Florida will soon be the spring garden of the United States. The orange crop is promising, but I judge the trees are not as heavily fruited as last year. G. C. R.

TEXAS, Caldwell, Burleson Co., June 18.—If it doesn't rain soon, corn will be beyond help. A neighbor and myself are plowing cotton; and although it is not growing much, it looks fresh and green and holds its fruit, while those who follow the Texan plan of waiting for rain before plowing, have sickly-looking cotton which is shedding its fruit. The RURAL has already saved me $100, owing to my taking advantage of hints contained here and there in it. The children have some flowers planted at the ends of my cotton rows in sand three feet deep. I have plowed the ground five times. The rows are 4½ feet apart, and I plow 14 inches from the row and the last time, 18 inches deep. The flowers thus treated are the scarlet Cypress vine, the indigo and sky-blue Morning-glory, the Balsam vine, white and red Ricinus, Chater's Hollyhock, Mignonette, and Touch-me-not. It is only necessary to look ten steps away to where the same flowers are cultivated by deep digging, to see how superior frequent and deep plowing is to hoeing, however well done. D. H. H.

TEXAS, Circleville, Williamson Co., June 19.—Our section of Texas has suffered from a severe drought; consequently, crops are short. Wheat and oats will not average more than half a crop—say from five to ten bushels per acre. I suppose oats will yield some more, but the grain is light and the ears not well filled. Corn is very much injured. We grow potatoes in this part of Texas only for early use, and the yield was small. Fruits likewise turn out to be scarce; they are quite scattering on the trees and kept back by the drought. Crops are better in other sections, but we can not tell exactly yet what they will be, but there is a slim prospect for good crops in Texas. J. E.

TEXAS, Salado, Bell Co., June 17.—We are having a severe drought this year, in all this part of Texas, we have had but one good rain since January. The yield of wheat is fully an average one in spite of the dry weather. Oats are a fair yield. Potatoes are fine, where the right sort and good seed were planted. The fruit crop is inferior on account of dry, cool weather in spring, and unless the rains come very, very soon, corn will be a failure. E. L. M.

TEXAS, Lockhart, Caldwell Co., June 18.—Wheat is being thrashed out, and is turning out from two to fifteen bushels per acre. It will average seven or eight—less than half a crop. Dry weather caused the shortage. Corn will average about twenty bushels per acre—injured by chinch bugs and dry weather. Potatoes have matured and have been eaten up—a sorry crop. Fruit, half a crop. S. K. M.

CANADA, Cornwall, Ont., June 22.—Crops are doing well here. Hay promises to be heavy. Corn is very backward on account of frost. Early potatoes were killed by the same cause. The potato "bugs" are not so bad this year as last. W. S. T.

Industrial Societies.

PREMIUM LISTS RECEIVED.

We have received premium lists of the following fairs:

Fortieth Annual Cattle Show and Fair of the Franklin County Agricultural Society, to be held at Farmington, Me., Oct. 7-9. V. L. Craig, Sec.

Twentieth Annual Cattle Show and Fair of the Hoosac Valley Agricultural Society, to be held at North Adams, Mass., Sept. 16-18. H. Clay Bliss, Sec., North Adams.

Thirty-eighth Annual Exhibition of the Housatonic Agricultural Society, to be held at Great Barrington, Mass., Sept. 24-26. H. T. Robbins, Sec., Great Barrington.

Sixth Annual Exhibition of the Natick Farmers' and Mechanics' Association, to be held at the above town, Sept. 30 and Oct. 1. C. H. Mansfield, Sec., Natick., Mass.

Fifth Annual Fair of the Washington County Agricultural Society, to be held at West Kingston, R. I., Sept. 16-18. J. G. Clark, Sec.

Eighth Annual Horse, Cattle and Poultry Show and Fair of the Meriden Agricultural Society, to be held at Meriden, Conn., Sept. 17-19. Levi C. Coe, Sec., West Meriden.

Cattle Show and Exhibition of the Windam County Agricultural Society, to be held at Brooklyn, Conn, Sept. 23-24. Frank Day Cor., Sec. Danielsonville.

Exhibition of the New Haven County Agricultural Society, to be held at New Haven, Conn., Oct., 1-3. C. H. Augur, Sec, Whitneyville.

Thirty-ninth Annual Fair of the New York State Agricultural Society, to be held at Utica, Sept., 8 to 12. T. L. Harrison, Cor. Sec., Albany.

Twenty-fourth Annual Fair of the Otsego County Agricultural Society, to be held at

Cooperstown, N. Y. Sept 22-24. H. K. Jarvis, Sec., Cooperstown.

Fifth annual Exhibition of the Hampton Agricultural Society, to be held at Bridge-Hampton Long Island Sept 22-24. Addison M. Cook, Sec. Bridge-Hampton.

Thirty-seventh Annual Fair of the Washington County Agricultural Society to be held at the Society's grounds between Sandy Hill and Fort Edward N. Y. Sept 3-5. Frank B. Davis, Cor. Sec., Fort Edward.

Twenty-seventh Annual Exhibition of the Bradford County Agricultural Society to be held at Towanda, Pa., Oct. 1-3 Jno. F. Fox, Cor. Sec., Towanda.

Thirtieth Annual Fair of the Ohio State Board of Agriculture, to be held at Columbus, August 25-29. Jas. W. Fleming, Act'g Sec., Columbus.

Twenty-first Annual Fair of the Erie County Agricultural Society, to be held at Sandusky, Ohio, Sept. 23-26. T. F. Spencer, Sec., Sandusky.

Thirty-third Annual Fair of the Mahoning County Agricultural Society, to be held at Canfield, Ohio, Oct. 7-9. Jared Huxley, Sec., Youngston.

Twenty-fourth Annual Fair of the Gallio County Agricultural Society, to be held at Gallipolis, Ohio, Sept. 3-5. John V. Vanden, Sec.

Thirtieth Annual Fair of the Columbiana County Agricultural Society, to be held at New Lisbon, Ohio, Sept. 30 and Oct. 1-3. Richardson Arter, Sec.

Twenty-fifth Annual Fair of the Marion County Agricultural Society, to be held at Marion, Ohio, Sept. 30 and Oct. 1-3. Jas. E. Crow, Sec.

Sixth Annual Fair of the Northern Indiana Agricultural and Horticultural Society, to be held at Fort Wayne, Sept. 22-26. I. D. G. Nelson, Sec., Fort Wayne, Ind.

Third Annual Fair of the Eastern Indiana Mechanical and Trotting Park Association, to be held at Connersville, Ind., Sept. 2-5. A. B. Claypool, Sec.

Tenth Annual Fair of the Hamilton County Agricultural Society, to be held at Cicero, Ind., Aug. 26-29. L. O. Clifford, Sec.

Eighteenth Annual Fair of the Bridgeton Union Agricultural Society, composed of Park, Putnam, Clay and Vigo Counties, to be held at Bridgeton, Ind., Aug. 25-30. Dempsey Seybold, Sec.

Ninth Annual Fair of the Knox County Agricultural and Mechanical Society, to be held at Vincennes, Ind., Oct. 13-18. E. R. Steen, Sec., Wheatland, Ind.

Twenty-Third Annual Fair of the Russellville Union Agricultural Association, to be held at Russellville, Ind., Aug. 25-30. G. S. Durham, Sec., Russellville.

Twenty-Fifth Annual Fair of the Gibson County Horticultural and Agricultural Society, to be held at Princeton, Ind., Sept. 15-19. Newton Skelton, Sec.

Twenty-eighth Annual Fair of the La Porte County Agricultural Society, to be held at La Porte, Ind., Sept. 24-26. H. C. Shannon, Sec.

Seventh Annual Fair of the Cass County Agricultural, Horticultural and Mechanical Association, to be held at Logansport, Ind., Sept. 23-27. D. W. Tomlinson, Sec.

Seventh Annual Exhibition of the Inter-State Exposition of Chicago, Ill., will open Sept. 3 and close Oct. 18. Jno. P. Reynolds, Sec.

Tenth General Exhibition of the Northern Wisconsin Agricultural and Mechanical Association, to be held at Oshkosh, Wis., Sept. 15-19. R. D. Terrey, Sec., Oshkosh.

Twenty-sixth General Exhibition of the Wisconsin State Agricultural Society, to be held at Madison, Sept. 8-12. Geo. E. Bryant, Sec., Madison.

Twenty-fourth Annual Exhibition of the Mahaska County Agricultural Society, to be held at Oskaloosa, Iowa, Aug. 26-29. Ben. McCoy, Sec.

Twenty-second Annual Exhibition of the Humboldt County Agricultural Society, to be held at Humboldt, Ia., Sept. 17-19. S. H. Brewer, Sec.

Twenty-first Annual Fair of the Des Moines County Agricultural Society, to be held at Burlington, Ia., Sept. 23-26. C. M. Garman, Sec.

Twenty-seventh Annual Fair of the Scott County Agricultural Association, to be held at Davenport, Ia., Sept. 1-5. C. W. Verder, Sec., Davenport.

Twenty-sixth Annual Exhibition of the Iowa State Agricultural Society, to be held at Des Moines, Sept. 1-5. Jno. F. Shaffer, Sec., Fairfield, Ia.

Tenth Annual Exhibition of the Poweshiek County Central Agricultural Society, to be held at Malcom, Ia., Sept. 9-11. J. H. Duffus, Sec.

Twenty-second Annual Exhibition of the Warren County Agricultural Society, to be held at Indianola, Ia., Aug. 26-28. Mel. W. Park, Sec.

Nineteenth St. Louis Fair and Exposition. Premiums, $50,000. No charges for competition or room in any department. The Industrial Exposition opens Sept. 22; the live stock, fruits, etc., Oct. 10. The Exposition and Fair closes Oct. 11. G. O. Kalb, Sec.

Thirteenth Annual Exhibition of the Nebraska State Board of Agriculture and State Horticultural Society, to be held at Lincoln, Sept. 8-12. D. H. Wheeler, Sec., Plattsmouth, Neb.

Fourth Annual Exhibition of the Kansas Valley Fair Association, to be held at Lawrence, Kan., Sept. 2-5. N. O. Stevens, Sec., Lawrence.

Sixth Annual Fair and Exposition of the Neosho Valley District Fair Association, to be held at Neosho Falls, Kan., Sept. 22-27. R. P. Hamm, Sec.

Fourth Annual Fair of the Kansas Central Agricultural Society, to be held at Junction City, Kan., Sept. 30 to Oct. 3. A. P. Trott, Sec., Junction City.

Eleventh Annual Fair of the State Agricultural and Mechanical Society, to be held at Columbia, S. C., Nov. 11-14. T. W. Holloway, Sec., Pomaria, S. C.

Third Annual Fair of the Harrison County Fair Association, to be held at Marshall, Texas, Sept. 30 to Oct. 3. W. W. Heartsill, Sec., Marshall, Texas.

ANNUAL FAIR LIST.

THE following list has been compiled from original sources and will be found, we believe, very accurate. Not having heard from *all* the secretaries of local organizations, we shall shortly publish a supplementary list that will, with the present announcement, make the list of annual fairs unusually complete and trustworthy.

STATE AND INDEPENDENT.

American Institute, New York	Sept. 17, Nov. 22
American Pomological Soc., Rochester	Sept. 17, 19
Arkansas, Little Rock	Oct. 20, —
California, Sacramento	Sept. 8, 13
Canada Central, Guelph, Ont	Sept. 15, 19
Capital State (Texas), Austin	Oct. 28, Nov. 1
Central Ohio, Mechanicsburg	Sept. 2, 5
Central Wisconsin, Watertown	Sept. 22, 27
Central Nebraska, Hastings	— — —
Colorado, Denver	Sept. 23, 27
Connecticut, Hartford	Oct. 14, 17
Delaware, Dover	Sept. 22, 28
Fat Stock, Chicago	Nov. 10, 15
Georgia, Macon	Oct. 27, Nov. 1
Illinois, Springfield	Sept. 29, Oct. 4
Indiana, Indianapolis	Sept. 29, Oct. 4
Iowa, Des Moines	Sept. 1, 5
Inter-State, Chicago	Sept. 3, Oct. 18
Kansas Central, Junction City	Sept. 30, Oct. 4
Kansas City Exposition, Kansas City	Sept. 15, 20
Kentucky Assn., Frankfort	Sept. 2, 7
Michigan, Detroit	Sept. 15, 19
Minnesota, St. Paul	Sept. 1, 6
Nebraska, Lincoln	Sept. 8, 12
New Jersey, Waverley	Sept. 15, 20
New York, Utica	Sept. 8, 12
Northern Ohio, Cleveland	Sept. 1, 5
Northern Indiana, Fort Wayne	Sept. 22, 26
Northern Kentucky, Florence	Aug. 26, 30
Northern Iowa, Postville	Sept. 16, 19
Northern Nebraska, Fremont	Sept. 23, 27
Northern Wisconsin, Oshkosh	Sept. 15, 20
North-west Agl. Assn., Dubuque	Sept. 8, 12
New England, Worcester	Sept. 2, 6
North Carolina, Raleigh	Oct. 15, 18
Ohio, Columbus	Aug. 25, 29
Pennsylvania, Philadelphia	Sept. 8, 20
Rhode Island, Cranston	Sept. 9, 11
St. Louis, St. Louis	Oct. 5, 11
Southern Ohio, Dayton	Sept. 22, 26
Southern Kentucky, Glasgow	Oct. 7, 10
South Carolina, Columbia	Nov. 11, 14
South-west Wisconsin, Mineral Point	Sept. 2, 5
Tri-State, Toledo	Sept. 8, 13
Vermont, Montpelier	Sept. 9, 11
Virginia, Richmond	Oct. 28, 31
Wisconsin, Madison	Sept. 8, 12

COUNTY AND LOCAL.

MAINE.

Franklin, Farmington	Oct. 7, 9
Lewiston, Lewiston	Oct. 7, 9

NEW HAMPSHIRE.

Sullivan, Claremont	— — —

MASSACHUSETTS.

Bristol, Taunton	Sept. 23, 25
E. Hampden, Palmer	Sept. 16, 17
Essex, Lynn	Sept. 30, Oct. 2
Franklin, Greenfield	Sept. 25, 26
Hingham, Higham	Sept. 23, 25
Housatonic Valley, N. Adams	Sept. 16, 19
Housatonic, Gt. Barrington	Sept. 21, 27
Natick, Natick	Sept. 30, Oct. 2
Worcester, South Sturbridge	Sept. 11, 13
Worcester, N. W., Athol	Sept. 30, Oct. 2

RHODE ISLAND.

Washington, West Kingston	Sept. 16, 18

CONNECTICUT.

Fairfield, Norwalk	Sept. 23, 26
Meriden, Meriden	Sept. 17, 19
Milford and Orange, Milford	Sept. 10, 12
New Haven, New Haven	Oct. 1, 3
Windham, Brooklyn	Sept. 23, 26

NEW YORK.

Broome, Whitney's Point	Sept. 23, 26
Chautauqua, Jamestown	Sept. 9, 12
Essex, Westport	Sept. 16, 18
Franklin, Malone	Sept. 29, Oct. 2
Genesee, Batavia	Sept. 30, Oct. 2
Gouverneur, Gouverneur	Sept. 2, 4
Hampton Ag'l, Bridge Hampton	Sept. 22, 25
Indus. Ass'n N. W. Onondaga, Baldwinsville	Sept 23, 27
Orleans, Albion	Sept. 25, 27
Oneonta Union, Oneonta	Sept. 23, 25
Otsego, Cooperstown	Sept. 22, 24
Oswego, Mexico	Sept. 2, 5
Oneida, Oneida	Sept. 23, 26
Orwell and Boylston, Study Creek	Sept. 9, 11
Queens, Mineola	Sept. 23, 26
Scholarie, Schoharie	Sept. 25, 26
Steuben, Bath	Oct. 1, 3
Schenevus Valley, Schenevus	Sept. 18, 20
Sangerfield and Marshall, Waterville	Sept. 23, 25
Skaneateles Farmers' Club, Skaneateles	Sept. 17, 19
Sandy Creek, Richland, Sandy Creek	Sept. 9, 11
Tompkins, Ithaca	Sept. 15, 18
Washington, Sandy Hill	Sept. 3, 6
Winfield, W. Winfield	Sept. 15, 18

PENNSYLVANIA.

Bradford, Towanda	Oct. 1, 3
Columbia, Bloomsburg	Oct. 15, 18
Chartier's Valley, Canonsburg	Sept. 23, 25
Crawford, Mercer, Venango, } Cochranton	Sept. 16, 19
Franklin, Chambersburg	Oct. 14, 17
Lehigh, Allentown	Sept. 30, Oct. 4
Northumberland, Sunbury	Sept. 30, Oct. 4
Ringtown, Ringtown	Sept. 16, 20
Susquehanna, Montrose	Sept. 17, 19
Somerset, Somerset	Sept. 24 27
Union, Sugar Grove	Sept. 16, 19
West Pennsylvania, Mercer	Sept 10, 12

DISTRICT FAIRS IN OHIO.

Blanchester, Blanchester	Sept. 9, 13
Clyde, Clyde	Oct. 7, 10
Greenfield, Greenfield	Aug. 12, 15
Guernsey Co. Far. and Mec. Industrial, Washington	Oct. 1, 3
Jamestown, Jamestown	Aug. 27, 29
Sabina, Sabina	Aug. 18, 22
Wellington, Wellington	Aug. 19, 22

COUNTY FAIRS IN OHIO.

Allen, Lima	Sept. 30, Oct. 3
Ashtabula, Jefferson	Sept. 23, 26
Auglaize, Wapakoneta	Oct. 7, 10
Belmont, St. Clairsville	Sept. 17, 19
Brown, Georgetown	Sept. 2, 5
Butler, Hamilton	Oct. 6, 10
Carroll, Carrollton	Oct. 7, 9
Clarke, Springfield	Aug. 19, 22
Clermont, Boston	Sept. 2, 5
Clinton, Wilmington	Sept. 2, 5
Columbiana, New Lisbon	Sept. 30, Oct. 3
Crawford, Bucyrus	Sept. 30, Oct. 3
Darke, Greenville	Sept. 16, 19
Defiance, Defiance	Sept. 23, Oct. 3
Delaware, Delaware	Sept. 23, 26
Erie, Sandusky	Sept. 23, 26
Fairfield, Lancaster	Oct. 15, 18
Fulton, Wauseon	Sept. 3, 5
Gallia, Gallipolis	Sept. 3, 5
Geauga, Burton	Sept. 23, 25
Greene, Xenia	Aug. 14, 15
Guernsey, Cambridge	— — —
Hancock, Findlay	Oct. 1, 4
Hardin, Kenton	Oct. 8, 11
Harrison, Cadiz	Sept. 1, 4
Highland, Hillsboro'	Aug. 26, 29
Hocking, Logan	Oct. 9, 11
Holmes, Millersburg	Sept. 21, 26
Huron, Norwalk	Sept. 30, Oct. 3
Jackson, Jackson	Sept. 25, 28
Jefferson, Smithfield	Sept. 21, 26
Knox, Mt. Vernon	Oct. 7, 10
Lake, Painesville	Sept. 16 18
Licking, Newark	Sept. 30, Oct. 3
Logan, Bellefontaine	Sept. 30, Oct. 3
Loraine, Elyria	Sept. 16, 18
Mahoning, Canfield	Oct. 7, 9
Marion, Marion	Sept. 30, Oct. 3
Medina, Medina	Sept. 16, 18
Meigs, Rock Spring	Sept. 10, 12
Mercer, Celina	Sept. 24, 26
Miami, Troy	Sept. 30, Oct. 3
Morgan, McConnellsville	Sept. 9, 12
Morrow, Mt. Gilead	Sept. 23, 26
Muskingum, Zanesville	Sept. 2, 5
Ottawa, Port Clinton	Sept. 17, 19
Pickaway, Circleville	Sept. 30, Oct. 3
Portage, Ravenna	Oct. 7, 9
Perry, New Lexington	Sept. 24, 26
Preble, Eaton	Sept. 30, Oct. 3
Putnam, Ottawa	Oct. 8, 11
Richland, Mansfield	Sept. 21, 26
Ross, Chillicothe	Sept. 2, 5
Sandusky, Fremont	Sept. 30, Oct. 3
Seneca, Tiffin	Sept. 30, Oct. 3
Shelby, Sidney	Sept. 30, Oct. 3
Stark, Canton	Sept. 30, Oct. 3
Summit, Akron	Sept. 30, Oct. 3
Trumbull, Warren	Sept 16, 19
Union, Marysville	Sept. 30, Oct. 3
Van Wert, Van Wert	Oct. 2, 4
Warren, Lebanon	Sept. 16, 19
Washington, Marietta	Sept. 2, 3
Williams, Bryan	Oct. 7, 10
Wood, Tontogany	Sept. 30, Oct. 3
Wyandot, Up. Sandusky	Oct. 7, 10

DISTRICT FAIRS OF INDIANA.

Bridgeton Union, Bridgeton	Aug. 25, 30
Cambridge City A. H. and M., Cambridge City	Sept. 16, 19
Dunkirk Union A. and M., Dunkirk	Sept. 2, 5
Edinburg Union, Edinburg	Sept. 24, 27
Fountain, Warren and Vermillion, Covington	Sept. 23, 26
Henry, Madison and Delaware, Middletown	Aug. 19, 22
Knightstown Union, Knightstown	Aug. 26, 29
Logootee A. and M., Logootee	Sept. 2, 6
Middle Fork, Middle Fork	Aug. 25, 29
North-Eastern Indiana, Waterloo	Oct. 8, 10
Prairie Farmer, Francesville	Sept. 16, 19
Russellville Union, Russellville	Aug. 25, 30
Remington A. A., Remington	Aug. 26, 29
South-Eastern Indiana, Aurora	Sept. 3, 7
Switzerland and Ohio, East Enterprise	Sept. 9, 12
Thorntown Union, Thorntown	Sept. 23, 26
Union Ag'l and Mech'l, Union City	Sept. 25, 27

COUNTY FAIRS OF INDIANA.

Allen, Fort Wayne	Sept. 22, 26
Bartholomew, Columbus	Aug. 26, 30
Blackford, Hartford City	Sept. 23, 26
Boone, Lebanon	Sept. 8, 12
Carroll, Delphi	Sept. 9, 12
Cass, Logansport	Sept. 23, 27
Clay, Brazil	Aug. 18, 23
Clinton, Frankfort	Sept. 15, 19
Daviess, Washington	Oct. 7, 11
Delaware, Muncie	Sept. 9 12
Elkhart, Goshen	Sept. 30, Oct. 3
Fayette, Connersville	Sept. 2, 6
Franklin, Brookville	Sept. 25, 26
Fulton, Rochester	Sept. 25, 27
Gibson, Princeton	Sept. 15, 19
Grant, Marion	Sept. 17, 20
Green, Linton	Oct. 7, 11
Hamilton, Cicero	Aug. 24, 29
Harrison, Corydon	Sept. 1, 5
Henry, Newcastle	Sept. 16, 19
Howard, Kokomo	Sept. 1, 6
Huntington, Huntington	Sept. 17, 20
Jackson, Brownstown	Aug. 25, 29
Jasper, Rensselaer	Sept. 9, 13
Jay, Portland	Sept. 30, Oct. 3
Jefferson, Madison	Sept. 17, 20
Knox, Vincennes	Oct. 18, 18
Kosciusko, Warsaw	Sept. 24, 27
LaGrange, LaGrange	Sept. 24, 26
LaPorte, LaPorte	Sept. 21, 26
Lawrence, Bedford	Sept. 9, 11
Madison, Anderson	Sept. 2, 5
Marion, Valley Mills	Sept. 11, 13
Marion (colored), Indianapolis	Aug. 26 30
Miami, Peru	Sept. 16, 19
Monroe, Bloomington	Aug. 26, 30
Morgan, Martinsville	Sept. 2, 6
Noble, Ligonier	Oct. 8, 11
Orange, Paoli	Sept. 23, 25
Perry, Rome	Sept. 29, Oct. 3
Pike Petersburg	Sept. 1, 5
Posey, New Harmony	Sept. 9, 13
Randolph, Winchester	Sept. 16, 19
Ripley, Osgood	Aug. 12, 15
Rush, Rushville	Sept. 9, 12
Shelby, Shelbyville	Sept. 2, 6
Starke, Knox	Sept. 25, 27
Steuben, Angola	Sept. 25, 26
Tippecanoe, LaFayette	Sept. 1, 6
Tipton, Tipton	Sept. 23, 26
Vigo, Terre Haute	Sept. 9, 12
Wabash, Wabash	Sept. 9, 12
Warren, West Lebanon	Sept. 8, 12
Warrick, Boonville	Oct. 7, 11
Wells Bluffton	Oct. 6, 9
Whitley, Columbia City	Sept. 30, Oct. 3

ILLINOIS.

Adams, Camp Point	Sept. 1, 5
Adams, Quincy	Sept. 9, 12
Boone, Belvidere	Sept. 2, 5
Brown, Mt. Sterling	Aug. 26, 29
Bureau, Princeton	Sept. 16, 19
Carroll, Mt. Carroll	Sept. 16, 19
Cass, Virginia	Aug. 25, 29
Champaign, Champaign	Sept. 23, 26
Clark, Marshall	Oct. 1, 3
Clay, Louisville	— —
Clay, Flora	Sept. 30 to Oct. 3
Coles, Charleston	Sept. 9, 13
Crawford, Robinson	Sept. 30 to Oct. 3
Cumberland, Majority Point	Sept. 16, 19
DeKalb, Sandwich	Sept. 11 14
DeKalb, Sycamora	Sept. 16, 19
DeKalb, DeKalb	Sept. 30 to Oct. 3
DeWitt, Clinton	Aug. 19, 22
DeWitt, Farmer City	— —
Douglas, Tuscola	Sept. 16, 19
DuPage, Wheaton	Sept. 2, 5
Edgar, Paris	Sept. 2, 5
Edwards, Albion	Sept 30 to Oct. 3
Fayette, Vandalia	Sept. 17, 19
Ford, Paxton	Sept. 9, 12
Ford, Gibson City	Sept. 2, 5
Franklin, Benton	Sept 19, 20
Fulton, Canton	Sept. 25, 26
Fulton, Avon	Sept. 29 to Oct. 3
Gallatin, Shawneetown	Oct. 7
Green, Carrollton	Oct. 21, 24
Grundy, Morris	Sept. 9, 12
Hardin, Elizabethtown	Sept. 17, 20
Henderson, Biggsville	Sept. 9, 12
Henry, Cambridge	Aug. 25, 29
Iroquois, Onargo	Sept. 2, 6
Iroquois, Watseka	
Jackson Murphysboro	Sept. 23, 26
Jasper, Newton	Sept. 23, 26
Jefferson Mt. Vernon	
Jersey, Jerseyville	Oct. 14, 17
JoDaviess, Galena	Sept. 30 to Oct. 3
JoDaviess, Warren	Sept. 23, 26
Kane, Aurora	
Kane, Elgin	Sept. 9, 12
Kankakee, Kankakee	
Kendall, Bristol	
Knox, Knoxville	Sept. 15, 19
Knox, Galesburg	Sept. 2. 5
Lake, Libertyville	
Lake, Waukegan	Sept. 29, Oct. 4
LaSalle, Ottawa	Sept. 1, 6
Lawrence, Lawrenceville	Oct. 8, 11
Livingston, Pontiac	Sept. 2, 6
Livingston, Fairbury	Sept. 9, 12
Logan, Lincoln	Aug. 25, 30
Logan, Atlanta	Sept. 1, 5
Macon, Decatur	Sept. 23, 27
Macoupin, Carlinville	Sept. 9, 12
Marion, Centralia	Sept, 30 to Oct. 3
Marshall, Wenona	Sept. 29 to Oct. 4
Mason, Havana	
Massac, Metropolis	Oct. 8, 11
McDonough, Macomb	Aug. 25, 29
McHenry, Woodstock	Sept. 9, 12
McHenry, Marengo	Sept. 9, 12
McLean, Bloomington	Sept. 23, 26
Menard, Petersburg	Sept. 2, 5
Mercer, Aledo	Sept. 16, 19
Montgomery, Hillsboro	Sept. 16, 18
Montgomery, Litchfield	
Morgan, Jacksonville	Aug. 18, 22
Ogle, Oregon	Sept. 8, 12
Ogle, Rochelle	Sept. 22, —
Perry, Pinckneyville	Sept. 30, Oct. 3
Piatt, Monticello	Aug. 26, 29
Pike, Pittsfield	Sept. 23, 26
Pope, Golconda	Oct. 2. 4
Putnam, Hennepin	Sept. 9, 11
Randolph, Sparta	Sept. 24, 26
Randolph, Chester	Oct. 21, 24
Richland, Olney	Sept. 16, 20
Rock Island, Cordova	Sept. 16, 18
Sangamon Springfield (State Fair)	Sept 24, Oct. 4
Schuyler, Rushville	Sept. 23, 26
Shelby, Shelbyville	Sept. 23, 26
Stark, Toulon	Sept. 23, 27
Stephenson, Freeport	Sept. 9, 12
Union, Jonesboro	Sept. 9, 12
Vermilion, Catlin	Sept. 9, 12
Vermilion, Danville	Sept. 2, —
Vermilion, Hoopestown	Aug. 25, 30
Wabash, Mt. Carmel	Sept. 24. 27
Warren, Monmouth	Sept. 9, 12
Wayne, Fairfield	Sept. 23, 26
White, Carmi	Sept. 23, 27
Whiteside, Sterling	Sept. 16, 19
Whiteside, Morrison	Sept. 2, 5
Will, Joliet	Sept 23, 26
Williamson, Marion	Sept. 30, Oct. 3
Winnebago, Rockford	Sept. 15, 19

WISCONSIN.

Baraboo, Baraboo	Oct. 1, 4
Burnet, Grantsburg	Sept. 23, —
Columbia, Portage City	Sept. 16, 19
Dodge, Juneau	Sept. 16, 19
Green, Monroe	Sept. 17, 21
Grant, Lancaster	Sept. 17, 20
German, Sheboygan	Sept. 25, 26
Jefferson, Ft. Atkinson	Sept. 16, 20
Kenosha, Kenosha	Sept. 16, 21
Ozaukee, Saukville	Sept. 21, 26
Portage, Amherst	Sept. 16, 19
Ripon, Ripon	Sept. 23, —
Rock, Janesville	July 3, 6
Racine, Burlington	Oct. 1, —
Waukesha, Waukesha	Oct. 7, 10
Wood, Grand Rapids	Sept. 2. 6
Walworth, Elkhorn	Sept. 23, 26
——, Watertown	Sept. 22, —
——, Clark's Mills	Sept. 16, 18
——, Sheboygan Falls	Sept. 16, 18
——, Columbus	Sept. 24, 26
——, Lodi	Sept. 23, 25
——, Richland City	Sept. 16, 18
——, Fond du Lac	Sept. 23, 25
——, Boscobel	Sept. 21, 26

IOWA.

Alamakee, Ludlow	Sept. 23, 25
Black Hawk, Waterloo	Sept. 17, 19
Boone, Ogden	Sept. 24, 27
Bremer Co. Ind. Assoc., Waverly	Sept. 16, 19
Buchanan, Independence	Sept. 16, 19
Carroll, Mt. Carroll	Sept. 16, 19
Cass, Atlantic	Sept. 9, 12
Cedar, Tipton	Sept. 2, 5
Cerro Gordo, Mason City	Sept. 16, 18
Chickasaw, New Hampton	Sept. 24, 26
Clarke, Osceola	Sept. 9, 11
Clayton, National	Sept. 30, Oct. 2
Crawford, Denison	Sept. 10, 12
Dallas, Adel	Aug. 27, 29
Delaware, Manchester	Sept. 16, 19
Des Moines, Burlington	Sept. 24, 26
Fayette, West Union	Sept. 9, 11
Floyd, Charles City	Sept. 9, 12
Franklin, Hampton	Sept. 9, 11
Guthrie, Guthrie Center	Sept. 10, 12
Hardin, Eldora	Sept. 23, 26
Hamilton, Webster City	Sept. 23, 25
Henry, Mt. Pleasant	Oct. 1, 3
Howard, Cresco	Sept. 24, 26
Humboldt, Humboldt	Sept. 17, 19
Iowa, Marengo	Sept. 17, 19
Jackson, Maquoketa	Sept. 9, 12
Jefferson, Fairfield	Sept. 9, 11
Johnson, Iowa City	Sept. 16, 19
Keokuk, Sigourney	Sept. 9, 12
Lee, Donnellson	Sept. 9, 12
Louisa, Wapello	Sept. 9, 11
Lucas, Chariton	Sept. 16, 19
Madison, Winterset	Sept. 23, 26
Mahaska, Oskaloosa	Aug. 26, 29
Marion, Knoxville	Sept. 9, 12
Marshall, Marshalltown	Sept. 10, 12
Mitchell, Osage	Sept. 23, 27
Monona, Onawa	Sept. 17, 19
Monroe, Albia	Sept. 17, 19
Muscatine, Muscatine	Sept. 15, 20
Ogle, Oregon	Sept. 16, 19
Osceola, Sibley	Sept. 17, 18
Page, Clarinda	Sept. 9, 13
Poweshiek, Malcom	Sept. 9, 11
Scott, Davenport	Sept. 1, 5
Stuart Dist., Stuart	Sept. 10, 13
Taylor, Bedford	Sept. 24, 27
Union, Mechanicsville	Sept. 9, 12
Union, Mt Ayr	Sept. 9, 12
Union, Strawberry Pt	Sept. 23, 25
Union, Villisca	Sept. 10 13
Union, West Liberty	Sept. 9, 12
Van Buren, Keosauqua	Sept. 24, 26
Wapello, Ottumwa	Sept. 9, 13
Warren, Indianola	Aug. 26, 28
Washington, Washington	Sept. 9, 13
Wayne, Corydon	Sept. 24, 26
Winneshiek, Hesper	Sept. 23, 25
Worth, Northwood	

MISSOURI.

Shelby, Shelbyville	Sept. 15, 21

NEBRASKA.

Dodge, Tremont	Sept. 25, 28
Hamilton, Aurora	Sept. 18, 21
Otoe, Syracuse	Sept. 3, 6
Saunders, Wahoo	— — —

KANSAS.

Anderson, Garnett	Sept. 10, 12
Cherokee, Columbus	Sept. 24, 26
Cloud, Concordia	Sept. 24, 26
Dickinson, Abilene	Oct. 8, 11
Doniphan, Troy	Sept. 23, 26
Greenwood, Eureka	Sept. 9, 12
Jackson, Holton	Sept. 2, 6
Kansas Valley, Lawrence	Sept. 2, 5
Lyon, Emporia	Sept. 16, 20
Montgomery, Independence	Sept. 25, 27
Neosho Valley, Neosho Falls	Sept. 22, 27
Osage, Burlingame	Sept. 16, 19
Phillips, Phillipsburg	Sept. 24, 26
Sedgewick, Wichita	Sept. 16, 20
Shawnee, Topeka	Sept. 30, Oct. 3

KENTUCKY.

Bourbon, Paris	Sept. 2, 7
Christian, Hopkinsville	Oct. 8, 12
Eminence Agl	Aug. 12, 16
Mercer, Harrodsburg	July 29, Aug. 1
Nelson, Bardstown	Sept. 2, 5
Simpson, Franklin	Sept. 11, 14
Union Soc., Germantown	Sept. 9, 14
Warren, Bowling Green	Sept. 4, 8

TENNESSEE.

Union City, Union City	Oct.

THE
RURAL NEW-YORKER.
PUBLISHED EVERY SATURDAY.

Address
RURAL PUBLISHING CO.,
78 Duane Street, New York City.

SATURDAY, JULY 5, 1879.

THE LOWLY SHALL BE EXALTED.

A DAY'S ramble in the forests or fields, with eyes to see with, and with the perceptive or observing faculties brought into use—for we often see that which we do not observe—will be sufficient to convince any one that we are neglecting the culture of beautiful native plants, merely because they are common, while we are paying large prices for foreign ones less beautiful, but rare.

Take the family of Ferns, for example, with its hundreds of varieties, large and small, coarse and fine, differing in style and shade of color to that extent that a large area could be devoted to Ferns alone while we should still have but a single specimen of each, but such specimens as many lovers of plants in other countries would be glad to possess at almost any price. Then, see the little care they need. Being perfectly hardy and doing better in shade than elsewhere, they may be said to take care of themselves. Once place them in a proper position and they will soon be things of beauty and joys for a long time, if not forever. No home, whatever its size, either in country or in city, should be without a collection, large or small, as is convenient, of our native Ferns.

Then, again, there are hundreds of our native grasses that "waste their beauty on the desert air." Grasses that will hold their own as to beauty with many of the imported varieties. They lie, usually, unseen and unsought in hundreds of byways and unfrequented nooks. We are glad to say, however, that there is a probability of their being brought into more general notice. One gentleman residing near New York, who knows a good thing when he sees it, whatever may be its rank or station, sent some specimens to Europe a few years ago and seems likely to benefit by the venture, as they are becoming quite popular there, and he is now commencing their propagation for export on quite a large scale. We noticed at the recent Horticultural Exhibition in this city, that many visitors stopped at the table on which was a large assortment of wild plants, flowers and grasses that had been gathered and arranged by Dr. Hexamer, and it was amusing to hear the exclamations of wonder that were excited. "Can it be possible," said one, "that these are growing wild all about us, and that we have never noticed them?" We doubt if those who saw them will ever be entirely blind to Nature's common beauties again, and Dr. Hexamer did a good thing, if only in an educational way, by making his exhibit.

We saw, some years ago, at one of the many pleasant summer resorts on the shores of Lake George, a small bouquet of wild flowers gathered by a lady in one of her mountain rambles, that, arranged with taste, was exquisitely beautiful. She was a stranger in the vicinity, and appealed to a woman, an old resident, for the names of some of them. The woman regarded them with a look of scorn, and merely replied: "Oh, them's some kind o' blows!" [In some parts of New England, and adjoining portions of New York, "blows" is used to signify blossoms or flowers.]

Of the plants in our own garden, one that we prize highly, and which excites the admiration of all visitors, is Fumitory, the seeds of which were sent us by a friend who gathered them in the Alleghany Mountains. A graceful, climbing vine, biennial, growing from self-sown seeds, it is without its equal for giving an elegant and tasteful effect to vases of cut flowers. If the Dandelion, the Buttercup, and the Ox-eyed Daisy, were only to be had by importation from China or Japan, they would be eagerly sought for. Some have found that the Buttercup produces double flowers by the slightest cultivation, and have given it place because it differs from the common wild one; and many a country maiden would be surprised to see with what pleasure a city girl possesses a few Daisies. They *are* pretty when scarce, else our friend Allen could not have sold, as he did, the few flowers he forced to blossom last Easter for $1.50 per dozen.

No doubt it would astonish readers of the RURAL if they could know how much is annually paid for American plants that have found an abiding place abroad, and are returned with new names, to be highly prized and cherished as rare novelties. A new name sometimes adds immensely to the sale of a plant, as some high-sounding title gains admission for persons without merit to a certain class of society. A friend, residing near New York, whose name would be well known to many Ruralists, told us of a visit made to his grounds by a lady possessed of more conceit than wisdom. She had bored him for an hour with silly questions as to the name of this or that plant, usually claiming that she had it at home and had forgotten its name. Passing a modest little weed that had been by oversight allowed to remain in the border, she inquired, "What is that?" "*Roadsidii Vulgaris!*" was the reply; "Have you it?" "No," she said, "we had it last year, but lost it. I did not recognize the plant, but remember the name distinctly, and must beg you will send me one at the proper time for transplanting, for it is perfectly lovely."

It is not to such that we must look for the elevation of our native plants to the position to which their merits entitle them, but to those who appreciate the beautiful wherever found. If a system of exchanges could be introduced, by which the plants common in one section could be sent to places where they would be rarities, it would aid much in carrying out the desired end.

RELATIVE INTELLIGENCE OF FARMERS.

WHILE we shall continue to insist, until new light breaks in upon us, that there are a good many profitable things in their business yet to be learned by the farmers of America, and that a good education of the right kind is required by every young man who aims at excellence in the pursuit of agriculture,—while we hold these statements to be self-evident, yet well worth being kept before the people—we still believe that the farming class really give as much attention to the science of their art, and read up as well on their business as any class in the country, and much better than some.

Take, first, those classes which receive a special education—the so-called professional classes—and compare them with the farmers in this respect. Beginning with the ministers, and taking all the denominations together, how many of them had a sufficient preparatory education, are sound theologians, or men of real breadth of culture or catholicity of thought? Take the physicians, and what proportion of the men in this profession are thoroughly skilled in anatomy and physiology, competent and reliable diagnosticians, safe and effective in their therapeutics, ready and apt in surgical practice, sound hygienists, careful observers and earnest students? Among our lawyers, how many of them deservedly stand high with their brethren on account of their sound knowledge of the principles of law, extensive acquaintance with the statutes, skill as advocates, reliability as counsel, or for general juristic ability? And what proportion in all these professions are to any great extent noted for their love of knowledge outside of their immediate needs? How many patronize their professional journals better than the farmers patronize the agricultural press?

When we go outside of the learned professions, and inquire into the state of things among business men and artisans, how do we find it? How many merchants know more of their business than its routine? How many are acquainted with the laws of trade and finance as laid down by the great writers on these subjects? Are the works of Adam Smith any more likely to be found in the hands of the average merchant than are the writings of Liebig in those of the average farmer? What, even, do our bankers know of scientific finance; or how many of our statesmen (so-called) are there who are students of the works of the leading authorities on subjects relating to the art of government, either in monarchies or republics?

Do the manufacturers, as a body, make a study of the literature, rich and varied as it is, of the branches of knowledge in direct relation with their respective industries? And when we come down to hard workers in the useful arts, the mechanics of the country, how many of them take and read their trade journals, or study the hand-books written for their practical instruction?

Looking over the whole field in this way, we are compelled to award to the farmers a very high comparative position. While they are far behind where they ought to stand, and where they might easily stand, they cannot be regarded as laggards when put in comparison with most other classes. To be sure, in a country where land is so plentiful and cheap, and where consequently it is so easy for every industrious laborer to become the owner of land, we necessarily have a vast number of illiterate men engaged in tilling the soil. But with all this, a close investigation will show that the farmers as a class compare favorably with any other as lovers of knowledge, and as progressive workers in their art and business.

THE REWARD OF ENTERPRISE.

GREAT efforts have been made for some years past to make the culture of the Angora goat profitable. Goats have been kept and bred, but not one in a thousand has paid with its fleece for its feed. The fleece has not met with a stable market; and where but few of the animals have been kept, the mohair was found unsalable and worthless. Competition with a foreign and imported article, which came to hand in more presentable shape than the native product, and the neglect of the manufacturers of mohair goods and braids had to be contended with. At last those who had invested large sums of money in goats and pastures became determined to find a way out of the difficulties with which they were beset, and as there was a will there *was* a way. A factory was established in San Jose, California, which in a few years passed from an experiment to a success, and the Angora Robe and Glove Company has an established business, and employs fifty operatives; half of which number are women. A tannery for dressing goat skins is connected with the factory, and this has made a market for the skins, which heretofore were without value, because there was no use for them.

This successful effort at combination, to utilize an agricultural product, is worthy of note and emulation. We greatly need a diversity of products, and to secure home markets for these as well. There are many promising ventures just now in abeyance. Sumac is an article of general use, and our native product, if gathered about this time and properly prepared, is equal to the best foreign. We have some native textile plants of the most valuable kind, but none seems inclined to experiment on their growth and manufacture. We *can* make beet sugar if we will, and we can do many other useful things profitably. The enterprise and the money are needed; the latter can be had if the former is forthcoming.

WEEVIL-EATEN PEAS.

THE Country Gentleman says:

WEEVIL-EATEN PEAS.—The RURAL NEW-YORKER insists that very few seed peas infested by the weevil will grow. The experiment was made of selecting seventy peas that contained the insect, and carefully planting them. Only one out of seventy grew, producing a sickly plant. These peas had been undoubtedly pretty thoroughly cut by the insects; but when they have not destroyed the plumule the peas will grow.

We do not know to what extent the peas were "cut by the weevil." We selected, as we found them, seventy peas that had been inhabited by the grub of this insect, from a quart or more, and planted them as we would any other peas. It *might* have happened that we hit upon those in which the embryo had been destoyed. But this seems improbable. "If the plumule is not destroyed, the peas will grow." Suppose *all* of the cotyledons are destroyed—will they then grow? We think not and believe it will be found (1) that weevil-eaten peas are generally worthless; that (2) they are injured in proportion as the cotyledons are injured (of course always supposing the plumule is not eaten) and that (3) at least nine-tenths of such peas, taken as they come, will not germinate at all. Since we published our experiment we have received a dozen letters or more, stating that our experiment was not trustworthy. We are therefore trying another experiment with 100 weevil-eaten peas, planted with much care in moist soil, and if necessary to settle the question, we will try still another. It is important to *know* whether weevil-eaten peas are good or worthless. If the latter, it is not right that farmers or gardeners should pay the full price for seeds, one-tenth at least of which will fail and which might easily be rejected by the seedsman. If wrong, we shall "own up." It is easy to arrive at the truth in the matter.

THE FARMER'S NEED.

"THE cultured man," says the Prairie Farmer, "is the reading man, and the reason why the farmers as a class are not cultured men, is because they do not read."—The farmer who depends upon farming for the support of himself and family is obliged to work very hard. We ask the question, "Is there any class of people that work as hard as farmers do, that read more?" The benefits which Agricultural Colleges may confer upon agriculture will no doubt be recognized more generally in the future than they have been in the past. We believe that if the money expended on colleges which fit our young men to practice law and medicine were expended upon agricultural colleges, the country would ultimately be the gainer. We want, also, primary agricultural schools, that shall fit the pupil to enter the agricultural college. The fundamental principles of what is called an education are the same. It is the adaptation of these principles to a special pursuit that calls for special study of all facts that bear upon it. The object of an agricultural education should be to produce the best results with the least labor. Give our farmers' sons the education, therefore, and there will be lack neither of inclination nor of time for all necessary study and reading.

AGRICULTURAL JOURNALISTIC CANDOR.

IS IT EXTRAVAGANCE?—"The RURAL NEW-YORKER, of June 14th, replies to the remarks made on the above subject in the Farmer of May 31st. "but carefully avoids mentioning" the source of the criticism. The reply is courteous, and harmonizes with the general tone and teachings of that journal, which, we are free to admit, are truthful and wholesome."

We wish to thank the Ohio Farmer for the candid words embodied in the latter part of the above paragraph. We would to Heaven that there were more leading agricultural journals that place the good of agriculture so far above selfish considerations that, regardless of personal likes and dislikes, they could afford to praise where praise is due.

BREVITIES.

Sow buckwheat.

PLANT plenty of cabbages. They will furnish a most valuable green food for all the animals of the farm during winter.

OUR friend Mr. Peck expresses the opinion that the Wilson Strawberry is at about the hight of richness in sugar and acid.

DURING the heat of summer commence work early and continue it late—but take a good, wholesome rest in the middle of the day.

READERS of the RURAL, are you exerting your influence against horse-racing at "Agricultural" fairs? Or do you approve of it?

THE currant worm may be destroyed by scattering over the bushes a mixture of a pint of white hellebore, a pint of flowers of sulphur and a peck of sifted coal ashes.

IT is not too late to plant Cat-tail ("Pearl") Millet. Seeds sown now will germinate in four days, if the ground be moist, and the plants will soon overtake those sown earlier.

OUR rye is a splendid crop. It is not hard to find straws six feet high and we have just measured one (June 25) that is six feet nine inches from the surface of the ground to tip of the spike.

ATTENTION is called to Mr. Downing's remarks about Stuart's Golden Apple. He says he thinks "it worthy of notice." From the specimen Mr. Downing sent us, we think it worthy of a good deal of notice.

MR. CHARLES DOWNING writes us, too late for insertion elsewhere, that the cut of Stuart's Golden Apple is a trifle inaccurate, one side being a little too large. The fault he attributes to the imperfection of the specimen sent to us as a model.

MANY of the old farmers about us use the leaves of the Red Cedar (Juniperus Virginiana) in place of sulphur and kerosene for ridding nests and henneries of lice. They say the remedy is very effective. Perhaps perches made of the wood would serve the same purpose.

MR. SEALY, a florist near the Rural Farm, thinks highly of the new double Geranium "Jewel." The individual flowers are small, but the petals are enduring, and it is, therefore, one of the best varieties for bouquets. The color is a deep crimson, the leaves small and the plant dwarf.

LAST summer about this time or a little later, we dug up about 50 of the suckers of Raspberries and set them to form a sort of boundary between two parts of our garden used for different purposes. They all lived, were not as much harmed by the winter as older plants of the same varieties, and many of them are now in bearing.

WE planted in the afternoon of June 19, a plot of Blunt's corn 33 feet square—or one-fortieth of an acre. The corn was soaked for 16 hours in water. Two-thirds of it are now (June 25, noon) an inch above ground. We have no doubt this will overtake the one-quarter of an acre planted five weeks or more ago. Instead of coating the seed with tar, to provide against the depredations of crows, we surrounded the plot with a string, tied upon poles six feet high, on which at distances of two feet, long narrow strips of tin were tied. The fluttering of these tins and their reflection of light may serve to keep the crows at a distance. Whether they will intimidate crows or not, we are positive they will frighten horses, as one of our men learnt while plowing an adjacent field. The horse, at first surprised and affrighted, became uncontrollable as flash after flash of sunlight struck upon his eyes. He wheeled about and ran twenty yards or more, before the man, who was dragged along between the rows of corn, could regain his feet and restrain him.

Literary Miscellany.

ONLY GOING TO THE GATE.

LIKE a bell of blossom ringing,
Clear and childish, short and sweet,
Floating to the porch's shadow,
With the faintest fall of feet,
Comes the answer softly backward,
Bidding tender watcher wait,
While the baby queen outruns her,
"Only going to the gate."

Through the moonlight, warm and scented,
Love to beauty breathes a sigh,
Always to depart reluctant,
Loth to speak the word "good-bye";
Then the same low echo answers,
Waiting love of older date,
And the maiden whispers softly,
"Only going to the gate."

Oh, these gates along our pathway,
What they bar outside and in!
With the vague outlook beyond them,
Over waves we have not been.
How they stand before, behind us!
Toll-gates some, with price to pay;
Spring-gates some, that shut forever;
Cloud-gates some, that melt away.

So we pass them going upward
On our journey one by one,
To the distant shining wicket
Where each traveler goes alone—
Where the friends who journey with us
Strangely falter, stop and wait,
Father, mother, child or lover,
"Only going to the gate."

AN UGLY GIRL.

(Continued from page 414.)

CHAPTER XXVIII.

UNDER THE SPELL.

NOEL scarcely knew how to reply to Herr Rudolsheim's strange questions; but who can resist the longing inherent to our natures to pry into the inscrutable?

"If you can indeed do this——?"

"Try me," said the Herr. "I do not boast of the power that I think I possess. I have admitted that I may not succeed in what I do propose to attempt; but what then? You shall jeer at me if you will, and I—knowing what I know—shall still be able to bear your sarcasm with stoicism."

"I must confess that I have no faith in your skill." Noel frankly told him.

"So be it; then will mine be the greater triumph if I convince you. But stay; here is the good Jephson with your lamp. Now can I scrutinize your looks, and ascertain if your nerves are in condition for the enterprise."

He felt Noel's pulse, and nodded approval of its regular pulsations.

"It is well; you are neither fluttered nor feverish; still, it will be but a wise precaution that you should swallow a few drops of wine, if your physician does not forbid it."

Satisfied on this score, he bade Jephson bring some, poured out a glass for Noel, another for himself, and then, putting out his hand to extinguish the lamp, asked:

"Shall it be now? Are you prepared?"

"Stay," exclaimed Lord Carlsforde. "Before we go any further, let me know precisely what it is you are promising to do."

"To exert a power—latent in all of us—that of influencing the minds of others. I shall will that Miss Carlsforde comes here to you, and answers you when you address her."

Noel laughed outright, for he had overcome the impression made upon him at first by Herr Rudolsheim's earnestness.

"You are promising marvellous things, *mein Herr*. I can only say as I did before, if you can achieve this, I will never doubt again."

"So well so good," said the German, unmoved by his scoffing tone. "I ask again, are you ready?"

"Must your experiment be made in darkness? Is this the opening scene of some little drama you have arranged for the purpose of mystifying me and amusing yourself? And where do you intend to take *your* stand while it progresses?"

"I shall seat myself here by you; I shall keep my finger on your wrist, that if I detect any symptoms of an excitement that may be prejudicial to you, the spirit I have summoned may depart and trouble you no longer."

As he spoke, Herr Rudolsheim drew his chair closer to the easy one in which Lord Carlsforde was reclining. He sat for a minute or so steadily gazing into the eyes that at first returned his gaze as unblenchingly, then wavered and ached so strangely that Noel was forced to close them. When he opened them again, the room was in darkness, except where, betwixt the curtains of the window, a ray of moonlight had stolen and gleamed upon the oaken panelling of the walls with a faint, phosphorescent light.

* * * * *

If Noel's sensations might be relied on, hours elapsed while he sat there, no sound breaking the stillness, save the regular breathing of his silent companion. Yet he neither felt impatience nor astonishment; from the moment the Herr's eyes had looked into his, a curious, but not unpleasant lassitude had crept over him, enchaining his limbs, though leaving his mind free. He could not have raised a hand or turned his head; he was not even sure that he could have spoken had he wished it; but he did not; every emotion seemed to have been soothed to rest by the potent spell that entranced him. He would have declared himself to be under the influence of some delightful dream, if he had not known but too well that he was as thoroughly awake as when the Herr first startled him with the proposition that Miss Carlsforde should be drawn thither by the mysterious power he professed to possess.

Yes, he was awake; he knew where he was sitting; he could have repeated every word of the conversation that had occurred previous to the extinguishing of the lamp. He could even speculate with amusement on the crestfallen look the German's face would wear when forced to acknowledge that he had failed, that the spirits had refused to obey his summons, and this long watch had resulted in——nothing.

But Noel retracted that word, for the same feeling that he remembered to have experienced in the library was now upon him. He felt—though he could not tell why—that he and the Herr were no longer the sole occupants of the room. Did the German sleep that he sat so motionless? or did he not share the unearthly sensation with which the young man's blood was now beginning to chill?

The pleasant languor, so like the early hours of convalescence after a long illness, yet even more delightful than they, was gradually giving place to less agreeable sensations. A peculiar faintness, felt first in the extremities, was rendering him cold and benumbed, as if life was gradually leaving him. He found himself mechanically counting the throbs of his own heart, and conjecturing how much longer that vital organ would continue to pulsate. But these considerations brought with them no terror, no uneasiness; the brain appeared to have fallen under the same deadening influences as were affecting his body, and he was calmly awaiting the end. Nay, so utterly did all personal considerations cease to move him, that he continued to notice, as before, the only signs Herr Rudolsheim gave of his presence, his regular inspirations and the gentle pressure of his finger on Noel's wrist.

But now a long-drawn sigh floated towards him, and immediately the shadowy figure of a woman stood where the moonbeams flickered on the wall.

Then the Herr had kept his pledge. Ada Carlsforde, constrained by the will of another, had come hither; but was it in the spirit, or actually in the body? Ah! this he could not tell.

At one moment, nothing but the barest outlines of a female form were visible; at the next, he would see it distinctly, for the moon shone forth brightly and illumined the space in which, with drooping head, and features shrouded by the dark drapery enveloping her, she stood; but even as he gazed a cloud passed over the sky, the vision faded, and so intense was the gloom that he could not say whether it had entirely vanished or no.

Had she indeed gone away beyond recall? Oh! why could he not avail himself of the opportunity for which he had so often yearned! Why was he unable to address her—to adjure her to stay and hear him defend himself from his slanderers? He made a desperate effort to rise from his chair, but it was useless; he had lost the power to do so. Every limb was inert, as if paralyzed; his pulse began to beat feebly; he could no longer see, for his eyes were growing dimmer and dimmer. Was this, could this be death?

A hand, the soft, tremulous hand of a woman, fell lightly on his own, but he could not clasp it. From thence it fluttered to his brows, and gently pressed them; but now everything became indistinct to Noel Carlsforde.

After what appeared an interminable interval, he heard, or fancied he heard, a wail of agony, a piercing voice shriek wildly that he was dying; and then hot tears fell like rain upon his face. He tried to struggle out of the thraldom in which he was held, but in vain, for his convulsive throes only exhausted him and increased that distressing sensation of faintness which seemed to him, as well as to others, to herald his last moment.

But soon some one—was it the Herr?—held a bottle emitting a powerful odor to his nostrils, and Noel was relieved. He felt that he was falling into a calm, delicious sleep, and awakened from it to find Hillian Gray, her aunt and Jephson hanging over him with faces expressive of the deepest solicitude.

"Such an extraordinary attack! and what could have occasioned it?" Mrs. Hurst began to ask, as soon as she saw that she was recognized. "Never, in all her experience, and it was considerable, beginning with Hillian's mother, and never idle a week after she expired, poor dear! so peaceful, so beautifully resigned, and the best of advice, but not able to save her, the complaint being hereditary——"

But here Noel gently put the garrulous lady aside, that he might be able to see the spot where the figure had appeared.

"Is she gone?—quite gone?" he asked, in his disappointment. "What must she think of my silence? What could have taken possession of me?"

"He rambles a little, poor young man, doesn't he?" Mrs. Hurst demanded, in an audible whisper. "I thought so from the expression of his eyes. I told you, Hillian, that his brain was still suffering from that fall. Have you sent for Dr. Monson? If not, pray do so, for I have known cases where delirium commenced in this manner, and in a few hours four men were not strong enough to hold him; and Jephson isn't as young as he was, and the footman might not be of much use, especially without a straight waistcoat to fly to."

Noel could not help laughing, for Jephson was listening, open-mouthed in his dismay, to Mrs. Hurst's ominous speech.

"I am not mad enough to be dangerous," he said, addressing himself to Hillian, who had been vainly endeavoring to silence her aunt. "And I feel so much better that I do not think there will be any necessity for disturbing Dr. Monson. It is true that I have had a strange attack, but——"

Here he paused in some perplexity, and then inquired eagerly for Herr Rudolsheim.

"I am here," was the quiet reply; "very much grieved, like the rest of your friends, to see you so indisposed, and, like them, greatly relieved by your recovery."

"Thanks; but tell me——"

"We are not alone," the Herr murmured; and Noel curbed his impatience till he had succeeded in convincing Mrs. Hurst and Jephson that there was no danger of a recurrence of his illness, and they had consented to follow the example of Hillian, who had glided away as soon as she saw that her services were no longer required.

"Now," cried Noel, when the door closed behind them—"now let me hear all you have to tell me about Miss Carlsforde."

"But, my best friend, what can I have to tell you?" the Herr demanded, with an astonished air. "I will that she should come hither; I wait with you the issue of my attempt to influence her; your nerves, already weakened by your accident, play you little tricks, and suddenly you swoon, alarming me so much that I turn up the lamp; I dash water in your face, I shout for aid, and my cries bring everyone to the room who was within hearing. Is not this all I have to tell you?"

"But Miss Carlsforde came here. I saw her," Noel asserted, positively.

"Where, and when? With Madame Hurst and her niece? Then, was I too much engrossed with you to perceive her entrance? This is unfortunate, for I have great ambition to know the daughter of my much-esteemed friend, the late Viscount."

Then the Herr had not seen the figure that had stood, in the moonlight. Noel drew his hand across his brows, and knew not what to think.

Was the German in league with Miss Carlsforde to mystify him, or was all he had seen, or thought he saw, but an illusion of his own excited brain?

"You look dissatisfied," the Herr observed. "Is it because our experiment failed? Shall we repeat it? But no; I have blame myself too much for commencing it. I will not tempt you to peep into the world of spirits again."

When he had repeated his regrets for his share in what had occurred, and gone away, Noel recalled Jephson. He had just remembered fancying that the glass of wine he had swallowed seemed to have something unusual in its taste, and might, therefore, be answerable for the extraordinary sensations he had undergone. But Jephson repudiated the notion indignantly. He never brought any but the best vintages to his lordship—had he not received Dr. Munson's orders to that effect?—and the decanter of Burgundy, then on the table, was the same that had been served to his lordship on the previous day.

Growing at last quite weary of speculating as to the cause of the attack, Noel retired to rest, convinced, however, that it was no ethereal spirit, but Ada Carlsforde in the body, whose hand had timidly touched his own. But this conviction rendered him more provoked than he could express; what, indeed, could be more annoying than to know that he had not been able to seize the only chance he was ever likely to have of convincing her that he was not the heartless, unfeeling fellow some one or other had represented him.

CHAPTER XXIX.

PREPARING TO DEPART.

A LETTER from Irene arrived on the morrow to give Noel fresh food for thought, and revive all that distrust of Clement Dunforth the young man's frank manner and ready acquiescence in his wishes, had lulled.

"Maggie is recovering nicely," she said; "which is fortunate, for nurse has had bad news of the illness of her daughter, and is forced to leave me. Mamma is my patient now; you know she never will wear good stout boots, because she says they spoil her feet, which are really very pretty ones, and as she has twice been caught in a shower this week while taking her daily walk, she has contrived to catch a bad cold; but I shut my lips tightly when she makes an aggravating speech, and never suffer myself to be provoked into retorting, so we are getting on pretty well. It is fortunate that between the children and mamma I have so much to do, or else I think I should fret a little, dear Noel, for Clem's letters are really unkind ones. They are full of complaints of me, though what I have done to deserve them, I cannot tell. I am a silly, thoughtless girl, brother mine; I see that more clearly since I have been brought in contact with Hillian Gray, whom I should love dearly, if I were not obliged to doubt her. Yes, I am heedless and ignorant, but Clem has known this from the beginning of our acquaintance; why, then, does he lecture me so severely, now that I am doing my best to become more worthy of him? I ask him, but he only answers evasively, hinting that I am treating him unkindly, neglecting his wishes, and so on. Has some one been telling him anything to my disadvantage? or is it—I am almost ashamed to say this, for fear it should sound unjust, but I cannot help asking myself—is it possible that I have appeared to such disadvantage beside Hillian Gray that Clem—— I need not write any more; you will understand me. If I am right, tell me so at once; you know how I hate to be kept in suspense, and you need not be afraid that I shall give you cause to be ashamed of me. Neither Clem, nor the girl he prefers to your little sister, shall ever know how many tears his conduct has cost

"Your loving, but sorrowful,

"IRENE.

"P. S.—Don't rave out when you read this, and take up the cudgels on my behalf, for, after all, Noel dear, I think it is my pride that is wounded more than my heart."

"Thank Heaven that she is able to discover this already!" exclaimed her brother, as he re-folded the letter. "It will pain me less to see her depressed by the mortification of being jilted, than the unhappy wife of a man whose principles are so doubtful as Clement Dunforth's. Yet how am I to reconcile Irene's complaints of his unkindness, with the affectionate manner in which he spoke of her at our last interview, and his readiness to cease visiting at Carlsforde, as soon as I hinted that it might annoy his betrothed? There must be something in the atmosphere of this house that affects all of us. When I am once more in town, and Dunforth also returns thither, I will watch him closely. Before I quit England, I will take care to ascertain whether he is really attached to Irene, or forsaking her for another."

Although he would not mention even to himself the name of Hillian Gray, it galled him terribly to think of her as the successful rival of Irene. Another day, and he should have quitted Carlsforde, never perhaps to behold its inmates again; but what perplexing recollections he would carry with him of the hours spent beneath its roof! Miss Carlsforde hovering near, watching over his comfort, ready to interfere in his behalf if he were neglected by her dependents, yet never becoming visible, and, when courteously entreated to see him, recoiling in suspicion and alarm, as if his gratitude were but the cloak for deeper designs. Hillian, again so gentle, so gracious, so eager to help him forget his sufferings, treating him as if he were a dear brother, yet as soon as Clement Dunforth came on the scene, shrinking into herself, and, if compelled to address him, speaking with the chilling constraint of one who feels herself injured, and justified in resenting it.

With her he was determined to have an explanation before quitting the Park. He would not ask for it; that might put her on her guard, and give her time to decline it. As for Miss Carlsforde, he despaired of conquering her prejudices, therefore contented himself with writing a note of farewell, to be left for her as usual in the library. He had expostulated and entreated in vain, and he came to the conclusion that a quiet reiteration of his willingness to do for her any friendly services in his power, was as much as could be expected from him.

When his note was written, he sat with it open before him for several minutes, his commiseration for the unfortunate girl inducing him to ask himself if there were really nothing to be done but leave her to her forlorn, helpless self.

"Pshaw!" he suddenly cried, as he snatched up and directed an envelope. "What possesses me, that I persist in forcing my friendship upon a person who is just as eager to avoid me? It is because her hand touched mine so timidly the other night, and her tears—were they *her* tears, though;—were wet upon my forehead when I revived from that lethargy? She is not so very friendless, after all. She has her guardian, who must soon be here; and Mrs. Hurst and Hillian, who may be true to her, though false to others. When I am far away—I, who have unwillingly disturbed her life and agitated her with fears that her father's will was an unjust one—she will overcome these morbid fancies; and before long I shall hear of her settling down to pass her time happily and usefully on her own property."

When Noel had summoned Jephson, and made the few arrangements necessary for his journey on the morrow, he had a fancy to carry his letter to the library, and leave it there himself. He could now walk tolerably well with no other aid than that of a walking-stick; and, emerging from the apartments in which he had so long been a prisoner, he slowly descended to the hall below.

His spirits rose with the exertion. What though the strange will of the late peer had left him too poor to support his title? It had not robbed him of his energy or his youth. Nay, it gave him at least the power to shake off the incubus Mrs. Estcourt had proved herself. By settling on her the small sum Mr. Whitely was ready to pay over to him, he should be free from the burden of her support, and in other lands he would seek the fortune denied to him here, and forget Hillian Gray.

But when this last thought arose, a sigh broke from his lips. Would it be so easy to forget her? Would not her image haunt him wherever he turned his steps?

"Not if she becomes the wife of Clement Dunforth," he muttered "Then shall I think of her only as either the falsest or the weakest of women, and thus learn to despise her."

He moved slowly on, and, opening the door of the library, found Herr Rudolsheim its sole occupant. He was so surrounded with books, and so absorbed in the contents of the *tome* from which he was transcribing, that he did not see Noel till he stood beside him.

"Ah, ha!" he exclaimed, at last; "then you have come to return my visits—you invade me in my den. Is it not so? *Ach Himmel!* but I could not wish myself a better wish than to be immured here for weeks, months, with these my friends"—he patted the books—"to bear me company. But I am too busy for conversing. You will generously excuse me if I proceed, lest I lose the train of thought this passage has evoked. You will amuse yourself with reading till I am at leisure to enjoy your society. What shall I bring you? Periodical?—newspaper?—pamphlet?"

"Nay; I will not let you disturb yourself to do either!" cried Noel, pressing him back into the seat from which he would have risen. "I had a fancy to pay a parting visit to this room; that is all;" and as he spoke he could not help thinking that he should have dearly liked to penetrate the mystery of the concealed door; but that would have involved an intrusion on Miss Carlsforde, and must not, therefore, be attempted.

"Then you are leaving us? When? To-morrow? I am sorry to hear it, although my own stay here will be brief. But do not say that I shall see you no more. Will it be an impertinence to inquire your plans?"

"No; for I am sure your questions are kindly intended," Noel replied; and, as concisely as he could, he explained to the Herr how he had determined to go abroad.

"But there are four, five great continents to choose from. To which of them do you direct your steps? Pardon again my inquisitiveness; but I have good friends in Asia, the two Americas, and even in Africa, who might be of help to you, unless you are already independent of it."

"By no means; and I shall accept your kindness with gratitude," Noel eagerly replied. "I intend leaving England; but what to do or where to go cannot decide; and the only person who has offered to further my intentions is one to whom I would rather not lie under any obligation."

The Herr nodded significantly.

"I comprehend. You speak of that wonderful young man, Mr. Dunforth. It is for you that he is moving heaven and earth to procure a berth now vacant in the office of one of our West Indian governors, is it not?"

"It may be so; yet it is odd that he did not apprise me of it," said Noel, surprised to hear this.

But the Herr, with one of those shrugs that mean so much, answered:

"Not so, my good friend. If he say to you there is a clerkship vacant, but the pay is poor, the island unhealthy, the governor an irascible old military man, whose appointment was given him because he was troublesome to the ministry, and they would fain be rid of him, you might fain say to yourself, '*this wonderful young man seeks to be rid of me also*;' but if he secure the berth for you, and come, open-armed, crying: 'Rejoice, brother of my betrothed! my exertions have procured you the opening you seek; you may climb to fortune if you will, for I have found you a situation in the palace of Sir Somebody; and this palace is placed upon a lovely tropical island, where you shall repose on flowers, and quench your thirst with the juicy melon, or the exquisite pine-apple,' what should you say but thanks?—what should you think but that he is the kindest of men?"

"Mein Herr, you distrust Clement Dunforth?"

"I have studied his character, and——" another shrug.

"How can I be in his way?" queried Noel, thoughtfully.

"How shall I, a stranger, tell you?" retorted the German. "That it is so, my eyes, my ears, have convinced me; but for the why and wherefore, I cannot say."

Noel mused again; but still he would not yield to suspicions that seemed so groundless.

"Mein Herr," he said, with a forced smile, "it is one of our English maxims neither to speak ill of the dead nor the absent. Clement Dunforth is not here to defend himself, or explain what may seem tortuous in his proceedings; so I will defer my judgment till I see him again. Then I will not part with him till he has given me convincing proofs that he is the upright, honorable man to whom alone the happiness of my young sister ought to be entrusted."

"You are right in this," said his hearer; "for Miss Irene is charming in her frankness and vivacity. If I have obtruded my studies of human nature upon you too boldly, forgive me. I shall hope that in this particular one I err, and that Monsieur Dunforth will prove himself altogether excellent. But you say we abuse the absent. How do you mean? Mr. Dunforth is here at this moment."

"Here!" exclaimed Noel.

"Not in this room certainly," the Herr replied; "but at Carlsforde. You know it not? Ah! now I bethink me his visit was not intended for you. I saw him pass the window; I inquire for him, that I may ask the favor of conveying for me a letter to the post at Corby, and I am told that he is engaged; he is with Miss Carlsforde."

More startled than before, Noel inquired if he was sure of this.

"I am very sure," said the Herr, composedly. "Did I not tell you he is wonderful, this young man, Dunforth? He has fertility of resource, invention, enterprise, quite astonishing. Look into his brains, and my life upon it, you would discover that he suggests to himself the possibility of wooing and wedding that heiress whom you, with your nicer sense of honor, decline to court."

"He could not be villain enough to dream of this!" exclaimed the incensed Noel.

"Why could you call him villain?" asked the German, tranquilly. "Unless, indeed, he is committing some treachery——"

"Good heavens! do you forget that he is positively engaged to my sister?"

"And that he is always whispering sweet nothings in the ear of the *fraulein* Gray? No; I forget nothing. I am curious to know how he will thread his way through the intricacies of a game that requires playing with so much skill."

"He shall be foiled in it before he goes any farther. I will not be a passive spectator of such villainy!" cried Noel, more excitedly than before. "Where is he?" and he strode towards the door. "I will insist on seeing him immediately. How dare he show himself in this house, after promising me that he would intrude here no more!"

Herr Rudolsheim began to inculcate the wisdom of calming himself before he took any steps in a matter of such importance; but Noel, who scarcely heard him, was already at the door; and, smiling furtively at the young man's vehemence, the savant returned to his books, and forgot him.

CHAPTER XXX.

AN ANGRY INTERVIEW.

Noel returned across the hall to the pleasant summer parlor, in which he learned from a servant he encountered that Mrs. Hurst and her niece were accustomed to sit. It was empty; but, as he stepped slowly and painfully towards the long French window that looked into the gardens, it opened, and Hillian Gray appeared. She looked confused when she first saw Lord Carlsforde; but, quickly recovering herself, congratulated him on his appearance downstairs, and drew forward the easiest chair she could find for his use.

Insensibly Noel's angry feelings were softened by the spell her presence always cast upon him. Besides, if it was as he feared, and Clement Dunforth's wily tongue had won him a place in her heart, was she not as much to be pitied as Irene? How would she bear it if she were obliged to learn that he had only courted and flattered her, that he might, by her means and influence, work his way into the good graces of her patroness? She—Hillian—must be undeceived, as well as Miss Carlsforde; and then Noel bit his lip impatiently, and asked himself how it was to be done?

If he asserted that Clement was a dishonorable fellow, attracted by Miss Carlsforde's wealth, Hillian, prejudiced against him already, would most probably refuse to believe it, and the heiress might prove just as incredulous. Besides, what proof had he to give of his assertions? None. Clement was still writing punctually to his betrothed, and the hints and suggestions of Herr Rudolsheim were all that Noel had to urge against him.

He gave such a weary sigh, that Hillian, who had retreated to a flower-stand, where she found employment in nipping off the dead leaves from some geraniums, looked quickly round.

"Has the exertion of coming down stairs proved too much for your lordship? Shall I fetch you some wine? or will you lie down on this couch?"

"I will go back to my room," said Noel, rising with difficulty. "I must have time for thought, time to decide how to act, and what I ought to say."

Hillian looked concerned, and even alarmed, at the agitation under which he was laboring; and when she saw that he was about to quit the room, she hurried to offer him the support of her arm.

At first it was coldly refused; but when one quick glance showed Noel how the tears were springing into her soft dark eyes, her hand was suddenly grasped, and she was drawn towards him.

"Hillian, we may not meet again, for in the morning I shall bid adieu to Carlsforde forever."

"Are you in earnest?" she gasped. "No—no, you only say this to—to betray me into admissions that I will never, never make."

Her hand was instantly released.

"I will not ask you what this speech means," said Noel, speaking now in sorrow more than anger, "I have heard enough to know that you as well as Miss Carlsforde have been taught to think ill of me. Think so still, if you choose. I might ask you if a single action of my life since I have resided here warrants you in believing aught to my discredit, but I will not. To combat charges made in the dark, would degrade me, and I should lose my temper in the effort. Only, while you doubt me, beware that you place not too much faith in my traducer."

"Stay, sir," cried Hillian, proudly, "and hear this much, if you will hear no more. If I have learned to think you not so entirely the honorable gentleman as Lord Carlsforde's successor should be, it was through your own act."

"Indeed! May I know what that act was?"

"The unmanly one of introducing into this house, as a spy upon me, Mr. Clement Dunforth, whom you had already employed to search into my earlier life. To hold over me the fear of exposure, by hinting at your knowledge of the only follies that ever disgraced it, was cruel indeed."

"I introduced Dunforth, that he might annoy or injure *you*? You—Hillian, whom I——But what am I saying? You were present when Irene divulged her engagement; you knew that it was not by my desire he came here."

"I know that you did not appear to wish it; but I have since been assured that an arrangement had been secretly made for his coming."

"Who dares say that I could be guilty of such deliberate treachery to the generous girl who thought no trouble too great in waiting upon and watching over me? But I will not ask—in fact, I need not; there has been more villainy at work than I suspected; and I am not the only dupe of it."

"Prove that you are innocent——" Hillian began; but was sternly interrupted.

"Innocent of what? Are you going to be so obliging as to detail to me all of which I am accused, expecting that I shall protest that I am not guilty of this or the other? I tell you again, I will not stoop to defend myself from any charges brought against me thus. I will not even bid you tell me what they are, lest they make me a murderer at heart, if not in deed."

"My lord, you know not what you are saying," faltered the terrified Hillian.

"I know that Clement Dunforth—a judgment be upon him!—has poisoned the mind of the creature who was dearer to me than all the world. Yes, Hillian, now that I am parting from you and England, now that you have taken from me my only hope—shall I tell you what that hope was?—will it gratify you to know how I dwelt on the thought that some day, if fortune smiled upon my efforts, I might come and ask you to share my home? And now that you have robbed me of that hope, I declare to you that never by thought or deed have I proved myself undeserving of the love I once hoped to win."

Hillian sank on the nearest seat, and covered her face with her hands; but she did not speak, and Noel, having thus unbosomed himself, suddenly became calm.—To be continued.

MAGAZINES.

ST. NICHOLAS FOR JULY has eighty extra pages and more than eighty illustrations. It opens with a country story, Dru's Red Sea, illustrated by Walter Shirlaw with a picture—the frontispiece of the number—which shows the young heroine on the roadside startled by an old traveler. Next comes Nid-Nodding, a summer poem by Lucy Larcom, followed by an illustrated account of cod-fishing from a small row-boat on the banks of Newfoundland. Farther on comes Blown Away, a thrilling story, with a spirited picture of a thrilling railroad incident. Boys and girls both, will take interest in the paper entitled, How to make a Hammock, with its ten plain diagrams, and clear descriptions of the process. Blossom-Boy of Tokio, an article by Professor William Elliot Griffis, tells of the curious ways of Japanese children, and contains thirty-two drawings by Japanese artists in their odd style. Mr. Moncure D. Conway contributes a story—The Child and the Image—suggested by an actual occurrence and illustrated with two pictures by W. J. Hennessy. The Fourth of July element finds expression in a stirring Patriotic March, a piano piece for four little hands, composed by William K. Bassford; in Rattle-te-bang, verses with hmzzas and drum beats in every line; and in Hay-foot! Straw-foot! an amusing picture of the drilling of an awkward squad of recruits. Glories, by Sarah Winter Kellogg, with seven of Addie Ledyards's lovely pictures, narrates the happy fun of two children in a game with morning-glory blossoms. A Jolly Fellowship, Frank R. Stockton's serial story, takes his heroes through an exciting diving episode, and leaves them aboard a burning ship; and Eyebright, the continued tale by Susan Coolidge; brings its chief character to the threshold of an adventure in a sea-cave. Funny verses, comical pictures, gay jingles, a page of bright contributions from the young folks themselves, and Departments brimful of good things, help to complete a number exactly suited to summer-holiday reading.

ABOUT MACARONI.—The first stanza of the old song entitled "Yankee Doodle" runs:

"Yankee Doodle came to town
Upon a little pony;
He stuck a feather in his hat,
And called it macaroni."

It is about this expression, "macaroni," I wish to write what I have found out by asking questions and reading in books.

In England, during the reign of Queen Elizabeth, most of the dandified things of that time—such as table-forks, etc.—came from Italy, and were called "macaroni," which is Italian, derived from a Greek word meaning "very dainty."

About the time of Oliver Cromwell, appeared a verse which some have thought was meant to make fun of him. The verse runs:

"Yankee Doodle came to town,
Upon a Kentish pony.
He stuck a feather in his hat,
And called it macaroni."

But history says Cromwell came from Huntingdon; and I think he was not the kind of a man to wear feathers and brag of them. He was stout, red-faced, and rather rough; not slim and foppish.

In Sheridan's play, "The School for Scandal," are these lines:

"Sure, never were seen two such beautiful ponies;
Other horses are clowns, but these, macaronis.
To give them this title, I'm sure can't be wrong,
Their legs are so slim, and their tails are so long."

Washington Irving tells us that, in the War of the Revolution, some Maryland regiments, who wore very gay uniforms, were known as "The Macaronis;" and he adds that "they showed their game spirit." So, it seems, they could fight well, besides dressing well.

Another author says: "A hundred years ago, the slang for a certain sort of fop was 'macaroni.' He was distinguished chiefly by the strange way in which he dressed his head; and he wore feathers in his hat."

This is all I have been able to find out about the word "Macaroni," used in the song "Yankee Doodle;" and it seems to mean something or somebody very dainty or finical, and to have very little to do with the food called "macaroni," although that also comes from Italy.—*St. Nicholas for July.*

PROBABLY the most important feature of the July SCRIBNER (and one to be continued in the Midsummer Holiday number) is the reprint of the celebrated engravings, made several years ago by Mr. Henry Marsh, for Harris's "Insects Injurious to Vegetation,"—a volume issued by the Massachusetts State Board of Agriculture, and necessarily at such expense as to put it beyond the reach of the general public. The papers in SCRIBNER are entitled "Summer Entomology," the first dealing with moths and butterflies, with most beautiful and accurate illustrations, the drawings having been approved by the late Professor Agassiz. In order to bring out to their utmost the delicate gradations and softness of these cuts, they will be printed upon extra-calendered paper. It is no exaggeration to say of these engravings that they have never been equaled in Natural History work.

SCRIBNER'S MONTHLY for July: The American on the Stage, Illustrated, J. Brander Matthews; Friend Barton's Concern, Illustrated, Mary Hallock Foote; Evening, John Vance Cheny; The Water-Cure, Austin Dobson; Brazil. III. An Indian Village on the Amazons, Illustrated, Herbert H. Smith; The Sphinx, Elizabeth Stuart Phelps; Haworth's. Chapters XLI-XLIV., Illustrated, Frances Hodgson Burnett; Two Couples: White and a Yellow, William M. Baker; Madame Bonaparte's Letters from Europe. (Conclusion), Eugene L. Didier; Summer Entomology. I. Tramps after Moths and Butterflies, Illustrated, Edward A. Samuels; Thomas Moore, Richard Henry Stoddard; American Museums of Art, James Jackson Jarves; The Metric Reform, Frederic Brooks; The Whip-poor-will, Henry S. Cornwall; Flowers for Song, Thomas W. Parsons; Trinity Parish, Illustrated, William H. Rideing; The Delusions of Clairvoyance, George M. Beard; The Flooding of the Sahara. (With Map), John T. Short; Edison's Inventions. II. The Carbon Button and its Offspring, Illustrated; The Confession, Joel Benton; Topics of the Time. Engraving on Wood—Mr. Riddle's Book—College Instruction; Communications. Thoughts upon the Education of Women—The New Museum in Rome; Home and Society. Decoration of the Dinner Table (Sacharissa)—A Military Education at West Point (W. H. Rideing)—Hints to Young Housekeepers. VII. (Mrs. S. W. Oakey); Culture and Progress. Matthew Arnold on Equality—The Epic of Hades—Seiss's Miracle in Stone and Voices from Babylon—Gosse's Studies in the Literature of Northern Europe—Plato on Socrates (The New Translation)—Boyesen's Falconberg—Mansfield's Personal Memories—Cable's Old Creole Days—Stockton's Rudder Grange—A New Edition on Longfellow—Mr. Marshall's Recital's; The World's Work. Novel Method of Testing Iron Wire—New Salt-Water Condenser—Improved Refrigerating Apparatus—The Horograph—Improved Violin—A New Gun—Removing Metalic Substances from Grain—New Method of Making White Lead—Proposed Treatment of Hop Vines for Fiber; Bric-a-Brac. The Heart of a Rose (H. W. Austin)—Studies in Style (Irwin Russell)—Adrienne (J. W. W.)—College Comicalities (Arthur Penn), drawings by Hopkins—Union Square: 7 P. M. (J. B. M.)—Speaking Features (N. H. D.)—The Hit of the Season (drawing by W. M. Davis, Jr.)—Metrical Gymnastics (H. C. Bunner.)—Punch and Judy at Rockaway Beach (drawing by H. P. Wolcott).

THE SUCCESS OF CLAIRVOYANTS.—In a paper in the July Scribner on "The Delusions of Clairvoyance," Dr. George W. Beard, of New York, writes as follows:—The practical success of clairvoyants, public and private, is the result of these three factors: 1. guess-work reduced to a science and an art, 2. coincidences, and 3. trickery.

Guessing is at once a science and an art,—a science, because it may be regulated by certain principles. The familiar "guessing game" illustrates what can be done by guessing scientifically carried out; with the privilege to the guesser of but twenty chances, he may yet, beginning with the kingdom to which the article belongs, reach the most minute object before his list is exhausted. Success in this game, as all who have played it know, depends much on practice. Clairvoyants devote their lives to the practice of this game, for they play it with every victim they meet.

The subject of coincidences is one that has excited far less attention among the students of history or of human nature than it deserves; little, indeed, has been written upon it. Among those who have given the subject any thought, the most erroneous impression prevails that it can be brought under the laws of pure mathematics. In the life of every active human being are frequent, almost daily occurring, coincidences, which those who give any attention to them may, if they choose, make the basis of most absurd delusions. Usually we give no more attention to these occurrences than an exclamation of surprise, and then forget all about them. We are talking of a person whom, perhaps, we rarely meet, and have not seen for a long time; suddenly he appears. A thought—out of the ordinary course, it may be—enters our mind; we express it, when behold! the same thought has just been passing through the mind of our friend. We meet with a certain experience, and then we remember, or fancy we remember, that the same experience has happened to us in a dream. Of all these daily and hourly happening coincidences, clairvoyants skillfully avail themselves, and in that direction they are aided by the ignorance and eagerness of their victims.

The trickery of clairvoyants consists mainly in the art of making their victims unconsciously reveal, by word or look, facts of personal history, and then, at the proper time, in re-imparting the information to them. In this way they gain the credit, even among persons of keen intellect, of being endowed with divine powers.

In drawing out the facts of personal or family history, clairvoyants do not always ask direct questions, but rather make statements with an implied interrogation, to which the victim, oftentimes entirely unconsciously, responds by word or look or gesture, or perhaps by all three; and, at a later stage of the interview, these secret facts are artfully given back to the victim, who has no recollection of having previously imparted them, and will not believe that he has done so, but prefers to believe that he is in the presence of Divinity.

It is not only possible but easy for a practical adept to draw out in this way minute and elaborate details of secret family history. A few years ago, while connected with one of the public institutions of this city, I made a number of experiments in this line. I told the patients afflicted with various forms of nervous and allied disorders, not to tell me about their symptoms, nor give me any facts in their cases, but to let me tell them; and then I would proceed to indicate, after the manner of a clairvoyant, the locality of their maladies, and the history of their troubles. In the majority of cases I was successful, and made out the diagnosis to the satisfaction of those who sought my advice, and with good reason, for nothing that I could do prevented them from telling me, although I asked them no questions; unintentionally and unconsciously, they would guide me at every stage of the interview. By a little practice any one could easily acquire this art; and long study, such as professional clairvoyants bestow upon this subject, develops great skill in thus managing and deluding the unwary and non-expert.

THE July number of LIPPINCOTT'S MAGAZINE which opens the twenty-fourth volume, is of a thoroughly popular character, and the variety and beauty of the illustrations, as well as the excellence and vivacity of the reading matter, show the steady advance which has marked the course of this periodical. The opening article, by Dr. Felix L. Oswald, is the first of a series entitled Summerland Sketches; or, Rambles in the Backwoods of Mexico and Central America.

The second article has for its subject Stratford-on-the-Sound, a village of Connecticut. An article on Jefferson and Rip Van Winkle,—At and After the Play is written by an intimate friend of the great actor, Mr. L. Clarke Davis, who has gathered from his own lips the chief material for this biography. The illustrations, besides exhibiting Rip in each act of the play, include a portrait of Jefferson seated in his studio, and views of his beautiful country-seat among the hills of the Passaic.

The name of Thomas Hughes, author of Tom Brown's School-days, must always command attention, and the article by him in this number of Lippincott's will have a particular interest for American readers, being an able defence of Franklin against the animadversions and prejudices still current in England. A Swiss Patrician, by Arthur Venner, is the title of a very entertaining paper on Bonstetten, in his youth the friend of Voltaire, in his old age of Madame de Staël. Not less readable and vivid is the fifth chapter of Miss Porter's description of life in a Southern village; while the three chapters of Miss Olney's serial, Through Winding Ways, lead up to a dramatic climax, which indicates that the end of the novel will be full of incident and striking situations.

Women's Husbands is also continued with no falling off in piquancy and interest. Susan M. Day has a pathetic short story called Telescopic Discoveries, and the Monthly Gossip, is full of sparkling matter, including a description of Society in Paris during the Last Season, which is from the pen of a fair *comtesse* holding a high position in exclusive circles.

For Women.

CONDUCTED BY MISS FAITH RIPLEY.

YEARS AGO.

She was seated close beside me,
On a May day, years ago;
Heart of mine, you must not chide me,
I was but a boy, you know.

'Tis no secret, I'll reveal it,
Heart of mine, 'twas long ago;
This lock of hair, if I did steal it,
I was but a boy, you know.

Was she pretty? Did I love her?
Heart of mine, 'twas years ago;
And that pang of bliss is over,
I was but a boy, you know.

"Was she rich?"—now that is funny,"
Heart of mine, 'twas long ago;
What cared I for lands or money?
I was but a boy, you know.

"And you parted—how you missed her"—
Heart of mine, 'twas years ago;
And you pressed her hand and kissed her,"
I was but a boy, you know.

Do I love her yet?—O olden,
Precious past, thou heart of mine:
See, this lock of hair is golden,
And the head that wore it—thine.

[*Picayune.*

THE WOMAN'S CLUB.

METHODS OF STUDY.

I have read with special interest the articles in the Women's Department of the Rural, encouraging and urging women, particularly farmers' wives and daughters, to give more attention to the cultivation of their minds and manners. I believe this is the one great thing needed to meet the restless longing which so many women feel for a higher purpose in life—to overcome the dissatisfaction felt with an endless routine of physical labor.

Is it not just this aim that will raise one above the mere drudge, and, as some one has said, "make one happy in oneself and in spite of oneself?" It is a fact, I fear, that most country ladies give very little attention even to the general intelligence of the day, and in many farming districts it is a matter of remark and wonder to find a really cultivated and intelligent lady. One reason for this, no doubt, is the amount of labor incumbent upon them; but another reason, quite as prominent, is a lack of interest in the matter. Any woman who feels an interest in knowing how a certain question is debated in Congress will take time to find out, even if it be by the omission of some extra fussing and scrubbing. A woman who becomes thoroughly interested in history will find time for its study, even if it be at the expense of an extra plaiting on her best dress.

Our excellent writer, Miss Harvey, tells us that a great deal is accomplished when a desire for broader culture is awakened. This is true; desire is, no doubt, the first moving cause, but unless a real interest speedily follows, we shall find it dreary work. Desire will be short-lived in most persons unless interest comes to its aid. Therefore it is important, in taking up a study, that one should begin so as to become thoroughly interested at the start.

Perhaps, as I confess that I am judging others somewhat by myself, I shall make my meaning clearer by giving an item of my own experience.

Early in life I had the laudable ambition and strong desire to become well versed in history. I supposed, to accomplish this, I must be perfectly methodical in my work—start out at the beginning, and come down through the ages, surely, even if slowly.

I can now say that slowly was the only modifier needed, for I surely never reached farther than an uncertain distance in the 1st vol. of Rollin's Ancient History. I am sure that I tried faithfully, but other duties looked more important, and the volume disappeared for long intervals and was drawn from its resting place always with a sigh. You can imagine the progress made under such circumstances. Probably I should at present still have been plodding in that first volume of Rollin's, or else have given up in despair, had I not been rescued by a friend who often laughed at my persistency and slow progress. This friend advised me to leave Rollin, and gave me instead "Yonge's Life of Marie Antoinette," a book as fascinating and exciting as a novel. It was strange how much more time I found for reading! This was the real beginning of my study of history, notwithstanding the years I had struggled with that first volume of Rollin's, and I believe it to be as good a beginning as any one can make. One cannot read of the intensely interesting events of the French Revolution without being fairly drawn into a love of history. What preceding influences could have brought about such a state of affairs? How was the terrible work of La Guillotine finally stopped? Through what succession of events did the French nation become what it now is? One cannot stop reading until they find out.

Meanwhile through the connection of France with other nations the field of interest widens until there is really no stopping place. But to return to Yonge I soon found that this historian wrote with the pen of a royalist and judged actions from a royalist's standpoint. His characterizing of La Fayette, whose name all Americans are taught to reverence, as awkward, ill-favored and treacherous set me to searching Abbott and other historians for their views concerning him. These, while they did not differ from Yonge in point of fact, attributed different motives to the same actions, and thus set my heart at rest with the conclusion that La Fayette was still worthy of our honor and that no thorough royalist could appreciate the feelings and motives of a thorough republican. However, it was not my intention to criticise Yonge, but simply to show how my interest grew and how I progressed when once rightly started. As a history of the events leading up to the Revolution I found Miss Pardeau's Louis XIV. most entertaining and instructive. Dickens's "Tale of Two Cities" completed the topics for that time, nor would it have been complete without this last. I could never have appreciated so fully the oppression and injustice which preceded the Revolution had I never read Dr. Manette's story, nor could I have realized the horrors which followed had I not gone into the midst of them with sweet Lucie Evremonds. So from my own experience I conclude that it is far better to read history by topic than by course, that it is well to read, if possible two authors upon the same topic, who look at matters from different standpoints—that poetry, biography, or a good novel, read in connection with the topic will give a vivid and familiar idea of people and circumstances. Also, that in taking up a study by oneself it is better to start out in the most interesting part. Much more will be accomplished in this way even if obliged to study backwards.

Dry facts and dates make a slow beginning, but fill in very easily and pleasantly when one has become really interested in the subject connected with them.

May August.

IGNORANT MOTHERS.

I want to congratulate the Club on the subjects selected for discussion. I've heard it affirmed by members of the hostile sex that "women didn't have an idea above cook stoves and soothing syrups, and that were they once allowed an opportunity to express their opinions through the medium of a newspaper, they would take up the entire space allotted them in exchanging views on the subjects of pie-crust, panters, and teething."

Our Club is a standing refutation of this masculine libel on our sex.

There seems to be a tendency on our part to become "most awfully" literary. Clubite after clubite rushes to the front with "methods of study," and if every woman reader of the Rural isn't duly impressed with the idea that knowledge is not only to be coveted, but to be striven for, it isn't the fault of these enthusiastic writers.

Margaret B. Harvey and M. A. B. have said some timely and just words for the sons and daughters of illiterate parents. From time immemorial the child who is ashamed of his ignorant, ill-bred parent, has been held up to the scorn and contempt of the world. The parent's self-denial, the privations she has undergone to give the child educational advantages, have been expatiated on at length, and we are called on to despise the unnatural monster of a child who dares to wince at parental blunders in grammar and etiquette. I never remember to have read the child's side of the case, until the two writers, mentioned above, drew attention to the fact that there was something to be said in behalf of the child.

When we remember that the whole tendency of life at school is to develop a love for learning and a contempt for ignorance, is it to be wondered at that the scholar should despise want of knowledge even in his mother? A bright girl or boy soon learns to regard the ill-bred, ignorant, ill-dressed mother as a nurse, a cook, a seamstress, a housekeeper, and—nothing more. Such parents are loved quite likely, but respected they *cannot* be. Children may crucify their self-respect and introduce such a mother to their educated companions, and appear with her at social gatherings, but what should be a pleasure is a source of keen mortification to them.

The lesson which the average wife and mother has to learn is, that her first and chief duty is to herself, for neither husband nor children has she a right to sacrifice herself. This isn't at all orthodox I know, but it's a true gospel for all that. The slavery of the wife in many and many a home throughout this free (?) country is more pitiful, more hopeless and more degrading than ever was endured by the negro in the days gone by.

Sisters, will you not make an effort to be the queens of your household—queens by right of a grand, fully-rounded womanhood—or will you be content to be simply "the hewers of wood and the drawers of water" in the kingdom of home?

Jo Marsh.

CHILD-HELP IN THE HOME.

Somehow, I feel in the mood for writing to the Club this morning and giving my experience with children. I have six, so you will excuse me if I *do* think I know just a little about them. Mine are all learning to work, to sew and to care for flowers or vegetables. They help me in my washing, ironing, mending, making, and in the general housework, and some in the baking.

I have three girls, one almost 14 and the other two are 12; the three take turns in the work, one helps about breakfast, sets the table, washes the dishes, etc., and a second one gets the dinner and takes her turn at dish-washing; then when tea-time comes, the third has her part of the work to perform. Sabbath day we have but two meals and that breaks up the order of work just enough so that one does not have to get the meal next week at the same time of day. That is, the one who gets breakfast Sabbath morning will have the dinner to get on all the other days of the week. I find it saves quarreling and equalizes the work. Of course, I have to superintend and suggest here and there, while I try to do something in some other way to help the work along. In the morning two smaller ones claim my attention, at noon I have the dinner to prepare when the children are at school. I arranged matters in this way at first, because we could not keep a girl on account of the extra expense, and I wanted time to rest and time for study, and beside, I was anxious that my children should know how to take care of themselves. They were willing pupils. It requires much patience and perseverance, but it pays well in the end. I believe that the children are happier, and they are certainly less trouble. In washing they began by washing some particular thing of their own that they felt anxious should look well, now they do more than their own washing and more than their own ironing. They can iron tucks, ruffles, puffs, and embroidery nicely and they are very careful about soiling their garments since they do their own washing. They have plenty of time to play, study, cut and make many small things of their own, and what belongs to their dolls, *all* by hand too! When they have learned to do all kinds of hand sewing, then there will be time enough to learn to do machine work. Teaching them to keep their hose in order has been the hardest trial to me of any, but now they take pride in mending their stockings nicely, so I have my reward. I taught them to sew before they were three years old. Children learn more readily when young and the habit once formed is never forgotten; they find so much amusement too, in sewing for their dolls. Try it, some of you overworked mothers with your small children, and report.

Maria.

LEAF FROM AN INVALID'S DIARY.

June 23, 1876.—One of those rarely brilliant mornings which I notice only two or three times in a year. Our homely front yard is enchanted ground. The young grass has a peculiar soft luster, which is lightened by the deep shadows picturesquely playing over it—ever folding, reaching, receding, like waves on a sea. Over all this the luxuriant leafage gives the effect of spaciousness, as if I were in some castle garden extending far and wide, and the edifice behind me were an ivy-grown stone building instead of a common country farm-house. The inclosure at one side, surrounded by rail-fence and over-shadowed by maples, becomes a beautiful park, in which the fawn-like little Jerseys are really young deer.

I linger under the fascinating spell. I seem to be enveloped by the witching beauty of the soft-shining, shadowy greenness, and dissolved in it. I am in Paradise, and the vision is too strong for my weak, mortal eyes; but as I turn away, the vision changes. It does not fade, but grows in splendor. As the sun mounts higher, the shadows steal away into themselves, the stretched-out limits shrink to less than their accustomed size, but the great world beyond grows broad and bright and beautiful. Not a cloud flecks the blue above. Air and sun and sky conspire to make a perfect day—one of those rarest, most brilliant days when a sheen overspreads everything. Fairy Land is dull in comparison. Even the men and the horses seem to walk on air, and the birds are hushed by the wonderful beauty. Every breath is an incense, and the language of the earth seems to be that of the Canticle:

"O, all ye fowls of the air, bless ye the Lord; praise Him and magnify forever.

"O, all ye beasts and cattle, bless ye the Lord; praise Him and magnify forever.

"O, all ye children of men, praise ye the Lord praise Him and magnify forever."

I feel grateful that I am an invalid, and so am privileged to stay out in this magical world, and I have a real commiseration for the sweet sisters who must work in-doors, though I know they pity me with better reason.

Then I become conscious of my own immediate surroundings; they do not match the magnificence of the day, and the incongruity gives a sense of degradation. I go in, feeling like the little girl who said: "Mamma, let me put on my white dress, it is such a shiny day." But my room is a dungeon. I can see nothing clearly. My eyes are blinded, and I soon escape back to the brightness, determined that this day, at least, shall be "a joy forever."

Zena Claybourne.

WOMAN'S SUNDAY WORK.

How true a picture of the lives of a majority of women, Bertha A. Winkler, portrayed in the last Rural when writing of "Sunday Rest for Women." I have frequently heard mothers say that Sunday was the most tiresome day in the whole week to them. In the main the fault lies with themselves; they have taken upon themselves this unnecessary burden and their husbands simply allow it and in fact never think much about it. I have very little sympathy for a woman with health and strength enough to attend church and Sabbath-school, who will remain at home to cook an extra dinner for company that may possibly come home with the husband, sons or daughters. Why will women suffer themselves to become such slaves to their families, and—to pride?

Our thoughtful young housekeepers of the Rural band may take a lesson to themselves, and by lessening their labors on Sunday be able to spend that day (as our Heavenly Father intended they should) as a day of sacred rest. I would not deprive myself of the holy Sabbath privileges, even though I had to set a plain cold dinner before my family and friends. When I wish to display my domestic skill I take some other day in the week, when I can do so with a clear conscience.

Late rising on Sunday mornings is a frequent cause of a mother's extra labors on that day; for the children must make haste to Sunday-school, and the morning work is left for mother's tired hands. At my father's house we were taught to rise as early on Sunday mornings as on any day in the week, and as preparations were always made on Saturday the labor of getting the Sunday meals was but slight. When old age comes the mother who has denied herself that rest, which is necessary to her health and well being, will not be any more respected or beloved by her family, than the one who attends church with her husband and children or otherwise takes her natural rest free from any extra care.

Mrs. Lou J. Abbott.

Faith Ripley—Some time ago I sent a request to the lady readers of the Rural, for a recipe for washing flannels, without shrinking. Not receiving the desired information as yet, I will send you the recipe that I have since received from a reliable source:

It is very essential to avoid hard water and resinous soaps. Wring without twisting (with a wringer) or not at all. Use water of the same temperature all through, or increase the heat, during the changes. Do not rub the soap upon the flannel, but mix it with the water. Flannel is of so porous a texture that it is easily cleaned in good suds without much rubbing. Hard rubbing tends to "full" the cloth, and to rinse in cold water flannel that has been washed in warm water is a sure way to shrink and harden it. From cold to warm, but never from warm to cold. One or two suds may be used, according to the degree to which the flannels have been soiled. When they have been rinsed, two persons should take blankets, one at each end, shake, and snap them well, to make them more soft and fuzzy. A good way to wash flannels is to soak them awhile in ammonia and soft warm water, before washing. To wash clouds—stretch them upon a board, fasten at the corners, then wash them with a brush with warm, soapy water; rinse with warm water.

Yours, Respectfully, Marian.

CORRESPONDENTS' CORNER.

This poem is sent in response to a request which appeared in "Correspondents' Corner," June 7th.

"OF ALL THE BONNY BUDS THAT BLOW."

Of all the bonny buds that blow
In bright and cloudy weather,
Of all the flowers that come and go
The whole twelve months together,
This little purple pansy brings
Thoughts of the sweetest, saddest things.

I had a little lover once,
Who used to bring me posies;
His eyes were blue as hyacinths,
His lips were red as roses;
And everybody loved to praise
His winning looks and winsome ways.

The girls who went to school with me
Made little jealous speeches
Because he brought me, loyally,
His biggest plums and peaches,
And ever at the door would wait
To carry home my books and slate.

They "couldn't see," with pout and fling,
"The mighty fascination
About that little snub-nosed thing
To win such admiration;
As if there weren't a dozen girls
With brighter eyes and longer curls."

And this I knew as well as they,
And never could see clearly
Why more than Marion or May,
I should be loved so dearly:
And so I asked him how was this;
He only answered with a kiss.

But still I teazed him, "Tell me why
I want to know the reason."
When from a garden bed close by
(The pansies were in season)
He plucked and gave a flower to me
With sweet and simple gravity.

"The garden is in bloom," he said,
"With lilies pale and slender,
With roses and verbenas red,
And fuchsia's purple splendor;
But over and above the rest,
This little heartsease suits me best."

"Am I your little heartsease, then?"
I asked with glowing pleasure;
He answered "Yes," and "Yes," again,
"Heartsease and dearest treasure;"
That the round world and all the sea,
Held nothing half so sweet as me.

I listened with a strange delight,
Too rare for words to capture;
Nor ever dreamed what sudden blight
Would come to chill my rapture:
Could I forsee the tender bloom
Of pansies round a little tomb?

Life holds some stern experience,
As most of us discover;
And I've had other losses since
I lost my little lover:
Yet still this purple pansy brings
Thoughts of the sweetest, saddest things.

[*Thomas Fulton, New York City.*

To the same correspondent I would say that "When Greek *joins* Greek then comes the tug of war," is the proper rendering of the quotation.

T. F.

Adverb vs. Adjective.

I am in favor of preserving the English language in its purity, though from early association with those who habitually murdered it, I am unable always to use the right word in the right place. I have as intense a horror of the hypercritical as anybody, and dislike to appear in the character of critic; yet I see occasions when I feel justified in doing so. The use of the adverb in the place of the adjective in such expressions as "Oats look badly," "Corn is looking well," "Wheat has looked splendidly," etc., etc., are all violations of good usage and grammar, which it behooves those who write for the public eye to discourage and denounce. I am aware that the habit of saying "looking well" when we mean "looking good" has become almost universal, but that does not make it correct. It is probably too well established, however, to be uprooted, but that is no good reason why we should go on to establish other errors, however analagous they may be to that one. One wrong does not justify another. It may be an argument in favor of the use of "well" as an adjective that the people have compelled the dictionary-makers to recognize it as such. I recollect hearing a prating pedagogue, in my youth, criticising an expression of Irving's: "Everything looked smiling about us as we embarked." He said "smiling" should be "smilingly." It is evident that schoolmasters of that type have been abroad quite too much of late. The masses of the people are always ready to defend errors and false doctrines which have become habitual with them. A thousand will array themselves on the side of habitual error where one will stand up for the abstract truth in language or science.

O. S. B.

Domestic Economy.

CONDUCTED BY EMILY MAPLE.

LOG-CABIN SKETCHES; OR, JESSIE SEABRIGHT'S DIARY.—No. 7.

MAY MAPLE.

"Be it ever so humble, there's no place like home."

June 7th, 1879.—How forcibly these words struck me as I sauntered up the walk, leading my little boy, and closely viewing the thrifty plants my own hands tended with the most vigilant care. As my eye rested upon the little cabin, set down, as it were, in the midst of a green plain, with the dim old forest and its wealth of glossy leaves and tassel-like blossoms for a background, I could not help thinking that, taken as a whole, the scene was a bit of rural loveliness worthy of an artist's pencil.

Stepping into the cabin through the wide-open door, and surveying the room with a critical eye, I was sure I need not be ashamed of my humble home, even though the President and his lady wife should chance to call at my door. Since the last jottings in my journal, I had hung up some pretty engravings and a couple of handsomely-tinted chromos. The latter had been handsomely framed by one of our neighbors, who was a "jack-at-all-trades" with a large family, and more ambition to whittle and "potter about" than to labor. I had tried to make some cone frames with pasteboard for a foundation, and failed in the attempt; for the cones and shells were constantly falling off. But the jack-knife frames were made of bits of cherry wood, and, when oiled and varnished, were as pretty as need be, and far more satisfactory than any cone ones I could ever make. In payment for these I made the little girls some dresses. The engravings were small—one a bit of mountain scenery. This I surrounded with an evergreen, which we call "Traveler's Joy." I never learned its botanical name. It grows in the form of a miniature tree, from six inches to a foot in hight, near swamps and damp places, and is much sought after in some rural districts for decorative purposes. I also made a cross of bits of cedar wood, and covered it with the same evergreen. This I hung over the corner what-not.

A portrait of Dickens was framed with a handsome wreath of immortelles, given me by friends. Some large fungi, found on old hemlock and beech logs, when varnished, made handsome shell-like brackets for bouquets. The vases were wide-mouthed bottles or, more frequently, beheaded bottles, set in odd-shaped boxes of my own manufacture. These, when filled with sweet-scented wild flowers, that were kept fresh by an abundance of spring water, showed no jagged edges, and together added wonderfully to the cheery appearance of the room.

"I know what I fink," said Bertie, as he settled himself comfortably in his little "resting chair."

"Well, what do you think?" said I.

"I finks we have the p'ettiest home of any body. Mama, why don't Mr. Brown's folks have fings too?"

I didn't tell the little boy that Mrs. Brown had neither energy nor perseverance; or that she had rather sit down beside dingy walls to read sensational stories or gossip with some neighbor, than to spend time and strength in "fixing up" her house, and making it attractive. Yet I knew this to be the case. And I did not so much wonder that the Browns were always so anxious to "sell out," and go where they could see something new to talk about. Those who are so unwilling to exert themselves are very seldom content with their lot; and yet they invariably envy the neighbor who "has the knack" of "fixing up," and of making the best of everything.

TO SKELETONIZE LEAVES.

Select well-grown leaves, and examine carefully to see if they be perfect before soaking. Put into an earthenware dish or wooden tub, keep covered with rain-water and stand in the sun. In from two to three weeks' time the skin and fleshy part—epidermis and parenchyma—will be found to be pulpy and decayed. Provide yourself with some cards as large, or larger, than any of the leaves, a soft camel's-hair brush, as well as one a little stiffer. Gently float a leaf onto a card, and with the soft brush carefully remove the skin on one side. Have ready a pan of clear water, reverse the card in the water and slip it under the leaf so that the other side is uppermost. Brush this to remove the skin, when most of the parenchyma, or fleshy part will come with it, but if not it may generally be washed out in the water. If the soft brush fails to remove all the green particles adhering to the framework, the hard brush may be used, but with great care. Any brushing action or horizontal motion will surely break the veins, and the use of the stiff brush can only be successful in a perpendicular direction—a sort of gentle tapping—to loosen the tissue so that it may be washed out with the soft brush. Holly leaves make beautiful skeletons, but they should be soaked in a dish by themselves, as their spines are apt to damage the more delicate leaves.

TO BLEACH.

Prepare a weak solution of chloride of lime—dissolve one-half pound in three pints of rain-water, strain, and use one part of solution to one of water—put into a basin in which the skeletons may be put by floating them off the cards. We have found it best to prepare and bleach about half a dozen at a time. They require watching, and if allowed to remain in the solution too long will fall in pieces—from one to three hours will generally suffice. By aid of the cards, wash in two or three clear waters, and finally leave in clean water half an hour. Then take up on the cards or pieces of paper; arrange the skeletons as flat and natural as possible with the assistance of the soft brush, and before they are quite dry remove from the paper and place in a book or botanical press.

The unskilled novice will not be apt to be successful in her first attempt to skeletonize, for it is a tedious operation, and requires care and great patience to obtain satisfactory results. We have found the holly, English ivy, grape, rose and pear among those easiest to skeletonize, and we recommend the beginner to try them. Gather the latter part of June, or as soon as the leaves are fully developed.

REMEDY FOR A COUGH.

A friend tells us that a mixture of equal parts of Jamaica rum, honey and linseed oil, taken three times a day, a spoonful each time, is a most excellent medicine for a cough. In her own case, where the cough was brought on by an attack of pneumonia, she was entirely cured by its use.

DOMESTIC RECIPES.

Steamed Pudding.

Put two tablespoonfuls of sour cream into a pint basin; then fill up with rich buttermilk; add a little salt, a teaspoonful of salaratus, and flour to mix soft; roll out and spread with the preserves left from yesterday's tea. Place in a buttered tin and steam one hour and a half. Eat with a sauce of butter, sugar and boiling water, thickened with corn-starch and flavored with nutmeg.

To Clean Zinc.

Scour with sifted coal ashes; afterward rub with kerosine. Kerosine also gives a new look to oilcloths.

Sickness.

When going to sit up with a sick neighbor, take your night lunch with you, that you may not make any more trouble for the already tired and overworked family. In many cases I have found that it would ease the patient to bath in strong vinegar with a little warm water and then wrap in soft flannel. Put the lights out of the room, and, if possible, lie down yourself on a couch; it may induce sleep to the sufferer. Mrs. C. F. Reynolds.

Strawberry Blanc-Mange.

Stew nice, ripe strawberries, strain off the juice and sweeten to taste; place over the fire, and when it boils stir in corn-starch wet with cold water—two tablespoonfuls of corn-starch for each pint of juice; stir until sufficiently cooked; pour into molds wet in cold water and set aside to cool. To be eaten when very cold with cream and sugar. Raspberries may be substituted for the strawberries, although the blanc-mange does not look as nicely.

Mrs. Florister.

Ripe Currant Pie.

Line a pie-tin with a good crust and fill with a mixture of one cup of crushed ripe currants, one of sugar, two spoonfuls of water, one of flour mixed smooth with the beaten yolks of two eggs; bake; then cover with a merangue made of the whipped whites, and two tablespoonfuls of powdered sugar; return to the oven to brown. Housewife.

Bean Salad.

String young beans, cut into small pieces, wash and cook tender in salted water, drain well and add so much finely chopped onion as liked, with pepper, salt and vinegar. Serve when cold, and add a little olive oil or melted butter.

Potato Salad.

Chop cold boiled potatoes very fine; add enough minced raw onion to season, and pour over a good salad dressing. M. L.

QUESTIONS ANSWERED.

Chow-Chow, Stiffening and Ironing Silk.

C. J. H., asks for a recipe for making chow-chow; also how to iron a silk which has been colored, so as to give it a little gloss and stiffness.

Ans.—1. The best recipe for chow-chow that we have ever tried was given by Mrs. Beekman in the Rural of August 17th, 1878, which we will again publish. It is as follows: One peck of green tomatoes chopped fine; sprinkle one cup of salt over them and let stand over night; in the morning drain in a colander, add eight green peppers chopped fine, one cup of white sugar, cover with vinegar and boil twenty minutes. Chop fine six large onions; two bunches—the white part—of celery, with three or four red peppers. Add to the other ingredients, when cool and drained, a cup of mixed mustard, whatever spice you like and a pint of grated horse-radish. Put into a stone jar, cover with cold vinegar and tie down tightly.

2. Dilute ammonia with alcohol, sponge on the right side and iron at once on the wrong. Or, cut into shreds an old kid glove, as near the color of your silk as possible; pour over a pint of water and boil until reduced to half the quantity; strain, add a tablespoonful of alcohol and sponge and iron as above. Sponging with flax-seed water will also give a gloss and stiffness to an old silk.

News of the Week.

MISCELLANEOUS.

Monday, June 30, 1879.

The prospect of the appearance of philanthropic Northern steamers on the Mississippi to carry colored people away to Kansas has so alarmed the planters, that a convention of those of Washington Co., Miss., has drawn up an address to Northern "business men and benevolent societies," protesting against their lending countenance to any such scheme, on the ground that, though the negroes were not badly treated in Mississippi, their imaginations would be so fired by the proposal to carry them to "fresh woods and pastures new" that even the well-to-do would abandon their homes, and utterly disorganize the industry of the State. There is doubtless a great deal of truth in all this; but the sober and sensible and conservative planters who sign addresses of this kind ought to know that a little personal activity on their part in putting down lawlessness in the State would, in a very few years, make it as absurd to send steamboats to carry off its laborers as to send them up the Hudson River for a similar purpose. The negro is such excellent material for electioneering purposes at the North that Southerners need have little hope of taking him out of politics until they police themselves better. The movement which these Mississippi planters dread is the one promoted by General T. B. Conway, who is collecting subscriptions to enable him to take a steamer down the Mississippi to carry off intending emigrants, whom he is going to deposit in Wisconsin, General Butler having promised him 17,000 acres of land for the purpose; and he has, he says, agents in half a dozen States engaging employment for colored emigrants among the farmers. We sincerely trust, however, that none but the really destitute will avail themselves of General Conway's munificent offers. We are quite sure that a negro who owns anything will be better off in his own home than on General Conway's boat or General Butler's land-grant. It is a curious fact that at the meeting held in aid of the Conway movement in this city a couple of weeks ago the only person who spoke of war and seemed to be prepared for battle was a clergyman—the Rev. Dr. Newman. He assumed that the use of the Mississippi as "a highway" by the Conway boat would be resisted by force, announced, amid thunders of applause, that in that case "the people of the North would make it a highway." In fact, within a few weeks an extraordinary number of ministers have been heard sharpening their swords.

One of the heaviest "strikes" that have ever occurred in this country is now under way in Fall River, R. I. It is said to be mainly promoted by foreign labor agitators, and it promises enforced idleness for many weeks to 12,000 or 15,000 men, women and children, and the suspension of production amounting, in the case of 30 print-cloth mills, to 149,500 pieces weekly. All these strikes are, of course, in reality an attempt to manage very complicated business enterprises through universal suffrage; and the history of the co-operative movement in England seems to make it certain that in the existing state of human nature they cannot succeed. Official reports to the agent of the Western Associated Press at Memphis, Tenn., from the mayors and presidents of boards of health of Memphis, Vicksburg, Jackson, Miss., Canton, Miss., Shreveport, La., Collierville, Tenn., Hickman, Ky., Grenada, Miss., Helena, Ark., Holly Springs, Miss., Decatur, Ala., and Tuscumbia, Ala., all bearing the date June 20, state that the health outlook has never been more favorable. In no instance has there been any indication of a return of yellow fever. A return made by the Secretary of the Treasury shows that the exports of live cattle from this country have increased from 733,395 in 1868 to 5,841,653 in 1878, or nearly eight-fold. One-half the exports are to England. A Bohemian Sunday-school picnic at Chicago last Sunday week was disturbed by outside roughs, when a company of Bohemian sharpshooters recklessly fired into the rabble, wounding seven men and killing one. A number of the rifle-men have been arrested and held for murder.

The June report of the Department of Agriculture confirms the conclusions from our crop reports except a few slight cases, in which we are strongly disposed to prefer our own reports. According to it the average of oats has decreased about 4 per cent. The general average of acreage and quality is 81, against 103 last year. The condition is unfavorable in nearly all sections of the Union. The decrease in the acreage of rye is about 3 per cent. New England is full. New York only 80 and Pennsylvania 88. Barley is low, the general average being 85 while in 1878 it was 102. Corn is backward. Owing to drought in many localities the seed did not germinate. The condition of clover is very low all over the country, except in New England and the States bordering on the Gulf of Mexico. The prospect for a good crop of fruit is gloomy, the late frosts being fatal in many regions. There will be a short crop of apples, the average being low except in New England. The crop in the Atlantic States is fair. In the Gulf States the yield will be only half a full crop. Peaches suffered most from the frosts of May. In the Eastern States, and particularly in those where the culture is a specialty, the crop is represented as good, but in the Atlantic States south of Virginia it is a failure, and that is the case in the States bordering on the Ohio river, except a few localities.

The following reports from the southern cotton exchanges show the condition in which the cotton crop was 31: In Mississippi and Louisiana, acreage about as last year: crop generally good; but few hands gone to Kansas and the exodus fever nearly subsided; crop in Louisiana one or two weeks later, but in some parts of Mississippi as far advanced as last year; labor good. In Alabama there is an increased acreage of 1½ to four per cent; labor excellent; crop in some portions earlier than last year. In Arkansas there is a 2½ per cent increase of acreage; stands good; crop in some parts earlier, in others later, averaging about as last year; no loss of labor by the Kansas movement. Georgia reports three per cent increase of acreage; stands good; labor abundant; the plant small and somewhat retarded by the cool nights and heavy rains, but the weather now dry and warm; no loss of labor. In Florida the increase of acreage is two per cent; stands good; labor about as last year; crop two weeks later; the Sea Islands report a five per cent increase of acreage. The crop in North Carolina and Virginia is generally good, and the planting about the same as last year. In South Carolina a five per cent increase of acreage is reported; crop 10 days to three weeks later than last year, except in a few portions of the state, where it is earlier; labor good in half the districts, scarce in the rest.

Congress is very anxious to enjoy junketting tours at the public expense. Twelve sub-committees composed entirely or in part of Senators, and including in their membership about three-fourths of the entire body, have already been empowered to sit during the summer vacation. The majority of these committees are armed with authority to travel to distant parts accompanied by deputy sergeants-at-arms and other attendants, while their traveling expenses are to be provided for from the contingent fund of the senate. Although the House is a trifle more modest, in view of its larger membership, yet there, too, there is a large number of fortunate souls, who will be able to enjoy the summer months pleasantly at the public expense in making trips throughout the country, nominally in behalf of Uncle Sam's welfare, but really for their own enjoyment.

Judge Christian, of Virginia, has discussed the matter of summoning negroes on juries, in reply to a petition of some colored men, in a way which shows that the Civil Rights Act cannot really be used to give negroes a right to be summoned without some serious straining of the law. To summon a man because he is a negro Judge Christian has no difficulty in showing is just as much a violation of the law as to leave a man out because he is a negro, or to summon him because he is white. He says he summons men not because they are either white or black, but because they are qualified, and it would be hard to prove the contrary. Judge Rives, who caused five county judges to be indicted for not summoning negroes on juries, laid it down that this plea might be met by the presumption that where a judge habitually abstained from putting negroes on the panel he did so on account of race and color, and in violation of the act. But this, again, might be upset by showing that the negroes of a particular county supplied no men of sufficient intelligence and capacity. In fact, if the object of the act was to put negroes on juries, it is, as fatally defective in not directing the summoning of negroes on every State jury. Whether if it did so it would stand the Constitutional test, is another question.

The President has vetoed the Judicial Appropriation Bill on the ground that in forbidding any department or officer of the Government to incur any liability for the payment of general or special deputy-marshals "for service in connection with elections," and in making no appropriation for the payment of such officers, it deprives him of the means of executing laws now on the statute book and which it is his constitutional duty to execute, and the execution of which can be called for by any two citizens of any city or town having over twenty thousand inhabitants. The object of the majority in inserting this provision in the bill is to prevent the operation of laws which they are unable to repeal, but he points out with great force that there are only two lawful ways of overturning legislative enactments: "One is their repeal; the other is the decision of a competent tribunal against their validity." Neither of these being within the reach of the majority, there is something perverse in attempting to accomplish their object by reducing the Executive to helplessness in the presence of a duty of which they acknowledge they cannot relieve him. It must be said, however, that the veto would have more weight if there was any possibility of the President being called on to perform this duty before Congress meets again in December. As there is not, it must be treated as simply a contribution to the controversy now raging over the powers of the General Government in the regulation of Federal elections.

A few days since exciting rumors of cattle disease on the Divide, thirty miles south of Denver, Col., were current, and a long sensational telegram to a paper in this city depicted, in exaggerated style, the vast ravages of the malady, which was reported to be highly contagious. Investigation, however, goes to prove that there was needless alarm, no new cases being reported for ten days. Timely precautions have been taken, and

the President of the Colorado Cattle Growers' Association states that the infection is confined to a few small herds, and has not extended to the plains. The round-ups are nearly through. Cattle are reported in good condition generally, with less losses than formerly, and with a greater increase in calves than in average years.

FOREIGN.

Some weeks ago it was here mentioned that that old reprobate, the Khedive, had summarily dismissed the foreign members of his Cabinet, who were endeavoring to so manage the financial affairs of the country as to pay at least a part of the interest on the vast load of debt which the luxurious ruler's extravagance had piled upon the people. Well, since then France and England have been pressing hard upon the degenerate successor of the Pharaohs to force him, at first, to reinstate the deposed officials, then, to accept others in their stead, and finally, on the failure of these efforts, through the old fellow's pig-headed obstinacy, to compel him to resign. Lately the French consul at Cairo officially demanded that he should abdicate in favor either of his brother or son, and his demand was supported by most of the other foreign representatives. The Khedive promptly refused to give up power and opportunities for swindling his foreign creditors and oppressing his own subjects, and blustered a good deal about going to war if an attempt should be made to depose him. The Powers then appealed to the Sultan to force his obstinate dependent to comply with the demands of his creditors. The other day the Sultan issued a decree deposing the Khedive and nominating his son, Tewfik Pasha, as his successor. The old man will have a comfortable pension of £50,000, or about $250,000 a year, on which, with a moderate degree of economy, he should be able to live pretty well. He has been ordered to quit Egypt, and, refused permission to go to Constantinople, is said to be about to visit Smyrna temporarily, and then go to Paris, where he will reside permanently.

The troubles in Eastern Roumelia, now that the Sultan has agreed not to occupy the Balkans, have dwindled down to the question of what kind of head-coverings the new governor, Aleko Pasha, is to wear. The Sultan, who clings all the more tenaciously to the signs of power as the substance of it is vanishing, insisted on his wearing the fez, a red cap which has for forty years been the official head-dress of the Turkish Empire, to show that he was a Turkish officer. The Bulgarians, on the other hand, wished him to wear the "stove-pipe" hat of the western world, to show that he was not a pascha of the old type. Aleko himself appears to be a thorough Bulgarian at heart, and determined to administer the province for its own benefit, so he has adopted a compromise, suggested, it is said by the Russians, by wearing the Bulgarian calpak, or fur cap of the peasantry.

Once more there are numerous reports that the war in South Africa is drawing to a close. Cetawayo has again sent in envoys to ask on what terms his surrender would be accepted. He has been told that he must disband his army, not assemble it again for five years, pay two beeves for every male subject, make over a large number of these to his disloyal chiefs who have already submitted to the British and resign a strip of his territory. It is confidently expected that he will accept the terms. Never in any land has a band of naked savages opposed such an always vigorous and often successful opposition to the invaders of their country, as have the Zulus. The resistance of the ancient Britons against Cæsar's legions was nothing to it. The Zulus have shown themselves braver and more skillful than the Britons though certainly, hardly more civilized, while the English army opposed to them, is proportionately more numerous, and infinitely more powerful than Cæsar's. Indeed it would have found much less difficulty in destroying the Roman legions than it has met with in saving itself from the Africans. The death of the French Prince Imperial, in the late skirmish will make this war historical, even if no other thing connected with it would have so distinguished it. But the army held in check now by Cetawayo is greater than the British army that defeated Napoleon at Waterloo or than that which won the battle of the Alma, in the Crimea, and nearly double the size of that which has lately brought the Afghan war to a triumphant termination.

The American consul at Lyons, France, confirms the former reports of the failure of the silk crop in France, Italy and Spain. The excitement of the speculation in silk is extreme in Lyons, Milan and and other silk markets. Notwithstanding these great failures in the silk harvest, the consul is of the opinion that in the world at large the demand will not exceed the supply and that consequently present prices cannot be sustained. The gathering of the Cuba sugar crop is completed. The product will be 115,000 tons greater than last year's crop, notwithstanding the enormous loss of cane by fire. £35,000,000 is a great deal of money. So much lies in bullion in the Bank of England. The London Times says it is the largest amount ever recorded there. In all of the money centers capital is in excessive supply. The growth of it is more rapid than the call for new uses. Business will revive and give fresh employment, but this exhibition and others like it in other cities, prove that the wages of money must fall. The increase of capital must lead to the same results as an excess in the supply of labor—to wit, lower rates. That means better returns for labor, and then a brisker demand for money; and thus the new equilibrium will be established.

Weston, the pedestrian who has been known to the public on both sides of the Atlantic for eighteen or nineteen years as a walker of long distances, has accomplished the feat of carrying off the Astley champion's belt, which Rowell took away from this city only a few weeks ago. The triumph is the more welcome because in these trials of endurance hitherto the duty of upholding the American fame has generally fallen into the hands either of pure-blooded Irishmen or American citizens of Irish parentage, thus preventing the contest from throwing any light on the much-debated question whether the stamina of the Anglo-Saxon race had undergone any diminution in this country. The interests of American pugilism are, in fact, attended to almost wholly by Irish gentlemen, and O'Leary, who brought the Astley belt to this country, and Ennis, who made such a gallant effort to prevent its being carried back by Rowell, were to all intents and purposes, Irishmen. Weston, however, is a genuine Yankee, born and bred in Rhode Island, and his making the best time on record—550 miles within six days—is a pure gain for the United States, and a consequent source of despondency to the United Kingdom, which on this occasion was represented by "Blower" Brown. But the London public, doubtless knowing what was coming, stayed away in a shabby manner from the spectacle, so that the profits on the gate-money only amount to $3,000, in contrast to the $19,000 or $20,000 carried off by Rowell from this city.

Our folks are "blowing" mightily about Hanlon's late victory over Elliott, England's champion oarsmen, but for this triumph we have even less cause for self-glorification than for the successes of our Irish-American athletes; for Hanlon is a Canadian who has whipped our best sculler.

VARIOUS.

Winterheim, a large Icelandic colony in western Minnesota, expects an addition of 300 from Iceland in August.

Senator Gordon's sheep ranch in Georgia comprises 40,000 acres. Negro convicts will enclose it with a stone wall, seven miles of which have been completed.

William A. Brewer, a lecturer on religion and temperance, married a woman of 70 at Ossipee, Mass., lived with her until he had got possession of her $700, and then ran away.

Mount Hood, Oregon, has lately been giving out volumes of smoke from a long extinct crater, where ordinarily a smell of sulphur and a slight warmth only indicate inward fire.

Dr. Spencer, a dentist at Platte City, Mo., was shot and killed by a man whose wife he had kissed while she was in his operating chair, partly under the influence of chloroform.

Packages warranted to contain the means of sure death for potato bugs, without poison, were sold at a fair in Illinois. Each contained two blocks of wood, on one of which was written, "Place the bug on this block and smash him with the other."

A terrific thunder storm passed over the central and northern part of Connecticut, from west to east, Sunday afternoon, and caused much damage to crops, corn especially being beaten down. Some trees and houses were struck by lightning, but no lives were lost. In Hartford the streets were deluged. It was the heaviest storm of the summer.

The Land Agents' Record states that the real estate sales in England, officially reported from January to April, 1877, were £3,166,065. For the period of 1878, £2,149,795; for the same period of 1879, £1,016,270. The decrease is attributed to the unwillingness of owners to sell at the low prices which prevail.

Five outlaws were hanged by a mob in Henry County, Ky., several years ago, and until lately that section was free of robbers. A new gang, however, has proved its existence by a particularly fiendish crime. Raiding on a farmer's premises at night, they murdered three persons and burned the buildings, for the sake of stealing things worth less than $500. Gov. McCreery says, in a proclamation offering a reward, that Kentucky cannot afford to let the criminals escape.

The failures of farmers are becoming alarmingly frequent in England. In 1870 they numbered 229; in 1875, 354; in 1876, 480; in 1877, 577; in 1878, 815, and in the first half of 1879, no fewer than 614. In addition, the facts are well known that farmers in many counties are now losing their capital, that landlords find great difficulty in reletting at any price, and that the remissions of rents have only met a portion of the difficulty. If the land of England becomes less and less able to compete with that of other countries in the growth of meat and cereal crops, the alteration in the conditions will have an effect not only on the persons immediately concerned, but on England as a whole.

As a general thing Ladies who make any pretentions to refinement desire to have *soft white hands*. We believe there is nothing will tend more to produce this effect than the constant use of MURRAY & LANMAN'S FLORIDA WATER mixed with the water in the basin. It removes redness and roughness. The ladies of Cuba and South America were the first to discover the extraordinary virtues of this floral water as a cosmetic and have long since discarded the use of all others.

$500 will be paid for any case that Hop Bitters will not cure or help. Doubt not.

THE MARKETS.

PRODUCE AND PROVISIONS.

NEW YORK, Saturday, June 28th, 1879.

BEANS AND PEAS.—All varieties of beans, excepting black, are weaker to sell. Holders of extra well-kept qualities and a few standard marks decline to sell lower than at our last, but there is no demand of moment for either export or local use. Green peas steady, must be choice to bring $1.85; general rates, $1.75@$1.80; Southern B. E. have sold at $2.60 per 2 bush. bag. Canadian nominal at 75c., bulk and and bond. Marrow beans, prime, $1.35; fair to good, $1.25@1.32½; medium, prime, $1.30@1.32½; fair to good, $1.20@1.25; pea, $1.20@1.32½; white kidney, $1.25@1.40; do., red, $2.05@2.80; black, $2.25@2.30.

BROOM CORN.—There has been a steady demand and the stock in store has been gradually reduced. The tone is firm for all grades and slightly in sellers' favor.

Brush and short broom, choice, ₱ lb, 5½@6½c. do., common to good, 4½@5½c.; hurl, good to choice, 4@4½c.; do., common to fair, 3½@4c.; red and crooked, 2½@3½c.

BUTTER.—Supplies are lighter, but there is an abundance of good unsold stock, and the market continues to feel the weight of the previous heavy deliveries. In a word, there are more sellers at the inside rates than at the extremes. The outlook is for a cheap season; local consumption will fall off as the summer advances, and from present appearances shippers will not render the coveted aid in working down the surplus. The light exportation of the week is partly accounted for by the fact that cold room on the steamers has been scarce; and there has been very little done for foreign use during the past three days. State half tubs still turn out fine. The market and grocery trade is using State very freely in preference to Western, as at prices for either there is plenty of margin for retail profits.

State pails and half tubs, choice, 13½@14c.; good to prime, 12@13c.; fair to good, 10@12c.; firkins, choice yellow, 15c.; fair to good, 13@14c.; Welsh tubs, choice, 13@14c.; good to prime, 12@13c.; fair to good, 10@12c.; poor, 7@9c.; State creamery, best invoices, 16c.; good to prime, 15@15½c.; sweet cream, best, 15@15½c.; fair to good, 14@15c.; Western, best invoices, 15c.; good to prime, 13@13½c.; fair to good, 11@12c.; imitation creamery, 11@12c.; Western dairy, best invoices, 10@11c.; good to prime, 9½@10c.; fair to good, 8½@9½c.; poor to fair, 7½@8½c.; Western, factory, best invoices, 10c.; good to prime, 9@9½c.; fair to good, 8@9c.; poor to fair, 7@8c.; grease butter, 3½@4½c.

Receipts, for week, 42,743 pkgs.
Exports, 10,607 do.

CHEESE.—Low interior prices have given buyers here a position of dictation, and they have to be met, as the quality of general stock is such as must be suddenly disposed of.

State factory, full cream, fine colored, 6@6½c.; fine white, 6@6½c.; good to prime, 5@5½c.; fair to good, 4@5c.; half-skimmed, 3@4½c.; skimmed, 2@3c.; farm dairy, fine, 5½@6c. good to prime, 5@5½c.; fair to good, 3½@4½c.; skimmed, 2@2½c.; Western, factory, full cream, flat, fine, 5½@6c.; good to prime, 4½@5½c.; fair to good, 4@4½c.; half-skimmed, 3@4c.; skimmed, 1½@2½c.

Receipts for week, 96,545 boxes.
Exports, 91,000 do.
Liverpool cable, 35s@36s.
Steam, 35s.

DRIED FRUITS.—Market unimportant at this period of summer. All items more or less nominal.

Apples, Southern, sliced, 2½@3½c.; quarts, 2@2½c.; evaporated, fancy, in cases, 10@11c.; fair to good, 8@9c.; State, sliced, good to prime, 2½@3½c.; quarters, 2½@3½c.; Western, quarters, 2½@3½c.; quarters, 1877, 1½@1½c. Peaches, N. C., peeled, choice, 9@10c.; good to prime, 7½@8½c.; Georgia, peeled, choice, 8@9c.; peeled, fair to good, 6@7c.; peeled, pr. to fair, 5@6c.; unpeeled, halves, 3@3½c.; quarters, 3c. Plums, State, 1878, black, 8@10c. Blackberries, 1878, prime, 4½@5c.

Exports since June 1st, 21,844 bbls.; in '78, 8,311 do.

EGGS.—Receipts for week, 7,849 bbls.; do., last week, 9,078 do. Trade is extremely slack considering the small supplies and the easy range of prices; even best N. J. have declined. The weather has turned hot and unfavorable for carrying stock. Near points, 15c.; State and Penn., 13½c.; Canadian, 13½@14c.; Western, choice, 12@12½c.; poor, 11c.

FRESH FRUITS.—The list has become quite varied during the week. The weather is warm and most items have to be pushed for a quick sale. Early Hawes apples, Southern, ₱ bbl., $2.50@$3; common green, 50c.@$1.50. Strawberries are almost over; Oswego, crates, 9c.@13c. qt.; Oneida, 7c.@10c.; choice up-river, 11c.; other, 6c.@8c. Antwerp raspberries, 8c. qt.; cups, 10c.; native do., 4@5½c.; black caps, 6@11c. Cherries, plenty for the moment; fancy table, 9c. ₱ lb.; good, 6@8c.; sour and common, 3@5c. Currants, 5@6c. Gooseberries, $1.75@$2 ₱ bush. Whortleberries, 14c. qt.; boxes, $2@2.50; wild Blackberries, Southern, 8@10c. qt. Flor. Watermelons, $25@35 per 100. Geo. goose plums, ½ bush. pkg., $2@2.50. Bush plums, qt., 5@6c. Prime Geo. peaches, $2@3 ½ bush. crate. N. C. Hales, $1.50@2.50. Peanuts quiet, but there has been a fair trade. Va. hand-picked, $1.40@1.45; prime to fancy, $1.27½@1.35; good to prime, $1.20@1.25; shelled per lb., 5½@5¾c. Hot-house B. Hamburg and Muscat Grapes, 75c.@$1 per lb.; Sweet Water, 50@75c.

FLOUR.—The flour market closes quiet but firm for the low grades, and quiet and more or less depressed and irregular for the better grades. The features of the market were in fact about the same as for several days past. Corn meal was in moderate demand and steady. Quotations:

Flour, No. 2, per 196 lbs., $2.50@3.30; superfine State and Western, $3.50@3.90; shipping extra State, etc., $4@4.15 Western spring X, $3.95@4.20; Western spring XX and XXX, $4.25@6; "patent" Minnesota, $5.50@8; Wisconsin and Minnesota rye mixed, $4.20@ Western winter shipping X, $4.35@4.65; Western XX and XXX, $4.75@6; city shipping extras and fancies, $4.15@5.25; Southern shipping extras, $4.50@5; do., bakers' and family brands, $5.25@6.25; rye flour—superfine State, $3.30@3.50; corn meal—Western, etc., $1.90@2.35; do., Brandywine, $2.50@2.55.

GRAIN.—The wheat market was irregular: red winter was easier, but No. 2 spring and generally held at 1c. advance. There was only a small business, however, either on the spot or for future delivery. Sales on the spot at $1 18 for car lots of No. 2 red; $1 15 for ungraded red; $1 15 for No. 3 spring; 92½@95c. for No. 3 do.; 75c. for rejected do.; $1 14½ for mixed winter; $1 12 for ungraded red State, and $1 16 for extra white. Futures, $1 15@$1 14 for No. 2 red for July, $1 00 for Aug. and $1 10 for No. 1 white for Aug. Corn was irregular, opened lower and closed a shade firmer; trade was quiet throughout. Sales on the spot at 40@43½c.; for ungraded mixed, 43c.; for steamer do., 43c.; for No. 2 do., 47c; for low mixed, 44½@45c; for yellow Western and 49c. for No. 2 white. For future delivery sales at 42½c.; for steamer for June; 44c for do. for Aug., and 45½c. for No. 2 for do. Rye was dull and nearly nominal at 61½c. State and Canada, and 60@61c. for Western. Oats were dull and lower. Sales including Western and State mixed at 35@38½c.; do., white, 37½@42c.; No. 2 mixed, 37½@38c.; No. 2 white, 38@38½c.

VISIBLE SUPPLY OF GRAIN AT THE PRINCIPAL POINTS OF ACCUMULATION.

	1879. *June 21.*	1879. *June 14.*	1878. *June 22.*
Wheat, bush	13,893,032	13 930,328	5,352,467
Corn, "	11,516,571	11,666,721	8,151,349
Oats, "	2,051,644	1,981,291	1,886,883
Barley, "	441,396	531,285	1,044,832
Rye, "	434,402	458,265	404,100
Totals	28,336,049	28,567,890	16,839,631

HAY AND STRAW.—The market is quiet, but receipts run light and there is no change in prices. Receipts of new hay expected next week.

Hay, prime timothy, per 100 lbs., 75@80c.; medium, 55@70c.; shipping grades, 40@50c.; clover, good, 45@50c.; inferior, 35@40c. Straw, No. 1 rye, 50@55c.; No. 2 rye, 35@45c. Oat straw, 35@45c.

Exports since Jan. 1st, 32,464 bales; in '78, 34,091 do

HOPS.—The tone of the market continues strong. Brewers buy fairly and exporters have shown a better disposition to operate. English advices report the fly as having appeared in the yards, and the markets as exhibiting a better tone for American hops. State advices continue to report an unfavorable appearance of the vine and a reduced acreage. It is said that Madison Co. alone has 500 acres less this year than last. Prices in the interior are higher than here. We note a fancy sample sold to a brewer at 14c., but such lots are very rare. To bring that rate the hops must be perfect in all respects.

Crop of 1878—State, strictly choice, 12@13c.; good to prime, 8@10c.; fair to good, 7@9c.; poor to fair, 5@7c.; good to prime, 3@5c.; poor to good, 2@3c.

POULTRY AND GAME.—In cooped stock, chickens show the most marked decline. Fowls sold high early in the week, but are drooping again with free receipts. Turkeys dull and low. Geese in light demand. Spring ducks, 60@75c. @ pair.

Chickens, best, per lb., 18@19c.; small, 14@17c.; fowls, N. J., 11½@13c.; Western, 10½@11c.; Southern, 10@10½c.; roosters, old, 5@6c.; turkeys, 8½9½c.; ducks, choice, ₱ pair, 60@70c.; others, 30@45c.; Geese, N. J., Pa. and State, $1.25@1.50; others, 75c.@$1.12; pigeons, 35@40c.

Prime dressed is steady, with moderate receipts. Turkeys, prime small, 14@18c.; fair to good large, 10@11c.; chickens, Phila., 20@25c.; State and Western, 17@19c.; fowls, N. J., choice, ₱ lb., 13@14c.; State and Western, dry-picked, 12@13c.; scalded, 10@12c.; Phila. dry-picked, 14@15c.; ducks, spring, Phila. dry-picked, ₱ lb., 20@23c.; spring, small, 15@18c.; old, Phila. dry-picked, 12@14c.; squabs, dressed, ₱ doz., $2@2.25.

Wild pigeons are the principal birds in market. Stall-fed, $2@2.25 per doz; baited, $1.75; flight, $1.50 Ice-house, Eng. snipe and plover, $2@2.25 per doz., small snipe, 4@50c. Frogs' hind legs, 12@18c. per lb; Squabs, per doz., $2@2.25.

PROVISIONS.—The following are the closing quotations. There is a fair spot business; futures in pork easy and dull.

Pork—Mess, Western old, per bbl., $9.25@9.50; do. new, $10@10.25; prime new, $9.75@10; extra do., do., $8.50@8.75. Lard—Steam Western, per 100 lbs., $6.35@6.37½; prime city, $6.¾@6.2¾. Hams—Smoked city, per lb., 9½@10½c.; pickled, Western and city, 8½@9½c. Shoulders—Smoked, city, 5½@5¾c.; pickled, 4½@4½c. Rib bellies, pickled, 5@6c. Bacon—Long clear, Western and city, 5@5½c. Beef—Western, plain mess, $9.50@10.50; extra do., $10.50@11.50. Beef hams, per bbl., $17.25@17.75.

TOBACCO.—Seed leaf in moderate demand and sales for the week are only 765 cases, including Pennsylvania old crop, 9@18c., and N. E. do., 13@22c.; but mostly crop of 1878 at private prices. Kentucky remains rather slow of sale and business for the week is limited to 600 hhds., of which 450 for export. Prices are steady; lugs 3@5c. and leaf, 5½@14c.

VEGETABLES.—Norfolk is sending heavy supplies of new potatoes. Some lots are too hurriedly shipped, that is, too carelessly packed. Well-culled lots from any point get first call from buyers. L. I. new quotable at $3@3.25 ₱ bbl. Md. and Norfolk choice, $3@3.50; culls, $1@1.25. Over 30,000 barrels arrived per Friday's steamers. Old potatoes have no future interest. Garden stuff has an easy tone. Asparagus about run out. It has been largely canned this season. Cucumbers, Norfolk, ₱ crate, $1.25@1.50. Tomatoes, Norfolk, ₱ bu. crate, $2@2.50; Sav., do., $1.50@2; Fla., do., $2@2.50. Egg plant, Fla., $1.50@2.50. Beans, Norfolk round, ₱ bbl., $1.75@2; L. I. flat, ₱ bag, $1.25@1.50. Squash, Norfolk, ₱ bbl., $1.50. Green Peas, L. I., ₱ bag, $1.12@1.25. Asparagus, Oyster Bay, ₱ doz., $1.25@2. Cabbage, Jersey, ₱ 100, $4@6; Norfolk, ₱ bbl., $1.75@2. Onions, Va. and Md., ₱ bbl., $3.75@4; Bermuda, ₱ crate, $1.75 Beets, Jersey, ₱ 100 bunches, $1@1.25. Turnips, Jersey, new, ₱ 100 bunches, $1@2. Carrots, ₱ 100 bunches, $1@1.50.

WOOL.—There is a fair demand from manufacturers and prices continue to be held firmly. Receipts are quite free and holders generally free sellers at current rates. California wools a very fair movement and rule at steady figures, but our outside quotation is rather extreme, except for exceptionally choice lots. Texas spring grades are plenty and rather quiet at the rates asked. Pulled wools firm.

Ohio, Pennsylvania and West Virginia—X to XX, 38@40c.; No. 2 to No. 1, 36@42c.; coarse, 34@36c.; combing, 38@44c.

State and Western—X to XX, 36@38c.; No. 2 to No. 1, 35@40c.; coarse, 32@35c.; combing, 38@42c.; combing unwashed, 30@36c.

Southern—Medium, unwashed, 30@34c.

LIVE STOCK MARKETS

NEW YORK, Saturday, June 28.

BEEVES.—Receipts for the week, 10,976 head; do., last week, 11,598 do. There has been a weak, uninteresting market. Even with moderate receipts, some prime fat stock was left over. Liverpool quotes American beef 7d. per lb., which is favorable for exportation. Extreme range of prices for the week, 8@10c.; sales chiefly at 8½@9¼c.

COWS AND CALVES.—A car-load of Md. cows sold at $32 per head; a few State at $30@50, mostly at $41; an extra milker might bring $60, but it will not pay to seek customers.

VEAL CALVES.—Trade is only fair at 4½@6½c. for fair to extra milk and 2¾@3¾c. for buttermilk.

SHEEP AND LAMBS.—Receipts for week, 34,772 head; do. last week, 33,739 do. Supplies proved heavy, as 20 cars were unsold at the close; demand slight; quotations, 3½@4½c.; lambs, Western, Southern and State, 5@6c.; N. J., 6½@7c.

HOGS.—Receipts for week, 26,648 head; do. last week, 25,539 do. No sales alive; nominal rates given at $4@$4.20 for 100 lbs.

City-dressed, $5.37@5.87.

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R. W. EMERSON.

INSECT lover of the sun,
Joy of thy dominion!
Sailor of the atmosphere,
Swimmer through the waves of air,
Voyager of light and noon,
Epicurean of June,
Wait, I pray thee, till I come
Within earshot of thy hum—
All without its martyrdom.

When the south wind in May days,
With a net of shining haze
Silvers the horizon wall;
And, with softness touching all,
Tints the human countenance
With a color of romance;
And infusing subtle heats
Turns the sod to violets—
Thou in sunny solitudes,
Rover of the underwoods,
The green silence dost displace
With thy mellow breezy bass.

Hot midsummer's petted crone,
Sweet to me thy drowsy tune,
Filling of countless sunny hours,
Long days, and solid bank of flowers,
Of Gulfs of sweetness without bound,
In Indian wildernesses found;
Of Syrian peace, immortal leisure,
Firmest cheer and bird-like pleasure.

Aught unsavory or unclean
Hath my insect never seen,
But violets and bilberry bells,
Maple sap and daffodils,
Clover, catchfly, adder's tongue,
And briar roses dwell among:
All beside was unknown waste,
All was pictured as he passed.

AN ALLEGORY.

BY M. A. O.

DOWN among the blue-grass meadows and waving cornfields of old Kentucky I first saw the light. At that time when the early frost first tints the leaves all crimson, golden and brown—when the cricket underneath the door-stone sings his melancholy song, and the old farmers say one to another, "cool days for September." My advent into the world was in exact keeping with Topsy's idea of originality; I was not born, "I growed." Without father or mother, the great mother of all looked with compassion on my impotent condition, and wrapped a fleecy snow-white blanket about me, and I was rocked to sleep in the great cradle of the universe, and slept for months. I awoke with the realization that a great change was going on about me. I had outgrown my first feebleness, and the spotless cloak of infancy was exchanged for a dress of most imperial green. As the days sped by I grew in strength, and the rich, variable luster of my dress became the admiration of all. In its soft, low rustle, the farmer thought he heard sweet music.

But a rapid change took place. The torrid summer sun looked fiercely down upon me until my dress partook of the golden hue of that great luminary, when I stood forth like that sun himself, in pure, pale gold. Now more than ever before was my beauty bespoken by men. The uprightness of my bearing, the graceful yet modest poise of my head, and each little movement that I made, were objects for their admiration.

Thus passed those balmy, blissful days, which were by far of too short duration, for even while men bespoke my many charms, the grasping greed of their nature coveted my richness. Anon came a day of great confusion. Men went hurrying here and there, their shouts mingling with the tread of horses, and the clatter and clash of machinery, and ere long cruel irons forever separated me from that kind foster-mother, from whose bosom I had drawn the nourishment that supported and strengthened me, until I attained my full size. A new phase of life was before me. Helpless and prostrate I lay beneath the scorching rays of an August sun, when the strong arms of a man gathered me for a moment in a close embrace, while he bound me to others of my kind. We were then formed into companies and left standing on the field where we were slain. A couple of days later the hard-handed disciples of Ceres in the most uncourteous manner thrust our little company into rude wagons, and conveyed us to a homely building built of rough-hewn timbers and unplaned boards.

My stay here proved to be only the first stage of my bondage among mankind. The days passed until they numbered a month, and, only the patter of the raindrops on the roof and the shriek of the night-owl broke the monotony of my daily life. Then came another change. Human hands carried me into the very jaws of a riotous, monster who speedily disrobed me of my bright yellow dress, and I was cast aside arrayed only in a scanty covering of an unostentatious auburn color. My captors next sent me to a distant city, where without ceremony I was hustled on board a noble steamer. There were no parting handshakes, no good-byes, such demonstrations are not for my kind. Soon the bell rang out the final warning "all aboard" and we moved away from the wharf, and up the broad river, whose banks on either side presented an ever changing panorama of nature. We soon passed within the shadows of a flourishing town, and anchored beside a huge stone structure. A sound came from within like the dull, low, rumble of distant thunder, which increased to a deafening roar as I passed over the threshold. There I realized my utter helplessness. I was subjected to excruciating torture, and brought in contact with base material hard as the nether millstone. I was beaten and bruised until my heart was crushed within me and my whole nature changed. From this rack of torture I came forth clothed in pure white, and prepared for my final journey to the great metropolis.

Once on board the cars, we sped across the country like the shadow of a cloud, and my destination was soon reached. Here I was removed to a department where various apparatus for transfiguration were arranged, and here I met my appointed fate. By prolonged mingling with materials, heretofore unknown to me, my whole structure became changed. My particles were united into one plastic body, in which condition I was thrust into a fiery furnace. But the fervent heat, instead of proving my destruction as I had expected, tended only to increase my proportions, and to perfect my complexion.

The hour of my deliverance arrived. I now was clothed in a hard, shell-like, brown dress, and through my whole being pervaded a most exquisite perfume, which seemed to attract a little, hungry newsboy, who bought me of my master for a penny. To satisfy his hunger was the sole reason for which I had suffered so many transformations, been through the hands of so many different people, and traveled hundreds of miles—it was the object of my life. Thus ends the career of a kernel of wheat.

A WONDERFUL PET.

You have heard of wonderful dogs and horses by the score, but I fancy you have not often heard of a pet elephant. In India, where elephants are numerous, they are employed in different kinds of service, and I will now tell you a true story of one who was a pet.

Old Soup (for that was his curious name) was born more than a hundred years ago, and he lived about two years since on the banks of the river Ganges, near the city of Cawnpore. The story of his life would be a very interesting one, if he could only tell it; but, you see, he has outlived all his early friends, and so there is no one to tell it for him.

When Old Soup (or *Soupramany*, as the natives called him) was *young*, he was trained for war; and used to go out fighting and hunting with his black masters, and many a savage battle did he have with the hard-skinned, one-tusked rhinoceros.

Well, Old Soup was one day working with a number of other elephants and some soldiers in loading a ship with bags of rice. Major Daly was the officer in charge of the soldiers, and Old Soup and the other elephants belonged to him. This was just about the time of Old Soup's hundredth birthday, and as the elephants, one by one, marched up to the ship's side and delivered their bags of rice, Major Daly's little boy and girl stood watching the old fellows at their work.

What was the reason I cannot say—whether it was the heat of the sun, or the hardness of the work, it is impossible for me to tell—but all at once one of the elephants began to throw his bags of rice into the river, and the major soon saw that the animal had gone mad.

The mad elephant, having killed his keeper, turned and ran towards the major's children, who were hurrying with their nurses to get in-doors. How they would have fared if they had been left to themselves I cannot say; but old Soup was there, and when he saw the mad elephant chasing the major's children, he dashed in between them and fought the mad creature until he laid him dying on the ground.

It was a terrible fight. It lasted for an hour and a half; and though old Soup was conqueror in the end, he had many wounds to remind him of the struggle. His ears were badly torn, and his head bruised, and one of his tusks was broken off short; but he saved the lives of his master's children, and I am not surprised that they made him a pet after that.

But he became something more than a pet: he became a nurse as well, and often would he take the children out by the hour together; and the major said, over and over again, that he would far rather trust his children with old Soup than with any number of Hindoo nurses. He became quite a fisherman, too, and might often be seen on the banks of the Ganges helping his little friends to catch the golden teneh which abound in that river. One of the boys would bait the hook for him and take off the fish, but he would hold the fishing-rod with the tip of his trunk, and would land the fish as well as any one.—*Children's Magazine.*

THE HORTICULTURAL CLUB.

"Dolly Dutton" Sweet Corn.

I HAVE sent a package of sweet corn of the above new variety to each member of the club whose name and address I have on my list. It is said to be the earliest sweet corn ever introduced. It is a very dwarf growing sort, the stalks reaching a hight of from three to four feet. The ears are small, averaging from four to five inches; the kernels are of medium size, tender, very sweet and delicious. It ripens from seven to ten days earlier than the Early Minnesota. Plant it soon after you receive it, one kernel in each hill, and the hills one by two and one-half feet apart. Give it the best of care and cultivation, and be sure you save some for seed for next year. I shall be pleased to receive reports of how you planted it, and how your gardens are prospering. New members can join at any time. UNCLE MARK.

WHAT SHE THINKS OF THE CLUB.

DEAR RURAL:—With many wishes for your success among young and old, I think this Children's Club is a good thing, and will help both the little ones and you. I send the names of my two boys and a sister, one only six years old. They desire to join the Horticultural Club, and I hope to make farmers of them—to make them love as well as live by the farm. Only a few months from the city, farm life has many surprises, and I hope it will always charm as now. MRS. M. S. MILLER.
Norfolk Co., Va.

LETTERS FROM BOYS AND GIRLS.

UNCLE MARK:—I see in the last number of the RURAL, that Uncle True has given up his purposed voyage. I have spent many an idle minute in imaginary voyages, and find it quite pleasant. The only book I need is Eclectic Geography No. 3; thus I make that branch of study very interesting, which is by many considered dull. I am very fond of vegetables, but care but little for flowers. I think a rich source of pleasure and profit for the cousins, would be to have a swarm of bees. Procure, if possible, Italians, in a good movable frame hive, and never handle them without smoke, which makes them harmless. If you have no smoker, twist a roll of cotton rags an inch thick, light one end and hold near the entrance, and blow the smoke into the hive for a moment or so until they set up a peculiar hum, then wait a moment and blow again; they are now ready to handle. If any elevate their sting, give them some smoke. Respectfully yours,
Pickaway Co., Ohio. ALLEN LEWIS.

The Little Carpenter.

OF course all the cousins know what a bee is, but I don't know whether they have all noticed the wonderful home of the carpenter-bee. The carpenter-bee is rather pretty and has a sort of auger with which it bores in wood. Its house is quite a wonder, the doorway is round, just the size of the bee's body and opens into a long passage from which smaller openings lead into the cells. In these cells the eggs are laid. Along with the eggs are put a number of spiders, on which the young bee lives till it is large enough to come out. Before the young bees are full grown the old bee gets some clay with which she fastens up the doorway and then leaves the young bees to make their own way out. EDITH H. TAPLIN.
BERGEN CO., N. J.

[I am inclined to doubt the carnivorous nature which Edith attributes to this bee. The larvæ feed upon pollen or bee-bread the same as the larvæ of other bees.] U. M.

DEAR UNCLE MARK:—I would like to belong to the Horticultural Club. I love flowers and like to take care of them. I have some of my own. Mamma has some very nice plants, grown from seed sent by the RURAL. My brothers have land every year to grow crops for pocket money. They raise pop corn, potatoes and beans. I will ask them to join the Club and tell you how much they make. I can catch the horses, ride the colts and drive the milk to the factory. I have a little pet kitten, and I am eleven years old. Please give my love to Uncle True and the Editor. I am going to the lot to pick potato bugs now. Your affectionate niece,
Onelda Co., N. Y. ALICE SPARROW.

[The Editor and Uncle True thank Alice for her love and send her their affection in return.]

DEAR UNCLE MARK:—We have taken the RURAL only this year. We have been living in the country only a few months, and have not had opportunity to have much of a flower garden. This fall we hope to have a flower garden. Unfortunately, the moles have destroyed most of our RURAL flower seeds. We hope the loss will teach us the lesson to be more careful. Our lovely yellow Jasmine, low and tall Ivy grow in wild profusion, and have been excelled but by few garden flowers. I would have been very glad to have been a recipient of your new radish seed. I would like to join your traveling party also: or has it been abandoned?
Norfolk Co., Va. HELEN J. WILSON.

DEAR UNCLE MARK AND COUSINS:—I want to join your Horticultural Club, if you will accept me. I like the RURAL, oh, ever so much, and especially the letters from my dear cousins. I read of their earnings, which induces me to tell that I, a twelve-year-old school girl, with only two years' experience in farm life, have sold $6 worth of chickens. I thought I did pretty well, but perhaps the cousins will laugh at such a small sale after reading Robert Harbison's letter. My garden is doing nicely, and my watermelons thrive well under the directions given in the RURAL. I like Miss Jack's letters, and would like to hear again from Miss Blair. FRANKIE M. BROOKS.
Dane Co., Wis.

DEAR UNCLE MARK:—I am a little girl, ten years old. I go to the academy, where I read in the fifth reader and study arithmetic, and Colton's geography, grammar, spelling, writing and drawing. I have a little sister six years old. We have a flower bed this year, ten feet long and four feet wide, filled with Pansies, Verbenas, Phlox, Petunias and a number of other plants, with some of the RURAL seeds. I am sorry that I am too late for the package of radish seeds. Please enter my name and my sister's on your Horticultural Club.
Oswego Co., N. Y. ETTIE ROBBINS.

DEAR UNCLE MARK AND COUSINS:—It would give me great pleasure if you would receive me into your circle. I would like very much to join your Horticultural Club. I have taken great interest in our little corner. I have a vegetable garden and am also a great lover of flowers. Uncle Mark, I think that story, "An Ugly Girl," is a splendid story. This is the first letter I have written to Uncle Mark, so please do not throw it into the waste-paper basket. LAKE SIDE.
Wesleyville, Pa.

UNCLE MARK:—Please take me into your circle of boys and girls. I will try not to trouble you too much. I like flowers very much, although I have but a few house plants, but I have sown a good many seeds, and hope they will do well. I think it would be nice for the members of the Horticultural Club to exchange plants with one another. Please put my name on the list of the Horticultural Club. I am thirteen years old. Yours truly,
Madison Co., Iowa. IDA M. WILSON.

Sabbath Reading.

"FOR MY SAKE."

THREE little words, but full of tenderest meaning;
Three little words the heart can scarcely hold;
Three little words, but on their import dwelling,
What wealth of love those syllables unfold!

"For My sake" cheer the suffering, help the needy,
On earth this was My work, I give it thee;
If thou wouldst follow in thy Master's footsteps,
Take up My cross, and come and learn of Me.

"For My sake" let the little ones be tended,
All that I gave unto thee safely keep;
I took them in My arms, received, and blessed them,
Do now the same for Me, "Feed now My sheep."

"For My sake" let the harsh word die unuttered
That trembles on the swift impetuous tongue;
"For My sake" check the quick rebellious feeling
That rises when thy brother does thee wrong.

"For My sake" ever press with patience onward,
Although the race be hard, the battle long;
Within My Father's house are many mansions,
There thou shalt rest and join the victor's song.

And if in coming days the world revile thee,
If "for My sake" thou suffer pain and loss,
Bear on faint heart, thy Master went before thee,
They only wear His crown who share His cross.

O Thou, dear Lord, who walked on earth incarnate,
Fain would we follow, but we fear to fall;
Lo! at Thy feet we bend, Thy aid imploring,
Our only plea that "For Thy sake" we call.

[*National Baptist.*

ST. PAUL AND INGERSOLL.

THE most eloquent of materialists, Col. Ingersoll, Monday, delivered a discourse over the remains of his brother. Side by side with his oration we give the words of St. Paul:—

So also is the resurrection of the dead. It is sown in corruption, it is raised in incorruption:—

It is sown in dishonor, it is raised in glory; it is sown in weakness, it is raised in power;—

It is sown a natural body, it is raised a spiritual body. There is a natural body, and there is a spiritual body.

And so it is written, The first man Adam was made a living soul; the last Adam was made a quickening spirit.

Howbeit that was not first which is spiritual, but that which is natural; and afterward that which is spiritual.

The first man is of the earth, earthy: the second man is the Lord from heaven.

As is the earthy, such are they also that are earthy: and as is the heavenly, such are they also that are heavenly.

And as we have borne the image of the earthy, we shall also bear the image of the heavenly.

Now, this I say, brethren, that flesh and blood cannot inherit the kingdom of God; neither doth corruption inherit incorruption.

Behold, I show you a mystery; We shall not all sleep, but we shall all be changed.

In a moment, in the twinkling of an eye, at the last trump; for the trumpet shall sound, and the dead shall be raised incorruptible, and we shall be changed.

For this corruptible must put on incorruption, and this mortal must put on immortality.

So when this corruptible shall have put on incorruption, and this mortal shall have put on immortality, then shall be brought to pass the saying that is written, Death is swallowed up in victory.

O Death, where is thy sting? O Grave, where is thy victory?

The sting of death is sin; and the strength of sin is the law.

But thanks be to God, which giveth us the victory through our Lord Jesus Christ.

MY FRIENDS:—I am going to do that which the dead oft promised that he would do for me. This loved and loving brother, husband, father, friend, died where manhood's morning almost touches noon and while the shadows still were falling towards the West. He had not passed on life's highway the stone that marks the highest point; but being weary for a moment, he laid down by the wayside, and using his burden for a pillow, fell into that dreamless sleep that kisses down his eyelids still. While yet in love with life and ruptured with this world he passed into silence away. This brave and tender man in every storm of life was oak and rock, but in the sunshine he was vine and flower. He was the friend of all heroic souls. He climbed the hights and left all superstitions far below while on his forehead fell the golden dawning of the grander day. He loved the beautiful, and was with color, form and music touched to tears. He sided with the weak, and with a willing hand gave alms. With loyal heart and with the purest hands he faithfully discharged all public trusts. He was a worshiper of liberty, a friend of the oppressed. A thousand times I have heard him quote these words: "For justice all place a temple and all season Summer." He believed that happiness was the only good reason, the only torch, justice the only worshiper, manhood the only religion and love the only priest. He added to the sum of human joy, and were every one for whom he did some loving service to bring a blossom to his grave he would sleep to-night beneath a wilderness of flowers. Life is a narrow vale; we strive in vain to look beyond the hights; we cry aloud, and the only answer is the echo of our wailing cry. From the voiceless lips of the unreplying dead there comes no word, but in the night of death Hope sees a star and listening love can hear the rustle of a wing. He who sleeps here when dying, mistaking the approach of death for the return of health, whispered with the latest breath, "I am better now." Let us believe, in spite of doubts and dogmas, in spite of fears and tears, that these dear words are true of all the countless dead.

And now, to you who have been chosen from among the many men he loved to do the last, sad office for the dead, we give his sacred dust. Speech cannot contain the love we bear. There was, there is, no gentler, stronger, manlier man, and now for wife and children, for myself and mine, we tender to you, one and all, our dearest life.

Which does the reader prefer?—*New York Mail.*

PERSONAL ITEMS.

General Wood, one of the British commanders in the Zulu war, has never undressed or had his boots off, save for his bath, since the 10th of January last.

Daniel Hayes, grandfather of the President, was once carried away to the frontier of Canada and kept a prisoner for two years by the Indians, in retaliation for a boyish freak in abbreviating the tail of a dog. He is buried in the old cemetery at Granby, Conn.

General Grant, who will reach San Francisco in August, expects to remain on the Pacific coast for several weeks, and will then go to Galena and stay until cold weather. He has not decided where to spend the winter, but may go to Florida and Havana.

The three children of Senator Hill, of Colorado, are young persons gifted with great health and strength. "I ascribe their fine development to their being allowed plenty of sleep in their childhood, and never being allowed to keep late hours," said the Senator to some one remarking upon their beauty.

James Palmer went into an undertaker's shop at Riverton, Va., and got measured for a coffin, which he said was for a man exactly his size. "Have it ready this afternoon," he said, "for the corpse will be ready by that time." Then he went to a railroad track near by, lay down on it, and let a train run over him.

Senator H. W. Blair, the newly-elected Senator from New Hampshire, has taken his seat. He is a young man, not over 45 years of age, tall, slender, and, with the exception of chin whiskers, looks very much like Senator Don Cameron. He was cordially greeted by his fellow-Senators and many members of the House.

Mary Clemmer says that no men in Washington public life have changed so rapidly in appearance as Conkling, Carpenter and Blaine. "While men like Senators Hamlin and Morrill do not look a day older than they did ten years ago, these three men, who are more than twenty years younger, have grown swiftly old by their sides."

Senator Conkling, says a correspondent, probably pays more attention to his physical condition than any other Congressman, regulating his diet, exercising, and abstaining from strong drink and tobacco. He thus preserves his manly form, though his Hyperion curls are rapidly disappearing, including the little top-knot which used to point heavenward.

On the occasion of Sir Garnet Wolseley's departure for the war among the Zulus about three hundred persons assembled at Bristol, England, at midnight to meet the express train that carried him. The enthusiastic crowd, says the London Truth, fought for a shake of Sir Garnet's hand through the window (little witting that a lively member of the staff was holding out his hand to save his chief) until the train left the station.

In one of the four letters written on the last day of his life, Charles Dickens disclaimed irreverent intention in any scriptural reference in his works, and added: "I have always striven in my writings to express veneration for the life and lessons of our Saviour, because I feel it; and because I re-wrote that history for my children, every one of whom knew it from having it repeated to them, long before they could read, and almost as soon as they could speak. But I have never made proclamation of this from the house-tops."

No one can be sick if the stomach, blood, liver and kidneys are well. Hop Bitters keeps them well.

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10 " " 750.
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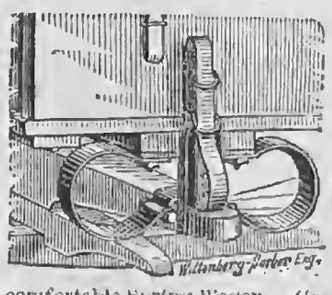
FOR FARM AND FREIGHT WAGONS.



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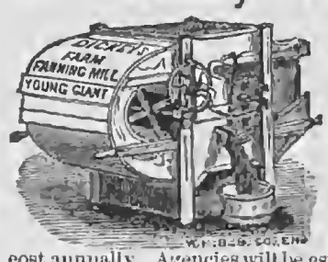

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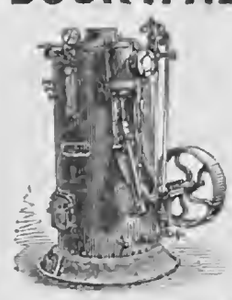

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These lands lie in the great wheat belt of the North-West, and are equally well adapted to the growth of other grain, vegetables, etc. The climate is unsurpassed for healthfulness.
They are Free from Incumbrance.
Guide Book, Maps, etc., containing full information, sent free.
CHAS. E. SIMMONS, Land Commissioner,
Gen'l Offices C. & N.W. Ry Co., CHICAGO, ILL.
Mention this paper in writing.

Miscellaneous.

NEW YORK STATE FAIR, 1879. — The N. Y. State Agricultural Society will hold its
39th Annual Cattle Show
and Fair, at UTICA, opening on MONDAY, SEPT. 8th, and closing on FRIDAY, SEPT. 12th.
ENTRIES CLOSE AUGUST 9th,
EXCEPT, AS USUAL, FLOWERS AND FRUITS.
The PREMIUM LIST is now printed. Copies will be mailed to all recent Exhibitors immediately, and to all other persons applying for them. Address
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Albany, N. Y.

AGENTS WANTED New Devotional Work. By President Champlin. Will be bought by almost every Christian family. Circulars free. Address Am. Pub. Co., Hartford, Conn.

$777 A year and expenses to agents. Outfit Free. Address P. O. VICKERY, Augusta, Maine.

It is a mistake to suppose that any department of a paper may be slighted. The most important information is to be found, at times, under the guise of an advertisement; and it is agreeable to the advertiser and a courtesy to the publisher to mention the source of your information—in other words, to mention the paper.

THE BOREL & COURVOISIER SWISS WATCHES
HAVE BEEN AWARDED
THE GOLD MEDAL

at the Paris Exposition of this year, based on the greatest superiority of performance during the test made manufactured of the best material and finished by skilled hand labor or beyond peradventure. Messrs. B tion in prices, so as to bring their Great care is taken in the finishing these adjusted for railroad use. Call improved B. & C. Watches. The relative merits of Swiss Watches, as manufacture. Can a country that *Hundred* years be ignored? Give and they will demonstrate to you you to institute an impartial com-

The Jury of Awards' decision was workmanship and extreme accuracy by the Judges. These watches are and made with improved machinery, thus insuring an accurate time-keep- & C. have made a still further reduce- watches within the reach of all of their movements, particularly on your jeweler and ask to see the public is asked to investigate the compared with those of American has made watches for the past *Two* the Borel & Courvoisier fair play, that none can excel them. We ask parison before purchasing.

QUINCHE & KRUGLER
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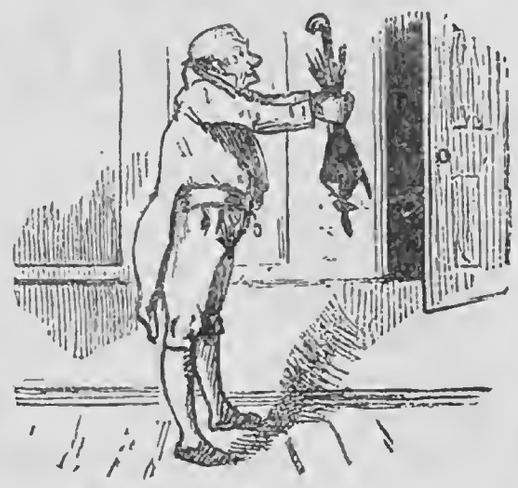
WHAT CAME OF A SUMMER SHOWER.

2. I wonder who that is behind the tree."

3. It was so lucky he had an umbrella, even after the rain left off.

1. It was coming on to rain, and she took shelter under a tree. Presently a footstep was heard.

4. It was solemnized in the village church, and the villagers attended.



5. "Confound your impudence," he exclaimed, twelve years later; "it was all your doing."

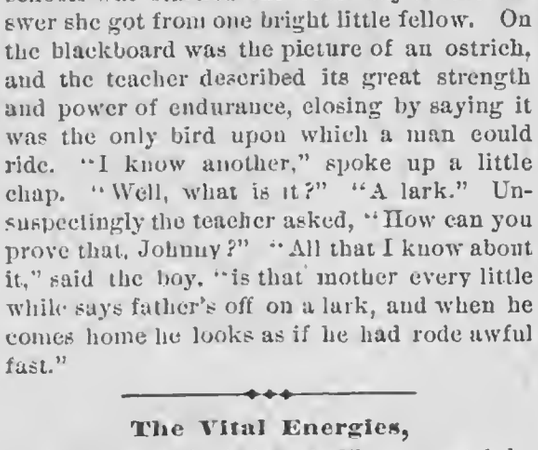
Wit and Humor.

A SHORT time ago a little boy went with his father to see a colt. He patted the colt's head and made quite a fuss over it, until finally the stable-man told him to be careful that the colt did not turn round and kick him. When the little chap went home his mother asked him what he thought about the colt. "I like him pretty well," was the reply. "He's real tame in front, but he's awful wild behind."

A TEACHER in one of the Westfield public schools was startled the other day at the answer she got from one bright little fellow. On the blackboard was the picture of an ostrich, and the teacher described its great strength and power of endurance, closing by saying it was the only bird upon which a man could ride. "I know another," spoke up a little chap. "Well, what is it?" "A lark." Unsuspectingly the teacher asked, "How can you prove that, Johnny?" "All that I know about it," said the boy, "is that mother every little while says father's off on a lark, and when he comes home he looks as if he had rode awful fast."

The Vital Energies,

When depressed by fatigue, bodily or mental, by exhausting diseases, or the influence of a debilitating temperature, should be reinforced—physicians tell us—by some wholesome stimulant; and among those which have been tested and administered by them, none has received such hearty recommendation as Hostetter's Stomach Bitters. It has been preferred by them from the fact that its spirituous basis, which is of the purest description, is modified by, and made the vehicle for, the vegetable medicinal principles incorporated with it. These latter render it conspicuously serviceable in cases of general debility, constipation, and other disorders of the bowels; in dyspepsia, nervous affections, urinary and uterine ailments, rheumatism, intermittent and remittent fevers, which it prevents as well as remedies; and in liver complaint. A household stock of medicines can scarcely be called complete without this inestimable medicine.



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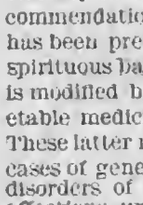

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Every Man His Own Miller.

The only Mill that will grind Corn with Shuck on without extra expense. The only Mill grinding Corn and Cob successfully that will grind Shelled Corn fine enough for family use.
Grinds twice as fast as any other Mill of same size and price. Manufactured by
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and Combined Clover & Grain Threshers.

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Will cut, rake and deliver in good condition for binding ANY GRAIN that grows, lodged or standing. Adjustable Track, Self-Oiling Pitman, carries bundle around corners. The most SUCCESSFUL light Reaper in market.
BRADLEY'S CHANGEABLE SPEED MOWER,
The lightest draft Mower in the world for length of cut; has enclosed Gearing, Center Draft, Perfect Balance, Rocking Bar, Perfect Pitman and Connections. Has more good points and less complication than any other.
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Dumps the Easiest, Rakes the Cleanest, any boy can operate it, is acknowledged the best made Rake in use
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AND IS FIRST CLASS IN EVERY RESPECT,
AND AT FIGURES TO SUIT THE TIMES,
BUY THE WILLIAMS MACHINE.
But if you do not want a Machine which embodies every quality which a man with brains in his head would call desirable, then buy some other, the chief excellence of which consists in a windy agent or a fancy circular and make two deals at the same time: Buy a machine and sell yourself. *For circular giving full particulars,*
Address M. WILLIAMS & CO.,
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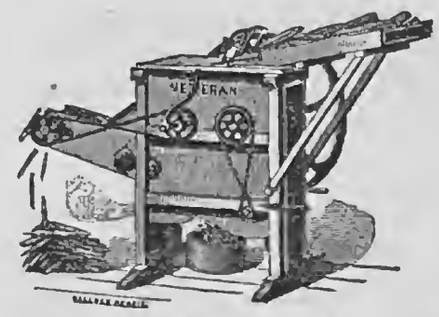

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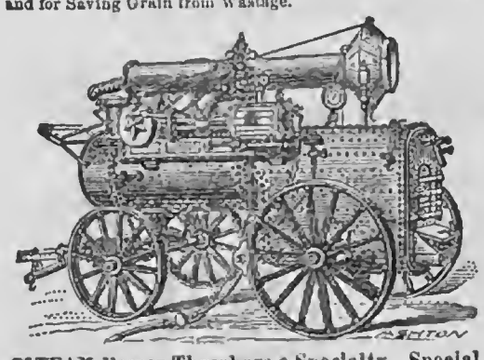
THE Matchless Grain-Saving, Time-Saving, and Money-Saving Threshers of this day and generation. Beyond all rivalry for Rapid Work, Perfect Cleaning, and for Saving Grain from Wastage.



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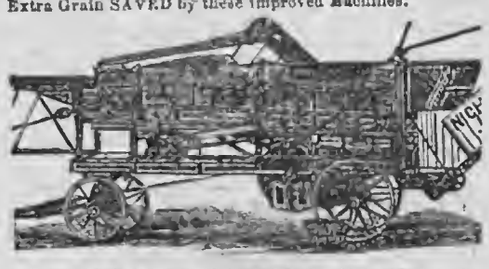

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THE RURAL NEW-YORKER

Established 1850.

A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME.

VOL. XXXVIII. No. 28.
WHOLE No. 1537.

NEW YORK, JULY 12, 1879.

PRICE FIVE CENTS.
$3.00 PER YEAR.

[Entered according to Act of Congress, in the year 1879, by the Rural Publishing Company, in the office of the Librarian of Congress at Washington. — Entered at the Post-Office at New York City, N. Y., as second-class matter.]

The Herdsman.

EARL BECTIVE'S "DUKE OF UNDERLEY."

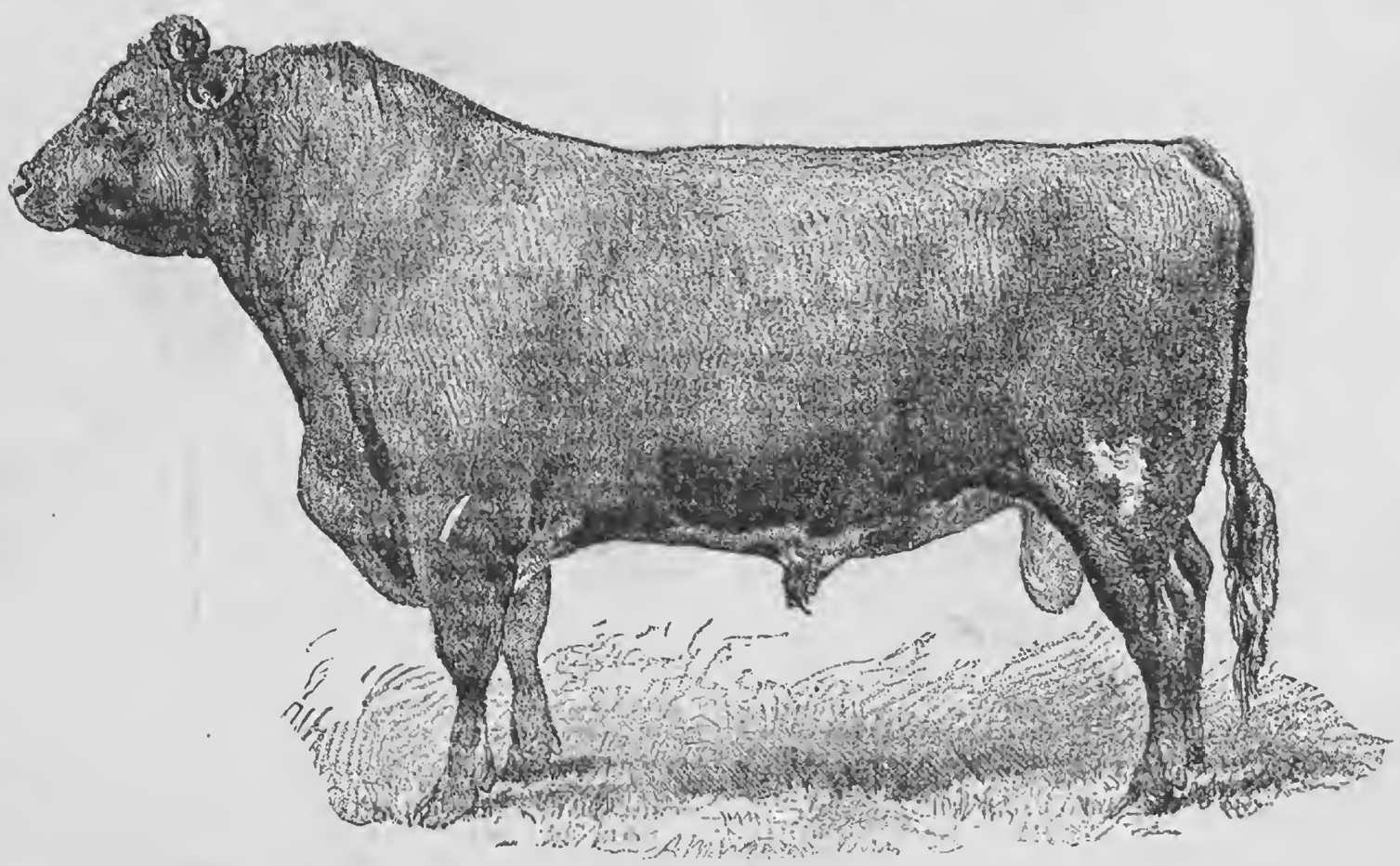
MASON C. WELD.

THE portrait carries with it conviction of its accuracy, and simply as a picture it is worthy of great praise. When will the time come when American photographers and artists will co-operate to produce such a portrait?

THE DUKE OF UNDERLEY numbered 29,389 and (33,745), bred in this country, and dropped in England, was sold in his dam, 10th Duchess of Geneva, at the famous New York Mills sale in 1873,—which I had the pleasure of attending. His sire, 2d Duke of Oneida, 9,926 and (33,702), was bought at the same sale by Mr. Megibben of Kentucky for $12,000, who used him with extraordinary success. His death was chronicled a year or so ago, in many an honorable "obituary," and his numerous offsprings perpetuate his fame. Tenth Duchess sold for the startling sum of $35,000, and many an enthusiastic admirer of this peerless family shook his head as if that was far more than her buyer would ever realize from her. But let us see: The Agricultural Gazette, from which this portrait is taken, says: "It is easy now, after several years, to see that (this) one purchase, at all events, was worth her cost"—and goes on to describe the cow and her sons and daughters in England. It is enough for us perhaps that, bred and handled as they are at Underley, they do full credit to American breeding. The Usurer cross appears in the pedigree of this cow, and this the Gazette fancifully surmises may account for the unusual and beautiful color of the Duke of Underley, his get, and others of the progeny of the old cow. I say *fancifully* because Usurer (9763) was a *roan*. The color is described as "a peculiar, warm-looking, burnt-earth-like red. It is pleasant to look at and it need not be said that his offsprings' coats are pleasant to handle." The Gazette also says of the bull, "He satisfied the most fastidious breeders, whatever their preferences might be." The best cows of the most famous "Bates" herds in England are being sent to him with such results that his service price is fixed at 100 guineas.

It is, perhaps, not necessary to remind the readers of the RURAL that the merit of these fine animals consists in the fact that they possess the most perfect beef points; that is, superior form, being largely developed where the best and most meat lies, smallness of the less useful parts, good handling—which indicates to the expert the quality of rapidly laying on flesh—and evenness in the deposition of fat; nor that these qualities are so strengthened by the fact that they have descended without deterioration through a long line of illustrious ancestry that they are almost unerringly perpetuated in the offspring. This is really that which gives Short-horns their chief value, namely, that for beef they are the best-bred race in the world.

This is the best picture of a Short-horn bull I ever saw. It is drawn from a photograph, by Williams, with great faithfulness not only to the outline but to the light and shade, and his drawing is copied by the photo-engraving process, with, of course, perfect accuracy, but losing much of the delicacy of the pencil which is usually retained in the ordinary process of hand engraving on wood.



EARL BECTIVE'S "DUKE OF UNDERLEY."

CATTLE RAISING IN THE WEST.

L. J. TEMPLIN.

Importance of our meat supply; slight increase in hog production in thirty years; increase in cattle during the same period; capacity of the West to increase the supply indefinitely and cheaply; efforts of that section to improve its herds.

THE question of the future meat supply is one of personal interest to every individual of every civilized community. This question has recently assumed unwonted importance in this country. The successful shipment of both live and dressed beef to Europe, with a demand that is constantly and rapidly growing, opens up the prospect of a demand for our meat, to which we cannot assign any limits. There is also likely to be an increasing demand in this country with the increase of manufactories, that will doubtless follow a return of financial prosperity which is already dawning upon the country. Considering the foreign and home markets, the future demands for American meats promise to be as great as the farmers and graziers of this country can easily meet, even when their facilities are taxed to their utmost. The prevalence of disease among hogs has rendered their production so precarious in many parts of the country, that if this state of affairs continues, we can hardly expect any great development in this industry. Indeed the past history of hog-raising does not promise any great increase in this business. The following table shows the number of hogs in the United States at the dates given:

1850	30,354,213	1870	29,475,500
1860	36,980,772	1875	25,726,800
1865	13,616,876	1878	32,262,500

From this it appears that for nearly thirty years the number of hogs in the country has fluctuated between less than fourteen and nearly thirty-seven millions, the diminution being greatest at the close of the war. During a part of this time their production has been stimulated by extraordinarily high prices; and yet in thirty years there has been an increase of only between two and three million hogs in the country. It appears, therefore, that we are to look to our cattle for a supply to meet the growing demand for meat both on this and the other side of the Atlantic.

The number of cattle in the United States has been for the different dates as follows:

1850	17,778,907	1870	28,074,580
1860	28,967,028	1877	30,522,400

Making allowance for the falling-off during the war—which was not quite regained in 1870—there has been a healthy increase during each decade. A large part of this increase has been in the States west of the Mississippi River, and it is to this region we are to look for the principal part of the cattle to meet the growing demand for beef. A few of these new States show the following results:

	1850.	1860.	1870.	1878.
Texas	333,000	4,397,414	3,990,158	4,008,300
Kansas	——	128,397	701,347	892,243
Colorado	——	——	159,456	430,000
Nebraska	——	39,681	392,716	298,807
Minnesota	2,002	149,080	365,241	539,800
Total	335,002	4,713,563	5,608,918	6,159,150

In this enumeration I have taken no account of New Mexico and other parts of the West from which many thousands of cattle are annually sent to the Eastern market. Supposing the older States to continue to produce as many as heretofore — which is probably about as much as is to be expected—it is evident the principal increase to meet any enlarged demand, must come from the newer States of the plains and mountain regions of the West.

This being the case, two questions arise for solution: first, has the West the facilities for producing an unlimited supply of beef cattle; and, second, can they be produced at such prices as will place the meat in market at living prices to the consumer? It is evident that the Western stock-growers must produce cattle more cheaply than the farmer of the Eastern States, lest when they have paid the often enormous transportation charges levied by the railroad companies of the country, the balance shall be found on the wrong side of the ledger. A statement of the facts as they exist, will be a sufficient answer to both of the above questions. The five States named above, have nearly one and a quarter millions of milch cows now on hand. With such a start, they are capable of almost unlimited increase of their herds within a few years. The facilities for grazing in these States and the adjoining Territories are almost without limit. Thousands, and even hundreds of thousands, of square miles of unbroken prairie furnish grass in such abundance that it seems it can never be exhausted. Even in this part of the country, where almost every quarter-section is occupied, there is probably ten times as much grass burned by the annual fires as is consumed by all the stock kept here. Millions of tons of excellent hay thus uselessly pass away in smoke each year in the State of Kansas alone, and the same loss is taking place to a greater or less extent over all these Western States and Territories.

It is evident, therefore, that not only can cattle be raised, but that they can be raised cheaply. Where abundant pasture can be had for nothing, or next to nothing, and hay can be put in the stack at one dollar per ton, and where calves can be bought in the fall at five to seven dollars each, it is evident that beef cattle can be put in the market at quite low prices. The people of the West are waking up to the importance of this industry more than ever. Efforts are being made to raise the grade of the stock by crossing the native herds with Short-horns, Herefords, and other improved breeds of cattle. More care is also being given to providing winter food and shelter for herds. The result is the grade of the stock is being raised, and animals of a better class are gradually making their way to the market. What is wanted now more than anything else in this connection, is more capital invested in this enterprise. Within reasonable limits, the larger the herd the less it costs for each individual animal. This interest is growing, and the world may well look to the great American Desert for an unending supply of choice beef to feed the hungry millions of the East and Europe.

Reno Co., Kansas.

The Horseman.

FARM HORSES AND BREEDING HORSES FOR SALE.

HENRY STEWART.

The whole business of rearing farm horses for sale needs revising. Those who have watched the tendency of the markets perceive a growing export business and a constant demand from farmers, who, living near the large cities, are compelled to grow market crops upon their high-priced land, and cannot give time to the rearing of horses. The number of horses in the United States is largely in excess of that of England and other European countries (excepting Russia), and the introduction there of horse railroads, or, as they call them, "tram" roads, has greatly enlarged the demand for draft horses. Every week horses are shipped to Europe to supply such demands as well as for driving and carriage uses; and it is but recently that mules have been sought and purchased in America for military purposes in Europe or for the foreign uses of European governments. Everything promises well for a large foreign demand for American horses and mules, and it is not only necessary that this demand should be met in advance, but that it should be filled with useful animals.

As a rule, demands are created by the existence of a surplus for sale. The man succeeds best in business who offers something that creates a new want. He must be shrewd enough to perceive that there is a need for what he proposes to supply, and an opening for him to push in and fill. The whole history of successful business proves this. We did not wait until Europe was starving to push our breadstuffs, and provisions and cattle into their markets, but we sent them; and

we literally "cast our bread upon the waters,' and it found at once a destination, a use, and a profitable market. Just now there is a need of draft animals all over Europe. Governments are obliged to sustain costly stud farms and make requisitions upon their scanty home supplies to fill up the ranks of their armies. Those who live luxuriously, have had their attention drawn towards the excellence of our stock, and are willing purchasers for the few animals we have to dispose of.

At the same time our farm stock needs improving. We have a large number of horses that are defective in size, substance and constitutional vigor. Breeding farm horses receives little consideration. The mares selected for this purpose are too often diseased, broken down and worthless for other purposes. No care is taken to select sires for the colts, and the pedigree of the animals used is sufficient if it is truly or falsely said to run back in a cloudy track to Hambletonian, Morgan or some other horse that was popular in his day. There is no thought as to the purpose for which the colt is intended, and the consequence is that a careful purchaser who desires a horse for road work, or farm work, passes over a hundred where he chooses one.

Our farm horses are too light, and our road horses are generally too small. The country is overrun with small ponies which can trot a mile or two at a rate of three minutes or even less to the mile in a single light wagon with one occupant, but cannot draw a light family carriage with four passengers. Nor can a pair of them draw a heavy coach on the best of roads. Desirable heavy farm horses are so scarce that it is almost impossible to secure them, and *good* roadsters will command more than $1,000 the pair, if well mated.

There is a wonderful opening for turning some skill and opportunities to advantage in this way. A colt costs no more to raise than a calf, and at two years old it is worth as much as three cows, if it is only a common one. One of the right kind would be worth half a dozen heifers, and the mare would cost no more to keep than a poor one. The choice of the mare is very important. Large, heavy farm mares, served by a clean-limbed thoroughbred stallion, will produce a coach horse, or, if a heavier well-bred horse is used, the produce will be such as is required for heavy draft in the large cities. The *true* well-bred Percheron, fine-boned but strong-limbed, and gracefully formed yet massive, still showing in the fine small head and high-blooded characteristics his Arabian ancestry, is such a horse as may be used for either of these purposes, if a mare is properly selected. The coarser Norman, broad-footed, wide-shanked, heavy-chested, large-headed and comparatively sluggish, and the admirable Clydesdale, almost as large and heavy, but with finer bones and better evidences of breeding than the Norman, are well suited for the work of the farm and the country roads. Of these we have many fine specimens already introduced, and breeding animals can readily be procured. In truth, there is abundance of material, if the skill and shrewdness to use it well are furnished.

Just at the present, individual effort is out of the question. All the great successes of the world are secured by association. In the breeding of such farm animals as we already have brought to a high degree of excellence, association has been the chief agent of success. The Jersey Cattle Club; the Short-horn Society; the Ayrshire Cattle Association, have brought their favorite herds to the highest pitch of excellence, and we find on every hand conspicuous instances of similar effects. It is hardly to be expected that farmers can succeed by their own single unaided efforts in carrying out their ideas of what ought to be done in improving any breed of animals. But a score or two of them associated in a county may do wonders. A county horse breeders' association of 20 persons might procure and possess a desirable stallion for a sum no larger than they would have to pay, in all, for a single service for each: $50 is a common price for the service of such a good horse as could be purchased for one or two thousand dollars. The money invested would be returned each year, and in most cases a profit could be made in addition; and besides, much benefit could be done outside of the association. The association could procure suitable books and papers, and could study, learn and discuss the important points in breeding, which should be understood, and in that way could turn their opportunities to the best advantage. Breeding is a fine art, and there are general principles upon which success depends, which need to be known and observed. Haphazard work will not do. There are some breeders who seem to have an instinct, an intuitive skill at mating animals; but it is not true that they have any knowledge that "has come by nature" or has been acquired without the closest observation and the study of cause and effect. The secret is that they have given their minds to the business, and have made a special study of it to the exclusion of other matters. They have been inventors, and like others of that useful class, have pored over their ideas and worked them out to results while others have been sleeping. These are the men who succeed, and a great many more of such men are needed in the necessary improvement of our horse stock.

TURNING OUT AND RENOVATING HORSES.

We kept a team in the stable a week and cut grass for them to get them used to an entire change of diet, mixing the grass with hay, and all this time wondering how we should manage, when we did turn them into the pasture, to keep them from running and injuring themselves. We did not like to risk fetters on such lively animals, for fear they might get strained. We had an idea that if they were made very hungry beforehand, they would forget to run, preferring to eat. A neighbor helped us out. We tried his plan and there was no trouble. A surcingle was buckled around the body behind the fore-legs, and the halter passed through this and fastened to a strap buckled tightly around one of the hind legs above the gambrel. The halters were buckled so tightly that the horses' heads were kept down quite low. Turning horses out to grass has a renovating effect on them, especially when they have been kept for any length of time in a city and driven on the pavements. In six months the hoofs of horses not worked or shod, will be renewed; sore-footed animals will have new feet. We know of instances where a New York city horse-dealer purchased a pair of such horses in the spring of a gentleman, and having sent them into the country for the summer, they became so improved that in the autumn he sold the same pair to their former owner as a country team, and the former owner did not know them. F. D. C.

Pomological.

REPORT OF THE LATE CLEVELAND CONVENTION.

Special Correspondence of the Rural New-Yorker condensed.

The Fourth Annual Convention of the American Association of Nurserymen, Florists, Seedsmen and kindred interests was held in the Probate Court Rooms of the new Court House, Cleveland, Ohio, commencing June 18, and continuing three days.

The convention was quite well attended, members being present from very many of the States, and the proceedings were of peculiar interest. The display of fruits and flowers, although not large, was very fine, the Strawberry "Glendale" and the new seedling Geranium "Wm. Cullen Bryant" exciting great admiration.

The morning of the first day was nearly consumed in members registering their names, following which the Hon. Harvey Rice, in behalf of Cleveland, delivered a welcome address to the beautiful Forest City; to which, in behalf of the Association, the President, J. J. Harrison, replied in fitting words.

A Committee on Business was then nominated, which was composed of the following gentlemen: H. B. Ellwanger, Rochester, N. Y.; Peter Henderson, New York City; Capt. E. H. Pratt, Dansville, N. Y.; N. H. Albaugh, Ohio; Robert Douglas, Illinois; Wm. Smith, Geneva, N. Y.; T. S. Hubbard, Fredonia, N. Y.; A. B. French, Clyde, O.; H. E. Hooker, Rochester, N. Y.; W. C. Strong, Boston; S. B. Parsons, Long Island.

Arrangement of Questions.

On a call for questions from the members, to be placed in the hands of the Committee on Business to assist them in making out the order of business, the following gentlemen were nominated as a committee to arrange the questions: E. Moody, Lockport, N. Y.; H. C. Graves, Sandwich, Ill.; W. C. Barry, Rochester, N. Y.; S. D. Bear, Ohio; S. H. Sweet, Dansville, N. Y.; Leo Weltz, Wilmington, O.; Franklin Davis, Richmond, Va. The meeting then adjourned till 2 P. M.

Upon reassembling in the afternoon the Chair appointed Committees on Exhibits of Fruits and Flowers.

The programme for the convention was reported as follows and adopted:

Wednesday, 2.30 P. M.—Address on methods of disposing of nursery stock, by D. M. Dewey. Discussion on above question. Paper on new fruits, by W. C. Barry.

Wednesday, 7.30 P. M.—Address by George W. Campbell, Delaware, O.; subject, "Grape Culture and its Probable Future in the United States." Essay, "The use of the Feet in Sowing and Planting," Peter Henderson. Address, "New Plants, and the Planting of Trees in Landscape Style," S. B. Parsons, Flushing, N. Y.

Thursday, 9 A. M.—Report of Committee on Election of Officers. Reports on amount and condition of stock. The best way to stimulate a taste and desire for choice ornamental trees, shrubs and flowers, S. B. Parsons to lead in the discussion. Suitable stocks on which to work.

Thursday, 2.30 P. M.—Miscellaneous business and discussion.

Thursday, 7.30 P. M.—Addresses, etc. The address of D. M. Dewey on the best methods of disposing of nursery stock was then delivered. He regards the question of the greatest importance to the country at large as well as to the trade. He had learned that the matter was being considered by the Ohio Legislature, which had a bill before it designed to restrict the sale of nursery products. He thought no such bill could pass, as it was almost impossible to frame a bill which would be equitable to all parties concerned. He deprecated all special legislation on the subject, and thought the length of a hoe handle or the curl of a pig's tail could as well be regulated by law as the sale of our products. He suggested that the convention issue certificates of agency, signed by their officers, to be used by its members for their agents, and to caution buyers from purchasing of those who could not produce such certificates.

Some discussion then ensued concerning the bill before the Ohio Legislature, and upon motion of Mr. Albaugh, a committee of five was appointed by the president, to whom further consideration of the subject was referred. With regard to

The Russian Apples.

Mr. Barry thought they deserved serious consideration on account of the many incorrect and exaggerated reports spread about them during several years. Anticipating their value for the colder regions of this country, his firm planted in their experimental grounds some obtained from St. Petersburg, and others from the Department of Agriculture at Washington. In the summer of 1876 several trees bore fruit for the first time. The following year several others came into bearing, and in 1878 nearly all fruited, enabling them to give the different varieties a fair test. But their expectations of finding among them some valuable acquisitions were not fully realized. Under new names they found several of the well-known Duchess of Oldenburgh, and most of them seemed to be of that type, resembling that variety in appearance and size and of about the same quality. One of the number, Titouka, or Titus, is quite promising. The fruit is large and handsome, resembling that of the Twenty Ounce, and ripens in September. This he regards as beyond a doubt the most valuable in the collection. Another, the Groskoe Seleuka Gruner, is of medium size, roundish, conical form; smooth skin, color of Sweet Bough; ripens early in August. The tree is a good grower and bears abundantly. Repka is a handsome fruit, of medium size, resembling the Lady Apple, but larger. The tree is a free grower and very prolific. A few of the Russian Apples he considers worthy of propagation in those parts of the country where our choice varieties do not succeed owing to the severity of the climate; but at the East he thinks they will be of little or no value.

Other Apples.

From California there has been sent a remarkable seedling of the Yellow Bellflower. The apple is large, roundish, inclining to conical; stalk long and slender in a deep cavity; skin of a beautiful golden yellow color, smooth and fair; flesh firm, juicy, sub-acid, rich, and excellent. It is said to keep as well as the Newtown Pippin, and is one of the most promising new fruits that he has seen. * Highland Beauty is a seedling which the Rev. E. P. Roe has introduced to public notice. It is of small or medium size, roundish, inclining to conical; skin light-yellow; flesh tender and pleasing to the taste. It remains in good order till March, and will probably be esteemed as a table fruit. An Ohio apple called the Onstine Greening, is of the Greening type, about the same size and shape; flesh solid and of fair quality, and it has been said to keep in good eating condition till September. This variety should be included in a list which could be recommended for shipment abroad.

Pears.

A very important accession has been made to the list of Pears in the Messrs. Clapps' new seedling, called the Frederick Clapp. This is undoubtedly the best American pear yet introduced. The acquisition of a pear pronounced by competent authorities superior to Beurre Superfin marks an important epoch in the history of American pomology. The tree is a good grower, and nurserymen can afford to propagate it. One of the new pears which deserve to be better known is the Petite Marguerite, raised by Andre LeRoy in 1862 and called Marguerite Appert. It ripens about ten days before the Bartlett. Andre Desportes was raised by Andre LeRoy from seed, and has the delicious flavor of the Bartlett without its muskiness. It may be regarded as one of the best fruits of the season. Ripens in August, and he considers it is one of the best pears ripening in that month.

Cherries, Peaches, Grapes.

Of Cherries of recent introduction, Montmorency Ordinaire is becoming more and more popular wherever grown. It has just acidity enough to be pleasant, and one can eat his fill without any discomfort afterward. Ripening as it does, ten days after the Richmond, it is valuable on that account, not to speak of the wonderfully prolific qualities which the tree exhibits. The year 1878 has been rendered memorable by the large number of new seedling Peaches which fruited in all parts of the country. If the same progress be made in '79, we shall be soon able to boast of ripe peaches in June in New York State.

T. B. Miner's seedling Grapes, twelve in number, seven of which are white, will be watched with considerable interest. Pringle's hybrid grapes, three in number, two of which are white, are now being distributed; so are Mr. George Haskell's, about forty varieties, obtained by hybridization. Some of the best of Rickett's seedlings are now in the market, and in another year this interesting collection will have been tested to some extent. Rockland Favorite is a new grape, said to be a seedling of the Concord, earlier, better, and hardier than its parent, and a great bearer. In New York State there are four new white Grapes which may prove valuable: the Prentiss, owned by Mr. Hubbard, is very promising; the Pocklington, raised in Washington county, is large and handsome, but seems to ripen a little late; Niagara, raised at Lockport and Duchess, at Union Springs, are also highly spoken of by those who ought to know what constitutes a good grape. None of the four is in the market. Some of the newer sorts of Strawberries are getting hard knocks. The Sharpless, however, is highly commended.

The Japan Persimmon would be a valuable addition to our list of fruits were it hardy, but this he thinks is doubtful, but he has not tried it. Mr. Albaugh reported that the Wild Goose Plum in his locality (70 miles north of Cincinnati), was exceedingly profitable. It is of handsome color and good shape—ripens July 4th to 15th. It is fine for dessert, fully as large as the Lombard, but not of good cooking quality. T. W. Manning, of Mass., was very favorably impressed with the Moore's Early Grape. It was ripe with Mr. Moore when the Concord is green. Peter Henderson, of New York, placed the Forest Rose Strawberry ahead of Sharpless—then Seth Boyden, Monarch, Chas. Downing, Capt. Jack, Great American. He had no robins, but the children preferred the Forest Rose. S. B. Parsons, of Long Island, thought highly of the Miles's Grape, which, though not new, was very early and good.

At the evening session, Peter Henderson made a valuable address on

The Use of the Feet in Planting and Sowing Seeds.

He said that although engaged in gardening operations for over a quarter of a century, it has only been lately that he fully realized how indispensable is the use of the feet in sowing and planting. In the sowing of seeds he thinks millions are lost annually through neglect of "firming" the ground around the seeds. During the past dry season, enormous losses were incurred by market gardeners and other cultivators of cabbages, cauliflowers, celery, etc., mainly because they persisted in sowing the seeds without taking the precaution to firm the soil by rolling. His own practice is, after plowing, harrowing and leveling the land smoothly, to draw lines by the "marker," which makes a furrow about two inches deep and a foot apart; after the man who sows the seed follows another who with the ball of the right foot presses down his full weight on every inch of soil in the drill where the seed has been sown. The rows are then lightly leveled longitudinally with the rake, a light roller is then passed over them and the operation is done. By this method his cabbage and celery crops have never once failed, and what is true of these seeds is equally true of all seeds requiring to be sown during the late spring or summer months. On July 2d, 1874, as an experiment, he sowed twelve rows of sweet corn and twelve rows of beets, treading in after sowing every alternate row of each. In both cases, those trod in came up in four days, while those unfirmed remained twelve days before starting, and would not then have germinated had rain not fallen, for the soil was as dry as dust when planted. The result was that the seeds that had been trodden in, grew freely from the start, and matured their crops to a marketable condition by fall, while the rows unfirmed did not mature, as they were not only eight days later in germinating, but the plants were also to some extent enfeebled by being partially dried in the loose dry soil.

The same season in August he treated seeds of turnips and spinach in the same way. Those trod in germinated at once and made an excellent crop, while those unfirmed germinated feebly and were eventually nearly all burned out by a continuance of dry, hot air penetrating through the loose soil to the tender rootlets. A large proportion of the blame often laid at the doors of nurserymen on account of selling dead trees, he attributes to the neglect of growers to compact the soil about the roots.

M. B. Bateham, of Ohio, obtains the same results by using a wheel-barrow half loaded. R. Douglas, of Illinois, uses a pounder for packing earth around trees. W. C. Strong, of Mass., deprecates the use of water when planting. He thinks it does more damage than good, especially on evergreens. Mr. Spaulding,

* See RURAL, April 19, for first illustration of this apple.

of Illinois, uses water when very dry. He watered his small evergreens this season and his loss was very small. He dug a small trench by the row, partially filled it with coarse manure and then applied water. R. Douglas had in former years moved evergreens during the entire summer. He found those which had been moved previous to Sept. 15th had done the best. He used water. He found the hotter the day the more rapidly they rooted. He would advise planting before the growth was made. S. B. Parsons agreed with Mr. Douglas, but had had good success in transplanting evergreens and deciduous shrubs in June and July by reducing them to a dormant state—removing the fresh growth. Mr. Manning preferred planting evergreens April 20th to May 20th. Mr. Strong would plant in August and wet the tops but not the roots. E. Moody, of New York, would plant May 1st to May 15th, and never expose the roots to the air. Mr. Parsons then followed with an address upon "the planting of trees in a landscape style," which of itself would fill an entire page of the RURAL, and which should be read by all horticulturists.

Thursday morning the Committee on Nomination of Officers reported as follows: For President, T. S. Hubbard, Fredonia, N. Y.; for Secretary, D. W. Scott, Galena, Ill.; for Treasurer, A. R. Whitney, Franklin Grove, Ill.; Executive Committee, T. S. Hubbard, of New York; D. W. Scott, of Illinois; S. W. Hoover, of Ohio; Franklin J. Davis, of Maryland; George B. Thomas, of Pennsylvania. The old list of vice-presidents was retained. The report of the committee was accepted.

MR. G. W. CAMPBELL, of Delaware, Ohio, gave an instructive address on

Grape Culture

That the purely foreign kinds—Vitis vinifera—cannot be successfully grown in this country, having been universally conceded, he said that we must now look for success to our best native or hybrid varieties, but he thinks that the great majority of hybrid seedlings between the domestic and foreign sorts will prove unsuited to general cultivation, mainly because whatever fine qualities they possess, are often, or always, accompanied by the same tenderness of vine, and consequent liability to disease, which renders the success of the foreign Grapes impossible. Rogers's Hydrids, though nowhere extensively used for wine-making, he considers among the hardiest of their kind. The Diana he believes is destined to occupy a higher place in public estimation than at present. Many Grapes that brought high prices ten years ago are now deemed worthless, such as the Iona, which proved to be a total failure with the average cultivator. A general misapprehension of the care needed, and ignorance of the proper treatment of the vine by many of those who engaged in grape-growing, were doubtless great causes of the failure. The fact that different varieties should have different treatment, some requiring long and some short training and pruning; that many Grapes can only be grown in soils and situations suited to their special characters and habits; that others need protection in winter; and that all kinds are seriously injured, enfeebled, and often destroyed, by overbearing, seemed to be either unknown or disregarded. Another minor evil, which has an injurious effect upon the business of grape-growing, is the persistent and unscrupulous pushing and sale of pretended new and remarkable Grapes, which in reality have no existence. Bottles containing the large, white foreign grapes preserved in alcohol, are exhibited to gullible purchasers under fancy and fraudulent names, with the assurance that they are new native varieties; and vines are sold at $2 or $3 each which are claimed to produce these Grapes, but which, if they ever bear, prove to be of the wild and worthless Fox tribe; or perhaps Concords, Ives, or whatever is most easily obtained or cheapest in the market. The "Empress" was the favorite name of this swindle a few years ago. This year it has appeared as "Conover's Seedling," accompanied by a fanciful engraving.

The most serious hindrances to American grape culture are mildew and rot, and he believes both these evils are measurably within the control of the skillful vineyardist. The remedy is the timely application of sulphur. How serious the phylloxera may prove cannot yet be determined; but it is at least probable that the Southern Grapes of the Æstivalis family, as well as the Northern natives, of Labrusca origin, will be able successfully to resist its attacks. The finer varieties of hybrid Grapes containing an admixture of the foreign Vinifera, are much more liable to be injured; but that even these *can* be grown, in favorable circumstances and by intelligent care, is proven by J. H. Ricketts, the originator of the finest collection of this class of Grapes, that has ever been produced. Every year he brings for exhibition specimens of the most beautiful hybrid Grapes, highly-flavored, well-colored and admirable. Much of his success is doubtless due to his position and to his skill and attention. But there are places equally as good, and the same care will produce like results. Successful and profitable grape culture is *possible* in nearly all sections, by means of careful selection of varieties suited to special localities, and by more careful and intelligent cultivation. To this end, only such varieties should be grown as are best suited to the soil, climate and location, selecting always the best with which we are able to succeed. It is nearly useless to plant any of the finer hybridized Grapes in the Northern States without pruning in the fall and protecting during the winter. The same may be said of the more tender native kinds.

The Lady Grape, he thinks, will prove valuable for an early white variety, especially for near market, as it is of better quality than other early kinds, and he believes it can be successfully grown wherever Concord, Ives, Hartford, and other hardiest Grapes succeed. It has not, so far, shown a tendency to rot, even when the Concord has been seriously affected. For some reason, the white seedlings from the Concord, including Martha and Eva, have been quite free from this malady. The Brighton Grape has been quite largely planted during the past two years. Whatever may be its good qualities—and he hopes they are many—it will not endure our severe winters without protection. The past two winters it has been killed to the ground, seeming to be little, if any, hardier than Diana Hamburgh, its staminate parent. Mr. Ricketts has now sent out his "Lady Washington," and Messrs. Hance & Son have also sent out the Highland Grape, which are regarded as two of the most promising of Mr. Ricketts's remarkable collection.

Miscellaneous.

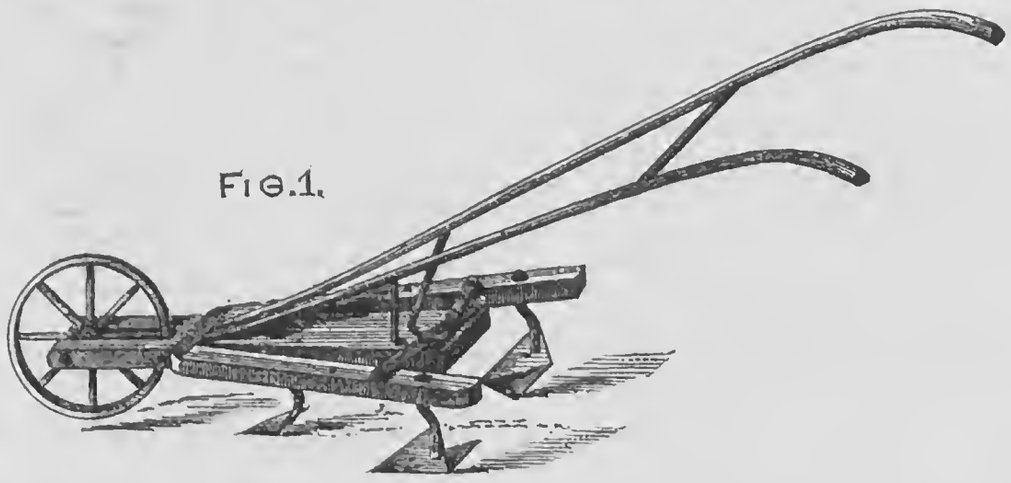
Then the committee upon the best method of disposing of nursery stock, in their report, gave some well considered suggestions to their nurserymen *confreres*. Next in order, Jonathan Periam made an excellent address upon the "Art of Horticulture in Civilization." Mr. Meehan's *extempore* address on the future of the nursery business, stated that $40,000,000 were received annually from the sales of nurserymen and florists, exclusive of the sales of those indirectly engaged in the business. Not one-third of this sum was derived from the sale of fruit trees, and such sales would grow less as the country advanced in wealth and refinement. The best sales are from ornamental trees, plants and flowers. In summing up his own remarks, he said that he wished it to be understood that the amount of money involved in the nursery business was much greater than those actually engaged in it had any idea of; that it was well worthy of a study of those business rules especially adapted to it; that it was a business that gave pleasure to thousands and pain to none, and that that part of it which dealt with the beautiful, rather than that which was merely the useful, would most assuredly grow in popular estimation, and that it was in this direction that those who were looking to the future prospects of the business should carefully attend.

Farm Economy.

FARM HELPS.

F. A. GULLEY.

IN growing the small vegetables in rows from 10 to 20 inches apart, the hand cultivator is almost indispensable. With it one man can do as much work as four or five men with hoes. The objection to many of the hand cultivators is that they cannot be run close to the rows of plants when first coming up, without covering them with dirt, and thereby destroying them. After using several of the cultivators sent out by different manufacturers, and having teeth of various forms made to order, we found nothing equal to the implement shown in the accompanying cut, Fig. 1. The merit lies in the shape of the two back teeth or shovels. The right-hand tooth is shown enlarged at Fig. 3.



The upright, a, is made of ¾x⅜-inch wrought iron, the upper part, c, forged round ½ an inch in diameter, and thread ent and nut fitted at upper end; below a burr, b, is welded on to form a solid shoulder to rest against the lower side of the cultivator frame, to keep it from turning when the nut is drawn down tight. The lower part, d, is cut from an old saw-plate, or from an old steel shovel blade, in shape like e, of which side f is seven inches, sides g g, 5½ inches each. It is bent at a right-angle at the dotted line and fastened to the upright, a, with two rivets. The lower end of the upright should be drawn down thin, the edges beveled and the rivets well headed down and filed off smoothly, so that neither dirt nor weeds can catch.

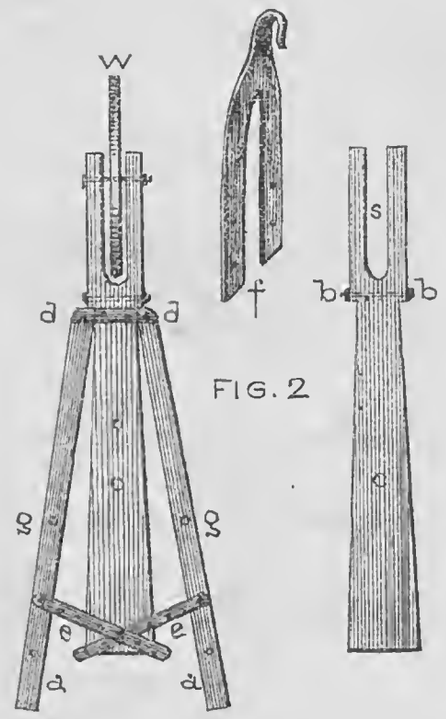


FIG. 2

The front point of the shovel, d, should be ¼ inch lower than the back part, to hold the tooth in the soil. The whole tooth is six inches in length from the shoulder, b, to the bottom of the shovel. The front tooth, Fig. 4, is shown in two parts. The upright, a, is the same as in Fig. 3, but longer; the shovel, b, is made of the same material as the others and riveted to the upright; it measures four inches across, and the point in front should dip ¾ of an inch.

The uprights are made to curve back so they will not be so liable to turn around as if they were straight. In cultivating small plants, the front points of the back teeth should be set a little out, so that they will tend to throw the dirt from the row. In clean, mellow soil, this cultivator can be run as fast as a man ordinarily walks, within one inch of plants just coming up, without throwing any dirt on them. These teeth can be made by any blacksmith and attached to many of the hand cultivators in use, much to their improvement.

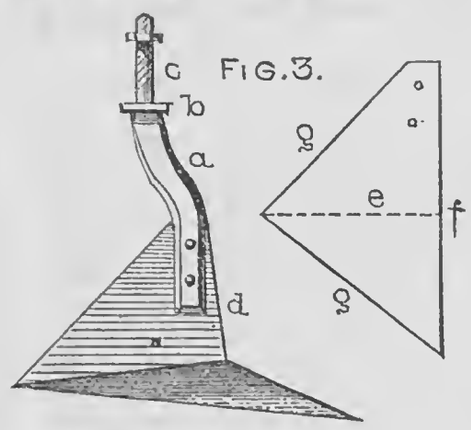


FIG.3.

I have just made a cultivator like Fig. 1. The wheel and handles were taken from an old seed drill; the frame, Fig. 2, was cut from 1½-inch oak plank; the center piece or body is shown at c, with ¾-inch bolt at b to prevent splitting. It is 30 inches in length; the slot s for the wheel is eight inches, and wheel w, 12 inches in diameter. The side-pieces a, a, are 1½-inch square, two feet long and attached to the body at *d*, *d*, by an iron plate one-eighth of an inch in thickness above and below with two bolts through the plates and body, and one through the ends of the side pieces. The adjusting irons, e, are 3-4x3-16 of an inch with holes ¾ of an inch apart. They are bolted to the arms a a, and there is a bolt through the body c, and both irons have a nut on top. By removing the nut the side pieces a, a, may be set at different widths. When the teeth all rest on the ground, the wheel should be one inch above; if level, the front tooth would ot run deep enough.

At Fig 5. is shown a better way of attaching the wheel, to run deep or shallow. The block b, in which the axle turns, is fastened to the body-piece C, with two bolts; the bolts may be taken out and the blocks put on top of the body-piece C, raising the wheel two inches, or the axle, if not fast to the wheel, may pass

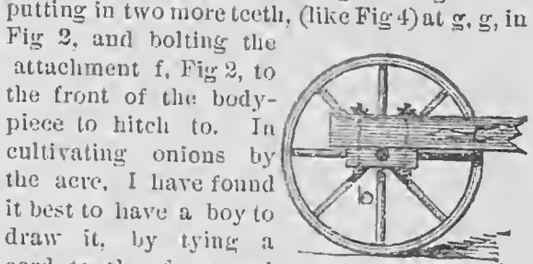


FIG. 4.

through the body piece as in Fig. 1. A blacksmith made the three teeth for 60 cents and charged 40 cents for the other irons and bolts. I made the wood-work in half a day, and I have a cultivator superior to those sold at all the way from five to ten dollars.

The great objection to growing roots with many farmers, is the cost of cultivation when the plants are small. The ordinary cultivators cannot be used or, at most, but one or two teeth can be run along in the center between the rows, leaving a great amount of work to be done with the hoe by hand. By having two teeth made like Fig. 4, doubling the size, they may be attached to the ordinary low-frame horse cultivators, and can be run close to the row, or a cultivator, like Fig. 1, can be made for this purpose, making it longer and putting in two more teeth, (like Fig 4) at g, g, in Fig 2, and bolting the attachment f, Fig 2, to the front of the body-piece to hitch to. In cultivating onions by the acre, I have found it best to have a boy to draw it, by tying a cord to the front end of the cultivator, and a man to hold it and push by the handles. I have had men average 16 miles of rows per day for a week with this cultivator. Fig. 3. represents the right-hand tooth, with the flange of the shovel turned to the left or center between the rows. The left tooth would have the flange turned the other way.

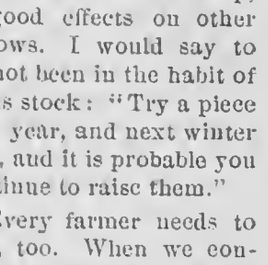


FIG.5.

Mich. Agr'l. College, Lansing.

Farm Topics.

FARM NOTES.

PORK.—Let all who doubt that pig pork is preferable to old hog pork, test both, and I believe they will always use pig pork in their family, when possible, and sell the old hog pork. The nicest as well as cheapest pork a farmer can make, is that obtained by feeding pigs all they will eat until six or eight months old, when they should be butchered.

ROOT CROPS.—I am convinced that root crops receive far less attention than they should. I have always found they were a profitable crop to feed to calves and sheep, and have seen their good effects on other farms, when fed to cows. I would say to every farmer who has not been in the habit of raising root-crops for his stock: "Try a piece of ground to roots, this year, and next winter feed them to your stock, and it is probable you will ever afterward continue to raise them."

YIELD OF CROPS.—Every farmer needs to study, and study hard, too. When we consider what the present yield of our crops is, and that they may, by proper selection of seed and judicious cultivation, be doubled, is it not a little strange that so few farmers give their attention to this matter, and labor both with brain and muscle to accomplish this result? We, as farmers, must till our land better; cultivate only as many acres as we can make rich with manure, and take special pains in the tilling of it. The soil cannot be mellowed too much. The basis of good farming is good plowing, for if you do not plow well you need not expect good crops, no matter how much manure you apply; and after the ground is plowed the harrow should be used twice as much as many use it. I have seen some, when fitting ground for corn or grain, harrow but once, and then leave a strip untouched by the harrow, nearly every time in crossing the field. This, of course, is not the practice of a good farmer. Good cultivation will make up in part for a light dressing of manure.

STAY WHERE YOU ARE.—The plan practiced by many of selling out every few years and going to a different place, is a very bad one. Before purchasing a farm, a man should look around with his eyes open and find one that he likes; and when he buys and moves onto it, it should be with the intention of remaining. If he, at length, finds some things that do not suit him, as he will be likely to, he ought to try and bring them as near his ideas as he can, and then make the best of the matter. One farm cannot have every advantage, and the man who is constantly seeking for one that suits him in every particular will, in time, discover that he is after that which he will never find. A farmer cannot sell out and buy again

without a loss, in one way or another, even if he moves but a short distance. Remember the old proverb: "A rolling stone gathers no moss,' and stay where you are, on the old homestead, or near it, and take an interest in the Grange, or Farmers' Club, try to build it up, improve and beautify your farm, and try to have your neighbors do the same. Cultivate sociability among neighboring farmers, and try in every way practicable to elevate your occupation, and you may, if you will, be happier and better off than if you change for some new location. F. H. D.

Steuben Co., N. Y.

HINTS.

Raise Your Own Seed.—In your vegetable garden reserve room for a row of seed plants. Every gardener or farmer should raise his own onion, parsnip, turnip, cabbage, salsify and beet seed as well as save seed from his choicest cucumbers, squashes, tomatoes and melons. Gather them in paper bags of a size to suit the quantity desired, and then at once label before storing them. The room for seeds enough to supply the needs of a large garden, will hardly be missed, and the culture is not at all troublesome. In this way an annual outlay of five or ten dollars is saved and good, fresh seed made a certainty.

Hardiness.—A great mistake is made by many persons in planting their tender shrubs and trees with a southern exposure. All pains should be taken to protect tender trees from the winter sun. Give them, if possible, a northern exposure, especially to the north of a hedge. The Apricot thrives with me under the above condition. The Rhododendron, also, and the Quince, the Peach and a few of the deciduous trees that are generally pronounced not hardy, do well. The Persimmon, grown from seed, has stood six winters. Peaches bear well occasionally, which is all we can expect for this latitude. It must be borne in mind, at the same time, that a shelter from both the north wind and the southern sun is a still better protection, especially for Quinces. A good supply of arbor-vitæ or hemlock hedges will furnish the needed screens. A few choice trees can be saved by binding hemlock boughs around them in October or November. In addition, keep weak shoots cut out in summer; force all the vigor of the tree into a few well ripened limbs, and winter will not be likely to do much damage. E. P. Powell.

Oneida Co., Co.

Field Crops.

MANAGEMENT OF ROOT CROPS.

A WESTERN FARMER.

Many farmers may have been induced, from the favorable reports in your columns regarding root crops, to plant an acre or two, or some may have made the common error of jumping into this, as a new thing, over their ears, and are now floundering in an abyss of difficulty. The difficulty will be weeds. These are the bugbear of the root-grower; and if they are once permitted to get the upper hand, the outlook for a crop is disheartening. But weeds must not be permitted to grow; and if they have been allowed to get ahead of the plants, the finger and thumb and a crooked back are the only resource. And these must not be used grudgingly, but perseveringly until the crop is cleaned. Beets and mangels start slowly, and at first the growth is slow. The common danger, hard to avoid, is the planting too deep, and if the seed is down more than one inch below the surface, or the soil is cloddy, many plants do not come up in the rows for a month after the sowing. By that time the weeds are well started.

The first precaution, which is still timely for the sowing of sugar beets, ruta-bagas and turnips, is to run the rows in conspicuously rounded beds, as shown at Fig. 1. These are made by running back furrows, thirty inches apart, and plowing other furrows to these, or by dragging the ground with a plank ten feet long, divided, as shown at Fig. 2, into rounded hollows, each thirty inches apart from center to center. Then the seed furrow, or the drill, may be run on the crest of each ridge, leaving the row very distinct. Then there is no need to wait until the plants are above the ground to use the cultivator. Otherwise a good plan is to harrow the ground repeatedly, having plowed it in time to do this, and have the final harrowing made crosswise of the direction in which it is intended to make the rows. Then, in using a hand or a horse planter, the rows are made very conspicuously across the harrow marks, and the spaces between can be cultivated at any time close up to the rows, and the young weeds killed. As soon as the plants are above ground, I run a plow as near to the rows as possible, throwing the land away from them, as shown at Fig. 3.

This is the best time to thin out the plants, and it is done very rapidly by a man who walks along the row and chops out the intermediate plants, leaving bunches or single plants about 12 or 18 inches apart. The rows appear as at Fig. 4. After the hoeing a boy follows and takes out all the plants except the most thrifty one at each place left. Some talk of transplanting beets or mangels. I never found one transplanted to be worth the trouble. I would rather prepare a bed of cabbage plants in season and put one of these in every vacant place, than take the trouble to transplant a beet; or I would drop a few seeds of rut-baga or Gray-stone turnip, and let these occupy the room.

Fig. 1.

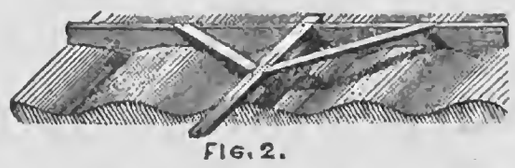


Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

I now take the opportunity to throw a little fertilizer, two hundred pounds of blood guano, or of finest ground bone flour, in the furrow; and as soon as this has been done, the soil is thrown back again. To scatter the soil and make it fall loosely in the row, I tie a piece of rope about the mold-board above the heel of the share, and the earth caught by this is broken up and scattered, and does not turn over in a compact mass. The rows then appear as at Fig. 5. After this a common cultivator, or one with scrapers, may be advantageously used to loosen up the soil and keep it clean until the rapidly growing leaves cover the ground or shade it sufficiently. The crop is then safe until the time comes to gather it, and this work is sufficiently important to be treated of by-and-by specially.

Miscellaneous.

THE WORK FOR AGRICULTURAL COLLEGES

PROFESSOR S. M. TRACY.

In a recent number of the Rural an article urged that agricultural colleges should be made experimental stations, and that tests for the best method of culture for various crops, the best method of feeding and breeding stock, the culture of fruits, etc., should be made a part of the college work. The idea is an excellent one, and one that ought to be carried out much more fully than it is; but, until farmers as a class can be made to see and feel the necessity for such work more clearly than they have ever yet done, there is little hope of very much being accomplished in this direction. Strange as it may be, the greatest opposition to agricultural colleges and experiment stations comes from the farmers, and not from the lawyers, brokers, merchants and other non-farmers, who, as a rule, are men of more education than are the farmers.

Properly managed, agricultural colleges might be of incalculable benefit to the farmer in at least two ways: one is by giving him an education, the general culture of which will do much to make him respected and influential among his neighbors, while the technical part will benefit him financially by enabling him to conduct his farm scientifically, and therefore successfully—for successful farming is scientific farming; the other way in which the agricultural colleges may benefit agriculturists is, as suggested by the article referred to, by making them experiment stations. The science of farming is based almost entirely upon experiment, and experimental work is both difficult and expensive, and must be continued for years before it can be of much real value. Experimental work, as it is too often conducted, is worse than useless. The experiment is usually closed within a few months, or a year at most, and the results are announced as definitely settling the question at issue, and by far too many accept these results and act upon them without knowing anything of the peculiar circumstances under which the experiment was made. The culture which is most successful in particular seasons, on certain soils, and under a certain amount of rainfall, may be an entire failure when any one of these three circumstances varies. Reports of farm experiments should never be accepted as being of any value whatever, excepting so far as the circumstances under which they were made are given; the reliability and ability of the party making the experiment should also be considered, and the greater the length of time the experiment was continued and the more widely varying the circumstances under which it was made, the more valuable and reliable does it become.

Very few farmers have the means, and still fewer of those who have the means have the inclination for long-continued experimental work. Those connected with the agricultural colleges *ought* to have the ability to do this work, and it is only by doing such work that they can, to any great extent, benefit the thousands of farmers who are unable to enter the class-room. The endowment given by Congress was "for the benefit of the industrial classes," and the comparatively small number of students in the colleges is a very small proportion of these classes. Some of the agricultural colleges are doing good work in this direction, but most of them are laboring under the disadvantages of insufficient or unavailable endowments and meager appropriations. One who has never tried it has no idea of the expense and labor necessary for experimental work which will really be of any actual value.

To give a single example: Suppose it is desired to test different varieties of wheat, the ground must be selected carefully, to have it as even as possible; the whole ground should be plowed without rain, and the whole crop sowed on the same day, and several strips or plots of some one variety should be sowed in different parts of the field to furnish means of correcting any inequalities arising from differences in the soil. When harvested, the crop must all be weighed, and in thrashing, great care is necessary to keep each variety by itself. A report of the trial should include: the character of the soil; the crops raised on it in previous years; the manures used and the mode of applying them; the method of preparing the ground; the date and manner of sowing, and the amount of seed; the ability of each variety to withstand frost, drought and rain; the date of ripening; the weight of straw and grain; the weight of grain per bushel; the character of grain, yield per acre and character of the season. To make the report complete, the grain should go to the chemist, that we may know which varieties are of the most value for flour. The work will then be duly commenced, for it should be continued for years, and the true experimenter will not be satisfied without selecting and hybridizing seed, and endeavoring to obtain new varieties of still greater value.

This is work which, from its very nature, cannot be directly profitable, and which we cannot expect to have conducted without governmental aid. At the agricultural colleges are men fitted for the work, many of whom have been fitted for it by years of training in colleges and on the farm, and the State and National governments cannot devote the necessary money to any other work which will be so advantageous to the whole country as by supporting an experiment station at each agricultural college.

Columbia, Mo.

ABOUT BARNS.

It seems to me that your correspondents have succeeded in knocking all preconceived notions of the average barn-builder into "pi," with high barns and low barns and so-called axioms. It seems to me that some of us who use barns and understand our needs should briefly state our requirements, and the kind of barns we have built, are building or hope to build, thereby throwing some practical light upon the subject.

Now in regard to the size of the barn: my preference, for mixed farming, is a large building, with basement, if the site is suitable; if not, then a two-story structure, with a driveway graded as wide as the floor, protected by walls which curve outward as they reach the level ground. The bank or graded drive-way should be connected with the barn floor by a bridge. The basement, or lower story, as the case may be, is to be used for stabling, tool-storage, root-cellar, etc., etc. With proper elevation, no floor is needed in this part of the building. Stables for sheep or horses are much better without floors; and for cattle, with proper care in paving or grouting, or, what is perhaps better, by using a mixture of clay and gravel tamped hard, there will be no need of wooden floors. The upper part of the building is so largely varied to meet the needs of the owner that I will not particularize, only saying that it should be at least 20 feet from sill to plate, and not to exceed 30 feet under ordinary circumstances.

The talk about the necessity that the timbers for buildings should increase in proportion to their hight is true, but not practical; nor will it apply to barn-building at all until the hights I have mentioned are exceeded. The expense of framing is the same, excepting a few dollars' worth of labor in framing girths and braces. The expense is but little for timber until this hight is exceeded. The expense for outside covering is easily computed, and is but a small part of the cost of the building, while the saving in foundation (which should be, in all buildings thoroughly built, sunk below frost, raised above the action of damp, protected by drains, etc.,) is large; so also is that of the roof, as has been estimated. If a larger building is needed than can be conveniently placed under one roof, add wings, or build another barn, but do not build a number of small barns to annoy you while you live to use them. E. L. M.

COAL ASHES AND CURRANT-WORMS.

In looking through your issue of June 14th, under the heading "The Garden," I find two articles disconnected, viz., "Death to the Currant-Worms," and "Coal Ashes." Let me connect the articles.

First, my currant bush or bushes are not planted under a fence, but ten feet from it. Second, early in the spring, i. e. before the leaves start, I cut out all old stalks; clean all dirt and grass from the roots, throw the refuse away as far as I can with a shovel, cover the roots with fresh dirt, and the dirt with manure, and the manure with from two to four inches of coal ashes.

I have followed this plan for years, and when the workmen obey orders, I am never troubled with currant-worms. When they "slight the job" I get a few currant worms, otherwise my currants are very fine. I don't mean to advise a little pile of coal ashes close to the bush, but I do advise that the ashes should be spread all over the ground as far as the bush will extend.

Every family that uses coal can save enough ashes for their own bushes, but to those who have, say, twenty acres of Currants, more or less, I say put on the coal ashes, if you can get them. Plow under the old ashes and you kill the eggs. It may take two or three years to kill all the eggs, but stick to it and you will conquer. D. K. Barker.

WHAT OTHERS SAY.

Budding Roses.—The editor of the Gardeners' Monthly says that the rose season reminds him to say that he is almost sorry they are so generally grown on their own roots, for it was such a nice employment for many people, not professional gardeners, to bud them on the Manetti stock. But the suckers from these wild stocks came up, and in time so weakened the grafted part that it soon died. Florists would say that amateurs should keep the suckers cut away; but it is not easy for amateurs to distinguish one from the other. Yet we hope the pleasant practice of budding Roses will not fall into disuse. Any hardy kind can be used for a stock, and one may have a dozen or more kinds on one plant in this way. In budding Roses, or indeed in budding any kind of plant, strong, healthy stocks should be selected, and above all, strong, healthy buds. It is chiefly when weak stocks or weak buds are used, that failure follows. On a recent visit to Boston, he saw especial reason to refer to this matter of budding Roses. A person was complaining that his fine English imported Roses—beautiful a few years ago—were "running out," and he doubted if the Boston climate was good for the Rose; but the editor found the "running out" merely meant that one-half the plants were now nothing but the Manetti, on which the English now bud extensively. The stocks had outgrown the grafts.

To Destroy the Cabbage-Worm.—Mr. O. S. Bliss tells the N. Y. Tribune that the best thing he has ever found for the cabbage-worm is to dose it with pepper from the little four-ounce boxes so common in the stores nowadays. It seems not to be a sure cure, but he has sometimes saved a crop by it. Instead of hellebore for currant-worms he uses the root of the false hellebore (Veratrum viride), a plant found in all our low meadows and fields and commonly known here as Indian Poke, sometimes as wild hellebore or black hellebore. He gathers in a few minutes roots enough for the year, and throws them upon some high shelf to dry.

When the worms put in an appearance on the currant bushes or rose bushes, he puts a root or two into an old three-quart fruit can and sets it on the back of the stove for a few hours, when with a wisp of hay or an old whisk broom, he sprinkles the bushes on a dry day. It is a little trouble, but no work, and does not cost over a cent a bush to keep the whole crowd of leaf-eaters in subjection.

Best Varieties of Fowls.—Professor A. J. Cook says—we do not know what publication is entitled to the credit—that he has decided that for both meat and eggs no variety ranks higher than the Light Brahma. Possibly the Plymouth Rock ranks nearly as high. The Brown Leghorns he has found to be perfect non-sitters. They are admirable layers, except in cold weather, when he found them inferior to the Light Brahmas. The Leghorns mature quickly, when they weigh three to four pounds, and are, he thinks, almost useless for the table. They are wild and intractable. A fence five feet high is Brahma-proof. As much cannot be said of one three times as high if the word Brahma be replaced by Leghorn. He cannot recommend the Brown Leghorns, though he has a flock for sale.

FREIGHT INJUSTICES.—At a recent meeting of the Farmers' Alliance, as reported in the Rural Home, railroad monopolies were talked about. One member said he did not believe there would be sufficient resistance to railroad oppression till it had fairly strangled the people. Another added: "Shall we control the railroads, or shall the railroads control us? Vanderbilt has control of all the railroads leaving Chicago, and running through this State. The chartered corporations have the statutory rights, and we are told that there is no other way but for the people to submit. Is that so? There are the people on one side and the corporations on the other, and the people can beat, if they *will* it."

UPLAND CRANBERRIES.—A year or two ago there was a great ado made about the cultivation of Cranberries without the assistance of marshes or water, says the Germantown Telegraph. Very careful directions were given how it was all to be done; how it would avoid the insects, diseases, etc., to which the bog Cranberries were subjected, and so on. Of course there was money to be made in this. There were plants to be sold, and we suppose that a good sale was made; for by the time the fraud could be discovered there were no more offered to be sold. At least we do not notice that such was the fact. Cultivating Cranberries on upland and Whortleberries in gardens are about on a par.

STRAWBERRIES.—The Indiana Farmer gives a report of the proceedings of the Montgomery County (Ohio) Society. Dr. John A. Warder said he raised berries to eat, not to sell, and he preferred the Burr New Pine above all others. It may not fill the eye, or have good market qualities, but it is early, and fully an inch in diameter, large enough for anybody of ordinary-sized mouth. "For a Strawberry for home consumption, give me Burr's New Pine." Mr. Ohmer called the Crescent Seedling "The Lazy Man's Strawberry." He says it is "an easy grower, needing little culture."

POTATO WATER.—The Scientific American says that an immediate and effective remedy for lice on cows and other cattle, also for ticks on pigs, is to wash the affected parts with potato water—water in which potatoes have been boiled.

CATALOGUES, &c., RECEIVED.

OUR readers know of Mr. J. T. Lovett, the enthusiastic and reliable small-fruit cultivator. He has favored the RURAL with a number of articles upon various small fruits, which have shown how carefully he observes and records the new facts which in this pleasant occupation are ever presenting themselves. We speak of Mr. Lovett at this time merely to say that he is now sole proprietor of "Monmouth Nurseries" (Little Silver, New Jersey), to which, we understand, he proposes to give his undivided attention.

The Poultry Yard.

POULTRY NOTES.

Some farmers think it does not pay them to keep poultry. Their hens do not lay, and they are wandering all over the farm, scratching up corn, tangling the oats and wheat, destroying the garden, etc. Of course this does not pay him. But let us take a look at his barnyard. In one corner stands his poultry house—if such you could call it—which consists of a little shanty 6 by 8 feet square and about 3 feet high on one side and 4½ feet on the other. He keeps about 100 hens, with one rooster, which must either be huddled together in this small pen or roost out-of-doors on the coldest nights we have. The manure is two feet deep underneath one or two cross-pieces for the hens to roost on. The roof is rotten, and part of it fallen in. Here and there lies a dead hen, which died either from some disease, from exposure to the weather, or from starvation, as he never feeds his hens anything—"it don't pay," you know. What water his hens get they drink out of a hole in the barnyard, which contains liquid manure, which is going to waste the same as many other things on his farm. This much you could have guessed, as any man that will not take proper care of his chickens is slack in his other work. There are no places in which the hens could lay, even if they would under the circumstances. I am sure of one thing, that is, that poultry *does* pay here at "Cherry Dale" farm, and I think they would on any farm if managed the same as here. Our chickens are supplied with water the year around, and fed night and morning. We always try to keep egg shells for our chickens to eat. We have a good, roomy, and clean poultry house, and always have plenty of nests filled with clean, bright straw. We find our hens lay a great deal better when they have a change of food every week. As soon as we find a hen that wants to sit, unless we want her for that purpose, we shut her up in a small coop, water and feed her regularly, and in a few days she will come out and go to laying.

Sandusky Co., Ohio. C. T. TINNEY.

Scientific and Useful.

CIRCULATION OF MOISTURE IN THE EARTH.

S. RUFUS MASON.

HEAT and cold are the two principal agents producing the phenomena of life, not only of animal life, but also of vegetable life, as well as that pre-existing condition of the elements which induces animation in creation. Water is an extremely sensitive fluid, never for an instant in a state of rest, and so easily affected by heat or its absence that it rises and falls, ebbs and flows in the soil almost as promptly as the atmosphere does upon a fitful summer's day. The ill effects of stagnant water—so-called—are well known; it poisons the air, the soil it lies upon, the vegetation near it, and the very animals compelled to breathe the vitiated atmosphere about it or drink its fetid nastiness. But it is not stagnant in the true meaning of the word; it still rises by day and falls at night, although it does not ebb and flow. It has really become dead water—in contradistinction to living water—because it has no motion over its bed, which tends to refresh it by constant mixing with the atmosphere. We have here the secret of pure water, as water deprived of constant accessions of fresh air, becomes foul and decays. Although water in the soil seems, at first thought, to be too far removed from the atmosphere to feel its influence, yet it will be found extremely sensitive to it, and under proper conditions more will readily mix with air, than when in large bodies on the surface.

The internal heat of the earth tends to expand the water in it, which thus by its heat and its consequent loss of gravity, rises toward the surface. This vapor, mist or exhalation is probably invisible, but is nevertheless ample in quantity to permeate the stratum of cultivated soil, where (especially at night) meeting a cooler temperature, it is partly condensed, just enough to act as a solvent to the constituents of the soil, and thus serve to prepare plant-food. Changes of temperature in the atmosphere serve to accelerate or retard this action, and between the earth's internal heat, and the sun's heat applied to the soil externally, well cultivated soil can never become *sour*. The only mode by which soils can become sour, is to so neglect them that circulation is checked or totally stopped. When the exhalation arising from internal heat is so great that it cannot all be condensed in the soil, but a part rises into the air, it is then caught by a cooler atmosphere and is at once condensed into water, which collecting on herbage and objects lying near the surface, forms dew.

This is a consequence of cold, and in opposition to heat, drives down whatever heat forces up. Heat acts always in opposition to gravity; cold always in favor of it, and these two powers incessantly in action, maintain a constant circulation of water, moisture, vapor or exhalation in the soil, according to their respective thermometrical differences.

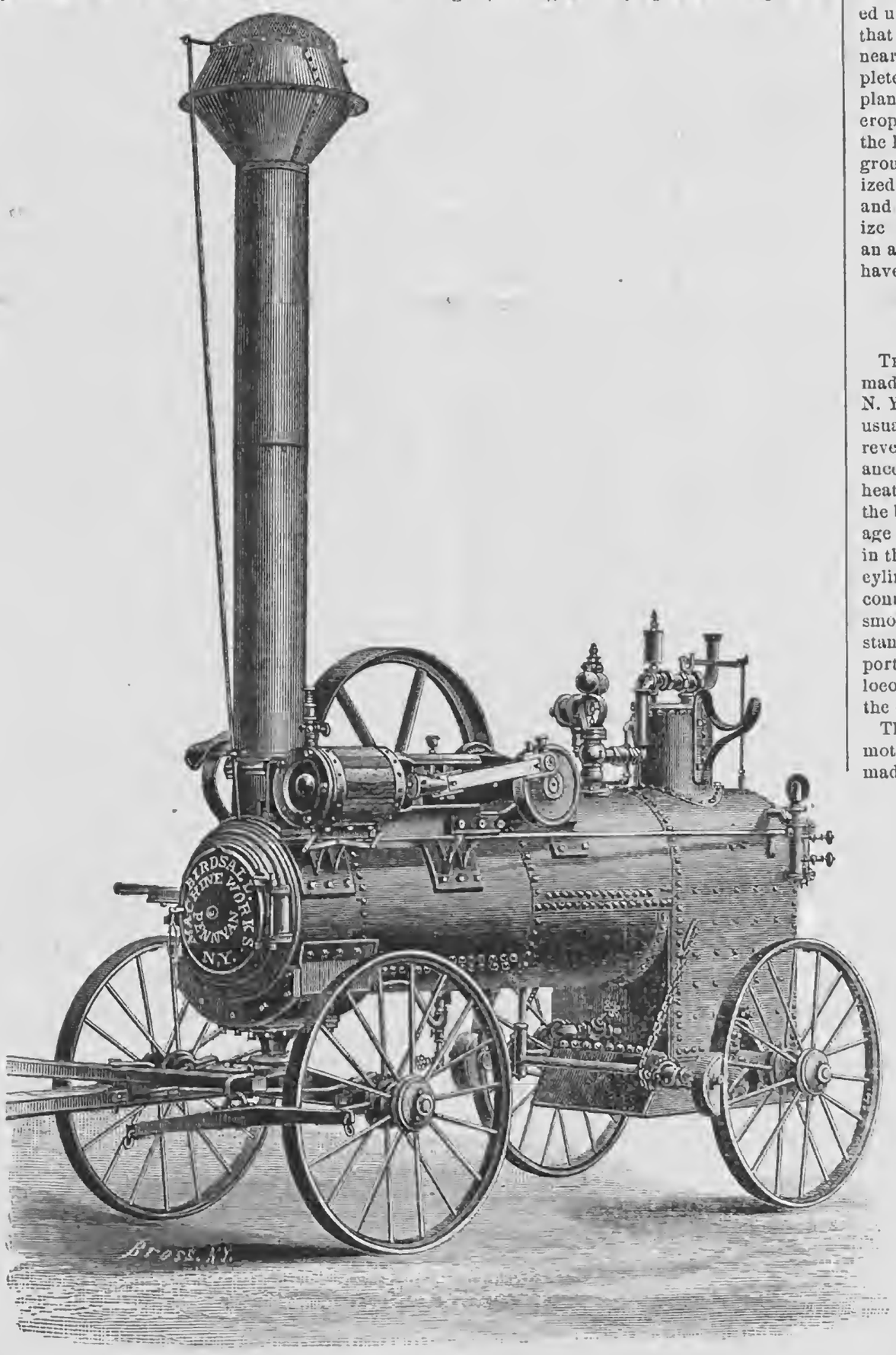
Dodge Co., Neb.

Industrial Implements.

THE WESTINGHOUSE ENGINE.

THIS Engine is comparatively new in many of its features. It is capable of driving the largest grain thrasher, and its actual weight is not more than 3,800 pounds. This of itself should attract attention, because it is many times a very anxious question how to move large machinery, especially in hilly sections of the country or when roads are in bad condition. To make one of so light a weight as that mentioned herein, there must needs have been some modification of the customary methods of construction, and these modifications consist of, first, a naturally reduced weight in the boiler, which from its peculiar construction retains abundant strength and has an ample area of heating surface; next, a quick-moving engine, having all its proportions adapted to the work required. The boiler of this engine will naturally be classed as an upright, but its interior construction is different from the vertical boilers. The tubes, instead of being vertical, are horizontal, and so arranged that the water circulates through them, and thereby present a large heating surface acting upon a small quantity of water. The engine has a novel balance valve, which seems to be almost entirely free of friction, and the whole of the running parts lie very low upon the truck, so that the engineer can have a full view of the entire engine at all times, and can have ready access to all the parts requiring his attention.

Westinghouse & Co., of Schenectady, N. Y., the manufacturers of this new engine, are also preparing to manufacture their Combined Clover and Grain Thrasher, on a larger scale than heretofore. The long-continued monopoly which has controlled the production of clover machines having two cylinders, which has been the source of so much vexation and litigation during the past eight years, seems likely to come to an end with the expiration of the patent.



THE BIRDSALL ENGINE.

THE SYRACUSE CHILLED PLOW.

REPORT FROM THE RURAL EXPERIMENT FARM.—Last March we received from the Syracuse Chilled Plow Co., of Syracuse, N. Y., one of their full-rigged, two-horse plows, with a request to thoroughly test and report our opinion of it. In our locality the farmers are very conservative, and have held steadfastly to the common, cheap plow, so that the advent of the "Syracuse" excited quite an amount of curiosity which culminated in its traveling about the neighborhood and being extensively used. It has made warm friends and converts. Its performances have demonstrated its superiority, and shown that it is in every respect a cheaper plow for sixteen dollars, than a dozen of the old-fashioned concerns at a quarter the price.

The thoroughness of the work performed, the ease of draft and handling and solid construction are the merits that are most apparent. We put it into a pasture that had been in grass nine years. The sod was very tough, but the plow went through it handsomely, cutting a clean furrow slice, and turning the furrow so thoroughly that all the grass was plowed under perfectly. Again it was put into sod that was overgrown with grass and daisies nearly a foot high, but this growth was completely turned under and covered. Corn was planted on this plot, and now that the growing crop requires working, it is found that only the hoe need be used. The plowing left the ground in such an excellent, perfectly pulverized condition, that it is uncommonly friable and free from grass or weeds. We particularize these instances as we consider they make an admirable record for the "Syracuse." We have expended nothing for repairs.

THE BIRDSALL ENGINE.

THE very excellent illustration of the engine made by E. M. Birdsall & Co., of Penn-Yan, N. Y., shows some decided departures from the usual manner of construction. The cylinder is reversed, throwing the crank-shaft and balance-wheel near the middle of the boiler. The heater is directly under the smoke-box end of the boiler, and is arranged to permit the drainage of every pipe, elbow connection and bend in the feed, in cold weather. Being near the cylinder, too, it receives the exhaust by a short connection and discharges directly into the smoke-stack. It also serves to make a substantial attachment to the front axle and supports the boiler saddle-wise. The boiler is of locomotive pattern, but differs somewhat from the ordinary portable farm engine.

The fire-box end is what is known in locomotive practice as the wagon-top form, being made with the sheet which forms the shell of the fire box several inches higher on top than the tube-shell, connecting with the latter by a taper waist, and surmounted by a steam-dome, which together form a large steam and water space. The fire-box is provided with rolling grates, which are actuated by a lever outside for cleaning the ashes. The ash-pan is provided with a draft-door at either end, in order that adverse winds may be guarded against.

The cut gives a very clear illustration of the manner in which the cylinder and frame are attached to the boiler. The design of the frame is of the truss pattern, giving rigidity and strength, together with symmetry and beauty of proportion. It is all cast in one piece, comprising the cylinder, steam-chest, elbow-pipe connections, guides, crank-shaft box, valve-stem guide, and bracket supports. It is attached to the boiler by broad, heavy brackets, the one at the cylinder end being secured to that part of the sheet which forms the smoke-box, and hence is not liable to cause leaks in the tube-sheet by the bolts working loose.

The various parts of the engine are conveniently accessible, and it is seldom that we are called upon to inspect a piece of mechanism that has been so carefully worked out in detail with a view to encompassing worth, strength, economy and finish. The circulars sent on application are fully explanatory and well illustrated, giving the reader a very clear conception of the engine.

Everywhere.

RURAL SPECIAL REPORTS.

MASS., Monument, Barnstable Co., July 1.—Many people think that Cape Cod is a sand hill; I wish they were here now, for they would change their minds. We have had nice rains and everything looks green and beautiful. There are some very good farms here, and nearly every one has at least a good garden, while the love of flowers grows more and more every year, even the very poorest houses having their little flower beds by the door, and some having very handsome gardens. A. W. B.

NEW YORK, Fluvanna, Chautauqua Co., June 29.—The weather is delightful; showers frequent; mercury from 60 deg. at 6 A. M., 90 to 92 deg. at 2 P. M., and 70 to 72 deg at 8 P. M. Crops of all kinds are looking well. Wheat is fine; grass about three-fourths of a crop, and in some places above an average. Corn is rather small, but of a good color and growing rapidly. Oats, barley and spring wheat are above an average. Potatoes are looking fine. We have had new Early Rose potatoes for dinner; also green peas—McLean's Little Gem. Turban squash vines are four feet and looking unusually fine. Early onions are beginning to ripen. Fruit prospects are good. We have plenty of old apples in the cellar in fine condition, and the new ones are large enough for sauce. Orchard-grass is cut and in the barn. Celery is large enough to begin to hill. Beets and turnips are unusually fine. Cabbage is good—no moths or worms appeared up to date. I shall start the plow for buckwheat and sweet Russian turnips on the 30th. Shall put turnips in drills, rows two feet apart, so as to do the work with a cultivator. The new potato, Beauty of Hebron, is very promising; shall keep all for seed. Butter very low—12½c. per pound; pork advancing a trifle—5½c.; beef, 5c.; sheep scarce—no sales. H. A. W.

N. Y., Croton, Del. Co., June 30.—We had a very long and severe winter in this locality, the snow laid on until late in the spring, and consequently farmers were very late in getting at their spring's work. The ground was dry and in good condition for sowing soon after the snow went, and remained so through seed time, but the weather being cold and with very little rain until recently, was not favorable for growth of vegetation. The prospect for the hay crop has been rather discouraging, but the numerous rains in the fore part of the month, together with the warm weather, made all crops grow lively, and our farmers are looking more cheerful than they have done, though with the present prices of butter, most of our dairymen get "the blues," especially such of them as are in debt for their farms. E. J. B.

NEW YORK, Preble, Cortland Co., June 30.—Wheat is very poor: some pieces were winter-killed, some so much so that they were plowed up. Corn came up very unevenly and is late for the time of year. Oats are looking fair. It is too early to say anything definite about potatoes; only the "bugs" are very plentiful. Pastures are very short and meadows very light in consequence of the cold, dry weather since the snow went off; we have not had more than six hours' good rain, and from April 28th to May 27th, we did not get rain enough to lay the dust well. Fruit prospects are poor, indeed, as we had so many hard frosts—four in succession—when the trees were in blossom. J. D. F. W.

N. J., Bricksburgh, Ocean Co., June 26th.—With the exception of a slight drizzle yesterday, we have had no rain since the 11th inst., when we had a heavy shower. All crops are much in need of a soaking rain, and from the indications to-day we shall soon get it. Corn has a fair stand. Hay is poor to fair; sweet potatoes are backward, but of good color—they are a leading crop with us. Strawberry picking for market closed about the 17th inst.; the yield was very fair, and the prices better than expected. The mercury, for the last few days, has ranged high. G. A. M'B.

PA., Nittany, Centre Co., June 25.—The spring was very dry, and early summer has been the same. Wheat will average something over 50 per cent. of an average crop in this county. Hay will hardly be 50. Oats are looking well—just heading out. Corn is looking fine: a good deal of it was injured by worms; but the prospects are good for a full crop. Potatoes are good—a large acreage planted. Peach trees are loaded; some are dropping. Apples will be a short crop, this being the "off year" here. Wheat is selling for $1@1.15; corn, 50c.; oats, 25@30c.; potatoes, old, 75@80c.; new, $1.50. Our lands are much exhausted, and there is not enough interest taken in the improvement of the soil in this valley. J. H. B.

OHIO, Businessburg, Belmont Co., June 28.—The prospects for good crops are not so flattering as last season. Wheat is an average crop. With oats the farmers will do well if they get their seed. Corn is now beginning to grow. The season has been too dry for any spring crops. The meadows are very light. If the weather should be favorable from now on during the season, the corn and potato crops might be fair averages. Fruit is almost a failure. Apples will not be a quarter of a crop. There are no peaches. Plums and cherries are very good crops. We are now busy harvesting our wheat, which is principally Fultz and Clawson, these two varieties excelling all others for yielding. T. N.

OHIO, Lima, Allen Co., July 1.—The wheat harvest commenced this week and is first-rate, better than in 1878. Corn looks good, although it is about two weeks later than usual. Flax and oats are looking fine, so are potatoes. Rains through the month of June have made pastures good, and the hay crop will be very heavy. Apples will not be half a crop. S. S.

IND., Lapelle, Madison Co., June 30.—Farmers are now in the midst of their wheat harvest. There never was such a good wheat crop raised in this part of Indiana. Corn and flax, too, since the seasonable rains we have had, seem fairly to spring up. We had a splendid rain the 28th of this month, and now the gardens are beginning to yield a return for all the labor that has been bestowed on them. Potatoes are doing finely; no bugs this year, nor have we many cabbage-worms yet. The few that made an appearance were quickly settled with a good dusting of black pepper. Plenty of wild raspberries and blackberries can be had in the woods. There are no cultivated ones; all were winter-killed. There will be a few apples, but no peaches or cherries. We shall get some pears in sheltered places. The Blunt corn is far ahead of all other corn in the same patch. J. A.

MICH., Shelbyville, Allegan Co., June 28.—Wheat hereabouts will be an average crop, although it was somewhat damaged by frost. Corn is backward. Potatoes are fair, so far. Fruit is going to be better than last year. A. L. B.

ILL, Fairfield, Wayne Co., June 21.—Farmers are all busy harvesting. The weather is cool. Harvest hands are scarce; wages $1.50 per day. Early-sown wheat is good, but late-sown is poor. Oats are very light. Corn looks very well. Potatoes are good. Apples are scarce. Peaches, none. Grass is a very light crop. Prices of produce are: wheat, 75 @ 80c. ₮ bush.; corn, 40@50c.; oats, 25@30b.; potatoes, 60@75c.; eggs, 7c. ₮ doz.; butter, 15c. ₮ lb.; hogs, 2@7c. ₮ lb. E. A. R.

WIS., Wauzeka, Crawford Co., June 26.—The wheat crop in this section is very good. Oats are heavy and very promising. Rye is an average crop. Grass is good; potatoes just middling. Corn is not so promising. Our spring has been too cold and backward for corn. Fruit prospects are not so good; late frosts hurt nearly all fruits. We shall commence cutting wheat in about two weeks. The weather is very warm, accompanied with heavy thunder showers—an excellent growing time. M. T.

MINN., Cedar Mills, Meeker Co., June 25.—Wheat, on the whole, promises at least an average crop; some fields are looking remarkably fine, while others, which were sown later by reason of the drought which prevailed at that time, do not compare favorably with those sown early. Some pieces of wheat are heading out, and it is thought that harvest will commence in three weeks. Oats and barley are looking fine, and corn also promises a good crop. Potatoes will probably yield well, from present prospects. Very few beetles have made their appearance. Fruit prospects are only tolerably good; less small fruits of all kinds than usual. We had an unusually dry winter and early spring, which injured fruit more or less. S. D. L. B.

KANSAS, Parsons, Labette Co., June 28.—Rain, I find by the RURAL, has fallen everywhere during the last thirty days, except just around here. Up to Thursday of this week everything, except corn, trees, and the osage hedges, were burning out. But on the evening of the day mentioned we had a good shower, and on Friday about midday we had a fall of three-quarters of an inch, which was followed in the evening by a rain of several hours, which, added to the preceding rains, made 4½ inches. Our reservoir, for the use of stock, had become so low that the water was so hot and muddy that the fish were laid dead on the margin. This morning I find that it has received, within 36 hours, 140,000 barrels of water, which will serve all the season. It is quite reasonable to suppose that this rain will "make" three-fourths of the area planted in corn hereabouts, as some of it is now in silk. Corn is eight days earlier than last year, which, itself, was early. This is brought about by the extremely hot weather of this month. At least on one-half of the days the thermometer has been 94 deg., or over. The heat was accompanied by strong southwest winds, and had not the soil been generally in a fine condition, there must have resulted severe injury, as in exceptional cases corn had commenced *firing*. We have a reasonable promise for a great yield, and this, coupled with the increased acreage, will give us such a quantity as was never before seen. Our Blunt's Prolific is eight feet high, the stock averaging 1½ inch in diameter, and is in tassel. It was planted April 23. Our ordinary corn was planted about the 10th, but it is behind the Blunt. Wheat is mostly stacked and in perfect condition—a thing that has not happened here in five years, as Kansas seems to have rains in June always, though an exception was threatened in this season. Oats are poor here, as elsewhere. Early potatoes are good, and those late ones recently planted will probably do well. The prairie grass is now too thin on most places to make hay; whether this rain will start the present brown grass, I cannot say. On a portion of our corn land, about half of it was plowed early last fall, and received several inches of rain before winter set in, but so late that no verdure appeared. It was harrowed and made smooth just before being planted this spring. The other portion was plowed this spring, and was in splendid condition—the corn being planted as soon as it was harrowed. The fall plowing seemed to be hard, below the surface, and we had a decided impression that the spring-plowed would excel the other. One farmer, a young one, said that "fall plowing had not succeeded this (the first) winter." Another farmer said we should "find the fall plowing would win, though it might look unpromising." The result is, that the fall plowing is, for a given number of plants, 25 per cent. heavier, and the stand is 15 per cent. better. J. B.

KAN., Phillipsburg, Phillips Co., June 23.—The prospects for small grains are not good. With all our rains we had heavy winds together with hail down to May 30, when it set in dry and we didn't have a drop of rain until the 16th inst. The hail and drought have injured the crops. Winter wheat and rye will not be over half crops. Spring wheat, oats and barley are poor; the heads are short and farmers are plowing under some pieces. Corn is looking fine. "Bugs" have hurt the potatoes somewhat. There are some peaches and small fruits. V. B.

KANSAS, Edgerton, Johnson Co., June 27.—Our drought here is at an end. It commenced to rain on June 20th, and has been raining every day since, and is still raining. This will help oats and flax a great deal, but wheat will be injured in the shock; there is none stacked here yet. Corn and potatoes will be heavy crops. My Blunt corn was planted the latest of any I have; but it is now the largest, standing fully six feet high. I thinned out about half the suckers and left the rest. It beats any corn I ever saw in suckering. Probably the manure caused it. A. B. D.

KAN., Ellsworth, Ellsworth Co., June 25th.—Winter wheat is good. Spring wheat, half a crop. Potatoes are injured by "bugs"—will make two-thirds of a crop. Fruit is doing well where cared for; most of our trees are too young to bear. Peaches are a failure this year; cherries are doing well. All kinds of small fruit are a success. It was too cold last winter for our peaches. This is a good fruit county. W. E. F.

KAN., Kinsley, Edwards Co., June 23.—The weather continues dry. There will be no harvest of oats or barley. Winter wheat will average about five bushels per acre; spring wheat, an entire failure. J. D. B.

NEB., York, York Co., June 22.—I have lately been in the south and west parts of this county and the east part of Hamilton County, and I have found the crop prospects are good, with the exception of rye—it was too dry last fall for that. Corn is just splendid; some were afraid that the small grains would not be long enough to bind, but on the 19th and 20th we had a good, heavy rain, which will help the length of the straw. There will be some few pieces of barley ready in a week or ten days. Farmers are expecting a better yield than last year, and wishing for better prices. Wheat is now worth from 83 to 88 cents; corn, 25c., and hard to get; hogs, $2.50@2.65. Immigration continues at a rapid rate. There have been as high as 26 teams in a single day in York, besides many who are coming by rail. J. B. R.

NEV., Mason Valley, Esmeralda Co., June 20.—We have had a very backward season—the thermometer ranged 50 to 70 degrees in daytime, and from 30 to 35 degrees during night. Grain looks very fair; straw will be short. Barley is our main crop, and will average about 25 bushels per acre, though as high as 60 are reported. Wheat is not a good crop. There is enough planted for home use; it averages about 15 bushels per acre. Oats are not raised generally, and what there is will be a poor yield. I am experimenting with Waterloo White Oats, received from the Agricultural Department; it looks promising. Fruit trees, so far, are only ornamental, late frosts having killed the blossoms. The Pearl Millet from RURAL NEW-YORKER was killed by frost. Defiance Wheat looks well. Haying will commence next week; entirely Alfalfa; yields about five tons per acre. C. F. M.

IDAHO, Salmon City, Lemhi Co., June 30.—The prospects for wheat, oats and all other small grain are good. As to potatoes and other vegetables, we always have good crops, and the prospects now are better than ever before. Corn and fruit have not been raised here successfully, so far. J. S. J.

OREGON, Halsey, Linn Co., June 26.—We had only one shower of rain in May, but it lasted 31 days. Fall-sown wheat looks fine, and is in bloom. Early spring-sown wheat looks good, and that sown late is just out of the ground. The apple crop is light—late frosts injured it. J. D.

WASHINGTON TERRITORY, Alpowa, Columbia Co., June 20.—The farmers in southeastern Washington Territory including the counties of Walla Walla, Columbia, Whitman, Stevens and Yakama, were never in such high hopes of securing an abundant harvest as this season. Wheat is the principal crop in the above counties and the very promising yield is so flattering to the cultivators of this cereal that extensive preparations for securing it are being made many weeks before it matures. Expectations in regard to the yield run as high as 60 bushels to the acre, and even this great yield has been exceeded in seasons less favorable than the present. Home consumption will require only a very small part of this immense crop, and the surplus will be taken to the seaboard, there to be shipped to the markets of the world. Rates of transportation to tidewater are exhorbitant now, but the great number of prospective railroads gives the wheat-raiser a strong hope that he will soon sing the song of "hard times" no more. The growth of oats and barley is exceptionally fine, and an abundant harvest is expected. Corn is quite late, corresponding with the season, but sufficient is *always* raised for home consumption. A great yield is *never* expected, for this is not a corn country. Potatoes in enormous quantities are raised every year, and this season has been a remarkably good one for an extra crop. Apples, peaches, plums, pears and cherries are in great abundance and there is an excellent promise of the quality being very choice. N. A. W.

DAKOTA, Deadwood, Lawrence Co., July 22.—Wheat is looking good; but I don't think there will be any more than enough seed for next year, as a large increase of acreage is likely to be planted. This is the first year in which we have tried corn. Oats are fine; there will be too much for market. This is *the* potato country, and the crop is looking in fine condition. H. C.

MONTANA, Boulder Valley, Jefferson Co., June 22.—Wheat is at present looking very favorable; it will probably be a No. 1 crop, as there are no grasshoppers this year. The outlook for the potato crop is good. Corn in this Territory is of but small account, as there is but little planted, and that is the small and early kind. Fruits, where trees have been set out, are looking very well, though heretofore the altitude has been considered too great for fruit-growing. J. E. R.

WYOMING TER., Lander, Sweetwater Co., June 25.—The weather is fine, and the crops promise well. Young grasshoppers, however, are bothering some of the crops. Wheat last year averaged thirty bushels per acre. Potatoes were so plentiful that hundreds of barrels were thrown away. Cattle are getting fat, but for humans times are still very hard. J. J. F.

CAL., Norwalk, Los Angeles Co., June 21.—This is one of our dry seasons. Crops in general will be light. Of wheat there is scarcely any raised here. Early potatoes are plentiful, and selling at 50 per cental. Corn is a short crop, very low, about 50c. per cental, sacks furnished. Fruits look pretty good. Barley is a short crop. Alfalfa is about the best crop here. N. J. K.

CAL., Fresno City, Fresno Co., June 25.—Wheat, corn, and crops of all kinds are total failures, except on irrigated lands. Fruits will be large crops. H. N. C.

VA., Chula, Amelia Co., July 1.—Wheat is an average crop, although badly winter-killed. Corn is very fine, having been well worked and the season being suitable. The fruit prospects are bad, our hopes being confined to apples and a few defective peaches. Owing to dry weather the early potatoes are a failure; late potatoes are looking well. W. O. H.

ALA., Selma, Dallas Co., June 26.—After a long spell of dry weather we are having a fine rain. This will make corn a good crop: Cotton looks well and will be a fine crop, if the worm forgets to visit it. Not many potatoes are raised here. I don't think that this year we shall have half as many as usual, owing to the injury done them by late frots. Oats are all saved in good order. Cotton is well worked; laborers are doing finely. I hear no complaints on any side. Everyone looks and feels prosperous. J. M.

LOUISIANA, Pattersonville, St. Mary's Parish, June 24th.—We are too far South for wheat; none here. Potatoes are not planted as a field crop. What were planted this season are ripe and dug; our yield was rather below the average on account of drought. Very little fruit is grown here, except oranges. They were in-

jured by the severe winter. The main crop here is sugar-cane. It is planted to the almost entire exclusion of everything else. The crop is below the average. Dry weather caused a bad stand. Corn is very poor. We had little or no rain from Feb. 10th until May 20th.

A. E. G.

TEXAS, McKinney, Collin Co., June 28.—This is the 53d day since we had any rain of consequence, a quarter of an inch yesterday and the day before. However, it has rained abundantly all around us. This drought will somewhat *dampen* the ardor of the hopes on the experimental part of our farm, at the same time it will test the powers of endurance of Pearl Millet and other semi-tropical plants. Oats are in shock—not very good. German Millet and "Millitarian" will not be high enough to mow. There is ample time, however, to secure a crop of hay before frost. Common field corn will not yield over half a crop. Red May wheat is not as good as Mediterranean which will yield from 20 to 25 bush. per acre, bringing 90c. to $1 per bush. in market. Produce of all kinds is lower than usual; eggs, 5c.; butter, 10c.; chickens, 12½c.; no game on the market, as the law will be strictly enforced, so that, in a few years we may expect game to be more plentiful. W. N. W.

CAN., ONT., Metz, June 28.—Spring wheat will be an average crop. Oats and peas look very fine. Early-sown barley is not very good. Apples are a small crop. Potatoes are not far enough advanced to know how they will "eventuate." Hay is a medium crop. There was considerable frost here this spring. We had some fine rains lately, and these will give us better crops. J. L. J.

The Querist.

ANSWERS TO CORRESPONDENTS.

Summer-Pruning Grape Vines.

T. R. S., Benton Harbor, Mich., has a vineyard. He uses no trellis, but trains each cane around a post. Not wanting to renew the canes, he desires to prune them so as to form fruit spurs for next year, and he asks how this pruning should be done.

ANS.—From the letter we cannot form an exact idea of the condition of the canes, or just what pruning is necessary; consequently we cannot answer as confidently as if we were better acquainted with the case. Summer-pruning of grape-vines is a most beneficial operation if judiciously done, but may also prove harmful if done without system or a proper knowledge of what is needed. Supposing that at each stake there is one cane five or six feet tall, with spurs on the sides, from which proceed the bearing branches, these being each year cut back to two buds, we should, as here mentioned, cut each branch off three buds beyond the last bunch of grapes. As soon as all laterals are a few inches long, prune them over the first leaf, and when they start from the remaining bud pinch them again over one leaf, and so continue. There will still be a sufficient number of leaves to assimilate the sap, and, the growth being checked, the berries will receive a greater amount of nourishment. No superfluous branches should ever be allowed. These should all be broken off when they are a few inches long, and what remain should be tied to the stake as well as it can be done without crowding one another.

Miscellaneous.

A subscriber—no address—asks whether there is any danger in using white hellebore to destroy currant worms and other insect pests on fruit.

ANS.—We know of hundreds of cases in which this remedy has been successfully employed, but we have yet to learn of a single case in which its use has been hurtful to those who have eaten the fruit. It should always be greatly diluted, either with water or as much as fifty or even a hundred times its bulk of flour, gypsum or some innoctious powder. Of course it is poisonous, so that unless rain has fallen between the date of its application and the time when the fruit is gathered, it is always safe to wash the latter.

R. S. R., Upper Kanab, Utah, asks whether X. A. Willard has published any work on cheese-making.

ANS.—He has published no special work on that subject, but in his Practical Dairy Husbandry the manufacture of cheese in all its details is treated.

COMMUNICATIONS RECEIVED FOR THE WEEK ENDING SATURDAY, JULY 5th.

"May Maple"—Mrs. M. R. P., thanks—C. T.—C. H. A.—E. B.—J. L. J.—T. J. B., thanks—J. E. R.—J. J. F.—H. A. W., thanks—M. M. A., thanks—J. S. J.—C. F. M.—A. L. J., thanks—J. K.—H. S.—"Gertrude," thanks—L. P. S.—W. E. F.—J. H. B., thanks—J. M.—J. B. B.—J. A. W.—G. D.—S. D. L. B.—A. B. D.—T. N.—H. L. B.—S. H. D.—M. M. A.—"Sweet Sixteen"—L. W. B.—T. J. B—R. H.—Gertrude—"Monmouth," thanks—N. A. W.—W. N. W.—J. B.—J. A.—E. M. P.—J. A.—O. D.—M. T.—S. S.—M. B. H.—J. C. M. D., thanks—S. B. B.—H. J. S., thanks—C. D. C.—J. H.—T. T. L., many thanks—A. C.—E. M. W.—S. T. B.—I. P. S., thanks—A. B. G.—E. B. M. F.

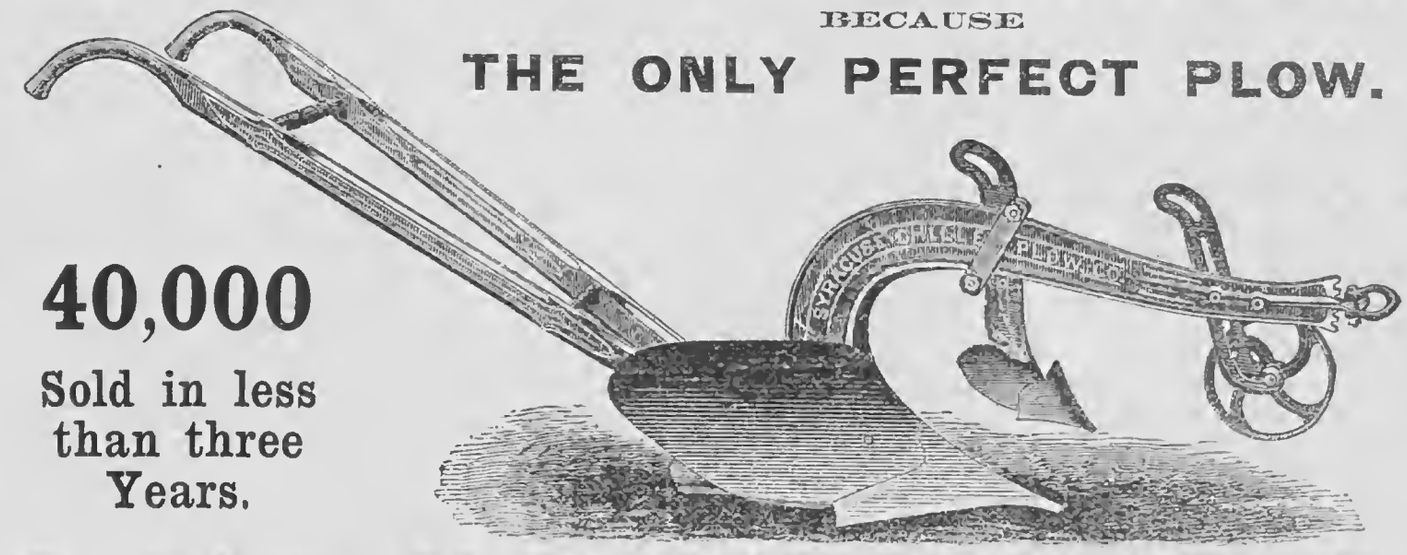
THE SYRACUSE CHILLED PLOW.

The Cheapest and Best in the Field,

BECAUSE

THE ONLY PERFECT PLOW.

Perfect Workmanship.



Perfect Material.

40,000

Sold in less than three Years.

POSITIVE EVIDENCE OF ITS VALUE.

READ THE TESTIMONY.

THE EVIDENCE.

MAYVILLE, N. Y., Oct., 1878.
Your plow suits me. It cleans the best of any Plow I ever used. It is just the thing. W. H. CRANE

MINA, N. Y., Sept., 1878.
I recommend farmers to try one of your Plows before purchasing elsewhere. I am using one, and consider it the best Plow I ever used. D. P. HORTON.

MT. JACKSON, Pa., Nov. 20, 1878.
GENTS:—I have used the Syracuse Chilled Plow, and am fully satisfied that it does better work and in every respect surpasses any Plow that I have ever used.
Yours truly, JOHN R. HAYES

BROADALBIN, N. Y., July 27, 1878
GENTS:—I have used your Plow, and consider it the best in the market. I would not sell the one I have for $100, if I could not obtain another like it.
J. B. CHAPMAN.

GLENVILLE, N. Y., July 20, 1878
SYRACUSE CHILLED PLOW CO.:
Gents:—I have tried a number of the leading Plows in the market, among them the Gale & Remington Carbon, and returned them and bought one of yours, which is the boss Plow, works to a charm, and is the best Plow in the market. Yours,
ISAAC WETHERBY.

SMITH'S CREEK, St. Clair Co., Mich., Oct. 19, 1878.
This is to certify that I have used one of the Syracuse Chilled Plows, and find it one of the very best Plows I ever used for all uses; and, further, my team only weighs 1,400 pounds, and can plow any clay land with perfect ease, and can recommend it to any one needing a Plow for general purposes. If I could not get another of the same kind, I would not take $20 for it.
SAMUEL H. PARKER.

WOODSTOCK, Ct., January 24, 1879.
We, the undersigned, have each within the past year become the owner of a "Chilled Plow" from the celebrated manufactory of the "Chilled Plow Co.," Syracuse, N. Y., and we do not hesitate to say that we believe this implement to be a most useful and valuable invention, and should be in the hands of every farmer.
HENRY T. CHILD,
FOTION SAMPSON,
STEPHEN MORSE.

MT. JACKSON, Lawrence Co., Pa., Nov. 20, 1878.
MR. W. C. HOPPER, Agt.:
Dear Sir:—The Syracuse Chilled Plow bought of you this fall gives perfect satisfaction. I have used your Plow to plow twenty-eight acres, and I find that the Syracuse Chilled Plow is the best Plow for all kinds of ground that I ever used. I think I can plow much more ground in the same time, and one-third easier, than with any other Plow.
Respectfully yours, W. H. HOPPER.

CALIN, Chester Co., Pa., Aug. 8, 1878.
We, the undersigned, having witnessed the performance of the Syracuse Chilled Plow, both Right and Left Hand, in both rough and stoney and smooth land, throwing a furrow sixteen inches wide in smooth land, and fourteen in rough, and from seven to eight inches deep; the rough being in grass and in many places eighteen inches high, do not hesitate to state that we consider it the best Plow we have ever met with, for any purpose.
[Signed by] H. GRAHAM
JAMES PENSON,
And twenty others.

WEBSTER, Mich., June 4, 1878.
SAM. MCLAREN:
Dear Sir:—The Syracuse Chilled Plow that I purchased of you is, I think, the most perfect Plow for general use that I ever saw. I have plowed with it some of the worst soil I ever saw—it being low, mucky stuff, that I have tried to plow before with three different kinds of plows, and the Syracuse Chilled Plow is the only one that would work at all in it, and that done its work very nice, and for draught and ease of handling, I think it has no equal. I have lent my Plow to two of my neighbors, and they join with me in its praise, pronouncing it to be the most perfect Plow they ever saw. Mine is the two-horse, No. 1.
Yours, respectfully, D. F. THOMAS.

OTTER CREEK, Mercer Co., Pa., March 11, 1879.
PACKARD & CO.:
Gents:—In reply to your note of the 5th inst., regarding the merits of the Syracuse Chilled Plow, I would say, that I have used, during the last forty years, almost every pattern of Plow, from the small corn size to the heavy Eight-Horse Railroad Plow, and can honestly say, that the Syracuse is the most perfect for farm use that I ever owned. It will turn down heavy tangled clover and cover every blade, and leave the surface clean and loose, and will work equally well in dirty stubble. It will turn a sod up hill, and unless thrown out by large stones, will keep in the ground with but little attention from the plowman. The head-gear is so well arranged that it can be set to the work as needed, and the draft is very light. It is in fact the plow that every farmer needs.
Very truly yours, M. D. SCURRY.

THE REASONS.

They are a more durable Plow than any other in use.

They will clean in any soil superior to the best tempered Steel Plows.

They possess the like superiority over any Cast Iron Plow, and their draft is twenty-five per cent. less.

We have this season 40,000 of our Plows in the field, and every Plow is warranted to give satisfaction.

Our Plows command a higher price in market than any other Chilled Plow. We do not enter into competition with manufacturers of inferior Plows as regards prices, any more than they can compete with us as regards quality. Our Plows are, however, practically the cheapest Plows ever put into the field.

Each purchaser of one of our Plows is furnished with a guarantee, if he desires it, giving the name of the purchaser, his residence, date of the purchase, style of the Plow, and the name of the agent by whom the Plow was sold. To the guarantee is attached the corporate seal of our Company.

Wherever a colter will work, the Jointer will work, and do all that the colter can do, and much more effectually. When the Jointer Point needs replacing, the farmer can replace it by loosening one bolt, with a new point that will cost him but twenty-five cents. This is a great saving over the time and expense required to re-face and sharpen a colter.

THE EVIDENCE.

PANAMA, N. Y., May, 1878.
I have bought and used one of your Plows, and I consider it in all respects the best Plow I ever used.
LOREN B. SESSIONS.

CANFIELD, Ohio, Sept. 10, 1878.
GENTLEMEN:—I took two of the Syracuse Chilled Plows on trial, this fall, and find them all you recommend them to be. MARTIN NEFF.

HUDSON, Ohio, Dec. 7, 1878.
DEAR SIR:—I have used the Syracuse Chilled Plow bought of you and am satisfied it does better work, and in every way surpasses any Plow I have ever used
WENDEL KROEHLE.

WHEATFIELD, Mich., June 22, 1878.
The Syracuse Chilled Plow is the best plow to hold and run steady, in the market. I think of getting another soon, as I need another plow, in preference to any other kind. WM. BYERS.

HUDSON, Ohio, Dec. 21, 1878.
DEAR SIR:—I have used a Syracuse Chilled Plow bought of you last summer, and am satisfied that it runs easier, cleans better, and does the best work of any Plow I have ever used. My men fully agree with me. JOHN MACK.

WILLIAMSTON, Mich, June 1, 1878.
I was induced to buy one of the Syracuse Chilled Plows of Mr. Lyon, and, after trial, would state that I intend to get two more, and don't want any other kind of Plow for my use. They wear the points twice the length of time the Curtice and don't break.
EGBERT TOMS.

EDENBURGH, Lawrence Co., Pa., Aug. 20, 1878
W. C. HOPPER, AGT.:
I have this day tested and bought the Syracuse Chilled Plow, and unhesitatingly say I have never seen its equal for lightness of draft, workmanship and ease of handling, and holding to the ground when dry and hard; of its clearing properties I have no doubt.
Yours truly, FRED. KEAST.

COITSVILLE, Ohio, Sept. 20, 1878.
MESSRS. ANDREWS, HILL & CO.:
Gents:—The Syracuse Chilled Iron Plow I bought from you this fall is a success. I have used it in *stubble* and *sod* ground and know it is by far the best Plow I have ever used. It runs steady and draws easy, and I challenge any other Plow that I have ever seen to equal the quality of its work. S. F. STEWART.

LIBERTY, Ohio, Sept. 21, 1878.
ANDREWS, HILL & CO.:
Gentlemen:—I have used one of your Syracuse Chilled Iron Plows bought from you this fall, and put it in competition with an Oliver Chilled Plow that I bought last spring, and find upon trial that it possesses many points in its favor over the Oliver Chilled Plow, and I do not hesitate in saying it is by far the best general purpose plow I have ever used, and cheerfully recommend it to any in want of a first-class Plow. JONATHAN KEEFER.

NEW PHILADELPHIA, Ohio, Dec 19, 1878.
SYRACUSE CHILLED PLOW CO.:
Gents:—I took one of your Plows on trial with those of other manufacturers, and among them was included the Oliver Chilled Plow. I gave each of them a fair trial, and have no hesitation in pronouncing your Plow superior to them in all respects. It holds easier, cleans perfectly, and draws lighter, and runs steadily where the other plows would not. I also think it pulverizes the ground and leaves it in the best shape of any plow I ever saw. It will pay any farmer wanting a plow to give it a trial. J. B. WALLACE.

DEERFIELD, Mich., June 7, 1878.
MR. BURNETT:
The No. 1 Syracuse Chilled Plow I bought of you last spring, I can unhesitatingly say is the best general purpose plow that I ever used. After using it upon my farm, I lent it to several of my neighbors for trial, all of whom, with the exception of one, pronounce it a number one plow for business. In this section some of the Chilled Plows fail to clear in our sticky soil. No such objection has occurred here with the Syracuse Chilled. It runs light, holds easy, and turns admirably.
Yours truly, ARMON BARRITT.

PREDONIA, Mercer Co., Pa., March 12, 1879.
PACKARD & CO.:
Dear Sirs,—I take pleasure in stating that I am well pleased with the Syracuse Chilled Plow. I have tried it in sod and stubble ground both, and it gave perfect satisfaction; and I tried it in clover from fifteen to eighteen inches high, and it turned it down so that you could hardly see a stalk, and there were several of our best farmers saw it work, and they said it beat anything they ever saw. As regards scouring, where I could not get another plow to turn without clogging, the Syracuse Plow turned it without a bit of trouble, and I would say to any farmer that stands in need of a plow to try the Syracuse before purchasing any other kind, as I think it is the best.
Yours respectfully, JAMES McCANN.

SYRACUSE CHILLED PLOW CO.,
Syracuse, N. Y.

THE
RURAL NEW-YORKER.
PUBLISHED EVERY SATURDAY.

Address
THE RURAL NEW-YORKER,
78 Duane Street, New York City.

SATURDAY, JULY 12, 1879.

NIHILISM.

Nihilism, which is simply Russian Socialism, has for its principal object the overturning of absolutism; in place of which it is proposed to establish a representative government. The established Church and some phases of social life come in also for their share of denunciation, but to free Russia from the blighting influence of Imperialism, and to elevate the peasantry, are the two "reforms" which the Nihilist regards as of paramount importance, and to bring about which he is willing to sacrifice his life, if need be. Many who are wont to sympathize with nations that are struggling to free themselves from the yoke of an oppressor, are either coldly indifferent to the present efforts of the people of Russia, or regard the movement with disfavor. The reasons for this are, first, the impression which prevails that the Czar is a wise and beneficent ruler, beloved by a people who are content to be his subjects; and then the methods the Nihilists have adopted to attain their ends have prejudiced many against them.

The only ground for thinking the Czar "wise and beneficent" is the fact of his abolishing serfdom. As this, however, was a political and not a philanthropic measure, there is very slight foundation for the "beneficent" theory. The insurrections and petty rebellions which follow each other in such quick succession as to make a standing army of a million, or more, of men necessary for their suppression, and Siberia, that living grave, are eloquent witnesses of the kind of contentment developed by the rule of the Czar. It is impossible to defend assassination, whatever the provocation, but still there is something to be said in extenuation of the Nihilists' terrible methods of bringing about a political regeneration in Russia. It is not wholesale butchery, nor do they "strike in the dark." There have been only some twenty assassinations, and the victim is repeatedly warned in advance, so that his life lies in his own hands. He is invariably one who has been guilty of acts of heartless brutality and tyranny. No person in private, civil or military office has fallen before the dread vengeance of Nihilism. When it is remembered that thousands—some estimate the number at 15,000—have within the last few months been exiled on account of supposed sympathy with the reform movement, without being allowed a trial, banished on the word of a Government spy, one wonders at the marvelous moderation of these men, who, keenly alive to the tyranny under which they live, and burning to avenge the wrongs inflicted on their kindred and friends, yet content themselves with so few victims.

In a measure the *role* of assassin has been forced on the Nihilists. Their petitions for redress have been answered by atrocities which rival the heartless cruelties of the most uncivilized of nations—witness the Students' Riot, in December, 1878—and as no opportunity was afforded them to make themselves heard through the ballot, what was there left them but the bullet? Assassination is a most terrific crime; of this there can be no question; but upon whom should be laid the responsibility in this case—the ruler whose government is a cruel despotism, or the poor men who have seen their brothers, fathers, yes, and mothers, sisters and wives, condemned to imprisonment, and to four, eight and twelve years' hard labor in Siberia, on the word of a spy acting for the "wise, beneficent" Czar? There is absolutely no redress. What shall the Nihilist do? A wise ruler might by timely concessions avert a revolution, but the Czar has shown no disposition to try the experiment. He ignored the demands for reform as long as he could, and when by threats and bullets the Nihilists compelled a hearing, the Czar chose to deal with them simply as assassins, and by executions, banishment and the maintenance in some portions of his dominion of a state of siege, he is attempting to crush out the spirit of revolt, which in a despotism is always the forerunner of liberty. What measure of success will crown his efforts, remains to be seen.

The most superficial student of Russian history knows that the Empire of the Czars is, and has been for centuries, in a state of chronic revolution; but these numberless attempts to resist the tyranny of the government have failed mainly because the peasantry are so degraded, superstitious and apathetic that it has been all but impossible to secure their co-operation. A few earnest souls, burning to deliver their country from thraldom, have more than once rashly undertaken the mighty work with inadequate preparation, and paid for the venture with their lives and the death and banishment of their kindred. The Nihilists of to-day are shrewder; they have set before themselves the task of educating these millions of peasants to a realizing sense of their degradation, and inspiring them with a desire to be freemen. The times are propitious.

Several things have conspired to influence the popular mind against the existing order of things; chief of which are the legacies resulting from the Turko-Russian war. As a consequence of that expression of Imperial ambition, the Russians find themselves to-day with increased taxes and a currency depreciated to one-half of its original value—a state of things which hardly inclines them to view with favor a government for whose philanthropy (?) they have to pay so dearly. Another result, is that the Russian soldiers who freed Bulgaria from Turkish rule have not been oblivious of the fact that the Bulgarians enjoy greater liberties than they do. "Shall I free others and remain myself a slave?" is being asked by the returned volunteer, just as a question somewhat similar was asked by the soldiers of Lafayette on their return to France, after having aided in establishing our own independence. The French soldier's query led to the great French revolution; to what will the Russian soldier's lead? All who have the interest of humanity at heart must earnestly desire that an end should be put to the system of tyrannical oppression and persecution practiced by the Russian government, but can lovers of justice and morality welcome men professing the principles of Nihilism to the government of a country like Russia? So far as they demand civil and religious freedom, Nihilists must command the sympathies of all in their struggle against oppression; but when they avow themselves opposed to all religions and at war with the institution of marriage, they must expect to be regarded and treated as foes dangerous to the well-being of society.

SOAK THE ROOT SEEDS AND GROW ROOTS.

It is much the best way to soak all kinds of root seeds before planting. When soaked for four days, they will come up in the same number of days, and get the start of the weeds. This early growth will save a large amount of weeding and hoeing afterward, which is the most discouraging part of root-growing. Seed may be soaked in dry weather without any danger of "going back" or not growing, if the ground is slightly packed. This prevents evaporation, and will insure germination. Turnip seeds may be sown by a drill, after soaking, by first rolling them in plaster or flour, to cause them to separate, so that they will drop readily. Beets and mangels should be planted by hand and covered with a hoe. The depth should be according to the condition of the soil,—if damp, an inch deep; but if dry, fully an inch and a half. A furrow the right depth can be made with a hoe, and the seed dropped into this, sixteen inches apart.

We like the plan of planting turnip seeds, especially Swedes. They are put just where they are wanted, and, if soaked and swelled beforehand, will come up in two or three days. By planting the seed there may be a saving of three-fourths, and the care afterward will be lessened fully one-third, if not one-half. As soon as the rows can be seen, the cultivator should be started and run as close to the young plants as possible. A cultivator with harrow-teeth is much the best at first, and then, when the plants are larger, one with the outside teeth made to throw the earth toward the center of the row. By using these implements promptly and frequently the amount of hand labor is reduced to a small percentage in the care of the crop. Hand-labor is the great bugbear in the production of this crop, and prevents its more general growth.

Roots, properly managed, are the best crop a farmer can raise. More food can be produced by them on a given spot of ground than of any other crop. Roots, more than anything else, are the backbone of English husbandry. They make the finest animals and the best meat at the least cost. Corn, the American staple for making meat, is a feverish food, and must have an effect on the flesh of animals fed on it, and this flesh doubtless has its effect on the constitutions of those who eat it. We want more of the cooling and healthful influence of roots, in the various phases of our diet. The food of a nation has as much as, if not more, to do with the character of a people than anything else. Roots make tender and juicy meat, and such meat is more easily digested. Corn makes firm and oily flesh, which lays the foundation for dyspepsia. English mutton is easier to digest and more palatable than American. Turnips make the difference. We need more succulent feed for stock during our long and trying winters. With more roots there would be less constipation, barrenness, less abortion, less disease of nearly all kinds.

Swedes, a very productive and excellent root, may be put in up to the middle of July, and flat turnips until the first of August. Swedes may be kept over until July. Fifteen and twenty tons can be raised on an acre. They can be put in after a crop of clover or early grain. The ground should be made mellow and rich with barn-yard manure. Three feet apart is a proper distance for the rows, or they may be closer. A pound of seed is ample for an acre, when put in with a drill, or one-fourth of a pound when dropped by hand sixteen inches apart. Several seeds ought to be put into one place, to allow for flies and accidents.

PRICE OF GRAIN LIKELY TO BE HIGH THIS SEASON.

In a public speech, some months ago, the Earl of Derby conceded that in view of the unlimited facilities possessed by this country for producing all cereals cheaply, and of the impossibility of re-establishing the old-time corn laws for the protection of domestic agriculture, the time was close at hand when the British farmer should abandon grain-growing and seek his profit in meat-production, leaving the supply of bread-stuffs to the bountiful harvests of this country. Despite the late reductions of rent, pretty general throughout the country, hundreds of good farms have this year and last been thrown upon the hands of the landlords, because farmers feared they would be unable to "make both ends meet" if they rented them. Such abandoned farms are, in nearly all cases, turned into meadow or pasture lands, so that the area under cereals in Great Britain is rapidly diminishing every year, while the population is increasing at the rate of 1,000 a day. Already Mark Lane and other English grain markets have ceased to be affected by changes in the weather beneficially or injuriously affecting domestic crops. Last week the telegrams reported that the weather throughout the British Isles was very unfavorable to the crops, and that at a critical season; but they also reported that in view of the slight dependence lately placed on the home supply, and the bright crop prospects announced from this side of the Atlantic, the grain markets had remained unaffected by the unseasonable weather.

Last Saturday the French Ministry announced that in view of the scant harvest this season throughout the greater part of the country, France would have this year to import $100,000,000 worth of foreign grain. As a rule, that country is an exporter of cereals to a considerable extent, so that this year, not only will those countries which have a surplus of cereals have to supply nearly $100,000,000 worth of grain to the French market, but they will also have to furnish to other countries, chiefly to Great Britain, the quantity hitherto drawn from France.

The latest advices from Southern Russia, our chief competitor in the grain markets of the world, are highly unfavorable. Wind and rain storms have greatly injured the crops in the territory tributary to Odessa, while swarms upon swarms of locusts have ravaged many parts of the country. From Germany, late crop reports are good; but it is hardly probable that there will be much of a surplus of any, except tobacco, for exportation. There is considerable agitation in Spain for the repeal of duties on importations of cereals, but in view of the fair outlook for the domestic harvest, the ministry this year have felt themselves strong enough to concede only a slight diminution of the tax on imports of flour. Italy is pretty sure to be one of our customers, or at any rate she will not be able to spare any cereals to compete with ours in other markets.

On the whole, the grain crops in Europe this year are very considerably below the average, and the deficiency is precisely in those countries in which it will do us the most good. Great Britain and France are, both by situation and friendliness, naturally our greatest customers, and as both are wealthy, they are also our best. As in both of these the harvest is especially small, their demands on our surplus will be especially large. Moreover, the mishaps that have lately befallen crops in Southern Russia, by crippling our greatest rival, will raise the price of our products by curtailing exportations from that quarter.

PRICES OF FERTILIZERS.

We consider artificial fertilizers to be a prime necessity in the pursuit of agriculture. No farmer can hope to procure the highest profit from his business without their use to some extent. At the best, a farm that is worked on the self-supporting system as regards manure, must lose its fertility to some extent; slowly, more or less, it may be, but surely. But there is small encouragement held out by the manufacturers of fertilizers for farmers to use their wares. The prices exacted for them are excessive. This is shown by the irregularity in the price lists. One entirely respectable and responsible manufacturer may offer superphosphate at $25 per ton, and another may ask $40 for an article which may be no better. The basis of the market rates of fertilizers is fixed, in a measure, on the prices of Peruvian guano. But the trade in this article is a huge monopoly. The Peruvian Government has hypothecated its guano and nitrate deposits to its foreign bondholders, to pay the interest on large debts, and it exacts a large price. To make these articles the basis of the price of nitrogen in other fertilizers (such as sulphate of ammonia, which is a by-product of gas works), is monstrous. So with potash salts, which are a refuse of the German salt mines, and dried blood and flesh, which are the refuse of the large slaughter-houses, and were formerly disposed of by flowing or dumping into rivers. Before farmers can be induced to use these fertilizers to any large extent, the prices must be reduced.

BREVITIES.

The Japan Persimmon was alluded to at the late Cleveland Convention as of doubtful hardiness. There need be no doubt about it. It is not hardy or any approach to it.

Last week we selected an average head of Clawson wheat not cultivated (sown broadcast), and an average head from our cultivated plot. The first contains 30 grains, the latter 37. The latter were larger, also, than the former.

And now Mr. Roe follows Mr. Lovett, who stated last year, in the Rural, that Belle de Fontenay and Henrietta Raspberries are the same, and was strongly contradicted by several correspondents. Mr. Roe says: "I cannot tell them apart."

The Pinxter (Azalea nudiflora) blooms in May, and before the leaves are half grown. Now, A. viscosa is blooming. Its flowers are large, generally pure white, and covered with a viscid fluid of sufficient tenacity to hold little flies, aphides, and other minute insects that venture upon them.

In the report of the New Jersey Bureau of Statistics, the Secretary speaks of the Indian Mallow, or Velvet Leaf (Abutilon Avicennæ), as a plant which yields a strong fiber. The plant is a native of India, and is now naturalized in most of the States. Steps have been taken to test its value thoroughly.

We call the attention of our California readers to Teosinte, which the Rural was the first to illustrate (see our issue of Nov. 2, 1878, page 695) as a fodder plant. It tillers remarkably and the stalks are sweeter than, and do not become so hard as cat-tail millet. It will stand drought and heat and we should suppose might prove serviceable in the climate of Middle and Southern California.

To Kill the Peach Borer.—To kill the larvæ of the peach borer, that may be at work on the trees, and to prevent egg-laying, apply to the base of the trunks during July and August the following compound: To ten gallons of soft soap add as much hot water; then stir in half a pint of crude carbolic acid and let it stand over night; next add three times its bulk of water, and it is ready for use.

We learn that the expenses of the last New York Horticultural Society were $800. The receipts were $400. If the florists and horticulturists would think a little more of "the advancement of horticulture," that they talk so much about in their essays, and less of "the advancement" of their business, we might hope that the outside horticultural public would show a livelier interest in their exhibitions.

There is but one object in pot-layering Strawberries, viz., to insure a heavier yield on a new plot than can be accomplished in any other way. If we desire fifty plants of any variety, as many pots—say three inches in diameter—must be sunk in the earth under as many runners, and filled with soil. The runner must be pressed into the soil of the pot and there held by a little stone or lump of earth. As soon as these runners are well rooted, they are thumped out of the pots and set in the ground prepared for their reception. In this way the roots are less disturbed than they would be if the runners were dug up and transplanted in the usual way.

Literary Miscellany.

GEMS FROM POPULAR POETS.

My name is J. L. Sloss,
Of money-brokers I'm the boss.
And a pillar of the church I be,
I pass around the plate,
A pious look I cultivate,
And I never, hardly ever, use a big, big D.
[*William Cullen Bryant.*

There is a boarding-house, far, far away,
Where they have fried ham and eggs
Three times a day.
Oh, how them boarders yell,
When they hear the dinner bell;
Oh, how them eggs do smell
Three times a day.
[*Oliver Wendell Holmes.*

A gushing young damsel, Lucinder,
Leaned out of the back bed-room winder,
'Neath which her lov-ar
Lightly picked his guitar,
With no bull-dogs or shot-guns to hinder.
[*Longfellow.*

A hysteric creature, Deborah,
Sat admiring the crimson Aurora;
When a mouse in distress,
Ran under her dress,
She fainted and fell on the floor-ah.
[*Walt Whitman.*

There was a young lady from Muscle,
Run off with a feller named Russel,
They came to this town,
And were walking around,
When our billy goat busted her bustle.
[*Henry W. Longfellow.*

Now the swell in style arrayed
Goes forth to promenade,
But wilts 'neath the fervor of the sunbeam's glance,
And so do his collars and his jackets and his pants.
[*Shakespeare.*

Two heads with but a single thought,
Two hearts that beat as one!
Two pairs of lips in suspense held—
Two little smacks—yum! yum!
[*John G. Whittier.*

Mary had a little lamp,
Filled full of kerosene;
She took it once to light a fire,
And has not since benzine. [*Tennyson.*

"Oh, rich and rare were the gems they wore"
Purchased at cost at the dollar store.
[*Tom Moore.*

AN UGLY GIRL.

(Continued from page 430.)

CHAPTER XXXI.

THE INTERVIEW WITH THE HEIRESS.

"I am sorry to have distressed you by my violence, Miss Gray," said Noel, earnestly. "I ought not to have given way to it. I ought to have remembered that it could do no good. However, I will relieve you of my presence, only asking you to believe that I shall always retain a grateful sense of your kindness to me during my illness."

"Did I not owe you my life?" she murmured. But this he would not hear. Her distrust had wounded him so deeply that he could scarcely forbear reproaching her more vehemently than before. To think that she could imagine him guilty of such deliberate meanness was more than he could endure with patience, and to know that he owed all this to Clement Dunforth, the plausible scoundrel, who, under the guise of friendship, had robbed him of her good opinion, galled him almost to madness.

But he restrained himself, and, bowing with cold politeness, quitted the room. Carisforde was now so detestable to him, that he was impatient to depart. He still thought of its mistress with commiseration, but his pity was mingled with scorn of the weakness that had rendered both her and Hillian the easy dupes of a scoundrel; and he could not rest till he had written the fullest details of the affair to Mr. Blenkinsop, and urged him to hasten home and take his ward under his guardianship.

This done, he dismissed Jephson, having first arranged to leave the Park by an earlier train than he had first decided on; but in two or three minutes Jephson returned, to say that Miss Carisforde would like to see him before he went, and would be in the library at eleven the following morning, if that hour would suit him.

In his present mood, Noel felt very much disposed to decline the interview; yet to do so might be looked upon as a token that he feared to encounter his accusers, and, therefore, sent word that he would defer his journey so as to wait upon his kinswoman at the hour appointed.

At last, her reserve was conquered. At last, he and Ada Carisforde would meet face to face Could he help feeling a little excited when he knew this?

* * * * * * *

And now the morning dawned on which Noel proposed to quit Carisforde Park for ever. Few though the weeks had been since he first set foot within the noble mansion which he then expected to call his own, he seemed to have gone through years of suffering and sorrow; for he had not only learned to love, but been brought to acknowledge that he had made a sad mistake in bestowing his affections on one who had not valued the gift.

How bitterly he felt towards Clement Dunforth it is not easy to describe. He could have forgiven him for discovering that Hillian Gray was fitter to be his wife than the heedless Irene; but he could not pardon the deliberate cruelty with which he had trifled with two young creatures solely to make his way by their means into the good graces of a richer woman.

Herr Rudolsheim came in to bid him adieu while he was idling over the breakfast, for which he had no appetite.

"But we shall meet again," the Herr said, briskly; "for I shall visit London when I have finished my work here; and then if you are still in the humor to expatriate yourself, why not go with me to my own country? At Hamburg I have friends who are in communication with many of the English colonies, and one or other of them shall most assuredly be able to further your views."

Noel gratefully thanked him, mentally acknowledging that he would rather be indebted to this frank, genial foreigner than to his own countryman; they parted; the German going to inspect some old manuscripts in the possession of a gentleman in the neighborhood, and Noel proceeding to the library, where he was informed that Miss Carisforde would join him.

He met Mrs. Hurst on the way, and was detained for a considerable time to listen to her voluble regrets at losing him—her hopes that he would take care of himself, and attend to all the rules for his health which Dr. Monson had laid down—and that he would not suffer himself to be persuaded to go into any very hot country, lest he should have sunstroke, nor into very cold ones, as it would grieve her extremely to hear of his being frozen to death, or, what would be almost as bad, returning home minus his fingers and toes—a misfortune which, as she had been credibly informed, many travellers had met with, "even to the nose, which must be so dreadfully awkward, you know," especially where that feature was such a nice-shaped feature as Lord Carisforde's.

With much difficulty he succeeded in extracting himself from the hands of his loquacious friend, whom he could not shake off abruptly after seeing that tears—genuine tears—were in her eyes. Mrs. Hurst had not been insensible to the patient good humor and courtesy with which he had always treated her, and she ran after him to the door of the library to beg that he would wear the knitted vests of her own making, which he would find amongst his luggage.

But at last she left him, and, with his pulses quickening a little, he turned the handle of the door and entered the library. Miss Carisforde was not there; but at the expiration of a minute or two, a full-length oil painting, that hung opposite the table on which the jewel cabinet had once been placed, swung aside, and then he saw that it concealed a door in the oaken paneling, which now slowly opened.

But it was Hillian Gray, in her simple black dress—with her hair brushed back from the white brows, on which he could have sworn that candor and innocence sat enthroned—who entered, and, after a moment's hesitation, advanced to greet him.

A suspicion of the truth began to break upon Noel, but he did not speak. If he had been tricked in every way, let the lips of this inscrutable girl avow it unasked; he would neither prompt her to the confession, nor assist her in making it.

But Hillian had watched his expressive face too often not to guess the reason why it suddenly clouded and his attitude became more hostile; and, raising her own slight figure to its fullest hight, she addressed him:

"I see, my lord, that you guess my secret at last, and that you think it is time that you knew me by my rightful name, Ada Hillian Carisforde."

"Pardon me, Miss Carisforde," he retorted, coldly, "if I tell you that you have not interpreted my thoughts rightly. If I permitted them to dwell at all upon a lady's caprices, it has not been to marvel why she has concealed her name so long, but why she divulges it to me now."

This was cruel, and Hillian winced; but she did not hesitate to defend herself.

"My lord, I did not deliberately assume the alias under which you have known me. Recall, if you please, the events of your arrival here."

"Is it worth while to trouble you to enter on a long explanation?" Noel interposed. "Every one of those events of which you remind me does but prove that from the first moment of my coming to this house I have been distrusted and—*duped*. I do not know why you have granted me this interview, unless it is to triumph over the gullibility which I have displayed."

Hillian crimsoned, then grew deadly pale. She scarcely dared to look at her incensed cousin; but when one furtive glance had shown her that he was as much agitated as herself, she took courage to make another attempt to exculpate herself.

"I tell you again, my lord, that I have never made a deliberate attempt to deceive you. Taught from my earliest childhood to consider myself so repulsive in appearance, that I must never hope to associate with other girls of my age, and compelled to see that my dying father, even while he accepted my attentions, could scarcely endure my presence—can you wonder that I shrank from any intercourse with you and your step-mother?"

Noel did not answer, but she saw that he was listening. She had gained his ear, and this encouraged her to proceed.

"You will remember, I dare say, that when my presence was requested at the reading of my father's will, I begged to be excused. From words that he had let fall during his illness, I had gathered enough to divine that his bequests were couched in some extraordinary manner, and felt that the task of listening while Mr. Whitely read them would be a painful one, for which my grief and the fatigue I had gone through had quite unfitted me."

"It was not pressed unkindly upon you, Miss Carisforde," she was reminded.

"True, and my proposal was agreed to that Miss Gray, the maiden sister of Mrs. Hurst—who had been with us during the last few days of papa's life—should act as my substitute; but when I spoke to her she positively and, as I then thought, rather harshly refused to take my place. It was my duty, she said, to go and learn the last wishes of my dear father; and reluctantly I obeyed."

"But I conclude that she did not bid you assume her name."

"Neither did I," was the reply. "But when I entered the room, trembling and alone, afraid to glance at my unknown relatives lest I should detect the loathing with which I expected them to regard me, Mr. Whitley addressed me as Miss Gray. Before I could explain to him that he was under a mistake, Mrs. Estcourt objected to the presence of a dependent in such a manner that I did not care to undeceive her just then: there would be time enough to do so when I could retreat at once from the lady with whom I felt no desire to improve my acquaintance."

Hillian, whose tone had become a resentful one, here checked herself, and in a more moderate one begged Noel to excuse her if she had spoken with some indignation.

"Miss Gray and Mrs. Hurst," she added, "are the sisters of my dead mother. Their love, their care, was all I knew in my childhood; they are still my best, because my most faithful, friends, and I cannot permit either of them to be considered mere dependents."

Noel would not give an opinion on the act she was defending, and, impatient at the silence that seemed to condemn her, she went on, rapidly:

"The will was read, and you, my lord, expressed your determination never to—to agree to the terms of it in such a manner, that to say to you, 'I am the Ada Carisforde for whom you are neither expressing sympathy nor consideration,' would have been impossible."

"I expressed my resolve too hastily; I acknowledge it," said Noel. "The dread of appearing mercenary, or of giving encouragement to the hopes I knew Mrs. Estcourt would entertain, made me forget all else. Whatever sounded ungenerous in my speech I have long since regretted, and I hope you will pardon it."

Hillian Carisforde partially extended her hand, but drew it back when her kinsman showed no disposition to clasp it, and contented herself with bowing slightly.

"I have a few more words to say, if I may detain you a little longer," she told him. "I should like you to understand why the mystification has been allowed to continue. Grieved that my father, in his love for me, should have inflicted any injury on you, I made the resolution to renounce all claims to the property, and follow Miss Gray, who had left Carisforde that evening, and persuade her to take me abroad. How my flight was prevented by the storm and the subsequent fall of the tower, you know. I could not go away while the life of my preserver was in danger, I preferred to let him know me still under the name of Hillian, for while he regarded me as merely the niece of Mrs. Hurst, I knew my presence would not disturb him. If I have learned to think that to our friendship"—and now her voice began to falter—"has been a mistake, the fault is not mine."

"Nor mine," said Noel, curtly.

"Indeed, and yet——" Hillian began.

But he would not let her proceed any farther.

"And yet, as you have already hinted, you have been taught to doubt me, to think that while I lay here a helpless invalid I employed myself in plotting and contriving mischief. In your readiness to distrust me, you do not appear to have asked yourself—for what end?—what benefit could I derive, or what injury inflict on you by such conduct? It would only have been prudent as well as kind to put these questions to yourself before you so utterly condemned me."

"I have asked myself these questions repeatedly," Miss Carisforde murmured, "and could find no answer to them except—— But no, my lord—no; in that at least I have done you justice. No one shall ever induce me to believe that it has been to carry out a paltry scheme of revenge that you have striven to humiliate me."

"Then this is one of the accusations brought against me? But no matter; I will not question you. Perhaps the solitary, friendless life you have lived is some excuse for your readiness to think the worst of others."

"Spare me your pity. If I have erred, I am sufficiently punished," said Hillian, in low tones

And as she turned away, Noel heard her sob. He took a step nearer, for her distress had softened him.

"Miss Carisforde, it would be folly for me to pretend that I am satisfied with the usage I have received at your hands. You have shown yourself in two characters—the gentle, generous woman, whom neither slanderous imputation nor more direct assertions have ever brought me to doubt, and the coldly suspicious one who has watched over me—not kindly, as I imagined, but to detect in me some excuse for the distrust she has suffered herself to be taught to cherish. To the Hillian whose tears have been shed for my sufferings, I would fain say a cousinly adieu; but to the Ada Carisforde, the kinswoman between whom and myself her suspicions have erected a stronger barrier than her father's will, I have nothing to say but that she has my good wishes."

He bowed low, and was leaving her—Heaven only knew at what a cost to himself!—when her uplifted hand arrested him.

"Answer me but one question ere you depart. Why did you bring Clement Dunforth here? He was not—he is not—your friend, even though he may be mine. Why did you employ him to drag to light those follies I would have had forgotten?"

"I have done neither of these things!" her pleading look constrained Noel to assure her. "By no previous arrangement with me did he come here; and he, if there is any truth in him, can tell you that I should never have known that there was a secret in your life, or that you had borne another name, if he had not recognized you."

She started.

"Then in this at least he has not deceived me. You have known all along that I was your cousin, and your pretence of ignorance has been cleverly assumed. Oh! shame on you, Noel Carisforde!—shame on you to cheat me thus—to lure me on, and profess the most noble sentiments that you might obtain the greater influence over me! Nay, I will hear no more! It wrings my heart to know that you are like the rest of the world—false—false! Why did you not take this hateful property when I first offered it to you, and let me hide myself from you forever?"

She ran out of the room, and Noel, alternately grieved and angry, rang for the carriage to be brought to the door, in which he was to be driven to the station. It seemed cruel to leave her in this state of mind, yet to argue, to remonstrate with a woman who confessed that she had lost all faith in him, was a task to which he could not stoop, especially as it was no longer Hillian the poor, but Ada the wealthy, to whom he must address himself.

Yet how dearly he still loved her! how hard it was to think that the machinations of a scoundrel should have made her so unlike her gentle, generous self! Was there no way of unmasking Clement Dunforth?

Apparently none; but ere Noel left the house he wrote a few lines to Mrs. Hurst, entreating her, in the most urgent terms he could employ, to watch carefully over Miss Carisforde until her guardian could arrive and relieve her of the responsibility.

This done, with a heavy heart he bade adieu to Carisforde Park. He had come thither full of hope for the future; he was going away with every hope blighted forever.—[To be continued.

CONTENTMENT.

MISS S. A. C.

I've sought for contentment in various ways,
To cheer me in life's path along,
But now I will seek it the rest of my days,
Where contentment alone can belong.

'Tis not in the gilded haunts of the great,
Nor in costly palaces strong,
Nor in vigils keeping, long and late,
Where pleasure tempts the throng.

But away from the busy cares of life,
Surrounded by friends that I love,
I'll fly from all fretful, eager strife
And a lesson learn from the dove.

ORIGIN OF TWO POPULAR POEMS.

Hood's touching lyric, "The Song of the Shirt," was the work of an evening. Its author was prompted to write it by the condition of thousands of working-women in the city of London. The effect of its production was foreseen by two persons, the poet's wife and Mark Lemon, the editor of *Punch*.

"Now mind, Tom—mind my words," said his devoted wife; "this will tell wonderfully. It is one of the best things you ever did."

Mr. Lemon, looking over his letters one morning, opened an envelope, inclosing a poem which the writer said had been rejected by three London journals. He begged the editor to consign it to the waste-paper basket, if it was not thought suitable for *Punch*, as the author was "sick of the sight of it." The poem was signed Tom Hood, and was entitled "The Song of the Shirt."

It was submitted to the weekly meeting of the editors and principal contributors, several of whom opposed its publication as unsuitable to the pages of a comic journal. Mr. Lemon, however, was so firmly impressed with its beauty that he published it on December 16, 1843.

"The Song of the Shirt" trebled the sale of the paper and created a profound sensation throughout Great Britain. People of every class were moved by it. It was chanted by ballad singers in the streets of London, and drew tears from the eyes of Princes. Some years after the author's death the English people erected a monument over his grave. The rich gave guineas, the laborers and sewing women gave shillings and pence. Sculptured on it is the inscription devised by himself: "He sang 'The Song of the Shirt.'"

"The Old Oaken Bucket" was written fifty or more years ago by a printer named Samuel Woodworth. He was in the habit of dropping into a noted drinking saloon kept by one Mallory. One day, after drinking a glass of brandy and water, he smacked his lips and declared that Mallory's brandy was superior to any drink he had ever tasted.

"No," said Mallory, "you are mistaken. There was a drink which in both our estimations far surpassed this."

"What was that?" incredulously asked Woodworth.

"The fresh spring water we used to drink from the old oaken bucket that hung in the well, after returning from the fields on a sultry day."

"Very true," replied Woodworth, tear-drops glistening in his eyes.

Returning to his printing office, he seated himself at his desk and began to write. In half an hour

"The old oaken bucket, the iron-bound bucket,
The moss-covered bucket which hung in the well,"

was embalmed in an inspiring song that has become as familiar as a household word.—*Burlington Hawkeye.*

THE CAMEL.

Mr. Palgrave, criticising the reputation that the animal has for docility, remarks: "If docile means stupid, well and good; in such a case the camel is the very model of docility. But if the epithet is intended to designate an animal that takes an interest in its rider so far as a beast can; that in some way understands his intentions, or shares them in a subordinate fashion; that obeys from a sort of submissive or half fellow-feeling with his master, like a horse or elephant; then I say that the camel is by no means docile—very much the contrary. He takes no heed of his rider, pays no attention whether he be on his back or not, walks straight on when once set a-going, merely because he is too stupid to turn aside; and then, should some tempting thorn or green branch allure him out of the path, continues to walk on in the new direction, simply because he is too dull to turn back into the right road. In a word, he is, from first to last, an undomesticated and savage animal rendered serviceable by stupidity alone without much skill on his master's part, or any co-operation on his own, save that of an extreme passive-

ness. Neither attachment nor even habit impresses him; never tame, though not wide awake enough to be exactly wild."

Nevertheless, the animal gives indications of intelligence when badly treated, if we may judge from its revengeful nature, well illustrated in the following account: "A valuable camel, working in an oil-mill, was severely beaten by the driver. Perceiving that the camel had treasured up the injury, and was only waiting a favorable opportunity for revenge, he kept a strict watch upon the animal. Time passed away; the camel, perceiving that it was watched, was quiet and obedient, and the driver began to think that the beating was forgotten, when one night, after the lapse of several months, the man was sleeping on a raised platform in the mill, while, as is customary, the camel was stabled in a corner. Happening to awake, the driver observed by the bright moonlight that, when all was quiet, the animal looked cautiously around, rose softly, and stealing towards a spot where a bundle of clothes and a bernous, thrown carelessly on the ground, resembled a sleeping figure, cast itself with violence upon them, rolling with all its weight, and tearing them most violently with its teeth. Satisfied that its revenge was complete, the camel was returning to its corner, when the driver sat up and spoke. At the sound of his voice and perceiving the mistake it had made, the animal was so mortified at the failure and discovery of its scheme, that it dashed its head against the wall and died on the spot."—Cassell's Natural History.

THE FIRST BABY IN CALIFORNIA.

It was on the Fourth of July, and Downieville celebrated. The stars and stripes floated from a peeled and lofty pine, and the chorus of the anvil had reechoed through the hills. The house was crowded with the miners; poet, reader and orator had performed their parts, and the recently organized brass band was giving in boisterous resonance some National anthem, when, suddenly, there burst out the feeble wail of an infant; first low, then swelling out in all the defiant strength of his baby lungs. The band put forth its loudest strains; the baby, incited to renewed exertion, redoubled its vigor.

It was nip and tuck between the band and the baby. The young mother did her best to divert the child and hush him, when from the audience there up-rose a brawny miner, and shaking his fist at the musicians, he cried: "Hush that blamed band, and give the baby a chance!" The band stopped its playing, and never did stalwart men listen to sweeter music than those exiles from home and women, as they drank in the tones of the wailing child. There were tears in many an eye. The child was hushed upon its mother's breast, and at the word there went up three rousing cheers for the first baby of the Northern Sierras.

USEFUL MATTERS OF FACT.

Incrusted bronze is mentioned as a recent Parisian novelty in bronze or copper ware, with gold and silver ornamentation. To fix the latter on articles of bronze or copper, they are first painted in water colors, the principal ingredient of which is white lead. When several articles are to receive the same drawing, it may be printed in the same manner as porcelain painting. The places which remain unpainted are varnished. The object is then laid in dilute nitric acid, which dissolves the color and bites the metal on the painted parts to the required depths; after washing the object, it is placed in a gold or silver bath, where the free surfaces are electrotyped in silver or gold; the varnish is then removed, and the whole surface is polished so that the gilded and silvered parts are not unduly prominent. After this comes the bronzing, a fine effect, it is said, being produced with black bronze by sulphide of copper in the spaces between the gold and silver.

Archers were a formidable part of all ancient armies, and the use of the bow seems to have been known to all nations when first discovered. The Scythians were the best ancient archers, and the English among the moderns. The victories of Cressy, Poictiers and Agincourt were chiefly gained by the English archers. The Scythian bow was of horn. The English long bow was five feet six, and it was made of steel and brass. Arrows were from three to five feet. Ash was used by the English and goose feathered, two of the fledges white and one black. The heads were iron or brass, with light steel points and small barbs. The strings were of gut or hide or hemp. A sheaf of arrows was twenty-four, and the archer was armed with a maul and a dagger. The English archers drew to the ear steadily. A furlong was the distance of the butt in shooting at marks. The Parthian cavalry were thought to be very formidable as they discharged their arrows backwards, and could thus shoot equally well while retreating.

M. Tovama describes a simple way of seeing stereoscopic pictures without the use of lenses and without any straining of the eyes. The two pictures are to be mounted with an interval between them of about an inch and a half. Then by means of a partition between the pictures and the eye, on the ordinary skeleton stereoscope, the two parts are so separated that the right eye shall see only the right picture and the left eye the left picture. When this is done the two pictures will combine just as easily as with an ordinary stereoscope.

The blackness of certain public buildings in London and elsewhere, for a long time attributed to the effect of smoke, has lately been found to be in great part the result of the development of a peculiar fungus, the precise nature of which has not yet been determined. This suggests the possibility of so treating the surface of the stone as to secure the removal of the coating, since any substance that will kill this low form of vegetable life will probably permit its ready removal—a result much less easily attained if it were a deposit of smoke or soot.

The telephone has been exhibited on the island of Formosa, in the China Sea, in the presence of the Imperial Governor. Messages were transmitted a distance of 30 miles, to the surprise of the Chinamen, who showed deep interest in the experiments.

To Make Moss Adhere to Wood Crosses.—Dissolve gum tragacanth to a thick mucilage, and after putting a first covering of moss on the cross, put it away to dry. The second or third time every part can be partly covered, and it will firmly adhere.

To clean lamp chimneys, hold them over the nose of the teakettle when the kettle is boiling furiously. One or two repetitions of this process will make them beautifully clean. Of course they must be wiped upon a clean cloth.

Ground Tea.—A French chemist asserts that if tea be ground like coffee, immediately before hot water is poured upon it, it will yield nearly double the amount of its exhilarating qualities.

A good waterproof paper for covering jars used in preserving, etc., may be made by brushing over the paper with boiled linseed oil and suspending it over a line until dry.

Ordinary red bricks may be enameled or glazed by subjecting them, while well heated, to the action of the vapor of common salt fused in the furnace.

Stove Polish.—The best black ink mixed with the whites of eggs makes a good stove polish.

MAGAZINES.

Appleton's Journal for July, contains some most excellent reading which cannot fail to secure for it a wide audience; but the article which will appeal most strongly to Rural readers will be the story which occupies the place of honor; Ricarda, by Mary Wager-Fisher. Before one has read a column of it, the sex of the author is revealed. No one but a woman of strong sympathies, and one keenly alive to what love and wifehood mean to women, could have shown so delicate a perception of the attitude of the average wife toward the man whose name she bears. In a series of conversations, carried on between a gentleman of rather conservative tendencies, and one who sees in marriage only intolerable slavery for women, the reader is treated to some novel, instructive and strong views of certain phases of social life. The masculine egotism which considers that, by taking a woman to wife, it is entitled to demand of her utter self-renunciation, receives some well-merited criticism. What the author has to say of forcing girls to become pianists is a so thoroughly, common-sense view of the subject, that it is to be regretted for the sake of myriads of girl martyrs to this modern instrument of torture that it is not possible to secure for the "view" a reading by every woman—be she maid, widow or wife. The whole drift of the story shows that it is the result of a careful study of love in its relations to womanhood. While there is no indication of a desire to overturn existing social relations or any hint that it is best for woman to be alone, still, the necessity for some radical change in the relative positions of wives and husbands, is plainly pointed out. It must not be inferred from the foregoing that this is one of those tiresome stories modelled after Chas. Reade's tales, "with a purpose" wherein every thing—incident, character and dialogue—is subordinated to the purpose. Quite the contrary, in Ricarda, the characters have had the breath of life breathed into them, they are not merely mouthpieces through which the author gives expression to her views. The story is bright, suggestive and entertaining, and well repays a reading.

The other articles are: Reforms in Asiatic Turkey; Italian sketches. I. The Homes of the Plaster-Image Men. II. Italian Moving; The Sunny Side, a novel. The Midway Inn; by James Payn. Conspiracies in Russia; Karl Blind, Moralists on Blue China; Mr. Browning's Dramatic Idyls; The Queen's Private Apartments at Windsor; The Rose of Love; a poem; Marie Le Baron. Editor's Table and Books of the Day, conclude the number.

Phrenological Journal.—Contents: Arthur Penrhyn, (Dean) Stanley, with portrait; Fire-flies: the Lampyrics, Glow-worm, Cucajo; Temperature vs. Respirativeness; Making a Home; Mrs. Belva A. Lockwood, port.; Brain and Mind, chap. xiv., applied in the Education of Children; Uncle Jimmie, the Cripple; The Thorn-bush; Russel's Sickness; A Florentine Orphanage; Philosophy of Reaction; Simple Curvature of the Spine, with illustrations; Isaac Pitman on Diet; Some Characteristics of the Late Epidemic; Poetry—Summer, The Old Ruin, The Innocent Sleep, Drifting with the Tide, Take a Drink; Editorial Items; Notes in Science and Agriculture; Answers to Correspondents; What They Say; Library; Personal Items; Wisdom; Mirth.

Hints on Bathing.—Avoid bathing within two hours after a meal, or when exhausted by fatigue or from any other cause, or when the body is cooling after perspiration, and avoid bathing altogether in the open air if, after being a short time in the water, there is a sense of chilliness, with numbness of the hands and feet; but bathe when the body is warm, provided no time is lost in getting into the water. Avoid chilling the body by sitting or standing undressed on the banks or in boats after having been in the water, or remaining too long in the water, but leave the water immediately when there is the slightest feeling of chilliness. The vigorous and strong may bathe early in the morning on an empty stomach, but the young and those who are weak had better bathe two or three hours after a meal; the best time for such is from two to three hours after breakfast. Those who are subject to attacks of giddiness or faintness, and who suffer from palpitation and other sense of discomfort at the heart, should not bathe without first consulting their medical advisers.—*Phrenological Journal for July.*

Herald of Health, Contents for July.—Physiological and Sanitary Marriage and Parentage, by the Editor; Where there's a Will there's always a Way, Eleanor Kirk; Wear and Rest, Mrs. Chilion B. Allen, M. D; Life—Heaven—The Gold of Hope—Facts and Fancies—Good Advice. Practical Hygiene in Jails. The Last of the Hohenzollerns; Death of William Lloyd Garrison—A charming Old Age; Hygienic Rural Resort and Colony; A Cheap Breakfast—Oatmeal Pudding; To Cook Cabbage and Cauliflower—Dietetic Medicine—Material for Breakfast—School-room Headaches; Effervescing Gruel—Cleanliness for Children—Current Literature; Health Foods.

The Last of the Hohenzollerns.—"This will be the last of our fine Hohenzollern race," were the words of Bismark when he heard of the proposed marriage of the Crown Prince of Prussia to the daughter of Queen Victoria. The practice of intermarriage among royal families, which has been going on in Europe for centuries, and which has resulted in a close relationship among the great body of the royality of Europe, has, as is well known, had a most deteriorating effect upon both the physical health and mental capacity of the reigning families. Throughout the whole Christian era one royal family after another has arisen, founded by some military hero or statesman, and has maintained its physical and moral stamina for a few generations, and then under the combined influence of princely dissipation and the physical weakness that results from the intermarriage of relatives, has become so effeminate as to lose its power and pass away, giving place to some younger and more vigorous family.

The statesmen who have determined the marriage alliances of such families have seldom had the practical wisdom to apply the principles of natural science in the choice of suitable companions for the royal youths whom they serve. It would, appear, however, from the remark of Bismark which we have quoted, that he realizes the importance of preserving by wise marriages the physical and mental stamina of the grand Hohenzollern race which now rules the German Empire; nearly all the members of which are still noted for their physical and mental strength and vigor. But the warning which he uttered was unheeded, and the young family which resulted from the marriage that he opposed, is, though intellectually bright, so weak physically, that there is scarce a prospect of its ever giving to the German throne a ruler fit to succeed the glorious old Emperor William, or his gallant son, the present Crown Prince.

The art of human culture, or "stirpiculture," as it now called, is of all sciences the most important to human welfare and progress; and when from the throne to the cabin of the peasant its teachings are observed in determining marriage relations, and above all, in prohibiting unfit marriages, the world will have entered upon an era of progress such as can never be secured by the devices of statesmen or the labors of philanthropists.—*Herald of Health.*

BRIC-A-BRAC.

AN ENTOMOLOGICAL LOVE AFFAIR.

He spider locust talking to
The apple of his eye—
He gave a hopper two and yelled,
"Aha, you'd butterfly!"

The skipper's brow with rage was knit—
"I tick my leave," quoth he,
"And you shall sometime feel my mite,
Although just now I flea."

"O Katy, dear, my heart is yours,"
The other fellow said;
"These ages it has beat for you—
'Twill beetle I am dead!"

"See, yonder lies my little farm—
Come, let's together roam;
Make thou my farm a paradise,
My little house thy home!"

The maiden gnat the mansion glanced,
Then on his breast she hid
Her pretty face—did she accept!
Conclusion: Katy did. [*St. Louis Journal.*

Mary Clemmer, in a poem addressed to John G. Whittier, says: "Thou hast never taken my hand, nor looked into my face all tenderwise." And we don't suppose he ever will, for he is now too old for such foolishness. When he remembers the deplorable fix Mr. Cameron got into by simply sending the widow a few oranges, he firmly resolves that he will continue never to take a woman's hand and look tenderwise into her face. Mr. Whittier is a very sensible person, if he does write poetry.—*Norristown Herald.*

STATE STATEMENT.

I never in the State of Maine have ever taken tea,
Yet all of its inhabitants are very fond of "*Me.*"
About the "Old Bay State" there's something far too strange to pass,
For all who go to Boston are sure to go to "*Mass.*"
The folks in "Little Rhody" may not be very dry,
Yet every person seems to have a fervent love for "*R. I.*"
In the Centennial "Keystone State" the women and the men
Talk proudly of their worthy "*Pa.*," and also of his "*Penn.*"
And even we in Gotham, with prospects proud and high,
Well know our State is always near, because of course it's "*N. Y.*"
Far in the South, quite "*Ala.*" mode, a mighty State holds sway,
While close beside it is another, always light and "*Ga.*"
Another one we cannot "*Miss.*"—its merits well we know—
And further north large cities that are always bound to "*O.*"
And now I think I'll cease my rhymes—no doubt you've had your fill;
If I should take you further West, you might be taken "*Ill.*" *Baltimore Sun.*

"Are grapes healthy?" asks an exchange. As a fruit, opinions differ. George Washington, Christopher Columbus, Noah, Napoleon the First, and Mary, Queen of Scots, ate grapes, and they are all dead now. Draw your own conclusions.

An incidental.

He dropped his teeth in the flowing tide,
As he feebly leaned o'er the vessel's side,
His troubles internal and mental.
"Quite a misfortune," they said to him.
But he answered coolly, with visage grim,
"Oh, merely an in-sea-dental!"

Mr. Talmage's remark when the crowd hoisted him on their shoulders—"Gentlemen, gentlemen! There is evidently a mistake. I assure you I have my legs with me."

For Women.

CONDUCTED BY MISS FAITH RIPLEY.

MY CREED.

I hold that Christian grace abounds
Where charity is seen; that when
We climb to heaven, 'tis on the rounds
Of love to men.

I hold all else, named piety,
A selfish scheme, a vain pretense;
Where center is not, can there be
Circumference?

This I moreover hold, and dare
Affirm wher'er my rhyme may go:
Whatever things be sweet or fair,
Love makes them so.

Whether it be the lullabies
That charm to rest the nursling bird,
Or that sweet confidence of sighs
And blushes made without a word;

Whether the dazzling and the flush
Of softly sumptuous garden bowers,
Or by some cabin door, a bush
Of ragged flowers.

'Tis not the wide phylactery,
Nor stubborn fast, nor stated prayers,
That makes us saints; we judge the tree
By what it bears.

And when a man can live apart
From works, on theologic trust,
I know the blood about his heart
Is dry as dust.

LETTERS FROM A COUNTRY GIRL—No. 15.

MARGARET B. HARVEY.

Painting In Oils.

By this time, I suppose, my friends must have perceived that I, too, have had the "art craze." Well, so I have, indeed, and I am not over it yet; in fact, I hope to retain a mild form of the disease throughout the balance of my natural life. And to those of my readers who are beginning to indulge in the same hope, I would say; if you are once truly infected, you will never get over it completely, and you will find in the possession a never-failing source of gratification. If you want to dabble in oil colors, you will never be sorry, having once attained the slightest degree of success. Provided you don't attempt too much, I think I can safely say that you will probably succeed better in oils than in water-colors. Painting flowers in the latter materials constitutes an exquisite, delicate, distinct art by itself, and is rather out of the common way for amateurs, though, as I tried to show in my last letter, very few need be afraid to attempt a little of something.

Oil-colors come in tubes at prices ranging, according to the pigments and size of the vessels from fifteen cents up to about a dollar. An assortment of long-handled sable brushes, running from numbers three to eight, round and flat will be required. Of these it is best to have the smaller round, and the larger flat, they cost about fifteen cents apiece. The place of a palette may be supplied by a common dinner-plate, and of a palette-knife by an ordinary pen-knife. Have also, plenty of rags and a bottle of turpentine at your elbow. In squeezing the tubes, close the thumb and finger firmly over the bottom-edge exceedingly close, so that there will never be a portion left between the base and the hand. Never press out more than you think you need, as it is next to impossible to save paint once out of the tube. Drop on the palette, and the color is ready for use, just as you see it. There is not, as in water colors, any washing, and rubbing and waiting for a drying process, to be gone through with before you can judge of effect. You will, most likely get your brushes and fingers, perhaps, also, your dress, exceedingly dirty but the rags and the turpentine will remedy all that. What I have said about the impossibility of imitating nature, and the falsity of mere, heartless copies and the rightfulness of aiming at usual characteristics and general effect, will hold good in the main, as regards oils. But in this case, I would add that it is neither easy nor necessary to put in the same amount of fine, delicate work as in water-colors, even in treating precisely the same subjects. For one thing, the vehicles now under consideration have a richness and brilliancy in themselves which the others lack; and for another, an effect is much more speedily attained by them.

Draw the object to be painted with a fine brush, loaded with white paint. Further than this, I can give no other rule than: Observe nature, use your judgment, and consult your heart,—for you must *love* what you seek to portray. But, contrary to the necessities of water-color painting, you need put in no elaborate groundwork, for here you can frequently see your way clear from the beginning. In mixing colors, you can often hit the shade you want almost instantly.

The *technique*, as you see, is in fact just nothing. Everything depends on your own eye and taste and hand. The generality of mankind, and more especially womankind, have been afraid to attempt anything in this line because they have heard so much of wonderful genius and grand creations, and a great deal of high-flown talk

about the "world of art." But because Tasso and Shakespeare wielded the pen, is it therefore presuming in any of us to become so much its master as to compose agreeable letters, such as will delight our friends? Seize the brush, then, as well—one may be a true artist, and a successful one, and never see a picture.

In connection with the other style of painting, I spoke of some articles upon which our fair sisters might expend their energies. I will add here, that whoever has learned the use of oil paints has always at hand a universal beautifier; has always the means at her command to create loveliness and combat the hard, and cold, and ugly, and common. Shall I tell how?

Take two plain, smooth bottles, with glass stoppers, and cover them smoothly with bright silk or satin, finishing at the necks with frills of lace. Then paint a spray of wild flowers upon each, and you have a toilet set fit for a queen,—you just ought to see my pretty red ones, adorned as they are, one with a blood-root, the other, an anemone, nestling each in the soft bed of a dainty, red and white moss-mat. And you can—I won't patent my invention,—make a lovely hair-receiver and hair-pin cushion of cylinders of birch bark, finished with red zephyr and satin, using the bark just as anybody else would perforated board, and then painting upon it lilies of the valley precisely where other people would stick scrap pictures. And you can convert an old, cracked flower-pot into "a thing of beauty" and "a joy forever," and make it do duty as a great bouquet holder, by mottling all over it a dark ground, and lighting it up by a multitudinous array of gay, tiny Japanese fans. Pick up the rusty horseshoes out of the barnyard, wipe them, paint on them a black foundation and a wreath of red berries or blue forget-me-nots, and suspend them to little easels, or over your parlor-door, (on the inside, of course,) by ribbon run through.

CHILDREN TEETHING.

This is a very trying time for the little ones, and for that matter, it is trying for their mothers too. Dear little things, they feel uncomfortable, and have no idea what the trouble is, and so they worry and fret; and it is a wonder, if mamma don't get cross too. I have one piece of advice to give young mothers, that if they will bear in mind, and practice, will be of more real value to them than gold. *Never get nervous* and irritable with your children. Keep calm and cool, whatever happens. You think, it is impossible; but it is not; it has been done by many mothers and more can do it if they only try. A baby cannot be hushed to sleep, if its mother is all in a flutter; the little thing will cry and worry, till it is all tired out, and goes off to sleep through clear exhaustion. It does not have a good restful nap, but starts and jumps, and its mother has to rock it to keep it tolerably quiet. Young mothers, this is not an old woman's whim, it is truth; try for yourselves and see. There is a sympathy between a mother and her babe, and if the mother's nerves are all unstrung, baby's will be the same. But I was going to talk about teething.

Children suffer terribly sometimes, even to death; and if mothers only understood how to manage them, they would be spared a great amount of pain. In the first place, keep soft flannel next the body, till they are two years old, certainly. Then never neglect to keep close watch of the little mouth so as to know if the gums get inflamed and swollen. It is often a great relief to have the gums lanced, it should always be done, if there is a purple hue upon them. The bowels should be kept open by a suitable diet—oat meal gruel, chicken broth, beef tea, are all good and proper food for little people—neither candies nor sweets of any kind are healthy, they cause the food to coagulate in the stomach and the result is pain, then of course, baby cries, in distress. A very nice thing to draw inflammation from the gums, is to take the feelers on lobsters (they are the long slender things that grow from the head), and cut them up into pieces, a little more than a quarter of an inch long, and string them like beads, and put them on the babe's neck. You will be astonished to see how quick they draw the inflammation from the gums, and cause a fine eruption of the skin all around the neck; sponging the head in cold water is very soothing; but above all things, let the child be out of doors all that is possible. It gains strength and then its mind is diverted from its uncomfortable sensations, and a baby is better every way for enjoying the sunshine and pure air. It is better than medicine of any kind. Where one lives in the country, there is no excuse for shutting children up in the house. I do not know how city people do manage to raise children. I should think they would all die for lack of air and sunshine. I do not wonder that city-raised people are puny and dwarfish, I think it more of a wonder that they live at all. Open air is needful to make any living thing develop and grow, and sunshine gives animal and vegetable nature strength.

Our minister's wife was a nice sweet woman, and she had a pretty babe about eleven months old, but it was a delicate child. Its mother was so afraid that a breath of air should blow on it, that she would insist that every window and door was kept closed. I wanted to tell her she was spoiling the child, but somehow it did not come handy to do it, and I never like to give counsel unless asked for it. One day she sent for me to come quick, as baby was in a fit; so of course I went; the poor woman was crying and wringing her hands: "Baby will die! baby will die!" and baby lay in its cradle in convulsions.

"Oh, I hope not; do try and be calm," said I, taking the little creature on my lap. I got my finger in its mouth so as to see its gums. The eye-teeth were cutting, and the gums were swollen fearfully and ulcerated. "Here is the trouble. Get a lancet, quick;" but they had none, neither a sharp penknife, and the village physician was five miles away. "Well, give me a darning needle." They had that, and I pierced the ulcerated places, and they discharged fearfully. I then soaked the little feet in warm water, wilted some burdock leaves for drafts on the feet and put a mustard plaster between the shoulders, and in just fifteen minutes from the time I came in the house the baby was nestled in its mother's bosom, looking a little pale, but its fever was gone, and in two days those eye-teeth were cut through all right.

"I think baby would have died, grandmother, if you had not come; how can I thank you enough?" "By learning how to take care of her yourself," and then I had a good chance to talk to her about training up children; and she was a good, sensible woman, and remembered what I said, and practiced it, too. The rest of the children fell into the hands of a wise mother, and she had no more trouble about convulsions or fits, or even delicate babies. The younger children cut their teeth the easier they come, but there is a great difference in age about cutting teeth. Some have four teeth through at four months, while others do not have more than that at a year old. Opiates of all kinds are injurious to children. A little sage, or catnip tea, is better than a gross of soothing syrup or a gallon of paregoric. Burdock leaves are a grand thing to use with children, and grown-up people, too. I would never be without them in the house; they allay inflammation and ease pain so quickly, if they had not been so useful, God would never have spread them so plentifully around every house, so that they could have been gathered so readily. I have seen them applied to the bowels in cases of inflammation, and never knew them to fail in giving relief. For toothache and neuralgia they are excellent; for sore throat they are good. If green, you want to wilt them on the stove before applying; if dried, you want to warm and soften them with either warm water or vinegar. They are better than doctor's stuff at any time, and can be got quicker.

A mother must have her thoughts about her, and not get frightened when the children fall sick. No one needs presence of mind as much as a mother; and she must learn to think quick and act promptly when a sudden emergency comes up. Many painful hours and sick days could be avoided if mothers would only take proper precautions and use suitable remedies when the little ones are first taken sick. A warm foot-bath is one of the best things in the world to allay pain, and it is generally the last thing that is thought of in cases of fever or inflammation. Just have your thoughts about you, and learn what to do.

GRANDMOTHER.

A BREEZE IN TIMBERVILLE.

Eds. Woman's Journal:—Tabitha Bowers wrote to me that she saw an article signed with my name in your paper copied from the Inter-ocean (see RURAL NEW-YORKER of May 10th), and I thought if you were kind enough to do that, may be you could give me some light in these matters, and I am sadly troubled. My letter, which was published in the Inter-ocean, somehow fell into the hands of Elder Jenkins, and he came to me very much disturbed in mind. It seemed so strange, he said, that after listening to his preaching so many years, I should now be led astray by these infidel reformers. In vain I assured him that I was still sound in the faith, and was only seeking to understand the real meaning of St. Paul's teachings and their application to the present time. He replied that the very fact of my having written to a secular newspaper for information, was evidence sufficient of my lukewarmness. "Why, Elder Jenkins, what could I do," I cried in my dismay, "I had no husband to ask?" He patted me on the head (for he had taken his seat very near me, as is the ministerial custom), and looking smilingly right into my eyes said, "Why, child, could not you ask your pastor?" I do not suppose anybody in Timberville will see your paper, leastwise I hope Elder Jenkins won't, but I must confess I felt real uncomfortable. In the first place, I am by no means a child—being about midway between childhood's first and second stages. Again, I do not think it is nice for men, even if they are ministers, to pat women on their heads and call it a fatherly interest. I had a good father, but when I became a woman he treated me as such, and I can not make such manners seem natural. But I shoved my chair a little farther off and put on as brave a face as I could, and asked him if he would tell me just how he understood St. Paul. He said that Woman was the "weaker vessel" and that it was a shame for her to "speak in church," or to "pray with uncovered head," that they should not wear "broidered hair, or gold, or pearls, or costly array." Now, I do not know what the fashions are in Boston, but in Timberville the women's bonnets hang on their back hair, and their heads are all uncovered, and they wear great heavy gold chains outside of all their wraps, and they go to church with their hair frizzed and braided in a most marvelous manner, and never a minister has opened his mouth to condemn such unseemly apparel. Latterly, however, they wear what they call "bangs," and the hair comes clear down to their eyes, and maybe St. Paul is responsible for the style. I must say that I have noticed with pain that at our church sociables Elder Jenkins pays a great deal more attention to these gaily dressed ladies than he does to the soberly attired women of his flock, and sometimes when I have been thinking it over, I have been almost afraid St. Paul might have done the same.

Then the Elder went on to say that according to Paul "Adam was not deceived; but the woman being deceived was in the transgression." I asked him if that meant that Eve, really believing that the eating of the apple would make her wise, was a greater sinner than Adam, who ate his with his eyes open just because Eve offered it to him? He said that all the misery in the world was the result of Eve's insane desire for wisdom; that if all women were wise it would subvert the entire order of creation, for their husbands could no longer rule over them; as to Adam, he went on to say his sin was a manly one, and that the sins men committed in consequence of the attractions of women were never visited so heavily upon the men as upon the women, by nature or society; Woman invariably paid the penalty. It might appear hard, but he believed it was according to the established order of things. Then I asked him what St. Paul meant when he said, "Let not a widow be taken into the number under threescore years old, having been the wife of one man, well reported of for good works; if she have brought up children, if she have washed the saints' feet, if she have relieved the afflicted, if she have diligently followed every good work. But the younger widows refuse." He looked at his watch and said his call was already too long, that he had agreed to meet a committee of ladies that afternoon who were trying to devise means to raise the minister's salary and refurnish the parsonage; there was to be a donation party; and then they already had a sewing society and a mite society, which met every week; but they thought, perhaps, something might be done in the way of noonday lunches and strawberry festivals in the evening. In parting he again laid his hand upon my head (this time solemnly as if he were to pronounce the benediction) and said, "My dear child, do not distress yourself with such abstruse questions; but live quietly in the sphere where you rightfully belong, remembering always that 'Great is the mystery of godliness.'" Now Mr. or Mrs. Editor, whichever you may be, I belong to that committee, and am expected to meet with them to try to raise this good man's salary. I do not outstep my sphere when I go around with a subscription paper for his benefit. I am considered modest when I force tickets for church festivals on unwilling buyers; in short, I can do a great many things which are exceedingly revolting to my own sense of propriety, and be told that I am only "bearing my cross," but when I dare think for myself upon any subject, no matter how quiet, I am, I get out of my sphere directly.

DORCAS ALLEN.

GOOD INTENTIONS.

If all the letters written in my mind, had been sent to the "Woman's Club" and accepted, I would surely have had a hearing before this. I enjoy every issue of the dear RURAL, and think the "Club" a very helpful part of the paper.

As the months have passed by, I have thought I would surely write before the next "meeting," and while making beds, dusting, mending, etc., my thoughts were busy; so day after day passed, and I never sat down to the task. By-and-by I passed into the invalid corps, and during the weeks that have now lengthened into months, I have read letters that were cheering and helpful, and in my seclusion, gave me peeps into other women's lives.

While suffering I have been happy with husband and children; but the plans and resolutions I have formed day after day, if written, would even exceed my imaginary letters to the "Club." As time passed, and the strength I expected did not come, one code of resolutions after another passed out of mind, that were never "presented before the house."

So is life, more or less, to every one. I commenced to study periods of history, and Miss Harvey's letter was the means of my botany coming down off the shelf the first time any one came in to get it for me. I would like to renew my drawing again. Miss Harvey's directions are very plain and encouraging, and half the battle is almost won when one fairly commences. I will have to wait for strength; but let me say to every mother who reads this (and fathers, too), cultivate your minds and hearts; strive to be intelligent and cultivated. Do not spend the golden part of your lives accumulating property for your children, while you yourselves feed on *husks*. If you do, old age will find you *duraffel*—your children will find you so, and although they may love you too much to utter it, their hearts will bleed over the fact.

All children will not bury it in their hearts. Parents are often told how little they know, which is most sad, for it embitters instead of purifying.

How much we mothers ought to look to Christ, asking that our frail bark with our heart treasures may be guided in the truest way on earth, and into the safe haven above. He is our true helper.

"Just before going to press," as the editors say—which is partly true in my case, as I was about to mail this—I read M. A. B.'s "Truly Spoken," of June 21. I commend it to all for even more than a second reading. Dear sisters, there is meat in it of the most nourishing kind, for if partaken of, it will strengthen the soul. MARGUERITE.

EXCEPTION TAKEN TO JACQUELINA'S VIEWS.

I am surprised that the many RURAL readers have suffered the article of Jacquelina, in RURAL of May 3, to pass unanswered. I have waited, hoping that an abler pen would defend the teachings of the Bible. She says: "If there is one lesson which is being constantly impressed on our attention, it is that there are no providences in matters of worldly advancement."

I have heard of a man in one of our large cities who started in business with but small capital. He promised God if he would prosper him he would give to Him one per cent. of all he made. He kept his promise, and in the course of a few years was enabled to pay $40,000 into the treasury of the Lord. Was there no providence in that? I must certainly think God does not mean what He says. If she does, what will she do with "No good thing will He withhold from those who walk uprightly?" also, "But seek ye first the kingdom of God and His righteousness, and all these things shall be added unto you?"

I do not understand by that that we are to seek God, and then sit quietly with folded hands and wait for God to feed and clothe us. But I do believe if we seek God faithfully, and serve him willingly and obediently, He will help us in worldly matters, for certainly such is the teaching of the text quoted. How can we believe less, and accept God's holy word as truth?

Now, concerning those people in the hospitals and poor-houses, I would say with a very wise man, "I have been young, and now I am old, yet have I never seen the righteous forsaken or his seed begging bread." God knows how near they lived to Him.

I would also like to know how she would reconcile her views with the well-known case of George Muller, of Bristol?

About building and supporting churches, will Jacquelina please read Malachi, 3d chapter, 8th, 9th, 10th and 11th verses, and tell us what God means there? FAITH.

THE REASONS WHY.

SOMEBODY—a crusty old bachelor, of course, inquires why, when Eve was manufactured of a spare rib, a servant was not made at the same time to wait on her? Somebody else—a woman, we imagine—replies in the following strain: "Because Adam never came whining to Eve with a ragged stocking to be darned, collar string to be sewed on, or a glove to mend, 'right away—quick now!' Because he never read the newspapers until the sun got down behind the palm-trees, and stretching out, yawned out, 'Is not supper most ready, my dear?' Not he. He made the fire and hung the kettle over it himself, and, we will venture to say, pulled the radishes, peeled the potatoes, and did everything else he ought to do. He milked the cows, fed the chickens, and looked after the pigs himself, and he never brought home half-a-dozen friends to dinner when Eve hadn't fresh pomegranates. He never stayed out till eleven o'clock to a political meeting, hurrahing for an out-and-out candidate, and then scolding because poor Eve was sitting up and crying inside the gates. He never played billiards, rolled ten-pins, and drove fast horses, nor choked Eve with cigar smoke. He never loafed around corner groceries while Eve was rocking little Cain's cradle at home. In short, he did not think that she was especially created for the purpose of waiting on him, and he had no idea that it would disgrace him to lighten Eve's cares a little. That is the reason why Eve did not need a hired girl, and from it may be inferred the reason why her fair descendants do."—*Woman at Work.*

ERRATUM.

IN the Women's Department of June 14th a lady correspondent was made unjustly responsible for a number of errors in naming plants and flowers. As a matter of simple justice to the lady we republish her letter as it should have appeared, and hereby tender her an apology for our inexcusable carelessness.

A Southern Lotter.

I have a beautiful flower garden, with many choice roses, lilies, shrubs, etc., etc. I would suggest an exchange of plants and seeds; many of your readers may have more of one kind of plants than he or she wishes, and would like to exchange for others. For instance, I have many of the longiflorum Lily, and would like to get the Lilium auratum in exchange. I also have the Caladium esculentum, Spanish Moss, many grasses, wax plants, etc. I live in Beaufort, S. C. We raise fine bananas and oranges. Our roses are trees, not shrubs. I wish you could see them. The Safrano, Lamarque, Bon Silene, Marechal Niel and Souvenir de la Malmaison, bloom all the year. I know they would astonish our Northern friends. I enjoy reading the RURAL NEW-YORKER, and will be pleased to correspond with you about other things. Respectfully, S. I. GIVENS.

A GOOD PRESCRIPTION.

PERSONAL cleanliness is not invariably a "passion" even with individuals in the upper ranks of society. We have heard of a British General whose antipathy to ablutions was a matter of notoriety among his friends and acquaintances. Meeting one of them, the General complained of being unwell.

"What seems to be the matter?" inquired the gentleman.

"Can't tell," said the General; "but I don't feel exactly well."

"Allow me to prescribe," said the gentleman.

No objection being offered, he advised the General to lose no time in procuring "a convenient tub, half filled with tepid water, and a big-sized lump of brown soap."

"Apply the soap and water liberally," said the gentleman, "and repeat the experiment again and again."

"Why," said the General, "that simply amounts to washing myself."

The gentleman, putting on a very serious look, remarked, "It is liable to that objection."

NEATLY PUT.—Last fall there was a division of the Freshman Latin class, containing thirty-six students, nearly half of whom were ladies. In looking over the records we find that there were nine members of the class who earned a standing of 100, and that seven of these were ladies. Now, girls, we noble males never complain because you swear, we never say a word against you because you chew tobacco, and we might in time become accustomed to your wrestling in the halls; but when you beat us in scholarship, you are carrying the joke too far.—*University Reporter (Iowa University).*

IN making Pumpkin pies, instead of using all ginger for seasoning, use two-thirds cinnamon and one-third ginger—quite an improvement to the taste!—try it.

Put your Madeira Vines and Dahlias at the back door; when you throw out water, they will grow so much as to surprise you, and take up the moisture so that the water will do no harm. V.

Domestic Economy.

CONDUCTED BY EMILY MAPLE.

CONCERNING SOUP.

One of the chief causes of waste in the kitchen is the neglect of little scraps of meat and bread, which, properly used, would form the groundwork of excellent soup. Every two days such scraps of meat and bones should be placed in a stew-pan, well covered with water, and left to simmer gently for several hours. When sufficiently stewed, the stock should be put away until quite cool, when every particle of grease should be carefully skimmed off. When needed, the stock should be placed on the fire, and used as the foundation of any soup wished. For vermicelli, the stock should be perfectly clear, seasoned to taste, and have a small quantity of vermicelli put in it half an hour before dinner. All soups are improved by a little thyme and cayenne pepper, and veal or chicken is much the better for a tiny infusion of grated lemon peel. Scraps of bread left at table may be toasted, cut into cubes, and eaten with clear soups. A favorite dish with us, invented in a moment of despair during the warm weather, is crab soup. To make it, take good strong stock and shred in it tomatoes and okra, or gumbo, until it is quite thick; flavor it strongly with birds-eye pepper (this is for one who has acquired a taste for Indian curry); let it boil gently for an hour and a half; strain it through a fine colander, and place it on the stove again. Ten or fifteen minutes before dinner put in it the flesh of several boiled crabs, shredded up. Let it simmer gently until served. Eat with toast.

Tomato soup is improved by the addition of a little okra, or a few peppers, but it needs an acquired taste to enjoy much of the latter.

We cut okra in slices and dry it, to use in the winter as a flavoring for soups and stews.

In making bean soup, put just a pinch of sugar in it; it takes away the roughness of the flavor. EMILY L. TAPLIN.

Maywood., N. J.

DOMESTIC RECIPES.

Pickled Onions.

SELECT small onions, remove with a knife all of the outer skin so that each will be white and clean; drop into brine strong enough to float an egg and let remain there six hours. Bring strong vinegar to a boil; add bits of horse-radish and cinnamon bark, with a few cloves and two or three red peppers, and pour hot over the onions, previously drained from the brine.

Currant Jam.

Pick free from stems and leaves, wash, weigh and crush; put into a porcelain kettle and place on the back of the stove where they will gradually heat; then let boil twenty minutes and add sugar in the proportion of three-fourths pound to a pound of the fruit. Boil one-half hour longer, stirring most of the time. When done, put into small jars or glasses and either seal or secure like jelly with paper.

Michigan. MRS W.

Iron Rust.

Take dry cream-of-tartar and rub on with the finger while the cloth is wet. Hang or place where the sun will shine directly upon it. Should the rust not come out with the first application, repeat.

Fly Specks.

When these become set so that they will not wash or boil out, at the time of rinsing, turn a few drops of aqua-ammonia directly upon the spot and rub with the hand—they will almost entirely disappear. MRS. H. R.

Ice Cream.

One quart of milk, the yelks of four eggs, one large spoonful of flour stirred to a smooth paste in a little of the milk, and one pound of sugar; scald until thick, taking care not to let it burn. When cold, add one quart of whipped cream and the beaten whites of four eggs; flavor to suit the taste, and it is ready to be frozen.

DIRECTIONS FOR FREEZING ICE CREAM.

To make ice cream nicely and quickly, a suitable apparatus is indispensable. If one has no freezer, a tin pail with a closely-fitting cover can be made to answer. Set the pail in a basket—a large peach basket is good; pack equal quantities of coarse salt and finely-broken ice around the pail, nearly up to the rim; pour the prepared cream into the pail, taking care not to get any salt into it; cover the whole with flannel and leave for 20 minutes, that the cream may chill. Freeze by turning the pail half-way around and back, and every few minutes open the pail and stir the cream; for this purpose use a smooth stick.

Work fast while the pail is open as the air that reaches the cream delays the freezing process. Have a damp napkin at hand to wipe away the salt from the freezer every time that it is opened. It may be necessary to renew the ice and salt while shaking, as the freezing mixture must be kept close to the sides of the pail. When the cream becomes solid, cover again with flannel, and if convenient, let it stand for an hour before serving.

Strawberry Ice Cream.

One pint of very ripe strawberries rubbed through a sieve. Add a pint of whipped cream. Make very sweet and freeze.

Lemon Ice.

One pint of rich lemonade with a little grated rind of a lemon in it. It must be very sweet as it loses much in freezing. Add the whites of three eggs cut to a stiff froth. Freeze like ice cream The juices of any fruit, with sugar and water added, may be prepared in the same way. MRS. M. G. R.

Pickled Walnuts and Butternuts.

Select well-grown nuts, although tender enough to stick a pin through them; put them into a brine made in proportion to a pint of coarse salt to six quarts of water, boiled, skimmed and poured hot over the nuts. Leave them in this brine for four or five days; then take out, drain, wipe carefully, prick each nut two or three times with a large needle and throw into a pan of cold water; take out after two or three hours, pack into jars and pour over hot spiced vinegar.

Currant Jelly.

Look over the fruit and see that it is perfectly clean; crush and set on the back of the stove until heated through; strain and for every pint of juice measure a pint of sugar. put the fruit-juice on to boil and the sugar on a pan in an open oven to heat. Let the juice boil twenty-five minutes, skimming as needed. Then stir in the sugar, which should be very, very hot and boil five minutes longer. If the sugar was thoroughly heated, five minutes' boiling will be sufficient, but it will be best to test it before pouring out, by trying a little on a spoon. If the juice jellies as the spoon is turned from side to side it is done.

MARY B.

Gooseberry Jelly.

Pick the fruit before quite ripe; put into a dish and place in a kettle of hot water; cover closely and boil until the fruit is tender. Strain the same as currant jelly and to each pint of juice allow a pound of sugar; boil twenty minutes; turn into jelly cups and set in the sun for several days or until stiff. Protect from insects and dew.

Elderberry Wine.

Two quarts of juice; two quarts of water; four pounds of white sugar; put in a jar, cover with a thin cloth to protect from flies, and skim every day until well fermented. Then turn into a cask and cork tightly.

MRS. BRAYTON.

QUESTIONS ANSWERED.

Tomato Pie.

Mrs. McNair asks for a recipe for the Southern green tomato pie.

ANS.—Stew green tomatoes with very little water until tender, and for each pie allow one tablespoonful of butter, three of sugar and a little nutmeg. Bake between two crusts. The quantity of butter and sugar given is for a medium-sized pie.

Pastry Strips.

N. E. L., asks if the crisped strips, sometimes served with open tarts or coffee, are made of pie-paste.

ANS.—Yes, the paste is rolled quite thin and cut into narrow bands about a quarter of an inch in width and three or four inches in length. Bake on pans in a quick oven.

Alum-Water for Pickles.

Mrs. M. L. C., asks how to prepare alum-water for crisping pickles.

ANS.—Allow a teaspoonful of powdered alum to each quart of water; bring to a boil, draw to the back of the stove and put in the pickles previously soaked in brine. Let remain half a day, when the pickles should be taken out and thrown into cold water, there to remain until cold. Then wipe and pour over hot, spiced vinegar.

Spiced Currants.

Mrs. Whitcomb, asks for a good recipe for spiced currants.

ANS.—For five pounds of fruit allow two quarts of white sugar, one pint of vinegar, a tablespoonful each of ground cinnamon, cloves, allspice and mace. Boil the sugar and currants together as for preserves, and when quite thick, stir in the vinegar and spice, and boil fifteen or twenty minutes longer. Great care must be taken that the mixture does not burn at the bottom.

Sweet Green Tomato Pickles.

Miss Maggie Hall, asks how to make a sweet pickle out of green tomatoes.

ANS. — Wash, remove any imperfections, weigh out eight pounds, chop fine, add four pounds of white or light-brown sugar; boil slowly for three hours, then add a quart of vinegar and a dessert spoonful each of ground cinnamon and cloves. Boil fifteen or twenty minutes longer, and when cool, put into bottles or jars.

News of the Week.

MISCELLANEOUS.

Monday, July 7, 1879.

A general law was passed in the Senate of the forty-fifth Congress authorizing persons desiring to settle on public lands within railroad limits, to claim their homesteads out of odd sections in all States except Missouri and Arkansas. On the very last day of the extra session, the Senate bill, having the unanimous approval of the Committee on Public lands, passed the House and became a law, granting additional rights to settlers on railroad lands within these two States; authorizing them to claim their homesteads out of odd sections, just as they could do in other States. The general law, which is perfected by the new law, gives to every person the right to enter 160 acres instead of 80 acres, as heretofore. The new bill provides that odd sections within the limits of any grant of public lands to any railroad company in the States of Missouri and Arkansas, or to these States in aid of any railroad where even sections have been granted, shall be open to settlers under the Homestead laws to the extent of 160 acres. It further provides that any person who has, under existing laws, taken a homestead or any section within the limits of any railroad grant in these two States, who has been restricted to eighty acres, may enter an additional eighty acres of adjoining land embraced within his original entry. If additional land is subject to entry he may, if he wishes, surrender his entry to such States for cancelation, and thereafter can enter lands under the Homestead laws the same as though the surrendered entry had not been made. He can do so without payment of fees and commissions. It provides also that the residence of such persons, upon cultivation of land embraced on his original entry, shall be considered residence and cultivation for the same length of time upon and of land embraced in his additional or new entry, and shall be deducted from five years' residence and cultivation required by law; provided that in no case shall patent issue upon an additional or new homestead entry under this act until the person has actually and in conformity with the Homestead laws occupied, resided upon, and cultivated land embraced therein at least one year.

Just before its adjournment Congress rather unexpectedly passed the bill repealing the tax on quinine, relieving the country of one of the worst monopolies which disgrace our tariff. The wholesale price of quinine varies from $3 to $5 an ounce according to the demand, an occurrence like the Russo-Turkish war bringing about a rise in the price. The tax on this vital and high-priced commodity is 45 per cent ad valorem on quinine proper and 20 per cent on quinine sulphate, a prohibitory duty which enables two or three Philadelphia manufacturers to import the bark and charge from a third to a half more for turning it into quinine than they could without the duty. The entire revenue raised by this tax last year was less than $60,000, the total importations of both quinine and the sulphate being valued at less than $170,000, but the profits of one Philadelphia firm out of the manufacture of this article are put at millions, which is probably the reason that the members from Philadelphia attempted to prevent the passage of the bill. It is much to be feared, however, that the gain from the repeal of the tax on this necessity in some parts of the country, will go, every cent of it, into the pockets of the druggists. Already they make from six to twelve dollars a pound on retailing the article, and consequently they are not likely to make any decrease in the price on account of the trifling remission of duty.

Edison has just sent a man to England with 50 telephones on a new principal and of exceeding delicacy, to adapt them to the humidity of the English climate. He proposes to establish with these a telephonic exchange in London. As to the electric light, Mr. Edison says: "I have supplied six electric lights from one horse-power. These cost me just about one-third as much as three similar gas-burners will cost gas manufacturers. I claim that this solves the question." He is still perfecting the machinery for generation, so as to have it all right when manufactured in quantity. James Gorden Bennett's yacht Jeannette has arrived at San Francisco from Mare Island, Cal., and, in a few days will sail for the arctic regions on her way to hunt for the north pole. In the future most of the breadstuffs exported from this country to England will perhaps take the shape of flour. The English millers, it is reported, are discussing going out of the business, as the new American processes undersell them, and milling is no longer profitable with American grain. Hog cholera is making terrible ravages among the young pigs of southern Wisconsin, Jo Davies county, Ill., and Dubuque county, Ia. The disease spreads from drove to drove, carrying off the porkers by the hundred. The loss is incalculable, and has ruined some farmers and discouraged many more.

The clearing-house exchanges at the leading cities go on increasing week by week at a rate which makes it certain that the volume of business during the current year will be at least a fifth, and may be a fourth, larger than for last year. The returns for the last week reported show an increase of 23 per cent. over the corresponding week last year, and the advance is uniform over the country. New Orleans and Providence alone showing a decrease. This is one of the most trustworthy indications of a revival of business and a speedy return of "soft times." The extra session with its futile bickerings came to an end Tuesday. Monday the president sent in his veto of the bill making appropriations for the expenses of federal marshals, accompanying it with a special message calling attention to the necessity of making some provision for the performance of the important duties belonging to the officials. The republicans are very well satisfied with the methods taken by the president in these two messages to fix the responsibility of crippling the courts upon the democrats. The republicans further aided in fixing this responsibility by throwing adjournment over until Tuesday, so that there might be no excuse on the ground of lack of time. They thus forced a vote upon the proposition to make the needed appropriations for marshals and their deputies at elections. Thus brought to the test, the democrats of both houses made a record by voting against such unrestricted bills and for the ordinary routine work of the courts. This, the republicans hold, presents the issue clearly to the country, and places them in the position of refusing to enable the courts to pay for the ordinary business transacted by its marshals. These latter will continue to perform their duties, but they cannot be paid until a deficiency appropriation bill has been passed. The president has decided not to call Congress at present, but if much trouble arises in enforcing the revenue laws in the South, it may be necessary to assemble Congress before December.

The internal revenue receipts for the year ending this week will be some over $113,000,000, which is more than $3,000,000 above the receipts of last year, despite the reduction of the tobacco tax. The gain is due to a more thorough enforcement of revenue laws in the South, the breaking up of the tobacco ring in New Orleans alone adding $10,000 per month to the internal revenue. The leading gas companies of New York have just made a considerable reduction in their price. From the uniform charge of $2.50 per 1,000 feet they have come down to $2 and $1.90, the lower price being made to consumers who use 10,000 or more per month. The companies say the reduction is made on business principles purely, the decline in cost of materials permitting it. By the way, there is a great lull just now in the talk about Edison's electric light from which so much was expected. The inventor, however, is still "pegging away" at his devices in that connection. He has found more difficulty than his sanguine temperament expected in accomplishing his designs, but is still confident of success.

It is rumored and denied, that Archbishop Purcell's mind has become unsettled because of the financial embarrassments in which he is involved. There is about equal authority for the rumor and the denial. Considering the age and character of the prelate and the nature of his troubles, it would not be surprising if the rumor were true. Confidence in his personal integrity is so strong, and his character so firmly rooted, that everywhere sincere regret will be felt if it so prove. This year has been remarkable for the extremely violent storms and tornadoes that have visited various parts of the country. At Bismarck, Dakota Territory, Tuesday evening, a storm wrecked the steamer Montana, the largest and finest steamer on the Missouri river. It broke every chain in the vessel and carried the cabin ashore. Pieces of the cabin were blown 500 yards. The damage to the steamer is over $3,000. The damage in the city is put at $50,000. In House and Senate a total of 3,122 bills and 165 joint resolutions was introduced during the extra session.

A "bi-metallic league" has been formed in Chicago for the purpose of speedily restoring silver to its position as a money metal, "with the rights of coinage, the same as gold. The public meeting which gave it birth was called and attended by leading merchants, lawyers, judges, military men, and politicians. Not less than three judges made speeches. One declared that the panic, which ought to have run its course long ago, "still holds us in its grip;" another, that "the act demonetizing silver, in view of the manner of its passage and of its past and prospective evils, was one of the most cruel enactments that could be found on the statute-books of any civilized country;" a third, that "gold and silver were married in remote periods of antiquity, and destined for ever afterwards to go hand-in-hand as equals, and what God has joined together no man should put asunder." This sentiment was received with laughter, though there was no particular reason for its being singled out as amusing. A Colonel Daniels "spoke loudly, long, and earnestly in favor of a free, unlimited coinage of silver." He also provoked laughter and applause by saying that Senator Bayard "knew no more about the subject of finance than a calf." He said further that "the silver-men demanded the silver option; that the contract should be fulfilled; that the dollar paid should be of the same size that the people agreed to pay. If that didn't mean that they were in favor of honest money, he "should like to know what honest money was." The League appointed a Publication Committee, and will do what it can to insure the passage of the Warner Bill next December.

To-day 327 new money-order offices go into operation, covering all the States and Territories, except the Indian Territory. Nine money-order offices now in operation are to be discontinued, making an increase for the present fiscal year of 318. Sergeant Finney, of the signal service, left Washington the 1st of June, to investigate that terribly destructive cyclone which occurred in Kansas, Nebraska and Missouri the 29th and 30th of May. He visited over thirty cities and towns in the States named, surveyed the entire ground over which the storm passed, and states there was a general storm area in northern Kansas, southeastern Nebraska, and northwestern Missouri, and that he discovered eleven distinct tornadoes, two of which prevailed on the 29th, and nine on the 30th of May, all originating in that one storm area. He will make a full report to the signal service bureau.

The Atlanta, Ga., Constitution says the southern people hardly appreciate the amount of money that has been made in the south by the recent flurry in cotton speculations. There is scarcely a village that does not furnish its man who has made from $5,000 to $100,000. Colonel Sam Rico, of Montgomery, probably leads the list with $200,000; but there are several, two at least in Savannah and one in Rome, who are said to have made from $50,000 to $100,000. Albany furnishes a modest

dealer who picked up $22,500. In Savannah almost every dealer, of hundreds of dabblers, made largely. The Augusta News is authority for the statement that a man who didn't make as much as $5,000 is kicked out of the exchange. The gains in New Orleans are immense, it being said that that city pulled in $10,000,000. One of the fine features of all this gain, by the way, is that it comes in cash, and is paid without any long delay. As to Atlanta, we are hardly able to say positively what she cleared. It is certain that a great many have made money in snug quantities, but we hear dim reports of some persons who also lost money, though no serious amount. The cotton dealers in the South never closed a season in such fine spirits or so well fixed with the "needful." They are in better condition than ever before.

Our government having declared that it could not be indifferent to the interference of any European government in matters connected with the construction of the projected canal across the Isthmus of Darien, M. Lesseps now declares that the enterprise is entirely of a private nature, to be carried on by private capital, under private management, although, of course, it is his intention to seek from all governments an agreement that the completed work shall always be considered neutral in times of war. As a concession to American sensitiveness where the Monroe Doctrine is in danger of violation, he says that it is his intention to offer the honorary presidency of the company which will own the canal to Ex-President Grant. This would certainly be an honorable and lucrative position for a man whom *all* Americans of the future are sure to honor. By the way, he arrived in Yokohama, Japan, on the 3d, and it is reported that he will not reach home probably before next spring.

FOREIGN.

Wheat-growing on a large scale has only been carried on in the Argentine Republic for two or three years, and yet, at last accounts, 40 vessels were in the river La Plata loading with wheat for Europe. Immigrants from Italy, France and Germany are fast filling up the country, and their grain shipments may yet rival those of the United States. It is not easy to give the exact number of social democrats in Germany. If we take as a basis the 600,000 votes cast by this party at the parliamentary election, July 30, 1878, and allow about the same number for non-voters under 25 years of age, they may count, in round numbers, say 1,200,000 full-grown men. A startling fact is that, between the elections of 1874 and 1877, the social democrats nearly doubled their number of voters. This was partly owing to more thorough organization, and also to the hard times which drove many into their ranks, but at the last election, July 30, 1878, though they polled over 600,000 votes against 485,000 in 1877, they lost three seats in Parliament and have now only nine members of 397.

The Krupp gun works of Germany are of immense dimensions. One of the establishments employs 8,500 workmen, and contains 298 boilers and engines, which, combined, have 110,000 horse power, and operate 77 trip hammers, varying in weight from 200 to 100,000 pounds each. Since 1877, 15,000 cannon have been turned out; 300 are made on an average every month. Daily 18,000 tons of coal and coke are consumed, and 21,000 gas jets are in use. A railroad track, with 24 locomotives and 700 trucks, is in operation within the works, and between them and the nearest railway station. The establishment has 24 telegraph stations, and eight fire engines for protection against conflagration. In the mines connected with these works there are 5,300 workmen. Iron ore the company gets from its own lands in the north of Spain to the extent of 200,000 tons annually, which five steamers that it owns convey to the factories. The company has built 3,278 tenements for its employees, in which 16,200 persons live. The grain used in the bakeries that supply these people with bread is bought by agents of the company in large quantities, chiefly in Odessa, the Russian grain port. Four common schools and an industrial school for girls and women provide the elementary instruction needed by this city of factory hands.

There is every prospect that a second reconciliation is at hand between the German Government and the Papacy. Bismarck, despite his iron resolution, found it impossible to carry out his views as to the passage of new laws with the aid of the conservatives and liberals, as the latter were unwilling to pass some of the oppressive measures the Chancellor insisted upon. The Catholic vote in the Reichstadt is solid and counts 113, and so long as Bismarck's harsh measures against their Church were rigorously enforced, the Catholic vote was always against him. Latterly he has been temporizing, and that vote has several times come to his support, especially since his split with the liberals. Meanwhile, Leo XIII. seems to be of a more diplomatic turn of mind than Pius IX., and accordingly he has pressed negotiations with Bismarck with a view to the re-establishment of amity between the Empire and the Papacy. Dr. Falk, Minister of Public Worship, and author of the oppressive May laws against the Catholic priesthood, has just been forced to resign, a large number of banished and imprisoned ecclesiastics have been pardoned, the Catholic vote has been lately pretty solid for Bismarck, and already the chief terms of reconciliation are noised abroad. The fundamental points are: that the German Government should nominate all German Catholic bishops with the consent of the Pope, and that the bishops should nominate the priests to "livings" with the consent of the government. This is merely a rumor as yet, but is probably true.

There is a great deal of bitter indignation in England and indeed everywhere concerning the circumstances that led to the death of the Prince Imperial. Orders had been sent from home that he should not be exposed to danger; yet he was sent, or permitted to go, ahead with a small scouting party into an intricate district supposed to be infested with scattered parties of hostile natives. Moreover, when the little party were surprised by the "blacks" during their noonday rest, all took to horse at once, certain of escaping easily on horseback from the Zulus on foot, while no one seems to have noticed that the Prince's saddle had given way as he was mounting, or if any noticed it, they were too terrified to render him assistance. It's fortunate for France that his body was found, pierced by so many spears, for otherwise there would certainly be in the future more than one "claimant." The body is now on the way home. The ex-Empress is slowly recovering from the terrible prostration produced by the news of the sad end of her only and worshiped son. She has the sympathy of all hearts. The officer commanding the scouting party which abandoned the young man to his fate, is likely to receive the reward of his base cowardice from a court-martial. Lord Chelmsford and everybody connected with the Prince's death are blamed by the public. Prince Jerome Bonaparte—nick-named, Plon-Plon—will now probably be ranked head of the Bonapartes, and he is a decided republican. Meanwhile Cetawayo is still said to be negotiating for peace.

The Porte is trying, on the accession of the new Khedive, to revoke one of the concessions to the late ruler which enabled him to maintain fleets and armies and make treaties with foreign powers; but France and England have remonstrated against this, and the decree will probably be abrogated. The new Khedive; is only twenty-seven years old, and of course promises to reform every thing. The most marked incident attendant on his father's outgoing was the appearance of Germany among his coercers. This has excited genuine indignation among the English Liberals, and will probably have a serious effect on the Tory fortunes at the next election. Egypt ten years ago was looked on all over Europe as substantially a dependency of England, which she might without offence occupy at any time under the spirited foreign policy of the Tories. This position has been completely lost; France has been admitted to full partnership in Egypt, and now Germany has appeared on the scene claiming the right to a voice in the management of its affairs also, and Russia and Italy it is said will soon claim a voice in Egyptian matters.

From Constantinople there is a report and its contradiction, that ex-Sultan Murad has escaped. He was deposed in 1876, after a brief reign, on the ground that he was mentally incapable, and ever since has been closely imprisoned in the Tcheragan Palace. At Kieff, in Russia, there has been a recent execution of a large number of Nihilists. Just before it took place, 400 members of the association arrived there from different parts, some even from Western Europe, in order to attempt a rescue of the prisoners. The police, however, got wind of the intentions of the Nihilists and succeeded first in capturing quantities of dynamite and frustrating the attempt. Another despatch says that 400 Nihilists were arrested at Kieff on the night of the 26th of June, and a great store of weapons seized. Repressive measures of the severest nature are still continued against the organization, which seems to have members in every class and rank of society, official as well as non-official.

Murray & Lanman's Florida Water is probably the simplest and purest perfume ever made, being absolutely nothing more than the delicious fragrance of rare flowers, preserved and made permanent, and it is doubtless to this purity of composition that its immense popularity is in a great measure to be ascribed.

It is impossible to remain long sick or out of health where Hop Bitters are used.

THE MARKETS.

PRODUCE AND PROVISIONS.

NEW YORK, Saturday, July 5th, 1879.

Were it not for a number of perishable items and our duty to keep our readers posted on the run of general quotations, we might omit market space this week. The spirit of celebration became so strong upon New York this Fourth that exchanges and important dealing were closed from Wednesday night to Monday morning, and trade affairs will have to be dismissed with brief allusion.

BEANS AND PEAS.—All grades light for consumption and export. Green peas, $1.75@$1.80; Southern B. E., $2.00 per 2 bush. bag. Canadian at 75c., bulk and bond. Marrow beans, prime, $1.35; fair to good, $1.25@1.32½; medium, prime, $1.30@1.32½; fair to good, $1.20@1.25 pea, $1.20@1.32½ white kidney, $1.35@1.40; do., red, $2.25@2.30; black, $2.25@2.30.

BROOM CORN.—Tone of market firm, with stock showing considerable reduction.

Brush and short broom, choice, ₹ lb, 5¼@6½c.; do., common to good, 4½@5½c.; hurl, good to choice, 4@4½c.; do., common to fair, 3½@4c.; red and crooked, 2½@3½c.

BUTTER.—Receipts have fallen off, 56,950 packages for week against 42,750 last week; but, the surplus from previous heavy deliveries, coupled with the restricted demand, is of volume enough to weaken quotations; best grades, ½c. off. Good market styles of Western hold their own.

State pails and half tubs, choice, 13@13½c.; good to prime, 12@12½c.; fair to good, 10@12c.; firkins, choice yellow, 15c.; fair to good, 13@14c.; Welsh tubs, choice, 13@14c.; good to prime, 12@13c.; fair to good, 10@12c.; poor, 7@9c; State creamery, best invoices, 15½c.; good to prime, 14½@15c.; sweet cream, best, 15c.; fair to good, 14@15c.; Western, best invoices, 15½c.; good to prime, 15@15½c., fair to good, 14@15c.; imitation creamery, 11@12c.. Western dairy, best invoices, 10@11c.; good to prime, 9½@10c.; fair to good, 8½@9½c.; poor to fair, 7½@8½c.; Western, factory, best invoices, 10c.; good to prime, 9@9½c.; fair to good, 8@9c.; poor to fair, 7@8c.; grease butter, 3½@4½c.

Comparative receipts and exports for June, for past three years:—

1879, 18,991 received; 1878, 138,042 do.; 1877, 131,049 do. 1879, 37,538 firkins exported; 1878, 22,791 do.; 1877, 29,361 do.

COTTON—Quoted July 2d:

	Upl'd.	*N. Orl's.*
Ordinary	11	11 2-16
Good ordinary	11 12-16	11 14-16
Low middling	12 2-16	12 4-16
Middling	13 7-16	13 9-16
Good middling	12 12-16	12 14-16
Middling fair	13 11 16	13 13-16
Fair	14 11-16	14 13-16

CHEESE.—Improved quality has caused a better holding feeling, but up to the close shippers had very free access to stock at the low ruling rates.

Liverpool cable, 31s.

Comparative receipts and exports for June for the past three years:

1879, 308,614 boxes received; 1878, 455,641 do. 1877, 405,650 do.; 1879, 15,355,979 lbs. exported; 1878, 23,415,921 do.; 1877, 21,783,242 do.

State factory, full cream, fine colored, 5¾@6c.; fine white, 6c.; good to prime, 4½@5¾.; fair to good, 4@4½c.; half-skimmed, 3@4c.; skimmed, 2@3c.; farm dairy fine, 5½@5¾c. good to prime, 4¾@5¼c.; fair to good, 3½@4¼c.; skimmed, 2@2¼c. Western, factory, full cream, flat fine, 5@5½c.; good to prime, 4½@5¼c. fair to good, 4@4½c.; half-skimmed, 3 4c.; skimmed, 1½@2½c.; full cream, Western cheddar, 6c.

DRIED FRUITS.—Market generally quiet; apples seldom touch outside rates. Best peaches are being stored in the absence of demand.

Apples, Southern, sliced, 2¼@3¼c; quarts, 2@2½c.; evaporated, fancy, in boxes, 10@11c.; fair to good 8@9c; State, sliced, good to prime, 2¾@3½c.; quarters, 2½@3c.; Western, quarters, 2½@3½c.; quarters, 1877, 1½@1¾c. Peaches, N. C., peeled, choice, 9@10c.; good to prime, 7½@8½c.; Georgia, peeled, choice, 8@9c.; peeled fair to good, 6 7c.; peeled, pr. to fair, 5@6c.; unpeeled, halves, 3@3½c.; quarters, 3c. Plums, State, black, 8@10c. Blackberries, 1878, prime, 4½@5c.

EGGS.—Receipts for week, 8,129 bbls.; do., last week, 7,849 do. Liberal supplies check buoyancy. Wholesale trade in Western is now "less off." Canadian on account of even quality are rather firm. Near points scarce. The market has missed the usual spurt of activity incident to Fourth of July week.

Near points, 14@15c.; State and Penn., 12@12½c.; Western, prime, 11c.; poor, 10@10½c.; Canadian, 11½c.

FLOUR.—The market closed active on the 3d, at the following rates:

Flour, No 2, per 196 lbs., $2.50@3.30; superfine State and Western $3.50@3.30; shipping extra State, etc., $4.05@4.20 Western spring X, $4.00@4.30; Western spring XX and XXX, $4.40@6; "patent" Minnesota, $5.50@8; Wisconsin and Minn. premixed, $4.20@4.40; Western winter shipping X, $4.35@4.65; Western XX an XXX, $4.75@6; city shipping extras and fancies, $4.15@5.30; Southern shipping extras, $4.50@5; do., bakers' and family brands, $5.25@6.25; rye flour—superfine State, $3.20@3.50; corn meal—Western, etc., $1.90@2.35; do, Brandywine, $2.50@2.55.

FRESH FRUITS.—This week finds up strawberries, Raspberries very plenty and nominally low. Currants scarce. Cherries in temporary good supply, with fine table sorts coming from Rochester. Peanuts in fair demand, that is, none accumulate. Apples, Red Astrachan, per bush. crate, $1@1.25; Early Harvest, Southern choice, per bbl., $2@2.50; common, green, per bbl., $1@1.50 Strawberries, Oswego, per qt., 6@10c.; Oneida and Rochester, 5@7c. Cherries, sweet, fair to prime, per lb., 5@8c.; common, 3@5c.; sour, choice, 6@7c; fair to good, 4@4c. Currants, cherry, per lb., 7@9c.; small, fair to good, 5@6c Gooseberries, choice, green, per bbl., $3@6. Whortleberries, Md. & Del., fair to good, per qt., 5@7c. Jersey, fair to good, per 14 qt. box $1; mountain, do., $1 25@1.50. Blackberries, Md. & Del., Wilson, ₹ qt., 11@1 c.; do., Dorchester, 9@10c.; do., wild, 4 5c. Raspberries, Up-river, Antwerp, per 3 to qt. cups, 4@5c.; do., do., native, 2½@3c.; Jersey, Black cap, per pint, 3@4c.; Md. & Del. Brandywine, 4@6c. Watermelons, Fla., per 100, $18@30. Peaches, Georgia, per ½ bush. crate, $2.50@3.50 N. Carolina, Hales' Early, per bush., $1.50@2.00; Md., per crate, $3.50 4. Plums, Damson, Ga., per ½ bush. crate, $3.50@3; do., goose, $2.50@3, Tenn., $3.50@4; Del. bench, $1@1.25. Hot-house grapes, Hamburgh, ₹ lb., $1; Muscat, $1; Sweet Water, 50c. Peanuts, Va. hand-picked, $1.40@1 45; other, $1.20@1.30; shelled, 5½@5¾c.

GRAIN.—Unfavorable crop reports gave wheat prices an upward tone on the 3d, and there was a good business at the following quotation: $1.17@1.17½ for No. 3 red, $1.13½ for steamer do., $1.11½ for ungraded red, $1.14½@1.15¾ for No. 1 white, $1.09 for white Canada in bond, $1.16 for extra white, 98c.@$1.03 for ungraded spring, including Duluth at $1.03; $1.06@1.07 for No. 2 spring, 95½c. for No 3 spring (94c. for do. to arrive) and $1.14½ for ungraded amber. Futures at $1.14½ for No. 2 red for July, $1.09@1.09¾ for do. for Aug., $1.09 for do. for Sept., $1. 4½@1.15 for No. 1 white for July and $1.15½ for do. for Aug. Corn was ¾@¾c. higher, but quiet at the advance. Sales, 105,000 bus. at 20c. for No. 2 white, 45½c for yellow, 43½@43¾c. for No. 2 mixed, 43c. for steamer do. and 41@43½c. for ungraded do. For future, sales of 104,000 bus. at 43¾c. for No. 2 mixed for July and 15c. for do. for Aug. Rye was steady. State sold at 61c., Canada quoted at 64c. and Western at 60@61½c. Oats were quiet but firm. Western and State mixed at 38@39½c.; do. white, 38½@42½c.; No. 2 mixed, 38@39½c.; No. 2 white, 39½@40c.; No. 2 Chicago at 39¼@39¾c.

HAY AND STRAW.—Sales light, and will be until fireworks cease to give buyers anxiety. New hay not coming forward to any extent.

Hay, prime timothy, per 100 lbs., 75@80c.; medium, 55@70c; shipping grades, 40@50c.; clover, good, 45@50c; inferior, 35@40c. Straw, No. 1 rye, 50@55c.; No. 2 rye, 35@45c. Oat straw, 35c.

HOPS.—Offering light; demand directed to choice, and mainly at present for brewers. Northern State counties report well on the coming crop. English advices on growths not favorable.

CROP OF 1878—State, strictly choice, 12@13c.; good to prime, 9@10c.; fair to good, 7@9c.; poor to fair, 5@7c.; 1877—good to prime, 3@5c.; poor to good, 2@3c.

POULTRY AND GAME.—Live chickens in demand; Fowls dull. Spring ducks, 62@87c. @ pair.

Chickens, best, per lb., 17@18c.; small, 14@15c., fowls, N. J., 10½@11c.; Western, 10@10½c.; Southern 10c; roosters, old, 5@6c.; turkeys, 8@9½c.; ducks, choice, ₹ pair, 60@70c.; others, 30@45c; Geese, N. J., Pa. and State, $1.25@1.50, others, 75c.@$1.12; pigeons, 35@40c.

Excursions and near-by watering places will use a good many chickens this week, and they have sold well. Other items dull and easy.

Turkeys, prime small, 11@12c.; fair to good large, 10@11c.; chickens, Phila., large, ₹ lb, 23@35c.; small, 20@22c; State, 18 20c.; Western, 15@17c. Fowls, N. J., choice, ₹ lb., 12@13c. State and Western, dry-picked, 11@12c.; scalded, 10@11c. Phila. dry-picked, 13@14c.; ducks, spring, Phila. dry-picked, 18@20c ₹ lb; spring, small, 14@15c; old, Phila. dry-picked, 11@12c.

Game is hardly represented. A few ice-house Eng. snipe quoted at $2.25 ₹ doz.; plover, $2; small snipe, 50 60c.; stall-fed pigeons, $1.75; baited, $1.50; Frogs' hind legs, 12@2 c. ₹ lb.

PROVISIONS.—A good tone pervaded the market at the close of 'Change on the 3d, sales supporting annexed rates.

Pork—Mess, Western old, per bbl., $9.25@9.50; do. new, $10@10.25; prime new $9.75@10; extra do., do., $8.50@8.75. Lard—Steam Western, per 100 lbs., $6.37½@6.40; prime city, $6.5@6.27½. Hams—Smoked city, per lb., 9¾@10½c.; pickled, Western and city, 9@9½c. Shoulders—Smoked, city, 5½@5¾c.; pickled, 4¾@4¾c. Rib bellies, pickled, @6c. Bacon—Long clear, Western and city, 5¾@5¾c. Beef—Western, plain mess, $9.50@10.50; extra do., $10.50@11.50. Beef hams, per bbl., $17 50@18.25.

Stearine, 7¾@7¾c.

Tallow, prime, 6c.

RICE.—Fair to prime Carolina, 7¼@7¾c.

TOBACCO.—Seed leaf slow, and sales for the week are only 81 cases, all old crops, and mostly New England of 1877 at 9@35c., and Pennsylvania of 1877 at 13@20. Kentucky leaf quiet; sales for the week, 75 hhds for export and 275 hhds for consumption; total, 350 hhds. Prices steady and firm; lugs, 3@5c., and leaf, 5½@12c.

VEGETABLES.—Demand fair for prime potatoes; poor or State schooner lots slow of sale: Bermuda, ₹ bbl., $4; L. I., $2. 0@3; Norfolk, extra, $3.25; poor $2@2 50; culls, 50@75c. Cucumbers, L. I., ₹ 100, 75c.@$1; Norfolk, ₹ crate, 50c. Tomatoes, Norfolk, ₹ bu. crate, $1.50@$1.75; Savannah, per bu. crate, $1.25@$1.50; Florida, per bu. crate, $1@1.50. Egg Plant, Florida, per doz., $1@1.75. Beans, L. I., wax, per bag, 75c.@$1; round, per bag, 75c; flat do, 40@50c. Squash, L. I., yellow, per bbl, $2@2.50 white, do., $1. Green peas, L. I., per bag, 75c.@$1.25. Cabbage, Jersey, per 100, $2@5. Onions, Va. and Md., per bbl., $1.50@4; Bermuda, per crate, $1.50@1.75. Beets, Jersey, per 100 bunches, $1@1.25. Russia turnips, per bbl., $1@1.25; Jersey, new, per 100 bunches, $1.50@2.50. Carrots, per 100 bchs., $1@1.25. Cauliflower, ₹ bbl., $3.50@5.

WOOL.—Market quiet, with about former prices repeated:

Ohio, Pennsylvania and West Virginia—X to XX, 38@40c.. No. 2 to No. 1, 36@42c.; coarse, 34@36c.; combing, 38@40c.

State and Western—X to XX, 36@38c; No. 2 to No. 1, 35@40c.; coarse, 33@35c.; combing, 38@42c.; combing unwashed, 30@36c.

Southern—Medium, unwashed, 30@34c; fine, do., 25@28c.; coarse, do., 23@27c.; burry, 15@22c

California—Spring, good to choice free, 26@32c.; do., fair, 22@25c, do, burry to slightly burry, 20@22c.; fall, fair to good, 17@20c; do., inferior, 13@16c.

Texas—Spring, good to choice free, 26@30c.; do., fair, 20@25c: do, burry to slightly burry, 15@20c.; fall, fair to good, 15 19c; do., inferior, 13@15.

Pulled—Super, 35@40c.; extra, 34@38c.: No. 1, 20@23c.; lambs, @40c.

Tub-washed wools, 35@40c.

LIVE STOCK MARKETS

NEW YORK, Saturday, July 5.

BEEVES.—The celebration of the Fourth has interrupted the entire cattle market for the past three days. The week has been a hot one and sales of dressed beef have been very slow; in order to close out at the Washington market books, the low range of 5¾@6¼c. was accepted for dressed quarters on Thursday. At the close quotations for dressed are indefinite, as buyers will do little until the demand becomes steady. Wednesday's quotations for live, 7@10¼c. general sales at 8@9¼c; fat cows 7¼c.; only extra steers brought 9¾@1 ¼c In cows there is no trade to note; range, $30@50, ordinary to good. Veal of all grades quiet; lean stock specially so. Best N. J. quoted on Thursday, 5¾@5½c; other 3½@4¼c.; buttermilk, 2@3c. Sheep and lambs in moderate demand at 3¾@4¾c. Poor Canada lambs, 4¾c. Western, State and Southern, 7@7½c. Live hogs nominally, $4@4.20 per 100 lbs. City dressed, $5.25@5.75 do.

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Reading for the Young.

A LESSON IN LEAVES.

UNCLE MARK.

THE leaves constitute an important part of our plants. They have functions which are most essential to plant life, and they render such valuable service to man, not only by furnishing food for animals, by absorbing noxious gases, etc., but by beautifying the world with their lovely green and their endless variety of size and shape, that they deserve our special attention and study. Moreover, leaves occur so plentifully everywhere in nature, that the observer has no difficulty in finding "specimens" to study, and, of all botanical subjects, the leaf is one of the easiest to understand, and one that must be understood before the pupil can make much advancement in the study of botany; for these reasons I have chosen leaves for our first lesson.

On examining a leaf we find that it is made up, first, of ribs, or veins, which form the skeleton, or frame-work, of the leaf, and that, second, the spaces between the veins are filled with a softer and more brittle material than the veins; this is in botanical language termed *parenchyma*.

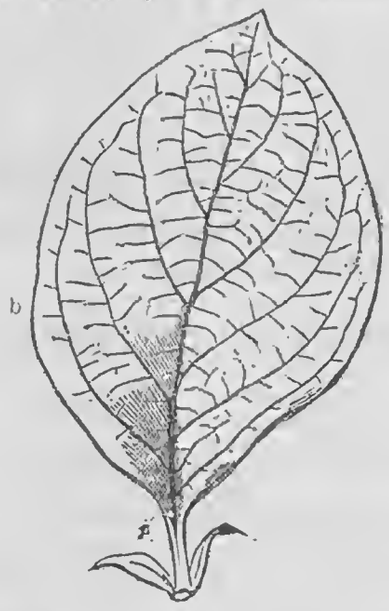

FIG. 1.

All leaves are divided into two great classes according to their *venation*, or the manner in which the veins are distributed through the leaf, namely, *parallel-veined* leaves and *net-veined* leaves. These two forms of venation represent the two great divisions of the vegetable kingdom, the *endogens* and the *exogens*, (I wish you would remember these terms, as they denote the primary classification of all plants) which terms relate to the manner of growth of the two classes of plants, the endogens increasing in thickness from *within*, while the exogens increase in thickness by annual layers added to the *outside* of the trunk. Further, all endogens when they germinate have but *one* seed-leaf, while the exogens have *two* seed-leaves. But, to return to our leaves, parallel-veined leaves are those in which the veins run in the same direction, or parallel with one another as is the case in Indian corn, the grains and in all the grasses; these are therefore endogens.

FIG. 4.

The net-veined leaves are those in which the veins do not run in the same direction, but curve about and spread out to all portions of the leaf. This kind of leaves you will find in all our trees, shrubs, and in all plants with two seed-leaves, in other words in all exogens.

Leaving the parallel-veined leaves, as little can be said about them that will be of value to you at present, we will now take up

The Net-Veined Leaves.

A complete leaf consists of three parts as may be seen in figure 1, the *petiole*, or leaf stalk, p, the expanded portion called the *blade* or *lamina*, b, and the two little wing-like appendages, seen at the base of the petiole, which are called the *stipules*. Each of these may, indeed, be modified or be entirely wanting, but we will not at present discuss such modifications. The net-veined leaves are further divided according to the position of the veins into two groups, of which I shall first mention

Feather-Veined Leaves

or, more technically, *pinnately-veined* leaves, so called from their resemblance to a feather. Fig. 1 is an example of such a leaf, and the leaves of the Chestnut and the Beech are other good examples. In this leaf you will notice that a strong, heavy vein, forming a continuation of the petiole, runs through the whole length of the blade from the *base* to the *apex*, and divides it into two parts, which, however, are not always equal in size. This vein is called the *midvein* and from it, on both sides, proceed a number of smaller veins which again branch, the branches often uniting with one another (anastomosing), forming numerous small meshes which are filled with the parenchyma mentioned above. The second group of net-veined leaves is represented by fig. 2, which is a

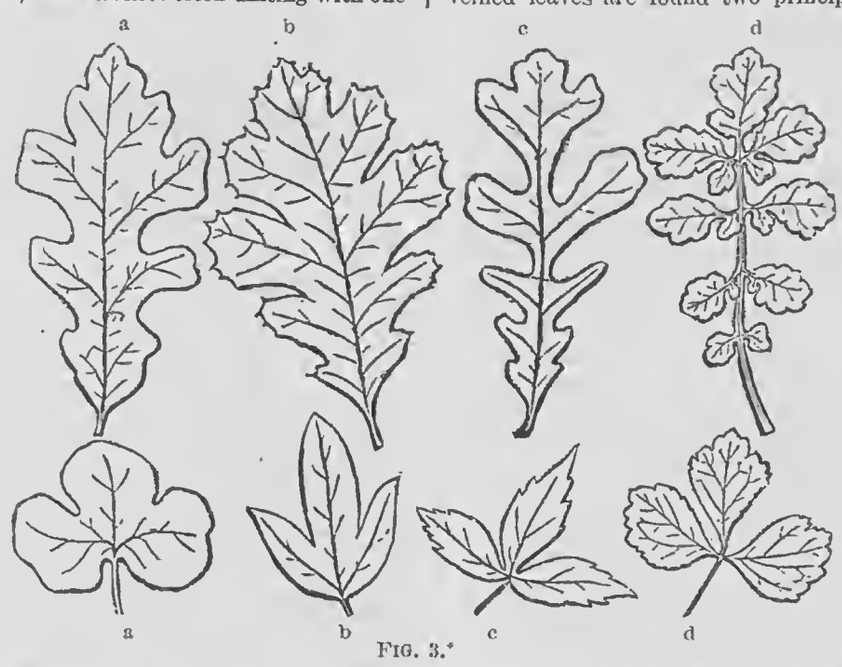

FIG. 3.*

Palmately-Veined Leaf,

having received that name from the resemblance it bears to a hand with the fingers spread. Instead of having a strong midvein from which all the side veins proceed as in the preceding case, we find that in this class of leaves several large veins all radiate from one point at the base of the blade. It is still a net-veined leaf, and it shows the anastomosis of the *veinlets* perfectly, but it differs from the feather-veined leaf in the disposition of the larger veins. The leaves of the Geranium, the Hollyhock and many others are good examples of palmately-veined leaves.

So far we have discussed only simple leaves, or those consisting of a single blade, as distinguished from compound leaves or those made up of several pieces. By referring to Fig. 3 we notice that there is a gradual transition from the simple to the compound form of both pinnately and palmately-veined leaves. When a simple leaf is notched as those on the left hand, a a, Fig. 3, it is called *lobed*; cut a little deeper as b b, it becomes a *cleft* leaf; notched deeper still as c c, it is *parted*, and *divided* d, d, when the incision reaches to the midvein. This brings us to the subject of

FIG. 5.

Compound Leaves,

in which the blade is divided into a greater or less number of smaller blades, each of which is called a *leaflet*. The rose leaf in Fig. 4 is a compound *pinnate* leaf, and as it terminates in one leaflet it is an odd-pinnate leaf. Fig. 5 is a *twice-pinnate* leaf, and having two leaflets at each extremity, it is termed an equally-pinnate leaf. Sometimes the leaflets have a pair of *stipels* at the base of each, which answer to the stipules mentioned above as appearing at the base of the petiole. Fig. 6 is a *palmate* leaf of the Virginia Creeper, compound, but the leaflets radiate from one point like the veins in a palmately-veined leaf.

Now, to recapitulate: I stated first that there are two great divisions of leaves—parallel-veined and net-veined leaves, which represent the two sub-kingdoms, exogens and endogens. (There is still another class—fork-veined leaves, found in ferns and other cryptogams, but it is not important, so I have said nothing about it). In the net-veined leaves are found two principal forms of venation—feather-veined and palmately-veined. The parts of a leaf—petiole, blade and stipules. The feather-veined leaf has one strong vein, the midvein. In the palmately-veined leaf all the principal veins radiate from one point. Simple leaves are lobed, cleft, parted and divided, the latter

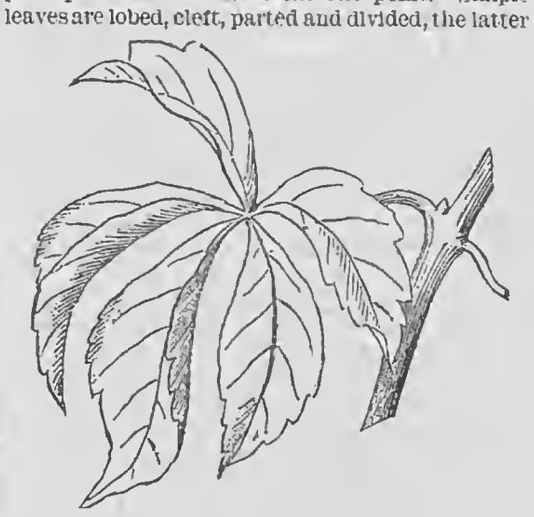

FIG. 6.

makes them compound. Two forms of compound leaves, pinnate and palmate; parts of same, stipules, petiole, leaflets and stipels.

A great deal more remains to be said on the subject of leaves, but I fear this lesson would be too long if I should add any more. What I have said may enable you to get a general idea of the venation and classification of leaves, but even this it cannot do unless you *study* the subject and commit the names to memory. Do not persuade yourselves that the names are hard to learn, for that is not the case. Scores of words that you use in your every day speech without thinking anything of it are much more difficult both of spelling and pronunciation than any of these. But in order to study botany with any success, whatever, it is not enough to learn a lesson from a book or a paper; you must study specimens from nature. Make a collection of different kinds of leaves and try to classify them according to the above descriptions. You will learn more in one thorough lesson of this kind than you could learn in a month from the book alone.

*See Gray's Botany, page 160.

PUZZLER ANSWERS.—June 28.

CROSS-WORD ENIGMA.—George A. Custer.

MISCELLANEOUS ENIGMA.—Let another's shipwreck be your seamark.

FIG. 2.

DIAGONAL PUZZLE:—

```
P
E I
R u N
S o i E
I n d i A
M i s h a P
M i s s t e P
O r i g i n a L
N a r r a t i v E
```

Primals form "Persimmon.

Diagonals form "Pineapple."

Sabbath Reading.

IS FAITH BLIND?

THE following words of an eminent divine not long dead are quoted with high commendation in an obituary, as setting forth the central idea of his religious belief:

"The first and most indispensable condition of piety is submission—blind, absolute, entire submission of the intellect, the conscience, the life, to God. This is blind, but not irrational. It is the submission of a sightless child to an all-seeing Father; of a feeble, beclouded intelligence to the Infinite Intelligence."

What is meant by a "blind, absolute, entire submission of the intellect" to God? What is the intellect? It is the faculty or faculties by which we apprehend truth. If God made the intellect, that is what he made it for. When a visible object is placed before the open eye, the eye perceives the object. When intelligible truth is placed before the intellect, the intellect perceives the truth. That is the function of the intellect. There is no more reason, therefore, for a "blind, absolute, entire submission" of the mental vision than of the physical vision to God.

We take it for granted that the physical sight was given us to see with; that we honor the Giver not by disusing it, or by speaking contemptuously of it, but by using it and prizing it. We suppose that it is by keeping our eyes open and trusting the evidence they give us that we walk most safely. What sort of sense would there be in talking about a *blind* submission of the eyesight to God? It might mean keeping the eyes closed and only opening them when we are supernaturally admonished to do so. A man might imagine that he was honoring God in the use of his eyes by shutting them, and refusing to open them at all unless miraculously ordered to open them. Blind submission of the eyesight to God might also mean a persistent refusal to believe our eyes. A man might say, "My eyes tell me that that is a tree before my face, but I shall not rely upon their report. If God gives me some miraculous reason for believing that it is a tree I will believe that it is a tree; if, on the other hand, He gives me some supernatural assurance that the thing which looks like a tree is a house I will believe that it is a house. To rely upon the evidence of my eyes in a matter like this would be presumptuous; 'blind, absolute, entire submission' of the eyesight to God is the only safe rule."

That would be curious reasoning respecting the bodily senses. That would be a strange way of showing our respect for Him who gave us these organs of vision. We may well ask Him to show us how to use our eyes, and to help us to understand the meaning of the things we see; but to assume that the eyes which He has given us to see with cannot be trusted is a strange way of expressing our confidence in Him. Would not a wide-awake and open-eyed use of the power to see evince a truer reverence and a more genuine faith than a blind submission of this faculty to God, whatever that may mean?

Now we fail to see any reason why this argument does not apply just as well to the mental sight as to the bodily sight. The intellect was made to be used just as truly as the eyes were. We do not honor God by disusing it or by distrusting it any more than we honor him by disusing or distrusting our eyes. The intellect is not infallible; it sometimes falls into error, but so do our eyes sometimes deceive us; we keep on using and trusting our eyes, and we have just as much reason to keep on using and trusting our intellects. There are many subjects of thought that are beyond the comprehension of our minds, and there are many objects in the universe that are too far away or too small for our eyes to see; but that is no reason why we may not see and know things that come within the range of sight or knowledge. We need the help of the Infinite Wisdom in using our mental vision, and in understanding the things that we see and their relations—but it is *in using* the mind's eye, and not in closing it, nor in refusing to accept without supernatural indorsement the evidence that it gives us that we prove our reverence and our faith.

But this divine goes on to say that such submission is "blind but not irrational." If it is not irrational to shut the eye that was made for seeing, what is irrational?

It is, however, a "sightless" eye. That seems to alter the case. Man is the "sightless child" of an "all-seeing Father." It must be mental vision that is here denied to man. To say that he is sightless is the same as to say that he is destitute of intellect. Of course, if he has no intellect it may be well for him blindly and absolutely and entirely to submit his intellect to God if he can. But how can he? How is it possible to submit to God that which he does not possess?

This statement, however, appears to be too strong, and it is qualified in the next sentence. It is not a creature absolutely sightless, but a "feeble, beclouded intelligence" that is called thus to submit itself. If an intelligence is "feeble and beclouded," then, the only right thing for it to do is blindly and absolutely to submit itself to God. We do not believe that God desires that any intelligence should do anything of the kind. No matter how feeble our powers may be, God wants us to *use* them, diligently and trustfully; he does not want us to disown them or despise them. The feeblest mental powers are invigorated by exercise. Faithful use, not blind submission, is their proper regimen. "The word "blind" has no application to any intellectual act required of men by God. It is casting contempt upon His most precious gift to speak of the mind of man in the tone in which it is spoken of in this extract. If God had wanted blind votaries he would not have given us minds. We prove our faith in Him not by reviling but by using the faculties that He has given us.—*Sunday Afternoon.*

RELIGION is the best armor that a man can have, but it is the worst cloak.—*Bunyan*

PERSONAL ITEMS.

Ivan Tourguenieff, the Russian novelist, and Mr. John Ruskin are among those honored with the D. C. L. from the University of Oxford this year.

A. J. Myer, "Old Probabilities," is in London, arranging with the British Meteorological office matters of common interest between the United States and England.

Cadet Midshipman Andrew Cunningham, of Mohawk, bears off the palm from the United States Naval Academy as being the most expert swordsman that ever graduated.

Ex-Senator Dorsey of Arkansas is said to have made $200,000 in recent lucky stock speculations, and he proposes to get rid of it by starting a republican Daily at Little Rock.

Emperor William insisted upon a good old-fashioned kiss from the ladies and children at the Royal golden wedding. Kissing his hand did not satisfy him for so extraordinary an occasion.

General Justice Hodge, of Riverton, Conn., has just bought 320 acres of land in Wabaunsee county, Kansas, at the very spot where he encamped while with General Fremont in the famous overland trip of 1846.

When Mrs. E. Heath, of Sherman, Maine, was born the house took fire; at the time of her marriage the house again took fire, and last Sunday week, at the birth of her first son the house again took fire.

Ex-Governor Tilden's summer home at Yonkers is known as "Greystone." The grounds cover thirty-three acres, including lawn, meadow and forest. The manston and grounds, which are leased by Mr. Tilden, cost $400,000.

The New York Sun, a part of whose stock is held by a brother of Senator Conkling, has published a studied and authoritative denial of the report that Mrs. Conkling had instituted proceedings for divorce, a report which was probably as cruel as it was false.

L. J. Jennings, once editor of the New York Times, now London correspondent of the New York World, a hard-headed man with strong Tory proclivities and no love for the liberal party, predicts Gladstone's return to power before many months, and notes his increasing popularity with London audiences.

Ivan Tourguenieff, the Russian novelist, is a man of imposing figure. His tall figure is slightly bent, his hair is silvery, his manners are delightful. It is stated that he has been obliged to naturalize himself a Frenchman to escape the vindictivenss of his own government, which objects to his graphic novels.

The Duke of Hamilton has brought an action against Mr. Padwick, the well-known turfman, for many years His Grace's agent, alleging that the debts upon his estates increased from £300,000 to £1,500,000 during the time that Mr. Padwick administered them. At present all the Duke's property is applied to the benefit of the creditors.

The Duke of Argyle having been with some ladies in the opera house in London, an English squire, puffing, blowing, and sweating, entered the box in which they were seated with his hunting boots and whip in hand. The Duke instantly rose up, and making a low bow exclaimed, "Sir, I am very much obliged to you." "Oh! why?—how?—for what?" "For not bringing your horse here."

Mrs. Parker (*nee* Julia Smith, of Glastonbury, Conn.), still firmly adheres to her principles, and has had her cows seized once more for her taxes. Her husband asked the amount of the taxes and costs, and, being told $87.67, bid $87.57 for the cows, which were knocked down to him, and he and his bride departed happy in the consciousness that they asserted their principles at the expense of $14 costs.

Mr. Charles J. Bonaparte, of Baltimore, although now made independently wealthy by the inheritance of much of his grandmother's hoardings, still works hard in his law practice and displays great ability therein. He thinks, now that the Prince Imperial is dead, that the Napoleonic dynasty never will be restored. Mr. Bonaparte has apparently no aspirations in the direction of the French throne.

Richard Henry Anderson, a lieutenant-general in the Confederate army, died at Beaufort, S. C., on Thursday, of apoplexy. He was born in South Carolina, graduated at West Point in 1842, and served with honor in the Mexican war. In 1861 he became a brigadier-general in the Confederate service, was a major-general and commanded a division at Gettysburg in 1863, and finally rose to the rank of lieutenant-general.

Ex-President Grant is *en route* from Tien-tsin to Peking, China. The latest advices indicate a considerable change in his future movements. It is now believed probable that he may return to China after visiting Japan, and proceed to Australia. His plans are subject to so many alterations, however, that nothing absolutely certain is known a month in advance. Prince Henry of Germany, who is visiting Japan, is receiving the most lavish hospitality at Yokohama, but the greatest manifestations are reserved for General Grant, who will be greeted with honors never before vouchsafed to any guest of Japan.

The ex-Bishop of Zululand, now an English Rector, says that the Zulu war is entirely the act of Cetywayo, and that in his subjects he found no hostility to the English. Thousands of Zulus, he thinks, would be glad to escape from the thraldom of their King. This bears out the experience of travelers thirty years ago. The King liked to talk to the Bishop of the slaughtering powers of his army, and the strength and constitution of that of the British, and was evidently calculating whether he would be strong enough to attack. The Bishop thinks that Cetywayo went to war because he found himself gradually surrounded by British interests.

Detective Gottlieb Miller of Allegheny City, was much shocked on Wednesday to receive a letter from Colonel Robert G. Ingersoll. Gottlieb read from the letter: "I have gone over the ground to the best of my ability long ago and there is just as much probability of my becoming a believer in the religion of ancient Egypt as in Christianity." "Mein Gott, who ish dot Ingersoll?" exclaimed Gottlieb, opening his eyes. But he read on: "Let me prophesy—in five years from to-day no man of intelligence in the United States will preach the infamous doctrine of eternal punishment." Gottlieb did not know what to make of the matter until some of his fellows admitted that they had written to the Illinois Iconoclast in the detective's name, asking whether it was true as reported that "within a year Colonel Ingersoll would be a preacher of the Gospel."

The greatest nourishing tonic, appetizer, strengthener and curative on earth. Hop Bitters.

Miscellaneous.

NEW YORK STATE FAIR, 1879. — The N. Y. State Agricultural Society will hold its

39th Annual Cattle Show

and Fair, at UTICA, opening on MONDAY, SEPT. 8th, and closing on FRIDAY, SEPT. 12th.

ENTRIES CLOSE AUGUST 9th,

EXCEPT, AS USUAL, FLOWERS AND FRUITS.

The PREMIUM LIST is now printed. Copies will be mailed to all recent Exhibitors immediately, and to all other persons applying for them. Address

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WE ADVISE YOU TO INSURE YOUR property in the

AGRICULTURAL INSURANCE CO.

Of Watertown, N. Y.,

The largest Company in the country which insures only farmers' property and residences. Over twenty-six years old.

Capital.....$200,000 00
Net Surplus, over.....$216,000 00
Assets, Jan. 1, 1879..$1,098,623 24

AGENTS WANTED New Devotional Work. By President Champlin. Will be bought by almost every Christian family. Circulars free. Address Am. Pub. Co., Hartford, Conn.

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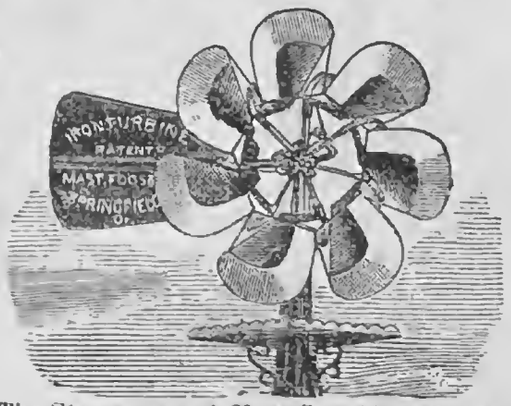
NEW IRON TURBINE

WIND ENGINE



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Implements and Machinery.

Horse-Powers,

For One, Two and Three Horses.

MACHINES FOR

Threshing and Cleaning Grain and Sawing Wood.

Patented, Manufactured and Sold by

A. W. GRAY'S SONS,
Middletown Springs, Vt.

The machines with the improvements are the result of more than thirty years' careful study and experiment.

The proprietors are the inventors, ever have been and still are the sole manufacturers.

We have labored from the first to produce machines that will be durable, tasty, compact, portable, and that will run with the least possible friction.

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Our machines have never failed to receive the highest award at all competitive exhibitions.

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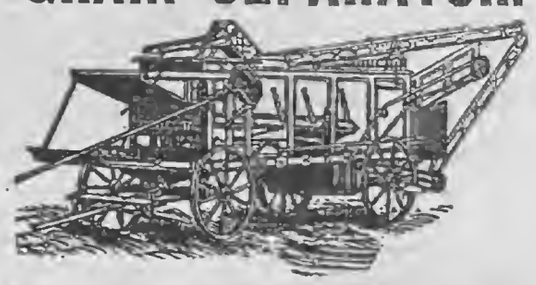

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The Friends of Each Style Agree to its Perfection.

Straw subjected to Three Distinct Motions. No parts to break or get out of order. Simplicity, ease of draft and quantity of Work. Best Cleaning Mill ever made.

EACH SEPARATOR TESTED BY MACHINERY.

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New York State Agricultural Works.

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Railway, Chain and Lever Horse Powers, Threshers and Cleaners, Threshers and Shakers, Clover Hullers, Feed Cutters, Wheel Horse Rakes, Horse Pitchforks, Shingle Machines, Straw Preserving Rye Threshers, Portable Steam-Engines, Cider and Wine Mills and Presses, Dog and Pony Powers, Etc., Etc.

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Send stamp for Circular and report of Centennial trial.

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Special Price, $25

Brass Beam and Poise. Iron Attachments., with **Steel Sockets and Pivots.** Adjusted and Sealed to U. S. S. Weights. Fully warranted.

To be paid for when **proved correct and satisfactory to you.** Two days' work to set them in complete order.

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Cheapest and best. No inside fixtures, and *always reliable.* Six sizes of each kind made. Three sizes of the Lever Butter Worker made. Best material used and every Churn and Butter Worker *warranted* exactly as represented. One Churn at wholesale where we have no Agent. *Send Postal for Circulars.*

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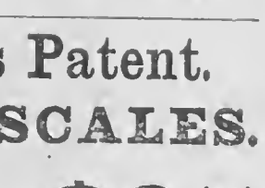

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The Morals, Health, Beauty, Work, Amusements, Members, Money, Savings and Spendings are all clearly dealt with in **fascinating style,** full of *anecdote* and *wit.* With beautiful **colored** illustrations, new type, toned paper, choice bindings, and **low price,** this work is **BOUND TO HAVE AN IMMENSE SALE.** No book like it has ever been published.

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For the Sunday-School.
- THE GOSPEL OF JOY! 35 cts. Just out. Great favorite.
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For Sea Shore or Mountains.
- GEMS OF ENGLISH SONG! $2.50. Best Song collection.
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What Books to read.
- Lives of *Beethoven,* (2.00), *Mozart,* ($1.75), *Schumann,* (1.75) and others; most interesting, also *Ritter's History of Music,* 2 vols, each ($1.50).
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Trees, Seeds, Plants, &c.

10 ACRES STRAWBERRIES.

50 VARIETIES, embracing the largest, best and most productive, grown in pots or layers. Send for Catalogue. WM. PARRY,
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BEAUTIFUL EVER-BLOOMING

ROSES

THE BEST IN THE WORLD.

Our Great Specialty is *growing* and *distributing* these **Beautiful Roses.** *We deliver* **Strong Pot Plants,** suitable for *immediate* bloom, *safely by mail* at all post-offices. **5 Splendid Varieties,** *your choice,* all labeled, for **$1; 12 for $2; 19 for $3; 26 for $4; 35 for $5; 75 for $10; 100 for $13.** ☞ Send for our **New Guide to Rose Culture**—60 pages, elegantly illustrated—and *choose* from over **Five Hundred Finest Sorts.** Address

THE DINGEE & CONARD CO.,
Rose Growers, West Grove, Chester Co., Pa.

Real Estate.

IN CENTRAL ILLINOIS.

The Best Land in the West,

WE HAVE FOR SALE

IMPROVED FARMS

At low prices and easy terms. Railroads, School Houses and Churches already built. *Produce sells for Cash.* Land unsurpassed in quality and location. Send for Maps and Circulars, which give full particulars, to A. E. AYRES & CO.,
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FARMS $400 to $1000. JOIN OUR COLONY!

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Parties desiring to secure *bargains* in improved farms should write to **Burnham, Trevett & Mattis, Champaign, Ills.,** *before investing elsewhere.*

W. & ST. P. R. R. FARMS MINNESOTA AND DAKOTA HOMES

OVER 1,000,000 ACRES OF

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IN MINNESOTA AND DAKOTA,

For sale by the WINONA & ST. PETER R.R.CO., At from **$2 to $6 per Acre,** and on liberal terms. These lands lie in the great wheat belt of the North-West, and are equally well adapted to the growth of other grain, vegetables, etc. The climate is unsurpassed for healthfulness.

They are Free from Incumbrance.

Guide Book, Maps, etc., containing full information, sent free.

CHAS. E. SIMMONS, Land Commissioner, Gen'l Offices C. & N.W. R'y Co., CHICAGO, ILL.

Mention this paper in writing.

Stock and Poultry.

THOROUGHBRED Cattle, Sheep, Hogs, Poultry and Dogs. New Illustrated Catalogue FREE. W. ATLEE BURPEE & CO., P. O. Box 1890. 221 Church St., Philada., Pa.

It is a mistake to suppose that any department of a paper may be slighted. The most important information is to be found, at times, under the guise of an advertisement; and it is agreeable to the advertiser and a courtesy to the publish to mention the source of your information—other words, to mention the paper.

Wit and Humor.

Cannibalism.—A Charleston, S. C., paper advertises: "Wanted—A stout colored boy, to cook."

It is lucky to pick up a horse-shoe, unless, of course, it happens to be attached to a mule's hind leg.

We know a man of over ninety years of age who hasn't a gray hair on his head—nor one of any other color.

Oh, but this is a peculiar language! We use dusters to catch the dust and dusters to brush the dust away.—[Puck.

A little Sunday school miss was asked by her teacher, "What must people do in order to go to heaven?" "Die, I suppose," replied the little one. The teacher didn't question her any further.

There was a clever Oakland boy who, when he was given $2 to dig up his aunt's garden, hid a two-bit piece in it, and then told all the boys in the neighborhood. The next morning the ground was pulverized two feet.—*San Francisco Post.*

A good little boy tried to persuade his father that a cigar is a very dangerous thing. "Why, papa," he said, in the enthusiasm of his youth, "you have no idea how powerful nicotine is; why, if you put a single drop on a dog's nose, it will kill a man in less than two minutes!"

A little girl, meeting a countryman with a load of slaughtered swine, dropped a courtesy. The rustic laughed without returning the civility. "What!" said he, "do you courtesy to dead hogs?" "No, sir," promptly responded the little miss, "I courtesied to the live one."

Beside a straw stack sat a tramp—a jolly tramp, and wise—who, while he patched his tattered coat, did thus soliloquize: "It seems so sad that my lone life doth ever downward tend, and rags me into wretchedness; but still I'm on the mend. And when I needle little cash, I make no loud laments, but by a straw stack sit me down, and gather in my rents."

Frederick William IV, of Prussia, once upon a time stopped at a little railroad station where a deputation, headed by the mayor of the adjacent village, awaited him with an address. Just as the mayor braced himself up to deliver his oration, "a neighboring ass did sing both loud and clear." A frightful silence ensued, but the King did not long delay in breaking it with the paternal and graceful remark: "One at a time, gentlemen; one at a time."—*Paris Paper.*

One Word Covers the Advice

Which should be given to nervous, slender, and debilitated persons—*Invigorate!* Sedatives, opiates, appetizers, are comparatively useless. The system must be built up with a genuine tonic in order to the recovery of vigor and tranquility by the nerves. A course, systematically pursued, of the leading invigorant, Hostetter's Stomach Bitters, should be resorted to by those who suffer from weak nerves and general debility. The stomach, always more or less dyspeptic in cases of nervousness and loss of vitality, is toned and regulated by this medicine until the organ acts with a precision akin to that of a steady-going piece of mechanism. Complete digestion and assimilation are, through the influence of the Bitters followed by a gain of vigor and flesh, and the disappearance of biliousness and irregularity of the bowels, where such exist, as they usually do. Appetite and sleep are then regained.

THE LARGEST ASSORTMENT OF
Weather Vanes
IN THE COUNTRY.
Manufactured by
HARRIS & CO.,
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☞ *Send for Price List.*

TELEPHONES $2 A PAIR.

Newest, Cheapest, Loudest and Best Telephone for social or business use. Transmits the voice, also singing and music with wonderful effect. Only $2.00 a pair. Send for Circulars and Testimonials.
Agents Wanted. WM. R. BROOKS,
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CINCINNATI
FARM ENGINE.
The best, the cheapest, most efficient and durable Engine in the market. Every Engine is tested and diagram cards taken before shipment, and every Boiler is insured for *one year*.
Our Engines will give from 25 to 33¼ per cent
MORE POWER
With the same amount of fuel and water, than many of the engines now in the market. Send for our catalogue and prices.
LANE & BODLEY CO.,
JOHN AND WATER STS.
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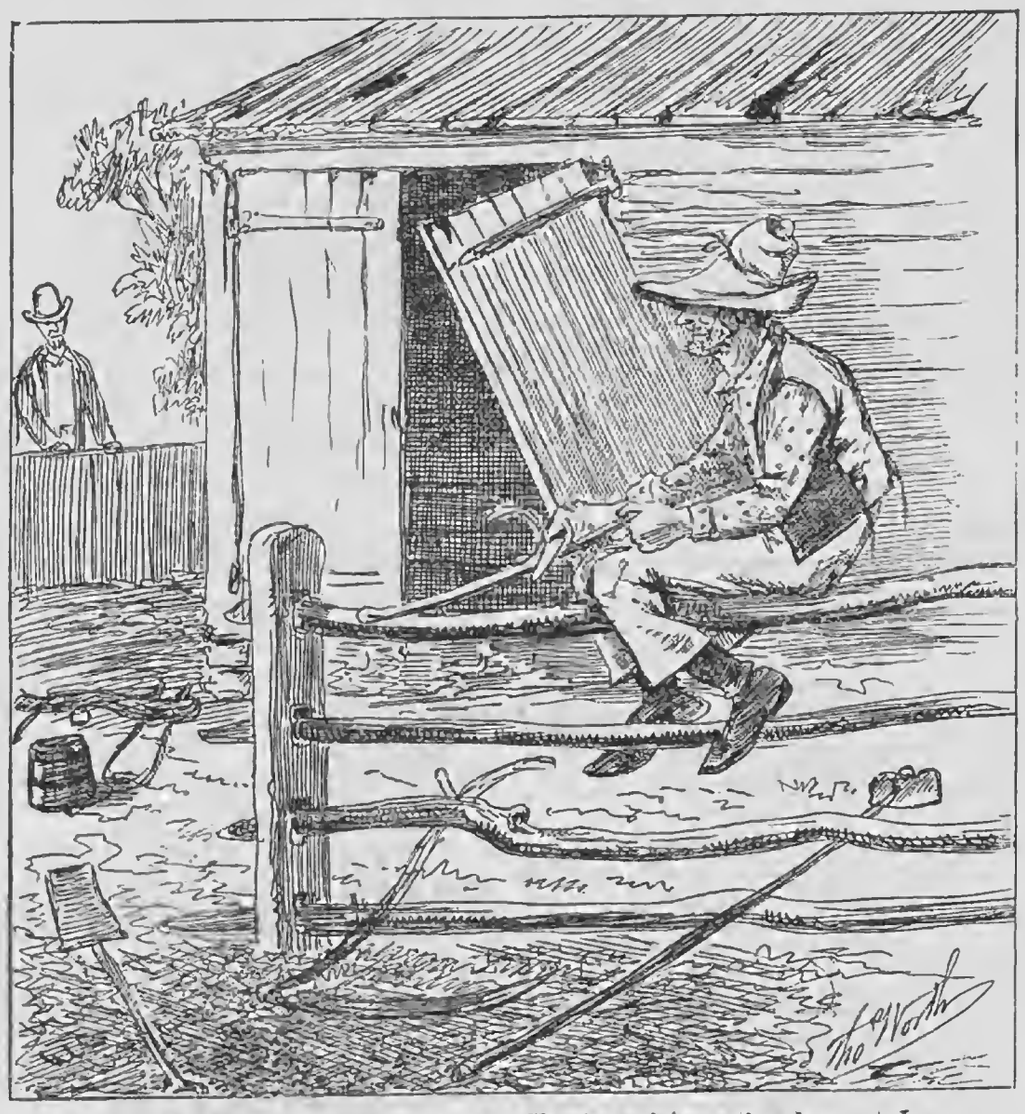
$3 Printing Press
Prints cards labels &c. (Self-inker $5) 1⅞ larger sizes For business or pleasure, young or old. Do your own advertising and printing. Catalogue of presses, type, cards, &c., for 2 stamps. Kelsey & Co. Meriden, Conn



Party in the background—Hello, Jones: You haven't hung that door yet, I see.
Jones—Wal no, not yet. I calkerlate to next week, if I kin only git time.

AWARDED HIGHEST PRIZE AND ONLY MEDAL
PARIS EXPOSITION, 1878.

MAPLEWOOD INSTITUTE for YOUNG LADIES, Pittsfield, Mass. Advantages superior and location unrivalled.
Revs. C. V. SPEAR and R. E. AVERY, Princ.

FINE TEAS supplied to *consumers* at prices *lower than ever known before.* These *fine qualities* seldom reach the interior, being sold only in large cities and among the very wealthy. Send for *reduced price-list*, and compare with other houses.
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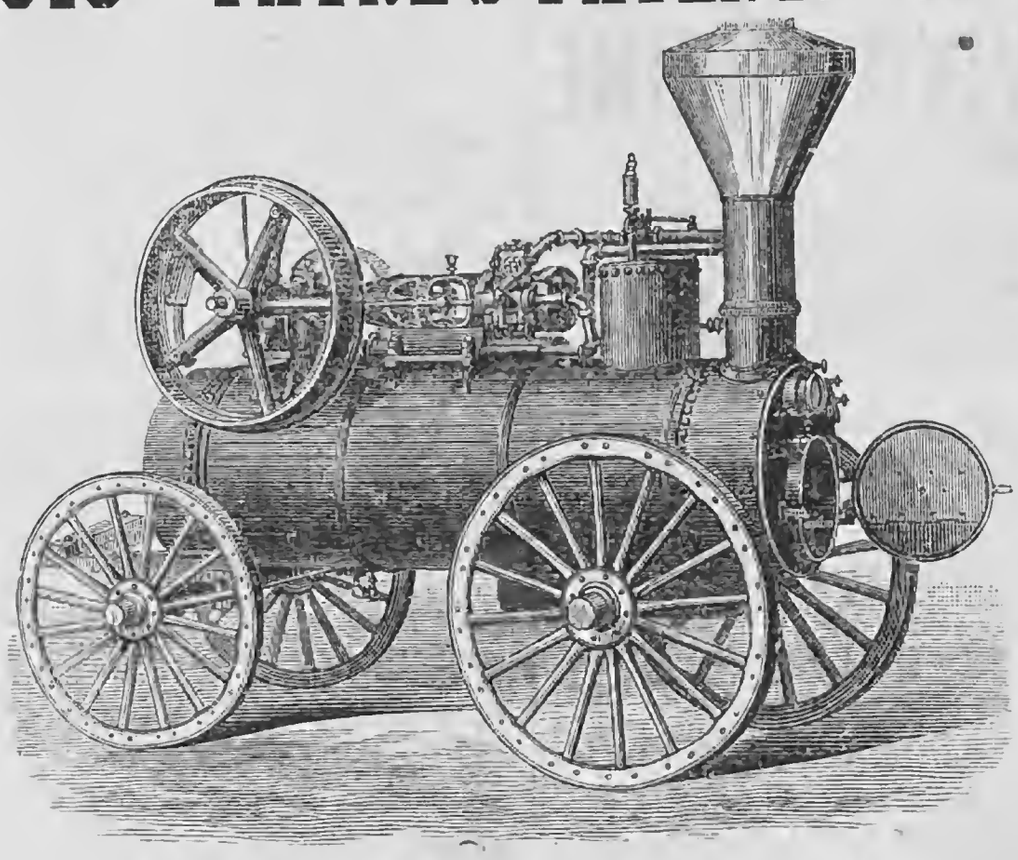
THE WESTINGHOUSE
Threshing Machines, Engines, Horse Powers,
and Combined Clover & Grain Threshers.

Improvements in Threshers render them the most complete and effective machines in the market. Engine and Boiler of novel design. Light, Economical, and Powerful. Boiler Shell upright; tubes horizontal, safe as regards sparks.
Horse Powers of both Lever and Endless Chain styles, all sizes. Send for Circulars.
G. WESTINGHOUSE & CO.,
Schenectady, N. Y.

1840--PAYNE'S PATENT.--1879



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This Engine, which has been thoroughly tested, is guaranteed to be as effective and develop as much power as any built.
Our 10-Horse Threshing Engine will furnish ample power to drive the largest Thresher and Separator used in this country, without over-pressure or excessive firing.

8-HORSE POWER, Weight 4500 lbs., $650. 10-HORSE POWER, Weight 4700 lbs., $750. $20 Extra for Brake.

We hereby CHALLENGE

Any Manufacturer of Agricultural Engines not fitted with Automatic Cut-off, to a competitive test at a forfeit of from $500 to $1,000, as may be desired.

Send for Circulars, and state where you saw this, to
B. W. PAYNE & SONS, Corning, N. Y.

31ST
SEMI-ANNUAL
STATEMENT
OF THE
TRAVELERS
INSURANCE CO.

Hartford, Conn., July 1, 1879.

Assets.

Real estate	$ 591,210 87
Cash on hand and in bank	201,903 02
Loans on bond and mortgage on real estate	2,155,115 63
Interest on loans, accrued but not due	56,051 24
Loans on collateral security	500 00
Deferred Life premiums	58,466 08
Premiums due and unreported on Life Policies	48,165 16
United States government bonds	341,448 75
State, County and municipal bonds	374,845 49
Railroad stocks and bonds	417,825 00
Bank stocks	533,196 50
Hartford City Gas Light Co., Stock,	19,950 00
Total Assets	$4,798,677 74

Liabilities.

Reserve, four per cent., Life Department	$3,089,496 10
Reserve for re-insurance, Accident Dep't	246,897 61
Claims unadjusted and not due, and all other liabilities	175,340 66
Total Liabilities	$3,511,734 37
Surplus as regards Policy-holders	$1,286,943 37

Statistics to July 1, 1879.

Whole number Accident Policies written,	540,000
Whole number Accident Claims paid,	37,500
Total amount Accident Claims paid,	$3,235,000
Total claims paid in Life Department,	$1,250,000

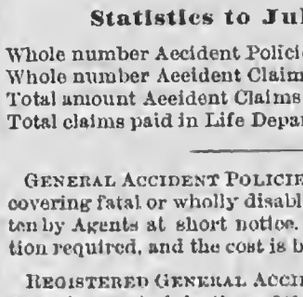
General Accident Policies by the year or month, covering fatal or wholly disabling bodily injury, written by Agents at short notice. No medical examination required, and the cost is but a trifle.

Registered General Accident Tickets, insuring $3,000 in event of death, or $15.00 a week for total disability; cost 25 cents a day, or $4.50 for 30 days. Sold at Local Agencies and Railway Stations.

Life and Endowment Policies, of all safe and reliable forms, on the well-tried Stock Plan. Ample security and low cash rates. Plain and definite contracts; no notes or dividends, and no disappointment.

JAS. G. BATTERSON, President.
RODNEY DENNIS, Secretary.
JOHN E. MORRIS, Assistant Secretary.

NEW YORK OFFICE.
Tribune Building,
R. M. JOHNSON, Manager.



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OF
FRENCH BUHR STONE
Portable Mills for Farmers, Saw Mill Owners, etc. Price from $80 up. Complete Mill and Sheller $96. A boy can grind and keep in order. Adapted to any kind of suitable power. Complete Flouring and Corn Mill very cheap.
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Indianapolis, Ind.

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PATENTED FIRE-PROOF FRAME HOUSE
Also manufacturer of fire-proof Composition, Partition, Furrings and Ceilings.
Arched fire-proof construction without beams for brick-houses.
Patenter of the SCHILLINGER Artificial Stone flagging for Sidewalks, etc
For further information, Circulars, Plans and Estimates, address JOHN J. SCHILLINGER.
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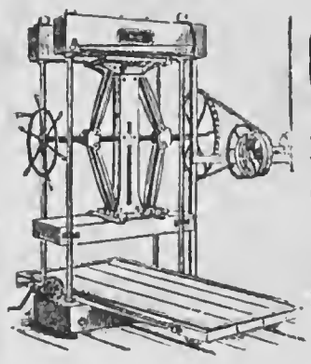

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WITH
Double Platform
GRATER, $40
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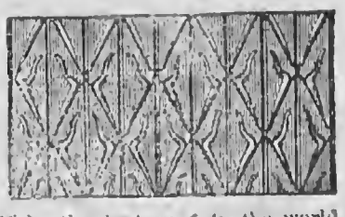
Gold Medal Awarded at Paris Exposition, 1878.



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THE RURAL NEW-YORKER

A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME

VOL. XXXVIII. No. 29.
WHOLE No. 1538.

NEW YORK, JULY 19, 1879.

PRICE FIVE CENTS.
$4.00 PER YEAR.

[Entered according to Act of Congress, in the year 1879, by the Rural Publishing Company, in the office of the Librarian of Congress at Washington. — Entered at the Post-Office at New York City, N. Y., as second-class matter.]

AMELANCHIER CANADENSIS, VAR. ALNIFOLIA. (DWARF JUNEBERRY.) See next page.

Farm Topics.

NOTES FROM THE RURAL GROUNDS.

Amelanchier Canadensis, var. Alnifolia. (Dwarf Juneberry.)

[See first Page for Illustration.]

We have had a single plant of the Dwarf Juneberry for five years and the more we see of it, the more we like it. In bloom it is as pretty as many of the Spiræas which throng every garden, and in fruit it is one of the most luscious-looking shrubs in cultivation. Now, when we can procure ornamental plants—whether shrubs or trees—that are in every way as ornamental as those which do not bear edible fruit, why not give them the preference? Exochorda (Spiræa) grandiflora is a shrub everywhere praised for its beauty. Its flowers are larger than those of our Dwarf Juneberry, and it grows to twice the size, being, indeed, when fully grown, a small tree. But in other respects it is in no wise superior. The leaves of both plants are similar, resembling those of the Pear. Now, the Dwarf Juneberry is in fruit far more attractive than Spiræa grandiflora is in bloom, so that counting the fruit as worthless, we should still prefer the former, could we have but one. But the fruit is edible. It is sweet and juicy, and while twice the size of huckleberries, is not inferior to them. It begins to ripen the latter part of June, and continues for ten days or more. The berries or pomes or berry-like pomes, are first green, then nearly white, then red, then purple and finally, when fully ripe, a dark blue. Often all of these colors are seen upon a single raceme and our readers may judge for themselves that when, as at present (July 2), in the specimen before us, a peck or more of this fruit is ripening upon a single bush, not over five feet high or in diameter, it is as ornamental as any plant can well be. We have compared Spiræa (Exochorda) grandiflora with the Juneberry, because, bearing a decided resemblance to each other, the less meritorious is praised right and left, and engravings of it or colored plates appear from time to time in our leading horticultural miscellany, while the more meritorious (as we think) is seldom cultivated or noticed.

Amelanchier Canadensis, the botanical name of the Juneberry, varies remarkably. Gray gives half a dozen different varieties of which ours most nearly resembles Alnifolia. We have just selected leaves to show their dissimilarity, and we find the following forms or outlines; orbicular, ovate, oval, obovate, oblanceolate, spatulate, oblong and elliptical. All are mucronate—some nearly entire, some finely, some coarsely serrated—some serrated only near the apex, some half way, some entirely down to the petiole. Our drawing of a branch was made July 5.

Pen Fancies.

It is sometimes hard to account for the singular fancies that are entertained by those who purchase seeds. One of these is that green seed peas are better than buff seed peas. The difference is, that the former are gathered before they are fully ripe, so that they afterward maintain a greenish, fresh appearance, while the latter are gathered not until fully ripened. It is known to all experienced seedsmen that a larger proportion of the buff, bleached or whitened seeds will germinate; that they produce stronger plants, and that they are less liable to rot in the ground. Nevertheless, the demand is for the green seed, and seedsmen order their stocks accordingly.

So, with regard to weevil-eaten peas. This question is as old as the question whether wheat does or may turn to chess, and older, for aught we know. We have asked the question of at least fifty farmers: "What proportion of weevil-eaten peas will grow?" and we have received the same answer from *every one*, strange as it may appear to the thoughtful reader: "All will grow." Our late experiments, No. 2 of which we now place before our readers, show that the vegetative powers of all weevil-eaten peas are weakened; that the proportion which will germinate depends upon the injury that the cotyledons have sustained, and that this depends upon the age and size of the pea.

Will Weevil-Eaten Peas Grow? Experiment No. 2.

One hundred weevil-eaten peas were planted in a drill, nearly three inches deep, on the afternoon of June 23. The peas had been soaked in water for several hours previously. The variety was Philadelphia or one closely resembling it. The soil was moist and rich and we have since had sufficient rain to keep it so. July 10—17 days—but one pea had appeared above the ground and that looked as if it needed a doctor.

Standard Currants and Gooseberries.

Many of our readers will remember the Standard Gooseberries and Currants that were exhibited at the Centennial. These were grafted upon stocks of the Missouri Currant four or five feet high. Laden with fruit, they attracted much notice. Four years ago we purchased six of these plants. Two of them were half-standards; that is, the stocks were about two and a-half feet high. One of these was grafted to Currants; the other to both Gooseberries and Currants. The rest were full standards, two grafted to Gooseberries, one to Currants and one to both.

The Currants grow finely and bear well. A currant bush growing upon a perfectly straight and slender stem, five feet high, and loaded with its bright red fruit may be conceived as a very curious and pleasing object. But the Gooseberries mildew, both leaves and fruit, so that they just manage to live, and that is all. A few days ago, however, we saw in the grounds of a neighbor, five miles distant, these same standard Gooseberries laden with fruit, and there was no appearance of mildew whatever. The fruit was the largest of the foreign sorts—some specimens measuring over four inches in circumference—that is, horizontal circumference, and not from stem to apex. These beautiful, miniature trees were growing in a sandy soil somewhat shaded by apple trees ten feet to the south of them.

TOKUN FARM NOTES.

R. GOODMAN.

How to become a practical farmer is the aim of many young men of position and wealth, and yet they hesitate to set about acquiring the necessary knowledge in the only correct manner. If they have been graduated at some literary institution and are well up in their chemistry and other physical sciences, the best method is that pursued on the continent of Europe where educated young men belonging to families in good positions, remain for a time as pupils or managers on some large estate. In Germany any visitor to the large farms need not be surprised to see as superintendent the son of a banker, a baron or a rich landowner, who has been grounded in the theories of the profession at an agricultural college and is now training himself for the practical direction of an estate of his own. If he has not received any instruction in agriculture—generally, if he has—he commences at the bottom, drives the cart and grooms the horses, guides the plow and so arrives by degress at a knowledge of all the machinery and processes, and in no wise differs from the other workmen except that he takes his meals at the table of the owner of the estate and lives with him indoors as an equal. One can hardly appreciate at its true price the light continental literature—such novels for instance as "Renee and Franz" (Le Blenet) of Gustave Haller, or "Seed Time and Harvest" of F. Renter, without a knowledge of this state of things; and even in England a young man of the upper classes expecting to inherit an estate, does not consider his dignity compromised in performing the work of a farm laborer and doing the necessary "chores," as we should say, by which methods he can alone acquire that practical knowledge which will fit him to manage his own estate. Instances of the same way of learning the details of the farm are not common among the sons of persons of wealth and station in this country, democratic as our society pretends to be, but the examples of Mr. Burnet proprietor of Deerfort Farm whose profitable production of pork and butter, has placed him in the front rank of successful agriculturists, and of Mr. E. F. Bowditch, also possessor of a large estate, and noted as a Jersey breeder, both of Massachusetts, may be cited as prominent and instructive cases of young men ambitious to stand at the head of their profession and also to make their farming pay, apprenticing themselves temporarily with one of the best practical farmers of their vicinity and performing the same work as the ordinary hired laborers, and thus using lowliness as young ambition's ladder, but when the upmost round was once attained, not scorning the base degrees by which they did ascend.

If the young aspirant to agricultural "honors" is not a graduate of any literary institution, he cannot do better than take a course of theoretical and practical instruction in one of the agricultural colleges endowed by the United States Government and established by the States, and if it is conducted as it should be, he will acquire a knowledge of the sciences connected with farming and a theoretical and to some extent a practical knowledge of the pursuit itself, which he can put in operation, and improve, as the young Germans do, by taking charge of some land-owner's farm and doing personally the work for a season, or of his own if he prefers to be at once master and servant, as most Americans do. Agriculture, though young as a *science* is old as an *art*, and our young men of wealth who are attentive to "the frivolous work of polished idleness," to use a phrase of Sir James MacIntosh, but yet worthy of better employment, may with profit study the ways of even such ancients as the country gentlemen among the Greeks who revelled in their snug country boxes and pleasant acres and did not disdain to don proper attire and share in the necessary labors of the farm, many of them in fact, like Ulysses's father or our New England farmers, being arrayed in "weeds all torn and tattered fit for homely deeds." But they knew a "hawk from a handsaw," had an eye for thoroughbred horses and cattle, swine and fowl. XENOPHON, who was both a good general and farmer, wrote a treatise on horsemanship which is good authority at the present time, and his precept on the training of the noble animal "*never use him ill through anger*" is worthy of all time, and a good horse cost money then as now. Bucephalus, of Alexander fame, is said to have been purchased for $1200. A pair of mules cost $120. Those old farmers didn't hesitate at paying big prices for the best breeding animals; rams from Spain at $1,200; $1,000 for a milk-white boar, and during the Peloponnesian war sucking pigs were held as high as $52 each. Alcibiades's dog whose tail he cut, according to Plutarch, to make the Athenians talk about *that* and not of himself, cost him $1050, not quite equal to the price of the queen at the N. Y. bench show, ticketed $50,000! As the average price of a good acre of land in Attica was about thirty dollars, a country place was not very costly, nor were they of great extent, that of Alcibiades being only seventy acres, and any one possessing three hundred acres of frontier land, was esteemed an immense land-holder.

Then these hearty old fellows, like their English successors, lived mainly out-of-doors walking or riding on their farms and superintending the details of all the work and studying whether any improvements could be made, and carrying them out so far as could be done without any knowledge of the *science* of farming experiments. "For in all" says one of them, "that we can discover by our experiments upon soils *we are sure of the truth of what we see.*" Provided, we may add, these experiments are continued long enough, and all the concomitants attended to with the utmost accuracy. They also followed the sports of the chase, racing, cock and quail fighting, wrestling and boxing matches, and after the daily bath or at the end of the day, when the labor was over, *reclined* at a table richly spread. With the lamentable exception of not holding the fair sex in proper esteem and giving the ladies equal and just rights and privileges, the great country gentleman appears to have been well up to the comforts and enjoyments of life as we appreciate them, and our young men of leisure may profitably study him as a good example.

Berkshire Co., Mass.

Farm Economy.

HISTORY OF A POOR FARM.—No. 12.

How Should Manure be Used?

"I SAW you plowing in manure to-day," remarked Mr. Martin; "you don't practice what you preach. I have heard you tell our old friend here and his son, William, that manure should be always spread on the surface."

"So I believe it should," I replied; "but I am not the first by any means who does not live up to his professions. There are some occasions upon which even the best men go astray, and I may be excused a lapse now and then as well as they. I could not help it. A beginner on a poor farm must do many things which he would not if he could avoid it. The manure was fresh and long, with some straw in it: the cellar was full and required to be emptied, and the corn needed it—what could I do?"

"I think you did right," remarked my old neighbor; "manure ought to be well covered. I have always plowed it in and would now, but you have talked William over to your ideas, and he *will* put it on the top and harrow it in, or put it on the sod."

"Look over there," said I. Across the road was a meadow of the old gentleman's which had been pastured in the fall and the spring, and it was spotted over with hummocks of tall grass where cows' droppings had fallen. "What makes those bunches of tall grass?"

"Well; those are where the cows have dropped," he replied.

"And the grass is twice as thick and tall in those spots as elsewhere; it was top-dressed there, wasn't it?"

"Well, I guess so;" he replied.

"I think that is enough, so far as grass is concerned," said I. "Now let us consider about plowed ground. The purpose for which we manure our fields is to feed the crops, and I think we agreed once, that if the crops are fed when they are young and growing the most vigorously, they will thrive the better for it. If we don't feed them then, they start slowly and become stunted, and frequently never recover through the season. When the plants are young the roots are small and near the surface; if the manure is five or six inches down, or a foot away upon one side, it takes some time for the tiny and weak roots to find or reach it, and this operates the more disadvantageously because the roots are weak for want of food and may actually perish, and many do perish, by starvation, before they can reach the food. Suppose a hungry man were told that a supply of food was buried 100 feet or more in the earth, and as soon as he dug down to it, he could eat and drink and be filled. He would probably die of starvation before he could procure it. I think it is just so with plants; only the work they have to perform is more exhausting, and they are more likely to starve in their endeavor to perform it than in the case of the man."

"There is another view of the case," remarked Dr. Jones. "The soil is a great oxidizer. There is no more active disinfectant than earth, and the process of disinfecting is simply one of oxidizing or combustion. This was remarkably well shown by Dr. Voelcker in some experiments with the soil taken from some earth closets, in which it was found, that after the earth had been used several times, and might have been expected to have contained a large quantity of nitrogen from the accumulated manure, on the contrary, it was very little richer than at first, and the nitrogen had largely disappeared. It is a well known fact in chemistry that exceedingly porous bodies, such as charcoal, earth, and especially spongy platinum, possess a remarkable capacity for absorbing oxygen and other gases from the atmosphere, condensing them, and causing chemical changes in them. Now, while so far as regards the action of the soil, when it is in a minute state of divison, upon nitrogen, hydrogen and oxygen, we have not sufficiently accurate knowledge to form a clear opinion, yet we know that a large portion of the organic matter in the soil disappears, together with its resulting chemical constituents; they go and we cannot trace them. If this happens with animal and vegetable matter of one kind, it must be so with matter of another kind, as common manure."

"Then you think the manure wastes in the soil?" said Mr. Martin.

"I don't see how we can account for the disappearance of the nitrogen in the earth-closet soil, nor for other well-known circumstances, without such a conclusion," replied Dr. Jones.

"I have tried surface manuring and plowing it in," said Mr. Martin, "and have found it best to adhere to the former practice. I don't know so much about the theory, which seems very reasonable, but of the advantage of the practice I have no doubt."

"I think you are right," I remarked, "and I am inclined to believe that Dr. Jones's theory has some good basis. The majority of good farmers, who are apt to note cause and effect, keep their manure as near the surface as possible, and that they may do this, it is necessary that the manure should be fine and easily broken up. If long straw is used for litter, it is necessary to work over the manure to get it into good condition for harrowing into the soil; because it is impossible to spread long manure with the harrow, unless it is a disc harrow. Long, fresh manure must be plowed in, and there is a disadvantage and a loss in using it in this condition; but there is a loss also in keeping manure fermenting to prepare it for use, and the question comes up: how can we escape either of these losses?"

"Use fine litter," remarked Mr. Martin. "I think I would rather go to the trouble to cut my straw in the fodder cutter and bed my cows and horses with the chaff, than either to plow in long manure, or to keep it idle for six months or more."

"Dr. Voelcker has said that he is not satisfied that any of the nitrogen of the earth-closet soil is lost by oxidation," said Fred. "He has distinctly disclaimed any such view."

"That may be," replied Dr. Jones. "To disclaim a particular opinion is not to oppose it; and I feel confident that Dr. Voelcker would not go so far as to say that the view is not reasonable; only it is not proved; and a truly scientific man will never say a thing is so, or will very rarely suggest any opinion, without good grounds for it. This process of nitrification, or oxidation of nitrogenous matters in the soil, is no new thing. Years ago, saltpeter was manufactured for war purposes by making beds of vegetable and animal matter mixed with earth, and leaving them to undergo this natural process. It has been recently discovered that the nitrification or oxidation is caused by the growth of a vegetable organism or ferment in the soil; it has also been found that the same process goes on in the growth of mushrooms in the beds of manure and soil usually prepared for their culture. But it has also been found that as soon as this oxidation has been perfected, the nitric acid thus formed immediately begins to be de-oxydized, and its nitrogen escapes in a free condition into the atmosphere. It is, in fact, the final round of the circle, so frequent in nature. Nitrogen is brought in some way from the atmosphere, and enters into combination with the organic substances; these decompose, and nitric acid is formed in the process; this is decomposed in its turn, and the nitrogen is returned to the atmosphere; thus ending the circle of changes, and ready to begin anew. It is a beautiful theory, and while it would be premature to speak positively about it, yet it seems to be a true one. Let us take a short walk and look how this thing works in the field. I have a field of oats for green fodder, which

was partly surface-manured, and on a part of it the manure was plowed in. Here we can see the difference; the only difference in the manure was that the fine portion was made of swamp muck for bedding, and for the coarser part, rye straw was used for the litter. In one place the oats are already in head, dark green in color and twice as high as in the other part; the field was treated alike as to plowing and sowing and was all sowed the same day."

"There is a great difference," remarked the old gentleman, "but won't you get the good of the manure in the next crop?"

"That may be, but I doubt if the benefit will be equal to the present loss," said Mr. Martin.

"What we need," said I, "is to get immediate returns from our work. We cannot wait a year or six months for that, and the danger is, that if we do not get it at once, we may never see it at all. In the meantime the manure is idle and unproductive. Besides, if it is true that with the very best management we lose a considerable portion of the manure while it is piled in the yard and undergoing decomposition there, it seems that we cannot avoid losing just as much while it is decomposing in the ground, unless the crop is feeding upon it. It is very evident that just here the oats have not yet reached the manure; or, at any rate, are as yet getting no benefit from it. Here is a field of orchard-grass and clover, that was seeded in August last with turnips. The turnips were pulled in November and a portion of the grass was top-dressed with fine manure. Fred has been cutting fodder for the cows here since the 10th of May, and the first that was cut over, is ready for cutting again, in less than one month. The other portion of the field was dressed with 300 pounds per acre of artificial fertilizer, but, as you see, it is only half as good as this; still, if it were not that this is much better than usual, that would have been thought good.

"I consider this business of manuring the most important that we have to consider. There were in 1870 nearly 2,700,000 farms in the United States, averaging 150 acres each. With the rapid increase which has occurred since then, we may reasonably assume that there are now 3,000,000 farms numbering 450,000,000 of acres. Of this vast surface of land, at least one-fourth is under such a system of cultivation as requires it to be manured periodically. If an average of five loads per acre annually is used on this portion, there are nearly 600,000,000 loads of manure applied to the soil every year. A ton of fresh manure of average quality contains at least of

Nitrogen, 10 pounds, worth	$1 50
Phosphoric acid, 6 pounds, worth	36
Potash, 12 pounds, worth	48
Total value	$2 34

At two dollars per ton, we have an annual production of manure equal to $1,200,000,000. *One thousand two hundred million dollars!!!* At $1 per ton, we have $600,000,000, and if it is not well worth considering how we can use all this valuable product in the best manner, and so as to return us the greatest benefit from its use; then I don't know that it is worth while to discuss any question relating to our business. Any person who is acquainted with the average practice of farmers, will readily admit that much of the value of the manure made is lost in the management and using of it. If one-fourth is lost, it amounts to more than the total value of all our hog products and nearly as much as that of our whole wheat crop, taking only the least estimate I have here made. It is truly a subject that is well worth thinking and talking about and experimenting upon in the field.

Horticultural.

A VISIT TO DUNKLEY'S.

S. Q. LENT.

DUNKLEY is a market gardener, living in Kalamazoo, Michigan. Everybody knows him there. I might call him Mr. Dunkley, but I know he will consider it no offense if I call him just by the name that his fame gives him. We had heard that at Dunkley's a plan of irrigation had been adopted, which had been eminently successful in many ways, and inspired by a desire for increased knowledge in matters of horticulture, we took the train from Grand Rapids the other morning, to spend the day in search of new facts in the irrigation line, at Kalamazoo.

Perhaps it will be well to explain very briefly some conditions: Firstly, Kalamazoo is fifty miles from Grand Rapids—a two hours' ride, as trains move in Michigan. It is the largest village in the world, beautiful in its embellishments, and thrifty in its enterprise. It is the center of a good fruit region, and progressive horticulture, in its broadest sense, is a matter of reasonable pride on the part of the residents. Secondly, by "we" I mean a party of five gentlemen, whose names have all appeared in the RURAL columns, as connected with the Michigan State Pomological Society. This last compound statement I trust will be sufficient surety for the truthfulness of the concise statements which I am about to make as the journalistic representative of the party.

Dunkley's place is a mile from the center of the village, and through the courtesy of a son of the proprietor, we were piloted about the place. A force of several hands were picking strawberries from rows of very vigorous plants, and, as we opened the vines in advance of the pickers, a more delightful strawberry prospect, we all agreed, we had never seen. The varieties were: Monarch, Seneca Chief, and Wilson, and under the system of irrigation employed, they were just prime for market after all other berries from the vicinity had ripened and were gone, save a few insignificant boxes that could in no way affect the market.

It took us a very short time to learn the following facts:

1st. Under the system practiced by Dunkley, his berries were two weeks later than the general crop of the vicinity, and they were thrown upon the market when prices were remunerative.

2d. His vines were vigorous and independent of rains, so that every berry that set could reach perfection in size and flavor.

3d. The necessity of picking every day or every other day for the sake of saving a few berries that would otherwise become over-ripe, was entirely obviated, and a picking once in four or five days would be very large and a rapid gathering at the least possible outlay, was accomplished.

4th. The fruit, becoming more mature without losing its firmness, was more luscious, and yet scarcely anything was lost in the character which every berry picked for market must have to hold its shape until sold.

5th. The vigorous vines gave protection to the berries from the direct rays of our very hot meridian sun, which preserved even those which were over-ripe from so soon losing flavor.

We were invited to inspect the simple method of irrigation, and while walking to the fountain-head we had ample opportunity to view the vegetable garden, which we found in a most flourishing condition. The cabbages and tomatoes particularly attracted our attention, because of their forwardness.

"How's this?" we inquired; "your method of irrigation puts back your strawberries but puts ahead your vegetables."

"Cabbages," he replied, "are advanced, to be sure, because it is leaves we are after, and our method tends to a very rapid growth of foliage. But with tomatoes I need to make this further explanation: the fruit develops in size very rapidly, but should we continue to regularly apply our water, the ripening process would be retarded the same as with strawberries; but as soon as the fruit is of fair size, we withhold the water, and they ripen rapidly. We have found that there is a good deal of study connected with properly and economically employing irrigation in the garden." So we thought, after witnessing this anomalous state of things.

"We water," said he, "only to supplement the rain. If the season is a wet one, we employ our artificial system little or not at all, and in such seasons get no profit from our investments; but generally some time during the season we get a drought that shortens some crop, then we irrigate that crop, and have the advantage of our neighboring gardeners."

The fountain of supply from which the water was taken, we found to be a spring, dammed up at a point which was a little higher than most of the garden. The water was conveyed in a wooden conduit made of two-inch plank, rendered water-tight by the use of coal-tar. It was, perhaps, eight inches wide and a foot deep. At intervals of about eight feet, auger holes were bored near the top of the conductor. The rows of vegetables and vines run at right-angles to the line of the conduit, and are so arranged that each alternate space between the rows comes opposite a hole in the conductor. When the water is wanted in any particular locality, a cut-off is made just beyond the opening at this point, and the water being let on at the fountain-head pours out a nice stream and follows down the row. The surface of the ground has been carefully graded, so that the progress of a stream of water let on is very slow, giving plenty of chance for the water to settle about the roots of the plants. Having once secured a place with the natural arrangement of a spring at some point higher than the general surface, this process of irrigation is an inexpensive one.

The question has been often asked me whether a windmill could not be successfully employed in irrigating fields of strawberries, and, having had no experience, I have ventured the opinion that a windmill might be profitably employed for this purpose. But when I saw the amount of water actually used here to irrigate a small garden, I saw that an ordinary windmill would be a small affair to accomplish such results. Upon inquiry, I found that Mr. Dunkley had first tried a windmill and found it entirely inadequate to accomplish his purpose.

A word regarding the management of the strawberry fields at this place. After the berries are removed, the ground between the rows is thoroughly cultivated through the remainder of the season; the vines run together in matted rows, and in this condition go into winter. Early in spring, a good coating of long stable manure is given. That which has begun to decompose a little, or that in the making of which short wheat straw has been used, is preferred. This manure is spread evenly over the surface and the vines make their way through it easily. By the time the berries are ready to be picked, it is all down close to the ground between the rows. The covering is placed on in the spring to retard the blossoming as well as to preserve from evaporation the water that is employed in irrigating the rows.

The Wilson Strawberry is talked about as a sour fruit fit for market, but not fit to eat. Dunkley's Wilsons were not only fit for market, but delicious to the taste—*but they were ripe.* A ripe Wilson is rarely found in any market, and the hue and cry about it as a poor, sour berry, is founded upon a misapprehension of facts. A luscious strawberry must have the acid in it, to begin with, but it must be tempered by a thorough ripening process. Many varieties far inferior to the Wilson, rank higher among consumers, because in the imperfectly ripened state in which they are put upon the market, they are less acid. Dunkley's Wilsons were as good as any Cumberland Triumphs or Black Defiances I ever tasted, because they were ripened slowly upon good soil and perfected in flavor before being taken from the vines.

After testing the quality of all the varieties raised at Dunkley's, we drove rapidly through the streets of the big village, and were delighted with the many beautiful homes with tasty surroundings, that we saw everywhere, and could see no reason why happiness could not exist in nearly every family, if Dunkley could only raise strawberries enough to supply them all.

Grand Rapids, Mich.

STRAWBERRY NOTES FROM MICHIGAN.

PRES. T. T. LYON.

THE present season has, in this locality, been more than usually favorable to the Strawberry, (both plant and fruit,) and as the season of this fruit is now near its close, with us, it occurs to me that some notes respecting the ripening of some of the sorts, with statements as to their comparative success, may be of interest to the public. It should be understood that our location is directly upon the eastern shore of Lake Michigan, and that, for this reason, the Strawberry, in common with other fruits, is about ten days later in ripening, with us, than at points farther inland.

The dates given are those of gathering the first fully ripe, perfectly and naturally grown specimens, the soil being, in nearly all cases, a rich, warm, sandy loam.

The season opened, on June 5th, with ripe berries of Duncan and Mexican Everbearing; followed on the 6th by Nicanor and America. On the 9th we found ripe berries of Photo, Cinderella and Green Prolific; followed on the 10th by Russell's Advance, Monarch of the West, Champion, Black Defiance, Capt. Jack, Charles Downing, Col. Cheney, Duchesse, Downer's Prolific, and Victoria, (Golden Queen). Ripe fruit of Iowa Prolific, Seneca Queen, Dr. Warder, Great American, Matilda and Wilson's Albany, occurred on the 11th. On the 12th came Bidwell, Jucunda, Triomphe de Gand, Cumberland Triumph, Cowing's Seedling, Grace, French, Excelsior and Crescent. On the 13th, Lady Finger, Hudson's No. 10, Hudson's Early Starr, President Lincoln, Boyden's No. 30, (Seth Boyden) Kissany, and Ida; and on the 14th, Glendale, General Sherman, Emperor, Afrique, Wilding Seedling, Agriculturist, Damask Beauty, Major McMahon, Scarlet Globe, Luckhurst, Late Prolific, Golden Defiance, Hooker, Shirts, and Sharpless. On the 16th ripened Kentucky, President Wilder, and Michigan; and on the 17th, Star of the West, Sterling, Springdale and Seneca Chief. The 18th gave us Romeyn, Burr Oak, Caroline, and Centennial Favorite; and the 20th may be said to have completed the season, with Frontenac, Marvin, Walden and Forest Rose.

Of these a few, among which are Iowa Prolific, President Lincoln, Shirts, Sharpless, Centennial Favorite and Forest Rose, may have been delayed in ripening on account of the comparative feebleness, in spring, of plants transplanted in a severe drought in August and September of last year.

Nicanor, although of fine quality, is quite too small except possibly for the fastidious amateur.

America is pistillate, and although we have always grown it alternated with others, it has utterly failed two years out of four. This season it is wonderfully productive; equalling the Wilson at its best—quality excellent.

Russell's Advance is of excellent quality, and of good size; a little variable in this particular, and may not acquire a high position among so many competitors.

Champion is greatly praised and is really large throughout the season, but too acid and hardly rich or firm enough for market. We distrust it also for the reason that it is pistillate.

Black Defiance and Capt. Jack are both of fine quality and good size—the former much the larger; and we regard them as promising market sorts.

Col. Cheney is too weak in plant and too soft.

Seneca Queen has this season proved exceedingly productive; which, with fine color, large, even size, and fair quality, seems likely to render it a valuable market berry. Should it continue to do as well, it must take a high position.

Great American, which failed utterly last year, has produced a fair crop of large berries this season; which are pleasant though not of high quality.

Matilda we are more and more disposed to esteem highly as a valuable market berry.

Bidwell, which did poorly last season, has more than redeemed itself. We are inclined to consider it as even more valuable than Monarch of the West; but more extended trial seems needful to properly establish its character.

Triumph of Cumberland has few, if any, superiors in its season among the very large varieties, as it holds its size well throughout the season. It is slightly wanting in color and also in firmness.

Cowing's Seedling we still consider among the most desirable for light soils, and for local or house use.

Crescent is certainly a rampant grower and a great bearer; but is certainly too soft for distant marketing.

Starr is unusually fine in quality, but of its general characteristics we cannot yet speak confidently.

Glendale gives evidence of many valuable qualities, but must have another year's trial.

General Sherman seems also to be very promising, but must wait.

Major McMahon is very fine on our light soil, and we are at a loss to imagine why it has attracted so little attention.

Golden Defiance, although rather light-colored, seems to possess good qualities as a late berry.

Hooker is of medium size, and of exceptionally fine quality; but its very unattractive color is greatly against its popularity.

Shirts is a large, very long, conical berry, of exceptionally fine flavor for so large a fruit. It was first brought to notice last year by Ezekiel J. Shirts of Oceana Co., Michigan. It may be slightly lacking in firmness, otherwise we regard it as very promising.

Sharpless has produced fruit here, on plants set out last August. The fruit is very large, long, conical, regular, as grown here; and, in flavor, among the best of the very large fruits. It seems to be slightly lacking in firmness for a market berry; still its size, quality and color are sufficient to insure its popularity.

Star of the West is too soft, as well as unproductive.

Sterling, although more productive than the above, and of very fair quality, is yet too soft, and too light a cropper to meet the views of market growers.

Springdale is fairly productive, and has size and lateness in its favor as a market variety.

Seneca Chief will do as a late berry, if kept within proper limits, and not allowed to run too much to wood.

Burr Oak certainly has quality and fair size in its favor. Why it is shoved aside, as it seems to have been, we have not yet learned.

Caroline gives indications of value or desirableness as a late variety. It needs further trial.

Frontenac is among the very latest; its quality is superior, and it is, moreover, a rampant grower. Its pistillate character, we fear, will prove fatal to its usefulness.

Marvin was brought to our notice last year when the fruiting season was some time past. Plants sent us in pots last August, are now producing a fine crop, fully one-half of which is now (July 1st) still immature. The fruit is of glossy appearance, like Triomphe de Gand, rich and bright in color, and of the largest size. The specimens shown at the recent session of our State Pomological Society (June 17, 18 and 19) were said to be the first picking; and were very large and most of them were slightly cockscombed. Those grown on our sandy loam, with medium culture, are mostly free from this defect—if defect it should be called. The berry is firm, and we judge will bear transportation well.

Forest Rose has not yet fruited sufficiently to establish its character, which another season may be expected to develop.

Windsor is a new, very large, bright-colored berry, which was shown at the recent meeting of our State Pomological Society, and is said to have originated in Ingham or Eaton county, Michigan. The fruit, though very large and bright-colored, came in bad condition; and

was called by the contributor (who was not present), "Windsor Chief"—(doubtless the same described lately in the RURAL under that name). The Society, having been authorized to impose a name, did so by dropping the "Chief," leaving it simply Windsor. Of the peculiarities of the plant and its bloom, we know nothing. The variety (as were also the Marion and Shirts) was recommended as worthy of trial.

South Haven, Mich.

FIELD CULTURE OF STRAWBERRIES.

THE present outlook of the strawberry business is such as to make it expedient for growers to adopt some method of culture by which good fruit can be produced cheaply. The time is past when poor, inferior strawberries will sell in the market for a price that will well repay the producer.

The chief requisites for success in growing strawberries for market, are a well-prepared soil, a proper selection of varieties, and good care and cultivation. If the soil is naturally heavy, it should be the more thoroughly prepared, so that it will be loose and mellow. If the ground in which the plants are set, is foul from grass and weeds, it should be summer-fallowed the season previous to the planting.

There are several modes of cultivating the Strawberry, all of which have some advantages, but on a clean soil, and with prolific varieties, the method known as the "matted-row" system will, perhaps, produce the best results. The plants are set in spring or fall in rows, three and a half feet apart, with plants a foot apart in the rows. The soil should be kept mellow and free from weeds by frequent hoeing and cultivating.

When the runners begin to take root the cultivator teeth are narrowed up so as to leave a space a foot or eighteen inches wide, for the plants to occupy. Considerable hand weeding will be necessary to keep the matted rows free from grass and weeds; but if the soil is comparatively clean, the expense of weeding will not be more than is required to keep the runners picked off, which is necessary when the plants are kept in hills.

There are some varieties of Strawberries that will bear equally good fruit if allowed to run, and the yield per acre will be much greater than if kept in hills. It is important in selecting varieties to choose those best adapted to the soil in which they are to be planted. If poor varieties are set, good crops cannot be obtained, even with the best culture. It costs little more to grow large, firm strawberries, that will bear sending a long distance to market, than those which are small in size and too soft to be handled, while the difference in the price received for them will be decidedly in favor of the former. G. GOFF, JR.

Elmira, N. Y.

TARDY GERMINATION OF SEEDS.—I wish to say to M. F. J., of Uniontown, Pa., not to be discouraged. My seeds from the RURAL, which included Callicarpa and Yucca, were sowed in a seed-bed, with bottom heat, near the last of April, beside my annuals, which I always raise in this way, thinking it more certain than to sow them in the open garden. The annuals have been transplanted several weeks, and some of them are coming into bloom, but the Callicarpa seed is just up, and cannot yet boast of the second leaf. The Yuccas are about two inches in hight. I have learned that the seeds of shrubs and perennials are usually much longer in germinating than those of annuals. Besides those mentioned, I had also Deutzia, Weigela, and the Hybrid Aquilegia. I think none of them made its appearance above ground till four to six weeks from sowing, and not until the annuals beside them were large plants; but they are all up now and doing finely, though the Callicarpa is much the smallest of them all. Several times I was about to write and ask, "What ails the seeds?" but concluded to wait a little longer, and now I have the reward for my faith and patience. MRS. W. C. G.

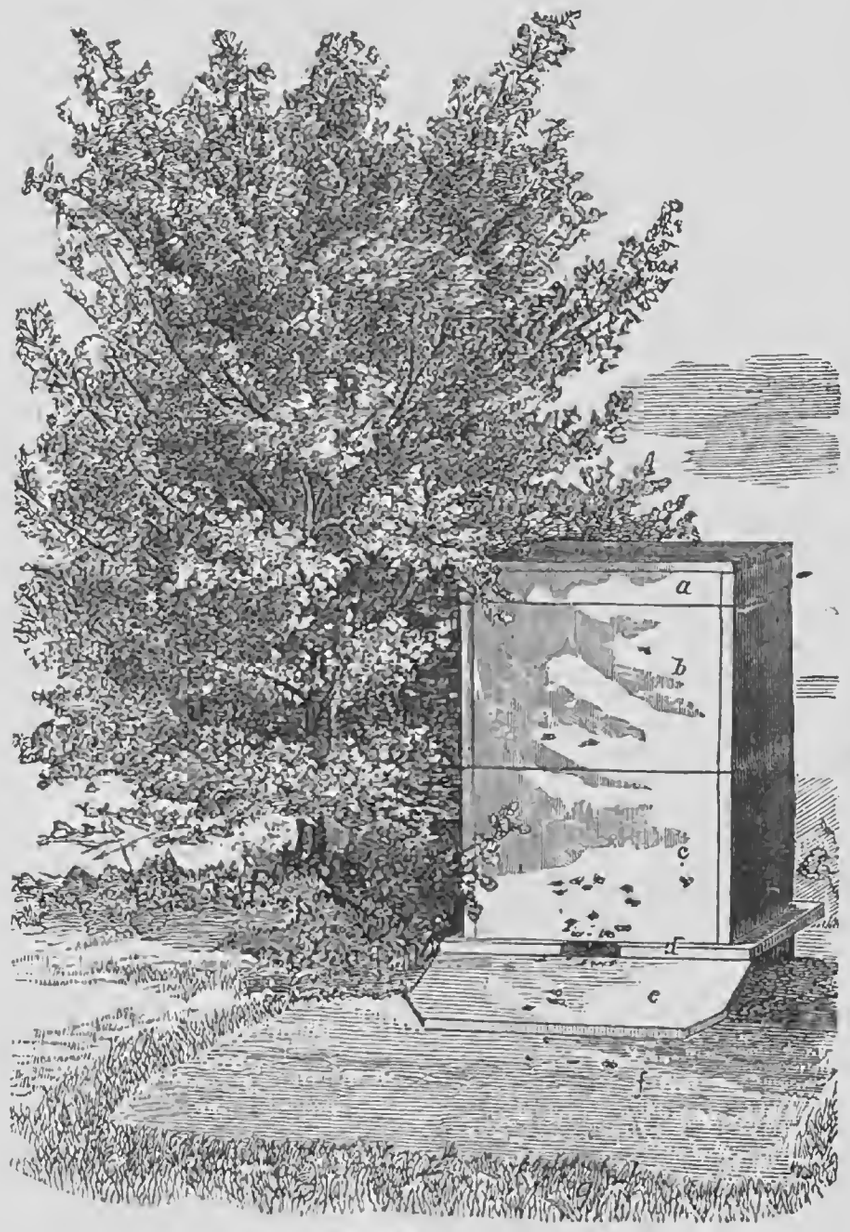
Jamestown, N. Y., July 7.

The Apiarian.

POSITION OF HIVES IN THE APIARY.

IT is of importance that the hives should be sheltered to some degree, both from the strong winds and from the full blaze of the sun. Such protection may be given by erecting board fences along which the hives are arranged, a method employed in some instances; but, besides being expensive, a board fence is neither so efficient nor so decorative to the premises as are trees or shrubs. The apiary may be located in an orchard, which is a good plan if the orchard is near the house. The spreading trees will give the desired shade, while high winds are not apt to be severely felt.

If the bee-keeper has a vineyard of large, spreading vines, tied to trellises running east and west, the hives may be arranged in rows on the north side of the trellises. Shade must be had. If the hives are exposed to the sun at this season of the year, the temperature within will become unbearable to the bees, and they will then cluster idly on the outside instead of attending actively to their work; the uncapped honey will become so liquid that it will run out of the cells, and often out of the hives, affording cause for contention and robbery by other bees, while sometimes the wax may be so weakened in its consistency that heavy combs fall down, causing, of course, both bees and bee-keeper extra trouble. The Tartarian Honeysuckle, Lilacs, Philadelphus, or any kind of shrub of compact growth and a dense mass of foliage, may be planted in the apiary at intervals of eight or ten feet, and the hives placed on the north side of these. Evergreens may also be used for this purpose, and they have the advantage over deciduous shrubs that they shed no leaves to be raked up or blown about by the wind to make the place untidy.



POSITION OF HIVES IN THE APIARY.

The accompanying cut, which appears also in Cook's "Manual of the Apiary" and has kindly been furnished us by Prof. Cook, shows the position a hive should have in the apiary. The evergreen on the south side, shelters it alike from the sun during the hottest part of the day and from the strong winds that may come from southerly points between the east and the west. The Norway Spruce is admirable for this purpose. It will bear cutting back almost to any extent, stands the severest winters, and is not particular as to the kind of soil. They should be planted in rows of eight by ten feet apart, and so arranged that one stands opposite the opening between two Planting them thus in rows may not be sanctioned by landscape gardeners, for it gives the place a certain stiffness which would be avoided if they were scattered about in groups without any regularity, but it is a decided advantage to the apiarist to have the stands in rows, and, of course, all numbered, especially in large apiaries. Colonies will not then be so likely to be overlooked and forgotten as is the case when they are scattered irregularly.

The hive should be raised only four or five inches from the ground, as seen in the engraving. When raised on stands two or more feet high, many bees are lost in the early spring. Coming home heavily laden, tired, and, chilled, they often miss the alighting board, and falling under the stand they are unable to rise again. To have the hive on a raised stand also causes inconvenience in the transferring of bees. The grass immediately around the hive should not only be kept down, but under and in front of the hive a place, five by five feet square, should be dug out six inches deep, and filled with gravel, sand or sawdust. This is easily done, and is by far the cheapest in the end. Once well done, there will be no grass to mow every week during the summer. The queen is not so liable to be lost, neither in transferring nor, when in the case of swarming, she crawls out and her wing being clipped, is unable to follow her army. One is also better able to observe what the bees expel from the hive. Those who are about to begin bee-keeping, will do well to consider these points.

FRANKINCENSE.

Miscellaneous.

FRANKINCENSE.

THE common frankincense of commerce, also known as gum Thus, is a resin which exudes from fissures in the bark of the Norway Spruce—Abies excelsa. When melted in hot water and strained, it constitutes Burgundy pitch. The turpentine obtained by making incisions in the trunk of a species of our Southern Pines—Pinus australis—when old and hard, is also often called by that name; though commercially known as "scrape."

The true frankincense of the ancients, however, is the fragrant gum resin known in medicine as olibanum, the product of certain species of trees of the genus Boswellia, which grow among the mountains of Central India, upon the Coromandel Coast, and also in the interior of Arabia. The members of the genus have the following characteristics:—Bark often papyrus-like; leaves deciduous, compound, alternate, imparipinnate, with leaflets serrate or entire; flowers in racemes or panicles, white, green, yellowish or pink. The trees are described as growing on the coast of Adel, without soil, out of polished marble rocks to which they are attached by a thick oval mass of a substance resembling a mixture of lime and mortar. The purer the marble the finer appears to be the growth of the tree. The young trees furnish the most valuable gum, the older yielding merely a clear glutinous fluid resembling copal varnish. To obtain the frankincense a deep incision is made in the trunk of the tree and below it a narrow strip of bark is peeled off. When the exuded milk-juice has hardened by exposure to the atmosphere, the incision is deepened. In about three months the resin has attained the desired degree of consistency. The season for gathering lasts from May until the first rains in September. The clear globules are scraped off into baskets, and the inferior quality that has run down, is gathered separately.

Bombay and Calcutta are the chief markets for frankincense. It is in the form of roundish lumps or tears, semi-opaque, of a pale yellow color and covered with a whitish powder, produced by friction. It has an agreeable balsamic odor, but its taste is acid and bitter; it softens when chewed, adheres to the teeth and whitens the saliva. It burns with a bright white flame, diffusing a fragrant odor. It was this property which made it so highly esteemed by the ancients, who used it largely to conceal the smell arising from animals at their religious sacrifices. It was also thought that the smoke of its burning was an acceptable offering to the deity, as typical of prayer and interior worship. At present the Roman Catholic Church largely uses it at religious services, and it is also, to some extent, employed medicinally, as an ingredient in plasters and for fumigations.

BOOKS, PAMPHLETS AND CATALOGUES.

ILLINOIS CROP REPORTS, consolidated from returns to the Department of Agriculture. June 1; issued June 12. S. D. Fisher, Secretary. The dry weather early in the season enabled farmers to plant to corn a large area of low flat lands that for years have been too wet to plow early enough in the spring. Moreover, many unpromising fields of wheat and oats were plowed up and planted with corn, so that although 8,672,055 acres were under corn in 1878, there has been an increase of 293,706 acres this year, making a total of 8,965,761 acres. As shown by our special reports, the stand was very uneven, much replanting was needed, and the growth was slow. There has been much complaint of defective seed. The best corn is on fall-plowed land, and it is expected that the advantages of fall-plowing for corn are so manifest that the practice will become general, where the favorable results are known. Drilling is strongly recommended by many of the more successful corn-growers. Late rains and unusually good attention, it is expected, will produce a fair crop. The stand of winter wheat was generally good; the straw was short, but the heads well filled; the acreage was above the average, and a good many patches of winter wheat were sown in the "corn belt," thus indicating an advisable tendency to "mixed farming." The acreage under spring wheat is about the same as last year; any decrease is mainly due to plowing up fields injured by drought and planting them to corn. The early-sown wheat will alone be fair; and the aggregate yield

will be considerably below an average. The condition of oats is much below an average, varying from 5 to 50 per cent.; the area, too, is 118,964 acres less than last year's. Meadows were much below an average. Clover meadows were in much better condition than timothy. Meadows pastured in the spring were, as a rule, not worth cutting, and it is feared that the rains came too late to make much difference in the hay crop. In pastures only one county reported an average condition; all the others reported a decrease of from 10 to 75 per cent.; while the aggregate diminution of acreage amounts to 185,324 acres. The number of cattle was about the same as last season, and their condition was good, in view of the short pastures. The number of hogs in the State is less by nearly three-quarters of a million than last year. The small profits last year of even the best breeders, and the large losses often incurred by others, have had a depressing effect on this industry. Hogs are generally healthy and in condition above the average. For the last five years there has been a steady decrease in the number of sheep, chiefly of the fine-wool sort; but the increase in mutton sheep has not kept pace with the decline in the other kind; though it is hoped that the high prices lately realized for mutton will beget greater attention to this branch of stock-raising. Barley is considerably below an average. The acreage under flax is much above that of last year, but the condition of the crop was considerably below the average at date of report. The acreage under potatoes is about the same as last year; but the prospects of a fine yield were hardly as favorable as in most of the other States. Apples and pears were much below an average, and peaches almost an entire failure, while small fruits promised well.

QUARTERLY report of the Pennsylvania Board of Agriculture for March, April and May. T. J. Edge, Sec., Chester. The official country reports on which this State Report is based were closed out on June 1st. and several causes may since have changed the result in some localities. At that date, however, it was estimated that there would be a considerable falling-off in the wheat crop from that of last year, but still a good average crop was anticipated. The rye corp is estimated at 3,550,000 bushels with possibilities in favor of a larger amount. Since the rise of a demand for rye straw for the manufacture of paper there has been an increase in the area planted to this crop but there are no satisfactory data for estimating the extent of the increased acreage; the yield per acre is put down as probably less than usual. Of corn the average annual yield for ten years has been 35,250,000, bush. and owing to the backwardness of the season and the appearance of wire and web-worms the aggregate crop is not expected to be larger this year, though there seems to have been a slight increase of acreage. The average annual yield of oats for the past decade has been 31,250,000 bushels and although there is much talk of substituting some other crop for this, still the returns show a somewhat larger area than usual planted to it; it was too early to estimate the yield. Of hay the actual yield in tons was not expected to be as great as last year, but the nutritive quality of the crop promised to be better. Horses and mules were in fine condition generally, and healthy with the exception of a few cases of nasal and throat diseases. Within the last five years there has been a slight decrease in the number of cows and a depreciation in their condition. A few cases of pleuro-pneumonia and simple pneumonia were reported, but a great many cases of abortion, especially in the Eastern part of the State. So much uncertainty exists as to the cause and cure of this malady that a State committee has been appointed to investigate its cause or causes, and if possible to suggest remedies." Within the last five years there has been a slight falling-off in the condition of sheep throughout the State, although in seventeen counties there had been a marked improvement. The condition of swine is much the same as at this season last year. There may, on the whole, be a slight decrease in number, but there is also in some parts a considerable improvement in the value of the stock, due to the introduction of boars of improved breed. Fat cattle were not in many places in as good condition as at the same time last year, a mishap occasionally attributed to the belief that last year's hay did not "feed well." There has been a decrease of five cents per day in the cost of boarding a farm hand, and a corresponding decrease in his hire during the past year.

ENSILAGE.—This pamphlet of seven pages is in the form of a supplement to the larger work on the method of preserving fodder in silos, published by J. B. Brown, 55 Beekman Street, this city, and which is for sale by him for $1, as noticed in the RURAL several months ago. Both the larger work and this pamphlet are translations of the original works of Mons. A. Goffart, the French inventor of this method of preserving fodder, chiefly maize or Indian corn. The system is attracting a great deal of favorable attention in Europe, and has also been employed to a considerable extent in some parts of this country, and deserves the careful investigation of every progressive stock-owner.

Pamphlet of Pot-grown and other Strawberry Plants, by J. T. Lovett, proprietor of Monmouth Nursery, Little Silver, N. J. This successful small-fruit cultivator enumerates in his catalogue all the leading varieties of Strawberries, both for light and heavy soils. It contains, also, a short but practical treatise on the culture of Strawberries, which will prove valuable to amateurs. Mr. Lovett gives special attention to pot-grown plants, that is, young plants rooted in small pots sunk in the ground; such plants are stronger and will suffer but little or no check by being transplanted. The catalogue will be sent free on application.

DAIRY FARMING; edited by J. P. Sheldon, late resident Professor of Agriculture in the Royal Agricultural College, Cirencester. This new and original work by our correspondent, Prof. Sheldon, will be published in monthly parts by Messrs. Cassell, Petter & Galpin. It will be embellished with colored plates and original wood engravings, illustrating the various processes employed.

WHOLESALE PRICE-LIST of fruit trees, small fruits, ornamental plants and bulbs for sale by B. F. Transou & Co., Humboldt, Tenn. This is the 28th year since the establishment of Mr. Transou's nursery, and the record made by the firm during the interval is justly a matter of pride with them.

ANNUAL CATALOGUE and announcement of the Columbia Veterinary College and School of Comparative Medicine. New York.

WHAT OTHERS SAY.

"PEARL" MILLET.—We little thought when we wrote our playful remarks about the Pearl Millet that it would occasion enough trouble to our contemporary, the RURAL NEW-YORKER—the peer of any weekly agricultural journal in the world—to make a response. We never said, or meant to be understood as saying, the RURAL NEW-YORKER, or Mr. P. Henderson, claimed this to be a newly discovered plant. We published Mr. Henderson's glowing description of this Millet because we have faith in all Mr. Henderson writes, recognizing him as one of the best practical writers of the day, and knowing his works on gardening, etc., have been of inestimable worth to the people of the South especially. We saw with pleasure the beautiful illustrations of different Millets in the RURAL NEW-YORKER, and when we read the article of the Planter and Grange, we, in justice to our readers, gave them the benefit of its views, expunging the more offensive parts, that our patrons should not be left in error and blame us for indirectly endorsing all that was said in favor of *Pearl* Millet. We were, in fact, amused to see how a change of name from "Horse" or "Cat-tail" into the more attractive appellation of "Pearl" could raise suddenly the price and demand for the same article. However, we are sure that no money has been really lost by any who have bought the Pearl Millet if they followed the directions in regard to its culture, and *fed it in its green state* to the cattle. It is a crop for soiling and for green manuring, the *best* we have ever known. We confess, however, that we never fully appreciated Southern "Horse or Cat-tail" Millet as fully before we read the remarkable statement of our friend Henderson. [The above we take from our esteemed contemporary, the Maryland Farmer. We have ourselves remarked that the stalks when the plants grow old are as "hard as fish poles."—EDS.]

THE NEGLECTED MULBERRY.—Mr. Beecher says in the Christian Union, that Mulberries are a very much neglected fruit; there is no better fruit tree for children than the Downing's Ever-bearing Mulberry. One of them will bear fruit for eight or ten weeks steadily, constantly ripening, and pleasing all the fowls and turkeys, and children and old folks. He would rather have this mulberry to-day than a strawberry. The common mulberry is flat and sweet: but this has a fine sprightly acid taste, as finely combined as lemonade.

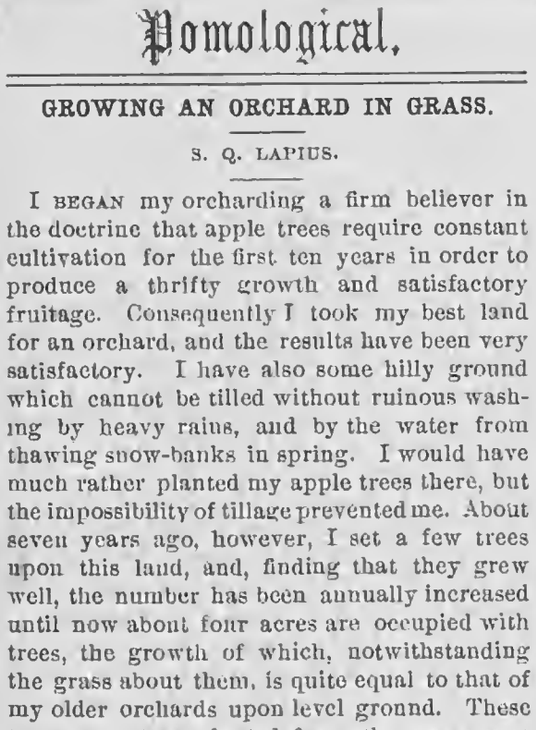
See page 464 for continuation of What Others Say?

Pomological.

GROWING AN ORCHARD IN GRASS.

S. Q. LAPIUS.

I BEGAN my orcharding a firm believer in the doctrine that apple trees require constant cultivation for the first ten years in order to produce a thrifty growth and satisfactory fruitage. Consequently I took my best land for an orchard, and the results have been very satisfactory. I have also some hilly ground which cannot be tilled without ruinous washing by heavy rains, and by the water from thawing snow-banks in spring. I would have much rather planted my apple trees there, but the impossibility of tillage prevented me. About seven years ago, however, I set a few trees upon this land, and, finding that they grew well, the number has been annually increased until now about four acres are occupied with trees, the growth of which, notwithstanding the grass about them, is quite equal to that of my older orchards upon level ground. These trees were transplanted from the nursery at the ages of two and three years from root graft, most of them at two. The holes were dug large enough to give a free spread to the roots, and afterwards the ground was dug away on the upper side in a semi-circle of three feet radius from the tree, the earth being placed upon the lower side, thus forming around the tree a flat surface, six feet in diameter, which is kept mulched with grass cut



from the surrounding area. The accompanying cut shows the appearance of trees two years after setting (four-year-old), and also illustrates my method of protection from mice and rabbits by tying common strip laths about the trunks. If left on during the whole year it is also an entire protection against the borer, and obviates injury from the action of the sun upon the bark. [The laths, as we understand it should be tied close to the tree. The artist shows them as forming an inclosure a foot or more square.—EDS.]

I am extremely well satisfied with my experiment so far. The annual elongation of the branches on these young trees, is from 18 to 30 inches. Quite a number are already in bearing. They are set out in rows twenty-five feet apart, the trees being 15 feet asunder in the row. The intention is to remove every alternate tree in the row as soon as they crowd one another, which will not be until they have given a number of good crops. About one-third of the grass cut around them is used for mulch, and in addition it is my practice to put about a bushel of leached hard-wood ashes around each tree upon the top of the old mulch when they have been two years set out. The land is naturally good, having been cleared of a heavy growth of Sugar Maple about thirty years ago. It is a somewhat gravelly loam. The slopes are in every direction except northerly, and the trees thrive equally well on all. A part of it is a hill-side below my garden, and this gets considerable wash, the result being an extraordinary growth of the Wealthy Apple trees there, and at four years from planting these promise quite a crop of fruit.

As my greatest fear in regard to these trees was from the effect of drought, especially on the southern slopes, my main object in making these flat circles about them, was to arrest the water flowing down the hill during heavy rains and give time for its absorption by the soil. This is satisfactorily effected, and with the mulch keeps the surface of the earth around the trees always moist. My chief trouble is to keep the fowls from scratching away this mulch to get at the insects which harbor beneath it. When there are enough small stones for the purpose I put them upon the top of the mulch. The land is kept in good condition by top-dressing, and as long as I can cut a heavy crop of hay, I shall expect to see the trees also grow as well. I hope in future years to be able to tell the RURAL readers how this orchard continues to prosper.

Orleans Co., Vt.

Industrial Implements.

PAYNE'S NEW ENGINE.

RECENT improvements, the outcome of practical tests, have been gathered together and put into the shape of a new agricultural engine which we illustrate this week. The makers, B. W. Payne & Son, of Corning, N. Y., claim that a ten-horse steamer of this construction will supply power sufficient to drive the largest class of separator, without over pressure, or excessive firing. This advantage is gained by the manner of constructing the boiler, and through the influence of an automatic cut-off, which, permits the steam to be used expansively—an economical principle that results in securing the maximum of work at the minimum of power. The principal and mechanical device by which it is secured are interesting to users of steam power, and being fully illustrated and explained by the manufacturers, we will simply refer our readers to them for particulars. They will be happy to supply them, we are sure.

The substantial results derived from the use of the cut-off, and the thorough way in which the engine is constructed, are productive of safety, economy of fuel, light weight, compactness, simplicity, strength, long wear and great saving of power.

The form of boiler used has been built and tested for more than twenty years. It is so little open to the objection of danger from explosion, that it is no longer a factor taken into account. At competitive trials the Payne engine has achieved a fine fame. Sparks are caught and subdued in spark-arresting chambers that are said to be a complete assurance against danger from fire. An examination of the engine has shown it to be excellently constructed, and the claimed advantages make it well worth investigation by those contemplating the use of steam-power for farming or thrashing purposes.

PAYNE'S NEW ENGINE.

THE Eureka Mower is making a fine record in Pennsylvania, as we learn from one of our subscribers, Mr. Wm. H. Sohn of New Scottsville, Beaver county. Being advised of the merits of the "Eureka" through the RURAL NEW-YORKER, one was purchased through a Pittsburgh dealer, and Mr. S. says "of all the mowers I ever saw work (and I have seen nearly all), it has the greatest advantages. We cut ten acres of very heavy clover without the least trouble, where last year in same piece, we had the greatest difficulty."

This is enthusiastic, certainly, and a little allowance must be made for exaggerations due to the effect of the weather, but the "Eureka" is growing in favor with giant strides, and Mr. S.'s letter is merely the exuberant expression of a perfectly satisfied farmer.

WATERTOWN, N. Y., June 27, 1879.

RURAL PUBLISHING CO.—*Gents.:* We are glad to add our names to your list of testimonials, as we consider the RURAL the best advertising medium for our business in the country. We have received more direct benefit from "*Ads*" in it than from any other in which we have ever published. Yours respectfully,

WATERTOWN SPRING WAGON CO.,
WM. B. SYLVESTER, Sec.

BRADLEY'S CHANGEABLE-SPEED MOWER took first prize silver medal at the Thorn Hill, (N. Y.) trial June 25th. First blood for Bradley & Co!

Everywhere.

NOTES FROM SOUTH FLORIDA.

ANY information from this State is interesting to a large number of readers North, as many are coming here, and many more are thinking about it; but the exaggerated and to a degree, untruthful reports from here, have to a large extent, disgusted the would-be settler and injured the State itself.

Manatee is in about lat. 26°. The soil hereabouts is a light, sandy one, in fact, some portions of it are a pure sand, while other portions have a good, stiff, clayey soil, with a large percentage of rich, vegetable mold, and the settler can find about any kind of land he wants, if he is not in too big a hurry, and does not get the one fixed notion into his head of getting that black, rich-looking soil that might properly influence his choice North. In regard to wheat, I must say I've not seen a grain of wheat either growing or in seed since I have been here, and the only evidence I have had of the existence of such a cereal is, that I've had to pay $8.50 per barrel for flour since my arrival here. Corn, when there is a favorable season, is raised pretty generally throughout this and other counties, but this year and last, there was none, all who fed their horses using shipped corn costing from 90c. to $1.10 per bushel. None was raised last year, because the weather was too wet. This year it has been too dry. The average yield of corn is from five to eight bushels per acre on unfertilized land. These are not immigration figures; if they were, I should have to say from 20 to 30 bushels per acre, but I think the average farmer here will say my statement is the truth, although I believe I saw somewhere the statement that our esteemed Governor Drew made, I think, 100 bushels to the acre, but the statement did not say how many hundred bushels of cotton seed he used as a fertilizer. But all who are acquainted with him know full well he is a great advocate of heavy manuring. Irish potatoes are raised in small patches, the owner having a few for dinner each day during the space of a month or six weeks. The sweet potato seems to be in its native soil here, there being some variety of this class suitable to all lands, from the richest hummock to the poorest pine. They yield well, and form a large share of the vegetable portion of our diet. If the settler can't eat them, he is indeed badly off, for he will find they are almost his only change from the palmetto cabbage. To those who have read Chas. Reade's story of "Foul Play," it might seem strange that a dying sailor should wish for a palmetto cabbage when cast away on one of the islands of the Pacific, but after indulging in the dish myself, I confess to partially sympathizing with the old sailor's longing.

Now, I would not be understood that there are no vegetables grown here. Cabbages do well. If sown in a seed-bed about September and then transplanted as in the North, about January, February and March we can indulge in that vegetable delicacy, and, as most of the cooking can be done out-of-doors, we are free from that odoriferous emanation from the basement, which tells of "corn beef and cabbage for dinner" at the North. The capabilities of this part of the State for "truck" are not yet known, there being no real market gardeners here. Some efforts are very successful; others, again, are failures. I've seen good turnips, and some common long radishes—the latter as large as a child's leg, quite sound and not spongy in the least. Our vegetable crop, however—if a few small patches may be called a crop—is all made and eaten while folks up North are frozen in, and snow lies on the ground three or four feet thick.

Oats I have seen here, but only about seven acres, scattered about in patches of an acre or so, but although furnishing fodder, I believe they did not mature, but their owners claimed they would have done so, had the season been favorable. Sugar-cane apparently does well, and is a standard crop with those who have the land adapted for its profitable culture. Tobacco is a crop that is neglected here, and yet the country and soil are adapted to the growth of the finest grades, but I suppose its neglect as a crop, is due to the fact that so few understand the process of curing the plant properly. If some of our Connecticut tobacco growers were here, perhaps they might find it profitable, but not being quite "posted" I should not like to speak positively on the matter.

Everybody, I suppose, knows that here the orange is the only remunerative fruit crop—how remunerative depends upon the same conditions that influence other fruit crops, such as the picking, handling, boxing and shipping, etc. Nearly every one will say something different in regard to the profit of this industry. I believe this is just about the right location in the State for the purpose of orange growing, although every body else has the same opinion of his own particular location. Certain it is that nearly every settler has some trees, from the man with his grove of three thousand bearing trees to the man with his twenty two-year-old seedlings. Sometimes I am inclined to wonder whether it would not have been best to have left the State of Florida as it was, a cattle range, for it puzzles the northern farmer when he first arrives here, to know what to do, as everything is so different from what he has been used to, but when he sees the well-cultivated grove of orange trees, it is apt to settle his mind on one thing, and that is that all varieties of the citrus family do grow well. To the man of means the orange, the lime and the lemon, with the various kinds of citrons, set out in groves of 500 or more trees, are nice things to see and to own, but these will scarcely do for the poor man. Yet how much better these groves are in appearance to the interminable stretches of primitive saw palmetto land which wearies the eye day in and day out!

The Banana is a fruit that seems to do well here and is worthy of more attention and cultivation than it now receives; for it can be served on table in so many ways and would to such a large extent take the place of vegetables; yet but a small acreage is devoted to its cultivation. The Pine-apple has, in a few isolated cases, been experimented with, and that successfully too; but there has yet been no effort made in this section to cultivate it for profit. The Guava is abundant and takes the place of the Peach here, and to a large extent is very similar. It requires a cultivated taste, but the necessity for anything in the fruit or vegetable line, soon sets the newcomer nibbling at anything of that sort, and he readily learns to relish what he only tolerated, or abused, at first.

Florida is a wonderfully "spotted," land with capabilities almost entirely unknown, but, these if we judge by the talk of special enthusiasts, are absolutely unlimited. I say "special enthusiasts," because some come down here with the idea of investing in the business of raising fibrous crops such as Sisal hemp, ramie, jute, and in fact every fibrous plant meets here with the special approbation of some one, and the sight of a few plants assures each that this is just the place for his special business. Another newcomer thinks that the production of the various high-priced drugs is just what will make him rich, and a few poppy plants and specimens of the Turkey rhubarb are all he needs to cause him to talk enthusiastically of the State of Florida in that line. Well, so be it; enthusiasm has done more for the world's progress than most of the other peculiarties associated with the history of mankind. No doubt it will help to develop the resources of the State of Florida. But in the mean time we'll settle down to our "hog and hominy" and quietly wait for the good time that's coming. "KASPER."

Manatee, Manatee Co., So. Florida, June 24.

NOTES FROM MINNESOTA.

MINNESOTA has long had—and still has in the East—the reputation of having a very cold and severe climate. After reading the crop reports from the Eastern States, I should feel as though I had left a "duty undone" if I did not write to the RURAL and give its readers some particulars in regard to our State and climate.

Minnesota ranks the 19th in the order of admission to the Union, and the 28th according to population. Geographically, it is situated between latitude 43 deg. 30 min. and 49 deg. 24 min. north, and longitude 89 deg. 39 min. and 97 deg. 51 min. west. Its extreme length from north to south is 380 miles, and its breadth, from 185 miles in the middle to 262 miles on the south line and 337 miles near the north line—area, 83,531 square miles.

The State is divided into 76 counties. The population was 6,077 in 1850; 172,023 in 1860; 250,099 (State census) in 1865; 439,706 in 1870, including 438,257 whites, 759 colored and 690 Indians. The estimated population on June 1, 1873, was 550,959.

Lying nearly at the center of the continent, and occupying the most elevated plateau between the Gulf of Mexico and Hudson Bay, Minnesota forms the watershed of the three great river systems of North America: that of the Mississippi, that of the St. Lawrence and that of the Red River of the North. Generally the surface of Minnesota is an undulating plain, with an average elevation of nearly 1,000 feet above the sea, and presents a succession of small rolling prairies, or table-lands, studded with lakes and groves and alternating with belts of timber. Minnesota is distinguished for the number and beauty of its lakes. They have been estimated as high as 10,000 in number and are from one to thirty miles in diameter. Their waters are sweet and clear and abound in fish. The soil is fertile, two-thirds of the surface being well adapted to the cultivation of all the cereals and roots of the temperate zone. It is composed generally of a dark, calcareous loam, abounding in organic and saline ingredients, and is retentive of moisture.

The climate of Minnesota is pleasant. The winters are cold, but clear and dry, and the fall of snow is light. Last winter we had only three days' sleighing in this country. The summers are warm, with breezy nights, during which occur most of our rains; and the purity of the air and salubrity of the climate recommend it for the residence of invalids. In 1873 the number of acres of land under cultivation was 2,383,672. Thousands of acres have been broken and put under cultivation since that time, but I have not the figures at my command at this moment.

Riding through the country as I do daily, I have the best of opportunities for observing the crops. Wheat is heading out, and stands well on the ground. We have rain enough to wet the ground thoroughly, and if we have none from this time until after harvest, wheat will not suffer. Corn stands from eight to fourteen inches high in the fields, and farmers have cultivated it for the second time. Potatoes look well; are well up, and indicate an immense yield. Rye is getting ripe. Barley also. Strawberries have been in the market since June 10. Gooseberries were in market on June 23. I had new potatoes and green peas from my garden on the same day. My Blunt's corn has grown so that by stretching up the leaves, it is six feet high. G. D. S.

Le Sauer, Le Sauer Co., Minn.

RURAL SPECIAL REPORTS.

VERMONT, Bellows Falls, Windham Co.—Of wheat there is but little sown here, but that little looks well. Corn is looking fine, but it is backward; the acreage is large. Early-planted potatoes look good, but there are ten bugs to every prospective potato. As to fruit, for the "off year" the prospect is fine. Hay is being cut; a middling crop, but, with the foregoing prospects, farmers are grumbling. M. W. D.

CONN., Danbury, Fairfield Co., July 7.—The weather has been quite cold, with plenty of rains. Grass, oats and potatoes promise abundant crops. Potato beetles are very plentiful. What little wheat is sowed in this section is looking nice. Corn is unusually small, but standing even. Apples will be scarce. Small fruits promise to be more abundant. G. H. K.

N. Y., Carlisle, Schoharie Co., July 4.—We have had a fine and much-needed rain. Crops are growing fast just now. Grass and the small grains will be fair crops. Corn, however, will be backward, owing to the cool spring. We have had a few very hot days, but after every little rain the weather becomes cool. Potatoes look fine, and plenty is planted. H. J. S.

PA., Ponghtown, Chester Co., July 1.—Haymaking is going on rapidly about here, and wheat-cutting has begun, and if the weather continues favorable the crop will be gathered in ten days. It stands thick, and is a good crop. There is a large yield of hay. Corn looks good, and is three feet high. D. H.

OHIO, Toutogany, Wood Co., July 7th.—We have a very early harvest and wheat never looked more promising; some wheat was cut in June; and we are about one-third done. Oats are very rank. Corn is from two to six feet in hight. Potatoes are doing well, and there are but few bugs. Hay is an average crop. There are not many apples, but other fruits are in abundance. Live stock was never in better condition. Wheat is worth $1; oats, 25; potatoes, $1 25; live hogs, $2 75 per 100 pounds and scarce. Improved land is worth from $40 to $125 per acre, according to quality and location. Wages are from $15 to $18 per month. Harvest hands get $1 50 to $2 25 per day. Temperature, 50° to 104°. S. P. G.

MICHIGAN, Litchfield, Hillsdale Co., July 9.—Our wheat is a fair crop and is ripening up fast; some have already begun to cut. We had a cold, dry spring, like many other places; but since the middle of June we have had fine growing weather. Our corn was a little behind, but is now making up for lost time, and bids fair to be a good average. The hay crop is short. Potatoes are promising a big crop; we have been eating new ones for the last three weeks. I think whoever expects to get rich by selling potatoes this fall, will be disappointed; he may get fat, but not wealthy. I have twelve different kinds of corn planted—all are doing well. On the 21st of April I planted 24 hills of the Blunt corn which I received from the RURAL office. I put three grains in a hill, and they now stand from seven to nine feet high, with no sign of a tassel. Where the upper end will be I cannot tell now. Some stalks measure six and seven and a half inches around, six inches above ground. This may seem a big corn story to some, but 'tis true, as I have measured the corn myself. My Pearl Millet I planted or rather drilled a little too early. It did not come up well, but what came up is now showing what it can do. I never saw such a big thing come from so small a seed—it is now two feet high. G. K.

WIS., River Falls, Pierce Co., July 1.—Wheat in this section of country is a little below the the average. Corn is light, but it is looking better than it did a few weeks ago. Potatoes are a fair crop. Cherries are ripe. Of apples we've only a few; but there's a prospect of an average crop of grapes. Other small fruits are very abundant. S. W. H.

MINN., Frontenac, Goodhue Co., July 2.—Wheat looks well all through this section of the country, and if nothing happens to it, there will be a heavy crop; but we are having so much rain and hot weather, that I am afraid there will be considerable rust. Corn is rather backward, owing to wet and cold weather in May; but it is making good headway now, and if this and the next two months prove favorable, we shall have a good crop yet. Potatoes have not been better for the last ten years. Beetles have done no damage so far, and if they stay away through harvest, we shall be sure of a big crop. The fruit crop will not be worth mentioning—late frosts cut that short. F. J. S.

IOWA, Marengo, Iowa Co., July 2.—Wheat hereabouts is light, owing to dry weather in the spring. The prospects for corn are better than for several years. Potatoes will be an A No. 1 crop. The beetles have put in appearance, but in such small numbers that no danger is apprehended from them. Apples are almost a failure; but there is an abundance of small fruits. Prices of produce are rising, and the business outlook is encouraging. S. B. B.

MO., Gallatin, Daviess Co., July 1.—Northwest Missouri is now receiving rain enough to make up for the long dry spell. From May 20th to June 10th it was seasonable. On the night of the 10th of June we had here the heaviest rain we have had for ten years, with a big hail-storm that cut up growing crops badly, and it has been raining every two or three days since then. The wheat is standing dead ripe in the field or rotting in the shock. There is no chance to save it; but the corn (our main crop) was all clean when the wet weather set in, and it is now growing at a wonderful rate. We *never* had such a prospect for corn, at this time of year, in Daviess county. "Beauty of Hebron" and Early Rose potatoes, planted at same time, are about the same size, but the Beauty turns out about 50 per cent. more, and is 100 per cent. better than Early Rose, being fine and mealy while the Rose is waxy and hard. We shall have but very few apples, no peaches, about one-sixth of a crop of late cherries, no early ones, plenty of Concord grapes, very few gooseberries, half a crop of black raspberries, no blackberries, and half a crop of pears. All kinds of garden stuff, not cut by the hail, are A No. 1. From my garden we have to eat peas, beans, beets, cucumbers, cabbage, green corn, etc. Tomatoes are beginning to ripen. S. T. B.

NEB., Grand Island, Hall Co., July 5.—The weather continues very wet. Wheat is a fair crop; barley is middling; oats, excellent; corn, magnificent. My premium corn is about four feet high; the ears are setting; it was planted May 14. I mulched it to-day; it is suckering very freely; its color is a dark green, and it promises well. E. T.

KAN., Wichita, Sedgwick Co., July 3.—Since my last report, two weeks since, the weather has been quite favorable, and corn is looking *up* fast, tasseling out and from six to eight feet high and still growing, and a few showers at the right time this month will make the largest corn crop ever raised in this State. Wheat is pretty much all in stack, and in good condition; but the chinch bug has helped to reduce the yield and value quite largely—in a few instances causing the loss of the entire crop, and doing great damage to corn and oats. I see no reason for changing my former estimate of one-quarter to one-half of an average crop for Sedgwick, Sumner, Harper, Kingman and Harvey counties. Oats will be a light crop. Early potatoes are at a standstill and setting new ones, when not half grown, and are now selling at $1.50@$2.00 per bushel in town. Everything is backward but corn. No fruit of any kind, except berries. Wheat, old, 75c.; oats, 30c.; corn, 25@30c.; hogs, $2.90@3.25. J. C. D.

KAN., Topeka, Shawnee Co., July 3.—Regarding crop prospects, everything is in flourishing condition at present. A great abundance of rain has fallen in the past few weeks, and all crops look *well*. The wheat crop will fall short of that of last year. It is yet too early to make any *reliable* estimate of yields. Corn prospects were *never better*. A. G.

CAL., Bird's Landing, Solano Co.—The crops of this section are chiefly grain, and they are very good this year. Very little fruit, corn or potatoes is raised here. The grain in some sections of the State is a failure; in many places there is only half a crop, while in some other sections there is none. In some parts of this county the grain is injured by rust; but take the State through, the prospects are good. T. T. H.

CAL., Woodland, Yolo Co., July 1.—The wheat in some parts of the county, is injured by rust; but the average is very good. Very little corn is raised in the county. The potato crop is very good. Fruits of different kinds are plentiful and cheap. J. F.

OREGON, Shodd Station, Linn Co., June 23.—There was not as much wheat as usual sown

this spring, as the weather was very wet. Some was sown in June, but we can't expect much from that. Winter and early-sown spring wheat looks fine. With good weather, Oregon will have an average crop of wheat. The fruit crop was damaged somewhat by frost, and will not be a full average, but it would be thought a good crop in most places. It is too early to tell much about potatoes—gardens are very late. F. S.

OREGON, Salem, Marion Co., June 22.—The season here has been unusually wet. Farmers in the low lands are sowing as late as June 10. All kinds of growing crops look well. Improved lands in this vicinity are worth from $15 to $30 per acre. Prices of produce are: wheat, 82½c. per bushel; oats, 40 to 50c.; old potatoes, 75c.; new, $1.25. per bush.; butter, 20c. per pound; eggs, 20c. per doz.

B. S. W.

OREGON, Salem, Marion Co., June 21.—The crop prospects throughout the State are exceedingly good. Fall wheat is perhaps too far advanced, but spring wheat is looking fine. Fruits generally are good, I think. E. M. W.

KY., Owensboro, Daviess Co., July 6.—The Rural is sound on horse-racing at agricultural fairs; so is it also on the credit system and on all other subjects so far as I am able to judge. I don't like to hear or read anything about credit; for "I know how 'tis myself" and it makes me feel just as I imagine I should feel if my scalp were lifted. Wheat is over a good average in quality but the price is low—from 75c. to 80c. Mediterranian, Amber and Tappahannock are principally grown here, though some other kinds are being tried. The season is dry in this part of the county and wet in other parts. J. W. S.

ALA., Huntsville, Madison Co., June 30.—Our crops are suffering for rain. We shall not make more than half a crop of tomatoes.

P. H. M.

MISS., Port Gibson, Claiborne Co., July 2.—The occurrence of a cold snap about the time the fruit trees were going out of bloom, resulted in a failure of pears and peaches; there are only from one to two dozen defective ones to a tree. The same is the case with apples, except the common natives, which yielded fairly. Wheat is not planted this far down. Oats are not a general crop. Irish potatoes are a good crop; corn and cotton are average crops. Most of the fig trees killed to the ground by last winter's cold are coming out again; on trees not killed there is a good crop of second growth. The yield of strawberries was large. Many Roses—Lady Banks, and ordinary Roses—as well as Cape Jessamines, were all killed, but most of them are sprouting again. W. H.

TEXAS, Bandara, Bandara Co., July 1.—This is one of the most healthy counties in Texas. I've been here now eight months and have not yet heard of a death; or, indeed, of any sickness. Crops generally are as fair as in any county in Western Texas; but the past winter and spring have been the driest here in ten years. This town, the county seat, is situated on the Medina river, 45 miles from San Antonio. Strictly speaking, this is a stock country, as the whole county is mountainous, but the river and creek valleys are very rich farming lands, and a considerable quantity of wheat, corn and cotton is raised. From my own observation, this will be a bad year for crops, on account of the backwardness of the spring—we had no rain to sprout seed until May. I don't think wheat will average more than six bushels to the acre; oats, eight to ten bushels; corn, unless we have immediate rains, will be a failure. What cotton I have seen is about ten inches out of the ground and looks fine. All kinds of garden vegetables have been failures, except where they have been irrigated. A. S.

TEXAS, Dayton, Liberty Co., July 5.—We have had fine seasonable rains lately, and corn, sweet potatoes, and cotton are very promising. There are no signs of an exodus here. Our colored brethren have long since got over the forty-acres-and-mule doctrine, and are now satisfied that that happy state of existence can only be arrived at by hard labor, and are working accordingly. The mast is also encouraging so that, if the cotton-worm comes to destroy our patches, we shall at least have plenty of bread and meat. G. G.

The Querist.

ANSWERS TO CORRESPONDENTS

Applying Gas Lime to Wheat Lands.

T. T., Cambridge, Mo., has about 5,000 bushels of gas lime which he wishes to use on wheat land this fall. Some of the land is in corn now, and some in oats, and on a field of 15 acres there's a good crop of wild grass; some of this, too, he wants to sow to wheat, and he inquires how he can apply the gas lime to the land so as to obtain the greatest benefit from it.

ANS.—Gas lime contains sulphuretted hydrogen and other sulphur compounds which are poisonous to vegetation. But these compounds are rapidly changed by oxidation into harmless, if not useful, substances, leaving the lime in a condition of carbonate, or what is known as mild lime, with some sulphate. In this condition it is useful and beneficial. Two or three months' exposure is needed to produce this effect; so that if the gas lime is fresh, it would be unsafe to use it at present. The lime may be drawn on to the wild-grass land and left in heaps of three or four bushels, from which it may be spread as the land is plowed. About 100 bushels per acre of this lime may be used with about the same effect as 40 or 50 bushels of common caustic lime. If 2½ bushels are dropped exactly two rods, or 33 feet apart, each way, it will be equal to 100 bushels per acre, and a man can easily spread the heaps by throwing the lime 16½ feet from them, with a long-handled shovel. This is, perhaps, the best, easiest and most accurate way of applying the lime.

Jersey Reds, etc., etc.

A. L., Atlanta, Ohio, asks our opinion about Jersey Red hogs; 2, a cure and preventive of chicken cholera; 3, what variety of Strawberries would be best for family use. 4. He has about one-eighth of an acre of loamy soil, triangular in shape, so situated at the junction of two streams that the water can be kept high enough to keep the ground moist, and he inquires whether it would be suitable for a cranberry bed.

ANS.—We have had no personal experience with this breed, but their general reputation is good. Their origin is unknown, but they have been bred in portions of New Jersey for upwards of 50 years. They are of large size and capable of making a heavy growth, 500 and 600 pounds being common among them. A good specimen should be red in color, with a snout of moderate length, large lop-ears, small head in proportion to its size and length of body. They should be long in the body, standing high and rangy on their legs; bone, coarse; tail and brush, heavy. They are valuable on account of their size, strong constitution and capacity for growth. They are not subject to mange. They are probably descended from old importations of Berkshires, but they are now much coarser than the improved swine of that breed. 2. Whenever the fowls begin to droop and look sleepy an effectual remedy has been found to consist of three or four tablespoonfuls of strong alum water, repeated next day. Their food should also be mixed with the water twice a day for two or three days. Another cure recommended is one gallon of water to which has been added one ounce of bi-sulphate of soda; set it where the fowls can drink it freely. As a preventive, frequently clean the roosting places of the fowls and sprinkle them with lime or wood ashes. 3. We can only suggest. Different varieties like different soils and treatment. Borden 30; Prouty's Seedling; Charles Downing; Sharpless; Golden Defiance. 4. Yes—all attempts that we have heard of to grow Cranberries on uplands that cannot be flooded or watered, have proven, sooner or later, failures.

Queries of a Prospective Bee-Keeper.

Z. C., no address, intends to start in bee-keeping, and asks for some information on the subject. He inquires, 1, if there is a better hive than the Langstroth; 2, what the best and cheapest winter foods are; 3, how much honey an average swarm can make in a season; 4, whether honey is exported from this country, and if the market is likely to be good; 5, and, finally, he wishes to know the name of a good bee journal.

ANS.—1. It is a disputed question. The standard Langstroth hive is used by some excellent bee-keepers, while others prefer some modification of it, especially the form adapted to the Gallup frames, for a short description of which, see RURAL of July 5th. 2. The best and cheapest winter food is the best quality of capped comb honey. 3. It varies greatly with the year, locality, etc. A good swarm can produce 50 to 60 pounds. 4. Yes. 5. There are several periodicals on bee-culture. The American Bee Journal and Bee-keepers' Magazine are both good. They can be obtained through this office.

We would add by all means begin the business, but go slowly at the start. Half-a-dozen, or even two or three good Italian stocks are as many as the inexperienced should venture to begin with. Now is as good a time as any to buy bees. Obtain them from some bee-keeper near at hand, if possible, and be sure that each hive contains a young, pure and prolific queen. Five to eight dollars for each swarm is an average price at this season; the price depending, however, greatly upon the locality. A correspondent from Oregon recently informed us that there the price was $40 a colony. Get all the information on the subject that can be obtained. Read some good manual, like Professor Cook's Manual of the Apiary, or some other book treating of apiculture. Study the current bee literature to see how others are managing. Select some good hive and let that be the only style used in the apiary: but, above all, do not begin bee-keeping with the idea that it is a never-failing gold mine, which incessantly pours its riches into the apiarian's pocket without thought or trouble on his part.

The Cuthbert Raspberry.

W. H. H. T., Nashville, Tenn., says that he has seen the Cuthbert Raspberry spoken of as being hardy and a fine bearer, while the fruit is said to be high-colored, firm, and good for shipping and marketing: and he asks, if this report is true, where it can be purchased, as he wants it for market purposes. The Brandywine is his best berry, but it is almost too soft for shipping to a distance.

ANS.—What he has learned of the Cuthbert is true, as far as we can at present judge. Last winter it stood with us better than the Brandywine. We have scarcely any doubt that it will prove one of our most valuable market sorts. Plants can be procured of the following: J. T. Lovett, Little Silver, N. J.; the Messrs. Williams, Montclair, N. J.; E. P. Roe, Cornwall-on-Hudson; Ellwanger & Barry, Rochester, N. Y.; Dr. F. M. Hexamer, Newcastle, N. Y.; or of any of the dealers in small fruit, who advertise in the RURAL.

Miscellaneous.

A Subscriber, Luling, Texas, asks where, and at what price, can be obtained a good work on mythology; a good history of France, and one of England.

ANS.—Murray's Manual of Mythology, $2.25; Whik's History of France, 1 vol., $3; Green's short History of the English People, 1 vol., $1.75. There are many larger and, of course, more expensive works than these, treating more fully of the same subjects, but a fair knowledge of the topics can be obtained from these books, which are among the best of their kind. They can all be had from Messrs. Scribner & Co., of this city.

J. M. M., St. George, Utah, asks whether the suckers of Blunt's Prolific corn should be pulled or left on. 2. What will cure mildew on Grape-vines.

ANS—As far as the RURAL premiums are concerned, each competitor can do as he pleases with the suckers. The latest experiments go to show that there is nothing gained by removing them, though Mr. Blunt did so. 2. The remedy for mildew is sulphur. Dust it on in the morning while the dew is on the vines, or else sprinkle them first with water; otherwise the sulphur does not adhere very well.

W. S. T., Cornwall, Ontario, Canada, asks, 1, is it advisable to put wood ashes around corn at the second hoeing—his land is gravelly; 2, he has plenty of stable manure and some hen manure composted with leached ashes, and he asks whether it would be well to put some between the rows of Webb's New Kinver Mangolds, sown in ridges; 3, is it hurtful to prune apple trees early in July.

ANS.—1, Yes. 2, Yes, but it would have been better if applied before the mangolds were sown. 3, No.

M. S., Burdett, N. Y., asks for a remedy for gapes in chickens. He has tried everything that has been recommended for years past, but without success.

ANS.—Since you have tried every remedy and failed, it seems a hopeless task to write prescriptions. In a brevity in RURAL of June 7th we related the experience of a gentleman in Brooklyn, who cured his chickens of the gapes by dropping some dry caustic lime down their throats. Have you tried that? Within the last six months we have given as many recipes for this malady.

J. A., Port Colborne, Ont., Can., asks whether the riding saw advertised in the RURAL, as made by the Farmers' Manufacturing Co., is better or worse than that made by W. W. Giles, which was advertised in this paper some time since. Folks there got some of Giles's machinery last spring, and liked it greatly; but no reply has lately been received to letters written to him.

ANS.—It is the same machine, Giles having formed a stock company which is known by the above name.

A. R. C., Buffalo, N. Y., asks where he can buy the best superphosphate, and what is the the difference between phosphate and superphosphate.

ANS.—L. L. Crocker, of your city, will furnish an article that is what it purports to be. Bone dissolved in sulphuric acid, as often explained in this journal, is superphosphate. Bone alone furnishes a large percentage of phosphoric acid, and is therefore called "for short," *phosphate*.

H. N. M. (no address, once more), sends us specimens of a plant that is overrunning a cemetery in his vicinity, and asks its name; 2, how to exterminate it; 3, whether it spreads from seeds or roots.

ANS.—1. It is Cypress Spurge (Euphorbia Cyparissias). It is a native of Europe, but rapidly spreading here. 2. If mown frequently during the summer, it would soon disappear. Otherwise the sod would have to be plowed under. Now that it is forming seed would be the proper time. 3. Both.

W. H. D., Pavilion, N. Y., sends a flower and asks for its name; 2, what care should Pinus edulis receive through the winter; 3, what is the depth of Delaware Bay at its mouth.

ANS.—Weigela rosea, one of the plants of which we sent out seeds last winter. 2. Pinus edulis is perfectly hardy and requires no special care. 3. The main channel has from 35 to 75 feet of water.

C. D., St. Jean Deschaillon, sends a specimen of grass for name.

ANS.—Phalaris arundinacea (Canary grass). The Ribbon or striped grass of the garden is a variety of this, and when planted in low or wet soils, will soon return to the species, losing its variegation entirely. It should be cut early; it is not very nutritive. Cattle care little for it.

Mrs. H. A. P., Zanesville, O., asks what caustic lime is—she has asked her druggist, but he does not know.

ANS.—Lime before it is slaked is called caustic lime. Caustic means burning, and when applied to lime refers to its power of corroding animal tissues.

C. S., South Bend, Ind., asks the addresses of some first-class manufacturers of greenhouse and conservatory materials.

ANS.—Lord's Horticultural Works, Irvington-on-Hudson, N. Y.; Hitchings & Co., No. 233 Mercer street, N. Y. We do not know of any in the West, or we would gladly furnish their names.

W. H., Norwich—one of the seven in the U. S.—wants to know where he can buy some buckwheat.

ANS.—Of Peter Henderson & Co., 35 Courtland St. this city. Thorburn & Co., 15 John St. B. K. Bliss & Sons, 34 Barclay St. H. A. Dreer, Phil., Pa. J. J. H. Gregory, Marblehead, Mass.

C. T., Millerville, Ohio, asks how he can prevent birds from eating up his lettuce seed.

ANS.—Cover the seed plants with netting. We know of no other preventive.

COMMUNICATIONS RECEIVED FOR THE WEEK ENDING SATURDAY, JULY 12th.

H. S. C.—A subscriber—D. L. H.—E. S.—W. R. B.—W. J. B.—G. K.—L. H. W.—C. N.—T. H. R.—L. M.—N. O. C.—H. R.—C. L. M.—T. H. U.—L. H. M.—W. F. C.—A. W.—W. F. J.—B. G. S.—J. D. T.—H. C. H.—F. G. D.—D. W. B.—W. J. B.—B. P.—C. W.—H. M. S.—A. W.—W. F. J.—B. G. S.—J. D. T.—E. W. S.—W. J. B.—W. N.—R. H., thanks—M. A. R.—T. W.

Various.

CONNECTICUT AGRICULTURAL EXPERIMENT STATION.

BULLETIN 31.—JULY 4, 1879.

Fertilizer Analyses.

283. Pine Island Guano. Made by Quinnipiac Fertilizer Co., New Haven. Sampled from stock of G. Osborn & Tolles, Naugatuck, by M. S. Baldwin, Naugatuck. Sent May 28th.

291. English Super-phosphate.

292. Standard Peruvian Guano.

295. Lombard & Mathewson's Phosphate.

Composition per cent.

	283	291	292	295
Nitrogen as Am'nia			5.76	
Organic nitrogen	3.77		2.14	3.08
Sol. Phos. Acid	1.76	15.19	5.49	9.11
Rev. Phos. Acid	2.76	.38	3.85	10.23
Insol. Phos. Acid	2.25	1.20	6.33	5.24
Potash	6.63		2.97	
Chlorine	4.94			
Moisture	26.27			
Est. val. per ton	$33.57	$39.50	$66.67	$43.33
Cost per ton	45.00*	33.00	53.50	40.00

287. Muriate of Potash.

289. Ground Cotton Seed Damaged. Sampled from stock of H. J. Baker & Bro., 215 Pearl street, N. Y., by L. S. Wells & Son, New Britain. Received June 9.

297. Cotton and Linseed Pomace. Sampled from stock of H. J. Baker & Bro., 215 Pearl street, N. Y., by M. S. Baldwin, Naugatuck. Received June 24.

	287	289	297
Nitrogen		6.92	6.87
Phos. Acid		3.09	3.00
Potash	59.68†	2.06	2.10
Est. value per ton		$35.09	$34.77
Cost per ton	$37.50	18.50‡	18.50

290. A. Ground Bone.

293. Lombard & Mathewson's Bone.

294. Lombard & Mathewson's Bone. No. 2.

296. Pure Bone Meal. Manufactured by Lewis M. Wakely, Long Hill. Sampled from stock of manufacturer by J. R. Brinsmade, Long Hill. Received June 21.

	290	293	294	296
Nitrogen	4.30	3.77	4.05	4.10
Phos. Acid	23.74	25.13	20.68	21.43
Estimated value	$44.67	$45.01	$36.56	$41.84
Cost	33.00	36.00	31.00	32.00

287, 290, 291 and 292, were received June 9th, from P. M. Augur, Middlefield. 287, 291 and 292, were sampled from stock of Wilson & Burr, dealers, Middletown. 290 was sampled from the stock of Rogers & Hubbard Co., manufacturers, Middletown.

293, 294 and 295, were sampled and sent by the dealers, Buck and Durkee, Willimantic. Received June 20th.

S. W. JOHNSON, Director.

*Calculated from the price per 100 lbs., ($2.25) in Naugatuck. The manufacturer's price is $33.00 per single ton delivered on board cars in New Haven.

†Potash costs 3 1-7 cents per lb.

‡Cost in New York. The freight to New Britain was $4.00 per ton.

THE
RURAL NEW-YORKER.
PUBLISHED EVERY SATURDAY.

Address
THE RURAL NEW-YORKER,
78 Duane Street, New York City.

SATURDAY, JULY 19, 1879.

ANNOUNCEMENT.

THE latter part of August we shall publish our Fair Edition. We promise, in advance, —life spared, — that it shall be the most costly if not the most interesting and instructive number of the RURAL NEW-YORKER ever published. We shall issue at least 50,000 EXTRA copies and ALL of our readers—our agents and the Secretaries of Fairs—are invited, indeed solicited, to send for as many copies as they are willing to give to their friends or to distribute. These will be cheerfully forwarded to any address free of any charge whatever.

OUR semi-annual subscribers are respectfully reminded that the price of the RURAL for six months is $1.10, not $1.00.

CROPS AND PRICES.

THE latest crop reports from across the Atlantic are much more gloomy than even those of last week. A fortnight ago the Mark Lane Express said: "Should rain continue, the hay crop will be useless, except as manure. The condition of wheat is unimproved. Barley in heavy land is nearly ruined. Nothing but the speedy advent of sunshine can prevent an almost general failure of the principal crops." On Wednesday last Mr. Mechi despondently reports: "Another week of flooding storms and low temperature has put the finishing touch to the agricultural disaster. It is now too late for crops to recover. On ill-farmed and undrained lands the matter is simply ruinous. Wheat will suffer less than spring crops." Thus it appears that the newspaper's disastrous anticipations have been realized, and that the outlook for the harvest in England is anything but encouraging.

The unfavorable weather that has proved so disastrous to English crops, has been nearly as fatal to those across the Channel. Already the Bank of France has raised its rates of discount in order to keep gold at home, in view of the prospective heavy drain of specie to this country in payment of the large quantities of grain needed to supplement her shortened harvest. It is expected that from eighty to one hundred thousand bushels of foreign wheat alone will be required to keep France from starving during the coming year. Reports from Spain, just received, indicate that that peninsula also must buy in our markets; and it is not improbable that, owing to the poor harvest, the ministry will be forced to admit grain, at least temporarily, free of duty. A tax upon the bread of a starving people is an anomaly in civilized countries in these days. Northern Italy has been swept by flood and storm, and its crops are, therefore, scanty, but those of the southern part of the country are said to be a good average.

The large deficit in the food supply of the Old World during the present year must be mainly supplied from the New. Large quantities of grain from past harvests are still held in Odessa and other Black Sea ports, and, according to Saturday's telegrams, there seems to be, as yet, no rush of buyers; but the prospects for the present harvest throughout the greater part of the Russian wheat belt, are so extremely disastrous that it is not improbable that a large portion of the reserved stock will be needed for home consumption. The ravages of storms and locusts there seem to have been far more ruinous than last week's reports indicated, and already the Czar's attention has been urgently called to the matter as a national calamity.

The crop reports from all over the country, which our friends have enabled us during the year to place before our readers, will give a fair idea of the ability of the New World to feed the Old. A few of our cereal products, such as barley, are, nearly everywhere, a trifle below a good average, others are injured more or less severely here and there; but, on whole, the harvest is pretty certain to be a good one—not an exceptionally abundant one by any means, but yet, in view of the fair prices almost certain, good enough to lift the agricultural community out of most of its troubles, and to place the nation at large on a firm road to prosperity. There is, however, an old saying which tells of the imprudence of "shouting before getting out of the woods," and it must be borne in mind that a great deal of the crops is still subject to mishaps from insect pests and the weather. Already the ravages of grasshoppers are reported to be exceedingly disastrous in the western counties of Minnesota and Nebraska, while recent storms have played havoc with the crops in several parts of Minnesota, Iowa and Wisconsin.

These mishaps at home and the advices from abroad have already produced a sharp advance in the prices of all cereals, as may be seen by our market reports, and it is among the probabilities that prices will go higher still. Of course, all the speculations on this head are subject to so many unforeseen contingencies that it would be imprudent to speak definitely on such matters where the conduct of others might be influenced by the utterance. Whoever might be able to prophesy unerringly with regard to the future prices of grain this year, could easily make his way to a place among the millionaires of the country. The safest course, therefore, is, from time to time, to place candidly before others all the circumstances likely to influence prices, and let each form his own opinion as to the reliability of any views expressed on the matter.

INNOCENT SUFFERERS.

IT IS our duty to protect the lives, liberty and property of our neighbors, as far as these are affected by us or by aught under our control. This no reasonable, honest person will deny. It is also true that we have no right to injure others by our unpardonable negligence, or by any unscrupulous schemes of selfishness. Rights never conflict; for one man's rights end where another's begin, and rights and duties are correlative. Still, many a man who might be insulted if told that he did not believe all this, is guilty of inflicting sundry serious losses and sufferings upon his nearest and kindest friends, by permitting what he could and ought to prevent, and by doing what any truly good and honest man would blush and shudder to do. If one remonstrates with such a person, the answer is: "Let me alone. I don't trouble you or your matters. I attend to my business; you go and attend to yours."

The importance of this evil in men's relations with one another is better appreciated when it is considered how utterly helpless the injured party often is. The law does not take cognizance of very many serious troubles of this kind. The public do not give them attention. Those who do not regard themselves as wronged, care little, or not at all, for those who suffer. If the law provides for such cases, it is too apt to be slow, uncertain, and disagreeable in its operation. Let us consider some of the evils which these unkind and heartless neighbors inflict:

One family is ever thoughtful as to the laws of health and disease. They observe cleanliness in everything. The cellar is kept dry and free from causes of malaria. No decaying matter is permitted to remain near the house. The vaults are always in good condition. The water is guarded against any foul drains. The sweet air finds no poison there. But near this house live people indifferent to all such important precautions. They crowd lumber and filth in the cellar and unoccupied rooms. They allow hot-beds of malaria to fester around the buildings. The servants, knowing nothing of the dangers involved, cast slops and offal here and there and everywhere. The children are unwashed candidates for infection. The chicken-roost, pig-stye and cow-stalls are near the window or the door. Dangerous forms of disease are thus engendered. The air is laden with the insidious poison. The school-house is tainted by the poor little unfortunates that live in the neglected house. An epidemic starts. Everybody is in peril. Typhoid fever prevails. The doctors are astonished. The careful parents, for no fault of their own, nurse their sweet children, and perhaps follow them to the grave. Who is to blame? Life is taken; aye, murder committed. It was done by the criminally negligent people who would not keep the simplest laws of health and life for themselves, their families, or their neighbors.

Various other illustrations might be given. One man has a flock of sheep; another man keeps a dog that kills them. Two men join fences. One has a fence that is proof against all things that would break in and injure the crops; but his neighbor neglects his part, permits the inclosure to decay until it is too low to afford protection; and hence the crops of both may be ruined. One man keeps his ground free of weeds; a careless neighbor suffers those on his land to mature, and the seeds to be borne over the adjoining fields by the winds or the birds. A mill-pond of little value sometimes destroys the health of the whole town.

What is the remedy for these evils? Let common sense be instilled into people till they can see their wicked negligence and wrong-doing. Let the better and kinder parts of society cry out against such unwarrantable violence to the rights of others. Let it be proclaimed that these unfaithful neighbors are guilty, in the sight of sensible persons, of that which involves not only cruelty, but turpitude, and sometimes robbery or murder.

We know one community—a town of over two thousand inhabitants—in which malarial disease rankled with terrible severity for a number of years. The cause was, it was thought, a pond that was near. After long efforts by a few, finally the town succeeded in inducing the owner of the mill to remove the dam. A luxuriant harvest of grass soon covered the rich, alluvial bottom. The demand for quinine, of course, greatly declined; and the health of the inhabitants was signally improved.

The evil complained of is seen in connection with the character and habits of the young. Some parents train their children to purity of thought, language and conduct. Other parents either teach or permit their offsprings to early learn vulgar or profane language, and divers base and polluting practices. In association in the schools or elsewhere, the corrupted ones communicate the virus of their own depravity to those who have been carefully guarded. Let faithful people persevere in the right way; do the most they can to prevent the evils that threaten them and theirs; and unite in the effort to enlighten and reform the guilty persons who are, by negligence or otherwise, doing so much harm.

THE IRIS—OUR NEXT SEED DISTRIBUTION.

AMONG hardy plants, we know of no other bearing flowers at once so large, so brilliant and so delicate as many of the species and varieties of the Iris; nor is there another that this can so truthfully be said of, that is so little known, so seldom seen in our gardens. We have no doubt that certain kinds of this genus will, when better known, command as much admiration as the most beautiful varieties of the exquisite Gladiolus. It is, indeed, a suitable and charming companion to this flower, and nothing can be more beautiful than beds filled with the Iris and Gladiolus alone. Especially is this the case from the fact that the Iris furnishes just those colors never seen in the Gladiolus.

We shall have more to say of the Iris in a few weeks, and write of it now only to say that we have secured enough of the seeds of Siebold's Japanese Iris to enable us to place it as one of the kinds which we shall offer in our next free seed distribution. It is conceded that as regards purity, richness and depth of color, this species is not equaled by any other of the entire genus. We are, ourselves, delighted with this happy selection, and we are confident our subscribers will also be pleased—the more as they learn of its surpassing beauty. It will grow quite readily from seeds, and the seedlings may be relied upon to produce an endless variety of colors and marks.

This species grows about two feet high. The flowers are often six inches across, sometimes deep-red or plum color with bright yellow bands upon the lower petals; sometimes white, sometimes speckled and lined; sometimes rose suffused with violet; sometimes purple with blue throats blotched and veined with yellow.

We have also determined upon five other kinds of hardy plants (or rather the seeds of them) to offer our friends; but are not yet prepared to speak of them more in detail. We hope to be able to present the entire list in the Fair number of the RURAL NEW-YORKER, which will be published the latter part of next month—but we cannot as yet promise so to do.

SOW TURNIPS IN THE CORN FIELD.—A little outlay for seed and a little time spent in sowing turnips in the corn fields, will furnish a large amount of feed in the fall, after the frosts have killed the grass. A half pound is enough for an acre. The turnips may be fed in the field after the corn is gathered. They will keep up the flow of milk in the cows and fatten the sheep. Pigs will do well on them. There is no cheaper way by which a farmer can add to the stock of late fall feed. The turnips which are not eaten, will make excellent manure in the spring, and are worth all of the cost and trouble several times over for this purpose alone. We are surprised that this crop is not more generally grown. The seeds should be sown right after the last hoeing, when the ground is mellow. The first shower will cover them.

BREVITIES.

LORD DERBY suggests emigration as the relief for the worst-placed tenantry of England.

WE have thus far heard of few fields of wheat that have been troubled with the Hessian fly.

DR. E. L. STURTEVANT, of the Scientific Farmer, praises in high terms the new strawberry "Hervey Davis."

OF all the plants now (July 12) in bloom in our grounds, the bees seem most fond of Rhus glabra laciniata, the sport of our common Sumach.

THE London Garden gives a colored plate of Lilium Parkmanni, which is as pretty as the Lily itself. This, as we have already stated, is a cross between L. auratum (male parent) and L. speciosum rubrum.

THE editor of the American Rural Home "doubts if cheap potatoes will rule this year," which is the reverse of the prediction of the RURAL NEW-YORKER founded upon reports from all parts of our country.

GOOD men will work harder for a kind, considerate employer than for one who is ever petulant and dissatisfied. This is human nature. It is generally easy to determine the character of the employer by the character of the men he employs.

MR. BEECHER says that people who want to raise fruit on the principle of not having any trouble, cannot do better than migrate to the next world. We should like to know if there is any reason to suppose that such people will fare any better there than here.

IT is time to sow turnips for winter supply, though crops may be raised in this latitude if sown as late as the latter part of August. One pound of seed is generally sown to the acre; half a pound if drilled in. In the latter way, make the drills a foot apart and thin out to six inches.

WE wish to sow a great many different varieties of wheat this fall and we would thank any of our friends if they would inclose in a a letter giving name, yield etc., any variety or varieties they may deem worthy of trial. We shall have any heads of special size or seeming merit engraved.

OUR readers will remember our illustration of the double Wistaria in RURAL of April 26. This, says the London Garden, is now in flower for the first time in Mr. Anthony Waterer's nursery, and is in all respects a decided acquisition as its blossoms are perfectly double and last a much longer period in beauty than the original with which it corresponds exactly in color.

SPEAKING of Heath plants in our last week's issue, reminds us of the Huckleberry which is this year so abundant about the Rural Farm and in many other parts of Long Island, that the many people who, during the season, busy themselves entirely with picking this fruit for market, have the promise of an unusually busy time. Huckleberry puddings and huckleberries and cream are standard dishes in New York restaurants, as well as in the homes of all native Long Islanders.

SINCE the dispersion of the Jews by Titus, A. D. 70, that race has never engaged in its chief occupation of old—agriculture. Last week a convention of the different Jewish congregations throughout the country assembled in this city, and the most notable project discussed was the advisability of founding Hebrew agricultural colonies, to which might be drafted the poor Jews that now eke out a scant livelihood in the cities. It was voted almost unanimously that money should be collected to found one colony as an experiment.

WE shall shortly present our readers with a life picture of that elegant little tree Acer palmatum dissectum rubrum. The fern-like leaves may thus be accurately shown—but the color which is nearly as dark as River's Purple Beech, can not, of course, be portrayed. We have until recently supposed the specific name of these Japanese Maples, polymorphum. But Mr. James Hogg, who is preparing an article to accompany our engraving, informs us that it is palmatum. But polymorphum, as applied to these Maples of so many forms, is peculiarly appropriate.

WE would remind our readers that all hardwood plants may now be layered. Dig a hole in the ground under the branch which is to form the layer, and then bend it down and cover with earth, so that it remains firmly in its place. Next spring the new plant may be removed. Thus all sorts of shrubs, Grape-vines, etc., may be propagated with little chance of failure. The time for budding is also upon us. As soon as buds can be procured, the only other essential condition is that the bark of the plant in which the bud is to be inserted, should part readily from the wood.

WE want our Young Folks to *study* the elementary botanical lessons begun last week by Uncle Mark. Our Youths' Horticultural Club is growing with a fine success, and we shall send the next seeds and plants to those members who show us they have made the best progress. We do not mean that this Horticultural Club of Youngsters shall be a mere trick to amuse them. We want to do them good and to have them feel in future years, when they have become successful or even eminent as gardeners, horticulturists or farmers, that the RURAL NEW-YORKER first "bent the twig." Now, good parents, help along our worthy project.

Literary Miscellany.

LITTLE FEET.

BY FLORENCE PERCY.

Two little feet, so small that both may nestle
In one caressing hand—
Two tender feet, upon the untried border
Of life's mysterious land.

Dimpled and soft, and pink as peach tree blossoms
In April's fragrant days.
How can they walk among the briery tangles
Edging the world's rough ways?

These rose-white feet along the doubtful future,
Must bear a woman's load;
Alas! since woman has the heaviest burden,
And walks the hardest road.

Love for a while, will make the path before them
All dainty, smooth and fair—
Will cull away the brambles, letting only
The roses blossom there.

But when the mother's watchful eyes are shrouded
Away from the light of morning,
And these dear feet are left without her guide,
Who shall direct them then?

How will they be allured, betrayed, deluded,
Poor little untaught feet!
Into what dreary mazes will they wander,
What dangers will they meet?

Will they go stumbling blindly in the darkness
Of sorrow's tearful shades?
Or find the upland slopes of peace and beauty,
Whose sunlight never fades?

Will they go toiling up ambition's summit,
The common world above?
Or in some nameless vale, securely sheltered,
Walk side by side with Love?

Some feet there be which walk life's track unwounded,
Which find but pleasant ways;
Some hearts there be to which this life is only
A round of happy days.

But they are few. Far more there are to wander
Without a hope or friend,
Who find their journey full of pains and losses,
And long to reach the end.

How shall it be with her, that tender stranger;
Fair-faced and gentle-eyed,
Before whose unstained feet the world's rude highway
Stretches so strange and wide!

Ah! who may read the future? For my darling
We crave all blessings sweet,
And pray that He who feeds the crying ravens
Will guide the baby's feet.

[*New Orleans Times.*

AN UGLY GIRL.

(Continued from page 445.)

CHAPTER XXXII.

THE HEIRESS AND HER CONFIDANT.

From the window of her favorite sitting-room Miss Carlsforde watched the departure of her kinsman; she was still leaning against the window-frame, her eyes half-closed, her attitude expressive of the greatest despondency, when Clement Dunforth entered the room and eagerly approached her.

"Then you have routed the enemy, my dear Miss Carlsforde?" he exclaimed. "Accept my congratulations on the firmness with which you have behaved."

"Routed an enemy, did you say?" she responded, bitterly. "I feel as if I had driven from me my best friend. Oh! Mr. Dunforth, may Heaven forgive you, for I never—never can, if you have induced me to wrong my cousin!"

The young man raised his eyebrows and took an injured tone directly.

"Miss Carlsforde, this is a strange speech to address to me, the friend of Noel. Have I not pleaded for him? Have I not striven to palliate his conduct? Did I not refuse to believe that he could have intentionally acted with such treachery, till you grew angry at my obstinacy? When I spoke of Noel as I did just now, it was more in pity than in scorn, for I shall always maintain that he has been his own enemy more than yours."

"If he would but have cleared himself!" she murmured.

"And he could not? I feared as much. Why, then, do you not try and dismiss him from your thoughts?"

"Is it so easy to forget those we have liked?"

"Yes," was the reply. "It ought to be, when we have convinced ourselves of their unworthiness. Were I in your place, it would drive me mad if I heard Noel Carlsforde boast that he could have won me if he had thought the game worth the trouble."

"He dare not do this!" exclaimed Hillian, growing pale with anger.

"I hope he will not, for his own sake," hissed Clement Dunforth through his teeth; "but we must not forget that he can take terrible advantage of the unguarded manner in which you, my poor friend, have behaved. Your keeping him here—your waiting on him in the character of an upper servant—your secluding yourself from everyone else, will all give food for his insinuations, and the world is always so ready to believe any tale that reflects upon your sex."

Before he had finished speaking, Hillian had slid down to the nearest chair, and was hiding her face in her folded arms. Every word he said was spoken deliberately and with telling effect. Since she had known Noel and his sister—since she had discovered that she was not as repulsive in appearance as her father's exaggerated remarks on her ugliness had led her to think, she had felt many yearnings to be known and loved, and to be able to take part in society and its pleasures. She had also learned to value the opinion of her fellow creatures; to comprehend that she must not sin against the *convenances*, and the hints that, in her seclusion, she could have afforded to despise, now humiliated her terribly.

At last, in her desperation, she started up and turned upon the hand that stung her.

"Why do you tell me these things? Was I not unhappy enough? Have I ever known any peace of mind since your revelations taught me that Noel Carlsforde was not what he seemed?"

"Did I make those revelations willingly?" asked Clement Dunforth. "Did I not entreat you not to question me? Have I not offended my friends, thrown up my situation, and risked my prospects, that I might be near you, and aid you to the best of my ability?"

"Yes, you have been very kind," sighed Hillian; "and I am not unthankful, though I sometimes wish you had left me in ignorance of the truth."

"Why would you not let me do so? You saw how it grieved me to be compelled to denounce my friend. But no; I cannot call him by that name now I see that he meditates such cruel reprisals."

"What do you mean?" Hillian breathlessly demanded.

"Do not ask me. It would pain you too much to hear it. Why are you so lonely? Why is there no one to protect you from the shame—the scandal—the newspaper paragraphs, with which your fair fame will be assailed?"

Miss Carlsforde wrung her hands.

"Ah! why, indeed, am I so friendless? Why cannot I die, and so escape the misery I am enduring—the torture with which I am threatened?"

Clement Dunforth suddenly threw himself at her feet.

"Miss Carlsforde—Ada—you shall not be left to the cruel mercies of the base and heartless. There is one who has not only pitied, but loved you from the first moment of our acquaintance—one who would lay down his very existence to shield you from sorrow. Give me the right to be your protector, and I will take you out of reach of all these petty troubles and annoyances. As my wife you will be safe; not a word will anyone presume to say to your discredit; and in the smiling scenes of Southern France or Italy I will teach you to forget all that now grieves you."

"Impossible!" cried Hillian, the color sweeping over her face and brow. "You cannot know what you are saying, Mr. Dunforth."

"Not know that I am asking you to be mine? Is it not to rescue you from your present unhappiness that I have broken the bonds I had imposed on myself?"

"Hush! sir. You are affianced to another!"

"To Irene Estcourt! No; my letter annulling an engagement too hastily entered into is now in her hands. Ada, you and I were made for each other. Fate has destined that we should be united. I alone can save from the machinations of Noel Carlsforde, and the disgrace with which he thinks to blight you. One word from your lips—only say, 'Clement, I consent,' and your enemies are mine. I will not only defy, but defeat them."

"I shall never marry," faltered Hillian; "and if it can be true—and I know not how to believe it—that Lord Carlsforde will use me thus, I will defeat such malice by going away, and ending my days in some obscure corner of the world where no one can find me."

"You will not be permitted to do so. Your wealth renders you of too much consequence. Ah! why do you hesitate? Must I tell you the worst? What will you do if Lord Carlsforde construes your eccentricity, as he called it when speaking to me, into something worse, and you are seized—confined in an asylum?"

Hillian screamed faintly, and recoiled, but quickly recovered herself; for now the treacherous Clement had overshot the mark.

"He will not attempt this. Do you know that the more I dwell upon his manners as well as his words during our last interview, the more I feel convinced that there has been some strange mistake—that he is still the noble, upright man I thought him, till you came to Carlsforde."

Clement rose, and, with folded arms and threatening brow, asked if it was his fault that she had changed her opinion of her kinsman.

"I don't know; I hope not. I am not feeling well. If you would kindly leave me, Mr. Dunforth, I shall be obliged.

"With the question on which the whole future of my life depends still unanswered. Do you ask me to do this?" he demanded.

"Then I must, at all risk of giving you pain, tell you once again that it is impossible," she firmly replied. "I cannot be your wife. Had I imagined that you would ever have thought of our union, I should have put an end to our acquaintance long since. I have always regarded you as the bethrothed of Irene my friend!"

The last words were spoken so deliberately that Clement bit his lip. But he caught her dress as she would have slid past, and, compelling her to listen, he urged his request till she was faluting with agitation.

But even then he pleaded in vain.

"I will never marry; I could not love you. I dread the shame with which you say I am threatened; but I will never consent to involve another in it," was all she would say.

At last, Clement Dunforth was obliged to see that the gentle, yielding girl, over whom he imagined that he had obtained unbounded influence, could be firm enough when it was necessary. He could make her weep and wring her hands, and long for death rather than encounter the troubles he predicted; but he could not extort from her the little "Yes" he sought to obtain.

At last his patience gave way, and, grasping her arm, he said, in menacing tones:

"Ada Carlsforde, I would have spared you the last arrow in my quiver, but you will not let me. You must be mine—you have no alternative; for I have a secret of yours in my keeping which will ruin you, unless you seal my lips with this little hand."

She looked at him wildly. What did he mean?

"Do not compel me to tell you. Only say, 'Clement, I am yours—to you I confide my future,' and no one shall ever know or even suspect the truth."

"You terrify me!" she gasped. "But I do not value my life well enough to care how it passes and I should be as unhappy if I were your wife as I am now. Pray cease, Mr. Dunforth; you shock me. If I must be frank with you, sir, you are beginning to disgust me. There is no disinterested love for *me* in your looks or words. I thank you for not feigning any; but is it possible that you are deliberately pursuing the line of conduct which you induced me to think Lord Carlsforde was taking?—seeking to marry me for my wealth, and to cast shame on me, that I may be repudiated as soon as it can be done with decency?"

"It is not in my nature to ill-treat a woman," said Clement, coldly.

"Then cease to persecute so helpless a one as I am," Miss Carlsford retorted. "If you have been truly my friend, I will find some way of proving my sense of it; but not as you propose."

"But if you must, if there is no other course open to you?"

Seeing that she looked incredulous, he stooped and whispered something that made her spring up, and demand, as well as her chattering teeth would let her:

"Is it true?"

"It is," he answered; and would have put his arm around her, for she seemed about to fall; but, pushing him aside with resistless force, she fled from the room.

Clement waited awhile, then pencilled a few lines on the back of a card, entreating her to return to him, or say when she would see him again.

"To-morrow morning, at eleven," was the reply brought to him; and, satisfied that Hillian acknowledged his power at last, he went away.

Long before the appointed hour he made his appearance, and bade Jephson tell his young lady that he awaited her. But the man lingered.

"It was Mrs. Hurst sent you that message yesterday, Mr. Dunforth. I don't think Miss Carlsforde knew anything about it. She had shut herself in her room, and the old lady did not like to disturb her."

"It does not signify; tell her I am here."

"But I can't, sir," was the disconcerting reply; "for she left the Park yesterday evening; and where she's gone to is more than I or anyone in the house can say."

CHAPTER XXXIII.

AT HOME AGAIN.

Noel safely reached London, and was welcomed with such unfeigned joy by his half-sister, that for a time he forgot the gloomy thoughts that had made his journey a most depressing one. Mrs. Estcourt, whose many fancied ailments had been set aside by a really dangerous illness, from which she was but just recovering, was more subdued, more affectionate than he had ever seen her before; and Irene, though worn to a shadow by fatigue and anxiety, struck him as being greatly improved by the time of trial, she had passed through, almost unaided.

It was not till all Mrs. Estcourt's inquiries about Carlsforde Park had been answered, or evaded, and the children persuaded to believe that Noel was not strong enough to endure their boisterous caresses any longer, that Irene was able to have him to herself for the long confidential talk on which she was building. Yet, when there was nothing to hinder it, both the brother and the sister were strangely silent. Irene could not bring herself to speak of Clement Dunforth, and Noel shrank from the painful task of revealing Hillian's identity with Miss Carlsforde, and the distrust with which she had been taught to regard him.

The ice was broken, however, by his inquiry after Irene's much admired friend, Miss Jenkins.

"I quarrelled with her," was the reply, "just after I came back to mamma, because she bluntly told me that her cousin would never have asked me to be his wife, if he had not learned at the office, in which he is employed, that you were heir to the dying Lord Carlsforde, and that there was every prospect of my being well dowered. I said it was false, that I could not believe it of him."

"But I can," responded her brother, bitterly. "Forgive me if I pain you, dear, but Clement Dunforth is not worthy your companionship."

Irene sighed, and let her head droop on his shoulder.

"I have no right to be angry with him, if he has found out that I am too silly and ignorant to make him a good wife."

"My dear little sister, Heaven forbid that you should throw yourself away on a fellow, to whom in all good and right feeling you are so immeasurably superior!"

"We'll not talk of him," said Irene, dashing away a few tears. "I feel as if I were five years older than when I jumped at the idea of being a married lady, and having a dear little home of my own. Since I came from Carlsforde, I have thought a great deal, and it has made me wonder at myself that I could have been so selfish as to wish to leave poor mamma and the children. If she—well, I may be frank with you—if she were wise, and could manage for herself, of course I could be spared; but with her helpless ways, and the little ones looking to me for everything, it would be cruel to go away from them."

"But, on the other hand, my poor child, it will never do to let all your youth be wasted in struggling with cares that ought not devolve on your shoulders!"

And now Noel began to ask himself how he could quit England while his young sister was thus over-burdened. It would vex him very much to renounce his plans, for in change of scene he hoped to forget Hillian, as he still called Miss Carlsforde; but he was not one who lived for himself, and another glance at the thin and pensive face of Irene made him resolve, no matter what the cost to his own heart, that he would share her trials. To this resolve he determined to adhere—at all events, until Mrs. Estcourt's health was re-established, the little boys placed at some well-conducted boarding-school, and the companionship secured for Irene of some well-informed middle-aged woman who would undertake the education of Maggie.

On the morrow Irene took him into her room to proudly display the pretty cherry-wood wardrobe, with cheval-glass fitted into one of the doors, that had been sent to her shortly after her return home. On opening it, she had discovered that every shelf was full, and that for the first time in her life she was the proud and happy possessor of an excellent assortment of all those articles of clothing a young lady requires. In the neat dressing-case that accompanied this costly and yet useful gift, there was a note from Ada Carlsforde, entreating her little cousin to accept what it had given her unspeakable gratification to select.

"Hillian Gray never spoke very kindly of Ada Carlsforde," said Irene; "but for my own part I think she must be the most generous as well as the most considerate creature living. Who else would have thought of me at all?"

"Might it not be Hillian Gray herself to whom you are indebted for them?" asked Noel; but when she laughed incredulously, he said no more.

He could not make up his mind yet to tell her that it was for the very person of whom they spoke that Clement Dunforth had deserted her.

Dr. Monson made a journey to town a day or two after Noel left Carlsforde, to ascertain how his patient had borne his journey, and upon his heels came Herr Rudolsheim, whom the death of a relative was recalling to his native land.

"You will not go with me?" he queried. "Is the notice too short? Then you shall follow me when it is more convenient. I leave with you my address, and there shall be a welcome for you in the little house at Darmstadt, where I dwell with my good mother, whenever your plans admit of your journeying there."

"You left Miss Carlsforde well, I hope," Noel observed, as they were saying their adieux.

The Herr threw up his hands with an expressive gesture.

"She has gone—disappeared, carrying Mrs. Hurst with her; and the household is under military discipline, with Jephson acting as comptroller-general. That wonderful young man, Dunforth, is annihilated by a defeat so total. He has accused me of being in the young lady's confidence, of being cognizant of her movements; but I assure him upon mine honor that it is not so."

Noel was both surprised and sorry to hear that Hillian had taken this step; but as it was plain that the Herr was as much in the dark as he declared himself, it was useless interrogating him. There was, however, another subject to which he could not resist alluding.

"There is one thing I should like to know, Mein Herr. When you professed to raise spirits, was there no collusion between Miss Carlsforde and yourself?"

"Must I be candid, and say 'Yes?' In some measure there was. I will tell you all. I came upon her in the library one day; I had penetrated her secret: she was the daughter of my friend. I contrive to make her believe that I would be hers too. I discover in our long conversations that she had been taught to doubt you, and in my wish to make you understand each other better, I propose that I shall throw you into a mesmeric trance, in which you shall truly answer whatever she asked. Once brought together, I thought I should have wit enough to effect my friendly purpose; but, unfortunately, the few drops of an opiate I infused in the wine you swallowed acted too powerfully. You were ill; the *fraulein* was terrified, and I resolve in my heart to scheme no more."

Then they were Hillian's tears that had fallen upon his face; it was she who had shrieked so wildly in her fears that he was dying! Ah! she had loved him a little. Yet why did he rejoice to know this? Even if Clement Dunforth had not interfered, she would still be the heiress whom he was too poor and too proud to woo.

The Herr's visit, and the tidings he brought, effectually banished all the resignation on which Noel had been priding himself. For the remainder of the day, the image of Hillian, pale and tearful, her eyes reproaching him for deceiving her, haunted him. In vain he tried to shake off these recollections by plunging into business; going to the city, and seeking some occupation wherewith to supplement the small sum inherited from the late Viscount; for when, wearied as much by want of success as the long walk, he turned his steps homeward at dusk, he was more disheartened and dejected than he ever remembered to have felt before.

Irene's voice reached his ear as soon as he entered the house; she was talking cheerfully to the hungry children, whose wants she was supplying, as they sat round her at the tea-table. Feeling that his depressed look would be a check upon the little party, Noel turned into the front parlor, which was generally unoccupied at this time of the day.

It was not till he had reached the hearth, and stirred the fire into a blaze, that he discovered he was not alone. A female figure was hovering in the shadow, and at his start and exclamation, Ada Carlsforde came slowly forward, and stood before him.

"My lord," she said, hoarsely and rapidly, as if the strength she summoned for the task she had set herself was ebbing so fast that she must be quick or break down—"my lord, I bring you news, which perhaps ought to have been communicated through the lawyers; but they are slow, and I felt that you ought not to be kept in ignorance a moment after I had assured myself that they are correct. The Carlsforde estates are yours, not mine; I have no right to them. My father was laboring under a grievous error when he made that will. I have left the Park, and you can take possession whenever you think proper."

And then, gathering her veil over her face, she turned away. She had accomplished her errand—ay! and she had looked once more in the face of the man she loved. Hers had been the exquisite pleasure of relinquishing in his favor the wealth, that, unless he would have shared it, she could never have enjoyed; as for what would become of

herself, she had not yet tried to think; but leaving Noel stupefied by the tidings she had brought him, she went swiftly—silently away.—To be continued.

THE SCANDALOUS LETTER.

[Complete in Ten Chapters.]

CHAPTER I.

A HANDSOME, lofty room, furnished in a formal manner with old-fashioned, well-kept furniture, including a center-table covered with gilt books and bead mats and empty vases, a square piano bearing on its closed lid several orderly piles of music books, and, ranged along the walls, an ample array of angular, drab-covered sofas and chairs. This was the drawing-room in Dr. Yorke's house, 106 George street, Woolchester.

The elderly lady who was knitting by the fire was Miss Elizabeth Yorke, the Doctor's aunt—a broad-built woman, with country color in her cheeks which twelve years of Woolchester air had not power to dim; clear, resolute eyes, and strong hands that had done good service in old days on her father's farm, and that even now, in her nephew's comfortable establishment, could not keep from furtive dusting, and china-washing, and pickling and preserving. Miss Yorke thought that she was not "cut out" for a lady, and found it very hard work to do nothing all day long. She liked sometimes to remind her nephew that he was the lucky member of the family, and that education was not thought so much of in her early days, when a woman was merely expected to be a good housekeeper, industrious, thrifty and neat.

Her niece, Miss Fisher, the young lady in elaborate mourning, who sat opposite to her with some lacework in her hands, had been brought up more in accordance with modern notions, having been "finished" at a boarding-school in Leamington, whence she had brought a small store of accomplishments by which Aunt Elizabeth was greatly impressed. The old lady listened complacently every evening while Gertrude played her half-dozen pieces and sang her half-dozen ballads; and she made a point of asking her niece to translate the odd words of French—*on dit*, *tapis*, *beau monde*, and so forth—which cropped up from time to time in the Woolchester Guardian. It was six months since Gertrude Fisher lost her father, and came to live with her cousin and guardian, Dr. Yorke; and already aunt and niece had begun to cherish a little romance, in which the unconscious head of the house played a remarkably prominent part.

Gertrude's music was over for that evening, and had failed to elicit any remark from her cousin, who sat in an easy-chair, with his hands clasped at the back of his head and his eyes fixed absently on the fire. The last number of the Lancet lay on the floor where it had dropped half an hour since, and the women were conversing in occasional sentences, unheard by his dreaming ears.

"I will go and match your wool to-morrow, aunt, if it clears up," Gertrude said, laying her work on the table and smoothing it out so as to judge of the patterns. "Do you think it will clear up?"

"I hope so, my dear."

"It always does rain when one wants to go out. I remember the very last time I went to that shop it poured." Tick—tick—tick, went the bronze clock on the mantelpiece; a gust of wind shook the house.

"Let us hope it may clear up before the morning," Miss Elizabeth remarked. "What do you say, Robert?"

"I beg your pardon, aunt." The Doctor sighed deeply, and turned round, passing his hand confusedly through his hair. "You said——"

"Really, Robert, I think you might exert yourself a little more for your cousin's amusement during the few hours you are home."

"I know I'm a bear," Robert returned, penitently. "But I—I have been rather tired to-day, and Gertie will teach me better manners in time."

Miss Yorke's face relaxed at this little speech, and Gertrude smiled on her cousin as he picked up the fallen paper, pitching it on the sofa, and stood with his back to the fire and his hands in his waistcoat-pockets. Gertrude had light hair and good, gray eyes. She would have been a nice-looking girl but that she was too buxom for her hight. Just then, however, while the affectionate smile was lighting up her face, she looked her very best, and Aunt Elizabeth, watching the cousins over her knitting, thought what a nice couple they would make.

"Your tea is quite cold, Robert," said the young lady. "Shall I give you another cup?"

The Doctor accepted the tea, and admired Gertrude's lace-work, which he had seen every evening for the past six months; but, having so far redeemed himself, he seemed in some danger of a relapse into silence, when a servant entered with a note on a salver—a note which for some reason or other produced signs of displeasure in Miss Elizabeth's face, and which the Doctor read eagerly and thrust into his pocket, calling out in strong baritone voice——

"Parker, my coat!"

"Robert—" Miss Yorke looked up sharply—"you are not going out?"

"I must. Probably I shall not be long."

"That woman again, I suppose! She might dispense with your services on a night like this. A sprained ankle is a not a matter of life or death."

"Perhaps not," the Doctor returned shortly, donning his waterproof. "Still, as Miss Carew is depending on her salary for her own and her brother's support, and as it is stopped during her absence from the theatre, the sooner she is able to return to her duties the better."

"How kind you are, cousin!" Gertrude said, looking up with eyes of gentle admiration at the Doctor's tall figure.

"Too kind," objected Miss Elizabeth. "Robert, you are not going to walk?"

"Of course I am. It is no distance, and I cannot keep the horses standing in such weather as this. Good night aunt. Don't sit up for me, in case I am detained. Good night, Gertrude."

"Try to come home early, cousin," Miss Fisher said, taking the Doctor's proffered hand with a very perceptible flutter. "You have not stayed at home one evening for a whole month, and——"

"You are keeping Miss Carew waiting, Gertrude, my dear," put in Miss Yorke dryly; and with an impatient shrug of the shoulders Robert dropped his cousin's hand, and went away.

Gertrude sighed, and resumed her lace-work; Miss Yorke's needles clicked angrily. The Doctor's impetuous feet were heard running downstairs.

"I am afraid he is annoyed," Gertrude said, lifting her head, startled, as the whole house shook with the slamming of the front door. "I'm sure I did not mean to vex him; but I'm afraid he is annoyed, Aunt Elizabeth."

"Let him be annoyed!"

"But he will think it is my fault, and I did not say anything, aunt, did I?"

"No, child; you are a great deal too kind and patient with Robert—he does not deserve such a faithful little friend."

"I dare say Robert finds our society dull after that—that person's at the theatre;" and Gertrude sighed.

"At least it is respectable, Gertrude. And I do think it is rather late in the day for Robert to begin to turn up his nose at the home I have made for him ever since his poor mother's death, twelve years ago—and all for the sake of some actress-woman he has not seen a dozen times."

"But, aunt, doctors must attend to their patients, must they not? I dare say when Miss—when that person leaves Woolchester, Robert will forget all about her, and be as happy as ever at home in the evening."

Miss Yorke pulled up sharply at a knot in her wool, but did not speak. This was a subject to which she had never before alluded in Gertrude's presence, though doubtless each lady knew quite well what was in the other's mind concerning it; but for once her annoyance had got the better of her prudence. It did indeed seem bitter to her, and not without reason, that her nephew, whose household she had ordered so faithfully for twelve long years, whose socks she had knit, whose buttons she had superintended, should be won away from her in one short month by a strange woman, about whose character or past life he could know nothing—that he should take to spending his evenings in the boxes of a dingy little theatre, neglecting his family and making himself an object of wonderment and gossip to his friends and patients. So steady as he had been too till now; and to think that when he had no longer the excuse of youth for his folly (Miss Elizabeth choked as she thought of it), he should bring this disgrace on the family—the proud, respectable yeoman's family that had owned its own farm, and the pleasant old home down in Lincolnshire, and had borne a spotless name for two hundred years and more, before young Robert Yorke took a fancy to be sent to college and to learn doctoring and to set up in practice for himself in the little garrison town of Woolchester! And here, at home, was a wife waiting for him—his own cousin—a girl with a snug little fortune to add to her other attractions—a girl sensibly brought up, who was prepared to make him happy!

"Well, thank Heaven," Miss Elizabeth thought, "the theatre will close before long, and then that brazen piece of goods will take herself off, and Robert will return to his senses!"

Ten o'clock struck; a servant entered with candles. Miss Yorke collected her work into a grim-looking basket, and the long day was supposed to be over for all respectable people.

"You won't sit up for Robert?" Gertrude asked, suppressing a yawn, as with a discontented air she took her candle and kissed her aunt's cheek.

"No, my dear. That is a thing your cousin has an unreasonable dislike for. He has his latch-key, and I dare say he won't be late. Good night."

Meanwhile Dr. Yorke, tramping along the deserted streets, was thinking, as he often had lately, in a maze of curious doubt and wonder, of the change that befell his life one day, not long since, when he was called in to attend this ill-paid provincial actress who had hurt her foot. He had never yet found courage to explain to Miss Elizabeth how this had occurred. On that particular evening he happened to be passing the door of the theatre in his brougham, which was as well known in Woolchester as the town-clock, and, not having been inside a play-house since he was a boy, he was seized with a sudden fancy to see the new comedy, "Fetters," which was announced in red letters several feet high on every wall and boarding in the town.

Perhaps the recollection that his old quiet evenings at home, when he could shut himself up with a cigar and a magazine, were now at an end had something to do with his decision, and he shrank from dressing for dinner and "making talk"—no easy task—for his aunt and Gertrude, as he had done every night for the past six months. At any rate he pulled the check-string, and told the grave servant that he had a call to make in that neighborhood, and would walk home, charging Thomas also to say that Miss Yorke need not "wait dinner." Thomas touched his hat—how he would have stared if he had known the call his master intended to make!—the carriage drove off, and Dr. Yorke, running up the dimly-lighted steps, bought his ticket and passed into the boxes, evening dress not being *de rigueur* in the Theatre Royal, Woolchester. And after all he did not see the comedy!

The curtain had just fallen on the first act, and as he sat reading his bill, and the characters of the play, a hand touched him on the shoulder, and an official of the theatre said hurriedly—

"You are a physican, sir? Will you please to come behind? Miss Carew has had an accident—hurt her foot. This way, sir."

Through the sacred and dingy door that led from the boxes to the stage, and was an object of interest to many of the young officers who had a taste for the drama, Dr. Yorke followed his conductor, and after stumbling against one of the "wings," and nearly backing into a green gauze lake on the banks of which Lady South Kensington's *fete* was about to be held in the next act, he found himself in Miss Carew's dressing-room—a bare little chamber with whitewashed walls, much scrawled with the names of former occupants—and in presence of the actress herself, who was lying on an improvised couch in her stage costume of often-washed white muslin, and her stage paint. Several ladies of the company were with her, and these kind people surrounded the Doctor and explained, in somewhat loud tones, how the accident had occurred.

"Only let me get through my part," Miss Carew said, her young face distorted with pain. "Can you bind up my foot so that I can stand on it?" she raised her eyes wistfully to the Doctor's, and two great tears rolled down the pretty rouged cheeks.

Dr. Yorke's grave face softened. He stooped down and spoke a few soothing words, but forbade the young lady's attempting any exertion.

Yes; he remembered it all, as he trudged along on that wild March evening—how he brought a carriage, and himself lifted the actress into it; how he called next day at her quiet lodgings, where he found that she had a little delicate brother, to whom he could be of great service; how he had since then learnt to look forward with a quickening pulse to the hour of his daily visit to Miss Carew, and had more than once found himself going out of his way during his round of calls, so as to pass by her door and glance up at the window of her room.

And now she had written him a little note—in a refined picturesque hand too—signed "Yours very truly, Olive Carew," and had asked him to come and see her for a few minutes. He turned down a side-street where trees grew behind the houses, just visible in the blurred lamplight, and paused with a beating heart at a certain iron gate. Some one was playing the piano in the room with the lit-up windows, and he stood with his hand on the lock to listen. It was pleasant, vague, rambling music—snatches of melody running one into the other, full chorus, lingering *legato* passages, a rain of sudden silver notes in the treble. The Doctor sighed as he knocked at the door.

"Miss Carew expects me," he told the woman of the house; and then he went up-stairs unannounced, and his heart was beating faster than ever.

The actress's sitting-room was shabby enough; the furniture was scanty and faded; but the low cottage-piano—at which young Nelson Carew was strumming as usual, his eyes full of dreams—a bunch of violets in a cheap blue jar, some books and photographs which were scattered about the table, gave it an air of comfort such as Dr. Yorke did not find in his own big substantially-furnished drawing-room at home.

Miss Carew was a tall slender girl, delicately pale, and with golden-brown hair and eyes and lashes, who reminded one of some white long-stemmed flower. Her hands were of exquisite shape and color, while the delicate curves of her figure were graceful even in the shabby black gown the actress wore, as she sat by the fire, intent upon the part in her hand.

Dr. Yorke was loath to break up the pretty picture, but, Nelson's extemporised transcription coming to an end, the lad woke up out of a dream, and saw him stand in the doorway, hat in hand.

"Dr. Yorke!" he cried, with a feeble shout of delight; and Miss Carew, turning, dropped her "part," and with a charming smile held out her hand.

"How good of you to come on this wet night," she said. "Take this chair by the fire. Nelson, don't choke the Doctor, you young bear!"

Nelson was hugging his friend in the firm conviction that it was an agreeable process to both of them.

"Olive has a piece of news for you," he whispered, "and she is dying to tell it!"

"Then we won't deprive her of that pleasure, will we?" the Doctor answered good-naturedly. "So be off to your music-box, sir—do you hear?"

"That last bottle of stuff is horrid," observed Nelson calmly, his arm still round his friend's broad shoulder. "Olive says it is wine, but, if so, why does she give me sugar after it, I should like to know?"

Dr. Yorke responded by propounding an alarming arithmetical problem which posed Nelson, and in an instant the boy limped back to his instrument, leaving his sister to her interview undisturbed. A silence ensued, which the Doctor did not seem inclined to break. He leant back in his chair, watching the firelight play on Olive's beautiful hair; and so it was the lady who spoke first.

"I asked you to come," she began gently, "because I could not leave without saying good-bye, and Nelson and I are going away to-morrow."

"Miss Carew!"

"It is sudden, is it not? But you know it almost as soon as myself. I have had an offer of an engagement in Birmingham, and I am compelled to go at once. Our manager here has been very kind, and has consented to release me at some inconvenience to himself."

Dr. Yorke could not speak. He hardly heard what the girl was saying, but with a curious tortured attention he was following every note that Nelson played. He, too—that prosaic country doctor—had been wandering in just such an unreal garden, hand-in-hand with his first love, as the music told of.

"It is you I have to thank for being able to travel," Miss Carew continued, in her sincere voice. "And Nelson, too! What can I ever say, Dr. Yorke, that will tell you how I feel your goodness to my poor boy?"

Still Robert Yorke did not speak. He was trying to recall his life as it had been before that happy night a month ago—trying to imagine how he could go back to that old life again, lonelier than ever as it would be for the fair glimpse of a fuller and happier existence which the past few weeks had shown him. Olive Carew was going away!

"And—Dr. Yorke——" The young lady hesitated now. She had her poor little purse ready in her hand, but how could she find courage to speak to that big, strong man, who was gazing at her with his heart in his eyes, and ask him to take payment for such generous service as he had done her?

"Must you go?" Robert Yorke said, at last, breaking through the spell of silence in which Nelson's music had bound him. "You are hardly fit to travel yet."

"I must. You know I have told you what a poor little pair of church-mice Nelson and I are. Some day he is going to make a great deal of money with his gift for music. But, while he is growing tall and strong, it is my delight to work for him; and in this new engagement I shall earn twenty-one shillings a week more than I earn now—think of that!"

Twenty-one shillings! Gertrude Fisher spent as much every week in sugar plums or Berlin wool; but to this pale, pretty girl, battling unaided with the world, the additional guinea meant additional comfort and ease for the boy whose feeble life was fading away slowly from a love such as is given to a few in this world—a sacred agony of affection, keen, intense, undying.

"Poor child!" burst with an irresistible impulse from the Doctor's lips; and Olive, looking up with grateful eyes, saw that his were dim.

A throng of pleasant recollections were gathering in the shabby room, as if to show him more clearly than ever how gray and dull his life must henceforth be—recollections of bright morning hours, when Olive, free from rehearsal, had sat and talked to him in that little bow-window against which the rain and wind were beating now, and when he had been permitted to "hear her" her part, bungling a good deal over the "cues," and rather posed by her matter-of-fact gabble of the lines which she would deliver with such charming point at night—of certain cups of afternoon tea poured out and brought to him by Olive—of one happy little supper of cold mutton, to which he had been permitted to contribute a bottle of Moselle, and over which they three had sat till twelve o'clock, the merriest, most talkative, least sensible party in Woolchester. These were ended now, and

"Over all old things, and all things dear."

But there was still his profession, Robert Yorke reminded himself—his profession and the big drawing-room in George street, enlivened by Gertrude's pieces and Miss Elizabeth's conversation.

As for this actress—this girl with her beauty and her frank, charming ways—she would go into the world where he might not follow. Her place was not in this small town, where fate had thrown her for a while. She would go away and forget him, and other men would learn to look at her with longing eyes and impatient, restless hearts, and —— Dr. Yorke made a sudden desperate resolve. Olive was looking absently into the fire, and seemed to have forgotten his presence. One thought of Miss Elizabeth's cold face crossed his mind swiftly, but he leaned forward—he was sitting close to Miss Carew on the narrow hearth, while Nelson was thumping out the Wedding March with all his little might—and took her slender hand.

"Olive, do not go—do not leave me—stay with me always!" he whispered, in broken sentences. "Give me the right to take care of you and the boy—be my wife."—[To be continued.]

CITY CATS.

An Automatic, Self-setting, Inflexible Exterminator.

IN all great metropolitan cities the cat question is assuming great proportions. Obedient to the primeval law to increase and multiply, cats have increased and multiplied, declared dividends and paid compound interest on the original investment—never a one going into bankruptcy. For a cat to have great-great-great-great-great grand kittens, is no strange thing if we believe the naturalists; and the tendency of the average to multiplication in ordinary only ceases when the last of its nine lives has flickered and gone out before an unusually well-aimed brick or inordinately spry bulldog.

The effect of cats upon manufactures has been very marked. Since New York was invaded by an epidemic of cats in 1855 it is computed that 213,000,000 boot-jacks have been sold, while the yearly consumption of soap-dishes and bed-slats amounted to $1,105,000 annually. Before the epidemic began and cats were but sporadic, boot-jack-maker after boot-jack-maker went into bankruptcy, and slat and crockery men did less business than dealers in fiddle-strings.

Last April letters patent were issued to one J. Tomlinson Hathaway, of Elizabeth, N. J., for the "Automatic, Inflexible, Self-Setting Exterminator"—a machine which was adapted to fill a want long felt in every family, and at the same time ruin the business of the chinaware and boot-jack dealers. It was a combination of steel springs, barbed hooks, syringes, high-pressure air receivors and clock-work, constructed in the form of a diminutive cat, and covered with the skin of one of those mathematical but obnoxious animals. Underneath the supposititious stomach was a clamp, so arranged that the "Inflexible" could be screwed on top of a fence and look as naturally as a living cat. When properly wound up, it was fit to run for twenty-four hours. Every five minutes during the silent watches a portion of the compressed air was let out in a growl or challenge which would not fail to arouse the ire and attention of any cat within earshot. At the same time a small Rhumkorf coil within sent a current of electricity through small Gassiot tubes in the eyes, making them gleam with greenish and bellicose fire. This, together with the small size of the couchant Inflexible, was generally sufficient to draw the wandering felines of the neighborhood to the scene. Now, when one of them approached sufficiently near to touch a small steel wire which projected

from the Inflexible, the defiant yowl was repeated and two small sprays of diluted vitriol were spit out at the cat—calculated to arouse the deepest indignation the turbulent breast of a cat is capable of. At the same time the counterfeit tail would swell up and wave to and fro, aggressively. The natural result was a closing in of the now excited cat upon the Inflexible, touching a hair trigger and releasing the machinery. The barbed claws now clutched the victim, the vitriol squirted, there was a wriggle, a yell and three yaups, and all was over. Then there was a faint click, the Inflexible's claws relaxed, the victim dropped to the ground, and all was ready for another cat.

The invention is a perfect success. Although only a month has elapsed since its introduction, the boot-jack market is completely broken, while crockery and bed-slat speculators are selling short. Edison has examined the instrument and pronounces it a thorough success. We understand that an agency for the Inflexible is soon to be established in this city.—*New Orleans Times.*

A CURE FOR RHEUMATISM.

The Remarkable Properties of Celery in this Malady.

NUMEROUS cures of rheumatism by the use of celery have recently been announced in English papers; but the following, more in detail, is given on the authority of the New York Times: "New discoveries—or what claim to be discoveries—of the healing virtues of plants are continually making. 'One of the latest is that celery is a cure for rheumatism;' indeed, it is asserted that the disease is impossible if the vegetable be cooked and freely eaten. The fact that it is always put on the table raw prevents its therapeutic powers from becoming known. The celery should be cut into bits, boiled in water until soft, and the water drank by the patient. Put new milk, with a little flour and nutmeg, into a sauce pan with the boiled celery, serve it warm with pieces of toast, eat it with potatoes, and the painful ailment will soon yield. Such is the declaration of a physician who has again and again tried the experiment, and with uniform success. He adds that cold and damp never produce, but develop the disease, of which acid blood is the primary and sustaining cause, and that while the blood is alkaline there can be neither rheumatism nor gout. English statistics show that in one year (1876) 2,640 persons died of rheumatism, and every case, it is claimed, might have been cured or prevented by adoption of the remedy mentioned. At least two-thirds of the cases named heart disease, are ascribed to rheumatism and its agonizing ally, gout. Small-pox, so much dreaded, is not half so destructive as rheumatism, which, it is maintained by many physicians, can be prevented by obeying nature's laws in diet. But if you have incurred it, boiled celery is pronounced unhesitatingly to be a specific.'"

PINS THAT PRESERVED A MAN'S REASON.—In the show window of one of the leading jewelers of Vienna is exposed to view a brooch, magnificently studded with gems, in the middle of whose chasing is inclosed the most singular of centers—four common, old, bent and corroded pins. This brooch is the property of the Countess Lavetskofsky. The pins have a history, of course. Seven years ago Count Robert Lavetskofsky was arrested at Warsaw for an alleged insult to the Russian Government. The real author of the insult, which consisted of some careless words spoken at a social gathering, was his wife. He accepted the accusation, however, and was sent to prison. In one of the lightless dungeons in which the Czar is so fond of confining his Polish subjects the unfortunate martyr for his wife's loose tongue spent six years. He had only one amusement. After he had been searched and thrown into a cell he had found in his coat four pins. These he pulled out and threw on the floor; then in the darkness he hunted for them. Having found them, perhaps after hours and even days, he scattered them again. And so the game went on for six weary years. "But for them," he writes in his memoirs, "I would have gone mad. They provided me with a purpose. So long as I had them to search for I had something to do. When the decree for my liberation as an exile was brought to me the jailor found me on my knees hunting for one which had escaped me for two days. They saved my wife's husband from luuacy. My wife, therefore, could not desire a prouder ornament."

WASHINGTON IRVING AND EUGENIE.—The gossip about the Napoleons set adrift by the tragic occurrence in South Africa brings up a letter from Washington Irving to his niece. He was in Europe in 1853, and the Emperor had just been married. "Louis Napoleon and Eugenie Montijo, Emperor and Empress of the French! one of whom I have had a guest at my cottage on the Hudson; the other of whom, when a child, I have had on my knees at Grenada. It seems to cap the climax of the strange dramas of which Paris has been the theater during my lifetime. I have repeatedly thought that each *coup de theatre* would be the last that would occur in my time, but each has been succeeded by another equally striking. The last I saw of Eugenie Montijo she was one of the reigning belles of Madrid. * * * Am I to live to see the catastrophe of her career, and the end of this suddenly conjured-up empire, which seems to be of such stuff as dreams are made of? * * * I consider it as liable to extravagant vicissitudes as one of Dumas' novels." He did not live to see the catastrophe, but it came.

BOOKS RECEIVED.

Tennyson's—The Lover's Tale: BOSTON: Houghton, Osgood & Co.

THE circumstances connected with the publication of this poem give it an interest apart from its attractions as a literary production. When the poet laureate was a youth of nineteen, two parts of The Lover's Tale were printed, and, feeling, as he says, "the imperfection of the poem, I withdrew it from the press. One of my friends distributed some copies of these two parts without my knowledge, without the omissions and amendments I had in contemplation, and marred by many misprints of the compositor. Seeing that these two parts have of late been mercilessly pirated, and that what I had deemed scarce worthy to live is not allowed to die, may I not be pardoned if I suffer the whole poem at last to come into the light accompanied with a reprint of the sequel—a work of my mature life—'The Golden Supper?'" Those who have read this last (as who that has a copy of Tennyson has not?) will not regret the "piracy" which impelled the poet to publish the poem complete.

How to Train in Archery; being a complete study of the York Round, comprising an exhaustive manual of long-range bow shooting for the use of those archers who wish to become contestants at the Grand National Association meetings. By Maurice Thompson, author of The Witchery of Archery. New York: E. L. Horseman.

The general theory and practice of archery is not treated of in this work, nor is the hunting of game with bow and arrows touched on. The book is designed for the advanced bowman and bowwoman who, feeling their power, are making ready for the highest achievments in the most difficult field of archery, the York Round and the Columbia and National Rounds.

Little Pitchers. By SOPHIE MAY. Illustrated. Boston: Lee & Shepard. Price 75c.

The name of this author is the sure guarantee of an entertaining book for the little folks, and we venture the prediction that Pollio and Posy (the hero and heroine) will gain a host of friends and admirers among the children. The pictures—of which there are a half-dozen or so—very prettily illustrate the text.

Hetty's Boarder. Boston: Loring & Co. Price 50c.

A bright little story, which will serve admirably for piazza, hammock, railway or steamboat service.

THE CENTURY.—This new claimant for public favor is proving itself to be one of the most attractive of weekly publications. The articles are extracted from foreign sources, and a wise discrimination and an appreciative sense of what will be likely to interest American readers, is displayed in the selections given. The following table of contents taken from issue of July 12 will give a fair idea of the work The Century is doing: The Literature of the Assyrians and Babylonians; Men of the Times, The Editor of Punch; The Lover's Tale; Victor Hugo's Political Career; A Moral in Lemons; A Buried Lake Village; The Vicissitudes of Authors; An English Opinion of the Rev. Joseph Cook; The Impressions of Theophrates Such, IV., a man surprised at His Originality; The Heir of the Bonapartists; A Utopian Experiment, The Jesuit Settlements in Paraguay; An Egyptian Watering-Place; A British Flunkey and the King of Italy; America Abroad; Lieut. Wheler's Survey Work in Oregon; A Ballad of Babylon; Stray Notes.

MAGAZINES.

CONTENTS OF THE JULY NUMBER OF ECLECTIC.—On the Study of Natural History. By Professor St. George Mivart; A Speech at Eton. By Matthew Arnold; The History of Games. By Edward B. Tylor, LL.D.; John Brown. A True Story; Sydney Dobell.—A Personal Sketch. By Robert Buchanan; On Chinese Fans. By Herbert A. Giles; Mr. Browning's Dramatic Idylls. By Mrs. Sutherland Orr; A Problem in Human Evolution. By Professor Grant Allen; Mademoiselle de Mersac. Chaps. X., XI. and XII.; Spring's Gifts. By Alexander H. Japp; Two Impostors of the Eighteenth Century; Peter the Great; Literature and Medicine; Flowers and their Unbidden Guests: The Melancholy of the Educated English; A Coquette; General Albert J. Myer. By the Editor; Literary Notices; Foreign Literary Notes; Science and Art.

COST OF ROYALTY.—The difference in the salaries paid to kings and royalty and those paid to the servants of the people in our Republic is striking. The Czar of Russia gets $8,250,000 per year, or $25,000 a day. The Sultan of Turkey gets annually $6,000,000, or $18,000 a day. Napoleon III. had a salary of $5,000,000 annually, or $14,000 a day. Francis Joseph of Austria receives $4,000,000 a year, or $11,000 a day. King William of Prussia is paid $3,000,000 a year, and Victor Emanuel $2,100,000, and good Queen Victoria manages to live on $2,200,000. Now, in addition to these salaries, each sovereign is furnished with a dozen or more first-class residences free of cost.

ANECDOTE OF BISMARCK.—Prince Bismark is always spoken of as a great statesman. But he has other remarkable characteristics, some of which are mentioned in his biography by Dr. Bush. His knowledge of cookery is said to be prodigious. He can discourse on all the known varieties of fish; he has original views about the frying of oysters; he has a wonderful comprehension of the different shades of cheese; and he can talk by the hour on the relative qualities of wines. During the war the French were roundly told that if they wanted to get a pleasant treaty of peace they must give him good dinners, and he threatened to chastise Baron Rothschild's steward at Ferrieres for refusing to provide the King with some of the many thousand bottles of wine which were locked up in the cellar. He once telegraphed to Germany for a fresh supply of gin. Happily, the strength of the great theological statesman's head is as remarkable as his theoretical acquaintance with the mysteries of vintages and malt. "He has beaten topers in beer-houses" with a completeness in which he has taken a just pride a quarter of a century afterward, and "he can challenge assembled humanity" to outdo him in the art of remaining perfectly sober under difficult conditions.—*Eclectic for July.*

For Women.

CONDUCTED BY MISS FAITH RIPLEY.

ONE IN A THOUSAND.

"SHE'S one in a thousand,"
Said old farmer Grey,
As he waded knee-deep
In the sweet-scented hay,
"You won't find her like, marm,
From here to the town—
That woman out there
In the calico gown.

"If you could have seen her
That morning in May,
When I stopped at her father's
And took her away—
A likely young bride, marm,
So blooming and fair,
And 'clipper' as that little lamb
Frisking there!

"When first we were married,
And all for my sake,"
(And here the old farmer
Leaned hard on his rake,)
"She gave up her music
And gave up her books—
No nonsense about her
You know by her looks!"

"And if you should lose her?"
I ventured to say.
The old farmer sighed,
And looked down at his hay.
"'Twould nigh break my heart!"
He replied with a tear;
"As now help's uncommonly
High about here!"

SWEEPING.

SWEEPING, though a common practice, should not be done according to the rule laid down for all great achievements in life—do not "begin at the bottom of the ladder" (or the stair, as the case may be,) for ascension to the highest part of your dwelling. Begin at the top of the "topmost" room, and, with hair and hands protected, sweep the walls well, destroying the "skilful" spider, who toils and spins that you may find no leisure for idling. Having closed all doors of wardrobes, closets and connecting rooms, dampened the broom, sprinkled the floor (if carpeted, with damp meal, otherwise, with water), sweep the dirt into the hall, closing the door behind you. When each room has been treated, sweep the hall and stairway, each room below, and lastly, the hall below, taking the dirt out the back door on to a dustpan, or box set with one side beneath the projection of porch, or last step. By this time the dust will have settled above, and you may go to work vigorously with a duster made of the soft feathers of a turkey, sewed with stout thread around a handle with a notch in it for holding an occasional wrap of the thread. The inside of each feather should be out, in constructing a duster, causing it to resemble an expanding convolvulus, or petunia, with green morocco calyx for concealing the pen-ends and stitches. The broken handle of a parasol is a good foundation to work upon, and is usually furnished with "hook or crook" for hanging it up. If not, tie a red tape around one of the delicate grooves. When done sweeping and dusting, wipe up spots upon the floor or carpet, and leave the rooms to air.

Making Coffee,

is too frequently done "by chance." Pick, rinse, and put to bake (if you have no *toaster*) in an oven or pan, with a close lid. When dry, add a small lump of butter to insure uniformity of color in browning, and as it gets brown on top, remove the lid and stir thoroughly, level and replace the lid, till all is of a light-brown and will break by *very hard* pressure of the finger and thumb; take from the fire, leaving the lid on (the whole secret of *good* coffee lies in retaining the aroma, so easily freed by parching and boiling) till cool enough to add egg without cooking. (In winter when eggs are scarce and butter loses its gilt, I put the yelks in the butter and the whites in the coffee). Stir the coffee till all the berries or grains are glazed and dry, put into a close box or canister. For breakfast, grind the coffee at night, allowing a tablespoonful of ground coffee to each cup of water to be added, put into a clean, sweet pot, and pour over it one cup of boiling water, stop the spout, and set in a cool place. In the morning fill up with boiling water from the grounds of the previous day. For this purpose keep two coffee pots, and use them thus alternately, scouring with ashes after boiling the grounds, scalding and airing.

MRS. M. L. S.

MEN AS FINANCIERS.

IT is a well-known fact that when a business man fails, in nine cases out of ten, it is through the extravagance of his wife, his daughter, or some other relative or friend of the female persuasion. Such "necessities" as tobacco, liquor, fast horses and "the club," which he requires to make life comfortable have, of course, no depressing effect on his finances. Personally he abhors debt—has worked like a galley-slave to support a woman spendthrift, but finally has had to succumb to an unusual pressure in the money market, and he finds himself in middle life stranded on the reef of poverty. It is a pathetic picture, or rather would be if it were true.

There is still another fact which masculine writers have striven to impress on the public, and that is, the unfitness of the mind feminine to grapple with problems of finance. Woman may become absolute mistress of any of the arts, but when it comes to mathematics and science she is a failure; so say the gentlemen oracles. Now, I don't pretend to dispute this; but what I can't understand is, why it is that men who, as a set, never contract debts for themselves, and who have, moreover, a monopoly of the faculty for managing financial matters, should succeed in plunging every city, county and state in the land in debt. The men have all to say about appropriations, taxation, etc.; no woman ignorant of money affairs and with spendthrift proclivities, is permitted a voice in town, state or national council. Strange, most strange, that with men and men only at the helm, there should be such a report as the following: The municipal debt of 130 cities, representing a population of only 8,575,249, is $644,378,663. The percentage of increase in debt in six years being 200 per cent.; in taxation 83 per cent.; in valuation 75 per cent., and in population only 38 per cent.

In New York, Massachusetts, Illinois, Ohio, Wisconsin, Minnesota, Kansas, Missouri, Connecticut, Georgia, and Rhode Island, the total aggregate of local debt is $546,285,528. The total local debt of the country, at the end of 1878, was $1,051,106,112, exclusive of State debts.

It strikes me that female arithmetic of the most irresponsible sort could hardly do worse than that. Cities, counties and townships owing more than a billion of dollars, besides which there are state debts and the national debt!

Men may be superior financiers, but I'd hate to have one of them (mis)manage my money. I should expect to be bankrupt in about three months.

LINDA BROWN.

A CRUEL AND INFAMOUS LAW.

WHILE Massachusetts has gone forward, and not only by its last Legislature secured for married women the right to their own wearing apparel, but also the right for all women to vote for members of the school committee, Ohio has gone backward and re-enacted an old law which enabled a father to will away his child, born or to be born. The Delaware Signal publishes the text of the law, and comments as follows:—

The Ohio Legislature, at its session last winter, adopted a codification of various laws, and among them the statute in relation to Guardians of Minors, the 13th section of which is in these words:

"Any father, or in case the father be dead, or have gone to parts unknown, any mother may, by last will in writing, appoint a guardian or guardians for any of his or her children, whether born at the time of making the will, or afterward, to continue during the minority of the child, or for a less time."

This is a re-enactment of the old law, and probably the members of the Legislature did not take the trouble to read it before they voted for it. Seven years ago, when the law was the same, in a letter to Mrs. R. A. S. Janney, from G. T. Stewart, on the laws of Ohio as to married women, published in the Columbus Gazette, he thus denounced this and other laws which deprive the mother of her natural right to the care and society of her children:

"But there is a legal wrong more disgraceful to our manhood and more cruel to her womanhood than any other. It is that old relic of the dark ages which robs the mother of her children, and gives the legal custody of even the young infant to the father. The interventions of our courts have done something at times to relieve the atrocities of this law; but it is only a faint relief against a foul enormity. I will not defame the beasts of the field and of the forests by saying this is a brutal law; for the whole brute creation concede to the mother her natural right to the society, care and custody of her offspring.

It is the peculiar infamy of man that, by the iron force of laws made by himself, he does a deed of cruelty that shocks and shames all nature. He does what even the tiger and hyena would not dare to do—what they would loathe to do. He treads down the laws of God and crushes the heart of humanity in its divinest of rights, in its most sacred of duties. There is no relation on earth so near to heaven as that of the mother and her child. A heavy retribution will fall on any people that permits this holiest of human relations to be outraged. Often this rule of law becomes an instrument of the most fiendish tyranny and torture in the hand of wicked husbands; and many a poor wife suffers even unto death the most cruel abuse rather than be torn from her children. But she suffers and dies in silence.

"If the public purse is pinched a little, there is a cry in the markets, and all the people know it. Yet myriads of hearts are bleeding and breaking in the secret places of domestic life, and the world heeds nothing of them until it hears their funeral bells. In my practice as a lawyer I have found cases which aroused my pity for the poor victims of this tyranny, and my indignation at the law that sustains it; and I have seen how difficult it is to obtain relief against it in the courts. The law is utterly indefensible on any ground of argument, and if its converse as a supposition had been the prevailing rule, and this was proposed as a new principle of legislation, it would be universally scouted with horror and disgust. But it is one of those barbaric wrongs which have come down to us white with the frosts of ages, and red with the blood of hearts, and it requires a strong moral power to remove it."

The State of Kansas has set a noble example in this reform, for it has placed in its Constitution a provision which guarantees to mothers there the right by law to the custody of their children. It seems as if the young States of the West are the pioneers in civilizing our laws, as well as our territories. Let Ohio take its place in the front, and not in the rear of the grand movement which is sweeping over the world for the emancipation of Woman.

EDITORIAL ANNOUNCEMENT.

IN response to many requests, I will give illustrations of summer styles for ladies' dresses and hats, in RURAL of July 26.

F. R.

A GENERATION that will listen to "Pinafore" for three hundred nights and will read M. Zola's seventeenth romance, can no more read Homer than it could read a cuneiform inscription. It will read about Homer just as it will read about a cuneiform inscription and will crowd to see a few pots which probably came from the neighborhood of Troy.—*Frederick Harrison in the Fortnightly.*

WHAT OTHERS SAY.

(Continued from page 457.)

AMERICAN WONDER PEA AND DEFIANCE AND CHAMPLAIN WHEAT.—We find in the Sydney Morning Herald a full report of the Agricultural Society's Exhibition, from which we extract the following, as of special interest to RURAL readers: "Among those specially worthy of notice was the American Wonder Pea, shown for the first time. It is remarkable for the rapidity of its growth, as it is ordinarily ready for the table in thirty-three days from the time it is sown; and Mr. Dunnicliff has had three crops since September last." Our readers may remember that we tested this pea two years ago, when first sent out by Mr. Bliss, its introducer. We found it as early as the Little Gem, prolific, and of excellent quality.

In another part of the report, in the same journal, we find Mr. Pringle's Spring Wheats, Defiance and Champlain, spoken of: "Both wheats were sown by Mr. Dunnicliff, of Burrawang, in September and reaped in January, on comparatively poor soil. The Defiance yielded 57 bushels to the acre, and, with high cultivation, it is said that the yield in America has been as much as 128 bushels (!.—EDS. RURAL). From the other variety—the Champlain—the exhibitor obtained a yield of 45 bushels to the acre." A private letter from Burrawang informs us: "The new hybrid wheats, Defiance and Champlain, received a great many special visits, and were well spoken of by millers from other colonies as well as by our own. They received first and second prizes respectively for the best and most valuable new grains introduced into the colonies for the year."

THE VALUE OF POULTRY.—I. K. Felch tells the Scientific Farmer that of all the agricultural pursuits, none pays better than the labor bestowed upon the poultry on the farm. This fact is acknowledged, and yet how many of our farmers fail to make the same careful outlay for their poultry that they do for their cows and swine! They run the dairy with care, and the butter-box goes to market each week regularly. Why not have as a companion to it a poultry farm and an egg-box? The sour milk from the butter-making will pay far better fed to poultry than to hogs. Poultry sells at an average higher price than beef or pork, and it costs no more to make it. Our farmers in most cases near our cities have regular customers for their butter; these same parties would take weekly a much larger amount in money's worth of poultry and eggs. In this way 200 fowls upon a farm would pay as much into the family fund as would ten cows. Many of our farmers do not believe this; but let them try the experiment of keeping an exact account with both cows and hens, and they will find what we tell them is true. One bushel and a peck of corn, or its equivalent in other food, will keep a hen twelve months.

TO OVERCOME WEEDS.—The editor of the Rural Home, while traveling through portions of New York, makes some very entertaining notes from which we take the following: In the clover field were spots of *Anthemis arvensis*, a species of chamomile, which we judged were caused by the shocks of wheat which stood a long time last year, to dry out, and probably smothered the clover. This is a confirmation of our theory that the best way to overcome vile weeds is to manure and cultivate highly, seed thickly, and overcome the evil plants with good, and this is in accordance with the instructions of the Great Teacher, "Be not overcome of evil, but overcome evil with good," a precept as applicable to material as to spiritual things.

CURE FOR GAPES IN CHICKENS.—A correspondent of the London Agricultural Gazette, as an experiment, tried sulphur and salt, namely, two parts of sulphur and one part of salt mixed with water to the consistency of thick cream (it is best to use the finger in mixing, as sulphur will not readily mix with water). He then applied it with a feather from a fowl's wing, dipping it in the mixture and putting it down the chicken's throat about three inches, worked the feather up and down a few times, then applied some more in the same way again. He soon found they were much better, and repeated the operation three or four times, leaving two or three days between each application. They are now all cured and doing well.

TO RID SHEEP OF TICKS.—A cheap and effectual remedy for these pests is the following: Mix a little sulphur with salt and feed occasionally through the warm weather. It will effectually clear sheep of all ticks. I keep a few sheep and have not seen a tick on them in two years. The same remedy applied to cattle troubled with lice, will soon rid them of the vermin. So says C. Chamberlain in The Husbandman, and W. A. Ward says that the use of sulphur with salt well repays the trouble of keeping a supply for cattle and sheep. If a mixture of one part sulphur with seven of salt be freely supplied there will be no trouble with vermin. He gives his horses the mixture with good effect.

THE FUTURE OF JOURNALISM.—Mr. J. Whitelaw Reid, editor of the New York Tribune, says: "We shall not have cheaper newspapers. They are the cheapest thing sold now, considering the cost of making them. We shall not have bigger newspapers; they are bigger now than a busy people can read. We shall have better newspapers; the story better told; better brains employed in the telling; briefer papers; papers dealing with the more important of current matters in such style and with such fascination that they will command the widest interest. In making a newspaper, the heaviest item of expense used to be the white paper. Now it is the news. By and by, let us hope, it will be the brains."

LUCERN IN CANADA.—Mr. Romeo Stephens, of Slocum Lodge, St. Lambert's, near Montreal, tells the Farmer's Advocate that he commenced cutting his first crop of Lucern on Monday, the 2d day of June. Some of the crop was two feet five inches high, yet not a drop of rain had fallen on his farm this spring up to that time. Mr. S. cut four crops of this valuable fodder from the same ground during the season, and six cuttings are often taken from it in England.

AMMONIA FOR FLOWERS.—A lady correspondent of the Country Gentleman does well in reminding window flower growers of an old but nearly forgotten fact, that a few drops of hartshorn in the water given to plants is an excellent fertilizer. Mr. Meehan says that it is worth all other "concentrated" manures for this purpose.

SOME fear exists in England, as we learn from the London Garden, that the refrigerating process will be the means of inundating their markets with American peaches. A writer advises that they plant the "Early Alexander," so that the crop will ripen before the American harvest begins.

Domestic Economy.

CONDUCTED BY EMILY MAPLE.

IN SMALL THINGS.

ANNIE L. JACK.

"She has not been brought up to know very much about work, and it is very likely she will be extravagant." It was a vinegar-faced woman who made the remark of one younger and prettier than herself, who had just commenced housekeeping, and I thought to myself that although it was not likely to be true of the person under consideration, it is too often the case that when young girls enter upon the life of responsibility that housekeeping entails, they are, in nine cases out of ten, ill-prepared to conduct affairs with economy and regularity.

While the cooking schools do a good work, they only accomplish a part of the necessary education, and leave the student ignorant of many practical details. The art of housekeeping must become *fashionable* before it will be recognized as of importance and take its proper place in the world. The word is one I utterly despise as carried out by the women of the day, who have, in many cases, no independence, but must bow to all the ungainly and costly *fashions* that are invented to spend money and spoil the next generation. But if the sex would take in hand to study how to keep house, making the duties therein a part of education under a judicious mother, there would be less bankruptcy, fewer suicides and runaway bankers, and less misery and dishonor. "But it is not the sensible *home* girls that men choose as wives," says one over my shoulder. I fear *there* lies the trouble. The young men, with their extravagant and high-flown notions, must follow the butterflies who

> "Play with ivory keys,
> And dance the polka's measure."

And then they wonder why their wives are poor housekeepers, so unlike their mothers, who, reared in a slower age and different atmosphere, have been the household fairies of their lives so far. Ah! it is in small things that we must try to improve, never ignoring the lesser duties of our station in grasping at the higher; but with ceaseless, never-wearying touch giving attention to the ways of our household, and as the old song says, "Pay as you go and practice what you preach."

ICE AND ICE-WATER.

THERE is no doubt that many a life will be lost during the summer through imprudence in the use of ice. In this particular, the majority of persons are careless, notwithstanding the warnings of the past. Ice, if used cautiously, is not apt to do harm, but to the sick, it is generally a great comfort. All do not stop to think that to drink ice-water when one is warm from exercise is dangerous. The reason is obvious, when the high temperature of the stomach is compared with the icy fluid which is taken into it. Bits of ice may be taken with impunity, when ice-water would have serious effects.

As ice has at the present day come to be looked upon as a necessity in house-keeping, a refrigerator is in many families considered as important as a sewing machine. An elaborate refrigerator is a most convenient article to the housewife, but a plain one, that any carpenter can make, will answer. Those who have no ice-chest can keep a day's supply by wrapping the ice in flannel and placing it in a tub in the cellar. It is best to put a block of wood in the tub for the ice to rest upon. Otherwise it would not keep so long, on account of lying directly in the water from the melting ice.

M. G. R.

DOMESTIC RECIPES.

To Cook New Potatoes.

Wash, rub the skin off, and drop into salted, boiling water. When tender, drain, give a shake and set on the back of the stove to dry, with the cover a little at one side to allow of the escape of steam. Boil some milk; put in a large tablespoonful of butter and thicken with a little flour; wet smooth in milk. Take up the potatoes into a vegetable dish and pour over the gravy.

String Beans for Winter Use.

Wash, take off the strings and cut into pieces an inch in length. Put them into a stone jar, first a layer of beans, then a layer of salt, and so on, until the jar is full. Put a plate with a weight on top, and pour over cold water until covered. Keep in the cellar. When wanted for use, throw as many as are needed into a pail or pan of cold water, and let freshen for half a day. Change the water twice or thrice. Cook the same as if newly gathered. When packing, use plenty of salt.

E.M.

Molasses Cookies.

One teacup of New Orleans molasses, the same of white sugar, one-half cup of hot water, in which one tablespoonful of soda is dissolved, two-thirds of a cup of shortening (some prefer butter, but I use meat fat or lard), and one egg. Stir in as much flour as possible, then place upon the board and mix in just enough to have them roll out nicely—they must be quite soft. Roll them about one-fourth of an inch thick, and bake in a quick oven. Ginger, if liked.

Doze Cake.

Two cups of sugar, three-fourths of a cup of butter, cream, then add four beaten eggs, one cup of sweet milk, one teaspoonful of soda two cups of flour, two teaspoonfuls of cream-of-tartar. Dissolve the soda in the milk and stir the cream-of-tartar into the flour. Flavor as you wish.

Puff Cake.

Three eggs, three-fourths of a cup of butter, two cups of sugar; beat well together, then add one cup of sweet milk, two teaspoons of cream-of-tartar, one teaspoonful of soda and three teacups of flour. Put the soda in the milk, and the cream-of-tartar in the flour.

Palermo. M. C. W.

Brown Bread.

One quart of buttermilk, one-half teacupful of molasses, two teaspoonfuls of saleratus, one teaspoonful of salt. Stir in one-third cornmeal and two-thirds coarse flour, until stiffer than a batter, but not stiff enough to pile up. Steam two hours, then put into the oven long enough to brown.

Fried Cakes.

Two cups of sugar; two cups of buttermilk; three eggs; one-half cup of butter or fried meat fat; two teaspoonfuls of saleratus and any seasoning you like. Mix just hard enough to roll out.

Hard Soap.

Six pounds of soda; seven pounds of grease; three pounds of unslaked lime and four gallons of water. Put soda, lime and water into a kettle and boil until dissolved; let it stand two days, pour off the liquid, throw away the dregs, add the grease to the liquid and boil until it is of the thickness of honey. Then turn out into a wash-tub to harden, cut into whatever shape you like, dry and pack away for use. Any grease will answer if cleansed.

E. M. P.

Cold Slaw.

Slice or chop very fine one head (or enough for family use) of cabbage and season with salt and pepper. Beat three eggs well together; mix with it a teacupful of vinegar, one teaspoonful of unmixed mustard, a tablespoonful of sugar and a tablespoonful of butter. Bring to the boiling point and pour over the cabbage.

MARY B.

Cucumber Pickles.

Take fresh from the vines, wash carefully, put them into an earthware jar, pour salted boiling water over them for three or four mornings in succession and the last time drop a lump of alum into the water. Then turn off the water and pour over weak, hot vinegar and let stand overnight. In the morning drain and cover with hot spiced vinegar. Cover with horse-radish leaves and they will keep for a year.

Cream for Coffee.

The members of my family prefer the following made cream for their coffee to the genuine article. Beat one egg to a foam, add a tablespoonful of white sugar, and pour over a pint of boiling hot milk stirring briskly as it is poured over the egg. Prepare at night for the morning.

A NEW ENGLAND HOUSEKEEPER.

News of the Week.

MISCELLANEOUS.

Monday, July 14, 1879.

The export of dressed meat from this city to the English market, which reached a large proportion two years ago, but was temporarily suspended in consequence of the increasing shipments of live cattle, is about to be revived on an extended scale. The action recently taken by the British government to check the exportation of cattle from this country has produced its natural effect. Large dealers in cattle and beef have given up exporting live cattle and have again turned their attention to the export trade in dressed beef. A new system of refrigerating has been put into action whereby the necessity for the use of ice on board steamships is done away with. It has been found through numerous trials in the exportation of meats, that they must not be frozen, but only kept at a temperature which will delay decomposition. The new system is said to be a perfect and cooling process. It is produced by means of compressed air, which can, if necessary, be reduced in temperature even below zero. It is expected that the fresh meat trade to Great Britain can be revived to its former magnitude, and even exceed it. Such has been the speculative tendency in cotton that since last September eighteen million bales have been sold in New York alone, which is five times the actual crop. Information has been received here that, on the evening of the 4th, a terrific storm swept over Merrick county, Neb., entirely destroying the crops. The county is four miles wide and several miles long. All the wheat and corn within its limits was entirely destroyed. Jeff Davis has struck a bonanza. Mrs. Sarah A. Dorsey, of Mississippi, who died recently in New Orleans, bequeaths to him two large plantations in northern Mississippi and an elegant villa at Beauvoir on the sea coast. The bequest was made because of "the great services and sacrifices" of Davis "in behalf of the South."

Connecticut refuses to adopt the scheme of issuing State bonds to take up town and city bonds issued for railroad purposes. The proposal was for the towns and cities to give the State their bonds bearing 4.65 per cent. interest, while the State bonds should bear only four per cent. At a meeting to advance the scheme only one town favored it, and even a committee to consider it was refused. Such State indorsement would be only an opening wedge to the payment of the debt from the treasury of the commonwealth. A like proposition has been put forth in this State. Connecticut sets New York a good example in this respect. Seventeen western railroads report an increase of gross earnings during June amounting to $425,465, as compared with the same month last year, or fully ten per cent. The increase for the six months of the year is only $158,796 in excess of the earnings of the first half of 1878. Improving business is counted on for the rest of the year. Reports from various southern cotton exchanges show that the cotton crop June 30, was a week or two weeks behind last year. Crop reports from all parts of Canada indicate a fair average yield. The only black spot is the condition of spring wheat, which promises to be below the average. Wednesday afternoon over 500 Mormons arrived at Castle Garden, New York.

The "Arithmatic men" of both sections have begun their predictions in regard to the effect of the next census on the political strength of the South in Congress. The "Stalwart" reckoners rely chiefly on Kansas; the "Brigadiers" on Texas and Arkansas. When these examples are departed from the guessing is of the loosest. It may be that the "solid South" will become of small importance after the readjustment of the representation, though it will make no contemptible part of the Senate; but morally it will exist just so long as sectional dissensions growing out of the war are fostered by one party or the other. The editor of the Kansas Nationalist has reprinted in his paper a warning article, bearing date of Christmas, 1875, in which the danger to the country of a "political Macedonian phalanx" was pointed out, and an internal remedy proposed instead of the external so fruitlessly applied by Grant's Administration. He urged the systematic colonization of selected States in the South, with a view to introducing a fresh Northern or European population which would "nationalize them. He now, with greater force, renews his exhortations to this effect, and shows how easily Florida and Arkansas, for example, could be won over, not to Democracy or to Republicanism, but to sympathy and co-operation with the North on national questions, by an Emigrant Aid Society like that which rescued Kansas from being a slave State. He has perfectly sound ideas in regard to the mode of colonization—in masses, or by accretion where Northern settlements have already established themselves, and with no party distinctions or noisy porpagandism; and he certainly gives reasons for thinking that Eastern philanthropists who are contributing money to General Conway's exodus steamboat, would better employ their money in some such scheme as he advocates.

General William H. Sterling, Inspector of Cattle for the State of New Jersey, has placed Essex county under quarantine. There is no epidemic, but a few cases in South Orange, West Orange and Waverly have been reported. The quarantine is more preventive than remedial. No cattle can be removed from or into Essex county without his permit, nor can they be removed from one place to another inside the county limits. Under the law any transgression of the quarantine rules is punishable as a misdeamnor.

THE GOVERNOR'S ORDERS.

Governor McClellan recently sent to General Sterling the following orders:—

I have to request that you will use your best endeavors to impress upon the owners of cattle, whether infected or not, that these instructions and the law known as the Pleuro-Pneumonia law are in their interest, as well as that of the State in general, and that their hearty co-operation is asked and desired in carrying out the necessary measures.

It is my wish that while the provisions of the law are made most effective and its purposes promptly and fully accomplished, this should be done in such a manner as to cause the least possible inconvenience and injury to all concerned and a minimum of expenditures by the State.

In this spirit I further advert to certain precautions which are absolutely necessary to insure the complete and prompt eradication of the disease among cattle in the State; and which it may be difficult to enforce without the cheerful and intelligent assistance of the owners of cattle and of all good citizens.

Among them are the following:—

No persons who are not employed in the care of the cattle kept there should be allowed to enter infected premises.

No animal or even fowls should be allowed to enter such premises, for the reason that even when not liable to the infection themselves, they may carry its seeds to neat cattle.

The clothing of all persons engaged in the care, slaughter or rendering of diseased or exposed cattle or in any employment which brings them in contact with such diseased animals should be disinfected before they leave the premises where such animals are.

Persons employed in the care of infected animals should not enter stables, yards or premises where sound cattle are kept without first thoroughly disinfecting their clothing.

Manure, forage and litter upon infected premises should only be removed therefrom in such a manner and be so disposed of as to prevent the spread of infection.

You are instructed not only to take such measures as in your judgment will secure the observance of these and all similar necessary precautions, but you will also use every effort to convince those concerned that it is their own best interest to secure such observance by all means in their power.

Whenever in your judgment it becomes necessary, you are authorized, without further reference to me, to call upon the sheriffs and deputy sheriffs of the townships concerned to carry out and enforce the provisions of the law and of the instructions received from me.

On the 30th of last month the total amount of currency in circulation was $734,801,994.78, and worth its face in gold. The purchasing power of this circulating medium is greater by nearly $9,000,000 than our currency outstanding at any one time, ever before had. But, then, the population and business of the country are also larger than ever before.

Ex-Gov. Allen, of Ohio, humorously known as Olebillallen, died on the 10th inst., after a brief illness. Despite the reports that the Memphis municipal authorities had taken the most careful precautions against the recurrence of yellow fever in that city, it has once more broken out there. This is unusually early in the season. Even in New Orleans it seldom appears before the early part of August. A number of deaths have already occurred in Memphis, and there has been a stampede of fully 10,000 of the inhabitants. All the surrounding towns, and most of the cities that do business with the place, have already quarantined it. Owing to the utter stagnation in business matters that must result in case the Gulf cities are again scourged by the yellow pestilence, the news of the Memphis outbreak has already had a very injurious effect on business in many quarters outside the plague-haunted city. The news caused a severe break in the Chicago produce markets on Monday. Mess pork declined eighty-five cents per barrel, nearly nine per cent. Short ribs, the leading cuts of meat, declined sixty-five cents per 100 pounds, over thirteen and one-half per cent.; and lard also fell. The panic extended to breadstuffs, and although they did not decline so much as hog products, the break was a bad one for holders. Wheat fell two and one-half to three cents. The depression was the greater as the scourge had begun early in the season, and appeared unusually far north. The latest reports say that it is not spreading rapidly, and all the other Southern cities and towns are still reported to be entirely free from the scourge.

FOREIGN.

Prince Bismarck has carried his tariff scheme very nearly in the form in which he presented it. It comes into operation part on the 1st of October next and part on the first of January. Fifty per cent. extra duty is to be imposed on the goods of countries which treat German goods unfavorably, which of course, is simply an assertion of a claim to equality with the most favored nation. It is estimated that the new tariff will bring in an addition to the revenue of 120,000,000 marks, of which the Empire will get 22,000,000, the rest going to the separate States. There is not much likelihood, however, that the arrangements will stand very long. The tariff is too complicated and onerous to be administered without great vexation, and the duties on foreign grain and provisions are likely to increase discontent and disaffection in the great towns. The duties on grains and raw materials from this country will injure our trade considerably with the Fatherland.

In Paris a week ago, a magnificent banquet was given at the Grand Hotel to M. de Lesseps, in celebration of the signing of the transfer to him of all concessions for a water-way across the isthmus. General Turr presided. All the speakers were emphatic in declaring that the Panama project was in nature universal, and that it was not intended to give predominance to any particular national interest, but it was purely a commercial enterprise. M. de Lesseps does not think that the expenses of constructing the Darien canal will exceed 250,000,000 fr. He says the difficulties of the work are not so formidable as they were in the construction of the Suez canal, as a railway already exists along the course of the proposed Panama canal, with a large town at each extremity.

Advices from Kent, Eng., state that the hop crop threatens a more disastrous failure than for years past. The contributions to the vatican of Peter's pence for the first half of the present year have increased about $140,000, compared with the sum contributed during the same period in 1878. The United States consul at Messina sends the department an account of the recent eruption of Mount Etna. It broke out on the 26th of May and ceased the 11th of June. In Messina the pavements and balconies were covered with black dust. Villages near the mountain were shrouded with darkness. The inhabitants fled in terror. The damages are estimated at $200,000, towards which the Italian parliament has contributed a large amount. King Humbert gave personally $1,000. General Grant's trip, as now marked out, will be extended to Australia, thence to New Zealand, Samoa, the Fecje Kingdom and the Sandwich Islands, reaching California in April, 1880, instead of in September, 1879.

The news from Zululand shows that the prospect of peace is not nearly so assured as was supposed, and Cetewayo is again suspected of simply wishing to gain time by the late negotiations to get his crops in and destroy the grass on the line of the British advance. He is said, in the meantime, to be entrenched at Ulundi, in the north of his territory, in an impregnable position, but he is also said to believe that if he can get one chance at the British army in the open field he will finish it. In fact, it seems not unlikely that if battle is offered him on open ground he will accept it, and there is no doubt that defeat under these circumstances would crush him. The difficulty of reaching him, however, with existing means of transportation is enormous. Sir Bartle Frere, who brought on the war, and who is really responsible for all the disasters that have occurred, and who has been disapproved and removed by the home Government, appears to be not in the slightest degree abashed. He has been making a triumphal progress through the colony, delivering eulogies on his own policy and receiving the plaudits of the colonists, who rather like to have the English carrying on a great war for them and spending enormous sums among them.

The body of the Prince Imperial arrived in England from Zululand on Tuesday last, and was placed beside his father's at Chiselhurst on Saturday. Never has such great honor been shown to the remains of a foreigner by the British royalty, nobility and commonality. The Prince of Wales, and the Duke of Connaught, and a host of the highest nobility were present at the debarkation of the body. The Queen witnessed the funeral which was attended by the Prince and Princess of Wales, and several other members of the Royal family, including the Commander-in-Chief of the army, the Duke of Cambridge. Prince Jerome Napoleon, the present head of the Bonaparte family, his sons and most of the leading Bonapartist notables of France were present. Marshal McMahon solicited permission of the government to attend, but was refused, and an order issued that no officers of the army or civil employes of the government should be present. That the young man was slain in the service of the British crown, is a good reason why he should be honored by the British people. The sentiment is deepened by the knowledge that his death is greatly due to official mismanagement and soldierly cowardice, or, to say the least, culpable demoralization. Then, again, he was very popular among his companions at the military school at Woolwich, and was a great favorite with the royal family socially. Moreover, he was the hope of a great party in his own country, in capacity a good deal above the average of royalty, but, above all, he was the only son of his mother and she is a widow.

A Half or Whole Bottle of Murray & Lanman's Florida Water mixed with the water of the bath is of great use to invalids and all delicate or nervous persons, as it revives and braces up the failing strength and soothes the most irritable nervous system.

Why do Hop Bitters cure so much? Because they give good digestion, rich blood and healthy action of all the organs.

THE MARKETS.

PRODUCE AND PROVISIONS.

NEW YORK, Saturday, July 12, 1879.

BEANS AND PEAS.—Marrow beans quiet and tending lower. Mediums not in heavy supply; quoted steady. Other sorts dull and in some cases flat. The West Indies seem to want less red kidneys than usual; it is rumored that consumers are obtaining supplies from other points. Peas without important change. Beans, marrow, prime, $1.30@1.32½; fair to good, $1.25@1.30; medium, prime, $1.30@1.32½; fair to good, $1.22½@1.27½; pea, choice, $1.30@1.32½; fair to good, $1.30@1.25; white kidney, choice, $1.32½@1.35; fair to good, $1.25@1.30; do., red, prime, $2.60@2.70; fair to good, $2.50@2.60; turtle soup, $2.25@2.30. Peas, green, per bush., $1.90; Southern B. E. per 2 bush. bag, $2.35@2.60; Canadian, in bulk and bond, per bush., 70c.

Exports for the week, 386 bbls. beans; receipts, 3,050 bush.

BEESWAX.—Demand is slack and prices unsettled; quoted at 24@24½c.

BROOM CORN.—Demand good and supplies steadily diminishing.

Brush and short broom, choice, ₱ lb, 5½@6½c.; do., common to good, 4½@5½c.; hurl, good to choice, 4@4½c.; do., common to fair, 3½@4c.; red and crooked, 2½@3½c.

BUTTER.—Right through the week the absence of consumers has been marked in the demand, and though supplies are of more favorable bulk, prices continue easy. Besides exports are light, only 6,900 pkgs for week, and only about one-half of that quantity taken for England. The top for State is 15½c. for creams and 13½c. for tubs and fine pails. Firkins scarce, but not much wanted for Southern shipment. Falsely branding of poor butter, as creamery is not likely to prove a profitable deception; crops are too large and good, and buyers are now too sharp to bite at such flimsy bait. Summer butter had better be shipped right along, as that grade, if packed down, reduces the average price of dairies in the fall. Western butter is quiet, only fine marks show steady business.

State pails and half tubs, choice, 13½c.; good to prime, 12@13c.; fair to good, 10@12c.; firkins, choice yellow, 14½@15c.; fair to good, 13@14c.; Welsh tubs, choice, 13@13½c.; good to prime, 12@13c.; fair to good, 10@12c.; poor, 8@9c.; State creamery, best invoices, 15½c.; good to prime, 14@15c.; sweet cream, best, 15c.; fair to good, 13½@14c.; Western, best invoices, 15½c.; good to prime, 14½@15c.; fair to good, 13½@14½c.; imitation creamery, 10@12c.. Western dairy, best invoices, 10½@11c.; good to prime, 9½@10c.; fair to good, 8½@9½c.; poor to fair, 7½@8½c.; Western, factory, best invoices, 9½c.; good to prime, 8@9c.; fair to good, 7½@8c.; poor to fair, 7@7½c.; grease butter, 3½@4½c.

CHEESE.—Although the arrivals have been large they have been well bought up, the export demand having been brisk, and the market leaves off a trifle better, closing at 6@6¼c. for fancy factories.

Quotations are for fancy factory, 6@6¼c. for best; 5. 5¼c. for good; 4@5. for fair to good; 3@4c. for half-skimmed, and 1@2c. for skimmed; dairy at 5@6c. for good and fine; 3½@4 c. for fair to good, and 1@2½c. for skimmed; Western factory at 5@5½c. for fine; 3½@4½c. for half-skimmed, and 1@2¼c. for skimmed.

COTTON—Has been variable and excited, closing strong at 12.16c. for July; August, 12.18@12.19c.; September, 12.15@12.16c.; October, 11.26c.; November, 10.92@10.93c.; December, 10.88@10.90c. January, 10.83c.; February, 11.00@11.02c. March, 11.12@11.16c.

Quotations for spot cotton are based on American standard of classification, and cotton in store running in quality not more than half a grade above or below the grade quoted.

	Uplands.	N. Orleans and Gulf.	Texas.
Ordinary	10¼	10⅜	10⅜
Strict ordinary	11⅜	11¼	11¼
Good ordinary	11¼	11⅜	11⅜
Strict good do.	11¾	11¾	11¾
Low middling	11⅞	12	12
Strict low middling	12 1-16	12 3-16	12 3-16
Middling	12 3-16	12 5-16	12 5-16
Good middling	12¼	12⅜	12⅜
Strict good middling	12¾	12¾	12¾
Middling Fair	13 7-16	13 9-16	13 9-16
Fair	14 7-16	14 9-16	14 9-16

STAINED.

Good ordinary	10 15-16
Strict good ordin'y	11 5-16
Low Middling	11⅛
Middling	11⅜

DRIED FRUITS.—Trade is still slack and prices generally unchanged.

Apples—Evaporated Alden's and Williams's at 10¾@11c.; do., new process, at 8½@9c.; State plums, 8@10c. Blackberries quoted at 4½@5c. Peaches—Peeled Georgia, 5@6c. for poor; 6@7c. for fair to good; 8@9c. for prime; choice North Carolina, 9@10c.; good do., 7½@8½c.; unpeeled halves, 3@3½c.; quarters, 3c. Apples—New, 2½@2¾c. for Southern quarters in bags; 2½@3½c. for sliced; State, 3@3½c. for new sliced, and 3@3½c. for quarters; Western, 2¾c. for new quarters.

EGGS.—Receipts for week, 5,525 bbls.; do., last week, 8,429 do. The tone of the market is better, but prices do not jump up with the usual vigor shown in summer when supplies fall off.

Near points, 14@15c.; State and Penn., 13½@14c.; Western, choice, 12½@13c.; Canadian, do., 13@13½c.; poor Western, 11½@12c.

FLOUR.—After a sharp advance based upon a rising wheat market, the market leaves off easy and dull.

Latest prices are: $3.65@4.10 for inferior to very choice superfine State (fancy held 5@10c. higher); $3.15@4.45 for poor to good extra do., odd lots and lines; $4.45@4.75 for good to choice do.; $3.65@4.10 for inferior to very choice superfine Indiana, Iowa, Michigan, &c. (fancy quoted as high as $4.10); $4 10@ for inferior to good shipping extra do., and $4.45@4.70 for good to choice extra do.; common to about choice white wheat extras, $4.50@5 10; choice to fancy do. at $5.10@5.35; red and amber winter wheat, inferior to very choice trade and family, at $4.35@5.45; round hoop Ohio at $4.35@4.75, and trade and family brands of do. at $4.95@5.60, the latter rate for fancy; St. Louis, $4.95@5.95 for inferior to good extra; $5.95@6.85 for good to very choice (with fancy brands held higher); Minnesota clear, inferior to fancy, at $4.30@5.45; Minnesota "straights," very inferior to strictly fancy, $5.00@6.50, and patent poor to strictly fancy at $5.45@8 00 (with a few fancy brands quoted at higher figures); unsound stock at from $2.25@5.25; city mill extra at $5.30@5.75, good to to very choice, for West Indies; do. for England, $4.20@4.60; do. trade and family extras, $5.75@6.75; do. for South America, $5.75 for standard brands (winter wheat product); No. 3 at $2.50@3.35 for poor to strictly fancy.

CORN MEAL.—Sales at $2.55@2.60 for Brandywine and $2.00@2.35 for Western.

FRESH FRUITS.—Demand good, especially for items that admit shipment to watering points and other cities. Some fancy Georgia peaches have sold at $7.50@9 ₱ bush.; do., N. C., $3@5; common N. C., $1@3; Md. and Del. crates are poor yet; quoted at $1@2. The sale of water-melons opens unusually early this season. Our currant crop has dwindled severely this season. Apples, red Astrachan, ₱ crate, $1@1.75; Howell, 75c.@$1; common green, $1.00@2.50 ₱ bbl. Pears, Southern Bell and Jargonello, $6.00 ₱ bbl; green Bartletts, bush. crate, $2.80@3; common, 75c.@$1.25 do. Cherries, prime table, 8@10c.; other, including sour, 3@7c. Cherry currants, per lb, 8@10c; small and black, 5@7c. Gooseberries, per bush., $1.75@2. Whortleberries, Md. & Del., per qt., 6@8c.; Jersey, per 14 qt. box, 75c.@$1.25. Blackberries, N. J. Wilson, 10@12c. ₱ qt.; Md. & Del., 7@10c.; Dorchester, 6@8c. Raspberries, Antwerp, per 3 to qt. cups, 3½@5½c.; do., native, 2@3c.; Blackcaps, per pint, 3@4c.; Brandywine, 5@6c. Watermelons, Geo., per 100, $30@40; Fla., $20@30. Hothouse grapes, B. Hamburgh and Muscat, 75c.; Sweet Water, 30@40c. Peanuts quiet but firm, without much late addition to the stock; Va. hand-picked, $1.40@1 45; fancy, $1.30@1.35; extra prime, $1 25@1.27½; good to prime, $1.15@1.20; shelled, 5½@5¾c.

FURS AND SKINS.—At the London July sales sea otter advanced 20 and opossum 10 per cent.; skunk declined 25, red fox, musquash and Eastern and Northern mink 15 and grey fox 30 per cent, as compared with sales last March. Western and pale mink, marten, cross and silver fox, beaver, bear, otter, fisher and raccoon unchanged.

GRAIN.—Wheat sold up sharply early in the week, on the poor crop prospects abroad, and an extensive business, but left off weak at a decline. Latest sales are of No. 1 white at $1.16@1.17; do. July, at $1.16½@1 17; do. August, at $1.12@1.13½; No. 3 white at $1.10; ungraded white at $1.13@1.17; No. 2 red at $1.18@1.20; do. July, option, at $1.15¾@1.17½; do. August, at $1.11@1.12½; do. September, at $1.10@1.12; do., new crop, deliverable last 10 days in August, at $1.12; ungraded red at $1.00@1.18; No. 1 amber at $1.20; No. 2 do. at $1.14@1.17; do., July option, at $1.13½; ungraded amber at $1.12@1.15; No. 2 Chicago and Milwaukee spring quoted at $1.11 bid and $1.15 asked No. 3 spring at $1; No. 4 spring at 95c.; ungraded spring at 91c.@$1.05; rejected spring at 83@85c; No. 2 red for September at $1.12 bid and $1.13 asked. Rye at 66c. for Canada and State, and 63½c. for Western. Corn has been active and higher, but closed weak; latest sales are of New York No. 1 at 46¼c.; New York No. 2 at 45@45¾c.; do. July at 45c.; do. August at 45¾@46c.; do. September at 47c.; New York steamer mixed at 44¾c.; do. July at 44¾c.; do., August, at 45c.; ungraded Western mixed at 42@45¼c.; No. 2 white at 50c.; New York yellow at 46@46½c.; steamer yellow at 45c. Oats have been active at higher prices, but closed weak: sales of New York No. 1 at 43@43½c.; New York No. 2 at 40½@41c; New York No. 3 at 39@39½c.; No. 1 at 40¼c.; No. 2 at 39¾@40¼c.; No. 3 at 38½@39¼c.; mixed Western at 38@40½c.; white do., at 40@43c.; white State at 42@44c.; No. 2 Chicago, afloat, quoted at 40@40½c., and 39c. in store.

HAY AND STRAW.—Trade is liberal and prices sustained.

Hay quoted at 45@50c. for shipping and 70@80c. for prime retail qualities. Straw at 50@55c. for long rye, 40@45c. for short rye, and oat at 30@40c.

HOPS.—Emmet Wells, in his circular, says: "Continued discouraging crop reports, both from Europe and from our own country, has caused a further advance of 2c. ₱ lb. choice on hops of the last growth and 1c. on "yearlings." The chief buyers are speculators and brewers. The market is not at all excited, but a very strong feeling prevails, and the tendency is toward a further advance. We hear of a few buyers offering to contract with growers at 15c. for the new crop—not a very liberal offer considering the fact that the opening price is likely to be nearer double that figure, judging from the present outlook.

	Bales.
Receipts for the week	2,085
Total receipts since September 1, 1878	77,774
Total receipts for same period in 1877	135,599
Export clearances for the week	168
Total exports since September 1, 1878	28,941
Total exports for same period in 1877	78,531

Quotations are for New York's new crop, choice, 10@15; New York's, new crop, medium, 8@9; New York's, new crop, low to fair, 6@7; Eastern, 7@10; Western, 7@10; Yearlings 3@5; Olds, all growths, 2@3 Pacific coast nominal 9@11

POULTRY AND GAME—Cooped stock has been very scarce, and prices for the moment are very strong. Liberal supplies expected next week.

Chickens, best, per lb., 20@22c.; small, 18@19c.. fowls, N. J., 13@13½c.; Western, 12@13c.; Southern 11½@12c.; roosters, old, 6@7c.; turkeys, 9@11c.; ducks, spring, ₱ pair, 62½@78½c.; N. J., N. Y., and Pa., per pair, 60@70c.; Western, co., 45@50c.; Southern, do., 40@45c.; Geese, Jersey do., $1.37@1.62.

Dressed poultry is in light demand for market use, small receipts however support following range:

Turkeys, Phila., dry-picked, 12@14c.; State and Western, prime, 11@12c.; chickens, Phila., large, ₱ lb, 27@35c.; Phila., small, 23@24c; State, 20@22.; Western, 18@20c.; fowls, N. J., choice, ₱ lb,, 13@14c. State and Western, dry-picked, 12@13c.; scalded, 10@12c.; Phila. dry-picked, 14@15c.; ducks, spring, Phila. dry-picked, 16@18c. ₱ lb.; spring, small, 13@15c.; old, Phila., dry-picked, 10@13c.

There is hardly game enough to quote. In summer almost all items find markets near at home. Eng. snipe and plover nominal at $2 2.25 ₱ doz.; stall-fed pigeons, $1.75; baited, $1.50; tame squab, $2.00.

PROVISIONS.—Towards the close of the week a panicy feeling prevailed, based upon speculative influences and assisted by the apprehended spread of the yellow fever, with its consequent effect upon trade with the South. Closing prices for mess pork are for July at $9.30 bid and $9.40 asked; August at $9.40 bid and $9.40 asked; September at $9.45 bid and $9.55 asked; October at $9.50 bid and $9.60 asked. Bacon at $5.25 for long clear and $5.40 for short clear. Beef—Plain mess at $10.25@10.50; extra mess at $11.50@12; packet at $11@11.50; tierced beef, city extra India mess, at $18@20.50. Beef hams at $20. Lard at $6.17½ for spot lots, $6.20 for July and August, $6.50@6.37½ for September, $6.32½@6.35 for October. Stearine at 7¾c. Tallow at 5 15-16@6c. for prime.

SEED.—Grass are dull; clover quoted at 6¾c. for prime and 6¾@7c. for choice. Timothy at $1.70@1.75.

TOBACCO.—There is a fair export demand and the market generally is a strong one, with quotations essentially unchanged.

VEGETABLES.—Potatoes have suddenly and largely declined, under very heavy supplies. L. I. exirs, $1.75; other, $1@1.50; Md., $1@2; culls, 5c. Norfolks no longer arrive. Garden truck easy in prices. Green corn, Hickensack, $1 ₱ 100. Burlington, 50@75c. Cucumbers, L. I., ₱ 100, 75c.; Norfolk, ₱ crate, 25@50c. Tomatoes, L. I., near-by, ₱ crate, $2; So. Jersey, ₱ basket, 75c.@$1; Norfolk, ₱ bush. crate, 50@75c. Beans, L. I., wax, ₱ bag, 75c.@$1; do., round, 75c; do., flat, 50c. Squash, L. I., yellow, ₱ bbl., $1.25@1.50; do., white, $1. do., Norf., marrow, $1.25@1.50. Green peas, L. I., per bag, 75c.@$1. Cabbage, Early Wakefield, per 100, $2@4; Flat Dutch, $5@6. Onions, Va. and Md., per bbl., $1@1.50. Beets, Jersey, per 100 bunches, $1.50@2. Russia turnips, per bbl., 75c.@$1; Jersey, new, per 100 bunches, $1@2. Carrots, per 100 bchs., $1@1.50. Cauliflower, ₱ bbl., $1.50@4.

There is hardly game enough to quote. In summer almost all items find markets near at home. Eng. snipe and plover nominal at $2 2.25 ₱ doz.; stall-fed pigeons, $1.75; baited, $1.50; tame squab, $2.00.

WOOL.—There has not been much activity the past week, and there has been rather more of a disposition to sell; XX Ohio fleeces quoted 40@41c.; No. 1 and above Ohio at 40@42c.; spring California, 19@25c.

LIVE STOCK MARKETS

NEW YORK, Saturday, July 12.

BEEVES.—Receipts for the week, 12,378 head. A large portion of the heavy receipts arrived late in the week, and the market closed fully ½c. off compared with Wednesday. Texans sold at 7@7¼c.; common to extra steers, 55@56 lbs., dress, 8@9¼c.; tops and extras, 10c.

MILCH COWS.—A number were held over; nominal range, $30@55 per head.

VEAL CALVES.—Market low and not well attended. Grassers and buttermilk, 2@3c.; ordinary to good milk veals, 4@5¼c.; extras, 6c., including State and N. J.

SHEEP AND LAMBS.—Total for week, 32,877 head. Supply in excess of the demand, many carried over. Poor to fair sheep slow at 3½@4¼c. Extra shipping, Ohio fat, brought $5.30 per 100. Altogether it has been a rough week for sheep, many have not realized cost delivered to pens. Choice lambs, 7@7¼c.; other, 5@6½c

SWINE—Firm at 4¼c.; city dressed, $5.00@6.12, heavy to pigs.

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1879. BONE. BLOOD. MEAT.

1879. No Rock Phosphate Used.

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It is the leading Fertilizer now in use by the farmers of the States of New York, Ohio, Pennsylvania and Vermont, and the Canadian Provinces.
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Reading for the Young.

FOR THE BOYS.

E. P. P.

Boys ought to be sure that every animal or fowl on the place grows up a pet. It will surprise them to find the capacity which even hens have for learning to understand what is said to them. Let each calf, cow, horse, sheep and fowl, have its own name and be taught to respond to it.

I have a few sheep that invariably look up and speak to me as I go by the pasture. If I call one of the cows to the fence to take something from my hand, I should be ashamed to have them show timidity. Horses we expect to have intelligence, and expect them to show it; but hens we consider as fit only to eat and lay eggs. A few years ago I needed a hen to set on Brahma eggs. I borrowed a little, black top-knot. She hatched well and took good care of the chicks for a few weeks, when one afternoon I heard her at the back door shouting a genuine hen talk. She was trying her best to say something to me. She stepped backward and forward, and craned her neck and uttered the most eloquent sounds I ever heard from a hen's throat. This was kept up for ten minutes, stopping occasionally to eat. She then deliberately started off for her home, about five hundred rods away. I found the chicks where she had left them under the pie-plant leaves in the garden. They seemed to understand the whole affair and never inquired after the old lady.

Dogs are the only ordinary pets that I abolish from my land. They eat as much as a calf and very rarely do any good. They trample my flowers and howl nights, and are not quite safe. Cats are better; they save my young fruit trees from the mice, and are as useful all over my fourteen acres as they are in the house. Always keep two, so that they can have frolics. One of mine eats frogs like a Frenchman.

Invariably speak kindly to every creature, and show no bad temper. It will surround you with all kinds of friends that will make life a delight.

PRESENCE OF MIND.

A little time ago a young man died in Philadelphia who was popularly known, from his swiftness in running, as "Deer." His story was a singular one.

A few years since he was a ragged, shrewd lad, peddling newspapers about the railway depots. One day he happened to be on the line of the Pennsylvania Railroad, when he saw an engine rushing down the track without any driver or tender. By some chance it had been separated from the cars, and was driving on alone.

The boy knew that it would meet an express train this side of the next station. He had about four minutes' start, and darted down the track after it. The engine was, of course, not at full speed, yet nobody but Deer could have won in such a race.

He did win; was cool enough to remember the signal to the station-keeper necessary to have the switch placed so that the engine would be turned on to another track. It was done just two seconds before the express train went thundering by.

Deer, for this service, was granted by the Pennsylvania Railroad corporation a monopoly of the newspaper and book trade on its trunk route, and from this he derived a handsome income. It was to the boy's coolness, as well as to his fleetness, that hundreds of human beings owed their lives.

Another instance of the effect of presence of mind in the face of imminent peril occurred a few weeks ago in New York, when a manufactory employing several hundred hands was found, by a boy of twelve, to be in flames.

Instead of yelling fire, as most boys would have done, he went to the foreman and whispered to him his discovery. In five minutes the men were quietly dismissed, and it was not until they had reached the street that they knew the danger they had escaped.

A panic would have inevitably resulted in great loss of life. Now boys cannot be taught swiftness of foot, but they can be taught self-control, and the rare ability of keeping their wits about them in sudden danger, which is a much more useful quality.—*Ex.*

A WORD TO THE MEMBERS OF THE CLUB.

All agricultural and horticultural societies are now preparing for fairs and exhibitions, or holding meetings for the discussion of any and all topics in which they are interested. Our association is now four months old, in a most prosperous condition—fairly throbbing with energy and ambition, having any amount of surplus muscle for the wielding of the spade, rake and hoe, and with a rapidly increasing membership—yet we have not had a single meeting. Nothing could please me more than to have a convention of the members of the Horticultural Club arranged for the discussion of all matters in which we are interested; but since this is not practicable, as our members are scattered over the whole North American continent, from the Pacific to the Atlantic, and from the Gulf of Mexico to Lake Winnipeg, we can do the next best thing, that of holding our meetings in the Rural. I wish the members would make the best use of this, their only opportunity of exchanging ideas with one another. Write to me whenever you want information on any topic connected with the garden, if I cannot give it, perhaps some other member can. Tell us how you succeed, or even how you fail, it may assist others to better success and warn them of similar failures. I desire at present to have all the members send in reports in the course of a few weeks, as I intend to publish them either entire or in part in a special number soon to be issued. Uncle Mark.

FROM A MOTHER.

Dear Uncle Mark:—My two little boys, Frank and George, wish me to write to you and ask if you will accept them as members of the Horticultural Club. Both are interested in one corner of the vegetable garden. They spaded and raked the ground, and then what a time they had in selecting their seeds. They have radishes and beets and cabbage and tomatoes, all well tended and growing nicely. Both of them take a great interest in the Rural seeds, and I have promised each a share of the plants this fall; they think their flowers and vegetables are better than mother's. Every day they find some new wonder and pleasure in their garden. I think parents should do all they can to encourage a love for gardening in both boys and girls; it will be the means of keeping the boys at home and out of mischief.

Madison Co., Ind. Juliett Aldred.

LETTERS FROM BOYS AND GIRLS.

Dear Uncle Mark and Rural Cousins:—I promised to let you know how I was getting along with my garden. I have sold radishes and lettuce amounting to 77 cents, and I have still sweet corn, beets, peas, onions and potatoes left. About 12 days ago I received a package of radish seeds from Uncle Mark. I went right to work, leveled up my old radish bed and sowed my seeds; they came up nicely. I water them freely nights and mornings, as the soil here is very sandy and dries out quickly. I keep my garden free from weeds by hoeing a little evenings when I come home from school. Now, dear Uncle Mark, I think when I sell all my garden produce, I shall have money enough of my own to enable me to subscribe for the Rural. My little garden is 22 by 24 feet; but I find I can raise a great deal by taking good care of what I plant. Next to the care of our plants, it is of importance that we should care for our pennies, cousins. Keep them all together, and when you must spend money, spend it judiciously. Do not think I confine all my attention to vegetables, for I dearly love flowers. I have some of the finest Roses, I think, in the country, white, pink and black, (?) but the rose bugs are trying to get the start of me. I have other beautiful flowers. I received a Gladiolus bulb from Uncle Mark. I planted it in a suitable spot and it now looks very thrifty; to-day the leaves measure 15 inches in hight. Uncle Mark, my papa wants to know if we can raise two crops of potatoes in one year. For instance, you sent us the Beauty of Hebron—they are now nearly ripe; will it be possible to raise another crop from them this season? Will they sprout and grow? Now good-bye for this time. I hope to write again soon. Walter C. Gayhart,

Lucas Co., O.

[We raised two crops of the Early Rose at the Rural Farm last summer, the last crop giving fair eatable potatoes, though not so good as the first crop. The Beauty of Hebron being about ten days earlier than the Early Rose, I should think it quite possible to raise a second crop. I would not advise, however, to plant *all* of the first crop, as it *might* prove a failure.—Uncle Mark.]

Dear Uncle:—I suppose that I am one of the cousins, but it puzzles me some to tell whether I am a country or a city cousin, for I live only some three miles from the hub of the universe. I am not so favored as some in having a farm, but I spend my spare time in one of Nature's smaller schools, a garden. We can raise about everything in it except potatoes, which are rather strong, as most of our garden is part of a reclaimed salt marsh and is somewhat damp underneath; however, we have some hills of the Beauty of Hebron in the upper part, which are doing well. The W. T. radishes, (the seed of which we received from you, and for which we are much obliged,) will soon be large enough to eat, but little, black, snapping bugs riddle the leaves with shot-holes, and wood ashes and lime, are to them (the plants) almost necessities of life. We have plenty of green peas. Our corn has spindled out, and is running a race with the pole-beans, which have the best of it, although they have to go crooked, while the corn is straight. I haven't yet planted the sweet corn which you sent me, for the simple reason, that I haven't received it; I hope some postal official has not appropriated it, but if he has may it do him good. I don't have any pets, except a tame snapping turtle which I kept tied to a tree in the yard all winter so that he could not run away; but lest some one else should try to tame one of the same class, I will remark, that I did not dare to undertake to domesticate him, until his perishable parts had crumbled into dust. I suppose I have already written more than you care to read, so I will close. C. A. B.

P. S. Since writing the above I have received the corn, and return thanks. C. A. Butterworth.

Suffolk Co., Mass.

Dear Uncle Mark:—Please may I have one little place in the corner? I will be very quiet and only stay a little while, and will not come very often. I am sweet sixteen to-day and as I have nothing to do but to play on my piano, which was a birthday present from my dear papa, I thought I would clutter a little with Uncle Mark and my Rural cousins, to whom I have never spoken before. I always read the letters with great interest but never have had the courage to write, as I know I cannot write an interesting letter. I am a farmer's daughter, and a horse is my idol. I like cats and dogs but do not care much about other animals. Flowers seem to be the principal topic among the cousins now. I have no garden flowers this summer as our yard is in no condition for them, we having built our house last fall. I mean to have some nice ones next summer. I have a good many nice house plants.

I have just come out of school and am now learning to keep house. I like cooking very much. I am intimately acquainted with Madcap Mollie, who is also keeping house this summer. I think it nice for girls to know how to work as well as to play the piano and entertain company nicely. Well, enough of this, or you will never want me to come again. Your affectionate nieee,

Brookside, N. Y. Myrtle.

[Myrtle is heartily welcome and I shall be pleased to hear from her often. I am glad to hear she is interested in cooking. It is an accomplishment that ere long will be classed among the fine arts, and the few young ladies who know how to cook well will be acknowledged real artists.

Since Myrtle intends to have some flowers next year, and she already has some nice house plants, I recommend her to join the Horticultural Club.

Uncle Mark.

Dear Uncle Mark:—Please put my name on the list of your Horticultural Club. I have a little garden of my own in which I have planted cabbages, tomatoes, watermelons, muskmelons, radishes and peanuts, and having no raspberries to plant, I obtained some willows and set them in a corner of my garden. I have only lived two years on the farm, but this spring I dropped twenty acres of corn. One day last winter an elder brother and myself were chopping in the woods when we were suddenly startled by the furious barking of our dog. On investigating the cause of his excitement, we found that he was vainly trying to catch a weasel which had run in under a hollow log lying on the ground. My brother turned the log and the weasel ran out, but he was immediately caught and killed by the dog. I then brought him home to my sister, who stuffed him, and now he occupies a glass case in the parlor. I am only eleven years old. Your nephew, Geo. Shaw.

Washington Co., Ill.

Dear Uncle Mark and Cousins:—I thank you very much for those Gladiolus bulbs and radish seeds. Now, Cousins, we ought to do our best at gardening, seeing that Uncle Mark is so kind as to give us such a good chance. We have quite a large garden. I see in the Rural of June 7th that you tell us how to raise a great many garden plants. I shall try my best to raise those bulbs and seeds I have planted—the bulbs are doing nicely. My brother and I have hoed most of the garden, and we are going to keep our plants free from weeds. It rains nearly every day and the weeds grow very fast. We have 18 hills of water and musk-melons. I had one large water-melon last year about two feet long and nine inches thick; the others were not so large. I must soon close or I am afraid this will go into the waste-basket. Please excuse my mistakes and print my letter. Bob White.

Winnebago Co., Ill.

Dear Uncle Mark:—I have been reading the Rural stories and letters for some time, and wish to join your Horticultural Club. There has been some very good letters since March. Mother and father have been taking the Rural for some time, and like it very well. I have a piece of sod ground near a tree. I did not exactly know what to plant, but concluded to plant some pop-corn. I planted it about fifteen inches apart, and rather deep; it came up in a week and is now growing nicely, considering the dry weather. I expect to hoe it to-morrow. I had some pop-corn last year, too. It was nearly ripe, when the hogs broke in and ate about two-thirds of it, so I did not get much corn, though, as good luck would have it, I had some old corn safe. I am twelve years old. Please put my name on the list. Yours truly,

Morgan Co., Ill. Roving Bob.

Dear Uncle Mark:—I am 11 years old, and have a small piece of ground for vegetables and a bed of flowers. I have two little sisters and they each have a bed of flowers. I am raising my vegetables for the table. The seed you sent us is doing well, and I am to have some of the plants. The potato bugs came quite plentiful at first, but I destroyed them and their eggs as soon as they appeared. I have peas, beans, cucumbers, beets and squashes. I have also some of your millet, which I don't think will do much, for as soon as it came up it turned yellow. I want to join your Horticultural Club, if there is room for a Cape Cod member. Yours truly, G. W. Bourne.

Barnstable Co., Mass.

Dear Uncle Mark and Rural Cousins:—I will write to you again, hoping that this letter will be better than my last. I received the radish seeds, and was glad to get them. I have a small garden in which I raise radishes, lettuce, water-melons, musk-melons, cucumbers and strawberries, a few of each kind. I picked all the blossoms and little berries off my young strawberry plants, thinking that they will bear better next year. I go to school this summer; have a few flowers of my own. I will not tire you with any more this time. *Au revoir!* Clara A. Meeker.

Broome Co., N. Y.

Dear Cousins and Uncle Mark:—I have thought I would like to become a correspondent to the Rural, which we have taken since I can remember, yet this is my first letter. I am now twelve years old. I like to read the cousins' letters. We are to have a great many flowers this summer. I would like to join the Horticultural Club. I have two good-sized sage beds. I wish some of the cousins would tell me the best way to take care of it. I go to school, and read in the fourth reader and study geography, arithmetic, grammar, spelling and writing. Yours truly,

Leona I. Season.

Dear Uncle Mark:—I am a boy 14 years old, and am a great hand for flowers and vegetables. I have always had a vegetable garden in which to raise water-melons, etc., until this summer, but I am now working away from home by the month. I have two sisters, Rose and Letha, who belong to the Horticultural Club, and I also wish to become a member of that useful band.

Clermont Co., O. Amos S. Abbott.

Sabbath Reading.

ALWAYS JESUS.

Jesus is ever dear:
When friends beloved of old
Seem heartless grown or cold,
He, oldest friend of all,
Lists to our pathetic call:
Jesus is ever near.

Jesus can never change:
When lost our treasured wealth,
When lost is strength and health,
He ever is the same
In spirit and in name:
Jesus is never strange.

Jesus is full of love:
More than our cross he bears,
Each joy, each sorrow shares,
Increases every bliss,
Was ever love like this?
Jesus, enthroned above!

Jesus, our dearest friend,
In us thy dwelling be;
Make us a part of Thee;
Remove these stains of earth;
Give us that newer birth,
Jesus, our aim, our end.

[*Syracuse Journal.*

INFIDELITY AND CRIME.

We believe it to be susceptible of demonstration that the late extraordinary and deplorable increase of crime, an increase more palpable every day, crowding with its record the columns of the public prints and sickening the soul with its endless detail and novelty of horror, is largely due to the growth of materialism, or what is termed infidelity; and that mainly in reaction from the sceptical drift of the time lies the path of wholesome reform. The fruit of unbelief among the upper or wealthy classes is sensuality. Those classes get to worship instead of their Maker the pleasures of the moment. They bow down to rich food and fine clothes and enervating amusements. They make goddesses of women who possess mere physical beauty. Their hearts are set on yachts and race-courses and theatres and operas. What is given, in a word, to gild or soften life, to lend grace and sparkle and color to the plod and monotony of existence, such persons make its sole object and aim. Thus they become of the earth, earthy, and all that is spiritual and exalted dries out of their souls. One after another the Commandments are broken as they stand in the way of desire, and a shameful ruin is left at last in place of what might have been a perfect temple; a shattered and sated voluptuary in place of a nobly perfected human being.

Among the poorer and less educated ranks of society the cant and poison of living only for the day is even more directly disastrous. The rich can gratify their passions without, as a rule and in the legal sense, coming in conflict with the rights of others. But the needy, unrestrained by any fear of future account, and thinking only to eat and drink since to-morrow they die, drive straight on to crime. That this is no idle assertion can be abundantly proved. A careful survey of the murders, suicides and other great felonies committed in the chief cities of the United States during the last ten years shows that a heavy fraction of the perpetrators were atheists or free-thinkers. These unhappy persons, persuaded that life is the be-all and the end-all here, imagine that in their calculations they can jump the life to come. A collection of the letters or other papers left by criminals when anticipating death shows a fearful number of instances, some of which many readers will recall, of absolute disbelief in the existence of a God or in any reckoning for wrong done in this life to be exacted in a future one.—*Evening Post.*

THE KING IN HIS BEAUTY.

There was a celebrated painter, once, who was making a picture of Jesus in the midst of his twelve apostles. In arranging the picture he concluded to paint the apostles first, and not begin with their Master till he had finished them. As he went on with the picture, he tried to do the very best he could with each of the apostles. He took the greatest pains with their figures, their positions, their dress, and their faces. As he went on with his work he was very well pleased with it. After finishing the apostles he began with the person of Jesus. He got on very well with this till he came to the head and face of the blessed Lord. Then he laid down his brush and paused. He felt that the face of Jesus ought to be made to appear as much more beautiful than his disciples as the sun is more glorious than the stars. But how could he do this? He had tried so hard to make the disciples look well, that he felt he had no power left to make their Master appear as much superior to them as he ought to appear. And so he finished the person of Jesus all but the head, and then painted Him with a white mantle thrown over his head. He thought that when persons came to look at his painting, they would imagine what the face of Jesus ought to be better than he could represent it by painting. And I feel very much as that painter did, when I come to speak about the person and presence of Jesus in Heaven. All who love Jesus here on earth, agree in saying that from what they know of Him now, He is "the chief among ten thousand, and altogether lovely." Then how will He appear when our eyes come to "see the King in His beauty," in Heaven?—*Richard Newton, D. D.*

Sanctification does not consist in the perfection of knowledge, or in the perfection of our natural powers, in lights or in raptures, but in being delivered from all sinful desires and tempers, and filled with the pure love of God.

PERSONAL ITEMS.

Ex-Queen Isabella, of Spain, still holds her little court in a quiet way in Republican Paris.

Parker, the proprietor of the Parker House, Boston, began life as a coachman, and is now worth $2,500,000.

Mr. Spurgeon has a voice that can be heard in the open air to the very outer edge of a crowd of ten thousand persons.

One of the few Smiths in the country solicited money in Rutland, Vt., to build a church, and ran away with the $250 he collected.

It is formally announced in London that the business of the Baron Lionel de Rothschild will be carried on by the three sons of the deceased.

Ex-Congressman John A. Hyman, of North Carolina, a colored man, is now assistant to the mail clerks who run between Baltimore and Cumberland.

The Emperor of Austria is "a prince as is a prince." He speaks fluently nearly every one of the various languages in which the inhabitants of his empire-kingdom converse.

A physician at Salem, Ind., was addicted to opium-eating, and his neighbors tried to cure him by tying him to a tree, whipping him severely and making him take a vow of reformation.

It is easy enough to tell why Miss Sadie Kellogg of Waterbury, Conn, is called "Little Buttercup," when it is known that last year she made three-quarters of a ton of butter and disposed of it herself.

The report that John G. Saxe, the poet, is hopelessly ill, is said to be untrue by his friends. He is suffering from nervous prostration induced by a railroad accident three years ago, and there is a prospect of his ultimate recovery.

Swinburne the poet is forty-one years of age. Nothing has recently transpired concerning the rumor current some months ago that he had rejoined the Catholic Church. He was educated at the Jesuit college of Stronyhurst, near Liverpool.

Mr. J. Foster Kirk, the historian of "Charles the Bold" and the editor of Lippincott's Magazine, was married last week to Miss Olney, whose novel, "Through Winding Ways," has been one of the attractions of Lippincott's for some months past.

McMasters, an Ohio temperance lecturer, was taken suddenly ill in a railroad car, and a physician told him that a glass of brandy was the only thing that would save his life; but he refused to take the liquor, and died.

Imagine a quiet, amiable, gentle-voiced man, reserved in his bearing, fascinating in manner and handsome in appearance, fully six feet tall, about 48 years of age, hair just turning gray, face smooth, features refined, eyes blue, and you have an excellent likeness of Senator Butler, of South Carolina.

Senator Thurman, when he goes on a jaunt, wears a linen duster that completely envelops him, there being on his head a large silk cap. Mrs. Thurman, who was with her husband when he sailed on Monday for the New England coast, is a small, delicate lady, with white hair and long curls.

The Emperor William sleeps on a bed hard enough to have suited the Duke of Wellington, does not smoke or use snuff, is fond of flowers and especially of fresh air, drinks one glass of Burgundy a day, rises early and fares frugally. He is eighty-two years old, and can ride horseback like a trooper.

The celebrated French actress, Sarah Bernhardt, is now visiting London, where she is creating a *furore* both at the French theatre there and by acting at private parties. She is exceedingly thin, which accounts for the end of a conversation heard lately before the Theatre Francais: "An empty carriage stops, and whom do I see get out of it but Sarah Bernhardt."

A sad event has occurred in the family of asteroids. Hilda is lost. One of the nearly 200 members of the planetary sisterhood revolving between Mars and Jupiter can no longer be found in her accustomed celestial haunts. It is not known whether Hilda has eloped with her father's coachman or has run away and joined a traveling "Pinafore" troupe.

M. de Lesseps, of Suez Canal fame, and who has now in hand the Darien ship canal, is 74 years old, but looks 50. He has a high, bold forehead, is rather thick-set, with snow-white hair and moustache, and the piercing eye of an eagle. After the completion of the Suez Canal he married Mlle. de Bragard, a very beautiful and accomplished young lady, only 40 years younger than himself. By his first wife he had two sons, by his second seven children.

Supervisor I. H. Cogswell of Greenwood, Mich., was administrator of an estate, and, being called upon to render an account of his trust, set fire to his house, which he had drenched with kerosene, and burned himself to death, together with the papers connected with his business affairs. He tried to persuade his wife to remain in the burning building, and when she escaped he followed her out to urge her to go back and die with him. She refused, and Cogswell, flinging her some money, stepped back into the house.

Daniel F. Davis, the Republican nominee for Governor of Maine, fought under the flag. He was born in Freedom, Waldo county, thirty-six years ago, and in early life worked on a farm. At the age of twenty he enlisted in the First District of Columbia Cavalry and afterwards in the First Maine Cavalry, serving altogether two years as an enlisted man. While in the service he pursued his studies, having his Latin grammar with him in the saddle. He was admitted to the bar in 1869 and has since practised at East Corning. He was a member of the House in 1874 and of the Senate in 1876.

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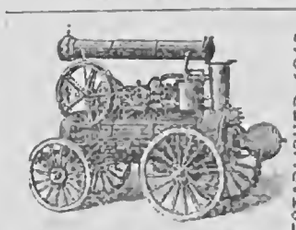

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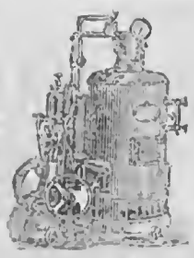

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ENTRIES CLOSE AUGUST 9th,

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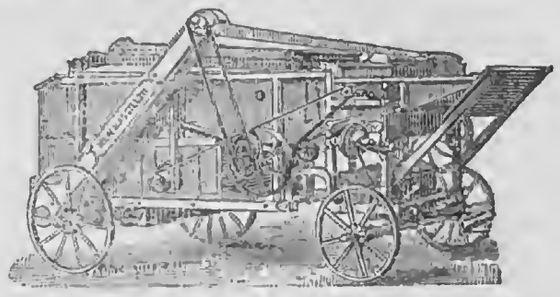

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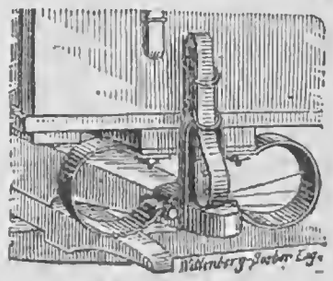

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50 VARIETIES, embracing the largest, best and most productive, grown in pots or layers. Send for Catalogue. WM. PARRY, Cinnaminson, N. J.

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at the Paris Exposition of this year, based on the greatest superiority of performance during the test made manufactured of the best material and finished by skilled hand labor er beyond peradventure. Messrs. B don in prices, so as to bring their Great care is taken in the finishing these adjusted for railroad use. Call Improved B. & C. Watches. The relative merits of Swiss Watches, as manufacture. Can a country that *Hundred* years be ignored? Give and they will demonstrate to you you to institute an impartial com-

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Wit and Humor.

ALPHONSE KARR wittily said touching the abolition of capital punishment for murder: "By all means, only let messieurs the murderers give the example, and cease to execute us."

THIS is French: A widow is bewailing the recent loss of her husband. "I have at least one consolation," she sobs out, drying her tears. "At all events, I know where he spends his nights now!"

TO BE trusted: One grocer asked another, "Is Colonel —— a man to be trusted?" "I think you'd find him so," was the reply; "if you trust him once, you'll trust him forever. He never pays."

A MAN asked for admission to a show for half price, as he had but one eye. But the manager told him it would take him twice as long to see the show as it would anybody else, and charged him double.—*Cincinnati Saturday Night.*

IT IS believed by some to be lucky if the initials of a wedding couple spell a word; but do not tell Frank Osborne so, unless you want to see him mad. He married Olive Lena Smith, and, if we know anything, an F, two O's, an L and an S spell fools.—*Erie Herald.*

A FRENCH newspaper says that in a certain Irish cathedral there used to be shown three skulls, one little one and two big ones, which the guide described to visitors as the skull of St. Patrick when he was a child, the skull of St. Patrick grown up, and the skull of St. Patrick as an old man.

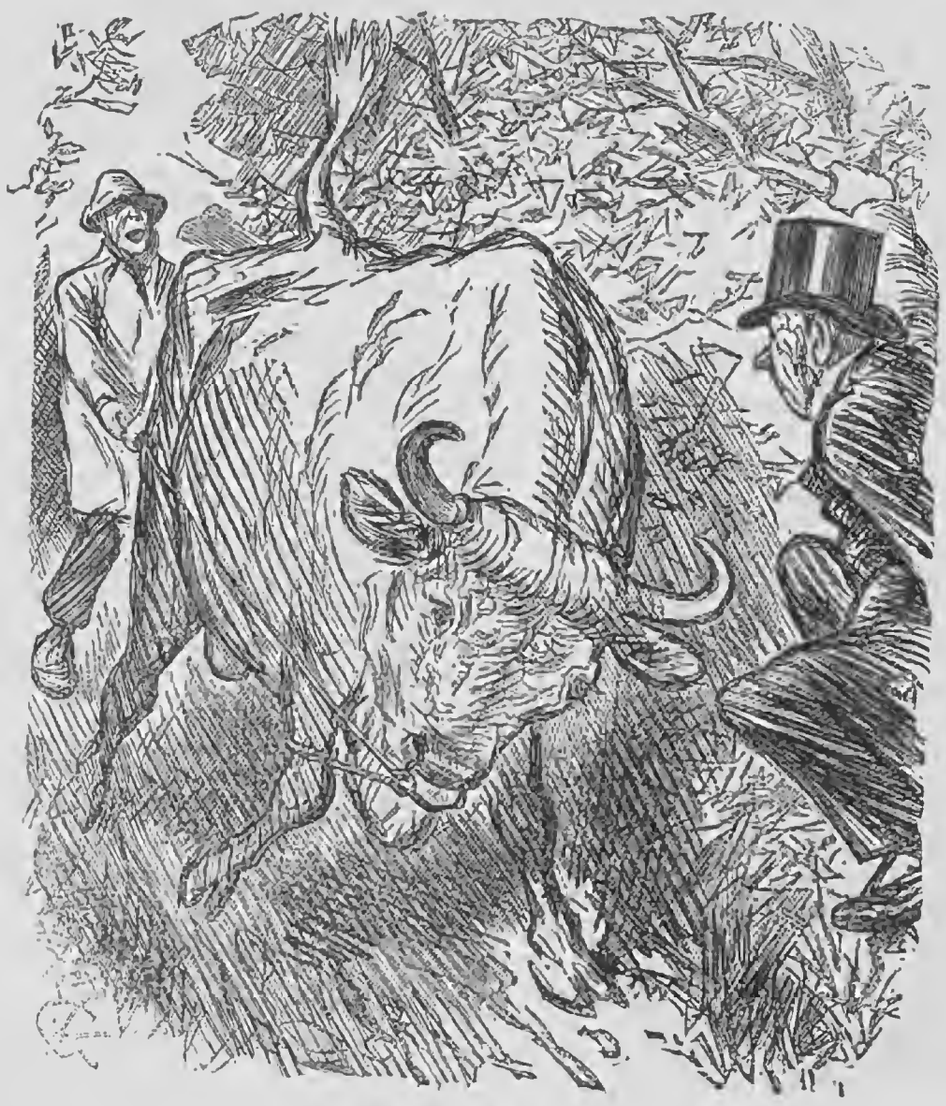
"AND how does Charley like going to school?" kindly inquired a good man of a little six-year-old boy, who was waiting, with a tin can in hand, the advent of another dog. "I like goin' well enough," replied the embryo statesman, ingenuously, "but I don't like stayin' after I git there."—*Rockland Courier.*

GENERAL GOURKO, Governor of St. Petersburg, is a very practical man. He received a letter which said he would be poisoned. Not at all alarmed he sent for his cook and thus addressed that personage: "You see this letter. Read it. Very well. Now keep in mind, the first time I get the colic I will hang you."

STANDING before a fruit stand a San Francisco gamin said: "Hello! old fellow, how much for your oranges?" "Twenty cents a dozen, sonny." "Do you throw the thirteenth into the bargain?" "Yes, my lad." "Well, give me the thirteenth to-day and I will buy the dozen of you to-morrow."—*San Francisco Golden Era.*

A MAN who made a business of writing obituaries, epitaphs, etc., used to solicit patronage far and near. Hearing of the death of a man in a distant part of the country, and busines being a little dull, he made a journey there. Finding the widow of the deceased person he stated his occupation, and asked if she wouldn't like a few lines about her husband. "Lines about him!" she said, wofully; he had all the lines he wanted. If he had had one line less, he would have been alive to-day." "What ailed him, madam?" "He was hanged."

"I USED to think I was a good economist," said Aunt Betsy, "but la! these hard times have educated me over again. Seems to me I can make a dollar go twice as far as I used to. Instead of painting my kitchen floor this summer I am going to paper it with common wall paper, something plaid, and varnish it. You can't tell them from oil-cloth. Miss Peters has got one on her entry that has been in wear seven years. She varnishes it every year and keeps a door-mat down. It doesn't cost as much as paint, and looks much better." Perhaps some of our economical readers would like to try some of these hard-times receipes.



REASSURING.

Old Gent (suddenly turning corner in narrow lane). "Oh!—I say!—Is he?—Will he?"—(backing into Hedge.)—"Can he ——?"
Farmer—"Don't take no notice of 'im, Sir! I've got a wee bit check on 'im if he runs!"

A Partial Blockade

Of the main avenue for escape of refuse from the human system is utterly subversive of regularity among the other organs Let constipation become chronic, and, leaving out the imminent danger of inflammation of the bowels and their total obstruction occurring, jaundice is almost certain to ensue, the liver is liable to become engorged, the blood and urine are poisoned by the bile, which also vitiates the juices of the stomach, and other unhappy consequences follow. Hostetter's Stomach Bitters, a prime tonic alterative, prevents or remedies these results and their cause, as the case may require, and is also signally efficacious in overcoming flatulence, heartburn, and variable as well as constipated action of the bowels. It renews nerve power, improves the appetite, stays the progress of early decay, relieves the infirmities of age, and is a pleasant appetizer.

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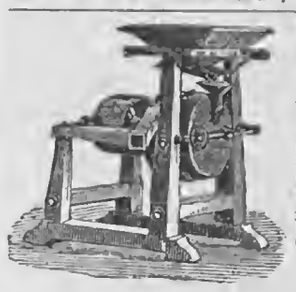

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Portable Mills for Farmers, Saw Mill Owners, etc. Price from $80 up. Complete Mill and Sheller $96. A boy can grind and keep in order. Adapted to any kind of suitable power. Complete Flouring and Corn Mill very cheap.
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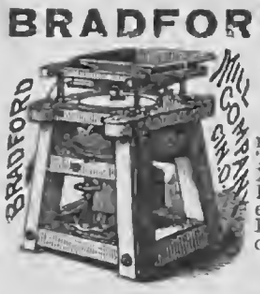

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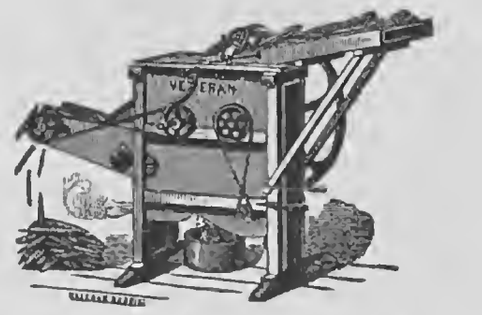

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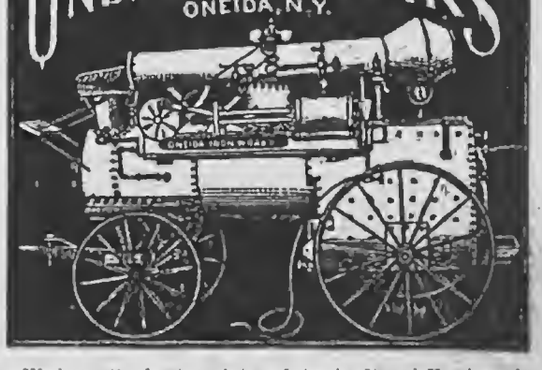

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THE RURAL NEW-YORKER

A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME

VOL. XXXVIII. No. 30.
WHOLE No. 1539.

NEW YORK, JULY 26, 1879.

PRICE FIVE CENTS.
$2.00 PER YEAR.

[Entered according to Act of Congress, in the year 1879, by the Rural Publishing Company, in the office of the Librarian of Congress at Washington. — Entered at the Post-Office at New York City, N. Y., as second-class matter.]

The Herdsman.

GRADE JERSEYS.

COL. F. D. CURTIS.

A Town Converted.

It took eight years to do it. The first Jerseys were laughed at and considered more than worthless. "The idea of making beef out of such cows!" "The poor, scrawny, spindle-legged things won't weigh anything." "What can they be good for?" "My old Line-Back is twice as big," says one. Says another: "There's my old Brindle; she will give more milk than any one of them, and dress double." "Give me the Short-horns. There's Esquire Myers, he has a Short-horn bull which will weigh more than 2,500 pounds. That's the kind of cattle for me." "When you kill one of them you have got something." "Did you ever see Jones's cow? Her last calf weighed 'most a hundred pounds when it was born." "That is a model cow."

Such were the remarks and the reasonings when the Jerseys first came into town. Cows are kept here to make butter, and this was the kind of philosophy their owners indulged in, sitting on the nail kegs in the store, or where neighbor chanced to meet neighbor, and neighborhood affairs were gone over. All men are not fools; all men are not full of prejudice; all men are not bigoted. Some men think for themselves; some men reason. So some men said: "We will try this new Jersey blood, and if there is any good in it, we shall have the benefit." "We can afford to pay a dollar for a calf if it is any improvement, and the owner of the full-blooded bull ought to have pay for his outlay and trouble." "'Tis true, we can get the use of native bulls for nothing; but if these Jersey cattle are what they are said to be, 'a better breed,' that is what we want." "We keep cows to make butter, not for beef; let the West do that." "It is true old Rose is a good cow and hard to beat, and so are old Brindle and Line-back, but they never had a heifer calf as good as they are." "It is haphazard business trying to get good cows from our best natives, all the rest of our cows are only middling." The farmer with good judgment and forecast said: "I will try a couple of my best cows, anyway, and see what I can get. I don't believe much in new-fangled notions, but then other folks know a thing or two as well as I do, and all of this talk in the newspapers and these big prices for Jerseys, must mean something more than mere fancy, for that would die out unless there was something behind of actual value."

There were less than a half-dozen heifer calves raised the first year, half Jersey. When two years old, they were cows. Old Rose, Brindle and Line-back looked at these symmetrical and modest little intruders with wondering eyes, and felt sure of their laurels. They filled the pail brimful, while the delicate-looking little missionary Jersey stopped at "half full." The housewife had to admit that the "half-pailful" looked the richest. The milk was yellow. After a while she thought it fair to strain the Jersey milk by itself to see what it would do. The cream was "awful thick." The old favorites' milk was put alongside. It made quite a row of pans; but after standing twelve hours longer than the Jersey's, so that the cream would all get up (it takes longer), the Jersey's was much the thickest. In due time both sets of cream were churned, and the Jersey's came out ahead. "We will see," says the old-fashioned housewife, "what a week will do." There was a trial of a week, and the Jersey was ahead, and she has kept ahead, beating the native as a rule every time.

Seven and eight pounds of butter a week are a good yield for native cows, but a number of grade Jerseys make ten, and more. They are hardy, and some of them are as handsome as the pure-bred. Every farmer can not afford to buy thorough-breds, but every farmer can afford to breed his cows to thoroughbred bulls and to raise the offsprings. Such cows now command ten and twenty dollars more in this town than the best natives, and are worth it for practical use. The beef notion in a dairy cow is getting out of the heads of our dairymen. More sensible and liberal ideas prevail. Croakers croak no more. If one begins, he is laughed at. Facts are thrown at him right and left. Ten pounds, eleven pounds, twelve pounds, twelve and a half pounds a week of solid golden butter, which sells for five to ten cents a pound more than the best from natives. These facts shut him up. They come from the converts—the old doubters. They are full of zeal, and want more Jerseys. They come from twelve miles away.

The butchers say the calves make the nicest veals. They are always fat, and dress white. The beef is tender and juicy, and of the best quality. A good Jersey bull, of undoubted pedigree and promise, a year old, can be bought for $75 to $100, of breeders who are now veterans in improving this breed. A bull, carefully fed and handled, will answer for a whole neighborhood, and will add hundreds of dollars to the butter product in a few years.

EARL BECTIVE'S DUKE OF UNDERLEY—FRONT VIEW.

OUR ILLUSTRATION above gives a very fine front view of Earl Bective's admirable bull, the Duke of Underley, a side view of which was published in our issue of the 12th inst. Both have been reproduced from the Agricultural Gazette which is doing good work for stock raisers by presenting from time to time very excellent likenesses of animals which have won well merited reputations.

The Poultry Yard.

THE TRUTH ABOUT IT.

Artificial Hatching and Rearing Chickens.

EVERYBODY seems to be looking out for a "royal road" to success in his favorite pursuit. Perhaps the most attractive idea at present prevalent is the artificial hatching of chickens and their rearing by means of "mothers" and cramming machines. A sensational story, at first published about three years ago, is still going the rounds. It was in reference to an enormous establishment, where thousands of fowls were said to be prepared for market every season. As might have been expected by any practical poultry-keeper, this concern turned out to be a disastrous failure in a very short time; but still the story of its institution goes the rounds to delude and mislead, and no notice whatever seems to have been taken of its collapse. So with the several different methods of hatching eggs in incubators; a great deal has been said about them and their wonderful possibilities, but yet they are all very much the same as the dream of the young female in the ancient story of the child who counted her chickens before they were hatched.

The truth of the matter is, that while there is no difficulty at all in hatching eggs, or chickens, (whichever may be precisely correct, I say not) there is a great difficulty in rearing the young things when they come into the world. At the same time, it is a remarkably patient, persevering and *knackful* person who can succeed in artificial hatching. One in a hundred or a thousand might do it, if he or she gave the whole mind to it. The neglect of an hour, nay, of one minute, one mistake, one accident, one error of judgment, and the whole batch is spoiled. A lady who thought she could succeed had an incubator made (thereby infringing a patent-right), and, with singular ill judgment, put 240 eggs in the machine at the first trial. Everything went well up to the time when there was a promiscuous peeping from nearly all the eggs, and the operator's hopes ran high. Almost the last day, the manure heap got into a tremendous heat and sweat—possibly it was trying to make a sure thing of it, too—the thermometer went up to 120 degrees, or perhaps higher (it was found marking that), and the prospective chicks were baked before their time. Another batch of 20 dozen eggs was procured, another load of manure was heaped around the machine, and a second attempt was made. About the middle of the operation the manure cooled down, and, in spite of liberal kettles of hot water to warm it up again, the heat could not be brought back, and another batch was lost. The husband suggested how much cheaper it would have been to have bred with one dozen eggs instead of 20 dozen, but "men's ideas are so narrow," etc. If it had only succeeded, there would have been at least 200 chicks; at least 150 of these would have come to broiling age and brought 50 cents each; $75 would —— Alas! it is the old, old story: "the girl gave her head a toss, the basket of eggs came to the ground," and there was an end of all her grand figuring.

The truth of it is, in poultry-raising, as in all other productive pursuits, there is no royal road to success. There must be work, and this must be done with knowledge and skill. A living organism brought into existence abnormally and unnaturally, must be nourished and nursed in the tenderest and most precise manner. It is not enough for us to say the Arabs and the Chinese have done this thing with success for centuries. Who, that knows how the business of these people is done—the days and nights spent in fetid, filthy, overpoweringly odoriferous and heated underground dens, called ovens—would assume their horrible operation for their reward? It cannot be done by civilized creatures without the expenditure of at least 150 cents' worth of trouble and bother for every dollar gained by it. If this is not the truth, let us hear from some one who will show to the contrary. In the meantime, all those persons who are anxious to try their skill or their luck with an incubator, should make up their minds not to count their chickens until they are hatched.

HEN-RY.

CONFINING POULTRY IN SUMMER.

SMALL farmers and fruit-growers make a great mistake when, for the reason that roving fowls do a great deal of harm, they put them in close confinement. Of course, if they are allowed to roam at will, much mischief will be done to garden crops, in money value far exceeding the worth of the chickens raised, but it is a short-sighted policy to shut up the hens, —better shut up the garden. A few movable shutters, if there be no fence around the garden, can easily be made of half-inch stuff, costing but little for time and material, and these fastened with light pickets driven in the ground, will prove an effectual barrier. Or, if there is already a fence, a few additional slats will generally render it fowl-proof, and allow the hens and broods to range the farm with impunity. Another plan that I am successfully trying this year, is to put the garden stuff out of reach of the chickens at some spot as remote as convenient from the hen buildings. If fowls are moderately well looked after in the way of providing food for them, they are not disposed to roam a great distance from home, and if in their wandering they come upon our patches of cabbages, tomatoes, etc.,

their appetites are generally so satisfied that they do little harm. Their principal depredations are in the early morning on alighting from the roosts. If, then, they come upon grass instead of more valuable greens, their keen appetites will "go for" that. It is not easy to calculate the good, in destroying insects, poultry do when roving the fields, and this is a strong argument to the fruit-grower not to confine them; for not only does he need them most at this season of the year, but a great part of their food will, in this way, cost him nothing.

Again, it is almost impossible to raise large and fine chickens if they do not have access to a large range, where their growing frames can have exercise and where they themselves can find food suitable for their wants. To give this last in confinement must greatly increase the cost of raising. Upon the development and vigor of the young birds depends the egg-production of the following winter, and it is therefore to the breeders' interest to see that they are not stunted. I have been very successful with poultry here on our dry soils, never having been troubled with disease, and hens have laid well at almost all seasons of the year. My flock of thirty Leghorn crosses *netted* me for eggs alone in less than four months, last winter and spring, over $1 each; and, accidents aside, all of our spring-hatched chickens are living. G. A. M'B.

Bricksburg, Ocean Co., N. J.

GAME, RABBITS AND POULTRY.

ENGLISH pheasants, hares and partridges might be introduced into the South, and the wealthy classes in the United States might enjoy field sports with the finest game in the world, in addition to the kinds already plentiful here. Both from a commercial and agricultural point of view, it would be a very good speculation to establish English game on an island, or any estate which could be held safe from enemies, and by doing this in conjunction with poultry-raising, on the "egg farm" style, and combining raising rabbits, also, a magnificently gigantic undertaking would result, and be astonishingly remunerating; for, once establish an enterprise of this sort, and the stock being all prosperous and acclimated, there would be such a demand for the increase that the profits would be very great.

The rabbits might be of the tame species, and if well managed and given liberty, they would increase amazingly and their flavor be so improved by running at large that they would sell readily at a great price, because it would be quite a novelty for them to be brought to table weighing three times as heavy as the common wild breed and tasting equally fine, for, of course, the disagreeable taint of tame rabbits is owing to their close confinement in hutches or other small spaces.

The writer has experimented in England and in the United States with rabbits, and proved the profits to be great. He has raised all kinds of game and had the superintendence of deer in one of the best managed parks in England, so that he knows all about such animals' habits and the requirements for their prosperity, and, of course, he and everybody know that deer and rabbits are so fond of the bark of young trees that if there are any which it is desired to be unmolested, they have to be protected.

Why these different animals are all mentioned together is that, by their being all kept on one estate, those in attendance upon the poultry, and who are continually around, would be a constant protection to the wild and semi-wild animals, which would take care of themselves if all enemies common to poultry and game were exterminated. Rabbits running at liberty will breed very young, and do well, too. There is a ridiculous idea that the bucks kill the young ones, and also that young does cannot raise their young. Some old-womanish men will say, also, that some of the little ones should be destroyed, so that those remaining should be stronger. Protect them from skunks, weasels, minks and cats, and nature will regulate the age at which to breed, and also the number at a birth. If a man going into such a business had sufficient capital, it would be a great additional profit to breed colts and other young stock, placing a few horses in each field and giving them a shed to have a feed of oats, bran and hay in during the fall, winter and spring, and if not fed during summer, it would be a resort for shade; and at such places roosts could be combined, and the fowls be much healthier for the animals being there. Calves, too, could be kept at other places, and sheep, also, might have a shelter for such weather as they chose to protect themselves from.

Where the winters are comparatively mild, the young stock of all varieties will do better by lying on blue-grass, or any natural permanent grass land, and being fed twice per day in comfortable sheds; and this will make it better for the poultry, as it adds to the health. The scratching among the litter and manure is suitable for hens, and is something as essential to the perfect well-being of common fowls as the range over the natural ground in search of green herbage, grubs and worms. Talk about stock-raising! Imagine lots of colts, calves, lambs, and the best that can be produced of chickens; or, say horses, cows, sheep, geese, ducks, turkeys, hens of every variety—and all, with game interspersed, being beautiful and of the most fashionable breeds.

POULTRYMAN.

RAISING POULTRY.

THE losses in the poultry business are far greater than the profits, and still the profits will average at least fifty per cent. per annum over the outlay. Paradoxical, you say? Granted!—but did you know that a paradox is *always true?* I will make the assertion that a hen always knows what is best for her, while her owner never does, except in some great emergencies—a storm for instance.

Disease, almost entirely unknown to birds in the wild state, is the canker which causes all the loss referred to above. Disease is the concomitant of civilization in man, and follows every attempt to bring poultry to our level. Hen houses breed more vermin than artificial dust baths will remove; they gradually render poultry delicate in constitution, and thus more and more unable to repel any disease which change of diet, weather, or forced habits may invite. Stock thus deteriorates, eggs fail to be fertilized, chicks are tender, mothers abandon them too soon, and the artificial state which fancy food produces, interrupts the laws which govern health and success.

Civilized man must, to a certain extent, have his poultry cared for in a rational manner, and, as "forcing" is supposed to be the foundation of profit, and, as much profit is desirable, much forcing is resorted to. More stock is lost, more weak and worthless stock is produced, and more loss sustained by over-anxiety and petting, than many imagine.

A strict account of the number of eggs set, the number which hatch, the total arriving at maturity, and finally the actual number of really profitable fowls sold or carried over winter—which includes good, steady layers, good mothers, and vigorous fathers—would give such an insight into the waste in the poultry department as would create wonder "that hens paid at all."

There is nothing in business pursuits like facts. Every one is full of fancies, theories, notions, cranks and crudities, but hard facts are never thought of.

All the diseases of poultry are directly the fault of the owner. They are the consequences of too much or too little care being bestowed on them. The successful poultry breeders are, in every case, those who, instead of compelling stock to walk a chalk mark, only interfere when some sudden emergency arises which the chicken is not equal to.

Food and water ad libitum, in variety, shelter in various places and of several kinds, room to wander at will, perfect freedom from annoying animals, both wild and domestic—in fact, absolute wildness, with only a few of the "modern improvements"—a yearly change of male stock, and a share of common sense (not quite so much of the uncommon sort), will do much toward making poultry pay better than any other branch of farming.

Elevate the stamina, select so as to suit the climate and soil, ward off all loss through foolishly devised safeguards, then give the old hen her full enjoyment of instinct, and the yearly account will show a profit of from 100 to 200 per cent. I have pursued this plan for many years, have had no gapes, roup, pip, cholera, or other diseases, and don't know them, absolutely.

My remarks are founded on facts, hard facts. My old hens and I together have just enough common sense between us to succeed perfectly.

Dodge Co., Neb. S. RUFUS MASON.

Farm Economy.

MORE ABOUT PEAT MUCK.

GEN. W. H. NOBLE, BRIDGEPORT, CONN.

It is not to show myself in print that I write for the RURAL. I crave no audience for farm or rural fancies. Such are plentifully rife. But I aim to help rural life to brighter hope in enterprise, to quicker grasp of the resources on the farm, to better finance than hoarding the sixpences and starving the land. There are about it bottom facts and sense not only got down to by study, but that he who runs may read. There are graceful tastes unwonted to its life, which call for brighter-mindedness, lighting up the home and its surroundings, yet heeding well to thrift and profit. As one help to the fulfillment of such hopes and purposes, I have put at the front, peat-beds and muck, as grand treasures of farm enrichment. I have strongly urged their deep stores as the salvation of New England and Eastern farming, their best estate, gained by tarrying in the barn-yard and compost heap, I have stated. No fine-spun theories about humus and geine, ammonia, nitrogen and carbon, have been woven. I have dabbled in no chemical wrangle about what the ages have grown, or drifted into the peat-bed's deep decay. These I have left to the alchemy of plant life to feel out and tell of in crops. My last call was on simple common sense; short of manure, seek in this store of vegetable life and death, food to deepen the soil and swell the harvest. Let science settle down on the way things grow, and what out of, what is plant food, and what mere stimulus. It will be time enough then to dose out nourishment by parts and formulas. Till then, let the farmer hang up his little scales, and pile on and plow under the richness stored in the muck-beds. It will rise to new life in brimming grain-bins and barns well filled. So doing, common sense can afford to wait a supply of exact science on the farm.

In this line of talk, among other things, to the farmer short of manure and long of a muck bed, I plead for a liberal use of raw muck, turned out to the handling of the wintry elements. Yet I found the editor, or staff, telling some anxious inquirer that peat muck was not fit to use till composted with barnyard manure or lime; that it needed ferment to rend its fiber, and the lime to quell its rank acids and astringency. Such delay and handling form a good general rule; but this did not help in a dearth of manure for quick and large use. So, in the RURAL of March 15th, last, I claimed this shortness could be relieved by peat muck carted in freezing weather onto grass, grain or plowed land; that there the wintry frosts and thaws and storms would rend the fiber and drench and turn out its bitterness and acids. Right here the editor stuck in a (?). Then came to the front a "Western Farmer," in the RURAL of April 12th. He says he knows a good deal about peat muck; "that frost and wet and thaw won't rend its chunks;" that only fermentation will do this; that raw peat is not fit plant-food, and only gains that fitness by decomposition, which comes with warmth and moisture; and, all in all, that Gen. Noble was, in his advice on March 15th, "wide of the mark." He warns the farmers against such a blind guide.

Now, "'tis pity if 'tis true!" Is it true? Whether "Western Farmer" or Gen. Noble is right, as a personal question, is of no sort of consequence. But to the farming world, the right about it means either thrift and crops, big harvests and thriving stock, or toil worse than thrown away, as Western Farmer says his was on ten acres covered deep with raw muck. Now, our Western brother may "know a good deal about muck;" but I hope to show him, and all, that there are some fixed and tested facts about peat muck "not dreamt of in his philosophy." Let's see. Three propositions cover all I claim for peat muck:

1. That raw muck is fit plant food.
2. That it is powdered by the wintry elements, to readily spread and mingle with the soil.
3. That crops in reach of such enrichment, should not wait for its handling in rich farmyard and compost heaps.

"My offense hath this extent, no more," and these three propositions "I am bound to maintain." If the first two are sound, the third becomes self-evident.

Now, let there be no mistake about what I mean by raw peat muck. It is that under-tier and black rot of vegetation above which rests a top spit and pack of mossy filaments, roots, leaves and undecay. Some of this unleavened upper-crust must have made up the "chunks" which so bothered our "Western" friend's ten acres. Such I have not often seen turned out to weather. But when so treated, wet and raw from its bed, frost rends its pack to shreds. This result so follows such handling that the peat chunks, defiant of frost and thaw, which "Western Farmer" so berates, would seem made of "sterner stuff." Possibly his top spit tier of undecay is ranker and heavier than that which blankets New England muck beds.

Let's note another thing: Not all raw peat fulfils its promise as ready fitted plant food. Some peats are possessed of seven devils of acidity, which only curing alkalies, or long weathering, can cast out. Luckily, such deposits are rare, at least in New England. Most of ours are fit plant food as soon as the frost tears the stuff into fineness fit to easily spread and commingle with the soil.

Now let's see about this fitness and the rending power of the frost. Professor Johnson, of Yale Scientific School, and now Director of the Connecticut Experiment Station, has put out a sound and exhaustive treatise on peat and its uses. It is full of common sense, and eminently practical. It is a record of all the alchemy of the bog, and of all known about its use in the arts, as plant food, or for fuel. His chapter on its agricultural use, without whims or theories, records just the hard-pan facts and tests about peat. He lays down four faculties of peat:

1. Its power of holding water and water vapor.
2. Its power of absorbing ammonia.
3. Its solvent power on the mineral elements of the soil.
4. Its raising the temperature of the soil.

Then follow four propositions as to the plant food and stimulus in peat.

1. Its organic matters, associated with ammonia and nitric acid.
2. Its inorganic matters.
3. The benefit of its decay in the soil.
4. Raw peat equal to stable manure.

Now, under those heads the Professor fully proves, by scientific analysis and the tests of trial, all I have claimed for raw peat. Specially, on page 59, he says, "Most peats might be used perfectly fresh," but for the difficulty of reducing them to the proper state of division, for admixture with the soil. Then, on page 60, he says that frost speedily reduces fresh, wet peat to pulverization; that it should be exposed, when wet, to wintry weather; that such exposure works chemical changes—likening the quality of such peat to that of old soil. These positions he does not state as opinions; they are the condensed results of experience and scientific tests. As to my three propositions, the Professor records analyses of all prior tests, and proves them. But further, he reports five separate trials of raw peat by five practical Conn. farmers. They cover its use on grass, grain and hoed crops. All were favorable. In view of these tests, let no one be disheartened by the reported ill-luck of others. Science, observation and trial prove raw peat to be fit plant food, and show pretty plainly that I have not shot very wide of the mark.

Right views on this peat question are wealth to the land. Eastern farms are hungering for enrichment. Our big forests, ashes from whose clearings have sent so much food and stimulus to crops, are melting away. We shall not long have them to supply the land with what we so unthriftily exhaust. Even were the elements of the ash in untold store, they would be the better in fellowship with peat. Then, too, these deep deposits, to the extent of their endowment, must replace the waste plant food which pours through the sewers or is dumped in the garbage of great cities. The farm and garden need and should be choice of every manurial resource of the land or of the great deep. Of all these, none is so cheap, so close at hand, so vast, as the big peat beds.

I hope to awaken my brother farmers to this wealth sleeping beside their homes. I shall therein have done them a great good, and helped the land. Capital is sorely needed on the farm, but not half so much as brains and open eyes. Because the plain and present chances seem so small, or are so little studied, many turn their faces westward. The glamour and mirage in the distance "lends enchantment" that hides the discomforts of frontier life. The farmer, East, has everything to favor his stay. The country is built up in roads and homes, and steeples and close-by schools. The smoke of a neighbor's chimney rises quietly in the morning air; the light of his evening lamp invites you to his fireside; all over New England are ready and greedy markets, and cheap lands are growing up to bush beside deep swamps handy for their enrichment. Why go West? You and yours may thrive there. You can here, if you will. All you go West for is half in your sanguine hopes. They will only be realized through stint and toil and struggle with all the far-apart and unadjusted belongings of a new country. "Stay East, young man," or you may get bogged in a worse slough than that out of which "Western Farmer" dug those storm-proof chunks of peat.

Farm Topics.

PATENTS ON THE SLIDE GATE.

Testimony of Use Years Before the Patent was Granted.

PROFESSOR R. C. CARPENTER.

SINCE the article of Jan. 25th in regard to the existence of patents on the gates that open by partially sliding back and then turning, testimony has been gathered which shows conclusively that the gate has been in common use in various portions of Michigan and other States for more than twenty years. The importance to the farmers of defeating this patent, is very great; for the gate is now in extensive use all over the United States.

As evidence of extensive use it may be proper to state, that since the article of Jan. 25 in the RURAL, letters have been received showing it to be in common use in portions of New York, Georgia, Illinois, Indiana, Ohio, Iowa, Wisconsin and Michigan. In Michigan this style of gate is used more frequently than the ordinary swing gate. Hon. A. J. Heston, of Sidney, Iowa, says that in his business of stock feeding he has used these gates for 14 years. He uses them with a set of adjustable friction-

rollers hung on a swivel with the gate; these rollers are of his design and not patented.

As predicted in the article of Jan 25, the prosecutions commenced against farmers using the slide gate, for infringement of the Lee patent, proved to be nothing more or less than a means of extorting money. Of all the cases introduced before the court not a single one was prosecuted. The plaintiffs sought to defer the trial by every possible means, evidently for the simple reason of causing farmers additional expense. The judge in charge finally suspected this practice and ordered them to give bonds for the cost. This was done under protest and a plea of poverty from the plaintiffs. Finally, as the time expired for taking testimony, and no active prosecutions were begun, Judge Brown dismissed all the cases against the farmers, and ordered the U. S. marshall to collect the cost from the plaintiffs. Despite the worthlessness of the Lee claim, by making good use of their time, its owners succeeded in extorting over $5000 from the farmers of a single county in Michigan, who paid their demands, rather than take the matter into the courts. How much was collected on this worthless patent in other portions of Michigan we have no means of knowing. The farmers of the State are now partially organized to resist the farther collection of royalty under either the Lee or Teel patent.

The Teel patent can be defeated by showing that the slide gate was in use before 1861. Despite the number of years since this date, testimony that cannot be doubted, can now be brought forward to show that the gate has been in use since and before 1856.

I present a few letters received from different parties in regard to the early use of this gate. The first letter is from Mr. C. A. Sprague, of Alabama, who claims to be the inventor of the gate. He is probably correct in that he was an inventor, but as the gate was in use in Michigan at about that time (some claim as early as 1848) it is doubtful if he was the first inventor.

DEAR SIR:—Having just received the RURAL NEW-YORKER of Jan. 25, I notice on first page your article on the slide gate. I invented the slide gate in the year 1856, and have had them in use ever since. I never sought a patent on my invention, and up to the time I constructed mine, I never heard of any being in use. I then resided in Erie County, N. Y. I now live in Alabama; my address is Anniston, Ala. If you desire further information write me. C. A. SPRAGUE.

* * * * * *

Dr. Manley Miles, formerly Professor of Agriculture at our College, certifies to seeing these gates in use when on the State Geological Survey in 1858. He also had them constructed at the College early in 1863. Charles Curtis, Howell, Mich., and E. R. Merithen, of Osceola, made and used these gates in 1857. N. G. Noble, Drayton Plains, Michigan, built one of these gates in 1852. N. D. Landon, Orion, Mich., used one in 1858. T. B. Eldred, Climax, Mich., used these gates in 1861.

From the Detroit Post and Tribune of January 29, 1879, we learn that the following persons used the slide gate previous to 1861:

Charles Campbell, Van Buren, Wayne Co., Mich.; Audrew Martin, Ypsilanti, Mich.; Azariah Martin, Venice, Mich.; F. M. Holloway, Fayette, Hillsdale Co.; Lorin Riggs, Bellville, Wayne Co., Mich.; James Leonardson, Jefferson, Mich.; T. N. Wadsworth, Canandaigua, N. Y.; James Miner, Pittsford, Mich.; A. J. Leetch, Superior, Mich.; Thomas Blake, Ann Arbor, Mich.; John Van Voorhies, Canton, Mich.; Elias Forbes, Van Buren, Mich.; John Forbes, Brownstown, Mich.; J. C. Emory, Plymouth, Mich.; David Clarkson, Plymouth, Mich.; J. D. Yerkes, Plymouth, Mich.; George Yerkes, Novi, Mich.; George Hill, Northville, Mich.; N. L. Peer, Holly, Samuel Laiden, Canton, Mich.; L. C. Wallington, Ypsilanti, Mich.; Harvey Hubbard, Bellville, Mich.; S. P. Bray, Pittsfield, Mich.; H. W. Cowen, Moscow, Mich.

(The list in the Post and Tribune was fully twice the length of the one published here.)

The conclusion arrived at is that, although a patent was given to A. C. Teel, covering all varieties of the slide gate, he was in no degree entitled to it, the gate being in common use long before it was patented. The patent law provides for such cases as this by putting it in the power of the courts to declare such patents void. It is to be hoped that no farmer will pay royalty for the use of the slide gate to any parties, for by so doing, he not only forfeits his own right, but he contributes to support a class of men who, although working under protection of the law, are in other respects little better than swindlers. He should meet their claims in court rather than submit to taxation, however slight.

The owners of the patent given A. C. Teel commenced operations in the newer portion of the State, where they supposed they would meet with little resistance by the farmers. As soon as the character of their operations was discovered, a combination among the farmers was brought about by the grange, and nearly $1,000 were raised to defend all cases taken to the courts; meetings were held in the newer portions of the State, and such steps were taken as to make collection of royalty by threats, a decidedly poor business. A number of suits have been commenced, but it is not likely that any of these suits will be tried, for the same reason that the suits under the Lee patent were not prosecuted—that is, because the prosecutors are certain to be defeated. They will probably make a desperate effort to collect royalty, by threatening prosecution, and in some cases by actually commencing suits, but in the end it will terminate in the withdrawal of all the suits begun, and more to their discomfiture than to that of the farmers.

The case would have been far different in Michigan had the farmers not organized to resist this encroachment on their rights. It would have cost them, in all probability, nearly a million of dollars, instead of a few hundreds.

This case well illustrates the force of united efforts. Yet in Michigan these united efforts would not have been possible had it not been for the organized body of farmers already joined by the State and subordinate granges, and for the interest which the educational institutions and the press took in regard to the welfare of the farmer. The work and cost of organization have fallen mainly on these institutions—the grange, the agricultural college and the press—and yet, if these efforts are successful, every farmer in the State of Michigan and in the United States, using the slide gate, is benefited. Yet those persons who are benefited, and who are not connected with the organizations mentioned, will doubtless, in every case, give no credit whatever to them; on the other hand, such persons, ignorant and bigoted though they may be, will be found decrying the grange, if not for one reason then for another, and claiming that education is detrimental to a farmer, or, at least, that our educational institutions do not properly educate him, or raising some similar cry containing little reason or truth; and finally, practicing to a great extent what they preach by taking no agricultural paper.

It is needless to say that such a condition of things should not exist. If the few are still to do the work while the mass reap the benefit, then should the few who do the work be encouraged and assisted, not hindered as in the past. In regard to this gate matter, it is to be hoped that every man will contribute his mite, both of influence and money, to support the combinations formed.

Mich. Ag'l College, Lansing.

Field Crops.

WHEAT RAISING—No. 1.

H. L. WYSOR.

Virginia as a Wheat State.

THE wheat harvest ended here about the 1st of this month. While the quality of the grain is generally very good, the yield, a few fields here and there excepted, is much below that of several years past. The fields whose yield has been the greatest, are mostly those which were sown very early, the later-sown having been badly winter-killed. It must not be supposed, however, that the early-sown wheat always does the best here. This is true only when the winter turns out exceptionally severe, as did the last.

The winter climate of southwestern Virginia is a much harder one for a wheat crop to endure than that of New York, or indeed, of any of the Middle States. Those who look at the difference of latitude only, would not suppose this to be true, yet that it is, the facts will prove. Although the cold in New York is very intense, yet it is at the same time constant and continuous. Here, there are frequent alternations of freezing and thawing, occurring within a few hours of each other. These sudden changes are death to the wheat plant. At intervals, all through the winter, we have days, sometimes weeks, of weather as warm as any day in May, then, without any gradual change whatever, the thermometer drops suddenly below zero. In the warm days the wheat has become green and tender. The frost comes and bites the blades, turning them yellow. Then there may come a sudden thaw after the ground has long been deeply frozen, and the wheat plants are thrown out by the settling of the earth.

It may be surmised from this that, as a rule, southwestern Virginia is not specially adapted to wheat-growing. In certain localities and favored situations, as fine wheat is grown as any in the world. On the steep hill-sides bordering on the water-courses, where the soil is composed of slate or gravel, the quality of the wheat grown is of the finest description, although the yield on an average does not exceed ten to twelve bushels per acre, frequently not more than eight. Our section lies in what is called the Trans-Alleghany region and is better suited to grazing than to the raising of grain. Between the Alleghanies and the Blue Ridge lies the great Valley of Virginia, one of the best wheat-growing sections in the world. A few years ago, Maj. Jed. Hotchkiss, in a geographical lecture, stated that this valley produces 1-84 of all the wheat grown in United States. It is said to average 20 bushels per acre. It may be seen from this what a great difference, so far as wheat-growing is concerned, is made by one's happening to live on one or the other side of a mountain range. I propose to show presently that the difference is just as great between the two sides of a single hollow field.

As I have now been engaged in experimenting with different varieties of wheat for some eight years past, I propose to offer some of the results of these experiments to the readers of the RURAL. I shall first offer some general remarks, which, while they apply more particularly to this climate, are applicable, with a few modifications, to any part of the country.

Influence of Exposure.

In a broken, hilly country, it is throwing away time, labor and money, to sow wheat on a hill-side with a northern exposure. Even if the plants should chance to pass the winter safely—which is seldom the case—they will never mature. They will, in nine cases out of ten, be destroyed by the rust before they can possibly ripen. As a case in point, I have a hollow field which runs from east to west. Following the hollow and going west, one has a south hill-side on his right-hand and a north one on his left. From the middle of this hollow to the right, I have never seen the wheat fail to mature, although the yield was sometimes very indifferent; from the middle to the left, I never knew but one crop to ripen. On hill-sides the exposure must be either east or south, otherwise it would be better to sow rye in the fall or oats in the spring. In sections where the land is only gently rolling, these remarks admit of considerable modification.

Influence of Early and Late Sowing.

The time of sowing does not make any great difference in the time of ripening, as this latter is almost wholly controlled by the situation. On southern exposure, wheat sown the 1st of October, will ripen sooner than the same wheat sown on a different situation the 1st of September. In the fall of 1876, I sowed with Clawson wheat a field which consisted of an east hill-side that gradually sloped and spread out into a bottom. The bottom was sown a week earlier than the hill-side, and yet the grain on it ripened a week later. Early sowing exerts its influence on the tillering power of the plants, and enables them to get better rooted to withstand the winter. For this reason, one bushel of wheat would be sufficient for an acre if sown the 1st of September, two bushels the 1st of October, and three bushels the 1st of November. Some varieties, as, for instance, the Boughton, do most of their tillering in the fall, and consequently, in order to succeed, they should be sown very early; others, as the Fultz, tiller mostly in the spring, and may be sown later. It may be set down as a rule, with few exceptions, that the large-grained wheats ripen late, the small-grained, early.

Long and Short Ears.

The length of the ear does not have as much to do with the number of grains contained in it as many suppose, since the intervals between the spikelets in the large-grained kinds, is much greater than in the small-grained. An ear of Boughton would probably have as many grains as an ear of Clawson of one-third greater length. There would be, however, this difference in favor of the large-grained—admitting the number of grains in both kinds to be the same, on an average—that it would take about 700,000 small grains to make a bushel, and 550,000 to 600,000 large grains. Maj. Hallet, of England, claims that 450,000 grains of his pedigree wheat will make a bushel. The form of the ear and the number of grains in the spikelet, have much to do with the yield. A square-shaped ear with four to five grains to the spikelet, will yield more than a much longer pointed ear with three grains to the spikelet. A spikelet contains from five to six florets, of which one always—sometimes more—is barren. No spikelet, then, can contain at most more than five grains—oftener only three. It will be readily understood from this how it is that in California they obtain so much greater yields than we do, as the wheat there averages four and five grains to the spikelet, ours only two and three. Our wheat generally stands as thick on the ground as theirs.

Rust.

The great enemy of the wheat plant in this country is the rust, or mildew, as it is called in England. There is no year in which it is not more or less prevalent. I do not remember having ever seen a field of wheat in which, at the time of cutting, the plants had more than the top blades, the others having been eaten up by the rust. While it is true that the plant, to be perfect, should have all its blades turned a golden yellow from the ground up, still the loss of the blades does not appear to affect the size and plumpness of the kernels. It is only when the roots of the fungus penetrate the stem and intercept the flow of the sap to the ear that the grain loses its color and shrivels. The only certain way by which the effects of rust may be avoided is to sow a variety which will ripen early. In this climate, a sort which would be ready to cut by the 20th of June would generally be safe; one that ripened as late as the 1st of July would always be more or less injured. It is probable that ashes, or a mixture of ashes and salt, if applied in quantities sufficiently large, would have a tendency to prevent the ravages of rust. I have observed spots in fields, where brush heaps or a pile of stumps had been burnt, in which the straw was perfectly clean and bright, while all around it was perfectly black. When a field is first struck with what is commonly called "the black rust," the only thing to be done is to cut it immediately. A single night will ruin it utterly. This leads to a consideration of

The Plan of Cutting Wheat Green.

In Johnson's Encyclopedia we are given the details of an experiment practiced by Mr. John Hannam, of England, in 1840. This gentleman cut a sheaf from his field four weeks before the grain was ripe. He let this stand in the field two weeks, when he housed it, and on the same day cut another, which stood another fortnight, at which time the remainder of the field was cut, at the time when harvest usually begins. The straw of the first sheaf was perfectly green, and the grain, while plump, was full of milk; the straw of the second was of a hue approaching yellow, and the grain still juicy, but not so much so as the first; the last was cut when all signs of vivid health had disappeared. Samples of these were shown to a miller, who priced that cut green and the ripe sample at about the same, while he priced that cut in the raw state at two shillings per quarter more than either of the others. The difference in weight both of grain and straw was in favor of the raw over the ripe, and in weight of grain over the green also. I will say at once that while the plan of cutting in the raw state might do in England, it would not answer at all here, except in the case of rust, above mentioned. The grain of wheat in this country would be scarcely formed four weeks before it was ripe, and, if cut two weeks before being ripe, would shrivel badly. Wheat cannot be cut here more than three or four days before it is ripe. It will do to cut whenever, on taking a grain between the thumb and forefinger, it can be mashed without any milky juice exuding. I speak here from experience, as I have cut several crops in the green state, and they all shriveled. Our hot sun will dry up the straw in a single day, so that very little of its substance goes to the ear. It has, no doubt, been noticed by all observing farmers that the inside bundles of a shock always yield plumper and better grains than the caps and outside bundles. I have cut sheaves green, and carried them into the house to dry in the shade, and found that, while the grain lost its color, it shrank very little, if at all.

I reserve the consideration of the varieties of wheat and of the results of some of my experiments with the newer ones for another issue of this paper.

Pulaski Co., Va., July 10.

VARIETIES OF SUGAR BEETS.

E. R. BILLINGS.

The sugar beet is doubtless the most valuable product known for the manufacture of the finer grades of sugar. Canes, the Date, and our favorite forest tree, the Maple, abound in rich saccharine juices, but do not furnish so valuable an article as the vegetable known all over the world as the beet. While it does not yield as much sugar as the cane by about three per cent., the quality is much better, and in Germany, France and Belgium supersedes all kinds made from other sugar-producing plants. The manufacture of beet sugar has been confined until quite recently to the three nations named, but at the present time it is attracting very much attention in this country. In California a fine article of sugar has been made from the watermelon, but no great industry is likely to grow out of the experiment. The French and Germans have made the manufacture of beet sugar a complete success, and annually export large quantities to non-sugar-producing countries. The root is easily cultivated and is so rich in sugar that another great branch of industry in this country can hardly fail of success when once the process of manufacture is thoroughly understood. The beet requires rather light soil and must be well enriched with manure, since only large roots will give a fine grade of sugar. I propose to describe at some length some of the most popular varieties of the sugar beet, and shall only recommend those sorts that are cultivated by the best growers of both Europe and America.

Standing at the head of all varieties, as claimed by American growers (though not as yet by Europeans), is

Lane's Improved Sugar Beet

This variety is a greatly improved sort of the French sugar beet, obtained by very careful

selection in this country, and is recommended as being much hardier, more productive, and containing a greater percentage of sugar than the ordinary variety. It is an enormous cropper, and yields on rich soil from 10 to 20 per cent. more roots than any other variety known. This sort should be tested by all growers of sugar beets, and compared with

Vilmorin's Improved Sugar Beet.

This sort originated with Vilmorin, the great Parisian seedsman, and is a popular variety in France and Belgium. It is a good, strong grower, with light-green leaves, and forms a good-sized root on rich soil. Doubtless the imported seed is the best, as the seed is carefully selected from only well-ripened beets. In Maine this sort has been tested, and the yield of sugar has been satisfactory in every particular. The root is long, smooth and pure white, as are all varieties of the sugar beet. This sort has also been cultivated with complete success in Canada, and the sugar made therefrom has been pronounced equal to that made in Europe. It is one of the hardiest of all varieties, and succeeds well in all localities.

The White Sugar Beet

is also a favorite sort, attains a large size, and is excellent for feeding, as well as for sugar. It is largely cultivated in France, and is considered one of the best sorts cultivated.

One very important result is at length reached in sugar-making—its manufacture is no longer confined to tropical and semi-tropical lands, and the sugar beet is the only vegetable or plant that will succeed in the north temperate latitude, from which crystallizable sugar can be profitably obtained. In this respect it is superior to sorghum sirup, corn sirup, or glucose, all of which cannot yet by any known process be converted (at least profitably) into fine crystalized sugar. The beet is rich in sugar, of which it contains 15 per cent. (?) while cane contains 18 per cent., and maple sap only two per cent., so that it will readily be seen that the sugar percentage is very large, and is only exceeded by that in the cane, which latter product now supplies this country with nearly all kinds of sugar, both refined and unrefined. There are many other kinds of sugar beets known, more especially in certain localities of both Germany and France, but which have little reputation outside the limits of cultivation. The sorts described are worthy of culture both for sugar and stock feeding, and will yield abundantly when planted on rich soil and cultivated in the most thorough manner, as the beet should be in order to give the best results both to the grower and manufacturer of beet sugar.

Hamden Co., Mass.

Pomological.

RUSSIAN APPLES.

T. H. HOSKINS, M. D.

THE report in the RURAL, p. 438, of Mr. Barry's remarks on Russian Apples at the Cleveland convention, is not what any one could take exception to, yet it seems to me to be a very incomplete view of the subject. It is true, as I have myself noted in the RURAL, that very few of the several hundred kinds of Russian Apples imported by the Department of Agriculture, which have yet fruited, possess keeping qualities, or are of great merit as dessert fruit. But ought we to expect it? I understand that near St. Petersburg, in latitude 60° north, the Duchess of Oldenburgh is a winter Apple; while in northern Vermont (lat. 45° N.) it is an early fall fruit, and farther south it becomes a summer Apple. As grown in lower New England and southward, it is of medium size, with a "harsh, rasping acid" flavor. Here it grows so large, and of such a different general appearance, that Mr. Downing finds it hard to believe that we have it genuine; while the flavor, though not high or rich, is a very mild sub-acid when fully ripe.

Mr. Drew, writing in the RURAL (p. 422), from El Dorado, Cal., says, referring to Eastern apples growing there,—"Every section of the country, every locality, has a climate peculiar to itself, so it will be found that every clime will have its own peculiar kinds of fruits, which will attain the highest degree of perfection there only, and will lose some of their good qualities as soon as removed elsewhere. It is impossible to decide the varieties suitable for one clime by those that thrive in another. Early spring Eastern apples, for instance, become summer ones here, Eastern autumn apples change into winter, and of real winter or subsequent spring apples, we have very few."

Mr. S. B. Peck, on the same page, says of the Baldwin apple:—"The reputation of the Baldwin is derived, not from any fine flavor, but from the vigor and thriftiness of the tree, the fairness and fine appearance of the fruit, its good handling and keeping qualities; but, most of all, from its extraordinary productiveness, in which, as far as dollars and cents are concerned, it is doubtless superior to any other of the long-tested varieties. Such being the case, those who raise apples for profit, show good judgment in planting largely of this variety."

Now, this is just the view that I, in common with other fruit-growers in the "cold North," take of the Russian Apples. None of the great market apples of the country are of the highest quality for the dessert. The Red Astrachan, Maiden's Blush, Baldwin, R. I. Greening, Ben Davis and Pennock, all rank no higher that "very good," and some of them hardly rise to "good" in the pomological lists. The Duchess of Oldenburgh has to take the place of the Red Astrachan with us; for, though the latter is called a "Russian," it fails in the "cold belt." The Duchess, however, is not inferior to it in any of the elements of profit to the commercial orchardist.

It must be remembered, that but few comparatively of the new Russians have yet been fruited. Ten years are far too short a time to test them, sift them, and assign them each a place according to their merits. But I know of one, at least, that will rank with the best dessert apples in quality, besides being a beautiful and productive sort. I will not now name it, because experience has taught me that I shall receive a basketful of solicitations for cions which I am utterly unable to respond to. Others, besides Duchess, are already becoming known and valued, and have been described and figured in the RURAL. I do not think the Grand Sultan and Yellow Transparent (*perhaps* identical) can be easily beaten as very early dessert apples, or surpassed for health, hardiness and productiveness. But this must be understood only of them as grown far north. At Washington all the new Russians are pronounced worthless. I am told, and I feel sure that hardly one of them would do itself justice when grown even so far south as Rochester. They are essentially Apples for the far North; and late springs, a short season, and but little excessively hot weather, are all essential to the development of their good qualities.

Now, I think it no small gain for us to have a class of Apples, even though many of them are not of high quality, which allows orcharding to be extended several hundred miles farther north than has heretofore been thought practicable. I see no reason why the Russians may not be made to succeed all the way to the south shore of Hudson's Bay; and surely the possession of so good a fruit for use during the long winters of such a climate, will prove no small boon to the people who will eventually populate that territory. We, here in northern Vermont and the adjoining Province of Quebec, are delighted to get them, and we know so genial a man as Mr. Barry will appreciate the pleasure we find in an abundance of home-grown fruit, even though it may be somewhat inferior to that of his favored home.

SMALL TALK ON SMALL FRUITS.

BY MONMOUTH.

I ONCE heard of a man who paid two dollars for a pig, and, after feeding it eight dollars' worth of corn, sold it for five dollars. "True," said this embryo farmer, "I did not make very much on the corn, but then I made three dollars on the pig." After several years of this sort of *profitable* experience—although in many cases *I never received back as much as I paid for the plants*, to say nothing of the time, fertilizers and use of land expended upon them—I have come to the conclusion that it will not pay to plant for market any of the small fruits that are not hardy and prolific with berries of large size, handsome in appearance, and *sufficiently firm to ship well*. This is a pretty high standard, to be sure, and it cannot be expected that many of the candidates for public favor will come up to it. Is it not, therefore, perfectly natural that so few of the new, highly-extolled sorts meet the expectations of the fruit-growers? Another disappointment is sometimes caused by some one's offering

An Old Variety under a New Name.

This is, in most cases, brought about by innocent parties, I have no doubt. Some one on whose land the variety, whatever it may be, succeeds remarkably well, from lack of knowledge of the varieties cultivated, does not recognize the old friend, hence believes himself the happy discoverer of a chance seedling of wondrous merit. He therefore straightway gives it a name, and goes about propagating and advertising it in good faith. I have in mind a case in point. Sometime ago I heard considerable about the

Windsor Chief Strawberry

as possessing all the merits of a profitable variety to a degree beyond all others. I purchased two hundred plants, and by a fortunate coincidence planted them side by side with the Champion. On their coming into fruit, I must confess I have failed to find the slightest difference either in fruit or plant, and if any exists it must be slight indeed, after so thorough a scrutiny.

It is strange why so many omit to

Head Back the Raspberries and Blackberries,

when the operation is so trifling and the benefits so great. All that need be done is to go along the rows, and when the canes of Raspberries attain a hight of three to four feet, pinch out the top; do the same with Blackberries when four to five feet high, according to the variety. This will cause the plants to grow bushy and strong, and produce nearly or quite double the amount of fruit that they otherwise would; besides, it prevents the necessity of staking the plants the following spring, an operation requiring more than double the time, to say nothing of the stakes and hard words. Let those who have never done this, do it at once, and I am satisfied they will always do it in the future. It has long been known that strawberry plants set in the summer and early fall, produce better results than plants planted at any other season, but many who have tried it have become discouraged and given up the practice from the difficulty they experience in getting the plants to live at this hot season. This is effectually overcome by planting

Pot-grown Plants.

Several nurserymen are now growing plants in this manner quite extensively, to supply the demand, but it is not at all necessary for those who have plants already growing on their grounds to resort to the nurseryman. All that is needed is to procure small flower-pots—2¼ or 2½ inches across — fill them with earth and sink one even with the ground by the side of a young plant just forming. Press the young plant into the pot slightly and place a small stone or clod of earth upon it to hold it in place. In about two weeks it will be found to have grown into a good strong plant, and the pot will be filled with roots. Of course, it is better to remove the plants to their new house during a wet time, but should none occur they will do nearly or quite as well if the ball of earth and roots be dipped into water after having been removed from the pot and just before it is set into the ground, even though the weather be very dry. This plan is a vast step in advance of the old, uncertain one, and plants thus grown will produce, if well cared for, a full crop the following season.

Little Silver, N. J.

Horticultural.

SEEDLINGS.

Really more pleasure accrues from starting a new plant of worth than from any other branch of horticulture. Among the plants most easily experimented with are the Geraniums, Gladioli, Phloxes, Roses; indeed, any of the perennials or biennials afford an opportunity for improvements. Seedlings of Geraniums sown in a hot-bed can be brought to blossom the first year. Select seed from a bed in which have been grown several colors, and you are sure of something interesting, if it be not worthy of propagation. The Gladioli require a little more patience, needing about three years from seed to come to maturity. The same is true of the Hyacinth and the Tulip. Most bulbous roots take three to five years of care.

Any one having a small garden, should set apart one bed for experiments. Here may be planted extra-large seeds of fruits, or whatever draws the attention as peculiar. A few Grapes may be grown, while peach stones may be planted instead of being thrown away. Seedlings of Crawford's Early, and some other varieties, almost invariably produce good fruit; often better than the parent, and are often hardier. It rarely pays to expect apple seedlings to equal the best varieties now under culture. Better graft at once.

There are fruits as well as flowers capable of great improvement. This we may be certain of from observing the recent remarkable development of the wild Grapes, the Pear, the Potato, the Rose, the Dahlia, the Geranium, and the Strawberry. Among those deserving of experiments are the Persimmon, the Quince, the Blackberry, among fruits, and the improvement may be looked for in any direction among the flowers.

Accurate hybridizing is not so difficult, and is a very attractive style of experiment. It consists in simply removing the pollen from one flower or cluster of flowers, and dusting on the pollen collected from some other desirable variety. The bunch or flower must then be protected from the contact of the insects. The seed produced by this cluster or single flower will probably produce plants in which the two crossed varieties will combine their qualities. But hybridization is so largely engaged in through the agency of the wind and the bees that if several varieties of Grapes or Geraniums or Roses grow together, we have only to sow their seed to secure results similar to more artificial hybridization.

A pleasant supplement to the work suggested, is to name our choicest seedlings after our choicest friends. E. P. POWELL.

THE Fourth Annual Session and Exhibition of the Georgia State Horticultural Society, will be held in the Masonic Hall in the City of Macon, commencing Tuesday, July 29th, 1879, at 10 o'clock, A. M., and continuing during the 30th and 31st. Arrangements have been made with the railroads to carry goods for exhibition free and visitors at reduced rates, whom the Lanier House will entertain at the rate of $1.50 a day.

Industrial Topics.

THE FARMER'S WORKSHOP.

SERENO EDWARDS TODD.

EVERY tiller of the soil should provide a cheap and convenient shop, and a goodly number of mechanical tools, with which numerous little jobs may be performed in less time than would be consumed in simply going to and from the shop of a professional mechanic, who would necessarily require remuneration. More than this, farmers always have many hours and days, and sometimes entire weeks, of wet, stormy and lowery weather, when no one can work in the field. At such times, if one will exercise a little mechanical gumption when using mechanical tools, he will soon be able to perform almost any little job by way of repairing farm implements and hand tools. It is an old, but trite saying, that almost any one can do a difficult job if he have the necessary *tools*, while it will require all the skill of an expert mechanic to work *without* tools.

The first and most important consideration is the shop itself. If a man feels too poor to erect a commodious shop, and if he cannot occupy any part of some out-building, let him make an economical lean-to at the side of some building. Such a shop can be erected at the expense of only a few dollars. For example, let such a structure be about eleven feet broad by fourteen or sixteen feet in length. The sides and roof can be made of good hemlock boards, planed or not. At most lumber yards one can purchase hemlock flooring, matched and planed on one side, which costs only a dime more per hundred feet than the boards of the same quality not planed. Make a shed-roof, sloping all one way. Then cover the surface with newspapers or any other kind of paper, and spread over the paper old carpeting, old canvas, old matting, and cover thin pieces and holes with good pieces. Nail the edges and the pieces over the holes with carpet tacks, or with small lath nails. Such a roof need have only a slope of one foot in twelve. After the canvas or matting is securely nailed, apply a heavy coat of coal tar. Paper should be applied three or more thicknesses to keep the tar from running down between the roof boards.

Then, after the expiration of a few days, mingle coal tar, fine-sifted sand, and some sifted lime or gypsum, or Rosendale cement, or equal parts of each of these substances, until the mass is of the consistence of plastering mortar. With a plastering trowel, let a thin coat of the foregoing mixture be spread on the roofing foundation. One of my barns, a wagon shed and two corn-cribs are covered with such roofing, and they have been "leak-tight" for over three years. I procured a large quantity of the matting that comes around tea-chests, and the sacks which are made of gunning-cloth for holding coffee, peanuts and other commodities. A large quantity of floor matting and carpeting, not half worn out, was cast aside as worthless, which subserved an excellent purpose as a foundation for the roofing cement or plaster. The cost of such a roof is extremely small. The labor of putting the materials in their proper places constitutes the largest item of expense.

It will not be necessary to incur the expense of a framed building in the erection of such a workshop. Procure a load of hard-wood slabs at some saw-mill, and stand the lower ends on stones, or set them in the ground for posts and studs. Or cut down small trees, and straighten one side of the pieces for posts. If the ground is not dry, let a few wagon loads of clay, or gravel and clay, be spread over the surface. A plank floor is not necessary, for the reason that such a shop will usually be covered with chips, shavings and score-blocks. Two or three boards may be placed by the side of the work-bench, if deemed desirable. Of course three or four large windows will be essential, and a broad doorway of sufficient width to admit a wagon.

For myself, I would have a workshop built of as good materials and style as any out-building. But when a farmer feels too poor, I desire to aid him in erecting a workshop that will cost but little besides his own labor.

The attic story of many a building is of no practical use for any purpose. But by cutting a doorway at one end, making an inclined plane from the ground to the doorway, and putting three or four windows in the roof, a convenient workshop could be provided at a small expense. In many instances a portion of the basement story of the dwelling house could be appropriated to a workshop. A few

years ago, when I resided in Brooklyn, there was a sub-basement beneath our residence, which was about twenty feet wide by forty long. Several windows were inserted in the foundation wall, and a work-bench and tools were provided for the boys, who were attending school. Their parents never had occasion to request or command them to come home after school hours, or to keep out of bad company, or to shun places of public resort. No, never. That workshop and the tools seemed to have almost a bewitching influence. There were two saw-mills, a trip-hammer, and grist-mill and other machinery all in motion at once. Of course the machinery was of the rudest sort; yet the mechanical education and the self-training by way of handling mechanical tools, could not be computed in pecuniary value.

Entomological.

APHIDES OR PLANT-LICE.—No. 1.

PROFESSOR CYRUS THOMAS.

If closely and carefully studied, the plant-lice will be found to present not only some of the most difficult questions for science to solve, but also interesting facts pertaining to the entire insect class. Looking at them huddled in compact masses on a cabbage leaf or cherry twig, the observer sees at first, but little to attract attention or interest; in fact he sees but little difference between these minute creatures, no matter where he finds them. But first impressions in reference to natural objects are often erroneous.

The study of any group of insects will always repay in pleasure and interest all the trouble and labor necessary thereto; and the aphides are no exception to this rule. If the reader can take sufficient interest in such small things, I propose to give in two or three brief articles, a summary of the information obtained in reference to these insects, by a careful study of them for some years. And I may state as one of the results of this study, the conviction that their life-history is as yet but imperfectly known and that much that has been stated generally in reference to them, will have to be essentially modified. I have even serious doubts whether entomologists have yet ascertained positively the characters which distinguish the species from each other. The larger divisions of the family, as the sub-families and tribes or sections, are well marked, and the anatomical variations, as a rule, correspond with material differences in habits, which is a pretty sure test that the characters have been well chosen and that the divisions are natural. But in reference to species the case is quite different; while some appear to be well marked, others grade into each other so gradually that no real mark of distinction is to be found. In the days of Fabricius and the older entomologists, it was the custom to indicate the species, simply by noting the plant and part of the plant it infested; and notwithstanding modern entomologists have undertaken to define species with great minuteness, yet the species of plant they inhabit is probably, after all, their chief guide in reference to specific identity in cases of doubt where the knowledge of direct descent is wanting.

Some of the long-entertained opinions in reference to their biological history and habits will have to be abandoned, as more recent and careful investigations have shown them to be more or less erroneous. For example, their singular mode of reproduction has been stated both in entomological and popular works to be as follows: The female deposits eggs in autumn which, in the following spring, produce females only, which remain wingless; these are viviparous, producing living young without the intervention of the male; these are likewise all apterous females. This process is repeated during the season through some six or seven generations; but on the approach of winter a brood of winged males and females is produced; these females deposit the eggs which remain over the winter.

While this indicates generally their life-history, it is erroneous in several important particulars. In the first place, the method of reproduction is not uniform in the family, some being always oviparous, as the grape phylloxera and its allies; others continue the viviparous method of reproduction for two or three years; while a few, so far as known, never produce eggs, though doubtless this mode of reproduction occurs at long intervals. In the second place, the winged female is seldom oviparous. Buckton, the latest English authority on these insects, thinks it is never oviparous, but I am inclined to believe that a species found on the soft Maple, which I have recently described, forms an exception to this rule. In the third place, the males are of comparatively rare occurrence in most species, those which have heretofore been described as such being mostly winged viviparous females. In the fourth place, winged specimens occur in limited numbers, in the aerial species, throughout the season. In the fifth place, the facts recently ascertained render it probable that dimorphism occurs in a large number of species, enabling them in this way to pass the winter without the necessity of oviparous generation. This singular fact (which will hereafter be explained), if established, will go far toward explaining a part of their life-history, which has long been enshrouded in mystery.

I have stated that I doubt whether entomologists have ascertained the characters which distinguish species from each other. That widely separated species can readily be distinguished by well marked characters, is certainly true; but I refer to species of the same genus. It would require too much space to give my reasons for this opinion at this time. But I may call attention to the following points in reference to the characters which have been used to distinguish species.

Walker's method of characterizing them by the comparative distances of the veins of the wings from each other, will soon be abandoned as worthless by any one who attempts to follow it. Very marked variations may aid in connection with other characters. The color, which is now much relied upon, although quite uniform in some species, varies in others from almost uniform red to green throughout; from green to black, etc. While it is true that those which feed upon native uncultivated plants are usually confined to a single species or genus; on the other hand, those found on cultivated species sometimes have a wide range of food plants.

These and numerous other facts which might be mentioned, render it possible, at least, that some of these differences which are now considered specific are owing to differences in food plants. Failure in attempts to colonize on different species of plants is not satisfactory proof to the contrary, unless carried step by step through the nearest allies.

I should have stated above that some species produce but one brood in a season.

Lest I make this article too long, and weary the reader, I will close with the description of a new species found on the tomato; a species so well marked that it can readily be identified.

Megoura solani—New species.

Winged viviparous female.—Antennæ seven-jointed, a little longer than the body; third and seventh about equal, longest; sixth about half or less than half the length of the fifth; the tubercles on which these organs are placed and also the first or basal joint, gibbous internally. The honey-tubes extending beyond the tip of the abdomen; excessively enlarged in the middle, expanding at the immediate tips in trumpet shape. Tail of moderate length, about one-third the length of the honey-tubes, conical. Wings of the usual form in Siphonophora; second fork of the third vein about equally distant from the apex and third vein; stigma elongate, slender and pointed. Size rather large. General color green; tail greenish-yellow at the base, darker at the tip; legs pale; head, dark; prothorax, pale; disk of the thorax, dark.

It does not appear to be the habit of the insects of this species to collect in colonies; but, so far as they were observed, they were found scattered singly over the leaves and stems of the plant. Their feet were clogged with the viscous fluid which exudes from the plant, giving them the appearance of being club-footed. Their evident acquaintance with the tomato plant, as shown by the method in which they pass over the minute, sharp hairs with which the stems are covered, is a strong evidence that they are at home on it.

Various.

JOTTINGS AT KIRBY HOMESTEAD.

COL. F. D. CURTIS.

A Fair Joke.

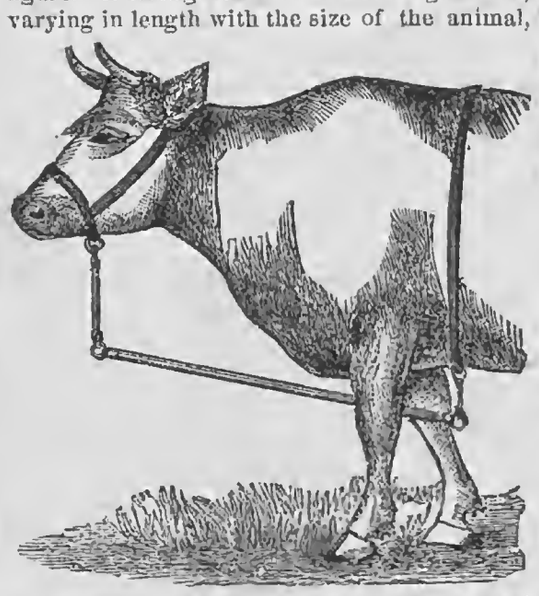
Our Dorkings breed more single combs than double ones. This leads us to believe that single combs are the most natural. Last season, at the county fair, the judges on poultry were selected as experts, and when they went around to award the premiums, they ruled out our old trio of Dorkings as not up to the standard, because they all happened to have single combs, and awarded all the prizes to those with double combs. Every one of these were the chickens of those very same fowls!

We Want More Flowering Shrubs.

Farmers would have more flowers about their homes if there was not so much labor connected with them. It took us a half day to weed out the petunia bed, and while we were at work it occurred to us how much easier it would be to cultivate flowering shrubs. They could be tastefully set about the door-yards and lawns and in the gardens, and very little labor would be necessary to keep them in order. Strong-growing plants, like Peonies and Hollyhocks, are not much trouble and are beautiful in their time. Perennial plants are what farmers want the most. These can be set along the walks and in clumps, and one or two dressings during the summer will protect them from weeds and grass and keep them in thriving order. If the Rural will give its readers a list of hardy perennial plants and flowering shrubs, including Roses, which will bloom during the entire summer in their order, we are certain the favor will be appreciated, and discouraged flower-growers will start anew. For the autumn we must have the Asters, Phlox and Zinnias, but they are not so much bother as many others, and their beauty will pay for the extra care. This might be said of all flowers, if one only had the time to spare. Some flowers we must have, and if we cannot adorn our homes with the pretty annuals, then we will make them as cheerful and attractive as possible with the shrubs. [Col. Curtis's suggestion is fully acted upon in the Rural's free seed distribution.—Eds.]

PREVENTIVE FOR SELF-MILKING.

Some cows have the disagreeable habit of milking themselves, which, however, they may be broken of by dressing them for a time in the simple attire shown in the accompanying figure. A strong stick of some tough wood, varying in length with the size of the animal,



is suspended between the fore legs, one end being attached to a surcingle buckled about the body, and the other fastened to a strap which is buckled to the halter. The strap that unites the stick with the halter should be at least twelve inches long; this will allow the necessary movement of the head to graze freely, while it still prevents the cow from bringing the head to the udder.

BOOKS, PAMPHLETS AND CATALOGUES.

Something New.—We write this notice with a *Stylographic Pen*, so-called, but which is really not a pen at all, but a metal point combined with a tubular holder filled with ink, in such a way that when the point is pressed lightly on the paper the ink flows, leaving a line of uniform width. It might be called a pencil that writes with ink, that never needs sharpening and never wears out. We have used Fountain Pens of different styles for the past fifteen years. Some were pretty good and some were good for nothing, but we think this new invention is likely to supersede them all. For those who write much or little it will be found cleanly, convenient and always ready. We will not undertake to name all its good points, but readers will find them in a circular they can obtain from C. W. Robinson, 169 Broadway, New York, on application by letter or otherwise.

NEW YORK STATE FARMERS' ALLIANCE.

The annual meeting of the New York State Farmers' Alliance will be held in Syracuse on the third Wednesday of August. It is important that all localities and every grange, farmers' club or other agricultural organization be represented. To this end delegates should be appointed at an early meeting of every local organization, at the rate of three delegates for each 100 members, each grange, club, etc., being entitled to at least one. Due notice of the meeting will be sent to officers of all societies so far as known. Granges, alliances and clubs not receiving any notice are requested to send names of officers and their P. O. addresses to the secretary. Harris Lewis, Pres't,
Frankfort, N. Y.
Ww. J. Fowler, Sec'y, Pittsford, N. Y.

Is Lawson Cypress Hardy at Boston?—It is not. In the punctuation, p. 408, had a comma instead of a period been placed after "Lawson Cypresses," the sense of the sentence would have been as I intended it. A Visitor.

Industrial Societies.

STATE AND GENERAL.

Alabama, Montgomery	Nov. 10, 16
Maine, Portland	Sept. 16, 20
Montana Agl., Mineral and Mechanical Ass'n., Helena	Sept. 29, Oct. 5
Northern Indiana, Waterloo	Oct. 6, 11
North Georgia, Atlanta	Oct. 20, 27
Oregon, Salem	Sept. 24, Oct. 3
Southern Wis. & Northern Illinois Indus. Ass'n, Beloit, Wis.	Sept. 2, 6

COUNTY FAIRS.

CONNECTICUT.

New London, Norwich	Sept. 23, 26
Danbury	Oct. 7, 12

NEW YORK.

Maine Agl. Soc., Maine, Broome Co.	Sept. 16, 19
Del. Co. Dairyman's Ass'n, Delhi	Nov. 12, 14
Dutchess, Washington Hollow	Sept. 23, 26
Racket Valley and St. Regis Valley Agl. Society, Potsdam	Sept. 23, 25

NEW JERSEY.

Cape May, South Seaville	Oct. 1, 3

PENNSYLVANIA.

York, York	Oct. 7, 11

KANSAS.

Allen County Agricultural and Mechanical Association, Iola	Sept. 15, 18
Seventh Judicial District Agricultural Society (Allen, Wilson, Woodson and Neosho counties), Chanute	Sept. 10, 12
Central Kansas Fair Association (Barton county), Great Bend	Oct. 9, 11
Butler County Exposition and Horticultural Society, Augusta	Sept. 10, 12
Brown County Agl., Hor. and Mechanical Ass'n, Hiawatha	Sept. 9, 12
Spring River Valley (Cherokee county) Agl., Hor., Mech. and Stock Ass'n, Baxter Springs	Oct. 1, 3
Walnut Valley Fair Association (Cowley county), Winfield	Oct. 8, 11
Crawford County Agl. Society, Girard	Sept. 10, 12
Ellsworth County Agricultural Society, Ellsworth	Oct. 2, 4
Franklin County Agl. Society, Ottawa	Oct. 1, 3
Harvey County Agl. Society, Newton	Oct. 1, 4
Jefferson County Agl. and Mech. Ass'n, Oskaloosa	Sept. 30, Oct. 3
Valley Falls Kansas District Fair Ass'n, (Jefferson county), Valley Falls	Sept. 9, 12
Jewell County Agl. and Indus. Society, Jewell Center	Sept. 00, 00
Labette County Agl. Society, Oswego	Sept. 3, 5
Linn County Agl. Society, La Cygne	Sept. 18, 19
Linn County Agricultural and Mechanical Association, Mound City	Oct. 1, 4
Marion County Agl. Society, Peabody	Oct. 1, 3
Marshall County Agricultural Society, Marysville	Sept. 30, Oct. 3
Morris County Agl. Society, Parkerville	Oct. 1, 3
Pawnee County Agl. Society, Larned	Sept. 00, 00
Riley County Agl. Society, Manhattan	Sept. 23, 26
Washington County Agricultural Society, Washington	Sept. 10, 12

OREGON.

Washington, ———	Sept. 22, 26

CALIFORNIA DISTRICT AND COUNTY FAIRS.

San Joaquin Valley District, Stockton	Sept. 16, 20
Northern District, Marysville	Sept. 15, 20
Golden Gate District, Oakland	Sept. 1, 3
Napa and Solano District, Vallejo	Sept. 16, 20
Monterey County District, Salinas	Sept. 30, Oct. 1
Sonoma and Marin District, Petaluma	Sept. 30, Oct. 4
Siskiyou, Yreka	Oct. 1, 4
El Dorado, Placerville	Sept. 16, 19
Santa Clara Valley, San Jose	Sept. 23, 27
Southern District, Los Angeles	Oct. 20, 25
Upper Sacramento Valley, Chico	Sept. 30 Oct. 4
Southern California Horticultural, Los Angelos	Oct. 20,
Mechanics' Institute, San Francisco	Aug. 5, Sept. 6

KENTUCKY.

Paducah Fair Ass'n, Paducah	Oct. 14, 18

Industrial Implements.

THE ONEIDA ENGINE.

The Oneida Iron Works have large facilities which are devoted exclusively to the manufacture of steam engines. Several styles, besides the agricultural, are made; but it is with this that we are more particularly concerned. Those who have used it, in connection with separators, speak highly of its economy of fuel and excellent service.

Not alone thrashermen, but farmers are rapidly becoming conversant with the advantages of steam, as may be shown by the large sales during the past few years. It is only a question of a few years when it will be the exception to find an agriculturist who sets his face against steam on the farm. The Rural has given extended attention to this subject, and has chosen examples of the leading styles. In this issue we present the "Oneida," made by the firm above named, at Oneida, N. Y. The most important feature in any engine is the boiler, and for this one the following good points are claimed: The fire-box is of large size and curved form, its under side forming the ash-pan, which allows a constant circulation of water under the grates, preventing sediment from adhering to the sides. Nothing but the best quality of American charcoal hammered iron is used, and care is taken in laying them out to see that the rivet-holes are accurately punched. The tube-sheets are of half-inch iron, which insures long wearing qualities in a part of the construction which is apt to give way the soonest.

The smoke-box is formed by the extension of the boiler shell, and being of boiler iron is not liable to rust off. A hinged smoke-stack, improved spark arrester, thoroughly constructed engines, and substantial running gear complete a steam engine that is graceful in design, strong, serviceable and economical to operate. Circulars may be had on application.

The Heath String Binder, made by The Johnston Harvester Co., of Brockport, N. Y., was recently submitted to a thorough test in the presence of our representative, at Brockport. The wheat, though well filled, was short—a condition making it unusually difficult to form a good bundle. Notwithstanding this fact, the binder worked to perfection, throwing off the bundles well-bound, and in good shape. The size of the bundles is gauged by a foot lever, which is at all times under the control of the driver. The machine is light, well constructed and easily handled. Next season the binder will be placed upon the market, and it would seem to be an event decided in advance that the sales will be large.

Everywhere.

WESTERN AGRICULTURE.

YEARS ago it was thought that to possess a section or half section of the fertile prairie land of Illinois, and enough teams to break it up and plant the same to corn, and in time to gather the large harvest which it yielded, was fulfilling the requirements of a practical farmer. Now that it has been shown that, as regards the fertility, our Western soil is like the soil in other localities, sure to run down without proper attention, the farmers are beginning to open their eyes and to believe the fact that agriculture is a science. Too much land, too little capital, and an inadequate understanding of the science of farming, have all tended to make Western agriculture of late years an unprofitable occupation.

One after another of the large tracts of land which were heretofore run as separate farms, are being divided up and sold in small pieces to suit purchasers; and I cannot help but feel that this is a step in the right direction, as it will induce people to make homes on the lands which before were only rented out, or on which there were no houses except for hired hands.

Now that the questions of manuring and tile-draining our lands have been brought before our people, we look for decided improvements in the agricultural districts, and when once we are awake to the real necessities of manure and drainage, there can be no doubt as to the results. On the farms and in the small towns of Illinois thousands of loads of manure remain unused every year, which would add materially to the productiveness of the land, if only hauled out and utilized by our farmers, who, at present, need to use every means in their power to help bring about a change from the hard times under which we have been laboring for several years past. To this same end it is necessary for us to better understand our calling, and practice only those rules which our own experience and the experience of others show us are successful ones. We have every advantage that could be desired as to markets for stock, produce and grain, and now the questions that most interest us are: How to keep up and improve the fertility of our farms; what kinds of grain to grow; what breeds of stock to keep, and what percentage of our crops should be fed on the farms and what proportion should be sent to market.

In some parts of the West dairy farming is very popular, and carried on successfully; but as yet this mode of farming is in its infancy over the greater portion of the Western territory, while the raising of grain for market is the general occupation of our agriculturists. A tendency to mixed husbandry and the raising and feeding of stock is getting to be quite popular in localities where simple grain farming does not pay. Another step forward is the increasing attention given to the producing of fruits and vegetables for home and foreign markets, and to-day some of the fruit farms of the West rank among the very best and most successful in the country. There is no reason why this should not be, for the climate and soil both favor the more hardy fruits; while there are many localities in which Peaches and other more tender fruits are produced in abundance.

Although borrowed capital has done a great deal towards building up the West, still just now we have come to the paying time, and general depression is the result. Thousands of farms are changing hands; but in so doing the mortgages are generally lifted and the land left free of incumbrance, which is, of course, a good step toward better times. In spite of all reverses, there is a bright future for Western agriculturists who apply themselves to their calling, and are in earnest in their endeavors to carve from the Western prairies homes for themselves and families.

Champaign, Ill., March 1st, 1879. L. L. D.

PENCILINGS BEYOND THE MISSISSIPPI.

A FEW short years ago and how far off seemed the land beyond the "Father of Waters." We read of the broad prairies, the noble forests, and the fertile bottom lands of Iowa, Missouri, and Kansas, and imagined that we should never behold them save in imagination. But the iron ribbons which cross the States in all directions, have paved the road to the settling of still more distant territories, and the cry of "Westward, ho!" has reached the most western range of the Cordilleras; nor stopped until it dipped with the setting sun in the peaceful bosom of the ocean. Ten years ago my father, moved by the resistless spirit of change, followed the advice of the lamented Greeley and "came West." An old man then, the snows of sixty winters had thinned and whitened his locks, but had failed to quench the ardor of his ambition; and the spring of 1869 found him settled for the remainder of his days upon a farm in the woods. The improvement on it consisted of an old frame house, minus doors and windows, and surrounded by a rail fence inclosing about half an acre. A few stunted Morello cherry trees, and half a dozen prickly gooseberry bushes completed the prospect. It would take months to relate the various discouragements and privations incident to life on a new farm, which we endured for five or six years; at the end of that time we began to discern something like order in the midst of chaos. Now, the greatest difficulty is in finding a non-resident tenant. Nearly every man here who owns a team and does not own land, will decline to work land on which the owner lives. They want full control of everything, and are mad if they can't get their own way.

And right here, I will add a word of advice to those who have the "Western fever." If you have reached the meridian of life, and have a comfortable home in an Eastern State, with assurance of a sufficiency during life, *don't come West*, at least to Missouri. Stay where you are, and let the younger men "go West" and advance with the country through competency to affluence. Old people have fixed habits and opinions; and the breaking up of old ties, old associations, and the change of fare and the unaccustomed labor, cannot but have a depressing influence upon their spirits, and eventually upon their health. The knowledge that we are in sympathy with and are an *acceptable* part of the community in which we live, has a decided effect upon the health and happiness of an individual; and no matter how loudly the Western newspapers cry to the contrary, it is an undisputable fact that the majority of Missourians do not desire the settlement of Eastern families among them. Those having the courage to come are preyed upon in every possible manner. * * * *

Is it any wonder that the best teachers in the State are leaving for other States, when we consider how the rights of the people to say how many months' school they shall have their districts taxed for, is taken from them; and in about four-fifths of the schools the directors will manage to have only just enough school to secure the public money. You do not need to be told what kind of school directors run those delectable districts. Having school only one-third of the time, where are the youths the remaining two-thirds? They are "sitting around" at home, while those large enough have gone to town and may be found in the saloons and playing cards. The smaller boys are playing with the dogs, of which each family possesses from three to a dozen, according to their ability for eluding the assessor. The consequence is that when these boys become men, they are about as fitly qualified to vote as are their fathers. The State cannot afford an appropriation of ten thousand dollars a year for the support of a Normal School, but it can pay several times that amount for the support of paupers and convicted criminals. It is not surprising then that the trains of emigrant wagons which we see daily traveling westward, should pass on to some better governed and more intelligent community. I do not wish to be understood that there are *no residents* who are intelligent, educated, and refined, for there are many from Ohio, Pennsylvania, and New York, who constitute as truly refined a society as any I ever met at the East; but this class of people is generally to be found in towns. In the country they are yet in the minority, though in a silent way their influence is felt. On every side we hear the remark, "I'm here and can't get away." They have invested all their available means in land, which will not now sell for half its cost, and too late, they find they have bought an elephant. Others who are young and hopeful, leave these scenes for more inviting fields of labor.

Sublette Co., Mo. BESSIE VICTOR.

RURAL SPECIAL REPORTS.

ME., East Orrington, Penobscot Co., July 15.—We had a cold, backward spring. Plenty of rain the last of May and first of June has given us a bountiful hay crop. Wheat is looking well. Corn promises to be a light crop. Potatoes are looking fine. Fruit trees were white with blossoms, but our crop will be light, owing to the late frosts. Potato bugs are putting in an appearance quite thickly. H. E. S.

N. Y., Croton, Delaware Co., July 16.—The recent rains have much improved the prospects of the hay crop hereabouts, and it will, doubtless, be fully an average one.

E. J. B.

N. J., Bricksburg, Ocean Co., July 11.—Our heated spell culminated on July 4th, when the thermometer marked almost 100 degrees on the north side of the house. Toward midnight of that date rain fell lightly, which had the effect of cooling the atmosphere almost to chilliness. Since then it has remained cool until to-day, when the thermometer again touched 92 degrees. Most crops are badly wilted from lack of moisture. Corn is looking well; a few blackberries are ripe, and early cabbage is fit for market. All fruit trees, except Pears, are fairly full and promise well. Haying is all finished and the crop is in the barn in good condition. Wages are $1 without board, and $10@$15 per month when boarded.

G. A. M'B.

NEW JERSEY, Brookside, Morris Co., July 10.—Wheat and rye are almost a failure; corn, oats, hay and potatoes are all good. J. D. T.

MINN, Litchfield, Meeker Co., July 8.—Crop prospects continue good. Local storms, however, have done some injury and reports and fears of rust are about; but that's all. Wheat is headed finely. Some fields of oats will be ready to cut in ten days. New potatoes have been in market for two weeks and ripe currants are in abundance. We have had plenty of rain, and the ground is in fine condition.

G. M. F.

MINN., Cedar Mills, Meeker Co., July 12.—We have been having very heavy rains during the past week, and some fields of wheat are troubled with rust. N. B.

MINN., Marshall, Lyon Co., July 10.—Crops are looking fair, and our prospects are good at present. S. W.

IOWA, Bloomfield, Davis Co., June 30.—Early last spring one of the proprietors of a local newspaper gave me one small "Beauty of Hebron" potato. It had seven eyes. I cut it into seven pieces (an eye to the piece) and planted each piece in a hill on the 18th of April. Yesterday I opened some of the hills and took out only one potato (I want to save them all for seed, and did not disturb the hills much); it measured 7¼x11¼ inches in circumference. They are the finest-looking potatoes I have ever seen. J. P. F.

KAN., McPherson, McPherson Co., July 10.—Wheat in this county will be a fair crop, with an estimated yield of 1,800,000 bushels. It is all harvested. Recent rains have insured the oat crop. The prospect for corn is exceedingly good. Potatoes will be a full crop. L. & G.

OREGON, Umatilla, Umatilla Co., July 3.—This is mainly a stock-raising country. Grain is grown only along the streams on the "bottoms;" but where they are sown, the wheat, oats, barley and rye have a heavy growth and promise an abundant harvest. Vegetables of all kinds are doing well now, but are late, owing to wet weather in May. The cultivation of fruit has not been properly attended to in this immediate vicinity: but wherever a show has been given them, all kinds of fruit are looking fine. C. W.

WASH. TERRITORY, Pine Creek, Whitman Co., July 2.—Wheat, corn, potatoes and fruit are looking very fine. I never saw them look better. This is a newly-settled part of the country, however, and there isn't much corn or fruit raised here yet. N. B. P.

CAL., Soquel, Santa Cruz Co., July 8.—Wheat and barley are very good crops, and are already being harvested. Corn never looked better than at this time of the year. Early potatoes are abundant and very cheap. Fruits of all kinds bid fair to be all that we wish. Strawberries have been almost a drug in the market; the second crop is now coming in. Blackberries, also, are abundant. Grapes are looking fine. Our climate can't be beat. There is a beet sugar manufactory in Soquel, and beets are looking fine. Sugar-making begins in August. C. H. H.

TENN., Somerville, Fayette Co.—The seeds sent me by the RURAL are all doing well. My friends laugh at me when I tell them I am going to compete for one of the premiums on Blunt's corn. They say no Southerner can get it; but I tell them that if I don't get one it will be because I don't deserve it. The RURAL deals so honestly, even in its opinions on advertisements, that its candor has given me confidence in what it says. Of the seed sent I did not plant 16 grains, as mice had eaten out the hearts of them; 100 grains germinated; two were cut down by cutworms. I hope to get the $100, as the corn is now looking nice, and my neighbors don't laugh so much at my expectations. G. W. B.

[The premiums will be awarded according to merit. We have no sectional prejudices, and, if we had, should feel ashamed if they influenced us in the distribution of our premiums.—EDS.]

NORTH CAROLINA, Chapel Hill, Orange Co., July 14.—We have had a short season of intensely hot and dry weather. The early rains made a sharp contest between the grass and the farmer, but the showers failed as the heat increased. In the last of June and first of July the weather was so dry that all growing crops were injured. The early corn has suffered very seriously, and the cotton and tobacco may not recover from the ill effects. Strong winds, often from the east, have had a very hurtful influence. But the clouds are more propitious now. There are signs of general rains and plenty of them. My philosophy in dry times is to incessantly expect that it is going to rain. I recommend this to all RURAL readers. It keeps up the spirits and encourages one's friends. There is no need of being disappointed, as you may move your prophecies and expectations forward every time a mistake is discovered. This is far better than the opposite course. For example, a venerable and intelligent gentleman, living in my county argues that we shall have a famine this year. He is very positive in his opinion, but I have heard no argument from him except that "there was pestilence last year, and there will be famine this." I hope these rains will wash away his gloomy theory. Our fruit crop is very short, and has shared in the damage done by the hot weather. In your crop-report number I was probably incorrect in reporting a reduced acreage in cotton. Probably the State has more than last year. I am still well pleased with the Beauty of Hebron potato. It is perhaps two weeks earlier than any of the more common early varieties—has good qualities every way, except that it is not very prolific. There is a discouraging tendency in the dwarf pear trees to die from what seems to be sap blight. So far I find that pruning off the dying limbs arrests the decay. My *guess* as to sap-blight is that it is caused by very cold weather after the sap has started in the spring. The contraction upon the more exposed or tender parts acts as a ligature on the circulation. I tried pear grafts on the Pyrus Japonica, but failed completely. I have not yet been able to get either Pear or Apple to live on the hardy little stock. A. W. M.

N. C., Brookston, Warren Co., July 14.—Since my last report we have had a drought. Though cotton and tobacco, where well worked, have suffered but little, corn, gardens, clover, etc., are pretty well dried up, while trees and vines planted this spring have suffered severely. We now feel encouraged to believe the dry spell is broken; a gentle rain is now falling, and vegetation looks brighter. Wheat is all thrashed—about an average yield and of better quality than last year. Prices of produce are: wheat, $1; corn, 80c.; butter, 15c. to 25c.; eggs, 12½c. Grapes (Ives's) beginning to color. M. B. C.

FLA., Tallahassee, July 11.—Owing to a three weeks' drought, our corn crop will fall off at least one-third from last year's yield; fortunately, there is plenty of old corn in the country, and selling at 45@50c. The past five days have been the hottest of the season, and the thermometer yesterday at 3 P. M. indicated 92°. This hot, dry weather is no detriment to cotton, which is putting on fruit finely, and is all we could wish it to be. The RURAL is read with interest by many here, and may its days be long in the land. The orange crop has been injured by the drought, and, I fear, will be small and inferior. Figs, now fully ripe, are delicious, and watermelons of 30 pounds are slow sale at 12½c. A SUBSCRIBER.

TEXAS, Refugio, Refugio Co., July 7.—The prospects for corn, potatoes and fruit in this section are very poor. Corn is an entire failure with some people in some localities, while others planted in season to receive the partial rains, and they will be rewarded for their efforts. There have been no experiments with wheat so far to the southwest as this. M. P.

The Querist.

ANSWERS TO CORRESPONDENTS

Improving a worn-out Orchard; Blind Staggers in Sheep, etc.

A. A. C., Hardinsburg, Ind., asks how to fertilize a worn-out, gravelly orchard on a yellow clay hill; 2, when is the best time to sow orchard-grass. 3. His sheep suffer from something like blind staggers, and he asks the cause and a remedy; 4, also whether the old or the young bees leave the hive in swarming; and, 5, can old bees make comb.

ANS.—1. This is a difficult problem to solve. If farmers would only prevent their land from being worn-out, by using the simple preservative methods of growing clover, using plaster and lime, and plowing under clover-sod at least once in four or five years, such requests as this would never need to be made. When land is worn out, nothing can restore it but manure or costly labor and time. It is the fable of the killing of the goose to get the golden eggs, repeated. In this case it might be well to plow the ground and sow a bushel and a half of buckwheat per acre. If any wood ashes can be procured, or a bushel of plaster per acre, we would sow it on the seeded ground. In September, the buckwheat will be in blossom. Then we would hitch a chain to the double-tree and the plow-beam, and with the loop dragging in the furrow, plow and turn under the buckwheat and leave the ground until the spring; then cross-plow and sow half a bushel of buckwheat per acre in May, and with it one peck of clover seed per acre. The clover will probably "take," and as soon as the buckwheat is ripe it should be cut, leaving a high stubble, which will still protect the clover. The clover should be permitted to fall on the ground and the next year should be plowed under and the whole process repeated; harvesting the buckwheat, however. The next crop of clover may be cut for hay or pastured. After that orchard-grass seed may be sown. 2. Either May or August is a good

season for doing this, as may be convenient—and the orchard would be benefited by being kept as a pasture. 3. Blind staggers, or a dull, stupid condition, with staggering and turning round and round, is indicative of indigestion; perhaps from want of regular salting or eating coarse weeds. Sheep will eat weeds when they can get nothing else, just as "the man filled his belly with the husks that the swine did eat;" but neither is wholesome food. Give the sheep a teacupful of linseed oil each; put them on a good clover lot and give them a handful of bran a day. The reaction may cause diarrhea and that should be looked for. If it appears, give each sheep a tablespoonful of prepared chalk, and a teaspoonful of ground ginger in a teacupful of peppermint tea. Salt should be left in a box in the pasture for the sheep to lick when they want. 4. The old bees are the ones that swarm out in quest of a new habitation, and some of the younger bees too, though as a general thing a majority of the latter remain in the hive. 5. Yes, old bees can build comb, as we have ascertained by experiment. A colony that had been without a queen for some time, and consequently had but few young bees, was confined for eight days in an empty hive, no frame having even a piece of foundation, and fed on a sirup prepared for the purpose, when quite a quantity of beautiful, white, translusecnt comb was built. In the economy of the hive, under normal circumstances, the young bees build the comb and store the honey and pollen, which the old bees collect. Since the old bees swarm and build comb in a new place, this is proof enough that they can build comb.

How to Raise Onion Sets from Seed.

R. M. B., Almond, N. Y., asks us to inform him of the method of raising onion sets from seed, at what time to sow the seed, and how to preserve the sets, etc.

Ans.—As early in the spring as the ground is fit to work, prepare a piece of poor land for the seed-bed, by plowing, harrowing and leveling. No manure should be added as the object is to grow the sets small, those ranging between the sizes of a pea and an acorn being the best. When the land is prepared, drill the seed in thickly in rows one foot apart. During the summer, the sets should have cultivation enough to keep the weeds down, but nothing more. In August they will be ready to take up. When well dried, they should be removed to a barn loft or some similar place, the tops adhering, and here spread out some five or six inches thick. On the approach of cold weather they must be covered with hay or straw to protect them against the frost. If they are spread on a loft over a warm stable, there will be no danger of frost from beneath, otherwise a layer of hay should first be spread on the loft, this covered with canvas to prevent their being lost in the hay, and the sets laid on the canvas. A little frost will do no harm. Early next spring they are again planted in rows a foot apart and three inches between the sets, this time in rich land, as the larger they now grow, the better. The best way is to plant them by hand, pressing each bulb down firmly and taking care that the top points upward. The crop will be ready for market by the end of June.

Vinegar from Grape Pomace.

W. W. W., Atlanta, Ga., asks—1st, how to make vinegar from the pomace of grapes after the wine has been pressed out; 3d, what grape is best for making raisins?

Ans.—1. Grape pomace is not counted of much value for making vinegar—at least when apples and cider are cheap. The argol or tartaric acid it contains is not as good for vinegar as the malic acid of the apple; still, a fair article of vinegar can be made from it in the following manner: Break up the pomace finely, and make a firm pile of it on a floor or in a vat, adding a little warm water, as the pile is increased—as much as it will hold without draining out. Let it lie and ferment for several days, or as much as it will without musting; then press out, and if the liquid seems weak add grape sugar (glucose); it is cheaper and much better for the purpose than cane sugar or molasses. Then let it stand in open casks or vats, in the summer air, or in a warm place, to ripen. 2d. None of our American grapes are suitable for making raisins. All are too juicy. Several of the European sorts having firm or "meaty" texture, are used for the purpose in foreign countries and in California, especially the Malaga, the Muscatel, or "sun raisins," which, unlike most kinds, do not drop from the vines when ripe.

Insects for Name.

N. C., Berlin, Conn., sends specimens of insects, whose *specific names* he requests us to mention, as the family group to which they may belong is less difficult to determine.

Ans.—The flies which are sent belong mostly to a family of those which feed in decaying vegetable matter; as might be suspected from the tenor of the statement accompanying them. They have been very little studied in their winged state, and perhaps still less in their earlier stages, so that a request for their "specific names" cannot easily be complied with at all. At the risk, therefore, of seeming to give just the answers which are deprecated, we take up our correspondent's queries in order. "No 170" belongs to the genus Nycetophila; No. 174 to Sciara; bottle No. 181 contained at least two species of larvæ, one of which may be a Sciara, but the other seems very different, and is not known to us at all. No. 182 refers again to larvæ and flies which seem to be Sciara, and No. 189 to pupæ which we cannot identify. No. 185 can be identified as Stictocephala, *var*—Say. No. 193 is a species of Anthomyia. Specimens of flies cannot be preserved in liquid in such a way as to make them available for study in connection with published descriptions.

Tawney Oats and Challenge Australian Wheat.

A Subscriber, Greensboro, N. C., asks what is the reputation S. G. Staines & Co., seedsman of Philadelphia, and whether anything is known to us of the above grains which they strongly recommend by circulars.

Ans.—We sent our reporter to Philadelphia to make the necessary inquiries concerning this firm. It was impossible to find any representative of the firm. A small room does duty as an office and it seems to be locked most of the time. There is nothing to indicate that a business of any kind is carried on, and every thing points to the conclusion that it would be as well to have no dealings with the parties. The oats and wheat are unknown to us, and are, in all probability, old, well-known varieties under new names. We are always ready to investigate anything of doubtful character in the interests of our subscribers, and if we were notified in every instance before purchasing, many dollars would be saved to our readers, and many "humbugs" would be shorn of most of their opportunities for evil.

Bloody Milk.

J. B., Union, Broome Co., N. Y., writes that he has a cow which gives bloody milk from two teats at the last of each milking. She has been given about a teaspoonful of saltpeter at a time every morning for eight or ten days; she has had poke root about the same number of times and also condition powders but seems to get no better, and he asks the cause and a remedy.

Ans.—Bloody milk is the result of congestion or inflammation of the udder, and this may be caused in a variety of ways:—by blows, irritating plants in the food, rheumatism, by heat or rut, by a sudden increase of the ration with rich food, or a considerable augmentation of the flow of blood to the part, as happens at calving. We would advise a purgative consisting of one pound of Epsom or Glauber salts, to be followed, after the effects have subsided, by one ounce of saltpeter and twenty drops of tincture of aconite twice a day for four or five days. If there are hard lumps found in the udder, the part should be bathed with tincture of camphor or with a mixture made by adding one part compound tincture of iodine to four or five parts of water.

Ammonia Salts.

W. V. F., Delmont, Pa., asks, 1, where he can obtain the ammonia salts referred to in Mr. Lawes's address on farming, published in the RURAL of June 14; 2, when to apply it to land—after wheat has been sown on it, or just before; 3, what is the price of ammonia salts by the 100 pounds.

Ans.—1, Of any of the firms that advertise commercial fertilizers in the RURAL and similar journals. 2, That depends; sulphate of ammonia is preferable for winter wheat, and if the seed is drilled, the fertilizer should be drilled in with it, whereas, if the former is sown, the latter should be applied just before the sowing. Nitrate of soda is most effective as a top-dressing in spring. Both these fertilizers should be used with care. A more even distribution may be secured by mixing them with coal ashes, dry earth, gypsum or even sand, according to the nature of the soil. 3, Nitrate of soda is worth about four cents a pound in small quantities; sulphate of ammonia, about five cents; dried blood, about three cents.

The Rural Grounds and Farm.

L. M. C., Erie, Pa., asks why we write from both the "Rural Farm" and "Rural Grounds;" why not write them under the head of "Rural Experiment Grounds?"

Ans.—The "Rural Grounds" consist of a fraction over two acres. Here all sorts of evergreen and deciduous shrubs and trees, as well as hardy herbaceous perennials, Grapes, all small fruits and vegetables are tested. At the "Rural Farm," which embraces 80 acres, only farm crops, manures, &c., are tested. The two places are 40 miles apart—the former being in Bergen Co., N. J., and the latter in Queens Co., Long Island, N. Y.

Catalonian Jasmine.

Mrs. A. W., South Reading, Vt., wants to know how the Catalonian Jasmine should be treated, and how old a Cyclamen must be before it will blossom, and if it blossoms more than once.

Ans.—The Catalonian Jasmine, otherwise Jasminum grandiflorum, is a lovely shrub from East India. It is hardy in the Gulf States, but in the North it must be grown in the greenhouse. It thrives best in a soil composed of equal parts of loam from decayed sod, and leaf-mold, with a little manure and some sand well mixed together. The pot should be of but moderate size and well supplied with drainage. The slender branches should be tied to a trellis erected in the pot. The Cyclamen blooms in the third year from the seed, and continues to bloom for many years.

Miscellaneous.

S. C. C., Lewis Co., N. Y., asks where can he get a sorrel tree, and whether it has any other name.

Ans.—Of Ellwanger and Barry or Frost & Co., Rochester N. Y., or Parsons' Company, Flushing, Long Island. It is also known as Sour-wood, and its botanical name is Oxydendrum arboreum.

H. K. J., Westchester Co., N. Y., asks our advice as to "pot-grown" Strawberries, and where he can purchase them.

Ans.—If properly grown and transplanted, and planted now or later, they will produce nearly as large a crop next summer as if planted last spring. F. R. Pierson, Tarrytown, N. Y. E. P. Roe, Cornwall-on-Hudson, N. Y.

J. D. T., Brookside N. J., asks where can he get a good, cheap, durable miter-box for cutting moldings for picture frames.

Ans.—The Langdon Miter-Box Co., of Miller's Falls, Mass, make a metal box that is said to be the best.

COMMUNICATIONS RECEIVED FOR THE WEEK ENDING SATURDAY, JULY 19th.

A Subscriber—L. A. B.—K.—S. S.—S. M. C.—S. W.—G. W. F.—E. J. B.—M. W.—T. H. H.—A. G. D.—E. B. B.—E. S.—F. S.—C. E. S.—Lakeside—J. C. C., thanks—G. A. McB.—Ch. P.—G. Z. E.—E. L. T.—H. W.—W. J. F.—L. & G.—C. W.—M. E. W.—M. B. P.—H. L. W.—W. H. F.—F. M. B.—A. W. M.—M. B. B.—G. W. N.—E. P., thanks—H. E. S.—C. H. H.—N. B. P.—"Grandmere"—S. K. R.—J. H. L. S. A. M.—F. D. C.—N. W. S.—J. V. L.—W. F.

Miscellaneous.

WHAT OTHERS SAY.

ENGLISH AND AMERICAN FARMING.—A recent number of the London Economist gives an interesting, and, as it would seem, very careful comparison between farming in England and farming in America. In England one acre yields on an average thirty bushels of wheat, while in America it yields on an average only thirteen. The American farmer must, consequently, cultivate two and a half acres in order to produce the same quantity of wheat as the English farmer raises on one acre. How is it, then, the paper asks, that the American farmer can, nevertheless, not only compete with the English farmer, but even beat him in his own market? The answer which first presents itself to this question is the enormous difference of rent in England and America; but this difference is, as the paper shows, nearly if not altogether, obliterated by the cost of transportation from the western fields to the English market. The real advantage which the American farmer has over the English lies in the cheapness of cultivation. In the settlements along the Red river, in Northern Minnesota, a plow may be run through the soft alluvial soil for more than fifty miles in a straight line without encountering a stone, a tree or a hill, a feature to which England does not offer the faintest approach.

INFLUENCE OF THE TIME OF CALVING ON THE YIELD OF MILK.—A note on this subject, from the pen of an experienced Dutch agriculturist, appears in the columns of *Biedermann's Centralblatt*. In Northern Germany it is generally arranged that cows shall calve between November and February, under the impression that the largest yield of milk is thus obtained; in Holland, on the other hand, March and April are considered the most favorable months. In order to arrive at some definite conclusion as to the respective merits of the systems, the author kept a careful record of the milk obtained from 142 cows of about the same age and condition of nourishment. One day in each week he had the milk of each cow weighed separately, and calculated the weekly yield on that basis. Until the beginning of March the cows were kept in their sheds, and thence to the beginning of November were driven out to pasture. The results obtained showed clearly that, after the month of February, a constant decrease in the yield of milk and in the duration of lactation occurred, in direct proportion to the lateness of the date when the cows calved. The quality of the milk was also inferior in the later-calving animals.

ENGLAND "NEED NOT DESPAIR."—M. J. J. Mechi, the Tiptree-Hall farmer, writing to London papers under date of June 26, says: "The old story over again—low temperature, flooding downpours, no sunshine, no ripening, crops late. I passed through 70 miles of Essex yesterday. Barley was distressingly yellow and waterlogged. Both wheat and barley fields were bright with crops of charlock (wild mustard) in full bloom. Hand-hoeing has been impossible, so the laborers' earnings have been small. Sheep still suffer from wet jacket and damp bed. Uncovered farmyards and exposed dung-heaps are contributing their "strong tea" abundantly to the brooks and watercourses. Well-drained farms, with covered homesteads and horse-hoed crops, have many advantages this year; but on all farms a more ripening condition is required. On the whole, the outlook is at present gloomy and unprofitable, but we need not despair."

TRANSPLANTING BEETS.—The Concord Ruralist, as quoted in the N. Y. Tribune, says; "In the garden there was a bed of beets which had come up remarkably thick in some places, while others were wholly bare. So I transplanted enough from the thickly grown to the bare part of the bed to equalize matters—result, they wilted, and the farmer made merry at my expense. But I had faith; watered them, and had the satisfaction of getting some monstrous beets from the transplants, while those that grew where they were sown were of ordinary size." Now if the beets when *first* transplanted, had been set in puddled holes, they would not have wilted at all, and subsequent watering would have been unnecessary. Moreover, the beets would have grown still larger.

HOW THE CHINESE RAISE WEEPING TREES.—It is stated in Regel's "Gartenzeitung" on the authority of Dr. Bretschneider who translated it for the London Gardeners' Chronicle, that the Chinese raise their weeping trees by planting two seedlings side by side. The tip of one of them is then bent downward and inarched on the base of the other, top downward. As soon as the graft has properly taken, the tree that was doubled down is dug up, roots and all, and the roots, denuded of the soil, turned uppermost, and the stem attached to a stake in this reversed position. The stem of the tree, which serves as a stock, is then cut off at the point of union of the two, and the roots of the reversed tree form the crown of the artificial tree. In this position they require shading from the sun until they have formed some branches.

LOSS OF AMMONIA.—Much has been written by theorists about the escape of ammonia, remarks Mr. J. C. Linville. The fact is, there is, as a general rule, but little free ammonia in barnyard manure when hauled to the field, and if there was, it would take flight immediately when spread, even before it could be plowed down. He once plowed a field covered with manure in the early part of August, with the exception of about an acre. This lay bleaching and roasting in the sun for about a month: a plentiful crop of weeds grew up through it, and it was turned down in the beginning of September and produced by far the best wheat in the field.

REMOVING SUCKERS FROM CORN.—Pres. Hoffman, of the Elmira Farmers' Club, as reported in the Husbandman, says that if the plants stand thick, pulling suckers will improve the crop. Some years ago he pulled the suckers from part of a corn field, and at husking found that portion had a better crop than the remainder not suckered; but it was not enough better to pay for the labor of pulling. This is contrary to the careful experiment of Prof. Beal. But different varieties may change the result, and then the season is not without influence.

A RUDE AWAKENING.—The London Ag. Gazette speaking of the Kilburn Agricultural Show, says that if an American phrase be allowable in English pages, (!) we may say that there is many a section of the show which will certainly prove an "eye-opener" to English farmers. Probably the good and fresh condition of the beef and mutton from the other side of the world, after the severest trial of the means taken to preserve it, will awaken us still more rudely to the nearness of our new rivals for the custom of the British beef-eater.

CURE FOR BARRENNESS.—Mr. A. B. Crandell says that pampered cows, overshadowed by the dignity of pedigree in a long and distinguished line, prove an annoying and expensive luxury to breeders. A cure for barrenness which is common under such circumstances, has been found by Mr. Van Meter of Kentucky, in the sovereign remedy for obesity and effeminacy—work. It is a sensible idea. Severe exercise with moderate feeding wrought the cure.

PEARL MILLET?—Blessed is the man who, having nothing to say, abstains from giving us wordy evidence of that fact—from calling on us to look through a heap of millet seed in order to be sure that there is no pearl in it.

GEORGE ELIOT.

POTTING SOIL.—A writer in The Garden says that if potting soil is placed for a day or two in the hen-yard, every particle of it is dug over, and all grubs and eggs of insects picked out.

THE
RURAL NEW-YORKER.
PUBLISHED EVERY SATURDAY.

Address
THE RURAL NEW-YORKER,
78 Duane Street, New York City.

SATURDAY, JULY 26, 1879.

ANNOUNCEMENT.

THE latter part of August we shall publish our Fair Edition. We promise, in advance, —life spared, — that it shall be the most costly if not the most interesting and instructive number of the RURAL NEW-YORKER ever published. We shall issue at least 50,000 EXTRA copies and ALL of our readers—our agents and the Secretaries of Fairs—are invited, indeed solicited, to send for as many copies as they are willing to give to their friends or to distribute. These will be cheerfully forwarded to any address free of any charge whatever.

THE CONTENTS OF WHICH WILL APPEAR TO THE READER AS HE READS.

EXCEPT to the inexperienced, there are very few hints of value to be given at this season to those engaged in agriculture. Really valuable timely hints have been so often published that it seems a waste of time and space to repeat them. It would be better for the few who might be benefited, to turn to old numbers of agricultural journals for such information, than that the many should again see before them a worse than thrice-told tale. It may be well to remind our readers in general terms, however, of a few matters that might otherwise be neglected or forgotten.

The budding season is now at hand, and budding may be performed with better success by the beginner than grafting. Besides, if budding fail, grafting may be tried in the spring; whereas, if grafting in the spring fail, it cannot, ordinarily, the same season be repeated. Budding is the best method of increasing such fruits as the Peach, for, in the North, grafting is usually unsuccessful. At this season, there is no transplanting to be performed, and the farmer is blessed, after the hay and small grain harvest, with an interval of comparative rest. He may, therefore, amuse himself for an hour or so each day by procuring buds of better varieties that grow upon neighboring grounds and inserting them upon seedlings or less desirable sorts that grow upon his own premises. Budding is a nice, cleanly operation, that might well be performed by female hands, but it is a matter of surprise to us that very few young ladies, or old ladies, know, or seem to care to know, anything about it. We suggest, therefore, to our fair readers that they try it once, and now. Begin with Roses, and see how many buds of different varieties can be successfully budded upon one bush. Thus it would be easy to have perhaps twenty Roses of different colors blooming upon the same plant at the same time.

Purslane, or "Pussley" as it is often called, is an inoffensive weed at worst. Yet it increases with wonderful rapidity if left to itself. Its extermination is very easy if taken in time, otherwise it gives increasing trouble throughout the entire season. We have found that purslane plants, after they are pulled up, will form and mature seeds, so that it is not sufficient that they should be pulled up and left upon the surface to die. Upon each plant a great many flowers bloom daily, and each flower will mature over 100 seeds. These are self-sown, and hence an impression has become general that the more we hoe or pull up Purslane, the faster it increases. This is due in a measure to the fact that pieces of the stem form roots readily and grow, but it is mainly due, as we have stated, to the thousands of seeds which mature and are scattered far and near. It seems an endless and an unprofitable task to pull up or hoe up every Purslane that appears in early summer. And yet, we know from experience that one hour thus employed in the middle of June, or a little later, will save many hours of labor after they have bloomed and sown their myriads of seeds.

Upon land at the Rural Grounds from which peas have been removed, we are now setting out late cabbages and celery. As to the latter, after having tried various methods, we believe that a shallow trench is better than either a deep trench or surface planting. A drill three to four inches deep would suffice. If most of the leaves be cut off and the roots placed six inches apart in such a drill—the ground, of course, having been suitably enriched and mellowed—the best results may be anticipated. We are planting only dwarf varieties. The golden and crimson varities, to which we have several times referred, were planted for an early crop. There are many farmers who do not raise celery at all, believing that it is more trouble than it is worth. But the methods of planting, cultivating and storing are now so simple, as compared with celery culture years ago, that we deem they make a costly mistake in not providing an ample supply of this delicious vegetable.

As to late cabbages: Late Bergen, Large Late Drumhead, Large Flat Dutch, and, especially for family use, Drumhead Savoy are the best varieties. For garden culture, we would again call attention to the desirability of cutting off half the leaves before setting, and of puddling the plants in holes an inch in diameter, and covering with dry soil. Treated in this way, a failure is very rare.

Early in the spring we imported from London a quantity of the new and much extolled Carter's Telephone Pea. It was not, however, planted until late, and the peas are now ripening for seed. This seed, provided we can save enough and import enough together for the purpose, we shall send out in our next free seed distribution, as in our grounds it has proven of such value that we cannot doubt it is destined to become one of our best standard varieties. The difficulty that at present presents itself, is to secure a large enough quantity. The originators hold the seed at a very high price, and even then are unwilling to send it out in large quantities.

In our flower garden, little else but mowing the lawns, weeding the beds and keeping the margins sharp and shapely, is needed. We need rain, and in consequence a few plants droop and the grass in places burns. Nevertheless, we have been taught by costly experience that artificial watering does not pay at all. In our severest droughts we lose but few plants, and the cost of artificial watering is worth ten times their value. Besides, when once begun, it must be continued until welcome rain removes the necessity.

We have given our fruit trees a last wash for the year, of lime, sulphur, salt, ashes and soap, mixed with hot water and stirred during the application. This we have practiced twice or thrice during each season since the Rural Grounds have existed as such, and, strange to say, with one exception, a borer has never entered our apple trees. Finally, good readers—we would fain call you all Dear Friends—we have been working hard during this "heated term" to prepare future numbers of our paper that shall make you feel more than ever before that of all farm helps and hints, of all money and labor-saving contrivances, you can the least afford to get along without the RURAL NEW-YORKER.

ARCTIC EXPLORATIONS.

WE know of no more agreeable topic on which to write this July afternoon, with the mercury at 98 degrees, than the Arctic regions. Even to think of the mountains of ice may be some alleviation to this torrid heat.

We are neither prophets nor sons of prophets, but for many years past it has seemed to us that all geographical research tends to show that attempts to reach the higher latitudes should be made by way of Behring's Straits or of the Spitzenbergen Sea. A map of the ocean currents will show that that great warm current, the Gulf Stream, after leaving the American continent off Newfoundland, divides, one portion washing the British Isles and giving them a temperature many degrees higher than American countries in the same latitude, while the other, diverging northwardly, leaves the main-land of Northern Europe at Norway and passes between Spitzenbergen and Nova Zembla to unknown regions above. In the Pacific Ocean the Japan current, or Kuro Siwo, divides in mid-ocean, one branch raising the temperature of the Alaskan coast till Sitka, in latitude 57 degrees, has an average temperature of 45 degrees, the same as Portland, Me., in latitude 44 degrees, while the other passes northward through Behring's Straits, perhaps to meet its fellow of the Gulf Stream in the great open Polar Sea. These two currents running northward must have a southern complement to return the waters to the equator. This is found in the one that passes down Baffin's Bay, bearing on its tide those mighty icebergs that are the terror of navigators of the upper Atlantic. It is against this current that most Arctic expeditions have so energetically striven, with so little result, since the time when in 1653 the Portuguese navigator, John Corlereal, made the first attempt to discover the Northwest Passage. He failed, and so, practically, have all his successors. There are early records that the Dutch found, in 1675, "after having sailed to the northeastward of Nova Zembla several hundred leagues between the parallels of 70 and 80 degrees, the sea was perfectly open and free from ice;" also that in 1655 a Dutch whaler sailed in a sea entirely free from ice to within one degree of the pole, and that about the same time one of his countrymen passed the pole and sailed two degrees on the other side. It is true these accounts have been taken with many grains of distrust; so have accounts of other voyagers, that have been proved true.

Behring's Strait is the name given to the ocean passage between Asia and America at their nearest approach, and connects the Arctic and Pacific Oceans. Its central part may be described as in latitude 66 degrees and longitude 168 degrees. At its narrowest it is only 26 miles wide, and its depth in the middle is about 30 fathoms. Such icebergs as are frequently seen off Labrador would run aground there. The temperature of the water is much higher than that of the same latitude in Baffin's Bay; the current runs toward the pole instead of away from it, thus aiding instead of opposing vessels in their upward journey.

Several attempts have been made to reach the pole by way of these straits, the most notable of which are those of Captain Cook in 1779; his successor, Captain Clark, in 1780; Kotzebue, of the Russian navy, in 1815, who claims to have seen the open polar sea. Several whaling ships have passed many miles beyond the straits, but not as explorers. This pathway has been neglected heretofore, probably because of the difficulty of properly fitting out vessels adapted to the purpose on the Pacific coast, but this objection no longer exists. Already the expedition inaugurated by Mr. Bennett, proprietor of the New York Herald, has sailed from San Francisco complete in all its equipments, and the expectations are great that it will completely succeed in establishing, without room for future question, that an open Polar Sea is a fact.

But whether this expedition may be so entirely successful, there is little doubt it will result in reaching a higher point than has been attained above the straits, and that many of the secrets of the Arctic region will be laid open to us as new pages in the book of nature.

BE A FRIEND IN NEED.

THE necessities of pioneer life originated certain useful and commendable customs. When a cabin was to be built, the neighbors collected, joined with alacrity in the work, finished the heaviest of the task, and realized all expected pay in the sumptuous feast and the simple and lively pastimes of the evening. It was common for the thoughtful matron to combine a quilting-party with the house-raising, and secure generous help in her domestic interest. As years advanced, and society and customs changed, there were occasional instances of free, united help to those who, for any cause, needed it. At present these beautiful expressions of good-will are, at most, very rare. Too many now content themselves with rendering to neighbors simply what they can justly and legally claim, or with bestowing the incidental, individual favors that can be conferred without much care or expense. People seem to know less of, and care less for one another than formerly.

There is need of some recognition of old ways in these matters. To pay what one owes is legal honesty; to do for a neighbor what he really needs is benevolence. After all our assumed independence and extravagant self-love, we depend, to a considerable degree, on one another. There are many accidents to which we all are liable, which may call most affectingly for a little temporary assistance. A farmer may lose his only horse in the crisis of his crop. He may have protracted sickness or some disabling injury when his farm most needs his attention. A family may suffer a terrible visitation of some dread disease. Fire may destroy buildings, or floods sweep away crops and fences. What is the poor man to do? His neighbors may think that their own trials are so heavy that they have no time or means to spare. But let them think again. They can spare *one* day, and, perhaps, not see any ill effects. Or they may, each, contribute a small amount in money or valuable articles, without any appreciable privation to themselves or their interests. The many "littles" in work or means will restore hope and strength to the unfortunate, and secure to the giver a richer reward than the pioneer enjoyed in his evening's festivity.

Is there any necessitous case in your community? If so, go forward yourself, and propose the generous enterprise of combining the trifles in time and money, and thus win for yourself and others the sweet reward of gratitude, self-approbation, and all the blessings from both man and Heaven that are accorded to a generous deed.

Fortune is to-day quite as fitful as ever. We may now be able to help while others need. Ere long we may sorely, sadly need, and the grateful recipients of our kindness may come to our relief.

BREVITIES.

A NEIGHBOR raises good crops of corn between his strawberry rows.

THE London Farmer says that seven per cent of the sheep in Baltimore (!) are killed by dogs!

MR. JOSEPH HARRIS cannot too earnestly recommend the use of superphosphates for turnips.

WHEN attacked by the flea, sprinkle lime-dust over the leaves of turnips early in the morning.

COUNT STONE is the English of Graff Stein, a German after whom the now celebrated Gravenstein Apple was named.

"AGRICULTURAL FAIRS."—A name which enables good people to attend horse-races without doing violence to their consciences.

THERE is no better time in the year for ridding the gardens and fields of weeds than the present. Usually droughts of greater or less severity prevail, and weeds pulled or plowed up die at once. Plant Cauliflowers, Sage, late Cabbage, Celery, Thyme.

THE object of articles published under the heading "The Truth About it," we may say to our new readers, is not so much intended to deal with "Humbugs" as with the many unconscious errors that creep into the methods of daily country routine life.

THE Sharpless Strawberry originated with Mr. J. K. Sharpless, of Catawissa, Pa. Among those who have tried it, we believe it has more friends than any other of the new sorts. Mr. Sharpless is to be congratulated and thanked by the strawberry-loving community.

IF you would raise large crops of Rutabagas, spread over the land a liberal dressing of old manure and plow it under. Then sow 250 pounds of superphosphate to the acre and harrow well. Then drill in the seed. Of all the concentrated fertilizers, none is better for turnips than superphosphates.

HOW often in the course of our lives we have "branched off" into the new-fangled annuals for bedding purposes, and how often have we returned to the Petunia, Portulaca, Phlox, Pink, Verbena, and such other good old plants that may be trusted to keep up their blooms for most of the season, let the weather be what it may.

FRIENDS visiting us ask: "How do you keep the stems of your fruit trees so clean, so free from rough bark, so healthy-looking?" We use a wash, often referred to in these columns, several times every growing season, and keep a ring of earth about five feet in diameter smooth and free from weeds. To what extent the clean stems are due to this we cannot say.

MR. W. R. LAZENBY has said, we do not know when or where, that, after numerous experiments and very careful trials, he finds either of the following applications "safe, cheap and effective" for the cabbage-worm: A pound of whale-oil soap in about six gallons of water; or, a few quarts of tar in a barrel of water. The use of either, two or three times during the season, suffices.

THE difference between the good and poor farmer may be seen better in an unfavorable than a favorable season. In the latter case crops are so large that they will scarcely bring enough to pay for producing them. But in unfavorable seasons the good farmer is rewarded for his skill and patience. The poor farms suffer more than the good farms—the good farmers reap the benefits.

THERE is one sort of farm animal that agricultural papers do not say much about. It thrives on all farms, will eat what it can get, requires no care either in winter or summer, multiplies rapidly, suffers from no contagious diseases, and, judging from the fact that one or more may be found upon all farms, whether large or small, ought to be highly esteemed by farmers in general. We allude to the cat. The cat, next to poultry, is the most neglected animal on many a farm.

AMONG the best sorts of turnips for sowing from now till the end of August, are the following: Cow-horn, White Norfolk, Red-top Strap-leaf, White French, Yellow Stone, Golden Ball, White Egg and Yellow Globe. Root crops of all kinds are more and more appreciated in this country as the necessity of mixed food for stock is recognized. Turnips germinate quickly, and farmers should be provided with lime, ashes or soot to scatter over the drills or over the entire field, if broadcasted, as soon as germination begins, in order to protect them from the fly. If thus provided, half of the seed usually sown will suffice, and the sowing of the lime or ashes is really less trouble than the hoeing out of the surplus plants. We have no doubt that half a pound would suffice for an acre if sown in drills by hand, and that with proper cultivation the crop would prove larger for it.

For Women.

CONDUCTED BY MISS FAITH RIPLEY.

DESCRIPTION OF CUTS.

Costumes and Polonaises.

No. 1.—The toilette illustrated is simple to make, as the skirt consists of a plain model trimmed with plaitings, and the remainder of the costume is composed of a basque and a dainty little wrap of the fichu style. The trimming may follow any outline dictated by individual taste, or may be applied to any overskirt that may be desired as a part of such a costume. Plain lawn with printed borders makes up handsomely; the border always edging the plaitings. The pattern of the skirt is No. 6410, price 35 cents; of basque No. 6647, price 25 cents. The wrap is simply a cape that is round at the back and pointed in front, and has a collar of corresponding shape. Pattern No. 6648, price 20 cents.

6632

No. 2.—A stylish costume of silk and grenadine is here represented. The polonaise is cleverly contrived, and is very appropriate for washable fabrics as well as those of silk or wool. A novel decoration for the bottom of the polonaise is formed by cutting the bottom in points and facing them on the outside with the silk goods, and concealing the top of the facing under a ruching of the same frayed or fringed at each side and closely plaited. A frill of Spanish lace is set underneath the points to finish the decoration prettily. Skirt pattern No. 6621, price 35 cents. Polonaise pattern No. 6645, price 30 cents.

No. 6645.—Ladies' Circular Polonaise.—This polonaise is so well adapted to washable goods and light silk and woolen textures, that it is extremely popular. As expressed in the title, it is in circular style, and consequently there is a bias seam through the center of the back. Lawns, organdies and momie cloths, will be largely made up in this material. A tiny cord may be sewed to the edges of the back seam when the polonaise is made of very thin goods, to prevent the bias edges from stretching. A grenadine polonaise made up in this way, has the *revers* entirely covered with jet *passementerie* and ruffles of French lace, and the sleeves which are cut off just below the elbow, are striped lengthwise with *passementerie* and finished with one standing and two falling ruffles of lace. Price 30 cents.

No. 6655.—The skirt and overskirt are permanently attached, but in such a way that they may be washed and ironed as easily as if separate; and the drapery of the overskirt may be let down so that it will be entirely plain, except a few gathers at one side. Costumes like this are made of lawn, organdy, *pique*, cambric, print, or any washable material, and trimmed with Hamburg embroidery, Cluny, Breton or Italian lace, ruffles or plaitings. Alternate rows of black and white braid are used in the model. Price of pattern, 35 cents.

No. 6632.—Ladies' Overskirt. While this overskirt is stylish with long or demi-train skirts, its short front-gore and close drapery make it also decidedly fashionable for wear with short walking-skirts. This model is adapted to silk, satin, silk and woolen mixtures, barèges, and nearly all kinds of suit goods. Fringe, lace or plaiting may be added to the sides, and for thin, gauzy materials they are an improvement, but they are not required by firm textures. Grenadines made up in this way will have the front covered entirely with scantily gathered ruffles of French lace. Price of pattern, 30 cents.

Hats and Bonnets.

No. 3 is trimmed with a band of gilt and silk mixed in the weaving, and two or three ostrich tips. The hat may be worn on or off the face, rolled on one side, bent in front or in any manner a body may think most becoming.

Nos. 4 and 5 are back and front views of the Virot bonnet. The No. 4 is of chip and trimmed with satin, satin ribbon and a fancy feather. No. 5 is of Leghorn, with the brim lined with shirred cream-colored satin edged with cord, and the trimming consists of a scarf of Breton lace.

No. 6.—"Alpine" Hat.—The brim undulates, rolling quite high at the left side. A band and full rosette-bow of ribbon, together with a couple of tips, handsomely trim the hat.

No. 7.—Misses' Marguerite Hat.—This is composed of fancy straw, and is more of a garden, lawn or rustic hat. It is faced with silk and ties of same color extend across the front of the crown. A bunch of flowers finishes the trimming.

No. 8.—Girls' Normandy Cap.—The foundation of this crown is stiff net, which is folded so as to make a sharp peak at the top. It is sewed to a straight brim portion and has a cord inserted in a tiny casing at the back of the neck so as to regulate its size. The crown portion is overlaid with silk, laid in plaits at the center, and the brim is bound with the same and then overlaid with two frills of cluny lace, which continue about the entire margin. The front portion of the crown is concealed by four upright frills of lace and a fancy bow of ribbon, while ribbon also extends about the edges of the marginal frills and forms another bow at the back. The sides of the crown are covered with strips of insertion joined diagonally and bordered with the same edging as that forming the frill, while the row of insertion next the highest is also edged with a lace frill. A less expensive cap may be made by covering the crown with fine Silesia—either blue or pink—and overlaying it smoothly with dotted Swiss. No. of pattern 6640; price, 20 cents.

6632

No. 9.—Ladies' black lace fichu. This is stylish over a black dress or a light one, and may be made of Breton, Spanish, French or Guipure lace.

No. 10.—Ladies' Pompadour collarette. This is to be worn over a high dress or over one with a square-cut neck. The joining of the outer standing and falling ruffles is concealed by lace insertion, and ribbon bows are caught to the left side, at the corner, and above the upper cross-row of lace. *Crepe lisse*, or Breton or Valenciennes lace may be used in making this Pompadour with charming effect, and the more delicate the tint of the ribbon selected, the daintier the effect.

Why is it that a nice easy-chair at home is so much less comfortable to a man than the hard side of a day-goods box on a street-corner with a crowd of loafers around?—*Steubenville Herald*.

No. 1.

Literary Miscellany.

AN UGLY GIRL.

(Continued from page 462.)

CHAPTER XXXIV.

TRULY BEAUTIFUL.

But as Ada Carisforde's cold hand would have unclosed the outer door, she was clasped in a close embrace, and carried, rather than led back into the parlor. Noel had followed her: it was he who now held her in his arms, and drew her head down on his throbbing breast, and kept it there in spite of a little resistance.

"Am I to believe the strange tale you have just told me?" he demanded, with his lips very near her forehead, for in the joy of seeing her once more he was strangely bold.

6645

"You must believe it, for it is true—quite true," she faltered. "I was told the other day—no matter by whom—that the marriage of my parents—which was celebrated abroad, according to the rites of the religion my mother professed—was informal. I have been to Rome, and ascertained that it is correct."

"And you thought I should gladly take advantage of your discovery."

6645

"You must do so," Hillian persisted. "I have acquainted Mr. Whitely with this fact, and bid him take the necessary steps to secure to you your rights."

"You are very good—very generous, Miss Carisforde, to do this for a relative whom you despise ——"

"No—no!" she vehemently interposed.

"Well, then, suspect of willfully tricking you."

"I believed that I had good reasons for the suspicions I entertained," she sighed. "But do not add your reproaches to the weight of my unhappiness. Heaven knows I am miserable enough."

"You speak as if you were half inclined to admit that you have made more than one discovery; that something or other has led you to the conclusion that I have not been guilty of all that was laid to my charge. Am I right?"

"Yes," said Hillian. "I could not see my way out of the web that was so cunningly wound about me, till I had a glimpse of the motives of the reptile who worked upon my weakness for his own ends. I should like to hear you say that you forgive me, Lord Carisforde, for all the injustice with which I have treated you."

"By this kiss, and this. I not only forgive you, but love you better than ever!"

But now, rosy with confusion, she struggled out of his arms.

"No—no, I did not mean that; only to—to be good friends before I go away again."

"And where would you go?" asked Noel, imprisoning one of her hands.

"For to-night, do you mean? To the hotel where Mrs. Hurst is waiting for me; to-morrow we shall join her sister, Miss Gray, at her cottage by the sea, where I hope we shall soon hear of your being publicly installed at Carisforde."

"Never, unless you go there with me as its mistress," cried Noel. "If it is I who am rich, I need no longer hesitate to say all that is in my heart, and I tell you, once for all, that I will not accept this property, nor live at the Park, without you share sovereignty. Ah! Hillian—beloved Hillian, can you not comprehend that my only craving for wealth has been that it might give me the woman I love? I have not coveted riches for myself, but to enable me to make a home worthy of my bride."

"There are others fairer," she faltered.

"But none dearer," he promptly responded. "Look up, and confess that you believe this."

But Hillian would not or could not do this, and her voice trembled more than ever as she demanded whether she ought to permit him to make such a marriage.

"Nay, Hillian, none of these scruples, pray!" he pleaded. "You love me? Yes, you do not deny it. Only say that you have conquered the distrust which I am not conscious of having done anything to deserve; then promise that you will be mine, and I shall be happy, indeed."

"But you have doubted me also," she reminded him. "Although Mr. Dunforth may have deceived me, when he hinted that it was with your connivance he came to Carisforde, and forced himself into my confidence, I cannot forget that you yourself questioned me about events that I did not wish known."

"But I could have told you if you would have let me, that it was from Dunforth I heard of these things;" and Noel repeated how Clement professed to have recognized her as a suppliant at the lawyer's office, and afterwards as charged with theft, under the name of Smith.

"How dared he so distort the truth!" cried Hillian, indignantly. "Now, hear my version. Once, when I was bitterly feeling papa's coldness to me, I determined to enter a convent, and pleaded with tears to be permitted to carry out my intention. I was so miserable, so lonely, that on my knees I prayed papa's solicitor to intercede for me, and let me hide my repulsive ugliness in the cloister. When my prayer was denied, I escaped from my aunt's guardianship, and at night and alone, endeavored to find my way to the house of a sisterhood, in which I intended to enroll myself. Some wretched women, attracted by a valuable

trinket I wore, dogged my steps, till, mistaking my way, I was at their mercy; and then they would have robbed me, if a policeman, who was fortunately near, had not interposed and protected me. I was so ashamed of this escapade, that drew upon me my father's severest rebuke, as well as Mrs. Hurst's, that I have never been able to bear to have it mentioned."

6655

"Then you have not been known at any time by the hackneyed name of Smith?" cried Noel, gaily, for this simple confession had swept away the only cloud that had ever rested on the fair fame of his Hillian.

"Never! Was it to this you alluded the other day? You spoke of the name I then bore, and I jumped to the conclusion that you had known me all along as Ada Carisforde. How hasty, how mistaken I have been. Yet, if you knew how systematically I have been deceived——"

"By Clement Dunforth? I guessed as much, yet knew not how to convince you of his baseness. Herr Rudolsheim, who studied him closely, believed that he was artfully endeavoring to win his way into your favor, by making you believe that every one else was wronging you. Was it so?"

"Alas! yes; and he was so plausible, that I was harassed and bewildered between my reluctance to think ill of you, and the apparent candor and truth of his assertions."

"My Hillian, more experienced people than you and I might have been duped by this clever gentleman. The Herr said he was bold enough to meditate wooing you. Ha! he has done this also, the scoundrel! and you, Hillian?"

"Repulsed him with the scorn he merited; for when he spoke of marriage, my eyes were opened; or if a doubt still remained, it fled when he threatened me with the loss of my inheritance if I refused to be his."

"He did this!" exclaimed Noel, clenching his hand. "He shall yet be made to rue his insolence!"

"Nay," said Hillian, softly; "why should we be angry with him? But for his threats I should not have discovered that this tiresome estate, which has been such a burden to me, is not mine, but yours."

"Say ours, love—ours!"

Hillian smiled a happy smile, as she responded: "Ah! but you would never have said this if Clement Dunforth's threat had not led to my coming here to-night. Oh! Noel, you have been very proud—unkindly so!"

"Honorably so, love; and this is my reward!"

He was taking it from her lips, when Irene ran in, to cry out first in astonishment, then in delight and hug her relative till Miss Carisforde was forced to pray for mercy. Mrs. Estcourt was rather embarrassed when she learned the true name of the Hillian Gray whom, as a dependent, she had despised and often snubbed; but, as the warm-hearted girl was too generous to notice her confusion, she soon overcame it.

As Hillian positively refused to return to Carisforde Park until she went there as its owner's bride, Mrs. Hurst was persuaded to remain in London. She found plenty of amusement, however, in selecting the *trousseau* of her niece, who was even more pleasantly occupied in assisting Noel to carry out arrangements for the comfort of his stepmother, and the education of her children.

Once, as they came out of a jeweller's shop, where they had pleased themselves with selecting some ornaments for Irene, Clement Dunforth accidentally jostled against them. Never at a loss, he lifted his hat to Hillian, and nodded familiarly to Lord Carisforde; but his lip was savagely bitten as, without appearing to notice him, they walked on. His artfully-laid schemes, instead of benefiting himself, as they were intended to do, had proved the means of bringing together the persons he had left no means untried to keep apart.

Irene had resumed her friendly relations with Miss Jenkins, and learned from her that Clement Dunforth would have gladly returned to his old allegiance, but she had long ceased to feel a spark of affection for so fickle a lover, and would often laughingly declare that she was destined to remain single and be the good spinster aunt to the children of her brothers and sisters.

She said something of the kind in the hearing of Dr. Monson, who never came to town without finding an excuse for calling.

"Remain single!" he echoed. "Not with my consent, Miss Estcourt. If I were not conscious that it would be madness for an obscure country doctor, nearly twenty years older than you are, to offer himself, I should say—— But, hallo! what's this?" for Irene, crimson with blushes, was hiding her face on her brother's shoulder. "Dare I hope? Speak for me, Lord Carisforde—ask her if she will indeed consent to be mine!"

Irene murmured something about mamma not being able to spare her, but when Noel—telling her he would arrange that—put her hand into the delighted Doctor's, it was not withdrawn; and when Dr. Monson proposed that Mrs. Estcourt should be prevailed on to surrender Maggie to her sister's care, the cup of her joy was full.

About this time, Major Blenkinson—Miss Carisforde's guardian—arrived in England, and with his consent the day was fixed for her marriage. She had never been abroad, except to make the hasty visit to Rome, and the glimpse she had then caught of foreign scenery led her to express a wish to revisit Italy. It was therefore agreed that their bridal tour should be a Continental one, and that they should contrive to visit Herr Rudolsheim either in going or returning.

Noel was hunting in his desk for the address the Herr had given him, when from a corner he drew a yellow-looking envelope, at which he gazed doubtfully for a minute, and then, with a gleam of recollection crossing his face, threw it into the lap of Hillian, who sat beside him.

"Love, this is yours. I ought to have returned it sooner; but it quite escaped my memory that it was in my possession. You must have dropped it when you paid one of your ghostly visits to the library."

"I do not remember it," she said, as she examined the paper; "but it may have been amongst some old letters of my mother's, which I removed to my own escritoire. Ah! Noel, what have you given me?"

He turned quickly towards her as he heard the frightened exclamation. She had opened the envelope, and was gazing at a certificate of the marriage of the late Viscount, which had been celebrated a second time as soon as he and his bride landed in England.

No 2.

"I am so glad—so very glad this was not found sooner!" Hillian joyfully murmured. "It can make no difference now. Even your pride, Noel, will not let it interfere with our happiness. We understand each other now too well to let the question of which has the greatest legal right to the estates disturb us."

"Love, I am content; for though the world may misjudge me, I don't fear that you will," was the reply. "You know that it is for your own dear self I wed you—not for money or land."

"But, Noel, there is one thing still troubles me a little," she said, presently. "In spite of all your kindness, I cannot forget that I am one of the plainest of women. Generous though you are, will it not sometimes cost you a pang when you hear those words whispered, and see people shrink from me because of my uncomely appearance?"

"Hillian," was the reply, "your fears are morbid ones; and so pray banish them. Have you yet to learn that it is not mere regularity of outline that makes a countenance beautiful? Your father's devotion to his fair young wife, and his passionate admiration of the loveliness that faded so soon, must have made him feel the disappointment keenly, when he saw that his child resembled himself, and not her lost mother. But for this he would have discovered, as I did at our first meeting, that this dear face had a charm of its own, far beyond the mere outward prettiness that wins the eye, but not the heart. I neither flatter nor exaggerate when I say that in my sight you will always be fair."

And Hillian convinced by his earnestness, was content; or if, in after days, her sensitive feelings on the subject of her appearance were stirred by some chance-word or look, she had but to gaze into the eyes of her lover-husband, to see there such unwavering tenderness, that she banished her uneasiness. In the domestic felicity that was now her lot she almost forgot at last the miserable time when she hid herself from the world, and never dared to hope that love or wedded happiness could ever bless the future of AN UGLY GIRL!

THE END.

THE SCANDALOUS LETTER.

[Complete in Ten Chapters.]

CHAPTER II.

The grass-grown old garden was looking quite picturesque in the morning sunshine, and Olive had brought Nelson out to stroll up and down the glistening, rain-washed paths, with her strong young arm for crutch. Pigeons were cooing and sunning themselves on the red-tiled roofs, dark branches and twigs stood out still and delicate against the fair blue sky, and in the air was that curious yearning that comes with the spring.

"The leaves will soon begin to bud," Nelson said dreamily. "Olive, what was that you were reading to me the other day about the 'queer power of Art—that, when you wish to describe its effect on you, you always take to describing something else—that you cannot be sure that a picture is not a beautiful melody or a verse of Tennyson's?' I think this is a Mendelssohn morning, and the brown earth, and the crisp, wet grass, and the shadows and lights on the red roofs are the notes that make up a song without words."

Olive smiled and laid her hand on the boy's head, Nelson drew in a long breath of the cool, fresh air.

"I am so glad we are not going away to smoky Birmingham," he said. "But why do we stay here? Has the manager given you some more money?"

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"No, my dearest. But I will tell you why we have not gone away. Last night Dr. Yorke asked me a very serious question, and I begged him to give me till to-day to consider it."

"A question?" Nelson looked up with his old-young glance, and as he saw his sister's face he flushed up to the roots of his hair. "Olive," he stammered, "it was not—that—that he wanted to take you away from me?"

"No, no, no!" Olive knelt down in the sheltered garden walk, and put her arms round the boy in close embrace. "Do you think that he could ask such a thing, or that I would listen to it? My dear, my dear!" And they kissed each other solemnly. "Listen!" Olive went on, when they had reached the wooden bench at the end of the garden, and were sitting hand in hand. "You know how kind Dr. Yorke is?"

"Don't I? Olive, he is a brick! And I have seen this many a day that he likes you very much, pretty Olive!"—stroking her blooming cheek.

"How would you like to live with him always—never to go traveling any more, but to have a home, and a room all to yourself full of music and pictures and books, where I should be with you, just the same as ever?"

"Oh, Olive!" Nelson's face showed plainly enough what he thought of such a prospect, and his sister's brightened as she saw his delight. "But"—he faltered and changed countenance—"I am very selfish; I had forgotten. The stage, the profession—you will never be happy in any other life."

"We shall be together still, my darling, and—is the thought of what might happen if I were ill—even this accident of mine has emptied the bank, I am afraid."

"And you have to work so hard. But still, to give up all your parts that you are so fond of, Olive—why should you, unless you like Dr. Yorke very much indeed?"

"I love you, Nelson," Miss Carew said, tightening her hold on his frail little hand. "And"—with a sad little laugh—"the stage will have no great loss in Olive Carew."

"But indeed it will!" Nelson cried. "And, if people did not think so, why should that Birmingham manager have offered you so much money?"

"Well, my dearest," she said lightly, tears starting to her eyes, "you shall be audience sometimes when—I am married. We will shut ourselves up in your room, and you shall play a grand overture, and I will let down my hair and act! Won't that be fun?"

Nelson clapped his hands gleefully, and just then a tall figure appeared at the end of the garden walk, and Olive knew that Dr. Yorke had come for his answer.

"Time for my wine!" said Nelson, with his pretty old-fashioned delicacy, and, putting his arms round his sister's neck in a feeble little hug, he limped away, crying a cheery "Good morning" to the Doctor.

Miss Carew rose. A slender, bright-haired figure, in her straight, black gown, she looked like some girl in a picture, against the vivid background made by the green boughs and the old gray walls and red roof, with the pigeons fluttering and cooing overhead. And the sudden pallor that blanched her cheeks as she went to meet her lover made her look prettier than ever, Robert Yorke thought, as he took her hand in his.

"I am come for my answer, Olive," he said abruptly, with grave, longing eyes looking down at her girlish face. "Is it to be 'Yes' or 'No'? My dear, don't keep me in suspense."

Olive smiled sadly, but she colored, too, and put up her hand nervously to play with her earring.

"I have something to tell you," she said, in a slow, reluctant way. "And after that it is you who must say 'Yes' or 'No.'"

Dr. Yorke felt uncomfortable, he did not know why.

"What if I say 'Yes' now, before I hear this little history?" he asked, forcing a smile.

"It would still have to be told; please sit down and listen"

The pigeons cooed and flapped their wings, and made little excursions to neighboring roofs; a patch of sunshine on the garden wall; voices of children and the slow creak of heavy wagons sounded from the street.

No. 3.

"If it is that you don't love me as I love you, Olive," the Doctor began nervously, "I will spare you the confession. How should it be otherwise?"

"But it is something more. It is that—that I love some one else."

A dead silence followed these low words, while Olive's heart beat fast with regret and uncertainty, and a strange, unwilling hope, and the Doctor buttoned and unbuttoned his glove, and was conscious of changing color.

"I might easily tell you," Miss Carew went on, as soon as she was able to speak, "that it is all over—that I have forgotten it. Some women would say this, perhaps, but I cannot. I love a man who can never be anything to me—and that is all you will ever know. And now you see I was right in saying that it is you who must say 'Yes' or 'No.'" The Doctor did not speak. "If I were alone in the world—if I had not my boy to think of"—and now there was a pathetic tremor in Olive's voice—"I would not marry you, for you deserve the best love a woman can feel, and I cannot give you such a love. I know it is a shame to offer you anything less, but see how I am tempted!"

Dr. Yorke lifted her fair trembling hand and kissed it.

"Do you wonder," she cried in a sort of passion, "that I cannot send you away as I should do? I am so lonely—there is no one in the world to look at me and speak to me kindly as you do. I think my heart is tired of aching for what will never come back; for it is pleasant to know that you think of me as good men think of the women they make their wives—that you do not take it for granted I am bad because I am an actress."

"Olive!"

No. 4.

"Yes—I know; but men do think so, Dr. Yorke. How should they know what I learnt from my poor pretty little mother in the days when we had a home and were so happy together? She was not afraid to let me go on the stage, you see! She was not afraid to trust Nelson to me when she lay dying two years ago, and all our tears could not keep her with us one day longer."

"Olive! My child!"

"I cannot help crying when I think of the happy old times. It is not often I talk of myself, but I want you to know me better. I want you to be sure that the only fault I have been guilty of has been to think too much of a man I can never marry. That is all. It was very wrong, I suppose, and sorrowful, but I could not help it; it is still a dear recollection to me, and I cannot pretend to put it out of my heart for ever."

"My dear, I will not ask you to do that."

"There is not a thought in my heart which you might not read, Dr. Yorke—not one. And, if I have no love to give you, at least I have the warmest liking—gratitude—respect."

"Look at me, Olive," Robert Yorke said gravely, with a sigh; and the girl turned her candid eyes upon him at once. "I am no longer young—I am not a man to win any woman's fancy, I think; but, if you can trust your future to me, I will try to make you happy—you and Nelson."

"Dr. Yorke—I——"

"Give me your hand, my dear. It's more to me than another woman's heart."

And Olive surrendered it, cold and trembling, into his kind steadfast clasp.

Dr. Yorke went home half an hour earlier that evening. Gertrude, who was in the drawing-room, was startled by the click of his key in the door, and by hearing her sedate cousin run upstairs two steps at a time.

"Good gracious, Robert!" she exclaimed, as he burst into the room smiling and eager. "Is it so late? I must go and dress for dinner."

"Wait a bit," Gertrude, the Doctor said, clasping her hand as she passed. "Never mind dressing for dinner to-day. I have something to say to you."

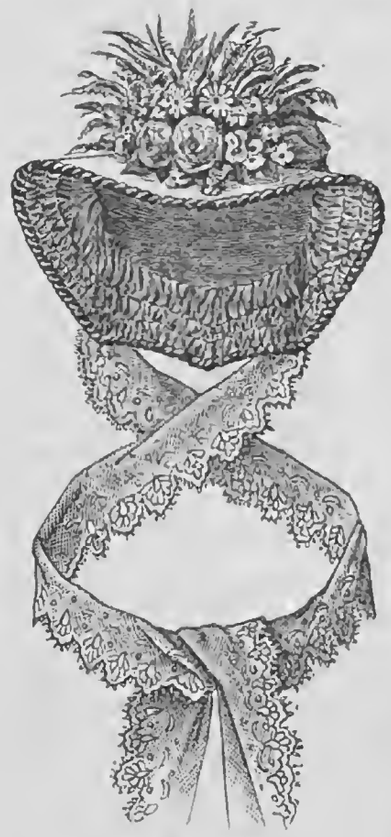
Gertrude was fluttered. In some doubt she looked at her dress, then at her cousin's agitated face, and with a blush sat down again and took up her work.

"What is it, Robert?" she asked, putting her basket of wool out of reach of his clumsy nervous, fingers. "And make haste, please, or my aunt—"

"I want you to make me a promise, dear," Robert interrupted, leaning his elbows on the table, and looking into Gertrude's gray eyes, which fell before his gaze. "You know that Aunt Elizabeth is very much attached to you, and thinks you are a dear good sensible girl."

"Oh, Robert!"

"We have been very happy together, we three, haven't we? And it would be a pity that anything should occur to break up such a pleasant home."



No. 5.

Gertrude's buxom chest heaved; the color deepened in her plump face.

"Now, if I were to ask you," Robert continued, "to use your influence with our good aunt to reconcile her to a step I resolve upon taking, and which may at first cause her some annoyance——"

"I don't understand you, Robert," Miss Fisher interrupted, a little pale now. "What can you be going to do that Aunt Elizabeth would disapprove of? Surely, after all her kindness——"

"Yes—yes, but there are times when a man must decide for himself, Gertrude, and"—the Doctor leant forward and kissed her round cheek affectionately—"I am going to be married, my dear little cousin, and I want you to love my wife, and be kind to her for my sake."

The work trembled in poor Gertrude's hands, but she went on pulling the ivory needle through the loops and meshes, trying to hide the bitter disappointment that was swelling in her throat and dimming her eyes.

"Come, dear, have you nothing to say?" the Doctor asked reproachfully.

"I am sorry I cannot congratulate you, Robert," she answered in a husky and uncertain voice. "It is to that—that person at the theatre, I suppose?"

With an effort Dr. Yorke controlled his annoyance.

"That person, as you call her, Gertrude, is a girl like yourself, good, pretty, educated. I hoped you were too far above vulgar prejudices to condemn her unknown, because of her calling."

"I have never spoken to an actress in my life," Gertrude said crossly. She too had had her little dream, and was it likely she should feel very kindly towards this rival who had so soon dispelled it?

"But, if I tell you that this actress is a—an angel of goodness, devoted to her little brother—that Miss Carew is a lady in the truest meaning of the word, and——come, won't you be kind to this girl whom I love so dearly?"

No. 6.

Short-sighted Dr. Yorke!

"I really don't know what my aunt," Gertrude began, but Robert made an impatient movement.

"For Heaven's sake, Gertrude, speak for yourself for once!" he cried. "Never mind what other people do or think, but promise me that my wife shall have one friend at least in her new home."

Gertrude could not shake off the old feeling about her cousin all in a moment, even though he was engaged to be married, and the kind pleading voice she had learned to like so well touched her in spite of herself.

"I'm sure, Robert, I will do whatever is right," she said, rising and turning away to hide the tears she could not keep back any longer. "I don't think poor papa ever intended me to live in the same house with a public character, but I hope you may be happy!"

No. 7.

Dr. Yorke dined alone. A servant brought him word that Miss Yorke was indisposed, and that Miss Gertrude would remain with her aunt.

"So the battle begins," he thought, smiling grimly. "Well, my shoulders are pretty broad—but"—the Doctor drank his glass of sherry, and set down the glass with ominous force—"if they hurt Olive!"—To be continued.

WHITTIER AND GARRISON.

THE poet Whittier, the life-long friend and co-laborer of Garrison, sent the following tribute to his memory to be read at the funeral service:

The storm and peril overpast,
The hounding hatred shamed and still,
Go, soul of freedom, take at last
The place which thou alone canst fill.

Go up and on; thy day well done,
The morning's promise well fulfilled;
Arise to triumph yet unknown,
The holiest tasks that God has willed.

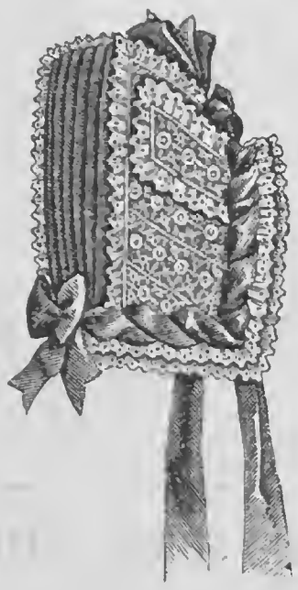
Go! leave behind thee all that mars
The work below of man for man;
With the white legions of the stars
Do service such as angels can.

Wherever wrong shall right deny,
Or suffering spirits urge their plea,
Be thine a voice to smite the lie,
And hand to set the captive free.

A TRIP TO BORNEO.

THE following extract from a letter I lately received from my esteemed friend, Mr. F. W. Burbridge, of London, in reference to his late trip to the East Indian Archipelago, may be interesting to some of the RURAL readers. W. F.

"As to my trip to Borneo, I got on fairly well. It is a beautiful country, in which you can go anywhere and do what you like—no laws, jails, workhouses, railways, horses, carts, not even a fence or a board warning trespassers, so common in England—just a wild forest-land, with here and there a village and a few fields cut out of the wild, and planted with rice, caladium esculentum, sweet potatoes, cotton, maize, fruit trees, and a few patches of tobacco. Men and women are gentle and friendly, as a rule. Now and then a fellow runs 'amuck,' drawing his chopper and slashing at everybody he meets, until somebody puts slugs through him or pins him with a spear. These mad fellows are about as rare as mad dogs in London, and about as dangerous.



No. 8.

"One or two of the tribes inland, as the Kayans and Muruts, keep up the old kind of life, living principally by hunting wild pigs, cattle and deer, all their farming being done by the women. These tribes are nearly always at war with one another, and if they kill an enemy they preserve his skull as a trophy. In some of their houses you may see a hundred or two of these skulls, but many of them very old and rotten. They use them in decorating their houses at their periodical feasts. They make raids on each other, killing the men and taking the women and children as slaves. All through the East women do most of the work, and are not of much account; a woman and a buffalo are about equal in value.

"Coast and river journeys are made by native boats, pulled by 10 or 12 men with paddles, or they act well with a wind. All Malays are good sailors and the worst pirates in the world, although not now so common as formerly. All inland journeys must be made on the back of a big water buffalo or on foot. The roads are like sheep-tracks on the hills; in the valleys you are up to the knees in mud or up to the arm-pits in water. Sometimes on the plains you may go a mile or two in soft mud a foot thick, and the whole way through a tunnel of overhanging grasses and sedges. The climate is the most uniformly hot, and wet, and feverish in the world. Snakes are plentiful; monkeys, ourang outangs, scorpions, centipedes, etc., are plentiful, too. The only dangerous animal, however, is the alligator, a big, ugly, voracious brute; and the one which gives one most trouble and pain of all is the mosquito.

"Plants do well here. Tree ferns are lovely, 30 feet high; Bamboo, 60 feet high. Orchids are plentiful in places; Phalænopsis grandiflora is the best. There are some beautiful Renantheras which will not bloom at home. Mangoes, Oranges, fine Pomaloes, Limes, Durian, Mangosteen, Bananas, etc., are abundant. Grapes and Figs fail miserably, and Pomegranates and Melons are poor—too wet for them, and too uniformly hot for Figs and Grapes. The finest plants are Palms and big Nepenthes, the latter—of which there are four species on the 'Bornean Andes'—are wonderful. They grow at an altitude of 10,000 feet, where it is cool and wet, and soon go wrong on the plains. Their habitat is seven days' direct journey on foot inland.

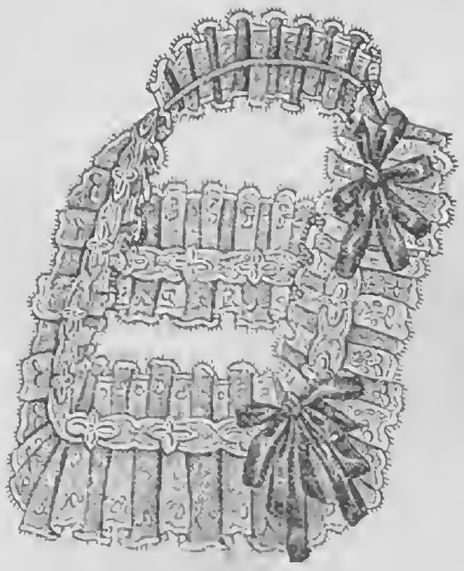
THE PHILOSOPHY OF WRINKLES.

TIME and physical suffering cause the creases about the eyes more than anything else. Therefore, with proper attention to your health, you have it in your power to avoid many of these. Nervous suffering often gives a hard look to the mouth, and sometimes pulls it out of shape. We all of us that are worth anything must go through more or less of it. But the spirit in which we bear it will be sure to leave its impress about the most mobile of all the features of the face. Pain of all

No. 9.

kinds, anguish, agony, care, wrinkle the forehead from temple to temple. Thought and passion crease it perpendicularly between the brows. All these outward manifestations of the internal conflict that goes on in every one of us from day to day are, to some extent, within the control of our will, but they do not yield one iota to all cosmetics in the world. You have a certain feeling, and your face takes on certain lines, and in proportion to the recurrence of that feeling those lines deepen. But you may, by the exercise of your will-power, keep that feeling in check to a certain extent, and to a certain extent also control the lines of your face. This is all the preventive or cosmetic that there is for wrinkles. So save the money you have put aside for any other so-called cure of them, and use it for a better purpose. There can be no real and lasting beauty without truth. Try to be true to a noble ideal all through. This is the foundation, the corner stone of true beauty. An attractive face is not a made-up one, it is the face of one on good terms with his or her own soul. Yes, that is the grand secret of all efficacious cosmetics for the face. Be on good terms with your own soul; and secondly, treat your body with all the respect and reverence that are due to the temple of the soul.—*Howard Glyndon, in Domestic Monthly.*

TIT FOR TAT.—When Lord Stratford was ambassador at Constantinople, one of the secretaries had an audience with the Sheikh ul Islam, who, at the moment of his visitor's entrance, was engaged in the performance of his devotions. The secretary sat down while the devotee finished prayers, which were ended by an invocation to Allah to forgive a suppliant true believer the sin of holding direct intercourse with a giaour. His conscience thus relieved, the old mufti rose from his knees and smilingly welcomed his guest. But this guest, who



No. 10.

was a great original in his turn, begged permission to perform his devotions. He gravely went through an Arabic formula, and ended by begging Allah to forgive a good Christian the crime of visiting a "faithless dog of an infidel." The astonished old mufti was nettled, but with true Oriental imperturbability he bore the insult.

Domestic Economy.

CONDUCTED BY EMILY MAPLE.

INVALIDS—CHAPTER 1.

MARY BEAL M'LOUTH.

I HAVE often wished that those who are capable would take up the pen in rebellion against so much doctoring; but as all seem disposed to let others do as they please, I can only use my influence by noting a little of my experience. This, together with the conclusions drawn from observations, can be my only excuse for attempting to take up a subject, which only a *physician* of talents could handle successfully. I well know when the physical strength is weak, that most people prefer trying half a dozen kinds of patent medicines, calling in two or three physicians, or, mayhap, going to bed and doing nothing, to exertion of any kind. If a worker, the latter may do as much good as anything, but if most of your time has been spent upon the lounge, with a novel for company, and you have gained a listless feeling, that you don't want to work, and you *wont* work, because you don't have to; then exercise is what you need. I do not think ladies spend enough time in the open air. Those who feel the heat or are not accustomed to work, should not go out for the first time on a July day when the thermometer and the feelings indicate that the heat is intense; but begin in the spring as soon as the weather will permit to walk, morning and evening, slowly at first, but with shoulders thrown back and head erect, and walk until tired. The next day walk a little farther, and continue this until able to walk several miles. I do not know of anything that is better for nervous people, and if they walk until moderately tired they are always assured of a good night's sleep.

This, of course, does not apply to the laboring class, who are perhaps already too tired to sleep at all. To these I would say: Make some arrangement whereby you may be able to spend more time out-of-doors. Thoroughly air your sleeping rooms every day, and if they are small and occupied by more than one, have a window open at night. Do not have on any more bedding than possible, and above all things, do not sleep on a feather bed: they are so weakening, and cotton mattrasses made with perhaps five or six pounds of cotton and covered with calico, on top of a good straw bed or spring mattrass, are much better. Notice when you sleep too warm what a faint, all-gone sensation you have on rising in the morning. If you wish a tonic, instead of taking a hot sling or those accustomed bitters, eat a whole or even a part of a lemon before breakfast, every morning for a week or so, as the case may need.

Of course, there are times when medicine is a necessary evil, but generally if one is able to sit up, eating small rations and the plainest of food, taking moderate exercise and an abundance of sleep, will do much towards aiding the recovery. The "Yankees," as a people, bring on many of their ailments by irregular eating and sleeping, either eating too much, or, if they eat but little, it must be of the richest kind. I never found a family yet, that did not claim *they* lived *very* plainly, so perhaps my readers will not understand the meaning I attach to the expression, without further explanation. For a broth the grease should all be skimmed off. Apples or small fruits sweetened enough to be palatable, are much better than preserves of any kind, and a sweet apple baked is the most wholesome of all. A potato, baked with the least amount of butter possible to give it a flavor, half an orange, a taste of peach or pear, or a few grapes, with perhaps half a cup of tea, if the patient desires it, are sufficient for a breakfast. A slice of bread toasted, with a sprinkle of salt, and an egg broken in a basin of boiling water and cooked until the white is just done, will make a hearty dinner. For tea a Graham gem, with a piece of butter half an inch square, and a baked apple ought to be sufficient, with perhaps a very little of something to drink—tea, crushed coffee, or water. I nearly cured dyspepsia in my own case, by not drinking anything at the table.

A person with fever of any description should not drink milk. Lemonade, or a little jelly put in water, is a good drink in fevers. Never take a patient more than he ought to eat—for fear he may think you impolite or stingy, even if he *is* your guest. Having everything cooked nicely, and put on the plate nicely and carefully (and not thrown on), will do much towards making it look inviting and palatable. Step carefully, and noiselessly, and move about the bed slowly, not jerking the bedding or jarring the bed, or doing anything to make the patient nervous. Those who have been sick themselves a good deal, know best how to treat the sick; but be as careful with an invalid as you would with an infant who is weak and helpless. Never accept of any medicine which will prevent you using water free-

There is not anything more soothing to a person, confined to the bed, than bathing him with the hand with water, the temperature to suit the comfort of the patient. Do not undress or uncover the whole body at one time. Never eat for two hours before, or half an hour after bathing, or until thoroughly warm. *Never* refuse a patient a drink of water, but give him only one or two swallows at a time. Always keep the feet warm, either with drafts or hot bricks. When recovering, exercise enough to keep the blood in good circulation. Every one ought to study physiology, and make his own peculiarities and the human system a study, so as to be able to care for himself and so prevent many diseases which are brought on by intemperate habits. I have known several who have been taking medicine for years, and the more they take the more they need; for, when the effect of the drug passes off, it leaves them worse than before—cause and effect increasing until the drug finds lodgment in every tissue of the physical frame, and shows the effect as perceptibly as it does with one who drinks whisky, eats opium, or uses tobacco. If the *disease* has left, the poisonous drug is in the system, which keeps it very much out of order, and the easier way is to avoid getting sick. This can many times be done by proper living. You can do much towards throwing off a cold, by not eating more than once a day and then lightly. In short, starve it out; drink freely of water, and, if feverish, bathe often; but if cold, go to bed and cover warmly until you are better. Out-door employment is a change and gives one something to occupy the mind besides the dull routine of housework. Do not say you cannot get the time—but let me tell you in my next several ways to gain time.

DOMESTIC RECIPES.

English Mixed Pickles.

One-half peck of small green tomatoes; three dozen small cucumbers; two heads of cauliflower; one-half peck of tender string beans; six bunches of celery; six green peppers, and a quart of small, white onions. Chop the vegetables quite fine, sprinkle with salt and let stand over night. To six or seven quarts of vinegar add an ounce each of ground cloves, allspice and pepper, two ounces of turmeric and one-fourth pound of mustard seed. Let the vinegar and spice come to a boil, put in the vegetables, and scald until tender and a little yellow.

Iced Coffee.

Make more coffee than you are in the habit of doing for breakfast. Add to it about one-third as much boiling milk as you have coffee, and set away to cool. Place on ice and serve for dinner or tea, with lump sugar and cracked ice in each tumbler. MARY B.

Fried Cucumbers.

Pare, cut into lengthwise pieces a quarter of an inch thick and lay in cold or ice-water half an hour. Take out, wipe with a napkin, season with pepper and salt, dredge with flour and fry to a light brown.

Green Corn Pudding.

One quart of milk; three beaten eggs; one dozen ears of corn grated; one tablespoonful each of butter and sugar, and a little salt. bake in a covered pudding dish one hour.

MRS. E. L.

QUESTIONS ANSWERED.

Canary Bird. — We have never known a canary to pull out its feathers. Your bird may be molting and you mistake its cleansing itself by shaking and picking for plucking its feathers. Keep the bird out of all draft, give cuttle-fish, sand and daily bath, do away with all fancy food and feed only rape and canary seed.

Mr. James Brooks.—Communication received but you have omitted your address.

News of the Week.

MISCELLANEOUS.

Monday, July 21, 1879.

Minneapolis, St. Paul, and the whole State of Minnesota are greatly incensed because Chicago capitalists have got hold of their railroads and are running them in opposition to local interests. Not only have they secured the roads leading to Chicago and those in Southern Minnesota, but they are also trying to shut the wheat growers of the State from Lake Superior, with its cheap water route to the East. The North Wisconsin road has been bought for this purpose and, more recently, the St. Paul and Duluth. There is considerable fear that Chicago will capture the rest of the State's railroads, and an active organization of Minnesota business men is at work to prevent it. The monopoly already formed is so grasping that it costs as much to carry a bushel of wheat 26 miles from Farmington, Minn., to St. Paul as to send it 500 miles to Chicago. and it is estimated that it takes nearly $5,000,000 annually from the price of Minnesota wheat and adds several millions to the cost of the State's imports. Minnesota means fight and, having already organized a commercial league has summoned the strong men of the State to meet at St. Paul next Tuesday to see what ought to be done. A tailed boy has been discovered at Cincinnati, by the name of George Rehn. He has reached the age of four years, while the tail has attained a length of 14 inches, being covered with silky, glossy hair. It is where the tail ought to be, and, so far from being outgrown, promises to outgrow the boy. The surgeons find it is regularly articulated to the backbone, and don't think it safe to take it off. Why should they? Especially since the boy finds it a considerable help in gaining an upright position, like the kangaroo's tail. Is he Darwin's missing link between man and the monkey?

Virginia needs some energetic detectives to arrest her criminals. Three women and one man have recently been murdered and the murderers are still at large. One of them, Lewis White, the negro who murdered James Law, was last seen at Savageville, boasting that he was waiting for an opportunity to kill two negro women, the only witnesses to the deed.

The Legislature of this State at its last session passed an act reducing the legal rate of interest from seven to six per cent. The penalties for usury were left as they stood in the Revised Statutes, and a question has been raised what the effect of the change is. The Mutual Life Insurance Company has published a legal opinion furnished by its solicitor, Mr. O. H. Palmer, which shows that the Legislature has introduced great confusion into the subject. The act just passed follows the section of the Revised Statutes relating to interest, merely changing the rate, but provides that no contract made before "the passage of this act" shall be affected by it. By another section it is provided that the act "shall take effect on the first day of January, 1880." The act was passed, of course, on the day it was signed by the Governor; and the first question arising under it is: What is the effect of the law on contracts between the date of passage and January 1, 1880? The answer seems to be that loans at seven per cent. may still be made until that date. The second question is, What penalties, if any, exist for the violation of this law? The penalties in the existing law are all against the taking of interest above seven per cent., and the only change made is in the *rate*. The penalties were all made to attach to the old rate, and the question is whether the change in the rate changes the penal enactment. The statute as it now stands seems to be open to this singular interpretation, that after January 1, 1880, the legal rate of interest will be six per cent., but that there will be no penalty for usury unless more than seven is charged. That is, any rate between six and seven is illegal, while at the same time no punishment for taking it will be enforceable.

Sojourner Truth is renewing her youth in her 104th year and proposes to leave her Michigan home to see the results of the exodus in Kansas, lecturing on the way to pay expenses. Kentucky is setting some States of better repute an example of how gentlemen should conduct a political campaign. Dr. Blackburn and Col Evans, the democratic and republican candidates for governor, went on the hustings in courteous discussion, and the doctor shares his private conveyance with his rival in going from one appointment to another The statesment comes from Washington that the female Jenks, smartest of all Louisiana liars, holds an $1800 sinecure position in the Treasury Department.

George Lewis, a negro 19 years old, who murdered his grandmother in January last in Chesfield county, Va., and was sentenced to be hanged, having obtained a new trial, was again arraigned Monday. The jury, much against the prisoner's wish and the protest of his counsel, was composed entirely of negroes, and is the first of that kind empaneled in Virginia to try a capital offense. The testimony at this trial is much stronger than at the first, as the prisoner's confession, showing premeditated murder, was admitted as evidence, but the jury, after an hour's deliberation, returned a verdict of murder in the second degree, and fixed the punishment at 19 years in the penitentiary. This verdict against the evidence, is held to be a proof of the good reason the Virginia judges had for excluding negroes from the jury box.

Public announcement was made last week that the Government engineer inspecting the Mississippi jetties had certified the existence of a channel whose central depth between them is thirty feet and at the head of the passes twenty-six feet. This means the completion of the great enterprise, though not, we suppose, the cessation of dredging to keep the channel clear of lumps; and it is still too early to settle the original question in dispute between Captain Eads and the U. S. engineers about the re-formation of the bar and the consequent necessity of indefinitely extending the jetties. Should this contingency arise, however, we may hope that we shall already have found our profit in the temporary relief to commerce, as well as be able to overcome at a less expense any renewal of the obstacles to navigation. The moral and political consequences of Captain Eads's success are visible in a closer union of feeling and interest between the interior section and that lying along the lower Mississippi and the Gulf, and in numerous ill-considered schemes of internal improvement, partially staved off in Congress, in which the Mississippi occupies the first place, and in which Captain Eads is greatly relied upon. In other words, we might say that the jetties have contributed their share to the "nationalizing" of the Government, just as the yellow fever has done; the South, by a sort of poetic justice, being the chief agent in both cases.

The New York chamber of commerce has been collecting information about the railroad aid extended by local municipalities of the State, and it is found that the total county, town and village bonds issued for this purpose amount to $30,978,000. The bonds outstanding for other purpose amounted to $11,487,000, so that three-fourths of the bonded debt incurred by rural municipalities appears to have been for railroads. The cities are excluded from this calculation; were they included, the aid extended to railroads would be found to be about one-fifth the total local indebtedness within the State.

Shortly after the first alarming reports of yellow fever at Memphis, Tenn., the disease seemed to disappear from the place; most of the fugitive inhabitants returned, the quarantine established by other cities was raised, the authorities who had proclaimed the presence of the plague, were duly vilified and an era of business prosperity appeared on the eve of setting in. Early in the past week, however, the fever once more made its dread appearance, and cases of it have become alarmingly numerous. The inhabitants are again abandoning their homes for dear life's sake; those who have means are leaving their houses in charge of colored servants; merchants are removing their goods to St. Louis and other safer markets, quarantine has been re-established on every side, the municipal authorities are sending off the poor, and a complete panic prevails. Other places in the South are still reported free of the scourge.

The total number of publications in the United States, at the rate of increase during the past six months, will be 10,000 within a year. When we consider that this is only one for every 4,500 people, the country will not be too much enlightened for some time to come. The United States war vessel Wachusetts, engaged in enlisting boys for the navy, arrived at New Orleans, Monday. A crowd of candidates for the navy, with their relatives and friends, while waiting on the Wachusetts' boats, were precipitated into the water, Thursday, by the sinking of the wharf. A hundred persons, including many ladies, went down into the water, which was fifteen feet deep, but all were rescued.

Secretary Sherman is enjoying experiences the spectacle of which must make the public financiers of the European despots pale with envy. His estimates of the receipts for the fiscal year which has just expired have been exceeded by $9,500,000. The customs have brought in $4,500,000 more than he expected, which is considered a sign of growing prosperity, but which to many people means that the American people is once more plunging into a course of unbridled luxury, and contracting debts to the foreigner which will some day cause the sale of their houses and lands at auction for a mere trifle. The internal revenue has decreased by about $2,000,000, owing to the proposal in Congress to reduce the tax on those old friends of the politician, whisky and tobacco, which caused the distillers and tobacconists to hang back from the market. Congress did reduce the tax on manufactured tobacco from twenty-four to sixteen cents a pound. There was a gain from miscellaneous sources of over $6,000,000, but this consisted largely of profits on the coinage of silver, and therefore as long as the silver lies in the Treasury is not realized in fact. In considering the increase in receipts, the net surplus for the year being $7,946,664, it must be remembered that the expenses were increased by the payment of $5,500,000 on account of the Fisheries Award, the same amount on account of arrears of pensions, and $1,800,000 paid to Captain Eads for the improvement of the mouth of the Mississippi. No government in the world can exhibit such a magnificent basis of credit as the tax-paying powers of this people supply, and, in fact, their credit has nothing to fear from any quarter but Congress itself.

At a meeting of the receivers, shippers and millers, held lately in Chicago, the following grades of winter wheat were adopted:

No. 1 white winter wheat shall be pure white winter wheat, sound, plump and well cleaned.

No. 2 white winter wheat shall be pure white winter wheat, sound and nearly clean.

No. 1 amber wheat shall be pure amber winter wheat, sound, plump and well cleaned.

No. 2 amber wheat shall be of the same color and variety as No. 1 sound and reasonably clean.

No. 1 long red winter wheat shall be pure red winter wheat of the long-berried varieties, sound, plump, and well cleaned.

No. 2 long red winter wheat shall be of the same varieties as No. 1, sound and reasonably clean.

No. 1 red winter wheat shall be pure red winter wheat of both light and dark colors, of the shorter-berried varieties; sound, plump and well cleaned.

No. 2 red winter wheat shall be of the same varieties as No. 1, sound and reasonably clean.

No. 2 winter wheat shall include all Northern grown winter wheat and all mixtures of the various descriptions of winter wheat, and shall be sound, reasonably clean, and of good milling quality.

No. 3 winter wheat shall include winter wheat not clean and plump enough for No. 2, and weighing not less than fifty-four pounds to the measured bushel.

Rejected winter wheat shall include winter wheat damp, musty, or from any cause so badly damaged as to rendered it unfit for No. 3.

The State of Maryland, with 4,000,000 acres of uncultivated land and 1,000,000 acres of wild pasturage, has only 151,200 sheep. The reason as given for this state of things is that 7 per cent. of the sheep are annually killed by dogs. The entire South has less than 7,000,000 sheep, and of these 500,000 are said to be destroyed by dogs. Yet the South has summer pasturage and winter keep for from 70,000,000 to 100,000,000 sheep, if rightly managed. A statute law of Illinois requires farmers and others to keep their hedges trimmed down to a hight of four and a half feet. The law is very little regarded. This year's peach crop in the Delaware, New Jersey and Maryland district is estimated at from four to five million baskets.

FOREIGN.

In Great Britain the present agricultural depression is the chief topic of discussion, not merely in country places, but also in Parliament, the cities and the public press. Interest in it transcends that in the Zulu war or even that in the doings of Sara Bernhardt. Although the crops are almost ruined by a backward season and much rain, yet prices of grain are still comparatively low. This is due altogether to the enormous quantities which are received at the various ports, or are on their way thither. Our latest mail advices are ten or eleven days old. At that time the amount of wheat in passage exceeded that at the same date last year by 3,200,000 bushels; and while the de-

liveries of English grain amounted to only between 16,000 and 48,000 bushels a day, those of foreign grain were ten times as heavy. Then the jealousy and competition between importers or sellers is exceedingly bitter, much more so than that between buyers, and this leads them to sell at the lowest possible figure rather than run the risk of being undersold by their rivals.

American wheat holders feared to be undersold by Russian wheat holders, and white wheat from California was sold at a low figure lest white wheat from Australia and New Zealand should forestall it in the market. Of the wheat on passage, about three-quarters were red to a quarter white. The quantity on passage from Australia was large, as was that from Chili. From California there were at sea 4,640,000 bushels.

During the first six months of the present year one thousand grain ships passed the Dardanelles with Russian wheat chiefly; of these, 70 only had Great Britain for their direct destination. For Malta and Gibraltar 150 vessels sailed, and if we give England two-thirds of these, we have 170 ships taken by English and 850 by Continental demand. France has been the leading purchaser, Marseilles alone taking 450 cargoes. Italy has taken 80 cargoes, the Netherlands (Holland and Belgium) 50, the Iberian Peninsula 38, all direct; of some 120 cargoes, with a general Mediterranean and Adriatic destination. It may be assumed that France has taken about two-thirds and Italy the greater part of the remaining third. The proportion of wheat cargoes has been very large, about five wheat cargoes to one of other grain staples.

The imports of maize or Indian corn, nearly altogether from this country, were very large, amounting during the week to 3,741,818 bushels, while 5,880,000 bushels were afloat on the way thither. If the confident expectations with regard to the ruin of the hay crop are realized, it is thought that the exportations of corn will be exceptionally heavy this year, as much of it will be used as cattle feed.

Prince Napoleon made his last will and testament at Chiselhurst on February 26, 1879, preparatory to going to Zululand. In it he declares that he dies in the Roman Catholic faith, and desires that his remains may be placed by the side of his father's. He declares that his last thoughts shall be for his country; that his love for his friends, servants and partisans will only end with his life; that he shall die with a feeling of deep gratitude to the Queen of England and all the royal family, and hopes that his mother will preserve the same loving memory of him that he shall ever cherish for her while he enjoys life. He bequeaths 100,000 francs each to M. F. Pietri, M. LeBaron Corvisart, Mlle. de Larminat for her attachment to his mother, M. A. Filon, a former tutor, M. L. N. Conneau, M. N. Espinnasse, and Captain A. Bizot, who were three of his oldest friends. He gave 20,000 francs to his cousin Prince J. N. Murat; an annuity of 10,000 to Prince L. L. Bonaparte; an annuity of 10,000 to Mr. Bachon, and annuities of 2,500 each to Mme. Thierry and Uhlmann. All his servants he desired should never be deprived of their salaries. His jewelry, uniforms and weapons he disposes of to a number of personal friends. He constituted his mother his universal legatee, subject to the payment of the legacies above, and appointed M. M. Rouher and F. Pietri his executors.

Prince Jerome Napoleon Bonaparte has at last been declared head of the family, much, the cablegram assures us, to his satisfaction. While attending the funeral of his nephew a message was sent him from the ex-Empress Eugenie that she would receive him after the ceremony. He returned to France, however, without accepting the invitation. As he is now, according to the opinion of his adherents, Emperor of the French, it is presumed that he thought it was his place, rather than the dowager Empress's, to concede an interview. The slight, however, has lost him many friends, or rather has prevented many followers of the late Emperor and his son from becoming supporters of the new claimant. M. Rouher, the ablest of the Bonapartists, has declared that he will take no more part in political life. The Orleans family has held a meeting at Geneva, to take into consideration the influence the death of young Napoleon may have upon their fortunes; while the Count de Chamford, head of the Legitimists, has advised his followers to open their arms to any supporters of the late Empire who may now be willing to join their ranks. This is supposed to be a bid for the "clericals," most of whom have hitherto been Bonapartists, but who are very unlikely to continue in that party now that it is headed by Pion-Pion, who has always declared himself to be the uncompromising enemy of "priestcraft."

A bill regulating education in France, introduced into the Assembly by Jules Ferry, Minister of Education and Public Worship, has just been passed by that body by a vote of 363 against 106, but is likely to be defeated in the Senate. At present the Jesuit schools and colleges in France are among the foremost in that country or in Europe and the order also controls three Universities lately established. The proposed bill takes all educational matters entirely out of their hands, and makes education a State affair. Of course, such a measure arouses bitter opposition on the part of the "clericals" and their adherents.

To an American named Grower has been accorded the honor, and privilege, of erecting telephone lines in Paris. He will use improved instruments of his own invention, the departure from the Bell patent consisting of a novel form of magnet of great strength, by use of which the volume of sound is greatly increased. No battery will be used. In the British House of Lords the Marquis of Huntley, Thursday evening, complained of the railway companies for carrying American meats at lower rates than English, because of the larger quantities in which the former was sent. He pointed out that such action was a protection for American farmers, and asked whether the matter had been brought to the attention of the board of trade and the commission on agricultural depression. The Duke of Richmond, lord president of the council, replied that the granting of preferential rates was a violation of law, but Lord Selburne doubted it.

As an example of the low prices of butter and cheese which at present obtain on the other side, we may mention an auction sale which occurred in Liverpool on June 24th last, when a lot of cheese shipped from Montreal was offered to the highest bidder, but only a few boxes were sold at 20s. to 28s. per cwt. American creamery butter was also put up for sale, part of which only realized 65s. per cwt., the rest being withdrawn. Another lot of fine creamery was also offered, but as 70s. was the best bid, very little was disposed of. Inferior cheese was auctioned off as low as 15s. and 16s. per cwt. Of course, it must be borne in mind that the above were forced sales, but part of the goods offered was fine, and such transactions frequently establish values in Liverpool, where auction sales are of regular occurrence once or twice a week.

How to tell Genuine Florida Water.—The true Florida Water always comes with a little pamphlet wrapped around each bottle, and in the paper of this pamphlet are the words "Lanman & Kemp, New York," water-marked, or stamped in pale, transparent letters. Hold a leaf up to the light, and if genuine, you will see the above words. Do not buy if the words are not there, because it is not the real article. The water-mark letters may be very pale, but by looking closely against the light, you cannot fail to see them.

Remember Hop Bitters never does harm to the smallest child, but good, always and continually.

THE MARKETS.

PRODUCE AND PROVISIONS.

NEW YORK, Saturday, July 19, 1879.

BEANS AND PEAS.—This market is apt to be a silent one in summer, and this season is no exception. Selling rates generally at the inside figures. Red Kidneys lower. Beans, marrow, prime, $1.30@1.32½; fair to good, $1.25@1.30; medium, prime, $1.30@1.32½; fair to good, $1.22½@1.27½; pea, choice, $1.30@1.32½; fair to good, $1.20@1.25; white kidney, choice, $1.32½@1.35; fair to good, $1.25@1.30; do., red, prime, $2; fair to good, $2.35@2.40; turtle soup, $2.25@2.30. Peas, green, per bush., $1.90@2; Southern B. E. per 2 bush. bag, $2.55@3.00; Canadian, in bulk and bond, per bush., 70c.

Exports for the week, 1,729 bbls. beans; receipts, 2,200 bush.

BEESWAX.—There is rather an easy market, with 24c. quoted.

BROOM CORN—Has a very fair sale and is steadily held.

Brush and short broom, choice, ₱ lb, 5½@6½c.; do., common to good, 4½@5½c.; hurl, good to choice, 4@4½c.; do., common to fair, 3½@4c.; red and crooked, 2½@3½c.

BUTTER.—Receipts for week, 34,500; exports, 8,000 packages, divided about equally between England and the Continent. This summer is a noticeable one in the absence of New York's regular line of companies, and the market feels the curtailed demand to a marked degree. The light trade, however, is steady and prices are well sustained, though in that connection no one ought to expect cheaper rates than have ruled this season. State, at the prices, pushes Western aside. Selections ½c. higher than at our last. Butter merchants have had some severe hot weather to contend against. Quality, however, has not suffered so seriously this summer as in former hot seasons. Methods of storing in cold cellars have been perfected so that unsold lots can be kept safely with the assurance of turning out well. This is one reason why summer made stock should be sent right along. It had better have spot chance of sale than to be held till autumn to hurt the average quality of dairies.

State pails and half tubs, choice, 13½@14c.; good to prime, 12@13c.; fair to good, 10@12c.; firkins, choice yellow, 14½@15c.; fair to good, 13@14c.; Welsh tubs, choice, 13@13½c.; good to prime, 12@13c.; fair to good, 10@12c.; poor, 8@9c.; State creamery, best invoices, 15½@16c.; good to prime, 14@15c.; sweet cream, best, 15@15c.; fair to good, 13½@14c.; Western, best invoices, 15½@16c.; good to prime, 14½@15c.; fair to good, 13½@14½c.; imitation creamery, 9@12c.; Western dairy, best invoices, 11@12c.; good to prime, 9½@10c.; fair to good, 8½@9½c.; poor to fair, 7½@8½c.; Western, factory, best invoices, 9½c.; good to prime, 8@9c.; fair to good, 7½@8c.; poor to fair, 7@7½c.; grease butter, 3½@4½c.

CHEESE.—After ruling strong early in the week at 6¾c. and even 6¾c. for some lots, the market towards the close has become weak through the easier Liverpool market, and closed with sales very rare over 6¾c.

Quotations are for State factory: Fine, 6½@6¾c.; good to prime 5½@6c.; fair to good, 4¾@5¾c.; half-skimmed, 4@5c.; skimmed, 2½@3½c.; State farm dairy; Fine, 6@6½c.; good to prime, 5@5¾c.; fair to good, 4@5c.; skimmed, 3½@3¾c. Wisconsin factory: Fine, 6¼@6½c.; good to prime, 5@6c. Ohio factory: Cheddar, fine, 6½@6c.; do., fair to good, 4½@5½c.; full cream, flat, fine, 6@6½c.; flat, good to prime, 4¾@5¾c.; flat, fair to good, 4@4¼c.; half-skimmed, 3@4c.; skimmed, 2½@3c.

COTTON—Has been been pressed for sale at a decline without leading to much activity, prices are for July, 11.30@11.31c.; August, 11.36@11.36c.; September, 11,31@11.35c.; October, 11.18@11.19c.; November, 10.86@10.87c.; December, 10.84@10.85c.; January, 10.88@10.90c.; February, 10.93@10.97c; March, 11.08@11.12c.

Quotations for spot cotton are based on American standard of classification, and on cotton in store running in quality not more than half a grade above or below the grade quoted.

	Uplands.	*N. Orleans and Gulf.*	*Texas.*
Ordinary	10 7-16	10 9-16	10 9-16
Strict ordinary	10 13-16	10 15-16	10 15-16
Good ordinary	11 3-16	11 5-16	11 5-16
Strict good do	11 7-16	11 9-16	11 9-16
Low middling	11 9-16	11 11-16	11 11-16
Strict low middling	11¼	11⅛	11⅛
Middling	11⅛	12	12
Good middling	12 3-16	12 5 16	12 5-16
Strict good middling	12 7-16	12 9-16	12 9-16
Middling Fair	13⅛	13⅛	13⅛
Fair	13¾	13⅞	13⅞

STAINED.

Good ordinary	10⅝	Low Middling	11 5-16
Strict good ordin'y	11	Middling	11 9-16

DRIED FRUITS.—Apples are moving out slowly, with prices easy. Peaches are dull and unchanged. Small fruits are quiet.

Apples—Evaporated Aldon's and Williams's at 10½@11c.; do., new process, at 8½@9c.; State plums, 8@10c. Blackberries quoted at 4½@5c. Peaches—Peeled Georgia, 5@6c. for poor; 6@7c. for fair to good; 8@9c. for prime; choice North Carolina, 9@10c.; good do., 7½@8½c.; unpeeled halves, 3@3½c.; quarters, 3c. Apples—New, 2½@2½c. for Southern quarters in bags; 2½@3½c. for sliced; State, 3@3½c. for new sliced, and 3@3½c. for quarters; Western, 2½c. for new quarters.

EGGS.—Receipts for week, 7,220 bbls.; do., last week, 5,524 do. The market has ruled weak during very hot weather, but shows some recovery at the close.

Near points, 15c.; State and Penn., 13½@14c.; Western, best, 12¼@13c.; others, 11½@12c.; Canadian, 11½@12c.

FLOUR.—With large receipts and lower wheat values prices have declined.

Latest prices are: $3.85@4.15 for inferior to very choice superfine State; $4.20@4.50 for poor to good extra do., odd lots and lines; $4.50@4.75 for good to choice do.; $3.85@4.15 for inferior to very choice superfine Indiana, Iowa, Michigan, &c.; $4.20@4.50 for inferior to good shipping extra do., and $4.50@4.75 for good to choice extra do.; common to choice white wheat extras, $5.00@6.10; choice to fancy do. at $6.10@6.75; red and amber winter wheat, inferior to very choice trade and family, at $4.85@6.25; round hoop Ohio at $4.40@4.75, and trade and family brands of do. at $4.85@6.00, the latter rate for strictly choice; St. Louis, $5.00@6.00 for inferior to good extra; $6.00@6.75 for very good to very choice (with fancy brands held higher); Minnesota clear, inferior to fancy, at $4.25@5.50; Minnesota "straight," very inferior to strictly fancy, $5.00@6.50, and patent poor to very choice at $5.50@8.00 (with a few fancy brands quoted at higher figures); unsound stock at from $2.35@3.25; city mill extra at $5.40@5.75, good to to very choice, for West Indies; do. for England, $4.25@4.75; do. trade and family extras, $5.75@6.75; do. for South America, $5.50@5.75 for standard choice brands (winter wheat product); No. 2 at $2.50@3.35 for poor to strictly fancy.

CORN MEAL—Is selling at $2.65@2.70 for Brandywine and $2.00@2.35 for Western yellow.

FRESH FRUITS.—Supplies of seasonable items liberal and quality generally fine. The latter feature, with the easy prices, has kept trade active. California has begun to send pears and plums. Several car-loads have been opened during the week. First price for pears, including Bartletts, was $———; afterwards they went down to $———. Plums quoted ———. Estimates of the peach crop are not thought to be excessive when 5,000,000 baskets are approximated. Preparation has been made to ship 3,700,000 baskets, two and a half millions by rail and the rest by water. An immense canning and patent drying business will occur this season. The Western crop is called light, and a brisk market for cases of cans is expected. It is estimated at growing points that nearly one million baskets will be used by wholesale preservers.

Apples, red Astrachan, choice, ₱ bu. crate, $1@1.25; common, 75c.; early harvest, Southern, choice, 75c.@$1; Sour Bough, Jersey, ₱ bbl., $1.50@2.50; Sweet Bough, do., $1.50@2. Pears, Southern Bell, ₱ bbl., $3.50@5; Jargonelle, $4@5; Bartlett, Sny, green, ₱ bush. crate, $2@2.50; cooking, ₱ bbl., $2@3. Currants, cherry, ₱ lb, 7@10c; small, fair to good, 6@7c.; black, 5@7c. Whortleberries, Md. & Del., fair to good, per qt., 5@6c.; Jersey, do., per 14 qt. box, 75c.@$1; mountain, 87c.@$1.12. Blackberries, Monmouth Co., Wilson, ₱ qt., 8@10c.; South Jersey, do., 7@9c.; Md. & Del., 6@8c. Raspberries, up-river, Antwerp, per 3 to qt. cups, 3½@4c.; do., native, 2@2½c.; Md. and Del. Brandywine, per pint, 4@5c. Watermelons, Geo., per 100, $30@35; N. C., $10@20; Fla., $15@25. Nutmegmelons, Jenny Lind, Norfolk, ₱ bul., $2@2.50; cantaloupe, do., $1.75@2. Peaches, Georgia, choice, ₱ bush., $3@5; N. C., do., $2@3; common, $1@1.50; Md. and Del., good, ₱ crate, $1.50@1.75; poor, 75c.@$1.25. Plums, beach, Del., ₱ bush., $1@1.50. Hot-house grapes, B. Hamburgh and Muscat, 75c.; Sweet Water, 30@40c. For peanuts there is a fair shipping demand; Va. hand-picked, $1.40@1.45; fancy, $1.20@1.25; extra prime, $1.25@1.27½; good to prime, $1.15@1.20; shelled, 5½@5¾c.

GRAIN.—Wheat has declined steadily on the better weather reports from the other side, with trade fair. Sales of No. 1 white at $1.16; do. August, at $1.12 do. July, $1.16; No. 2 white at $1.14; ungraded white at $1.14; No. 2 red, July option, at $1.12½@1.12¾; do. August, at $1.10@1.11; do. September, at $1.10¾@1.11; ungraded red at $1.10@1.13; No. 1 amber at $1.14@1.14½; No. 2 do. at $1.12½@1.13; do., July option, at $1.11¾@1.12; do. Aug., at $1.09@; ungraded amber at $1.11@1.13; No. 2 spring at $1.08@1.10; No. 2 Northwest spring, July, at $1.07; No. 3 spring at 98c.@$1; ungraded spring at 96c.@$1.02; rejected spring at 88@92c.; Rye is in demand, at 66@67c. for Canada and State, and 64c. for No. 2 Western. Corn is easy at a decline on full offerings; sales of New York No. 2 at 44¾@44¾c.; do. for July at 44½c.; do. August at 45c.; do. September, 46c.; New York steamer mixed nominal, July at 44¼c. bid and 44¾c.; August, 44c. bid and 44¾ asked; September at 46c. bid and 45¾c. asked; No. 3 nominal; ungraded Western mixed at 43½@44c.; New York yellow at 46c. Oats are lower and dull; sales of New York No. 1 white at 42¾c.; New York No. 2 white at 38@39½c.; New York No. 3 white at 38¾c.; No. 1 quoted at 38¾@39c.; No. 2 at 37½@38c.; No. 3 at 38¾c.; mixed Western at 37½@38c.; white do., at 40@41c.; white State at 42@45½c., No. 2 Milwaukee at 38c.

HAY AND STRAW.—The arrivals are large and there are free sellers.

New hay is selling at from 50c. to 70c., old hay at 40@45c. for shipping and 70@85c. for prime retail qualities. Straw at 50@55c. for long rye, 45c. for short rye, and oat at 30@40c.

HOPS.—Emmet Wellsian says in his weekly circular "A call from London this week for 1,400 bales of our hops, together with continued unfavorable crop accounts, has added new strength to our market and sent the price up 1c. per lb. on all descriptions. Present appearances do not give hope for a yield of much over 100,000 bales in America, and these will all be wanted for home consumption; but, of course, should prices run much higher in England than here, a few of our choice new hops may find their way over there, but it is rather early to speculate on the chances of an export trade; in fact, it looks more now as though we might become importers of hops next fall, and if so, Germany will be the only country we can look to for a supply.

	Bales.
Receipts for the week	2,365
Total receipts since September 1, 1878	80,039
Total receipts for same period in 1877	135,751
Export clearances for the week	1,411
Total exports since September 1, 1878	29,352
Total exports for same period in 1877	78,710

Quotations are for New York's, new crop, prime choice, 11@16; New York's, new crop, medium, 9@10; New York s, new crop, low to fair, 7@8; Eastern, 8@11; Western, 8@11; Yearlings, 4@7; Olds, all growths, 3@4. Pacific coast, nominal, 10@14.

OIL-CAKE.—Western is easy and quoted $29.00 per ton.

POULTRY AND GAME.—Live fowls scarce and firm; chickens lower.

Chickens, best, per lb., 17@18c.; small, 15@16c.. fowls, N. J., 13@13½c.; Western, 12@13c.; Southern 11½@12.; roosters, old, 6@7c.; turkeys, 9@11c.; ducks, spring, ₱ pair, 50@75c.; others, 40@70c.; geese, choice, $1.37@1.50; others, $1@1.25.

Fowls and turkeys, dressed for special summer trade, firm. Chickens have declined in sympathy with the large arrivals of coops.

Turkeys, Phila., dry-picked, 12@14c.; State and Western, prime, 11@13c.; chickens, Phila., large, ₱ lb, 24@25c.; Phila., small, 21@22c.; State, 17@19.; Western, 16@17c.; fowls, N. J., choice, ₱ lb., 13@14c.; State and Western, dry-picked, 12@16c.; scalded, 10@12c.; Phila. dry-picked, 14@15c.; ducks, spring, Phila. dry-picked, 16@18c. ₱ lb.; spring, small, 13@15c.; old, Phila., dry-picked, 10@13c.

A few fresh-killed English snipe quoted at $2@2.25; dry plover, $1.75@2; small snipe, 50@60c; stall-fed W. pigeons, $1.75; balted, $1.50; tame squab, $1.75.

PROVISIONS—Have been affected by the yellow fever reports, in the likelihood of a falling off in the demands from Southern points, and prices are much lower. Mess pork quoted for July at $8 65; August at $8 75; September at $8 90; October at $8 90@9 00. Bacon at 4¼@5c. for long clear and $5 25 for short clear. Lard—Western steam at 6c. for spot, 5 95@5 95¾ for July and August, $6 02½ for September, $6 07½@6 10 for October. Beef—Plain mess at $10 25@11 00; extra mess at $11.50@12; packet at $11@11 50; tierced beef, city extra India mess, at $18@20 50; Philadelphia at $17. Beef hams at $20. Tallow at 5 15-16@6c. for prime. Stearine at 6¾@6¾c.

TOBACCO.—There is not much being done, but holders' views are firm and prices unchanged.

VEGETABLES.—Potatoes are abundant and dull. It would be difficult to say when prices would drop, were it not for Havana shippers. All quoted, $1@1.50 per bbl., fair to good; 50c. for culls. Green stuff shows the usual fluctuation in buyers favor, which attends at this date of summer. Green corn, Hackensack, 50@70c. ₱ 100; Burlington, 25@40c. Cucumbers, L. I., ₱ 100, 20@40c. Tomatoes, L. I., near-by, ₱ crate, $1.25@1.50; Norfolk, ₱ bush. crate, 25@40c. Beans, L. I., wax, ₱ bag, 75c.@$1; do., round, 75c; do., flat, 50c. Squash, L. I., yellow, ₱ bbl., 75c@$1.00; do., white, 50@75c. do., Norf., marrow, $1. Green peas, L. I., per bag, $1@1.50. Cabbage, Early Wakefield, per 100, $1@2; Flat Dutch, $3@5. Onions, Va. and Md., per bbl., $4@4.50. Beets, Jersey, per 100 bunches, $1.50@2. Russia turnips, per bbl., 75c.@$1; Jersey, new, per 100 bunches, $1@2. Carrots, per 100 bchs., $1@1.50. Cauliflower, ₱ bbl., $1.50@4. N. J. egg plants, $2.50@3 per bbl.; onions, $3.50@4.

WOOL.—For medium grades there is more demand, yet as receipts accumulate prices are lower. Combing and delaine grades have not been inquired for materially, but prices are steady. The lack of demand for these wools has deterred many dealers from throwing them out, and the result may be a scarcity before next clip, unless, as some contend, the consumption is materially curtailed. Manufacturers are now sufficiently stocked, so that, with liberal supplies to draw from, they will, during the next few weeks, probably test the strength of holders by meager buying. Quotations:

Ohio, Pennsylvania and Virginia—XXX and picklock, 40@42c.; XX, 37@40c.; X, 36@38c.; No. 1, 37@40c.; No. 2, 35@36c.; common, 34@35c.; combing, nominal.

New York, Michigan, Indiana and Wisconsin—XX 32@34c.; X, 29@33c.; No. 1, 25@33c.; No. 2, 33@34c.; common, 31@33c.; combing, nominal.

Iowa, Vermont and Illinois—X and XX, 30@34c.; No. 1, 32@37c.; No. 2, 30@32c.; combing, nominal.

Missouri, Kentucky and Tennessee — Washed fleece, 35@39c.; unwashed fleece, 30@33c.; unwashed combing, nominal.

LIVE STOCK MARKETS

NEW YORK, Saturday, July 19.

BEEVES.—Receipts for the week, 11,315 head; do. last week, 12,378 do. Sales have been brisk right along, a very steady and liberal demand keeping supplies down to a good selling limit. Fine steers sold at 10¼@10½c., to dress 57 lbs.; other natives ranged from 7¾c. up to 10c., to dress 56 lbs. A number of Cherokees direct from S. W. grazing sold low, 6¾@7¼c. The exports of cattle and quarters are extremely large; every steamer that would accept bullocks as freight could have a shipping customer. It is interesting to note that the number taken abroad during the week (about 3,500 head, including quarters) twenty years ago would have furnished the New York market. This outlet is of great value to sellers, especially in summer, when the city wants can be easily over-supplied.

COWS AND CALVES.—Supplies are quite large, and cows to exceed the range of $25@55 must have extra merit; $60 is regarded a big price.

VEAL CALVES—Abundant and low. Choice fed, 5¾@6c.; good to prime, 5@5¾c.; others, 3½@4½c.; buttermilk calves, 2½@3c.

SHEEP AND LAMBS.—Receipts for the week, 30,465 head; do. last week, 32,877 do. Market firmer, stock selling readily. Pens cleared at date. Common to good sheep, 3½@4¼c.; 4¾@5c. for prime, and 5¾ for extras. Lambs steady at 5@6c. for fair to good and 6½@7c. for prime to best, the latter for N. J.

HOGS.—Receipts for the week, 20,414 head; do. last week, 18,152 do. No sales alive at Fortieth street yards. Nominal price, 4@4½c. for Western; 4½@4¾c. for State; city dressed, $5.12@5.50 per 100.

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Reading for the Young.

AMY'S BOTANICAL SCHOOL.

REV. HENRY S. CLUBB.

AMY was so fond of talking about flowers to her companions, and they became so interested, that it was at last arranged that they should meet regularly at a certain point in the woods, and after rambling about for two hours or so, gathering specimens, they would return to the place left and sit under the shade of a hemlock that had become familiar to them, and hold class meeting, with Amy for leader.

Having become interested in their proceedings we were invited to join their party, and will now give some idea of what occurred.

"The most attractive flower at this season," said Amy, when about a dozen of her young friends were seated around her on the white sand, is what?"

"The Trailing Arbutus," said several voices at once, for they had gathered handfuls of this beautiful spring flower, and some had decorated their hats and belts with it.

"What is the Latin name of this flower?"

"*Epigœa repens*," replied cousin Sue.

"What is the common American name?"

"The May-flower," said Jane Emlaw, "and it is also called the Ground Laurel."

"Where is it found besides on the Lake Shore region of Michigan?"

"It is very common in New England," said Jane Thompson, who formerly lived in the Connecticut Valley; "and it is found also in the hilly regions of Pennsylvania and Kentucky, but always near rivers or larger bodies of water. Never far from water. It grows near the foot of hills, where leaves and snow will cover it all winter."

"What is supposed to have originated this name?"

"The general belief in the East," said Jane, "is that it was first discovered by the pilgrims in the spring after their arrival, and as it was the first wild flower which specially attracted their admiration in the month of May, and as they had not forgotten the name of the vessel which had brought them safely over the ocean, they concluded to call it after the good ship 'Mayflower,' and so it has always been known by that name ever since."

"That is a very good explanation," said Amy. "What has since been proposed in regard to the May-flower?"

"When we visited the Centennial in Philadelphia, we heard it spoken of and saw it displayed as the 'national flower of America,'" said Flora Maxey. "And it has since been referred to as such in the papers."

"On what account has it been selected for this purpose?"

"Because, I suppose," said Flora, "it is so generally admired, and on account of its historic associations connected with the landing of the pilgrims, and is not found, as a wild flower, so common in any other country, if at all. It seems at home only in the wild woods of America."

"What are the habits of the Trailing Arbutus?"

"It has a shy way of hiding itself under the fallen forest leaves. That is, it seems to grow under leaves, and is ready to peep up almost as soon as the snow melts, having been kept warm all winter under this natural covering, so that it is kept ever green, and its pretty wax-like flowers even can often be found half buried in leaves. It grows in clumps on hill-sides and in shady nooks. Strangers to its habits often look for it and are unable to find it, but those who know its habits can find it readily."

"Have any of the poets of America noticed the Mayflower?"

"O, yes," said Ella Boynton, "I have seen a beautiful little poem in reference to it."

"Can you recite it?"

"I think Mary Field can," said Ella, "as I heard her recite it at the last school exhibition."

"Oh, yes, let us have it, Mary," said several voices at once.

Mary Field came rather timidly forward, but soon gained confidence; and, standing in the midst of this delightful circle recited, with a sweetly modulated voice, the following stanzas:

"Oft have I walked these woodland paths,
Without the blest foreknowing,
That underneath the withered leaves
The fairest buds were growing.

"To-day the south wind sweeps away
The faded autumn splendor,
And shows the sweet Arbutus flowers,
Spring's children pure and tender.

"Oh, prophet souls, with lips of bloom
Outvieing in their beauty
The pearly tints of ocean shells,
Ye teach me faith and duty!

"'Walk life's dark ways,' ye seem to say,
'With love's divine foreknowing,
That where man sees but withered leaves
'God sees the sweet flowers growing.'"

There was a general clapping of hands when Mary finished her pretty recitation, all the girls were pleased and Ella, who had hastily gathered up all the Trailing Arbutus flowers within her reach, tied them in a bunch and threw them towards Mary who gracefully caught them in her apron and bowing, withdrew to her place on the sand.

In this way several other wild flowers were discussed, the particulars of which, if reported, would constitute a complete lesson in the flora of the east shore of Lake Michigan.

The proceedings closed with a song by Emeline Fox, entitled—"The Vale of Cashmere."

Just as the fair singer came to these words:

"O, to see at the sunset, when warm o'er the lake
Its splendor at parting a summer eve throws,
Like a bride, full of blushes, when lingering to take
A last look of her mirror at night ere she goes!"

The cloud which had concealed the sun for some time from view, having risen a little above the horizon, displayed in all his splendor the sun just apparently about sinking into the blue waters of Lake Michigan. The girls all rose to their feet in order to get a better view. The gentle waves became illuminated, presenting the appearance of a sea of molten gold; the clouds in the east reflected back the bright vision, and all around was a rich glow of glorious sunlight. The distant school house could be seen and every square of glass gleamed with a light as of fire, while the village churches and prominent dwellings joined in the general illumination. As the song continued, all joined in as if receiving an inspiration from the radiance that surrounded them:

"Hills, cupolas, fountains, called forth every one
Out of darkness as they were just born of the sun."

And closing with the beautiful words:

"And day with its banner of radiance unfurled,
Shines in through the mountainous portal that opes
Sublime, from that valley of bliss to the world!"

"This reminds me," said Amy, "of Shelley's Sunset:

'If solitude hath ever led thy steps
To the wild ocean's echoing shore,
And thou hast lingered there
Until the sun's broad orb
Seemed resting on the burnished wave,
Thou must have marked the lines
Of purple gold, that motionless
Hung o'er the sinking sphere:
Thou must have marked the billowy clouds,
Edged with intolerable radiancy,
Towering like rocks of jet
Crowned with a diamond wreath.'"

After taking a parting glance at the lake and the dissolving view of sunset glory which it presented, Amy's botanical scholars skipped gaily down the hill and on reaching the village, separated to their respective homes each carrying their collection of specimens and feeling that the lesson and its accompanying fresh air, exercise, and delightful scenes had done them much good.

BUDDING.

ONE of the nicest and most interesting operations of the garden, which the members of the Horticultural Club can engage in at this season, is the budding of trees. Though it is a work that is peculiarly suited to boys, as it requires the use of that never-to-be-sufficiently-cherished and useful little implement, the pocket-knife, without which no boy can be perfectly happy, this operation can with equal propriety be performed by girls and young ladies who take an active interest in gardening. Many of the members, I doubt not, are already familiar with the process of budding, and could tell us all about it if they were asked to do so, but there are others who do not know how it is done, and for the benefit of these I will give a few brief directions in the art. Budding differs from grafting mainly in this, that in budding only a single bud is cut loose and inserted under the bark of another tree, while in grafting a young branch, or cion, having several buds is united to the stock. Both are modes of propagation used to increase such varieties of trees as cannot be raised true from seed. Trees thus propagated will also come into bearing sooner than seedlings, and have various other advantages.

WHAT TREES TO BUD.

All fruit trees can be propagated by budding, but it is found that the apple and pear tribe succeed best by grafting, while the stone fruits, that is Apricots, Peaches, Plums and the like, succeed best by budding. Roses, Lemons, Oranges, and a vast number of ornamental trees and shrubs are also budded.

Though there is thus a great number of varieties on which to practice, young peach trees will probably be the easiest to obtain. Generally a number of these can be found springing up about every garden and farm throughout the country.

Budding can only be done at the time of year when the bark will separate readily from the wood, and when buds of the current summer's growth are ripe enough to be used. This period continues from the beginning of July till the middle of September. Before you proceed to bud, you must be provided with the following

NECESSARY REQUISITES,

which are, first, the stocks or trees to be budded, which we will suppose are young seedling peach trees. They should be three-eighths to half an inch thick; larger ones can be used, but this is the most convenient size.

Secondly, you must be provided with buds. Take these from another peach tree, which you are satisfied bears good fruit and is worthy to be propagated. Cut off one of the strongest shoots of the present summer's growth, and from this select the largest and most thrifty-looking buds found on the lower half. Cut off the top of the shoot and all the leaves, leaving about one half of the leaf-stalk (petiole) of each leaf. The remaining stump of the leaf-stalk will serve as a handle for the bud just above it.

Thirdly, you must have a small, sharp knife. A good budding-knife can be bought in any well appointed hardware store and in most large seed stores. This is a knife made for the purpose, and has a small, thin and very sharp blade. The handle is about three and a half inches long, made of ivory and flattened, so that it can be pushed in under the bark. But in want of such a knife, a sharp pocket-knife will do, and to loosen the bark use the point of a paper-knife or a similar smooth and pointed piece of ivory or horn.

Lastly, you must also be provided with some strands of bast, about a foot long and a quarter to half an inch wide. Some soft woolen yarn may be used instead of bast. Thus equipped you are ready to begin

THE OPERATION.

On the north side of the stock, from two to eight inches above the ground, make a cut about an inch long lengthways through the bark, and at the upper end of this make a cross cut, so that the two cuts form a T, as seen at a, in the engraving. Next cut a bud loose from the stick of buds. Beginning three-eighths of an inch above the bud, make a smooth cut just deep enough to shave off a very thin piece of wood with the bud. The bud thus separated is seen at c. Then with the handle of the budding-knife open the corners of the cut bark on the stock, as represented at b, and insert the bud, pressing it down gently till it occupies the position shown at d; the bud pointing upward as before. Next, tie the bast about the wound. Place the middle of the band on the wound above the bud and wind both ends about the stock downwards and moderately tight: when tied, the bud will appear as shown at e, and the operation is done. In fourteen days you will be able to determine if you have been successful. If the bud has united with the stock it will look fresh and green, and if it has not united it will have begun to turn black and look shriveled, in which case a new bud may be inserted on another part of the stock.

c. d. c. b. a.

In two or three weeks after the operation it will be necessary to loosen the bands and in two weeks more they can be entirely removed. Should any shoots spring out from the stalk below or near the bud they must be removed at once. Next spring, as soon as the buds begin to break, cut off the stock four inches above the bud, leaving the remaining stump till about midsummer. This will cause a pressure of the sap at the new bud, and it will soon get a vigorous start. The young branch must now be made to grow straight by supporting it with a stick, and should gradually be formed into a tree.

UNCLE MARK.

A NEW AUNT.

UNCLE MARK.—I have been wanting to write you for some time, and ask for permission to join your Horticultural Club, but the thought that it was childrens names that you wanted, kept me from sending mine. I am not a child—still not very elderly, and when I read that Uncle True had joined, I thought you might receive Aunt Earnest, also. I am very fond of flowers and am willing to spend a good deal of time and labor on them, and have found by experience they will not thrive unless loved and tended faithfully. I hope all the members have Pansies, Phlox, Petunias, Verbenas, and Sweet Peas, as they are constantly in bloom. The RURAL seeds, all but Aquilegia and Callicarpa Americana came up and are growing finely. I hope the Eryngium Levenworthii will bloom; it is so interesting to watch new plants grow and blossom. I have five little Pinus edulis trees. We have eighteen hills of potatoes from the "Beauty of Hebron." There is a little pest called the "heart-worm," that is killing plants of all kinds. Wonder if there is a remedy for it. I suppose the Pinus edulis trees will not be hardy enough to live out doors all winter. Hoping that you will place my name on your list, I remain AUNT EARNEST.

[Aunt Earnest is welcome to join the Horticultural Club, as is, indeed, any aunt, uncle or cousin who may desire to do so. I hope she will write us often, tell us of her experience in gardening and make such suggestions for the good of the Club as may occur to her. Pinus edulis is hardy.—UNCLE MARK.]

LETTERS FROM BOYS AND GIRLS.

DEAR UNCLE MARK:—I have received two nice presents from you since I wrote to join the Club, and I wish to thank you. Of all my flowers, my bulb is my pet. I waited, as you wrote, till the middle of May to plant it, and set it out on the 15th; it is now 21 inches high. I have kept the earth loose and rich around it, and watered it almost every day. We have other Gladiolus, but I hope mine will be of a different color. I wish the other boys and girls would write about their bulbs. I have planted my radish seed that you sent me, and it is just coming up. I did not plant any other kind of garden seeds. Some of my flower seeds did not come up very well. I have put a cord fence around my flower bed, to keep the chickens out. I am afraid all the other boys and girls will be more worthy members of the RURAL Horticultural Club than BERTHA H.

Johnsons, N. Y.

DEAR UNCLE MARK:—I will keep my word and write again, seeing that you was so kind as to print my other letter. I have some wild pinks growing which I think are prettier than tame ones, but they have no fragrance. I have longed to see you. I wonder if any of the cousins ever saw Uncle Mark. I would like to have your picture. Well, my letter is not long, but I will close. If this is worthy of publication, I will write again. LUDIE STANLEY.

Spaulding Co., Ga.

DEAR UNCLE MARK:—I have been talking about joining your Horticultural Club for some time, but have neglected to write to you about it. If you please, put the names of my sister and myself on your list. They are Fannie S. Gifford and Alice B. Gifford. We have each a large flower bed in which we have transplanted quite a large variety of plants. They are all doing well, and I think that some of them will be in blossom soon.

Chautauqua Co., N. Y. ALICE B. GIFFORD.

The Puzzler.

GEOGRAPHICAL DECAPITATIONS.

1. BEHEAD a river of Africa, and a row.
2. Behead a cape of Alaska, and leave a weapon for a bow.
3. Behead a country of Europe, and leave distress.
4. Behead a river of Scotland, and leave a plant.
5. Behead a river of Asia, and find a marsh.
6. Behead a gulf of Europe, and find far from sea.
7. Behead a river of Wisconsin, and leave an animal.
8. Behead a city of France, and leave frozen water.
9. Behead a river of New York, and leave want.

☞Answer in two weeks. MICK.

NUMERICAL ENIGMA.

THE whole, consisting of eight letters, signifies "Good-by."

The 1, 2, 3, 4, is food.
The 5, 6, 7, 8, is a pit.

☞Answer in two weeks. UNCLE W.

DIAGONAL PUZZLE.

1. A consonant; 2. Two vowels; 3. To make a noise like a pigeon; 4. A river of New York.—Primals and diagonals form parts of yourself.

☞Answer in two weeks. L. ONE.

DIAMOND PUZZLE.

A consonant. A short sleep. A wanderer. Injuries. A heathen. A liar. A consonant.

☞Answer in two weeks. UNCLE WILL.

RECENT LITERATURE.

The Art of Figure Drawing: Containing Practical Instructions for a course of study in this Branch of Art by CHAS. H. WEIGALL, of the Queen's College, London, and member of the Institute of Painters in Water Colors. With Seventeen Illustrations on Wood by the Author and Engraved by W. G. MASON. From the Twenty-first London Edition. Edited by SUSAN N. CARTER, Principal of the Women's Art School, Cooper Union. NEW YORK: G. P. Putnam's Sons.

AN idea of the scope and object of this work can best be conveyed by giving a portion of the Preface: "The author indulges the hope that the following brief work on Figure Drawing may be perused with advantage by the Artist as well as the Amateur; and that although it is not to be expected that all which may be required to make a figure draughtsman will be found in its pages, sufficient information may be given to facilitate self-instruction; and that, at least, there is nothing that will place any impediment in the way of the pupil who may receive the benefit of a master's attention. In the rules and illustrations, all minuteness and complexity have been avoided as much as possible."

National Banking: A Discussion of the Merits of the Present System by M. L. SCUDDER, JR. NEW YORK: G. P. Putnam's Sons.

It is the fashion just now in some quarters to decry National banks, and most of those who so firmly maintain that these banks ought to be abolished, have no intelligent idea of the workings of the system. The monograph under notice contains a clear, succinct statement of the history of the National Banking Act; the history of previous banking in this country; a comparison between State and National banks, beside giving much useful information on the subjects of bank notes and legal tender paper money. The low price (25 cents) puts the pamphlet within the reach of all who are at all interested in the question of finance, which threatens to play so important a part in politics in the near future.

MAGAZINES.

SUNDAY AFTERNOON FOR JULY.—Table of contents: The Corn and the Lilies, Emily A. Braddock; Beliefs of Unbelievers, Borden P. Bowne; Calvin the Sinner, xii., xiii., Josephine R. Baker; One Sunday Morning, E. C. Gardner; Only a Word, Mary Keely Boutelle; Stand-Bys, John C. Kimball; A Sorrowful Guest, Sarah O. Jewett; Hebrew Women, Mary M. Cohen; Max, Helen Campbell; Oriental Law and Courts of Justice, Fannie Roper Feudge; Some of Miss Help's Proteges, Julia McNair Wright; Sunday-School Songs, L. M. Rose; The Monkey's Story, Lizzie W. Champney; Three English Allegories, Arthur Gilman; The Still Hour; Editor's Table—The Problem of Revision, Dickinson's English, The Good Old Times, Lessons from the Life of Garrison; Literature.

THE punishment threatened against Tyre was not inflicted all at once; many generations passed before the last drop of the cup of retribution was poured out upon the doomed city. This is the ordinary method of the divine administration. Punishment does not come down in one stroke upon the transgressor; it is often slow in coming; it stretches over long years of disobedience. And because sentence against an evil work is not executed speedily, the hearts of the sons of men are often set in them to do evil. But they ought to remember that though "the mills of the gods grind slowly, yet they grind exceeding small." The methods of retribution may be less dramatic and forensic than they are sometimes represented, but the fact of retribution is a fearful fact; it cannot be argued down, and it is madness to ignore it.

What the sinner will *suffer* in the world to come, we know only in hints and shadows. But we know very well what he will *be* in the world to come. The law of the development of character is a law that we understand. It is easy to show its workings and to prophesy its issues. And if you can clearly show a transgressor *the thing that he is certain to become* if he keeps on in evil ways, the sight will deter him from transgression more powerfully than any vision of suffering that you can set before him. Of what is to be inflicted upon him you must speak guardedly; you do not know much about that; but of what will take place *in him* you can speak with perfect assurance, and his own conscience will bear witness to the truth of your words.—*Sunday Afternoon.*

PERSONAL ITEMS.

Governor Drew, of Florida, is worth half a million dollars.

The Emperor William is six feet in hight and Prince Albert, his nephew, measures six feet six inches.

The Duke of Sutherland, who is a thorough practical engineer, drove the locomotive attached to the train which conveyed the Prince and Princess of Wales around the royal agricultural show.

M. Meissonier, the best living French painter, several years ago began a portrait of the late Prince Imperial, which the events of 1870 prevented him from finishing. He now intends to complete it and send it to the Empress.

Ansley Gray is a member of the Dakota Legislature and writes "Hon." before his name. A few days ago he was put behind the bars in Bismarck for handling bogus checks, which reduces the crop of statesmen by one.

Simmonds shot two bullets into Paddock's body, at Greenfield, O. Paddock seemed resentful, for before dying he knocked Simmonds down and pounded him with stones, injuring him so badly that he may not recover.

Monsignor Manning, nephew of Cardinal Manning and one of the Papal chamberlains, is dead. He was about 45 years old, a convert to Catholicity, like his uncle, and educated for the priesthood at Ushaw College, Durham, the chief Roman Catholic college in Great Britain.

Prince Charles Napoleon Bonaparte, the second son of the eldest brother of the great Napoleon, is said to be preferred at Chiselhurst as head of the house to Prince Jerome Napoleon. Prince Charles is 40 years old and has the true Bonaparte face. He holds the position of president of the council general at Corsica, where he is very popular.

Grace Greenwood says of Charles Reade, whom she has recently been visiting: "I found him a grave, fine-looking man, of middle hight, with iron-gray hair and beard, and large, dark eyes of remarkable beauty. In manner he is rather cold, but courteous, and he avowed a special kindly feeling toward our country saying 'I am always at home to Americans.'

Mrs. Fitzhugh, the relict of Henry Fitzhugh, and a grand-niece of George Washington, has taken up her residence in Charleston, West Virginia. She will be ninety years of age in November, but retains her mental faculties and is in sound bodily health. She remembers Washington, for he often visited the house of her father, Judge Nicholas Fitzhugh, in Alexandria, near which Mount Vernon lies.

Two Texan legislators had a fisticuff in the House of Representatives at Austin, on Friday of last week. Ashbel Smith, Democrat, of Harris and Bob Taylor, Republican, of Fannin, both octogenarians, were quarreling, when the former approached Taylor and kicked him. There was a wild uproar, when Smith hallooed to Speaker Cochrane: "I was only illustrating the Governor's position of 'Pay as you go.'"

Master Isaac Bell, Jr., the young nephew of James Gordon Bennett, of the New York Herald, is about a fortnight old. The day after the young gentleman's advent his uncle called to see him, and laid on his cradle 100 United States bonds of $1,000 each as a christening gift, or rather a gift of "joyous arrival," according to the old mediæval custom at the accession of a king. Oh, for more uncles of that sort! We'd almost become children again to own such a one.

There comes a gleam of hope. Alexander McLear, a deacon of the Brooklyn Tabernacle, when asked to buy some of the Tabernacle bonds, the other day, replied that he did not think the bonds were worth the price suggested, as it seemed doubtful, very doubtful—yes, he said very—whether the Rev. Dr. De Witt Talmage would ever return from Europe to his charge. The clerical gymnast now draws as large audiences and nearly as much money in England as Sarah Bernhardt, the French actress, but the actress attracts chiefly men and the preacher, women.

Of General Grant and wife in their poverty-stricken days of 1861, a picturesque little story is told. He had gone from Galena to Springfield to get a Captaincy in a regiment then being organized, and in his absence Mrs. Grant went to one of the Galena shops and asked for a barrel of flour on credit, as she had no money. Her request was refused, when a bystander, who was also a merchant, approached and told her she could have anything she wished from his store. This kindness in time of need was never forgotten by Grant, and after he became President he bestowed substantial favors upon this good-hearted and patriotic grocer.

Judge Shock presides over the summit County, Colorado Court now in session at Breckenridge. Last Monday one Charles Jones arose from his seat in the court room and proceeded to reprimand the Judge for some ruling. The Judge ordered the arrest of Jones, but the latter escaped from the room. Later in the day Jones re-entered the court room, walked towards the bench and leveled a Sharp's carbine at the Judge's head. The Judge grabbed the stock of the gun and pushed it aside just in time to save his life, for the charge went crashing—not to the jury, as charges in court generally do—but over Judge Shock's head and made a large rent in the wall. Jones was pinioned by the jury and locked up.

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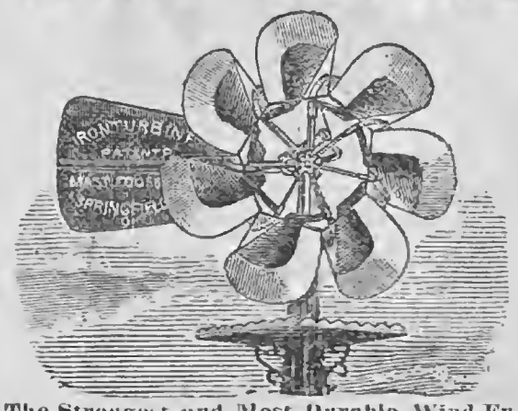

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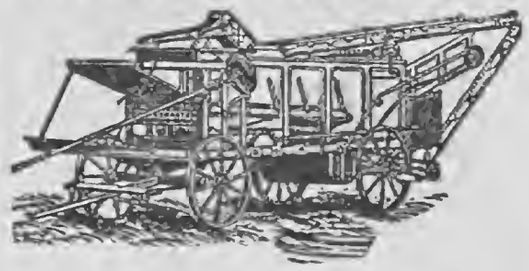

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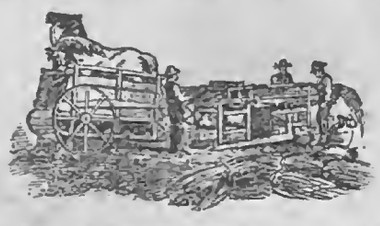

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A GENTLEMAN, being threatened with an infectious fever, said to his little son who in an affectionate mood wished to embrace him, "You mustn't hug me; you'll catch the fever. Willie standing back, looked in amazement upon his papa, who, by-the-way, is a pattern of propriety, and quickly asked, "Why, papa, who did you hug?"

A GRAMMATICAL ERROR.—Colorado has the most delightful climate in the world, and bed-bugs. A mother in Israel residing there requires her granddaughter, a young high school miss, to read her daily some portion of the Good Book. While so engaged recently the young lady snddenly stopped, and exclaimed: "Why, grandma, I declare, here is a grammatical error." The old lady replied: "No matter, darling, kill it and go on."

"ONE kind of a ship I always steer clear of," said an old bachelor sea captain, "and that's courtship; 'cause on that ship there's always two mates and no cap'n."

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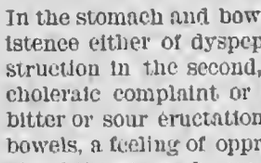

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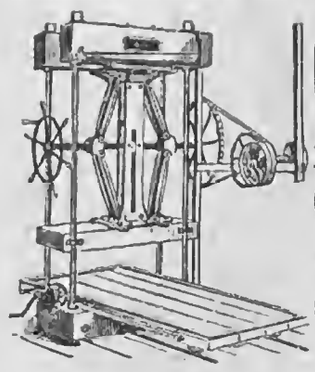

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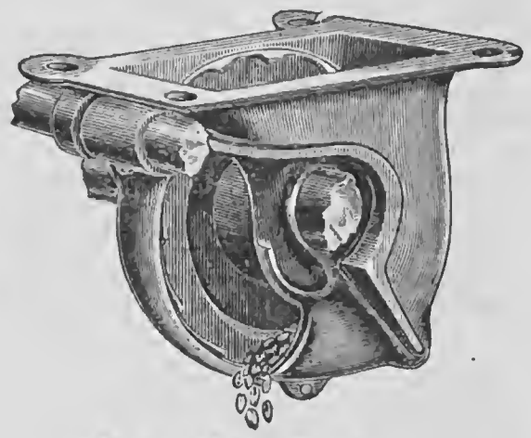

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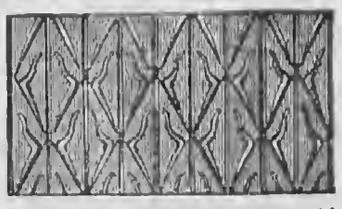

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THE RURAL NEW-YORKER

A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME

VOL. XXXVIII. No. 31.
WHOLE No. 1540.

NEW YORK, AUGUST 2, 1879.

PRICE FIVE CENTS.
$2.00 PER YEAR.

[Entered according to Act of Congress, in the year 1879, by the Rural Publishing Company, in the office of the Librarian of Congress at Washington. — Entered at the Post-Office at New York City, N. Y., as second-class matter.]

Ralph Evans
1490

Floricultural.

IRISES.

WILLIAM FALCONER.

In many old, country gardens the Iris, or Flower-de-Luce, is one of the mainstays, and very showy it is, too, in spring and early summer; but in city and fashionable gardens the dear old Irises are almost forgotten. The brilliance of Pelargoniums, Coleuses, and other paraphernalia of summer, together with the ridiculous vulgarity of houseleek hills, have so corrupted the general taste as to almost erase a liking for our old-fashioned garden hardy flowers. Irises are widely distributed throughout the Northern Hemisphere, and particularly abound in Mediterranean Europe, Northern Africa, the Caucasus, and the mountains of Turkey and Persia; Siberia, Northern China and Japan also add conspicuously to the list, and North America contributes not a few.

From the fact that our Blue Flag and Boston Iris grow wild in damp meadow and marshy lands, we might naturally suppose that wet soil would be indispensable to their well-being; but it is not so, for they grow and flourish in the ordinary garden border; indeed, the European Yellow Flag is quite at home with us, growing in the water alongside of Pond Lilies and pickerel weeds, and also in the flower-beds associated with Pentstemons and Columbines. They grow well in clayey or gravelly land, in open sunny spots, shady corners, or naturalized in half-wild places; but they revel in rich, sandy loam. In planting, keep the root-stocks on the surface; because, if you bury them, in damp, muggy summer weather they are sure to rot off alarmingly.

The Crested Iris of the Alleghanies, Spring Iris of the South, and Dwarf Garden Iris of Europe, are all pretty little plants with bluish flowers, and well fitted as edgings for shrubbery or other borders. Iris Hartwegii is a "new" kind from California; it has cream-colored flowers, is dwarf, hardy, and blossoms copiously in June. The varieties of the German Iris are the commonest in gardens, and many of them are quite handsome. The Pale-blue Iris (pallida) is a showy and noble kind, and the Elder-scented, Variegated Siberian and its varieties, Golden (Monnieri), Grass-leaved, Copper-colored (fulva), Wall (tectorum); Mourning (Susiana), and Yellowish Irises (ochroleuca and flavescens) are all good garden sorts. But the finest yellow-flowered Iris I know of, is I. aurea, a native of the Himalaya Mountains, and now (July 10) in bloom with us; its flowers are a deep golden yellow.

Iris Iberica is a small but uncommonly handsome-flowered species, a native of the Caucasus and the mountains of Armenia and the north of Persia, and a recent, applicable and valued introduction to our gardens. The standards are a very pale purple—almost white—faintly streaked or veined and spotted near the base with a darker hue; and the falls are dull red with tawny streaks, and have an oval, black, velvety blotch in the center of each.

Iris Iberica var. insignis, is one of the varieties of this species, and the subject of the annexed illustration, which originally appeared in the Gardeners' Chronicle. It was found among a batch of roots imported some three years ago by a Plant and Bulb Company, Colchester, England. In this Iris the standards are, in color, lilac-white, veined and thickly spotted throughout with a deeper tint of the same hue. The falls are white, veined with black lines, densely spotted and blotched with reddish-brown.

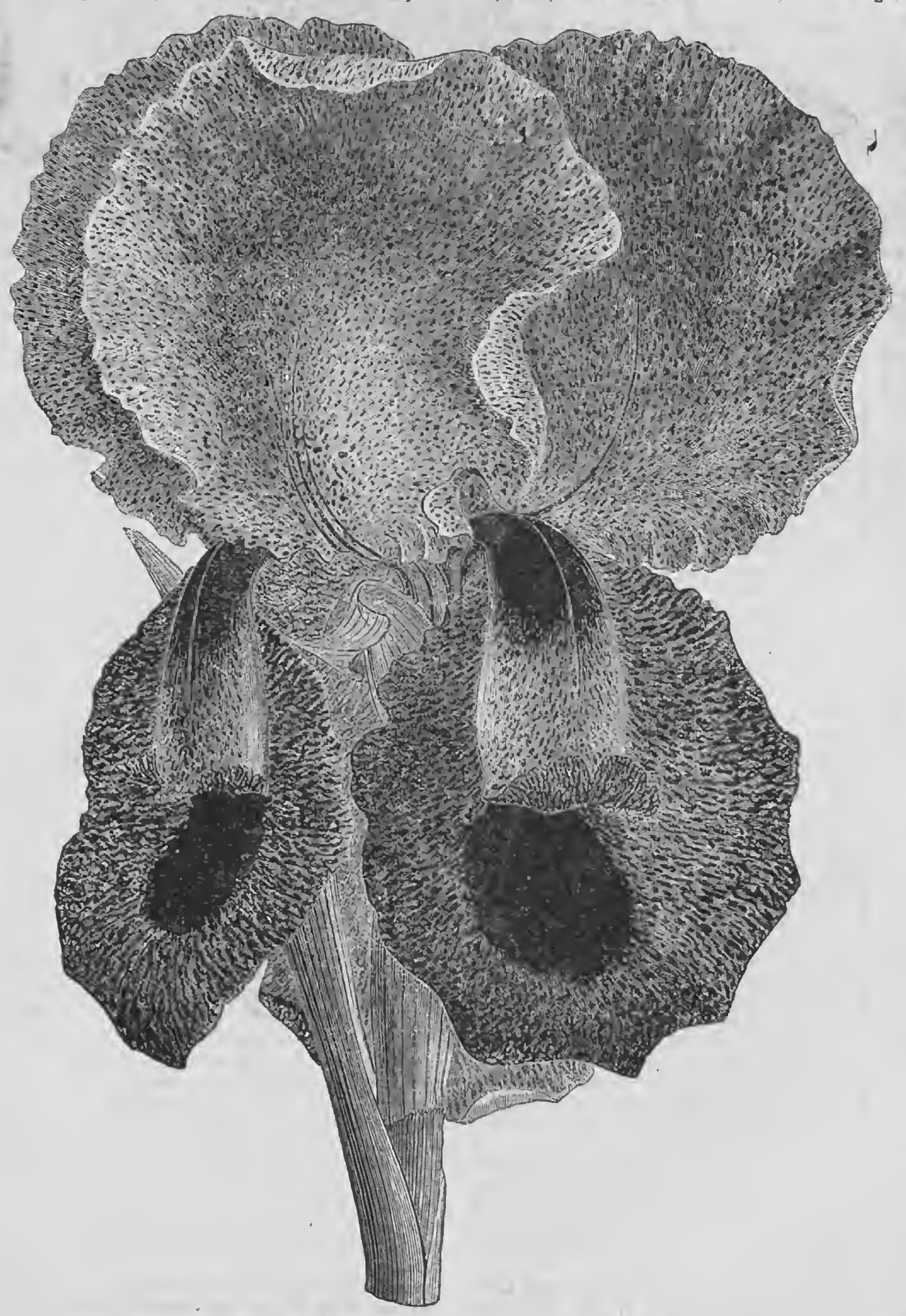
Iris lævigata (Kæmpferi), indigenous to Eastern Siberia, Northern China and Japan, is hardy and thrifty and bears its very deep purple blossoms in June. But the varieties of lævigata that have been recently introduced from Japan, eclipse in size or showiness anything in the way of Irises we ever knew. The flowers are flat, from five to seven inches across, and of every shade of color from the purest white to the deepest purple, and they are also most gaudily variegated—penciled and blotched. These varieties are among the most showy of all known hardy herbaceous plants, and they come into bloom from two to four weeks later than the typical species, than which, also, most of them are far more robust. In the middle of June, lævigata itself was at its best bloom with us, but not one of its varieties that we have got, opened till the first of July, and even now (July 10th), though most of them are in their heydey, some have not yet begun to open: and of all the Irises we possess, except the Yellow Flag, these forms of lævigata are the most thrifty and robust, and certainly copiously floriferous. The bulbous-rooted section, the English and Spanish Irises, for example, are now, by many authorities, separated from the genus Iris, and put by themselves into a new genus, called

Xiphion,

but in this garden we have not changed their generic name, but call them Irises, as we used to. They are a set of little beauties, and all well fitted for window-gardening. In the out-door garden, I. reticulata, for instance, strengthens and multiplies with each succeeding year, whereas others, like I. juncea, Sisyrinchium, and Persica, unless given a suitable position, are apt to become weaker each year or disappear altogether. To treat them successfully, grow them in open, warm nooks and in deep, well-drained, sandy soil. I. Kolpakowskiana (a new species from Turkistan, and the earliest with us), Persica, Caucasica, and reticulata, are among our earliest spring flowers; some, like reticulata and Persica, are deliciously fragrant, whilst others, like the Caucasian and Spanish, are almost scentless. It is not a good plan to deeply mulch-protect them through the winter, as many of them start very early into growth, and would grow under or through the mulching, and become sadly weakened in consequence. After their leaves die down, say about the first of September, I find it a good plan to lift and store the bulbs in pots of dry sand, yes, or in paper bags, for two or three weeks, and in this way prevent the premature fall growth that frequently occurs. For window or pot culture, grow them as you would Hyacinths, Squills, or Tulips; bury the bulbs an inch or two in the soil, and, observing the difference in their flowering periods, guide your practice accordingly. But do not, under any circumstances, submit them to the unnatural barbarity of the water-bottle. When ripe, the seed-vessels of the Gladwyn (I. fœtidissima) burst open and display their bright coral-red "berries," in manner not unlike the coral plant (Erythrina herbacea) of the Gulf coast, and are then gathered by the English to mix with dried grasses, Everlastings and Ferns for winter bouquets. A variegated form of this species is a favorite house plant in Europe, being considerably used for window, vase and balcony gardening.

The root of Iris Florentina (a native of Southern Europe) yields the Orris Root of commerce, which, though possessing medicinal properties, is seldom used except for flavoring purposes. The fluid extract of it is an esteemed perfume for handkerchiefs, eologues, ointments, etc. In Italy alone 400 acres are devoted to the growing of Orris Root. The root of Iris versicolor (our common Blue Flag) has cathartic, alterative and diuretic properties. It is used extensively in eclectic practice as a substitute for mercury. Gerard calls the roots of I. Sisyrinchium "Spanish nuts," and says that they are "eaten at the tables of rich and delicious persons in salads or otherwise;" and Phillips, in his Flora Historica, says: "In Africa the roots of the edulis Iris are esteemed as food after being boiled, and they are eagerly sought in that quarter of the world by the monkeys." In "Adam in Eden," published in 1657, I observe great medicinal properties are ascribed to the Iris; and even Loudon repeats several of them.

[As we have already announced, we have secured a large quantity of seed of the hardy and really beautiful Iris lævigata, described by Mr. Falconer, which will be given to our subscribers in our next seed distribution.—Eds.]



IRIS IBERICA, var. INSIGNIS.

FLORICULTURAL HINTS.

To have Pelargoniums bloom in midwinter, or before, it is necessary to take cuttings now. Any sort of a box, three inches or more deep, filled with sand, will answer for a propagating box. This should be kept moist and exposed to the morning sun. Many cultivate the same old plants for years. But thriftier specimens and more flowers are secured by raising new plants from cuttings every year. Young plants, moreover, take up less room in the house or conservatory; they are more symmetrical, and the leaves are larger and brighter.

All hardy shrubs may now be layered, and strong young plants will be ready for transplanting in the spring.

The Great-panicled Hydrangea (H. paniculata grand.) is now showing its flower-buds. Liquid manure plentifully applied at this time will insure panicles twice the size which would otherwise develop. This plant cannot endure drought. The leaves wilt and the shrub during August puts on a sorrowful look far from pleasing.

Horticultural.

SMALL TALKS AND SMALL FRUITS.

Strawberries.

Now is the time that "pussley" will get ahead of you—especially in the strawberry beds—and other weeds as well as pussley, unless you are on the alert. I find it cheapest to kill all weeds before they are large enough to be seen, in fact before they get above ground, by going over my beds with hoe, rake or cultivator, every week or ten days. This is also quite beneficial to the plants, as it stimulates growth and prevents drought from penetrating the soil. Plants are now making runners rapidly, and if the largest and finest fruit is desired, they should be pinched off as they appear, causing the plants to form large "stools" with mature crowns for fruiting. Should *plants* be desired, it is well to press the small plants about to form roots into the ground slightly, and place clods on the stems to hold them still. This will cause them to root quickly and make large, strong plants, and will pay, particularly if you have something new or rare that you desire to multiply rapidly.

Tie Up the Grape Vines.

Valuable Grape Vines, planted with great care, are often left to take care of themselves at this season of the year—when they need care most. For the first two years a good, stout stake, say six feet long, is all that is necessary for a support. This should be firmly set in the ground *and the vines kept tied to it.* Should other shoots start from the old wood, rub them off and keep lateral shoots pinched back to one or two leaves. Remove all injurious insects by hand, and dust with flour of sulphur should mildew appear.

What a prince among Raspberries is

The Cuthbert.

The other day a fruit-grower remarked to me: "Do you know of any *good,* reliable raspberry for market?" In answer to which I named the Cuthbert. "Well," he questioned, "is it large?" "Yes." "Is it handsome?" "Yes." "O! is it *firm?*" "Yes, very!" "Is it of good flavor?—although that seems to make but little difference now-a-days." "Yes, nearly as good as the Antwerp." "It isn't a good grower and productive, then, is it?" "Yes!" "Well, there! I almost forgot to ask the most *important* question, and I suppose that's the sticking point—Is it hardy?" "YES!" "It is! What *is* the matter with it, then?" To which I was obliged to reply that *that* was just the thing I had been looking for, and although I had fruited it two years, the one I had failed to find. Don't be afraid to

Cut Down the Suckers

of the Raspberries and Blackberries, which are now springing up in great numbers. Leave a few only of the strongest for fruiting, and treat all the rest as weeds. Unless this is attended to, the crop will be small and the berries small and of poor quality. The suckers of some varieties, such as Brandywine, Turner, etc., are their worst weeds, and, unless kept in subjection, render them almost worthless.

July 11, 1879. "MONMOUTH."

THE MARVIN STRAWBERRY.

THE plant I sent to the RURAL EXPERIMENTAL GROUNDS last fall, and which was spoken of in the RURAL of June 28th as an unnamed seedling, was named the Marvin Strawberry, after myself, by the Michigan Pomological Society on June 18th. It was the largest and finest shown at that meeting. People may talk about the Sharpless or any other strawberry, but this berry will outshine them all. I sent some of them to Rochester, New York, in good order. H. MARVIN.

Pomological.

TOO MANY KINDS OF APPLES.

DR. T. H. HOSKINS.

IT is true, as is often said, that those who plant orchards to have apples to sell, are apt to plant too many kinds: In great orchard regions, where everybody has apples, and there is no local sale for the fruit, it would often be better to plant a commercial orchard all of one kind. There are hardly any standard commercial sorts that are annual bearers, except under high culture, and it would be best in such orchards not only not to expect an annual crop, but to pick off all the fruit that sets in the off years, so that insects that attack it may not have a chance to multiply. In that way, the fruit in the bearing years would be much fairer, and a larger proportion of it be marketable as first-class. There is, however, a large class of fruit-growers to whom this rule is not applicable. There are extensive regions in the United States and in Canada, where fruit-growing is not considered profitable, and which depend upon other localities for their supplies. In such regions, there are exceptional spots where fruit does very well, especially in skillful hands, and here the rule of planting few kinds finds its exceptions. The rule, also, of only a few early trees, will often likewise be found not to apply to such orchards. Summer apples will not bear long transportation, and where there is not much local competition, such fruit will often be found to be the most profitable, particularly where well grown and carefully marketed. There are even cases where it pays to make a speciality of summer and early fall apples of choice sorts, grown upon rich land and carefully attended to. In the isolated localities spoken of, it is important to have a supply of fruit every year for market, and therefore such are the places in which to plant not only more kinds, but particularly the annual bearers, giving them the culture that will insure good crops, and by particular care in destroying insects keeping the fruit large and fair.

For a home supply, we, of course, want apples of every season, and we want, too, the high quality not generally found in the most productive commercial sorts. The amateur will find pleasure also in a multiplicity of kinds, and in trying promising new varieties, or varieties not generally grown. Some of our best and most beautiful apples, though productive, are not sorts that bear rough handling, and are therefore unfit for the commercial orchard; but they merit the attention of all growers who regard excellence of quality. Along our northern borders, apple-growing is limited to hardy or so-called "iron-clad" varieties, and here, too, an extensive planting of new kinds is justifiable, indeed necessary, until trial has shown what sorts may be depended upon to furnish good crops of marketable fruit with certainty under the inclemency of such climates. Much can be done by patient experiment to extend the area of fruit culture and give to each locality its special sorts that may, in many cases, continue to be very local as regards successful culture, yet none the less valuable on that account, to the growers. These points all need to be taken into consideration by pomologists and fruit growers, in some cases much more so than they have been.

AN EXPERIMENT WORTH IMITATING.—I have noticed for a number of years past, in this locality, that the bark on many young apple trees was split open in the spring, whether caused by the freezing of the sap, or from some other cause I will not attempt to say; but, whatever the cause, when the warm weather came on, these trees would throw off their bark, if not clear around, on one side of the tree, and the tree was almost sure to die before the summer was over, or if not entirely killed, it became so badly diseased as to ruin its future growth. In a case which I treated the bark was split open the whole length of the body of the tree on one side, and a portion of the way on the other side, so I was almost certain of its death; but, thinking I would make one effort to save it, I cut through the bark, the entire length of the body and on the main limbs, and whether from this treatment or from some other causes, the growth of the tree was never checked, and to-day it is as thrifty a tree as there is on the farm. Now I believe this experiment worth a trial at least, as no harm can result from it in any case.

E. J. B.

Rural Architecture.

AXIOMS IN BARN BUILDING.

C. E. VERNIER.

IN the RURAL of June 28, appeared an article from Mr. W. I. Chamberlain, in defence of a series of previous articles of his, entitled "Axioms in Barn Building." In this last article, he admits the justness of the criticism I ventured to make on his "axioms," in the issue of May 17, but pleads in his own defence that although he knew the axioms were false, except under certain conditions, he had made some mental reservations regarding them which he expected everybody to take for granted, though he did not state them. Furthermore, since one Michigan man foolishly supposed he meant what he said, he infers that all the farmers of Michigan are like his critic in that they do not possess common sense.

He will probably claim the same privilege in regard to this last article, and we shall doubtless learn that his meaning was quite different from his statements. He seems to think my statement that the upright posts of a barn, if doubled in length, need to contain nearly four times (in the example I presented it was over three, but in some cases is even over four times) as much material, only true when they stand without lateral bracing, and not true in any barn frame where "girts" are used.

Although my former statement was made under conditions which do not exist when much trussing is done, still this much is true, as the *girts are put into an ordinary barn they weaken rather than strengthen the upright posts.* Without entering into any general discussion of this, one or two illustrations will show that the post is prevented from bending laterally only in the plane of the frame, and, for a direction at right angles to this, it is as weak as

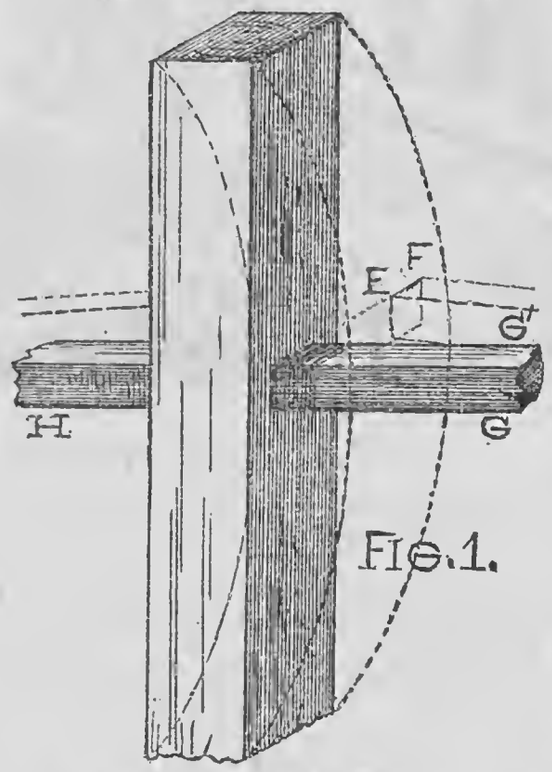


FIG. 1.

though no girts were used. If the girts are pinned into the corner post and do not push against it, they may give it some support laterally in every direction, but to prevent the post from bending outward, they will interpose only the shearing strength of the pins. Unless the side posts are braced with girts from every direction, they are as weak, so far as bending in or out is concerned, as though no girts existed. Again, girts cannot be fastened into a post without weakening it somewhat; if the joints were perfect there would be no weakening, but a perfect joint is impossible, and the joints usually seen are so poorly made, that the upright post is weakened by the whole amount of timber taken out in making the mortise.

Let Fig. 1. represent a portion of an upright post of a barn, and G. H. girts which are let into mortises with the posts. They are usually set so that their faces are flush with that of the post. If a weight is placed on top of the post, it will tend to bend it laterally, the girts will prevent it from being bent towards G. or H. but will exert no force whatever to prevent it from going into the position E. F. for a component if any force acting at right-angles to the force, is nothing. "As the weakest spot must stand the strain" the post will bend as easily as it formerly did, in two out of four directions, and is no stronger than before for that very reason.

In Fig. 2. is shown a corner post. In this post there is nothing to resist the push of the girt E. or the girt F. except the post itself, consequently the girts are a source of weakness rather than of strength to the post. This is also seen from the fact that any tendency of any of the other posts to bend in the plane of the frame, is resisted by the girts; this resistance is transmitted through the girts to the corner post, which must be large enough to

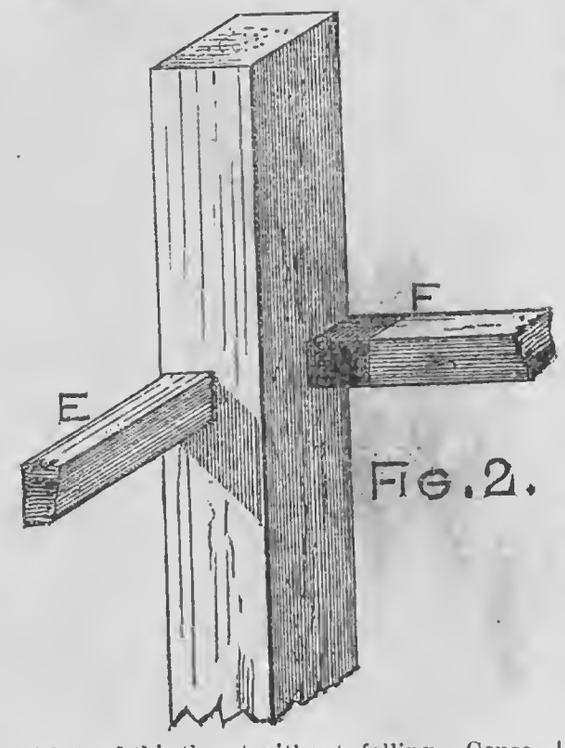


FIG. 2.

withstand this thrust without falling. Consequently it is evident that each post must be constructed of sufficient size to stand all the weight put upon it; otherwise the frame will not possess stability. All that Mr. Chamberlain said in regard to the effect of putting girts in a barn, is hardly true for any barn frame that ever came under my observation; though I do not wish to be understood to say, that it is *not* possible so to brace the upright timbers of a barn, as to make them much stronger.

Mr. Chamberlain makes another plea for his "axioms" from the fact that farmers in Ohio build "Dutch barns," and use timbers many times larger than are necessary, and consequently the barns could be made twice as high or twice as wide without much extra expense. I may say here that though that argument is doubtless a good one in Ohio, it is of no weight whatever in Michigan. So far as my experience is concerned, the farmers of Michigan long ago ceased to build barns with timbers so large that they would not season through, and for some years have built (as a rule) barn frames with timbers somewhat in proportion to the strains that would be thrown on them. The present tendency is to build frames too light rather than too heavy. Again, Mr. Chamberlain speaks of the *tensile* strain *on a post.* I think the usage of this word is probably as original as his use of the word axiom. Greek may sanction it, but the usage of engineers does not.

Lansing, July 3rd 1879.

Dairy Husbandry.

HISTORY OF A POOR FARM.—No. 13.

A Young Lady's Opinion of Some Matters in Regard to Milking, Etc.

IT was a beautiful evening in June; the scent of the newly-mown hay from hundreds of fields around pervaded the air, and here and there one could still hear the rattle of the mowing machines of farmers who chose to work in the cool evening rather than under the burning midday sun. We had promised to inspect Miss Martin's dairy, and that young lady welcomed us to seats on the pleasant porch, shaded with sweet-scented Honeysuckles and climbing Roses and furnished with seats and tables upon which were displayed bowls of strawberries and sweet cream. What a restful occasion it is when, after a day's work in the field, the farmer and his family can gather in the evening and spend an hour or two in chatting, reading, or amusement, surrounded with all those circumstances which make country life desirable! Here, on the verdant lawn spread before us, the little Martins romped and enjoyed themselves—their oldest sister, who filled the place of a lost mother to them, keeping a watchful eye upon them while she gracefully entertained her guests. After a short rest we proposed to visit the dairy.

"First you must see my cows and calves," said Miss Martin. The cows were turned out for the night in a yard well littered with straw and having an open shed at one side, in which they might seek shelter during heavy rains. The shed was furnished with a feed-rack and ties, by which the cows could be fastened to be milked, when desirable.

"I would rather do the milking in the shed in the summer," remarked Miss Martin; "Tom cleans it out and litters it down well so that everything is as clean as a new pin. Here is my pet cow, Jenny," going up to a grade Jersey, which rose as she approached and licked the hand held out to her. "This was the first calf I ever owned, and no one has milked Jenny but myself. I milk four of them; Tom milks four and Hannah milks two. We each milk the same cows; if we were to change cows we should not get so much milk by several quarts. I think it a bad plan to change milkers." We followed our hostess to a yard near by, with a number of pens opening into it. The pens had half-doors, and the upper halves were opened. Here were a number of calves and yearlings preparing for the dairy. Everything was clean; the yard and pens were well bedded with clean straw, and the manure was neatly heaped in a pile in the center of the yard. The calves were evidently pets, and each came to the door and reached up its head to be stroked by its mistress.

"I have fed all these calves," said Miss Martin, "and with Tom's help to carry milk and wheel the milk cart, I can give the whole their milk in less than half an hour. All our calves have skimmed milk until they are four months old, and Tom gives them each a little mess of grass and a handful of bran or meal when they come in at night. Each calf has a separate pen. That prevents them from learning tricks, such as sucking each other's ears, which I don't like to see. Here is the stable. I like stanchions the best; the cows are much cleaner in them than when fastened any other way. I want father to build a new cow stable with separate pens, one for each cow. It would be much more convenient to milk in."

"How do you manage your milking?" I asked.

"We have these stools" (plain three-legged ones) "and milk into tin pails. The milk is strained through a second strainer into the deep pails, and these are taken to the milk-house in a small cart, which Tom has for that purpose. He can take all the milk at once in that, and it saves several trips back and forth, and I don't care about carrying two pails with 30 pounds of milk in each, if I can help it. Each cow's milk is weighed on those scales, which hang there, and the weight is marked on the slate; I copy it once a week into my

book, in which every cow has an account, showing what she milks during the season.

"Here is the milk-house." This was a building about 12 feet square. In the center was a spring, which filled a pool about four feet square, and lined with clean red bricks laid in cement. A step around the pool enabled one to reach the deep cans set in it, which were submerged to within two inches of the top. A cover of wire ganze protected the top of each pail from dust or flies. A tier of shelves ran around the building, upon which skimmers, spare pails, etc., were ranged. A thermometer, hung in the pool, marked 50 degrees; the constant stream flowing out of the pool kept it at that low temperature. An ice-box and a Cooley creamery completed the furniture. A noble black-walnut tree shaded the milk-house and covered it with its sweeping branches. Within a few steps was the dairy-house. This was a building about 24 feet long and 16 feet wide. The door opened into a wash-room, in which were a pump, a sink and a table.

"I don't like to have any slopping in my dairy, and I do all my churning and washing of pans and pails here," said Miss Martin. "Brother Tom helps me churn and our girl, Hannah, helps me wash the pans. Here is my butter-room."

We stepped down about four steps into an apartment with a blue-flag floor. There was a stone bench around three sides, upon which stood a quantity of small stone-ware jars and small wooden pails filled with butter. A table in the middle was made of a large slab of blue-stone resting upon four brick pillars. Upon this slab was the last churning of butter still in the bowl, awaiting the final mixing; a jar of salt and a pair of scales were also upon the table. A thermometer hung upon the smoothly plastered wall, and marked 60 degrees.

"This is a unique dairy," I remarked.

"I suppose it is," replied Miss Martin. "I got the idea from a French work on dairying by Mons. Pourian, and I persuaded father to let me have it it made in this way. M. Pourian thinks that butter absorbs an odor from the floor when it rests upon it, and advises that it should be kept at least 18 inches above it on a stone bench. I like the arrangement very much. We have a drain in that corner, and, if we wish, we can put a hose on the pump in the wash room and wash the stone floor and benches with cold water from the spring. Tom generally does that on Saturday afternoon, and the water runs off and the floor can be dried very quickly, by opening the window and the ventilator in the ceiling. The window is on the north side and we have a ganze screen in it and a tight shutter which can be closed and opened by this handle, without going outside or opening the window."

"Where do you send your butter for sale?" I asked.

"The butter is put up into small jars and white-oak pails, and is sent to New York in boxes once a week. Last week we sent 16, six-pound pails. I get 35 cents a pound for it."

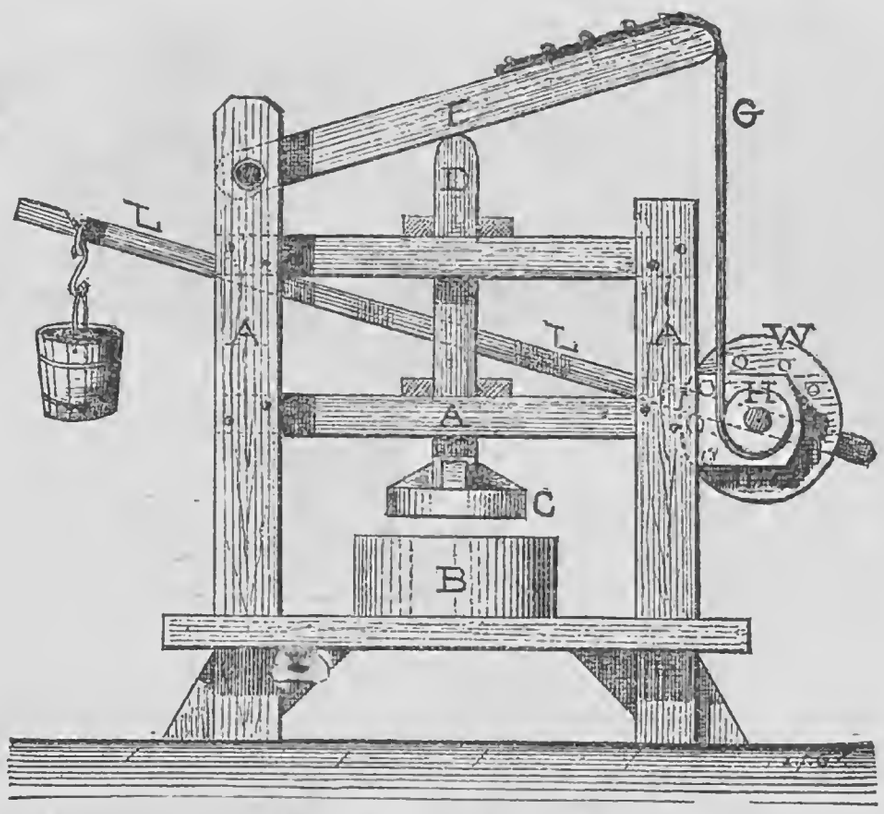
"Mary has a good thing in her dairy, I can tell you," said Mr. Martin. "I consider 25 cents a pound a fair price for butter when all these conveniences are supplied, so we agreed that she should look after the dairy; manage it her own way; and pay me 25 cents a pound for all she makes, and pocket the difference. She gets 35 cents a pound and sells all she can make and wants more cows; so she clears $10 a week for herself; she is satisfied, so am I, and I don't know as anybody has any cause to grumble. She is a good manager and I don't see how she gets along with so little fuss, but she does, and I never yet heard her say she had no time for anything, and never saw her in a hurry. Our cows are grade Jerseys; I make butter; you make milk; and your Ayrshires may suit you, but my grade Jerseys suit my purpose very well. If there is a cow that is the best for the butter dairy, I think it is a half-bred Jersey. A pure-bred may be better, but it would'nt pay to give $250 or $300 for a cow. My whole 12 would not pay for two of them, and we average eight pounds of butter a week, and some will yield 12 when fresh."

By this time we had returned to the porch or rather the old folks were there, the younger were lingering behind and taking their time.

"Now" said Mr. Martin "what do you think of it? We read a great deal about work being disagreeable, but there are people who make work of their business, and others who don't seem to find any trouble about it. As to work being degrading, that is simply bosh. With some it is disagreeable, no doubt; but it seems to me that it is a necessity that all should do some work; and those who don't work, simply live on those who do. Work is not antagonistic to the highest culture in man or woman. Drudgery, I admit, is a hardship and may break the spirit of any person. But no educated person need be a drudge. The drudge cannot rise above his place. He is held there for want of intelligence and ability to rise above it. There are some who make drudgery of their work because they cannot ease it by intelligent management. Brains do more than the hands. I would have every girl and woman take her share of the world's work. We have good old authority for it. When Solomon described a woman endowed with all the virtues, he said: 'She worketh willingly with her hands; she also riseth early, and giveth meat to her household; she layeth her hands to the spindle and her hands hold the distaff; she is not afraid of the snow, for her household is clothed with scarlet; her clothing is silk and purple; she looketh well to the ways of her household and eateth not the bread of idleness.' There is the whole subject in a nutshell. She worked industriously, dressed well and was happy."

In the mean time Fred had been putting many questions to Miss Martin and Tom about their ways of dairying, the pith of the replies being as follows: The milk having been taken in the deep pails to the pool, is there set for 36 hours, when it is skimmed and the cream is set to ripen in the creamery for one day. It is then taken to the dairy room and kept there one day, when it is churned. It is then at a temperature of 60 degrees. As soon as the butter comes, sufficient ice-cold water is thrown in to harden it, and it is then washed thoroughly from the buttermilk, and weighed; salt at the rate of one ounce to the pound is then worked in and the butter is set away in the dairy-room for 24 hours, when it is reworked and packed in small jars or pails, as may be required by the customers. Some like jars, and some prefer pails. On the whole, the jars are better than the pails, as they do not shrink, and Tom is not called on to replace hoops occasionally. Some coloring is used to bring the shade to the proper tint. Jersey butter sometimes requires coloring as much as that of other cows. Fred remarked that they nearly all do it in the fancy dairies. Miss Martin was confident that the feed had considerable influence on the color and quality of butter, and preferred to have the cows supplied with wheat middlings, bran, and corn meal. The butter came solid and hard and of good flavor in the hottest weather. Fifty pounds of ice daily will keep a three-can Cooley creamery at 40 degrees; part of the milk is set in the creamery so as to test the yield of butter. The cream rises completely in 24 hours and the milk is sweet for the calves. So far there has been no difference to note in the quantity of butter from the pool or the creamery; but the more rapid rising of the cream is a great convenience. Miss Martin was very sure that she would not relinquish her dairy business for a good round sum of money. By-and-by dairy matters were exhausted, and when the conversation changed to subjects not of general interest, I bade Mr. Martin good-bye and returned homewards.

A HOME-MADE CHEESE PRESS.



A HOME-MADE CHEESE PRESS.

The above sketch represents a cheese press, all the materials for which can be found upon the farm, and which possesses some points of superiority over the best screw press. A, A, A, show the frame of the press which should be made strong and heavy. It cannot well be made too strong, and the dimensions are left to the convenience of the builder. B. is the cheese hoop; C, the follower, or that which presses upon the same in the hoop. Attached to C is an upright, four or five inches square, sliding through holes in the cross pieces of the frame. At the top it is rounded, as shown. Bearing on this is the lever E, pivoted at F. At the other end is very securely fastened a stout strap of leather G—an old harness tug—the other end of the strap being fastened on the axle H, four inches in diameter. This axle turns in two stout pieces only the farther one is shown—framed out from A. At the back end of axle, and turning with it, is a wheel, W, 15 inches in diameter, made out of two-inch plank, on face of which are a number of wooden pins four inches long. A lever, L, is passed loosely through such of these pins as will hold the lever in about the position shown in the sketch, when the weight may be hung at the upper end as shown, and a great pressure be brought to bear upon the cheese, and that too with very little manual labor. By using a pail and stones for weight the pressure may be nicely regulated. It will be seen that the leverage is double and very great, but may be made as small as desirable. WM. R. BROOKS.

Ontario Co., N. Y.

Farm Economy.

SELF-RELIANCE IN FARMING.

PROFESSOR E. W. STEWART.

PROBABLY no class prides itself more upon practical knowledge than the farming class. They never cease to intimate that many of the so-called improvements in agriculture are not founded upon a practical basis, but rest merely on plausible theory. Theorists are held in the same estimation as vagarists. Farmers require everything to be worked out in practice before they place value upon it. And with a class claiming to be so intensely practical, ought we not to expect great independence of judgment—that they would work out every part of their business in the most self-reliant way—basing their conclusions upon all the circumstances affecting the business? This would be a most favorable conclusion for this great industry, if the farming class did really decide everything upon independent judgment.

But when we study the commercial operations of farmers, very little self-reliance is found. Take as an example their dealings in factory associations. Their ideas of handling dairy products are often very crude, and likely to lead to losses from the want of prompt action. Some factory managers, finding it difficult to manage the sales with so many discordant advisers, seek to purchase the milk of their patrons so as to have the control of the the product. But they are seldom able to do this, although they offer a price higher than the market is likely to warrant, thus risking a part of the price of manufacture, because the average dairy farmer does not study the market attentively enough to form a judgment upon the real value of milk. In other words, he does not attempt to form an independent judgment upon the value of his own commodity, but thinks the owner of the factory has some superior knowledge which will enable him to speculate upon his milk, and refuses the offer. I hear of a number of cases, in Erie and other counties of New York, where offers of 60 cents per 100 pounds of milk were freely made in early spring, but nearly all the patrons rejected the offer, preferring to take their chances of dividends. This offer was equal to an average of 7½ cents for cheese during the whole season, quite as high a price as any of the best judges believed it would bring; and much higher than now seems probable. Here the dairyman has all the means of forming a judgment upon the question, which anybody possesses. The reports of the dairy markets are all open to him, but he neglects to study them, so as to be able to estimate the probable value of milk. He leaves this matter, so important to his own interest, to the party whom he thinks will determine it for his own advantage and not that of the dairyman. How far this is from any proper self-reliance, how far from such practical knowledge of his vocation as the farmer needs! How long would the mercantile class be successful with such indifference to its own business? Would it be possible for the cotton manufacturer to succeed without a closer estimate of all the elements of his business?

But if we examine his keeping of accounts with the factory, we shall be still more surprised at his absolute dependence upon the factory manager. Three-fourths of all the patrons of factories do not even take the trouble to keep any account of the milk delivered. Instead of studying all the elements required for a full understanding of the business of dairying, they keep no account of the separate yield of each cow, or of the whole yield of the herd; and if asked the average yield of their cows, not one in twenty can answer. If asked the product per acre of grain, or weight of hay per acre, they are equally unable to give any accurate information on the subject. Is not this a sufficient explanation of the comparatively slow progress of agriculture? The farmer, instead of studying practically such details of his business as will render him competent to judge of the commercial value of his products, leaves his interests almost wholly in the hands of the middle-man, and then complains that farming does not pay. What other business would pay under the same circumstances?

This is a plain statement of the manner in which the great majority of farmers carry on their business. Does it not show that the farmer sadly needs a more practical education in his business, and that self-reliance is one of the least of his virtues?

MONEY-MAKING MEN AND WOMEN.

MERCHANTS and manufacturers who have made money and become wealthy have done so by having something good to sell and by continuing to sell such articles as will give satisfaction. Farmers can make money by adopting the same rule of always having something good to sell and by selling such things as will please the purchaser. The same necessity exists that a farmer should understand his business as that a merchant should understand his, and there is very little chance for a farmer to make money who has to employ others to buy and sell for him and who has, all the time, to be asking advice of neighbors. How would it look for a manufacturer to be obliged to find out through others what to make, or for a merchant to seek counsel of other merchants.

A genuinely clever, business-like merchant ascertains what suits his customers, and procures those styles of goods; and so it is with a money-making farmer—he studies the state of the market and finds what kind of animals sell for the most money, when everything has been reckoned up and the cost of food and attendance has been deducted; and as some kinds of farming stock require but little attendance, and yet sell at a high figure, that is the sort any shrewd, wide-awake farmer will breed. Now, a merchant or store-keeper should always deal in such goods as will not be left on his hands as so much dead stock. There are, however, some who every year have such a quantity unsold that at last the things have to be marked down to such a low figure that the loss incurred on them is serious; and if readers of this will mentally cast their eyes around, they will readily see men who, in agriculture, are making the same mistake, for they have on their farms every year some kind of stock which cannot be sold at a price high enough to pay for the cost of producing it. Like the store-keeper who has gained by a portion of his stock and lost all the profits on account of his unsalable wares, so these farmers, by keeping on hand inferior animals, which have to be sold at a loss, lose more than was gained by the best sales.

Good judgment is lacking in such cases, not only in buying and keeping second and third-rate stock, but in the management of it. Nothing can be more absurd than for a man to buy up or breed a low-priced set of animals, and think because they are in his hands they will be worth more than in another man's. It is perfectly ridiculous for any man to suppose his name alone will be sufficient to enhance the worth of what he has to sell; for his name, or any one's, is of no use till he has distinguished himself by proving his judgment in possessing choice animals.

In all cases where a man or woman makes money, a uniformly good system is adhered to; for there never was any money made, and never will be, by any one who is all the while changing his stock, and having first one and then another man in charge of different parts of his business. Agriculture requires system, and it will not do to be hot one day and cold another about anything. To use a common, homely expression—farming cannot succeed when there is any "fooling" about it. There must be a good system decided on, and then "stuck to," under all common circumstances to secure success in farming as well as in all other kinds of business. G. G.

Farm Topics.

THE TRUTH ABOUT IT.

[The object of articles under this heading is not so much to deal with "humbugs" as with the many unconscious errors that creep into the methods of daily country routine life.—Eds.]

DOES INSURANCE AGAINST FIRE COST TOO MUCH?

Without doubt it does. Notwithstanding the fact that we are constantly seeing companies retiring from the business because it doesn't pay, it is still true that the public at large pays more for insurance than it could be afforded for. We are pointed to the risk assumed; we in return point to the dividends declared. A president of a New York company told me to-day that notwithstanding the heavy losses sustained by the great fires of Chicago and Boston—which at that time seriously threatened the continued existence of the company—the average dividends had been 8½ per cent. since the formation of the company, some twenty-five or more years ago. Another company, the twenty-fifth anniversary of whose organization was celebrated last fall by the directors and their friends, who ate a Delmonico dinner at the expense of the stockholders, boasts, we are told, of an average of fully 14 per cent. dividends during its whole existence. And these are not exceptional cases. I admit that insurance stock should pay large dividends—10 per cent. in expectancy, and all the risk, is not really so good for the investor as six or seven per cent. on a sound bond and mortgage.

But we are sure fair dividends can be made and still insurance be furnished for a less rate than that charged at present. The trouble is, it costs too much to run the business. At least one-third of all the money received for premiums in New York, is expended in paying the running expenses of the companies. This is too much. In the first place, too high salaries are paid; expenses are not economized. I have in mind one company whose capital was less than $200,000. Its president and secretary received $15,000 a year, beside a certain amount charged to expenses allowed by the directors for the entertainment of visitors from abroad, of which no items were rendered. Moreover, an agency for an out-of-town company was kept at this office, not a penny of the profits of which ever reached the stockholders. If complaint was ever made, the dividend account was pointed to, with the query "Ought you not to be satisfied with that?" The insured pay the difference.

There are too many insurance offices, with their managers' clubs, etc., to be supported. In New York alone are sixty-five companies, whose capital aggregates less than $14,000,000, or a little over $200,000 each. Now, suppose these sixty-five companies were consolidated into fifteen, what would be the saving in the expense of their management? In the first place, there are fifty presidents and fifty secretaries less to salary. The clerical force would not be reduced in proportion, but it could be largely curtailed. Rents, stationery, and every item of expense would be reduced, and the same amount of business done at probably one-quarter of what it costs now. The stockholders could have their usual dividends and the savings be applied to the reduction of rates of insurance.

Local companies are complaining bitterly because foreign institutions come here and cut down rates. They can afford it. They have large capital and proportionably small expenses.

The truth about it is that these little companies are usually gotten up by somebody to secure a nice paying position for himself and his friends. Examine closely into the matter and you will find them, to a great extent, family affairs or governed by a ring for its own interests. L. A. R.

Field Crops.

NOTES FROM RURAL FARM.

Pearl Millet.

It is now the 23d of July. Pearl Millet averages less than 10 inches in hight, and it requires a passing amount of faith to believe that it can still be cut four times (as some distinguished writers have asserted) before frost. We have faith that our plants will attain an average hight of eight feet or more, because we tested it thoroughly last year. But we do not believe that it can, in this climate, be cut advantageously more than twice. The disposition to exaggerate the value of new plants by those who have a hand in their introduction or dissemination is greatly to be deprecated. In the end, those who sell the seeds or plants and those who, with insufficient knowledge, publish inaccurate accounts of their good traits, are alike injured with those who are induced to purchase the seeds and cultivate them. Alongside of our Millet is a plot of

Doura.

There are several varieties of this, which are distinctly marked. Some scarcely ever produce a sucker, but develop a single tall, heavy stem, with very broad leaves somewhat clustered at the top. If these be cut off at any time, that is the end of growth. But the variety of which we speak tillers remarkably, and, when cut off, at once continues to grow as if it suffered no check in consequence. Now, while Pearl Millet is, as we have stated, not over 10 inches in hight, this is three feet high and each plant, on an average, has at least six stalks. We are cutting it from time to time, so as to be able to report later how many times it may be cut and how much green food it may thus be made to produce per acre.

Beauty of Hebron.

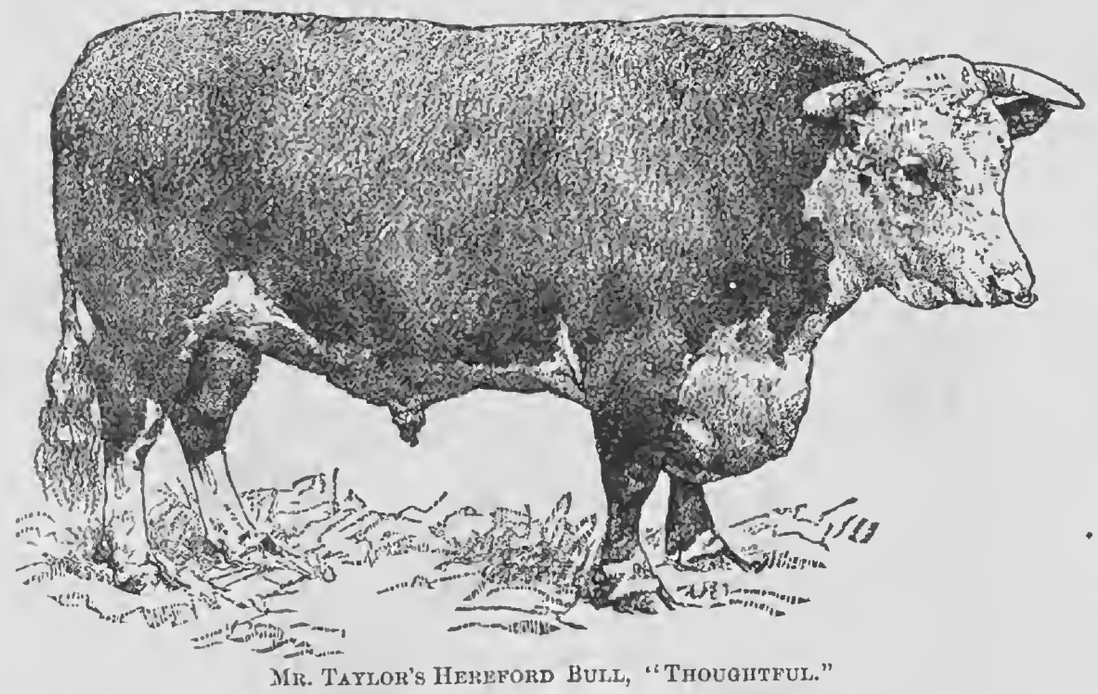
We are more than ever pleased with this variety. Last year we tested it beside Early Rose, and found it a few days earlier. This year we have about a quarter of an acre of each, but the Beauty of Hebron was planted 10 days later. The yield, so far as can be guessed at from digging a hill here and there for family use, will be more than one-third greater than that of Early Rose. Of course, we shall measure the two yields and report definitely at the proper time.

Oats.

Among seven sorts of oats tested this season, we have reason to think very highly of two new sorts called "Mold's Black Tartarian" and "Challenge." The first bears the heaviest and most compact panicle as well as the heaviest straw of any variety we have ever raised, and our neighbors pronounce the same opinion as to their experience. We may have something further to say of this variety that will especially interest our farmer readers. Our main crop of oats has this season been the largest we have ever raised. The field was broken up seven years ago, manured with bone flour, sown to rye and seeded to timothy and clover, in which it was kept until last year, when corn was planted, with Mapes's corn manure in the hill only. This spring we sowed, at the rate of 600 lbs. per acre, a special concentrated fertilizer for oats, with the result as above stated. The yield per acre will be given as soon as we determine it. The field was cut the 15th inst.

Blunt's Corn.

We have just visited a plot of this corn, which was entered for the Rural premium. It was planted in garden soil and manured with fish, two to a hill of three seeds. Some of the stalks are now 10 feet high and most of them over eight. The severe drought which at present prevails is curling the leaf, and, of course, interferes with the setting of ears. Few stalks as yet show the tassel. Upon one of these we counted five sets. Upon others there was no sign of a set—the tall, thick stalks looking decidedly barren. The interest manifested in this corn hereabouts at this time runs high, and we hope that the *finale* will not disappoint the "Great Expectations" that have been raised.



Mr. Taylor's Hereford Bull, "Thoughtful."

Miscellaneous.

WHAT OTHERS SAY.

Mixed Grasses.—An editorial in the New York Times says that the common grass, timothy, has usurped too high a place in the opinion of farmers. It may be that there are other grasses that equally deserve a place in our practice. As a rule, mixed sowings, whether of grain or of grass, are the most productive. So a mixture of grasses will produce more pasture and more hay than any single grass. This is seen in the usual mixture of timothy and clover, which yields a double crop. If orchard-grass is added to the mixture, a still further gain is made. If blue-grass is added, bottom growth, which is most valuable for fall pasture, is secured. The following mixture, viz., six pounds of timothy, six pounds of red clover, 20 pounds of orchard-grass and 20 pounds of Kentucky blue-grass, will give three cuttings or crops in one season. It has done so with the writer. The first cutting was made on the 10th of May; the second is in progress at the present writing (July 10), and a third will undoubtedly be made in September. The first cutting consisted of orchard-grass and clover; the timothy had not then reached a sufficient hight; the second cutting consists of timothy and clover, with a thick bottom of broad leaves of orchard-grass; the third crop has heretofore been, and will be, pasture, and will consist mainly of blue-grass, orchard-grass and clover. A liberal top-dressing of coarse manure will make up for close pasturing, and will protect the sod during the winter and hasten growth in the spring.

Firming.—S. M. Carr says that last spring he planted four rows of potatoes, and on every piece dropped he stepped, bearing his whole weight. Those rows are finer in appearance than any others he has seen this year.—*The Husbandman.*

Pear Blight.—No unfailing remedy says the Husbandman, has been discovered, although there is hope that a course of treatment employed by Mr. M. H. Wells, of Elmira, with apparent success, may prove effective in general practice. He syringes the whole top of an affected tree with a weak solution of potash, and he has made so many experiments resulting in cures, even where the disease has been well established, that he has no doubt of the efficacy of the treatment. By way of testing the virtue of the application he has used it on leaves partly blighted, with the surprising effect that the disease has been arrested at the precise line of its progress where the solution has been applied, the healthy portions of the leaves remaining thereafter wholly free from blight.

Insects.—The Country Gentleman, in "Timely Topics," says that an efficient mode for clearing destructive insects from small crops might be more extensively and profitably resorted to in the employment of boys to gather them, paying for the hundred or measure. Those who have a quick eye and ready fingers will reach them more easily and do more than men. Try the experiment early in the season, when "potato bugs" appear, and give them a specified sum per quart. In the same way they will keep clear a patch of cucumbers or squashes, using a pan with a thin coat of molasses in the bottom, to secure their prey. We discovered, many years ago, that the white grub was destroying a valuable plantation of seedling Pears. Fifty cents per hundred to a few young boys brought them in, and as the insects became scarce a double and quadruple price produced a wild excitement among the little fellows, and every straggler was cleared. The sum paid was small; the saving of the crop was of great value. The same remedy may now be applied to the green cabbage worm, and when they are not numerous, the riddance is easy.

Of the Curculio, the writer says that the crop of plums which set on the forty trees in his small orchard was observed this season to be quite moderate, and as soon as the calyx had fallen from the young fruit, the curculios began their work in vast numbers. The jarring system was promptly commenced, and in the first two days over 1,200 insects were caught and destroyed. For some days, and while they continued in large numbers, the trees were examined twice a day, and afterward only once a day. The work was continued thirty days, and over 4,100 in all were caught. The result of this close vigilance and constant work is a fair crop of plums, and the cost of saving them only fifteen hours in the aggregate, or not five cents per tree.

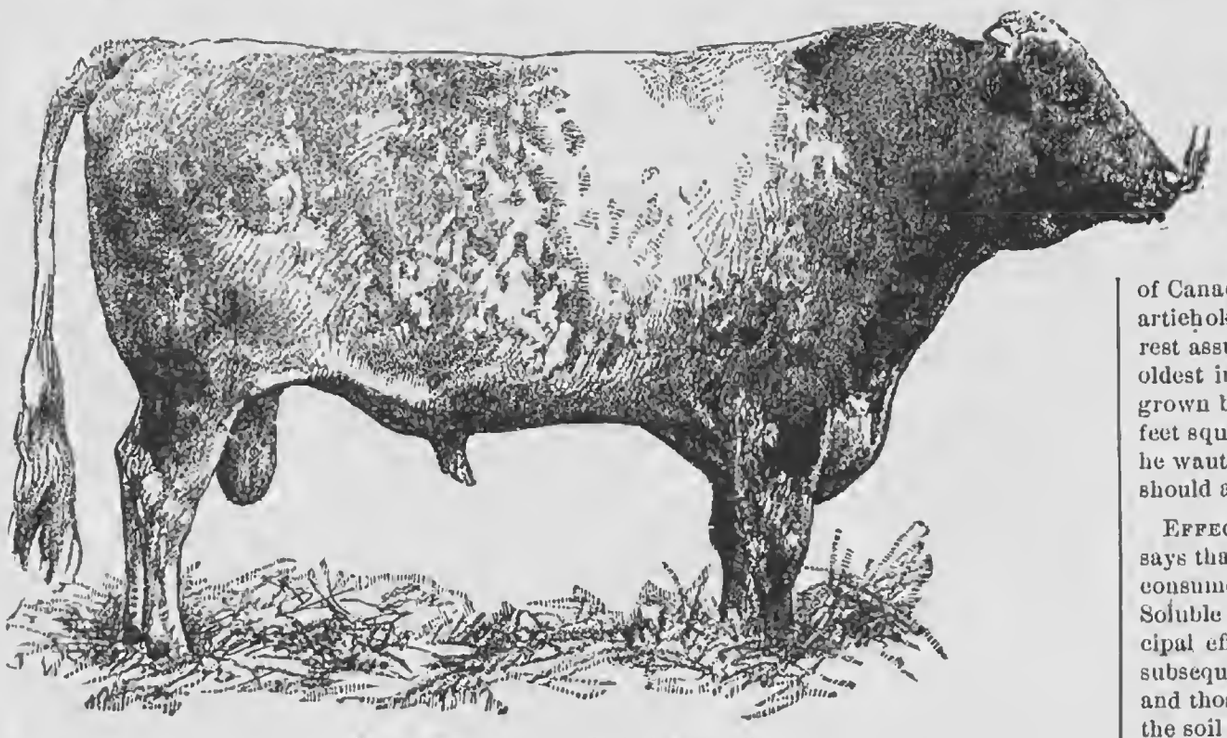
Renovating a Poor Farm.—Our friend Mr. M. B. Batcham speaks of our esteemed contributor, Mr. W. I. Chamberlain, in the Ohio Farmer, as follows: "He was a graduate and tutor in Hudson College, but some ten years ago he purchased an old clay farm of about one hundred acres, a mile or two east of the village; it had been long run as a dairy farm, and was considered too poor to produce much else than light crops of grass. Mr. C. resolved to attempt its renovation as fast as it could be done by dint of labor and intelligence. At first the gross income from the farm was only about five hundred dollars annually, and the expenses exceeded that sum; but for several years past the products of the farm have been from three to four thousand dollars annually, and the cash value of the land has more than doubled.

I have not time to speak of all the methods by which this renovation has been accomplished. Suffice it to say it has not been by large expenditure of money, but chiefly by the use of educated brains and persevering industry. The chief factors in the work, I may say, are thorough drainage along with judicious saving and use of manure. At first, he was told that wheat, potatoes and apples could not be grown to advantage on such clay lands; but for several years past he has grown the best crops of these in the township, and last year, it is believed, he had the best ten acres of wheat in the whole State, on one of his underdrained fields—the yield being over fifty bushels per acre."

Artichokes.—A Country Gentleman correspondent says that it took him five years to exterminate them from the ground, but by so doing it made this, and the peach trees on it, the best trees and ground on the estate. He can eradicate five crops of Canada thistles easier than one of Jerusalem artichokes. Put them once into the ground, and rest assured they will eventually become the oldest inhabitant. He recommends them to be grown by every dyspeptic individual, as twenty feet square of them will give him all the work he wants in trying to root them out. Farmers should avoid them as they would the plague.

Effect of Manures.—Dr. R. Warrington says that no dressing of manure is completely consumed by the crop to which it is applied. Soluble and active manures produce their principal effect at once, and are of little benefit to subsequent crops. Manures sparingly soluble, and those which must suffer decomposition in the soil before they are of service to the plant, as bones and farmyard manure, will on the contrary produce an effect over many years. Farmers have a prejudice in favor of the latter class of manures, but it is clear that the quickest return for capital invested is afforded by the former class.

Gen. Diven says that he has raised turnips



Lord Rathdonnell's "Anchor."

with corn many years and has never had reason to suppose the corn crop was at all lessened by the turnips, for really they are not an interference. They make nearly all their growth after the corn is ripe.—*Elmira Farmers' Club.*

Hot Weather.—Beware of drinking too much cold water while you are working in the sun, and do not plunge suddenly into a cold bath."—*Weekly N. Y. Herald.*

To Plaster a Cistern.—It is of importance that a cistern should be properly plastered in order to make it tight and lasting. A correspondent gives the following directions: Procure one barrel of water-lime as new as possible, and two barrels of clean sand without gravel or small stones; in a long box of a convenient size mix one part of lime to two parts of sand while dry. When thoroughly mixed, pour in water till it is thin enough to spread, and spread it evenly over the whole cistern. This done, close up the cistern and leave it a week or two to dry. Then mix another pailful of lime with two pailfuls of sand, as before, but make it thin enough to be put on with a whitewash brush; put on this last coat and the job is done.

Remedy for the Squash Borer.—If the squash vines suffer from the borer it is recommended to dig a trench a few inches deep, for each vine, and cover it up, of course letting the leaves reach above the earth. The borer destroys the plant near the root, but vines thus buried. will send out roots along the stalk, and there will be squashes in spite of the pest.

Industrial Societies.

EUROPEAN CORRESPONDENCE.

The Great Agricultural Show at Kilburn.

London, July 11.

The largest and finest show ever held by the Royal Agricultural Society of England during its existence of forty-one years, has just ended in the saddest failure that has tarnished its records. In the number and character of its exhibits the display of agricultural products, tools and machinery, that has just closed at Kilburn, far transcends any similar exhibition hitherto gotten up in any country; but in comparison with the high expections entertained of its instructive and financial results, no like undertaking has ever turned out such a miserable fiasco. At the lowest estimate 500,000 instruction and pleasure-seeking visitors were expected to be present; less than 200,000 attended; a considerable addition to the funds of the Society was confidently counted upon, it will be fortunate if its reserve surplus will be sufficient to meet the heavy deficit of at least £15,000 incurred. It can hardly be said that this woeful disappointment was due to mismanagement of any sort; if any fault on the part of the managers contributed to the mishap, it was mainly a want of foresight in estimating the results, in the way of locomotion, which a combination of heavy rains, heavy land and heavy traffic must bring about.

Seventeen years ago, when the society held its only previous metropolitan show at Battersea Park, on the Surrey side of the Thames, a money loss of £4,000 was incurred, although there were 125,000 paying visitors; and in view of this experience and of the risk of a slim attendance, that might be inferred from the extreme uncertainty of the weather in this country during the present year, there might have been a trifle of imprudence in the Society's incurring a liability for about £40,000 ere the show opened, although only about £8,000 had been collected in aid of the enterprise from the city of London and subscribers elsewhere. The spirit that animated the managers, however, in getting up so splendid an agricultural display at this season of extreme agricultural depression, was worthy of no stinted praise, while their efforts to accomplish a brilliant success in the face of all mishaps, was unflagging to the last, and England's reputation for liberality will be sadly besmirched should such conduct be permitted to bring loss or reproach upon its authors. With the exception of the possible imprudences mentioned, the failure of the exhibition was entirely due to the execrable weather, and as this is a matter regulated by the sun, the cause of their misfortune was upwards of ninety millions of miles beyond the control of the luckless managers.

The Site of the Fair,

at Kilburn, in the northwestern outskirts of London, was, six or seven weeks ago, a low, flat pasture of a trifle over a hundred acres of stiff clay soil. Since its selection as the scene of the exhibition, the Society expended more than £2,000 in draining it; but, owing to the very tenacious nature of the soil, the underground drains failed to work well. The place is readily accessible from all parts of London by means of three railroad lines, quite a large number of omnibus lines and two tram or street car lines converging from the north and east. It is also within easy reach of the aristocratic regions of Pimlico and Belgravia, through Hyde Park by way of the Marble Arch, from which it is distant only a couple of miles, straight up the Edgware Road.

The fair opened on Monday, June 30, and closed on the following Monday, so far as the cattle and most of the other departments were concerned, but owing to the scant opportunity the weather allowed for properly exhibiting the machinery, that department was kept open, at the reduced admission fee of one shilling, until the following Thursday, and so deep is the mud at present that there seems little prospect of the removal of any of the heavy goods perhaps for weeks to come.

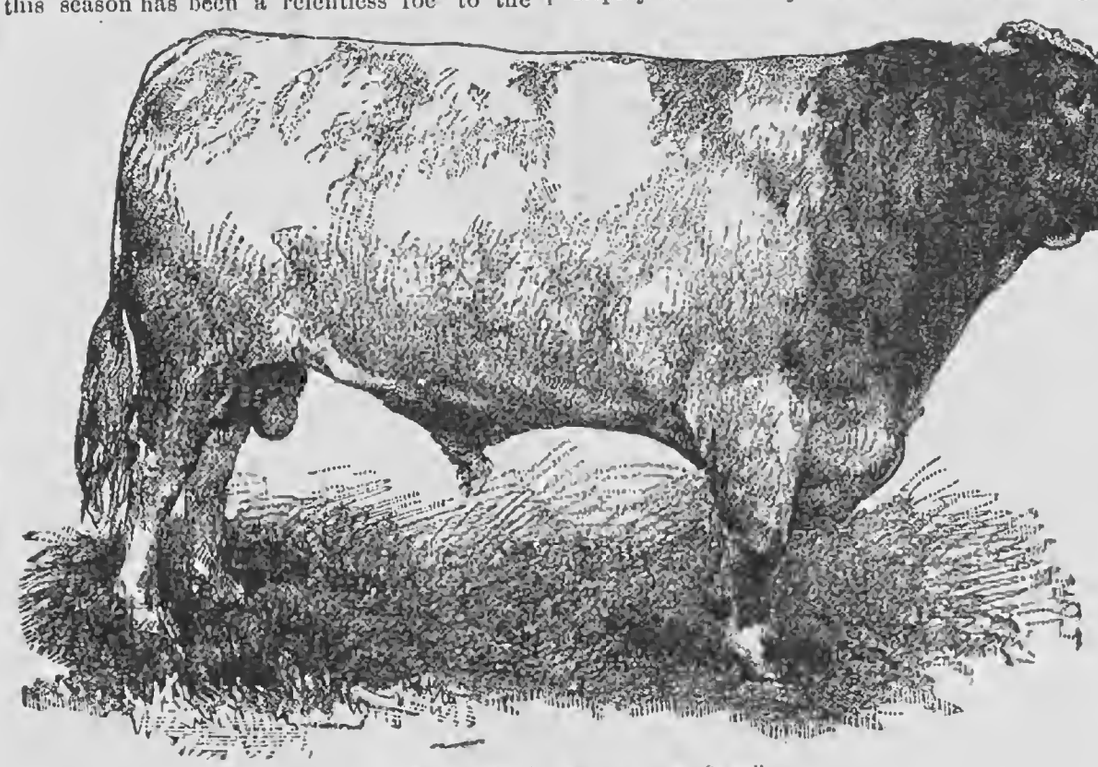
The Weather

this season has been a relentless foe to the farmer. Not content with having cut woefully short the just rewards for his labors in the field, it has now rendered abortive his best efforts to make this, his great annual show, a success. For weeks before the exhibition opened, it rained so frequently and heavily that the fair ground was seldom dry, and the incessant travel on it just before the opening, by men, cattle, horses, carts, heavy wagons and ponderous machinery, made it a deep, muddy fallow cut up in every direction. The first day of the fair was bright with sunshine, hope and the presence of the Prince of Wales, and a large cortege of nobility. The Queen was to visit the place the next day, and her appearance was expected to attract an enormous throng, as it usually does. Next day, however, instead of the "Queen's weather" which has become proverbial for its geniality, a dense, dun-colored fog overspread the earth, like a pall, through which descended torrents of rain. Early in the morning Her Majesty telegraphed that the downpour would prevent her from coming and the few visitors that had ventured to the place in hopes of seeing her, moped wretchedly about or retured home. Next day was fine overhead, but underfoot the ground had become an adhesive bog through which venturesome pedestrians plodded laboriously along besmirched with the glutinous clay, while those less bold, paid more attention to picking their way than to the instructive sights around them.

On Thursday it rained again, and again on Friday, but on Saturday morning it brightened up long enough to allow the Queen to make nearly an hour's visit. After that, until the final close of the fair, on the day before yesterday, I remember hardly a single morning or afternoon which was not spoilt by one or more showers. The ground grew simply execrable. Pedestrianism over the vast area became in all places difficult, and in some places impossible, in spite of the tireless labors of the management to remedy the evil. Thousands of planks and a hundred tons of wattled hurdles were laid down to form foot-paths, while burnt earth and innumerable old railroad sleepers were placed on the roadways to render them passable. The mud, however, was ubiquitous. It oozed up through the interstices of the hurdles, and in many cases completely buried them. It covered the planks, and rendered them as slippery as ice. It gave its own yellowish hue to the clothing of the visitors and to the coats of the stock. The condition of some of the latter was truly pitiable. Many of them, worth several hundred pounds, were lying or standing in pools of water, with their normal appearance and, it is feared, their health, seriously impaired. Trenches were sometimes dug round the stalls, but these soon brimmed over and failed to keep the lairs dry. In many places the men in charge of the animals, having vainly tried to provide comfortable quarters for their proteges, might be seen stretched by their sides and sharing their discomforts. Those whom duty or pleasure brought to Kilburn Fair are not likely soon to forget its countless annoyances.

The Arrangement of the Fair,

however, was excellent. From the main entrance a broad roadway extended to the other end of the immense field, dividing it into two nearly equal sections. Along this ran a tramcar impelled by steam, which afforded the public an easy means of locomotion. On each side of the central avenue, at right angles to it, stretched long rows of temporary sheds for the shelter and display of exhibits. For convenience of access, four cross avenues, parallel with the central one, two on each side of it, cut these rows of stands at nearly equal intervals. Just inside the boundary wall, on each side of the main entrance, extended the sheds for the display of all kinds of seeds, foods, manures, models, etc.,—and a splendid display it was. Beyond these and stretching



LORD EXETER'S "TELEMACHUS 9TH."

along both sides, were ten shedfuls of machinery in motion, driven by a crowded line of steam-engines, nearly a mile in length. Beyond the seed stands were rows of sheds for the exhibition of implements; then sheds for cattle on the right of the central avenue, and for sheep and pigs, on the left. Then, on the left of the avenue came seven long stables for horses, and between them and the avenue, which here curved to the right, and were the Grand Stand, the large horse ring, and three small rings for the display of other stock. Beyond these were numerous restaurants, together with the dairy department on the left of the avenue, the stable for foreign horses and other stock, on the right. Every exhibit was plainly numbered in its proper department in the appropriate catalogue, and a corresponding number affixed to the stand close to it, so that full information, with regard to everything, was accessible to the visitor in possession of two catalogues which were sold for a shilling apiece. Some idea of the magnitude of the show may be formed more clearly from a few brief facts than from a long disquisition. The total entries of live stock amounted to 2,874 including 1,007 entries for cattle; 841 pens of sheep, and 211 pens of pigs. There were 815 horses, ponies, mules and asses, and the total length of shedding occupied by live stock, was six miles. The seeds and models occupy 2,220 lineal feet, and the sheds for machinery in motion, 4,683 feet.

A mere mention of a tithe of so many objects deemed worthy of display as among the best or most curious of their kind, would occupy far more space than the Rural could spare. Acting, therefore, on the principle that few of the readers can miss the good things I've not spoken of, I shall merely refer to a few of the exhibits likely to be of most interest to transatlantic readers. First of these come

The American Exhibits.

These were remarkable, not from their total absence, but from their extreme paucity. As the exhibition had long been widely advertised as an international affair, it was certainly to be expected that the United States would make a fine show of the agricultural products which she is sending so abundantly across the Atlantic. This expectation, however, was blankly disappointed. Of the few exhibits from that country, by far the most noteworthy were those of the agricultural implement makers, several of whom have large establishments in this country also. There was not a single head of stock of any kind shown by an American—not even a dead carcas, although several prizes were offered by the Corporation of London. A solitary St. Louis firm, however, exhibited canned beef. There were a dozen samples of American butter, Mr. Murray, of New York, winning one prize, and Mr. Stewart, of Farley Creamery, Iowa, another. The transatlantic competition in cheese was represented by just a dozen specimens shown by a Mr. G. Morton, a Canadian.

The Exhibition of Cattle

was larger and finer than at any former show in this country. As usual, the Short-horns attracted the greatest amount of attention, and a splendid lot they were. Of the three judges of this breed, one had been selected from England, another from Ireland and the third from Scotland. In the class for bulls over three years old, the first prize was won by Anchor, an Irish beast, that bore away the first prize in his class at the Dublin fairs three years in succession. He is a remarkably high animal, but deep proportionately. He was bred by Mr. Richard Chaloner, of Moyalty, County Meath, but is now owned by Lord Rathdonnell. A special prize of £100 for the best Short-horn bull at the fair was awarded to Telemachus 9th, the property of Lord Exeter. This award did not give general satisfaction, as many were of opinion that the prize should have been given to Anchor. Mr. Chaloner, the breeder of the latter, was the Irish judge, and declined to give an opinion in this case. Of the two other judges, one was in favor of Anchor and the other of Telemachus. A third was then selected, who, after some hesitation, voted the honor and cash to Lord Exeter's beast. Another special prize of £100 for the best Short-horn cow was won by Mr. Hutchison's Gainful The same owner's Grateful, Mr. Foljame's Azucena and Lord Fitzhardinge's Lady Wildeyes were first in their respective classes, while Sea Gull, with her two fine sons, Telemachus 6th and 9th, and her daughters, Sea Bird and Sea Lark, carried off the prize for the best group of mother and two or more offsprings. Of Herefords there were only 62 entered, but some of these were remarkably fine animals. The champion prize of £50 for the best bull of that breed at the fair, was won by Mr. Roger's Grateful, which also was awarded the first prize for bulls over three years old. Many thought Mr. Taylor's bull Thoughtful, which was placed second to him, would rank first. Both are excellent specimens of this fine breed.

—[Continued next week.] Theber.

Industrial Implements.

THE PERFECT HOG-RING.

Mr. J. H. Brown, of Ottawa, Ill., sent us, some time ago, some of his "Perfect" hog-rings for trial. We have used the ring on the Rural Experiment Farm, and have also distributed some among neighbors. We can say that the rings sustained the claims made for them, and have proved entirely serviceable. Several peculiarities of construction commend them. The ring—coppered wire—is smooth in the animal's nose, the point being pushed quite through and into the loop above the snout, when it is bent slightly forward, making a secure fastening. We noticed, too, that the point works down and points over the nose, and acts as a barb if the animal attempts to root, but hangs without causing irritation when rooting is not attempted. The perfectly smooth wire works easily in the nose, and we did not observe an instance where the snout was at all in a festering condition; hence there could be no liability of the ring's working out of the nose.

We have had an illustration made of the rings before and after being locked, which shows how it is operated. It is a simple matter to slip on the ring the discs we have shown, which can, very conveniently, be stamped with distinguishing marks. Mr. Brown may be communicated with, if further information is desired.

THE WOOD BINDER.

In the report of the machinery at the important fair held in Kilburn, Eng., the Agricultural Gazette, speaking of the Wood binder says: "Since last year the binding apparatus has been improved and the capacity of the machine for cutting, elevating, and binding heavy crops increased, whilst it will bind light crops equally well. Mr. Wood has been guided by the experience of those using his binder. The writer has examined the machine in a field of overripe wheat matted with bindweed, when he had different speeds tried, and found that the faster the horses moved the better the delivery. Along with some farmers present, he could not find any shedding of corn from the fall of the sheaf, whilst it is, moreover, free from the liability of being dragged along. Before leaving Mr. Wood's binders it is but fair to state that since last year he has been instrumental in setting at rest the prejudice against wire by the introduction of magnets. Through the indefatigable exertion of his agents throughout the length and breadth of the United States, millers and farmers now join hands in favor of wire binding; and whilst magnets are empowering millers to grind finer flour for the English market, English farmers and millers can only fight this battle of opposition successfully by using the same weapons, viz. wire binders and magnets."

Everywhere.

RURAL SPECIAL REPORTS.

CONN., Campville, Litchfield Co., July 23.—I saw a statement in the RURAL of premium corn measured July 9th. On July 5th we measured that sent us, and found the stalks six inches in circumference and six feet high. We measured again this morning, and found the stalks 10 inches in circumference and 10 feet high. If the corn ripens, we hope to show good results next fall, and "haul in" some of those first-class premiums. G. A.

N. Y., Whitney's Point, Broome Co., July 23.—The weather has been very "catching" for the last two weeks. Haying is well advanced. The hay crop is about one-third lighter than last year. Farmers have nearly all harvested their wheat in this section; it is only about half a crop this year, owing to the dry weather in the spring. The wheat sent me by the RURAL looks good, but the seed did not all come up. Blunt's corn, planted on the river flats in black loam, looks nice and stands about five feet high. Pearl Millet is a failure. Beauty of Hebron potatoes, after having been cut down to the ground by the frost, came on and are now looking fine. Oats promise a good crop and will be ready to cut in about ten days. Potatoes are thriving, and if they do not rot in the hill they will be a large crop. Sheep and lambs, $3.50@4 per head; veals, $3@5 per head; eggs, 11 cents per dozen; butter, 12 cents per pound. M. B. D.

N. Y., Rome, Oneida Co., July 20.—The weather has been extremely hot most of the time for the last six weeks, with occasional showers. This is very favorable for corn. Ours is as large as it has ever been at this date, while our "RURAL Blunt corn" is far beyond any that we ever saw so early in the season. It stands from eight to nine feet high, and there are no signs of tassels yet. I wonder how high it will grow. Potatoes are looking very fine, but the second crop of "bugs" is hatching out. The rain improved newly-seeded meadows, but old meadows yield poorly. Oats look good. Winter wheat is being harvested, but we cannot say how it will yield, as we have none. A large share of the apples seem to be dropping off. Plum trees are hanging full.

F. D. P.

N. Y., Oriskany, Oneida Co., July 23.—Corn hereabouts is good. It was planted about May 20, with hen manure in the hill in my own case. I planted 58 hills of Blunt's corn, and it is four feet high and doing well. S. C.

NEW JERSEY, Burlington, Burlington Co., July 24.—The Blunt corn is looking fine, considering the fact that we have had no rain for over two weeks till last night. It is setting from three to nine ears per stalk. If the dry weather had not come, I would have had a fine little piece of corn. As it stands—12 feet high—it is the largest corn in this neighborhood. The drought cut everything short. If it had continued one week longer, farmers in this vicinity, a number of them at least, would have gone into bankruptcy. H. T. W.

NEW JERSEY. New Brunswick, Redfield, July 16.—Crops are looking good and are growing very fast. Farmers have got nicely to work securing the hay crop, which is an average one. Oats promise to be more than an average crop. No wheat, to speak of, is grown here. Corn and potatoes promise large yields. Prices are very low; cheese, 5½ cents; butter, 10@12c.; potatoes, old, 75c.; new ones are not yet large enough for use. P. M.

PA., Berlin, Somerset Co., July 21.—I have 95 stalks of corn from the seed I received from the RURAL. They look fine, and so do all other crops here. Hay is a little short, however, on account of dry weather. Fruit, too, was damaged in some places by late frosts, but there will be an average crop. Butter is very low, selling from 8 to 12½ cents per pound. Everything else brings a good price. G. B. P.

OHIO, Cincinnati, July 21.—It has been fearfully warm here to-day. No rain hereabouts in three weeks. L. K.

IND., Newton's Retreat, Tippecanoe Co., July 19.—The wheat harvest is over and haying is just commencing. Oats will be short, owing to the dry weather, but will yield pretty well and will be ready to harvest in about a week. Hay will be scarce in this county, as there are very few meadows, and what there is will yield about a ton and a half to the acre. Wheat is above the average this year, both in quality and quantity, a thing that brings joy to the hearts of hundreds of farmers, as a great many farms are under mortgage, and without a bounteous harvest the mortgages will be foreclosed and the farms will pass into the hands of some city chaps. It is a pity that all the farmers of our State did not practice the cash system set forth in the RURAL. New wheat is selling for 95 cents. D. C. A.

ILLS., Equality, Gallatin Co., July 19.—Crops were never so good in this part of the country as they are at present. Wheat used to be called good if it averaged 10 bushels per acre; this season it will average 20 bushels. The Blunt corn you sent was so small-grained that I was tempted not to plant it; but concluded to try it. I acknowledge I was badly fooled. It beats anything I ever saw in the way of stalking, suckering, shooting and silking. If the ears are large enough, it will "do." I did not have any Early Rose potato to test with the Beauty of Hebron. The one you sent was very small—it only had 10 eyes on it. I cut it into 10 pieces and planted 10 hills. I have dug the potatoes; they weighed 19¾ pounds. That beats anything in the potato line that I know of. G. W. B.

MICH., Unionville, Tuscola Co., July 14.—Farmers have nearly finished haying; the crop has been an average one, and nearly all of it has been secured in fine condition. Wheat is more than an average crop; and oats, corn and potatoes promise a large yield. The apple crop is light; small fruits are in abundance. On the morning of the 10th inst. we were visited by a heavy rain storm, accompanied with hail, but no damage was done.

L. A. R.

MINN., Howard Lake, Wright Co., July 12.—While some farmers were saying that crops were so abundant that the price of many would be so diminished as to be almost valueless in the fall, we were drenched with a rain which threatened to inundate us, and had wind sufficient to lay wheat flat, as well as much of the corn. The latter, it is supposed, will rise again if we should have no more such hard storms as those which have followed each other for more than a week in quick succession. By no means can we predict good times in this region yet, as the weather is very sultry and there are many signs of more pouring showers of rain. One of our late showers was said to have given us frogs, which are hopping about briskly. We have had no hail to speak of, in this vicinity, but some houses were unroofed by the terrific wind a few miles from here. We had hard winds here but no tornado, such as fearfully visited some other parts of our State. Wells are brimming with water and many cellars are filling. Some have to be worked with pumps to be kept empty. We wait patiently for cool breezes with other indications of better weather. We have less small fruit than usual, but a fair crop of apples and probably of grapes. There are very few wild plums, which are nice and sometimes abundant in this State. 13th inst. we have heard more particulars of the storm six miles away. One man had a sugar orchard of about 60 acres entirely destroyed, and the road was so filled with trees, that help to clear it out was solicited from our town, and two wagon loads of men went out, and brought back the report that trees were so thick in the road that they were only able to clear half a mile before night came. Some large apple orchards were nearly all destroyed on the 9th inst. In Meeker and Renville counties great damage was done on the 6th by hail, wind and rain. S. A. M.

IOWA, McGregor, Clayton Co., July 20.—Harvest has commenced in this section. Chinch bugs are injuring the wheat in some fields a good deal, but the wheat in the timber here will be far superior to what it was last year. Corn and potatoes are splendid. I saw a field of corn yesterday that is ahead of anything in this section, and if the ground is not too rich for it to ear well, I think it will be 140 bushels to the acre, or, at any rate, it will produce three times as much as mine to the acre, and I calculate that mine will go 40 bushels.

J. R. J.

NEB., Unadilla, Otoe Co., July 19.—We are having very dry weather, but crops look well, especially corn, which is all laid by, being nearly all in tassel. Wheat is nearly all harvested, but the yield will be small; the chinch bugs damaged about half the crop in this section of the country. Oats are very thin and of poor quality, but we need rain badly.

H. J. P.

N. C., Greensboro, Guilford Co., June 17.—We are having quite a dry season and unusually hot weather; the thermometer has been ranging from 80° to 104° for the last two weeks. All gardens are completely burnt up, past redemption. Irish potatoes are now being dug and the crop is fine and the yield good. Wheat is being thrashed and is a good average crop. As yet corn is not much damaged by the drought, except on uplands that have not been well plowed, but if the drought continues much longer, corn will be cut short. We have had no good rain for six weeks or more in this section. J. V. L.

SO. CAROLINA, Anderson, Anderson Co., July 18.—The wheat crop is fine; but only a small area was sown. Spring oats are a failure, for want of rains; fall-sowing is good. Corn is suffering throughout this county from drought—as we have had but one light rain for the past eight weeks. Cotton is needing rain. Irish potatoes are poor, having been injured by late frosts. Sweet potatoes are backward, but with a good season there is ample time for a good crop. Fruits are a complete failure, owing to drought. The seeds sent me came up badly. S. M. C.

TEXAS, Caldwell, Burleson Co., July 14.—We have had but one good rain this year. It commenced April 22d and rained a flood for eight days. It was then 10 to 14 days before plows could run. Since then we have had only three or four very light showers. There have been good rains, however, in a few isolated spots around us up to nine days ago. Now, a general drought has set in and scarcely anybody will save fodder. Nobody within twenty miles of me will make two-thirds of a crop—some will not make a quarter; I shall make half a crop. Deep plowing saved me. Buyers are anxious to engage corn at $1; but there is none to sell. Oats made 20 to 30 bushels, which is about two-thirds of a crop. Wheat averaged eight bushels per acre—ten would be a good crop. The smooth red May wheat did a little better, although every one says none but bearded sorts will succeed here. The flowers I plowed so deep are all that make much show now. Blunt's corn has received a crucial test and will make something. Everybody wants an ear. Half-a-dozen or more have promised to take the paper if I will give them seed. I am taking notes "an' faith you may print 'em" when the end comes. Some of the corn is beginning to glaze, so the end is not far off. All of the seeds were sent from one to three months too late. The Callicarpa ought to have been sent in October. Our hillsides are covered with it. The beets are nearly all killed by the heat, while the red turnip beets by their side will weigh two pounds. The lettuce has done better. Though some of it is killed, some, I think, will get through—it is seeding now. The Beauty of Hebron, I am satisfied, is a good potato; but it should be planted here in the winter and covered with straw. It was planted too late in a bed of rotten cotton seed—consequently it now lies in the agonies of death without making a single tuber. Of all the flowers I have but one single plant left—a Chater's Hollyhock. I think it will go through. The outside leaves die down, but new ones are waiting to fill their places. I can discover no worm at work; so I suppose its woebegone condition is due to the heat of the sun. We have the promise of the building of the Gulf, Colorado and Sante Fe Railroad at Caldwell by Christmas; but I don't believe very strongly in the fulfillment of the promise. I am going to plant all sorts of good things for sale to the "hands"—if it rains. Irish potatoes, corn, turnips, onions, okra, and many other things do well here, if planted from the 15th of September to October 15th. I am digging a well as fast as the hot weather will allow me. It will be inside my garden, so that I can water my vegetables and flowers. I want to fence in half an acre, so as to include a melon patch, as melons have too many enemies here, more dangerous than any insect pest; and I want so to arrange it as to be able to do as much of the work as possible with the plow. D. H. H.

The Querist.

ANSWERS TO CORRESPONDENTS

Raising Peanuts.

G. W. S., New York City, wishes to raise peanuts, and he asks for information concerning when and how to plant them, the culture of the crop, what profit to expect, etc.

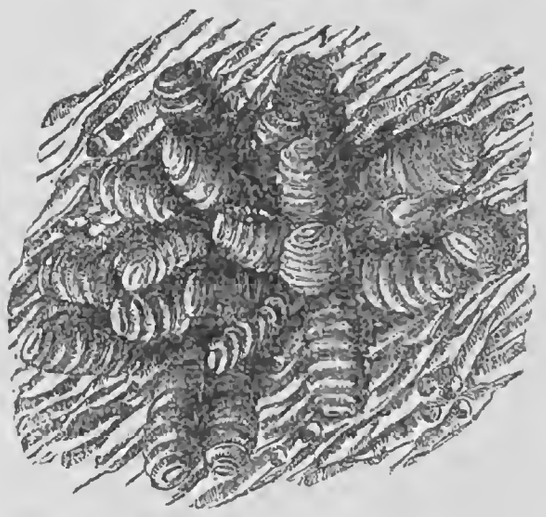
ANS.—The peanut is a tropical plant, and can be *successfully* grown in this country only in the Southern States, though small quantities have been raised in the North. If our correspondent intends to raise this crop in any of the Northern States we would, therefore, advise him to begin on a very small scale. The peanut succeeds best in a sandy loam, manured with 60 to 75 loads of well-rotted manure, with an addition of some 40 to 50 bushels of shell lime, to the acre. This being plowed under, the surface of the land should be thoroughly pulverized and made as level as possible. From the habit of the plant of pushing its pods into the ground, where the nuts develop, it is necessary that the top soil should be mellow. Rows are then made with a marker each way, 30 inches apart, and at each intersection of these, two nuts are then planted, and covered an inch and a half deep with a hoe, the shell first having been cracked or entirely removed. The planting is done in the South before the middle of May; in the North it must be postponed till warm weather sets in, near the end of May or the beginning of June. The crop should be thoroughly cultivated, using the horse cultivator both ways, and the hoe immediately around the plants. Peanuts need a long season, and will continue to grow until killed by the frost. The digging is best done with a five or six-tined digging-fork, but it should be delayed till the first frost has bitten the vines and stopped the growth, which will usually occur in the latter part of September or some time during October, according to the locality. One man then thrusts the fork under the hill and carefully loosens the nuts from the ground, while an assistant pulls the plant up and turns it over to better expose the nuts. In very loose soil it is sufficient to run a plow on each side of the row, when the plants can be pulled up. After two or three days, the plants are stacked. To raise them from the ground, platforms are made of rails, on which the stacks are built and capped with straw to shed the rain. The object of stacking is to dry the nuts, for the weather being so uncertain, it is not prudent to leave them spread on the ground where they would be injured by frosts and discolored by moisture. The stacks are therefore but small, about four feet in diameter and four or five feet high, which dimensions will allow the air to circulate through them freely.

Having remained in the stack till dry—which they will be in two to four weeks, if the weather is favorable—the nuts are ready to pick. If, however, either a cold or wet spell should set in, they should be removed to sheds, where the drying is completed. There are two ways of separating the nuts from the vines—thrashing with a machine and picking by hand. The former method is perhaps to be preferred where large quantities are handled, but the nuts cannot be well-assorted and will not command a high price, whereas hand-picked and well-assorted nuts will command the highest, and sometimes fancy prices. Hand-picking is, however, a slow operation, an expert being unable to pick much over three bushels a day. They are next spread out thinly on a loft and frequently turned till they are perfectly dry, when they are cleaned, generally with a fanning mill, and marketed. As the price depends a good deal on their bright appearance, the pods are sometimes placed in a revolving cylinder, where they are polished by mutual attrition; and the very white pods are made so by being bleached with the fumes of sulphur. The vines are considered, when properly harvested, before they have had too much frost, equal in value to clover hay for cattle, but for horses they are too dusty. The yield ranges all the way from 20 to 100 bushels per acre and the price from $1 to $2.50 per bushel. The crop is considered more valuable than cotton or tobacco. Two varieties are recognized—the Virginia, which is the larger, and the Carolina or African. Large quantities of peanuts are eaten, but their chief use is for making oil, the seeds containing from 42 to 50 per cent. of a nearly colorless, bland, fixed oil, resembling olive oil and used for similar purposes. The principal consumption of this oil is in soap making. Vast quantities of peanuts are, also, grown on the west coast of Africa.

Bots in Horses.

A Subscriber—address mislaid, asks whether there are such things as bots in horses; and if so what are they and how to get rid of them.

ANS.—Of course there are such things as bots in horses, and, for that matter, in sheep too. The former are the larvæ of the œstrus equi, a species of gad-fly, and the latter the larvæ of the œstrus ovis, another species of the same genus. The accompanying cuts represent the



common œstrus equi and a cluster of bots adhering to a horse's stomach. The fly comes out from the pupa state about the middle or latter part of summer, the time varying according to the weather. When the eggs are mature the female soon selects a fit place for depositing them on the hairs of the nearest horse turned out to grass. When about to deposit the egg she hovers in an upright position then darts upon the horse, instantly fixing the egg on the hair by means of a glutinous secretion. This

feat she repeats with marvelous rapidity until often 400 or 500 eggs are placed on one horse. Instinct tells her to deposit them on those parts of the animal within easy reach of the tongue, such as the inside of the forelegs, the back of the shoulder and the sides. In four or five days' time they become ripe so that the slightest application of warmth or moisture is enough to instantly bring forth the larvæ. If at this time the tongue of the horse touches an egg, a small active worm issues from the egg adheres to the tongue and is carried down

the gullet to the stomach, to the white, insensible lining of which it at once attaches itself by means of a couple of hooks, one at each side of its mouth. Sometimes in licking or biting itself or another animal, the horse detaches some of the eggs before they are mature and in that case the larvæ are developed in the stomach. The bots pass the autumn, winter and spring as represented in the cut, and attain their full size about the beginning or middle of summer, when they let go their hold and are carried out with the dung. On reaching the outer air, the bot buries itself in the ground and becomes a crysalis and in a short time emerges as a fly ready ere long, if a female, to deposit eggs from which other bots are similarly evolved. A ragged coat and an unthrifty appearance are often outward symptoms of the presence of bots, but more frequently their presence is not suspected until they appear at the anus. They vary in number in the stomach from half a dozen to as many hundreds, and sometimes are so numerous that they block up the orifice from the stomach to the intestines. With regard to the amount of injury they do, opinions widely vary; but of late the best veterinarians think that they do little or no damage. Frequently the symptoms of other ailments are attributed to their presence, but if the proper remedies for these affections are applied, the bots are no longer troublesome. Eggs are sometimes deposited on horses in the stable or the yard, but as they can be readily detected on all animals except those of a chestnut color, they can be easily removed. Medicine cannot remove bots from the horses' stomach, because they adhere to parts of it where medicine seldom reaches them, and, moreover, their mouths are too deeply buried in the mucus for any medicine that can safely be administered, to affect them, and, besides, they use food so very slowly that the medicine is carried away before any appreciable quantity of it is absorbed by them. Horses, however, are frequently injured by the medicines that are ignorantly given to remove the bots. This will be easily understood when it is stated that live bots have been immersed in spirits of turpentine, alcohol, nitric, muriatic and even sulphuric acids, without having been killed by them.

Dysentery and Red-Water in Oxen.

C. E. S., East Sound, San Juan Co., Wash. Ter., last spring had an ox that had wintered very badly and was poor. He fed him lightly on good hay, worked him lightly, and sometimes turned him into a good pasture. One day he turned him into a pasture richer than usual, where there was a good growth of tall timothy. Afterward he was fed on hay two nights and a day without showing any signs of sickness. The animal was then turned out, as the out-range was good. In a few days he was found to be sick. He had pains in the bowels, and would drink often. From the bowels came slime mixed slightly with blood, and some wind. He would eat little or nothing, and died in two weeks' time. The slime became nearly pure blood before he died. During his sickness he passed nothing but slime and blood. Our friend asks whether he died of over-feeding, or what ailed him. 2. Work oxen are troubled there with bloody urine, and die in the course of a couple of years after its appearance; and he asks the cause, whether it is preventable, and a remedy for it.

ANS.—1. The ox mentioned evidently had dysentery, ending in bloody flux. This often occurs in animals poorly wintered, when turned on rich pasture in spring. The sudden change from dry food to laxative grass is very trying to most cattle, and the evil was probably increased by the over-exertion of the ox in his thin condition. The best safeguard against this would have been to have fed the ox some laxative food, such as oatmeal, or a gill of linseed oil mixed with the food every day, or a small feed of boiled oats or barley daily for a few days before turning out to pasture; or, if none of these is at hand, turn out to grass only one or two hours per day and feed hay. After the disease shows itself, perhaps the best offhand treatment is to rub the belly actively and apply mustard—or rub with warm water and then place a woolen blanket under the belly, bring up over the back, and pour warm or cold water, according to the season, between the blanket and the body, letting it remain for several hours. Give a steep of oak bark, half an ounce of sulphate of iron (copperas) dissolved in its food. A small dose of turpentine (a tablespoonful), or a half teaspoonful of carbolic acid, in a pint of water, will assist in healing the mucous membrane. 2. The last disease mentioned may properly be called Red-water. This disease often afflicts cattle in a new region. Owing to the rankness of growth the water is charged with vegetable matter, exciting the digestive organs and liver. It disappears as the country becomes cultivated. The laxative food mentioned above is a good preventive and assistant in treating the disease. In the commencement of the disease an active purgative is best, unless it is accompanied with colic and tenderness of the abdomen, when only mild cathartics—such as olive oil, boiled linseed or nse oil—should be given. Boiled grain, bran mashes and boiled hay should be given as food whilst under treatment. Cattle that are affected with this local disease would probably recover if sent off, their places being supplied with others unaffected.

The Vanilla Bean.

R. W. H., Berkley, Cal., asks if we have any book on the cultivation of the Vanilla Bean, as practiced in the South Sea Islands.

ANS.—We have not, nor do we know of any work devoted specially to that subject. Vanilla is the botanical name of a genus of orchids, and also the popular name of the fruit or pod of the plant. All the species—of which there are but a few—are climbing plants (an unusual habit for orchids), their slender stems emitting aerial roots by means of which they ramble among the branches of trees. The fruit, when fresh, is about the size of the little finger, somewhat three-cornered, fleshy, firm, smooth and plump. The most important species is Vanilla planifolia, a native of the warmer parts of Mexico, and introduced into Central and South America and various parts of the East Indies and South Sea Islands by cultivators. It requires a warm, moist atmosphere, and can be cultivated successfully only in localities presenting these conditions. It is propagated by tying a shoot, about three feet long, to the base of a tree. The plant comes into bearing in about three years, and will continue productive for thirty or forty years. When quite ripe, the pods split open lengthwise into two unequal valves, and they are therefore gathered before complete maturity. The drying of the pods is a long process, consisting of alternate wrapping in woolen cloths and heating, and exposing to heat uncovered—a manipulation which develops their peculiar odor, and gives them a dark-brownish color; they are also oiled in course of curing. Like most other orchids, the flowers of Vanilla depend upon insects for aid in fertilization. Although for a long time the plants flourished vigorously and flowered profusely in the East Indies, they bore no fruit, the proper kind of insect not being present, but fertilization there is now performed artificially. As found in the store, the vanilla pods, or beans, are like fleshy, flexible sticks, from three to eight inches long, from three-tenths to four-tenths of an inch wide, flattened, hooked and narrow at the stalk end. Within are found innumerable, minute, shining, black seeds embedded in an aromatic, viscid pulp. The odor and flavor of Vanilla are not due to a volatile oil; but to a crystallizable principle, vanilline, of which about one per cent. is contained in the pods. It can also be produced artificially from coniferine found in the sap of Pines. In flavoring chocolate it is ground up with the seeds, but for candies, cooking and ICE CREAM, it is most frequently employed in the form of an extract. This is prepared by cutting the pods into small pieces, thoroughly triturating, or pulverizing them with sugar, then digesting, or softening them with alcohol, and afterward percolating, or straining them. Much of the cheaper sort is adulterated with Tonqua Beans. Our chief supply comes from Vera Cruz and Tampico.

Hay Fever.

B. P., Washington Co., Pa., asks whether there is any remedy for hay fever.

ANS.—This affection was first described early in 1819, and although it has been studied pretty closely since, yet little has been learnt as to its cause or cure. As to the former, there is little doubt that it is due to vegetable emanations, and observations show that freshly-mown hay produces it in some people. It is probable, however, that different persons are similarly affected by different kinds of vegetation diffused in the atmosphere. Its local symptoms are subcutaneous inflammation of the nostrils and of the bronchial mucous membrane, together with irritability of the eyes, and, in some cases, bronchial spasm or asthma. Dr. Morrill Wyman, who has elaborately studied the ailment, says there are two forms of the disease affecting persons of peculiar idiosyncracy. The first, often called the rose cold, or June cold, commences in May or the early part of June and continues to July. The other, called, also, autumnal catarrh, begins in the third or fourth week of August and ends in September or October. The disease is not found in the Southern States or the north of Canada, and in the rest of the country affects only people of a certain temperament. It has been found that persons suffering from it find complete relief after the first 12 to 24 hours of a sea voyage. Relief is also obtained where there is little or no vegetation, as well as by going to certain parts of the White Mountains; to Mount Mansfield, in Vermont; to the Adirondack Mountains, or generally to any point 800 feet above the sea. Those who cannot avail themselves of these means of relief, may find help or exemption by various changes of residence, to be determined in each case by individual experience, inasmuch as the special agencies are unknown. The treatment of the affection, where removal is impossible outside the region in which the cause exists, must consist of palliative or soothing measures. Iodide of potassium and the salts of bromine, arsenic, and strychnine, have been found useful; but, of course, these should be used only according to medical advice.

Eureka Wheat.

J. A. B., Annville, Lebanon Co., Pa., says that an agent claiming to represent "The New York Nursery Company" is traveling through that section with what he claims to be a new variety of wheat, called the Eureka. It is to yield 50 to 60 bushels per acre, and he asks only $5 per bushel for the seed, and he generously offers to pay the buyer $3 per bushel for all his surplus wheat for the next two years. Our friend asks whether we think it "healthy" for our readers to invest in the Eureka.

ANS.—New York is so large a place that a small concern that might wish to shrink from local notice could easily hide in an attic, so as to escape a very diligent search; especially when, as in the present case, no special address is given. We have therefore been unable to learn anything about "The New York Nursery Company," and we certainly think it very "unhealthy" for any of our friends to have anything to do with folks who make such palpably absurd promises as does the untindable company's agent.

Willful Beans.

J. D. T., no address, says that his great trouble is to make his Lima beans cling to the poles. He has tied them up, but with no good results; they perversely prefer to run all over the ground, and they have nice cedar poles, too.

ANS.—These beans seem to be some uncommonly willful and creeping characters, without gratitude for their nice poles, and with a singular lack of ambition to rise in the world. So much do they differ from their brethren, that we wonder if they are beans at all; this question we trust, however, that our correspondent can settle for himself. Were they twisted around the poles in the right direction; against the sun, that is, from the south by the east, north and west to the south again? If not, coax them that way.

Clarifying Sorghum Juice.

B. C. McV., Pomona, Kan., wants to know how to clarify sorghum juice.

ANS.—On heating the juice to a temperature of 170 or 180 degrees F., a large quantity of the albumen will coagulate and rise to the top, and must be removed by skimming. But still another portion is held in solution by the free acid in the juice. In order to coagulate this, the acid is neutralized by adding milk of lime, from six to seven pints to every 100 gallons of juice. This being thoroughly stirred in, the remaining albumen coagulates, and is skimmed off. It requires experience to do this nicely and at the right moment, and a beginner in sugar-making from sorghum is not likely to meet with the best results at the first trial. Professor F. L. Stewart has published a book on the subject, which will give more detailed information. It can be obtained through book offices.

Miscellaneous.

S. C., Oriskany, N. Y., wants to get a hogshead to hold water and asks, 1, which is the better—pine or oak. An application of tar to the outside of a pine vessel he thinks might render it equal to any other. 3. He also wants to know what part of Iowa is the best for farming; what is the price of land there per acre; and how many acres of cheap land can be bought for $500; what is the price of improved land per acre, and to the growth of what crops is the climate in the southern part of the State best adapted. 3. His neighbor's potatoes are scabby, and he asks the cause; muck was put on the ground three years ago.

ANS.—1. An oak hogshead would certainly be the strongest and most durable; but a good coating of tar applied whenever needed, to a good pitch-pine hogshead, will render it a satisfactory water holder. If the tar is applied to the inside as well as to the outside, all the better. After a short time the water is very little affected by it, and then tar water is healthful. Moreover, the lining of tar is made more durable by the pressure of the water, it is less affected by the sun or accidental contact, and does not soil clothing, etc. 3. To return trustworthy answers to these queries would require a more minute and extensive acquaintance with the various parts of that fine State than we unfortunately possess, although we have traveled pretty extensively through it. Much information on the matter can be gathered from our "Everywhere" department, and we shall be pleased to publish reliable answers from any inhabitant of the State able to give the information. 3. Various causes produce scabs on potatoes. Fresh stable manure and an undrained soil are among the most notable.

R. T. M., Jackson, Mich., asks: 1. How can he obtain full reports of the addresses at the late Cleveland Convention of Pomologists; 2. the price and publishers' address of the Herald of Health, lately "noticed" in the RURAL.

ANS.—We noticed among our "exchanges" that the Cleveland Leader or Herald contained pretty full reports of the proceedings of the Convention in the issues of June 19, 20 and 21. As no authorized report has yet been published, probably the best way to obtain what is desired would be to write to the publishers of one of the above papers for the numbers containing the reports. 2. Holbrook & Co., Laight street, New York. $1. (Monthly magazine.)

J. M., Lyn, Ont., has 25 acres of muck ground that used to be a beaver meadow; lately, however, a large ditch was run through it and drained it dry. Onions and melons have been planted on it and have thriven remarkably well, and our friend inquires what kind of crop planted on it would be likely to turn out most profitable.

ANS.—We cannot answer the question in a trustworthy manner. Almost any crop would grow on such land, and our friend has to consider which is likely to sell at the highest price in his market. Of this he could judge better than we.

J. McC., New York City, asks where are onions raised in New York State and Connecticut.

ANS.—Onions are raised and cultivated in New York State and Connecticut as commonly as turnips. The trouble would be to mention a section where they are not raised.

W. A., Chapel Hill, N. C., asks whether the Green Rose is in the RURAL collection, and says that it has no charm, and is only a *lusus naturæ*.

ANS.—We have never thought it worth having.

M. W., Poquonock Bridge, Conn., sent us a plant for name; but it could not be determined from the specimen then sent. We requested seeds, and the seeds were sent and planted. One plant is now in bloom, and we find it to be Jerusalem Oak or Feather Geranium. Its botanical name is Chenopodium Botrys.

COMMUNICATIONS RECEIVED FOR THE WEEK ENDING SATURDAY, JULY 26th.

L. J. W.—E. W. S.—S. W. J.—I. O. E.—F. M. Co.—D. H. H.—J. M.—A. C.—R. C. M. V.—M. W. F.—P. W.—R. H.—T. H.—A. J. C.—A. D.—R. C. A.—A. M. P.—S. R.—A. E. M.—S. L.—L. I. W.—Faith—H. J. P.—S. B. P.—S. P.—C. D.—G. W. B.—G. A.—E. & B. R.—W. J. C.—A. L. J.—D. C. A.—L. W. B.—F. D. P.—W. M. N.—J. B. P., thanks—M. L.—S. R. M.—J. B. B.—R. D.—J. R. J.—W. T.—A. L. F.—A. J. C.—M. L. G.—J. W. K.—A. M. H.—H. H.—E. P. R.—A. W. M., thanks—H. C. G.—L. A. B.—W. R. B.—W. J.—"Observer"—R. L. S.—M. B. P.—C. M.

CONNECTICUT AGRICULTURAL EXPERIMENT STATION.

BULLETIN 82.—JULY 18, 1879.

Fertilizer Analyses.

298. Superphosphate of Lime. Sampled by M. S. Baldwin, Naugatuck, June 23. From stock purchased of H. J. Baker & Bro., New York.

299. Pure Ground Bone.

302. Salts of Potash. 299 and 302, sampled by S. B. Wakeman, Saugatuck. From H. J. Baker & Bro., New York.

	298	299	302
Nitrogen		3.91	
Sol. Phos. Acid	13.69		
Rev. Phos. Acid	1.10	21.63	
Ins. Phos. Acid	1.58		
Potash			32.98
Est. value per ton	$38.42	$40.52	$49.47
Cost per ton	$30.00	33.00*	51.25

Cost of Sol. Phos. Acid in 298, 11 cents per lb.

302 was sampled April 25. The specimen was quite dry when first taken, but standing in an imperfectly closed can, gathered moisture from the air and became quite wet.

This sample is mainly a carbonate of potash containing some sulphate, a little muriate and also a little prussiate.

Carbonate of potash is quite corrosive and would be likely to injure vegetation if incautiously used. It is easily distinguished from sulphate and muriate by its effervescence when mixed with vinegar.

The above valuation is based on the Station estimate for high grade sulphate, 7½ cents per pou What allowance is to be made for the moisture which the sample has gained is of course uncertain.

It is quite important that all samples be secured in air-tight vessels and also that they be forwarded to the Station immediately after they are taken.

All kinds of potash salts gain moisture rapidly when exposed to the air in damp weather.

FORRESTER'S SPECIAL FERTILIZERS.

The following samples were sampled and forwarded to the Station by S. B. Wakeman of Saugatuck, and were manufactured by H. J. Baker & Bro., New York city.

300. Forrester's Corn Fertilizer.

301. Forrester's Onion Fertilizer.

303. Forrester's Turnip Fertilizer.

304. Forrester's Potato Fertilizer.

	300	301	303	304
Nitrogen as Am'nia	5.52	5.45	6.73	3.89
Organic nitrogen		1.91	1.18	.88
Sol. Phos. Acid	.44	1.73	.67	.54
Rev. Phos. Acid	4.86	2.76	3.53	5.48
Insol. Phos. Acid	1.46	.85	.29	1.79
Potash	13.09	7.29	8.30	10.31
Chlorine	3.53	1.76	2.60	2.82
Est. val. per ton	$56.37	$53.05	$59.54	$54.15
Cost per ton	50.00*	50.00*	68.50*	60.00*

* In Saugatuck.

S. W. JOHNSON, Director.

THE
RURAL NEW-YORKER.
PUBLISHED EVERY SATURDAY.

Address
THE RURAL NEW-YORKER,
78 Duane Street, New York City.

SATURDAY, AUG. 2, 1879.

CASH vs. CREDIT.

"THE man who builds and wants wherewith to pay,
Erects a house from which to run away."

So says the poet, and the experience of many a business man, as well as many a farmer has indorsed this statement. But it is more especially applicable to farmers. Merchants, from the very nature of their business, must trust and be trusted in return. To them a credit system is indispensable. When a demand for a certain article is created on short notice, the tradesman must be able to supply his customers, and to do so it often becomes necessary for him to go in debt for the goods; but if he has foresight, buys with judgment and understands his business, he will in a short time have disposed of the goods at a profit and be ready to pay off his debt. Not so in the case of the farmer. In his business there are no sudden hits to be made. For him to go in debt, in ninety-nine cases in a hundred hampers his prosperity instead of promoting it. His income consists in what he derives from the sale of his products, his grain, fruit, hay, potatoes, stock and dairy produce. These are slowly produced. Many disasters beyond his control, are liable to interfere with his plans, of which the present condition of affairs in England furnishes a striking example, and when quick and sure returns cannot be had it is, to say the least, a hazardous policy to go in debt.

What we desire to impress upon our readers is to keep clear of debts. Of all rash acts, we believe that to borrow money even for a permanent improvement, unless such improvement is an absolute necessity, is most likely to be repented of. A new house may afford much cherished comfort, but comfort bought with borrowed money is borrowed comfort, and must in the end, be dearly paid for. It is not enough that a certain improvement will pay the interest on the money invested. If it pays only the interest, what will become of the principal? The tendency of things is to wear out, and diminish in value. The drains put into a field, or a new barn, cannot last forever, and if improvements that return only the interest, are made on borrowed capital, the condition stated at the outset will eventually ensue: the owner will be forced to leave his home in the hands of his creditor. Again, the returns from the farm are ordinarily so slow that before a borrowed capital can be paid off, the interest upon it may often amount to once or even twice the principal, and the improvement becomes a costly undertaking. We do not mean to say that no improvements should be made on the farm; without improvements agriculture would degenerate. What we mean is that they should not be made with capital borrowed on loose and superficial calculations. But few men have the sagacity to foresee and judge correctly of the real value of such investments, and without such foresight it becomes but little better than a game of chance in which no man should stake his independence.

There is another class of debts in which some families thoughtlessly involve themselves. It is those little items from the grocery, the hardware store, the lumber yard, the shoemaker, etc., which, though seemingly innocent and insignificant in themselves, soon swell in the aggregate into respectable bills that will be doubly hard to pay after the goods have all been consumed. No one should buy on credit if he has the cash wherewith to pay, though it be necessary to disturb a bank account, and if the money is not at immediate command, it is better to contrive to do without a thing in some way, than to buy it on credit. To live within one's means is an important lesson to learn. No man is rich whose expenditures exceed his income, though he dabbles in millions, while the one who can save ten cents a day is on the road to fortune.

Young men who are fettered by poverty and who wish for the use of a few hundred dollars wherewith to start in business, to finish a course of study, to buy a piece of land, or for any purpose, should hesitate twice before they give up their independence, and voluntarily fling themselves into a creditor's arms. Wait, work and pay as you go. You may attain your object more slowly, but it will be reached just as surely and with infinitely greater satisfaction. If your good name is all you can offer as security, a rate of interest will be required which, under other circumstances, would with propriety be termed exorbitant and usurious.

"Hope springs eternal in the human breast," and to the young man who views life through rosy glasses, it seems an easy matter to repay a few hundred dollars; but when the money is spent, and the principal is swelling with the accumulating interest, the mistake is too late discovered.

TEACH AND LEARN.

ONE man cannot thoroughly, safely, and wisely conduct many experiments at the same time. Hence, it is very desirable for neighboring farmers to help one another in this respect. So of all classes engaged in productive pursuits. Ten men can, in one year, try a number of theories that one man could not put to the test in less than ten years. If one makes an experiment that proves unprofitable, it is his duty to let his friends know it, that they may not suffer by repeating it. If one possesses special knowledge about varieties of articles of produce, peculiarities of culture, methods of preserving or utilizing what is raised, or anything else of importance to success and prosperity, he ought to be kind enough to inform his neighbors, at least, so that they may be wiser and more successful. In a certain community the farming was unimproved, and, hence, unprofitable. A progressive man of intelligence and skill moved in from a distant State, introduced more advanced ideas, and rapidly converted the poor land into a fertile, profitable farm. His neighbors were kindly enlightened, adopted his wise example, and soon brought up the whole community to much greater prosperity. Of course, the man who taught and those who learned are much happier. Let it be known that selfish monopoly of useful information is suicidal as well as ignoble and uncharitable; and that few men are to be pitied more than those who refuse to learn by the experience of others.

To further these suggestions, it is recommended that farmers, gardeners, fruit culturists, etc., visit one another more frequently, talk together more freely, publish their experiments more carefully, and, in every legitimate way, try to teach more and learn more.

What May Yet be Done.—Where the drought has prevailed and the regular crops have been cut short, everyone ought to do the best possible in the effort to supplement the insufficient product. It is not yet too late to profit by the later rains. Corn planted in drill will attain sufficient size to make good forage before frost, at least in many States. Peas sown now will make large vines, which are very strengthening feed. Millet may yield one good cutting. The last crop of hay should be carefully saved—even the coarsest kinds, and all that can be found in spots along the ditches and streams. Now is the time to sow turnips. A good rule is to sow at different times, so as to have a succession of chances. Certainly those who are threatened with scarcity for their stock should aim at a much larger production this year. Another help may be found in putting in a larger area in rye, so as to have grazing in winter; and, in some protected places, with a view of early green feeding in spring. That which is set apart for spring mowing should not be grazed at all. Where the forage crop is limited, the hardest season will be at the opening of the spring, before other green crops are sufficiently advanced. Hence, the wisdom of sowing a field of rye.

Prompt Payment.—It is very desirable that there should be entirely pleasant feelings between the employer and employed. While many things tend to prevent this, notwithstanding the best efforts of the employer, it is true that there is often much unnecessary dissatisfaction in the minds of hired laborers because their wages are not promptly paid. It is unnecessary, because it could be easily prevented. Sometimes simple forgetfulness, sometimes not altogether excusable neglect, sometimes great pressure of other business, sometimes the charms of pleasure or the attraction of good company,—causes delay in paying wages. No matter what the cause, it does not supply the wants of the poor man or his family, or prevent his having a feeling of being wronged. A cheerful payment of sheer dues has often put a smile on the face, elasticity in the step, energy in the arm, and more and better work in every hour.

Water for Stock.—In the dry season which is proving so severe in many parts of our country, all who have stock of any kind should be more than usually careful about the supply of water. The large pastures and the broad common may be without water before such a thing is suspected. In many instances the water that remains is stagnant, and unfit to be used by any animals that we prize. Another fault with some persons is in permitting the trough or other vessel from which animals are watered, to stand too long without being emptied and properly cleaned.

Blunt's Prolific.—We have received several letters of which the following is a fair specimen:

ILL., Evanston, Cook Co., July 22.—What is the matter with the corn you sent me—Blunt's White Prolific—it is from 10 to 11 feet high, and not a sign of an ear on it yet and no tassels. How tall will it have to grow before it tassels out and has ears on it? Is the ground too rich or is it the style of the corn?

ANS.—We cannot answer the questions, never having cultivated the corn before this season. Perhaps Prof. Blunt can. We have seen several plots and the same queries have suggested themselves to us.

BREVITIES.

MARSHALL P. WILDER'S health improves.

THERE is probably no other crop that shows more emphatically the benefit of manures than oats.

ONIONS chopped up fine are good for chickens. Give once a week. The green leaves of mustard plants answer both for pepper and green food.

WE said a year ago and over—and now we repeat it in corroboration of our own words—that the *Cuthbert* is the coming red Raspberry. We believe this variety, either for the amateur or market gardener, to be the best in cultivation. The reader is requested to bear our words in mind.

MR. J. J. THOMAS doubts the propriety of cutting out the cane of Raspberries just after they have borne a crop of berries, so as to give the new canes a full chance to develop themselves, because the removal of a large amount of green foliage always checks or injures the plant or its roots.

IT PAYS well to go over the ruta-bagas and mangel rows at this season and thin them out to proper distances. The leaves of the latter make excellent greens, and the tender roots are relished by stock. It is a fact that three mangels growing at suitable distances, will make heavier roots than six would if crowded together in the same space.

MR. CHAMBERLAIN writes us from Hudson, O., as follows: "Fultz and Clawson. Ground not under-drained. Fultz, 20 bus. per acre; Clawson, side by side with equal chance, 30 bus. per acre. Best three acres of Clawson last year, on under-drained land, 61 bus. per acre; best 10 acres last year, 46½ bus. per acre." Such facts are instructive.

GLADIOLI are now in fine bloom. Unless the ground is moist, the midday sun scalds the racemes and causes an early decay of the beautiful flowers. Many, indeed most, of the finer varieties do not form fruit. They may sometimes be induced to do so, however, by pollenating the stigmas (heads) of the pistils. Seeds of the Gladiolus vegetate freely and produce blooming bulbs the third year. We cannot too strongly urge our readers to try their cultivation.

BLOOMING in woods and meadows over many parts of the country may now be found that fine shrub Spiræa salicifolia. It is one of the best of the Spiræas, though many country people in their rides or walks pass it by as a wild flower, without ever thinking that it is as worthy a place in their gardens as any of the Spiræas seen and admired in nursery rows. It has a clean, smooth, reddish, brittle stem, light green leaves of an ovate or obovate form. The Flowers are borne in compound panicles. They are white, sometimes tinted with a blush of pink. It blooms from mid-July to mid-August.

AS THE fair season approaches, we need scarcely remind our readers that it is a good plan to take with them a note-book and pencil, that they may jot down memoranda which it may be desirable to refer to afterward. We would like to have them, also, take notes as to the moral effect of horse-racing; as to whether that is or is not the *life* of the agricultural fair. It might be well, also, to note—should the earth need rain—to what extent the ladies and gentlemen who attend are inconvenienced by the clouds of dust that envelop them from the race-course.

OUR fine engravings of Lord Exeter's "Telemachus 9th;" Lord Rathdonnell's "Anchor;" Mr. Taylor's Hereford bull "Thoughtful"—which, by the way, is an extremely appropriate name, as will be seen by a glance at the portrait—were originally produced in the columns of that enterprising English journal the Agricultural Gazette. As we were not at this great show ourselves, the best we can do is to give such portraits and items as may be copied from the best London journals, while we glean the best information from our own correspondents and the most trusted foreign accounts.

CORRECTION.—In a recent issue, in answer to a correspondent, we stated that the riding saw made by the Farmers' M'f'g. Co. of Cincinnati, was the same implement as that formerly made by Mr. Giles. We are in receipt of a letter from the company to the effect that the machine is not the same, and that suits are now pending against Giles for infringement of patent.

If, then, it is merely a case of infringement, the saws cannot differ materially, and our correspondent will be safe in assuming that the saw made by the Farmers' M'f'g Co. is a good saw. We are requested to say that Mr. Giles has at no time been connected with the above-named company. We do so with pleasure.

OUR articles, "Cash vs. Credit," are bringing us many letters of thanks and appreciation. We are pleased to see that a number of our Western contemporaries are taking up this really important question. If we could, we would prohibit the entire credit system by law. No doubt credit is good in *some* cases. So is strong drink. Our readers may have heard of the man that was saved by drinking whisky. The drink made him too late for the steamer, which burst its boiler and killed all on board. Nevertheless, we would prohibit the sale of all intoxicating liquors, if this were possible.

WE have few implements at the Rural Farm that we prize more than the disc harrow and the roller. One of the secrets of success in the flower garden is that the ground is frequently and well stirred. The available nutriment of the soil is thus brought within the reach of the roots of the plants and the pulverized surface is in more ways than one favorable to the well-being of vegetation. We have no doubt that in many cultivated fields, the very same lumps of earth remain from year to year as useless as stones, though not so hard. The use of a disc harrow and a two-horse roller upon many fields would prove as valuable for a year or so at least as a liberal dressing of manure.

THOSE who cultivate hilly or rolling lands in corn, ought to be sure to have the rows wide apart. If there should be much rain, the ground is well drained and the yield will be good any way. But if the season should be dry, the narrower the rows the more the corn will suffer; and the wider the rows, in reason, the less the row about the stalk will be exhausted by the drainage of the middle furrow. In a field observed this summer, a short row that was very wide, was very slightly affected by the dry weather, while the over-drained, narrow rows around it were much more seriously injured.

MANY of the embarrassing and dangerous accidents that occur in riding and driving might be prevented by a little attention. The rider should know for himself that every part of the bridle and saddle is in reliable condition. The driver should know if the harness and vehicle may safely be trusted. Considering the carelessness of multitudes, it is wonderful that there are not vastly more accidents in travel. It is time wisely spent when one walks around and cautiously inspects the several things upon which his limbs and life will depend. Those who keep trappings and vehicles should examine them patiently, from time to time, when not in use, and not wait till the moment of starting to work or to travel.

"THE Japanese Maples," says the London Garden, "in Messrs. Veitch's collection, deservedly attracted a good deal of attention. Such dainty little trees, with elegant feathery growth, are sure to be sought for the greenhouse and conservatory, even if they do not prove quite hardy in all parts of the country." They are hardy here, why not in the vicinity of London? If we need a Latin nomenclature so that any plant may be known by its botanical name in any country, we certainly need some other word besides "hardy" by which to express a plant's power of enduring drought, wet, heat, cold, and frequent alternations of heat and cold. It seems to us that the meaning of the word *hardy* ought to be accepted as simply relating to a plant's power of enduring cold.

IT has seemed to us that the word "catch," as applied to clover seed germination, is unfortunate, because misleading, since it justifies the impression that a good deal rests upon *chance*. It may be observed that if the seed is good, and properly sown, there is no chance about the "catch" if the soil is in a proper condition to insure it. If the soil is too dry, it may germinate, but the young plants may dry up and die for want of moisture. If the soil is too poor, they may germinate all the same but starve to death. It may be safely acted upon that if the soil is mellow and rich, clover sown either in fall or spring will prove a "good catch," the same as any other seeds, and that when it fails, the cause, except it may be excessively dry weather, is within the control of the farmer.

THE MESSRS. WILLIAMS send us from Montclair a box of Doyenné d' Eté, and Madeleine pears. Both are small. The first has a refreshing, sweet, juicy flesh, a small core and small white seeds. The tree bears while very young. Madeleine is rather more acid, but not the less of a most delicate, agreeable flavor. These early pears ripen just at a time when fruit is needed. Raspberries, currants and gooseberries are past—really good peaches are not yet in the market. Nothing but blackberries remains. They have much of the high flavor of our best later varieties and they may be eaten with all the relish that one enjoys while eating the first good fruits of the season. D' Eté thrives in N. H.—N. Y.—Delaware.—Md.—Tenn.—S. C.—Ga.—Ala. and even Texas. Madeleine does fairly well in a number of states, but we have no trustworthy notes as to where it thrives best.

POT-GROWN STRAWBERRIES may be set now and until October 1st for this climate. The plants may be ordered at *any* time, and then cared for the same as any other potted plants until sufficient rains make it desirable to set them in their permanent beds. If these Strawberries have been carefully raised by the nurseryman and carefully packed, they may be trusted to produce nearly a full crop next summer. Instead, therefore, of waiting another year for such promising new sorts as Sharpless, Cumberland Triumph, Prouty's Seedling, Marvin's Strawberry, etc., etc., to fruit abundantly, a few potted plants may be purchased at a small cost, and the family may the first season determine their value for their soil and location. It may be desirable to place the baskets or pots (soil and all) in water for a few minutes previous to final planting. Disturb the roots and soil about them as little as possible.

Literary Miscellany.

CLOUD LESSONS.

We watched the clouds at close of day:
A few were white as driven snow,
And all the rest were black or gray.

He said: "Some men have souls as clean
As you white clouds; but well I know
Such men are few and far between."

Asked little Alice, moving near:
"Why are those clouds as dark as lead
So near the hill-top, grandpa dear?"

"And why are those that look like heaven
So far above the rest?" He said:
"White clouds and men are nearest Heaven."

He rose and leaned upon his staff,
An aged man with pleasant eye,
And mellow cadence in his laugh.

The sunshine lingered overhead
Among the moving shapes; the sky
Was light, the earth grew dark. He said:

"These ever-changing, moving clouds
Well represent the men we know,
And faithful pictures of the crowds

"That ever change, but never rest,
Where many come and many go."
And then he smiled as if in jest.

But as the sun sank low and lower
The white clouds shone with many a ray;
The rest seemed darker than before.

He said: "This picture must decide
The fate of men; at close of day
Only the pure are glorified."

[*New York Observer.*

THE SCANDALOUS LETTER.

[Complete in Ten Chapters.]

CHAPTER III.

Miss Carew was alone in her small sitting-room, Nelson had gone with the landlady's children to a farm house outside the town, and was to come back in a spring-cart with a basket of eggs and flowers for Olive. There was nothing to interrupt her thoughts as she sat and sewed in the bow-window, and the shadows from the trees outside fell across her face. It was graver just then than her lover would have liked to see it; it was too patient to be the face of a happy woman. To-day Dr. Yorke had been urging her to throw up her engagement at the theatre and marry him at once, but she shrank with a curious dread from granting this request; she clung to the few weeks that remained to her of the happy, careless stage-life, the worst trouble of which had been the difficulty of making dresses out of nothing, or of struggling through the idle summer months with two mouths to fill.

"If it were not for Nelson!" she thought. But then was it not for Nelson's sake alone that she had consented to forfeit her self-respect, and marry this sober, kind-hearted country Doctor whom she did not love?

And for Nelson's sake she would complete the sacrifice, right or wrong—would enter a family whose women looked scornfully at her, would lay aside her own tastes and desires, and settle down to the prosy life of this small town, and spend her days in a mild hypocrisy, her best hope being that in time she might learn to be contented. But Nelson, her darling, should be happy. Under the Doctor's constant care, and with the unwonted ease and comfort of a settled home, her boy's strength would increase. He would grow up tall and robust and high-spirited, and have a good education, and come home in the holidays so big and sunburnt and hardy, so full of his exploits in playground and in class, that it would atone to her for many dull and lonely and regretful days that she would have to live through meanwhile.

As Olive was dreaming all this, Mrs. Allen, her kind little landlady, opened the door and breathlessly announced "Two ladies—in a carriage!" and Olive knew that she was about to make the acquaintance of her lover's womankind—knew it with a weary sinking at her heart which would have increased tenfold had she known how fierce a battle had been raging at the tranquil house in George Street, on her account, for the past two days.

Miss Yorke, finding that the announcement of her intention to go and bury her grief down in the wolds of Lincolnshire met with a calm acquiescence from her ungrateful nephew, had been compelled to relent with outward amiability, but with rage in her heart, and had consented to call on Miss Carew, and to receive her with the courtesy due to the future Mrs. Yorke. But of all this Olive was happily ignorant, and letting her sewing fall, she advanced to meet her visitors—Miss Yorke tall, erect, square, in creaking boots and thick brown silk; Gertrude, breathing a little heavily from the stairs and in tight corset, dressed in the height of the Woolchester mode, and positively rustling with expensiveness.

Miss Carew spoke her pleasant words of greeting to them both, and they eyed her beauty and her shabby gown with eager unfriendly glances as, perfectly unembarrassed, she turned a pile of music off one chair, and a yellow silk dress that wanted mending off another, so as to find seats for them. Dr. Yorke had been prevented at the last moment from accompanying his aunt, and in consequence the conversation languished in his absence.

Olive tried bravely "to make talk," but she had so little in common with her visitors. Gertrude employed herself in taking uneasy note of the coquettish simplicity of Miss Carew's well-worn gown, and resolved to copy it in a better material. Miss Yorke eyed the actress sourly, as Olive sat at the open window, her wonderful fairness and lovely bright hair shining in the yellow afternoon light, that streamed in through the budding branches of the trees, and lit up every nook and corner of the room, Nelson's piano and flowers, the stage-dress on the floor, the litter of "parts," and books and manuscripts on the table. Miss Yorke felt, as she looked at them, that she would like to sort them all in square piles, to lay the books at even distances round the table, and to close the lid of the piano. What would she have done with the flowers, the innocent pansies and violets and hyacinths, if she had known that Robert had paid ten shillings for them that very morning?

"Don't you find these rooms very confined?" she asked in her blunt fashion.

"I suppose they are," responded Olive, smiling. "But I live in so many baronial halls and palatial mansions that it is quite a pleasure to me to find myself within these narrow walls again."

"Oh, indeed!" Miss Yorke had not an idea of what the girl meant, and began to fancy terrible things.

"Besides, you can't imagine what splendid company I have received here."

"Company?" Miss Elizabeth's face grew grimmer and grimmer. Gertrude colored.

"Yes. Colonel Esmond has done me the honor to call several times; Major Dobbin too; and my dear Colonel Newcome."

"Those officers are a very dissipated set of men, I hear. We do not mix with the military at all."

"Not with men of family, like the Marquis of Esmond?"

"A marquis!" Gertrude cried, fidgeting uneasily in her chair. "How dull you will find our life, Miss Carew! You will have no gentlemen to speak to at all."

"But I like ladies' society too, when it is agreeable. Stephen Guest brought Maggie Tulliver the other day, and Aurora Leigh often spends an hour with me, and Ethel Newcome——"

"What! Newcome of High Street—the lawyer?" Miss Yorke put in.

"No—no," Olive laughed. "It is a shame, but I thought you would understand. I am talking of people in books."

"Oh, in books!" Miss Yorke drew herself up, and her thought was that "they did not know they would meet with such impertinence when they consented to call upon this woman." "I look upon reading novels as a sad waste of time," she added stiffly. "It is a practice Gertrude never indulges in."

"But you are fond of reading, Miss Fisher?"

"I have so little time—I do so much fancy-work," Gertrude answered coldly, and without returning Miss Carew's smile.

"Oh, I think women ought to stand up for the novel-writers!" Olive continued gaily, finding that another of those dreadful pauses was imminent. "Think how many incomplete lives they help to eke out—to how many half-starved fancies they offer food."

"I have heard they are very badly paid," Miss Yorke remarked gravely, in the evident belief that she was carrying out Olive's idea; and Olive gave up in despair, having already exhausted Gertrude's views on the subject of music, and wondered if they would ever go.

"I don't see your brother here," Miss Yorke said, when at last she did rise to take leave. "He is a cripple, I understand."

"Nelson has a delicate spine," Olive returned, flushing. "He is not a cripple. He is in the country to-day."

And so, when a formal invitation to dine in George Street had been given and accepted, Miss Yorke's well-appointed carriage rolled away up the quiet little street, to the sincere admiration of all the neighbor's children, who were playing on the door-steps. When the Doctor came in about an hour later, he found traces of tears in Miss Carew's eyes, and observed that she was absent in manner, answering him at random, and listening to every sound in the street, until presently the roll of wheels stopping at the door sent her flying down stairs to catch Nelson in her arms, crushing his immense nosegay of wall-flowers and polyanthuses, and smothering his beloved little face with passionate kisses. Dr. Yorke heard the boy's weak little joyous chatter all the way up stairs, and Olive's exclamation of interest in his recital.

"How she loves him!" he thought sadly. "What a treasure of tenderness that man threw away to whom she gave her heart, poor child!" And a twinge of jealousy shot through the Doctor's big frame as he recalled Olive's confession in the gray old garden walk.

The month that followed his engagement to Miss Carew was the happiest in Robert Yorke's life. True, he had failed in persuading her to quit the public career of which he was half ashamed—on that point the actress was obstinate—but it was pleasant, nevertheless, to take part in her triumphs over the scanty Woolchester audience; to see her face brighten at his approach; to get that swift, demure glance of recognition when he made his appearance in the musty old stage-box he had taken for the remainder of the season; to be allowed to wait for her at the stage-door, where the young men of the company knew him quite well and would exchange friendly greetings as they lit their cigars at the gas and turned their coat collars up round their throats; to be allowed to walk home with her through the quiet streets, and to kiss her fair little hand at the garden gate, while motherly Mrs. Allen held the open door and discreetly studied the starry sky.

There were formal, comfortable dinners, too, in George Street, when Olive's presence seemed to transform the familiar old house into a charmed palace, echoing with sweet words and laughter. Any one a little less frigid and jealous than Miss Yorke must have been won over by the girl's pretty ways; but, seeing her power in the house slipping from her hands, and feeling that her nephew's infatuation for the "player-woman" increased every day, the old lady grew grimmer and grimmer, and harder and more disagreeable, the more poor Olive tried to conciliate her, as the girl did unfailingly, for Nelson's sake. Gertrude, looking upon aunt Elizabeth as an oracle, was fain to act after her behests, and so Olive lost her only chance of a friend.

It was no wonder, the Doctor thought tenderly, that her gayety was somewhat forced and feverish at times, her temper—which he remembered so serene—uneven and fitful, and he silently pledged himself to guard her in the future from all such cold dislike and ungenerous taunts as now made her position with his family a most unenviable one. How he looked forward in those late April days to the evening rambles for which he stole an hour from his work, when Nelson rode a shaggy little pony that Olive had consented to accept for his use, and they four—the Doctor and his sweetheart, Nelson and Jerry—explored every lane and meadow near the town, getting home tired and hungry to tea in Olive's lodgings—tea drunk out of thick cups and saucers, and accompanied by thick bread-and-butter, but free from the sour glances and disagreeable insinuendoes which not unfrequently flavored the cup that was supposed to cheer at Miss Yorke's well-spread table! At these times Olive was her old charming self again; at these times the Doctor told himself, with an exulting heart, that she was beginning to care for him. She was so gentle; she looked at him with such cordial trusting eyes; she appealed to him in so many ways for information or advice—and there was no one to tell him that

"Love's likeness there endures upon all these,
But out of these one shall not gather love."

He was walking one evening by Olive's side over the cool short grass, the little hand of his love lying like a white flower on his dark coat-sleeve. It was Sunday, and bells were ringing sadly across the fields, the birds were growing silent in the trees and hedges, the budding lanes were tranquil and deserted. Miss Yorke had prophesied many evil things of her nephew because he had chosen to walk with his sweetheart in the April dusk on that especial evening, but Robert was too entirely contented to remember anything so disagreeable as he wandered dreaming through that wonderful golden land where most have walked at least once in their lives. Olive too was lost in a fit of musing; the hand that held a few flowers—found by her lover under the hedges—hung down listlessly at her side, her eyes were fixed on the evening star trembling afar off behind a farm-house that stood black and distinct, with its barns and poplar-trees, against the faint green west. Not a breath was stirring; not a distant voice or sound broke the perfect stillness; and, when presently the Doctor laid his hand across hers and looked fondly down at her absent face, Olive started and colored as though the hand had been laid upon her inmost heart, and it shrank from the touch.

"How still it is!" she said hurriedly. "I like these evenings early in the year, when there is something to wish for, something to look forward to. In midsummer, when the grass is ripe and tall, and the trees are in full leaf and flowers in full bloom, I feel oppressed. Even the birds have no heart to sing. They are bewildered by the color and luxuriance of the July days."

"Yes, I have never thought of it before," Dr. Yorke assented, in the puzzled tone of a man not given to sentimentalizing. "But too much happiness is saddening. Even while I walk here with you, Olive, and am not conscious of a single flaw in my delight, those long gray fields and that pale green sky fill me with a sort of melancholy—why?"

"Ah, who knows?" Olive answered with an air of relief, as if she had dreaded being questioned on some other subject. "It is a pretty peaceful landscape enough, is it not? But

'So it is, my dear;
All such things touch secret strings
For heavy hearts to hear.'"

"But mine is not a 'heavy heart,'" Robert whispered fondly, with another pressure of the little hand on his arm.

"What becomes of all these vague little pains and longings and regrets, Robert, I wonder? They come unbidden, and they go—who knows where?"

"Dear, I am jealous of all your regrets. I wish I could blot out every sad thing in your past."

Olive smiled gravely and shook her pretty head.

"That would be to blot out all my past life," she said. "The past is sorrowful, I suppose, because it is past. Some day, when you and I are old, we shall walk here perhaps and think of our young selves, and tell each other how happy we were then; yet now we are conscious of some 'secret string' that has been touched and is still jarring."

"Olive"—the Doctor's light tone changed to one of entreaty; he paused in the breezy, deserted field, and laid his hands on her shoulders, looking down into her fair, upraised face—"Olive, you are not unhappy—you do not regret——"

Olive turned her head and kissed one of the strong, kind hands.

"I should be the most unthankful woman in the world," she said earnestly, "if I were not happy."

The Doctor sighed; and in silence the lovers walked on towards the town. The streets were almost empty; church was not yet over; the windows of the houses looked dull and blank.

"I may come in and see Nelson?" Dr. Yorke asked as they walked along the principal thoroughfare, one or two men turning to look at "the pretty woman in gray" at his side.

"Of course you may, if——"

Olive broke off with a convulsive start, and, looking round surprised as she clung to his arm, the Doctor saw that she was deadly pale, and was pulling with trembling fingers her little spotted veil over her face.

"Olive," he said, anxiously, "you are ill—what is the matter?"

They were passing the club-house, and on the steps a few men were standing in the evening light—a stout old gentleman, a chattering lad with a smooth face and an eye-glass, and a tall, red-bearded man in a suit of gray garments, who had a strap over his shoulders and a railway rug in his hand. Dr. Yorke saw that there was a movement in the group as Miss Carew approached; then he turned and spoke to her again, asking her if she felt ill.

"No," Olive said faintly, trembling from head to foot, "I am not ill."

They turned into the quiet street where the actress lived, Robert Yorke's heart beating with vague uneasiness, and when they reached the iron gate Olive held out her hand.

"I will not ask you to come in, Robert," she said, forcing a smile, "because I——"

"You will allow me to call in the morning to see how you are?" The Doctor spoke a little stiffly. There was an air of mystery about Olive's behavior which displeased him.

Olive's pale cheeks flushed as she observed the change.

"You are not angry?" she said sadly, laying her hand with an air of timid appeal on her lover's arm.

"I could not be angry with you, Olive; but I wish you would allow me to prescribe for you if you are suffering."

For all answer she stood on tip-toe and—there was no one to see in the dusky little street—held her lovely face close up to his. And, blushing like a boy, Robert Yorke bent his tall head to take his first kiss from the lips of beautiful Olive Carew. With tingling veins and throbbing pulse he walked back by the way they had come together; and so absorbed was he in his own blissful thoughts that he nearly ran against some one as he turned into High Street. Muttering an apology, he looked up, and saw the tall man with the red beard who had stood on the club-house steps. The stranger looked at him carelessly, paused, turned on his heel, and walked leisurely off in an opposite direction. It was getting dark now. People were trooping homewards along the clean gray pavement; the last lingering notes of an organ voluntary sounded from a church hard by; lights began to twinkle in the windows.—[To be continued.

RECENT LITERATURE.

Random Shots—by Max Adler, with many Illustrations, by Arthur B. Frost. Price 75 cents. Philadelphia: J. M. Stoddard & Co.

The quality of Max Adler's humor like that of mercy, is not strained, which is more than can be said of most authors who start out to write a humorous book. It is tolerably easy to be funny for a few columns, but when the fun has to be carried through several hundred pages, it takes a humorist of the first water to avoid giving evidences of an "effort" to be witty. Mr. Adler belongs to this class. His fun is so spontaneous and jolly, that even the veriest churl can not help being infected by it. In "Random Shots" we are treated, among other things, to an excellent ghost story entitled "Mr. Skinner's Night in the Under-World." The hero, a shrewd, wide-awake American in making a tour of Europe, is seized with a desire to explore the Horselberg Mountain, the scene of Tannhauser's wonderful adventures. The common sense sort of way in which Skinner conducts himself is simply delicious. He finds himself alone with a ghost who asks, "Are you not afraid to stand in the presence of the awful spirits of the dead?"

"No, I'm not! Certainly not! you can't frighten me. What are you, anyway? Nothing but a little bit of vapor or carbonic acid gas, or something. Afraid! I'm not afraid of anything I can poke my umbrella through, like that and that," and Mr. Skinner stirred about with his umbrella in the middle of the spectre.

"It is strange," said the spectre with the faintest suggestion of embarrassment in its hollow tones, "we are not used to being regarded with such calmness by mere mortals."

"I know it!" answered Mr. Skinner; "I know it. People generally are frightened into fits when they think they see a ghost; but I made up my mind long ago, that if ever I met one, I was going to investigate him. S'pose we sit down here and have a little talk? I want to ask you, for example, how it feels to be a disembodied spirit? Never hungry, are you?" The ghost slowly shook its head. "Costs you nothing for food; don't have to buy any clothes; no aches or pains, or anything of that kind?" The spectre nodded negatively. "I thought not," said Mr. Skinner, "and nothing spent for traveling expenses, either. I reckon, now, if you wanted to take a fly over to America, you could get there in a jiffy. It must be rather agreeable, upon the whole, no taxes and no work to do. But, say, what's the fact about your fellows haunting houses and graveyards? Ever do any thing of the kind?"

"Sometimes."

"I wouldn't have believed it two hours ago. But what's the sense of it? What's the use of scaring people with that kind of foolishness? Why don't you keep off and behave?"

Presently Skinner hears a rooster crow.

"Halloa! What's that? Sounds like a rooster."

"It's a cock crowing outside of us, upon the hill-top."

"Outside, eh? I thought, at first, maybe you kept chickens, and it struck me as kind of singular. I couldn't imagine what a ghost wanted with poultry."

Later, his ghostly guide introduces Skinner to the Hall of Heroes, where gathered about a table are a great host of figures. The guide explains that these "are the immortal parts of men whose deeds upon earth have made their fame eternal," and he points out Arthur and the Knights of the Round Table, Charlemagne, and a few other celebrities. Skinner despite the remonstrances of the ghost, seats himself at the table, and presently rising, he essays a speech. After giving his august hearers a little of the current news of the day, he proceeds to say:—

"However, the matter to which I wished principally to allude, interests you more directly. I say, frankly, that until I dropped in here, I never had any solid faith in the reality of ghosts. I regarded the whole thing as a mass of superstition. I see now that I was wrong. But having confessed this much, I think I ought to say to you, who probably have some influence over the affairs of your kind, that the sooner some one of you starts an energetic reform in the ghost business, the better will be the result. Gentlemen, I am a practical man—a utilitarian, if you will—and I must say that it grieves me, when I look around upon this grave and digni-

fied company, to think of the ridiculous character of the methods in which you manifest yourselves to mankind. If I were a goblin, and I retained a particle of my self-respect, I would keep away from grave-yards at night, I would refrain from haunting houses, and prowling about, making noises to scare timid women and children, I would refuse to come out at so-called spiritual *seances*, and thrum diabolical music upon cracked guitars, and tilt-tables, at the bidding of long-haired and wild-eyed mediums. If a ghost who has been respectable in life cannot put in his spare time in the outer world in better ways than these, my advice to him is to stay in the bowels of the earth right along and to let honest people alone. Apart from the silliness of such proceedings, they are disgustingly useless. Now if I were a ghost, I would use my powers to reveal to living men truths that would be of service to them—such as knowledge of the spiritual state, and information, perhaps, as to the location of veins of coal, of the metals, and so forth; or, if these things are forbidden, I would rent myself out for exhibition for the benefit of good objects of various kinds. A genuine ghost, for example, could always find employment when Hamlet or Macbeth is performed at the theaters; and if you can flit about with the rapidity commonly attributed to you, some of you might earn good wages carrying messages for persons to places which the telegraph does not reach."

For a fuller account of this speech and the rest of Mr. Skinner's adventures, we refer the reader to the book. There are, in all twelve sketches, some extremely funny and all entertaining. We know of no better antidote for "dull care" or the "blues," than a liberal dose of "Random Shots."

MAGAZINES.

HARPER'S MAGAZINE FOR AUGUST.—Lake George, S. G. W. Benjamin; with twenty-three illustrations. The Nautical School "St. Marys." W. H. Rideing; with twelve illustrations. Chautauqua. D. R. Post; with eight illustrations. Little Barbara. A Poem, Will Wallace Harney; with one illustration. The First Mrs. Petersham, Harriet Prescott Spofford; with one illustration. American Forests. G. W. Powell; Miss Mildred's Friend. A story, Elizabeth Stuart Phelps. Snug Hamlet and Hometown, W. Hamilton Gibson; with fifteen illustrations. Watchwords. A poem, Helen S. Conant; Japanese Rock-crystal, Rev. W. E. Griffis; with five illustrations. White Wings, A Yachting Romance, William Clack; with two illustrations. Young Mrs. Jardine. A Novel, D. M. Craik; with three illustrations. The Foreign Indebtedness of the United States, Willard Brown; Mary Anerly. A Novel. R. D. Blackmore. Consequences of Defective Vision, Dr. Edward G. Loring; Editor's Easy Chair; Editor's Literary Record; Editor's Historical Record.

THE DESTRUCTION OF OUR FORESTS.—Of a desolation which is recorded far back of the days of Roman or even of Grecian glory, we read that "a man was famous according as he had lifted up axes upon the thick trees." In the days when American forests were considered practically limitless, our fathers were far too famous for lifting up axes upon the thick trees, and the resultant destruction is even now upon us, like the Philistines upon Samson. This destruction comes upon us in many forms, most of which are, in fact, rapidly and terribly cumulative. Here is a beautiful stream of water, for example, which was a great element of wealth to the region through which it flowed. It might not only have continued to be so, but to have gained in usefulness instead of being either dead or surely and swiftly passing away. The numberless little hollows on the hills where were the springs which grew into rivulets to feed it have been stripped of the moisture-economizing verdure with which the Creator clothed them, and so the springs are dry, and the rills no longer murmur their once glad songs of labor as they hastened down the valleys to turn the mill-wheels of mechanical industry. In this one matter of destruction of hydraulic power with which we have been already smitten, hundreds of millions of dollars of annual damage has been and is the actual result. That this drying up of the streams is attributable not only chiefly to deforesting, but almost solely to it, common-sense—which is in fact, the very essence of both fact and philosophy—must make plain to every candid mind. Rain feeds the springs. To feed them economically, it should be gentle and frequent, not violent and at long intervals. Intelligent forest engineering would require that such portion of hills be clothed with a mantle of green trees as by its cooling influence it would more frequently so contract the aerial sponge as to give us showers at short intervals. This is the case in forest-clothed, beautiful Britain. The reverse is true in tree-stripped Spain, whose people have become as proverbial for their hatred of trees as their country has for sterility of soil and sleeping streams. There, and on eastward all through the Orient, a relentlessly brilliant sky and an appalling absence of verdure will teach one as nothing else can how beautiful are clouds that weep, and, in its proper time, how delicious a drizzling rainy day. These deforested Eastern lands are as famous for seasons of blinding storms, and valleys torn by terrible torrents, as they are for the reverse. They will soon find their counterpart in all these characteristics in America, unless we rouse ourselves with a will to understand and to master these evils. Forests promote streams available for our precious manufacturing interests, also by furnishing vast and almost innumerable beds of fallen leaves and of moss, which act on the earth like a huge overlying sponge to check the sudden rush of the rainfall into the valleys and down into the streams. Very rapidly in recent years are mournful instances multiplying in which the manufacturing streams are transformed by freshets from spirits of blessing—to demons of destruction. Forests also promote such steadiness of flow of the streams as to make them sources of national wealth in giving employment to skilled labor, by preventing the rapid evaporation of moisture. Probably more than half the water that falls on a deforested region in a dry season is whisked off by evaporation just at the time when it is most needed to strengthen the depleted mill-streams. The steam-engine, to be of any practical use as a motive power, must have its action controlled by the conservative influence of the balance wheel. Otherwise its wheels would whirl at one time with a fury which would result only in destruction, and then they would move too slowly to be of service. Thus the forest, by increasing the frequency of gentle rains, and so decreasing the volume and the length of intervals between showers, also by regulating their too sudden plunge into the streams, is the great regulator provided by nature for their control in the service of man. All over the manufacturing portions of our country we may find instances where large amounts of capital have been invested to develop and make available our once magnificent and almost numberless hydraulic powers. Trusting to what seemed a certainty of employment for themselves and their families, thousands of skilled laborers have in many cases confidingly made their homes at a point where the stream seemed abundantly powerful and permanent. Then, as the summers came and went, the rivers seemed to sicken, and grow more and more feeble, till there would be a week or two each year in which the spindles and the looms would be silent. As time went on these periods of idleness have lengthened into months, in which the labor struggle for bread and clothing, for means to pay for the humble little home, or debts incurred in sickness, was compelled to be suspended. The cause of all this was that the sources of the river's life had been destroyed or injured by the ignorance, cupidity, or recklessness of men who "lifted up axes on the thick trees" far up the mountains, where the mill-streams had their birth.—G. W. Powell, in *Harper's Magazine for August.*

THE ATLANTIC MONTHLY FOR AUGUST, 1879—CONTENTS: Preaching; The Future of Invention, W. H. Babcock; The Inland Country, Christine Chaplin Brush; An Experiment in Play Writing, Joseph Kirkland; At Kawsmouth Station, Henry King; The Latest Literature of Art, Henry Van Brunt; Petite Marie and Benezet, H. H.; Irene the Missionary, XVIII.-XXII.; Two Years of President Hayes, Walter Allen; A Bit of Shore Life, Sarah O. Jewett; The Deserted Cabin, Mrs. E. R. Lee; "Un Homme Capable," Axel C. J. Gustafson; The Negro Exodus, James B. Runnion; Recent French and German Essays, Thomas Sergeant Perry; William Lloyd Garrison, Lydia Maria Child; Vestigia Quinque Retrorsum. An Academic Poem, Oliver Wendell Holmes; Rural England, Richard Grant White; The Contributors' Club; Recent Literature.

COMPETITION WITH LABOR-SAVING MACHINERY.—The great question, however, for the poor man is, or shortly will be, that of escape from competition with labor-saving machinery by occupying small tracts of land, particularly of such rough woodland as cannot be successfully invaded by machinery of less flexibility and adaptability than the human body. Here flesh and blood have the advantage, and he can live. Making his work easier is a less consideration, but by lightening the labor at home he obtains more assistance from his family in his out-door duties. The time saved from washing and churning may go to weeding and chopping; sewing is convertible into sowing. Thus the certainty of a living and of a fair exchangeable surplus becomes established. It is a life which can be made a success, and which will be one day the rule rather than the exception.

This change will of course strengthen all our institutions, by broadening the base of our national life and multiplying the number of those who have a direct property interest in public prosperity. It will not stop the growth of cities, which will still be needed as great distributing centres; nor will it lessen the number of inventions of a different sort from those last referred to. All that is needed now will be needed then, and there will be more people in a position to obtain what they want. The chief revolution will be the general substitution of unintelligent matter for human bodies in nearly all subordinate work, and the greater liberation of the human mind and will. Concurrent with this will be the more thorough development of the agricultural resources of the country, and the occupancy of its many places now lying waste. All this is not so far away as it may seem.—*W. H. Babcock, in August Atlantic.*

DOMESTIC MONTHLY FOR AUGUST: Review of Fashions; Fashions for Gentlemen; Children's Underclothing, Fans, Jewelry and Parasols, Seasonable Fabrics, Trimmings, Stockings and Shoes; Coiffures, Millinery, Lingerie; Domestic Art. All the foregoing articles are illustrated. The stories are: Lost Alice and Her Three Lovers, followed by The Lost Kingdom, a poem; Miscellany, Small Talk; Household Department; Recent Literature; Mosaics; Answers to Correspondents.

There is one defect connected with summering in the country which quite possibly has been observed, though perhaps not commented upon, by almost every body. It is the mistake of permitting children to play from early morn to dewy eve without the pause of an hour, and without once withdrawing their attention from physical exercise to the small task of reading aloud or even resting for a short hour every forenoon. A daily lesson in any thing that is worth learning is invaluable to children; and plain sewing, taught not only to little girls but to small boys as well, may be made a charming occupation if the mother-teacher will tell a story or read from some attractive book during the lesson. Even children need to rest from pleasure taking now and then, and a spelling-class organized on the old plan of "choosing sides" will be hailed after a few trials as one of the delights of vacation—providing it is done as recreation and not as a compulsory work.

What a pity it is that a disordered toilette is so disparaging to a man, and that he looks so little like a god when he is in any disturbed state of costume. It is so different with a woman! Dishevelled hair, tucked-up skirts, and up-rolled sleeves may make a picturesque *ensemble* for her; but take the very Apollo of the day and tie his cravat on one side, deprive him of his coat, give him an old hat, and set him at work at something perplexing, and see what a monstrous thing he is! Any looker-on will admit that dress does make the man, whatever nature may have done with the preliminaries.—*Domestic for August.*

GLEANINGS.

THE MAN AND THE PICNIC.

UNDER the shellbark hickory tree
The picnic man he stands;
A woful looking man is he,
With bruised and grimmy hands;
And the soil that sticks to his trousers knee,
Is the soil of several lands.

His hair is tumbled, his hat is torn,
His clothes are like the ground;
He wishes he had ne'er been born,
Or born, had ne'er been found.
He glares and scowls in wrathful scorn
As oft he looks around.

At early morn, all dressed in white,
He sought the picnic park;
His face was clean, his heart was light,
His lond song mocked the lark.
But now, although the day is bright,
His world, alas! is dark.

In joyous mood, at early morn,
He sat upon the stump.
But soon, as though upon a thorn
He sat, with mighty jump
He leaped aloft, and all forlorn
In haste he did crump.

For lo, in hordes the big black ants,
With nippers long and slim,
Went swiftly crawling up his pants,
And made it warm for him;
And through the woods they make him dance,
With gasp, and groan, and vim.

And when the rustic feast is spread,
And she is sitting by,
His wildwood garland on her head,
The love light in her eye,
He—woe, oh, woe!—would he were dead!—
Sits in the custard pie.

And now they send him up the tree
To fix the picnic swing,
And up the shellbark's scraggy side,
They laugh to see him cling;
They cannot hear the words he cried,
"Dad fetch! dog gone! dat bing!"

And now he wisheth he were down,
And yet he cannot see,
Just how the giggle, stare and frown
Escaped by him may be;
He knows he cannot scramble down
With his back against the tree.

Sobbing, and sidling, and wailing,
Homeward alone he goes;
Clay, pie, and grass stain on his clothes,
More and more plainly shows;
And he vows to any more picnics
He never will go, he knows.

But the morning comes, and its rising sun
Brings balm to his shattered breeks;
He thinks, after all, he had lots of fun,
And hopefully, gayly he speaks;
And he goes to picnics one by one,
Nine times in the next five weeks. [*Hawkeye.*

JUDICIOUS ADVERTISING.—A man was denouncing newspaper advertising to a crowd of listeners. "Last week," said he, "I had an umbrella stolen from the vestibule of the —— church. It was a gift; and, valuing it very highly, I spent double its worth in advertising, but have not recovered it." "How did you word your advertisement?" asked a merchant. "Here it is," said the man, producing a slip cut from a newspaper. The merchant took it and read: "Lost from the vestibule of —— church last Sabbath evening, a black silk umbrella. The gentleman who took it will be handsomely rewarded by leaving it at No. — San Fernando street." "Now," said the merchant, "I am a liberal advertiser, and have always found that it paid me well. A great deal depends upon the manner in which an advertisement is put. Let us try for your umbrella again, and if you do not acknowledge then that advertising pays, I will purchase you a new one." The merchant then took a slip of paper from his pocket and wrote: "If the man who was seen to take an umbrella from the vestibule of the —— church last Sabbath evening, does not wish to get into trouble and have a stain cast upon the Christian character which he values so highly, he will return it to No. — San Fernando street. He is well known." This duly appeared in the paper, and on the following morning the man was astonished when he opened the front door of his residence. On the porch lay at least a dozen umbrellas of all shades and sizes that had been thrown in from the sidewalk, while the front yard was literally paved with umbrellas. Many of them had notes attached to them saying that they had been taken by mistake, and begging the loser to keep the little affair quiet.—*Saturday Magazine.*

IT is a fact for thoughtful people to contemplate that marriages in the United States are believed to be decreasing in number in proportion to population, and divorces are increasing correspondingly. Several papers devoted to "matrimonial brokerage" have been started to remedy this; and a Cincinnati society for the promotion of marriage is several years old. It is alleged to have over 2,000 members and have branches in forty cities of the country. How much it has actually effected the ostensible object in view is a matter of doubt, but it advertises "a grand picnic" on August 10, on which occasion one hundred couples will be publicly joined in th alleged holy bonds of matrimony. This is a large-sized experiment, and it has a sharp business jingle quite paralyzing to sentiment. Is hymeneal brokerage the hope of the future?

To all who are afflicted with the habit of profanity, and who are desirous of curing themselves of it, the Louisville Courier-Journal suggests that, as a beginning, they resolve, and rigidly adhere to the resolution, that whenever they feel a disposition to swear they will take no other name in vain except that of the Aztec god of war, Huitzilopochtli. That will give their anger a chance to cool and to disappear before they get to the other end of the word, and they will not thus be guilty of the sin of a complete oath. And if Huitzilopochtli won't break them, then their cases are hopeless.

BY AND BY.

THERE'S a little mischief maker,
Who is stealing half our bliss,
Sketching pictures in a dreamland
That are never seen in this,
Dashing from our lips the pleasures
Of the present while we sigh.
You may know this mischief maker
By the name of By and By.

He is sitting by our hearthstones,
With his sly bewitching glance.
Whispering of the coming morrow
As the social hours advance;
Loitering 'mid our calm reflections,
Hiding forms of beauty nigh;
He's a smooth, deceitful fellow
This enchanter, By and By.

You may know him by his winning,
By his careless, sprightly air;
By his sly obtrusive presence,
That is straying everywhere;
By the trophies that he gathers
Where his somber victories lie—
For a bold, determined fellow
Is this conqueror, By and By.

When the calls of duty haunt us,
And the present seems to be
All the time that ever mortals
Snatch from dark eternity,
Then a fairy hand seems painting
Pictures on a distant sky:
Oh, a cunning little creature—
Trust him not, this By and By.

ANACHRONISMS IN ART.—These are to be found in works of all ages. Thus we have Verrio's *periwigged* spectators of "Christ Healing the Sick;" Abraham about to shoot Isaac with a *pistol;* an Ethiopian King in a *surplice, boots* and *spurs;* Belin's "Virgin and Child" listening to a *violin;* and in Albert Durer's "Angel Driving Adam and Eve from Paradise," the angel wearing *a flounced petticoat.* Then we have Cigoli's "Simeon at the Circumcision" with *spectacles on nose;* the Virgin Mary helping herself to a *cup of coffee* from a chased *coffeepot;* and St. Jerome painted with a *clock* by his side. N. Poussin has represented "The Deluge" *with boats;* and "Rebecca at the Well" with *Grecian* architecture in the background. And, in a picture representing "Lobsters in the Sea Listening to the Preaching of St. Anthony at Padua," the lobsters are *red;* yet, it is to be presumed, *unboiled.—Chambers's Journal.*

LOCKSLEY HALL.—Some time since some one asked if Tennyson's "Locksley Hall" had any foundation in fact. It would seem so from the following, which I cut from an English paper:

M. E.

"A clergyman has just died at Lincolnshire, England, who, it is said, saw the man that won the affections of that 'shallow hearted' Cousin Amy, familiar to every one who knows Tennyson's 'Locksley Hall;' and who does not? He was very fond of horses, and extravagant stories are told of his love for dogs. It is to him that the following lines refer:

"'As the husband is, the wife is; thou art mated with a clown,
And the grossness of his nature will have weight to drag thee down.
He will hold thee, when his passion shall have spent its novel force,
Something better than his dog, a little dearer than his horse.'"

The sign, "English spoken here," is common enough in Paris shop windows, but one finds very little English on the inside. The other day an English milliner established in the French capital, put out a sign which said, "*Ici on parler Francaise.*" The French papers have taken this seriously, and complain that it is intended as an insult. They say it is an insinuation that the Parisians cannot talk their own language. The most singular of all these notices, however, was one which appeared during the Exhibition, and read "American spoken here."

ODE TO A COW.

WHY, cow, how canst thou be so satisfied,
So well content with all things here below,
So meek, so lazy, and so sleepy-eyed;
So unobtrusive and so awful slow.
Dost thou not know that everything is mixed:
That naught is as it should be on the earth;
That grievously the world needs to be fixed,
That nothing we can do hath any worth?
* * * * *
Even the cud thou chewest—is not what it seems—
Get up, and moo! Tear round, and quit thy dreams.

The review passed splendidly through all of Job's afflictions, and the exercises had reached the question, "Who comforted Job?" which was confidently put by the pastor and as fearlessly responded to by a little bright-eyed girl in the assembly, whose raised and agitated hand expressed her anxiety to answer. The pastor's eye caught the zealous activity of his little scholar, and pleased to gratify the child's desire, he said: "Well, Gracie, speak up loud now; who was it comforted Job?" And the response came clear and with sincerity: "His sisters and his cousins and his aunts."

Buffalo Express: Joaquin Miller says that men who love the beautiful are never bad. This will be consolation to the man who runs away with his neighbor's wife.

For Women.

CONDUCTED BY MISS FAITH RIPLEY.

THE "LAND OF MIGHT HAVE BEEN."

BY C. H. W.

"Of all sad words of tongue or pen,
The saddest are these: it might have been."

I.

All the long, long hours of sunshine,
Steadfastly I do my part,
Toiling ever, listening never,
To the 'plainings of my heart.
Captive in the thrall of duty,
Dare I not to heed its call,
Murmuring only to its pleadings,
"Patience 'till the even-fall."

II.

Then when with the dusky twilight,
Rest and silence come again,
With a hand all trembling, eager,
I unloose its heavy chain.
Suffer it for one brief hour,
Freedom, happiness to win,
As its fluttering pinions bear it
To the "Land of Might Have Been!"

III.

Ah! you know not of the Palace
Cloud-erected in that Land;
Ah! you know not of the soul-mate
Waiting there with outstretched hand.
You have never heard the greeting
Of that voice so silver sweet—
You have never crossed that portal.
Fit alone for spirit feet.

IV.

Yet within those halls of splendor,
All of earth's immortals stand,
Patriots, Heroes, Holy Martyrs,
Bid me welcome to their band.
Freed from every touch of sorrow
Shrived from every taint of sin,
Radiant with God-given glory
In the "Land of Might Have Been."

V.

Oh, the friends on earth long parted,
Meeting in that blessed Land,
Oh, the greetings of their voices,
And the clasping of each hand.
Every wrong and shame forgotten,
Nothing now their souls within,
But a love serene and holy
In the "Land of Might Have Been."

VI.

All the visions of my childhood,
All my youth's bright dreams of fame,
All my manhood's aspirations,
There have taken form and name.
King and Conqueror, they hail me,
As they bid me welcome in
Through the ever open portals
To the "Land of Might Have Been."

VII.

But the nearest, fairest, dearest,
Of the dwellers in that Land,
Is the one who waiteth ever
At the gate, with outstretched hand.
Lost! oh God, on earth forever,
Lost through sorrow, lost through sin;
But I claim her mine forever,
In the "Land of Might Have Been."

VIII.

Oh, when hand in hand we wander
On that bright celestial shore,
Heart to heart its love out-pouring,
Doubting, fearing nevermore.
Greater bliss no angel knoweth,
Than my bankrupt heart can win,
At the dusky hour of twilight,
In the "Land of Might Have Been."

"HOME PROTECTION."

An Argument for Woman's Temperance Ballot.

BY FRANCES E. WILLARD,
PRESIDENT OF ILLINOIS W. C. T. U.

[THROUGH the courtesy of the Editor of "The Independent," I am able to publish for the good ladies who take an interest in the "Woman's Department," Frances E. Willard's address, delivered at Woodstock, Ct., on the Fourth of July of this year. The address contains so much information and so many admirable suggestions, that I have decided to give it in full; and as it is too long to publish at one time, it will run through three or four issues. I ask for the address a careful reading. Even those of us who differ from Miss Willard on some points, will do well to attentively read what she has to say, for her words are "words of wisdom."

Yours for Temperance, FAITH RIPLEY.]

KING MAJORITY.

ONCE more will the time-honored declaration be made to-day, by a thousand Fourth of July orators, that "the Americans are a free people." But I insist that we are governed by the most powerful king whose iron rule ever determined the policy, molded the institutions, or controlled the destinies of a great nation.

So pervasive is his influence that it penetrates to the most obscure and distant hamlet with the same readiness, and there wields the same potency as is in his empire's capital; nay (with reverence be it said), he is like Deity in that his actual presence is co-extensive with his vast domain. Our legislatures are his playthings, our congressmen his puppets, and our President is the child of his latest adoption. We do not often call him by his name, this potentate of million hands and myriad voices; but, to my thinking, nothing is to-day so vital to America as that we become better acquainted with our ruler. Let me then present to your thought his Majestic Highness, King Majority, Sovereign Ruler of these United States.

KING ALCOHOL.

Permit me now to introduce a different character, who comes to the court of King Majority as chief ambassador from the empire of his Satanic Majesty. I show you the skeleton at our patriotic banquet. It has a skull with straightened forehead and sickening smile; but bedecked with wreaths of vine, clusters of grape, and heads of golden grain—King Alcohol, present at court in radiant disguise. With a foaming beer-mug at his lips, he drinks the health of King Majority; and, placing at his feet a chest of gold labeled "Internal Revenue," he desireth conditions of peace.

THE QUESTION.

Behold in these two figures the great danger and the ineffable hope of the Republic! How can we rouse the stolid giant, King Majority? How light in those sleepy eyes the fires of a holy and relentless purpose?

AN ANSWER.

How? Only by "sweet reasonableness;" only by sweet persuasion; by noble examples; only by honest work based upon fervent and effectual prayer.

Human heads and hearts are much alike. I remember that the great Temperance Crusade of 1874 found me with a beer keg in my cellar, a fatal haziness in my opinions, and a blighting indifference to the temperance reform upon my will. But how did its intense pathos melt my heart; how did its mighty logic tune the lax cords of opinion to concert pitch; how did its miracle of prayer bring thousands to their knees, crying: "Lord, what wouldst thou have me to do?" For myself, I could never be the same after that. As a woman, a patriot, a Christian, my heart is fixed in deathless enmity to all that can intoxicate. The same influences which so transformed one brain and heart are steadily at work to-day in a thousand quiet ways.

The sober second thought of the Woman's Temperance Crusade was organization. The voice of God called to them from the lips of his prophet: "Make a chain, for the land is full of violence and the cities of blood." And so in every town and village we are forming these chains of light and loving help, which we call "Women's Christian Temperance Unions." Sabbath-schools are adopting our plans of temperance instruction; and hundreds of juvenile societies are inscribing on their banners: "Tremble, King Alcohol! We shall grow up." Friendly inns and temperance reading-rooms are multiplying: Gospel meetings conducted by women are reaching the drinking class in hundreds of communities; the Red and Blue Ribbon Movements have attained magnificent proportions; and all this many-sided work is fast concentrating its influence to place the ballot in the hand of woman. Magnificent is the spectacle of these new forces now rallying to the fray. Side by side with the 500,000 men whose united energies are expended in making and selling strong drink, we are working day by day. While they brew beer we are brewing public sentiment; while they distill whisky we are distilling facts; while they rectify brandy we are rectifying political constituencies; and ere long their fuming tide of intoxicating liquor shall be met and driven back by the overwhelming flood of enlightened sentiment and divinely aroused energy.

OBJECTION.—"PROHIBITION A FAILURE."

To be sure, King Majority gave prohibition to Maine; but "prohibition doesn't prohibit" interrupts Sir Sapient, whose remark furnishes a striking illustration of the power of the human mind to resist knowledge. Just take the spyglass of observation, and behold from Kittery to Calais the gleaming refutation of your error.

Less than thirty years ago they had four hundred open hotel bars and ten miles of saloons. To-day Dr. Hamlin, of Constantinople, testifies that, coming home, after forty years' absence, he finds his native State thoroughly renovated from the liquor traffic. Gen. Neal Dow testifies that the law has absolutely driven the sale of strong drink out of all rural districts; and in the larger towns, instead of the free, open sale of former years, it is driven into secret holes, kept by the lowest class of foreigners. Ex-Govs. Dingley and Perham and Senator Blaine and Representative Frye declare that it is as well enforced as the law against stealing; and even sensational journalists have not told us that thieves flourish in the Pine Tree State. Mr. Reuter, of Boston, President of the National Brewers' Convention, held in St. Louis four weeks ago, says: "Formerly Maine produced nearly ten thousand barrels of beer annually; but this has fallen to SEVEN BARRELS, in consequence of the local enforcement of prohibitory law." Surely, this gentleman should be considered as good authority on this subject as a convict is of the strength of his prison-bars!

MAINE AN EXCEPTION.

But you say "Maine is different from any other State." Why so? Are not its citizens of like passions with other men? Turn your glass upon a panorama of Maine as it was in former days. See yonder slothful workers in the harvest-field paying vigorous addresses to the little brown jug; observe its ubiquitous presence at the logging bee, the "raising" the wedding, and the funeral; see it pass from lip to lip around the fireside circle; observe the Gospel minister refreshing himself from the demijohn of his parishioner and host; and be assured that within the memory of men now living these were every-day events. I have this testimony from the most honored residents of Maine, whose recitals involved the words "all of which I saw and a part of which I was." But, as gallant Neal Dow hath it, "Maine was sown knee-deep with temperance literature before we reaped the harvest of prohibition." Let us note the evolution of this seed-planting. Land-owners found that two-thirds of their taxes resulted from the liquor traffic (in cost of prosecuting criminals and taking care of paupers); so they concluded that legalizing saloons for the sake of the revenue was penny wisdom and pound foolishness. Business men discovered that the liquor traffic is a pirate on the high seas of trade, because the more the grog-shop is patronized the fewer customers there are for flour and fuel, boots, shoes, and clothes; and so, in self-defense, they declared for prohibition. Church people found that fifteen times as much money went to the dram-shop as to the church, and that the teachings of the one more than offset those of the other with the young men of the State. So they perceived they could not conscientiously ally themselves with the liquor traffic by their votes. Those interested in education learned that enough money was swallowed in drinks that deteriorate the brain to furnish a schoolhouse for every fifty boys and girls, and to set over them teachers of the highest culture: and they saw it was unreasonable to defend the liquor traffic. In short, the majority came to believe that, between the upper and nether mill-stones of starving out saloons, on the one hand, and voting them out on the other, they could be pounded to death; and they have so pounded them. The question of selling as a beverage the drinks which we know by centuries of demonstration will so craze men that they will commit every crime and show the subtlest cruelty to those they love the best is not today an open question with either party, any more than trial by jury or imprisonment for theft. They had a thirty years' war before the declaration of this blessed peace; but what are thirty years when crowned at last by the surrender of King Alcohol to King Majority?—To be continued.

WOMANLY CLIPPINGS.

Extract from a Paper Read by Mrs. Isabella Candee before the Illinois Social Science Convention.

WHAT a power for good in any circle of society is a refined, cultivated, pure and noble woman. How cordially is she received, how heartily is she deferred to. Almost unconsciously the profane man drops his pet oaths, the coarse and vulgar man endeavors to appear a gentleman, and the frivolous, impertinent and rude, put aside their various weaknesses when in her gentle, gracious presence. The worst, most wicked and depraved men respect and honor a pure woman. With such an influence over evil, why is it there is so much unrebuked, why is it that good women quietly close their eyes and ears to the strong undertow which is dragging in and destroying the lives of so many of our youth? O mothers! sisters! wives! here is one of your opportunities, here is the potentiality of a pure, wise and courageous womanhood! Open your eyes and see the condition of things around us. Society has two codes of morals, unwritten, but none the less strong and binding—one for man, another for woman. As little children born of the same mother, nurtured under the same roof-tree, taught the same lessons of honesty, truthfulness and affection, in their early years, why is it that their paths are allowed to diverge as they grow older, and while modesty, delicacy and propriety, are demanded of the girl, coarseness and indelicacy, are winked at and openly excused in the boy? These things ought not so to be—they are sapping the foundations of our social life, and to the mothers we must look for a remedy. A wise, true motherhood, enlightened and thoroughly trained with the dignity and prestige of equality before the law, can alone reform the fast-increasing evil. The same purity in thought, in word and deed, required of the sisters, should be insisted on from the brothers. O young mothers, who hold your bonny boys close to your hearts, rejoicing in their innocent prattle, and shuddering at the thought of years to come when they shall go out from your encircling arms, see to it that they are as carefully taught true purity as the little daughters who give promise of a perfect womanhood! Teach them that in the sight of God there is no distinction in sin. Teach them wisely, reverently and plainly, their obligations to God and to themselves, and the beauty, strength and glory of the pure and innocent manhood! So shall we have more dutiful sons, more loyal husbands, fewer broken hearts and blasted homes, and gray hairs brought down in sorrow to the grave! Alas! that we cannot teach our sons that society, as well as God, will hold them to a strict account for profligacy and evil-doing. Tell me whose fault it is that the boy or young man feels that vice is at a premium, and, virtue little valued, when he perceives some companion well known to be "fast," because he is wealthy or of fine address and possessed of pleasing manners, or is a member of some "old family," cordially received by his mother and sisters in his own home? How much attention, think you, will he pay to the gentle warning of his mother against an intimacy with such a person "because he is not a good companion for a boy" when he sees her smile upon him in society, and permit his attentions to his sisters? What restraint is there upon the desire of men to frequent gambling halls, saloons, and houses which virtuous women blush to name, when they know that from these haunts of sin and shame they can go direct to the drawing-rooms and parlors of "best society," enjoying at the same time the dregs and cream of life at pleasure? What blindness is this that closes our eyes to shameless folly in the man, and yet makes us so ready to detect it in the woman! I have known good Christian women to speak scornfully and angrily of those poor, lost sisters whose lives are like the whirlpool, in which, once caught, the wrecked vessel is carried helplessly around, until engulfed in the boiling vortex and lost forever in the blackness or darkness; who are shut out from all thoughts of happy, virtuous homes and little children's holy love, and suffer in a bondage from which there is no escape this side the grave, and I have known these good women to receive with pleasant smiles and cordial welcome the men who have placed and who keep these poor, lost sisters where they are, with no word of protest, no act to show the disapproval which they ought to feel. How long before we shall dare refuse to receive into our homes or recognize elsewhere the man who makes his boast among his fellows of his evil deeds? When we shall dare to frown upon this dual life of respectability and sinfulness, of seeming virtue and actual vice, demand of our associates that purity that they demand of us? When women in a body have the courage to do this, the fearlessness to lift up their united voices in earnest protest, and the bravery to act in concert, we shall have a different state of affairs, and not until then.

Sound Argument.

A tobacco discussion has been going on in the Cleveland Herald for some little time, and in answer to some of the statements made, Florence G. presents the following: Fannie A. A. says: "Let our husbands chew tobacco if they wish; it's a right to them just as sacred as the right of our jewels is to us." Arguments applying with equal force to liquor-drinking, opium eating and other pernicious habits, while virtually precluding all efforts at reformation! No man has a right to indulge in evil habits or set a bad example before his children or neighbors; and should he do so, it is the duty of the wife to labor for his reform. Men frequently expend $5 a week for cigars—a sum sufficient to support a small family, and, if profitably invested, would amount to a handsome fortune in an ordinary lifetime. Still, thousands of men indulge in it while their families go ragged and hungry! "The right to chew tobacco" is about as "sacred" as the right to drink liquor or gamble; and if wearing jewelry should produce a sallow complexion, an offensive breath, discolor the teeth and lips and cause an incessant flow of expectoration, as is the case with tobacco, few ladies, I opine, would claim the "sacred right" to wear it.

Joe Norris will not admit "tobacco kills any one;" his (?) grandparents used it, living to a good old age—though according to medical science, it is a deadly poison, causing various fatal diseases which destroy many of its victims—while it is not certain that his grandparents would not have lived longer without it as others have done. If a victim abstains from it a single day, he will be enervated, sick, out of mind and temper, with a craving unappeasable appetite for tobacco—a condition utterly incompatible with good health. Yet similar arguments are constantly paraded by the victims to drink, opium and even arsenic, who delude themselves into the belief that such habits are not injurious, though myriads are annually destroyed by them.

Another writer favors the use of tobacco because furnishing employment to cigar-box manufacture! So liquor selling gives employment to keepers of prisons and asylums, criminal courts, sheriffs, policemen, lawyers, doctors, coroners and hangmen: but such employment, like the manufacture of cigar-boxes, instead of aiding our working classes, adds to their burdens and is of doubtful utility. Workingmen complain of lack of employment when they might save hundreds of millions yearly which they unwisely squander for tobacco and intoxicating drinks which only tend to demoralize and destroy them! Wives should not encourage such habits, but labor to suppress them.

FLORENCE G.

Usefulness in the Family.

THE co-operative principle in education is nowhere seen to better advantage than in the family. The girl is strengthened and vivified by the bat and ball, the oars, the bow and arrow, or the skate, as much as is the boy, and she needs, and her family need, the sparkling vivacity which only out-door amusements can give; but the girl who has two beds to make has not so much time for recreation as the boy, who uses, but who makes none. The care of one room for each would be a happier adjustment. At a school which I lately visited, the boys, under the care of a matron, were taught to make their beds and to keep their rooms in order. They showed no incapacity for the work. Their clean beds with white covers were as well made as though done by their sisters. Neither boots, stockings, jackets, shirts nor collars were on the floor for somebody else to pick up.—*Cairo Gazette.*

CORRESPONDENTS' CORNER.

DEAR EDITOR:—Will you inform me, through the columns of the RURAL, what will remove the freckles from my face? A. G. D.

DEAR RURAL:—Will some of the RURAL readers please tell me how to cure split hair? I have tried cutting it off at new moon, but it does not seem to stop splitting. Also, what will make the hair grow thick, and not spoil it? SWEET SIXTEEN.

MISS RIPLEY:—I am greatly interested in your department of the RURAL and in those productions written concerning study. May August's "Methods of Study" I like very much, and would be pleased if she will tell me what books will be entertaining and beneficial to read in connection with the study of Roman, Grecian and English histories?

TIPTON, Ia., July 3. A SUBSCRIBER.

PHONOGRAPHY.—The science of phonography, or short-hand, has within the past few years become quite a crowded profession, and it is not advisable for students to make a specialty of it with a view to profitable employment. The tenor of the press in this country, these days, is to save space, and not to give verbatim reports except in cases of important trials, speeches of National interest and other wordy events for which there is a large public demand. In large newspaper offices, where a few years ago short-hand men were kept and well paid to be ready for emergencies, now the art is hardly considered, as half a dozen of any of the reportorial corps can transmit sounds to paper with all the accuracy and velocity that at one time belonged to few journalists. There is some field for experts in large commercial houses, where a heavy correspondence must be dictated, and in prominent law offices and courts. These places, however, are filled mostly by young men, and, if of a very paying character, favorites are always accessible to fill up occurring vacancies. In a word, what was once regarded as a marvel is now merely looked upon as an accomplishment (and a very useful one it is), and I cannot safely encourage an invalid lady to attempt to battle in a business that requires full vigor if compensating work were obtainable. T. A. G.

Domestic Economy.

CONDUCTED BY EMILY MAPLE.

BATHS FOR FARMERS.

M. W-F.

ONE very great reason why farmers become "stiff and old" before their time, is from their lack of bathing and *thorough muscular* exercise. The professional man who is fatigued in body, seeks to restore his wasted energies with cold water, and the use of dumb-bells, which, no matter what a man's occupation may be, straighten out the muscles and bring them all into action as nothing else does. But the farmer, when he is fatigued, what does he do? In nine cases out of ten he seeks his recuperation in inactivity. He goes to bed without a bath, and begins his day's work without a bath. Once a week, like Aunt Chloe, he has a "clarin' up time," by making himself clean.

And what is true of the farmer, is, in large part true of the farmerine. To take a bath requires time and trouble. So does everything else that is of value. It should not be taken when one is extremely fatigued at night. But in the morning, after a night's rest what is more invigorating! Salt should always be added and with freshly-drawn water one has no need to go to the seaside for sea bathing. A sponge, or towel bath agrees with many people much better than the immersion of the body in a tank-tub. But what is very satisfactory—especially after one becomes accustomed to it—is the hip-bath tub, in which one may sit and with a mug, or pitcher, pour the water over the shoulders. The largest size of these tubs, should be chosen, and the material should be strong and well put together. Zinc is the best. Those of tin are not worth buying. A good zinc tub costs about $6.50. If in daily use it will need to be taken once a year probably to the tinsmith to have a small leakage in the bottom stopped, unless indeed, the owner has the happy faculty of doing his own "tinkering." To be able to solder basins and pots and pans, is an accomplishment well worth the trouble of boys and girls to acquire, and the tools necessary for the work are few and inexpensive. Hair mittens are excellent for producing a friction on the skin, after a bath, but the bath towel, which is of large size, of heavy quality in cotton, is preferable for every-day use. It costs from 25 to 30 cents. A pair of hair mittens costs $1.50. It is a custom in some parts of Germany for the head of the household to pay the family physician a certain sum per annum to keep his family well. It is a good plan. The doctor drops in now and then, asks about the diet and sanitary habits of the various members of the family and so has it in his power to apply the ounce of prevention. It is quite true that if people took half the trouble to keep in health that they take in order to get well when once ill, there would be comparatively little disease. And one of these sanitary "troubles" is the daily morning bath, which soon becomes a luxury. The time consumed in taking it, is quickly made up by the strength and vigor it imparts. And if one cannot afford the bath tub, use a large basin that will hold at least six quarts. But have the tub if you can. One had better go without a Sunday suit than a bath tub. Cold water will do more for the religion and morals of most persons than will the Sunday sermon. And like obedience to the fifth commandment, let your acquaintance with it be intimate so that your days may be long in the land.

Bryn Mawr., Pa.

RASPBERRIES—CUTHBERT AND MONTCLAIR.

THIS is the first season we have had raspberries for family use from the new red varieties, Cuthbert and Montclair. Out of our forty or more varieties, we would select the Cuthbert first and Montclair next, for table use. The Cuthbert is the firmer of the two and a little higher flavored, while the fruit is about the same size, although the Montclair is the darker colored, and one, so far as we can see, is as prolific as the other. We advise our lady readers to plant the above sorts, feeling confident that they will be pleased with the results, especially as they have proven themselves thus far to be among the hardiest red raspberries in cultivation.

Nasturtiums.

Those of our friends who planted nasturtiums for pickles need not feel alarmed at their not setting their fruit early in the season. They do not usually fruit freely until the nights grow cool.

DOMESTIC RECIPES.

Drying Okra.

IN reply to an inquiry as to the manner of preparing okra for winter use, Miss Taplin writes as follows: The pods should be cut after they are fully matured, but before they are stringy and tough. Cut in slices and string on twine, and then hang in a shady place out-of-doors or in an airy attic. It is best not to place them in the sun, as that is apt to make them leathery. After a few days, when perfectly dry, they should be put away in paper bags. Soak in water for half an hour before using. This process retains the flavor perfectly.

Cleaning Silver Spoons.

The disagreeable discoloration of egg can be readily taken from silver spoons by washing them in potato water—water in which potatoes have been boiled. It is much better than salt, as it does not scratch the metal.

The taste of fish may be removed very effectively from steel knives and forks by rubbing with fresh orange or lemon peel.

Maywood, New Jersey.

A Nice Tea Cake.

One-half cup of butter or cream; one of sugar; one egg; one-half cup of thick milk or buttermilk; a teaspoonful of soda; handful of currants. Flour to the proper thickness.

For the Toilet.

Of white wax, oil of sweet almonds, spermaceti and white soap each one-fourth ounce; one pint of rose water or elderflower water; best cologne three ounces. Cut the wax, sperm and soap very fine; put into an earthen vessel with a gill of the rose water, set into a dish of boiling water and let stand until dissolved. Then add first the oil of almonds, then the rose water and cologne.

Lewis Co., N. Y. MRS. G. COLLINS.

To Wash Black Calico, etc.

To wash black calico, fawn colored lawns or fancy hose, wash in *cold* water from first to last, and the colors will not run or fade. Dry in the shade. This method was adopted by the old colored laundresses of the South, and was the secret of their success. GRANDMOTHER.

QUESTIONS ANSWERED.

Corn and Beans—Salting Down.

Mrs. Annie D. asks us to republish the directions given last winter for salting down green corn and beans. Also, she wishes a recipe for coloring dark blue.

ANS.—The method for preserving corn and beans for winter use, was contributed by Mrs. E. E. F., in the RURAL of Feb. 8, and is as follows: "Cut the corn from the cobs without cooking. Have an earthen pot ready; first put in a thin layer of corn, then a layer of salt, and so on alternately until the pot is full. Then cover with a plate pressed down so that the brine will cover it and exclude all air. Before the corn is used it will require to be freshened by soaking it over night in water. A teaspoonful of sugar, added in cooking, improves it, Beans (string) can be kept in the same way. Though I've never heard of it, I see no reason why peas, shelled, couldn't be kept too. The corn and beans must be packed as soon as cut, or they will spoil."

As you do not state whether the receipe should be for dying cotton or woollen, we will append directions for both, furnished us by a friend who attests their reliability.

Blue on Cotton.

DISSOLVE two pounds and a half of copperas in fifteen gallons of water; put in about ten pounds of cloth and boil two hours. Take out, rinse in clear water, refill the kettle with clean water and add one-half pound of prussiate of potash. Boil the goods in this for thirty minutes, lift out and slowly add one-half pound oil of vitriol, then return the goods and boil half an hour longer. Rinse in cold water and dry.

Blue for Woolen.

ONE gallon of water; a wineglassful of sulphuric acid, and a tablespoonful or more, according to the shade required, of imperial blue. Stir all together, put in the cloth and boil from twenty minutes to half an hour. Wash in a weak solution of soap lather. This quantity will color two or three pounds of goods.

If it were our own case, we should try Leamon's Aniline Dyes, because we believe them to be cheaper, of less trouble, and if the directions are strictly followed, more likely to give satisfactory results.

A TEST FOR LINEN FABRICS.—To distinguish cotton when woven into professedly linen fabrics, it is well to know that linen fiber, when dipped in an alcoholic solution of rosolic acid, next in a concentrated aqueous solution of carbonate of soda, and finally washed several times with a strong soda, attains a beautiful red color, while the cotton fibers are not dyed. Before testing, the dressing should be washed out of the goods and a few threads raveled out on each of the three sides.—MRS. HAYNES.

CUT this out to-day for use: A speedy cure for burns from fire-crackers or from any cause: Wet a cloth and sprinkle upon it a liberal allowance of bi-carbonate of soda (common cooking soda), bind it around the wound. This will speedily relieve the smart and burn. It is a harmless and thoroughly efficient remedy. If no cloth can be had promptly, wet the part and sprinkle some of the dry soda upon it.

News of the Week.

MISCELLANEOUS.

Monday, July 28, 1879.

The yellow fever exodus from panic-stricken Memphis still continues. The number of recorded cases already number upwards of 140 and the deaths about 30. Both of these figures are doubtless below the reality, as in all cases within our knowledge, the authorities of plague-smitten cities are apt to be remiss in recording the early cases of the pestilence, through fear, sometimes, of frightening their own citizens, but oftener through dread of preventing customers from coming to the place. The type is said to be milder than that which afflicted the place last year; more easily manageable, and therefore less fatal. Ordinarily Memphis has a population of about 48,000, of whom one-third are "colored;" now the colored number about two-thirds of the residents. "Niggers," though attacked by last year's pest, are, as a rule, yellow-fever-proof, and those in Memphis refuse to leave. The Government has sent tents and rations to the neighborhood of the city, where an encampment of the poorer inhabitants is about to be established. Trouble is feared from the surrounding darkies who having heard of free rations, threaten to quit work and go in search of them, after their lazy fashion in the good old days of the Freedmen's Bureau. Some hint at an intention of entering the city and pillaging it. There will soon be hardly enough "whites" there to protect the place. About 10,000 of the present inhabitants recovered from the epidemics of 1867, '73 and '78. These are, as a rule, fever-proof, and will stay; but the majority of them are women and children. The plague has arisen from the germs of last year's pestilence, that had not been destroyed by frost or disinfection. The place has had no regular government of late, as it voluntarily resigned its municipal character some time back, in order to avoid the necessity of paying its debts. The town therefore has not been properly cared for in the way of cleanliness. It would probably have been a stroke of economy in the end to have footed the bills. Many of the fugitive merchants have opened shops elsewhere and will never return; capital and population are kept away by bad faith and pestilence, and the progress of the place not merely retarded but put a long way back. Fugitives from the city are not well received elsewhere in the South. Indeed, in many places a "shot-gun" quarantine has been established, and then the poor wretches fleeing for life are apt to lose it, if they are foolish enough to stop from choice or necessity. They are dying of the disease, here and there, where they have rested. It's a ticklish thing to leave a plague-stricken place, as one is apt to carry inside him the germs of the disease, which are sure to develop where few or none are acquainted with the proper treatment, and all are afraid to give the persistent and careful nursing that is more efficacious than any medical treatment. A male refugee died across the river in Brooklyn on Thursday last, and a female up-town here on Friday, both having fallen ill of the malady soon after their arrival. The family with whom the woman here was staying have been sent to quarantine, as one of them showed signs of having "caught" the disease. Several cases have also occurred at Mississippi City, down on the Gulf, but all the other places usually visited by the saffron demon report that as yet it has not made its appearance. Every place—county, village, town and city—liable to the pest, is taking rigid precautions against it.

Since the dispersion of Congress our politicians have been rather quiet; but they are again about to make themselves heard throughout the land. John Sherman has been sounding one of the "keynotes" for the approaching Republican campaign up in Maine—Blaine's State; and it is thought a good stroke of policy that he should boldly invade the special "stumping ground" of his great rival for the next Presidential nomination. The Pennsylvania Democrats held their convention in Harrisburg last week. Their platform, said to be mainly the work of that dett politicai carpenter, Judge "Jerry" Black, is probably a fair sample of what those of other "hard-money" Democratic States will be. It insists on the subordination of the military to the civil authorities; denounces all interference with "the right to a free ballot;" declares that Mr. Hayes is the "representative of a conspiracy only," and his "claim of right to surround the ballot-boxes with troops and deputy-marshals to intimidate the electors," and his abuse of the veto-power, "an insult and a menace to the country;" affirms that the Democratic party as a whole favors a Constitutional currency of gold and silver, and of paper convertible into coin;" denounces the Republican system of rings, subsidies, and misappropriation of the public moneys; renews to the workingman the party's expression of sympathy for honest labor, "and its promise of protection in its rights;" insists that the railroads of Pennsylvania must "accept the constitutional amendments of 1873;" denounces the recent attempt made "under the personal direction of ruling Republican leaders" to pay for the Pittsburgh riot losses out of the State Treasury; and declares that the present condition of the State finances is "a sufficient illustration of the reckless financial mismanagement of the Republican party." The Greenbackers nominated a candidate on the same day with the Democrats, but it seems to be admitted on all hands that their vote will not this year affect the result.—Ben Butler is again about to put life into Massachusetts politics by offering himself as a candidate for the Governorship. A convenient "friend" has been found to question him on the matter, and the ex-Essex statesman declares himself once more in the field. It's always splendid fun for outsiders to see Ben laying lustily about him in a *melee*. Communism has been curiously illustrating its principles by the operations of the Board of Equalization of the city of Toledo, Ohio. The Nationals control a majority of the Board, and as soon as they got possession they went to work to raise the returns of personal property according to their fancy. According to the Cincinnati Gazette, the principles on which the "raising" has been done have been partly political and partly commercial. Democrats are said to be "raised" only slightly, unless they are such Democrats as stand out against both Ewing and the Nationals. Economically, the rule acted upon is to make the "money kings" disgorge. To show how "raising" works, we may mention that some of the returns have been altered as follows: $550 to $30,300, $500 to $22,600, $225 to $15,275, $8,900 to $236,473. This last was in the case of a national banker, a member of a class whom it was found necessary to deal with severely. Another is "raised" from $3,910 to $100,615. Among the merchants, manufacturers and bankers affected a good deal of consternation has been caused, and they propose to contest the matter in the courts.

Sitting Bull is across the border at the head of at least 2000 braves. Gen. Miles with less than a thousand men in all is hunting for him. Several skirmishes have already taken place between the troops and detached parties of redskins. It is feared by many that ambition for a major-general's stars may induce Miles to risk too rashly Custer's fate. Storms of extreme violence have been unusually prevalent this year, doing a world of damage here and there throughout the country. Last Saturday one of them visited the valley of Bear Creek one of the tributaries of the Monongchela River in Pennsylvania, and flooded the whole bottom region, destroying crops, fences and many houses and outbuildings. Several lives also were lost. At Pittsburgh the river rose with extraordinary rapidity and enabled the shippers of coal to send off upwards of 12,000,000 bushels the first day of the flood. Previously the water was too low to admit of shipment and many of the river towns were threatened with a coal famine. Our readers will remember that social breeze raised some months ago by Judge Hilton's refusal to entertain Jews at the Union hotel, Saratoga. Well there is now a social hurricane raised by a very similar occurrence. Two brothers, Corbins, bankers of this city, are the chief stockholders of a short railroad running from Brooklyn to Manhattan Beach, at Coney Island, our nearest watering place, and also of the hotel and other accommodations for visitors at that place. Neither of the brothers likes Jews personally or from a business point of view and, what's more, they are imprudent enough to say so. They say that they don't want Jews at their hotel or about it, nor do they seek Hebrew patronage on the railroad. They allege that Jews are disagreeable, aggressive, obtrusive "nasty" folks who spend little and want a great deal for it and that Jewish pretensions and conduct generally are unpleasant to other guests at the hotel and to other passengers on the road. The Jews, of course, are indignant at this wholesale defamation and threaten to make the bankers feel the effects of their wrath; but the latter say the Union hotel at Saratoga was never so full of excellent guests as it has been since Hebrews were excluded.

Canadian papers say the harvests throughout the Dominion promise to be most abundant. William H. Vanderbilt last week purchased four million dollars of United States 4-per-cents, each bond of a value of $50,000, as an investment for his family. E. H. Walker, the statistician of the Produce Exchange, says, as compared with New York, the receipts of flour and grain at Baltimore, Philadelphia and Boston for the first half of 1879, show a large gain as compared with 1878, the increase being largely in wheat. The movement during the past week shows more favorably for New York than for several previous weeks. Buford, the Kentucky murderer, who killed Judge Elliott a couple of months ago, because a verdict rendered by the court of which the Judge was a member, went against his sister, has been found guilty of murder and sentenced to imprisonment for life.

The steamship State of Virginia, 2500 tons burden, from New York for Glasgow, went ashore on Sable Island, off Nova Scotia, in a dense fog Saturday week, and is likely to be a total wreck. She had 136 crew and passengers. When landing the passengers on the island, four women and five children were drowned. Among the lost was Mrs. Walker of Elmira, N. Y., who leaves a husband and five children. The steamer belonged to the State line and was valued at $400,000 to $500,000, while the cargo was worth $350,000. Capt. Moodie, her commander, was 25 miles out of his reckoning when the vessel struck, it being very foggy. The Canadian tariff has started up a brisk business in smuggling all along our northern frontier, but instead of being Yankees as formerly, the smugglers are now tricky Kanucks. Canada has just sent out 13 farmers to instruct the Indians of the Northwest in tilling the land. These farmers are paid $730 yearly salary, are furnished with stock and tools and a year's provisions and, after that time, are expected to make their farms self-sustaining with the privilege of turning any surplus produce to their own account. Secretary Sherman denies that Mrs. Jenks is saddled on the Treasury Department.

FOREIGN.

There seems to be a good deal of dissension among the Bonapartists in France. With them Plon-Plon was never popular. Although resembling the Great Napoleon more closely in face than any of his kindred, he was always too liberal to suit their imperialistic tendencies; and now the staunchest adherents of the late Prince and his father are either lukewarm supporters, indifferent onlookers, or bitter opponents of his claims to the position of the head of the family. His young son, Victor, whom young Napoleon nominated as his successor, is far more popular, and if the Imperialists even unite it is probable it will be upon him. Meanwhile the father is about to visit the ex-empress at Chiselhurst, so soon as her mourning has abated. The Republic seems to be showing a petty spirit in its hostility to those officers of the army who manifested any special

regret at the tragic death of the young prince, The last reports of the way this occurred show that his end was braver and nobler than that of any of his family. Finding escape impossible, he turned on his foes single-handed on the desolate reedy waste, and fell with every wound in front.

The Ex-Empress, according to the latest cablegram, has written to the Queen begging that no penalty be inflicted on the courtmarshaled Lieutenant Carey who was in command of the scouting party that abandoned the prince to his fate. Some of the French rivers are rising rapidly and the floods are expected to do a great deal of damage to the farming interests; others, having done a world of mischief, are retiring to their beds. The former are chiefly in the south the latter in the north of the country. Germany having taken control of all her railroads so as to be able to use them most effectively for military purpose, the French Government is thinking of buying all the roads in the country so as to be ready for any Teutonic movement. The relations betwen Russia and Germany are reported to be not quite so cordial as formerly. The large German population of Livonia and other provinces of Russia bordering on Germany, seem anxious for annexation to the Fatherland, a sentiment not very pleasing to the Czar. Moreover the recent action of the German Goverment in imposing taxes on imports of grain and stock, deprives Russia of an extensive market or, at best, greatly lessens here profits there, while the restrictions placed upon railroad traffic have virtually shut the Czar's dominions out from trade with other countries through German sea-ports. Then, again, the czarowitz's influence is said to be in the ascendant in Russia over which he may ere long rule, and that influence has never been friendly to the aggrandizement of his warlike neighbor.

The latest reports from South Africa say that the Zulu war is virtually over. Lord Chelmsford has fought a severe battle with Cetewayo's forces headed by that chief, and completely routed them. Their losses are said to have been upwards of 1000 killed and a very large number of wounded. The British loss was trifling. The savages attacked their foes with the utmost bravery, having several times charged the hollow square into which the English troops were formed. Cetewayo has fled to the north, a great many of his chiefs with their men are surrendering, and speedy peace is promised. European crop reports this week are nearly repetitions of those sent last week. The yield of rye in western Russia and Germany, the great local food crop, is estimated at 60 per cent of the usual supply. Wheat in southern Russia is deficient. Central Europe from the Carpathian mountains south to the Danube will have little, if any, surplus to export. Italy has already begun the importation of wheat, and so far the supplies from Odessa are absorbed in the Mediterranean ports. The imports of food products into France during the first six months of the current year, have largely exceeded those of a like period in 1878, and the potato crop, an important food supply, is reported to be failing. The acreage of wheat in Great Britain is reported 10 per cent less than last year, the condition of wheat worse and the stocks of wheat in British cities are about one half as large as a year ago. Elaborate reports of failing harvests in the Old World are often current here and abroad just as the first wheat of the American harvest reaches the market; but there appears to be no doubt that this year will see an unusually large export from this country. The amount of grain needed to make good the deficient supply abroad is estimated at upwards of 350,000,000 bushels half of which amount this country is expected to supply.

When the report of the Swiss centennial commissioner on American watch-making was read to crowded meetings of watch-makers at Neuchatel and Geneva, the general expression was one of abject despair. Work was suspended on the Genevese school of watch-making then being erected, and the Canton council appointed a committee to consider what other industry could be induced in place of watch-making.—At Brussels, Belgium, the police have arrested the librarian of the Jesuit College, which is under surveillance in consequence of the confessions of Von Haame, a former clerical agent, arrested for posting placards threatening the life of King Leopold. The librarian is suspected of bribing Von Haame to post the placards.

At Friday's sitting of the London common council, the report of the committee on markets was adopted. The report recommends, in view of the trade in American cattle, that an extra lairage be provided at the foreign cattle market for 1,000 head of cattle and 10,000 head of sheep; also, that ten additional slaughter houses be built. This extra accommodation, it is estimated, will cost £25,000. An arrangement has been concluded with the General Steam Navigation Company which will secure the use of their vessels for the transhipment of animals brought from America.

VARIOUS.

Odd folks here and there are described in the newspapers. Roxbury, Mass., has an eccentric tramp, who lives in a cave during the winter and spends the summer in making begging excursions to neighboring towns. He never says a word, and his dress consists entirely of old bootlegs fastened together with leather strings. A small wagon, drawn by two goats, and containing a helpless, shriveled man, attracted attention in Hagerstown, Md. He said that he had traveled in that manner or many years, and called himself "the American Tourist." He is entirely helpless. His wife and four children accompany him and attend to his wants, getting their living by the sale of a temperance song and other small articles. Jefferson Stevens, who lives near Sulphur Springs, Ky., concludes that he is gifted with peculiar powers, of which he lately gave a street exhibition. He held a forked dogwood switch, like those used by wizards, in his mouth, and told the crowd to ask any questions they pleased,

A pair of tramps turned up at Des Moines, Iowa —Peter Carlisle and wife—who were on their way to Leadville from the Pennsylvania coal regions. They had pushed a handcart all the way, containing their baby girl and a few household utensils. Carson Carr of Moodie, Cal., will on no account walk a step, but always runs, no matter if the distance is only a few feet; while Mrs. Main of Chicago will neither walk nor run, although physically able to do either, because she thinks her legs will drop off if she stirs them. The story comes from Pittsfield, Mass., of the discovery of a cannibal, who for years has lived near that city. He says that early in life he ran away from home and went to sea. He was early shipwrecked on one of the South Sea Islands, where cannibalism was practised and idolatry was the worship of the natives. How long he remained there he does not know, but he learned to enter into their savage rites with a good deal of zest, and he confesses to have acquired a taste for cannibalism.

A statement has been issued by the War Department giving the number of men furnished the Union army by each State and Territory and the District of Columbia from April 15, 1861, to the close of the war of the rebellion. It shows that the total number of volunteers was 2,678,967, divided as follows:—Maine, 72,114; New Hampshire, 36,629; Vermont, 35,262; Massachusetts, 152,048; Rhode Island, 23,699; Connecticut, 57,379; New York, 467,047; New Jersey, 81,010; Pennsylvania, 366,107; Delaware, 13,670; Maryland, 50,316; West Virginia, 32,068; District of Columbia, 16,872; Ohio, 319,659; Indiana, 197,147; Illinois, 259,147; Michigan, 89,372; Wisconsin, 96,424; Minnesota, 25,052; Iowa, 76,309; Missouri, 109,111; Kentucky, 79,025; Kansas, 20,151; Tennessee, 31,092; Arkansas, 8,289; North Carolina, 3,156; California, 15,725; Nevada, 1,080; Oregon, 1,810; Washington Territory, 964; Nebraska Territory, 3,157; Colorado Territory, 4,903; Dakota Territory, 206; New Mexico Territory, 6,561; Alabama, 2,576; Florida, 1,290; Louisiana, 8,224; Mississippi, 545; Texas, 1,965, and the Indian nation, 35,030. The troops furnished by the Southern States were, with the exception of those of Louisiana, nearly all white. Florida furnished two regiments of cavalry, Alabama one white regiment, Mississippi one battalion and North Carolina two regiments of cavalry.

A tabular statement has been prepared at the Post Office Department making a comparison between the issue of stamps, stamped envelopes and postal cards for 1878 and 1879. The total value of this year's issues is $29,539,050, an increase of $971,866 over the value of those of last year. The increase in the number of ordinary postage stamps issued is only 4.29 per cent. as compared with an increase of 7.66 per cent for 1878 over 1877. This comparative falling off is due to the effect of the new law for the compensation of postmasters, which, having for its basis the number of stamps cancelled instead of the number sold has put a stop to speculative purchases. There is a decrease in the value and number of newspaper and periodical stamps and stamped envelopes and wrappers. There were 221,807,000 postal cards issued, an increase of more than ten per cent. The increase in the value of sales to the public between the two years is $1,003,218.

THE MARKETS.

PRODUCE AND PROVISIONS.

NEW YORK, Saturday, July 26, 1879.

BEANS AND PEAS.—The demand for beans is mainly for mediums, but the summer trade is never stiff enough to advance prices materially. Marrow dull, with considerable stock in store; estimated 5,500 bbls. In pea or white kidney beans there is no movement. Red kidneys nominal, quotations merely for small parcels. Peas of all kinds quiet with the approach of new crops. Medium beans, prime, $1.32½@1.35; fair to good, $1.25@1.30; marrow, prime, $1.27½@1.30; fair to good, $1.20@1.25; pea, $1.30@1.35; white kidney, $1.25@1.35; red do., $2.25@2.50; black, $2.30. Peas, green, $2@2.10; Southern B. E., per 2 bush. bag, $2.50@2.60; Canadian, in bulk and bond, per bush., 70@72c.

Exports of beans for the week, 313 bbls.; receipts, 1,164 bush. Exports peas, 13,500 do.

BUTTER.—State and Western creamery and fine selected pails and half tubs are higher. Receipts run slow, the falling off in quality incident to hot weather, and as the line of trade that is left to New York wants the best or none, sellers have been enabled to enforce the advance. Ordinary grocery and market buyers have a good offering, but as with State there is a firmer feeling in the upper grades of dairying. Exports continue light, 6,000 taken for week. There is a steadiness of tone to the export trade that is in a degree encouraging. Orders for certain marks that have established a local reputation abroad now receive regular orders. English advices are against large general business for export. Extra June firkins for coastwise export bring 15c. The threatened calamity at the South for a moment makes some pause in that branch of trade.

State pails and half tubs, choice, 14@14½c.; good to prime, 13@13½c.; fair to good, 11@13c.; firkins, yellow, 13@15c.; Welsh, good to choice, 13@14c.; fair, 11@12c.; poor Slate, 8@9c. State creamery, choice, 16½@17c.; good to prime, 15½@16c.; fair to good, 14½@15c.; sweet cream, 16@16½c. Western creamery, choice, 16@16½c.; other, 14@15c.; imitation, 9@12c.; Western dairy, best, 11½@12½c; fair to prime, 9@10c.; factory, choice, 10@10½c.; other, 7@9c.; poor, 6@6½@6c.; grease butter, 4@5c.

Receipts for week, 33,603 packages.

BROOM CORN—Is having a fair sale, and quoted for:

Brush and short broom, choice, ₱ lb, 5½@6½c.; do., common to good, 4½@5½c.; hurl, good to choice, 4@4½c.; do., common to fair, 3½@4c.; red and crooked, 2½@3½c.

COTTON—Has shown a better export demand, and the temper of the market is better; latest prices are for July, 11.78@11.79c.; August, 11.75c.; September, 11.65@11.66c.; October, 10.93@10.93c.; November, 10.61c.; December, 10.60c.; January, 10.61@10.66c; February, 10.76@10.78c; March, 10.90@10.92c.

Quotations for spot cotton are based on American standard of classification, and on cotton in store running in quality not more than half a grade above or below the grade quoted.

	Uplands.	*N. Orleans and Gulf.*	*Texas.*
Ordinary	10 5-16	10 7-16	10 7-16
Strict ordinary	10 11-16	10 13-16	10 13-16
Good ordinary	11 1-16	11 3-16	11 3-16
Strict good do	11 5-16	11 7-16	11 7-16
Low middling	11 7-16	11 9-16	11 9-16
Strict low middling	11⅜	11⅝	11⅝
Middling	11⅜	11⅝	11⅝
Good middling	12 1-16	12 3 16	12 3-16
Strict good middling	12 5-16	12 7-16	12 7-16
Middling Fair	13	13¼	13¼
Fair	13¾	13¾	13¾

STAINED.

Good ordinary 10⅜	Low Middling 11 3-16
Strict good ordin'y 10⅞	Middling 11 7-16

CHEESE.—The English advices have been tame and the receipts here large, which have unsettled prices. Some sales were made early in the week at 6¾c.; from this the market dropped to 6c., and closed weak at that price.

Prices are for State factory: Fine, 6c.; good to prime 5½@5¾c.; fair to good, 4¾@5½c.; half-skimmed, 4@5c.; skimmed, 2½@3¼c.; State farm dairy: Fine, 5¾@6c.; good to prime, 5@5½c.; fair to good, 4@5c.; skimmed, 2½@3½c. Wisconsin factory: Fine, at 6c.; good to prime, 5@5¾c. Ohio factory: Cheddar, fine, 5½@5¾c.; do., fair to good, 4½@5½c.; full cream, flat, fine, 6c.; flat, good to prime, 4¾@5¾c.; flat, fair to good, 4@4¾c.; half-skimmed, 3@4c.; skimmed, 2½@3c.

Receipts for week, 131,374 boxes.
Exports, 115,000 do.
Liverpool quotation, 33@34s.

DRIED FRUITS.—Apples are in better demand and rule firm in price. Peaches are slow and unchanged. Small fruits are quiet and unchanged; quoted for:

Patent evaporated apples, choice, in cases, at 11c.; do. fair to good at 9@10c.; N. Y. State sliced, choice, at 4@5c.; do, quarters, choice, 4@4½c.; western quarters, bright, at 3½@4c.; common and old at 2@3c.; North Carolina peeled peaches at 9@10c.; Georgia at 8@9c.; do. fair to good at 6@7c.; unpeeled halves at 3@3½c.; do quarters at 2½@3c. Blackberries at 5c. Raspberries at 26@28c. New York State plums at 8@10c. New pitted cherries, wet, at 13½@14c.; dry at 15@15½c.

EGGS.—Receipts for week, 7,695 bbls.; do., last week, 7,210 do. The market is dull even for the summer. A few extra marks of Western have brought 13c. Much of the stock that has sought a market here from other cities is worthless for consumption.

Near points, extra fresh, 15c.; State and Penn., 13½@14c.; Western, best, 12½c.; poor, 11@12c.; Canadian, 12½@13c. Pack invariably in short cut straw.

FLOUR.—Low grades are scarce and wanted, but high grades are plenty and freely offered at weak prices.

Latest prices are: $3.90@4.35 for inferior to very choice superfine State; $4.40@4.65 for poor to good extra do., odd lots and lines; $4.65@4.95 for good to choice do.; $3.85@4.35 for inferior to very choice superfine Indiana, Iowa, Michigan, &c.; $4.40@4.65 for inferior to good shipping extra do., and $4.65@4.95 for good to choice extra do.; common to choice white wheat extras, $5.10@6.20; choice to fancy do. at $6.10@6.15; red and amber winter wheat, inferior to very choice trade and family, at $4.95@6.35; round hoop Ohio at $4.50@4.85, and trade and family brands of do. at $4.25@6.00, the latter rate for strictly choice; St. Louis, $5.20@6.00 for inferior to good extra; $6.00@6.75 for very good to very choice (with fancy brands held higher); Minnesota clear, inferior to fancy, at $4.35@5.50; Minnesota "straight," very inferior to strictly fancy, $5.00@6.50, and patent poor to very choice at $5.50@8.00 (with a few fancy brands quoted at higher figures); unsound stock at from $2.35@5.25; city mill extra at $5.40@5.75, good to very choice, for West Indies; do. for England, $4.50@4.75; do. trade and family extras, $5.75@6.75; do. for South America, $5.50@5.75 for standard choice brands (winter wheat product); No. 2 at $2.80@3.35 for poor to strictly fancy.

FRESH FRUITS.—Hot weather and a fairly abundant supply keep the market easy as a rule. Peaches begin to look well; Md. supplies have included Troths. Hales will be less abundant this season. So many finer sorts can be had from the further South to supply the early demand, that Hale's fall quite dead on the market, however early they arrive. California pears and plums, $4@4.50 per box, two carloads in market.

Apples, red Astrachan, ₱ bu. crate, $1@1.25; poorer do., in bbls., $1.25@1.75; Harvest, 50@75c. ₱ crate; Sour Bough, N. J., ₱ bbl., $1.50@2; Sweet do., $1.25@1.75; Windfalls, 50@$1. Bell pears, ₱ bbl., $3.50@4; Sugar, $3.50@3.50; Sav. Bartlett, ₱ bush. crate, prime, $3.50@4.50; green, $2@2.50; cooking, $2@3. Currants, cherry, ₱ lb., 8@10c.; black, 5@6c.; red, 6@7c. Whortleberries, per 14 qt. box, $1@1.37. Blackberries, Wilsons, ₱ qt., 6@10c.; Antwerp, Raspberries, 8d, qts., 4@4½c.; do., native, 2@3c.; Brandywine, pints, 4@5c. Watermelons, Geo., per 100, $20@22; Char., $10@18; Norfolk, $12@16.; N. C., $6@12. Nutmeg melons, poor to best, ₱ bbl., $1.50@3.50. Apricots, ₱ qt., 20@30c. Peaches, N. C., common to best, ₱ 3 bush., $1; Md. & Del., Hale's prime, ₱ crate, $1.50@1.75; poor, to fair, 75c.@$1.25. Hot-house grapes, B. Hamburgh and Muscat, 75c.; Sweet Water, 30@40c. Peanuts firmer after an enlarged business, at lower figures early in the week. Va. hand-picked, $1.40@1.45; fancy, $1.27½@1.30; extra prime, $1.25; good to prime, $1.15@1.20; shelled, 5½@5¾c.

GRAIN.—Wheat on speculative manipulation has declined and has not shown much activity for export. Latest prices are of No. 1 white at $1.15; No. 2 do. at $1.12; No. 2 red at $1.11@1.12½; do., July option, at $1.11½@1.12; do. August at $1.11@1.11¾; do. September at $1.11½@1.12; ungraded red at 98c.@$1.10; No. 2 amber at $1.10¾@1.11; ungraded amber at $1.00@1.10¾; No. 2 spring at $1.05@1.07; ungraded spring at 98c.@$1.02; No. 3 spring at 97@99c.; steamer No. 3 spring at 94c.; do. No. 2 red at $1.10¾@1.10¾; ungraded Canada at $1.07 in bond. Corn is easier, with freer supplies: latest sales are of New York No. 2 at 41¾c.; do. for July at 45¾c.; do. August at 45c¾. bid and 45⅝c. asked; do. September at 46c¾.; New York steamer mixed at 44¾@44¾c.; do. for July at 44⅜c. bid and 45c. asked; do. August, 44⅜c. bid and 45c. asked; do. September at 46c. bid and 46⅜c. asked; No. 3 nominal; ungraded Western mixed at 44@45⅜c.; No. 2 white at 52¾@53c., closing latter bid. Oats—mixed stock is plenty and lower, but white grades are favoring sellers; sales of New York No. 1 white at 42c.; New York No. 2 white at 41@41¾c; New York No. 3 white at 39c.; No. 2 at 36¾@37c.; do. for October delivery at 32c.; No. 3 at 35¾c.; unmerchantable at 37c.; mixed Western at 36¾@37c.; white do. at 40@42c.; white State at 41@45c.

HAY AND STRAW.—New hay is arriving more freely and favors buyers. Old hay is in fair demand.

New hay at from 50c. to 70c. Old hay at 40@45c. for shipping and 70@85c. for prime retail qualities. Straw at 45@55c. for long rye, 45c. for short rye, and oat at 30@35c.

Exports since Jan. 1st, 42,020 bales; do. cor. period last year, 40,843 do.

HOPS.—Emmet Wells in his weekly circular says: "Receipts for the week nearly 3,000 bales, yet the cry comes that there are no hopes left back in the country. Exports to London this week, 1,500 bales. Under the influence of continued discouraging news from the English plantations, together with a continuance of rather unfavorable reports from our own districts, both this and the London markets have been quite excited, and prices on choice hops have advanced one cent per lb. above last week's rates, this market closing very strong, with a prospect of a further advance before the week is out. Again we advise growers not to contract their new crop at 15 to 18 cents, as we see by our exchanges some are trying to do."

Quotations are for New York's, new crop, prime choice, 13@14; New York's, new crop, medium, 10@11; New York s, new crop, low to fair, 7@9; Eastern, 8@11; Western, 8@11; Yearlings, 4@7; Olds, all growths, 3@4; Pacific coast, nominal, 10@14.

OIL-CAKE.—Western is quoted $29.00 per ton.

POULTRY AND GAME.—Supplies of live fowls light and good prices ruling; good fat Western do. as well as N. J. chickens are plenty and still quoted easy.

Chickens, large per ₱., 16@17c.; small, 14@15c.. fowls, N. J., 14c.; Western, 13½@14c.; Southern, 13.; roosters, old, 7@8c.; ducks (most of them are too young for market), ₱ pair, 40@75c.; others, 40@60c.; geese, best, $1.37@1.62; others, $1@1.25.

Arrivals of chickens large; they are not doing much better dressed than alive. Fowls in good demand. Turkeys steady for small use

Turkeys, Phila., dry-picked, 12@14c., State and Western, 11@13c.; chickens, Philadelphia, per ₱., 17@23c.; State, 16@18.; Western, 15@16c.; fowls, choice, ₱ ₱., 14@16c.; other, 12@13c.; dry-picked, 15@17c.; ducks, spring, dry-picked, 15@17c.; other, 10@14c.

We do not remember to have ever seen the market so bare of game as it is this week. Woodcock quotable next week.

PROVISIONS—Have been more active and higher. Mess pork quoted for July at $8.90 bid and $9 asked; August at $9; September at $9.15; October at $9.15. Bacon at 5c. for long clear and $5¾c. for short clear. Lard—at $6.05 for spot and July, $6.05 for August, $6.12½ for September, $6.17½ for October. Stearine at 6⅝@6¾c. Beef—Plain mess at $11.25@11.50; extra mess at $11.50@12; packet at $11@11.50; tierced beef, city extra India mess, at $18@20.50; Philadelphia at $17. Beef hams at $20.

TOBACCO.—The export demand is better and there is a good home trade, with prices firm and unchanged.

VEGETABLES.—The local demand cannot use the supplies of potatoes coming freely now, with some export. Sales for the week, to go out, 3,000 bbls. L. I. fair to extra, $1@1.50 per bbl.; culls, 50c. Sweet Potatoes, Va. yellow, $4.50@5. For garden truck the market has an easy tone. Green corn, Hackensack, 50@75c. per 100; L. I. cucumbers, per 100, 40@50c.; do. squash, 50@75c. per bbl.; do. egg plant, $2@3; do. tomatoes, $1 per crate; Phila., 40@50c. per basket; Norfolk, 40@50c. per crate.; marrow squash, $1 per bbl.; String beans, bag, 75c @$1.25; green peas, do., $1@1.50; cabbages, flat Dutch, per 100, $4@6; onions, white, per bbl., $3@3.50; red, 3 yellow Ky., $3@3.25; beets, N. J., per 100 bunches, $1.50@2.50; Russia turnips, per bbl., 75c.; Cauliflower, $1.50@4; okra, per 100, 15@20c.

WOOL.—There is more life to the market and steadier prices.

Sales of XX Ohio fleeces at 40c.; No. 1 and above Ohio at 39½@41c.; medium State at 40c.; do., Penn., at 41c.

Spring Texas at 20@27c.; California at 20@30c.

LIVE STOCK MARKETS

NEW YORK, Saturday, July 26.

BEEVES.—Receipts for the week, 14,063 head; do. last week, 11,315 do. Exports are again large, 3,800 for the week, including live and quarters. Supply rather heavy for summer, and the market closed lower with 25 car loads left unloaded. Dry cows sold at New Jersey at 3½c. live, or 6¼c. to dress 54 lbs. Texas cattle, common to decent grade, quoted 6½@7c., dress 55 lbs. Common to extra native steers, 7@10c., dress 55@57 lbs.; not many at the higher price and few under 7½c.

COWS AND CALVES.—The demand is forced and buyers obtain all they want at an easier range of $25@30 per head.

VEAL CALVES.—It has been a slow market, prices unsettled at the close. Prime to choice Buck's Co. and New Jersey, 5@5¾c., and State 4½@5½c.; poor, 3½@4c.; buttermilk, 2@3c.

SHEEP AND LAMBS.—Receipts for the week, 20,977 head; do. last week, 30,465 do. Export demand for sheep good, especially for heavy fat stock. Some of this class brought 6c., the extreme range for market sheep, $3@5.60 per 100. Fat Tennessee lambs sold at 3½c.; N. J., 6¼c.; other, 5@6c.

HOGS.—Receipts for the week, 13,770 head; do. last week, 20,414 do. There were late sales of Western at $4@4.20 per 100, the latter now extreme for choice corn; State quoted $4.25@4.50 do.; city dressed, hogs, $5.37@5.87 per 100.

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Reading for the Young.

A FAILURE."

Brown head and yellow head
Hanging side by side.
Mischief still in lowered eyes
Long lashes cannot hide.

Grimy hands that always
Hold the pencil wrong.
Lips that laugh and whisper,
Whisper all day long.

Hair all ways for Sunday;
Small coat buttonless;
Pockets bulging out with
What—you'd never guess.

Bottles with odd stoppers
Broken patent top,
Jewsharps, green grasshoppers
That never more will hop.

Petrified sweet cookies,
Taffy mixed with string,
A choice full line of peanut shells,
And fifty other things.

Long rows of empty seats.
Sunshine on the door,
Longing looks at windows
And the open door.

Two very naughty boys,
After school is done,
Listening to the catechism
Teacher's just begun.

"Georgie, who's been naughty?"
Here the brown head sinks;
Slowly came the answer
Through the lips, "Frank."

"Frank, you tell who's naughty?"
Hung the yellow head.
"Frank, and tell me truly,"
"Georgie is," he said.

Then the sober teacher
Rules of conduct taught,
About what small boys ought not
And what small boys ought.

After some reflection,
Half an hour's, may be,
To the question "Who is?"
Came two answers, "We."

Proud and glad, the teacher
Sent the twain away.
"Moral suasion, after all,
Is the only way."

At the open window,
Affected nigh to tears,
The teacher stood to watch her
Penitential dears.

Soon they run, quick-fingered
Throwing hats aloft—
Alas for "moral suasion!"
Says Georgie, "Aint she soft?"

[Chicago Times.

GRANDMOTHER'S STORY.

A Thanksgiving Tale.

"Tell us a story, grandmother!" The speaker was one of my four rosy-cheeked cousins, as we crowded around the fire-place one Thanksgiving day.

"What kind of a story shall it be, my dear?" said grandma, as she smoothed the glossy heads at her knee.

"Oh, any kind, it don't matter what; we're so tired of playing," said Joe, speaking for us all.

"Then I will tell you a story of my young days," said grandma softly, and confident that it would be interesting, we nestled up in the corner. I often think of that story now, for grandmother is in heaven with the angels, but the memory of her kind acts and words will always have a fresh place in my mind. "Well, dearies," she began, "when I was a small child, at the time my story commences, mother and I lived in the garret of a great weather-beaten house in Boston. It was a very disagreeable place to live in, for nothing could be seen but dirty stone walls and the roofs of houses. The rooms were dark and frightful passages led to other tenements equally dismal. The eaves of adjoining buildings met with ours and left dark, dirty alleys between. The buildings were five stories high. Yes, dears, it was a hard struggle for bread, and during those trying days of poverty, the money mother earned by sewing hardly paid for the bread we ate, after paying the rent; but God was merciful to us, and in such a way as I shall tell. It was very hard to get sewing to do just then, for there were a great many dressmakers, besides, mother was a stranger in the city whom fortune had cast on rather a hard rock. One day chance put her in a way to do some sewing for a rich lady who lived in the aristocratic part of the town. The material, gray silk, was to be made into a street sacque, which should be very richly embroidered.

"This cost mother many days of hard labor, and when done she very carefully folded it up and bade me go straight to the house of the lady and deliver the parcel. So, bundled in my little shawl and hood, I hugged the bundle in my arms and took my way through the snowy streets.

"It was a crisp cold morning and great puffs of steam rose from all the breweries and factories, as if the buildings were ready to burst with the vapor. When I arrived at the lady's house, and saw the name 'Roberts' on the silver door-plate in great letters, saw the parlors with their golden chandeliers and velvet carpets through the windows, and the great table with its snowy cake and purple wine, waiting for the members of the household to partake of its goodly viands, I felt myself too shy—not good enough—to place my ill-clad feet on the matting made for the rich. Just at that moment the tinkling of music in the room above ceased and a lady, with a soft worsted shawl thrown over her shoulders, looked out of a window. The sweet smile on her face changed to one of scorn as she said, 'It ain't them—only that beggar woman's child with my dress.' I was so faint with cold and hunger and so startled at her rough tones that I could have sunk through the floor had it not been for a servant who harshly relieved me of my burden with the remark to 'clear the path for my betters.'"

"What did you do then?" said Joe.

"I don't know what made me do it, but I sat right down on those marble steps and cried with all my might and main.

"Presently the door opened and a little boy of about my age tripped out of the hall. His name was Henry Roberts, and he was very kind to me, I thought, for he lifted me out of the snow and asked what the matter was.

"I replied that I had had no breakfast and was nearly starved.

"The kind-hearted little fellow then stuffed my pockets full of holiday goodies, placed me on his sled, drew me out of the gate and then bade me good bye. Before I was out of sight of the house little Henry's uncle passed by me. He was very finely dressed, while in his hand he twirled a gold-headed cane. I looked at him again and again, for he kept ahead of me all the way up the street. I was looking at him as he turned the corner, and my thoughts had just returned to mother. I was wishing I might greet her with a merry thanksgiving dinner, when I saw a pocket-book fall from him. I made haste and picked it up, half resolved to keep it, and thus enable my dream of good things to be realized; but, children, you know Granny Roberts wouldn't steal, and so you can easily think of the good spirit which whispered in my heart, 'Do unto others as ye would they should do unto you.'

"I returned it to the rightful owner."

"What did he say," cried Joe breathlessly.

"'God bless you, my child,' that's what he said," answered grandmother, with a mysterious light shining out of her sunken eyes. "Yes, children, God did bless me, too. He sent an angel of mercy to us in a human messenger of His. The gentleman having several hundred dollars in his purse was glad enough to receive it safe and sound. He asked me my name and whereabouts, and on hearing of our distress and actual want, he brought a goodly supply of eatables (among which was a turkey), and went with me to see my mother. He secured a little house in a pleasant part of the city for us, and mother got all of the family sewing to do."

"And what became of that little boy?" said Nellie, nestling up to grandma, who seemed dearer to her than ever.

"Why, he lived and got married," said Tippy, who had heard the story before; "and he married grandma, and he is our dear Grandpa Roberts, right over there in the corner," jumping up and giving him a kiss; "and Grandpa Roberts laughed and tossed us on his knee. He is alive yet, the dear old soul, hearty and hale as ever. He often tells us of the days when he was young and loved grandma."

F. M. A. B.

WHAT BOYS SHOULD BE.

First: Be true—be genuine. No education is worth anything that does not include this. A man had better not know how to read—he had better never learn a letter of the alphabet, and be true and genuine in intention and in action, rather than being learned in all sciences and in all languages, to be at the same time false in heart and counterfeit in life.

Second: Be pure in thought, language—pure in mind and body. An impure man, young or old, poisoning the society where he moves with smutty stories and impure examples, is a moral ulcer, a plague spot, a leper who ought to be treated as were the lepers of old.

Third: Be unselfish. To care for the feelings and comforts of others. To be polite. To be just in all dealings with others. To be generous, noble, and manly.

Fourth: Be self-reliant and self-helpful even from early childhood. To be industrious always, and self-supporting at the earliest proper age. Teach them that all honest work is honorable, and that an idle, useless life of dependence on others is disgraceful.

When a boy has learned these four things, when he has made these ideas a part of his being—however young he may be, however poor, or however rich—he has learned some of the most important things he ought to know when he becomes a man. —*Home Arts.*

LETTERS FROM BOYS AND GIRLS.

Dear Uncle Mark:—You have already so many nieces and nephews that I am afraid you have no room in your great, generous heart for poor little me; but your goodness encourages me. My big sister is a subscriber to the Rural, and I love to read it. I have quite a number of house plants, all my own, and among them is a nice Wax Plant, but it does not bloom. Will you tell me how I can make it bloom? I will not tire you with a longer letter this time, but if you will receive me into the family, I may write again. Your affectionate niece, Theresa Hogan.

Richland Co., Ohio.

[Your plant will thrive best in a soil composed of about three parts of leaf mould to one part of loam from decayed sods, well mixed together, with the addition of some sand and pieces of charcoal, to make it porous. The pot should be well drained and not be too large; a pot about six inches across is suitable for a plant with three to four feet long vines. The vines should be tied to a trellis or led along a post in the greenhouse. It is a tender plant, and as a house plant should, as nearly as possible, receive the treatment required for the well-being of hot-house plants, that is, a moist atmosphere, an even temperature of 60° to 65° during winter, plenty of sun without being burned, and leaves kept clean and fresh. Care should be taken also that it at no time is infested with injurious insects. Do you give your plant such treatment? If not, endeavor to do so, and perhaps it will bloom.—Uncle Mark.]

Dear Uncle Mark:—I am very glad to say that the radishes you sent me came up splendidly, and all goes well with them, only I find, in common with Mr. Butterworth, who mentions it in a recent letter, that there are some little insects that make small holes in the leaves. We have five Grape-vines, but one of them has been badly eaten by some ugly caterpillars. Papa put some Scotch snuff on them and they have now almost entirely disappeared. I have two little sisters, who will soon be large enough to join our club. I am very sorry Uncle True has given up the tour through the "sunny climes" that he contemplated making; I wanted so much to go with him. I notice that a great majority of the letters are from the girls, and between you and me, Uncle Mark, I think, too, that the girls write the nicest letters—some of them are real interesting. How is this, boys, will you allow the girls to carry off the laurels? Dear me, how long my letter is! With many thanks for the radish seed and sweet corn you have sent me, I remain your affectionate niece, Lizzie E. Blair.

Dear Uncle Mark and Cousins:—I wrote a letter for the Rural a few weeks ago, which was published, and so I have concluded to write again. I would like to be a member of the Horticultural Club. I have been quite interested in that society, and wish it to be a success. I have two sisters and two brothers, and each one of us has a flower garden, which we take great interest in, and a great many of our flowers and plants are in bloom now. We also keep two vegetable gardens, which are both looking well at present. I guess that Frizzle-Top means business, to judge by her letter of some time ago, and I hope she will write again. Where is Jumping Jack? I fear he has got the blues and "gone West." I cannot interest the cousins any longer, so I will close with my best wishes for the Y. H. C.

Slayerofconceit's Successor.

Marion Co., Oregon.

Dear Uncle Mark:—I received the radish seed and sweet corn you sent me all right, and I thank you for them. I sowed the radish seed, and it came up very nicely. I have sold eight bunches of them and have given mamma a good many to use. I soaked the sweet corn all day and planted it July 4th. There were 30 kernels of corn, and it is up nice. My premium corn is as good as papa's. I hope I will beat him. I have a patch of melons, and if you will come up I will give you some to eat. I sold five more bunches of radishes to-day. Your little nephew, Jay B. Lampman.

Greene Co., N. Y.

[Since this was written Master Jay has sent me a discouraging account of how a strong wind broke down a portion of his corn.—U. M.]

Dear Uncle Mark and Rural Cousins:—As I do not see any letters from the cousins in this out-of-the-way part of the world, I thought I would let you know that the storms have not blown all the people out of this place yet. I received a package of the sweet corn, and was very glad to get it. I have planted part of it and kept part for next year, should this not grow. I would like to know whether the bee-hive shown in the Rural of July 5th is patented, and how long cheese should be left in the press and when it would be fit for use.

Your nephew, Jayhawker.

Meadow Brook, Kans.

[The hive is not patented. Cheese should remain in the press 36 to 48 hours. It can be used in five or six weeks by those who are fond of new cheese. —Ed.]

Dear Uncle Mark:—This is my second attempt in writing for the Rural. I saw my other letter in print, and I thought I would try again. I love flowers very much. I have a few things in the garden; they are tomatoes, citron, pop-corn, all of which I am going to sell. I have planted some lemon seeds and would like to know if the lemon tree must be grafted to bear fruit? Please enter my name on your Horticultural Club list. I will try and not trouble you too much. Good-bye.

Ingham Co., Mich. Henry Welfare.

[Seedling lemon trees are a long time in getting into bearing, besides, the fruit is not likely to be of much value. The best way is to bud your trees when they are three or four years old. Read what was said about budding last week. Uncle Mark.]

Dear Uncle Mark:—I have been reading the letters from the boys and girls for some time with much interest. I would like to become a member of the Horticultural Club, if you will let me know the charges, but if there are none, please count me as a member. We have taken your paper for almost twenty years, and like it very much. I am twelve years old, and go to school when there is school.

As I am afraid this is getting too long, I will close, hoping that it will not find the way to the waste-basket. Laura Turman.

McLean Co., Ill.

[All who read the Rural are entitled to membership in the Horticultural Club without any charge whatever. But in order to maintain a good standing, members must do good work at gardening, and send occasional reports of what they are doing. [Uncle Mark.]

Dear Uncle Mark:—I have been reading the boys' and girls' letters in the Rural for some time, and as I wish to become a member of the Horticultural Club, I thought I would write and ask you to please put my name on the list. I am a boy 14 years old. My father has taken the Rural ever since I can remember, and before, too. I am very fond of poultry and I have raised 53 chickens this summer, and also some turkeys. I like gardening, also. Well, enough for this time. Wild Tom.

Chelsea, Mich.

Sabbath Reading.

BE STILL.

(*Psalms*, 46—10.)

"Be still, and know that I am God."
The way is dark and wild,
Through which thou goest, my child;
I cannot promise thee a stormless path,
For lightning's scath
And thunder's roar, the pilgrim's journey hath.

"Be still, and know that I am God."
The elements are mine;
It is a hand divine
That quiets the whirlwind in its awful course:
The mystic force
Of hail and tempest find in me their source.

"Be still, and know that I am God."
In danger's hour be ca m;
This is thy secret balm,
To know that thou art safe when I command:
Then only stand,
And see deliverance by my mighty hand.

"Be still, and know that I am God;
Ask not the reason why
I weave such mystery
Through all the warp of thy frail life below;
For thou shalt know,
And need the plan in heavens bright glow.

"Be still, and know that I am God."
Through storms and fears be still:
Only thy part fulfill;
And as thou walkest I will shelter thee;
Thy foes shall flee,
And thou shalt journey all the way with me.

"Be still, and know that I am God."
'Twill be enough for thee,
Safe in my throne with me—
Star-crowned thy head, within thy hand a palm—
To sing thy psalm,
When storms of earth end in eternal calm.

THE DANGERS OF RETURNING PROSPERITY.

The period of financial distress has been sore and long. It has already come to a close. Men of business are not reaping the large profits to which they have been accustomed, but they are prospering, and it is idle to talk about hard times. We need now to anticipate years of plenty, and to fortify ourselves, as best we may, against the temporal and spiritual dangers they will bring. Already speculation begins to abound; and, if we do not err, there is destined to be a fever of gambling in mining and railroad stocks such as we have not known heretofore. Our summer resorts are being again crowded with persons able to lead a life of extravagance and display. The various forms of betting are becoming more popular than ever; and the throngs of people eager to stake money on every horse-race, every base-ball game, every regatta, every walking-match should lead the Christian to redoubled prayers. No careful observer will doubt that many professed followers of the Lord are slipping into customs of the greatest peril. Perhaps at no previous time in the history of the American churches has there been such need to guard our people from the temptation to interest themselves, as spectators, and, alas, that there should be occasion to say it! as betters, at the various sorts of matches that have become so popular. The period of financial depression has been one, on the whole, of spiritual prosperity. Church debts have been paid. Extensive revivals have been granted in all parts of the country. A more serious spirit has taken possession of the people, and extravagance in expenditures, and the army of evils which follow in its train, have been made unfashionable. It is true that many business men have been guilty of dishonorable failures; but their iniquity existed before; and the hard times did but give them an excuse to exhibit it. The same thing may be said of those communicants in the churches who have disgraced their profession by frauds which they could not conceal; their exposure and their expulsion from the brotherhood, painful though they were, have resulted in its purification and strength.

It is natural for us to rejoice at the return of temporal prosperity. Yet it is possible, if we are recreant to our duties as disciples of Christ, that we may live to sigh for the spiritual fervor of the years of temporal adversity. Let us guard better the doors of the church, that unworthy persons may not enter. Let us watch better for the souls of those who profess to follow Christ, that they may not enter into temptations before which they shall succumb. Let us keep our churches free from debt. Let us discourage extravagance in dress, especially on the Sabbath, and in God's house. Let us warn the people faithfully against the perils of betting. Let us strive to keep alive the fires of earnest and simple piety, such as shall thaw out the glittering snows of worldliness which are already falling heavily. The perils of the immediate future are those of prosperity in carnal things, and these dangers are graver and more insidious than any others.—*Watchman.*

HUMILITY.

Christianity does not set men at any work of mere resolution, saying, "Come, now, let us be humble;" that would but multiply the endless specimens of useless self-mortification. But true Christianity puts men face to face with the humbling facts, the great realities of God and His truth, and then humility comes upon the soul as darkness comes on the face of the earth, not because the earth has made up its mind to be dark, but because it has rolled into the great shadow. It is the narrowness of our life that makes us proud. You merchants would be proud of your successful business if you saw nothing beyond it; and you men and women proud of your splendid houses if you looked no further. But if you could only see God forever present in your life, and Jesus dying for your soul, and your soul worth Jesus dying for, and the souls of your brethren precious in His sight, and the whole universe teeming with work for Him, then must come the humility of the Christian. To that humility let us devote ourselves, for in a humility like that alone is peace.—*Phillips Brooks.*

PERSONAL ITEMS.

"I guess the only cure for intemperance is arsenic," wrote James Bly, a Memphis drunkard, before taking a fatal dose of poison.

"My only anxiety on his account is that he is too plucky and go-ahead," is the last sentence in the letter of introduction given by the Duke of Cambridge to the Prince Imperial for Lord Chelmsford.

The arrears of pension law were a godsend to widow Maria Lewis, of Phœnix, New York. All her five sons joined the Union army and all were killed, leaving her to be supported by charity. She has now secured back pensions due her dead boys to the amount of $1,300 and also is guaranteed an annuity of $96.

Charles H. Stilly tramped into Reading, Pa., a few days ago, hungry, ragged and disconsolate. A year before, he had made the people of that city stare at his ways of squandering $20,000 that had been left to him. On the latter visit he begged a meal at the hotel in which he had once occupied the finest apartments, and slept in a barn where he had previously kept his horses.

The London Times' correspondent at Berlin writes: "In England parties rule the Premier, but here the Premier rules parties. Prince Bismarck is in possession of a perpetual majority. The various parliamentary factions are but so many cards in the hand of the Chancellor, from which at will he draws the winning one. The tide of reaction is in full force, and the liberals are fast losing their cohesion and moral courage."

Dr. Cumming, the once popular London preacher who was fond of prophesying the speedy end of the world every now and then, and of all the time showing that the Pope was undoubtedly the Biblical Scarlet Woman, is broken down in mind, body and estate. Twenty-five years ago he drew immense congregations; now an appeal for money to buy him an annuity brings few subscriptions. He is 72 years old.

A woman wanted to remove a tree from her lot in a cemetery at Springfield, Mass., to make room for a monument, but the authorities refused permission. She went home and prayed that the Lord would take the tree away, and within a few hours a tornado blew it over. The same wind did great damage throughout Massachusetts, and killed many persons, yet the woman firmly believes it was sent in answer to her prayer.

Senator Chandler said to a Boston Traveller correspondent: "Many years ago I determined to take a course of training in boxing, and I employed one of the best trainers in the country, the man who trained Heenan for his famous prize fight before the war. I was under this man's charge for at least six months, and in that time became quite an adept in using my fists. I got up a first-class muscle, and have preserved it to this day. No person in the Senate suspects that I am a boxer, or that I can strike a blow of iron, but, if I am ever assailed, my assailant will discover that I can defend myself without resorting to weapons."

Though riches help wonderfully towards happiness, it would seem they don't always secure the article. Adolph Sutro, who gave his name to the famous Nevada tunnel, and is a very rich man, lives in Virginia City, in that State of mines. Recently one Mrs. Allen, a Washington woman, appeared in Virginia City and registered at the leading hotel, where she was spoken of as "the $90,000 widow." After dinner, one day last week, the guests at the hotel were alarmed to hear the screams of women in the elegant apartments occupied by Mrs. A. There was a general rush thither. Mrs. Sutro, Adolph's wife, was found to be pummeling Mrs. Allen over the head with a champagne bottle. The widow was rescued, and Mrs. Sutro, who proclaimed it to the crowd that she was a much-aggrieved woman, turned her attention to Adolph. Mrs. Sutro is said to have instituted proceedings for divorce.

The Oldhams and Belts live in Hardin County, Ill. and rival each other in wickedness. There has long been a feud between the families, and a year ago it broke out into bloody hostilities. A Belt was killed by an Oldham in consequence of a quarrel about a woman, and after that hostilities were open and fierce. Logan Belt, the leader of the Belt faction killed Dorris Oldham soon afterward for revenge. It was not long before Logan Belt's nephew was killed, at a drunken brawl by a man whose wife was an Oldham. The next homicide was that of Doc. Oldham by Logan Belt at an Oldham family party into which some of the Belts intruded in order to force a fight. Although justice is very sleepy in Hardin County four murders within a few months aroused the Grand Jury to action, and Logan Belt was indicted. Several witnesses against Belt have been fired at, one losing a finger; and a badly aimed shot, presumably fired at an Oldham, seriously wounded a Belt, who was standing close by. The trial of Logan Belt has been commenced, and the evidence already shows the existence of a secret society among the Belts, formed for the extermination of the Oldhams.

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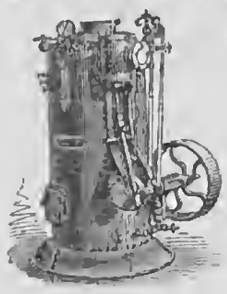

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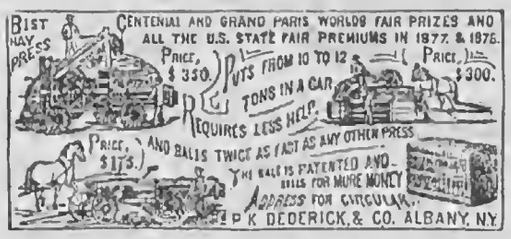

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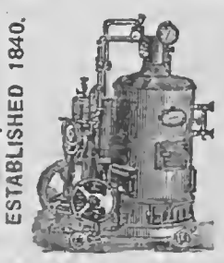

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Wit and Humor.

A LINCOLN anecdote is told by a correspondent of the Decatur Sun. While Judge Logan, of Springfield, Ill., was Lincoln's partner, two farmers, who had a misunderstanding respecting a horse trade, went to law. By mutual consent, the partners in law became antagonists in this case. On the day of the trial, Mr. Logan, having bought a new shirt open in the back, with a huge standing collar, dressed himself in extreme haste, and put on the shirt with the bosom at the back, a linen coat concealing the blunder. He dazed the jury with his knowledge of "horse points," and, as the day was sultry, took off his coat and shimmed up in his shirt sleeves. Lincoln, sitting behind him, took in the situation, and when his turn came, remarked to the jury: "Gentlemen, Mr. Logan has been trying for over an hour to make you believe that he knows more about a horse than these honest old farmers who are witnesses; he has quoted largely from his 'horse doctor,' and now, gentlemen, I submit to you (here he lifted Logan out of his chair and turned him with his back to the jury and the crowd, at the same time flipping up the enormous standing collar), what dependence can you place in his horse knowledge when he has not sense enough to put on his shirt?" The roars of laughter that greeted this exhibition, and the verdict that Lincoln got soon after, gave Logan a permanent prejudice against "bosom shirts."

THIS anecdote is told for a fact by the New York Commercial Advertiser: "Little Sylvester, whose efforts in the "composition" line had previously been confined to dissertations on the "The Horse," and whose bent in orthography has recently advanced into polysyllables. Being anxious to wind up the school session creditably before enjoying his summer vacation he concluded to rise above his rather hackneyed equine tale. Much to the amazement of the schoolm'am as well as to the envy of the small boy at the head of the class, Sylvester presented the following: "Man's mind! how illimitable in its range! With it you can soar aloft on pinioned wings to the very verge of infinity, and through the dim vista of futurity take panoramic views of nonentity!"—He got no further.

HOW HE TOOK HIS SERMONS.—The following is told of Prof. Tholuck: A new student had come to the university, and some time after his arrival he called to see Prof. Tholuck. After a while the Professor asked him where he went to church. "Oh!" said he, "I do not attend preaching. Instead of confining myself to the four walls of a building I go out into the green fields and under the lofty arches of the forest trees. I listen to the singing of the birds and the countless melodies of God's creatures, where everything that hath breath praises the Lord." The Professor allowed him to go on in this strain for a while, and when he had finished he quietly asked him: "But what do you do when it rains?"

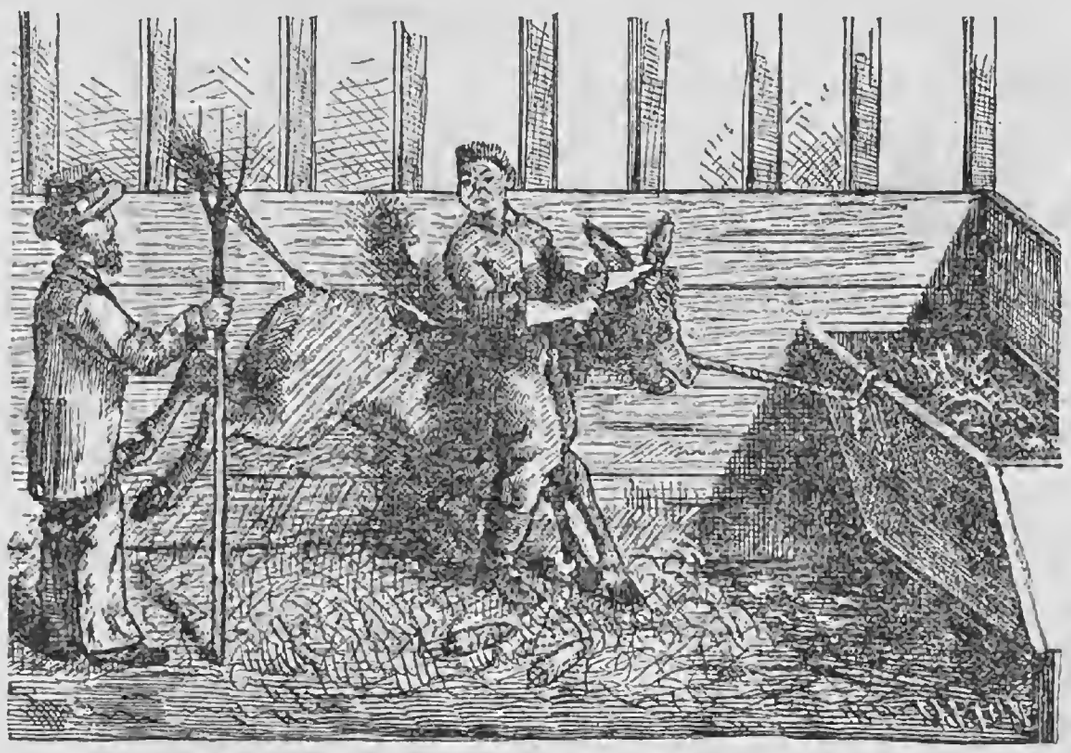
"There is a heavy European hegira this year," remarked an old lady with a compact forehead and a chin more pronounced than ever, since her teeth were all gone. "I wonder what a he gira is, anyhow. He must be something dreadful. I never heard of a she gira; so that shows which sex preponderates in wickedness." "The party of the other part," a mild-eyed rather meek-looking gentleman, who had cherished the lovely creature above quoted as his wife for thirty or forty years, remarked, on reading the same item a few hours later: "A he gira, eh? A gander scrape, I s'pose. No ladies going. Won't they have a blessed time, though?" Such is life.—*American Punch.*

SABBATH SCHOOL CONCERT—Subject: "God's Providence." Teacher—"Why, children, the good Lord cares for even the little sparrows you see hopping about your doors. Can you tell me in what way he cares for them?" "Feeds them," "Tells them how to build their nests," "Gives them wings to fly," are some of the answers given; when all were done, a little mite of a fellow, away in the back part of the room, pipes out, "He divs 'em fedders."

A GREAT deal of poetry has been written about "snow-white sails on a shimmering, sunlit sea," but the sails on most of the craft that we have observed look as if they had been used for circus canvas in a very wet and muddy season. There's no whiteness about them.—*New Haven Register.*

"WHAT are you doing there with that basin of water? Don't you know you'l wet your clean waist?" said his mother. "That's all right," said 6-year-old, as he threw a heifer into the water. "I'm only watching a swimming match."

A RELIGIOUS old lady, when asked her opinion of the organ of a church, the first time she had seen or heard one, said: "It's a very bonny kist fu' o' whistles; but, oh, sirs, it's an awful way o' spending the Sabbath day."



Farmer, to hired man:—What are you trying to do Pat?
Pat, (who has just come over). And sure, sir; ye tould me to feed him corn in the *ears*, but I can't at all, at all!

A CERTAIN colonial legion now extinct possessed at one time an officer who would have well passed for own brother to Mrs. Malaprop. His son became a victim to the tender passion, and while the spooning was at its hottest, S——, "of ours," meets Malaprop pere, and says: "Old fellow, is it true that your son Joe is engaged to Miss Dash? Every one talks so." "It matters but little, Captain S——," replies, Malaprop, pompously, "what people talk. There are always so many canards flying about that it is difficult to believe anything. Whatever I hear I swallow with a dose of salts. Joe is not affianced. Miss Dash has certainly enameled him—completely enameled him. He He has put other shooters horse di combat; but no betrothal is on the tapes. That will come, I suppose, of course; when, I hardly know—but post mortem, I fancy."—*Chambers Journal.*

A SMALL, ragged boy entered an oyster house in Salem, Mass., and asked: "Will you sell me an oyster for a cent? I want it for my sick mother." "What is the matter with your mother?" asked the man, as he proceeded to fill a can with oysters, thinking he would help to relieve a case of suffering. "She's got a black eye," was the reply The benevolence rapidly faded from the mind of the oyster man as he put one oyster in a paper bag.

A YOUNG lover who didn't understand the language of flowers was presented by his adored with a flower of the genus papaver. "Ah," he mused, after a few minutes' contemplation, "she refers me to her popy." But before he called on her again he consulted a floral dictionary, and when he learned that the poppy is the emblem of stupidity he—well, he didn't call on her again.—*Norristown Herald.*

Oh, say, can you see by the dawn's early light
What afflicted us much at the moonlight's last gleaming—
The neighbors' cats mixed in a terrible fight,
And waking us all with their terrible screaming,
The flower-beds bare, the yard covered with hair,
Give proof to the house that the fight was just there.
[Brooklyn Eagle.

SETTLED.—"Landlady," said he, "the coffee is not settled." "No," she replied, "but it comes as near it as your last month's board bill does," and that man never spoke again during the meal.

"MAMMA, is the ridicule very bad to have?" "What do you mean, Georgie?" "Why, mamma, Rosy Green says Dora Dow was exposed to it three weeks ago, and it's high time it broke out!"

IF NOAH had foreseen the future, and killed the two mosquitoes which took refuge in the ark, he would have rendered some of the strongest words in the English language unnecessary.

"PAT, did you ever see so thin a woman as that before?" "Thin?" said the other. "Botherashen! I seen a woman as thin as two of her put together, so I have."

SAID he, as he stole one, "I seal my love with a kiss." And she, suiting the action to the word, replied, "I seal mine with whacks."—*Boston Transcript.*

Malaria Disarmed of Its Terrors.

Malaria, that fell atmospheric poison, is disarmed of its terrors, and health insured to thousands residing where the noxious exhalation periodically infects the air, and engenders intermittent and remittent fevers, by Hostetter's Stomach Bitters, the most popular as it is the best, of preventatives, alteratives and tonics. In numberless localities where the demand for sulphate of quinine was formerly immense, the hurtful alkaloid has been almost entirely supplanted by this safe agreeable and effective substitute, which is genial in action and unobjectionable in flavor. It nullifies the influence of miasma by giving a more active impulse to every vital function, quickening and enriching the blood, overcoming a tendency to biliousness, and promoting digestion.

When a person is weak and faint, or fatigued and exhausted, there is nothing so refreshing and reviving as a little of MURRAY & LANMAN'S FLORIDA WATER. Rubbed on the hands and temples, and inhaled freely, it tones and braces the whole system.

Purify the blood, Cleanse the Stomach and Sweeten the Breath with Hop Bitters.

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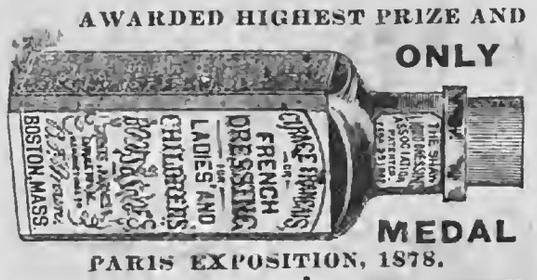

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The only Wire Fence that stands the Test of Time.
NO BARBS.
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PIANOS and ORGANS. $1,100 Pianos only $222.50; $370 Organs only $96.25; $325 Organs only $73.75. Tremendous Reduction during the Midsummer months. Having been ELECTED MAYOR of my city and entrusted with its bonds should be sufficient proof of my responsibility. Latest circulars and Illustrated Newspaper *free.* Address DANIEL F. BEATTY,
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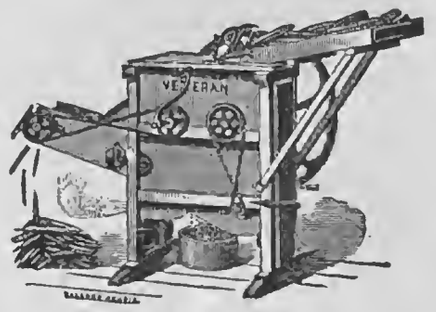

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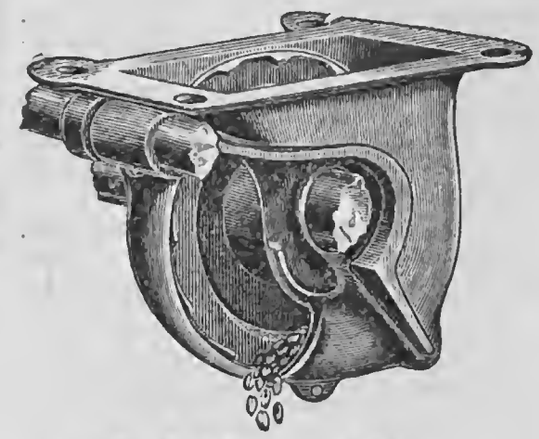

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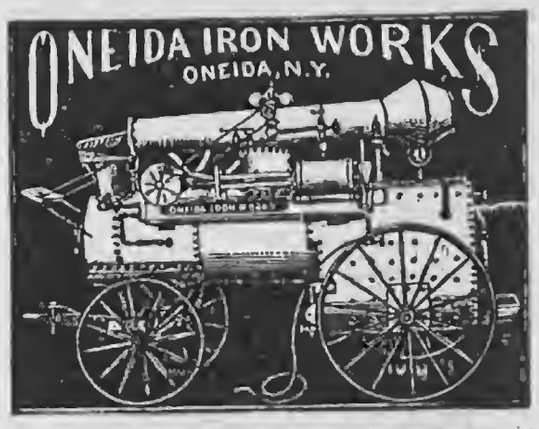

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THE RURAL NEW-YORKER

A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME

VOL. XXXVIII. No. 32. WHOLE No. 1541. | NEW YORK, AUGUST 9, 1879. | PRICE FIVE CENTS. $2.00 PER YEAR.

[Entered according to Act of Congress, in the year 1879, by the Rural Publishing Company, in the office of the Librarian of Congress at Washington. — Entered at the Post-Office at New York City, N. Y., as second-class matter.]

Biographical.

THE ROYAL AGRICULTURAL SOCIETY OF ENGLAND, ITS EX-PRESIDENT AND PRESIDENT.

THE ROYAL AGRICULTURAL SOCIETY OF ENGLAND is at once the largest and most influential of the numerous Agricultural Societies of the British Isles. It was founded in 1838 under the name of the English Agricultural Society, and in March 1840, it obtained a Royal Charter of Incorporation "for the general advancement of English Agriculture," while it was declared an essential principle of its constitution that its members should maintain "the strictest exclusion from their councils of the discussion of every question having a political tendency." The prosecution of the following national objects was declared to be the aim of the Society.

"1. To embody such information contained in agricultural publications, and in other scientific works as has been proved by practical experience to be useful to the cultivators of the soil.

"2. To correspond with agricultural, horticultural, and other scientific societies, both at home and abroad and to select from such correspondence all information which, according to the opinion of the Society, may be likely to lead to practical benefit in the cultivation of the soil.

"3. To pay to any occupier of land, or other person who shall undertake, at the request of the Society, to ascertain by any experiment how far such information leads to useful results in practice, a remuneration for any loss that he may incur by so doing.

"4. To encourage men of science in their attention to the improvements of agricultural implements, the construction of farm buildings and cottages, the application of chemistry to the general purposes of agriculture, the destruction of insects injurious to vegetable life, and eradiction of weeds.

"5. To promote the discovery of new varieties of grain and other vegetables useful to man, or for the food of domestic animals.

"6. To collect information with regard to the management of woods, plantations, and fences, and on every other subject connected with rural improvement.

"7. To take measures for the improvement of the education of those who depend upon the cultivation of the soil for their support.

"8. To take measures for improving the veterinary art, as applied to cattle, sheep, and pigs.

"9. At the meetings of the Society in the country, by the distribution of prizes, and by other means, to encourage the best mode of farm cultivation and the breeding of live stock.

"10. To promote the comfort and welfare of laborers, and to encourage the improved management of their cottages and gardens."

Since its incorporation these objects have been diligently carried out by the Society which appropriately chose for its motto "Practice with Science." It has always embraced in its membership all, or nearly all, the distinguished landowners and prominent agriculturists of the country, besides a large number of smaller landowners and tenant-farmers as well as many prominent gentlemen interested in agriculture in Ireland and Scotland. At present its members number 6,634. Its list of presidents, who serve for one year, contains the names of most of the best known landowners and agriculturists in the country during the last forty-one years. Prince Albert occupied the position years ago, and his son, the Prince of Wales, has just closed his second term.

ALBERT EDWARD, PRINCE OF WALES, and heir apparent to the British throne and the Empire of India, is now in his thirty-eighth year, having been born at Buckingham Palace, November 9, 1841. He was married on March 10, 1836 to Alexandra, eldest daughter of Christian IX, King of Denmark, and has quite a large family. He has large estates in Cornwall, also at Sandringham Park, near Windsor, and a little over a year ago was elected to the presidency of the Royal Agricultural Society, an honorary position in which he has been succeeded by the Duke of Bedford.

THE DUKE OF BEDFORD is head of the Russell family, and one of the wealthiest nobles in England. The other day, in view of the grievous agricultural distress prevailing throughout the country, he conceded to his farming tenants a diminution in their rents of £70,000 or $321,600, a sum which, at five per cent interest, is equal to a perpetual annuity of $16,080. Woburn Abbey, his chief country residence, is the finest place in Bedfordshire. The Duke has several other palatial mansions and vast estates in different parts of England, besides large landed property in Ireland. He also owns a large portion of London, and much real estate in other towns, besides a vast amount of miscellaneous property. His family originally acquired most of their wealth from the lavish gifts of Henry VIII, who bestowed on his favorite, the then head of the family, many a rich confiscated abbey with its broad acres. William Russell, born in 1644, was created the first Marquis of Tavistock and Duke of Bedford by William and Mary in 1694. Since then the family have always belonged to the Liberal side in politics, and have produced many distinguished men. The present duke has manifested considerable interest in agriculture and has just been elected to succeed the Prince of Wales as president of the Royal Agricultural Society of England during the current year.

Industrial Societies.

EUROPEAN CORRESPONDENCE.

The Great Agricultural Show at Kilburn.

CATTLE EXHIBITS.

(Continued from last week.)

THE Champion prize for Hereford cows was easily won by Leonora, a beast of splendid proportions, symmetrical form and excellent character, three years old, the property of Mrs. Sarah Edwards, of Leominster, who refused an offer of £500 for the beauty. The same owner also won the first prize for the best calf, Coomassie, a distinction he had previously gained at the Bath and West of England Agricultural Society's fair at Exeter. Many other very fine specimens of the Whitefaces also received prizes or commendation.

Of Devons the show was somewhat small, but it contained many very fine specimens of this handsome breed. In the old bull class the first prize was borne away by Lord Falmouth's Sirloin, who had also been first at Exeter. The same owner also took the first prize in the yearling bull class. Mr. Walter Farthing's Lord Newsham won first prize in the class for bulls over two and under three years old, and also the cup for the best bull of the breed. The same owner's Prettyface was awarded the first prize among cows, much to the discontent of those with whom Mrs. Langdon's beautiful cow, Temptress 8th, found more favor.

Of the Sussex cattle the exhibit numbered 95, an exceptionally large number for this breed, which seems closely allied to the Devons. Few if any of these cattle have been thought worthy of importation into the United States, so that they can attract but little interest there; the judges here, however, warmly commended the cows and yearlings, which found many other admirers also.

The Long-horns, so widely valued in the days of Bakewell, Fowler and Princep, until little over a half a dozen years ago seemed in danger of dying out or of being kept, like the Chillingham cattle, merely as curiosities in gentlemen's parks. Of late, however, a Herd Book of the breed has been established, and an effort is being made by breeding to substitute edible flesh for the mass of fat which the labors of Bakewell and his two successors had piled on beasts of this strain. The collection of them at this show was far greater than has hitherto been seen, and will contribute not a little to increase interest in them. Prince Victor,

THE DUKE OF BEDFORD.

THE PRINCE OF WALES.

owned by Major-General Slr F. W. Fitzwygram, won the first prize for old bulls in this class and also the champion prize for the best male, while the Duke of Buckingham took like prizes in the female class with the Countess of Temple.

The Norfolk and Suffolk Polls numbered only 35, but among them were some very fine beasts. The allied breeds, the Polled Galloway and Polled Angus or Aberdeen, made a very creditable show. Mr. McCombie, whose Polled Angus group won so high a reputation at the Paris Exposition, was not among the exhibitors at Kilburn.

Perhaps the most remarkable feature of this department was the large display of the beautiful, little Jerseys. There were of them 252 entries against 179 of Short-horns. It was by far the largest and finest collection of the breed ever assembled. They came from all parts of England, while Ireland and Scotland sent each its contribution, and the Island which produced them sent across the Channel some of its choicest animals. In the class of bulls over two years old, the first prize was taken by Duke, who has won many prizes on the Island, and is owned by Mr. Le Brun, of St. Ouen, Jersey. The same animal also won the prize for the best male of the breed. The cow class was also headed by an animal from the Island, Mr. Marrett's Zenobia, with golden color, a fine escutcheon, a shapely head, tawny horns and a neat, deer-like form. On the whole, this exhibit attracted more attention from the general public, especially from the female portion of it, than any other in the cattle department.

The very fine but not very numerous display of Ayrshires excited much interest likewise, especially among those with whom a large production of milk is the main excellence in a cow. Mr. Montgomery won the first prizes in both bull classes, and also the first prize in the cow class with Fancy of Dumlanrig, an animal of very handsome appearance, with nice head and horns, and an excellent milker. There was a large number of fierce-looking, massive Welsh cattle also, together with eight little Kerry bulls and 21 cows of the same hardy breed.

Of foreign cattle there was only a miserly show, as the restrictions upon the importation of animals from plague-infected countries was rigidly enforced, and all exhibits from such places were subjected to close quarantine. Even the presence of the few on exhibition caused not a little disquiet to the native stock owners, although they were kept apart from the other animals. This department, therefore, contained only a few bulky Normans and little Bretons, a single massive Holstein bull and a fair number of Danish cattle from Anglen and Jutland. After a view of the splendid native display the foreigners presented few points of attraction.

The Dairy Department

attracted much attention both from agricultural visitors and the general public. The display of butter was one of the finest ever seen here. Indeed, many exhibits appealed so strongly to the good taste of the judges, that they left little or none in some of the packages. France, Belgium, Holland, Denmark, Switzerland and Germany, had all fine exhibits, but the poor show made by the United States was a matter of common comment. The display of cheese, however, did not come up to the expectations of the public or of the judges. The latter ended their report with the remark: "The judges are sorry to have to report that nearly all the exhibits in the classes of English cheese were very inferior in quality—possibly caused in some measure by the early period of the season preventing some of the finest dairies being sent in for competition; and they are of opinion that unless the tenant-farmers who make cheese at home, pay more attention to its manufacture, so as to secure fine quality, they will be forced out of market by the Americans. There is always a ready sale for English cheese at remunerative prices."

The last sentence is equally applicable to the American product, as is amply testified by the stock of it kept by nearly every provision dealer in the country. To describe this interesting department with the amount of detail necessary to benefit RURAL readers, would occupy far more space than could be allowed it, in this hasty outline.

Horses, Etc.

Never before was so fine a collection of agricultural horses assembled in any country. A walk along the sheds in which they were stabled was a journey which few would care to undertake, especially in the wretched condition of roads and footpaths. When paraded in the large ring designed for displaying them, they afforded a truly splendid spectacle. They were divided into three principal classes—the Clydesdales, the Suffolks and those not included under either of these heads. The last was the most numerous, and embraced many of the finest animals of the kind in Great Britain, and consequently on the globe. In this class by far the finest display by any single exhibitor was that made by the Earl of Ellesmere, for whose Worsley immense stud farm the whole country seems to have been ransacked to secure the best animals. Class No. 1, for agricultural stallions, not Clydesdale or Suffolk, over four years old, was headed by his British Wonder. In the three-year-old class he took first and second prizes with young Prince of the Isles and Sampson III. The former had already taken half a dozen cups at other fairs, and was awarded another here as the best stallion on the ground in the classes not Clydesdale or Suffolk. He is a very handsome and symmetrical bay and a splendid walker. Sampson III. has more of the dray-horse character, being a thick-set, short-legged, powerful animal. Again in the two-year old class, the same owner won another victory with Sampson IV., while several other sons of the same, Worsley sire, owned by other parties, were honored with prizes or special mention.

The Clydesdale stallions were much less numerous than what are termed the "shire" horses in contradistinction to them and the Suffolks; still they made a fine show and were great favorites with all those interested in the equine race. Mr. D. Buchanan's Druid not only won the first prize for Clydesdales four years old and upwards, but also the Champion cup for the best male of the breed. He is a very handsome, compact brown horse with short legs and evidently enormous strength. Mr. Martin's The Abbott bore away the first prize in the three-year-old class, and Mr. Montgomery's Prince Imperial, in that for two-year-olds.

The magnificent Cupbearer III. was justly placed at the head of the Suffolk old-class stallions. He is accustomed to take that place wherever he is shown, and won £275 last month at the Suffolk County fair. Here he also won $25 offered for the best stallion of the breed.

There was also a large and very fine array of mares and foals belonging to the three classes. Here Lord Ellesmere again won three prizes, and Mr. Montgomery one. Prizes were also given for the best thoroughbred sire for getting hunters, the best for getting coach horses, and the best pairs of agricultural mares and geldings. Hunters, coach horses, hackneys, ponies, mules and asses, were also well represented. Foreign horses made a much better show than any other class of foreign animals. The Percheron and Boulonnais were very stylish yet powerful; the Normans seemed excellently built for roadsters, while some long-tailed, hardy Belgian horses found many admirers.

THREBER.

Horticultural.

NOTES FROM THE RURAL GROUNDS.

Will Weevil-eaten Peas Grow?

TESTS CONCLUDED.

TEST No. 3.—June 29, 6 P. M. One hundred weevil-eaten peas which had been soaked in water for six hours, were planted in sandy loam three inches deep. They were afterwards watered as needed. The variety was a rather small, early pea. Of these, *three* only germinated.

TEST No. 4.—On the same date as above, twenty-five weevil-eaten peas were planted two-and-a-half inches deep. They had been soaked, as in the above test, for six hours. They were not artificially watered afterwards. More appeared above ground.

TEST No. 5.—Twenty-five weevil-eaten peas, variety "Champion of England" were soaked in water for three hours. This is a large wrinkled pea, and only the best specimens, or those which were the *least* eaten, were selected. They were planted two inches deep in a clayey loam. The ground was moist when they were planted, and it was kept moist afterwards by artificial watering as often as needed. Two seeds germinated. In the same manner near these, in a parallel drill, *twenty-four* peas of the same variety were planted, which were *not* weevil-eaten. Of these thirteen germinated.

It appears from these experiments (all made out-of-doors in garden soil of various sorts) that weevil-eaten peas are substantially worthless. Taken as they come, less than ten per cent. will grow. Our readers may not be convinced by these tests; but we have no prejudices in the matter and they are as trustworthy as we are capable of making them. We are quite at a loss to account for the fact that the impression is general among farmers and gardeners that weevil-eaten peas are just as good as those which are not weevil-eaten. Even such good authorities as our respected contemporary, the Country Gentleman and Professor Riley incline to this opinion, as a published letter of the latter and a commentary of the former upon our first tests, will show.

We have lately examined a number of bags of seed peas offered by seedmen. Some of these were grown in Canada and were entirely free from weevil-grub holes. Samples from other bags showed that as many as one in three had been eaten. The price of seed peas ranges from $8 to $15 per bushel, according to variety. Supposing $5 to be an average price paid for seed peas, and that they were as badly infested as in the last instance above, the buyer would in reality pay $5 for two-thirds of a bushel, plus the ten per cent. of weevil-eaten peas that might germinate. But we have found that of the less than ten per cent. that do germinate, a large proportion will produce feeble plants that will either dwindle away or not bear green peas enough to pay for the ground they occupy. Many of our friends have written to us that we are wrong, and that weevil-eaten peas are as good as any others. One of our contemporaries has stated that we have "discovered a Mare's Nest." We call upon them, as well as upon the Country Gentleman and Professor Riley to show by their own tests wherein ours have been defective, or else for the benefit of the pea-planting community to accept our results as a trustworthy guide.

Roe's Early Ruby.

Mr. E. P. Roe sent us last year six plants each of his new seedling Gooseberries named Early Ruby and Late Emerald, to test. The Early Ruby this summer set its fruit abundantly. When half-grown, we told our readers that at that time there was no appearance of mildew upon either leaves or fruit. Later, however, the fruit became so mildewed that few berries ripened. Mr. Roe, doubtless, has spent much time in producing and propagating the Early Ruby, and we are sorry that it has so badly fulfilled its earlier promise. Our report, it must be borne in mind, is but one of many—the evidence, so to speak, of a single witness—we hope the only one to testify against the Early Ruby. Late Emerald has not yet fruited.

Pure White Double Pelargonium.

Among many plants sent to us for trial by Mr. John Saul, of Washington, D. C., is a double Pelargonium, which, judging from its first blooms, bears a purely white double flower. The first double Pelargoniums said to be white were sent out, as we remember, about five years ago, but they were all more or less rose-color. Many have since been produced and advertised as white, but those which we have seen or tried were scarcely improvements upon the earlier varieties. The Pelargonium under consideration is one of M. Lemoine's productions, and is named Mme. Baltet. The trusses are rather small, but compact; the flowers endure well, the habit is dwarf, the leaves of a palish-green color.

How to Establish Beds of Double Portulaca.

There are no colors that we know of more brilliant than those of Portulaca. Verbena flowers are very bright, but if beds of each exist side by side, the greater brilliancy of the Portulaca will be very strikingly shown. Everybody knows of DOUBLE Portulaca, yet a bed of this alone is seldom seen; and there is a good reason for it—it cannot either be made or maintained without a great deal of trouble. Ten years ago we procured some seed of all colors that produced a large percentage of double flowers. The single and semi-double flowers were cut off or the plants bearing them pulled up as soon as they opened, and this rather tedious daily manipulation we have carefully continued ever since. The result is, our bed is a blaze of white, yellow and red, with all intermediate shades, and the flowers average as large as little Roses. The seed pod from the single flowers contains a hundred seeds or more, while the pod from double flowers is either seedless or contains very few seeds. It will appear, therefore, that a bed of double Portulaca can only be secured by preventing the single flowers from forming and sowing their seeds.

WEEVIL-EATEN PEAS. THE RURAL EXPERIMENTS CONFIRMED.

PROFESSOR W. J. BEAL.

LAST year, 1878, a trusty student at my suggestion, tested some peas with the following results. They are early peas, somewhat mixed, of moderate size and smooth. They were raised the year before. He soaked in water for one day 50 peas which were "buggy" and 50 which were sound, taken from the same lot. They were kept damp for five days when one of the "buggy" peas sprouted and nearly all of the sound ones. Again, in a damp place in the greenhouse, he placed 25 sound and 25 weevil-eaten peas. After six days all the sound ones grew, and only four of the damaged seeds. On June 5th, in good warm soil, 12 sound peas and 25 "buggy" were planted. Of this lot, all the sound ones grew, and only three of the buggy ones. The weevil-eaten seeds produced feeble plants.

This year, 1879, from the same lot of peas 500 weevil-eaten peas were counted out and tested in ten lots of 50 each, in the green-house. By the side of these, 500 apparently sound peas were tried. All of the latter germinated except four.

The following table gives the number which germinated in each lot of 50 of weevil-eaten peas.

1st lot of	50	12	grew.
2nd.	"	10	"
3rd.	"	8	"
4th.	"	12	"
5th.	"	17	"
6th.	"	11	"
7th.	"	12	"
8th.	"	13	"
9th.	"	17	"
10th.	"	13	"
Total grew		130	

This is 26 per cent. Some insist on it that a test in the open air is the only sure and fair one. It may be so, sometimes, but not always, unless very great pains are taken. For example, the moles are often troublesome in our gardens, passing along the rows and taking many of the peas and sometimes nearly all. Perhaps wrinkled or very large peas of some varieties would be less injured by the weevil than those above tested.

Agricultural College, Lansing Mich.

WEEVIL-EATEN PEAS.

THE following questions were asked by one of the editors and answered by Professor Cyrus Thomas:

1.—"Does the weevil eat the pea?" Not to an extent worth noticing, and hence but little attention has been given to this point.

2.—"How long will it live in the pea when it cannot get out?" There must be some imperfection in its oral apparatus, or something unusual in the pea when it cannot get out, and hence I presume it would perish as soon as in any other place of confinement of a similar character. If it can eat the pea to sustain life, it can eat its way out; if it cannot eat, then it must perish for want of food, if food is necessary to its existence. But many insects eat very little in the perfect state, and I am inclined to think the pea-weevil eats comparatively little in that state; but it has a term of existence, beyond which its life will not be much prolonged. I do not believe its existence will, under any circumstances, be prolonged over one winter. As the weevil will often remain in the pea until planted, it may frequently happen that where an individual is unable to escape because of the hardness of the pea, it may accomplish this after it becomes softened in the ground.

3.—"Do they make and deposit eggs on the peas, and then do the young larvæ eat again the old peas?" I do not believe they ever deposit eggs in or on the old peas. The larvæ are adapted only to eating the new or growing peas. The case you suppose is extremely rare, if it ever happens—I do not think it ever does. While it is true that weevil-eaten peas will generally germinate, their vitality is certainly impaired, and their growth I do not think will be so vigorous as when perfect.

RASPBERRIES.

A Note from Mr. Charles Downing.

EDITORS RURAL NEW-YORKER:—You ask for my opinion of the Cuthbert Raspberry, and, in reply, I would state that a longer trial is necessary to give a decided opinion of its merits, but, from what I have seen of it, I think it will prove to be a valuable variety for the market, the berry being quite firm, of good size, and of good quality, while the plant is also a good grower, very productive, and so far apparently hardy. On this point, however, it may vary with seasons, colder and more changeable than we have had since it was introduced.

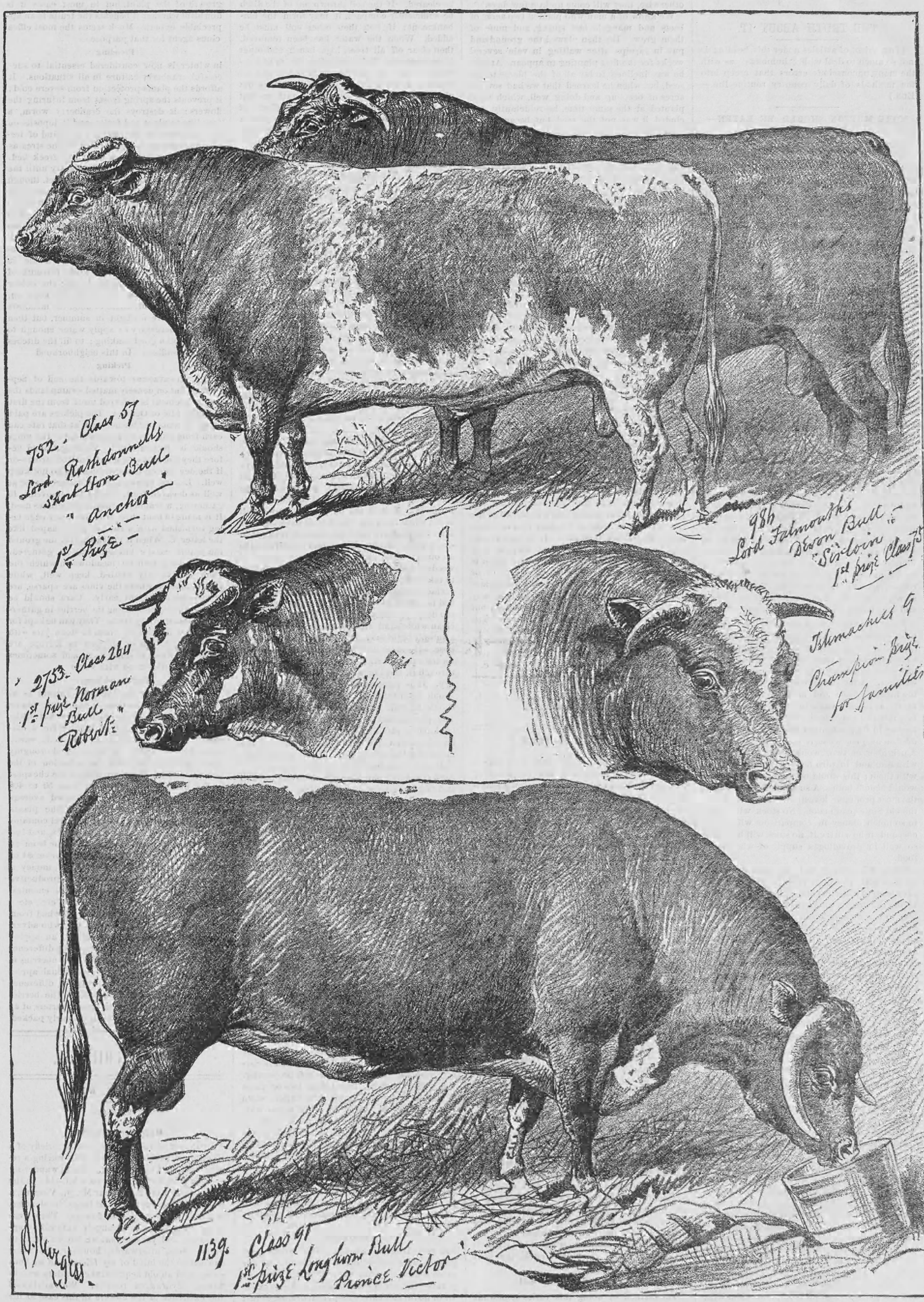
For family use, there is nothing that I have yet seen that is superior to Brinckle's Orange. It is one of the first of its class to ripen, continues longer in use and produces more than any other variety, and the quality is not surpassed, yet many object to it on account of its color—orange yellow. For those who prefer a red berry, the Franconia, Pride of the Hudson and Herstine, are desirable varieties.

CHAS. DOWNING.

[As showing the effect of soil and climate upon different varieties of Raspberries, we may state that Brinckle's Orange with us, though protected, was killed nearly to the ground last winter, while Franconia and Herstine were so harmed as to bear little or no fruit the present season. Cuthbert, as we have twice stated before, has never been injured in the least by heat or cold. The bushes are extremely vigorous and fruitful, and—as our venerable authority intimates—the berries are firm, high-colored and of excellent flavor.

EDS.]

PLANT CELERY; it is so wholesome a vegetable and is so acceptable during the winter season—when fresh vegetables are scarce—that no family should do without it. Get strong plants of some dwarf variety and plant them in rows three feet apart, and six inches between the plants in the rows. Water freely till they are well started. It is now a trifle late to plant them, but in good soil, with good care, a crop for family use may yet be raised.



PRIZE ANIMALS IN THE ROYAL AGRICULTURAL SOCIETY'S INTERNATIONAL EXHIBITION AT KILBURN.

Farm Topics.

THE TRUTH ABOUT IT.

[The object of articles under this heading is not so much to deal with "humbugs" as with the many unconscious errors that creep into the methods of daily country routine life.—Eds.]

MORE MUTTON SHOULD BE EATEN—THE REASONS.

COL. F. D. CURTIS.

A leading butcher in a suburban city informs me that he sold but one sheep during the entire summer; in fact, he only sold a portion of that. After keeping it in his ice-box more than a month, he took it home and ate it in his own family. Notwithstanding the length of time he had it on hand, it was sweet and good, proving that mutton will keep as well as, if not better than, any other meat. During this time he sold thousands of pounds of beef which had been brought on the cars hundreds of miles. In the autumn he sold hundreds of pounds of pork. To us there seems to be a want of wisdom in all this. His patrons refused to eat the cleanest, healthiest and most easily digested meat in the world, and without thought apparently or consideration followed fashion, or habit and ate beef more or less feverish and unhealthy, not knowing or caring where it came from, and pork which might have been reared in filth, and might be reeking with disease. The farmers would be glad to furnish mutton in abundance, if there was only a demand.

It seems to be a universal practice with Americans to dislike mutton, or, at least, to eat scarcely any meat except beef and pork. They will pay twice as much for beef as mutton can be bought for. Chops always sell high, because every one wants them and nobody wants the rest of the carcass. Butchers say that they must sell one-third of the sheep for enough to pay for the whole, as all the rest has to be sold below cost. Americans seem to be totally unused to mutton in any form as corned or salted meat. There is no better meat than corned mutton. It is excellent for soups and stews, or to boil. The hams may be corned and then boiled and eaten cold for any meal.

There is no other meat which the farmer can more economically use while at the same time supplying his table with nutritious and wholesome food, as mutton will keep fresh longer than any other meat and may be safely cured in hot weather. A fat sheep will go a long way at the farmer's table and make twice as many meals as its cash value invested in beef. The beef must be purchased at retail, while the farmer could supply himself with more wholesome mutton at just what it cost him to raise it. A neighbor or two, would share the carcass with him and in turn he could do the same with them; this would be an exchange which would benefit both. A small flock of sheep is the most profitable investment any farmer in the old States can make. No stock will bring in so much money in comparison with their cost and, if he will try it, no stock will help him so well in providing a supply of wholesome food.

Sheep will winter well on straw supplemented with plenty of turnips. These are an easy crop to raise and may be put in any time before the middle of August. This is the best way to work the straw into manure—far better than to throw it into the yard where it cannot be converted into manure at all to be compared in richness to what it would be if fed to the sheep and mixed with their droppings. The straw thrown into the yard, makes a great deal of bulk to handle, with little value. The sooner American farmers begin to raise roots and turnips for sheep, the sooner they will begin to swell the income of the farm by the direct return of more meat made to sell and more manure to make more and better crops.

SUCCESS IN SEED PLANTING.

The Rural has often alluded to the necessity of care in planting seeds of various kinds. Some seeds need to be put into the ground so much deeper than others, that to be successful, requires the exercise of sound judgment, and perhaps thorough practical knowledge. No arbitrary rule will work in all cases, as the circumstances surrounding each case are so different. Seeds will grow well in the hands of some persons because they are planted as they should be, the variations of soil, condition, and wetness or dryness being taken into the account. Small seeds usually require very light covering, while large seeds require deeper planting. This rule has exceptions which experience only will teach. Beet seeds are not very large, and the general custom is to plant them with a seed drill which barely covers them up. When planted in this manner, if the soil should be dry and continue so, they will not germinate; but if planted two inches deep and the soil packed over them either with a hoe or otherwise, they will come up in a few days.

We know of a man who planted two acres of beets and mangels last spring, and none of them grew. He then plowed the ground and put in turnips, after waiting in vain several weeks for the first planting to appear. At first he was inclined to lay all of the blame to the seed, but when he learned that we had several acres of beets up and doing well, which were planted at the same time, he reluctantly concluded it was not the seed, but because they were planted with a drill and not covered deep enough for the dry weather which followed. The successful seeds were covered with a hoe, and where covered deepest, came up first and best. We know of an instance where a choice lot of flower seeds were entrusted to a gardener to plant, who "knew all about flowers," yet none of them were ever seen, except some sweet peas and nasturtiums. The rest were buried so deep that they never came through to the surface. In another case, in a dry time, a man was set to planting corn, and told to step on each hill after covering the seed. He did so over half the field, and neglected to obey orders with the rest. The result was, the portion stepped on came up promptly and yielded well. The other portion did not grow for nearly a month and was a failure. Again, a neighbor spatted every hill of a large field of corn, of clayey soil, planting when the land was somewhat wet, and there was such a solid crust formed on the top of each hill, that the corn could not penetrate through it, and he had to go over the entire lot and break it before the corn could get through.

These examples show that one cannot always follow arbitrary rules, or, in fact, follow blindly any rules at all. Here is where the inexperienced in farming fail. They get the theory and think they are all right, or, they follow some rule and calculate on a positive result, whereas they may meet with failure. Experience is said to be the best teacher, but experience, without taking into consideration the surrounding circumstances, may lead a person astray and cause mistakes. It is just as important to know *when* to plant deep, as it is important sometimes to plant deep; and it is as necessary to know *when* to compress or pack the ground, as it is necessary sometimes to do so. As a rule, the earlier seeds of any sort are put into the ground the better; but this rule has many and vital exceptions. The nature of plants is so different, that to be successful with all, requires a life-long study and experience. It is a field of boundless extent and interest.

F. D. C.

Field Crops.

CRANBERRY CULTURE.

P. W., Seattle, King Co., Wash. Ter., asks 1, how to raise Cranberries; how large a crop can be raised per acre; 2, where can the plants be had; 3, how large is the berry; 4, can the plants be shipped, without injury, from any part of the United States to Washington Territory?

The Proper Location for a Cranberry Bed

is a matter of the highest importance to the prospective cranberry grower. The requisites for successful culture are: a soil of muck or peat that can be drained from 12 to 18 inches below the surface; a supply of water sufficient to allow the meadow to be flooded at will, and an abundance of pure sand close at hand. The profitable sites for a cranberry bed are: swamp lands containing deep deposits of muck; heath ponds, or low basins, places naturally flooded in winter; mill ponds, made available by simply drawing off the water; while savannas, or grounds lying between uplands and swamps and partaking of the nature of the latter, are sometimes turned to good account, but cranberry culture in them is often a risky business. In selecting a location, the presence of other plants often indicates a soil congenial to the growth of the Cranberry. For instance, the growth of the Feather-leaf and Leather-leaf, generally abundant in heath ponds, is considered a sure sign of a proper locality, while the soil that produces the Ground Laurel and Upland Huckleberry is generally too dry. Swamp lands on which the White Cedar, or Juniper, the Maple, Swamp Huckleberry, Magnolia or wild Cranberry thrive, when properly prepared, make lasting and valuable cranberry beds. Although much has been said in support of the practicability of successfully cultivating the Cranberry on alluvial uplands, wherever the experiment has been made, it has never, so far as we have heard, been attended with permanent profit. Having selected a location combining water, sand and muck, the next step is

The Preparation of the Soil,

The method of doing this varies somewhat for the several locations mentioned. The first step in preparing a cranberry bed is usually the digging of a broad, deep ditch entirely around the patch, for the purpose of draining off the surface water, so that the ground can be cleared. If the soil thrown out of the ditch be sufficiently compact, it may form the embankment; if not, then other soil must be added. When the water has been removed, then clear off all trees, logs, brush and other incumbrances. This may often be most conveniently done by the use of the torch, and the fire will not consume only all the briers, but also often a layer of the upper turf, so that the remainder can be more easily handled. If the muck deposit is deep enough, so that a portion of it can be spared, it may be profitably used to manure the neighboring fields. Sometimes, too, this lowering of the bed will facilitate irrigation. A muck deposit a foot in depth is quite sufficient.

Where no muck is removed for manurial purposes, some cultivators pare the ground to the depth of six to 12 inches, and use the sods in constructing the enclosing embankment; while others, where sand is abundant, think it cheaper to spread on a thicker layer of sand, and leave the soil its natural depth. The whole meadow should be made quite level, or with only slope enough to afford good drainage, as one portion should not be covered much deeper than another when flooded. Where the soil is sufficiently firm to admit of being plowed and harrowed, it is best to do so, as it can in this way be prepared in the best and cheapest manner.

When the ground has been properly leveled and otherwise prepared, it should be covered with a layer of pure sand to the depth of from three to eight inches, the depth being regulated mainly by the compact or loose nature of the soil. Too much importance can hardly be attached to the quality of the sand used for this purpose, as many a likely bed has been rendered unproductive by the use of an unfit sort. It should be as free as possible from any admixture of clay and loam, and should always belong to the alluvial and never to the drift formation. The following is a good test of the right kind: Take a handful of it and squeeze it tightly; if it is the proper sort, it will fall apart when released; but if it adheres together after the pressure has been relaxed, reject it in every case. Beach sand should be preferred to all others. The sand prevents the growth of weeds, affords a genial medium for the plants to take root in, keeps the fruit clean and the surface always open and friable. If the muck bed is underlaid with sand and the soil is not too deep, pits may be dug at intervals and the clean white sand from beneath thrown up, or a subsoil plow may be used for the same purpose. If under the bed there is a hard-pan formation, care should be taken not to break through it, lest the meadow should be drained dry. It is important that the layer of sand should be of uniform depth, and so the surface should be well leveled before its application. The plot should be surrounded with an embankment, say four feet high, and ditches enough should be dug to drain all parts of the meadow at least one foot below the surface. Just now is the best time to prepare a swamp for a cranberry patch, as it is drier than usual, and therefore more easily worked. The sanding completed, the next step is

Planting the Vines.

The usual time for doing this is from the first of April to the first of June, although the vine is so exceedingly hardy, that it will bear transplanting considerably later on in the summer. Sometimes the plants are put out late in the fall, the ground being covered with a sufficient depth of water to prevent the freezing and the throwing out of plants; but these appear to have no advantage over those set out in the following spring. It is of great importance that the plants should be obtained from fruitful beds as well as those that produce the largest and best fruit. The best way to distinguish the right kind is by the wiry texture of the wood and the greenish-brown color of the leaves. The poorer plants are more vigorous, greener, brighter and have a more bushy foliage than the best. Cranberries can be propagated by transferring the sods which bear the vines, or, better still, by cuttings from four to six inches long; the middle of which is covered with the soil and the ends left projecting. Vines have been cut into pieces two or three inches long by a common hay cutter, sown broadcast and harrowed in. The better way, however, is to plant them from eighteen inches to three feet apart, according to the quality and size of the plants; or two or three cuttings may be planted together with a dibble. There are several methods of planting, such as hill planting, drill planting, planting by pressure, and, rarely, propagation by seeds, the object being in all cases to cover the ground with the vines as soon and conveniently as possible. As to

Cultivation,

but very little is needed. The weeds and grasses must be kept down for the first two or three seasons, by the close of which time the plants will have become matted, and require little or no further care, except that drainage must be kept perfect within at least twelve inches of the surface, except when flooded, as anything like stagnant water is fatal to the Cranberry. A small application of guano, ashes, lime, marl or stable manure tends to produce a robuster growth of the plant, but in most cases it is doubtful whether it benefits the fruits to an appreciable extent. Muck seems the most efficacious agent for that purpose.

Flooding

in winter is now considered essential to successful cranberry culture in all situations. It affords the plants protection from severe cold; it prevents the spring frosts from injuring the flowers; it destroys the cranberry worm, a foe alike to plant and fruits, and it deposits on the bed a wealth of just the right kind of fertilizing elements brought down by the streams from field, garden, dung heap and creek bed. Many do not think flooding necessary until the third year after the plants have been set, though others deem it profitable from the first. The time for applying the water will vary in different localities, but it is a safe rule to let it on so soon as the cold stops vegetation and the vines begin to assume a dull-red appearance. All winter it should be kept deep enough to prevent the plants from freezing. As a rule, in this latitude, from the first to the fifteenth of May is early enough to let it off; the colder the season, the later it should be kept on. Sometimes it is advisable to flood the meadows during a severe drought in summer, but then it is only necessary to apply water enough to give the soil a good soaking; to fill the ditches generally suffices. In this neighborhood

Picking

begins on savannas towards the end of September, but on densely matted swamp lands the commencement is deferred until from the first to the middle of October. The pickers are paid about 50 cents per bushel and at that rate can earn from one to two dollars a day. The vines should be picked clean. When gathered before they are ripe—to save them from frost—or if the dew lies on them, the berries do not keep well. Leaves, straws and prematurely ripe as well as decayed fruit, should be removed. In gathering, a cranberry rake is sometimes used. It is made of bent sheet-iron, its lower edge being furnished with a row of teeth shaped like the letter V. When it is drawn over the ground the plants escape but the fruit is gathered. Cranberries grown on meadows on which the vines are thickly matted, keep well, while those gathered where the vines are sparse, are apt to soften and rot early. Care should be taken to prevent bruising the berries in gathering or transporting them. They can be kept for family use by placing them in stone jars with pure water. Those shipped to Europe are packed in water in small kegs, and sometimes in sealed bottles filled with water.

Profit and Loss.

The chief outlay in cranberry culture is at the outset; when once productive plants are well matted, their care costs but little, while they bring in a good income for a lifetime. The cost of preparing the beds varies from $100 to $600 per acre. A thoroughly good preparation, and the selection of the best varieties of vines, are always the cheapest in the end. The yield varies from 50 to 400 bushels per acre, with an estimated average crop of about 150 bushels, when the plants have begun to bear well. A barrel contains about two bushels and three pecks, and last fall sold here, on a weak market, for from $6 to $8 for the Cape Cod berries, and from $4 to $7 for those from New Jersey. Much money is often lost by the setting out of unproductive beds, and by the ravages of insect enemies, frosts, scalding from excessive heat, etc., etc.

2. Cuttings, plants or seeds can be had from any of the many fruit nurserymen who advertise in the Rural. 3. How large is an apple? There is, proportionately, as great a difference in size between the individual cranberries in each variety as between the individual apples of each sort, and as great a relative difference between the different varieties. The berries vary from three-eighths to three-quarters of an inch in diameter. 4. Yes, if properly packed.

Arboricultural.

EVERY-DAY NOTES.

S. PARSONS.

Hydrangea Rosalba.

I cannot refrain from speaking briefly of a Hydrangea accidentally met with during a recent visit to Central Park. While wandering about a wild rock garden on a hill-side in the upper part of the Park, near Mt. St. Vincent, a friend pointed out a mass of large, resplendent corymbs of rosy-crimson flowers. They were borne by a plant of strangely unfamiliar appearance, and yet one that we felt we ought to know. Soon afterwards, however, the name dawned on the mind of my friend, and we both recognized an old acquaintance seldom seen in flower, Hydrangea rosalba. We attributed the existence of the flowers in this case to the very sheltered, dry position the plant occupied. Thus favored, the wood had fully ripened, and consequently passed through a severe winter

unscathed. The bloom also had developed with peculiar excellence under the favoring peculiarities of the place. Few in this climate ever see the flowers of Hydrangea rosalba at all, blighted as it is by ordinary winters. The existence of this plant, however, in the spot where we found it, suggested to us the feasibility of having more of its kind in bloom, if we would only select like positions for its growth.

Magnolia Thurberii.

I fear a hardy Japanese Magnolia that has been termed M. Thurberii, must give up this cognomen for that of M. Kobus. It bloomed this year for the first time with us, and the peculiarities both of the appearance of its flower and time of flowering, agree very closely with the description given of M. Kobus by Mr. Maximowicz and others.

Acer polymorphum.

Query: Shall we term the many-formed Japanese Maples polymorphum or palmatum? There are authorities for both specific names, and they are used interchangeably. I believe they should all be termed polymorphum or all palmatum, and that the question is only to be settled by discovering which name was employed first by competent authorities. I could make a shrewd guess that palmatum was the original name, but facts are wanted. Thunberg seems to have used the name palmatum many years ago, according to Loudon, and doubtless it will be necessary to go back more than fifty years to settle the question, new as many fancy these Japanese Maples to be.

The Adornment of Cemetery Lots.

One of the most beautiful sentiments offered at the shrine of departed relatives and friends, is that which keeps beautiful with leaves and flowers the quiet abodes of the dead. It would be well, however, if more taste and knowledge of the habits of plants went with the active devotion of this character often evinced. If the fence monstrosity could be done away with altogether, our cemeteries would be greatly improved; but if the fence must remain, above all things do not crowd the lot with stiff hedges of Arbor-vitæ and other large-growing plants. Let an irregular, graceful fringe, or belt, of dwarf evergreen or deciduous shrubs mask the fence with varying outline and somewhat formal repetition, as befits the dignity and regularity of the place. Inside should grow scarcely anything but greensward, with low-growing vines and flowers wandering about with modest freedom. If here and there a shrub is used, it should be of the rarest mold and dwarfest form; choice bits of arboreal sculpture rather than mere foliage and flowers. The taste exhibited in the ornamentation of burial lots, cannot be too severe, chaste and refined. Flowers we may have, but they must grow and bloom within limits, and the colors and forms of evergreen and deciduous trees for both summer and winter landscape, must blend deftly and harmoniously, lest anything *bizarre* mar the peaceful nature of the spot. And, in addition to all this, let me say that in no species of lawn planting does the importance of intelligent pruning, fertilizing and watering, apply with such force as in that pertaining to God's Acre.

Miscellaneous.

DESTROY THE WEEDS BEFORE THEY SEED.

At this season of the year farmers are generally crowded with field work and unless great care is exercised, many things about the farm will be neglected. There are few more repulsive sights about a farm, than a garden overgrown with tall noxious weeds. It is a matter of economy as well as neatness that these weeds be destroyed before they mature their seeds and they become scattered over the ground. One weed allowed to go to seed at this season, will make a great many weeds next year, and it is clearly to be seen that unless care is taken to prevent it, a little negligence now will cause much trouble another year. A few hours each week spent in the garden with cultivator and hoe, will be sufficient to prevent this evil and the time, taken at odd spells when there is little else to be done, will hardly be missed. It is not practicable to entirely exterminate the weeds from a garden, but if a little care is exercised in preventing them from going to seed, a great deal will be done in that direction. A well managed kitchen garden, will help greatly to reduce the current expenses of a family, but at this season of the year it must not be neglected or the weeds will soon become the chief occupants of the soil. A quarter of an acre of garden as some are managed, will grow more weeds than ten acres of farm land. Fence corners are also apt to be neglected. When a crop of grass or grain has been removed from a field, the fences and fence corners should be mowed out with a scythe. This will add greatly to the appearance of a farm and many weeds will be prevented from scattering their seeds to adjacent fields and farms. G. G. JR.

WHAT OTHERS SAY.

Doing Things Too Well.—In the gardening of our "little village" of Germantown, says the Telegraph of that city, we often see the evil of doing things too well. A person buys a pretty place, but he believes in doing things well and he spends hundreds of dollars in "beautifying," only to spoil what was already near to perfection. We saw in one case some gardeners laying sod. Every piece was measured and squared with a knife, and fitted into one another. We inquired why all this trouble, and were told that the operator believed in doing things well. In this very instance there was a piece of sodding laid next door, in which the pieces were laid tolerably near, and rough pieces stuffed into the cracks, and then the whole beaten with a flat heavy board, and though the other job cost probably two hundred dollars more, no one could see any difference after the thing was done. We have come to look on the slow and sure way of doing things as pretty much of a humbug in most cases of gardening and farming. It may be very well as a rule in money-making and in morals. We believe in it there; but in work it is one of the meanest of all mean things. Every idle fellow preaches it. Laziness grows fat on it. Empirics and pretenders practice on it. Give us an average go-a-head fellow, even at the risk of breaking the harness or springing a bolt sometimes. The tortoise may beat the hare in the race once in a while, as Mr. Æsop told us; but we will wager our editorial quill that it won't happen every day.

Sowing Seeds and Nuts.—Mary Wager-Fisher tells the N. Y. Tribune that three years ago, having some choice seeds and nuts that she wished to grow without fail, she proceeded to treat them according to the very approved method one often sees advanced in journals—to put aside the seeds, etc., in sand during the winter and plant in the ground in the spring. The result was, that not one of the seeds or nuts germinated. Last fall she again had seeds of a large variety of fruits, including grapes; also several varieties of nuts. And one day—to be accurate, it was the 15th of November—she had a bed spaded up for her purpose, and in it she tossed the seeds and nuts, duly labelling each kind, and sprinkled a bit of earth over them. A few days later a slight layer of straw from the stables was added. The result of this planting is a complete success. Everything grew.

An Easily-made Filter.—Gardening Illustrated (England) says: Take a common garden flower-pot, nine inches in diameter and ten inches deep. The drainage hole must be stopped (not too tightly) with a piece of clean sponge. A layer of about two inches of animal charcoal is first placed in the pot, then a second layer of clean sand, upon which a layer of three inches of clean coarse gravel is placed. The pot can be set over an earthen jar, into which an abundant supply of pure water will filter for all drinking purposes.

Tuberous-Rooted Begonias.—The English Gardeners' Chronicle says: "For many reasons, good ones too, Tuberous Begonias are becoming fashionable. Their beauty, distinctness, hardiness, readiness of propagation—except in certain instances—may be mentioned as some among the many reasons why this race of plants is gaining more and more in popular estimation."

Communications received for the week ending Saturday, Aug. 2d.

D. D. N.—C. E. T.—Thanks.—F. W.—G. W. K.—O. S. B.—J. G. L.—J. C.—V. A. W.—S. B. P.—A. P. A.—J. L. D.—W. P.—Thanks.—G. A. G., Jr.—H. W. P.—G. D. S., M. D.—A. C. W., M. D.—J. M. G.—H. L. W.—Thanks.—T. M.—J. H. S.—T. H. H.—J. C. K.—S. D. F.—W. C., Jr.—T. T. L.—"A Woman."—E. P.—Eva Edgerton.—J. C.—A. C.—G. C.—M. C.—C. E. F.—Thanks.—Maple Leaves.—A. C.—A. W. M.—C. T.—Mrs. L. G.—F. D. C.—L. B. E.—A. A.—F. H.—W. J. B.—W. R. B.—F. C. L.—L. P. J.—J. C. P.—H. F.—A. J. B.—E. B. B.—A. P. A.—L. B.—L. B. A.—G. W. M.—W. J. W.—S. R. M.—C. D.—Subscriber.—M. G. R.—T. M. F.—S. S. D.—T. T. L., many thanks.—W. B. D.—E. L.—C. E. S.—E. G. Thanks.—M. B. McL.

Entomological.

COLLECTION AND PRESERVATION OF INSECTS.—No. 1.

PROFESSOR A. J. COOK.

Very much of the improvement in the practical arts during these last few years has been due to close and accurate observation. Without this all experimentation is of little or no value. To it science, the greatest blessing ever received by the practical man, owes its very existence. Few persons realize how much the world owes to the great Bacon for founding the inductive system of philosophy. Yet the very foundation of this system is observation. It has been said that Franklin would see more in crossing the English Channel than most men would in making the entire circuit of the globe. How significant this fact in consideration of Franklin's great and valuable discoveries in science! Mayer, of Germany, noticed the rank growth of clover growing along the pathway where the stone-cutters in the gypsum quarries passed daily to and from their work. This observation gave to the world one of its most valuable fertilizers. One of the most successful farmers and wheat-growers of Michigan told me that in growing his pioneer crop of wheat he observed limited areas all over the field where the wheat was much heavier. He also observed that each of these places was the site of a tree previously blown down by the wind, which brought up the heavier sub-soil. He then learned to plow deep. His less thriving neighbors have lived by his side for forty years and have yet to make this practical observation. How many of the intelligent pomologists of Michigan have in their mind's eye an accurate photograph of a single one of the thieving insects that are working so successfully to pilfer from them their choice fruits? Who can doubt but that an accurate knowledge of these facts, based, as it must be, on a quick and well-trained observation, would do much to fortify our fruit-growers against these pests of the garden and orchard?

I hope in these papers, by explaining the requisites and methods necessary for preparing insect cabinets, to induce some of those who read them to engage in the pleasant and valuable pastime of making collections, or if not that, of encouraging their children to do so. Such recreation will prove most healthy and valuable for the young, and if practiced, will raise up a body of trained observers that will be able to do far more valuable work, as they take our places as farmers and pomologists, than we have done.

When and Where to Collect.

The entomological collector need wait for no time or season. In winter and at midnight, no less than in summer and at noonday, his quest, if guided by intelligence, is sure to be rewarded. Many beetles lie concealed in winter beneath leaves; others, together with bugs, moths, chrysalids and eggs, quietly wait under log, board, stone or rubbish for the warm spring time. Cocoons and egg clusters hang pendant from branch and shrub, or are snugly hid away in crevice and nook. In winter, too, we find leisure to study, label and arrange the previous year's collections. In spring, from the earliest warmth, when "first the lone butterfly flits on the wing," when the streams are crowded with the swift-swimming larvæ of the lace-wings or day-flies, and when the little frail lace-wings even dart to and fro above the snow drifts, on to the steady warmth of early summer, when air and sunshine are alive with insect life, we revisit with greater success the places that rewarded our search in winter, and further stroll along barren sand drifts, sweep with our nets the grass and bushes along the meadow and roadside, jar bush and shrub above our open umbrellas, to capture the small but often rare and beautiful beetles, and the rich and wondrously varied caterpillars and other larvæ, attractive prophecies of still more attractive moths and butterflies. We visit the bright and sweetly-scented flowers of gardens, fields and woodland—for insects have an eye, and a nose, too, for just such flowers—where we are sure to secure the brightest gems of insect life. The resplendent moths and butterflies, and the glistening, metallic beetles, bees, wasps and flies are sure to reward our visits to these, nature's fairy-lands, made doubly so by the very fairy-like creatures which we are so eagerly seeking. As the warm nights of summer come on, the collector visits the previously sugared boards hid among the foliage, and is made joyous by the capture of our beautiful noctuids or night-flying moths, which are not only the gems of night, but as truly of the collector's cabinet. Nor have we to stop here, for with dredge-net we may repair to the pool, stream or morass in successful quest of the strange larvæ and pupæ of the dragon-flies and other neuroptera, and the boat-like beetles and bugs, while the maggots of our mosquitoes, and many other of our most curious diptera, will also be added to our collection. If perchance we take a row-boat to bear us over the waters of any of our great lakes, we can gather up from the surface of the water many rare weevils and other beetles that have been blown over the water, and, too tired to fly longer, have given themselves up to the waves. On resinous buds and viscid leaves we may also find insects; around carrion and all various kinds of filth, from the ordure of our stables and the various kinds of decaying organic matter to mushrooms and other fungi, as well as about the oozing sap from wounded trees, we can hardly ever look in vain for insects, and often from the most repellant and disgusting matter we obtain the rarest and most beautiful specimens. Sometimes the collector makes rare captures in the stomachs of insectivorous birds. Such additions are none the less welcome, though taken at second hand. In the various grains and fruits that are attacked by insects, and also in the solid trunks of trees and in the numerous galls so widely scattered on herb, shrub and tree, are to be found insects as varied and curious as the locations harboring them. In all the places last mentioned the insects may be taken in their various stages, may be reared and studied, and to the careful and attentive student will furnish information, not only new to himself, but often, very often, new to science.

Industrial Implements.

THE NEW BUCKEYE DRILL.

P. P. Mast & Co., Springfield, Ohio, have made such sweeping alterations and improvements in their grain drill as practically to have constructed an entirely new implement. The principal feature is the new arrangement of the force-feed, which we illustrate, showing the cups as they sow (1) wheat and (2) oats. The toothed disc is made to revolve in the seed-cup on a positive-motion shaft, which insures accurate work. The device for varying the quantity of seed to be sown (without change of gears) is in the shape of a feed-regulating gate

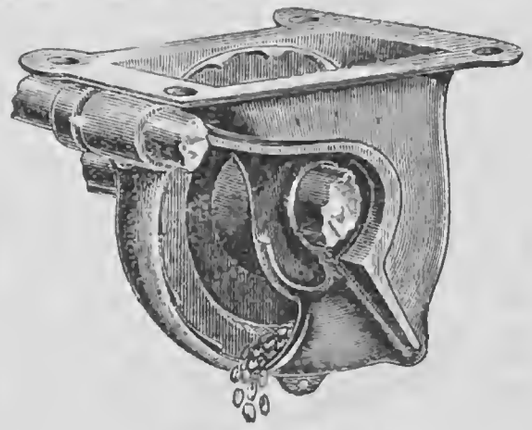


Fig. 1. Sowing Wheat.

which slides back and forth in a slot in the side of the feed-cup. The grain passage is by this means intersected at any desired width, and the seed consequently sown in large or small quantities. At the same time the action of the tooth-disc makes the discharge (large or small) with perfect regularity. The feed gates are all connected on one shaft, which connects with an indicator placed at the rear of the grain hopper, near the right-hand end, where it is in easy reach of the driver. The indicator points over a scale suitably marked for different kinds of seed, so that in operation, a slight motion of the indicator points, instantly changes the gauge and feed in every cup on the drill; and it can be done without stopping the work. This advantage is very manifest where the soil in the same field differs greatly, and when a

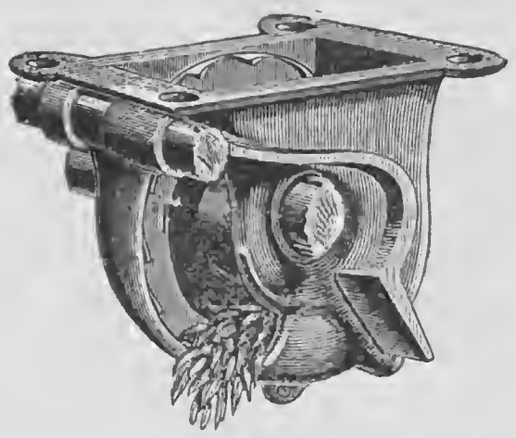


Fig. 2. Sowing Oats.

smaller quantity of seed will answer for one part than for another. A grass seed sower, constructed on the same principle, but reduced in size, is also a new feature that has proved a success in practice. It can be used either in front or rear of the grain-hopper at will.

Among the minor improvements are a new land measurer, placed at the end of the hopper, which accurately measures acres and fractions of acres sown, automatically—something entirely out of the common in implements of this kind. The hoes are raised by pressing down a vertical lever, making the act an easy one on the muscles. A notched quadrant into which the lever can be set, makes it also possible for the driver to raise the hoes entirely or only part way, and to keep them rigid in the desired position. There is also a new hoe shifter. These improvements, in addition to the fertilizer attachments of which we gave an account last fall, make the new Buckeye drill a very complete implement, and one it is manifestly to the advantage of progressive farmers to examine. Pamphlets and illustrations of the new features will be sent gratuitously on application to the manufacturers.

Mr. E. B. Huntley, the European representative of the Johnston Harvester Co., sends us from his London office a bulletin, showing the prizes secured in France by the new light mower which has just been introduced on the other side. It reads somewhat like a triumphal progress, and leaves no room for doubt that this latest product of the company has clearly walked into the affections of our Gallic neighbors. Mr. Huntley has hung up in his London wigwam eleven prizes and one diploma of honor as tokens of his prowess in the fields of Troyes, Nevers, Brest, Charly Sur Marne, Saint Richaumont, Cruzy, Ancy le Franc, Sens, Cheroy and Melle.

Everywhere.

RURAL SPECIAL REPORTS.

N. Y., Elmira, Chemung Co., July 28.—Farmers here have been very busy for the past two weeks. The harvest of wheat and barley, together with haying, has made the hours for rest few and far between. The weather has been favorable, and early-cut grain has generally been housed in good condition, but many late crops of both wheat and barley have been caught out in the recent rains and somewhat injured. Haying in this locality is about finished. The crop, as a general thing, is a light one, owing to the cool, dry weather in the early part of the season. Wheat and barley are only fair, and the yield per acre will doubtless average less than usual. The potato crop promises well, much less damage being inflicted by the beetles than last year. Corn, favored by recent rains, is growing rapidly and bids fair to be a good crop. There is a general complaint among tobacco growers that the crop is not growing as it should. A few pieces are doing well, but others, even on good soil and with the best of care, are growing very slowly. This is probably owing to the lack of rain and warm weather which the "weed" requires to make a good growth.

G. G., JR.

N. Y., Fluvanna, Chautauqua Co., July 25.—Crops of all kinds are looking fine; potatoes especially. A. C. W.

IND., Croydon, Harrison Co., July 23.—Wheat is very good in quality; the yield is about two-thirds of last year's crop. Corn and potatoes will be light, owing to continued drought, with the exception of a few local rains here and there in the county. Oats and grass are almost failures. Apples are half a crop; peaches, an entire failure; small fruits scarce. Trade and business are reasonably good. Farmers are preparing to sow a large crop of fall wheat.

C. M.

MICH., Palmyra, Lenawee Co., July 24.—Owing to the severe drought in this section I have lately felt somewhat discouraged about my chances for a premium for the best yield of Blunt's Prolific corn, but my prospects are now brighter, for on the 21st and 22d we had plenty of rain, so I must still be kept among the luckiest of the competitors for the liberal prizes offered. The corn is thoroughly worthy of its name, Prolific, with the biggest kind of a P., so far as its growth is concerned. I have just measured one stalk that was 6¾ inches in circumference, six inches above the ground, but as yet there isn't a sign of an ear. Pearl Millet isn't worthy of its name: it's a failure with me. H. T.

WIS., Salem, Kenosha Co., July 25.—Crops good generally. The chinch bugs, however, are doing some damage. D. L. B.

MINN., Le Seur, Le Seur Co., July 24.—We are in the midst of the wheat harvest. Croakers to the contrary notwithstanding, we have not had so good a crop in this section of the country for six years. The yield will be large and the quality good. The weather is glorious, quite cool and pleasant for the time of year. I measured my "Blunt's corn" yesterday in the presence of several citizens; hight, thirteen feet and five inches. It is just beginning to tassel, and the ears—four to five on a stalk—are forming. When fully grown I expect to see it fully sixteen feet high. I am not competing for the prize or prizes. I planted the Beauty of Hebron potatoes after taking off all the sprouts I could. From the two potatoes and the sprouts I have raised a bushel and a peck of good eatable potatoes. I planted the Early Rose at the same time and I must confess that I can see no difference between the two. I could not tell the potatoes apart and could see no difference either in the time of maturing or in the size and flavor of the tubers. Is the Defiance wheat a *hybrid?* If it is, from what species? [Yes, it is a hybrid of the common Club Wheat, and a fine, white sort from the Pacific Coast.—EDS.] Permit me to object to the use of the term "variety" as applied to various plants in the RURAL. For instance, a "new variety of grapes," a "new variety of corn," etc., etc. A "genus" is a class embracing many species; a "species" is a class subordinate to a genus; a "variety" is a varied assortment, subordinate to a species; a "kind" is a race or sort. If I say I have a new variety of Strawberry, I mean that I have got a varied assortment. If I say that I have a new kind, or sort of Strawberry, I think I hit the nail on the head; but perhaps I am wrong. I shall continue to take and read the RURAL in any case. G. D. S.

[Sort, kind and variety are used synonymously. Our friend only needs to look into any botanical work, or even into Webster's Unabridged, to see that he is mistaken.—EDS.]

OREGON, Tangent, Linn Co., July 24.—The RURAL may wish to know how we have succeeded in growing the seeds it sent us. I believe that we have succeeded first-rate, beyond our most sanguine hopes. To enumerate; we have 48 of the Rose of Sharon; 18 Aquilegia; 10 Yucca filamentosa; 18 Hollyhocks; 12 Hibiscus; 6 Amorpha fruticosa; 5 Callicarpa. They are all growing thriftily. We have seven nice hills of the Beauty of Hebron potato. Blunts' corn is growing very well, but there is only one of the prizes that we can have any hopes of competing for, and that is for the heaviest bushel of corn. I really do believe that our cool summers produce heavier grain than can be raised anywhere else in the United States. Our crops are looking better than they have done for a number of years. R. L. S.

OREGON, Chesher, Lane Co., July 14.—The prospects here for a bountiful harvest were never better. In this country the arable acreage is much larger than last year, and we have the finest promise ever known in this county for wheat and oats. Potatoes are looking fine, too. There is plenty of new ones in market, and of good size. Hay is a heavy crop. Corn does not thrive here as a general thing—the nights are too cool. Strawberries were mostly killed by frost. Blackberries, both tame and wild, are plentiful. We have an abundance of apples and pears, as well as some plums, but very few peaches. Harvest begins here about the first of August. E. B. B.

WASH. TER., Coupville, Island Co., July 23. The wheat crop looks very promising; but there is not a great deal of it sown. Potatoes are very thrifty. Oats and barley look fine. No corn is raised here—it is too cold. Grass and all forage look thrifty. The whole spring was wet and cold. W. J.

N. C., Brookston, Warren Co., July 25.—The fine rain mentioned in my last report, proved to be of only ninety minutes' duration, and was soon swallowed up by the thirsty earth and now we are, as it were, completely dried up. All crops are suffering severely; corn is rolled up; cotton is losing its foliage; tobacco is at a standstill; grass and clover are nowhere. Grapes are maturing rapidly. We must have rain soon or else "good-bye" to our corn crop, and if that fails us, we shall be sadly crippled; it is the chief food for both man and beast. Melons are among our greatest luxuries—early, very small; later, none setting. M. B. P.

VA., Alexandria, Essex Co., July 24.—An unusual drought is now prevailing in the tide-water counties of this State. Mill-streams are dry and so are pastures, and stock water is scarce. Fields and gardens are suffering severely from lack of rain; and farmers are very anxious. OBSERVER.

ALA., Sand-Spring, Limestone Co., July 24.—We have had very dry weather for the past five weeks, and much of our corn is so "fired up" that it will be worthless. If it doesn't rain soon, cotton, too, will suffer badly. W. M.

CANADA, Columbus, Ont., July 25.—As a general thing crops are in a fine condition. Spring wheat was badly damaged by the weevil. W. D. B.

The Querist.

ANSWERS TO CORRESPONDENTS

Top-dressing for Meadow Land.

W. M. N., Darien, Conn., asks which of the various chemical fertilizers would be best as a top-dressing for meadow land.

ANS.—Stable manure will last longer than any of the concentrated fertilizers. As a matter of guess-work we should choose bone flour. We should like our friend to lay off several equal plots upon his meadow—they need not be over 33 feet square, 1-40 of an acre—and upon each to sow a different fertilizer. For example, let him procure fifty pounds of bones, burn and mash or grind them to a powder. This would furnish phosphoric acid. Then for another, he might use unleached wood ashes for potash. For a third he might buy 25 lbs of sulphate of ammonia. For a fourth bone flour which would furnish both nitrogen and phosphoric acid, and so on as far as he desired to experiment. We have faith that the results of such experiments would afford some clue as to which fertilizing ingredient his land stands most in need of at present.

To Remove Warts from a Cow's Teat.

J. T. R., Bay City, Mich., asks what will remove a wart from a cow's teat.

ANS.—Apply caustic potash two or three times a week, and it will soon disappear. Or, tie a silk thread tightly around its base, so as nearly to cut into it and stop the circulation, and it will come off in a couple of days. This may be impracticable when the wart is broad and flat, or crowded by others; in which case it may be removed by cutting it off and touching the cut with a hot iron to stop the flow of blood, or by applying very strong pyroligneous acid to the wound. Lunar caustic in a strong solution is also recommended.

Miscellaneous.

T. M., Pembroke, Ont., Can., asks, 1. what do manufacturers of pianos, organs and melodious mean by guaranteeing their instruments for five years; and how long should such instruments last with constant but good usage; 2, whether there is any means of changing the color of sprouting whiskers from dark red to a light color and of coaxing them to grow naturally of the nicer shade afterwards; 3, whether the electric belts advertised are of any use in curing disease; 4, who publishes the best edition of Scotch songs with music; 5, what is the best kind of soil for Geraniums in pots and how can the leaves be prevented from withering and turning yellow, as his are doing now; 6, is Pearl Millet likely to prove a good forage plant in that section; 7, which would be the best breed of cattle for that part of Canada; 8, a neighboring hen lately laid an egg having another perfect egg inside of it, and the cause of the phenomenon is asked.

ANS.—1. A manufacturer's guarantee is an engagement that with proper care and use, the piano or other instrument will retain, for the period mentioned, all the qualities that make it desirable; and that should it fail to do so he will put it in good order or replace it. Where the purchaser lives near the seller or, in some cases, near an agent of his, such a guarantee may be carried out; but in most cases it merely amounts to an assurance that the instrument is well and substantially built. If so constructed, then with ordinarily good care, a piano or organ, in what is called constant use, should last fully five or six years and with less frequent use, a longer period—*provided* it is periodically tuned. 2. We have never heard of any such preparation. The daily use of a razor has a tendency to produce the desired hirsute effect. 3. The Pulvermacher belts are reported by those who have used them, to have a beneficial effect; otherwise we would not feel justified in allowing the advertisment to stand in our pages. 4. Of C. H. Ditson & Co., 843 Broadway, this city; in boards $2.50; cloth, $3; cloth gilt, $4. 5. Geraniums will do well in a mixture of one part of leaf mold, two parts of loam from decayed sods, with a little manure and some sand. This is best if the plants are inteuded to bloom; if they are simply to be wintered for bedding plants next year, they should be set in small pots and have a very light soil without manure. Some leaves will always fade away and die on the lower part of the stem, but if they all turn yellow, the plants are not receiving the right treatment; 6. The farther South this plant is cultivated the better the accounts of it, although many good accounts of it are given by growers as far north as this latitude and even farther. We have no reason, however, for the belief that it will prove a good forage plant as far north as Canada. 7. Which is the best breed of cattle for that section will depend mainly on the object for which they are kept. The Ayrshire is very hardy, gives a large mess of milk and cannot easily be beaten in such a climate either for the milkman or the dairy. For a butter cow the Jersey is a great favorite, but it may be doubtful whether the climate is not too severe for her, but we hear of good results from Jerseys and especially from Jersey grades, nearly as far north in New England. If given a rich pasture, the Holstein is excellent for milk, butter or cheese, and at the same time she fattens well whenever it is desirable to turn her over to the butcher. The praises of the Short-horn, both for the butcher and the dairy, have been sung too often to leave anything unsaid in their praise; while for beef it is no easy matter to get ahead of the Hereford. Before advising judiciously in such a matter, we should be told more about the circumstances. 8. Such freaks of nature occur occasionally, but we have never seen any satisfactory reason assigned for them, and we haven't room here for conjectures.

V. A. W. Fredericktown, Ohio, has several Spanish coins bearing dates from 1776 to 1825, and asks whether they possess any special value.

ANS.—The value of old coins, like that of most articles of trade, depends wholly on the proportion the supply bears to the demand. Very old coins have an intrinsic worth beyond that of the bullion in them, as they help to determine historical questions and are mementos of the progress of the arts in their days: but those of a date so modern as that of these, can in no case have more than a "fancy" value beyond their circulating or bullion worth. Now the "fancy" price of an article depends on the taste or whim of the purchaser, and as we are unacquainted with any possible purchaser for these coins, we really cannot tell what he might be induced to pay for them.

A. C., Shrub Oak, N. Y., has considerble space in the garden in which nothing has as yet been planted and, being desirous to raise a crop on the ground, he asks what can yet be planted and become of use before fall; if it is too late to sow bush beans and peas.

ANS.—Quite a number of vegetables may yet be planted in that part of the country. It is not too late for bush beans and peas. Strong celery plants may yet be set out, if done at once. Late cabbage, cauliflower and kale may also be set out and seeds may be sown of lettuce, turnips, radishes, spinach and endive. It is now also a good time to set out strawberry plants.

J. F. C., Los Pinos, New Mexico, asks whether hand cultivators like that described in RURAL for July 12, will be manufactured, where and at what price.

ANS.—We have no reason to suppose that cultivators like the one mentioned will be manufactured, unless individuals wish to make them for their own use. It is not patented, and the teeth, which are the main feature of claimed excellence, can be made by any blacksmith. In fact, the teeth may be attached to any hand cultivator and we suppose the same results achieved as if the whole implement were manufactured.

E. S., Grand Island, Neb., sends us a specimen of a variety of wheat which, during the last three years has been spreading rapidly among his wheat crop, despite the fact that he has in that time never found a head that had filled, and he asks what is the probable cause

ANS.—No doubt seed will be found in some of the heads. As it tillers so remarkably, an occasional seed in a head would account for its increase.

C. A. S., Tamarac, Pa., sends some ears of wheat for name. Several years ago a neighbor found one stalk growing in a stump, saved and sowed the grain, and this year has raised four acres of it. Thereabouts it is called "Stump" wheat. It yields well, the berry is large, and if it is a new variety, he thinks it will prove a valuable acquisition.

ANS.—We do not know it. It is a fine-looking grain.

A. C., Placer Co., Cal., wants to know how much we would charge for Sharpless, Forest Rose and Pioneer, and asks if we could send them by mail.

ANS.—Ellwanger & Barry, Rochester, N. Y.; F. R. Pierson, Tarrytown, N. Y.; J. T. Lovett, Little Silver, N. J.; E. P. Roe, Cornwall-on-Hudson, N. Y., P. M. Auger, Middlefield, Ct., can furnish them and send by mail. We do not *sell* plants or seeds.

G. T. G., White Store, asks where he can get some rattlesnake oil and the price per ounce.

ANS.—Rattlesnake oil is a preparation from the fat of the rattlesnake and can be had of Lheu & Fink, 160 William St., N. Y., or in any other wholesale or large retail drug store; price 50 cents an ounce.

S. B. P. (no address) sends us a frond of a Fern, and asks for its name.

ANS.—Adiantum pedatum—Maiden's Hair. This handsome Fern is a native of our shady woods. It surpasses many of our cultivated species in beauty, and is well worthy of cultivation. It is especially adapted to shady rockeries.

F. C. L., Hermon, N. Y., sends a sample of a plant which he found growing among his wheat. It was four feet high and one of 26 which grew from a single seed, and he asks its name.

ANS.—It is Bromus secalinus—Cheat or Chess.

D. D. K., Bethel, Conn., says that at the American Institute Fair, in this city, an elevator was exhibited suitable for raising or lowering from five to ten cwt., 20 feet, and he wishes to know the parties who exhibited it.

ANS.—Otis Bros. & Co., 346 Broadway, N. Y.

The Poultry Yard.

A REMEDY FOR GAPES.—In answer to a recent inquiry in the RURAL for a cure for this pest of the poultry house, L. P. J., of Bethlehem, Conn., says: "I know there are innumerable so-called remedies for this malady, and I have tried a great many of them, besides giving my fowls a different course of feeding each year, and yet all my early chickens died. At length an old uncle—a prosperous farmer—told me to just take my coops out into the orchard or meadow, entirely away from the house; to place each coop under a tree, mowing the grass where necessary. I did so, and even the chicks that were affected with the gapes speedily recovered, and I have not lost one since then. I was so glad at having found a cure for gapes at last, that I have given this as another remedy for gapes in chickens in the hope that others also may share my satisfaction."

PREVENTIVE AND REMEDY FOR GAPES.—I keep a few chickens which are never troubled with gapes, and this I attribute to a change of roosters every spring. I use old barrels for coops, thus keeping the chicks off the ground at night. For feed they have wheat screenings and cracked corn with plenty of clean water. Several of my neighbors think the above precautions too troublesome, and I've not the least doubt but that each of them loses nine out of every twelve of his chickens. My sister is quite a fancier of poultry and exchanges eggs with neighbors; but she has been troubled somewhat with gapes. She cures the ailment, however, by bathing the afflicted bird's throat well with kerosene. This I offer for the benefit of M. S. who, in a late RURAL, told of the trouble he has had with gapes. T.

THE
RURAL NEW-YORKER.
PUBLISHED EVERY SATURDAY.

Address
THE RURAL NEW-YORKER,
78 Duane Street, New York City.

SATURDAY, AUG. 9, 1879.

AGRICULTURAL DEPRESSION IN ENGLAND.

THE present agricultural distress in the British Isles is the chief topic of discussion not only among landowners and tenant-farmers, whom it affects most intimately, but also in Parliament, the public press and among the entire intelligent community. Every week the subject is anxiously ventilated in agricultural meetings throughout the country; acrimonious debates have taken place in the House of Commons concerning it; a Royal Commission has lately been appointed to investigate its cause and devise some remedy; a measure providing for the appointment of a Minister of Agriculture with a seat in the Cabinet, has been adopted by a large majority of the Commons, despite the opposition of the Government; the newspapers and agricultural journals are full, every issue, of lengthy reports of the speeches of various notabilities on the matter, as well as with editorial amplifications, suggestions and lucubrations; while wherever in public or private the educated classes congregate, the agricultural outlook is as common a theme of conversation as the state of the weather, the news from Zululand or the latest sensation.

Nor is the universal interest manifested in the question without ample cause. At no time in the modern history of the kingdom have the owners and occupiers of the land been so greviously harrassed as at present. Five unfavorable seasons in succession have not only cut short the profits of the tenant-farmers, but in most cases inflicted a money loss upon them. The evils which, under the most favorable circumstances, must naturally result from so many consecutive poor harvests, have been disastrously increased by competion with the cheap products of foreign nations, especially with those of this country. From these two causes combined it is estimated that the loss incurred by the agricultural community during the last season alone, has not been less than £58,000,000, or $280,720,000. Should the causes that have produced this state of affairs continue, it requires no gift of prophecy to foretell the speedy ruin of British agriculture. Nor are the tenant-farmers the only sufferers; for the landlords also have, as a rule, had their incomes curtailed by necessary reductions in rent, by the numerous bankruptcies of their tenants, by greatly increased poor-rates, and because, in many cases, as it has been impossible for them to let their farms, they have been forced to manage the land themselves at a much smaller profit than that usually returned by the skill, labor and capital of those who hired it from them. Moreover, manufacturers and the vast multitude employed by them have also suffered more or less severely from the distress among the farmers. The agricultural industry forms the chief element in the home market, which, in the United Kingdom, is eight times as valuable as the export trade, and the embarrassment in this industry has necessarily augmented the depression in manufacture and commerce, which now affects our transatlantic cousins. One-third of the capital of the country is engaged in its agriculture; certainly for three, and probably for five years, this third has been nearly unproductive, and the whole nation must suffer from the comparative unprofitableness of so much of its resources.

But the short crops due to unfavorable seasons, and the low prices necessitated by close competition with cheap products, are accidental causes of the present distress. There are others, however, that lie in the very nature of some of the national institutions. The former causes may be obviated in future by a change in the weather and a change in the tariff; the latter can be removed only by the abrogation of the land laws, which means a social and political revolution; for it is the existence of these laws, that for ages has kept social distinction and the government of the country in the hands of the landowners. Their repeal therefore would, in time, work a mighty revolution in English society and in the form of English government. But as the English people have an exaggerated estimate of the excellence of their social and political conditions, as they are thoroughly conservative in regard to social and political matters, and as these laws have the sanction of time-honored usage and the support of vested interests, it is safe to predict that dire necessity alone will force their abrogation, and then only after a struggle of extreme bitterness.

This necessity may be deferred by the speedy repeal of some of the most injurious of their provisions. At present, owing to the absence of compulsory registration and to the mass of antiquated verbiage and intricate technicality that renders the transfer of land impossible without the expensive aid of a skilled conveyancer, it is a costly and tedious undertaking to invest in a freehold. A case has recently been mentioned in which a poor man who bought three acres of glebe land, had to pay $565 merely for the legal examination of the title deed. The passage of a compulsory registration law, like that in force in many Continental lands and in this country, would so facilitate and cheapen the purchase of land that the number of freeholders would be constantly increasing and the burden of rent proportionately diminishing. Moreover, this increase of freeholders would lessen the social distinction at present attached to the possession of land, and gradually deprive it of the "fancy" value it now bears, and in this way enable the farmers of the future to realize a fair interest on the capital invested in the purchase of their homesteads.

Within the last 25 years the number of land-owners in the United Kingdom has been constantly dwindling, while the aggregate value of the land has increased nearly 15 per cent., and the rental, on an average, five shillings an acre. At present the rental of the agricultural lands in England amounts to the enormous sum of $350,000,000 a year. This is the tax which the farmers of the country have to pay to the landlords for the privilege of investing their labor, skill and capital in the effort to wring a livelihood from the soil, while hampered by a meshwork of restrictions created by land-owning legislators for the benefit of their own class. The British farmer is not permitted to follow the system in agriculture which seems to him the most advantageous for his own interests, but must conform to the regulations which the landlord deems most conducive to his own benefit. The tenant, in nearly all cases, is compelled to use a stipulated quantity of fertilizers, either bought or made upon the farm; he must follow the rotation of crops prescribed, not by his own judgment, but by his landlord's wishes, and he must dispose of part of his produce as dictated by the latter, who generally insists that a certain proportion of it must be used on the farm for his own benefit. Owing to the rigid and complicated law of fixtures, passed by landlords for their own gain, all the improvements put on the land belong to the land-owner. The Agricultural Holdings Act of 1875 pretended to secure to the farmer some compensation at the end of his lease for the improvements he might have put on the land, but the measure was hampered by so many clauses and provisos that, in practice, the amount of such compensation usually depends on the landlord's pleasure. To prevent, as much as possible, all chances of risk to the latter, the law gives him a first lien upon the crops to secure any debt due him by the tenant, while the claims of all other creditors must be postponed to his interests.

These interests having been secured by these and similar precautions, the law provides carefully for his amusement by a rigid system of game laws. Not only is the farmer severely dealt with for interfering with the partridges or pheasants that may be met with on his own acres, but even rabbits—the greatest pest of the agriculturist—are protected, and the despoiled farmer has no redress. Nor is this all; for, having wastefully fattened the game for his lord's sport, he must patiently see, without legal indemnity, his meadows, pastures and grain fields pouched and his fences injured by the reckless rush of that lord and his friends, amusing themselves by boldly following, with horse and hound, the fox or the timid hare. Surely it is time that the laws that sanction these grievances should be wiped from the statute book whose pages they disgrace. If this be done before agitation on the land question arouses bitterness throughout the community, it is not improbable that the measure will give a new lease of life to existing laws concerning entail and settlement, the two features in British legislation that are mainly responsible for the accumulation of real estate in the hands of the aristocracy.

In addition to high rent, short crops, foreign competition and legalized hardships, the British farmer finds another cause of distress in the increased expense of working his farm. Within the last quarter of a century its ratable value, and consequently the taxes on it, have increased considerably; local taxation for sanitary and other purposes have multiplied; labor costs about 25 per cent. more, and is worth fully 12 per cent. less; the requirements of present agriculture demand a considerable increase of capital, for which its products return little or no interest.

All these causes sufficiently account for the present distress among our farming friends across the water. The extent of the losses of even some of the best of them is shown by the balance sheet of a farm of 600 acres, lately published in the London Times, and which is a fair specimen of many similar accounts which have appeared in other papers. This shows an annual deficit of $1,709 for the last three years. During that time the annual outlay on this farm of alluvial river loam was $17,700, exclusive of the expense of the farmer's family, while the income was only $16.000. Nearly half the outlay was made up of rent, $7,500, while the taxes amounted to $750. What industry can prosper with such a tax paid by labor to idleness, while so many other drawbacks trammel its efforts!

"FIRMING" THE SOIL.

"I FIND this matter of firming the soil is looming into vast importance. I was out among the bulb-growers in Long Island last week; one of them showed me a bed of gladiolus seed that he had sown last spring, nearly all of which had failed to germinate except a small portion in a hollow where the water had stood and firmed the soil around the seed."—[*Peter Henderson, in New York Tribune.*

We have raised Gladioli from seed for the past ten years, and have found that they germinate freely only in the shade, in moist soil, or both. The seeds, moreover, are winged, light and, as they must be sown shallow, many would blow away in a loose, dry soil. The better germination of those "in a hollow where the water had stood" need not, therefore, be attributed to the "firmness" which the water had caused. Had corn been planted upon the same field, probably the reverse results would have attended germination, else we need have very little faith in underdraining. Mr. Henderson's address upon the advantages of "firming the soil" seems to have been copied by almost every agricultural journal in the land as if it were full of information both new and valuable. But we had supposed that the necessity of "firming" a loose soil after seed-sowing was known to every farmer and that the general use of the roller or similar implement for this purpose, was a sufficient proof thereof. It is a very plain case that seeds, to germinate well, must have soil in contact with them—otherwise the tender radicle receives no support and at once perishes. Especially is this true if seeds are sown during a period of dry weather when there is little moisture in the air spaces between the particles of soil, to assist in nourishing the germinating seed. "Firming" the soil, therefore, means simply the insuring of contact between the seed and the medium in which it is to grow. The looser the soil, the more is "firming" necessary; the more clayey the soil the less is it necessary. To "firm" a clayey soil would be detrimental to seed germination. Its tendency is to "firm" itself too soon, thus excluding air and moisture. The best that we can do with a clayey soil is to pulverize or break it up as finely as possible, so as to insure its contact with the seed. In this way also we render it a slower conductor of the heat of the day and the coolness of the night, both of which are harmful to the quick and vigorous germination of most seeds. We conclude that the "free propagation" of Mr. Henderson's address is rather a mark of consideration for this well-known seedsman than a tribute to its value, notwithstanding "the vast importance into which this matter of "firming" the soil is looming."

THE SIMPLEST THING.

IT seems to us that there have been more frauds perpetrated during the past season upon country people by irresponsible "tree agents" than ever before. At least we have heard more about these frauds than ever before. Cheats prosper where there are willing dupes. If people are sufficiently interested in plants to buy them of peddlers of whom they have no knowledge, it would seem that they would be sufficiently interested in plants to read reliable horticultural literature which would effectually guard them against impositions. The time for fall planting is again close at hand. All respectable agricultural journals will announce the catalogues of trustworthy nurserymen. We repeat our advice so often offered. Send for them—compare them and then select from those that offer at the lowest prices the plants desired. The remedy is a simple one and costs merely the stamp on the letter of application. We experience a malicous satisfaction when we find—as we always have found—that those who purchase the WONDERS which these shrewd and unprincipled tree venders offer, do not subscribe for country-home journals. Readers may rest assured that all meritorious novelties are recorded in their pages as soon as known. Producers are only too glad to publish them since they have no other means of bringing them before the public. When, therefore, strange agents talk of strange plants of marvelous properties or that produce anomalous fruits, they may unhesitatingly be set down as impostors.

Applause in Churches.—Applause by the congregation of what ministers say in the pulpit, has grown of late years to be of common occurrence. It was at first heartily denounced. Then it was tolerated. Now many congregations applaud as if it were quite "the thing." We believe that the City of Churches (Brooklyn) bears the honor of having introduced this custom, which is well in keeping with the inscrutable religious sentiment that pervades a large portion of that church-going community. Upon the occasion of Moody and Sankey's first appearance since their vacation—passed by Mr. Moody on his farm, and by Mr. Sankey in Europe—"a burst of applause greeted the close of the first hymn." But Mr. Moody promptly checked it. He reminded the assembly that they were *in the house of God, not in a theater*, and the indiscretion was not repeated. We are in favor of "liberal ideas" in all things—political, social and moral—but it has always seemed to us that applause in church during Sabbath worship, desecrates the place and the time, and must strangely grate upon the sensibilities of those who are collected together to reverence God. If it is the *minister* we go to worship, then it is well to clap the hands or to laugh when he says anything especially good or funny. We hope that Brooklyn's irreverent innovation will never be tolerated, at least in the churches of our quiet hamlets and villages, and that our country people will continue to deem a reverential silence an essential part of their Sabbath devotion.

BREVITIES.

"GIVE us the man who sings at his work."—*Carlyle.* Would whistling answer?

THE GOLDEN RURAL is again our first tomato to ripen. Will our readers tell us how it is with them?

DR. A. C. WILLIAMS, Hugo, Ill., tells us that he raised a head of Defiance wheat with 115 grains in it. Why, Doctor, did not you think to send us that head of Defiance wheat, so that we could have had it drawn and engraved?

WORK vigorously while you work—have your wits about you, and never take two steps when one will answer. Then as soon as fatigue is felt, it is better economy to take a nap than to continue labor. No man can be prompt, happy, enthusiastic, or even systematic, that habitually overworks himself.

MR. GEO. J. KELLOGG writes us from Janesville, Wis., as follows: "Among the Black Raspberries, Great Western takes the lead, being nearly twice the size of Mammoth Cluster, as vigorous and productive and more hardy, as Mammoth Cluster was killed badly the past winter, while Great Western was uninjured."

THE haste with which many of us jump at conclusions is illustrated in nothing better than the condemnations which are being heaped upon Pearl Millet. These writers are altogether premature. Let them wait a bit—count thirty and hold their wrath. Two weeks hence they will wish to recall their hasty words. Judging from our tests of last season, it does not start into vigorous growth before the latter part of July in this climate—and the present season it is the same.

MR. WM. PARRY writes us of the Cuthbert: "I consider it one of our most valuable Red Raspberries, and it may be placed by side of the QUEEN OF THE MARKET, which it very much resembles in large size, bright red color, handsome and attractive appearance, strong, vigorous growth, hardy and productive canes, and it has probably descended from the same healthy parentage. We propose planting them both largely and would recommend others to do so, believing that whoever plants either or both will be well rewarded."

POTTED Strawbery plants can be purchased for 50 cents per dozen. We recommend Sharpless, Cumberland Triumph, Prouty's Seedling, Charles Downing, Borden 30, Pres. Lincoln, Miner's Prolific, Champion, Kentucky and Glendale, for trial. A fair proportion of them may be relied upon to give satisfaction in any soil in which the Strawberry will thrive at all. Prepare the ground liberally; manure liberally; set the plants one foot by 18 inches apart and see—you who have never given any particular attention to the Strawberry—if your family do not declare that "it pays."

PRIZE ANIMALS IN THE ROYAL AGRICULTURAL SOCIETY'S INTERNATIONAL EXHIBITION AT KILBURN.

1. Hackney mares, with foals, and mules. 2. The Earl of Ellesmere's Young Prince of the Isle. 3. The Earl of Ellesmere's Stamford III. 4. Mr. Richard Garrett's Cupbearer III. 5. Mr. David Buchanan's Druid, winner of the Champion Cup and the first prize in the class for Clydesdale horses, four years old and upwards. 6. The Marquis of Exeter's Sea Gull, with Telemachus IX., Telemachus VI., and two daughters, Shorthorn family. (See our European Correspondence, last issue.

Literary Miscellany.

THE SCANDALOUS LETTER.

[Complete in Ten Chapters.]

CHAPTER IV.

It was with difficulty Miss Elizabeth refrained from saying, "I told you so," to her nephew next morning. Robert had come home early on Sunday evening, had gone straight to his room, and had locked himself in. Miss Yorke had heard him pacing restlessly backwards and forwards late into the night, when all the household was fast asleep; and, if she could have known the jealous doubt and dread that were racking him all through those wakeful hours, her own slumbers would have been the sweeter. A start—a change of color—a trembling hand upon his arm—these were what haunted Miss Carew's lover all night,

"While sleep beheld him from afar awake."

These were the thorns that pricked his restless pillow.

What did Olive's agitation—her sudden uncalled-for agitation—mean? And had it—could it have—any connection with that group of men, one of whom seemed to have been traveling or about to travel? She had been talking quietly enough a moment before they saw these men; she had been smiling at him; and then——. It was useless for the Doctor to tell himself over and over again that he was wronging Olive cruelly by such thoughts—that she had of her own accord and for the first time kissed him when they parted, as though she wished to assure him that she had done him no wrong. He told himself this, but—how cold the little hand was that he had touched! How pale her lips were as she held them up to him! And that man, that tall man in gray clothes who had seemed to follow them! Big drops started on the Doctor's forehead as once again Olive's half-desperate admission, "I love somebody else—somebody who can never be anything to me," came back to him, and he remembered that respect, friendship, esteem was all he had a right to expect from Miss Carew. Would she tell him frankly in the morning the reason of her emotion—he could forgive a great deal if she would only be candid and trust in him—or would she let this horrible secret lie like a mist between their eyes, so that they could never meet again clear and unembarrassed as before?

"I have been too happy," Robert Yorke groaned in the midst of his self-torment. "I felt it last night as we walked across the fields together. There was something in her face that told me so; and now some trouble is to fall upon us, and those bright, peaceful days are over. Well, if she will only let me love her still!" He fell asleep at last, as day was breaking gray and cool and the birds began to wake.

Not far away Gertrude was dreaming of him in her warm white bed, where perhaps she too had lain and tossed and ached for him as he grieved now for the pale girl who had bewitched him. Gertrude's roses were blooming however at breakfast the next morning; but Dr. Yorke came down languid, moody, complaining irritably, when questioned of headache—he who had never had a headache in his life, his aunt remembered.

Miss Elizabeth poured out a large cup of tea for the Doctor, and supplied him with the crisp, golden dry toast which he loved, and bade Gertrude air the newspaper for her cousin; but the thought in her heart as she ministered to his wants was that he had quarreled with Olive Carew, that it was but right he should suffer for his folly, and that after all it was never too late to mend. This thought imparted quite a briskness and gayety to Miss Yorke's manner during the morning, and she kissed her niece more than once so affectionately that Gertrude was puzzled, and began to indulge in a little uneasy hope—she could not help it though she tried—that something was wrong about Miss Carew, and that perhaps the actress would go away and leave them all to the happy life they had led before she came to disturb it.

Neither aunt nor niece said one word of what was in their minds; and when Miss Elizabeth came into the drawing-room, where Gertrude was practicing her pieces, and said that she had a little business to attend to, and would probably not be home to luncheon, they both agreed silently to believe that this business would be confined to the neighboring tradesmen, and would not include a call on Miss Carew in the hope of obtaining some clue to the Doctor's low spirits.

The sun streamed into the prim old drawing-room; Gertrude's nimble fingers plied her needle busily, while Miss Yorke wended her way to Olive's lodgings, a pleasurable anticipation of trouble in that quarter buoying her up and quickening her pace. The early freshness of morning was on the streets still. Rooks were sailing in the blue air across the ivy-grown turret of an old church; the lilac bushes in a square close by were in bloom, and scented the light wind as it blew; bunches of spring flowers were displayed in the shops; the flags shone white in the sunshine, and some young ladies who were out wore pretty, light-colored dresses, that made them look like flowers, too. Children were running and dogs barking joyously in the square as Miss Yorke went by, but she saw nothing—not even the new straw bonnets in the milliner's window. What had Robert seen or heard to make him so unhappy? That was what she was pondering, with brows knit and downcast eyes. If that woman had but revealed herself to him in her true character now, before it was too late! With the hope before her of getting rid of the actress, Miss Elizabeth felt her bitter dislike for Olive redouble, and remembered that from the first she had distrusted her pale, lackadaisical face and affected ways. And now perhaps things would return to their old footing. Miss Yorke's will would still be law in George street. There would be no talk of giving up the silver and linen and keys, her seat at the head of the table, her authority over the tradespeople and servants, to a girl out of a play-house, whose only thought was a sickly boy and his perpetual whims and fancies. And, if Robert married Gertrude, who looked up to her aunt with such affectionate respect, how different things would be!

Miss Yorke, trudging along sturdily, was so busy with these agreeable reflections that she would have passed her nephew, who came towards her just then, if he had not stopped and spoken to her.

"You are going to see Olive, I suppose?" he said in a tired kind of voice. "I will spare you a useless walk. She is out."

"You have just called?"

"Yes."

"Robert"—Miss Yorke laid her hand on his arm impressively—"there is something wrong! Now don't deny it—I can see it in your face."

"Something wrong? What—because Olive has gone to rehearsal? Absurd!"

"But she did not tell you last night that she would be out," Miss Elizabeth persisted, "or why should you call at this hour?"

"Because Olive was not very well last night," said the Doctor, coldly, changing color, "and I wished to inquire after her—that is all. And now I must be going—I am tremendously busy to-day."

He was gone. Miss Yorke turned and looked after him, with a kind of triumph in her face, though she was vexed too.

"It is a quarrel," she thought, "and a serious one. What can it have been about? Well, Miss Carew may be out or she may be in, but I am determined to see her, if I wait all day."

And so she turned down the sunny street, where trees grew behind the old red-tiled houses, and stopped at Mrs. Allen's iron gate. Both gate and door stood wide-open. A child's toy lay on the grass-plot, and in a pair of toddling legs trotting down the street towards an organ that was grinding an Offenbachian measure, and in Mrs. Allen's cap-strings flying in pursuit, Miss Yorke saw the reason of the unguarded state of the house. She was equal to the occasion.

"There is no one to tell me whether Miss Carew is in or out," she decided boldly. "I will go upstairs and wait."

Miss Yorke was on the little landing above by the time baby Allen was brought home struggling and roaring lustily; and, when the shutting of a door in the back regions deadened these sounds, the house was so still that she could hear the faint ticking of the clock on Olive's mantelpiece. After a ceremonious knock to which she received no answer, Miss Yorke opened the actress's door and walked in. A faint fragrance of violets was in the air, a white curtain moved slowly in the breeze at the open window, the usual litter of papers and books was on the table, a half-covered blue-satin boot, with the needle still sticking in it, lay on the window-ledge by Olive's chair.

Miss Yorke looked round her grimly. The smell of flowers in the room seemed like an affront to her. It was an immoral sort of thing, she considered, and savored of trashy novels and high-flown airs. The cool April breeze had a rheumatic tendency, so the window was closed without ceremony, Miss Yorke eyeing the little boot the while, with a contemptuous "Humph!" and charitably deciding that it had been left there for effect. Robert made such a ridiculous fuss about the smallness of his sweetheart's foot.

"If matches his brain nicely," she said to herself wittily; and then—the opportunity was too tempting to be resisted—she began to make a tour of the little room, and to examine the countless little knick-knacks with which it was filled, handling them as gingerly as if she dreaded the infection of Bohemianism from their mere touch.

A large book of photographs lay open on the piano. Miss Yorke adjusted her gold eye-glasses and turned the pages, with a silent protest against their contents in every line of her face. Olive Carew in every imaginable dress and attitude, each one prettier and more graceful than the last—that was what the big book—the Doctor's gift—amounted to; Olive in a coquettish Watteau dress, with mittens and powdered hair, and an arch smile in her beautiful eyes; Olive crazy in white drapery and long, densely-falling hair, offering the beholder "pansies for thoughts," with a piteous air of entreaty; Olive as a saint with holy uplifted gaze and folded hands; Olive in a riding-habit; Olive in a yachting costume; Olive as a nun; Olive as a boy, as a queen, as a gipsy, in picturesque rags, in a ball-dress, in her old black gown.

With an impatient exclamation, Miss Yorke shut up the book and walked away. She had never seen Miss Carew on the stage, Gertrude's mourning not allowing her to appear at a theater just yet, and she asked herself scornfully if this was what took men's fancy nowadays, and if they supposed all these smiles and attitudes and bare arms and shoulders would look well in a drawing-room, or would help a wife to order a good dinner and look after the children. How could Robert ever take this player-woman down to the old home in Lincolnshire, and what would folks there say to her big eyes and her trailing gowns and die-away airs? Once more a pang of bitter, unavailing hatred of Olive shot through Elizabeth Yorke's heart as she sat down at the table and waited doggedly for the actress's return. An open "part" lay at her elbow, and, seeing what it was—or guessing—she brushed it away with a gesture of disgust. In doing so she knocked down a little leather writing-case, scattering the papers it held on the floor, and as she replaced them, a name on an envelope caught her eye—"Lord Blantyre."

It was in Miss Carew's delicate writing, and the envelope, which was unfastened, contained a letter—with no superscription, but in Miss Carew's hand, addressed to a lord! Miss Yorke's heart began to beat, a dark flush rose to her face; she caught the letter up with trembling hands, and, after a hurried glance at the door, deliberately opened the envelope and read its contents.

CHAPTER V.

Miss Yorke's hands trembled still more as, having read and re-read the letter, she folded it up and put it, in its envelope, into her pocket. Her excitement was great. She could not sit still, but rose and paced the little parlor, hurriedly, beating one hand against the other and muttering rapidly to herself. Morning was wearing away into afternoon, luncheon was over long since in George street, but Miss Elizabeth would not go home till she had seen Olive Carew. She took her seat at last in the bow-window and watched.

She could hear Nelson's cheery little treble piping to baby Allen, and a smell of something roasting for the actress's dinner began to pervade the small house. The organ-man, who had unconsciously helped her to the discovery of the letter, saw her grim figure sitting at the window as he came up the street, and played "*Dites-lui*" and "Down in a Coal Mine" all through without provoking a gratuity, and then, just as the little clock on the mantelpiece struck three, Miss Yorke's patience was rewarded, and she saw the tall figure she was waiting for coming slowly down the street. Miss Elizabeth drew herself up and put herself in battle array. Every line of her brown silk armor was in its place, her smart bonnet had the air of a helmet, her umbrella seemed turned into a sword as she grasped it in her strong hand. There was a joyous greeting at the door as Nelson ran to open it for his sister, then some quicter words followed, and Olive came up-stairs and into the little sitting-room alone. She was pale and tired, and looked as if she had been crying. The uncompromising face she found awaiting her was rather a trial to her nerves just then.

"Miss Yorke!" she said faintly. "They did not tell me you were here. Have you been waiting long? I have been detained."

"I have been here two hours," her visitor replied, so rudely that Olive turned, flushing a little, and looked at her, surprised.

"I thought Mrs. Allen understood that I was not at home to any one to-day," she answered gently. "I am not very well. I have had some painful business to attend to, and——"

Miss Yorke coughed.

"You are very kind," Olive said, smothering a sigh; and she took off her hat and threw it on to the table. She was thinking of the quiet hour she had hoped for before going to her work again, and she could not keep the weariness and dejection out of her voice as she sat down and leant her head back in all its fair young beauty against the dingy horse-hair chair. "I am sorry I missed Dr. Yorke," she added. "I did not think he would call here so early."

"He did not know that you were more agreeably engaged, of course."

Again Olive turned and looked at her visitor, surprised.

"May I ask what you mean?" she said, quietly. "Even if I had been at home, I do not know that I should have seen Robert this morning. I do not feel able to talk to any one, and really I believed that these rooms were mine, and that I could give what orders I pleased in them until to-day."

"That is meant for me, I suppose;" and Miss Elizabeth laughed scornfully. "I can assure you, Miss Carew, that nothing but a feeling of duty induces me to remain another moment in this house, after what I have seen, though I don't value your fine-lady sneer the snap of my fingers."

Olive regarded the angry woman with eyes of quiet dislike. She had always known that they two must quarrel terribly some day, and now the day was come.

"You have something to say?" she returned, calmly. "My time is short."

"Yes! I have something to say," Miss Elizabeth cried, beginning to tremble again—"and something that you will do well to consider."

Olive bowed.

"You know well enough that I don't like you," the hard old voice went on. "I never pretended to like you. I have had plans of my own for Robert, and you come here to upset them all. How can you expect me to swallow my disappointment and meet you with open arms—you and your sickly brother, who will be a trouble and an expense as long as he lives?"

Olive was silent. A shudder ran through her veins as she noticed, for the first time, that there was in this coarse, ill-tempered woman's face a likeness to Dr. Yorke.

"Will he look like that in a few years?" she thought, wretchedly. "Could he speak like that if he were angry?"

Miss Yorke had taken breath, and was ready to go on.

"I have told Robert often and often what I thought of you; but what is the use of talking to a man while he is infatuated, and blind, and——"

"I shall be glad if you will come to the point," Miss Carew interposed in her low voice, that contrasted so strangely with the elder woman's high-pitched accents—as strangely as her pale beauty with Miss Elizabeth's angry purple face, set in its gaudy ribbons.

"Then this is the point!" the Doctor's aunt cried fiercely. "I have found out the intrigue you are carrying on. I know what appointment you have been keeping this morning, Miss Carew"—with a deadly emphasis on Olive's pretty name, as though it were an offence in itself.

"Go on," said Olive, turning pale, but facing her adversary with steady, lucid eyes. "Let me know of what you suspect me."

"Suspect!" Miss Yorke echoed. "I tell you I have proof." Here her hand involuntarily sought the stolen letter in her pocket. "I have a hold over you that you don't dream of, and I mean to use it if you force me, but for Robert's sake, for the sake of our name, I want no fuss—no scandal—and I am willing to compromise if you and I can come to terms."

"Go on," Olive said again.

"You had words with Robert yesterday—I saw that plain enough by his face. You would not see him to-day. Well, I don't think you will have many more chances of saying 'Not at home' to Dr. Yorke."

"Go on."

"Of course it is for his money you want to marry him. He's not the sort of man to take your fancy I warrant!"

"Go on."

"But, if you do marry him, not a soul in Woolchester will visit you, remember that! You will ruin the Doctor; and what will you be without your dressing and acting, and with no men to run after you, sitting by yourself all day, and minding your house?"

"Go on."

"Miss Carew, I have a little money by me that the Doctor knows nothing of. Give me back his promise—I dare say you have got a written one from him—leave here at once, and I will give you three hundred pounds, and——"

Olive started up, stung to the quick by the deadly insult.

"How dare you, madam?" she panted out, the indignant blood rushing in torrents to her face and throat. "What must you think of me? How far too mercifully I have hitherto judged you! For your brother's sake I will endure much, but, as for this"—with a passionate gesture of contempt—"I will not stoop to convince you of the terrible mistake you have made. I will never address another word to you as long as I live!"—[To be continued.

For Women.

CONDUCTED BY MISS FAITH RIPLEY.

"HOME PROTECTION."

An Argument for Woman's Temperance Ballot.

BY FRANCES E. WILLARD,
PRESIDENT OF ILLINOIS W. C. T. U.

KEY TO THE POSITION.

"Ah! but," pursues our doubting friend, "Maine is a peculiar State, in this: it has few foreigners, with their traditions of whisky and of beer."

I grant you there we are at disadvantage. But go with me to the Cunard wharves of Boston and to Castle Garden of New York, and as the long procession of immigrants steps across the gangway, you will find *three times as many men as women*. How can we offset their vote for free liquor, on Sundays and all other days? Surely, the answer to this question is not far to seek. Strengthen the sinews of old King Majority, by counting in the home vote to offset that of Hamburg and of Cork, and let American customs survive by utilizing (at the point where by the correlation of governmental forces "opinion" passes into "law") the opinion of those gentle "natives" who are the necessary and tender guardians of the home, of tempted manhood and untaught little children.

Hands which have just put aside the beer-mug, the decanter, and the greasy pack of cards are casting ballots which undermine our Sabbaths, license social crimes that shall be nameless, and open 250,000 dram-shops in the shadow of the church and public school. Impressed by the fact that when voters meet voters the side will win that has most votes, I solemnly call upon my countrymen to release those other hands, familiar with the pages of the Book of God, busied with sacred duties of the home and gracious deeds of charity, that they may drop those whiter ballots in, which, as God lives, alone can save the State! Great guns of influence are pointing into vacancy, when they ought to be swung to the level of benignant use and pointed on election day straight into the faces of the foe.

THE WOMEN OF ILLINOIS.

Kind friends, I am not theorizing. I speak that I do know and testify what I have seen. Out on the Illinois prairies we have resolved to expend on voters the work at first bestowed upon saloon-keepers. We have transferred the scene of our crusade from the dram-shop to the council-room of the municipal authorities, whence the dram-shops derive their guaranties and safeguards. Nay, more. The bitter argument of defeat led us to trace the tawny, seething, foaming tide of beer and whisky to its source; and there we found it surging forth from the stately capitol of Illinois, with its proud dome and flag of stripes and stars. So we have made that capitol the center of our operations; and last winter, as one among the many branches of our work, we gathered up 175,000 names of Illinois's best men and women (50,000 being the names of voters), who asked the legislature for a law giving women the ballot on the temperance question. In prosecuting our canvass for these names, we sent copies of our "Home Protection Petition" to every minister, editor, and postmaster in this State; also to all leading temperance men and women, missionary women, and Grangers; teachers, Odd Fellows, and Free Masons; Greenback and Red-Ribbon clubs: to Quakers and Catholics, Knights of Pythias and express corporations; Jews, Gentiles, and railroad companies.

In this way our great State of 55,000 square miles was permeated, and in most of its 1,000 towns the petition was brought before the people. The religious press was a unit in our favor. The reform clubs of the State, with ribbons blue and red, helped us with their usual heartiness and efficiency. And what shall be thought of the advance in public sentiment, when (as was often done) all the churches join on Sabbath night in a "Union Home Protection Meeting," and Ministers of all denominations (Presbyterians included) conduct the opening exercises, after which a woman presents the religious duty of women to seek and men to supply the temperance ballot; and, to crown all, conservative young ladies go up and down the aisles earnestly asking for signatures, to the tune of

"Stand up, stand up for Jesus,
Ye soldiers of the Cross;
Lift high His royal banner,
It must not suffer loss."

Friends, it means something for women of the churches to take this radical position. America has developed no movement more significant for good since the first dawning of the day we celebrate.

The State of Indiana stands with us; only there the temperance women have worked out the prob-

lem of deliverance further than we, and asked the ballot on all questions whatsoever. They do the same in Minnesota and in Iowa: while at the East the W. C. T. U. of grand old Maine endorses the temperance vote, and Rhode Island sends to Illinois resolutions of approval, while Massachusetts, under Mary A. Livermore, has declared for Home Protection and is preparing for the fall campaign; and within a few days Ohio, the Crusade State, which is the mother of us all, has fallen into line. The most conservative States are Connecticut, New-Jersey, and New York; but in each of these there are many brave women, who but bide their time for this same declaration, and the whole twenty-three States already joined in the Woman's National Christian Temperance Union will ere long clasp hands in the only work which can ever fulfill the glorious promise of the Crusade. History tells us that on the morning of December 23d, 1873, when in Hillsboro, Ohio, the penteeostal power fell on the "praying band" which first went forth, the leading men of that rum-cursed town went out from the church where their wives and mothers had assembled saying: "We can only leave this business with the women and the Lord." History has repeated itself this winter in our Illinois crusade. Men have placed money in our hands to carry ont his work, saying: "the women of America must solve this problem. Our business relations, our financial interests, our political affiliations and ambitions have tied our hands; but we will set yours free, and you may rid us of this awful curse."

WOULD WOMEN VOTE RIGHT?

Yet a few men and women, densely ignorant about this movement, have been heard to say: "Who knows that women would vote right?" I confess that nothing has more deeply grieved me than this question from the lips of Christian people. Have distillers, brewers, and saloon-keepers then, more confidence in woman's sense and goodness than she has herself? They have a very practical method of exhibiting their faith. They declare war to the knife and the knife to the hilt against the Home Protection Movement. By secret circulars, by hired lobbyists and attorneys, by the ridicule of their newspaper organs, and threats of personal violence to such women of their families as sign our petition, they display their confidence in womankind.

The only town in Illinois which sent up a delegation of citizens openly to oppose our petition was Belleville, with its heavy liquor interest and ten thousand German to three thousand American inhabitants; and among our 204 legislators there were no other dozen men whose nagging of the Home Protection Committee was so persistent and so petty as that of the senator who openly declared he was there to defend the vested interests of his Peoria constituents, who in 1878 produced eight million dollars' worth (?) of ardent spirits. Nay, verily, woman's vote is the way out of our misery and shame, "our enemies themselves being judges." The women of the Crusade must come to judgment—not, as aforetime, with trembling lip and tearful eye, but with the blazing sword of power; and none see this so clearly as the liquor dealers, whose alligator eye is their pocket-book, and the politicians, whose Achilles heel is their ambition.

HOW WOMEN DO VOTE.

But, after all, "seeing" is a large part of "believing" with this square-headed Yankee nation; so let us seek the testimony of experience.

In Kansas the law provides that the signatures of women shall be requisite to a petition asking for a dram-shop before that boon shall be conferred upon any given community. This arrangement wrought such mischief with the liquor dealers that they secured an amendment exempting large towns from such bondage. But in small towns and villages it has greatly interfered with the traffic, and has so educated public sentiment that prohibition can—with impunity!—form the theme of a governor's inaugural, and Kansas is on the war-path for a law hardly less stringent than that of Maine.

In Des Moines, Iowa, a few weeks since, as a test of popular opinion, the women voted on the license question; twelve declaring in favor of saloons and eight hundred against them. In Newton, Iowa, at an election ordered by the council, 172 men voted for license to 319 against—not two to one against it; while the women's vote stood one in favor to 394 against licensing saloons. In Kirkville, Mo., ten women favored the liquor traffic, twenty declined to declare themselves, and five hundred wanted "no license." In our Illinois campaign, which resulted in 95,000 names of women who expressed their wish to vote against saloons, not one woman in ten declined to affix her name to our petition.—To be continued.

THE WOMAN'S CLUB.

A VIGOROUS PROTEST.

MISS FAITH RIPLEY:—I was interested in your contributor "M. L. S.," for having presented so fine a method for preparing that very popular beverage—coffee. It is just my particular plan, although not a practice of mine for reasons I might state, but conclude to keep my private domestic affairs from the gaze of the world, thus avoiding painful and unnecessary criticisms from a rabble of meddlesome, motherly old—what shall I call them? No bad names, of course. No—but suffice it to say, M. L. S.'s method is not new, though valuable. But I am at a loss to know by what right she dares to bring forth from the land of the past, visions of the steaming old coffee-pot which afforded me so much comfort in its day, and but for my *then* ignorant doings, might still have served me, in some way. Is it possible she knows how I was so short-sighted as to do what she recommends as a cleansing operation—that is, to use ashes? I had supposed no other person in the world was so foolish but my humble self; but since I've no remembrance of giving any but my little girls the benefit of my experience, I shall take the liberty to ask the lady to introduce herself, and then let us hold discussion over the propriety of treating the time-honored coffee-pot so abusively. Perhaps she is a quarrelsome creature like some people I've known and shunned all my days; and perhaps she wished to intrude upon my especial realm—the kitchen, the dining-room, the chamber and the sitting-room. If so, allow me to state her place is the sitting-room while we hold this confab over the coffee-pot. Mine is none of those prim affairs, gotten up by a coffin-dealer, smelling of varnish and dazzling with gilt—(I deal in realities, and have all my life)—and while I beg leave to state that I commenced housekeeping without much practical knowledge of the art, yet my natural ability helped me, together with what I learned from observation; and but for a kind, considerate mother who was guilty of an oversight in the management of her daughters, (or of a slight error) I might have known that ashes are ruinous to the kind of tin in use now-a-days; a kind which poor people have to deal in. It is possible M. L. S. does not know even one of the many little valuable items which I might teach her (if she is young and inexperienced, as I once was,) but I will say that I believe ashes to be injurious to the best quality of tin, and that according to my experience, gained as it has been, by not having sand procured for me when I should have had it, frequent, thorough washing with soap-suds is the first best process, if only thorough rinsing with hot water, and drying by heat follow it. Then, when polishing is really necessary, the sand if of fine quality, will be harmless in removing stains from the inside of the coffee-pot as well as the tea-pot. If M. L. S. can afford two tin pots for coffee and leave the ashes out, her plan is well enough. My poor little stock of patience has been meddled with in ways too aggravating to describe, especially, in the face and eyes of a respectable corps of editors, so I forbear to further teach M. L. S., without personal acquaintance.

Perhaps she may not comprehend that ginger, when we first get it, is full of fibrous atoms, and then if sifted, for pumpkin pies or other pastry, the fibrous portion is fit to add to the vinegar used for pickles if one likes the flavor in the vinegar, and if not pies and cookies are improved by it. Perhaps I am capable of learning something more than I already know through the columns of the Domestic Economy; but even then one should have a right hand *man* to help carry all these truly nice arrangements into effect. If you have a fine piece of steel in the house without a handle, which could with the help of a man and proper tools, be the chief instrument in constructing a very handy article called a "bread-cutter" you are smarter than I am, if you can go to a shop—within sound of your voice, and say to the man who presides there, "I know how this should be made, but I have not time nor patience or I would do it." Perhaps *you* would say, "I will borrow the tools and construct the article myself." Now I have sufficient mechanical ability to manufacture just such an article with my own hands but I am a woman and have not strength or time, so if my individual duties prevent me—and my husband should wilfully neglect to provide for my comfort, why, then, as it costs money to hire all this done, my little plans for bread-boards and brick-board for scouring knives and similar conveniences would be useless, and all because I am "A WOMAN."

MOTHER'S BIRTHDAY.

BY ZENA CLAYBOURNE.

God gave each year its season, in its turn,
Some subtle beauty, all its own,
But Summer stands among the rest,
For tender, lustrous charms, alone;
But even of summer months, one, June
Has such a rare, exceeding glory
That all the birds and leaves and flowers
Appear delirious with the story;
Yet, still, in June God gave to one day
More of sun than any other.
Then, to crown the work completely,
Sent on earth my precious Mother!
So, her birthday always comes
With balmy air, and blossoms gay,
The sweetest time of all the year,
The very longest loveliest day!

SHALL FANCY WORK BE TABOOED?

I AM deeply interested in the RURAL, especially so in the women's department. I read with interest the article, "Truly Spoken," by M. A. B. My attention was called to the words of Emily Faithful regarding fancy work. It is no wonder to me that M. A. B. is not fully in sympathy with that writer. I should wonder if any lover of the beautiful could, for one moment, wish fancy work "blotted out of existence." "If a man, or grown boy, should spend his time so foolishly, he would be considered, and rightly, either a fool or crazy," and yet strong, able bodied beings, *called* men, do spend their time shooting glass balls, lounging about street corners and in bar-rooms, indulging in indecent conversation, and are not "considered either fools or crazy," especially by their own sex.

I have noticed that, as a rule, lovers of flowers are lovers of fancy work. Go into any home that is entirely destitute of fancy work, and generally you find the yard a mass of grass and weeds. I have in mind Mrs. A. No fancy work adorns her rooms, no flowers beautify her yard or garden. Indeed, she has no desire for things of that sort. Go into her parlor, and you will find it neither cheery, cosy nor inviting. There is something inexpressively chilly and dreary about her home and its surroundings. Not so at Mrs. B's. Before you enter her home you have a promise of pleasant things. There is an abundance of flowers, and one can but stop and admire them, they are so beautiful. On the piazza is a flower-stand, filled with blooming plants; hanging in the window is a beautiful white dove (fancy work), which I always think is a proper emblem of the peace and quiet within.

The afternoon is pleasant, and Mrs. B invites us into her parlor. She is not afraid that the sunshine will injure her carpet. Here hangs a wax wreath of wondrous beauty, made by her own hands. The old ladies exclaim, "It is the prettiest thing I ever laid my eyes on!" Oh, but it is fancy work, "blot it out of existence!" Here is a hanging basket, made of card-board, zephyr and pictures—a lovely thing. I cannot speak of all the beautiful ornaments in that room—picture frames, wall pockets, brackets, etc., all making the room a cosy resting-place.

There is my friend May, who does not enjoy good health. No one can tell what a comfort fancy work has been to her. Hours, otherwise dull and dreary, have passed pleasantly away. With neither body nor mind in a condition for study, fancy work comes in admirably. I would not "deliberately sit down day after day," and kill time with my fancy work, (farmers' wives and daughters have something beside sitting down to do), but if any have a taste in the direction of fancy work, let them cultivate it. Many a rainy afternoon and odd spell may be pleasantly passed in that delightful occupation.

I believe the intense lover of the beautiful is really capable of a higher sense of enjoyment than one who cannot appreciate the beauties of nature and art. A woman with a taste for home adornment can, with very limited means, construct many articles, both useful and ornamental, that will give a charm to home.

I made a wall pocket after a description given in the RURAL, and it is really pretty, as well as useful. In my kitchen hangs a motto, "In God we Trust," worked with shaded red and green zephyr. Now that is fancy work; but it is of use as well as pleasing to the eye.

Many, many times, when I am tired (and cross, too, I fear), when I get discouraged, I happen to see my motto, "In God we Trust," then I ask Him to help me trust Him fully. So I calculate that my motto is a blessing to me. Let us love the good, the true and the beautiful, and by so doing, shall we not grow better?

I would like to express my thanks to the "clubites" for their interesting letters and words of good cheer. Yours cordially, MRS. J. W. K.

A PLEA FOR EDUCATION IN HOME MATTERS.

I AM very much interested in the RURAL, and especially so in the Women's Club. I have often thought I would like to join.

With delicate health and three little children clamoring for mamma's constant care, I hardly have time to avail myself of the Boston Society's liberality. As a profession for women take the management of children, by far the most important within the range of womanly duties, and for improvement a home-field now left to weeds and waste; a profession, to call it by its right name, which it is in the power of every woman, whether mother or childless, to honor and perfect.

There is nothing, as things are, in which women need enlightenment more than in this same management of infants and the education of children. Where one has an intelligent understanding of the needs and proper care of infants, thousands are as ignorant as owls of the very alphabet of physiology, and consequently they make the most disastrous mistakes in practice. Go into the homes of the educated and watch the nursery diet, the clothing, the hours, the general arrangements, and then say whether the management of the next generation, which is by far the most precious thing belonging to the present, is of a character to rejoice the soul of one who hopes for progress, and who loves his kind. Yet woman ought to learn something of the requirements of motherhood, and not spend energy and strength in studying abstract questions which are simply intellectual pleasures, and of no human profit, while the best mode of making fine men and women out of the raw material of infancy is ignored as a thing of no value. This is but a queer inversion of natural duties—I confess not quite to my taste.

If this mismanagement or ignorance is true of so-called educated mothers, what is the condition, then, of the uneducated? The wonder is not that so many children die, but that human life is so tenacious, and that so many of these delicate little creatures survive the ill-usage to which ignorance and mistaken kindness subject them from the very hour of their birth.

You hear one of these young mothers boast complacently that her baby, only a few months old, sits up at the table with the family and takes all they have, while she crams it with pudding, potatoes and stringy meat.

Suppose girls were taught as a matter of education, what babies are like, and the best way of managing them, if ever they had them, do you think they would go counter to their education any more than they do now, when they have to bake bread or roast meat? It is only because girls are never taught when young, that they make such terrible mistakes when they come to the possession of little ones. BROWNIE.

STRINGS.

"WIFE, will you get me a few strings to tie up those young grape-vines with;" or "Mother, can I have some strings to use for my flowers;" or "What shall I tie the tomatoes to the stakes with?"

What housekeeper whose husband loves his vines and trees has not had her ears saluted by such questions, and been puzzled to know where all the strings are to come from. Often when I have seen my husband stand with a broken and wilted branch of some cherished plant in his hand, and have heard him say, with a fallen countenance, "If I had had a suitable string yesterday when I saw this swinging in the wind, I might have saved it," I have ruefully made a mental parody on the well known saw, "For want of a nail the shoe was lost, for want of a shoe the horse was lost," &c. This Spring I determined that the supply should not fail. I accordingly provided a calico bag to hang in my kitchen, into which I should put everything that could be made into strings. Clippings and trimmings from the work table, strips of cotton—new and old—if not too old—twine from packages of groceries, &c., &c. It was surprising how soon it filled up, and how easily it is kept filled, though it is put under almost constant requisition to supply the regular wants. And if in the hurry of the moment its contents are pulled out and left on the table or floor, it is not much trouble to put them back, since one knows where they belong—and that is something worth knowing, too. I had a friend, new to the duties of housekeeping, who once acknowledged that she did not think herself a good housekeeper in some things. Said she, "I never *quite* make my rooms look nice. I can get *almost* picked up, but there are always a few things which I don't know what to do with, and so I leave them where they are." Now I acknowledge that, till this summer, strings have always been my bane because I never knew exactly what to do with them. I do not think any one of the few "improvements" we have treated ourselves to this season has given my husband half as much satisfaction as that bag of strings. Our new carpet is nothing to it. Indeed I am not sure there would have been any new carpet had it not been for the beneficent influences emanating from the wealth of that deposit. So cheaply can we make ourselves and others feel rich sometimes by supplying a long felt want. MRS. A. J. B.

NEATNESS IN THE HOUSEHOLD.

How much better one feels to think her house is clean when callers come unexpectedly; then why not have it so? When my windows get dusty or fly speeked I take clean water and wash them off, it takes but a little while and they look enough better to pay. I wash the doors and window sills once a week the year through. One can take a day when there is no baking or washing on hand. It takes but a short time if you do not let them get too dirty; but if they are left until they become so dirty that they must have soap, this soon takes off the paint, and it is hard work to get them clean. Then by giving the floor a good sweeping, and the furniture a good dusting, and with neat tidies on rocking-chairs and lounges, you have a neat looking room. But if the kitchen and pantry are not just as clean as the sitting-room, parlor and bed-rooms it spoils all. The pantry should have clean papers put on the shelves as soon as soiled, and every dish in its place, the floor cleaned and the walls brushed down to keep cobwebs off, the lamps trimmed and cleaned, and the yard around the door swept. But I am taking too much time on this subject. I was very much interested in Bertha Winkler's "Sunday Rest for Women"—those are my thoughts, exactly.

CANNED STRAWBERRIES.

Pick over the berries and put half as much sugar as fruit, and let them stand over night. In the morning drain off the juice and let it boil a few minutes, then put in the berries and as soon as they are heated through can up; this is an excellent way, they retain their color. D. A. R.

A SWEEPING HINT OR TWO FROM A SOUTHERN HOUSEKEEPER.

NOTICING something from one of your correspondents in reference to cleaning and dusting carpets, I will give you my experience. Take drawn, damp tea-leaves, sprinkle them over the carpet, and then sweep them off. This will both lay the dust and brighten the colors. Another very good way is to take a pail of water, put some beef-gall into it, dampen the broom with it and sweep the carpet. This will "set" the colors of the carpet, and will also set the colors of any goods, such as lawns, calicoes, etc.

Though I am an old lady, I have not lost my taste for flowers. I am very successful in their cultivation, and my friends often remark: "How is it that your flowers always look so fresh and flourishing?" I will tell you. I have raised eight beautiful geraniums, from the seed sent by the RURAL NEW-YORKER, which are pronounced the prettiest in the place. The way in which I manage my plants is to mix a little sand with the soil, then procure some manure from the hen-house and put on top of the other soil. By this means, the water, penetrating through the manure, carries just enough of the richness to the roots of the plants to make them grow well. MRS. T. J. B.
Okolona, Miss.

HOUSEKEEEPING NOTES.

AN economical lady of my acquaintance tells me that when she buys cotton stockings, she selects a good article, and before wearing them at all, she lines the feet with new thin muslin, that is the parts that wear most quickly—the heels and toes. She says they wear twice as long as they do without. The linings must be nicely fitted and run on smoothly, or they will not answer the end desired; but a little practice enables one to do it quite easily.

Where there is any suspicion that glass fruit-cans are not perfectly air tight, they can be made so by putting putty around the crevices after the cans are filled and screwed down. It is prepared the same as for putting in window glass. Stone jugs for fruit may be sealed in the same way, and with less trouble than with ordinary sealing-wax.

During the semi-annual house cleanings, as well as at other times, the neat housekeeper should avoid making a wholesale destruction of written papers, tax receipts, or indeed receipts of any kind. Sometimes old letters prove to contain information which becomes valuable to the possessor. Every house should contain some receptable for such business papers, and they should be filed and preserved for future use, if necessary.

AUNT RACHEL.

Domestic Economy.

CONDUCTED BY EMILY MAPLE.

MRS. ENDICOT'S JOURNAL.

Early Tomatoes; something to interest the boys; how to take out machine oil; kerosene in starch; rusks and French currant cake; carbolic acid for heat and insect bites.

July 18.—We had some of Harry's tomatoes this morning for breakfast. He was quite proud to think that he had been so successful, and had his ripe before any one else. He has always been instructed in gardening, and last year his father gave him some ground for his own use to cultivate. He did very well with it, and this year, having had more experience, he is succeeding still better.

Mr. Kensie, an old experienced gardener, gave him some hints about tomatoes, which helped him, but part of his success was due to his own enterprise. He saved his own seeds from some tomatoes we had last summer and planted them in boxes in the house. As soon as the plants were an inch or less high, he transplanted the six he wished to keep, each into a pasteboard box by itself. Every pleasant day he would put them out in the sun, in a sheltered place. By the time the garden was made he had strong, healthy plants, a foot high and quite bushy. Being in paper boxes, all he had to do was to set the box into a bucket of water a for few minutes; then, after peeling off the bottom of the box, put box and all into the ground without disturbing the plant in the least. He set the plants four feet apart and trained them up on supports made of the branches of the peach trees we cut down this spring. Barton has always let his tomatoes run on the ground, so Harry was very much elated to hear his father say that he would try frames for his next year. Harry gets a good price for all he will sell, and the money goes toward the sum he is saving to buy a saddle and mounted bridle for the colt his father is having broken for him.

If farmers and those who have large gardens—or even small ones—would give some part of the ground to their boys to raise what they please on, and try experiments with, they would be astonished to find how much more interest the rising generation will take in the general work. Give the children for their own the discarded lamb which must be raised by hand, one from the first litter of pigs, and a few chickens, and see how much pleasure they will take in them.

July 28.—Washing-day on Monday always makes a very busy day, for there is the cleaning up and generally sweeping to be done also. Since I have been doing without a girl, I have had Mrs. Balligan to do my washing, ironing and scrubbing. She washes and scrubs on Monday and irons on Tuesday afternoon; for she cannot come in the morning, and ironing is such clean work that I do not care.

I learned two things from Mrs. Balligan today. I had got some oil from the machine on a piece of muslin I had just finished for the wash, and when I put it in I told her to wash it out as well as she could, then lay it on the grass to bleach. "Give me a little lard and baking soda and I can take it all out," she said. And she did, just by rubbing the stains well with lard, then soda, rubbing it well in. After letting it lie a little while, she washed the muslin in hot suds, and by the time it had been boiled, rinsed and dried I could not have found the places that had been stained.

Some time ago I bought some starch polish from a man who was around selling it. It proved to be very good, giving a good gloss to the articles and not sticking to the iron. I used the last of it last week, and when I was making the starch this morning, I said that I wished the man would come around again.

"I wish you would just try some kerosene," said Mrs. Balligan. "I know you would like it. I have used it for a long time, and it's the best of anything I ever tried."

She takes home washing and has a great many shirts to do up, so I knew her experience was worth something. She used one tablespoonful to about two quarts of starch, and it is so convenient, for it is something one always has in the house. I really never saw starched clothes iron nicer. I ironed one of Barton's linen vests before dinner, so he could have it for this afternoon, and it was really a pleasure to do it.

July 29.—To-day was baking day. I am always glad when afternoon comes, and I have a pantryful of nice, fresh things. We do not use much cake in summer time, but to-day I made an extra quantity of bread dough, and used part to make rusks and a French currant cake. When I work out my bread for the pans, I take off as much dough as would make two small loaves. Into it I work one cupful of sugar, two eggs and half a cup of butter; after it rises again, I take half for rusks, working them in the hand, and rubbing each one all over with melted butter, to prevent them sticking together, before putting in the pan. It is a little more trouble, but I think it fully pays.

To the other half of the dough I put one pound of dried currants, well washed and dried, let it rise again and bake in one loaf. Harry and Della think there is no cake like it, and I know it is far better for them this warm weather than any other kind. Unlike most cakes with fruit in them, it is better fresh.

Baby Katy is broken out so with the heat, and is so uncomfortable. Mrs. Glen was in this afternoon and she gave me the recipe of a wash she uses: Twenty-five drops of carbolic acid, one ounce of glycerine, half an ounce of rose water and two of pure cistern water.

It will give certain relief from bites of any kind and heat, and is very cooling to the most tender skin.

DOMESTIC RECIPES.

One way of

Making Potato Bread.

Boil five or six large potatoes, mash them smooth while hot, add a piece of butter the size of an egg, a tablespoonful of sugar, a teaspoonful of salt, and a pint of warm water. Beat three teacups of flour with another pint of warm water, till free from lumps, and then mix with the potatoes. Dissolve a cake of yeast and a teaspoonful of soda, each in a teacup of warm water, and beat all well together. It makes a thin batter and should be set in a warm place over night. In the morning sift three quarts of flour into the bread pan, with a little salt. Pour the sponge, which will be full of bubbles if the yeast was good, into a cavity in the middle and knead for five or ten minutes. Cover with a cloth and set in a warm place for an hour or longer, or until it has risen to double its usual size. Then divide into four loaves and knead thoroughly and put into tins; when light again, bake in a moderate oven, half or three-quarters of an hour.

Baking Powder Biscuits.

Having had several trials before reaching success with baking powder biscuits, I will send you the following recipe, which I know to be reliable. Sift two quarts of flour, three even tablespoons of baking powder and a little salt together. Mix in one tablespoon of butter or lard, or, better, half of each, and stir in nearly a quart of sweet milk, carefully, so as to get just enough. Knead as little as possible, roll out, cut into biscuits, and bake in a quick oven. Little kneading and quick baking are essential. MRS. J. B. POTTER.

Young Chickens and Okra.

Prepare and cut up two young chickens; put a tablespoonful of butter into a skillet and fry until brown. Then put into a kettle with a quart of finely chopped okra, four or five tomatoes sliced thin and two minced onions; just cover with boiling water and boil, or rather simmer, slowly for three hours. Season with butter, salt and pepper, and if liked, thicken with a little flour. MARY B.

Baked Egg Plant.

Pare, cut into slices of about half an inch in thickness and place in cold, salted water for two hours. Then drain, wipe with a cloth and boil until tender enough to mash like potatoes. Make very smooth, add two or three tablespoonfuls of sweet cream, salt and pepper with a little chopped parsley. Turn into a buttered baking dish cover the top with bread crumbs and bake half an hour.

Huckleberry Pie.

A friend tells us that this pie is much improved by adding a couple of sliced harvest apples to each pie. Cover the berries with the sliced apple and bake with an upper crust

E. M.

QUESTIONS ANSWERED.

Oat-Meal.

Mrs. J. B. P. asks us to give some ways of cooking oat-meal.

ANS.—*For Mush*—To three quarts of boiling water allow a teaspoonful of salt and a quart of coarse meal; stir while the meal is poured in; let it stand where it will boil gently for 10 or 15 minutes, stirring frequently; then cover the kettle closely and set on the back of the stove to swell and steam for an hour, not stirring in that time. This may be eaten with salted milk, milk or cream and sugar, or fill a saucer nearly full of the mush and press into it ripe blackberries, peaches, pears, or any fruit, and eat with cream and sugar. This makes a very nice dessert.

Oat-Meal Puffs.

To a quart of sweet milk allow three well-beaten eggs, two teacups and a half of oat-meal, one teacup and a half of Graham flour and a little salt; beat all thoroughly together and bake in hot gem irons.

Oat-Meal Cake.

To a pint of meal add enough water to make it stir like pancake batter, season with a little salt and bake in a shallow pan for 20 minutes in a hot oven.

Oat-Meal Jelly.

Put half a pint of good oat-meal to soak over night in little less than a quart of water. In the morning drain through a sieve, pressing out all of the water, and to it add one pint and a half of hot water. Season with salt, boil up quickly, then set back to simmer ten or fifteen minutes. Pour into molds, and in half an hour it will be set sufficiently to turn out into saucers. Eat with cream and sugar. The success of this dish depends very much upon the quality of the meal.

Oat-Meal Pudding.

To a quart of milk allow four tablespoonfuls of Irish oat-meal, four tablespoonfuls of flour, and a little salt. Bring the milk to a boil—using a farina-kettle or a tin pail set into a kettle of boiling water—and stir in the meal and flour made smooth in cold milk. Stir constantly for fifteen or twenty minutes, then set back for fifteen minutes before turning out. Eat with cream and sugar.

Various.

PAMPHLETS AND CATALOGUES.

WE have received the premium lists of the following fairs, in addition to the long roll published in our issue of July 5:—

Consolidated Exhibition of the Maine State Agricultural Society, the Maine Dairymen's Association, and the Maine State Pomological Society and the Cumberland County Agricultural Society, Portland, Me., Sept. 16–19. J. W. North, Jr., M. D., Sec., Augusta, Me.

Twenty-ninth Annual Fair of the Vermont State Agricultural Society and Wool Growers' Association, Montpelier, Sept. 9–11. Henry Clark, Sec., Rutland.

Thirteenth Show and Fair of the Watertown Agricultural, Horticultural and Horse Association, Watertown, Conn., Sept. 23–25. Geo. Woodward, Sec.

Annual Fair of the Onondaga County Agricultural Society, Syracuse, N. Y., Sept. 16–19. P. A. Agan, Sec., Syracuse.

Maine Agricultural Fair, Maine Village, Broome County, N. Y., Sept. 16–18. N. P. Brown, Sec.

Twenty-sixth Annual Exhibition of the Pennsylvania State Agricultural Society, the main building, Centennial grounds, Philadelphia, Sept. 8–20. Elbridge McConkey, Cor. Sec., Harrisburg.

Twenty-second Annual Exhibition of the York County Agricultural Society, York, Pa., Oct. 7–10. A. H. Glatz, Sec.

Third Annual Fair of the French Creek Valley Agricultural Society, Coebrauton, Pa., Sept. 16–18. W. A. Logan, Cor. Sec., Meadville, Pa.

Grand Exposition of the Agricultural Society of Delaware, Dover, Sept. 22–26. Richard Harrington, Sec.

Thirty-third Annual Fair and Fifth Grand Industrial Exhibition of the Muskingum County Agricultural Society, Zanesville, Ohio, Sept. 2–5. T. F. Spangler, Sec.

Twenty-seventh Annual Fair of the Lagrange County Agricultural Society, Lagrange, Ind., Sept. 24–26. Ira Ford, Sec.

Eighth Annual Fair of the Northeastern Indiana Agricultural Association, Waterloo, Ind., Oct. 7–10. J. N. Barnes, Sec.

Eighth Annual Exhibition of the Agricultural Society of Winnesheik County, Hester, Ia., Sept. 23–25. E. M. Carter, Sec.

Twenty-eighth Annual Fair of Switzerland and Ohio Counties, Agricultural Associations, East Enterprise, Ind., Sept. 9–12. W. H. Madison, Sec., East Enterprise.

Twenty-seventh Annual Illinois State Fair, Springfield, Sept. 29–Oct. 4. S. D. Fisher, Sec., Springfield. Also, Fat Stock Show at Exposition Building, Chicago, Nov. 10–15, and the winter meeting of the State Board of Agriculture.

Grand Exposition of the Minnesota Agricultural and Mechanical Association, Minneapolis, Sept. 1–6. C. H. Clarke, Sec.

First Annual Fair of Floyd County Agricultural and Mechanical Association, Charles City, Iowa, Sept. 9–12.

Twenty-second Annual Exhibition of the Marshall County Agricultural Society, Marshalltown, Ioa., Sept. 10–12. W. Brenner, Sec., Marshalltown.

Eighth Annual Fair of the Hardin County Agricultural Society, Eldora, Ia., Sept. 16–19. J F. Hardin, Sec., Eldora.

Twenty-fifth Annual Fair of the Jackson County Agricultural Society, Maquoketa, Ia., Sept. 3–12. B. A. Spencer, Sec.

Seventh Annual Exhibition of the Clake County Farmers' and Mechanics' Agricultural Society, Osceola, Ia., Sept. 9–11. W. S. Richards, Sec.

Eleventh Annual Exhibition of the Delaware County Agricultural Society, Manchester, Ia., Sept. 16–19. Wattson Childs, Sec.

Twenty-fifth Annual Fair of the Fayette County Agricultural Society and Mechanics' Institute, West Union, Ia., Sept. 9–11. C. R. Bent, Sec.

Eighth Annual Fair of the Saint Francois County Agricultural and Mechanical Association, Farmington, Mo., Sept. 9–13. T. Stam, Sec.

The thirteenth Annual Fair of the Cass Co. Agricultural Society, Plattsmouth, Neb., Sept. 17–19. J. N. Wise, Sec., Plattsmouth.

Seventh Annual Fair of the Jackson County Agricultural and Mechanical Association, Holton, Kansas, Sept. 2–5. F. M. Wilson, Sec.

Sixth Annual Fair of the Boulder County Industrial Association, Boulder, Colorado, Sept. 30–Oct. 4. C. M. Campbell, Sec.

Tenth Annual Fair of the Montana Agricultural, Mineral and Mechanical Association, Helena, Montana, Sept. 29. C. G. Reynolds, Sec.

Nineteenth Annual Fair of the Oregon State Agricultural Society, Salem, Sept. 24–Oct. 3. E. M. Waite, Sec.

Annual Fair of the Piedmont Agricultural Society, Culpeper, Va., Oct. 14–17. A. R. Alcock, Sec.

Annual Fair of the Georgia State Agricltural Society, Macon, Ga., Oct. 17–24. Malcolm Johnston, Sec., Macon.

Second Annual Fair of the North Georgia Stock and Fair Association, Atlanta, Ga., Oct. 2–26. G. W. Wrenn, Sec.

Annual Alabama State and State Grange Fair, Montgomery, Ala., Nov. 10–16. T. G. Foster, Sec.

A Summer and Fall catalogue of pot-grown and layer Strawberry plants. Also of Raspberry, Currant, Gooseberry and Blackberry plants, for sale by E. P. Roe, Cornwall-on-Hudson, Orange Co., N. Y.

Choice Strawberries (pot-grown and otherwise) and other small fruits grown and for sale by F. R. Pierson, Tarrytown-on-the-Hudson, N. Y.

Summer Catalogue of Pot-grown layer and other Strawberry plants for sale by J. T. Lovett, Monmouth Nursery, Monmouth Co., N. J.

DESCRIPTIVE Price-List of Strawberries offered for sale this summer and autumn by Ellwanger & Barry, Rochester, N. Y.

News of the Week.

MISCELLANEOUS.

Monday, August 4th, 1879.

Yellow fever is still spreading in Memphis, although the number of those liable to it is constantly diminishing. Special policemen who have been taking a census of the city reported last Wednesday that the population then remaining amounted to 16,110 out of a normal population of close upon 50,000. The whites numbered 4,283, the negroes, 11,827; adult, 10,551; children, 5,559; of these, 8,743 have had the fever, leaving 7,367 susceptible to it. At Camp Marks, close to the city 200 refugees are assembled and a much larger number at Camp Father Mathew. Two Baptist, two Presbyterian, two Episcopal and one Methodist clergymen have remained to attend the sick and well. All the Catholic priests have stuck to their posts, and two of them are dangerously ill of the plague, but their places have already been taken by volunteers from elsewhere, one of them from this city. Throughout all the neighboring country refugees from the stricken city are special objects of aversion, and in many places the shot-gun quarantine is rigidly enforced. Small store-keepers in cross-road places have raised the price of provisions, and every other kind of wares, extravagantly, as none can now be had from the Memphis market. No railroad now runs cars nearer than from 18 to 20 miles from the place, while the ascending and descending boats on the Father of Waters, in passing the plague-spot, closely hug the other shore. Much anxiety exists in the city on account of the large preponderance of colored folks and their threats of violence unless rations are distributed to them. No supplies however, are given out within the city, except to the sick; all others who need help must go to the camps to get it. This the "niggers" refuse to do, and as no business is being done in the place, much distress exists among the laboring classes. There are two companies of colored militia still in the place, and all the able-bodied whites have organized for defense. All the arms in the city have been collected from the gun-shops and elsewhere, and stored in the armory.

Refugees from there are still stricken down here and there either at their journey's end or on the way to it. There are half a dozen or more of them at quarantine here now; several deaths among them have occurred at St. Louis, Louisville, Nashville, Cincinnati, etc. The Health officers in New Orleans report five undoubted cases of yellow fever in that city. Private physicians, however, say there are at least 18 cases; but as all reported instances are isolated, the doctors do not like to put their patients and their families to the annoyances incident to such a measure and consequently fail to report cases among their well-to do patients. The disease there, too, is said to have been developed from germs left undestroyed from last year's plague. Mobile has quarantined the Crescent City already, and doubtless other places will soon follow this example. It's a sad thing, not for the afflicted region only, but for the entire country. Even already the breaking-out of the disease has contributed materially to lower the price of wheat and other products in our markets East and West, as it has paralized trade through a large section of country and threatens to do so more extensively.

The wheat market has been unusually unsteady of late. That Chicago corner of Keene and his clique has been heavily unloading the stock they have been accumulating since last October, and

this has had a strong tendency to lower prices. The danger of yellow fever spreading over a large area of the South and destroying business there, has the same tendency. Then, again, reports of very fine harvests almost all over this country are crowding in to beat down the market. The reports from Europe, too, are a trifle more favorable nearly everywhere, and especially so in southern Russia. In that region, although very heavy damage was done to crops here and there by storms and locusts, still the latest reports are that, on the whole, the wheat crop is of unusual excellence, both in yield and quality. Indeed, in view of the enormous harvest, labor is so extraordinarily scarce that hands are in demand at two and three roubles a day, and the farmers have petitioned General Todelben to allow 100,000 of his troops to aid in gathering in the crops. He has consented, but there is still a hitch in the matter, as the commanders of the troops demand for their men higher wages than the farmers are willing to pay. The matter has been referred to the Secretary of War. An average Russian wheat crop is put down at 220,000,000 bushels, whereas our crop last year ran up to 421,000,000, and this year it is now estimated at about 400,000,000 bushels, or, to be a trifle more accurate, 395,000,000 bushels. The latest estimates of the probable imports of grain by European countries are:

	Bushels.
Great Britain	120,000,000
France	100,000,000
Mediterranean countries, including Italy, Spain and Portugal	25,000,000
Holland, Belgium and North Germany	25,000,000
Denmark, Norway and Sweden	10,000,000
Total	280,000,000

It will be noticed that this is considerably less than the estimate given here last week; but our object is to keep our friends "posted" on all matters connected with their interests. Everything considered, there is mighty little doubt but that the price of wheat is bound to go up so soon as the present flurry is over. It may not rise as high as one might be justified in expecting earlier in the season, but it *will* rise. So great, however, is the uncertainty now in the wheat market, that farmers and others who are not "on the street," so as to be thoroughly posted, should be cautious in speculating in that product.

The Republican Conventions of Pennsylvania and Wisconsin were held on the 23d at Harrisburg and Madison respectively. At the former Mr. Samuel Butler, of Chester County, was nominated for State Treasurer; and in Wisconsin, Governor William E. Smith and the present State officers were renominated. The platforms adopted and the various speeches delivered were eloquent rather than precise, which speaks volumes for the heroic enthusiasm of the delegates, who evidently had a cut-and-dried task to perform. Both conventions affirmed that the United States are a nation and not a league; that the Democrats are endeavoring now to obtain by "plotting" what they lost in fight; and that the Republican party is charged with the preservation of the nation it has already saved. The Pennsylvania platform, of course, advocated the continuance of the protective tariff, a subject upon which the other body was silent. Upon the currency question there was very little frankness shown in either convention. In Pennsylvania the payment of the national debt in "coin" was favored; and in Wisconsin a resolution was passed which approved of a currency "such as we have at present." The Butler candidature for the governorship of Massachusetts is once more making things politicaly lively among the "better-than-thou" class in that State. Probably Talbot the present governor will be renominated by the Republicans, as he appears to have been a first-rate officer, while the bulk of the Democrats will be sure to support Ben, although the upper crust will be equally certain to vote for Talbot in case there is any danger of Butler's election without their support.

The returns of the foreign trade of this country for the last fiscal year show an excess of exports over imports to the amount of $264,036,602, about $7,000,000 more than last year. The day has gone by when the balance of trade is solely computed with reference to the market value of custom-house exports and imports, but this excess of the former over the latter unquestionably marks a year of extremely prosperous trade. The total value of exports and imports together was $1,156,220,894, an increase over last year of $24,313,654, the exports having increased $15,000,000 over last year and the imports $8,000,000. The imports during the year amounted to $437,051,532 and the exports to $710,428,743. This excess of exports over imports has now been in progress for four years, during which it has reached a total of $753,000,000, a sum which has been largely paid us in our bonds. During the four years before the panic the excess was the other way, the imports exceeding the exports by $423,000,000, a balance which Europe took partly in specie. This country exported $238,000,000 of coin and bullion more than it imported from 1870 to 1873, inclusive, and partly in bonds. The great mass of the exports of the country for the past year has been, as usual, confined to five articles; bread-stuffs, cotton, provisions, mineral oil and tobacco, the value of each being in the order given. Cotton and tobacco together, the two great staples of the South, exceed the bread-stuffs in value, but taking the bread stuffs and provisions together, the exports of the West are nearly 50 per cent. greater in value than the exports of the South. The chief changes in the trade of last year as compared with the year before are an increase of nearly one-third in the wheat export and a falling off in the cotton and provisions exported. The exports of living cattle have increased in the year about 100 per cent.

FOREIGN.

The Irish Agricultural Statistics Report for 1878 has just been published and is not, all things considered, a discouraging document. In the total acreage under crops there was indeed a decrease of 61,896, but the yield was better than had been anticipated. There was more than usual change in the character of the cropping, and a tendency observable to return to tillage; but still one-half of the cultivatable surface of Ireland is in grass. For ten years there has not been any very remarkable increase in the extent of grass. A decrease in crops during the same time of 25 per cent. is registered. The small holdings continue to decline in number, those not exceeding thirty acres, by 3,120 in the year, while those above thirty acres increased by 556. The total number of occupiers of land in 1878 was 531,442, having been in 1872, 541,888. The Registrar reports an increased yield of cereals in 1878, and also of potatoes, but a decrease in flax and in hay. There was a general increase in the produce of the crops. There was a decrease, however, in the number of cattle of 12,478. Taking the ten years, 1869 to 1878, cattle, increased in number from 3,733,675 in 1869 to 4,147,102 in 1873, but have again decreased to 3,985, 20 in 1878.

Germany is passing through the most serious political crisis which has overtaken her since 1866. Prince Bismarck, before the adjournment of the Reichstag on the 13th ult., formally broke with the National-Liberal party in one of his most powerful speeches, and put himself at the head of a combination composed of the Conservatives and Ultramontanes. Not only has Dr. Falk been dismissed, as a sop to the Ultramontanes, but they have been further gratified by an agreement that all money over a certain amount raised by the new protective tariff shall be divided among the separate States, which is a distinct concession to the Particularist interest. Encouraged by his success thus far, the Chancellor now proposes that the duration of the Imperial Parliament shall be extended to four or six years, and intervals of two years shall elapse between its sessions, so that the taxes will have to be voted for two years at least, thus greatly diminishing parliamentary control over the revenues. This project, which involves several amendments to the Constitution, is now before a committee, and it has filled the Liberals of all shades with dismay, and the National-Liberal party is said to be utterly disorganized. Meanwhile a settlement has been definitely come to with the Vatican, substantially on the conditions mentioned here three weeks ago.

It is a little trouble to examine the pamphlet wrapped around each bottle of the true MURRAY & LANMAN'S FLORIDA WATER, so as to find the words "LANMAN & KEMP, NEW YORK," which are water-marked or stamped in pale letters on every page, but it is better to take this small amount of bother rather than to be imposed upon by a worthless counterfeit. Every leaf of the pamphlet around the genuine has these words in in it, which, though pale and faint, can be easily seen when held up to the light, and no Florida Water is genuine that does not have this test mark

Purify the blood, Cleanse the Stomach and Sweeten the Breath with Hop Bitters.

THE MARKETS.

PRODUCE AND PROVISIONS.

NEW YORK, Saturday, August 2, 1879.

BEANS AND PEAS.—Red kidney beans are weak and the remnant of the stock will not be likely to recover with the prospect of a large crop this year. Black beans in few hands and firm. All other sorts of beans are quoted unusually alike; consequently fine marrows go the home trade to some extent in the place of mediums. Green peas are out of stock; jobbing at $2.25. Few L. E. peas remain; quoted $2 75@3 per 3 bu. bag. Canadian peas 70c. Medium beans, $1.25@1.32½c. Marrow, $1.20@1.30. Pea and W. kidney, $1.20@1.35; Red Kidney, $2.20@2 50. Black, $2.30.

BEESWAX.—There is a light business and steady prices, quoted at 24@24½c. for Western and Southern.

BROOM CORN.—Trade is slack and prices unsettled Brush and short broom, choice, ₩ lb., 5½@6½c.; do., common to good, 4½@5½c.; hurl, good to choice, 4@4½c.; do., common to fair, 3½@4c.; red and crooked, 2½@3½c.

BUTTER.—Receipts for week, 34,275 packages; exports improving, 4,100 packages for week. There is only a light volume of trade, but with the scarcity of perfect quality in creamery or other packages, best table grades are firm at full last week's rates, while extra selections may be quoted fo above our market extremes. The weather has been severely against handling wholesale lots. Very few Welsh tubs are rated fine; this fact cuts off some eastern trade. European advices indicate little margin for shippers. Western butter not plenty; some stored fine reserve has been opened and sold at full prices. Common grades of Western are going to Germany to some extent: of the exports this week more than one-half went to the Continent.

State pails and half tubs, choice, 14½@15c.; good to prime, 13½@14½c.; fair to good, 12@13½c.; firkins, yellow, 13½@16c.; Welsh, good to choice, 13@14½c.; fair, 11@12½c.; poor State, 8@9c.; State creamery, choice, 16½@17c.; good to prime, 15½@16c.; fair to good, 14½@15c.; sweet cream, 16@16½c.; Western creamery, choice, 16½@17c.; other, 14@15c.; imitation, 9@12½c.; Western dairy, best, 11½@12½c; fair to prime, 9@10c.; factory, choice, 10@10½c.; other, 7@9c.; poor, 6@6½@c.; grease butter, 4@5c.

COMPARATIVE RECEIPTS AND EXPORTS SINCE JUNE 1.

	Receipts, pkgs.	Exports, firkins.
June 1, '79 to Aug. 1, '79	342,520	63,432
" 1, '78 " " 1, '78	279,650	60,800
" 1, '77 " " 1, '77	241,075	44,645
" 1, '76 " " 1, '76	205,800	11,590

CHEESE.—Easy cable advices through the week and large receipts have caused a lower market, and the bulk of the business towards the close is at 5½c. for fancy, while fine stock is to be had at 5@5½c. The exports for the week have been 93,800 boxes

Quotations are for fancy, 5½c.; good to prime, 5@5½c; fair to good, 4@5c.; half-skimmed, 3½@4½c.; skimmed, 2@3c. State farm dairy: Fine, 5½@5½c.; good to prime, 4½@5½c.; fair to good, 4@4½c.; skimmed, 2@3c. Wisconsin factory: Fine, at 5½c.; good to prime, 5@5½c. Ohio factory: Cheddar, fine, 5@5½c.; do., fair to good, 4½@4½c.; full cream, flat, fine, 5½c.; flat, good to prime, 4½@5c.; flat, fair to good, 4@4½c.; half-skimmed, 3@4c.; skimmed, 2@3c.

Comparative receipts and exports from June 1st:

	Receipts, pkgs.	Exports, lbs.
June 1, '79 to Aug. 1, '79	873,850	40,649,150
June 1, '78, to Aug. 1, '78	1,061 800	40,202,340
June 1, '77, to Aug. 1, '77	812,250	39,934 800
June 1, '76, to Aug. 1, '76	659,600	30,138,475

Liverpool quotation, 34s.
Steam to Liverpool, 42s. 6d.

COTTON—Has been less active through the week and closed easy at for August, 11.39@11.4c.; September, 11.34@11.35c.; October, 10.65@10.66c.; November, 10.46@10.4 c.; December, 10 45@10 46c.; January, 10.49@10.50c.; February, 10.59@10.61c; March, 10.72@10.73c.

Quotations for spot cotton are based on American standard of classification, and on cotton in store running in quality not more than half a grade above or below the grade quoted.

	Uplands.	*N. Orleans and Gulf.*	*Texas.*
Ordinary	10 1-16	10 3-16	10 3-16
Strict ordinary	10 7-16	10 9-16	10 9-16
Good ordinary	10 13-16	10 15-16	10 15-16
Strict good do	11 1-16	11 3-16	11 3-16
Low middling	11 3-16	11 5-16	11 5-16
Strict low middling	11⅜	11⅝	11⅝
Middling	11⅝	11⅞	11⅞
Good middling	11 13-16	11 15 16	11 15-16
Strict good middling	12 1-16	12 3-16	12 3-16
Middling Fair	12⅜	12⅝	12⅝
Fair	11⅞	3⅛	13⅛

STAINED.

Good ordinary	10⅛
Strict good ordinary	10⅜
Low Middling	10 15-16
Middling	11 3-16

DRIED FRUITS.—Apples are wanted, especially prime sun dried lots, for which firm prices are made; otherwise trade is quiet; latest prices are for:

Patent evaporated apples, choice, in cases, at 11c.; do. fair to good at 9 @10c.; N. Y. State sliced, choice, at 4@5c.; do. quarters, choice, 4@4½c.; western quarters, bright, at 3½@4c.; common and old at 2@3c.; North Carolina peeled peaches at 9@10c.; do. Georgia, 8@8c.; do. fair to good at 6@7c.; unpeeled halves at 3@3½c.; do quarters at 2½@3c. Blackberries at 5c. Raspberries at 26@28c. New York State plums at 8@10c. New pitted cherries, wet, at 13½@14c.; dry at 15@15½c.

EGGS.—Receipts for week, 6,1 0 bbls.; do., last week, 7,050 do. The weather has been severe on Western, and few buyers care to handle them. Prime Canadian, State and Near points are firm, but no big prices are quoted. N J. and L. I., 14@14½c.; State and Penn., 13@13½c.; Western, 11½@12c.; choice inferior, 10@11c.; Canadian, 12½c.

FRESH FRUITS.—Apples continue to bring good prices.

Apples, red Astrachan, ₩ bbl., $2@2.50; poorer do., in bbls., $1@1.50.; Nyack Pippin, $1 25@2.75; Sour Bough, N. J., ₩ bbl. $1.50@2; Sweet do., $1.25@1.75; Windfalls, 50@75c. California grapes arrived in poor order. Cal. German prunes, 3½ ₩ box; Purple Duane, $4@4 50. Bartlett pears, $5@6; Southern Bartlett, prime, $2.50@3 ₩ crate; green, $1.50@2; other summer pears range at $1@2 ₩ bbl.; very few lines of standard variety to be counted on at this date. Peaches have had cheap range. The opening receipts of the week started rain-spotted and sales have been slow. Good stock looked for next week. Md. and Del. Hale's, 75c.@$1.25, baskets, 40@80c.; Troth's, $1.75@2.25 per crate; $1@1.50 per basket; New Jersey prematures, 30@50c., do. Apricots, ₩ quart, 10@12c.; N. C. Ives grapes, ₩ lb., 6@8c; Md. blue plums, 7@8c.; Whortleberries, 14 qt. boxes, 50@75c. Blackberries, cultivated, choice, ₩ qt., 6@8c.; other, 3@5c.; Antwerps closing up at 2@3c., third qt. ass'd. Watermelons in large supply and lower; Nonpareil, $1.6@2 ₩ 100; Va. and N. C., $4@10; Nutmeg melons, Jenny Lind, $1.75@4; Cantelopes, 75c.@$2; Hot-house grapes, 30@75c. Peanuts in full supply, quoted as before; selected shade fancy, $1.2½@1.30; extra prime, $1 25, good to prime, $1.15@1.20; shelled, 5½@5½c. Pecans, 6@8c.

FLOUR.—The arrivals of new increase, and winter wheat grades are generally favoring buyers. Spring wheat stock is not over plenty and is firm.

Latest prices: $3 90@4.50 for interior to very choice superfine state; $4.50@4.75 for poor to very good extra do., odd lots and lines; $4.75@5 for very good to choice do.; $5.90@4.40 for inferior to very choice superfine Indiana, Iowa, Michigan, &c.; $4.00@4.75 for inferior to very good shipping extra do., and $4.75@5 for very good to choice extra do.; common to choice white wheat extras, $5@6.10; choice to strictly fancy do. at $6 10@6.75; red and amber winter wheat, inferior to very choice grade and family, at $4.85@6.25; round hoop Ohio at $4.50@4.90, and trade and family brands of do. at $5.00@6.00, the latter rate for choice; St. Louis, $5.25@6.00 for inferior to very good extra; $6 00@6.75 for very good to very choice (with fancy brands held higher); Minnesota clear, inferior to very fancy, at $4.65@5.75; do. "straight," very inferior to strictly fancy, $5.25@6.50, and patent poor to very choice fancy at $6.50@8 (with a few very fancy brands quoted at higher figures); unsound stock at from $3.50@5.50; city mill extra at $5.25@5.50, good to choice, for West Indies; do. for England, $4.40@4.75; do. trade and family extras, $5.75@6.75; do. for South America $5 50@5.75 for standard to choice brands (winter wheat product); No. 2 at $2.90@3.65 for poor to fancy.

GRAIN.—Wheat has declined on large receipts and crop prospects closed weak with the latest sales of No. 2 Chicago and Milwaukee spring at $1 04@1 06; New York No. 2 spring at $1 04; No. 3 spring at 94@95½c.; No. 1 white at $1 12@1 13; do. for August at $1 12½@1 12¾; do. for September at $1 12½; do. for October at $1 13; No. 2 white at $1 11½@1 12; ungraded white at $1 10@1 12½; No. 1 red at $1 10½; No. 2 red at $1 09½@1 10½; do. for August at $1 10@1 10½; do., September option, at $1 10½@1 10¾; do. early September, at $1 11; do., October, at $1 10½@1 11; No. 3 red at $1 06½@1 06½, ungraded red at 96c.@$1 10; No. 1 amber at $1 10@1 10½; No. 2 amber at $1 09@1 09½; do. for August at $1 09@1 09¾; do. for September at $1 09½; ungraded amber at $1 08½@1 09; mixed winter at $1 08½@1 10. Rye at 63c. for No. 2 Western and 68@69c. for State. Corn is lower, closing at for New York No. 2 at 44½@44½c.; do., August, at 44½@44½c.; do., September, at 46½@46½c.; do., October, at 47c.; New York York steamer mixed at 44@44½c. for car lots; do., August, at 43½c. bid and 45c. asked; do., September, at 45½c.; ungraded Western mixed at 43@45c.; yellow Western at 47c.; No. 2 white at 52@53c Oats are freely offered and prices easy; sales o New York No. 1 white at 41c.; New York No. 2 white at 38½c; New York No. 3 white at 36½c.; No. 1 at 36c.; No. 2 at 35½@36c.; No. 3 at 33½@34c.; rejected quoted at 31c.; mixed Western at 33½@35½c.; white do. at 37@40c.; white State at 38½@41c.; No. 2 Chicago quoted at 35½@36c.

HAY AND STRAW.—Receipts are larger but demand is good and prices are very regular.

New hay is at 45c. to 50c. for shipping; 65@75c. for prime, and 55@60c. for medium. Old hay at 50c. for shipping and 70@85c. for prime retail qualities. Straw at 45@55c. for long rye, 45c. for short rye, and oat at 30@35c.

HOPS.—Emmet Wells says in his circular: "The speculative fever has in a measure subsided, and the market has assumed a quieter tone. The feeling as to values, however, continues very strong, many of our largest holders being unwilling to part with their best New York State hops below 20c. Dealers are trying to contract the new crop at 18@20c., but they do not seem to meet with much success. Well-posted growers have come to the conclusion that hops will open at tolerably high figures, and this class will be likely to hold on at least until their crop is harvested and ready for market."

Quotations are for New York's new crop, prime choice, 14@15; New York's, new crop, medium, 10@12; New York's, new crop, low to fair, 7@9; Eastern, 8@11; Western, 8@11; Yearlings, 4@7; Olds, all growths, 3@4 Pacific coast, nominal 10@14.

OIL-CAKE.—Western is quoted $28.50 per ton.

POULTRY AND GAME.—Prices for live fowls and chickens have declined under large supplies. Havanna shippers are using some, but there is considerable unsold stock.

Chickens, large per ₩., 14@17c.; small, 12@13c.. fowls, N. J., 12½c.; Western, 12@12½c. Southern, 11½@12; roosters, old, 6@7c.; ducks (most of them are too young for market), ₩ pair, 45@75c.; others, 40@60c.; geese, best, $1.37@1 62; others, $1@1.25. Turkeys, lb., 11@14c.

The least surplus of dressed this hot weather tames prices.

Turkeys, Phila., dry-picked, 14@15c., State and Western, 13@14c.; chickens, Philadelphia, per ₩, 15@18c.; State, 15@16.; Western, 14@15c.; fowls, choice, ₩ ₩., 13@14c. other, 11@12c.; dry-picked, 14@15c.; ducks, spring, dry-picked, 15c.; other, 10@13c. Woodcock open at 70@75c. for State and 60@70c. for Western. Ice-house Eng. snipe, $2.25.

TOBACCO.—A strong market prevails and a good trade.

KENTUCKY LEAF QUOTATIONS.

	Lt. Bdy.	Heavy.
Common lugs	3½@ 4	4½@ 5
Good lugs	4½@ 5	5½@ 6
Low leaf	5½@ 6½	6½@ 7½
Medium leaf	7 @ 7½	8 @ 8½
Good leaf	8 @ 8½	9 @10½
Fine leaf	9 @11	11 @ 12
Selections	13 @—	13½@14

SEEDLEAF.	Crop of 1877.	Crop of 1878.
New England Havana seed	— @—	22 @30
do. wrappers, common	10 @12	— @—
do. do. medium	13 @15	— @—
do. do. fine	18 @25	— @—
do. do. selections	27½@35	— @—
do. seconds	10 @13	9 @12½
do. fillers	7 @ 9	5 @ 6½
Penn. assorted, common	11 @12	10 @12
do. do. fair	13 @14½	13 @15
do. do. fine	15½@18	17 @20
do. wrappers	20 @40	— @—
do. fillers	8½@10	— @—
N. Y. ass't'd, com. to medium	9 @10	— @—
do. do. do. good	12 @15	12½@15
Ohio assorted	9 @12	7½@10
Ohio wrappers	12 @18	— @—
Wisconsin assorted	7½@10	8 @12
Wisconsin Havana seed	— @—	16 @20

PROVISIONS—Have ruled weak and less active. Mess pork closed at $8.70@8.75 for August; September at $8 75@8.80; October at $8.85; November at $8.80 bid and $9 asked for seller's option old or new. Bacon at 4½c. for long clear and 5½c. for short clear. Beef hams at $18.50@19. Beef—Plain mess at $10.25@11 00; extra mess at $11.50@12; packet at $11@11.50; tierced beef, city extra India mess, at $18@20.50; Philadelphia at $17. Stearine at 6¾@6¾c. Tallow at 5 13-16@5¾. Lard at $5.95 for spot lots; $5.93½ for August; $5.92½@5.95 for September, and $6 for October.

VEGETABLES.—Exports potatoes, 6,189 bbls. Market lower; $1.28 bbl. top price for best N. J. or L. I.; culls to fair, 50c @$1; sweet potatoes, Va. yellow, $4.25@4 50; red, $3.25@3.50. As a rule, green stuff is dull. Only articles that are waning show the least firmness. Green corn, Hackensack, 50@75c per 100; L. I. cucumbers, per 100, 35@45c.; do. squash, @@75c. per bbl.; do. egg plant, $1.75@2.50 do. tomatoes, 40@60c per crate; marrow squash, 75c. per bbl.; string beans, bag, $1.25@1 75; green peas, do., $1@2; cabbages, flat Dutch, per 100, $3@5; onions, white, per bbl. $4@4 50; red, 3 yellow Ky., $3.50@4.50; beets, N. J., per 100 bunches, $1.50@2.50; Russia turnips, per bbl., 75c.; okra, per 100, 15c.; bullnose peppers, $1; Lima beans, bag, $1.25@1.75.

WOOL.—There has been a fairly steady market the past week, and more doing.

Sales of X, XX and No. 1 Ohio at 38@41c.; XX do. at 39c.; No. 1 Penn. at 40c.; State at 34@35c.; unwashed Indiana at 30@33c; scoring California at 21½c; do. at 24@25c.; scoured do. at 56@58½c.; scoring Texas at 20@28c.; do. at 19@21c.; fall do. at 15@17c.

LIVE STOCK MARKETS

NEW YORK, Saturday, Aug. 2.

BEEVES.—Receipts for the week, 11,416 head; do. last week, 14,061 do. There was a steady trade at Jersey City and at 50th St., N. Y., for a few instances cattle sold ¼c. higher than on Wednesday, but at the close further receipts depressed the feeling, and the market closed tame. Decent Texan steers, 6½c., dress 55 lbs.; dry cows, 7@7½c., dress 52@54 lbs.; ordinary to extra native steers, 7½@7¾c.

VEAL CALVES.—Market quiet, demand chiefly for fancy. Extra New Jersey, 6c.; fair to prime, 5@5½c.; poor, 3@4½c.; buttermilk, 3½@3½c.

SHEEP AND LAMBS.—Receipts for the week, 25,089 head; do. last week, 30,477 do. Market quiet for both export and local use. Common to good sheep, 3½@4¾c., and 4½@6½c. for lambs, the latter for a few choice N. J.

COWS AND CALVES.—Receipts heavy; 200 head were worked off at the range of $25@55; very few, however, at the outside.

HOGS.—Receipts for the week, 14,940 head; do. last week, 13,710 do. Light demand at $4.10@4.30 for Ohio; $4.20@4.40 for State; city dressed, $5.25@5.75.

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1879. 1879.
BONE. BLOOD. MEAT.

No Rock Phosphate Used.

The large and extensive Works of the BUFFALO FERTILIZER, destroyed by fire in July last, have been entirely rebuilt and supplied with new and improved machinery.
It is the leading Fertilizer now in use by the farmers of the States of New York, Ohio, Pennsylvania and Vermont, and the Canadian Provinces.
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Reading for the Young.

KITES.

A SMART little fellow had hoisted a kite
In a street of an overgrown town,
The higher it flew, more intense his delight;
His cheeks became rosy, his blue eyes more bright,
'Twere useless to seek for a lovelier sight
In the streets of an overgrown town.

Like a bird in the air, the paper toy flew,
To the right—to the left—up and down.
Among the observers were more than a few
Who wished that themselves could their childhood renew;
But no wishes the past of our lives can undo,
In country, or city, or town.

That smart little fellow is smiling no more
In the street of that overgrown town.
A telegraph wire the street passing o'er
Has entangled his "tails," and no skill can restore—
The toy that so gaily had fluttered before
Now hangs with its head drooping down.

Perchance some old fellows who've traded with kites
In the streets of that overgrown town
And dazzled the public with wonderful sights,
The sensations of days, the illusions of nights,
Have been caught by their tails, and in pitiful plights
Now hang with their heads drooping down.

TWO STICKS.

ALICE P. ADAMS.

DOLLY had a penny and was going down town. Now, any one who knew Dolly would understand directly what that meant. But you little people, whose bright eyes never saw our curly-head, might guess a great many times before you suspected her motive.

Dolly intended to buy a stick of licorice candy. This was her favorite of all confections. To be sure she never would refuse caramels, cream-drops, taffy, or even hoarhound, for she was a great lover of sugar-plums; but when she spent her own pennies she usually inquired for "lickerish candy." Indeed, so much of Dolly's money went in this way, that mamma never gave her the penny for the missionary box until just before she started for Sunday-school. Mamma believed, you see, in "leading not into temptation."

This afternoon Dolly made up her mind that she would not patronize Mr. Hoffman as had invariably been her custom heretofore, but concluded to try the new shop across the street; "for p'r'aps the sticks will be longer or thicker than those I always get at Mr. Hoffman's."

A pleasant-looking young man stood behind the counter of the new shop. Dolly went in, and laying down her penny, asked, "Have you got any lickerish candy?"

"Yes, loads of it," said the clerk, taking down a glass jar. The sticks were of the regulation size, neither longer nor thicker than at the old store. But a bright idea struck Dolly; looking up at the tall young man on the opposite side of the counter, she said archly, "H'm, if you have such loads, you may give me *two* sticks!"

The clerk laughed, and took out another piece, twisted the two in pink tissue paper, gave the parcel to Dolly, who bestowed the same in her diminutive pocket, and walked exultingly out of the shop.

She walked, but it was only because her mother did not allow her to run when she was down-town; after the last store was passed, however, she commenced to hippity-hop, and, finally, felt obliged to run, so anxious was she to tell her cousin Sue of her good fortune.

"Two sticks for a penny! How cute you were!" cried Sue, admiringly. "I wish I had one! But then I don't b'lieve the man would do it again."

"No, I don't either. Not so soon, anyway. But I'll give you half a stick, and then I must go home, or mamma 'll wonder what has become of me."

Dolly told the story again at the supper table, thinking to gain still greater applause for her smartness. Papa's eye twinkled and the big brothers laughed, but mamma's face was very sober as she said, "I didn't think that my little girl would be so rude."

"Why, I didn't know that was rude, mamma," said Miss Dolly, somewhat abashed, for she always felt injured if anyone was impolite to her.

"It was very rude. And you must promise me, Dolly, never again to ask a store-keeper to give you more than the worth of your money; otherwise, I can not allow you to go by yourself when you buy candy."

"Oh, I'll promise, mamma;" then she added, while a smile dimpled her cheeks, "But I can't help being glad that I got *two* sticks this time!"

San Angeles, Cal.

HINTS FOR THE CLUB.

Exchanging Plants.

QUITE a number of the members of our Club have suggested that the cousins should exchange plants, seeds and other objects of interest with one another. At first thought this seems to be a very excellent idea. Boys and girls who are interested in collections of any kind, botanical or general, could thus exchange the curiosities found near their homes for others found in sections of the country where they are not acquainted. Thus a boy living in Massachusetts or New York might exchange with others in California, Texas or Florida. No doubt this would be very instructive, but the plan has some serious drawbacks, which have prevented me from encouraging the scheme. In the first place, it would be necessary to publish the addresses of all the members with an account of what each had to offer, and what he or she would wish in return. Aside from the fact that such publications would take up a great deal of valuable space in the RURAL, the cousins would soon find that their cousin friends are not the only persons interested in knowing their addresses. They would be beleaguered by showers of circulars, papers and proposals of all kinds from unscrupulous humbug dealers, who, in persuasive language, would make them the most tempting offers to buy this, that and the other thing, and, of course, swindle them wholly, or in part, out of their money.

Secondly, there would be much dissatisfaction with the transactions among the cousins themselves. Some would send off their nice specimens and be disappointed with those they received in return, while some packages would be lost in the transit and fail to come to hand at all; and ultimately they would lay the blame at the door of the RURAL or of Uncle Mark (and with some degree of justice, too,) for having been the means by which their disappointments were wrought. We have tried this exchanging plan before and know it to be impracticable.

Soil for House Plants.

All of my nieces and nephews who keep house plants (and I hope they all do), must provide some soil in which to grow them, and the present is a favorable time in which to gather it. You must not expect that all kinds of plants can thrive in soil dug from the field or garden and mixed with nothing else. Such soil nearly always lacks vegetable mold, or it is too sandy, too clayey, too poor, or something is the matter which unfits it for pot-plants. The secret of success in growing house plants consists mainly in placing them, as nearly as possible, in conditions similar to those under which they flourish in their native countries. Thus it would be wrong treatment to plant a Cactus that thrives only on the dry, sandy plains of Mexico, in a rich mixture of leaf mold and manure, and keep it soaked with water; or, on the other hand, to set a plant that grows in a rich humus in a very sandy soil.

Leaf mold is a soil that every plant grower should always have on hand, and those who have none should lose no time in getting some. Go into the woods with a horse and cart, and in some convenient place rake away the leaves and with a shovel scrape up the layer of the black, rich mold, which will be found underneath. When a sufficient quantity has been brought home, it should be placed under a shed, or in a cellar, where it will not be overgrown with weeds.

Another soil which is indispensable for pot-plants is the loam formed from decaying sods. To get this, cut sods about two inches deep, from an old pasture, and pile them up in a heap with the grass downward, where they should remain till they are thoroughly decayed. The decomposition may be hastened by turning the heap over occasionally after the first three or four months have passed. Some old, fine-pulverized manure, should also be kept on hand, to mix with the soil for plants that are wanted to grow vigorously.

There is still another material which, in nearly all cases, should be mixed in greater or smaller quantities with the soil for pot-plants; it is sand. Young plant growers, and some old ones as well, do not realize of what value sand is when rightly used. It may be obtained from sandy river bottoms or creeks that are dry at the present time, or from places where it has been washed together by heavy rains. If it is dug out of a pit, it should be washed and exposed to the air for two or three months before it is used. UNCLE MARK.

LETTERS FROM BOYS AND GIRLS.

DEAR UNCLE:—For a long time I have had a great desire to join the Horticultural Club. Your invitation extended only to the young people, and it puzzles me to know how old a person may be and yet be classed among the "young people." I am a young farmer's wife, twenty-two years of age, and if you have a corner for me I would be very much pleased to become a member. I have some thirty varieties of flowers in our yard, which I cultivate and care for with a great deal of pleasure. Among them is a bed of Pansies, now in bloom, from seed sown in May. If you see fit to accept me as a member, I will report with pleasure of my success or failure. Your niece,

Broome Co., N. Y. NELL.

[I much prefer to be excused from giving a decision in so delicate a matter as to what age a lady may attain and still be classed among the "young people;" suffice it to say that Nell is cordially welcome to join the Club, especially as she is a cousin whom I remember having heard from on one or two other occasions.—UNCLE MARK.]

DEAR UNCLE MARK:—My garden did very well till harvest, then I had to bind wheat for six or seven days, and the weeds came very near getting ahead of me, and it took hard work to clean it out. I have only two kinds of flowers, Zinnias and Gladioli. I have to fight the cabbage worms to save my cabbage. I don't put anything on them; I pick them off and kill them, and I also kill all the white butterflies that I can catch. One year we put buttermilk on the cabbage to keep the worms away and the heads decayed. I am raising an acre of corn and a half acre of potatoes for pocket-money. I forgot to give my address the other time I wrote, so I did not get the radish seed and sweet corn, and now I give it below.

Clark Co., Ohio. SAMUEL SHULL.

UNCLE MARK:—Please accept my thanks for the seed you sent me. The Gladiolus, radishes and Dolly Dutton corn are all doing nicely. My garden is doing very well this year, except the seed we got from the RURAL. The Beauty of Hebron, Hollyhocks, Hibiscus, Aquelegia and tomato were all that came up.

I second the motions that have been made by several members of the Horticultural Club about exchanging plants and seeds.

Uncle Mark, will you send Prof. Gray's "How Plants Grow" as a premium for new subscribers? And if so, how many? From your niece,

Cross Creek Village, Pa. BELL PRIMROSE.

[We will send "How Plants Grow" for three new subscribers.—U. M.]

DEAR UNCLE MARK:—As so many of the boys and girls have joined the Horticultural Club, I thought that I would like to join, so please put my name on your list. I have a nice flower garden, and am a great lover of flowers. We have taken the RURAL for many years, and this year my brother takes it also. I like it very much, and I love to read the letters from the cousins. But I must close now, otherwise you would not want me to write again. LILLIE BABCOCK.

Norfolk, Va.

The Puzzler.

HIDDEN TOOLS.

1. Robert, row Ella's boat.
2. I heard a wren chirp.
3. Pinch Ersie's hand.
4. Bob, it seems hard.
5. The parsnip perspired.
6. Hand me the ferule, Richard?
7. I gave Lewis my handkerchief.
8. A steel yardstick is too heavy.
9. Don't tax Levi.
10. Through the thatch Ettie saw the sky.
11. Mend my shoe.
12. The shot, the drake.
13. Which is Ella?
14. I saw his crew drive roan horses.
15. Has Bascom passed?
16. Did Jack plan Eddie's house?
17. Have a plum, Meta?
18. What a pun Charley made.
19. Papa, D locked me out.
20. 'Tis sport, C! Ray only teased you.
21. I saw a chestnut bur in the lot.
22. He will wed Georgie's sister.
23. Hear the wind, lassie?
24. He is clever.
25. Do you advise it?

☞ Answer in two weeks. LITTLE ONE.

ACROSTICAL ENIGMA.

My first is in the young but not in the old,
My second is in tongue but not in scold,
My third is in crowd but not in a throng,
My fourth may be found in walking along.
My fifth comes in summer but not in fall,
My sixth is in many but not in all,
My seventh was with Adam but not with his bride,
My eighth in the rib he lost from his side,
My ninth in the book whose pages you turn,
My whole gives us lessons 'tis pleasant to learn.

☞ Answer in two weeks. MARY WALEY.

PUZZLER ANSWERS.—July 12.

GEOGRAPHICAL DECAPITATION.—1. Orange; 2. Barrow; 3. Spain; 4. Tweed; 5. Amoor; 6. Finland; 7. Fox; 8. Nice; 9. Black.

NUMERICAL ENIGMA.—FARE-WELL.

DIAGONAL PUZZLE:—

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F
A O
C o O
E a s T
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Primals form "Face."
Diagonals form "Foot."

DIAMOND PUZZLE:—

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      D
    N A P
  N O M A D
D A M A G E S
  P A G A N
    D E N
      S
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MAGAZINES.

APPLETON'S JOURNAL FOR AUGUST.—Contents: The Seamy Side, a novel, by Walter Besant and James Rice, chap. x. to xii.; A Cornish Saunter, D. C. Macdonald; Wandering Thoughts about Germany; Out of the Depths, a story, S. G. W. Benjamin; Reminiscences — Patrick Branwell Bronte—Leigh Hunt and his Family, Francis H. Grundy; Wordsworth, Matthew Arnold; The Comedie-Francaise; The Mirabeaus, Jas. Cotter Morison; Schopenhauer on Men, Books and Music; Moose-Hunting in Canada, Earl of Dunraven; Poems by Theophile Gautier; Editor's Table; Books of the Day.

THOUGHTS ABOUT GERMANY.—Nowhere else, probably, in Europe are the mediæval and the modern spirit, the spirit of authority and militarism, and the spirit of industry, to be found ranged against each other in such force. Nowhere else is an aristocracy, feudal in ideas if not in power, confronted so directly by a proletariat leavened with the ideas and aspirations which the late Pope summed up under the term "the Revolution." And therefore those who are fostering the military spirit and painting up the regiment and the battalion before the civil organization are, in fact, sitting on the safety-valve, purchasing present force and movement at the cost of an imminent explosion. The desire of all who believe in the future progress of the race should be that, without any great convulsion or cataclysm, modern ideas may, as men are able to bear them, supersede those of barbarism and feudalism; that the age of armies and privileged classes may pass—as it must pass—peacefully and gradually into the age of free industrial development and equal rights. In France, indeed, the accumulated evils of many generations had so wrought themselves into the very life and system of the nation, that they could not be driven out without a terrible paroxysm of revolution; but in Germany, the mother of inquirers and thinkers, it might be hoped that the change should be a peaceful and a natural process. If, however, the present apparent predominance of the military spirit is more than a mere passing symptom, if Germany is to continue to be, in the happy phrase of M. Renan, "crushed beneath the weight of her own armor"—if, instead of fostering industry and commerce, the ruling classes are bent upon developing the present system of bloated armaments and of unproductive expenditure of the people's earnings upon guns and drums and villainous saltpetre—then it can hardly be doubted that a terrible day of reckoning will come at last, and that the force of the ultimate explosion will be in proportion to the weight of repression. In truth, the present policy of Europe seems calculated to force on the question whether, after all, smaller States are not better suited for the growth and maintenance of liberty than these vast and sometimes heterogeneous empires which it has been the work of modern Europe to pile up with much labor and to cement with much blood. Setting aside Great Britain, as having her boundaries fixed for her by nature, and Austria as an altogether abnormal and portentous growth, it may fairly be questioned whether, for instance, the unification of Germany will have been a benefit or an injury to Europe, if it causes her, by maintaining a vast military establishment, to crush her restless masses into despair, and to keep her neighbors' armaments at their present overgrown scale. It is at least among the possibilities of the distant future, that a federation of small republics, united closely for purposes of defense and of commerce and intercourse, but otherwise independent, may take the place of the enormous monarchies which now overshadow Europe. —*Appleton's Journal for August.*

CONTENTS OF ST. NICHOLAS FOR AUGUST, 1879.—Frontispiece. The Kaiserblumen. Drawn by Frederick Dielman; The Kaiserblumen. Poem. Illustrated. Celia Thaxter; A Mississippi Chowder, Mary Norwest; What was it? Jingle, M. M. D; The Baby's Morning, Illustrated. Emma D. Southwick; A Jolly Fellowship, Chapters XIX and XX, Illustrated. Frank R. Stockton; Avoiding the Heated Term. Picture; The Pease Boys', verses. Illustrated. Mary L. B. Branch; The Game of Lawn Tennis. Illustrated. W. H. Boardman; Becky's Surprise Day, Helene J. Hicks; On the Beach. Picture; City Sparrows. Poem, Edgar Fawcett; Hercules-Jack. Illustrated. E. L. Bynner; Doing Her Best. Picture drawn by Jessie McDermot; A Few of Our Habits. M. C. Holmes; Eyebright. Chapters VIII. (continued) and IX. Illustrated. Susan Coolidge; More Un-Natural History. Pictures, drawn by L. Hopkins; Two Ways of Seeing. Poem, Margaret Vandegrift; Nan, the Newsboy. Illustrated. W. H. Bishop; Agamemnon's Career. A "Peterkin" Paper, Lucretia P. Hale; The Party. Jingle. Illustrated. M. F. P; Behind the Waterfall, A Fish Fairy-tale, Illustrated. Adelaide F. Samuels; On The Well-Sweep. Verse, Illustrated. P. F; The Child-Life of Goethe. Mary Lockwood; For Very Little Folk. Happy-go-Lucky, Illustrated Mrs. M. F. Butts; Jack-in-the-Pulpit; Young Contributors' Department; The Letter-Box. Illustrated; The Riddle-Box. Illustrated.

THE CHILD-LIFE OF GOETHE.—About this time occurred an amusing incident, which came near being serious for Papa Goethe. There was in Germany then a young poet, named Klopstock, who wrote a poem called "The Messiah." It became famous throughout the country, and everybody read it and talked about it. Papa Goethe read a little of the poem, and then he said it was good for nothing, because it was written in blank verse, and he would not allow his children to read such stuff. But some friend smuggled the book into the house, and the children were in raptures over it. They not only read and reread the poem until they knew a great deal of it by heart, but they would declaim passages to each other. Now, one Saturday, about twilight, the barber came, as usual, to shave Papa Goethe. This was done in the sitting-room, and the children were there behind the large porcelain stove, and no one noticed them. In low tones they declaimed to each other their favorite dialogue from "The Messiah" while the barber lathered their father's face. Cornelia, becoming excited with her part in the dialogue, forgot where she was, and cried out in loud tones:

"Help me I implore thee! And even if thou shouldst demand it,
Monster, I pray thee! Abandoned One, blackest of sinners,
Help me! I suffer retributive pains as of death everlasting.
With the fiercest and grimmest of hate I would hate thee beforetime.
I am powerless even for that! This is deep, unapproachable anguish——"

Soon, seizing her brother's arm, she fairly shrieked,

"Oh! how I am tortured——"

The poor barber, who knew nothing of Klopstock's "Messiah," and believed some creature to be wailing in mortal agony, was frightened nearly out of his wits; and poured nearly the whole basin of lather down the ruffled shirt-front of Papa Goethe! Then there was an uproar. The small offenders were drawn out from the shelter of the friendly stove, and Cornelia was asked, in an awful voice, what she thought would have happened on account of her bad behavior if the barber had had a razor in his hand instead of a basin of lather. Cornelia was very sorry, and greatly shocked, and confessed the reading of "The Messiah." This made the matter still worse: but fortunately, Papa Goethe found so much fault with the poem that he had not much breath left to scold the children, and contented himself with insisting that the book should be sent out of the house.

All that has been told here gives but a brief glimpse of the wonderful child, Johann Wolfgang Goethe. He entered college at Leipsic when he was sixteen years old, and then Goethe's child-life may be considered closed.

But the whole story of his after life is deeply interesting. It seemed as if he had only to attempt a thing to excel in it. He was distinguished in athletic sports and college pleasures, and was considered one of the most graceful skaters in Germany. He was beautiful in appearance, a favorite in society, brilliant in conversation, a good friend, loving and lovable, a great student, and an original thinker.—*St. Nicholas for Aug.*

PERSONAL ITEMS.

An aged woman at Windsor Locks, Conn., died at a picnic which was given in her honor.

The Rev. Thomas K. Beecher, of Elmira, is trying to organize a stock company to build a furnace for the cremation of human remains.

Charles Gambetta, who claimed to be the uncle of M. Gambetta, has just died in an alms-house at Milan, aged 81. He had squandered a considerable patrimony.

Sitting Bull was named, according to Joaquin Miller, because, being shot through the legs in battle, he sat upright, and continued to fight with the fierceness of a wounded buffalo bull.

John B. Gough is in his 62nd year, has traveled about 420,000 miles and delivered nearly 8,000 lectures within the last 37 years, and yet he has not been in bed a whole day from illness since 1846.

George Ticknor Curtis very satisfactorily disproves the story about a natural son of Daniel Webster said to be living in Chicago. He shows that not one of the statements made by the claimant can be true.

Three letters, from Napoleon III., Eugene and the Prince Imperial, sold at a London auction the other day for $100. That from the Prince was an affectionate note, in English, in which he says: "I love you with all my heart."

On his elevation to the purple Cardinal Haynald Bishop of Kolocza-Baes, Hungary, gave 20,000 francs as the nucleus of a fund for aged priests and teachers. Mgr. Haynald is one of the most famous of living botanists.

It is reported that the ex-Khedive of Egypt has arrived at Naples, with his four wives, two sons and 225 other members of his household and suite. If he can find a residence at Naples large enough to accommodate him, he will arrange to remain there for the present.

It is denied that Princess Beatrice was engaged to be married to the ex-Empress's unfortunate son. "That the illustrious young lady sincerely and unaffectedly mourns the poor Prince," says a foreign journal, "is perfectly true; we all lament the loss of a dear friend."

The Rev. Dr. Leonard Bacon says of the fresh controversy between old and new school Presbyterianism; "Has it broken out again—that old conflict between the Gospel of a free salvation offered to all men and the petrified foundation of Calvinism as it was shaped by Calvin's successors?"

Adam Helmer of Port Huron, Mich., got out of bed, armed himself with a gun, and went down stairs to hunt a burglar. His wife arose immediately afterward, and stole on tiptoe down another stairway. They came together in a dim light, and Helmer, mistaking his wife for a burglar, killed her on the spot.

Victor Hugo talking about age not long ago confessed that the most disagreeable advance to him was that from thirty-nine to forty. "But," said a friend, "I should think it a great deal better to be forty than fifty." "Not at all," replied Hugo; "forty years is the old age of youth, while fifty years is the youth of old age."

John Brown, Jr., sees many changes in Kansas. He called on the Topeka Commonwealth a few days ago. He was in Topeka in 1856, and now says that he can't recognize a single landmark. In that year he was a prisoner, with Governor Robinson and other Free State men, and now, twenty-three years afterwards, visits the same State in the interest of the same race.

Highwaymen stopped Bernard Southwick on a a lonely Indiana road, and demanded his money or his life. He fought with exceeding vigor and valor, bruising his assailants seriously with a club, and was vanquished only after a quarter of an hour of desperate resistance. On searching his pockets, in the expectation of getting valuable booty, they found exactly eleven cents.

Mr. Calvin, a Cincinnati German, wooed a Jewess in vain, and inferred, from what she said, that if he was a Jew she would marry him. So he went through with all rites required of Gentiles who embrace the Jewish religion, and, after this ordeal, again presented himself as a suitor. But the maiden still declined his offer, and he is convinced of her entire heartlessness.

Mr. Kemp, a fashionable summer resident at Brighton, England, was sued by a milliner for pay for a large amount of finery that his wife had bought. Mrs. Kent testified in court that she did not know what she was doing when she purchased the goods, having drank a tumbler of gin a short time before, and the jury gave a verdict for the defendant, stipulating that the things must be returned.

John Baker was indicted for murder in Guadalupe County, Texas, and released on bail. He employed his liberty in attending religious services, and became a real or pretended convert. He went to a Methodist camp meeting, and was addressing the congregation, when a rifle ball penetrated his brain, and he fell dead. Some friend of his victim had fired from a distance with unerring aim.

The representative of the heir of the great Henry Clay was in Boston last week to negotiate the sale of the famous Clay vase, bought by the generous contributions of the enthusiastic Whigs in 1844. About everything else has gone for the benefit of the young spendthrift, and now this testimonial to his grandfather is put in the market. The vase is of solid silver, two and a half feet high and elaborately fabricated.

When Mlle. Eugenie de Teba was first presented to the then President's court, she was remarkable, though a Spanard, for an English rather than Spanish style of beauty. Bright golden hair, blue eyes, soft pink complexion, and an expression of the gentlest dignity and sweetness were the characteristics of the future empress. The wedding was celebrated at the Hotel de Ville and Notre Dame early in 1853 with extraordinary pomp, the ceremonial which had been observed at the wedding of the first Napoleon and Marie Louise being adopted from point to point.

Dean Stanley relates that during the conduct of a cause by the late Lord Lawrence for a young Indian Rajah, the latter endeavored to place in his hands under the table a bag of rupees. He answered at once: "Young man, you have offered to an Englishman the greatest insult he could possible receive. This time, in consideration of your youth, I excuse it. Let me warn you, however, never again to commit so gross an offence against an English gentleman."

Bishop Colenso, who is now 65 years old, is described in the London World as a handsome, stately old man. He has a massive head, crowned with abundant silvery locks; a mobile mouth, with strongly-marked lines of incessant study and much care about it; deep-set eyes, pathetic almost in their kindly and earnest expression; a stature far beyond the average, and a presence at once dignified and simple. His home at Pietermaritzburg is a long, low, cosy house, planted amid the most beautiful scenery.

"Plon Plon" has long been the dread of all parties in France. When this reproach once met his ears from the lips of the late Emperor he smiled grimly and stretching forth his arms to every corner of the compass, declared that "not France alone, but the whole universe would proclaim itself of his party when the proper time came." He believes in a great socialistic republic, with a more equitable distribution of worldly goods, a division of territory among the poor, and a limitation to the property of the rich.

Aaron Smith led a mob that hanged George Moore, at Carlisle, Ind., and was complimented by his comrades for his boldness in that outrage. A few nights afterward, a party of fun-loving young men dragged him out of his bed, put a rope around his neck, and told him that his death hour had come. They would have been puzzled to answer if he had asked them what he had done to displease them; but, to their astonishment, he confesssed numerous thefts, and abjectly begged for mercy. He is not the popular man that he was before this trial of his qualities.

Frederick Maleh, a murderer, ventured from his hiding place in the woods to his home at Wilberton, Ill. He feared the officers of the law less than he did his neighbors, who, as he knew, would like to lynch him. Hungry and fatigued, however, he had resolved to take the risk of this visit. It was night, and, after eating a hearty meal, he lay down on a bed to sleep, first placing a loaded gun within reach, and stationing his wife at a window to keep a lookout for lynchers. He had not slept long before she awoke him to say that mounted men were approaching. He unhesitatingly shot himself through the heart.

When General Getty, commander of the garrison at Fortress Monroe, received Captain Wise and the Richmond Blues with a band of music, at Old Point, the other day, as soon as the music struck up it frightened the team of a countryman, consisting of a runt of a bull hitched to a stick cart, to such an extent that he ran into and demolished the entire command. When order had been somewhat restored, Captain Wise wittily remarked to General Getty: "Another Bull Run, General." "Yes," replied the General, "a regular rout; but I promise you when you get inside the fort you shall fare better than at Getty's-burg." And they did.

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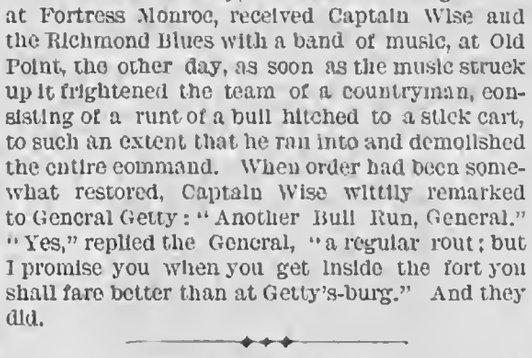

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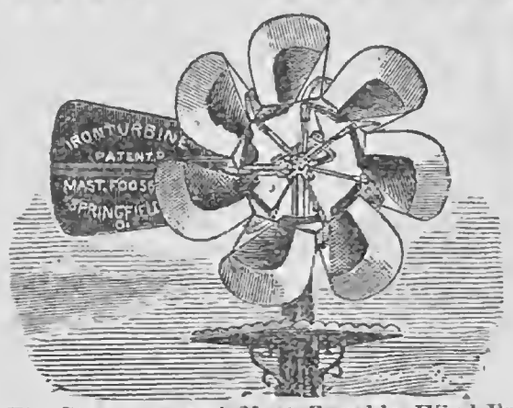

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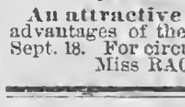

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IF anybody should ask you the nativity of "Old Sol," you can say he is an high-burn-ian. —*Detroit Free Press.*

"I say, my little son, where does the right hand road go?" "Don't know, sir; 'taint been nowhere since we lived here."

SCANDAL mongers may learn this lesson from the frog: Once overpassed the season of his adoleseence he gives up tail-bearing.—*Yonkers Gazette.*

A COUNTRYMAN tried to buck against a deseendant of Ham. He now says, "Off with his head, so much for bucking Ham."—*North American Review.*

IT is a great piece of folly for a man to be always ready to meet trouble half way. If he would put all the journey on trouble, he might never meet it at all.

NEWLY married husband: "This is a friend of mine, my dear—a friend of twenty years' standing." His bride. "Good gracious: Then pray give him a seat, for I am sure he must be tired."

AN editor being asked. "Do hogs pay?" says a great many do not. They take the paper several years and then have the postmaster send it back marked "refused."—*Boston Post.*

A YOUNG man went into a restaurant the other day, and remarking that "Time is money," he added that, as he had a half-hour to spare, if the proprietor was willing, he'd take it out in pie.

A WOMAN raised to the third power of widowhood has the photographs of her three departed lords in a group, with a vignette of herself in the center, and underneath is the inscription, "The Lord will provide."

THE New York Independent relates that a girl who had been very observant of her parents' mode of exhibiting their charity, being asked what generosity was, answered: "It's giving to the poor all the old stuff you don't want yourself."

THE peculiarity of the fly is that he always returns to the same spot; but it is the characteristic of the mosquito that he always returns to another spot. Thus he differs from the leopard which does not change his spots. This is an important fact in natural history.

ANY father who would go out and put tar on top of his front gate after dark, must be lost to all sense of humanity and ordinary respectability.

It is unnecessary, too; they'll stay there long enough without being stuck there.—*Boston Post.*

A DETROITER cured a long and severe attack of neuralgia by falling down stairs. That's nothing. Some years ago a Norristown youth was cured of a bad habit of swearing by falling off a cherry tree. Not a single oath has escaped his lips since. The fall broke his neck. —*Norristown Herald.*

AN art critic going into a gallery in a state of mild inebriation, to criticize some pictures, sees himself in a glass, and, taking out a notebook, writes as follows: "First room, head of a drunkard, no signature, has a great deal of character; red nose remarkably truthful. Must be a portrait from life; think I have seen that face somewhere."

AN inveterate old chicken thief in Alabama, who had a marvelous faculty of gliding out of a close corner, was at last caught in a close corner with a chicken in his hat. He denied the stealing of it, and on being asked how then it got into his hat, he solemnly said: "Dat, marster, is jes' what 'stonishes me; but fo' de Lord, I spec's it mus' hab crawled up my breeches leg!"

AN old-fashioned minister passing a fashionable church, not long ago, on which a new spire was going up, was asked how much higher it was to be. "Not much," he answered; "that congregation don't own much higher in that direction." Too often the hight of the steeple is the hight of the church's ambition, and all below it belongs to the sheriff and the creditors.

"THIS, dear children, is the shoe of a Chinese lady; see how little it is; what a very narrow sole it has." "I'll bet it aint as narrow as Deacon——'s. Father says his soul will fall through a crack in the floor some day and get lost," was the shrill comment of a boy given to sharp listening. The Superintendent put the Chinse shoe in his pocket and requested the school to sing "Pull for the Shore."—*New Haven Register.*

OLD MADAME ROTHSCHILD, mother of the mighty capitalists, attained the age of ninety-eight years. Her wit, which was remarkable, and her intellectual faculties, which were of no common order, were preserved to the end. In her last illness, when surrounded by her family, her physician being present, she said in a suppliant tone to the latter, "Dear doctor, try to do something for me." "Madame, what can I do? I can't make you young again." "No, doctor, I don't want to be young again, but I want to continue to grow old."

A PRETTY little girl, in whose cheap and plain dress the child of a laborer could be recognized, contemplated, in company with her mother, the rich show-window of a toy store on the Boulevard. Her mother, pointing at the biggest and most richly dressed of the dolls, said: "You would like to have that, wouldn't you, Louise?" "Oh, no, mamma, not that one; it's too well dressed for me." "And what difference does that make to you?" "Why, I'd want to be my dolly's mamma, and not her servant-girl."—*French Newspaper.*

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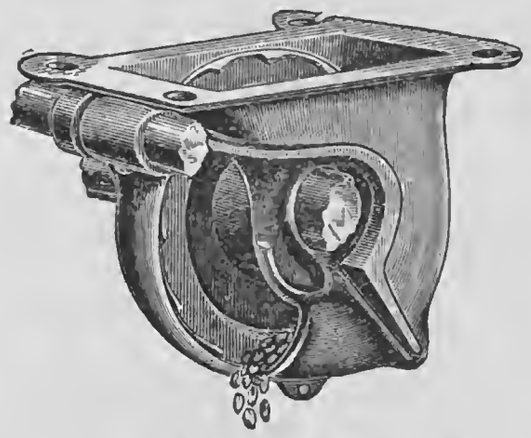

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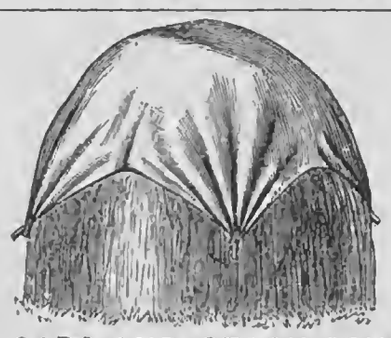

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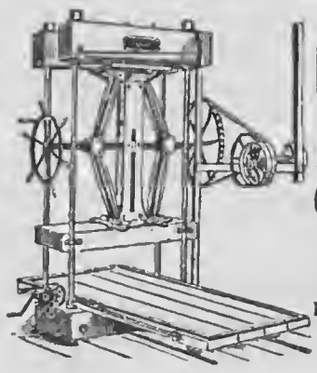

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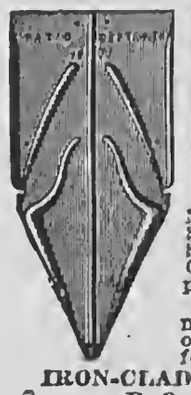

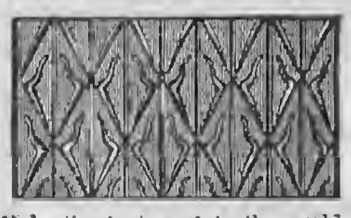

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A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME

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[Entered according to Act of Congress, in the year 1879, by the Rural Publishing Company, in the office of the Librarian of Congress at Washington. — Entered at the Post-Office at New York City, N. Y., as second-class matter.]

Biographical.

OUR PORTRAITS CONTINUED.

CHARLES DOWNING.

BY SAMUEL B. PARSONS.

There are few men who, at the end of a long life, can look back and see the result of their labors, can feel that the world is better for the graces and pleasures which they may have given it. It often happens that the value of such a course is not visible to others until it has passed away and the mystery of death gives a true estimate of life. Especially is it the case where natural modesty prevents the push with which some men thrust themselves before the world and achieve an ephemeral greatness. Ephemeral such greatness always is, for in the long run truth tells and character makes its true impression on the world.

There are, however, some men whose characters make at once this impression and the years, as they pass, only strengthen it. Of that class is the subject of this sketch, whose face we have before us.

Born in 1802, and working with his father among trees and flowers until twenty years of age, he then succeeded him and commenced that series of experiments with fruits, which makes him now the most trustworthy pomologist in America. From 1836 to 1838 he was in partnership with his brother who afterward commenced his literary work and filled the niche which was then open. A. J. Downing held a spirited and graphic pen and his breezy articles, when editor of the Horticulturist, were the natural outgrowth of his taste and love for horticulture. In the preparation of his book of fruits, however, he was much indebted to his brother Charles, whose long experience gave him accurate knowledge, and who had fruited and compared many thousand varieties. After the death of A. J. Downing this book passed through several editions, each greatly enlarged by Chas. Downing until the present edition is the best Pomological book in the world and made so mainly by the labors of the subject of this sketch. It was not until after 1840 that I knew either of them, and while admiring the striking qualities of his brother, I was always impressed with the quiet observation, the great accuracy, and the unobtrusive modesty of Charles Downing. He never sought appreciation, but always received it from those who truly knew him. While writing of his attention to fruits, I should not forget his love for ornamental plants and his knowledge of them. His old place was much changed in 1868 by the running of streets and the destruction of many of his trees. He still indulges his taste, however, and his memory does not fail him. Any one desiring information on fruits can rely upon its correctness, if received from Charles Downing. When thinking of the usefulness of such a life, one cannot help wishing for the old days of Methuselah when man's life was not limited to fourscore years.

In the career of the two brothers is a valuable lesson. One gave his life to save life—the other has spent his years in labor for men. Sacrifice and labor are two pivots on which the moral world revolves. Happy is the man who has his share of each.

Pomological.

THE INFLUENCE OF THE STOCK UPON THE GRAFT.

S. B. PECK.

At the June meeting of the State Pomological Society of Michigan at Muskegon, an essay with the above title was read by H. S. Tyler, of Dalton, Michigan, which comes more directly to the point than anything I have before read or heard. I will premise by saying of Mr. T. to those who do not know him, that he is one of our best posted men in the sciences of pomology and horticulture. Old enough to have made many experiments and to have noted their results, he needs here no backer to his word or his note. He claims to have noticed as early as 1849 great differences in the flavor, size and color of several of the popular varieties of apples grown upon different trees. This led him to notice carefully the departure from the normal type of those top-grafted upon trees that had already borne fruit the character of which he had known, and he found, in most or all cases, that, though the fruit of the graft did not lose its identity, still there was more or less departure from the true type either in the form, flavor, size, color, contour or keeping qualities.

He also placed on exhibition at the above meeting Baldwin apples from three different trees, one of the common shape and flesh, one grafted by himself from a perfect Baldwin upon a seedling that had borne a smallish, sour, high-colored apple, with often a red tinge through its flesh; oblate in form and keeping very late. The apples from this graft, though still Baldwins, as reluctantly decided by the best experts after cutting and tasting, partook largely of the form and habits of the natural fruit of the tree, and as late as the 24th of July, instant, I saw them at his house in good keeping condition, showing the inside tinge and the other peculiarities of the natural fruit.

The third specimen exhibited was from cions from the same tree as the last, set upon a tree that had borne sweet apples, and though the departure from the parent stock was less marked than in the case of the other, still it was sufficient to create strong doubts of its origin. These three trees were all growing near together on the same soil and under the same culture.

CHARLES DOWNING.—FROM A LATE PHOTOGRAPH.

The exhibition of these apples reminded me of several peculiarities that I had formerly noticed in the products of different apple trees of the same variety. In two cases of five trees each of the same variety, bought and planted at the same time and showing no marked difference in appearance, one of each kind bore fruit three or four years before the others. In another case a tree of Talman Sweet bore apples regularly every alternate year, but of inferior size with generally a blush upon one side, but unmistakably a Talman Sweet, and what was still further remarkable of this tree, though not bearing on this question, the tree was forked in two main branches of equal size, one bearing one year and the other the next. I know nothing of the history of the tree except that, during the ten years that I owned and watched it, it never bore an apple on either branch except on these alternate years, and then never failed. Pedigree in grains has already become a prominent and interesting subject, and there is no question in my mind but that pedigree in fruits is of equal importance and practicability. It is to me quite evident that in the general method of raising fruit trees, especially the apple, there is a fault that is having a deteriorating influence in their fruitfulness and in the changing of the quality of their fruit.

This is not a new subject to me, but is simply freshly brought to mind by the exhibition mentioned, and if this is thought worthy of insertion in the RURAL, I may have more to say in the matter.—[Please do so—Eds.]

Mr. Tyler closes his essay as follows: "I will sum up my conclusions by premising that for success in attaining and holding a desired point of excellence in the growth of fruit, the stock must be known to be healthy, hardy and productive, and of a kind, either sweet or sour, adapted to the maintenance and perpetuity of those qualities of the kind which is sought to be maintained. Hence, my position develops the fact that promiscuous root or top-grafting—unaided by design to continue all of the good qualities of the kind, but operated for the purpose of rapidly multiplying trees for the markets—will always prove disastrous to the best interests of the orchardist, and carry with it more or less disappointment, loss of time and money, instead of profit and pleasure."

Muskegon Co., Mich.

ABOUT WINTER APPLES.

T. T. LYON.

This simple title has come to be recognized as including any and all apples that retain their qualities long enough to warrant the grower in gathering and placing them in the cellar or fruit house, although some of them may be in use in late autumn; and again, others may be found, even at the close of winter, yet too austere or immature for either dessert or culinary uses.

The line is so closely drawn and the variation is so great with change of climate or latitude, or both, that even Maiden's Blush, a summer apple in parts of Ohio, Southern Michigan and similar latitudes, goes into the cellars of Northern Michigan in November, coming out, in April or May, in fine condition; while Fall Pippin, Fameuse, Shiawassee Beauty, Melon, Rambo and others, properly speaking late autumn apples in the latitude of Southern Michigan, yet supply much of the staple for home use till the winter is considerably advanced.

It is, however, among the long keepers, properly so called, or what might appropriately be designated as spring apples, that we shall find the most valuable varieties, whether estimated from the standpoint of the producer, or from that of the consumer. Among these we shall find Rhode Island Greening, which goes from Northern Michigan to the Chicago markets in June as firm as if just taken from the trees; also the Baldwin, Golden Russet, Roxbury Russet and Red Canada, which last remains in the markets and upon the fruit-stands of Chicago and Detroit till actually crowded aside by shipments of the next season's crop from the South.

The opening to us of a European market, by means of steam transit across the ocean, must, in the nature of the case, tend strongly to increase the value of this class of apples, from which must doubtless come the bulk of the supply of this newly-created demand: while Western growers may confidently anticipate that a few years only will, with the constantly increasing demand for such facilities, open to them the advantages of direct shipment from our lake ports to the seaboard markets of Europe.

It is by no means a surprising fact that southern varieties should, in our more northern climate, lose something of their quality. This might naturally have been anticipated, and such proves to be the fact, but there is yet another fact, which we have pretty effectually demonstrated by the testing here of nearly or quite one hundred of these Southern sorts, that while many varieties of Eastern origin prove more or less tender in the climate of Michigan, as well as in their Eastern homes, not a single variety originating south of the Ohio river has proved otherwise than entirely hardy in the Peninsular State. This, to us, is a surprising paradox—one the reason of which we are utterly unable to conceive, and we speak of it here with the hope that among the savants and apostles of Pomology some one may be able to offer us a rational explanation.

MICHIGAN STATE POMOLOGICAL SOCIETY.

This Pomological Society calls attention to the following facts about the fair of 1879:

1st.—Our hall is to be greatly enlarged.

2d.—The arrangement of fruit and flowers will enable an observer to take in the entire exhibit at a single glance.

3d.—Our plates are pearl-white and thus add to the appearance of the fruit.

4th.—We have, at much expense, secured brass clasps to be attached to the plates, which will hold card labels well above the fruit.

5th.—Our cards will have names of all prominent fruits printed thereon in clear, bold type.

Do not neglect us this season. Apples are scarce but other fruits plenty. Our premium list, which has been sent you, offers better inducements than last year. It will expedite matters and prevent a great rush at the opening of the fair if all those who are to make a number of entries in the department of *Fruit and Flowers*, will make out a list of the entries before fair-week. All that desire blank entry lists, please drop me a card giving full name and address; I will forward them at once. If lists of entries are made out before September

1st, send to me at Grand Rapids; later, in care of Sec'y R. F. Johnstone, Detroit.

Go through your orchards, gardens and green-houses, and select your best for the fair. Our Society has never failed to make a grand show. *Let us maintain our reputation.*

CHAS. W. GARFIELD, Sec'y.

Grand Rapids, Mich.

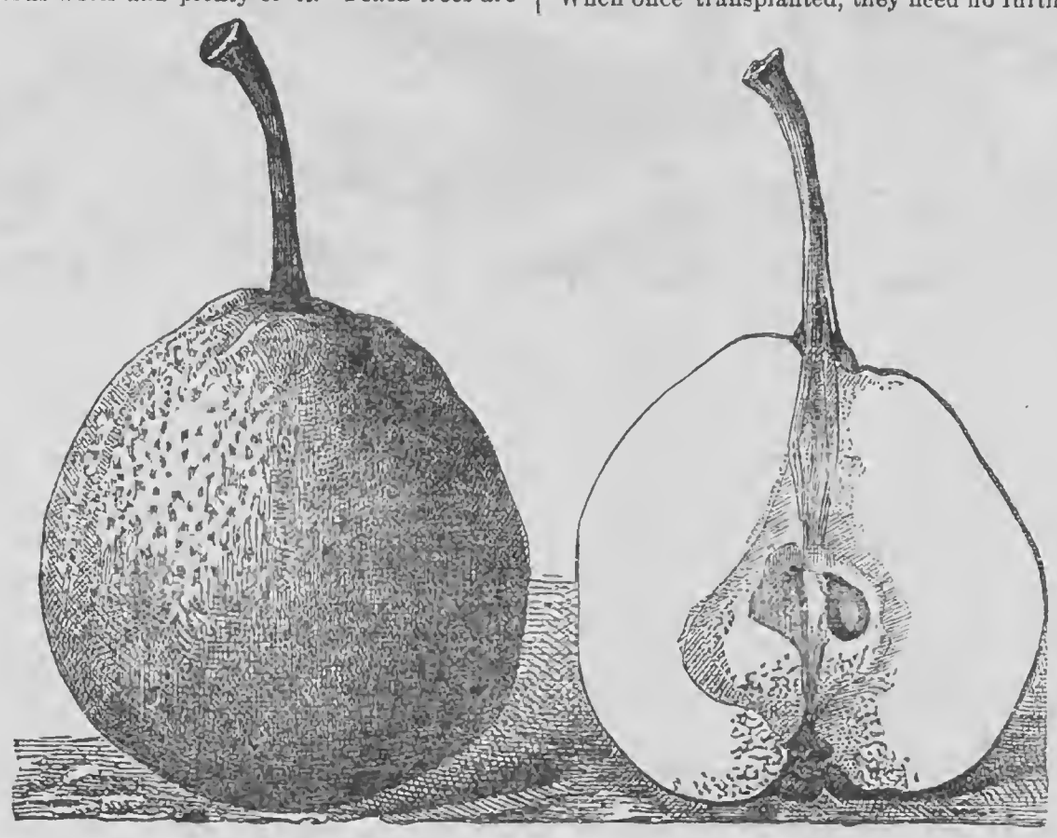
DOYENNE D'ETE AND MADELEINE PEARS.

Twenty years ago I set out an experimental pear orchard of about 50 trees. Among them were three of Doyenné d'Eté and two of Madeleine. Of the former, two soon came into bearing; the other took to growing, and now girths 28 inches to the others' 20, and for a number of years past, bore as much fruit as the other two, one of which was killed by blight last year. They are good annual bearers; fruit small, sweet and delicious, and as handsome as good. Every year, about the 20th of July, if the weary system and a waning appetite craves something a little out of the ordinary bill of fare afforded by the berry season, I am sure to find it on application to these Doyenné d'Eté trees. As far as my knowledge extends, this is the best and earliest pear I know of, and, unlike most pears, it is not improved by house-ripening, attaining a higher degree of perfection if ripened on the tree.

The Madeleine comes in a few days later, is not so attractive in appearance and is more perishable, rotting at the core while externally appearing sound. It is more juicy and slightly acid. Sometimes it rots badly on the tree before maturing. Yet, perishable as it is, with all its faults I don't regret having a tree of it. This orchard has been a good school in which I have learned a good deal of the little pomological knowledge I possess, and I hope and trust to take many more lessons from the same source.

E. WILLIAMS.

Essex Co., N. J.



DOYENNE D'ETE.—(FROM A SPECIMEN SENT BY MR. WILLIAMS.)

Arboricultural.

FUEL FOR THE PRAIRIES OF THE WEST.

JUDGE WALTON.

A TERRITORY larger than New York and Pennsylvania, including part of Missouri, Kansas, Colorado, Indian Territory and Northwestern Texas, is practically treeless, as far as fuel for the future owners of the many fertile quarter-sections is concerned. With some 10 years' close observation over much of the territory, I make a few suggestions to those contemplating settling on the plains.

First, for fuel, each occupier of a "claim" (quarter-section) should plant, say, half a bushel of peach seeds as soon as possible. They should have lain out of doors or been buried the previous winter, or they will be a year coming up. Plow, in last year's breaking, furrows eight feet apart, then drop seeds every four feet and turn under, and plant corn in alternate rows. Carefully cultivate two or three years, and then they will care for themselves. But if the seedlings are put eight feet each way, and budded with very choice varieties very low down, so that the bud may take root below the ridge made by plowing, a big pay will be secured for a few minutes' work, as a fine Crawford Early or Hill Home Chief (?) is much better for the pigs, or children—and a Kansan should keep both on hand—than the little sour seedlings that cost nothing and are dear at that. Any man intelligent enough to be a pioneer, can learn to bud in ten minutes, and by practice can bud 200 to 500 a day during June, July or August.

In the first five acres one should plant, 32 feet each way, in place of peach trees, his future apple and pear or cherry orchard. The peach trees protect against wind and sun till the others get a start. Don't trim a peach tree or transplant one. At the end of five years, cut them at the ground in February and cover the stumps with earth. You have in each tree a day's fire for a stove in the coldest weather, and by fall you will have a fine growth that in three years will duplicate the first timber crop, when they should be grubbed out of the apple orchard, which will then be able to take care of itself. The fuel grove can be cut every three years, or, by cutting one-third each winter, it will last an unknown period. Dry peach wood is as good as corn for fuel, and the fruit is very good for pigs and children.

For the first two or three years the borers will be troublesome in the apple trees. Travelling tree pedlars will sell you a recipe for $5 that will give good satisfaction, and kill both the insect and the tree, likely. A wash made of wood-ashes and water, put on in June, July and August, each month, will kill the larvæ and help the tree. The same wash applied to your peach trees will save you trouble.

For permanent timber, the Bois d'Arc, or common Osage Orange hedge plant, is the best timber for all purposes south of 40°. A ten or fifteen-acre lot set 10 feet each way with Orange, Pecan, Black Walnut, Ash and Maple, surrounded by a belt, 50 feet wide, of Cottonwoods five feet apart, will in a few years be very convenient and valuable. The Catalpa and Coffee Bean are of quick growth and afford valuable timber, but sprout wherever a root is cut so badly that they are objectionable. All nut-bearing trees, as the Pecan, Walnut, Oak, Hickory or Chestnut, should be planted where they are to grow, as the cutting of the tap-root ruins the tree. Timber culture means just what corn culture means—judicious work and plenty of it. Peach trees are the cheapest and best for fuel, but many raise Cottonwoods because they have no misgivings about cutting them down, as they have with regard to a fine fruiting Peach. Apple trees need the protection of a grove until four or five years old, when they will take care of themselves and bear very superior fruit. The Bois d'Arc—Osage Orange—grows rapidly, works like oak timber and will last like Black Locust. Pecan, Walnut, Oak and Chestnut grow slowly at first; but when about five years old, grow as fast as any tree. Maple does well, but is not valuable for timber. Lombardy Poplar grows very fast and is about as good as Cottonwood for fuel.

SHELTERING LANDS.

THE advantage of sheltering lands and buildings by trees has long been admitted by the more observing, and many are now selecting groves as their building spots, in order to avail themselves of the protection these give from the high winds of winter, as well as from the fiercer glare of the summer sun. While many are doing this, there are not a few others who are pitching their homes on the hill-tops, far removed from shades and screens, regardless alike of the furious blast and their own comfort as well as that of their animals. True, such situations are well adapted for the display of white paint, a color very common in the country; but what ideas of comfort or home can be associated with such citadels upon the hills, I never could imagine. During last winter the severity of the weather was a subject of remark by everybody. Its winds were frequent and unusually severe. Their influence upon man and beast was felt in a manner that might well lead one to exclaim, "Is there not a remedy?" Now I venture the assertion that, in localities protected by trees, not only was there much less wind than in exposed places, but that there was an average difference of several degrees of temperature in favor of the protected localities.

The labor of planting out a sufficient number of trees to break the wind from a garden and buildings connected, is comparatively trifling. A trench may be dug in which the plow may be made to perform much labor, and the trees (evergreens) can be removed in a short time, for they may be found in old pastures or swamps, or at the nursery, where they can be obtained at a trifling expense. When once transplanted, they need no further care than protection from animals that would otherwise be almost certain in the early period of their growth to destroy them, especially the under branches, which should remain entire. I can imagine that many might urge as an objection that these protecting belts would occupy too much land. Fortunately, ours is a country of sufficient extent to give to every reasonable man all the land he wishes for every purpose of improvement. If it were not so, the land is not lost on which trees are growing, but is increasing in value at a high rate. But allowing it is lost, what then, if the adjoining grounds are made to produce more by the loss than they did before the narrow strip was occupied by the belt? The increase of comfort in winter is also to be added to the increased productiveness of land. Is it not a wonder that farmers are not more engaged in protecting their dwellings and gardens in this cheap and simple way?

J. L. TOOKER, JR.

Suffolk Co., N. Y.

Farm Topics.

OUR FIRST MOWING MACHINE.

H. HENDRICKS.

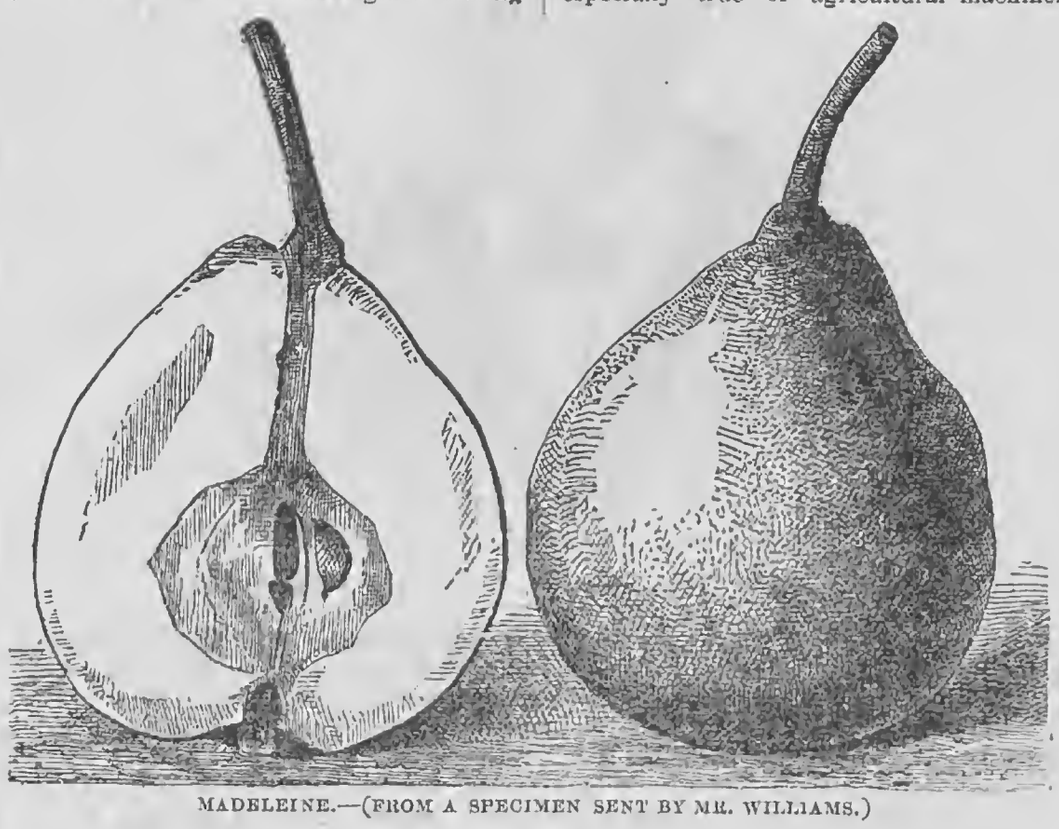
THE rapid progress of human invention in some of the branches of mechanical art as applied to labor-saving implements, is not fully realized in this progressive age. And this is especially true of agricultural machinery, and the ordinary utensils and mechanical adjuncts found on every well ordered and successful farm in this country. Why, just stop and think a moment. Let your mind run back over the checkered vista of your agricultural experience, and see how this and that were done twenty, thirty or forty years ago; how long it took and how imperfectly at best all these things were accomplished when compared with the methods now employed. Such a thing as a thousand-acre wheat field or one of a hundred either, was then unknown and impossible. And perhaps in few other departments of farm labor have the improvements in machinery and the saving of labor been so great as in the operation of harvesting the crops. And this brings vividly to my mind

The Debut of the Mower and Reaper.

It was on my mother's farm on this bank of the Hudson River, and not far from this city, that the ton of mechanical impossibilities then known as the "Wood & Manny Mowing and Reaping Machine Combined" first made its appearance in this section of country. A little over twenty years ago, as near as I can now fix the date, the general agent of the patentees—I wish I could remember his name as well as I do his stub-toe boots then first in fashion—pounced down on my overcredulous grandfather, who was in charge of the farm during my minority and sold him one of these machines, and to this day I have been entirely unable to understand why it was that we were thus selected to conduct those heartrending and patience-corroding experiments with that primitive bundle of complex meadow mechanism. Our reputation for family piety was good, and we were quite unconscious of the amount of personal guilt which this penalty seemed to disclose. But the two wagon loads of boxes containing this wonderful machine duly arrived a few days previous to the commencement of harvest. We unloaded it in the barn, and it took four days to get all the parts together, and then several pieces were left out in the hope that their places would be indicated on actual trial, which expectation was fully realized afterward.

We had a handsome, fiery team of sorrels I remember, which were constitutionally opposed to a racket of any kind, and especially to any noise at their heels, to which they might be contributory. This was a new dilemma for which the explicit directions sent with the machine contained no remedy, and this single oversight gave us no end of trouble. But we persevered, and finally, one morning early before the neighbors were astir, we drove out into a partially concealed meadow with the ponderous apparatus, hoping to get it nicely under way ere anyone might arrive to witness operations. Proudly through the pasture lot we went with the gayly-painted monster, and off streaked the frightened cows with heads and tails erect. The rattling of the gearing, the couplings and the connections, resounded through the adjacent woodland. A plot of grass had previously been prepared for the advent of the machine by hand-mowing a strip around the outer edge; the thing was copiously oiled and all the nuts turned up; the belts were adjusted and off she went—for about a foot. It was not fully in gear. We tinkered a little, sent her off again, and proceeded about a rod, when the belt got off the reel-pulley. We tightened her up, started once more, went along slowly a few rods combing out a majority of the terrified grasses, when the huge driving wheel began to sink in the soil, and the motion of the knives was impeded and finally stopped altogether. In this unfavorable condition it remained for sometime, in spite of our best efforts to infuse activity. The neighbors, having been attracted by the noise, now began to arrive from all sides; and never at a more unwelcome moment, for from the first arrival of the machine, we had been thronged with visitors all of whom predicted utter failure. Hence, whatever our own private opinions might be, we were resolved, if possible, to disappoint these discouraging old fogies who *wouldn't have the machine for a gift*, they said; so in response to their encouraging, "I told you so's" we fought around the field with the monster once or twice during the morning, in a most unenviable state of mind, and finally returned to the barn with such parts of the mower as we had not lost and a few things broken, bent, and disarranged generally, our horses in a foam, and ourselves somewhat disheartened. But the trial, conspicuously unsuccessful as it was, while it greatly weakened our faith in labor-saving implements on the farm, had also given us much valuable information. We now took a day for study and research; during which time an uncle, who was fortunately the possessor of a blacksmith's shop, and a good thoughtful mechanic, repaired the broken parts. The agent came with his kit of tools and duplicate parts, and told us how we had got the thing wrongly together. Everything newly adjusted once more and lubricated to saturation, off we went for the meadow with a retinue of hired men and attendants under the lead of the agent who would show us "how it was done," he said.

But the improvement still lurked in obscurity. The grass was yet wet with dew and lingered among the intricacies of the finger-bar, clogging the knives unmercifully every few feet; the reel had a spasmodic way of performing its duty; in fact the whole device was strangely afflicted with a most annoying



MADELEINE.—(FROM A SPECIMEN SENT BY MR. WILLIAMS.)

convulsive tendeney while in our service from which it never fully reeovered. Nuts would work loose and drop off, pitmans would twist and break, cogs would disengage and slip, journals would heat and hug the demoralized shafting, and the entire apparatus seemed diametrically opposed to being used as a mowing machine. But being resolved to overcome this notion, if possible, we followed the thing around the lot, the agent, ourselves, the hired men, and a deputation of spectators; some of us with repairing tools, others with grass scythes to complete the imperfect work. The agent was a plucky fellow, but found the contract too large and finally left for more explicit instructions from head-quarters, promising to send some men and improved parts.

In this way we mowed along with this ancestral queen of the meadows for some weeks, getting behind our neighbors, allowing our grass to deteriorate in quality and well-nigh losing the price of the machine in the extra wages paid to hired help. We also tried its adaptability for reaping grain, hooking on all the attachments; and a more formidable and hungry-looking appliance it would be difficult to imagine. But in its capacity as a reaper was the failure most brilliant and complete; and such an ignominious snarl of wood, metal, straw and grain as we very promptly sailed into on the start, never was seen. We very soon became satisfied with its complex advantages in this direction, and drew out of the field. By this time various little improvements having suggested themselves to our minds, and several parts having become either broken or lost, much of the machine was reconstructed and essentially new, and yet there was no visible sign of success; although I remember my own youthful mind was then fully impressed with the entire practicability of mowing and reaping by machinery. But we gave up the contest for the time and the wonderful machine was stowed away in the back corner of a granary where a few of the parts may yet be found. Not content with this experiment, however, we continued to test the various mowers that appeared after that, until, in 1860, we purchased the new Walter A. Wood Mower, which was the first really successful machine we could find; and I may add that this very machine with parts supplied as they became worn, has been in use on that farm yearly ever since, doing its work well, and is to-day in active service. And for some reasons I yet prefer it to many others of later design. Surely the improvements made in agricultural machinery alone during the last twenty years have been most remarkable.

Ulster Co., N. Y.

EDUCATION OF THE RURAL CLASSES.

PROFESSOR ELBRIDGE GALE.

I AM glad to see that the editorial columns of the RURAL NEW-YORKER have spoken out so clearly of late for the higher education of the farmer. The hope is cherished that the time is not far distant when the entire rural press will speak out specifically on this subject. The education of our youth towards the farm is a matter of vital moment. It is useless to regret the departure of our young men from the farm, while we fail to educate them for rural pursuits. If we wish to raise the estimate in which rural occupations are to be held by the people, we can only do it by securing a higher grade of intelligence on the part of those engaged therein. If those who are engaged in the various pursuits of the farm, are to exert a controlling power in society, it will be attained only through a wise and broad culture. This culture must not only be broad and thorough, but it must be peculiarly adapted to rural life. In its culture for life on the farm, we believe our educational system is defective, and on that ground it should be carefully scrutinized by those who are most interested in the matter. A certain class of journals indulge in a great deal of cheap talk over the beauties of our educational system, but when we see its effects upon our youth, it is our privilege to look into the mode of culture for farm life and see if there is not something more that can be done.

All the culture offered the rural classes with special reference to their occupation, can be placed under the following heads:

1. The rural press, embracing all that class of papers in part, or entirely, devoted to the varied pursuits of the farm, the orchard and garden. The press is doing a grand work in the popular education of the people. It must be accepted to-day as really the great educating power, exerting, no doubt, many-fold more influence than all things else combined. The importance of the press can scarcely be realized. Its wise direction must always be a matter of the gravest moment. The farmer, in his quiet home, should always be proud of what the rural press has done for him, and cherish it as the one great instrumentality for his deliverance from the bondage of ignorance and wrong.

2. The second educating power embraces all associations or societies formed either to promote all the interests of the farm and farm life, or some special rural occupation. These, no doubt, have done a great deal of good; but they at most can be said to exert only a secondary educational influence, their object being more to stimulate enterprise than to prepare minds and hands for industrial work.

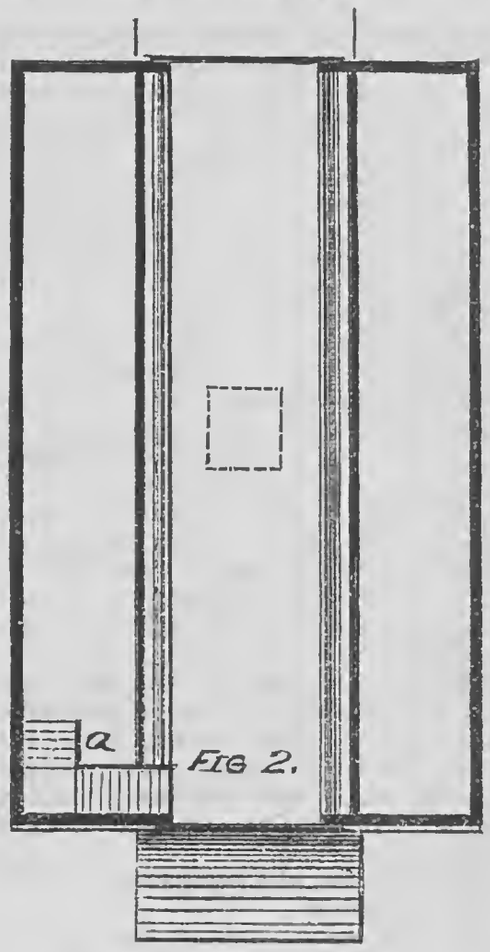


FIG 2.

3. As the third and last educational power, we have the Agricultural Colleges. The original aim of these institutions was, no doubt, in the right direction; and where this is carried out they will be a success. Some of these institutions are no doubt exerting a very salutary influence, as far as it goes, in the education of the rural classes. Others of them, as far as can be inferred from a careful scrutiny of annual reports, are little more than agricultural in name, really making agriculture a kind of fifth wheel, giving her a place by sufferance because the uncomely maid brings a fair endowment. Even in some of these cases, you may see sometimes a very fine display of agricultural pyrotechnics, but no harm will be done perhaps, if we remember that whatever goes up like a rocket must come down like it also. These institutions do not even remotely reach one in a thousand of our youth. And very small is the number of those who come under their influences who are thereby led to rural pursuits. So we are reluctantly forced to accept the fact that the great mass of our youth are receiving no special training for rural life. The instrumentalities are all good so far as they go, but they are not sufficient for the emergency. We must seek in some way to give the elements of rural culture to the children, and as soon as this can be done, the power of the press, societies and agricultural colleges for good, will be immensely increased.

Manhattan, Kansas.

CHIPS.

IN timber countries there is always a woodpile, a wood-shed and a chip-yard at every house. The soil is mostly heavy clay, hard to plow, easily dried up, soon baked after a rain, and generally not conducive to root growth. Many modes are employed to render such soils sufficiently open, warm and moist for the rapid growth of esculent roots, especially potatoes. Heating manures (long, strawy stuff) are not good for such crops, and all manures are scarce; but chips for a potato patch are far beyond all other natural manures for this root. They keep the soil open mechanically; they keep it moist by the attraction between decaying wood and the atmosphere; they keep it warm, both while undergoing fermentation and decay, and also, by fostering looseness, they admit the air and its genial influences, which are many.

Most farmers know all this, and put their knowledge into practice. Many know it, and do not do so. I wish to say to these latter that by allowing small chips to accumulate around the house, they maintain an unsightly appearance, and by not hauling them to the potato patch, they lose annually 50 per cent. of the crop in quantity and as much in the quality. This little problem in percentages does not mean that the whole crop is lost, although 50 plus 50 do equal 100. Still the *gain* by the use of chips for this purpose is 100 per cent., taking it "by and large," as the sailors say. This kind of manure is immediate and lasting in its beneficial effects, is cheap, handy, and a dead loss unless put to work, as all waste material should be.

S. RUFUS MASON.

Dodge Co., Neb.

Farm Economy.

AN EXCELLENT CORN CRIB.

PROFESSOR C. L. INGERSOLL.

THE accompanying cuts illustrate a corn crib which was built here, at the Agricultural College last year. After one year's experience we are so well satisfied with its construction and its advantages that I feel justified in presenting a brief description of it for the benefit of the RURAL readers. The building, which is seen in Fig. 1, is spacious and substantial, measuring 40 feet in length by 24 feet in width. Special regard has been given in its construction to the free circulation of air through the cribs, this being an essential point where a large quantity of corn is stored. It rests on a stone foundation 18 inches high, which, however, does not run the entire length of the house but only six feet from each corner and six feet in the middle. A driveway, 12 feet wide, passes through the middle with the cribs on both sides. The approaches are plank bridges, and the sliding doors, at both ends, move on rollers. The lower story is 12 feet high,

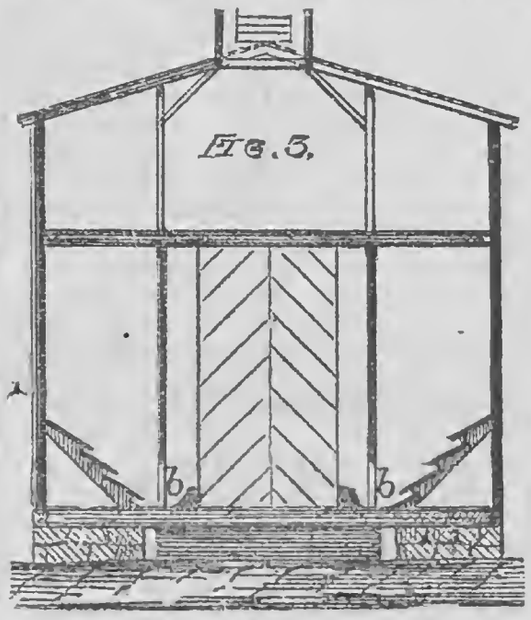


FIG. 3.

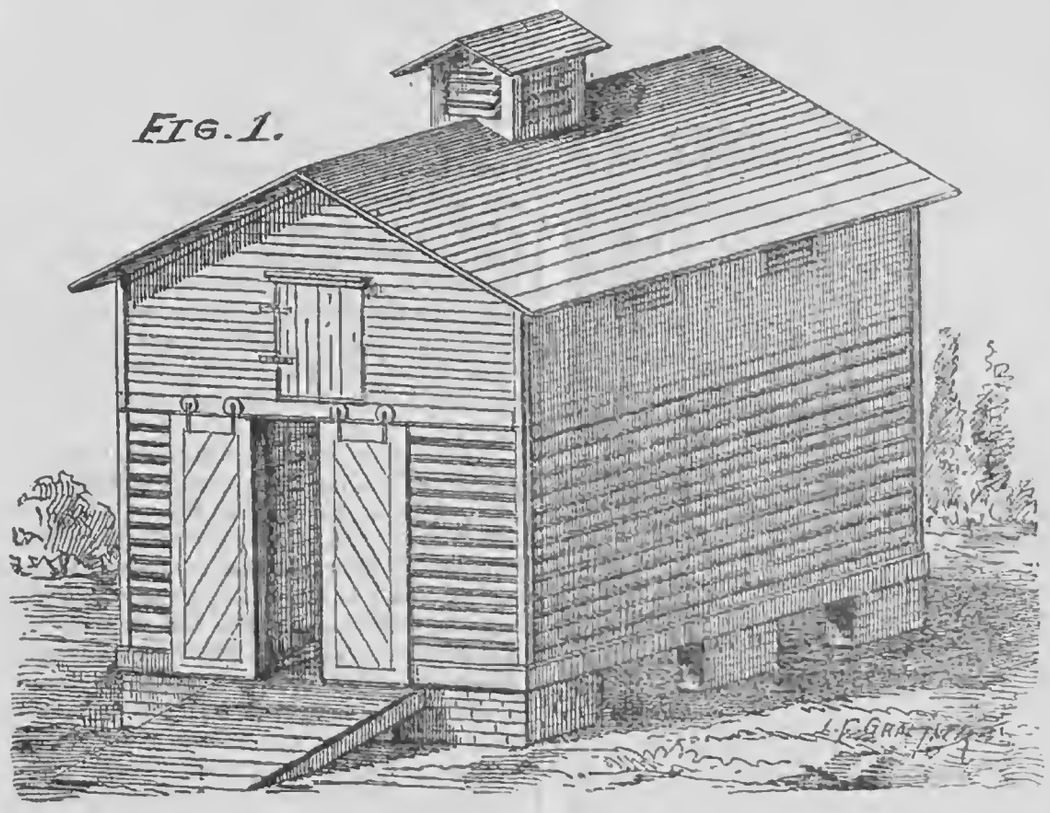


FIG. 1.

the house is sided tight and the ventilator acts as a chimney, inducing currents of air through the cribs, as the center of the loft is floored over.

The ground plan is seen at fig. 2, with the stairs leading to the loft at a. Fig. 3 shows a

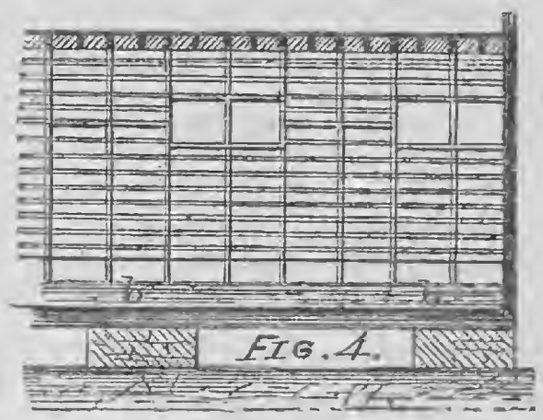


FIG. 4.

section of the house. Instead of letting the corn rest directly on the floor, scantlings sloping forward at an angle of about 40 degrees, are spiked to the studs of the siding, and to these planks are nailed, as shown in the cut, upon which the corn rests. There is a space of one inch from plank to plank, but as they are inclined forward and overlap one another a couple of inches, no corn can run out. This construction gives free access of the air, and the corn is constantly moved forward to the place where it is shoveled out. A space of 16 inches is left open at the base of the cribs through the whole length of the house. Through this opening the corn is removed from the cribs, and to prevent it from sliding out in the driveway, a two by six-inch scantling, b, b, is bolted to the floor 18 inches from the front of the cribs.

Fig. 4 shows a front view of the cribs. The boards are planed strips six inches wide and nailed so as to leave inch openings between them. At convenient intervals are openings, through which the corn is thrown into the crib from the wagon.

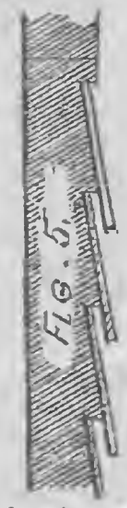


FIG. 5.

The advantages offered by this construction are: 1, A wagon can be driven through the house from either way and be loaded or unloaded from any part of the crib. 2. Its arrangement is such that air can pass freely through the house from any direction, and still no corn can run out, not even shelled corn. 3. If the corn should be put in green and there is danger of molding and heating, or if rats and mice should begin to work in it, an hour's work with the shovel, throwing the corn from the bottom to the upper portion of the crib, would change its position, prevent it from heating and destroy the nests of the vermin. In an ordinary crib this would be a laborious task, especially if it was full, as a portion of the corn would then have to be removed before the rest could be turned. 4. Every load taken from the crib causes the rest to be moved without extra work.

Some of these principles have been applied singly, but I have never before seen them so advantageously combined. The whole house can hold 5000 bushels, 4000 below and 1000 above.

Agricultural College, Lansing, Mich.

WHEN TO APPLY MANURE.

Like the writer of "History of a Poor Farm," I was a strong advocate of surface application of manure, but have lived to learn the truth of the old saying, "circumstances alter cases." On lands adapted to the growth of grass, there is probably no better way than to use fine manure—made so by frequent forking over—spread evenly on the sod, for I believe it to be a truism that, if we can get a rich sward, we shall find no difficulty in growing profitably any cultivated crop adapted to the soil and climate, until that fertility is exhausted. But let us take, for instance, the sandy lands of the South, where valuable grasses do not thrive and where experience teaches that but very slight benefit is derived from manure on the surface, while a wonderful effect is produced by plowing it under. In effect we attain the same results from fresh manure plowed under on sandy lands, that are accomplished by forking over or piling in a compost heap; therefore we get an earlier return than we would from the same process on a clay soil. Of course, however, the effects are not so lasting. Many farmers hold that the best results follow the application of manure to corn after the first hoeing; for if the manure is applied before the corn is planted, its strength is all gone before the ears are set, at which time stimulating food is most beneficial to the plant in order to produce the highest results.

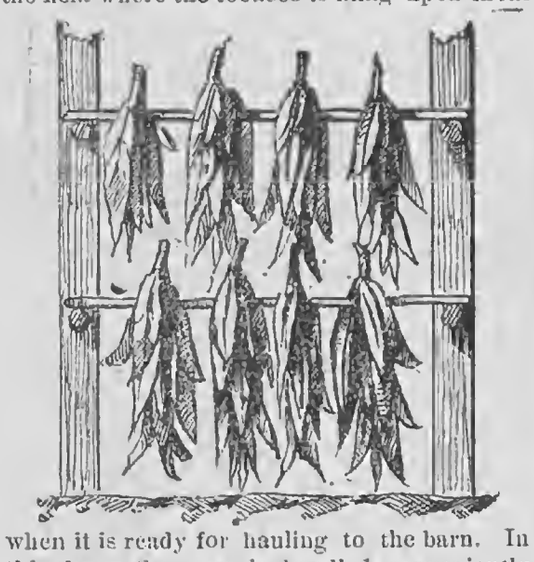
P.

A BETTER CORN MARKER.—The Corn Marker by I. P. Roberts, of Cornell University, is good only as far as it goes. It is exactly like those that have been used in this country for the last

eleven years, to my knowledge, and I presume for as much longer. I improved it in this manner: I made *two* trackers instead of one, and the *middle runner* three times as long as the side ones, and thus by equalizing the draft on the two sides, and adding a stiff rudder, obviated all difficulties in marking straight rows. I round the *front end* of the runner as he does, and also the *back ends*, to facilitate turning. Five runners, if the team is strong enough, will run as well as three, and get over the ground faster. S. RUFUS MASON.

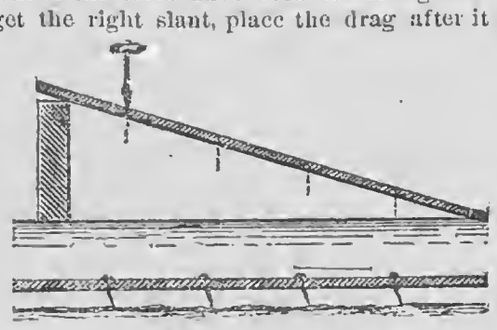
Dodge Co., Neb.

A GOOD METHOD OF CURING TOBACCO.—In the curing of tobacco it seems to me that our Southern manner of hanging it, is much better than the practice of New York State growers. Our barns are provided with cross-timbers, or rather poles placed in tiers a sufficient distance apart to allow of a free circulation of air between the courses of tobacco, and four feet asunder horizontally. Then a stock of sticks usually of pine, are split four feet long to an inch square, and we are prepared for cutting. With a large knife, split the plant down to within about six inches of the lower leaf, cut and leave it to wilt. The sticks are taken to the field where the tobacco is hung upon them



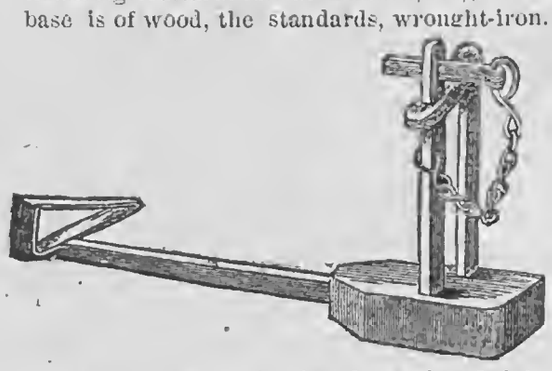
when it is ready for hauling to the barn. In this shape the crop is handled conveniently and more expeditiously than by the northern method. Another advantage gained is in the more rapid curing of the stalks. The sticks will last a life-time, besides being less expensive than twine. M. B. B.

HOW TO SLANT DRAG TEETH.—In making a drag, always set the teeth slanting; then it will not gather grass, weeds, roots, etc., as it will if the teeth have been set straight. To get the right slant, place the drag after it is



framed, or one of the beams before it is used in the frame, on your saw-horse; then put under the head end something so as to raise it, say 2½ inches, and bore perpendicularly downward, as here represented, and the proper slant will be secured.

AN ENGLISH PLOW SLED.—The accompanying engraving is a representation of an English plow sled, recently shown at the International Agricultural fair at Kilburn, Eng. The base is of wood, the standards, wrought-iron.



The plow is securely placed on the sled between the uprights, the latch thrown over and secured by the pin, when it can be dragged conveniently to any part of a field from the barn. The device is so simple that any farmer could construct one, using wood entirely.

THE illustrations of root cutters in a late number prompt me to send the RURAL a note of my "wrinkle:" Having a good broad-axe, which was not very frequently used for its legitimate purpose, I had the blacksmith bend a handle for it of ⅝ round iron, something like this.

The crook at the lower end of the handle is slipped into the eye of the axe, wedged to its place with a good hard-wood wedge. I have the best hand-cutter for roots I ever saw. It holds an edge splendidly, its great weight makes it slide through the hardest ruta-baga like a hot knife through butter. J. A. W.

Howard, Pa.

Miscellaneous.

HISTORY OF A POOR FARM.—No. 14.

The Season's Work.

ON the whole the progress during the present season, so far, has been satisfactory. The constant necessity for expenditure in permanent improvements, such as additions to the fences and buildings and the purchase of artificial fertilizers, has used up all surplus income, but it is something to be able to point to a monthly cash account and see that the balance, if it is but a small one, is always on the right side, and that the stock is increasing and the condition of the farm is improving, in addition. The work done this season has been as follows: Field No. 2, consisting of 12 acres, has been planted with four acres of early sweet corn for market; of which the first gathering, much injured by dry weather, has already been made; three acres of Globe mangels and sugar beets; three acres of late sweet corn and two acres of German Millet. The early corn being now in course of harvesting for market, the stalks will be cut at once for the cows and the ground will be plowed and sown to rye for early cutting in the spring. Field No. 3, five acres, has been sown to oats, which were cut and fed, and the ground is now in Hungarian grass, which will soon be ready for cutting, when the field will be at once plowed and seeded with white turnips, with orchard-grass and clover, for cutting in the spring. Field No. 4, six acres, has given a crop of rye, used partly green and partly cut ripe for grain and straw, the ground having been plowed and sown to millet; and three acres of oats sowed late and now cut, the ground being plowed and planted with melons for market. Field No. 5, four acres, is planted with corn fodder, as is field No. 6, of about four acres. The swamp field, 10 acres, is in grass, which has been mown for hay. The remainder of the 65 acres is as yet unimproved and remains partly in a piece of shaded pasture not yet quite cleared up, and some hill sides overgrown with brushes, which have not yet been cleared for want of time and means. The stock has been increased to 17 cows, one bull and six calves, which have been fed from the farm, some surplus has already been put away for winter feeding, and the ground is all still occupied with flourishing crops. One field, No. 1, of five acres, in clover and timothy, has been mown twice and the clover is now seeding and will be left to drop its seed upon the ground.

The cost of artificial fertilizers this season has been about $100. Two hundred and twenty-seven loads of manure have been used on field No. 2; 40 loads upon field No. 3, and 22 loads upon the melon patch in field No. 5. The effects of last year's application of fertilizers upon fields five and six have been so marked that, with the exception of 200 pounds of guano on the melons and 300 pounds of complete manure upon the oats,—very light dressings,—no other has been thought necessary. The clover in field No. 1, dressed with 1,000 pounds of complete manure in the spring, gave as good a yield as could have been expected, considering the dry weather; equal at least to two tons of hay per acre.

"You would have done much better if you had got your plowing done earlier," remarked William.

"If there is an early frost, the late corn will be caught, that is certain," responded my old neighbor.

"Well, what is the use of borrowing trouble?" said Mr. Martin: "when a man does his best, it is stupid to be always saying: 'If I could only have done so and so!' Farmers are the greatest grumblers in existence. The weather is always too dry or too wet; there are these bugs and those worms; and a peck of troubles always ready to be overhauled and counted over and over again. What is, is to be; and cannot be helped. If I were not a Christian and a believer in a good Providence, I would be a Mohammedan and a believer in fate; indeed, I don't know but that the latter is sometimes the more reasonable and the happier man. 'Farming don't pay;' 'there's no money in farming;' 'there's no price for anything.' These are the common complaints, and some men sit upon the fence for an hour at a time grumbling about their poverty and misery, and if $10,000 were offered them for their farms and stock not one of them would say, 'thank you, I'll take your offer;' but would scornfully reject it. What would our fathers and grandfathers think of that despised $10,000! We have been living too fast and have learned to look upon an income, or a fortune, that would have bewildered our fathers who cleared these fields from the woods, as altogether beneath our notice."

"It has been the fashion," I replied, "to consider that a farmer who had everything about him in a sort of show condition—no weeds in his fields; the largest crops; the most costly stock, and every labor-saving device that money could purchase—as a 'high farmer.' This term is now better understood. The farmer who makes the best from his opportunities, and who makes the most from the least expenditure, is the high farmer. A Kansas or a Minnesota farmer who produces 15 or 20 bushels of wheat per acre on his prairie land, and neglects the manure which lies about his barn, and burns his straw to get rid of it, is doing a better and more legitimate business and is really farming better than if he spent much money for labor and stock to turn his straw into manure and to spread the manure upon his already rich soil. He makes the best possible use of his means and circumstances, and that is all that can be expected or desired. It will not pay to spend $100 per acre in improving land that can only be worth $75 when it is brought into cultivation, nor will it always pay to hire extra labor of men and horses to get a crop into the ground a week or two earlier. Judicious expenditures only are to be recommended: a farmer who spends money without good security that he will have it returned with interest, squanders and wastes it. We must thoroughly understand our business, and then manage it with as much skill as we possess."

"But everybody has not skill, and some don't understand their business," remarked the old gentleman. "I begin to think, although I am 86 years old, and have been farming since I was 20, I don't know so much about it as some of the young folks; at least they try to make me believe that."

"That's the way with young folks," drily remarked Mr. Martin.

"Well, is it not true of nearly every business and profession?" said I. "Doctors used to bleed and physic their patients upon every opportunity, and the lancet or the blue pill was the first resource. Now the practice of medicine is wonderfully changed, and the medical student is taught more to prevent disease, or at least to mitigate it by attention to sanitary precautions and gentle treatment, than to cure it by 'heroic' measures. The changes in the practice of engineering, mining, working of metals, manufacturing of all kinds, and transportation by land and sea, have made all things new in regard to these industries, so that the old practitioner or artisan has to begin anew or retire from business to make place for younger men. In agriculture, too, everything is new; old practices have become obsolete because of the new discoveries in agricultural science and the new inventions in agricultural machinery. The modern workman could not live by working as his predecessor of 50 or even 25 years ago. The cost of producing articles of consumption has been decreased greatly, and farm produce is no exception. The standard of living, too, is higher than it was. When things change so radically as they have done of late years, it is to be expected that the young people will do the new work and the old people will give place to them, to a great extent. Youth is enterprising and hopeful; age is conservative and cautious; and it must be confessed, in this enterprising country youth has the advantage of age. I think you will confess that your grandson William manages your farm in an excellent manner; and you must remember that the soil is now very different from what it was when newly cleared, 60 years ago."

"William does very well," the old gentleman replied. "The farm keeps a large family now, and his expenses are much larger than mine ever were. I don't know but, on the whole, his children have more enjoyment; I know they have less work to do than mine had. My only fear is that it will not last, and the farm won't stand the strain."

"Never mind, grandfather; as long as the farm is not in debt, and we never spend a dollar until it is earned, there will be no danger. When we have not the money, we can easily reduce our expenses, and my girls will take a hand in the work as well as any; although they don't care to do it until they are called upon."

"William is right," I remarked, "and Mr. Martin, or his daughter, even, cannot reasonably object to his views. Money is not the chief object in life. A safe source of income, of course, is desirable, if not necessary to happiness. That is reasonably assured on a good farm that is clear of debt and well stocked. The most reckless man could scarcely starve under such circumstances. The more certain a man's living is, the less need for a surplus in hand for 'rainy days' and times of disaster. A farmer can afford to live closer to his income than any other man, while seed time and harvest fail not, always providing that he keeps out of debt and buys nothing or incurs no liability until the cash is in hand to meet it."

JOTTINGS AT KIRBY HOMESTEAD.

COL. F. D. CURTIS.

About Clawson and Other Wheats.

CLAWSON wheat is the leading variety grown in this section of the country. Hundreds of acres are now being harvested, and the yield is fine. Everybody says the flour made from this kind of wheat is not equal to others, but it stands the winters well, and they feel so sure of a good crop with it, that they sow it. Some millers make much better flour out of it than others, as it requires careful grinding to keep the bran from mixing too much with the flour, which makes it dark-colored, and causes the bread to get dry quickly. Michigan White does well on the farm of Mr. Frederick Curtis. He has raised it successfully for a number of years, and gets first-class flour from it. His soil is a gravelly loam. Clawson seems to be suited to any kind of soil, and yields better than rye. Fultz is a stranger to us, but from what we can learn of it, we shall try it this fall. If it has the growing qualities of the Clawson, and will make better flour, it is just what we want. We have seen fine crops of wheat this year grown on old meadows, which were mown last season, and as soon as the hay was taken off were thoroughly plowed, and a few weeks afterwards pulverized with a two-horse cultivator. With this implement a complete summer-fallowing can be obtained between the hay harvest and the time to sow wheat, with the hay as a gain. In the hot, dry weather of summer the sods rapidly decay, and by cultivating two or three times, the ground is admirably fitted for the autumn crop. This is an advance on the old system of fallowing, which is the result of improved implements. Run-out meadows can be turned to good account in this way, and by reseeding with timothy or orchard-grass, sown with the wheat, may be brought back to a meadow with the loss of only one year. Mr. Frederick Curtis has practiced sowing clover in the fall with his winter grain, and is much gratified with the results. He escapes the spring drought which is often so damaging to spring seeding, as the autumn seeding is firmly rooted when it comes. He puts his crop in the last of August, so as to obtain as rank a growth as possible before winter sets in. This growth serves to protect the clover, and when harvest time comes, it is good feed. A very little manure spread upon the surface, will help the wheat and almost always insure a "catch" of the grass seed in the autumn, and make the clover, if sown in the spring, a success also. Broadcast sowing is avoided, if possible, as the drilling is found to be the best. When winter grain is sowed broadcast, it should be covered with a cultivator, and the ridges left to gather the snow and make protection. The deep covering will aid very much towards securing the same result by preventing the grain from being so easily thrown out by the frost.

Salt, Sulphur and Charcoal for Pigs.

We have observed that when pigs are fed a great deal of hearty food, they are fond of salt and charcoal. Pigs are often affected with indigestion, and the salt and charcoal are good remedies. We cannot very well mix these things with their food in the right proportion, and, moreover, it would not be best to attempt to force a pig to eat them unless it wanted to, or else its appetite might be destroyed and harm come from the experiment; but by mixing the salt and charcoal together, and putting them in a box accessible to the pigs, they will eat no more than they require. There is no danger in putting either salt, charcoal or sulphur, where the pigs can get them, but to mix them in their food might injure them, especially if any one of them should possess a voracious appetite. Hogs will eat a considerable quantity of sulphur, and it is exceedingly healthful to them as a purifier of the blood, and to help them to get rid of the vermin which infest their bodies inside and out. We want the pigs we are going to eat to have plenty of sulphur, at least all they will take. Their flesh makes better food.

Puddling Plants.

The RURAL sensibly urges "puddling" the ground when green plants are transplanted. By "puddling" is simply meant putting water in the holes where the plants are set out and covering the wet ground, which is pressed around the roots, with the dry earth; this keeps the moisture at the roots, where it is wanted. When beets or turnips are transplanted we always wring or twist off the largest leaves, and this keeps the plant from wilting. We set hundreds of mangels the other day by "puddling" and twisting off the tops when the sun was shining fiercely hot, and not one died that we have noticed. These facts about transplanting have been printed many a time, and we would not repeat them, but for the circumstance that a neighbor who saw us working had never heard of them and did not think transplanting could be done, in hot or dry weather.

Too Many Eggs.

We threw away sixty-five turkey eggs which would not hatch—reason, too many eggs under the hens and turkeys. In many of these eggs were dead turkeys, showing that they were chilled. We were too greedy that time, and tried to have the sitting fowls do more than they could.

The Defiance Wheat.

This spring wheat, like all other kinds, rusted badly and will not do well.

Industrial Topics.

PATENT RIGHTS.

Now that the Lee patent farm gate is under discussion, it seems to be a good time to discuss patents in general. The swindles put upon the farmers as a class, are invited by them in every case, and until farmers become readers and become posted thoroughly upon matters essential to their own prosperity, they will continue, as now, the butt for all the swindling fraternity.

To argue that because farmers are so continually imposed upon, the Patent Laws must be repealed, and the Patent Office abolished, is simply ridiculous. The true remedy is against the swindlers, not against the inventors. If a farmer has neither discernment enough to know a patented article from one not patented, nor common sense enough to know that "he has no right to use a patent for his own use" against the wish of the patentee, nor honesty enough to keep his hands out of the latter's pocket, the remedy is to teach the farmer better, and not to attack the men who spend time and money inventing improvements for those who scarcely know a hawk from a hand-saw. In this country we have our annual troop of agents selling all sorts of new notions to farmers, some patented and some not patented, but in nearly all the cases these agents are pure swindlers. I notice that only such farmers are called upon as have lax ideas in regard to "meum et tuum," or who don't take the papers, and who, having no brains of their own, and but weak perceptions of morality, depend for ideas upon any one who can find them out.

The usual mode here is to make a sale of something to be delivered in the future, get an order, which turns out to be a note of hand, sell the note to a third party, and collect at once under threats of the law. Now, if a man is too indolent to use his brains to inform himself sufficiently upon his own business, so that he cannot be swindled, it must be a luxury to him, and he ought to be taxed. I propose, that instead of attacking the Patent Office, we legalize all sorts of swindles, and license the swindlers. If the farmers won't learn in the usual mode, let them learn by experience; but don't let us hear any more about knocking out the brains of the inventors, merely because farmers have none themselves, or won't cultivate and use what they have.

That's too much like the old fable of the fox which had lost his tail in a man trap, and advocated that all foxes should cut off their tails, so as to be in fashion. The world moves, the farmers must move with it or be left behind.

Finally, don't let me hear any one say "he has no time to read;" as long as he has time to stand open-mouthed listening to a patent swindler, that tale is not true. I won't just now refer to the time spent in rum shops or while kicking the heels against store counters—but as there is a time for everything, there *must* be a time to read. S. RUFUS MASON.

EUROPEAN CORRESPONDENCE.

THE AGRICULTURAL SITUATION IN ENGLAND.

LETTER FROM PROF. G. E. MORROW.

LONDON, ENG., July 22, 1879.

The Agricultural situation in England is peculiarly gloomy. To all the causes for apprehension which have been existing and increasing for some years, is now added the bad effects of a season almost unprecedentedly unfavorable for farm operations. Cold and wet have been the characteristics of both spring and summer. In many parts of the country the season is fully four weeks later than usual. The almost daily rains have made it impossible, in very many cases, to properly cultivate the hoed crops, and have made the growth of the grains unsatisfactory. Complaints come of the inferior quality of the cattle received at the markets here. The absolute loss to the hay crop has already been very great. In the West of England, on Friday last, I saw hay being put in cock, which had been cut more than four weeks before. It is simply wonderful to me that this hay was still worth the saving. Much grass is still uncut and hence has suffered less.

It would be remarkable if the farmers of the country were cheerful and hopeful with such gloomy weather as still continues, even had they no other causes for discontent. But the unfavorable weather is but the last of a series of untoward conditions. For six years past English farmers have had peculiarly hard times. Of these six years, four have given bad wheat harvests, and the diminished yields have been accompanied by low prices. In an interesting article in the *Times*, contributed by "A Statist," it is stated that the wheat product of Great Britain for the last six years has been 13 per cent. less than that of the preceding six years, and the gross sum realized for it, 42 per cent. less. The average price per bushel in 1878 was less than a penny over 5s., the lowest since 1864, and lowest, save that year, since 1851. The returns for the barley and oats crops have also been below the average. This article also notes the striking fact that while there has been a reduction of 500,000 acres in these six years in the area devoted to grains, there has also been a reduction of 521,000 cattle and 2,266,000 sheep. During most of these years meat and dairy products have been of fair price, but now all these are lower, and the foreign importations are steadily increasing. It is also estimated there has been an average advance of two shillings on the weekly wages of the 1,000,000 agricultural laborers over 20 years old in Great Britain. As a conclusion the writer in question figures a total reduction of £97,000,000 in the gross agricultural returns for the last six years compared with those for the six preceding ones.

The distress is real. Very many tenant-farmers have already been compelled to give up their farms and the losses of many more have seriously crippled them. Landlords in many cases have remitted rents or made reductions in the rent rate for some years to come. Articles on the general subject appear almost daily in the leading papers. Public meetings have been held in which the causes and remedies have been discussed. The Government has granted a "Royal Commission of Inquiry."

It so happened that the first public meeting I attended in England was one of the "Farmers' Alliance," a new organization of which James Howard, a well-known Bedfordshire farmer, is President, and Mr. Bear, editor of the Mark Lane Express, is Hon. Secretary. This association announces eight objects, the most important of which seem to me to be these: Greater freedom in the cultivation of the land and disposal of its produce; security for the capital of tenants invested in the improvement of their holdings; reform of the game laws. Among the other objects is that of securing a better representation of tenant-farmers in Parliament, and this is made chief. The meeting to which I have referred was held in Exeter Hall during the Royal Show week. It was largely attended and much interest was manifested. Addresses were made by several members of Parliament—who were not able to forget their own interests—and by others, and the Alliance was almost unanimously indorsed. It was repeatedly stated that there was no desire to revive a protective tariff, and this was undoubtedly the view of the majority of those present, although a minority plainly manifested their dissent.

It seems to me quite probable this very serious crisis in the agriculture of the country—connected as it is with deplorable depression in almost all other lines of business—will result in very important legislative and social changes, which will give much greater liberty to the tenant-farmers, and affect the sport-loving disposition of the landlords, if indeed they do not change the land tenure laws in important points. A considerable emigration of tenant-farmers to British Colonies and to the United States seems also probable, and if the right men go, it seems clear the step will be a wise one for them.

Industrial Societies.

THE ROYAL AGRICULTURAL SOCIETY'S SHOW AT KILBURN.

LETTER FROM PROF. J. P. SHELDON.

LONDON, July 23.

KILBURN, you must know, is one of the suburbs of London, and the Show was held there simply because it was impossible to hold it in London proper, unless one of the parks could have been borrowed for it. The soil at Kilburn is of a most unfortunate character—the London clay, which is the stickiest and dirtiest in Christendom when the weather is wet; and as it happened this year the weather *was* wet. The Show yard was one huge slough of despond right up to the very edges of the tents and sheds, and sometimes inside them. Some heavy implements never got into position at all; they managed to get inside the Show yard, and there they stuck—up to the axles in mud. I heard of one engine that had disappeared altogether, and of men digging to find the funnel; but I cannot vouch for this. Anyway, the Show was a gigantic failure, on account of the wet. In itself it was simply grand; probably the finest Agricultural Show the world has yet seen; but it was a failure financially, for the Society, it is said, will lose £10,000 over it.

The leading feature in the Show, in the Live Stock Department, was the splendid display of Jersey cattle. All told, there were some 252 of them, and the quality was undeniable. Many American farmers have a great liking for Jerseys, and to such the display at Kilburn would have given great gratification. Probably some of your leading agriculturists were present. I saw one of your leading agricultural Professors there—Professor G. E. Morrow, of Illinois—and if so, they would come away with an increased admiration of the breed. It is evident Jerseys are coming into rapid favor in this country, if the number of animals exhibited at the Royal is any index to popularity, and I should be inclined to think it is. Mr. Thornton, our well-known auctioneer, is about to issue a Herd-book of the Jersey cattle, and this will help to extend their fame.

I cannot say if the Short-horn fever is waning in this country, but anyway, the entries in the Short-horn classes were much less numerous than in the Jersey ones. The quality of these grand cattle was, as usual, superb; but then, they are next to useless, except for fancy. Pedigree Short-horns lead glorious lives; "they toil not, neither do they spin;" they are tenderly cared for, and they see a great deal of the world and of society. These things spoil human beings sometimes, and no wonder the Short-horns have become mere ornaments. I was disappointed at the few entries of Ayrshires, because, as dairy cattle, I think we have none to surpass them. But, then, the Ayrshires are business-like, not show cattle; still, it is unfair to them not to bring them before the public who are so much indebted to them for many benefits.

The Polled cattle seem to be coming into favor. Many excellent specimens of Red Polled Norfolk and Suffolk cattle were exhibited. Really, the mere fact of having no horns goes a long way toward making these cattle a most valuable breed for dairy purposes. Besides, they are excellent milkers, very good beef makers, and withal very handsome. Being unarmed they are of peaceable dispositions, and this is a not unimportant consideration in both beef and milk-production.

Herefords and Devons, Sussex and Longhorns, the Welsh and Scotch cattle, and quite a nice little lot of Kerrys, were present in very commendable form. All of these, however, except the Longhorns and the Kerrys, are celebrated chiefly for beef, milk being, or having been, a secondary consideration in their breeding. A few Continental cattle were there, including several specimens of the famous Angeln breed. None of them, however, either for beef, milk, or comeliness, could compare with the Short-horns, the Ayrshires, the Jerseys, or the Norfolk Polled. Milky they were certainly, but they were loose-built and ungainly.

Our various breeds of sheep were well represented. The beautiful and woudrously compact Downs; the huge Cotswolds, Lincolns and Romney Marsh; the Leicesters, the Border Leicesters, the Cheviots, and the best-of-all Shropshires, were all grandly represented; but it would take many columns to do them anything like justice in detail, so I will leave details quite alone.

Berkshires, Shropshires, Yorkshires, Essex, and other types of the porcine world were there, and as nearly perfect as we can hope to see them. With you, however, I think pig-breeding is almost more advanced than with us.

THE NEW RASPBERRY "MONTCLAIR."

Horticultural.

THE NEW RASPBERRY "MONTCLAIR."

An engraving of a branch of this Raspberry may be found in the RURAL NEW-YORKER of Oct. 12 of last year. Many of the berries had been shaken off, and the engraving did not do justice as a representation either of the average size or the number of berries usually borne. We therefore selected what seemed to us a fair specimen, on the 6th of last month, to the careful engraving of which on this page, we now call the reader's attention.

This berry is a chance seedling (probably of the Philadelphia) discovered in 1872 in the grounds of the Messrs. E. & J. C. Williams, of Montclair, New Jersey. Six plants of it were sent here for trial last spring, and the present season they have been loaded with fruit. They passed the winter, so fatal to many varieties, without the slightest injury. The berries began to ripen about the first of July, from which date until the present time (July 26) we gathered, it seems to us, more than from any other six plants we have ever cultivated. They are uniformly large, firmer and of a better quality than the Philadelphia and of a somewhat brighter color when fully ripe. Extended trial may develop in the Montclair faults we know not of at present. But, judging it by the test of a single season, and by the test of the past six years in the grounds where it originated, we may hope it will prove among Raspberries what the Kittatinny, introduced by the same firm, has proven among Blackberries. We are not at present advised when the Montclair will be offered for sale.

SMALL FRUIT NOTES.

[The following notes are from an old and respected lady friend of the RURAL, now 73 years of age.—EDS.]

I plant Strawberries in a way a little different from that practiced by most people.

I have my ground well forked over for two months. As soon as the vines get through bearing, I begin to set the best young plants five or six inches apart in rows, and lay a board between the rows. They require very little weeding. The second year after bearing lift the board and place it on the old vines and you have a new bed without much labor. As soon as the berries begin to show red, I cover them with mosquito-netting to keep off bugs and birds, and the berries get thoroughly ripe. I cover my Raspberries in the same way.

You must not think I have many acres. My strawberry bed is about 50 feet square. From Wilson's I get the most berries. I can go out to-day and pick 20 quarts.

Tell RURAL readers to put one pint of salt and one pint of soft soap (it ought to be farmer's soap) to ten gallons of water and use it on Currants and Gooseberries. I'll warrant them a full crop. Put plenty of ashes—coal or wood—around the roots to increase the size of the berries.

Everywhere.

NOTES FROM NORTH CAROLINA.

Just two weeks ago I reported a partial drought that appeared to be ended by the longed-for showers. Those showers were light, and soon gave place to a rainless season of very intense heat. To aggravate the case, reports of far more severe drought came from many directions. A friend in our village has a daughter living in N. W. South Carolina, who wrote him that the weather had been so dry that the water in the wells, &c., was dried up and she had to send clothing three miles to a creek to find water enough for washing. In one part of Virginia it was necessary to drive stock a considerable distance to be watered. I think there has also been a drought in at least a part of Georgia. In North Carolina the distress has prevailed very extensively, and the injury to crops has been alarmingly great. The cotton has probably been injuriously dwarfed, but that plant has seemed to suffer less than any other growing crop. The tobacco that was planted early—which is relied on for the fine quality—is comparatively ruined. The product in this state and Virginia has certainly been very much reduced both as to quality and quantity. The forward corn suffered exceedingly. That upon the up-land has been dwarfed and, in some cases, dried completely. The summer grass is a *dead* failure. At last the rain has come. Yesterday the first good shower fell, and to-day we have had two refreshing showers. From all the reports and signs the rain is general, and the thirsty lands are, all around, receiving relief. The clouds still lower and promise to continue to be generous. Verily, these seasons of sweet relief beget gratitude in every faithful heart, "to the Giver of every good and perfect gift." How soon privation teaches man his helplessness and dependence on a higher power! After all, there is need of droughts.

In the State Normal School this summer, President Battle of the University, delivered a lecture to a large body of teachers of both sexes on the subject of "Higher special education for farmers." He justly taught that as the devotees of other occupations thought it necessary to seek special training and preparation, so the farmer, on whom *all* depend, should be carefully fitted and thoroughly furnished for his vocation. The address was well received. In truth, since the late war, there has been a great change in opinion and practice as to the proper relation of farming and education. We had again, in the Normal, Miss Coe of New York, the founder of the American Kindergarten. She had a large class of excellent ladies and the system is now well introduced into this State. Miss Coe is an enthusiastic, untiring worker. Her pupils presented to her a handsome testimonial, at the close of the session. Prof. Ladd, formerly of Mass., now of Va., presided again and conducted this pioneer State Normal of the South to a most gratifying success. A. W. M.

July 28, 1879.

NOTES FROM CENTRAL ILLINOIS.

Just now I am favorably impressed with "bagging grapes." Old Clinton vines which have lost their fruit for several years by rot and mildew, now present nice clusters in the bags, while those unprotected on the same canes are rotting.

Another season's observation confirms me in my opinion of the cause of Black-cap Raspberry blight; when the Rural some time ago, hinted at the cause of grape rot and mildew, and suggested the remedy, it might have included the Raspberry's trouble too. I think I have demonstrated in my garden that the so-called "blight," is an evil resulting from our method of training the briers, by cutting back, pinching, etc. But how are we to avoid pinching back our raspberry canes, and yet compel them to send out laterals? I don't see that we can and I hold that the injury is received from the nipping back being done improperly. To illustrate: Take two stools of Mammoth Cluster. A. comes along when the young canes are just the hight at which he desires them to branch, and with a keen knife he nicely takes out barely sufficient to arrest the upward growth, and no more. B. lets his stool alone till some day he comes along in great haste and, noticing his young canes, says: "My canes have grown too high," and hurriedly slashes and breaks them back a foot or so, to the point at which he desires them to branch, and in a few days he can probably tell A. that blight has struck his raspberry patch, particularly so if the weather and atmosphere have been adverse to the rapid healing over of the large and unsightly wounds he inflicted upon the young, rampant, succulent canes, left bleeding out their sap, not only to debilitate the plant, but scald the young bark, as it oozes down the cane in the blazing sun. The amputation, as a rule, of a finger, is not fraught with the danger that the amputation of a leg is, especially if both should be left bleeding, the finger having been taken off nicely, and the limb rudely. Learned Professors may bring to bear upon the diseased canes, their most powerful magnifying instruments in their search for theoretical causes, but let the fruit grower nicely nip out the tops of his canes as soon as they have attained the hight at which he desires them to send out laterals, barely taking off the uppermost bud, and at the same time experiment with a few by doing as B. did, in our illustration, and he will arrive at the true cause of the trouble much sooner than the microscope will. It may be foreign here, and unnecessary to say that tying raspberry canes to stakes is entirely needless work since they may be made miniature trees, standing up under their loads of fruit at least equal to the peach and plum.

Douglas Co., Ill. Dr. A. C. W.

RURAL SPECIAL REPORTS.

Conn., Georgetown, Fairfield Co., Aug, 4.—The Blunt corn sent me by the Rural is looking fine; it is setting from five to twelve ears per stalk; some of the stalks are 12 feet high and 10 inches in circumference. The Pearl Millet is six feet high and growing rapidly.

G. T. O.

N. Y., Orangeport, Niagara Co., July 26.—I planted my Blunt's corn on May 27, on a plot of ground measured off by itself in my pear orchard, 54 feet long and 12 feet wide. I made three rows inside of this plot, four feet apart and planted the kernels 14 inches apart in the rows. I planted 141 kernels but only 105 germinated, and as the weather was cold and dry for three weeks after planting, it "had a hard time of it," and appeared to be thoroughly tired out by the time it had got through the ground. I hoed it once a week for three weeks, and cultivated it once, and now it looks grand. It is just setting tassels, with a stalk as big as my wrist. My neighbors laughed at me the first month; but it makes them stare to see the change that has lately come over it. The prospects for other crops are very good, indeed. Wheat is all harvested and some have thrashed theirs. One man, near me, had 450 bushels of Clawson wheat from 11 acres; another had 670 bushels from 20 acres. The straw is short but the ears are well filled.

H. R. T.

Rural Farm, East Rockaway, Long Island, Aug. 1.—Plentiful rains have insured our crops against the drought before it had injured corn or potatoes seriously. It has been a delightful season, and any deficiency of yield will be due entirely to neglect or to timely cultivation. Blunt's corn (at last) has begun to set ears, and is a picture of vigor and health. Beauty of Hebron will produce a fine yield.

New Jersey, Brookside, Morris Co., August 5.—A rain and wind storm passed over here yesterday, and among other things it laid low was my Blunt's corn. Many stalks were broken off about two feet from the ground. I had 98 stalks; they were about 12 feet high and just beginning to tassel. I think the Acme tomato is not as good as it is thought to be. Mine decay at the blow end as they begin to ripen. I have cut some of the vines, some remain uncut, but this makes no difference in their decaying. The Canada Victor has beaten them by ten days in early ripening. J. D. T.

Pa., Factoryville, Aug. 1.—I notice in Rural for August 2 a report of the growth of Blunt's corn. Visitors to my grounds to-day express wonder at the number of ears set as high as ——well, higher than they can reach; but they can point to them, and think there is more room above, and a good prospect of a considerable space being filled above, beneath and all around, and the roots, like teeth, as high as one foot, are grinning to think that there is more in the ground than has ever been brought to light. The Rural must have sent out this giant feeder and space-consumer to wake up the drowsy powers of the husbandman, and draw on the resources beneath our feet and above our heads, and to be happy in the contemplation of what book-farming has done and is doing for the rising young men of America. J. W. W.

Ohio, Bloomville, Seneca Co., Aug. 4.—To-day we dug our Beauty of Hebron potatoes. From the one sent us, which had six eyes, we raised 45 potatoes, the largest measuring 11¼ by 7½ inches, and there were but few small ones among them. The corn is still growing; some of the stalks are 11½ feet high. Seven ears are the most we have counted on a stalk. The tomatoes are fine; but of the flower seeds very few came up—a mishap that causes some murmuring among the female portion of the family. The season has been pretty good—a little dry at times. Thrashing is now the order of the day. Wheat is turning out from 20 to 30 bushels per acre on the best land, and is selling at one dollar per bushel. M. Mc. N.

Illinois—Baileyville, Ogle Co., July 30.—The harvest is closing here. Some have their grain all in stack; others have some oats to cut yet, but soon will have finished. The weather has been favorable since the 10th inst., and harvesting has progressed rapidly. I have never known so much harvest work to be done in so short time and with so few hands. Improved machinery and good weather have caused this. The crops are variable, but mostly good. Winter wheat and rye are excellent, both in yield and quality. Spring wheat and barley were injured considerably by the spring drought and chinch bugs, so the yield will be below an average, but the quality is generally better than usual. The hay crop was quite heavy in this section, but a large amount of that which was cut early was damaged by the wet weather. The corn, potatoes, etc., are doing well and promise bountiful yields. The Beauty of Hebron potatoes we planted are proving very satisfactory. Some potatoes planted during the hot dry spell in May, failed to grow. Gardens are in fine condition, and vegetables are plentiful and cheap. The sowing of turnips, etc., etc., is now in order. We had timely refreshing showers on the 21st and 28th insts. Markets steady, though there have been recent fluctuations in the Board of Trade in Chicago. W. B. D.

Illinois, Kankakee, Kankakee Co., Aug. 4.—A welcome shower visited this place this morning—the first rain we have had for about four weeks. The corn crop had begun to suffer from drought, also the late potatoes. The harvest is finished and most of the grain and hay well secured. Some farmers have thrashed their wheat, and find it to be excellent in quality, plump and bright, yielding thirty bushels and over to the acre. Corn promises a large yield. Fruit, with the exception of apples, is scarce. Blunt's Prolific, what came up for me, is from ten to twelve feet high, and has from four to seven ears set on a stalk—whether it will all make corn is yet to be seen. The Beauty of Hebron potato received from the Rural had twelve eyes, which I planted on the 10th of April. The tubers have been ripe some three weeks. I dug them to-day and had a peck of very nice potatoes. I have not tested the quality of them to know if they will compare with the Snowflake which are very hard to beat. J. M.

Iowa, Fredonia, Louisa Co., August 5th.—My Beauty of Hebron potato I cut to single eyes—there were fifteen of them. For the sake of comparison I selected an Early Vermont of the same size, with eyes started to about the same extent; but as it only had thirteen eyes, I had to take two from another potato. Both sets were planted about the middle of April, the pieces about two feet apart in the row, the rows about three feet apart. The soil was a black, sandy loam, manured with common stable manure, at the rate of eight or ten loads to the acre. Early Vermont came up first, and looked rather the better for two weeks. The Beauty, however, finally passed it; its stalks were larger and more branching than those of the Vermont, but the leaves and blossoms of both looked just alike. The cut-worms took two hills of Hebron, and it was a long time before they sprouted again, and then were pretty slim, the two hills yielding not quite as much as one of the others. I dug them the first of August, and picked them up in an ordinary wooden pail. Of the Beauty I had the pail once heaping full and once not quite even full; of Vermont, I had a pail heaping full and about one-quarter full. Hebron had a little advantage in being planted on the back furrow, but I think the cut-worms offset that. It was the biggest yield, for the amount of seed, I ever beheld, and I never saw anything but the Harrison equal it for the amount of ground occupied. I cannot perceive any difference in taste or quality of Hebron and Vermont, and I don't think there is fifteen minutes' difference in earliness. They were hoed once and plowed once with a double shovel.

Blunt's Corn was planted the last Saturday in May, on dark, sandy loam. It came up in five days, a big, dark-green sprout, and grew faster for a while than any corn I had. I planted some deep-grained, brown corn (I sent you a sample) the day before on similar ground, but not so good, a part of it being quite light. It was longer coming, and did not look as well as the Blunt when it came, but it is now a long ways ahead, is all tasseled and some of the ears begin to top, while the Blunt does not begin to show tassel yet, and some of it is eight feet and some four feet high. I judged from the shortness of the grain it was not a tall-growing or late variety. I hoed it once—something not usually done to corn in this country—plowed once with double shovel and cultivated once with a two-horse cultivator. The other (Brown Canada) corn I cultivated once with a two-horse rig; the second time I found I was breaking so much while driving astraddle of the row that I had to finish it with a small one-horse plow, so it only got tended twice. Guess you will have to count me out of the premium list. I have sixty-four hills of Blunt corn, three feet apart each way, two grains having been dropped to each hill, and three grains in three hills. I believe every grain grew; it has not suckered at all. The planting was the last work of the week and I did not stop to measure the ground, but planted with a hoe, by step one way and by furrow the other way, and guessed it was within the required limits. I could not decide sooner where to put it where it would have a fair chance, and be where it would not mix with either my neighbor's corn or my own.

Since I commenced writing I have been to look at the corn; about half of it shows tassel, though it did not on Sunday, the 3d inst. Corn never looked better than at present all through this region. Early potatoes are a big crop and very fine. It has been a very hot, and some of the time, a very dry season; but when things began to need rain very much, it came, and plenty of it. Wheat, rye and oats were pretty good crops about here, but in this part of the country the chinch bug has done considerable damage—a large proportion of wheat hardly paid for harvesting, and a number of farmers did not cut theirs at all.

Hogs are dying of the cholera to some extent, though not very alarmingly yet. My nearest neighbor, out of a herd of forty has lost fifteen, and still they die. I have lost none, I have but a few and they are shut in pens and yards and can get nothing to eat or drink but what I feed them, and they have no place to wallow in the mud. I have but little fear of the cholera—though I may lose my pigs for all that. I know that beets and cabbage wilt less if the larger leaves are taken off when transplanted, but it takes too much time to clip them. They wilt and the sun burns off all the leaves they can't support; sometimes there are none left, but the plants live and thrive for all that. I never water sweet potatoes or any other plants, and I lose none. I think sweet potatoes do much better without watering, though the watered plants will look the best for a few days. I never use a dibble for setting sweet potatoes or tomatoes, but use it for other plants always.

H. I. B.

Iowa, Conway, Taylor Co., July 29.—Rye and oats are good. Wheat has been somewhat damaged by chinch bugs; it is nearly all cut. Hay is three-quarters of a crop. What few fruit trees we have in this part of the State do not bear much, but our orchard prospects are fine so soon as the trees come into bearing. Corn never looked better at this time of the year. Flax is not good, owing to dry weather in May. L. W. B.

Wis., Osseo, Trempealeau Co., July 27.—Wheat suffers from rust and chinch bugs; other crops are very good. J. O. E.

Missouri, Memphis, Scotland Co., July 28.—Our Blunt's corn is worth looking at. I have just measured some of it—one stalk, bearing four ears, measures to end of tassel eleven feet five inches, while another stalk having eight ears set, measures ten feet ten inches. These are, perhaps, just a trifle above the average. The Beauty of Hebron potato has done splendidly for us. This is comparatively a new country and "hard times" are harder upon beginners than upon those who are older settlers; our prospects, however, are excellent.

M. O.

Neb., Grand Island, Hall Co., July 27.—The weather continues very wet. Wheat is a fair crop. Corn never looked better. My premium corn is about eight feet high. It is of a dark-green color. My Pearl Millet I planted a little too early; it did not come up well, but what did come is doing finely. It is about three feet high. Prices here are as follows: wheat, 65c; oats, 33c; corn, 33c; rye, 25c; eggs, 10c; butter, 10c; hogs $2 to $2.50. W. H. M.

Oregon—Forest Grove, Washington Co., July 22.—We are having our dry spell here now. Haying is nearly over, and fall wheat is nearly ready for the harvester. The seed sent me by the Rural came safe and was planted with great care. I have eight plants of the Aquilegia, eight of Amorpha fruticosa; two of the Pinus edulis; some very nice beets and the very finest lettuce I ever saw. Everybody wants seed from it. Three weeks ago every leaf, except just the heart, was picked off from five of my plants, and now I have just measured them—well, two of them measure 36 inches, and the other three 34 inches, and they have had only common soil at that. I have a great many house plants, and the more I cultivate them the more I love them, and when by some mishap I lose a plant, it seems as if I had lost a friend. I well know that, for the working classes to buy and cultivate flowers, means fewer fine clothes as well as less plaiting and ruffles. But, I say "Give me my flowers and a plain dress." I find plenty of my more dressy neighbors glad to get slips from me, for they cannot afford to buy them. I do not wish to say that even I buy all my plants, for I get a great many by exchange, which, I think is a very friendly way. My husband says, the crop reports in the Rural are worth all it costs. For ourselves, we are both from your Empire State, which we left only seven years ago, and with the exception of a brother, all our relatives still live there in Delaware County.

Mrs. M. E. G.

Va., Mecklenburg Co., July 30.—The seeds sent me by the Rural, are all doing well. Of Blunt's prolific corn I received 140 grains of all descriptions, 15 were worthless, cracked,

decayed, etc. I planted 128 grains; 124 germinated and came up; 12 were cut down by cut-worms, and one other died from some cause, leaving me 112 hills standing. I planted it the 10th of May. It now looks very fine. If I don't get one of the premiums—if nothing happens to it—at any rate from the present indications I shall make more corn than I have ever seen made on the same sized piece of land. The wheat crop of our section is over an average one. The oat crop, however, is under an average. The tobacco crop is not a full crop. The corn crop, where well worked, stood the dry weather well. I can't yet tell how it will come in; rather over an average crop was planted, owing to the short crop of tobacco set out. The hay crop is short. The apple crop is large, and the peach crop rather over the average.

J. L. T.

N. C., Greensboro, Guilford Co., Aug. 1st.—After eight weeks of scorchingly dry weather, ending about the 23d of July, we have had fair rains now for over a week, the ground is now moderately wet, just in time to save the corn crop. Cotton land never looked better and now prospects are good for at least half or perhaps two-thirds of a crop on uplands. Taking it all together, prospects are good for an average crop. Turnips are now being sown; this crop is on the increase in this country, especially the Swede varieties.

J. VAN L.

GA., Atlanta, Fulton Co., July 30.—The weather here is damp; it has been raining for nearly a week without intermission. Corn and cotton are looking very promising. Early sweet potatoes are coming into use. We thought in spring that fruit would be scarce, but we find at this time that we even have a surplus. Apples are bringing 40 cents per bushel; peaches, 80c.; wheat, $1; corn, 75c.; labor, from $6 to $10 a month. C. D.

FLORIDA, Rixford, Suwanee Co., Aug. 2d.—Since my last report in June we have had a severe drought. We were nearly the whole of four weeks without rain. I estimate the corn crop damaged 20 per cent. Cotton, however, is looking well and the recent rains have materially improved it. Mercury from 70 to 85 degrees. G. C. R.

TEX., McKinney, Collins Co., Aug. 1.—A nice rain at last—corn cutting about over. Turnip sowing is going on with the best farmers (some never sow turnips). Pearl Millet is heading. "Kennedy's" Amber sugar cane does well here. Corn is now being injured by chinch bugs. Cotton will make half a bale an acre on an average, with present prospects. This has been an unprecedentedly dry year.

W. W. W.

The Querist.

ANSWERS TO CORRESPONDENTS

A Swindling Trick (?)

G. H, T., Granville, Mass., says that he has received circulars from Gaylord & Co., who claim to be proprietors of the National School of Design, Chicago, Ill. With the circulars came a blank coupon to be filled up with a number. He filled in a number and sent the coupon back; whereupon the kind-hearted Chicago chaps sent him a list of what he could have on paying "so much." For $25 forwarded, he is to get a prize *and* an oil painting; or, for $15 he is to have the prize alone; or, for $3 the painting alone; and he inquires if we know whether the concern is honest, and its promises reliable.

ANS.—We know nothing about this concern, except what is told in the plainest language by their method of doing business, as set forth by our correspondent, and that method declares them to be unmistakably a pack of bare-faced swindlers. Scarcely a day passes without our seeing in our "exchanges" several exposures of the tricks of just such bogus concerns that have assumed "high-sounding" titles the better to entrap the gullible and ignorant. Whatever you may want to buy, buy close to home, or at any rate where you can personally inspect it before investing your money in its purchase. Be sure you can get it most cheaply in that way. The dealers with whom you are acquainted, or with whom you can personally bargain, will sell you any article worth having, certainly at as low a figure as will those you have never seen. The method of sending out circulars and offering marvelous bargains to perfect strangers is always adopted by swindlers and never by trustworthy dealers. The greater the bargain offered by these knaves, the stronger the certainty of a complete swindle. Often they hint that it is through underhand or dishonest means they are enabled to make such offers. Yet even then they find fools enough to trust them with remittances, despite their self-confessed roguery; and in such a case an honest man can only rejoice at the certain loss and disappointment of the swindled greenhorn. Sometimes they go further, and offer to make their intended dupe an accomplice of theirs in some dishonesty—chiefly in passing counterfeit notes or coin—and in all such cases the unscrupulous rascal thoroughly deserves the loss he is certain to incur. We trust our readers will never invest a dollar or a cent in any of the swindling enterprises that fatten upon the folly, credulity or greed of the community, whether they are lotteries that guarantee prizes, mining companies extravagantly generous with their hidden treasures; land companies offering homes in the finest locations for a mere song, or art associations promising oil paintings for the price of lithographs

Stubborn Sweet-Scented Shrub Seed.

J. H. S. East Randolph, N. Y., has trouble with a seed of the Sweet Scented Shrub, Calycanthus floridus. She planted six seeds of this lovely shrub, five of which went to the dogs,—at least, they have mysteriously disappeared—but one still remains, and being anxious to raise a plant, she has coaxed that one to germinate by all the conceivable methods and means that her inventive faculties could suggest. She has put it in rich black loam, and then again changed it to a sandy soil, watered it freely and kept it dry, planted it indoors and out-of-doors, given it heat and cold, shade and sunshine, and still its temper remains unruffled. It has not even been provoked into swelling beyond its ordinary proportions, but obstinately continues the same as ever, round, fat, chunky and cheerful, its cool, shining, black coat scowling defiance at her whenever she takes it out of the ground to look at it (as she does quite often, we understand). Being at a loss how next to proceed, the seige suffers a temporary suspension and meanwhile she calls upon us for suggestions as to how to make it sprout.

ANS.—Indeed it is no ordinary seed that can with such hardihood baffle those persuasive attempts to make it grow, and what we can offer may be of little avail. In the case of people, we find, however, that coaxing is a poor means with which to persuade obstinate boys or whimsical persons of any age, and this is an analogous case. Since there is but a solitary seed, we would, in order not to loose it, put it in a small flower pot in quite ordinary soil, sink the pot in the ground to the rim in a shaded place, lay some moss over the pot, keep it moist and leave it alone; then, if the seed has not exhausted all vitality under its previous novel treatment, it will sprout in due time.

The Old Potato Beetle.

W. C. W., East Aurora, N. Y., sends us two specimens of a beetle, which he states is a new enemy to the potatoes in that section, and he would like to know what it is. It is a heavy feeder and quite destructive.

ANS.—It is Lytta vittata, the old potato beetle or the striped blister beetle. Pests of the kind are quite abundant in the Southern and Middle States, but their visits to the North are only occasional. The female lays her eggs in the ground from July to October; they hatch in about ten days and the larvæ, which Prof. Riley states feed principally on grasshopper eggs, undergo five moltings before they pupate, and having pupated, they remain in this state but five or six days, when they emerge perfect insects. There is but one brood a year. The beetle is from five-tenths to six-tenths of an inch in length and rather slim. The black wing-covers have a yellow stripe along the middle and are margined with the same color. The thorax is longer than broad, tapering a little forward and ornamented with three yellow stripes. The antennæ and legs are black and the body black, covered with a grayish down. They are quickly destroyed by Paris-green, and it is even stated that fine lime or plaster-of-Paris will drive them off.

Cultivating Corn in the Tassel and Silk.

H. W., Richmondville, Schoharie Co., N. Y., asks is there any danger in "working" corn when the tassel is in blow and the silk just coming out, lest the pollen should be jarred off, and fertilization be in this way prevented by the loss of the proper connection between the tassel and the silk; is there any other reason why corn should not be worked while in the above condition; his is grassy and he wants to cultivate it with a horse.

ANS.—The silk (female) is ready to receive the pollen from the tassel (male) when it matures. Jarring, therefore, is rather advantageous than otherwise. Corn may be cultivated even up to the time of the first stage of ripening of the ears. But it would in any stage after the silk appears be injured by any interference with the roots. Horse cultivation would, therefore, be injurious. Better let the grass remain.

Gone Where the Woodbine Twineth.

J. L. T., Mecklenburg Co., Virginia, wishes to know what has become of the New York Day Book Co. They advertised largely, offering great inducements to subscribers, and obtained a goodly number from his section, but the paper very soon stopped and the subscribers have seen nothing of it since.

ANS.—So far as we can learn, The New York Day Book Co. had an office at 96 Reade St., from which a few numbers of a weekly journal were published, but it has not been issued for a couple of months, and we understand that the company is broken up, so it will be useless for subscribers to expect the paper.

Miscellaneous.

D. M., Hawleyton, Broome Co., N. Y., asks, 1. what kinds of Magnolia would be likely to prove hardy in that part of the country; 2. where can they be procured; 3, when should they be planted; 4, how near can pumpkins be planted to squashes without danger of their mixing.

ANS.—1, Magnolias glauca, Fraseri, acuminata, tripetala, macrophylla, cordata. M. Lennei, which is hardier with us than any other of the Japan or Chinese species thus far fairly tested, might be tried. 2. All extensive nurserymen offer Magnolias. 3. Spring. 4. They cannot mix the first season, that is, the edible part. If it is desired to plant both near together, so as to save seed of but one kind, it would only be necessary to plant it earlier than the other and then save the first fruit that ripened. Of course, the flowers of the later planted would stand a chance of being fertilized by the other, so that seeds of it might prove to be "mixed." Bees etc. carry the pollen from one flower to another, so that a considerable distance must intervene to insure purity—at least 100 yards.

W. S. T., Upper Red Hook, N. Y., asks if there is any market for wild cherries, and the price of them.

ANS.—There is no general market for wild cherries, although they are used to some extent for medicinal purposes. The demand thus being local, there is no established price.

J. L. D., Meridian, Basque Co., Texas, sends a grass and asks its name. He describes it as growing from six to ten feet high, branching from every joint, making a heavy sod and that hogs fatten on the roots.

ANS.—Guinea Grass,—Sorghum halepense.

COMMUNICATIONS RECEIVED FOR THE WEEK ENDING SATURDAY, AUG. 9th

W. H. N.—G. H. O.—H. R.—F. C. K.—J. H. G.—G. S. D.—W. M. S.—J. B. A., thanks.—J. B. L., many thanks.—G. T. O.—J. W. W.—E. A. H.—W. I. C.—N. R.—J. D. T.—J. H. L.—J. P.—W. C. G.—W. H. M.—M. Mc. N.—G. C. R.—A. W. M.—A. C.—H. J. B.—F. D. C.—J. M.—B. C. D.—L. E. S.—T. D.—R. L.—W. C. L.—A. E. J.—Ivy.—E. E.—H. S.—I. S.—H. S.—G. M. G.—O. F. L.—P. E. T.—W. E. W., thanks.—C. A. P.—K. T. S.—R. H. C., thanks.—J. T.—H. J. B.—J. T. L.—A. W. M.—W. J. B.—P. M. A.—L. B., thanks.—L. C. W.—

Various.

CIRCULATION OF AIR IN THE EARTH.

S. RUFUS MASON.

HAVING shown how moisture circulates through loosened soil, it remains to explain the aerification of the same. Upon the perfectly unobstructed circulation of water and air through the soil, depends almost entirely its ability to give up its fertilizing properties at the demand of the plant. All water contains, in a greater or less degree, some air, but this quantity will not be considered in this article, because it is never in sufficient volume to be of much value to the process of germination and fructification.

Supposing a soil in early spring to be saturated with water, there can be no air in it, because the two cannot both occupy one space at the same time. As the water subsides, the atmosphere must follow it, or there would be a vacuum. As the air occupies the space thus vacated, it acts chemically upon the soil, and thus evolves heat, and at the same time imparts its own natural heat to the soil.

Here we have the first effort to bring the earth into a condition favorble to plant life. If at this time cultivation takes place, a greater volume of air is admitted, and the soil becomes warm proportionably faster. At this time the moisture from below rises, and is, in the shape of what might be called a subterranean dew, mingled with the air from above, and by a chemical exchange, it is at once rendered a perfect solvent of the earth's fertilizing constituents.

Constant changes of temperature above ground, cause a circulation perpendicularly of moisture and air, each refreshing and invigorating the other—there can be no stagnant water, no stagnant air, as long as the sun's heat exerts its usual power. It is evident that in a solidly-packed soil, this circulation could not take place; that the earth would soon become dead, sour and totally unfit for living herbage. It is also evident that the unobstructed circulation of air and moisture in soils is absolutely essential to healthy growth.

As a proof of this, stop up the hole at the bottom of a flower pot, continue to water the plant *as usual;* and note how soon the roots are destroyed by dead water. Again, place a glass shade over a pot full of earth, having the hole at the bottom open; water from below, and note how soon the shade is filled with a fungus growth which will smother any plant growing in it.

Cultivation of the soil is the key to successful farming, and if applied at the time of need, never fails to pay amply for the labor spent. The time to cultivate (without having reference to the destruction of weeds), is whenever any cause so packs the soil that it cannot breathe freely. From the reasons given, it is also evident that frequently cultivated soil is both warmer and more moist, than that which is allowed to pack and bake.

Dodge Co., Feb.

WHAT OTHERS SAY.

FARMING DOES PAY.—When I learn, says a writer in the New England Farmer, that only one farm in twenty-five is paid for when bought, the wonder to me is, not that so many fail, but that so many succeed. When Richard Roe buys John Doe's farm for $7,500, pays $3,000 down, and gives a mortgage for $4,500 at eight per cent., expecting to make a living for himself and family, pay Mr. Doe $30 a month interest, and have a net three or four per cent. at the end of the year on $7,500, it brings no surprise to me that Mr. Roe finds such farming don't pay. What does the man own in fact? Just $3,000. That figure represents his capital. There is no kind of business to be found to-day, other than farming, in which $3,000 can be made to yield any kind of a living to a family without drawing on the principal. Men undertake too much on too little capital, and inevitably fail. It is not for the general good that farmers of this class should parade their misfortunes at every opportunity, misleading public opinion on a matter that lies at the very foundation of our national prosperity. Farming does pay, and pays well on the capital actually invested, with such general intelligent management as would be necessary in any other business. There is no other business which offers as good security for the investment; there is no other business which brings more contentment and less wearying anxiety of mind. The man who *owns* his farm and has three or four per cent. at the end of a year on the paid-up capital, after supporting his family, is actually in better condition than nine-tenths of the men in any other calling.

INFLUENCE OF MILK-COOLING.—In the Milch-Zeitung, M. A. Kirchner communicates the result of his recent observations on this point. He sets his milk for cream in two portions, one of which was uncooled and the other had been passed through a milk-cooler. Each portion was set partly in wooden troughs and partly in tinned-iron pans, and the experiments were carried on in winter, spring, and summer alike. The general conclusions arrived at were as follows:—1. There is no *essential* difference between cooled milk and uncooled milk, so far as cream-raising capacity is concerned. 2. The tinned-iron pans give a higher percentage of fat than the wooden receptacles. 3. In summer the yield of cream from the cooled milk is greater than that of the uncooled, because its souring is longer retarded. It is at this time of the year that the tin pans serve better than wooden troughs. The butter made from cooled milk keeps far better than that from the uncooled.

TENDENCY OF THE HIGH BREEDING OF FOWLS.—So things are coming to this pass, says a writer in the London Gardeners' Chronicle, that we are likely soon to have in England beautiful birds, "too good to be eaten," kept like race-horses, not for their utility, but to gain prizes—while our markets will be supplied with birds of no breed at all. For if, as I suspect, exhibitions tend to produce pampered, tender birds, whose eggs and chickens cannot be depended on in a bad winter like our last, those who rear fowls for market will gradually cease to buy their eggs, and will content themselves with hardier, commoner birds; and the fine birds, of superior size and excellence, which were to have been introduced into every farm-yard and cottage-garden when exhibitions had drawn attention to them, will but find their way to our tables.

CAPT. JACK STRAWBERRY.—Of all the different sorts on our grounds, this passed the winter and appeared the freshest and greenest in spring. The deep green of the leaves continued all through spring and afterwards. It bears profuse crops—more so than any sort except the Wilson, and is fully equal to that variety at its best. It has two defects—the berries are hardly large enough to be popular in market, and it is rather acid and not high flavored. Perhaps the Crescent may come up to it in bearing another year, but it has not yet, while it is larger and better in quality, judging from this year's trial. So says the Editor of the Country Gentleman. Capt. Jack is worthless with us—small, sour *and* unproductive.

ENCOURAGEMENT OF DAIRY WORKS.—With a view of encouraging the native dairy industries in Germany, the Minister for War decided some weeks ago, that cheese should henceforth form a part of the soldier's ordinary ration. It is also stated by the London Farmer that similar arrangements have been made by the Minister of the Interior in the dietary of prisoners under confinement, and that the various agricultural societies have been requested to point out to the authorities the dairies in different parts of the country which are prepared to supply cheeses for prison use at low prices.

THE
RURAL NEW-YORKER.
PUBLISHED EVERY SATURDAY.

Address
THE RURAL NEW-YORKER,
78 Duane Street, New York City.

SATURDAY, AUG. 16, 1879.

TO WHOM IT MAY CONCERN.

INSTEAD of 50,000 extra numbers of the RURAL NEW-YORKER, as heretofore stated, we now *guarantee* an extra issue of 60,000 for our Fair number. It will be made up of 28 pages, including the cover. Many original engravings and articles from the following writers are either received or promised: Dr. J. B. Lawes, of Rothamsted, Eng.; Professor J. P. Sheldon, of Cirencester, Eng.; Professors I. P. Roberts and G. C. Caldwell, James Taplin, Henry Stewart, Pres. T. T. Lyon, M. B. Batcham, M. B. Prince, M. C. Weld, Professor L. B. Arnold, W. I. Chamberlain, J. B. Armstrong, William Falconer, J. T. Lovett, Col. F. D. Curtis, S. Parsons and others.

We may also state that our next Free Seed Distribution will be fully and definitely announced. In reply to many inquiries, it may be said that our rates for advertising in the Fair Number will be the same as in any other number. Advertising copy must be received prior to the 25th inst.

We again invite agents, secretaries and our readers to send for as many copies as they may be willing to distribute or to hand to their friends. They will be promptly forwarded free of charge.

POTATO PROSPECTS IN ENGLAND—THE POTATO BEETLE.

The probabilities of our crop returns, (RURAL NEW-YORKER, June 21st,) which so far as we know were the most voluminous of any ever before gathered together in this country, are fast becoming certainties. The truth of our summaries as regards wheat, rye, oats, grass, etc., has already been attested. We predicted that "Potatoes will be cheap"—and that prediction seems very likely of realization too. At all events, it is probable that the crop will be an abundant one, and if the price should rule high, it will be because the potato crop in other countries will prove insufficient for home use. There seems to be no longer a question that this will prove to be the case in Great Britain. The London Garden of latest date has the following:

"THE POTATO DISEASE—This sad visitation is now affecting early sorts of potatoes generally, and a continuance of the present weather can but lead to its wholesale appearance amongst all kinds, and in all parts of the kingdom. * * * It seems useless to hope for better weather, as summer is passing away so fast, that even should it come, it will be too late to benefit many things. The disease would appear to have struck potatoes on the Continent even before it has appeared here, and if the crops are as largely affected there as has been stated in the daily papers, there will be but few foreign potatoes to import. This fact should induce importers to look to America where they have had some hot weather, and whence, perchance, may be found a fairly healthy crop." Fears are then expressed, that the "regulations regarding the Colorado Potato Beetle may interfere with our imports from that quarter." "Should prices reach the high figure during the winter that is anticipated, there will be a great outcry if it is found that the American crop is practically excluded from our markets."

It is time that European people gave themselves some rest as regards the potato beetle. Years ago, its depredations were great enough to justify the gravest fears. But that is past, and the potato beetle has in truth become one of the most harmless of all our common insects injurious to vegetation—because so easily controllable. We have no doubt that the preventive measures adopted by foreign countries will cost them more than the potato beetle, even should it obtain a foothold upon their soils.

COST OF FIRE INSURANCE.

In the RURAL for August 2d, we printed an article from L. A. R., relative to the cost of insurance, arguing that the expenses of conducting the business of fire insurance in New York, were much greater than they should be.

We have before us a table showing an abstract of the report of the joint stock fire and marine insurance companies of the State of New York doing business in this city. From this we learn there are 83 such companies with a total capital of $24,107,020, and a net surplus of $16,676-767.26, making a total of nearly 41 millions of dollars. The total income of these companies, including premiums for insurance in trust or capital invested, &c., was $10,029,118.86—and the cost of managing the business was $4,071,783,02. Thus it will be seen that of every dollar the companies have received, more than forty cents have been spent in getting and managing it.

Now, we believe that the insurance business in New York can be done for less than 25 per cent. of the receipts, and still pay good dividends to stockholders, by reducing the number of companies and increasing the capital of the remainder, employing only such official and clerical help as is needed, cutting off sinecures and breaking up rings, whether made up of families or friends; in a word, managing the business in a business way—the same as a good merchant or manufacturer manages.

Do you point us to lists of directors and note the names among them of some of the most intelligent and prosperous business men in the country? We reply that not one in fifty of them attends the meetings of the board at all, and when they do, they know little more of the business of the company than the stockholders at home. The directors, as a rule, do not direct at all, except perhaps two or three who, with the President and Secretary, run the concern. Shall we give an idea of these Board meetings?

Called to order by the President—Roll call—Payment for attendance—Minutes of last meeting read—Statement of business since the last meeting,—Adjournment—all occupying, we venture to say, not more than half an hour. This, we think, will be a full average of time spent in the boards of all the companies in New York.

Perhaps the average amount of salaries paid to officers is not too great, although, we think, in many cases more and better service could be obtained for the money paid. We have in mind one instance in which a large sum is paid to a President, who could not, if the company should be discontinued, get a clerk's position elsewhere on account of age and infirmities. He has been with the company many years, and has outgrown his usefulness. But the Board of Directors of that company is made up of his relatives and friends—one of the board told us that any member who should move a reduction of salary would be left off the list at the next election. We hold the laborer is worthy of his hire, and one who has learned the insurance business after years of experience, should be well paid, but the barnacles and other obstructions to the ship's motion, should be cleared off. The fire insurance business needs overhauling.

HARDINESS OF THE JAPAN PERSIMMON.

"At a late meeting of horticulturists at Cleveland, Ohio, the Japan Persimmon was alluded to as of 'doubtful hardiness,' which, perhaps, was a safe expression, considering our present knowledge of this fruit. But one of our contemporaries, published in this city, in noticing the above expression of opinion, says: 'There need be no doubt about it. It is not hardy or any approach to it.' This is what we call a decided and positive opinion, given without positive knowledge, for there are trees of the Japan Persimmon growing near this city which withstood the severe cold of last winter without the least protection, and are now healthy and making a vigorous growth. We call this at least an 'approach' to hardiness, and it is quite possible as well as probable that among the scores of varieties of the Japan Persimmon there are some as hardy as our native species. It would certainly be well to at least give them a trial before asserting that they are worthless."

The above is from the agricultural editor of the N. Y. Sun, and the RURAL NEW-YORKER is the criticised journal. Diospyros Kaki was advertised in our columns by one of our first nursery firms, viz., The Parsons & Sons' Co., of Flushing, L. I. It was, therefore, to our interest to say all the good that could be truthfully said of it. It was at first supposed that it would prove hardy. It has since been so injured in Flushing, as we learn from the Messrs. P. themselves, as to make it very apparent that it can never be trusted to mature fruit in this latitude — or, rather, in this climate. Hence we say it is not hardy. The opinion was "decided and positive," and we hope it has guarded our Northern readers against spending their money for fruit trees which, if cultivated without protection, will never yield them fruit. There may be varieties of the Japan Persimmon that will prove hardy here. We do not know anything about that. There may be varieties of figs that will stand our winters without protection. As soon as "positive knowledge" exists to that effect, we shall naturally hasten to publish it. We are under the impression that Mr. James Hogg told us that Kaki had endured several winters in his *garden*, which is in the suburbs of New York city. Perhaps it fruited there. We could mention instances, however, where many plants were injured and many killed outright by the vicissitudes of last winter, which were not remarkably trying vicissitudes, either.

A SOFT ANSWER.

W—was a well-to-do merchant in the village, and owned a large but good-natured cow. C—was a farmer living near town, who, with the aid of his children had raised a fine crop of corn to the stage to be tempting to mischievous stock. C—was very poor and quick-tempered. Seeing W—'s fine cow, with many others, grazing near his fence, he imagined that she would some day break in and destroy his chance for bread. He hastened to W. and excitedly said: "Have you a large, white-spotted cow?" "Yes," answered W. "Well, you *must put her up*!" "Why?" asked W. "Because, if she gets into my corn field and turns other cows in, *I'll kill her*," said C. angrily. "Very well," said W., "if she gets in, kill her." "I WILL kill her if she gets in," said C. still more angrily. "All right," said W. "I have nowhere to put her, and do you kill her if she gets in. But what are you so mad about?" "Because you tell me to kill the cow," said C. Then W. told him to sit down and hear him a moment, and said: "Mr. C., though I'm not rich, the loss of my cow will not be very serious to me. I can get another, and my wife and children would not go to bed hungry on account of such a loss; but you depend on your corn for bread and you can't afford to lose it. So, if my cow breaks in, kill her; let me know so that I may save the hide, and I'll never say a word about it." "Is that what you meant?" asked C. "Yes." C. was touched and humbled; and he said that he would not hurt that cow for anything; but that, if she should break in, they would try to hobble her, or in some way keep her out without injury. Verily "a soft answer turneth away wrath."

MR. CHARLES DOWNING.

The life of this venerable gentleman has been an uneventful one. He has never startled the world by any great discoveries, inventions or even by his writings. And yet there are few who, by their perseverance, industry and study, have added more to the world's knowledge in any branch of information than Mr. Downing has added to our knowledge of fruits. And this he has accomplished in a manner so unobtrusive of self; so destitute of the vanity that marks the career of many men who aspire to fame's proud hights, that all who know him, or know of him, entertain an unqualified respect for his character as well as an appreciation of his good works. The portrait upon our first page is drawn from a recent photograph, which Mr. Downing presented to the writer. "Will you give us permission to publish it," we asked. "No," was Mr. Downing's prompt and emphatic reply. And, yet, we have presented it to our readers. We do not believe that any man who has striven to render so much service to mankind, is altogether justifiable in shrinking from the natural curiosity as to his personality, which his life's work has created.

Destroying Plantain.—It is worthy of remark, that the common Plantain—Plantago major—may at this season of the year be easily pulled up, and lawns may be rid of it with comparative ease. Its roots suffer by drought, so that by this time they form a compact bundle, but an inch or so in length. Take *all* of the leaves and flower spikes in the hand and with as low a hold as possible, and the roots will offer but little resistance. This method, if adopted *now*, will be found far more efficacious than cutting them out or applying sulphuric or any other acid to the leaves or "heart." This last measure is, in practice, one of the vagaries of the horticultural mind. One day last week we pulled up not less than 200 plants in an hour or less.

England's Crop Prospects.—Dr. J. B. Lawes, of Rothamsted, in a private letter to one of the editors, makes the following statement:

"We have had a season so unusual that no records can be found to compare with it. Since April 1st, a period of 111 days, we have measured rain on every day except seven. The consequences are becoming very serious in regard to the harvest."

BREVITIES.

A NEIGHBOR tells us the best crop of Rutabagas he ever harvested was sown August 14.

THE Gardeners' Monthly notes that an insect similar in its effects to the phylloxera upon grape-vine roots, causes many Clematises to "dwindle away."

THERE is a great deal of dissatisfaction expressed that Anchor instead of Telemachus 9th did not take the Champion prize among Shorthorn bulls of Kilburn.

WE hope some of the RURAL readers will win the $150 silver cup offered by the Massachusetts Horticultural Society for the best twenty-four hybrid perpetual Roses.

A BRITISHER, with whose prosperity the sale of American products had specially interfered, was wicked enough to express his regrets to John Bright that "the cursed country had ever been discovered."

OUR occasional contributor, L. S. Hurdin, tells the London Agricultural Gazette that he has met many successful farmers who believed in the moon, but has yet to meet the successful dairyman who buys his cows by the escutcheon.

THE transposition of a single letter or figure sometimes makes an appalling difference. We stated last week that the Prince of Wales was married in 1836, which was about four years before he was born. Instead of 36, it ought to have been 63.

WE learn that Professor C. L. Ingersoll of Michigan State Agricultural College, who for three years past has most efficiently filled the important chair of Professor of Agriculture in that institution, has resigned that position and accepted a similar chair in Purdue University at La Fayette, Indiana, the change to take place September 1st, 1879.

OF late we have seen a great many boxes of flowers in the windows of stores and dwellings. After a while we detected a striking resemblance both in the boxes and the plants with which they were filled. Finally we read upon these boxes in red and blue letters a *soap* advertisement. Surely this is a novel and excellent, though costly method of advertising.

WE call attention to the reports of our subscribers who are testing our Blunt's corn. Up to within a week or so, all have spoken of its surprising hight and vigor. Now many report that each stalk is setting several ears. We need not anticipate by any guesses or by the expression of sanguine hopes. A few weeks will determine just what Blunt's White Prolific Corn is.

MR. WILLIAMS, of Montclair, brought us half-a-dozen each of the Beauty of Hebron and Early Ohio potatoes, all of large size. He requested that we should cook and eat each kind separately and report which we liked better. By mistake all were cooked together. They were eaten by six persons, not one of whom could detect any difference in the quality or flavor.

REV. A. J. HOUGH, in a poem read at Woodstock, Conn., upon the Fourth of July, thus nominates a farmer for President:

By right of service duly paid;
By right of worth, if justly weighed;
By right of numbers, fairly told;
By right of fitness, grit, and gold;
A *farmer*, blunt, outspoken, shrewd,
Ambitious for his country's good,
The bells with ringing peals present
As candidate for President!

We could mention a score of names that contribute to the RURAL's columns that we should vote for if nominated. Let's have a farmer for our next President! But shall he be a practical or scientific farmer? Here is where the party might split. We should only ask that he be a *good* farmer and an *educated* man.

WE may now promise positively that the announcement of our next Free SEED DISTRIBUTION will be published in our FAIR number to be issued in about three weeks. We handed the list to one of our prominent seedsmen with the request that he would estimate its value to those who desire the plants and seeds enumerated. His reply was: "They are nearly all novelties and would cost the purchaser at retail—if they could be purchased at all—not less than $2.50."

A GREAT deal has been said about Mr. Mechi and his Tiptree-Hall farm. It is well known that it was a poor farm when he bought it in 1841. It has been thought that Mr. Mechi's system of agriculture has much increased it in value. But Mr. Clare Sewell Read, M. P., says that he was told by a local agent that if the land were sold to-morrow, it would not realize above $25 an acre more than what Mr. Mechi calls the unimproved farms of the neighborhood, notwithstanding the small fortune that has been spent upon it. "Is high farming a remedy for low prices?"

THE New York Herald copies, with complimentary comments, an article from the RURAL and gives credit to the Lancaster Farmer, upon the subject of hide-bound trees. The article in question appeared on this page in our issue of Dec. 1st, 1877, page 358, and the credit is therefore due to us. The Herald, in its farm department, at least, is careful—so far as we know—to give due credit wherever it has occasion to copy from other journals. Our reproach is against the Lancaster Farmer. The Herald says that the Lancaster Farmer's "suggestions on agricultural topics are always valuable." Very likely!

H. F. H. Lexington, Ky., makes the following statement in the Gardeners' Monthly respecting Japan Persimmons: "They are certainly a failure. Trees planted here last fall are dead mostly, winter-killed root and branch. The sooner the public are aware of the unhardy character of the tree, the better. Agents will sell at least one thousand dollars' worth of the stock in this country this season, from which unadvised purchasers are not likely ever to realize aught but disappointment." If anybody has counter evidence as to the hardiness of the Japan Persimmons, we shall be glad to place it before our readers.

Literary Miscellany.

TYPOGRAPHICAL ERRORS OF MY FIRST POEM.

Ah, here it is! I'm famous now—
  An author and a poet!
It really is in print! ye gods!
  How proud I'll be to show it!
And gentle Annie! What a thrill
  Will animate her breast,
To read those ardent lines and know
  To whom they are addressed.

Why, bless my soul!—here's something strange,
  What can the paper mean
By talking of the "graceful brooks
  That gander o'er the green."
And here's a T instead of R,
  Which makes it "tippling rill;"
"We'll seek the shad," instead of "shade;"
  And "hell," instead of "hill."

"They look so"—what! I recollect,
  'Twas "sweet" and then 'twas "kind;"
And now to think the stupid fool
  For "bland" has printed "blind."
Was ever such provoking work—
  'Tis curious, by the by,
How anything is rendered blind
  By giving it an eye.

"Hast thou no tears," the T's left out,
  "Hast thou no ears," instead.
"I hope that thou art dear" is put
  "I hope that thou art dead."
Who ever saw in such a space
  So many blunders crammed?
"Those gentle eyes bedimmed," is spelt
  "Those gentle eyes bedammed."

"The color of the rose" is "nose."
  "Affection" is "affliction:"
I wonder if the likeness holds
  In fact as well as fiction.
Thou art a friend," the R is gone;
  Who ever would have deemed
That such a trifling thing could change
  A "friend" into a "fiend!"

"Thou art the same" is rendered "lame!"
  It really is too bad;
And here, because an I is out,
  My "lovely maid" is "mad."
They drove her blind by poking in
  An eye—a process new;
And now they've gouged it out again
  And made it crazy, too.

"Where have the muses fled, that thou
  Shouldst live so long unsung;"
Thus read my version—here it is—
  "Shouldst live so long unhung."
"The fate of woman's love is thine,"
  And H commences "fate;"
How small a circumstance will turn
  A woman's love to hate.

I'll read no more! What shall I do!
  I'll never dare to send it!—
The paper's scattered far and wide—
  'Tis now too late to mend it.
Oh Fame! thou cheat of human bliss!
  Why did I ever write!
I wish my poem had been burnt
  Before it saw the light.

Let's stop and recapitulate:—
  I've dam'd her eyes, that's plain;
I've told her she's a lunatic,
  And blind, and deaf, and lame.
Was ever such a horrid lash
  In poetry or in prose?
I've said she was a fiend, and praised
  The color of her nose.

I wish I had that editor
  About a half a minute,
I'd BANG him to his heart's content
  And with an H begin it.
I'd JAM his body, eyes and bones
  And spell it with a D.
And send him to that hill of his—
  He spelt it with an E.

THE SCANDALOUS LETTER.

[Complete in Ten Chapters.]

CHAPTER V.—(CONTINUED.)

As she spoke Miss Carew turned her back on the astonished woman and swept across the room, leaving her visitor to make as dignified an exit as circumstances would permit. A vigorous slam of the street-door was Elizabeth Yorke's parting salutation to the actress, who had stood white and rigid as marble till the sound aroused her. Then the girl broke down, and, sinking on to the hard, little lodging-house sofa, she buried her face in her hands and burst into an agony of tears.

"Oh, I cannot bear it!" she sobbed. "The cruel woman! Why did she come here to-day of all days in the year? Was not my fate hard enough already? Oh, Jack, Jack, if you could see your poor child now!" and Miss Carew's slender shape was convulsed by the force of her bitter weeping.

"Will he be at the theatre to-night?" she thought suddenly, as she started up and with trembling hands pushed the damp hair back from her face. "Did he recognize me yesterday, and will he be cruel enough to come and look at me across the great gulf that divides us, knowing that I may not stretch out my arms to him and ask him to take me away—away from this narrow miserable stifling existence and these dreadful people—from the mean hopeless future I have sold myself to? Oh, if I only dared cry to him to come and take care of me! But I must not. Oh, Jack, my darling, I pray that you may go away, and never know how near you stood last night to your poor Olive—that I may never see your dear face again—never, never!"

And again the bitter sobs swelled in the girl's throat as she tried vainly to control herself.

"Ah, I shall have all my life to cry in!" she thought at last, rising and beginning to tidy the room with a few rapid touches, and to remove the traces of agitation from her face. "Let me try to do my duty with as little complaining or fuss as possible. It is for Nelson's sake. I must remember that!"

And Nelson, coming in at that moment to call his sister to her long-delayed dinner, was caught in her arms and held to her breast with an anguish of devotion that the boy almost divined.

"Has any one vexed you, dear?" he asked, looking up into her face with his eager unnaturally-bright eyes. "I wish I could bear all your troubles for you, Olive."

Then Olive had to laugh, and to declare that her trouble was nothing more serious than a headache brought on by her long rehearsal and the stage-manager's bad temper, and to eat her dinner and "make talk" as though there were no such things as love and pain and parting in the world. Then there was still her meeting with the Doctor to be gone through before she set off for her work. Robert would be sure to look in, she remembered, as he had not seen her all day; and the poor child prepared to receive her middle-aged lover with even a prettier welcome than usual, smoothing her hair, and fastening a knot of violets in her belt, and stirring the fire into a pleasant blaze.

"It will be dusk," she thought, as she peered anxiously into the dim oblong mirror that adorned the mantlepiece. "He will not see that I have been crying. Men do not like crying girls, I think. And how could I tell him the cause of my tears? It is not his fault that Miss Yorke has been so cruel and so coarse. I will never let him know what has occurred to-day." And with this brave resolve Olive sat down to await her lover's knock.

There was silence in the little parlor, for Nelson, who had not been deceived by his sister's light words and laughter, had seen that she was suffering, and had left her to rest quietly by herself—silence, but no repose for the girl whose heart was thrilling with vague longing and doubt and dread, as she recalled the events of the last twenty-four hours. In vain she pressed her hands upon her eyes, trying to shut out the face that had been looking through her dreams all night; in vain with such thoughts as were making her veins throb and her cheeks burn, as she sat all alone in the dusk, she told herself that it was wicked to think of any man but the one she had promised to marry. She was so young. The life she accepted stretched before her so cold, dreary, endless; the life that might have been glowed in such happy colors before her yearning eyes. Many changing pictures she saw in the red heart of the fire; many a remembrance they awoke, many a regret; swiftly and surely they carried her back to the days before she had known Woolchester, Dr. Yorke, and trouble and care—carried her back to the unclouded summer of three years since, when she had fulfilled her first engagement at the pretty sea-side town of Yarborough.

Once more she saw herself walking on the level sunshiny sands, a budding girl, conscious down to her very finger-tips of her beauty and charm and power of pleasing, walking in the sunshine that had faded for ever. Once more the fresh sea-wind was whistling keenly in her ears; once more kind glances were meeting hers, and filling the world with happiness and light—glances that seemed to follow the young actress everywhere—glances of respectful mute admiration, of grave and tender interest, and of something warmer still. The handsome bearded man who met her so often in her walks came to the little bandbox of a theatre every evening, and Miss Carew's gorgeous bouquets were an object of much comment and much good-natured envy on the part of the other girls in the company. Yet Olive did not even know her admirer's name, and scarcely cared to know it. She was happy, filled full of life and hope and health; her soul was in her work: her heart—ah, her heart was not awake just yet!

Then came a day—oh, how well remembered!—when Miss Carew put on her crisp white muslin gown, and fastened a creamy rose in her bright hair, and went—very proud of the honor—to dine with her manager. And somehow it was not a surprise to her to find that even here she met the tall handsome man with the gray eyes and heavy moustache, who was introduced to her as Colonel Dacre, and who had brought another bouquet—all creamy roses and cool-tinted heliotropes, which completed the actress's simple toilette to perfection, and which he begged her in a very low voice to accept.

After some time they were engaged. The season was drawing to a close. Olive had a winter engagement to fulfil, but Colonel Dacre declared that he would not part with her—that he was jealous of every hour she devoted to the stage. He had money enough; his mother would love Olive, he assured her; there was nothing at all to hinder their marriage. But, as they were walking one evening towards the theatre—where Colonel Dacre would leave Miss Carew at the stage-door before he went to bury himself for the evening in his box—as they were walking along like two children, hand in hand, and Jack was telling Olive for the hundredth time what she wore and how she looked and what he felt on the day he first saw her on the sands, they were met by two ladies in a carriage—a handsome dignified woman with Jack's clear-cut profile, and a saucy little blonde dressed in bright blue from head to foot, who beamed all sorts of pretty mischief at Colonel Dacre, as they drove by, and who looked with undisguised interest at the beautiful pale girl by his side. Then Olive felt somehow that she was beginning to wake out of a dream, and that the golden September evening was turning bleak and cold. And before long the story had to come out.

The blonde young lady was Colonel Dacre's cousin. They had been betrothed since childhood by their parents' wishes; neither cared one bit for the other, but to break their engagement was to forfeit a large property. "That is all!" Jack pleaded in his loving kind old voice, and with his adoring longing eyes; and again he swore that Olive should be his wife—he would never give her up—he would die without her! But Miss Carew was proud, and, though her heart was breaking, she would not listen to any more words of love from another woman's promised husband. She could give no answer but tears and sobs to all his desperate prayers and entreaties; she would never see him again till he was free—released by his cousin—from his promise. And so, having taken the friendly old manager into her counsel, without a last word, without a last look at Jack Dacre's beloved wretched face, the actress stole away one day from Yarborough, and left her heart behind. For three long years she heard nothing of the man she could not help loving still. She believed he had forgotten her, but she prayed for his happiness, after her prayer for Nelson, every day. Then some one spoke of him as winning honors in Africa, and she read his name in the newspapers, and knew that he had been in danger. After that she could think of nothing but his safe return, even though he might have come back to marry his pretty blonde cousin, and could never be anything to Olive Carew again. But now!

"Oh, why does not Robert come?" thought the girl, getting up restlessly and going to the window. "Why does he leave me here to think such thoughts, and to remember what it must be the work of my life to forget? When he comes," she added, as she stood with her flushed cheek pressed to the pane, "I will tell him everything, and I shall ask him to let our marriage be soon. I will give up the rest of my engagement if he wishes it, for when I am really his wife I shall be stronger. Oh, I do want to do what is right, but it is very hard!"

The evening was wearing away, and still Dr. Yorke did not come. It would soon be time for Miss Carew to go to the theater; she looked anxiously at the little clock.

"I can wait half an hour longer," she thought, nervously clasping and unclasping her fingers. "What can be delaying him?"

There was no answer but the ticking of the clock and the light fall of the ashes on the hearth. Olive went back to the fire and sat down. But the stillness of the room oppressed her—a kind of terror seized upon her.

"I cannot stay here!" she cried, beginning to tie on her bonnet in feverish haste. "Robert is not coming; I must go alone. Oh, Jack, I wonder if you are thinking of me now! What would you say if you knew that your 'little child' was walking through the streets all by herself at night—you who would not let the wind blow too roughly on me, my darling, in the dear old days? How happy I was then! How strong and kind he was! How close and warm he used to wrap my shawl round me when the nights were chilly! Ah, I must not remember any more! Only Robert may take care of me now. And he is very good; he will come to-morrow, no doubt—very likely he is busy to-day. Ah!" A knock at the street door shook the little house at that moment, and Olive started, in mingled relief and dread. "There he is!" she cried. "I knew he would not forget me."

She was tearing off her bonnet and shawl and running to the fire, which was getting low, as footsteps were heard on the stairs. Obedient to her touch, a brilliant light went dancing through the room. The door opened.

"Ah, you are late, sir!" she said gaily. "I shall scold you, I——" She turned round. "Jack!"

The tall figure at the door opened his arms, and, with a low sobbing cry, Olive Carew ran to him and fell upon his breast.

CHAPTER VI.

Dr. Yorke brought the same gloomy face to dinner that he had worn, after his sleepless night, at breakfast. He had had a very hard day's work, and had been prevented by many engagements from paying his usual afternoon visit at his *fiance's* lodgings. But, in spite of his failure that morning, he had called again on Miss Carew as he came home, and he had been told again that Miss Carew was not at home. The doubt of the day before was now becoming a certainty. Perhaps a look into Olive's face and a few words in her sincere voice would have saved him from the thought; but, as it was, he told himself that she had gone to meet that man—her lover—and that she was trying to deceive him, whose promised wife she was. Jealous rage burned in the Doctor's heart as he dispensed the soup and carved the fowls. His food tasted bitter. The good wine almost choked him.

Poor Gertrude, after one or two timid attempts at conversation, shrank back frightened at his melancholy face, and was not reassured by the unusual liveliness of Aunt Elizabeth's manner, or the nods and becks in which that lady indulged from time to time. The meal was like a nightmare to two of those who sat at the table, and it was a relief to all when Miss Yorke, having finished her glass of claret, rose and went away with her hand on Gertrude's plump waist, leaving the Doctor to his own gloomy reflections. But no sooner was Gertrude seated at the piano than Miss Elizabeth, announcing that she had left her key-basket in the dining-room, returned to the scene of torture.

The Doctor was sitting with his elbow on the table and his hands thrust into his hair. The wine stood untasted at his side; he looked up with such a haggard face, when the door opened, that Miss Yorke almost lost courage.

"Robert," she said, with unwonted gentleness, and laying her hand on his shoulder, "what ails you to-day? Is there anything wrong? What have Gertrude and I done that you shun us and have not a word to say?"

The kind tone went to the Doctor's heart, which was very sore just then. He touched her hand gratefully in reply.

"You look tired," she continued. "You are working too hard, Robert. What is the use of toiling and slaving and making yourself old before your time, as you are doing?"

The Doctor's dark face flushed.

"Why, aunt, what am I but an old sober fellow?" he said, sadly. "Hard work is what I am fit for. But I believe I am a little over-tired to-day."

"Do you think I can't read you better than that, Robert Yorke, after living in this house for twelve years? I know very well what is in your mind, although you try to hide it from me—your own mother's sister."

"What do you mean, my dear aunt?"

"I mean that you are unhappy about that—about Miss Carew—and you have good reason, my poor boy!"

"Who dares to say a word against Olive?" the Doctor exclaimed, springing up, and facing his tormentor. "I will listen to——"

"You are accusing her yourself, you poor fellow," Miss Elizabeth returned, with a touch of pity in her voice. "What did I say against her?"

"You said she had given me cause for unhappiness. What did you mean?"

"I'll tell you. No—I won't! She shall tell you herself—perhaps you'll believe it then!"

Pale and fierce the Doctor stood, while Miss Yorke produced the letter she had stolen and held it out.

"Read that, Robert," she said, with ill-suppressed eagerness, "and you will find—written in her own hand—that the reason she could not see you to-day was that she had an appointment with—another man, who is her lover!"

Smothering an exceration, Robert Yorke snatched the paper and turned away.

"Leave me alone," he muttered hoarsely. "For Heaven's sake leave me to myself!"

And so Miss Elizabeth shut the door softly upon his misery, and went up-stairs. For a long while the Doctor sat and looked at the letter which was to wreck his happiness, struggling manfully with the temptation which bade him prove for himself the faithfulness and deceit of the fair woman who had seemed to him so high above other women in her fearless candor.

"I have a right to read it," he repeated desperately, over and over again, as his heavy eyes turned towards the crumpled paper that lay far off on the carpet, where he had flung it from him in his first burst of self-contempt. "I have a right to read it." But still he sat on in the deserted dining-room, staring blankly at the letter, and did not touch it.

Doubtless, he assured himself, the contents would prove Olive's innocence of anything beyond a mere imprudence—to him, at least, if not to Miss Elizabeth, who was prejudiced against her—so that, for his darling's sake, it was even his duty to read what must clear her from any further suspicion. But still he did not pick up the letter. A thousand wild thoughts were chasing each other through his brain meanwhile. He would wait for her at the little iron gate, and fling her perfidy in her teeth. He would burn the hateful scrawl, and take Olive away from Woolchester on the morrow, and let who dare say one word against her when she came home—his beloved, honored wife! He would give back the letter unread, and her promise with it, and never see her again. But that man—the man who had followed them last night—the man at the sight of whom her face had blanched and her voice faltered! Was it to seek out Olive that he had come to Woolchester? And should he, Robert Yorke, abandon the girl who would in so few weeks have borne his name, to the tender mercies of a villain who had won her heart and cast it from him, since Olive had herself admitted that she loved a man whom she could never marry? Great drops started to the Doctor's brow as he remembered this.

"It is to that man the letter is addressed," he muttered fiercely. "I must know what she has written to him." And he strode across the room and picked up the letter. "It is too late in the day for scruples or hesitation."

Smoothing out the little crumpled ball, the unhappy man tore the letter open, and read it hurriedly through—he did not spare himself one word; then the pretty familiar handwriting swam before his eyes, and the paper dropped from his hands, as he flung himself down on the table with a cry of despair. It was all true then—there was no longer any doubt—and that girl's calm, sweet face was nothing but a mask.

Robert Yorke writhed under the blow. The passionate words addressed to another, the ridicule of the writer's elderly suitor, the assignation at an hour when his ungainly presence could cast no shadow on the delight of the lovers' reunion—how it all seemed burnt into his jealous heart! And Olive Carew was false—false—false!

"I will not sleep to-night until I have given her back her word," he thought at last, lifting his haggard face, and wiping his forehead with feverish shaking hands. "The few short weeks of our engagement that were so happy to me—such a torture to her, poor child—I cannot give these back, nor the kiss I took from her cold sweet lips last night, but she shall be free henceforth. I will trouble her with my ridiculous importunities no more."

A few moments later the Doctor was on his way through the deserted streets to Olive's lodgings, the April stars shining in the dark and tranquil sky, and the night air feeling like a cool hand laid on his aching head. He could not trust himself to call for her as usual at the stage door, to face the friendly words and jests of the company, the false pretty smiles of the girl who had so wronged him. But he would wait for her at the same spot where they said good-bye every night—only now it would be good-bye forever. The time he had so often dreamt of, when, by patient striving, he should win his wife's love, and should feel her strange, bewitching coldness melt before his man's ardor and devotion, would never come to him now. Hope and joy were dead since Olive Carew was false. Nothing but memories was left him.

Thinking thus, and puffing drearily at his cigar, Dr. Yorke found himself approaching the little iron gate, against one of the pillars of which he saw, with some irritation, that there was a man's figure lounging, motionless and dark, his arms folded, his hat drawn down over his brows.

"Confound the fellow!" thought the Doctor, throwing away his cigar. "Why does not he go into the house if he belongs to it? What business has he to be prowling about just when Miss Carew is expected back? She must not walk home alone any more. I——"

Here the man who was waiting at the gate turned and looked wistfully up and down the

obscure street, and the light of a lamp close by falling on his face revealed the long red beard and gray garments that the Doctor had seen before on the club-house steps. Robert Yorke recoiled. Could it be possible that Olive had so insulted him as to choose that spot of all others for the rendezvous she had given her lover? Would she be vile enough to stand there, where only last night she had of her own accord lifted her lips to his, and let another man talk to her of love—kiss her? What manner of man could he be who could thus endanger the actress's reputation?

Poor tortured Robert Yorke did not wait to remember that the stranger might fairly have asked the same question of him; already he was striding back by the way he had come. "She is not worth the anger I have wasted on her!" he groaned, clenching his hands as he walked. "She is utterly heartless, faithless, disloyal! Why does Heaven make such women beautiful that they may wreck the lives of honest men? How shall I live the years that are left to me, knowing that Olive Carew is false?"

He was so absorbed in his own miserable thoughts that he did not see Miss Carew, when presently she passed him under the fatherly care of the old prompter, who lived in the same street, and who felt very proud when the pretty girl asked him occasionally to see her safely home.

"Surely that was Dr. Yorke, my dear?" the old man said, using the friendly theatrical privilege in so addressing his charge.

Olive started, and, turning round, called softly after the retreating figure of her lover. But he did not hear her—he was listening to harsher voices that were making an angry tumult in his breast.

"No, it cannot have been Dr. Yorke," sighed Olive. "Here I am at home, Mr. Wright, and I am so much obliged to you—good-night!"

"My dear, the obligation is mine," returned the little prompter, with his best bow. "Don't forget the 'call' is ten o'clock to-morrow."

As Miss Carew opened the little iron gate the man who had been waiting there advanced and spoke her name.

"Don't go in yet," he said in a low voice, as she made a gesture of dismissal, and he caught her hand and held it to him. "Olive, give me one word before I go away."

Olive stopped, trembling from head to foot.

"Why are you here, Colonel Dacre?" she asked hurriedly. "It is unkind after what I have told you. Let me pass; I have nothing else to say."

"Unkind!" echoed the man with a short unmirthful laugh. "Olive, you are going to kill me, as surely as if you put a bullet into my heart—to kill the good that is in me—and you talk of my being unkind because I ask you for a word at parting!" The uncertain lamplight fell on his face as he spoke, and showed it to be distorted with suffering and passion.

"What is it you want me to say?" asked Olive, hopelessly. "I must not stay here talking to you—you have no right to waylay me in the dark."

"You have forbidden me your house—what else can I do?"

"You must go away," answered the girl hurriedly—"away from Woolchester; I must never see you again."

"Olive"—the young man crushed her trembling hand in his, and flung it from him with a groan—"Olive, can you speak of it so coldly? Never see me again? Oh, try to think, dear, what that means! Never to meet any more—never to hold each other's hands or hear each other speak—never to bring back the sweet old days—oh, Olive, can you speak of it so coldly?"

"Why should not I be cold, Colonel Dacre?" Oh, let me go—please let me go! If my—my lover were to see you here!"

"Your lover?" The young man laughed again dismally, and seized her two poor trembling hands in his. "Do you think I have forgotten how you ran to meet me last night? You have no lover but me. Oh, darling child, why will you torture me with such foolish words?"

He would have laid her head down on his breast, but Olive struggled from his clasp.

"I have a lover," she panted desperately, "and he is good and kind and true! I will never be false to him."

The young man drew back deadly white, and looked her fixedly in the face. Olive could not endure the silent misery of his gaze.

"Oh, Jack, Jack," she sobbed, melting suddenly into a great burst of tears, "can't you see that my heart is breaking, and that I must not listen to you, unless I want to prove myself the falsest, wickedest girl in all the world?"

"You are the truest and the sweetest Olive," said poor Jack Dacre, trying to speak as gently as though he were not on the rack of conflicting emotions; "and that is why you will not be led by any false idea of self-sacrifice to make us both utterly wretched for life."

"Oh, don't—don't, Jack!" sobbed Olive, rocking herself in uncontrollable agitation. "I am cowardly enough already. Oh, help me—don't make it harder for me, dear!"

"Listen to me, love," urged the young man passionately. "You gave me your promise long ago, and I have never given it back. You left me because you thought I was bound by a promise made for me before I was old enough to know my own mind. I have come back after three years of loneliness and misery to tell you that I am no longer bound by that promise, and you——"

"I am bound by a promise now," said Olive, growing calmer—"a promise made of my own free will in return for so much true kindness, so much generous goodness, that I will die rather than break it. Jack, is it you who are asking me to be false to my word? You would not wish surely to marry a woman you despised? Do you think I would come to you, my one dear love, with such a slur upon my honor?"

Jack Dacre could only gaze with his hungry heart in his eyes at the girl whose very nobleness of thought was making it all the harder for him to relinquish her to another man. There was a pause, in which they could hear the beating of their hearts and their hurrying breath. Then Olive held out her little shaking hand.

"Say good night now, Jack, and good-bye," she faltered, growing very pale. "I love you better than all the world, but I will marry Dr. Yorke."

The young man caught her in his arms, and looked with despairing passion into her sweet wet eyes.

"My poor little brave foolish child," he whispered hoarsely, "if you could only understand the doom to which you are devoting yourself! Olive"—he stooped and pressed kiss after kiss upon her white quivering lips—"you send me away from you, but I will come back! I will bring some one who will persuade you better than I can. This is not good-bye, my dearest—it is only good night."

He has gone. Olive, her pulses throbbing with blended pleasure and pain, stood and listened to his footsteps dying away along the dimly-lit street; the lamps were flickering in the light wind; the branches stirred overhead with a low unhappy sound.

"No—it is good-by," she said, opening the little gate, and walking slowly towards the house. "It is good-by to Jack and love and joy for ever."

(To be continued.)

H. M. S. PINAFORE.

The Opera in Providence—A Real Ship on Real Water—An Enjoyable Performance.

An audience of between 2,000 and 3,000 assembled at the Park Garden last evening to witness the opening performance of the comic opera "H. M. S. Pinafore" in the open air and "on a real ship on real water." There had been a fear that the singing, and especially the dialogue, might not be distinctly heard, even by those of the audience nearest the ship, but this fear was almost entirely dispelled. With one or two exceptions, after they got fairly into it, both singing and dialogue were heard easily to the furthermost portions of the audience. The chorus of the sisters, cousins and aunts, as they left the landing in the small boats to board the ship, was very pretty. The good ship Pinafore, moored in the lake, is 110 feet long. She was fully rigged, and a man-of-wars-man present pronounced her exceedingly well gotten up. Her sails were "loosed to a bunt-line," her gun-deck ports were closed, but on the main deck were four broadside and two boat-howitzers; there was the wheel in front of the cabin, the capstan, the ropes coiled up around the fife rail, the starboard anchor down—in short, it was a good representation of a ship of war. The orchestra was out of sight, in the forecastle, but not "out of sound." The action was in the center of the main deck, and when the sailors departed they went down the fore-hatch, while the Admiral, the Captain and his lovely daughter, and the sisters, cousins and aunts disappeared at the proper times into the cabin. When Little Buttercup came on board she came in a boat alone, was met at the starboard gangway by a gallant tar, and sang the first stanza while in the boat. The sisters, cousins and aunts arrived in the same way. When the boat containing Sir Joseph and Hebe arrived there was a commotion on board. There was a salute, and the yards were manned by men who were as agile and evidently understood what they were about as though they were real man-of-wars-men. Then there was a file of marines who did their duty, notably the silent drill, so well as to win merited applause. When the Admiral left the ship with Hebe he sang his "I'm Monarch of the Sea" after he had boarded the small boat and while preparing to start. And over all and above all was the strangeness of the surroundings, the water and the sky, the reflection of the opera in the lake, the trees, the immense audience scattered around the shore of the lake, giving a novel, not to say wierd, appearance.

And there was an element which it is no risk to say never before entered into a representation of "Pinafore," and one which created a good deal of amusement in a quiet way. This was a couple of frogs—perhaps more, but two at least—who played their little part. One was the father of all frogs, or, better, grandfather, whose position was at the left of the lake, and the other was a fellow of no mean voice at the right of the lake. They had evidently not been at all the rehearsals and didn't always come in just at the right time. (By the way, why not train these frogs and utilize them in the Frog Opera? No charge for this suggestion, Mr. Reeves). For instance, when Ralph was pouring his "simple eloquence" into the ears of Josephine, Grandfather rang out "chuur-ur-rough!" three or four times, which might have meant to suggest to Ralph that he knew he was giving "taffy." The presence of the frog chorus at some of the tender passages was decidedly novel; and at one time, while Josephine was singing a solo, it was a matter of doubt whether she or the frogs would come out best, and bets were offered quite as freely on the frogs as on her. It was funny to hear Little Buttercup sing:

"Bulls are but inflated frogs,"

and then "chur-ur-r-ungh!" in disgust from the grandfather, or to hear Sir Joseph say, "Love levels all ranks," to be met with "e-r-r-r-a-euck" from the frog at the right; or to hear the frog chorus mingled with

"Never mind the why or wherefore,"

or Sir Joseph sing:

"And the lord that rules the water,"

with the disdainful rejoinder—"jug-o-rum, jug-o-rum," or Josephine,

"And the tar that ploughs the water,"

with the congratulatory "chur-ur-r-ungh." But these examples are enough to give an idea of the fun that was not on the programme. "H. M. S. Pinafore," after the same form and manner, will be given at the Park Garden until further notice. —*Providence Journal.*

If you are ambitious to move in the highest circles join the next expedition to the Artic circles.

For Women.

CONDUCTED BY MISS FAITH RIPLEY.

BIRDS OF NO FEATHER.

BY MARY B. PEEKE.

Four little birds in a nest too small,
Only one mamma to care for all:
'Twas chirp and twitter the live-long day,
No wonder the mamma soon grew grey.

Papa-bird was a dashing fellow,
Coat of black with a flash of yellow:
Never a bird in the early spring
Could rival him when he chose to sing.

He helped the mamma-bird hang the nest
Where the winds would rock it the very best;
And while she sat on her eggs all day,
He'd cheer her up with a roundelay.

But when from each egg in the swinging bed,
A little birdie popped its head,
He said to his wife, "I've done my share
Of household duties, they're now your care."

Then off he'd go to a concert fine
In the apple-trees and bright sunshine
Without a thought of the stupid way
His poor little wife must pass her day.

At last the mamma-bird fell ill,
And the papa forced, against his will,
To take her place with the birdies small,
Ready to answer their chirp and call.

Sorry day for the wretched fellow,
Dressed so gay with a scarf of yellow!
Shut in the house from morning till night,
Was ever a bird in such a plight?

* * * * *

At eve he said, "Another day
Would turn my goldenest plume to grey;
Or else in a fit of grim despair,
I'd fling these children into the air!"

Have I mixed up birds with human folks?
And homes with nests in the lofty oaks?
The story is true, and I overheard
Those very words of the papa-bird.

But who he was, and where he did dwell,
I'll never, *no never*, NO NEVER tell!
The truth for once is truth for aye,
And this is the reason why mammas grow grey.

[*Wide Awake.*

"HOME PROTECTION."

An Argument for Woman's Temperance Ballot.

BY FRANCES E. WILLARD,
PRESIDENT OF ILLINOIS W. C. T. U.

THE CATHOLIC CHURCH, GERMANS, ETC.

The attitude of the Catholic Church was friendly to our petition, many priests urging their people to sign. Irish women, as a rule, gave us their names, and saloon-keepers' wives often secretly did so. Scandinavians were generally enthusiastic for the petition. Germans opposed us; but the reply of one of them indicates the chivalric nature which will come to our aid when our invincible argument against beer shall be brought in contact with German brain and German conscience. He said: "If it is not the pledge, I will sign it. I cannot give up my beer; but I want to help the ladies." To be sure, German saloon-keepers were universally and bitterly antagonistic, and had much to say about "women keeping inside their proper sphere."

ARGUMENT FROM THE NATURE OF THE CASE.

But the convictions which supply me with unalterable courage and unflagging enthusiasm in the Home Protection work are not based upon any proof I have yet given. No argument is impregnable unless founded on the nature of things.

The deepest instincts and the dearest interests of those who have the power to enforce a law must be enlisted for its enforcement before it will achieve success. For instance, the 15th Amendment to the Constitution of the United States is going to be enforced by the ballots of colored men who once were slaves, just so long as those men retain their reason and their color. By parity of reasoning, if you can enlist in favor of a local option or prohibition law the dearest interests of a class in the community which in all the ages of wine and beer and brandy drinking has not developed (as a class) the appetite for them nor formed the habit of their use, you will have something trustworthy on which to base your law. We temperance people have looked over at the rum power very much as the soldiers of Israel did at Goliath of Gath. We have said: "He has upon his side two of the most deeply-rooted instincts of human nature—in the dealer the appetite for gain, and in the drinker the appetite for stimulants—and we have nothing adequate to match against this frightful pair."

But, looking deeper, we perceive that, as God has provided in Nature an antidote for every poison, and in the Kingdom of His Grace a compensation for every loss, so in human society he has ordained against King Alcohol, that worst foe of the social state, an enemy beneath whose blows he is to bite the dust. Take the instinct of self-protection (and there is none more deeply seated.) What will be its action in woman when the question comes up of licensing the sale of a stimulant which nerves with dangerous strength the arm already so much stronger than her own, and which at the same time so crazes the brain God meant to guide that manly arm that it strikes down the wife a man loves and the little children for whom when sober he would die? Dependent for the support of herself and little ones, and for the maintenance of her home, upon the strength which alcohol masters and the skill it renders futile, will the wife and the mother cast her vote to open or close the rum-shop door over against that home?

Then there is a second instinct, so much higher and more sacred that I would not speak of it too near the first. It is as deep, but how high it reaches up towards Heaven—the instinct of a mother's love, a wife's devotion, a sister's faithfulness, a daughter's loyalty! Friends, this love of women's hearts was given for purposes of wider blessing to poor humanity than some of us have dreamed. Before this century shall end the rays of love which shine out from woman's heart shall no longer be divergent; but through that magic lens, that powerful sunglass which we term the ballot, they shall all converge their power, and burn and blaze on the saloon, till it shrivels up and in lurid vapors curls away like mist under the hot gaze of sunshine. Ere long our brothers, hedged about by temptations, even as we are by safeguards, shall thus match force with force; shall set over against the dealer's avarice our timid instinct of self-protection, and match the drinker's love of liquor by our love of him. When this is done you will have doomed the rum power in America, even as you doomed the slave power when you gave the ballot to the slave.

OBJECTIONS.—WOMAN'S INFLUENCE.

"But women should content themselves with educating public sentiment," says one. Nay, we can shorten the process; for we have the sentiment all educated and stored away, ready for use in brain and heart. Only give us the opportunity to turn it to account where in the least time it can achieve the most! "No; but she should train her son to vote aright," suggests another. But if she could go along with him, and thus make one vote two, should we then have a superfluous majority in a struggle intense as this one is to be? And then how unequal is her combat for her right to train her boy! Enter yonder saloon. See them gathered around their fiery or their foamy cups, according to the predominance in their veins of Celtic or Teuton blood. What are they talking of, those sovereign citizens? The times have changed. It is no longer tariff or no tariff, resumption of specie payments, or even the behavior of our Southern brethren that occupies their thought. No. Home questions have come elbowing their way to the front. The child in the midst is also in the market-place, and they are bidding for him there, the politicians of the saloon. So skillfully will they make out the slate, so vigorously turn the crank of the machine, that measures dear to them will triumph, and measures dear to the fond mother's heart will fail. Give her, at least, a fair chance to offset by her ballot the machinations which imperil her son.

WOMEN CANNOT FIGHT.

"But women cannot fight," you say, "and for every ballot cast we must tally with a bayonet." Pray tell us when the law was promulgated that we must analyze the vote at an election, and throw out the balance of all men aged and decrepit, halt and blind? Do not let the colossal example of Judge David Davis so fill our field of vision that we cannot perceive brain and not bulk, to be the rational basis of citizenship. Avoirdupois counts greatly among the Zulus; but is a consideration far less weighty with the Americans than it was before the Geneva Arbitration. I venture the prediction that this Republic will prove herself the greatest fighter of the nineteenth and twentieth centuries; but her bullets will be molded into printers' type, her war will be a war of words, and underneath the white storm of men's and women's ballots her enemies—state rights, the saloon, and the commune—shall find their only shroud.

"WOMAN'S RIGHT."

Of the right of women to the ballot I shall say nothing. All persons of intelligence, whose prejudices have not become indurated beyond the power of logic's sledge-hammer to break them, are convinced already. For the rest there is no cure save one—the death-cure—which comes soon or late and will open more eyes than it closes. Of the Republic's right to woman's ballot I might say much.

(To be continued.)

LETTERS FROM A COUNTRY GIRL—No. 16.

MARGARET B. HARVEY.

If, as my fair friends remember, I have confessed to having the "art craze," I form by no means an exceptional case. This universal interest in art matters is a good thing for our land. To-day, instead of talking about Huxley and Darwin, as our people did three years ago, they are discussing Morris and Eastlake; instead of gravely speculating over the philosophy of the unknown and the unknowable, they are actually making for themselves discoveries in the realms of the beautiful. And the result of it all is going to be lovely homes everywhere—our hearth-worship will soon be conducted within worthy temples. And I want to be one of the messengers to carry this good news to the women far away from the centers of artistic influence.

I was hesitating whether to tell first about the old masters, or to talk of art as regards some of its manifestations to-day; and I have come to the conclusion that I will, so to speak, give my pupils something to do, and let them out of their doing evolve a desire to learn of persons and principles preceding their performance. It is well enough to read and talk about art, but what you, my friends, really want is art in your homes. If you have been able to follow any of my suggestions about decoration, you are already in a fair way to obtain what you desire.

I used to think it impossible for those in ordinary circumstances to derive much profit from the modern school of artistic adornment. In one sense, I still think so—that is, so far as concerns costly materials; but in another, I think they may be greatly benefited—when it comes to the consideration of *effect*, aside from the means employed. And as my friends have been very indulgent in listening to my experiences from time to time, perhaps they will be equally so now if I tell them how I furnished a parlor this summer,

An Artistic Room.

As in many country houses, the room had simply a whitewashed wall. This I brushed over very carefully, filling in the cracks with the thick paste from the bottom of the lime-bucket and smoothing them over with an old knife. Then out of the barn I got a great quantity of the beautiful thick heads of the Hungarian grass, and with them I made a long wreath, tying them together with ravelings which I had saved from my coffee-bags, of which last more anon. (Save everything you can). This extensive garland I fastened along the top of the wall with lath-nails, thus forming a beautiful frieze. For a center-piece, I arranged in the middle of the ceiling a bunch of Hungarian grass, from the midst of which, suspended downwards and the handle mostly cut off, was a large, gay Japanese umbrella.

The paint on the wood-work, of a soft grayish white tint, was in tolerably good condition, so there was nothing for me to do here. The next step in order was a dado to correspond with the frieze, and this I made by tacking all around the walls, immediately above the washboard, white straw matting a yard wide. Thus I had a beautiful wall, the pure white contrasting exquisitely with the *ecru* straw above and below. And as the carpet must correspond with frieze and dado in general tone, and contrast strongly with the upper wall and ceiling, I covered the floor also with straw matting.

There should also be a general correspondence throughout hangings and furniture though anything like "matches." or "sets" are strongly tabooed. So don't be surprised to be told that I used a great deal of coffee-bag, which, aside from its being a truly artistic material, (we will not mention its *cheapness*) was of the same order as my straw wall-decoration and floor covering. I next put in each of the four corners of the room a bracket made merely of pine wood and covered completely with a coffee-bag lambrequin fringed out and bordered in double coral stitch worked with pale-blue zephyr. The lambrequins for the curtains consisted of deep flounces laid in shallow plaits, fringed out also, and edged with the pale-blue. The curtains themselves were plain lengths of unbleached muslin, looped back on each side with bands of the bagging worked in the blue, (N. B. Unbleached muslin curtains may be bordered in crewels, edged with torchon lace, or bound with strips of bright-colored cretonne). To complete the effect around the sides of the room and to correspond with the center piece of the ceiling, in each of the three vacant spaces on the walls—at the back of the room, and at the two sides—I tacked up two Japanese fans, with their handles crossed and tied with blue ribbon.

I next looked about me to see what I had available in the way of furniture,—and you, my friends, if you look, will probably find more than you thought. Well, I found a beautiful old side-board, or pier-table,—neither, in fact, but half-and-half, with a marble slab on top, a number of mahogany curves, inlaid with wreaths and harps of satin wood, and a shelf underneath. It would just stand between the two windows. And then I found a plain, dark wood table, which a few strokes of my brush weighted with Vandyke brown, applied about the legs rendered quite respectable. Besides I lighted on a very pretty camp-chair, with blue carpet back and seat, another camp-chair, quite different, being old and worn, and furnished with a bottom of dingy, faded brown; and a cane rocker.

The first thing taken in hand was the plain table, for which I made a cover of a large piece of coffee-bag, fringed also, like the lambrequins and bordered with blue. In the center of it I laid a heavy moss-mat for the lamp, and this is how I made it. I cut a round foundation of cardboard and covered it, on the top with bag-stuff, on the bottom with muslin. Then I got three ounces of blue zephyr, each ounce a different shade.

The Moss Stitch.

—If it is a stitch—is exceedingly simple, though the effect is magnificent. First thread your needle with the zephyr, knot, and pass it through the edge of the card-board. Have ready in your left hand a long bunch of zephyr, consisting of three or four strands. Pass the needle through about half an inch from the end nearest you, knot around it, and then cut the running bunch half an inch from the thread, so that you will have taken upon your needle and secured in place a bunch of strands about an inch long. Upon the same thread, still held in your right hand, take up another bunch in the same manner, about an inch higher than the last, and so continue until you have sewn upon one string five bunches, then cut the thread itself. Put the needle through the card-board for the second time, very near the first thread, and proceed as before. Keep on until you have gone all the way around, when perhaps you will be surprised to find that only one row has used up an entire ounce. The second row should be placed a good inch within the first, and the third within the second, forming three concentric circles. The richness of the completed work must be seen to be appreciated.

I made another mat for the under part of the other table. This was a daisy mat, more beautiful, perhaps, than the other. The border was blue fringe, and immediately overlapping it was a row of white daisies, alternating with blue rosettes. These latter were made simply by winding the zephyr over the fingers, tying it tightly in the center, cutting the ends and pulling them out. The daisies were made in the same way, but of white, a small yellow rosette being fastened in the middle. This mat, however, pretty as it was, was only a foundation for something better, for upon it I placed a pot which I had decorated in the Japanese style. It was a graceful, curved vessel, somewhat like a butter-crock. The bottom was pure white, shading gradually downward as the pot swelled upward, into a soft gray, darkening into a greenish black, reaching an absolute black around the rim, relieved however here by a thin band of bright vermilion. Around the greenish part ran a row of tiny, brilliant Japanese fans. And within this receptacle I placed a large bouquet of dried grasses.

Upon the marble top of the stand were laid a few books, beside which appeared a dainty, rustic vase containing fresh-cut flowers. Also, a fair silver easel, suspended upon which by loops of light blue and garnet ribbon, was a horseshoe,—decorated by sprays of buttercups painted upon a black ground.

The blue camp chair did very well as it was. So did an old lounge-frame, it being an easy task to give it new youth and beauty by a covering of blue chintz,—a lovely fabric of a delicate shade overrun by roses and doves and daisies and Cupids and Apollos and arches and arabesques, in soft grays and clear whites. To lay on the floor in front of it, I worked a long sofa strip of the bag-stuff, with shaded blue in large cross-stitch, lining it with the same material,—coffee-bag mats should always be lined, otherwise they will not lie nicely. —The faded camp-chair, I transformed by a bag-seat, bordered on each side by a broad band of perpendicular and horizontal diamonds, in shaded blue. I tacked to the back of the cane rocker a daisy tidy, made by threading together five rows of rosettes, each containing five,—a daisy, a blue, a daisy, etc., alternately. This, of course, was sewed fast diagonally.

Now, I wanted three more chairs. So I bought a camp-chair of still a different pattern, and two light wood rockers, without backs and seats. I covered the first with a most elaborate piece of the bagging material, transformed "so fashion:" down the middle I basted first a broad band of garnet poplin, and then upon it, along each side, I worked a row of conventional asters in pale-blue split zephyr. These I enclosed with converging and diverging stiches in yellow silk. Out upon the bag I worked two stripes of blue and yellow, in cross-stitch, finishing the front by deep knotted fringe in the same blue and yellow wool.

Of the two rockers, I finished one with the plain bag, bordered in cross-stitch with pale blue. For the other, I used up all the scraps left from the bags I had used, cutting them into strips, hemming them and resewing them together, over and under. Then upon every other of the squares so formed, I worked a large star in shaded blue.

Lastly, I believe I shall tell what I had upon the four-corner brackets. First of all, though, I shall say how I covered up the old stove pipe hole. I stretched over it a square of white muslin, and then in the middle, so as to hide the round part, I tacked a blue tile, painted with a spray of daisies. To return to the brackets. In one corner I had a little wooden placque adorned with a yellow dandelion; diagonally opposite was another placque with a bunch of apple blossoms. Upon each of the others was a pearl shell, upon which I had painted little landscapes—one, a gnarled apple tree laden with sunny blooms, with a background of woodland and sky and cloud; the other, a bit of the woods in spring time, showing the emerald green of the budding beeches, the deep malachite of the cedar, and the red and silver of the oak, with here and there a dash of the pure white dogwood.

And oh! the room was sweet! Sweet, sweet, sweet beyond description. I wish you could have seen it, but alas! it exists no longer. However, I shall never forget it, and I hope to create it all again some day. One item I must not omit to state—the whole cost only *sixteen dollars!* Don't you believe now that you can have lovely things if you try? To be sure, I did everything myself from the painting down to the whitewashing and tacking and scrubbing. But don't be discouraged if you can't paint—there are ferns, and corals, and shells, and Japanese fans, and Florida moss, and butterflies, and birds' nests, and ever so many things. I know you can put your knowledge of art to an every-day use if you will.

ADVICE TO GIRLS.

Now, girls, do not be disgusted and say, "We've had too much advice already." Please give this a careful perusal and some earnest thought. The whole matter "in a nut-shell" is simply this: men are what you make them, therefore be careful how and what you make. For instance, a young man, a near neighbor of mine, was much given to bad habits, especially that of intemperance. He belonged to a family of means and respectability, and when not actually intoxicated, was admitted into the best society in the neighborhood. Being naturally kind-hearted and agreeable, he was quite a favorite. He visited some friends in a distant town, and when he returned, he talked much of the pleasant society he met—said there was not an intemperate young man in the place, and gave as a reason for this much-to-be-wished-for state of affairs, "The girls there would not look at a fellow who would drink."

He had not strength to resist the temptation to drink in a place where the girls *would* look at him, and, in fact, pay as much attention to him as if he were all that a young man should be; and he continued to degenerate. Now I firmly believe if the girls with whom he associated had not tolerated such behavior, he would have been won to virtue and truth, and would now be an honored and useful member of society.

I know a young lady of good character and respectable family, who is fond of society, recreation, and a good time generally, (which, of course, is all right; I want all, and especially the young, to thoroughly enjoy life); but here is the trouble. She is receiving the attentions of a young man who is *fast* in the broadest sense of the word. He has plenty of money, fine horses and buggies, and she does love to ride, in short, delights in having a beau.

Girls, let me entreat you not to sacrifice principle for a little pleasure. You have an almost unbounded influence over your gentlemen friends, and you can do them an untold amount of good, both for time and eternity, if you will but make an effort in the right direction.

Cultivate a winning agreeableness of manner by all means. Be firm in your principles of right, and let them be known. Let the boys know you abhor profane and impure language, intemperance, any kind of dishonesty or bad behavior, and, may I add, the use of tobacco? Do this earnestly, prayerfully, and be assured it will result in good to your friends.

Remember, this life is but short, and we each have a work to do. Let us do it so well that it may be said of us, when the end cometh, "She hath done what she could." FAITH.

A FLORIDA LETTER.

DEAR MISS RIPLEY:—I have been for weeks trying to find time to pen a few lines for your department of the RURAL. I read the contributions of others with much pleasure, and would be glad to add my mite to the general entertainment, but what can I write about away off here in the pine woods of Florida living in a very primitive style, and entirely untrammelled by the fashions and follies of modern civilized life? Coming from a busy bustling northern town only three hours ride from Chicago, we feel almost out of the world, and unless something about life here would prove interesting, I fear you will not care for my letters. I used to think myself quite a housekeeper, and fully able to give many a useful hint to others with less experience, but here all my old methods are completely upset, and I have to learn new ways, and resort to many strange devices, and although we have only been here eighteen months we have been so fully occupied in making a new home and so fascinated with the study of nature in such entirely new forms and phases, that the old life seems like a dream long past and half forgotten and I do not feel competent to take part in any discussions or present any ideas whatever referring to social life. There is no society here only as northern people make it among themselves, and as we are scattered miles apart, of course we can only meet at long intervals. When we do meet all our time is taken up in discussing and trying to solve the many problems that are constantly arising to perplex us in our new life here. I think it would amuse northern ladies somewhat to be present at a gathering of women here, and listen to the topics we discuss. One thing is certain our time is too precious to spend any of it in gossip, or in discussing the fashions. We have to put up with many inconviences and learn to do without many things which we thought absolutely necessary to our happiness while we were at the North, but there are also many pleasures and comforts here which we could not have there and on the whole I would not exchange the new life for the old. Of course one good reason for it, is that I, as well as my husband came here sick; he suffering so much from catarrh that northern winters were killing him. The climate has nearly cured him, and I enjoy almost perfect health here. I find that almost anything seems possible to me when well, and I have set myself diligently to work to beautify our home as that is my especial department of the labor. What I am doing and how I am doing it I will try to tell the ladies of the RURAL from time to time, (that is, if Miss Ripley does not deposit this in the waste basket as I am somewhat inclined to fear she will.) L. B. S.

Starke, Bradford Co., Fla.

TALKS ABOUT MY JEWELS.—No. 5.

BY MARGUERITE.

LET the day be ever so full of vexations and little naughtinesses, one forgets them all when the small white-robed forms kneel at one's side for their evening prayers. Something, perhaps the protecting angel hovering near, bestows peace on the mother, while her great heart's love unites with the little ones in asking for blessings on her soul's jewels.

They are quieted, too, and add the petition, "God bless Papa and Mamma and everybody. Make Mamma well right away and fill all our hearts full of love to Jesus."

Papa carried them off to their room last night in the midst of their romp, while eyes were so bright and bodies so active, that sleep seemed to be hours distant.

But "Mamma couldn't stand it," and besides it was their bed-time. Anything but a quiet report was expected, for they seemed on mischief bent, and the foot-board of the bed is Fred's favorite jumping block. Papa returned saying, "The precious dears! I kissed them 'good night,' came out, closed the door, and listened. Gertie said, 'Well, Fred, let us kiss each other 'good night' and go to sleep,' so the report was a *smack*, and our four-year old Gertie was soon asleep, while Fred, who is past two, lay still, but wide awake, calling 'Papa' gleefully every time he heard his father in that part of the house.

Gertie said one morning at breakfast, "I asked Jesus to make my Mamma well, but I guess He did not hear me." God forbid that doubt should ever enter her heart, but may she early learn "Thy will, not mine be done," and also to wait patiently on the Lord.

She attends church but generally comes home without a crumb that I can find, although I trust seed is sown that may bear fruit in the future. One day she returned with her dark eyes radiant. The minister had dropped a precious crumb, and she was not slow in claiming it. She told me that "he said to be good to the children; to be good to the little boys and girls, and I said," she continued, "that if they would be good to me, that I would be good to them."

How quick a child is to return kindness for kindness, love for love, and is not infancy the surest time to teach them to love the Lord? Are we mothers always as good to the little ones as we ought to be? Is our love wisely given? Do not some of us stitch, stitch, over pretty dresses because we love to see them look well, while their little hearts ache for Mamma to amuse them? May God teach us how to let the sunlight into the windows of their souls, and at the same time take proper care of their bodies, for these are the souls' houses.

A CHAT ABOUT VARIOUS MATTERS.

I AM at the present time living in a secluded place, in a sort of gap in the coast range of mountains near the Pacific. We only get our mail once a week, so you see my chances for writing are few. I am afraid it will be out of my power to write anything instructive to your readers. I might interest them by telling something of life in Oregon—an as yet unwritten page; or a description of blackberrying in the Cascade mountains might not be without interest; but whether they will be suitable subjects for an agricultural paper, or more particularly for your department of it, is a question I cannot answer.

Coming to Oregon at an early day, I have experienced many of the trials and privations incident to pioneer life. In the first place, I am not a model housekeeper, and not having the modern conveniences for housekeeping—probably considered necessities in the Eastern States—I should expose myself to ridicule in saying anything on the subject. If, however, I could write you a series of friendly letters, you might find something worth gleaning.

I would say a word to girls about plain sewing. In these days of sewing machines there is a tendency to slight the finishing up of garments. How untidy to have the ends of thread hanging just as left by the machine, or to have a garment disfigured by a zig-zag hem. Do your work neatly, finish it up nicely, and the habit once formed will never be regretted. Anything that is worth doing at all is worth doing well. Never be ashamed to have the wrong side of your work examined. I once heard a lady, who was looking at a dress a careless girl had made, say, "If that is the way she makes her dresses, I don't want her to make my boys' shirts, they wouldn't stay together until they were half worn out."

If agreeable, I will write, some time, a plea for old ladies; also tell how I have managed to decorate my house, and give you an account of my famous rosebush. For the present, I will subscribe myself, yours truly. AUNT ESTHER.

Lane Co., Oregon.

[Aunt Esther is heartily welcome to our circle. We shall be very glad to learn of Oregon life and of Cascade mountain blackberrying; also to hear what this new aunt has to say of old ladies—this rather piques our curiosity, for it is usually the *young* ladies who are written about—of the "famous rosebush" and the particulars of that house decorating.—EDS.]

USEFUL NOTES.

MY DEAR MISS RIPLEY.—Do your lady-readers know how easy it is to keep fruit and butter fresh by evaporation? It is a thing well worth knowing, in times when ice is hard to come by, and when one has no cellar. I have kept butter hard and firm in the hottest weather, simply by putting the vessel containing it, into another holding water, and, pressing a linen cloth *closely* over the butter, letting the ends hang into the water. It is very important that the cloth touch the butter at all points, leaving no room for the entrance of air. The more loosely woven the linen, the better, and it is a decided advantage to place the things to be kept cool in a current of air, as evaporation is thus made more rapid. Berries can be kept nicely in the same way.

A very nice sauce for boiled beef can be made with horse-radish. I never knew how good boiled fresh beef was, till I ate it in Germany. There it is the standard dish, and after five hours of slow simmering over the fire, it is really delicious when eaten with either one of the following sauces:

Have ready a large cupful of grated horse-radish. Melt two large spoonsful of butter in a skillet, stirring into it enough flour to thicken it well. Add the horse-radish, and dilute to the proper consistency with the pot liquor.

The second sauce is made in precisely the same manner, except that two spoonsful of dry mustard are used in place of the horse-radish. This makes beautiful, golden-hued gravy, much more delicious than one would think before tasting it. Both these two sauces should be slightly thicker than drawn butter. L. S. H.

Ithaca, N. Y.

WHAT SHALL BE DONE WITH THE PAPERS?

DEAR MISS RIPLEY:—Can you or any of your readers tell me what to do with my papers? We take several papers in our family that contain too much good reading matter to destroy. From some of them I cut the choice selections, poetry, etc., and paste them in a scrap-book, but such papers as the RURAL, for instance contain too much that is valuable to cut, though I have cut the Domestic Economy department out of some of the RURALS to have the recipes more convenient for reference. For scrap-books I use old account books; cut out a portion of the leaves and paste scraps on the others, paste a strip of cambric on the back and cut the letters forming the words "Scrap Book" out of gilt paper and paste on it. Another question I wished to ask but don't know whether it belongs to this department or not. What kind of strainers do you use for milk? Some object that the strainers allow hairs to pass through.

Woodlands, S. C. MYRTILA.

A CONVENIENT APRON for washing days, is a large apron made of ticking or strong gingham, with a roomy pocket on the hip to fill with clothes pins, when the washing is ready for the line.

AUNT EM.

THE CENTURY for August 2nd. contains an article, How to be Beautiful, by Agnes J. Burke, in which some interesting and useful toilet hints are given.

Domestic Economy.

CONDUCTED BY EMILY MAPLE.

PEN THOUGHTS FROM EVERY-DAY HOUSE.

ANNIE L. JACK.

We were busy stemming strawberries with a view to bottling and preserving, and my girl visitors were not in the least afraid of staining their fingers. "Wash them immediately in cold water without soap, and the stains will disappear," said one, and so we took the hulls off the splendid berries and piled them on flat dishes with alternate layers of sugar that by this method was soaked and melted by the time they were all ready for the preserving kettle. I was moralizing a little. "Look at poor Mrs. Rosecleaf," I said; "married at twenty, without any knowledge of the work before her, and her life since, one series of difficulties. Now, there were the Donal girls that you have heard me speak of; they could do any kind of work in the kitchen or garden, and were refined and lady-like in the parlor—quite at home in both spheres." "I wonder," I mused, "what has become of those of the family now living. Of one I know

'Dear girl, the grasses on her grave
Have (many) years been growing.'"

There was a silence for awhile, when the sound of carriage wheels broke the stillness. I am not given to affectation, so washed my hands and went to the front door in time to receive the oldest Miss Donal who had been my bridesmaid and whom I had not seen for fifteen years.

"Yes, we are sixty miles from home, and have driven over to see you," she said; "it has been a long-talked-of visit, and this year I determined not to wait any longer but to come and see you for old times' sake."

How we looked at each other, and thought of the changes since last we met; talked of our children, and sympathized with each other in our mutual sorrows for the baby forms we had both tenderly returned to mother earth.

But one cannot live on sentiment, nor yet on sorrow, and in a little while I found my thoughts wandering to the important subject, "What shall we have for dinner?" I mentally reviewed the facts of the case. There was a small piece of lamb—chops could be improvised; then we had, of course, peas and other vegetables. "Dessert?" said the cook of the day, as we hurried to prepare the meal for our weary and doubtless hungry friends. I gave a look of supreme indifference at—just then, seeing the question seemed to disturb the routine of the preparations, I said, "Who wants a better dessert than strawberries?" And so it proved, for they were appreciated, I observed, as the best part of that hurried dinner. And while the fruit season lasts I would impress upon housekeepers the importance of putting up a good supply of canned fruit. It is cheaply done, and in many ways proves useful in winter. A dish of canned fruit instead of pie or pudding, in a hurry, like that I have mentioned, will save work and be wholesomer as dessert. It is perhaps not generally known that common salt bottles will keep fruit in a good state of preservation, if properly heated. The cork that is put around the neck of the bottle, effectually keeping out the air. I have used them for the last eight years, and found them quite satisfactory. In filling hot bottles, if they are set upon a wet cloth, they will not be at all likely to burst. All corks and lids must be made equally hot. So with a little care and labor we can have a supply of summer fruit all the year round.

HOUSEKEEPING IN SUMMER.

When the mercury is up among the nineties, and air and earth are full of insect-life, the cares of the housewife are greatly increased. At that season, all of the apartments of the dwelling, especially the pantry, store-closet and cellar need the closest scrutiny.

Those who build and occupy their own houses, are less likely to be troubled with house-bugs than those who move annually into rented houses. However, due caution on the part of the housekeeper is always essential, in order to keep her house free from insect pests.

Without doubt, insects are much more interesting to the entomologist than to the housewife.

The surest way to keep clear of ants, is to leave nothing around that they like. In extreme cases, an old table can be put in the cellar to keep provisions on—each foot of the table to rest in a saucer of water, so that the ants cannot cross it. The food that is kept on the table should be in covered dishes to keep out dust and flies, although there need be no trouble from the latter, if the cellar windows have screens. The class of ants called "workers" that are disposed to visit the sugar barrel, cake box, etc., etc., fortunately have no wings.

Flies can be kept almost entirely out of the house, if movable wire screens be fitted to every window and door. Mosquito netting will answer, but is not so good as wire, which keeps in place better, and is not so soon injured by storms. But keep these pests at a distance, by not allowing anything to be thrown about the yard to attract them.

The sow-bug often seen near potatoes in the cellar, can be banished by sprinkling salt over all the vegetables.

Cockroaches can be driven away, if green cucumber parings be put near their haunts.

Moths may be kept out of carpets by shaking them thoroughly at house-cleaning time, after which the frequent use of the broom with an occasional sprinkling of camphor gum or insect-powder, and plenty of sunlight will exterminate them.

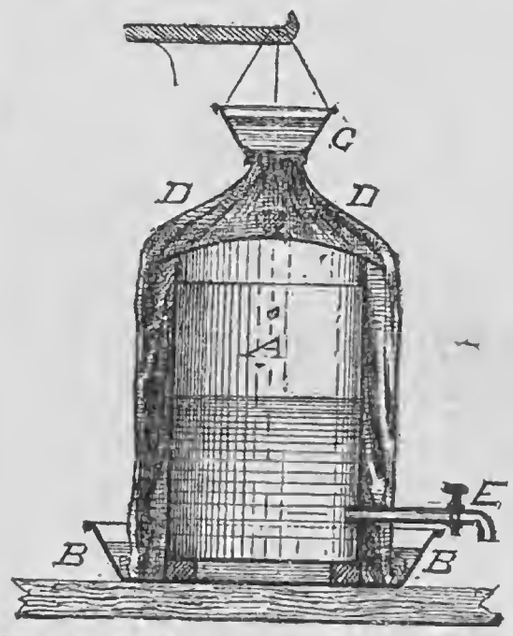
One of the annoyances of housekeeping in summer, is, that food, however carefully prepared, soon spoils. There is no economy in using food that is not perfectly fresh. Meats that have the least taint about them should not be made into hashes, and the evil disguised by high seasoning. Disease lurks in such food. Fresh meats are best kept in refrigerators with plenty of ice above them, while at meal times they should be covered with wire screens, that are made for the purpose.

Ice is a great preservative, and the woman who has a liberal supply of it, with a good refrigerator, will find that these articles lessen the perplexities of housekeeping in summer.

M. G. RAND.

A WATER COOLER WITHOUT ICE.

Cold water is not only a luxury but in many cases a necessity during the summer days, and yet multitudes of persons are unable to obtain ice to secure the desideratum. To such let me say it is not really necessary. This fact may be new to some persons yet the accompanying sketch shows a modification of a plan long in use in the East and in nearly all hot climates. It is based upon the fact that rapid evaporation of moisture from the outside of the containing vessel, keeps down the temperature therein.



A. shows the vessel containing the water or other articles to be kept cold. It sets upon wooden blocks in an ordinary pan B, shown in section. Suspended from a bracket or other convenient support, is a smaller dish C, in the bottom of which are punched a few small holes. Hanging from the under side of this dish is a woolen blanket D, completely enveloping the vessel A—it is cut away on the front side in the sketch. This is kept thoroughly wet by occasionally pouring cold water into the dish C, which trickles down the blanket and is caught in the large pan B. Water may be drawn out of A through the faucet E, as required without disturbing the apparatus. If it is preferred, butter, fruits, etc., may be placed in A, instead of water, and will be kept very nicely. The more rapid the evaporation of the water in the blanket, the cooler the contents of A will be kept.

Ontario Co., N. Y. WM. R. BROOKS.

HOUSEHOLD NOTES,

In picking sour fruit, if it is to stand in tin a few hours, put a sheet of brown paper in the pail. If obliged to cook in tin, empty immediately, when done, into a stone or earthen vessel. This summer, a family I knew were made very sick by eating of pie plant which had been left in the basin during the afternoon.

Let me give a word of caution to inexperienced housekeepers, and that is, *to keep things well covered.* Now is the time for cheese, vinegar, and green flies, to commit their depredations. They will lay their eggs in pickles, cooked potatoes, peas, beans or all vegetables, meat of any kind, mush, puddings, pies that have but one crust, dried fruits, when around the stove, in fact on almost everything. Pails without handles, jars, bowls or anything that can be covered *tight* are safest. Tie a cloth over or cover with a plate so as to make positively insect-proof and save waste. It's rather an unpleasant thought, but when I hear a woman say she never saw any flies' eggs, I think probably she has eaten a good many. Avoid this by taking good care of everything.

M. B. M'LOUTH.

DOMESTIC RECIPES.

Tomato Salad.

Take off the skins with a sharp knife, cut into thin slices and lay in a salad-bowl. Make a dressing by working a teaspoonful each of salt and made mustard, half a teaspoouful of pepper, the yolks of two hard-boiled eggs, with two tablespoonsful of melted butter; then whip in with a fork five tablespoonsful of good vinegar. Pour over the tomatoes and set on ice or where it is cool for an hour before serving. MRS. J. NEWTON.

Tomatoes and Corn.

Peel and cut into slices eight large tomatoes, cut and scrape the corn from half a dozen ears and mince one medium sized onion; mix together and stew half an hour. Season with butter, pepper and salt, and simmer 15 minutes longer. M. G. P.

Scalloped Tomatoes.

Peel and cut into slices one-fourth of an inch thick as many ripe tomatoes as you wish to fill your baking dish; put into the dish, first, a layer of tomatoes, seasoned with butter, pepper and salt, then a layer of bread crumbs, and so alternate until the dish is nearly full, having bread crumbs last; cover and bake half an hour, then remove the cover and bake brown. MRS. W.

Okra and Tomatoes.

Peel and slice eight good-sized tomatoes, cut into rings the same number of tender okra pods and chop fine two small green peppers; boil in a porcelain kettle—iron discolors the okra—for 20 or 25 minutes. Season with butter and salt.

Boiled Okra.

Boil the tender pods in salted water for 20 minutes, and serve with butter, pepper, salt and vinegar. G. W. B.

Lima Beans and Corn.

Boil a pint of shelled beans in water just to cover, for 10 or 15 minutes. Cut corn from half a dozen ears and add to the beans; boil 20 minutes or half an hour, adding hot water as needed to keep from burning. Season with pepper, salt and two tablespoonsful of butter.

Tough Steak.

Instead of pounding, cut it with a sharp knife, making fine parallel cuts on either side until every part has been crossed and recrossed. Press it together and lay on a wire broiler. Hold close to the fire until each side is seared to retain the juice, then turn and tend with the utmost care. Place the steak upon a hot platter and season with bits of butter, pepper and salt. MARY B.

Jelly Cake.

One cup of sugar; one-half cup of butter; three eggs; one teaspoonful of soda and two of cream-of-tartar; three tablespoonsful of sweet milk, and one cup of flour.

For Low Spirits.

Take one ounce of the seeds of resolution, mixed well with the oil of conscience, infuse it into a large spoonful of the salts of patience; distill very carefully a composing plant called "others' woes," which you will find in every part of the garden of life, growing under the broad leaves of disguise, add a small quantity and it will greatly assist the salts of patience in their operation. Gather a handful of the blossoms of hope, then sweeten them properly with the balm of prudence, and if you can get any of the seeds of true friendship, you will have the most valuable medicine that can be administered. Be careful to get the seeds of *true* friendship, as there is a seed very much like it called self-interest, which will spoil the whole composition. Make the ingredients into pills and take one night and morning, and the cure will be effected. MRS. L. GARDNER.

QUESTIONS ANSWERED.

Baked Indian Pudding.

Mrs. H. C. G., asks for a recipe for old-fashioned baked Indian-meal pudding.

Ans.—Take two quarts of sweet milk, scald and stir in one pint of Indian meal, a scant pint of molasses, a teaspoonful of salt and two tablespoonsful of butter. Season with ginger, if liked. Put into a *moderate* oven, and in half an hour stir up from the bottom and add a small teacupful of cold milk. Bake from two to three hours. Serve with liquid sauce. Should any of our readers know of a better recipe, we shall be pleased to publish it.

News of the Week.

MISCELLANEOUS.

Monday, August 11th, 1879.

The approaching election in California is exciting an unusual amount of interest in the Eastern States on account of the possible effect it may have on the next Presidential election, should that be thrown into the House of Representatives by the failure of the people to elect a President. For this purpose the successful candidate must have an absolute majority of all the votes cast, and if three or more candidates are in the field, this is often not easily obtained. Now there are four Congressmen to be elected in California, and the Republicans expect to elect the entire number. If they do, then the Democratic majority in the House will be reduced to one, and unless the Democrats decide the disputed election in the case of Goodlove S. Orth against him on a vote by States, as they are pretty certain to do, the State delegations which would have to elect a President, will stand 17 Republican to 18 Democratic, with Indiana a tie and the casting vote in the hand of the Greenbacker, De la Matyr. The Kentucky State election this day week resulted in the election of Dr. Blackburn, the Democratic candidate, as a matter of course, but it was by a majority about 40 per cent. smaller than that which elected McCreary four years ago. The Republicans have gained several members of the Legislature. Many bothersome inquiries were put to Blackburn as to whether he is the doctor of the same name who, during the war, tried to spread yellow fever in the Northern cities through the introduction of infected rags and clothing. From the fact that he did not deny the implied charge, it is generally supposed that he is the same man. His nomination for the governorship, however, is due to his heroic conduct at Memphis during last year's yellow fever epidemic there. A couple of months ago an account was given here of that Vicksburg Convention assembled to protest against the negro exodus, on the plea that all classes and all shades of political partisanship were now entirely safe and untrammeled in that State—the "Bloody Chasm" was closed up, the wolf and the lamb were reposing amicably together. Lately, however, a Col. Dixon, down in Yazoo county, and three other gentlemen announced themselves as candidates for various local offices, subject not to the ratification of the forthcoming Democratic Convention, but "only to the choice of the people at the ballot-box," it being well understood that "the people" included the "niggers." Of course, the regular Democratic organization regarded this as a piece of confounded impudence, and Dixon and his friends were "waited upon" by an armed mob of about 300 indignant bull-dozers who insisted that the "Independents" should quit the country or "take the consequences," "the consequences," of course, meaning death. Well, Dixon and the others listened to "reason," and effected a compromise by which they resigned their candidacy, and were kindly permitted to stay in the country with only the odium which such conduct as theirs deserves from a chivalrous community. It is now predicted that this may have a tendency to make the North a trifle more "solid," and that it will certainly revive the "exodus," at least in that part of the South. By the way, that "exodus" has terminated in nearly every place for the present. Altogether, the immigration to Kansas has not been greater than that which often arrives at this port within the space of two weeks—not more than four or five thousand, according to the highest estimate.

The invariable sign and forerunner of good times for the last 80 years has been the increased demand for public lands by settlers, and the 6,000,000 acres sold on homestead entries, according to official returns for the year ending June 30, form a larger area than has been sold in any year since Lincoln signed the Homestead Act. The average number of acres taken by homestead settlers in the last ten years has been 120, and at this rate the number of acres sold in the last year, indicates 50,000 homesteaders; or, supposing each homestead to be taken by the head of a family—which is generally the case—a population of over a quarter of a million must have settled on the public lands within the twelvemonth. This return is only for the lands of the United States, and does not include the lands sold on account of railroad grants, or the lands sold by some of the States which have special land grants within their own borders. In 1878 Texas sold 3,800,000 acres to actual settlers, and there is good reason to believe that the sales of that State for the year covered by the returns of the United States, amounted to 4,000,000 acres. The sales by the principal railroad companies in the year after the panic, amounted only to 400,000 acres, but in 1877 and 1878 they rose to 1,000,000 and 2,250,000 respectively; and partial reports make it probable that, in the year ending June 30, such sales reached at least 3,000,000 acres. From very fragmentary returns of land sales by various States, it is estimated that at least 500,000 acres were disposed of in this way. These estimates, all based on the very best attainable information, make the total amount of new land sold within the year, at least 13,500,000 acres, of which it is known three-fourths were sold to small holders; and it is probable that nine-tenths were. Under the Texas law and by the railroads, lands are sold in larger quantities than under the homestead act, so that no very accurate data exist for an estimate of the number of single purchasers. Probably, however, it is not less than 75,000, and as each of these freeholders will, as a rule, represent a family, together with male and sometimes female help, these sales represent a newly-settled population of at least 500,000. Grouping all the accessible returns of land sales for the previous year—that ending June 30, 1878—we find the following results:—government homestead entries 4,500,000 acres, Texas 3,500,000 acres, railroads 1,250,000 acres, from State grants 250 000 acres—the last three estimated—and the total sales amount to 9,500,000 acres. During the last 24 months, accordingly, the sales of land in the West have amounted to fully 23,000,000 acres. The total area of the farming lands in this country was placed by the census of 1870 at 400,000,000 acres, less than half of which was improved. The additions made to this area, judging from the land sales down to 1877, were not certainly over 20,000,000 acres, so that the increase in the last two years, and much the larger part of it in the last twelvemonth, has added 5 per cent. to the farming lands of the country.

Yellow Fever has at last been declared epidemic

at Memphis, where it is still spreading so steadily that there is little hope of its disappearance before frost, unless in the meanwhile all liable to it have been attacked. There has long been a dispute as to whether it is contagious or not, many asserting that for its propagation a peculiar atmospheric condition is necessary, and that in the absence of this the malady isn't "catching." Several cases have occurred this year, however, in parts of the country where such conditions have not existed, yet where the disease has been contracted either from sick refugees or infected articles. For example, last Friday a young man died of Yellow Fever in Brooklyn, who had "caught" it by visiting a vessel that had lately arrived from Havana, and had been permitted to leave quarantine before its cargo had been thoroughly disinfected. There are a few sporadic cases still in New Orleans, but with the exception of an occasional case at points at which the panic-stricken refugees rested, the remainder of the South is free from the scourge and is likely to so continue. During the week ending last Saturday there were in Memphis 134 new cases, 29 deaths from the plague, and only 13 deaths from all other causes.

During the week offices have been simultaneously opened in this city, London, Paris and several other money centers in France, for the receipt of subscriptions towards the construction of that canal across the Isthmus of Darien. Here there were only a few shares taken, and those only for small amounts, and almost entirely by Frenchmen. Cablegrams also announce that the project has met with a reception almost equally cool in London, while shares are selling in Paris at five per cent below par with only a few takers, so that Lesseps' sanguine expectations that the investment would be eagerly sought for, are likely to be disappointed. Our government is openly opposed to the route selected by this company, and to the entire undertaking on account of its being in the hands of foreigners. It is known that our coasting trade would be its chief source of revenue, that its management would concern us more than any other nation, and therefore it is thought that Americans should have control of it. Moreover, the Monroe doctrine forbids the interference of foreign nations in the affairs of this continent beyond the hold they had here when the "doctrine" was promulgated, and this project has such mighty consequences that in its present condition, it is looked upon as constituting such an interference. Our government's opposition is one cause of the partial failure hitherto of the subscription list. Another is a report published by the American engineers that attended the late Congress on the subject in Paris. This demonstrates the existence of almost unsurmountable difficulties along the present route, and numerous advantages possessed by that by way of Nicaragua, which has always been considered the American route.

FOREIGN.

There seems to be a good deal of uncertainty about the progress made in the negotiations between Berlin and the Vatican. One day's cablegrams announce a definite agreement satisfactory to all parties, except the unofficial extremists; next day's reports are apt to contradict this flatly, and to declare that nothing has yet been settled. This struggle between the Empire and the Papacy is an old one. Eight hundred years ago it raged fiercely between Henry IV., the German Emperor, and Gregory the VII., the celebrated Hildebrand, whose vigor in behalf of ecclesiastical purity and Papal supremacy afterwards won him a place among the canonized saints. On account of his crimes and assertion of paramount authority, the Emperor was deposed by the Pope, and after a bitter struggle against his nobles, who had rebelled on account of the Papal deposition, he was forced to make a pilgrimage to Italy to sue for pardon. The Pope had taken refuge in his castle of Canossa, and is said to have kept the suppliant Emperor three whole days in the court of the castle, clad in a single garment and shivering in the cold of January, before absolving him from excommunication. Henry returned to Germany, defeated his opponents, and regained the Imperial Crown; but ever afterwards he entertained the bitterest animosity against the Pontiff, whom he warred against until his death in exile. During the recent negotiations between Bismarck and Cardinal Nina, the expression has been common in the papers, that the Emperor would never go to Canossa, or that he had gone there, meaning that the Emperor would never submit to the Papacy or that he had already done so. The probability is that there will be a compromise, each party yielding some of its claims. It was through the Chancellor's negotiations with the Pope that he has been enabled to secure the support of the Catholic party in his recent conflict with the Liberals in the Reichstag, and by this means has succeeded in partially Prussianizing Germany, and in gaining a position for the Ministry semi-independent of the representatives of the people. Some say that he cannot, therefore, refuse an amicable arrangement with the Ultramontanes, while others declare that he has been too shrewd to definitely compromise himself, whatever impression he may have conveyed to the Catholics, and that having through their means secured what he wanted, he is likely now to "throw them over," as he has frequently treated other parties under similar circumstances.

The defeat of Cetewayo seems to have really put an end to the war in Zululand. He has fled to the northern regions of his territories accompanied by only a small body of his followers. His brother and most of his chiefs have already submitted to the victors. It is said that the British have set a price upon his head, though on what plea they can justify such a barbarity, it's hard to imagine. The fugitive king was never a British subject, and was perfectly justified in refusing to accede to the demands made upon him before the outbreak of hostilities and consequently in combatting to the best of his power, the invasion of his country. The only excuse that can be found for such a measure is in the old saying, "might makes right," or perhaps in some of our own past dealings with our aborigines. One of his brothers is said to be hunting him, having promised the English that he would capture him or "burst." It is said that as long as he lives, at liberty at least, discontent and petty warfare are sure to harrass the lately subjugated territory. Lord Chelmsford having brightened the close of a career of blundering and defeat by his late victory at Ulundi, has resigned his command in South Africa and is on his way to England. Lieut. Carey, who commanded the detachment which abandoned Prince Napoleon to the savages, has been courtmartialed, but the sentence has been quashed on account of a detected informality in the proceedings of the court. It is highly probable a second one will not be assembled, though the lieutenant's military career is, most likely, ruined. He comes of a fighting family, had an excellent reputation himself, and it would seem that the young Prince's own imprudent boldness was the main cause of his untimely end.

There is a report that very friendly messages have been sent by the Czar to the Pope and that a concordat satisfactory to the Vatican, will soon be agreed upon between the two. Probably the rulers of Holy Russia are willing to seek anywhere just now for assistance in suppressing the terrible tenets of Nihilism which, despite all efforts at suppression, seem to be rapidly spreading throughout the unwieldy empire. Thousands of the Nihilists have been banished to Siberia, many more have been executed, and the prisons are full of others, but still they multiply in every rank of society. Now, the Roman Church has always been a rigid stickler for authority, always preaching obedience to the Powers that be, always opposed to insubordination, on principle, and therefore likely to be treated with unaccustomed kindness by the czar at a moment like this, when the whole of his vast dominions is alive with the spirit of revolt and insurrection. Nor are Russia's troubles all internal for on the Southern frontier 40,000 Turcomans are in arms to resist her encroachments while on the Eastern border 400,000,000 Chinamen are said to be about to be arrayed against her to resist her persistent land-grabbing in that direction. The latest reports, however, from that quarter are of a somewhat more peaceable nature than their predecessors for the last couple of months.

The perfume of freshly-culled flowers is agreeable to every one, and so it is with the delightful fragrance of MURRAY & LANMAN'S FLORIDA WATER. None reject it, none dislike it. From the tropics to the frigid zone, it is the universal favorite on the handkerchief, at the toilet, and in the bath.

Nothing purifies and enriches the blood and destroys all poisons in the system like Hop Bitters.

THE MARKETS.

PRODUCE AND PROVISIONS.

NEW YORK, Saturday, August 9, 1879.

BEANS AND PEAS.—Trade is moderate in marrows with the novelty of being quoted lower than mediums. As a rule the bean market, generally, is quiet. Stock of red kidney deemed large with approach of new crop. Peas nominal. Beans, marrow, prime, $1.27½@1.30; fair to good, $1.20@1.25; medium prime, $1.30@1.32½; fair to good, $1.25@1.27½; choice, $1.30@1.35; fair to good, $1.20@1.25; red kidney, prime, $2.40@2.50; fair to good, $2.20@2.30; turtle-soup, $2.30. Peas, green, per bush., — @ —; Southern, b. e., 2 bush. bag, $2.75; Canadian, in bulk, in bond, per bush., 70c.

BEESWAX—Is offered at lower prices, quoted at 23@24c. for Western and Southern.

BROOM CORN.—Current receipts are easily placed at strong prices,

Brush and short broom, choice, ₱ lb, 5½@6½c.; do., common to good, 4½@5½c.; hurl, good to choice, 4@5c.; do., common to fair, 3½@4c.; red and crooked, 2½@3½c.

BUTTER.—Receipts are lighter, but there is no element of demand that favors values in consequence. Shippers took only 1,721 packages, and there is considerable stock that local consumers can make out with without competing for the scarce and high priced creameries and pails. The fine goods of State are firm, but only go in small lots at the extreme. English markets are looking better, but are not yet strong enough to call out prompt purchasers on the part of New York shippers. In fact, there is nothing in view that promises any improvement upon the ordinary quiet market of August, particularly as this year shows an unusual stored surplus. Western butter, dairy and factory, must be right in flavor and body to bring outside extremes.

State pails and half tubs, choice, 15@16c.; good to prime, 14@15c.; fair to good, 12@14c.; firkins, yellow, 14@16c.; Welsh, good to choice, 13@15c.; fair, 12@13c.; poor State, 8@9c.; State creamery, choice, 17½@18c.; good to prime, 16@17c.; fair to good, 15@16c.; sweet cream, 16@17c.; Western creamery, choice, 17½c.; other, 15@17c.; imitation, 10@13c.; Western dairy, best, 12@13c; fair to prime, 9@10c.; factory, choice, 10@11c.; other, 7@9c.; poor, 6@6½@6c.; grease butter, 4@5c.

COTTON.—There is a good full business, closing firm at for August, 11@11.01c.; September, 10.93@10.94c.; October, 10.24c.; November, 10.03@10.01c.; December, 10.01@10.02c.; January, 10.06@10.08c.; February, 10.06@10.19c; March, 10.30c.

Quotations for spot cotton are based on American standard of classification, and on cotton in store running in quality not more than half a grade above or below the grade quoted.

	Uplands.	*N. Orleans and Gulf.*	*Texas.*
Ordinary	9 11-16	9 13-16	9 13-16
Strict ordinary	10 1-16	10 3-16	10 3-16
Good ordinary	10 7-16	10 9-16	10 9-16
Strict good do	10 11-16	10 13-16	10 13-16
Low middling	10 13-16	10 15-16	10 15-16
Strict low middling	11	11⅛	11⅛
Middling	11⅛	11⅜	11⅜
Good middling	11 7-16	11 9-16	11 9-16
Strict good middling	11 11-16	11 13-16	11 13-16
Middling Fair	12⅜	12⅝	12⅝
Fair	13	13⅝	13⅞

STAINED.

Good ordinary 9⅞	Low Middling 10 9-16
Strict good ordinary 10⅛	Middling 10 13-16

CHEESE.—There has been a weak feeling all through the week. A larger portion of the receipts have shown some damage by the warm weather, and these parcels have been placed at 5c. down. Really fancy lots, however, have been available at 5¾@5¾c., with 5¾c. reached occasionally. The exports for the week reach 76,055 boxes.

Quotations for State factory: Fancy, 5¾c.; good to prime, 4@5c; fair to good, 3¾@4¾c.; half-skimmed, 3@4c.; skimmed, 2@3c.; State farm dairy: Fine, 5c; good to prime, 4¾@4¾c.; fair to good, 3¾@4¼c.; skimmed, 2@3c. Wisconsin factory: Fine, at 3@3½c.; good to prime, 4¼@5c. Ohio factory: Cheddar, fine, 4¼@5c.; do., fair to good, 4¼@4½c.; full cream, flat, fine, 5@5½c.; flat, good to prime, 4¾@4¾c.; flat, fair to good, 4@4¼c.; half-skimmed, 3@4c.; skimmed, 2@3c.

Liverpool quotation, 31s. 6d.

Steam to Liverpool, 40@45s.

DRIED FRUITS.—Apples sell well at strong prices; otherwise trade is slack.

Patent evaporated apples, choice, in cases, at 11c.; do. fair to good at 9@10c.; N. Y. State sliced, choice, at 4@5c.; do, quarters, choice, 4@4½c.; western quarters, bright, at 3½@4c.; common and old at 2@3c.; North Carolina peeled peaches at 9@10c.; do. Georgia, 8@9c.; do. fair to good at 6@7c.; unpeeled halves at 3@3½c.; do quarters at 2½@3c. Blackberries at 5c. Raspberries at 26@28c. New York State plums at 8@10c. New pitted cherries, wet, at 13½@14c.; dry at 15@15½c.

EGGS.—Receipts for week, 5,375 bbls.; do., last week, 6,100 do. Losses have run heavy, owing to the steady hot weather, and buyers want best guarantee when they make a wholesale deal. Near-by watering places are not using as many eggs as in former seasons, and the local trade gets a check when good straight lots are scarce. Near points, 14@15c.; State and Penn., 13@13½c.; Western fresh, 11@11½c.; Canadian, 11½@12c.; poor Western, 10c.

FLOUR.—Buyers have the advantage. The receipts are large and freely offered on the decline in wheat.

Latest prices are: $3.60@4.30 for inferior to very choice superfine State; $4.30@4.65 for poor to good extra do., odd lots and lines; $4.65@5 for good to very choice do.; $3.05@4.30 for inferior to fancy superfine Indiana, Iowa, Michigan, &c.; $4.30@4.65 for inferior to very good shipping extra do., and $4.65@4.90 for very good to choice extra do.; common to choice white wheat extras, $4.35@5; choice to strictly fancy do, at $5.00@5.60; red and amber winter wheat, inferior to very choice trade and family, at $4.65@6.00; round hoop Ohio at $4.00@4.30, and trade and family brands of do, at $4.50@6.00, the latter rate for very choice; St. Louis, $5@5.85 for inferior to very good extra; $5.85@6.65 for very good to very choice (with fancy brands held higher); Minn. clear, very inferior to very fancy, at $4.35@5.00; do. "straight," very inferior to strictly fancy, at $5@6.50, and patent poor to very choice fancy at $5.25@7.50; unsound stock at from $2.25@2.80; city mill extra at $5.25@5.50, good to choice, for West Indies; do. for England, $4.35@4.75; do. trade and family extras, $5.75@6.75; do. for South America, $5.50@5.75 for standard to choice brands (winter wheat product); No. 2 at $2.50@3.35 for very inferior to very choice.

FRESH FRUITS.—Cheap peaches push many items aside, and nothing but very choice grades of miscellaneous fruit can be called steady. Over 150,000 baskets of peaches have arrived this week. Some fine samples of Southern Bartletts are here. Cal. Bartletts, $3.50@4 per case. No more to come. Cal. plums, $4 per case for Purple Duane and $5 for German prunes. This last variety of Eastern growth met with much favor last season.

Apples, red Astrachan, up-river, ₱ bbl., $2@2.50; do., Jersey, $1.50@2; Nyack Pippin, $2.50@3; Orange, do., $1.75@2.25; Sour Bough, $1.50@2.25; Sweet do., $1.25@2. Catherine pears, good to prime, per bbl., $1.75@2.25; Bloodgood, fair to prime, $2@2.50; Bell, fair to prime, $1.25 1.75; Bufium, $1.50@1.75; Bartlett, Southern, extra, per crate, $2@2.50; poor, $1@1.50; up-river, ₱ bbl., $4@6; N. J., $4@5.50; cooking, per bbl., $1@1.50. Peaches, Md. & Del., Early York, per crate, 70c.@$1; Troth's, 70@90c.; do., per basket, 50@75c.; Jersey, common, 25@50c. Hot-house grapes, 2@3c. for B. Hamburg and 30@40c. for sweet waters. Ives, N. C., per 54 lb. case, $3.50@4.45; do., in baskets, per lb., 4@6c. Plums, up-river, Egg, per bbl., $4.50; Md. and Del., blue, per bushel, $1.25@1.50. Whortleberries, Md. & Del., fair to good, per qt., 3@5c.; Jersey, do., per 14 qt. box, 50@75c.; do. mountain, 75c.@$1. Blackberries, Monmouth Co., Wilson, per qt., 4@5c. Watermelons, Jersey Black Spanish, ₱ 00, $10@20; Nonticoke, prime, $15@20; Norfolk, do., $ 0@12; N. C., $8@10; culls, $4@6. Nutmeg melons, Cantaloupe, Monmouth Co., ₱ bbl., $2@2.50; do., S. Jersey, $1.25@1.50; do., Jenny Lind, 75c.@1.25. There is an active city and out-of-town demand for peanuts: receipts are light and stock in store is reducing. Prices have advanced and rule strong, with the tendency still in sellers' favor. Hand-picked nuts are about out of market and entirely nominal. Va. hand-picked, $1.47½@1.55; fancy, $1.35; extra prime, $1.30; good to prime, $1.20@1.27½; shelled, per lb., 5¾@6c.

GRAIN.—Wheat has been pressed for sale and is much lower, leading to a good export trade. Sales of No. 1 amber at $1.08½@1.08¾; No 2 amber at $1.07¾@1.08 do., August option, at $1.07¾@1.07¾; do., September option, at $1.07¾@1.07¾; ungraded amber at $1@1.08; No. 1 white at $1.10¾@1.11¾; do., August option, at $1.10¾@1.11; do., September option, at $1.10¾; No. 2 white at $1.08¾@1.09; ungraded white at $1.02@1.10½; No. 1 red at $1.08¾@1.09; No. 2 red at $1.08@1.08½; do., August option, at $1.08@1.08¾; do., September option, at $1.08¾@1.08¾; do., October option, at $1.08¾; No. 3 red at $1.03¾; ungraded red at 90c.@$1.08; No. 2 Chicago spring, September delivery, at $1; No. 2 Northwestern spring at $1; rejected spring at 75c.; ungraded spring at 78@91c.; New York No. 2 spring, August option, at $1; No. 3 spring at 83@90c., chiefly at 90c. Rye at 67@68c. for Western. Corn is active and closed at firm prices; Sales of New York No. 2 at 45¾@46¾c.; do. August at 46c.; do. September at 46¾@47c.; do. October at 47¾@48c.; New York steamer mixed, car lots, at 44¾c.; do. August at 45c. bid and 46c. asked; do. September, at 46c. bid and 47c. asked; ungraded Western mixed at 45@46½c.; No. 2 white at 53@54c., and yellow Southern at 47½@48c. Oats are doing better, with trade active; sales of New York No. 1 white at 41c.; New York No. 2 white at 37½@38c; New York No. 3 white at 35@35½c.; No. 1 at 34½@35c.; No. 2 at 34@34½c.; No. 3 at 33c.; rejected at 31c.; mixed Western at 33½@35c.; white do. at 36½@40c.; white State at 40@41c.; mixed State at 34@34½c.; No. 2 Chicago at 33@33½c. afloat.

HAY AND STRAW.—There are freer supplies, but demand is good and prices sustained.

New hay is at 45@50c. for shipping; 70@80c. for prime, and 55@60c. for medium. Old hay at 50c. for shipping and 70@85c. for prime retail qualities; medium at 50@65c. Straw at 45@55c. for long rye, 45c. for short rye, and oat at 30@35c.

HOPS.—Our market remains firm and prices strong. Fine qualities are taken up immediately on arrival at full prices. There is a noticeable increase of the common grades. Buyers prefer a good 1877, for which they will pay more money. Several bales of the 1879 crop were received on the 7th and 8th; they are of fine quality, and are offered at 40c., with no sales at time of going to press. Receipts, 1,774 bales; exports, 479 bales.

	Bales.
Receipts for the week	1,774
Total receipts since September 1, 1878	87,360
Total receipts for same period in 1877	136,874
Export clearances for the week	479
Total exports since September 1, 1878	32,210
Total exports for same period in 1877	78,949

Quotations are for New York's, new crop, prime choice, 15@18; New York's, new crop, medium, 10@12; New York's, new crop, low to fair, 7@9; Eastern, 8@12; Western, 8@11; Yearlings, 4@10; Olds, all growths, 3@5; Pacific coast, nominal, 10@16.

A. J. Luce & Co., of this city, received on Thursday the first bale of new hops. It came from Montgomery Co., Ga, and was rated choice.

OIL-CAKE.—Western is quoted $28 per ton.

POULTRY AND GAME.—Early supplies of live fowls in the week sold low; with smaller receipts prices are better, but still below last report. The trade will not stand a rush of coops. Chickens lower. Geese have advanced.

Chickens, large per ₱., 14@15c.; small, 11@13c., fowls, N. J., 10@11½c.; Western, 10@11c.; Southern, 10c.; roosters, old, 6@7c.; ducks, ₱ pair, 10@10c.; geese, best, $1.10@1.62; others, $1.12@1.37.

Turkeys, ₱ lb., 13@15c. Dressed is in moderate demand; choice turkeys something higher; other stock easy: Phila., dry-picked, 16c., State and Western, 14@16c.; chickens, Philadelphia, per ₱., 15@18c.; State, 13@15c.; Western, 12@14c.; fowls, choice, ₱ ₱., 13@14c.; other, 10@12c.; dry-picked, 14@15c.; ducks, spring, dry-picked, 12@16c.; other, 11@13c.

Game scarce; the few items firm. State woodcock, 75@80c. ₱ pair; Western, 65@75c.; Eng. snipe, ₱ doz., $2.

PROVISIONS—Have suffered a sharp decline on the unloading of one or two prominent speculative holders; mess pork quoted for August, $8.55@8.60; September, $8.55@8.60; October, $8.60@8.65; November at $8.65@8.75 for seller's option, old or new. Bacon at 4¾c. for long clear and 5¼c. for short clear. Lard at $5.75 for spot; $5.70@5.72½ for September; $5.72½@5.75 for October., Stearine at 6¾c. Tallow at 5 13-16c. Beef hams at $18.

VEGETABLES.—Exports potatoes, 2,450 bbls. Potatoes low, but prime quality keeps them moving; fair to good L. I. and N. J., $1@1.25; extra, $1.50; culls, 50c.; sweet yellow, $3.75@4; red, $2.50@3. Slow-well's evergreen corn gives good commercial satisfaction. Cabbages firmer with improved size. Green corn, extra large, per 100, 75c.@$1; do., poor, 25@50c.; cucumbers, L. I., 30@50c.; do., pickles, ₱ M, $1.50@1.75; tomatoes, L. I., near-by, ₱ crate, 50@62c.; string beans, ₱ bag, $1; Lima beans, $1@1.50; squash, L. I., yellow, ₱ bbl., 50c.; do., do., white, 50c.; do., marrow, 75c.; green peas, L. I., ₱ bag, $1@1.75; cabbages, flat Dutch, per 100, $3@5; onions, white, per bbl., $2.25@2.50; red, $2; yellow, $2@2.25; beets, N. J., per 100 bchs, $1@1.25; Russia turnips, per bbl., 75c.@$1; carrots, $1@1.25; egg plant, Phila., $75c.@$1; do., L. I. and near-by, per 100, $3; okra, Jersey, per 100, 15c.; peppers, bullnose, per bbl., $1@1.50.

TOBACCO.—Export demand very slow and trade otherwise moderate, with prices steady.

KENTUCKY LEAF QUOTATIONS.

	Light.	Heavy.
Common lugs	3½@ 4	4½@ 5
Good lugs	4½ @ 5	5½@ 6
Low leaf	5½@ 6½	6½@ 7½
Medium leaf	7 @ 7½	8 @ 8½
Good leaf	8 @ 8½	9 @10¼
Fine leaf	9 @11	11 @ 12
Selections	12 @—	12¼@ 14

SEEDLEAF.	Crop of 1877.	Crop of 1878.
New England Havana seed	— @—	22 @30
do. wrappers, common	10 @12	— @—
do. do. medium	13 @15	— @—
do. do. fine	18 @25	— @—
do. do. selections	27½@35	— @—
do. seconds	10 @13	9 @12½
do. fillers	7 @ 9	5 @ 6½
Penn. assorted, common	11 @12	10 @12
do. do. fair	13 @14½	13 @15
do. do. fine	13 @18	17 @20
do. wrappers	20 @40	— @—
do. fillers	8½@10	— @—
N. Y. ass't'd, com. to medium	9 @10	— @—
do. do. do. good	12 @15	12½@15
Ohio assorted	9 @12	7½@10
Ohio wrappers	12 @18	— @—
Wisconsin assorted	7½@10	8 @12
Wisconsin Havana seed	— @—	15 @20

LIVE STOCK MARKETS

NEW YORK, Saturday, Aug. 9.

BEEVES.—Receipts for the week, 11,845 head; do. last week, 11,416 do. The market has had a steady active week, and satisfactory prices have been obtained. But butchers and exporters have paid 10c. to dress 57 lbs.; poor to strictly prime steers, ranged at 7¾c. to dress 55 lbs. to 9¾c. to dress 55 lbs.; poor to fair Texan, 6¾@7c.

COWS AND CALVES.—The market is low and overstuffed. A range of $35@40 is given for fair stock extras not above $50, and very common $20 per head.

VEAL CALVES.—Prime veals not above 6½c.; other grades down to 4c.; grassers and fed, 2¾@3½c.

SHEEP AND LAMBS.—Receipts for the week, 26,136 head; do. last week, 25,089 do. Market fairly firm for sheep at 3¾@4¾c. poor to good; extra, 5@5¾c. Lambs active at a late advance, 4¾@6½c., a few N. J. at 7c.

HOGS.—Receipts for the week, 19,537 head; do. last week, 14,710 do. Market nominal at, $3.70@3.90 per 100.

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1879. BONE. BLOOD. MEAT. 1879.

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Reading for the Young.

A SONG FOR THE LITTLE ONES.

I NOTICED in the RURAL, some months ago, a request for "Old Time Songs," which brought to my mind a simple ditty taught me when I was a very little girl. I do not know where it came from, who was the author, or whether it has ever been published; but I send it to the wee ones, hoping that it will afford some of them as much amusement as it did me in my childish days.

ALICE P. ADAMS.

THE HUNGRY FARMER.

There was a hungry farmer
A driving out to grass,
And because he wouldn't go faster
He beat his poor old —animal with longitudinal auriculars.

CHORUS.

The rye dum diddle,
The rye dum day,
The rye dum diddle,
The rye! dum! day!

He went a little further,
And he met a pretty miss,
He put his arm around her
And stole a little—apple out of her basket.
The rye dum, etc.

The maiden beat the donkey
With a little hickory switch,
Which made him throw his master
Into a neighboring—excavation filled with impure liquidity.
The rye dum, etc.

And then he saw a squirrel
That he wanted for his dinner,
But he didn't know how to catch him.
He was such a little—wicked, depraved individual.
The rye dum, etc.

The squirrel climbed a gum tree
Till he got up to the top,
And he couldn't go any farther,
And so he had to—turn round and go back again.
The rye dum, etc.

And now my song is ended,
We'll pass around the hat,
And hope you'll take this chance
To laugh and to grow—dignified, and aldermanic in your proportions.
The rye dum, etc.

"THE TALKING WINDMILL."

IT is gone now; I do not believe a single splinter of it remains, not even the posts that supported it, and the place where it stood is overgrown with tall grass and weeds; but I know it stood out there once. "The talking windmill." Yes, it is a queer name, but I choose to call it so, for long ago —oh! years and years ago, when I was a little school girl—it used to stand or hang out there between the two unpainted posts, and in the cold nights, when the wind blew fiercely across the fields, sending a storm of fine snow before it and making the old trees fairly shriek, and rattling the doors and windows, I would listen to it. One such night all of a sudden the old windmill began a loud protest against all this needless bustle and rage. How it did gesticulate! how its arms did beat and whirl! while in its unearthly voice it plead with the wild night. "Cease, O, cease! Cease, O, cease!" it would cry for an hour at a time; then, as if in great anger at the unrelenting blast, it would change its beseeching tone, and cry out angrily, "Well, then, rage! well, then, rage! Rage and blow! rage and blow!" Then again, as if speaking to itself, it would keep on repeating in a low tone, "I'm a'cold, I'm a'cold; I am old, I am old; Winter King, O, Winter King, I will sing, sing, sing." And so it would scold, and fret, and grieve away all winter long. Often in the bitter midnights I would waken suddenly, only to hear the poor thing entreating and beseeching, and raving and fretting.

After a time, when the usual number of months had elapsed, spring came on, and then it seemed to grow more content. Sometimes it would rest all day; on rare occasions, all night, but not often, for it was the nature of the thing to go around in its own limited circle. It was a very busy windmill, and believed in making music while the wind blew. Then when the summer days came again, and the grass fringed the roadside and crept over the meadows, and the young dandelions looked gladly up to the blue skies, and the birds came singing back to our homes, and the young lambs were basking in the mellow sunshine, and everything said in its sweetest voice, "It is summer, it is summer," then some queer thought seized the poor windmill, and it cried out, in its strange, squeaking voice, for some one who did not return with the summer. Over and over again it repeated its gloomy cry, "Charley Cook, Charley Cook, C-h-a-r-l-e-y C-o-o-k," and so it would go on, drawling out the name to a great length; then, in a sudden passion of grief, repeating it over and over, "Ch'ly Cook, Ch'ly Cook," as fast as it was possible for it to speak, and again blending the words with "Darling, dear, Charley dear." Then, after a pause, I would hear it sighing out, "Gone away, gone away, gone to-day, to-day, to-day," and for hours it would not cease, but go on with its wild lamenting. I never knew who the bewailed Charley was, but suppose the wind must have borne all sorts of strange tidings to my restless friend, for it always seemed to be affected by the wind, and ever after, until I looked for it and it was not, it ceased not to mourn for lost Charley.

Well, it was a long time ago, and the windmill belongs to the past; but sometimes I seem to hear some of the old dirge, sung plaintively in the summer nights when the wind is among the trees, and sometimes I catch the wild, beseeching tones when the winter storm is abroad, so I fancy it is the voice of the wind spirits talking together of their lost friend. I look out at the spot where it once stood; how we children used to play out there! how the flowers grew and blossomed in the flowerbeds just this side and right in the shadow of the windmill! But they are gone now, all gone; and the windmill is gone, and the children are gone, too. Ah, me! If to-day they were out there, they would not run and frolic, but walk with quiet footsteps, and speak with the voices of men and women.

MRS. CHARLOTTE E. FISHER.

What the Club Does.

DEAR UNCLE MARK:—I want to tell you that I am glad you originated the idea of a Horticultural Club for the children, for I believe it will do more good towards stimulating a love of horticulture among the youths of our land than anything else could, and than you ever dreamed of. My children have always been farmers (as much as children could be), but since they have joined the club, they are more enthusiastic and are finding more new beauties in their plants and flowers than ever before, and they are particularly proud of those which Uncle Mark sent them the seeds of. I have always tried to cultivate a love for horticultural pursuits in my children by allowing each one to have a little "truck patch" all their own, and permitting them to do what they pleased with whatever they raised on it. * * * * *

Rosa and Letha have shown their gardens to some of their little friends, also their plants that are growing from the seed that Uncle Mark sent, and some of them say they are going to try to get their parents to take the RURAL, so they can join the club, too.

L. J. A.

Clermont Co., O.

LETTERS FROM BOYS AND GIRLS.

DEAR UNCLE MARK:—We have received the White Tailed radish and Dolly Dutton corn, for which we heartily thank you. They came some time ago, but it was too dry to plant them, and still remains so; perhaps we shall have to wait till October 1 before they are planted. Even that late they will make a crop here. The ground is ready and manured heavily, but the manure is dry as a bone. We are going to harrow it in to-morrow. I have been experimenting with some pop-corn. I manured the ground well and planted two stalks of common field corn with it in each hill to see what would be the result. It was planted late, about the 15th of March, and is injured some by the drought. I want to keep up the experiment, and see if it will not all be pop-corn in two or three years. I gathered 16 ears from two stalks, which is better than papa will do with his Blunt corn. He says he would like to make a compromise about that premium. He will take 50 cents on the dollar, or even less, and say no more about it. Who of the cousins wants to pet another skunk? I can spare a hundred. Don't all speak at once.

Your nephew, JAMES Z. HERRON.

Burleson Co., Texas.

DEAR UNCLE MARK AND COUSINS:—We promised to give you a description of our home by the sea side; it will not require much space and but few words. We live in a humble cottage of concrete, and when our father came here the water was fifty feet from the dwelling, but now it tosses to and fro within twenty feet of the door. It might surprise some of our cousins to know that the cedars are growing luxuriantly in the salt water. We planted them at the water's edge to prevent the earth from washing away, and thus far it has proved a great benefit. We have visited five States, but found none to compete with this in climate. The winters are warm and the summers are cool compared with those seasons in the Middle States. Even now while others are complaining of the heat we can always find a cool place.

Our family ever formed a happy household until the 13th of June last, when in the silence of the night our eldest brother was suddenly called from us. He had been thrown from a horse, and survived the accident only a couple of hours. He was young, being only 25½ years old. The stroke has cast a gloom over our happy household, and carried sorrow to the hearts of many relatives and friends.

We planted the seed that was sent to my father by the RURAL, but, owing to the drought, we had no success with any except the Pearl Millet. We hope to see some more from cousin Empsie and cousin Ivy, for their letters were very interesting. We close with love to all from the

Copano, Tex. TWO SISTERS.

DEAR UNCLE MARK:—I have received the corn and radish seeds you sent me. I planted the radishes June 16th, and they were up in four days. I kept the ground moist and loose, and thirty days from the time of planting they were large enough to eat. I shall raise some seed if the season is long enough. July 9th I prepared the ground for the sweet corn by manuring, digging and raking it fine. I then planted the corn in a single row sixteen feet long, one grain in each hill two inches deep, the hills one foot apart. The corn was also up in four days. To-day (July 23th) it is nine inches high. Many thanks for these seeds. The radishes are just delicious. On the 5th of June I planted my beans, and now they are a beautiful sight. The rows are two feet apart and the beans in bunches of three or four, about eight inches apart in the rows. The beans now cover the ground, and look like one big plant. I have this year a clump of Tiger Lilies, and there are thirty flowers open to-day. In the spring I planted some flax for my canary bird, but the grasshoppers have completely destroyed it. How would some of the Eastern cousins like to have a swarm of grasshoppers land in their gardens? Yours truly,

Dodge Co., Neb. WM. J. MASON.

DEAR UNCLE MARK AND RURAL COUSINS:—Many thanks for the radish seed and sweet corn which you sent me. My corn is up and doing nicely. I had some of the radishes for breakfast this morning for the first time. They were the best we ever ate; papa and mamma thought so, too. I shall be sure to save some of both for seed. Our flowers are not doing very well, because it is so dry here. I think Bob White is a lucky boy to live where it rains every day, even if the weeds do grow fast; it is easier to pull the weeds than to carry water. Will you please tell me what scent the enclosed geranium leaf is? Mamma thinks it is lemon, but others say it is not, but don't know what it is.

Yours truly, BERTHA ROBBINS.

Lacona.

[The leaf is that of a sweet-scented Geranium, but there are hundreds of varieties of this plant which differ so little from one another that it is hazardous to name them without the flower, and even with the flower I might not be able to name it.—U. M.]

DEAR UNCLE MARK:—I would like to have a little place in your circle. I have read for a long time the letters from the cousins, and would very much like to become one of them. I do not exactly understand about your Horticultural Club, but I am very fond of flowers. I have a good many nice house plants. I have five different varieties of Fuchsias, several of which are covered with blossoms. I also have an Oleander, but it does not blossom. I should like very much to know how I can make it blossom—would Uncle Mark be kind enough to give me information? I don't think much of any kind of pets, but I just dote on horses. I see but few letters from Michigan, so I hope you will print this, for I would like to have my State represented. GUSTA.

Michigan.

[If Gusta desires to join the Horticultural Club, she must send her full name and address. The Oleander should be cut back now, to two or three buds on each branch. During the winter, from September to March, the plant should have but very little water and be kept in a room where it will not get much warmth and yet be safe from the frost. In March give the plant fresh soil and a larger pot. The soil should be a mixture of rich garden loam and leaf mold in equal parts, mixed with some well-rotted manure and a little sand. Then water freely when it begins to grow, give it a place in a warm and sunny window, and if there are any flowers in it they will be sure to come out and show themselves. After flowering the plant should be kept dry for a few weeks, then cut back and treated as before. The leaves should at all times be kept free from scales and dirt.—UNCLE MARK.]

DEAR UNCLE MARK:—I have for a long time desired to join your club, but have been afraid that my age would be an obstacle, as I am past 20, but seeing that Uncle True is a member, I take courage to beg for admission.

Permit me to thank you for the splendid seed premium. Defiance wheat, Blunt's corn and Acme tomatoes are doing finely. I have also good luck with the flower seeds.

Crops have suffered some from drought but we are to-day having a fine rain. Truly yours,

Trempealeau Co., Wis. J. O. EMION.

DEAR UNCLE MARK:—I thought I would write and ask you to accept me as a member of your Horticultural Club. I think it is very kind of you to start such a society for the benefit of the RURAL cousins. I am very much interested in the boys' and girls' letters. This is my first attempt; I will therefore write a short letter, otherwise I fear it will find its way to the waste-basket. I have quite a patch of potatoes; perhaps I will tell you this fall how many bushels I raised. Your nephew,

Bessemer's Depot, N. Y. ROVING DICK.

DEAR UNCLE MARK:—I am a little boy only seven years old but I can do lots of work; I have a garden that I care for myself.

I would so much like to join your Horticultural Club, if you will please put my name down.

FREDDIE STACKPOLE.

[You are welcome, Freddie, but I would like to know in what part of the United States you live. —UNCLE MARK.]

CHATTER.—One of America's young sons, a few days since, boasted of his bravery in staying out of doors during a thunder storm. "I like to hear it thunder," he remarked to his mother, and then ran out doors. Soon came one of those terrible, crashing explosions of the heavens, and in rushed Bobby to his mother. "What made you come in, I thought you liked to hear it thunder?" said his mother. "Well, I do when it thunders good, but when God lets it right down like this, it's kind of scary," was the reply.

Sabbath Reading.

SUNDAY AFTERNOON ($3.00 a year; Springfield Mass.,) for August is a hot-weather number, the articles being mostly brief and the stories numerous. Their titles and authors are:—Ruth, Ellen W. Olney; Through a Glass Darkly, Lizzie W. Champney; The Brass Andirons, M. E. Bennett; The People's Prayer, David Ker; and two chapters of Calvin. Rev. G. M. Boynton sketches a real character in the Gentleman Hostler, and Alfred Terry Bacon gives a pen portrait of Leadville.

The Phenomena of Inspiration leads to the conclusion that the truly great men of all times are as really inspired as were the prophets of old. The Hebrow Faith in Immortality is a reply to Our Debt to Socrates in the March number. The Problem of Intemperance claims that inebriates need physiological quite as much as moral and social treatment, and that the too abundant meat diet of Americans promotes intemperance. Prof. Borden P. Bowne writes on The "As If" of Atheism. There are also The Election of College Studies, Some Opinions About Opinion, and contributions by Rose Terry Cooke, Susan Coolidge, and Mrs. Edward Ashley Walker.

The poems are many and seasonable. Elaine and Dora Goodale and their mother, Mrs. D. H. R. Goodale, have each one. Another young poet, Kate St. Clair Greenleaf of Kentucky, has a little poem of which the Poet Whittier expressed this opinion:—"It seems to me to have much sweetness and rhythmical beauty." Other verses are by Frank Foxcroft, C. F. Richardson, Lucy Larcom, S. W. Duffield, and Alice M. Eddy.

The Editor's Table has these articles:—Rebels and Reprobates, The Colleges and Public Morals, Studying Scripture by Samples.

The name of the magazine will be changed with an early issue.

ANCIENT AND MODERN IDEAS OF INSPIRATION.—The Ancients set God and the universe in opposition. They often ascribed the creation of the world to a being less perfect than God. They were unable by a higher synthesis to reconcile their conceptions of Deity with the evil and imperfection which they beheld in themselves and in the world around. Polytheism had made Deity an intimate and familiar presence, that too often shared human frailty and vice. It was the reaction of Semitic Monotheism to send God away almost into the region of the unknowable. It enthroned Him in far-off and inapproachable majesty and holiness. So jealous were the Semites of the idea of God's unapproachableness and unsearchableness that, though in the warmth of religious utterance He was said to have appeared, to have revealed Himself by some name or otherwise, returning to philosophic accuracy, they would speak of such manifestation as that of some emanating power or lower God, and would sooner lay themselves open to the charge of believing in all sorts of lesser divinities as mediatory powers than in the least to appear to make Supreme Deity capable of any representation whatsoever. Has He appeared, or uttered His voice, or named Himself Jehovah? And would men hence presume to begin to predicate anything concerning His nature or mode of existence? He withdraws indescribable and unnamable into His absoluteness.

While God thus dwelt apart, alone in the possession of all that is good, this gross world, its thoughts, works and imaginations were only evil continually. It was totally depraved. It had no self-restorative power. It had no innate ability to will or think anything that is good. Even what might appear as good works were not so in reality, but had without doubt the nature of sin. How then were goodness and truth to appear and shine on the earth? It could only be by an interposition of the far-off God; by lowering the celestial sphere to inspire or "breathe" its holiness into the earthly. This was effected by the communication of an angel or by the gift of a *daimon*. In these messengers God was efficaciously and infallibly present. This mechanical junction of the celestial sphere with the terrestrial was denominated inspiration. The conception of inspiration that inevitably followed was this: They who received these divine messages, i. e., *inspired persons, were universally regarded as pure mediums.* Undoubtedly. There was and could be no *human* element in the message. The whole was direct from heaven. The inspired were *possessed.* "The word that the Lord hath put in my mouth, that I must speak." That this logical inference was commonly made we take Philo out of a multitude as witness: "A prophet says nothing of his own, but everything which he says is strange and prompted by some one else. . . . He is a *sounding instrument of God's voice,* being struck and moved to sound in an invisible manner by him." Again: "When the divine light shines the human light sets . . . and this very frequently happens to the race of prophets; for the mind that is in us is *removed from its place* at the arrival of the divine spirit, but is again *restored* when that spirit departs."

Since then, ancient philosophy made the inspired person a pure medium, "a sounding instrument of God's voice," every inspired utterance must be infallible. On this dark background of essential enmity and separation between God and nature much of past theology has been outlined. Some of it has been steeped in this utter gloom. This ancient falsehood of man's total depravity and hostility to God yet hangs its sable pall over the theology of some. But our view of nature and of God's government thereof is now radically changed. We believe nature to be sacred and God immanent and transcendent therein, its hypostasis and conscious soul. Religion we no longer look upon as a wave come from some etherial and mystic sea to flood our godless valley with its healing waters. As we have concluded men to be, not children of the devil and of darkness by nature, but the sons of their divine Creator, we find religion to be a fact deeply rooted in their moral consciousness. The highest manifestation of the hiding God that can possibly be vouchsafed to us, must after all but be divinely *human.* But if so, if the sublimest revelation of God to man must be a revelation of Him in and through man, then the germs of great truth and high capacity already reside in him by nature. A righteous life, then, is the result of *drawing out,* by all manner of education, the God-planted possibilities within him. But how was it attained, according to the ancient mechanical view? It was by first *driving out* and exorcising his old depraved nature and *bringing in* another in its stead. When a religious philosophy teaches that, in order to regenerate a race of helplessly lost beings, something must be literally *sent* from a literally *distant* God, it is evident that their regeneration must be by *opus operatum* and Calvinistic predestination; their inspiration must be infallible, since it communicates nothing but what is from above.—*Sunday Afternoon.*

THE BIBLE.—The Bible is the bravest of books. Coming from God, and conscious of nothing but God's truth, it awaits the progress of knowledge with calm security. It watches the antiquary ransacking among classic ruins, and rejoices in every medal he discovers, and every inscription he deciphers; for from that rusty coin or corroded marble it expects nothing but confirmations of its own veracity—*James Hamilton D. D.*

PERSONAL ITEMS.

Sir Henry Bessemer has in his time taken out 160 patents.

The Prince of Wales and other members of the royal family will visit the Melbourne Exhibition. The Duke of Genoa will go out in a man-of-war.

Miss Martha A. Head, the bride at a recent wedding in Wayne county, Georgia, is only 10 years of age. Her parents were at the ceremony and gave their full approval.

Wong Wing, a converted Chinaman, who was elected treasurer of a Chinese Methodist Church in California, has behaved "Allee samee like Mellican man," and absconded with the funds—$600.

The venerable Hanson Penn told a camp meeting congregation at Linwood, Md., how glad he was that, at the age of 70, he had just become a convert to Christianity. In the midst of his address he fell dead.

General Joseph Johnston, since his return to his home in Virginia, says that one year's experience in the House of Representatives has thoroughly disgusted him with politics, and that when his term expires he intends to retire to private life.

It is said that Charles Reade, the novelist, keeps two secretaries at work reading and clipping murders, poisonings, accidents, robberies and other "unco' mournful tales," which furnish him with the hint or substance for his stories and plays.

A French physician, Dr. Companys, who had charge of the sanitary arrangements of the Suez Canal works, has been sent to Panama to study the subject of health regulations for laborers on the proposed canal. Dr. Lesseps will get the men from South America.

Congressman Ewing's home, at Lancaster, Ohio, is a plain brick mansion, pleasantly situated on high ground. The General's eldest son, William, who is 23 years old, is principal of an academy in an adjoining township. The General has four other children, two boys and two girls.

The wife of Thomas H. Benner of Hagerstown had been warned before she married him that his temper was violent, and that, sooner or later, he would whip her. She seems to have made up her mind what to do if he struck her, for when he did so, she drew a revolver from her pocket and shot him dead.

Mitchell Jefferson of Scottsville, Va., found the coffee in his cup very bitter, and turned it back into the pot. Soon afterward his mother-in-law poured some coffee from the pot, drank it, and died. Mrs. Jefferson then confessed that her mother had induced her to attempt to kill her husband by putting poison in his cup.

Three sons of the Siamese twins, Chang and Eng are now living in Sumner county, Kansas. They recently appeared at the United States Land Office, in Wichita, in a contest in which one of them was a defendant and the other was a witness. They are spoken of as intelligent, wide-awake citizens, and fully up to the spirit of the times.

Attention has just been drawn in England to Miss Dick of Ventmoor, who has voluntarily stayed abed for twenty years. She was prevented by her parents from marrying the man she loved, whereupon she went to bed, declaring that she would never get up again, and has kept her word. She is now said to have been the original Miss Havisham in Dickens's "Great Expectations."

When Longfellow visited Queen Victoria at Windsor Castle, the servants crowded on the stairways and in the lobbies to get a view of him. On the Queen asking them, next day, why this compliment was paid to the poet, she was told that they used to listen to Prince Albert reading "Evangeline" to his children, and knowing the lines nearly by heart, they longed to see the man who wrote them. The Queen is fond of telling this story.

Mrs. Western is a most uncommon religious convert. After announcing her change of heart in a Baptist meeting, at Worth, Ga., she began to exhort with great volubility, and has kept it up ever since, stopping hardly enough to eat and sleep. The superstitious neighbor's regard her as an inspired speaker. She will pay no attention to anybody, but talks right on from morning until night. Thousands of persons have been to see and hear her.

The Rev. Henry J. Munson, when arraigned in a Worcester court for examination on a criminal charge, desired to preface his testimony with prayer, and had got as far as "Our Father who art," when the Justice stopped him. The clerical prisoner retorted: "I can pray in my mind, and may you, Judge, be called to answer to God for this refusal in the great day." He was committed for trial, but refused to walk to jail, and was conveyed in a cart.

Tip McLaughlin was convicted of murder, in Sacramento, several years ago. Immediately after the jury had rendered a verdict, and before he had been taken into custody by a sheriff, having previously been at large on bail, he coolly walked out of the court room and escaped to South America. There he was employed by Harry Meiggs, and subsequently made a great deal of money in speculations of his own. News has just been received of his suicide. He grew tired, he said, of being a fugitive murderer.

Charles Albert Fechter, the well-known actor, died at his home, near Quakertown, Pa., on Monday night, August 2, at 10 o'clock. He was born in London in 1824, his father being German and his mother French. He began his career as actor at the age of 17, and gained a very high reputation both on the French and English stages. After considerable money losses of late years in the management of theatres, about four years ago he purchased a 57-acre farm at the above place. His success as a farmer, however, was much less brilliant than his triumphs as an actor.

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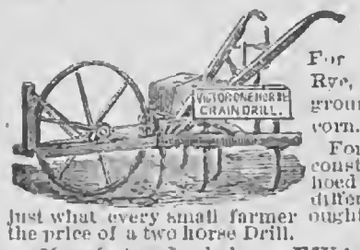

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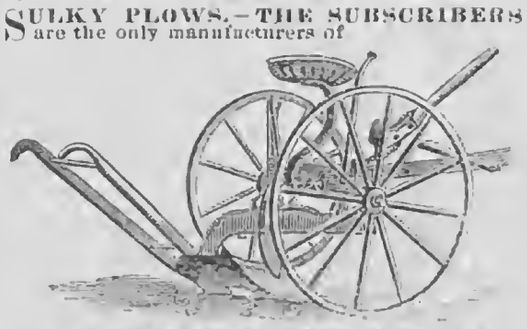

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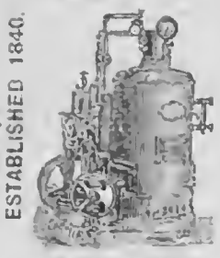

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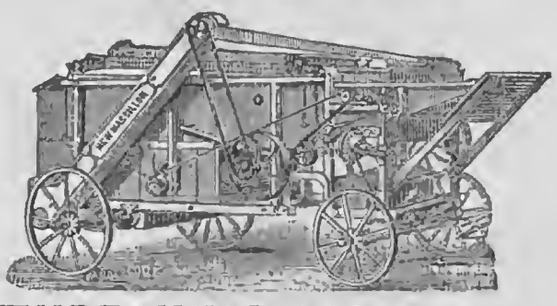

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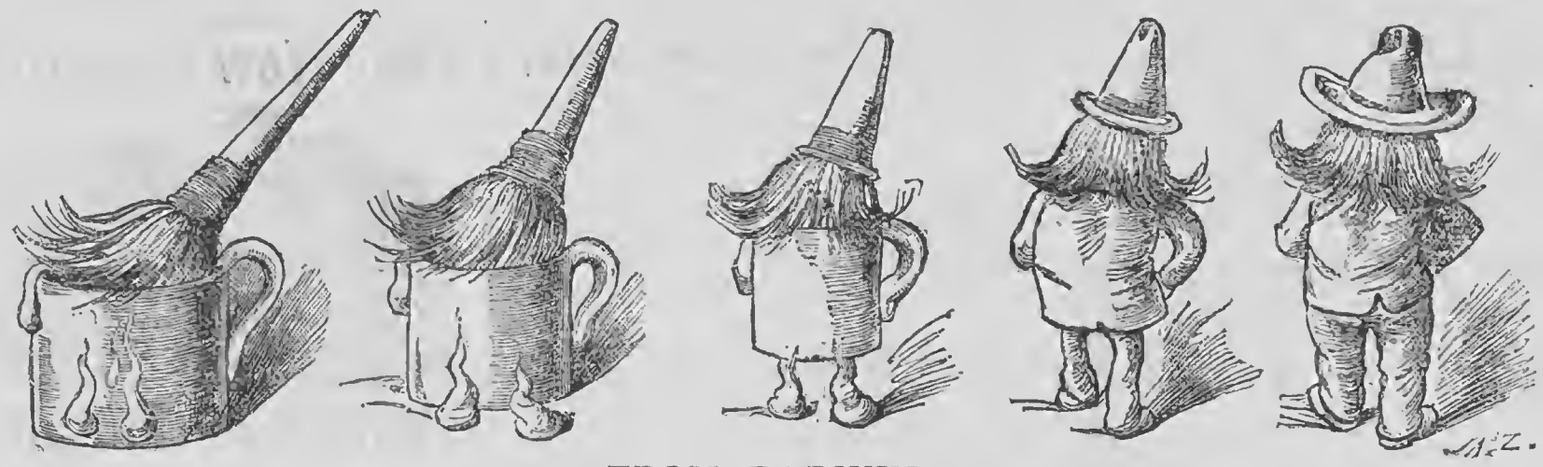

FROM DARWIN.

THE EVOLUTION OF AN ARTIST FROM A PAINT POT AND A BRUSH.

Wit and Humor.

BADGERING WITNESSES.

THE court and jury, as well as the spectators, generally enjoy the scene when a lawyer, in an attempt to badger or browbeat a witness, comes off second best in the encounter. A correspondent recalls an amusing incident of this sort, which happened a few years ago in an Albany court-room.

The plaintiff, who was a lady, was called to testify. She got on very well, and made a favorable impression on the jury under the guidance of her counsel, Hon. Lyman Tremain, until the opposing counsel, Hon. Henry Smith, subjected her to a sharp cross-examination. This so confused her that she became faint, and fell to the floor in a swoon.

Of course this excited general sympathy in the audience, and Mr. Smith saw that his case looked badly.

An expedient suggested itself by which to make the swooning appear like a piece of stage trickery, and thus destroy sympathy for her. The lady's face in swooning had turned purple-red, and this fact suggested the new line of attack. The next witness was a middle-aged lady. The counsel asked.

"Did you see the plaintiff faint a short time ago?"

"Yes, sir."

"People turn pale when they faint, don't they?"

A great sensation in the court, and an evident confusion of witness. But in a moment she answered, "No, not always."

"Did you ever hear of a case of fainting where the party did not turn pale?"

"Yes, sir."

"When?"

"About a year ago."

"Where was it?"

"In this city."

"Who was it?"

By this time the excitement was so intense that everybody listened anxiously for the reply. It came promptly, with a twinkle in the witness's eye, and a quiver on her lip, as if from suppressed humor.—

"'Twas a negro, sir."

Peal after peal of laughter shook the court-room in which the venerable judge joined. Mr. Smith lost his case, not to say his temper.

THE DRESSMAKER'S LOVER.

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And gain new life at each caress.

The blushes mantle on your cheeks,
Deny me not, it's dread foulard,
I've pressed my suit for days and weeks,
And sent you letters by the yard.

Oft at your feet I've knelt and braid,
But you have cut me short and square;
It lace with you—but I'm a frayed
You will not make up to me fair.

It's sashy pale has grown my face,
Though all things look most navy blue;
I'll collar mine, or I will face
Whatever evils may ecru.

[*Detroit Free Press.*

A LOVER will often take a whole year to press his suit, when any smart tailor will do it for him in less than an hour.—*N. Y. News.*

SAYS an exchange, "The mosquito, like the rest of the nabobs, will soon make his hum by the sea." But the main point is, he'll make some other person hum and howl in a way that would make Dennis Kearney's mouth water.—*Oil City Derrick.*

A GRAND avenue man sent up some bananas the other day, and his new cook, just from the country, boiled them with the cabbage and beets. She said he wanted a boiled dinner, and she supposed that was what he sent up the vegetable bolognas for.—*Peck's Sun.*

A GREAT deal of poetry has been written about "snow white sails on a shimmering, sunlit sea," but the sails on most of the craft that we have observed look as if they had been used for circus canvas in a very wet and muddy season. There's no whiteness about them.—*New Haven Register.*

DOWN in Georgia, says the Louisville Courier-Journal, they are all in favor of removing the tax on quinine and putting it on dogs. In other words, they want to take from quinine and put on canine. Or, to add another idea, they would take the tax off Peruvian bark and put it on dog's bark.—*Lowell Courier.*

QUININE IS FREE.

THERE'S a sound on the breeze—
A pæan of glee,
From the distant Maine trees
To the swamps of Maumee.

And the cheer gathers force
From the plains of Jersee
And the Hoosiers all hoarse,
Echo, "Quinine is free!"

"Avast fever and chill,
Off ague with thee,
We've shaken our fill,"
They're yelling in glee.

In Egypt, Ill'nois,
And by the Maumee,
They're hooping like boys,
"Huzza! quinine is free!!"

[*Cleveland Voice.*

THE average San Francisco gamin is 'cute. Standing before a fruit stand the other day, one of them said, "Hello, old fellow! how much for your oranges?" "Twenty cents a dozen, sonny." "Do you throw the thirteenth into the bargain?" "Yes, my lad." "Well, give me the thirteenth to-day, and I will buy the dozen of you to-morrow."—*San Francisco Golden Era.*

OUR inventor is at work getting out 44,000,000 of fancy cards bearing the words, "You can just bet your sweet life it is." They are intended to be worn on the lappel of the coats of all men in the United States in answer to the query, "Is it warm enough for you?" They will meet a long-felt want, and ought to have a tremendous sale.—*Wheeling Sunday Leader.*

ONE little letter will sometimes cause more trouble and worriment to a sensitive man than an immense volume. For instance, the item was written, "Mr. Smith, the clothier; has a fine stock of double-breasted uniforms, decorated with brass buttons; parties wishing to purchase, please call and examine." When the item appeared in the paper the word "uniforms" was "unicorns" and, as a consequence, Mr. Smith's store was filled with curiosity seekers and showmen. But gracious! wasn't he mad! And when he struck the editor square on the nose with his fist didn't he have a unique horn.—*New Haven Register.*

"I SAY, George, what makes you look so cheerful?" said one friend to another, recently. "Why, didn't you hear, Bob, I'm going to be married next Wednesday?" "Well, I must confess I see nothing in that to make you cheerful; I should think it would make you feel sad." "Why, no, my dear fellow; it will be the happiest day of my life. You see, Matilda is a very expensive luxury. She wants to go to the opera every night; it's cream on the way, a pound of candy while there, and soda water on the way home—and I tell you it's a terrible drain on a fellow's pocket, so I'm going to put a stop to it. Come in and have a cigar."—*Yonkers Statesman.*

A FEMALE representative of Erin, with a market basket on her arm, paused at the counter of an egg merchant, and after prieing some of his stock, asked if they were good. "They're nothing else," answered the man blandly. Then she rolled out a dozen or two of them, took up one, broke it and threw it away, then another and another. "What do you mean?" exclaimed the astonished dealer, arresting her in the act of smashing the last egg. "Mane!" she said, "didn't yez tell me they were good? Bad luck to ye then, how should I know it unless I be after thryin' thim?"

HE was inclined to be facetious. "What quantities of dried grasses you keep here, Miss Stebbins! Nice room for a donkey to get into!" "Make yourself at home," she responded, with sweet gravity.

THERE are two little girls of the same name in New London, Conn. The other night one of them said her prayers, and for fear they might be credited to the other child, she added, after the Amen, "No. 10 Orange street."

IN reply to a person who asked him the derivation of the word "restaurant," Bayard Taylor replied, jokingly, with a merry twinkle in his eye, "'Restaurant' is derived from res, 'a thing,' and taurus, 'a bull'—a bully thing."

THE clergyman in a certain town, as the custom is, having published the bans of matrimony between two persons, was followed by the clerk's reading the hymn beginning with these words: "Deluded souls, that dream of heaven!"

"WHAT is your name?" asked a teacher of a boy. "My name's Jule," was the reply; whereupon the teacher impressively said: "You should have said, 'Julius, sir.'" And now, my lad," turning to another boy, "what is your name?" "Billous, sir."

AT seven o'clock in the morning two duellists, who are to fight to the death at a place in the suburbs, meet at the ticket office of the railroad station. "Gimme a return ticket as usual," says the first duellist to the clerk, in a terrible tone and with a ferocious twist of his moustache. "I—I say, do you always buy return tickets?" stammers his opponent. "Always." "Then I apologize."

GOOD stories are always born twins. We all remember the quaint saying of Rufus Choate, who, when told that if he pursued his hard work he would ruin his constitution, replied that the constitution was gone long since and that for years he had been living on the by-laws. Of Sheridan the counterpart is told. He was somewhat given to indulgence in strong drink. When remonstrated with and warned that the quantity of brandy he drank would certainly destroy the coat of his stomach, he quietly poured out another glass and replied, "Well, then, my dear friend, there is nothing for my stomach to do but to digest in its waistcoat."

Languor, Its Cause and Remedy.

The cause of languor, when it is not the immediate or indirect consequence of positive disease, is traceable to a debilitating temperature. Persons living in a warm, moist climate are peculiarly subject to it. Diminished physical vigor and an indisposition to active exertion are its characteristics. Sometimes it is accompanied by undue relaxation of the bowels, and by dyspeptic or bilious symptoms. A reliable remedy is Hostetter's Stomach Bitters, a strengthening and alterative medicine derived from the purest and most efficacious vegetable sources, with a pure and spirituous basis, pronounced by eminent physicians a mild and wholesome stimulant. The Bitters, foremost of American tonics, is largely used in the tropics, where the climate is very productive of debility, malarial fevers, and disorders of the bowels, liver and digestive organs.

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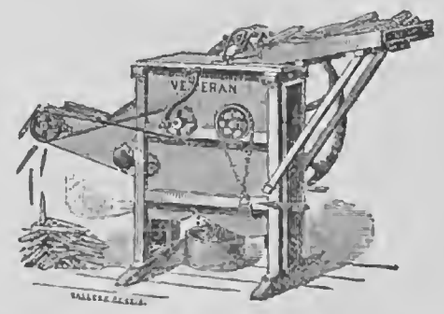

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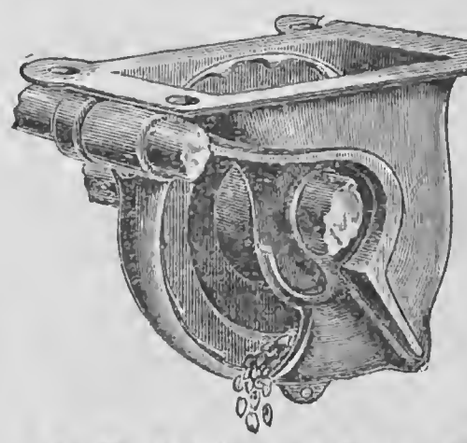

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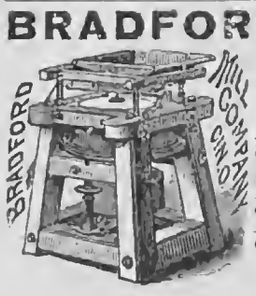

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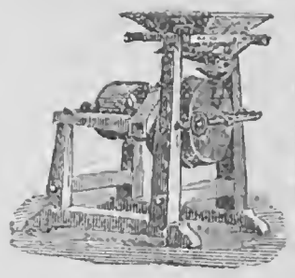

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THE RURAL NEW-YORKER

A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME

VOL. XXXVIII. No. 34.
WHOLE No. 1543.

NEW YORK, AUGUST 23, 1879.

PRICE FIVE CENTS.
$2.00 PER YEAR.

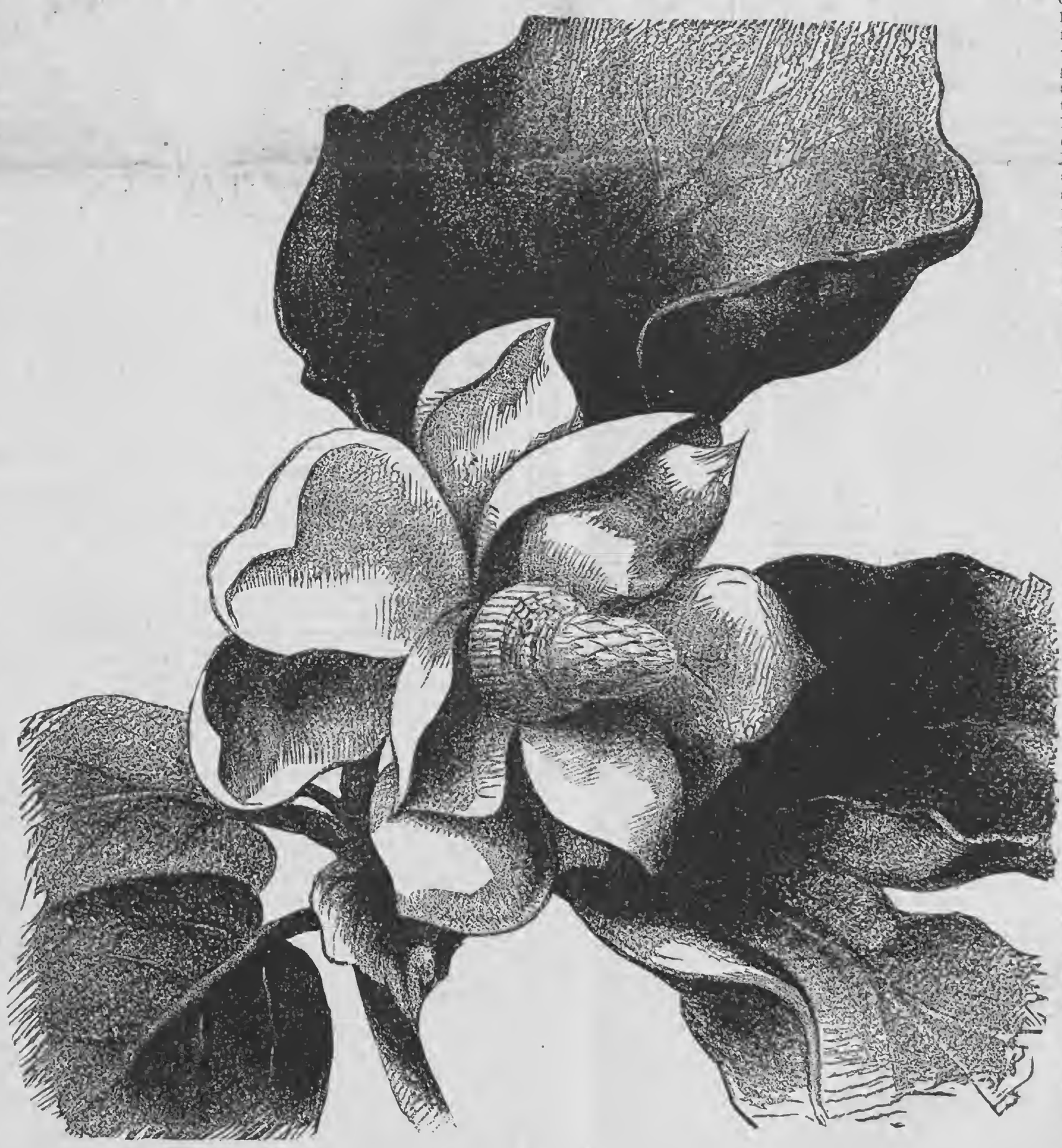
[Entered according to Act of Congress, in the year 1879, by the Rural Publishing Company, in the office of the Librarian of Congress at Washington. — Entered at the Post-Office at New York City, N. Y., as second-class matter.]

Arboricultural.

MAGNOLIA PARVIFLORA.

A NEW Magnolia must necessarily be a valuable acquisition when we think of all the estimable qualities possessed by the various members of this family or genus. Possibly the noblest and most effective in the leaf and flower among plants noteworthy in spring, the Magnolia has been, as it were, specially appropriated to that season. So much has this been the case that we are apt to think of Magnolias as blooming almost too early to escape late frosts, or to combine the adornment of both foliage and flowers. Of course, a moment's thought recalls the fact that only Chinese Magnolias, so called—Conspicua, Soulangeana, &c.—bloom very early, before the leaves appear and also that there are beautiful Magnolias blooming late in June. It must be confessed, however, that the beauty of the flowers of late-blooming species fails to equal that of Conspicua and Soulangeana, and that in most cases such magnolia flowers are more curious than attractive. For this and other intrinsic reasons, we feel confident that in the late-blooming Magnolia here illustrated — Magnolia parviflora—the reader will recognize a plant of evident merit.

Though certainly long known to a few botanists and explorers, such as Siebold, Maximowicz, etc., this is apparently the first time it is figured and presented for the actual employment of the general public of lawn planters. But what is this Magnolia to whose merits we wish to call attention? With little difficulty we might conceive it a nobler and better form of Magnolia glauca, one of our most charming native Magnolias. The flora of Japan, indeed, offers types very similar to our own, and in this case the similarity has been sufficient to induce Siebold and Zuccarini to call the plant in question a variety of Magnolia glauca, and Maximowiez speaks of it as resembling glauca more than anything else. But do not fancy that it bears a very close likeness to M. glauca, for the flower and foliage are all constructed on a larger and more effective scale. The leaves are often more than a foot long, oval, of a bright green on the upper surface and whitish on the under, after the manner of Magnolias generally. Otherwise the form of the leaf is somewhat unique, bearing no special resemblance to that of any Magnolia. The flowers are borne but sparsely, and because they are found only here and there on the bush the name Parviflora may have been given. Certainly the flower is not small, fully equaling that of Magnolia tripetala. The petals are arranged in a cup-shaped form, like those of M. glauca; are about four inches long and of a pure, solid, creamy-white color, like those of M. conspicua. Inside, however, the appearance of Parviflora is still more remarkable, on account of the extraordinary development of the pistils and stamens. These parts of the flower are peculiar in most Magnolias, but in M. parviflora they attain an unusual size and brilliancy of hue. The pistils, in a solid cone, rise out of a bed of stamens six or seven rows deep. The base of these is a broad belt of crimson, and the anthers are of the same color. In fact, the whole general tone of both pistils and stamens is more or less brightly crimson. But the most remarkable qualities of M. parviflora are its delightful spicy odor and the peculiarity of blooming in mid June. So penetrating and agreeable is this odor that the first plant which bloomed in this country, April 12, 1879, in the greenhouses of Parsons & Sons Co., distinctly scented the entire building, 100 feet long. Its fragrance is much more penetrating than that of M. hypoleuca, and in many ways Magnolia parviflora differs greatly from M. hypoleuca. In short, the vigor of the growth of parviflora, the lateness of its period of blooming, and its delightful, penetrating, spicy odor must eventually secure it a high place among hardy plants. To Mr. Thomas Hogg we are again indebted for the introduction of a valuable, hardy, Japanese plant. The first plant received in this country was, as far as appears, received from Japan in February, 1875. It has not yet been offered for sale, but it is being propagated as fast as possible.



MAGNOLIA PARVIFLORA.

Horticultural.

THE STRAWBERRY.

THE strawberry in our day has advanced from a *luxury* to be regarded almost as a *necessity*. What meal in June is complete without it! Now we have a wonderful assortment of this delicious fruit, from the white and light scarlet to the almost black. In flavor too, we have from the sharp acid to those that are sweet and rich. We have also, the "Lazy Man's Strawberry" and those which require something besides laziness to produce a fair crop. We are approaching the time when every family may and will have, the Strawberry.

What Strawberry shall they have? Every well appointed garden should have at least half a dozen varieties giving a succession. To one who has good loamy soil made sufficiently fertile and who likes to handle garden tools as well as to eat, I say plant the Duncan, Duchesse, Durand's Beauty, Forest Rose, President Lincoln and Glendale and if the President should chance to dine with you in June, you may furnish first-class strawberries for him in variety. It is not that I mean that these are the only good strawberries—Oh, no!—but I do mean that when well raised, these are good enough. Some one asks, "Why omit the Sharpless, Chas. Downing, Seth Boyden, Jucunda, Kentucky, Monarch, Crescent, etc, etc?" Well, these are possessed of sterling qualities and not to be despised. So we might make up several groups of the "cream of the Strawberry" and get *cream* every time.

The Great American has been condemned as a very unprofitable sort. It certainly is not the "Lazy Man's berry;" but I have grown it so large and fine as to cause exclamations, and I find that on a heavy rich soil, with good care, it is wonderfully productive. The Jucunda, too, is a little particular where it grows, but fit it exactly and it will fit an epicure. Now I suggest a few points in strawberry culture. For gardens, first select a list of varieties that will bear high culture. Second, give them all they will bear in fertility and culture, keeping them in single hills the rows being two feet by 18 inches. Remember

when you exhibit your two-ounce berries all you need do is to append your name—the berries will tell their own story. P. M. AUGUR.
Otsego Co. N. Y.

RAISING SUNFLOWERS FOR HENS.

THE necessity for a variety of feed for chickens is generally understood, but very few people are aware of the value of sunflowers as hen feed. They are very productive of oil, are eaten greedily, and give a peculiar luster to the feathers. I have one-eighth of an acre planted to this crop, and propose to bind them into bundles, and stow them away in a dry place for winter use. The heads can be thrown into the hen house, where the chickens will soon pick out the seeds, thus giving them exercise as well as variety. With plenty of other grain within reach, they will eat no more sunflower seeds than are beneficial to them. The seed can be bought at our seed stores at one dollar per bushel, at which price it ought to be more generally used than it is. I think a plot of sunflowers, with their great yellow faces turned to the sun, an agreeable sight.

Black Currants.

One must add line upon line, and precept upon precept, in agricultural matters as well as in spiritual and moral affairs, so I may be excused for repeating what I have before written in favor of Black Currants. Having just sold my crop—19 bushels—of this fruit, it may be well to add that it is one of the most satisfactory and profitable crops grown upon my place. So far, no worms or insects have attacked it; the birds do not eat the fruit, the chickens leave it alone, and even thievish boys do not steal it. It is the only crop that thus escapes all damage from depredators, always yields heavily, and sells well. For pies, puddings, jelly, and preserves, it is second to no other fruit. For all throat diseases, black currant jelly is a valuable remedy, while a little mixed with cold water makes a most delicious and refreshing drink.
Onondaga Co., N. Y. NELSON RITTER.

Field Crops.

HAVANA TOBACCO CULTURE IN THE CONNECTICUT VALLEY.

E. R. BILLINGS.

Tobacco Culture in the United States.

The culture of tropical tobacco took its rise in this country in West Florida, where it was planted by the Spaniards soon after they made a settlement there. Previously they began its culture in St. Domingo, and afterwards in Cuba, and the industry has continued in these two islands until now. Tobacco has been cultivated in Florida ever since the Spaniards first planted it, and it is now quite an important production in one or two counties of the State, Perique, an old Spanish navigator, in 1820 settled in St. James Parish, Louisiana, and at once began the culture of that variety of tobacco which now bears his name. At first he used seed from Virginia, later from Kentucky, and finally from Cuba; but at length abandoned the use of Havana seed for the single reason that the plants were of inferior size, and consequently a less profitable variety to cultivate. Properly speaking, the tobacco cultivated in those States is tropical or semi-tropical, being finer in flavor than those sorts grown in the Northern and Western States. The growers of Connecticut seed-leaf, after years of trial in the cultivation of their famous variety of tobacco, succeeded in raising the finest leaf for cigar wrappers known to commerce. In size, texture, color and good burning qualities it has no successful rival among the various kinds of seed-leaf tobacco grown in this country, and lacks only one important quality, namely flavor. As a natural result, it is only fit to wrap cigars, and for this purpose is used for the covering of most of the brands of domestic goods. A few years since some of the growers in the Valley tried the experiment of growing tropical sorts of tobacco, including Orinoco, Latakia, Yara, and at length Havana. The first sort was of good flavor, but the leaf was too short and thick; the second was decidedly too small and is used only for pipe smoking. It is better fitted for the Virginians to cultivate than for the more Northern growers of the weed. The third variety was in some respects a desirable kind to cultivate, since it grew very tall, bearing from 20 to 25 leaves to the stalk, and frequently the former number after being "topped." Finally Havana seeds were planted, and although the results reached were so varied that some succeeded while others did not, many were doubtful as to the practicability of its culture so far North. Many of the failures arising from its culture arose from an imperfect knowledge concerning the methods employed by the Cuban growers of the weed in the selection of soil, etc. At first the principal object sought for by the growers seemed to be the right

Selection of Seed.

It was claimed by nearly all who tried the culture of this sort that it was necessary each year to procure fresh seed in order that the tobacco might be of fine flavor, and thereby approximate in quality to that of the imported leaf. This is doubtless true, but the leaf grown is somewhat smaller and not quite so thin or silky in texture. After some six or eight years of experimenting, it is now generally conceded that seed of the third year's growth is preferable from the fact that the leaf is larger and of finer texture, while it is almost as fine in flavor. It is also much easier to sweat than plants grown from imported seed. Another mistake made by growers was in the

Selection of Soil.

Very many of the first growers who planted Havana seed supposed that the Cubans grew the weed on light, sandy soil, and accordingly acted upon their belief in the matter. The result was, that the leaf grown was leathery in texture and was found to sweat badly when cured even in quantities of from 300 to 400 pounds. The Cubans plant their tobacco in the red clay soil found on the banks of the rivers and small streams that flow from the mountains to the ocean, although quite a quantity is grown on the hill sides adjoining these valleys. These lands are found mostly in the Vuelta Abajo and Yara districts, but the plant is cultivated in other sections of the island; the former, however, produces the finest-flavored leaf that commands the highest price of any grown on the island. A clay soil is well adapted for tobacco, and those growers in the Valley who have selected either a dark or clayey soil, have generally succeeded well in growing Cuba tobacco. Our growers selected a light soil, and oftentimes set out the plants in a protected place by the side of a wood or between two hills, so that the plants might get the sun's rays all through the period of growth. In Cuba, however, the plants grow through the winter months, as they could not withstand the stifling heat of summer.

The culture of the plants is about the same in Cuba as in the Valley, the only difference being in harvesting the plants. In Cuba the leaves are gathered one by one as they ripen and taken to the large drying sheds situated on the "vegas" (tobacco farms) where they are hung up to dry until the humidity of the atmosphere moistens them sufficiently, when they are taken down and tied in bundles or "hands" ready to bale. The Cubans do not pick the leaves until they are thoroughly ripe; hence the Havana imported leaf is not liable to be of the bitter flavor, which it would have if the leaves were only partially ripe. Our growers after topping the plants, allow them to stand in the field from 20 to 28 days, unless there is an appearance of a frost, when if unripe, the plants are usually cut, since bitter tobacco is better than frosted leaf, which is entirely unfit for cigar purposes. Our growers did not make any mistake in applying fertilizers, but used a sufficient amount of well decomposed manure in order to hasten the rapid growth of the plants, in order that the leaf might be of good texture and color.

Last season a large area was planted to Havana tobacco in Connecticut and Massachusetts, especially in the latter State, chiefly in Hampshire and Hampden counties. In the former State the Havana sort is cultivated mostly in Hartford county; but the soil is not quite so well adapted for it as that further up the river. This season a very large area has been planted in Massachusetts, in the two counties named above. The yield per acre is from 1,000 to 1,500 pounds, and it commands about one-third more per pound than Connecticut seed-leaf. It ripens earlier and grows more rapidly, and is easier to cultivate. About 1,000 more plants are set to the acre than of the seed variety, namely, from 7,000 to 7,500. Such has been the success of the Massachusetts and Connecticut growers in raising Havana tobacco, that the Wisconsin growers of seed-leaf tobacco have begun its culture, and have planted a large quantity of Spanish tobacco this season. If its culture is found to be a success in these sections, Havana seed tobacco, as it is called, will take the place of the cheaper grades of imported Havana leaf now so largely used by our manufacturers of cigars.

BLOUNT'S WHITE PROLIFIC CORN.

PROFESSOR A. E. BLOUNT.

BY the time this article appears in print the many inquiries made through the columns of the RURAL, by those who planted my Prolific Corn, will be answered by its growth. Some weeks since in the RURAL I stated that farmers are too apt to overdo in the matter of fertilizing when they have a small quantity of fine premium seed to test. Some—indeed many—I have no doubt surfeited the premium corn sent out by the RURAL. The huge stalks many write about, come from the injudicious application of manures that contain too much stalk food. Alluvial soils, too, almost always make too large a growth of stover and too little grain. A close study of the corn plant, its habits and demands, will soon inform the farmer how to feed, cultivate and select his corn.

I have been improving this corn for nine years and this is the first season it has suckered to any extent. The soil of this locality, being sandy loam, and the climate, make all varieties sucker. More than half my crop became so thick that the sun could hardly penetrate to the soil. You stated some weeks since in answer to a correspondent that I "removed the suckers." I always do; but never in the way most farmers do. If pulled off when young, they will come again and the operation injures the main stalk. They should never be pulled, but cut off with a spud which can be used at the same time to root-prune. Suckers should be removed after—never before—they form the first joint. My crop of four acres is the most promising I have ever had. It is now tasseling. As many as 12 ears appear on many of the stalks. "Colorado," people say, "is no corn country." Cool nights and short seasons work against its ripening. Last year I planted on March 30, and cut up my crop on August 5—130 days. This year I planted on May 7, and if no frost comes until October, I shall make my corn a success. Cool nights I fear will retard it too much. Many call to see and wonder at it. I am still improving it. It is my endeavor now to make the shanks on the lower ears shorter and the cob smaller. Many other improvements I see can be made. One suggests another.
State Agricultural College,
Fort Collins, Colorado.

VETCHES.—This is the great forage crop for horses in England. The vetches are hawked round cities and towns by the bunch, when they first come in, 20 or 30 pounds being sold for about 12 cents, and, as six tons in the green state are a light crop, fifty dollars or more per acre are made by small farmers who are called market gardeners, and as these will be sold by the middle of May a crop of potatoes is grown afterward. These vetches are sown the preceding September and are a winter variety. In this climate the great spring "Gore Vetch" should be drilled in March or immediately the frost is out of the ground, as they are as hardy as the pea. They will then come to a great bulk and gentlemen who have favorite horses and young ones too in the stable, would find a wonderfully beneficial effect from them, for they cleanse the blood and remove all humors, acting medicinally as if by magic. The cause of their not having been used more in the United States has been because when tried, they have always been sowed too late, the land has not been rich enough, and the seed has been of a smaller variety than the "English Gore Vetch" G.

Farm Topics.

THE TRUTH ABOUT IT.

[THE object of articles under this heading is not so much to deal with "humbugs" as with the many unconscious errors that creep into the methods of daily country routine life,—EDS.]

"WHENCE THEN COME THESE TARES"?

Weeds eat up the farmer's substance! The truth of this ought to be apparent to every one who would figure up the cost of eradicating them from the crops. And yet it is not an enemy who hath done this. The farmer himself is the one to blame. Just now the fields are white with daisies and white-weed. The stubbles are green with rag-weed. The roadsides are clothed with golden rods, thistles or creeping briers. The door yards and nooks and corners of the farm bear their burdens, and these nurseries of weeds are neglected with the greatest care. Timothy cut for seed is gathered with the daisies; clover is collected with rag-weed or thistle down, and the seeds are sent abroad for sale, thus polluted with foul weeds which are spread far and wide. The thought of this fact recently came home to me in a leading seed store as I examined a bag of Hungarian grass seed, of which one-fourth at least consisted of seeds of weeds. The truth is, we rarely sow seeds of plants desired for crops without sowing with them many kinds of weeds. And if we should ask ourselves: "Whence came these weeds?" we should in truth reply, "Sown by our own hands!"

The ground is more than sufficiently stocked to give us work enough to keep down weeds for the term of our natural lives, but that we should negligently sow fresh seed or permit weeds to ripen their seeds, is a monstrous mistake. There is time now to avoid this the present season, in great part. Numerous pestiferous weeds are constantly maturing; these could be gathered and burned, and we could easily remedy the other mistake by ordering only clean seed, and refusing to accept any other. If this were always done, the seedsmen would be chary of purchasing foul seeds, and would avoid supplying them to their customers.
A WESTERN FARMER.

FARM NOTES.

S. RUFUS MASON.

TRANSPLANTING beets is nothing new; in fact, if they are taken up when about an inch through, the very best crops can be produced by that means, and far better than in the spot they were first sown. The soil becomes packed in the seed-bed, and when the beet is transplanted, the new, loose, warm, rich soil is just in condition to make it grow. There is no danger of wilting if the top is small and the root large at the time the change is made. Transplanting always checks top growth and encourages root formation, hence to grow any root we have only to make a change of base.

The study of the principles of plant-growth is very interesting; no man can fail to learn even from a cabbage head, and if he watches the usual course of events in a garden, many little matters will suggest themselves which may be turned to practical account. For instance, certain plants are very liable to be eaten off by insects during the first few days after they have appeared above ground. Efforts to destroy the insects almost always fail. If you are attacked by a dog and have a stick too light to hurt him with, hold it so that he can bite it, and he will do so; this gives you time and you finally escape. Insects have a choice of food, and frequently like something else better than our plants which we wish to save. Potato bugs like some kinds of potato vines better than others; a row or two of such vines in a field will attract the bulk of the pests and save the patch. Melon bugs like radish leaves much better than melon leaves, and if radishes are planted in the hill the melons escape entirely.

Poisons in a garden or field are dangerous to poultry, animals and people, and are not at all necessary. There are many things which, as the cases arise, may be done to avoid loss on a farm; weeds must be dealt with promptly; insects must be provided for; dry or wet seasons must be offset by drainage or cultivation. If the wheat crop in Nebraska this year had been drilled in rows for cultivation, we should have had a splendid crop of excellent grain and no weeds. Now we have so thin a crop that whole fields are abandoned on account of the weeds, which the crop could not smother.

The proper mode of cultivation on a farm is governed by no set rule, circumstances continually arise which call for something different from what was first planned out. The good farmer is he who plants to allow a variety in modes, as necessity may demand—change of mode, change of times, and change of seed are as necessary as tillage itself. We fatten calves and all young stock by change of feed or pasture, and if we adhere to set rules or do as our fathers did before us, and only because they did so, we violate the laws of advancement. Ruts in a road are indictable here, and the man who allows ruts in his land is on a bad road, but he who doesn't learn from what passes before his eyes every season should go another quarter to night school, and be sure to take a candle with him.
Dodge Co., Neb.

Farm Economy.

PIG AND CORN EXPORTS.

PROFESSOR E. W. STEWART.

WE are given credit for great shrewdness as a commercial people. The Yankee is represented as always seeing the interest side of his account; never standing on trifles, but with eye on the main chance. Yet he is, no doubt, often given credit for more than he deserves. He is certainly a determined trader, but he does not always sell judiciously. He has been prone to sell too largely of the raw material and too little of the finished product. This is quite the opposite of John Bull's tactics, He never sells raw material, but buys much of it, expends labor upon it, and sells the finished product to all the world. England buys largely of grain and other feeding stuffs to make her own meat. We sell her over 60 million bushels of Indian corn and transport it inland and on ocean 4000 miles, for which she pays about 50 cents per bushel, but the American farmer does not receive more than 30 cents per bushel. When this corn is judiciously fed, it will make nine to ten pounds of pork to the bushel. This will bring the farmer, on an average, 50 cents per bushel at his own door. Grain raising with meat production draws on the fertility of the soil but little, and if, temporarily, it paid no more to sell meat than grain, still it would be great economy in the end. But it is easy to see that the farmer, who sends the bulky, raw material so far to market and pays transportation, must be the loser as compared with the man who sends one-sixth of the same

weight in meat. Freights are low, comparatively, at this time, but the same proportion exists as when freights are high. It costs six times as much to send the corn as the pork made from the corn, and the pork will bring ten to twenty per cent, on the average, more than the corn.

Export of Pig Products and Corn.

It may be of interest to RURAL readers to examine the following table of exports of pig products and of corn for 18 years and 11 months, showing a most interesting growth of these articles of our foreign trade.

	PIG EXPORTS.	CORN EXPORTS.
1866....	$17,199,291	$12,199,876
1867....	13,799,785	16,426,597
1868....	18,602,660	15,162,466
1869....	18,646,286	7,476,992
1870....	15,631,507	2,223,251
1871....	23,305,873	8,410,827
1872....	46,063,962	25,199,364
1873....	61,813,718	25,269,421
1874....	58,013,956	26,299,351
1875....	57,692,019	25,747,470
1876....	68,567,061	34,570,307
1877....	82,411,222	43,132,397
1878....	87 939,573	49,365,250
11 mos. of 1879....	74,662,634	36,407,361
	$645,187,687	$327,890,929

It will be seen that the money value of corn exports is one-half, on the average, of that of the pig exports; but the difference in cost of transportation is so great in favor of the meat, that had this corn been used to make pork, it would have brought nearly double the money, or nearly as much as the pig exports. The greater the proportion of our corn fed at home, the better price will the balance bring for export. We should, at least, require a reasonable price for our corn, if exported to grow meat on the other side of the Atlantic. Corn is quoted at 35 cents per bushel in Chicago, and pork at $4.50 per hundred pounds. If six pounds of corn make one pound of pork, this would give 75 cents more for the pork than the corn that would grow 100 pounds of pork. So that pork is relatively higher in this great Western market than corn. But this corn would be fed upon the farm where it is worth only 25 to 30 cents, and the pork would then be worth 20 per cent. more than the corn. Those nations that sell largely the raw material instead of the finished product, are not the most prosperous people of the world. Compare Italy and England, and you have a specimen of each policy.

I trust that this country is making rapid progress in the true policy of working up its raw materials and exporting mostly the concentrated product. Feeding stuffs for animals are too cheap to bear transportation, and it is pleasant to see the rapid growth, exhibited in the foregoing table, in pig exports in twelve years, as the exports of pig products for 1878 are more than five times those of 1866, and they have nearly quadrupled in the last seven years. And another remarkable fact is, that the pig exports are twenty millions more than the exports of all other animal products. No other line of exports, except cotton and wheat, exceed it. Of all our animal exports, then, *the pig is king*. Let this little animal be duly respected.

UTILIZING SEWERAGE.

LONDON has constructed a sewer twenty-seven miles long, to convey the sewerage from her 4,000,000 population out to sea, where it will be beyond the influence of the tide. This is an annual waste of $8,000,000 worth of the best fertilizers. New York and vicinity washes the sewerage of 2,000,000 population into the rivers to be alternately carried by the tide up and down the streams and inlets for twenty-five miles around. Chicago washes her sewerage into the lake from which she also draws her water supply. Philadelphia draws her water supply from the river and returns her sewerage lower down to pay the draft. St. Louis washes the sewerage of a population of 500,000 down the Mississippi, while a very large number of the cities of less size empty their sewerage into the rivers or bury it in vaults.

All of this is waste, a shameful waste of the health and fertility of the country. The same amount of what is thus thrown away, washed into streams to render them foul and obnoxious to health, must be returned to the soil in some way, to keep up the fertility. The immense proportion of the fertility of the soil which is annually removed from farms and sent to be consumed in cities and washed away, will, at no distant day, so impoverish the soil as to cause a serious deterioration in value and productiveness.

If we go back eastward along the track of westward-extending civilization, we shall see but barren plains and plague spots, worn-out, wasted and desolated, where once were great empires and dense populations. Only so far as the tendency to sterility is resisted, are the present nations enabled to exist. The soil from the far East along the path of empire westward, is steadily becoming impoverished, and it is a simple problem to discover how soon Americans must remove westward or save the fertilizing elements of their soils. Some attempts at utilizing sewerage have been made in England, and it is stated that a large proportion of the Paris sewerage is employed to irrigate the plain of Gennevilliers below the city upon the banks of the Seine, and that the result affords a lesson to all other places, of what may be done. That the sewerage of all cities could be withdrawn to some convenient locality, and there converted into fertilizers, is an apparent fact. That from a large city it would be a profitable business, there is no question. All street refuse and sewerage should be collected and returned to the soil, and when systematically undertaken, this disposal of fertilizers will add both to the health of the ity and the wealth of the country. L.

Entomological.

HOW TO COLLECT INSECTS.—No. II.

PROFESSOR A. J. COOK.

The Collector's Outfit.

THE apparatus necessary in the capture and preservation of insects is more simple and inexpensive than that needed by the collector in any other order of animals. The ease, safety and cheapness of transporting specimens, when collected away from home, when sent to specialists to be named, or when it is desired to make exchange of specimens for the mutual advantage of collectors, as well as the small space required even for extensive collections, and the ease and safety of preserving the treasures of our cabinets, specially recommend this field to him who would become familiar with the glories of nature, who desires the most wholesome recreation and who wishes so to employ his spare moments that he shall gather a rich harvest of valuable knowledge for himself and for others.

FIG. 1.

CYANIDE BOULE.—SIDE REMOVED TO SHOW CYANIDE a. AND PLASTER OF PARIS b.

The collector's apparatus may well be considered under two heads: that for making the collections and that for preserving them.

Apparatus for Collecting.

FIG. 2.

Nothing is more serviceable to the entomological collector than the cyanide bottle; for, once in it, all insects soon die, and all except the most delicate moths may be left in it for some time if care is taken to carry it carefully, so as not to shake the insects. The bottle, Fig. 1, should have a large mouth, a glass stopple, and is prepared as follows: After placing a lump of cyanide of potassium, the size of a nutmeg, in the bottom,

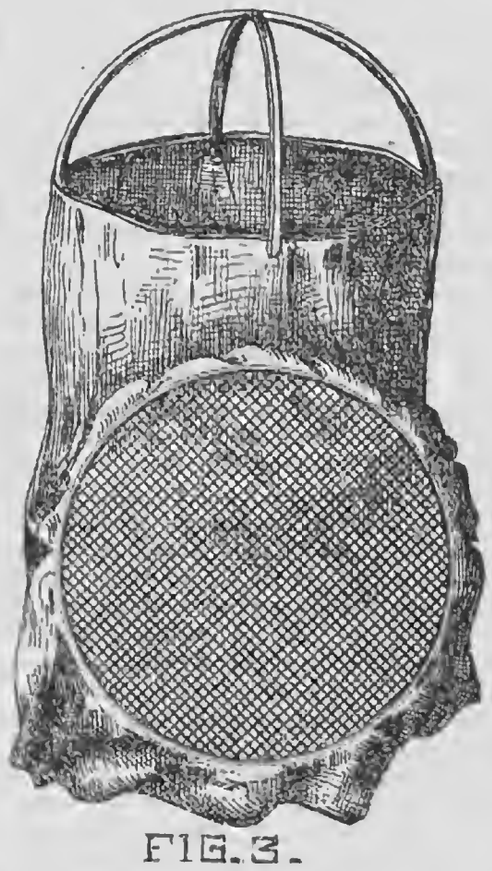


FIG. 3.

Fig. 1, a, turn in a thin mixture of plaster-of-Paris and water till it reaches at least a half inch above the cyanide, Fig. 1, b. This will soon set, and the bottle is ready for use. By having the plaster-of-Paris thin we usually secure a smooth bottom to our bottle. If from bubbles or other cause it is not so, we must rub it till it is. Any roughness is sure to injure delicate specimens. Care must be taken in handling the cyanide, as it is a quick and terrible poison, alike fatal if eaten or inhaled. The fumes in the bottle, though quick death to the immersed insect, are harmless to the collector, if used with even respectable care. The poisoned air of the bottle is as disagreeable as unwholesome, and will not be inhaled for any considerable time, except by him who finds this present life flat, stale and unprofitable, and in this class the entomologist is never to be grouped. Every collector will need at least two of these bottles, one to receive the specimens, after they are killed, or appear to be, the other to put over the specimen as it rests on board or ground, or to receive it from the hands or net. The insect will move about for a minute or two, and had one not removed the previously captured insects, it would be liable to serious injury, especially if moth or butterfly. Several bottles of varying sizes will be found very convenient.

Small bottles containing alcohol, and carried in a pocket case, are very convenient and desirable. In these may be kept temporarily or for a long time, larvæ, pupæ and such mature insects as bees, wasps, beetles, bugs, locusts, etc., which will not receive injury by such submersion. All insects become brittle if kept long in alcohol, and many lose their bright lustre.

Numerous small wooden boxes are ever in demand by the collector, for conveying such larvæ and pupæ as he may desire to rear, to the mature state.

A small but strong chisel will be found very serviceable in loosening the bark of old trees and digging into partially decayed stumps and logs, in which positions are often found very minute but rare and desirable specimens. The skill of a collector may be gauged by the number of minute species in his collections. Untrained eyes will detect the macro insects, not so the micro. To pick up very small species, a pair of small steel forceps are necessary Fig. 2, and quills with close-fitting wooden stopples, are good temporary receptacles for these Lilliputs among insects. To kill such insects we have but to put the quills containing them into a cyanide bottle for a brief period.

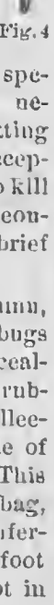


Fig. 4

At all seasons, and especially in autumn, many rare and beautiful insects, mostly bugs and beetles, crawl for protection and concealment, under leaves, chips and other fine rubbish. To preserve such specimens, the collector needs a cloth bag with a bottom made of wire cloth with one-quarter inch meshes. This sieve, which serves for the bottom of the bag, should have a strong wire for its circumference. The bag, Fig. 3, I use is about one foot deep, while the bottom is nearly one foot in diameter. To use this we have but to put in the leaves, etc., and then vigorously to shake the bag above a white cloth when the insects will fall through the sieve on the white surface, and can be easily seen and secured. If the white cloth is rubber, it will be well to have it large enough to kneel upon while shaking out the insects, which conserves the strength of the collector, and in damp places the health as well.

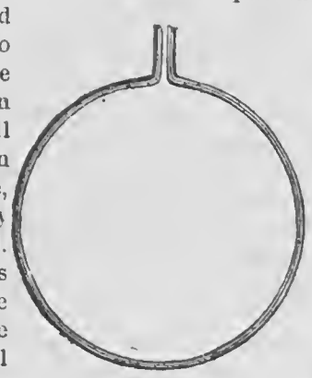


Fig. 5.

The collector will find a large umbrella a very essential auxiliary to his collecting outfit. It will form a grateful shade on hot days, and may be used with wondrous success in collecting beetles and caterpillars. Many larvæ mimic the leaves and branches on which they rest so perfectly, that unless shaken off they will escape even the most skilled observer. To use the umbrella we hold it open, but inverted beneath the tree or branch, then giving the latter a sharp jar, *à la* curculio-catching, when often we will find a catch which will incite our highest enthusiasm, so numerous, varied and interesting will be the shower of insects. Last, but very important, are the nets which the insect collector will bring to his aid. To make a net procure at a hardware store a piece of the largest-sized wire, Fig. 4, three feet long. Get the blacksmith to bend this, with the exception of four inches at each end, into a circular form. The ends must now be bent at right angles to the circle, Fig. 5, welded together and sharpened. A cane or broomstick, with a hole in one end to receive the sharpened end of the wire, Fig. 6, forms an efficient handle.

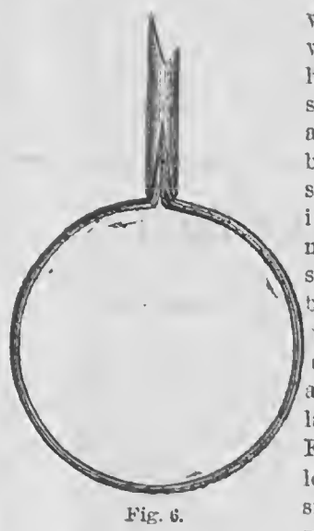


Fig. 6.

We thus have a good frame-work for our net. If our net, Fig. 7, is to be used in capturing moths and butterflies, the bag which is to be attached to the wire-circle may be made of mosquito netting, or better, of Swiss muslin, and, to secure more strength, a strip of strong factory should be bound about

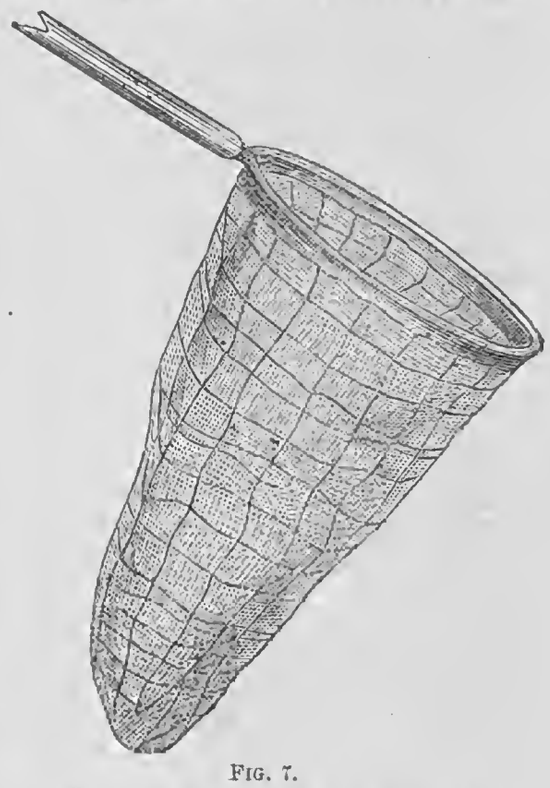


FIG. 7.

the netting where it encircles the wire ring, and be sewed on strongly with it. The bag may be two feet deep. For dredging, the bag should be shallow, not more than eight inches deep, and made of strong fish netting, with the meshes of the twine about one-quarter of an inch across, Fig. 8. A third net, made like the first one described, except that strong factory replaces the muslin for a bag, is very serviceable in whipping bushes and sweeping over weeds and grass, with which one may often do the most rapid and satisfactory collecting.

FIG. 8.

During the warm nights of June and July, and especially of August and September, no entomologist will neglect sugaring for insects. By this process he will secure some of the rarest gems of his cabinet. The method of sugaring is as follows: A liquid, consisting of two-thirds of the cheapest New Orleans molasses, and one-third of stale beer, is placed, as night approaches, upon tree trunks, small boards fastened horizontally to the top of stakes, on fence rails, wood piles, etc. I have had the best success with the horizontal boards, placed among the thick foliage of the grape vines As twilight deepens, or even to 10 or 11 o'clock, the exciting captures follow thickly one after the other. A dozen sugar traps will often keep a person fully occupied. To make the captures we cautiously approach a trap, lighted by a lantern either strapped to the body or held by an assistant. We next decide which moth we shall take, for often there will be a score sipping the sweet from a single board; then carefully place the mouth of an open cyanide bottle over the moth of your choice. If successful, the captured frightened moth rises in the bottle when we quickly apply the stopple, and exchange the bottle for a second one in our right coat pocket. With this we proceed to operate as before at another board, as the moths were probably all frightened away from the first board. This time we not only exchange bottles, but carefully empty the now quiet moth, first captured, into a third bottle, kept in the left pocket. We keep on till we make the entire circuit, when we repeat the round, and thus on so long as success attends our efforts.

Agl. College, Lansing, Mich.

A NEW PATENT AGAINST FRUIT-TREE BORERS.—Somebody, just as I write, has got a patent against the peach and apple borer. It is the wrap of a thin sheet of lead around the crown of the roots, reaching up some inches on the trunk. This is an effective plan, just as are ashes, lime, tarred paper, or any other thing fitted close or piled up around the foot. But quite as good is an open-top, loosely-fitting box, stretching a foot or more above the ground. The first who hit this plan was Hon. Woolsey G. Sterling, of this city. Some 30 years since he devised these remedies for the borer on Peach, Apple and Quince: simply a tube of boards around the tree trunk, fitting the earth closely at bottom and entirely open at top. It should be close enough, I think, to be pretty dark inside its base. But perhaps these close-nailed laths of your correspondent would be just as good a preventive. The borer's progenitor doesn't like to go down into the box to do his work, and the tree still lives. W. H. N.

Bridgeport, Conn.

The Poultry Yard.

EXPERIENCE WITH FOWLS.

In our present state of ignorance with regard to the cause or cure of the different diseases to which fowls are subject, no one can assume to be an absolute authority, or to lay down rules for treatment, that will be effective in all cases. It is only by comparing notes and experimenting that the truth can be arrived at with any degree of certainty. It is reasonable to believe that fowls which have free range, plenty of food, an abundance of pure water, and can choose their own roosting places, are healthier than those which are kept in confinement. Indeed, most writers on the subject ascribe the diseases of fowls to confinement in unhealthy quarters, want of cleanliness, impure, or an insufficient supply of water, or overfeeding and want of exercise. That each of the aforesaid conditions, is a fruitful cause of disease, cannot be denied. That some of the diseases of fowls are contagious, is equally certain. But, while fowls running at large, that have moderate attention bestowed on their wants, are entirely exempt from the unfavorable condition to which fowls in confinement are subjected, it cannot be said that they are exempt from any of the diseases of their kind; though my own experience has convinced me they are less liable to them.

My fowls have been inbred exclusively for the past seven years, and at this time are as strong, hardy and healthy, I am satisfied, as it is possible for fowls to be. Though some writers who are considered authorities, assert that gapes are caused by fowls drinking impure water, mine, which for the past seven years have had an abundant never-failing supply of pure spring water, still have an occasional case of gapes amongst them. I find that a small lump of gum camphor, or half a teaspoonful of sweet oil, with three drops of turpentine in it, is an excellent remedy for the gapes, when administered to the affected fowl. I think it a mistake to put medicine in the drinking water of the flock; the healthy ones do not need it, it is distasteful to all of them, and they will suffer rather than drink it. There have been few cases of roup amongst my fowls for several years. When one is affected, I promptly separate it from the rest. I have tried many things for the roup, and find that frequently washing the head with tepid water, and administering internally a dose of oil and turpentine, once a day, are the most effective treatment. I early made acquaintance with the disease called scruffy or scaly legs. I believe it to be contagious, and to have been introduced, though perhaps I am mistaken, by the larger Asiatics. I gained my first experience with it by obtaining a number of Light Brahma hens to cross with my Games. Shortly afterwards the disease appeared among the Games, and though I tried every remedy I could hear or read of, it remained an eyesore and a nuisance, until I discarded the Brahmas, and decapitated every Game fowl that showed the slightest traces of it, since which time the disease has not reappeared.

For my knowledge of corns or bumble feet, I am indebted also to the agency of the Brahmas. The disease appeared amongst them and their crosses. I can offer no explanation as to the causes which produce it; yet, I fancy it is perhaps, to some extent, hereditary. I found no remedy for this disease except the ax. I killed all that were afflicted, so that they might breed no more of their kind. Formerly I lost many fowls from a disease that is not named, so far as I know. The fowls stood or moped around as if sleepy, and finally died. Upon examination I found the crop much distended and very hard. My mode of treatment is: take a sharp, pointed pair of scissors, cut open the crop sufficiently to insert the finger, empty it and rinse thoroughly with tepid water; then sew up the opening with needle and thread; if the patient is not too far gone when taken in hand, the operation is very often successful. Of cholera—and by the way; are not people in the habit of calling every disease which they do not understand, and which is especially fatal to fowls, cholera?—I know very little. In an experience of fifteen years, my fowls have only once had a visitation of the malady. After keeping them for several years cooped in a small yard in town, they were removed to the country and "turned loose." Soon afterwards they took the cholera (or at least the neighbors said it was cholera). "Physicians were in vain," and about three-fourths of them died. Their exceptional good health since then, I ascribe more to the perfect liberty they have enjoyed, than to any other cause. A proposition that will be found to hold good in all cases, I think, is, that in order to counteract the evil effects of confinement and to strengthen the constitution, frequent crossbreeding is absolutely necessary with fowls, and that, on the other hand, those running at liberty can be inbred for many years without injurious results. Without claiming to be infallible, I have given the results of my own observation and experience in the management of fowls. If I have written nothing new, still what I have written cannot be, to no purpose, if only because it adds the weight of corroborative testimony to what is already known. J. K.

THE POULTRY INTEREST.

A. M. HALSTED.

Only a few years since, the term "chicken fancier" was used in derision by the breeders and "fanciers" of horses and horned cattle; but the fancy has steadily increased and spread, so that now no agricultural exhibition is complete without its poultry department, and, further, it is the only one of the live stock interests which pretends to hold special shows exclusively of stock pertaining to that fancy.

Many estimates have been made of the value of the poultry raised and marketed in the United States, but they can only be approximate to the actual value.

According to the last census, in 1870, there were 44,000,000 people in Uncle Sam's domain. At this time, nine years later, it is safe to compute the number at 48,000,000. It is estimated that the average number in each family is four persons, which will give us 12,000,000 families. Taking the rich with the poor, each family will consume twenty-five dollars' worth of poultry during the year. This will make the value of the poultry consumed in the United States amount to the neat little figure of $300,000,000 per year.

Now add to this the value of the eggs used. It has been computed that each family will consume an average of two dozen eggs per week, which, at 20 cents per dozen (an average price, taking the year through), would make, say $20 per year, or $240,000,000 worth of eggs yearly; in all, $540,000,000 for the poultry and eggs consumed in the United States alone. These figures do not include the yearly sales of both fowls and eggs for breeding purposes, nor the amount of breeding stock necessary to produce the annual supply.

The breeders of poultry may be divided into two general classes: the breeders of pure-bred fowls—"fancy fowls," as they are termed—and the market poulterers. The former raise poultry, some for pleasure, others for profit, exercising as much care in selecting their breeding stock as the largest breeders of horned cattle. In fact, it requires more study and judgment to raise prize-winning fowls than to breed premium Short-horns. Of this class, there are over five thousand in the United States, some of them keeping only one, others keeping five or six varieties, and some having twenty, thirty, and even more kinds. A low average will be two varieties to each person, or 20 birds, which will make 100,000 fowls. These are valued at all prices, from $5 per pair to $100 or more, the average being $10 per pair, which will give $500,000 as the value of the stock kept for breeding purposes. From these estimates we may assume that each of these 5,000 breeders raises at least 50 chickens, which are sold to farmers, mechanics and others, for the improvement of their stock, at $5 each; these will amount to $1,250,000. Then in eggs for hatching, at least enough sittings are sold to make $250,000 more, making a gross amount of about $2,000,000 in this branch of the industry.

The figures above given are much below the actual amounts, but are large enough to show the extent and value of the "Fancy Poultry" interest. With such an exhibit as this, the importance of the poultry industry cannot be ignored; the term "poultry fancier" becomes as well recognized as that of "Short-horn breeder" or "breeder of South-Down sheep," and is really of more general application. In all our large towns and cities are scores—perhaps hundreds—of gentlemen of means and education who have their country residences, and on them yards of some variety of "fancy" poultry, which are the pride and hobby of their owners. Thousands who have neither the time, taste nor accommodation for horses and cattle, find ample exercise for their fancy in poultry, and the spread of the fancy bids fair to soon exceed that for any other kind of live stock.

Floricultural.

CULTIVATION OF FLOWERS.

It is not generally known among the great mass of flower growers, that many rare plants will bloom so profusely as to ruin the plant as well as to lessen the size of the flowers. Especially is it so with a Double Fuschia which I keep out-of-doors in warm weather, sometimes in the open ground, sometimes in pots in half shade. They grow so hardy in this way as to astonish many persons who see them. I often hear exclamations like this: "Why! Is that a Fuschia? Mine grows so tall and slender, and has only five or six blooms at a time, while yours, only about four months old, has some thirty blooms and others nearly out. And so bushy, too!" This reference to the youthfulness of my plant made me measure its circumference, which proves to be forty inches or more. I have robbed it of some thirty or forty buds, and it has yet enough left to make it lovely, the branches hanging gracefully, without any frame or other support but their own strength. I am every year astonished to see so many persons trying to grow such flowers in-doors, during the summer season, often keeping them in a darkened room, thereby shutting off the very life of the plants—sunlight. Nor do they need the glare of the sun, but just enough to make the plants vigorous.

A true lover of flowers will soon learn how much light and air the plants need. There are a few vines—such as the Wandering Jew, or Tradescantia, of different varieties—which do better, perhaps, without sunshine. We have a kind of German or Parlor Ivy, here in Minnesota, which is often grown in many houses without sun, but there is no beauty like a small one I have out-of-doors, which has made rapid strides for thrift during the past few weeks, about half-shaded. Plants and vines want good air for health and beauty, sunshine or not.

Plants by Mail.

If plants are received by mail, which you wish to put in the open ground, you may shelter them beneficially by putting a box—minus cover or bottom—around them, and during the sunny part of the day, keeping a wet cloth of some coarse material, over the box, taking it off at night, and then removing it by degrees slowly in the daytime, letting the box remain till the plants are growing well. I spoke of this in the Rural, some three years since, but perhaps will be excused for repeating it as above. It is a matter of regret that so many plants die for want of care. Some are kept too dry, and others with water standing in the pot; others, still, in too small pots.

Starting from Slips.

A pleasant kind of labor with flowers, is this. There is, however, an erroneous idea about large slips being necessary. Small ones are far more sure of growing. I have started some Geraniums and Roses, with slips not over an inch and a half in length. It is a good way to put glass over them if you give them air once or twice a day, but glass is not necessary. One may succeed well without it, even with common soil, if they are kept in shade till they begin to grow, which generally indicates the formation of roots, but not always. All transplanted plants or slips do best when the roots grow first. I have sometimes started slips in the open ground by putting hazel brush with leaves on, around them sufficient to let the air through, and keep the sun out until they struck roots.

Minnesota. Aunt Jennie.

Industrial Topics.

AGRICULTURAL DEPRESSION IN ENGLAND.

Every statement relating to agricultural distress in England must be read with some allowance for exaggeration. I have experienced several of these periods of low prices and bad harvests. Meat still sells at a good price and all the best farmers turn all their low-priced produce into meat, wool and dairy produce, which is none of it so low, comparatively, as grain. It is only the tenants who have not capital enough to keep the best meat-producing animals who are suffering.

It is indeed, a great blessing that "the British farmer is not permitted to follow the system in agriculture which seems to him the most advantageous for his own interests, but must conform to the regulations which the landlord deems most conducive to his own benefit, etc." It is this which has saved British soil from running down as the land has in the United States. If the English farmers had not extended root culture and used other produce, too, to enrich the soil, the fact of the tenants there growing more than double the yield of wheat and barley, would not have occurred, for the farms would have been run down the same as they are here.

When a good season comes, the land in England will bring forth double the number of bushels per acre grown in America, and her rich old pastures and her millions of acres of roots, will produce beef, mutton, wool, etc., in the former abundance, while the farmers in the United States will wear themselves out on their worn-out soil, and the virgin soil in the West will be despoiled by the Vandals who spare none of the lovely grazing lands which have fattened the buffaloes and deer for centuries. There is no instance of any leading English farmers complaining of fox hunting as a grievance. If there is ever any sensation attempted of that sort, it is always by some merchant tradesman; perhaps a tailor who has made a few thousands and rents a farm, which, as he knows nothing about farming, soon gets into difficulties which are ascribed to any but the true cause. Farmers who have plenty of good live stock cannot be doing amiss at the price beef and mutton are selling at; for I have farmed and made money easily when prices were much lower, and the farmer spoken of in the Rural, who rented 600 acres, unhappily was not bound to any system of rotation hence the cause of his ill success. Just read some of the accounts of his management: He had only 140 breeding ewes and could not have grown proper roots, or the lambs would not have died in the autumn. It appears he has made £800 ($4,000) per year profit for nine years previous to the three last; so that, supposing all to be true, he must still be a great gainer from this 600-acre farm; for a tenant farmer could live well enough on half the sum he made, and according to that he ought to have $12,000 and the interest after his three years' losses. Depend upon it, this man had a first-rate farm, and not being restricted, he taxed the farm pretty hard during these nine years of flush times; for if he had consumed most of his produce on the farm, he would have derived his income chiefly from meat and wool, and as meat and wool have not gone down much, I can't see how his income can be so seriously affected. It is strange, but true, that American gentlemen should find fault with English customs of rotation and restrictions, which they must know have kept the land in the highest state of fertility; while the soil of the Eastern States has all been brought to such a low condition, that some of the States as large as England, do not produce one-tenth as much grass, one-twentieth as much cattle, one-hundredth of the number of sheep, or one bushel of wheat for a thousand grown there, and it might be said not one pound of wool for 500 pounds grown in England. At the present moment, there are, on an average, ten applications for every farm at liberty to be rented, and although there has been an increase in the bankruptcy cases in farming, the same as there has in the mercantile classes, yet there are more than a thousand failures in trade for every one in agriculture. With regard to fox-hunting, almost all the large farmers enjoy the chase as much as the aristocracy, and most of them breed young horses which they ride for a season or two, and then sell for a good round sum which pays them well for raising them. Should any little farmers receive injury to their crops or fences, or any of their wives lose poultry from the depredation of foxes, the owner of the hounds, or sometimes gentlemen who hunt with the hounds, will pay for the loss sustained immediately they hear of it. Farmers feeling above receiving money, will be sure to have a handsome present of game or venison, as an acknowledgment of having allowed a litter of cubs to be raised undisturbed on their farms.

G. G.

Remarks.

Here there is space only for a few brief remarks on the above communication. It is readily conceded that in all cases of public excitement there is a natural tendency to exaggeration in reference to the subject that has aroused general interest. With regard to the present agricultural distress in England, however, nothing that has yet been said on the matter in American papers approaches in strength the language constantly employed with regard to it by public speakers, agricultural and political papers and cautious statistical writers in Great Britain. "Terrible crisis" "deplorable agricultural prostration" "ruinous losses" "unprecedented disaster" are a few specimens of the expressions which characterize it in one of a bundle of English agricultural papers beside us. It is certainly wise to guard against exaggeration; but often there is more wisdom in guarding against depreciation.

The success which attended the skill and foresight of our friend during former periods of agricultural depression in England, makes us rejoice that these admirable qualities have since been transferred to the aid of American agriculture; while at the same time it is just permissible to doubt that they would be equally profitable in the present condition of farming across the water; for it is conceded on all hands there that at no time within the memory of any one now living, has that condition been so gloomy, and even our correspondent will admit that his efforts were never embarrassed by such keen competition with foreign agricultural products as that which now robs the British farmer of courage and shekels.

The landlords' restrictions upon the tenant-farmers' liberty of action, of which our friend, 3,000 miles away, approves as the chief safeguard of the fertility of the British soil, farmers on the spot are now vigorously combatting. Within the last couple of months not a week has passed in which English agricultural papers have not recorded the protests of farmers' clubs, farmers' associations, Chambers of Agriculture and prominent individual agriculturists against the damage done by these "beneficial" regulations. Dr. J. B. Lawes, surely no insignificant authority, has long been advo-

cating their modification, and has frequently, in his writings and addresses, pointed out their evil effects. Among 10 essential parts of high farming enumerated by Mr. Mechi, in the Farmers' Gazette of 2d inst., No. 5 is: "Freedom of action as to cropping, selling and general management of the farm." The Farmers' Alliance is steadfastly hostile to these restrictions, and is about to press their abolition, or at least their radical modification, upon the projected Royal Commission. Its president, Mr. James Howard, in a recent letter to the Times, quoted in the Agricultural Gazette of July 21, makes a strong plea for their removal, and fortifies his position by two examples, one of the good effects of their absence and the other of the injury done by their enforcement. If there is one grievance which the tenant-farmers of the country find more oppressive than another, it lies in these one-sided regulations.

"There is no instance," says our friend, "of any leading English farmer complaining of fox-hunting as a grievance"—he should have added, "within my recollection." During a residence of a dozen years or more among farmers in the North of England, the writer heard a large number of complaints on this score, and that, too, from some of those who were locally considered "leading farmers," although our friend may deny them that title, on account of their complaints. True it is, the grumbling seldom directly reached the ears of the landowners, especially from the lips of tenant-farmers; but what it lacked in loudness it "made up" in depth. Of course, in the "hunting counties," the injury done by the amusement is regarded as one of the inevitable evils of life, and is therefore more patiently submitted to; and there it brings not a few counterbalancing advantages in the way of trade. Of the lordly generosity or voluntary justice of the huntsmen, spoken of by our correspondent, "there is no instance"—within the writer's recollection; although, no doubt, such largesses are occasionally bestowed.

Our friend "points with pride" to the excess of agricultural products per acre in England over those of some parts of this country; but he has forgotten to speak of the extra cost of such productions. The English tenant-farmer's capital averages from $40 to $45 per acre, and it seems universally agreed that, to produce the best results, it should not be less than $100 per acre—which should be the least amount of a freeholder's capital. In what part of this country does the average capital of our farmers amount to this sum? Yet American farmers are growing prosperous while their transatlantic cousins are becoming impoverished—unless they clamorously belie their own condition. The fact seems to be that, while we may learn many useful lessons from the practices of British agriculture, it would be the hight of folly for our farmers, under their present conditions, to adopt the costly methods of farming practised in England. In the most notable case where the experiment was made here, it ended in a disastrous failure.

In view of the growing competition with importations of foreign cattle within the last few years, it is a trifle doubtful whether the transformation of agricultural England into a vast stock farm would be the panacea for all her agricultural misfortunes, which our friend seems to think it. In any event, in view of the estimate that one-fifth of the cattle in the country are yearly sent to market, and two-fifths of the sheep, such a transformation would be the work of years, besides sending abroad a large proportion of the small farmers and agricultural laborers who would then find no employment, and utterly ruining the various branches of industry at present supported by the current system of agriculture.

With regard to that 600-acre farmer, some of whose shortcomings our correspondent lufers, while he guesses at others, there is no intention here of defending him. His communication to the Times was copied in full into our English, Irish and Scotch agricultural "exchanges" as affording a fair idea of the losses from which British agriculture is now suffering. The writer was reported to be a thoroughly practical farmer; skillful in his calling, careful in his methods and fortunate in his leasehold. Were his losses exceptional, we should be disposed to attribute more weight to the faults our correspondent finds with him; but as the average loss to British farmers last year is estimated by the best authorities at over 20 per cent. of their yearly income, it seems fair to regard the mishaps or faults of this man as typical of those of English farmers generally.

From what source, beyond his own inward consciousness, our friend has learnt that at the present moment there are, throughout England, ten applicants for every farm to be let, it is impossible to imagine. That may be the case in a few isolated parts of the country, but unless all the English papers and the English correspondents of American papers, that refer to the matter, are grossly mistaken, our friend is—well, inexact. According to these authorities, in many parts of the country farms are "going a-begging," and tenants can often make nearly their own terms for them. So late as two or three years ago, the Duke of Argyle expressed the idea that the demand for farms was practically inexhaustible, and thousands less notable agreed with him, but recent events have given this notion a rude shock, as Mr. Howard remarks in the above-mentioned letter.—[Eds. Rural New Yorker.

Miscellaneous.

WHAT OTHERS SAY.

Clover Catch—Summer Fallows etc.—We take the following from the always interesting proceedings of the Elmira Farmers' Club as reported in the Husbandman: Judge Balcom said: The great mistake in seeding with clover is in sowing too late. Get the seed in early, before the ground has settled down hard, and there will be no difficulty. You need have no fear about frost for it will not hurt the young clover. It is not half as bad as dry weather in May, for that is almost sure to ruin clover sowed late and it puts back even the early-sowed.

W. A. Armstrong said: Farmers talk of summer-fallowing with little understanding of its purpose. They seem to assume that it should increase the yield of the succeeding crop vastly, and when they find that it does not they are ready to condemn it, although I have not heard until now that it increases the spread and growth of weeds. The true uses of a summer fallow are: 1st, to destroy weeds by promoting germination of the seeds and afterward destroying all growth; 2d, to fit the land for subsequent crops. I do not say the labor will be repaid in the succeeding wheat crop, but I affirm that with the work well done, the benefits will be received by many subsequent crops.

Mr. Miller. Top-dressing is my plan. Harrow land no matter how much after the manure is applied; but the manure on the surface is the best plan.

Dr. Cuddeback. Will it do to plow timothy and sow wheat on the inverted sod?

Judge Balcom. The best wheat I ever raised was obtained in that way. I turned timothy sod the last of August and first of September and sowed wheat in the usual season. I had forty bushels to the acre, the only time I ever had so great a yield.

W. A. Ward. The best crop of wheat I ever raised I got from a seeding made just after the field was plowed. The very day I finished plowing, the seed was sown. I know it is not regarded as the best way. Most farmers believe land should lie some time after plowing before the seed is sown, but in the case reported there was full success with the seeding made on the newly-turned soil.

D. W. C. Curtis. Last year I summer-fallowed part of a field, turning under timothy and clover when a foot high, or more. I plowed it twice. Five acres were so treated and another five acres were plowed just before seeding. On the summer-fallowed lot I had less wheat and more weeds.

Col. Brewer: For wheat I prefer once plowing and frequent stirring of the surface afterward by cultivating or harrowing. That summer-fallowing kills weeds no farmer will deny. I have killed Canada thistles by frequent plowing. In one case I plowed six times during the summer, and this completely destroyed the thistles.

Pears Withstanding Blight.—The four varieties which on an average through the country have withstood the blight with fewest exceptions, are Duchesse d'Angoulême, Seckel, Winter Nelis and Anjou, says the Country Gentleman. Time and experiment will doubtless add others to the list. We observe that the Canada Horticulturist speaks of the Doctor Reeder as escaping where others have been destroyed. It is a seedling of the Winter Nelis, and partakes of the hardiness of its parent.

"The Pentstemons.—What we have seen this summer of the wild Pentstemous, on hillside and rock, convinces us that all the different species merit wide favor in our gardens. In point of healthiness and capacity to endure the hot sun, as also in brilliancy, and continuous blooming power, they certainly hold a leading place among those garden perennials which have flowers arranged in clusters, umbels, or spikes. The large hybrid Pentstemous are glorious; yet we know of no collection on this coast, and of but few single plants. The flowers are Gloxinia-like, and have nearly as much variety in shade and markings as the best Gloxinias, though they are considerably smaller, and are differently arranged."

We clip the above from the California Horticulturist, and would add that we believe some of the new sorts are destined to create a "floricultural sensation" ere long. We shall have more to say of them in our fair number.

Plowing for Wheat.—Rural, Jr. says, in his interesting notes in the Chicago Weekly Tribune, that in the early cultivation of all new countries, the soil is not plowed deep. As the farm grows older, the plow goes down deeper, and the wheat-crop grows poorer with each succeeding year. Careful and observing wheat-growers, who have had many successes and few failures, have observed these facts; and now, instead of wanting a deep, friable bed on which to sow wheat, they adopt the opposite. Ground intended for a crop of winter-wheat should be plowed as soon as possible, be it oat, wheat-stubble, or meadow. The plow should not be run over four inches in depth: and the soil should be left in a rough state until germinating weed-seeds make it necessary to harrow it. The oftener the ground is harrowed, and the closer the soil is packed, the more certainly is there to be a good crop. As a general thing, we put off the plowing until later in the season; but now is the proper time. We would urge this upon all those who intend to grow a crop of this cereal next year.

Angle-Worms as Agencies in the Formation of Loam.—E. Lewis Sturtevant, M.D., says that along the edge of the backwoods in Eastern Maine, he noticed that the new land was not black in color as is loam, but rather of a gray or light-brown cast. Only in the meadows and along the moist edges of the meadows did the soil appear black. Some years since, some angle-worms were buried in a suitable spot to serve as a nucleus for a permanent supply of bait for fishing. This spot, now occupied rather sparingly by the worms, has taken on a dark appearance, and is the only spot resembling Massachusetts loam that is to be observed in the vicinity. So far as he has observed, loam only appears in localities where the angle-worm is to be found, and he from experiment knows that this worm is capable of transmuting white sand covered by a vegetable layer into a fine-appearing loam in a short time.

"A Matter of Surprise to Many."—In the Home and Farm (Louisville, Ky.,) B. F. J. says: "West of the Rocky Mountains, in California, where the climate favors the production of table grapes of good, if not first-rate quality, and where wine grapes grow as they grow nowhere else in the world, the wine-makers have ascertained that the liquor produced from them is little better than that which can be 'manufactured from molasses and water.' Indeed, California wine, when thrown on the markets of the world, has been pronounced 'worthless stuff,' and the vine-yardists, accepting the fact and the situation, are abandoning the business just as fast as it is possible to do so." This, "B. F. J." says, will be "a matter of surprise to many," for which reason he fortifies his statement with a narration of facts from authentic sources,

Mules.—"Waldo" says in the Ohio Farmer that after eleven years of experience with mules on the farm he considers them far superior to horses, and would always recommend, where two teams are kept, that one should be a mule team. They are better than horses for the following reasons: They endure the heat much better and are not so liable to sickness or injury, and when lamed or galled, they recover much sooner than horses. They also have greater endurance and will do more work. They require less feed and will last many years longer than horses. Notwithstanding the prejudice existing against them, they are, as a rule, as trusty as horses and more responsive to kind treatment.

Change.—"We are sorry to learn, ("we, too, are sorry,—that Prof. C. L. Ingersoll, of the Agricultural College, Lansing, Mich., has decided to accept the position of Professor of Agriculture in Purdue University Lafayette, Indiana. He has been a hard-working and faithful member of the faculty of the College, and one whose place will be hard to fill. The Lansing Republican speaking of the causes which led to Mr. Ingersoll's leaving the College, says: "Better salary, and less fault-finding from outside ignoramuses, are the reasons for Professor Ingersoll's seeking a new field."—*Mich Farmer.*

Hint for August.—A wide-awake farmer, whose purse permits, should take a few of these sweltering days in August and take a look at the outside world, suggests Mr. Hyde, in the N. Y. Times. If his home is in the interior, he should visit the sea-shore, where he can breathe salt air and see men and women who affect style and refinement. If he has a level head, there is no danger of his becoming discontented with the simple style of his own home by seeing the dress, manners and equipage of the fashionables who resort to the watering-places and claim to be the upper crust of society.

Agricultural Colleges.—The New England Farmer says that it is perfectly aware that our agricultural colleges are not, as yet, what we might wish them to be, but it must be remembered that they are still young, and while having had very little of the experience of others, to profit by, they have had any amount of opposition from those who should be their best friends and supporters.

Depth to Sow Wheat.—A great deal has been said first and last as to the depth at which to sow wheat, remarks the Prairie Farmer. Experiments have shown that upon ordinarily compact and moist soil, wheat germinates most promptly and produces the strongest plant when sown at a depth not exceeding one inch; from thence up to six inches it came more and more feebly.

To Purify Cistern Water.—But suppose, says Geo. Geddes in the N. Y. Tribune, the water has become offensive, and it cannot be spared, how can it be made fit to use? A bushel of hard-wood ashes, suspended in a sack in a cistern of 100 barrels capacity, has accomplished this object with entire satisfaction in two cases that have come under his observation.

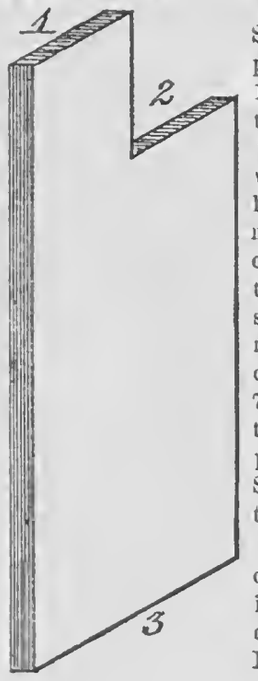
Scraping Hogs by machinery is one of the innovations adopted by the packing-houses of Chicago. As the animals pass over revolving flukes they are scraped clean at the rate of 10 hogs per minute. This process occasions an immense saving of time and of manual labor, while the work is done quite as thoroughly.—*Germantown Telegraph.*

American Style of Gardening.—Prof. Meehan says: "It is a pleasure to note the growing style of gardening favors a distinctively American one. Europeans cannot have the things we have, and we may as well avail ourselves of these, as to be copying inferior ideas from them."

Ropy Milk from cows, "Grandmere" writes us, is caused by eating straw from a manure pile, drinking pond or other stagnant water, suffering from want of salt, or from violent exercise in the hot sun; and any of these causes will make the milk stringy or ropy, in which condition it is more or less poisonous. The preventives are: good feed, plenty of salt, clear water, shade in the pasture, and a trustworthy cow-boy, who knows better than to run his charges.

PAMPHLETS AND CATALOGUES.

Scientific Horseshoeing for the different diseases of the foot. By William Russell. Published by Robert Clark & Co., 65 West Fourth street, Cincinnati, Ohio. This work is the result of the experience of a man who has been practicing farriery for forty years. Its aim is claimed to be to give the practical details of the most approved and rational plans and principles of horseshoing, in the plainest and most complete manner. A large share of the work is devoted to the "Diseases of the Foot," and the subject of pathological shoeing is fully treated. The work is printed in large type on tinted paper, well illustrated with 55 handsome cuts, neatly bound in cloth and sells for $1.



Wagon Jack. — See p. 538.

Report of the Chief Signal Officer—War Department—for the year 1878. This costly contribution to the old paper dealer is furnished with so many plates and has evidently required so much careful work, that one cannot help regretting its inevitable consignment to the paper mill unread in nineteen cases out of twenty. Its 700 or more pages contain a multitude of reports from the various Signal Service posts throughout the country.

Our friend W. C. Drew, of El Dorado, Cal., has issued his first annual catalogue of California Lilies and native bulbs. Among them are Liliums Humboldtii, Washingtonianum, Pardalinum; Cyclobothras, Calochortus, Brodiæas, etc., etc. We wish great success to this enthusiastic young florist.

Analyses and Statistics of Commercial Fertilizers inspected, analyzed and admitted to sale in Georgia. During the season 1878–'79. Cir. No. 66. Department of Agriculture, Atlanta, Ga.

William H. Moon, Gleuwood Nurseries Morrisville, Bucks Co., Penn. Descriptive price-list of Strawberry plants (pot-grown and others) for the present season.

John S. Collins, Moorestown, Burlington Co. N. J. Pamphlet of all the new and valuable Strawberry plants, potted and otherwise.

Reports upon the condition of crops, July 1, 1879. This is one of the usual pamphlets issued by the Department of Agriculture.

Pinckney's United States School and College Directory and Guide for 1879. T. C. Pinckney, publisher, 30 Union Square, this city.

Circular Letter from the Commissioner of Agriculture relative to the manufacture of maize and sorghum sugars.

Everywhere.

NOTES FROM FLORIDA.

The weather here since the first of July has been extremely warm, the thermometer having been as high as 108 degrees in the shade once or twice, and a great many days from 95 to 98 degrees. This is the warmest weather ever known in this section, so say reliable people who have always lived here. To Northern people who have never been here in the summer, I suppose it seems as though the heat must be almost unendurable; but it is not so; there is always a cool breeze either from the ocean or the Gulf, which tempers the heat of the sun so much that a hot day here is more comfortable than at the North. We never have any of those still, sultry days when it seems as though every breath of air came from a furnace, and which make one feel too indolent to do anything but try to keep cool. Sunstrokes are very rare, and we very seldom hear of any bad effects from the heat either to man or beast. The darkies will hoe cotton the warmest days from sunrise to sunset, and never complain of the heat, but white people try to keep in the shade during the middle of the day as much as possible. I had occasion, on one of the warmest days, to take a four-mile ride in the hottest part of the day on horseback, with the sun pouring down on my defenceless head. Such an exposure at the North would have sent me to bed with a raging headache, while here I felt no bad effects from it at all. We have had heavy showers nearly every day since the Fourth of July, and yet we have none too much rain unless on very low land with insufficient drainage.

Crops are unusually backward, but looking good where they have had good cultivation. We picked our first cotton on August 2. We picked the Blount corn for seed on July 26. The stalks were very small; one had four good ears; a few had three, and the rest two, with more set that did not come to perfection. We have only kept the best for seed and shall plant no other next year, as we are satisfied that with proper fertillzation it will yield much better than the kind raised here. The soil where it was planted was poorer than we thought, and we did not fertilize it enough. We have learned a good deal about corn this year, thanks to the RURAL. Our Voorhis watermelons were good; the two largest weighing 20 pounds each, but some of our Iceland weighed 30 pounds. The largest one sold in Starke weighed 52 pounds. The Iceland is certainly the finest-flavored melon I ever tasted, but it should be borne in mind that watermelons grown and eaten here, taste very differently from those grown in a colder climate, or from those picked here before they are fully ripe and shipped North to ripen on the way. They are so much better here that I think if I should go North again, I should never care to taste one. The Acme tomatoes were the finest I ever tasted; they also reach a degree of perfection, ripened under this semi-tropical sun, never obtained at the North. I have some plants from the Hibiscus seed the RURAL sent, nearly five feet high and blooming finely the first year. I think we have seed enough from the Pearl Millet to seed half of Florida, and we have only allowed a few plants to go to seed; the rest we are still cutting for fodder. One seed head measured 24 inches in length, and four in circumference. When the seed heads are cut, the plants put out new ones from the joint below, and the stocks are making another crop of seed. It has been grown in the rich hummock lands for some time and has been tried here, but with no success until this year, for the reason that they did not understand that it would not grow in this soil without heavy manuring. It has only been tried in small quantities as an experiment this year, but next year I think there will be a good deal planted. One man who saw ours, told my husband he wanted a peck of seed. I think if he plants a peck of seed, he will not plant much else on his farm. The problem, how shall we furnish fodder for cows and horses is a serious one here, and anything that will help us to solve it, is worth a great deal.

MRS. INCREASE SUMNER.

Bradford Co., Aug. 4.

KANSAS NOTES.

Since writing you about a month ago, we have had, with slight intermission, a succession of very hot days, with, for a wonder, light and intermittent winds. The heat has been more intense than any time within five years. Till Sunday last, and the two succeeding days, the thermometer in my sitting-room was at no time higher than 98 deg. On the days named, it was 101 deg. and 102 deg. The manner in which vegetation shrivels, under such temperatures, accompanied, as they are, by an absence of dews, and unusually warm nights, may be called rapid. Kansas does not suffer, hardly ever, from protracted absence of rain but from extremely rapid evaporation. You will see a rainfall of two inches, in the night, and the dust blowing from the road the evening of the next day. This may be strange, but it is true. Our crops in this section will prove above the average certainly, but were one to believe all the sanguine Kansan believes or tries to *make believe*, we should say they were not only unprecedented but so large that difficulty would be found in moving them to market. There is a singularity in the opinions that were entertained regarding the present wheat crop. In the month of April the western counties—which are *the* wheat counties—were represented as having the promise of the largest crop ever raised. We down here, had the most unqualified opinion that we should and must have a very inferior crop. The results from the harvest are that *they* have one-third of the crop predicted (say seven bushels) while we have three times the amount we expected (20 bushels). Our crop varies from 10 to 35 bushels, with light straw, and full heads. Our corn crop will be good, probably very good, possibly magnificent. The only detriment to the last may be the general prevalence of the chinch bug. If the pest be partial, as we think, then there will be a magnificent and an early crop. Perhaps I can tell you another strange thing—there was a load of new husked corn in Parsons yesterday, which was sold for feed. My Junior sent it, and (with pain, it was said, because he would like his father to have the biggest corn) the ears were 10 to 13 inches long, and as our ears have from 10 to 18 rows on the ear, it does go to show we shall have *some* corn. Our oats were short emphatically, and the same must be said of the hay crop. Castor beans are one of our staple crops, and this season they are unusually good. Potatoes are indifferent, both in quality and quantity. Ordinary culture, under our long and intense heats, does not succeed—we have had but one good crop in five years. Mulching succeeds, and of course irrigation would succeed. Rates on this market, are: wheat (prime winter), 75c; corn, 25c; oats, 18c; castor beans, $1.00; prairie hay, $3.50; potatoes, 50c; coal, $2.50 per ton; flour $3.00 per 100 lbs; fat cattle $1.75 to $2.00; hogs, live, $2.50; butter 12½c; eggs, 8c. Watermelons have literally been piled upon the market at the rate of two and three cents apiece. This place is growing fast—from 100 to 300 houses have been built so far this season—partly caused by an influx of immigrants who settle here in the expectation that this will be one of the points of junction of one or more of the several railroads that are now being constructed or projected to the west and northwest.

Some of us expected that with the resumption of specie payments there would be a contraction of credit, and consequently harder times. Now, even here, we see plainly the contrary has occurred. Railroads are extending westward to the tune of hundreds of miles. Nails and calico are both up. So man proposes, but God disposes. It is well settled that in Texas, and perhaps in all the Southern States it is an impracticability in the hot summer months to raise vegetables with a reasonable certainty without irrigation. It is certainly so here, at least the way we grow them does not succeed. There has been an exceedingly small growth in all vegetation this season, except corn. Why is this thus? Is it that we are apt to consider that corn must be cultivated three or more times, and that vegetables are generally planted for hand culture, and this kind of culture is given them about once, if at all. It seems there is something in cultivation that makes things grow. Our hedges and trees have not made half a growth. Our oats and wheat were very scant in stem and foliage, and yet the only thing that we do care for—the only thing we are scrupulously careful about in seed, in planting and cultivating, succeeds in growing in spite of a succession of droughts which "finished" most of the articles the nurseryman furnished for this season. Even here there are a few that are afraid to cultivate dry ground, but they are becoming beautifully less. J. B.

Parsons, Labette Co., Aug. 7. 1879.

NEBRASKA NOTES.

In the RURAL of Feb. 15 I threw out a suggestion, that we be given a binder combined with a table-rake, and showed the advantages to be gained. My suggestion, perhaps, was the "shadow" cast before "the coming event," which is now in the field and called a platform binder. The binding attachment can be used, or it can be removed and the machine operated as an ordinary table-rake.

The unique plow which was figured and described in the same number, I have been using through the season, and I find it to be more valuable than I anticipated. I broke fifteen acres before the plow needed to go to the blacksmith's shop for sharpening. It is not as good as the slanting-cut for opening a land, but better for finishing, as there is no gauge wheel in the way. The draft is about one-third lighter. It is not so good when the ground is very wet as from medium to nearly dry. I would say to my brother farmers, if you have buffalo sod to break, don't hesitate to order a square-cut plow to be made, even though you have a new slanting-cut on hand.

"Evergreens won't live in this country" is the opinion of nine-tenths of the people in Nebraska. I think there are two causes of their mortality, that cover more cases than all others combined, and causes, too, that can be obviated. First: the roots are exposed either to sun or wind, or to both, until the trees are dead, before they are planted. Second: evergreens are usually desired to grace the lawn, hence on their arrival, a hole is speedily dug two feet wide and one foot deep, and the tree planted. Nine-tenths of our natives would die under such treatment. My advice is: plant half the number of trees desired, but plant them in mellow soil and feed the roots liberally on water, and then shade them, and your evergreens won't be ever yellow. Let no grass or weeds grow within six feet of a tree.

More convenient than a boot-jack at bed-time is a lifting jack when the farm wagon or carriage is to be oiled. Better than all the patent jacks—and they are legion—that I have seen, is a simple one that I have used for years, which did not take more than five minutes to construct or cost more than five cents for material. Make one to-day and try it. Take a piece of inch board ten inches wide and from one and a half to two inches longer than the hight of the hind axle above level ground. Measure from one end of the board a distance one and a half or two inches greater than the hight of the front axle, and then saw the board half off. Cut out the corner, leaving your board as shown on p. 537. One made of hard wood would be better, but pine will do pretty well, by binding the ends with a scrap of hoop iron. *Modus operandi:* Place the end 1 beneath the hind axle, the end 3 resting on firm, even ground. The board will stand inclining. The wagon or carriage can easily be moved forward or backward as the case may demand, until the board is perpendicular, when the wheel will be free. Fig. 2 is for the forward axle. Its weight and convenient shape make it a *vade-mecum*. Suppose on the road with a heavy load, a wheel commences to "curse the driver," how easy to place the board in position in front of the axle, let the horses move the load forward a few inches, and the wheel is free. If there is any other lifting jack that can be run by horse-power, "I elevate the sponge."

I think I saw, some time ago, in the RURAL, the statement that Pearl Millet would not mature its seed in northern Kansas. I have it now growing in southwestern Nebraska, from seed which I saved last year.

Boys, did you ever get into trouble with the old gun? I did when a boy, and so did my boy the other day. As a prelude to a ducking excursion he attempted to clean the gun. He wrapped a bit of cotton cloth about the end of the ramrod, wet it, and rammed it into the gun on an exploring expedition. It went in readily, but refused to come out. A pound's pressure would thrust it farther in, but a hundred pounds' pressure could not withdraw it. I knew it was almost impossible to unbreech the gun, and was thinking of some acid to eat away the cotton cloth, when the good woman suggested soft soap. Some, new and warm, was at hand; a tablespoonful was turned into the barrel, and in a minute the ramrod came out as easily as a rat's tail out of a jug of molasses. Boys, soap the barrel to clean it quickly, rinse it thoroughly dry and oil it, then bang away. R. H. CRANE.

Harlan Co., Neb.

RURAL SPECIAL REPORTS.

Mass., Cambridge, Aug., 1879.—Times are better this year than they have been since the panic, but as margins are narrow, a deal of business has to be done to make it pay. Laborers and mechanics have all the work they can do in the mean time; laborers' wages average 12½ cents an hour; mechanics', 13½ to 20 cents. Clerks, salesmen and printers, in places, stick closely to their situations, as the supply of men is immensely in excess of the demand, and their pay is proportionately low. On account of cheapness, ladies are being employed, to a great extent, in place of men, for light work; but school-ma'ams are, perhaps, the best paid, easiest worked and most discontented of all female servants. They get from $300 to $720 a year, and a long vacation, too.

F.

Conn., Clinton, Middlesex Co., Aug. 12.—We cut to-day some Pearl Millet raised from seed sent by the RURAL. It was six feet and it had only ordinary culture. I think it worthy of cultivation. W. A. D.

N. Y., Garrettsville, Otsego Co., August 5.—Crops, including corn, oats, wheat, and potatoes, are good. Buckwheat promises well; hay is mostly stored and it is a good crop.

R. T.

Penn., Hosensack, Lehigh Co., Aug. 9.—We have a wet season just now, and corn looks very good and promises a good yield. Oats were very good, but winter grain was not half a crop, especially wheat. Rye was good in the straw, but not in the grain. Pasture is plentiful and cattle are in a good condition. The weather is very warm with occasional showers. H. E. E. R.

Ind., Roanoke, Huntington Co.—For over a month we had no rain until the 3d and 4th inst., and the weather was extremely hard ot dry. The corn and gardens were suffering, and will be soon again unless we have some more rain ere long. It is quite cool now. Corn promises to be a good crop, with favorable weather. Potatoes will be short—at least, that is the present outlook. Ten days ago they were selling for from 20c. to 25c. per bushel; now they bring from 30c. to 40c. New wheat is selling for from 90c. to 95c.; oats, 18c. to 22c. Wheat was above the average both in quantity and quality, and new oats are very good, too, here. The apple crop will not be heavy, though summer apples are very low now. Our Blount corn is very large and nice, from 10 to 12 feet high, nearly all in tassel, many stalks showing from three to six ears, with some also on the suckers, some of which are almost as large as the main stalks, though there are often two or three of them to a stalk. My wife's Voorhis watermelons are growing finely. She planted the flower seeds in a hot-bed, but most of them failed to germinate. The Yucca, Mulberry and Hibiscus were total failures. The E. Leavenworthii alone is thrifty. The Golden Rural tomato ripened for her ten days ago. We have had so much dry weather that she is inclined to attribute the failure of the seeds to it. A. C. H.

Ill., Edwardsville, Madison Co., Aug. 11.—I planted in spring Beauty of Hebron, Extra Early Vermont and Early Rose potatoes on the same day, in the same field. Beauty of Hebron came up two weeks ahead of the others, and kept that start until mature. All who saw them were surprised. The yield of the Beauty, too, was about one-third greater than that of the others, while the tubers were larger and of better quality. C. P. B.

Ill., Wheaton, Du Page Co, Aug. 6.—We have heavy crops of wheat and oats, mostly in the shock. The month of July did wonders for the corn, and it is now very promising. Potatoes are good, but I think not a heavy crop. Up to last Sabbath it had been very dry for some weeks, but then we had a fine rain and some large hailstones. No damage was done, however. O. F. L.

Mich., Plymouth, Wayne Co., Aug. 12.—My Blount corn is doing splendidly. It was planted on the 14th of May and now it has stalks 5½ inches around and from seven to nine feet high, with from three to four ears on a stalk. I think Pearl Millet an excellent fodder plant.

H. C. W.

Iowa, Bryant, Clinton Co., Aug. 8.—Farmers are just finishing up harvest operations. Crops generally are good and have been secured in fair condition except some of the earlier-cut hay which was lost owing to wet weather.

Arkansas, Van Buren, Crawford Co., Aug. 4.—Last year I obtained about two quarts of Beauty of Hebron potatoes and gave them to a tenant of mine, and the way he bragged about them was a caution. In July I dug a hill and the yield was remarkable; as my tenant expressed it: "they were three stories high" and literally pushing out the soil. Last spring I planted a few in my garden, but the ground having been too well supplied with green manure, they burnt up before maturing in June. Still I regard that variety as being most remarkable for its abundant yield. L. C. W.

Ky., Smith's Grove, Warren Co., Aug. 5.—Crops hereabouts are, on the whole, very short; corn is from one to two bushels per acre below the average, while wheat has averaged only from half to two-thirds of a crop. There isn't a full crop of anything. J. W. L.

Tenn, Tullahoma, Coffee Co, Aug. 4, 1879.—We are having fine growing weather; it rains about every day. Although dry weather prevailed for weeks, and crop prospects became very discouraging, yet we shall make fine crops of corn. My Blount Prolific corn was nearly ruined for want of rain; it has two and three silks to the stalk. My Hebron Potatoes excelled my hopes; and my Acme tomatoes are doing finely; we have plenty of ripe ones. I should have mentioned the Pearl Millet first; it surpasses anything of the kind I ever saw. It is heading, at about seven feet high; the heads are 12 and 14 inches in length, and if it is as good for stock as it is for fodder it will be invaluable J. M. G.

Va., Worsham, Prince Edward Co., July 31.—The Beauty of Hebron potatoes sent me by the RURAL, ripened about the same time as the Early Rose, and made larger tubers, but both were very much injured by drought. The Blount's corn has also suffered very much from the same cause, though I hope to make enough to plant several acres of it next year.

G. A. B.

Texas, Dayton, Liberty Co., Aug. 9.—No rain for over a month, and all growing things

are suffering accordingly. The squares on our cotton are dropping off as fast as they are formed. Even if the cotton worm does not come, we shall only make half a crop. The weather is cooler than last month, making it pleasanter for fodder pulling, which is now in progress. My second planting of "Blount's Prollfic" is a sad failure, owing to the drought.

G. G.

The Querist.

ANSWERS TO CORRESPONDENTS

Copyright.

J. H., Olathe, Kan., asks for some information on the subject of copyright.

ANS.—Copyright is a right conferred by law upon an author or his representative to the exclusive sale or use of his intellectual productions. It is only within comparatively recent times that the result of a man's intellectual labors have been regarded as his property; the term having been previously applied solely to material objects. The first copyright act in England, which secured to authors the right of property in their works, was passed in Queen Anne's reign, in 1709. In this country laws were passed by Connecticut and Massachusetts, in 1783, securing to authors for specified periods, the exclusive property in their literary productions, and prescribing penalties for its violation. Similar laws were passed by Virginia in 1785, by New York in 1786 and by other States prior to the adoption of the Federal Constitution in 1789. At present the authority over the whole subject rests in Congress. The first law on the matter passed by that body was in 1790. The Act then passed was amended or altered in 1802, 1831, 1856 and 1865. All statutes relating to copyright, however, were repealed by the general law of 1870, which, with an amendment passed in 1874, regulates the entire subject. The laws now in force grant to any citizen or resident in the United States, who shall be the author, inventor, designer, or proprietor of any book, map, chart, dramatic or musical composition, engraving, cut, print, or photograph or negative thereof, or of a painting, drawing, chromo, statue, or statuary, or of models or designs intended to be perfected as works of fine art, the right to secure a copyright for 28 years from the time of recording the title. They also gave the right to a renewal for himself, widow, or children for 14 years more, and authors may reserve the right to dramatize and translate their own works. In order to secure a copyright every applicant is required to perform three acts:—1st, before publication, to transmit to the librarian of Congress at Washington a printed copy of the title of the book or other article, or a description of the painting, etc.; 2d, within ten days after publication to send to the same office two copies of the book, etc., or, in case of a painting, etc., a photograph must be sent. 3d. Notice for entry for copyright by the librarian must be stated in each book, or on each other article, and a failure to do this will preclude any action for infringement, while the publication of entry not actually made subjects the party to a penalty of $100. Two copies of any new edition must be also sent to the librarian under a penalty of $25 for failing to do so. The fee for securing a copyright is 50 cents, to be paid to the librarian for recording the title, and a copy of such record can be obtained for another half dollar. The librarian also receives $1 for recording and certifying any assignment, and $1 for every copy of an assignment furnished. It is also essential that the work should be original and first published in the United States, but a contemporaneous publication abroad will not prejudice the author's rights. The penalty for infringement of the copyright of a work is a forfeiture of every copy of the work printed, imported, etc., and the payment of such damages as may be recovered in a civil action. In the case of maps, engravings, etc., there is a forfeiture of the plates, sheets, etc., and $1 for every sheet in possession of the guilty party. Ornamental and useful designs come within the scope of the patent laws. A brief article on a single sheet may be copyrighted as a book. Encyclopedias, magazines, reviews and periodicals are protected the same as books. In practice newspapers are not copyrighted, but either the entire newspaper or any article in it may be copyrighted in the usual way. Extracts made from copyrighted books or periodicals duly credited, are always held to be legitimate exceptions to pirating. The laws of this country recognize no international copyright. No immoral publication can be protected by copyright. By the term a "resident" in this country, is meant a person who, at the time of securing a copyright, honestly intended to become a citizen of the United States. Should the *bona-fide* nature of the intention be legally questioned, the matter must be decided by the verdict of a jury.

The Most Instructive Reading for a Farmer.

T. D. B., Greenville, Ky., has about 10 acres of poor land on a railroad where manure can be bought for two dollars per two-horse load, delivered; he is hard-pressed on account of having been crippled by rheumatism for a number of years, and he asks what works on gardening and manures would it be advisable for him to buy, if he can manage to save the price of them.

ANS.—We would be very glad to aid this person or all such persons. Well-to-do or wealthy farmers or gardeners really stand less in need of trustworthy advice than those who, like our friend, are obliged to struggle hard for life's needs. Wealthy people can afford to try experiments and to make mistakes. But poor people are discouraged and crippled by failures. There is no one book that will give him all desired information. Having but a few dollars to invest in this way, we advise him to read the best agricultural and horticultural papers of the day rather than books which record the best methods of the past. Such papers record all important failures and successes of the current season; they tell what seeds and plants are improvements over older sorts—so that volumes for the year are really the most complete compendium of general information that can be procured. We would guard our questioner against investing in new plants or seeds. These are sold at high prices and are too often praised by agricultural papers far beyond their merits. But there are hundreds to test such novelties, the result of which is that the good and worthless are in course of a season or so easily determined. This is the main object of the Rural's Experiment Grounds. We purchase or have sent to us all new plants of any promise and test them. Then we report as to their real worth without the least regard to the interests of the introducers. But all the books and periodicals published will not make poor land rich. Our friend *must* use manure if he would raise paying crops.

Learning Telegraphy at Home.

H. S., Ashland, N. Y.—being anxious to learn telegraphy and unable to attend a place where it is taught, asks whether it can be learnt at home.

ANS.—Telegraphy can be learned at home provided one can receive instruction of a skilled operator, otherwise not—at any rate, not well enough to enable one to take charge of a wire. There are two things to be learnt in telegraphy: to send a message and to receive one. In sending a message the hand is the main agent, but to receive it the ear alone is employed, as nearly all instruments now in use record the message by sound and not by marks on paper. The alphabet, consisting of dots and dashes, is delivered by the instrument as a succession of more or less rapid taps, and to learn to distinguish the letters by these sounds, the learner must listen to them from a skilled operator in order to get them correctly. It also requires a fine ear. None but those who have a good ear for music should attempt to learn telegraphy. When the alphabet is once learned one can practice at home. But to do even this to any advantage, there must be two persons interested in the matter, each having an instrument and a battery set up in different parts of the house and the two connected with a wire. Thus equipped, and with the necessary primary instruction, there is no objection to pursuing the study at home. Our correspondent can obtain all required information from Smith's Manual of Telegraphy, which can be had through this office or by addressing L. G. Tillitson & Co., Nos. 5 and 7 Dye St., N. Y., price 30 cents. Two instruments and two batteries will cost $9, and will be furnished by the same firm.

Treatment of Blood Warts, etc.

W. M. S., Jordan, N. Y., has a two-year-old mule that has two blood warts, one of which has grown to be quite a tumor, and, 1, he asks what will remove them without injuring the mule; 2, he also wants to know what ails a horse that pants a great deal and does not sweat on a hot day.

ANS.—1, A blood wart may be a dangerous thing to meddle with. If it is an aneurism, or dilatation of an artery, nothing but compression should be used, unless astringent washes, such as infusion of oak bark, or galls, or solution of sugar of lead, be used to encourage the effect of the compress. As it is not stated in what part of the body the so-called warts exist, particular instructions cannot be given. If the warts are simply bleeding warts of the ordinary kind, caustic applications, such as solution of nitrate of silver (20 grains to the ounce of water) or a stronger solution of sulphate of copper, or even hydrochloric acid reduced one-half with soft water, may be applied to surfaces. 2, The difficulty of breathing may be caused by disease of the heart, in which case no treatment can be indicated. If it results from an abnormal condition of the skin, sudorifics should be given—for instance, four ounces of sulphur daily; or two ounces of sweet spirits of niter; or one ounce of acetate of potassa, either being given daily and continued for 10 days or longer, or until the skin acts. The skin should be well brushed three times a day; this will greatly help to restore activity in it.

Planting Strawberries.

R. A. C., Steuben Co., N. J., desires to know (1) when is the best time to set out Strawberries, spring or fall, (2) what are the best varieties to try, (3) the price, (4) how to plant, etc.

ANS.—All things considered, spring is the best time; but if pot grown berries be planted from now until the middle of September, a fair crop may be anticipated for next summer; a good deal, however, depends upon whether they are properly grown in pots. Unless the soil adheres, very little is gained by setting "pot-grown" plants. 2. Charles Downing, Triumph of Cumberland, Sharpless, Champion, Kentucky (for late), Prouty's Seedling. 3. From 50 to 75 cents per dozen. 4. Dig the soil a foot in depth, and work in any well-rotted manure at hand; bone flour and ashes are good. Set the plants one foot apart in rows, the rows 18 inches apart. This for garden culture. We would take this occasion to say that the establishments which advertise small fruits in our advertising columns, furnish catalogues which give all instructions in detail. These details we have published over and over again, so that it is not desirable to repeat them whenever inquiries are made. The catalogues or pamphlets will be mailed free to all applicants.

Potash from Wood Ashes.

G. S. D., LeSeur, Minn., intending to make potash from wood ashes, asks how much will two iron kettles cost, capable of holding two barrels each; how many pounds of potash will 100 barrels of hard-wood ashes yield; what is the present price of potash, by the barrel, in New York.

ANS.—Cast-iron kettles can be procured for about three cents per pound. A 70-gallon kettle for boiling potash should weigh about 600 or 700 pounds. The yield of the ashes depends altogether upon the kinds of wood, and also upon the soil on which the timber grew. Elm from rocky land yields the largest proportion of potash of any wood; but swamp elm gives no more potash than some pine. Bird's-eye maple or yellow birch from rocky land, with elm intermingled, might yield from one to two barrels of potash to the 100 barrels of ash. If the timber is mainly oak, beech, soft maple, white birch, or such as grows on low vegetable soil, the yield of potash will be very light, perhaps not half a barrel to the hundred barrels of ashes. It all depends on the timber. Crude potash is worth in the New York market 7½ cents a pound.

Points of Light Brahmas.

F. M. C., Kiddville, Mich., asks what are the points of Light Brahmas, as regards plumage.

ANS.—The points are briefly these: The feathers are prevailingly white, except those of the tail and the flight feathers at the extremities of the wings. The hackle, or feathers of the neck, are each tipped with black, forming a sort of arrow-head penciling, which should be very bright and clear. The exterior of the "fluff," or the downy feathers which cover much of the body, must be pure white, but within it may be smoky. The yellow legs must be feathered to the toes, that is to the end of the outside, and, if possible, of the middle toes. The feathers need not be perfectly white, but no other colored feathers but white and black (or gray on the legs) are admissible. Yellow on the cock is bad, and brown or gray on the back, or dark feathers anywhere, except where stated, are inadmissible in show coops.

Miscellaneous.

M. M. D., West Newton, Pa., sends a plant found on his pasture field, the like of which he never saw before, and asks its name.

ANS.—Leucanthemum vulgare—Dalsey, Ox-eye Daisy, White-weed. It is rather singular that our inquirer has never noticed this weed before. It is a pest all over the country, and it is not uncommon in June and July to see fields quite white with its flowers. It is a perennial herb. Each flower bears a great number of seeds (Akenes), hence its rapid spread. It is a native of Europe. A very effectual method of getting rid of it is by plowing about the 1st of July. Most of the flowers are then blooming. These are turned under before the seeds are ripe, while the roots are killed by exposure to the hot sun. Treated in this way, as a fallow manure they are also of some value. The land may then be sown to turnips or buckwheat, or kept bare until September and then prepared for wheat.

F. C., Freedom, Pa., asks, 1st, what is the prospect for prices of apples this year? 2nd, whether the Fallawater is a good, reliable apple as far as its keeping qualities are concerned? It sells well in Pittsburg, in spring.

ANS.—As indicated by our Special Reports, throughout the season, the apple crop will, in the aggregate, be considerably short this year; but here and there the yield is reported to be abundant. The prospect is, therefore, that prices, on the whole, will be higher than last year, though in some places the supply being large, the prices will be low. An excellent way to ascertain the outlook for any crop, is to study the reports from different parts of the country as they appear weekly in our columns. 2d. The Fallawater is essentially a market apple, having little to recommend it but its size, appearance and productiveness. It is a native of Pennsylvania, where it is a great favorite. Its keeping qualities are good; its season November and December, according to Warder; November to February, according to Downing.

B. O. Aikin, S. C., asks how long do mosquitos live, and whether it is true that one kind bites in the day time only and another at night.

ANS.—It takes about three weeks from the time when the egg is deposited by the female until the perfect insect is developed, and then the latter's life is but of short duration, seldom lasting more than a couple of weeks at the outside, and often only as many days. A large mosquito, however, with two light spots on each wing, which is abundant and bites very fiercely in spring, is supposed to hibernate in houses. Some species are active by day, and others by night, while some are busy at either time. The day blood-suckers are found principally in marshes and damp woods and rarely in houses, and are of more brilliant colors than the nocturnal species. The female alone bites, the male passing a harmless life among flowers or in the woods and marshes, and dying early.

M. A. C., Attica, Mich., sends us samples of five sorts of winter wheat grown by him, namely: Imported Hungarian Amber, Gold Medal, Diehl, Clawson and Michigan Wick, and asks what we think of them.

ANS.—We do not know anything about Hungarian Amber. The others are excellent sorts, Clawson on the generality of soils, will yield the heaviest crops. "Wick" will make the best flour, judging from that raised at the Rural Farm. In fact, we have never raised a wheat that makes handsomer bread. Why call this "Michigan?" We would be glad to get the history of Wick, or, as it is sometimes written "Wycke."

H. R. C., Perry, Ill., asks whether a bushel of barley is worth as much for feed as one of corn.

ANS.—A bushel of barley is only 48 pounds, and is generally short of that weight; while a bushel of corn is 56 in nearly all the States, and generally overruns, so that it would require seven bushels of barley to equal in weight six bushels of corn. We do not know of any experiments as to the relative nutritive value of the two grains. A little barley meal mixed with corn meal for pigs, is, however, thought by many farmers to make more and better pork than corn alone.

H. J. B., Amsterdam, N. Y., asks, where can he get roots of the Cuthbert Raspberry. With him the Acme tomato has ripened before the Golden Rural.

ANS.—Our friend is requested to wait two or three weeks. The reason for this request will then be apparent. We are glad to receive reports alike whether favorable or unfavorable to the seeds we have distributed. We desire to disseminate only improved varieties. We have pulled, up to this date, 10 Golden Rurals to one Acme.

W. H., Webb's Ford, N. C., asks how many pounds in a bushel of shelled corn.

ANS.—In New York 58 pounds are a bushel of shelled corn; in California and Nevada, 52 pounds; in all the other States, 56 pounds; in Canada and England, 60 pounds. In a large part of New York, however, where farmers sell corn by the bushel, custom demands 60 pounds.

L. C. W., Van Buren, Ark., referring to the variety of Doura described in "Notes from the Rural Farm," in our issue of August 2d, asks, what variety is it that tillers so remarkably, and, when cut off, at once continues to grow as if it suffered no check in consequence.

ANS.—Sorghum cernuum. We shall give notes of our tests as soon as the crop matures.

J. P., Raysville, Ind., sends us a note dated August 1, but post-marked August 5, asking whether he is too late in enrolling himself among the competitors for the corn premiums.

ANS.—We regret to say that Aug. 1, was the limit to the entries.

F. H. D., Corning, N. Y., sends leaves of a vine for name.

ANS.—As well as we can tell from a leaf only, this is Amphicarpæa monoica—Pea vine—Hog Peanut. Please send us a flower and leaf.

COMMUNICATIONS RECEIVED FOR THE WEEK ENDING SATURDAY, AUG. 16th.

H. L. W., Thanks.—W. I. C.—J. R. K.—J. S.—L. R.—H. S.—A. A. B.—E. W.—C. W. G.—N. S.—W. B. D.—C. M. C.—E. W. B.—W. C. G.—M. B. B.—E. E. B. S.—E. G., Thanks.—J. M. B.—J. K.—T. T. M.—M. N. B.—A. C. H.—G. G.—J. L. G.—W. C. B., Thanks.—D. S. M.—V. J. E.—J. B.—C. T.—A. W. M.—W. C. L.—T. H. L.—C. M. W.—M. M. W.—A. L. J.—Wm. N., Thanks.—A. W.—H. O. W.—W. K. W.—L. S. N.—L. B.—S. H.—F. A. G.—M. H. T. J. A. Van V.—M. E. W.—M. M.—B. O.—S. A. M.—W. F.—F. N. C.—L. A. B.—A. E. B.—H. E. S.—S. L. T. B. B.—W. L. O.—R. H. N.—J. M. R.—T. H.

THE
RURAL NEW-YORKER.
PUBLISHED EVERY SATURDAY.

Address
THE RURAL NEW-YORKER,
78 Duane Street, New York City.

SATURDAY, AUG. 23, 1879.

TO WHOM IT MAY CONCERN.

INSTEAD of 50,000 extra numbers of the RURAL NEW-YORKER, as heretofore stated, we now *guarantee* an extra issue of 60,000 for our Fair number. It will be made up of 28 pages, including the cover. Many original engravings and articles from the following writers are either received or promised: Dr. J. B. Lawes, of Rothamsted, Eng.; Professor J. P. Sheldon, of Cirencester, Eng.; Professors I. P. Roberts and G. C. Caldwell, James Taplin, Henry Stewart, Pres. T. T. Lyon, M. B. Bateham, M. B. Prince, M. C. Weld, Professor L. B. Arnold, W. I. Chamberlain, J. B. Armstrong, William Falconer, J. T. Lovett, Col. F. D. Curtis, S. Parsons and others.

We may also state that our next Free Seed Distribution will be fully and definitely announced. In reply to many inquiries, it may be said that our rates for advertising in the Fair Number will be the same as in any other number. Advertising copy must be received prior to the 25th inst.

We again invite agents, secretaries and our readers to send for as many copies as they may be willing to distribute or to hand to their friends. They will be promptly forwarded free of charge.

THE LESSONS OF ADVERSITY.

THE lessons of adversity are many and various, physical, intellectual, agricultural, financial, political, moral. Adversity comes usually, we believe, in consequence of our violation of some great law of our being or of the world in which we live; and is doubtless intended by a Wise Providence both as a check and a warning. Physical pain, for example, has most beneficent results. Unconsiously our foot, or hand, or face, or whole body is exposed to too great heat, or too great cold, and acute pain tells us of the fact, and warns us to protect ourselves. But for the pain, hand or foot or body might be maimed or destroyed by fire or frost or accident.

Disease, too, often has a similar mission, and its lessons should be carefully studied and promptly acted upon. Typhoid fever warns us that we are breathing tainted air or drinking poisoned water or both, and bids us promptly change our course in these respects. Ague often bids a country household look well to its slop drains, pig-sties, barnyards, cesspools, garbage, and the general cleanliness of its surroundings. Or it bids a whole community look to the drainage of its swamps, or the destruction of the mill dam that floods acres of ground and fills the air with the miasma of decaying vegetable matter. Even so trifling an inconvenience as the sudden and unexpected sneeze or tickling of the throat, warns you to remove from the refreshing draft of air that cools your heated brow. Yellow fever has its lessons, too, more intricate and hard to trace, but on that very account to be studied the more diligently and persistently. One lesson, doubtless, is the necessity of greater cleanliness in our towns and cities. It may prove the great besom which the Almighty holds up before our City Fathers, and says, "Sweep well your streets and cleanse your sewers, or your city shall be swept with this besom of destruction." A most intelligent physician from Memphis said to us years ago "Memphis ought to have yellow fever. Her great bayou floods from the river in high water, doesn't drain back at low water, receives the sewage of the city, and in dry hot times becomes a vile and stagnant pool to breed disease and pestilence." The ultimate causes of the fever may be more remote and intricate and hard to find. They require and are receiving the careful study of competent medical and scientific men. But this that we have given seems so obviously one cause at least of its spread and virulence, that "he that runs may read." Truly the old divine spoke not so far amiss when he said, "Cleanliness and Godliness are near of kin."

The student, the teacher, the professional man and the man of business are often warned by intellectual adversity that they are violating some law of the intellect. The free horse that will not brook the whip, and seems never to tire, finally becomes sluggish, minds not even the lash, and perspires inordinately under moderate driving. If his owner has sense he knows the steed has been overworked, or is ill and needs rest, care, and possibly treatment. So the eager mind, when it becomes dull, dreads the task it once delighted in, or tosses the body by night with restless nervousness, or makes it start from uneasy sleep, tortured with horrid dreams, shows plainly that it needs rest, change, recuperation, or the correction of some violation of physical as well as mental law. Happy are we if we heed the warning before nervous prostration or even insanity follows.

Financial stringency or panic oftentimes checks a community or country in a career of reckless extravagance or wild speculation, in time to avert impending financial ruin. Political defeat makes a great party look well to its principles, and find wherein it has swerved from those great laws of practical righteousness and justice and financial honesty on which a free government must always rest.

So too in the field of morals, which belongs rather to the pulpit and the religious press, it may be shown that "whatsoever a man soweth that shall he also reap." That disaster and affliction come in accordance with natural or moral laws, or for their violation, but that they are none the less sent by a Wise Providence for our good, as a warning and a guide. Here is a Christian man so intent upon his business schemes that he neglects the proper training of his children. One child dies by disease, indeed, and in the natural course of things. But the father's heart clings to those that remain, and he sees the folly of undue absorption in business to the neglect of proper care for what is far more precious. Or financial reverse warns him not to make wealth his god lest he find the love of money the root of all evil.

But the point we had in mind as more specially adapted to these columns, was the lessons of adversity in agriculture. The space already occupied, however, warns us that this must be reserved for consideration at another time.

WHEN TO SELL.

Every one who is engaged in any department of agriculture or manufacture is supposed to have from time to time something to sell or exchange. On the disposition of this surplus depends the supply of all articles that the person does not raise, embracing all implements and improvements of every kind that require an outlay. Hence it is a matter of moment that the sale of these things be made at the time that the best price, all considered, will be obtained. Is it possible to be certain of this time? In general, no. There are many articles that constitute exceptions. Those that cannot be conveniently preserved, must, of course, be thrown on the market at once. Others that are in demand in certain seasons only, will be governed by the season trade. But the most common and valuable products of human industry are always in market, and yet are subject to frequent fluctuations in price. Such are the leading products of the farm and most of the useful manufactures. As to these no fixed rule can be given, but the following suggestions will commend themselves to the prudent.

One should keep himself informed of the state of the market, especially in places accessible to him, and as far as practicable in places whose trade affects directly his local market. The best way to secure this, is to take and read good papers, that give not only the tabular market statements, but also intelligent and impartial comments and counsels. When necessity compels one to sell, he can only submit, regardless of prices; but in all other cases, he ought to govern himself consistently by reasonable probabilities. Unless in the face of a comparative certainty that there will be no advance, economy plainly forbids the disposal of a commodity at a price that is not more than its cost to the producer. Business cannot live on losses. A certain farmer who always prospered made it a rule to sell everything he could spare as soon as it was in marketable condition. He never made much at one time, but he avoided all risks of rogues and fires, all injuries by vermin and weather, all the trouble and expense of protracted storage, all the reduction of shrinkage and incidental waste; and he was receiving money now and then, through the year.

It is safe advice to say that every one should be content to sell at a reasonable profit. To wait for very large prices is dangerous policy, and, especially as to the necessaries of life, very bad morals. What man *must* have, his fellow-man should be willing to furnish at rates that are not exorbitant or oppressive. Business should never violate the principles of magnanimity and true charity.

CARELESSNESS AS A SOURCE OF INCOME.

It is amazing to consider the extent to which losses are incurred on the one hand, and sales and occupation afforded, on the other hand, by the inexcusable carelessness of people who know better and ought to do better. The fastening of a well-bucket is deranged, or a hoop is loose, but the thoughtless man or woman never notices the trouble until the bucket is dropped in the well or the bottom is out. Then time is lost, the family is inconvenienced, and perhaps a neighbor gets a job of work and the pay. The gate-latch is out of order; no attention is paid to it; the hogs or cows get in; the yard is rooted up; the shrubbery is destroyed; the gardener is employed, and the nurseryman has an order. A tire is loose on the wheel; the wood is swiftly wearing away, a little care would set the matter right; no pains are taken; away on the road a wheel is crushed, and the wheelwright has some employment. A shingle is out of place on the roof; one nail would mend the trouble; that nail isn't driven; the rain steals in, and soon the plasterer is paid to use trowel and brush. A bridle rein is weak; a bit is worn; nobody thinks of examining either; a horse is drawn to one side, or a horse runs away; a vehicle is broken; a carriage-maker or blacksmith is profited, and perhaps a surgeon has a profitable professional engagement.

The water of a well is impure; those who use it complain, no proper steps are taken; the family have serious sickness; the druggist sells his medicines, and the doctor gets his fees. In the same way the cellar is foul; the mephitic gases escape through the floors; the blood is poisoned; the fever rages, some suffer; some die; the physician has a harvest, and even the undertaker and sexton find employment. A stove-chimney is in dangerous condition; people have eyes to see, but don't use them; the fire soon does its dreadful work, and carpenters and merchants have a good time. So of many—very many things.

Are you innocent of such neglect? There are far better and cheaper ways to give work and profit to others. By taking care of what you have, you may become able to add other and more valuable things which you desire. There is true economy in proper attention to small as well as great things.

THE OUTLOOK FOR PRICES OF GRAIN.

Despite the short crops of some parts of Europe, the prospects for a speedy rise in the price of American grain are not very encouraging. Of late the importations into England have been exceedingly heavy, so that in face of the short domestic harvest, prices rule low. Usually when crops are short there, farmers are partly compensated by high prices, but this year is an exception to the rule. According to the best estimates, France will require $125,000,000 worth of foreign cereals, but a large proportion of this will be supplied from Southern Russia and the Lower Danube, where, as heretofore stated, the grain crops have been very abundant this year. Never before, according to yesterday's cablegram, was so large a quantity of wheat stored at Odessa, and there are, it is said, but few buyers. The actual supply does not seem too great for the prospective demand, but too much of it is being thrown upon the market at this season. Later on, it is not improbable, that prices will go up considerably. The present outlook is, that we shall have a surplus of upwards of 150,000,000 bushels of wheat for exportation, while six countries in Europe will need about 300,000,000 bushels. Of this, not much over 100,000,000 bushels can be supplied from other European sources. Northern Africa will hardly be able to furnish enough for its own needs; the trade in cereals with India is still in its infancy, though capable of vast development. The same may yet be said of the supply of wheat from Australia and New Zealand, while the war now raging between Peru and Chili will check cereal exports from Valparaiso. The supply from all these sources cannot, therefore, be over, say, 30,000,000 bushels, which will leave a good market for all we can spare.

BLOUNT'S CORN—WHAT WILL THE HARVEST BE? HIGH HOPES.

A few weeks ago Blount's White Prolific Corn was reported in our Everywhere Department as from ten to fifteen feet high, and yet no silk or sets had appeared. Our own plots and those of neighboring farmers, who had received the packages we sent them, corroborated those reports, and we began to feel that our "Free Distribution" in so far as the corn was concerned, would result in little benefit to ourselves or friends. We may now state that the promised yield is something wonderful, and we do not doubt that the country in general and even Professor Blount himself will be surprised at the yield of those plots which draw the RURAL premiums.

BREVITIES.

"RAIN, rain, rain." Such is our brief note from the Rural Grounds.

REMEMBER that wood ashes are, perhaps, the very best fertilizer for strawberries and bone-flour, or superphosphate next.

AMONG hardy perennials there are few handsomer flowers at this season than those of Campanula grandiflora.

WE have Tomato vines on trellis seven feet high. For the home garden, this is a very attractive and satisfactory way of treating the tomato plant.

THE well-known horticulturist, Dr. F. M. Hexamer, writes us: "The advertisement in the RURAL NEW-YORKER has brought me more orders than I received from the same advertisement in any other weekly paper."

PROF. RILEY, will Weevil-eaten peas grow as well as others? Now, answer us please. You know those who have the promotion of scientific or any other truths at heart always hasten to "own up" when they have gone astray.

TREE peddlers in Kansas are selling Rose bushes, which are guaranteed to bear blue flowers. We are surprised they do not talk about red, white *and* blue roses; the blue one is old! That would be an "American Banner," indeed.

THE Times and Journal, of Bricksburg, New Jersey, says: "It is the opinion of an old potato grower that the seed potato, the 'Beauty of Hebron,' furnished us by the RURAL NEW-YORKER, came up quicker, grew faster, and matured earlier than any Murphy on record."

THE editor of the Gardeners' Monthly, joins the editor of the Country Gentleman in advising that the old stems of Raspberries and Blackberries be left until fall—but for a different reason. He thinks the partial shade the old stems make, seems rather beneficial than otherwise under our hot suns.

THOSE who desire to know as to the value of Pearl Millet, Beauty of Hebron potato, Blount's Corn, Golden Rural Tomato and the other seeds of our last Free Seed Distribution, should read from beginning to end our "Everywhere" Department. Aside from crop reports, however, it is one of the most entertaining and instructive parts of the paper. So say many readers.

JUDGING from the letters and circulars and bills and catalogues and tickets we are receiving from the secretaries of fairs, all over the country, more energy and interest are being manifested than usual in Agricultural Fairs. We hope this interest may be maintained by a greater attendance than usual, and with more benefit to the agricultural and horticultural community.

CALIFORNIA is going to have a Horticultural Society. One would think, if such societies are useful anywhere, they would be indispensable in that State of balmy air, fruits and flowers. We learn the above from our contemporary, the California Horticulturist, which, by the way is a very different magazine, under the editorship of Mr. Shinn, from what it was under that of his predecessor.

MR. BARRY in a note to us, or in an article which will appear next week—we forget which—refers to the Honeywell Peach as of poor quality. Trees of this were sent to us two or three years ago by Messrs. A. Hance & Sons, to be tried. They fruit this year. They were the first to ripen of any of our peaches, but most of them rotted on the tree, and those that ripened were as nearly devoid of peach flavor as any we have ever eaten.

MR. A. B. CRANDALL, says in the New York Tribune: "That there was no horse-racing at the recent great show of the Royal Agricultural Society of England was not for lack of room, as the 105 acres of "Kilburn pasture" inclosed could easily have afforded ample space for the track deemed so indispensable at most fairs in America." It is a notable fact that at the best agricultural show of England and the best of the United States horse-racing is not permitted.

CORRECTION.—In our issue of August 9th, a summary of our tests as to whether weevil-eaten peas would grow was presented. In the last line of Test No. 4, the word "more" should have been NONE—as follows:

TEST NO. 4.—On the same date as above, twenty-five weevil-eaten peas were planted two-and-a-half inches deep. They had been soaked, as in the above test, for six hours. They were not artificially watered afterwards. None appeared above ground.

OBJECTION has with justice been made to the Chinese Magnolias, that they bloom in spring before the leaves expand. Tropical-looking flowers and bare twigs and chilly winds of April are not in keeping. One pities the flowers, because they look cold and lonely. Magnolia Lennei, however, though it bloomed profusely in early spring, is now blooming again. The large, purple flowers are very pleasing among the rich, heavy leaves. From the spring flowers, many cones of fruit formed so that the tree is in fruit and flower simultaneously. Perhaps if we were to cut out the buds which form a little later to bloom next spring, it would bloom more profusely, in August, and thus after several years, perhaps, be changed from a spring to a late-summer-blooming Magnolia. Of all our Magnolias this pleases us most.

Literary Miscellany.

UNDER THE GUNS.

UNDER the guns of the fort on the hill
Daisies are blossoming, buttercups fill;
Up the gray ramparts the scaling vine flings
High its green ladders and falters and clings
Under the guns,
Under the guns,
Under the guns of the fort on the hill.

Under the guns of the fort on the hill,
Once shook the earth with the cannonade's thrill,
Once trod these buttercups, feet that, now still,
Lie all at rest in their trench by the mill
Under the guns,
Under the guns,
Under the guns of the fort on the hill.

Under the guns of the fort on the hill,
Equal the rain falls on good and on ill,
Soft lies the sunshine, still the brook runs,
Still toils the husbandman—under the guns,
Under the guns,
Under the guns,
Under the guns of the fort on the hill.

Under the guns of Thy fort on the hill,
Lord! in Thy mercy we wait on Thy will;
Lord, is it war that Thy wisdom best knows,
Lord, is it peace, that Thy goodness still shows
Under the guns,
Under the guns,
Under the guns of Thy fort on the hill.

[*Bret Harte in London Society.*

THE SCANDALOUS LETTER.

[Complete in Ten Chapters.]

CHAPTER VII.

Nelson had been flattening his nose against the parlor window all the afternoon, and stretching his neck in vain efforts to look up the dismal little rain-blurred street, but no sign could he see of Dr. Yorke, whose usual hour for calling upon Miss Carew had long passed by.

"I wonder what can be delaying the Doctor?" he sighed for the hundredth time. "He has not been here now for three days."

"Perhaps he is very busy, darling. We shall see him to-morrow, I dare say."

Nelson sighed again disconsolately. Olive was working hastily at her costume for the evening's performance—altering ribbons and laces, trying to make an old dress look like a new one. She laid it down as she noticed the boy's listless air, and said cheerfully——

"Will you play for me, dear? It will make my needle fly twice as fast."

Nelson limped over to the piano at once, and soon the room thrilled with the pathetic tones he coaxed out of the well-worn instrument, while her needle flew in and out of the silk. Tears were falling as she sewed, and wetting her thread with big drops. The world—her life—seemed very dark to her just then. She had done what she had felt to be right, but it was hard, try as bravely as she could, to help doubting and longing and regretting. And since the miserable night when she had said good-bye to Jack Dacre she had been so lonely. The poor fellow's words kept ringing so persistently in her ears. If Robert would only come, she thought despairingly as she stitched and stitched—if he would only come and help her to be strong and true! The tears were all wiped away, when presently Nelson grew tired—as he had so easily grown of late, his sister remembered, stung with a sudden cruel pang—and came limping over for Olive's smiles of thanks.

"Your music has done me so much good, my darling!" she said, dropping her work to clasp him to her breast and cover his little wan face with kisses. "But why do you stop so soon? You don't feel any worse to-night?"

"Only a little tired and drowsy," replied the boy, smiling faintly; and as he spoke he sat down at his sister's feet and laid his head upon her lap, still holding her hand between his two little wasted palms. "Olive, I shall be so glad when Dr. Yorke takes us home with him. You will never look anxious then, will you, dear?"

"Never," Olive answered huskily—"never, my dearest, if you will only grow strong and well."

The child turned his lips to the little hand he held, and kissed it fondly. There was a silence of some minutes, which was broken by the entrance of Mrs. Allen, in a rather floury condition, as to her hands and apron, who announced the Doctor, and, shutting the door upon two troubled hearts, went back to the cakes she was making for tea, unconscious of the tragedy going on in her modest parlor. Nelson had fallen asleep in the warmth of the fire, and Olive, putting her finger to her lip as she smiled at her lover, motioned to him to bring her the pillow from the sofa, and to help her to lay the boy's head gently down, and to cover him with a shawl.

"I have been watching for you so anxiously," she said then in a cautious whisper, and putting her two little trembling hands into the Doctor's. "It is very kind of you to come when you are so busy."

Dr. Yorke made no reply.

"I may finish my work, I suppose?" the girl continued nervously, "It's for to-night."

Tall, slender, pale, she looked more like a garden lily than ever as she stood before him in her black gown, her head drooping a little under its crown of chestnut braids. But there were traces of suffering round her sweet eyes and trembling lips which awoke a pathetic yearning in Robert Yorke's heart, and moved him to speak her name very gently as he drew her chair up for her and made her sit down. And as he did so, cold and impassive as he looked, Miss Carew's middle-aged lover was struggling with an impulse that bade him fall at her feet, and call upon her to declare that all the misery he had endured during the past few days was but a hideous dream, and that she was still as fair and pure and sweetly cold as she had ever seemed to him, as she then looked. But he recollected himself in time, and the impulse was mastered—recollected what he had read and seen, and what he had come to say to the beautiful disloyal woman who was to have been his wife. It was sometime before he spoke. The pleasure was too keen, in spite of his bitter resolutions, of gazing at the charming sensitive face before him, of following the delicate hands as they went rapidly and deftly to work, of breathing the same air with Olive Carew, for the Doctor to wish to break the silence; and Olive was too full of painful and conflicting thoughts to be able to speak.

During the past few days she had been trying to think very kindly of her grave plain lover. She had resolved to be to him a good and obedient wife, of whom he should have no cause to complain. She almost believed herself capable of forgiving the grim coarse woman who had lain in wait for her and insulted her, if it would only set matters on their old footing between herself and Dr. Yorke. But, now he was there, close at her side, touching her hand, speaking her name, every drop of blood in her young body turned cold; she could hardly repress a shudder, and she knew, once and for all, that she could never be happy with this man. She shrank a little away then, and took up her work.

"What is he going to say?" she wondered breathlessly, as she fastened the coquettish blue knots on her white stage-dress.

Dr. Yorke did not leave her long in suspense. With an effort taking his eyes from her sweet beauty, he straightened himself up, sighing.

"Olive," he said, "I have been very unhappy since I saw you last."

"Unhappy!" she echoed faintly, pricking her trembling fingers as she sewed.

"Have you nothing to tell me?" he continued earnestly. "What is this cloud that has come between us?"

"There is none of my making, Robert."

He sighed again, and starting to his feet, began to pace up and down the narrow room.

"You remember," he said then, coming back to her side, "that day in the garden—the day you gave yourself to me?"

"Yes."

"You remember the confession you made, that your heart had gone out of your keeping before ever we met?"

"I remember." The warm blood rose in her cheeks at the thought of it; he saw it and it did not make him the more patient.

"Olive," he cried with a sort of groan, "why had you not the courage to be true to yourself that day? Why did you promise me a fidelity, an esteem, which were out of your power to maintain?"

"Robert"—Miss Carew dropped her sewing—"take care what you say! You are looking at me through some one else's eyes. I will bear a good deal from you, but——" She gulped down a sob which would rise when she remembered what it had cost her to maintain the faith he was so ready to question. "You forget," she continued, "that I do not know yet of what I am suspected. All I know is that you have not been to see me for three days—why?"

"Do you ask me why?"

"I do. I hate mystifications, and I am talking quite in the dark, so I ask you again, What have I done? And what has my poor little dead-and-gone romance to do with your absence of the past few days?"

"Will you look me in the face and say that you have seen no one during those three days whom I should disapprove of your meeting?"

"I will assure you that I have not spoken one word, Robert, in those three days that I need have been ashamed of your hearing. I have been true to the promise I made you in the garden. What cause have I ever given you to think otherwise?" She spoke with the most patient sweetness, for she had resolved to bear with him, knowing that he was suffering.

But Dr. Yorke looked at her with a kind of wondering pain.

"Poor child," he said huskily, "I must not be hard on you, for you have had to struggle alone with the world at an age when other girls are safe in their mothers' arms. Perhaps the fault was mine. I might have known you could never care for me. But there is no need for any further concealment or deceit, my dear. I know your unhappy secret."

"You may think so, Robert," she answered with quivering lips, "and perhaps appearances are against me. But if I tell you that I have sacrificed everything in the world to keep faith with you, you will believe me? You will take my word before that of the—the persons who are misrepresenting me?" Olive waited breathlessly for the Doctor's answer.

With an exclamation of pain he passed his hand fiercely across his eyes.

"Your word!" he cried. "It is your own word I am taking. To whom else do you think I would listen for one moment?"

"My own word?" Olive looked bewildered and drew back a pace or two. "Robert, what does all this mean? I implore of you to speak plainly and have done with mysteries."

Robert did not speak, but he took from his pocket the stolen letter and put it into the hand which she extended mechanically to receive it. With her first glance at its contents an utter change flashed over her face. Every trace of color died out of her cheeks and lips; she turned and looked at the Doctor with eyes of passionate disdain.

"Where did you get this?" she asked, in quiet accents that seemed to cut the air with their keen edge.

"No matter," he muttered, a dark flush rising to his brow.

"Where did you get this?" she repeated, in precisely the same tone; and he told her.

Miss Carew burst into a peal of bitter laughter that woke the boy out of his sleep; he sat up, looking with drowsy bewildered eyes at the two agitated faces just visible in the dusk. His sister ran to him and lifted him up, straining him in a passionate embrace.

"It is on this letter you condemn me, Dr. Yorke?" she cried. "I congratulate you on the honorable means you have taken to prove the character of the woman who was to have been your wife. You did not think me worthy then of one kindly doubt? You take it for granted that I am bad—deceitful—false?"

"What else am I to think? Good Heavens, Olive, am I a stock, a stone, that I am to bear such things as these and hold my tongue?"

"No; you are right," Miss Carew said bitterly. "Further concealment is unnecessary. I did write this letter, and I admit, Dr. Yorke, that after what has happened to-day Olive Carew can never be your wife."

"Olive," Nelson cried fondly, winding his arms round her, "who has been cruel to you? Come away, dear! No one shall hurt you!"

"No, darling," the girl answered, with a shower of kisses on his wan cheeks—"no one shall hurt me after to-day. You and I will go away together."

The Doctor stood in speechless misery, more conscious than ever of the pale woman's beauty, as she flashed defiance out of her dark eyes and towered superbly above him. Then he called to her hoarsely, extending his arms.

"Olive! Have you no excuse—no explanation to offer? Must I lose you for ever because you will not speak?"

Olive drew back, with a magnificent gesture of dismissal.

"I decline to offer either excuse or explanation," she returned, still holding Nelson within her arm. "I acknowledge that I am guilty of all this letter implies. There is nothing more to be said but that you and I have done with each other from to-day!"

"That is your last word to me?"

"That is my last word."

Robert Yorke crossed the room like a man in a dream—the room where he had been so happy and so miserable, the room he would never enter again. He turned when he reached the door to look at Olive, standing in her long dusky gown, with the child still clinging to her. The letter lay on the floor, a patch of white in the firelit gloom. He heard the rain, and the swish of the willow-boughs against the panes; a clock struck the hour. Mechanically he counted the seven ringing strokes as he stood grasping the door-handle, and thought, in a dull, stupid way, that he would be late for dinner and had better be going. Then he turned and walked dizzily down stairs, and into the rainy streets.

CHAPTER VIII.

The rain poured down unceasingly, the wind rose, and blew gustily among the trees and chimney-pots, but Robert Yorke did not feel the chill showers that beat into his face. The thought of home, of the cheerful dinner-table and Gertrude's conversation was hateful to him. He could not bring himself to face Miss Elizabeth's cold inquisitive eyes and sneering innuendoes. Better was it to tramp the muddy pavements and be buffeted by the shrill blasts that met him as he struggled round the corners. Out in the dark and the rain there was quietness at least and solitude. And, as soon as it was time for the theatre to open, he would go in for the last time, and look once more at the beautiful, cruel face of the woman he loved, and who had never loved him.

Dr. Yorke was the first person to enter the poor ill-patronised little theatre that night. Wet, cold, exhausted, but not feeling so—feeling only a strange feverish pain and confusion in his brain—he passed into his mouldy little box near the stage.

He had spent so many happy hours in that shabby old building, he had dreamed so many sweet dreams there, that now, as he looked down into the dim empty pit and the vacant orchestra, where a listless boy was placing sheets of music on the various desks, and remembered the gulf that had opened between this sad, heavy-hearted hour and those that were past and gone, a sense of unutterable misery came over him, and he shrank back with a kind of groan into the obscurest corner of the box, burying his face in his wet coat-sleeve. By-and-by a few people, enthusiastic or lonely enough to leave their homes for muddy streets and the damp, foggy theater, dropped in, those in the gallery exchanging audible remarks and beguiling the tedium of the hour with the cracking of many nuts. Then the orchestra appeared, damp, dispirited and tardy, and played a waltz, which seemed to Robert Yorke the most melancholy music he had ever heard, though it was bubbling with Offenbachian melodies which the wretched performance could not entirely subdue.

He sat with his haggard eyes fixed on the green curtain that divided him from Olive Carew, conscious of a certain pleasure in the thought that he was breathing the same air with her, that he would hear her voice again though she might never speak to him any more. And when the play began, and Miss Carew ran on to the stage with a peal of joyous laughter, and wearing the very white dress on which he had seen her fasten the blue knots that afternoon, it seemed as if the cruel scene they had gone through must have been a dream, that he would wake up presently when the curtain fell and walk home as usual with his sweetheart through the quiet streets. The actress was quite unconscious of his presence—some instinct forced him to keep well out of sight while he fed his hungry eyes upon her sweet beauty—and she acted with as much sparkle and *espièglerie* to the dull, empty house as if it had been crowded with what the Guardian called the *elite* of Woolchester.

Was the past already forgotten by that bright creature? Robert Yorke wondered jealously. Had every recollection of her brief engagement to the commonplace country Doctor faded from her mind? Was there no undertone of pain in the silvery laughter that rang so cruelly in his ears, or could pain assume joy's shape so easily in women's hands? Another peal of laughter seemed to answer him with mocking mirth, as if defying him to read the truth in the arch white-lidded eyes that darted sunshine into the foggy pit, from the sweet smiling lips that he had kissed just once and would never kiss any more. Oh, pretty Olive Carew! Oh, her low voice and delicate tender grace, and the sweet red curves of her girlish lips! Why did she ever shine upon his dull life, to bless it for a while, and then to kill him with her falseness?

The play dragged its slow length along and the act-drop had risen for the last time. By-and-by the people would go home yawning and indifferent, not dreaming that the dingy curtain had fallen upon another drama besides that "washed-out" adaptation from the French at which they had been assisting, unconscious of the fact that for one man in the half-empty theatre the end of the play meant the death of his youth and his hopes and his best life. Some such thoughts as these were passing drearily through Robert Yorke's head when—what was it that made him start to his feet with a groan of shame, passion, despair, and stagger like a man stunned by a blow? The comedy was one of intrigue. The plot was seen to turn chiefly on the fortunes of a love-letter written by the merry widow and conveyed by the smart *soubrette*, who at that moment stood with her hands in her pockets and her head on one side, while Miss Carew, with a pen guiltless of ink, traced in the usual rapid stage fashion the words which she was presently to read aloud.

"There, Flouncey!" she cried, signing her name with an elaborate flourish and throwing down the pen. "I think that will mystify my guardian, and assure the Captain that he need fear no rival in my affections. Listen!"

And, as Miss Carew, or "Madame de Haut-ton," read the composition aloud, every drop of blood in Robert Yorke's body seemed to freeze, the lights and faces of the theatre seemed to dazzle him and burn into his very brain. For—line for line, and word for word, he recognized it only too well!—the letter written by the merry stage-widow, and read with archest mischief and laughter by Miss Carew in that character, was the letter on the evidence of which he had chosen to condemn the woman he loved but could not trust—the letter stolen from the actress's room a week before by Elizabeth Yorke.

* * * * * * * *

There was a terrible scene the next morning at the house in George Street. Miss Yorke indeed would still have affected unbelief in the actress, and insinuated that the introduction of the letter in the play was merely one of Miss Carew's clever tricks. But the Doctor's wrath was so tremendous that she was glad to take refuge in a sour and discontented silence until the storm had somewhat abated. Then she asserted herself once more and told Gertrude that she had better pack up her things and accompany her to Lincolnshire, as one house would never be able to hold them and the Doctor's wife.

"My wife!" echoed Robert Yorke, laughing bitterly. "You need not be afraid—I have insulted Miss Carew deeply enough already. Do you suppose I would add to my folly and cruelty by asking her to enter such a family as this?"

"Oh, Robert!" said Gertrude, beginning to cry.

"I don't speak for you, child," her cousin answered, softening—"you have harmed no one—but for myself and your aunt, who will go with me this morning, and apologise with me to the young lady we have both so foully wronged."

Miss Elizabeth colored angrily, and made an exclamation that sounded rebellious.

"Oh, Aunt Elizabeth, do go!" sobbed Gertrude. "If Robert is willing to apologise, surely you need not be ashamed to do so."

"Gertrude, you are a fool!" snapped Miss Yorke, tapping her foot on the floor and swallowing with difficulty.

The Doctor turned to leave the room, and his cousin, timidly approaching him, whispered that she would persuade her aunt.

"And Olive will not be hard upon you, cousin," she added, faltering and blushing; "she knows how you—you love her, and she will forgive you, and all will be as it was before this dreadful mistake occurred."

Robert laid his hand so gently upon Gertrude's head that the poor girl blushed with still more unbecoming intensity.

"You are a good girl, Gertie," he said kindly. "You are the only one in our family who never said an unkind word to—Miss Carew. But you must not think that her engagement to me will ever be renewed, my dear. That is all over now. I was never worthy of her."

Miss Elizabeth uttered an ejaculation of contempt.

"You will be ready in half an hour," her nephew said quietly as he left the room. "If you are not you will understand that my house is no longer your home, and that we are strangers to each other from to-day."

No one but herself knew of the throes and struggles gone through by Miss Yorke before she could make up her mind to kiss the rod. But the Doctor was to triumph. After all, the house in George street was a more desirable place of residence than the farm in Lincolnshire, where her brother's wife reigned absolutely, having come off victorious in more than one domestic skirmish between the two ladies in olden days. Then there was Gertrude to be thought of, as her aunt reminded herself. When that "player-woman" was brought home—for Miss Elizabeth had no hope that Miss Carew would release the Doctor, notwithstanding all his fine speeches—Gertrude would want some respectable feminine influence about her, or who could tell but that she might learn to be as good-for-nothing and affected as the actress herself?

Accordingly, at the hour appointed, Dr. Yorke found Miss Elizabeth, in an elaborate toilet, smiles on her lips, and anger in her eyes, awaiting his appearance, and the two set off together for Olive Carew's lodgings. It was a very silent drive. The man's heart was heavy with bitter unavailing regrets; the lady was mentally rehearsing her apology resolving to render it as little apologetic as possible, and to neutralise the humility of

her words by the uncompromising coolness of her manner. And before many minutes they were at the old house with the iron gate, the commonplace little suburban scene that Robert Yorke would never be able to look at as long as he lived without the keenest and most sacred emotion—the place where he had so often held Olive's hand in his, and looked down into her maidenly eyes—where he had once kissed her on the lips—but to Miss Yorke, an iron gate and nothing more. Something in the look of the place struck a chill to the Doctor's heart as he handed Miss Yorke from the carriage. Some melancholy wisps of straw lay round the steps; the windows of the parlor—the beloved dingy parlor—were thrown wide open, and from one of them a strip of carpet was hanging out. An old play-bill was blowing about on the grass, and two men were carrying away the little hired piano in a van.

"I am afraid Miss Carew is going away," he said, breaking the grim silence that had lasted during the drive; "we are only just in time."

"Going away!" echoed Miss Yorke scornfully. "Not she—she knows when she is well off, never fear!"

But when they knocked at the door, they were told by Mrs. Allen, who looked a good deal puzzled and flurried, that her lodgers were already gone, but that a letter had been left for Doctor Yorke.

As they were following the little woman into her modest sitting-room, a tall young fellow dressed in gray and with a long golden beard appeared at the head of the staircase and descended rapidly at sight of them.

"Miss Yorke," he said hurriedly, "will you be kind enough to come up-stairs to speak to my cousin, Lady Tempest, who is in great anxiety about Miss Carew?"

Lady Tempest—the words took away Miss Yorke's breath—and "in great anxiety about Miss Carew!" Oh, perhaps it was with Lady Tempest's son or husband that the actress had run away! Miss Elizabeth followed Colonel Dacre briskly up-stairs, sustained by the hope of hearing her own worst suspicions about the actress confirmed, and of silencing Robert at once and forever on the subject of Olive Carew's wrongs.

"Here, Flozsy," cried Jack Dacre, bursting into the familiar little parlor, which looked strangely bare and sad and dismantled, as the Doctor saw with a remorseful pang, "I have brought Miss Yorke and her brother, who were Olive's best friends at Woolchester."

A pretty little blonde woman in a traveling-dress turned round from the window at these words, and ran forward in an eager way.

"Can you tell me anything of Miss Carew?" she exclaimed impulsively, seizing both Miss Elizabeth's strong hands in hers. "What has become of the poor girl, and why has she run from us all?"

Miss Elizabeth's face fell.

"We hoped your ladyship could explain that mystery," she said, curtseying, and as sweetly as her disappointment would permit.

"I!" echoed Lady Tempest. "I know nothing—I can guess nothing. I came to Woolchester last night with my cousin, Colonel Dacre, hoping to take Miss Carew home with me to Silverdale until the time for their marriage, and I find that she is no longer here. I never was so distressed about anything in my life!"

"No doubt Miss Carew had her reasons, my lady," suggested Miss Elizabeth, with a happy mingling of spite and obsequiousness.

"But my cousin saw her three days ago. What can have occurred since?"

The two men were talking earnestly together in the window, and Lady Tempest, sitting down on the horsehair sofa by Miss Yorke's side, went on with pretty earnestness to explain how Olive's engagement to Jack Dacre had been broken off two years before by the girl herself, who had behaved very nobly, and how wretched the young man had been ever since.

"And all through me!" the charming blonde cried, blushing a little as she raised her blue eyes to Miss Elizabeth's hard smiling face. "I was not so good or so unselfish as Miss Carew or as poor old Jack. I did not want to give up the money which depended on my marriage with him. I can hardly believe it now when I look back—it does not seem possible that I can be the heartless girl of those days. But,"—the blue eyes sank, and Lady Tempest continued under her breath—"I had never been in love then, and how could I tell what the poor things were suffering?"

(To be continued.)

MAGAZINES.

PHRENOLOGICAL JOURNAL.—Contents: Wm. Lloyd Garrison—Portrait; Do Animals Blush? Alcoholism Treated Phrenologically; Mental Science in China—Illustrated; Edward Payson Thwing—Portrait; Brain and Mind—Chap. XV.—The Criminal Class, their Treatment; Value of Phrenology as an Art; Two Kinds of Self-Sacrifice; The Night-Blooming Cereus—Illustrated; Advantages and Disadvantages of the American Novelist, Part I.; The Stage-Driver's Story; What Shall We Drink? A Study in Vegetarianism. Poetry: A Very Young Phrenologist—Illustrated. Editorial Items: What Is Mind? One of the Blotches on our Civilization; The North-east Passage. Notes in Science and Agriculture: Origin of Petroleum; Comparative Physiology among Different Races; A Feathered Sentinel; Ainos of Northern Japan; A Cheap Green-house; Soot vs. Wire-worms; Lumber from Straw. Answers to Correspondents: Sleeping with the Mouth Open; Mind Reading; Nose and Character; Presence of Mind; Calculation and Analysis; Marriage of the Races; Seven Wise Men of Greece; Defective Organs Compensated; Infection and Contagion, etc. What They Say: Some of My Notions; Alexander Pope: Health Reform, a Colony; Phrenology not a Proof of Fatality; Nervo-Mental Force; The Institute and Its Object. Personal Items—Wisdom—Mirth—Library.

ALEXANDER POPE.—Of all the great English writers Pope seems to us the greatest study, for into his poems are infused so much of his own strange, sensitive individuality. He was born in London, May 21, 1688. He was a puny, sickly child, and in the more than half a century that he lived, the poor, unlovely, diminutive and deformed body was never free from sickness or malady. He was a great reader and an ardent lover of Spencer, Waller, and Dryden in his very childhood; and very early displayed his own talent for versification. Of his earliest poetic attempts the "Ode on Solitude" only remains. His first appearance in public as an author was on the occasion of the publication of his "Pastorals" when he was twenty-one years old, but which were written five years before. These were spoken of highly by many of the ablest critics of the day. A life of honor and distinction was at once gained by the poet; he was courted by the wealthy, sought out by the wits of that age, and the bitter and caustic sarcasm of his ready pen was feared by his literary enemies.

His translations of the two great epic poems of antiquity, the Iliad and Odyssey, of themselves would have brought him fame, but they far from exhausted the mental powers he held in reserve and which resulted in his "Imitations," "Satires and Epistles," the "Dunciad" and moral essays. The "Rape of the Lock" is somewhere charmingly described as the "most exquisite specimen of filigree work ever invented; it is admirable in proportion as it is made of nothing. It is the triumph of insignificance, the apotheosis of foppery and folly. It is the perfection of the mock-heroic." The plot—if plot it can be said to possess—is founded on a "trifle light as air," and none but Pope could have thrown around it such a delicate, fanciful, rythmical wreath. Lord Petre severs a lock of hair, in sport, from the sunny little head of Arabella Fermor—a very pretty and very silly little lady, whose dignity was injured and temper fearfully ruffled by such a lawless and daring act; results: a feud between the two families, and Pope's good-natured satire, whose delicious nonsense caused the poem to win public favor at once, passing through three editions, a great literary success for those days.

Pope died the 30th of May, 1744, but his name and works will ever live, and England may well prize the poet who from so humble circumstances as the son of a linen draper, rose to so high and well-deserved a distinction.

There are few poets so widely quoted from in literature and conversation, as Pope; and many terse sentences, familiar as household words, we find in his works, and in closing this fragmentary sketch of our author we will give a few, as possibly many may not be aware from whence these old friends dated their nativity.

In his masterly essay on criticism we have:

"Pride, the never-failing vice of fools."

"A little learning is a dangerous thing," and,

"To err is human, to forgive divine."

By him we are introduced to the Hon. Mr. "Lo, the poor Indian," and from his works, too, we oft hear quoted:

"Beauty draws us with a single hair."

"Whatever is, is right,"

"The proper study of mankind is man."

"Order is heaven's first law."

"An honest man's the noblest work of God."

"Just as the twig is bent the tree's inclined."

"The feast of reason and the flow of soul."

"Honor and fame from no conditions rise;

"Act well your part, there all the honor lies."

[Phrenological Journal for August.

THE HERALD OF HEALTH—Contents for August, 1879.—Physiological and Sanitary Marriage and Parentage—By the Editor, (S). Diptheria; what It is and how to Cure It—By M. Cora Bland, M. D.; Vegetarianism in England—By E. F. Bacon; Breaking a Child's Will—By Edwin Faxon; Fear not; Song; Other Mothers; The End of Life; The Summer Exodus from Cities; Society to Promote Studies at Home; Average Sickness of Mankind; Mary W. Mitchell's School; The Prince Imperial of France; A Veteran Hygienist; Linseed Meal Poultice; Sulphur in Diptheria; Methods of Making Bread; Graham Biscuit; Sifted Crackers; Oatmeal Rolls; Gluten Crackers; Cream Crackers; Unleavened Loaf Bread; Cake; Gems; Overexercise for the Heart; Summer Beverages; Current Literature; Health Foods. M. L. Holbrook, M. D., Publisher, 13 & 15 Laight St., N. Y.—$1 a year. Single Copy 10 cents.

The most healthy and intellectual children are born of mothers between 25 and 35 years, and of fathers between 30 and 40 years of age. If the father is very old and the mother young he does not contribute to the molding of the frame of the child and giving it energy and character; but the mother does this, and rarely would a child born of such a union be well developed physically, or possess a harmonious intellectual nature.

The average stature of man is about three inches greater than that of woman, and in the physiological marriage any great deviation from this should be avoided. A very tall man should not marry a very short woman, a very large man should not marry a very slight woman. The man should have broader shoulders than the woman, and the woman should possess more expanded hips than the man. The latter is of great importance for the welfare of the children.

Although women, as a rule, do not contribute so much of the muscular system as men to their offspring, yet from this it must not be inferred that the mother can to advantage lead a sedentary life without injury to her offspring; and here is one of the dangers which men run in seeking for wives the daughters of the wealthy, providing their daughters are educated in the accomplishments and exeused from all labor.

The strongest children are born of mothers who can and do work with their hands. Too much labor or drudgery, however, is not beneficial; but even this is better than idleness. Walker says in his work on intermarriage, that any excessive employment of the muscular or intellectual organs of woman so much unfits her for the highest motherhood. And he might have added that laziness and effeminacy unfit both sexes in a very high degree for parentage.

The age at which a physiological marriage should be consummated is after maturity of the physical powers is attained. If before this the children will not be as highly organized as they might be. Very young marriages are decidedly unphysiological.—*Herald of Health for August.*

THE MIDSUMMER HOLIDAY SCRIBNER.—Since the publication of the first Midsummer Number in 1876, Scribner for August, prepared with special reference to summer reading, has become the literary feature of the summer. The sales of the magazine have increased to such an extent during the past eight months, that the publishers are warranted in printing a first edition of 100,000 copies of the issue for August, 1879. It is thought that this number compares favorably, if it does not excel all previous Holiday issues, one of which was pronounced by the Boston Transcript, the finest example of periodical literature ever put forth. Some of the specialties of the August number are: Whistler in Painting and Etching, with ten engravings of his pictures; a brilliant article affording in its cuts an opportunity for some of Mr. Cole's finest work; the opening chapters of a serial story by Henry James Jr., in the international school which has proved so popular in Daisy Miller, etc, to continue six months; a portrait of Whittier, accompanied by an essay on his literary work by R. H. Stoddard, and illustrated with views of the poet's home; A long poem by Dr. Holland, with two by Bayard Taylor, and shorter poems by Mary Mapes Dodge, Celia Thaxter and others. Other richly illustrated articles are, "A Peep into Antwerp and Holland; Field and Forest Insects, with the wonderful pictures engraved by Henry Marsh, The Cook of the Confederate Army, etc; Short stories and sketches by Charles Dudley Warner; Out of the World—a Shaker story, Frank R. Stockton; Our Archery Club, Noah Brooks; Lincoln's Imagination, Mary Hallock Foote; The Cascarone Ball, and others. Price of this number (160 pages), 35 cents.

MARRIAGE AS A TEST.—How remarkable it is that whenever an enthusiast in religion gets new light, and adopts what he considers "advanced views," he almost invariably begins to tamper with marriage! In this tampering he always betrays the charlatan, and sufficiently warns all who are tempted to follow him to beware of him. There is no better test of a new system or scheme of life than its relation to Christian marriage. If it tampers with that it is always bad, and can by no possibility be good. The Shakers form a community built on this rotten foundation. They destroy the family, root and branch. They have no place for love, and enter into a determined and organized fight with the God of Nature, who, by the strongest passions and impulses He has ever implanted in the human soul, has commanded them to establish families and homes. Shakerism is good for nothing if it is not good universally, if it ought not to be adopted universally. But universal adoption would be the suicide of a race, and a race has no more right to commit suicide than a man. Besides, the damming of one of the most powerful streams in human nature only sets the water back to cover the banks it was intended to nourish and to drain. It is too late to talk about the superior sanctity of the celibate. We have no faith in it whatever. The vow of chastity simply emphasizes in the mind the passion it is intended, for spiritual reasons, to suppress, and fixes the attention upon it. The Shaker, in denying love to himself and all the hallowed influences that grow out of family and home gains nothing in holiness, if he do not lose irretrievably. He is the victim of a shocking mistake, and he disgraces himself and his own father and mother by his gross views of an institution before whose purity and beneficence he and his whole system stand condemned.

Of course we do not need to allude to the Mormon. His views of marriage—revealed, of course—are simply beastly. But these new schemes of life, religion and philosophy are constantly springing up. It is very difficult for any system of socialism to establish itself without tampering with marriage, and one of the best arguments against all sorts of communities and phalansteries and what-nots of that sort, is that the family, as a unit, is unmanageable within them. They can take in and organize a miscellaneous mass of individuals, and provide some sort of a dirty substitute for marriage, but the family bothers them. It is a government, that they cannot get along with. So the marriage test is a good one in all cases of the kind.—*Midsummer Holiday Scribner.*

THE RIGHT HAND RECORD AND READY REFERENCE is a hand-book for advertisers designed by Mr. H. P. Hubbard, an advertising agent at New Haven, Conn. It is indexed with reference to a territorial grouping of papers. An idea of its accuracy may be had from the fact that under "South Gulf States" are grouped Kentucky, Tennessee and Arkansas; Missouri is in the "Northwest," and West Virginia is a "South Atlantic" State. A list of co-operatives are added. The list of papers and circulations (estimated) occupy one-half the page, the remaining half being left blank for memoranda. The price of the book is $2.50. As accurate a directory may be had from any of the large agencies gratis.

USEFUL HINTS.

THE INFLUENCE OF GASLIGHT UPON THE EYE.—The German Minister of Instruction has recently issued a report on the influence of gaslight on the eye. The conclusion arrived at in this report—the result of frequent conferences with well-known physicians—is that no evil results follow a moderate use of gas, if the direct action of the yellow flame on the eye is prevented. For this purpose screens or shades are employed. Very grave objections, however, exist to the use of zinc or lead shades, most evils affecting the eye being traceable to them. Their use, it is said, inevitably tends to blindness or inflammation, and other harmful effects. The milky-white glass shade is the best, as it distributes the light, and has a grateful effect on the eye. The burner should not be too close to the head, as congestions of the forehead and headaches result from the radiated heat. The glass plate below the gas, employed in some places, is especially useful for the purpose, as it causes an equal distribution of light,—necessary where a number are working at one burner,—prevents the radiation of heat, and tends to a steady illumination by shielding the flames from the currents of air. In cases of highly inflamed eyes, dark-blue globes can be very beneficially employed. With precautions of this kind, no evil effects from the burning of gas can be feared.—*Boston Journal of Chemistry.*

A COTTAGE WATER-FILTER.—Those who cannot afford to buy a filter may easily make one. Stuff a piece of sponge in the hole of a flower-pot, place above this a layer of pebbles, then a layer of coarse sand, and above this a layer of pounded charcoal three or four inches in depth. Another layer of pebbles should be placed above the charcoal to prevent it from being stirred up when the water is poured in. The contents of the flower-pot should be occasionally renewed. But by a small addition to this a cottage filter may be made, which, for practical use, is quite equal to the most expensive filter of corresponding size. It consists of two flower-pots, one above the other, the lower one fitted with a sponge and filtering layers above described, and the upper one with a sponge only. The upper pot should be the largest, and if the lower one is strong the upper one may stand on it, or a piece of wood with a hole to receive the upper pot may rest on the brim of the lower one. The two pots thus arranged are placed upon a three-legged stool with a hole in it, through which the projecting part of the lower sponge passes, and the water drops into a jug placed below. The upper pot serves as a reservoir, and the sponge stops the coarser impurities, and thus the filtering layers of the lower one may be used for two or three years without being renewed if the upper sponge be occasionally cleaned. Care must be taken to wedge in the upper sponge tightly enough to prevent the water passing through the upper pot more rapidly than it can filter through the lower one.—*Leisure Hour.*

RELIEF FOR BURNING FEET.—To relieve burning feet, first discard tight boots; then take one pint bran and one ounce bi-carbonate of soda, put in a foot-bath, add one gallon of hot water; when cool enough, soak your feet in this mixture for fifteen minutes. The relief is instantaneous. This must be repeated every night for a week or perhaps more. The bran and bi-carbonate should be made fresh after a week's use. Bi-carbonate of soda can be purchased for a small price per pound from wholesale druggists. The burning sensation is produced by the pores of the skin being closed, so that the feet do not perspire.

TO PREVENT THE HAIR FALLING OUT.—The common application, in Oriental countries, is the bruised bulbs of the *Asphodelus bulbosus*, garlic or onions, mixed with gunpowder. An infusion of the small leaves of the orange or lemon tree in red wine, containing twenty grains of tannin per litre, has also proved serviceable.

For Women.

CONDUCTED BY MISS FAITH RIPLEY.

RETROSPECTION.

BY "BOHEMIAN DASH."

A ROSE, a leaf, two broken rings—
Mama, why keep these worn old things?

A lock of hair, a picture—see!
Can all these things come play with me?

A piece of whip, an old kid glove;
A card, with "*love*," "love."

A picture with blue eyes is here,
And two hearts on it—oh, so near!

And here's some violets stowed away;
Please may I play with these to-day?

I wonder if you mean to keep
These queer old things in here asleep!

No, no, my babe, my dark-eyed pet,
You must not touch these trifles—yet.

The leaf, and rose, and other things,
I've kept with thoughts kind memory brings.

That picture, with the eyes of blue,
Once loved Mama—if sighs be true.

The violets hide a thought of home—
So let the tiny things alone!

I could not, darling, give you these
Old broken rings nor withered leaves.

A token bright they are for me,
Of friends now far beyond the sea.

The baby-face looked into mine,
And said: "*I'll play with these some other time.*"

[New Orleans Times.

"HOME PROTECTION."

An Argument for Woman's Temperance Ballot.

BY FRANCES E. WILLARD,
PRESIDENT OF ILLINOIS W. C. T. U.

WOMEN DO NOT WISH TO VOTE.

"But women do not want to vote." This is the last ditch of the conservatives. The evolution of temperance sentiment among women hitherto conservative refutes this argument; yet I confess

there are many who do not yet perceive their duty. But Jack's beanstalk furnishes only a tame illustration of the growth of women in this direction in the years since the Crusade. Of this swift growth I have already furnished abundant proof. It is, in my judgement, the most solid basis of gratitude on this national anniversary.

During the past years the brave women who pioneered the equal suffrage movement, and whose perceptions of justice were keen as a Damascus blade, took for their rallying cry: "Taxation without representation is tyranny." But the average woman, who has nothing to be taxed, declines to go forth to battle on that issue. Since the Crusade, plain, practical temperance people have begun appealing to this same average woman, saying: "With your vote we can close the saloons that tempt your boys to ruin"; and behold! they have transfixed with the arrow of conviction that mother's heart, and she is ready for the fray. Not rights, but duties; not her need alone, but that of her children and her country; not the "woman," but the "human" question is stirring woman's heart and breaking down her prejudice to-day. She begins to perceive the divine fact that civilization, in proportion as it becomes Christianized, will make increasing demands upon creation's gentler half; that the Ten Commandments and the Sermon on the Mount are voted up or voted down upon election day; and that a military exigency requires the army of the Prince of Peace to call out its reserves.

The experience which opened the eyes of one cultured conservative in Illinois is here in point.

Mrs. Blank was my companion at the Capitol, where, with other ladies, we spent several weeks in the endeavor to secure legislative support for our Home Protection measures. One of the members, when earnestly appealed to, replied, with a rueful grimace: "Ladies, when I tell you the leading towns in the district I represent, you will see that I cannot do as you wish," and he rattled off such names as "Frankfort, Hamburg, and Bremen," wished us "the success that our earnestness merited," and bowed himself out.

"Why—what—does—he—mean?" inquired my lovely Conservative, in astonishment.

A committee clerk stood by, who answered, briskly: "Why, ladies, the Hon. Mr. A represents a district in which German voters are in the majority; therefore, he cannot support your bill."

"Why, I thought a lawmaker was to represent his own judgment and conscience," murmured the sweet-voiced lady.

"His judgment, yes; for that tells him on which side the majority of votes in his district is located. His conscience, no; for that would often cost him his chances for a political future," answers the well-instructed youth.

"O-o-oh!" softly ejaculated Mrs. Blank, in the key of E flat, minor scale.

By this time Hon. Mr. B entered; in response to our invitation, of course—he never would have come on his own motion. After a brief conversation, he pledged himself to vote for our bill and to make a speech in our favor. Nevertheless, if you should glance over the list we are carefully preserving and industriously circulating in Illinois, of men who voted against us, you would find his name. Nevertheless, he is an honest fellow in his way, and we owe it to a motion made by him that women were, for the first time in history, allowed to speak before the legislature of Illinois. He explained his desertion of the temperance cause in this way: "I tell you, ladies, I've got to go back on you. I'm leader of my party in the House, and they've cracked the party whip mighty lively around my ears. The long and short of it is, I've got to represent the men that voted me in."

Poor Mrs. Blank! How appealing was her voice, as she replied: "But I am sure your better nature tells you to represent us." Hon. Mr. B brought his great fist down on the table with a stalwart thump, and said: "Course it does, Madam; but, Lord bless you women, you can't stand by a fellow that stands by you, for *you hain't got any votes.*" Just here a young lady of the group piped up: "Oh! but we would persuade our friends to vote for you." "Beg pardon, Miss; but you couldn't do nothin' of the kind," said he. "Don't you s'pose I know the lay o' the land in my deestrict?" The young lady now grasped the other horn of the dilemma, saying, desperately: "But we will get the temperance men in your district to vote against you if you desert us in this manner." His rejoinder was a deplorable revelation to our simple-minded company: "Never a bit on't, Miss. The temperance men are an easy-going lot, and will vote the temperance ticket anyhow. Old dog Tray's ever faithful! We've ignored them for years; but they come up smilin' and vote the Republican ticket all the same. You'll see!" "But won't you stand by us for God and home and native land!" pleaded Mrs. Blank, with a sweetness that would have captured any man not already caught in the snares of a German constituency. The worthy politician thumped on the table again, and closed the interview by saying: "You women are altogether too good to live in this world. If you could only vote, you'd have this legislature solid. But I'm bound to stand by such a conscience as I've got, and it tells me to stick to the fellows that voted me in. Good-morning!" And he got speedily out of the range of those clear, sad eyes.

Hon. Mr. R (an ex-senator) came in. With all the vehemence of his Irish nature he anathematized the "weak-kneed temperance men." "Sure as you're living, I told you the truth," said he. "The temperance men are a hissing and a by-word. They're the foot-ball of parties. There's none so poor to do 'em reverence. Where are the plucky young fellows that were here when we gave Illinois her present local option law?" (By the way, that law bears the name of this valiant senator, who is, by the same token a Democrat) "Where are they? Out in the cold, to be sure. Did the temperance folks remember their services and send 'em back? Not a bit of it. But the whisky men didn't forget the grudge they owed 'em, and they're on the shelf to-day—every last man of 'em." "I tell you," and the wise old gentleman gesticulated wildly in his wrath, "until you women have the power to say who shall make the laws and who enforce 'em and to reward by re-election them that are faithful to your cause and punish by defeat them that go back on it, you may hang your respective bonnets on a high nail, for you'll not need 'em to attend the funeral of the liquor traffic!" "Why," exclaimed one of the ladies, confusedly, "you don't mean to say that the temperance ballot is not enough, and that we must follow in the footsteps of Susan B.——?" The sturdy old gentleman walked to the door, and fired this Parthian arrow back at us: "Susan could teach any one of ye your a-b-abs. This winter's defeat'll be a paying investment to ye all, if you learn that a politician is now and ever will be the drawn image, pocket edition, safety-valve, and speakin'-trumpet of *the folks that voted him in.*"

The ladies drew a long breath. "I begin to see men as trees walking," slowly murmured sweet Sister Blank.

"But we must abide the Lord's time," warningly uttered an old lady, who had just arrived. To her the brisk committee clerk ventured this answer: "But Senator R. says you'll find the Lord's time will come just about twenty-four hours after the women get their eyes open!"

A temperance member of the House is the last caller whom I will report. He spake in this wise: "Ladies, I pretend to no superior saintship. I am like other men, only I come from a district that would behead me if I did not stand by you. I have a pocket full of letters, received to-day from party leaders at home, assuring me I run no risk." At the close of three weeks of such a school as this, one of our radicals asked Mrs. Blank, chief of conservatives, this pointed question: "Are you still for the Home Protection vote alone, or for the ballot on all questions?" She replied, in thrilling tones and most explicit words: "Any woman who could have shared our bitter experience here without desiring to vote on every officer, from constable to President, would be either a knave or a fool."

MAKE SELF-INTEREST OUR ALLY.

This lady reasoned that, since we are solemnly bound to be wise as serpents, we must harness self-interest to our on-moving charity. The great majority of men who are in office desire to be re-elected. By fair means, if they can; but to be re-elected anyhow. Only in one way can they bring this to pass: by securing on their side old King Majority. If we furnish them with a constituency committed to the proposition, "The saloon must go," then go it will, and on the double quick. Let the city council know that women have the ballot, and will not vote for them if they license saloons and they will soon come out for prohibition. Let the sheriff, marshall, and constable know that their tenure of office depends on their success in executing the law thus secured, and their faithfulness will leave nothing to be desired. Let the shuffling justice and the truckling judge know that a severe interpretation of the law will brighten their chances of promotion, and you will behold rigors of penalty which Neal Dow himself would wince to see.—To be continued.

INEXPENSIVE HOUSEHOLD DECORATIONS.

When furnishing a home, the first thought should be in regard to the appearance of the walls. Sleeping-apartments and kitchens are effective when painted, but if this be too expensive an undertaking, a little coloring material, such as Prussian blue, ultramarine blue, chrome-yellow or lake, according to the tint required, may be mixed with the kalsomine, the effect of the latter when properly applied being just as satisfactory as paint. Sitting-rooms, parlors and dining-rooms are very pretty when either painted or papered, paper being the least expensive, unless it be of a superior quality.

Tidies for chairs and sofas, covers for tables, and mats for the various vases and miscellaneous ornaments to stand upon, add much to the charm of a room, and their cost is but a trifle when made at home. Pretty and inexpensive articles of this sort are made of Java canvas, embroidered in fancy designs with wools of uniform or shaded tints. This canvas can be purchased in several different shades of red, yellow, drab and brown, and also in black and white. The color of the worsted may either contrast or harmonize with the canvas, one, two or three contrasting shades being the most effective when tastefully commingled in the pattern. "Daisy" tidies are dainty in effect and easy to make, and the material required for them costs but a mere trifle. They are made of bleached muslin, white lawn or Swiss muslin, cut in circles about two or three inches in diameter and gathered closely about the edges, which are by this means drawn to the center of the circles on the upper side, where they are concealed under a rosette of bright-yellow worsted. These little "daisies," which bear a striking resemblance to those gathered from the fields of Nature, are joined together in star, diamond or other fanciful shapes, and are very pretty when fastened to the back of the chair, lounge or sofa. Sometimes red, blue, pink or violet worsteds are used, but the effect is not so natural and consequently not so much admired. A toilet-set always consists of a bureau or dressing-case cover, a pin-cushion and two small mats, all of which may be embroidered Java canvas.

An airy set may be made of paper-muslin or Silesia, overlaid with plain or dotted white Swiss, bordered with deep lace or lace-edged ruffles of the material. The paper-muslin should be of some delicate shade of blue, pink, gold or green, or else of cardinal-red, and should be cut to fit the bureau or dressing-case smoothly. The cover is bordered with ruffles of the same neatly pinked out at the edges, and after being fastened smoothly to the bureau, is overlaid with the Swiss cover, through whose delicate, transparent texture the color of the under-cover is prettily displayed. The cushion and mats should be made to harmonize with the cover. Paper muslin is preferable to Silesia, as it holds the lace out better, and when the unglazed side is turned out, the difference is not perceptible unless closely examined.

Pretty corner-brackets may be made of pieces of common wood, cut to fit snugly in the corners, and covered with embroidered canvas, or with cashmere, flannel, merino or silk, either painted, embroidered, or decorated with *decalcomanie* pictures. These little articles very effectively decorate vacant nooks, and may be made to hold a tiny statuette, pretty shells, a vase of flowers or other tasteful ornament.

To keep a house orderly, and to prevent newspapers, journals, etc., occupying every table, chair and stand in the room and even the floor, as the thrifty housewife too often finds them so disposed of by her forgetful better-half, there should be wall-pockets or paper-receptacles of some kind. These articles may be made of pasteboard, covered with colored or fancy paper of some kind, or with cashmere, silk, embroidered canvas or any other desirable fabric. *Decalcomanie* pictures, silk or ribbon ruchings, gilt-paper bordering, hand-embroidery or painting will decorate them charmingly.

Beautiful little receptacles for flowers and miscellaneous articles can be made of splints, spirals or straws, and bright-colored worsted or narrow ribbon or chenille. Frames for small pictures, dainty baskets, easels, sewing-baskets, hair-receivers and many other useful and pretty articles are made of splints, and their cost is the merest trifle.

For large pictures, and small ones too, for which frames cannot be conveniently purchased, very effective frames may be made of paper-muslin. No doubt paper-muslin picture-frames will sound queer to many, and some will smile at the idea of such a thing, but they are really pretty when tastefully constructed, and the suggestion will be readily seized upon by the home-loving woman, who likes to adorn her house, but is sometimes very much puzzled to know how to do so with a very small sum of money. The paper-muslin may be either black, or a very dark brown or cardinal shade, as these resemble most closely the colors of the dark wood usually employed in the manufacture of such articles; or it may be of any of the gold shades, to resemble gilt. It is cut in strips of a width to suit the size of the picture—a large picture needing a frame at least three inches wide—and joined together. One style of frame has the edges pinked out, with the strips laid in double-box plaits made very close together and tacked through the middle of the frame under soft tufts of bright-colored worsted. Another kind has the strips shirred through the center and at each edge over thin wire. Both kinds are pretty and may be used in the same room to give variety. After the muslin is shirred or plaited, the picture is fastened at the edges to a thin board or a piece of thick pasteboard, which should extend sufficiently beyond the margin of the picture to support the frame. The plaited or shirred muslin is then fastened by tiny tacks to the board, and a large bow of ribbon is placed in each corner. The wired frame should bulge outward at the center, and the plaited frame may be left perfectly flat, or the opposite ends of the plaits may be caught together with a charming effect.

A goblet, from which the shank has been broken, may be utilized in the following pretty way: It must be first concealed in a crocheted or knitted cover of some bright-colored worsted, and suspended by picture-wire from the center of the ceiling or window. It is then filled with water, in which may be placed myrtle, wandering Jew, sweet potato, or any two or three vines that will grow in water. If climbing and trailing vines are both used, the climber may be trained up along the suspension wire, while the other will droop prettily over the sides. The water must be renewed at least weekly, if the room be any way warm.

The crowning ornament of all is the fire-place fernery. It is very simply and cheaply made, and yet is one of the handsomest decorations for a parlor, sitting-room or dining-room. A box, about three or four inches deep and fitted perfectly to the fire-place, so as to present the appearance of being a portion of the mantel, is made of common wood, lined with tin or zinc so as not to leak, and then painted in any color that will best accord with the color of the mantel. If the mantel is white marble, the box is more effective when black. A very simple and inexpensive method of imitating ebony is to blacken the box with burnt wood and then coat it with black varnish, which must be well applied so as to produce a good polish. All communication with the chimney should be well shut off, and the back of the fire-place covered with panel-paper, which may portray a "deep and gloomy wood," a gleaner, a stork, Cupid in a bower of roses, or any scenery preferred. The box is then furnished with rich soil, and well filled, but not crowded, with ferns surrounded by moss; and if the fire-place is very large, moss-covered rocks may be used with a charming effect for filling in. In this event, the ferns should be planted between the rocks; and the more natural the arrangement, the handsomer the result. Every particle of earth should be covered with moss, and an ivy placed in each end of the box should be carefully trained along the margin of the fire-place to simulate a bower. The roots and foliage of the plants should be well watered every day, as ferns require a great deal of moisture.

This arrangement makes an exceedingly handsome fire-place ornament, and so long as careful attention is bestowed upon it, the fernery will keep nice and green and will continually be improving in appearance. A fancy mat of some kind placed in front of the fernery will lighten the pretty effect of the room so decorated.—*Delineator for August.*

TALKING.

Talking is an art too much neglected among a large class of people. The importance of its cultivation can not be too highly valued for the pleasure which a brilliant talker gives to a company cannot be equalled by any other art.

I do not mean to say that its charm is greater than that of music; for nothing is more elevating and refining in its influence, nothing can so quickly soften and subdue the feelings as the sad and mournful passages, or so quickly enliven as the joyful strains of music, but after listening to music for a certain time its pleasure begins to pall. We want to be engaged in something more active than merely listening. One very seldom becomes tired of talking with people who are gifted with conversational powers.

But how often do we meet people, who have spent years and years in study, people whose knowledge is really encyclopediac, but who are utterly unable to entertain others with their conversation. Many who are greatly their inferiors in education, shine brighter in society. These latter possess the faculty of imparting what they know, while the others do not receive credit for knowing as much as they do, simply because they have not cultivated their social natures. They find that their society is not so much sought after as that of the other class, and it is not strange that it is so, we would all rather read a cheery interesting book, than one which contains only dry facts.

It is not what we know, but what we are capable of telling that makes our company desirable. Sometimes it is a lack of words and sometimes a lack of ideas that causes us to fail in our attempt to converse. Then awake and shake off the indolence that prevents your mental faculties from performing their office. Form opinions on everything and compare them with the opinions of others; arrange your thoughts before uttering them, and cloth them, in choice language. Here is another difficulty to overcome, your thoughts have for so long been allowed to wander at will, that it will require all your energy and determination to confine them to any particular subject. But do not become discouraged, make every possible effort to overcome the deficiency, and I have no doubt but that you will be successful. I. F.

Millersville, Saundusky Co., Ohio.

REPLY TO FAITH IN RURAL OF JULY 12.

I have a word to say in reply to Faith on the question whether religion and worldly prosperity go together. Does not the sober, second thought tell us that, although they may go in company, they do not necessarily do so? Will not observation show us that in the majority of cases, very rich men become so by notoriously violating every divine law? Does it not seem like making a contract with the Lord if we say, or, in effect say to Him, "Prosper us in worldly matters, and we will give largely to Thy cause?" It looks like working well from too low a motive. God says, "He maketh His sun to shine on the evil and on the good, and sendeth rain on the just and upon the unjust," and are not evil doers prospered if they conduct their affairs on business principles?

The mistake seems to be in supposing that the good things promised in the Bible mean riches and worldly honors, and that happiness is inseparable from them. But if God "withholds no good thing from those who walk uprightly," then will He not give us riches if we are upright, if He sees that they are good for us to have? We can all call to mind persons who are rich in a worldly point of view, but who, on account of undisciplined tempers or evil tastes, are anything but objects of envy; and do we not also know those who are obliged to toil for a livelihood and are destitute of the luxuries which wealth brings, and who are yet truly happy because they possess that serenity of mind which peace with God brings? We cannot all be rich in worldly goods, whatever we do, in this uncertain world, but by loyalty to the principles of right laid down in the Scriptures, we may have what riches cannot buy. B. C. D.

CORRESPONDENTS' CORNER.

I have been very much interested in the Woman's Club, but I think dish washing and silk dresses have been discussed enough. We all have dishes to wash more or less, and we that are mothers have more disagreeable tasks than even dish washing, but we can't get the consent of our minds to use the very primitive dishes that our good Mother Eve used, so I think submission without so much complaining, would become us just as well. I like the fashion plates that appear from time to time in the Rural. Has any Rural reader tried the Horsford bread preparation and with what success? please state through the Rural and oblige a constant reader. Mrs. S. J. W.

Salem, Marion Co., Oregon.

I read with much interest that "argument for the woman's temperance ballot," and I can say, for one of "the lords of creation," that I would be perfectly willing to put the excise ticket in the hands of the women as the excise law now stands in this State. Although I cannot place confidence enough in them on political questions, yet I deem the temperance question perfectly safe in their hands. Yours truly, Wm. C. L.

Berkshire, N. Y.

The rubber rollers of wringers soon crack with use and need to be replaced. They may be mended by winding a piece of new factory or cotton flannel smoothly around the damaged place and sewing it across evenly. I think it might be well to sew a piece of cloth the whole length of the roller when the wringers are new; it would preserve them much longer. Aunt Rachel.

Please ask some one to give a design for piecing a remembrance quilt, one that will require only one block of each kind of print, and not so large that where you have but little of some friend's dress you will be obliged to leave it out.

Constant Reader.

Domestic Economy.

CONDUCTED BY EMILY MAPLE.

MRS. ENDICOT'S JOURNAL.

Children's photographs; birth-day; white apron; handsome tidy; two ways to prepare apples; Sunday dinners; young chickens; hard-boiled eggs.

August 2.—"Can't you go down to W——'s this morning?" asked Barton of me at the breakfast table, this same W—— being what we consider our best photographer. At first it did seem impossible on that warm day to make the needful exertion to dress the children and myself and then spend an hour, or perhaps more, in those hot rooms; but the remembrance of the long-deferred promise to Grandmama Endicot changed my no to a "Yes, we will go just as soon as we can get ready." For one thing, I was glad to go while the little folks felt fresh. Baby Katy proving willing to be so soon redressed, it did not take long, for only their usual "go-to-meeting clothes" were worn, for I wanted Grandmama to have the children's photographs as near like themselves as possible. We had intended to have a group, but Mr. W—— advised differently, Harry being so dark, and Della so fair. Finally we had full-length cabinet pictures, which gave perfect satisfaction, when they came home on Saturday. Barton had purchased an album for holding cabinet-sized pictures in the front, and as my contribution I placed in it a card on which was painted a cluster of daisies and violets, with the date of the children's pictures. Harry then rode down to the express office with it, for it must reach Grandmama in time for her birth-day. But I hardly think she will enjoy receiving it more than the children have enjoyed helping to prepare it. Birthdays are always kept in some way at our house; sometimes the way has to be very simple, but I think the increase of kindly thoughts it brings, is an ample repayment.

When I ran into Mrs. Kay's this afternoon, I took mental notes of an apron her niece, a young lady who is visiting her, had on. I thought it was very pretty and it brightened up a dark dress wonderfully. It was made of a plain breadth of Swiss, and was a little more than half a yard long. There was a row of Italian inserting across the bottom, and just below that was a plaited ruffle, about four inches deep, finished with a narrow Italian edge. There was one pocket made of the inserting and edge, and finished with a bow of blue ribbon, of which the band was also made, which was fastened at one side with a loop and two ends about six inches long. She was working at a very pretty tidy. She told me it was made of a piece of cream-colored Silesia half a yard wide, and the length of the tidy was the width of the goods. An edge of scarlet zephyr was crocheted all around it. In the center, looking as if painted, was a bunch of flowers covering a space of about six inches long and four broad, cut from chintz and hemmed on with fine thread. There was also a small cluster in each corner. I don't think I ever saw anything prettier for the time spent on it, and the expense was trifling—not more than thirty cents.

August 9.—This has been a most busy Saturday, the work of two days being crowded into one; but there is a very appetizing odor when the pantry door is opened. Four loaves of white and two of brown bread, the crusts wet with cold water, and each loaf rolled separately in a cloth, are leaned up against a pan on the bread board, to get perfectly cold. While the bread was in the oven, I prepared a large baking-dish of apples as for sauce. Part of them I put in a shallow dish and covered with a crust made as for pie. When the bread came out, both were put in the oven. In about half an hour the apples were tender and the covered dish was nicely browned. I took off the crust, placed it on a plate, mashed the apples with a spoon, and added a good-sized piece of butter and plenty of sugar, and then put on the crust. With the addition of rich sweet cream, when eaten for dinner, Barton said "it was a dish fit for a king," and I knew it to be much less hurtful for the stomach than the customary pie or pudding.

The other dish was just sweetened, and set away for Sunday's dinner. We all think apple-sauce when cooked in this way, is much finer-flavored than in any other. Della says, "dinner is always better on Sunday, than on any other day;" yet it is always cold and prepared the day before, excepting the coffee. For to-morrow we are going to have cold chicken, hard-boiled eggs, apple-sauce, sliced tomatoes and coffee, with a plentiful addition of boiled milk for the children. The chickens were prepared by splitting them down the back with a sharp knife, then washing and wiping them dry, seasoning with pepper and salt, and baking them in a moderate oven three-quarters of an hour. Young chickens are much nicer prepared in this way, than in any other, when they are to be eaten cold.

The eggs were boiled briskly for half an hour, and then dropped into cold water, a plan which keeps the yellow from getting dark. As for the coffee, I don't think all the children get will hurt them. I prefer they should have the warm drink than cold milk or water. Since Aunt Hatty's visit I have always boiled the milk for coffee, using it while hot. We consider it a great improvement.

Harry is reminding me of my promise to come and help him decide which pair of chickens shall have the honor of appearing at our county fair, the last of September.

A LETTER.

DEAR MRS. MAPLE:—How is it that people who write and advise others so seldom practice what they teach? How is it that the Agricultural or Horticultural writers, dreaming over their theories and advising others, are so frequently remarked upon for being so impractical? Even their servants seem to partake of the spirit of the masters, and go about with a dreamy, listless air, as if, somehow or other, the work would do itself.

There is no rule without exception, and I do not wish to imply that all writers are of necessity impractical, for, of course, my experience is limited to a very few. I have observed the same thing in women who write from a domestic standpoint. The most impractical and uncomfortable housekeeper I ever knew writes for a weekly paper, and writes well, which brings a smile to the faces of all who read her articles—at least, within the limits of her acquaintance. It was said of a lady, who shall be nameless here, that, although she published a very good work on cookery, her house presented a scene of confusion which would bring to mind Dickens's description, in "Bleak House," of Mrs. Jellyby in her domestic relations, a scene so well described that, once read, it can never be forgotten.

A good recipe, that has been thoroughly tested, should not be condemned; but the truth is that many recipes are sent out by persons who know nothing about them except from theory, and if followed, they would result very much after the fashion of the Frenchman's plum-pudding, when he said, "I copied ze recipe and put ze puddin' in ze pot, and, *mon Dieu!* ven I took it out, it vas soup."

Mrs. Harriet Beecher Stowe, in her "Minister's Wooing," describes most graphically the preparations for an old-fashioned New England tea party. She sent her heroine into the kitchen to make cake, with the remark that, whatever recipe she followed, to be sure to put in plenty of faculty. "Faculty, my dear child," said her mother, "is a very important ingredient in the cake." I agree with Mrs. Stowe that faculty is a very important thing; but in sending out advice and recipes into the kitchens of our farmers and other families, it should be borne in mind that the best judgment is not always there.

A little conservatism in household matters, and especially in the culinary department, I would heartily recommend to all housekeepers, as also to be cautious in trying new experiments. Stick to the good old ways as long as they are good—but here I am giving advice, and that is something I had no intention of doing. MRS. M. H. S.

HANGING-BASKETS.

I WOULD like to tell the lady readers of the RURAL how to make hanging-baskets at a slight expense, at least for less than the actual cost of such articles bought in stores, and, to my mind, they are then no prettier than those made at home. Procure a wooden bowl, a stray rusted tin basin or wash-dish, which is the best shape for the present purpose; cover the outside with a coat of putty, and place on it, in rows, groups or clusters, little shells. A row of tiny "dust-pan" shapes are pretty for a border. The contrast of the green leaves drooping over the white shells is very pretty. Or, if shells are not to be had, a "pounded" mixture of bits of different colored glass pressed into the putty makes the uninitiated believe your basket to be made of diamonds, especially when the sun is shining on it. The "snowflake" baskets, made of raveled white cloth, look cool and hint of spicy woods and nodding violets, through the long winter, if filled with ferns and hung in some shady window. Gather the ferns while green and fresh, and pile them on a platter, or even a board, cover them with thick, wet moss, and they will keep moist and green during the winter, to replenish the baskets or vases. Try it.

EVA EDGERTON.

DOMESTIC RECIPES.

Rice Pudding Without Eggs.

I have an excellent recipe for rice pudding without eggs, which I know to be good from experience. Look over and wash a common-sized tea cup of rice. Put into a pudding dish with four quarts of milk, add one pound raisins, a little salt, lump butter, size of an egg, and season with cinnamon. Stir occasionally, until it boils. No pudding with eggs can exceed this, if attended to according to directions.

AUNT EM.

Pumpkin Pie.

Cut the pumpkin into thin slices and steam until tender. Mash and rub through a sieve. To a quart of pumpkin add two quarts of new milk and six eggs. Sweeten to taste, and season with a dessert spoonful each of ground cinnamon and ginger, a grated nutmeg and a teaspoonful of salt. Heat the mixture and pour into pie-dishes lined with paste. Bake until set and delicately browned. E. M.

QUESTIONS ANSWERED.

Tomato Catsup.

Mrs. G. W. B., wishes our recipe for tomato catsup.

ANS.—The directions we append were given us by an acquaintance seven years ago, and we have followed them each season since with entire satisfaction. One bushel basket of tomatoes, three large teacupsful of salt, two tablespoonsful of cayenne pepper, four ounces of whole black pepper, two ounces of whole allspice, two ounces of whole cloves, four ounces of grated nutmeg. Wash the tomatoes, put them into a kettle, and mash as fine as convenient. Add the salt and spice and boil two hours. Then, when cool enough, strain through a fine sieve, careful to rub through all of the pulp. Put back to boil for four hours longer. When cool, bottle, drive in the corks, previously soaked in boiling water, and dip into sealing wax. Invert the bottles and keep in a cool, dry cellar. During the last boiling—four hours, the catsup needs almost constant stirring to keep from burning.

To Green Pickles.

Mrs. Sargent wishes to know how to "green" cucumber pickles with grape leaves.

ANS.—Put into your pickling-kettle, which ought not to be brass, alternate layers of grape leaves and pickles. Press them down and cover with alum water made in the proportions of two small teaspoonsful of powdered alum to a gallon of water. Set the kettle over a moderate heat where the pickles will come to a scald but not to a boil. Cover the kettle closely and let it stand on the back of the stove for four or five hours. Then throw the pickles into *cold* water. Prepare the vinegar and pour over the cucumbers as soon as they are cold.

News of the Week

MISCELLANEOUS.

Monday, August 18th, 1879.

The question whether one State can sue another on account of claims held against the latter by individual citizens of the former is about to be put to the test by New Hampshire. A recent law of that State authorizes the attorney-general upon his discretion to bring suits against other States in behalf of any citizen who assigns his claim to the State and gives a bond to cover the costs of procedure, the net avails recovered to be paid to the individual creditor. A similar law passed the Legislature of New York and was vetoed by Gov Robinson. Thomas B. Potter, M. P. for Rochdale and a well-known English liberal, has arrived in this country and will have a cordial reception. A political pupil of Cobden, he has been his most loyal disciple, and founded the Cobden club to spread his doctrines. Mr. Potter was one of the staunchest friends of this country during the war and will see as much of it now as he can in a brief stay.

During July 12,710 immigrants landed at New York against 8,689 in the same month last year. For the year ending July 31, the increase in immigrants was 27,106. The last report of the British commissioner of customs lays significance on the fact that the value of British exports to this country in 1874 was $141,000,000, and in 1878 but $72,400,000. The "Yazoo" plan has been tried in Rankin county, Miss. A mass meeting of Democrats appointed a committee to order Major D. F. Sutton to withdraw from his canvass and leave the country. Sutton is an old and respected citizen with no offense charged against him except his candidacy. Both the Vicksburg papers condemn this spirit of lawlessness. Yazoo county is quiet now, but the independents are to hold a meeting soon, and more trouble is expected. The New York Herald devotes four columns to recent developments in the Stewart grave robbery. It says that in January a Nassau street lawyer received a letter from Montreal, signed "Romaine," enclosing a retainer of $200, and asking him to take charge of negotiations with Judge Hilton for the return of the body which was offered for $250,000. He also received by express, as an evidence of the good faith of the writers, the silver knobs and parts of the handle of Stewart's coffin, and the coffin plate. The lawyer communicated these facts to the police, but assured Hilton and Mrs. Stewart that the only way the body could be recovered was by the payment of a quarter-million. Hilton refuses to negotiate, and threatens the arrest of the negotiating parties.

Rochester, N. Y., has won a complete victory in its long contest with the New York Central, a fair illustration of the changed relations between railroads and the cities through which they pass. The tracks of the Central cross the streets of the city at grade, and the dispute arose over the cost of the changes necessary to prevent accident. Vanderbilt now offers to raise his tracks 20 feet, crossing the streets on iron bridges, at a cost of $600,000, which is to be paid wholly by the railroad company; the only concession asked being the closing of certain streets. When the tracks of the Central were sunk in New York city at a cost of over $4,000,000, the city paid half the expense, and the railroad, speaking in a general way, got all the profit. The National cotton exchange met at New York Wednesday, John Phelps of New Orleans, calling the convention of 70 members to order. The annual report of the executive council declares that during the last five years cotton culture in the United States has outstripped the most sanguine expectations. The problem of free labor is virtually solved and the South must be regarded as the future reliance of cotton manufacturers in both America and Europe. Taking the average of the last few years, but 31 per cent. of the cotton crop is manufactured in the United States, 69 per cent. going to feed the mills of Great Britain and continental Europe. Reports from all the southern cotton exchanges to July 31, state that the cotton plant is small, but is forming, blooming and boiling well. The reports are generally as favorable or rather better than last year, except that the crop is a little later, outside of Texas. Picking has begun there very much earlier than usual, and the early receipts are expected to be unprecedentedly large, at the expense of later months.

The Tribune says that a further advance in eastbound freights of five cents per 100 from Chicago is contemplated. The present rates which went into effect August 4, are already a large advance over those prevailing heretofore. The new rates are expected to begin August 24. Prominent merchants and planters in Mississippi have sent a delegation of colored men to Kansas, to see how that State is adapted to settlement by negroes. The supposition is that the delegation will return with an unfavorable report, and thus stop the negro exodus. As the party is largely composed of whites, such a supposition may prove true. The people of several counties in Texas are anxious for the negroes to emigrate. The new Tramp law of Pennsylvania goes into effect on the 15th inst. The undesirable residents will leave there shortly. A colored debating society in Lee county, Ga., recently had before it for discussion, "Which are the most benefit to the country—the Lawyers or the Buzzards?" After a heated debate the question was finally decided in favor of the Buzzards.

The present prospect is unfavorable for an early repeal of the order prohibiting the importation of American cattle into the dominion of Canada. It is stated that the imperial government will forbid the importation of Canadian cattle to England if that barrier is removed. The Chicago Inter-Ocean undertakes to prove that the lake region is to become the great center of iron manufacture. Cheap transportation for the Lake Superior ores, easy access to great coal fields, which is specially true of Chicago, Cleveland, Buffalo, Milwaukee and Detroit, and the excellent facilities found at these points for shipping the manufactured products, it is argued, must sooner or later divert this valuable business to lake ports from less favored cities like Pittsburgh.

Up to the adoption of the new constitution, mortgages in California contained a clause providing that the borrower should pay any tax which might be imposed on the value of the mortgage. The new constitution made it a felony to insert this clause in a mortgage and imposed a tax of two per cent. on mortgages, but capital protects itself in California as it does everywhere else; the rate of interest on mortgages has been advanced by the savings banks and other lenders two per cent. and the borrower pays the tax as he did before. The time is not far distant when the Northern Pacific railroad will make good all the early predictions of the enterprise. When its line was pushed to Bismarck, it ran through unoccupied lands; the road is now threaded with villages, and the number of passengers carried in the first quarters of 1877, 1878 and 1879 has nearly doubled in each succeeding year, beginning with 4298 in '77, and reaching nearly 17,000 in '79. The sales of land along the line of the road by the railroad and government in 1878 amounted to 2,000,000 acres, and it probably reached 3,000,000 acres in the year ending June 30, 1879. The crop returns from 34 settlements show that this land averaged 32½ bushels of wheat to the acre and 42½ bushels of barley. The construction of the Northern Pacific is in progress this season at the rate of a mile a day, and is expected to reach the Yellowstone river in two years. Official returns of the census taken March 1 gives Kansas a population of 849,978.

The reports from the United States Consuls on the condition of labor in the several countries of Europe, which have been prepared for publication by the Department of State, show: 1. That wages in the United States are double those of Belgium, Denmark, France and England, three times those of Germany, Italy and Spain, and four times those of the Netherlands. 2. That the prices of the necessaries of life are lower in the United States, than in Europe, and that the laborer in the U. S., were he satisfied with the scanty and miserable fare upon which the European laborer lives, can purchase like food for less money than it can be purchased for in Europe. 3. That the French working people, with far less wages, are happier than the working people of Great Britain, who receive the highest wages in Europe, on account of the steadiness and the economical habits of the former, and the strikes, drinking habits and consequent recklessness of the latter. 4. That more misery results from strikes, drinking, socialism and communism in England and Germany than from all other causes combined, hard times included. A forthcoming report of the Commissioner of Agriculture will show that in the whole United States, except Minnesota, California, Colorado, Oregon, New Mexico and Washington Territory, the average monthly pay of farm laborers has declined during the year ending last April from three to fifteen per cent. At the same time the expenses of living in a majority of the States has declined in equal or greater proportion. In New-York alone,

farm laborers receive eight and three-quarter per cent. less than they did a year earlier, and pay ten per cent. less for their living. In New-England and the Middle States there seems to be a surplus of labor in certain localities and a deficiency in others, which should render the average demand about equal to the supply. The general rate of pay for skilled labor—shoemakers, blacksmiths, carpenters, etc.—is slowly rising, and is believed to indicate a return of better times for farm laborers.

This is the dullest season of the year for news, no Congress or legislature being in session here and most of the foreign legislative bodies having adjourned or dissolved, while the wealthy and well-known folks in general whose doings generally supply most of the "news" of the day are quiet at the watering places, the mountains or in Europe. Accordingly newspapers—live ones especially—are often nonplussed to fill their columns with readable matter, sometimes it is suspected that they invented items; and there's not a bit of doubt but that they grossly exaggerate. Hence a piece of scandal about well-known characters is at this season a delicious morsel to the newspaper press—one that they turn over and over in order to get all the flavor of it. Such a bit of good luck has just befallen them lately. Early last week there was a rumpus up at Narragansett Pier R. I. between ex-Senator and ex-Governor Sprague and Senator Conkling; and Mrs. Sprague, *nee* Kate Chase, daughter of the late Chief Justice, was the cause of the squabble. When Miss Chase caught Senator Sprague, she was thought to have won one of the richest men in the country and had a brilliant future before her. Four or five years ago Sprague Bros. "burst up," however, and since then their vast possessions have been in the hands of trustees. Since her husband's mishap Mrs. Sprague has lived chiefly near Washington, on an estate left her by her father, and for the last couple of years censorious tongues have been busy with her familiar relations with Senator Conkling. Lately she visited her husband's splendid place called Canonchet, near Narragansett Pier, R. I. Shortly after her arrival the ex-Governor made a business trip to this city and then to New Hampshire. During his absence Senator Conkling, at Mrs. Sprague's invitation, took up his residence at the mansion, together with several other invited guests, despite the fact that Mr. Sprague objected to the presence of visitors, on account of the expense, and was bitterly opposed to the presence of the New York Senator on account of the newspaper scandal at Washington. Sprague returned unexpectedly, late at night, retired to his own room and didn't learn of Conkling's presence till next afternoon, down at the village. He posted home at once, ordered the New York Senator out of the house, giving him a specified time to quit and swearing that if he remained longer he would blow the Senator's brains out. Conkling left without his luggage, which was packed after him. Sprague followed with a shot-gun to the village, and there told Conkling that should he ever cross his path again, he must do so armed, as he would kill him on sight. The reason he gave was that Conkling was trying to bring at Canonchet the same scandal on his family which he had already brought at Washington. Mrs. Sprague at first left home for a neighboring hotel, but on her husband insisting, next day, on taking charge of the children—a boy and two girls—she followed them to Canonchet and has stayed there since. She has been very free in giving her side of the affair to the public, but as she talks of Conkling in the highest strain while vilifying her husband, she has hardly benefited her case. There is talk of a separation or a divorce, while there are growing hopes of a compromise. There was a fellow called Lincke mixed up with the matter at first, but he's dropping out as a mere incident. The fellow was engaged as a tutor by Mrs. Sprague without the knowledge of her husband, and insisted on acting as such at Canonchet in spite of the strong objections of the latter.

The executive committee of the New York State Grange and the State Farmers' Alliance held a meeting in Syracuse on the afternoon of the 12th inst., which was presided over by L. H. Bishop, of Jefferson county, Chairman of the State Grange. The meeting was held for the purpose of arranging plans and preparing a programme for the State Convention of the Farmers' Alliance, which meets in that city August 20. It was decided to issue an address to the agricultural and industrial interests of the State, setting forth the grievances under which they labor and the measures that should be adopted to advance their interests. A committee consisting of W. J. Fowler, of Monroe, and W. A. Armstrong, of Chemung, was appointed to prepare and issue the address. They will present the address at the meeting of the Farmers' Alliance. A committee will also be appointed to present to the State conventions of both political parties the names of candidates for the nomination of Governor acceptable to the agricultural and industrial interests of the State on questions relating to railroad transportation, assessment and taxation. No man will be supported by the Alliance who is allied in any way with corporations or monopolies, or whose record is objectionable to the people of the State. The State Grange and the Farmers' Alliance will co-operate with the Board of Trade and Transportation of New York City in its efforts to render legislation less in the interest of corporations. The delegates present declared that in the event of either the Republican or Democratic convention nominating a candidate selected by the Farmers' Alliance, and the other not doing so, the farmers will heartily support the candidate nominated, independent of past party affiliations. They claim that a vast majority of the farmers in the State of New York are either members of or are in sympathy with the Farmers' Alliance, and that they are all determined to stand by each other and follow out this programme. Every grange, town or county alliance, farmers' club or other agricultural society is expected to send delegates to next Wednesday's convention. The State Alliance is composed of delegates from the farmers' organizations of this State, but, by a resolution adopted at its last meeting, all farmers and others favoring the reforms which it asks are invited to attend and take part in its discussions.

FOREIGN.

Bosna-Seraï or Serayebo, the capital of Bosnia, has been visited by a very destructive fire, destroying 1,000 buildings, including the Catholic and Servian churches. Twenty thousand persons are homeless, and the loss is enormous. Holland exports annually 61,000,000 pounds of cheese, and 32,000,000 pounds of butter—an amount which seems truly remarkable for a country of so small extent. The abundant milking properties of the Holland cattle explains this large exportation of dairy products. The London Sporting Life says, that 44 contestants have already entered for the pedestrian match for the Astley belt at Gilmore's garden, New York, September 22.

An American, Colonel Gordon, has for some years been waging a bitter war against the slave dealers of Central Africa, on behalf of Egypt, and at the same time extending the territory of the latter country. He is now Governor-general of Southern Egypt and the latest news from there is dated June 14. It shows that after his Lieutenant, Gessi, had conquered the slave dealers of the Bargazelle district, killing eight of their leaders in battle, taking their chief station by assault, capturing a very large amount of booty and hanging nine of their ring leaders as a warning, he proposed to evacuate the district, after disarming the inhabitants. Upon this plan, the operations to check the slave trade would be confined to rigorously watching privateers and encouraging legitimate commerce. Sulliman, the herder of slaves, who escaped after the last battle, has mustered a force and is pushing for Darfur, where he will find an abundance of discontented spirits to join him. Col. Gordon thought the situation so serious that he hastily returned to Darfur.

There is a serious difficulty in Quebec between French Canadian and Irish Catholic ship laborers. The trouble originated in a split in the Ship Laborers' union, but has now assumed the character of a war of races. A bloody collision occurred on Friday between the two factions in which one was killed and many wounded. Since then the military have been called out and parade the streets, but fights still continue between small parties of the rival factions. The department of agriculture's August returns show a slight decline from the condition in July for cotton. The average condition for the whole country is 91, or a loss of two per cent. since July 1. The condition of spring wheat is 82 against 75 in August of last year. The northern parts of New England and New York have maintained their July condition. The condition of the oat crop is 91 against 100 in August of last year—a slight improvement over the July condition.

The pleasure of bathing is greatly increased by mixing in the tub half or even a quarter of a bottle of MURRAY & LANMAN'S FLORIDA WATER. Instantly the whole atmosphere of the bath-room is as fragrant as a blooming flower-garden, the mind becomes buoyant, and the body emerges refreshed and strengthened.

Hop Bitters strengthens, builds up and cures continually, from the first dose.

THE MARKETS.

PRODUCE AND PROVISIONS.

NEW YORK, Saturday, August 16, 1879.

BEANS AND PEAS.—Marrow beans dull and lower; exports light, 572 pkgs for week. Mediums sell mainly at inside prices: extras, however, held firm. White kidneys neglected. Pea beans scarce and strong for choice. $1.20@1.35. Red kidneys quiet; buyers will not take many at present prices. Black or turtle soup beans scarce and firm, $2.40@2.50. Canadian peas, in bulk and bond, are the only quotable peas, 70@72c. Beans, marrow, prime, $1.35@1.37½; fair to good, $1.17½@1.22½; medium prime, $1.3@1.32½; fair to good, $1.25@1.27½; red kidney, prime, $2.40@2.50; fair to good, $2.20@2.30.

BEESWAX.—For ordinary prime lots 23c is the best price; there are some choice lots held at 24c.

BROOM CORN.—There is a very good sale and firm prices.

Brush and short broom, choice, ₱ lb, 5½@6½c.; do., common to good, 4½@5½c.; hurl, good to choice, 4@5c.; do., common to fair, 3½@4c.; red and crooked, 2½@3½c.

BUTTER.—Receipts for the week, 32,450 pkgs. Exports, 6,700 do. There is no animation to be noted. High grades have an increased demand. Buyers who could recently fill out their wants from useful sound sweet late made or from stock taken out of cold storage, are now forced to look at creamery and special pails and ½ tubs to supply best wants. This addition to the regular current demand for fancy, has sent up prices. There is an abundance of stock waiting a price from shippers or any other class of round buyers, and many of our lower ranges are almost nominal.

State pails and half tubs, choice, 15@15½c.; good to prime, 14@14½c.; fair to good, 12@14c.; firkins, yellow, 14@15c.; Welsh, good to choice, 14@15c.; fair, 12@13c.; poor State, 8@9c; State creamery, choice, 17½@18c.; good to prime, 16@16c.; fair to good, 15@16c.; sweet cream, 16@17c.; Western creamery, choice, 17@18c.; other, 15@17c.; imitation, 10@15c.; Western dairy, best, 12@13c; fair to prime, 9@10c; factory, choice, 10@11c.; other, 7@9c.; poor, 6@6½c.; grease butter, 4@5c.

CHEESE.—The week's business opened with a confident feeling, with the basis in the prices ruling in the country, with up to 5½c. and even 6c. made for special lots, our trade dragged and shippers being very indifferent, and at the close 5½@5½c. are the quoted rates on fancy, the higher price seldom made. Anything at 1½c. and under is quick.

Quotations for State factory: Fancy, 5½@5½c.; good to prime, 5@5½c; fair to good, at 4½@5c.; half-skimmed, 3@4c.; skimmed, 2@3c.; State farm dairy: Fine, 5½@5½c.; good to prime, 4½@5c.; fair to good, 4@4½c.; skimmed, 2@3c. Wisconsin factory: Fine, at 5½@5½c.; good to prime, 4½@5c. Ohio factory: Cheddar, fine, 5½c.; do., fair to good, 4½@4½c.; full cream, flat, fine, 5½c.; flat, good to prime, 5½@5½c; flat, fair to good, 3½@4½c.; half-skimmed, 3@4c.; skimmed, 2@3c.

Liverpool cable, 30s., showing a steady decline for the week.

Steam to Liverpool, 40@45s.

Exports, 58,600 boxes.

COTTON—Has been active and closed steady at for August, 11.28@11.30c.; September, 11.25c.; October, 10.37@10.38c.; November, 10.18@10.19c.; December, 10.17@10.18c.; January, 10.25@10.26c.; February, 10.36@10.38c; March, 10.47@10.49c.

Quotations for spot cotton are based on American standard of classification, and on cotton in store running in quality not more than half a grade above or below the grade quoted.

	Uplands.	*N. Orleans and Gulf.*	*Texas.*
Ordinary	9 13-16	9 15-16	9 15-16
Strict ordinary	10 3-16	10 5-16	10 5-16
Good ordinary	10 9-16	10 11-16	10 11-16
Strict good do	10 13-16	10 15-16	10 15-16
Low middling	10 15-16	11 1-16	11 1-16
Strict low middling	11⅛	11⅛	11⅛
Middling	11⅜	11⅜	11⅜
Good middling	11 9-16	11 11-16	11 11-16
Strict good middling	11 13-16	11 15-16	11 15-16
Middling Fair	12⅛	12⅛	12⅛
Fair	13⅛	13⅛	13⅛

STAINED.

Good ordinary....10	Low Middling....10 11-16
Strict good ordinary....10⅜	Middling....10 15-16

DRIED FRUITS.—New peeled peaches are wanted, and only about 30 bbls. have thus far been received; old peeled peaches are in demand and firm. Apples have a good sale.

Patent evaporated apples, choice, in cases, at 11c.; do. fair to good at 9@10c.; N. Y. State sliced, choice, at 4¾@5¼c.; do., quarters, choice, 4@4½c.; western quarters, bright, at 3½@4c.; common and old at 2@3c.; N. C. peeled peaches at 9@10c.; do. Georgia, 7@8c. for old and 10@11c. for new; unpeeled halves at 3@3½c.; do quarters at 2½@3c. Blackberries at 5½c. Raspberries at 27@28c. New York State plums at 8@10c New pitted cherries, wet, at 13½@14c.; dry at 15@15½c.

EGGS.—Receipts for week, 5,443 bbls.; do., last week, 5,575 do. The market is in better shape and prices respond to a rather better demand, and a decided improvement in quality of Western, with higher prices.

Near points, 15@16c.; State and Penn., 14½c.; choice Western and Canadian, 13½@14c.; inferior, 12@13c.

FLOUR.—Receipts are large, and they are freely offered at lower prices.

Latest prices are: $3.30@4.00 for very inferior to choice superfine state; $4.15@4.40 for poor to good extra do., odd lots and lines; $4.40@4.75 for good to very choice do.; $3.30@4.00 for inferior to fancy superfine Indiana, Iowa, Michigan, &c.; $4.10@4.40 for inferior to very good shipping extra do., and $4.40@4.75 for good to very choice extra do.; common to choice white wheat extras, $4.60@5.00 choice to strictly fancy do. at $5.00@6.70; red and amber winter wheat, inferior to very choice trade and family, at $4.40@5.75; round hoop Ohio at $4.25@4.65, and trade and family brands of do. at $4.75@5.85, the latter rate for very choice; St. Louis, $4.00@5.10 for inferior to very good extra; $5.50@6.50 for very good to very choice; Minn. clear, very inferior to very fancy, at $4.10@5.00; do. "straight," very inferior to very fancy, at $4.85@6.50, and patent poor to very choice fancy at $5.40@7.50; unsound stocks at from $2.25@2.50, city mill extra at $5.15@5.45, fair to choice, for West Indies; do. for England, $4.10@4.40; do. trade and family extras, $5.65@6.50; do. for South America $5.50@5.75 for standard to choice brands (winter wheat product); No. 2 at $3.10@3.25 for very inferior to very choice.

FRESH FRUITS.—The market is well supplied with miscellaneous fruits, but at this season apples and pears are more or less mixed with irregular qualities. Parcels of uniform grade show some steadiness, but everything gives way more or less to peaches. These have had a pretty paying market for growers, but to-day's supply met a bad market, owing to a large supply of 55,000 baskets, which arrived in a rain-storm. Since Aug. 1st, 433,000 baskets have come to N. Y. city, and about 70,000 baskets have gone direct Eastward. Crates during the week have sold at 80c.@$1.25; extras, $1.50, and baskets 60c.@$1. To-day prices are very unsettled, baskets in the morning, 40@70c.; crates, 60c.@$1; variety, Yorks, Crawfords and Old Mixons.

Apples, red Astrachan up-river, ₱ bbl., $2.50@2.75; do., Jersey, $1.50@2; Nyack Pippin, $2; Orange, do., $1.25@1.75; Sour Bough, $1.00@1.50; Sweet do., $1@1.50 Cranberry Pippin, $2.00@2.75, Catherine pears, good to prime, per bbl., $1.50@1.75; Bloodgood, fair to prime, $2@2.50; Bell, fair to prime, $1.25@1.75; Bullum, $1.50@1.75; Bartlett, Southern, extra, per crate, $1.75@2; poor, $1@1.50; up-river, per bbl $3@5; New Jersey, $2@4.50; cooking, per bbl., $1@1.50 Hot-house grapes, 60@75c. for ₱, Hamburg and 30@40c. for Sweet Water. Ives, per 24 lb. case, $1.50@3; Concord, $3.25@3.50. Plums, up-river, Egg, per bbl., $1@3; Horse, $3.50@4; Md. and Del., blue, ₱ bushel, $1.25@1.50. Whortleberries, Jersey, 6c., per 16 qt. box, 50@75c.; do. mountain, 75c.@$1. Watermelons, Jersey Black Spanish, ₱ 100, $8@14; Nonticoke, prime $12@15; Norfolk, do., $6@10; N. C., $5@10; culls, $3@6. Nutmeg melons, Cantaloupe, Monmouth Co., ₱ bbl., $2@2.50; do., S. Jersey, $1.25@1.50; do., Jenny Lind, 75c@1.25. Peanuts firm and in demand; only fair quality lots offering; Va. hand-picked, $1.50@1.55; fancy, $1.4; extra prime, $1.30; good to prime, $1.20@1.27½; shelled, per lb., 5½@6c.

GRAIN.—Wheat, on the crop prospects, has declined, but has been active; latest sales are of No. 1 amber at $1.09@1.09½; No. 2 amber at $1.08@1.08½ do, August option, at $1.08½; do., September option, at $1.08; ungraded amber at $1@1.08½; mixed winter at $1.07@1.07½; extra white at $1.11½; No. 1 white at $1.10½@1.11; do., August option, at $1.10½; do., September option, at $1.10@1.10½; do., steamer grade, at 31@9; No. 2 white at $1.08½@1.08½; ungraded white at $1@1.10; No. 1 red at $1.09@1.09½; No. 2 red at $1.08½@1.09½; do, August option, at $1.08½; do., September option, at $1.08½; do. October option, at 1.09@1.09½; No. 3 red at $1.06½@1.07, ungraded red at 97½c.@$1.08½; New York No. 2 spring, at $1; No. 3 spring at 90c.; No. 4 spring, at 83c.; rejected spring at 73c; ungraded spring at 85@90c. Rye at 63@64c. for Western and 68c. for State. Corn closed with weak prices and a fair export trade. Sales of New York No. 2 at 46½@46¾c. do. August at 46½c. do. September at 47c.; do. October at 48c.; New York steamer mixed at 46@46½c.; do. August at 46c. bid and 46½c. asked; do. September, at 47c. asked; do. October at 47c. asked; ungraded Western mixed at 45½@47c.; No. 2 white at 50c.; round yellow at 50c. asked; yellow Western at 48@48½c.; yellow Southern at 49c. Oats are active; sales of New York No. 1 white at 41c.; New York No. 2 white at 39½c; New York No. 3 white at 38½c.; No. 1 at 38½@38c.; No. 2 at 38@38½c.; No. 3 at 37@37½c.; rejected 36@36½c; mixed Western at 29½@33½c.; white do at 35@40c.; white State at 37@41c.; mixed State at 35½@36½c.; No. 2 Chicago quoted at 35½@36½c.

HAY AND STRAW.—Receipts are liberal but demand is good and prices sustained.

New hay is at 50c. for shipping; 70@80c. for prime, and 55@60c. for medium. Old hay at 50c. for shipping and 70@85c. for prime retail qualities; medium at 50@55c. Straw at 50@60c. for long rye, 45c. for short rye, and oat at 50@55c.

HONEY.—Dealers regard 10@12c. as opening prices for new. The cheap season of last year does not encourage prompt shipments.

HOPS.—There is no new feature to report. A steady demand continues, both for home use and for export, at unchanged prices. The London market is reported firm, with less business doing; their crop is estimated at £150,000 to £175,000, old duty. Cable advices received on 14th report good weather for past two weeks.

	Bales.
Receipts for the week	2,734
Total receipts since September 1, 1878	90,100
Total receipts for same period in 1877	137,330
Export clearances for the week	545
Total exports since September 1, 1878	73,063
Total exports for same period in 1877	78,349

Quotations are for New York's, new crop, prime choice, 15@19c.; New York's, new crop, medium, 10, 12; New York s, new crop, low to fair, 7@9; Eastern, 8@12 Western, 8@11; Yearlings, 4@10, Olds, all growths, 3@5 Pacific coast, nominal, 10@16.

OIL-CAKE.—Western is quoted $28 per ton.

SEED.—Grass is firm, with clover quoted at 6¾@7¾c. for Western and timothy at $1.70@1.75.

POULTRY AND GAME.—With moderate receipts, prices have been fairly supported There is no room at this season for new shippers. Light days can be filled up by city killers, and by these parties the best country dressed is closely imitated in style. Turkeys, Phila., dry-picked, 16c., State and Western, 13@16c.; chickens, Philadelphia, per lb, 16@19c.; State, 15@16c.; Western, 13@15c.; fowls, choice, ₱ lb., 13@14c. other, 11@12c.; dry-picked, 15c.; ducks, spring, dry-picked, 12@16c.; other, 11@12c.

Cooped stock is in good supply, and fowls must be prime and weighty to command outside rates. Chickens have declined 1c. since our last. Geese scarce and firm.

Chickens, large per lb., 13¼@14c.; small, 11@12½c.; fowls, N. J., 11c.; Western, 10@11c.; Southern, 9@10c.; roosters, old, 5@6c.; ducks, ₱ pair, 40@70c.; geese, best, $1.50@1.75; others, $1.12@1.37.

Woodcock are plenty and in fair demand. Snipe are unusually scarce this season. Western, pair, 60@65c. State, do., 70@75c.; dark tame squab, $1@1.25; white, $1.75.

PROVISIONS—Have been more active and tending upward, chiefly on speculative manipulation; mess pork quoted for August, $8.75@8.80; September, $8.75@8.80; October, $8.85; November at $8.80@8.90 for seller's option, old or new. Bacon at 5c. for long clear and 5¼c. for short clear. Lard, Western steam, at 5c. for spot lots, $5.97½@6 for Aug. & Sept; $6@6.02½ for October. Stearine at 6¾@6¾c. for Western. Tallow at 5¾c. for prime. Beef hams at $18@18.50.

TOBACCO.—There is a better business and firm prices.

KENTUCKY LEAF QUOTATIONS.

	Light.	Heavy.
Common lugs	3½@ 4	4½@ 5
Good lugs	4½@ 5	5½@ 7
Low leaf	5½@ 6¼	6½@ 8½
Medium leaf	7 @ 7½	8 @ 8½
Good leaf	8 @ 8½	9 @10½
Fine leaf	9 @11	11 @ 12
Selections	12 @ —	12½ @14

SEEDLEAF.	Crop of 1877.	Crop of 1878.
New England Havana seed	— @—	22 @30
do. wrappers, common	10 @12	— @—
do. do. medium	13 @15	— @—
do. do. fine	13 @25	— @—
do. do. selections	27½@35	— @—
do. seconds	10 @13	9 @12½
do. fillers	7 @ 9	5 @ 6½
Penn. assorted, common	11 @12	10 @12
do. do. fair	13 @14½	13 @15
do. do. fine	13 @18	17 @20
do. wrappers	20 @40	— @—
do. fillers	8½@10	— @—
N. Y. ass't'd, com. to medium	9 @10	— @—
do. do. do. good	12 @15	12½ @15
Ohio assorted	9 @12	7½ @10
Ohio wrappers	12 @18	— @—
Wisconsin assorted	7½@10	8 @12
Wisconsin Havana seed	— @—	15 @20

VEGETABLES.—Exports of potatoes, past week, 5,800 bls. Supplies arrive from many points, and $1.25@1.50 ₱ bbl. are full rates for fair to prime; culls, 50@75c. Sweet potatoes down to $3.50 for best. Garden truck is abundant and prices have to be kept popular. Tomatoes very low. Green corn, extra large, per 100, 62@87c.; do., poor 40@50c.; cucumbers, L. I., 30@50c.; do., pickles ₱ M, $1.25@1.50; tomatoes, L. I., near-by, ₱ crate, 15@25c.; string beans, ₱ bag, $1@3; Lima beans, $1@1 50; squash, L. I. yellow, ₱ bar., 50c.; do., do., white, 50c.; do., marrow, 75c.; green peas, L. I., ₱ bag, $1@1.75; cabbages, flat Dutch, per 100 $3@4; onions, white, per bbl., $2.25@2.50; red, $2; yellow, $2@2.25; beets, N. J., per 100 bchs, $1@1 25; Russia turnips, per bbl., 50@75c.; carrots, $1@1 25; egg plant, L. I. and near-by, per 100, $3; okra, Jersey, per 100, 15c.; peppers, bullnose, per bbl., $1@1.25.

WOOL—has become rather firmer, with increased trading. X and XX Ohio fleeces quoted 37½@ 8c.; Colorado at 17½@24c.; spring California at 20@27c.; spring Texas at 18@28c.

LIVE STOCK MARKETS

NEW YORK, Saturday, Aug. 16.

BEEVES.—Receipts for the week, 12,981 head; do. last week, 11,845 do. Monday and Wednesday last were good days for cattle, but the closing market was weak and discouraging in the bulk of sales. Trains containing nearly one-third of the total for the week, arrived at mid-day, and buyers, of course, could dictate, and it is not necessary to add they did. Medium to fair steers were rated ½c lower and coarse natives and Texans ½c. do; common to fair natives quoted, 3@c. to dress 55@56 lbs.; good to choice, 9¾@10¼c., dress 55@57 lbs. Texans, 6¾@7¼c., dress 55 lbs.; Colorado, 7¼c., dress 55 lbs.

COWS AND CALVES.—Supplies accumulate at the yards since the authorities prevent sales at scattered points such as barges and wharves. This fact has something to do with reducing the range of prices; $35@50 is reported as a scale for fair to good milkers.

VEAL CALVES.—Supplies exceed the demand, and prices for all grades are easy. N. Y. and Buck's Co. choice, 5¾c; good to prime do and State, 5@5½c.; poor, 3@4¼c.; grassers and buttermilk, 2@3c.

SHEEP AND LAMBS.—Receipts for the week, 31,213 head; do. last week, 26,150 do. Sales have been fairly active, but owing to late arrivals yesterday, the market closed weaker and lower than for the previous two or three days. Sheep ranged at $4.50@5.35 ₱ 100 lbs. common to prime. Lambs, ordinary to extra, 5@6¼c.

HOGS.—Receipts for the week, 17,657 head; do. last week, 19,569 do. With continued moderate receipts the market is strong. Good quality, 160 lbs. to 200 lbs. weight, 4¼@4½c., with sales of Ohio at the close, city dressed, 5¼@5¾c.; pigs, 5¼c.

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Reading for the Young.

AN ORATOR'S LAST WORDS.

BRILLIANT and eloquent, S. S. Prentiss was the idolized lawyer of the Southwest. A Maine boy, he made himself a place in the hearts of those who liked not the Yankees. His genius fascinated, and his genial manners won them, in spite of their prejudices.

He might have been their political leader, but a brief experience in Congress so disgusted him with practical politics that he refused its honors. A fortune awaited him, but he turned from it, because he would not abandon social pleasures, nor practice self-denial. At last he resolved to work himself out of debt, and provide for the education of his children.

"I must work!" he said to those who had advised rest, because they saw that his good resolution had come too late. The spirit was now willing, but the body, enfeebled by disease and dissipation, refused to obey its commands.

"Why, good sirs, a man cannot lie in bed and make his living," he answered, to friends who bade him leave New Orleans and rest on a plantation.

Nerving himself, he appeared in a case which drew out the culture of the city to hear him. Never was he more brilliant in wit and eloquence. He did not know, but his friends did, that it was the swan's death-song. They shaded their eyes, for they saw that the vigor of the intellect made more apparent the decay of the body.

"Take me home," he whispered to a friend, when recovering from the prostration in which his eloquent plea had left him. He was borne home on a river-boat—to die.

On the night of the arrival, the family smiled mournfully to see his old self return.

"Gather me half a bushel of roses with the dew on," he said to a relative. "Put them in a basin and stand it by my bed," was the remark, as the roses were brought in.

During his illness the thought that he was leaving his family destitute made him talk much about suits and raising money. Now and then the great orator became a boy again, and wandered to his Maine home.

"Dear mother, do you love me?" repeated again and again, showed that her teachings and prayers were in his mind.

In the hours of consciousness he was much distressed at the idea of death. Mary, his pious wife, urged him to trust in the Savior.

"You do not know how wicked I have been. God will never forgive me," he replied.

"'Though your sins be as scarlet, they shall be as white as snow,'" replied the wife, "if you will but turn to the Lord.

"Pray, dear. Wont you pray? Don't you remember the prayers your mother taught you?" she continued.

"Oh, yes but I want you to pray with me."

She repeated the Lord's Prayer, he responding at each petition, "Amen!"

"O God, the Son!" she heard him whisper, as if striving to recall the petition of the Litany, "O God, the Son, Redeemer of the World, have mercy upon us miserable sinners!"

On a Sabbath evening the wife was busy in the room, his eyes wistfully following her. "Mary!" she heard, and hastening to him, received an embrace and a kiss. It was the last word uttered on earth by the eloquent advocate.

One solemn thought is suggested. No words uttered by the orator in moments of highest inspiration, were so treasured as those whispered "Aineus," and that sighed-out "O God, the Son!" they were words of penitence.

His imagination in its uttermost wanderings never brought back a scene which thrilled as did the "Dear, dear mother, do you love me?"

It revealed the boy at his mother's knee, and suggested the hope that at last he received the Savior as a little child.—*Youth's Companion.*

THE FLOWER.

SUFFICIENT time has now elapsed since we had the lesson on leaves to have that lesson fully learned, and I hope that all of my nieces and nephews, who were at all interested in the subject, cannot only discriminate between a compound and a single leaf, between a palmate and a pinnate, but that they can name the different parts and forms at sight. In this lesson I will talk about the flower which is, if possible, a still more interesting subject than the leaf. It is more interesting, not simply because nature has so lavishly adorned it with beauty of form and color, and made it so attractive by its fragrance, but also because of its delicate and wonderful structure, and by reason of the very important office it has to perform.

The object of the flower is to produce seed; and as the seed is the means of perpetuating the plant,

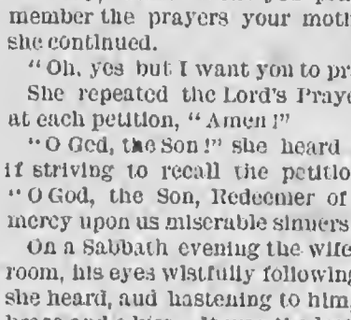

FIG. 1.

so that when one tree dies another springs up to take its place, thus constantly keeping the earth green and flourishing, the importance of the flower as a part of the plant will readily be understood. If you take a rosebud, just before it expands into a full-blown rose, and pick it to pieces, you will first find some little green leaves which inclose everything else in the bud; next comes another set of delicate leaves, more or less colored, which are the rose petals or leaves of the flower, and inside are some little thread-like organs called stamens and pistils. These four sets of organs constitute

The Parts of a Flower.

In Figure 1, which represents a flower of the Stone Crop family, these organs may all be seen, arranged in circles one inside or above the other; and in Figure 2 is seen a diagram of the same flower. In both figures the *sepals*, or the parts of the outer circle, are marked a. All the sepals taken together are called the *calyx* of the flower, calyx being a Latin word meaning

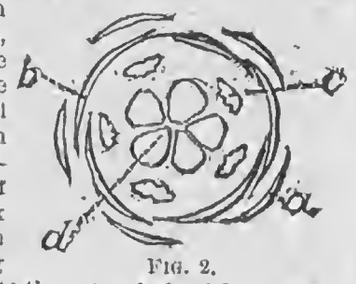

FIG. 2.

cup, and applied to the outer circle of floral leaves, because it forms a cup in which the other parts of the flower are contained. As a rule the calyx is of a green color, but there are exceptions to this rule, as may be seen in the Fuchsia in which the calyx is highly colored and adds much beauty to the flower. The office of the calyx is to protect the more tender parts in the bud. The next circle of floral leaves is called

The Corolla,

which term is derived from the Latin corona, meaning garland or crown. The corolla is generally colored and forms the most showy part of the flower. Each separate leaf of the corolla is called a *petal*, and in figures 1 and 2 these are marked b. The office of this circle of leaves is to envelope and protect the organs within, and for this reason the calyx and corolla, taken together, are called the *floral envelopes*. The *essential organs* of the flower likewise occupy two circles, one within the other. The first of these circles consists of

The Stamens,

which in figures 1 and 2 are marked c. At fig. 3 is shown a separate stamen. It consists of a stalk, a, called the *filament*, and the rounded body at the top termed the *anther*, b. When the anther has matured it splits open and discharges a fine dust termed the *pollen*. Viewed under a microscope the pollen is seen to consist of very minute grains of definite size and shape, and often very curiously and beautifully marked with bands and stripes. A flower that has stamens but no pistils cannot produce seed, and is called a *staminate* or *sterile* flower.

FIG. 3.

The Pistils

occupy the innermost of the four circles in a flower. In figures 1 and 2 they are marked d, and in figure 4 is shown an enlarged pistil from the same flower. It consists of three parts, the *stigma*, s, which is the place designated to receive the pollen, in order to bring about fertilization, the *style*, t, which is an open tube leading down to the *ovary* or cavity containing the embryo seeds called the *ovules*, seen at o. A flower that has stamens but no pistils, is said to be pistillate. A still better idea of the four circles in the flower may be had from the ideal plant in figure 5, where the calyx, corolla and stamens are represented as separated.

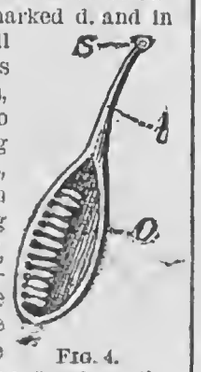

FIG. 4.

Such is a brief description of the organs that go to make up the flower. But some of these organs may be wanting, or they may be so modified in form and position, as to make a material difference in the appearance of flowers, and it is upon these differences, to a great extent, that the classification of plants is based.

Figure 1 has all the parts, an equal number of each, that is, five sepals, five petals, five stamens and five pistils, each set of these has the parts all of the same size and shape, and, as seen from figure 2, they alternate with one another in regular order, one petal standing opposite the opening of two sepals, and so on; it is therefore called a *typical* or *pattern* flower.

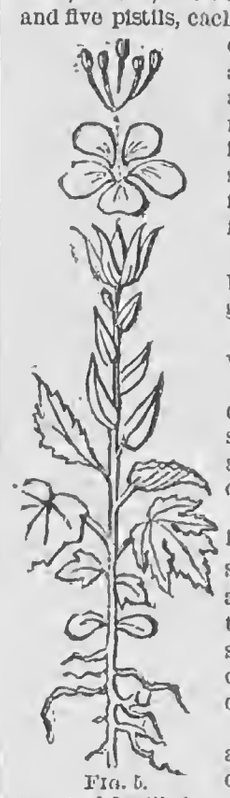
FIG. 5.

A *perfect* flower is one that has both kinds of essential organs, viz., stamens and pistils.

A *complete* flower is provided with the four circles of organs.

A *regular* flower has all the organs of each set alike, for instance, the petals should all be alike, and so with each of the others.

Irregular flowers are those in which the parts of the same set of organs differ from one another. This is the case with the petals in the Pea, the Pansy, the Larkspur and many others, thereby giving them a one-sided and irregular shape.

A great deal may yet be said about the flower, but this I consider sufficient for one lesson, and I will therefore bring it to a close. I hope that all of the cousins interested in botany, and especially the members of the Horticultural Club will examine a large number of flowers and see the parts for themselves, apply the names, and thus commit them to memory. Botany is a science that everybody ought to understand, and, certainly, all who live in the country where there is no want of opportunity to study. Some other time I will give another lesson on the same subject.

UNCLE MARK.

LETTERS FROM BOYS AND GIRLS.

GOOD-MORNING, COUSINS!—How do you do? Did I scare you? My, how you all jumped. Why do you keep so quiet? Now since I have joined the circle of cousins, I mean to stir you up. Who is that dozing over there in the corner? Please to introdnce him, Miss Madcap Mollie. *Listen*, "Make you acquainted with Miss Dolly Varden, Mr. Slayer-of-conceit." Well, I think if I had known that was your name, I would let you go on with your dreaming. Lilie Lee, how do you do? Glad to see you, Wild Cherry, Dewdrop, Snowdrop, Ivy, Bob White, Young Bach. Come, open your eyes, summer is nearly over and fall will soon be here. It is time we heard from you. Do you hear me? Ah, you are dozing too comfortably to take an active interest in our letters. Good-by,

Cross Creek Village, Pa. DOLLY VARDEN.

DEAR UNCLE MARK:—My garden has not done quite as well this summer as it would, for the chickens scratched up part of it. Then my peanuts did not come up, but my lettuce and radishes grew finely. I was sick when the first package of seed came, so mamma planted some of the peppers and tomatoes and egg-plant seed, but none of the egg-plant seed came up. I planted some of the melons and cucumbers, so I have some of each kind growing. We think those white-tailed radishes are excellent. We received the corn the 5th of July and we planted it the same day, putting two grains in a hill and the hills about two feet apart. It is up now and growing nicely. Accept my thanks for all those seeds. Respectfully,

Clermont Co., O. ROSA E. ABBOTT.

DEAR UNCLE MARK:—Please let me say a few words. I am 11 years old to-day, and I did not get any presents, which I think is too bad. I would like to join the Horticultural Club. I have a little garden of my own, in which are Honeysuckles, Bridal Feather, Lilies and Pinks. I like flowers very much. If I see this printed, I will write again. FANNY HORNE.

Wolfe Island, Ontario.

[I sympathize with you, Fanny, in your disappointment. Yet you should not take it much to heart. A present should be cherished for the love the giver bears you, and not for its money value; and though your friends did not give you any presents, you may be assured that they think none the less of you.—U. M.]

DEAR UNCLE MARK:—Will you please register J. Connie Plummer's name on the Horticultural Club list. I have some experience in cultivating flowers, vegetables and melons, which I hope will prove recommendation enough, and you will favor me with some seeds, remembering that my home is in the extreme south of the United States. The fall is the most favorable season for gardening here. I proposed to my sister to join, but she thought that the name of one of us was sufficient. From your little niece,

JULIA CONNIE PLUMMER.

Refugio Co., Texas.

The Puzzler.

PRIZE PUZZLE.

WE have a few books on hand in the office, which, so far as they go, we will present to those *cousins* who, in the next two weeks, from August 23d to September 6th, shall send us the correct solution of the following puzzle in verse.

Come, let us look at it closely—
It's a very ugly word,
And one that makes me shudder
Whenever it is heard.
It may not be always wicked;
It must be always sad,
And speaks of sin and suffering
Enough to make one mad.

They say it is a compound word,
And that is very true;
And then they decompose it,
And that they're free to do.
If of the dozen letters
We take off the first three,
We have the nine remaining
As sad as sad can be—
For though it seems to make it less,
In fact, it makes it more;
For it takes the brute creation in
That was left out before.

Instead of three and nine,
Let us make it four and eight;
You'll say it makes no difference—
At least, none very great.
But only see the consequence—
'Tis all that needs be done
To change this mass of sadness
To unmitigated fun.

It clears swords and pistols,
Revolvers, bowie-knives,
And all those horrid weapons
By which men lose their lives.
It wakes nations' voices;
And now most joyfully is heard
The native sound of gladness
Compressed into one word.

Yes, four and eight, my friends,
Let that be yours and mine;
For all the hosts of demons
Rejoice in three and nine.

A HALF WORD SQUARE.

A man's name. A river of England. A field. Two consonants. A consonant.

☞ Answer in two weeks. L. O.

PUZZLER ANSWERS.—July 26.

HIDDEN TOOLS.—1. Trowel; 2. Wrench; 3. Pinchers; 4. Bit; 5. Nippers; 6. Ruler; 7. Gavel; 8. Steelyards; 9. Axle; 10. Hatchet; 11. Hoe; 12. Rake; 13. Chisel; 14. Screwdriver; 15. Compass; 16. Jackplane; 17. Plummet; 18. Punch; 19. Padlock; 20. Port-crayon; 21. Burin; 22. Wedge; 23. Windlass; 24. Lever; 25. Vise.

ACROSTICAL ENIGMA.—Uncle Mark.

Sabbath Reading.

THE TONGUE INSTRUCTED.

GUARD well thy lips; none, none can know — Prov. xiii. 3.
What evils from the tongue may flow; — James iii. 5, 6.
What guilt, what grief may be incurred, — Judges xi. 35.
By one incautious, hasty word. — Mark vi. 22, 27.
Be "slow to speak," look well within, — Prov. x. 19.
To check what there may lead to sin; — James i. 26.
And pray unceasingly for aid, — Col. iv. 2.
Lest unawares, thou be betrayed. — Luke xxi. 34.
"Condemn not, judge not,"—not to man — James iv. 2.
Is given his brother's faults to scan; — 1 Cor. iv. 5.
One task is thine, and one alone,— — Matt. vii. 3.
To search out and subdue thine own. — John viii. 7.
Indulge no murmuring, oh, restrain — 1 Cor. x. 10.
Those lips, so ready to complain: — Lam. iii. 22.
And if they can be numbered, count — Ps. ciii. 2.
Of one day's mercies, the amount. — Lam. iii, 23.
Shun vain discussions, trifling themes; — Titus iii. 9.
Dwell not on earthly hopes and schemes; — Deut. vi. 4-7.
Let words of wisdom, meekness, love, — James iii. 13.
Thy heart's true renovation prove. — Luke vi. 45.
Set God before thee; every word — Gen. xvii. 1.
Thy lips pronounce, by him is heard; — Ps. cxxxix. 4.
Oh, could'st thou realize this thought, — Matt. xii. 36.
What care, what caution would be taught! — Luke xii. 3.
"The time is short," this day may be — 1 Cor. vii. 29.
The very last assigned to thee; — Eph. v. 16.
So speak, that should'st thou ne'er speak more, — Col. iv. 6.
Thou may'st not this day's words deplore. — Rom. xiv. 12.

THE STILL HOUR.

To do justly, to love mercy, and to walk humbly before God are, according to a high authority, the three essentials of the highest life. Of these the first is the hardest to practice. It is often easier to be generous than to be just; easier to show men favors than to recognize and respect their rights. But when we do turn from the gracious to the legal mood, trying to be just, we are apt to be very careful lest we yield to others any more than of right belongs to them. This is the characteristic of many men who take pride in being just, and who in spite of this honest scruple are soundly hated; they are always bound that nobody shall get from them anything more than even measure; and in this exacting spirit they not seldom pervert the justice on which they are intent. "If people calculate the judicial mean too nicely," says a great writer, "they will not hit it; in their hearts they ought to go a little beyond it or they will fall short of it." The only kind of justice whose company we can afford to keep is the justice whose handmaid is sweet charity—the justice that would give a man a penny more than his due rather than give him a farthing less.

THE mercy that we are bidden to love, is not mere lenity toward offenders but the good-will which is the fulfilling of the law. This is the quality with which justice must always be tempered. So far as conduct goes, the man in whose heart this good-will rules, and in whose life it finds expression, is blameless. God has nothing more to require of the man who in word and deed obeys the royal law. But it is not perfunctory beneficence that is here enjoined; it is not the mere doing of useful and kindly deeds; it is what Tennyson calls "the love of love." "To do justly and to *love* mercy" is what thy God requireth of thee.

"To walk humbly with thy God" is the last, and not the least of these requirements. The laws of conduct are summed up in the injunction to do justly and love mercy; but the habit of thought which is here enjoined is one of the crowning attributes of the highest virtue. There is a justice that is haughty and there is a beneficence that is ostentatious; the true glory of life is only seen where a genuine humility abides. And yet we do well to remember what Dr. Sears has so well said, that "humility is not humiliation nor self-disparagement. It is simply rendering to the Lord what belongs to him, instead of claiming it as our own. We are the most humble when we think least of ourselves, or put ourselves out of the account altogether, and let the Lord shine through us with his uncolored sunlight, without staining it with our own selfhood."—*Sunday Afternoon.*

PRAYER in the morning is the key that opens to us God's mercies and blessings. Prayer in the evening is the key that shuts us up under his protection and safe-guard.

THE most glittering services of unregenerate persons are but dead works, because they proceed not from a principle of life.—*Brooks.*

THOSE are the best Christians who are more careful to reform themselves than to censure others.—*Fuller*

PERSONAL ITEMS.

"The English eat half their words. If I imitate them I shall get fat," says Sarah Bernhardt, the thin.

The Christian Herald is responsible for the discovery that Prince Jerome Napoleon is the Beast of the Revelation whose number is 666.

A portrait of the Rev. John A. Simpson, for many years pastor of a Universalist church at East Cambridge, Mass., has been placed in the Boston Rogues' Gallery. He is in jail on a charge of horse stealing.

General Grant has taken passage in the steamer City of Tokio and will sail from Yokohama for San Francisco on the 25th or 26th inst. He is expected to arrive in San Francisco somewhere between September 12 and 15.

Capt. Joseph Boyle, of the Mississippi steamboat Heroine, stepped ashore at Mandeville, La., and was instantly killed by a negro whom he once whipped. The Heroine, on the return trip, brought an excursion party of lynchers, waited while they hanged the negro, and then carried them back home.

Burglars awoke Farmer Plummer, at Durham, Me., and he chased them, losing no time in adding any clothing to the shirt in which he had slept, but taking care to throw a gun across his shoulder. Across fields and through a village he pursued them, until he got within close range, when they surrendered rather than be shot.

The marriage of the Earl of Loudoun to Alice Howard mixes relationships considerably, as will be seen by the following: "Miss Howard is first cousin to the Duke of Norfolk, whose wife is sister to the Earl of Loudoun, and Miss Howard's elder sister is married to Lord Bute, who is cousin to Lord Loudoun, through his mother, Lady Sophia Hastings."

Capt. Stone planted a mahogany seed at Moundsville, W. Va., thirty-five years ago, and remarked that he would live until it grew into a tree big enough to provide material for his coffin. Wind blew the tree down last spring, and the Captain had a handsome coffin made of it. He died a few days ago, and was buried in the mahogany of his own planting.

Mrs. W. G. Venson, who gave Texas "the Lone Star," died at Crawford, in that State, last Wednesday. She made a beautiful flag, with a large, single star, in the summer of 1835 and presented it to Colonel Ward's command. The flag was of plain white silk, bearing an azure star of five points on both sides. It was first unfurled at Velasco on January 8, 1836, and being hoisted upon a liberty pole at Goliad, floated until Texas was declared free.

Mrs. Vliet, who lately died at New Albany, Ind., divided the mature part of her life into three distinct and contrasting periods. She was for ten years a washerwoman, working hard for a bare subsistence. Then she went into business as a fortune-teller, and for ten years was so successful that at the end of that time she was possessed of $100,000. Finally she became pious, and during her last ten years devoted her time and money to deeds of charity.

Opening out of the drawing-room in the Prince of Wales's seat at Sandringham is a small sitting-room fitted with bookcases. Beyond this is the Prince's own room, full of beautiful things. Here he and the Princess always breakfast, and here, on Nov. 9 and Dec. 1, are laid out the numerous birthday presents. A prettier room than the Princess's own was never seen. All the visitors' rooms are nearly perfect, and the servants' comforts are not neglected.

Oliver Bodlish, of Syracuse, aged 84, decided to marry for the third time, but he went about it deliberately. Remembering that a certain girl in his old Massachusetts home was very pretty fifty years ago, and being informed that she had lately become a widow, he made her a matrimonial proposition by mail, a condition being that she should still seem comely in his sight. He offered to pay her fare to Syracuse, and, if he did not like her looks, to send her back again. She made the journey, he was pleased with her, and they were married.

In the Chicago St. Vincent's Home for the Insane is a grave, quiet gentleman, who converses intelligently upon every-day topics, such as he finds discussed in the newspapers, and on religious subjects speaks with a wonderful precision of judgment. It is only when he tells visitors that he is the Catholic Bishop of Chicago that they doubt his sanity; yet his assertion is true. He is Bishop Dugan, whose reason was dethroned ten years ago. He has never been turned out of office, and still retains his episcopal signet ring, but is dressed in civilian costume.

The Rev. Josiah Hanman of Izard, Texas, was worried because his name was so much like Haman, and he studied the Bible story of Haman until he became insane on that subject. "Children," he exclaimed, in the midst of a sermon, "Haman was hung, as near as I can make a calculation, a little over 100 feet high. Now, children, I believe God wants me to give up my soul to him right away, and so take this rope and hang me 120 feet above the ground." This frightened the congregation so much that they ran away, and the preacher hurried into the woods, where he hanged himself.

A second sale of the effects of the unfortunate Earl of Lonsdale is announced. From being regarded as among the richest of English nobles, he has been compelled, only four years after attaining his majority, to dispose of his effects and part of the control of his estates. In the effects to be sold are included the magnificent tiara of diamonds, the marriage present to his bride, the beautiful Lady Gladys Herbert, which cost £13,000, besides the whole of the jewels considered as her ladyship's exclusive property. The devotion evinced by Lady Lonsdale under the circumstances forms the theme of admiration in the circles of high life.

The Emperor of Austria often drives with one of his equerries or the Crown Prince Rudolf—the late Archduke Franz Karl, his father, was often his companion at such times—to some little out-of-door *café*, a mile or two from Ischl, and sits for half an hour under the trees sipping his coffee and smoking his long Virginia cigar among the little throng of chance visitors. He is saluted with quiet respect, for the Austrians never mob royalty as an English crowd do. On Sundays the court attends mass at the village church of Ischl, and none more devout than his Catholic and apostolic majesty.

The news was carried to Bonay, Texas, that Hank Parsons had been murdered, at a place 20 miles distant, by a negro. Some of his friends immediately provided themselves with a rope, mounted their horses, rode to the jail where the prisoner was confined, and broke open the door. They had taken it for granted that the slayer was a man, and were astonished to find not only a woman, but one possessed of youth, striking beauty, and only enough negro blood to make her a quadroon. This presented a dilemma. Only a minority of the mob adhered to the original intention of lynching, and the woman was whipped and left alive for trial.

Lord Beaconsfield's gift of reading character has stood him in good stead in his selection of colleagues. It is to his credit that almost without exception he has been guided in his choice strictly by his convictions of a man's fitness for the post. There is much in his character and in his writings that would incline one to forecast that when his opportunity came he would surround himself with Dukes. It is a noticeable fact, however, that in a Conservative administration, formed in the high tide of Conservative power by the man who wrote "Lothair," the most important offices of the State are in the hands of commoners.

One of the Lynn newspapers received a letter purporting to come from the Rev. Samuel Lee and to give an account of the death of Ida Eddy. The matter, being interesting, was published in full. Miss Eddy walked into the office and indignantly denied that she was dead. The letter turned out to be a forgery. A few weeks afterward the other Lynn newspaper was imposed upon in the same way, the letter in this instance bearing the name of Deacon Daniel Gilmore, and again Miss Eddy demanded a denial of her death. Some detective work disclosed the fact that she wrote both letters herself, and she confesses that her motive was to get notoriety.

The British naval ship Bacchante, a fine iron corvette, cased with wood, has been selected by the Admiralty for the first voyage of the Royal cadets, who are to sail from England, according to present arrangements, in September next. The two princes, sons of the Prince of Wales, Albert Victor and George Frederick, were entered as cadets, in June, 1877; and as the Admiralty regulations stipulate that cadets shall only remain for two years on board the Britannia training ship, it is only following the usual custom to send the princes to sea at the expiration of their term. A second captain is to be appointed to the Bacchante, besides her commanding officer, Capt. Lord Charles Scott, in order to assist in their instruction, while the voyage of the corvette will be of such a nature as to embrace most of the principal seaports of the world. She proceeds in the first place to the West Indies and Canada, and will thence, in all probability, steer south and double Cape Horn. The Bacchante is a large craft of 4,130 tons.

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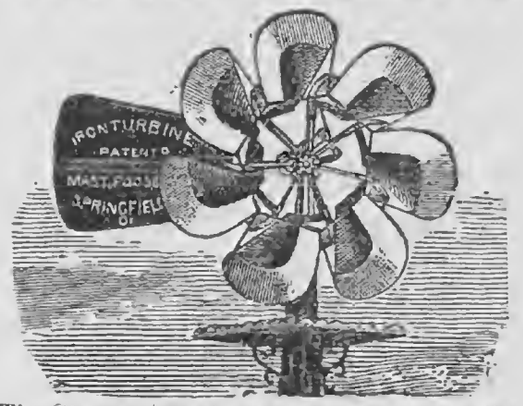

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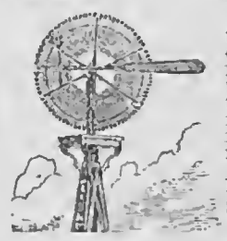

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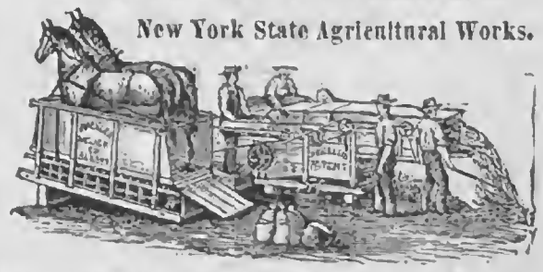

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  Upon a dry-goods box and sips
  The nectar of thy juicy lips—
Come to the youngster as he flirts
  Across the high and peaked fence
  And moves with ecstacy intense
    Thy charms from off the native vine
And thou art terrible.
  O, August-born monstrosity!
  Incarnate colicosity!
Beneath thy emerald bosom glow,
    Like glittering bubbles in the wine,
The lurid fires of deadly woe,
And from thy fascinations grow
The pain, the cramps, the pang, the throe—
And all we fear or dream or know
  Of agony is thine!

[*St. Louis Times-Journal.*

A JOKE RETURNED.

The Palmyra *Enterprise*, published in Jefferson County, Wisconsin, relates this dog story—a pretty good one. A gentleman connected with the United States Lake Survey, in this city, was engaged one day on the skirt of a wood in Indiana. Near him, sleeping lazily in the sun, lay his faithful dog, Tiger. Thinking to have some fun with the dog, he gave a shout and a jump into the thicket as if all the game ever protected by game laws from marauding hunters was thrashing through the bushes. As he expected, Tiger came bounding and barking to the fray, and soon detecting the trick that was played upon him, sneaked back to his lair and lay down again. The surveyor resumed his duties, and was hard at work for two or three hours, when, all at once, the dog rose from his sleep, set his ears and eyes in direction of the wood, gave a bark and made a rush to the forest depths. The surveyor followed the noble brute to a tree up which he was sending canine congratulations to the prey; but when the surveyor came and began anxiously to scan the boughs for the hiding game, Tiger gave a satisfied "Ah Wooh!" bestowed a glance of contempt at the surveyor, and striking a dignified gait, walked back to his couch with the appearance of a dog that had squared up all accounts with the Lake Survey, and had left nothing due on either side.

A LITTLE fellow rushed into the street recently to look at a monkey that accompanied an organ-grinder who was playing in front of an adjoining block. Never having perused the "Origin of Man," he gazed in wonder and admiration for a few moments, and then rushing into the house he met his grandmother, to whom he addressed this inquiry: "Grandmother, who made monkeys?" "God, my boy," replied the old lady in her candid way. "Well," said the excitable grandson in rejoinder, "I'll bet God laughed when he got the first monkey done!"

PERTINENT QUERIES.—What does billet doux? What check did counter sign? Who ever saw a hood wink? Who ever saw a pig iron? What does egg plant? Why did the thunder bolt? Who ever heard a foot ball? Why did the dew drop? Where does clock work? What did plow share? Who ever saw a wheel wright? For whom did penny weight? Who did tin foil? What did brandy smash? What did grass plot? What was it grape shot? What did the pick pocket? Who did the goose berry? Is it jokes that Jim cracks?

NEXT year should be a very prosperous one for clergymen. Besides being leap year, seven eclipses are announced. Eclipses of the moon are welcomed by lovers, but nothing encourages courtship more than a comet with a tail 9,000,000,000,000,500.670 miles in length sweeping across the heavens during the summer nights. Notwithstanding its enormous size, a young lady cannot catch a glimpse of the celestial wonder without leaning her head on her young man's shoulder and have him point it out to her.—*Norristown Herald.*

PREAULT dined one day with a miserly painter, who gave him to eat a soft-boiled egg and a little vinaigrette, washed down with some Suresnes of a bad year. "We will repeat this little debauch," said his host, folding up his napkin, "whenever you like." "All right," said Preault, glaring at his entertainer with hungry eyes, "suppose we repeat it right now."—*French Wit.*

LITTLE Laura was tired and sleepy on New Year's night when she prepared for bed, and forgot to say her "Now I lay me," and in apology to her mother for the neglect, said, as she tugged away at her little stockings, "I couldn't go to heaven to-night, mamma, anyway in the world, tos I'm too tired!"

"You made a fool of me," said an irritated man to his wife, "and that's the way you got me to marry you." "My love," sweetly responded the wife," "You do yourself an injustice. Call yourself a fool if you please, but remember that you are in all respects a self-made man."

THE REASON WHY.

Father to Professor—"How is it that my son is always behind in his classes?"
Professor—"Perhaps it lies in the family."

A GREENBACKER, while denouncing Secretary Sherman as a Shylock, was asked by a listener, "Who was Shylock, anyhow?" The indignant orator replied in withering tones: "Well, if you don't know, you had better go home and read your Bible!"—*Portland (Me.) Press.*

A FELLOW in a cattle show, where he made himself conspicuous by his blnster, cried out: "Call these prize cattle! Why, they ain't nothing to what our folks raised! My father raised the biggest calf of any man round our parts." "No doubt of it," said a bystander, "and the noisiest."

"JOHN, did you take the note to Mr. Jones?" "Yes: but I don't think he can read it." "Why so, John?" "Because he is blind, sir. While I was in the room he axed me twice where my hat was, and it was on my head all the time."

"YOU love me?" echoed the fair young creature, as her pretty head oiled the collar of his summer suit. "Yes," he said, tenderly, "you are my own and only"—"Hush!" she interrupted, "don't say that—be original. That sounds too much like Barnum's show bills."

A YOUNG Parisian lady after being relieved of a tormenting tooth, laid down 10 francs in payment. Looking at the fee contemptuously, the dentist asked if that was for his servant. "No, sir," responded madame, with a smile, "it is for both of you."

"I SUPPOSE the same man," remarks Josh Billings, "would live to be eighty years old on brown bread, roots, and green erbs who would reach seventy-eight years on plum puddin and milk punch. Which of the two ways do you consider the whichest?"

HE was a disgusted boy. He had exercised great caution and had finally succeeded in crawling, unobserved, under the canvass into the tent. And he found it was not a circus, but a revival meeting in progress.—*Boston Post.*

"WHY," asked a governess of her little charge, "do we pray God to give us our daily bread? Why don't we ask for four days, or five days, or a week?" "Because we want it fresh," replied the ingenious child.

THE following was whispered the other evening at the Theater des Varietes: "Do look at that lady! what a low-necked dress she wears!" "That's a postal card costume." "How so?" "No envelope to it."

PIOUS old lady: "Just think, Rose, only five missionaries to twenty thousand cannibals!" Kind-hearted niece: "Goodness! The poor cannibals will starve to death at that rate."

"YES, I want my daughter to study rhetoric," said a Vermont mother, "for she can't fry pancakes now without smoking the house all up."

PUPIL in history class (reading)—"A large party of English ladies and gentlemen"—(turning over two leaves, continues)—"and entirely naked, engaged in a terrific struggle, such as is seldom seen even in this barbarous country."

THE Bible tells us that our hairs are numbered, and we know that they are also sometimes red.

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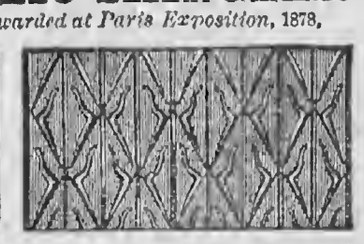

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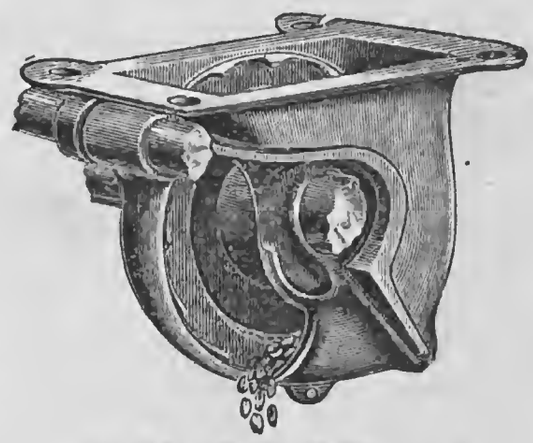

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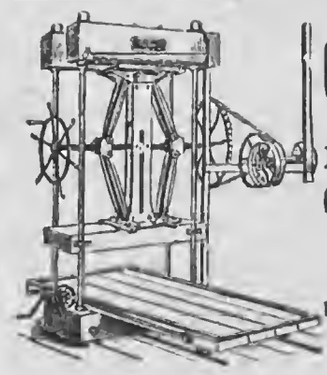

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THE RURAL NEW-YORKER

A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME.

VOL. XXXVIII. No. 35.
WHOLE No. 1544.

NEW YORK, AUGUST 30, 1879.

PRICE FIVE CENTS.
$2.00 PER YEAR.

[Entered according to Act of Congress, in the year 1879, by the Rural Publishing Company, in the office of the Librarian of Congress at Washington.—Entered at the Post-Office at New York City, N. Y., as second-class matter.]

Entomological.

COLLECTING AND PRESERVING INSECTS.—No. III.

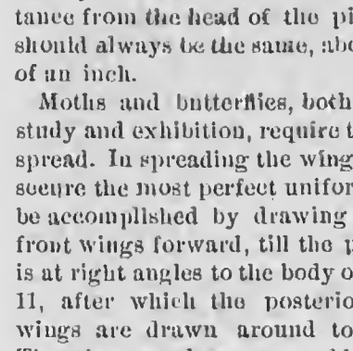
PROFESSOR A. J. COOK.

Apparatus for Preserving our Specimens.

ALL insects, except those preserved in alcohol or other liquids, mostly for purposes of study, are kept in place in the cabinet by use of pins. That our collection may appear better, and that we may be able to exchange with other collectors, it is always desirable and best to secure special insect pins, and pin according to the uniform method generally adopted by entomologists all over the globe. These pins are longer and more slim than common pins, and cost from $1.25 to $1.50 per 1000. All mature insects, except beetles and bugs, should be pinned centrally through the thorax, Fig. 11. Beetles are pinned through the right wing cover, a little back of the pro-thorax, Fig. 9, while most bugs are pinned through the scutellum, Fig. 10, the prominent triangular piece just at the base of the wings. The distance from the head of the pin to the insect should always be the same, about three-eighths of an inch.

BEETLE PINNED.—FIG. 9.

Moths and butterflies, both for purposes of study and exhibition, require to have the wings spread. In spreading the wings it is desirable to secure the most perfect uniformity, which will be accomplished by drawing the primary or front wings forward, till the posterior margin is at right angles to the body of the insect, Fig. 11, after which the posterior or secondary wings are drawn around to the primaries. The wings are drawn around by the use of pins, which should be passed through the wings just back of the large main veins. With small, delicate moths the greatest care is required that we may not tear the delicate organs or rub off any of the minute scales on the body or wings. Only perfect specimens are desired by the best entomologist. To spread insects a spreading-board is necessary. This, consists of two soft-wood boards, Fig. 11 d, d, each two feet long, two inches wide and one-half inch thick, which are held in the same plane, and parallel to each other by cross-pieces, and when nailed are from one-eighth to three-quarters of an inch apart, according to the size of the moth, as this space, Fig. 11, e, e, is to permit the body of the insect to pass through so that the wings shall come down to the plane of the upper surface of the boards. Beneath the open space, cork or corn-stalk pith, is fastened, that it may receive the pin and help to hold the insect more securely. The spreading board illustrated is one of seven drawers, belonging to the writer which rest in a neat walnut case, with wire-gauze door and back. This arrangement prevents injury from mice, &c., and from its ample ventilation, secures the rapid drying of the specimens. The drawers, Fig. 11 are 10 by 12 inches. Below these drawers in the case is a common drawer for holding pins, forceps, &c. To hold the wings when spread, small rectangles of glass, Fig. 11, a, with edges ground off, are laid upon them. Some entomologists prefer thick cardboard cut into small pieces. These pieces, Fig. 11, b, by pinning above the wings, will press the latter and hold them in place till they dry.



BUG PINNED.—FIG. 10.

After pinning, insects may be kept in pasteboard boxes, boxes made of soft wood, with close-fitting covers, or in drawers which may slide into a cabinet. In all cases the closer-fitting the boxes are, the better.

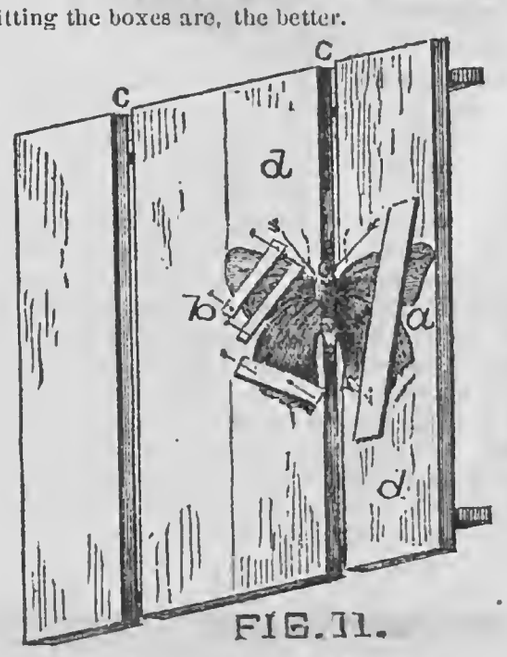


FIG. 11.

SPREADING BOARD.

The bottom of the boxes should be lined with cork or corn pith, to receive and hold the pins. If the latter is used, it should be boiled in water for a time, that the pins may not corrode. The boxes will look better if the cork or pith is covered with clean white paper. Two sheets of heavy white paper, spread upon a frame just large enough to pass closely into the box, one held one-quarter inch, and the other one-half inch from the bottom of the box serve well to hold the insects, especially if the bottom of the box is of very soft wood, which will receive the points of the pins. In pinning insects, heavy forceps, either straight or bent, Fig. 12, are very desirable. Insects in boxes must be kept from the mice and carefully guarded from moths and other insects. These latter are the greatest pests of the cabinet, and can only be kept from doing serious mischief by the most active vigilance, on the part of the entomologist. Rectified benzine will destroy these museum pests, and not harm the specimens. It is better to exercise so much caution that we shall be free from these ruthless destroyers. Very close boxes or cases, which are never to be left unclosed, and placing all new insects in quarantine boxes before putting them into the cabinet, are among the safeguards.

PINNING FORCEPS.—FIG.—12.

Larval insects may be kept in alcohol, or, to better preserve their color, in benzine. If it is desired to pin the larvæ in the cabinet, we may prepare them for it by enlarging the anal opening and carefully pressing out through this the entire viscera. We may distend the body properly by blowing in air through a straw, and while still blowing, bake the body in a small tin oven well heated with a lamp. With the proper care the specimens may often be saved by this method, so as to represent the living appearance almost perfectly.

The live collector will not be satisfied to collect and preserve and go no further, but will desire to watch the marvelous changes presented by insects during their development, and so will desire to rear insects, and for this purpose will need a breeding cage. Here he will collect the various parasitic species. A glass can, covered with wire cloth, will answer for a cheap breeding cage. A box, one foot each way, with one side glass and one side fine wire cloth, will be better. Or he may have a neat walnut case, Fig. 13 with a glass door, and gauze back and ends. The writer's case consists of several such apartments, separated by wire-gauze partitions. Earth in the bottom of a breeding apartment will serve to hold the food plants, and will offer the insects an opportunity, if they pupate beneath the ground. Larvæ that feed on leaves ought to be fed often with fresh food, which is all the more acceptable to the insects if dipped in water before being placed in the cage. A small bottle sunk into the earth at the bottom of the cage will hold the plants upright, and if kept filled with fresh water will keep the plants more fresh.

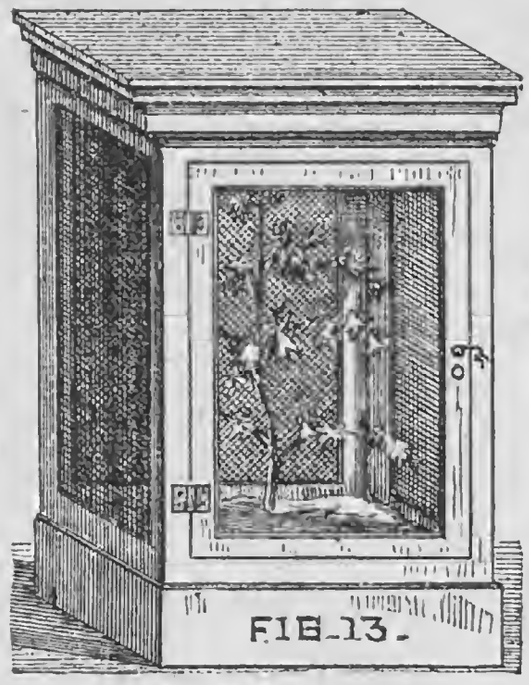


FIG. 13.

INSECT BREEDING CASE.

Insects may be sent by mail at a very light expense. They may be pinned to a cork at the bottom of a light wooden box—paste board boxes are apt to be crushed in the mails—or wrapped carefully in cotton batting. Larval insects should be inclosed, together with some fresh food, in a perfectly tight box. They need no air, and in close boxes the food will keep more fresh.

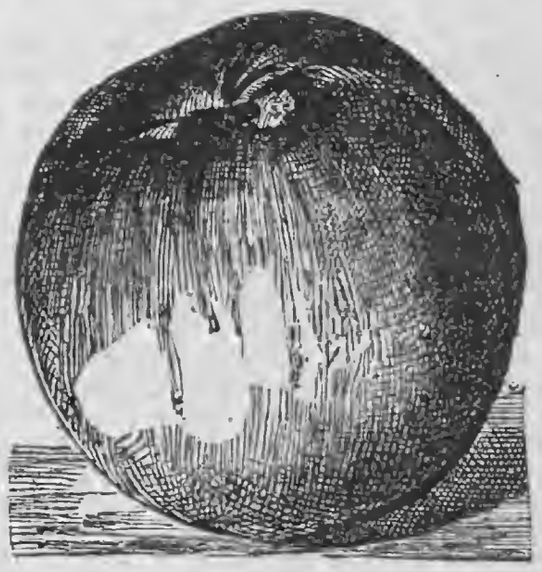
I close this paper with the hope that some may be led, by its production, to study those pages of nature, which ever serve to interest and give valuable instruction to him who is so happy as to be led to their perusal. The writer is indebted to Mr. S. Upton, of the sophomore class in the Michigan Agricultural College, for the above drawings.

TO DESTROY THE PEAR SLUG, which fortunately feeds on the upper side of the leaf, air-slaked lime, or lime carefully slaked with just enough water to cause it to fall into a dry powder, is recommended as the most effective application. Next to this come wood ashes. If these are placed in a bag of mosquito netting, or some other open fabric tied to a pole, they can be readily dusted over the leaves. If only a little comes in contact with the slug, its hours are numbered. Hellebore used as upon Cherries, is also sure death to the pest, and even an application of road dust will kill it in most cases.

Pomological.

THE WATERLOO PEACH.

MESSRS. ELLWANGER AND BARRY, of Rochester, N. Y., write to us with regard to a specimen of the Waterloo peach sent us by them, and of which the accompanying cut is a fair representation. "The fruit is not so large as it was last season, owing to the overloaded condition of the tree on which it was borne. It also ripened a week later than last year. We find this to be the case with all the very early peaches we have seen thus far. The tree from which the specimen was picked was cut back severely last August in order to force every bud possible. This, we think, is one reason why the fruit is smaller and later than



usual. Mr. Davidson's seedling, raised at Paluesville, Ohio, and sent us for examination, was ripe last summer on July 9, and measured seven inches in circumference. Those sent this season arrived on the 29th of July and were not then fully ripe. They averaged 6½ inches in circumference, exhibiting a marked difference in size and time of ripening. The Cumberland and Musser peaches, received on July 26th, from H. M. Engle & Son, Marietta, Pa., measured 6½ inches in circumference, and Downing, Saunder's and Wilder grown here, measured the same. Among all these, Waterloo averages the largest."

THE ALEXANDER AND AMSDEN PEACHES.

I HAVE before me, as I write, two baskets of beautiful Alexander and Amsden peaches, which have just been gathered from young trees in our experimental orchard. As I look upon this handsome, luscious, early fruit, I wish your readers could enjoy the sight. As they cannot, probably it will be interesting to them to learn how remarkably fine these peaches have been with us this season. We have several trees of each variety in bearing, and they are weighed down with fruit, presenting an unusually attractive appearance. The first really ripe peaches were gathered on August 6th. To-day, the 8th, there is an abundance of ripe fruit. In appearance these varieties resemble each other so closely that it is almost impossible to distinguish them. Alexander, however, averages larger and will, most likely, prove to be the favorite on that account, although Amsden is a little better in quality. Compared with Early Beatrice growing in the same orchard, Alexander is about three days earlier, and about six days earlier than Early Louise and nearly ten days in advance of Hale's Early. Beatrice is so small and of such inferior quality that it must soon be discarded, and so with Early Louise, Downing and Wilder. These ripened here about the same time as the Alexander, but are not so large. Cumberland and Musser may ripen a little earlier than Alexander, but they also

are smaller. Honeywell ripened with the Alexander, but was entirely devoid of flavor. I think, therefore, judging from the season's experience, that next to the Waterloo, the Alexander may be regarded as the most valuable of the very early Peaches. What disposition to make of the Amsden it is difficult to determine. Should it prove in other localities equally good in quality, it ought still to be propagated for amateurs' use. We think, after another season's trial, the list of early Peaches can be still more reduced. W. C. BARRY.

Mt. Hope Nurseries, Rochester, N. Y.

SHALL WE PLANT ORANGES?

MRS. L. S. HOUHTON.

CONCERNING the length of time required by an orange grove to become a source of income, I may remark, with Sir Roger de Coverly, that "much may be said on both sides." That much has been said on both sides, cannot at least be questioned. It was but yesterday that I read, in the columns of a paper published in the "Orange Belt" of Florida, a calculation proving by figures, which are supposed to be incapable of falsehood, that the orange grower would, in five years, from a grove of five acres, receive not only all the money he had invested, with interest at eight per cent., but would realize a clear profit above this, of some fifteen hundred dollars. These figures were based upon the assumption that every tree in the grove would live, and that each would bear a thousand oranges the fifth year after being set out. The young man in general was then asked where in the North he could hope to achieve a like success.

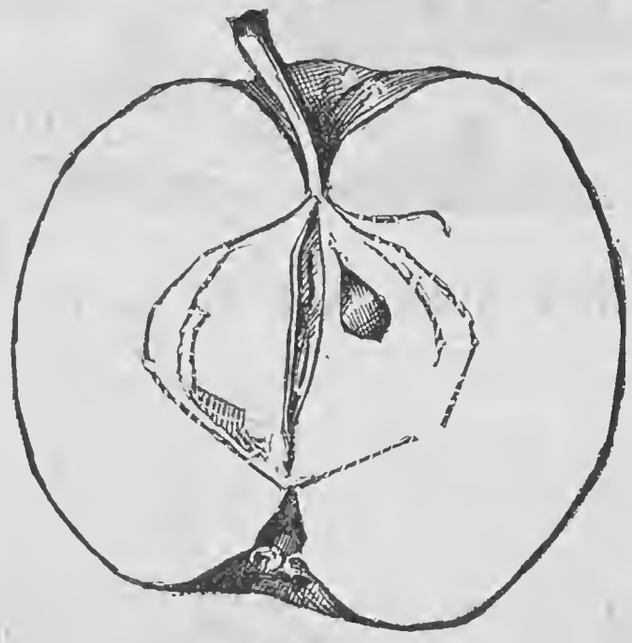
Such a conundrum would, perhaps, be best answered, Yankee-wise, by asking where in all the South the writer could find trees which had averaged a thousand oranges the fifth year after having been set in the grove. These extravagant assertions, however, are met, on the other hand, by those unbelievers who assert that twenty years are not too long to wait before an orange grove may be expected to become profitable, and they challenge their adversaries to produce the man who has made money from a young grove, in less time than that. Here, again, is an enigma scarcely less difficult to unriddle than the former one, since all the young groves in Florida having been planted within ten years, and the greater number of them within five, it would be no easy task to disprove the assertions of those gloomy ones. But as a matter of fact, few of the more sober-minded claim that a grove will become a very profitable investment in less then ten years.

If the proof of the pudding is in the eating—a proposition which few will be prepared to deny—why not the proof of the orange grove? And that there are orange groves which offer abundant proof that they may be made profitable to one's friends, at least, in less time than twenty years, or than ten, I am happily in a condition to testify. The most hardened sceptic would have yielded to the proof placed before him, had he been my compaunion in visiting a certain grove, a few days ago. And I am confident its owner will pardon my violation of the sanctities of hospitality in making public some of the facts I learned from my visit, since he is quite as anxious to disseminate the sober facts of orange-culture, as I am. It is, indeed, to his pen that we owe our most valuable and practical treatise on the culture of the orange.

The grove of the Rev. T. W. Moore is at Fruit Cove, on the St. John's, not many miles above Jacksonville. It presents a very attractive appearance, as seen from the river, shaded and sheltered as it is, by broad overhanging Live-Oaks, beneath which the glossy foliage and golden fruit of the young orange trees are seen to the best advantage. There are, I believe, some five thousand trees in the grove thus seen from the river; the trees being of all ages, from four to nine years old; a large number of them are bearing, some of the trees being very heavily loaded.

I do not propose to give any numerical proofs of the value of this grove, for I know nothing of them. I cannot say how many of the trees are bearing, nor what is their average yield, nor what they have brought or are likely to bring, in the market. I know—for Mr. Moore told me—that ten years ago the forest on this land was so dense that one could not see a man at ten feet distance; whereas now he may at least rejoice in the sure prospect of a good and ever-increasing income, from this year onward. The number of fine varieties of fruit in this grove is something to be remarked. It seemed as if each orange that we tasted was sweeter, or more aromatic, or more delicate in texture, or larger in size, than the others. Mr. Moore has spared no pains to get buds from choice fruit, often going miles out of his way to procure them from some tree which was well reported of. That he should find, in nine cases out of ten, that the fruit was nothing remarkable, did not surprise or discourage him; he was well satisfied that the tenth effort gave him something which he could value. Thus he has now, not merely a fine variety as to texture and flavor, but as to time of ripening, having trees in bearing, which ripen their fruit all the way from October to March.

About one half of Mr. Moore's trees, if I remember rightly, are budded, the remainder being sweet seedlings. A number were budded upon sour stumps, and thus produced fruit some years earlier than did the young trees, but these latter are already outstripping the older trees in growth, and will soon become much more valuable than they. Mr. Moore's method of pruning is such as to form



THE SUMMER ROSE APPLE.

a low, spreading tree, from which much of the fruit may be gathered without the use of a ladder. The tree is very open within, permitting free circulation of air, but the exterior surface is a dense mass of foliage and fruit.

I was much interested in an account Mr. Moore gave of his method of planting one portion of his grove;—the more so, because I have recently learned by experience the cost of clearing up hummock land. I had observed that the trees in one portion of the grove were not set in regular lines, and on inquiring the reason, he explained it to me somewhat in the following words.

"The trees were planted in the hummock with no previous preparation except underbrushing. The brush was cut and piled in heaps to decay. Wherever there was room to dig the hole, we set the tree. Afterward we went through the grove, and girdled all the Hickories, Water Oaks and other trees which we wanted to get rid of. They dropped their branches, which were also piled up, and rotted away. At our leisure we then cut the dead trees, falling them in such directions as not to injure the young trees. The trunks were also cut and piled, to decay upon the ground, thus affording a valuable fertilizer."

"But what did you do about the stumps? I do not see a vestige of one here."

"We kept them shrubbed down, and they rotted away. We have never grubbed up any."

"And did weeds and grass never trouble the trees, thus left without cultivation?"

"The ground was too much shaded by the remaining forest trees, for grass to grow."

"And this has all been done"—

"Within nine years."

And now the young trees are bearing, under the shadow of the beautiful Live Oaks which sway their moss-draped limbs above them, protecting them alike from frost and sun. Surely in all Florida, there cannot be found a more picturesquely beautiful grove, or one which has been made with less outlay of money and of labor. There are twenty-four hundred trees in this part of the grove.

The grove which we visited is, I understand, one of three planted and owned by Mr. Moore. This work has been, one might say, the recreation of a busy life, for Mr. Moore is not as much, nor even as successful an orange grower, as a pastor and preacher. As Presiding Elder in the Methodist church he has traveled thousands of miles, and preached thousands of sermons, while the trees planted by his hands, or under his direction, have been slowly growing to matured beauty and usefulness. One such example as his will go farther to put the orange question before the public in its true light, than choruses of croakings, or reams of such enthusiastic calculations as are so freely circulated among us.

Magnolia, Fla.

INFLUENCE OF STOCK ON GRAFT.

THE article of Mr. S. B. Peck upon this subject, in the RURAL of August 16th (p. 517), exactly accords with my experience. My attention was first called to the matter some forty years ago, when my grandfather, to please me, grafted cions of a favorite summer Apple (Sops of Wine), which I brought him from my father's orchard, into a branch or two of each of several trees. All these grew and bore fruit, but only one of them grafted into a Pound Sweet, ever produced nice apples resembling the original in quality. The rest grafted into Russet trees, gave a fruit somewhat resembling the Sops of Wine, externally, though smaller, but internally they were green-fleshed, hard, and, in short, worthless.

We have had, in this cold section, a very extensive experience in grafting the Apple on the Siberian Crab, in hopes of making tender sorts successful. It is an utter failure, not only in that respect, but when tried with hardy sorts; in the latter case giving us poor fruit and unhealthy, short-lived trees.

Experience has slowly led me to the belief that the less of the stock there is to a grafted tree, the better. Consequently I would always practice root-grafting, and set the grafts deep enough to encourage the development of roots from the cion. Not all kinds will strike root freely under such circumstances, but those which do, make the best trees and bear fruit truest to their original. Examination has shown me, in many instances, that when two-inch roots are used, with six or seven-inch cions, set so that only one or two buds are above ground, the "nurse-root" hardly survives the first season; or, if it does, it furnishes but a very small fraction of the root-system of the tree. I was very much prejudiced against this method of propagation, and have in fact denounced it savagely in years past, but I must now confess that trees grown in that way, to prove its badness, are among the best in my orchard. T. H. HOSKINS, M. D.

Orleans Co., Vt.

THE SUMMER ROSE APPLE.

W. S. T., Upper Red Hook, N. Y., sent us for name, the other day, a couple of specimens of an apple which he describes as of excellent quality, flat rather than long. Mr. Charles Downing, to whom we forwarded a specimen, writes us with regard to it: "It is the Summer Rose described in Downing, page 371, where Woolman's Harvest and Lippincott's Early are given as synonyms. In addition to these it is also known as Early Woolman, Early Rose, and Lodge's Early. I have also ascertained that it originated on the farm of Aaron Lippincott, Salem, N. J. It is an old variety but of excellent quality for home use, handsome, with very tender flesh, juicy and one of the best among the summer apples." The accompanying cut presents a fair illustration of one of the specimens sent us.

Horticultural.

LESS POPULAR STRAWBERRIES, ETC.

THE Sharpless Strawberry is, doubtless, receiving a greater amount of admiration and praise than any variety yet introduced, and well it may, for it certainly is of prime quality and monstrous in size. But, for all this, I think there are many other varieties that possess qualities equally as good as the Sharpless, and which, nevertheless, have not received half the amount of praise that has been bestowed on this new variety. Of the less popular sorts, I shall mention only two or three.

THE DUNCAN has as yet attracted but little attention, and why it has not received more admiration I can't understand. The plant is a strong grower, and its foliage of a beautiful, glossy, dark-green color. The fruit is very early, large, of good shape, bright crimson in color, and of most delicious flavor, while on rich soil the vine is very productive. What more can you expect in one variety? "Is the fruit firm?" some one asks. Yes, quite firm enough for near markets, and in some localities it endures long carriage well. It should have a place in every collection. It is one of my favorites, and I shall set more of this than of any one variety.

THE BLACK DEFIANCE is another sort that has received comparatively little praise in the horticultural journals. But it has been rather despised by some fruit growers, and they threw it aside as "a shy bearer." Had they given it a more thorough trial, they would probably have formed a different opinion. Its want of popularity is doubtless due to the fact that it will not succeed on every sort of soil. Neither will the Jucunda or Seth Boyden, and yet these two are far more popular than the Black Defiance. On deep, rich, rather heavy soil, it is second to none for market or family use. It is very productive, in size as large as the Boyden and equal in quality to the Jucunda. It is oblate in shape and grows very regular; its color is deep red.

OF THE OLD KENTUCKY very little is said in the papers now, and I find many fruit growers have discarded it altogether, because it is a pistillate sort. This ought not so to be, for if it is set between staminate varieties it will yield handsomely, and *such* berries, real beauties of fine quality and sufficiently firm for near markets. I should not know what to do without it. It should be specially prized for its extreme lateness.

THE TURNER RASPBERRY and Kittatinny Blackberry—I have not yet fruited the Cuthbert Raspberry, but of all other red varieties, I have not found one that, all in all, has pleased me as well as the Turner. I often wonder why it is not more generally grown. True, it suckers very freely; but the young shoots are very easily subdued with the hoe, while its good qualities, I think, overbalance this general objection to it. With me it is very productive; the berries are of good size, moderately firm, and of superior quality. More than this, it is probably the hardiest Raspberry in cultivation, a fact that makes it especially valuable for cold climates.

THE BLACKBERRY is without doubt grown less than any of the small fruits—unless it be the Gooseberry—and why is it? Ripening as it does about the same time as peaches, it hardly gets a show in the markets and much less in the garden. Peaches are good, *very good*, and so are nice, ripe Kittatinny blackberries. I prefer the Kittatinny to Lawton on account of its superior quality. It is now in its beauty, the bushes being literally loaded down with their rich glossy fruit. Why will so many do without this delicious berry when it can be grown so easily? W. M. NASH.

Fairfield Co., Conn.

TOMATOES ON TRELLISES.

As an experiment I trained one tomato vine this year on a trellis and do not think I shall ever plant another vine, without some kind of a trellis, unless it is to experiment. The fruits on trellised vines attain a large size, are juicy and do not taste of the ground. While the fruit of the vines that were left to run on the ground, were rotting, those trained to a trellis were sound and growing rapidly. The trellis I use is the same as the one described and engraved in the RURAL last spring. It takes but little work to make one. Any farmer can make all he wants in the barn some day when it rains. The fruit will ripen more evenly and ten days earlier—which is quite an advantage. Moreover the arrangement gives the garden a more tasty appearance and it is much easier to keep the trellised ground free from weeds. C. T.

Millersville, O.

Field Crops.

HISTORY OF A POOR FARM.—No. 15.

About Corn Growing.

THE dry, hot season has furnished a good opportunity for observing the effects of cultivation during an unusual drought. From the middle of June up to the middle of August the soil has been parched almost continuously. Showers have fallen occasionally, but they have been heavy, beating, thunder showers and drying winds have followed them; so that but little good effect resulted from them. A 12-acre field planted in sweet corn and beets, has furnished an opportunity for testing some theories and practices. Part of the corn has been cultivated with the common reversible-tooth cultivator, part with the Planet Jr. horse hoe, and part has been plowed. Some of the beets have been cultivated after every shower and before the ground had dried, and the remainder have been worked in the usual manner and without reference to the moisture of the soil, but merely to keep down the weeds and mellow the surface. The effects have been as most farmers would have expected.

"I don't know about that" remarked Mr. Martin," most farmers work their corn with the plow and prefer earthing or ridging it up, to the level cultivation of the horse hoe or cultivator. Besides, Dr. Sturtevant approves of the root-pruning of corn by deep plowing, and Fred root-pruned part of that corn pretty well; yet the plowed rows are the poorest in the field."

"And they might well be" rejoined Dr. Jones. "If it was intended to dry out the soil, no better plan could have been adopted. If the season had been wet and the soil clayey, instead of sandy, the ridging would have been admirable; it would have drained the roots

and lowered the water level below them, and have given the sun a chance to warm the soil. You see "circumstances alter cases" as I think some one has pointed out before, and what would have been an excellent method in a wet season upon heavy land, has simply destroyed the crop in this light, warm, dry, sandy soil. It was wise in Fred to plow but a dozen rows, for the labor of planting has been all lost."

"Not quite lost;" I replied, "for it has given you a chance to make a useful application of the result of an experiment, by which is shown that plowing and root-pruning corn may fail on light soil in a dry season."

"Well, you can look at it in that light," replied Dr. Jones; "but I would like to add that there is a good deal of harm done by generalizing, and by blindly following the example of this or that man, or taking this or that man's advice without considering the difference existing in the circumstances. I have six acres of corn in the flat, and to-day, after the rains of the past three days, the ground is all under water, excepting the tops of the ridges where the corn stands. My corn has dry feet, if the water stays for a week; but yours, where it is cultivated flat, is only nicely moist, and may be worked to-day, if you wished. Now my corn is better than the best of yours, and yet it was plowed more deeply than yours; some of the ridges are 18 inches from top to bottom."

"You are not out of the woods yet and can't afford to halloo; wait until you come to husk your crop, and I think you will find the deep plowing has shortened the ears," said the old gentleman. "The roots must have some ground to run and spread in, and in those drills they have not two feet. That is too close pruning, I think. I like to see corn plowed, and always plowed my corn, but I never plowed out the middles deeper than the roots would run across the rows. I have often seen the ground washed out of the middles by heavy rains and the roots have run across both ways from hill to hill, and the ground was full of them. Then you have good corn and long ears, well filled."

"Well done, old friend," replied Mr. Martin, "that is quite a long speech for you, but it is full of sense. Do you know what made those roots run from row to row? They were after the manure which you plowed in and mixed up with the soil, while Dr. Jones has the manure dropped in the rows and the roots have no inducement to travel here and there for nothing. They are just staying where they can find something to feed on. Is not that right, Doctor?"

"You may be right," replied Dr. Jones; "I never knew of a root of a plant leaving rich feeding ground to wander in poor soil; roots have a sort of instinct for finding food."

"If that is the case," I rejoined, "those rows that were ridged in my field have been starved, because the manure was plowed in, and the deep plowing has cut them off as well as dried up the soil. It is clear that working corn with a plow in light land and in a dry season will not answer. Now let us look at the cultivated rows. These that are weedy in the rows were worked with the common cultivator and the ground was kept flat. A good deal of hand-hoeing has been done here. The next rows were worked with a horse-hoe that has a small plow on each side, by which the soil is thrown on to each row. These are clean and free from weeds, and no hand-hoeing has been done. Yet the corn is far better than on the other cultivated rows."

"If you had planted the corn in squares and cultivated them both ways, it would have been cleaner," said the old gentleman.

"No doubt," I replied; "but this corn was planted with a corn-planter, and four acres were put in the ground and finished and some fertilizer was dropped in the hill at the same time, all in half a day. If the ground had been furrowed out both ways and the seed dropped and covered by hand, it would have taken four days. The seed is dropped in the rows 18 inches apart, and there will be twice as much fodder and considerably more ears than if it was planted in squares three feet apart. The weeds, you see, are chiefly the fault of the poor tool, which only stirs the ground and does not throw any in the row, as you can see by the other rows that were horse-hoed. We have some corn planted in squares, and by-and-by Fred will be able to tell you the difference in the yield."

"Planting in rows is the best; there is no doubt of it," said Dr. Jones. "No ground has yet produced a crop equal to its natural capacity. Dr. Voelcker has carefully analyzed the soil of a field to the depth of 18 inches, and has found an enormous quantity of nitrogen and phosphoric acid in it. The total amount is hardly to be credited, but it is doubtless true. There were 11,625 pounds of phosphoric acid and 10,300 pounds of nitrogen per acre found in the soil. The 18 inches of soil over the whole acre weighed about 7,500,000 pounds, so that there was only 1½ pound of each of these substances in the 1,000 pounds of soil, or .015 per cent., and there are many soils that have more phosphoric acid in them than this; so that the largest crop we could ever raise would be far from exhausting the soil of even its available measure of fertility, although no manure or fertilizer were applied to it. Therefore, the closer the planting, up to a certain point, the more we can or ought to produce. This is proved to some extent by the constant increase in a corn crop planted in drills over one planted in hills, the drill-planting being, of course, closer in the row and the crop being equally well worked in either case."

"I think the Doctor makes too much of that experiment of Dr. Voelcker's," remarked Mr. Martin. "A hungry man may have a car-load of pigs and a ship-load of flour, but yet he could not make a single meal of bread and bacon of the whole; all that food is unavailable to him, because it is not in such a condition that he can use it to appease his hunger. It was precisely the same with that soil. If I remember rightly there were only 40 bushels per acre of wheat taken, the next season, from that field examined by Dr. Voelcker and yet there was nitrogen and phosphoric acid enough to produce several thousand bushels of wheat per acre. Why did not that land produce 60 or 80 or 100 bushels of wheat? Simply because the plant-food in the soil was not in a condition for the wheat to make use of it. The explanation of the increase of corn in drills must be given in some other way. It is a fact I can grow more corn by drill planting than by hill planting and twice the fodder; but the reason to my mind is that in hill planting the roots do not occupy all the ground, while they do in drill planting."

"That is a good reason, too," said Dr. Jones, "and you may be right, but I want to hear how the cultivation of those beets resulted. There is something that is not yet precisely understood in regard to the effect of loosening the surface soil in dry weather."

"It is a short story," I replied. "The rows which were cultivated immediately after the showers and while they were moist, did not dry out, as did those that were worked only in the usual manner and without reference to the moisture in the soil. The beets speak for themselves. Those in the first rows are twice as large as the others, and all through the season the first rows were never so dry as the others, and these never gave any indication that the loose soil gathered any moisture from the atmosphere in any way, so as to affect the growth of the crop. The effect seemed to be that the loose ground held its moisture with great tenacity, the loose soil acting as a mulch; but, once the soil was dried, all the cultivation did not bring any moisture back again. The same was noticeable in the corn rows. This evidently shows that if we wish to gather the benefits from loosening the surface soil, it should be cultivated and made mellow while it is moist, and the moisture preserved in that way from evaporation; and that if we permit the soil to dry, we cannot bring back the escaped moisture by all the cultivation we can give it."

GREEN VALLEY GRASS—GUINEA GRASS—JOHNSON GRASS.

EDS. RURAL NEW-YORKER:—In the RURAL of August 16, you name a specimen of grass sent you from Texas, "Guinea Grass—*Sorghum halepense.*" There are some facts respecting this grass, which may prove of importance to dairy farmers and stock-raisers, especially in Southern and Southwestern States. Many readers of the RURAL are no doubt aware that, during last fall and spring, there was advertised, in several papers of Northwestern Missouri and adjacent parts of Iowa, a new forage plant by the name of "Green Valley Grass," of which seeds and roots were offered for sale. It was said to have been introduced from Texas, and formerly from the West Indies, and described as a perennial of remarkably vigorous growth, attaining a hight of six to eight feet, if not cut, and yielding six to eight tons of good hay per acre, if cut four or five times during the season, besides a large amount of winter pasture, and, last of all, a great crop of roots (rhizomes), which are valuable food for hogs.

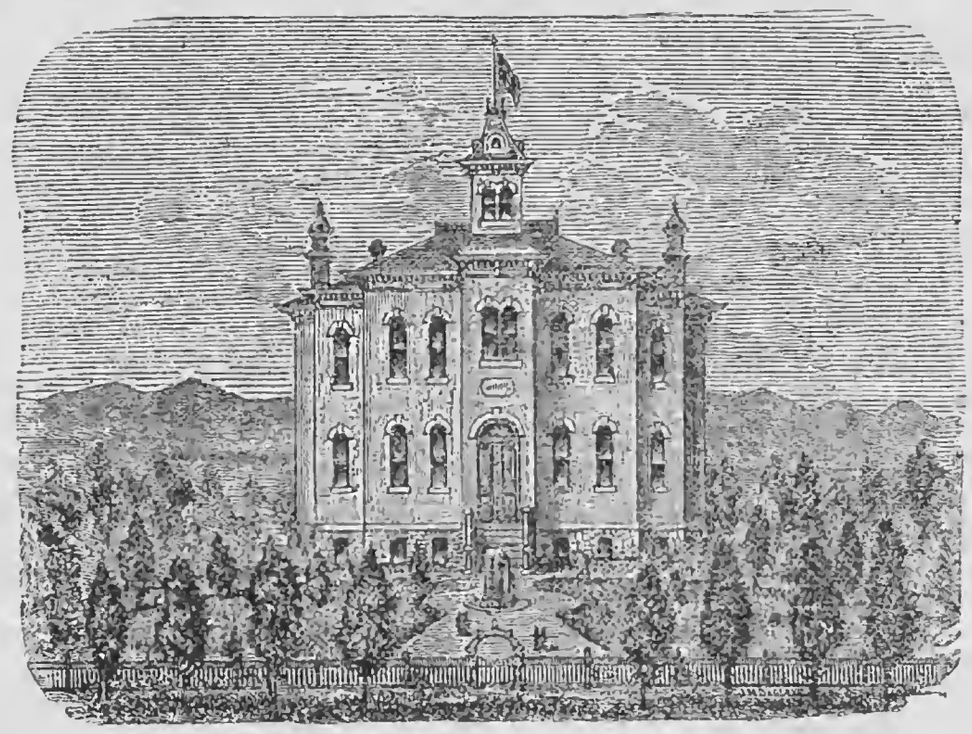
Being curious to learn more about this wonderful grass, I wrote to the principal advertiser, inquiring if he could inform me of its botanical name, or when it was brought from the West Indies, etc.; also asking for a few of the roots for experiment. He could not give me the desired information, but sent some roots, and also such testimony as satisfied me that he was not designedly perpetrating any fraud or humbug, but that he really believed the article to be new and valuable, as was stated. I planted the roots in May, during a severe drought, which has continued with very little relief to this time. The soil was sandy and poor, and no culture or care was given, but the plants grew vigorously and in two months attained the hight of six feet and formed heads and blossoms, the whole plant resembling a slender growth of Indian corn, with finer leaves and tassels, but branches and leaves instead of silk or ears. I sent one of the heads to Prof. Asa Gray, asking its botanical name, which he gave as you have done—*Sorghum halepense*—and this, I remembered, was the name of a Southern grass, of which mention was made several years ago, with some high commendations, in the Reports of the Department of Agriculture. In the reports for 1873 and 1874 I find a number of extracts from correspondents in Texas and other Southern States, describing this grass correctly, but giving it several local names, as Johnson Grass, Guinea Grass and St. Mary's Grass, and nearly all speaking in lavish terms of its excellence for hay and pasture and its wonderfully luxuriant growth and ability to withstand heat and drought. Readers who are interested can turn to the report and peruse these articles for themselves.

Indeed, there is so much useful information often contained in these reports that it would well pay our farmers to secure copies of them through the members of Congress for their districts, and read them in the long winter evenings. Pity it is that they so seldom fall into the hands of those who would utilize them to the best advantage; but that instead they are too often consigned to the waste-paper man, unread or merely glanced over.

It appears that the grass was introduced into the Island of Jamaica from Africa, many years ago, and from thence to Texas, Florida, Louisiana and Alabama, where it has been known to some extent for the past twenty-five years, or longer. It is stated that in 1873 the Commissioner of Agriculture, hearing such good reports of Guinea Grass, from Jamaica, imported seeds by that name and distributed them in this country, but supposed the plant to be a species of Millet which was also called Guinea Grass, and hence it is uncertain, to me at least, whether the seeds distributed thus were the genuine *S. halepense* or something else; and I have never seen a word published as to any result from that seed distribution. Can any reader of the RURAL enlighten us about it? And can anybody inform us why this grass, so highly praised and seemingly of real value, has not become more generally known at the South? I would also inquire whether anybody has tested the ability of the roots to endure freezing or withstand a Northern climate. If they will do this, of which I have doubts from its tropical origin, I shall expect to find it become a valuable acquisition for our dairy and stock farmers, especially in seasons of drought like the present.

Painesville, O. M. B. BATEHAM.

[A number of our readers can inform Mr. B. that the roots are quite tender. We have it growing both at the "Rural Farm" and "Rural Grounds," and shall report in due time.—EDS.]



COLORADO AGRICULTURAL COLLEGE.

Industrial Topics.

COLORADO AGRICULTURAL COLLEGE.

THIS College is located on the southern bank of the Cache la Poudre, about six miles east of the foot-hills of the snowy range and thirty-five miles south of the State line; it is surrounded by a fertile and well-watered region, including some of the best agricultural lands in the State.

Its elevation of 5,100 feet above the sea level gives it a pure, dry atmosphere, while its proximity to the mountains brings it within the limit of occasional rains, thus rendering the climate pleasant and salubrious and adapting the soil to the cultivation of the cereals. This region, comprising the counties of Larimer, Weld, Boulder, and parts of Arapahoe and Jefferson, is rendered accessible from the north and south by the Colorado Central Railroad, which passes directly through Fort Collins, and by the Denver Pacific Railway, both of which roads connect with the Union Pacific at Cheyenne and with the Kansas Pacific at Denver. The streams draining this region, the Cache la Poudre, Big Thompson, and other tributaries of the South Platte, furnish an inexhaustible supply of water for purposes of irrigation. It is estimated that the great irrigating canal now in process of construction and supplied from the Cache la Poudre, will bring at least 100,000 acres of unproductive land under cultivation. The College has been most judiciously located with reference to this large extent of farming land, in the midst of communities refined and progressive and very fast surrounding themselves with all the comforts of the most advanced localities in the West.

W. F. Watrous is President of the College; H. Stratton, Secretary; John J. Ryan, Treasurer; E. E. Edwards, Ph. D., is President of the Faculty; A. E. Blount, A. M., Professor of Practical Agriculture and Farm Superintendent; F. J. Annis, A. B., Professor of Chemistry and Mathematics.

The object of the school is to impart a thorough and practical knowledge of all those branches and sciences that pertain to agriculture and the mechanic arts. Tuition is free to all within the State. A matriculation fee of $5.00 is required of each student on entering and an incidental fee of $1.00 each term. Board and lodging can be obtained for from $4.00@$6.00 per week.

Thus it will appear that our farmers may send their sons to this institution for $250 per year. Removed from the temptations of cities, favored with a delightful climate, instructed in all branches of learning essential to prepare the student for agriculture or for the usual occupations of life, this College is fitted to accomplish great good, and we heartily wish it may be appreciated to the extent of securing for it a high prosperity and an endless career,

Farm Topics.

THE COMMON SCHOOLS, THE FARMERS' HOPE.

MUCH has been said and written in regard to an improved culture of the rural classes. They are demanding something more than hitherto, and asserting for themselves a higher position in the social scale. While there are steps backward as well as forward in all movements towards a higher civilization, we may be sure that the end here sought will be reached. Agriculture in all its departments must, in years to come, command a higher class of talent and a broader culture than in the past. While we are inclined to give high honors to the rural press, to the associations and societies formed to promote rural interests, and to agricultural colleges, where they at all recognize the object of their creation, the more intelligent among the masses are feeling that they can justly demand something more for the children in the common schools than has hitherto been offered them. We ask that the culture of the common school shall be turned in some slight degree towards rural and industrial interests. A more general diffusion of knowledge relating to agriculture and industrial pursuits is demanded. Our children need culture that shall impel towards farm life. This cannot be attained by the instrumentalities now employed.

Hence we propose that the common school shall be made more tributary to our rural interests. We want an elementary course of instruction in matters, both practical and scientific, that relate directly to rural life. This should be so elementary in its character that the great mass of our children may acquire it by the time they are fourteen years old. By this means the common school will, to a certain extent, become the training school of our agricultural and industrial colleges. These latter institutions will then have opened to them a much wider field of usefulness and the

possibility of a much more thorough culture to those who may enjoy their advantages.

Manhattan, Kan. PROF. ELDRIDGE GALE.

JOTTINGS AT KIRBY HOMESTEAD.

COL. F. D. CURTIS.

Our Own Bread—More About Clawson Wheat.

We have found a miller who thinks he knows why Clawson wheat makes a poorer quality of flour than most others. "You know," he says, "there is a difference in potatoes; some are fine-grained and some are coarse-grained, and still they are all potatoes and may all look well; but the fine-grained potatoes are much more palatable than any others. It is the same with Clawson wheat; it is plump and nice-looking, but it has a coarse grain, and on this account cannot be ground into as good flour. I have tried it every way, and have done my best, and I cannot make flour of the first quality out of it." We think these conclusions, especially the latter part, must be accepted. The truth is, the patent-process flour has made the standard of flour with most housewives so high that no home-grown wheat and home-ground flour will suit them. It is a misfortune that this is the case, as it interferes materially with the good old-fashioned notion of raising one's own breadstuffs. If the standard could be lowered somewhat, and a taste withal for plainer bread developed, there might be better health in many farmers' families and more encouragement to be perfectly independent. We are not prepared to advocate reducing the standard to so low a grade as rye flour, but we do think we ought to cultivate a taste which would be satisfied with what we can profitably produce on our own farms.

From all the information we can get, Clawson wheat, for general cultivation, which includes all kinds of soil and climate as well as tillage, is the most profitable. We have no doubt but that it will improve in quality with good and continuous cultivation. We recollect, about thirty years ago, when the Hessian fly and weevil destroyed all the wheat, that a foreign variety of inferior quality, not much better than rye, was introduced into the country, and became in the older States the almost sole dependence of farmers. This variety, the Mediterranean, from a necessity at first, improved rapidly to excellence. The desire for change, which is a national weakness, has resulted in the adoption of newer sorts, which, in turn, have been abandoned, and now we all long for the old Mediterranean.

Clawson wheat may be sown early or late, on good land or poor, and a remunerative crop is almost certain. We are not yet prepared to give it up.

Cheap Pig Feed.

On the 10th of August we turned over an acre of barley stubble and sowed it, broadcast, with flat turnips. We expect this will make feeding for two months for the store hogs. We intend to let them help themselves, having constructed a temporary sty in the field for their shelter. This is the easiest and cheapest way we have found to feed our pigs during the latter part of fall. It doesn't make any difference if the turnips do not grow large; in fact, smaller-sized ones are preferable, as they can be more readily eaten. The pigs eat tops and all. A crop of turnips, to be fed in this way to pigs, may be put in as late as the first of September. Six weeks of growth on rich land will afford, tops and all, a large amount of food. The ground is in excellent order, and made richer, too, for a spring crop. From an experience of several years, we commend this crop to all farmers who keep pigs or sheep, for which it is especially adapted, and also for young stock. The autumn frosts do not injure the leaves, and this green food helps to carry the summer well into winter.

Care of the Hennery.

A good whitewashing, with fresh lime, at this season of the year, will destroy the vermin found in almost every hennery, which will be a great relief to the poultry. A foul hennery is a persecution to poultry and keeps them from laying. A few cents' worth of lime and a few minutes of time will do the work effectually.

VARIOUS TOPICS.

Sowing Wheat.

I THINK that usually much more wheat per acre is sown than is necessary and more than will give the best results. Last year I sowed five pecks upon an acre and a quarter. It looked very poor and thin in the fall, but at harvest time it was the best-looking piece that I had. I got 46 bushels from it, which was a much better yield than I had from any piece seeded with the usual amount—a bushel and a half. It stood up better than any other also—variety, Clawson. It would give valuable results if all would try different amounts of seed, and see which would give the best result, each reporting the outcome of his experiment.

Rolling Ground.

Rolling wheat ground, even when not cloddy, is not sufficiently practiced. Last year, in plowing for wheat, the headlands were tramped so hard that when sown, the hoes of the drill could hardly penetrate the soil. The field was rolled, but, of course, it was not rendered as compact as the headlands. Through the season there was a noticeable difference between the wheat on the headlands and that on the remainder of the field, in favor of the former.

Borrowing Tools.

In every neighborhood there is some one who never has any tools and is always borrowing of others. Whenever a hoe or a shovel, a plow or a harrow, a hammer or a saw, is wanted by him, this person must borrow it. Probably he does not want to use it more than five minutes, and it takes him three or four times as long to get it. I do not speak of his returning it to the owner, for that he never does. When the latter wants it, *he* must go for it, thereby losing his time and generally his patience also. This class rely on their neighbors to furnish them with every tool they use. The practice is unprofitable for the borrower and both unjust and unprofitable for the lender.

Tools are worn out or broken and the damage seldom paid for, and should one venture to hint that it would be nothing more than right to pay for a broken tool, these borrowers are usually very indignant. By all means, let every one own the smaller tools of every-day use himself; and if he cannot afford to buy the more expensive machinery, let him unite with others and own it in partnership—an arrangement which would enable him to have the use of several machines for the price of one, and which has the merit of economy if not of convenience.

V. J. EMERY.

Henry Co., Ohio.

EXHAUSTED SOILS.

IT is assumed by some that a soil by long-continued cropping is exhausted. This may, in one sense, be true. If the crops raised do not pay the expense of raising them, the soil is called exhausted; but it is not, and fails to yield paying crops only on account of a bad system of tillage. There is but little, if any, land that will not grow good clover crops, even on exhausted soils, without any fertilizers, while all will if properly fertilized at an expense of less than five dollars per acre.

A crop of three tons per acre of clover contains the following constituents: ash, 399 lbs., potash, 117, soda, 5.4, magnesia, 55.2, lime, 153.6, phos. acid, 44.8, sulph. acid, 13.6, chlorine, 16.8, sulphur, 16.8, and nitrogen, 127.8. With this it is interesting to compare the constituents of the following crops:

	Ash.	Potash.	Soda.	Magnesia.	Lime.	Phos. A.	Sulph. A.	Chlorine.	Sulphur.	Nitrogen.
Wheat, 40 bush. and straw.....	221	33.8	6.4	9.8	12.3	29.3	5.9	—	10.3	63.0
Rye, 50 bu. and straw.	352	63.2	16.2	13.4	20.6	34.2	6.2	—	10.1	68.4
Corn, 50 bu. and straw.	166	76.8	2.6	15.8	20.9	31.7	10.3	—	19.2	68.0
Potato's, 300 bu. & tops.	232	120.0	3.6	16.4	24.1	26.4	15.6	8.8	6.4	81.0
Turnips, 500 bu. & tops.	309	109.2	30.6	12.6	51.0	37.8	41.4	16.2	15.0	66.0
Cabbage, 10 tons.....	248	120.0	10.0	8.0	38.0	40.0	21.0	6.0	10.0	48.0
Tobacco, 1 ton.....	—	108.0	14.6	41.4	146.3	14.2	15.4	17.6	—	92.0

These facts show that clover abstracts from the soil more than any of the above crops, which are larger in quantity than are usually obtained, even when the soil is considered highly manured. Soils are not exhausted when a suitable crop has the power to change and liberate the insoluble substances existing in the ground, and store them in the plant for other purposes. By the growing of clover there is also left in the soil, to a depth of ten inches, 6,580 pounds of clover roots containing 77 lbs. of potash, 19 lbs. of soda, 46 lbs. of magnesia, 246 lbs. of lime, 71 lbs. of phosphoric acid, 24 lbs. of sulphuric acid and 315 lbs. of nitrogen, available for a crop which, when plowed, leaves the land clean, light, retentive of moisture, and easily tilled. The constituents in the clover roots are in quantity as much as most of the above-mentioned crops require, and amount in value at the prices at which commercial fertilizers are calculated to, $40.42 for the nitrogen, phosphoric acid and potash alone, to say nothing of the other constituents which are equally important to the growth of crops. The necessity of purchasing fertilizers, and the cost of applying them are saved, and the farm made, as it should be, self-supporting, but it can only be so by a judicious rotation of crops. If this is not done, fertilizers which are much more costly, must be supplied. It is most profitable to cut the clover the first and second years, and after the second year's crop is taken, allow it to seed which save for future use, and then the land is ready for the plow for the ensuing crop. The term exhausted land, therefore, does not mean that the soil is destitute of a supply of crude plant-food ample enough for the production of many heavy harvests, but merely that enough of the abundant stores is not soluble, or, in other words, in a condition fit to be absorbed by the plants.

A. H. W.

The Apiarian.

EXTRACTED HONEY.

REV. O. CLUTE.

THE market reports in the large city dailies give quotations of "strained honey." All know that strained honey was formerly pressed out of old black combs that were taken from the box-hives after the bees had been brimstoned To any one who ever saw honey strained in the old way, its association with the juices of half-grown bees is by no means appetizing. At the best it usually has a dark color, and a rank flavor of bee-bread. As to its production, all intelligent bee-keepers will agree in the advice given by Punch to couples about to get married—"*Don't.*"

A serious evil which strained honey has created is the tendency, among nearly all, to put all liquid honey in the class with it, and so to do great injustice to "extracted honey." Extracted honey is honey in its purest shape, and to class it with the pollen-spiced, maggot-flavored, strained honey, is like putting the nectar of the Olympian gods on a par with forty-rod whisky. All bee-keepers should endeavor to have the real character of strained and of extracted honey fully known, and should labor to convince the public that extracted honey is in the purest and most cleanly condition. Like all new articles of food, it will take time to make its merits widely known. When people become acquainted with its real merits, and its cheapness, there is no doubt but it will be in large demand.

But this wide popularity can be obtained and maintained only by producing an excellent article. To this end bee-keepers must strenuously insist upon two things: that the honey shall be sealed, or just ready to be sealed, before extracting; and that it shall have no suspicion of adulteration.

The nectar gathered by bees from flowers cannot be called honey until the evaporating or ripening process has so far gone on that the bees are beginning to seal the cells. Some bee-keepers advocate extracting as fast as the honey is gathered. It is quite clear, however, that honey so extracted lacks very much in the delicious flavor that belongs to a good article. If we are to build up the market for extracted honey, we can do so only by giving a genuine honey, and not the crude, watery nectar as is first gathered from the flowers.

The ease with which extracted honey can be adulterated, and the large profits derived from the cheat, have in a few cases led to such dishonest practices as seriously to injure the bee-keeping business. There are probably only a few individuals and a few firms that have been guilty of this fraud, but their guilt is a damage to every bee-keeper throughout the country, for, in the general ignorance as to extracted honey, whatever tends to cast suspicion on it, decreases the demand for it, and so lowers the price. Hence there has been need on the part of bee-keepers for agitation against the practices of the unscrupulous men who are selling glucose or grape sugar for honey. We may hope that the conviction and punishment of a few of these scoundrels will effectually end the fraud. In self-protection, the various local and State organizations of bee-keepers, and the National Association, should employ experts to examine all suspected honey, and should prosecute vigorously every person against whom good evidence of adulteration can be found.

Comb honey has such intrinsic qualities of excellence and beauty that it will always be in demand. A pure article of well-ripened extracted honey also has most excellent qualities which, when known, will commend it to wide favor, and secure for it a large consumption.

Johnson Co., Iowa.

Dairy Husbandry.

PACKING BUTTER FOR WINTER USE.

HENRY STEWART.

The fall growth of grass, which nearly everywhere in the Northern States consists chiefly of "blue grass," is productive of excellent butter. September-packed butter equals the noted June butter, and it is doubtless to the fresh growth of grass that is started by the early fall rains that this excellence of the butter is due. September butter is the best to pack for winter use; for being packed and kept during cool weather, it has an advantage over June butter in freshness and age, when it is opened for consumption. It goes without saying, that to have good winter butter, the best method of packing should be used, and the butter should be good. The best of packing will not make poor butter good; although it may redeem inferior butter from further degradation; but bad packing will ruin the best of "gilt-edged." There are but few requirements for good packing, but each is indispensable.

The butter must be packed while perfectly fresh. Immediately after the final working it should be put away in the packages. If only but five or six pounds, it is safe there; while if kept in a lump or roll, it is exposed on all sides to the air, begins to spoil from the first and communicates its taints to the whole contents of the package with which it is intermingled. The salt should be pure. Only the best of dairy salt should be used. One ounce to the pound of butter is the proper quantity. The package should be perfectly clean, fresh and sweet. A new white-oak pail should be chosen, the larger the size the better, because there is less surface exposed to atmospheric influence in large packages, and a 50-pound tub may be packed safely in a month, a part at a time, if rightly done. The tub should be stored in a clean, cool, airy, moist place, but one perfectly free from moldiness. A good cellar with a brick or cement floor is suitable, but it should be free from all taints or odors. The butter having been churned, is worked free from butter-milk, and an ounce of salt, finely pulverized, to each pound—weighed, not guessed—is added, evenly worked in by gashing the lump with the paddle, sprinkling the salt, then turning and gashing again. The butter should never be plastered or smoothed over with the ladle, but cut and gashed and turned, and cut again. It is gathered into a lump and put away for 24 hours in a cool place. It is then reworked in a similar manner; the milky brine that escapes is all worked out, and a little more salt is added, if thought desirable. When quite free from milk it is put into the package.

A glazed stone-ware crock of three or four gallons is, perhaps, the best for a small dairy. Next is a new white-oak 50-pound pail. The package must be clean, and, if of wood, should be scalded with hot brine a day before using it. When prepared for use it should be finally rinsed in cold brine, a little dry salt sprinkled over the damp inner surface, and the butter packed in with a ladle, pressing firmly to close every open space that would admit air. A plastering motion of the ladle is to be avoided, and pressure only to be used. This preserves the grain. If the package is not filled, the butter is covered with a clean piece of muslin, cut to fit all over closely, and then with cold brine; and the tub is set away in a proper place, covered with a cloth.

When more butter is to be packed, the brine is poured off, the muslin removed, the lower layer of butter is sprinkled with a little fine salt, and the fresh butter is packed as before. This is continued until the package is filled to the top. Then salt is sprinkled over the butter, a clean piece of white muslin, well washed previously, is fitted closely over it, and the lid, well cleansed, is fastened down tightly. The tub, then put away in a fit place, may be kept for a year; and, if the butter was good when packed, it will open as fresh and sweet as at the first, and, indeed, with a peculiar nutty flavor which is found in mature and well-ripened butter, and is absent from all the fresh butter which I have ever tasted.

Industrial Societies.

BRITISH AGRICULTURAL SHOWS.

PROFESSOR G. E. MORROW.

LEEDS, Eng., August 7th, 1879.

THE opportunity has been afforded me of being present at four Agricultural Shows in England and Scotland in the last five weeks, viz.: that of the Royal Agricultural Society of Kilburn, near London; that of the Highland and Agricultural Society of Scotland, at Perth; the Border Union Show at Kelso, and the Yorkshire Society's, which has closed to-day at Leeds. In many respects there has been similarity in these, although the Kilburn show was the most extensive one ever held, and that at Kelso would only rank with an ordinary County Fair in "the States." In some respects our managers of agricultural societies could copy with advantage the plans here used. In others I like our own arrangements better. Among noticeable characteristics I may name:

1. Systematic and careful arrangement of the grounds and of the exhibits, which are all classified. Even at Kelso, where a fence was the place assigned for the cattle, and rows of posts, with a single board along the top, indicated where the horses were to stand, the place for each class was indicated by large cards plainly printed, and for each animal by cards bearing a number corresponding to that worn on the forehead or breast of each cow or horse. No exhibitor was permitted to collect his exhibits in one group. If he showed draft horse and a roadster they did not stand side by side. At the large shows diagrams of the grounds are published, showing the part in which any class of machinery or of animals is to be found. A good effect is produced by arranging the implements and machinery in

sheds or open spaces about 20 feet wide, with wide avenues between.

2. Entries are required to be made some weeks in advance of the show, thus giving opportunity for making the classification and for issuing a catalogue giving information which enables any visitor to examine the entries without questions and at his convenience. These catalogues are sold at a shilling or sixpence each; sometimes they have advertisements inserted, and the sale would serve to meet the cost.

3. The awards are generally all made and announced on the first day of the show. The public is admitted, but a special high price is charged. At the larger shows the judging of horses and cattle is done in "rings" specially prepared for the purpose, each with a post in the center on which the number of the class being examined is pasted, as well as the numbers of the animals receiving prizes in their proper order. At Kilburn and Perth special prize-list catalogues were issued and on sale the morning of the second day. The judging impressed me as being very carefully done; in cattle the age not being considered sufficient, the animals being handled to determine their quality.

4. The programme is carried out on time—if the weather permits. I do not remember a case in which judging or a parade was commenced ten minutes after the time announced.

5. Prominence is given to daily parades of horses and cattle. They are brought out by classes, each bearing its number and the prize-takers marching at the head in their order. The procession moves slowly once or twice around the ring. At Perth there were two parades daily. These give an excellent opportunity for examining and comparing the animals, and for commending or dissenting from the awards made.

6. There is no "special ring." Neither at Kilburn nor Perth did I see a horse show in harness. At Leeds some special prizes offered by the local committees were competed for by single horses or carriage teams. At Perth and Kelso arrangements were made for testing the ability of hunters in jumping hurdles and ditches.

7. Except for a rather wide range of articles in the machinery and implement classes, the shows are very strictly agricultural. No side shows are admitted into the grounds. The classes do not cover a wide range. Farm crops are nearly or quite ignored. Except in the fine displays made by seedmen, I have not seen a bushel of grain or of grass-seed, or a specimen of roots, vegetables or fruits. Even dairy products had no place at Leeds.

8. Most of the sheds and buildings are canvas-covered. Without the disadvantage of ordinary tents, these sheds are light, easily put up, turn even heavy rains well, and give an opportunity for using the same material at different shows. The horse sheds are boarded tight on either side, with a wide covered space back of the stalls, along which visitors can walk and examine the animals at any time.

9. The refreshment stands furnish good food at rather high prices, and intoxicating liquors in great variety. The societies do not seem to recognize the probability that any one would like to drink water. Soda and other mineral waters are sold, as well as tea and coffee; but many prefer, if they must pay for drink, to buy beer, wine or whiskey. But little drunkenness is seen, and the good order is quite noticeable.

Among prizes not common in America, I have noticed, at one or the other of these shows, the following: "For farm laborer's cow; for stallion to make the next season in the district where the show is held, and at a fixed low fee; for the best collection of farm horses, to include half of the working force on the farm; for "families" of cattle.

11. Much seems to be made of banquets and dinners, at which toasts are made and responded to, sometimes at much length. At one I attended at Perth there were 38 speeches in proposing and responding to toasts, taking some three hours for their delivery. In most cases a nobleman is president of the society.

At each of these shows the weather has been bad, more or less rain falling. The attendance has been good, however. With nearly constant rain here, 31,000 persons attended the Yorkshire show yesterday. Leeds is a large city, and the attendance was much increased by the townsfolk.

As a whole, I have been much pleased with each of these shows, and think I have learned useful lessons at each.

Miscellaneous.

MISCELLANEOUS NOTES.

S. RUFUS MASON.

Gardeners' Talk.

Ask a gardener what kind of soil you should use for such and such plants, and he will reply, a "loose, mellow, rich and well-drained one." It matters little what plant, bush or tree you speak of, that's the condition the soil must be in. Take any soil on your place, sandy, clayey, loamy, gravelly, or even stony; make it as above, and the plant must do well. Here is the whole secret of successful and profitable growth. If you are building a house for yourself, plow, subsoil, drain, manure, plow again, harrow the garden fine, and drain with tiles if necessary, but let it, before planting, possess the four cardinal virtues, and there can be no such word as fail. The best farms are but facsimiles of this.

Lime for Poultry.

There are a hundred ways proposed to obtain lime for egg shells, bones, etc., for our hens. Some of these are of the most curious kind. One would suppose that lime was one of the rare substances in this world. Burnt oyster or clam shells, burnt bones, even egg shells themselves, are recommended. Teaching a hen to eat her own eggs is best done by throwing the shells to her. How many folks in the country have oyster or clam shells? Then again, gravel—hen's teeth—is not as often supplied as it ought to be. A late writer actually recommends pounded bits of glass, or quecusware as being better than gravel. How strange to see people going so far out of the line of common sense! Now, both of these very difficult things to accomplish for the health of our feathered bipeds are easily done by making a mortar of small gravel and lime, in the manner of stone masons, and when the mortar becomes hard, breaking it up small with an axe. Keep this little piece of "necessity" always before the hens and burn all egg shells, and the moral and physical character of the hens and their husbands will be in the ascendant.

Young Chickens.

This season has been remarkably dry. Young poultry have had a fine chance, and could forage for themselves without trouble. I have not fed a brood this year. Too much soft feed of the mush sort does not make the chicks grow in a healthy manner. They depend upon us for food, lounge around and do not get exercise enough. In wet weather they should be fed, but do not encourage laziness or begging among poultry. My stock of hens—60 in all—have given us 3,387 eggs since January 1. We have used all we wanted—about 500—and the sales of the balance have paid 150 per cent. on the value of the stock, and besides, we have raised a good lot of young. They are never fed, except in extremely unfavorable weather, are good foragers, and nothing eatable in their line—grain, seeds, worms, grubs and insects in general—escapes them. They are always fat enough to kill; their combs are of a brilliant red; they sing all day, and are as happy as clams at high water. I use no nostrums to destroy hen lice; give them a dry house; keep no dog to annoy them; teach the cats to respect them, and have never had disease among them. They are a cross between a Houdan rooster and Light Brahma hens.

"All Killed by the Frost."

What a common remark this is every spring! while it is not true in one time out of fifty. Trees, plants, etc., etc., which are naturally hardy, die every winter, because the cultivator violates an important law of nature. No plant can live through a cold winter without sufficient moisture at the roots to keep it alive and in working order. During September, October, November and December, the usual droughts and high winds exhaust all the moisture from the soil about the roots, leaving them nearly dead from that cause alone. It is little wonder, therefore, that frost finishes them. Now, Nature mulches everything so well that the moisture is retained, the plant lives and grows all winter. It takes a very low temperature indeed, to kill a tree, if the roots can still perform their duties. Now is the time to mulch everything, the more tender the plants, the more protection they require.

Scientific Terms for the Million.

It is quite common among a certain class of agricultural writers to use terms not understood by farmers, and as books of reference are seldom found in a farmer's library, the whole article becomes valueless. It is quite common for agricultural editors themselves to copy from foreign journals accounts of crop yields expressed in the weights and measures of the country where the crops grow. Here is another difficulty which few can surmount. Even sums of money are deceptive if given in foreign currency. Everything should be in plain English; money, weights and measures should be reduced to our terms, and then if the reader could not understand, he should go one more quarter to night school.

FIRE INSURANCE.

In the RURAL of Aug. 2 I notice an article headed, "Does Insurance Against Fire Cost Too Much?" in which the writer goes on to show that, notwithstanding the enormous losses by fires in large cities, and the great expense attendant upon the management of stock companies, in the shape of officers' salaries, agents, etc., the average rate of dividends of such companies is from 8½ to 14 per cent. He cites one company, with a capital of less than $200,000, whose president and secretary received each a salary of $15,000 a year, and adds, "The trouble is, it costs too much to run the business."

Now, why do not farmers insure themselves? Why should rural property, which runs but small risk of loss by fire or lightning, pay the losses in large cities? If farmers would organize mutual insurance companies in which to insure their property, the cost to them would not be a tithe of what it is in the stock companies. This is not theory, for it has been demonstrated repeatedly. In the town of Ripley, Chautauqua county, N. Y., there has been such a company in existence nearly or quite 25 years, and although property in the village is also included, there have been but two fires during the existence of the company, amounting in the aggregate to $1,000. The whole cost to the insured for the 25 years has not been more than one-twentieth of one per cent.

In several counties of the State the Grange has organized fire relief associations, in which the insured agrees to pay his pro-rata assessment of all losses which may occur; and although there had been no laws which would oblige one to pay until they were passed by the last session of the Legislature, I have yet to learn of a single instance in which the loss has not been promptly paid, and this, too, without the interposition of adjusters, and the cutting down of just claims, as is frequently the case in stock companies.

We have such an one in this county, which has been in existence two years, with something over $200,000 insured. We have recently had one fifty-dollar fire, the loss by which has been promptly paid. The cost of insuring is extremely small, being one-seventh, one-eighth, one-ninth and one-tenth of one per cent., according to the class of building and exposure to risk. The insurance runs for five years, instead of three, as in most of the stock companies. And this is all the expense, unless a loss occurs. The property is taken at a low valuation, as it is thought if each man carries a part of his own risk, it will have a tendency to make him more careful, and the company does not intend to offer any premium for rascality. Then, if a loss occurs, the assessed have the consolation of knowing that each man's money goes directly to relieve the necessities of a brother, and not to build marble palaces, or to pay $30,000 a year for salaries of two men, or to buy whisky and cigars for agents.

Our last Legislature passed an act, in May, to legalize the formation of mutual insurance companies, in both town and county, with power to collect assessments; and now all that seems necessary to secure cheap insurance is to organize under this act. There is a lamentable lack of confidence in farmers, not only toward each other, but in their own business ability. Here the Grange, together with such papers as the RURAL and other first-class agricultural publications, comes in as a great educator, slowly but surely lifting the masses out of ignorance and prejudice and teaching them to look to themselves for protection against sharpers and swindlers of all kinds, and to trust in their own ability to carry out such business projects as concern themselves alone. G.

Jamestown, Chautauqua Co., N. Y.

Brockworth Park and Bonne D'Ezee Pears.

THE pear sent out from England a few years since and heralded in this country with a sound of trumpets as a new variety under the name of Brockworth Park, is an old sort, Bonne d' Ezee, or Bonne de Zees. This has been proved to the satisfaction of pomologists in this section from the garden of Mr. Jas. H. Ricketts and the orchard of Mr. T. S. Force, north of this city. A. A, B.

Newburgh, N. Y.

WHAT OTHERS SAY.

Raspberries.

MR. E. WILLIAMS, of Montclair, communicates the following to the Cincinnati Horticultural Society: "We are trying the Gregg, but must wait till next season before we can form any opinion. The Ganargua is large, but the color being neither red nor black, it is of little account. The New Rochelle of same color but larger, makes a splendid show at first, but the color would kill it as a market fruit, and the quality is only medium, or below. Highland Hardy is very early and good, but too soft and perishable for a distant market. The Thwack was introduced here some years ago as the best that ever was. We invested $2 in them, but "nary" a plant grew; killed in advance, I suspect; plenty of like experience hereabouts; have not heard favorable accounts enough of it since to induce us to try it again, but it seems Mr. Ohmer regards it favorably.

A word as to the identity of Miami and Mammoth Cluster. It was originally sent East by Western parties as Miami Black Cap, but when prices declined and they were slow of sale, certain parties moved it to New York State, and re-christened it Mammoth Cluster, made a great ado about it, and no doubt made money by the operation. It was not until the trick was discovered and exposed that an effort was made to cover up the fraud, by pretending that there was a smaller berry from Southern Ohio known as the old Miami, to which the name properly belonged. We bought some of the newly-baptized infant at $20 per 100, and they proved the same thing we were selling at $5. We have discarded them both. They are identical—a week later than Doolittle, a little larger, but not as good.

CONTRADICTORY stories as to Pearl Millet appear in other journals as well as in the RURAL. We extract the following notes from the Country Gentleman:

PEARL MILLET.—Having heard a great deal in favor of the Pearl Millet as fodder for cattle, I sent for a very small quantity of seed last spring and sowed it in drills in a good spot It has not come up. I am sorry, as I was quite anxious to know how it looked. I think, no doubt, the Pearl Millet will do well in Africa and some of the Southern States. O. H. A.

Charlotte, Vt., July 28.

I bought eight dollars' worth of Pearl Millet seed, and sowed it May 20th, in drills. Directions were followed to the letter, with great care. The last of June I plowed up one-half of it, and planted corn for fodder. The Millet is a total failure. D. N.

Waukesha, Wis.

My experiment with this valuable forage plant has been a success. I get more feed from 40 cents, than I ever saw, on a plot of ground 30 by 300 feet, sowed in drills two feet apart. The second growth, where cut July 15th, is now two feet high. I think, from my small experiment this season, that I have learned something about growing Pearl Millet. Peter Henderson tells a good story about Millet, but I have reason to believe that, under proper cultivation, it can be realized. I. H. C.

Old Westbury, L. I., Aug. 1st.

WE have just learnt that Messrs. Smith & Powell, of Syracuse, New York, have imported 24 additional Holsteins, while Mr. W. B. Smith will leave Holland in a few days with 50 more, making 110 in all imported by them within a twelvemonth. Six carefully selected Clydesdale stallions will also accompany Mr Smith on his return.

PAMPHLETS AND CATALOGUES.

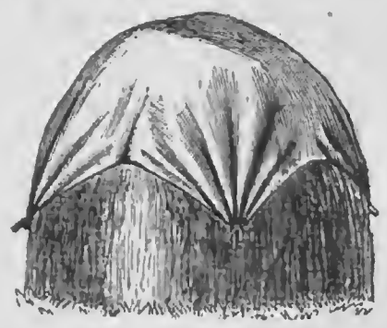
CATALOGUE and description of Wier's new hardy Seedling Cherries and other fruits and plants grown from seed by Daniel Wier, proprietor of the Lacon Nurseries, Lacon, Marshall Co., Illinois. We have heard much—first and last—of Mr. Wier's seedling cherries (we have given an account of some of them in these columns), and are glad to know that they are offered for sale. The introduction of Wier's seedlings may serve to recall an interest in cherry culture, so much neglected of late years.

DUTCHESS NURSERIES—Summer list of Strawberry plants, pot grown and layers, W. P. Ferris, Prop., 387 Main St., Poughkeepsie, N. Y. Mr. Ferris succeeds to the late firm of Ferris & Minard.

Industrial Implements.

HAY CAPS AND STACK COVERS.

The hay crop has become such an important one, and at the same time prices for the staple rule so low that it is to a farmer's best interests to husband every pound, and try to avoid the reproach of carelessness in handling it. Now,



if ever, it is the many a mickle that makes the muckle. A great source of waste, both of time, money and material, is the wetting cured hay is likely to receive while in cocks, or being stacked, because of sudden rains. This is easily prevented by the use of canvas covers that are adjusted in a few minutes, and act as an efficient protection. We have frequently had inquiries where to get them, and we were, at one time, asked by a Grange to purchase a quantity of duck and make some up for the convenience of our readers. We have seen, recently, some covers, both for stacks and cocks, made by a Chicago firm, Gilbert, Hubbard & Co., which are cut in the proper size and nicely finished with an eyelet and rope in each corner, which render their fastening easy. They are sold at reasonable prices, and made of the best material.

Everywhere.

BEYOND THE MISSISSIPPI.

To the majority of the inhabitants of the Eastern States, the term "Beyond the Mississippi" conveys a vision of herds of buffaloes roaming at will over their native hills; of bands of painted Indians, gay with beads, feathers and blankets, and bristling with spear, tomahawk, and arrows, and many imagine the millions of acres toward the setting sun to be one vast plain, without dwelling, or civilized inhabitant. They fancy that civilization paused in its westward march when it arrived at the eastern banks of that mighty river that rolls onward toward the Gulf. Could they but see the right side of the picture, their love and admiration for their native States would only be equalled by the homage they would offer to their sister States beyond the Father of Waters.

Last week for pleasure as well as business, I took a short trip northward on the St. Louis, Kansas City and Northern Railway, my objective point being Queen City, a little town of about 400 inhabitants, situated in Schuyler Co. For the sake of seeing the country, crops, etc., I took a seat in the caboose of the noon freight; the passenger trains having a bad habit of running in the other direction, and at the wrong time of day. The road led up the divide, and far in the distance on the west I could see, outlined against the sky, the belt of timber that marks the course of the Chariton River; while directly along the line of the road and fringing it on either side were fields of corn and Hungarian grass and beautiful meadows thickly dotted with hay shocks and redolent with the fragrance of the new-mown hay. At Queen City, as well as at all other towns on this road, there is a good business done in railroad ties, bridge timber, piling and hoop poles. This is a great advantage to the merchants, as the contractors pay very largely in store orders. The shipping consists of oats, hay, corn, hogs, cattle and sheep. Freights per car-load are from $20 to $40 each—distance to St. Louis, 218 miles. Oats are shipped for $26 per car load, hay for $20. Last year hog cholera visited this section and about depopulated the pig-pens, in many instances the whole drove being swept away. In this section no remedy has ever been tried that does the least good. If any of the readers of the RURAL know a remedy that is *sure*, he should publish it for the benefit of the world.

This year has been the best for corn and other grain, that we have had in ten years. Everything looks fine, and corn bids fair to yield from fifty to sixty bushels to the acre. In common seasons, the average is from thirty to forty bushels. Hay is always light here, as farmers generally have not learned to feed their land. If the manure that is allowed to go to waste, were spread upon the meadows and corn-fields, the crop could be doubled in five years. The yield of hay varies from one-half to one ton per acre. A great many farmers depend on wild hay, as a very good quality can be cut on the Chariton bottom lands for just the labor of securing it. Oats yield from forty to fifty bushels to the acre. This year the yield of wheat is fine, and I was told that Schuyler county raised enough for home consumption. In the timber lands there is no reason why farmers should not raise their own breadstuffs all the time, for the soil is adapted to wheat growing and the land well sheltered. I was told last fall by an old granger that he had failed to get a good wheat crop only twice in seventeen years. He would not fail where others would starve, for he had nearly one hundred stands of bees, and a beautifully kept vineyard of Concord Grapes.

Last winter was the most severe of any known to that wonderful oldest inhabitant, who is the oracle of all little one-horse towns. The peach trees gave up the ghost without a struggle, and everybody that eats peaches this summer has to pay two prices for them, and depend on Arkansas and California for his supply. The soil and climate here seem to be especially adapted to fruit-growing. The small fruits are finer and better-flavored than I ever saw them in New York. The timber lands are generally spoken of as "not good for much," but they beat the prairies for fruit and wheat, and in wet seasons they are better for corn.

The great wants of this country are men with some capital and a great deal of enterprise. The majority of farmers here are in debt. Having invested every cent for land, they of course had to run in debt for team, tools and seed. The failure of crops for a year or two brings a mortgage on their land, and their lives are one long struggle to pay interest—a grievous load which a little forethought might have prevented. It does not pay in Missouri—or in any other place—to be land-poor. Two or three hundred acres of unfenced, unimproved land to pay taxes on would swamp a well-to-do man in five years, unless he sold it. In a former letter, published in the RURAL of July 26, I made a statement in regard to the society here, and also concerning the welcome which Eastern men receive at the hands of the average Missourian. On looking it over, I fear that it will not convey to the mind of the reader the exact meaning I intended to impart, so I will again touch upon the same point. Ten years ago the political differences between the North and the South were much more pronounced than now. The ill-feeling between the two has gradually been growing less, until in this section there is but little to choose between the two parties, and the balance quite frequently is in favor of the Southerner. The more advanced ideas, and better—because quicker and cheaper—methods of farm work practiced by the Yankees—and everything east of the Mississippi is Yankee to a Missourian—are copied by his neighbors, and very many of the Yankees copy the Missourians. When both parties have sense enough to be generous towards the pet notions of the other, and eschew political differences, they each prove to be a benefit to the other. A great deal of trouble is occasioned by those hot-heads who esteem it their bounden duty to convert all their neighbors to their own way of thinking. These malcontents are not confined to *one* political party, but belong to *all* parties, and not infrequently to *no* party. I do not wish to be understood that an Eastern man cannot bring his family here and live in security and enjoyment; but unless he has the good sense to hold his tongue, the chances are that he will learn what kind of steel the Missourian is made of.

Missouri is by no means a wilderness. If you will examine your United States histories you will find that Missouri became a State in the year 1821. It is inhabited by people whose opinions are already formed. It is already well up in the arts and sciences, in horticulture and agriculture. It boasts of three Normal schools, an agricultural college and a whole mountain of iron. This being the case, it is the hight of folly, to say the least, for a man to come to this State with the expressed purpose of "setting up his household gods," and at the same time setting himself in violent antagonism to his surroundings. If you feel that you cannot live here on good terms with those you differ from in opinion, the best thing for you to do will be to stay where you are, for you are the man I meant in my first letter. If you are a farmer, discuss corn, wheat, plows, sulky rakes, two-horse cultivators, rotation of crops and the best plan for running farm operations generally. If you are a stock breeder, talk Devons, Short-horns, Alderneys and Jerseys. If you are a dairyman, converse with your neighbors about the profits of butter and cheese. In short, no matter what your calling, attend to your own business, save your manure, and read the RURAL and five or six other papers or magazines, and you will be certain to succeed, and will never regret the discipline that helped you to gain a competency.

BESSIE VICTOR.

Sublette, Adair Co., Mo.

RURAL SPECIAL REPORTS.

MASS., North Leverett, Franklin Co., Aug. 18.—My corn looks very thrifty but I fear it will not get out of the way of the frost next fall. I can count seven ears on some stalks; some are just silking out; other ears are just coming in sight. My tomatoes look well, but the frost last spring put them so far back that there are no ripe ones yet. The frost hurt my Pearl Millet very badly also, but some of it is beginning to grow now and looks pretty well. My potatoes look well, the vines are dead. I have not dug any of them, but I think that they will yield well. Potatoes generally are a good crop about here, of good size and mealy. C. C.

NEW YORK, Burtonville, Montgomery Co., Aug. 15.—I planted my Blount's corn on the 19th of May, on soil that I had raised a heavy crop of winter wheat on the previous year. No commercial manures were used, and the corn stands to-day ten feet high, on an average, and is throwing out from five to eight ears to the stalk; and about two-thirds of the stalks have thrown out from one to four shoots that stand nearly as high as the parent stalk and also have ears. I planted my corn one seed to the hill, making 123 hills, as I received that number of kernels. Of these, 109 came up and commenced growing as if they meant business. It is certainly a curiosity to look at, as it stands to-day. It has thrown out roots from the first joint, six inches above the level of the ground, as large as a pipe-stem, which run down at right-angles and penetrate the soil, as I suppose nature intended it should, to support the heavy weight of ears and stalk. The corn is quite an attraction to my neighbors who come quite a distance to see it. One day last week one of the neighbors called to see me, and found me in the corn at work. As he came up on the opposite side of the patch, he yelled:

"Hello! where are you?"

"Here," I replied.

"Well," said he, "this beats all the corn I ever saw! No wonder though, as I have seen you in here every morning at work."

The facts are that I did visit it every morning at first to watch the cut-worms, but in spite of my vigilance they destroyed one hill. I think, however, that I stand a pretty good chance to get one of the prizes, unless an early frost should interfere with the prospects. The Defiance wheat the RURAL sent me, was sowed late, but is looking well; the Pearl Millet, on the contrary, was a complete failure. The crops in this section are pretty fair this year, and there will be about an average yield. N. S. G.

N. Y., Mountainville, Orange Co., Aug. 9.—The Beauty of Hebron potatoes are a success. There were 23 eyes on the pair I got. I cut 21 sets and all brought nice tubers which I dug up and put in the cellar three weeks since, and turnips are now growing where they grew. I did not treat them better than the others in the garden, which were Early Rose, and the Beauties are fully as fine—which is saying a good deal, for mine is a magnificent crop. The Early Rose were planted in April—the first week—the Beauties we set in a box and brought into the house at night or covered it over with a carpet; they were up and transplanted just as the others were up, so that it was a pretty equal start. I have just commenced digging up the Early Rose, so that there is about two week's difference as regards being early, but in other respects equality exists. I have an eighth of an acre, and judging from the few rows got up to-day, which, as stated, are very fine there will be 50 bushels—in fact there were 51 short rows and I have had over a bushel per row. I forgot to say I had nearly three pecks of the Beauty of Hebron, level measure, and just over half a bushel heaping measure. G. G.

N. Y., North Germantown, Columbia Co., Aug. 16.—We are having a splendid rain to-day—the first in four weeks. Everything began to show the effects of the drought except Grapes, which promise a full crop. Plum trees are looking bad, being covered with black knots, and now the leaves are falling off and exposing the fruit. Pears are a full crop, but some orchards are being ruined by the blight. My neighbors all express surprise at my Blount's corn, as it is the tallest and best-cared they ever saw. In hight it ranges from ten to fourteen feet seven inches, with from three to six ears to each stalk. G. E. L.

N. Y., Johnson's Creek, Niagara Co., Aug. 18.—I have dug my Beauty of Hebron potatoes, and find 30 potatoes weighing five pounds and three-quarters, being the proceeds of the potato the RURAL sent me last spring. The seed potato weighed 1¼ ounce. Prospects are good for a large crop of peaches and an average crop of apples. Grain crops, except barley, are good. Blount's corn is 12 feet high and still growing. G. R.

N. Y., West Fort Ann, Washington Co., Aug. 19.—My Blount's corn looks good. Defiance wheat is a failure. Three seeds of the melons grew. I have nine nice melons and some small ones. O. F. B.

N. J., Harbourton, Mercer Co., Aug. 19.—We have just had three days and nights of heavy rain. The ground seldom gets so full of water as it is now. Oats are a good crop, and have been harvested with little expense, as the growth did not get lodged. Early potatoes are a light yield, being few in the ground, on account of dry weather. Corn promises a very heavy yield. My Blount corn is about 14 feet long and of no hight, as it all lies flat on the ground this morning. I can't get the premiums this year. Fruits of all kinds, except pears and grapes, are scarce. Prices of grain are low: wheat, $1.10 per bushel; oats, 30 cents; corn, 50 cents; butter, 16 cents per pound. J. B.

PA., Lineville Station, Crawford Co., Aug 18.—Harvesting is nearly through and farmers are now preparing to sow wheat. Crops have suffered considerably from the drought, but recent showers have revived them, so that they are looking well at present. We are having very cool weather especially at nights. I planted Blount's Prolific on May 29. It is tasseled and silked out, and stands from eight to eleven feet high. Beauty of Hebron has been ripe some time. I have dug one hill and planted for a second crop, but it has not come up yet. The Voorhis watermelon is doing finely. The vines have melons on them nearly as big as a peck measure. S. H. R

PA., Derry Church, Dauphin Co., Aug. 14. 1879.—We have had a very dry summer. There has been no rain of any account since before hay making. Corn needs rain badly. I have just come out of my Blount's corn patch; it looks fine. I had no stick with which I could reach the top of most of the stalks, but I judge most of them are 12 feet or thereabouts, high. It is nearly all in tassel, and most of it shows four, five and six ears, while a few plants have seven and eight. It only needs rain to make it yield "amazingly." The Beauty of Hebron potato the RURAL sent, I made twenty plants out of, and got a peck measure even full of very fine potatoes, all of which I want to keep for seed next year. I tested them with the Early Rose, and they came to perfection about two weeks earlier. The Pearl Millet is a failure thus far, though I attribute it to the dryness of the season, nevertheless if life is spared, I intend to give it a trial next season again. The Acme tomato has been earlier than the Hathaway Excelsior and Trophy, which I also have. It is not so large as either of the others, but for fine flavor, smooth, round shape and fleshiness, I prefer it to either. The beets are beautiful, some have quite light leaves while others are very dark-crimson. Wheat hereabouts was good; oats suffered somewhat on account of drought, and corn in general looks well. Wheat sells at $1; oats 25c; and corn, 42c. per bushel; butter, 10c. per lb; and eggs 10c. per doz; potatoes, 75c. per bushel. E. E. B. S.

ILLINOIS, Baileyville, Ogle Co., Aug 13.—The harvest has closed and thrashing has begun. Winter wheat is yielding from 25 to 30 bushels or more, per acre, but the acreage in this locality was not large. More winter wheat will be sown here this fall than ever before. Rye is also a good crop, but the spring wheat and barley are light, though the quality is better than last year. Oats are a fair crop. Not enough grain has been thrashed yet to enable us to estimate correctly the general average. The spring drought and chinch bugs did considerable damage. The experiment of sowing salt on wheat-land, near Rochelle, in this county, did not prove as beneficial as it did last year. Corn is very promising. Potatoes and vegetables are plentiful but the cabbage-worms are injuring the cabbages greatly. Since harvest has closed the farmers have been busy "cleaning out" their granaries and corn-cribs, preparatory to filling them with their new crops; so there is a pretty large amount of grain being marketed. Good and enterprising farmers are preparing for the agricultural fairs. Our State Fair will be held at Springfield, Sept. 29 to Oct. 4., S. D. Fisher, Sec., Springfield, Ill; the Ogle County Fair, at Oregon, Ill., Sept. 9th, 10th, 11th and 12th., John T. Gantz, Sec., Oregon, Ill. Attend the fairs, and if you have anything to exhibit, send to the secretaries for premium lists. W. B. D.

MICH., Matherton, Ionia Co., Aug., 14.—I think that my corn will have a fine start for next year, for I expect to winter it over in order to have it get ripe. It is now from ten to twelve feet high and just beginning to set ears. Guess I shall have to get some blankets for it. J. T.

WIS., Wiota, Lafayette Co., Augt 11.—The Blount's corn sent me by the RURAL looks fine. It is thirteen feet nine inches high with from four to nine ears to the stalk. The Beauty of Hebron potato is splendid. I have dug only one hill yet. I think this sort about the same as the Early Rose. The Defiance wheat didn't do very well—the rust damaged it very much. I intend, however, to try it another year. L. R.

KAN., Edgerton, Johnson Co., Aug. 12.—My Blount's corn stands from 12 to 14 feet high, with from three to eight ears to the stalk. But the most surprising feature of it is that there are from three to four stalks from one grain, each seemingly independent of the others. The Beauty of Hebron potatoes are earlier, more productive and of better quality than Early Rose. Most of my Pearl Millet has headed out and I believe the seed will ripen here. It stands from six to nine feet high. A. B. D.

MARYLAND, Near Easton, Talbot Co., Aug. 15th.—I am farming lands lying on and adjacent to salt water, in fact almost every field abuts on some cove or creek. These being navigable, we deliver our grain on schooners, and in return they land for us lime or other farm needs. These quiet bays whose shores are fringed with Pines and Cedars, and the prominent points improved with modern residences, resemble lake scenery. The wheat filled finely, and the harvest was a good one. Yields of 40 bushels per acre were not uncommon. The "writer" cut 70 acres, yielding 2,100 bushels of grain of the finest quality. The corn crop made a fair growth during the drought, but near its close began to suffer, as it was in silk and tassel, but our salt air would revive it wonderfully at nights. Since the rains a wonderful improvement has been made; corn has revived, and is caring heavily; pastures have sprung up green at once, and everything has been refreshed. The plows are busy breaking fallow, which is being done in the finest order. The next is our fodder season. As soon as the ears are matured the blades are stripped, cured and shocked, and then stored in the barn, making an abundance of fine horse feed. The tops are next cut, tied in bundles and shocked, and when cured, stacked. The stalks with the ears are carted off, or carried into rows and set up, the ground flushed, rolled, and wheat drilled in, using some fertilizer through the drill. We aim to manure all corn land at the rate of 75 cart-loads per acre in spring. Manures are made by hauling into yards, muck, soil from woods and fence rows, ditch banks, etc., and by backing up two furrows through depressions, and hauling out the excavated soil, which gives drainage. A compost heap near the back build-

ings begun with 50 loads of such stuff, receives the emptyings from the kitchens and slop of all kinds, soap-suds, the contents of chamber buckets, ashes, the emptyings of garden houses, etc. This pile, with the addition once a month of from 10 to 20 loads of fresh earth or muck, makes a compost that cannot be beaten for corn. Then again, immense quantities of straw fodder and all other waste go through the stable and hog-pens into the barnyard. Any one would be surprised to find the amount that goes into it. When made *an object*, 250 loads can be made from farms of this size. I am again growing a piece of the Prolific Corn. I am still inclined to think it only prolific in fodder, and *efforts* to make ears. The little spikes stand on arms a foot to 18 inches from the stalk. The latter is large enough to make immense ears, but those on it are small. The grain is shallow, and instead of having a salable appearance in bulk, it has a trashy look, when compared with our fine varieties of white corn here. It is not the number of ears to a stalk that makes large yields. Corn planted 3 ft. 9 inches, or 4 ft. by 2½, with two stalks left in the hill, and each bearing a fair ear of 20 or 24 rows, makes a great deal of grain per acre. It is the number of stalks bearing ears that makes the crop. It is poor economy to leave three, four or five stalks of corn in a hill, no matter how rich the land. Peaches are now going from our Peninsula by every conveyance at small figures. T. B. B.

WEST VA., Bedington, Berkeley Co., Aug. 15.—Seeing so much said about Blount's Prolific corn in the columns of the RURAL, prompts me to say something about the progress of the package sent me. My corn is about 10 feet high and has from three to five ears on a stalk. It didn't come up very well from some cause, else I would have contested for a prize. The Pearl Millet has gone "where the woodbine twineth," and is a perfect failure. As to our crops generally, we have a very good crop of early potatoes. Wheat has not as good a growth of straw, but it has a better yield, of grain than last year, making a fair average crop of about 15 bushels to the acre. Oats are almost a failure—not exceeding 20 bushels to the acre, with only a small acreage sown. The fair season we have had since harvest, makes our corn crop quite prosperous indeed, and if the season continues favorable we shall have an extraordinary yield. Everything is in flourishing condition. A large crop of clover seed is expected. Timothy seed sells for $1.25; clover, $3.50; wheat, $1.05; corn 40c; oats, 25c; potatoes, 50c; butter, 15c; eggs, 8c. J. H. L.

SOUTH CAROLINA, Aikin, Aikin Co., Aug. 17.—Perhaps RURAL readers would like to know something of this region at mid-summer. This town is on high ground, certainly the highest in this vicinity, the country sloping downward from us in all directions. A part of the rainfall on our streets runs eastward and empties into the Edisto River, reaching the Atlantic at Charleston, while on the west side of the town the water runs westward and into the Savannah River, reaching the ocean at Savannah. Thus we are on the summit of this sand-hill region, and this will account for the extreme healthfulness of the place at all seasons of the year. Having lived here now over ten years continuously, I am prepared to state that during that whole period we have had nothing to interrupt the salubrity of the place. On coming hither from N. Y. State in 1869, I found here a disorganized state of affairs. The war had cleaned out the country, and its stock and farm implements were wretched sights. Before that time the lands here were counted too poor to be worth working, but necessity forced a trial, and it was found these sandy soils, especially those having a clay sub-soil, would pay, and make good crops. The people went to work on them, and, while before the war the farm products brought to this market—especially cotton—were of very small amount, in 1874, six years after the start in 1868, 800 bales of the staple were sold on our streets, and the quantity has been increasing every year steadily until the last year's crop was probably not less than 4,300 bales. At the same time the yield in other farm products was doubled up, and is rapidly increasing. In looking at the farms, fences, buildings, implements, stock, etc., the improvement seems magical, so great has it been. There will be found few points in our country, or in this southern country rather, that have advanced so much and improved so rapidly as the farming community and farms in this vicinity. With a soil susceptible of quick improvement and returns for the work put on it, a mild climate, healthy at all seasons of the year, it presents great attractions. As to crops, so far the grain crops are fair. Wheat and oats are good; corn was badly injured by the long drought, lasting from the latter part of April to the latter part of July, with only a few small showers—the driest time while I have lived here. Cotton is now looking very well; the dry spell did not injure it, and the rains since have set it forward, and this week "picking" begins, and soon all will be busy in securing the fleecy crop. There are two agricultural clubs in this county. The Beech Island Agricultural Club, in the southern section of the county, one of the oldest in the Union, holds regular monthly meetings to discuss the best ways and means for advancing our agricultural interests, and the Millbrook Club, in the eastern part of the county, is also doing good work collecting, discussing and disseminating farm knowledge. This year we have to lament the loss of our early peach crop—cut off by a sharp freeze in March; there are thousands of trees that would not average one peach to the tree. Of late peaches we have only a few. Taking advantage of early and late varieties, we generally have peaches from early June to October. The apple crop promises fairly. Figs were somewhat injured by the drought. The Blount corn sent me I planted in my garden and it did splendidly. It had set from three to eleven ears per stalk; but alas! the dry time cut it down and ruined it entirely. It called forth much wonder and speculation while it was flourishing, and I had many requests for seed from it, as nothing of the kind had ever been seen here before. S. O.

ALABAMA, Danville, Morgan Co., Aug. 21st. The corn crop in north Alabama is very fine. Cotton is injured by red and black rust, Blount's Prolific corn sent me by the RURAL, was planted on May the 8th. It grew very tall, and has from two to five ears now nearly dry enough for gathering. The ears are fine, and I think will beat any of our Southern corn yet produced. Our Pearl Millet has been cut the third time. I left for seed one bunch which is in full head and eight feet high. Beauty of Hebron did not do well. It was planted rather late. The few potatoes raised from it are fine. The wheat crop is hardly an average one. Oats are over an average crop. Sweet potatoes, I think will be an average crop. Bacon sells from 8 to 9c. Corn, 75c.; flour, from 3½c to 4c. per lb; butter, 18c to 20c.; eggs, from 6c to 10c.; chickens, 8½ to 12½c. Money is very scarce, and business dull. The farmers work hard and live economically to get out of debt incurred before contraction, but money is too dear; it takes too much of the farmer's produce to get one hundred cents. Farmers will in a great measure have to succumb to the heavy mortgages unless help comes in the way of inflation in the circulating medium. People cannot pay debts without money to pay them with. H. N. V.

ALA., Orrville, Dallas Co., Aug. 9th.—I am pleased to report that all the seeds the RURAL so kindly sent me have given satisfaction. One of your correspondents has surpassed me in the yield from the Beauty of Hebron potato. I have so far gotten 13½ pounds, and will probably get a few pounds more. I have strong hopes of being near the foremost on Blount's corn. It is unquestionably a very superior variety, and is maturing quite early here. Our corn crop is unusually good. The cotton is being seriously damaged by rain, and the caterpillar has made its appearance. A two-thirds crop is all we can now hope for. B. F. R.

TEXAS, San Antonio, Bexar Co., August 16.—Corn and all other grains are failures, on the whole, hereabouts this year owing to drought, although a few will make average crops. I am one of the lucky farmers, as I have 18 acres of pretty good corn. I think I owe a good deal of my success in farming to the RURAL. Last year I started in the business with no experience. I followed the example of the best farmers among my neighbors and got many a hint from my paper, and I think I made as good crops as any one about here. But then there was no merit in making good crops in such a favorable season as we had last year. This year there is a difference. I took the RURAL's advice and cultivated my land thoroughly—three times—although everybody said it would cause the land to dry up; but in spite of these predictions I had green corn when there were not half a dozen fields of green corn between here and New Brownsville—30 miles away. G. W.

The Querist.

ANSWERS TO CORRESPONDENTS

Malignant Foot Rot.

W. J. C., Colgrove, Pa., has a fine cow that has been lame for some months in one hind foot. On one side of the foot there is a diseased spot lengthwise, about an inch and a-half long and three-eighths of an inch wide. Out of this protrudes a substance not oversensitive, but which bleeds if chafed. The cow keeps lifting up the affected foot when standing. The quantity of matter exuded is not large, nor is it offensive. One of his neighbors has a cow that has been similarly affected for two or three years, and others of his herd have become deceased also in the same way. Our friend asks the name of the disease, and a remedy for it.

ANS.—The disease is malignant foot rot; it consists of a fungoid growth from the sole of the hoof, and is contagious. It is peculiarly a disease of sheep, but affects cattle as well. It is caused either by contagion, by passing over ground infected by matter discharged from diseased feet; or is primarily contracted by exposure to wet, filthy yards or pastures, by which the sole becomes softened, disorganized and decayed, poisoning the adjoining tissues of the foot by absorption, and causing the fungoid growths which are peculiar to the disease. The remedy is to use caustics, by which the diseased growth is eaten away until sound tissue is reached; then to procure healthful healing and restoration of the parts. In this case cleanse the part thoroughly and apply a strong solution of blue-stone, injecting it into any cracks or openings, so as to reach every diseased portion. Cover the diseased part with tow dipped in a solution of one part of carbolic acid in 20 parts of water, and wrap the foot in a bandage of canvas. Continue this until the protruding part is removed and the foot has a healthy appearance. Then dress daily with compound tincture of benzoin, and cover with tow steeped in the same, keeping the foot protected by the bandage. The animal must be kept in a clean, dry field or stable; exposure to filth or mud will prevent a cure. To save other animals from the disease, wash the feet thoroughly with the solution of carbolic acid mentioned, especially that part between the claws.

A Philological Difficulty.

C. W. G., Abeline, Kansas, asks whether the fact that Gray, Webster and the RURAL NEW-YORKER differ from G. D. S. in the botanical definition of the word variety—as stated in the RURAL for August 9—proves that he is wrong and they correct. He further remarks upon the funny nature of a language that permits the naming of single things as if each were a collection of sorts or kinds. A sort or kind may be a variety, according to them, or a variety may be a sort or kind. A sort or kind may be a single thing, but how can a single object be a variety?

ANS.—While "sort," "kind" and "variety" are synonymous nouns as applied to slight deviations from a specific type, yet the first two may also be applied to species, genera, and even to orders. Not so with "variety." This word sometimes conveys the idea of many taken individually; for instance: Seedlings of the Norway Spruce have given rise to many different forms of that species—hence variety—of which the Conical Spruce is one. According to C. W. G., it would be correct to say that the Conical Spruce is one of the *variety* of sorts. But according to him it would not be correct to say, it is a variety of the Norway. And yet it is one of the departures from the species, which goes to make up *variety* in its usual sense. Variety, in its botanical sense, signifies a variation from a recognized species. Besides the three authorities named above, this definition of the word has the support of all English-speaking people—barring possibly our two friends, C. W. G., G. D. S., and perchance a few others. As to the "curiosities" of the language, numerous as they are, it is a matter of surprise that they are not even more so, in view of the way which it has been formed. And yet, in spite of all its shortcomings, it is very doubtful whether any people have, or have had, a more concise, forcible, or perspicuous medium for expressing their ideas.

About Plum Trees.

T. T., Highlandville, Mass., 1, sends a leaf of a plum tree and asks whether it belongs to genuine Wild Goose variety; 2, he inquires what kind of Plum would be the best to plant on his place, ten miles south of Boston, the location being low and not very wet, and his object being to supply the Boston market; 3, would Damson be the best; 4, is the curculio as great an enemy to that sort as to other kinds; 5, where can he buy the trees; 6, and at what price ought he to be able to get two-year-old plants.

ANS.—1. We cannot tell from the leaf, not having that variety to compare with. The fruit of the Wild Goose is medium, roundish, oblong, reddish-yellow. It is a variety of the Chickasaw, productive, hardy and a good *market* sort where others will not succeed. 2. Duane's Purple, Green Gage, Jefferson, McLaughlin, and Washington will succeed best in Massachusetts as far as we can learn. 3. No. 4. Yes. 5. G. H. & J. H. Hale, South Glastonbury, Conn.; Ellwanger & Barry, W. S. Little, Frost & Co., Rochester, N. Y.; T. C. Maxwell & Co., Geneva, N. Y. 6. About 50 cents each for two-year-old trees, if only a few be ordered. Our friend need not try to get curculio-proof trees. Two or three years ago Bassett's "Americana" was advertised as curculio-proof. It bears with us the present season. The fruit is small and worthless, except for preserving. There is not a pint of sound plums upon the tree. The best way is to purchase the best sorts that will thrive in the section where needed, and then protect the fruit by *jarring* the trees. It is the only effectual remedy known at present.

A Cow Losing Her Milk.

O. F. L., Wheaton, Ill., has a fine three-year old Jersey cow which dropped her second calf about a month ago. Thereafter for about three weeks she gave a fine mess of milk, with no sign of leakage. Suddenly, however, she began to lose her milk before milking time, and since then her yield has been from a quarter to a half less than before, and he asks for the cause and a remedy.

ANS.—The cause of leaking milk is the relaxation of the muscles consequent upon continued expansion of the udder when full of milk. A cow is often made leaky for want of regular milking, or for want of milking when the udder is fully distended. Such a cow should be milked three times a day, and the milking should be so arranged as to leave the interval at night as short as possible. For instance, in a case occurring in the writer's dairy a cow has to be milked at six in the morning, one in the afternoon and nine in the evening; the intervals being seven, eight and nine hours; there is no leaking and the milk increases one-fifth more than when the cow is milked at six in the morning and six in the evening. The udder of a three-year-old cow is not fully grown and in some cases cannot hold the milk which is secreted in 12 hours. The weight alone of six or eight quarts of milk is sufficient to relax the muscles and permit the milk to escape.

Treatment of a Brook Meadow

A. C., Shrub Oak, N. Y., has a meadow of three acres, through one side of which runs a brook; but the field is dry the year through, except for a few days in spring. He wishes to ditch and plow it this fall, and plant some crop on it next spring. For about six inches down the soil is sand, beneath which is a loamy black layer which packs very easily. Our friend asks what is the best time for ditching the meadow, and what crop would be likely to thrive best on it.

ANS.—The best time to ditch is when the ground is driest. This may be at this season. This meadow may not need ditching, and may possibly be reclaimed by proper plowing. If the ground be plowed in lands 24 feet wide, throwing up a good back furrow to begin with, and plowing to this, and finishing each land with a deep, smooth, open furrow, it is probable that nothing more will be needed. The open furrows should be cleared out with a shovel, and made to carry the water into the brook. Corn would be the best crop to begin with; then oats, and after that to seed down with timothy and red-top would be the best course, in all probability. Such land is better for grass than grain.

Miscellaneous.

J. S., Starke, Bradford Co., Fla., asks how to prevent weevils and worms from destroying the corn crop after it has been gathered.

ANS.—Weevils and their larvæ may be separated from shelled corn and other grains by winnowing; keeping it cool and frequently moved will check them in their work of destruction. Corn in the ear should be in a well-aired crib and be turned occasionally. This is the only practical preventive we know of.

N. C., Toms's River, N. J., asks, whether salt marsh mud is a beneficial application on grass land.

ANS.—Yes. After getting it out, let it dry on the shore. If it becomes easily pulverized, it may be spread at once on grass land—better after mowing. If composted either with lime or yard manure, it will have a beneficial effect on any crop.

C. P. B., Edwardsville, Ill., sends a cocoon which he found on his Red June apple tree, with the request that we give the name of the insect.

ANS.—The cocoon is that of a silk-moth, but what species we cannot determine unless we see the moth. It may be Tolype Velleda (Stoll), which feeds on the apple tree.

C. H., Fountain Green, Ill., asks where can he get Clawson wheat for seed and at what price.

ANS.—D. M. Ferry & Co., Detroit, Mich., are the nearest to you of any seedsmen we can at present recall. They charged last year $2 50 per bushel for it. It seems to us, $1 50 ought to be enough for it this year.

T. T. M., Maiden Lane, N. Y. City, asks where can he get the Great Western Raspberry said, in the RURAL of the 9th inst., to be superior to Mammoth Cluster.

ANS.—We have never tried this Raspberry, and do not know who offers it for sale.

C. T., Millersville, O., sends some specimens of seeds from a Voorhis watermelon, and asks whether they will grow.

ANS.—Most of them will grow.

J. R. K., Rileyville, Ohio—We do not know the wheat—will endeavor to try it.

COMMUNICATIONS RECEIVED FOR THE WEEK ENDING SATURDAY, AUG. 23d.

A. L. J.—A. W.—M. W.—R. J. H.—A Reader—A. M. A.—S. B. P.—F. D. C.—M. R. B.—H. S.—G. E. M.—Bessie Victor—R. H. M.—N. R.—W. P. McR.—S. H. R.—C. C.—J. T.—A. B. D.—E. R. R. S.—W. B. D.—G. R.—O. F. B.—N. S. G.—G. G.—G. E. L.—J. H. L.—T. B. B.—H. N. V.—G. W.—G. W.—S. O.—I. S.—H. W.—A. E. H.—G. B. E.—M. M. W.—F. A. P.

THE
RURAL NEW-YORKER.

PUBLISHED EVERY SATURDAY.

Address
THE RURAL NEW-YORKER,
78 Duane Street, New York City.

SATURDAY, AUG. 30, 1879.

A CUSTOM AND ITS RESULT.

It has been patent to all unprejudiced observers for years, that the race-course at so-called agricultural fairs attracts attention to the neglect of more important matters, to the demoralization of many persons, and to the utter perversion of the true objects and interests of those important public institutions. Under the euphonious name of "trials of speed," and the pretence of improving our horses, genuine racing has absorbed even the interest that ought to be given to that kind of improvement of the horse which concerns the well-being of the farmer and society in general. As it is called "trials of speed," and is conducted so as to secure the greatest possible attention, multitudes of the better classes not only give it their countenance, but also enter with unrestrained excitement into the gambling and unprofitable pleasure.

By a principle of social economy, when the conservative part of society falls to a lower grade in morals and practice, there is a corresponding declension in the spirit and conduct of those more inclined to dissipation. Hence, as the moral people have sold their patronage to the specious form of the turf at our fairs, the devotees of bold, undisguised racing have thrown aside all hesitancy and modesty, and entered with astonishing abandon into this dangerous and intoxicating pleasure.

There seems to be a universal mania in America on this subject. Men who ought to be aiding to develop our resources and to ameliorate the condition of our struggling masses, are keeping magnificent stables and numbers of four-legged gambling animals, at very great expense. More mind and time and money are wasted on the vain passion of these adventurous sportsmen than the interest of the country can afford to lose. The feverish passion is spreading like an infection. It passes comparatively unrebuked. They can refer to the fashionable races at the fairs. The dispatches in the daily press are becoming largely devoted to reports of races. The subject has risen to not only national but international importance. The like was never known before in the history of our Republic. The fairs have in part set the example, fostered the custom, mis-educated the people and compromised the moral sentiment that used to stand as a wall between such customs, and what is better.

If any one doubts these statements, let him recall what he has seen at fairs, observe closely what takes place at fairs this year, and glance at the telegraphic columns of the daily papers. Is there no remedy?

PATENTS.

Considerable dissatisfaction is expressed with the operation of the patent laws. Many persons, but more especially farmers, who are obliged to make use of many of those small matters which might come under the head of patented trifles, are continually threatened with claims and suits at law for their enforcement by patent agents or owners of patents, until their patience has become exhausted. In this way a strong popular feeling adverse to patent laws has arisen; and it needs no great prophetic capacity to prognosticate an early reform in some manner of the present law of patents, under which a thing that is old and antiquated, worn out and discarded by our fathers perhaps, may be patented and made a source of trouble. Cases of this nature have become so frequent that it has passed into a byword, and the exacting patent agent, with his claims on fences, gates, harrows, churns and other such matters, takes rank with the bothersome tree agent and lightning-rod peddlers.

There is a reason which is not creditable to human nature at the bottom of all this, and which has been discovered through many cases personally known to the writer. A man who has benefited in a hundred ways from valuable information given freely by good-natured correspondents of the Rural New-Yorker, perhaps, or, let us say, of some other good and useful paper, designs some change, or, possibly, improves in some manner, upon a hint thus given, and straightway takes a patent for his so-called invention, which may or may not be new and useful, as the law exacts. Examiners of patent claims cannot know everything, and the required patent may be granted perhaps illegally, when to gather in the proceeds from that patent, there begins a course of petty annoyances which are intolerable. Persons, who like this selfish patentee, procured information from the same source and used it privately, are sought out by spies and threatened with prosecution if an unjust tax is not paid on demand. This is a typical case out of hundreds or thousands of the same sort. Rarely we find men who are unselfish, and who scorn to tax their fellows for what small benefit may be gained from an accidental thought, or from a hint dropped by others, and which may lead to a really valuable device to save labor, time or money. This used to be so to a greater extent than at present. The man who invented friction matches, for instance, gave his discovery to the public; and so with many other persons who lived in "good old times." At the present we are too fond of money—too anxious to live on the labors of others, and too desirous to own a patent to be—well, let us say—strictly honest. And this general failing is the cause of trouble, and has created the dissatisfaction we have referred to.

FARMING AND EDUCATION.

Whatever croakers may say, the rolling years are slowly but surely bringing forth progress in many essential departments of human interest. As experience utters its unanswerable voice, error grows less confident and gradually disappears; while the right and the best win popularity and secure the approval and patronage of the intelligent and influential.

It is but a few years since the opinion prevailed in a large part of our country, that agriculture required but little information and mental training for its successful conduct; that an educated man ought not to waste his talents in so plain and humble a calling; and that it was compromising to personal dignity for one to identify himself with the common duties of the tiller of the soil. Now it is clear that there is a very great demand for brain as well as muscle in performing the duties of the farm. The difficulty is found to be in the want of sound judgment, of fertile minds as well as acres; of power to promptly and economically utilize discoveries and improvements. There is now a general desire in the highest educated circles to devise the best methods for preparing our young men for the calling that supports all other callings. Hence our agricultural colleges. While the problem is hard to solve, it is evident that the extraordinary attention to the higher departments of instruction in industrial pursuits, is rapidly strengthening, enlarging, and enriching the minds of those who are entering the occupation of the farmer. The farmer has long been working for the world unappreciated; but now the world is turning to most earnest work for the farmer. So far from the educated man feeling himself above the grand old calling, he is now, in multitudes of instances, toiling with his mighty talents to give more success to those who pursue that avocation.

It is highly complimentary to farming, that, while few farmers leave their plain work for complete or continued devotion to any one of the so-called learned professions, there are many, very many, of those who profess to be devotees of one of those professions, who gladly and persistently add the pleasure and security of farming to their special work. It is not merely Anglo-Saxon love of land;—it is an intuitive conviction of what is the most trustworthy of merely human possessions. Farming, elevated, directed and constantly improved by advancing knowledge, is, in a large degree, the hope of the continued prosperity and progress of our country.

WAGES IN EUROPE AND AMERICA.

Information has been gathered by the State Department through our foreign consuls relative to the wages of laborers in foreign countries. The figures as usual show a condition of matters which is remarkably favorable to American workmen, especially those engaged in agriculture. Among other interesting facts, we may cite the following: In Belgium, the most thickly populated and thrifty country in Europe, the wages of agricultural laborers are from 17 to 20 cents per day for men and 15 to 17 cents for women, with food only in addition. When hired by the month with board and lodging, the wages are $1.75 to $2 per month. In France there are 10,000,000 land-owners and eighteen million, or nearly half the population, are engaged in agriculture. Farm laborers receive $3.15 per week without board, and with board and lodging $1.36 per week. Upon these low wages the laborers not only support themselves, but often save enough to purchase a small plot of land and become *proprietaires*. The report emphatically states that these industrious and economical people possessing the rural virtues to a large extent, are more comfortable and better off than the same class of people in America. Knowing something of both classes, we entirely agree with the consul in this opinion. In Germany the agricultural laborer is not nearly so well off, with $3.50 per week without board, and but $1 80 with board; but without carefulness and economy he lives in squalor and poverty. In England the tippling habits of the workman render his $4.25 weekly, insufficient for his comfort, and it is expected that in the next five years 500,000 of these men will seek to better themselves in this country.

ADD AS YOU ARE ABLE.

A venerable and distinguished bishop once advised a body of ministers as follows: "Owe no man more than you are able to pay; and permit no man to owe you more than you are able to lose." A rational application of this advice would divest the credit system of many, if not of all its objectionable features. Consistent with the first part of the exhortation, young men—and older ones as well—are admonished to be content with a gradual addition to their property of any kind. If one has not the money to spare for much, let him confine himself to the little. After a while he can easily venture on another part; and, after waiting and earning, on still another and another, and another, either paying as he goes, or surely avoiding heavy indebtedness. Do not attempt too much at once. Do what you can afford this time, and put off the other things to another time. Don't try to build too much and too fast. Don't buy at once all the furniture you would like to see in your house. Improve and increase your implements and stock by degrees. A little that is paid for is far better than much that you owe for. Debt, bankruptcy and distress come often from burdening the present for the sake of the future. It is easier to pay little debts every now and then, than to pay a large debt at one time. All who have tried them know that large debts are costly and unpleasant things.

THWACK.

We are sorry to see Western writers praising the Thwack Raspberry as one promising to rank high among the new sorts. We have tried this thoroughly, and as we have several times told our readers, it is not worth the ground it may occupy. The first season it fruited with us, we reported that the berries were of a bright red color, *very* firm, though of a poor quality. Last winter it was killed to the ground, and our six plants have produced scarcely a gill of fruit which was borne, of course, upon this season's canes. Had it proved *hardy* or nearly so, it might have become popular as a *market* berry. As it is not hardy, we do not think it has a single redeeming trait. We are in favor of Thwacking it out of existence.

BREVITIES.

The latest English papers report "*three* real summer days."

Make your applications for entries at the fairs early.

From $20 to $25 per ton are paid for grapes in California this season for wine-making.

Fine peaches, one day last week, sold in the New York market for twenty-five cents the basket!

Prepare the ground during leisure for the fruit and ornamental trees that are to be ordered this fall.

A lady remarked to us a few days ago that "Clawson flour is sweet and tastes good, and all that—but it is so dark."

Let us touch new plants and seeds cautiously, until their value is proven. Better be successful with a small plot than to fail with an acre.

Mr. G. T. Ausbern, of Georgetown, Conn., writes us that he has Blount's corn 14 feet high with 10 sets on the stalk. He adds "Come and see it."

During a visit to the Rural Grounds last week, Gen. LeDuc, our Commissioner of Agriculture, was especially pleased with the Sunray Pine, Pinus Massoniauus.

The National Agricultural Congress will hold its next session at Rochester, N. Y., on the 15th of September. Let this society be national in fact as well as in name.

What the young English farmer is saying to his Papa:

"Tell me not in cheerful numbers,
You have known when times was wuss."

"Let anyone glance over the hurdles at the sheep at any of our agricultural shows," says the London Agricultural Gazette, "and he will see that the flockmasters who breed for exhibition all use cabbage."

The Michigan State Board of Agriculture, offer through President Abbott, the chair of agriculture of the State College to our occasional contributor, Professor E. M. Shelton. He is a very able man.

Mr. N. A. Beecher says he knows a man who some years sells 1,000 bushels of the finest apples, whose children, pale and scrawny, are gnawing at hard green fruit from morning till night. Mr. Beecher ought to cut that man's acquaintance.

If you have young pear, apple, plum or peach trees of an undesirable kind, now is the time to bud good sorts upon them. It is less trouble than to send far off to get trees, and is very much cheaper. Budding may bring you improved fruit as soon as the purchased trees; perhaps sooner. Besides, you are apt to feel more interested in your own handiwork.

Professor Gale recommends, in the Kansas Farmer, the use of narrow strips of zinc for labels, with the name, date, etc., written with a *common lead-pencil*. This shows dimly at first, but grows more legible with years. He has such labels that have been exposed to the weather for four years, and the writing promises to last as long as the zinc plates. "Away then," he says "with all patent pencils and corrosive compositions."

The present is a good time to make new strawberry plantations. The green suckers should be separated from the parent plant by a clean cut, and as much soil as possible should be left adhering to the fibers. Set in the new plantation immediately, so that neither the fibers nor soil adhering thereto shall have a chance to dry. If the soil is dry, a mulch will help. When thus carefully transplanted, the present cane will often bear fruit next year.

The Borer.—Though the advice is not needed by careful culturists, it is well to remind all that if they have not guarded their fruit trees against the borer, it is well to attend to the matter at once. The eggs have been deposited, and, at least in many places, hatched. The pests are generally found under the bark at the surface of the ground, or a little lower. It is specially important to look after the small trees.

Rev. A. W. Mangum writes us from North Carolina that there are two points of merit in the Scuppernong Grape that commend it. After the vine is well rooted it seems to require little more than plenty of room to insure a regular, abundant harvest. Of course, judicious help is advisable. Another good quality consists in the wholesomeness of the luscious fruit. It may be doubted whether any variety that we raise in this country is more so. The vine is also exceptionally hardy and long-lived.

We have just picked from one of our Acme tomato bushes (why not *bushes?*) a tomato that is peculiar. Half of it (the half that includes the flower end) is of the usual Acme color, which is a characteristic color hard to define. This gradually merges into yellow about the stem end, so that the tomato is three-quarters red and one-quarter golden. It is of an oblate shape, without a seam—measures 9½x8½ inches, and is as firm as a ripe apple. It is indeed in appearance a perfect tomato and as pretty as any fruit can be. We shall save the seeds in the hopes of obtaining a variety like the parent.

P. J. Berckmans, at the late meeting of the Georgia Horticultural Society, alluded to the fact that about 20 new varieties of Peaches were introduced last year, offering the caution that the buyer has little guarantee that most of them will prove improvements upon old sorts, or indeed, materially different. We shall be glad when the epidemic for early fruits has run its length. He also referred to the late rage for early tomatoes. When it is known that earlier tomatoes than we now have are necessarily poorer tomatoes, one would suppose that "the earliest tomato known" would in the future be offered to an indifferent public. When we can change the seasons and make the climate of this latitude earlier, we may have earlier fruits to correspond.

One of the meanest injuries that one person is capable of perpetrating against another, may be done by means of what is known as a "left-handed compliment."

It is the most powerful weapon of cunning hypocrites and invidious cowards. Words may be written that, to the careless or disinterested reader, may *seem* words of praise, and yet they may serve to influence the reader against the praised object. Words may be spoken that in themselves harmless, may be made by the voice, the look, the manner, to harm the one respecting whom they are spoken. Then the hypocrite says, when assailed by the injured man—"I have never spoken aught against thee, my friend." We have an abiding faith, that God will punish those who are full of "left-handed compliments" more severely than those who steal and lie in the usual unrefined manner.

Our correspondent, Professor Sheldon, of England, says: "It may be said that the Americans are 'killing the goose that laid the golden eggs by plowing their land and selling off the corn; and no doubt this is in a sense true, but it will be scores of years yet before they have *killed all the goose*—at present they have only broken one wing. And, again, the American climate is much better than ours for restoring condition to land that is impoverished by over-cropping. Though the average yield is more than twice as large per acre in this country than it is in America, and though American wheat has to pay 2s. 6d. a bushel in carriage and commission on its way to this country, still the American farmers can make money by wheat growing, where British farmers can do nothing of the kind, for the latter are handicapped in other ways far more than the former are in the items I have mentioned."

Literary Miscellany.

LITTLE PHIL.

BY MRS. HELEN RICH.

"MAKE me a headboard, mister, smooth and painted, you see;
Our ma she died last winter, and sister and Jack and me
Last Sunday could hardly find her, so many new graves about,
And Bud cried out 'We've lost her,' when Jack gave a little shout.
We have worked and saved all winter—been hungry, sometimes, I own—
But we hid this much from father, under the old door-stone.
He never goes there to see her; he hated her; scolded Jack
When he heard us talking about her and wishing that she'd come back.
But up in the garret we whisper, and have a good time to cry,
Our beautiful mother who kissed us, and wasn't afraid to die.
Put on that she was forty, in November she went away,
That she was the best of mothers, and we havn't forgot to pray;
And we mean to do as she taught us—be loving and true and square,
To work and read, to love her, till we go to her up there.
Let the board be white, like mother," (the small chin quivered here,)
And the lad coughed something under, and conquered a rebel tear,
"Here is all we could keep from father, a dollar and thirty cents,
The rest he's got for coal and flour, and partly to pay the rents."
Blushing the white lie over, and dropping the honest eyes,
"What is the price of headboards, with writing and handsome size?"
"Three dollars?" A young roe wounded, just falls with a moan, and he
With a face like the ghost of his mother, sank down on his tattered knee,
"Three dollars? and we shall lose her, next winter the rain and snow?"
But the boss had his arms about him, and cuddled the head of tow
Close up to the great heart's shelter, and womanly tears fell fast—
"Dear boy, you shall never lose her; O cling to your sacred past!
Come to-morrow, and bring your sister and Jack, and the board shall be
The best that this shop can furnish; then come here and live with me."

* * * * *

When the orphans loaded their treasure on the rugged old cart next day,
The surprise of a footboard varnish, with all that their love could say;
And "Edith St. John, Our Mother! baby Jack gave his little shout,
And Bud, like a mountain daisy, went dancing her doll about.
But Phil grew white and trembled, and close to the boss he crept,
Kissing him like a woman, shivered and laughed and wept;
"Do you think, my benefactor, in heaven that she'll be glad?"
"Not as glad as you are, Philip, but finish this job, my lad." [*Boston Transcript.*

THE SCANDALOUS LETTER.

[Complete in Ten Chapters.]

Miss Elizabeth tried to look sympathetic. She was almost forgetting her hatred of the actress, and her desire of hopelessly blackening her character, in the intoxication of the present interview.

"But very soon after that," the little lady was going on, "while Jack was abroad, and poor Olive was hiding from us all and struggling on in her profession, I met Ernest—my husband—and I forgot all about the money. I wonder people ever trouble themselves about such trifles, don't you? It is all Jack's now, but I have Ernest and my baby-boy—oh, Miss Yorke"—Lady Tempest clasped her little hands in their long fawn-colored gloves—"you should see my boy! We have called him Ernest Dacre, and he is as brown as a berry, and has great gipsy-black eyes, and light curls all over his head, and six teeth already! Just think of it—six teeth, and he is only eight months old! Nurse says it is perfectly wonderful!"

"Dear me, my lady!" ejaculated Miss Elizabeth, who was not easily interested in babies, but who made an exception in favor of such an aristocratic infant. "He must be a sweet little fellow indeed!"

The happy young mother laughed and blushed, "I tell my cousin he ought to be very grateful to me for coming away from him, and from Ernest and Silverdale, just when the trees are budding so beautifully too! But, I would do more than that to make Jack happy. He is such a dear good old fellow, and he is head over ears in love with Miss Carew. Not that that is at all surprising. I remember her as being quite a beauty, and Jack says she is perfectly well-bred."

Miss Elizabeth's ideas were undergoing a rapid revolution. True, her dislike of Olive remained unchanged, as it would remain until her dying day; but, if the actress was looked upon as a desirable connection by such people as Lady Tempest and her cousin, why should she not be equally desirable for Dr. Yorke? The marriage would certainly lead to a very agreeable intimacy between their family and "the Tempests," and then what a chance there would be of settling in life!

"You are aware, my lady, I presume," Miss Yorke began, reddening, "that Miss Carew is engaged to my brother? Indeed, it is in consequence of some little quarrel between them—a mere lovers' quarrel, your ladyship—that Olive has thought fit to give us all this anxiety."

"Engaged to your brother! Impossible!" cried Lady Tempest, rising dismayed. "I beg your pardon, I mean that Jack declares he has never released her from her promise to him, so how——"

"Dr. Yorke has explained everything to me, Flossy," put in Colonel Dacre, advancing towards the two ladies at that moment. "You see, here is the poor child's letter in which she asks his pardon for some hasty words she spoke to him at parting, and declares that it will be useless to seek her, as she has resolved never to marry."

"Of course—never to marry Dr. Yorke!" cried Lady Tempest naively. "All we have to do now, Jack, is to find out where Olive is. The rest will be like the finish to the old nursery stories."

"If I can be of any service to Miss Carew," said Robert Yorke, who was looking very wan and haggard, "she may command me to the day of my death. She is a noble and beautiful young creature who has been grievously wronged by me and by my family—and I would ask her pardon on my knees."

Miss Elizabeth tossed her head. She did not like the stiffness with which Colonel Dacre saw fit to bear himself towards her, nor was she slow to observe that since the Doctor's speech Lady Tempest was following her cousin's lead.

"I will ask you to communicate with me, Dr. Yorke, should you ever obtain a clue to Miss Carew's address," said Jack Dacre, shaking hands with the Doctor heartily enough at parting. "The little woman of the house keeps the secret so well that I suspect she does not know it, the manager of the theatre is no better informed, but it will be hard if by dint of perseverance and patience I do not send you some good news. Now, Flossy, if you are ready, I will put you into the carriage, child, and take you back by the next train to that turbulent young gentleman at Silverdale."

And so ended Miss Elizabeth's hopes of an aristocratic connection for her niece. A very frigid little bow from Lady Tempest brought the interview to a close, and in furious silence Miss Yorke followed her nephew out of the house, and through the little iron gate, which Robert Yorke was not to see again for nearly a year.

"What a dreadful woman!" said Jack Dacre with a shudder, as he drove away with his cousin. "To think of my beautiful, sensitive Olive breathing the same air as that ogress in red and green ribbons!"

"Oh, Jack, don't be hard upon Miss Yorke!" pleaded little Lady Tempest. "I am so sorry for her, though she would smile so painfully and call me 'your ladyship.' I could not help wondering as I looked at her what it must be like to grow old as she has done."

"Flossy, child, your sentiments are noble if somewhat incoherent, and your expressions are correct, my little cousin." Colonel Dacre, whose face had been radiant with hopeful determination ever since his conversation with the Doctor, took little Lady Tempest's hand and kissed it. "You must help me to convert Olive. How would you like to see her wither away into old maidenhood, when she might have a Jack of her own instead?"

"The idea is ridiculous, Jack! A lovely girl like that!"

"So I think."

"Only find her, dear, and I promise you there shall be a wedding at Silverdale as soon as the dressmakers will permit!"

"Ah, yes—find her!" echoed Jack, becoming suddenly grave. "Who shall say when and where that will come to pass? My poor sweet foolish love!"

CHAPTER IX.

A PIANO, painfully audible through the thin wall, and much in need of tuning, broke out with a distorted variation on the "Keel Row," played over and over again with maddening persistence, and a complacent repetition of the same mistake in the same bar each time. The girl who had been pacing the floor of her small room, book in hand, and trying—not to study the part of Rosalind, for that she had not time, but—to hammer the mere words into her head as soon as possible—the tall pale girl in her black gown, stopped in despair, and pressed her hands to her temples.

"First the organ in the street, and now my neighbor's daily practice," she sighed, too thoroughly dejected to smile at the hideous noise. "I don't know whether it is for want of sleep or not, but I am afraid I am 'losing my study.' I cannot keep a sentence in my head to-day for five minutes together."

Once more she took up the book and paced the floor.

"Alas, the day! What shall I do with my doublet and hose? What did he when thou saw'st him? What said he? How looked he? Wherein went he? What makes he here? Did he ask for me? Where remains he? How parted he with thee? And when shalt thou see him again? Answer me in one word," she repeated in a dull, mechanical fashion, while the piano kept on relentlessly, and the shouts of children at play beneath the window in the narrow street outside—sounds which might have been pretty and suggestive at a distance or in a green country lane—mingled distractingly with the abominable strains.

There was very little fire in the grate, although the March afternoon was gray and chill, and the ill-fitting sashes rattled drearily with every gust of wind; but Miss Charteris, of the Theatre Royal, Grindham, had not time to feel cold, and the delicate boy who lay on the sofa was covered warmly with a great woolen shawl. On a little table at his elbow were a bunch of wallflowers in a mug and a few grapes, and the actress, as she paced softly up and down, stopped from time to time to see if the boy was still asleep, and to pass her handkerchief across his forehead. And then she resumed her weary walk and her part, and the words—Rosalind's arch gracious words—seemed to set themselves to the tune that resounded stridently from next door and to dance in her brain in an unseemly fashion.

"I hope I am not going to be ill," she thought at last, sinking heavily into a chair. "What will become of us if I am?" Burying her pallid face in her hands, the actress prayed in feverish, broken words that she might be spared this great affliction, since there was no one but herself to work for the child who had been entrusted to her by their dead mother.

It had been easy to change "Miss Olive Carew" into "Miss Charteris" in the play-bills, but in so doing the poor little struggling actress, who sought to conceal her whereabouts from her two lovers, had at the same time lessened her chances of obtaining good engagements by sacrificing what little prestige attached to her own name. Besides this, she had purposely avoided the more important towns, where she was more likely to be traced, so that her resources, never very large, had been painfully cramped for months after her flight from Woolchester. This would have mattered little to her if it had not been for Nelson's health, which, even Olive was obliged to admit to herself with a dreadful sinking of the heart, began to fail rapidly under the privations which for some time had little or no effect on her own blooming and vigorous frame.

"I must not be ill," she thought, shuddering, as again and again the words of the part escaped her and danced in maddening fashion to the rhythm of her neighbor's piano. "Heaven will not make me suffer such punishment as that for my fault! I did wrong—I know it now. I committed a sacrilege against love in promising to marry Dr. Yorke, even for Nelson's sake, and all this misery has come of it. I confess that I was worldly, and disloyal to Jack, and ungenerous to poor Robert, but —— I must not be ill—that would be too horrible!" The book fell to the ground and the actress started to her feet with a long, despairing breath. "I must go out," she thought, going to the window and looking at the dreary sky and the dust swirling along the street. "I must take my 'part' somewhere away from the sound of that piano. Nelson won't miss me for half an hour—he is sleeping so soundly. Bless my darling!"

The boy did not stir as she kissed him and stole out of the room; and so, putting on her hat, and a jacket which was far too thin for so bleak a day, Miss Charteris shut the little hall-door mindlessly behind her, and made her way, "part" in hand, through the swarms of children at play in the narrow street. There was a stunted little park at some distance from the town. It stood on a hill, and was usually deserted, as Olive had discovered, at that hour of the day, so she turned in that direction. The wind blew through her thin garments, chilling her to the bone; the dust blinded her: but she thought, with a dull sense of relief, that with every step she was leaving the "Keel Row" farther behind, and that under the bare brown trees on the hill there were solitude and silence, at least—two boons utterly unknown in Chapel Place. If she could be by herself for an hour, the girl thought feverishly, perhaps that horribly tight band round her forehead would give way, and she would think and remember and study again.

The little park seemed like a haven of rest therefore, as it loomed above her stiff and sad and square, against the colorless sky, and, though she felt very tired, and her knees seemed to bend very strangely under her as she walked, Olive struggled on—still holding her "part" in her hand—through the sordid outskirts of the town, and up the hilly road, where the wind rushed down to meet her, whistling sharply, and the steep ascent took away her breath. Half-way up the hill she was compelled to stop and recover herself. There was a big gray stone by the road-side, and on this she sat down, and then tried to fasten back her hair, which was blowing across her face and getting into her eyes. As she lifted her hands, a great gust came rushing by, and carried the "part" from her lap, and blew it half-way down the hill she had just climbed. It was nothing very serious. A year ago Olive would have laughed, and run a race with the wind for her book. But now she stood and looked after it, her poor thin gown fluttering and flapping dismally, and her long hair streaming before her face, and she felt very wretched indeed.

"I must go and look for it," she sighed—"I don't know a line of the last act yet. I hope it won't blow all the way back to Chapel Place." As the girl turned to begin the descent of the hilly road, she saw that some one was coming towards her from the town. "I will wait," she thought, sitting down wearily upon the big stone. "Perhaps he will pick it up and bring it with him." And she drew her thin jacket closer round her—for the wind was bitter cold, and her teeth were chattering.

The man who was coming towards her must soon pass. Yes; there was his hat just showing above the hedges—and such a long, ruddy beard, like Jack's—and gray clothes like Jack's. Ah, if it were only Jack, he would bring her the book! But Jack was far enough away from Grindham, thank Heaven! Jack would never know how hard she had tried to study that "part," and how her head was aching, and how the wind was deadening her with cold, numbing her hands and her brain too, and—— Now she could hear the man's footsteps on the stony road, and there he was coming round the little turning in the path.

Miss Charteris stood up, ready to claim her book should she see it in the hands of the stranger, and then—her lips began to quiver and her eyes to dilate, her breath grew short and hurried.

"Oh, Colonel Dacre," she said, piteously, "the wind has blown my book away, and I don't know one line of the last act yet!"—with which speech the poor child burst into tears, and sank down on her stone again, sobbing as if her heart would break.

Jack Dacre, kneeling down in the grass by her side, took her bodily into his arms, and the "part" went blowing unheeded back to Chapel Place.

"At last! At last!" was all the young man could say, when presently, the storm of tears which had mercifully been granted to Olive having worn itself out, the two were walking homewards along the bleak hill-side. "Olive, have I really found you at last?"

Olive flushed, and drew her head up with a little of her old spirit.

"You had no right to look for me," she said, withdrawing her hand from her lover's clasp. "I am very glad to see you, of course, and you must come home and see Nelson, of course; but after that——"

"After that?" interposed the young man, whose heart yearned more fondly than ever to the poor child, as his quick eye took in all the pathos of her faded beauty and miserable garments, and the sacred lines which love and pain had traced upon her face. "After that, darling?"

"You will go away, Colonel Dacre," returned Miss Carew, firmly, in a voice still husky from sobbing. "I am sorry—it is all very wretched and unhappy—but I cannot help it, and we must say good-bye again."

"Why?" asked Jack Dacre, with angelic patience. "You will give me some reason, dear, at least, for your persistent cruelty?"

"Would you like Dr. Yorke to think," she said, with quivering lips, "that I broke off my engagement with him only because—because my old lover had come back, and I was glad to seize upon the first pretext for a quarrel?"

"Olive, he doubted, insulted you—he——"

"He was very good to me and to Nelson before that, and—oh, Jack, can't you see that I owe it to my own self-respect not to marry at all, as I will not marry him? I did wrong, and I am punished. I have made you suffer, too, and I am sorry; but I—I cannot marry any one—my life belongs to Nelson—and so we must say good-bye again—that is all."

She was nearly breaking down again, but Jack Dacre took no notice.

"That is your only reason, Olive?" he asked, gently, as he stopped in the lonely road and took her hands in both his own. "Your love for me has not changed? You would be my wife—I have waited four years already, dear!—if the spectre of Dr. Yorke's bad opinion of you did not stand between us?"

Olive's tears answered him.

"Darling," cried the young man, catching her eagerly to his heart, "swear it to me here now, and we need never say good-bye! Dr. Yorke was married a week ago to his cousin, and I am the bearer of his very humble and contrite apologies to you for the wrong he did you, and of his wishes for your happiness in the life you are going to begin with me."

"Jack—oh, Jack, is it really true?"

As true as that I am going to take you and Nelson to Silverdale to-morrow, and that the manager must find some one else to study that part—as true as that I have won the sweetest, truest, most loyal wife that ever man was blessed with, and that I am going to kiss you, my beautiful proud cold Miss Charteris, on this hill, and in the presence or all Grindham that cares to see us. Yes, and not once, but twenty times!"

Miss Charteris submitted, with a blush and a smile that made her look once more like Olive Carew, and hand in hand the lovers walked on towards the town.

CHAPTER X.

IT was nearly a year after Miss Carew left Woolchester before Robert Yorke saw the house with the iron gate again, and then he had been married for some weeks.

Dr. and Mrs. Yorke had spent their honeymoon in London, which place had been chosen by the bride on account of the shops, all places being alike to the Doctor, who made but a sober-faced lover, Woolchester thought. A whirl of shopping and sight-seeing was what the Doctor's wife offered him for an aching heart, and he went through it with patience, remembering that he need not suffer such an ordeal more than once, but would be free at the end of the happy month to return to the hard work which was all he cared much about now.

It was on a mild April evening that Dr. and Mrs. Yorke came home to Woolchester, to be received with grim delight by Miss Elizabeth, who had prepared an elaborate dinner, to which the bride alone did full justice. The ladies had so much to say to each other about the new style of bonnets, and the costumes of the Princess of Wales, whom Gertrude had seen twice—once at the Opera and once in the park—that the Doctor's silence was not noticed during the meal. And when he had drunk his coffee, and said that he had some business to attend to, and would go out for half an hour, though Gertrude pouted, as became the interesting young wife, she was not sorry at heart, but drew her chair closer to aunt Elizabeth's, and prepared for an exhaustive chat.

"Don't be late, Robert," she said, as her husband stooped down to kiss her cheek; and then he was free to go.

The Doctor lit his cigar in the hall—it was almost dark now in the quiet streets—and prepared to attend to the "little business" he had spoken of.

And so it was that he found himself at the iron gate again, and once more saw the old house with the trees growing above the red-tiled roof. The hall-door was open. Strange children were playing on the neglected grass-plot. The sharp continuous click of a sewing-machine sounded from the room where Nelson's piano used to stand. A woman's shrill voice laughed inside. And only a year ago that quaint little house had been a paradise to Robert Yorke. He had listened in that dusky parlor to the high thoughts of poets, and heard the immortal ideas of the old composers translated on the jingling "music-box" on which the boy used to play. In that house he had lived all he had ever known of youth in his busy life of forty years, and now——The shrill voice laughed again, and some one called to the children who were staring at the dark tall stranger, and wondering what he could want.

With a sigh the Doctor lifted his arms from the gate, and turned away down the darkening street, and past the church where the organ had played on that Sunday evening long ago—a year ago—and so out by the deserted lanes to the old happy

fields, with the gray windy grass blowing about under the hedges, where he had walked so often with the girl who was called Olive Carew.

He leant against the stump of an old willow-tree that grew by the stile, and a cool breeze lifted the hair from his tired forehead. At home in the warm drawing-room his wife was waiting for him, as she would wait every day now while they both lived. Nothing but death, he thought, could ever alter the unvarying routine of the comfortable well-ordered house in George Street. He might look forward to long years of heavy dinners and tea-drinking, and gossip about the servants, and the neighbors, and the fashions. That was the life he had chosen. And the other fairer life, of congenial tastes and mutual cares, and interests, from which he had had such a narrow escape?

It seemed to him, alone there in the meadows, as he puffed absently at his cigar, and a white tremor of moonlight crept along the grass, that the past was the only real thing the world now held for him.

But while Robert Yorke was dreaming and while his veins were yet on fire, a clock struck slowly in the distant town, reminding him as once before, that he was waited for and that he would be late. So he threw away his cigar, and, shivering a little in the balmy evening air, he left the tranquil moon-lighted meadows and went home to the house in George Street.

* * * * * * * * *

"Olive," said a lazy contented man's voice, speaking from behind the glowing tip of a cigarette—"Olive, do you hear that clock?"

"I hear it, Jack. Why? Just look at the sunset dying away from the river!"

"Are you aware of what is going on just at this particular time in the big city over yonder?"

The girl, who was sitting at the smoker's feet, and leaning her head on his knee, put up a shy warm hand in the dusk, and pulled her husband's arm round her neck.

"I am more interested in a certain little villa at Twickenham," she whispered, blushing; and in the little pause that followed this remark a faint sound of music was heard from one of the windows, opening on to the lawn, where Colonel Dacre and his six weeks' wife were sitting after dinner.

The first white star had risen, the river gleamed gray and cool and still at their feet, and the Colonel's cigarette scented the air with its fragrance.

"But you forget!" continued Jack's happy voice presently. "You forget that the theatres are just going to open. The actresses are all busy dressing for their parts, the orchestra is tuning up, the sweet familiar scent of gas is pervading the house, and—Olive Carew will not be there."

"Of course not, Jack. There is no Olive Carew to be there. Pray, sir, who am I? And what is my name?"

Jack stooped his handsome head and kissed with a lover's lingering kiss, the eager smiling lips that questioned him.

"You are my wife!" he whispered proudly. "And your name is Olive Daere."

"Brother Jack," said a boy's little voice, calling from the leafy porch, "Lady Tempest says you are to bring Olive in at once! The dew is falling, and tea is ready, and did you hear me play the *Mignon* duet, '*Ah, son felice!*' Lady Tempest told me to ask you particularly, because you know I heard the opera only once, and she says you will whistle the air for me *con amore*. What does *con amore* mean?"

"Nelson," said Colonel Dacre calmly, as he helped his wife up from her low seat, and wrapped her soft white shawl closer round her shoulders, "the dew is falling, and tea is ready. Come, my darling, I will take you in, if Lady Tempest says I must."

"And, Olive"—Nelson put his arms fondly about his sister's waist, regardless of Jack's growling remonstrance—"there is a letter from Dr. Yorke, and he wants you to let me go and stay with them while you are in Rome, and ride Jerry again. May I, dear?"

"We will ask 'the governor,'" said Olive, smiling and nodding down at the boy's eager face. "I don't think Jack will be vexed to find that Nelson keeps a warm corner in his heart for an old friend."

Her husband pressed against his side the little hand that lay on his arm.

"Fidelity runs in the blood of the Carews," he whispered. "Let the boy go, child, by all means. It will be a delightful riddance for his big brother."

Nelson laughed, and found himself indignantly chased in doors by "the governor." JESSON.

SALE OF RARE POSTAGE STAMPS.

PRAKRAMA.

THE number of stamp collectors in the United States is constantly increasing, and doubtless many readers of the RURAL are interested in the subject. The supply of the rarer stamps is so limited that the prices at which they are quoted in dealers' catalogues are unreliable, and it is only on those rare occasions when a large collection is sold at auction that philatelists have an opportunity of learning what they are really worth. Believing that it will interest collectors, I will give an account of a recent sale which I attended. The collection was the property of Mr. John Rice, and was sold on the 11th, 12th and 13th of August, at the Clinton Hall salesrooms, New York. It included some of the rarest government postals, a very fine lot of American and Swiss locals, the former including some supposed to be *unique*, and a collection of proofs and essays perhaps the finest in America. The collection contained several thousand specimens, a large part of them bringing merely nominal prices, but the total receipts were about $1,500.

The sale opened with a few lots of rather common stamps, followed by the rare United States locals. Of these, the Brattleboro 5-cents buff brought $32.50; a reprint of the almost *unique* New Haven 5-cents (envelope) red, $2, an extremely low price, as only thirty exist. The St. Louis 5-cents black sold for $19, and two varieties of the 10-cents black, after a sharp contest, for the rather excessive prices of $16 and $18. A Carrier's stamp, 1-cent (horseman) red, sold for $3; Glenhaven Daily Mail 1-cent green, $9; Whittelsey's Express (head of Washington) 2-cents red on white, $12, and Swart's Rough and Ready Dispatch vermilion on blue, *unique*, $11.

A Bolivia 10-centavos brown, 1867, brought $4.75; the 50c. blue, $10, and the 500c. black, 1871, $9—all unused; a Brazil 180-reis black, 1845, unused, $3.25; 300-reis black, $2.50, and 600-reis black, $3.75.

The excessively rare British Guiana 4-cents carmine, 1856, sold for $21.50, and would have brought more if it had not been badly torn. Another rare stamp of the same country, the 2-cents yellow (provisional), 1862, sold for $4.25, and the rare Buenos Ayres 3-peso green, 1858, for $2.25.

Among the Confederate States locals, the Mobile 5-cents blue brought $3.25; the Charleston 5-cents blue, $4.30, and the Petersburg 5-cents red, $2.60. The Mexico 3-centavos brown, 1865, sold for $3.10, and the 100c. brown on brown, 1868, $2.25. The noticeable feature of the Mexican stamps, however, was the fine set of Guadalajara, which brought the following prices: 1867, 4-reales blue, $2.25, and 1-peso violet, $2; 1868, 1-real green, $2, 2-reales pink, $2 (all the preceding unused), and 2-reales violet, used, $3.10. An unused New Brunswick 1-shilling violet, 1851, sold for $6.75, and a used specimen of the same for $6.50. The extremely rare Newfoundland 1-shilling orange, 1857, sold for $13.50, the 6d. vermilion for $3.75 and the 6½d. vermilion for $4.75. The rare Nova Scotia 1-shilling violet, 1857, unused, cost the purchaser $10, and the same used sold for $6.50. The Peru ½-peso orange, 1858, brought $5.25.

Some of the prices at the second night's sale were: Trinidad brown on blue, 1851, $2.10; lithographed blue, 1858, $2; U. S. of Colombia 2½-centavos black, 1861, $2, and 1-peso violet, 1862, $3.10; Bolivar 1-peso red, $2.50; Bergedorf ½-schilling black on violet, $3.10, and 3s. black on rose, $2.30. The rare Finland envelope stamps sold as follows: 1845, 10-kopek red, $4, 20k. Russian green, $3.10, and 20k. black, $2; 1856, 20k. Russian green, $3.60, and another specimen nearly black, $3. The France 1849 Republic 1-franc vermilion sold at $5. The celebrated Mulready envelopes of Great Britain, 1d., used, and 2d., unused, sold for $2 and $2.85. The excessively rare Naples ½-tornese (arms) blue sold for $11, and the ½-tornese (cross of Savoy) blue, unused, for $3, and used for $2.50.

The Spain 2-reales orange-red, 1851, unused, brought $11.50; the 2r. red, 1852, $7.50, and the 2r. scarlet, 1853, $3.25. Among the Swiss locals, the Geneva 10-centimes (double stamp) green, 1844, realized $5; Zurich 4-rappen (vertical lines), 1843, $2.25; Neufchatel 5-centimes black and red, 1851, $2, and Vaud 4-centimes black and red, 1849, $5.25. The Tuscany 60-crazie red-brown sold for $3.25, and the 3-lira orange, 1859, $3.25.

The third night's sale included the extremely rare India 2-annas green, 1860, which sold for $5.40. Several rare India provisionals surcharged over revenue stamps sold at good prices, an unused specimen of the 4-annas stamp bringing $5.50, and an unused 2-annas, $5. A Fiji 9-pence pink, 1871, unused, brought $2.25. Among the Philippine stamps, the 5-cuartos orange, 1854, sold for $5; the 10c. carmine, $2; the 1-real blue, $2.75, and the 2-reales green, $2.25 (the last three unused); while the 1-real violet, 1863, brought $2.25, and the 2-reales blue, $2, both unused.

The interest of the sale culminated when two of the excessively rare stamps of the Sandwich Islands, of the 1852 issue, with numeral in fancy border were offered. The 5-cents sold, after an exciting contest, for $51, and the 13-cents H. I. & U. S. postage—which, having been attached to the letter by a wafer, was broken by the postmark—for $31. The Victoria 6d. orange, 1862, sold for $3, and the Western Australia 6d. bronze, 1856, for $2.25. Among the last lots offered, the rare D. O. Blood & Co. stamp, with picture of a man stepping over houses, sold for $5.50 (a very inadequate price); City Dispatch Post C. C. 2-cents scarlet, $3.75; Blood's "For the Post Office" Dispatch (scroll) black and blue, $9.50; Honor's City Express Post (plain center) 2-cents black on yellow, *unique*, $11, and Eighth Avenue Post Office, Paid, red on white, $13.50. The essays and proofs brought good prices, as a rule, for property of such very questionable value.

The prices realized at this sale will give those not collecting some idea of what rare stamps are worth, but I may remark that the very rarest government postage stamps were not represented. There are a few stamps which, if in perfect condition, would bring over one hundred dollars at auction. Of course, all philatelists cannot possess the rarest stamps, but even a small collection contains much valuable information, and the study of Philately once commenced becomes very fascinating.

BUYING BOOKS.

SHOULD all men read? Certainly: the man who simply eats and sleeps and works is little better than a brute. Must they read books? Yes; or lose the richest knowledge. The Bible, poetry, science, history, biography and travel are precious mines of gold which yield only flakes on the newspaper surface. May they borrow books and make no return for such favor? No; honest people may not. Then must they *buy* books? Granted, they must buy books. But *do* they as a rule? Denied. They count the expense of food, furniture, lights and clothing, all of which supply our wonderful bodies, but the God-given gem of mind which these bodies simply enshrine, is allowed to remain naked and hungry, cold and dark, or expected to grow on such scraps as it can beg or steal.

Judging from a considerable experience in the rural districts, I say that people generally, and farmers especially, do not buy books except of the most persistent book-agents, or possibly for a child's Christmas present, and not then if the child needs any article of clothing. What can be said of the judgment and independence of a man who buys an expensive book because an agent "troubleth him," but seldom opens it afterward, and is glad to exchange it for a cheaper article when another peddler comes, yet who can never afford to get a magazine for his wife, or a juvenile book for his child. Children in such families subsist on such trashy story-papers as they can obtain by foraging, and when they grow up their parents wonder why they will go in second or third rate society, and why they don't try to be respectable and do honor to the family.

A wealthy man of my acquaintance envelops himself in political papers, and takes pride in being "posted," but his wife, who is a superior woman, and their two intellectual children, have nothing but the politics to read, and for years they did without even a dictionary. Yet his is only one house among many that are handsome, convenient and thoroughly furnished, except with books.

I never shall forget the impression which a certain point in a story once made upon me. A lady said she should wear her shawl another year instead of buying a new cloak, as *the family must have $50 worth of books that fall*. I suppose it seemed more strange to me because I never knew anything like it in real life. Of course, lawyers and physicians and ministers buy libraries as part of their capital, but *books for the family*—wonderful!

But probably most people who read this will say, "Yes, that's so; folks who have money ought to buy books, but we can't afford it." My friend, you cannot afford to do without them. Do you not manage to get the absolute necessities of life? Well, books are among the most important of these necessities. If you can subscribe toward a public library for some of your reading, so much the better, as it will be cheaper, and you will be helping to supply others.

Why have the district libraries fallen into disuse? Almost every district has a small library of antiquated volumes, some of which are worth reading, but nobody reads them because there have been no new books since the early days of the oldest inhabitants. Every person ought to have access to some library containing a Cyclopedia, other works of reference, and some of the most excellent readable books of the day. If the districts will not replenish their libraries, let the Grangers, Good Templars, Farmers' Clubs, Sunday-Schools, and all sorts of associations get libraries and open them to the public for a ten-cent fee on the loan of the books, if they choose.

If you live in a region unsupplied with a library, start out with a brave heart and stay not your efforts till you have organized a Y. M. C. A., or a Ladies' Society or a Library Association, and have something with which to buy good books; so shall you surely help to enlighten and elevate your fellow-men; and when you have done this, look on your own book-shelves, and into your own hearts and minds, and see what books will best fit the every-day needs of your own soul. Z. C.

THE MEETING OF MARY AND PHILIP II.

ACCORDING to Holinshed, Mary had traveled from Bishop's Waltham to Winchester on the preceding Saturday, July 21. Her ladies traveled from Windsor in a wagon painted red and covered with fine red cloth, the harness all of red leather. This vehicle, as Miss Strickland, quoting the order for its construction, says, must have surpassed the splendor of a modern wild beast show. At 10 o'clock on the night of his arrival in Winchester, Philip paid a private visit to the Queen, so secret, indeed, as to escape the research of Holinshed, who says that his first visit was made on the following day. Private as it was, he was accompanied by some twenty grandees, among them Alva, Pescara, Feria, Hoorn and Egmont, names to be heard of again in far different scenes in the time to come. Passing through the gardens of the Episcopal Palace, which had been prepared for the Queen's reception, the green lawns and flowing streams in all the glory of a midsummer night, suggesting to the Spaniards the scenes described in the books of chivalry, they reached a small door which led to the apartments of Mary, attended by Gardiner and some elderly magnates and ladies, awaiting her hitherto unseen bridegroom. As he entered she hurried forward to meet him, seizing him by the hand; he, however, putting all ceremony aside, kissed her, as, says Munos, is the custom here. They then conversed—he in Spanish, she in French—and, we are told, seemed to understand one another perfectly. Lord William Howard, the Admiral, who is described as a man who would have his joke, said, among his other pleasantries, that "well as they understood each other now, they would be still far more intimate in four or five days." After a while Philip, who had had a long wet ride and a fatiguing day, manifested a wish to retire to his lodging—the Queen, from some feeling of prudery, not having allowed him rooms in the palace. Permission being granted after some little demur, he asked how he was to say "*buenas noches*" to the ladies of the Court; this salutation, according to Munos, is correctly rendered into English by the words, "God ni hit," which were then and there taught him by the Queen. Forgetting his lesson before he reached the ladies, he was obliged to turn back when already in the middle of the hall to relearn it. This amused her Majesty very much, and so ended the evening of the first interview. The next day, after dinner, Philip again visited the Queen, who received him in an apartment called the room of "Poncla," probably thus named after an early Bishop of Winchester, John De Pontoise, who died A. D. 1304. Considering the treatment which English names meet at the hands of the author, the resemblance in this case seems sufficiently close. The second visit being of a more ceremonious nature, the Queen issued from her chamber, preceded by her ladies and by two kings-at-arms. Retiring with Philip to another room, they remained a long time together, the Spanish attendants endeavoring, with no very great success to converse with the ladies of the Court. This evening, Figueroa, the Regent of Naples, arrived with the investiture of that kingdom—an appointment which was intended to place Philip on a footing of equality with the Queen of England. The following day, July 25th, being the day of St. James, the patron saint of Spain, the marriage ceremony was performed with great pomp. The swords of state were borne before their Majesties by the Earls of Pembroke and Derby. We are told that the latter could muster 20,000 soldiers, and that, as King of a certain island (Man), he was entitled to wear a crown of lead.—*Earl of Ducie, in Fortnightly Review.*

RECENT LITERATURE.

Long Life and How to Reach It: By JOSEPH G. RICHARDSON, M. D. Published by Lindsay & Blakeston, Philadelphia. Price 50 cents.

THE series—American Health Primers—of which this is the second volume, cannot be too highly praised. Physicians who are specialists in the subjects of which they treat, present to the reader in condensed form and in simple every-day language the causes, cures, and modes of prevention of different forms of disease. Works of this kind should be classed among the necessities, for very few,—perhaps not one in a thousand—ever purchase, or read bulky volumes on Materia Medica, but depend on newspaper clippings or the traditions of the village for information on questions of hygiene. It is perhaps superfluous to add, that the rather necessary element of reliability is wanting in both of the sources of knowledge indicated above. The Health Primers are designed for missionary work quite as meritorious as that of "converting the heathen," for it is hoped through their instrumentality that people will be brought to a knowledge which will save them much of pain and suffering. In sixteen chapters Dr. Richardson treats of causes of disease, and how to avoid them; heat and cold as causes of disease; contagion and how to escape it; clothing and how to wear it; pure air and how to breathe it; pure water and how to obtain it; baths and how to take them; the house and how to build it; food and how to digest it; impurities in food and drink and how to detect them; exercise and how to take it; sleep and how to retain it; mental power and how to retain it; parasitic enemies and how to escape them; old age and how to meet it. From the chapter on contagion we extract the following at random: "A certain horrible contagious disease is sometimes conveyed to innocent persons, especially children by their lips being touched to drinking-cups, whistles, &c., which have been contaminated by the mouths or hands of persons infected with it, so that ladies, parents and nurses cannot be too careful to guard against danger of this kind, * * * clothing, especially woolen fabrics, if not purified by thorough ventilation and disinfection, has been known to convey scarlet fever one, two, or even three years after it was impregnated with the contagion of the disease. * * * * * Remember always, that if cholera, cholera-infantum, typhoid fever, diarrhœa, appear in your family without obvious cause, the chances are at least two to one that there is something wrong with the water supply, the milk supply, or the drainage of your house." We would be glad to know that a goodly number of our readers included the whole series in their libraries.

At a High Price: Translated by MARY STUART SMITH from the German of E. Werner. BOSTON: Estes & Lauriat.

All the elements which go to make an entertaining novel are to be found in this one, and the author has made the most of the material. The hero, Baron Arno von Raven, is cleverly drawn, as is also the love he inspires in the heart of his ward Gabrielle, a charming, self-willed girl. The interest is well sustained throughout, and the denoument well worked up.

MAGAZINES.

HARPER'S MAGAZINE—CONTENTS FOR SEPTEMBER, 1879.—Fifty Years of American Art. II.—S. G. W. Benjamin, with Fifteen Illustrations. Newport Society in the last Century; Lizzie W. Champney, with Six Illustrations. Gold-Mining in Georgia; Ernest Ingersoll, with Fourteen Illustrations. The Last Revel in Printz Hall; A Story—Howard Pyle, with Eight Illustrations. The King Collection of Engraved Gems; Barnet Phillips, with Sixteen Illustrations. The Navesink Highlands; Miss F. E. Fryatt, with Thirteen Illustrations. My Mariner; A Poem—Lucy Larcom, with One Illustration. White Wings; A Yachting Romance—William Black, with Two Illustrations. An Industrial Society and its Work; Edward Howland. Young Mrs. Jardine; A Novel—D. M. Craik, with Two Illustrations. How that Cup Slipped; A Story—Annie Howells Frechetti. The Last Rose of Summer; A Poem—William Gibson. Mary Anerly; A Novel—R. D. Blackmore. Summer; From Spenser's "Faerie Queen."

DEGENERATE MANNERS.—It was a wise father who said to his son, "Beware of the woman who allows you to kiss her." The woman who does not require of a man the form of respect, invites him to discard the substance. And there is one violation of the form which is recent and gross, and might be well cited as a striking illustration of the decay of manners. It is the practice of smoking in the society of ladies in public places, whether driving, or walking, or sailing, or sitting. There are *preux chevaliers* who would be honestly amazed if they were told they did not behave like gentlemen, who, sitting with a lady on a hotel piazza, or strolling on a public park, whip out a cigarette, light it, and puff as tranquilly as if they were alone in their rooms. Or a young man comes alone upon the deck of a steamer, where throngs of ladies are sitting, and blows clouds of tobacco smoke in their faces, without even remarking that tobacco *is* disagreeable to some people. This is not, indeed, one of the seven deadly sins, but a man who unconcernedly sings false betrays that

he has no ear for music, and the man who smokes in this way shows that he is not quite a gentleman.

But some ladies smoke? Yes, and some ladies drink liquor. Does that mend the matter? The Easy Chair has seen a lady at the head of her own table smoking a fine cigar. You will see a great many highly dressed women in Paris smoking cigarettes. Does all this change the situation? Does this make it more gentlemanly to smoke with a lady beside you in a carriage, or upon a bench on the piazza? But some ladies like the odor of a cigar? Not many: and the taste of those who sincerely do so cannot justify the habit of promiscuous puffing in their presence. The intimacy of domesticity is governed by other rules; but a gentleman smoking would hardly enter his own drawing-room, where other ladies sat with his wife without a word of apology. The Easy Chair is no King James, and is more likely to issue blasts of tobacco than blasts against it. But King James belonged to a very selfish sex—a sex which seems often to suppose that its indulgences and habits are to be tenderly tolerated, for no other reason than that they are its habits. Therefore the young woman must defend herself by showing plainly that she prohibits the intrusion of which, if suffered, she is really the victim. In other times the Easy Chair has seen the lovely Laura Matilda unwilling to refuse to dance with the partner who had bespoken her hand for the German, although when he presented himself he was plainly flown with wine. The Easy Chair has seen the hapless, foolish maid encircled by those Bacchic arms, and then a headlong whirl and dash down the room, ending in the promiscuous overthrow and downfall of maid, Bacchus, and musicians.

If in the Grandisonian day the morals were wanting, it was something to have the manners. They at least were to the imagination a memory and a prophecy. They recalled the idyllic age when fine manners expressed fine feelings, and they foretold the return of Astræa to her ancient haunts. Here is young Adonis dreaming of a four-in-hand and a yacht, like any other gentleman. Let us hope that he knows the test of the gentleman not to be the ownership of blood-horses and a unique drag, but perfect courtesy founded upon fine human feeling—that rare and indescribable gentleness and consideration which rests upon manner as lightly as the bloom upon a fruit. It may be imitated, as gold and diamonds are. But no counterfeit can harm it; and, Adonis, it is incompatible with smoking in a lady's face, even if she acquiesces.—*Harper's Magazine for September.*

ATLANTIC MONTHLY FOR SEPTEMBER.—CONTENTS: Cæsar's Art of War and of Writing; Miss Magdalena Peanuts, Phœbe Yates Pember; On Latmos, Miss L. W. Backus; Mountains in Literature, Thomas Sergeant Perry; Irene the Missionary. XXIII.—XXVI.; Married Bohemians, Edgar Fawcett; The Use of Numbers in Society, N. S. Shaler; The Race, and Why Yale Lost It; American Finances from 1789 to 1835. II., John Watts Kearny; Genesis, Ernest Dale Owen; Songs and Eccentricities of Birds, Wilson Flagg; A Tennysonian Retrospect, Julius H. Ward; Recent Novels; A Lesson in a Picture, Sallie M. B. Platt; Nobility and Gentry, Richard Grant White; A Word to Philosophers, Christopher P. Cranch; Story-Paper Literature, W. H. Bishop; The Contributors' Club; Recent Literature; The Jennings Sanitary Depot and Colonel George E. Waring.

THE USE OF NUMBERS IN SOCIETY.—The contrast between the rather evenly distributed wealth of France and the far less uniformly shared wealth of England is in good part the result of the lower birth-rate in the former country. Each generation in France is much better endowed with all the substantial elements of prosperity than that of any other country. Costly and ruinous wars, maladministrations of government, and a scanty supply of those mineral resources to which nations now look for the greater part of their gains have been more than counterbalanced by the fact that her wealth has not been wasted in the export of men,—the costliest product of the earth,—who have been driven in a great tide from the more northern States by the excessive growth of population. Fifty years of this conservatism of population has restored the waste of her land during the revolutionary period, and has laid the foundations for a great and stable future.

If the system of our modern society left the forces of natural selection in vigorous operation, there would be something to say for the continuance of this reckless increase of man. If the strongest alone survived, if the selection of combat or disease took away the weak, and left the strong and the skillful alone to continue the race, there might be some reason found in it. But the dictates of that humanity which must be reckoned as the most precious acquisition of the race preserves the weak along with the strong, the vicious with the virtuous, the fool with the philosopher. Education must in a good degree replace the ruder ancient training, and in order to educate effectively we must limit the number to be trained. We must educate highly, in order that the greater elevation of the few may give us in an economical way what Nature might win in her more wasteful way. Such education demands a high standard of comfort, and a great increase of the wages fund. It cannot be accomplished in poverty, but only in a condition of society where it is lifted to the level of self-sacrifice, and fortified by the influences of inheritance and tradition.

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There is another important point on which there are some dangers of a considerable popular misapprehension. It is boldly asserted that the diminution of the birth-rate is in some way connected with the lowering of the general vital conditions of a people. This is a fallacy, based on the assumption that the number of the progeny in a race is an index of the vital force. We have already seen that the number of the progeny of animals is subjected to a steady decrease with every advance in the grade of the organization, and has been directly connected with the gain in individual power. The force that formerly went to the multiplication of the species now goes to the making of a higher individuality. The growth of the individual and the multiplication of the race are opposed uses of the organic forces. The individual seems always to have gained by the reduction of numbers in its progeny, and there is no reason to fear that the reduction of the birth-rate in man has yet gone beyond the point where it is advantageous to the race.

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Last, but by no means least, we must consider that nothing so debases our conception of life, our understanding of the ends and possibilities of existence, as the wasted life that clogs every step of our way. We turn with horror from the ancient amphitheaters, with their contending gladiators; we easily see how debased and debasing they must have been; yet our system of crowding two mortals where there is but room for one makes the world an arena, in its way as debasing as the spectacle of the gladiatorial combat.—*N. S. Shaler, in Atlantic.*

SUNDAY AFTERNOON FOR SEPTEMBER.—Sunday Afternoon ($3.00 a year, Springfield, Mass.) for September is the last issue of the magazine under that name. The new title will be Good Company. The character of the magazine will remain the same, and there will be no change in its management. This number has stories by Rose Terry Cooke and Elizabeth W. Denison; these sketches,—A Bit of New England, A Practical Leaven, The Old Log School-house, and Sketches in Southern California; also, an account of the summer charities of New York, by William H. Rideing.

Rev. B. E. Warner writes about the pernicious periodical literature for the young, now so abundant; Rev. Dr. J. M. Whiton about some peculiarities of the books of Esther and Ruth, and there are carefully prepared papers on Latimer as a Social Reformer, by Octave Thanet, and on the Public Schools and National Culture, by Noble C. Butler. The Hebrew Hereafter is a reply to the Hebrew Faith in Immortality in the last number.

There are several poems, including one in the Still Hour Department.

The Editor's Taole has articles on Rink Religion; Vacation Sundays; makes an onslaught on the trashy periodicals of the day, and expresses gratification "that the great International Game of Hop, Skip and Jump, in which our Sunday-schools have been engaging every Sunday for almost seven years, is pretty nearly ended."

With the issue of Sunday Afternoon for January, 1879, Rev. Washington Gladden, finding the care of a large parish and the sole editorial charge of a magazine more than enough to occupy his time, withdrew wholly from his connection with the contributors' department of the magazine, and has not since had anything to do with it, though he has, as before, conducted the special editorial departments, and will continue to do so. The position of general editor was then taken, for the time being, by Edward F. Merriam, who has, however, retained it, and will sustain a similar relation to Good Company.

WASHING DAY IN A CALIFORNIA CAMP.—To such depths of degradation had I come at last that I must wash my own clothes, and, like Mr. Mantalini, I thought it a demnition grind indeed. Had I been as fastidious as some people are, they might have gone unwashed till the summer's end for all of me and my drudgery, but my baser nature prevailed, and I went forth laden like a slopshop peddler, to wash my clothes. Over the valley and half-way up the hill was a pool of warm mineral water which was better than concentrated lye for this purpose, so they said. By its side there sat an Indian, solemn and alone, probably come here on a mission like mine, and contemplating with timorous hesitation the event of his annual clean shirt. He looked at me and smiled. He saw the burden I bore, realized my intentions, noticed my hands, the cut of my whiskers, and other such items of appearance, and almost laughed outright. Well, what of it?

To say that I was nettled by his mirth and evident enjoyment is to put it very mildly. I could have slain him forthwith had I not feared remonstrance on his part. As it was I could only take revenge, which proved to be ample and sweet, by teaching him a lesson in the useful art of washing. From the moment in which I dipped the first garment into the water he became interested. When I drew it out and slashed it around upon the rock which was my wash-board, and plastered it with soap, which I rubbed in with my knuckles, just as I have seen my wi—I beg her pardon—my washerwoman do, he smiled, not in derision, but in delight. Then I mangled the cloth, tortured it, twisted it, and wasted the better part of my strength on it. After a time of exertion, emerging from a sea of lather and suds, I gave the cleansed garment a pull through the fresh water to rinse it, and, with many a dexterous twirl of hand over fist, I wrung it dry. Holding it up before his eyes, I shook the folds of flannel to the breeze, and lo, they were as blue as the depths of Heaven at midday. Then the stoic savage could no longer contain his admiration within himself, and he cried, in his confusion of tongues, "You *sabe mucho!*" Which polyglot compliment may be translated to mean, "You've washed before! Like as not your wife takes in washing for a living!"—*Sunday Afternoon for September.*

WOMAN'S POSITION IN GERMANY.—The young housekeeper will now be installed in her new office, but she will not be so genuine a mistress of it as my American reader may suppose. It is customary in Germany for the man to exercise a personal surveillance and control over all domestic regulations and expenditures, so that the wife is, strictly speaking, more like the steward of his house than the mistress of his home. Her position is meanwhile an arduous one. A lady is expected to do all the cooking and laundry-work of her household, washing excepted, together with such service as is usually assigned to the American housemaid; while the one rude servant who is apportioned to a family scrubs the uncarpeted floors, chops the kindling-wood and carries the coal, tills the garden and does the washing. This is not confined to the middle class or classes: ladies of lofty title and estate, unless their means are exceptionally large, perform all these functions in common with their humbler-born sisters. The obligation of unremitting drudgery for women is so universally maintained in Germany that no class of society escapes it. This statement presents a striking incongruity with the received idea of the German woman gathered from the German literature, but not more striking than that furnished by the fact. Woman in Germany is theoretically the helpless dependant, the unassertive worshipper at the shrine of the man. It is her own boast that she is so. Yet the part she performs in the partnership of married life is so large, so arduous and so incalculably valuable, that it would seem to entitle her to the recompense of a promotion to something like equality with her lord. At present, however, she neither possesses such equality nor desires it, but continues to spin day by day from the fibres of her own life the wings with which her nobler mate soars into the empyrean. Her patience, her industry and her thrift are beyond praise. In this land of poverty and pride, where lofty claims and slender purses go hand in hand, they have their amplest exercise.—*Lippincott's for September.*

For Women,

CONDUCTED BY MISS FAITH RIPLEY.

A RAINY DAY.

ELLA WHEELER.

How tired one grows of a rainy day,
For a rainy day brings back so much;
Old dreams revive that are buried away,
And the past comes back to the sight and touch.

When the night is short and the day is long,
And the rain falls down with ceaseless beat,
We tire of our thoughts, as we tire of a song
That over and over is played in the street.

When I woke this morning, and heard the splash
Of the rain-drops over the tall elms' leaves,
I was carried back, in a lightning's flash,
To the dear old home with the sloping eaves.

And you and I in the garret high,
Were playing again at hide-and-seek;
And bright was the light of your laughing eye,
And rich the glow of your rounded cheek.

And again I was nestled in my white bed,
Under the eaves, and hearing above
The feet of the rain-steeds over my head,
While I dreamed sweet dreams of you, my love.

Love, my lover, with eyes of truth—
O beautiful love of the vanished years.
There is no other love like the love of youth—
I say it over and over with tears.

Wealth, and honor, and fame may come—
They cannot replace what is taken away.
There is no other home like the childhood's home—
No other love like the love of May.

Though the sun is bright in the midday skies,
There cometh an hour when the sad heart grieves
With a lonely wail, like a lost child's cry,
For the trundle-bed and the sloping eaves;

When, with vague unrest and nameless pain
We hunger and thirst for a voice and touch
That we never on earth shall know again.
Oh! a rainy day brings back so much.

[*Chicago Times.*

"HOME PROTECTION."

An Argument for Woman's Temperance Ballot.

BY FRANCES E. WILLARD,
PRESIDENT OF ILLINOIS W. C. T. U.

THERE is also great force in the consideration that, if women, not themselves eligible to office, had the power to elect or to defeat men (who will alone be eligible for a long while yet), the precise check might by this arrangement be supplied which would keep politics from forming with the worst elements of society, that unholy alliance which is to-day the grief of Christians and the despair of patriots. Belonging to no party ourselves, we might be able to lift the Sabbath, the temperance movement, and kindred moral questions out of the mire of merely partisan politics into which they have fallen. It is, at least, worth trying. Into the seething caldron, when the witch's broth is bubbling, let us cast this one ingredient more. In speaking thus I am aware that I transcend the present purpose of my constituency, and represent myself rather than "the folks that voted me in!"

PLANS FOR THE FUTURE.

Our temperance women in the West are learning that, while the primary meetings are the most easily influenced, they are the most influential political bodies in America. Ere long the W. C. T. Us. will attend these, beginning in the smaller and more reputable communities. We are confident that nothing would be so effective in securing the attendance of the respectable voter as the presence at the primaries of "his sisters and his cousins and his aunts." To be "in at the birth" of measures vital to the well-being of society seems to us, in the light of last winter's experience, a more useful investment of our influence than to be "in at the death." At Springfield we found the enemy entrenched, while in the primaries his soldiers are not yet even recruited. We intend also to open in each locality books of record; and, by thorough canvass, to secure an informal registration of all men and women—the former as to how they will and the latter as to how they would (mournful potential mood!) vote on the question of permitting saloons. Every such effort helps to obliterate party lines; or, more correctly, to mass the moral elements by which alone society coheres, against the disintegrating forces, which of themselves would drive us into chaos and old night.

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Friends, there is always a way out for humanity. Evermore in earth's affairs God works by means. To-day he hurls back upon us our complaining cry: "How long? O Lord! how long? Even as he answered faint-hearted Israel, so he replies to us: *What can I do for this people that I have not done? "Speak unto the children of Israel that they go forward."*

There's a light about to beam,
There's a fount about to stream,
There's a warmth about to glow,
There's a flower about to blow,
There's a midnight blackness
Changing into gray;
Men of thoughts, of votes, of action,
Clear the way!

Aid that dawning, tongue and pen;
Aid it, hopes of honest men;
Aid it, for the hour is ripe,
And our earnest must not slacken into play.
Men of thoughts, of *votes*, of action,
Clear the way!

Miss Willard's address was given in full in the Independent of July 10.

CORRESPONDENTS' CORNER.

DEAR MISS RIPLEY:—After an absence of some weeks I read the RURAL again with great pleasure; as usual, it is full of interest. The ladies especially, are making their department of it very entertaining with their letters. I hope Aunt Esther will continue her advice to girls, there is much need of it, and need of their learning to sew. I was taught to sew at school, but that is all out of fashion now. I think if I were compelled to do anything to earn money, keeping a sewing school would not only be a good financial experiment, but also a charity to others. Let us have a letter often from the "Sunny South," Florida.

Would not all of the lady readers of the RURAL like to take a peep into Miss Harvey's Artistic Room? I know you all would. I have seen lately some very pretty log-cabins, but our Jessie's was not among them. I would like to live in one, they look so comfortable and cosy, and I have seen some people in my travels like her Mrs. Brown, with no energy to make use of the good things that God has given them.

I cannot give you any recipes about cooking, for I know very little about it myself. I can make good bread and cook a plain dinner, but pies and cake I never could and never did make fit to eat; I do all kinds of home decoratings, and I love to see my house full of pretty home-made work. There are many things to be found in the woods that can be made use of by the way of ornaments in the house. I am always looking for pretty things when I go in the woods, and I find them too. I have brackets made of fungus; I have one 18 inches high and six inches wide, a perfect beauty, I think more of it than anything I could buy.

Matilda should have her RURALS bound, then she could always refer to them. I would not cut one of mine for twice the price of it; there is too much good and useful reading in them, they are always good to refer to. I put mine away where they will not get harmed, and some day intend to have them bound, and then they will find a place in our library.

Faith's advice to girls is good, I hope many will see it and profit by it. Girls can do more good than older persons, among their young men friends, they never should let an opportunity pass to warn men against intemperance. If young girls would turn the cold shoulder on all of their friends who use liquor too freely, they would soon see the good resulting from their course of action. Give the girls more on the same subject, do not let it rest here, and you will be well repaid by the thanks of all that read your letters; remember, men, young and old, read your letters, and some one is sure to benefit by them. I agree with Faith, life is short, and we have but one life. Live it well, do all the good you can. Never be afraid to give advice in a good cause; you may not be always listened to or thanked, never mind that, better have your feelings hurt than to see a dear person go to ruin, when a few words from you would help to save him. He may not take it kindly, the time will come though when he will and so will others that love him. This is a subject I am very much interested in, and I will read with deep interest anything that is written on it. Do, ladies, all take up the subject and do all you can. C.

MISS FAITH RIPLEY:—Allow me to introduce myself to the notice of my aged Southern lady friend (Mrs. T. J. B., in RURAL of Aug 9.) Aye yes, the lovers of the RURAL are all congenial friends. I know that I should like her, for I am particularly fond of old ladies, as having lost my own dear mother my heart reaches out in love to them. One must love flowers to be successful in raising them. The way Mrs. B prepares her soil cannot but produce beautiful flowers. Now is the time to propagate new plants from old ones by layers, viz: those of the Wiegela, Honeysuckle, Wisteria, Running Roses etc. A good support for any of them, or tender vines, can be so construc'ed, as to be lowered to the ground, at the approach of winter. These vines sometimes go through the winter unprotected, but in our climate particularly it is safest to lay them in the ground where they will be protected by the snow. Set a post, three and a half feet long, and four inches square, in the ground, and leave eight, or ten inches above the surface. Cut an opening in the top of this post to receive an upright shaft, eight, or ten feet high, three inches thick at the base and tapering at the top. Insert several rods in this shaft, to which vines are fastened. This shaft is kept in its place by two stout pins, at the bottom. Before the ground freezes, draw out the upper pin, and lay the frames and vines together on the ground; then cover with straw or leaves, and put boughs or sticks to fasten them down. I do not claim to be the originator of this support, but having tried it find it entirely satisfactory for the purpose and send a description of it for the benefit of the readers of the RURAL. MARIAN.

Domestic Economy.

CONDUCTED BY EMILY MAPLE.

LOG-CABIN SKETCHES; OR, JESSIE SEABRIGHT'S DIARY.—No. 8.

MAY MAPLE.

JUNE 24, 18.—The wee bit of chamber-room to our little cabin was without windows or doors, the entrance being up a ladder through a hole in the floor; and there was no way of ventilation except by taking out the "chinking." Of course, this was anything but convenient; and when a driving storm came, it was almost impossible to keep the water from running down on the inside of the wall, thus spoiling the paperhanging below, and making the logs damp and musty. I had looked at the logs many times with a wonder in my mind, if it were possible that I could saw out pieces of logs and put in a window frame at each end of the chamber. But I had no window sash or glass, and I would not ask John to get them, for I very well knew the contents of the purse, and our little clearing was constantly calling for outlays. So I must make my own plans.

The weather was getting extremely warm, and that close, dark, little room was not an agreeable sleeping apartment in summer or winter, I *must* remedy it some way. Well, one morning about two weeks ago, I chanced to be thinning out a large onion bed that John and I had planted in the early spring, when the thought struck me that these little onions might possibly aid me to a little pin-money; for they were just nice for table use. And then there were my long rows of crisp radishes that had been supplying our own table and those of our neighbors. Perhaps they might add their mite to my treasury. I could tie them up in small, neat bundles and make them look as attractive as possible. There had lately started up a flourishing settlement about five miles from us, and just now the new settlers were putting up a saw and grist mill, also a store. I could try to dispose of my vegetables at the boarding house.

Accordingly, after dinner I started out to seek my fortune with my basket on my arm, leaving Bertie in the field with his father. I found the pleasant-faced landlady very glad to purchase my "stock" in trade, and anxious to engage all the early vegetables I might have to spare through the season, as garden sauce was not abundant in that vicinity, and she was willing to give me a fair remuneration. I returned home richer in cash by one dollar. Of course, the long walk was somewhat fatiguing, but after this I could send my basket down by some neighbor for a trifle. I had bargained for my windows, and they were to be sent up the following week. They came to hand in due time and were promptly paid for; as I had managed to send down quite a large basketful of radishes and onions the day before, giving me an additional dollar and a half. Oh, how rich I was! The next morning, after the arrival of my windows, I made haste to do up the work below stairs, and then I made a grand rush for the chamber, saw in hand on business intent. I had just got cleverly at work when John came in from the corn-field for a drink of water.

"What's going on now little woman, building a new house?" said he.

"Come up here and see," was my reply. And with two steps up the ladder, he made his appearance.

"Whew! what do you expect to do now?"

"Saw out some pieces out of these logs, and have some windows put in."

"Well, my dear, wouldn't it be wiser to get the *windows* before you cut out the logs?"

And then I told him that they were already at hand, also the boards for casing.

"Oh, well! you wait till I get the cross-cut saw from the barn and I'll do this piece of work for you."

So John sawed out the logs and made the opening ready to receive the casings, and then went about his work, and I sawed the boards and nailed them to their places, and put in my half sash windows with hinges, so that I might open and close them readily. That was enough for one day's carpenter work.

THE HELP QUESTION.

L. A. G.

MY kind reader do you ever consider your own faults in managing your work and your help? Pardon me for the remark, but this is a thing I have thought much upon for the past few years, and I am obliged to say I have found as many mistakes made by the one who hires, as by the one hired.

We start with the knowledge that but very few of those who hire out at housework are competent for their business, nor can we wonder when we consider the circumstances of their lives. My favorite way of employing help is by the day, when I can, as I think it cheaper and less annoying. There are women in nearly all places who prefer to work in this way.

I never ask them to do a certain amount or any particular things, I ask them to give me a day's work, and then I plan the work. I only hire those who are able to do a good day's work.

As an example; there is a good German woman I have hired, who with my help can do my two weeks' washing, ironing and the scrubbing in one day, and it is well done.

Once a neighbor, knowing of my big day's work, hired her, thinking to do the same. Shortly after I went over to ask how she liked my way, and was not a little piqued to hear her say, "I don't care about such a big day's work, I want my work done decent." I replied, "I think I am a judge of work, and Mrs. G. has always done my work well. I also know of several others who like her work as well as I do, that are good housekeepers." Next time my woman came to work, I said to her, "You had better try to keep that place."

"No! No! dat not good," she replied, "tere is tifference in foks. She not good, she giff me too big wash and to iront, all dose tings to schrub and do in von day for a toller. I can no do dat goot."

The difference was simply this: I had my wash all ready for her to begin on, suds hot, and a warm breakfast ready. I helped what I could with the light parts. My neighbor did not do anything, but told her there was the work and she must do it, and for so much, in a certain amount of time—consequences, dissatisfaction on both sides. I will cite one more instance with the same woman. One morning when she came I told her there was only a half day's work, and I would give her sixty cents to do it. All was well. Not long after another lady hiring her thought she had not done a full day's work, and only gave her seventy-five cents. The woman was angry and would not go to her again. On talking with my friend, I remarked, "you missed it by not telling her that as she was so late in coming and the wash small, you could only give her seventy-five cents." Sometimes she would be a little late, I would always say, "Mrs. G. your breakfast has gotten cold." She would take the hint and make up for her lost time.

At times I hire my sewing by the day and find much more accomplished for the same money than by the piece. But I always plan to have my other work out of the way as much as possible; and my garments cut with the needed materials at hand, so there shall be no delay. Then when I have a few moments to spare I assist the seamstress. Some of my neighbors, on the other hand, are in the habit of waiting until after the seamstress gets there to send to the stores for needed materials. One sewing girl, who made a home with me for a short time, often got to their houses before they were up, at seven o'clock, often later, and she frequently would say "How can people expect me to accomplish anything for them?"

I find there is as much in planning as in doing, and I candidly ask, if you don't plan your own work, who do you think will?

THE PRESERVATION OF FRUITS AND DESTRUCTION OF INSECTS.

HATTIE HOPEFUL.

THE season of fruits keeps the housewife busy preparing and preserving them for future food and medicine.

I have cured obstinate fevers and inflammations with pure air, warm baths, rest and jells without the aid of a physician.

By all means grapes, currants, blackberries and elderberries should be made into jells instead of wine. The jell may be reduced with water when wanted to drink, and is nourishing and not intoxicating. Good jells may be made of apples, crab apples, plums and the nice parings of quinces and some other fruits.

Pure water, pure sugar, nice fruit kettles and clean glass cans, bottles or stone jars should be used for this purpose. The bushes of gooseberries and the nice red and white currants, so healthful and valuable, have in many parts of the country been destroyed by the green and black canker-worm. But last May, I discovered that the fly that lays the eggs for this worm, would hover under cloths spread on the bushes in cool nights, and could be killed early in the morning. So I have taken new courage, and the fragments of our gooseberry and currant bushes I want to take up in the fall, and set in a convenient place to put cloths on. The leaves of the bushes will need examining as they may lay some eggs before being caught.

Perhaps many other fruits and our rose bushes might be saved by spreading cloths over them at night as soon as the leaves appear, and killing all insects found on them early in the morning. To destroy injurious insects, however, requires a vigilant eye and a willing hand to do the work on their first appearance.

HIRE'S IMPROVED ROOT BEER.

WE received a package of prepared roots and leaves from Charles E. Hire's, of No. 9 Letitia street, Philadelphia, for the manufacture of a summer beer, with the request that we should give it a trial and report. We have tried it and think well of it. A 25-cent package contains enough prepared roots and leaves of such plants as pipsessiwa, wintergreen, sarsaparilla, etc., to make five gallons of beer. It is only necessary to boil the contents of the package in two or three gallons of water from half to three-quarters of an hour, then strain, add enough water to make five gallons in all, sweeten to taste with either sugar or molasses—of the former from three and a half to four pounds will be required, of the latter three to four pints. When just warm stir in a pint of good yeast. Let stand ten or twelve hours to ferment, or if made in the afternoon, let stand until the next morning. Again strain through a thin bag, bottle and cork, wiring or tying the corks down. In a few days we have a sparkling, aromatic and refreshing beverage very palatable in hot weather. As an inoffensive if not wholesome substitute for vinegar and molasses, sassafras beer and the like and even cider, unless it is quite new, we can recommend it.

DOMESTIC RECIPES.

"Johnny Cake."

To a half pint of meal add warm water enough for a thin batter, half a tablespoonful of melted butter, half a teaspoonful of cream-of-tartar, a little soda and salt. If convenient add an egg. This makes an excellent cake, and to those who have not a full allowance of milk and cream, it will prove a great help. AUNT EM.

Peach Cake.

Bake three layers of sponge-cake, cut ripe peaches into very thin slices; prepare some sweet, thick cream by whipping, sweetening and flavoring it; spread the peaches, with the cream poured over, between each layer as also over the top of the cake.

Mutton Pie With Tomatoes.

Cover the bottom of a baking-dish with dry bread crumbs, then alternate layers of thin sliced roast or boiled mutton and sliced tomatoes, with a thin sprinkling of bread crumbs. Season each layer of tomatoes with pepper, salt and bits of butter. Let the tomatoes and bread crumbs be last. Bake three-quarters of an hour. MARY B.

Tomato Sauce.

Twelve large, ripe tomatoes, four ripe or three green peppers, two onions, two tablespoonfuls of salt, two of sugar, one of cinnamon, and three cups of vinegar. Peel tomatoes and onions, chop all fine, and boil one and a half hours. Bottle, and it will keep any length of time. One quart of canned tomatoes may be used instead of the ripe ones.

Tomato Preserves.

Take of the small yellow tomatoes eleven pounds, seven pounds of sugar, four lemons, and a small quantity of ginger root, boil a short time, and if the sirup does not seem to be thick enough to keep from spoiling, skim out the tomatoes, and boil the syrup until it is a little richer or thicker. Put in jars and seal them. If the tomatoes are boiled too much they will harden. Take them out in time and they will be beautifully light, clear and soft. It is not necessary to put them in glass jars, simply stone jars of any kind.

MISS JENNIE PERRY.

News of the Week.

MISCELLANEOUS.

Monday, August 25th, 1879.

In San Francisco and indeed in the whole of California, the excitement is intense. Next week the first election under the new Constitution takes place. There are three parties in the field—the Republican, the People's, commonly known as the Honorable Bilks, and the Workingmen's, under the control of Dennis Kearney. The Honorable Bilks' party was mainly started and kept up by the San Francisco Chronicle, of which Charles and Mike De Young are editors and proprietors. The Rev. Mr. Kalloch is the Workingman's candidate for Mayor of the city. The De Youngs have been bitterly blackguarding him in their paper for some time back, raking up old immoral scandals reported against him in Boston and Kansas, in both of which places he has figured somewhat prominently. They even vilified his father who has been dead 30 years. Last Friday in addressing a mass meeting of his adherents, he retaliated on the De Youngs by quoting from a small paper published a couple of years ago by an enemy of theirs, a vile attack on the reputation of their mother now about 80 years old, and he threatened to read the whole scurrilous article at a called meeting next day. Shortly afterwards, Charles De Young drove in a buggy to Kalloch's office, sent in a message that a gentleman wanted to see him, and as Kalloch came towards the buggy, shot him in the breast. The wounded man turned to flee, and was again shot in the back. A mob instantly collected, upset the buggy and dragged De Young to the pavement where he was kicked, beaten and would have been torn limb from limb, were it not for the prompt appearance of a large number of policemen. These hurried him off to jail, which was instantly surrounded by a yelling crowd of exasperated workingmen, bent upon lynching the man. The whole force of police was soon concentrated about the place, while the militia were called to arms and a battery of Gatling guns placed near the prison. Kearney, who was up at Vallejo, was at once sent for, the leaders of the workingmen with difficulty restraining their followers from violence until his arrival. He addressed an immense crowd at the Sand Lots on the outskirts of the city, and urgently counseled moderation, saying that the election would give them entire control of the city government in ten days, that De Young should certainly be hung, that a present attack upon the jail must cost them many lives, and that they must wait. This address, with others of the same tone from other prominent leaders, quieted the mob, who dispersed peaceably. There are some hopes that Kalloch will recover; De Young's brother, Mike, shares his imprisonment; a detail of armed workingmen guards the jail along with the jailers, policemen and militia, in order to prevent the removal or escape of the prisoners, and though no immediate outbreak is now apprehended, the excitement is still at fever-heat. There is now no doubt of the triumph of the Workingmen's party in San Francisco, while it will be greatly strengthened throughout the State. The People's party, better known as the Honorable Bilks, including most of the straight democrats, is said to have no chance, while the Republican party, it is thought, will be strengthened through the State by the occurrence.

THE GREAT STORM.—The most terrible storm ever known at Morehead City, N. C., did great damage, Monday. The loss in that place and Beaufort reached nearly $100,000. The front streets of Beaufort were strewn with lumber, trunks and goods. There is not a wharf left in Beaufort. Morehead City lost its market house, school house, wharf, and the colored Methodist church, also several fish houses and four thousand terrapins. In the vicinity of Norfolk, Va., the storm and tornado were the severest ever experienced. Many buildings were unroofed and flooded. Many vessels were also dragged ashore, wharves and warehouses flooded, and the tide was higher than ever before known. The handsome spire of the Freeman Street Baptist church was blown down; the slating of Christ (Episcopal) church was torn off, the cornice and steeple ornaments of St. Mary's Catholic church were damaged, and the beautiful grounds of old St. Paul's were badly wrecked. Great anxiety prevailed during the storm. The mayor ordered out the entire police force and fire department. The loss is estimated at from $200,000 to $300,000. The Atlantic City, N. J., signal service reports that the velocity of the wind was sixty miles, from the northeast. At 4 P. M. the schooner Flora Curtis, of Perth Amboy, was blown ashore. The life-saving crew could not get to the schooner, the surf was running so high. The crew remained in the rigging until 3 A. M. when they were rescued by the life-saving crew. The amount of rainfall was nearly ten inches. All the yachts are damaged, four were sunk and one carried out to sea. The gale at Providence, R. I., at midnight was very severe on the bay. Twenty to thirty sailboats had been sunk or damaged. The steam yacht Experiment, of Boston, sank at the wharf. The yacht Pilot and another Newport yacht were also sunk. Others were damaged. Newburyport, Mass., has not experienced a more severe storm for ten years, the wind blowing a hurricane demoralized 20 small boats, badly wrenching a steamer and schooners in harbor, and destroying four yachts. Fruit was stripped from the trees. Sad havoc was made among the tents at the beach, several of which were blown into the sea. At West Newbury a frame house was blown several yards. Many narrow escapes are reported The storm at Ocean Grove, N. J., was the severest this season since 1872. Three thousand of a population of fifteen thousand were living in tents. The association and employes sent omnibuses to all tents exposed to the storm and removed to more comfortable quarters all who desired to leave. About seventy-five persons went to the Tabernacle, where mattresses were provided. Five tents were blown down. The damages to the growing crops in Virginia counties by the storm, which was the severest experienced in that section for years, is expected to be very great. In Surrey county alone, the damage to corn is estimated at fifty per cent. Barns and out-buildings are considerably damaged. Considerable damage was done along the New England coast. The yachting fleet at South Boston was badly used, most of the vessels being injured, many seriously. At Portland several yachts and schooners were sunk. Other towns along the coast report a long list of disasters to the local craft and property.

Lesseps announces in a circular that the issue of 800,000 shares of the Panama Canal stock has not been covered. He says he might convene a meeting of subscribers and start a company with them, but he prefers, being certain of success, to wait until more light has been thrown on the value of the attacks which have been directed against the scheme at the last moment. De Lesseps will shortly come to America, and on his return he will set the company on its feet. The subscribers are, therefore, informed they can withdraw their deposits whenever they like. Their present subscriptions, however, will give them the right to shares when the company is eventually constituted. This is probably the end of the undertaking, at least for some years, although a good deal of agitation may be attempted in regard to it here by Appleton, Lesseps' agent.

Down at Yazoo City, Miss., the bulldozers' threat that they would kill J. H. Dixon, the independent candidate, unless he left the country, has been executed. Shortly after he withdrew from the canvass, he revoked his withdrawal, as he had been accused of cowardice and deemed it his duty to contend against the bulldozers' tyranny. On the 19th inst. in Yazoo City, while passing down the west side of Maine street, he was hailed by Barksdale the rival candidate from the east side,

who, at the same time advanced to the middle of the street armed with a double-barreled shot-gun. Dixon halted and placed his hand on his pistol, drawing it. Barksdale raised the gun to his shoulder. Dixon, seeing this, moved towards a stairway, when Barksdale fired, four buckshot entering Dixon's back. Dixon then fired several times at Barksdale without effect. Barksdale missed the second shot. Dixon bled internally and died at 4:30 p. m. The difficulty is represented as of a personal nature by Barksdale's friends. Barksdale has been released on $15000 bail.

Opossums are so plenty in Petersburg, Va., that it is not uncommon to run against them in the streets at night. Rabbits and partridges also abound, the latter being found in every yard which affords them food. A census of Kansas, just completed, shows a population of 849,878, an increase of 60 per cent. over that of 1875, which was returned as 528,437. A Wisconsin boy fired at what he thought was a scarecrow, and hit a tramp, whose ragged clothes were flapping in the wind as he crossed a field. A street car at New Albany, Ind., was stopped by highwaymen, and the conductor and one passenger were robbed of their money and watches. The wet weather ruined the coaching season in England this year. Gen. Sheridan has received from the Secretary of War an order directing a board of inquiry to consider the positions and handling of troops at the battle of Chickamauga. The date of the session has not yet been decided upon, but it will be at the discretion of Gen. Sheridan, and probably within a few weeks. The order directs that the sessions be held in Chicago.

The driver boys and car runners at the Exeter Colliery, Pittston, Pa., operated by the Lehigh Valley Company, are on a strike for an increase of wages. The mine is idle and 500 men and boys are out of employment.

H. P. Williams, the Workingmen's candidate for Congress in the Second California District, has declined, and E. J. Clunie, the "Honorable Bilks'" candidate, was nominated instead.

FOREIGN.

Two hundred colliers will embark at London on Friday next as emigrants to New Zealand. *Le Soir* (Paris newspaper) announces that Count de Chambord, the Legitimist pretender, has started for England. M. de Lesseps, the promoter of the Panama Canal scheme, is already preparing at Paris for his journey to the United States. His wife will accompany him. A Berlin despatch says: "The Russian Government is about signing a contract with the agent of certain American firms for the construction of a number of cruisers at a total cost of $16,250,000." The London Standard announces, semi-officially, that England is the only power which has not been invited to send officers to witness the great Russian military manœuvers, beginning on Monday, the 25th of Aug.

Mr. Gladstone and Sir Charles Dilke on Tuesday night addressed large meetings at Chester and Chelsea respectively. Mr. Gladstone urged that the Liberals could force on a dissolution of Parliament by bringing their candidates prominently forward.

An asylum for aged domesticated animals has just been opened by an inhabitant of Gonesse, in France. It already contains a cow 36 years of age, a pig aged 25, and an 18-year-old goat. The senior member of this happy family is, however, a mule. He is 40 years of age. Next comes a sparrow, whose summers number 31: 28 years of life have been granted to a goldfinch; and a guinea fowl and a goose have respectively reached the ages of 12 and 37 years. The bridging of the English Channel is seriously proposed by Sainte Anne, a French engineer of good professional standing. He proposes to build a line of immensely solid stone piers, and on them place sections of girder, suspension and tubular structure, according to local requirements. Victoria, Australia, still retains the death penalty for rape, and the question is now whether two youths are to be hanged for this offence, of which they are convicted. The one who planned the whole thing was at the time of the perpetration 14, the other 19. The Executive decided to let the law take its course, but public sentiment compelled a respite. In 25 years only one white man has been hanged for this offence. "Disappointed" writes from Vevay, France, to the London Times, that, driven desperate by the vile weather in England, he had gone abroad four weeks before, and had since experienced but two fine days. On all others it rained, and, further, was bitterly chilly. "It is a dreadful summer," he adds, "for hotel keepers and walkers, as snow fell in the high mountain localities only last week. Thermometer, 62 deg. Last summer a number of hotels in Switzerland closed, owing to the bad season, and this year more will follow—very few are making their expenses. The Lake of Geneva has not been so stormy for fifteen years."

Lord Carnarvon, while Secretary of State, called for information from the colonies as to their timber supply. During the five years ending 1876 Canada sent England about $125,000,000 of timber. In Nova Scotia the approximate amount of timber-producing land was, in 1875, computed at 9,000,000 acres; in Ontario, 30,000 square miles; in Quebec, 73,711,114 acres; New Brunswick, 6,000,000 acres. In British Columbia about 110,000,000 acres are covered with timber. Newfoundland, too, is densely wooded, but forest fires have there, as also to a considerable degree in Canada, made serious inroads. In Natal (Africa) the Crown forests have for some time been suffering so seriously from the depredations of the natives that the Surveyor-General has absolutely prohibited the use of forest lands for the cultivation of crops. It is computed that Cape Colony has between 500 and 600 square miles of forest. Between 1868 and 1878 British Honduras sent 34,000,000 feet of mahogany. In Victoria, Australia, timber is diminishing far too rapidly, and in Western Australia the Governor thinks that steps must be taken to arrest destruction. In Queensland an annual license fee is exacted from wood cutters, and officer has been appointed to report on the public timber-producing lands, with a view to their conversation. Tasmania (Van Dieman's Land) has about 8,000,000 acres under timber, of which amount 1,000,000 are in private hands. In Ceylon steps were some time since taken to arrest reckless destruction. In Queensland and South Australia the clearing of the forests has produced no effect whatever on the rainfall. In St. Helena, on the other hand, where the destruction of the trees shortly after colonization of the island was followed by a succession of severe and destructive droughts, now that the forests have been allowed to grow again, there has been much less trouble on that score. The climate of Jamaica is reported much drier of late years in the south side of the island, where the greatest clearances have been made. Gen. Garibaldi's condition has improved. A despatch from Berlin says that Gen. Ignatieff will replace Gen. Todleben as Governor-General of Odessa, and that Todleben will become Governor-General of Poland. The Diritto announces that a recent meeting of the Cardinals, at which the Pope was present, discussed a proposal to ask the Italian Government to restore the Pantheon to the Holy See.

Flooded partridge nests will make the English shooting poor this year. Shooting won't be general until Michaelmas (Sept. 29), instead of Sept. 1. The Duke of Sutherland has permitted the exhibition on his grounds in London of a portable railroad, said to be of extraordinary value in war. It is also specially designed for farming operations—saving labor in heavy carting. The Mark Lane Express observes that farmers who propose to act on Lord Derby's recipe (emigration) for the cure of agricultural depression, will read with interest in the Toronto Mail: "Mr. W. Weld, editor of the Farmers' Advocate, who is at present in Manitoba, telegraphs that the destitution there is fearful, and that many are walking back to Ontario." The special Parliament or Landtag for the kingdom of Prussia will, it is generally believed, be dissolved in September, and already much curiosity, and even anxiety, is felt as to its party composition. At the close of the last session the relative strength of the several political parties stood thus: The total number of representatives in the Chamber of Deputies was 432. Of these 168 were National Liberals, 63 Progressists; Liberals (simply), 12; Centre, 80; Conservatives of all sections, 93; Poles, 15; Danes, 2. Thus the united Liberal votes were 243, or 26 more than the absolute majority of the Chamber. Even if the recent alliance between the Conservatives and the Centre be continued and extended to the Landtag, they will have between them to gain 45 seats in order to gain a bare majority. From 1870 to 1873 the Conservatives, who have now only 83 seat in the House, had 167.

It is generally admitted that there cannot be anything more exquisitely delicate for perfuming the handkerchief than MURRAY & LANMAN'S FLORIDA WATER; but its great and distinctive property is its adaptability to the uses of the bath. It is the only perfume we know of *especially and particularly* suited to use in this way. The power it has of imparting to the waters of the bath great soothing, refreshing, and invigorating effects, is peculiar to itself.

To restore nerve and brain waste, nothing equals Hop Bitters. Believe this.

THE MARKETS.

PRODUCE AND PROVISIONS.

NEW YORK, Saturday, August 23, 1879.

BEANS AND PEAS.—Trade in beans is featureless and likely to remain so until new crop becomes prominent. Recent rains will check early curing. Beans, marrow, prime, $1.25@1.27½; fair to good, $1.17½@1.23½; medium prime, $1.30@1.32½; fair to good, $1.25@1.27½; red kidney, prime, $2.40@2.50; fair to good, $2.20@2.30. Canadian peas, 70@72c.; new green peas quoted as an opening price at $1.95@2.

Receipts of beans for week, 2,028; exports, 642 packages.

BROOM CORN.—There is a fair jobbing trade and prices ruling firm.

Brush and short broom, choice, ₹ lb, 5¼@6½c.; do., common to good, 4½@5½c.; hurl, good to choice, 4@5c.; do., common to fair, 3½@4c.; red and crooked, 2½@3½c.

BUTTER.—Receipts for the week, 30,400 pkgs. Exports, 12,189 do. The summer passiveness of the market is undisturbed. Business at this season when there is no exportation of moment or other influence to cause excitement or activity, is confined to regular customer wants, and dealers do not allow a steady buyer to be won away by competitors. Thus when top rates have to be enforced for fine table stock, the figures for under grades and cooking sorts are made profitably accommodating. A fact that might be here mentioned: New York and near-by summering places call for a better style of butter for kitchen use than was formerly demanded. Exports to Europe figure up better this week, but the amount taken does not represent much new business, many lots being from stock held by shippers. Receipts generally show the effect of a long summer; fine dairy tubs are particularly scarce.

State pails and half tubs, choice, 15@15½c.; good to prime, 14@14½c.; fair to good, 12@14c.; firkins, yellow, 14@15c.; Welsh, good to choice, 14@15c.; fair, 12@13c.; poor State, 8@9c.; State creamery, choice, 17½@18c.; good to prime, 16@17c.; fair to good, 15@16c.; sweet cream, 16@17c.; Western creamery, choice, 17@18c.; other, 15@17c.; imitation, 10@13c.; Western dairy, best, 12@13c.; fair to prime, 9@10c.; factory, choice, 10@11c.; other, 7@9c.; poor, 5@6½c.; grease butter, 4@5c.

COTTON—Has been active and closed firm at for August, 11.30c.; September, 11.39c.; October, 10.74c.; November, 10.41c.; December, 10.42c.; January, 10.47@10.48c.; February, 10.58@10.59; March, 10.68@10.69c.

Quotations for spot cotton are based on American standard of classification, and on cotton in store running in quality not more than half a grade above or below the grade quoted.

	Uplands.	*N. Orleans and Gulf.*	*Texas.*
Ordinary	10 5-16	10 7-16	10 7-16
Strict ordinary	10 11-16	10 13-16	10 13-16
Good ordinary	11 1-16	11 3-16	11 3-16
Strict good do	11 5-16	11 7-16	11 7-16
Low middling	11 7-16	11 9-16	11 9-16
Strict low middling	11¾	11¾	11¾
Middling	11¾	11¾	11¾
Good middling	12 1-16	12 3-16	12 3-16
Strict good middling	12 5-16	12 7-16	12 7-16
Middling Fair	13	13¼	13¼
Fair	13¾	13¾	13¾

STAINED.

Good ordinary	10¼	Low Middling	11 3-16
Strict good ordinary	10¾	Middling	11 7-16

CHEESE.—There has not been much activity to trade and shippers have been bearing down hard on prices; towards the close of the week rather more steadiness prevailed. Quotations for fancy, 5¼@5¼c.; good to prime, 4¾@5c; fair to good, at 4@4¼c.; half-skimmed, 3@4c.; skimmed, 2@3c.; State farm dairy: fine, 5c.; good to prime, 4¾@4¾c.; fair to good at 3¾@4¼c.; skimmed, 2@3c.; Wisconsin factory: Fine, 5@5¼c.; good to prime, 4¼@4¾c. Ohio factory: Cheddar, fine, 5c.; do., fair to good, 4@4¼c.; flat, fine, 4¾@5c.; flat, good to prime, 4¼@4¾c; flat, fair to good, 3¾@4¼c.; half-skimmed, 3@4c.; skimmed, 2@3c.

Receipts for week, 74,241 packages.
Exports for week, 51,912 packages.
Liverpool cable, 50s,
Steam, 49s.

DRIED FRUITS.—Pitted cherries have been active at 16c.; apples are wanted at better prices: new peaches are scarce and would sell well. Prices are:

Patent evaporated apples, choice, in cases, at 11c@12c.; do, fair to good, 8¾@10c.; N. Y. State sliced, choice, at 5¼@5¾c.; do, quarters, choice, 4¾@5c.; western quarters, bright, at 3¾@4¾c.; common and old at 2@3c.; N. C. pealed peaches at 10@11½c.; do. Georgia, 10@12c. for fair new; unpeeled halves, 3@3½c.; do., quarters at 2¾@3c. Blackberries at 5¼@5¾c. Raspberries at 28c. New York State plums at 8@10c. Pitted cherries at 15@16c.

EGGS.—Receipts for week, 6,700 bbls.; do., last week, 5,450 do. The market has favored sellers and sales of Western are prompt, as quality now gives buyers more confidence.

Near points, 16c.; State and Penn., 15@15½c.; Canadian and Western, prime, 14¾@15c.; inferior to fair, 13@14c. State eggs running poor, they contain a good many held-found, which hurts the average count.

FLOUR.—There has been a brisk call for supplies and the market is the turn better.

Latest prices are: $3.30@4.00 for very inferior to fancy superfine State; $4.20@4.40 for poor to good extra do., odd lots and lines (lines for September arrival quoted at $4.20@4.25 for standard brands); $4.40@4.75 for good to very choice do.; $3.30@4.00 for very inferior to fancy superfine Indiana, Iowa, Michigan, &c.; $4.20@4.40 for inferior to good shipping extra do., and $4.40@4.75 for good to very choice extra do.; common to choice white wheat extras, $4.60@5.00; choice to very fancy do at $5.00@5.50; red and amber winter wheat, inferior to very choice trade and family, at $4.40@5.75; round hoop Ohio at $4.20@4.60, and trade and family brands of do, at $4.75@5.85, the latter rate for choice; St. Louis, $4.60@5.50 for inferior to very good extra; $5.50@6.50 for very good to fancy; Minn. clear, very inferior to very fancy, at $4.15@5.50; do. "straight," very inferior to very fancy, at $4.90@6.50, and patent poor to fancy at $5.00@7.50; unsound stock at from $3.25@2.50; city mill extra at $5.20@5.45, fair to choice, for West Indies; do. for England, $4.15@4.60 for very poor to very choice; do. trade and family extras, $5.50@6.50; do. for South America, $5.25@5.50 for standard to choice brands; No. 2 at $2.50@3.25 for very poor to very choice.

FRESH FRUITS.—It has been a rough week for the peach trade. The heaviest supplies of the season have met wet weather, which checked large steady sales. Then the later offerings had a bad market on account of the tender condition of fruit. The rain storm of the 16th to 18th extended to Delaware and damaged the shipping quality of much stock. This was severely the case in larger sizes of Mixons and Crawfords. Supplies of the past few days add up baskets. Prices opened low, but not low enough to prevent a surplus that had to be sold at buyers' option, so that in the average little was returned to owners. The entire supply of Friday did not clear 30c. per basket. To-day the demand is fair, as fruit is in poor or bad keeping order; baskets quoted 30@40c.; crates, poor to good, 20@50c.; extra, 75c. Fair grades of N. J. begin to come. Receipts of the season thus far add up nearly one-quarter of a million baskets, exclusive of a large quantity that has gone directly eastward.

The weather has been severe upon fruits generally, and only prime lots hold a steady position; still prices are fair, considering the low peach market that has to be contended against.

Apples, red Astrachan, up-river, ₹ bbl., $2.00@2.50; do., Jersey, $1.50@2; Blush Pippin, $2@2.50; Orange do., prime, $1@1.50; Strawberry, $1.25@1.75; Sour Bough, $1.25@1.75; Sweet do., $1.25@1.75; mixed lots, Western N. Y., $1.25@1.50. Pears, Bartlett, up-river, per bbl., $2@3; Jersey, $2@3; Flemish Beauty, up-river, $2; Clapp's Favorite, up-river, $2@3; Bell, fair to prime, $1.50@1.75; cooking, $1@1.50. Grapes, Delaware, Southern, ₹ lb., 3@10c.; Ives, ₹ case of 18 3-lb. boxes, $2@3.50; Concord, ₹ case of 18 3-lb. boxes, $2.50@3; do., Southern, in baskets, ₹ lb., 3@5c.; Ives, Southern, in baskets, ₹ lb., 3@5c.; do., Jersey and Delaware, bulk, ₹ lb., 3@5c. Plums, up-river, Magnum Bonum, per bbl., $5; Egg, $3@4; Green Gage, $3@4; Blue Gage, $3@4; Lombard, $2@3; common green, $2@2.50; Md. and Del. Damson, per bu., $1.50@2. Whortleberries, Jersey, fair to good, per 11-qt. box, 40@50c. Watermelons, Jersey, Black Spanish, per 100, $5@10; Md., selects, $12@20; do., without selection, $5@10; Nantucket, prime, $5@10; culls, $2@5. Cantaloupes, Hackensack, per bbl., 25c.@$1. Grapes, Black Hamburg, per lb., 25@50c.; Muscat, 25@50c.; Sweet Water, 20@25c. Receipts of peanuts are very light, the demand continues fair and prices rule strong; the remaining stock in Norfolk is said to be but little over 3,000 bags: Va. hand-picked, $1.50@1.55; fancy, $1.42½@1.45; extra prime, $1.37½@1.40; good to prime, $1.30@1.35; shelled, per lb., 5½c.

The Prodncers' Price Current says of cranberries: "The crop advices so far received indicate as follows: In New Jersey the vine worm, drought and rot have caused much damage, and the probabilities are that the crop will be light, perhaps not larger than that of last year. Cape Cod reports that frosts, drought and worms have done some injury, but the crop promises to equal that of last year if nothing seriously adverse occurs between the present time and harvesting. Massachusetts and Rhode Island reports are much the same as those from the Cape. Taking the whole of New England, it is probable that the crop will be larger than that of last year but not so large as that of two years ago. Wisconsin advices were generally favorable for a large yield, estimated at 15,000 barrels in excess of the heavy crop of last year, until this week. Now we have advices of injury to the crop in the Valley of the Wisconsin River by recent droughts and frosts."

GRAIN.—Wheat has been stronger and more active; latest sales are of No. 1 amber at $1.10¾@1.11; No. 2 amber at $1.10@1.10¾ do., August option, at $1.10¾; do., September option, at $1.09¾@1.10; ungraded amber at $1.02¾@1.11; extra white at $1.11¾; No. 1 white at $1.11¾@1.11¾; do., August option, at $1.11¾@1.11¾; do., September option, at $1.11; do., No. 2 white at $1.09¾@1.09¾; No. 3 white at $1.02¾@1.03; ungraded white at $1.03@1.10¾; No. 1 red at $1.10¾@1.11; No. 2 red at $1.10@1.10¾; do., August option, at $1.10@1.10¾; do., September option, at $1.10@1.10¾; do. October option, at $1.10@1.10¾; do. No. 3 red at $1.07@1.08; ungraded red at 97c.@$1.10; mixed winter at 1.08@1.09; Chicago No. 2 spring (new crop to arrive) at $1.02; do. (new crop, special September), at $1.02; New York do., new crop, at $1.03; do., for October, at $1.01¾; No. 3 spring at 90c.; No. 4 spring, at 83@83½c.; rejected spring at 72@72½c.; ungraded spring at 90@96c.; No. 2 red, September delivery, $1.09¾; do., last half of October, $1.01¾; No. 1 white, September, $1.11. Rye at 64c. for Western and 67c. for State. Corn has been active, and closed at for New York No. 2 afloat at 46¾@46¾c.; do., August at 46½c.; do. September at 47c.; do. October at 47¾c.; New York steamer mixed quoted at 46@46¾c.; do. August at 46c. bid and 46½c. asked; do. September, at 46¾c.; do. October at 47c. bid and 47¾c. asked; ungraded Western mixed at 46@46¾c.; No. 2 white at 57c.; round yellow lat 58c. asked; yellow Western at 47¼@48c.; New York yellow at 48c.; Southern yellow at 47¾c. Oats are rather weak, fair supplies; latest sales of New York No. 1 white at 33c.; New York No. 2 white at 31@31½c.; New York No. 3 white at 32¾@32¾c.; No. 1 at 31¾@31¾c.; No. 2 at 31@31¾c.; No. 3 at 30c.; rejected at 28c.; ungraded mixed Western at 28¾@32c.; white do. at 32½@33c.; white State at 34@39c.; mixed State at 34; No. 2 Chicago at 31½c.

HAY AND STRAW—are in liberal receipt, but demand is good and prices hold steady.

New hay is at 50c. for shipping; 70@80c. for prime, and 55@60c. for medium. Old hay at 50c. for shipping and 70@85c. for prime retail qualities; medium at 50@65c. Straw at 45@49c. for long rye, 40@45c for short rye, and oat at 30@35c.

HOPS.—The receipts for the week were nearly 800 bales in excess of the exports, and as most of the arrivals (with the exception of Pacific coast hops) are of medium and low grades, the natural result is that the market for such is a shade easier. The reported improvement of crop prospects in New York State and Europe may have an effect on the value of the new crop, but until the entire harvest is secured and the result positively known, little apprehension need be felt as to the value of the few prime 1878 hops remaining, while older growths and poor grades already feel the effect.

Quotations are for New York's, new crop, prime choice, 14@18c.; New York's, new crop, medium, 10@12; New York's, new crop, low to fair, 7@9; Eastern, 8@12; Western, 8@11; Yearlings, 4@10; Olds, all growths, 3@5; Pacific coast, nominal, 9@15.

OIL-CAKE.—Western is quoted $28 per ton.

POULTRY AND GAME.—Live chickens again lower. Market generally easy, with a free supply.

Chickens, large per lb., 12@13c.; small, 10@11c.; fowls, N. J., 10½c.; Western, 9@10c.; Southern, 9@9½c.; roosters, old, 5c.; ducks, ₹ pair, 35@70c.; geese, best, $1.50@1.75; others, $1.12@1.37. Turkeys, 10@12c.

Dressed shows no quotable change.

Turkeys, Phila., dry-picked, 16c.; State and Western, 13@14c.; chickens, Philadelphia, per lb, 16@19c.; State, 15@16c.; Western, 13@15c.; fowls, choice, ₹ lb., 13@14c.; other, 11@12c.; dry-picked, 15c.; ducks, spring, dry-picked, 12@16c.; other, 11@12c.

Game has merely a light offering of woodcock quoted at 70@90c. ₹ pair, the latter for State; squabs, tame, $1@1.75 ₹ doz.

PROVISIONS—Hog products have been in very fair demand and prices closed strong. Mess for prompt delivery quoted at $8.30@8.90 for ordinary brands: August, $8.70@8.80; September, $8.70@8.80; October, $8.75@8.85; November at $8.80@8.90 for seller's option, old or new. Bacon at 5c. for long clear and 5¼c. for short clear. Beef—Plain mess at $10.25@11; extra mess at $11.50@12; packet at $11.50@12; tierced beef, city extra India mess, at $19@21. Beef hams at $17.50@18. Lard at $5.57½@6 for spot, Aug. & Sept.; $6.02½ for October. Stearine at 6¾@6¾c. for Western. Tallow at 5¾@5¾c. for prime.

SEED.—Clover is in demand and quoted at 6¾@7¼c. for Western; timothy at $1.70@1.75.

TOBACCO.—There has not been much export demand and the home trade has been moderate, with prices essentially as last week.

VEGETABLES.—Exports of potatoes for week, 5,121 bbls. Supplies coming from all points and the market remains easy. Choice potatoes; $1.50 ₹ bbl.; other, $1@1.12; culls, 50@75c.; Sweet Virginia, $3.50@5.75; Del., $4@4.25. Cabbage lower. Green corn, extra large, per 100, 25@50c.; do., poor, 40@50c.; cucumbers, L. I., 30@50c.; do., pickles, ₹ M, $1.00; tomatoes, L. I., near-by, per crate, 20@30c.; string beans, ₹ bag, $1.25; Lima beans, $1@1.50; squash, L. I. yellow, ₹ bbl., 50c.; do., do., white, 50c.; do., marrow, 75c.; green peas, L. I., ₹ bag, $1@1.75; cabbages, flat Dutch, per 100, $2@3; onions, white, per bbl., $2.25@2.50; red, $2; yellow, $2@2.50; beets, N. J., per 100 bchs, $1@1.25; Russia turnips, per bbl., 75c.@$1; carrots, $1@1.25; egg plant, L. I. and near-by, per 100, $1.50@$2; okra, Jersey, per 100, 15c.; peppers, bullnose, per bbl., $1@1.25.

WOOL.—There is a strong temper to the market, with a liberal inquiry from manufacturers. X and XX fleeces quoted at 38@39c., and No. 1 at 40@41c.

Sales of X, XXX and No. 1 Ohio at 37½@40c.; No. 1 do. at 41c.; Virginia at 31c.; spring Texas at 16@28½c.; do. at 20@25c.; spring California at 20@28c; Territory at 29@31c.; unwashed Indiana at 31@32c.; unwashed Western at 30@32½c.; Pennsylvania, at 30c.; scoured Texas at 51c@62c.; Mexican at 16c.; choice Oregon at 38c.; domestic nolls at 40@43c.; low do. at 30c.

LIVE STOCK MARKETS.

NEW YORK, Saturday, Aug. 23.

BEEVES.—Receipts for the week, 10,443 head; do. last week, 12,982 do. Good Cattle was about equal to the supply, and the offerings were sold out at strong Wednesday's price, although some sellers report an easier feeling toward the close. Common and Medium Cattle have been in disfavor all the week, partly on account of the rather limited supply of good stock; and the depression and weakness which was so apparent on Wednesday and yesterday amounted to a decline to-day of at least ½c. per lb, in some instances possibly a trifle more. Two carloads of stale Texans sold at 6¾c. to dress 55 lb, and 50c. per head, and some 15 cars of fresh Colorados at 8¼@8½c., to dress 55@56 lb; a few rough Oxen and Stags went as low as 7¾c., to dress 55 lb, but the general range for Common to Fair Native Steers was from 8c. to dress 55 lb, to 8¾c. to dress 56 lb, with good to choice at 9@10c., to dress 56 lb, and extra at 10¾c. to dress 57 lb.

MILCH COWS.—Supplies heavy and prices weak; the range is $25@$55 per head. Sales mainly at $30@$40.

VEAL CALVES.—Arrivals are liberal and prices low for common stock. It is useless to send inferior grass calves here; 1¾c. was paid for a car-load. Fair to good grassers and buttermilk, 3@3c.; common to prime veals, 4@6c., the extreme for N. J.

SHEEP AND LAMBS.—Receipts for the week, 31,238 head; do. last week, 32,212 do. The demand is not sharp and prime stock sells best. Sheep quoted, 4@5¾c.; lambs, 4¾@6¾c. Mixed lots, sheep and lambs, have sold at 4¾c.

SWINE.—Receipts for the week, 20,610 head; do. last week, 17,057 do. The market is easily supplied at the moment, and prices are lower with the comparatively free arrivals. Ordinary quoted, 3¾@4c.; prime, 4¼c. ₹ lb.; city dressed, $4.50@5.62 ₹ 100.

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Reading for the Young.

A COLLEGE STORY.

BY ELEANOR KIRK.

ARTHUR Hoyt looked at himself in the glass seriously, and without self-love or self-prejudice. He saw there a frank, good-natured face, a pair of blue eyes, and a mass of curly brown hair. As far as he could judge, there was nothing particularly out of the way with his countenance.

"Say, Dick," he began, to his room-mate, who was puzzling over a page of Xenophon, "I've been taking account of stock, and I don't see anything unpardonably wrong about my features. They are not angular enough to be called sharp, nor level enough to be justly styled flat; so I can't exactly see the suitableness of the expression which has somehow come to be my college cognomen."

"Don't be a fool!" growled Dick, without looking up from his book.

"I have always been a great stickler for the fitness of things, eternal and temporal," continued Arthur; "and if to be 'A flat' is really applicable as a correct description of the impression my personal appearance makes on my companions, all right! I'd as soon respond to that name as any other; but if it's not mine, then, old fellow, it's got to be stopped!"

"If you'd rob hen-roosts, and steal the housekeeper's preserves, and lay traps to trip up old men and women, and raise Cain generally, you'd be the most popular fellow in college," said Dick, with a disdainful grimace, still with his eyes fixed on his book. "They let me alone, you see, because I don't care a hang for 'em, and because they know I'm as poor as poverty, and as dull as a hard-shell clam. You get ahead of 'em in class. I'm always in the rear. You have money to subscribe to everything there is going, and you refuse to spend it in riotous living. I havn't any money, and therefore I'm of no consequence. Whoever says that there isn't compensation for everything don't know what they are talking about."

"You're a patient old soldier," said Arthur, with a merry laugh, "and I wish I had some of your philosophy! But, the fact is, every time I'm called 'A flat,' I feel the fight tingling all over me. I am afraid that some time my fists will become unmanageable."

"I guess not!" Dick replied. "You'd only get yourself in a worse muss, besides having something to be sorry for all the days of your life, perhaps! But there's the bell, and I'm all out of the bolt-ropes, as usual."

But there's a row in camp!" said Arthur's right-hand neighbor, as the young men took their seats in class. "Some of the boys scared old Mrs. Allen into a fit last night, and they say it's a 'liner.' Nobody thinks she'll pull through. One of the fellows dressed up in white, and rode the old woman's cow clear into the kitchen. They let out the pig, and stoned the house, and broke her windows, and goodness knows what they didn't do. There won't be any show for the boys that cut up those capers."

"Well, there oughtn't to be!" said Arthur, indignantly.

Just then the Greek Professor entered the classroom, and, after surveying the students a moment said, with great seriousness:

"I am requested by the President to say to Arthur Hoyt and Richard Denham that they are to repair at once to the library, where the Faculty of this college wait to see them."

"All right, sir," responded Arthur, pleasantly. Conscious integrity made him bold. Dick arose slowly, and walked out in his usual dogged manner.

"Say, 'A flat,' you're in for it!" said one of the class, in a low tone, as the young man passed him. "Your turn has come now, 'A flat!' said another. "Mebbe you won't be so high and mighty now you're found out at last!"

"What do you suppose it is?" Dick inquired, as he came up with Arthur.

"Some contemptible trick of the boys," said Arthur; "but we shall soon know. Brace up, old fellow, for here we are."

A few words sufficed to put the visitors in possession of all they wanted to know. After a few preliminary remarks, such as having been led to expect better things from the young men before him, the President produced a large silk handkerchief, with "Arthur Hoyt" plainly marked in one corner.

"Does this belong to you, Hoyt?" the President inquired.

"It does, sir," replied Arthur, pleasantly.

"And is this yours?" the gentleman asked of Dick, presenting a crooked stick, or cane, which the young man was accustomed to carry on long walks.

"That's mine, sir," said Dick.

"And here is a cuff with 'A. Hoyt' marked on it," the President continued, "torn from the wrist, probably, in the pleasant excitement of frightening an innocent old woman into a fit. I shall be compelled to hold your property, sirs, until such time as the law of the college, or the law of the State, shall be passed upon you. Mrs. Allen is not expected to live."

"I am very sorry, sir," said Arthur, respectfully; "and I am sure Dick is, too; but what sort of justice is this that takes our guilt so entirely for granted? Your evidence is simply circumstantial, sir, and I wish to say here that I was never on Mrs. Allen's premises in my life, and I am quite sure Denham never was."

"I never was," said Dick, with characteristic doggedness, "and I never expect to be."

"What would you say, Hoyt, if I were to tell you that one of the professors saw you there last night?" inquired the President.

"I should say, sir," Arthur responded, quickly, "that the professor was greatly mistaken; but if you were to tell me that one of the students saw me there, I should say that student lied."

There was a straightforwardness in the attitude of these suspected young men that was irresistible, still everything was against them. The old woman had testified that morning that she heard the names of Hoyt and Denham pronounced more than once the night before. The conspiracy was well arranged, nothing, so far as known, having been left out in its calculation. Arthur was in his room alone all the previous evening, but, as he thought it over, there was absolutely no one to testify to this fact. Dick had taken one of his long walks into the country, returning at ten o'clock. There was no way of proving this, either, for Dick had not spoken to a soul, and there was literally no way by which he could prove an alibi. Nothing more could be said at present, and Arthur and his chum withdrew and passed slowly along to their room, as the President had ordered. On their way they met several students, who, it was plain to be seen, were waiting for them to leave the library.

"You can't most always tell a flat from a sharp," said one of the number, a young man who had been particularly offensive in his manner to Arthur. "We have all been mistaken in your character, my boy. I take notice that when these goody-goody fellows do take it into their soft pates to cut up, they generally beat the rest of us all hollow in the meanness of their efforts."

Arthur's face was scarlet, and his hands worked nervously. He was full of desire to knock this fellow down, and, under the exasperating circumstances, it was hardly to be wondered at; but the young man had been trained in a different school, so he valiantly turned on his heel and left his enemy without a word.—"Valiantly" is the proper term to describe Arthur Hoyt's behavior in this crisis. It would have taken physical strength only—and Arthur had plenty of that—to have flogged Steve Cary, the young man who had just publicly insulted him, but it required real valor to turn away without either word or blow. That afternoon the tidings of the death of Mrs. Allen threw the college into terrible excitement. Officers were promptly on hand, and Arthur and Dick were subjected to the most rigid scrutiny. The coroner's jury would convene the next morning, and until then, at any rate, the two young men were prisoners. The detective who had charge of them was a good-natured fellow, and after asking all sorts of questions, relevant and irrelevant, as it seemed to his companions, he finally said with a chuckle:

"They may be pretty smart up here in this college, but they've got the wrong pigs by the ears *this* time. Say boys, come out for a walk! I can keep an eye on you just as well out-doors as in the house, and mebbe it 'll chirp you up a bit."

So out they went, the detective asking all sorts of questions, it seemed to his companions for no other purpose than to make conversation. As they drew near the lake, a large and very deep sheet of water, Arthur saw that Cary was out in his—Arthur's—tiny, shallow shell of a boat.

"He'll have to be more careful, or he'll upset, as sure as fate!" said Arthur, more to himself than to those about him.

"'Twould be a pity to have him drown now!" growled Dick. "Great heavens! there he goes!"

Arthur, who had been watching the boat and its occupant, threw off his coat and his boots, and, before the detective could lay a hand on him, he had plunged into the water, and was making with all his might for the drowning man. Cary, could not swim, and when Arthur reached him he had come to the surface the second time. It required almost superhuman strength to bring him in, but the brave swimmer succeeded, and for a moment Arthur lay panting and exhausted beside the inanimate form he had snatched from the water. A half an hour later, the still unconscious young man was borne to the college. Arthur, forgetting that he was a prisoner, did all in his power toward his enemy's restoration. As they removed his coat, a large Russia-leather pocketbook dropped to the floor, and this Arthur took into his own possession.

"You had better change your clothes at once, Hoyt!" a kind voice said, after all had been done. Arthur turned, and saw the President.

"All right, sir," said the young man, presenting Cary's pocketbook. I was afraid this might fall into improper hands, sir. It seems very full of papers."

"I hope I haven't wronged you," said the President, with considerable feeling.

"Rather hope that you have, sir," said Arthur, with a smile; "if you have wronged us, then we are innocent, you know; but, whatever the result, I shall always feel that you have acted according to your best judgment."

That evening, as Arthur, Dick and the detective sat in their room, waiting for they knew not what, a knock on the door was followed by the entrance of the President.

"Officer," he said, with trembling voice, "you can go to the parlor, if you please. These young men are not guilty, therefore they require no guard."

"I knew that afore," said the detective, as he hastily left the room.

"The pocketbook you gave me, Arthur," the President began, "has solved the mystery. There was but one student engaged in the miserable affair, and he has passed to his account," he continued, reverently. "He was joined by some young men from the city—what young men we shall probably never find out. I should have been more careful, boys," and now the tears rolled down the good man's face. "I have cleared your name before the whole college, and that is all I can do. Even with poor Cary dead upstairs, your friends and your enemies joined in a hearty cheer of goodwill when I told them what I thought necessary."

Somehow it came to pass from that day till the day Arthur Hoyt left college, he was never again called "A flat."—*Christian Union.*

LETTERS FROM BOYS AND GIRLS.

DEAR RURAL COUSINS.—I am sorry, indeed, to see so few letters from the boys and girls who *used* to write for the RURAL, therefore I repeat the question asked by Old Maid some time ago, "What has become of them?" I miss their spicy letters very much and am half inclined to side with Old Maid in the opinion that they have jumped the broomstick, so to speak, and forgotten us. Should this be the case, my dear Maid, I think we have been willfully slighted in not having been invited on that occasion. Autumn, my favorite season of the year, is now fast approaching, when the cool bleak winds of September sweep over our parched continent, cooling our feverish, aching brows, and fighting its battles with the much dreaded pestilence of the South. Now and then the wind becomes stronger, causing the waves to wash madly against the shores of the lake on which I spend the most of my spare moments. I love to sail on the water when it is rough, and the wind blows, and to hear the waves lap against the boat, when the sun is sinking to rest behind the dark gray mountains in the distance, casting its departing golden rays here and there between the giant oak trees whose huge boughs shriek and moan in a wild and wierd-like tone as they come in contact with each other. I enjoy all this as my boat lays rocking like a cockle shell upon the waters.

I love the winds continuous roar,
As it wildly shrieks from shore to shore;
I love the billows' frantic bound,
Old Ocean's wild and ceaseless sound.

I am glad to see that some of the cousins mention books in their letters, and should like to have them write and mention some of their favorite authors. I am myself a great admirer of books, especially the poetical works of Milton, Poe and Shakespeare. I think Lenora W. hardly did justice to our interesting correspondent from the Sandwich Islands. I am well pleased to hear that Mr. Schwyn liked my last letter, but I wish to remind him that I do not belong to the tender sex. Slayerofconceit the II. deserves thanks for his continued efforts to break the oppressive silence which prevailed when he first made his appearance in our circle; may he not be so short-lived as his far-famed predecessor. I should like to see more of those brilliant effusions written by Jumping Jack. Will Rural Lover come again? The remark I made in my last letter concerning her was not intended for an insult, therefore she will please not to take it as such. I ask myself over and over again, "Has Fern forsaken us?" and the only answer I get is the sad echo of my own voice. I should like to hear again from Cousin Empste, of Riverside, whose kind letters won at once my cousinly affection. And now, dear cousins, as I think my letter is becoming a fit candidate for the waste basket, I will close, bidding you all an affectionate good night. IVY.

Ivysrest, N. Y.

DEAR UNCLE MARK:—I have been reading the letters from the cousins with great interest, so I thought I would write too. I would like to be a member of the Horticultural Club, if there is yet room for me. I have a fine lot of house plants, of which the majority are Fuchsias. I also have a flower bed. They are nearly all in bloom now. I have the care of a good portion of our garden. Last year I learned budding. I budded several kinds of roses, and had good success. I am trying it again this year. If this does not find its way to the waste basket, I will try again. I remain

Your affectionate niece,

Wayne Co., Ohio. ANNA CROUSE.

DEAR UNCLE MARK:—I thank you for the bulb and seeds you sent me. The Gladiolus is 27 inches high and is just throwing up a flowering stalk. My garden is suffering some from drought, but I still give it my care and attention. I have not sold anything yet, but hope soon to sell some sweet tomato pickles. I will tell the cousins how I make them. Put ripe tomatoes (small sized are best) in two-quart glass cans, and cover with water sweetened with honey or brown sugar, and a few sticks of cinnamon. For home use we take stone jars of any size. Hoping to hear from our new aunt soon, I will close with good wishes for the "Club." Your niece, MARY E. WRIGHT.

Tuscola Co., Mich.

DEAR UNCLE MARK:—I am eleven years old, and would like very much to join the Horticultural Club. I like to read the RURAL, and especially the letters from the little folks. I have some flowers, and have raised a Pinus edulis from the seed you sent out last spring. It does not grow very fast. I planted it in the house. We have to dig ditches around our flower-beds to water them, as it does not rain very often here. Your affectionate niece,

Larimer Co., Colo. MARY NETTIE BLOUNT.

DEAR UNCLE MARK:—I am a little girl, only nine years old. I have always liked gardening, and for a number of years I have had a bed in the garden to care for. This year I have more. I have one flower bed, some Hubbard squash vines, carrots and other vegetables. I try to take good care of them all. I like the RURAL very much, especially the reading for the young. I would be much pleased to join the Horticultural Club. Your young friend, ANNA L. FARR.

Wyoming Co., N. Y.

DEAR UNCLE MARK:—I write to ask if I can become a member of the Horticultural Club. If I can be admitted place my name upon the list. I take the RURAL and like it very much. I am 15 years old and like to work in the garden. I have quite a large plot planted with pop-corn which is looking nicely. Hoping to see this in the RURAL

I remain yours truly. C. A. PORTER.

Stephenson Co., Ill.

DEAR UNCLE MARK:—Would you take a young Canadian into your Horticultural Club? If so, I would like to join. I like to read the RURAL and the letters from the Cousins. We have a small flower garden in which are Pæonies, Lilies, Pinks and Dahlias. If I see this in print I will write again, JOHN HORNE,

Ontario, Canada,

Sabbath Reading.

RINK RELIGION.

THE advent of Mr. Moody gave a great impetus to a kind of observance which was already prevailing in this country, and which has sometimes been styled rink religion. It is a well-known fact that religious services held in theatres, "colosseums," rinks and such like places have a strong attraction for a certain class of persons; and it is equally true that there is a class of Christian "workers" who have a penchant for carrying on services in these places.

The reasons why the "masses," as they are called, are fond of congregating in these places are not far to seek. In the first place, the unfitness of the place is attractive to many minds. A religious service in a church is a seemly and decorous thing; but a religious service in a rink or a circus-tent is something out of the common; there is a pleasing incongruity about it which to many persons is highly amusing. They attend such a service for the same reason that they go to see the five-legged calf or the two-headed nightingale.

These places are haunted not only by worshippers of the incongruous, but also by that large class of persons who have been happily described as "the camp-stool congregation"—those who always go where the newest sensation is, and who are never truly happy except when they are in a crowd.

Of these two classes there are enough in any considerable community to crowd the largest assembly room that can be found in the neighborhood. And when the crowd is gathered, it is easy to stir up a considerable amount of feeling. The persons who compose such an auditory are generally excitable; the lively music, the vigorous and pathetic appeals of the preachers readily affect them, and we often seem to see large numbers of them entering upon the religious life.

Such services, however, come to an end before many weeks, and then these new disciples find themselves suddenly set adrift. All their religious experience has been connected with the rink or the tabernacle; when that is closed they are not drawn in any other direction. The influence of locality upon the religious life is a great deal stronger than some persons think; the place where prayer is wont to be made, is the place to which those who have learned to pray love to betake themselves: the less cultivated the worshiper is, the less inclined is he to worship in a strange place; the more is he dependent for his religious enjoyment upon local associations. Though the churches all open their doors for these converts of the rink, very many of them will fail to enter the churches; or if they do go a few times, all the surroundings are strange to them and they soon cease to appear in the places where they would be welcome.

It was the observation of this fact that led Mr. Moody, during the last winter to seek to connect his work more directly with the churches. He has come to feel that it is far better to make use of the church as the instrument of evangelization than to create other machinery, simply because the results of his work are in this way so much more fully harvested and secured. The method which he followed last winter in Baltimore is less spectacular and striking than that which he had followed previously; but in the long run he thinks it will be more productive; and the adoption of it does great credit to his head and his heart. It shows that he possesses sound sense, and that he is not a selfish seeker after notoriety.

It is to be hoped that Mr. Moody's conclusion will be adopted by those who have been hitherto his most ardent disciples, and who have been inclined to do their Christian work almost wholly outside of the churches. It is true that there are destitute neighborhoods, in which there are no churches, and in which religious service of some kind ought to be held. For this kind of missionary work there is room and reason. But the practice of carrying on outside religious services of an intermittent character in the immediate neighborhood of churches is a practice which in the majority of cases ought to be discouraged. The people who are gathered into these places ought to be gathered into the churches; their religious life is likely to have a healthier and more fruitful development if it is "planted in the courts of the Lord" than if it springs up in connection with some sporadic religious service. It may be said that the people who attend these outside services think that they are not wanted in the churches, and will not enter them. If this is the case then the first thing to do is to disabuse their minds of this error, and make them believe that the churches are the very places where they are wanted. And if this is not altogether an error of theirs—and if there are some features of the church administration which are calculated to discourage their attendance—then the first thing to be done is to reform the church, so that it shall offer a hearty and emphatic welcome to those who most need the gospel. To one or the other of these labors those zealous Christians who are now devoting themselves to the propagation of rink religion might well turn their energies. If the time and money and zeal and tact that they now expend in keeping up religious meetings of one kind or other outside the churches in their neighborhood, were expended in gathering these outsiders into the churches and making the churches places into which all the people would delight to go, the results of their labors would be larger and more permanent.—*Sunday Afternoon.*

OUR moral power will be precisely in proportion to the measure of our grace: if we have little grace we shall do but little good; but if we are "filled with all the fullness of God," we shall exert a vast influence upon the interests of men.—*Dr. Peck.*

A BELIEVER studies more how to adorn the cross than how to avoid it.—*Wilcox.*

PERSONAL ITEMS.

Ex-Senator Chaffee, of Colorado, is said to be worth $6,000,000.

An Indianapolis man has been arrested for violating Indiana law by marrying his step-daughter.

A Wisconsin boy fired at what he thought was a scarecrow, and hit a tramp, whose ragged clothes were flapping in the wind as he crossed a field.

George Hoag gave a decision, as umpire of a Chicago game of base ball, that displeased one side's captain, who struck him a fatal blow with a bat.

Mrs. Kempt, of Bridgeton, Mich., named her boy Christ, not meaning to be sacrilegious. He grew up to be a bad man, and is now in prison for stealing.

Eben Waterbury, aged 72, fell in love with a young woman at Ellsworth, Ill, and gained her consent to marry; but his stern son interposed, and the old man committed suicide.

The London newspapers tell of a belle who paid $25 to have the initials of her lover's name tattooed on her arm, and later, having quarrelled with him, was offering $500 for a means of obliteration.

Lawyer Dembitz of St. Louis is invariably polite. A long and terrific roll of thunder stopped him in an address to a jury, and on resuming he said: "Gentlemen, pray excuse this interruption."

Major Fred. Nicholls, of the Memphis Avalanche, is the only member of the staff who has not fled from the city. He edits, sets type and prints the paper without assistance. He alone stood to his post during last year's epidemic.

About two years ago James Hartland was sent to jail in England, and vowed he'd murder one of the committing magistrates. On August 8 he kept his word by putting three bullets into the Rev. J. Rooker, for 32 years vicar of Gornal.

Bob McCorkle, lately hanged at Taylorville, N. C., was one of the few murderers who did not feel sure of going from the scaffold direct to heaven. "Kind friends," were his last words, "remember me in your prayers to-night, for I don't know where I'll be."

European rulers probably do not enjoy traveling. The Czar was lately hurried from Livadia to Moscow ahead of the appointed time, in consequence of the discovery of a plot to assassinate him on the way. King Humbert journeyed by night from Genoa, because he feared death at the hands of a revolutionary society, into which one of his spies had penetrated.

Thomas H. Stopfell and Helen Reed were married at Ebensburgh, Pa., against the Reed family's wishes, the bride's brother, particularly, having opposed the match. The young couple were at the village hotel, getting ready to start on a honeymoon tour, and the brother dashed into the room in great rage, and attempted to shoot Stopfell. The girl saved her husband's life by seizing her brother's pistol; but the excitement speedily caused her death.

H. F. Beecher, son of the Rev. H. W. Beecher, left Kern county, Cal., three or four months ago to superintend the driving of 18,000 sheep, the property of General Beale, to Salt Lake City. In crossing the Alkali desert, over which the drovers and their herds traveled for eight days and nights, finding no water for the animals, 10,067 sheep perished. General Beale was offered $15,000 for the herds at the start, but refusing, now finds himself the loser by some $7,000.

Mr. Montagu Corry, Lord Beaconsfield's secretary, is his *alter ego*. Lord Beaconsfield hardly ever even dines out without him, and he always accompanies his chief on his visits to Osborne. Mr. Corry is son of the late Right Honorable H. L. Corry, and first cousin of the Irish Earl of Belmore, who married Mr. Gladstone's niece. His mother was sister of the Whig Earl of Shaftesbury. The Corry family are red-hot Irish Protestants. Mr. Corry has considerable private means, enabling him to refuse the good places his patron has offered him.

Owen Wall, the famous negro banjo player of North Carolina, rode with a party of tourists through the mountains, near Rockingham, on Saturday, the gayest of the gay. He sat in his saddle Turkish fashion, carelessly picked on his banjo and sang "Dandy Jim of Caroline," the chorus of which runs:

"My ole marster tole me so,
Ise de bes' lookin' nigger in de countree, O!
I look in de glass and foun' 'twas so,
Jes as old marster told me, O."

Just as Owen finished the song, and while the gentlemen were applauding, he fell from the saddle, stone dead.

Oliver Dalrymple, the wheat king, lives at Fargo, Dakota. He may be seen anywhere and everywhere on his mammoth estates throughout the day. Afoot, on horseback or in carriage, he is always on hand to look after his own and his partner's interests, and every detail of the great business appears to him familiar. He is a tall, thin, pleasant-looking gentleman of about 45 years of age, and though he would not be picked out in an assemblage as a great man, any one who visits the Dalrymple farms, in the Red River Valley, and sees the monarch of the American wheat fields at home, cannot but come away enthusiastic in praise of an executive ability which may well be compared to that of the manager of a great military campaign.

A Russian Socialist, condemned to the mines of Siberia, desired to commit suicide, but the cell in which he was confined, at Odessa, contained nothing that could be used in any ordinary way against his life. So he tore off the top of his lamp, lighted the petroleum oil in it, and sat over it in such a way as slowly to burn to death. "Such was the man's determination," says a correspondent of the London Times. "that neither during the act nor at the hospital whither he was removed only to linger and die did he utter a word or give any sign indicative of suffering, and no one appears to be able to account for the strange deed."

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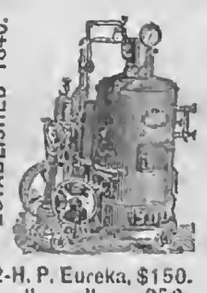

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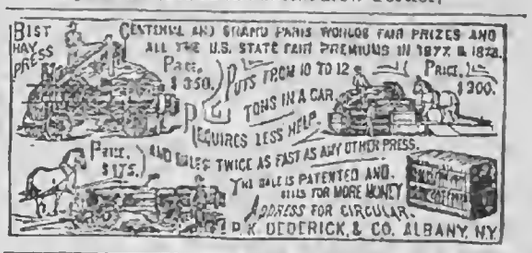

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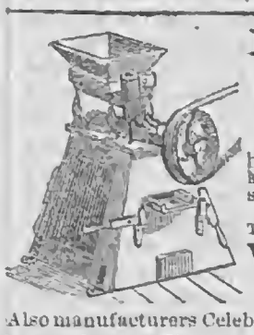

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Wit and Humor.

SHE SEWED ON HIS BUTTONS.

OLD Blummer is tight-fisted. Several days ago he said to his wife: "Maria, I want you to look over that broadcloth vest of mine and put new buttons on it, 'cause I'm going to a card-party to-night."

"But, Ely," answered Mrs. Blummer, "I haven't any buttons to match that vest, and—"

"Thunder!" broke in Blummer, "the idea of a woman keeping house as long as you have, and pretendin' to be out of buttons. By George! I b'lieve you'll ask me for money to buy 'em with next."

That evening Blummer hurried through his supper and began arraying himself for the card-party. Presently he called for the broadcloth vest, and Mrs. Blummer, with marvelous promptitude, handed it to him. He took it, hastily unfolded it, and then, as his eye took in his complete appearance, he stood as one transfixed. It was a six button vest, and there were six buttons on it, and the dazed optic of Mr. Blummer observed that the first, or top one, was a tiny shirt button, and the next was a brass army overcoat button with U. S. gleaming upon it, and that number three was an oxydized silver affair, and that number four was a horn button evidently from the back of one of the Puritan fathers' coats, and then came a suspender button, and then, as the dazzled eyes of old Blummer reached the bottom button—a poker chip (found in Blummer's pocket) with two holes punched through it—he gave a snort that made the chandelier jingle. There is, after all, a fine sense of humor about Blummer, and he laughed till he cried. And there won't be any button money grudged in that household hereafter.—*Cleveland Herald.*

ESTRANGED.—It was a warm afternoon, and young Cummagen did not go in the house, but sat down in the pleasant porch, as was his custom, after ringing the bell. Her little sister came to the door and looked at him with some curiosity. "Does your sister Mabel know I am here, Nellie?" he asked. "Oh, yes," replied the innocent prattler, "I guess she does; she told me to come out and see how shady it made the front yard when you put your feet up on the porch railing." He took them down and sat on them.

SMALL GIRL, very harshly, to her doll in a toy carriage, dolly having tumbled from her seat: "Set right up, you horrid old thing! Don't you dare to do that again, or I'll whip you." Seeing a passer-by, who had approached unobserved, she modified her voice, and continued in dulcet tones: "Now, sit up straight, darling, and be careful not to fall and hurt yourself."—*Lowell Mail.*

A NEW JERSEY firm is putting up a Hackensack brand of mosquitoes, and palming them off on the public as potted lobsters.—*Wheeling Sunday Leader.*

No comment is necessary on this assertion, excepting to refer to the fact that it is a *Sunday* paper which prints it.

"No, sir," said the gentleman from Pittsburg, "I was not in the war, but my brother was, and he was wounded." "Ah, indeed. Seriously wounded?" "Yes, sir; he was shot in the horse."

A POEM in a rural paper begins: "'Twere better far that I had died." After perusing the effusion, candor compels us to agree with the writer.

Various.

SARA BERNHARDT.

A PLEA FOR A PURE WOMANHOOD AND A PURE DRAMA.

EVERY woman who cares for woman's purity and manhood's honor will endorse the following words, written by Mrs. Helen M. Gougar, in her "Bric-a-Brac" columns of the Lafayette Courier:

It is a recognized fact among the amusement-loving people of the world that Sara Bernhardt is coming to America. This queen of the Comedie Francaise is an artist in more ways than one and the day she sets foot upon the American stage will be an important one in the history of our dramatic representation. The eyes of the whole refined world will be turned upon us, and we will be judged according to our reception of this gifted woman. An exchange says of her: "Sara Bernhardt, the world-renowned French actress, noted for her remarkable and varied intellectual attainments and eccentricities—a tragedienne who is a sculptress, a painter, a writer, a poet, and aeronaut; who has an insurmountable horror of fools, dresses in male costume, has a skeleton for a constant companion, and is a terror to authors and managers." Brilliant, so fragile that she says of herself; "Je suis toujours malade." aggressive, tyrannical, openly immoral; such is the character of the woman who will come to our shores as a "star," to leave her impress, not readily effaced, whatever it may be, upon the moral standard of the American drama.

The powerful influence of the drama has been felt by every nation, for good or for evil, and it is an agent second to no other in forming the character of the people. Upon our own it makes its influence felt more readily than upon any other, from the fact that we so hastily incorporate all that is new, exciting and entertaining, and fail to consider the results until they are actually upon us.

At present we may boast of a comparatively pure national drama. We point with pride to its growing influence, and to the fact that purity of character, in both the renowned men and women on the American stage is its crowning virtue. Upon such men as Booth, Jefferson, Forest, and to the high type of womanhood as shown in the private character of Lotta, Mrs. Landers, Modjeska, Cary, Kellogg, Litta and many others of as great note, whom the Americans love to honor because of their virtue as well as their talent, we look with the same commendable spirit. We cannot afford to cast a slur upon the estimation in which we hold the record of these men and women, by receiving with open arms this brilliant but decidedly immoral woman. With her success upon our stage will come the seal of immorality that has caused kings and potentates in power to exile theatrical representations from national patronage and social influence. With her success, a flood of French immoralities will pour in upon us to be dreaded by all good people, all those who hope to see the drama made a power for good instead of evil, a power arm-in-arm with the press and pulpit to educate and refine, rather than to corrupt and debase the thousands of people who so readily drink in its pure or impure draughts. If Sara Bernhardt is received as she and her managers expect her to be, it will be a blow to pure womanhood, and to a pure drama that it will take years for us to recover from if we ever do, and one to be deeply regretted at this period of our unsettled social condition and of our national history.

CHARITY BEGINS AT HOME.

Tommy—"WHAT BEASTLY WASTE!"

ZULULAND.

BEACONSFIELD is the author of two tragedies. "Alarcos" was written by him when he was a young man. It has just been performed in London and the papers speak of it as a mournful and sombre drama. His latest tragedy is of the same cast. It is being performed, but not in London. Here is a description of the principal scene in Beaconsfield's tragedy of "Zululand" as described by a South African correspondent. Speaking of the field of Isandula he says:

"In this ravine dead men lay thick—mere bones, with toughened, discolored skin, like leather, covering them, and clinging tight to them, the flesh all wasted away. Some were almost wholly dismembered—heaps of clammy yellow bones. Every man had been disemboweled. Some were scalped and others subjected to yet ghastlier mutilation. All the way up the slope I traced, by the ghastly token of dead men, the fitful line of flight. It was like a long string with knots in it, the string formed of single corpses, the knots of clusters of dead, where as it seemed, little groups might have gathered to make a hopeless, gallant stand and die."

USEFUL HINTS.

PERFUMES FROM ROSES.—Tincture of Roses.—Take the leaves of the common rose, place them, without pressing, in a large-mouthed bottle; pour some good spirits of wine over them, seal the bottle securely, and let them remain in a dry place for a month or two.

REMEDY FOR FRECKLES.—The following remedy has been found efficacious in Europe for freckles: Finely powdered sulpho-phenate of zinc, one part; oil of lemon, one part; pure alcohol, five parts; collodion, forty-five parts. To be mixed well together by trituration and applied to the skin.

TO REMOVE FRECKLES.—Scrape horseradish into a cup of cold sour milk; let it stand twelve hours; strain, and apply two or three times a day. Or, mix lemon juice, one ounce; pulverized borax, one-quarter drachm; sugar, one-half drachm; keep a few days in a glass bottle, then apply occasionally.

TO VENTILATE A ROOM.—To ventilate a room without draught, make a hole through the wall to the outer air, in a corner of the room just above the skirting. Through the hole put one arm of a tube three inches in diameter, and bent at right angles. The arm of the tube reaching to the outer air should be in length equal to the thickness of the wall, and the other arm should be two feet long, standing vertically in the corner of the room; if desired, it can be covered with paper of the same pattern as that on the wall. A tube of the diameter given above is sufficient to ventilate a room of moderate size.

THE USES OF THE LEMON.—A piece of lemon bound upon a corn will relieve it in a day or so. It should be renewed night and morning. The free use of lemon-juice and sugar will always relieve a cough. A lemon eaten before breakfast every day for a week or two will entirely prevent that feeling of lassitude peculiar to the approach of spring. Perhaps its most valuable property is its absolute power of detecting any of the injurious and even dangerous ingredients entering into the composition of so very many of the cosmetics and face-powders in the market. Every lady should subject her toilet-powder to this test. Place a tea-spoonful of the suspected powder in a glass, and add the juice of a lemon. If effervescence takes place it is an infallible proof that the powder is dangerous, and its use should be avoided, as it will ultimately injure the skin and destroy the beauty of the complexion.

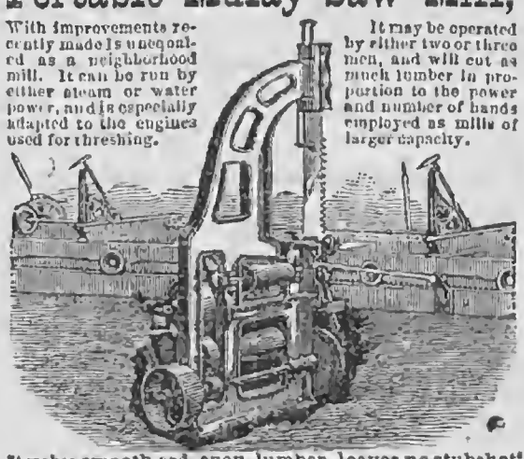
PREVENTING SEA-SICKNESS.—Of the many annoyances to which the traveling public is subject at this particular season sea-sickness is, perhaps, the most distressing. A perfect cure for this malady would rob ocean travel of half its terrors. No drug, however, has been discovered which acts as a specific. The cause of the sickness is largely, if not wholly, due to the involuntary and unexpected motions to which the passenger is subjected on board ship. These cause undue pressure upon the stomach and liver, and derange the action of those organs. To prevent this, attention has recently been called to an old plan, which is said to be very successful. It consists in regulating the act of breathing according to the pitching or rolling of the vessel, drawing in the breath as she rises, and breathing out as she falls into the trough of the waves. After a little experience the practice, it is said, becomes involuntary. When sea-sickness has fairly set in, the only thing to be done is to get rid of the extra bile thrown into the circulation, and to allay the irritation of the stomach. For the latter, brandy is the popular remedy, but cool effervescing drinks are preferable.

Easily Incurred, Terribly Obstinate,

is rheumatism. Even at the outset, the ordinary remedies are frequently powerless to cope with it. This is more particularly the case when a tendency to it is inherited. It should be combated before it becomes chronic. When the first twinges are felt, recourse should be had to Hostetter's Stomach Bitters, a depurent which expels from the blood those irritating principles which, by contact cause inflammation and pain in the muscles and joints. Poisonous medicines which are usually administered for this disease, but which, in a slight overdose, may terminate it by destroying life itself, should be avoided, and this safe and more effective medicine used instead. Those disorders of the bowels, stomach and liver which frequently accompany rheumatic and gouty ailments, are invariably removed by this excellent botanic corrective.

Portable Mulay Saw Mill,

With improvements recently made is unequaled as a neighborhood mill. It can be run by either steam or water power, and is especially adapted to the engines used for threshing.



It may be operated by either two or three men, and will cut as much lumber in proportion to the power and number of hands employed as mills of larger capacity.

It makes smooth and even lumber, leaves no stubshot and will cut any sized log up to four feet in diameter. It may be transported from one locality to another and re-erected ready for sawing in from two to three days, and can be made profitable in localities where there is not sufficient timber to justify the erection of a large mill. Send for descriptive circular, price, etc., to CHANDLER & TAYLOR, Indianapolis, Ind.

Also manufacturers of the **Phœnix Threshing Engine** and the **Eureka Drain Tile Machine.**

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Beg to announce that their

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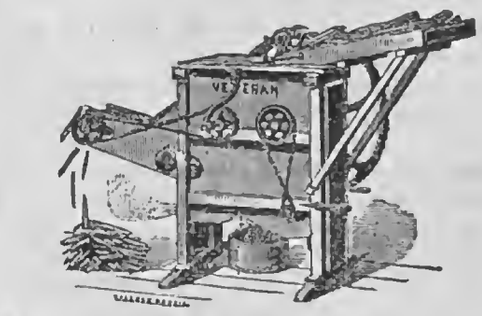

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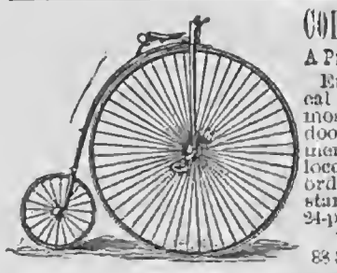

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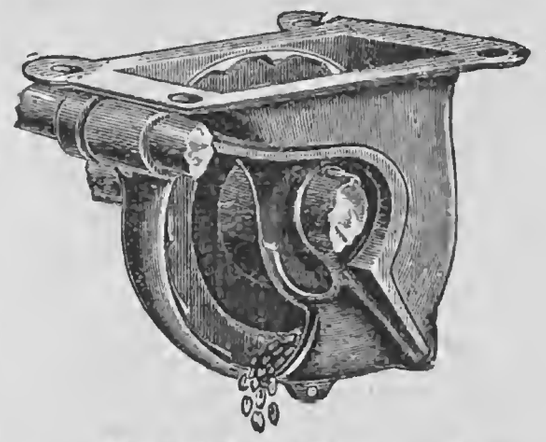

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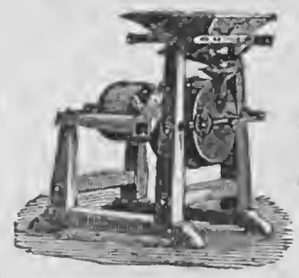

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THE RURAL NEW-YORKER

A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME

1850. THIRTIETH ANNUAL FAIR EDITION. 1879.

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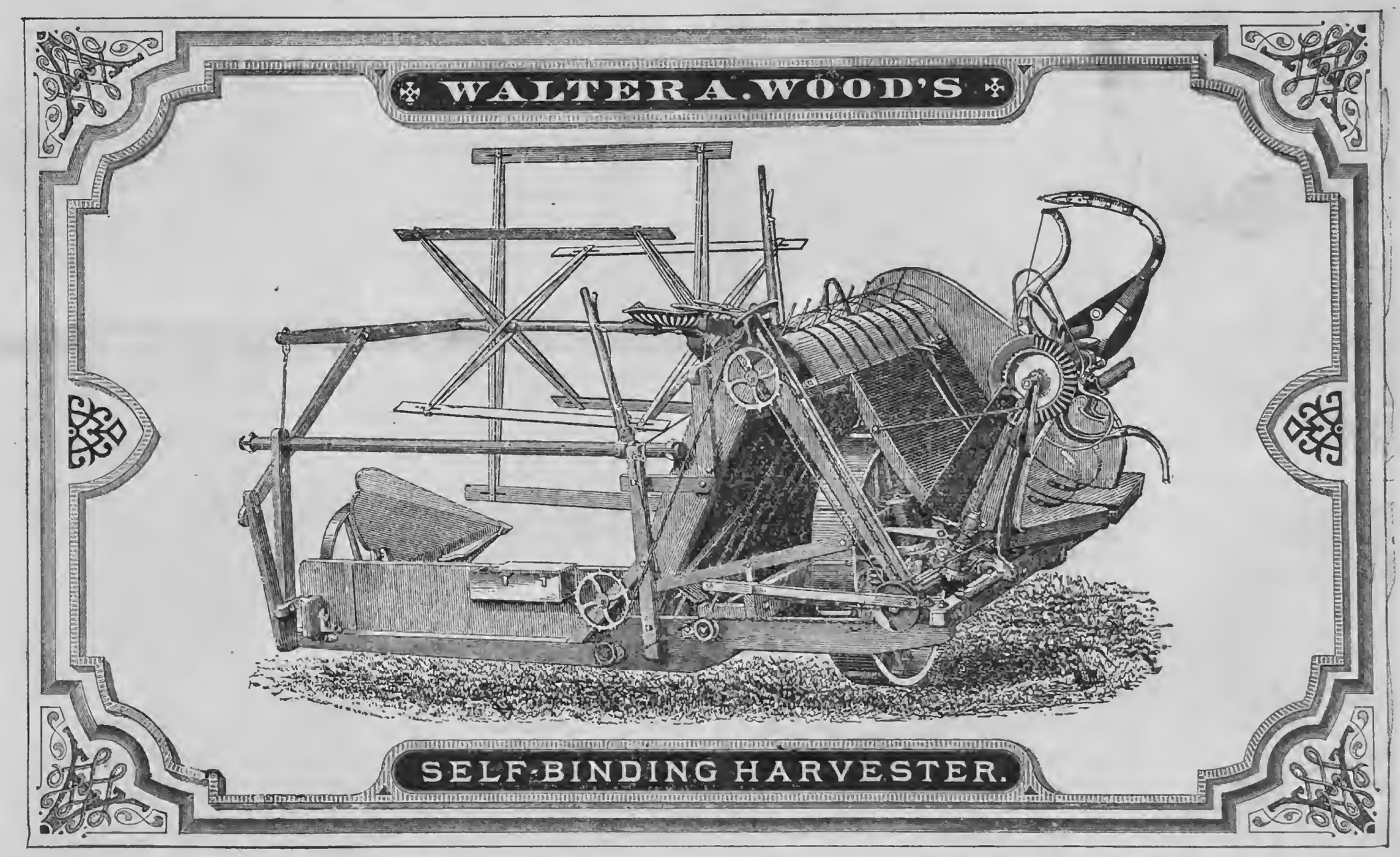

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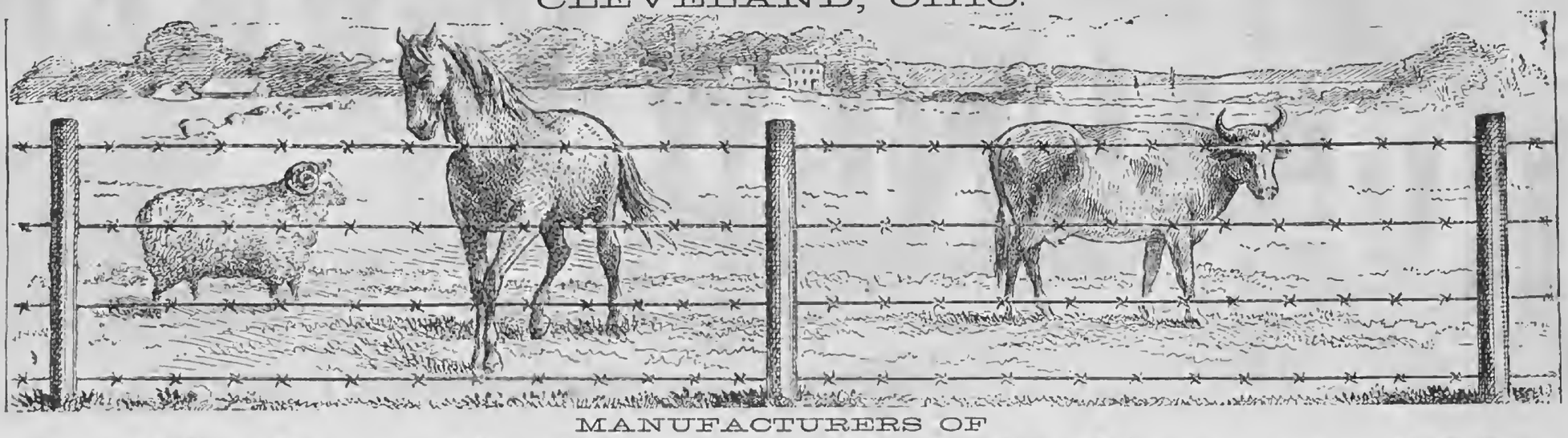

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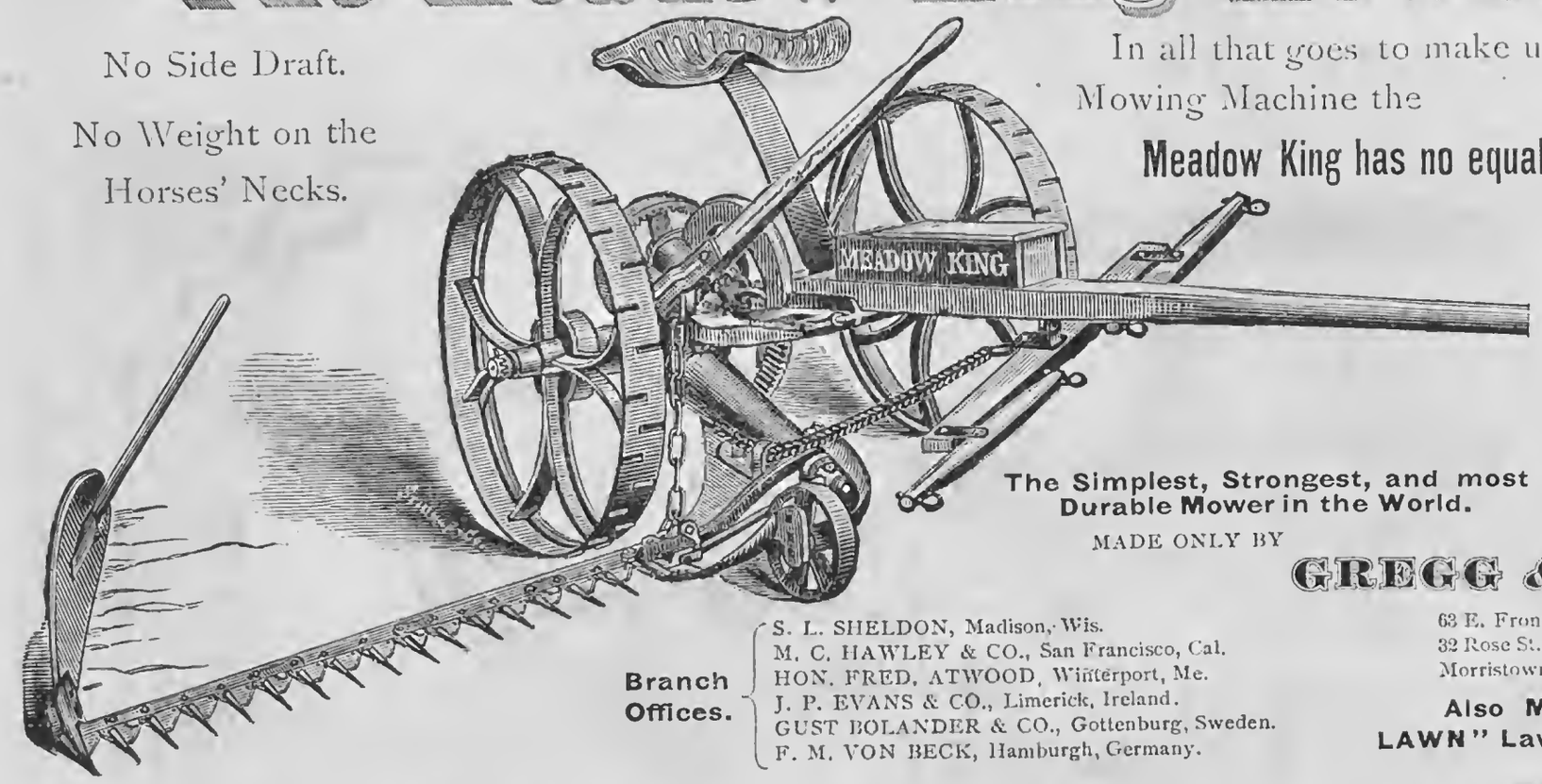

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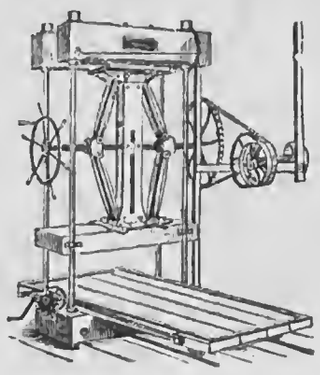

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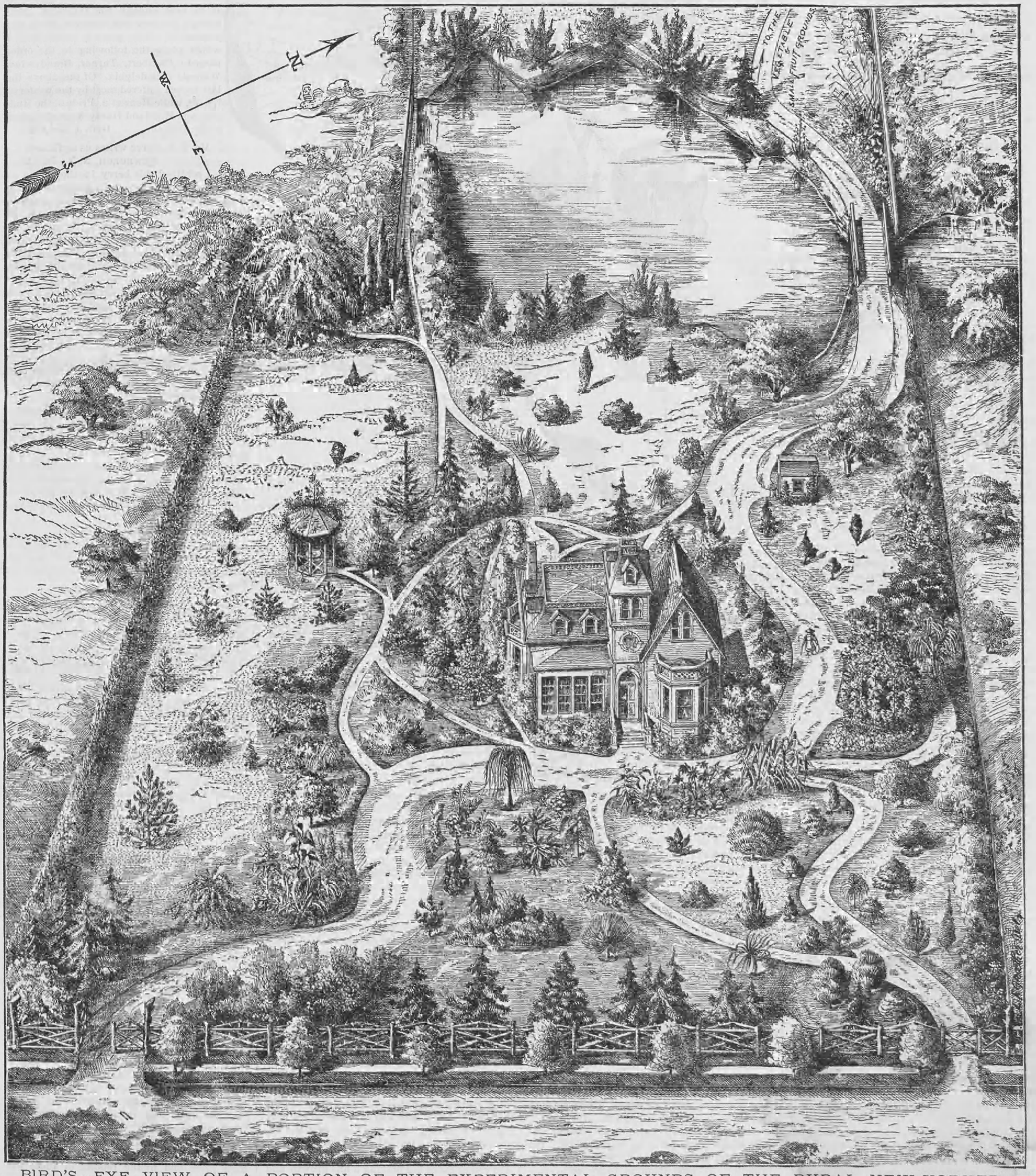
A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME.

VOL. XXXVIII. No. 35.
WHOLE No. 1544.

NEW YORK, 1879.

PRICE FIVE CENTS.
$2.00 PER YEAR.

[Entered according to Act of Congress, in the year 1879, by the Rural Publishing Company, in the office of the Librarian of Congress at Washington. — Entered at the Post-Office at New York City, N. Y., as second-class matter.]



BIRD'S-EYE VIEW OF A PORTION OF THE EXPERIMENTAL GROUNDS OF THE RURAL NEW-YORKER.

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The Raspberry for the Millions—for the North, South, East and West. Abundant evidence that it is at once the highest-flavored, largest, most prolific and hardy variety of Red Raspberry known.

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Seeds from Seedlings of Iris Kæmpferi—Hybrid Pentstemons (cross between Murryanus and Grandiflorus)—Aristolochia Sipho—Magnolias, Abies Sibirica, &c., &c.

Mold's Ennobled Oats.

SEE ENGRAVING AND REMARKS.

NOTES FROM THE RURAL GROUNDS.

GENERAL REMARKS.

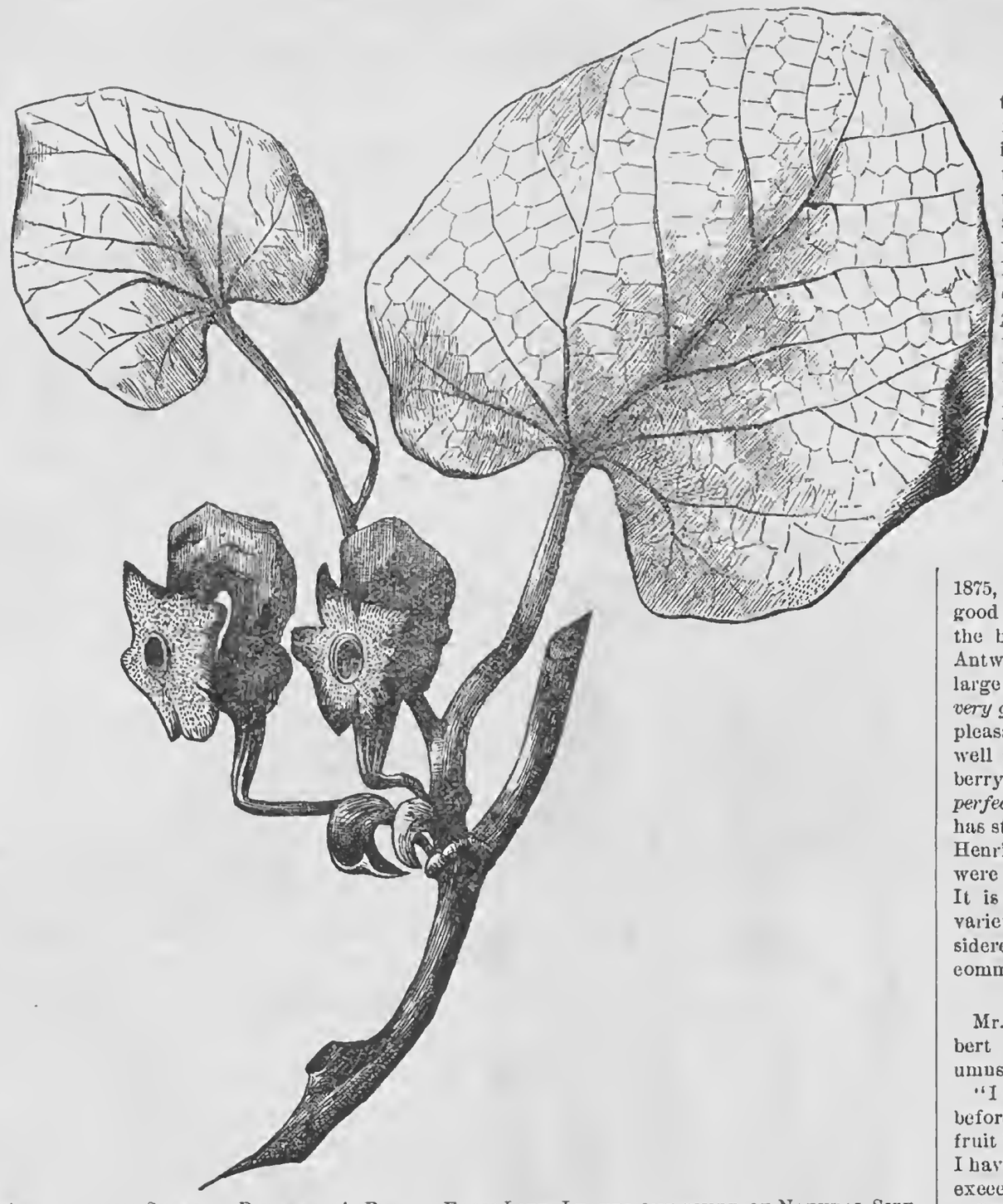
The experience of our late seed distribution has been a thorough but a costly teacher. The mistake which we made in that, viz., offering a *choice* of ten varieties from a list of twenty, caused an excessive amount of labor and a degree of confusion, which we hope entirely to avoid in the future. We shall offer no *choice*, but send the entire list to all of our subscribers who apply. A system of numbers and checks will also be adopted, which will enable us to send the seeds and plants to those who apply *in the order* of their applications, as well as to refer to the date of mailing, etc., should packages miscarry.

The success of our last seed distribution, and, indeed, of the RURAL NEW-YORKER, has been somewhat extraordinary. The paper is prosperous beyond its best hopes, and as regards standing, influence and the value of the articles with which its columns are filled, ranks to-day according to the published sentiments of our best men, and even of our contemporaries, as among the first journals of its class in the world. Our late free seed distribution has brought us thousands of thanks and expressions of approval from all parts of our country. The truth of our reiterated statements, that only the costliest and most valuable seeds of their kind would be offered, has been abundantly proven. The Beauty of Hebron potato to-day, is deemed the most valuable in cultivation, and the tubers from the thousands which we have sent out have been carefully saved for seed. As to Pearl Millet, we could fill our columns with what others have written as regards the immense amount of leaves and stalks which this plant produces under proper cultivation. While we have never thought so well of this as have many others, there seems to be no doubt that it will be cultivated in many parts of the North—as for years it has been in some parts of the South—as a valuable fodder plant. Blount's White Prolific Corn, which was sent to our subscribers as a supplementary distribution, has proven itself to be a more prolific variety of maize, and adapted to a wider range of country than *any other variety in cultivation*. No doubt, it would eventually have become as generally known as its merits entitle it to be. But the RURAL, by sending it to applicants free, has accomplished in a single season what would have required years had it been merely offered for sale in the usual way by dealers. We are not willing to conceal from ourselves or from the public that the introduction of this corn alone must prove of great benefit to the agricultural interests of the country. Defiance Wheat has proven of the highest value wherever spring wheats thrive, and we have ascertained by sowing a small quantity last fall that it may take a high rank as a winter variety. While we were distributing this free among our subscribers, dealers were charging from $15 to $20 per bushel for it, and it was in no case that we have heard of, sold for less than the first price. The Golden Rural tomato is conceded to be the earliest, most prolific and best of the yellow sorts. Of the many varieties of seeds of our finest hardiest shrubs included in our last free distribution, it is too soon to speak since most of them will not bloom until the second or third year.

We respectfully urge that the last free seed distributions of this journal have proven themselves of more value to our readers than the annual price of the RURAL NEW-YORKER, and we feel a right to insist that the entire management of the paper is proof of our sincere desire to advance the horticultural and agricultural interests of this country as our first aim. We call attention to the FACTS of the RURAL'S record under its present ownership—the strict exclusion of all unworthy advertisements; the enlargement of the paper; the reduction of price from $2.50 to $2.00; to our original engravings from life; to the writers the most distinguished of the United States, or of England, that have filled its pages; to its experiment grounds maintained at a considerable cost, and, finally to its free seed and plant distributions that, as to the actual value of the seeds as well as to the cost and labor of collecting and distributing them, have never been equaled by any other journal ever published, so far as we know. If acts speak louder than words, we refer to our acts without fear that our readers will not fully substantiate us, as proof that the RURAL is conducted with a benevolent and overshadowing desire to benefit the interests involved in the garden, farm and country home. In truth, with due respect, we would challenge our readers or our contemporaries, to show that the claims which we make are not strictly within the truth.

The proprietors for *themselves* cannot consistently ask for assistance from agents, readers, writers, subscribers or friends. To *render* assistance is precisely the object of conducting this journal, and the extent to which we are enabled to accomplish this is the measure of our reward. In this connection it may be said with propriety, especially as his name has never appeared in these columns, that the chief owner of the RURAL NEW-YORKER has not engaged in any active business, except, it may be, superintending farm operations, for many years, and that his circumstances are such as to place him beyond the need of any solicitude as to its pecuniary success. The success, therefore, which we crave is that the RURAL NEW-YORKER may attain to an unprecedented influence in the history of country-home journalism; it is the cause of agriculture and horticulture for which we beg assistance, and the owners are willing—nay, anxious—to spend the entire income of the paper so as best to subserve this worthy project.

At nearly one-half greater expense than last year we have secured plants and seeds for our next free seed distribution, and we assert that the value of the ten kinds offered would be, at a fair estimate, more than $2, the annual subscription price of this journal. Yet we claim that these are *not a premium*. It is our intention to send them to every subscriber that applies, but it is our *privilege* to do so, not our obligation. We do not offer them *for* new or *for* old subscribers. Our premium list offers compensation to all who are willing to assist in extending the RURAL'S circulation. All honorable enterprises of this kind intended to create or intensify an appreciation of useful or beautiful plants, must in the end reflect credit upon those who originate them. Should the distribution have the effect to add greatly to our present circulation, we shall have so much the more reason to congratulate ourselves. But were we positive that the increase in subscribers from this cause would not pay the cost of the seeds, we should send them just as freely, the same as in half-a-dozen cases we have sent new sorts of seeds during the past six months, to the members of our thrifty Youths' Horticultural Club. After the most careful consideration we could give to the subject, we have at length determined upon the following plants and seeds for our



ARISTOLOCHIA SIPHO. — DUTCHMAN'S PIPE. — FROM LIFE, LEAVES ONE-THIRD OF NATURAL SIZE.

Free Seed Distribution, 1879-80.

THE CUTHBERT RASPBERRY.—By reference to files of the RURAL NEW-YORKER, during the past eighteen months, and before we had ever thought of presenting plants of it to our readers, it will be found that we commended it as promising to be the most valuable of our hardy Red Raspberries. It has been tested by many impartial judges as well as by ourselves, and the following is a compilation of the most trustworthy information we can glean.

Rev. E. P. Roe writes us as follows:

CORNWALL-ON-HUDSON, N. Y., July 25, 1879.

EDS. RURAL NEW-YORKER:—I best express my opinion of the Cuthbert by stating that I planted, last spring, five times as many of this variety as of all others together, and that after seeing it in fruit once more, I am so pleased with it that I shall plant few other Raspberries this fall. Such definite, practical action counts for more than a whole dictionary of words. As far as I can now judge, it seems to me the most valuable Raspberry that has been well tested. I have taken pains to observe this Raspberry very closely. It is rather late in maturing, if this is a fault, and it may develop others. I state my opinion only up to the present time. E. P. ROE.

Judge Parry writes us as follows: This large and valuable Raspberry, which was originated a few years since by a gentleman of that name residing near New York city, has found a congenial soil in the State of New Jersey, where it makes a rapid and vigorous growth, is perfectly hardy, without protection of any kind, withstanding the extremes of heat and cold and producing abundance of very large, handsome, bright-red fruit, firm and delicious. We had berries this year that measured fully three inches in circumference, and the young canes are making a fine growth and now stand six feet high along the rows. I have seen them growing in several other places in New Jersey equally as well as in our own grounds, though on different kinds of soil, showing they do well where other Raspberries succeed.

In order to give them a fair trial with others, I planted, in a specimen lot, a few rows each of the following varieties, which came more or less highly recommended, viz.: Pride of the Hudson, Cuthbert, Norwalk Seedling, Henrietta, Early Prolific, Winant, Thwack and Reliance. We gave them all the same good treatment, and watched the result, which places the *Cuthbert* far ahead of all the others in abundance of large, handsome fruit and strong, vigorous canes and foliage. WM. PARRY.

Cinnaminson, N. J., July 28, 1879.

Mr. J. Kellogg writes us as follows:

JANESVILLE, Wis., July 26.

The Cuthbert is the best of the thirteen Red Raspberries I am now fruiting, for general cultivation. I have fruited it for two seasons. It passed through the winter of '78-'79 unprotected, with the Thermometer at 30 degrees below zero, uninjured, bearing a full crop, which at this writing is not all gathered. It is firm enough for shipment, good enough for any one, *vigorous, hardy and productive*. For general cultivation I would place the following in the order named: Cuthbert, Turner, Brandywine, Winant, Philadelphia. Of the above the last-named suffered most by the winter of '78-'79, while Henrietta, Pride of the Hudson, and Highland Hardy were all killed to the ground. GEO. J. KELLOGG.

Mr. T. S. Force writes us as follows:

NEWBURGH, N. Y., July 26.

I received this berry in the spring of 1875, and each year am more impressed with its good qualities. It is a good, thrifty grower; the berries are the shape of Hudson River Antwerp; they will average nearly or quite as large: the color is a trifle darker; the flavor is *very good*, not equal to Antwerp, but sweet and pleasant. It retains its shape in shipping as well as, if not better than, any other Raspberry. As far as my experience proves, it is *perfectly hardy*. It is the only one I have that has stood the past winter unhurt. The Turner, Henrietta, Brandywine, Thwack and others were all more or less injured; all fully exposed. It is very productive, more so than any variety I have met with yet. All things considered, no Raspberry can be more highly recommended for general purposes.

T. S. FORCE.

Mr. Charles Downing's opinion of the Cuthbert has already been expressed in these columns. He tells Mr. Roe as follows:

"I consider it the most promising Raspberry before the public as far as yet tested. The fruit is large and very firm, and the plants, as I have seen them, are vigorous growers and exceedingly productive."

Our correspondent, "Monmouth," whose opinions regarding small fruits we deem of special value, has expressed himself (see RURAL, August 2) in the following sprightly but direct manner:

The Cuthbert.

"The other day a fruit-grower remarked to me: 'Do you know of any *good*, reliable raspberry for market?' In answer to which I named the Cuthbert. 'Well," he questioned, "is it large?' 'Yes.' 'Is it handsome?' 'Yes.' 'O! is it *firm?*' 'Yes, very!' 'Is it of good flavor?—although that seems to make but little difference now-a-days.' 'Yes, nearly as good as the Antwerp.' 'It isn't a good grower and productive, then, is it?' 'Yes!' "Well, there! I almost forgot to ask the most *important* question, and I suppose that's the sticking point—Is it hardy?' 'YES!' 'It is! What *is* the matter with it, then?' To which I was obliged to reply that *that* was just the thing I had been looking for, and although I had fruited it two years, the one I had failed to find."

Space forbids a further consideration of what has been said regarding the Cuthbert. It needs only to be added that we have engaged Mr. J. T. Lovett, of Little Silver, New Jersey, known to many RURAL readers as well for his enthusiasm as for his fair-dealing in horticultural pursuits, to grow for us FOUR acres of this Raspberry, TWO PLANTS of which will be forwarded to every one of our subscribers who apply before April 1st, 1880, free of all charge. Our illustration is from a three-year-old plant growing in these grounds, somewhat reduced in size. The single berry represents only the average size. Next we offer

Telephone Pea.

In these grounds we have at one time or another tested nearly every sort of Green Pea that has been offered to the public, and reports have been made from time to time of their period of use, their fruitfulness, quality, etc., etc. Attracted by the advertisements of the Telephone Pea in English journals; by the extravagant engravings which appeared, showing thirteen immense seeds in a pod; by its high price and by the reports of those who

tested it, we imported a quantity of the seeds the past spring, sowed them, and have saved the seeds for this Distribution. The vines, growing about four feet high, are remarkably vigorous and prolific, and the peas ripen throughout a longer period than those of any other variety we have ever cultivated. One of our engravings is copied from the catalogue of Messrs. Carter & Co. (London), the producers; the other shows the pod and pea as we raised them. It may be that in rich soil their size would more nearly approximate the foreign portrait; but, like most other trade pictures, it is probably much overdrawn. As shown by our engraving, however, the pod is very large and is entirely filled by the peas, which average larger than any other peas we have ever seen. They are somewhat wrinkled and *said* to be of the first quality. As these peas, even by the producers, are not yet offered in large quantities, we needed both all we could import and all we could raise for our subscribers. Hence we did not cook any of them, and can only state "What Others Say," as to their quality. If offered at all by the trade in this country next season, they must necessarily be offered at a very high price, since in England they are at present held at $30 per bushel at wholesale. Green peas are everywhere justly esteemed as among the most delicious of vegetables, and we offer the Telephone merely as a new variety that *may* prove of superior excellence. It *may* prove in this climate an entire failure. Only a comprehensive trial can determine its value. The quantity of seeds of this which we shall send out will probably be small—not over 25 to each subscriber.

Mold's Ennobled Oats.

Little need be said of this variety which seems to be an improvement of the Black Tartarian. Mr. Mold is an English farmer who has devoted years to the improvement of wheat and oats. Of six new varieties of oats which were sown upon six-fortieths of an acre (33 feet square to each), at the RURAL's farm, this variety yielded most. We have not yet measured the yield but believe it to be at the rate of at least 86 bushels per acre. The engraving of the straw and panicle is of a selected plant.

Bebb's Aquilegia.

IN our last regular distribution, we sent out a crossed Aquilegia of our own, as far as it went. We now offer seeds of an Aquilegia, the origin of which is in part explained in the accompanying letter from Mr. Bebb. It bears the largest flower of any variety or species we have ever seen, the petals being yellow—sometimes white and the sepals rose or a light bluish-purple. The engraving is from life. By accident a bag of seeds of A. crysantha was emptied into our supply of the Bebb seeds. But they are well "mixed" so that a large proportion will be found to be of the latter sort:

FOUNTAINDALE, Ill.

DEAR SIR:—I did not produce the supposed hybrid Aquilegia of which you have received seeds from Mr. Falconer and Prof. Sargent.

Soon after Mr. E. Hull, of Athens, Menard Co., Ills., returned from his botanical excursion to the mountains of Colorado, in 1862, he sent me three young plants, seedlings of A. cærulea—I cannot say positively that these were raised from Rocky Mountain seed--but that is my strong impression. I believe that sufficient time had not elapsed since Mr. Hall's return, to enable him to have produced the seeds on his own grounds from which the plants were grown that he sent me. Two of the plants were A. cærulea pure—the other the peculiar one, of which I sent a root to Dr. Gray, (and came very near killing the original plant in making the separation.) I have this Aquilegia growing in a rock work, and last season a number of seedlings came up which I left undisturbed. A few of them have flowered—no two being just alike, nor any of them like the parent. One has yellowish petals and pink sepals. Yours truly, M. S. BEBB.

Magnolia Seeds.

We propose to send to subscribers seeds of the following Magnolias: Lennéi (see cut), Soulangeana, Fraseri, acuminata, glauca and Umbrella. It is not difficult to procure seeds of the last three or four, but the others bear seed sparingly and they are necessarily very hard to obtain in quantities large enough for our purpose.

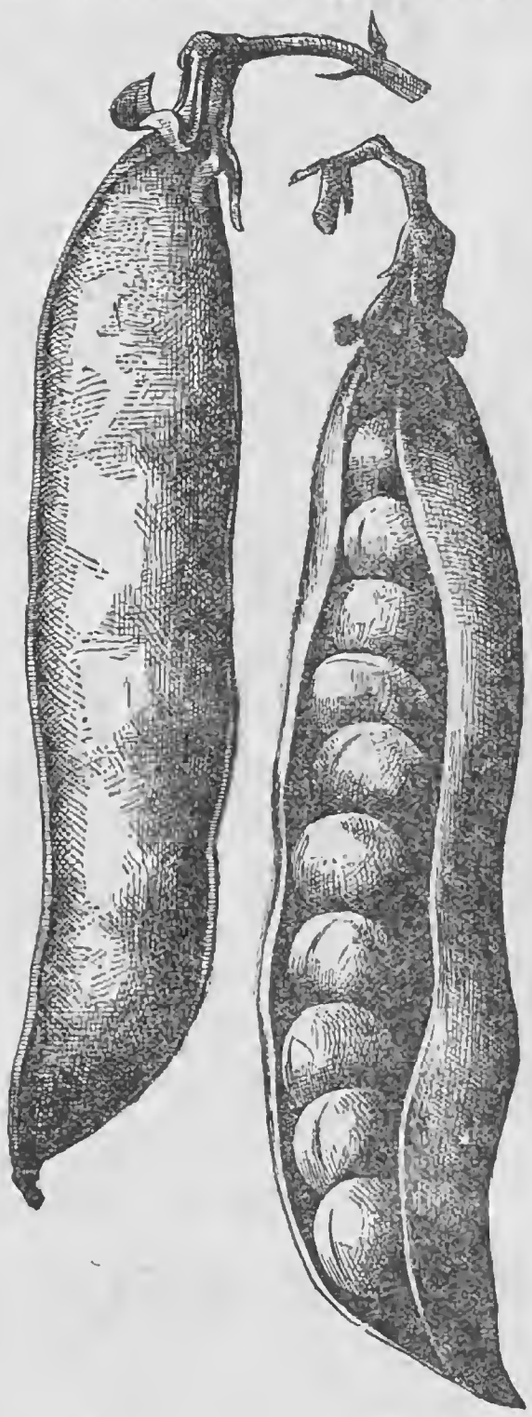
MAGNOLIA LENNEI originated some years ago in Italy, and is probably a hybrid between M. Conspicua and purpurea. Of all the Japan or China species, this is the showiest and with us, the hardiest. The trees will often bloom when but two years old from graft. The flowers are very large—at least six inches across—of a deep rosy-purple outside and nearly white within. It blooms in this climate about the latter part of April—(our drawing was made May 17, when the tree was half covered with flowers) and then, very often again in August. (We count to-day, Aug. 2, 15 buds, six of which are showing the petals.) The leaves are firm and leathery, of an obovate shape, acuminate at both ends and about eight inches in length, and generally suffused with a bronze color. The trees grow rapidly—four-year old plants being eight feet in hight. Ours have never been injured by frost.

M. SOULANGEANA is probably of the same parentage as Lennéi. Its appearance is much the same except that the outside of the flowers is purple only at the base. It is not so hardy, however, and, therefore less floriferous.

M. FRASERI, the Ear-leaved Umbrella-tree is found in Virginia and Kentucky, along the Alleghanies and southward, though but sparingly. This blooms in June bearing yellowish flowers, and sometimes again in autumn. It forms a small tree and is therefore well adapted to small lawns. The seeds are always scarce.

M. ACUMINATA.—This is a native of many States of the Union and attains to a size of 100 feet or more in hight. Thus, it is well adapted to grounds of large extent. This tree, however, may be cut back from year to year, much to its improvement in compactness, symmetry and size of leaf. The flowers appear in June—are of a pale greenish-yellow color with a slight fragrance. The fruit, about three or four inches long, resembles a cucumber—hence the name of Cucumber-tree. It gives the stock to nurserymen upon which most of the other species of Magnolia are worked.

M. GLAUCA.—This is the Sweet Bay and is nearly evergreen here and, like M. grandiflora, completely so in the South. It forms at best a small tree and bears wax-like white flowers, three inches broad, that perfume the air for miles about the swamps in which they bloom. It is found wild from Massachusetts to Florida near the coast, and though growing wild in



THE TELEPHONE PEA—FROM LIFE.

damp places, it thrives in any garden soil not too sandy and dry.

M. UMBRELLA OR TRIPETALA.—We should prefer Tripetala as the specific name, since it bears no resemblance to an umbrella, that ever we could discover. It is found in Penn., Va. and Ky. According to Dr. Gray, the leaves are sometimes three feet in length—we have often seen them at least two. It begins to bloom the middle of May, and continues through June. The flowers are large, loose, perishable with no fragrance. The fruit, however, is ornamental, being of a rose color four or five inches long, and of an ovoid-oblong shape. It is a very hardy species, grows to the hight of 20 feet or more, and, if encouraged to branch low, forms in connection with small-leaved deciduous or evergreen trees, an object of striking beauty. It grows very readily from seeds, and, what is unusual among the Magnolia family, transplants easily.

We have a seedling of M. Soulangeana that was three years old last winter. The seed was planted in a four-inch pot where it germinated in a few weeks, and was planted out in the open ground the following spring where it has since remained. It is now six feet high. The Evergreen Magnolia of the South is planted everywhere, and is everywhere esteemed one of the most beautiful trees that grow. But the Magnolias we have mentioned, though not evergreen, should find a place in every lawn, in the door yard of every farmer, in the garden of all who value our finest shrubs and trees. We hope that our "Distribution" may effectually assist to that end.

Abies Sibirica.

This tree which is as yet unknown in this country, except to a few arboriculturists and nurserymen, is destined, we believe, to become one of the most valuable evergreens in cultivation. Young trees in general appearance resemble the Balsam Fir, but the leaves are longer and darker, the habit more compact; they do not grow so fast, and, what is of the utmost importance, are among the hardiest conifers known. Those who know of the good qualities of the Siberian Spruce, would never again plant the popular Norway Spruce, European or Balsam Fir, as ornaments about their homes. Even young plants are entirely hardy. While with us the Norway Spruce, Nordmann's Fir, Silver Fir and the Austrian Pine have been injured by winter's winds and frosts, this has never lost a leaf. From all that we can learn, it is not, either, liable to a loss of its lower foliage which renders the Firs and Spruces above-named such ungainly objects after they have become 10 or 15 years of age. Of Abies Sibirica, Mr. Josiah Hoopes in his standard "Book of Evergreens," says: "It is an Asiatic species, from the mountains of Siberia and Altai, where it is found in large numbers, and forms whole forests of the richest, darkest verdure, reaching to an elevation of from 2,000 to 5,000 feet. It generally grows from 25 to 50 feet in hight, and is remarkably dense and compact in growth. We have found this species exceedingly hardy in all soils and situations, even when quite young, and do not hesitate to recommend it for general cultivation as one of the best of the smaller class of conifers."

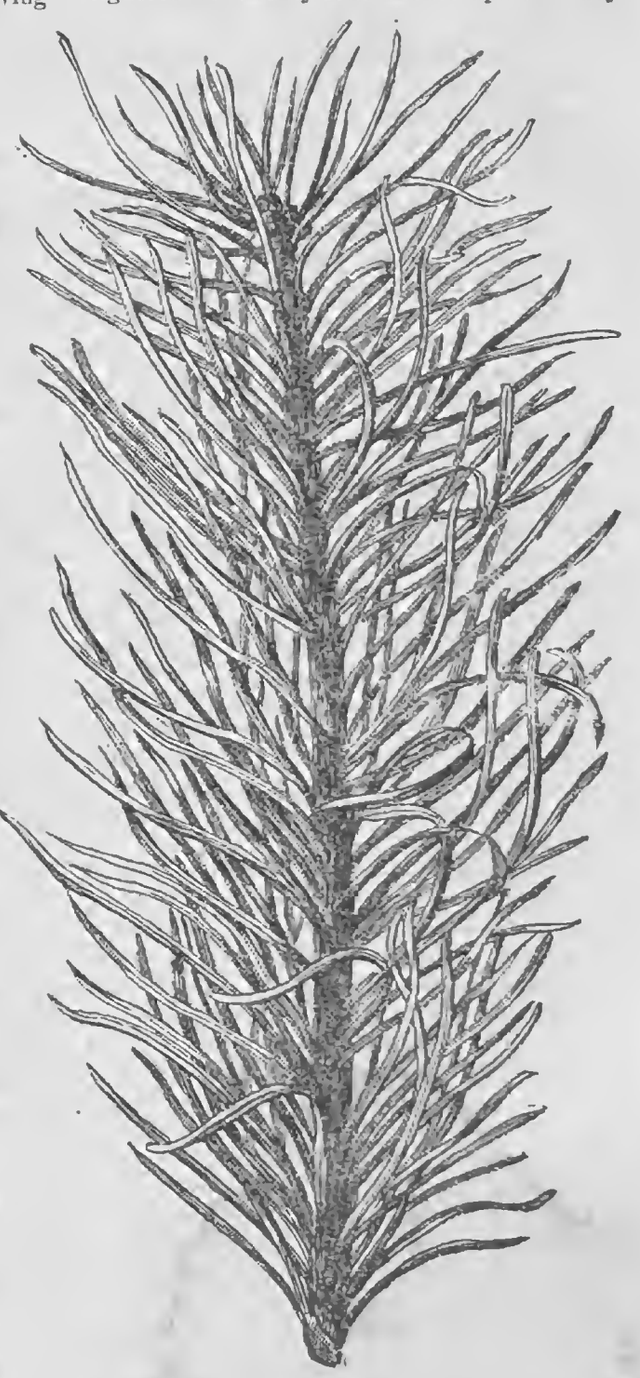
In reply to a letter of ours, that worthy veteran nurseryman, Robert Douglas, of Waukegan, Ills., says: "Abies Sibirica germinates as well as any Silver Fir. We have them standing side by side, and it is *all that could be desired* only, as you know, it is a slow grower. We prize this tree so highly, that we sowed 20 pounds of its seeds this spring. It is *one of the three Conifers able to endure the climate of St. Petersburg.*" We have not space to present to the reader all that may be said in its favor. It must suffice to say that we are glad of the opportunity we have embraced of distributing so valuable an evergreen; as we confidently believe that, years hence, it will prove itself one of the most valuable and permanent additions which have ever been made to decorative grounds. Our seed is imported from St. Petersburg, and has been, through an esteemed friend, saved specially for us. The engraving represents perfectly a twig of life size, cut off from our specimen Aug. 1st.

Penstemons.

Among the many species of hardy perennials now coming into fashion, there is no more showy genus than that of Penstemon. There are about seventy-five species found in the United States, and it is safe to say that ninety per cent. of them at least are worthy of cultivation, which is somewhat remarkable considering the size of the genus. Among the best species adapted for general cultivation, we will mention P. grandiflorus, P. Murrayanus, P. Cobæa and its variety purpureus, P. secundiflorus, P. Torreyi, P. venustus, P. glaber, P. Menziesii, P. Richardsoni, etc. The last two are shrubby species, and they have all proved hardy in the latitude of New York City without a particle of protection, and would undoubtedly prove equally hardy much further north. There are a number of Mexican species in general cultivation in Europe and America as greenhouse or bedding plants, but they are not hardy enough to withstand our winters, and so are not adapted to general cultivation like the hardy sorts. The Mexican species above referred to are P. Hartwegii, and P. campanulatus, and these have given us the many beautiful hybrids so common in greenhouses; they have large showy flowers two inches or more in length, bloom from July to October, and vary in color from white to deep crimson. Very little attempt has been made thus far to hybridize our hardy sorts, but from what has thus far been obtained from crossing P. grandiflorus with P. Murrayanus, we are led to believe that as fine and showy varieties may be obtained from the hardy species as from the tender ones. P. grandiflorus is found in a wild State from Wisconsin, southward to Kansas. It grows from one to three feet high, and produces large lilac-purple flowers one and a-half to two inches long in June and July. P. Murrayanus is from Eastern Texas, and similar in habit and growth to P. grandiflorus, but the flowers are deep scarlet, and not as broad as in that species. From crossing these last two species a well-known horticulturist and botanist has obtained an almost endless variety colors, many of them exquisitely fine and showy, and we have secured the entire stock of seeds for this distribution. The flowers most resemble P. Murrayanus in form, but their coloring is very different as they vary from deep scarlet to almost pure white. Their period of blooming lasts from early in June until about the 10th of July, and nothing in the way of hardy plants will attract more attention than these hybrid Pentstemons. They are readily grown from seeds; these may be planted in open boxes in the open ground in October, covering the seeds one-eight of an inch with fine mold, and then placing the boxes in

FRUIT OF ARISTOLOCHIA SIPHO.

somewhat shaded spot, and when freezing weather comes covering with an inch or two of leaves to prevent too frequent thawings and freezings. They are also readily grown if planted in March or April in pots or boxes placed in a warm sunny window. As soon as the plants have shown their second leaves they ought to be transplanted to other boxes, and then, as the weather becomes settled should be set in any ordinary garden soil, planting eighteen to twenty-four inches apart. They



TWIG OF ABIES SIBIRICA.

will not flower until the second year, but their great beauty will amply repay all waiting. They should be protected by covering with coarse litter or leaves in autumn, and will then continue blooming year after year.

Ipomœa Leptophylla (Man-Root)

This is comparatively a new plant in cultivation, and it is certainly a very remarkable one. The engraving is from a branch of a plant growing here, the seed of which was planted last year. A description of this plant was first published by Dr. Torrey, in his account of the plants collected by Col Fremont during his first expedition across the Continent in 1841. It was also found by Lieut. Emory's party in July 1846. So says Professor Meehan in his valuable work of The Native Flowers and Ferns of the United States. Subsequent collectors, according to the same authority, have found it in various localities in Western Kansas and Eastern Colorado, in the dry, sandy and barren region watered by the Platte and Arkansas rivers, and as far South as Northern Texas. It is called by the hunter "Man-Root" from the similarity of its root in size and shape to the body of a man. It is esculent and serves to sustain life in some of the many vicissitudes of hunger and privation to which men who roam the prairies are subjected. According to a communication handed to Prof. Meehan by Dr. Lamborn from a person in Colorado who had engaged to have one of the roots dug for the Centennial, "it took two men working with picks and crowbar a full day to do the job." The flower possesses a satin-like luster and a very delicate rose color. The leaf and stem remind us of those of the Salix rosmarinifolia, except that its habit is prostrate. For sandy, dry banks or rockeries it must prove an almost invaluable plant, while for any garden border, it would prove equally desirable, except that it grows with great rapidity and spreads over a large surface.

BEBB'S AQUILEGIA.

Iris Lævigata (Kæmpferi).

In speaking of this, Mr. Falconer has said in these columns (see RURAL, Aug. 2): "Iris lævigata (Kæmpferi), indigenous to Eastern Siberia, Northern China and Japan, is hardy and thrifty and bears its very deep purple blossoms in June. But the varieties of Lævigata that have been recently introduced from Japan, eclipse in size or showiness anything in the way of Irises we ever knew. The flowers are flat, from five to seven inches across, and of every shade of color from the purest white to the deepest purple, and they are also most gaudily variegated—penciled and blotched. These varieties are among the most showy of all known hardy herbaceous plants, and they come into bloom from two to four weeks later than the typical species, than which, also, most of them are far more robust."

We have secured enough of the seeds of this Iris to enable us to place it as one of the kinds in our free seed distribution. It is conceded that as regards purity, richness and depth of color, this species is not equaled by any other of the entire genus. We are, ourselves, delighted with this happy selection, and are confident our subscribers will also be pleased—the more as they learn of its surpassing beauty. It will grow quite readily from seeds, and the seedlings may be relied upon to produce an endless variety of colors and marks. Our seeds are saved from *seedlings* of Iris lævigata—the engraving is an accurate copy of one blooming here July 15th.

Aristolochia Sipho.

This noble vine, so hardy, so rapid in its growth, so striking for its immense leaves, which so thickly cover the rubber-like stems as to remind one of shingles upon a roof, is rarely seen in our Northern gardens. Its leaves are no less remarkable for their tropical breadth, firmness of texture and heart shaped outlines than the flowers are odd in shape and color. Our engravings of the flower and fruit are from life; the leaves, which often measure a foot in diameter, we can scarcely afford the space to portray.

Aristolochia is the name of a plant mentioned by Dioscorides as of great value in the complaints attending childbirth. It is derived from *ariston*, best, and *lochia*, parturition. *Sipho* has reference to the siphon-like tube of the flower, or rather calyx, as it has no corolla properly. It is often called, in other countries, Siphon Birthwort, or Aristolochia, but is here best known as Dutchman's Pipe, of which "implement" it is certainly suggestive. The stems of this vine, which often measure six inches in circumference, are yielding and pliable, like India-rubber tubes, so that, while they never break, they conform themselves readily to whatever support is provided. Even the green petioles bend and twist like the stems, and when once the vine is established, it so holds upon the nearest object that tying is rarely necessary. There is not one of the many kinds of vines growing in these grounds that we would part with more reluctantly than with this. It covers trellises, arbors and stumps completely, and being perfectly hardy (we have never known it to be injured), when once established, it needs no other care than an occasional cutting back to keep it within desired bounds. It may readily be trained upon a temporary frame-work in the form of a grotto or oval arbor, when the frame-work may be removed and the arbor of Aristolochia alone remain. The firm texture of its large leaves overlapping one another, the little care required to keep it in health, its comparative freedom from insect depredations, render it especially desirable for covering piazzas, or, indeed, wash-houses, henneries, fences, or any other structures where a cooling shade is desirable during the heat of summer. In company with other hardy vines, such as Honeysuckle, Clematis, Akebia, Trumpet-Creeper, Canadian Moonseed, Periploca Græca, Virginia-Creeper, the great tropical leaves of the Dutchman's Pipe stand out in bold and beautiful relief.

Many authors might be quoted to show the high estimation in which this vine is held. London says: "Striking from the magnificent appearance of the leaves, and remarkable for the form of its flower, which is bent like a siphon; for the trifid border of the flower, and for the very large bractea placed on the middle of the peduncle."

Scott, in his not-half-appreciated "Suburban Home Grounds," says: "This is a twiner and climber. Its great heart-shaped leaves, from seven to twelve inches in diameter, borne with tropical luxuriance, make the finest exhibition of massy foliage for covering isolated artificial structures of anything we know of."

A. J. Downing says: "One of the most picturesque climbing shrubs or plants which we cultivate is the Pipe-vine, Aristolochia Sipho. It is a native of the Alleghany mountains and is one of the tallest of twining plants, growing on the trees to the hight of 90 or 100 feet, though in gardens it is often kept down to a frame four or five feet high. The leaves are of noble size, being eight or nine inches broad and heart-shaped in outline. The flowers, an inch or more in length, are very singular. They are dark yellow, spotted with brown, in shape like a bent siphon——etc."

Aristolochia sipho begins to bloom from the middle to the latter part of May and continues in bloom about three weeks, when the fruit forms (if at all), forming a naked six-valved pod and flat seeds. The seeds germinate very freely, as a number of our subscribers can testify to whom we have already sent a few, and seedlings make strong plants the second year. Whether it is hard to procure seeds in the native habitat of this plant, we cannot say. But we *do* know that the seeds are at present very scarce and sold (if sold at all) at a very high price.

The Entire List

will be forwarded to each and every one of our SUBSCRIBERS who applies, *and to them* ONLY to any address in the United States or Canada. Of the postage expense, we prefer to bear a small part ourselves. This is to prevent the possibility of a suspicion that we receive in *any form* the slightest compensation for our labor or for the heavy cost of the undertaking. We shall require for the nine kinds of seeds a two-cent stamp; for the Cuthbert Raspberry a four-cent stamp. Each kind of seed will be put up in a strong envelope, the name printed thereupon—not upon slips as heretofore—and all will be packed in a strong bag of suitable size which will be folded and riveted. Two strong plants of the Cuthbert Raspberry for each subscriber will be so packed in moss as to insure safe carriage to the remotest parts of the country. Each letter of application will be NUMBERED when received, and the seeds and plants will be sent in that order. *It will save us trouble, and it will save our subscribers trouble and expense if they will make their application for the seeds and plants in the same letter in which they renew their subscriptions.* We would also thank them merely to say: "SEND SEEDS." Those two words will convey all the instructions we need. All questions appertaining thereto should be written on *separate slips of paper*, otherwise there is a chance of their being entirely overlooked, or, at least, of not being promptly answered.

Finally, in order to provide against the possibility of mistakes, disappointment or any dissatisfaction, we agree to duplicate all orders that from any cause may have failed to reach their destination at the close of the Distribution. The most careful details of instruction as to the treatment of the seeds sent, will be given in future numbers of the RURAL NEW-YORKER.

CONCLUSION.

So, good readers of the RURAL NEW-YORKER, we have now presented you with a list which shall comprise our next Free Seed Distribution. Applications may be made from now until the 1st of April, unless due notice of modification be given.

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Farm Economy.

A SUMMER FALLOW.

DR. JOHN BENNET LAWES, OF ROTHAMSTED, ENGLAND.

To restore the fertility of a soil by means of rest is a very old operation. A soil exhausted by the removal of crops is said to recover its fertility by means of a summer fallow. In some localities two or three plowings during the summer months and the absence of a crop, constitute a fallow, while in others the application of a dressing of caustic lime is added. In either case the soil is capable of growing a larger crop of grain at the expiration of the fallow than it was previously, or, in other words, the fertility of the soil is restored. Several explanations of the action of the fallow and of the lime application have been given; but the general supposition has been, that silicate and alkalies are liberated from the *soil*, while fertilizing properties are absorbed from the *atmosphere*.

A summer fallow has been subject to experiment at Rothamsted, where, about 28 years ago, two half acres of land, side by side, were placed under alternate wheat and fallow, both being plowed in the autumn; but while one-half was sown with wheat, the other was left without a crop and again plowed two or three times during the summer. In the autumn this part was sown with wheat, and the portion which had grown a crop was fallowed: we had therefore half an acre in wheat and half an acre in fallow every year, and no manure whatever was applied to the land.

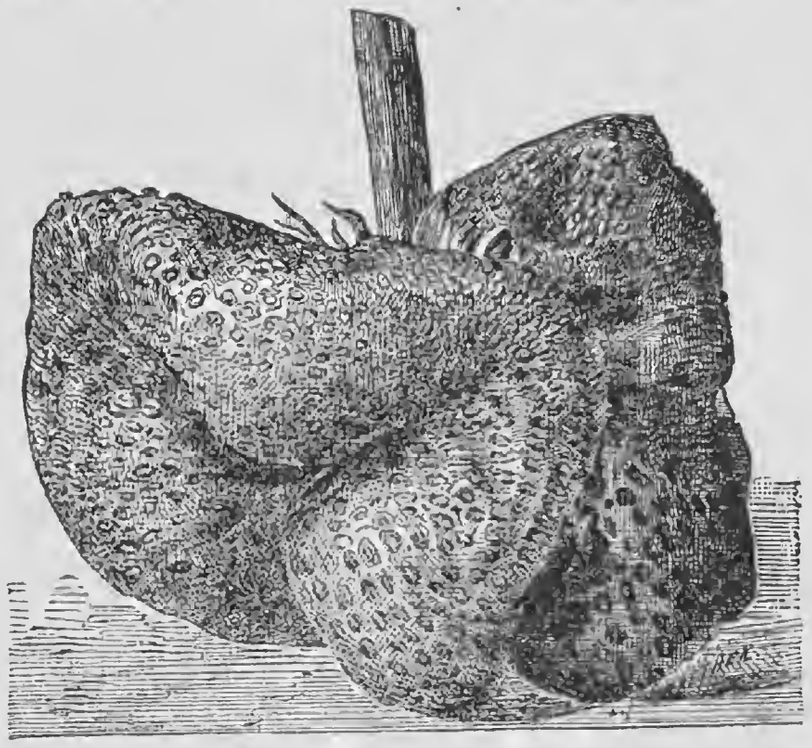
In the adjoining field, wheat has been grown on the same plot of land every year for the same period (28 years) and some years previously, also without manure. For a number of years the yield of the two experiments was equal, that is to say, assuming that the land in permanent wheat yielded 14 bushels per acre every year, the half acre of the fallow land in wheat yielded 14 bushels, or at the rate of 28 bushels per acre; the conclusion therefore appeared to be that, whether the land was sown with wheat every year, or every alternate year with a fallow intervening, the produce would be the same. This, however, has not been the result, for of late years a change has taken place in the relation of the produce of the wheat on the fallow ground, as compared with the crop on the continuous wheat land, in a direction which probably few would have expected; for, although the produce of the wheat grown on the same land year after year has declined to some extent, the produce upon the alternate fallow and wheat land has declined much faster, the yield of the half acre of wheat after fallow being very much less than that of the acre growing continuous wheat.

The probable explanation of this somewhat remarkable fact is based upon scientific investigations of recent times, quite independent of agriculture; but of great importance to it as enabling us to explain some of its processes.

A little more than ten years ago Muller, a German chemist, suggested that nitrification was due to the action of a ferment; Schlosing further proved that in the absence of such ferment, or by the destruction of it when present, nitrification did not take place. In my laboratory, Mr. Warrington has confirmed these results, and in a paper published in the July number of the Journal of the Chemical Society, has increased our knowledge on the subject. An examination of our wheat and fallow land in the autumn shows that the fallowed portion contains a much larger quantity of nitric acid than the portion which has grown the wheat. During the summer months nitrification takes place in both soils; but where the wheat has been sown the nitric acid is used up for the growth of the plant, while in the fallow it accumulates, and as we have no rains in the summer months, as a general rule, sufficient to wash the nitric acid from the soil, the wheat sown in the autumn takes a portion of this accumulated nitric acid, while another portion is washed out of the soil, and it is to this larger loss by washing on the fallow than upon the land under the permanent wheat crop that we must attribute the greater exhaustion of the soil and consequent decline in produce in the fallow.

Although not yet absolutely proved, it is extremely probable that more nitric acid is liberated on the land under the fallow than upon that under the permanent wheat, and it is evident that of this larger quantity more would be lost to the soil by winter rain. A fallow is from this point of view a process by which the dormant elements of the soil are by means of a ferment brought into an active condition, which is accompanied, doubtless, with some loss and reduction in the fertilizing capital of the soil.

Mr. Warrington has shown that nitrification goes on very slowly, or ceases altogether in the absence of calcareous matter, inasmuch as the nitric acid found must have some base with which to enter into combination, and on soils which do not contain much lime, its application is essential to nitrification, while practice has long ago shown the great value of lime when applied to a certain class of clay soils, as also to soils containing much peaty matter. In the process of nitrification by means of a living organism, we have a rational explanation of the beneficial action of lime, and as a further confirmation of these views with regard to the action of lime, it is a remarkable fact that Dr. Frankland, in his analyses of the water passing through the peat soils in Scotland, found there no nitric acid, although they contain more nitrogen than any other class of soils.



PRES. LINCOLN STRAWBERRY.—THE LARGEST STRAWBERRY EVER RAISED?—From a Photograph.

MOLD'S ENNOBLED OATS.—FROM LIFE.—SEE PAGE 567.

Field Crops.

THE CULTIVATION OF WHEAT IN ENGLAND.

PROFESSOR J. P. SHELDON, CIRENCESTER

By the exercise of extreme care and the greatest nicety, a close study of the principles which govern vegetable reproduction, and an unsparing use of money and labor, the cultivation of wheat in the British Islands may be said to have been brought to the condition of a fine art, and the result is seen in an estimated average yield of twenty-eight bushels per acre, which is more than twice as large as the average yield in the United States. It cannot be said that the climate of Britain is favorable to wheat growing, or even that the soil is the best for that purpose; both are alike too variable and in many cases too cold and wet; and it is by sheer force of untiring industry and of slowly accumulated skill that the wheat-yielding capacity of land in England, Scotland and Wales has been raised to so high a state.

It is probable that the systems employed in this country would hardly be applicable to other countries, and particularly to the soils and climates which are found on the American Continent, without more or less modification, and yet it is sure enough that wheat cultivation in other countries would be improved if more care and attention were bestowed on it. Whether or not the extra yield would pay for the greater care is a matter which can be best decided by comparative experiments. It may, however, be said that American farmers have an enormous advantage over those of this country in at least two important things—cheap land and a virgin soil; to which may be added, a better climate for the growth of wheat.

In England we find that wheat does best in a firm soil. We are in the habit of sowing as much of our wheat as we can in the autumn, at such a time as will allow the plants to be well out of the ground before winter comes on; but we are at the same time careful not to sow it so early that it will be too far advanced and the connection between the seed and the plant severed; and we find that with our wet and bitter winters the young plants throw themselves out of the ground and lie prostrate, and in many cases dead, on the surface, if the soil in which they grow is a loose one. Therefore we think well of a firm seed-bed, and our stiff clays, if properly cultivated, yield in many cases the heaviest crops of wheat, though they are not by any means the most profitable ones, because of the greater expense of working and cleaning them. It is necessary to make the seed-bed friable in all cases, whether the soil be stiff or not, in order that the drill may work fluently and the seed may be both evenly deposited and well covered; and to bring our heavy soils into this state is in most years a tedious and costly process, particularly if we do not take them in the nick of time after a shower of rain. If we get on them too soon after the rain, they are hopelessly sticky, and if we let them get too dry, they are stubbornly hard; but if they are caught at the right moment, they work almost as freely as a loose, dry soil. Brought into the proper tilth, these heavy soils do very well for wheat; for the seed goes in nicely and the soil forms a firm seed-bed about the roots, so that the plants are held securely *in situ* when thaws come after frosts. In the case of soils that are naturally dry, light and loose, the difficulty is overcome by passing a heavy roller over the land soon after the young plants show themselves above ground. This may be repeated later on if necessary; and yet again in the spring, if it is found that the winter frosts have loosened the soil too much

We find also that wheat is more prosperous if sown in a stale soil; that is, in a soil that has been plowed up and exposed to the air at least a month prior to sowing the seed. Sown on a freshly-turned-up furrow, the crop is usually deficient, and it does best of all, particularly on heavy land, if the soil has been "summer-fallowed." Summer-fallowing consists of plowing the land over five or six times during the summer months. If it is free from couch-grass—Triticum repens—plowing alone will be found sufficient, repeated at intervals of about three weeks; this will be enough to kill all the minor weeds; but couch-grass requires more drastic treatment, and, in addition to the plowing, it is found necessary to cultivate and to harrow so as to bring the roots of the grass to the surface to be killed by the sun. By this system of summer-fallowing, the soil becomes thoroughly exposed to the summer's sun, and in the autumn is in the best state possible for wheat-sowing. But summer-fallowing is too costly in this economic age; we cannot afford to leave the land without a crop of some kind through the summer, and this needful economy has changed our whole system of cropping. The fallowing and cleaning of the land is now got through in time to put in a

root-crop on those soils that are suitable to the growth of turnips or mangels; barley is usually taken the following year, next after the roots, because barley likes the loose state into which the cultivation of the roots has reduced the soil, and with the barley the land is seeded down with clover and Italian rye-grass. The following summer the clover and rye-grass are either mown off for winter forage or are grazed by sheep, and the clover-root, as the land is then termed, is plowed up about the end of July or in August, and the wheat is sown on it six or eight weeks later. If the land at this stage is found to be foul with weeds, the steam-tackle is set to work on it, and it gets a thorough knocking about and cleaning before the sowing time comes on, providing the weather is suitable. This plan, however, is a costly one, as may be thought; but it is necessary if the land is foul, for weeds impoverish the soil and choke the crop.

Our time for drilling autumn wheat is usually in the end of September and sometimes in October The time depends, however, on several conditions and cannot be stated in a hard-and-fast manner. I have known wheat sown in November to do well, providing only that it has been well got in, in suitable weather, and with the land in a proper condition. We seldom sow wheat broadcast or by hand; the drill is used almost everywhere. There are two great advantages in using the drill:—less seed per acre is required, and it is all deposited at an uniform depth; whereas by hand-sowing some of the grain is one inch and some three inches beneath the surface, and the result is that the crop comes up irregularly, and is ripe at different periods. The drill also deposits the wheat in rows and this is indispensable to facilitate the process of weeding in the following spring. The rows are usually nine inches apart, so that the horse-hoe can pass freely down between them, cutting up the weeds without injuring the wheat. A well-managed field of wheat where the land is free from weeds and the rows of wheat plants are clearly defined, is a sight which no lover of agriculture could fail to admire.

But wheat-growing in Britain is a losing game. It is becoming each year increasingly difficult for us to compete with the cheap and virgin soil and the rough-and-ready farming of the Western States of America, and with wheat at five shillings a bushel, our farmers are on their beam ends. The outlook for wheat growers is serious enough, and those of them who can, are laying down their land to permanent pasture, where the land is suitable for that purpose; and where it is not, they are throwing up their farms in despair. We are on the edge of a serious crisis, the result of which will probably be a great change in our systems of land tenure. In the meantime, farmers are losing capital, landlords are losing income, and land is diminishing almost as rapidly in value as it is in your Empire State. Steam is the great leveler of the present age, and all kinds of products are approximating in value, no matter where they are found, on the basis of cost of transit. It will be very interesting to watch the progress of events in the agricultural world in the next four or five years.

NOTES FROM THE RURAL FARM.

The Culture of Wheat—Result of Experiment.

We have had during the past year a good deal to say as to the cultivation of wheat. Last October 1st, we prepared a piece of land 165x33 feet or one-eighth of an acre. It was plowed, harrowed twice, then broadcasted with bone flour at the rate of 500 pounds per acre, raked in by hand, marked off 18x12 inches and three grains of Clawson wheat planted at the intersections. As soon as the blades were distinguishable, two plants were pulled up, leaving only the middle one. Thus there was left but one plant for every one-and-a-half square foot. The plants tillered remarkably, as engravings in our issue of June 7, have already shown. The straw was very heavy and the heads nearly twice the size of those of our five-acre field sown broadcast, as our engraving of an average-sized spike will show. But many of them were poorly filled; many of them, while in the milk and subsequently, were broken over owing to an apparent weakness of the stem near the spike, as if there alone the stems were not strong enough to support its weight during high winds. From this plot of one-eighth of an acre we harvested but one bushel and-a-half, or at the rate of *twelve* bushels per acre, while our average upon the broadcasted field of five acres, was 27½ bushels. So far, therefore, as may be judged by this one experiment, there is little to be said in favor of the cultivation of wheat. It may be that other varieties or other land would produce better yields. It may be that if the wheat were planted closer together, a larger yield might result.

Yellow Missouri, Silver Chaff and Swamp Wheats.

These were sent to us by Gen. Le Duc, our Commissioner of Agriculture, to be tried. The first is a new variety of wheat which originated in Gasconade County, Missouri, in 1875 "by crossing the Blue Stem with the Mediterranean." It was badly winter-killed. Ripens with Clawson. There is an average of three spikelets in the length of one and one-sixteenth inch and an average of seven ranks of spikelets. Generally there are two grains in a spikelet. Small kernel. Beardless. It was sown in drills 12 inches apart on one-third of an acre. Yield, 149 pounds, or about 20 bushels to the acre. (See cut.)

Silver Chaff was introduced, we think, about three years ago by Mr. Rennie of Toronto, Canada, and has since been offered by several of our own seedsmen. It originated in York County, Province of Ontario. It is said to withstand the severest frosts and to be "not liable to disease or rust." The culms, leaves and ears are of a very light, silvery-green color, so that it could be detected among our several varieties as far as it could be distinctly seen. It is not bearded. There is an average of three spikelets in the length of 1½ inch, and an average of eight spikelets to an ear. The spikelets have three grains oftener than two. The kernels are long and plump, and of an amber color. The yield is at the rate of 16 pounds or about 16 bushels per acre. We are much pleased with this wheat, nevertheless, and shall cultivate it more extensively in the future. It was sown in drills six inches apart.

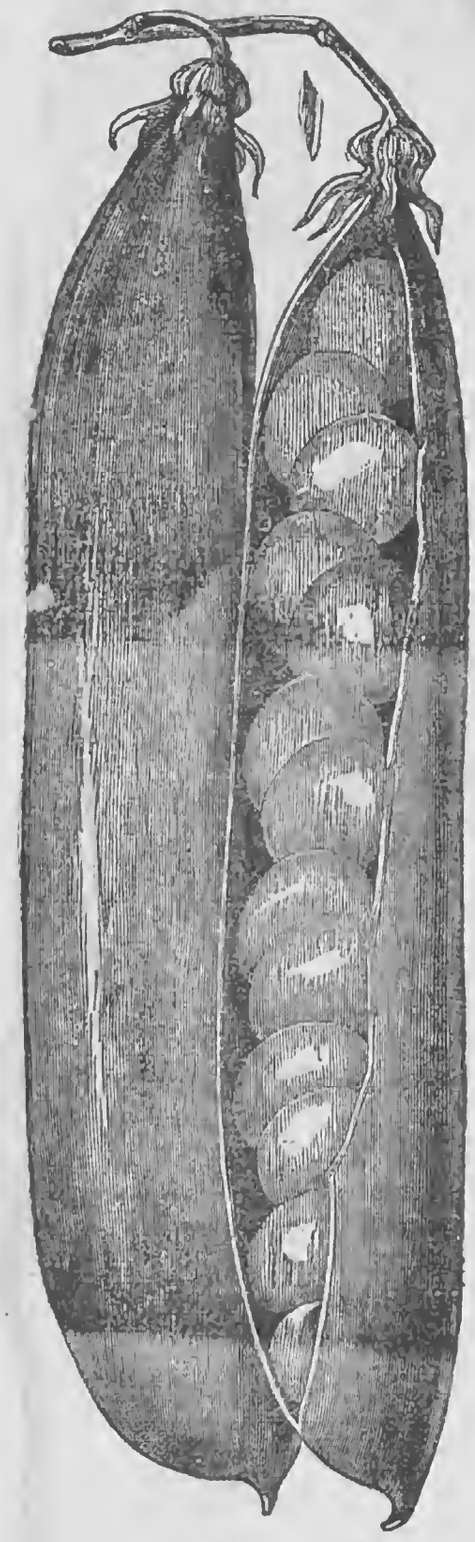
Swamp.—This was grown in Scioto County, Ohio, and is said to make flour of an excellent quality. The heads are bearded, the beards, or awns, being rather longer than the rachis The ears are very short, the kernel reddish, long and narrow. It is the *earliest* wheat we have ever cultivated. Yield at the rate of 123 pounds or 16½ bushels to the acre. (See cut.)

Horticultural.

A VISIT TO THE RURAL GROUNDS.

C. C. GEORGESON.

To readers of the Rural New-Yorker the Rural Grounds have become so familiar a term as to be almost a household word. The frequent reports that appear in the Rural, under the heading of "Notes from the Rural Grounds," are too valuable and given too disinterestedly not to merit the readers' appreciation, and a wish to please them is my excuse for offering this brief description of the place. Several visits to this lovely and hospitable spot have created a desire on my part to give this sketch, and at last, though reluctantly, it has been granted a place in the Rural.



"TELEPHONE," AS SHOWN BY CARTER, ENGLAND.

The Rural Grounds is the name given to the home of the Editor-in-chief of the Rural New-Yorker. He named it thus because, putting heart and soul into the work in which he is engaged, he intends not only to make the place his home, but to devote it, as well as his time and talents, to the interests of the readers. The place is located in Bergen county, New Jersey, about 17 miles from New York. From the Metropolis it can best be reached by way of the N. Y. and N. J. R. R. Alighting at River Edge, a station on the Hackensack river, and following for about a mile a road running almost directly west, scaling in its course a range of lofty hills, the visitor finds himself in Spring Valley, the pleasant and favored nook of the earth in which the Rural Grounds are situated. The valley runs north and south, is about half a mile wide, and is bordered on each side by a high range of hills. The lay of the land is undulating, the soil rich and well suited to farming and horticulture.

The whole extent of the Rural Grounds is but a fraction over two acres, though the manner in which the place is laid out and the variety of interesting objects it contains cause it to appear much larger. The place has the general form of a trapezoid, one side of which abuts on the road running through the valley in a northerly and southerly direction. Along the same road are several handsome dwellings, belonging to well-to-do farmers and city business-men, the latter preferring, like the proprietor of the Rural Grounds, to live in the country. Here, in a retired position, about 120 feet from the road, stands the neat and spacious dwelling-house. It is built in cottage style, and, though plain, its large bay windows and the conservatory on the front side give it an elegant appearance.

To conduct the readers inside and give them a glimpse of the admirable lady of the house, would be a violation of sacred hospitality, and for this reason I must refrain; but I feel assured that they would be delighted to hear more of one with whose pen they are already well acquainted, and whose influence is felt through almost every number of the Rural. The house is new, having been built seven years ago, when the place came into the possession of the present owner. The site it now occupies was originally the lowest spot on the grounds, but it has been filled so as now to be the highest portion of the lawn.

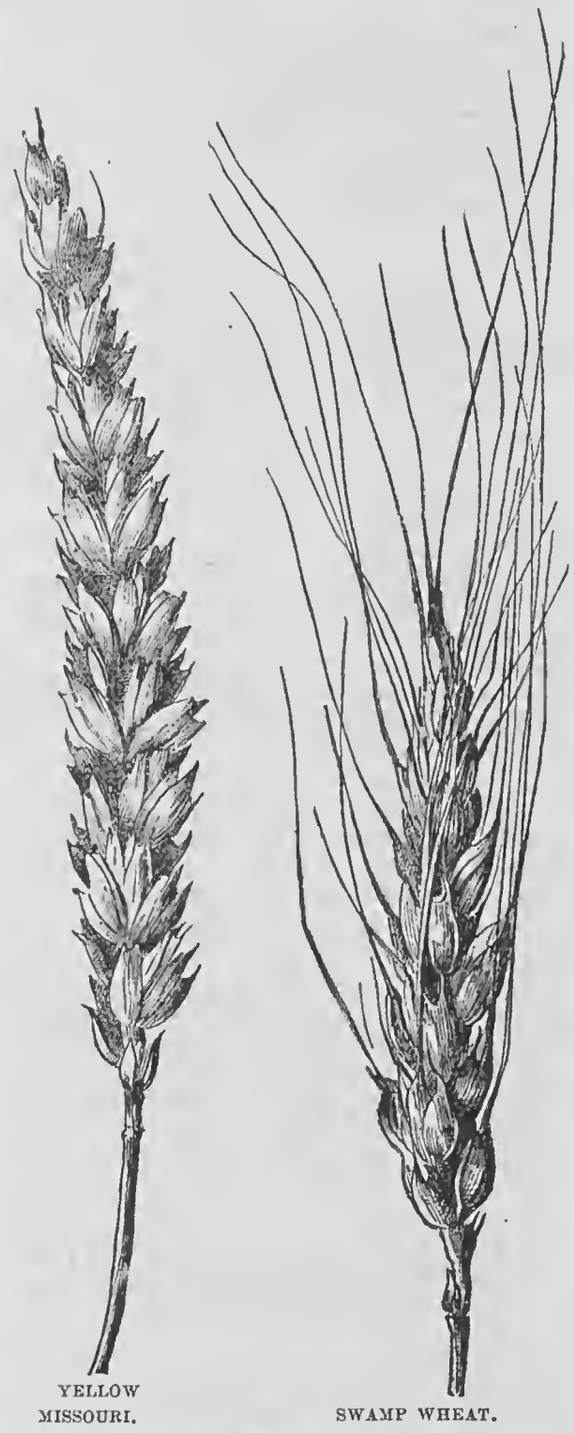
The conservatory forms a part of the house. It is small, but as it is not the proprietor's object to keep a large stock of show plants on hand, but rather to test new varieties of stove and greenhouse plants, it affords quite enough space for this purpose, and, small as it is, it contains an interesting and highly varied collection of novelties.

The Lawn.

The passers-by often stop, half involuntarily, to survey the beautiful lawn; for it is a strong contrast with the neglected "yards" that are commonly seen surrounding country homes. These very primitive lawns too often consist of a weedy grass plot over which are scattered a few evergreens, with a straight path leading to the front door, and without any other pretense to floriculture than a Peony or an Aquilegia here and there struggling to reach above the tall grass.

The Rural Grounds furnish an excellent model for small places. The graceful walks meander about the house and through portions of the lawn where they at once add variety to the scenery, and admit of reaching points of interest most conveniently. The shrubbery is so grouped that there are constant variations in the view:—now one stands before a group of flowering bushes, while a few steps to either side open a view over a little plain of grass or bring a captivating flower-bed in sight. On small places where landscaping, in the proper sense of the word, cannot be attempted, such variations must be provided by art. If all is beheld at a glance, the scene soon becomes trite and loses in interest. Here every tree and plant bear evidence of individual attention, and all tell plainly that to direct and watch their growth is a pet employment of the proprietor. With the exception of a few Oaks and two or three Willows, the trees are all small; and, owing to the large number of novelties that every fall and spring are sent by nurserymen from all over the country, to be tested, the grounds are as full as good taste can well permit. The proprietor informed me that to try all that were sent him, he was yearly obliged to dig up and give away many valuable specimens that were already established, in order to give place to the new-comers and enable him to report upon their value through the Rural. These reports, with which the readers are well acquainted, are valuable not only because they are given impartially by one who has no interest in the introduction of the articles, but also, because, owing to the situation, in a valley, the place is subjected to early and late frosts and exposed to the severity of the winter weather. This circumstance renders the reports more reliable, as anything that has here been tested and pronounced hardy, is sure to prove hardy in latitudes much farther north.

The variety of lawn trees is very great and not more than one-fourth of them is found in common cultivation elsewhere. All over the lawn is scattered beauty in profusion. Here stands a purple-leaved Hazel, making a pleasing contrast with a Golden Spiræa. There is a small group of the choicest low evergreens, such as Golden Arbor-vitæ, Retinospora, Cupressus and many others. Here stands a solitary Purple Beech and there a graceful vine hangs luxuriantly over an old Cedar trunk. Several varieties of the very



YELLOW MISSOURI. SWAMP WHEAT.

handsome Japan Maples are on the grounds. These little trees cannot be praised too much for a small place. They are hardy, and the graceful, cut foliage, which may be found in all shades from dark purple to light yellow, makes an agreeable contrast with the prevailing green of the lawn. There are numerous varieties of Beech, Birch, Elm and Oak upon which I cannot dwell. Fine specimens may be found of Magnolia Leuncl, cordata, auriculata, Solangiana, macrophylla, hypoleuca and of several other varieties. The collection of evergreens is large and varied. A handsome specimen of Abies Siberica has a prominent position near the entrance. It is singular that this superior conifer is not more generally planted than is the case. If I were a prophet I would venture the prediction that this tree will not only receive more attention in the future, but that in time it will supersede even the Norway Spruce for general lawn planting. Abies Engelmanni, A. Gregoriana, A. Alcoquiana, the curious dwarf variety A. Canadensis macrophylla are met with on the grounds besides Pines and Arbor-vitæ in great variety. Near the north-east corner of the dwelling house is

The Rockery,

built of rough stones in the form of a semi-circle and half inclosing a summer-house. Here many choice stone plants are grown, while the summer-house is covered with a thick blanket of foliage from no less than ten species of vines among which the Dutchman's Pipe—Aristolochia Sipho—Clematis and Virginia Creeper are conspicuous. Some handsome Willows, Liquidambars and numerous other trees deserve to be mentioned, but the space already occupied warns me to hasten on to

The Lake,

and the experiment garden beyond it. A beautiful stream of water, mostly from natural springs, originally ran through the grounds, and having fall enough to admit of being dammed up and collected in a considerable body, this basin was formed with much labor and expense. Its outline is very irregular, and on both sides the grass sod runs clear to the water's edge. A rustic bridge thrown over it at the north end, leads to the barn, poultry yard and experiment garden, while at the south end is a dam some 70 feet long. The clear water teems with a multitude of perch, catfish, and pickerel, and around the edges are in some

places planted water plants, such as Pond Lilie's Pontederia, etc. At the south end, where the ground is low and damp, is a wild garden, where many of our handsomest native shrubs and herbs are growing in wild profusion. They have been planted there with a view to learn their habits and to test their value for general lawn planting. Far from being imposing, still this small body of water so perfectly harmonizes with the surroundings that it leaves nothing to be wished for; the landscape is complete. Passing the bridge to the other side, we come to

The Experiment Garden.

This is but a small plot, perhaps a trifle over half an acre, but to those who cherish the progress of horticulture it is of great interest. The soil is a rich loam well adapted to grow all kinds of vegetables. The proprietor, who is a skilled and enthusiastic horticulturist, spends many a leisure hour here, not idly, indeed, but with spade and rake in hand, personally doing much of the work, and no plant set out for trial escapes his notice. Here are 60 to 70 Grapevines in almost as many varieties, pruned and trained on different systems. Here are also all the new Strawberries, Raspberries and Blackberries that have lately been introduced to the public. Tried side by side, their merits and peculiarities are easily contrasted and reports of the facts given in the RURAL. New vegetables and flowers are also tried here. Original researches and attempts to produce new varieties from seed are constantly under way, such as seedling Grapes, potatoes, cross-bred Pelargoniums, Hibiscus, Gladioli, and others of which it is premature now to speak. No farm crops are tried here, however. All such extended experiments are performed at the Rural Farm, which is situated on Long Island, some 18 miles from the Metropolis, and owned by the RURAL NEW-YORKER. I hope that at some future time I shall have occasion to say something about the farm, which I have also had the pleasure of visiting.

The Rural Grounds may well serve as a model after which to fashion small country places; but especially should agricultural journals copy this example. The farming interests of the land would be immeasurably benefited if all of the many journals that offer information on agricultural and horticultural topics had similar grounds at their disposal, and were thus enabled to substantiate their statements with the weighty assertion, "we have tried it and found these to be the facts." The aim of the proprietor of these grounds, if I may take the liberty to express an opinion, is to be able to furnish his readers with reliable information upon topics immediately connected with their welfare, while he at the same time can add to his stock of knowledge and enjoy a beautiful and interesting home. [See cut on first page.—EDS.]

SMALL TALK ON SMALL FRUITS.

BY "MONMOUTH."

THE season of small fruits now having ended for the year, with the exception of grapes, which I will leave until another time, it occurred to me that my observations of the newer varieties might be of interest to the readers of the RURAL. To begin with what is first in importance as well as in order of ripening, I offer notes on some of the

Newer Strawberries.

CRESCENT SEEDLING, I am compelled to state has greatly disappointed me. It is wonderfully productive, to be sure, and this is about all I can say in its favor. The berry was so soft I could not ship it to market, and as it is too poor to eat, of what use is it after one gets it?

CRYSTAL CITY was literally the "earliest of the earlies" with me, but not so large or so firm as desirable on the few plants I had in bearing. It was not a fair trial, however, and it will take another season to determine definitely how it means to behave in these parts.

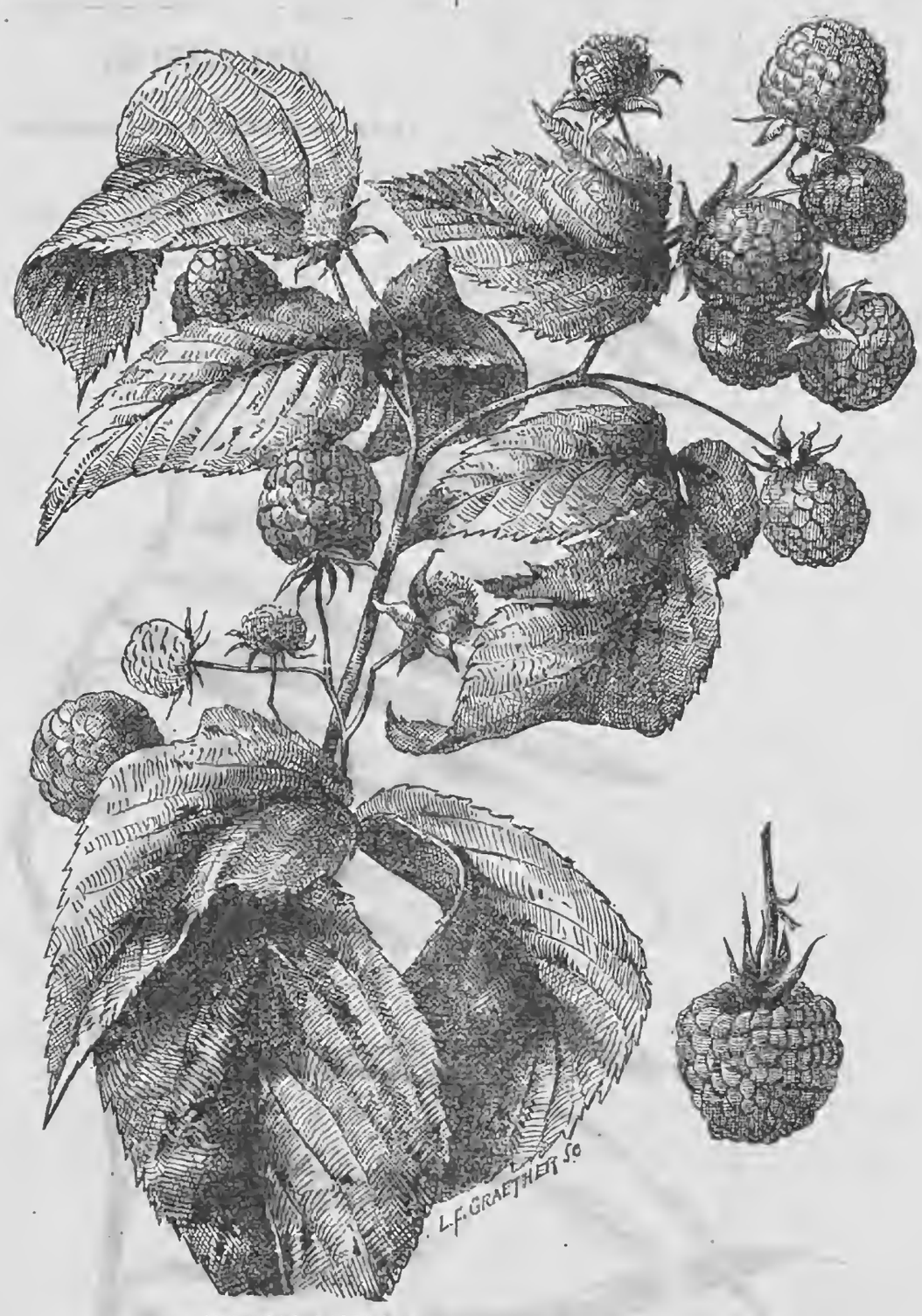
FOREST ROSE has borne out the flattering description of its introducer very well, the berry being large, firm, beautiful in form and color, of high flavor, but the vine is not so prolific as desirable. It did not scald or burn as much as last year, owing, no doubt, to the absence of showers followed by hot sunshine, which occurred so frequently during the season of '78; still it did scald quite perceptibly; but not enough to be regarded as a serious fault. It is a fine variety for the amateur, certainly; but I doubt if it will ever become a standard.

GREAT AMERICAN, in Monmouth County at least, must be regarded as a failure. Under extra-high culture it is both fine and productive; but under ordinary care and on anything else but very heavy rich soil, the plant is a poor grower and decidedly unproductive. As there are now others as good *without* petting as the Great American is *with*, I, for one, consider it not worth planting.

SHARPLESS has sustained the elaborate encomiums and stunning descriptions bestowed upon it by its introducers to, I might say, a remarkable degree. It averages the largest in size of any strawberry I have yet seen; is of fine appearance and of good, though not high, quality. The plant is the largest and most robust of all, the fruit, plant, fruit stalks and blossoms being well proportioned.

PRESIDENT LINCOLN, in fruit, resembles the Sharpless quite strongly, but with me the plant is not an extra good grower. I esteem it a fine variety, however, and one that would be of much value, were it not that the Sharpless is better. [It is a feeble grower with us.—EDS.]

MINER'S PROLIFIC was one of the very best either new or old, all things considered. The plant is immensely productive; the berry large, of good flavor and fine appearance, the only question being; is it sufficiently firm to bear shipment to market? It appears to be quite firm, but on being shipped to a distance in quantity it may prove otherwise. It is late in ripening.



CUTHBERT RASPBERRY, SLIGHTLY REDUCED IN SIZE.

DURAND'S BEAUTY sustained its good reputation, but it must be given good culture and soil.

PIONEER, for so early a berry, is certainly a fine one. It is large, handsome and good. Thus far it is the best of Mr. Durand's Seedlings of recent introduction.

CINDERELLA was a great disappointment to me. Having seen it in its original home, most prolific and beautiful, I expected much from it. With me the plant proved to be a poor, feeble grower and the berries, although fine in every particular, were produced so sparsely as to render it of little value.

CONTINENTAL.—The same may be said of this as of Cinderella, with the exception that even what few berries *were* produced, were quite inferior in appearance and flavor.

RUSSELL'S ADVANCE is a large, fine, early and good berry. I do not know but it is the best *early* sort for *home use*. It is not sufficiently firm to bear shipment.

GLENDALE is, so far as my observations go, the most valuable of all the new varieties. Its strong points are its lateness and firmness, in both of which it fully equals any variety I have yet seen. Added to this, it is of good size and appearance and of *good*, though not *high* flavor. The plant is very prolific, and a robust and vigorous grower.

MR. JONES'S SEEDLINGS, namely, Burr Oak, Early Adela and Laurel Leaf, do not thus far promise to be of much value.

There are a number of other new sorts that fruited with me, but as they did not show indications of value and have not been heralded to any great extent, I do not occupy space by noting them.

NEXT in order, and among which there seems to be few novelties, are the

Currants.

LEE'S PROLIFIC BLACK.—Persons with plants of this will be apt to think, until they fruit, that they have been unfairly dealt with, and have only the well-known Black Naples, which it is very like in appearance and growth of plants. In bunch and berry it is, however, considerably larger and finer, ripens a week to ten days in advance of, and is even more prolific than that prolific variety. It is a decided improvement on Black Naples of which it is most surely a seedling.

Raspberries.

GREGG has disappointed me much, being described as the largest, finest, and of best quality, strong, hardy and prolific, "fifty per cent. larger than the Mammoth Cluster;" while one nurseryman had the audacity to call it "early." It is a distinct variety, and, while a strong grower, prolific, hardy and good, I find it no more so than the "old reliable" Mammoth Cluster, with which it ripens.

FLORENCE is a hardy, strong grower, prolific and the largest Yellow Cap I have yet seen.

CAROLINE is another Yellow Cap, said to be a hybrid between Brinckle's Orange and Catawissa. It so closely resembles the Brinckle's in appearance and flavor as to require an expert to distinguish them, and is quite hardy without protection, although not entirely so the past winter. From its superior quality, this, I think, a valuable addition for the amateur, but of little value for the market.

RELIANCE may be a slight improvement on the old Philadelphia, of which it is a seedling, but it too closely resembles it to ever become popular, I fear.

PRIDE OF THE HUDSON loses its leaves during the growing season, as do all the Antwerps in this part of New Jersey, which so enfeebles it as to cause it to winter-kill to the ground.

CUTHBERT.—For many years we have been looking for a good reliable Red Raspberry—one that must be hardy, a good grower and prolific, with large, bright, handsome berries that would be firm enough to ship long distances. I, for one, have bought dozens of new kinds in hopes of getting the desired sort, many of which from their descriptions in the catalogues, seemed to be just what I was longing for. In none had I anywhere near realized my hopes until I fruited the Cuthbert. This seems to "fill the bill" entirely; in fact, it seems to leave little to be desired as a market berry. In addition to its other good qualities, it is of excellent flavor, which is certainly remarkable for a berry that is firm. Many of the berries measure three inches in circumference, and I selected a few that measured three and a quarter. In firmness it nearly or quite equals the insipid Brandywine, and so firm and handsome is it that I am inclined to think the gentlemen in Delaware, who have the "Queen of the Market," which is being so lavishly praised in some quarters, had the Cuthbert, and forgetting its name, gave it this appropriate title. At any rate, I can detect no difference in fruit or plant between the two varieties.

Little Silver, N. J.

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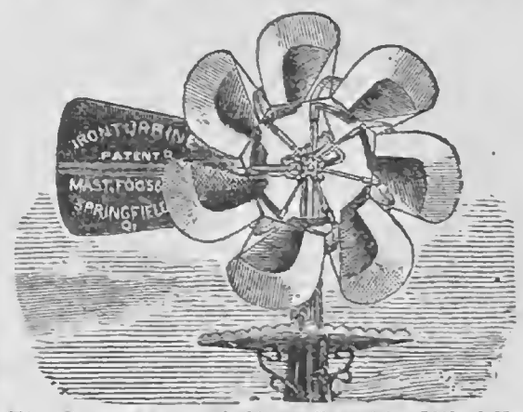

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The Vineyard.

OUR NEW GRAPES.

D. S. MARVIN.

In discussing the subject of new seedling Grapes, if the names of the originators were mentioned, it would be a delicate task to avoid giving offence to their over-sanguine owners. It will be better, therefore, to discuss the leading rules and principles that should govern our choice in making our selections. This plan will enable those who are not conversant with the subject to make their own selections, without arousing any ill-feeling against those who present to the public the results of careful experience.

Grape culture is like any other business—it must be made to pay. Nurserymen give high prices for new vines, and propagate them as rapidly as possible, without stopping to fruit them to test their value. In the Atlantic States this industry commenced with the importation and trial of varieties of the Vitis vinifera, or European vine, and proved a hopeless failure, except for amateurs and hot-house purposes.

The next trial was made with varieties of our Labrusca class of Grapes, native to our South Atlantic seaboard, the Catawba and Isabella. This was a great advance, but these were at length found not well adapted for general culture in our more northern States, the Catawba mildewing and both proving more or less tender. The next and more hopeful trials were made with some of our Æstivalis Grapes, such as Norton's Virginia, Cunningham, etc. In the meantime our northern Labrusca Grapes, such as Concord, Ives's Seedling, etc., were introduced, and soon became very popular; also our Cordifolia class, the Clinton, Taylor's Bullet, etc., while upon the South Atlantic seaboard still another, the Vitis vulpina, or Scuppernong class, became popular in its own locality.

Amidst such heterogenous materials all except the specialist is more or less lost. In this rapid survey the wealth and abundance of the classes and varieties of our new Grapes form the one promising feature. I cannot stop now to look into the further complications produced by the introduction of varieties and classes still wild or seldom cultivated.

From the long list of Grapes already in cultivation we must reject all kinds found to be worthless or unsuited to our climate. First, then, we must reject all European Grapes, and generally their hybrids with our natives. Except for amateur or hot-house culture, no sort of mixing has ever eliminated their defects for our climate. We can next throw out the Scuppernong class, as only valuable in the maritime districts of the South. This leaves us three classes for the Northern States—Vitis Æstivalis, Vitis Labrusca and Vitis Cordifolia, valuable in the order in which they are named. There are numerous varieties of each, as well as hybrids of known and unknown mixture. More than half, however, belong to our northern Labrusca class and its hybrids. The last will probably come from our Æstivalis class and their hybrids with Labrusca and Cordifolia classes.

Labrusca Grapes are most subject to mildew; the other classes differ but little in their liability to the attacks of this sort of dangerous diseases. Nearly all our native Grapes, and especially our Cordifolia and Labrusca classes, are defective in their fructifying organs, the stamens being usually more defective than the pistils. Persons originating new varieties should study these several defects and liabilities to disease, and aim to avoid them and combine the good qualities of the best classes and varieties. This task will be difficult, but by working through long periods of time, we are enabled to control the occult forces of nature. Hybrids of Grapes, like hybrids of domestic animals, cannot usually be depended upon to perpetuate or intensify increased excellences; to do this we must go back to seedlings crossed upon the best parent class. No seedling, for instance, of the Delaware—and they are numerous—has ever been found equal to its parent. We should not so often compare our native with the European Grapes—each kind has its merits and uses. Owing to stronger potency, ours can alone be grown for field culture. We must, then, select from our native sorts, and the best varieties of these are not inferior to the Grapes of Europe.

The following is a botanical classification of

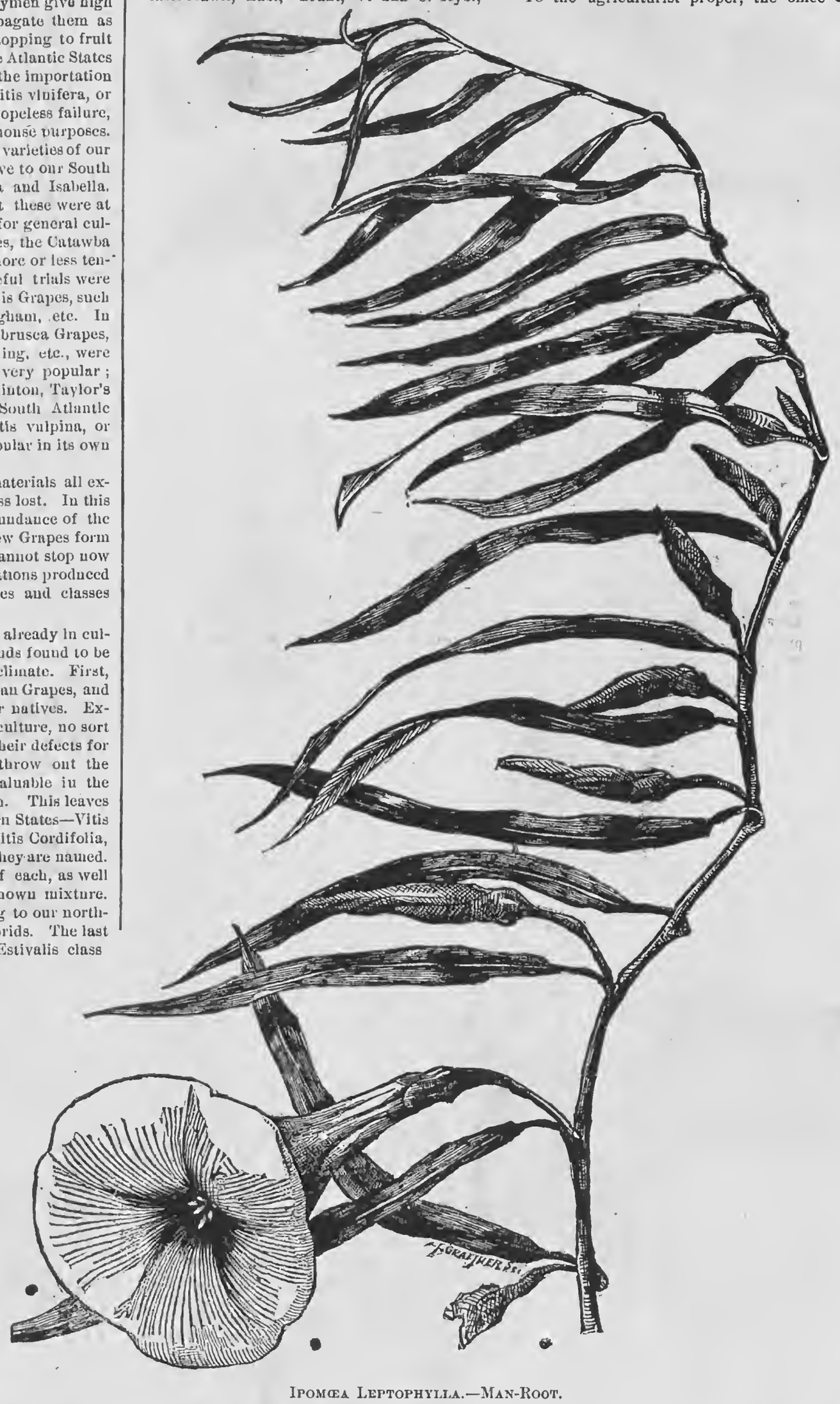
Grapes.

[Æs. means Æstivalis; Cor. Cordifolia; Lab. Labrusca; V. and L. Vinifera and Labrusca, Hybrid; C. and L. Cordifolia and Labrusca, Hyb.; V. & C. Vinifera & Cordifolia, Hyb.]

Adirondac, Lab.; Agawam, V. and L. Hyb.; Autuchon, V. and C. Hyb.; *Brighton, V. and L. Hyb.; *Champion, Lab.; *Croton, V. and L. Hyb.; Creveling, Lab.; Concord, Lab.; Cottage, Lab.; Delaware, C. and L. Hyb.; *Eumelan, Æs.; Hartford Prolific, Lab.; Iona, Lab.; Israella, Lab.; Janesville, Cor.; *Lady, Lab.; Martha, Lab.; Mary Ann, Lab.; Merrimac, V. and L. Hyb.; Massasoit, V. and L. Hyb.; Northern Muscadine, Lab.; Othello, N. and C. Hyb.; Rebecca, Lab.; Salem, V. and L. Hyb.; *Senesqua, V. and L. Hyb.; Union Village, Lab.; Wilder, V. and L. Hyb.; *Walter, C. and L. Hyb.; *White Delaware, C. and L. Hyb.; *Whitehall, Lab.; *Worden, Lab.; *Advance, C. and V. Hyb.; Alexander, Lab.: Adelaide, V. and L. Hyb.; Aletha, Lab.; Albino, Lab.; Allen's Hybrid, V. and L.; Alvey, Æs; Amanda, Lab.; *Aminia, V. and L. Hyb.; Anna, Lab.; Barry, V. and C. Hyb.; Belvidere, Lab.: *Black Defiance, V. and L. Hyb.; *Black Eagle, V. and L. Hyb.; Black Hawk, Lab.; *Brant, V. and C. Hyb.; *Cambridge, Lab.; *Canada, V. and C. Hyb.; Cassidy, Lab.; *Challenge, V. and L. Hyb.; *Concord Chasselas, V. and L. Hyb.; *Concord Muscat, V. and L. Hyb.; *Cornucopia, V. and C. Hyb.; *Diana Hamburg, V. and L. Hyb.; *Don Juan, V. and L. Hyb.; *Elvira, Cor.; Hermann, Æs.; *Hine, Lab.; *Humboldt, Æs.; Huntington, Cor.; *Irwing, V. and L. Hyb.; *Ithaca, V. and L. Hyb.; *North Carolina, Lab., *Othello, V. and C. Hyb.; *Secretary, V. and C. Hyb.; *To Kalon, Lab.; *Triumph, V. and L. Hyb.; *Highland, V. and L. Hyb.; *Amber Queen, V. and C. Hyb.; *Una, Lab.; *Moore's Early, Lab.; *Eva, Lab.; *Black Pearl, V. and C. Hyb. The minor Grapes are all Lab.

I have purposely avoided either recommending or condemning any new Grape, but in this rapid survey I have glanced at facts and principles that will, I trust, enable the readers of the RURAL to select their new vines intelligently. Before ordering a new Grape refer to the above list of botanical classes; see whether the Grape you are thinking of ordering is a foreign, a native, or a hybrid; find out its parentage; judge of the class, or classes, to which it belongs, as to hardiness and tendencies to mildew; ascertain the character of its reproductive organs; see that these are not defective, and if the order be discreetly made, the selected vines will usually give profit and pleasure to their owners.

*The ones marked with a star are all new, the others not.



IPOMŒA LEPTOPHYLLA.—MAN-ROOT.

Pomological.

FAIRS AS EDUCATORS IN POMOLOGY.

PRESIDENT T. T. LYON.

To the agriculturist proper, the office of fairs may be assumed to be to give a more just and expansive idea as to the possibilities of his chosen profession; and, at the same time to furnish him information of a practical and reliable character, as to the relative usefulness or profitableness of different classes of product; together with some proper idea of the comparative values, for cultivation, of the several varieties of each, which may come in competition for the popular favor. I omit the consideration of exhibits of animals, implements, machinery, and the thousand and one other attractions that go to make up an ordinary agricultural fair, as having little direct bearing upon the subject to be considered.

In few if any of the particulars of an ordinary agricultural fair is mere correctness to name a matter of special importance, since with little actual loss of either money or time, the error may generally be corrected. On the other hand, in pomological exhibits we are at once confronted with the fact that correctness to name is of the very highest moment; since the number of the varieties of fruits is immense, and their variations of character exceedingly diversified; while the correction of an error in nomenclature in many, if not in most cases, may almost be said to be the work of a lifetime. From these facts we deduce the inference that, in a pomological exhibit, after providing the best possible means of studying the peculiarities—economically considered—of the products exhibited—and that, as far as possible, in connection with their known tendency to variation—it becomes of almost if not quite equal importance, that the observer be correctly taught in the matter of nomenclature.

To provide the means for such education has, for the past quarter of a century or more, absorbed a very large portion of the labors of our National Pomological Society, together with those of the almost numberless affiliated societies scattered over our country. To the mass of even our fruit growers, proper, these accumulated stores of knowledge and experience are, and perhaps ever will be, a "terra incognita;" and if they are ever to profit by them, such profit must doubtless arise from the efforts of the better-informed to bring deductions from such accumulations, to bear upon the practice of the masses.

In our State, as a means of rendering the exhibits at our pomological fairs as effective as possible in this direction, it has for some years been the study of some of our pomologists, to devise more effective means for the advancement of this subject. In so doing they have established certain fundamental ideas as a basis for action, among which are the following:—

1st. As soon as practicable after exhibits are in position, the nomenclature must be examined and corrected where needful.

2nd. No exhibitor should receive an award based in any degree upon a variety of fruit to which he has failed to attach the correct name.

3d. Large and showy but comparatively worthless fruits shall be regarded by committees as a discredit to a collection.

4th. Committees shall base their awards:—1st, upon the value—for the purpose specified—of the varieties in each exhibit, which shall be correctly named by the exhibitor; 2nd, upon the color, size and evenness of the several specimens of each variety; 3d, upon their comparative freedom from blemishes.

5th. Market and dessert or amateur collections shall not come into competition for the same premiums.

6th. The collections most correctly named by the exhibitor shall be awarded an additional premium for nomenclature.

7th. Committees are required, in their reports, to specify, in the order of their value, as estimated by them, the varieties in the successful collections, that have influenced their decisions. As a means of securing these particulars, printed blanks, for reports, are issued to each committee.

8th. As a means of learning how varieties are relatively esteemed, by both exhibitors and committees, premiums are offered, severally, for the best twenty-five varieties of apples for amateur or home purposes; also for the best twelve, the best six, and the best single variety of market apples. Similar offers are also made in the other classes of fruits.

Several of the above requirements have now been in operation for a series of years, with eminently satisfactory results.

Grand Rapids, Mich.

The Garden.

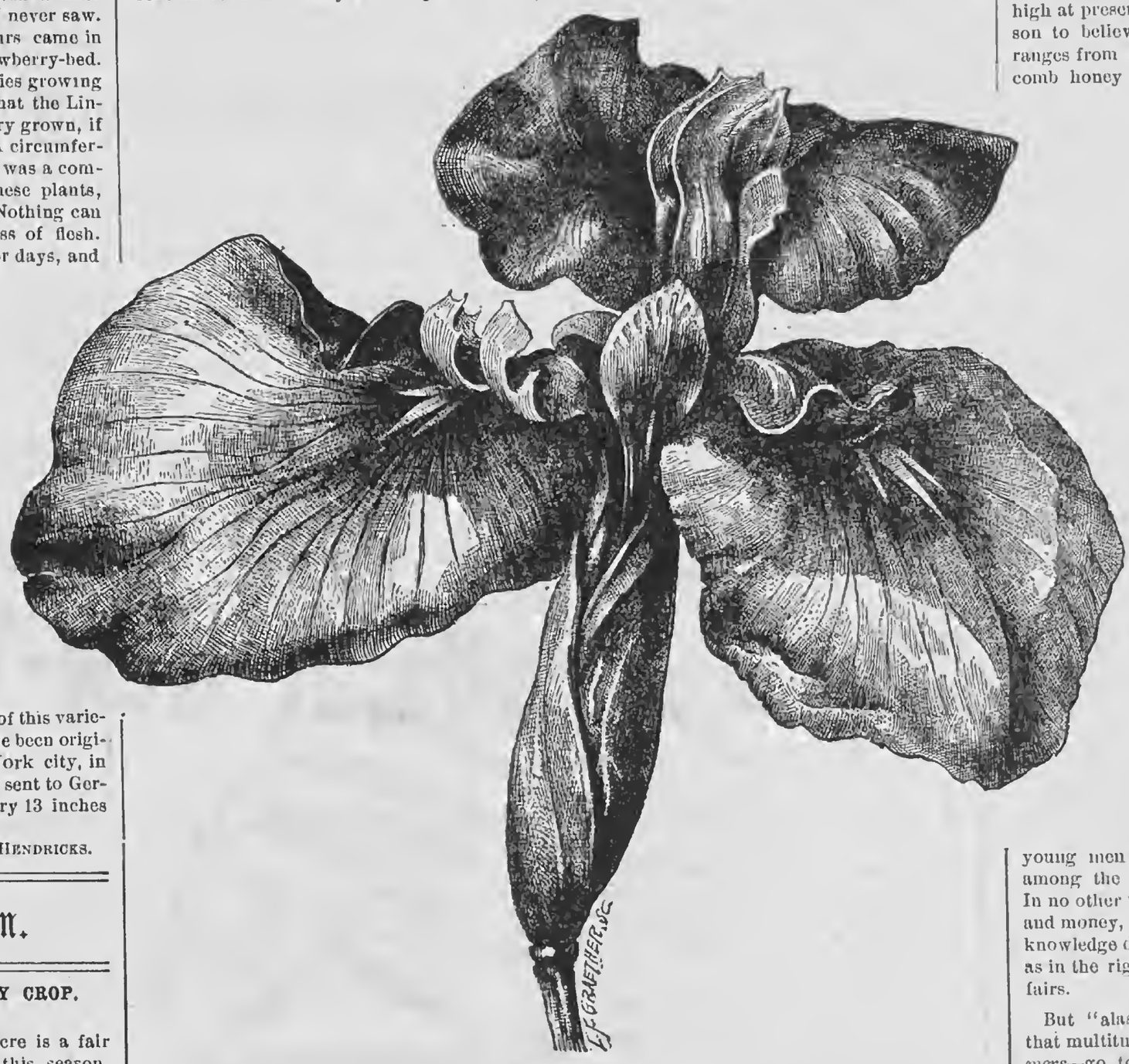
THE PRESIDENT LINCOLN STRAWBERRY.

The specimen of this new strawberry, from which the engraving on page 569 is made, is believed to have been the largest single strawberry ever grown in this country; at least we have no record of its equal here, although one of the same variety, measuring 11 inches in circumference, as claimed, was shown at the New York Horticultural Society's exhibition last year. This one measured fully 11⅛ inches in circumference, and was a perfectly solid and continuous berry throughout, in spite of the curious and irregular lobes which the engraving correctly represents. This cut is made from an accurate photograph, and is designed to represent the actual size of the berry. The stem, as will be seen, is flat, and ribbed longitudinally. This is a common peculiarity of this variety, especially in all the large specimens. This berry grew in my city garden here, on a plant eleven months old, set in August, 1878—an ordinary runner plant received by mail from a Connecticut nursery.

The soil is a low, dark, sandy loam, and no manure was added. In the freshet last fall my

whole bed was two feet under water. Only ordinary clean garden culture was given. I had fifty plants of this variety, and a finer show of fruit than they presented I never saw. Various fruit-growers and amateurs came in to look at my eleven-months' strawberry-bed. I had some thirty other new varieties growing in the same bed. I am satisfied that the Lincoln is now the largest strawberry grown, if not, indeed, the finest and best. A circumference of from five to eight inches was a common average of the berries on these plants, and there were no small ones. Nothing can exceed them in flavor or in firmness of flesh. I had them on exhibition here for days, and while others would soften and rot, these would merely dry up. Their color is bright, glossy crimson. In shape they are inclined toward the Coxcomb, and are somewhat irregular, as shown in the cut, being similar to the Triomphe de Gand, especially the fruit ripening first; later on the berries are more uniform. The texture is fine and solid. Some have objected to this irregularity in shape; for my own part, I am content to sacrifice this point for the many other excellent qualities which I have thus far been unable to find in so large a degree in any other variety. My plants seem entirely hardy, strong and vigorous, and very productive so far. The season of this variety is medium early. It is said to have been originated by a Mr. Smith, of New York city, in 1875. In 1877 a few plants were sent to Germany, where, it is claimed, a berry 13 inches in circumference was grown.

Kingston, N. Y. H. HENDRICKS.



IRIS LÆVIGATA SEEDLING.

The Apiarian.

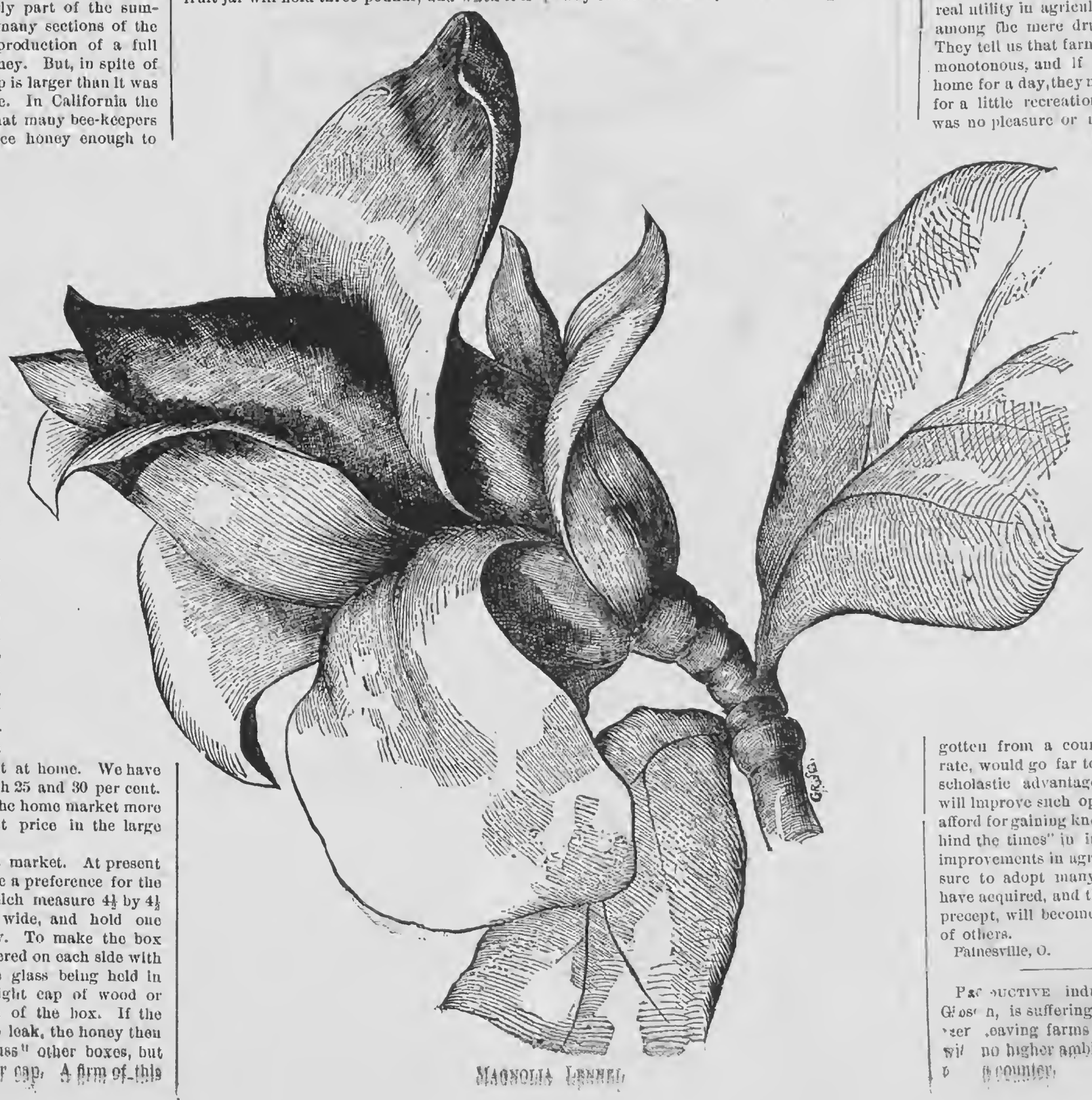
DISPOSING OF THE HONEY CROP.

REPORTS now indicate that there is a fair crop of honey to be marketed this season, though it is far from being as large as the crop of last year. There are two main causes for its diminution:—the stock of bees was greatly reduced by the almost unparalleled mortality that prevailed last winter among these busy little workers, and this season bee-keepers have been obliged to pay special attention to the increase of colonies, rather than to the production of surplus honey. And again, the drought which in the early part of the summer was severely felt in many sections of the country, prevented the production of a full crop of white clover honey. But, in spite of these two causes, the crop is larger than it was at one time expected to be. In California the drought was so severe that many bee-keepers hardly expected to produce honey enough to carry their stocks through the coming winter, but later rains increased the flora and now the crop is said to be good. In most localities the honey yield is now over, and the market is opening.

To dispose of the crop at the greatest profit, close attention should be paid to the wants of the market, and generally it is best to choose a near market in preference to a more distant one. Endeavor to create a home demand. This can be done by advertising the product and occasionally making judicious presents of small quantities of the best honey; by making the packages as attractive as possible, and by taking pains to suit the whims of the customers. Small producers especially should never send their honey to distant markets if there is a possibility of selling it at home. We have known instances in which 25 and 30 per cent. per pound was paid in the home market more than the quoted market price in the large cities.

Study the wants of the market. At present consumers seem to have a preference for the small section boxes which measure 4½ by 4½ inches and two inches wide, and hold one pound of capped honey. To make the box more attractive, it is covered on each side with a plate of thin glass, the glass being held in place by a close-fitting light cap of wood or pasteboard, at each end of the box. If the comb should happen to leak, the honey then cannot run out and "muss" other boxes, but will collect in the lower cap. A firm of this city, that sells immense quantities of honey on commission, informed us recently that they sold more comb honey in one-pound boxes, emptied it can readily be utilized in the household. Much is also sold in tin cans, holding from one to five pounds, but this is not an attractive form, and honey thus put up cannot command a high price.

Label every box, jar and can with neatly-printed labels, giving the name of the producer, the place where he lives, and the quantity and quality of honey. This is the only way to establish a reputation among the consumers, and to dealers in an article that is so easily adulterated, a good name brings a good trade. The wholesale price of honey is not so high at present as at one time there was reason to believe it would be. Extracted honey ranges from six to eight cents a pound, and comb honey from ten to twelve cents, extra-fine going as high as fifteen cents. Though there is a fair crop, there is but little danger that the market will be overstocked, and the demand is likely to be as great or greater than last year; the taste that has been acquired and stimulated under the influence of low prices has not vanished. We apprehend, therefore, that prices will rise later in the season, and bee-keepers should be in no hurry to market their surplus honey.



MAGNOLIA LENNEI.

Miscellaneous.

YOUNG FARMERS AT THE FAIRS.

The use of agricultural fairs as educational agencies is not as generally appreciated as I think it should be, especially by young farmers. It is very gratifying to notice some of this class at our large fairs each year making careful observations, with note-book and pencil in hand, jotting down whatever strikes them as most interesting in each department of the exhibition. Such young men will be sure to be found hereafter among the leaders in agricultural progress. In no other way, at so little expense of time and money, can a young farmer gain so much knowledge directly relating to his profession, as in the right use of his opportunities at the fairs.

But "alas, 'tis true, and pity 'tis 'tis true" that multitudes of young men—even young *farmers*—go to these fairs as they would to a circus, simply to see the crowds and be amused! We see them thronging around the horse ring for hours together, watching the trots or races and listening to the useless talk of town loafers and gamblers. They are also attracted to the various side-shows by the cheap music and noisy clatter, where time and money are spent without any valuable return. These young men, and such older farmers as can see no real utility in agricultural fairs, are sure to be among the mere drudges of the profession. They tell us that farm life is very toilsome and monotonous, and if they can get away from home for a day, they must take the opportunity for a little recreation. Just as though there was no pleasure or recreation for them in the acquisition of knowledge and in witnessing the evidences of the world's progress!

In my experience as an editor, or correspondent for agricultural papers, it has been my practice to observe and take notes of all that was new or of special interest in each department of a fair, and to obtain facts of interest to the public from the various exhibitors and committee-men. I have often wished that hundreds of our young farmer would try the experiment of going through a good State fair, annually, for a few years in this way, just as though they were employed to give full and progressive reports thereof for some prominent journal. The information and mental training thus gained, would be of as much benefit to them in after life as is sometimes gotten from a course in college; or, at any rate, would go far to make up for any lack of scholastic advantages. Young farmers who will improve such opportunities as these fairs afford for gaining knowledge, will never be "behind the times" in intelligence respecting the improvements in agriculture; and they will be sure to adopt many useful ideas which they have acquired, and thus by example, if not by precept, will become teachers and benefactors of others.

M. B. BATEHAM.

Painesville, O.

PRODUCTIVE industry, says Hon. W. K. Gibson, is suffering to-day because of young men leaving farms and crowding our cities with no higher ambition than to sell tape by the counter.

Dairy Husbandry.

THE DAIRY—STATE OF THE INTEREST.

PROFESSOR L. B. ARNOLD.

THE course of events in the dairy interest has been altogether unique during the current season. Heretofore no rural industry has been so unvarying and reliable in its results as the business of making butter and cheese or producing milk. But its customary even tenor has now become disturbed, and it has sunk to a position it has never reached before. Fairly good butter is now (August 1st), selling in many localities for 10 cents and even as low as 8 cents, and cheese of a fair quality can be bought as low as 4½ cents a pound at wholesale. Finest qualities sell a little higher Very little, at any price now being paid, returns the farmer the cost of production. This state of things has been brought about by two principal causes. One of these is the very large crop of last year, which still lingers in the markets and blocks the way for the new crop. Large quantities of cheese, in particular, of last year's make, are yet crowding the British markets, and New York city is still not clear of the old cheese. More butter and cheese were produced last year than ever before in the country in one year, and more than could be consumed in the markets we are accustomed to send it to.

The other cause lies in the changed condition of our principal consumers. The great bulk of our exported cheese is eaten by the laboring classes in the British Isles, and the financial embarrassment, not to say distress, under which they have labored for the past year, has prevented the usual consumption of American cheese. The large exportations of American meat have also affected the consumption of cheese abroad. Cheese is an animal food which has the same nature as meat, and must compete with all classes of flesh-forming food, whether flesh, fish, or fowl. The markets are too much crowded with such kinds of food to give any considerable relief the present season. But the blockade in dairy products cannot be maintained forever, and circumstances are even now tending to its relief. The crop of butter and cheese for the year will fall below the consumption of the year. There will be no such surplus to carry over as was left last year. The production this year will be largely reduced. In central New York the yield will be nearly the same as usual, but in all other localities I hear from, it is falling considerably short of an average. In districts which have been long and exclusively occupied with dairying, very little change in the number of cows kept has been, or is likely to be soon made. Dairymen there are not prepared to make a sudden change to any other mode of farming. In other districts, as in Pennsylvania, in much of the West, and in Canada, dairying is but part of a system of mixed husbandry, and can be diminished without any shock to the business of the farm. The cows which were turned off last fall by those carrying on mixed farming, were, to a large extent, not replaced last spring, and unless prices improve considerably hereafter, a still greater reduction will be likely to occur next spring, and so on till the supply is reduced to the demand.

Since prices for butter and cheese have been so low, milk has been turned to a considerable extent to other uses. Last spring a much greater number of calves was raised than usual, and milk was fed to them and to pigs so freely that, outside of the most exclusively dairy sections, the yield up to the first of June, did not exceed half of what it was last year, and the make for June and July will fall short 15 to 20 per cent. At the present date I learn from the cheese-makers, whom I am daily meeting, that some of their patrons are feeding a part, and some of them all of their new milk to their pigs, and think it equally profitable and less troublesome than sending it to the cheese factories. I think they are quite right in this conclusion, and that it would be better for all concerned if more were utilized in the same way. In 1875, when the price of pork was but little different from what it is now, Israel Boies found it profitable to pay 25 cents a hundred for sour milk to feed a large drove of hogs. This is as much as a good deal of new milk nets the farmer now. Professor E. W. Stewart, of the National Live Stock Journal, found by feeding sour milk to thrifty calves and pigs, he could get a pound of live weight for every 15 to 16 pounds of milk fed. One of the German experiment stations found similar results, and from experiments with feeding new milk, made twice as much weight as from sour milk. With pigs at four cents a pound for live weight, this would be equal to seven cents a pound for cheese, if we allow two cents a pound for drawing the milk and making and selling the cheese. Selling cheese for 4½ cents a pound is equal to 25 cents per 100 pounds to the producer for the new milk, and is just what an equal weight of sour milk would be worth to feed to pigs.

Feeding good new milk to swine seems a good deal like using good corn for fuel, but it is pretty clear that where the animals are thrifty, and especially where farmers have not plenty of cheaper food, a larger return can be realized from feeding than from making milk into poor butter or low-priced cheese, besides contributing something toward relieving an over-crowded market. That dairy products will not long remain in their present depressed condition is evident enough, because the supply will soon regulate itself to remunerative demand, and it is not worth while for dairymen to be so discouraged or frightened as to change their business too suddenly. From the diminished product up to this date, and the rapid shrinking of cows, and the promptness with which products have moved forward, leaving a comparatively small stock in producers' hands, it is evident that dairy products, especially cheese, will not be abundant enough to keep prices down much longer. But the high prices of former days cannot be reasonably anticipated, because of the immense extent of cheap lands on which it is now well known that dairying can be successfuly prosecuted. But with fair quality, fair and steady prices can be safely counted on by those who have courage to endure a depression common to all industries.

The Herdsman.

THE TRUTH ABOUT IT.

[THE object of articles under this heading is not so much to deal with "humbugs" as with the many unconscious errors that creep into the methods of daily country routine life.—EDS.]

THE VALUE OF A HERD RECORD.

What is there in a pedigree? This is a question upon which people are somewhat divided in opinion. During some years past the making of Herd Books has seemed to have no end. Cattle, horses, sheep, pigs, and even poultry have had Herd Books or Records, and the pedigree business has been worn threadbare. Last of all has come the secretary of the most aristocratic and high-toned of all the cattle breeders' associations, viz: the Jersey Cattle Club, and has rudely awakened sleeping suspicions by writing an article warning the public against purchasing "worthless brutes" which have the ear-marks of the Jersey Cattle Club Register upon them. And one and all have asked themselves "Can such things be?" What is a Herd Register if one cannot buy a good cow on the strength of it?

Now we ought to know the truth of this. Is it a fact, that when we have a Jersey or any other animal offered to us with the certificate of Herd-book record, we have any surety that we may be getting an animal superior in any degree to a common scrub? And the truth of it is we have no such security whatever. There are good, bad and indifferent animals in the Herd Record just as there are out of it. Pedigree is of no value whatever unless the ancestors of an animal have been better than usual. The only value of a record of descent then is that we may ascertain from the record what the antecedents of a registered animal have been; and to derive any value from the record, a purchaser should know a good deal about the stock he is dealing in and the reputation of the owners as well as of the animals, else he is buying in the dark as much as the person referred to in history as having once bought a "pig in a poke." This being true and beyond refutation, there is evidently something wanting in the Herd Books to make them of any general value.

This desideratum is a record of performance or merit. For instance, if we see in a Herd Book an authenticated record that Milkmaid's Delight yielded 30 pounds of milk, and 1½ pound of butter per day and that her dam and granddam did as well or better, and that her sire's dam was also a good cow, we may then have good reason to believe that Milkmaid's Delight's calf will make a good cow; but to know merely that Delight 3d was out of Delight 2d by Jersey Boy, gives no intimation whatever of what the calf may be.

Are we then to abandon all faith in Herd records? The writer has had a large experience in this respect and a large acquaintance with Herd-book animals, and with thoroughbred herds, and he would say decidedly that the purchaser who puts confidence in them without accurate and extensive knowledge to back up his faith, will be more likely to be deceived than otherwise. He runs a chance, with the odds against him, equal to the large proportion of poor or ordinary cattle compared with the good ones. Probably it will be five or ten to one that he gets an ordinary cow that will be no better than a scrub bought at a rural vendue on the auctioneer's recommendation. It is hard to say this, but it is the truth of it. How then shall a person proceed to make himself safe; for Herd-book—that is pure-bred—cattle have a value above the common herd, if they are good? Let the purchaser beware! "*Caveat emptor*" is a legal maxim which means simply that; for in buying Herd-book animals, as one may easily get a "worthless brute," the buyer must use his judgment just as much as when buying common animals. Let him investigate and search the history of the parents of the animals for a few generations back.

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The First Horticultural and Agricultural Authority in America.

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N. B.—Our Farm and Experimental Grounds of 82 acres are devoted to experiments of all kinds appertaining to plant life and the best agricultural and horticultural methods. New plants of all kinds adapted to the climate are tested and reported upon according to their merits. We cordially invite—indeed solicit—our subscribers to communicate ANY facts which they may deem of interest to the general reader.

Address all communications *RURAL NEW-YORKER,*
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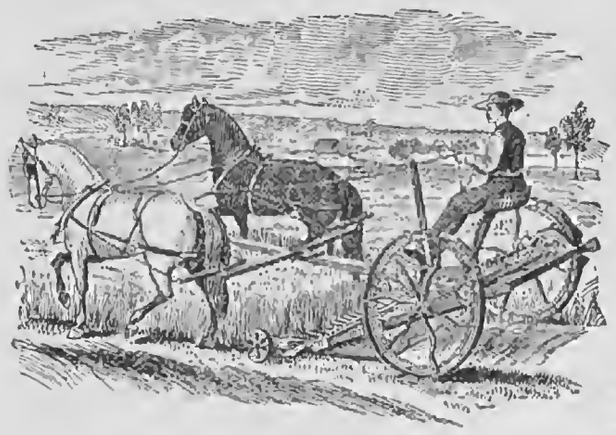

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The Eureka is superior to any side-cut machine I ever saw in use. HARRIS LEWIS.
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The Eureka Mower is the very best we ever saw, and there is no side-cut mower that can compare with it in any respect. V. E. PIOLLET,
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I have not found the place where I do not like the Eureka better than any side-draft machine I ever saw. As far as I have tried the Eureka it gives the most absolute satisfaction.
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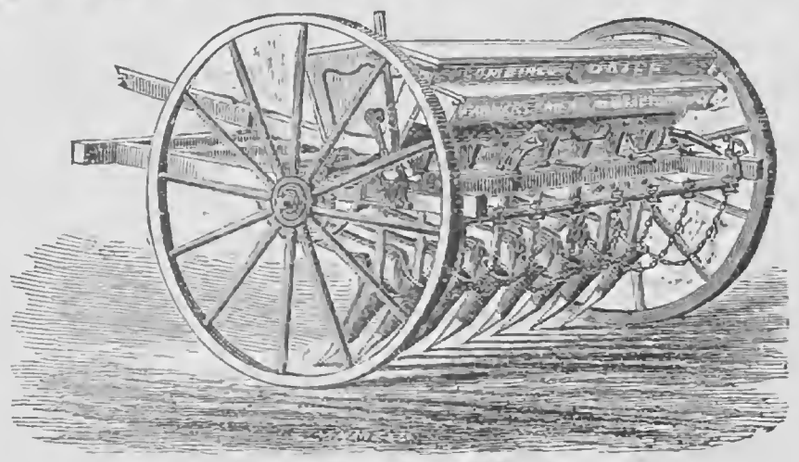

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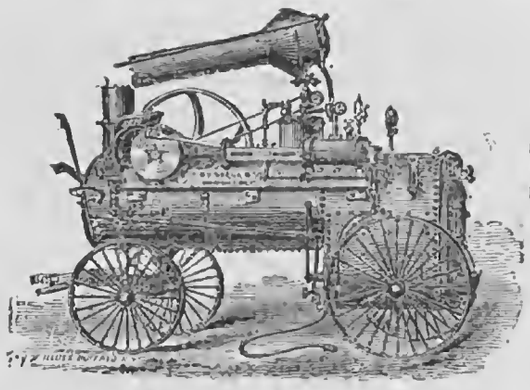

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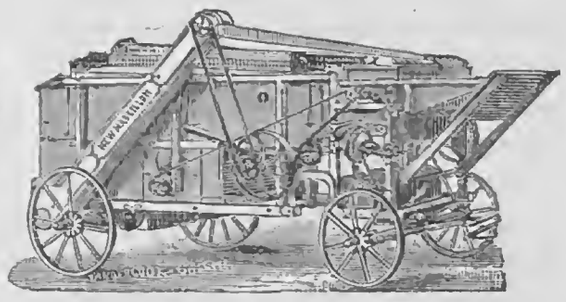

Massillon, O., Aug. 14th, 1879.

Messrs. Editors:

Please say to our friends and patrons, through the columns of your paper reserved to us, that we have to use our Machines which we hoped to exhibit at the Fairs to fill orders. The demand has exceeded anything we have ever known, and we have been kept busy night and day filling orders and keeping up the supply as nearly as we could. The following letters, received as we write, are samples of many; they explain our inability to keep pace with orders, better than any words of our own could.

Respectfully,

RUSSELL & CO.

Steam Corners, Ohio, August 12th, 1879.

Messrs. RUSSELL & CO.

* * * * * I have been very busy. I am just knocking the socks off of all the machines in the market in our County. I have more work than I can do. The Machine (a "New Massillon, No. 7,) does such complete work in all kinds of grain. There were two men to see it to-day, and it took their eye so that they wanted me to write to you and see whether you had any more machines the same as mine, and what they could buy one for.

J. H. YEAGER.

Shingle Creek, Minn., August 7th, 1879.

The "New Massillon" Thresher we bought of you we have run three days. We are well pleased with it because of the lightness of draft and capacity. We have threshed 110 bushels per hour, which we consider big work for a 30-inch cylinder. Then it cleans first rate; wheat being hauled from it without fanning and taken for No. One. We have run several of the different makes of Machines and think this is the best we ever used.

M. J. SULLIVAN, DAN SULLIVAN, CHAS. BOHANON.

Speryville, Va., August 12, 1879.

Messrs. RUSSELL & CO.,

The Machine (a "New Massill n," No. 7,) I bought of you acts splendidly, gives me entire satisfaction. I think it the best machine made. * * * *

A. A. SWINDLER.

THE
RURAL NEW-YORKER.
PUBLISHED EVERY SATURDAY.

CONDUCTED BY
ELBERT S. CARMAN.

Address
THE RURAL NEW-YORKER,
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Six months	1.10

The above terms are invariable. The reduction from $2.50 to $2.00 makes the RURAL NEW-YORKER the cheapest paper of its class in the world. We have therefore no club price. The price is the same to all, whether a single copy or one hundred copies be ordered. Any of our friends who are willing to act as agents, will find our terms fully stated in our premium lists which will be sent free to all applicants. Agents will be supplied with canvassing outfits on application. Our advertising rates will be found on page 581.

Our readers, friends and agents are invited to send to us for as many copies of this Fair edition of the RURAL *as they would be willing to hand to their friends. They will be at once mailed without charge. Secretaries also will be supplied with any number of copies they may desire to have distributed at their respective Fairs.*

TO OUR FRIENDS—THE READERS AND SUBSCRIBERS OF THE RURAL NEW-YORKER.

WE need scarcely request you to read the several columns under our "Free Seed Distribution," since it concerns you as much as it concerns us. Our seed is all secured beyond a question—at least we believe it to be—and the kinds offered have been selected with little regard to their cost, but with the greatest regard to furnishing you with the most valuable seeds that could be selected. They are fresh seeds, and true to name—*we guarantee it.* Most of them may be easily raised by the amateur; and for those requiring special treatment, we shall furnish plain and ample instructions. It is our interest as well as our pleasure to furnish the choicest and rarest seeds. Thus we secure your thanks and kindly wishes—thus we benefit the horticultural and agricultural world. With the assistance of one of our first seedsmen, we have estimated the retail value of our seeds and plants as follows:

Cuthbert Raspberry, two plants to each subscriber	$0.25
Mold's Ennobled Oats	.10
Telephone Pea	.25
Abies Sibirica	.25
Magnolia Seeds (ass'd, including Soulangeana Lennei, &c.)	.25
Iris (seeds from seedling I. Kæmpferi)	.25
Hybrid Pentstemons	.50
Bebb's Hybrid Aquilegias	.25
Aristolochia Sipho	.25
Ipomœa Leptophylla	.10
	$2.45

The above figures ($2.45) for novelties or rare seeds, are entirely within all proper limits, as may be seen by glancing at the catalogues of our prominent seed merchants. Those who desire the seeds we offer, if they could be purchased at all, would be obliged to pay at least the sums we have attached to them. We offer them to our *subscribers* free of all cost, except postage—a part of which, as in all of our previous seed distributions, we ourselves bear. Assisted by our experience in putting up over 250,000 packets of seeds during the early part of this year, we hope to avoid all mistakes, or, should any occur, to remedy them promptly.

With cordial greetings to you kind Readers and Subscribers—with the hope that you and we may live long enough to serve with telling effect the great and noble cause of agriculture and horticulture, we subscribe ourselves,

Your obedient servants,

THE EDITORS AND PROPRIETORS
OF THE RURAL NEW-YORKER.

READERS, PLEASE NOTE.

IT will be useless for any persons to apply for our seeds or plants unless they are yearly subscribers. The reasonableness of this restriction will appear without further remark. We might be willing, or even desirous, to supply our seeds to all who read our announcement; indeed, we would be glad to do so since there is no more effectual way of promoting the interests which the RURAL has at heart. But this is obviously impossible. Hence, we strictly limit our distributions to subscribers.

We desire to make it plain, also, that our seed and plant distributions are in no sense *premiums.* As it is optional with us whether we offer them or not, it is our privilege to state when the distributions shall begin and when they shall be discontinued, so long as we liberally fulfill every obligation to which we commit ourselves. We had it in mind to offer other plants or seeds, or both, during next year, the same as we have done during this year. But exigencies which it is impossible to foresee at present may prevent. We, therefore, make no promise.

As regards postage: There may be some of our subscribers who do not care for Raspberries, or who have no place for them. In such case a TWO-CENT stamp only will suffice for all the others, leaving out the two plants of Cuthbert. If, therefore, our subscribers send us a two-cent stamp, we shall know that they order all except the Cuthbert. If six cents' worth of stamps be sent us, we shall know that the entire collection is ordered. In other words, we charge our patrons two cents postage for the nine sorts of seeds, and four cents postage for the Raspberries. The rest of the postage, as well as the entire cost of raising, purchasing the seeds and plants, and the cost of putting them up, printing, envelopes, &c., &c., *are borne by us.*

In conclusion, we would say that in due time we shall give the most explicit directions as to the treatment of our seeds, so as to insure germination and healthy growth. We respectfully urge our friends to follow such directions as closely as may be.

EXPERIMENT GROUNDS OF THE RURAL NEW-YORKER.

AS MOST of our readers are aware, the Experiment Grounds of the RURAL NEW-YORKER consist of a fraction over 82 acres. Of these 80 acres are the Rural Farm, situated in Kings County, Long Island, 20 miles from this city, and within sight of the ocean. Here we test all sorts of seeds and plants which appertain rather to agriculture than to horticulture. The remaining two acres and a fraction are designated in these columns as "The Rural Grounds." They are situated about 17 miles from New York, in Bergen Co., N. J. Here we test all kinds of shrubs and trees which are said to be hardy, as well as grapes, all small fruits, novelties in vegetables, &c., &c. Hence it is we are enabled to state from experience the probable value or worthlessness of the hundreds of high-priced novelties which appear from season to season, for the benefit of those who read this journal. The sketch of the Rural Grounds (see page 565) is by our regular artist, and as accurate in details as its size permits. The vegetable and small fruit plots and the vineyard are not shown for want of space. By reference to this picture the article by Mr. Georgeson ("A Visit to the Rural Grounds,") will be read more understandingly. In these days of "Garden Parties," we wish it were possible to have all of our subscribers visit us at the same time. No doubt the "interchange of ideas" which would be a pleasing feature of the gathering, would prove of "mutual benefit." As this, however, is quite out of the question, we constantly endeavor to place the RURAL and its appendages as familiarly before our readers as possible; and it is to this as much as any cause we attribute the freedom with which they reciprocate by their ever-welcome letters and communications.

THE WORLD IN WAX.

AN artificer in wax has recently constructed a terrestrial globe, with all the prominent geographical points laid down in wax. At first thought this merely strikes an observer as an ingenious selection of material for ease in working. But when we hear the man's story, a new idea, which is well worthy of general application, presents itself. It is but two months since the artist was able to complete his work, in consequence of the constant new discoveries of boundaries of sea and land; hights and localities of mountains; courses of rivers; alterations of political boundaries, and other reasons for changes in the contour of his work. Even now, after two short months only, a new set of changes is needed, and so it will go on, never ceasing while the forces of nature are at work, or the knowledge or intelligence of mankind is defective. There are many blank spaces, too, where "unknown" may be written, for all the enterprise and effort of man have been as yet unable to penetrate the mysteries of many parts of the earth's surface.

What an illustration is here afforded of human knowledge. Thirty centuries ago Solomon wrote, "there is nothing new under the sun; that which hath been is now; and that which is to be hath been already." Since then men have thought likewise, and that "wisdom would die with them." But in our present light, how evanescent seem to be the boundaries of our knowledge! Were we to map them in any less plastic material than wax, which can be molded, pressed together, cut off here, added to there, spread out or taken in, the work would have to be destroyed daily, and our map-maker would be kept steadily at work demolishing to-day what he made yesterday, and continually laying out a new plan.

We all work in wax. Let no man think that he has attained the end of all knowledge, even in the small affairs of his own occupation. Else, his work, being in wax, a bright ray of sunlight bringing in the warmth of a new fact, will melt the edge from a jutting point, and where there was a mountain of certainty laid down, lo! there may be a sea of doubt, of unknown depth, whose sounding is yet to be accomplished. This has two bearings; one that shall make the man of knowledge modest, thoughtful, tolerant of others' opinions, always remembering that his own work is as wax; the other, that shall make him diligent to search for the weak points of others' work, exposing it to the warmest investigation, testing it, and never thoroughly basing his own standing upon it until he is satisfied that it may bear the weight and warmth of full criticism. It has one general application, which is that we should always be ready to listen to the expression of others' opinions; always prepared to learn; ever on the watch for information, and ready to turn this to practical use; to be tolerant of others' mistakes; to be never ashamed to change an opinion when there are good reasons for it, and to be cautious of expressing crude ideas, lest some hasty person may plump down a lump of wax on his map and call it a landmark.

Cultivation of Wheat in England.—Dr. J. B. Lawes, of Rothamsted, in reply to an inquiry, writes us in a private letter as follows:

"No one here cultivates wheat, nor has thin seeding ever made much way. At the present moment the great bulk of the wheat grown in this country is drilled in rows about five inches apart, and the seed used is about two bushels per acre. It stands to reason that if one plant of wheat has possession of one or two square feet of soil, its power of growth must be increased; but except upon garden soil, or upon farms in excessively high condition, I feel sure that thin seeding will never be successful."

BREVITIES.

FAIR play.

DOES Farming Pay? See page 577 for answer.

IS Queen of the Market another name for the Cuthbert Raspberry?

DISPARAGING your neighbor's exhibit at the fair will not help your own.

SECRETARY Garfield says that committees too often "guess the pulp before they cut the peel."

"I LEFT better at home" says the grumbler at the Fair. Why didn't you bring them Mr. Grumbler?

SEVERAL of our most prized articles, prepared expressly for *this* number, are crowded out much to our regret.

OUR usual departments of Markets, News, Floriculture, The Woman's Club etc., etc., are crowded out of this issue.

ALL who intend to apply for the seeds and plants of our present Distribution will do well to keep this number for reference.

THE unfairest part of many fairs is the almost indiscriminate manner in which premiums are awarded. That should be the fairest part of fairs.

A SPECIAL Wheat number of the RURAL NEW-YORKER will follow this Fair number. Our next special thereafter will be a Potato number.

SIX subscriptions ($3.00 each, our only price) will entitle the sender to one copy of the RURAL NEW-YORKER for one year. This only to Jan. 1st.

PLANT Raspberries and Blackberries, Currants and Gooseberries, Strawberries and Grapes. They will cost you little; they will help you much.

AGENTS, or those who are willing to act as such, are invited to send for our new Premium List which will be found to offer them unusually liberal compensation.

OF all the varieties of Strawberry we are now cultivating, "Shurpless" is the most vigorous. Plants of this can be determined at once by their fine fresh appearance, large stools and big leaves.

BLOUNT'S White Prolific corn and the Beauty of Hebron potato, distributed among our subscribers this year, have, so far as heard from, given great satisfaction. The best yields of corn will be published later, and due notice given of our premium awards.

A NOTE just received from Rural Farm says: "From 245 pounds of Beauty of Hebron potato we have dug 86 bushels—the yield will be at least one-third greater than that of Early Rose planted beside them, and treated in the same way. Our Pearl Millet will be a failure."

THE London Garden gives with each issue a colored plate of flowers. The Clematises Mrs. C. Jackman, white; Robert Hanbury, purple; Fair Rosamond, pink, are the subjects of the last. The Clematis is a beautiful flower and should find a place in every garden.

A GOOD county fair, says Dr. Hoskins, among all its other merits, is an evidence of thrift on the part of the farmers of the county. A poor farmer cares nothing about the fair. He has nothing to exhibit, and he dislikes to attend, for he is reminded by the elegant products which his neighbors display what failures he and his farm are.

OUR new premium list will be ready in a few weeks. There is scarcely a reader that will fail to be interested in it. It will offer valuable presents to all who send us subscribers, whether two, a dozen or a hundred. We have made these presents more valuable than ever before, desiring to reward those who increase the RURAL'S influence as liberally as we can afford to do.

ONE of our first pomologists writes us: "We should aim to make our premium lists and reports more truly and effectively *educational,* and to compel committees not only to judge carefully, but to give in their reports the true *reasons* for their conclusions; aiming also to discourage the time-honored practice of tempting the eye with enormous, overgrown and worthless sorts, by discrediting collections containing such."

THE Royal Agricultural Society's instructions to judges are: "As the objects of the Society, in giving the prizes for neat cattle, sheep, and pigs, is to promote improvement in breeding stock, the judges, in making their awards are requested NOT to take into their consideration the present value to the butcher of the animal exhibited, but to decide according to their relative merits for the purposes of breeding." Size and fatness seem to guide *our* judges.

"FROM an impartial and unprejudiced standpoint the New York State Agricultural Society, in the management of its annual fairs, is without a peer on this continent, and furnishes a model well worthy the imitation of the numerous societies in other States. The New York society seems to be conducted for the sole purpose of the advancement of agriculture," so says the Cultivator. Such is the general belief among those who attend this fair, no matter what State they come from. And yet horse-racing is not permitted.

THE request often made by publishers that readers will mention their journals when answering advertisements, seems to us a very reasonable one. Such mention is a helpful and friendly act to the journal mentioned and enables the advertiser to determine which journals are the best advertising mediums. Reference to our advertising columns will show there is not one advertisement of an exceptional or ambiguous character admitted. In so far as this is possible we hold ourselves responsible for their high standing and trustworthiness.

ESQUIRE WEBB, a farmer near the Rural Grounds, presented the writer with a nutmeg melon measuring two feet, nine inches in its largest circumference and weighing 12½ lbs. This was raised on a side-hill patch without extra cultivation. From time to time we have tested all sorts of musk-melons and we return to this as the very best for our soil and climate, whether for market or home use. Different kinds of melons cross so readily that many new varieties are announced in catalogues every year as possessing superior qualities. Though so easy to produce new varieties, they are generally short-lived because inferior. Hence it is that 50 new names could be mentioned that have been announced during the past five years, not one of which is worth a second trial.

T. T. LYON remarked last year before the Michigan State Pomological Society, of which he is the worthy president, that he was acquainted with a man in his county who had some little pears that at one time he considered of very little value. They would hardly sell in the market, and he had to give them away one year. But finally he could name his own price; people found out their excellence—they were Seckels. It is a matter of considerable surprise to us that people are so slow in demanding better quality in market *strawberries.* In the case of pears, however, it is comparatively easy for the purchaser to recognize varieties, while the generality of purchasers can not tell one sort of strawberry from another, and are, therefore, more at the mercy of the seller.

Literary Miscellany.

IN FOLLY'S NET.

CHAPTER I.

JEAN McLEOD.

"Who is the girl in white, with diamonds at her throat and in her hair, Kingston?" said Mr. Blair to his friend, Harold Kingston, as they stood together among a group of gentlemen, assembled at the entrance to Lady Kergenven's ball-room, one night when the London season was at its meridian, and every one was still in town.

"Lots of girls in white and diamonds, my dear fellah," said Mr. Kingston, contemplating the living picture before him with that insufferable assumption of indifference which some people think the hight of good breeding and refinement. "Which one do you mean?"

"I mean the girl opposite, talking to Algernon Murray," said Mr. Blair, rather impatiently. "Very good style, and good-looking to boot."

"Very good style! I should think so," said Mr. Kingston, with as much enthusiasm as it was possible for him to evince. "Why, that's the McLeod."

"The McLeod!" repeated Mr. Blair. "You talk as if she were the head of some clan or tribe, Kingston. Be more explicit, I beg, and recollect that I have just come from the Antipodes, and am not yet *au courant* with your fashionable slang, or the young ladies who queen it in this Vanity Fair of yours."

"I'll be as explicit as you like, Blair," replied his friend. "You shall know all about Miss McLeod before you are five minutes older. First and foremost she is a great heiress, worth ever so many thousands a year; she is of age, for she made her *debut* three years ago, when she was nineteen; as you say, she is good-looking, to use a very mild term, exceedingly clever, a wee bit of a flirt, and no end of a jolly girl. No nonsense about her, you know; not prudish, but frank and outspoken; a regular 'bonnie, sonsie lassie.'"

"What a tempting description," remarked Mr. Blair, laughing. "Do you know her sufficiently well to introduce me?"

"Rather," answered the other, confidently. "But I must warn you that she is already appropriated."

"Oh! what a confounded bore!" ejaculated Mr. Blair. "Who is the lucky man?"

"No less a personage than the Earl of Ivor, a countryman of hers and yours, *mon cher!*"

"Ivor!" An expression of anger, black as a thunder-cloud, crossed Mr. Blair's handsome face for a moment. "Indeed."

"Yes; they have been engaged a few weeks only."

"When does the marriage take place?"

"Not till Christmas; for Miss McLeod is still in mourning for her brother, who died in the spring of last year, and I suppose she enjoys her liberty too well to be in haste to relinquish it."

"Does she care for his lordship? Or is it the title which tempts her?"

"Not a bit of it; she has refused better chances; might have been a Duchess last season if she had chosen. She is spoony on Ivor, of course, and he is awfully gone on her."

"'Gone on her,' means in love with her, I suppose," said Mr. Blair, rather sarcastically. "Well, Harold, I am going to singe my wings like a poor moth, you know; so come and perform the ceremony of introduction, like a good fellow."

"You are rash, my dear friend. She is the most fascinating little woman in London, so be careful," added Mr. Kingston, as they began to make their way towards the young lady in question—the young lady watching their progress towards her with a gleam of amusement in her bright, brown eyes.

"May I have the pleasure of introducing my friend, Andrew Blair, to you, Miss McLeod?" said Mr. Kingston, desperately, over the head of a little swell who was entreating the honor of Miss McLeod's hand for the next waltz. "He is not long returned from Australia," he added, as, having dismissed the first claimant for the honor of a waltz, Miss McLeod turned her attention to the new-comers; "and for the last half hour has been worrying my life out for this honor."

"We found it very difficult to get to you, Miss McLeod," said Mr. Blair, in a deep musical voice, which took a soft, tender key as he spoke.

"Yes," she answered, with a frank laugh, "I saw you making signals of distress over the heads of all these people."

"Assembled here for business," he said, laughing also; "for you can hardly call that kind of thing pleasure."

Jean McLeod glanced at him rather approvingly as he turned his eyes from her face to the ball-room with its dancers, and ornaments, and gay hangings, and she slightly moved the rich folds of her white silk dress to give him an intimation that he might take a seat beside her—an intimation which Andrew Blair was not slow to perceive and take advantage of.

"I hardly dare ask you to give me a dance," he said, sinking on the cushioned seat by her side, and looking admiringly at the lovely, laughing face. "The last time I danced was before I went to Australia, when you were a little child, I should imagine, Miss McLeod; and I should think they are not dancing the same waltz now as they did then."

Design by W. H. H. DOES FARMING PAY? Drawn by Cronin.

"Very likely they are," she answered lightly. "You know waltzes are like everything else: if you keep them seven years they will grow useful. But I hope you won't ask me, Mr. Blair, for I am not fond of dancing, and I should not like to refuse you on so short an acquaintance."

"But you will sit this one out with me?" he said, eagerly. "Thanks, very much."

Andrew Blair was a tall, unusually handsome man, midway between thirty and forty, and consequently in the prime of manhood. His manner was pleasant and frank, and its charm was increased by the bright smile which showed the strong white teeth; and by the rich, deep, musical voice. With a few, however, he was not a favorite; some people look very deep into things and faces, and read in the latter what others do not; and one physiognomist said that Mr. Blair was deep, crafty, unscrupulous, and revengeful; quick to resent, and slow to forget—a man who would treasure up an injury, and revenge himself for it years after.

Jean McLeod was one of those persons whom he favorably impressed; and she was rather in the habit of taking people on trust, and was too frank herself ever to suspect people of being other than they seemed. How bitterly, and at the cost of how much suffering she expiated that trust in after years, our story will tell; she bought her experience at the cost of much happiness and almost of her life.

The young Scotch heiress had bright, laughing, wine-brown eyes, shaded by long lashes darker than her hair, which was of a rich, sunny, golden brown; her complexion was brilliantly fair and lovely; the soft bloom on her cheeks had not been spoilt by the dissipation of her London seasons, and men were wont to quote Miss McLeod as the perfection of healthful beauty.

She was a flirt and yet no flirt. She met men with their own weapons; laughed, chatted, danced and sang; let them talk nonsense, and repaid them for it in their own coin; but she was never known to lead a man on, and then throw him over, regardless of his pain. Her flirtation was partly unconscious, partly careless, but never with the intent to gratify her vanity at any cost. As Harold Kingston said, "she was a bonnie, sonsie lassie, with no nonsense about her." Add to this that she rode to perfection, was a capital "whip," a tolerable oarswoman, that she danced like the Muse of dancing herself, and sang with a voice fresh and sweet as a lark's, and you have a tolerable epitome of Miss McLeod's acquirements.

"I hope I am not preventing you dancing," said Mr. Blair, in a moment, speaking in that perhaps unconsciously lowered tone some men use whenever they address a woman.

"Not at all. My performance is over for to-night, I believe. I have got through my duty-dances, and Lady Sholto has given me my liberty for the next half-hour."

"Lady Sholto!" remarks Mr. Blair. "Is she your chaperone?"

"Yes; do you know her?"

"No; but if her husband's name is Arthur Crawford, we were at Eton together."

"Then her husband's name is Arthur Crawford," said Jean, with a gay laugh. "I am sure he will be delighted to renew his old acquaintance with you, for he is the most sociable of men."

"He was a jolly fellow as a boy, I remember," said Mr. Blair.

"And equally a jolly fellow as a man," said Miss McLeod, merrily. "I believe you are a countryman of mine, Mr. Blair?"

"Yes; although for some years I have lived abroad. My place is not many miles from Sholto Hall, and my father was a great chum of the late lord, who was living when I left England."

"He died about six years ago," Jean said. "We are all going to Sholto next month, I believe, or the month after," she added.

"Then as I am going to Blair Gates for the shooting season, I hope I shall have the pleasure of meeting you," Mr. Blair said, with a winning smile.

"I hope so," Jean said, with a laughing glance out of her brown eyes. "Don't you find it very warm here?"

"Yes. May I take you into cooler quarters?" he said, eagerly, half rising as he spoke.

"Where will you find them?" she asked laughing.

"In the conservatory," he answered, readily. "I am sure you will find it pleasanter there."

Jean rose, and slipped her little gloved hand through his arm.

"How shall you get there?" she said, laughing. "It is rather a difficult matter to pilot a train like mine through this crowd."

"I will brave the difficulty," he answered, in the same gay tone. "I will steer you through if you trust yourself to me."

"Very well, I will submit to your guidance," she rejoined, "and hold you responsible for the damage."

He laughed as he skillfully led her from the ball-room into the softly-lighted, deserted conservatory which was built out at one end, and which was quite empty when they reached it. Having placed Miss McLeod on a seat, Mr. Blair threw himself down beside her with a long-drawn breath of pleasure and relief.

"Admirably done," Miss Jean said, approvingly, as she glanced down at the long, rich folds of ivory silk which trailed beside. "One would think you had been used to crowded ball-rooms in the bush, Mr. Blair."

He laughed.

"You will submit to my guidance again, I hope?" he said, bending his head over her.

"Most readily," said Jean, lightly.

"I wish——" Mr. Blair began, then stopped suddenly. "I beg your pardon," he added in a moment; "I was going to say something foolish."

"I am used to hearing foolish things," Jean said, saucily. "Most people are in this sublunary sphere, Mr. Blair."

"Am I to consider that as an encouragement to say something foolish?" said Mr. Blair, bending his black eyes upon her with unmistakable admiration in their depths.

"No, certainly not," laughed Jean. "Only as a warning that such things are the *monnaie courante* of society, and that if you wish to be considered anything original you will not indulge such a propensity."

Mr. Blair sighed a little ostentatiously.

"Mr. Kingston is an old friend of yours, I think you said?" said Jean.

"An old friend?" he repeated, rather absently. "Harold Kingston? Oh! yes; I must apologise, Miss McLeod; I had forgotten all about him for the moment."

There was an implied compliment in his tone and words which made the corners of Jean's pretty mouth curl in a little smile. She was an excellent professor in the art of flirting, was Miss Jean; and Mr. Blair was also a tolerable adept. She glanced at him, and their eyes met; hers laughing, saucy, and a trifle mocking; his full of an almost fierce admiration under which Jean's long lashes drooped.

"Do people ever flirt in the bush, Mr. Blair?" she asked, demurely, playing with her fan.

"I think that people flirt everywhere, Miss McLeod," he answered, smiling. "It is such a charming pastime that one is sure to find its votaries in all climes; but," he added, "am I unfortunate enough to be so dreadfully awkward and boorish that you have made up your mind that I have come straight from the bush?"

"You are a clever angler, Mr. Blair," laughed Jean; "but you will not catch the compliment you are desirous of obtaining this throw. You said you came from Australia; that always means the bush, does it not? The bush or a sheep farm?"

Mr. Blair laughed.

"You acknowledge that they are two separate things then," said he, gaily. "When did you leave school, Miss McLeod? because you must have forgotten your geography if you believe that Australia only contains two species of inhabitants—sheep-farmers and bushrangers."

"I forgot convicts," said Jean, laughingly, "Ah? Mr. Blair, it is quite evident that you have been a long time abroad, or you would know that geography forms no part of the education of a young lady of the present day. I assure you if you were to put me through the capitals of Europe I should not be able to answer you correctly."

"Nay, that I am sure is a libel, Miss McLeod," said her companion. "I must even take your parry against yourself."

"When you know me better you will find that I am not at all in the habit of detracting from my value," answered Jean, with her sweet laugh. "My friends say that no one knows better, or understands more thoroughly *l'art de se faire valoir*."

"Then I will wait until we are friends before I form any judgment, Miss McLeod," he answered, adding, almost immediately, "that is if I ever *dare* be your friend."

Jean lifted her eyes a little haughtily; but her cheek deepened in color a little, and she became suddenly intent on the fastening of one of her bracelets.

There was a moment's silence, which Mr. Blair broke.

"That is a pretty waltz they are playing," he said. "The last time I heard it was at a ball at Adelaide."

"Ah! then they have balls there," exclaimed Jean, with the prettiest gesture of triumph. "I thought you were not a novice in the art of steering, Mr. Blair. I believe you can waltz equally well if you like. By-the-by, that reminds me that while I am lying *perdue* here, any unfortunate wight to whom I may have promised a dance, will be hunting for me in a state of distraction."

"But you are not going to dance again?"

"No; but I have promised to do so ever so many times."

"Do you ever keep promises?" he asked, laughingly.

"Sometimes," answered Jean, in the same tone, "when it is not inconvenient."

As she spoke, the sound of a footfall, coming along the Indian matting, with which the conservatory was carpeted, made Mr. Blair utter an exclamation of annoyance.

"I thought this paradise could not last much longer," he said, in a low, regretful tone. "Here comes some one to disturb us. I hope you are a little sorry, Miss McLeod?"

"It is Lord Ivor," said Jean, quietly, with the softest gleam of light coming into her lovely eyes. "Will you allow me to introduce you to each other?"

Mr. Blair bowed, and muttered something about "most happy," and "honor, I am sure;" but the same thunder-cloud passed over his handsome face as he waited for the intruder's approach.—*To Be Continued.*

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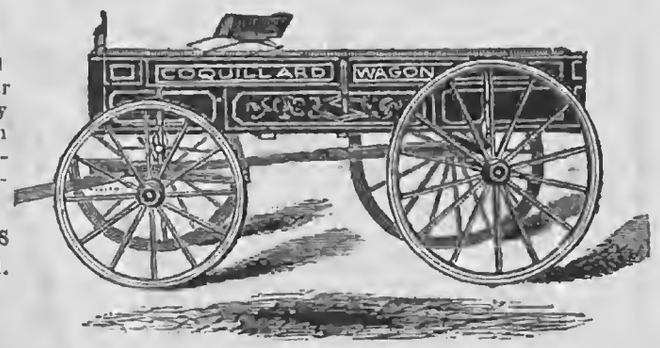

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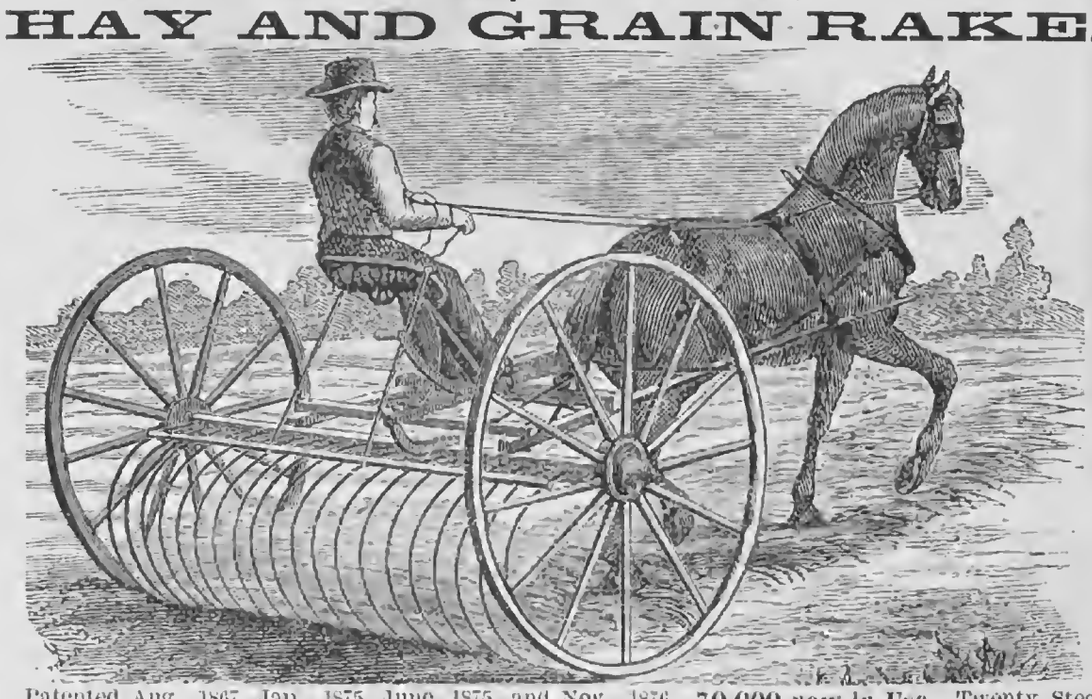

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ONLY A PIN.

Only a pin; yet it calmly lay
On the tufted floor in the light of day;
And it shone serenely fair and bright,
Reflecting back the noonday light.

Only a boy; yet he saw that pin,
And his face assumed a fiendish grin;
He stooped for a while, with a look intent,
Till he and the pin alike were bent.

Only a chair; but upon its seat
A well-bent pin found safe retreat;
Nor had the keenest eye discerned
That heavenward its point was turned.

Only a man; but he chanced to drop
Upon that chair, when, fizz-bang-pop!
He leaped like a cork from out a bottle,
And opened wide his valve de throttle,

Only a yell, though an honest one,
It lacked the element of fun;
And boy and man, and pin and chair,
In wild confusion mingled there.

[*Poems of Places.*

JOSH BILLINGSISMS.

If a young man hain't got a well-balanced head like to see him part hiz hair in the middle.

I don't take any foolish chances. If I wuz called upon to mourn over a dead mule I should stand in front ov him and do mi weeping.

There is no man so poor but that he kan afford to keep one dog, and I have seen them so poor that they could afford to keep three.

I say to 2-thirds of the rich people in this world to make the most of your money, for it makes the most of you. Happy thought.

I never argy agin a success when I see a rattlesnaix's head sticking out of a whole; I bear off to the left and say to miself that hole belongs to that snaix.

I thank the Lord that there is one thing in this world that money kant buy, and that iz the wag ov a dog's tail.

I notiss one thing, the man who rides on the kars every day is satisfied with one seat, but he who rides once a year wants four.

Flattery is like colone water; to be smelled of, not swallowed.

The man whom you kant git to write poetry or tell the truth until you get him haff drunk, ain't worth the investment.

THE STUDENTS OF EASTMAN'S BUSINESS COLLEGE are the recipients of many valuable favors through the generosity of the management. Among these are courses of lectures. The following extract is from "Crises in Life," a lecture delivered by Rev. Wm. Lloyd, before the College:—

In every human life critical periods occur, and it is an exceedingly easy thing to mistake or even miss them when they come. According as the choice is made at such times, life becomes invested with happiness or mantled in misery. Much of future character and destiny is wrapped in decisions then made.

The first crisis is the choice of a business or a profession. Sometimes it seems to be perfectly easy to decide the question, what shall be the business or the profession in which a man shall engage.

Especially this is the case where a young man's father and perhaps his grandfather have been engaged in a given line of business or in a certain profession. An old bachelor being asked why he was a bachelor, answered that he did not know unless it was because his father was a bachelor.

THE school-boy, Prince Victor Napoleon, recapitulates the history of his ancestors:

Number 1, died at St. Helena, a prisoner of the English.

Number 2, died on foreign soil.

Number 3, died in exile.

Number 4, died in exile, and in the service of England, the jailer of Number 1.

"And they propose," murmurs the school-boy, sadly, "that I shall continue the figures in this fatal series? Thanks! I would a hundred times rather stay here in the school of Charlemagne, until I am seventy years old, than be their Number 5!"

IF a musket ball be fired into the water it will not only rebound but be flattened; if fired through a pane of glass it will make a hole the size of the ball without cracking the glass; if suspended by a thread it will make no difference, and the thread will not even vibrate. Cork, if sunk 200 feet in the ocean, will not rise on account of the pressure of water. In the Arctic regions, when the thermometer is below zero, persons can converse more than a mile distant. Dr. Jamison asserts that he heard every word of a sermon at the distance of two miles.

Boots of great men all remind us,
We can make our souls sublime;
And, departing, leave behind us
Footprints that are seven by nine.—*Tennyson.*

VERILY there is nothing in this life wholly good or wholly bad.—*Boston Transcript.* Ain't, eh? You forget the egg.—*Count Joannes.*

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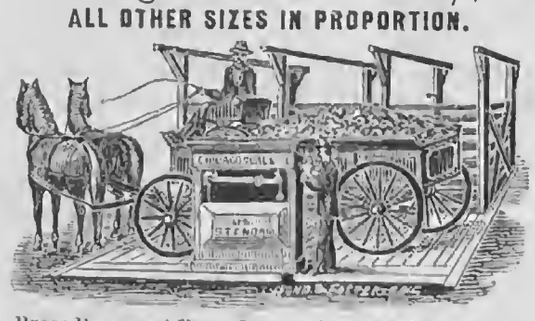

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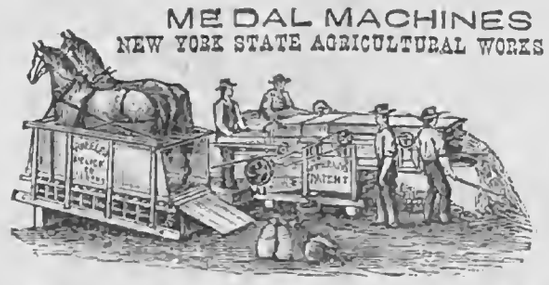

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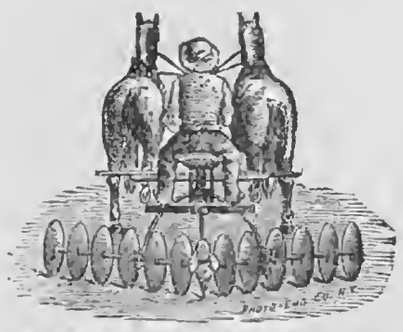

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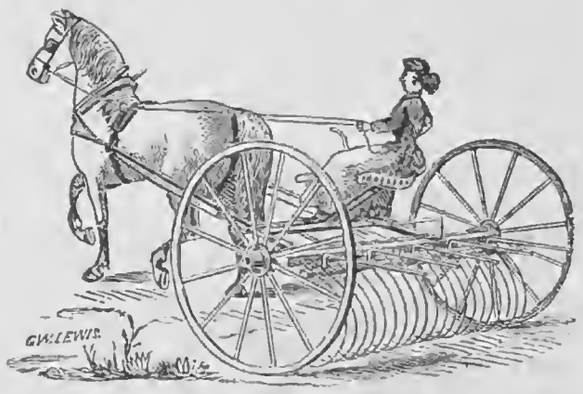

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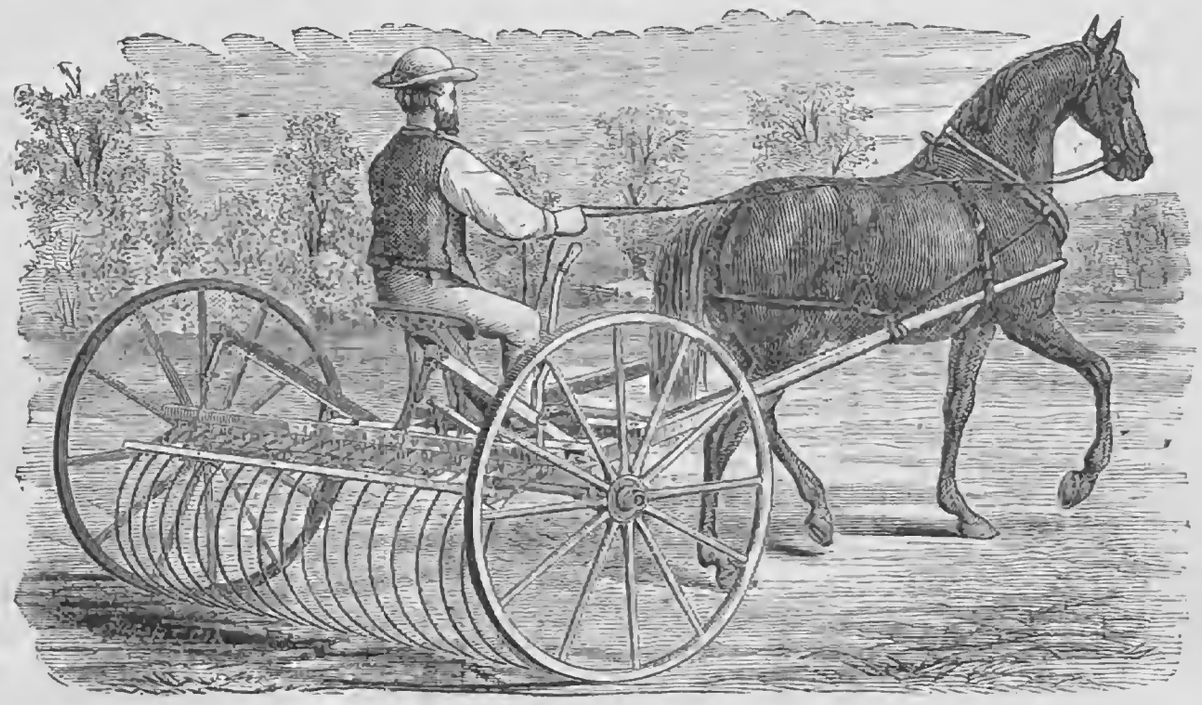
WHEELER & MELICK CO., Albany, N. Y.

THE "THOMAS" RAKE.

Remarkably Light Draft.

Driver's Weight Dumps It.



Simple, Strong, Durable,

Free From Repairs.

THERE WERE MORE THOMAS RAKES SOLD DURING THE SEASON OF 1879 TO FARMERS IN THE UNITED STATES, THAN OF ANY OTHER RAKE.

It is an easy matter to call any rake the "best," and most manufacturers do so, no matter how poor the rake. The place to show whether a rake is *the best* is on trial *in the field*. We claim that the Thomas Rake does not require *one-fourth* as much repairs as others; that it works easier, takes up the hay in better condition, and our agents are always ready to prove these things to be true on trial *in the field*, with any other rake made. If these things are true, the "Thomas" is what every farmer should have. If they are NOT true, no farmer should buy them. The largeness of our sales show our claims to be true. It is sold by reliable agents *everywhere*.

If there is no agent in your town, send for illustrated circular to

J. H. THOMAS & SONS, Manufacturers,
Springfield, Ohio.

1,000,000 FARMERS WANTED

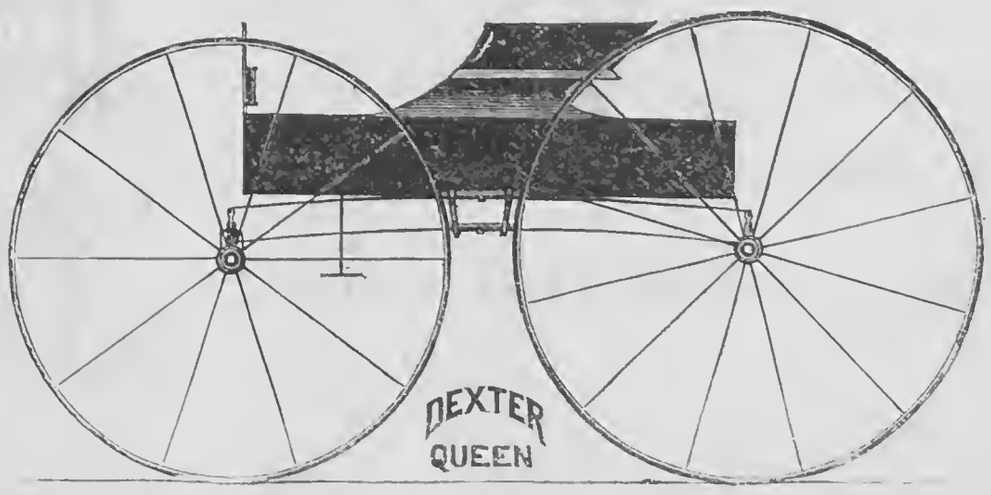
TO TRY THE CELEBRATED DEXTER SPRINGS!

The Easiest, Cheapest and Most Durable Carriage Spring Known.

THE DEXTER SPRING CO.'S QUEEN Is admitted to have more good points than any other vehicle in use. The use of the *diagonal lower springs*, with the *parallel top springs*, form a combination of great merit, as attested by the increasing orders for *DEXTER QUEENS*. In the Queen we use for shackles, stays, &c., only the best drop forgings, and in our spring manufacture continue to use only our celebrated brand of *Dexter Crucible Cast Steel*.

We also continue to manufacture our standard goods, the reliable old *DEXTER* and *DEXTER KING*, with Improved Wrought Wheel. We claim that all persons using the combination of diagonal and parallel springs, arranged as in our Queen, are infringing our patents, and we are pressing test suits with all possible vigor. If there is no agent or dealer in your neighborhood, we will send complete set of Springs to you direct, at a very low price. Every Spring fully warranted to be as represented.

THE
CELEBRATED
DEXTER,
Dexter King
AND
Dexter Queen
SPRINGS.



For full particulars, address the

DEXTER SPRING CO.
HULTON,
ALLEGHENY CO.,
PENNA.

W. W. GRIER,
Sec. & Treas.

We make all our own Springs of the Best Crucible Cast Steel.

MANY THOUSAND DEXTER VEHICLES NOW IN USE.

PERSONAL ITEMS.

The estate of O'Brien, the California mining speculator, turns out to be worth $9,000,000.

Leland Stanford, ex-governor of California and president of the Central Pacific Railway, is going to Europe. Mr. Stanford is a Hercules in size, and is a great lover of horseflesh. He is very much troubled by the political prospect in California, and so is every other capitalist in California, and not a few outside the Golden State.

Mr. W. H. Vanderbilt does not "point with pride" to his record as a Staten Island farmer. He says that the only thing he raised successfully was the fever and ague. All which shows that a bad farmer may become a successful money-making machine in the form of a capitalist: but it has not yet been shown that a bad business-man can make a good farmer.

Miss Perkins, of Ebondale, Iowa, used her artistic skill in drawing caricatures of gawky Mr. Filer, who had offended her at a ball. These pictures were displayed in the window of a store, to the great irritation of Mr. Filer. He was perplexed as to a means of retaliation, but finally decided to whip Miss Perkins's brother, and did it so thoroughly that the sufferer was for a week confined to a bed.

CAUTION.—The *National Dispensatory* says of Tonka Beans: "They are usually covered with a "crystalline efflorescence or coumarin. Given to "dogs in the dose of from seven to ten grains, "this substance produced great and even fatal "depression; and in man in the dose of from thirty "to sixty grains it occasioned nausea, giddiness, "depression, vomiting and drowsiness." Many of the spurious compounds purporting to be pure Extract of Vanilla are prepared principally from Tonka Beans.

Housekeepers who study their interests will demand of their grocer strictly pure vanilla only, and refuse to accept of an adulterated compound, which may render the dealer a better profit.

Burnett's Extract of Vanilla is prepared from selected vanilla beans, and is warranted entirely free from Tonka or other deleterious substances.

Kidney and Urinary complaints of all kinds permanently cured with Hop Bitters.

IN the European harvest just closed the most distinguished honors seem to have been awarded to an American Harvesting Machine—the Buckeye. The grand Gold Medal offered by the Agricultural Society of France was awarded to the Buckeye Self-Binding Harvester. The only other American competitors for this prize were the McCormick, Wood, and Osborne Self-Binders. The Buckeye also took the first prize and carried away the Gold Medal offered by the Royal Agricultural Society of Spain for Self-Binding Machines.

Buckeye Reapers and Mowers are also distinguished by a long list of first prizes and medals, in various parts of Europe, showing at once the thoroughness of the introduction and appreciation of this famous American machine.

THE season for contracting that disagreeable and really serious disease, Catarrh, is at hand. Dr. Sykes, of Chicago, has a remedy that he offers this week, in which he has the greatest confidence. He has the most positive assurance of those who have tried it that it will do all that is claimed for it.

Murray & Lanman's Florida Water is one of the surest and speediest of cures for every form of nervousness. It relieves headache when other applications completely fail. It reinvigorates the fatigued and overtaxed body, and it imparts force and buoyancy to the mental powers.

Sour stomach, sick headache and dizziness, Hop Bitters cures with a few doses.

ADVERTISING RATES:

Inside, 14th and 15th pages (Agate space)..40c. per line
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Discount on 4 insertions, 5 per ct.; 8 ins., 10 per ct.; 3 ins., 15 per ct.; 26 ins., 20 per ct.; 52 ins., 25 per ct.
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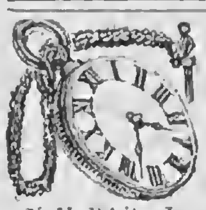


FINE WATCHES LOWER.
New Price List of American Waltham Watches, with description and prices of over 100 fine Gold or Silver Watches sent *free* to any address. It describes how I send Watches to all parts of the country to be fully examined before paying any money. Undoubted Reference given, perhaps in your own town.
N. H. White, Jeweler, Newark, N. J.

STEVENS' PATENT
BREECH-LOADING
Sporting Rifles,

Double and Single-Barrel Shot-Guns, Pocket Rifles, Pocket Pistols and the noted Hunter's Pet Rifles. Special attention is called to our Double Breech-Loading Guns. They are simple in construction, and manufactured with great care from the very best material. They are pronounced by experts "the best gun in the market for the money." Send for catalogue and *Reduced Price-List*. Our Shooting Gallery Rifle is the favorite everywhere. Our new ten-gauge Single gun—price (reduced list) $15.50. J. STEVENS & CO., Chicopee Falls, Mass.

GOOD FOR MAN AND BEAST

PROF. ANDERSON'S

DERMADOR.

GOOD FOR MAN.

Inflammation of all kinds, Diphtheria, Wounds Bruises, Burns, Sprains, Rheumatism, Sore Throat, Swelling of the Glands, Inflammation of the Eyes, Broken Breast, Frost Bites, Chilblains, Piles, Bee Stings and all sores.

GOOD FOR BEAST.

Fresh Wounds Galls, Sprains, Bruises, Cracked Heel, Ring Bone, Poll Evil, Wind Galls, Spavins, Sweeney, Founder, Lameness, Sand Cracks, Scratches or Grease, Mange, Horse Distempers, Etc., Etc.

Cures Garget, Sore Teats and Bags, and all Sores and Swellings in Cows and Oxen.

For more extended remarks and for a large number of testimonials voluntarily sent to us by the persons whose signatures are attached, we refer you to our Circular Pamphlet around bottle.

We would say to Livery Stable Keepers, make it a point never to be without this great remedy! It is a cheap, efficient and sure medicine. With this "Dermador" there is no such word as "FAIL." It never blisters, but cools. Price 25 and 50 cents. Sold by all druggists.

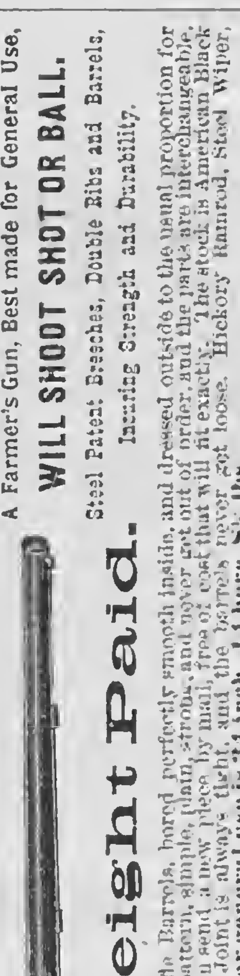
D. RANSOM, SON & CO.,
BUFFALO, N. Y.

NO. 99 NEW MODEL GUN. MUZZLE LOADING, DUCK, BIRD OR SQUIRREL.

$16.00

A Farmer's Gun, Best made for General Use,
WILL SHOOT SHOT OR BALL.
Steel Patent Breeches, Double Ribs and Barrels, Insuring Strength and Durability.

$16, Freight Paid.



The above gun is made of U. S. Springfield Rifle Barrels, bored perfectly smooth inside, and dressed outside to the usual proportion for double gun. The Locks are of an entirely new pattern, simple, plain, strong, and never get out of order, and the parts are interchangeable, so that should any part break or wear out, we can send a new piece by mail, free of cost that will fit exactly. The stock is American Black Walnut, Oil Finish. The new Patent Break-off Joint is always tight, and the barrels never get loose. Hickory Ramrod, Steel Wiper, Brass Rodhead, Dark Stained Barrels. **The Best Size for general use is 34 inch, 14 bore, 8½ lbs.**

THE WHOLE GUN IS DURABLE, STRONG, NEAT, and we warrant them to shoot from 60 to 100 yards, as to size, weight and length. They are made for any kind of shooting, from a light wing gun, 28 inch, to heavy duck gun as long as 40 inch, and from 10 to 18 bore, 7½ to 10 lbs. weight. Short guns light, long guns heavy.

THE PRICE OF THE GUN IS ONLY $16. A sample sent, securely boxed, express paid, anywhere, on receipt of price, or $5 to insure taking, balance C. O. D. and privilege of examining before paying any more. **This is the Best Gun for the price in the World.**

A Powder Flask, Shot Belt, Box of 250 Wads, 100 Water Proof Caps, sent free with each of these Guns. Satisfaction guaranteed or money refunded. The guns are now ready, and all orders filled at sight. Not one ever returned. **Agents ordering Six Guns at once, get the Seventh Gun Free:** That is, Seven Guns and all fixtures, freight paid, for $96. Remit by Bank Draft, P. O. Order, Registered Letter, or by Express, at my risk, and send full P. O. address and nearest express station. Persons who do not wish to risk their money with strangers may send the amount to Geo. M. Petty, Cashier Market Bank, Pittsburgh, or to J. Scully, Cashier Diamond National Bank, Pittsburgh, with instructions to pay me when the gun has been shipped. This gun is bored on scientific principles, for the concentration of shot at long range. Full directions for loading sent with each gun. Send stamp for our 68 Page Catalogue.

One Gun and Fixtures, as sample sent, freight paid, for.......... $16.00 | Three Guns and Fixtures, as sample sent, freight paid, for......... $45.00
Twelve Guns ... 156.00 | Six Guns ... 84.00

J. H. JOHNSTON, Great Western Gun Works, 169 Smithfield Street, Pittsburgh, Pa.

Our New No. 999 **BREECH LOADING** Double Barreled Shot Gun, with One Dozen Shells, 12 bore, 30 or 32 in. price only $25.00. 10 bore, 30 to 33 in. $27.00.

☞ State you saw this in the Rural New-Yorker.

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MANUFACTURER OF

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The Agricultural Pyramid.

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Assets Jan. 1st, 1868, $353,076.00
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Assets Jan. 1st 1870, $487,764.00
Assets Jan. 1, 1871, $541,357.00
Assets Jan. 1, 1872, $623,055.00
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Assets Jan. 1st, 1874, $800,070.00
Assets January 1st, 1875, $1,003,366.00
Assets January 1st, 1876, $1,028,269.00
Assets January 1st, 1877, $1,050,622.00
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The attention of owners of Farm Property and Residences is invited to the pyramid above, which shows the uniform and sure growth of the AGRICULTURAL INSURANCE COMPANY of Watertown, N. Y., during sixteen of its 26 years of existence. The figures represent the amounts set apart at the dates given for the

PROTECTION OF ITS POLICY HOLDERS.

Twenty-six years of patient toil has made this the strongest and largest Company, doing an exclusive Dwelling Business in the United States, if not in the world. *It now issues 45,000 policies a year.* No other like Company can show such growth and increase.

The history of this Company proves that a LARGE business, well scattered, managed with prudence, can be *done with a very small profit from each risk,* and afford perfect security, which

Will Grow Stronger Every Year.

While nine-tenths of the "Mutual" fire insurance companies, and many of the stock companies have failed on account of reckless or extravagant management, or doing too small a business, the

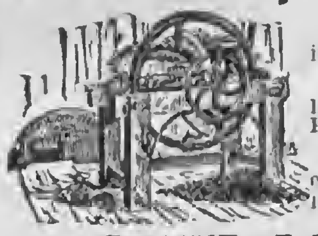
OLD AGRICULTURAL,

by economy, energy and prudence, has every year added a substantial amount to its Assets for the indemnity of its patrons, and it now occupies a position in the confidence of the public second to none.

From year to year it spreads the base of its Pyramid and gains strength.

Capital Stock, - - - - - $200,000.00
Nett Surplus, - - - - - 216,645.62

The Belle City Feed Cutter.



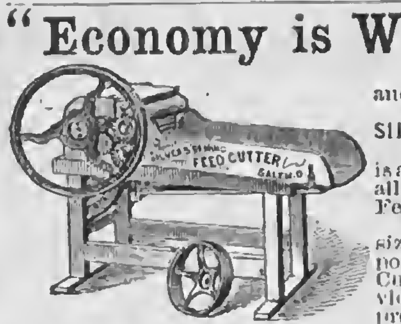
The best Feed Cutter in the world.

The only one that runs light enough for Wind Power.

Send for Circular, references, &c. Name this paper when you write.

DAVID LAWTON,
Manufacturer,
RACINE, WIS.

"Economy is Wealth."



Cut your Feed and save money. THE SILVER & DEMING Feed Cutter is acknowledged by all to be the best Feed Cutter made. We make seven sizes for hand and power. Our Power Cutters are provided with an Improved Safety Fly-Wheel, which prevents accidents so common to power Feed Cutters. Send for Circular and Price List.

SILVER & DEMING MAN'F'G CO.,
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Improved Baldwin's
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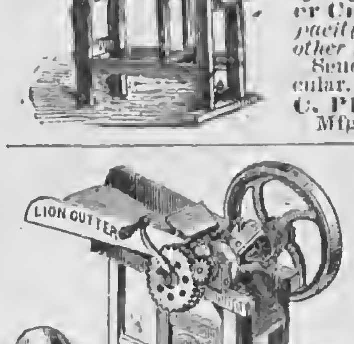
Easiest running, fastest Cutting Machine in the market. **Improved safety Fly Wheels for Power Cutters.** *Feeding capacity excels that of any other Cutter in the market.* Send for illustrated circular.
C. PIERPONT & CO., Mfgs. New Haven, Conn.



Lion Feed Cutter, combining the latest best improvements. Also Gale's Feed Cutters, both cylinder and lever, and Belcher & Taylor's Root Cutters. For full description send for illustrated catalogue and price list. Address The Belcher & Taylor Ag'l. Tool Co., Chicopee Falls, Mass.

A RARE CHANCE.—For sale an established greenhouse and nursery business, having a good and rapidly increasing trade. A splendid opportunity for one with a small capital to engage in a pleasant and paying business. The place contains 22 acres. Buildings new and good. Terms easy. For full particulars, address EUGENE BARKER, Churchville, N. Y.

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PLANTS OF THE CHOICEST SMALL FRUITS.
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CUTHBERT RASPBERRY and **GLENDALE STRAWBERRY,**
The two great market berries, in large supply—fine plants.
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For *Garden planting very extra stock.* Sharpless, Forest Rose, Downer's Prolific, Beauty, Continental and Cinderella, 60 cts. per doz., or 6 doz. for $3.00. Crescent, Centennial Favorite, Great American, Boyden, Chas. Downing, Capt. Jack, 40 cts. per doz.; 6 doz. for $2.00 securely packed and delivered at express office; not less than one dollar's worth sent. Address, **F. L. PERRY,** Canandaigua, N. Y., or **WM. PERRY & SON,** Bridgeport, Conn. Plants shipped from either place. Our new Catalogue describes NEW APPLES, PEARS, PEACHES, QUINCES, GRAPES, &c.

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E. P. ROE has the largest and finest stock in the country of this unequalled market Raspberry. The wide and varied test of the past season proves it to be the **finest,** largest, hardiest, bright red raspberry before the public. A third larger and twice as productive as the Brandywine, and so remarkably firm that it can be shipped by rail to market. It has yielded at the rate of $800 per acre. **Fall is the time to plant.** Also a superb stock of

STRAWBERRY PLANTS.

125 kinds, true to name, **pot-grown and layers.** All the new and standard Raspberries, Currants, etc. Large, first-class, and varied stock of

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Descriptive Catalogue free to all. Address
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Over 25,000 Now in Use.

Every machine is guaranteed to give satisfaction or no pay. Price of Mill, $12. Shellers, $5. Every Farmer should have them. Send for Illustrated Circulars and terms to agents. Address,
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75 per cent. saved in freight, with no breakage in carriage or putting on. ☞ Will last a life-time. Send for full description and prices to the

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THE LARGEST ASSORTMENT OF
Weather Vanes
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MANUFACTURED BY
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Double Refined, Pure Dairy Salt,
Is the Cheapest, Because the Best.

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THE GENUINE BLANCHARD CHURN.
Five Sizes made for Family Use. They continue to be the Standard Churns of the Country.

The Blanchard Cylindrical Factory Churn.
Four Sizes made for Factory Use. They are made of perfect stock and the best workmanship, and are strong, simple, efficient, convenient and durable. Send for Descriptive Circulars.

The Blanchard Power Butter-Worker.
A New and Important Invention.

On receiving the retail price ($20), we will send one of these Power Butter-Workers to any responsible party, *and guarantee satisfaction*, or the money will be refunded.
It is a surprise and delight to see how the hardest part of dairy labor is, by this ingenious machine, made so simple and easy that a child fourteen years old can do it all.
This is the *only* Butter-Worker made which can be successfully operated with power. It will save its cost every season. Address the Inventors and Sole Manufacturers,

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The above goods may be obtained of any dealer in *really first class* Dairy Implements in the United States.

CHEAPER THAN HOME-MADE,
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BONES OF ANIMALS DISSOLVED IN ACID.

BAUGH'S AMMONIATED DISSOLVED ANIMAL BONES.

This article has been used for years by many of our leading farmers with excellent results, and is now one of the most popular brands we make. Price low.
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Circulars furnished on application. All *Fertilizing Supplies* at the lowest market prices.

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Of Any Size or Shape.
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ANYTHING IN THE WAY OF FISH NETS.

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Spoon Oars, Common Oars, Row Locks, Boat Anchors, Life Preservers, Waterproof Ground Blankets, Clothes Bags,

Sails, Rigging and everything necessary for Yacht Sailing.

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☞ *Send for Circulars.*

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☞ A sure cure for kicking hands and kicking Cows. It milks the four teats of a Cow at once. Imitates the Calf: draws and stops drawing to swallow. Milks Cows in one-half the time. Self Adjusting. Will fit any Cow. Milks three-teated Cows.—Easily worked. Not liable to get out of order, and has proven, by practical use, to be more agreeable to the Cow than hand milking. Chance for Agents. Send for Circular.

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FINE FARMING LANDS
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For sale by the WINONA & ST. PETER R.R. CO., At from $2 to $6 per Acre, and on liberal terms.
These lands lie in the great wheat belt of the North-West, and are equally well adapted to the growth of other grain, vegetables, etc. The climate is unsurpassed for healthfulness.
They are Free from Incumbrance.
Guide Book, Maps, etc., containing full information, sent free.
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Mention this paper in writing.

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Has the least number of belts of any machine that can rightfully claim efficiency.

All Working Parts
thoroughly guarded against undue friction or wear.

THE MOST COMPLETE
in the counterbalance of all vibrating parts

Of any Thresher Made
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It runs with as little trouble or noise as a good sewing machine.

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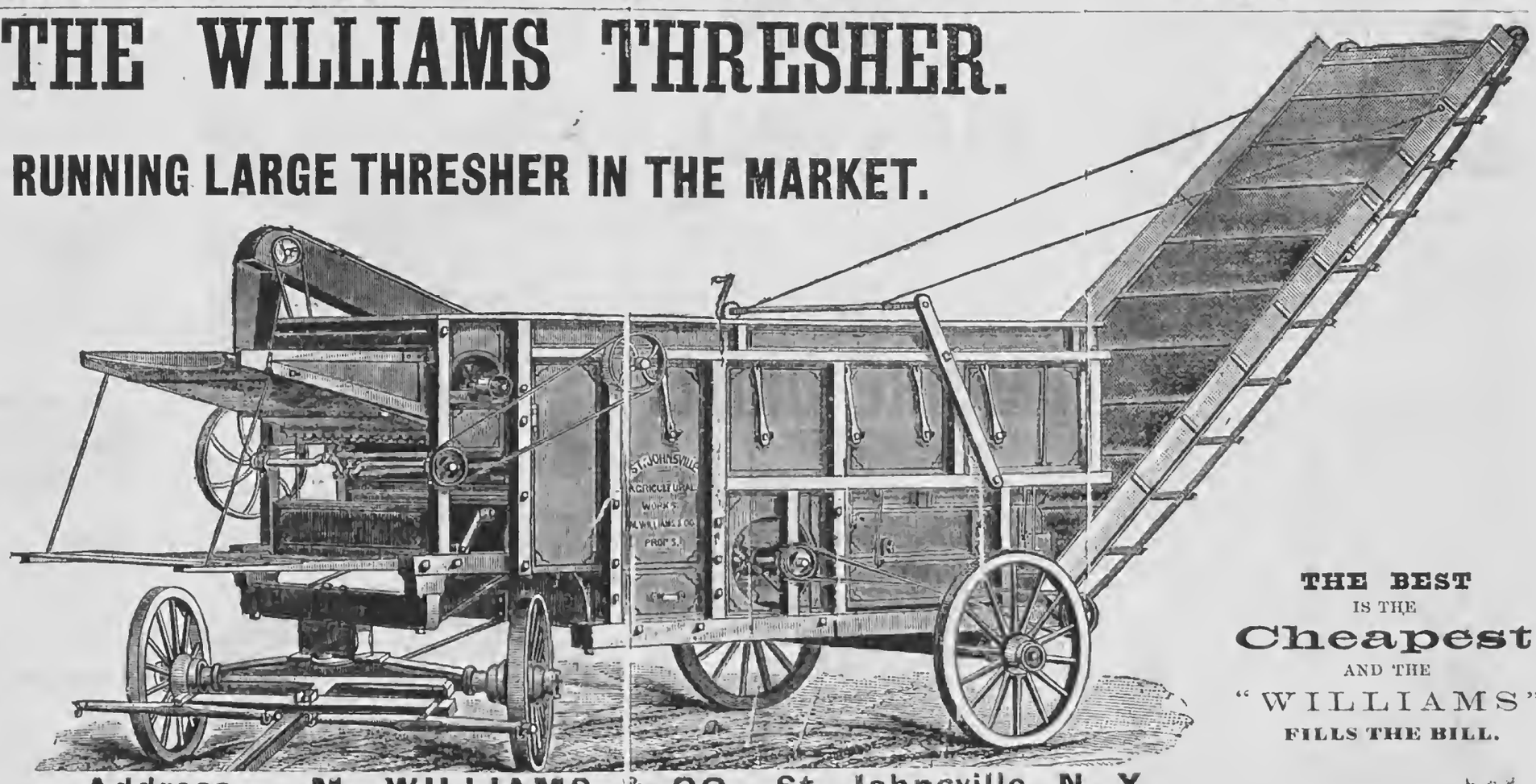

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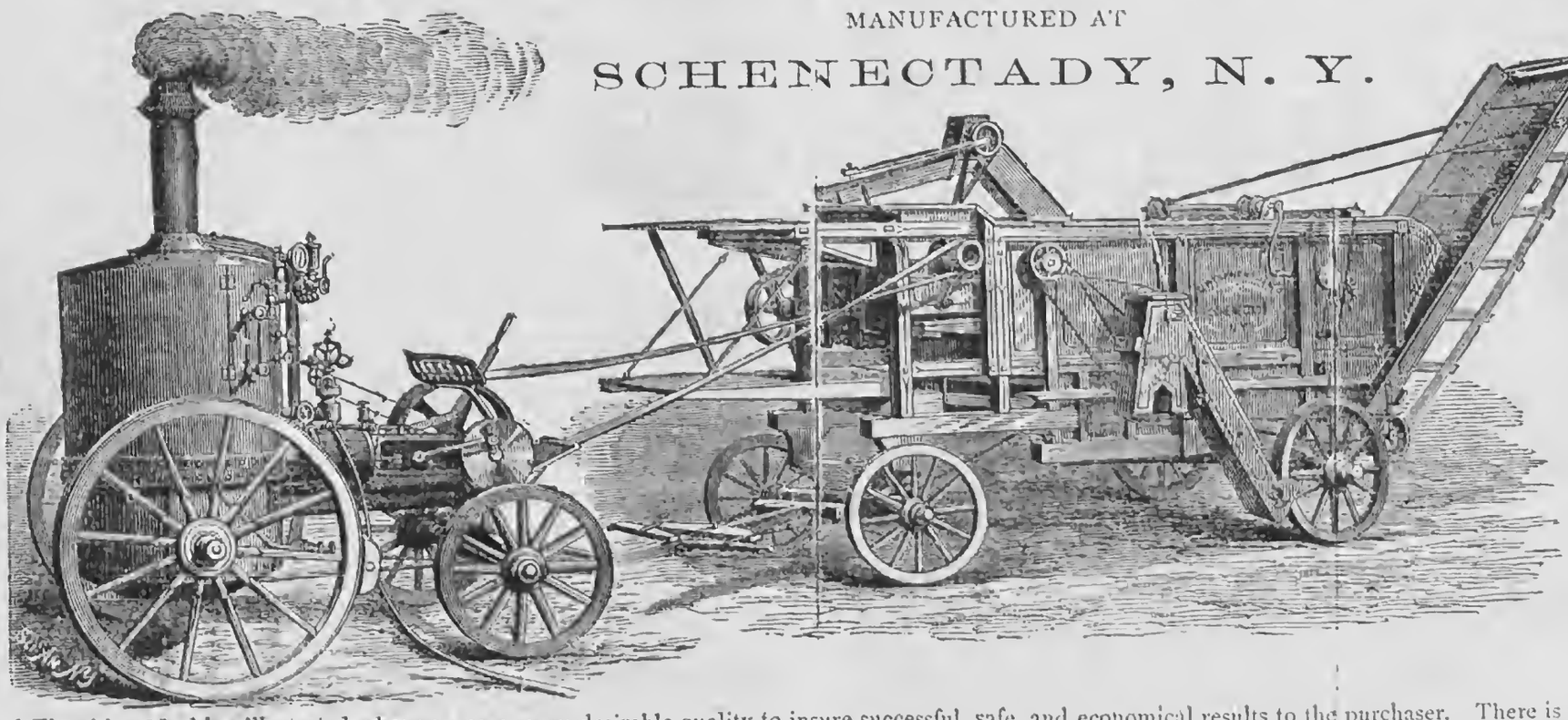

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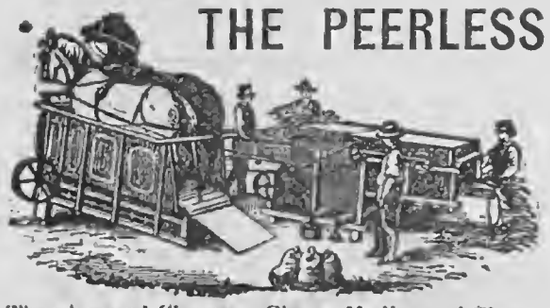

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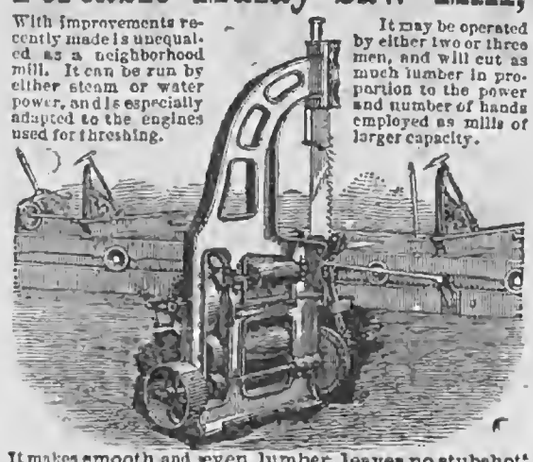

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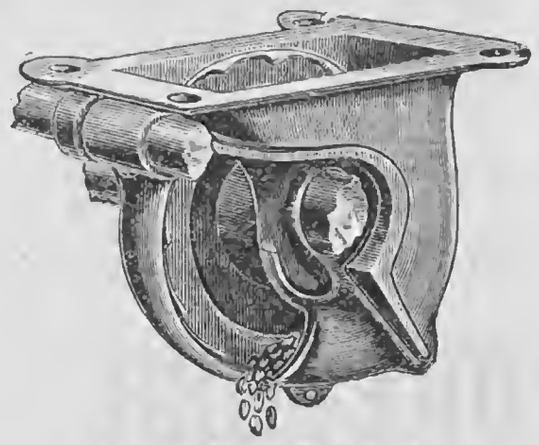

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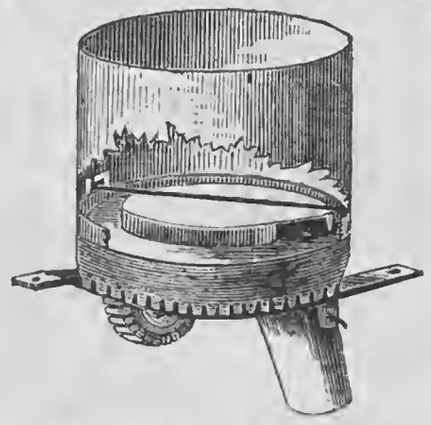

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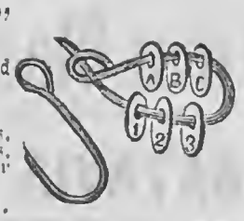

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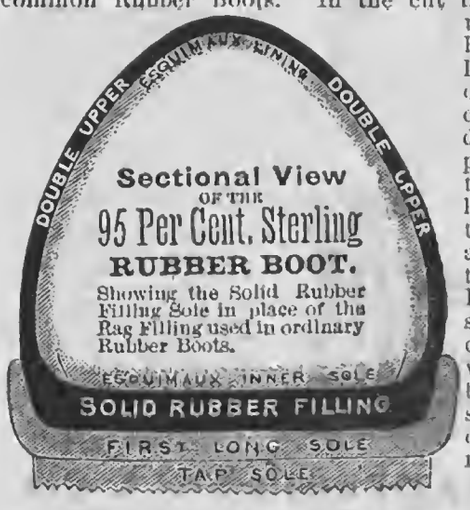

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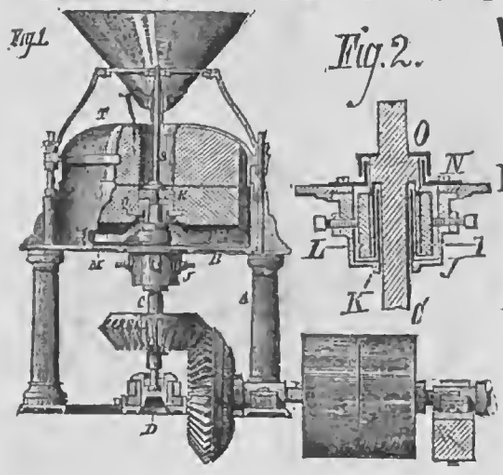

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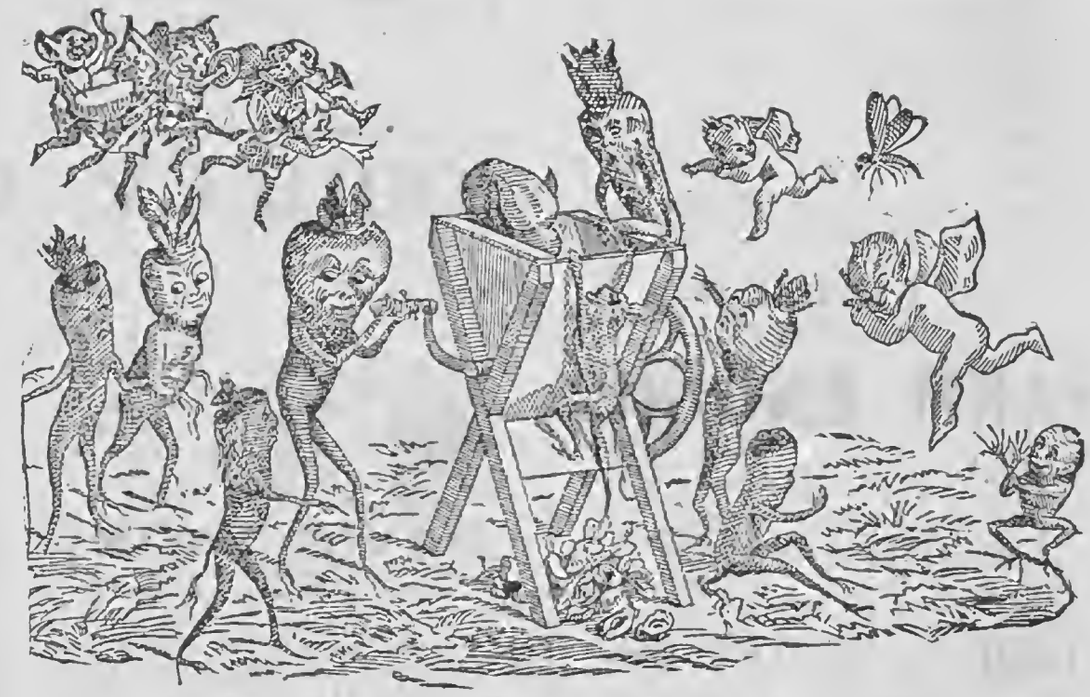

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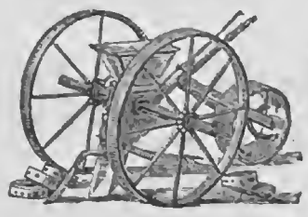

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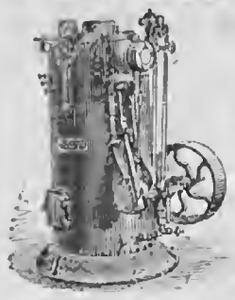

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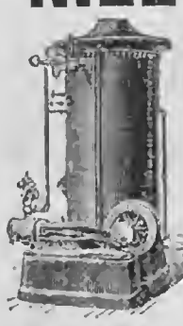

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HORSE POWER.

Whole Outfit Strictly FIRST CLASS.

Engine Detached from Boiler.

Has large brass bearings fitted to steel pins, forged and turned connections, and perfectly adjustable cross heads.

Boiler made entirely of Wrought Iron; Double Riveted Seams.

Flues submerged in water; can not burn out. Capacity of boiler in relation to engine very large.

NILES TOOL WORKS,
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PATENT SPARK-ARRESTER.

8	H. P. Mounted,	$650.	
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ESTABLISHED 1840.

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State where you saw this.

We Hereby Challenge

Any Manufacturer of AGRICULTURAL ENGINES not fitted with automatic cut-off, to a competitive test at a forfeit of from

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As may be desired. ☞ Send for Circulars.

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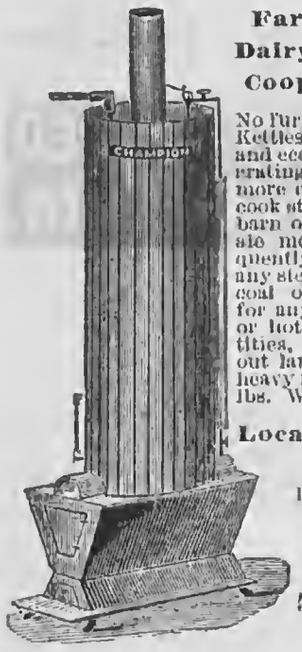

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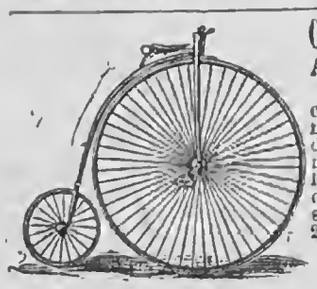

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Endorsed by the medical profession as the most healthful of outdoor sports. It augments three-fold the locomotive power of any ordinary man. Send 3c. stamp for price-list and 24-page catalogue.

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"IT IS THE LIFE OF THE AGRICULTURAL FAIR."—Sec'y.

COOLEY CREAMER.

Supersedes large and small pans for setting milk.

It requires no milk room. It requires capacity for one milking only.

Impure air, dust or flies cannot reach milk set in it.

It makes more butter, because it raises all of the cream, and the quantity is never lessened by unfavorable weather.

It makes better butter. It requires less labor. It is cheaper.

Butter made by this process took the HIGHEST AWARD at the INTERNATIONAL DAIRY FAIR—held at New York in December, 1878—and at the Royal Agricultural Exhibition held in London, England, beginning June 30, 1879.

Butter made by this process brings the highest price in all the great markets.

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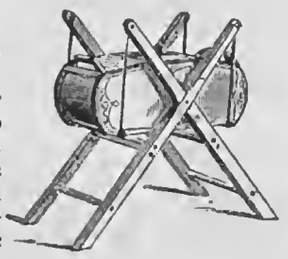
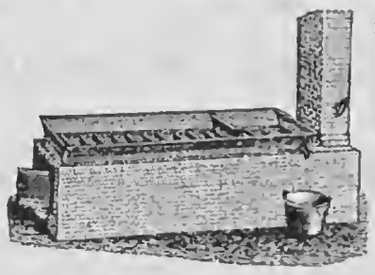
AWARDED FIRST PREMIUM AT THE INTERNATIONAL DAIRY FAIR, DEC., 1878, IN COMPETITION WITH ALL THE LEADING CHURNS IN THE WORLD.



The box contains no floats or inside gears, which mash the butter globules, no corners in which the cream can lodge, to be washed into the buttermilk, and lost when the butter separates. The butter gathers in beautiful granules, in the best possible condition for washing in the churn with cold water and brine. Hon. X. A. Willard saw the churn tested at the late Dairy Fair, and remarked that he "never saw butter come out of a churn in better condition."



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Make the sugar that will sell several cents above that made in the old way, with less than half of the amount of fuel.

Examine into the merits of this evaporator, and you will use nothing else.

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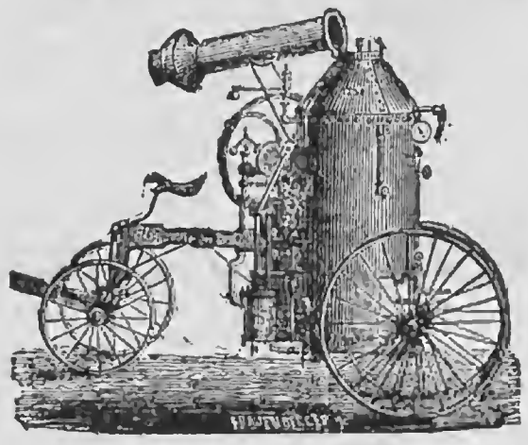

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MAKERS OF

Adams's Patent Self-Feeding Power Corn Shellers.

Strong, reliable, thorough in all parts of their work, (shelling, separating, cleaning and elevating). Perfect self-feeders, and best machines for mill and warehouse purposes, as well as for the farm and plantation.

VETERAN CORN SHELLER,

FOR POWER AND HAND,

WITH FAN, FEED TABLE, BAND WHEEL AND CRANK.

Capacity 250 to 300 bushels of shelled corn per day.

A thorough Sheller, Separator and Cleaner.

Strong and Durable. Will Last a Lifetime.

The best and most popular Machine for the price ever offered. Just the thing for a custom mill.

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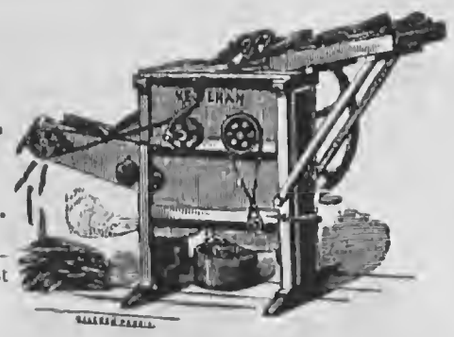

Power & Hand Corn Shellers of all Sizes and to Suit all Wants.

THE ADAMS & FRENCH HARVESTER AND SELF-BINDER.

"The Monarch of the Field."

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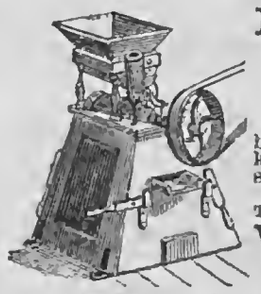

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The Grinding Parts are

STEEL.

It is adapted to all kinds of horse-powers. It grinds all kinds of Grain rapidly. It is simple, cheap and durable.

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Also manufacturers Celebrated Union Horse-Power, &c

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Feed Mill

ALL IRON BUT THE HOPPER.

Cheap, Effective and Durable.

CAN BE RUN BY ANY POWER.

Capacity from 6 to 20 bushels per hour, according to size. Send for Catalogue and prices.

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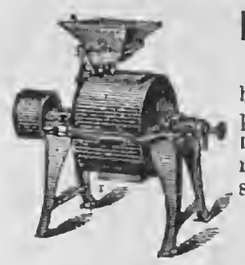
For Mill and Farm.



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Manufacturers of

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We manufacture the best French Burr

CORN AND FEED MILLS

in the country. Send for description and prices.

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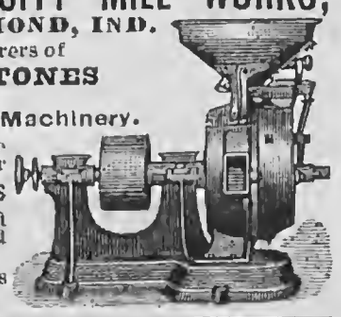

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Every Man His Own Miller.

The only Mill that will grind Corn with Shuck on without extra expense. The only Mill grinding Corn and Cob successfully that will grind Shelled Corn fine enough for family use.

Grinds twice as fast as any other Mill of same size and price. Manufactured by

J. A. FIELD, SON & CO.
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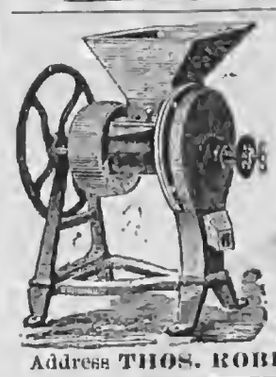

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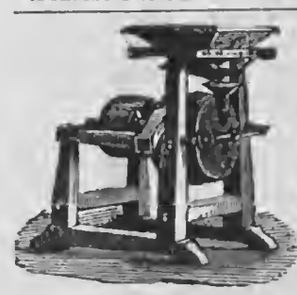
CORN MILL.

The Victory Corn Mill will grind corn meal coarse or fine, shelled or on the cob. **Self Sharpening Plates.** Made entirely of IRON AND STEEL. Very strong, durable, and warranted in every respect. Capacity, 10 to 20 bushels per hour. Send for circulars.

Address **THOS. ROBERTS,** SPRINGFIELD, O.



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Grist Mills
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FRENCH BUHR STONE

Portable Mills for Farmers, Saw Mill Owners, etc. Price from $80 up. Complete Mill and Sheller $96. A boy can grind and keep in order. Adapted to any kind of suitable power. Complete Flouring and Corn Mill very cheap.

NORDYKE & MARMON CO.
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BRADFORD MILL CO.

Manufacturers of

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For Farmers' Use.

These Mills are cheap, durable and easily operated. They are made of the Best Material, with French Mill Burr Stones. Adapted for either horse or steam power. Price-lists and circulars sent on application.

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AHEAD ALL THE TIME. The very best fresh goods direct from the *importers* at *half* the usual cost. Best plan to Club Agents and large buyers. All express charges paid. Quality guaranteed. New terms free.

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supplied to *consumers* at prices *lower than ever known before.* These *fine qualities* seldom reach the interior, being sold only in large cities and among the very wealthy. Send for *reduced price-list*, and compare with other houses.

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Domestic Economy.

CONDUCTED BY EMILY MAPLE.

BRIEFLETS.

The cure for gossip is culture.

Never reprove servants before any one.

A sick person should not be contradicted.

Perfumes should be used in the strictest moderation.

Baking soda ought not be dissolved in *boiling* or *hot* water.

When you go to the fair, don't forget your sun umbrella.

Do not tilt your soup-plate for the last spoonful.

If you take your children to the fair be sure and provide them with comfortable shoes.

It is more civil to take the last piece on a dish, if you wish it, than to refuse it.

"Nagging" will make sour the sweetest temper and wear even love threadbare.

The wheels of domestic life as well as those of society, need the oil of civility to make them run smoothly.

If you go to the fair to *see* and *learn*, that's one thing; if you go to *see* and *be seen*, that's another.

The eating of plenty of ripe, acid fruit is suggested as a preventive of malarial difficulties.

Children often have an insatiable desire to see the side-shows at fairs. If respectable, we think the children should be gratified.

MRS. ENDICOT'S JOURNAL.

At the fair; pincushion cover; shoe-pocket; fruit, bread and cake; style of dress.

I am tired and worn out, but I think with Barton and the children that we have been paid for our efforts. This has been "Fair week," and in more than one sense. The weather, for a wonder, was delightful; not even dusty roads. I had thought at first that baby Katy and I would stay at home, but the prospect of a delightful drive was not to be resisted. Barton and Harry had been over the day before to take Harry's chickens, and a basket of tomatoes from his garden. Mr. Endicot also took over a pair of horses, and some honey. I had intended to be represented, but one pair of hands cannot do everything. We entered the grounds about ten o'clock, and found them well-filled with people. There was some stock to be on exhibition in the ring at about that time, which Barton wished to see, and as he offered to keep the children in the carriage with him, I was glad to accept of his kindness and take that time to see what the ladies had been doing. The hall was not as yet crowded, so I could look at my leisure. Of course, there was the usual number of quilts, rag carpets, and worsted-work monstrosities, and there were also some specimens of fine needle-work. There was one cover for a pincushion that I intend to copy. The cover was six by eight inches long, of white bobbinet, embroidered with fine tidy cotton; any pattern suitable to work on Java canvas would answer. It was finished around the edge with a narrow Italian lace. The cushion was made of blue silk, but mine will be of crimson wool-delaine. Another thing that I examined closely meaning to make one like it, was a shoe-bag. I should think this was the way it was made. A circle, about three feet and four inches in diameter, had been cut from a square of strong brown linen, and the edge bound with scarlet braid. It was then marked off into eight uniform divisions, and folded, each one being turned the same way, then opened and the ends turned nearly to the center and stitched securely. A small design was braided on each section and a loop of braid was fastened in the center by which it was suspended from a hook. The canned fruit and jelly looked beautiful. They will certainly tempt some one's appetite next winter. The bread, white and brown, and cake, all looking so nice under the glass cases, excited my wonder as to how anyone could decide *which* was the best.

As the children and I rested in the carriage I could not help noticing and thinking to myself, as the crowd passed to and fro, how much better and more ladylike it looked to be dressed plainly and quietly at such a public place.

CANARY BIRDS.

An objection, and a very great one, to hanging canaries in the sitting-room or parlor, is the litter they make with their sand, seed and feathers. After suffering considerably in this way, and having had our dining-room newly painted and carpeted, we determined if possible, to prevent master "Birt" from giving us further annoyance. A cast-off vail—a drab gauze one—a yard and a quarter in length and a trifle over half a yard in width, was sewed together and a drawing string run in at top and bottom. One string was tied snugly around the under part of the cage, the other just above the seed and water cups. It is the work of but a minute to remove the gauze when the cage is to be cleaned, and those who keep canaries will, after a trial, appreciate the value of so simple a contrivance. We would recommend the use of white or drab thin goods, as the more highly colored might injure the bird were he to pick at it.

DOMESTIC RECIPES.

Peach Fritters.

Sift a quart of flour into a large bowl, stir in sufficient warm milk with one-third of a teacup of home-made yeast to make a stiff dough, and let stand until light; then work in three beaten eggs, two tablespoonsful of melted butter, two of sugar and a sprinkle of salt; knead, adding a little flour, for 10 or 15 minutes. Prepare some peaches by paring, halving, removing the stones and pressing the pieces together again. Take pieces of dough as large as an egg, flatten with the rolling-pin, put a peach into each piece, pressing the dough over, making round balls. Put to rise on a floured pan, not allowing them to touch each other. They should be light in from one hour to one and a half. Fry as you would raised doughnuts, and serve with liquid sauce. MARY B.

Apple Sandwich Pudding.

Pare and slice thinly some mellow, acid apples and butter some thin slices of light bread. Into a buttered baking dish put, first, a layer of bread and butter just moistened with warm water, then a thick layer of apples, sweetened and seasoned with cinnamon. Repeat these layers until the dish is full, but the last layer should be bread buttered on both sides Cover with a plate and bake one and a half to two hours in a slow oven. Remove the plate two or three times and baste the top with a few spoonsful of butter and water. Should the apples be very dry, it will be necessary to pour in a little water at the side of the pudding. Half an hour before the pudding is done, remove the plate and let the crust brown nicely. Eat with cream and sugar.

MRS. L. BRAYTON.

Fish Chowder.

Take five pounds of any hard, white fish, cut into small pieces and free from skin and bone. Boil and slice eight common-sized potatoes. Fry until crisp four thin slices of salt pork in the kettle intended for the chowder. Take out the pork, slice two onions into the fat and fry brown. Cut into slices two more raw onions and split open a dozen of butter crackers. Take the onions out of the kettle, pour off nearly all the fat, put in a layer of fish then a layer of potatoes with some of the onions, both raw and fried, and a little pepper and salt. Repeat until half of the ingredients are used, then scatter over half of the fried pork cut into bits and cover with a layer of crackers. Layer the remainder of the chowder as before with the pork and crackers on top. Cover once and a half with cold water and boil slowly one hour. Stir in a cup of cream or rich milk just before serving. It is best to use both salt and pepper sparingly while seasoning the layers, as they can be added if needed when done. A. E. M. B.

QUESTIONS ANSWERED.

Watermelon Preserves.

MRS. H. S. asks how to preserve the rind of watermelon.

ANS.—Select the rind from a ripe melon but one not soft, pare off the outer skin and cut into strips. Let stand over night in water sufficient to cover, in which a teaspoonful of alum to a quart of water has been dissolved. In the morning set over the fire and let come to a scald but not boil. Draw to the back of the stove and in an hour or so turn off and pour over boiling water to rinse off the alum flavor. Then throw the pieces into cold water. When cold, drain, weigh and measure out a scant pint of white sugar to each pound of fruit. Make a sirup by adding a half pint of boiling water to each pound of rind, boil, clarify and add with the melon the juice and thin peel of three lemons. Boil until the rind looks clear. Take out into jars, boil the sirup until quite thick and pour over. If the flavor of ginger is liked, a little of the root may be boiled with the sirup.

L. W. S., Chenango Co., N. Y.—Your question was answered under Domestic Economy in RURAL of June 7.

NOTE.—For want of space other questions will be answered next week.

Please address all communications intended for the Domestic Economy Department, to Emily Maple, RURAL NEW-YORKER, 78 Duane St., N. Y.

FOUTZ'S
HORSE AND CATTLE POWDERS

Will cure or prevent Disease.

NO HORSE will die of COLIC, BOTS or LUNG FEVER, If Foutz's Powders are used in time.

Foutz's Powders will cure and prevent HOG CHOLERA

Foutz's Powders will prevent GAPES IN FOWLS.

Foutz's Powders will increase the quantity of milk and cream twenty per cent., and make the butter firm and sweet.

Foutz's Powders will cure or prevent almost EVERY DISEASE to which Horses and Cattle are subject.

FOUTZ'S POWDERS WILL GIVE SATISFACTION.

Sold everywhere.

DAVID E. FOUTZ, Proprietor,
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SELF-RAISING

Bread Preparation

The Healthful and Nutritious,

BAKING POWDER.

Invented by E. N. Horsford, late Prof. in Harvard University.

It is better and healthier than ordinary Baking Powder, Cream Tartar or Yeast.

The cost of raising Bread, Biscuit, etc., with it is only about half as much as by ordinary Baking Powder, and the result is much better.

It restores the nutritious elements which are taken from the flour in bolting. No ordinary Baking Powder or anything else used for raising bread does this.

Universally used and recommended by prominent Physicians.

Put up in packages containing 11 ounces, just enough for 25 pounds of flour.

A sample sufficient for one quart of flour sent post paid on receipt of a three cent stamp. For 35 cents, in stamps or currency, we will send, post paid, a regular package, sufficient for 25 pounds of flour.

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PROVIDENCE, R. I.

Ladies Purchasing
CORSETS,
SHOULD EXAMINE
Madame Foy's Improved
CORSET
Skirt Supporter.

For Health, Comfort and Elegance of Form, it has no rival, and is really the most perfect skirt-supporting Corset made. Sample by mail, $1.50. Lady agents wanted. Manufactured by

FOY & HARMON,
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Pearce's Improved Cahoon Broadcast-Seed Sower.

For Sowing all kinds o Grain and Grass Seed

This machine has been sold in every State in this country, and in almost every grain growing country on the Globe, and gives entire satisfaction to every intelligent operator Does the work of five men. Price only $6. Warranted to do better work than can be done by any other means whatever.

GOODELL COMP'Y,
Antrim, N. H.,
SOLE MANUFACTURERS.

PENNSYLVANIA LAWN MOWER

The Simplest, The Most Durable, The Best!

This machine embraces all the advantages of a light and durable Lawn Mower. Points of superiority claimed: Lightness combined with strength in construction; easiness of adjustment; least liability to obstruction from clogging; lightness or easiness of running; its attractive appearance. Every machine warranted

LLOYD, SUPPLEE & WALTON,
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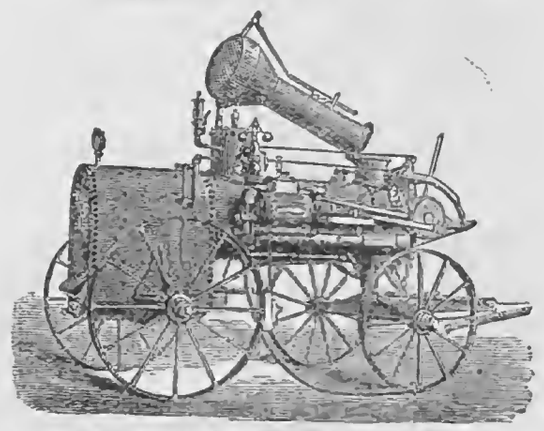
MATTHEWS' SEED DRILL

The Standard of America.

Admitted by leading Seedsmen and Market Gardeners everywhere to be the most perfect and reliable Drill in use. Send for Circular. Manufactured only by

EVERETT & SMALL, Boston, Mass.



First Class in both Workmanship and Material, as well as Design.

STRONG, DURABLE AND EASILY OPERATED.

Not Liable to Get Out of Order.

THE BEST FARM ENGINE
In the Market.

For full descriptive Circulars and Prices, address

ATLAS ENGINE WORKS,
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ONEIDA IRON WORKS
ONEIDA, N.Y.

We have the best variety of Agricultural Engines in the Market. Not an experiment, but the result of twenty-five years' manufacturing experience. Our Engines are first-class in material and workmanship. Safe, Economical, Strong and Durable. Send for circular Address,

ONEIDA IRON WORKS, Oneida, N. Y.

CURRANT JELLY.

Housekeepers.

Price 25 Cents. Sent by mail on receipt of price.

The Household Book of Labels.

Printed and Gummed ready for use. Is a valuable article in every house, containing over 650 labels the size and style of type as above specimen (Currant Jelly), including a general assortment for *Jellies, Preserves, Groceries, Herbs, Medicines,* in fact, *Labels* for every article needed for household stores, in quantities of from 1 to 30 of a kind, according to the usual family requirements. The convenience of these labels consists in their being ready for *instant* application, and being printed *plainly* are easily and quickly distinguished.

CORNELL & SHELTON, P. O. Box 877, Birmingham, Conn.

OSGOOD'S PATENT

5 TON SCALES.

Special Price, $25

Brass Beam and Poise. Iron Attachments, with *Steel Sockets and Pivots.* Adjusted and sealed to U. S. S. Weights. Fully warranted. To be paid for when *proved correct and satisfactory to you.* Two days' work to set them in complete order. References and illustrations in our circulars.

OSGOOD & CO.,
Binghamton, N. Y.

CALKINS' NOVELTY CLOTHES WASHER.

Our Latest and Best.

PRICE, $6.

Over 110,000 sold. Is used in any tub. Is easy to operate. Washes clean—no hard rubbing necessary. Will last ten years with ordinary care. 30 to 50 pieces carefully folded in a tablecloth or sheet can be washed clean in three minutes, and a large washing can be done in ONE HOUR.

AGENTS WANTED

Here is a good opportunity for farmers and others out of employment to make big wages. On receipt of $5 we will send, free of expense, one sample washer to parties wanting Agency. Send for terms to Agents. Mention the Rural New-Yorker and addr

CALKINS BROTHERS,
277 Madison Street, Chicago, Ill.

Everywhere.

RURAL SPECIAL REPORTS.

CONN., Guilford, New Haven Co., Aug. 23d.—Most of my Blount's corn was destroyed by the heavy storm that swept this place on the 18th inst. I had a fine promise of a good crop and a fair show for a premium. I planted 100 kernels from which 99 stalks came up, some of which had nine sets apiece. The Beauty of Hebron potatoes are rightly named. I had eleven hills which I dug on the 13th inst., and had 24½ pounds of tubers. One weighed 15 ounces, and quite a number, 14 ounces. I cooked two and I do not hesitate to say they are superior to the Early Rose and Early Vermont. J. A. P.

NEW YORK, Orient, Suffolk Co., Aug. 25.—We are having a very wet season hereabouts. We have had showers about once a week for the last six or eight weeks. The ground is now too wet for corn on our heavy land. The stalks are well grown and well set for ears; but if the wet weather continues the latter will not fill. Now we want a month of hot dry weather to insure a good crop. Potatoes are looking exceedingly fine, especially the Burbank Seedling. I have a field of four acres under this crop, and it promises to be excellent. I planted a bushel of Beauty of Hebron potatoes, having cut them to one eye apiece. The vines kept pace with Early Rose, and the tubers of both will mature about the same time. I also planted one peck of the Trophy potato; this will be much later, as the vines are green yet. Onions are doing exceedingly well this season. We have a very fine soil for this crop. Of course it needs manure, and it pays to use this plentifully. Some of our farmers are purchasing largely of horse manure from New York, and it seems to be just the thing for the crops of different kinds that we raise. A great deal of sea-weed—or "creek-mud," as we call it—is used for corn, and it seems to answer a good purpose. Turnips are looking well, and there is a large breadth of land sowed with them. The show for apples is poor, but pears are promising a good crop. Some of our farmers have commenced digging Early Red potatoes, and they report a yield of from 250 to 300 bushels per acre. S. L. T.

NEW YORK, Clinton, Oneida Co., Aug. 20th.—My Beauty of Hebron potatoes were dug to-day; there were 12 eyes in my seed potato, so I made 12 hills which yielded 13½ pounds of good-sized potatoes, there being but very few small ones. I planted the 12 eyes in the middle of April. Of my flower seeds only three kinds came up; of the Bronze Ricinus I have three plants; of the Aquilegia, seven, and of the Hibiscus Syriacus, twelve. The Voorhis watermelon is growing very much; from one vine there are two large melons and some smaller ones, none of which are ripe yet. The Golden Rural Tomato is growing finely and is begining to ripen. It is an earlier sort than the common red tomato. I think very much of my Rural seeds and of the RURAL NEW-YORKER as an agricultural paper; every department is full of instructive reading for old and young. G. B. E.

N. Y., Burtonville, Montgomery Co., Aug. 25th.—Most of the farmers are through harvest. Crops generally are good in this vicinity. Corn promises a good yield. My Blount's corn is doing splendidly. It was planted the 20th of May, and now the stalks are from nine to eleven feet high, and six inches in circumference, with from three to eight ears on a talk. It beats anything in the corn line that I ever saw. Pearl Millet is a failure with me; I do not think it worthy of its name. I have had Acme tomatoes from seed sent by the RURAL for two weeks; they are the best tomatoes I ever raised. A SUBSCRIBER.

NEW YORK, Yorkshire, Catt. Co., Aug. 25th.—Corn and potatoes are looking well and large crops are expected. Oats are better this year than they have been for several seasons. The wheat crop is light. The Blount's corn which the RURAL sent us is worth seeing, the stalks being from six to ten inches in circumference and 10 to 12 feet high. The ears are just beginning to set, from two to six on a stalk. The Beauty of Hebron potato did not do very well. Defiance wheat is looking well—what there is of it, the hens having destroyed about one-third of it. The apple and pear crops are light here in the valley; but on the hills they are good. W. A. B.

N. Y., Sherman, Chaut. Co., Aug. 24—Blount's corn is doing well now, but I fear that it is too late in ripening for our short season. Some of it stands eight and ten feet in hight, to the top of the tassel, with from four to six ears just set. It beats all the corn I ever saw in this part of the country to grow. Farmers in this section are paying more attention to corn and wheat, and less to oats, which has been our principal grain heretofore. I think its a move in the right direction. A. E. B.

N. Y., Sherburne, Chen. Co., Aug. 20th.—The Beauty of Hebron potato sent me I cut to single eyes which made nine pieces, put them in a pan of dirt in the house till the vines were six inches high, then I set them out, one eye in a hill. I hoed them twice and dug them last Monday. I had 55 good-sized, nice-looking potatoes weighing 11 pounds. My Blount's corn is nine feet high with no tassels yet. W. H. S.

N. Y., Ithaca, Tompkins Co., Aug. 26th.—Not more than one half of my Blount's Prolific corn came up, and that has a sickly appearance. I am confident it will never amount to anything in this section. My Beauty of Hebron potatoes are not ripe; the tops are still green, though Early Rose potatoes by their side begin to color. F. D. S.

N. J., Middletown, Middlesex Co., Aug. 22d.—Blount's Corn astonishes the natives. My Beauty of Hebron potatoes have done finely. Most of the seeds the RURAL sent me came up and the plants are doing well. J. N. R.

PA., Buena Vista, Alleghany Co., Aug. 24th.—Harvest is over and fall plowing has commenced. We have good crops in this section. Wheat is good and well filled, but the straw is short. Oats are good, yielding 40 bushels per acre. Potatoes are plentiful, but small. Corn is an average crop. Apples are a poor and peaches a good crop. Pears and other fruits are abundant. D. E. H.

PA., Morris Cross Roads, Fayette Co., Aug. 11.—The wheat crop was good; but not much was sown here. Corn is fine and promising. Oats and barley look good; there was but little of the latter sown. All kinds of fruit look well, excepting apples. Potatoes are a better crop than has been seen for many years. Farmers are preparing to sow a large crop of fall wheat. J. L. G.

OHIO, Attica, Seneca Co., Aug. 23d.—Harvesting is over and thrashing has commenced. The average wheat crop for this year is: Lancaster, 20 bushels per acre; Fultz, 30; Clawson, 25 to 30 bushels; oats, 30 to 50; corn will be an average crop. The Blount's Prolific is doing very well; it is 12 or 14 feet high; some stalks have seven or eight ears on, though it seems to two or three weeks behind the common corn planted in the same field. Flax is very poor on account of the dry weather last spring. Potatoes are a very fair crop. Fruits are a failure this year except grapes. W. S. S.

OHIO, Atlanta, Pickaway Co., Aug. 24th.—We have had good growing weather for the last two months. Wheat is above the average; the yield in this county is estimated by our county paper at 1,000,000 bushels. A large acreage will be sown to wheat this fall. Corn is good—better than last year. Oats are short. Grass is good. So are potatoes. Fruit and hay are both scarce. Eggs bring only eight cents per dozen; butter, 10 to 12½ per pound; corn 35 cents per bushel; wheat, 95 cents; horses, $50 to $125 per head; cows $20 to $40; cattle, $3 to $4.50 per 100 pounds; hogs, $3 to $3.50; sheep, $3 to $4. A. L.

MICH., Bear Lake, Manestee Co., Aug. 22d—The plants from some of the seeds sent me by the RURAL are doing very well, especially the Moscheutos and Hollyhock. The dry weather injured the Ricinus. All the seeds germinated, but some of the plants withered shortly after making their appearance above ground. I have, however, still seed enough to try again. With regard to the corn, it is nine or ten feet high, and still going up. You should send some tassels and ears as well as a ladder to enable me to climb to the top of the stalks to tie them on. M. E. A.

MICH., Adrian, Lenawee Co., Aug. 22.—The "Blount White Prolific" the RURAL sent out is just *immense;* not having room to plant it where it could not mix, I gave it to a neighbor; and some stalks are 12 and 14 feet high with five and six ears on a stalk. *Will* find room for the next free seeds. F. G.

MICHIGAN, Muskegon, Muskegon Co., Aug. 24th.—Peaches, pears and grapes are extraordinary crops here. Apples, plums and cherries are 50 to 75 per cent. of a crop, and all trees and vines have made an uncommon growth. Corn and potatoes are extra. S. B. P.

COLORADO, Bennet, Arap. Co., Aug. 20th.—The RURAL tomato has done very well. Blount's Corn is better than I expected. We have had three hail-storms which cut it very badly. I lost all my watermelon plants and half the flower seeds, but then we do not fret about it, for we are trying to enjoy the lots of flowers that we have, and expect to do better next time. J. W. S.

TEXAS, Luling, Caldwell Co., Aug. 20th.—The remark "it is very dry," which was lately chronic, is now heard no more, for during the past week we have had abundant rains. Corn, of course, could not be benefited by this tardy downpour, as a good deal of it had been already gathered; but it gives cotton a good chance to make a "top crop," if the army-worm does not put in an appearance. Corn, which went begging at 20c per bushel this time last year, is now worth 75c to $1. The crop will not average 10 bushels per acre in the county, but the prospects for cotton, both as to price and yield, are good. T. J. E.

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Gives Butter the gilt-edge color the year round. The largest Butter Buyers recommend its use. Thousands of Dairymen say it is Perfect. Ask your druggist or merchant for it; or write to ask what it is, what it costs, who uses it, where to get it. WELLS, RICHARDSON & CO., Proprietors, Burlington, Vt.

YOU CAN CURE YOUR CATARRH

By the Same Means We Cured Ours.

Catarrh of Head and Bowels, Deafness, Etc.

167 THIRTIETH ST., CHICAGO, Jan. 1, 1878.

DR. C. R. SYKES—*Dear Sir:* I was a great sufferer from Catarrh for about twelve years previous to March, 1876. The disease located mainly in my head and bowels, causing painful ulcerations in my nose, and I could scarcely breathe through that important organ. During the last two years of that time the catarrhal condition of the bowels resulted in ulceration, and the discharges and other appearances were much like a chronic diarrhea.

The stomach was also involved, and this organ, together with the bowels, would at times become so distended as to become terribly uncomfortable, then relax, until "I feel all gone," is the best expression I can give for it.

My eyes were badly affected, but, worse to me if possible than all the rest, was a deafness that nearly disabled me for business. It came to be so bad at last that at church I had to take a front seat, and even then, with my hand spread out back of the ear to catch and concentrate the sound, I seemed to miss about half the sermon.

My memory was also greatly impaired. I shall not attempt a description of my sufferings; you, from your own knowledge of the disease, can well judge what they must have been.

In March, '76, I heard of and tried your "SURE CURE," and took it according to directions. I experienced great satisfaction from the first bottle, and, after about four bottles were used, my hearing *suddenly* cleared up; I was in church at the time, and it seemed as if a new revelation had been opened up to me.

I discontinued the medicine gradually, the ulcers in my head and bowels healed, the chaos in my brain was restored to order, in fact I could hear, and smell, and breathe through my nose, and have been free from the disease since that time. I cheerfully recommend your "SURE CURE" to all like sufferers, and have known several cases of catarrhal colds that yielded promptly to the remedy.

Wishing you a "Happy New Year" in your noble work, I am respectfully and gratefully yours,

A. C. DAVIS.

Hearing, Sight and Memory Restored.

FACTORYVILLE, Cook Co., Ill., March 22, 1877.

About the first of last February I got one bottle of your Sure Cure and Insufflator. I had been suffering about three years with Catarrh. I am now using the third bottle, and have used one of your Ear Specific; and words cannot express how good I feel. I am a new man entirely. My head, which had been completely stuffed up, is now as clear as can be; the swelling has all left my nose; my eyes, which had been for two years dead and watery, are now as bright as diamonds. I was so deaf that I was completely stupid, and I could not remember anything; now my hearing and memory are as good as ever.

Before commencing with your remedies, I called on Dr. ——. He said I had catarrh in its worst form, and, if I did not have it cured immediately, I would lose my hearing entirely. He said he would cure me for forty-five dollars. So you see I have saved over forty dollars, as your medicine has cost me only about four dollars, and I could not expect more from it if it had cost me four hundred. You can use this as you wish with the greatest pleasure. WM. MURRAY.

To Dr. C. R. Sykes.

Eight or Nine Years' Catarrh, Dyspepsia, Loss of Smell, Etc., Cured.

I think no man ever had the Catarrh much worse than I had for *eight or nine years.* The discharges from the head were perfectly awful, especially in the morning. Anything cooking or burning *I couldn't smell,* and I suffered dreadfully from the DYSPEPSIA, that I am sure proceeded from the foul Catarrh.

Over a year ago I used five bottles and a half (got six) of Dr. Sykes' Sure Cure, and his Nasal Tube, and it *cured me perfectly sound.* I have no Dyspepsia since; my eyes are stronger; ears are free from ringing; head clear, and *no trace of Catarrh.* I can smell sharp as ever, and never was so well in all my life as the last six months. My advice is: "*Go and do likewise.*"

WILLIAM SHURR, Press Foreman,
Chicago Newspaper Union, 181 Fifth avenue.
CHICAGO, Oct. 31, 1872.

P. S.—Mr. Shurr is still in the employ of the C. N. U. Co., and has remained *perfectly well* ever since his cure in 1872.

Another Wonder—Chunks and Bones.

SUBLIGNA, CHATTOOGA Co., Ga., Sept. 21, 1877.

I write to thank you for the wonderful cure you have wrought on me by your medicine—the "Sure Cure." No words can explain the severity of my case or express the gratitude I feel, for I am sure your remedy has saved me not only unspeakable suffering but from the very verge of the grave. My neighbors and physicians (I had tried a dozen doctors) look upon my cure as being almost miraculous.

For four years past I had suffered from Catarrh, Headache, Neuralgia and occasional lung troubles, so severe at times as to be confined to my bed. During last November my ears and nostrils became so tender I had to cover them with flannels even in this warm climate, when I went out doors. In January I had neuralgia thirty-six hours so severe I was in perfect agony; then my nostrils began discharging a blue, offensive corruption, growing gradually yellow and thick. I felt weak and diseased all over. My nostrils finally closed up so I could not breathe through them, and if I went to sleep it was to be awakened every few minutes with strangling and suffocation. I had not a minute's ease in months, and my sufferings were indescribable. It was in this condition, after having tried all the remedies and physicians in my reach, that I began taking the "Sure Cure." It relieved me in eight hours so that I slept nearly all night, and in the morning I felt like a new man. The third day the matter began coming away in large lumps, and the quantity passed in three days was simply incredible. This continued at intervals for about forty days, when, in trying to clear my head, the whole thing seemed to break loose in the upper part of my head and fall into the air passages, nearly choking me. By means of a crooked instrument I succeeded in breaking it up into small lumps and pulling and hawking it out. When I got it all out, there was a gill measure full of the tough, hard lumps and softer matter. I will send you some of these excretions and bits of bone that worked out of my nose. Your Ear Specific has given me equal satisfaction with the "Sure Cure." It is now over a month since I reported the fact of my cure to you. I inclose money for two of my neighbors. Their symptoms are described on a separate sheet. Our doctors have failed to help them.

My wife and children join in gratitude to God and to you as an instrument in His hands for restoring to them a husband and a father. God bless you.

GEO. R. PONDER.

Blood and Corruption—Came Home to Die, but Returned Cured.

CHICAGO, Jan. 4, 1879.

DR. SYKES—*Dear Sir:* I have been written to several times to find out if your statement of my case was true, and now as I am here I wish to write my own case and cure, and have you publish it, if you will, for the good of the public.

I had been living in Colorado about four years when my head gave out. I employed a good doctor, who treated me for Erysipelas; then others, who called it Cancer, and, for two years before I came home, they doctored me nearly to death, some for one thing and some for another, but finally decided that I had the dreadful Catarrh in its most dangerous form, and this is how I was, as nearly as I can write it.

I had taken some heavy colds, and the fine dust that blows there like snow had made my nose awful sore inside; the nose got inflamed, swelled very large, was red and very painful, and the redness spread very badly over my face. It also got a sore spot right on the nose up toward the eyes, and so was sore outside and in, and finally eat a hole clear through, which at last got about as large as a pipe stem.

My palate also got very sore and enlarged, and, after a while, it *came off;* then two holes eat through above it that looked like canker-sores, and, spreading fast, they both broke into one, and when you first saw me it was *larger than the end of my thumb,* and still eating. My throat and the back part of the mouth was one mass of canker and scabs, and *I could not talk*—only a hoarse kind of whisper. The matter from my throat and the sore through the nose was perfectly awful, and my breath the same—a person couldn't sit or stay near me.

I had a very bad cough; my lungs were very sore, and my stomach all out of order; I *could hardly eat,* my throat was so sore and my stomach so bad. My weight had gone down to eighty pounds. I had nearly lost my hearing, and I *could not smell* anything at all. I had been in such agony that I could not lie down to sleep. I often took a washbowl in my lap (for I could not stand) to wash out my head, and the blood and corruption would come from my nose and mouth in streams.

During this time I was confined to my bed sixteen weeks, and I had paid out all my earnings, about $500, to my doctors, and grew worse all the time. One doctor made me give him $50 before he would do a thing for me, and not a bit of good came from it. I wanted to get home to my mother in Chicago, but the doctors and all my friends said I could not live to get here, but I did.

I supposed I had *come home to die,* but, after resting about a week, my mother, who had heard of you and your "Sure Cure," took me to your office on the 11th of September, 1877. A big patch was on my nose to cover the hole eaten through it, and I was in the condition above described, and had given up all hopes of ever being any better. You said if I would be faithful in following directions you thought you could cure me, and I promised.

I felt a good deal better in about three days, and continued to gain rapidly. In six weeks the large hole in my palate was entirely closed up, and also the one in my nose, but it left a bad scar and my nose is sunken in some. My breath got perfectly sweet; my lungs got sound and free from soreness and pains, and my cough disappeared, and in that six weeks I had gained twenty-two pounds.

Your treatment—the "Sure Cure," "Insufflator," "Blood Medicine," and an "Ointment," all pleasant to use and take—was all I required, and I think I *was the happiest woman* that ever lived. I soon after returned to Colorado and went to work, and was not troubled with the catarrh again. My old doctors and friends there declared my cure was a "miracle." I took three bottles of the "Sure Cure" back with me, but gave one away, and I continued to gain in flesh until I weighed 135 pounds, making over fifty pounds that I had gained.

And now I have another cure to relate. Last summer I was taken with another trouble—a tumor under my left arm, in the arm pit, probably from a hurt. The pains from it extended into my heart, breast and left lung, and were terrible to endure, and my weight got reduced again to ninety-three pounds. The swelling grew rapidly and finally seemed *nearly as large as my fist,* and all the doctors could do for it had no effect; it made me down sick. My left arm lost all feeling in it—seemed to be dead. The doctors in Denver and Pueblo finally said the Tumor would have to be cut out to save my life, and told me there was danger from it, for I might bleed to death.

I said: "No; never. I will start for Chicago, and Dr. Sykes will cure me." I came, and when he examined it he said it would never do to cut it out, and there was no need to do it, for it could be cured without. He furnished me the necessary remedies, and in about two months the Tumor had disappeared altogether with the pains in the chest, and I got the perfect use of my arm and hand, and picked right up again, and now weigh 136 pounds—the heaviest I ever was in my life, and am still gaining in weight.

Let the afflicted make a note of this. *I owe my life to Dr. C. R. Sykes*—not only once, but twice—and as long as I live I shall always endeavor to tell and help those that are afflicted and have thrown away their money as I did. This is every word true, and I write it for the benefit of the sick and suffering, and who are in despair. My home is now with my mother, at 88 Larrabee St., where I can be seen or addressed by any one who wants to know or to see such a wonderful cure.

MISS ANNIE E. GREEN.

Could Hardly Talk or Swallow—Deaf, Etc.

DR. C. R. SIKES—*Dear Sir:* I have for a long time felt it my duty to others, who may be suffering as I was, to write a brief history of my case for their benefit.

Three years ago last spring, when you first saw me, I was suffering from one of the worst throats that ever anybody had. It was so badly ulcerated that I could hardly talk or swallow. Then the roof of my mouth was attacked in the same way, and finally a hole eat through on that part above the palate. This kept spreading until it got to be nearly as large as a twenty-five cent piece. This made my speech so bad that people could hardly understand a word I said.

The soreness and difficulty then worked up into one ear, with such awful pains in it that I was nearly distracted; and, after a while, I lost my hearing in that ear. I could do no work, and was confined to my bed most of the time; had no desire for food, and was very poor in flesh, and, really, life seemed a burden to me.

My case is so different now that I can hardly realize the great change. I am more than sixty pounds heavier; my hearing is so perfect that I almost forget which ear was deaf, until I stop to think, and that large hole is completely closed up, except about the size of a pin's head; but, by drawing up the palate in healing, it leaves my speech a little imperfect.

My throat is in perfect condition, and now, for nearly three years, I have enjoyed splendid health, and have done hard work at dressmaking, as any one can see by calling on me at my house, No. 127 W. Madison street.

After waiting so long, I am sure that the cure is a permanent one, and I write this in hope that others may profit by my experience.

I am sincerely your patient,

MRS. P. HUMPHREY.

"Dr. Sykes' Sure Cure for Catarrh,"

Is an internal and local remedy, and if rightly used, is as sure to cure Catarrh as Sulphur is to cure the Itch. I had Catarrh 24 years, and after expending over $1,200 in vain, originated this plan of treatment which cured me in 1870, and the number of cures since is simply wonderful—the above are only given as specimens. The Sure Cure is within the reach of all; can be sent by mail or express. Price Complete, with Insufficator, $1.40. If afraid to risk the money—to a stranger—send 10 cents for a book of full information, worth ten times its cost. Postage stamps are good as cash. Address

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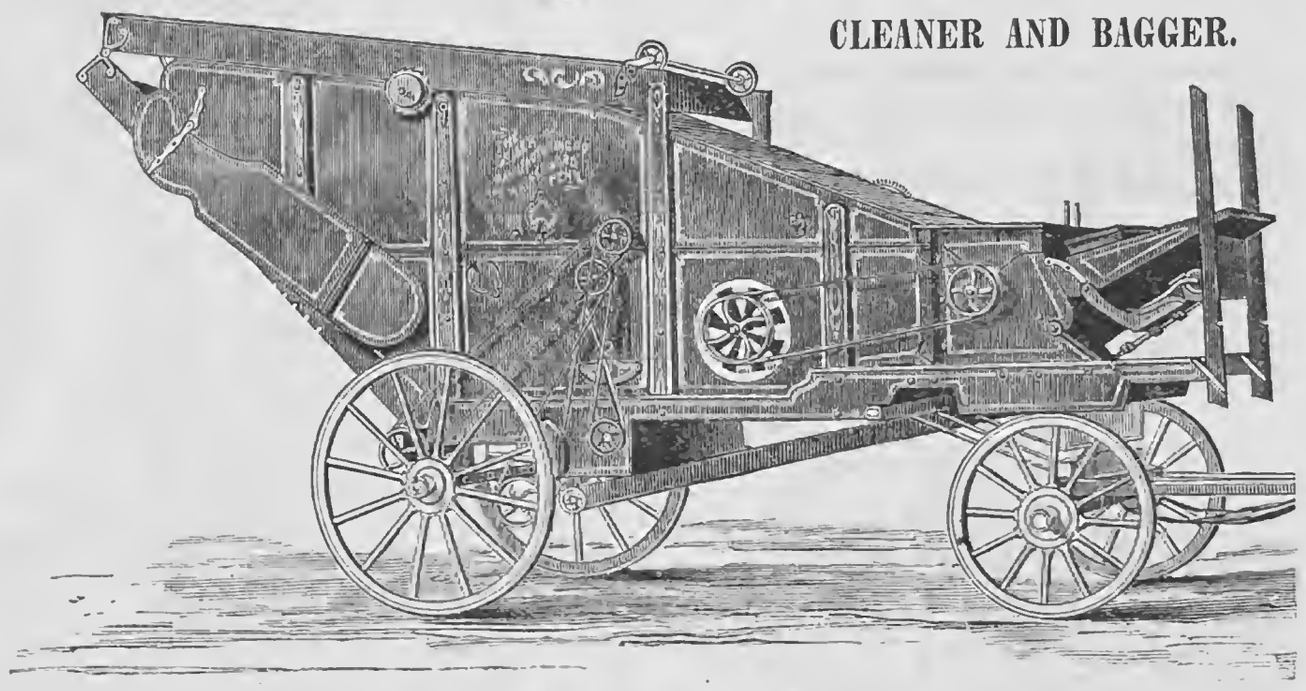

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Parties desiring to secure *bargains* in improved farms should write to **Burnham, Trevett & Mattis, Champaign, Ills.**, *before investing elsewhere.*

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Studies the education of girls from the practical side, how best to fit them, as we find them, to be strong, useful women. A refined, Christian home; *special care of health* and manners of growing girls. Fourteen teachers. Boston specialists in Cooking, Millinery, Dress cutting, &c. Yearly expense, $220–$350. Opens Sept. 18. Catalogue free. C. C. BRAGDON, Principal.

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For the Liberal Education of Women. Examinations for entrance, Sept. 17. Charges $400 a year. Catalogues sent on application to W. L. DEAN, Registrar.

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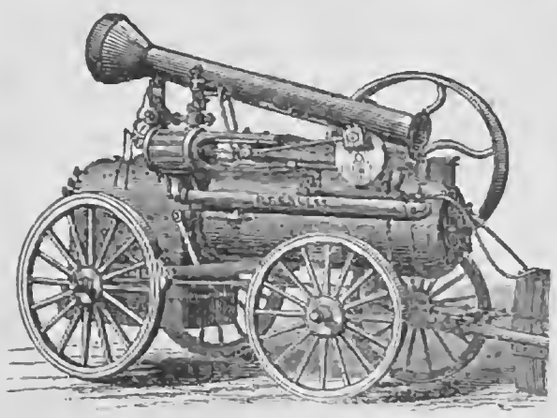
The Peerless Portable and Traction or Self-Propelling Engine.



Rides entirely on Steel Springs, making it very easy on the engine in transporting over rough roads.

The only Engine in the Market attached to the Boiler having cold bearings.

All parts are interchangeable. Hardened connecting pins, and convenient to operate. Also the DOMESTIC SEMI-PORTABLE ENGINES for light power. Send for catalogue to

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Agents wanted in Grain & Cotton growing districts

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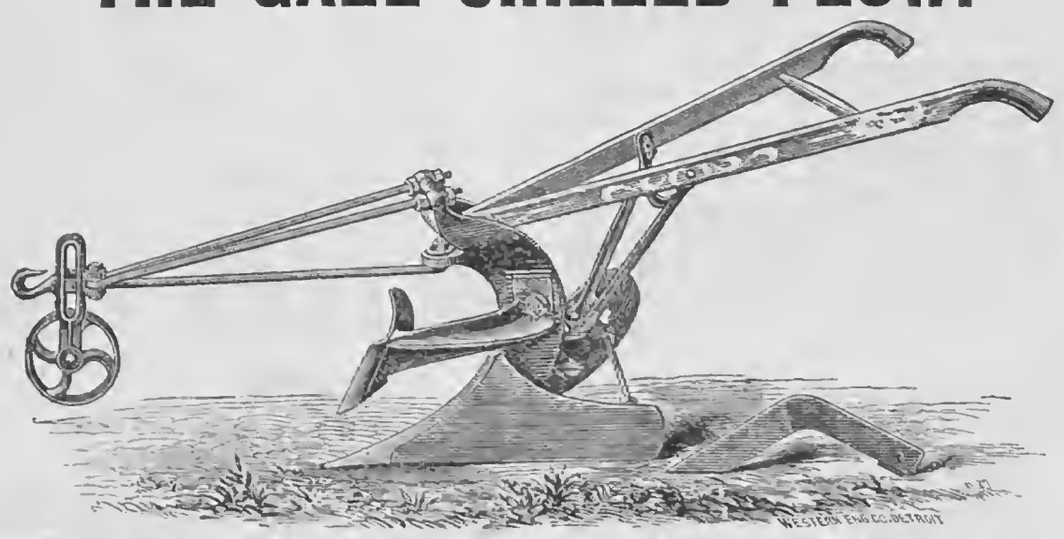

The King of the Field

In the great field trial at the Paris Exposition in 1878, where 187 other plows competed, this plow won the

ONLY GRAND GOLD MEDAL

Awarded to Hand Plows.

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Wit and Humor.

WHY had Adam only one name? Because when he was put in the Garden of Eden he had no syn-on'im.

A DRUNKARD stopping at Rye Beach said he was a geologist seeking specimens, and came there for quartz.

A STORY is going the rounds of the press called "A son turns up after twenty-five years absence." We have seen a son turn up after an hour's absence often, and never thought anything of it.

THE only real bit of "tears," says some one "are those shed in soli-tude." You may bet your life that philosopher never saw a ten year-old boy coming out of the woodhouse in company with his father and a skate-strap.

SHE introduced Mr. Peters to all her circle, and when her daughter Kate sweetly lisped "Mither Peters!" he softly said, "Why don't you call me Peet?" "Oh, not on so short an acquaintance," she blushingly replied. "But," said he, "my name is Peet, not Peters."

BOYHOOD is candid, and middle age, though it may think the same things, is reticent. "What part," asked a Sunday-school teacher, "of the Burial of Sir John Moore do you like best?" He was thoughtful for a moment and then replied, "Few and short were the prayers we said."

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Such persons as have not regularly received our catalogues, we shall be glad to furnish with the same, and by kindly sending their address, they shall be placed upon our list in order that they may receive each new publication. Our NEW DESCRIPTIVE CATALOGUE OF AGRICULTURAL, VEGETABLE, TREE AND FLOWER SEEDS to appear in January, 1880, will contain a full list of all the novelties and improvements of the year.

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Grape Vines, Roses, Fruit Trees,

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For Promoting the Growth and Preserving the Beauty of the Hair.

It softens the hair when harsh and dry. It soothes the irritated scalp. It affords the richest lustre. It prevents the hair from falling off. It promotes its healthy, vigorous growth. It is not greasy nor sticky. It kills dandruff.

NEBRASKA AHEAD The B. & M. R. R. Co. has for sale, in the Eastern part of the State of Nebraska, 1,200,000 Acres of Land, which is offered on Ten Years credit, at Three per cent. or Six per Cent. Interest. Send to Gen'l Agent B. & M. R. R., OMAHA, NEB., for A PAMPHLET **FREE**

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On the Kansas Pacific Railway. 3,000,000 Acres for Sale in the **GOLDEN BELT.** $5 to $7 per acre. 11 years credit. **Wheat** 20 to 50 bushels; **Corn** 40 to 100 bush. per acre. **No Manure needed.** Good climate, pure water, fine schools, churches, and good society. Railroad and market facilities excellent. Maps and full information **FREE.** Address **S. GILMORE,** Land Commissioner, Salina, Kansas.

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Save time and money by sowing your wheat with

THE PHILADELPHIA

BROADCAST SEED-SOWER.

For Sowing all Varieties Grain, Grass Seeds and Fertilizers.

No. 1 Machine, price $25; sows 12 to 15 acres per hour. No. 2, price $6—from 4 to 6—sowing better and far more evenly than by hand or any other method. J. R. Perkins, Corry, Mich., writes: "We believe there are no words in the English language fine enough to express our appreciation of the good qualities of your Seed-Sower. We had a better stand of oats and clover than we ever got with a drill." E. F. Dodge, Elkhart, Ind., "I set my boy to work; he has never sown seed before but with your Seed-Sower it made no difference. He sowed 42 acres oat and clover, and did the work better than an old experienced hand could do by hand."

Send for Descriptive Circular.

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"GOOD PENMANSHIP is very desirable in whatever station in life you are placed, and we are pleased to note that the system of American penmanship introduced by Prof. G. A. Gaskell, of Manchester, New Hampshire, United States, is very popular in London, and is used in many of the leading commercial houses. It is called 'Gaskell's Compendium,' and is simpler and more easily learned, and may be written with greater ease and rapidity, than any of the old styles. Trubner & Co., Booksellers, 57 & 59 Ludgate Hill, have it for sale."—*Pall Mall Gazette*, London, England.

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THIS SYSTEM has been prepared expressly to meet the wants of those desiring to change their present handwriting to a more EASY and BEAUTIFUL style, by home or office practice, without a teacher.

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CONSISTS OF

Business, Ladies', and Ornamental Penmanship, in all varieties: Movement Exercises, Alphabets, Ledger Headings, Bills, Model Signatures, Corresponding Styles, Album Work, Card-Writing, Pen-Drawing and Shading, German Text, Old English, Off-Hand Flourishing, &c., &c.

All the above are in the form of *written* and other *pen*-exercises, and accompanied with a small BOOK OF INSTRUCTIONS, giving a complete analysis of every capital and small letter, with full directions for Position, Pen-holding and Movement.

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Having had a sale of over **75,000** ample opportunity is afforded for testing its value. For the past year we have given in each number of SCRIBNER'S MONTHLY and ST. NICHOLAS, a full page showing the improvement of those using it, as received from month to month. The following have never been equalled by any other system, school or teacher. They are perfect reproductions of the original writing.

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Mr. Crouse's post-office address is Memphis, N. Y.

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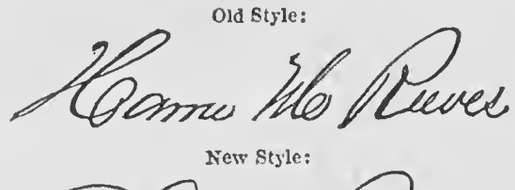

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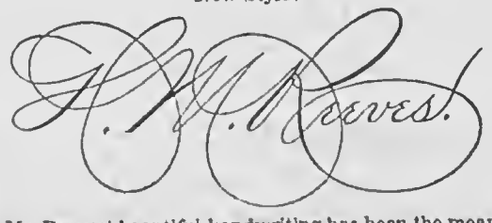

Mr. Reeves' beautiful handwriting has been the means of advancing him to good business positions. He is at present employed in the General Passenger and Ticket Office of the Canada Southern Railway Lines, at Detroit, Mich. He is one of the most expert writers in the United States.

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☞ *Remember* all letters are promptly answered. If you do not get immediate returns, please write again, and we will see where the fault lies.

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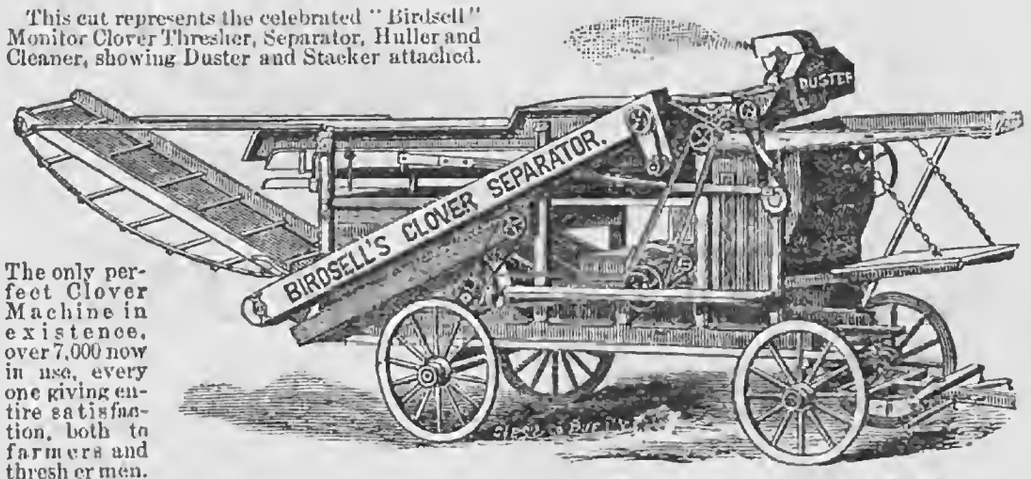
This cut represents the celebrated "Birdsell" Monitor Clover Thresher, Separator, Huller and Cleaner, showing Duster and Stacker attached.



The only perfect Clover Machine in existence, over 7,000 now in use, every one giving entire satisfaction, both to farmers and thresher men.

The **Clover Leaf** published by us, a 4-page, 24-column farmers' paper, giving much valuable information on the culture and harvesting of clover for seed, together with illustrated price list of the **Monitor** sent **Free.** Address BIRDSELL MANUF'G COMPANY, SOUTH BEND, INDIANA.

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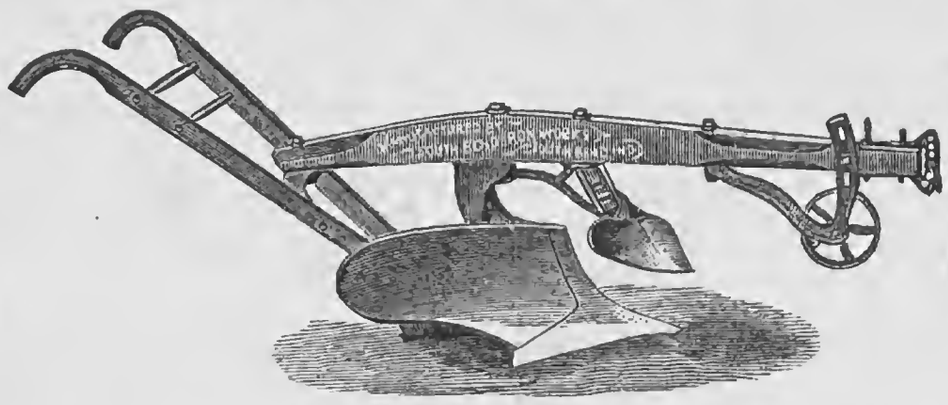
Nearly 365,000 now in use.



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Are the only perfectly chilled Plows made, and with our new Jointer and Coulter are positively unrivaled

BEWARE OF WORTHLESS IMITATIONS,

sold as "Improved Oliver Plows," by unprincipled parties Who seek to sell inferior Plows on the reputation of ours. ☞ Look for the name "OLIVER" on the beam.

BRANCHES: Mansfield, Ohio. Harrisburg, Pa. Indianapolis, Ind. Dallas, Texas. Rochester, N. Y.

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PIONEER
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COMPANY
STILL AT THE FRONT!

Everything desirable in LIFE and ACCIDENT INSURANCE by the Day, Month, or Year.

THE
OLD AND RELIABLE
'TRAVELERS'
OF HARTFORD, CONN.,
Has Written
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General Accident Policies,
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38,000 Claims for fatal or wholly disabling injuries by accident. Amounting to over
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The Cash Payments this year to Accident Policy-holders, average about
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The General Accident Policies issued by ***THE TRAVELERS*** cost but little money and are an invaluable protection to men of all occupations; on the farm, in the counting-room, shop, or store, at home or abroad, traveling or not. They are written by agents, by the year or month, at short notice.

REGISTERED
General Accident Tickets

Insuring $3,000 in event of death, or $25 a week for total disability; cost only 25 cents a day, or $4.50 for 30 days.

For sale at Principal Railway Stations, and at the Company's Agencies generally.

LIFE INSURANCE

Of all safe and well-tried forms, on the sound and satisfactory

LOW RATE CASH PLAN

No Notes or Dividends, and no Disappointed Expectations.

The Security is unquestionable, the Contract plain and definite, the Management irreproachable, the Insurance sure.

Cash Assets, -	$4,798,000
Liabilities, - -	3,511,000
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AGENTS EVERYWHERE.

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"Leading Organ of the World."

AN HONOR CLAIMED BY MANY, BUT DESERVED ONLY BY THE

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REASONS.

1st. *Unequaled Machinery.*

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4th. *A Corps of Artists in Tone and Design constantly employed on new Features.*

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1st. *Largest Factory.*

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4th. *The unqualified endorsement of all musical and music-loving people throughout the world.*

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We disclaim ever having received an International Award, as it is a fixed principle with us not to compete for premiums.

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ABT. LUCCA. ARTOT. SAINT-SAENS.

The American Fruit Drier.

CHEAP! PRACTICAL! PORTABLE!

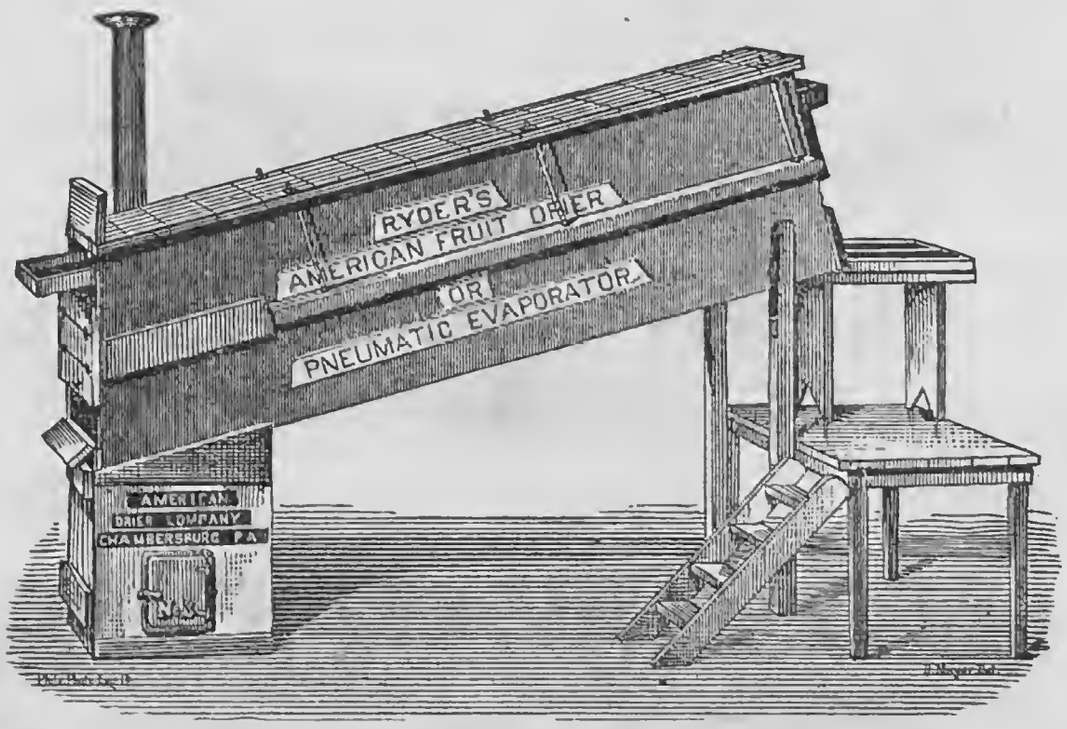
It received the Highest Award in every instance at all the important State Fairs of 1878.

ECONOMY,

DURABILITY,

LOW COST,

PERFECT WORK.



CORRECT

PRINCIPLES,

CORRECTLY

APPLIED.

Its product in Color, Flavor, and Selling Qualities Unexcelled.

Original and radically New in Fruit Evaporation.

Some of the Merits of the American, and Advantages secured by its Patrons.

1st. That each tray receives immediately upon its entrance into the machine the direct and greatest heat. (See catalogue.)

2nd. That each subsequently inserted tray removes the preceding one into a lower temperature, out of danger. (See catalogue.)

3rd. That it is thus almost impossible to burn the fruit in process of evaporation.

4th. That its evaporating capacity per square foot of tray surface is unequalled.

5th. That it will evaporate more fruit per day, for its cost, than any other portable evaporator.

6th. That it will produce a handsomer, brighter-colored and more valuable product than any other portable evaporator.

7th. That with it the individual farmer and orchardist can speedily, cheaply and conveniently convert his surplus or unmarketable fruits, &c., into a product which will equal in appearance and value that produced by the costly commercial evaporators.

ILLUSTRATED CATALOGUE
FREE.

AMERICAN DRIER CO.,
Chambersburg, Pa.
U. S. A.

8th. That it is the only original inclined flue machine thoroughly protected by letters patent, and the only one which can guarantee protection and safety in its use against costly litigation and royalties. (See catalogue.)

9th. That owing to the quality, appearance and market value of its products, it is the only cheap machine.

10th. That no farm implement will pay its cost so quickly, nor as many times over in a season as it will. Always ready and the daily wasting fruit suggesting its use and reminding us "It is not what we make but what we save that accumulates wealth."

11th. That owing to the almost universal practice of sun and oven drying of fruits, &c., the market for that kind is overstocked and does not pay, while choice evaporated fruits always command good prices.

12th. That it is the only portable evaporator the manufacturers of which offer a market for their patron's product.

13th. That the American Drier Companys' evaporated fruits, having an established reputation and market value, and sold distinctively as such, under our trade mark, and in our own uniform packages, inures to the advantage of our patrons, from whom we get all our stock. (See catalogue.)

THE JOHNSTON HARVESTER COMPANY

OF BROCKPORT, N. Y.

Point with Pride to the

GREAT ACHIEVEMENTS

OF THEIR

HARVESTING MACHINES

For Many years past, especially to the im portant fact that they received the

FIRST AND ONLY PRIZE

AGAINST

Thirty-five Competitors

At the great trial of the

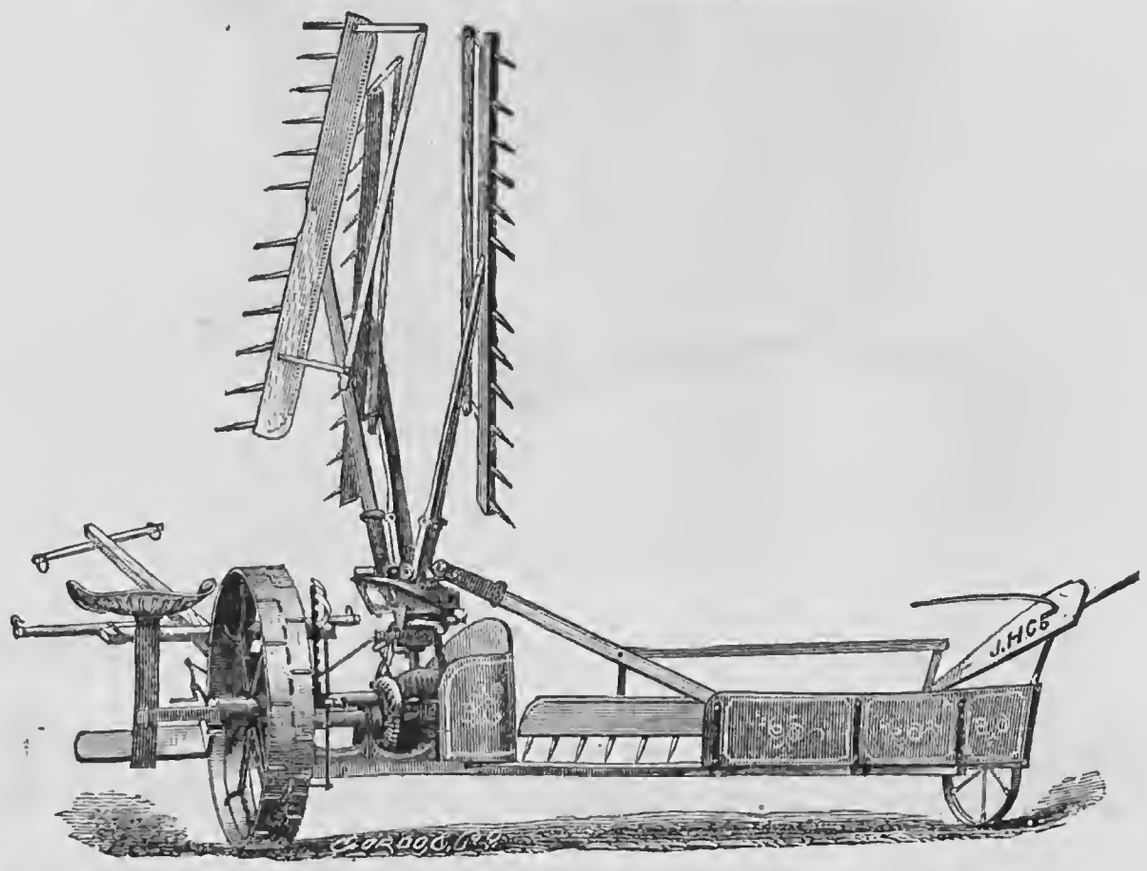
PARIS EXPOSITION, 1878.

The year 1879 has found this company fully up to their previous record and

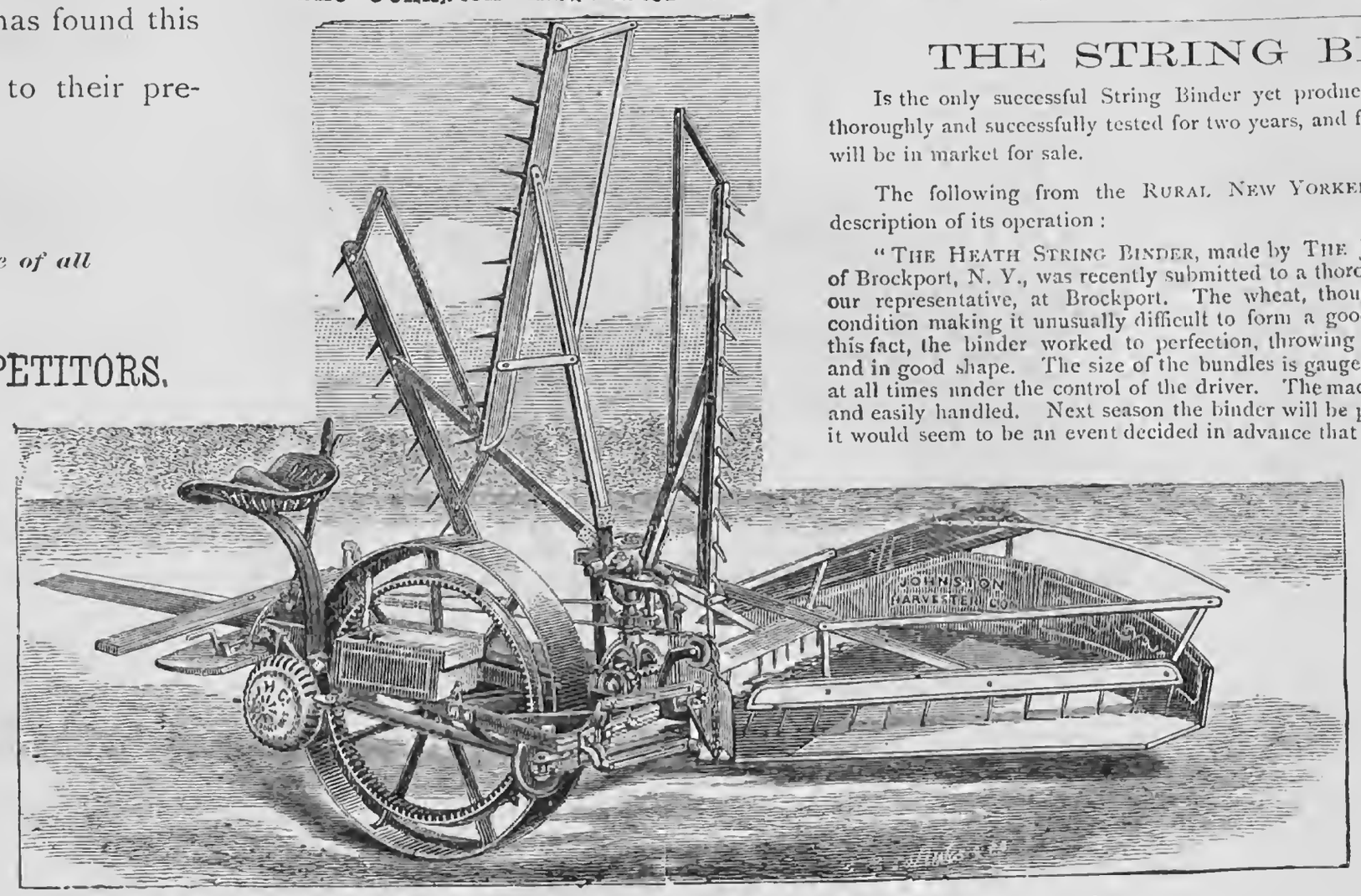
In Advance of all

THEIR COMPETITORS.

The Johnston Harvester Co.'s Automatic String Binder.



The Johnston Harvester Co.'s Continental Reaper.



The Johnston Harvester Co.'s Wrought Iron Harvester.

On this page are shown cuts of three of their

SUPERB MACHINES.

THE CONTINENTAL

IS THE

Most Successful Light Reaper Made.

It has been three years in market and is pronounced for rough and hilly land, the

BEST MACHINE IN USE.

It works equally well in all kinds and conditions of grain.

The Wrought Iron Harvester

IS THE

PREMIUM MACHINE

OF THE WORLD.

It has worked its way through the most

Difficult Fields of Grain

and in all parts of the

Grain Growing Countries

of the world, and always with the same

SATISFACTORY RESULT

THE STRING BINDER

Is the only successful String Binder yet produced. This machine has been thoroughly and successfully tested for two years, and for the season of 1880 they will be in market for sale.

The following from the RURAL NEW YORKER, of July 26th, is a brief description of its operation:

"THE HEATH STRING BINDER, made by THE JOHNSTON HARVESTER CO., of Brockport, N. Y., was recently submitted to a thorough test in the presence of our representative, at Brockport. The wheat, though well filled, was short—a condition making it unusually difficult to form a good bundle. Notwithstanding this fact, the binder worked to perfection, throwing off the bundles well-bound, and in good shape. The size of the bundles is gauged by a foot lever, which is at all times under the control of the driver. The machine is light, well constructed and easily handled. Next season the binder will be placed upon the market, and it would seem to be an event decided in advance that the sales will be large."

SEND FOR CIRCULARS AND INFORMATION TO THE

JOHNSTON HARVESTER COMPANY,

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THE RURAL NEW-YORKER

A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME.

VOL. XXXVIII. No. 37. WHOLE No. 1546.

NEW YORK, SEPT. 13, 1879.

PRICE FIVE CENTS. $2.00 PER YEAR.

[Entered according to Act of Congress, in the year 1879, by the Rural Publishing Company, in the office of the Librarian of Congress at Washington. — Entered at the Post-Office at New York City, N. Y., as second-class matter.]

Field Crops.

Wheat Number.

WHEAT RAISING No. 2.

H. L. WYSOR.

Varieties of Wheat.

It is, perhaps, needless for me to remark that what I said in the RURAL of July 26 and what is to follow, have reference to winter wheat only. Spring wheat does not succeed here, because it is too much affected by the droughts which frequently occur in June and July, and because it ripens too late.

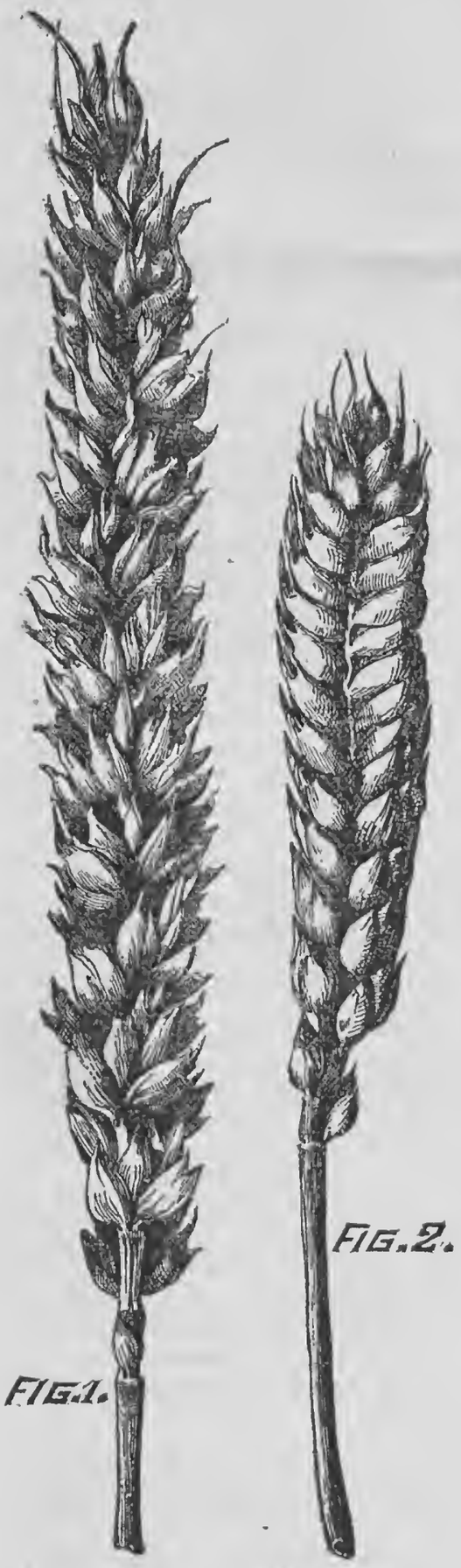


FIG. 1. FIG. 2.

SILVER CHAFF. ENGLISH SQUARE HEAD.

Winter wheat may be classed in two general divisions—bald and bearded. Each of these may be again classed as red and white. The sub-varieties coming under these two last heads, are innumerable. I am asked whether a bearded variety will gradually turn into a bald variety, and *vice versa*. Without knowing anything positive about it, I would answer that I do not think either would turn into the other,

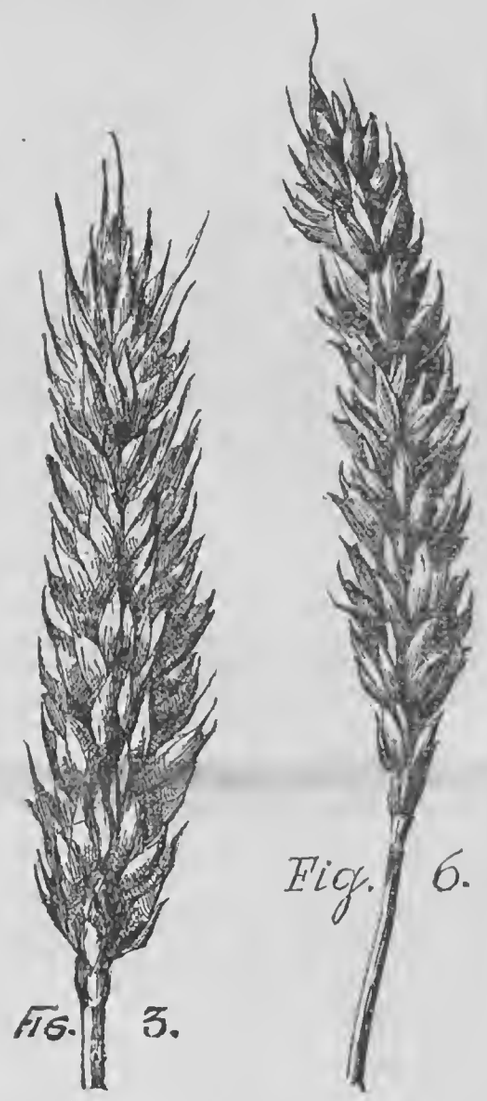


FIG. 3. Fig. 6.

ARNOLD'S GOLD MEDAL. SANDOMIRKA.

after having assumed a fixed character. I will say, however, that in the season of '78, I found in the "Gold Dust" wheat—which, by the way, when I received it of the Agricultural Department was badly mixed with all sorts of wheat, both smooth and bearded—an ear with which I was very much pleased and which appeared to be a sport of the "Gold Dust." I selected 20 of the best grains and planted them. At least one-third of the product consisted of bearded ears. There were nine other rows planted with as many varieties alongside the one containing the grain above mentioned, but I am certain that not one of these contained a bearded variety. The RURAL, however, has, I think, guessed what this wheat is—I sent on a handful of grains—for I am asked whether I know of a variety called Wick or Wycke. I remember seeing in some seedsman's catalogue, several years ago, a description of a variety spelt, if I mistake not, Week's, which was said to be partly bald and partly bearded. It is very probable that this wheat and the one to which I refer are the same. The three varieties principally sown throughout this State are, in the order in which they are now esteemed, Fultz, Lancaster, and Boughton.

THE BOUGHTON, sometimes called Tappahannock, was first introduced here about twenty years ago, and is too well known to need description. It is, beyond question, the earliest wheat cultivated in the United States, ripening here from June 18th to 20th. It is, unfortunately, not as hardy, nor does it tiller as much as some other varieties.

THE LANCASTER is a red-chaffed, bearded, Mediterranean variety, very hardy, and adapted to very thin soils. It ripens from June 25th to July 1st.

THE FULTZ—Fig 7—has now been sown here some six or seven years, and has proved very popular. It is next in earliness to the Boughton, ripening from June 19 to 25th. It originated in Pennsylvania, a head of it having been discovered in a field of Judge Fultz of that State. It is very hardy, close-chaffed—which makes it difficult to thrash clean—of an amber color, and yields well.

THE CLAWSON is sown to a very limited extent, as it does not do well, except on favored situations. It is a very beautiful, large-grained, white wheat, but is not flinty like the Boughton. The millers say that it is too soft to make a rich flour. It ripens with the Lancaster

THE SILVER CHAFF, purchased in Canada last fall by the Agricultural Department, is represented at fig 1. I received eight quarts of it, which I sowed broadcast about the last of September. It was badly winter-killed, and stood so thin that it would not ripen. It was cut July 3rd still green, and yielded three bushels of indifferent wheat. It is too late for this climate, but I think it will succeed in New York or in any of the more northern States.

SQUARE HEAD, an English variety, is shown at Fig. 2. English wheats have been tried repeatedly in different parts of the United States, but always without success. They will not mature here before the middle of July, by which time the rust has ruined them. The one in question stands the winter as well as any of our native kinds, but, although I have tried it twice, it has failed to fill both times. It runs less to straw than our varieties, and would yield remarkably, if it were not so late.

ARNOLD'S GOLD MEDAL, is represented by Fig. 3. This was obtained in Michigan, by the Department of Agriculture and was distributed in the fall of 1877. In the summer of that year

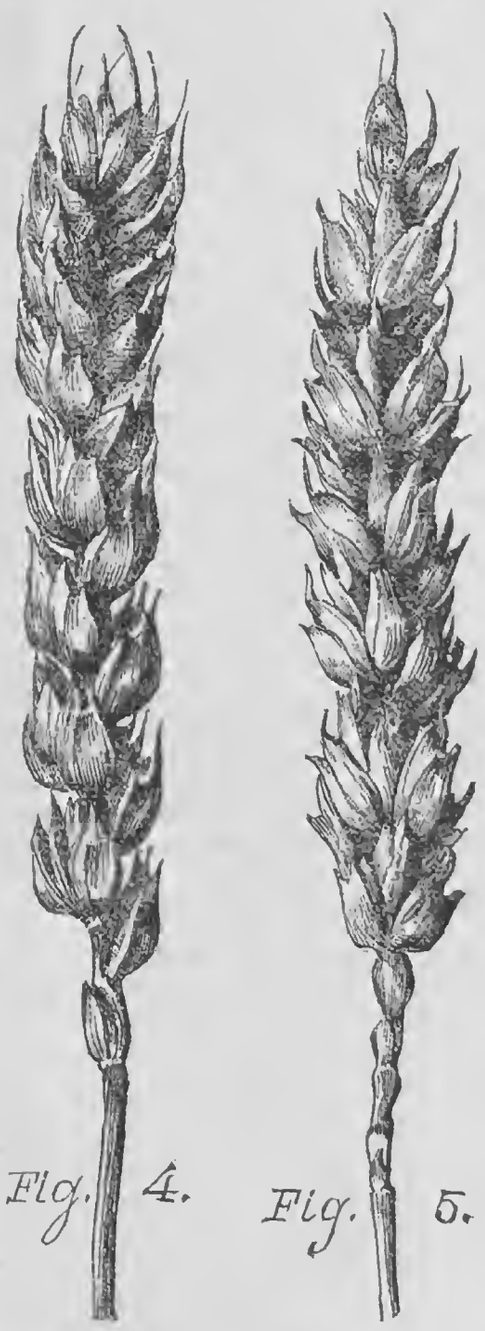


Fig. 4. Fig. 5.

CROSSES BETWEEN FULTZ AND CLAWSON.

I had been digging a basement under my house, and had carted the earth, which was full of saltpeter, on a piece of sandy land, containing, as I afterwards ascertained, 36,000 square feet. This earth—mostly clay—was scattered thinly over the land, which was then plowed, harrowed and laid off in rows ten inches apart. I took a small garden drill and sowed the whole piece with one peck of the Gold Medal. The drill bunched the wheat too much in the rows, and sometimes skipped places. The

FIG. 7.

FULTZ, CULTIVATED AND NOT.

wheat was sown on the 2d of September, and by the 1st of December one would have thought that instead of a peck, two bushels had been sown on the land. The whole surface was green and perfectly covered. My object in having the plants in rows was to work them with the hoe, but for want of time I failed to do so. I cut this piece on June 25th, at which time it was badly straw-broken, the Hessian fly having attacked it the preceding fall and injured the vigor of the plants. The yield was six bushels. There were sixty dozen sheaves, and as two dozen sheaves of good wheat will make a bushel, the yield should have been thirty bushels but the ears were not well filled The year before this I had sown three quarts of Gold Dust wheat in drills ten inches apart on about one-sixth of an acre of gravelly land which had been twice used as a hog pen, and had been in potatoes before the wheat was sown. I worked between the rows twice in the spring with the

hoe. The yield was ten bushels of as firm wheat as I ever saw. The ten bushels were sown broadcast on eight acres of rich bottom in the fall of 1877, and 400 dozen sheaves were harvested the following summer, which gave only 45 bushels of shriveled wheat. The same land was sown again the succeeding fall with the same variety, and this year the yield is 100 bushels of good wheat, or 12½ bushels per acre. Both the Gold Medal and the Gold Dust are hard white wheats. The latter was obtained by the Department in Oneida County, New York, and is said to have originated in Kentucky.

A HYBRID OF FULTZ & CLAWSON, obtained by myself by crossing the former with the latter, is shown at Fig. 4. It is one among four or five kinds which resulted from this cross, and as I was trying to develop the variety represented by Fig. 5, I paid no attention to it for the first year, but rejected it. I planted 25 grains of it last fall, and the yield is one pint.

FULTZO-CLAWSON is the name I have given Fig. 5, and I claim that it is the largest-grained wheat we have in this country. It takes after both of its parents, resembling the Clawson in the shape, and the Fultz in the color of the grain. The chaff is of a golden-yellow color, that of the Clawson being red, and that of the Fultz, white. In the season of 1876, I fertilized, as before stated, a head of the Fultz with pollen obtained from the Clawson, and found that 15 grains had been crossed. I planted these in squares 12 inches apart, both ways, one grain in every square. The piece had been covered with powdered mortar obtained from an old chimney which had been torn down. I worked it several times during the fall and two or three times the next spring. The plants tillered wonderfully, some of them producing as many as forty stems from a single grain. Some of the ears measured six inches, but none of them contained over two grains to the spikelet. The product was one quart. Owing to the many variations which this wheat has undergone, I have not been able to advance with it as I could have wished, and have at present only four bushels.

SANDOMIRKA, a wheat obtained by the Department from the Polish province of Sandomir, is represented at Fig. 6. It is said to make the best flour in Europe. The ear is short, straw soft, chaff red, and the color of the grain is a light brown. The whole amount obtained by the Department was turned over, in the fall of 1877, to a gentleman in Maryland who was to raise it for the Department to distribute in 1878. As raised by him, it was of a very inferior quality, and I received eight quarts of it. I had this sown on upland early in the fall, but it did not ripen till about the 4th of July. It is too late for this climate. The yield is two bushels of very good wheat.

I am inclined to believe that if even the ordinary care given to the selection of seed corn were bestowed upon the selection of seed wheat, results would be much more satisfactory than they are at present, and the older varieties would not so soon "run out," as the phrase is. Of the newer kinds, the great majority are no better than the older ones; they appear so because of the extra care and attention given to them. Hardiness and earliness are the two things mainly to be sought after in the choosing of wheat for seed. As to the

Cultivation of Wheat in Drills,

I have no doubt that an average of 50 bushels per acre may be obtained in favorable seasons, and occasionally more than that. But our present system of agriculture will need to be greatly changed before a general resort can be had to this method. The acreage both of this crop and of corn must be greatly reduced in order to allow the time requisite for their adequate cultivation. If, however, under the system proposed, one acre can be made to produce as much as ten under the present system, the advantage would be great indeed, to say nothing about the immense saving of seed. If an acre be laid off in ten-inch squares, it will take, in round numbers, 67,500 grains to plant it, or about one gallon of wheat. If we say that every grain produces twenty ears and every ear, twenty grains, and allowing 600,000 of these to the bushel, we have a product of 45 bushels per acre. This, I think, is a very moderate calculation. A better plan than this would be to lay off the rows from east to west, ten inches apart, and plant the grains three to four inches apart in the rows. This method would require about one peck of wheat. I propose planting one acre in this way this fall. In order that success may be assured, the ground must be made rich, or the plants will not tiller sufficiently. There is no question in my mind that the cultivation of wheat will have as great an effect on this cereal as the cultivation of corn on it.

I omitted to mention that out of a gill of grains planted four inches apart last fall, not one was lost from winter-killing, while at least one-half of that sown broadcast on the fields was so killed.

Pulaski Co., Va.

WHEAT ON CLAY SOILS.

W. I. CHAMBERLAIN.

IT is a common impression in some quarters that sandy or gravelly soil is necessary for the successful growing of wheat, and that a stiff clay soil is not fit for it. Hence large tracts, counties or portions of States of the latter soil have been given over almost exclusively to pasturage or meadow land; the plow has been used scarcely at all, and wheat has been a "foreign product." This impression or belief I deem incorrect and injurious. It is not the sand or gravel that wheat needs, but the pulverization, warmth and drainage secured by such soil. If these can be secured on clayey soils, good wheat can be raised there. The plant-food is there, or can be furnished by manuring, and so is sufficient silica for the straw; they only need to be made available. Wheat cannot grow in the water or in the mud. It will winter-kill or die of consumption under such conditions. Nor can its roots pierce huge clayey lumps. These must be pulverized and *kept* mellow. Our clay soils are not lacking in fertility. Our forests are magnificent, and the leaf mold of centuries has left a fine dark soil about six inches deep above the clay. Our newly-cleared land has always produced fine wheat. Decaying roots help to secure both drainage and fertility, and the leaf mold is still rich and unexhausted. What our lands longer cleared need most is *drainage*.

Good wheat can be raised on clay soil without under-draining by plowing in narrow lands, about a rod wide, with deep dead-furrows, and by using a heavy top-dressing of manure. This secures warmth and drainage, but at great loss of manure by wash. The deep dead-furrows, too, are a great inconvenience in cutting the wheat with a reaper. It is, therefore, found that

Tile-Draining Clay Soil

is the only means by which wheat can be successfully and profitably raised on it without frequent failures. And it is found that when tile-drained, the clayey soils, both of this country and of England, produce better wheat crops than the sandy or gravelly. I could mention many farms in this country and in England that prove this.

Preparing the Soil.

Supposing the clay soil, then, to be thoroughly tile-drained, say 33 feet apart and 2½ to 3 feet deep, the next point is its thorough pulverization and proper enrichment. By the former I mean that the entire soil, down to the "hard-pan" clay, should be mechanically stirred; by the latter, that the manure should be thoroughly mixed through the whole soil, so that the roots can reach it at the very first. Both these results are secured by a properly managed summer-fallow, that is, by manuring broadcast in May, harrowing the manure *fine*, plowing it under, cultivating the ground to keep weeds down in summer, replowing the ground in August, and cultivating enough to pulverize and "firm" the soil before sowing in September. But this involves much labor and the loss of an entire season's use of the land, and I think I shall never practice it again. If it be said that the land needs rest, I should say food will, in part, supply the place of rest. A well-fed team works better *every day* than a half-fed one *every other day*. Feed the land with enough manure or bone or superphosphate, and it will not often need a year's rest. The very best preparation I know for wheat on clay is to plow under the winter's manure, as described above, all the better if rather loose and strawy, as that helps to loosen the soil. Then, instead of summer-fallowing, sow Hungarian grass; cut it in August and replow and work the ground as if it had been summer-fallowed. Hungarian grass is one of our best crops for hay. It costs little labor, and on good soil will yield three tons per acre of thoroughly cured hay, fully equal, I think, to the best timothy hay as feed for milch cows. Then the thick shading of the ground by the crop keeps down all weeds and promotes fertility in various ways; while a mere summer-fallow, kept bare, is wasteful of fertility. This, at least, is the opinion of many of our best farmers. Then, too, the roots of the Hungarian grass seem to pulverize the soil. I never knew it to plow up, immediately after cutting the hay, otherwise than very light and mellow for the wheat.

Exhaustion of Fertility.

This crop is, however, a rank grower, and it is the common impression that it exhausts the soil badly. But if cut quite green, as soon as it fairly heads out, I am confident, from experiments, that it does not exhaust the soil nearly so badly as a crop of oats *left to ripen*. This *ripening* of any crop—oats, corn, timothy, etc.—seems to be the thing that most exhausts the soil. Hence, if the Hungarian is cut quite green, as it should be to secure the best hay and prevent the seed from shelling and wasting, it does not seem to exhaust the manure much, for when plowed up and thoroughly mixed with the soil, it seems to have its full effect on the wheat. And this grass is a far more profitable crop, net per acre, than oats, and might well take the place so generally filled by the latter in most systems of rotation.

Applying Fertilizers.

The general rule would seem to be that the fertilizer, whether bone, stable manure, or superphosphate, should be applied as near to the seed wheat as possible. This gives the wheat a vigorous start, secures a stocky growth and makes it cover the ground before winter sets in. Hence, bone or phosphate should be sowed *in the drill with the wheat*. This is nicely —I may say perfectly—done by the "fertilizer attachments" now found on our best wheat drills. If the phosphate or bone is sowed broadcast before the wheat is drilled, only a small portion comes where the wheat roots can lay hold of it *at the first*. The same principle holds true of stable manure. Where applied as described above, with the Hungarian grass crop, it becomes thoroughly and evenly worked through the entire loose soil. The wheat roots strike it at once, find it wherever they penetrate the loose soil, and even when they pierce the tough subsoil they find some of its soluble parts washed down before them by the summer rains, and awaiting their arrival. If, however, the manure has not been thus applied to a previous crop, and must be applied directly to the wheat, it should be worked well down into the soil. From my experience I should say, if you care most for the *timothy* or *clover* catch, then top-dress and harrow in; if most for the *wheat*, plow the manure under. Nor will the manure be found all at the bottom of the furrow. That is the worst plowing, for clay soil at least, that turns the furrow exactly bottom side up. Each furrow should "lap half," like one clapboard on another; and if the manure is thoroughly harrowed before plowing, say with a Thomas' harrow, and a jointer is used on the plow, the manure will be found all through the soil. The drill in mellow soil will put the seed down at least three inches below the general surface; and its roots will at once strike the manure and not need to wait for it to be washed down from above. This waiting may be a great detriment; for sometimes we have dry weather for two or three weeks after seeding, and no rain to wash the manure down. Last year I tried both modes of applying manure, side by side. When plowed under, it gave far the best wheat; where used as a top dressing it helped the grass catch most. If, however, the wheat must be sowed broadcast and harrowed in, then top-dressing will be best both for the wheat and the grass catch.

Mode of Sowing.

Drilling the wheat is, however, in most, or in all cases, far better than broadcast sowing. It scatters the seed more regularly, puts it to a better and more uniform depth, gives better chance for the economical application of phosphate, bone, etc., and guards better against winter-killing. The wheat plants are at the bottom of V-shaped grooves, and the same frost and thawing that heaves and exposes the wheat, crumbles down the dirt from the sides of these grooves, and covers the roots again.

The Harvesting

is now done far the most cheaply by the self-binding harvester. It can be hired in most wheat-raising localities now for about $1 per acre, and the cost of wire is slight, not as much per acre as that of the clothing worn out in binding by hand; for hand-binding is not only the hardest and most disagreeable farm work, but the most ruinous to clothes. The wire bands are an objection, however. It is almost impossible to cut and remove them fast enough for these all-devouring steam thrashers; and so a large part is apt to pass through the machine and the pieces are found both in straw and wheat. Strong magnets in the spouting at our mills, remove the bits of wire from the wheat, but no means have yet been devised to remove them from the straw. But those who have once tried the self-binders will be slow to go back to hand-binding, and Yankee ingenuity must remove the wire from the straw, and substitute straw or twine for wire as bands.

INTER-CULTURE OF WHEAT.

CONRAD WILSON.

THE practice of cultivating the wheat crop after the method usually applied to corn, has recently been growing in favor among practical men, and if the principle is sound, it must largely and favorably influence the yield per acre and the cost of production. As this cereal is the leading bread crop of the world, the problem of its yield and cost cannot be too closely examined by farmers. According to the light we now have on the subject, the indications are in favor of the new method. But the final decision of the question will be more surely reached after a series of experiments more extended and systematic than the most of those that have yet been tried.

Reasoning from the analogy of corn and other hoed crops, and judging from the testimony given in actual trials, the present presumption is clearly in favor of inter-culture. Yet it now appears that some recent experiments conducted by careful and capable men, have given results that are far from confirming this presumption.

Probably no journal during the last two years has done more to encourage this method than the RURAL NEW-YORKER and its efficient editor. When, therefore, the conductor of this journal, with a candor that gives weight to his opinion, announced that his latest experience in the after-culture of wheat has weakened his faith in the practice, it is time for the rest of us to re-examine our belief, and test still further the ground on which it rests.

But so far as I understand the points in the latest RURAL experiment, the discouraging facts were mainly two: first, the breaking down of the heads of the wheat, either from excessive weight of grain, or from lack of vigor in the stem, or from the violence of the wind; and, second, a deficiency of grain in many of the heads, tending to reduce the yield of the crop.

Now is it not possible that both of these results may have arisen from a deficiency of some element in the soil, which, had it been present in more abundance, would have counteracted the evil? Supposing this to be so, then is it not also possible that if either salt, or lime, or magnesia, had been added to the soil, the result in both of these cases might have been very different. So, also, if the variety of grain had been different.

It must be remembered, however, that as the RURAL editor, in this trial, had but one special object in view—to test the question of inter-culture—he naturally confined himself to that point. But it is now, I believe, understood to be his purpose to extend his experiments another year, so as to include a wider range of factors and conditions, and thus make the trial more exhaustive, and perhaps conclusive.

In the meantime it only remains for farmers to hold themselves open to conviction and push steadily forward in quest of new facts and more light, and thus at the end of another year we shall all be wiser men. But one thing is certain: if it shall finally be found, after more rigorous trials, that the method of inter-culture really warrants the claims advanced by those who have tested it the longest and most thoroughly, then the effect will be to give to this cereal an increase of yield, and a margin of profit that will cheer desponding farmers in the Eastern States, and restore to many abandoned fields the verdure of returning wheat crops, and the promise of a new husbandry that means more bread for consumers and better prices for the farmer.

It was certainly a significant fact, and something more than guess-work or accident, when Mr. Heiges of Pennsylvania was able, by this method, to increase the yield of his wheat crop, not once only, but in repeated trials, from 23 bushels per acre to 50, or over. It was also perhaps equally significant, when Mr. Groff of the same State, obtained by using the horse-hoe, a yield of 61 bushels; when Mr. Blount, in Tennessee, got 67 bushels per acre by cultivating in drills 16 inches apart, and when the yield of Mr. Perkins, of Iowa, by the same principle of special culture, was at the rate of 80 bushels, while other progressive farmers, both here and in England, have reached similar results by a similar process.

Now, as the further trials to be made the coming year by the RURAL and perhaps by other parties, will be more comprehensive, and include a wider range of factors than hitherto, they will doubtless be more than usually important, and of great interest to farmers. There is, therefore, still room for faith in the inter-culture of wheat. If it will give, on a general average, anywhere near the increase for this cereal that it gives for corn or for carrots, for mangels or melons, for potatoes or pumpkins, then it will richly reward the efforts of the earnest men who are working out the problem. If the principle is established, it will show not only that wheat culture pays, but that systematic experiments also can be made to pay, and that if farming is ever to be made an exact science, it will be mainly through field trials when guided and controlled by the clear light of intelligent thought.

SOME FACTS IN REGARD TO WHEAT GROWING.

HENRY STEWART.

IT is a notorious fact that wheat-growing in the Eastern and some of the Western States has been abandoned by many farmers for the alleged reason that it does not pay, and that it is cheaper to purchase flour. This excuse would be a valid one if it were true, but it is not true, at least in the great majority of cases. The frequent allusions in agricultural papers to keeping accounts have put farmers

to thinking, and while some have thought to good purpose, some have been led astray for want of figuring reasonably. It is easy to figure up almost anything, and make the most untruthful results appear, notwithstanding "figures never lie." For instance, a farmer with pencil and paper figures in this way.

DR.	
Plowing 2 acres	6 00
Harrowing 2 "	1 00
Manure—25 loads	25 00
Seed—3 bushels	3 00
Sowing and harrowing	1 50
Rent of 2 acres	10 00
Taxes	50
Harvesting and drawing in	5 00
Thrashing 25 bushels	2 50
	44 50
CR.	
25 bushels wheat	25 00
Loss	19 50

He concludes that it will never do to grow wheat at that rate, and he buys five barrels of flour for $35 dollars to last his family through the year.

These figures lie grossly, as may be shown. Let us figure up reasonably. In all this list of cost there is but one item of actual money expenditure which ought really to be counted; and that is for the seed, $3.00. Every other item would remain as a charge upon the farm, although the land remained unsown. If the ground were not plowed, the farmer and his team might be idle; or, if the manure were not used for this special crop, it would either remain in the yard and depreciate, or it would go to some other crop, where it would do no more good than if used to grow 30 or 40 bushels of wheat. In short no reasonable farmer will deny that he could put in two acres of wheat the present week, if he had the seed, without knowing that he has spent one dollar. The figures might then be put in this way:

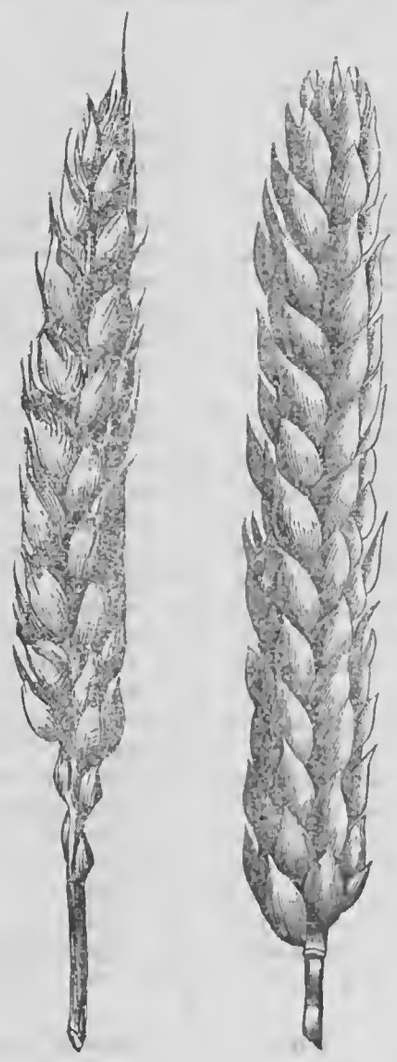
DR.	
Cost of seed	3 00
CR.	
40 bushels of wheat	40 00
Money saved by not purchasing flour	35 00
	75 00
Profit for labor, &c.	72 00

and an invaluable amount of satisfaction to boot. These may be thought two extreme cases, but the extremity of the former is far beyond that of the latter case.

THE CULTURE OF WHEAT.

COL. F. D. CURTIS.

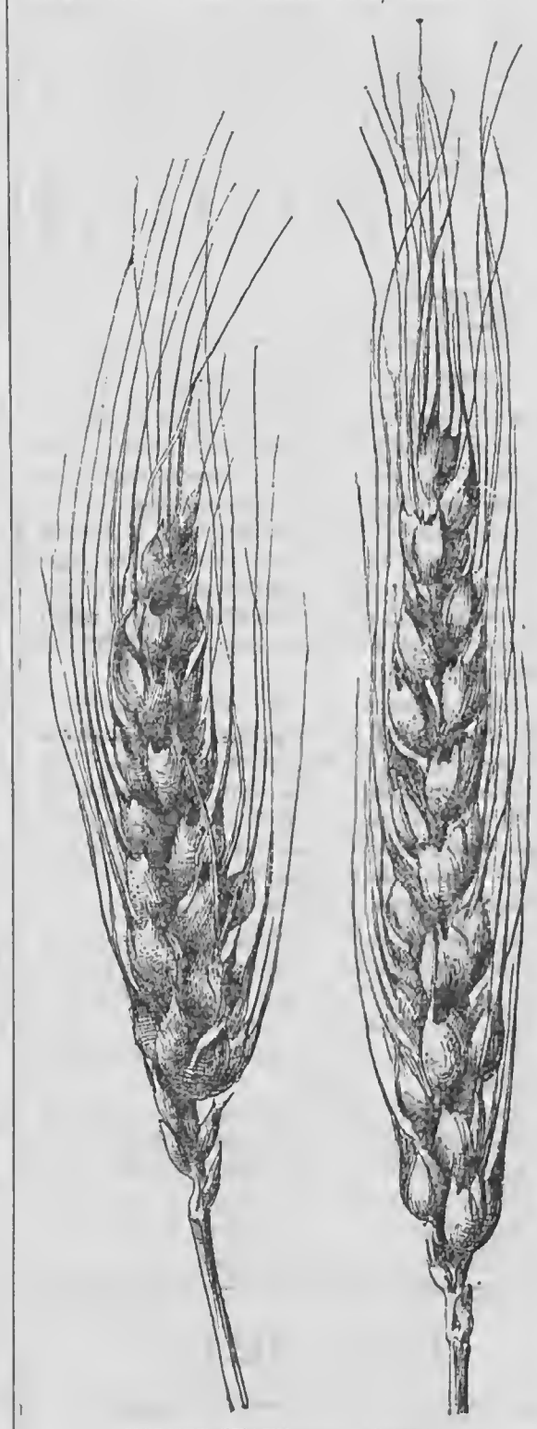
We are undoubtedly entering upon a new era in the growing of wheat. In the older States its culture was generally abandoned about thirty years ago, owing to the ravages of weevil and the Hessian fly more than any other insects, but chiefly because the soil seemed to be depleted of the properties which insured a good crop. A few clung to the idea of raising their own bread, and by care and plenty of manure continued to grow fair crops. From their experience we learn that painstaking is essential to success. Wheat also has



POWERS. DIEHL.

its peculiarities which must be considered. The long rest which has been given to the land has resulted in restoring its wheat-producing ability, not to the degree of newly-cleared land, but to a degree which will warrant the general culture of this most important cereal. In some countries, and in some parts of our own, where the soil is naturally adapted to wheat, successive crops have been grown for long periods. This is where both soil and climate are especially favorable, and the demands of the crop have been carefully heeded. These demands must be attended to, or else failure will be sure to follow.

No crop goes through a more trying ordeal than winter wheat. It has nearly a year of combat with all sorts of enemies, animate and inanimate. A half dozen foes, either as in-



VELVET CHAFF. LANCASTER.

sects or maggots, prey upon its vitals, beginning in the autumn and renewing their attacks in the spring and summer. The elements combine either to favor or to destroy it. It has to pass through the rigor of winter and the trials of summer. It must endure the destructive frosts and the trying droughts. No crop calls for more intelligence in its management or furnishes a more necessary reward than wheat.

The Soil for Wheat

must have substance, or, as some farmers would term it, body. Clay loam comes the nearest to the perfection of wheat soil; sand is the farthest away. There must be compactness and a degree of mellowness. Wheat will produce well on clay land, if the surface is made mellow, and manure will do this. The clay lands in early days produced large yields of wheat; but that was when the vegetable mold was abundant and the clay was lightened by it. Clay soils manured on the surface, will grow good wheat now, if they are worked when in a condition to be friable and not to pack. They must be under-drained so that the water will drain off freely; for clogged and water-soaked land will not produce wheat. At the same time a moist soil is friendly to wheat, such as the loams. Gravelly loam and sandy loam, unless too poor, will produce fine wheat. Such soils should be well manured and always on the surface, and then pressed down as compactly as possible with a heavy roller. This should not be done when the soil is wet, but when it will pack without sticking. This work should be done after the ground is fitted for the seed and before the seed is put in. Wheat wants a mellow surface, but the ground under that must be compact. The roots then take a firm hold and the winds and frosts and heavings do not so much affect them. A mellow surface should be somewhat uneven, which will afford protection better than when rolled smooth. By rolling just ahead of seeding, the good effects of the roller may be had in the soil, and its bad effects on the surface, avoided. A drill will leave the surface in a condition to check the snow before the wind and secure the protection it may afford. The same desirable results may be obtained by broadcast sowing, provided the seed is covered with a cultivator, as it always should be. Harrowing in does not cover deep enough. When harrowed in, the rooting is too near the surface, and the young plant is far more liable to be thrown out by the frosts, and also to become exposed by the winds blowing the dirt away from it. This is a trial the crop is liable to in the early spring—hence deep rooting is important. Some farmers used to plow their wheat under in order to secure a deep rooting. This was before drills and cultivators were in use. Standing water is destructive to wheat; all the hollows should have an outlet to allow the surface-water to run off freely.

Treatment of Wheat.

Early sowing, take one year with another, is best. When sown with a drill on rich land, a bushel of seed is enough for an acre, and a bushel and a half when covered with a cultivator. This gives room for tillering, which is helpful to a good crop, as it prolongs, somewhat, the blossoming time and makes a more complete impregnation of the grains. When harrowed in, calculation is always made for seeds not well covered and not covered at all, and two bushels of seed are required. More seed is always required when the land is lumpy and full of clods or stones, and much is lost on these accounts.

A stone, a lump of dirt or a clod of any sort is a wasteful covering for seed of any kind. It is an excellent plan to soak the wheat in brine for a few hours before sowing, to destroy the germs of smut or the eggs of insects, which may be clinging to the kernels. Rolling in plaster will fit them for sowing, and at the same time furnish a stimulant for the young plant. The preparation of the ground is all-important. The old-time farmers used to think it wise to summer-fallow the wheat ground. A sod was turned over in the early spring and replowed twice afterwards. This was done to get the land into a fine tilth or condition of mellowness, and to clear the land of weeds. They also had the idea that the frequent plowing made the land richer. It did, so far as it caused the decay of all the living vegetation and put the soil in a condition for more complete absorption. The same result may be obtained now after a crop has been gathered—and the use of the land, for one season, will not then be lost—by plowing immediately after harvest and then dragging the ground, and, before the time of sowing, plowing it again, and, if required, cultivating it with a two-horse cultivator at the time of sowing the grain. Another cultivating to cover the grain, or going over it with the drill, will give all the good results of the old summer-fallowing, besides an extra crop. Thorough subduing and pulverization are requisite, and these are obtained by the newer method with the improved machinery farmers now possess.

The Manure

should be well rotted and fine, so as to mingle with the soil and be immediately available as plant-food. It must be prepared beforehand, and should be kept, if possible, under cover, and have been forked over so as to be well broken up and mixed. The manure spread upon the surface should be harrowed in so that the plant can reach it as soon as it puts out its roots. This will cause the rootlets to grow strong and to take a rank hold in the ground. Barn-yard manure will supply all of the requirements of a wheat crop, and by barn-yard manure is meant a combination of the refuse of the vegetable materials gathered at the barn, and the droppings of the animals fed upon them and grain. The more there is of the latter mingled with the manure, the better for the wheat.

Wheat may be grown by the sole use of commercial manures, provided they are genuine, and really contain a large percentage of the stimulants and fertilizers that are claimed for them, and if the soil has a natural strength; barn-yard manure gives strength to the soil. Commercial fertilizers stimulate this strength; hence wheat-growing should be based upon barn-yard manure.

A good growth of clover is an excellent preparation for a good crop of wheat. The clover may be pastured the fore part of the season and then allowed to grow up, to be plowed under at sowing time. A clover sod, from which the hay has been taken off, is desirable for wheat, as it usually puts the ground in a mellow condition, and the decay of the roots, and the litter from the tops supply a liberal amount of enriching substance for the crop. Clover and wheat are natural friends and may follow each other with mutual benefit. The wheat crop is the best sort of a bed to sow clover-seed upon for a sure catch.

A common practice is to turn over an oat stubble for the wheat crop and cover the ground with manure. This is the custom of many of the best farmers, rotating with corn, oats, and wheat, and then going back to sod again. Forty bushels of wheat have been grown on one acre. A field well fitted for wheat will show the effects for years, as the thorough tillage and the manure make a strong grass crop, and this in turn insures good crops to follow.

Varieties.

The best and most successful wheat for growth and yield, is undoubtedly Clawson. It cannot be so generally recommended for bread-making. It is the hardiest and is adapted to more varieties of soil and climate than any other wheat now known. Millers do not agree as to the cause of its making poorer bread than other kinds. Some of them say it is because it contains too little gluten; others that it is a coarse-grained wheat; others that the bran is so thin that they cannot separate it from the flour.

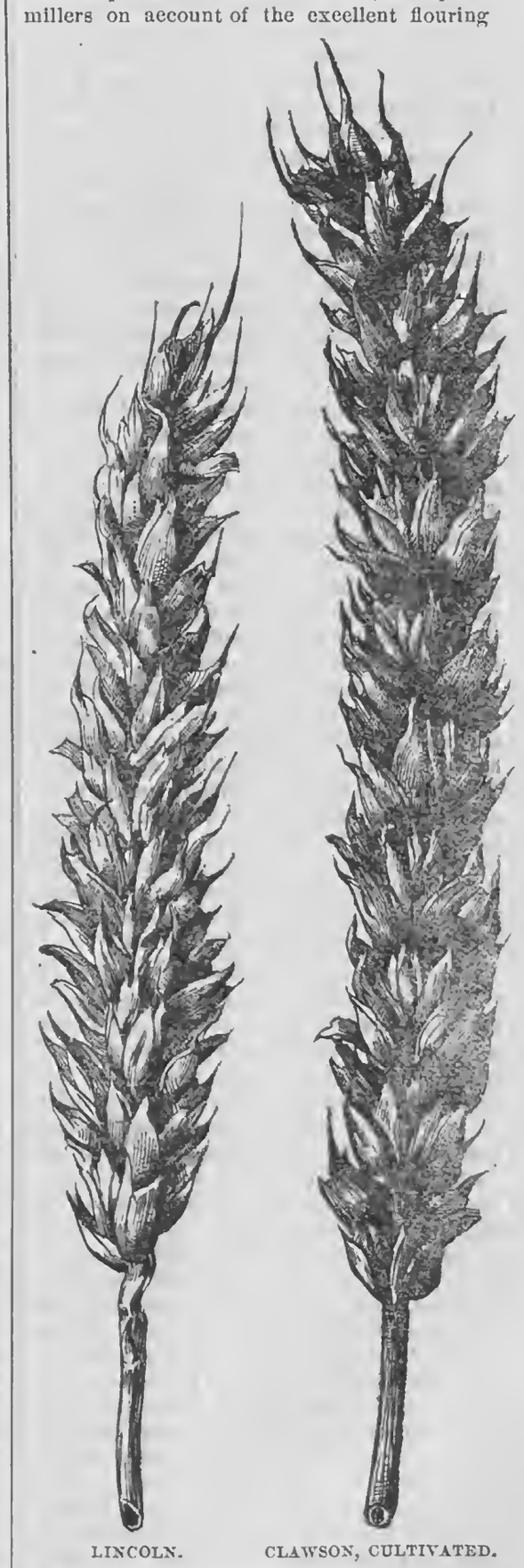
The chemical constituents of this wheat do not seem to be evenly combined, and it does make a kind of flour different from the best brands. A careful chemical analysis might determine its precise character. It will not bear close grinding and bolting like harder varieties, but when plenty of coarse flour is returned by the miller, the smaller quantity of fine is of good quality, and in the hands of skillful bakers will make good bread.

The Fultz has not been cultivated in this region, but is commended as excellent in quality, but not equal to the Clawson in hardiness or in yield. The old standard varieties of wheat which make first-class flour, and which have done well in this latitude, are Michigan White and Canada Flint.

The past season all kinds of wheat have yielded light crops, owing to the drought in May. Rye, also, suffered equally. Twenty bushels of wheat to the acre are more than an average yield, one year with another. This season the yield has not reached more than half this amount; still the breadth of wheat sown will be largely increased. A bin of wheat makes a farmer nearly independent, and home-made flour will help, on account of its lack of extra fineness, to keep away dyspepsia and to build up more stalwart men and women.

DIFFERENT KINDS OF WHEAT.

The Velvet Chaff wheat has been grown for years in southwestern Ohio, where it is much esteemed by the farmers on account of its freedom from disease, earliness in ripening, and comparative stiffness of straw; and by the millers on account of the excellent flouring



LINCOLN. CLAWSON, CULTIVATED.

character of its grain. Its name is derived from the numerous short hairs covering the outer glumes, and giving them a velvety appearance. It ripens in this vicinity by the 25th of June.

The Golden Straw originated in Tennesee, and was distributed by the Department of Agriculture. The straw is short, stiff and of a beautiful golden yellow color; the grain is

plump, white and very heavy, but somewhat soft. It ripens here by the 27th of June.

THE LANCASTER is an old, red variety, which so closely resembles the Mediterranean as to be almost indistinguishable from it. Like the Mediterranean, it has an extremely soft straw, but the grain is of excellent quality. It is a day or two later in ripening than the Golden Straw. In productiveness the Velvet Chaff and Lancaster have so far been superior to the Golden Straw, on this farm; the difference, however, has been partly due to the greater tendency to tiller manifested by the former varieties, making it necessary to sow a larger quantity of seed of the latter.

THE TREADWELL and DIEHL (see page 591) are white varieties which have been cultivated for some years in different sections. The former has a long, open head, with a white chaff, partly bearded and partly smooth; the latter is remarkable for the compactness with which the grains are crowded together, making the heads appear very short. This variety would probably yield large crops under favorable circumstances, but in one single trial it has been both late and disposed to lodge badly.

THE LINCOLN and POWERS (see page 591) are new varieties of white wheat, originating, I believe, in Michigan. Our sample of the former was so badly mixed that we cannot speak of the quality of the wheat. The latter has a very white, hard grain, and promises to be of value. We have not tested the four varieties last named sufficiently to speak with authority of their comparative productiveness. C. E. THORNE.

Ohio State University.

THE "NEW PROCESS" OF FLOUR-MAKING.

THE so-called "New Process" of grinding wheat is one of the most important technical improvements of the present century, inasmuch as it adds at least one dollar to the market value of every barrel of flour manufactured under it, besides producing from every bushel of wheat several pounds of flour more than can be obtained by the ordinary method of grinding. It is claimed that the process is not intrinsically new, but that it has for some time been in use among Scotch, French and German millers, and that the flour of which the celebrated Vienna bread is made, has for a long time been ground in this fashion. But if the process has not been recently invented in this country, great improvements in connection with it have already been made here beyond dispute; an extraordinary amount of attention has been directed to milling operations since its introduction, and there is, therefore, a strong probability that still more valuable improvements will be devised in the near future.

The most suitable kinds of wheat for this process, are the hard spring sorts, such as those grown in Minnesota, although all kinds are used with more or less satisfactory results. The cleaning of the wheat before grinding is much more essential here than in the ordinary method of milling. For this purpose the grain before reaching the garners, passes through a screen or sieve, a separator, a decorticating machine and a smutter. It is then run through "French burr" stones with a peculiar "dress" which is not so sharp as for ordinary grinding. The stones, too, are farther apart, the running one being raised more than usual, hence, the term "high grinding" applied to it. This takes off the bran without cutting it up or removing the fuzz from one end of it, and leaves the grain broken up into granules, technically known as "chop" commercially "Graham." This passes directly into a bolting chest furnished with three successive bolting cloths of different degrees of fineness.

Here the flour is sorted into No. 1 and No. 2 "family" flour, 26 per cent of the produce of the wheat going into the former and 13 per cent into the latter, in some of our Eastern mills; but in the West the proportions are generally considerably smaller. The remainder of the "chop" passes into another bolting chest, where the bran is separated from the "middlings" and thence the latter pass into the purifier, a machine intended to get rid of all impurities lighter than the farina, by means of a draft of air which lifts them from the sieve. The "purified middlings" are then reground, and the flour in passing through another set of bolts, yields a certain proportion of New Process flour. In some of our Eastern mills this amounts to only 13 per cent., but in the West by separating the stones more, as high as 60 per cent. of the wheat can often be made into "middlings," from which alone the New Process flour is manufactured. In that case, however, the residue is very poor indeed, so that it has been found most profitable to make only 30 per cent. of "Patent" or "New Process" flour, an arrangement that leaves the remainder a fair grade of "family" flour. After the separation of the New Process flour the remainder of the "chop" is again reground, and the product separated into No. 3 flour, No. 1 feed and a small percentage of screenings and waste.

The Patent or New Process flour contains an unusually large proportion of the phosphates and nitrogenous portions of the grain, and is therefore more nutritious as well as purer, whiter, finer and more valuable than ordinary flour. Another important advantage of this method of grinding is that it brings into more profitable use the enormous quantity of spring wheat raised in the northwestern States and Territories, and adds at least 10 per cent. to what the value of the crops would be if ground by the ordinary process. Before the introduction of this method, these wheats were more or less neglected and depreciated, but now it is found that they make the best quality of flour by the New Process. This is therefore a benefit alike to the farmer, the miller and the consumer.

THE WHEAT GRAIN.

FIG. 1 is a tranverse section of the coats of a wheat grain, magnified 184 times; a, is called the epicarp; b, a slight membrane underlying it; c, is the exterior of the seed which is variously colored in different varieties, and determines its white, amber or reddish color. From e to f is a matrix of gum, and this extends up the veins through the starch granules, g, g.

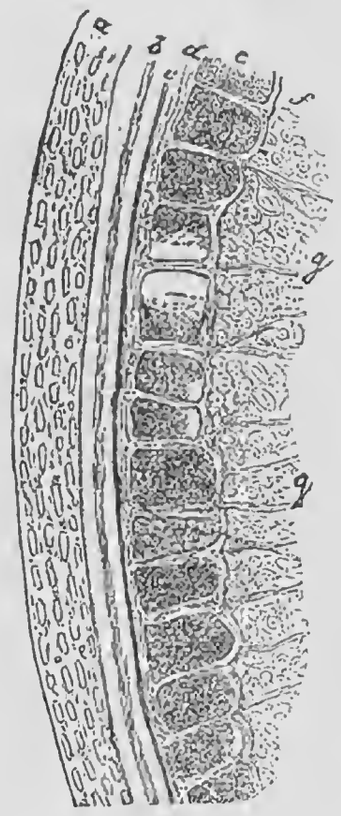


Fig. 1.

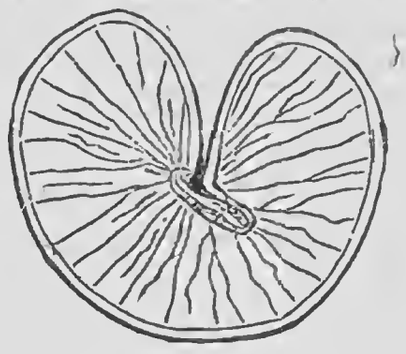


FIG. 2.

Fig. 2 is merely a section of a grain cut through near the middle, the form of which, of course, varies in different varieties.

WHEAT NOTES.

IN comparing the prices of wheat now with those of the last 17 years, it should be borne in mind that the present rates are in specie, while the former rates were in depreciated greenbacks. The crops of 1864, '66 and '67, for instance, brought unusually high prices, averaging in Illinois, according to the Illinois crop report, $1.55, $1.93 and $1.97 per bushel respectively, while the present crop is selling for an average of about 87c. But in July, 1864, a dollar greenback was worth only 38.7 cents, so that $1.55 a bushel amounted only to 60c. in coin. At the same date in 1866 the soft dollar was equal to 66c. specie, and $1.93 amounted only to $1.28 in hard money. In 1867 the greenback dollar was equal to 71c., and $1.97 was about $1.41 in coin. Moreover, the crops of the two last years were very short, so that what our farmers gained by high prices they lost by scant sales.

The produce exchange of this city is preparing to adopt the cental system in dealing in agricultural produce. Instead of 8,000 bushels of wheat, the present boat-load, they will buy 4,800 centals, and instead of 10,000 bushels of oats, they will trade for 3,200 centals. Bids will also be raised or lowered by tenths of a cent instead of by quarters or eighths, as at present. The system is already in practice in California, and its adoption here will greatly simplify business transactions.

"Arnold's Gold Medal Wheat is apparently our best cropper here," writes to us Professor C. E. Thorne from Columbus, Ohio. "Next come Velvet Chaff and Silver Chaff. We are much pleased with the latter on account of the stiffness of its straw, hardness of its grain, and its freedom from disease. The Clawson has ranked third in the list this year. Its straw seems to be growing softer, but its grain appears to be improving in its flouring properties."

PROXIMATE COMPOSITION OF WHEAT.

Where Grown.	Albuminoids	Starch	Gum and Sugar	Fat	Bran Crude Fiber	Ash	Water	By Whom Analyzed.
Alsace	14.6	59.7	7.2	1.2	1.7	1.6	14.0	Boussingault.
Saxony	11.8	64.4	1.4	2.6	2.5	1.6	15.6	Wunder.
America	10.9	63.4	3.8	1.2	3.3	1.6	10.8	Polson.
Flanders	10.7	61.0	9.2	1.6	1.8	1.7	14.6	Peligot.
Odessa	14.3	59.6	6.3	1.5	1.7	1.4	15.2	Peligot.
Hungary	13.4	62.2	5.4	1.1	1.7	1.7	14.5	Peligot.
Egypt	20.6	55.4	6.0	1.1	1.8	1.6	14.3	Peligot.

COMPOSITION OF THE ASH OF THE WHEAT KERNEL.

	Potash	Soda	Magnesia	Lime	Oxide Iron	Phos. Acid	Sulph. Acid	Silica	Chlorine
Av. of 79 analyses according to Johnson	31.3	3.2	12.3	3.2		46.1		1.9	

COMPOSITION OF THE ASH OF WHEAT STRAW AND CHAFF.

Av. of 15 analyses	11.6	1.6	2.5	5.8	0.7	5.3	2.5	69.1	1.1

In Illinois the acreage and yield of spring wheat have declined greatly this year. In 22 counties not an acre of it was sown; in 11 counties less than 50 acres were sown, while 7 more counties have had less than 100 acres apiece. Only three counties produced no winter wheat. The total quantity of spring wheat is estimated at only 3,376,400 bushels, while the winter wheat is put down at 42,041,252 bushels.

Careful calculations by two of England's best agricultural statisticians, Thomas Scott and Arthur H. Savory, go to show that English farmers cannot continue wheat-growing at the market prices of the present season. Their figures show that the average cost of home-grown wheat was $1.47¼ per bushel, while the price of it was only $1.21.

The English Board of Trade makes all its returns of agricultural products by weight, in cwts. of 112 pounds, so that each cwt. of wheat equals two bushels of 56 pounds each, while the ordinary English bushel of wheat contains 61 pounds.

The acreage under wheat in Great Britain for the last three years has been: 1877, 3,168,540; 1878, 3,218,417; 1879, 2,890,136 acres.

In view of recent heavy rains in England, the Mark Lane Express predicts an early advance in the price of breadstuffs.

Miscellaneous.

WHAT OTHERS SAY.

HESSIAN FLY—EARLY VS. LATE SOWING, ETC.—From late discussions of the Elmira Club, we take the following, as reported in the Husbandman. W. A. Armstrong said: There were hundreds of wheat fields ruined by the fly last year, and with its presence this year there would be similar loss. Late sowing appears to be the only way to prevent the fly from continuing its depredations. The rule is to wait until after a killing frost before sowing the seed. The fly lays its eggs on the wheat leaves in the fall, they hatch there if the weather is suitable, the larvæ descend to the roots of the plants, and in the following spring develop into flies that lay eggs to hatch in turn, but the larvæ burrow in the stalks above the first joint usually, and arrest the ascending sap, thus destroying the crop. Now with all these conditions met, this course would be repeated year after year, and wheat-raising would be attended with loss. Last fall there was general apprehension that the fly would destroy the crop this year, so a new condition was provided to prevent its work. After a severe frost it does not deposit eggs, or if eggs are laid they will not hatch. So most farmers sowed later than usual, and if they have poor crops there is compensation in the fact that they are rid of the fly, and they may console themselves farther by the reflection that a poor crop is better than no crop, which would be the certain result of the fly's continuance.

G. S. McCann—I don't believe in late sowing—fly or no fly. Early-sowed wheat is always better. In my judgment, the recommendation to sow late has cost our farmers thousands of bushels of wheat. Wherever you find a good yield of wheat this year, you may find also that the seed was sowed early.

Col. Piollet—What do you call late sowing?

G. S. McCann—Seed sown in October is late. I prefer the last week in August. If I might set a limit of time, I would never sow later than the fifth of September, and with other chances equal, I should never fail to get greater crops than my neighbors who adopt the practice of late sowing. Even when the fly is troublesome, fuller success will attend early sowing. I know this is true by my own observation.

A SIMPLE WAY TO ANALYZE WHEAT FLOUR.—Any one may, in a small but correct manner, analyze wheat flour in a very simple way, says J. B. Killebrew. Make a stiff dough of a given quantity of flour, put it in a linen bag, and let the linen be thick. Then knead it in water until the fluid that runs out ceases to have a milky appearance. Let the water settle and you will have the starch of the flour. The gluten remains in the bag, as water only swells it, but without dissolving it. Let the water stand and a white sediment will settle to the bottom. This is the starch, the principal ingredient of flour, and of all meals. Separate the water from the starch and boil it, and it becomes turbid and flocculent. This is vegetable albumen. Separate this from the water by filtering, and boil the water remaining until it becomes a thick syrup, and then add alcohol; the alcohol will take up the sugar, but not the gum. Filter the alcohol, and the gum remains. Evaporate the alcohol and you have the sugar. Of course these are not chemically pure, as the saline matters remain. Let us go back to the bag that contains the mass. Here are the vegetable fiber and the gluten. Gluten is vegetable fibrine, and corresponds to the fibrine or muscle of animals. It is also seen in the clot of blood, while albumen is the serum or watery part of blood. Thus we have in this little grain all the elements of nutrition: fibrine or muscle-food; starch and albumen, fat or heat-makers; cellulose, the same as starch chemically, but insoluble except by digestive fluids. It is this cellulose that envelopes the starch germ, etc., and is also called vegetable wool. It is the pith of wood, the fiber of cotton, hemp, flax, etc.

WHOLE WHEAT FOR FOWLS.—"There is more solid nutriment," says the Poultry World, "in whole wheat, as a feed for poultry, than in any of the cereals, weight for weight. It is an excellent kind of grain for this use, though somewhat more expensive than other sorts; but too much of this hearty feed is detrimental, particularly when carelessly fed to Cochins, Brahmas, etc. Fowls are very partial to wheat. It helps the laying capacity of hens, but it should not be used except with discretion as to the quantity allowed them daily. An excess of this raw grain will induce a looseness in the bowels very frequently. It is easy of digestion, and should be furnished in moderation, as a needful and most desirable *variety*, in conjunction with other dry grains, such as cracked corn, oats, etc. If not more than one-third or one-fourth of wheat is allowed with the other cereals mentioned, for ordinary purposes in the laying-season, hens will do quite as well, and they can thus be kept in better average condition than by a greater allowance. We have proved this by frequent practical experiments in feeding."

HESSIAN FLY AND PHOSPHATE.—"My opinion," says Mr. George A. Green, in the New York Tribune, "is that we have not yet gone far enough with our experiments to recommend a farmer to borrow money for the purchase of phosphate. It is claimed by some of our best farmers that the Hessian fly, which has been very destructive this season, does not work so disastrously in fields fertilized with phosphate. My observations have shown that where any fertilizer has been used liberally, this insect has done less mischief.

"'Is wheat our most profitable crop?' 'Yes,' say nine out of ten farmers; 'if we want to raise money, nothing can be found that will bring in so much in a lump.' But I say—no! Wheat has not paid so well as corn, barley, beans or potatoes, taking the average for many years past. Corn does not seem to bring in much money, for the reason that we consume it at home, the profit appearing in big manure piles, in fat cattle, sheep and swine; whereas every bushel of wheat depletes our soil of much fertility, the straw being of but little value except as an absorbent."

WHITE RUSSIAN WHEAT: Of this variety of wheat referred to by our contributor to "Everywhere" from Chenango Co., N. Y., a correspondent of the Farm and Fireside, writing from Prince George Co., Va., says that last spring he procured a package of this wheat containing a wine-glassful. He selected a piece of poor land of medium soil, manured it heavily with hog-pen manure, swamp mud and ashes, and after thoroughly plowing and harrowing, sowed the wheat broadcast and harrowed it on the fourth day of March. In a few days it came up, looking very green and thrifty, and soon commenced branching. He never saw wheat branch to such an extent before; he counted twenty seven heads of wheat produced from one grain, and some of the heads six inches long. On the first day of July he harvested it and obtained one hundred and fifty-eight wine-glassfuls, or one peck and nearly two quarts of wheat.

SALT ON WHEAT.—The Montreal Gazette says that in an interesting series of experiments recently made on the farm of the Royal Agricultural Society of England, the manure value of salt was unmistakably indicated. An acre of wheat dressed with 300 pounds of common salt, yielded 39 bushels of grain, with its proportionate amount of straw, while an adjoining acre left unmanured, produced only 29 bushels per acre, with the straw imperfectly developed.

WHY MILLERS DO NOT LIKE FULTZ.—"The percentage of gluten is too small," says the Indiana Farmer, "and the starchy matter is too great to make the best grades of flour. Gluten tends to strengthen the flour and make it absorb water and hold it in the gases of the yeast when making bread."

SPRING WHEAT.—Home & Farm (Louisville, Ky.,) says: For all countries and regions but those having cool summers, the spring wheat crop is a delusion and a snare, and should, in every case, be cast aside as utterly unworthy of spending time and money upon it.

AMOUNT OF SEED.—Jared F. Pond says, in the Ohio Farmer, that his best crops have been where one and a half or one and three-fourths bushels were sown. He is satisfied that thin seeding has cost him more than a hundred dollars, or perhaps two hundred.

MANURE.—"Waldo" says, in the Ohio Farmer, that he has rarely if ever seen a wheat crop on manured land materially injured by fly, rust, chinch bug, or any of the insect enemies that so often ruin the crop on impoverished lands.

FRUIT VS. PORK.—If more fruit and less pork were eaten, especially during the summer months, there would be less bilious fevers, less doctors' bills to pay.—*Mich. Pom. Soc.*

B. K BLISS is "confident that Champlain and Defiance, as winter wheats, will soon supersede all other varieties now sown."

THE TRUTH ABOUT IT.

[THE object of articles under this heading is not so much to deal with "humbugs" as with the many unconscious errors that creep into the methods of daily country routine life.—EDS.]

PRICES OF FERTILIZERS.

IN the RURAL NEW-YORKER of July 12, the following editorial appeared. So many of our readers and friends objected to it as unjust to our best dealers in fertilizers that we forwarded a part of the correspondence and the objectionable editorial to Prof. S. W. Johnson, of the Connecticut Agricultural Station, asking him for his views which are appended.

The editorial was headed "Prices of Fertilizers," and said: "We consider artificial fertilizers to be a prime necessity in the pursuit of agriculture. No farmer can hope to procure the highest profit from his business without their use to some extent. At the best, a farm that is worked on the self-supporting system as regards manure, must lose its fertility to some extent; slowly, more or less, it may be, but surely. But there is small encouragement held out by manufacturers of fertilizers for farmers to use their wares. The prices exacted for them are excessive. This is shown by the irregularity in the price lists. One entirely respectable and responsible manufacturer may offer superphosphate at $25 per ton, and another may ask $40 for an article which may be no better.* The basis of the market rates of fertilizers is fixed, in a measure, on the prices of Peruvian guano.† But the trade in this article is a huge monopoly. The Peruvian Government has hypothecated its guano and nitrate deposits to its foreign bondholders, to pay the interest on large debts, and it exacts a large price. To make these articles the basis of the price of nitrogen in other fertilizers (such as sulphate of ammonia, which is a by-product of gas works), is monstrous. So with potash salts, which are a refuse of the German salt mines, and dried blood ‡ and flesh, § which are the refuse of the large slaughter-houses, and were formerly disposed of by flowing or dumping into rivers. Before farmers can be induced to use these fertilizers to any large extent, the prices must be reduced." ‖

On these views Prof. Johnson comments: "Judging from my knowledge of affairs in Connecticut, I should think that those who object to the above have a real grievance. I know of no good superphosphates that are sold for less than 35 to 40 dollars per ton. Articles offered for less money have been correspondingly—usually more than correspondingly—inferior in value. Peruvian guano is no longer the standard for the price of nitrogen, but its nitrogen really undersells that from most other sources when the states of division and solubility are equal. The reputable superphosphates now on the Coun. market, give the farmer an active fertilizer, mostly prepared from domestic or native raw materials that are of themselves nearly worthless for his purposes until submitted to chemical and mechanical treatment, and these fertilizers are, I believe, sold at as fair prices, as rule in case of merchandise generally. The $25 superphosphate is either a new departure or, as I think it most probable, is of quality much inferior to the $35 and $40 goods."

* To this it is objected that no responsible manufacturer can make a good superphosphate to retail throughout the country at less than from $35 to $40 per ton.

† The price of Peruvian Guano has nothing to do with the price of superphosphates, is the objection to this.

‡ Good dried blood, containing 14 per cent. ammonia such as they use here is worth for export to-day, from $32 to $36 per ton.

§ Azotine is worth to-day, in New-York, wholesale, from $30 to $35 per ton.

‖ This paragraph is considered very damaging to manufacturers of good phosphates, as well as to farmers who may thereby be induced to buy a low-priced fertilizer which, in the end, they will find to be a very dear article.

AN APPRECIATIVE CRITIC.

EDITORS RURAL:—On taking up the last RURAL my eye fell on the benign countenance of our friend Charles Downing, which I recognized before seeing the reading matter. The likeness is admirable, though showing a little more fullness in the face than when I last saw him.

His prompt negative to your request for permission to publish his likeness is characteristic of a man, so quiet, modest and unassuming that even proper credit and the prominence due his eminent services in the field of horticulture and pomology, are distasteful to him; but one must sometimes yield to others' wishes and I doubt not your thousands of readers will sustain and thank you for giving them this excellent *souvenir* of this revered veteran horticulturist. The biographical sketch of Mr. Parsons is excellent. That a kind Providence may prolong the life and faculties of our venerable friend for years to come, is the wish of W.

JUDGING AT FAIRS.

HOW CAN TEN PLATES OF GRAPES be compared, that are fifty feet apart, with a whole orchard of fruit between them and oceans of people standing by to draw the attention of the committee? It is of the greatest importance that articles competing with each other in the same class, should be in close proximity. Still the exhibitors object to this on the ground that they want all their own things together. If a man is making an exhibition of articles as an advertisement simply, let him take a space and put his things together if he likes, even if he enters bulls and bedquilts, a thrashing-machine and a chromo; but if he enters for competition the authorities should compel him to show his articles in connection with others with which they compete. This should be insisted to the end that perfect justice be done. S. Q. LENT.

A PEACH CORRECTION.—In the issue of the RURAL for August 30th, I notice that an error has been committed in setting up my article on peaches. Referring to the Early Beatrice and Early Louise as deserving a place on the rejected list, the new peaches, Downing and Wilder, are also spoken of as meriting similar treatment. This was not my intention. A period should have been inserted after Early Louise, and the following sentence should read "Downing and Wilder ripened here about the same time as the Alexander, but are not so large." W. C. BARRY.

Rochester, N. Y.

PAMPHLETS AND CATALOGUES.

FIRST BIENNIAL REPORT for 1877-8. Kansas State Board of Agriculture. Alfred Gray, secretary, Topeka, Kansas. This contains numerous statistical exhibits, with diagrams of the agricultural, industrial, mercantile, and other interests of the State. It also contains a colored outline map of the State and sectional maps in colors of each organized county, showing their relative size and location, railroads, towns, post offices, school houses, water powers, etc., etc. This is a really valuable work, gotten up with much care and ingenuity and containing a vast amount of minute statistics that can be found nowhere else. It is especially serviceable to those who intend to settle in Kansas or desire information about the State.

CATALOGUE of Dutch Bulbs and other Flowering Roots; also, seeds and plants for autumn planting, and house decoration in winter; offered by D. M. Ferry & Co., importers and dealers in seeds, bulbs, etc., Detroit, Mich.

ANNUAL DESCRIPTIVE CATALOGUE of Bulbs and other flowering roots, with directions for their culture and management, offered by J. M. Thorburn & Co., 15 John street, N. Y.

H. H. BROWER, Light Street, Columbia Co., Pa., sends us his circular of Italian Bees, Queens, Colonies, Comb Foundation, Honey-Knives and other apiarian supplies.

DESCRIPTIVE PRICE LIST of Strawberries for the autumn of '79, offered for sale by Ellwanger & Barry, Mount Hope Nurseries, Rochester, N. Y.

CATALOGUE OF STRAWBERRY PLANTS, pot-grown and ground layers, for sale by P. M. Augur & Sons, Spring Grove Fruit Farm, Middleton, Conn.

DESCRIPTIVE CATALOGUE and Price List of small fruit plants for the fall of 1879 and the spring of 1880, by N. Olmer, Dayton, O.

WHOLESALE PRICE LIST of J. W. Wunderlich, seed merchant and grower, Frankfort-on-the-Main, Germany.

The Poultry Yard.

THE POULTRY DEPARTMENT OF OUR AGRICULTURAL SHOWS.

THE management of this division of the live-stock exhibitions in our agricultural fairs is not always satisfactory to those who exhibit, and we have become so accustomed to the grumbling of disappointed exhibitors that it hardly receives any other attention than a doubtful smile or open ridicule. It has been so customary for the non-premium-takers to growl, that it is looked for as a matter of course; still there frequently occur occasions when the growl becomes too deep and long-continued to be ignored. This is more often the case in our county fairs than in the State exhibitions; in the former it receives only local attention, but in our State exhibitions it becomes a matter of general importance, and when there is just cause for complaint the attention of the officers of the Society, as well as of the general public, should be so directed to the case as to effect a cure of the cause of the complaint.

The importance of the poultry interest is now too great to be ignored, nor do our agricultural societies, as a rule, overlook it. Most of our State exhibitions have a goodly list of premiums offered for poultry, and have provided good and suitable accommodations for showing the fowls. This is notably the case with the New York State Agricultural Society, which not only offers a large amount in premiums, but has large and secure accommodations, and also selects competent judges, who are paid for their services.

In strong contrast to this is the management of the New Jersey State Agricultural Society. The premiums offered by this Society are fair and not to be complained of, but the accommodations are wretched. Hitherto it has been the prevailing custom to restrict these to a canvas tent of only medium size, in which the fowls are stacked, three tiers high, in the same coops or boxes in which they have been shipped, with little or no regard to classification, and with no attention paid to sanitary measures. The superintendent of this department has seemingly been selected *not* for his business capacity, but for his known favoritism to the *members* of the society and their personal friends. The judges, also, were men who had raised chickens for market all their lives, and knowing a Bantam from a Brahma, were, therefore, in the opinion of the appointing committee, competent to decide the merits of exhibition fowls also.

For years the awards in this department have been a perfect farce. In 1877 the writer was asked to assist in judging, and was told that other and *competent* parties would be appointed with him. Arriving on the ground, he found the other *judges* to be three in number: first, the superintendent (ex-officio); second, a gentleman who had raised poultry for market all his life; third, a friend and neighbor of one of the largest exhibitors, who acknowledged he knew nothing about poultry—except in a culinary way—and accepted his appointment simply to comply with the request of his friend. It is hardly necessary to chronicle the result. The first three judges invariably voted together, and the awards were placed as *they* decided.

I commented pretty severely on the matter in one of the poultry journals, and as a result, in 1878 I received a very courteous letter from the secretary, asking me to give the society the names of a few parties who were competent and who would act as judges in the poultry department; also, if I remember rightly, stating that the society would bear their expenses. I forwarded the names; the judges were selected from that list, accepted and served, and I presume, *for once*, the premiums were correctly awarded. The judges were treated to a cold lunch, and upon presenting their bills for expenses and services, were met with a demurrer as to the amount. After considerable delay, they received the munificent offer of $3 each for their traveling expenses and time. Their railroad expenses were not less than $5 each, and the cost of breakfast (for they left home by daybreak) and supper had to be added to that. (Possibly I may be in error as to above amount, but I am quite certain that was the sum mentioned by my informant, one of the judges).

I have drawn the following conclusions from this matter: either the managers were contemptibly mean, or the interested *home* exhibitors cooked up this job with a view to preventing the Society from afterwards getting competent judges to serve, thus leaving the field open for their mongrels to win. In justice to the secretary, I must say that I do not believe him to have been a party to the above action, and I think him to have been in earnest in his attempt at reform in this department; but he was either overruled or outwitted by those personally interested in the matter.

It is with reluctance that I have referred to this matter. As I am not in any way interested in it, never exhibiting fowls or pigeons, and having no interest in any that were exhibited, I cannot be accused of being a "disappointed exhibitor," or a "sore-head." But, as the judges of last year were nominated by me, and were seemingly aggrieved at my getting them "into the scrape," and as others who did not serve last year may be asked to do so this, I wish to publicly notify them of last year's action. Further than this, and still more important, is my desire to arouse the attention of the honorable members of the New Jersey Agricultural Society—and there are many such—to the way in which the poultry department has been managed. The poultry interest in the State of New Jersey is far too important to be neglected, or worse, by a Society which should in every way foster and encourage its growth. And, last but not least, for the sake of the good name of the State Society, there should be a thorough overhauling of such "ways that are dark and tricks that are vain." A. M. HALSTEAD.

Horticultural.

PRACTICE WITH RASPBERRIES IN THE FIELD.

MY experience agrees with that of Mr. Thomas and the Gardener's Monthly on the subject of removing Raspberry and Blackberry plants as soon as the picking is over; and there is more in the philosophy of leaving the canes till the season is ended than appears at first thought. The order of nature with these fruits is, as I have observed, to make the main growth of successional plants early in the season; and if this growth is not thus made, there cannot be a full crop the succeeding year, for the reason that an aftergrowth is always winter-killed. The young plants are, and should necessarily be more or less troublesome to the pickers. This is especially the case with the Blackberries.

The practice has been in the Antwerp section on the Hudson, as soon as the picking is over, to cut up the old canes, remove the stakes, plow out the patch and pull the weeds remaining about the hills. Two injurious results follow:—We know that the rich descending sap from the old canes, instead of forming alburnum, as in tree growth, adds to the strength of the roots from which have already risen the young plants for future bearing. Therefore, when we cut away the old cane in full leaf, we commit a waste.

The removal of the stakes and canes admits light and heat, injurious to the young plants, because it excites to a pushing of buds which should lie dormant until spring. This is specially true with the Antwerp Raspberry. When the dormant buds have been broken by the extra nourishment of a warm sun and a loosened soil, they die. Although apparently alive when laid down in the fall, they are as dead as we always hope the ennuli will be in spring. A. A. BENSEL.

Orange Co., N. Y.

Industrial Topics.

A REALLY practical manual-delivery binder attachment, to a self-rake reaper has been a problem that has engaged the attention of every thinking manufacturer of this class of machinery. It cannot be said, we believe, that anything very practical or efficient has, until lately, successfully met a thorough test. Our representative in Syracuse has, recently, sent us an account of the trial of a new device of this character, that is one of the latest achievements of Messrs. Bradley & Co., the well-known implement manufacturers of that city. Although simple, it would be difficult to give a lucid description of the binder without the aid of illustration. In this case it worked admirably, delivering the gavels squarely into the binder's lap where he sits on the machine. He saw inexperienced men who were not used to any such mechanism, after a few minutes' work, bind and throw off from eight to ten bundles per minute. This was done in a series of trials showing that it can be operated by any man who is a fair binder in the field. We congratulate "Chris" in his success.

THE evidence of travelers points to the superior accommodations of the Wabash Line for quick transit to places this side and beyond the Mississippi River, and as the road is able to make its record for quick time and skillful management of passenger traffic, it is equally successful as a fast freight route. As some of the important State Fairs are held very near together in point of time, the freight question becomes a leading one. Our experience would suggest that all eastern shippers that propose to reach the State Fairs at Springfield, Ill., and St. Louis, Mo., avail themselves of the "Great and Only Wabash," as they can intercept it at Toledo by any of the Eastern trunk lines, and ship exhibits through without breaking bulk. Mr. E. J. Burritt the General Eastern Agent, whose headquarters are in New-York is indefatigable in his endeavors to oblige the patrons of the road, and it is to his efforts mainly, that the "Wabash" is popularized among those who have not yet personally tested the route.

Everywhere.

THE HARVEST IN CALIFORNIA.

Now that the wheat and barley have been gathered, and much of the crops thrashed, we can compare the yield with that of last year when the amount of wheat exported was 580,000 tons. There is a partial failure on the San Joaquin, which will diminish somewhat the aggregate production. But this is, in part compensated for by the increased product of the countries of Sonoma, Lake, and other Northern parts of the State, which had too much rain last year.

For all purposes Club wheat is deemed the best. This sort succeeds more generally than any other under all the varying conditions of soil and climate. It is a large, plump grain, and furnishes the magnificent staple, with hard and glutinous berry, that commands the highest price of any in foreign markets. There it is in demand by millers for mixing with the softer kinds for grinding. Here it cannot be manufactured without turning on a small stream of water during the process. I witnessed this, shortly after last harvest, in the grinding of our grists which had been hauled from the pile of sacks left in the open field after thrashing. It is an accepted theory that grain is lighter and drier then than six months later when the weight has been increased by absorption. Many think it pays interest to hold a crop twelve months, and strange as it may seem to Eastern eyes, there are substantial reasons for the belief. From about the first of May until the grain is thrashed, not a drop of rain falls on it, as a rule, though, some years there are very light showers in May. The ground is shaded and kept moist by the plants, while the grain fills out plump and dry and hard. It may be, and often is, removed within fifteen days from the field, in sacks, to the holds of the largest vessels and shipped around Cape Horn, passing the torrid zone, both on the Pacific and Atlantic, without the least danger of heating, protected by its capacity for absorption. The dry climate is, perhaps, the cause of this excellence in quality, otherwise I do not see why some of our best sorts of wheat would not do well in the Atlantic States. The writer has forwarded many samples to friends in the East, but he has never learned of their working any revolution or change of seed. On the other hand, seed wheat from every part of the world has been tried here, so far as we know, without at all rivaling our favorite sorts. The Mediterranean, once so popular with you, was long ago introduced here, and has been discarded. The yield was inferior, and the color of the flour dark. The white winter wheat of the hills of Ohio and Kentucky, is the only berry I ever saw comparable in size and quality with the California Club.

Now that our best soils are becoming exhausted with wheat after wheat, year after year without rest or alternation, the average yield per acre is running down to seventeen bushels. Vast ranges of half-tilled fields do not grow that much with the gang plows and slovenly methods prevailing. But there are many small ranches where mixed farming is adopted, and more labor is bestowed on the land with better results. I have seen 54 bushels an acre from summer-fallowed upland—but, "one swallow does not make a summer." The ranch of Mr. James Hugill, near the Mokelumne River, is virgin soil reclaimed from the tules. One hundred and thirty acres were sown to wheat of the Propo variety. The reported yield this harvest is 60 bushels per acre. This is certainly encouraging for tule lands, of which there are great wastes undrained. This alluvial formation, the deltas of our rivers, is the finest garden land in the world.

The four great barley-producing States are New York, Michigan, Wisconsin and California. Our crop of 1879 is very little under the average. In this locality it is better than last year. The price is very low—60 to 80 cents per hundred. As this is not much of a corn-growing region, barley supplies its place for feed.

The climate is so even on this coast, and the weather so uniformly warm and clear, that we calculate with certainty on exemption from rains after their cessation in the spring, until about the first of October. On most of the great ranches the harvest hands sleep in the fields or in the straw. They are fed like Gypsies and worked like mules. During the harvest time the ranch is a busy hive; but when thrashing is done, it is deserted until plowing begins in October. As a consequence, the houses and other improvements are usually of the meanest sort. In a land which the world cannot rival for the variety and flavor of its fruits, none is grown. The proprietors of these principalities sow grain and nothing else, up to their door steps; and when the header has finished its work, the family goes away to the nearest city, leaving a lot of worked-down mules to wander over the premises until the rainy season.

Along the coast, within the belt of fifty miles subject to sea breezes and fogs, the tillable land is more rolling and thickly settled. There are permanent homes, many of them built with taste and surrounded by the comforts of life. More attention is paid to fruit-growing and dairying. Even there, there are many signs of the nomadic tendencies of the population, and it takes but a slight hint for almost any head of a family to pack off on a jaunt to the mountains. In such an excursion made up of grown people and children, with horses, guns and dogs, the wagons are without covers, and the party without tents. The soft climate is responsible for much of our shiftlessness. There are no winters to prepare for, and, but for the rains, the winter months are the most delightful of the year. It is the season of seed sowing, after which most of the lords of the soil take their ease until harvest. J. B. A.

Santa Rosa, Cal., Aug. 1879.

RURAL SPECIAL REPORTS.

MAINE, Bolster's Mills, Cumberland Co., Aug. 25.—Corn is looking well. We had some hard winds that blew it down twice, but most of it has straightened up again. Potatoes are looking well. Apples are quite plentiful. Some of the seeds I received from the RURAL are doing fairly; Defiance wheat looks well, and so do the Beauty of Hebron potatoes. Blount's corn is growing very tall. R. S. P.

VT., Cornwall, Addison Co., Aug. 29.—Instead of our hay being half a crop, as predicted in my last report, subsequent rains have made it rather better than an average. The Beauty of Hebron I planted alongside Early Rose; they ripened about the same time, and I do not see much difference in their yields. I planted about five ounces of the Beauty, which gave 35 hills, with one eye in each hill, and those five ounces yielded me just 49 pounds of very nice-looking potatoes. Of the other seeds received, the tomatoes are doing finely; the watermelons were injured by drought; the Pearl Millet was very successful as a failure; the Defiance wheat was nasty and shriveled, and of the flower seeds, none has thriven except the Ricinuses, which are looking nice.

W. M. E.

RHODE ISLAND, Providence, Aug. 30th.—I started Acme, Golden Rural and Early Conqueror tomatoes at the same time, in boxes in the greenhouse. The plants were set out at the same time, about July 1st. The first Acme and Early Conqueror were picked about the 18th of August, though the Conquerors were a little in advance of the Acme. To-day I have found the first and only Golden Rural ripe. The vines are loaded, however with green fruit. The Acme is the most perfect fruit in color and form, that I know of. Cook's Smooth Red is the favorite market tomato around Providence, though the Acme has been raised considerably this year. The Japanese Persimmon is a *dead* sure thing here, though we can raise the Virginia variety every time, and have had nice fruit from them in winter for years. E. T. D.

N. Y., Seunett, Cayuga Co., Aug. 27.—Farmers about here are busy plowing for wheat, while some are sowing it. I think the acreage to this crop will be larger this year than last in this section. A great many of our farmers have finished thrashing. Wheat averages only about half a crop; for while some have as high as 25 bushels per acre, others have only ten. Wheat is now worth $1 per bushel with no prospect of a rise right-away. Oats bring from 35c. to 40c., and are an average crop. Corn is earing pretty well, and if we get rain enough, it will fill satisfactorily. This is quite a famous country for beans, but this year they are blight-stricken and I cannot tell how they will come out yet. The yield of potatoes is going to be very good. The tubers are now worth 25c. per bushel. With regard to the RURAL seeds; the flowers did not come up very well, while the Pearl Millet didn't show itself at all, although I took pains to pick out the best ground for it and top-dress the place. My Blount's corn came up first-rate and grew well for two weeks, when the ants got at it and destroyed every spear of it, except one which is now five feet high. I'll try it again, however. The Acme tomatoes are growing nicely, but they are rotting before they get ripe. My Beauty of Hebron potatoes are doing best of all. I have 19 hills, all looking first-rate. They will be fit to dig in about a week. W. B.

N. Y., Elmira, Sept. 1st.—As summer closes we must acknowledge it to have been an unfavorable season for farmers in this locality. Late frosts, cool weather, and severe droughts have been decidedly unfavorable for nearly all crops, and a considerable falling-off in the yield has been the result. Occasional light showers, during the greater part of the summer, kept vegetation in a fair state of growth; but we have been especially unfortunate in having had no rain for the past two weeks, as good crops in corn and tobacco depended upon a rainfall. Pastures are very poor, and as we have had no heavy rains since spring, much complaint is heard of low streams and dry wells. We have had every indication of rain and copious showers have fallen at points not far distant, but it has cleared off again, and the prospects for rain are poor at present. Tobacco growers have been busy the past week harvesting their crops and the weed will be nearly all housed by the end of the week. Some farmers are plowing for wheat, but more are waiting for rain to soften the ground so that better preparation can be given it and that at less expense. Corn cutting has already commenced on some farms, and it will be generally begun this week. G. G., JR.

N. Y., Greenport, near Hudson, Aug. 28.—Corn and potatoes in this vicinity are splendid. I have 58 hills of Blount's White Prolific, which is now from 10 to 11 feet high. The stalks are thrifty, but the ears do not indicate a large yield. They are inferior to those of the ordinary field corn. The Beauty of Hebron potato was cut through the center and planted in two hills, which yielded me 39 potatoes of medium size. At the same time and in the same kind of soil, I planted a potato cut in four pieces, one piece in each hill, which produced 64 potatoes, about half of which were very large, some weighing one pound each; the rest were of medium size, some smaller. I am thus explicit, as I fancy it to be an extraordinary yield. The seed was taken from a basket of Carolina potatoes, sent from New York.

R. M. L.

N. Y., Hannaway Falls, St. Lawrence Co., Aug. 29.—My Blount's corn is doing finely now; the stalks are from 8 to 13 feet high, with three to seven ears to a stalk. The drought injured it very much, but a good rain on the 16th and 17th gave it a new start. The Golden Rural Tomato is ahead of any sort I ever had. I picked the first ripe ones on Aug. 9, and I have had plenty since. The Beauty of Hebron potatoes are yet growing and bid fair to give a good yield. The Defiance wheat rusted somewhat, but has given a fair yield. The rest of the RURAL seeds have been nearly failures. H. D. R.

N. Y., Guilford, Chenango Co., Aug. 29.—The weather for the month of Aug. has been dry and cool, which begins to tell on fall feed. The hay crop which was excellent, was well secured. Wheat was very good, especially the spring varieties. I have one called White Russian that seems to do better than any other introduced here. I have not thrashed yet, but its yield with me last year was 27 bushels per acre, and the year previous, 32 bushels.

M. E. M.

OHIO, Fruit Hill, Hamilton Co., Aug. 26.—I purchased a few plants of Pride-of-the-Hudson Raspberry from an Albany, N. Y., firm in the spring of '78. They grew nicely during the following summer, but were killed to the ground last winter. Herstine also was "killed," but not so badly. Turner was injured very little. The thermometer dipped to 24 degrees below zero several times during the winter. Our Miami Black Cap Raspberry, of which thousands of acres are raised here for the Cincinnati market, were somewhat injured. The season here was very dry during May, the latter part of July and the first of August. Now, and for two weeks back, it has been very wet. The Beauty of Hebron potato the RURAL sent me produced about half a peck of large tubers; I think I never saw such a yield from a single potato. J. N. D.

OHIO, Foster's Crossing, Warren Co., Aug. 27.—My Blount corn will average four ears to the stalk. The Golden Rural was our first tomato to ripen; the Acme, too, is very fine. All the seeds sent me grew. D. R.

MICHIGAN, Lainsburg, Shiawassee Co., Aug. 29.—We are having a long-continued drought and vegetation is suffering greatly. Wheat has done fairly, but grass, potatoes, oats, buckwheat, corn and root crops are light. Frost has done more harm this season than for twenty years past. Still, there are provisions enough, and none need suffer on account of scarcity. Clawson wheat will be sown more than all other varieties, though some are inquiring for new sorts. At present we know of no better kind, for it is hardy, adapts itself to different soils, of which we have a great variety, and yields well.

G. M. K.

KY., Owensboro, Daviess Co., Aug. 24.—Pearl Millet I planted too early and lost about four-fifths of it by a heavy rain last May. I am afraid 16 square feet will hardly be room enough for each stand of what is left of it. It is four feet high. The first stalks stand at an angle of about 45 degrees, and young stalks keep coming up between them. Of Blount's corn, about which so many have "great expectations," of course I must say something. I predict that some one who has raised the corn previously, and understands its habits, will "get away" with that gold premium. I have stalks 14 feet high, but the average is only 12 feet. Some stalks have from two to four ears that lie close to the stalk, while others have from four to seven on a shank about two feet long. Is the corn sweet? It seems so, for jaybirds and wood-peckers seem to be resolved to eat mine up, although there are large fields of other sorts within 100 yards of the Blount's. Accordingly, with the wind prostrating some of mine and breaking off some, while birds are eating some more, I am afraid I have but a slim chance for a premium. Corn is worth 40c. to 45c. per bushel; wheat, 80c. to 87½c.; Irish potatoes, 50c.; sweet potatoes, 80c.; tomatoes, 40c.; butter, 15c. to 20c. per pound; honey, 8c.; eggs, 8c. to 10c. per doz.; watermelons at purchaser's own price. About a fortnight ago we had a regular flood. Tobacco and cabbage on low grounds are greatly damaged. J. W. S.

ILLINOIS, Baileyville, Ogle Co., Aug. 26.—The farmers are busy thrashing. Crops are yielding better than was anticipated. Winter wheat averages about 25 bush. per acre; spring wheat, 11; oats, 40, and barley 25 per acre; but there is much variation, and we cannot estimate the exact general average. Quality good. Corn is doing well, and will be a large crop in this part of the West. W. B. D.

ILLS., Evanston, Cook Co., Aug. 25.—I thought my Blount's corn was doing wonders—it has shot up to a hight of 14 feet and has from three to four ears to a stalk—but when I see accounts that give it from four to seven ears to a stalk, I have to "give up." My Pearl Millet is doing first-rate—it is six feet high and still a-growing. C. W.

WIS., Darien, Walworth Co., Aug. 22.—Harvesting is over and thrashing has begun. All small grains are good, and corn promises well. We had a slight frost on the 17th inst., but it did no damage. I've dug my Beauty of Hebron potatoes; the largest is 13½x7¾ inches, outside measure. They were planted on April 20, along with the Early Ohio, and came up seven days ahead of the latter, and kept that lead until dug. They are of better quality than the Early Ohio, which were scabby. The Salix pentandra has a most beautiful leaf and attracts a good deal of attention. Z. H.

IOWA, Troy, Davis Co. Aug. 24.—We have had continual dry weather for the last two months. Corn will be a short crop; early potatoes an average crop; late potatoes a failure. Fall wheat averaged from 20 to 25 bushels per acre. Oats and hay are fair crops. It has been very dry, but my Blount's corn has from two to seven ears per stalk. The Beauty of Hebron potato has done very well. It ripened about the same time as Early Rose, but yielded better, and is a good potato. The Acme tomato is very good. The Defiance Wheat rusted and blasted with me. Pearl Millet is from three to four feet high and running to seed. The flower seeds did not do well.

J. L.

IOWA, Letts, Louisa Co., Aug. 27.—Fall wheat hereabouts was a good crop, yielding from 20 to 30 bushels per acre; spring wheat, however, was a light yield, owing chiefly to chinch bugs. Oats are an average crop, but the acreage under them was less than usual. Hay was an average crop, put up in good condition. Early potatoes were a good yield; late ones are not looking as well as they do some seasons, so that we expect a light crop. Corn looks first-rate, and is now ripening. My Blount's Prolific is doing finely; if nothing happens to it, you will hear from me with regard to it in connection with one of those premiums. The weather is dry and pleasant.

W. M. N.

MO., New Cambria, Macon Co., Aug. 25—I received the Beauty of Hebron potato and planted it on the 10th of May. I have dug one hill and I think they are very good potatoes; but our Early Rose were up when we got the Beauty, so I cannot tell which is the earlier, but will give them a fair trial next year. I shall save all I get for seed. I was very sorry we did not get the rest of the seeds. I hear a great deal said about Blount's Prolific corn. I would like, if I had it, to try it by the side of my Yellow Dent. I have some from 10 to 12 feet high, with from two to seven ears of good solid corn on the stalks. I had the best yield around here last year, but could not tell how much to the acre, as I did not measure it. I can say I have three of the best varieties of sorghum cane in Missouri—one is the Early Amber, which is called the best; then come the White Point and the Arabian Sugar-cane. The Early Amber was ripe three weeks ago, and the Arabian is nearly as early, but the other is late. The Early Amber is from 8 to 12 feet high; the Arabian from five to six, and the White from 12 to 15 feet. J. A. H.

KANSAS, El Dorado, Butler Co., Aug. 27.—It is quite amusing to read to what large dimentions the Blount corn attains. And yet it is not a match for our common field corn here, as grown on the walnut bottoms. I would advise some of our more Northern friends to have ready for time of need some heavy covers for early frosts. Our corn is all ripe and out of the way of frosts and hoppers, and will be a fair crop—forty to fifty bushels per acre on bottom land. There is a large number of acres ready for wheat, which is being sown now. Potatoes are a poor crop and are worth $1 per bushel; eggs, butter and cheese are selling for

10c. all round; wheat, 75c. to 80c. per bushel; hogs, live, $2.50 to $2.75 per 100 pounds; stock cattle are worth, two-years-old, $25 to $28; three-years-old, $30 to $33; heavy spring calves, $8 to $10, and very few to be had.

W. J. B.

KANS., West Asher P. O., Mitchell Co., Aug. 20.—The weather here for the past month has been quite seasonable. Wheat was a poor crop, both as regards quality and quantity. Corn is doing well and must be a large crop in this vicinity. Irish potatoes are not a very good crop, but sweet potatoes are a fair one. Fruit is scarce. Grass is plentiful and hay abundant. J. N. H.

CAL., Loquel, Santa Cruz, Co., Aug. 23.—Santa Cruz is one of the smallest counties of this State, and more celebrated for its manufactures than for its agricultural products, although it embraces some of the richest land in the State. It is also the second county in importance, San Francisco being the first. It is the second county south from San Francisco, San Mateo lying between it and that city, which is 75 miles distant by steam. It comprises an area of 326,000 acres and a present population of about 16,000 souls. It is a narrow strip of land, about 40 miles in extreme length by some 15 in extreme width. Forty thousand acres are the richest kind of bottom lands. These lie along the various streams, and are occupied principally as dairy farms. Fifty thousand acres of agricultural land are terraced plateaus, as the land rises from the bay of Monterey in benches or steps, as it were, back to the summit of the mountains. The county is heavily timbered along the gulches, and uplands. Pastures on the low lands remain green and fresh throughout the entire year. On the uplands, although the grasses wither in the summer season, they lose none of their nutritive properties, and cattle thrive on them as well as on fresh grass. Some 20,500 acres are in cultivation. On this soil the average yield of wheat is 27 bushels to the acre; barley, 38; corn, 48; potatoes, 3½ tons, and sugar beets, nine tons. Our 275,000 acres of mountainous land produce fabulous growths of Red-wood, Oak and Fir, as well as the finest quality of all varieties of grapes. Through this mountainous region runs a thermal belt within which frost is seldom seen even in the coldest season. As a consequence of the mild climate within this limit, strawberries bloom and ripen in large quantities the year round, orange trees wear a perpetual livery of golden fruit and blossoms, and the delicate Almond dons its fragrant dress of blossoms in February, while trees in other sections are hibernating, waiting for the spring.

Within the county limits there are five shipping points; 11 sawmills with a capacity of 36,000,000 feet of lumber annually; five lime-kilns, employing, when running, over 200 men and producing the finest quality of lime in the country, supplying seven-tenths of the demand therefor throughout the State, and capable of unlimited extension. There are also four large tanneries that turn out immense quantities of leather, while the California powder works located one and a half miles above Santa Cruz on the San Lorenzo River, manufacture thousands of kegs of powder per month. Then we have a glue and a chair factory as well as a fusee factory; also four large flour mills all of which are constantly employed, together with a beet sugar factory which is the source of great expectations.

Sixteen years ago there was not a single vineyard in existence in this county. Vine Hill is located from 1,000 to 1,200 feet above the level of the sea, is subject to no frost sufficient to injure vegetation in the least, and will also produce the finest varieties of all kinds of choice fruits. There are some ten vineyards in the vicinity of Vine Hill, which cultivate the vine for the market. At any of the cellars all kinds of wine will be found, as well as brandy. The total manufacture of wine at the vineyards mentioned, is 81,000 gallons annually; but probably the whole amount in the county will sum up 100,000 gallons. C. H. H.

MD., Quantico, Wicomico Co., Aug. 26.—Rain, rain, rain, and still it comes. Up to the 25th of July the weather was very dry, but since that time we have had moisture enough to make half a dozen crops. Corn will be short. My Blount Prolific is doing extra well. It has from four to nine silks on each stalk, but I think the ears will be small. If they fill to a fair size, they alone will be worth the subscription price of the RURAL. G. A. B.

VA., Newmarket, Shenandoah Co., Aug. 20.—We have had the severest drought here that has been experienced for many a year. Corn and other crops suffered severely on this account, but a fine rain, that began yesterday, is still coming down to aid our farmers. But little plowing for wheat has been done here yet on account of the dry condition of the ground. Wheat turned out a pretty good crop; nearly all of it is thrashed. It is selling for from 90c. to 95c. per bushel; corn, 50c.; rye, 50c. to 55c.; oats, 30c.; butter, 12c. to 15c. per pound; eggs, 8c. per doz. P. S. W.

W. VA., West, Wetzel Co., Aug. 26.—The free seeds received from the RURAL were planted carefully, but the greater part of them failed to germinate; or, perhaps, through my ignorance of botany, I pulled them too soon out of the bed to make room for the Jamestown "weed." My Pearl Millet is now about five feet high. I had 115 kernels of Blount's corn. I planted them in my garden, in hills 2½ feet apart, a grain in each. The stalks are now about 12 feet high, and bearing from three to seven ears each, averaging probably 3½ ears. I am satisfied that I have received the value of my subscription to the RURAL by the introduction of this Prolific corn into this section, to say nothing of the mass of varied information on farming and other topics imparted weekly through the columns of the paper. J. H.

FLORIDA, Starke, Bradford Co., Aug. 28.—Some green food for horses here in the winter, would be a godsend. People here talk about cattle being able to live on the wild grass all the year round, 'tis true; but horses will not eat it at all unless driven to it by hunger, except during a short time early in the spring, and then only where it comes up green after the ground has been burnt over. Cattle will do very well on it for four or five months, and for the rest of the year they just manage to exist, though many of them starve to death every winter. There is no hay to be cut, and we have to depend upon dry corn leaves, corn and oats. Corn leaves are $20 per ton; corn, 90c. per bushel and oats 70c. Pea vines grow here all winter—even the heavy freeze and ice we had last December only killed the blossoms of our vines which put out new ones and bore a crop of peas later. I. S.

The Querist.

ANSWERS TO CORRESPONDENTS.

The use of Lime

W. S. L., Attica, Ohio, asks whether lime is as good as barnyard manure as an application to summer fallow for fertilizing purposes: and how much should be used.

ANS.—No. Lime cannot be compared with barnyard manure. It fills the same place in regard to manure as a condiment does to food; it supplies to some extent a needed element in the soil, although it is very rarely that soils are deficient in lime, but its greatest effect is to help the soil to digest the manure, so to speak. It is, in short, a stimulant which requires solid food to be taken with it to prevent injurious reaction. The two cannot, therefore, be compared in the way suggested in the inquiry. Lime is a very useful and effective application to the soil when judiciously used, and its effects are more apparent upon manured than upon worn soils; because it must have something to work upon to produce its effect. It is used in a good system of farming, once in five years, at the rate of 40 or 50 bushels per acre, at the same time with the manure; and generally for wheat or rye seeded to grass and clover. When used on a summer fallow and without manure, it can only act injuriously by decomposing and making immediately available whatever vegetable matter exists in the soil, and by liberating part of whatever potash may remain in it undeveloped. In this case it acts as a stimulant altogether and really helps to impoverish the soil more quickly than would otherwise be done. If the land is foul with weeds and needs some vigorous treatment to improve it, then it might be advisable to summer-fallow it and apply from 25 to 40 bushels of lime per acre, in proportion to its present condition of poverty or goodness. But unless barnyard manure is applied very soon after, the benefit will be only temporary.

Diminished Wheat Yield in the Old-Settled States.

W. C. J., Lebanon, Del., asks whether the wheat crops of the old-settled States are as heavy now as formerly; if not, how much difference is there, and the cause of it.

ANS.—About the beginning of this century the average yield of wheat in New York was from 20 to 30 bushels per acre: now it is hardly 12 bushels. Fifty years ago the yield per acre in Ohio used to be 26 bushels; now it is not more than 13 bushels, and in the New England States the disparity between the yields of the past and present is still more striking. The cause of this diminution in the yield lies in the practice followed by our farmers for years, of carrying off every harvest the fertilizing ingredients taken up by the various crops, without returning to the soil any equivalent. In the course of time the available amount of plant-food in the soil has been so lessened by this practice that, in many places, there is not enough of it to yield crops sufficiently heavy to pay the expenses of cultivating them. By a proper system of tillage and manuring, however, this land can be soon restored to a profitable condition of fertility. In England, during the reign of Elizabeth, the average yield of wheat is said to have been only five bushels per acre, whereas now the yield is from 28 to 30 bushels, and this vast stride in advance has been made chiefly within the present century. With the lessons taught by European experience before them, our farmers in the old-settled States will doubtless speedily restore the fertility of the soil whenever a liberal course of tillage and manuring will pay better than purchasing in the West lands which for years will need no such expensive treatment.

A Preventive of Smut in Wheat.

H. L. C., Rich Prairie, Minn., asks for some preventive of smut in wheat.

ANS.—Smut is the product of a minute spore which serves the purpose of seed, and to prevent the appearance of the pest, this must be removed or destroyed. This can be most readily done by steeping the seed grain in a strong brine or in a solution of, say, four ounces of sulphate of copper to a gallon of water. The seed may be steeped in the solution a couple of hours, and then dried with a small quantity of dry lime, or, better still, of plaster.

Miscellaneous.

A. C. H., Roanoke, Ind., says 1, that the silk on his Blount's corn is mostly white, but about one-fourth of it is a bright pink, and he asks the reason why—it is 20 rods or more from any other corn; 2. He inquires at what time should salt be sown with winter wheat to do it most good; 3. Fears are felt thereabouts that the swarming crickets will injure the young wheat, and he wants to know whether they can be driven off by sowing salt where they are at work; 4. What would be the price of, say 90 pounds of pure Clawson wheat for seed, delivered by United States Express at his town.

ANS.—1. The color of the silk of all varieties of corn varies, and Blount's is no exception. The color of the silk has no connection with the impurity or otherwise of the seed. 2. Salt may be sown at any time: its action is to dissolve potash chiefly and help to decompose organic matter. Its most useful effects occur when it is sown in the spring, when it tends to stiffen the straw and brighten the grain; five bushels per acre may be sown, but, 3, that will hardly interfere with the crickets. 4. Clawson wheat is worth $1.50 a bushel. The express charges to Roanoke, Ind., depend a good deal upon where the wheat is shipped from. The nearest place to procure the seed would be at Detroit, Mich., (Ferry & Co., seedsmen). An excellent quality of Clawson is grown in Michigan.

B. B., Cadet, Mo., asks whether we know anything about W. V. Horton's "Stump Eradicator." Horton, it seems advertises in country papers that for $1 he will supply a stump destroyer with which, without boring, blasting or burning, a boy can destroy 250 new stumps a day. As our inquirer is just opening a new farm in the woods, he naturally thinks such a stump-exterminator would be very handy, if it could effect even half what is promised.

ANS.—A visit to the number on Nassau street, this city, where Horton professes to do business, failed to discover any one who was willing to acknowledge himself connected with this fraud. We learnt, however, from a person in the building that all letters addressed to the fellow are either forwarded to him by a confederate, or that he himself, under another name, is the assumed confederate and pockets directly the money which people send him for his marvelous "Eradicator," Electricity is the means by which he pretends to work such wonders, and this electricity is supposed to be generated from an innocent little white powder. Are farmers really more stupid than other folks, that every swindler seeking a greenhorn whom he may cheat, appeals to them?

R. T., Garrattsville, N. Y., asks, 1, what is the cause of coated wool on sheep? 2. He also sends for name a specimen of a plant which he describes as growing from six to eight inches in hight, with blossoms yellow and bead-shaped, and evidently of the clover family.

ANS.—Our friend doubtless refers to the external coating produced in Merino sheep by the natural secretion of yolk. This is a sticky, pasty, half-hardened substance within the wool or the hard substance at its outer ends, which is commonly called oil, grease or gum. The external yolk is occasionally somewhat yellowish, like dirty beeswax, but generally of some dark shade of brown or nearly, if not quite black. This hue is often intensified by the dust, pollen and other refuse matters that adhere to the yolk-impregnated fleece. Chemical analysis of the yolk has shown that it contains 1, a soapy matter with a potash base; 2, a small quantity of carbonate of potash; 3, a perceptible quantity of acetate of potash; 4, lime combined in an indistinguishable state; 5, an atom of muriate of potash; 6, an animal oil to which is attributable the peculiar odor of yolk. 2. Trifolium agrarium—Yellow hop-clover.

W. A. D. Clinton, Conn., has planted some pot-grown Strawberries and wishes to know which way he will get the most fruit next season—by cutting off the runners or by allowing them to form new plants.

ANS.—Remove the runners. Cut them off with a sharp knife. To tear them off violently, as is done by some persons who do not know any better, will do the plants more harm than good.

W. B., Sennett, N. Y., asks whether the "fancy" beets sent out by the RURAL are fit to be eaten.

ANS.—No; our Domestic Department has contained several recipes for the best method of preparing the leaf-stems for the table. Other inquiries are answered in other parts of this department.

J. C. E., Canterbury, Conn., asks where and when Jeff. Davis, president of the the defunct Confederacy, was born.

ANS.—Jeff. Davis was born on June 3, 1808, in that part of Christian county, Kentucky, which now forms Todd county. Soon after his birth his father moved to Mississippi and settled near Woodville, Wilkinson county.

W. M. E., Middlebury, Vt., asks whether plum trees, grown from stones, will produce plums true to name.

ANS.—Plum trees grown from stones are seedlings, and there is never any certainty that seedlings will reproduce the parent varieties of fruit. The wild sorts will more nearly do this than the cultivated kinds.

R. C. H., Madison, Ohio, asks how to guard his thrashed wheat against weevils.

ANS.—One of the best safeguards against weevils in grain is to thoroughly fumigate the bins with burning sulphur, before the grain is stored therein. The operation should be repeated a month or so after the storage of the grain.

Mrs. M. E. G., Forest Grove, Oregon, asks where she can get Gray's School and Field Book of Botany, or Wood's Botanist and Florist, and the price of them.

ANS.—They can be obtained through this office, but to save freight, it will be better to purchase them through some book store near you. The price of Gray's book is $1.80; of Wood's, $1.75.

Mrs. C. H. H., Loquel, Cal.—The flower of the Pelargonium you sent is very pretty. It is impossible to name such varieties. Pelargonium seedlings are now raised by the tens of thousands, no two of which may be exactly alike, while many bear too close a resemblance to hold a distinctive name.

L. C. Wright, Level, Montgomery Co., Ky. asks whether Osgood & Co., who advertise patent scales in the RURAL, are trustworthy in their representations of the articles.

ANS.—Messrs Osgood & Co., are perfectly trustworthy.

M. F. F., Morenci, Mich., asks when to sow salt on wheat, and how much per acre.

ANS.—Spring is the best time; five bushels per acre is the usual quantity. See several answers to inquiries concerning this matter in back numbers of the RURAL.

C. W., Evanston, Ills., asks how raspberry canes can be made miniature trees, so as to avoid the necessity of tying them to stakes.

ANS.—Simply by pinching off the canes when they are three or more feet high.

W. P. McR., Truro, Nova Scotia, asks what kind of Strawberries would be best adapted to that severe climate.

ANS.—We do not know; experiment is in this case the only reliable teacher.

M. W., no address, asks when she shall cut her Helichrysums.

ANS.—Cut them as soon as the flowers are well expanded.

J. W., Jr., Williamston, Mich., asks where he can get an apple parer and corer.

ANS.—Any hardware store will supply one.

R. S. P., Bolster's Mills, Me., sends a leaf and flower of plant for name.

ANS.—Cleome spinosa.

COMMUNICATIONS RECEIVED FOR THE WEEK ENDING SATURDAY, SEPT. 13.

H. D. R.—E. W. S.—A. H.—W. B.—G. A. A.—E. H. S.—W. J. B., thanks—J. W. M.—E. T. D.—J. W. S.—W. I. C.—"Veneer Farming," from Clinton, N. Y., the writer's name is necessary—A. M.—G. H.—J. H. H.—A. M. H.—G. G. Jr., thanks—C. H. H.—J. L.—A. S. H.—J. J. H.—M. E. A.—A. L. J.—F. D. C.—N. R., best thanks, too late for this No.—S.—S. B. P.—J. N. J.—C. W.—F. D. C.—E. B. P.—G. E. M.—L. C. W.—H. N. N.—F. W. J.—M. W.—N. R.—T. D. B.—C. G.—G. B. A.—S. O.—B. F. T.—J. B. R.—J. H. L.—S. R. M.—A. T. N.—G. K.—W. C. S—A. E. C.—B. F.—J. S.—H. W.—A. E. H.—G. B. E.—M. M. W.—F. A. P.—S. R. M.—J. G.—I. C.—A. E. B.—C. L. A.—D. M. I.—W. M. N.—C. M. C.—E. R. B.—H. L. K.—A. L. J.—A. E. B.—R. W. F.—F. M. M.—F. D. C.—C. A. B.—J. A. H.—J. D. H.—W. M. E.—J. N. D.—G. W. B.—Estella R. M. L.—A. C.—N. C.—W. H. W.—J. W. S.—E. H. S.—C. P. B.—A Subscriber—E. A.—J. W. K.—A. L.—S. S.—E. J. H.—H. S.—F. G.—J. A. P.—L. C. D.—W. A. B.—N. C. B.—J. H.—F. A. B.—L. P. L.—H. K.—P. S. W.—H. S.—J. N. H.—A. E. B.—T. J. E.—W. I. C.—B. H.—G. G.—C. B. W.—L. E. J.—C. G. W.—W. L. S.—J. W. S.—L. R. S.—O. G.—F. D. L.—S. V.—M. B. W.

THE
RURAL NEW-YORKER.
PUBLISHED EVERY SATURDAY.

CONDUCTED BY
ELBERT S. CARMAN.

Address
THE RURAL NEW-YORKER,
78 Duane Street, New York City.

SATURDAY, SEPT. 13, 1879.

OUR RIVALS IN WHEAT PRODUCTS.

In view of the great importance of our exports of wheat products at present and in the future, it is a matter of interest to know what countries are our chief competitors in the wheat markets of the world. Of these, by far the most extensive and to us the most important is England, and a glance at the nations from which she draws her supplies will convey no small amount of information on the subject. According to the recently published returns of the Board of Trade, the following imports were made from the countries mentioned during the seven months ending July 31, 1879, compared with the corresponding periods in the years 1877 and 1878.

WHEAT, BUSHELS OF 56 LBS.

	1877.	1878.	1879.
United States	22.637.292	36.375.554	34.047.484
Russia	10.747.348	9.565.108	9.022.854
Germany	5.778.044	6.527.478	4.588.116
British North America	479.089	1.484.820	2.321.016
Australia	417.706	1.502.416	2.208.274
Egypt	2.698.226	177,886	1.403.824
Chili	790.848		691.594
British India	5.633.232	2.778,340	521.408
Roumania and Turkey	1.798.670	213.434	74.844
France	2.815.592	22.026	23.616
Other Countries	1.135.734	276.858	316.168
	55.121.770	58,922.920	55.309.208

WHEAT FLOUR, CWTS.

	1877.	1878.	1879.
United States	892.100	2.238.807	3.711.182
Germany	596.778	708.724	431.457
British North America	11.177	98.022	179.658
France	1.487.712	566.576	207.389
Other Countries	1.211.076	1.208.042	1.242.429
	4.198.843	4.910.180	5.772.115

A study of this table is both instructive and interesting in its suggestiveness. The bulk of the wheat importations into that country, it will be seen, are made during the remaining five months of the twelve, including the period soon after our harvest. Down to the present year the imports from Turkey and Roumania were clubbed together, but the latter having lately gained her independence, the last returns give to Turkey only 4,504 bushels, while Roumania is credited with 70,340 bushels; so that nearly all the grain credited to both States in the previous years, must have come from Roumania. Our neighbors across the border are evidently exporting a good deal of grain from the newly settled regions on the Red River, and thus increasing their exports much faster, proportionately, than even this country. The mining fever having abated in Australia, it is evident that the multitude of immigrants thither are devoting their attention to agriculture as well as to sheep farming. The rapid increase of wheat exports thence must be also due in a great measure to the *eclat* won by Australian wheat in bearing away the first prize at the Paris Exposition of 1876. In Chili, anticipation of war with her covetous neighbors, Peru and Bolivia, evidently paralyzed her agriculture last year more than the actual outbreak of hostilities which has since occurred.

The terrible famine which for the last couple of years has been depopulating parts of British India, and which has been only partially relieved by the liberal outlay of the Government, must have diverted to home needs much of the wheat which would otherwise have found its way to the English market. It is within the probabilities that this vast and teeming country will in the near future be our most formidable competitor in the wheat markets of the world. Lately, 1,152 samples of wheat collected from nearly all parts of the country, were exhibited in England and demonstrated the fact that grain of the highest quality is grown in widely-separated districts of that peninsula. Carlessness in handling and the heavy cost of transportation have hitherto checked the sale in Europe of wheat from that quarter; but vigorous efforts are now being made to produce a cleaner and finer article, while the railroads being built and projected through various wheat-growing regions, will greatly lessen the freightage to the seaboard.

In view of the rapid extension of our exportation of flour, the complaints of English millers that most of them must soon abandon the practice of their avocation at home, are quite intelligible, and it is highly probable that within the next few years their forebodings will be realized. Their regret, however, may be assuaged by the knowledge that many of the best of them will find profitable employment in some of the multitude of mills that are now being projected or built in various parts of this country.

HOW WILL THE WHEAT CROP OF 1880 SELL?

FOR the past three or four years our farmers have been fortunate in finding profitable markets for their wheat crops, despite the vast additions annually made to the area under this cereal. The last report of the Department of Agriculture puts the condition of this crop throughout the whole country at seven per cent. better this year than at the same date last year, and a moderate estimate of the aggregate increase in yield places it at 20,000,000 bushels. Yet in the face of this unparalleled crop, prices now leave a fair margin of profit to the farmer, and there is little or no doubt but that they will rise considerably so soon as a moderate export trade shall succeed the rush which is now overstocking our foreign markets, and consequently keeping down prices there. Stimulated by their past and present successes with this crop, there is a strong probability that our farmers will devote to it the coming year even a larger area than they have hitherto done, in the expectation that next year they will find for it an equally profitable market. What is the prospect that this expectation will be realized?

Two circumstances have contributed chiefly to the good fortune we have met with in our wheat production during the last few years:—the crops here have been excellent, while those abroad have been more or less deficient, and the shortage there, fortunately for us, has been in inverse proportion to the increase here. The latest trustworthy statistics of the wheat harvest throughout Europe says that, taking 100 as representing the average harvest, that of the present year in Austro-Hungary may be represented by 78; in Germany by 85; in France by 78; in Switzerland by 80; in Italy by 73; in England by 71; in Russia by 79; and in Roumania by 90. Of course, as the harvest, as a rule, has not been thrashed there yet, considerable modifications may have to be made in these figures; but it is hardly probable that these modifications will be for the better. Even with full average crops, Europe would require a large measure of foreign assistance to feed her teeming population, and, of course, with these deficiencies everywhere in her supply, the amount of foreign cereals needed to keep her people from starvation, must be proportionately greater than in years of average harvests. Moreover, the wheat crop is not the only failure across the Atlantic this year; most of the other crops also have been more or less short, and the deficit in these must be made up from outside sources, chiefly in wheat products, because these can be transported more easily and cheaply than any other equivalent form of food.

Is it probable, however, that the present ill-luck will attend European agriculture next year? Will the weather then be equally disastrous to the farmers' efforts and hopes? for the present poor harvests are on all hands attributed chiefly or wholly to the execrable weather which during the last year has afflicted nearly the whole of Europe. These are questions upon which our readers are as well able to speculate as ourselves. They can also see with equal clearness that an abundant wheat crop across the Atlantic next year, is certain to lessen the demand for our cereal products, and as the supply here is likely to be unusually great, the prices, in that case, would necessarily be unusually low, unless a poor crop here by diminishing our surplus should increase the price for it.

MILLERS AND WHEATS.

THERE seems to be a growing disposition among millers to discriminate in prices against two of the varieties of wheat most popular among farmers, namely, the Clawson and Fultz. It is no longer true that all kinds of wheat are equally valuable, weight for weight; for experience in flour-making has shown that some sorts are worth from five to ten per cent. more for this purpose than others. Hence has arisen a double standard for wheat:—its productiveness and flour-making quality, the farmer being mainly interested in the former and the miller in the latter. From this point of view the popularity of these two varieties among the agricultural community is natural, as both yield largely, while the berries have a fine appearance. On the other hand, the millers insist that first-class flour cannot be made from either; that they are both too soft, and that their own best interests and those of the consumers should induce them to discourage by all legitimate means the cultivation of these wheats. The millers of Pennsylvania, Indiana, Illinois, Michigan, and of several other States, at their conventions during the year, have been unanimous in their objections to these varieties, to which the Indiana millers added the Shoaf and Diehl. Millers who employ the "New Process" of flouring are especially emphatic in their objections to them, claiming that they are not fit for "high grinding," by which the soft part of the wheat, containing the starch, is ground fine enough to pass through the bolting cloths, while the hard part, containing the gluten and oil, is separated and reground to make the patent flour. As millers can obtain from $1 to $2.50 more per barrel for this patent flour than for the family sort, besides securing a larger percentage of flour from the wheat, their objection to varieties which are unsuitable for its production, seems not unreasonable. In many places, too, ordinary flour from Clawson and Fultz wheats brings 50c. a barrel less than that from harder varieties, such as the Michigan Amber and Old Mediterranean.

Shall farmers, then, discontinue growing these sorts? There certainly seems no inclination among them to do so; on the contrary, more of these two kinds, particularly of Clawson—the millers' especial abomination—will probably be sown this season than ever before. This is due to the adaptability of the varieties to a large extent of country, their uniformly good yield and the fine appearance of the grain. Moreover, farmers can grow them in most cases from five to ten cents a bushel cheaper than sorts that please the miller more, while reports from different parts of the country go to show that, as they become acclimated in various sections, they are growing harder, and it is not improbable that necessity will force the millers to devise some means of handling them in a more satisfactory manner. Already it has been discovered that dampening or heating improves their milling qualities. Yet some millers maintain that within two years Clawson wheat will sell for 20 cents a bushel less than more desirable sorts.

"HYBRID" WHEATS.

OF late years we hear a great deal about *hybrid wheats*. It is a pity that those who produce seeds by crossing different varieties of the same species will persist in calling the plants from such seeds "hybrids." The only excuse for it is that *hybrid*, as a catch-word in advertisements, is a more "taking" word than *cross* or cross-bred, which, as the RURAL has always held, should be used to express the above relationship. If Triticum repens (couch-grass) were pollenated with T. vulgare (wheat), and the ovaries produced seed, such seed would be hybrids between those two species. They would be neither wheat nor couch-grass, however much they might resemble either. But if Diehl and Fultz wheats be treated in the same manner, and produce seeds, these seeds would be wheat, whichever parent they resembled; they would be crosses or cross-breeds. According to the above definition, we have no hybrid wheats. In fact, most hybrids are not fruitful—some are sterile, a fact which, if it were generally borne in mind, would put an end to the popularity of this word as applied to all seeds which are valuable according to their yield.

It is generally supposed that wheats will not "mix," even though growing closely together, for the reason that the pollen is ripe and pollenates the stigmas before the stamens are seen, when the grain is said to be "in flower." Crossing wheats is therefore an operation which requires much patience and a deal of very tender manipulation, for the reason that the anthers must be removed from the unexpanded flower before the pollen ripens. The glumes (outer husk) and the palese (inner envelopes) must be spread apart in order to enable the operator to do this. Then the pollen from which it is desired to make the male parent, must be scattered or rubbed upon the pistil. This necessitates a second spreading apart of the glumes and palese, at a time, too, when the stigmas are mature and fitted to receive it. We have very little doubt that by selecting the best specimens of different varieties, kinds of wheat will be produced better than any now known. But it will not be done by *hybridizing*.

VALUE OF SHRIVELED WHEAT SEED.

LAST year, as our readers are aware we tried half a dozen different sorts o spring wheat. Of these, Defiance looked the best, but owing to excessively hot weather and to daily showers, the grain so shriveled that the yield amounted to a mere nothing. The kernels were mere shreds. We were aware that what is generally understood by shriveled wheat is considered by many as good for seed as that which is large and plump. In order to ascertain to what extent seed wheat may be shriveled and yet germinate, we sowed the shriveled Defiance this spring upon a quarter-acre plot. The yield was at the rate of ten bushels per acre—the grain as plump and large as the average specimens of Defiance we have seen in seed stores and elsewhere. The straw, however, was not so heavy as last year, and the heads were much shorter. This, however, may have been due to the soil, which was not so rich as that upon which it was raised last year.

MANY A LITTLE, Etc

To plant one grain of wheat in the hope of, in a few years, producing enough to seed a field, may seem to many as a hopeless task. But we do not realize the vast increase which is made in the produce of a single grain in the course of a few years. Plant one grain this year and gather 50 from it and repeat, and the third year the harvest will be a peck; but the sixth year the product will be 15,000 bushels and the twelfth harvest would be sufficient to supply the whole population of the world for their natural lives. This fact may tend to show what may be gained by a course of persevering industry and economy in the pursuit of agriculture and the rewards which are offered for honest work in the labor for which our race was first created—the cultivation of the soil.

BREVITIES.

THE Double Tiger Lily is a scare-crow among flowers.

THE wheat crop of Michigan will be about the same as last year.

CHINESE history says that wheat was introduced into China 2,700 B.C.

VINE growers of the Rhine are in despair over their vintage prospects.

FARMERS who are in debt should try their best this year to get out of it.

As a rule, superphosphate for wheat has proven the best *special* fertilizer.

WILL poor land, well pulverized, make more wheat than rich cloddy land?

THE Kansas Farmer advises its readers not to waste any more time or money over spring wheat.

BEARDED DIEHL (Lovett's White Wheat)—now offered for the first time—was found in a field of Diehl.

THE Silver Chaff wheat was originated, according to Mr. Rennie, by Mr. Hartwell in this State, and was first offered for sale in 1875.

AS "Wheat is the staff of life," and this is our WHEAT number, doesn't it follow that this number of the RURAL is the Rural staff of life!

THE Weekly World calls Clawson "Lenecca" wheat. Where in the *world* did it get that name from? It can't mean *Seneca*, can it!

WE beg the indulgence of those who have asked us questions. Special numbers have occasioned an unusual accumulation of articles of all sorts.

ACCORDING to Mr. Rennie, of Canada, the White Midge-proof and the Victor wheats are precisely the same. Why charge $3.00 for the former and $2.25 for the latter?

FOR illustrations of the Hessian fly, a full account of its transformations and the injury it works upon the wheat plant, see RURAL NEW-YORKER of July 13, 1878, p. 442.

KLIPPART says that there is not in the entire catalogue of plants another one which has been instrumental in the development of mechanical ingenuity, and the intellectual faculties, as has been, and is, the wheat plant.

PROF. BLOUNT (we have been spelling it Blunt) writes us that at the Colorado State Agricultural College they have just harvested 35 varieties of spring wheats, and the yield is wonderful. Only 24 pounds on 1¼ acre were sown, and it is supposed 60 bushels will be harvested. It was drilled, in 18 inches apart in rows and cultivated twice.

THE RURAL claims to have had a good deal to do with the present appreciation of Clawson wheat all over the country where wheat may be grown profitably. We have raised it for home use for six years in succession, and have distributed not less than 10,000 half-pint packages at fairs. Much is said as to the inferiority of flour from Clawson wheat. It does not make such white bread, but there is no flour that makes sweeter bread. We believe that Clawson will yield a greater amount of grain to the acre and over a wider range of country than any other variety which has been well tested.

D. B. WEIR, Lacon, Ills., sent us his catalogue of Seedling Cherries two weeks ago or more. Crowded columns have prevented any reference to it before. It describes selections from six thousand varieties which he has grown from seed. Particular notice is called to the fact that their names, descriptions and numbers are copy-righted, and are, therefore, his individual and exclusive property. Anyone infringing on his rights will be prosecuted! With all due respect, Mr. Weir, you will find that this is a great nonsense, before you have proceeded far.

For Women.

CONDUCTED BY MISS FAITH RIPLEY.

BABY HANDS.

BY ALICE DALSHEIMER.

Oh! soft little baby hands, dimpled and fair,
Now lovingly, tenderly clasped in my own,
Your light touch has lulled to rest many a care,
And awakened much joy, but to mother-love known.

But joy not unmixed with vague fancies and fears,
For I find myself wondering, dear little hands,
If you'll gather the most of life's wheat or its tares,
Now sown by your Fate in the future's broad lands.

I press you with pride to my lips and my heart,
And murmur sweet words with each loving caress—
Oh! say, when my youth and my strength shall depart,
Will yours be the touch that will comfort and bless?

When life's sweet hopes vanish, when sorrows betide,
When God's care and mercy are shrouded by pain,
Will your strength uphold me and tenderly guide,
Or will this dear hope have been hoped, too, in vain?

Oh! soft little hands now curled up in my own,
Like two little birds with no wish to be free;
What deeds will you work when your wings will be grown,
And away from this cage of true love you will flee?

Will you linger unwearied in pleasure's gay bowers,
And seek but to cull all those joys that will fade?
And weaving bright garlands of earth's fleeting flowers,
Forget how the crowns of the angels are made?

Or will you be eager some good to achieve,
And follow the biddings of Charity's voice,
Dispensing those gifts that the wretched relieve,
And winning by kindness the sad to rejoice?

Will you ever be ready true merit to greet,
Unmindful of forms that your grasp would control?
Will you spurn all those shackles that aim to defeat
The freedom inherent in every true soul?

Will you deem all work noble that's honest and right?
Nor shrink from a duty that Fashion might scorn?
Will you strive to grow lovely in Heaven's just sight,
By deeds that the world might not think will adorn?

Will your purity last when by love you are sought,
Though worldliness tempt you against love's demands?
The wreck of a life and a soul may be wrought,
Through treachery dealt by a woman's fair hands.

Oh! dear baby hands, there's no prophet could tell
The magical strength that one day you might wield!
May God ever help you this gift to use well,
And may it a harvest of rich blessings yield!

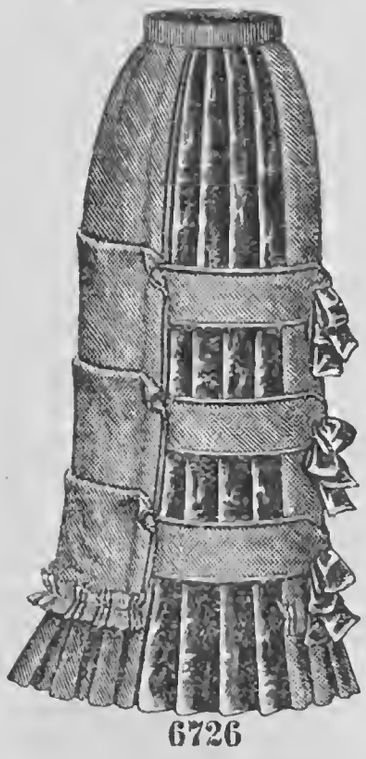
[*N. O. Times.*

FASHIONS FOR SEPTEMBER.

INDICATIONS from abroad seem to point to an exaggeration of the styles that have been most popular this summer. The "tailor-cut" garments will still more closely follow styles affected by gentlemen, until, in extreme cases, we may expect to see ladies wearing gowns and coats that will almost be fac-similies of cut-away coats, etc. This week we present a few of the latest novelties, particulars of which are given in the

Description of Cuts.

Figure 1 is a Ladies' Walking Costume in which comparatively little dress fabric is required, for with deep plaitings at the foot and the attached



6726

FIG. 2.

draperies, the skirt may be cut from Silesia or cambric. The skirt illustrated is charming in construction, and its side-draperies are cut in sections so that small amounts of materials may be appropriated for the purpose. The *revers* are turned up and faced, but may be made of the striped or any contrasting fabric, lined with crinoline and then sewed on where they would be turned up if cut on. The basque worn with the skirt has a short, round front and a coat-tail back, and is fitted in the usual manner. The coat is a stylish affair of basket-cloth and finished like a gentleman's coat. The fronts are loose, but the back is shaped by a seam at the center and side-forms extending to the arm-holes. Pocket laps are on the side-skirts, and extra widths left at the side-back seams are lapped over the skirt and invisibly tacked. Cloth or heavy camel's-hair is much used with such coats to wear with dark suits, or those composed throughout of the same material. Patterns Nos. 6714, (35-cents); 6680, (25-cents); and 6735, (30-cents), will be required for models.

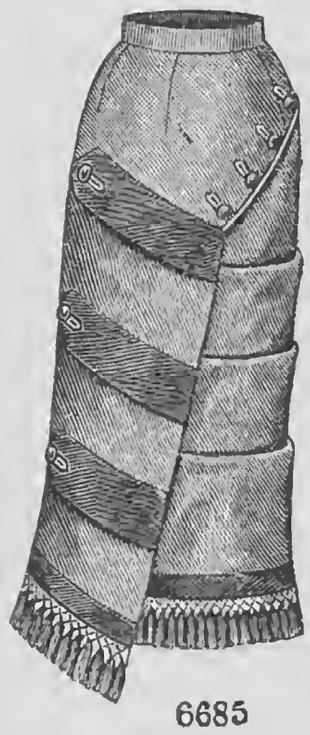
Figures 2 and 3 are front and back views of a walking-skirt, a good feature of which is the ornamental possibilities of its construction. It may be said, indeed, it is the chief feature, as but little trimming is applied, all depending on the arrangement of the material. Three broad straps, commencing at the right edge, cross the front, and

6726

FIG. 3.

their opposite ends are pointed and extended upon the gore at the left side. The right side-gore, which is cut somowhat longer than the remainder of the skirt, is now joined to the opposite edge of the front. Its superfluous length is arranged in three upturning plaits, at nearly equal distances from each other, these plaits cross-draping it very stylishly and being tacked about an inch from the edge in front. The gore is then joined to the front in a flat seam, with the margin outside the joining forming an overlap. The back-breadth is also cut long enough to allow for draping and is twice shirred crosswise, one shirring being inserted about 12 or 14 inches from the top, and the next the same distance from the first. Shirrings are formed by making a tuck on under side, and through casing thus formed is passed a tape, which may be let out every time the dress is taken off. A downward-turning plait is laid over the termination of each shirring to take up extra length, and then the breadth is sowed to the remainder of the skirt, the upper part of the seam at the left side being finished for a pocket. The fullness at top of the breadth is laid in a triple box-plait, and then the skirt is sewed to a belt. The pattern, 6,726, for this skirt is in nine sizes; price 35 cents.

Figures 4 and 5 are an overskirt of novel and stylish construction particularly worthy of notice. There are only three sections comprised in the formation, two of these uniting to make the sides and front, while the remainder constitutes the back-drapery. The gores are fitted over the hips by two darts in each, and while the right side-gore is entirely undraped, the left one is prettily cross-folded in three up-turning plaits. The front edge of the right gore is a little deeper than the adjoining edge of the left one, and has three broad straps cut upon it at equal distances apart. These straps are folded back upon it and faced with the contrasting goods, and the two gores sewed together as far as the top of the upper strap. Here the right gore extends upward diagonally, becoming narrower until it reaches the second dart of the left gore. The first dart in this side is taken up and through the overlapping portion, and a row of large, flat pearl buttons and simulated button-holes is placed along the outer edge. The straps are fastened down under similar buttons and button-holes, and afford a charming contrast to the elegant plainness of the other gore. The back is draped by two plaits turning downward in each side, and the fullness at the top is laid in side-plaits. This pattern, 6,685, is in nine sizes; price 30 cents.



6685

FIG. 4.

Figures 6 and 7 are stylish *jabots*, the first nicely taking the place of a vest, by which addition a high-necked costume is made very dressy. To sustain the effect, frills of lace should be added to the wrists. A strip of foundation or stiff net is first required, and to this the lace is basted. The appearance of the jabots is a guide to their construction.

Figure 8 is one of the stylish turban hats. A turban frame, a silk handkerchief and a fancy pin are used in forming the article.

6685

FIG. 5

Figures 9 and 10 are a jewel-stand. The finished stand is shown in No. 9. The diamond pattern surrounding it, of perforated cardboard, is shown in No. 10. Three small cane rods are needed, which have very small brass knobs put into them at the top, and are bound together with ribbon. A small cushion for pins is placed about half way between the top and bottom of the stand; this has a cardboard foundation; it is filled with bran and covered at the sides with velvet, upon which the diamonds of perforated card are placed to correspond with those around the tray at the bottom of the stand. Three larger brass knobs than those used to finish the top are fastened into the canes at the bottom. The outer covering of the tray is of dark blue velvet, the inside is a quilting of rose-colored silk, with a quilling of rose-colored ribbon, and a little braid or edging is put around to give a finish to the work. The canes are wound round, and the pin-cushion is crossed by a narrow strip of perforated card, laid on to a narrow, dark-blue ribbon, and the edge of the perforated card is bound with it. The bows of blue ribbon are then tied on, and the stand is finished.

Figure 11 is a cigar-ash bowl of cone work. Materials: a piece of dark-colored wood five inches in length and five inches in width; cones, acorns, etc., virgin-cork, small cocoanut-shell cut in half, tin-foil, glue, copal varnish. The foundation must be a piece of oak or mahogany, thin and light. To this a sort of framework of four sticks of wood, with the bark on, is placed at the edge all round (see design). The half cocoanut is neatly lined with tin-foil, and a stick of wood split in half, also covered with foil, is glued across the top. Then the cork, cones, acorns and beech-nuts must be tastefully glued on to form a pretty combination. The virgin-cork will furnish a rocky-looking background for the cone-work. When all is arranged, and the glue has thoroughly hardened, the whole ornament is brushed over with varnish.

FIG. 1.

THE WOMAN'S CLUB.

THE SERVANT QUESTION.

"The best laid schemes o' mice and men.
Gang aft agley."

WHEN I talked so coolly of our work and rest in the afternoon, I did not imagine that the fates would so soon make me "eat my own words." Don't the experience of the last few weeks cause me to give my heartfelt sympathy and pity to those poor women who are compelled, like the galley-slave, to work unceasingly from early in the morning until late at night!

FIG. 6.

The young lady who condescended to assist in the kitchen department of our farm-house very suddenly informed me that ma wanted her at home the rest of the summer! The days were growing warmer, work was hurrying, more men were needed, strawberries were ripening and must

be picked and taken to market; the remainder of the tobacco ground must be fitted and plants set. Neither men nor horses could be spared to go girl-hunting. No help for it, one must do the work of two, and all day long the tired feet must keep up their ceaseless round from pantry to kitchen and back again.

Baby, who is not yet two, must be left to amuse herself, and when she began to grow cross and feverish, and her older sister to show the same symptoms, the work must go undone. Where now was the tidy kitchen or orderly house, and how could it be helped? "It never rains but it pours." The children the next morning were found to be covered with an eruption which was pronounced at once to be chicken-pox, not a formidable disease, but just now very annoying, to say the least. Then, help of some kind must be had. And now I come to the one great annoyance of farm life, hired help.

We live three miles from town, and a girl can never be obtained from that quarter for love or money; it is too lonely in the country, and they cannot have the evening out. We are therefore obliged to put up with what we can get, and as there are no poor people ever known in this happy region, one neighbor who has a surplus of girls offers us one of them. She informs you that she is not obliged to "work out;" that she considers herself just as good as any one, if not a *little better;* that she has heard you are proud and stuck-up and never do anything yourself, and that Mrs Such-a-one says your work is very hard; and is horror-struck at the idea of being called a servant.

FIG. 7.

You find in this case you really are the servant. she will only do such things as she pleases, you must take all the drudgery upon yourself. The cleaning of porches, outhouses, carrying out slops, straining milk, baking and cooking are left or you to do. A friend who was visiting me once when under such an infliction said: "Why, really your 'help' has more leisure than you have." She surprises you every day by some new freak. Perhaps when you are entertaining callers from town, she walks into the parlor, seats herself and remains until they leave. And I actually knew a girl of this kind leave in high dudgeon because the lady did not call her into the parlor and introduce her to company!

Sundays she gets up earlier than any other morning, dresses herself in her best (after hurrying through with her work), leaves for home and is seen no more until night. You can teach her nothing, she knows everything, and her way and Mrs. Somebody's way and Ma's way are so much better than yours. You worry through with it all until at last patience gives out, and you tell her, at the risk of being misrepresented to all your neighbors, that you don't need her any longer.

Am I alone in this experience? Are there not many rural women who wear themselves out with over-work rather than be annoyed by such help? And are there not those who, like myself, would be willing to pay with gratitude, as well as money, a good, faithful servant—one who would appreciate a good home and kind treatment—one who would look to the interests of her employer, and share, not add to, the burdens of the mistress of the household? CLARE.

CANDLE AND SOAP MAKING.

SOME refined natures will shiver with disgust at the very title, the bare idea of this vulgar work, while the more practical will think these hints untimely for they should all be done with before the winds of March or the showers of April. Yet I was behind this year, and having just finished, while the lesson from experience is fresh upon me, is the time to impart to others. Meat-hanging and candle-making should precede soap-making that the wastes may all go to the last. We have a large salt kettle holding eighty gallons or more, sunk into the earth over a rock furnace or flue, upon the brim of which rests one end of a huge trough, formerly used for salting pork in; the other end elevated upon a section of log. Into this trough the ashes are put as they are taken from the fire-places; the rain supplies the moisture necessary, to decay them. In the latter part of February, or the first of March, as the weather suits, the meat is taken up from the salt. lye run (this being close to the creek, puddle holes are made at intervals in the ashes and kept filled with water, the boiling down going on at the same time of dripping), red pepper boiled in the lye, the hams and shoulders dipped, sprinkled with black pepper—from a perforated oyster can and hung highest in the smoke-house. This soapy lye, waste scraps and greasy salt, help out in the soap-making, the soap made of the pepper-lye, being good for cleaning places troubled with insects. In this I usually make up my dirty-grease, for scouring purposes. In this age of lamps and electric lights, it seems ridiculous to speak of dipping candles. And more so for a young housekeeper to attempt to instruct others upon so ancient a custom. But with all the "light upon the subject," and with all of man's modern inventions we have not discovered a means of molding anew old people's fancies. They are afraid of lamps, and I find moulding candles almost as difficult as moulding a man's second nature. So I dip them, and as ancient arts sometimes become new ones, and have to be learned by the rising generation, I presumo and become instructor. Have a board a foot long, wrap around this, the wick, three times, clip open at one end, twist it slightly,

FIG. 11.

pass it around a rod a yard long, twist it together, and keep on till you have prepared wicks for two dozen candles to each pound and a half of tallow which you intend to make into candles, placing enough on each rod to hang one wick or more apart and to dip into the kettle without dragging the sides.

Have the wash-kettle so elevated that a fire may be kept under it, fill it with water to half-inch of the brim, finish it with melted tallow (in which has previously been boiled a half teacup of lye to raise the dregs for skimming off); holding the rods one at a time, parallel with the brim, dip quickly, and hand to your assistant to place upon two poles between which the candles hang, always having one rod dipping while the other is being placed, and another handed you. If a cool day, you may keep going over them until *nearly* large enough for a candle-stick; when the *stalactites* or drips may be cut off to the wicks and the dipping finished. Remove from the rods and place in a box with close fitting lid. Thirty-five pounds will make twenty-two dozen, and last us a year.

For soap-making I boil down eighty gallons of lye to ten, dip it out, and put in three gallons of grease, let it heat through, and feed in the lye, a cup full at a time, stirring constantly. The grease will be eaten by the time the lye is all in; cook down till it falls from the paddle in a roping stream; if a little dropped into clear water proves the grease not to be all eaten, more lye is added; when thick, a half gallon of salt is stirred into it, and if not hard enough for cooled drops of it to be easily slipped from a tin surface, more is added—it is dipped out into a tub to cool, and the trough started and running again. When cold, it is cut in squares, placed upon shelves, and the soft dipped out into the soap trough. If a great quantity of lye be boiled down strong enough to strip a feather when dipped slowly into it, several kettles full may be made in a day.

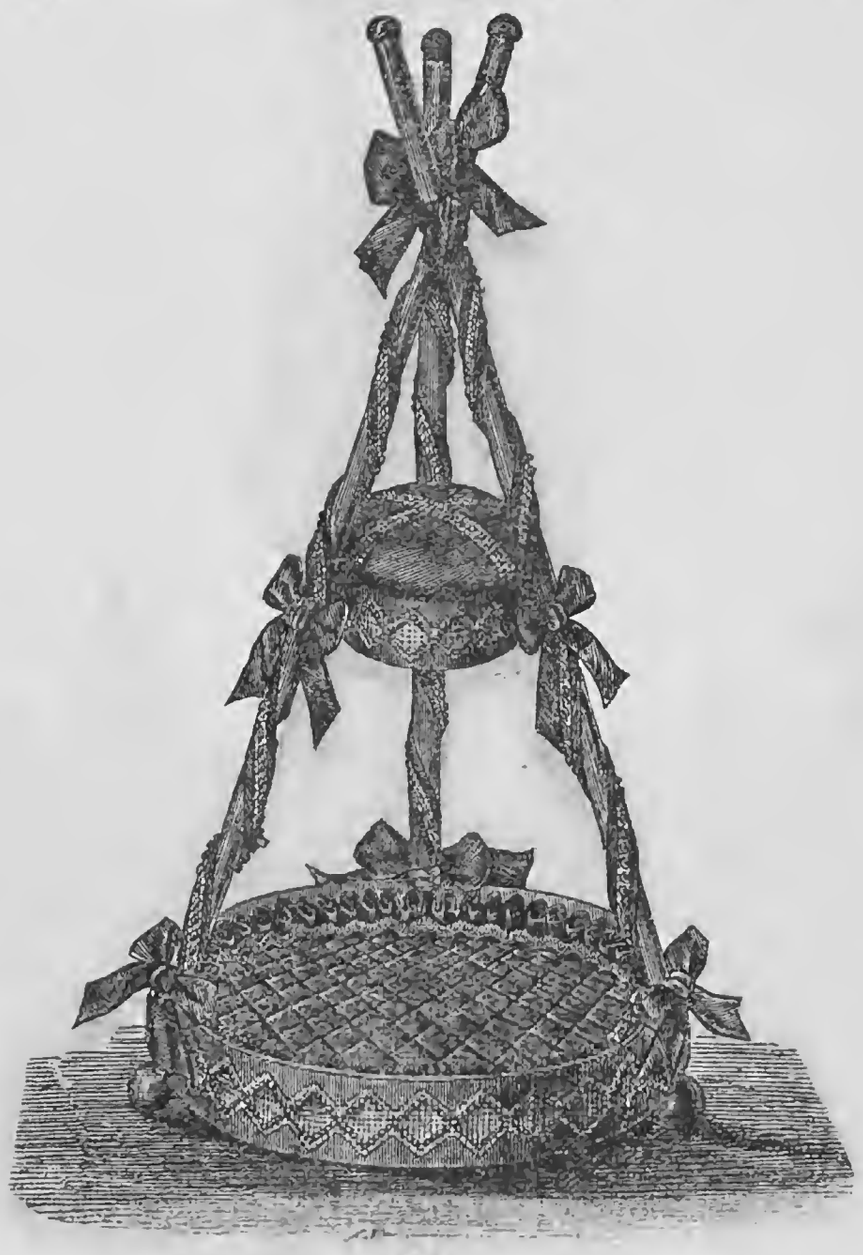


FIG. 9.

For utilizing scraps of toilet soap most satisfactorily, drop them into a corner of the wash-stand drawer till enough accumulates to work with. You will have them of all colors, pink, yellow, brown and white. If you are impatient, and cannot wait for the slow accumulation, add your scraps of home-made soap; shave them up in a bowl, and pour over a little water or vinegar or grape-juice or camphor, sweetened with honey or glycerine, or soda or borax. Let stand till the outsides are soft—make into balls convenient for handling, and you have a soap containing the vinegar, camphor, honey, glycerine and soda, fine for softening the skin; and that containing the grape-juice and borax, fine for the hair and eyes. The juice is obtained from the grape-vine by clipping off the end of a down-hanging branch, tying a bottle to it, with the stem inserted in it. It will run a half-pint, in spring, directly. The soap will be beautifully mottled or marbled through, and will not crumble or break till used u

MRS. M. L. S.

HOW MANY DO IT?

DEAR SISTERS OF THE CLUB:—I have pondered long the feasibility of joining your club. Have thought much of doing so ever since reading "The Successful Housewife," in issue of May 31. That piece did me much good. Love caused me to leave the city and take up my abode in the country. For this life and its duties I was totally unprepared by education and health. In both I have gained much since wifehood and motherhood have come to me; though half a decade has not yet passed since I left "the busy haunts of men" and came to the unbroken prairie to help make a home. As the weeks go by I realize more and more my responsibility as mistress of a large farm, and may some time give a wee bit of my experience with help, in-doors and out. But now I would ask, how many of you give plenty of oat meal porridge to your little ones, and partake of it yourselves? From my experience, I fear this wholesome article is much neglected, especially in the country. Farmers' wives should be able to prepare more tempting dishes than dwellers in the city, for have they not most of the ingredients fresh and at hand? But I will return to the oat meal, and give my favorite method of preparing a dish of it for supper. Place in a small stew-pan or spider one quart of *cold* water. Into this stir one pint of the oat meal, continue to stir briskly till it boils, then place on the back of the stove and allow it to cook slowly for 15 or 20 minutes, stirring occasionally. If it becomes too thick, add some boiling water. The amount can, of course, be varied to suit the size of the family. We usually use cream and sugar with our porridge, but butter is good, and the better way for many dyspeptics, whose sensitive stomachs refuse cream. I do not think this dish can be surpassed as a regulator of the bowels in children and adults. If mothers gave their children more of such diet, with the addition of *ripe* fruits, we would soon become a healthier and happier race. And now I would ask our dear patroness if very plain letters on motherhood would be acceptable, or does she believe in the more conservative plan of allowing physicians and their books to give all necessary advice? I doubt not that many of our elder sisters could give us much needed instruction on this and kindred subjects if they were permitted to do so. Farewell, for my youngest darling will soon arise and call, "Oh! ma," or, "VIDA."

OUR GIRLS.

As this is the Club that is free from any admittance fee, I present myself. I suppose you to be farmers' wives.

We generally have a subject. This shall be about the girls. What shall we do wi them? Why need we be alarmed about them? They will take care of themselves! No indeed, they will not unless mothers teach them how; and the necessity of an effort on their part. We cannot begin too soon to teach them to be useful. The first thing is to obey, for as the twig is bent so is it inclined. Teach them to take care of play things, then their clothes. Give them needles and thread to make dollie's clothes, then as they grow in body and strength, teach them to wash dishes, cook, wash and iron! It is an honor to know how to keep a house I order, and every daughter should be taught, so it she may know when her servants have all th i s in order. If so taught there would be more happy homes, and we would not hear so much about hard times.

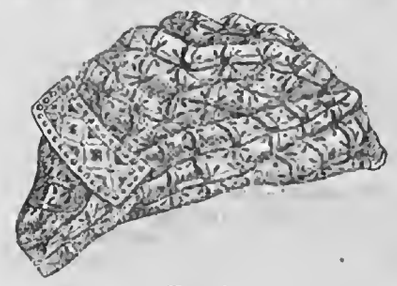


FIG 8.

Girls need not be slaves to house-work and it will not keep them from learning music, painting and kindred accomplishments. And when in turn they have homes of their own, they will rise up and call you blessed for teaching them. It is the mothers of our land that have to do the work of teaching. A good Connecticut mother was asked why she taught her six daughters all kinds of housework. They were wealthy. Her answer was: "If they became poor they would know how if rich, would know when well done." Three were poor. Riches may take wings and fly; what we learn will not. E. M. P.

Literary Miscellany.

TRIP LIGHTLY.

TRIP lightly over trouble,
Trip lightly over wrong;
We only make grief double
By dwelling on it long,
Why clasp Woe's hand so tightly?
Why sigh o'er blossoms dead?
Why cling to forms unsightly?
Why not seek joy instead?

Trip lightly over sorrow,
Though all the days be dark,
The sun may shine to-morrow
And gayly sing the lark.
Fair Hope has not departed,
Though roses may have fled;
Then never be down-hearted,
But look for joy instead.

Trip lightly over sadness,
Stand not to rail at doom;
We've pearls to string of gladness
On this side of the tomb.
Whilst stars are nightly shining,
And heaven is overhead,
Encourage not repining,
But look for joy instead.

IN FOLLY'S NET.

CHAPTER II.

MY HIGHLAND LADDIE.

The new-comer, who was, as Miss McLeod had surmised, no other than Archibald Earl of Ivor, was a tall, stalwart, and well-built man of thirty or thereabouts, carrying himself well, and with a certain stately grace which rarely failed to win notice and admiration. His eyes were half proud, half sleepy, and of a deep gray; his hair, close shorn to his head, was fair and curly, and his mouth, which had a mingled expression of pride and sweetness, was shaded by a heavy, silken moustache.

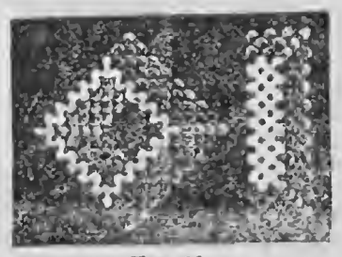


FIG. 10.

Young ladies were apt to turn admiringly when Lord Ivor passed, and exclaim at his good looks, and as he came up to Miss McLeod, looking very handsome in his evening dress, few finer specimens of manly beauty could be found.

"You are very late, Archibald," said Miss McLeod, and Mr. Blair heard the change in her voice, the softness and sweetness which had come into it, corresponding with the sweet love-light in her brown eyes. "I thought you were not coming at all."

"And I did not think I should be able to manage it," he answered, in pleasant, musical tones. "But at least I was determined to be here in time to put you into the carriage, if possible."

As he spoke he glanced rather inquiringly at Mr.

Blair, and Jean hastened to perform the necessary introduction.

The two gentlemen bowed in silence, and Miss McLeod went on, gaily:

"Mr. Blair was at Eton with Lord Sholto, Archibald."

"Then I must have known you there also," said the Earl, turning to him with a smile. "Is your name Andrew? Yes, of course, I recognise you perfectly. Blair of Blair Gates, I am sure."

"You are quite right," said Mr. Blair. "I recognised you at once."

Lord Ivor put out his hand, and they shook hands cordially enough, while Jean laughed as she watched them.

"Quite a coincidence," she said gaily. "I believe I shall find out that I was at school with you myself soon, Mr. Blair."

"Then you must be a believer in the doctrine of metempsychosis," he answered, laughing. "For when I was at school, you must have been an infant, Miss McLeod, or probably not born at all, and your soul existed in the body of some young Etonian who was cut off in his early boyhood."

"Is that a doctrine in which you have faith?" she said, saucily, making room for the Earl to sit down by her side. "Do they believe in the migration of souls in the bush?"

Mr. Blair laughed also.

"I dare say some do," he said, lightly. "I do not hold their creed, however."

"Have you been abroad, Mr. Blair?" said the Earl, who had taken Jean's fan and was slowly fanning her with it.

"Yes; the last ten years of my life have been passed in Australia," he replied. "I never had much fancy for a home life, and until four years ago, you know, I was only a younger son. I knew Blair Gates was in good hands, and that old Jarvis would look after my interests there."

"When did you return to England?" said Lord Ivor, carelessly opening and shutting Jean's pretty fan.

"Three months since—in the beginning of spring."

"I wonder we have not met," said the Earl. "You ought to have looked up some of your old acquaintances."

"I did one or two," he answered, carelessly. "I trusted to chance to meet the others, and," he added, more cordially, "chance has favored me this once at least."

"You would not imagine that Mr. Blair had lived in the bush, would you?" said Jean, laughing. "He makes such pretty speeches."

"As you are strong, be merciful," said Andrew Blair, laughing. "Miss McLeod, you are so severe that I think it will be wiser to beat a retreat.

He rose as he spoke, and Jean held out her hand to him, graciously.

"I think I may presume on Lady Sholto's friendship sufficiently to give you permission to call," she said, smiling. "I am on a visit to her now at No. 17 Ormerod Square."

"I shall not fail to avail myself of your permission," he answered, a pleased flash lighting up his dark eyes. "Good-night, Miss McLeod," he added, as he bent over the small gloved hand. "Good-night, Lord Ivor."

He turned away, and Jean watched his tall figure as he made his way out of the conservatory.

"He walks well," she said, critically. "And he is very good-looking. Don't you think so, Archie?"

"Yes, dear," answered Lord Ivor, absently.

"What are you thinking of?" said Jean, in a moment, as she nestled closer to him.

"I was wondering what was the cause of a great row Blair and I had in our Eton days," he answered, smiling. "I remember a tremendous uproar of some kind; but I don't remember why or wherefore."

"Some boyish squabble," Jean said, indifferently. "He seems pleasant enough, and talks well."

"If you praise him any more, my darling, I shall be jealous," said the Earl, smiling, as he looked down into the charming, laughing face so near his shoulder.

"Jealous, if you dare!" laughed Jean. "I could not make you jealous if I tried ever so hard, Archie."

"I don't know about that, Jeannie," he rejoined. "But I confess my trust in you is so great that it would be difficult."

"I am glad of that," she said, softly, resting her head against him with a proud gesture of perfect contentment; "I like to think that you trust me fully, dear."

Lord Ivor stooped and put his lips fondly to the white brow.

"Of course I trust you, my dearest; because, though you are just a wee bit of a flirt, I know that no truer, sweeter woman breathes than my darling."

"Flattery," she said, lightly, but with happy eyes meeting his, with the soft love light in their depths.

"Truth," he answered, gaily. "Now tell me, dear child, have you enjoyed your ball?"

"Yes, very much," was the reply. "I have had two most perfect *trois temps* with Captain Murray, and a Lancers with Lord Sholto, who dances to perfection. The rest of the dances I have sat out."

"Alone, of course," said his lordship, comically. "Poor child! could not get any partners, I suppose?"

"No; is it not sad?" she replied, demurely. "Becoming quite a wallflower, you see."

He laughed merrily.

"A wallflower is one of the sweetest of flowers in my opinion," he said; "but I am afraid I shall never see you a wallflower, Jeannie."

"Afraid? Why, Archie, if you wish it, I will give up dancing altogether."

"I should not have the heart to demand such a sacrifice, my darling," he said, laughing. "I like to see that my pretty love is admired and sought after, although I fear sometimes that she will find it dull when we settle down at Glen Ivor."

"Dull with you, Archie?" and Jeannie's eyes looked at him reproachfully for a moment.

"I retract, darling," he replied, gaily, fondly closing the red lips with his own.

"Anything interesting at the House to-night?" asked Jean, in a moment, putting on a pretty air of serious interest in the political welfare of her country.

"No, not very; still that vexed subject of the Ragged Schools Bill," he answered, rather wearily.

"Will it pass, Archie?"

"I don't know, love; I fear not."

"You are tired, dear," she said, noting the weariness of his voice.

"A little, Jean. It's tiresome work listening to the same arguments time after time."

"It must be," agreed Jean. "Poor, dear, injured boy."

"Don't laugh at me, you little witch," he answered, smiling at the comically-pathetic face which Jean had assumed, "or I shall wish you were in the House instead of myself."

"Ah! perhaps that halcyon time will come," said Jean, with her serio-comic face full of suppressed mirth. "I am looking forward to it, Archibald. When we, the really superior, but presumably inferior creatures, shall have a voice in the affairs of State; when we shall speak, and our voices shall be heard far and wide, against the maltreatment we receive."

"Then," she added, "Do you know, Archie, I think Captain Murray is falling head over ears in love with Ida?"

"Is he? Does she seem inclined to break his fall?" laughed the Earl.

"I think she does," nodded Jean. "Do you think Lord Sholto would approve?"

"I dare say, love. Why not? Murray is an excellent fellow, and well off."

"He might think Ida ought to make a better match," said Jean, thoughtfully. "I mean, of course, in a worldly point of view."

"Oh! Sholto is not very worldly, dear," he answered, lightly. "I heard him say once that if Florence had been a dairymaid he would have married her all the same."

"But Florence was not a dairymaid, but an Earl's daughter, so his truth was not tried," said Jean, laughing.

"He is a most devoted husband, Jean," said the Earl, rather gravely; for Lady Sholto was his only sister, and her happiness was very near his heart.

"Of course, dear Archie; no one doubts that," she said, smiling. "Still, I am sure he would not like his sister to marry a dairyman."

"Of course not, Jean; but you don't compare Captain Murray to a dairyman? He would not feel flattered, love."

"No," she said, laughing. "I hope Lord Sholto will favor his suit, and I am going to ask Florence to invite him to Sholto Hall for the shooting season."

"Wicked little matchmaker," he said, laughing. "Speak of an angel, and you will see its wings. Here come Ida and Captain Murray."

A tall, slender, graceful girl came quickly into the conservatory, leaning on the arm of a handsome, military-looking young man. The Earl greeted the latter with a smile and nod, and held out his hand to Miss Crawford:

"Have you come to give us the signal for departure, Ida," he said, smiling.

"Yes; Florence is going," she said, regretfully. "She sent us for you."

"Have you enjoyed yourself, Ida?" asked the Earl, as he rose and gave his arm to his *fiancee*.

"Yes, it has been a charming ball," said the young girl, gaily, with a glance at her companion. "Oh! Jean, your last partner, Mr. Blair, has been introduced. Do you know that he knew Arthur when they were boys?"

"And Archibald also," said Jean. "Have you danced with him, Ida?"

"No, he does not dance, seemingly; I think him awfully handsome."

"Oh! pray don't start that theme, Ida," said Lord Ivor, good-naturedly, seeing a shade cross the pleasant face of the young officer. "I am quite tired of Mr. Blair, for Jean has been sounding his praises for the last half-hour."

"Florence has asked him to call," said Ida, smiling. "I hope he will."

"He is not your style at all, Ida," laughed Jean. "Besides, he is a captive to my bow and spear, and you have nothing to do with him, mademoiselle."

They had entered the ball-room; and, as they slowly made their way to the door, hindered by numerous friends and acquaintances who paused to address them, Miss McLeod could see Mr. Blair's tall head over the crowd as he stood leaning against one of the pillars of the ball-room talking to Lady Sholto, who was a pretty, delicate-looking blonde, sufficiently like Lord Ivor to be recognized as his sister.

Just as they reached them, Lord Ivor's attention was forcibly claimed by an elderly gentleman, and while he stood talking to him, Mr. Blair offered his arm to Jean to take her to the carriage.

"You see I have been renewing old acquaintanceship," he said, as they slowly made their way down-stairs in Lady Sholto's wake. "And Lady Sholto has kindly repeated your permission to call."

"Yes," Jean nodded, brightly. "You will come, I hope."

"Can you doubt it?" said Mr. Blair, with his eyes fixed on the little white hand and slender wrist lying on his arm, and that gentle lowered voice which he could assume at will; and Jean was silent, coloring a little, however, for his tone was very significative.

Half way down stairs they were overtaken by Lord Ivor, and Mr. Blair had the pleasure of seeing Jean turn to him with a bright little smile of pleasure, and he walked down beside them; but it was Mr. Blair who put her into the carriage, receiving in return a merry, mocking glance from the bright wine-brown eyes, as bright still as if the evening had but just commenced, and a little touch from the gloved hand, and then he had the further satisfaction of seeing Lord Ivor stand at the carriage-window for fully three minutes, while Lord Sholto, like patience, in a summer overcoat, stood on the pavement lighting a cigar.

"I suppose your cab is here, Ivor," he said, as his brother-in-law relinquished the fingers he had held in his own during those few minutes; they had seemed very long minutes to Mr. Blair. "Take me home, like a good fellow, I'm dying for a cigar."

"All right," Lord Ivor said, carelessly, as his cab drove up, a stylish looking vehicle drawn by a fine black horse. "Good night, Florence; good night, Ida."

"Good-night, Captain Murray," said Jean, putting her head out of the window as they drove away. "Remember, you are to go with us to the Botanical Gardens to-morrow at three. *C'est convenu.*"

The lamp-light fell full on the bright, saucy face as she emphasized her words with a glance at the young officer, which saw how his face brightened, and another at Mr. Blair's handsome dark face, and the carriage drove away leaving the four men standing on the broad white steps of Lady Kergenven's house.

"I suppose you are going in to have another turn, Murray?" said Lord Sholto, laughing. "You young fellows are indefatigable. Good-night," he added, as he entered the cab. "Good-night, Blair; we shall meet soon, I hope."

"I hope so," said Mr. Blair, as he turned into the house again—not to dance, for the interest in the ball-room had left it with Jean McLeod's bright face—but to fetch his coat and hat; and as, assisted by an obsequious footman he put on his overcoat, he congratulated himself on the lucky chance which had induced him to become a Fellow of the Botanical since his return from abroad.

(To be continued.)

MAGAZINES.

APPLETONS' JOURNAL FOR SEPTEMBER—CONTENTS: Vivian the Beauty, by Mrs. Annie Edwards, author of "Archie Lovell," "Ought We to visit Her?" etc. Chapters I. to III.; French and English Pictures; A Venetian Night, by Charlotte Adams; How to popularize Wordsworth; The Seamy Side, a Novel, by Walter Besant and James Rice. Chapters XIII. to XV.; The Souvenirs of Madame Vigee Le Brun; An Hour with Thackeray, by John Esten Cooke; The Critic on the Hearth, by James Payn; Russian Conspiracies, II., by Karl Blind; A Novelist of the Day. Editor's Table—About Melancholy again; The Poetry of the Familiar; The Honors to the Prince Imperial; Books of the Day.

A VENETIAN NIGHT.—We paused in the moonlight silence. There was no sound but an occasional quick tread along the outer walk, which died away under the arches. It is at times like this that Venice is peopled with phantoms.

"Look there, where the moonlight falls on the flowers in that window! Do you not see a scaffolding rising against the arch?" I cried to my companions. "And, standing with his hand following the outline of that robust nymph, do you not mark a tall, bearded figure in velvet cap and gown? Something bright, like steel, gleams under his long robe. As he works, he glances around, and now and again his hand leaves the brush and wanders to his side. Down below, on the cloister-walk, do you mark those slight figures in doublet and long hose, lurking behind the columns and gazing up at the painter as though they would blight him with one glance from their fierce black eyes? Do you know who he is, that phantom painter who plies his brush so busily in the moonlight of the summer nights? It is one Pordenone, who lived in the golden age of Venice. He was all his life fired with a passion to rival Titian, the pride of the republic. He painted so closely after his great model, and so well wrought was his work, that the disciples of the great colorist feared for their master's fame and swore to annihilate this upstart. And so, when the monks of San Stefano ordered Pordenone to cover their cloister-wall with shapes of beauty, the poor painter was forced to work at his task with his sword by his side, for he knew not at what moment some fiery Venetian youth, whose color-god was Titian, might not snatch his brush from his hand and strangle him there on the holy cloister-ground."

I can picture old Pordenone sitting up there on the scaffolding in the summer mornings, when the friars were pacing the length of the cloisters, conning their mass-books or telling their beads, stopping to give the painter a word of greeting, or to glance stealthily at the wondrous mythic shapes, pagan gods or goddesses in the disguise of Christian virtues, with which he is covering their hitherto undefiled walls. I wonder if then, as now, the pigeons circled about the walls, drinking at the hollows in the marble; if the bright dresses of the water-carriers flashed among the columns; if the country girls trudged with their baskets of roses and lavender through the barren stone passage; if the white-kerchiefed market-women bore their shrieking fowls head downward along the walk; if the tired peasants dragged their baskets of purple figs, with sweet red mouths, into the cloister-shade and begged leave of the friars to stand there and sell them? How fair and gracious the summer must have seemed to the painter who sat up there in the world of his creation!

Voices began to echo through the streets from the groups gathered about the doorways or high up in the windows under the tiles—the harsh voices of men drinking in the lighted wine-shops, the tender lullabies of watching mothers, the shrill young melody of girls' voices, bidden like nightingales in high leafy prisons, the passionate utterance of young men's hearts. There is a deep reverence for nature and the unseen in the night-songs of the Venetian people. Light and gay they are, for they are born of the moonlight and the lagoon-foam, but, like the light and the foam, they are the blossoming of the heart-depths of the universe.—*Appletons' Journal for September.*

PHRENOLOGICAL JOURNAL FOR SEPTEMBER: Andrew D. White, President of Cornell University and U. S. Minister to Germany; Phrenology and Metaphysics; Phrenology Applied; Rev. Alexander Clark, D. D.; Brain and Mind.—Chap. XVI.—Phrenology and the Physiologists; Objections and Confirmations; Animal Magnetism as a Fact and as a Curative Agent; The Advantages and Disadvantages of the American Novelist.—No. II.; Injury of the Brain; International Prison Reform.—No. I.; Blonde and Brunette Soldiers; Henry S. Drayton.—Portrait; Love of Young; A Boy all Over; A Family Physician, or, The Cure; Intelligent Labor; Poetry.—The Beautiful Harvest, Our Daily Reckoning, Frozen to Death; Notes in Science and Agriculture.—Pure Cistern Water, Tree-Training, Discovery of Gold in India, The Velocity of Sound, Use of Plaster-of-Paris, Greek Bread, Solidified Hydrogen, Planetary Conjunctions Again; Editorial Items.—Then, Now, When? Cultivating Cheerfulness, the Spirit, A Leaf of European Travel; Answers to Correspondents.—Original Races of Europe, Molasses and Tar, Indirect Moral Training, Moustache, Phrenological Institute, Hoodlum, About Children, Combination for Language, etc.; What they Say.—What of Religion Science must Recognize; Let us Cultivate It; Has Phrenology Practical Value? A Kansas Correspondent says; One of our Students, Mr. McLain, etc.; Personal Items.—Wisdom—Mirth—Library.

THE SPEECH CENTER.—Allusion has been made to the determination of a speech center by observations of the phenomena of aphasia, and the repeated examination of the brain of aphasic persons after death. That this center is situated in the third frontal convolution near the Island of Reil in the left hemisphere of the brain all the physiologists agree. Some, however, Dalton, Lander, Brunton and Ferrier, being among them, are inclined to believe that a corresponding center lies in the right hemisphere. Prof. Ferrier explicitly says: "The speech center is, as has been stated, in the great majority of cases, situated in the left hemisphere. But there is no reason beyond education, and heredity, why this should necessarily be so. It is quite conceivable that the articulating centers of the right hemisphere shall be educated in a similar manner.

A person who has lost the use of his right hand may, by education and practice, acquire with his left all the cunning of his right. In such a case the manual motor centers of the right hemisphere become the centers of motor acquisitions similar to those of the left. As regards the articulating centers the rule seems to be that they are educated, and become the organic seat of volitional acquisitions on the same side as the manual centers. Hence, as most people are right-handed, the education of the centers of volitional movements takes place in the left hemisphere. This is borne out in a striking manner by the occurrence of cases of aphasia with left hemiplegia in left-handed people."

This reasoning accords with the phrenological doctrine of the *double organization* of the brain, each hemisphere being a complete set of centers, motory, sensory, and mental. Observers of the form of heads know that the left side of the cranium is generally larger than the right, a natural consequence of the superior activity and use of the left hemisphere in the mental life of men. The differences in minute structure which are noticeable in the right and left hemispheres of the adult brain, are explicable by the same law of growth and development which governs in the case of our arms and hands.—*Phrenological Journal.*

THE AMERICAN NATURALIST FOR SEPTEMBER. Contents: Adjectives of Color in Indian Languages, Albert S. Gatschet; The Habits of a Tarantula, Mrs. Mary Treat; The formation of Cape Cod, Warren Upham; The Geological Museum of the School of Mines, Columbia College, Israel C. Russell. Recent Literature; Brehm's Animal Life; Birds; Smith's Stalk-eyed Crustacea of the Atlantic Coast; Ingersoll's Nests and Eggs of American Birds; Texan Ornithology; Recent Books and Pamphlets; General Notes; Botany; The Root of Oxalis violacea; Botanical News; Zoology: Habits of the Red-headed Woodpecker; Fish Notes from the Pacific Coast; Notes on the Apple-worm; Does the Snowy Owl Breed in the United States? Double-headed Snakes; *Anata calva*; Habits of Ants; A Poisonous Centipede; Anthropology; Mastodon, Mammoth and Man; Archæology at St. Louis and Philadelphia; Chungkee Stones and Quoits; Iron Axes; Anthropological News; Geology and Paleontology; A Decade of Dogs; Geological and Palæontological News; Geography and Travels; The Slave Trade in Central Africa; Microscopy; Purity of Lake Water; Micrometric Ruling; Scientific News; Proceedings of Scientific Societies; Selected Articles in Scientific Serials.

HABITS OF THE RED-HEADED WOODPECKER.—During the past three or four years much has been written in regard to the changes which are taking place in the habits of the red-headed woodpecker—"a versatile bird," to quote the apt characterization of Dr. Elliott Coues. This bird is quite common here, though I am of the opinion that it is not seen in as large numbers as it was when the country was first settled some twenty-two years ago. I have often seen them about my barn-yard industriously picking up corn which had been shelled for the swine. Generally the bird alights and secures a single grain, and then flies off to the nearest tree-top to peck it into pieces and devour it at his leisure, returning for others at frequent intervals. I have often watched them while they were making a score of these little journeys. In 1877 this region was overrun with grasshoppers, upon which the red-headed woodpeckers feasted royally while they lasted. I saw the birds out on the prairie, a mile or two from the timber, so intent upon catching the 'hoppers that they scarcely noticed one in passing. Sometimes they would catch a 'hopper on the wing, dodging around in a very lively manner to secure the insect, and again they would hunt for their prey on the ground. The insect secured, the bird would alight on a fence-post and devour it. I have occasionally seen them, attended by their progeny, in the open fields, where the old birds were engaged in catching insects for the clamorous younglings, which had not yet learned to provide for themselves. It would seem that, at the time the young birds require so much food, the old ones would need some readier means of supply than would be afforded by pecking for grubs in decayed timber, or searching for insects on the outside of trees—whether the "creepers" had intruded upon their domain or not. So far as I have been able to observe, the red-headed woodpecker is really a very "versatile bird," evincing a readiness of resource and an easy adaptation to his environment that are truly wonderful

Domestic Economy.

CONDUCTED BY EMILY MAPLE.

MORNING AND EVENING HOUSEKEEPING.

ANNIE L. JACK.

THE days grow perceptibly shorter, the evenings are lengthening, and the hour of five seems early for beginning a day's work, even in the country. But while the heat lasts—and that is till the middle of September in this latitude—there is really nothing so important in regard to saving strength as to do all we can of the necessary work of house and garden during the cool hours of the morning and evening. For my own part, I much prefer the morning hours. After the freshness of the night air, and one's own good night's sleep, the body is better able to cope with the duties before one. How fresh and sweet the air, as we go into the garden for weeding at an early hour! At no other time do the birds sing so blithely and happily. The Morning-glories, too, are at their best about sunrise—dew-spangled and real "glories," while the evening Primroses are just shutting their eyes as the sun advances, for I have often found the expanded flowers blooming through the night. It is a good time, too, while breakfast is preparing, to think of the dessert for dinner, and, during these days of heat, to study what light, cool and wholesome pudding we can make that will be ready in case of emergency, and cost no extra fire, to cause us discomfort. The children of a household can be sent to gather the vegetables, and taught to prepare them for the table after the lesson of clean hands is properly learned. Anything that requires extra stove or sun heat through the day can be as well done while the cool hours are with us. Apart from fruit—which I set first—there is nothing among dishes for dessert to equal those made with eggs, milk and gelatine. A very simple but palatable pudding to be made in the early morning is by the following recipe: One pint of cream, whipped light; half a package of gelatine, soaked in milk; a small cup of white sugar, and whites of two eggs. Dissolve the gelatine and sugar by heating, then when it has cooled beat up into the whites, making it all a firm froth. Beat in the cream and fill your mold, previously rinsed in cold water. It takes six hours to cool, and is suitable either for dinner or tea.

MRS. ENDICOT'S JOURNAL.

Ole to make scrap-books; tomato catsup; farmers' rice; preparing plants for winter.

SEPTEMBER 4.—Barton's brother, who lives at H., five miles from here, is the editor of the county paper, and knowing how well we appreciate his kindness, he never comes over without bringing a roll of papers and pamphlets. After they have been read by us all, in my leisure I go over them, scissors in hand, cutting out all scraps I think of value to us. These I put in a large brown envelope, such as they put writing paper in at the stores. Then, when I have time, I sort them out and paste in three books, old Patent Office Reports, labeled on the backs, "Kitchen," "Garden," and "Scraps." In the first I put all kinds of recipes; in the second, any thing about flowers and the vegetable garden; in the other, anything else I find worthy of keeping. In the one labeled "kitchen," I have cut out a number of printed pages and pasted in white paper ones, where I can copy recipes when told me. The last one that went in was this:

Tomato Catsup.

Select perfectly ripe sound tomatoes, cut in slices and boil until the pulp is cooked soft. Rub it through a sieve to take out the skins and seeds, and return to the kettle for cooking. To each gallon of the pulp add three tablespoonsful each of salt, ground pepper and mustard, and one each of ground cloves and allspice. Cook it until it is thick enough to run slowly from a bottle. Let it get cold, then bottle and seal.

I made what we call "farmers' rice," for dessert for dinner to-day. We all enjoyed it so much that there was not enough left for baby Katy's supper, as I intended there should be. It is so easily and quickly made, I wonder it is not oftener found on country tables. I put about three pints of milk on the stove in a pan. While it was coming to a boil I mixed two eggs with flour until it was dry enough to roll through my fingers in grains. Then stirred it into the milk quickly, so as to keep it cooking all the time. Five minutes are long enough to finish it. Turn into a dish and eat while warm with plenty of cream and sugar.

SEPTEMBER 6.—To-day I finally accomplished what I have been wanting to do for some time, and that was to pot my plants for winter. Since the coming of the new hard-coal stove into the sitting-room, I have taken so much pleasure with our plants. My work was so arranged that the washing up of the dinner dishes was the last thing to be done. When Della and I had finished them, Harry had Katy sleeping soundly, and we were ready for the work we all love. Early in July I had planted slips of Geraniums in a shallow box and set it under a low tree where the cuttings received the morning sun for a little while every day. They were kept damp by a plentiful sprinkling every evening, and were now fine plants. While I selected what I wanted, Della got the pots from a corner of the wood-shed where they had been put last spring, and Harry brought a barrow of compost from the garden heap with which he mixed several shovelsful of sand thoroughly through it, and filled the pots, each with a bit of crock in the bottom for drainage, with the soil thus prepared. After pressing the earth firmly around the roots I watered them, picked off all the buds and set them in the shed out of the light, where they can have perfect rest for several days. Then the Rose Geranium was transferred from the little three-inch pot in which it had been rooted to a six-inch one. Several Begonias were treated in the same way. As the earth around them had not been disturbed, a smart rap on the bottom of the pot loosened it, so the whole could be lifted out. They were set on the north-east porch. Harry came around with the Smilax, which was just showing a green shoot after its six weeks' rest, in one hand and the hanging basket of Pink and White Oxalis in the other, also just ready to wake up. When Della added the Heliotrope, it did require considerable courage to take off the buds, just showing the purple, while a faint fragrance was perceptible. Soon I shall plant my Sweet Alyssum and Mignionette seed and then I shall have, not all I want, but all I can take care of. We have only three windows in our sitting room, and I have firmly made up my mind that only one shall be filled with flowers. A hanging basket may go in the east window, but nothing more. I find that I have a great deal better success with my plants if they are potted early and get a good start before cold weather. As soon as there seems to be any danger from frost, I will carry them up stairs and leave them there until danger of freezing. Managed in this way, I think they feel the change less than by any other treatment.

GRAPE JUICE.

DEAR MRS. MAPLE:—When a young housekeeper at the South, I was often puzzled to know what to do with my surplus grapes. We did not use wine in the family; so, after our home market was supplied, and I had made jelly, marmalade, etc., there were many left for which I had no use whatever. Thinking I would try canning the juice for flavoring purposes, I found that I had discovered by accident not only a delightful beverage, but a tonic for the sick, which they could take when too weak for other nourishment. It sold readily, and I found it very profitable; beside the pleasure it afforded to send a bottle to a sick friend or a person too poor to buy. Physicians recommended it highly.

Recipe.

Express juice, using cider-press for large quantities; strain through a flannel bag; bring to the boiling point in a porcelain kettle; skim, bottle, make air-tight by pressing well the cork into the neck of bottle and filling with wax. Pack in boxes, standing the bottles upside down, and keep in a cool, dark place. It is best after it has been kept nine or ten months. Quality varies with the variety of grape used; that made from Hartford Prolific and Diana is excellent.

LIVY ELLSWORTH.

DOMESTIC RECIPES.

Preserving Citron.

Pare the citron and cut it into small pieces, not exceeding a quarter of an inch in thickness. Remove all the seeds, weigh and put them in alum water for two or three hours. Then turn the alum off and boil in clear water until you can pierce them with a straw. Make a sirup, allowing one-half pound of sugar to a pound of fruit, adding half a pint of water to a pound of sugar. Place your citron in the sirup and cook the same as other preserves. Just before taking from the stove, slice in two or three lemons, according to quantity of preserves; then let them boil a minute longer.

MRS. D. M. JOHNSON.

Indian Baked Pudding

The following are excellent recipes for the above but whether better than the one you have just published I cannot tell: No. 1. Scald a quart of milk and stir in seven spoonsful of Indian meal, a teaspoonful of salt, a teacupful of molasses and a great spoonful of ginger or cinnamon. Bake three or four hours, the longer the better. If you want whey, pour in a little cold milk after it is all mixed. No. 2. Let one quart of milk come to a boil, then add two eggs well beaten, three tablespoonsful of Indian meal and one of flour. Bake three-quarters of an hour. Serve with cream and sugar. M. M.

Mount Morris.

QUESTIONS ANSWERED.

G. M. G. asks if corn and beans can be preserved in glass cans, and if so, wishes directions for preparing them.

ANS.—*Tin* cans are used chiefly for the preserving of vegetables of all kinds for winter use, and we doubt if you would meet with any success in canning either corn or beans in glass. We can give no other directions than to cook the vegetables until tender, then put into hot cans and make *air-tight*. In the RURAL of May 3, page 288, we gave directions for canning corn in tin (and beans can be treated likewise), which we republish below. Both of the above vegetables can be preserved in brine, directions for which have been given lately in these columns, and for home preserving of either we should prefer that method to attempting to can them in glass or tin.

To Can Corn.

Cut the corn from the cob when not too old; fill tin cans and seal up by soldering on the lid; punch a small hole in the lid and place in a large pan of boiling water, which should come almost to the top of the can. Boil in this bath one-half hour, or until the steam escapes freely from the aperture. Take out and seal up with a drop of solder. Return to the hot water and boil from three to four hours. When cool, if the canning has been perfect, the ends of the can will be slightly concave.

Coloring Everlastings.

M. W., Poquonock Bridge, Conn., asks us how to color wild Everlastings, etc., for winter bouquets. She wants several of the brightest colors, including a good green. She says she has tried aniline dyes, and that she was told by a druggist to mix the yellow and blue together to produce a green, and by so doing just spoiled the whole.

ANS.—We know of nothing better than Leamon's aniline dyes. Try the green.

News of the Week.

MISCELLANEOUS.

MONDAY, September 8, 1879.

THE rice crop of South Carolina for the year is estimated at 44,000 tierces, and that of Georgia at 26,000. The increase of flouring mills in the four States of Illinois, Wisconsin, Iowa and Minnesota from 1860 to 1878 was from 1,158 to 3,000. The production of butter and cheese is said to be four times greater in value than the total yield of our gold and silver mines. In Baltimore there are forty peach-packing establishments. Few, if any, of these houses employ a less number of hands than two hundred, while several of them reach eight hundred or one thousand, and these are exclusive of those engaged in the manufacture of tin cans and the packing cases. This year, up to the close of July, our imports were a million less and our exports seven millions less than for the corresponding period in 1878. The exports of gold and silver were five millions more. This does not show an unusual balance of trade in our favor. The city council of Lawrence, Kansas, Monday week, refused to levy the bond tax ordered by the United States District Court, and passed a resolution declaring that the city cannot pay more than fifty cents on the dollar of its indebtedness. A family named Susy, at Linden, N. J., consisting of a father, mother and four children, were poisoned Monday night by eating toad-stools for mushrooms. Two of the children are dead, and the other two are dying. The parents are sick, but are recovering.

The negro exodus from the South is expected to be very heavy this fall, so soon as the crops have been gathered in. Various organizations have already been here and there formed to promote it, nominally often upon philanthropic principles, but nearly always in reality from political motives. In 1880 the next census is taken and upon the returns then made of the population of the different States, the apportionment of members of Congress will be fixed. The greater the emigration from the South, therefore, before the census, the smaller the number of Congressmen that will be assigned to that section. Moreover, the settlement of the emigrants in the Northern States will add to their population in proportion as it diminishes that of the South, and consequently increase the number of Congressmen from the North, and as the large majority of the Northern Congressmen are Republicans, the exodus, it is expected, will add to the representatives of that party, while lessening the number of their opponents. A careful review of the amount of State and municipal debts repudiated by the South since the close of the war puts the total at $300,000,000. In addition to this, the bulk of Southern debtors availed themselves of the benefit of the lax bankrupt laws that were in force after the "unpleasantness," and thus got rid of at least as much more indebtedness. As almost the entire amount of the debt in this way shirked, was due to Northern capitalists and merchants, the South has been to that amount enriched by the "spoils of the Egyptians," and this has materially aided the efforts of the people to regain an era of prosperity.

Mrs. Dixon, the wife of the man murdered at Yazoo because he was a candidate for sheriff, tells her story and her husband's in one of the Vicksburg papers in a way to stir the sympathies of southern chivalry, if there is any such quality left. When the Democratic convention passed a resolution, based on the names of "two reliable men," that Dixon had threatened to kill Barksdale, Dixon told his friends that this was a trick to prepare the public mind for his own assassination. It seems that Dixon lived long enough to make an ante-mortem sworn statement as to the circumstances, and also to be baptized in the Catholic church. This was in answer perhaps to the taunt of his enemies that he was an infidel, which is still a terrible denunciation at the South. The day before he was shot he sent word to Barksdale by a friend as to the falsity of the charges that he had ever threatened him with assassination, and Mrs. Dixon quotes a letter from J. C. Prewitt, a brother-in-law of Barksdale, dated March, 1878, in which he bears witness to Dixon's good character and to the extent to which he was being persecuted. A tempest extending through part of Louisiana and Mississippi on Monday did miscellaneous damage of many hundred thousands of dollars. Eighty farmers who are dissatisfied with the agricultural prospects in England sailed on Wednesday from Liverpool for New York on their way to Texas. They are from northern Yorkshire and Durham, and are of various classes, ranging from small-tenant farmers upward. Several of them can command capital of $2500 to $3,000, while some others have entered into partnership, one group having raised a capital of $6,000.

A sad story is that of the family of Gen Hood of New Orleans. Last Monday week, Mrs Hood died of yellow fever; the general himself was laid by her side on the following Saturday at the age of 49, and he leaves behind two daughters very ill. Gen. Hood had a brilliant career as a fighter in the Confederate army, rising from a low rank to the command of the forces against Sherman in his march to the sea. The question of Sunday laws is entering into the pending Virginia campaign. The rural districts want the laws strictly enforced, but the cities want them relaxed, and a citizens' association has been formed at Richmond to send men to the next Legislature who will allow the cities to regulate their own Sunday observances without regard to the State law. The same issue will enter into the Texas campaign. A Marshal (Tex.) jury has just fined a newsboy $25 for selling a newspaper on Sunday. Mrs. Kate Chase Sprague fled from Canonchet, R. I., this week carrying her younger children. Gov. Sprague made an exciting pursuit in order to recover the latter but failed. The whereabouts of Mrs. Sprague is not known, but it is thought that she will eventually go to France or Germany to live. It is now denied by her own counsel and others that she was kept a prisoner at Canonchet by her husband or abused by him. Her counsel and friends disapproved of her departure. She will not be pursued or prosecuted, except that Gov. Sprague will press his claim for the children. Mr. Sprague will probably obtain employment under Mr. Chafee, the trustee of the Sprague estate.

The National Greenback-Labor Party of the State of New York assembled at Utica last week. The successful organization of the Convention was not secured till Saturday, Friday up to midnight having been spent in discussing delicate points of parliamentary law, in arranging to pay for the hall, and in admitting the proper delegates from this city. It did not appear that these last, of which there were three sets, were any of them "regular" or irregular, but the question at issue concerned the political affiliations of each set with organizations of real importance. A happy result was at length attained, and the men who composed the meeting are to be congratulated upon the fact that they refused all the overtures which were made to them by Tilden and Company on the one hand, and Tammany Hall on the other. The venerable Mr. Richard Schell was mentioned as a candidate for Governor, but the honest and horny-handed sons of labor literally hissed the Tammany schemers out of the hall. Finally, the Convention nominated Harris Lewis, of Herkimer County, and President of the Farmer's Alliance, for Governor, and a full State ticket. The platform is, in the main, the usual greenback deliverance, but distinguished by the addition of some extraordinary resolutions intended to cheer up Kearney "in his heaven-inspired work," charging "our opponents" with being "really the red-handed Communists," and commending Kearney's recent restraint of the California mob from attacking the same. Apparently Kearney's "peace-policy" has produced a temporary transformation of "the Commune," which is altogether the best thing he has done. The Republican Convention of this State met at Saratoga on Wednesday and at it Conkling won a decided personal victory by securing the nomination for Governor of his intimate personal friend, Mr. Cornell, and the whole of the rest of the ticket. It was thought by the Hayes party that that "muss" in which he was embroiled up at Canonchet, would have injured his influence, but he came out triumphant on all points. Hayes & Co. make the best of a bad job, and express an earnest desire for the election of the ticket. Yellow fever is still raging at Memphis, where the resources of the Howard Association are exhausted so that they have had to issue a request for outside aid. In New Orleans also there has been a considerable number of deaths, but it is confidently expected that there the disease will be localized in a small strip of the upper part of the Fourth District where all the deaths have hitherto occurred.

The lands in Dakotah, opposite the Sioux reservation, reserved for settlement in 1875, to prevent the whites from pressing too closely upon the Indian frontier, have been for the most part thrown open to settlement again, the main object of the reservation not having been achieved.

The following table, prepared from information received at the Bureau of Statistics, shows the aggregate production of the three great agricultural staples of the Southern States for each year since 1870:—

Year.	Cotton, bales.	Sugar, hhds.	Tobac., lbs.
1870	4,352,317	144,881	285,000,000
1871	2,974,311	128,451	426,000,000
1872	3,930,508	108,520	480,000,000
1873	4,170,388	80,408	506,000,000
1874	3,832,901	116,867	315,000,000
1875	4,669,288	141,146	522,000,000
1876	4,885,423	169,331	535,000,000
1877	4,811,423	127,753	560,000,000
1878	About 5,200,000	About 212,000	572,000,000

Out in California, Kalloch instead of dying by De Young's assassinating bullet has been elected mayor of San Francisco by the workingmen's party. The Honorable Bilks and Democrats were nowhere either in the city or State elections. From present appearances the Republicans have elected some of the city officers, while Perkins their candidate for governor of the State has been elected by a respectable majority. They have also elected a majority of the State Legislature and certainly three members of Congress and probably all four. The workingmen have gained a majority of the railroad commissioners and also a majority of the Supreme Court including the Chief Justice. This election may have an important effect on the choice for next President, as before intimated here. Of the 38 State delegations, 19 including California, are Republican, 18 are now Democratic, while the Indiana delegation is equally divided between the two parties, with the deciding vote in the hands of De La Matyr, the Greenbacker. Should the election go into the House, therefore the Republicans now have the best show.

FOREIGN.

Commodore Shufeldt writes from the west coast of Africa that the "opening of Africa," as it is termed, is a mere deceit and delusion, and says the natives of the lower Congo, who have been in contact with the whites for nearly 400 years, have only had engrafted upon their innate barbarism the lowest vices of civilization. The appointment of consuls along the coast by our government is recommended as calculated to give our flag a recognized status and create a rallying point for any future commerce from the United States, besides affording protection to our people in their intercourse with the natives.

In Mexico, Diaz has several times declared his intention not to be a candidate for re-election to the presidency of the Republic, under any circumstances. Indeed, there is in that country a constitutional amendment prohibiting the re-election of a president. Now, however, there is much agita-

tion there with regard to the repeal of this amendment. Eighteen of the 27 States that constitute the Republic are said to be disposed to the repeal of this prohibitory amendment, and as the assent of only a majority of the States is required to a constitutional amendment, instead of two-thirds as with us, the question may be regarded as settled that Diaz will be made president again at the election which takes place eleven months hence. The Lerdist party look upon his re-election in the light of a dictatorship for life. Well, any form of government there would be a godsend, which would put an end to the chronic state of revolution that for the past couple of generations has drenched the country with blood, and rendered impossible the development of its vast mineral and agricultural resources.

Mr. Longman, the last of the original partners in a firm of eminent London publishers, is dead. The earthenware and china manufacturers of Staffordshire, England, have resolved on the reduction of wages of over 50,000 workmen. The reduction is partly attributed to American protective duties. The employers desire to return to the wages paid in 1871. It is expected that the men will submit. The colliery proprietors at the Burnley coal fields gave notice Saturday of a reduction in the price of coal and a reduction of five per cent. in wages. Another party of farmers, numbering about twenty, left Liverpool for America, Saturday. Prince Dondoukoff Korsakoff has started for Odessa, Russia, to assume the Governor Generalship there, relieving General Todleben, who will probably be appointed Governor of Warsaw.

Liberia seems to have about collapsed. The negro republic is bankrupt and in the power of British capitalists; the Liberians themselves are dissatisfied with the condition of affairs; and the most powerful tribes of natives throughout the country are talking secession and calling on the British for protection. Without money, credit, or an organized army, there is lit tle chance that the republic can uphold its authority, and the African State which the United States has indirectly backed for so long is in a fair way to fall into the hands of Beaconsfield. The Russian grain belts south and southeast of Moscow are beginning to feel the effects of the steady exportation of grain to England for two generations; the land is wearing out, and the farmers are moving to the thinly settled provinces on the eastern steppes at a rate which gives the Russian goverment much uneasiness. The government tax on the grain districts remains the same in spite of the diminishing yield, and the departure of the peasants follows inevitably, due in no small measure to the fact that under the pressure of a constant demand for grain from western Europe the old system of fallow lands has been abandoned and the fields plowed year in and year out. The same result has happened in California. With the seaboard close at hand it did not "pay" to feed grain to cattle. It was all exported and fields which began by yielding 20 and 30 bushels to the acre now return half that and are never likely to give more while the same course is continued in cultivating the new grain fields farther inland.

Mr. Clare Sewell, member of the British Parliament for South Norfolk, and Mr. Albert Pell, member for South Leicestershire, arrived in this city yesterday. The steamer City of Montreal, in which they came, reached Quarantine on Saturday evening, too late to be inspected by the Health Officer, and lay at anchor there all night. Messrs. Read and Pell are a sub-committee of the Parliamentary Commission to inquire into the causes of the present distress in the agricultural districts of Great Britain, and are particularly sent to ascertain what hand America has in the matter, so far as the American product and export trade may throw light on the subject. They will give especial attention to the exportation of meat and live stock to England, and make an effort to fix approximately its extent during the next five or six years. Mr. Read is a tenant farmer on a large scale in Norfolk, where for 300 years his ancestors before him have followed the same pursuit. He is a practical and theoretical farmer, President of the Norfolk Chamber of Agriculture, member of the Council of the Central Chamber of Agriculture and of the Farmers' Club. He has written several essays on farming. In politics he is a Progressive Conservative. In person he is tall and well formed, with closely-cut gray hair, a long full gray beard and moustache, and pleasant brown eyes. He looks more like an American than an Englishman. His colleague is also a farmer, and a Conservative. He was educated at Rugby and Cambridge. In Leicestershire he is a farmer, and was the first Chairman of the Central Chamber of Agriculture. He looks the typical Englishman, being rosy-faced, blue-eyed, with white hair and white side whiskers.

The great importance which ostrich farming has acquired in Southern Africa may be seen from an ostrich auction recently held at Middleburg, Cape Colony. The lowest price paid for one pair of these birds was £180, and several pairs fetched £235. A few years ago ostriches were obtained by hunting only, and at that time a good bird could be bought for a menagerie or a zoological garden at a moderate price. But since their domestication and the development of ostrich farming as an industry, their price has risen enormously. At present the Zoological Garden in London owns not one living ostrich. From the Cape of Good Hope 2,297 pounds of ostrich feathers were exported in 1860, at a value of £19,261; but in 1873 the exportation had risen to 31,681 pounds, at a value of £159,679, and recently a bunch of picked bloods were sold at Port Elizabeth for £67 15s. a pound, that is about $8 a feather.

After the conclusion of peace with Yakoob Khan a few months ago, most of the English forces were withdrawn from Afghanistan and Major Cavagnari, with a suite of about 40 souls, was sent to Caboot, the capital of the country, as British Agent to look after the interests of the Indian Empire and the United Kingdom. News has just reached here that last week he and his attendants had been massacred by mutinous Afghan soldiers aided by the populace of Caboot. Three regiments began the attack on the agent's residence, where they met a vigorous resistance; nine other regiments then joined the insurgents. The buildings having been fired, the handful of English, 79 in number, reduced to extremity, sallied out from their cover and fell fighting, all except nine, who are reported to have escaped. Yakoob Khan appeals to the British for assistance, and says that he is himself besieged. His son is said to be among the slain. The English forces from all the neighboring quarters are being rapidly pushed towards the capital, which must soon be once more in their hands.

The uses to which Murray and Lanman's Florida Water is put may, without exaggeration, be said to be universal.

In refined and cultivated society it is recognized as the most refreshing and agreeable of perfumes for the handkerchief, the toilet, and the bath.

The season for contracting that disagreeable and really serious disease, Catarrh, is at hand. Dr. Sykes, of Chicago, in our issue of September 6th, offered our readers a remedy in which he has the greatest confidence. He has the most positive assurances of those who have tried it that it will do without fail all that is claimed for it.

Hearing Restored. Great invention by one who was deaf for 20 years. Send stamp for particulars. Weakley & Boroff, Lock Box 452, Cincinnati, Ohio.

We know that there is nothing on earth equal to Hop Bitters as a family medicine.

THE MARKETS.

PRODUCE AND PROVISIONS.

NEW YORK, Saturday, Sept. 6, 1879.

BEANS AND PEAS.—The bean market shows unusual strength for the white standards. Unless supplies are short when September comes, buyers are apt to be indifferent; but now, with a pretty free supply and prospective good yields of new crop, prices for mediums and marrows are quite steady at full prices. White kidney and pea beans only nominal. Red kidney are neglected, and likely to be, until the new curings start the market with revised rates. Black beans will be soon wanted. Green peas have declined to $1.25@$1.30 with a large stock. Canadian peas nominal at 70c.: medium beans, prime, $1.32½@1.35; fair to good, $1.27½@1.30; marrows, prime, $1 27½@1.30; fair to good, $1.20@1.25; pea, $1.20@1.35; red kidneys, $2.

Receipts of beans for week, 4,010; exports, 990 packages.

BROOM CORN.—There is a fair inquiry and a steady market.

Brush and short broom, choice, ₹ lb, 5½@6½c.; do., common to good, 4½@5½c.; hurl, good to choice, 4@5c.; do., common to fair, 3½@4c.; red and crooked, 2½@3½c.

BUTTER.—Receipts for the week, 24,426 pkgs.; do., last week, 29,970 do. Exports, 15,246 pkgs. The movement for the past fortnight has been good, while receipts have been moderate enough to prevent accumulation. In fact, storings have been drawn upon to some extent to suit certain lines of enlarged trade. Prices have not advanced, but with the liberal stock of the season and sales not fairly assisted by foreign export dealers have come to regard a maintenance of previous figures as a sort of an improvement. The fine grades of State tubs and all creamery are named something stronger, anticipating possible light September yield. Some points refer to drying pastures and reduced milk; but it is too early to base much calculation upon such contingencies; besides farmers are always more or less nervous on this subject in the fall.

COMPARATIVE RECEIPTS AND EXPORTS, JUNE 1.

	Receipts, pkgs.	Exports, firkins.
June 1, '79 to Sept. 1, '79	470,480	87,599
" 1, '78 " " 1, '78	419,890	98,176
" 1, '77 " " 1, '77	391,075	65,835
" 1, '76 " " 1, '76	328,475	25,362

State, pails and tubs, single dairy marks, fresh, extra, 17½@18c.; State, pails and tubs, best invoices, 16@16½c.; good to prime, 14½@15½c.; fair to good, 12½@14½c.; firkins, choice yellow, 15½@16c.; good to prime, 14@15c.; fair to good, 13@14c.; Welsh tubs, choice, 15@15½c.; good to prime, 13½@14½c.; fair to good, 12½@13½c.; tubs, poor, 9@11c.; creamery, best invoices, 19½@20c.; good to prime, 18@19c.; sweet cream, best, 17@18c.; fair to good, 16@17c.; Western, best invoices, 19½c.; Western, good to prime, 18@19c.; Western, fair to good, 16@17½c; Creamery, poor, 14@15c.; imitation creamery, 10@14c.; dairy, best invoices, 12½@13½c; good to prime, 11½@12½c.; fair to good, 10@11c.; poor to fair, 9@10c.; factory, best invoices, June, 11c.; fair to good, June, 9½@10½c.; best invoices, Summer, 8½c.; fair to good, Summer, 8c.; poor to fair, 6½@7½c.

CHEESE.—There has been a great deal of excitement this week and higher prices. The cable came a little better, and as the receipts here were small, a good deal of competition set in to secure the fancy factories. Prices have been carried up to 6@6½c., and even 6¼c. for special lots. Quotations are for State factory: Fancy at 6@6¼c.; good to prime, 5¼@5½c; fair to good, 4½@5¼c.; half-skimmed, 3@4c.; skimmed, 2½@3½c. State farm dairy: Fine, 5¼@5½c.; good to prime, 4½@5¼c.; fair to good, 4½@4¾c.; skimmed, 2@3c. Wisconsin factory: Fine, 5¼@5¾c.; good to prime, 5¼@5½c. Ohio factory: Cheddar, fine, 5½@5¾c.; do., fair to good, 4¾@5c.; flat, fine, 5½@5¾c.; flat, good to prime, 5@5½c; flat, fair to good, 4¾@4¾c.; half-skimmed, 3@4c.; skimmed, 2¼@3¼c.

Liverpool cable, 31s.
Steam, 35@37s. 6d.
Comparitive receipts and exports:

	Rec'ts, boxes.	Exp'ts, lbs,
June 1, 1879, to Sept. 1, 1879,	1,198,565	36,089,463
" 1, '78, " " '78,	1,569,377	51,312,100
" 1, '77, " " '77,	1,241,951	36,631,516
" 1, '76, " " '76,	1,011,451	45,769,285

COTTON—The market has been active and closed firm at for September, 12.23@12.24c.; October, 10.97@10.98c.; November, 10.50@10.51c.; December, 10.40c.; January, 10.47@10.48c; February, 10 57@10.58c; March, 10.67@10.69c.; April, 10.77@10 79c.

Quotations for spot cotton are based on American standard of classification, and on cotton in store running in quality not more than half a grade above or below the grade quoted.

	Uplands.	*N. Orleans and Gulf.*	*Texas.*
Ordinary	10¾	10⅜	10⅜
Strict ordinary	11⅛	11⅛	11⅛
Good ordinary	11⅜	11⅜	11⅜
Strict good do	11⅜	11⅜	11⅜
Low middling	11⅞	12	12
Strict low middling	12 1-16	12 3-16	12 3-16
Middling	12 3-16	12 5-16	12 5-16
Good middling	12⅝	12⅝	12⅝
Strict good middling	12⅞	12⅞	12⅞
Middling Fair	13 7-16	13 9-16	13 9-16
Fair	14 1-16	14 3-16	14 3-16

STAINED.

Good ordinary	10 15-16
Strict good ordinary	11 5-16
Low middling	11⅝
Middling	11⅞

DRIED FRUITS.—New apples have sold at 5½@5¾c. for North Carolina common sliced, and 7½@8¾c. for bright, while fancy have reached 9@10c. Peaches are in good demand and firm, while receipts are small. Raspberries, blackberries and cherries are higher.

Patent evaporated apples, choice, in cases, at 11c@12c.; do. fair to good, 8½@10c.; N.Y. State sliced, choice, at 5½@5¾c.; do, quarters, choice, 4½@5c.; western quarters, bright, new, 5@6c.; common and old, 2@4½c.; new N. C. peeled peaches at 12½@16c.; do. Georgia, 10@13c.; old unpeeled halves, 4½c.; do., quarters, 3½@3½c. Blackberries at 7¾c. for old and 8½@8¾c. for new. Raspberries at 28@29c. Pitted cherries at 17@20c.

EGGS. — Receipts for week, 6,551 bbls.; do., last week, 5,912 do. The market fell off during the week, but at the close with less pushing weather, quotations are hardening to some extent.

Near points, 15c.; State and Penn., 15@15½c.; best Western, and Canadian 14½c.; inferior Western, 13@14c.

FLOUR.—There is a good, full call for supplies, and the market is a strong one.

Latest prices are: $3.50@4.00 for poor to choice superfine State; $4.20@4.40 for poor to good extra do., odd lots and lines (lines for September arrival quoted at $4.25@4.35 for standard brands); $4.40@4.75 for good to very choice do.; $5.50@4.00 for interior to fancy superfine Indiana, Iowa, Michigan, &c.; $4.20@4.40 for inferior to good shipping extra do., and $4.45@4.75 for good to very choice extra do.; common to choice white wheat extras, $4.60@5.60. choice to very fancy do. at $5.60@6.50; red and amber winter wheat, inferior to very choice trade and family, at $4.40@5.75; round hoop Ohio at $4.20@4.60, and trade and family brands of do. at $4.70@5.35, the latter rate for choice; St. Louis, $4.20@5.50 for inferior to very good extra; $5.50@6.50 for very good to fancy; Minn. clear, very inferior to very fancy, at $4.15@5.60; do. "straight," very inferior to very fancy, at $5.00@6.50, and patent poor to fancy at $5.00@7.50; unsound stock at from $2.25@2.50. city mill extra at $5.20@5.45, fair to choice, for West Indies; do. for England, $4.30@4.65 for very poor to very choice; do. trade and family extras, $5.50@6.50; do. for South America, $5 25@5.50 for standard to choice brands; No. 2 at $2.60@$3.25 for very poor to very choice.

FRESH FRUITS.—Apples are in large variety, quoted easy.

Blush pippin, up-river, ₹ bbl., $1.75@2.00; do., western N. Y., $1.75@2; do., Gravenstein, $1.75@2; do., Alexander, $1.75@2; do., Fall Pippin, $1.50@1.75; do., 20 oz. Pippin, $1.75@2; do., Maiden Blush, $1.75@2; do., Calvert, $1.50@1.75; do., Cranberry Pippin, $2; do., Strawberry, $1.50@1.75; do., Detroit Red, $1.75@2; do., Golden Sweet, 75c.@$1; do., mixed lots, $1.50@2. Pears abundant and low. Bartlett, up-river, ₹ bbl., $2@3; Jersey, $1.50@2 50; Seckle, $1.50@2.50; Swans' Orange, $1@1.50; Flemish Beauty, up-river, $1@1.50; cooking, $1@1.50. Peaches coming in lighter supply. Delaware already shipping Smocks and White Heats. Receipts for N. Y. use for the season have passed 1,000,000 baskets; New England has used 3,000,000 do. Md. & Del. choice, ₹ full bush. crate, $1.25@1.50; fair to prime, 80c.@$1; fancy, ₹ basket, $1@1.25; prime, do., 80@90c.; plain, do., 50@75c.; N. J. extra, ₹ basket, $1@1.37; do., good to prime, 70@80c.; do, poor to fair, 40@50c. Grapes are in free supply and very low, as they must compete for a while with more ready selling items. Delaware, State, 18 3-lb. boxes, $1@1.50; do., up-river, bulk, ₹ lb., 8@10c; Concord State, 18 3-lb. boxes, $2.50@3; do., up-river, $1.50@2.25; do., up-river, bulk, ₹ lb., 3@5c; do., S. J'y, case of 24 3-lb, boxes, $1.75@2; do., S. J'y & Del., bulk, ₹ lb., 2@3c.; Ives, So. J'y & Del., bulk, ₹ lb., 2@3c.; Hartford Prolific, up-river, per lb., 2@4c. Plums are firm without much recent advance. German Prune, per bbl., $3.50@4.50; Quackenboss, $6.00@7.50; Egg, $5@6; Reine Claude, $6; Green Gage, $4.50@5; Blue Gage, $4@4.50; Lombard, $3.50@4; Damson, prime, $3@3.50; do., inferior, $3@4. Whortleberries, Jersey, fair to good, per 14-qt. box, 75c. Watermelons, Jersey, Black Spanish, per 100, $5@10; Md., selects, $10@15; do., as they run, $3@8; Nutmeg melons, Cantaloupes, Buckensack, per bbl., 75c.@$1.25; do., Monmouth Co., 25@50c. There is a fair movement in peanuts and with light stocks, both here and in the South, the tone of prices is tending in sellers' favor. The last sale of prime shelled nuts was at 6c. Va. hand-picked, $1.50@1.60; fancy, $1.45; extra prime, $1.40; good to prime, $1.30@1.35; shelled, per lb., 6¾@6c.

GRAIN.—Wheat has shown a liberal export movement, and the market closed firm at for No. 1 amber at $1.11; No. 2 amber at $1.10½@1.11 do., September option, at $1.10¾; ungraded amber at $1.06@1.11; white State at $1.11¾; No. 1 white at $1.11@1.11½; do., September option, at $1.11@1.11½; do., 10th October at $1.11@1.11¾; do., November, at $1.11¾@1.11¾; ungraded white at $1.07@1.11; No. 1 red at $1.11@1.11¾; No. 2 red at $1.10@1.10¾; do., September option, at $1.10@1.10¾; do. October option, at $1.10¾; do., November, at $1.10¾; do., steamer grade, at $1.09; No. 2 red at $1.08¾; ungraded red at $1.03@1.10; mixed winter 81.08¾@1.09; No. 2 Milwaukee, old crop, at $1.02; New York No. 2 spring at $1.03; do., September, at $1.02¾; do., October, at $1.02¾. No. 3 spring at 90¾@90¾c.; ungraded spring at 91c.@$1.03. Rye at 63@65c. for Western. Corn is active and firm, with sales at for New York No. 2 afloat at 46¾@46¾c.; do., September, at 46¾@46¾c.; do., October, at 47¾@47¾c.; do., November, at 47¾c.; New York steamer mixed at 47¾c.; no. for Sept. at 46c.; Oct. at 46¾@47c.; November at 47¾c. asked; No. 3 nominal; ungraded Western mixed at 45¾@46¾c.; car lots of No. 2 white at 57c¾. Oats have been lower, but closed firm and fairly active; sales of New York No. 1 white at 37c.; New York No. 2 white at 35c; New York No. 3 white at 34¾@35c.; No. 1 at 34¾@35c.; No. 2 at 34¾@35¾c.; No. 3 at 30c.; rejected at 28½@29c.; ungraded mixed Western at 29@35c.; white do. at 33@35c.; white State at 35@35c.; mixed State at 34@35c; old No. 2 Chicago at 32c.; new do. quoted at 31¾@32c.

HAY AND STRAW.—Prime hay is rather scarce and rules at strong prices. Shipping qualities are plenty and easy. Quoted at 50c. for shipping; 70@80c. for prime, and 85@90c. for medium. Straw at 55@60c. for long rye, 40@45c. for short rye, and oat at 35@40c.

HOPS.—Emmet Wells in his circular says: "About 200 bales of the new growth of the early seedlings variety have been received here, and have been for shipment at prices ranging from 35@40c. The later sorts are being sold at 20@30c. Picking is now progressing all over the country, and if nothing unforeseen happens between now and the time of finishing we will have a crop of fine quality, but considerably below that of last year in number of bales. We will not attempt to make any estimate of the crop until later, when something more definite can be learned of how the crop comes down. The first arrivals of new hops in market usually causes a decline in the price of yearlings and olds, but this season has proved an exception to the rule, and instead of a decline they are held firm at present quotations. The shipments to London this week are heavy, amounting to 5,495 bales."

	Bales.
Receipts for the week	1,805
Total receipts since September 1, 1879	1,805
Total receipts for same period in 1878	264
Export clearances for the week	3,406
Total exports since September 1, 1879	2,493
Total exports for same period in 1878	none

Quotations are for New Yorks, new crop, 28@30c.; Eastern, new crop, 23@24c.; Wisconsin, new crop, none; Yearlings, growth 1878, 7@8c.; Olds, all growths, 4@10c.; Pacific coast, growth 1878, 9@14c.

OIL-CAKE.—Western is quoted at $27@27.50 per ton.

POULTRY AND GAME.—With prices down to present rates there is a fair demand for live fowls and chickens.

Chickens, near-by, per lb., 11@12c.; Southern and Western, 9@10c., fowls, 9@11c.; roosters, 4@5c.; turkeys, near-by, 10@12c.; Southern and Western, 9@11c.; ducks, ₹ pair, 55@60c.; geese, choice, $1.50@1.75; others, $1@1.37. Dressed steady with moderate supplies.

Turkeys, Phila., dry-picked, 14@15c., State and Western, prime, 13@14c. Chickens, spring, Philadelphia, large, per lb, 15@17c.; Phila., small, 14@15c.; State, 12@13c.; Western, 11@12c. Fowls, Phila., dry-picked, ₹ lb., 13@14c.; N. J., choice, 12@13c.; State and Western, dry-picked, 11@12c.; State and Western, scalded, 10@12c. Ducks, spring, Phila., dry-picked, ₹ lb, 14@16c.; spring, State, 12@13c.; old, Phila., dry-picked, 11@12c.; old State, 10@11c. Squabs, white, per doz., $1.75@2; dark, $1@1.25

The new list is well patronized; wild ducks are in season but hardly quotable. Partridges, State, 1$1@1.25 ₹ pair; do., Western, 90c.@$1; grouse, 90c.@$1; Western pigeons, tight, per doz., $1.25@1.50; woodcock, State, 85@90c.; Western, 75@85c, ₹ pair; Eng. snipe, $1 50 per doz.

PROVISIONS—Have been excited and much higher on speculative manipulation. Mess pork quoted at $8.8.@8.90 for September; October, $8.90; November at $8.80 bid and $9 asked for seller's option, old or new, and the December option at $8.85 bid and $9.05 asked. Bacon at 5c. for long clear and 5¾c. for short clear. Lard—Western steam at $6.15 for spot lots, $6.15 for September; $6.20@6.22½ for October, $5.55@5.97½ for November and $5.82½@5.85 for December. Stearine at 6¾@6¾c. Tallow at 5 13-16@5¾c. Beef hams at $17@17.25. Beef—Plain mess at $10.25@11; extra mess at $11.50@12; packet at $11.50@12; tierced beef, city extra India mess, at $19@22, and Philadelphia do. at $19.

SEED.—Timothy is selling at $1.80. Flaxseed is in fair demand at $1.40. Clover is dull at 6¾@7c. for prime Western and 7¾c. for choice.

TOBACCO.—The export movement is slack and the jobbing trade moderately active, with prices firm. Quotations are for

KENTUCKY LEAF.	Light.	Heavy.
Common lugs	3½@ 4	4½@ 5
Good lugs	4½@ 5	5½@ 7
Low leaf	5½@ 6½	6¾@ 7¾
Medium leaf	7 @ 7½	8 @ 8½
Good leaf	8 @ 8½	9 @10¾
Fine leaf	9 @11	11 @ 12
Selections	12 @—	12½@14

SEEDLEAF.	Crop of 1877.	Crop of 1878.
New England Havana seed	— @—	22 @30
do. wrappers, common	13 @14	— @—
do. do. medium	15 @17	— @—
do. do. fine	18 @25	— @—
do. do. selections	27½@35	— @—
do. seconds	— @—	10 @12½
do. fillers	— @—	5 @ 6½
Penn. assorted, common	— @—	10 @12
do. do. fair	13 @14½	13 @15
do. do. fine	15½@18	17 @22
do. wrappers	20 @30	— @—
do. fillers	9 @10	— @—
N. Y. ass't'd, com. to medium	— @—	— @—
do. do. do. good	12 @15	12½@15
Ohio assorted	9 @13	8 @14
Ohio wrappers	12 @18	— @—
Wisconsin assorted	8½@10	8 @12
Wisconsin Havana seed	— @—	15 @20

VEGETABLES.—Exports of potatoes for week, 8,250 bbls. With supplies coming from all points the market is very low. Choice, $1.25, and fair to good, 87c.@$1; sweet, Del., $2@2.25; N. J., $1.50@2; Va., $1.50@1.75. Green corn, per 100, 87c.@$1; cucumbers, L. I., per 100, 40@50c.; do., pickles, ₹ M. $1@1.12; tomatoes, L. I., near-by, per crate, 20@25c.; string beans, ₹ bag, 75c.@$1; potato Lima, $1.25@1.50 Lima, flat, $1@1.25; do., shelled, per bus., $2.50@3; squash, marrow, ₹ bbl., 75c.; cabbage, flat Dutch, per 100, $2@3.50; onions, white, per bbl., $2@2 25; red, Eastern, $1.50@1.75; do., Chester, $1.25@1.50; yellow, $1.75@2; beets, N. J., $1@1.25; Russia turnips, per bbl., 75c.@$1; carrots, $1.25@1.50; egg plant, L. I. and near-by, per 100, $1.50@2; peppers, bullnose, per bbl., $1.50@2; pumpkins, per 100, $6@8.

WOOL.—There is continued activity, manufacturers buying freely and prices buoyant. Quotations are for

Ohio, Pennsylvania and Virginia.—XXX and Picklock, 40@42c.; XX, 38@40c.; X, 38@40c.; No. 1, 40@42c.; No. 2, 36@38c.; common, 34@35c.; combing, 40@44c.

New York, Michigan, Indiana and Wisconsin.—XX, 38@39c.; X, 38@39c.; No. 1, 37@40c.; No. 2, 34@36c.; common, 31@33c.; combing, 38@40c.

Iowa, Vermont and Illinois.—X and XX, 32@35c.; No. 1, 36@37c; No. 2 32@35c.; combing, 37@39c

Missouri, Kentucky and Tennessee.—Washed fleece, 37@40c.; unwashed do., 30@33c.; unwashed combing, 23@33c.

Tub-washed Wool.—Choice, 40@44c.; fair, 38@40c.; inferior and burry, 30@33c.

LIVE STOCK MARKETS

NEW YORK, Saturday, Sept. 6.

BEEVES.—Receipts for the week, 11,914 head; do. last week, 12,300 do. Cattle as a rule dragged; quoted lower, but the loudest complaints were from holders of Texans and their natives, some of which could not be sold at any price. Texans ranged from 6c. per lb., to dress 51 lbs., up to 6¾c., to dress 55 lbs., but were mainly sold at 6¼@6½c. Poor native heifers and oxen went down to 6¼@6¾c., to dress 54 lbs., and common to prime native steers sold at 7¼@9¾c., to dress 51@56 lbs., selected tops reaching 9¾@10¼c. No demand for the export trade. It is asserted that the offerings of Western cattle here today made an average loss of at least $50 per car-load.

COWS AND CALVES.—Arrivals continue to be subjected to close veterinary surveillance, and although most of the offering is of low-priced quality, it generally passes inspection. Sales range at $20@40 per head, most sales at $25@30.

VEAL CALVES.—The market closes with some firmness. Buttermilk and grassers, 2¾@3¼c.; fed and to prime, 4@6¾c.

SHEEP AND LAMBS.—Receipts for the week, 10,868 head; do. last week, 34,758 do. Demand limited for both sheep and lambs, and the market closes heavy. Lambs, 4@5¾c.; sheep, 3¾@5c., fair to good market stock; extra fat wethers for export, $5.25@5.40 ₹ 100.

SWINE.—Receipts for the week, 21,401 head; do., last week, 25,050 do. Market ruled at a range of $3.50@4 ₹ cwt.; city dressed, 5¾@6¾c.; pigs, 5¾@6¾c.

TERMS FOR 1879.

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Reading for the Young.

"SOMEBODY'S MOTHER."

THE woman was old and ragged and gray,
And bent with the chill of the winter's day;
The streets were white with a recent snow,
And the woman's feet with age were slow.

Down the street, with laughter and shout,
Glad in the freedom of "school let out,"
Came happy boys like a flock of sheep,
Hailing the snow, piled white and deep.
Past the woman, so old and gray,
Hastened the children on their way.

None offered a helping hand to her,
So weak, so timid, afraid to stir,
Lest the carriage wheels or the horses' feet
Should trample her down in the slippery street.

At last came out of the merry troop,
The gayest boy of all the group;
He paused beside her, and whispered low,
"I'll help you across if you wish to go!"

Her aged hand on his strong, young arm
She placed, and so, without hurt or harm,
He guided her trembling feet along,
Proud that his own were firm and strong;
Then back again to his friends he went,
His young heart happy and well content.

"She's 'Somebody's Mother,' boys, you know,
For all she is aged, and poor, and slow,
And some one, some time may lend a hand
To help my mother—you understand—
If ever she's poor, and old, and gray,
And her own dear boy is far away!"

"Somebody's Mother" bowed low her head
In her home that night, and the prayer she said
Was "God be kind to that noble boy,
Who is Somebody's Son, and pride, and joy."

THE FRUIT GROWER'S FAMILY.

William's Amateur Nursery.

REV. HENRY S. CLUBB.

WHEN William was only fourteen, he prevailed upon his father to mark off from the fruit farm some 20 square rods of ground for a little nursery on which he could raise fruit and ornamental trees. The ground was nearly level and rather too light for the purpose. The first thing was to get it well plowed and the sod well covered. This was done in the fall. It was two rods wide and ten rods long. When the spring came, William dug the ground, loosening the subsoil with a digging fork. He then procured from a neighboring swamp a large number of young American Arbor-Vitæ. He was very careful to keep the roots moist and to prevent their exposure to the sun and wind. He selected those about a foot high and planted them a foot apart all round his nursery, leaving a gate at each end.

The other Arbor-Vitæ plants he also assorted according to size. Those about six inches high, he planted in rows to root and strengthen. The rows were 18 inches apart and the plants a foot apart in the rows. Of these he formed a bed two rods long by one rod in width. The larger plants, those from two to four feet high, he planted in a bed by themselves, giving them more room. They all grew, with very few exceptions.

He also procured young Hemlocks from the forest and assorted them in a similar manner, taking care to shade them from the sun, as the season advanced. He did this by forming a rough shed with pine crotches and cross pieces, laying pine bows on top. Three rods were thus occupied.

He had saved up peach pits the season previously and sowed them in rows occupying four rods more with them. The apple seeds he had saved during the previous season, he also sowed, occupying a similar space. He obtained from a distant nursery in Wisconsin, 250 Norway Spruces, six inches high, and 250 Balsam Firs. With these he planted the balance of his ground, six rods.

In the latter end of August of the same year, the Peach trees having acquired a fair growth, William tried his hand at budding. He had seen that operation performed at the nurseries and studied the subject well. He procured buds from the Hale's Early, Early Crawford, Old Mixon and Late Crawford, of his father's orchard, and after repeated experiments succeeded in placing the buds in the stock near the root, to his satisfaction. He only budded those stocks that showed evidence of superior thrift and vigor.

In the fall he dug up the young Apple seedlings and packed them away nicely in sand in the cellar. During the winter, when his school lessons were learned, he would devote an hour or so to grafting choice varieties on the Apple-roots, dividing each root and making as many stocks as its growth would permit. He packed away his young grafted trees carefully labelled according to name, and in the spring he planted them in rows setting a stake to each row, to show the number, and making a record in a book, of the variety indicated by each number. As he had not room in his nursery for all this young stock, his father permitted him to plant out several long rows near by between his nursery and the orchard.

During the ensuing summer, William was very attentive to his young trees, kept them clear of weeds and hoed them so as to prevent their suffering from drought. The result was his trees made a good growth. Some of the buds on the Peach trees failed, but those that lived grew finely, and he trimmed off all the seedling wood above the bud, and by a little attention to the small shoots, secured a nice growth of straight stems. The Apple grafts, although slowly, made steady progress, and by the end of the second year William found himself the owner of several thousand Peach and Apple trees one year from the bud.

To encourage his industry, William's father purchased two thousand Peach trees of him, and paid him $100. They were planted out, forming a new Peach orchard, on a piece of table-land commanding a view of Lake Michigan, at an elevation of about 100 feet above the level of the lake.

William continued raising Peach trees from seed every second year after this, and became quite expert in budding.

The Apple trees remained in the nursery rows three summers, and when we visited the place, presented a very handsome appearance. Some of the Wagner Apple trees were bearing fruit in the nursery rows.

The Norway Spruce and Balsam Fir trees had made very handsome growth in the rows. They needed but little attention, except keeping them clear of weeds and cultivating in dry weather. A little heading in had produced a very thick growth, and persons ornamenting their grounds came to look over the rows of William's evergreens and mark such as they desired for transplanting the next season.

The Hemlocks had made a slow growth, and since the first year had been subjected to light pruning at the tip end of the limbs, so as to get them into shape, but they had not yet made sufficient growth to make them desirable for transplanting.

The Arbor-Vitæ did better. The largest ones had been carefully sheared and kept free from dead foliage, and were greatly admired for their fresh, green color and vigorous growth, as well as for their compact, solid appearance. Some of the larger ones had been trimmed into fantastic shapes, and had become "double" and some "treble-deckers," as they were called by visitors.

Those Arbor-Vitæ that were quite large when brought from the swamp were treated to such judicious shearing as their peculiar shapes rendered necessary. One of the trees was about the hight of a lady, and by careful trimming it had assumed the form of the prevailing fashion—a tall, elegant figure, with high hat and feathers, a reasonably good bust, with the "pull-back" behind and a graceful flowing train. The outline of a fashionable lady was remarkable and striking, and on festive occasions, when his sisters were having a birthday party, and were showing their pets and flowers, William would adroitly fix a mask on his tree-lady, perfecting the resemblance so as to cause much merriment among the young guests.

The Arbor-Vitæ hedge around William's little nursery had, in four years, grown to quite a respectable screen. Frequent shearings had prevented its becoming over three feet high, but its solid, compact and beautiful appearance was remarked by all, and really, with the fine shrubs and trees within the enclosure, made a very attractive feature of the homestead.

Now, all the cash expenditure for this nursery did not exceed five or six dollars; the rest was all accomplished by William's own labor and the use of the farm implements, and occasionally a horse belonging to the farm. The labor was performed at leisure intervals from other duties at school and on the farm, and in time that would ordinarily have been wasted in idleness. The stock resulting might, without close figuring, be estimated as follows:—

2,000 Peach trees, sold	$100 00
3,000 Apple trees, for sale	300 00
200 Norway Spruce	40 00
200 Balsam Fir	40 00
200 Arbor Vitæ, large	40 00
400 " " and Hemlock, small	20 00
	$540 00

Besides this, there was a second stock of young Peach trees ready for sale in the fall or spring, which, when sold, would realize $100 more.

Here was William, at the age of 18, the owner of this amount of personal property. The appearance of the nursery had so improved the farm that, had it been offered for sale, it would have realized several hundred dollars more than it would before William commenced his nursery.

But the pecuniary advantage to William and his father was a small consideration compared with the moral advantage gained. During these four years William's attention had been so taken up with his nursery that he had no time to spend in the village with "the boys." At the very time when wild habits are too usually formed, he had been occupied in studying the nature of his pet trees and plants and in perfecting himself in the arts of budding, grafting, pruning, shearing and the like, so as to produce the best results. He had, in fact, acquired knowledge and experience worth much more to him than all his nursery stock, and had become an important and intelligent help to his father on the farm.

Now, with Amy's Botanical Garden on the island on one side, and William's Evergreen and Fruit tree nursery on the other, the fine orchard in the rear and the young Peach orchard on the hill, the Fruit Grower's home was greatly improved and attracted attention from every passer by. The whole family learned to love the home because it was a very beautiful and delightful one, and it had a great influence in promoting, by example, the improvement of all the fruit farms in the neighborhood.

THE HORTICULTURAL CLUB.

IT may interest the cousins at this time to read a short review of the history of the above-named club, and what it has accomplished in the way of making horticulturists. The proposal that the cousins should unite to form a horticultural society, or club, was first made in the latter part of March of this year. With the wide-awake alacrity that distinguishes the Rural Cousins, quite a number responded immediately, and, providing themselves with gardens, seeds and plants, they straightway began gardening in good earnest. Since then, I have daily received applications for membership, till at present, when the organization is not yet half-a-year old, there are upwards of 500 names on my list of members. These young gardeners are not confined to one State or section of the country, but are scattered all over the United States and Canada, wherever the RURAL is read.

The object in forming this club was to create in its members a love for a useful industry, to furnish them recreation, pleasure and profit. How well the object has been accomplished, can best be judged of by reading the letters and reports of the members from week to week. Nearly all of them have gardens, in which they cultivate all kinds of vegetables and flowers, and some pay more attention to the cultivation of house plants.

There are two inducements for the young to join the club, namely, profit and pleasure. As a source of profit, gardening has proved a paying business, especially to the boys who live near towns, many of whom raise onions, peas, beans, radishes, celery and other vegetables that meet with a ready sale. In this way they not only turn many a dollar, but acquire habits of industry that will be of infinitely more worth to them than the money.

As a source of pleasure, none can realize what gardening is, but those who have the horticultural fever, to all others it appears at best but an eccentricity. It cultivates a taste for the beautiful; it elevates the mind and promotes purity of thought by diverting the attention from baser topics. It is an indefinable satisfaction that one experiences when he beholds the plants he has been so faithfully tending and finds they respond to his efforts by a thrifty, luxuriant growth, as if they were grateful for his care. It is this profit, this pleasure, this recreation and this formation of industrial habits that the Horticultural Club is designed to promote among the many young readers of the RURAL. To still further encourage the enterprise, I have several times sent the members seeds of such plants as they can easily cultivate, either as prizes or gifts, and I intend to continue to do so from time to time. The Club is prosperous, and let all those cousins who would like to reap the benefits it may confer make it still more so by joining. UNCLE MARK.

CULTURE OF THE TUBEROSE.

DEAR UNCLE MARK:—I am not a child, but a reader of your very excellent paper the RURAL NEW-YORKER, and as such I have learned a great many very valuable things through the Horticultural Club concerning plants, flowers etc. We have success with all kinds of house plants, and flowers excepting tuberoses. I have had them four years and they have never bloomed since I got the first bulb. I would like to have some light as how to keep them over winter, and how to plant in the spring in order to have them bloom. I am almost discouraged in trying to care for them. By giving the desired information you will greatly oblige A READER.

Columbiana Co., O.

I print the above letter in this department because the answer may prove especially interesting to my young relatives.

The Tuberose belongs to the Amaryllis family, and its botanical name is *Polianthes tuberosa*. It has been cultivated in Europe nearly 300 years, having been brought into France in 1594. Botanists are not agreed as to which country is its native home, some maintaining that it first came from Mexico, and others that it originated in East India. However this may be, it is a tropical plant and requires a long warm season in order to flower out-of-doors. The bulb is pear-shaped and not very large; a good sized bulb measures about two and a quarter inches from base to apex, and one and a half inch in diameter. It throws up a flowerstalk two to four feet high bearing on the top some twenty or more pure white and very fragrant flowers. A variety bears double flowers. In the Northern States the bulbs should be planted in boxes or pots and started in a greenhouse or warm window in the beginning of April. Near the end of June when all danger of cold weather is past the plants may be thumped out of the pots and planted, with a ball of earth adhering, in rich soil out-of-doors. During the summer nothing further is required than to keep the bed clean and tie the flowerstalks to stakes when they become so high that there is danger of their breaking. They will begin to bloom in September and continue until killed by frost. To prolong the flowering they can be carefully lifted, planted in pots and removed to the house. For winter flowering bulbs may be planted in August in boxes or on a bed in the greenhouse. Such bulbs must have been kept over from the previous summer. It will not do to attempt to make young bulbs flower in the winter after they have been growing all summer. The greatest trouble amateurs meet with is perhaps in wintering the bulbs. They must be kept dry and in a place where the temperature never falls below 50 degrees. Below this the embryo flowerstalk in the bulb will be destroyed and the grower disappointed in the expectation of getting flowers; if they can be kept at a uniform temperature of between 60 and 70 degrees all winter, then all the better.

Another source of disappointment to those who are not acquainted with the plant is that it flowers but once. All bulbs that have once shown flowers are valueless and may be thrown away. The stock is kept up by the young bulbs that appear by the side of the old ones. These are removed in the fall or better in the spring after having been wintered as above stated, and planted in rows in the garden for one or two seasons, according to size, till they become large enough to flower. It thus requires a little skill and careful treatment to grow the tuberose successfully, but the flower is so handsome, pure, modest and deliciously fragrant that it richly repays the trouble. UNCLE MARK.

DEAR UNCLE MARK:—As I have been so long writing, I thought I would write now. And if it is not too late, I wish Uncle Mark would put my name on the club list. I am very fond of flowers, and I have plenty of room for gardening, as I live in the country. We have lived in the country almost two years; I do not like to live in the country so very much. Please publish this, uncle.

Respectfully yours,

Crawfordsville, Ind. MAPLE LEAVES.

The Puzzler.

HIDDEN SEAS.

1. I ask an easy question,
2. 'Twas Askar Shoye;
3. In music Hicha excels,
4. 'Tis Baskam T Chatka.
5. I Leux in Eva's yard,
6. On e river Tiber I asked her hand.

☞ Answer in two weeks. LITTLE ONE.

DIAGONAL PUZZLE.

1. A consonant; 2. Two consonants; 3. A river of Australia; 4. Part of a fence; 5. Rustic; 6. A city of New York; 7. Mts. of Ireland; Primals and diagonals form birds.

☞ Answer in two weeks. L. O

PUZZLER ANSWERS.—Aug. 23.

HALF WORD SQUARE:—

R A L P H
A v o n
L o t
P n
H

ANSWER TO PRIZE PUZZLE.—Manslaughter.

Sabbath Reading.

THE GOLDEN SIDE.

THERE is many a rose in the road of life,
If we would only stop to take it;
And many a tone from the better land,
If the querulous heart would make it;
To the sunny soul that is full of hope,
And whose beautiful trust ne'er faileth,
The grass is green and the flowers are bright,
Though the winter storm prevaileth.

Better to hope, though the clouds hang low,
And to keep the eyes still lifted;
For the sweet blue sky will still peep through,
When ominous clouds are lifted;
There was never a night without a day,
Or an evening without a morning;
And the darkest hour, as the proverb goes,
Is the hour before the dawning.

There is many a gem in the path of life,
Which we pass in our idle pleasure,
That is richer far than the jeweled crown,
Or the miser's hoarded treasure;
It may be the love of a little child,
Or a mother's prayer to Heaven,
Or only a beggar's grateful thanks
For a cup of water given.

Better to weave in the web of life
A bright and golden filling,
And to do God's will with a ready heart,
And hands that are ready and willing,
Than to snap the delicate, minute threads
Of our curious lives asunder,
And then blame Heaven for the tangled ends,
And sit and grieve and wonder.

SECULAR DANGERS OF THE CLERGY.

THE dangers begin before the clergy are clergymen. They begin at the moment when the young man is questioning himself whether he shall be a clergyman or not. They start up among the motives which replenish the ranks of the ministry.

Some writers have brought it as a serious objection to public efforts for this replenishment, that many men in orders are but partly paid, or that, not being settled in parishes, they are left to poverty; in other words, they object that to increase the ministry increases competition for whatever money the people are ready to pay for church services, to the pecuniary inconvenience of those who are already ordained. There is matter for much speechless meditation both in this view of the subject itself, and in the tepid mist of mild assent which seems to rise and diffuse itself when it is propounded. As a suggestion in political economy, or as a precaution of personal thrift, the point appears to be well taken and quite beyond dispute. In the whole animal world the instinct of self-preservation is sure not only to survive, but to assert itself, and the tragic struggle for existence goes on, if without much magnanimity, at least with common consent. The material kingdom can hardly be expected to conquer its own laws, or to ascend by natural levitation into supernatural air.

When men repeat such maxims as these, "Ministers, after all, are men, with flesh and blood, like the rest;" "We must all live;" "Faith and hope will not buy bread and butter;" "It is all very well to talk about doing good, but here is a family that must be fed and clothed;" "One salary will not go round among three clergymen"—what is to be said? One does not care to buckle on spurs and run a tilt against a physical necessity. In the range of bodily wants, a plea of starvation is the end of controversy. But we are all agreed that there is another sphere—a region where the spirit of man lives, breathes, grows, and puts forth its power; where a universe of unseen realities stands in order and grandeur; where disinterested sympathies, unselfish motives, holy heroism, divine compassions, magnanimity, sacrifice, and the passion for saving other souls play and rule. The room is large, but there is no place there for the competitions or calculations of demand and supply. Rules of political economy and personal thrift do not apply there. There is never any embarrassment from surplusage, never a glut in the market. In that domain belongs the ministry of Christ, who is its King. This ministry is its special product.—*The Churchman.*

CONTENTION among Christians is a fire-ship sent in by Satan to break their unity and order.—*Gurnall.*

PERSONAL ITEMS.

Ibrahim Pasha, aged 19, the Khedive's favorite boy, is exceedingly liked at Woolwich.

George W. Jones, formerly U. S. Senator from Iowa, has been forced by poverty to seek a nomination for Sheriff of Dubuque county. He is eighty years old.

The cottage in which lived John Mackey, the "Bonanza King," when he used to dig gold in Red Star Gulch, is still standing. It is a tiny shanty about 12x16 feet in size, with a little porch.

In view of King Alphonso's approaching marriage with an Austrian princess, Don Carlos has reasserted his claim to have already on hand several heirs to the throne of Spain, whose right to the succession he will never consent to sell.

Tennyson's brother changed his name to Turner, in order to inherit an income of $10,000 a year. He left no children, and Tennyson can now get the estate on the same terms; but he will not accept the condition.

The Prince of Wales's two sons, now beginning their career on board the British ship Bacchante, will be treated like other officers of their age and naval rank, with one exception. They will have a private cabin under the poop.

Ex-Gov. Brown, who is one of the richest men in the State, doesn't believe there is a single millionaire in Georgia, though there are quite a number of wealthy men whose friends like to regard them as Crœsuses.

Lady Lonsdale is said to be the handsomest woman of the London season, so that Mrs. Langstrey's day is on the wane. By the way, it is said that her husband is about to sue for a divorce for valid reasons.

Sara Bernhardt's American engagement (says the Era) is signed and sealed. The exact terms have been published by authority of Mr. Henry Jarrett. Mlle. Bernhardt is to come, not next season, but in September, 1880. She is to receive $600 a performance and $20 a day for her personal expenses.

The Archduchess of Austria, the coming Queen of Spain, aged 20, although an Abbess of the noble Order of Prague, with twelve canonesses under her, wearing on state occasions a mitre-shaped cap, is devoted to dancing, and will propably infuse some welcome gayety into Aranjuez. The woman who will give gayety to the Escurial has probably yet to be born.

The condition of Pope Leo's health is now admitted to be even more than critical. Change of scene and a better atmosphere have been prescribed him, but he sets the opinion of his physicians at defiance, and considers that in matters of hygiene, no one is half so wise as himself. His Holiness occasionally suffers from severe attacks of rheumatic gout.

Marshal St. Arnaud, Commander-in-Chief of the French in the Crimea at the time, spoke highly of Prince Napoleon's bravery at the battle of the Alma, and Mr. Kinglake, in his caustic history of the Crimean war, pays him the compliment of saying that he was not inferior to his uncle in personal courage; yet French soldiers are firmly convinced that he is a coward.

A man with a $500 diamond on his shirt bosom leaned over a hen coop in a Cincinnati market, and a hungry hen picked off the jewel and swallowed it. The thief was soon lost among the hundreds, and there was no way of identifying her. So the man bargained to have them killed, one after another, until the right crop was found. To recover the diamond cost him $28.

There is an incident in the life of Miss Mulock almost as romantic as any in her novels. In 1864-5 George L. Craik, a member of a London publishing firm, was injured by a railroad accident near her residence. She helped to nurse him, and as a result they fell in love, though he was many years younger. In spite of the opposition of friends they were married and live very happily together.

Mrs. Thankful Taylor is a remarkable Vermont lady seventy years old. In her younger days she thirsted for a thorough knowledge of English, Greek and Latin, and, being poor, she worked for her books and then studied them as she stood at her spinning-wheel. In this way she not only educated herself in the languages, but she learned ecclesiastical and profane history, medicine, science and general literature.

Thieves so exasperated Prof. Dellam, at Castle Shannon, Pa., by stealing fruit from his garden at night, that he resolved to shoot the next offender. While watching in a grape arbor, gun in hand, he heard a rustling among some bushes and fired in that direction. Then he went to ascertain whether he had hit anybody, and while he was searching in the bushes his hired man shot him dead, mistaking him for the thief.

The well-known Paris paper *La Presse* has been bought by M. Phillipart, of wondrous financial fame. In 1877 he was declared bankrupt, with liabilities of $9,000,000; he has now, it is asserted, paid all and is entirely cleared by the courts. He is 52, and a Belgian by birth—a man of the same stamp as Strousberg who made millions by railroad building in Russia, and lost them all, and is now making another gigantic fortune.

Signor Marcucci of Spoleto, Italy, a man of property and position, called in Dr. Domenicis to attend his only son, who was seriously ill. If, said Marcucci, the young man recovered, Dr. Domenicis should receive 2,000 francs; if, on the other hand, the patient died, Dr. Domenicis should be killed. Marcucci proved to be a man of his word, for the lad died, and the father thereupon killed Domenicis. He was condemned to five years' imprisonment and the payment of a fine of $5,000, to be given as damages to the Doctor's widow.

There is just one Belgian political refugee in existence. This is General Count Van der Meere, who is now 80 years of age and living in Paris. He was a general under Leopold I., but in 1842 organized a conspiracy for placing the House of Orange on the Belgian throne. For this he was condemned to death, but was saved by his wife, who, gaining permission to visit him in prison, dressed him in her clothes and remained in his cell while he walked out and made his escape as the Countess Van der Meere. He has since several times asked to be amnestied, but without result.

Upon the dissolution of Jefferson Davis' Confederate government, fourteen years ago, Mr. Judah P. Benjamin is said to have tramped on foot from Central Georgia to Florida and escaped in an open boat to Nassau with a single ten dollar gold piece in his pocket, which he gave to the negro who rowed the little boat. He has recently bought a beautiful Parisian residence for 300,000 francs, cash, and it is believed that this large sum does not exceed one-half of his yearly income from his practice in the English courts. He designs revisiting his friends in Louisiana.

No wonder Sir Bartle Frere, whose meddling and muddling brought on the Zulu war, desires to remain in South Africa whether the south Africans like him or not. His sources of income are: Pension from Indian Government, £1,000; annuity as retired member of the Indian Council, £1,000! as Governor of Cape Colony, £5,000; as High Commissioner of South Africa, £1,000; rent for country house, £500; special allowance for South Africa, £2,000; total, £10,000 a year. Of this sum £1,500 comes from the revenues of India, £6,500 from Cape Colony and £2,000 from the revenues of Great Britain. There are sundry small expenses, such as traveling allowances, not included in the above, but which are paid proportionately by Cape Colony, Natal, the Transvaal and Griqualand West.

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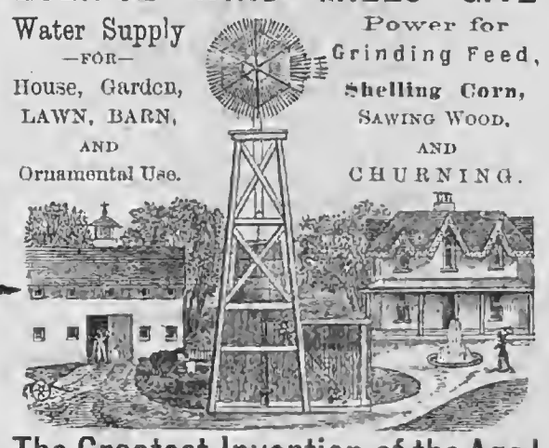
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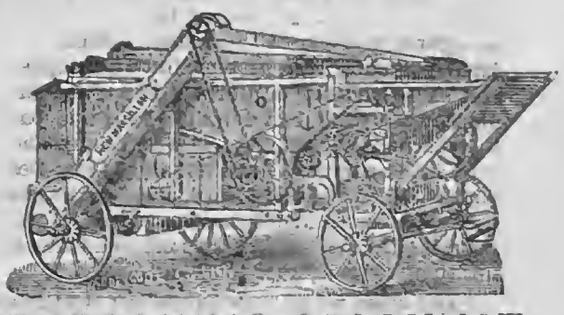
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THE baby rolls upon the floor,
Kicks up his tiny feet,
And pokes his toes into his mouth,
Thus making both ends meet.
The dog attached to a tin pail,
Goes howling down the street,
And, as he madly bites his tail,
He maketh both ends meet.
The butcher slays the pensive pig,
Cuts off his ears and feet,
And grinds them in a sausage big—
Thus making both ends meat.
The farmer coops his skinny hens,
And feeds them with choice wheat;
The means must justify the ends,
And so he makes them eat.

[Sidney Lanier.

BANKS'S BABIES.

A Parent's Difficulties in Getting His Children Baptized.

I WAS detained over Sunday in Barnsbury, and on Sunday morning I resolved to go to church. The first church I came to, a small frame structure with a wooden steeple, had the doors and windows tightly shut, but there was a man sitting on the front steps whittling a stick, and I said to him:

"Are you connected with this church?"

"Yes," he said, "I'm the sexton."

"What is it closed for?"

"Well, mostly on account of Banks's babies."

"Babies?"

"Sit down, and I'll tell you about it. You know Banks, he came to this town to live a few weeks ago a perfect stranger, and he rented a pew in this church. It seems that Banks had three little babies, triplets, not more'n two months old, and then, besides these, he had twins about a year old. So nobody knew about the babies, but Banks wanted to have the little darlings baptized, and he allowed to Mrs. Banks that to rush the whole five babies into church on one Sunday might excite remark, you understand. So he settled it that he'd have 'em christened gradually, so to speak. Accordingly the next Sunday he fetched little Jimmy, one of the triplets, and all went off well enough. On the followin' Sunday he come a promenadin' up the aisle with George Washington, another triplet, and Dr. Binns, our preacher, he fixed him up all right. People thought it was queer, but when on the next Sunday mornin' Banks and his wife came into church with another baby, William Henry, crying like a Pawnee warwhoop, some of the folks couldn't help snickerin'. Howsomdever, nobody complained, and all might have been well if Banks hadn't come along the Sunday after with Elijah Hunsiker Banks, one of the twins. Everybody laughed and Mr. and Mrs. Banks were furious—mad as anything, you know; and when Elijah Hunsiker Banks hauled off accidentally with his hand and hit Dr. Binns, who was holding him during the ceremony, a whack in the face, and the Doctor dropped him in the water, the congregation just fairly roared with laughter. Mrs. Banks turned red as fire and looked as if she would like to murder somebody.

"Well, you know, we all thought this was the last, and public feeling kinder simmered down on toward the end of the week, when who should come booming up the aisle on Sunday morning but Mr. and Mrs. Banks, with Tecumseh Aristotle Banks, the remainin twin! Well, you ought just to 've heard that congregation laugh! I never seen nothin' like it in all my experience. Even Dr. Binns had to smile. And the Bankses, they were perfectly wild with rage. Anyhow, they baptized Tecumseh; and after meetin' some of the elders got joking about it. One, they'd have to apply to the town supervisors for an extension of the water works; another allowed that arrangements ought to be made to divert Huckleberry creek and run it down the middle aisle of the church; another made some kind of a joke about business being good because so many banks were in town; another said that Banks would need about twelve pews when his family grew up. Somebody must have told Banks about it, for what does he do to revenge himself? He sends down to Clarian county to his two sisters to come and bring their children. So they had a couple of babies apiece, and as soon as they arrived Banks he begins to bring them to church gradually, like the others. You never seen such meetings as them! The church was jammed full and people just roarin'. And when Banks came in on Sunday with the fourth and last of his sisters' babies, the trustees thought it was time to interfere. Gettin' to be a farce, you know. So Deacon Smith he stepped up and said somethin' or other to Banks, and Banks, quicker 'n a wink, laid down the baby and banged the deacon with his fist. And so, I dunno how it was, but in a minute there was Banks and Deacon Smith and Deacon Hubbard, and Banks's sister's baby and me, all a rollin' and a bumpin' over the floor, hittin' and kickin' and whoopin' in a manner that was ridiculous to behold.

"And when we all come to and got straightened out, Banks picked up the battered baby of his sister and quit, and the trustees held an informal meetin' and agreed to close the church for a month so's to kinder freeze Banks out, and now we've shut up; but I reckon it is no use, for I hear Banks has got his back up and gone over and joined the Baptists."

So I said good day to the sexton, and went in search of another sanctuary.

"SALUTING THE BRIDE."

THERE was a marriage at the upper end of the Detroit, Lansing and Northern road the other day. A great big chap, almost able to throw a car-load of lumber off the track, fell in love with a widow who cooked for the hands in a saw-mill, and after a week's acquaintance, they were married. The boys around the mill lent William three calico shirts, a dress coat and a pair of white pants, and

OUR WHEAT FESTIVAL.

chipped in a purse of about $20, and the couple started for Detroit on a bridal tour within an hour after being married.

"This 'ere lady," explained William, as the conductor came along for tickets, "are my bride. Just spliced fifty-six minits ago. Cost $2, but durn the cost! She's a lilly of the valley, Mary is, and I'm the right bower in a new pack or keerds. Conductor, sa-lute the bride!"

The conductor hesitated. The widow had freckles and wrinkles and a turn up nose, and kissing the bride was no gratification.

"Conductor sa-lute the bride or look out for tornadoes!" continued William, as he rose up and shed his coat.

The conductor sa-luted. It was the best thing he could do just then.

"I never did try to put on style before," muttered William, "but I'm bound to see this thing through if I have to fight all of Michigan. These 'ere passengers has got to come to the chalk, they has."

The car was full. William walked down the aisle, waved his hand to command attention, and said—

"I've just been married: over there sots the bride. Anybody who wants to sa-lute the bride kin do so now. Anybody who don't want to will hev cause to believe that a tree fell upon him!"

One by one the men walked up and kissed the widow, until only one was left. He was asleep. William reached over and lifted him into a sitting position at one movement and commanded:

"Ar you going to dust over thar' and kiss the bride?"

"Blarst your bride, and you too," growled the passenger.

William drew him over the back of the seat, laid him down in the aisle, tied his legs in a knot, and was making a bundle of him just a size to go through the window, when the man caved and went over and sa-luted.

"Now, then," said William, as he put on his coat, "this bridal tower will be resumed as usual, and if Mary and me squeeze hands or git to laying heads on each other's shoulders I shall demand to know who laffed about it, and I'll make him e-magine that I'm a hull boom full of the biggest kind of saw logs, an' more comin' down on the next rise. Now, Mary, hitch along an' let me git my arm around ye."

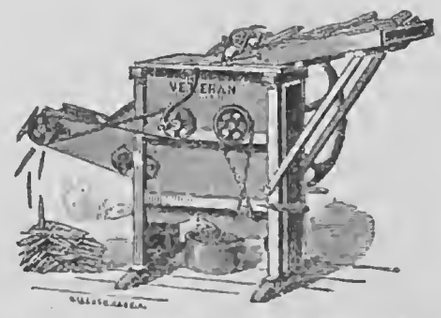
USEFUL HINTS.

BRIGHT'S DISEASE AND ICE-WATER.—A Baltimore druggist of experience and ample opportunity for observation has advanced the idea that Bright's disease is attributable to the immoderate use of ice-water and cold drinks. He cites the fact that the people of this country use 90 per cent. more ice in their drinks than the people of any other country, Greenlanders not excepted. We have 75 per cent. more of Bright's disease. He cites the fact that the wine-drinking countries of Europe are comparatively free from the malady. Travelers have observed and commented upon the prejudice which seems to exist against ice-water and iced drinks in all countries outside the United States. The Englishman and the German fairly shun ice, though placed in easy reach of boundless quantities of it, and the Frenchman who sips the light wines would as soon think of taking an emetic as of chilling his stomach with an iced draught. Our drug friend points to the fact that Bright's disease has kept pace in this country with the increased consumption of ice, and claims that before ice became a common household necessity the malady was scarcely known among physicians. There may be something in this theory.—*Ballo. Gazette.*

BENEFITS OF FARINACEOUS DIET.—Liebig's theory that liquor-drinking is not compatible with farinaceous diet seems to have been corroborated by an English scientific man, who has been trying the experiment on 27 liquor-drinking persons. A striking instance of reform was shown in the case of a man of 60, who had been intemperate for 35 years, and was in the habit of taking a spree about once a week. His constitution was so shattered that he had great difficulty in obtaining insurance on his life. After an attack of delirium tremens, which nearly proved fatal, he was induced to live upon farinaceous food, which in seven months entirely removed his desire for liquor, and he became perfectly sober. He lost flesh at the beginning of the experiment, but regained it after two or three months. Among the articles of food mentioned as especially antagonistic to alcohol are lentils, dried beans, haricot beans and macaroni, all of which should be well boiled and seasoned with plenty of butter or olive oil. Ordinary garden vegetables are said to be provocative of temperance, but much less than farinaceous diet. The carbonaceous starch contained in macaroni, beans and oil seems to render unnecessary, and therefore repulsive, the carbon resident in alcohol. This remedy is so very simple that it ought to be tested by men who have so often tried to break themselves of intemperate habits. Drinking to excess is unquestionably a curse in every American city, and farinaceous food has never hurt anybody. Whatever harm it does to alcohol is clear gain.

Who Has Not Been Bilious?

Probably no one. Doubtless we have all suffered to some extent the disagreeable sensations which a disordered or languid liver can inflict. Sallowness of the skin, constipation, nausea, vertigo, soreness in the vicinity of the organ affected, a sensation as of congestion in the head, positive headache, a loss of appetite, extreme thirst, a high color of the urine, are among the symptoms which announce a perversion or vitiation of the bile. The remedy of remedies for the above is Hostetter's Stomach Bitters, administered by medical men; pronounced pure and wholesome by them, and popular as a comprehensive family medicine, and as a specific preventive and remedy for chills and fever and bilious remittents throughout America, and to a wide extent in foreign countries. Disorders in the stomach and bowels, as well as liver, are speedily remediable with this popular and time-honored medicine.



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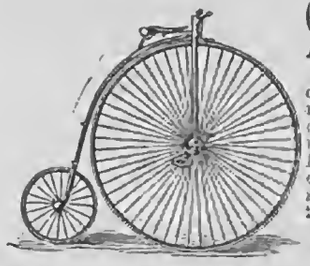

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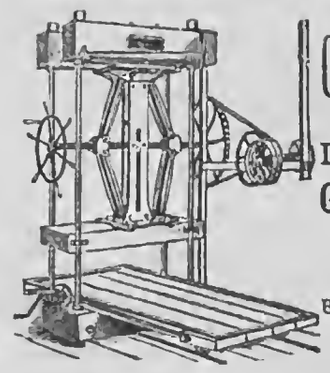

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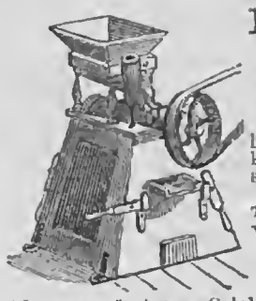

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THE RURAL NEW-YORKER

A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME

VOL. XXXVIII. No. 38.
WHOLE No. 1547.

NEW YORK, SEPT. 20, 1879.

PRICE FIVE CENTS.
$2.00 PER YEAR.

[Entered according to Act of Congress, in the year 1879, by the Rural Publishing Company, in the office of the Librarian of Congress at Washington. — Entered at the Post-Office at New York City, N. Y., as second-class matter.]

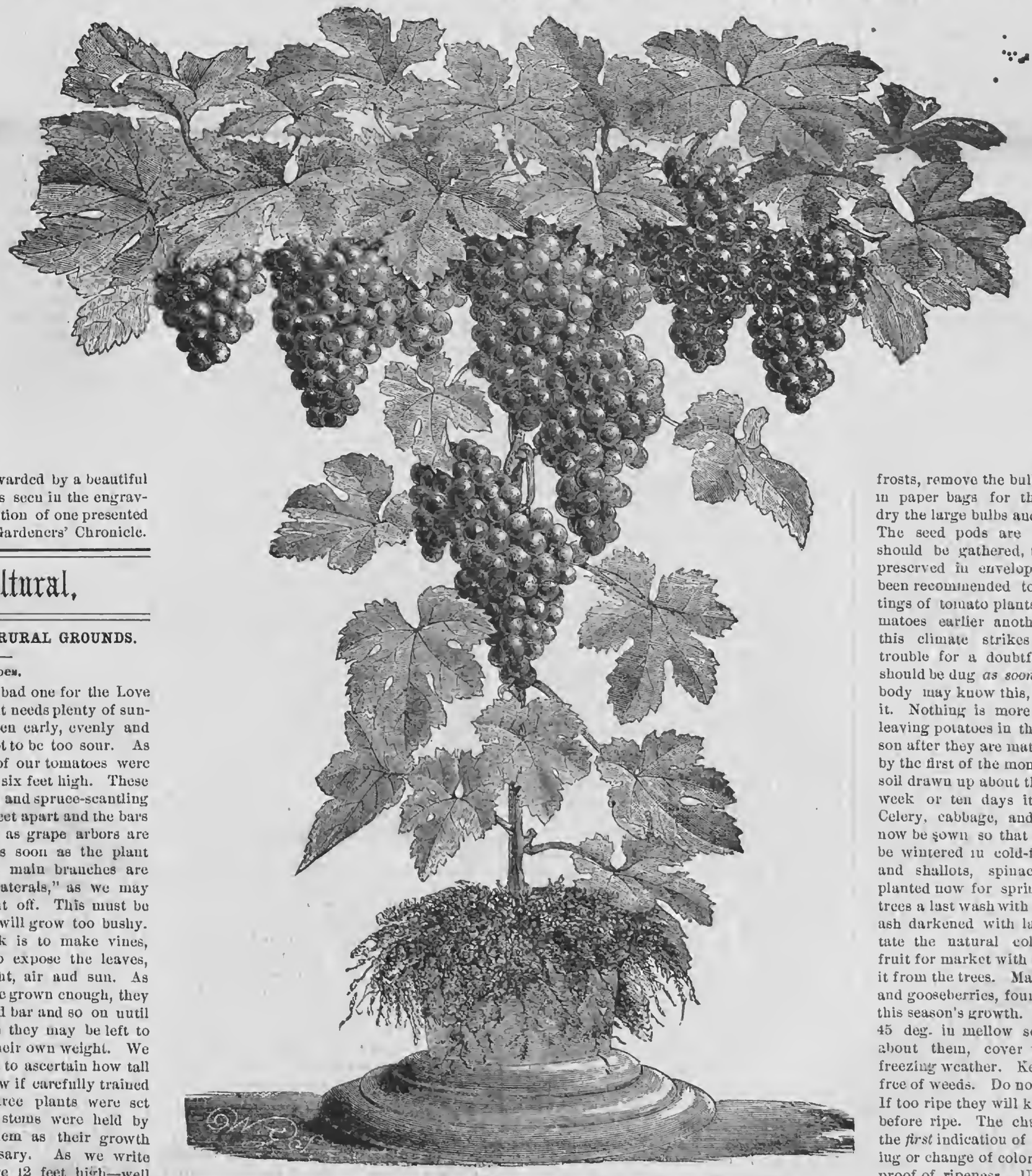
The Vineyard.

POT CULTURE OF THE GRAPE VINE.

THE accompanying cut represents a Grape-vine growing in a pot, as practiced in England and other European countries. In this country grape culture in pots is still in its infancy; but as a healthy, well-trained plant is a combination of both the ornamental and the useful, anybody who has the requisite facilities will be well repaid for the extra trouble this culture may occasion.

The plants can be most easily grown from cuttings or single buds, which should be set in small pots in March, and if placed in a greenhouse or hot-bed and given proper attention, nearly all will take root. Larger pots should be given as the growth of the plants may require. Well-grown specimens may bear fruit the second year.

The vines can also be raised from seeds, and thus, perhaps, give rise to new and valuable varieties. The present is a good time to plant seeds of grapes for cultivation in pots. If planted as soon as taken from the grapes, many will germinate in three or four weeks. Sow the seeds in boxes, and of the young plants select only the strongest, which should be transferred to small pots, and trained to a stake. By pinching back, careful training, and repotting into larger pots and richer soil, when necessary, we may in three years be rewarded by a beautiful plant loaded with fruit as seen in the engraving, which is a reproduction of one presented in a late number of the Gardeners' Chronicle.



POT-GROWN GRAPE-VINE.

Horticultural.

NOTES FROM THE RURAL GROUNDS.

Tomatoes.

THE season has been a bad one for the Love Apple—too much rain. It needs plenty of sunshine and a dry air to ripen early, evenly and to be sweet—or rather not to be too sour. As will be remembered, all of our tomatoes were trained to trellises about six feet high. These consist of red cedar posts and spruce-scantling cross-bars, the first ten feet apart and the bars two feet apart, the same as grape arbors are usually constructed. As soon as the plant reaches the first bar, the main branches are tied to that and the "laterals," as we may call them, pinched or cut off. This must be attended to, or the vines will grow too bushy. The object of trellis-work is to make vines, not bushes—and thus to expose the leaves, stems and fruit to the light, air and sun. As soon as the branches have grown enough, they must be tied to the second bar and so on until they reach the top, when they may be left to hang over and support their own weight. We have tried an experiment to ascertain how tall a tomato plant *would* grow if carefully trained and pinched back. Three plants were set against the barn and the stems were held by leathers tacked over them as their growth rendered support necessary. As we write (Sept. 5.) these vines are 12 feet high—well loaded with golden, crimson and green fruit The idea is a good one and we can tell our friends that if they have old trees, fences, outbuildings or out-of-the-way corners that they propose to cover with vines, let them be tomato vines.

New Varieties.

As usual we have tried all the much-talked of or advertised new sorts. Among them were Criterion, New Triumph and Paragon. Criterion seems to be a selection from Acme of a somewhat quadrangular shape. It is of medium size, prolific, firm, of a pinkish-red color and free from seams. It does not begin to ripen with us until about September 1st, which condemns it for this climate and situation. New Triumph is an irregular, much-lobed sort, without any unusually fine qualities that we can discover. Paragon seems a selection of the Trophy—large and lobed like it, and earlier.

Again (for the third year) ACME is our best red Tomato. It is, indeed, the best kind known so far as our tests enable us to judge. This tomato is one of those decided steps in the improvement of fruits, that rarely occur, and it seems to us worthy of being considered the standard of excellence from which we are to estimate all future improvements. We should now breed for better keeping qualities.

Curculio-proof Plums.

Bassett's American "Curculio-proof" Plum was discovered, it seems, some eleven years ago in a wood, bending with an immense crop of fruit. It was brought to the notice of Mr. Wm. F. Bassett, an experienced fruit-grower, who was so well pleased with it that he bought the tree "at a large price" and provided for its propagation. Three years ago, a tree was sent to us for trial, and this year it blossomed profusely and the branches were wreathed with the little plums which followed, not more than one dozen of which are left to ripen. Those who are introducing this tree have freely conceded that the fruit is inferior. Its wonderful productiveness in spite of the Curculio was its great point of excellence. As it is not curculio-proof, there does not seem to be any reason why it should not be consigned to the long list of Tried and Worthless Novelties.

Among the novelties offered this season and extensively advertised, was

The American Banner Rose.

We paid *five* dollars for a little plant of this about six inches high. In due time a bud appeared and in due time that bud unfolded. The *outside* petals were flesh-white with an occasional streak of light red. The inside was merely of a whitish color suffused with a rosy tint. The flowers were small, semi-double and perishable. The American Banner Rose, considering its price is quite a curiosity.

Musk Melons.

There are thousands of these left in the fields to rot. It does not pay to send them to market.

Hints.

Take up Lily bulbs as soon as the leaves begin to turn yellow, and reset either in the same bed or another well prepared for their reception. The soil should be mellow at least a foot in depth. All greenhouse plants which have been bedded out had better be repotted before they are injured by even the lightest frosts. Take up Gladiolus bulbs before severe frosts, remove the bulblets, dry them and place in paper bags for the winter. Cleanse and dry the large bulbs and treat in the same way, The seed pods are now ripening. These should be gathered, the seeds removed and preserved in envelopes until spring. It has been recommended to make and strike cuttings of tomato plants now, so as to have tomatoes earlier another year. The plan for this climate strikes us as involving much trouble for a doubtful advantage. Potatoes should be dug *as soon* as the tops die. Everybody may know this, but many neglect to do it. Nothing is more conducive to rot than leaving potatoes in the damp soil at this season after they are matured. Celery, if wanted by the first of the month, must now have the soil drawn up about the stems and then in a week or ten days it should be "banked." Celery, cabbage, and cauliflower seeds may now be sown so that the young plants may be wintered in cold-frames or pits. Onions and shallots, spinach etc., may also be planted now for spring use. Give the fruit trees a last wash with lime, sulphur and potash darkened with lamp-black so as to imitate the natural color of the bark. Pack fruit for market with all care—do not shake it from the trees. Make cuttings of currants and gooseberries, four inches long, of wood of this season's growth. Set them at an angle of 45 deg. in mellow soil and press it firmly about them, cover with a little litter after freezing weather. Keep the strawberry beds free of weeds. Do not pick grapes too early. If too ripe they will keep better than if picked before ripe. The change of color is merely the *first* indication of ripening. The shriveling or change of color in the *stem* is a positive proof of ripeness. Use shears or a knife to cut off the bunches—never pull them off.

HORTICULTURAL ITEMS.

PEAR blight has, in several instances, been arrested in affected trees by syringing them with a weak solution of potash, and it has proved a preventive when applied to the healthy trees. Let all orchardists try this remedy and report their success to the RURAL. * * * * * Lilium auratum, the beautiful Golden Lily of Japan, will, in its native wilds, sometimes attain a hight of twelve feet, and bear as many as a hundred and seventy-five flowers on a single stem. * * * * All tender plants that have been used for bedding or otherwise have been out-of-doors during the summer, should now be housed before they are nipped by frost. * * * * * At Adelaide, South Asturalia, is a botanical garden containing 8,500 rare plants, besides the ordinary plants in common cultivation. * * * * Label carefully all bulbs and roots that are now taken up to be wintered in the greenhouse or in the cellar. * * * * The Salisburia adiantifolia, or Ginkgo tree, which here generally grows as a shrub, attains a hight of some forty or fifty feet in China and Japan, and sometimes even a hundred feet. * * * * Do not remove any leaves from cuttings that easily wither, but let all remain and bury the two or three lower ones under the sand in the cutting bed. This will assist in keeping the cutting fresh till it has struck roots. * * * * Last winter sun-dried peaches sold at from seven to eight cents per pound, while evaporated peaches sold at from 30 to 40 cents. Let fruit growers note this and seek to make the most of their crops. * * * * Many hardy annuals may be sown in the fall when they will bloom earlier than if sown in the spring. Among these are Pansies, Sweet Alysum Mignonette, Portulaca, Nemophila and China Pinks. * * * * Strong-growing Grape-vines should be allowed ample space on which to spread. The Concord, for instance, has proved, in several cases, to give more fruit on a given area when the vines were twenty to twenty-four feet apart than at a distance of twelve feet. * * * * * To prevent the red spider from gaining foothold on the house plants during the winter, syringe them freely with clean water. A dry, hot atmosphere is especially conducive to the spread of the pest. If the use of the syringe is not convenient, dip the top of the plants a couple of times a week in a tub of water holding a little lime in solution. * * * * Now is the time to give the celery a final blanching by heaping up the soil around the plants. * * * * If not already done, it is high time to paint the greenhouse or conservatory, to repair the sashes, and to see that the heating apparatus is in order, so that all may be ready for the winter. * * * * Tuberoses that are still blooming at the approach of frost, can readily be lifted, planted in pots and transferred to the house where they may continue in bloom for several weeks

Floricultural.

FLORICULTURAL JOTTINGS.

WILLIAM FALCONER.

A LADIES' GARDEN CLUB.—The ladies of Garden Street—which bounds our garden on the west side—have got up a club, which they call the Garden Club. Their object is to assist one another in horticultural knowledge, by relating their experience regarding the cultivation of out-door and window plants, experimenting with "new" things, and clubbing together for the purchase of seeds and gardening periodicals. They meet once a week at some member's house when horticultural topics are discussed within, and the garden examined without.

WHAT'S IN A NAME?—The cut-leaved variety of our Western prairie Dock is called Silphium terebinthaceum var. pinnatifidum; the Russian Daisy of our borders, Chrysanthemum Tchehatchewii; an annual composite we grow, Achropappus Schkuhrioides; the Climbing Hydrangea, Schizophragma hydrangeoides; our wild, white-fringed Orchis, Habenaria blephariglottis; and a common window-basket plant, Chlorophytum Sternbergianum.

THE SORREL TREE.—This handsome shrub or tree (Oxydendrum arborcum) is found wild in rich woods in Pennsylvania to Ohio and southwards along the Alleghanies, where it grows from 12 to 40 feet high. It is not generally considered very hardy so far north as Boston, but in the garden here are several bushes of it, some in open places and others in shrubbery clumps, and they grow unscathed. About the middle of July every branchlet is terminated by a loose panicle of one-sided racemes of white flowers, that last in fair condition into August. The leaves, too, assume a gold-and-crimson coloring in the autumn. Notwithstanding the highly ornamental character of this plant, it is hardly ever found in private gardens; indeed, only a few nurserymen have specimens for sale. Prof. Sargent tells me that at the Arnold Arboretum they have found it rather difficult to propagate—the seedlings die off unaccountably.

JAPANESE IVY ON TOMB-STONES.—Ampelopsis tricuspidata is being extensively planted hereabout, and although it is one of the best and most appropriate vines for covering buildings, fences, old stumps or anything it can cling to, there is certainly a limit to its use. It is not without a feeling of deep regret I see it extensively used in our cemeteries to cover head-stones and monuments. The "Ivy" is planted at the back of the head-stones and encouraged to cover them all but the lettering in front, and even costly and elaborately-carved monuments are being ruthlessly buried in the same fashion. And the lot-owners only are to blame for this sacrilege—I will not call it by a milder name.

COMMON VIRGIN'S BOWER.—This lovely Clematis now in all its glory, draping trees, and spreading over bushes, banks and rocks, is a common wild plant, to be sure, but there are few more comely garden ones. It grows readily from transplanted roots, layers, and seeds, and for festooning old stumps, fences, and trellises it is admirably adapted. The nakedness of some of our country homes is hardly in conformity with this progressive age, and this is the more to be regretted when we know our woods and waysides teem with plants as fitly suited to adorn a palace garden as to enrich a farmer's yard. The Climbing Hempweed, Ground-Nut, Trumpet-Creeper, Climbing Fumitory, and Wild Balsam-Apple, are good examples of common, wild but ornamental vines.

SOME VARIEGATED BEDDING PLANTS.—Mr. Farquhar, head gardener at Forest Hills Cemetery, considers the variegated Stevia the best of variegated bedding plants. It flourishes in open, sunny places, and bears any amount of pinching with impunity. The variegated Sweet Alyssum is almost as good in its way. The variegated German "Ivy" and the variegated Chrysanthemum he commends for slightly shaded places, but says that with him they have proved useless for sunny exposures. He has given up growing Centaurea candidissima, because it sometimes damps off very badly. But when he lived at Providence, he found this silvery plant both good and reliable.

A BUTTERFLY FLOWER-BED.—Near the rockery in Forest Hills Cemetery is a carpet flower-bed, the ground work being mostly composed of Mexican Cotyledons, and on which, in embroidery fashion, is defined a large and beautiful butterfly, the horns, eyes, long body, and expanded spotted wings, all being handsomely and truthfully delineated with such plants as Alternantheras, Cotyledons, House-leeks, Cactuses, and the like.

NIGHT-BLOOMING PLANTS.—We all know about the Night-blooming Cereuses, the fragrant Evening "Jessamines," and the showy Evening Primroses; but it is not generally known that the long-flowered tobacco-plant—Nicotiana noctiflora—and others of its class are among the brightest and most profuse of evening flowers. Their color is white.

HARDY PLANTS FROM SEED.—If the seeds of such hardy herbaceous plants as Larkspur, Columbines, Bellflowers, and Pentstemons be sown as soon as they are ripe, we get nice little plants before winter sets in, and many of them, too, will blossom the next summer. In fact, the fresher seed is, the more readily will it germinate.

BIENNIALS.—Canterbury Bells, Wallflowers, Sweet Williams, Antirrhinums, Centranthus ruber, Hollyhocks, and other biennials, if not already up and growing, should be sown at once. If not sown before this time, the Wallflowers and Sweet Williams will not be likely to blossom till the year after next; of the Hollyhocks and Canterbury Bells a few, but not all, will blossom; but no matter whether the Centranthus and Antirrhinums be sown now or in the spring time, they will bloom anyway.

THE CHINESE YAM.—Dioscorea Batatas, the Chinese Yam or "Cinnamon Vine," as it is often called, is one of the best vines I have tried for high and dry exposures. The yams bury themselves so deeply in the earth as in a measure to escape the evil of drought. At any rate, we are growing it this year in one of the driest spots of the garden, at the base of a wall, and where all other vines, except Hops, Mignonette Vine, and Rumex sagittæfolius have almost refused to grow, and in point of thriftiness the yam vines surpass all others but the Hop which, though taller, is spoiled by insect pests,—the Yams are not.

NOTES FROM MOUNT AUBURN.—Mr. Collins, the head gardener at Mount Auburn Cemetery, considers Bijou the best of the white-leaved Pelargoniums for bedding purposes, the white is so deep and pure, and the plant stands the sun so well. Next to it he prefers P. picturatum, but its white is much duller. Madam Voucher is his favorite white-flowering kind; he has it mixed with Asa Gray, a good, pinkish one, with fine effect. General Grant is the infallible scarlet, but P. orbiculatum, for free flowering and stocky growth, is preferable; besides it does not "draw" so much as the General when grown in a shady place. Master Christine is a profuse and useful pink sort with large trusses, but Miss Gertrude is the main-stay in this class. Happy Thought, not much appreciated at one time, is redeeming itself in a somewhat shady place. Madame Thibout eclipses everything in the way of a double pink; the habit is stocky, the trusses many and ample, and the flowers large. I could refer to many other new kinds—most commendable ones too—but I do not know how to spell their French names.

Besides Pelargoniums, among

"White-leaved" Plants

Mr. Collins speaks highly of Santolina incana; it grows freely, and he can cut it as much as he chooses, but it is rather hard to get a hasty stock of it. He also highly praises the variegated Stevia and Sweet Alyssum; Leucophyton Browni; a little wiry plant, that hates to be watered overhead; the variegated Solanum capsicastrum—if the potato beetles would only let it alone, last year they ate it nearly all up, but this year, so far, they have not interfered with it—both kinds of variegated Sage and the sun-loving variegated Mesembryanthemum cordifolium. Ophiopogon spicatus, with creamy variegated leaves and spikes of violet blossoms, was very pretty in a shady place, and it can be safely wintered in a cold-frame.

COLEUSES multicolor and pictus are hardly to my liking among bedding plants; they are neither branchy nor bright enough. Alternanthera paronychioides major is the brightest of plants: it is bright all the time, whereas the other kinds do not assume their fiery hue till August. Mr. C. finds it harder to winter it than the others.

NIEREMBERGIA filicaulis and gracilis are profuse and dense little lilac cushions. Old plants lifted and potted this month, may be had in flower in the house all winter long. Gaura Lindheimeri in borders, beds and vases, is an appropriate subject; the old roots may be safely wintered in a cold-frame, or the plant may be treated as an annual.

Mr. C. grows the Pampas Grass in tubs, wintering the plants in a "cool" greenhouse, and transporting them out-of-doors in summer, when they are liberally treated to manure waterings. Specimens in two-feet tubs are now showing 14 spikes apiece.

THE Eulalia Japonica, variagated and zebra-leaved, are among the most ornamental of hardy grasses, and their flowers, which appear in September, if cut and dried for winter bouquets, become very pretty and flossy.

A BED OF FIERY POKERS (Tritoma Uvaria) is very gay, and survived, unscathed, the last winter, where they are now. Instead of covering over their crowns with boxes or half-barrels, as he used to, Mr. C., last fall, twisted their leaves into a solid, thatch-like knot, which rested over the crown, and thus led off the water; this, added to a general heavy mulching of tree leaves, was protection enough, the plants awaking from their bed in spring as freshly and soundly as if they had been wintered in a pit or frame.

ROSEBUGS AND WHALE OIL SOAP.—"I never knew rosebugs to be more numerous and destructive than they were here this summer." This from Mr. Collins: "You see that bed of Hydrangeas there:—well, in the early part of the season I thought the rosebugs would have eaten them all up, so one afternoon I dissolved about two pounds of whale-oil soap in a tub of water, and gave the bushes a thorough syringing and—would you believe it?—it was like butter to their bread, the bugs grew fatter and multiplied!"

CAKE FOR THE FAIR.—Some years ago I lived in a frontier State. We were about to have an agricultural fair, and were straining every effort to contribute to the exhibition and its visitors' provision. A neighboring lady was busy making cake for the fair, and as I happened to drop in at the time, I noticed how she did it. Many of the ladies out there chew snuff, which is not to their credit, and so did Mrs. T. It was a fancy cake, with a heavy frosting all over it, and to make the snowy coating more ornamental, the lady, with a small cane tube, blew a series of flower-like scrolls over its surface. And, oh horror of horrors! the snuff went scattering in the snow, like pepper in broth. I ate no cake at that fair.

MAURANDIA SCANDENS, or Lophospermum, as many botanists still call it, my neighbor, Mrs. Needam, has a large specimen of that she plants out in a border in the summer-time, and now it has grown to be a vigorous vine, thickly covered with purple fox-glove-like flowers. In fall she cuts away most of the vines, lifts and pots the root, and then stores it in the cellar till spring. This she has successfully practiced for several years. It is easily propagated by means of cuttings or seeds. It keeps in blossom all summer long.

NEW SEEDLING COLEUSES.

MR. H. W. HALES, of Ridgewood, N. J., sends us specimen leaves of seven varieties of new Coleuses. Some of them are worthy of the attention of fanciers of this plant; but others are totally eclipsed by older and well-known varieties. One of the best of these new candidates for favor, as near as we can judge from a few leaves, is Sensation. The leaf is small, coarsely serrate, and the edges fringed with a not very sharply defined zone of bright yellow, which gradually shades into scarlet purple, and finally green near the base of the blade. Ridgewood Gem is the name of another good variety. The leaves of this are medium to large, not deeply serrated, and the ground color is green dappled with yellow and a few velvet brown spots. Zebra is very similar to the last, the leaves are a little smaller, have less yellow, and the blotches of deep velvet are larger. Fantasic, Queen of May and Starlight are others of some promise. On the whole, of the innumerable sports and seedlings of this plant, we know of none that surpasses Fascination, a variety of recent introduction.

Field Crops.

A GOOD WORD FOR ALFALFA.

I HAVE grown Alfalfa successfully as a forage plant here, three miles east of the Rocky Mountains, both on the plains and on dry upland. I have 42 acres seeded with it. I mow it three times, and think if I did not pasture it late in the spring with sheep, I could cut it four times in a season. I came here in 1874, from the Genessee Valley, western New York, in search of relief from asthma, and found here what I sought, as I am now never troubled with the ailment. The seasons here are of about the same length as at my old home. Our winters here, however, are much more mild, still we have some severe cold spells; so that I cannot see why Alfalfa should not thrive as well in the neighborhood of Rochester, N. Y., as it certainly does here. It will produce more forage than any plant I ever knew, growing the second crop over 2½ feet high in 30 days. It is, I think, stronger and more nutritious than clover for hay, and invaluable for soiling. It should be sown where it may remain permanently, as it is not killed, like red clover, simply by plowing it under; for, after plowing, it will come right up again and grow vigorously. A part of mine has been already cut twice this season, and I am now growing the third crop. Thirty acres I have mowed only once, and the second crop of this I am now allowing to go to seed. I think it will produce about six tons of hay a season per acre. About 20 pounds of seed per acre are the proper quantity, and it should be sown on wheat in spring, the same as red clover, like which it should be always treated to a great extent. Its roots penetrate very deep and it will last, without reseeding, fifty years or perhaps more, according to experience in California. If sown in wheat, it will grow just like red clover, and will be clipped in the butt ends of wheat when harvested, and produce good fall feed thereafter, and may be cut three times the following season. If sown on ground well prepared for it and slightly harrowed or bushed in from about the first to the thirtieth of April, according to the locality and season, it can be mowed twice the first year. Stock of every kind like it much either as pasture, for soiling or for hay. If sowed on grass ground, it will do well. I have some that was accidentally scattered on blue-grass and buffalo-grass sod that never was plowed, and of this the second crop this season is over two feet high to-day, and going to seed. I consider Alfalfa one of the most profitable forage plants now known, after an experience with it of four seasons, including the present one. J. S.

Fort Collins, Colorado,

Farm Economy.

SUBSOIL PLOWING.

F. A. GULLEY.

THE subsoil plow is used to loosen up the subsoil without throwing it up on the surface. It is drawn by another team after the ordinary plow, running in the bottom of the open furrow, and merely lifts the soil, letting it fall back in the bottom of the furrow. The next furrow is turned over on top of this loosened soil by the first plow as it comes around again.

Trench plowing is merely deep plowing, turning over the soil as deep as the plow will run, or sometimes using one plow after another, turning the soil from the bottom of the furrow up on top.

Deep plowing, trench plowing and subsoiling are by many supposed to mean the same thing, hence this explanation.

Whether it will pay to use the subsoil plow or not, can only be told sometimes by an actual trial. It will seldom or never pay to subsoil plow a light sand, a loose gravelly soil, or where the subsoil is wet and heavy. Experience

has shown that subsoiling a wet, heavy, undrained soil is worse than time and labor thrown away.

I believe on heavy well drained land the maximum crop cannot be grown without deep and thorough cultivation. Yet I am not an advocate of deep plowing except under certain circumstances.

There are many soils that are made the richer by turning up a little more of the subsoil every year. A large portion of the western prairies and river bottom lands, where the soil is made up of sediment deposited by overflowing waters in the centuries past, is of this class, but if from two to four inches of the subsoil on most of our upland farms should be turned up on top, the result would be a lighter crop for one and perhaps two or three years. Many a farmer has believed in deep plowing until a trial has shown no benefit was derived from it. yet there is no doubt as to the desirability of a deep, fine soil on any land except light sand, provided it can be secured without covering a good surface with a poor subsoil.

The advantages of subsoil plowing, are:—first, that we may get a deep fine soil without any of the drawbacks of deep plowing, although I would at the same time turn the soil over as deep as would prove by experience to be beneficial to the crops grown, running the subsoil plow also deeper each time. In a deep, friable soil the roots of plants make a stronger growth; penetrate farther after plant food, and are better able to stand dry weather owing to their running down deeper in the ground. Again, the soil itself will retain more moisture in dry weather, and allow an excess of water to pass off sooner when saturated, (we are supposing the land to be underdrained) and there will be less evaporation from the surface, thereby making the soil much warmer, as the process of evaporation reduces the temperature, as any one knows who has sprinkled a floor on a warm day. Breaking up the subsoil allows the air to penetrate, which helps to decompose the mineral and organic compounds, rendering them soluble, so that they may be taken up as plant food.

It will probably pay well to use the subsoil plow in preparing ground for both the large and small fruits, also for all garden and root crops. The best time for subsoiling is during the latter part of summer or in fall. When the ground is dry, it will do much better work than in the spring, and the effect will be more lasting. Some of our garden land, where the subsoil plow was used last fall, was so fine and mellow in the bottom of the furrows after the ordinary plowing this spring, that I could push my foot down out of sight; whereas where the ground had not been subsoiled, it required some force to push a spade down.

There are several reasons why these plows have not come into more general use. They are seldom kept for sale at our implement stores, and people know little or nothing about them. I have never seen one offered for sale in any store in Michigan. Some men have given them a trial on wet soil, and, seeing no benefit from their use, concluded they were worthless. To get one, an order must be sent to some far-off manufacturer, when the exorbitant price usually asked, with the added freight, makes it very expensive, and if anything breaks or wears out, it costs too much time and money to have it repaired. For these reasons, a few years since, after using a subsoil attachment on a common plow, I concluded to have one made. After several trials and changes, with the aid of an ingenious blacksmith, we produced the plow shown in Figure 1, which, for cheapness, ease of draft, thorough work and durability, is not excelled by any I have seen. The iron-work can be fitted to almost any old wooden plow beam and handle at a small outlay, or it can all be made new for less than the price of a good common plow.

The beam is made of tough, hard wood, 3x4½ inches at the center, and tapering to 2¾ inches square at either end, and five feet four inches long. The rod attachment to hitch to, with adjustable nut and thumbscrew to regulate the draft, gives the plow a more steady motion, and takes the strain from the beam. It is, therefore, well worth having, although I have used an ordinary plow clevis very satisfactorily. f, fig. 1. The side draft, provided for by the clevis with long slot, can not be avoided, as the plow must follow directly the horse walking in the furrow. The wheel, which I would always use, must either run under the plow beam or on the right side of it, as the land side runs close to the side of the furrow.

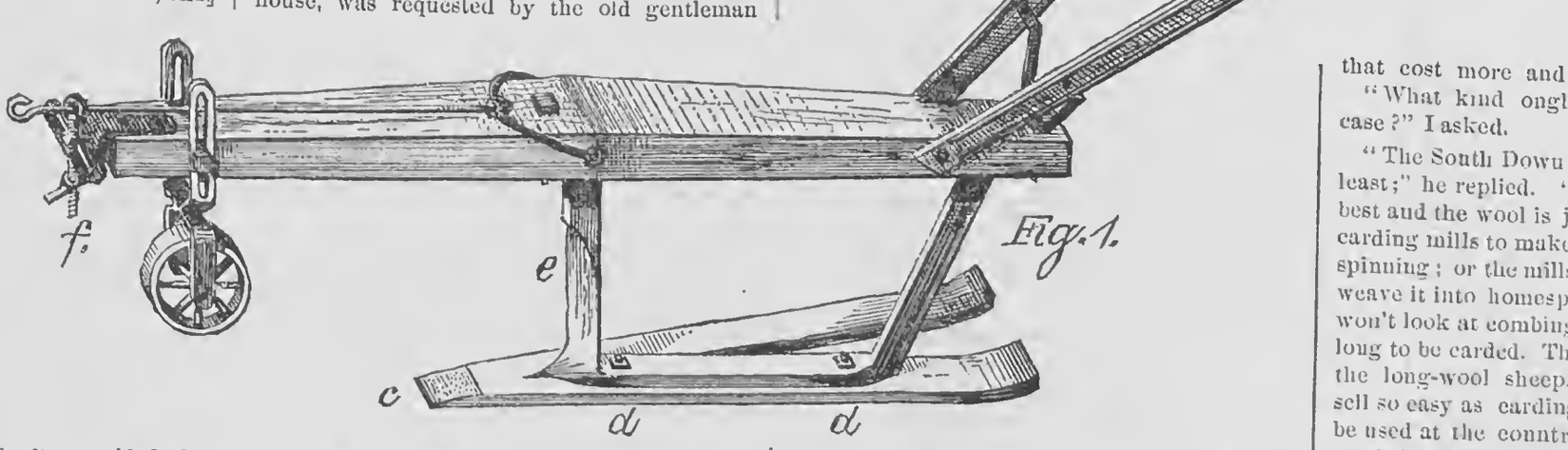


Fig. 1.

The bottom or sole of the plow, Fig. 2, is 34 inches long, and the main part, a, except the point, is wrought-iron, one inch thick and 2½ inches wide. The flange, or side piece, b, Fig. 2, is cast-steel *one-half inch thick* and 3½ inches wide, firmly welded to the main part of the sole.

The point, c, fig. 2 is also steel from the dotted line; the outer side of the flange is drawn to an edge and tempered hard to prevent wear and to enter the soil easily. The point is chisel-shaped, bevel side up, e, fig 1, and bent down about one half of an inch lower than the level of the bottom of the sole, to hold the plow down to its work. The sole is fastened to the

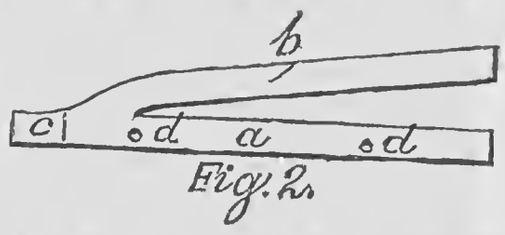


Fig. 2.

frame or standards, fig 3, by two half-inch bolts, d, d, fig. 1. with the heads down and countersunk level with the bottom of the sole. The sole is eight inches wide at the heel, from outside to outside, and the ends of both flange and main part are bent up one inch, as shown in fig 1. to lift the soil and break it up. The frame, fig 3, is wrought-iron, the front standard 16 inches in length and the other enough shorter to make the heel one inch nearer the beam than the point. The standards are each two inches wide and a half inch thick, the one before being drawn to an edge, e. fig. 1, in front to cut the soil. The bottom of the frame, g, fig 3, is two inches wide and three-quarters of an inch thick, with holes for the bolts, d, d, fig 1.

The greatest wear is at the point, and when much is worn off, it will not hold itself down in hard ground; for this reason the sole and frame are made in separate parts, as it is then easier to lay on more steel as it becomes worn away.

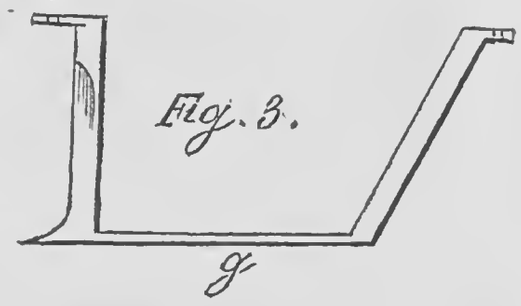


Fig. 3.

Twenty hours' use in our soil here at Lansing, will wear two inches off from the point; the bottom or sole is then taken to the blacksmith who, in fifteen minutes, sharpens it, tips it down a little, and it is as good as ever. When the steel is worn nearly back to the iron, a new piece is laid on and the plow is as good as new. The main part of the sole is of wrought iron to facilitate the welding on of the steel. We first made the bottom all steel and found it more expensive, no more durable, and much harder to repair—it being a difficult matter to weld steel to steel, that is hard enough for this purpose. The greatest difficulty with subsoil plows generally is, that they soon become worn and will not do good work. If made of common or chilled cast-iron, they cannot be repaired or sharpened. This plow any blacksmith can repair or rebuild if necessary. For very hard and stony soils, and for use when employing three or four horses, the parts of this plow would need to be heavier; but the measurement given will make it strong enough for any ordinary team. The sole and frame weigh about 60 pounds, and a blacksmith in town told me he would furnish material and make it for five dollars.

Agr'l. College, Lansing, Mich.

Sheep Husbandry.

HISTORY OF A POOR FARM.—No. 16.

Something About Sheep.

A FEW days ago Fred, passing his father's house, was requested by the old gentleman to take into the wagon two fine dressed lambs, one of which was to be left for me and one taken to Mr. Martin. Fred had gone on to the Martin's before I knew of this, and after a long delay, in which I suppose he was learning some new ideas on dairy matters from Miss Martin, he returned and informed me that his father requested my acceptance of a sample of his cross-bred lambs. The sample was a splendid specimen of a market lamb four months old, weighing, when dressed, 44 pounds, or 11 pounds to the quarter. I had neglected in the abundance of my occupation to take much notice of my old neighbor's flock, although he had frequently given some very direct hints that he would be gratified by an occasional look at what was evidently a pet possession of his; but this unexpected kindness determined me to go and investigate the matter. Mr. Martin and I therefore went over and were soon very much interested in examining a noteworthy flock. The rear part of the farm was divided into three fields and in each of these was a flock; one of thoroughbred South Downs, another of ewes of grade long-wool varieties generally known as "Canada sheep" with a number of unweaned half-bred black-faced lambs, and the other of pure-bred and grade weaned lambs. The fields were eaten rather bare, but the sod was thick and, if not eaten so closely, would have given a fair crop of hay.

"These fields have never had any manure on them since I moved here," said the old gentleman, "excepting what the sheep have dropped on them. I have never been without a flock of some kind since I began farming, 62 years ago next spring. I have seen sheep sold for a thousand dollars apiece, and I have seen them knocked on the head for their pelts, which brought 25 cents each; but I have kept on and never knew a fat sheep or a lamb to be worth less than 10 cents a pound to me for meat, nor the wool less than 25 cents a pound for the girls to spin on winter evenings. That is the way I always got the value for my sheep, never mind what the market was, and my sheep never lost me a dollar, but have made hundreds for me. Some of my neighbors have thrown away their sheep, and before five years have bought lambs from me to begin again; and in the meantime have bought wool to spin, or yarn to knit, at the store prices. That's what I used to call foolishness."

"I think you might call it so still," remarked Mr. Martin. "Why do you keep South Downs?" asked he.

"Well, my commission agent, who sells my lambs, says he can sell a black-faced, when he cannot sell a white-faced lamb; and the price is always better. I have sold lambs for 25 cents a pound this year when others about here have got but 12 cents. A half South Down lamb does not look so big as a Cotswold, but it is plump and fat and weighs well. I have kept South Downs for a good many years, and every year get a fresh ram from a different breeder. I don't believe in crossing too close, in sheep."

"That was a fine lamb you sent me, but I see many here as good or better; how do you raise these half-breeds?"

"William picks up, every fall, a few ewes from the droves that pass here to the Eastern markets, choosing grade long-wool sheep that come from Canada; these are large, heavy-bodied, and give a large lamb, and one that grows fast and soon gets fat. We cross a pure-bred South Down on these ewes early in the fall, so as to have lambs begin to come in January. But William can tell you all about that; he looks after the lambs, but as long as I live we shall have a flock of sheep on this farm, that is certain."

"Let us hear all about it, William," said I. "I think I can get an idea or two that may be useful to me."

"Yes, you have some hill-sides grown up to briers and weeds, that would keep a few sheep and lambs nicely without costing you anything," replied he. "But this lamb business is mine; grandfather looks after the South-Downs. The ewes in this field have each had one lamb, and some two; we have sold most of them, and the rest are with the pure-bred ones in the next field; you can tell the half-breeds at this distance; they are larger and the fleece is longer and rougher. A South Down lamb looks round and as smooth and even as if it had been planed down and sand-papered, but the half-breeds are looser-wooled and more bony. Yet they are good lambs. I weighed some yesterday. The heaviest is a January lamb, a wether now, and weighed 120 pounds; the mother, that gray-faced ewe, half Cotswold, weighs 165 pounds; both are nearly fat and will go to the butcher soon."

"Do you sell off the ewes, then?" I asked.

"Every one, excepting an odd extra-good young one. The ewes are our profit. These ewes were bought last August, and cost about five dollars each. I have had the fleece and a lamb from each, and the ewes will bring me, when fat, about six cents a pound for shipping sheep; that will average $8 each, if not more. We have nothing on the farm that pays better. You ought to have a flock of sheep on your farm."

"That will come in time," I replied; "I want to hear how you keep them in winter, and why you have them here now."

"In the winter we keep them in the yard at the red barn, and give them the run of the barn floor at night and on stormy days. The yard is filled, and the barn floor is covered, with straw. We feed clover hay and all the turnips to the sheep and buy bran besides. They get a few oats or corn ears for a change, and we get a yard full of manure by the spring. That goes on to the corn. In the summer we bring them out here to one of these fields and feed them bran, oats and corn, and get them fat; and after two years' pasturing, we can plow up the field and get a round of as good crops as from any of the other fields. I don't see but these are as good as any, even now. As soon as these ewes are sold others will be picked up and turned in here to pick their living until cold weather comes, with the help of a little corn and fodder, perhaps."

"How about dogs?"

"Well, we lose a sheep now and then, but we keep a close watch and we shoot a dog now and then, and that brings us square. The sheep are kept in a high rail pen at night and the dogs cannot get at them. Sometimes we trap a few dogs, by making a rail pen with the sides sloping inwards and pretty high, and putting a sheep that has been killed, when we have one, in it? The dogs can get in but cannot get out and then we have a little caucus with the neighbors, who have to own up and pay for the sheep among them. But we have never had much trouble."

"I have always thought that the greater part of the fuss made about dogs was merely an excuse to cover up carelessness," remarked Mr. Martin. "Folks keep sheep and neglect them, and expose them to danger and the dogs kill them. If every farmer kept sheep—as every one ought to—the outcry about dogs would cease. There is a great opportunity, if we would only adopt our old friend's plan; that is, raise mutton and wool, for our own consumption at least, and buy a spinning wheel and a few dozen knitting needles and let the girls spin their yarns, while the boys spin theirs. It would be a great help on many an interesting occasion, if the girls had their spinning wheels to provide them with occupation when conversation lagged, and their visitors were dull."

"That is true enough," rejoined our old neighbor, "spinning our own wool is a good old domestic habit, and to be able to eat our own mutton is very convenient and saves money. A dozen sheep might be kept without costing anything that could ever be found out, if it was not very closely looked for, and there are many wastes that are permitted that cost more and are never thought of."

"What kind ought to be kept in such a case?" I asked.

"The South Down gives the most for the least;" he replied. "The mutton is the very best and the wool is just right for the country carding mills to make up into rolls for home spinning; or the mills will take that wool, and weave it into homespun on shares, but they won't look at combing wool, because it is too long to be carded. That is the great fault with the long-wool sheep. Combing wool don't sell so easy as carding wool, because it can't be used at the country mills; besides, coarse-wool sheep are too fat mutton for home use. You can put two inches of fat on their ribs, but that is only good to sell."

"There are no other sheep so hardy as the South Down," said William. "Our thoroughbred flock gives us more lambs than the grade long-wool ewes, and are never sick; but the grade ewes are often ailing and if we did not sell them off, some might die: the wool is too open to suit me, and the sheep take cold in stormy weather, which the South Downs don' mind at all.

"You may be right," remarked Mr. Martin, "but the Cotswold is a noble sheep. Look at the ewe that weighs 160 pounds, and not half fat yet. And, moreover, it is now an acclimated citizen and as hardy as a native, as, indeed, most of our flocks of this breed now are. It is true, combing wool is hard to sell in country places, but there is a permanent and growing home market for it, and in the cities it is always salable at some few cents per pound higher than any other wool."

"All that is true," replied my old neighbor; "if I did not keep South-Downs, I would choose Cotswolds."

"And we would raise lambs by crossing them on Merino ewes," remarked William.

"I see," I rejoined, "it is a case of 'not that I love Cotswolds less, but South-Downs more;' and I think you are right, but I would include along with the South-Downs all the black-faced breeds which have their blood, such as the Hampshire Downs, and the Oxford Downs."

"There is no question," rejoined Mr. Martin, "of the advantages from sheep to our agriculture. They are close feeders; easily managed; if well provided for, they will manage themselves, in fact; they pay two profits. Like a National bank, there is a dividend half-yearly—one is the fleece, and one is the lamb; there is a reserve fund accumulated, which is the manure heap, and the capital, which is the carcass, is guaranteed by the butcher. It costs little to start a flock; the poorest farmer can go into the business as well as the richest; but a small flock is apt to pay better than a large one. It is one of the most surprising things in existence to me, that so few flocks are kept now. I suppose it is the result of a change in our habits, and our contempt for small things in our grand attempts to grasp something big; for in our fathers' days, when all kept a few sheep, folks were satisfied if their backs were warm and their stomachs filled, and never expected to carry around a pocketful of dollars, to go shopping with."

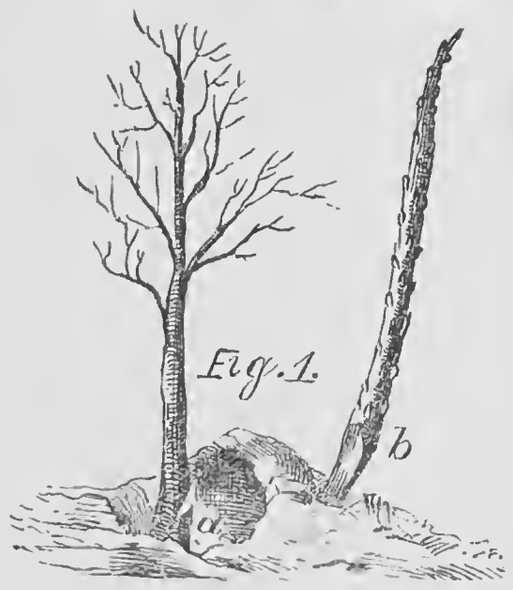
"That is your old story," I replied. "You are always harping on the good old times, and our old friend here confessed, the other day, that we were all as happy and well off now as then. The change is one of those which occur periodically; one of the ups and downs of farm life. There is more inquiry about sheep now than for many years, and when the boys are buying a thousand 'Shepherds' Manuals' in six months, you may be sure there will soon be plenty of young shepherds. Twenty-five sheep may bring in $100 clear every year, and every farmer's boy—or girl, too, if she would—could soon get up a flock of that size and manage it successfully, and in five years increase their profits until a thousand dollars would be earned. They don't see it and don't think of it, that is all; and it is somebody's business to let them know of it. Let them never mind what kind they begin with, only let them begin; they will soon learn how to manage their little flocks profitably."

Arboricultural.

A NEW AND SUCCESSFUL MODE OF GRAFTING.

PROFESSOR ELBRIDGE GALE.

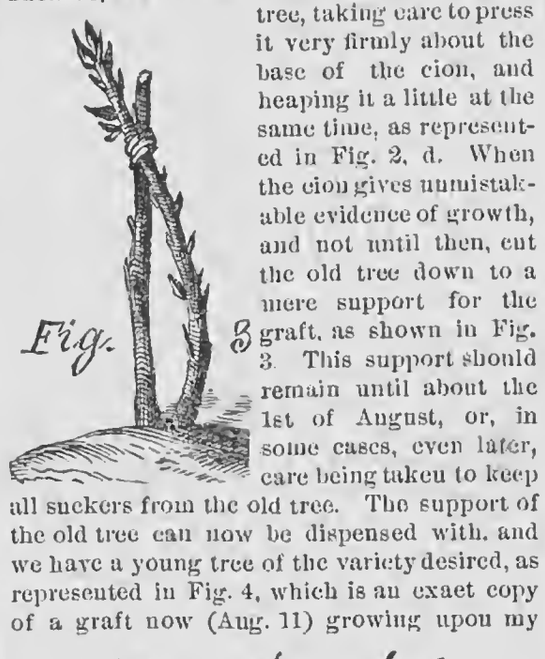
THE art of fruit culture is so far perfected, and the demand for choice fruit so imperative, that a seedling tree can scarcely be tolerated. And yet seedling trees of some kind are found every year, springing up about all places where fruit is grown. These are, in a great majority



of cases, valueless; but if their tops could be changed, they would not only be an attraction, but a source of profit in coming years. How can this change be made? The writer knows of no mode so simple, safe and successful as the one here described. We will suppose that the trees are anywhere from one-half inch to three inches in diameter at the crown. The grafting is to be done at the crown, so as to replace the entire top.

The tools needed are a sharp knife, a sharp chisel at least an inch wide, a light mallet, a handful of twine and a shovel to remove the soil from the base of the tree. We will now suppose we have a cherry tree, Fig. 1, an inch or more in diameter, which we wish to graft. The soil is first to be removed from one side of the tree, and a deep, smooth incision made into the side of the trunk, as represented at a. A cion, b, Fig. 1, is to be selected as long as can be conveniently secured, say from one to three feet in length. The lower end at b should be

wedge-shape, as in common cleft-grafting, taking advantage, in making the wedge, of any curvature of the cion, as represented in the figure, for convenience in fastening to the tree. The cion should then be inserted at a, Fig. 2, and pressed firmly to its place. Fasten them securely, as at c, to the body of the tree, or to one of the branches, if more convenient. Then replace the soil about the body of the tree, taking care to press it very firmly about the base of the cion, and heaping it a little at the same time, as represented in Fig. 2, d. When the cion gives unmistakable evidence of growth, and not until then, cut the old tree down to a mere support for the graft, as shown in Fig. 3. This support should remain until about the 1st of August, or, in some cases, even later, care being taken to keep all suckers from the old tree. The support of the old tree can now be dispensed with, and we have a young tree of the variety desired, as represented in Fig. 4, which is an exact copy of a graft now (Aug. 11) growing upon my



grounds, and made as above described, last spring. The following figures will indicate the value of this mode of grafting:—The cion in this case was two feet nine inches long; the graft is now two inches in circumference at the ground, and the united length of the eight new shoots is 16¼ feet.

Industrial Societies.

OHIO STATE FAIR A SUCCESS.

OUR State Board of Agriculture has been under a cloud, financially, the past year, but the fair held at Columbus the present week has made the skies bright again. The weather was simply perfect, excepting on Monday, and so were all the arrangements for the exhibition. Everything was well advertised, and all the railroads pledged to carry people to and from the fair with facility and at very low rates, so that the rural population, with that of the small towns for fifty miles or so around, seemed to turn out *en masse* for a day or two at the fair. On one day, (Thursday) it was shown by the tickets sold, that over 40,000 people entered the grounds, and about half that number on Wednesday and Friday.

The exhibition itself was very full and complete, as all our State fairs have been of late. The display of implements and machinery was particularly fine, showing continual progress in improvement. A marked feature in this department is the increase of the number and styles of portable steam-engines for farm purposes, and of self-binding reapers. There are also noticeable improvements in plows, cultivators, seed drills, corn planters, etc., of which I have not time or space to write in detail.

Of cattle, we always have splendid shows of Short-horns. Some Ohio herds are known to be as good as any in the world, and as none but the best can gain premiums at our State fairs, but few others are seen there. A larger number than usual of Jerseys were at this fair, and they attracted considerable attention. The cows are sought for by towns'-people, and some others, so that a few sales were made.

Horses were quite numerous and good—the fast-trotting part being seemingly most in favor; and the trials of speed in the ring were a more prominent feature than most of our people desire. They were only excused as a necessity for increasing the attractions of the fair and the funds of the Board. This motive will not exist the coming year, and it is hoped that there will be less catering to mere amusement at the fairs hereafter, and more effort to instruct the people.

Hogs and sheep were specially abundant, and the breeds or varieties were so numerous that every one's fancy could be suited. The same was true of poultry.

The departments of farm products and domestic manufactures, have never been very well filled at Columbus—the central and southern parts of our State not being occupied by farmers who devote much attention to the class of articles usually exhibited in this line. Some of the county fairs of the Reserve, or northern section of the State, make better displays in these departments. The mechanics and manufacturers of Columbus made very good displays of their work, and the citizens generally seemed to do all in their power to add to the attractiveness and success of the fair.

The fruit and floral halls were well filled and highly attractive, although it is not the bearing year with our orchards—there being a very scant crop of apples and no peaches at all, excepting along the lake shore. There was a fair display of apples, a very good one of pears and also of grapes, although the time was too early for these fruits to be generally ripe. We expect to see better displays of these, and a grand exhibition generally at the Northern Ohio fair, at Cleveland this coming week; and if the weather be favorable there will be another grand turn-out of the people; for it is quite evident that the better times are beginning to be felt by the millions.

M. B. BATEHAM.

COUNTY FAIRS.

THE interest taken by the rural population of our land in their local county fairs, has its fluctuations in common with many other such matters that from time to time gain attention. Many of the most promising efforts in this direction, that have been looked to with hope, as indicating progress in all that concerns the best interests of agriculture, have finally met with disaster and death. In view of the really beneficial influences that ought to flow out of these exhibitions of the ability of our farmers to produce the best of anything they undertake, that shows the result, in the long run, of faithful, pains-taking labor, it may become us seriously to inquire, once more, why so many county fairs fail of reaching complete and permanent success. Many reasons have been alleged, many arguments elaborated, yet the bare fact remains that the majority of these enterprises do not attain long life and prosperity.

I invite the attention of my readers to this subject, and, at the same time, simply propose to lay before them some slight account of one of these exhibitions that is at present in the full tide of success, and promises well for the future; and it may be this little history will answer some of the queries that may be raised on County Fairs.

Bergen County, New Jersey, is possessed of a fine soil and capable farmers: it has also many small factories of various wares, and its location, so near to the great metropolis of our country, would seem to call forth enterprise in its citizens. Yet until three years ago this county knew not the pleasures and advantages of a properly conducted county fair. In the year 1876 the first exhibition was held—although the great attractions of our Centennial Exhibition made it seem like a hazardous experiment—and was in character, more than in attendance, a surprising success. The following year the officers had the encouragement that their success gave to make a more extended effort, and at the close of the fair for 1877, they were the recipients of unlimited praise and congratulations. So much indeed was said about this exhibition that delegations were appointed from older, and possibly wiser, organizations in other counties, and even in one other State, to visit the Bergen County Fair of 1878, and ascertain their methods and the result. These official visitors were as hearty in commendation as the Bergenese themselves. We learn that the statistics of these fairs are about as follows:

Year.	No. Exhibitors.	No. Entries.	No. Visitors.	Receipts.
1876.	56	119	About 200	About $ 32
1877.	127	215	" 900	" 250
1878.	219	434	" 1,800	" 525

These figures indicate rather a remarkable progress for a young organization, and the present stage of proceedings gives promise of unflagging interest and continued success. The methods practiced in the administration of this county fair are only these: A simple organization; few officers; plain rules; economy in expenses; no money prizes, but in place thereof practical works, agricultural papers, implements and diplomas. Added to these are efforts to incite a healthy rivalry in rural matters. So far the association has managed to steer clear of "hoss trots;" believing that experience teaches that county fairs fail whenever they get into this rut. A slight examination of the premium lists of these associations generally, is sufficient to show the rock on which they split. "Too much of one thing good for nothing" is a homely proverb, that county fair managers might well bear in mind, and a farmers' fair, to receive a farmer's sympathy and support, must include, and treat fairly, all the interests of a farmer's calling. To those of our friends who wish to see for themselves how this can be done, I recommend a visit to Bergen county about October first, and to those who cannot make the visit, I presume the officers will be glad to communicate their ideas when requested. V.

THE sixteenth New England Fair of the New England Agricultural Society, was held in the City of Worcester, Mass., on September 2, 3, 4 and 5. The Ploughman characterises it as an unprecedented and magnificent display in all departments. Of cattle there was a fine display of Short-horns, Devons, Ayrshires and Jerseys; a single exhibit of Herefords, two of Guernseys; three of Holsteins; four of Swiss, and a goodly show of grades and "natives," besides a long list of working oxen. The horses included stallions for general use; mares, geldings, matched horses and fillies. Of sheep there were a few exhibits each of Cotswolds, South-Downs, Middle-wools and Merinos; of the latter two exhibits of American and one of Spanish. Of swine and poultry there was also a nice but not numerous display. Corn, wheat, oats, grass-seed, fruits, vegetables, butter, home-made and factory-made cheese, household manufactures, etc., etc., also made a fair show. So did Ex-Gov. Long, Gov. Head, Attorney-General Devens, Ex-Gov. Boutwell and some smaller celebrities, most of whom also delivered speeches appropriate to the occasion. The attendance was good, and the fair, it is to be hoped profitable, financially as well as educationally.

NEW YORK STATE FAIR.

(Special Correspondence.)

Utica, N. Y., Sept. 12, 1879.

THE weather was the great drawback to a brilliant fair. As it is, the Society will barely have receipts sufficient to meet expenditures. The exhibits in all departments are good—better than usual, notably the stock. Although the entries were larger than last year, there was not more than a third or a half represented in any class.

The same faults are manifest in this as in previous years. Exhibits are spread over too much ground; they should be grouped more closely and with more uniformity. If the Society should require the judges to make a report incorporating such suggestions regarding improvements as seemed to them needful in their several departments, I think the Society would profit by the information. Especially among the implement men was the "magnificent distance" between things spoken of, with an accompaniment of growls and complaints. In other respects the fair is as skillfully managed as usual, and with all its imperfections, it is about the best *agricultural* fair that we have. Machinery and stock notes are deferred until next issue.

Manufacturers' Hall,

is half filled with the usual collection of bed quilts and pianos so dear to the hearts of the ladies. One hundred and fifty feet and four tables are set aside for farm and dairy products, and a beggarly show they make. The Queens Co. fair makes a much finer exhibit in this line. Mr. Oscar J. Lewis takes first premium on the best collection of potatoes, which comprises 250 varieties. The plates are filled with well-grown samples. He tells me that Beauty of Hebron is in high favor in his neighborhood (Schaodack Centre, N. Y.,) owing mainly to its having been popularized by the RURAL through its Free Seed Distribution last season. Mr. L. grows seeds for Price & Knickerbocker, who also make a fine display. Bliss and Sons and Lewis Brewer have good collections of pota-

toes, (the latter taking second,) and in fact, potatoes are the main feature in this department.

The butter and cheese display is good, what there is of it, but it is ridiculously small in view of the fact that the fair is held in the center of the finest dairy district in the East. The name of Blessing heads most of the entries in this department, but it is a blessing in disguise, as he has entered under the name of his wife and son. This is the fellow who was expelled from the fair last year for cheating.

There is something fundamentally wrong about this department or there would not invariably be such meager exhibits. I would suggest that hereafter the Society make sweepstakes premiums for counties, in addition to the separate premiums, with the object of inciting local rivalries. The displays would be largely augmented, because there would be country organization and local pride to urge on endeavor. Such a plan is capable of extension beyond farm products merely, and if successful, would make this department the most interesting and instructive of any, and enable strangers to get a really clear idea of the resources and capabilities of particular locations of the State. This plan was carried to perfection during the Centennial by Kansas, and I have no doubt it was instrumental in creating the present prosperity of that State. The idea is well received among those to whom it has been broached, and I hope next year will show an improvement in what ought to be a leading department of the fair.

Floral Hall

contains nothing new in fruits or flowers. The cut flowers, as usual, focussed all the "ahs!" and "ohs!" of the multitude. Especially did an American flag in flowers draw the warmest praises. Ellwanger & Barry, though not entered, made the largest exhibit, comprising 96 varieties of apples, 46 of plums and a fine show of pears, including the new *Souvenir du Congrès*, large, good flavor, prolific, and somewhat like a Bartlett in shape. Among the 34 varieties of grapes are two new seedlings, "Rochester" and "Monroe." The Monroe was scarcely ripe and its flavor could not be judged, but the Rochester has a fine, full-flavor, close bunch, and it is said to be hardy. This firm also show cut flowers. Among the Roses is *Countesse de Serenyé*, a new variegated kind. Mr. Marvin, of Watertown, is conspicuous by his absence. J. Van Dorn has a very good collection of fall and winter apples, on which he takes three first prizes. Owing to a dry season, the fruit does not show up quite as well as it did at Elmira, but here, as there, Mr. Van Dorn's plates are by odds the best.

The Poultry.

is not equal to that of previous years in number or quality. Owing to the regulation of the Society it will always be difficult to gather together fine birds at this season. The premiums are given for aged birds, which now are looking their worst. Few care to send dilapidated specimens, especially as they contrast so unfavorably with the cockerels and pullets in the yard, which are now in their prime. A reform in this particular would bring together a splendid display at the next fair. The best classes are Light Brahmas, Buff Cochins, Plymouth Rocks and Hamburgs both as regards quality and quantity. The best single collection is that of J. M. Seymour, but the prize has gone to a collection that is larger, but not equal in quality. The Plymouth Rocks of L. J. Bundy are a magnificent lot of young birds. Their coloring is fine. Mr. Newton Adams's Hamburgs, as usual, are of the highest merit. G. H. Warner is strong in Dorkings, and H. B. Thomas shows the best Light Brahmas. Col. F. D. Curtis has the cream of the show in ducks and white turkeys, while J. Julian has expended his energies to advantage on Bronze turkeys. Mr. Halsted's incubator has up to the present hatched sixty chicks out of one hundred eggs, and the cry is still they come. This incubator was transported 107 miles, part of the way in a wagon without heat or unusual protection, the eggs meanwhile being in process of incubation, yet they were not perceptibly injured. This is a severe and successful test.

Implements.

THE representation of farming machinery at the fair is very complete, and an inspection of it gives a vivid impression of the sweep of improvement in this department. Most of the leading manufacturers have examples of their best work, but, with one exception, we cannot point to anything very novel that has not already been called to the attention of agriculturists. Our exception refers to the William Anson Wood Mower and Reaper Company, of Albany, N. Y., whose complete exhibit includes a very decided improvement in a light reaper that is a novelty, and demands special description. In speaking of this display it becomes necessary, as well as pertinent, to add a few lines regarding the Company, which has undergone a thorough reorganization, and, as the successor of the old Eagle Mowing and Reaping Machine Co., is now one of the most vigorous and pushing corporations in this line of business. In both mechanical and business departments the right men have been put in the right places, and with the abundant capital now at their command and the excellent implements they are making, they have succeeded in scoring a great success this season. Every machine put out has given gratifying satisfaction, and of the great number put in the field not a complaint has been received. This is a fact well worth pointing to.

The display on the grounds is made up of seven machines, which include four mowers, two reapers and a combined machine. The leading feature, as before stated, is the new light reaper, which not only combines simplicity with strength, durability and light weight, but has, in addition, a completely new device. This is a brake-shaped crank, a little to the right and in front of the driver's seat, where it can be easily operated, that works an eccentric which raises or lowers at the same time both sides of the cutter-bar and table and tilts the rakes forward so that they pick up the grain perfectly. A lever, just back of the crank, throws the table to any desired angle. With this improvement the driver can cut grain at the surface, or at any intermediate distance from the level of the ground up to a hight of sixteen inches. While the weight of this reaper is only 750 pounds, it is yet so nicely balanced and thoroughly made that it works with great smoothness and precision, and with the least amount of friction. The drive-wheel has a wide tread and is without lags. As this machine is covered by 15 patents, it may be said that it starts its career under ample protection. The new inclosed-gear mower is marked by simplicity and thoroughness of construction, running very smoothly and not jumping when heavy work comes in its way. This good feature is mainly due to the manner in which the weight of the pitman protector and its connections is distributed. The other regular styles of machine are also shown, but their good points are now well known from constant demonstration in the field. A minor point, but one not without its influence, is the handsome and tasteful manner in which the new styles are painted. The colors are durable ones and of neutral tints, that cause the machines to present a neat appearance, even after long use. Circulars descriptive of the new reaper may be had of the Company, and every farmer interested in improvements that tend to facilitate his labors, will be pleased with the new reaper.

THE HIGGANUM MANUFACTURING CORPORATION of Higganum, Conn., are at the fair principally to show new things and do not, therefore, make as large a display as is possible if they should show a sample of all the implements made at their shops. The first machine to attract attention is Hughes's Castor-tooth Smoothing Harrow, which is really a new departure in this class of farming tools. The principal novelty consists in the swiveled, or Castor-vibrating teeth which work loosely in the frame and are self-adjusting. The teeth slant backwards and are alternately bent to right and left which makes a zig-zag cut and in passing over the land, thoroughly pulverizes the surface to a depth of three or four inches. Its advantages are that being made in sections three feet wide, from two to four sections can be used. The teeth are slanting, work upon a swivel, are self-adjusting and self-cleaning. Farmers may use only the number of teeth required to do the work in the best manner. The teeth are taken out and replaced without trouble. It turns corners on growing corn or cotton without tearing it up. Is sold as cheap as any harrow with same number of teeth.

THE HOLLINGSWORTH NEW IMPROVED QUAKER RAKE is conspicuous for the simplicity of its mechanism, its durability and the uniform excellence of its construction. It rakes clean, lifts easily and falls back lightly. The least experienced can put it together and operate it. It is a combined hand and self-dump, and should the appliance for dumping by the power of the horse get out of order (which is hardly possible), there is no inconvenience, as the rake can be operated by hand without fatigue, to speak of.

A POWER CIDER MILL is also shown that may be truly called a *multum-in-parvo* piece of machinery, as with its attachments it is at will, either a cider-mill, corn-sheller, cob crusher, or grain-mill. The power is supplied by a horse that sets in motion gearing that does the work. It is all very simple and can be changed quickly, and with little trouble to serve any of the purposes above named.

J. M. CHILDS & Co., Utica, N. Y. have the largest exhibit of Agricultural Implements on the grounds, for which they received the Bronze Medal of the society. This exhibit includes a handsome display of small agricultural tools of all descriptions. Cultivators etc., of their own make and a large number of larger implements such as mowers, reapers, fan mills, thrashers etc., for which they are general agents. The Centennial Farmers' Favorite Grain Drill made by Brickford & Hoffman, Macedon, N. Y. is also a leading feature of their exhibit. The first noticeable improvement is the Bonanza Grass Feeder—a device that it is said will positively distribute all varieties of grass seed, large small and mixed. It can be attached to front or rear of machine. The new spring tube possesses the simplicity, efficiency, and durability found in the peg tube, but uses no rubber, and if broken by any accident it can be replaced at the nearest shop, saving cost and delay, and during the interval the drill can be used as a peg tube, not stopping apparatus at all. The new Bessemer steel axle gives lightness, strength and stiffness, and lessens the draft. In small devices, such as an accurate land measure, the drill is fully equipped and altogether the machine is very complete and effective.

Another leading feature was the show of Watertown Wagons distributed between their large tent on the grounds and the Wagon Hall. Of these wagons made by the Watertown Wagon Co. of Watertown, N. Y., there were 12 different styles on exhibition, for which they received the three first premiums awarded to Platform Spring Wagons. Among this company's improvements for 1879 is a Platform wagon with a new patent reach drawing direct from the axle. The Watertown Wagon Co., report a very good business this year and made a number of good sales during the fair.

J. M. Childs & Co., are also agents for the celebrated Oliver Chilled Plows, made by the Oliver Chilled Plow Co., of South Bend, Ind. They made a fine exhibit of these plows showing all the different styles. These implements are very popular in this section of the country as attested by constantly increasing sales. The Oliver Chilled Plow Company make over 75,000 Plows a year, and still find it hard to fill orders—further comment is unnecessary.

They also exhibited for Messrs. A. W. Gray's Sons, of Middletown Springs, Vt., a very handsome display of horse-powers, small thrashers, etc. These machines have long been known over a wide territory, and their merits are becoming better appreciated each year. Lightness, strength and durability combined with ease of handling, are among their leading characteristics. Mr. A. S. Flulay, the general agent, reports that business has increased 20 per cent this year, and that they are driven to fill orders. Improvements have been made in both lag-irons and cylinder for 1879.

THE EMPIRE DRILL Co., of Shortsville N. Y. exhibit a drill fitted with their new positive force-feed fertilizer distributor. As this device is something entirely new it is entitled to extended notice. It is a revolving cup, which when filled becomes a revolving cylinder of fertilizer. In operation the fertilizer is fed in a continuous stream from the bottom end of the cylinder, and only that is stirred which is immediately fed, and there is no chance of sticking or gumming. There is no connection between the fertilizer and seed until both are emptied into the drill tubes. The reservoirs hold a sufficient quantity to enable a farmer to sow the long way of a lot, which is a saving of time, and the whole device is so extremely simple that any inexperienced man can handle it and, if necessary, take it apart without disturbing a nut, key or spring. The Elmira Farmers' Club tested it and say, "we reached the conclusion that it approached perfection for precision and certainty of distribution." This is solid praise.

ONE of the most attractive exhibits was Kemp's Manure Cart. This is something entirely new. It is so constructed by the combination of simple machinery, as to unload perfectly, pulverize and evenly spread the manure by simply driving along, just as grass is cut with a mower. All kinds and quantities of manure are picked to pieces, and cast upon the ground with the evenness of sowing grain, and it is perfectly adjustable as to the quantity per acre. During a trial on the Fair grounds we saw a load put out in one minute and twenty seconds. All practical farmers spoke in the highest terms of its utility and its certainty of success. It is made by the Richardson Mfg. Co., Worcester, Mass.

NASH & BRO., of New York City, make an interesting exhibit, the main feature of which is a new harrow named the "Acme." The invention is the outcome of long study by Mr. Nishwitz, the original inventor of the wheel harrow. The "Acme" is an entirely new model. It has a strong wooden frame, the front half of which can be raised or depressed by a hand lever. This frame is fitted with steel spurs. Back of these spurs are the pulverizing teeth, which are a kind of plow-shaped cultivator tooth, lying horizontally. The under or inside edge is bevelled, and as the action of the soil is on the opposite surface, a tooth is kept sharpened as the implement is at work. In operation the frame-beam first strikes the clods, crushing them and passing them under the spurs, after which the soil is cut, lifted and turned by the teeth. The work is thorough, and it is said that the most stubborn soils yield to its work. It is sold at a very low figure.

THE GALE MFG. Co., of Albion, Mich., display through W. J. Walker, their general State agent, a very large assortment of plows of various styles. It is now six years since they began the introduction of chilled metal, and their success has not yet reached its climax, as the sales show an increase yearly. Once seen the plow will always be remembered, as it is constructed on different principles from those in common use. The novelty this year is a very handsome pattern called the rod beam. The beam is three wrought iron rods, that give the necessary strength and minimum weight. The beam is adjustable both in regard to pitch and width of furrow, according to requirements. The wheel is attached to the clevis, and not being attached to the beam it can run in a perfect line with the furrow and team. This plow received the most distinguished honors at the field trials in France, and is making a splendid record in this country.

M. WILLIAMS & Co., of St. Johnsville, N. Y., make their usual fine exhibit of Horse and Steam Power Thrashers and Horse-powers. They had them in full operation during the fair. Their new 34x6-inch cylinder, which has been on the market for the past year, has proved a great success; a large number have been sold, and in every case have worked to perfection, thus keeping up the reputation of the "Williams" in large as well as small thrashers. The large thrasher runs almost noiselessly, is simple in its construction, and capable of thrashing and cleaning, without waste (to the admiration of every one), all that one set of men can handle. Their Horse-powers are noted for the power developed at a low elevation with a slow walk of horses.

H. W. MARCELLUS, of Rochester, N. Y., the general agent for New York of the well-known Taylor Rake, made by B. C. Taylor, Dayton, Ohio, shows the latest improved combined self-dump and hand rake. It is conspicuous for simplicity of construction, the slightest pressure from the foot of the driver throwing it into gear as a self-dump, while the hand lever is conveniently placed if it is desired to work it as a hand-dump. In operation the rake, after discharging, falls back into position very lightly, making very little jar or strain. The Taylor works are noted for the wide range of their rake products, making a number of sizes and styles that are adapted for all sections of this country, as well as for foreign markets.

THE WATERTOWN STEAM ENGINE Co. included two engines in their exhibit, both being fired and in operation. We were especially pleased with the recent improvements in the engine designed for thrashing and farm purposes—an engine with which the readers of the RURAL are familiar through illustration. Several improvements have been added to the steamer that greatly enhance its value. The fire-box has been deepened and a series of three dampers so arranged that the fire is under perfect control, and the facilities for burning long sticks of wood are superior to anything we have seen. The self-oiling governor and stop-motion, in addition to the inspirator, are improvements that are best appreciated by thrashermen who have had to do without them. In mounting the engine, the rear axle has been carried under the boiler, instead of projecting from lugs supported by the fire-box, and the front axle is equipped with a ball-and-socket joint through which a pin projects, making a perfect support and easy turning combination. The wheels are of a new design that is peculiar to this company, and combine lightness with great strength. Altogether, the eight-horse power engine made by this company combines great and solid advantages.

THE SYRACUSE CHILLED PLOW Co. of Syracuse, N. Y., make a very handsome exhibit of their plows, one hundred in number, and of various styles. They are shown without any great flourish of fine painting, depending on their points of excellence for recommendation to the good opinion of agriculturists. Of this large display, sixty have been sold on the grounds and will be put right into the soil to demonstrate the claims made for them. The most novel thing shown, however, is a swivel plow that is characteristically simple and strong in construction. The handles of this plow are made adjustable to the line of draft by simply moving a pin and shifting into graduated slots, but the great point is an adjustable jointer that is quickly shifted in the direction of the mold-board by a lever, within reach of the plowman. This is something never before attempted on a swivel plow. It is unnecessary to speak of the manufacture of the "Syracuse," it is made of the best material and by skilled workmen. The sales this year are largely in excess of previous seasons and really remarkable in numbers.

THE EUREKA MOWER Co., of Towanda, Pa., believes in a specialty and this specialty—the Eureka Mower—was in full force on the fair grounds. The machine has undergone some slight improvements during the past season, such as strengthening the wheel, for one thing, but in essential features it is the same—and there is no mower made like it in the world. The Centre-Cut idea is being vigorously pushed by active agents, and it is meeting with great favor. Business, Mr. Gardner says, has nearly doubled in volume this year, and as the new company in its organization, was able to secure abundant cash capital, it is in a position to keep the ball rolling. The Eureka is also doing a large business in the West. It is made for this trade by the St. Paul Harvester Works, St. Paul, Minn.

OLIN & Co., of Perry, N. Y., are introducing a spring-tooth harrow that combines, it is said, the merits of harrow, cultivator pulverizer and drill. The teeth are sprung curving over the frame and incline forward like those of a horse-rake. They have a vibrating motion that clears them of weeds and other clogging substances, while the sharp points cut and score the soil, no matter how hard it may have become. But little friction is generated in operation and the ground is thoroughly prepared. It has proved very serviceable as a quack digger, and in fact, as a tool that can be devoted to a number of uses farmers will find it always convenient.

A VERY interesting and large show of farming tools is made by the WHEELER & MELICK Co., of Albany, N. Y., including their large and small thrashers, (mounted or down), horse-powers, the La Dow disc harrow, Tolley's Screw-tooth cultivator, etc. The disc harrow has quickly advanced in popular favor, and with its improvements is now one of the most serviceable implements on the farm. We noted two and three horse harrows, large and small gangs of wheels, with and without weight boxes, so that every requirement of the farmer is met and satisfied with the best class of tools and workmanship.

JOHNSON, GERE & TRUMAN of Owego, N. Y., have a very handsome "Champion" drill on the grounds. It is the new model with fertilizer and corn-planting attachment and spring hoes. The attachment successfully distributes all kinds of fertilizers wet or dry, and is simple and durable, requiring very little power to run it. The grass seeder has metal distributors, that are perfectly durable, and deliver the seed continuously, without intermittent pulsations. This and the other attachments are easy to regulate. The Champion has received premiums in this country and abroad at all important exhibitions.

THE Westinghouse Agricultural Engine, made by G. Westinghouse & Co., Schenectady, N. Y., was under steam every day, and worked to the satisfaction of all who saw it. It is a 10-horse power, and weighs only 3,800 pounds. It is an upright, but has horizontal tubes. It is easily and quickly fired, makes steam rapidly, and has every appliance necessary to safety, convenience and economy, including an anti-condensation and spark-arresting jacket. It was to be expected that Westinghouse & Co. would turn out highly-finished work, but this engine is a special credit to the concern.

P. K. DEDERICK & Co., of Albany, N. Y., exhibit a new perpetual Hay-Press that has admirable points both in design and construction. The power is supplied by a single horse that makes a complete circuit, thus putting in motion an apparatus that enables the operator to press and wire bales without cessation. The press shown bales about ten tons per day.

The Querist.

ANSWERS TO CORRESPONDENTS.

Pekin Ducks;—Mange in Animals, etc.

A. L., Atlanta, Ohio, asks a description of the Pekin duck; 2, a cure for mange in domestic animals; 3, how to procure the last report of the Signal Service Officer.

Ans. 1.—The Pekin ducks were first exhibited in this country at Hartford in 1873, having been first imported a year or two earlier from China, as their name suggests. They are larger in appearance than Aylesbury or Rouen, but seldom weigh more, as their fluffy feathering exaggerates the real size of their bodies. Their eggs are slightly larger than the Aylesbury's and they average more white-shelled eggs. The body of the Pekin duck is well down behind, the legs being carried back further than those of other domesticated varieties, while their tails rise almost vertically. The position of the hinder-part of the body naturally makes the bird carry its head high, making its neck apparently unusually long. The head is not quite as flat as the Aylesbury's, while they resemble each other in color, being almost pure white, although the Pekin shows a creamy, yellowish shade on its under feathering. The bill is of a bright orange color; the legs a shade deeper, almost a bright red. The weight of an ordinary adult bird should be six or seven pounds, but those exhibited at poultry shows are often much larger.

2. Mange or itch in the lower animals is always due to the presence of parasitic insects, which live in or upon the skin, finding their food in the watery or yellowish discharge which their bites cause to flow. They are of several kinds, and hardly ever visible to the naked eye. The disease they produce is in all cases exceedingly contagious, being spread by healthy animals touching affected ones; by the mites finding lodgment in the surroundings of diseased animals and being thence transferred to sound ones, and sometimes by the insects being carried through the air from mangy to clean animals. In all its forms the disease is characterized by itching of the skin, and loss of hair on the affected parts, which become covered with scabs. The treatment varies somewhat with the kind of animal affected. For the horse an efficacious remedy, in mild cases, is sulphur, 6 oz.; sperm or train oil, 1 pint; spirits of turpentine, 8 oz.; mix and rub well into the skin with a flannel every third day for three or four weeks; in severe cases, take of compound sulphur ointment, 8 oz.; train or sperm oil, 1 pint; spirits of turpentine, 3 oz.; mix and use as above. In all cases the affected parts should be thoroughly washed in warm water and the scabs broken and removed before the application of the remedy The diseased horse should also be separated from the others. The blankets should be destroyed, and every piece of harness, curry-comb, brush and other utensil that has touched the affected animal, as well as the manger, and all the surroundings should be thoroughly washed with carbolic soap, and, when dry, saturated with spirits of turpentine. Occasionally the disease appears in ill-cared-for cattle on the face, head and neck. In such cases rub well into the affected parts an ointment made by mixing elecampane root, 2 oz.; sulphur vivum, powdered, 2 oz. For mange in pigs use promptly carbolic acid diluted one drop to ten of water; petroleum or a strong decoction of tobacco. Mange in sheep takes the name of "scab," and is the worst disease that can affect them. The affected animals may be treated by giving each of them half an ounce of sulphur and one drachm of cream-of-tartar daily for two weeks. The scabs should be soaked in warm water, broken up and removed. Then the affected parts should be dressed with a mixture of one quart of pine tar, one quart of raw linseed oil, and one ounce of creosote, well rubbed in. A flock really attacked by scab should be got rid of, as to cure the disease would cost more than the sheep are worth. For mange in dogs use: oil of tar, one ounce; sulphur, one ounce; common oil, one pint; allow the mixture to stand in the sun or near the fire for some time and frequently shake it. There is a multitude of other recipes for the malady in each class of animals, but many of them are poisonous and therefore dangerous. The above may be employed with safety, and are as efficacious as any others. 3. Apply to the member of Congress for your district for all government publications, except for those issued from the Department of Agriculture. Gen. Le Duc has lately adopted the excellent rule of distributing directly from Washington all the publications from his Department.

Hoop Pole Farming.

C. P. B., Edwardsville, Ill., wants to plant about four acres of hickory nuts for hoop poles, and he asks if we think it would pay in connection with a general fruit farm. When should the nuts be planted, and what kinds will make the quickest growth and the best poles?

Ans.—Plant the nuts soon after they are ripe this fall; if this cannot be done, keep them in moist sand during the winter and plant them early next spring. The rows should be far enough apart to admit of using a horse cultivator, and the nuts should be about two inches apart in the rows and covered two inches deep with soil. Next fall dig the young plants up and shorten the tap-root to about half its original length, then heel-in the plants in a dry place in the open ground and let them remain till spring. As early as the ground can be worked, set the plants in rows six feet apart and about eighteen inches apart in the row. At this distance about nineteen or twenty thousand plants will be needed for the four acres. From this time forward but little attention is required, except culture and occasional pruning to make the plants grow straight and with but few side branches. As to varieties, the Shellbark—Carya alba—is the most common, and nuts from it can perhaps be more easily obtained than from the other species. The Pig-nut—C. porcina—has a very tough wood, and is preferred by many artisans to other kinds. The Mocker-nut—C. tomentosa—is also good. The latter prefers a light rich soil, the two former thrive on rather stiff and heavy lands. The Hickory is a slow grower for the first few years from the seed, but when it becomes well established, the growth is usually quite rapid. Whether the raising of hoop poles will pay better than to cultivate the land with some crops, we are not prepared to say. It will depend upon the character of the land, the cost of cultivation and the demands of the market. It should, however, be borne in mind that the first crop of hoop poles is the most expensive, because less in number and longer in coming to maturity. If the first cutting is properly done and at the right time of year, the stumps will throw up thrifty sprouts that will grow as large as the original stock in half the number of years. The second crop may be double that of the first, for each stock may be allowed to carry two or three stems.

German-American Citizens and German Military Service.

G. W., San Antonio, Texas, says that he left Germany in 1872, at the age of 17, having obtained permission from the Government to travel in this country until April, 1875, when he would have been old enough to appear before the board of examiners who decide upon the fitness of young men to be enrolled in the army. Not wishing to return home at the expiration of the term mentioned in his permit to travel, he settled in this country and two years ago obtained a certificate of citizenship. Now the landrath of his native place informs him that he must pay $50 to secure exemption from military service in case he returns to Germany, and he asks whether he is now, being an American citizen, under any obligation to the German Government.

Ans.—In 1868 it was settled by a treaty between the United States and the North German Union that if a citizen or subject was, after a residence of five years, naturalized in either country, he was to be deemed a citizen of that country; that if he returned to the land of his birth, he could not be prosecuted for any criminal offence unless it was committed before his expatriation, and that by a residence of two years in the country to which he originally belonged, with no intention of returning to the one of his adoption, he would be presumed to have renounced his naturalization there. The Prussian law, however, requires that, to lose the quality of a citizen of that country, it is necessary that the person who desires expatriation should, at his own request, receive a discharge from the obligations of citizenship—and this is not granted to males between the ages of 17 and 25 years without a military certificate that the application is not made to avoid the performance of military duty. This proviso of the Prussian Government seems now to be extended to the whole of the German Empire, or at any rate, to the smaller States more directly under Prussian influence. The matter is now causing some little difficulty between this country and Germany, but it is probable that the diplomatic correspondence which is at present being carried on with regard to the matter, will soon lead to a satisfactory settlement of the question.

Remedy for Garget.

M. M. W.,—no address—asks what will cure garget in a cow's bag.

Ans.—If the evil is in its early stages, the simplest remedy is to put the calf with the cow, and let it suck and knock about the udder as it pleases. In most cases this will relieve her from an excess of milk and disperse the lumps. If this fails, then if the disease occurs, as in this case, in hot weather, the udder should be well fomented with warm water three or four times a day, after which it should be thoroughly dried and hand-rubbed. In order that the application of moisture may have the best effect, it should be continuous for a considerable time. An excellent way to secure this end is to take an oil-cloth or India-rubber bag to fit the cow's udder, or nearly so, coming up to the body, flaring at the top, and held up by a strap passed over the animal's back; then fill this with soft water, say, of the temperature of 65 degrees. The water will gradually absorb the heat from the udder, and must be changed as often as it gets warm. Or, a cloth may be applied over the udder and secured by bandages round the body, holes having been left for the teats. The udder can then be covered with wool or tow, which should be kept moist by renewed applications of water every hour. A moderate purge should also be administered, say, half a pound of Epsom salts, which may be beneficially followed up with two ounces of saltpeter in the water, morning and evening. Instead of this purge, however, an injection of about three pints of soft, blood-warm water, without any medication in it, is often preferable, as it moves the bowels without any irritation, dissolving the hard fæces and cooling off the intestines. If the first injection does not operate in an hour or two, a second should be given, and generally a repetition is beneficial in any event. The milk should be carefully drawn every four hours, and when the milking is attended with great pain, a siphon should be used. This treatment will usually prove successful in cases in which the disease can be cured without the aid of a skillful veterinary practitioner. If the disease has become so severe that his services are necessary, it is his business to prescribe the various medicines suitable for the different stages of the malady.

Hair Ball in a Heifer's Stomach.

S. E. H., Milton, Ky., sends us a hair ball two inches in diameter, and weighing an ounce, taken after death from the stomach of a heifer, and asks for some information as to the formation of the curiosity.

Ans.—Such balls as this are peculiar to cattle and are found almost always either in the rumen or first stomach or paunch, or, more rarely, in the abomasum or fourth stomach, which is the true digesting stomach. In the latter case the balls are composed exclusively of hair irregularly matted and held together by the mucus of the stomach. Those found in the rumen have generally a mixture of food or earthy matter in their texture, and in the center a bit of nail, stone or wood; although sometimes there is no distinct central body. They are generally round, but occasionally of various other forms and varying in weight from an ounce or two to six or seven pounds. Their presence where found is due to the habit which cattle and even very young calves have of licking each other. A considerable quantity of hair is loosened by the rough tongue, the greater part of which is swallowed, and the stomach seems gifted with the power of separating this indigestible matter from the other substances it may contain. These hairs, which the stomach cannot grind down, gradually accumulate and form into hard masses often at a very early age of the animal. Generally various compounds of lime and siliceous matter can be detected in the balls by chemical analysis, and sometimes when the concretions are sawn asunder, the parts are so hard as to be capable of a considerable amount of polish. The effect these substances have upon the health of the animals is not yet clearly understood; but they are found oftener and in greater numbers in ailing than in healthy beasts. Whether they are a cause or a consequence of impaired digestive powers, is somewhat doubtful, but their presence in the stomach, often in considerable numbers, must produce a sense of oppression and an impairment of appetite.

Treatment of Asparagus, Etc.

N. S., Walnut, Crawford Co., Kan., has set out a bed of asparagus and he would like to know, 1, how to treat the plants from now on; 2, what is the best way to keep onions during winter where there is no cellar in which to store them; 3, his Millet headed out two weeks ago; when must it be cut for fodder; 4, how can early potatoes best be kept from now until winter; 5, he has just gathered a fine crop of Concords, and he asks if any other variety of grapes would do well there. Hartford Prolific and Isabella have been a failure with him.

Ans.—1. Asparagus should not be gathered after the end of June. All shoots that may appear after that time should be allowed to grow, to strengthen the plants for next year. In the fall, when the tops have all turned yellow, they should be cut off and removed, and a little later, the bed should be given a dressing of long-staple manure to remain on during the winter. Near the end of March or in the beginning of April rake off the longest straw and turn the rest under with a digging fork, without injuring the roots. These should have four or five inches of soil over them. If a thin dressing of guano is raked in just before the shoots appear, the crop will be much increased. A sprinkling of salt once a fortnight, as long as the plants are cut, will prove beneficial. 2. Keep them frost-free by covering them up with hay or straw on a barn floor, on a loft over a stable, or in a room. A few degrees of frost will do them no harm; they should not have too warm a place. A temperature between 30 and 40 degrees will be about right. 3. Rightaway. 4. In a cool place in a barn. They can also be kept in a dry pit in the ground. 5. To experiment is the only safe way of finding out what varieties of Grapes will succeed in a new locality. Whatever sorts prove successful in the neighborhood under similar conditions, would be likely to do well with our friend also.

Growing Vetches in Florida.

I. S., Starke, Bradford Co., Fla., referring to a notice of the English vetch in a late issue of the Rural, asks whether it would be likely to thrive in that locality in winter, as a green forage crop there at that season would be a godsend; 2. where the seeds can be obtained?

Ans.—Having some doubts as to whether these vetches would do well so far south, we consulted the Department of Agriculture at Washington on the subject, and Mr. E. A. Carman, the acting Commissioner, has just written us that there is no doubt that the English vetch, both the spring and winter varieties, will thrive in winter in the latitude of Jacksonville, Fla., and no doubt somewhat farther to the south, too. Vetches are not at all fastidious in regard to soil and can be successfully cultivated in a great variety of soils. There is no botanical difference between the winter and spring sorts, and the seeds being identical in appearance, caution is required in purchasing so as to get the right sort. The land on which the seed is sown should be dry and well sheltered, clean, and in good heart, and should be further enriched by plowing into it from 10 to 12 loads of farm-yard manure per acre. Not less than 3½ bushels of seed per acre should be sown, to which, in England, some think it beneficial to add a bushel of wheat; but winter beans are preferred to wheat by the best farmers. The land having been plowed rather deeply and well harrowed, the seed is deposited in rows, either by a drilling-machine or by ribbing. The latter is considered the best practice, and the ribs should be at least a foot apart, and rather deep that the roots may be developed before top-growth takes place.

Winter vetches are sown in England in August, or as soon as the land can be cleared of the preceding crop, and as soon in spring as the state of the weather and land will permit, the crop is hoed between the drills and top-dressed with, say, 40 bushels of soot or two hundredweights of guano per acre. The crop is ready for use in May and June. Spring vetches sown there about the first of March are ready for use about the first of July, when winter vetches are just cleared off. Of this variety not less than four bushels of seed per acre should be used, if sown broadcast, or three bushels if drilled in. As vetches are in the best state for use when the seeds begin to form in the pods, repeated sowings are made at intervals of about three weeks from the end of February until May. In the above locality experience must determine the best time for sowing vetches, as the difference in climate between that place and Great Britain will necessitate, no doubt, a considerable difference in this matter. 2. Seed can be procured from any prominent seedsman, that of the English Grove Vetch being probably the best.

The June-bug Among Strawberries.

A. S. H., Elm Grove, W. Va., has a strawberry patch in which he has found that a grub is destroying the plants. He contemplates setting out a large number of plants, but hesitates on account of the grub, and he therefore asks if there is any means by which to exterminate the pest without injuring the plants.

Ans.—The grub our friend mentions above is, in all probability, the larva of the June-bug or Dor-bug—Lachnosterna fusca—as it sometimes is very destructive to strawberry plants. The presence of the grub is indicated by the withering of the plants, when, on gently pulling them, they come out quite readily, the roots having been eaten off, and the mischief-maker may be found near the surface of the soil directly under the plant. A strawberry patch once thoroughly infested with this pest cannot be saved. Nothing can be applied that will kill the grubs without injuring the plants, and to attempt to dig the pests out is too expensive and ineffective to be practicable. Neither is it advisable to set strawberry plants on land where the grub is found, for in ninety-nine cases in a hundred they will prove a failure. The best way is to raise hoed crops on such land for a couple of years preparatory to setting the strawberry plants, both to destroy those larvæ that are already present and to prevent the beetles from laying their eggs, as they prefer grass land to cultivated land for that purpose. Or, the land may be fallowed for a season, and by frequent plowings the larvæ exposed to the birds and to starvation.

Treatment of Strawberries, Etc.

J. N. J., Mt. Vernon, N. Y., has a strawberry bed on the place he hires, which is several years old and did not bear very well this year. The berries are very nice, but the runners cover the ground. He asks, 1, what he shall do with it to get a crop next year, if he remains there; 2, his Blackberries are very thick, how shall he transplant them; 3, a

brood of chickens, raised from Light Brahma eggs, have nearly all five or six toes on each foot; he asks if this is common.

ANS.—1. The bed is worn out. We would advise our friend to plant a new bed now from the strongest runners, if the variety is desirable. Then clean the rows of the old bed, cover it with a coat of manure during the winter, and let it give what it can for another year. Meantime the new bed will come into bearing. 2. Fall planting of Blackberries is, perhaps, most successful. Dig out young plants and set them in prepared ground in rows six or eight feet apart. 3. It is not common. We surmise that there is some Dorking blood in the fowls; otherwise the fifth toe would hardly appear in so many of them. The sixth toe is a monstrosity.

The Chinese Sand or Le Conte Pear.

A. M. A., no address, asks information about the Chinese Sand Pear introduced about 26 years ago into Liberty County, Ga., from New York city by Major Jack Le Conte, and where cuttings and layers of it can be obtained.

ANS.—In answer to this inquiry Mr. Charles Downing writes us, "The Chinese Sand Pear or Le Conte, as it is now called, is not the true Chinese Sand Pear, but probably a cross between it and some cultivated variety, and partakes more or less of the nature of both. It is much better in quality than the genuine Chinese Sand Pear—which is not eatable—but is not equal to the best garden varieties. The tree is said to be hardy, and, so far, it has not been affected by the pear blight. It is an early and very abundant bearer. Young trees and cuttings can be obtained from H. H. Sanford, of Thomasville, Ga., and probably of other nurserymen in that locality." In the weekly Tribune of Aug. 20th, we see the Georgia Hort. Society reports that Leander Vernadol, of Thomasville, marketed 150 bushels of Le Conte pears this year from 12 trees.

Chronic Rheumatism in a Horse.

B. F. E., Webster City, Ia., has a six-year-old gelding that from its colt-hood has been troubled with stiffness in one of his hind legs. The stiffness is shown in the morning after a working on the farm the previous day. When started he cannot bend either the hock or stifle joint, but drags his foot on the ground and jerks it up a few times, after which he goes along all right for the day, and sometimes for weeks. The ailment is worse during the latter part of summer than in winter or in any other part of the year, and he asks for some cure for the animal.

ANS.—This is doubtless a case of chronic rheumatism, and from the fact that the horse has been troubled with it from colt-hood, it is probably constitutional and incurable. Relief may possibly be found by rubbing the joints with a mixture of four ounces of olive oil and two ounces of *aqua ammonia* several times a day, and giving half ounce doses of bi-sulphate of soda daily for several weeks in the feed. This may not cure the complaint, but it may prevent deposition of bony matter at the joints or the spread of the inflammatory action to the substance of the bone.

The Five-Spotted Sphinx.

H. L. R., no address, sends a moth and requests us to give its name, habits and all about it.

ANS.—The moth is of the sphingidæ family and is known under the not very enphonious name of Macrosila quinquemaculata (Haworth), or, in common language, the Five-spotted Sphinx. Its larva is the well-known tomato worm. The moth is among the largest known. It has five distinct orange-yellow spots on each side of the abdomen, and the tongue, which is usually coiled up, can be extended to the length of five or six inches. The female lays her eggs on tomato and potato plants in July. The eggs soon hatch, and by the end of August or beginning of September the large green larvæ are full-grown, when they measure some three inches in length and are as thick as the little finger on a man's hand. They then bury themselves in the ground, where they pupate and remain till the next summer, when they again appear as moths. Whenever the larvæ become troublesome to the potato vines, they are easily killed with Paris-green; on the tomato vines, hand-picking is the best remedy.

Miscellaneous.

S. A. A., Champlain, N. Y., asks our opinion as to the comparative merits of Maryland, Virginia and Florida, for raising strawberries and other small fruits, as well as early vegetables for the Northern market. He prefers Florida for several reasons, despite its distance from New York, as transportation rates are low.

ANS.—Not knowing the reasons which influence our correspondent in favor of Florida, we cannot form any opinion as to their weight; but we are disposed to think a more northern location preferable for the purpose here intimated, chiefly because it is very probable that many of the most profitable fruits and vegetables would thrive better farther from the tropics, and because means of transportation thence to market would be more numerous, cheaper and speedier, and with perishable goods, such as many of those in which our friend intends to deal, the last consideration is important. A good location, handy to railroad or steamer and with the right kind of soil, exposure and labor facilities, either in Maryland or Va., would doubtless prove profitable in the hands of the right sort of man; for, after all, more depends on the owner's character and abilities than upon anything else, in such an enterprise undertaken by a man of fair intelligence. Our "Everywhere" has furnished many hints during the year as to a suitable location.

A. F., Howard, Minn., 1. makes inquiries about plants a clip of which is said to have been inclosed in the note; 2, a dwarf English Clematis which she expected to bloom twice each season, has never bloomed, though this is its second season, and she wishes to learn the cause; 3, must Maréchal Niel Rose be a year and a half old before blooming—she has one that must be two years old, yet it has only a single flower yet; 4, should it be cut back when brought into the house this fall.

ANS.—1. There were no slips inclosed. 2. Clematis, as a general thing, makes very little growth the first season. It ought to grow vigorously the second. The finer sorts of Clematis upon their own roots are less vigorous than if grafted upon strong-growing stocks. We would advise that the plant be cut off within three inches of the ground this fall, and after the first severe frost, or upon the approach of settled cold weather, covered with long stable litter, two inches deep. 3. Maréchal Niel Rose should bloom the second year. 4. Yes.

H. A. W., Kearney, Neb., asks at what time the following tree seeds get ripe, and when should they be planted and how: 1, Cotton-Wood, Box Elder, Ash, Elm, red and white, Sycamore and Sugar Maple; 2, how should seed of the Osage Orange be treated before planting; and, 3, where can he get basket Willows.

ANS.—1. Seeds of all the above trees ripen variously; we cannot tell the exact time in the above locality. The seed can be sown immediately after they are gathered or early in the spring. Sow in rows nine inches apart, and from one-half to an inch and a half deep, according to the size of the different kinds of seed. 2. Soak Osage Orange seed in water a couple of days before sowing. 3. Basket Willows can be obtained, or information furnished as to where they can be had in the above section, from any nursery in the neighborhood.

H. E., Ont., Canada, says that her tomatoes sent by the RURAL rotted on the blossom side before ripening, and she asks whether the mishap was due to the nature of the soil. 2. She has some Weigelas only an inch high, and she inquires whether they can withstand the winter in the open air or should they be removed into the cellar.

ANS.—1. We have had a few similar complaints from different sections of the country, which seem to indicate that the charge of causing the tomatoes to rot, cannot justly be laid to the soil. It may be that it is caused by some peculiarity in the season, but it seems more reasonable to suppose that it is a tendency in the variety. One correspondent states that the Acme was grown side by side with other tomatoes, and these were not affected, though the Acme was. 2. Weigelas are hardy, and will stand the winter perfectly out-of-doors.

A. W., Southold, N. Y., asks, 1, whether R. G. Chase & Co. and D. H. Putty & Co., of Geneva, N. Y., are reliable; 2, whether there is a better wringer than the Universal; 3, do we know anything about the Foster Peach; 4, what are Russian Apples.

ANS.—Chase & Co. are trustworthy nurserymen; Patty & Co. we do not know. 2. The Universal is a good wringer; so is the Peerless, price $8, which the RURAL offers for a club of 15 subscribers. 3. No. 4. The Russian Apples were introduced some years ago into this country chiefly by the Department of Agriculture, and distributed for trial among pomologists living mainly in the cold parts of the country, in order to test their hardiness and adaptability to the "cold belt." During the last couple of years the RURAL has had several articles giving the results of these experiments, and to these we must refer our correspondent; see our Pomological Number, Nov. 16, '78, and issue of July 26, '79.

W. T. A., Greenville, Pa., asks if the process of weaving designs in ribbon is brought to such perfection that a name can be put in at comparatively little expense. He deals in supplies for agricultural fairs, and would like a lot of officers' badges made by weaving in the words "Secretary," "President," etc.

ANS.—Badges such as these are made, but they will cost much more than if the names were printed. A badge of fine quality, six inches long, with name or motto weaved in, will cost about 40 cents. For further information, address the American Silk Label Manufacturing Co., 389 Broome Street, N. Y.

J. W. S., Owensboro, Ky., has a horse one of whose velus was cut on the inside of the leg about two inches above the hoof; the wound has healed, but its site is marked by a knot, and he asks how the enlargement can be reduced.

ANS.—The swelling is probably caused by infused blood from the vein, or may be a thickening of the tissue caused by inflammation. The only method of treatment that would be effective and safe is to rub briskly with the hand, and apply iodine ointment at the same time, rubbing it well in. This may produce absorption. If no effect is seen in two or three weeks, it would be best to leave it alone. The friction will be the most effective and should be gentle and long-continued.

G. G.—no address—has a hen that for some time has been troubled with a short, quick croak or cough, breathing sometimes like a person troubled with asthma; otherwise she is in good condition and eats well, and he asks her ailment and a remedy therefor.

ANS.—The hen has a cough or cold. Take of sweet spirits of niter, one ounce; paregoric, one ounce; syrup squills, one half ounce; mix thoroughly and give one half teaspoonful twice a day. In slight attacks, no medicine is necessary; the fowls usually get well in a week or two; but in severer cases give the above as directed or oftener, as required.

A. D. G., Holland, P. O., Ohio, says that millers thereabouts affect to dislike Clawson wheat, while growers admire it greatly, and he asks what fault it has and whether the millers' dislike is real or affected.

ANS.—Millers object to Clawson because it has a large per cent of starch and a low per cent of gluten, and being a very soft wheat, it is impossible to make first-class flour from it. This query and several others with regard to wheat and its culture were fully answered in various articles in last issue.

C. A. M., Lysander, N. Y., sends plants for name. No. 1 is found in swamp places, and blooms from the last of June until the middle of August; No. 2 is found in old pastures and by the road-side.

ANS.—No. 1 seems to be a Desmodium—Tick-Trefoil. No. 2, Pink Root—Spigelia Marylandica. Would our friend kindly furnish us with other specimens? The above were so crushed that we could not determine them positively.

J. H. L., Coxsackie, N. Y., asks what variety of wheat besides the Clawson we would advise him to sow this fall, and where it can be had.

ANS.—For desirable sorts of wheat, see our Wheat Number, dated Sept. 13. The various sorts can be generally procured from the large seedsmen, such as Thorburn & Co., 15 John street, and Peter Henderson, 35 Cortlandt street, R. H. Allen, 189 Water St., this city.

J. A. W., Castile, N. Y., asks for some better way to clean the paint off paint brushes than by the use of hot soap-suds or spirits of turpentine.

ANS.—The ingredients of the different paints vary considerably, so that certain solvents act more effectively on some than on others; but we do not know of any so generally efficacious as spirits of turpentine:—who does?

R. S. H., Hazlettville, Del., asks whether multiplying pounds sterling by five will give correctly their value in American dollars.

ANS.—No. A year or so ago, Congress enacted that the English sovereign, or pound sterling, is worth only $4.84 in American money. Multiply the number of pounds sterling, therefore, by 4 84, instead of by 5, to obtain the equivalent sum in American specie.

P. S. W., Newmarket, Va., asks where and to whom he can sell Confederate money and stamps.

ANS.—We really do not know. Neither of these has now any intrinsic value beyond that of old paper; and whoever might purchase either would do so out of mere curiosity or from a wish to possess specimens among his antiquarian treasures.

J. W. W., Factoryville, Pa., wishes to exhibit a sample of Blount's Prolific corn at the local fair, and asks whether his doing so would interfere with his competing for one of the premiums.

ANS.—Certainly not; returns, however, must be made of the yield of the exhibited corn as well as of the rest of it.

J. A. B., Montreal, Can., sends specimens of a shrub for name.

ANS.—The shrub is Viburnum acerifolium, the Maple-leaved Arrow-wood, common in rocky woods and hedges. The showy fruit, which is now bright crimson, will soon turn purple.

L. A. E., Roselle, N. J., sends a plant which is very common in that locality, and asks for its name.

ANS.—Gerardia tenuifolia.

NOTE.—The letter and flower received from a correspondent of Republican City, Neb., were mislaid. Would ask him to repeat his inquiries.

A Subscriber, Ceres, N. Y., asks where can he obtain land plaster.

ANS.—Through almost any country store.

W. A. B., Yorkshire, N. Y., asks where can he buy Todd's Young Farmer's Manual, 3 vols.

ANS.—Through this office:—price $4.50.

COMMUNICATIONS RECEIVED FOR THE WEEK ENDING SATURDAY, SEPT. 13.

J. W. S.—Ptoneer—R. R.—R. H. C.—C. T.—"Tyro"—H. D. R.—D. H.—M. N. N.—H. A.—E. S. W.—. J. N.—M. L. S.—L. A. G.—H. A. T.—A. M. L.—W A. H.—L. A. V.—Eva Edgerton—J. M.—H. J. S.—

Various.

THE FARMERS AND THE RAILROADS.

J. M. PETERS.

The influence which the railroads of the country have hitherto had upon its agricultural development, suggests a train of possibilities for the future, which are worth the consideration of those who own or till the soil. Their first effect was a division of labor, by making the cheap and fertile lands of the West the great grain-growing and sheep-grazing sections, while the more costly Eastern farms were restricted chiefly to those branches of farming, which required nearness to the most populous markets, and which could stand the enhanced cost of cultivation resulting from the greater value of the farm lands and the more expensive labor at the East. Within a decade the constant complaint of the Western farmer was, that he was able to use the Eastern markets only at great cost to himself in freight charges for a thousand miles or so of railroad transportation, and grain was the only considerable product upon which he could afford to pay this tax. Latterly the policy of the competing lines of railroads connecting the Great West with the seaboard, has been such that the Western farmer has been able to send his products a thousand or fifteen hundred miles at less cost than the farmer within the boundaries of New York State could place his goods upon the New York market. The result has been the rapid development of the West and the gradual decline of farming operations, because of increasing unprofitableness, at the East.

Much of the agricultural products of the West is, according to the statements of actual cost of transportation made by the railroad companies themselves, carried at a loss—the result of over-competition. If this be the case, there is reason to believe that the rate will ultimately be advanced, and if this advance be material, it will reduce the profitableness of farming at the West, and increase the chances of Eastern competition. On the other hand, should the local rates at the East be brought to a basis of equality with the through rates, the farmers east of the Ohio will again be in the ascendant in all branches of their industry excepting those which are specially adapted to the broad fields of unexhausted soil in the sections of the West, which are constantly becoming more remote. The stability and permanent profitableness of American agriculture depend upon a system of internal transportation, which shall be stable, and shall overcome geographical differences without unjust discriminations. Otherwise the abnormal development of one section of the country at the expense of another, must bring periodical disasters which will affect our individual and our national prosperity. The remedy requires something more liberal than grangerism, and something honester than party politics. I commend the subject to the attention of the free-thinking and non-partisan readers of the RURAL.

A CHANGE IN PROFESSORSHIPS

PROF. GEO. T. FAIRCHILD, who for many years has occupied the chair of English Literature in Michigan State Agricultural College, has recently been elected president of Kansas Agricultural College. Professor Fairchild is an able teacher and manager, and we congratulate the Kansas College on choosing so efficient a president, as well as the Professor on the recognition of his abilities. But what is gain to the Kansas institution is loss to the college in Michigan. Michigan Agricultural College has, ever since its establishment, merited and held the reputation of being the best institution of its kind in the Union, but at present it seems as though she was destined to be deserted by her able professors. Only a short time ago Professor Ingersoll, who was Professor of Agriculture, left for Purdue University, Indiana; now Professor Fairchild is likely to leave, and there have been indications that others of the professors might do the same, while Professor Shelton, of Kansas, has declined the chair of Agriculture, which was offered him in Michigan. We hope that the Michigan Legislature will take warning from these facts and in the future make better provision for the college. This honorable body exhibited their skill as financiers by pinching the appropriations for the college to a pittance. The consequences were, that the State Board of Agriculture were obliged to reduce the salaries of the professors. This justly gave rise to some dissatisfaction, and other institutions taking advantage of the opportunity, have lost no time in offering their professorships to the Michigan men. To economize in this manner is of doubtful advantage to the State.

THE
RURAL NEW-YORKER.
PUBLISHED EVERY SATURDAY.

CONDUCTED BY
ELBERT S. CARMAN.

Address
THE RURAL NEW-YORKER,
78 Duane Street, New York City.

SATURDAY, SEPT. 20, 1879.

OUR RIVALS IN THE MEAT SUPPLY.

HITHERTO the United Kingdom has been almost the only European market for our live stock and fresh meat exports, although many Continental countries have been good customers of ours for bacon, hams, salted meats, lard and other animal products, and in the absence of hostile legislation, it is by no means improbable that we may ere long find more than one profitable market for our fresh meat supply on the Continent also. If we could secure a monopoly of the British market, however, we might rest content for a few years. According to the returns of the Board of Trade the following imports in this line were made into England during the seven months ending July 31, 1879, as compared with the years 1877 and 1878.

		1877.	1878.	1879.
Oxen and Bulls		74,684	104,602	98,018
Cows		16,913	19,227	15,480
Calves		21,560	17,350	26,144
Sheep and Lambs		516,772	490,194	533,773
Swine		9,293	27,186	32,670
Ham	cwts.	264,436	499,587	626,943
Bacon	"	1,474,811	2,205,401	2,511,593
Pork, salted	"	222,907	261,817	266,805
" fresh	"	7,299	8,137	26,509
Beef, salted	"	139,439	151,510	131,659
" fresh or slightly salted	cwts.	337,380	320,399	351,802
Other meat, fresh	"	65,371	75,709	77,334
" " preserved	"	257,341	215,813	310,437
Lard	"	415,231	630,361	494,403
Tallow	"	801,160	598,122	610,328

To the ordinary man statistics are rather dry reading, but even to the most ordinary man the figures at the foot of his bank account are seldom without some interest, and to every owner of a head of stock in this country, the figures in the above table should possess a somewhat analogous interest, inasmuch as the demand they set forth, affects to a greater or less extent the money value of his possession, and therefore the sum of his wealth. They represent for the first seven months of this year, an outlay of £13,590,507 or $65,768,053, by far the greater part of which was paid for our stock products, not only affording us a profitable foreign market for our surplus wares, but also enhancing the price of similar goods sold here, by preventing a glut in the home markets by the outlet thus opened for our superabundant products.

Time was, and not very long ago, too, when a nation having obtained or made a good market for its wares, kept exclusive control of it by the strong hand, regardless alike of the welfare of its customers and of the claims of its rivals. It was this principle that induced England to impose on the commerce of her American colonies the restrictions that led to the independence of this country, and it was also this principle that spurred her on to the career of unscrupulous aggrandisement in Asia, which has made her mistress of the vast empire of India. Now-a-days, however, nearly every market in the world is open to the traders of the world, with a few provisos, in the shape of import duties, in each country in favor of the native producers. Accordingly we shall have to exert our best efforts to maintain or increase our trade, not in Great Britain alone, but in every country that may need the goods a surplus of which we may have for sale. This is equally true with regard to our manufactures, our cereals and our stock products.

In these last our chief competitors in the British markets are a few of the neighboring Continental countries whose herds have hitherto remained free from pleuropneumonia and other contagious diseases, and which, therefore, have not been "scheduled" as we and most European countries have been. The following is an approximate statement of the population and stock of those that contribute to any considerable extent to the meat supply of England:

	Population.	Cattle.	Sheep.	Swine.
Spain	16,921,506	2,017,348	1,976,269	——
Norway & Sweeden	6,011,276	3,195,000	3,450,000	150,000
Denmark	2,032,200	1,235,000	1,921,000	387,000

In these countries, especially in Spain, meat is very rarely eaten by the lower classes and, therefore, although their supply is but small in comparison with that of other lands, yet they can spare a considerable annual proportion for shipment abroad, while their proximity to market gives them great advantages over remoter regions. There is little doubt, however, but that the enormous resources of some of these will soon be utilized in the European markets. The figures in the following table have been carefully checked with the latest statistics furnished by the shelves of the Astor Library of this city and with other accessible information, and are as nearly correct as it is possible to make them with our present imperfect knowledge of the resources of some of the countries mentioned:

	Population.	Neat Cattle.	Sheep.
United States	48,000,000	29,327,000	35,789,000
Argentine Confederation	2,000,000	14,500,000	75,000,000
Australia & New Zealand	2,124,000	6,100,000	63,487,000
Uruguay	450,000	5,000,000	10,000,000
Canada	4,250,000	2,750,000	3,250,000

There are several other countries also possessed of vast herds of semi-wild cattle, such as Brazil and Cape Colony, but even an approximate estimate cannot be formed of their number, as nothing like a census has ever been taken of the roaming herds. Here there has been room only for a glance at the chief market for our meat supply and at the rivals we must discomfit there.

HONESTY THE BEST POLICY.

HARD times may tempt one to stretch the boundary of honesty, and the dairyman who is forced to accept 1½ cent per quart for his milk may think it no blame to take off some of the cream, if he does not drop a lump of ice into the can to ensure the sweetness of the contents on its arrival at market. But it is poor policy to meet low prices by low quality. We have a marked example of the evil of such a method in the present position of the English nation. Heretofore, ruling the world in commerce, the English people have become adepts in adulteration, so that even the "Heathen Chinee" has become disgusted with the English calicos, of which four-fifths of the weight and bulk are made up of sour flour-starch and potato gum. Recently an export trade of baled manure to Holland has sprung up from England, and the Dutch farmers have found that the bales have been made up of rotten straw and decayed leaves from the woods. The demoralization which comes upon the adulterator is complete. We have seen something of it in this country, where the skimming of milk has injured the cheese dairy business greatly, but on the whole, so far, as a people, we are free from any great iniquity in this respect. Let us keep our hands clean; with honesty in business, we shall soon have the world's trade in our hands. No other country enjoys such an outlook as the United States, and having made a reputation for honesty in business, let us strive to keep it.

THE GREAT PANICLED HYDRANGEA.

WE have just measured one of the largest panicles of this now popular plant, and find it to be 32 inches in circumference at the base, and 11 inches from base to apex. It is worthy of note, that young plants blooming the first season, will produce larger panicles than older ones. The old plants should, therefore, be treated the same as currant bushes, cutting out a large share of the oldest canes or stems each fall or spring. These shrubs may in three years be trained into standards or little trees that are remarkably odd and showy. We have found it during six winters perfectly hardy, the main stem increasing yearly in size until it reaches a diameter of six inches. To form standards, therefore, it is only necessary to cut off the lower branches. An objection to this Hydrangea as a shrub is, that the flowering branches are not strong enough to support the weight of the panicles, so that many of them bend over and rest upon the ground. As standards, this objection would in a measure be removed. The branches would bend over all the same, but they could not reach the ground, and a pendulous habit would be given to the little trees.

GOOD RESULTS.

ONE of our contributors writes us: "'GOOD RESULTS,' I heard that expression many times at a late farmers' meeting. "Good results" had followed various modes of farming and the use of various fertilizers. But when I sought for *accurate experiments*, no one had made them. No one knew how much wheat a dollar's worth of superphosphate produced, or how much milk and manure a dollar's worth of shorts would give. Hence, the great value of the experiments now making and already made on THE RURAL FARM and GROUNDS, and on my farm and elsewhere where accuracy is secured and experiments are not mixed so as to confuse or mislead."

Taking our hint from the above letter, we shall have more to say about "Good Results" in due time.

BREVITIES.

STORE potatoes in a dark, cool place, and in shallow bins.

A BETTER understanding is needed between farmers and millers.

THE Prairie Farmer says that Western farmers have become crazy over wheat.

LEAVE all winter pears on the tree as long as there is no danger of severe frosts.

PROFESSOR RILEY doesn't seem in any haste to "own up" about weevil-eaten peas.

MANY farmers who use plaster have found its good effects more apparent when salt is added.

EXTRACT from Catalogue of the New York State Fair: "Class V. Farm Produce: *Balmoral Petticoats!*"

TAKE the topmost ear of corn for seed, and select it from those stalks which bear the greatest number of ears.

T. T. LYON says that he knows no better way to treat the Peach Yellows than to exterminate the tree, root and branch.

CORN stalks and leaves are more nutritious if cut green. Much is lost if the shocks are permitted to remain until late in the year.

JOSIAH HOOPES says, that if he were restricted to one small tree, he should certainly feel tempted to select Soulange's purple Magnolia.

FROM many different parts of the country, correspondents tell us that the Acme tomato has rotted more than other sorts—sorry to hear it.

IN the Northwest there is some fear as to the safety of the corn crop. Jack Frost has made his unwelcome appearance in a large number of places at least two weeks earlier than last year.

MR. MEEHAN grew Ægilops ovata for two successive years without noting the slightest tendency to become wheat. Hence he concludes that wheat would as soon turn to chess as this grass to wheat.

THE editor of the Rural Home thinks the Souvenir du Congres Pear the largest, most beautiful and most delicious of the summer varieties—strong praise. We thought the quality only moderate.

OUR Market Reports this week should be interesting reading to our farmers, inasmuch as they show a decided upward movement in the prices of most of their chief products, and an upward tendency in nearly all.

APPLICANTS for seeds are requested not to stick their stamps to the letters. This practice causes us much trouble and the stamps are often destroyed in the attempt to sever them from the paper. *Leave them loose in the letters.*

IF strawberry beds are to be protected this winter, it is of importance that the material used should not cover the soil with seeds. Probably straw or even the leaves and small stalks of corn are as good as anything that can be used.

WE are now shipping nearly as much wheat to Continental Europe as to Great Britain. During the week before last we sent 2,848,000 bushels to the former against 2,856,000 bushels to the latter, to say nothing of unusually heavy shipments of wheat flour.

THE hens at RURAL GROUNDS are all confined in picket inclosures—ten to an area of about 30 feet square. We give a teaspoonful of ground bone or bone flour every two or three days mixed in their food. We have never yet found a thin-shelled egg.

ALL of our writers or friends who have any valuable information respecting potatoes, will oblige us by communicating such information now. We are preparing our POTATO NUMBER and desire to make it as interesting and instructive as possible.

MR. VICK says that every farmer should have a supply of Willows for binding, such as are now used for binding bundles of trees. For binding cornstalks, straw and for many other purposes, they will be found of great value when their utility is once known.

SAVE the potato seed. We do not mean the *tubers*, but the seeds within the balls or fruit. It is from these that *new* varieties are produced. They may be planted in the greenhouse or a sunny window now. Little tubers will have formed ere another planting season rolls round.

HERE agriculture is pulling the nation out of the Slough of Despond and all its financial difficulties; in England a revival in manufactures is promising to help farmers a little and the country a good deal. We are a nation of farmers; England, a nation of mechanics and shop-keepers.

THE present prospects are that we shall have a surplus of from 160 to 175 million bushels of wheat for exportation; and that the wheat-importing countries in Europe will require from 280 to 300 million bushels, so that there is a fair margin for the surplus products of other nations also.

CALIFORNIA, so long exempt from the Codling moth, has now an opportunity of testing the effectiveness of the bands now used in the East for subduing this pest. If effective here, California should be able by their use to keep it in subjection there—and "a stitch in time will save nine."

ANTI-RENT and anti-landlord agitation is spreading in Ireland, while danger of another famine threatens that distracted country. On Thursday last Mr. Mitchel Henry, Member of Parliament, declared that if the government left the people without relief for the winter, it would be held responsible for a repetition of the Irish famine of 1848.

THE last English advices estimate that from 128 to 144 million bushels of foreign wheat will be needed to eke out the scanty domestic supply. On the first of September, 15,630,568 bushels of wheat were on passage to that country against 8,816,080 bushels at the same time last year. Wheat is slowly rising in price there and Indian corn sinking nearly in proportion.

PICK grapes when fully ripe and during pleasant weather. Leave them under cover for a week or so until dry. Pack in shallow boxes, six inches or less in depth, a foot long. Cut out all imperfect, decayed, dry or green berries. Pack as closely as possible without injuring them and then nail on the covers. Then they should be placed in a cool, dry room.

SOME people—many, indeed—have no faith in lightning-rods. During a very severe night-storm which occurred last week, a house near us was struck by lightning. It struck the tin leader, shattering a shingle or so, and passed down the leader, which ended in a hogshead of water. It may be that the tin leader saved the house by answering the purpose of a lightning rod.

THERE are few plants more brilliant—more beautiful, at this season of the year, or at any season, than the Cardinal Flower—Lobelia cardinalis. This is found in low grounds, but thrives just as well in any garden soil if a little shaded during the hottest part of the day. It is said to vary to rose-color and even to white. We have failed in endeavors to procure any but the brilliant scarlet.

THE immigration into this country for the first six months of the present year amounted to 52,284 against 37,919 for the same time last year—a pretty sure sign that "hard times" elsewhere are worse than here. Germany sent more of the newcomers than any other country; then came Ireland, England, Italy, Switzerland, Russia, Scotland and France. Of them 80 per cent landed at this port.

OWING to the great loss of hay by wet weather in England this season, much attention has been aroused to the advantage of drying the product artificially. It is asserted on all hands, or nearly so, that artificially-dried hay is worth half as much again as the sun-dried article, and tenant farmers are now agitating to compel landlords to purchase the necessary apparatus to be hired to the tenants, as its purchase would cost too much for the latter.

FOR hedges we know of no more ornamental and effectual plant than the Japan Quince. Choose the white, rose and deep-red for colors. This will bear pruning to any desired extent while its leaves are of the greenest and firmest of textures. In early spring, no other hedge would equal it in beauty. It is very hardy and, though not an evergreen of course, its bare branches in winter can scarcely look more dreary than the lifeless-brown color of Arbor-vitæ.

UNLESS the mangels are to be stored in the cellar or outhouses, we must provide a receptacle for them outside. Shallow pits may be dug in any dry place and a canvas covering or boards placed over them until the weather becomes cold. Then corn-stalks, sea-weed, or salt-hay may be thrown over the boards. A covering of earth would answer—light at first and thicker as winter advances. Thus all danger from heating, by this progressive protection, will be avoided.

SPRING bulbs, such as Hyacinths, Tulips, Crocus, etc., are now offered for sale by most of our seedsmen. Judging by those we have seen, the crop is of unusual excellence, and seems rather to have been benefited by the wet weather which has prevailed in Holland as well as in other parts of Continental Europe and England. No other plants so much beautify the spring garden. Plant from four to six inches deep in mellow, rich soil. They may be set out now or later, so long as the ground is not hard frozen. Any of our seedsmen will furnish catalogues of spring bulbs upon application.

"OUR country is full of poor ministers and poorer lawyers, and shockingly poor doctors, who ought to have been good shoemakers and farmers, who reached their present and unprofitable station by aiming too high." Thus speaks the New Hampshire Mirror and Farmer. "Isn't that a mistake?" asks Dr. Hoskins in the Vermont Watchman. "Didn't they aim too low? But if they aimed too high in trying to be professional men, would it not have been a fault in them to have aimed still higher by trying to be farmers? For it takes a great deal more brains and energy to be a successful farmer than to succeed in professional life, according to our observation and experience."

IT is gratifying to note that some people are as enthusiastic over farming as others are over special hobbies. In this connection one of our good friends writes us as follows:—"I never was so enthusiastic about my own farming as now. I am determined to make mine in time the model farm of this region, if the Lord continues to give me excellent health. I would not for anything have men point at my farm and say "he underdrains and writes for the papers, and tells other folks how to farm, but he *doesn't farm himself.*" * * * * This fall I intend to make a number of *accurate* experiments (the only kind of any value) on manures and fertilizers of various kinds and on different varieties of seed and modes of culture. Such experiments will cost time, trouble and money, but will be of value."

ENGLAND, as well as the South, is not a little disquited at the prospect of a pretty heavy "Exodus." Her's is an agricultural one, too; but instead of the ignorant, impecunious field hands who are leaving the Southern cotton fields in search of a Promised Land beyond the Mississippi, it is her sturdy farmers with some capital in their pockets and brains under their hats that are turning their broad backs upon the Mother Country. The first considerable batch of them arrived here, mainly from Yorkshire and Durham, early last week, and started by steamer for Texas on Wednesday. A little energetic forethought on the part of some of the Southern States might direct southward a good deal of this valuable stream of immigration. Several of the Western States have already sent agents here to explain to the newcomers the superior advantages of their own localities; but we have yet to hear of a Southern State that has moved in the matter.

Literary Miscellany.

IN FOLLY'S NET.

CHAPTER III.

THE DRIVE.

Andrew Blair, although too acute a personage to become that most pitiable object—a regular lady-killer and fop—had a sufficiently good opinion of himself to imagine that he had made a favorable impression on that wicked little coquette, Jean McLeod, and that the laughing glance flashed on him from the carriage window might fairly be interpreted into a command to meet her party at the Botanical Gardens on the day after Lady Kergenven's ball he did not doubt for a moment.

Accordingly, three o'clock on the following afternoon found him driving in the direction of the Regent's Park, and controlling his handsome horses with skilled hands and a rather well-satisfied expression of countenance, while several people turned to look admiringly after the well-appointed mail-phaeton and its very good-looking owner, and one or two men who were taking an "afternoon crawl" remarked to each other:

"Blair, of Blair Gates, you know; made no end of money in Australia; several times a millionaire."

"What in the world made him go to Australia when he had a good property in Scotland already?"

"He was only a younger son; but his brother died some years since, and he came in for the property."

"Lucky beggar!"

"By Jove! so he is. He might have the pick of the matrimonial market this season if he chose; but I think he is too sensible a man to commit matrimony. Perhaps he does not care for women."

The speaker would probably have altered his opinion could he have known Mr. Blair's thoughts as he drove on, for they were of a woman most certainly, and no other than Lord Ivor's *fiancee*, Jean McLeod.

"What a bewitching creature she is," he said to himself, a smile curling his lip under his dark moustache as he thought of Jean's coquetries and pretty, saucy ways. "She is not half so handsome as Emily, of course, but then she is the most fascinating woman I ever met, whereas Emily has only her beauty. I wonder if she likes that fellow Ivor. Strange that he should be engaged to the first woman I have admired since I came to England. Is he to cross me always?"

And Mr. Blair went into a brown study, which was apparently not a very pleasant one, for his countenance darkened, and the slight smile disappeared.

"I am rather in the habit of getting my own way," he added to himself, in a moment. "Women are strange cattle, and I don't think she is much in love with him. He is a poor man beside me and riches can do most things in this mercenary age, except that they may not weigh with her as she is well off herself. It would be wiping out a very old score if I could take her from him; and yet, somehow, much as I admire her, I am not at all sure if I am going to fall in love with her. I should like to feel my hand on the reins though," with a little soft laugh. "I expect she would be rather rebellious in harness; she would not like to feel the bit in her mouth. Pretty creature, though!"

At this moment Mr. Blair's chestnuts, which he had allowed to go at a walk during his reverie, were passed from behind by a handsome landau, with powdered servants in gorgeous livery, which contained three ladies, whom he recognised at once. Lady Sholto and Miss McLeod, in the front seat, passed without having time for any salutation, but Miss Crawford in the back seat, inclined her pretty head in a gracious recognition, while Mr. Blair bowed low.

"*Milord* is not there," he said to himself, as they passed. "So much the better; but I won't follow directly—there is something gained in being wished for."

So instead of driving straight to the Botanical Gardens, as he intended, Mr. Blair turned his chestnuts' heads in another direction, and lengthened his drive considerably before he returned to the Regent's Park *en route* for his first destination.

The band was playing when he pulled up at the entrance to the Botanical Gardens, and throwing the reins to his groom, alighted, giving orders to the man to return at five o'clock.

"Rather before five than after," he added. "Drive back by the club and see if there are any letters, Jenkins."

"Yes, sir," said Jenkins, touching his hat, as his master disappeared through the gates, and found himself in the gardens, which were looking their loveliest on this fair day in June, with the roses in bloom, and all the trees clothed in their richest verdure.

It was a gala day, too, for some celebrated foreign band was to be heard there that afternoon; all the fashionable world in London was present, and the green sward was covered with well-dressed women with or without their attendant cavaliers, as the case might be.

It was a pretty sight; the rich, green verdure, the blue sky overhead with fleecy white clouds floating hither and thither, the butterfly brightness, and varied colors of the women's dresses dotted over the grass like moving human flowers, the glass of the conservatories reflecting back the sunshine, the brilliant uniform of the band in the kiosk among the trees, and the sweet sounds of the music, all contributed to a *tout ensemble* of brightness and gaiety which could hardly fail to give pleasure to the beholder.

Stepping jauntily along, fitting on a most irreproachable pair of primrose kids with which he has replaced his driving gloves, Mr. Blair looked among the gay groups for Lady Sholto's party, and having espied them seated under a wide-spreading elm tree, he made his way towards them with just the right amount of diffidence and *empressement*, noting with some satisfaction that Lord Ivor was not one of the party, although several gentlemen were grouped round the three ladies, who looked fresh and charming as the day itself in their gay, summer costumes.

"Here is Mr. Blair, Ida," Lady Sholto said, smiling, as he approached, and Jean turned laughingly to the gentleman who was bending over her chair, talking in unison with the music and flowers, and said:

"Place, messieurs—place for the Australian millionaire, worth ever so many times his weight in gold."

Mr. Blair advanced with his usual self-possession, and paid his respects to Lady Sholto and Miss Crawford first, turning to Jean last, but reserving for her the wonderfully winning smile and glance he could assume so readily.

CHAPTER IV.

JEAN, who was looking very lovely in a cool cream-colored dress of shining material, with a profusion of azure-blue knots, and a coquettish, broad-brimmed straw hat with blue ribbons and creamy lace, looked up, smiling at him between her long lashes, and quietly withdrawing the creamy drapery of her dress from a chair which she had adroitly hidden, pointed to it significantly with the ivory handle of her parasol, and, nothing loath, Andrew Blair seated himself, while her cavalier, who was used to Jean's *facons d' agir*, and who was moreover an old and intimate friend, bowed himself away.

"Who could have expected to see you here, Mr. Blair?" said Jean, in a low voice, with languid surprise.

"You did for one, Miss McLeod," he answered, promptly; and Jean laughed a little consciously.

"You gave me your orders to appear," he went on, audaciously, looking at her with his dark eyes full of meaning.

"I?" she said, lifting her eyebrows, but coloring a little notwithstanding her affected surprise, "How, when, and where, Mr. Blair?"

"The time was last night," he said, softly; "the place was at the window of a closed carriage; the manner," he hesitated a moment, "was in the prettiest and most expressive language I have had the good fortune ever to receive instructions in."

For a moment Jean was silent, uncertain whether to be vexed or laugh; the latter inclination prevailed, and she laughed gaily.

"The wish may have been father to the thought," he said, in a moment, smiling. "But I certainly thought you wished me to come, Miss McLeod. You are not angry with me?" he added, entreatingly.

"Angry for such obedience?" she said, laughing; "of course not." "What makes you so late?" she went on, in a moment. "We passed you on our way here ever so long ago."

"Yes, I tried not to come," he answered, in a low tone.

"Tried not to come!" said Jead, affecting great bewilderment. "You are speaking in enigmas, Mr. Blair, surely."

"Am I?" he answered. "What are we told to do when temptation besets us sorely?"

"I don't know. Give way to it, I should think," said Jean, laughing.

"Give way to it!" he repeated, eagerly. "A thousand thanks, Miss McLeod. I was under the impression that the right thing was to resist and flee from it; but I will remember your words—please do not forget them yourself."

Jean laughed, little thinking, poor child, of the regret with which a few months after she would remember them, little thinking what a tangled net of misery and wretchedness she was beginning even then to weave for herself and others.

The music went on; the foreign band was playing now some soft, dreamy melodies from "Lucia di Lammermoor," and Mr. Blair began talking in a low tone about Scott's best and greatest novel, and compassionating the ill-fated bride and her unhappy lover.

"We were admiring your chestnuts, Mr. Blair," said Lady Sholto, after a time. "I was wishing Lord Sholto was with us; he is fond of horses."

"Your ladyship does them too much honor," said Mr. Blair, bowing. "They are hardly broken in yet."

"Please don't say so before Miss McLeod," said Ida Crawford, laughingly, "or she will surely want to drive them!"

"Nothing I should like better," Jean said, with her pretty grace of manner. Somehow, do what this girl might, she was always charming. What would have degenerated into fastness with other girls was only pretty frankness with her, and there was something so quaint and original in her bewitching sauciness that it was no wonder men admired it among the affectation, languor and indifference which is supposed to be the right of refinement and *bon ton* in the society of the present day.

"Nothing would give me greater pleasure than to see you driving them," said the owner of the chestnuts, a flush of gratification coloring his dark face; "that is, if I were by your side to prevent accidents."

"Then, if you will allow me, I will drive back with you this afternoon," said Jean, coolly disregarding Ida's look of dismay. "We can follow the carriage, Florence."

"My dear Jean, what are you thinking of?" Lady Sholto said, as Mr. Blair bowed his delight at the proposal, "the horses are quite unfit for a lady to drive."

"There will be no danger with Mr. Blair," answered Jean, quietly; she was as Mr. Blair had surmised, impatient of control. "Ah! there is Lady Aghuer; I must go and speak to her. Come, Mr. Blair, and I will introduce you to the most charming woman in London," she said, as she rose and moved away over the soft, green sward.

"I have the honor of knowing her already," he said, quickly, and Jean's bright face darkened slightly; she did not quite like such open compliments, but she turned it off with a slight laugh, and Andrew Blair was too acute to repeat his error.

"I wish Jean would not be so wild," said Lady Sholto to her husband, who came up to her at this moment. "Arthur, she has actually suggested driving home with that Mr. Blair in his mail-phaeton."

"That Mr. Blair!" repeated Lord Sholto, who was a very handsome, good-natured man, intensely devoted to his pretty wife, and far too easy-going to object to any of Jean's whims, had she been Lady Sholto. "I thought you liked him so much, Flo. You were all in raptures about him last night."

"I can't bear him," she said vehemently; she was a most enthusiastic little personage, was Lady Florence Sholto. "I am sure he is falling in love with Jean as fast as he can, and it will make Archie wretched."

"Nonsense, wife," answered his lordship, as they sauntered on arm-in-arm. "If Jean's flirtations make Archie wretched, he must have had a pretty hard time of it since their engagement."

"But, Arthur, it is wrong of her."

"Wrong? I don't know about that, love," he replied, carelessly. "She is as leal and true of heart as a girl can be, and Archibald knows it quite well, and has no objection to her amusing herself a little."

"But he won't like this, I am sure," persisted Lady Sholto. "Just consider it, Arthur, driving through London at this time of year with Mr. Blair, in his phaeton."

Lord Sholto was silent. It did look rather bad, he owned to himself. To drive through the town in Mr. Blair's phaeton rather grated even against Lord Sholto's sense of propriety.

"I am sure Archie will be angry," went on her ladyship.

"I will tell you what I'll do," said his lordship, suddenly. "I'll get Blair to send his groom home, and let me sit behind; then the good folks cannot talk, Flo."

"That will be better; but I was hoping you would come home with us, Arthur," said his wife, rather wistfully.

"We'll follow or precede you, dear," replied his lordship, who was rather curious to see Mr. Blair's celebrated chestnuts.

Notwithstanding her husband's promise, Lady Sholto thought it her duty to make another appeal to Jean's sense of propriety, and seized the first opportunity to do so.

"My dear Jeanie," she said, impressively, drawing her a little aside when the young girl rejoined them, "are you prudent to encourage Mr. Blair's attentions so much? I am sure Archie will be vexed if you drive home with him."

"I am accountable for my own actions, Florence," she was answered, haughtily enough. "If Archie has any complaint, he can make it to me himself. He has perfect trust in me," she added more gently. "I am not afraid of his vexation."

So when they left the Gardens Mr. Blair lifted Miss McLeod into his phaeton, and politely offered Lord Sholto the seat beside her.

"Oh, no, if you please," Jean said, leaning a little forward, and speaking eagerly; "I must have Mr. Blair in front, Lord Sholto. I should not dare drive these horses otherwise."

"Of course," Lord Sholto answered, "you must let me do groom this afternoon, and, Jeanie, set me down at the corner of Park Lane. I want to go round to the stables before I go in."

"Very well," answered Jeanie, as she took the reins; and Mr. Blair found that his attention was pretty well occupied during the drive home between his dainty charioteer and her steeds, for though, as I have said, Jean was "a capital whip," the fiery, half-broken chestnuts were beyond a lady's management, and more than once Mr. Blair's hands had to find their way to the reins, while once they covered Jean's, and held them for a moment in a close clasp.

At the corner of Park Lane they dropped Lord Sholto, who went round to his stables, while they drove homewards, and then Mr. Blair had an opportunity of expressing to Jean the great pleasure he had had, the unutterable happiness, etc., etc., etc.

"Neither my horses nor their master were ever so honored before," he said, in his softest voice, as Jean said the drive had been charming and the horses "loves." "When shall you be in Scotland, Miss McLeod?"

"Early in August, I believe," she answered. "And you yourself, Mr. Blair?"

"I am going almost immediately," he answered. "Blair Gates wants renovating. I hope we shall meet then,"

"I hope so," Jean answered, frankly. "I want to hear some stories about the bush, you know. Why," she added, as a hansom dashed up from an opposite direction, and stopped at the door of Lord Sholto's house, "surely that is the Earl?"

"Lord Ivor?" exclaimed Mr. Blair. "I hope he will not be angry, Miss McLeod? I should never forgive myself if I got you into a row."

Jean drew herself up a little haughtily, and Mr. Blair, motioning to the footman who opened the door to go to the horses' head, jumped out of the phaeton and put up his hand to assist Jean to alight.

At this moment Lord Ivor, who was reading a newspaper, aroused by the sudden pulling up of his cab, looked up and put out his hand to open the door, and saw Mr. Blair and his companion.

Jean's color had faded slightly, for though she was not afraid of the Earl's vexation, she loved him too truly to give him pain, and as she saw the sudden expression of mingled anger and sorrow which flashed into the proud, sleepy, gray eyes, she wished from the bottom of her heart that she had not given way to her freak of wishing to drive Mr. Blair's chestnuts home.

But she was a very proud girl, and Mr. Blair's words, apprehensive of the Earl's anger, and getting her into a row, had roused a lurking imp in that wayward little heart of hers, and made her farewell to Mr. Blair more gracious than it would have been, had not Lord Ivor dismissed his cab and been standing beside her on the pavement.

"Ah, Archibald, is that you? Are not these pretty creatures? I have driven them home from the Botanical Gardens; have I not?" she added, turning to Mr. Blair, with a laugh in her brown eyes, as she put her little delicately gloved hand on the glossy, satin coat of the horse nearest to her.

Mr. Blair bowed, smiled, and looked delighted, hoped his lordship was well, again shook Jean's proffered hand, and finally jumped into his phaeton, and drove off; while Miss McLeod preceded the Earl into the house, and the powdered footman following, imparted to the other powdered footman who kept guard in Lady Sholto's hall that in his opinion there was "something up, for his lordship did not look too well pleased," upon which the other gave it as *his* opinion "that his lordship need not take the trouble to be angry with Miss McLeod, for she would soon throw dust in his eyes."—(*To Be Continued.*)

RECENT LITERATURE.

Breton Mills: A Romance. By CHAS. J. BELLAMY New York. G. P. Putnam's Sons.

The principal element of interest in this story is the absorbing love of the hero, Philip Breton, for the lovely girl, Bertha Ellingsworth, who, in the opening chapter is represented as his affianced wife. The girl is indifferent to Philip's love, in fact, reproves all exhibitions of tenderness on his part, and treats his impassioned speeches with contempt. She belongs to a wealthy family and all her tastes and associations are refined and elegant. Presently she becomes enamored of a labor-reformer, Curran, by name, with whom she elopes, leaving Philip broken-hearted. In the course of a few months Bertha returns to her father's house and Philip, although he knows she eloped with a man to whom she was not married, renews his suit, and after a little he succeeds in inducing her to marry him. He has not been married to her a day before he finds out that she was married to Curran, and that the divorce she obtained without Curran's knowledge is invalid. He buys off the lawyer, who is in the secret, and keeps Bertha in ignorance of the fact that he has discovered her previous marriage and the attempted divorce. The story gets bruited around and Philip has his hands full trying to keep them from dragging his wife to the felon's dock. He finally decides that there is safety only in flight, and he arranges for a European tour. After many trying experiences, he is finally driven to the pier with his wife and followed by Curran on horseback, who has just learned that his deserting wife has been married to Philip. There is an exciting race, which is terminated by Curran being thrown over the horse's head and killed. Philip and Bertha board the steamer. "He loses the look of feverish watchfulness. Fate had seemed invincible. He had pitted his beautiful mills and his home and his hopes of glory against it, all for the love of a woman who had no heart for him. He had conquered, and he did not begrudge the price, this royal lover; for he had won the love of his bride at last."

"Below in her state-room, weary with her unwonted excitement, Bertha was sleeping; sleeping like a child unconscious of the terrible peril and infamy she had escaped only by so much as a hair's breadth."

The moral of the story is all wrong. The lovely sinner who betrays first a lover, then a husband, and deserts her child is loved and protected to the end, while of the men who loved and were true to her, one is killed and the other besides being made miserable by her sins, crushes his best impulses and sacrifices material prosperity to save and serve her. In addition to the peculiar and exciting details given above, the book is enlivened by labor revolts and reform speeches.

The Great Fur Land, or Sketches of Life in Hudson's Bay Territory. By H. M. ROBINSON, with numerous illustrations from designs by Chas. GASCH. New York: G. P. PUTMAN'S SONS.

This is just the sort of weather to make a visit to the regions of ice and snow—either in imagination or in the flesh—agreeable, so that Mr. Robinson's book has the charm of timeliness in addition to its other attractions. His travels led him quite outside the experience of ordinary travelers—the places he visited, the people he met, and the adventures that befell him all being of the order "unique"—and then he has a really captivating way of telling his story. Some writers are forever giving the dimensions of ruins, estimating hights, depths, lengths, going down to the roots of the language, tracing the development of the race, and bewildering and depressing the reader by the display of their profound erudition in the "ologies" and "isms." Not so Mr. Robinson. The reader learns very much that is useful and entertaining about the "Fur Land" but it is all told in a conversational sort of way. As a certain writer puts it, Robinson "unconsciously distils information," and it is this absence of a labored effort to be instructive which is one of the charms of the author's style.

The book tempts one to do quite an amount of scissoring, but we shall have to content ourselves with one extract, a sketch of the driver which gives a fair idea of the taste displayed by the native heathen in the matter of costume.

"My driver was a heathen Cree. He was, moreover, a linguist, speaking several aboriginal dialects and a kind of Mongrel French. Five golden sovereigns constituted the bond of union between us. He was a lank, muscular man, the bones of whose huge frame stood out conspicuously at the joints and angles, and the muscles showed distinctly in his gaunt meagreness. He had yellow paint on his face, and was arrayed in rather bewildering apparel. His headgear was the luxuriant *Chevelure* with which Nature had endowed him. On his feet he wore moccasins: on his limbs he wore leggins, which extended only a certain way above the knee, leaving that Providence which

"tempers the wind to the shorn lamb" a dreary waste of yellow-mottled skin upon which to experiment; on his body he wore a cotton shirt, and stretched straight and taut across the pit of his stomach, he wore a brass watchchain. Over all, like the mantle of Charity, was strapped a green blanket. Thus attired, he resembled a settled melancholy, or a god of bile from a dyspeptic's *inferno*. Nevertheless, he could travel from forty to sixty miles a day, running alongside the sledge."

Vegetarianism, the Radical Cure of Intemperance. By HARRIET P. FOWLER. New York: L. M. Holbrook.

It has long been evident that something beyond moral suasion is necessary to forward the cause of temperance. Appeals in the form of tracts and lectures, warning people of the sin and folly of drunkenness, are well enough in their way, but unless supplemented by something more practical, the convert is apt to backslide. For some little time the question of diet in its relation to intemperance has attracted considerable attention, and in the pamphlet under notice the author proposes both the prevention and cure of intemperance by the exclusion of meat as an article of diet. Even those who are not at all interested in this reform will find much matter for instruction in "Vegetarianism," the tables showing the nutritive properties of different kinds of food—eggs, beans, peas, lentils, etc.—alone being worth more than the price of the book.

A Summer Jaunt Through the Old World by the Tourjee Educational Party of 1878. By LUTHER L. HOLDEN. Boston: Lee & Shepard.

There is no dearth of books of European travel, and possibly this latest contribution to that class of literature may be regarded by some as superfluous. In spite, however, of the fact that this book does not supply an aching void, there is much in its pages to instruct and amuse the reader. It consists of a full narrative of the places visited by the "Educational Party," and an account of their adventures. Statistics are given when necessary, and also full descriptions of places and buildings of historic interest, art galleries and museums. There are some thirty odd illustrations, which serve not only to embellish the book, but also to make the text more clear.

Summer and Its Diseases. By JAMES C. WILSON, M. D. Published by Lindsay & Blakeston, Philadelphia.

In this, the third volume of the American Health Primer series, the author treats of the various ills incident to summer, the best methods of cure, and points out how most of the diseases peculiar to the warm season can be avoided if people will only exercise a little care. Sunstroke, summer diarrhœa and dysentery, cholera-infantum, summer and autumnal fevers, colds, hay asthma and the summer diseases of the skin are among the subjects which receive the author's attention. As the book is designed for the laity, it is written in clear, simple style, and a child could understand and follow the directions given.

THE OLD FRENCH CHATEAU NEAR TOULOUSE. Boston: Loring. Price, 25 cents.

We regret to see Mr. Loring striving to occupy the field of the New York Ledger. This story is "blood and thunder" to the last extreme; it has no literary merits, and, in fact, is not worth talking about.

MAGAZINES.

ST. NICHOLAS FOR SEPTEMBER. Contents: Frontispiece—"Oh, how deep!" Drawn by Addie Ledyard; Three Drews and a Crew, Sarah J. Prichard; Rosebud—Poem. Lucy Larcom; The Chateau D'Oiron, Katharine Cameron; A Soul for Music—Picture, drawn by Miss S. A. Rankin; Puck and the Butterfly—Jingle, Henry Baldwin; Bob's Missionary Work, Louise Stockton; Eyebright—Chapter X., Susan Coolidge; A Run after Sword-fish, Alexander Young; Helmets and Violets—Poem, Ruth Mariner; Try, Constantina E. Brooks; Her Fan and Her Furs, Constance Marion; On Wheels, John E. Lewees; One Summer Day, A. E. B.; Off for Boy-land, Emma Huntington Nason; A Queen—Poem, M. E. Bennett; Gretelein and her Queer Stove, Rosamond Dale Owen; So Wise—Verse, Adelaide F. Waters; Pirates of the Chinese Coast, J. O. D.; A Jolly Fellowship. Chapters XXI and XXII. Frank R. Stockton; Norah's Oil-well, Sophie Swett: The Frolicsome Fly, S. F. Clarke; "Buttered Pease," in Choctaw, Frederick Palmer; The Story of a Prince, Paul Fort; For Very Little Folk—The Broom Giant, S. J. P.; Slate Pictures, drawn by L. Hopkins; Jack-in-the-Pulpit; The Letter-Box; The Riddle-Box.

The October number will open with a short story by Miss Louisa Alcott, called "Jimmy's Cruise in the 'Pinafore.'" Maurice Thompson will contribute a sketch about bows, arrows and boys, and there will be two very fully illustrated articles—one on the Elevated Railroads of New York; the other describing a curiously populated craft called "Noah's Ark Ashore;" both will be crowded with interesting pictures. Among other handsome engravings in the number will be a large picture by Fredericks, illustrating "Duke Leopold's Stone," a poem by Mrs. Mary E. Bradley. The frontispiece will show some of the sports of "Witches' Night," or, "All Hallow-e'en," which will be described in an article by Oliver Thorne. The serials, "A Jolly Fellowship," and "Eyebright" will be brought to a close in this number.

OFF FOR BOY-LAND.

Ho! All aboard! A traveler
  Sets sail from Baby-land!
Before my eyes there comes a blur,
  But still I kiss my hand,
And try to smile as off he goes.
  My bonny, winsome boy!
Yes, *bon voyage!* God only knows
  How much I wish thee joy.

Oh, tell me, have ye heard of him?
  He wore a sailor's hat
All silver-corded round the brim,
  And—stranger o'en than that—
A wondrous suit of navy-blue,
  With pockets deep and wide;
Oh, tell me, sailors, tell me true,
  How fares he on the tide?

We've now no baby in the house;
  'T was but this very morn,
He doffed his dainty 'broidered blouse,
  With skirts of snowy lawn;
And shook a mass of silken curls
  From off his sunny brow;
They fretted him—" so like a girl's!
  Mamma can have them now."

He owned a brand-new pocket-book,
  But that he could not find;
A knife and string was all he took;
  What did he leave behind?
A heap of blocks with letters gay,
  And here and there a toy;
I can not pick them up to-day,
  My heart is with my boy.

Ho! Ship ahoy! At Boyhood's town
  Cast anchor strong and deep!
What! tears upon this little gown
  Left for mamma to keep?
Weep not, but smile; for through the air
  A merry message rings;—
"Just sell it to the rag-man there!
  I've done with baby things!"

St. Nicholas for September.

CONTENTS OF THE SEPTEMBER NUMBER OF THE ECLECTIC.—Steel Engraving, William Penn's Treaty with the Indians; White Wings, a Yachting Romance, by William Black—Cornhill Magazine; Benjamin Franklin, by Thomas Hughes—Contemporary Review; The Comedie Francaise, by M. Francisque Sarcey—The Nineteenth Century; Mechanical Chess-Players, by Richard A. Proctor—Belgravia Magazine; Some New Books—Blackwood's Magazine; The Mandolinata, by W. W. Story—Blackwood's Magazine; Recollections of Thackeray—Chambers' Journal; The Colored Man in Australia—Fortnightly Review; Wordsworth, by Matthew Arnold—Macmillan's Magazine; Food and Feeding, by Sir Henry Thomson (Concluded)—The Nineteenth Century; The Milky Way, from the Swedish of Topelius—Temple Bar; Mademoiselle de Mersac—Chaps. XVI. and XVII.—Cornhill Magazine; The "Sociology" of Ants—The Spectator; The Ballad of the Barmecide, by Austin Dobson—Belgravia Magazine; Literary Notices; Foreign Literary Notes; Science and Art; Varieties,

RECOLLECTIONS OF THACKERAY.—Thackeray was born at Calcutta in 1811. While still very young, he was sent to England; on the homeward voyage he had a peep at the great Napoleon in his exile-home at St. Helena. He received his education at the Charterhouse School and at Cambridge, leaving the latter without a degree. His fortune at this time amounted to twenty thousand pounds; this he afterward lost through unfortunate speculations, but not before he had traveled a good deal on the continent, and acquainted himself with French and German everyday life and literature. His first inclination was to follow the profession of an artist; and curious to relate, he made overtures to Charles Dickens to illustrate his earliest book. Thackeray was well equipped both in body and mind when his career as an author began; but over ten years of hard toil at newspaper and magazine writing were undergone before he became known as the author of Vanity Fair, and one of the first of living novelists. He lectured with fair if not with extraordinary success both in England and America, when the sunshine of public favor had been secured. His career of successful novel-writing terminated suddenly on 24th December, 1863, and like Dickens, he had an unfinished novel on hand.

* * * * * *

In dictating to his amanuensis during the composition of the lectures on the Four Georges, he would light a cigar, pace the room for a few minutes, and then resume his work with increased cheerfulness, changing his position very frequently, so that he was sometimes sitting, standing, walking, or lying about. His enunciation was always clear and distinct, and his words and thoughts were so well weighed that the progress of writing was but seldom checked. He dictated with calm deliberation, and showed no risible feeling even when he had made a humorous point. His whole literary career was one of unremitting industry; he wrote slowly, and, like "George Eliot," gave forth his thoughts in such perfect form, that he rarely required to retouch his work. His handwriting was neat and plain, often very minute; which led to the remark, that if all trades failed, he would earn sixpences by writing the Lord's Prayer and the Creed in the size of one. Unlike many men of less talent, he looked upon caligraphy as one of the fine arts. When at the hight of his fame he was satisfied when he wrote six pages a day, generally working during the day, seldom at night. An idea which would only be slightly developed in some of his shorter stories, he treasured up and expanded in some of his larger works.

* * *

The personal appearance of Thackeray has been frequently described. His nose, through an early accident, was misshapen; it was broad at the bridge, and stubby at the end. He was near-sighted; and his hair at forty was already gray, but massy and abundant; his keen and kindly eyes twinkled sometimes through and sometimes over his spectacles. A friend remarked that what he "should call the predominant expression of the countenace was courage—a readiness to face the world on its own terms." Unlike Dickens, he took no regular walking exercise, and being regardless of the laws of health, suffered in consequence. In reply to one who asked him if he had ever received the best medical advice, his reply was: "What is the use of advice if you don't follow it? They tell me not to drink, and I *do* drink. They tell me not to smoke, and I *do* smoke. They tell me not to eat, and I *do* eat. In short, I do everything that I am desired *not* to do; and therefore, what am I to expect?" And so one morning he was found lying, like Dr. Chalmers, in the sleep of death with his arms beneath his head, after one of his violent attacks of illness; to be mourned by his mother and daughters, who formed his household, and by a wider public beyond, which had learned to love him through his admirable works.—*Eclectic for September.*

CORNS.

CORNS may be developed on any part of the body where pressure and friction exist to an inordinate degree: thus they may be occasioned by too tight or too loose a shoe; in the one case being due to pressure, in the other to friction; and they are most actively produced when both causes are combined. They are met with most frequently on the feet, on account of the unpliant nature of the coverings of those organs; between the toes from pressure only; and on other parts of the body from distortion. Corns are of four kinds, viz.: clavus (bunion), callus, soft and the common corn. The callus may be softened by moisture, as by soaking in warm water; by the application of a starch or soap poultice; and being softened, the thickened cuticle may be thinned by scraping with a blunt knife. When the thickening has been reduced sufficiently, it may be kept down by daily washing with soap. Clavus and the soft corn require removal with the knife; and in effecting this purpose their mode of formation is to be borne in mind. If the soft corn be of moderate size, a single pinch with a pair of pointed scissors will effect its removal, while the hard callus will require a patient digging with the point of a not too sharp knife. After the operation, the corn should be covered with a piece of soap plaster for a day or two, and a perforated plaster of buff leather subsequently worn to keep off pressure from the center of the growth. The removal of a callus or soft corn may be very considerably aided by the use of the compound tincture of iodine painted on the swelling. When the corn is painful, this application subdues its sensibility and renders the cuticle dry and friable, and easy of removal by means of a file. Soap and water, so useful to the skin in many ways, are especially serviceable to feet afflicted with corns and particularly when they are soft corns. Daily washing with soap and the subsequent interposition of a piece of cotton wool between the toes, may be considered as a cure for soft corns; and in these cases the skin may be hardened by sponging with spirits of camphor after the washing. The cotton wool should be removed at night, and this is a good time for the use of the camphorated spirit.

BRIC-A-BRAC.

NEVER DESPAIR.

I FAIN would impress on
  The weary and sad
The truths of a lesson
  In metaphor clad.

Still in life's journey the
  Bravest do best—
Still on life's journey
  We hanker for rest.

Innocent merriment
  Shortens the mile;
Try the experiment
  Once in a while.

Face your foes fearlessly:
  "Never say die"—
Trials, tak'n fearlessly,
  Lightsome'y lie.

Our tear drops are lenses
  That magnify ills;
They cozen our senses
  'Till hillocks seem hills.

And faces grow wrinkled,
  While tresses with gray
Grow speedily sprinkled
  When woe has her way.

Horrors may haunt you, but
  Foul may grow fair;
Dangers may daunt you, but
  "But never despair,"

Verily, verily,
  Judge as you may,
He who toils merrily
  Carries the day. [*Catholic Herald.*

CHAPTER ON FLIES.

You can sometimes catch a base ball on a fly.

The most irritating fly is the Spanish fly.

The Latin name for a certain kind of fly is *tempus fugit.*

The fly is an author. See "Flies on Horses."

You can always, at this season of the year find flies on toast at the restaurants.

Flies are always on hand early in the morning.

You have all seen a kite fly.

Longfellow speaks of a fly as a bird when he says, "Fly, proud bird of freedom."

Some people employ the blind to keep flies from the room.

You can draw a fly with a drop of molasses better than with a crayon.

I have often seen flies hand-cuffed.

The spider is the only creature which invites the fly to his parlor.

The only popular fly—"Shoo-fly."

Flies are like rivers. They are often dammed.

A conjugal quarrel is a promoter of hair flies.

Stage flies are painted.

A fly is conservative in reading; he always sticks to his own paper.

Butchers and grocers exhibit flies in their windows.

You can't drown a fly in the milk of human kindness.

Although flies don't stay long in one place, they always carry a trunk.

There are musical flies. People often speak of that base fly. [*Boston Transcript.*

THE SAME OLD STORY.

SHE read until she could not see—
  Did "Ivanhoe" e'er weary!—
Then dropped the book upon her knee
  And said her life was dreary.
"From day to day I still must tread
  The same dull round of duty—
Of darning socks and baking bread,
  Without one glimpse of beauty.
From week to week my landmarks are
  A sermon dull on Sunday,
On Friday night the Plumville Star,
  The weekly wash on Monday.
And, oh! there's never a line of grace,
  And never a hint of glory."
She sighed and lengthened her pretty face—
  "It's always the same old story:"

She dried her eyes and curled her hair,
  And went to the conference meeting—
From the garden gate to the vestry stair
  The self-same words repeating.
At last the final hymn was sung,
  And all the prayers were ended,
When one from the doorway crowd among
  Her homeward steps attended.
They left at length the village street,
  And sprang the low wall over,
To cross through Captain Peaslee's wheat
  And Deacon Bascombe's clover.
The moon seemed shining overhead
  To flood their path with glory;
They whispered low, but what they said
  Was—only the same old story!

[*Cambridge Tribune.*

THE WAYS TO SPELL TAILOR.—The accommodating nature and capacity of the orthography that the savants of England and America are seeking to reform, are astonishingly illustrated in the number of different ways in which it is possible to spell the name of the artist who makes our clothes, the knight of the goose and shears:

Tailor, taylor, talor, teighlor, thalor, thailor, thaylor, phthalor, phthailor, phthaylor, phthelghlor, taileur, tayleur, taleur, thaleur, thaileur, thayleur, teighleur, phthaleur, phthailleur, phthayleur, phtheighleur, talour, tailour, taylour, thalour, thailour, thaylour, teighlour, phthalour, phthailour, phthaylour, phtheigh'or, talar, tallar, tailer, tallur, taillyr, taylar, tayler, taylir, taylur, taylyr, teighlar, teighler, teighlir, teighlur, teighlyr, thalar, thaler, thailr, thalur, thalyr, phthalar, phthallar, phthaylar, phthaler, phthailr, phthalur, phthalyr, phthailir, phthailur, phthaillyr, phthaylir, phthaylur, phthaylyr, phtheighlar, phtheighler, phtheighlir, phtheighlur, phtheighlyr, thaylar, thayler, thaylir, thaylur, thaylyr, thallar, thaller, thailir, thailur, thaillyr, tailir, theighlar, theighler, theighlir, theighlor, theighlur, theighlyr, theighlour, theighleur.—*Troy Times.*

A MIDSUMMER IDYL.

Thou art so near and yet so far,
O filmy, pale musquito bar!
In silent watches of the night
  When owlets moan and bats disport
  And cats upon the woodshed court,
We stretch our hands to thee so while
To pluck thee 'round us all about,
Lest flies blaspheming find us out
  By dawning morning light.

Thou art so near and yet so far,
Coquettish, vain musquito bar!
Some nail hath caught thee on the floor—
  Perchance some hook upon the wall
  Impedes thy graceful, sheltering fall;
Yet when the dreary night is o'er
We find thee plastered on the bed
Entwined about our feet and head—
  O clinging, gauzy bore!

A TRUE GENTLEMAN.—"A beg your pardon," and with a smile and a touch of his hat, Harry Edmon handed to an old man against whom he accidently stumbled, the cane which he had knocked from his hand. "I hope I did not hurt you. We were playing too roughly." "Not a bit," said the old man, cheerily. "Boys will be boys, and it's best they should be. You didn't harm me." "I'm glad to hear it;" and lifting his hat again Harry turned to join the playmates with whom he had been frolicking at the time of the accident. "What do you raise your hat to that old fellow for?" asked his companion, Charles Gray. "He's only Giles, the huckster." "That makes no difference," said Harry. "The question is not whether he is a gentleman, but whether I am one."

BEE-CAUSE.

A BEE flew out on the sunny air,
  By a boy so blithe and young,
Who laughed and screamed without a care,
  And would not hold his tongue.

The scene then changed; with sob and shriek
  The vault of heaven rung:
And homeward flew the bee so meek,
  While the small boy held his stung.

Marathon Independent.

ONE day Billy and Sammy were playing by a mud-hole, and Billy he said: "Now, Sammy, les play we was a barnyard; you be the pig, and lie down and woller, and I'll be a bull, and bellor like everything." So they got down on their hands and knees, and Sammy he went in the dirt and wallowed, while Billy bellowed like distant thunder. Bimeby Sammy he came up muddy—you never saw such a muddy little fellow—and he said: "Now you'll be the pig, and let me beller." But Billy he said: "I ain't a very good pig except for dinner, and it'll be time 'nuff for you to beller when yer mother sees yer close."

IT occurred to one of two editors in the West, who had quarreled, that a reference to his adversary's life would prove telling, and he launched it off accordingly. "As for our contemporary," he wrote, "what can be expected from a man who five years ago was peddling around with a mule, and an ill-conditioned beast at that?" His rival did not deny it. "Our contemporary," he wrote in his next number, "says that five years ago we were peddling around with a mule, and an ill conditioned beast at that. He is quite right. We were

so occupied. But we are surprised to find that the mule has such a good memory."

ONE of a party of six Boston boys who are spending their vacation at Kennebunk, sent the following expressive letter: "We dug a woodchuck out of his hole; it was a skunk; we slept in the barn that night."

ALL the clothes Adam had for a long time was the close of day, while a mantle of night was his bed-clothes.

For Women.

CONDUCTED BY MISS FAITH RIPLEY.

A YARN ABOUT SPINNING.

THAT the arts of obtaining food and clothing have been practiced from the earliest period is known to all. But while the tailor and gardener have each claimed the greatest antiquity for his respective professions—the former on the ground that Adam did not till the earth until expelled from Eden, but followed the craft of tailor, by sewing together fig-leaves—we must assert that the human race is much more indebted to the spinsters, who, making the first advance in civilization, relieved mankind from the necessity of wearing the leaves of trees, or the skin of beasts. The literature, proverbs and superstitions of most nations have reference to this fact; while the distaff and spindle have been the symbols of woman's industry in all times and countries. Among the many popular fancies of the middle ages, none was more firmly held, or more deeply rooted, than the belief that Eve was the first spinster. The lines,

"When Adam delved and Eve span,
Who was then the gentleman?"

formed the rallying cry in some English insurrections, during feudal times.

The expulsion of our first parents from Eden was a favorite subject with the medieval painters, and the first pair are usually represented in this wise. Adam, who passes out first, receives with an air of abject submission, a spade, from the attendant angel; while Eve, already supplied with spinning materials, walks boldly forth, carrying her distaff and twirling her spindle.

The allusions to spinning in the sacred writings speak of the antiquity of the art, while praising its professors. Abraham refused to take a thread of the spoil; flax was cultivated in the time of Moses; the women who were wise-hearted spun with their hands; and she, the wise woman, par excellence, whose worth was above rubies, laid her hands to the distaff and the spindle.

By the classical writers of Greece and Rome, Minerva, the goddess of wisdom, was made the inventor of spinning. Homer speaks of a distaff as being a present fit for a queen; and every one has heard of the labors of Penelope, though Valerius, in Coriolanus, says spitefully, "all the yarn she spun in Ulysses's absence, only served to fill Ithaca full of moths."

Pliny tells us that the distaff and spindle of Cala, Queen of Tarquinious Priscus, was preserved in the Temple of Fortune. This royal spinster was considered the model of a good wife; hence a distaff, charged with wool, and a spindle were carried before a Roman bride, and when the procession reached the bridegroom's house, the bride was asked her name, to which she replied, "Cala." The three Fates, who, according to ancient mythology, presided over man's mundane existence, were spinners; one held the distaff, another spun, and the third cut the thread of life.

A picture on the wall of a house in Pompeii represents a woman spinning in exactly the same manner as that described by the ancient poets; and the Italian peasants spin now just as they did in the days of Cala. Long ere "Romulus and Remus had been suckled," as we learn from paintings in the tombs of Beni-Hassan, the yarn for the "fine linen of Egypt" was spun in the same manner; and so do the wretched fellahs still spin in the shade of the pyramids. Mummies have become merchandise; Pharaoh has been sold for balsam; even the eagle and fasces, symbols of imperial and consular power, have been swept away; but the distaff and spindle, emblems of domestic peace and household cares, still remain. Their history, could it be written, would be the history of the human race—the same hopes and wishes, tears and aspirations, have been experienced by millions of the various tribes and religions who have used these simple implements.

Among the Saxons, spear-half and spindle-half expressed the male or female lines of descent, and in their tombs a sword was laid by the remains of a man, a spindle by those of a woman.

The French law, by which "no woman shall succeed in Salic land," is popularly expressed by the words, "the kingdom of France never falls under the distaff."

Previous to the introduction of the spinning-wheel worked by the foot, spinning, though a necessary art, was merely the occupation of female leisure—the employment of rich and poor in the intervals of more serious business. But through the more rapid production of yarn by the wheel, spinning became a mode of obtaining a livelihood, and consequently the art sank in the social scale. A somewhat similar change has been produced by the invention of the machine and consequent extinction of the wheel. Now it is persons of much lower social standing who wait in the halls of the giant Steam, to tend the whirling, many-bobbined mule and jenny.

The quantity of yarn spun in a day by a good spinner depended on its fineness. In Scotland a hank, or twelve cuts, was considered a fair day's work. But the spinners of Tyrone, the best in Ireland, thought two dozen no extraordinary task, and at their contests of skill they often produced as many as four dozen in one day. Edward Eggleston, in the "Circuit Rider," speaks of "Patty spinning her two dozen cuts a day."

The distaff and spindle, besides being the universal symbols and companions of the softer sex, could be used as offensive or defensive weapons. In the south of Europe the pointed steel spindle is sometimes used as a stiletto, while in the north the heavy distaff may be used as a club. "We'll thwack him hence with distaves," says Hermione, in "A Winter's Tale." Goneril, in "King Lear," says, alluding to the "cowish terror" of her helpmate, "I must change arms at home, and give the distaff into my husband's hands."

In France, Queen Bertha of the long-foot; in Italy, Bertha of the horn; in Germany, Frau Berta the fairy, and in England, Bertha the saint, are spoken of as the patronesses of spinning. They are all derived from the same source, the Scandinavian mythology, and are the more modern representatives of Herthus, or Freeya, the Norsemen's inventor of spinning.

It was considered a very inauspicious omen by the Romans for a traveler to meet a woman spinning; and nearly two thousand years later the same idea prevailed in France. In the Isle of Man, and also in Northern Germany it was considered sinful to spin on Saturday. In Scottish farm-houses the wheel was put away early on Saturday, not from any feeling of superstition, but in reverence for the approaching day of rest.

Like the black-jack, the wheel of the turnspit dog, and the pack-saddle, the spinning-wheel is now almost unknown, save as a relic of the past. And when we take into consideration that a steam engine will whirl 150,000 spindles at once, rattling off 30,000 miles of yarn every hour, at an expense of less than a cent for every six miles—that the thousands of women tending spinning-machines earn more in a day than they would in a week at hand-spinning—we may, in spite of all the pleasant recollections of the spinning-wheel, be content to leave it on the shelf: its work is done—our yarn is spun.

EMILY LOUISE TAPLIN.

WOMEN AS BLACKSMITHS.

A CORRESPONDENT of the Pall Mall Gazette writing from Rowley Regis—a Lancashire village—thus describes one of the strange sights of that strange district:—

I came here to inquire for myself how much it would cost to deliver one hundred tons of coal a month by the Rowley Colliery Company at two or three given localities within a distance of ten miles; and having satisfied myself on that point, much to my pleasure I continued my walk from the coalpit up through the fields to Rowley old Church. I came to a place called Bell End, which is apparently a new part of the old village. Through a small window I observed a female head bobbing up and down; soon I heard the sound of a hammer; and never having seen any riveting done by human hands, I threaded my way through some brick passages until I came to the little smithy where "Alice" was at work. This was the name by which her father called her, whom I met on my way, and to whom I am indebted for the following remarkable piece of knowledge.

Alice, I may say, was a young wife engaged in blowing bellows, heating pieces of iron in a "gleed" forge, and producing rivets from an anvil at the rate of 3,000 a day. For this manual labor, Alice, her father proceeded to tell me in her presence, gets from the warehouse 1s. 3d., out of which she has to pay for wear and tear of tools 1d, carriage 1d., and a like sum for gleeds, a kind of small coke made expressly for nail and rivet forges. On Monday she does her washing, on Saturday her cleaning up, so that she only works at rivets four days in the week, and her gross earnings therefore amount to 4s. 3d. for forging 12,000 rivets. I have said nothing of rent which Alice would pay, and which might amount to one shilling a week. She was a sedate young woman, well spoken, with very fair hair and a low sweet voice. John Price (Alice's father) then, at my request, took me to see his neighbors, Edward and Phyllis Tromans, who lived and worked at making nails close by. Phyllis is a handsome woman, with beautiful white teeth and abundance of flesh, which Rubens might have painted, it is so plentiful and rosy. This woman was forging large nails, and the manner in which she made a nail with a point, and a head an inch and a half in circumference, fly off a piece of hot iron was marvelous to behold.

She works from eight o'clock in the morning until nine at night, and in four days will forge fifty-four pound weight of clout nails, for which she will receive the wondrous price of 3s. 8d., out of which she has to pay fivepence for gleeds and twopence for tools. Her husband works "as hard as he can drive" from six o'clock in the morning until eleven at night; and his week's wages amount to 12s., from which tenpence for gleeds and fourpence for tools will have to be deducted—to say nothing of rent. Edward Tromans was only forty-three years old, but looked much nearer seventy. Two other young women were hammering away at rivets in company with Phyllis; and never as long as I live shall I forget that little black smithy. I once traveled many miles to see "Vulcan's Forge" by Velasquez: but there was in that famous picture no figure equal to that of Phyllis Tromans, and I shall remember Phyllis to the day of my death. That such a woman should be slaving in soot—blowing bellows, now with her left, and then wielding a hammer with her right hand—forging clout nails for twelve hours a day, in order to earn less than forty pence in a week, is a phenomenon that I would never have believed as being possible in England if I had not seen it.

AIR CASTLES.

DEAR MISS RIPLEY:—I thought it might please some of the RURAL readers to have me tell them how I make some kinds of air castles. I will try to explain first about those made of straw.

You will want some red woolen stuff, and if you have a pinking iron, cut rounds out of the woolen with it. You will want forty-five small rounds and five larger ones. Get your straws—pick those that are straight and of a uniform size, and I would select the yellowest ones for the large castle. You will want six straws eight inches long, and three straws four inches in length. Now with a stiletto bore holes in your five large rounds of woolen cloth, and push four straws through one round and fasten securely with a fine needle and thread—in short, fasten those straws all together so as to form one large diamond. Now for the smaller diamonds. Cut fifty-four straws two and one-half inches long, and with the small rounds fasten together in six diamonds. For the smallest ones, cut twenty-seven straws an inch and a half long, and make three small castles to fasten them together. You will require one yard of red worsted. Now take your large diamond, and on the shortest length from top to bottom fasten three of the second size on the three shortest corners, and use one for the top, to hang it up by. Now fasten two on the longest part, and place the other large one in the center of the large diamond; now put the three small ones on the corners of the top one, and you have your castle done, and if right, it looks very pretty in the corner over your what-not.

To make a castle out of horse-hair or hog's bristles, you will want some wax, colored red. Cut your horsehair into four pieces, each one and one-half inches long, and fasten all together at one end by winding and tying thread around them, dip the end in the wax and lay to cool. Fix four more the same way and fasten all together in the form of a diamond, with red wax on the six corners. This is a small diamond, and you can make as many as you wish and fasten them together in every variety of form.

In all probability you know how to make castles out of cardboard; but if you never have made them, try one of silver cardboard embroidered with blue zephyr, and see how the result pleases you. Oats gathered while green, and dried, will make a pretty castle.

MISS INCOGNITA.

FACTS, NOT IDEAS.

DEAR MISS RIPLEY:—You ask for ideas. In this marvelously hot country one cannot originate ideas as freely as one could wish, especially during this awful weather; but I can give you a few facts, and perhaps ideas may suggest themselves. It is a fact that a few years ago the idea of a woman being manager of a newspaper, either in whole or in part, was simply too ridiculous to be tolerated: but *now* the idea has become a reality, and it is not ridiculous either. Perhaps in your social circles now, the idea of ladies of culture and refinement *potting* around in their houses over mud floors, with mud walls, ceilings and roofs and wooden or cotton windows, if any at all, would seem not only ridiculous but impossible; but I can tell you that is *now* the case with many in Southern Arizona. The advent of the S. P. R. R. may change things some, (I hope it may change the climate, for during June, July, August and most part of September the thermometer ranges from 90 at sunrise to 110 deg. in a few hours until about sunset.) The idea which especially interests me is, how shall a woman of average blood and nerve get through all the daily routine of duties to her family, her house, herself and her neighbors without degradation or death to herself or some of her family?

MRS. L. R. S.

Phoenix, Arizona.

TEMPERANCE WORK PERPETUAL.

IN one respect temperance work is like housework. Women are sometimes heard to wish that they could get this dusting, and darning, and dish-washing done up once for all; as a man builds a barn, clears a wood-lot or digs a well, and is through with it. It is tedious to keep pegging away at the same hum-drum task to-day, to-morrow, and the year round, as long as one lives—always doing it but never getting it done. But that is what temperance people must make up their minds to do. There is no discharge in this war. We may whip in many a skirmish and carry many an entrenchment; we may burn the enemy's supply trains and break up his camps. But so long as human nature is human nature, so long as men love self-indulgence, we shall have to keep up a running fight with this foe. To call this task a "reform" is misleading. It will not be like the crusade against slavery. That evil has been wiped out. When intemperance is wiped out we may expect to hear the trumpets blowing for the millennium.—Editor's Table; Good Company.

WE sometime knuckle readily to difficulties, and take complacence in our serene submissiveness to Providence, when a little more pluck and persistence on our part would overcome the obstacles. We mistake laziness for Christian resignation.

CORRESPONDENTS' CORNER.

WILL some reader of the RURAL please send the words in full of "Home Sweet Home?"

I HAVE a small collection of Postage Stamps collected in 1862-3, some very rare, which I would like to dispose of. Where can I do so to the best advantage?

A. W. B.

Monument, Mass.

ANS.—If A. W. B. is acquainted with any collector who wishes to procure stamps included in his collection, they may be disposed of to the best advantage in this way. If not, I would advise him to correspond with a reliable stamp dealer. I have had dealings with several parties in this business, and would recommend Wm. P. Brown of 115 Nassau St., New York City, as having given me the best satisfaction. If the collection includes *very rare* stamps as stated, there will be no difficulty in disposing of it; but no collector or dealer would make an offer without seeing the stamps, as their value will depend on their condition.

PRAKRAMA.

Sabbath Reading.

"WHILE THEE I SEEK, PROTECTING POWER."

WHILE thee I seek, protecting Power,
Be my vain wishes stilled;
And may this consecrated hour
With better hopes be filled.

Thy love, the power of thought bestowed,
To thee my thoughts would soar:
Thy mercy o'er my life has flowed;
That mercy I adore.

In each event of life, how clear
Thy ruling hand I see;
Each blessing to my soul most dear,
Because conferred by thee.

In every joy that crowns my days,
In every pain I bear,
My heart shall find delight in praise,
Or seek relief in prayer.

When gladness wings my favored hour,
Thy love my thoughts shall fill;
Resigned when storms of sorrow lower,
My soul shall meet thy will.

My lifted eye, without a tear,
The gathering storm shall see:
My steadfast eye shall know no fear;
That heart will rest on thee.

Some expressions of this hymn have direct reference to the stormy scenes in France about the time of the Revolution. It was written in France when the political sky was very dark and threatening, and no one felt secure. Its author was Miss Helen Maria Williams. She was born in the North of England in 1762. She went to London at the age of eighteen, where she won much reputation as a poet. She afterwards went to Paris, where she lived during the breaking up of the monarchy, and where she published works in prose and verse. She was a very devout woman, and relied on the strong arm of God at the time of peril. She held a high place in religious society, both in London and Paris.—*Story of the Hymns, by American Tract Society.*

CHRISTIANS THE GUARDIANS OF THE SABBATH.

BY REV. G. T. RAYMOND.

Much has been said and done to secure a better observance of the Sabbath. Has it occurred to you, Christians, that you are the guardians of this day? If you wish others to respect God's laws you must respect them. If you wish others to obey God's commands you must obey them; and you must be particular about that obedience. If you seek your pleasure by driving out with your family on the Lord's day, your non-Christian neighbor, who has different tastes, will see no harm in seeking his with dogs and gun. If you patronize Sunday trains, even for the purpose of seeking the church of your choice, the non-Christian community will see no harm in using the same Sunday trains to seek places of their choice. And I might continue. A strict observance of the Sabbath by the church is the only vote of the church for a decent observance of the day by the world.

The fourth commandment is the dyke which keeps back an ocean of corruption. Through a break in the dyke any sin can enter. Shall we, Christians, with hands washed clean in the blood of him who plants the dyke, scoop out the sand and roll away the stones, while the merciless ocean laughs, and hisses, and leaps with playful treachery into the breech we have made?

Do I mistake? There is power enough in the church to save the Christian Sabbath in America. But if this power is not exerted, or is used in the wrong direction, whose is the pen that dares venture a description of the consequences? While I was musing on the Ten Commandments, I seemed to see a string of invaluable pearls. Their lustre was glorious as you looked at them in the light of the "Sun of Righteousness." And they were ancient, too. I saw them committed to the church for safe-keeping. And he who committed them said: "In keeping of them there is great reward." And while I was watching I saw the shadowy hand of no uncertain personage stretched out over one of the brightest of them all. And a siren voice whispered in the ear of the church, "Let me have just this one." But the church answered promptly, "No." Meanwhile the shadowy hand remaining, artfully covered the brilliancy of the pearl. And after some time had passed, the siren voice whispered again: "Let me have this one, for it has lost its lustre and the day of its value has gone by." And the church looked at the shaded pearl, but answered not a word. Stealthily the dark fingers clutched the coveted prize and began to draw it away, and, as I beheld, the nine followed the one, for they were united and inseparable.

USE sin as it will use you; spare it not, for it will not spare you; it is your murderer and the murderer of the whole world. Use it, therefore, as a murderer should be used; kill it before it kills you; and though it bring you to the grave, as it did you Head, it shall not be able to keep you there. You love not death; love not the cause of death.—*Baxter.*

THE Bible does not need defence so much as proclamation. It defends itself wherever it is known. Deep in every soul there dwells forever a witness to the truth, whose clear eye and steady voice will see and respond to it wherever it is known.—*W. M. Taylor.*

SICKNESS should teach us what a vain thing the world is,—what a vile thing sin is,—what a poor thing man is,—and what a precious thing an interest in Christ is.—*Mrs. Savage.*

A STRING of opinions no more constitutes faith, than a string of beads constitutes holiness.—*J. Wesley.*

Domestic Economy.

CONDUCTED BY EMILY MAPLE.

TRAVELING.

MRS. M. G. RAND.

WHY people travel for pleasure in summer, is a problem not easy to solve. It is true that the facilities for traveling at any season in America seem little short of perfection. However, the easiest and most spacious car with its convenient arrangements for eating and sleeping, is not to be compared with home and home comforts.

When we take passage in a public conveyance, we must, to some extent, give up our independence. If it is on the cars, and we pay for a "section," or part of one, that is one's *pro tempore*, and *there* we must *stay*, be it for a day or a week. If we leave it for a walk up and down the car, while it stops at a station, we usually find that we are in somebody's way. Gladly we return to the place allotted to us, thankful that *there*, at least, we have rights.

Traveling is good discipline for all of us, for it places one where he must be governed by circumstances, *nolens volens*. If an ill-bred person is assigned a seat with or near us, we must endure the annoyance without complaint. If the air is so warm and suffocating that we open a window, we may expect to get looks that "speak volumes!" Added to the looks are remarks, not made directly to us, perhaps, but intended for us all the same. By all this we are made to understand that we are considered unjust to those who have no appreciation of pure air. Sometimes one's fellow passengers go so far as to demand (all supposed to have equal rights, remember) that a window shall be closed. Not infrequently the demand is accompanied by a threat to call upon the conductor to interfere. Under the circumstances, the offender thinks best for the sake of peace to succumb. He thinks with a sigh of his *home*, and resolves that if he be so fortunate as to get back to it, he will stay there.

Traveling with anything like comfort, is an art that has to be learned by experience. More forethought is necessary in preparing for a journey, than one unaccustomed to traveling would suppose. The question of "What to Wear," the packing of trunk and satchel, etc., etc., are requisites that call for careful planning. Those who look back to their first journey, will very likely see that they were encumbered with some unnecessary baggage. On the other hand, some needed articles were left behind, the want of which was seriously felt. A substantial trunk, even if it be an expensive one, will be found the most economical in the end. The money expended in a cheaply-made trunk that shows rough usage on its first journey, is a bad investment. Satchels, even well-worn ones, can be made presentable by being brushed over with the kind of varnish that is used for kid shoes. Packing the trunk ought not to be put off until the day of setting out on a journey. There are always enough "odds and ends" of work to attend to at the last. It is best to begin to collect articles to be packed several days before starting on a trip, so that nothing will be forgotten.

And now, don't keep the hackman waiting when he calls to take you to the depôt. It is the duty of those who order a hack for a certain time, to be in readiness promptly at that time. Have the trunks packed, locked, strapped, and ready at the door. It must be very trying to hackmen to wait for a lady to put on her gloves, gather up her traveling appurtenances, say her adiens, etc., etc. All of these little things should be attended to beforehand, as there may be other passengers to be called for; and as a rule the cars, like time, "wait for no man" or woman either. It is not pleasing to see the satchel so crowded that it cannot be clasped, and a little management will prevent it. Toilet articles should be closely wrapped in a napkin, pinned, and placed in the bottom of the satchel. If wrapped in paper, as is common, they will get undone easily, and be in sight every time the satchel is opened. Provide yourself with pencils, watch-keys and button-hooks. Otherwise it might become necessary to ask the loan of these things from a stranger.

The dress of a lady traveling in summer, should be of cool fabric, of a grave color, clinging in style and not too long. A "duster" of heavy linen, or thin woolen material, is essential to comfort and neatness. It is anything but wise for a person to go on a journey in a pair of new shoes. A pair of easy slippers ought always to be put in the satchel. This advice is as good for gentlemen as ladies.

A large shawl or "waterproof" made into a compact roll, and secured by a shawl-strap, ought to form a part of the traveling outfit. Neglect of this precaution may be regretted, as the warmest day may suddenly become cool. Carry a few postal-cards with you; there are stops enough on the way for one to write a few words on a card, to anxious friends, when letter-writing would be an impossibility.

Now-a-days, a lady can travel quite well alone; that is, unaccompanied by friends. The porter is almost always accommodating, and polite, especially to those who treat him with civility. It is not an evidence of culture to *command* instead of *request* the services of those who are employed to render them. It often happens in the temporary absence of the waiter from the car that a lady is glad to accept some little courtesy—raising a window, for example—from a gentleman. It is proper for her to make some slight acknowledgment of the favor, but it does not afford sufficient ground for active conversation between strangers. Where friends travel together, they should remember to converse in low tones, as their affairs cannot be interesting to people whom they do not know. Loud talking or laughing between friends on the cars, is disagreeable to those who take no part in such pastimes.

The lunch-box often contains so great a variety of cakes, pies, pickles, jellies, etc., as to be suggestive of abundance, at least. Plain food, with plenty of fruit, makes a suitable luncheon for any traveler. Traveling brings about an entire change of habits, making it necessary to observe care and regularity in eating. Constant munching of even the most harmless food will seriously disturb the digestive organs. People become so tired of the monotony of a journey that they eat when they are not hungry, to "pass away time," as they say—a bad remedy, truly. Nuts, both domestic and imported, are freely indulged in. Sometimes the shells are thrown upon the car-floor, which reminds one of the saying that "We carry home manners abroad."

A gentleman who had traveled extensively for many years told the writer that "three consecutive days of travel with a carful of people was all he would ask to judge by of the disposition of each." The necessity of being confined to limited quarters with persons of different tastes and habits, and the lack of home comforts, etc., are enough to call into requisition all the amiability one can command.

In closing, I wish to say a few words in kindness to the ladies, particularly to those who have children. If you have been thinking that you need the benefit of a change for yourself and family, don't seek it in a journey while the warm weather lasts. At that season there is no place like one's own home, "be it ever so humble."

APPLE ECONOMY.

ANNIE L. JACK.

ALL over the orchard. It is quite a task to pick up fallen apples after a gale when the trees number by thousands; but it must be done and we try hard to gather all the queerly misshapen, unripe fruit, in order to prevent the spead of the worm and its progeny, that generally infest such apples. There are some work and economy necessary in order to make the best use of these windfalls. It is the truest saving to make three sorts. The first, of course, are for market, and if the largest apples are put apart they will bring in more money than if all are sent away unsorted. Those of second quality make very good apple-sauce. I noticed the other day at a neighbor's that the sauce was extra-fine, and found the fruit of which it was made had been boiled with the skins on, and afterward put through a sieve which reduced the apple to a fine pulp, and left the skin and core out. This with a little sugar, is a healthy and palatable supper for children, instead of so much butter. Apples baked and used with cream and sugar are also easily digested, and the best of food. The thirds, or smallest apples are good food for pigs; boiled with a few potatoes or beets they form a pleasant variety to the diet of these animals. So that just now we are busy with this light and pleasant work gathering up the fragments that nothing be lost.

DOMESTIC RECIPES.

A PICKLE CHAPTER.

Pickelette.

Four large crisp cabbages and one quart of onions cut fine; two quarts of vinegar, two pounds of brown sugar, two tablespoonsful each of mustard, black pepper, cinnamon, turmeric and celery seed; one tablespoonful each of allspice, mace and pulverized alum. Pack the chopped cabbage and onions in alternate layers with a little salt between. Let stand until the next day. Scald the vinegar, sugar, spice and alum, and pour over the cabbage and onions. Do this three mornings in succession. On the fourth morning put all over the fire and boil five minutes. When cold put into small jars.

Sweet Cucumber Pickles.

Seven pounds of cucumbers pared and sliced; cover with salt, adding a piece of alum size of a butternut. Next day drain off the liquid and boil in vinegar until tender; put in a jar and cover with a sirup made of one pint of vinegar, four pounds of sugar spiced with cinnamon. MRS. A. G.

Albany.

Chili Sauce.

Twelve large, ripe tomatoes, four ripe pippins, two large onions, two tablespoonsful of salt, two of sugar, one of cinnamon, three cups of cider vinegar. Chop all fine and boil one hour. Bottle for use. MRS. H. L. K,

Indian Pickle. (An English Recipe.)

Two gallons of good vinegar, one-fourth pound ginger, two ounces of allspice, one-half ounce of cloves, one-half ounce of chili peppers, four ounces of black pepper, four ounces of coarse salt, two ounces of garlic, two ounces bruised shallots, one-fourth pound of mustard, two tablespoonsful of powdered alum. Tie all these ingredients in a bag and boil in the vinegar twenty minutes. Take small cucumbers, onions, beans and tomatoes, scald them in boiling, salted water by pouring the water over and letting them stand until cold, instead of putting over the fire to scald. Then scald in clear water. The cucumbers will not need to be scalded again, but the onions, beans and tomatoes will require several scaldings. Wipe them off and throw into weak vinegar for twenty-four hours, then wipe them off and cover with the Indian pickle. After they have been in that for three weeks take them out, drain, and put into pickle jars, strain the Indian pickle over and seal tightly. They will keep for years.

In making mine, I left out the garlic as I thought the onions would make it strong enough.

Chow-Chow.

Two quarts of cucumbers—one quart very small and the other about a finger in length. Cut the large ones into inch pieces. Three heads of cauliflower picked into pieces, four large green peppers sliced fine, two quarts of small onions. One gallon of cider vinegar, one half-pound of ground mustard, three cups of sugar, one cup of flour and one ounce of turmeric. Mix the flour, mustard and turmeric smooth in a little vinegar. Place a porcelain kettle upon the stove with the vinegar and sugar; after it is warm throw in the mixed mustard, etc., and boil, stirring carefully to prevent burning. Have the pickles all prepared by scalding the same as for Indian Pickle. Let them boil in the vinegar for a short time, stirring constantly, then bottle and seal.

Chili Sauce.

Eighteen good-sized ripe tomatoes, six medium-sized onions, three red peppers, two and one-half cups of vinegar. Chop the onions and peppers fine, peel the tomatoes and squeeze out the juice. Take the juice with all the other ingredients except the tomatoes and boil together for a few minutes, then add the tomatoes, chopped fine, and boil twenty minutes longer. Season with sixteen tablespoonsful of brown sugar, eight tablespoonsful of salt, two nutmegs, a large teaspoonful of ginger, one and a half tablespoonsful of cinnamon and one-half teaspoonful of cloves. Cork tightly and seal. MRS. E. H. SARGENT.

Piccalilli.

One peck of green tomatoes, one large head or two small ones of cabbage, three green peppers and two red peppers. Take out the seeds from the peppers and chop with the cabbage and tomatoes quite fine. Put into a stone pot, sprinkle with salt and let stand over night. In the morning drain in a colander. Take one quart of strong vinegar, one pound of sugar, one-half ounce each of ground cloves and allspice, and two ounces of whole white mustard. Put the vegetables, vinegar, etc., over the stove in a kettle and boil fifteen minutes. Put into glass cans and make air-tight.

N. J. MRS. S. G.

Green Tomato Toast.

Twelve good-sized tomatoes sliced and thrown into salt and water for twenty minutes; take them out and boil, adding a little water, until tender; then add one quart of milk, plenty of butter, salt and pepper. Pour this over toast and serve at once.

Escaloped Green Tomatoes.

Fifteen medium-sized green tomatoes, slice thin and throw them into salt and water for a short time. Take an earthen pudding dish and cover the bottom of it with cracker crumbs, then put in a layer of tomatoes. Season with butter, pepper and salt, using butter plentifully. Thus alternate the layers until the dish is full. Put in half a teacupful of water, cover with a plate and bake for an hour or longer. A layer of crumbs should be on top. Green tomatoes require a good deal of seasoning to make them palatable.

I should be pleased to have published choice pickling recipes, also directions for making foreign or imported pickles and different kinds of sauces for meats. MRS. E. H. SARGENT.

For Dropsy or Swelled Limbs.

Make a tea of the green branches or leaves of asparagus, not the seeds, but the green branches, cut up and steeped in hot water and drink either warm or cold. I am always sorry to hear people recommend or use liquors of any kind in medicine. If any kind of roots or herbs is steeped until the strength is out, and white sugar added to the strained liquor and boiled slowly until it is thick like molasses, then put in clean bottles, and kept in a cool place, it will be far better and healthier than if any liquor had been added to it.

HATTIE HOPEFUL.

Everywhere.

RURAL SPECIAL REPORTS.

MASS., Monument, Barnstable Co., Sept. 8.—Pearl Millet is a failure with me. The Blount corn is doing well. I raised some very fine potatoes from the Beauty of Hebron the RURAL sent me; I think it is much superior to the Early Rose. Cranberries are about an average crop in this vicinity; some bogs are looking very well, and others not so fairly.

A. W. B.

NEW YORK, Franklin, Delaware Co., Sept. 6.—I planted the Beauty of Hebron potato on the 12th of May, in good garden soil, one eye to a hill, making 22 hills, and by their side, in the same way, at the same time, the same number of Early Rose, with a handful of ashes to each hill, both kinds being treated alike. I dug them after they got ripe, about a week ago, and got one peck of Beauty of Hebron from the one potato you sent. They were nice, and of a good size. There were more than a peck of Early Rose. Both kinds of potatoes ripened about the same time. The willow cuttings sent the previous fall are growing nicely. A few of the leaves of the Pearl Millet are four or five feet high, and some heads are appearing, but I don't want to plant any more of it. I would rather have even the common kind of corn planted here for a forage crop. When I come to speak of Blount's Prolific corn, my patience is tried, not only from what I have experienced with it, but also from what Mr. Blount himself says of it in the RURAL of Aug. 23. It is useless to send a corn to this section for farmers to raise that takes, according to his account, from March 30 to Aug. 5, or from May 7 till October, to ripen, even in the warm Colorado climate. I planted 44 hills of the seed sent me, as I did my common corn, on the 15th day of May, both side by side, fertilized in the hill and out of the hill, and cultivated both in the same way. I cut it up last week. The most of it had tasseled out and five or six silks had made their appearance, two of them on one stalk. I am six feet tall, and I think some of it was about two feet above my head. The stalks were large, but, cut in small pieces, our cow will eat nearly all of them. This is all I want of Blount's Early Prolific corn. Most of the other seeds sent failed to come up. It was a bad spring here for seeds to come up, it was so dry. A. T. N.

N. Y., Andover, Allegany Co., Sept. 3—I planted my Blount's Corn at the last of May; it is now ten feet high, with from five to seven ears on a stalk. Pearl Millet is two feet high. The Defiance wheat failed. The Acme tomatoes are a splendid crop. The Beauty of Hebron potato you sent me did not weigh one ounce; it had six eyes, I cut it into three pieces, and planted one piece in a hill and have dug nine pounds, one ounce of very nice spring potatoes. They alone are worth the price of the RURAL. They were earlier than the Early Rose. Wheat was not a large crop here. Winter wheat was very good. Oats are good where sown early. Potatoes where they have been dug are a good crop. Apples in places where they were not hurt by the frost are good. Altogether we have had a good season here. We are having very dry weather now. C. F. H.

N. Y., Smithville Flats, Chenango Co., Sept. 4.—My Blount's corn is from eight to twelve feet high; I fear it won't get ripe. Pearl Millet is a failure. My Beauty of Hebron potatoes were dug on Aug. 27; from 19 eyes I had 32 pounds of as handsome potatoes as I ever saw. My Acme tomatoes are splendid. J. A. B.

MICHIGAN, Dansville, Ingham Co., Sept. 2d.—We have been having very dry weather since July, but to-day a good rain is falling. Wheat has been mostly thrashed, and is turning out from 15 to 25 bushels per acre. Oats have turned out a full crop. Corn where tended well, is a fair crop. I have never seen any of Blount's Prolific yet. Potatoes will average a good crop, the varieties being mostly Early Rose, Peerless and Peachblow. It will take a good potato to beat the Early Rose. Wheat in market brings 90 to 95c. per bushel; corn, 18 to 20c.; potatoes, 40c.; butter, 8c. per pound; eggs, 7c. per doz. I have not lived in this State very long, but I think Michigan is a good place for a farmer. C. G.

WIS., Freedom, Outagamie Co., Sept. 5.—Thrashing machines are busy. Wheat is yielding better, and is of better quality than last year. We are also getting a better price for

our wheat than we did then. Farmers are feeling correspondingly happy in consequence. Oats are the best crop that we have harvested for years. Other crops are good, except apples, of which we have very few. We are suffering from a severe drought now; pastures and fields are brown and bare. Wells and streams are drying up. Many are waiting for rain, in order to sow fall wheat. Our markets are improving for most kinds of produce, and there is a ready sale for everything that farmers have to sell. J. K.

NEB., Brownsville, Nemaha Co., Aug. 10—Noting some complaint in RURAL as to size and growth of Pearl Millet, I send you to-day, by express, a few specimen stalks from seed you sent me. I do not know whether this is what it *ought* to do or not; but it is what it *has* done. It was sowed broadcast, and had no cultivation. Advise me if this is a *fair* specimen. ROBT. W. FURMAS.

[REMARK.—The package sent to us by Ex-Gov. Furnas contained half-a-dozen stalks of Pearl Millet, about ten feet in hight. It was received Aug. 15. Of course, it may be cut back earlier in the season. The plants will continue to grow till frost.—EDS.]

News of the Week

MISCELLANEOUS.

MONDAY, September 15, 1879.

In view of the constant and frequently just complaints made of the civil service of the Federal government, it is fair to notice the honesty and skill with which it often acts. The last fiscal year closed with every dollar collected by the agents of the internal revenue, over $100,000,000, turned into the Treasury without the loss of a cent The accounts of the 500 postmasters through whom the four per cent certificates were sold have just been closed, and it is found that of the entire amount received in sums of $10 and upward not a dollar has been lost. Remembering the large amount involved and the large number of untried agents called into this service, it was not unreasonable to expect, not so much that any large sum could be stolen, as that carelessness would lead to loss. The result is gratifying.

The congressional committee, to inquire into the causes of the recent hard times, have disbanded for the present, after a trip of over a month at the West, during which they took some 10 days testimony in Chicago and four in San Francisco and examined a few witnesses at Des Moines, Ia. The depression of labor and business was not very perceptible anywhere on the journey, and the farther west the committee traveled the more difficult it became to discover any traces of such depression. At Chicago there were communist socialists. At San Francisco the principal topic of inquiry was as to the effect of Chinese immigration. Farmers, tradesmen, mechanics, peddlers, miners and workmen, all agreed that they could not hold their own against the skill, business capacity, industry, patience, endurance and frugality of the "Chinese." It was with the good qualities of the Chinese that most fault was found.

Dealers in butter here say that the sales made for exportation this week have been heavier than ever before. No actual figures have yet been given, but it is estimated that not less than 175,000 packages have been disposed of; one firm having sold 10,000 packages in one transaction for $65,000; and the week's sale cannot be less than $500,000. The butter has been sold to agents of dealers in Great Britain and the Continent. The price has accordingly advanced from 2c. to 2½c. per pound. The causes of this increase in the traffic are two-fold—first, sales here, owing to low prices, have hitherto been unusually small and vast quantities have been stored here for better prices, some dealers having as many as 50,000 and 60,000 packages kept in improvised ice-houses constructed in the upper stories of their warehouses; in which the temperature has been kept as low as 40 deg., and, second, Irish, Scotch and domestic butter has been thrust with unusual abundance lately upon the English market; hitherto the makers have been accustomed to keep back their butter until they could get winter prices for it; but finding that American product was pretty sure then to come into competition with their own, they have this year forestalled our dairy product, and the small supply now on the British market gives us a profitable opening for our hoarded goods.

Gen. Grant is expected in San Francisco between next Wednesday and the following Sunday. He will be greeted enthusiastically by the best people of the Pacific Slope and several deputations of personal friends from the East. Dennis Kearney, a few days ago, threatened to burn him in effigy on the sand lots, and this blackguardism of the foul-mouthed quintessence of the foreign scum of the country has greatly impaired his popularity even among the hoodlums of San Francisco, and threats are pretty freely uttered should he attempt to insult the American representative whom Europe and Asia have combined to honor as no American has ever yet been honored, that nothing can save him from a merited lynching.

Every day or two the London Times discovers some new article which America is furnishing to the ruin of English trade. The last is machine-made doors. In 1877 2,800 were shipped to England; last year 45,000. An American trade with Australia has sprung up in the same article, but the New York dealers complain that California has swept in the supply of that country, sending 27,000 doors last year while New York supplied but 5,000. By the way, a Springfield firm recently shipped a case of fine doors to Michigan, the lumber for which came from Indiana. Late advices leave no doubt that Kalloch is chosen Mayor of San Francisco.

A Word of Warning. To protect the public, and prevent them from being imposed upon by the worthless counterfeits and imitations of our MURRAY & LANMAN'S FLORIDA WATER, we have prepared a paper in which the words "LANMAN & KEMP, NEW YORK," appear in pale letters when a leaf of the little pamphlet is held up to the light; and whenever Florida water is offered for sale wrapped in a pamphlet that does not have this water mark or stamp in it, then it is counterfeit, and should be rejected.

THE season for contracting that disagreeable and really serious disease, Catarrh, is at hand. Dr. Sykes, of Chicago, in our issue of September 6th, offered our readers a remedy in which he has the greatest confidence. He has the most positive assurances of those who have tried it that it will do without fail all that is claimed for it.

Take Hop Bitters three times a day, and you will have no Doctor bills to pay.

THE MARKETS.

PRODUCE AND PROVISIONS.

NEW YORK, Saturday, Sept. 13, 1879.

BEANS AND PEAS.—There is a fair demand for marrow beans at stronger figures. Mediums very steady; new med. and pea, $1.40@1.45. Green peas quiet. New So. B. E. are in, opening at $2.75@3 per 2 bush. bag. Canadian peas nominal at 70c. medium beans, prime, $1.32½@1.35; fair to good, $1.27½@1.30; marrows, prime, $1.32@1.35; fair to good, $1.25@1.30; pea, $1.20@1.25; red kidneys, $1.75.

Receipts of beans for week, 7,584; exports, 632 pkgs.

BUTTER.—Receipts for the week, 33,052 pkgs.; do., last week, 24,425 do. Exports, 27,000 pkgs. This is about the largest shipment for one week that has ever occurred. The buoyant tone and other improved indications of the butter trade, after the long period of comparative cheapness, have given the market an aspect of unusual cheerfulness. One noted feature in the increased strength of feeling in State is the smal difference wholesale dealers concede to jobbers; this shows that holders are not so anxious to be "helped out" as they were at an earlier point in the season. Compared with last week, and with heavier arrivals to handle, quotations are fully up to last week's ranges for State, certain marks doing better. Western has had its share of the export trade, and fine is quoted to sellers' favor.

State, pails and tubs, single dairy marks, fresh, extra, 18@19c.; State, pails and tubs, best invoices, 16½@17c.; good to prime, 14½@15½c.; fair to good, 12½@14½c.; firkins, choice yellow, 15½@16c.; good to prime, 14@15c.; fair to good, 13@14c.; Welsh tubs, choice, 15@15½c.; good to prime, 13½@14½c.; fair to good, 12½@13½c.; tubs, poor, 9@11c.; creamery, best invoices, 19½@20c.; good to prime, 18@19c.; sweet cream, best, 17@18c.; fair to good, 16@17c.; Western, best invoices, 19½c.; Western, good to prime, 18@19c.; Western, fair to good, 15@17½c.; Creamery, poor, 14@15c.; imitation creamery, 11@14c.; dairy, best invoices, 13@14c; good to prime, 12@13c.; fair to good, 10@11c.; poor to fair, 9@10c.; factory, best invoices, June, 11½@12c.; fair to good, June, 10@11c.; best invoices, Summer, 8@9c.

CHEESE.—This week has shown a very peculiar position of trade. The country markets were so much nigher than an advance of fully one cent per lb, was thought warranted by holders here; this served to restrict business for a day or two, and left the situation somewhat nominal. Later on in the week, however, exporters were forced in by orders from the other side, where there was also an advance, and the full outside rates of the week now prevail strong, at 7½c. quite general on fancy factories. The improvement originated with factory men, who in consideration of the improved quality of the cheese, now turned out would not release their supplies, except at more remunerative rates, and the limited shipments forward left this market rather poorly supplied with really choice factories. There is plenty of undergrades or early made lots in stock, and a good portion of these will have to be carried over, as shippers want the late made lots to help out assortments. Quotations are for fancy at 7½c.; good to prime, 6½@7c.; fair to good, 5½@6½c.; half-skimmed, 4½@5c.; skimmed, 3½@4½c. State farm dairy: Fine, 6½@7c.; good to prime, 5½@6½c.; fair to good, 5½@5c.; skimmed, 3½@4½c. Wisconsin factory: Fine, 6½@7c.; good to prime, 6½@6½c. Ohio factory: Cheddar, fine, 6½@6½c.; do., fair to good, 5½@6c.; flat, fine, 6½@7c.; flat, good to prime, 6@6½c.; flat, fair to good, 5½@6c.; half-skimmed, 4½@5½c.; skimmed, 3½@4½c.

COTTON.—There has been a fair outlet for supplies to exporters, and a good degree of activity otherwise, with prices closing firm at for September, 12.18@12.19c.; October, 10.62c.; November, 10.46@10.47c.; December, 10.40@10.41c.; January, 10.48@10.49c.; February, 10.58@10.60c; March, 10.69@10.72c.; April, 10.80@10.82c.

Quotations for spot cotton are based on American standard of classification, and on cotton in store running in quality not more than half a grade above or below the grade quoted.

	Uplands.	*N. Orleans and Gulf.*	*Texas.*
Ordinary	10¾	11	11
Strict ordinary	11⅛	11⅜	11⅜
Good ordinary	11⅜	11⅝	11⅝
Strict good do	11⅜	12	12
Low middling	12	12⅛	12⅛
Strict low middling	12 3-16	12 5-16	12 5-16
Middling	12 5-16	12 7-16	12 7-16
Good middling	12⅝	12¾	12¾
Strict good middling	12⅞	13	13
Middling Fair	13 9-16	13 11-16	13 11-16
Fair	14 3-16	14 5-16	14 5-16

STAINED.

Good ordinary	11 1-16	Low middling	11¾
Strict good ordinary	11 7-16	Middling	12 1

DRIED FRUITS.—Apples are in steady demand and rule at firm prices. Blackberries are higher. Cherries favor sellers. Peeled peaches are held at strong figures, and now are especially wanted, while they continue in small receipt. New North Carolina apples, 5¼@5½c. for common sliced, and bright, 7¼@8¼c., with really fancy white at 9@10c. Patent evaporated apples, choice, in cases, at 11c@12c.; do. fair to good, 8½@10c.; N. Y. State sliced, choice, 5@5¼c.; do, quarters, choice, 4½@5c.; western quarters, bright, new, 5@6c.; common and old, 2@4½c.; new N. C. peeled peaches at 12½@16c.; do. Georgia, 10@13c.; old unpeeled halves, 4½c.; do., quarters, 3½@3¾c. Blackberries at 8c. for old and 8½c. for new. Raspberries 28@29c. Pitted cherries at 20c.

EGGS.—Receipts for week, 5,627 bbls.; do., last week, 6,554 do. The market is higher and can be sustained if receipts do not crowd.

Near points, 18@19c.; State and Penn., @17½c.; Western, and Canadian, choice 16½@17c.; poor marks and remnants, 15@16c.

FLOUR.—Exports are large and trade generally brisk, with prices doing better.

Prices are: $3.75@4.35 for poor to very fancy superfine State; $4.35@4.60 for poor to good extra do., odd lots and lines; $4.60@4.85 for good to choice do.; $3.75@4.35 for inferior to fancy superfine Indiana, Iowa, Michigan, &c.; $4.35@4.60 for inferior to good shipping extra do., and $4.60@4.85 for good to choice extra do.; common to choice white wheat extras, $4.90@5.80; choice to very fancy do. at $5.80@6.50; red and amber winter wheat, inferior to very choice trade and family, at $4.70@6.10; round hoop Ohio at $4.40@4.85, and trade and family brands of do. at $4.90@6.10, the latter rate for choice; St. Louis, $4.20@5.75 for inferior to very good extra; $5.75@6.65 for very good to fancy; Minn. clear, very inferior to very fancy, at $4.35@5.85; do. "straight," very inferior to strictly fancy, at $5.25@6.50, and patent poor to fancy at $5.25@7.50; unsound stock at from $3.00@5.75; city mill extra at $5.35@5.60, fair to choice, for West Indies; do. for England, $4.35@4.80 for very poor to very choice; do. trade and family extras, $5.50@6.50; do. for South America, $5.40@5.75 for standard to choice brands; No. 2 at $3.00@3.75 for very poor to very fancy.

CORN MEAL—Is selling at $2.65@2.75 for Brandywine and $2.15@2.20 for Western.

FRESH FRUITS.—Apples are in large supply, but with higher pears and moderated supplies of peaches, prices may be called steadier.

Blush Pippin, up-river, ₱ bbl., $2.00@2.25; do., western N. Y., $1.75@2; do., Gravenstein, $1.75@2; do., Alexander, $1.75@2; do., Fall Pippin, $1.50@1.75; do., 20 oz. Pippin, $1.75@2; do., Maiden Blush, $1.75@2; do., Calvert, $1.50@1.75; do., Cranberry Pippin, $2; do., Strawberry, $1.50@1.75; do., Detroit Red, $1.75@2; do., Golden Sweet, 75c.@$1; do., mixed lots, $1.50@2. Cranberries have appeared. Cape Cod, bbl., $8@9; crates, full colored, $1.75@2.25; poor, $1@1.25. Pears have generally advanced. Bartlett, State, good to prime, ₱ bbl., $5@6; do., up-river, extra, $5.50@6; no., fair to good, $4@5; do., Boston, per bush. box, $1.75@2.25; Seckel, $2.50@3.50; Swans' Orange, $2@2.50; Flemish Beauty, State, $3@3.50; do., up-river, $2@2.50; cooking, $1.50@2. For general use peaches have nearly worn out their welcome Supplies will struggle along until the middle of October. With the early contributions of the South and late pickings from Hudson river gardens, New York will have a long season. Thus far 1,357,000 baskets have been marketed here and over 200,000 do. for England—not 3,000,000 baskets: as our typo stated last week. Southern Smocks, best, 90c.@$1; plain, 60@75c.; do, white, 90c.@$1; up-river, choice, $1.25@1.50; fair, 60@75c.; N. J., choice, 1.25@1.37; poor to good, 40c.@$1. Grapes easy with a full supply. Delaware, State, 18 3-lb. boxes, $2.50@3; do, in baskets, ₱ lb. 5@7c.. do., up-river, bulk, ₱ lb., 7@8c.; Concord State, 18 3-lb. boxes, $2@2.25; do, in baskets, ₱ lb., 3@4c.; do., up-river, 18 3-lb boxes, $1.25@1.75; do., up-river, bulk, ₱ lb., 3@3½c.; do. S. J'y, case of 24 2-lb. boxes, $1.25@1.62; do., S. J'y & Del., bulk, ₱ lb., 2@3c.; Hartford Prolific, up-river, per lb., 2@3c. Plums show an important advance. German Prune, per bbl., $10@12; Quackenboss, $8@9; Purple Egg, $7@9; Reine Claude, $5.50@6.50; Blue Gage, $5@5.50; Lombard, $4@5; Damson, $5.50@6.50. Peanuts have a strong market, owing to a light offering. Va. hand-picked, $1.65@1.70; extra prime to fancy, $1.47½@1.55; good to prime, $1.35@1.45; shelled, per lb., 6@6¾c.

GRAIN.—The export movement in wheat is brisk, and the speculative activity is unprecedented, with a feverish market, which, however, leaves off strong. Sales at the close are of No. 1 amber at $1.13¾@1.14; No. 2 amber at $1.12¾@1.13¾; do., September option, at $1.13@1.13¾; do., October, at $1.13¾; ungraded amber at $1.10@1.13¾; No. 1 white at $1.13¾@1.14¼; do., September option, at $1.13¾@1.14¼; do. for October at $1.13¾@1.14¾; do., November, at $1.14¼@1.14¾; No 2 white, at $1.12¾; ungraded white at $1.9@1.12¾; No. 1 red at $1.15¾; No. 2 red at $1.13@1.13¾; do., September option, at $1.13@1.13¾; do. October option, at $1.13¾@1.13¾; do., November, at $1.12¾@1.14¼; No. 3 red at $1.10@1.11¾; ungraded red at $1.04@1.13¾; mixed winter at 1.12¾@1.12¾; No. 2 Chicago and Milwaukee spring at $1.05@1.07; New York No. 2 spring at $1.06@1.08¾; do., October option, at $1.07; No. 2 Northwest spring, October option, at $1.07@1.08; No. 3 spring at $1.03@1.04; ungraded spring at 97c.@$1.06. Rye is strong at 65@65½c. for poor Western. Corn is fairly active and strong; latest sales of New York No. 2 at 47@47¾c. do., September, at 47¼c.; do., October, at 47¾@47½c.; do., November, at 48¾@48½c.; New York steamer mixed at 47@47¼c.; do. for September, quoted at 47c. bid; Oct. at 47½c. bid and 48c. asked; November at 47½c. bid; ungraded Western mixed at 47@48c.; No. 2 white, in lots, at 57½@58c; 400 bush. round yellow at 57c.; yellow Western at 48@48½c.; yellow Southern at 50c. Oats have a liberal inquiry and closed at firm prices; sales of New York No. 1 white at 37@37½c.; New York No. 2 white at 34c; New York No. 3 white at 33c.; No. 1 at 34c.; No. 2 at 33¼@33¾c.; No. 3 at 32½@32¾c.; New York rejected at 31c.; ungraded mixed Western at 31@33½c.; white do. at 34@38½c.; white State at 32@38c; mixed State at 34@35; No. 2 Chicago at 34c.

HAY AND STRAW.—Prime hay is in small receipt and wanted. Other grades are plenty and freely offered. Sales at 50c. for shipping; 70@80c. for prime, and 55@60c. for medium. Straw at 55@60c. for long rye, 40@45c. for short rye, and oat at 35@40c.

HOPS.—Emmet Wells in his circular says: "A lively export demand for old hops continues, the shipments this week amounting to a little over 1,700 bales. The total receipts into New York since the 1st of the month reach 5,200 bales, only about 750 of which were of the new growth, the balance being 1877s and 78s, chiefly the former. A few sample lots of new have been sent to London with a view of testing that market, but the quality of those sent is nothing like as good as our middle and later pickings will show. No price is yet established in London for our new hops. Here in New York the price ranges from 28 to 35 cents, according to grade and quality. Our new crop is estimated at from 50 to 70 per cent. that of last year. Sixty per cent. would give us about 100,000 bales, or say a yield equaling two-thirds that of last year. The market closes strong."

	Bales.
Receipts for the week	1,669
Total receipts since September 1, 1879	3,414
Total receipts for same period in 1878	175
Export clearances for the week	1,713
Total exports since September 1, 1879	5,209
Total exports for same period in 1878	658

Quotations are for New Yorks, new crop, 28@36c.; Eastern, new crop, 28@31c.; Wisconsin, new crop, none; Yearlings, growth 1878, 7@18c Olds, all growths, 4@10c.; Pacific coast, growth 1878, 9@14c.

OIL-CAKE.—Western is quoted at $27@27.50 per ton.

POULTRY AND GAME.—Live poultry active and higher, a Jewish festival on the 18th helping sales.

Chickens, Jersey, Pa. and State, ₱ lb., 12@13c.; Western, 11@12c.; Southern, 10@11c.; fowls, Jersey, 13@13½c.; Western, 13c.; Southern, 12@12½c., roosters, old, 6@7c.; turkeys, Jersey, State and Pa., 12@13c.; Western, 11@12½c.; Southern, 11@12c.; ducks, Jersey, N. Y. and Pa., ₱ pr., 60@75c.; Western, 40@50c.; Southern, 40@45c.; geese, Jersey, $1.50@1.75; N. Y. and Pa., $1.37½@1.62½; Western, $1@1.25; Southern $1@1.25; pigeons, 20@25c.

Dressed poultry sells steadier, with more seasonable weather for use.

Turkeys, Phila., dry-picked, 15@16c., State and Western, prime, 13@15c. Chickens, spring, Phila., 15@17c.; State, 13@14c.; Western, 12@13c. Fowls, Phila., dry-picked, ₱ lb., 14@15c.; N. J., choice, 14@00c.; State and Western, dry-picked, 13@14c.; State and Western, scalded, 12@13c. Ducks, spring, Phila., dry-picked, ₱ lb, 14@15c.; spring, State, 12@14c.; old, Phila., dry-picked, 12@13c.; old State, 11@12c. Squabs, white, per doz., $2 25; dark, $1.25@1.50.

Game plenty and lower. Wild ducks, canvas, $1; red heads, 60c.; Mallard, 50c.; Teal, 40c., small birds, ₱ doz., 20@60c.; partridges, State, $1.25@1.37; do. Western, $1@1.12; grouse 15c.; wild pigeons, $1.25@1.50; woodcock, 80@90c.; Eng. snipe, $1.50.

SEED.—Timothy is scarce and higher, quoted at $2.40@2.50. Clover is in demand and quoted at 6¾@7¼c. for Western.

TOBACCO.—Export demand is still small, and trade otherwise moderate.

KENTUCKY LEAF.

	Light.	Heavy.
Common lugs	3¼@ 4	4¼@ 5
Good lugs	4½@ 5	5½@ 6
Low leaf	5½@ 6½	6½@ 7¼
Medium leaf	7 @ 7¾	8 @ 8¾
Good leaf	8 @ 8¾	9 @10¾
Fine leaf	9 @11	11 @ 12
Selections	12 @—	12½@14

SEEDLEAF.	Crop of 1877.	Crop of 1878.
New England Havana seed	— @—	22 @30
do. wrappers, common	12 @14	— @—
do. do. medium	15 @17	— @—
do. do. fine	18 @25	— @—
do. do. selections	27½@35	— @—
do. seconds	— @—	10 @12¾
do. fillers	— @—	5 @ 6½
Penn. assorted, common	— @—	10 @12
do. do. fair	13 @14¾	13 @15
do. do. fine	15½@18	17 @22
do. wrappers	20 @40	— @—
do. fillers	9 @10	— @—
N. Y. ass't'd, com. to medium	— @—	— @—
do. do. do. good	12 @15	12½@15
Ohio assorted	9 @12	8 @14
Ohio wrappers	12 @18	— @—
Wisconsin assorted	8¾@10	8 @12
Wisconsin Havana seed	— @—	15 @20

PROVISIONS—Have tended higher, chiefly on speculative manipulation, with export demand slack. Mess pork quoted at $8.65@8.75 for September; October at $8.70@8.80; November at $8.70 bid and $8.80 asked, and the December option at $8.65 bid and $8.80 asked. Bacon at $5.15@5.25 for long clear and $5.37½@5.40 for short clear. Lard—Western steam at $6.10@6.12½ for spot and September, $6.20@6.22½ for October, $5.92½@5.95 for November and $5.85@5.87½ for December. Stearine at 6¾@6½c. for Western. Tallow at 5 13-16@5¾c. for prime. Beef hams at $17@17.25. Beef—Plain mess at $10.25@11; extra mess at $11.50@12; packet at $11.50@12; tierced beef, city extra India mess, at $19@22, and Philadelphia do. at $18.

VEGETABLES.—Exports of potatoes for week, 5,900 bbls. Potatoes continue low, but with this date and a good shipping call, prices are not likely to fall off. Sweets doing better. Early Rose, State, ₱ bbl., $1@1.25; do., L. I., fair to prime, $1@1.25; do., Albany, $1@1.25; Peerless, Jersey, 87c.@$1; sweet potatoes, S. Jersey and Del., $2@2.50; Jersey, $1.75@2; Va., yellow, $2@2.25. Green corn, per 100, 50c.@$1; cucumbers, L. I., per 100, 40@50c.; do., pickles, ₱ M, $1@1.50; tomatoes, L. I., near-by, per crate, 20@25c.; string beans, ₱ bag, 75c.; potato Lima beans, $1.50@1.75; Lima beans, flat, $1@1.25; do., shelled, ₱ bu, $3@3.50; squash, marrow, ₱ bbl., 50@75c.; cabbage, flat Dutch, per 100, $2@4 00; onions, white, per bbl., $2@2.25; red, Eastern, $1.50; do., Chester, $1.50; yellow, $1.75@2; beets, N. J., $1; Russia turnips, Jersey, ₱ bbl., 50@75c.; carrots, $1.25@1 50; egg plant, L. I. and near-by, per 100, $1.50@2; coppers, bullnose, ₱ bbl., $1@1.50; pumpkins, per 100, $3@5.

WOOL.—The market is strong and active. Latest sales are of X, XX and No. 1 Ohio at 38@42c.; XX and above do. at 39c.; No. 1 Penna. at 40c.; Dutchess county combing at 41c.; Oregon combing at 33c.; Valley Oregon at 31@32c.; Colorado at 24@26c.; unwashed Indiana at 32@33c.; spring Texas at 22@23c.; scoured do. at 57@65c.; spring California at 20@23c.; Kansas at 25@26c.; domestic coils at 38@41½c.

LIVE STOCK MARKETS

NEW YORK, Saturday, Sept. 13.

BEEVES.—Receipts for the week, 10,821 head; do. last week, 11,914 do. There was a sharp demand for first quality cattle at good prices, but Texan and undergrade natives, were weak and a shade lower compared with Wednesday last. Poor to extra native steers sold at 7¾c. to 10¾c., 55@57 lbs. dress. Texas, 6¾@7¾c. Export sales moderate.

SWINE.—Receipts for the week, 22,115 head; do. last week, 21,401 do. There was considerable inquiry for hogs at the close, and 4½@4¾c. might have been obtained. City dressed, 5¾@5¾c.; pigs, 5¾@8c.

New Jersey dressed are quoted early; pigs, 6¾@7c.; light, other, 5¾@6c.

SHEEP AND LAMBS.—Receipts for the week, 30,258 head; do. last week, 30,868 do. Sheep have worked into an improved movement, selling readily at 3¾@5c. for common to prime; extra wethers, 5¾@5¾c. Lambs dull and weak, 4¾@5¾c. for poor to choice.

COWS AND CALVES.—With large supplies of milch cows and a limited demand, prices are wide and uncertain. Range, $20@45; few at the latter.

VEAL CALVES.—Market brisk. N. J. and Bucks Co., 5@5¾c.; State, including Harlem, 6@6¾c.; poor to fair lots, 5@5½c.; Buttermilk 3@3½c.; grassers, 2¾@2¾c

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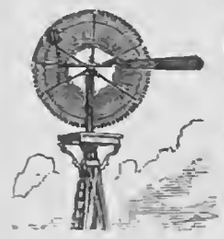
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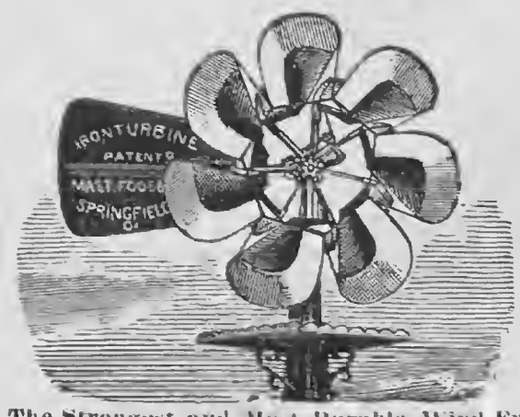

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Reading for the Young

THE BIRDS' PARTY.

LAURA S. HAGNER.

THE birds gave a party one bright summer's day—
'Twas held in a meadow of newly-mown hay,
Close by an old orchard, where apples of June
Kept the throats of the choristers sweetly in tune.

A hedge of wild roses this meadow concealed
From the farmers at work in a neighboring field;
While the hum of the bees, and the murmuring brook,
Made a paradise quite of this sweet little nook.

The first to arrive was the Carrier-dove,
Who brought the regrets of her friends of the grove,
The pouters and nuns, who had serious reason
To give for thus slighting the ball of the season.

Then came the Cock-Robin with sweet Jenny Wren,
The Blackbirds, a family party of ten.
The Thrushes in brown, and the Jaybird in blue—
With wild Bob-o-linkum who makes such ado.

The King-bird and suite, next arrived, I am told,
With the Oriole dressed all in velvet and gold;
While the cardinal thought it no shame to be seen
In humble attendance upon the gay queen.

The sweet Meadow Lark was the hostess that day,
Of manners so gentle and temper so gay;
Tho' 'tis whispered discreetly, half earnest, half fun,
That her graces were learned at the court of the sun.

In strutted the Peacock, a vain, gaudy bird,
And rendered himself by his airs quite absurd,
But the Daws in a corner just whispered together,
And soon the poor creature had scarcely a feather.

In a bower of ivy screened off from the day,
The Owl and the Bat dozed the morning away;
While the Woodpecker's tap, and the Cat-bird's wild scream,
Failed to rouse the dull souls from their indolent dream.

Neath a wide spreading locust the banquet was spread,
Whose clustering blossom a rich odor shed,
Where seated on couches by Nature designed,
On the sweetest of berries they merrily dined.

(But alas for the plans of the children of clay!
The farmer that moment remembered his hay.)

The dessert had been placed, and in bumpers of dew,
Many toasts had been given, when over there flew
A pert little Sparrow whom nobody knew.

"Farmer Seedwell," he cried; "Ladies, fly for your lives!"
Then into a sheltering thicket he dives.
The birds gave a flutter, and off they all flew
Without even bidding their hostess "Adieu!"

"BUD BROWN."

BY HOPE LEDYARD.

A STORY? Well, I'll try. You like a true story best, I know, so I will tell you of a little black boy I became acquainted with when I went to Atlanta to attend the grand Sunday-school Convention.

I had a letter introducing me to some people at Atlanta, and so one afternoon I resolved to hunt them up. I was told to take the "Taylor Hill" car, but as I asked my way I passed a row of carriages. Such looking carriages you never have seen, I am sure. The linings were torn or the windows broken, they were dirty and old and rickety, and the horses were to match. Still, I was tired, and as they told me I would have to walk some distance if I took the cars, I was tempted to take one of these affairs, and the drivers surrounded me, begging me to "take a carriage."

Among the men and boys was one little fellow not more than eight years old, almost lost in a crowd. I laughed at the earnest, comical looks of the negroes.

"Sho!" said one big fellow whose hat was remarkable among the rest as having a complete brim, "the lady don't want a carriage—none o' your ole tings. Hyar's the one, madam!" pointing with a flourish to a double carriage which certainly was a trifle cleaner and more whole than the others.

"Thank you," I answered, "but I want this little chap's carriage. Show me yours, my boy."

The older fellows laughed good-humoredly; many of them, no doubt, had their own piccaninnies, and were not vexed that the boy should be chosen.

To tell the truth, after I had gotten into the one-horse carryall, and my boy was seated in front, my heart failed me a little. The horse, though bony, had considerable spirit, and "Bud Brown," as he told me he was called, drove in regular darkey style, letting the reins hang loose, and flicking the horse's ears with his whip every moment.

"Can you take me to Mrs. Ware's?" I asked.

"Oh ya-as! I know all 'bout dem folks—Colored University, I'm gwine dar mysef."

"But then you ought to go to school to get ready—not drive round."

"Oh! I was late this mornin', so I missed school; but I know my lessons. G'lang! (to the horse.) Do you see that little house? That's where we live. I'll get you some roses if you'll stop a minute."

I was quite ready to wait for the roses, and admired the neat little garden. Then we drove on, chatting together until I almost forgot my fears.

My call was made, and my friend decided to come back with me to the convention. She had no pocket in her dress, and unknown to me she handed little Bud—who was a complete stranger to her, remember—her purse, telling him to keep it for her, and to call again at four o'clock to drive her out.

When I heard what she had done, I was startled; she might never see her purse again. "There was not much in it, and how can that boy prove he is honest unless he is tried?" said my friend.

Now, remember, this was a poor boy, very ignorant, and no doubt with many ungratified wishes as to candy, books and pictures. At four o'clock, though, as we left the church, there was our boy, and with a bright smile he handed back the purse.

"Bud," I said, "who taught you to be so honest?"

"Why, Miss, I go to Sunday-school, and I'm gwine to the University. I'm bound to be honest."
—*Sunday-school Times.*

AN INDIAN LEGEND.

THERE was once a beautiful damsel upon whom one of the good genii wished to bestow a blessing. He led her to the edge of a large field of corn, where he said to her: "Daughter, in the field before us the ears of corn, in the hands of those who pluck them in faith, shall have talismanic virtue, and the virtue shall be in proportion to the size and beauty of the ear gathered. Thou shalt pass through the field once, and pluck one ear it must be taken as thou goest forward, and thou shalt not stop in thy path nor shalt thou retrace a single step in quest of thine object. Select an ear full and fair, and according to its size and beauty shall be its value to thee as a talisman." The maiden thanked the good genius, and then set forward upon her quest. As she advanced she saw many ears of corn, large, ripe and beautiful, such as calm judgment might have told her would possess virtues enough; but in her eagerness to grasp the very best she left these fair ears behind, hoping that she might find one still fairer. At length, as the day was closing, she reached a part of the field where the stalks were shorter and thinner, and the ears very thin and shriveled. She now regretted the grand ears she had left behind, and disdained to pick from the poor show around her, for here she found not an ear which bore perfect grain. She went on, but alas! only to find the stalks more and more feeble and blighted, until in the end, as the day was closing, and the night coming on, she found herself at the end of the field without having plucked an ear of any kind. No need that the genius should rebuke her for her folly. She saw it clearly when too late; and how many in all climes and in all ages, in the evening of life call sadly and regretfully to mind the thousand of golden opportunities forever lost because they were not plucked in their season.

CONDUCT NOT POLITE.

SEVENTEEN things in which many young people render themselves very impolite:

1. Loud laughter.
2. Reading when others are talking.
3. Cutting finger-nails in company.
4. Leaving meeting before it is closed.
5. Whispering in meeting.
6. Gazing at strangers.
7. Leaving a stranger without a seat.
8. A want of reverence for superiors.
9. Reading aloud in company without being asked.
10. Receiving a present without some manifestation of gratitude.
11. Making yourself the topics of conversation.
12. Laughing at the mistakes of others.
13. Joking others in company.
14. Correcting persons older than yourself, especially your parents.
15. To commence talking before others are through.
16. Answering questions when put to others.
17. Commencing to eat as soon as you get to the table.

HOW MANY WERE THERE?—Henry, upon being asked how many boys were in his Sabbath-school class last Sabbath, replied: "If you multiply the number of Jacob's sons by the number of times which the Israelites compassed Jericho, and add to the product the number of measures of barley which Boaz gave Ruth; divide this by the number of Haman's sons; subtract the number of each kind of clean beasts that went into the ark; multiply by the number of men who went to seek Elijah after he was taken to heaven; subtract from this Joseph's age at the time when he stood before Pharaoh; add the number of stones in David's bag when he killed Goliath; subtract the number of furlongs that Bethany was distant from Jerusalem; divide by the number of anchors cast out at the time of Paul's shipwreck; subtract the number of people saved in the ark, and the remainder will be the number of boys in the class." How many were there?

THE PRIZE PUZZLE.

NUMEROUS answers to the prize puzzle published August 23d, have been received, and a large majority of them are correct. I am inclined to think that the puzzle was too easy, (a fault which can readily be avoided in the future) for the correct answers have greatly outnumbered my supply of books. Not having books for all, and being loth to disappoint anybody, I have procured some very pretty steel engravings, each of which cost $3.50 at wholesale, and instead of a book, I have sent one of these to each cousin who gave the answer correctly. UNCLE MARK.

LETTERS FROM THE COUSINS.

DEAR UNCLE MARK.—Will you please admit me as a member of the club. One of my brothers subscribed for the RURAL last spring; he gave me all the seeds, but the wheat and millet, which he received from the RURAL. Everything came up and is doing nicely but two sorts of the flower seeds. The Acme tomatoes were well planted in hills in the open ground, and are loaded with large, perfect fruit. I have planted a row of the Beauty of Hebron potato from seed matured this summer from the potato we received. Though I have worked some in the vegetable garden a couple of summers before this, this is the first year that I have paid much time and thought to gardening. I am trying various experiments in my garden, if Uncle Mark and the cousins wish I will tell of some of them in future letters. [Please do.] I have Kentish Invicta peas now ripe, which were planted from seed raised this year. Turnips are doing nicely in place of the late peas. Melons are running riotously over the early pea patch. Tomatoes are looking contented and at home, where in the spring grew the lettuce, cress, &c. Oh dear, here I am on the very verge of that dreadful waste basket. Good-bye, all, from a friend to you all—from BEYOND THE MISSISSIPPI.

Kearney, Neb.

DEAR UNCLE AND COUSINS:—I received those seeds you sent to me all right, and am ever so much obliged to you for them. I planted them according to your directions. Uncle Mark, I wish to know what makes corn mix when the different kinds are planted near each other. My garden is doing very well, but it needs rain. The wheat crop around here was damaged considerably by the frost last winter, and it has suffered also from the Hessian fly. I send my love to Uncle Mark and all the cousins. Yours truly, LAKE SIDE.

Wesleyville, Pa.

[Corn bears flowers as do all of the cultivated grains. Now, if you have studied the lesson on the flower which appeared lately in the RURAL, you know that there are two sets of organs in a flower, the stamens and the pistils, that are necessary in order to produce seed. If a flower has stamens and no pistils, it is called a staminate, or female flower, and if it has pistils and no stamens, it is called a pistillate, or female flower. The staminate flower can never produce seed, but though there are no stamens *in* the pistillate flower, it can produce seed if the staminate flower is so near that some pollen can fall upon the pistils. These are just the conditions we have in the corn. There are two kinds of flowers; the tassel on top of the stalk bears staminate flowers and the silk is the pistillate, or female flower, and the pollen falls from above down upon the silk and fertilizes it. Now if two varieties of corn are planted so near together that the wind can blow pollen from one kind over upon the silk of the other, the two kinds of corn are said to "mix;" that is, the corn in the ears will have some point in common with the two parent plants. You can easily learn this for yourself by planting black and white sweet corn in two rows close together. The two will "mix," and a great deal of the young corn will be neither black nor white but red. UNCLE MARK.

DEAR UNCLE MARK:—I would like to join the Horticultural Club; our garden is much longer than a hoop though not very large. We raise all the vegetables we use in the summer; my brothers and I have to take care of the garden together. Mother has always raised flowers ever since I can remember, and I always have some plants or bush of my own. The seeds mother received from the RURAL are doing first rate, considering how late they were planted, there were but two or three that didn't come up. We have to irrigate twice a week and use the watering pot a great deal to get anything to grow here. I read the cousins letters with much interest, and also the answers to the correspondents. I would like to propose a plan by which to give the names of plants, but I don't know as I ought to, this being the first time I have written to you, but it may be of considerable interest to the members of the club. I see a great many send in plants to be named such as the Dog-tooth Violet and other plants. I may have seen them a good many times, for there are a good many wild flowers here, and I know some of them, and some I don't. Now, if you could give pictures of those that are sent in, it might prevent others from sending in the same plants and then we could all know how the plants looked that were named. I guess this letter is long enough for my first. I am eleven years old. Yours truly,

Grant Co., Oregon. ROBERT LOCKWOOD.

DEAR UNCLE MARK:—Seeing that there are so many joining the Horticultural Club, I thought I would like to join too, and I would be very much pleased to have my name placed upon the list. Some of all the seeds we got from the RURAL came up except the Aquilegias. I planted them in three different kinds of soil and in the house and out-doors but none of them came up. The ornamental beets are growing nicely and I wish to ask if they are edible? (Yes.) There were two Pinus edulis trees that came up one met with a mishap and died the other is growing well. I planted all the seeds in May, out-doors and some of them did not come up until July. There was only one of the sweet-scented shrubs came up, and after they had been planted so long I thought I would see if I could find any of the seeds and while I was stirring the soil I broke one off that was coming up. I have several kinds of flowers and among them I have a silver-tipped Geranium, the center of the leaf is green and the edge is white. The plant sent out two sprouts one of which is clear green, and the other is clear white. It is two feet high. This is the first time I ever wrote to the RURAL. I live in the Province of Ontario and also in the county of Ontario about seven miles north of Lake Ontario. L. H.

Othawa, Ont.

DEAR UNCLE MARK:—I would like to join the Horticultural Club. I do not have a garden of my own, but I have several flower beds. The largest is seven or eight feet across. It is made by placing stones about a foot and a half through in a circle, and then making a smaller circle inside the larger one and then filling it up with dirt. On the upper one I have in the center a Bronze Ricinus, and Thunbergia vines around the edge to run over the stones. On the lower there are Portulaca, Petunia, Phlox, Convolvulus, Sweet Alyssum, etc. Mother has a good many flowers besides, and I help take care of them. We have a few plants of every variety of seed the RURAL sent us, except Vitus heterophylla and Yucca. Mother has planted some more of the Yucca seed. Do the seed of the Vitis require any special treatment? Can you tell me the name of the plant, a piece of which I send. It is an annual. Perhaps if you accept my letter I will write again.

Cuyahoga Co., Ohio. EDITH A. HUNT.

[The plant is perhaps Fumaria officinalis, the flower was too much crushed when received to determine it with certainty. The Vitis seed does not require any *special* treatment.—U. M.]

DEAR UNCLE MARK:—As it has been some time since I wrote you, I will try again. I have a garden, which was manured last spring. It is close to the Blount corn. I dug it up and raked it; it was just after the first good rain, which was in the last part of July, and it worked up very well. I planted potatoes, sweet corn, bush beans, turnips, and I am also raising some cabbage for father. My garden is 36 by 53 feet. I planted my potatoes on the 23d of July, sweet corn on the 24th of July, beans on the 25th of July and my turnips on the 13th of August. My pop-corn looks fine; I have never seen so many ears on a stalk. I have one flower bed, in which I planted Geraniums, Cockscombs, Bachelor's Buttons, Pinks, Snapdragons and Zinnias. I have got 25 Geraniums and six foliage plants. Mother's flowers did not come up very well, but what have come up are doing finely. We are having a nice August rain; the ground is plenty wet here. I like Wm. J. Mason's letter. I have not seen many letters from Illinois, so please print this. ROBERT L. HARNEY.

Morgan Co., Ills.

DEAR UNCLE MARK:—I grew up with the RURAL NEW-YORKER in the house and now that I have a home of my own it finds its way to our house, weekly, and is a most welcome visitor I assure you. As ever, I take a deep interest in the cousins letters, and am highly pleased with your endeavors to create a taste in the youthful ruralists for flowers and rural surroundings. I am very fond of flowers, and have some fine ones. I have an Oleander, now four years old, which is at the present time loaded with buds and blossoms. I have practiced the same treatment which you recommended to a cousin a few weeks since, and consider it the true course to pursue if one wishes to have a beautiful shrub. If acceptable, I should like to join the Horticultural Club, and will from time to time, pen short notes of my success or failure in the horticultural line. EMILY.

Corning, N. Y.

DEAR UNCLE MARK:—For a long time I have had a desire to join the Horticultural Club, but was afraid that I was too old. I am 23 years of age, am a young farmer's wife. I have a nice flower-garden with over thirty varieties of flowers. The Bronze Ricinus sent us is a perfect beauty; it is of a rich, bronze color; is now four feet high and covers as many square feet of ground. Hollyhocks, Vitus and Hibiscus, are all the flower seeds that came up. If you have room in one corner, I would like very much to become a member of the club. I am sorry you do not approve of exchanging seeds. I should like very much to exchange seeds with some of the RURAL cousins. If you accept me as a member, I will endeavor to report my success as a florist. Yours truly, AZILCA.

Linesville Station, Pa.

[Azilca is heartily welcome, and so is Emily, above.—U. M.]

DEAR UNCLE MARK:—I have often thought that I would like to be one of the cousins, and write to the RURAL. My father has taken it since 1859 every year until two years ago he thought he would try something else; but this year he subscribed for the RURAL again, and we were all glad to see it. I read the "Reading for the Young" first, and always find it interesting. My sister and I have a flower-garden; it is twenty feet wide and forty feet long. We have quite a good many kinds of flowers and are quite proud of our garden. The solution of the prize puzzle in the RURAL of August 23d is "Man-slaughter," and I hope I am entitled to a prize. Well, I guess I will close for this time. LIBBIE C. DEY,

Seneca Co., N. Y.

DEAR UNCLE MARK:—As so many of the boys and girls have joined the Horticultural Club, I thought that I would like to join, so please put my name on your long list. I do not have any house plants this summer, but I have some running vines out in boxes and hanging-baskets. I have a good deal of Ivy, which I think is very nice. I think the RURAL is a splendid paper, and I love to read the letters from the cousins. I should like to write more, but I am afraid I will take up too much room, as my letter is quite long now.

Niagara Co., N. Y. MARY H. TRYON.

DEAR UNCLE MARK:—I wish to thank you for the seeds you sent me, the Hollyhock, Bronze Ricinus, Celosia and Eryngium Leavenworthii grew. The Celosia looks nice all covered with blossoms. The Eryngium is full of buds. The potato you sent us had twelve eyes, all of which grew. There was two-thirds of a bushel from the twelve eyes, and they were earlier than the Snowflake and Early Rose that grew right beside them. I remain your friend, NETTIE.

Sturgis, Mich.

DEAR UNCLE MARK:—My garden is doing nicely. The Beauty of Hebron potato was first-rate, and the Rural tomatoes were the first to ripen and are very good. I received the Dolly Dutton corn, for which I thank you very much. Must we cover the plants grown from the seed you distributed, or will they live through the winter without? [The plants need not be covered.—U. M.]

Barnstable Co., Mass. GEORGIE W. BOURNE.

DEAR UNCLE MARK:—I am now 14 years old. We have some flowers, six or seven kinds of Roses, three kinds of Hollyhock, some Gladioli, Pansies and yellow and blue Irises. We have some chickens. I will not tire you with too long a letter this time. FLORENCE N. CHANDLER.

Cameron Co., Pa.

PERSONAL ITEMS.

George Leclereq of Copper City, Pa., stuck a giant powder cartridge into his mouth, lit the fuse, and the explosion literally blew his head off.

Deacon Peter Young, of the Norwich (Conn.) African Baptist Church, has gone triumphantly through a trial on a charge of stealing cabbages, the jury acquitting him.

The stranger who talked eloquently in a Stamford (Conn.) prayer-meeting turned out to be a burglar, who had come to town on business, and incidentally sought amusement.

The Rev. D. T. Benjamin of McArthur, O., undertook to be a peacemaker between a husband and wife, and was killed by a blow of the club which the man had been using upon the woman.

Jonathan Haskall, the "Reformed Clown," is a Western Temperance lecturer. At Monroeville, Ind., he ejected a popular rumseller from a meeting, and was subsequently driven out of town by a mob that pelted him with eggs, mud, and tar.

A rare and enormous orang-outang, a widower, is the most interesting recent arrival at Paris. His wife died soon after they were caught in Borneo, and all his affection is now concentrated on their son. The father is described as the personification of melancholy.

Of the four sons of the ex-Khedive of Egypt, the eldest is Tewfik, who has replaced his father. The second is Hassan, who was educated at Oxford and afterward served in a Prussian cavalry regiment. The third is Hussein, educated at Berlin, and, unlike his brother Hassan, grave and austere. The fourth son is Ibrahim, who studied at Woolwich, and has lately returned from England.

Minnie Lewis's beauty was unrivalled in the neighborhood of Hot Springs, Ark., and Harry Farley is said to have married her for the express purpose of putting her on the stage. He believed that she would be attractive enough as an actress to bring him wealth; but she failed when he took her on a theatrical tour, and he soon left her. Then she committed suicide.

Col. Edwin Lawrence Drake, who sank the first oil well, is living in a modest home in Pennsylvania. He is disabled by muscular neuralgia, and, as he sits in an invalid's chair at his doorway, he can see the long tank trains carrying away the product of his discovery. His illness at an unlucky time prevented him from making a fortune; but he has a pension of $1,500 a year from the State.

Secretary Mullens of the London Missionary Society was the official who organized the movement to Christianize Central Africa. Of the six missionaries who made the first start for Lake Tanganyika, two abandoned the journey and two died by the way. Mr. Mullens decided to go along with the next party, so as to learn for himself the difficulties and dangers of the enterprise. News of his death has just been received.

A robber found Winnie Roberts, aged 16, alone in a farm house at Wakesburg, Mo. He commanded her to give him all the money in the building but she refused. After searching a little, and finding only ten dollars, he threw her on a bed, drew a pistol, and swore that he would kill her if she did not give the information. She thrust her hand under the pillow, leading him to suppose that she was getting some money, but what she drew out was a revolver, with which she shot him twice.

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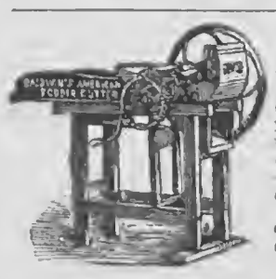

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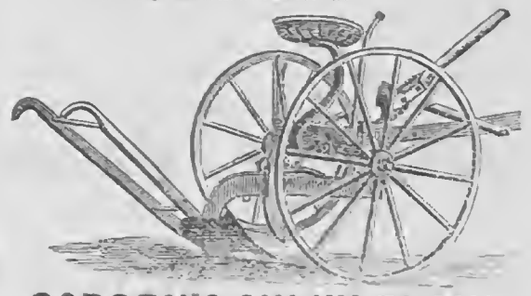

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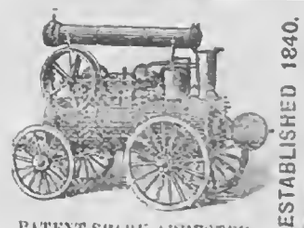

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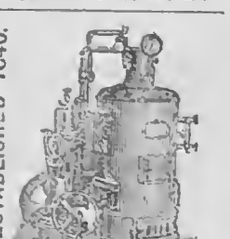

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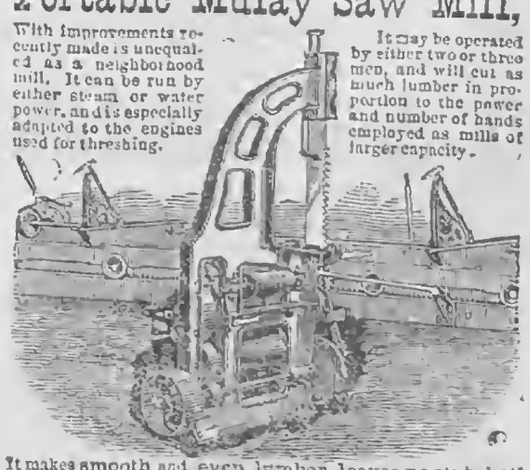
With improvements recently made is unequaled as a neighborhood mill. It can be run by either steam or water power, and is especially adapted to the engines used for threshing.

It may be operated by either two or three men, and will cut as much lumber in proportion to the power and number of hands employed as mills of larger capacity.



It makes smooth and even lumber, leaves no stubshot and will cut any sized log up to four feet in diameter. It may be transported from one locality to another and re-erected ready for sawing in from two to three days, and can be made profitable in localities where there is not sufficient timber to justify the erection of a large mill. Send for descriptive circular, price, etc., to CHANDLER & TAYLOR, Indianapolis, Ind.

Also manufacturers of the **Phoenix Threshing Engine** and the **Eureka Drain Tile Machine.**

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HAVE BEEN AWARDED
THE GOLD MEDAL

at the Paris Exposition of this year, based on the greatest superiority of of performance during the test made manufactured of the best material and finished by skilled hand labor er beyond peradventure. Messrs. B. tion in prices, so as to bring their Great care is taken in the finishing those adjusted for railroad use. Call Improved B. & C. Watches. The relative merits of Swiss Watches, as manufacture. Can a country that *Hundred* years be ignored? Give and they will demonstrate to you you to institute an impartial com-

The Jury of Awards' decision was workmanship and extreme accuracy by the Judges. These watches are and made with improved machinery, thus insuring an accurate time-keep- & C. have made a still further reduce- watches within the reach of all of their movements, particularly on your jeweler and ask to see the public is asked to investigate the compared with those of American has made watches for the past *Two* the Borel & Courvoisier fair play, that none can excel them. We ask parison before purchasing.

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17 MAIDEN LANE, New York, Sole Agents for the United States.

Mit and Humor.

"How dare you swear before me?" asked a man of his son recently. "How did I know you wanted to swear first?" said the spoiled urchin.

SOMEBODY has been hunting for the "Footprints of Vanished Races." He might look in the sawdust of a mile track after the close of a go-as-you-please tramp match.—*N. O. Picayune.*

DO you meau to call me a liar?" asks a ferocious old gentleman. "Well, no, not exactly," temporizes his friend; "but if I saw you in the company of Ananias and Sapphira I should say you were in the bosom of your family."

A TEACHER defined couscienee as "something within you that tells you when you have done wrong." "I had it once," spoke up a young towhead of six summers, "but they had to send for the doctor."—Binghampton Republican.

LORD Cockburn was seated one day on the hillside of Bonally with a Scotch shepherd, and observing the sheep reposing in the coldest situation, he observed to him, "John, if I were a sheep I would lie on the other side of the hill." The shepherd answered, "Ay, my lord, but if ye had been a sheep ye wad have had mair sense."

A SEVERE RETORT.—Dr. Byles's wit once met with a severe retort. Encountering a lady who, having declined an offer of marriage from the Doctor, had married a gentleman of the name of Quincy, he said: "So, madam, it appears you prefer quincy to biles." "Yes," she replied, "for if there had been anythiug worse than biles God would have afflicted Job with it."

The Influence of Climate.

The influence of climate upon a constitution subjected to a trying change in atmospheric conditions, in water, and in food, is often marked and disastrous. Disorders of the bowels and of the liver, frequently terminating fatally, are prone to attack the tourist by land or voyager by sea in unaccustomed latitudes—more particularly those near the equator. The best medicinal protection against irregularities of the bowels, stomach and liver, not only from the above, but whatever cause arising, is Hostetter's Stomach Bitters, a medicine in wide and increasing demand in sultry portions of this hemisphere, and also in the tropics. Travelers, emigrants, dwellers and temporary sojourners in malarious districts use it very extensively as a safeguard.

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WE HAVE NOW OPEN A LARGE ASSORTMENT OF

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CONSISTING OF

AXMINSTERS, MOQUETTES, WILTONS, VELVETS, BRUSSELS, TAPESTRYS, THREE-PLYS, AND INGRAINS

of a SUPERIOR QUALITY,

INCLUDING MANY EXCLUSIVE DESIGNS,

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VERY LOW PRICES.

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IN NEW AND CHOICE DESIGNS OF OUR OWN IMPORTATION,

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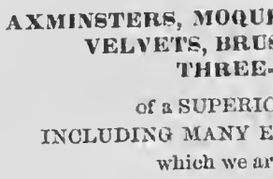

Manufacturers of Portable Corn and Flour Mill *For Farmers' Use.*

These Mills are cheap, durable and easily operated. They are made of the Best Material, with French Mill Burr Stones. Adapted for either horse or steam power. Price-lists and circulars sent on application.

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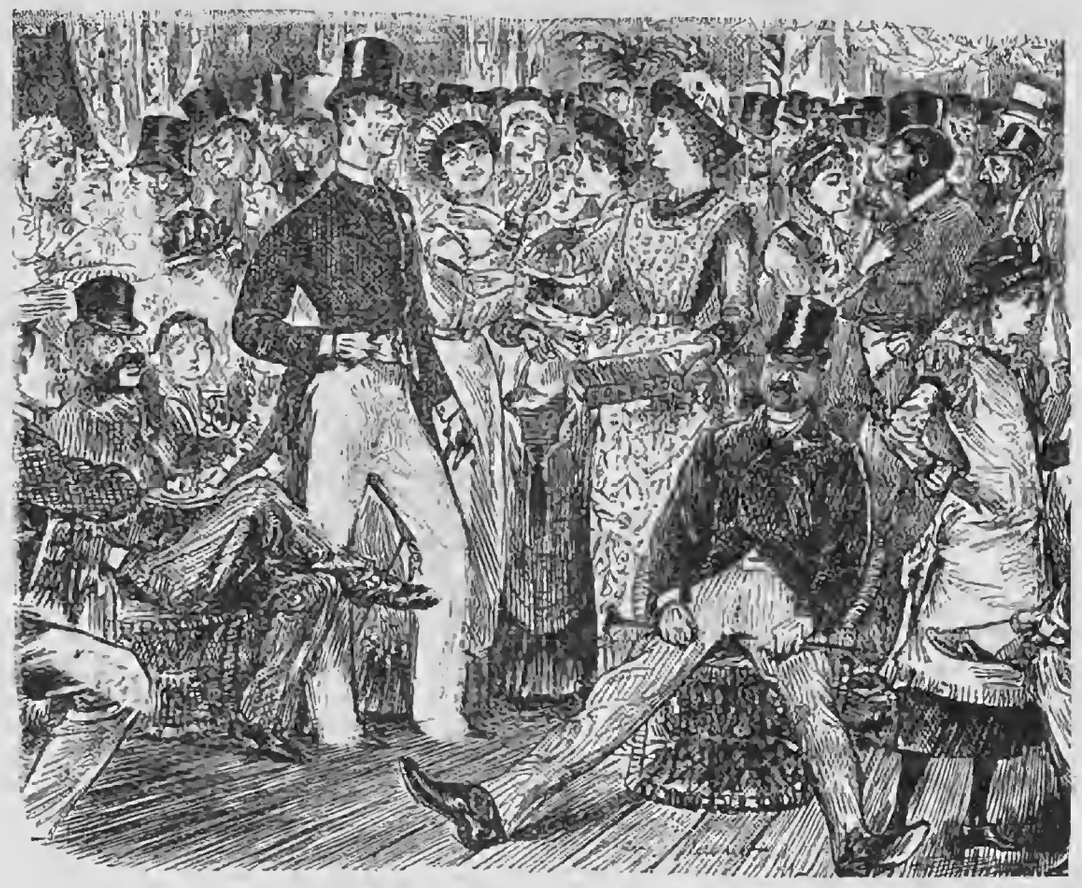

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CHEAPER THAN HOME-MADE,

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BAUGH'S AMMONIATED DISSOLVED ANIMAL BONES.

This article has been used for years by many of our leading farmers with excellent results, and is now one of the most popular brands we make. Price low.

☞ In view of the risk and cost of transporting acid in carboys, this article of Dissolved Bones presents great advantages to those farmers who have been making their own phosphates on the farm.

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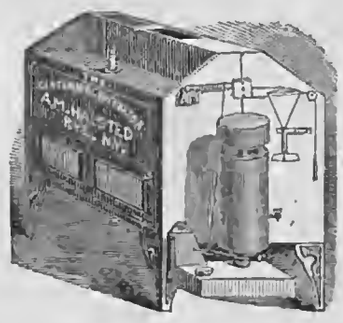

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The *only machine* for the farmer, fancier or amateur. It is simple, easily understood and managed. There is nothing complicated and likely to get out order It is perfectly safe, being entirely of galvanized iron and copper. It is elegantly finished, and a handsome article of furniture. It is neat and compact, occupying but little space. It makes no more smoke than an ordinary table lamp. You never have to get up in the night to look at it. *And it will hatch from 80 to 90 per cent. of the eggs*, and in a number of instances the past season *has hatched every egg or 100 per cent.*

EVERY MACHINE GUARANTEED. Send 3c. stamp for Illustrated Circular to

A. M. HALSTED, P. O. Box 23, Rye, N. Y.

American Fruit-Preserving Powder

AND LIQUID is the Cheapest, Most Reliable and Best-Known Method of preserving all kinds of **Fruits, Tomatoes, etc. Strawberries, Raspberries,** and all high-colored Fruits retain their rich color as well as flavor. One ounce of it (costing 3 cents) is equal to 8 lbs. of sugar in preserving property.

Established over ten years, and endorsed by thousands upon thousands of families. One trial will establish the fact that the **American Fruit-Preserving Powder and Liquid** will effectually prevent fermentation and preserve all kinds of **Fruits, Tomatoes, etc.,** and keep them the year round, or for years, in jars of any kind or size, or in wooden kegs and barrels, *without sealing air-tight.* Simply corked or tied down with a strong paper is all that is needed.

The fruit will keep *without sugar*, or any quantity of sugar may be added as desired.

Warranted to be as healthful as table salt.

The Fruit, etc., may be cooked little or much, as desired. They will keep without any cooking, or they may be cooked down into sauce. The method is simple and easy. None can fail if the Powder and Liquid is added into the Fruit, etc., in quantity as directed.

One package will preserve 256 pounds of Fruit, Tomatoes, etc., or 2 bbls Cider. Price **ONE DOLLAR** per package.

Give it a trial. If you cannot get it from your Druggist or Grocer, I will send it prepaid to any express office in the United States east of the Mississippi River, upon receipt of the price; or west of the Mississippi River and east of the Rocky Mountains for $1.25 per package. **Local and General Agents Wanted.**

Address L. P. WORRALL, No. 24 Liberty St., New York.

Farm Grist Mills

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Over 25,000 Now in Use.

Every machine is guaranteed to give satisfaction or no pay. Price of Mill, $12. Shellers, $5. Every Farmer should have them. Send for Illustrated Circulars and terms to agents. Address,

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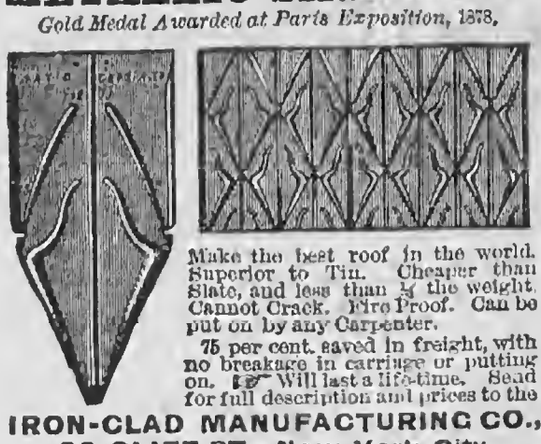
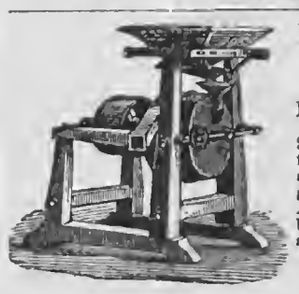
Gold Medal Awarded at Paris Exposition, 1878.



Make the best roof in the world. Superior to Tin. Cheaper than Slate, and less than ¼ the weight. Cannot Crack. Fire Proof. Can be put on by any Carpenter.

75 per cent. saved in freight, with no breakage in carriage or putting on. ☞ Will last a life-time. Send for full description and prices to the

IRON-CLAD MANUFACTURING CO., 22 CLIFF ST., New York City.



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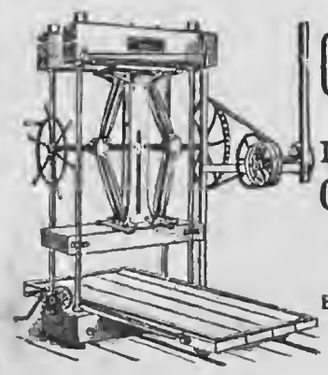
FRENCH BUHR STONE

Portable Mills for Farmers, Saw Mill Owners, etc. Price from $80 up. Complete Mill and Sheller $96. A boy can grind and keep in order. Adapted to any kind of suitable power. Complete Flouring and Corn Mill very cheap.

NORDYKE & MARMON CO. Indianapolis, Ind.



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Double Platform GRATER, $40

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Also manufacturer of fire-proof Composition, Partition, Furrings and Ceilings.

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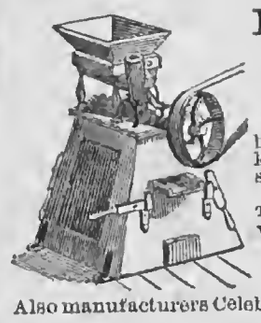
For further information, Circulars, Plans and Estimates, address JOHN J. SCHILLINGER, 111 Broadway, N. Y.



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The Grinding Parts are

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It is adapted to all kinds of horse-powers. It grinds all kinds of Grain rapidly. It is simple, cheap and durable.

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Every Man His Own Miller.

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HALL'S PATENT HUSKING GLOVES are the most economical, because, being plated on the wearing surface, makes them last five times as long as any other kind of gloves; and for bare-handed husking, *Hall's Patent Husking Pins* are the best in the market.

No. 45 Sewed Husking Gloves, per pair		$2.00
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Sent by mail, prepaid, on receipt of price, to any address. Ask your merchant for them, or address HALL HUSKING GLOVE CO., 145 So. Clinton St., Chicago, Ill.

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Manufacturers of

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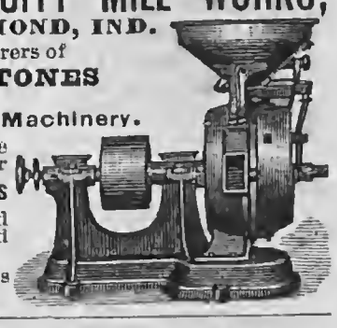

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State you saw this in RURAL N.-Y.

THE EXCELSIOR $3 Printing Press

Prints cards labels &c. (Self-inker $5) 18 larger sizes For business or pleasure, young or old. Do your own advertising and printing. Catalogue of presses, type, cards, &c., for 2 stamps. Kelsey & Co. Meriden, Conn

TEAS. AHEAD ALL THE TIME. The very best fresh goods direct from the *importers* at *half* the usual cost. Best plan to Club Agents and large buyers. All express charges paid. Quality guaranteed New terms free.

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OVER 1,000,000 ACRES OF

FINE FARMING LANDS

IN MINNESOTA AND DAKOTA,

For sale by the WINONA & ST. PETER R.R. CO., At from $2 to $6 per Acre, and on liberal terms.

These lands lie in the great wheat belt of the North-West, and are equally well adapted to the growth of other grain, vegetables, etc. The climate is unsurpassed for healthfulness

They are Free from Incumbrance.

Guide Book, Maps, etc., containing full information sent free.

CHAS. E. SIMMONS, Land Commissioner, Gen'l Offices C. & N. W. R'y Co., CHICAGO, ILL.

Mention this paper in writing.

BOOKWALTER ENGINE

Compact, substantial, economical and easily managed.

Guaranteed to work well and give full power claimed.

Engine and boiler complete, including governor, feed-pump, drive-pulley, etc., etc., at the low price of

3	Horse power		$215
4½	"	"	245
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Manufactured at Springfield, Ohio. Send for Descriptive Pamphlet.

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FARM ENGINE.

The best, the cheapest, most efficient and durable Engine in the market. Every Engine is tested and diagram cards taken before shipment, and every Boiler is insured for *one year*.

Our Engines will give from 25 to 33⅓ per cent

MORE POWER

With the same amount of fuel and water, than many of the engines now in the market. Send for our catalogue and prices.

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THE RURAL NEW-YORKER

A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME

VOL. XXXVIII. No. 39.
WHOLE No. 1548.

NEW YORK, SEPT. 27, 1879.

PRICE FIVE CENTS.
$2.00 PER YEAR.

[Entered according to Act of Congress, in the year 1879, by the Rural Publishing Company, in the office of the Librarian of Congress at Washington. — Entered at the Post-Office at New York City, N. Y., as second-class matter.]

The Garden.

PIT FOR WINTER PROTECTION OF GARDENERS' STOCK.

I HERE present to readers of the RURAL NEW-YORKER the plan of a cellar I am building, and which, I think, will answer admirably the purposes for which it is intended.

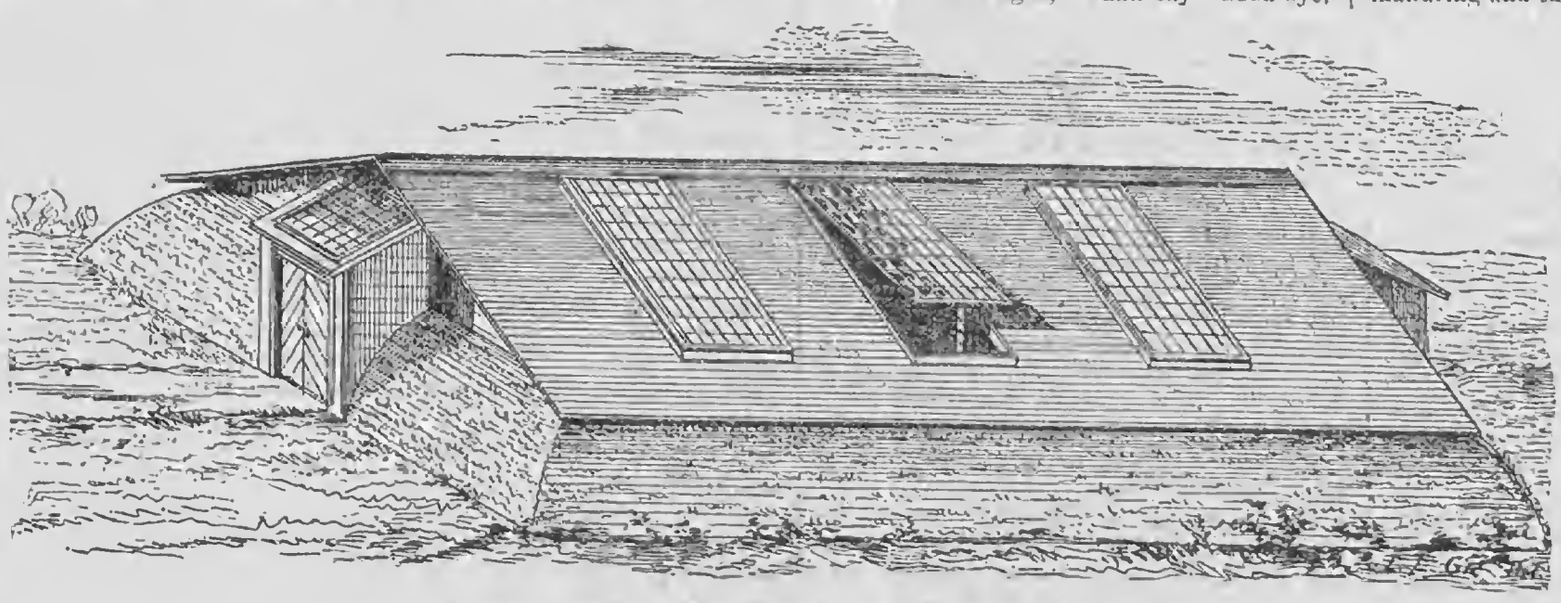
The floor is mainly for celery. At one end there are bins for potatoes, carrots, beets, etc. Along the sides and down the middle are benches like those in a greenhouse, only higher. There is a walk around the middle bench; this bench is intended for Roses which are to be kept there until it is time to put them in the greenhouse to force them for spring sale. The side benches are for apples, onions, etc. The cellar is 16x36 feet. Two feet of the earth were dug out for banking up on the outside. The walls are 3½ feet above the level of the ground and two feet below it, making the side walls 5½ feet high. These are boarded with inch planks, on cedar posts set four feet apart. The boards are nailed from the outside. The earth taken from the cellar is banked against them to a thickness of two feet at the top and five at the bottom, all around, except at the doors and windows. Both ends of the cellar, above the level of the embankment, are double-boarded on the gable-ends, with a space of eight inches between the boardings, to be filled with sawdust. Below this is the banking of earth from the pit.

The roof is shingled and double-boarded, having between the two boardings a space of four inches, which is to be filled with sawdust. It laps over the side walls a foot and a half, and from that point the ground is banked up so hard that it cannot settle, and after a good rain it is sodded all round, which gives it a nice green appearance in grass time and keeps it still warmer in winter. To have plenty light and air, I have on each side of the roof three sashes, 3x6 feet, like hot-bed sashes, hinged at the top, just as on a greenhouse, and at the lower end of each sash is an iron bar having holes punched in it, so as to raise the sash to a greater or less hight, for the purpose of ventilation, whenever desirable. Each sash fits closely into the roof, and is battened to prevent the entrance of rain. Underneath the sashes are shutters, which can be opened or shut, and between them and the sashes are spaces of four inches, which can be filled, whenever necessary, with straw or a straw mat. I don't think, however, that frost will penetrate through sash and shutter from the roof, though might from the sides.

In the most convenient end are double doors. The inside one is made like the door of a stable, having a window sash which can be opened or closed at pleasure. Outside this is a box as high as the door and four feet wide, so that the outside door will be four feet from the inside one. The outer door is made double, with a four-inch space for sawdust. The top of the box, between the doors, is double-boarded, like the outside door, and filled with sawdust. The sides of the box are protected by an earth embankment. On the other end of the cellar there is a window, guarded with a box like that protecting the door, only not so large, and having a shutter at the other end. A convenience of this sort will pay for itself every winter and should be used, in sizes to suit their needs, by all largely interested in flower or vegetable culture.

D. MYLIUS, JR.

Wayne Co., Mich.



PROTECTING PIT FOR GARDENER'S STOCK.

STRAWBERRY NOTES.

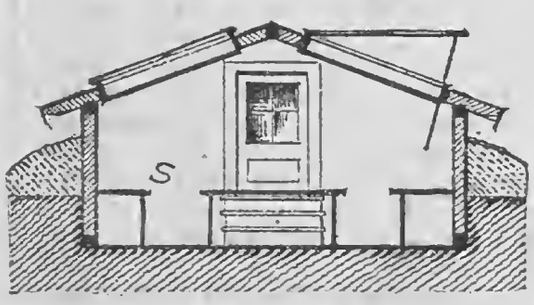
I read with interest the strawberry notes of Mr. Nash in the RURAL of August 30. He speaks of the *Old* Kentucky as a pistillate sort—are we to infer there is a new Kentucky? or what has he under that name? The true Kentucky, as we know it, is, so to speak, a twin brother of the Charles Downing, raised by the late J. S. Downer of Kentucky from seed of Downer's Prolific. It is perfect in its flower, a vigorous, strong grower, with tall foliage and fruit stalks, and, if my memory serves me, of a brighter scarlet color than the Charles Downing, being in this respect between that and Downer's Prolific, and about a week later than the former.

It was introduced about ten years ago—long enough to be called an old sort. We grew it a number of years, but discarded it on account of the low standard of the fruit in quality. In this respect it was much below Charles Downing on our soil, and although of good size, handsome, and late, our customers preferred the Charles Downing even to their close. I hardly think it possesses any shipping qualities superior to the Downing. I believe we had it *true*, and my memory is that it was perfect-flowering—hence the query: "What variety has Mr. Nash under that name, that is a pistillate?"

That one word tells us we each have in mind a different berry. There is far too much confusion in strawberry nomenclature, largely resulting from the carelessness of cultivators. A case in point:—A veteran and thoroughly posted amateur and an intimate friend of Mr. Downing, asked me a few weeks ago if I could furnish him a single plant of a certain variety, that I could warrant *true* to name. He procured quite a collection last season of Mr. A. Among them were six plants purporting to be the kind in question. He had taken good care of them in anticipation of the fruit this season, when, sad to tell, five of them proved to be untrue, and he was in doubt about the sixth one; in fact, the whole collection was so badly mixed, he had dug them all under and had resolved on a new departure; hereafter he would *try and get a single plant of a kind that was positively true*, to start with, and thus save himself all this vexation and loss of time and labor, and know what he was doing.

Sympathizing with him in his misfortunes from similar experience, I asked if he had called Mr. A.'s attention to the fact. "Yes, and his reply was that he got them of Hon. Friend B., and he knew the fault was not his." "Just so, but on learning the source whence they came, I am not surprised; but it speaks well (?) for the 50 years' experience, the numberless varieties, extensive acres, and the great profits that his friend B. boasts so persistently about. He is always ready to herald the great virtues of new things, as the most extraordinary of their kinds extant, and I wonder your friend A. allowed himself to be caught with such bait. There are large establishments where the details of the business are attended to with some commendable degree of accuracy and painstaking, but they don't make a great parade of their great profits and superior virtues before the public."

"That has been my experience," he replied, "hence my new departure. A single genuine plant of a kind, to start with, is worth



SECTIOAL VIEW.

more to me than any quantity of doubtful purity. To those who cultivate largely for the fruit alone, the slip-shod, careless style so prevalent, may answer, but for my purposes—experimental crossing, etc.—it would not do at all." Agreed unanimously! But coming back to Mr. Nash's Kentucky:—Has he been victimized? If so, what is it?

I am glad to know the Duncan has found a congenial spot with him. In perfection it is really too good to be cast aside. Probably no variety has shown the great variations caused by soils and locations in a more marked degree. A New York commission merchant takes pleasure in citing two farmers in Monmouth Co., N. J., one of whom grows the Wilson and the other the Duncan to perfection; yet neither can grow both, and a fence only divides their farms, and then he asks, "How do you account for that?" I give it up. Of the Sharpless I think it can be truly said that no variety ever sent out has given so great satisfaction, so far as growth is concerned, in so short a time. I have seen it in the very light soils of Monmouth Co. and the heavier soils of Essex, and everywhere the owners are astonished at its vigor and healthy foliage and rampant growth. One man says: "I never saw anything like it; if it will only produce a good crop of fruit that will stand shipping, and maintain its health and vigor, I shall say 'Good-bye, Wilson.'" Meanwhile we patiently await the verdict.

E. WILLIAMS.

Montclair, N. J.

GROWING STRAWBERRIES IN WINTER.—Strong plants from runners that appeared early in the summer, and which are now in six or seven-inch pots, can readily be made to fruit in any greenhouse or warm plant-room where they can get plenty of sun. Keep the plants in an open shed where they will be exposed to the frost and can still be kept dry, until the latter part of December; then they should be thawed out, the upper two inches of soil scraped off and replaced with well rotted manure, and henceforward treated as growing plants.

Field Crops.

WHEAT.

HENRY STEWART.

WHEAT is again the staff of life. Heretofore it had come to be considered as an unprofitable product, and thousands of farmers refused to grow their own bread. It was easier to earn the money to purchase a barrel of flour in other ways than to grow the wheat. But a "change has come o'er the spirit of our dream." Money is not so easily earned as formerly; prices of produce are low, and the wherewithal to buy flour is not so easily procured. Wheat is our staple agricultural product. The present season we have every reason to look for an unprecedented demand for our crop, and nothing will be more salable than wheat. Farmers, too, are learning that they can grow wheat more cheaply than they can buy it. The cost has been an imaginary bugbear—a creation of the fancy only. The labor involved has been figured up as so much money spent, when, in fact, the seed only has represented any money. So, in reality, the crop grown has cost absolutely nothing but labor and the value of the seed. This discovery having forced itself upon the minds of men, they are growing wheat for their own consumption, if not for sale. The product of this grain is increasing, even in Massachusetts, and all through New England and the Middle States unwonted sights of wheat fields gladden the eye. We look upon this as a favorable symptom of returning agricultural health and prosperity.

Now we would suggest that it is advisable to study how a maximum product can be reached. No one doubts or denies that it costs but little more to plow and cultivate the soil and harvest 50 bushels per acre than to grow 15 bushels; while the income is more than three-fold. The possible yield of wheat is 60 or 70 bushels per acre; eight quarters, or 64 bushels per acre, is a frequent yield with the best English farmers, but they hoe their wheat and hand-weed it, and use fertilizers liberally. I think it would pay any farmer to prepare one acre, at least, by two plowings, several harrowings, good manuring and the use of 500 pounds of superphosphate, and then sow half a bushel of seed in drills 16 or 18 inches apart, and cultivate the ground thoroughly and carefully as for a pet crop of corn. It would probably yield 60 bushels or over. Then let the cost be figured up; not the farmer's own labor, or rent of land, or taxes — because these either cost nothing or would be paid without this acre of wheat—but only the actual expenditure of money, counting the balance as pay for labor. I think the farmer will find his labor well bestowed, and if he can make 13 barrels of flour from that acre, he will have done a good thing for himself but a vastly better thing for his country in showing others, who still fold their hands and moan "it costs too much," that they are very much mistaken.

Drilling vs. Broadcast Sowing.

The advantage of drilling seed over sowing broadcast ought to be obvious theoretically, as it is certain practically. Yet there is just at present a new-fangled idea becoming popular, that in drilling, the seed is crowded in the small furrows and much of it is smothered and lost. No more absurd idea could be thought of. When a bushel of wheat is dropped in drills six inches apart, 600,000 grains, which go to make a bushel of moder-

ately plump wheat, are spread over 87,120 linear feet, thus depositing the grains about an inch and three-quarters apart. Nevertheless, we are asked to believe by those who are interested in disposing of a novel kind of drill (which is claimed to make a broad furrow, and so spread the grain more than a common drill) that the seed is crowded, one grain upon another, when the furrow is an inch and a half or two inches broad. A little figuring sets this matter right, and no one who uses a drill need fear to lose seed from the grains crowding each other when even a bushel and a half of seed are sown.

The Quantity and Selection of Seed.

From the above it may be gathered that a bushel per acre is pretty thick seeding, and that if we could drill a peck per acre so that the seed could be dropped evenly six inches apart each way, the ground would be entirely covered. The fact is, our seeding is too thick, if the seed is good and no plants are winter-killed. It is questionable if a large number of plants are not killed out during the winter by reason of thick sowing. It is common enough to find wheat tiller and spread so much that 30 or even 50 seed stalks grow from one root. This cannot happen without room. If such roots grew one foot apart each way and each root bore 20 stalks having each 50 grains, the crop would be 70 bushels per acre. If each ear had 100 grains, the crop would be 140 bushels per acre. I have just counted the grains in an average ear of wheat (Clawson) and find 35, and in the best ear I could pick out, I find 72 grains. I have grown Treadwell wheat with ears having 110 grains, and have counted 35 ears on one stool where three pecks of seed were sown and that was badly thinned out by a neighbor's pigeons. An English seed-grower by the constant selecting of seed from the longest ears and plumpest grains from those ears, has produced what he calls "pedigree seed," which is vastly more prolific than the ordinary grain. We see that it is in the length of the ear that we can gain in our yield, as well as in the multiplication of stalks from each root, and here a large field opens for individual effort of each wheat-grower in the improvement of varieties.

Professional Seed-Growing.

In every locality there is an opening for a business in seed-growing. Farmers at a distance from the larger cities and from seed dealers, find it difficult to procure good seed and would gladly pay double price, or more, for an extra selected quality. There is every inducement for an enterprising farmer to make money in this way. Let him prepare a piece of ground now in the very best manner, manure it well and apply superphosphate liberally; sow thinly, in drills; hoe and cultivate, if he will; pick out by hand before harvesting every cockle, garlic and other weed, which usually infest wheat; harvest carefully, selecting the longest, fullest ears; thrash by hand; winnow and sift again and again; and not content with that, follow the ancient maxim and "pick out by hand" the plumpest seed. Part of this he may sell to his neighbors who will soon find out what he is about, and the best he may sow for himself. Let him repeat this year by year until he makes a well-deserved reputation, and his fortune is made; he will certainly find more than he can do to supply a very narrow locality, and need fear competition but very little, for there is not one man in a hundred or a thousand, who possesses the pertinacity, perseverance, industry and carefulness, that are needed to succeed in such a work.

EARLY PLOWING FOR WHEAT.

It is extremely dry in this locality and this fact has brought to my mind the importance of plowing early for wheat. Our best farmers throughout this section of the country, begin to plow the oat and barley stubble as soon as the grain is cut, and find that the yield is from 20 to 50 per cent. better than when the ground is plowed merely in time for sowing. At present it is impossible to put the ground in good condition because of the drought; while that which was prepared from four to six weeks ago, had the advantage of the rains at that time and is now in fair condition.

The difference in the yield when the soil is plowed early and when it is plowed late, is probably due to this fact:—the free plant-food when the oats and barley are cut, has been nearly, if not entirely, exhausted, and the soil needs to be aerated and pulverized and moistened in order that it may set free a new supply for the coming crop of wheat. When the soil is plowed late, it is evident that it has had no opportunity to set free the proper amount of plant-food, and the yield of wheat is necessarily less than in the former case.

This half summer-fallowing, so to speak, I have found to be very advantageous. Our University wheat experiments—about thirty in number—are not yet thrashed, but after four years' careful experimenting, I am convinced that superphosphates are useless upon *pine* and *hemlock* lands, although they work like magic on maple and beech lands. I can assign, as yet, no reason for this, but the majority of the farmers in this locality have come to the same conclusion. I should be glad to hear the experience of others upon different kinds of soil, with phosphates.

The farmers here are, many of them, sowing Fultz instead of Clawson wheat, because the millers complain that the Clawson does not make good flour; but there is, nevertheless, a general opinion that the Clawson yields the most half-bushels. PROF. I. P. ROBERTS.

Ithaca, N. Y.

Entomological.

WHEAT INSECTS.

PROFESSOR CYRUS THOMAS.

WHEAT, having traveled over a large part of the world since it left its native habitat, has gathered on its march a host of insect enemies until now there is not a stage of its growth, from germination to maturity, in which it is not subject to the attack of one or more of these foes. Nor do they leave it when it is harvested, but follow it to the stack and barn; and thence to the granary, storehouse and mill. In the short space allowed here I can but briefly notice a few of the more destructive species.

WIRE-WORMS.—(ELATERS). It is probable that there are several species of these insects that injure the wheat in our country; but so far only one has been traced to the perfect state. This is a little black beetle about three-eights of an inch long, and is scientifically known as the Agriotes mancus—Say—As I have elsewhere stated, I have but little faith in such applications as salt, lime, soot etc. The starving process is the only sure remedy; plow up the ground and leave it fallow for a season; stir it repeatedly and keep it free from vegetation.

THE JOINT-WORM.—(Isosoma hordei, Harr.) This is a minute yellowish-white, footless, maggot, which forms and resides in little swellings at the base of the stalk near the first or second joint, on the sheath of the blade or in the joint. In its perfect state it is a minute, black, four-winged fly or hymenopterous insect. Its presence is indicated by the growth of the plant being checked when some eight or ten inches high, the lower leaves turning yellow, and the stalks becoming bent. As it remains in the stubble or straw during winter, the remedy is to burn the straw and stubble immediately after harvest.

THE CHINCH BUG.—(Blissus leucopterus, Say.). The U. S. Entomological Commission is now gathering facts in reference to this insect and studying its history, preparatory to an article in their next report. I have recently been studying the relation between its development and the meteorological conditions, and have been somewhat surprised at the approach to regular periodicity in Illinois, although this evidently depends on the character of the season. In Illinois the years of chief development were as follows: 1840, 1845, 1850, 1854-7, 1862, 1868, 1871, 1874.

Clean culture, burning rubbish, etc, in which they can winter, are the best remedies yet tried, where irrigation is impracticable.

From letters received by the Commission, this species appears to be almost unknown south of the latitude of Tennessee.

THE HESSIAN FLY.—(Cecidomyia destructor, Say.). The U. S. Entomological Commission is also studying the history and habits of this species with a view of noticing it in their next report. Space is too limited here to attempt the history and habits of it or the chinch-bug.

As the pupæ (in the flax-seed state) are on the lower part of the stalk, and usually not perfected until after the wheat is cut, burning the straw immediately after the harvest, if proper co-operation could be obtained, would ultimately eradicate this pest. The remedy is within the farmers' reach, if they will make use of it. Where winter wheat is cultivated, late sowing may be resorted to with good results, if the fall is favorable.

THE ARMY-WORM. (Heliophila unipuncta, Haw.), Although this species is chiefly destructive to timothy meadows, it generally does more or less, and occasionally serious injury to the wheat crop. It is, in fact, a cut-worm in its normal condition, developing largely and assuming a migratory habit under certain conditions and from certain causes not yet thoroughly understood.

In my controversy a number of years ago, I took the position that this species was two-brooded in Southern Illinois, and that it passed the winter in the pupa state or chrysalis. Notwithstanding all that has been said to the contrary, recent investigations made by myself and Prof. French, have proven beyond reasonable doubt that both my positions were correct. That it ever passed the winter in the egg state I think cannot be shown; hibernating in the perfect state is the exception. Of a large number of moths taken the past spring not one had wintered over. It may, therefore, be truly said that the history of this species remains yet unwritten. That the worm is not essentially migratory, I am confident from the fact that I have noticed in the same inclosure a portion remaining during the entire larval stage sedentary, acting as true cut-worms, while others of slightly different age were migrating. The sedentary ones were traced to the perfect state in order to be certain of their specific identity.

Ditching against them is, so far, the best practical means known of preventing them from entering into and destroying wheat or other crops. Fortunately a kind Providence has provided an ample check in the shape of a host of parasitic insects, so that we never see them largely developed for two consecutive years.

THE WHEAT APHIS.—(Siphonophora avenæ Fab.). This plant-louse appears occasionally on the wheat in great numbers, exciting the fears of the farmers who often suppose them to be the Hessian fly or wheat-midge. As a general rule they do but little injury, and soon disappear, especially if one or two copious rains fall. If the season should be dry, their drain upon the sap may result in serious injury, and especially in preventing the grain from filling out. No practical remedy for them has been discovered. It is easy to kill them on a small scale, but the attempt to do this over the field would cost more than the crops saved would be worth.

THE WHEAT-MIDGE.—(Cecidomyia (Deplosis) tritica. Kirb.). "Minute orange-red maggots, one-eighth of an inch long, crowding around the kernels of wheat, causing them to be shriveled and dry when ripe. The maggots descend into the ground and spin minute cocoons from which, in the following June, come bright orange-colored midges." [Fitch.)

The eggs of this insect are deposited in the chaffy scales of the flowers; where they hatch in eight or ten days, producing the little orange-colored maggots which, at first, are almost transparent; when fully grown they are about one-eighth of an inch long. They crowd around the growing grain, and by withdrawing the nourishment, cause it to become shriveled and aborted. Before assuming the pupa state, they usually go into the ground, where they at length spin a little silken cocoon, in which they remain until the following June, when they are transformed into bright yellow, minute two-winged flies.

In addition to the foregoing we can only allude to the following in the space allowed.

THE WHEAT-HEAD ARMY WORM.—(Heliophila Harveyi. Grote.). This species is closely allied to the common army-worm, but differs from it slightly in habits. It feeds upon the heads of wheat and other small grains and grasses in various parts of the northern United States. I have observed the common army-worm do the same thing.

THE WHEAT-THRIPS.—(Semothrips tritica. Fitch.) A minute insect found in the flower, and on the head of wheat, sucking the juices and thus dwarfing the grain.

THE GRAIN WEEVIL.—(Sitophilus granarius. Linn.). This is well known as injuring stored wheat, the little grub living and undergoing its transformations in the grain. The perfect insect is a little snout beetle about one-eighth of an inch long, with cylindrical body of reddish-brown color.

THE RICE-WEEVIL. — (Sitophilus oryzæ. Linn.) is similar to the preceding, the habits being nearly the same, the beetles differ only in this having two bright red spots on each wing cover. It usually infests rice, but often does serious injury to wheat, attacking it in the shock, stack and barn, and even before being harvested.

Stored wheat may be best protected by frequent winnowings and airings; if badly affected, drying by the Aldine process will prove effectual,

THE GRAIN-TINEA.—(Tinea granella. Linn.), is a minute caterpillar devouring the interior of stored wheat, tying the grains together and thus rendering them unsuitable to be manufactured into flour. This caterpillar is transformed into a minute moth the following season. It is an imported insect and very injurious, and generally well known.

THE ANGOUMOIS GRAIN-MOTH.—(Gelechia cerealella. Linn.) The usual habit of this species is to devour stored grain, it being one of the most troublesome species with which those who have stored grain have to contend in this country. I have also found that it, like the Rice Weevil, will sometimes attack the grain before the wheat is thrashed, and even while standing uncut.

For this and all species found in the granary, the best practical remedy is frequent winnowing, stirring and airing the grain. Kiln-drying will be effectual, but it is almost impracticable. If these insects should become very bad at a point where large quantities of wheat are stored and the winnowing should fail to eradicate them, it might be profitable to pass it through an Alden or some similar drier. In elevators ample provision for more thorough winnowing can be made if necessary, and this and frequent stirrings will generally prove effectual.

There are several other species that attack this valuable cereal, but these are all we can allude to at present.

Sheep Husbandry.

MUTTON AND WOOL—No 1.

PROFESSOR E. W. STEWART.

THE present discouragements in dairying will, no doubt, tempt many to change from that to wool-growing. I certainly do not advise any one to change from an established business, but to those who have determined to change from cows to sheep, or to those who are about to enter as fresh experimenters upon sheep husbandry, I wish to present a few points for their consideration. The conditions of sheep-keeping have very materially changed within the last twenty years, and more rapidly within the last ten. Formerly sheep were kept almost wholly for the fleece. The flesh of sheep was counted on more as horse flesh is now in France—to be utilized when nothing else could be done with the animals. When the sheep was too old to be profitable as a wool grower, its carcass was disposed of for any price offered. Perhaps more than half of all the carcasses were merely used for the tallow. Mutton has not been a popular food in the United States until within a few years, and even now it is not appreciated as it is in England. But the consumption of mutton is increasing rapidly, and sheep husbandry is destined to be prosecuted here as in England:—first, for the mutton and, second, for the wool. It is therefore important that the enterprise should be considered in all its aspects before entering upon it.

Not only has increased attention been given to mutton in this country, but a large market has opened for our best mutton in England, and this is likely to be extended to the Continent. Those who understand and will follow the best English system of mutton breeding and feeding, need have no fear of the want of a market. But the old system of sheep breeding and feeding—making the fleece the principal object—has no longer a profitable footing in this country, except on the Western plains and the Pacific slope. When land has more than a nominal value, the mere wool product can never pay. But sheep husbandry is destined to a great revival in the older States, and to be carried on with as much system, and every part of the business to be utilized as carefully as is done in England. If English farmers are able to produce mutton at a profit on land worth $200 to $300 per acre, surely the farmers of the Middle and Eastern States must be able to accomplish this on land worth only from one-fourth to one-third of these prices. It must be done with a breed of mutton sheep—good feeders, maturing early and bearing a profitable fleece. There are several breeds perhaps that might come under this description; but the writer believes the best result may as likely be reached with a judicious cross of mutton breeds upon the American Merino or its high grades. If the Cotswold, Leicester, or South Down be crossed upon the Merino or its good grade ewes, the result is a great improvement in both the fleece and carcass. The wool sells for a top price, and the lambs are sought by the butcher. The breeder should never use a grade ram, for then no one can tell the result, as the tendency is so strong to breed back toward one or the other of the original types, that there can be no uniformity in such a flock; whereas, by using a prepotent thoroughbred ram, his get will have a uniformity toward the fixed type desired.

Great care must be taken to select a male with an even and properly developed carcass, as well as a sound and vigorous constitution, and also an even fleece as regards fineness of fiber, as well as length and strength of staple. In other words, the breeder must have a standard toward which he seeks constantly to progress to perfect his flock. He will succeed, best if he fully understands that the sheep is plastic in his hands, that he may mold it almost at will, and soon create a breed of sheep to suit his ideal form and purpose. He is not confined to the types now existing, but he may modify them in the manner mentioned. As he is breeding for mutton first, and fleece second, he takes the male from the mutton type, and crossing upon the Merino or its grades—the most perfect wool-producing breed—he progresses toward the mutton type rapidly without materially losing in value of fleece, whilst he is greatly improving the Merino for mutton. The cross animal produced will have an increased vigor of constitution given by the Merino dam, and this cross continued, with proper judgment in selection, will become more adapted for the purpose intended—mutton and wool. The breeder having a purpose in view, keeps his eye constantly on the end desired, watches the

growth of his flock, and sees many points that would escape the casual observer, and he may thus select with a masterly judgement, the animals to be coupled. But all selection is vain without skill in feeding, which we shall consider in the next issue.

The Poultry Yard.

POULTRY NOTES.

Poultry Habits.

Of all farm stock, hens are the most easily taught. The education of hens can be commenced at any age; but best while young. They should be housed and shut in every night, and not be allowed to roost on sheds, well sweeps, or trees; even a neglect to shut the door on them for one night will cause the timid ones to seek a higher roost the next night, and that can only be found out-of-doors. This leads to laying out of doors—a great nuisance—and to constant loss from roving night enemies. At sunrise every morning call the hens around you, and scatter a full feed for them; let this always be done on the same spot of ground. Keep, in a convenient place, a reservoir of fresh clean water, if you have no running stream. At certain and regular times in the day, you will find the whole flock there. Throw no scraps of food around the dwelling, or you will teach them to become a house nuisance. Burn all the egg shells, or you will teach the hens to eat eggs in the nests. If you coop your chicks, take hen and brood to the hen-house as soon as the croop is dispensed with; otherwise, when winter sets in you will have to spend hours every night for a week before they will house well. Protect hens while sitting, by a light board or lattice cover to the nest, so they shall not be annoyed by other hens wishing to lay with them. In fact, any bad habit, or any one which does not suit your surroundings may be entirely broken up and changed by reasonable preventive measures.

Poultry Vermin.

There are many receipes for driving vermin away from poultry and houses. The inventors of these are shrewd; they know that people are naturally indolent in both body and mind; that they never guard against invasion, but wait till the enemy is upon them, and then buy up all the new-fangled nostrums, kill all the lice, and half-kill the hens and chickens, and at once begin to do some tall crowing. All poultry vermin delight in moist or damp places; in fact, they can't live anywhere else. That's the principle. Now what does it suggest? Why the suggestion is obvious; don't have any damp places, and that means a dry chicken house, a dry earth floor to it, a dry roof, no manure allowed to accumulate on the floor or under the perches, because that is always damp, and absorbs dampness from the air. Build two chicken houses; one in a low damp, ill-ventilated place; the other on a high, dry, sunny, airy spot, and let your flock choose; the most miserable old hen "that ever was," knows better what she wants than the most dignified, dandyish, intellectually civilized poultry fancier that the hen fever has ever produced.

Remember! a water-tight house, a ground or sandy floor, plenty of sunlight and fresh air, and your children will have to go to college to learn the entomology of the hen-house, instead of brushing vermin off of every egg they bring to the housekeeper. S. R. M.

The Herdsman.

STOCK NOTES.

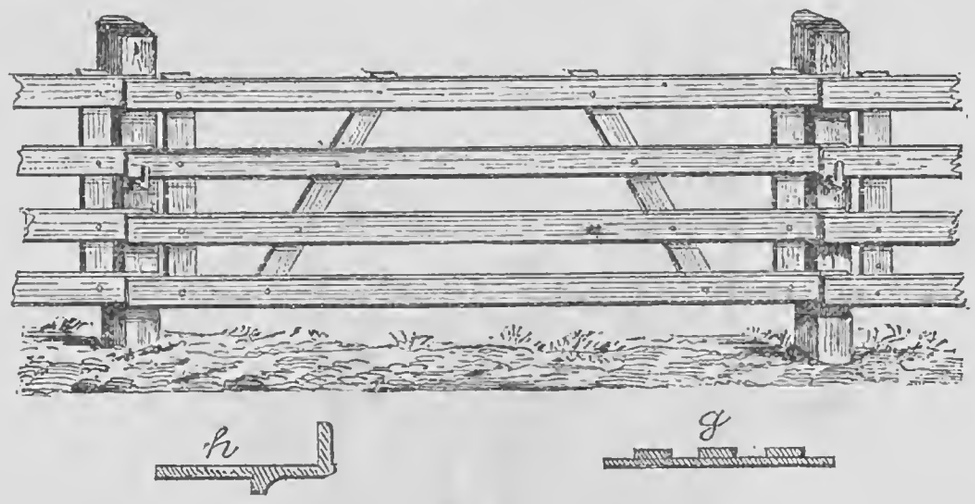
Fancy Points.—There is growing opposition nearly everywhere to the folly of making the production of "fancy" points the chief object in breeding Short-horns and Jerseys instead of aiming at large yields of beef or milk. It is recognized by all practical men that a white or roan Short-horn fattens as readily as a red, and that a Jersey off-color is every whit as good for the dairy as one of the most fashionable shade, provided that in each case the pedigree is equally good in regard to the beef or milk-producing qualities of the ancestors. While seeking to produce these fancy hues, the breeders are apt to neglect the points of intrinsic merit which originally gave these breeds their special value, and the deterioration or lack of improvement thus caused, is poorly compensated for by the high prices paid by a few wealthy men for particular colors to which fashion, not merit, has assigned a special value. The evils of this craze are as yet more marked across the Atlantic than here, inasmuch as the number of those who prize an animal more for its fashionable points than for its practical merits, is greater there than here. As the Old World, however, is accustomed to set the fashion for the New, there is danger of our imitating this folly as we have many others, and it is gratifying, therefore, to notice the efforts lately being made here to have the milking capacity of pure breeds of cattle recorded in the Herd Books. But even in this idea we cannot claim any originality, as the Dutch-Frisian Association requires a milk record of from 6,000 to 9,000 pounds of milk, according to age, to entitle cows to entry in the Holstein Herd Book.

Jottings.—In order to facilitate the acquisition of pure-blooded animals for breeding purposes by native agriculturists, the Moscow Society for the Encouragement of Cattle Breeding in Russia, have themselves undertaken the purchase of suitable stock from abroad, in their corporate capacity, on behalf of individual farmers unable to manage such operations personally. For this purpose buyers will be despatched by the Society in August and September in each year to likely markets in foreign countries. Instructions for purchases through the agency of the Society must be sent in to the treasurer before August 1 in each year, accompanied by exact directions as to the breed, age, and sex of the animals required, and by a remittance of 300 roubles in respect of each animal ordered. Unless the orders reach a certain number the Society will, for the present, be obliged to charge a commission for their services in effecting such purchases, but even then individual farmers will be able to acquire improved foreign stock at a far lower figure than they could do acting singly each for himself. * * * Canada's prohibition of the importation of "American" cattle within her borders, which was to have terminated on the first of this month, has been indefinitely extended, because the English government declared that should our neighbors remove the embargo from our cattle, the importation of animals from that country would be at once subjected to the same restrictions that hamper our trade with the Mother Country. * * * New York, New Jersey and Pennsylvania are acting in unison in their efforts to stamp out pleuro-pneumonia from among their cattle. All infected herds are still being isolated, while badly diseased animals are promptly killed and their owners compensated. A few cases have been reported from Delaware, Virginia and North Carolina, but no attention seems to be taken by these States to extirpate the plague. * * * Large importations of American cattle into England still continue, although they have to be slaughtered at the port of debarkation within 10 days after landing. Deptford is the only spot near London where permission has been granted by the Privy Council to disembark animals from this country, and the 2,600 beasts awaiting slaughter there at date of our last advices, might well have a depressing effect upon the prices of home-raised beef in the Metropolitan market. There the difference is great between the value of best and ordinary beasts, the latter bringing only at the rate of 12c. a pound, and the former fetching as much as 17c. for top price. * * * In the week ending Aug. 16, there were imported from this country into Liverpool 4,918 quarters of beef; 594 carcasses of mutton; 1,041 live cattle and 1,989 live sheep.

Farm Economy.

A CONVENIENT FENCE.

I send the Rural a sketch and description of a fence that I have found very convenient in certain places on the farm. It is in use on many farms in this locality, and, as far as I know, it is not patented. The fence consists of panels made of inch boards nailed together with clinch nails, and it is attached to the posts by iron hooks. It is most convenient when used along the highway or lane, as the panels are not fastened to the posts and can be easily lifted out at pleasure. Thus a load can be driven from any part of the field directly to the highway, escaping the necessity of driving a considerable distance over soft ground to get to a gate or pair of bars. It also has other advantages. When a post rots off, it can be easily replaced without injury to the fence. The panels, being securely braced, are stronger than the ordinary board fence, and as no nails are used in the ends of the boards, they are not liable to become split. The panels are made 12 feet in length, and consequently fewer posts are required than in the common post-and-board fence. The construction saves the necessity of climbing the fence, as one end of the panel can be lifted off the hook almost as easily as a gate can be opened. As the panels are entirely independent of the posts, they may be nailed together under shelter during the winter or in stormy weather, thus saving time. By using sharpened posts, a very good portable fence can be made, as they can be readily lifted out by means of a chain and lever. As the posts are entirely free from nails, they can be worked into firewood without damage to tools, after having been used.



A CONVENIENT FENCE.

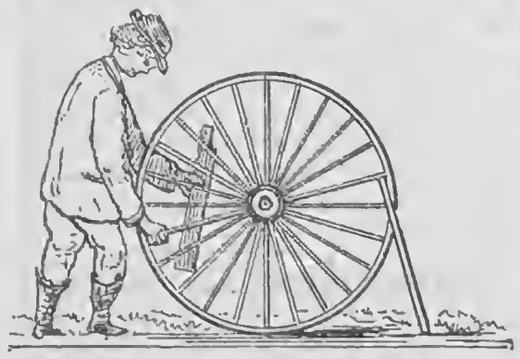
This fence may be made of boards six inches wide, either 12 or 16 feet long. Four 16-feet boards will make a panel, each board making one cross-piece. These cross-pieces are cut three feet nine inches in length, and the panel hung to the posts far enough from the ground to make the fence the required hight. The hooks are usually made of half-inch square wrought-iron bars. The bars are cut in pieces eight inches in length and bent at right angles two inches from the end. The holes should be bored through the posts, so that the hooks can be driven out and used again after the posts have rotted off. The bit used for boring the holes should be 1-16 larger than the square of the iron in the hooks. A hook made of cast-iron would be cheaper, and if made with a shoulder, as in the cut (h), would probably be as good. The posts are set or driven 11½ feet apart, as the panels lap six inches at the ends.

This fence can be nailed together very rapidly by using a gager, g, to regulate the distance of the boards. The cut shows how the gager is made. Lay four boards upon the ground the proper distance apart, and nail the end cross-pieces eight inches from the ends of the boards. It is well to have a measure marked on the hammer handle for this purpose. The middle cross-pieces are placed equi-distant and slanted as seen in the cut to form a brace: 8d. wrought nails are used. Lay the boards of the next panel on the first, but place them so that the cross-pieces will not come directly over each other, and so on, until a pile is formed as high as it is convenient to make, then tip them off one by one and clinch the nails.

This fence costs but little more than the common post-and-board fence, and it has many advantages, as has been stated.

Chemung Co., N. Y. G. Goff, Jr.

Another Wagon Jack.—Having for many years used the wagon jack recommended by Mr. Crane with the exception of the hoisting apparatus—which is not always convenient or particularly safe with a restive team—I suggest



an improvement. The above cut, I think, is sufficiently clear to need no explanation. It is not uncommon to see a man lifting with all his strength at the hub of a heavy wagon, when he might accomplish more with one hand with the help of a bit of plank, three or four feet long, leaving the other hand at liberty to adjust the support under the axle. M. B. Prince.

Warren Co., N. C.

The Apiarian.

NOTES ON BEE CULTURE.

It has often been told bee-keepers by the older heads, that the secret of success in bee-keeping was "strong stocks." Although I commenced with the theory, "that small stocks if confined within a small enough compass, would produce surplus honey in proportion to their numbers," I have met with ample proof that this theory is incorrect, and that small stocks are unprofitable. It was the strong stocks that gathered the surplus honey this season, although the weak ones had four times the attention the stronger ones had.

There are several ways in which strong stocks can be procured and selected. Wintering, in this latitude, generally means "the survival of the fittest." I think our severe winters are a positive advantage in bee-keeping. The poor, sickly stocks are destroyed, which would otherwise only linger along through the summer, give no surplus, and set our genuine busy bees a bad example by their laziness. The queen, being mother of all, doubtless influences to a great degree the characteristics of her progeny So we should be careful as to how we raise our queens. There always are a few stocks that, almost invariably winter well and give a goodly yield of surplus honey. These are the ones to raise queens from. In the same way let such colonies be the raisers of the drones. Thus, the bee-keeper will soon gain a predominence of strong stocks, and thus he gains the most important point required for success.

Next to strong stocks are good hives. In this latitude, the nights and mornings are cold during part of the honey season. The bees are prevented from commencing work in surplus boxes on account of the low temperature. The remedy is a hive constructed so as to retain the animal heat of the bees, and resist the outer extremes of temperature. A properly made chaff hive will be found to meet this requirement. The chaff, it must be remembered, should surround the surplus apartment as well as the brood nest, and there should be plenty of it. Another important point is the surplus arrangement. Our bee-keepers are, in my opinion, getting incorrect ideas upon this subject. I advise all to try section boxes only 1⅞ inches wide, instead of 2 and 2½, and wooden separators instead of tin, and see if they do not get more and better honey. The reason for thin combs is the honey ripens three times as fast in these as in the thick combs. Apiarian.

Adams Station, Albany Co., N. Y.

Dairy Husbandry.

THE TRUTH ABOUT IT.

[The object of articles under this heading is not so much to deal with "humbugs" as with the many unconscious errors that creep into the methods of daily country routine life,—Eds.]

VALUE OF MILK.

Is the Factory System a Failure.

The low price of milk and milk products and the consequent losses of dairymen are serious enough to call for comment and consideration. Milk brings now to the patron of the factory but one-half cent per pound, or 17 cents per 16 quarts. A cow that averages 10 quarts per day through the season of seven months, returns to her owner the utterly inadequate sum of 10 cents, and a small fraction over, per day, or about $21 for the season. This is equal to about five cents per pound for the cheese made from the milk delivered by the patron. There seems to be something wrong when a great industry engaged in supplying a staple article of food, is carried on at a ruinous loss. I might point to the practice of making skim-milk cheese and that spurious mixture known as oleomargarine, which are turned out by the creameries, as one sufficient reason for the depression in the dairy business. There can be no doubt of the truth of this; for a poor article forced on the market carries the best down with it. This is an axiom—a self-evident truth—and a constant experience in business.

But there is another view to be taken of this matter. It is an unpopular one, but truth is often unpalatable and the truth may be told, or sought out, in spite of this. The factories do not work at a loss. Their expenses are paid, and paid by the farmers or patrons so-called. This is an evident truth. Heretofore, when the dairy work was done at the farm, this present outlay for labor at the factory was saved. It is a question worth considering at the present time if the avoidance of this labor in the farmer's home is not purchased at too great a cost; whether, in short, the farmers can afford to support the factories and employ them to do work for them, which might be done at home. We have been passing through a period of prosperity and high prices, during which we have contracted habits of ease and luxury which are inconsistent with circumstances such as now surround us. It is not to be ignored that this is a difficult problem; and that a solution is not offered as yet which may be satisfactory. I do not pretend to offer a satisfactory solution, but merely suggest that there is an opening for unprejudiced consideration. The fact exists that a great industry is not at present offering those engaged in it merely the common wages of a day laborer, to say nothing of interest on capital invested and

the natural depreciation of the stock used in it. And this fact certainly requires explanation. What is the truth about it? S.

A POINT IN FAVOR OF COLD-SETTING OF CREAM.—One advantage of the rapid methods of separating cream from milk is to be found in the fact, that thus the cream, and consequently the butter, are saved from any contamination likely to arise from changes taking place in the milk. I do not refer to simple souring alone. It is well known that under certain circumstauces,such as changes of feed, or even sudden changes of the weather, the milk is so affected as though apparently sound when drawn, to become bitter, or develop some foul or putrid flavor within twelve hours after being set for cream. This flavor is sure to be communicated to the cream. But if the cream can be removed from the milk before the latter has undergone such change,it is saved from deterioration from that cause, and thus sweet and sound butter can be made from imperfect milk. At this season of the year, especially, this is a danger to which all dairies are exposed, and I feel certain that the more quickly the cream can be raised and skimmed,the safer the dairyman is from losses from this cause. T. H. H.

Miscellaneous.

EVERY-DAY NOTES.

S. PARSONS.

Is the Japanese Persimmon Hardy?

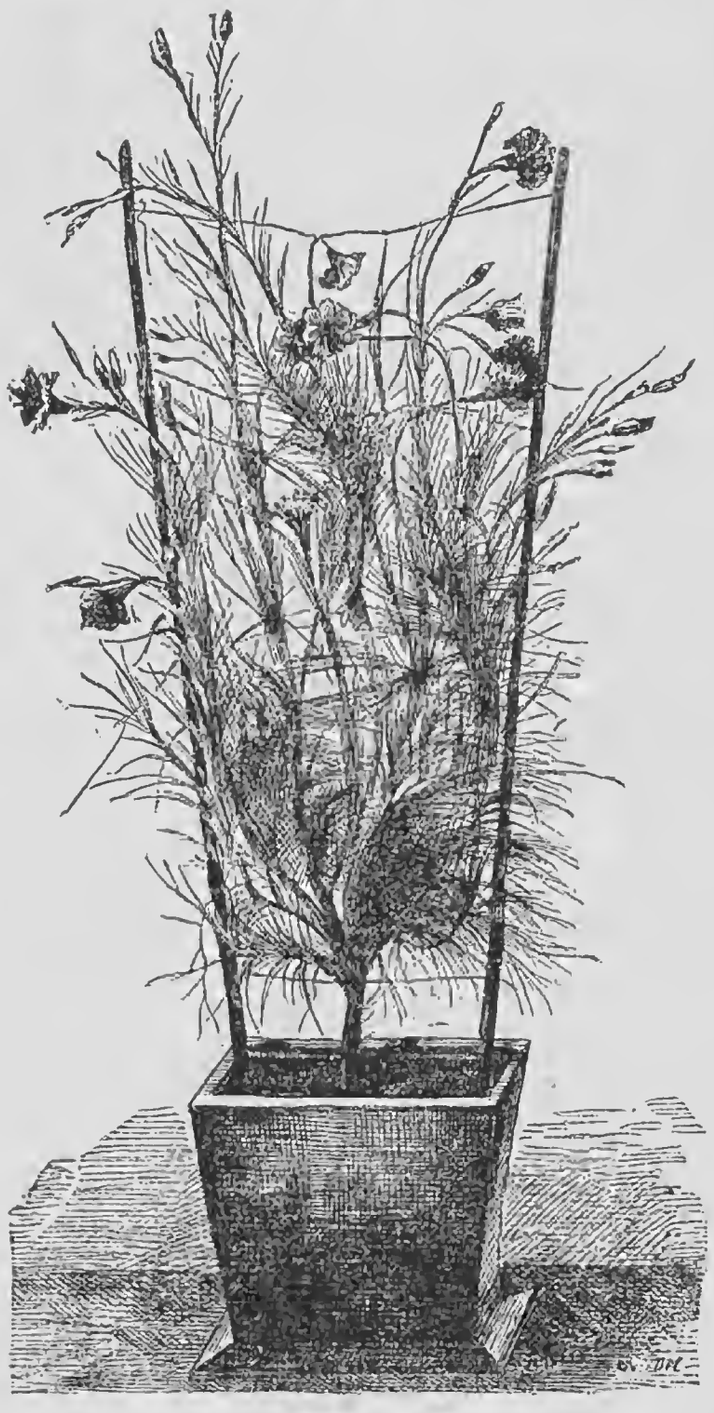
A FAIR answer to this question, viewed under the limited experience we as yet have, seems to be about as follows: During severe winters, five out of eight plants will die, if they have been recently transplanted. After moderate winters, scarcely two out of eight will be found dead by midsummer. It should be noted here that recently planted Japanese Persimmons often do not put forth leaves before midsummer. Of fruiting scarcely anything can be said, for hardly a single Japanese Persimmon has been planted long enough to produce the maturity necessary for fruiting. Indeed, no fruit can be properly tested in the short time as yet allowed the Japanese Persimmon. As the evidence now stands, therefore, I think we should be only justified in classing the Japanese Persimmon—for the single quality of hardiness—with the Madeira nut and the American Persimmon. The Fig is much more tender. South of Washington the Japanese Persimmon will doubtless prove hardy and gain a certain value. In the North, no large proportion will survive; but these few will be found valuable ornamental as well as valuable fruit trees, and, what is more, they will gain greatly in hardiness as they gain in maturity. Of course, these remarks are to a certain extent speculative and premature, but at the same time they are based on wider information than much of the wholesale condemnation of this fruit that emanates from the press everywhere after the last winter which was unusually severe for deciduous trees.

Hydrangea paniculata.

Fortunately for the varied attractions of lawns, the Hydrangea paniculata grandiflora has at last obtained general acceptance as an ornamental shrub of the first rank. But we must not merge the attractions of the lesser in the attractions of the greater, nor confuse Hydrangea paniculata with Hydrangea paniculata grandiflora. Few indeed know or realize that such a shrub exists as Hydrangea paniculata, but it is a very distinct plant nevertheless, possessing valuable peculiarities of its own. Instead of blooming in August and September, it flowers in late June and early July, a time when flowers are very welcome on account of their peculiar scarceness. These flowers are smaller than those of Hydrangea paniculata grandiflora, with erect, instead of drooping, trusses or spikes of inflorescence. They are also of a pure white color, that does not fade into purple and crimson decay, like H. paniculata grandiflora. The sterile flowers are, moreover, less numerous on the species than on the variety, and the leaves as well as the trusses of bloom are certainly smaller and less course. Practically, Hydrangea paniculata is unknown to the trade, but none the less does it deserve honorable mention for its date of blooming and fine general habit. Our own specimens came direct from Japan through the medium of Mr. Thomas Hogg.

Euonymus latifolius.

I have certainly never gathered strawberries from the strawberry tree (Euonymus), as the wily tree agent would have made his customers believe possible; but the fruit of the Euonymus in the fall has afforded me pleasure hardly to be surpassed by any delight of the palate. With the Euonymus, however, as with other shrubs, a prolongation of the period during which the beauty of fruit and flower flourishes should be diligently sought. This may be done by increasing our collections of varieties that bloom during earlier or later periods than others. One of the most striking of Euonymuses for coloring, of fruits, is Euonymus latifolius, and in many other respects it is also most noteworthy. The leaf is large and massive compared with the foliage of other varieties, and of a dark green. Its fruit, however, makes the special attraction of the plant. The flower is certainly pleasing, but the fruit is nearly three times the size of the fruit of Euonymus Europeus, and of at least as brilliant a color. Indeed, in every way, fruit, flower and foliage, the plant is large and striking. Yet one seldom sees Euonymus latifolius; doubtless because it is difficult to propagate except by grafting or budding and few think of grafting or budding a shrub. Few realize, moreover, the variety of form and size existing among different species and varieties of Euonymus, hence we need not wonder that Euonymus latifolius is overlooked and scarce.



A TREE CARNATION TWELVE YEARS OF AGE.

Clematis.—Second Pruning.

It is not generally known how universally the Clematis species and varieties may be induced to bloom the second time by cutting back the plant immediately under the flower that bloomed nearest the ground. Clematis Jackmanni which blooms the last of June, is only one instance where in a month or so after pruning abundant flowers appear; few varieties, indeed, surpass it in the freedom with which it thus blooms. When we consider how much the addition of this ever-blooming quality enhances the charm of Clematises, it seems surprising that an understanding of the fact has not been more generally attained.

A LETTER FROM MR. L. A. ROBERTS.

BLOOMFIELD, Conn., Sept., 1879.

AGAIN I have the pleasure of writing to you from this quiet town in the beautiful Valley of the Connecticut; and never in my recollection has there been an autumn here the opening of which was more pleasant or full of promise. An abundant crop of grass, the most important crop by far in this section, has been gathered, and the frequent showers have given quick growth to the second crop, rowen, or aftermath, as it is here variously called, and the fields are as green as in early June. The trees, too, show the effects of plenty of rain, and bear their full burthen of leaves which show no signs of changing or decay. What gorgeous coloring may be expected in October when the sharp frosts aid the dying leaves in parting with their moisture, and the hill tops and mountain sides put on their coats of many colors and become radiant in their autumn beauty. Those who have never seen a New England autumn know not all of Nature's variegated charms.

In the floral department the yellow of the Golden Rod vies in brilliancy with the red of the Cardinal Flower, while the many-colored Asters, the white of the Everlasting and the innumerable shades of the hundred of other flowers of the field, make a combination a painter would strive in vain to copy, while deep within the forest recesses are abundant varieties of Ferns, from the tiny one barely distinguishable to those of gigantic proportions, among which are many that our European friends strive in vain to cultivate and have nothing to equal.

The year will be remembered by the farmer as one of more than usual productiveness. In this immediate vicinity the principal crop for which money is directly obtained in any considerable amount, is tobacco. Until within the past two years the variety known as the Connecticut seed-leaf has been almost exclusively grown, but the Spanish or Havana is now taking precedence to considerable extent—being in demand for cigar manufacturers in place of the imported. The extraordinary size of the leaves of the "Connecticut" has made them desirable for wrappers, while the foreign tobacco is used for fillers. Cigars made entirely of the Connecticut-grown Spanish seem to give satisfaction both as to flavor and appearance, and the crop grown last year found ready sale for a much higher price than the seed-leaf. The habit of the Spanish differs from the other in that the leaves stand more upright, admitting of closer setting and easier culture. It does not sucker so much, and is topped higher, giving, as a rule, more leaves to a plant. For these reasons many growers believe the amount that can be produced on an acre is nearly, if not quite, as much as of the seed-leaf, especially if raised from seed that is the product of imported seed after two or three years' cultivation. The leaves grow much larger from such seed than they do in Cuba, or for the first year or two from imported seed.

The potato crop that was almost an utter failure last year, is this year remarkably good both in quantity and quality. The Early Rose is the variety most raised, but some of the more active and enterprising are trying other and newer sorts. The Early Vermont seems to be a little earlier here than the Rose, to yield better, and, so far as I can judge, is a better potato for the table. The Beauty of Hebron has not been extensively planted. I have one report from a quart planted that produced two and three-quarters bushels. Another man told me he planted half a bushel and had,he thought, double the quantity he ever before raised from the same quantity of seed.

Corn is looking fine. I have seen some fields that promise most satisfactory productions. The smaller varieties of kernel are usually preferred here. The Blount's Prolific seems better adapted to lower latitudes.

A noticeable feature here is the change in the cows. It is only a few years since the first grade Alderney was seen here. Now there is scarcely a farm without them, and they have been bred up until there are many very nearly full-blooded. The effect is seen in the increased amount and quality of butter produced from the same acreage of pasturing.

I was much interested in seeing Pond Lilies in bloom in one house-yard, and took the liberty of asking the method of culture, which I will give for the benefit of your readers. "I dug these roots," said the grower, "with my hands, when the pond in which they were growing was very low. When the water is higher we pull them up with a potato hook. I put in the tub about a foot of muck or swamp dirt, in which I planted the roots and then covered all with a layer of coarse sand or gravel just to keep the muck quiet when the water is disturbed. Then fill the tub with water. If this is done in May or Early June, the plants will push up and blossom the same season. As the water evaporates I fill the tub through the sprinkler of a watering pot, that the dirt should not be disturbed, and allow the water to run over a little that there may be more fresh than would be required to fill it. It is but little trouble and the result pays for it well. In the winter, I take the tub into the cellar where it won't freeze, and keep the soil moist. The roots may be changed to another tub in spring, if desired, but they blossom best when left in the same tub several years,for the thicker the roots grow the better. The blossoms open in the morning and close at night for four days, and I think this tub (about three feet in diameter) has given us between 40 and 50 blossoms. These roots were planted this spring, and will do better next year."

What floriculture, with the same labor, will give better return than this, and why are not Pond Lilies more generally grown?

Floricultural.

AN ELDERLY CARNATION PINK.

THIS Carnation Pink was started from a small slip procured in Elmira in March 1868, so that it is now considerably more than eleven years old. The stem only lacks one-eighth of an inch in being four inches in circumference. The body and principal branches are wrinkled and gnarled like an old Oak tree. Its production the past year of only a fraction less than *five hundred blows*, I am sorry to say came very near destroying it. Taken from the cellar in the spring, it seemed to be constantly going back instead of ahead; finally I concluded, that to save it, it would be necessary to cut the head entirely off. In time new buds began to make their appearance in all directions; and now it is one grand and magnificent bush of bright green stems. I shall not permit it to flower any this year, and so shall give it an opportunity to prepare for a good time next year.

The photograph from which this illustration has been taken, is not at all a fair example of what it now is, having been made about seven years ago. In conclusion, let me say, that a Carnation Pink cannot be made to live and do well in a hot room during winter. A cellar is the best place for it. Quite a number of persons have taken slips from this for a number of years, but not one has succeeded in producing the tree form, as in this instance. I have another one started that promises well.

J. SAGER.

Industrial Societies.

NEW JERSEY STATE FAIR.

[Special Correspondence.]

A MORE successful fair has probably never been held in the State of New Jersey than the one that was in progress at Waverly near Newark during the past week. The weather was beautiful, and crowds of visitors from the surrounding country and large cities were constantly pouring in upon the fair grounds. The State Agricultural Society has cause for congratulation both upon the excellence of the exhibits and the good management of the several departments, as well as upon success financially, the receipts surpassing those of any previous year.

The exhibits indeed were not so numerous as one might reasonably expect from so old a State. The writer has seen fairs in Western States whose resources are comparatively undeveloped, which far surpassed this one of New Jersey both as to quantity, and in certain departments, also in the quality of the exhibits. Here, for instance, was a marked absence of farm implements and machinery, although the fair was held at a point that could easily be reached by scores of large manufacturers. Fast horses are favorite animals in New Jersey, and the races formed a fea-

ture of special attraction. Curiosity-men, side shows, whose agents made the days hideous with their cries, and similar humbugs, were not lacking.

Horticultural Hall.

Aside, perhaps, from the live stock, the Horticultural Hall contained the most interesting and really edifying exhibits that were on the grounds. It held in all 1,500 entries. Particularly was the show of fruit praiseworthy. It was not, however, conspicuous by a large amount, but the excellence and beauty of the specimens cannot easily be surpassed. Apples were well represented. Some monstrous specimens of the King of Tompkins Co., and other large varieties especially caught the eye of the superficial observer. Excellent plates of the Gravenstein, Orange, Fall Pippin, Northern Spy, Washington and Porter, deserve to be mentioned. The collection of Pears was good. Bartlett predominated in quantity, but there were also many fine plates of such choice varieties as Louise Bonne de Jersey, Duchesse d'Angouleme, Beurré Boussock, Beurré Bosc, Souvenir du Congres, Beurré d' Anjou, Seckel, Urbaniste and many others.

Concord showed the same predominance among grapes as the Bartlett among pears. A hundred and twenty-six choice plates of this grand old variety, said to be entered by as many men, occupied a prominent position in this class. Rickett's Seedling grapes formed an interesting collection. This prominent Grape culturist exhibited fifty-five plates of very handsome fruit of between thirty and forty varieties, many of which are new. Brighton, Delaware, Isabella, Catawba, Clinton and most of the other acknowledged good varieties were present in fair quantities, together with a few varieties of hothouse grapes. As a novelty for this season may be mentioned a box of very late strawberries. Peaches and plums made a poor show, owing, perhaps, to the lateness of the season for these fruits.

The exhibition of plants and cut-flowers was rather deficient, and mainly was the latter class small and contained but common-place flowers. The Society does not encourage amateurs and gardeners to bring their floral treasures as strongly as the cause merits. The premiums offered for cut-flowers, bouquets and floral designs are but few and small. The many hundreds of flower cultivators that for miles around are found in this part of the State could, by proper inducement to a friendly competition, have made a magnificent show. Floral designs there were none to speak of. One, indeed, which suggested that the originator had some unpleasant experience, attracted some attention. It was a funeral design, and the words "Farewell Mother-in-Law" were worked in Everlastings on the shield. Plants in pots were not numerous. A couple of medium collections of foliage plants, a Banana in fruit and a handsome Pomegranate formed the chief attractions.

Vegetables were poorly represented. Beyond a fair collection of potatoes in which the Early Rose, Beauty of Hebron and Snowflake took the lead, there was nothing of special interest. One giant variety of potato was labeled Belle of the Valley, thirty-six tubers of which weighed forty pounds. Monmouth County made almost as fine a representation as the whole of the rest of the State in the line of vegetables. One farmer, Mr. J. H. Denise, of Freehold, deserves commendation for the example he set his brother farmers. This gentleman showed thirty-four kinds of well-grown vegetables and forty varieties of corn, of which the Gourd Seed Yellow and Big White appeared to be the best. Mr. D. D. Denise, of the same place, had also a good general collection in which were several watermelons, ranging in weight from 50 to 70 pounds. Wheat, rye and other grains were present in quantities just sufficient to show that the State afforded these products.

Manufacturers' Hall

was well filled with all kinds of furniture, utensils, etc., etc., relating to domestic life, and especially did the department of needlework, embroidery and wax work present a beautiful display. An embroidered fire screen by a Mrs. Funk, and some imitation of Persian Rugs, marked Mrs. Norton, deserve commendation, as does also some beautiful crewelwork in a variety of designs. Mrs. A. Stengel of Newark exhibited some beautiful waxwork, imitations of flowers, plants and other natural objects. Especially were her Night-blooming Cereus and Pond Lily so skillfully made that the uninitiated might easily be deceived as to their real nature. Canned fruit and cake were present in goodly quantity, but of dairy products, which ought especially to characterize an agricultural fair, there were but few to be seen.

The Poultry Show

was good. The Asiatic class was best represented, there being numerous handsome fowls of Light Brahmas and Buff Partridge and White Cochins. The Games, Spanish and Bantams were also present in goodly numbers. Of the last class, some very pretty birds of the Silver and Golden Seabrights might be seen. Two incubators were at work side by side, one exhibited by Dr. Mead, of Newark, the other by Mr. Halsted, of Rye, N. Y. Both seem to be very efficient machines. The main difference between them is, that Dr. Mead's is heated below the eggs as well as above, while Mr. Halsted's is heated above only. Water fowls were not plentiful. Some Pekin ducks made the best show in this class. Among the pigeons there were some very choice birds.

Implements,

as stated above were not plentiful. R. H. Allen, Walter A. Wood, B. Myer, of Newark, and the Warrior Mower Co., were the principal exhibitors. The last firm showed an excellent fanning mill among other machines.

Live Stock

made a good show. All the improved breeds of cattle and sheep were represented, Jersey cattle making perhaps the best show. David Bellis took 1st premium on Guernsey bull, Young Milford, and 1st for Jersey calf, 2d Duke Alexis.

J. Crane 1st premium for Ayrshire cows, Courtney, Derby 2d and Annie Wenthworth, and 1st premium for Ayshire bull, Curtis.

P. Ball 1st premium for Ayshire bull, Laird of Hillhurst.

A. D. Newell 1st premium for Jersey bull, Vein of Gold.

J. I. Holly 1st premium for Jersey cows, Favorite of the Elms, and Phryne, and for the Jersey bull, Much Ado.

R. H. Allen 1st premium for the two Durham bulls, Baron of Millburn and Baron of Lancaster, and also for Durham cow, Countess of Edgewood.

J. McCain took 1st premium for sheep, and 1st or 2d premium on all he exhibited, forty-two animals.

H. C. Ayres took 1st premium for Berkshire boar and sow.

J. K. Demott, M. Smith & Son, L. A. Exton and J. W. Whitevack took each 1st premium on swine exhibited. C. C. G.

PENNSYLVANIA STATE FAIR.

[Special correspondence.]

PHILADELPHIA, Sept. 20, 1879.

In point of attendance the fair was a great success. An average of more than twenty thousand per day have passed between the turn-stiles. The entries were large and good, especially in machinery, but the general management and placing of exhibits were confusing, unsatisfactory and unintelligible. The fair was held in what was the main building of the Centennial Exposition, and mixed with the exhibits of the fair proper, were the permanent displays of all kinds that have been standing about the building for several years. Those who came to the State fair consequently were sandwiched between and among these old shows without any intelligent arrangement, and it would have puzzled an expert to find any "department." As a consequence, visitors wandered about aimlessly, going the length of the immense building, fatiguing themselves to no purpose.

Live stock, with the exception of sheep and swine, were stalled in the building. The horses were plentiful in number, but nothing especially noteworthy is to be recorded of the animals. James Glover, of England, had a few fine draught horses. The prize for the best stallion on exhibition went to J. D. Baker, Ingleside, Pa., for his "Inkerman." There were Short-horns registered and unregistered, Devons, Dutch cattle, Ayrshires, Jerseys, Guernseys, and grades, but the finest of these were the Jerseys, both in numbers and quality. The herd of Jas. Young, of Middletown, Pa., contained some fine animals. The first premiums were appropriated by Messrs. Young, Cooper and Sharpless. David Selsor, London, Ohio, had the only Short-horns worth mention, while D. and J. Banker, Franklin Forks, Pa., carried off the honors in Devons. The swine were few and not so good as might have been brought together in this locality, which contains some noted breeders. T. S. Cooper had the only Berkshires shown, but they were remarkably fine animals, being the progeny of imported stock. The Essex strain was represented by J. S. Giles whose animals were not quite up to the standard. Chester Whites were in force. The herd of T. Walter & Son, West-Chester, Pa., being as a whole the best in the pens. The sheep were very fine. T. S. Cooper had a group of imported Oxford Downs, including a ram, that seemed about perfection. Mr. Sharpless's South Downs were also superior animals. The Merinos of Mr. Glass, were lineal decendants of pure Spanish stock and were in fine show condition. The Long-wools kept up the average of excellence of the display.

The best groups of farm products were those of the Solesbury and Cumberland Co., Farmers' Clubs. W. Atlee Burpee had two new melons, the one named "Bay View" being a cross between Cassaba and a California melon, which retains the flavor of the first and acquires the size of the last. Some were displayed weighing over twelve pounds. The other melon called the "Great American" is gourd-shaped, of a deep orange color inside and insipid to the taste. I doubt if it can properly be called a melon. We have secured the seed of both for trial.

The confusion in arrangements of exhibits was no where more apparent than among the implements. Most of the prominent makers had examples of their goods on the floor. Among them were the Walter A. Wood M. & R. Co., who took first premium on mower and self-binder; Nichols, Shepard & Co. had a very handsome engine and separator represented by Mr. W. S. McMillen, while the Buffalo Pitts loomed up between a Delaware machine on the one hand, and the excellent horse-power and the small thrasher of the Messrs. Heebner & Sons, on the other. Farm Engines were mainly represented by the firm above named, the "Peerless," Lovegrove & Co., and the Canton Monitor of C. Aultman & Co. Mr. Hershey sent two styles of the "Peerless," portable, and stationary and portable combined, which were handsome examples of farm engines. They received first premium. Rakes were shown by B. C. Taylor & Miner & Co. The Johnston Harvester Co. displayed their new light mower, combined machine and harvester in operation. It was one of the most interesting exhibits in the fair.

Mr. Moore, as manufacturers' agent, had a number of exhibits in charge, among which were those of Furst & Bradley M'f'g. Co., and A. B. Farquhar. All the principal grain drills were shown. P. P. Mast & Co. secured the Silver Medal on their combined grain and fertilizer drill. Nash & Bro. had their new pulverizer, the Bradley mower and Foust's hay-loader in charge, while Mr. Gardner had the Eureka mower under his supervision. The new Warrior mower and Randall's harrow formed one exhibit. The Halliday Wind Mill received first premium. The American Drier Co. showed their drier and a new combined furnace washer that can be made to serve as a furnace, washer, cooker and steamer. It is a useful and ingenious combination that is sure to become popular on the farm and in the household. There was the usual number of new churns, that like all things the gods love, are destined to die young.

The Geiser Separator, made by the Geiser M'f'g Co., carried off the honors in this class.

It is with regret that I have to speak of the inefficiency of the judges on machinery. They succeeded in performing their duties to the perfect dissatisfaction of all concerned. They meant well, perhaps, but such gross ignorance, stupid blunders, and mulish obstinancy has reflected discredit on themselves and the Society. It is unnecessary here to particularize, and indeed, I am sorry to have to mention the subject at all. If premiums on machinery were abolished altogether, it would inure to the advantage of all concerned.

BENSON, MAULE & Co. of Philadelphia, Pa., have on exhibition, among other things, their new Philadelphia broadcast seed-sower, which is a novelty and a good thing. The large size is made to be attached to any farm wagon by a very simple device, and when in position it sows perfectly the largest and smallest seeds, besides the various kinds of fertilizers. This sower is conspicuous for simplicity of construction, uniformity of sowing, durability, and especially breadth of cast. It has been uniformly successful in the field and has, at the fair, been awarded the first premium.

D. M. OSBORN & Co. of Auburn, N. Y., and Philadelphia, Pa., had a very large and complete exhibit of their well-known machines under the management of Mr. Herbert. The self-binding harvester, which has just closed its fifth season, has made an admirable record where records count, that is, in the field. It is particularly noticeable for the simplicity, strength and perfect controllability of the binder attachment. It works automatically, or is under the control of the driver at will, which makes it do perfect work in dense or thin grain. It is noticeably saving in wire, and if, at any time, the wire breaks from excessive strain, the machine itself threads the needle and works right along without stopping. The other machines included an independent reaper, a combined machine and an independent mower. In looking over the work turned out by this Company, an experienced man is attracted by its thoroughness, strength and perfect adaptation to its purposes. It is only in actual use that these qualities are truly developed, and it is there that the Osborn machines score their triumphs and secure the awards, which are commonly first premiums and always large sales.

THE SYRACUSE CHILLED PLOW Co. of Syracuse, N. Y., as usual, make one of the most complete exhibits in the machinery department. They have invaded foreign territory, so to speak, and occupy the space used by Spain during the Centennial. It is very thoroughly embellished with the "Syracuse," and the first prizes and silver medal that have been awarded the Company. The success of this plow is like nothing so much as the old stories of invasions by the Goths. It goes into a territory and before the season is over, it would seem as if no other plow had ever been known. This is the effect of a good implement and shrewd, energetic managers, who are "Syracuse" men first, last and all the time. During the fair the new side-hill plow, with shifting jointer, attracted great attention. A novel incident was a serenade by a brass band on Thursday, after the premiums had been awarded. Several of the musicians were agents for the "Syracuse," and displayed their enthusiasm melodiously. We congratulate Mr. Kemp on the perfect way in which he managed the display and his success in effecting sales of 500 plows.

JONES, FAULKNER & Co., Utica N. Y., have on invitation, and at the special solicitation of the Society made an instructive exhibit of cheese-making apparatus in full operation, that draws large crowds of interested spectators. The idea was to show Penusylvanians the appliances used for cheese-making in the best-known dairy district of the East, and it has been successfully carried out. Some thirty cheeses of good quality were made. The exhibit included their factory engine, improved steam vat (which took first prize at International Dairy Fair,) Ralph's "Oneida" cheese vat, which is designed for small factories and dairies, a new drop-bottom curd sink, curd mill, and the well-known Hubble gang press. There were also a revolving churn, milk weighing scales, and, in short, a complete outfit. The practical operations were under the management of Mr. Smith, while Mr. Jones supervised the general display. A part of the exhibit was sold during the fair.

PROMINENT among the lawn-mowers, was the Philadelphia, exhibited by the manufacturers, Graham, Emlen & Passmore. This machine is one of the pioneers of its class, and its success has stimulated more competition in similar models than has any other mower. It seems to have been regarded as the standard light-weight mower. Up to the present, something over seventy thousand have been made, sold, and sent all over the world. It seems somewhat strange that in examining this machine, the judges should not have been conversant with these facts. But as a matter of fact, the judge (only one of the three examined the mower) made himself somewhat ridiculous by his questions, and proved himself no ornament to the intellectual department of the Society. Under the circumstances, a premium could not be received with any great satisfaction to the exhibitor.

J. SEDGENER Painesville, Ohio, showed his improved "Nonpareil" mill, in operation. It crushed and ground corn, corn and cob, with or without shuck, bones and other substances, turning out a fine quality of meal in every instance. The mill is simple, durable and efficient. It runs equally well either way, and is such a mill as is always useful on a farm because of its general utility. C. H. E. R.

BENEFITS FROM FAIRS.

THE benefits that are to be derived from a well conducted agricultural fair—the horse racing being omitted—can hardly be overestimated, and yet a large majority of our farmers fail to work for its success. In fact, we often find that the principal part of the stock, etc., etc., on exhibition is placed there by persons who are not distinctly farmers, while the management, as well as most of the heavy work, devolves upon the same class.

This is not as it should be. The average farmer should also "put his shoulder to the wheel," thus making our fairs still more beneficial. Is it not possible for the RURAL correspondents to devise some method of inducing more of our farmers to work for the fairs? Our duty is poorly done if we only attend the fair for a day, or perhaps half a day, criticising all that has been done because it was not done differently, and explaining how we could have shown better stock, finer fruit, larger vegetables, etc., etc. A better way is to bring along samples of all things worth showing, and to place them on exhibition. Attend the fair with your family—for wife and children like to see fine things as well as yourself. Urge your neighbors to attend also, and when there, praise whatever you can, and where you cannot praise, keep silent—unless the thing ends up with a "hoss trot," in which case you are at liberty to utter your severest condemnations.

One thing I am glad to learn, and that is, all fairs that depend upon horse racing as their chief attraction, are, so to speak, "fizzling out." This is as it should be. As George McDonald says, "To succeed in the wrong is the most dreadful punishment to a man who is in the main honest." NELSON RITTER.

Onondaga Co., N. Y.

A LITTLE incident occurred at a Fair in Rutland county, Vt., that seems almost too good to be lost, and shows the necessity of appointing judges that know whereof they judge. The facts are these:—A gardener of some notoriety carried several articles to the fair, and among them beautiful specimens of the Egg Plant. The judges inspected the articles and very wisely awarded the gardener the fifth premium on a new variety of turnips, supposing they knew all about the Vegetable Kingdom. Our fairs ought to be so managed that ignorant blunders of this kind can be avoided.

Rutland, Vt. A. H. C.

Everywhere.

NEBRASKA NOTES.

KEARNEY, Buffalo Co., Neb. Sept. 3.

THERE are no variegated forests with their leaves of every hue imaginable, no falling leaves to tell us of the near approach of autumn out here on these vast plains, but the busy hum of thrashing machines, the silent, slow change of the beautiful green flower-clad prairies to brown, barren-looking plains—the innumerable grain stacks tell you they are not barren—tell us that the summer is past and autumn is surely at hand. And a glorious autumn we are having here. Although some are complaining that it is too dry, yet it is splendid weather for saving grain, of which there is a large crop, and the homesteaders—we are homesteaders here, not farmers—are in the midst of an abundant thrashing season. Small grain is not turning out as well per acre as it has for the past two years, but there was a great deal more sown, and our county has probably raised more wheat this year than it has done the past two years together.

Although a new railroad has cut off the marketing, in Kearney, of grain from the southern portion of this State and northern Kansas, the streets are more crowded with teams loaded with wheat than ever before, and buyers can scarcely handle the quantity brought in. Corn is an immense success here this year, and will yield from 40 to 80 bushels. per acre. Sod corn will yield from 40 to 50 bushels. We raised apples, pears, peaches, plums, cherries, grapes, raspberries, gooseberries, currants and strawberries in our county this year, and all have done well. Of course our orchards, vineyards and fruit gardens are young yet, the country being settled only five or six years, so we cannot yet expect a large crop of fruits. Along the streams a great many wild plums are growing, of which there is an immense crop, and some are as nice fruit as I ever saw anywhere, and I have seen some pretty nice plums, too.

Vegetables? Oh my! of all countries for growing vegetables this beats any in my range of travel. Only think of watermelons planted on wild sod broken up this year, without any manure or cultivation whatever, not even hoeing, yet weighing from 30 to 50 pounds!

The Pearl Millet sent me by the RURAL, I guess, I planted too early, and it did not all come up, but it has gone to seed, and if frost holds off another week or two, I think it will get ripe; but we do not have much use for a forage plant out here, as we have green grass the year round. The Acme tomato is a complete success, and has done better than any other kind we have ever planted. It will sell at from 25 to 50 cents more per bushel in market. The Defiance Wheat shriveled pretty badly, but it was probably from having been sown late. The flower seeds did not come up with the exception of the Japan Cockscomb, which is very nice. The Beauty of Hebron potatoes I have not dug yet; but think they have done very well.

Wheat, highest, new, 75 cts.; lowest, 50 cts.; present price about 63 cts.; corn, 20 to 25 cts.; oats, 15 to 18 cts.; rye, 20 cts.; barley, 15 to 40 cts.; potatoes, 15 cts.; butter, 20 cts. per pound; eggs, 8 to 10 cts. per doz.; flour, $2.50 per cwt.; hams, 10 cts; shoulders, 7 cts.; bacon, 8 cts. per pound; corn meal, $1.20 per cwt.; onions, 50 cts.; beans, $2 per bushel.

H. A.

RURAL SPECIAL REPORTS.

MASS., North Raynham, Bristol Co., Sept. 11.—Potatoes rotting somewhat hereabouts; but ours are looking well, and will, most likely, escape frost. Hay crop light. Apples scarce. Cranberries below an average. Grapes a good crop. T. G. L.

N. Y., Rome, Oneida Co., Sept. 8.—We have had the most severe and long-continued drought that we ever knew. It commenced in early spring and there has not been rain enough since to raise the streams but a trifle. We never saw them so low as they have been the past week. Pastures on dry land look almost as though a fire had run over them; and the after feed in meadows is very scant. The result is that dairymen are getting but little milk; and as cheese nets them only about four cents per pound, it makes them wear long faces. Newly-seeded ground will nearly all require to be seeded over in this section. Corn ears have not filled out at the end very well; but some fields are ready to be cut up. Potatoes are excellent in quality, but the yield is not more than an average one. They are beginning to decay in some fields. Wheat yields on an average about 18 to 20 bushels per acre; oats, about 40 bushels. Pear trees hang full; but apples are not very plenty. Plum trees are loaded. We picked the first ripe Golden Rural tomato, Aug. 14th. We think them very nice. We distributed all but eight plants among the members of our "Grange," but have not heard how they are liked. My Blount's corn is still the "great attraction" to all passers-by. Some of it is over fourteen feet high with the lowest ear eight feet from the ground. One stalk has ten ears, all set with corn; but I still fear that the season is not long enough here for it to ripen, as it is very green yet. One of the city subscribers to the RURAL in our Club, gave me his Beauty of Hebron, and that made six ounces of seed which I cut into 17 pieces and put one piece in a hill, the hills 18 inches apart. I selected the same size and weight of Early Rose, and cut them in the same way, planting them side by side on gravelly soil on April 16th. I applied one small shovelful of old stable manure on top of each hill, and covered the manure. Each kind got the same care, and I could not see any difference in the growth through the summer, nor an hour's difference in the time of ripening. We had 17 2-16 pounds of Beauty of Hebron, and 19 7-16 of Early Rose. They averaged about the same in size. We have two Voorhis watermelons about the size of a two-quart bowl. Defiance wheat was a failure. F. D. P.

N. Y., Erieville, Madison Co., Sept. 8th.—We have not had any rain to wet the ground in six weeks and the corn is drying up, so the the ears will be short and not filled out. My Blount's corn is a wonder to everybody that sees it. People stop to look at it, and want to know where I got it. I planted 125 kernels, 115 came up; the cut-worm ate off two stalks, and the rest of it is from 13 to 14 feet high and has from seven to nine ears set on a stalk, and if we don't have frost this month, I think I will get part of it ripe. I manured with hog manure. I had very bad luck with my Beauty of Hebron potato; it had eight eyes and I made eight hills, and when they came up the bugs ate off the tops and spoilt five, and the cut-worm spoilt two hills, so all I saved was one hill. I tended that faithfully, and the 4th of this month I dug them, and it was a hill of potatoes worth having, one tuber weighed one pound and nine ounces and there were six pounds and a half in all from one eye. Who can beat that? The Acme tomato you sent me is all it was claimed to be. I planted part of the seed you sent me and I had plants enough for myself and my neighbors, and they are all delighted with them. I trained mine to a stake and trimmed from the bottom, and the vines are some six feet high and are loaded with fruit. These are large and smooth and ripened uniformly all through, and of very nice flavor. The beets are looking fine. My Defiance wheat I sowed in drills, but the dry weather we had the fore-part of the season hurt it very severely, so I don't expect to get much. Of my flower seeds three or four only came up. I am very much pleased with my RURAL seeds; the corn is worth the price of the paper just to see what cultivation can do. Potatoes are rotting somewhat in this section; but there is a large yield. Butter is 12 to 14 cts. per pound; eggs, 11 cts. per doz.; wheat, $1.10 per bushel; corn, 50 cts.; oats, 30 cts. Apples are not plentiful.

S. J. V. C

N. Y., Fuller's Station, Guilderland, Albany Co., Sept. 8.—Fine growing weather; sowing wheat and rye; apples scarce—more in my orchard than in ten neighboring ones, because I kept the ground well worked and manured, and trees well trimmed, so that all about here own that my fruit is the largest and finest in this section. I have about 40 kinds and my trees bear every year about equally well. I don't think people trim their trees enough. I trim mine every year and get the highest price for my apples. My Blount corn is the wonder and admiration of all who look at it. I planted it May 13; now it is from 10 to 13½ feet high, averaging 11½ feet, with from two to nine ears on a stalk; some stalks are eight inches in circumference. I put no manure or fertilizer on it, but planted it on a good sandy loam, as I wanted to see what it could do in a practical way in our section. My opinion is that the season is too short for it here. My ordinary corn—the King Phillip—is a splendid crop this year. Buckwheat is extra-good; oats middling; hay fair; rye half a crop. A. M. L

N. Y., Hamilton, Madison Co., Sept. 9.—The Beauty of Hebron sent me weighed two ounces, and from it I raised 11 pounds of good-sized potatoes, although the "bugs" troubled them all the summer. As to their earliness, I think them a little earlier than the Early Rose. J. A. Y.

N. Y., Brasher Falls, St. Lawrence Co., Sept. 8.—Our Beauty of Hebron potato yielded sixty nice tubers, of which there are but few small ones. We are keeping them very carefully to plant next year. Only five kinds of the seeds came up. J. A.

OHIO, Bremen, Fairfield Co., Sept. 12.—Wheat crop excellent, and grain superior. Fultz has the preference with those who prepare the ground well. A large acreage will be sown this fall. Oats medium. Corn very good on good land, when the seed was sound. On thin land the fight with grub worms and much re-planting have resulted in a very light crop. Potatoes suffered from both Colorados and Cantharides. Paris-green is effectual in both cases. It needs care, however, to put in enough of the mixing material (sifted road dust is as good as any) to prevent *pure* Paris-green from injuring the tops. Beauty of Hebron promises well. Not extra-large, but of fair size, and nearly every potato marketable; quality very good. Peabody sweet potato, very early, but hardly as sweet as Nansemond when of the same size. Tried only this season. Apples almost a total failure after the great crop last year. Pears, better. Peaches and plums all killed, and most of the cherries. Dyehouse, however, is an exception, passing safely through the extreme cold of last winter and bearing a full crop of its fine fruit. Grapes have done better than for several seasons past. Sheep market very active; cattle slightly less so; hogs least. The dozen or more iron furnaces a few miles east and south, in Perry and Stocking counties, furnish an excellent market for fruits, vegetables and farm truck generally. R. J. B.

PA., Brookfield, Tioga Co., Sept. 7.—My White Prolific corn is doing its "level best," but I think it's too late to ripen. It has from two to five ears to a stalk, and in one place I noticed 12 *ears, the product of a single kernel.* My Beauty of Hebron potato had 14 eyes. I removed the first set of sprouts and put the eyes to work to produce a new crop, which they industriously did. From these 14 eyes I harvested 47 pounds of tubers, about 40 pounds of which were of marketable size. E. H.

ILL., St. Charles, Kane Co., Sept. 8.—Timothy meadows and high pastures are eaten very badly by the large white grub, being in many instances nearly destroyed. Grazing for cattle only on low ground or clover meadows. Hay and oats are average crops. The prospects were good for an immense corn crop, but the grubs and dry, hot weather have injured it to some extent; some say 10 per cent. and some put the loss higher. I think it will not be greater than 10, if so great. Potatoes a fair crop; we had frost on Sept. 5th, but it did no injury to vines. The returns for our milk per hundred pounds delivered at the factories are very low, the highest being 40 cents, with one or two exceptions for June milk. Most factories are running below this, and the prices all the past months have been proportionately low. The manufacturers are charging two cents for cheese and four cents for butter. Where butter alone is manufactured they take five cents, and the producers of milk in this county claim that the manufacturers have had all the profit there was in the milk, and wish them to reduce the price for making, but so far, I believe, all refuse, claiming two and four cents to be the lowest possible price for which they can afford to manufacture. Unless some change takes place for the better in behalf of the producer, many will go out of the business from necessity.

ILLS., Dover, Bureau Co., Sept. 5.—Thrashing is nearly over, and wheat is above the average in yield and quality. Oats yield from 45 to 65 bushels per acre. Hay was light—about one-third short on account of dry weather early in the season. Corn is large and looks fair for a large crop. Early Rose potatoes are good; Peach-blows and all late potatoes will be small, unless we have rain soon. My Blount corn is tall, too tall for us in this country. The wind breaks it down too much.

J. B.

ILLS, Sparland, Marshall Co., Sept. 12.—We have had a very dry season. Wheat and oats are light crops. Corn stood the drought well, and late rains will make it a fine crop. Potatoes will be scarce. Planted my Beauty of Hebron April 22; it contained six eyes and yielded 40 potatoes; am well pleased with it. The Golden Rural tomato is very nice and of fine flavor. R. W.

MICH., Litchfield, Hillsdale Co., Sept. 3.—No one reports the Blount's corn so high as mine, for some of mine stands 16 feet six inches, and 10 feet six inches to the top of the upper ear; it has only two full ears, the other shoots not having come to perfection, perhaps on account of drought, for it has been very dry and hot for the last two weeks. My Pearl Millet will average six feet and is coming out in heads from six to eight inches long. If frost will stay away ten days or two weeks, I will save some seed. I cut some off when about three feet high—it is now 18 inches high again. Neither the corn nor the millet was planted in very rich soil; it was a sandy, gravelly soil, without any manure. The Blount corn is a little late, though I have some that is ripe, so that I have gathered some for seed. I planted it on the 21st of April. It also grows too tall in the stalk; it would be a killing job to cut 10 to 20 acres of such corn. Then again, the ears are too small, it being an eight-rowed corn and from six to ten inches long. If the stalk could be reduced one-third or one-fourth and the ears enlarged in that proportion, then it would suit me better. I now have a yellow Dent, called the Queen of the West, which I like better. My tomato seeds that the RURAL sent me did not all come up. I got a few stalks that bear well, and that are now ripening as nice a fruit as ever I saw. I sowed some El Dorado and Russian spring wheat; the El Dorado was a failure; the white Russian has a beautiful white straw, a large, smooth head and a very nice, plump berry. I intend to give it another trial; the cold, backward spring caused it to stand thin. The people have about finished thrashing here; wheat has turned out beyond all expectations. Corn has been ripening up fast for the last ten days, on account of the dry, hot weather; but it is now raining, and that will stop its ripening. I never saw corn ear better; a great many stalks have two large ears. Potatoes are rolling out big; I take from 20 to 35 out of each hill, all fair potatoes. I have also got 700 hills of the Early Amber sugar cane planted, which is beginning to ripen; it is from eight to ten feet high. Wheat is selling for 92@95c.; oats, 20@23c.; live hogs, $3 per 100 pounds. G. K.

MICH., Memphis, Macomb Co., Sept. 8.—The seeds the RURAL sent me were of more value than the price of the paper. It has been so extremely dry here that it seems a wonder that vegetables have lived with the ground as dry as ashes two feet deep, but we have just had a splendid rain and hope is revived. I have been a little unfortunate with Blount's corn, as the chipmunks dug out eight hills, and a neighbor's cow broke in and injured several others; but as I planted only one kernel in a hill, there are about one hundred left that have done splendidly. The stalks are ten to twelve feet high, with from three to ten sets on a stalk; the suckers are eight feet high with ears. The Millet stands about seven feet high, a wonder to all who see it; its heads are twelve and fourteen inches long. I think some of the seed will get ripe. The Defiance wheat went with that old cow, except a few heads which I shall try another year. It promised very finely. The little potato I cut into 13 single eyes; two failed to grow, and three were destroyed by ground moles. I have just dug the the eight remaining hills, and the tubers weigh twelve pounds, some of them being four times as large as the one I planted. I selected an Early Rose of the same size and planted it in the same way, side and side; also a Snow-flake in the same way; the Snow-flake is not worth talking about. The Early Rose got ripe a few days the first. I have dug the same number of hills, eight, and they weigh 14¾ pounds. B. S.

MICH., Belmont, Kent Co., Sept. 9.—We dug our Beauty of Hebron last week and they were beauties, both in size and number. We had more than we could pile on a peck measure, all taken from seven hills which we made from the potato sent us. K. S. D.

WIS., Lavelle, Sauk Co., Sept. 11.—The season has been favorable to the growth of nearly all crops. A dry spell of nearly six weeks, however, injured late potatoes and caused corn to ripen prematurely. Wheat was a good crop, except here and there where it rusted. Blount's corn is from 10 to 13 feet high with from one to nine ears to the stalk, but little, if any, will mature. On the 5th inst. we had a frost which scorched the outside leaves. The Beauty of Hebron potatoes are nice-looking, but I've not dug them yet. Wheat is selling for 65 cents per bushel. W. S. B.

WIS., Oconomowoc, Waukesha Co., Aug. 8th.—The RURAL flower seeds didn't come up; Pinus edulis sprouted, but then thought it had done enough, Defiance wheat was good and Pearl Millet beyond my expectation. It's what every farmer should have. That Blount corn was planted May 10, and is now about 12 feet high, with an average of four ears to a stalk. The Beauty of Hebron did well and is a good potato. J. H. B.

MINN., Howard Lake, Wright Co., Sept. 14.—The Golden Rural Tomato ripened with me a little earlier than the Acme although the latter was planted a week sooner. The Acme however, is a nice sort; but I find more decayed fruit than ever before. I have been hoping that this was due to the heavy rains we had in July and not to any fault of the variety. From one small Beauty of Hebron potato I got over twenty sprouts while planted in a box. Then I set the pieces in the ground and continued to take the potatoes from the sprouts until the pieces decayed, so that I have a fine crop from so small a beginning. The first potatoes I "fingered out" for a trial before they were ripe and thought them better than the Early Rose of the same age, but, like many other new varieties, I now find them poor or not mealy at one end, though this may be due to this locality. Some of this variety were in bloom when not more than ten inches high, and the vines do not have so rank a growth as most other sorts when grown on rich soil. The Voorhis watermelon is good so far as the vine is concerned, but the first melon that set, dropped off and few others have set. The seeds sent me have afforded much pleasure to my neighbors and friends as well as to myself, for I have shared them with others. Farmers are jubilant over their fine crops of grain, nearly all of which rose and matured after having been badly lodged in the first part of July. Some are now busy thrashing, and a good deal of the grain ranks No. 1. S. A. M.

IOWA, Davenport, Scott Co., September 5.—I enclose you a slip cut from the Davenport Gazette, which will give you some idea of

what the Blount corn has done for me. I expect to get one of the premiums on it.

The clipping says:—"G. W. Strong, one of the C., R. I. and P. R. R. force in this city, has a patch of corn, grown from seed furnished him last winter by the RURAL NEW-YORKER, well deserving notice. The variety is a new one, called Blount's Prolific. Of the 127 grains furnished him and planted on his lot on Laurel street near Farnam, 102 grains grew, yielding five or six stalks to the grain, and from the whole about 1,000 well-formed ears have come. A single grain in one case produced 12 ears, all good. The corn is a common field corn, the stalks growing about 16 feet high. The great increase from the seed would indicate that it is a variety likely to come into general use."

All the seeds sent me have done first-rate. The Golden Rural tomatoes are very nice, and have done very well; but they did not ripen until eight days after the Canada Victor, and as they are a yellow tomato, they will not make a good market variety in this place. I dug my Beauty of Hebron potatoes to-day; I cut the seed into 17 pieces, of which 15 grew, and I have dug 81 good, large potatoes, any one of them large enough to use, being at least four times as large as the one sent me for seed, and a good many of them as large as my two fists. I shall weigh them and report. The Defiance wheat did not do very well, as the rust hurt it. The Pearl Millet looks splendid; it is just beginning to head out. I am somewhat afraid it will not ripen. It stands now about six feet high.

We are having splendid weather. The crops are all gathered except corn, and a bountiful harvest it has been. The farmers in this section are happy, and business is better here now than it has been within the last ten years. Our county fair begins here Monday, and we expect a big time, as it is the best county fair in the State. I have two hills of Blount corn in boxes to take to it. I forgot to state that my Blount corn was planted the 8th of May, and it will be ripe enough to gather in ten days, as it is all turned brown now.

G. W. S.

Mo., Clinton, Henry Co., Sept. 9.—I planted my Blount's corn on May 8, in my vegetable garden—a high prairie. The soil—clay—had been enriched with barnyard manure for several years and got another dressing in spring. The rows for the corn were three feet apart and it was planted 2½ feet apart in the row. Two severe storms prostrated some of the stalks, while insects and moles destroyed several hills. Many of the plants sent up from three to six suckers and some of these had three and four good ears apiece. The weather having been very dry, the corn that escaped the storms and other foes was cut short. I cut it on Sept. 4. I weighed the product of the 10 best hills, which, however, had not entirely escaped injury from the wind. The ears with the corn on them weighed 169 pounds and the husked grain, 36 pounds. If I had planted one-fortieth of an acre and it yielded at the same rate as those ten hills, I should have had 240 bushels per acre. With the Beauty of Hebron I am much pleased and also with the tomatoes. Pearl Millet is six feet high and will, I believe, mature seed. Very dry here now. Corn has been cut short by drought, but will average a full crop. Wheat sells for 77 cents.

W. A. H.

NEWMARKET, Shenandoah Co., Va., Sept. 6.—The long drought we had here is ended, and we are having a good season for some weeks. Farmers are getting ready for seeding; cutting corn will soon be in order. Times are pretty good here now. Wheat sells for 95c. to 98.; rye, 50c. to 55c.; corn, 50c. and oats, 30c.; butter, 10-12c.; eggs, 8c.; water and muskmelons plenty, from 5c. to 20c. each. Pearl Millet is seven feet high and in head. X. & Y.

ALA., New Market, Madison Co., Sept. 11.—The Blount corn promised to yield, according to best judges, 250 bushels per acre. The excessively dry weather, however, cut it short, so that it will only make 40 bushels. The Pearl Millet is *the* fodder plant *par excellence;* the dry weather did not injure it; I have cut it five times, and expect to cut it again. It yields an immense amount of forage; am raising seed. The Beauty of Hebron yielded finely; crops of corn, cotton, grass, peas, wheat, sweet potatoes, etc., are extra-fine. G. D. N.

CANADA, Cornwall, Sept. 9th.—The RURAL seeds were excellent. My "Blount's White Prolific" is fully 12 feet high, and promises to be all that is said of it, though I am afraid this part of Canada is too cold for corn. I planted it the last of May and I am doubtful whether it will ripen or not. Pearl Millet does well with me as fodder, though a great part of the seed missed, owing to the cold spring. Beauty of Hebron potatoes I have not dug yet. Defiance wheat is splendid. In this neighborhood the harvest promises to be abundant. Potatoes turned out to be better than expected, and will be sold here for 25 cents a bushel; apples are almost a drug, in fact, almost everything except corn promises to be abundant.

W. S. T.

(Continued on page 634.)

The Querist.

ANSWERS TO CORRESPONDENTS.

Preparing Phosphorus Paste, etc.

J. W. S., Owensboro', Ky., asks how drawn butter is made; 2, how to prepare phosphorus paste for the purpose of destroying rats and other vermin.

ANS.—Drawn butter is an admixture of melted butter and flour. 2. Take eight ounces of common starch and pour over it one pint of water; stir and pass through a No. 60 sieve into an enameled dish capable of holding a gallon, and add a pint and a half of water and 24 ounces of flour. Mix thoroughly, introduce 24 fluid ounces of glycerine and heat on a sand bath, stirring constantly. When a plasma begins to form, take it from the fire, but continue stirring. After a few minutes, reapply heat, stir and set aside to cool. Mix six ounces of the plasma gradually with eight ounces of water in a porcelain measure and set in water nearly boiling. When hot enough, drop in two drachms of phosphorus. When this has fused, agitate the whole thoroughly and introduce as much more phosphorus, repeating the operation until two ounces of phosphorus have been added. After this, thicken the phosphorus emulsion with more of the reserved plasma, and finally, incorporate all thoroughly with the remainder. Preserve in small, wide-mouthed bottles, protected from the air. Such is the receipe according to which the article is compounded by manufacturers, but it is seldom that farmers have all the necessary conveniences, and, perhaps, therefore, it would be better for them to buy the manufactured article, as, at the best, it is likely that they could themselves make only a second-rate paste. Phosphorus paste is largely used in California for poisoning squirrels and other noxious rodents, and in the RURAL of May 23d, 1877, a writer there gives his method of preparing it, as follows:—Take a five-gallon oil-can; fill it one-third with water, and set it on the stove until it boils. Then mix cornmeal and flour, half and half, and stir it briskly in until a stiff mush is produced. Add two pounds of sugar and let the can cool for ten minutes out-of-doors. Then take a stick of phosphorus in a pair of pliers and plunge it in the mush until it has all melted. Melting it in the mush, instead of in water, prevents it from settling, is more economical of phosphorus and produces a more thorough mixture. It is important that the mush should be considerably below the boiling-point, otherwise the phosphorus will take fire. When the phosphorus has been melted, wheat is added until the mixture is too stiff to be readily stirred. The wheat becomes swollen, absorbs the water and the mass can be conveniently broken into lumps of suitable size. Of course, when only a smaller quantity than the above is needed, the amount of each ingredient here mentioned must be diminished proportionately.

Raising Watermelons.

T. D. B., Greenville, Ky., says that he has a good market for watermelons, but that he has never been successful in raising them, and he asks for instructions how to do so; 2, which is the better plan—to manure a few hills heavily or to have more hills; 3, whether we would sell him seeds of the Voorhis watermelon and the Golden Rural tomato.

ANS.—1, Prepare the field as for corn. Let the hills be made six feet apart. Enrich them with well-rotted manure. Work the soil and manure together. Plant from four to six seeds—four are enough if all should live—and then cultivate until the vines cover the ground. As soon as the first leaves appear they should be dusted with plaster, fine-sifted coal ashes or soot, to prevent the depredations of insects. The soil should be a sandy loam or a well-drained clay loam. We know of no advantage to be derived from planting in *hills*, as many understand the word. A little mound of earth seems only to shed the rain and to expose the roots to the heat and drying influence of the sun. The earth thrown over the manure and seeds should be as flat as the surrounding soil. 2, No. More hills. 3, We have never *sold* a plant or a seed. Our seed and plant distributions are free to subscribers.

Maggots in Cheese, Etc.

Tyro, The Dalles, Oregon, asks, 1st, what to do with a cheese half of which only has been eaten, yet the rest of it is full of the liveliest sort of maggots; 2d, should an out-door dug-out root house have a chimney for ventilation?

ANS.—The maggots are the larvæ of the cheese-fly, and among steady cheese eaters are merely picked out of the cheese when the cheese is eaten. In England where cheese is largely consumed, maggoty cheese is not objected to by many persons, but cheese and skippers are eaten together with mustard and vinegar. If you can bring yourself to this state of mind, or rather of stomach, the cheese may be used; otherwise it will have to be thrown away, or at least that part of it that is infested, if any of it is free. You should have kept your cheese from the fly by covering it with paper well buttered, not only over the outside but the cut part of the cheese as well. 2. A dug-out root cellar should have provision for ventilation, but a chimney would not be the right kind of ventilator, unless it was provided with some arrangement for closing it tightly in cold weather.

Removing a Wagon Bed Easily.

W. H. D., Chesterville, O., asks for a plan by which the bed can be easily removed from a wagon by one man.

ANS.—To raise a wagon box or bed, put a strong screw ring in each side near each end of the box. Fix a strong hook, with a bolt and nut to secure it, through a beam overhead in the shed. To this hang a pair of blocks and tackle. A two or three-wheel block will be the best. Arrange four hooks on the ends of the two ropes and fasten the ropes together in the middle with an eye or ring so that each hook may fasten to one of the rings in the wagon bed, and the eye or ring in the middle of the ropes may hook on to the lower block. Then one man can easily raise the wagon box to the beams by hauling on the rope which is rove through the blocks. When the box is high enough, the loose end of the rope is fastened to a cleat or ring in the wall, or to the wagon box itself. The box is thus hoisted out of the way, and when it is wanted, it may be lowered on to the wagon again. Hay racks, wood racks, and wagon boxes of all kinds may be thus hooked up to the top of a shed. One set of blocks and tackle will do for all, by having a set of stout ropes and hooks for each box or rack, which may be fixed to the beams.

About Blount's Corn.

W. E. B., Spartansburg, Pa., says under date of Sept. 1, that his Blount's corn is 15 feet high and still growing at the rate of four inches a day, and he asks whether it will tassel this year, and when he may expect the tassels to show.

ANS.—By the date when this issue reaches our friend, it is probable that he himself will be able to answer the conundrum he proposes to us—provided he has a telescope of even moderate power with which to bring the tassels low enough to be distinguished. We heard excellent accounts of this variety of corn, and thinking it would be a benefit to our friends to try it in their several localities, we decided, after mature deliberation, to make it a supplementary free seed distribution, and in order that it should have a fair trial, we offered a liberal premium ourselves for a good crop of it, and secured other premiums from friends of the RURAL to insure the same object. We are testing it now ourselves on the RURAL FARM, just as our friends are doing in all parts of this broad country, and so soon as the corn crop shall have been gathered, we shall "sum up" the results of our own experience with regard to it and of that of our friends "Everywhere."

When to Plow for Corn.

H. K., Copper Hill—one of three in the country—asks whether anything is gained by plowing up the sod in the fall for corn.

ANS.—Time is gained, if nothing else, and if one expects to be pressed for time, the sod may be plowed in the fall. But corn succeeds best upon freshly-plowed ground, and in the spring the sod will have made a good growth which will furnish abundance of the most acceptable food for the corn. The usual practice is to plow sod for corn as late as possible in the spring, and plant at once on the fresh, moist ground. A general practice is usually based upon reasonable grounds, and unless there is good cause for it, it is not wise to make innovations. The writer's practice is to top-dress the sod during the winter with fresh manure drawn and spread as it is made, and plow the sod in the spring in strips, so that each day's plowing can be planted the next day. The top-dressing causes a good growth of clover to be plowed under. With fall plowing this advantage is lost.

Miscellaneous.

J. S., Eagle, Wis., asks whether a brass cylinder and a galvanized iron pipe will impart any harmful properties to water for drinking purposes—the water being "hard."

ANS.—Brass is a compound of copper and zinc, and vessels made of it have been for ages in extensive use in Eastern countries for culinary and other household purposes without any injurious effects. The best pumps made for supplying houses with water are of brass and we have never heard any complaints of any injury to health from their use. Galvanized iron pipe is merely iron pipe coated with zinc, or zinc and tin, and is the best pipe in ordinary use for conveying water. The quality called hardness in waters is due to the salts of lime and magnesia present either as carbonates or in the form of sulphates and chlorides. In the wells of several districts such waters readily oxidize simple iron pipe and "taste" of the metal, while their action on galvanized pipe is much slower. Probably the best pipe in such cases would be tin-lined lead or galvanized iron with a coating of tin secured by dipping the pipes in a bath of melted tin after they have been galvanized in the ordinary way. The metal then adheres much more firmly than if it had been applied directly to the iron.

A. E. C., Hudson, N. Y., 1st. Wishes to plant an orchard, and his soil being light and sandy, but not very dry, he asks the names of six varieties of Pears that would be likely to succeed in such a location. 2. Several attempts have been made there to raise peaches, but they have all ended in failures which have been generally attributed to the proximity of the river, a quarter of a mile away; he, however, thinks the want of success due to lack of proper care of the trees after setting, and asks our opinion on the matter. 3. He intends to put up a tight board fence on the north side of his orchard, and asks how far away from the trees should it be. 4. Wanting to study Latin at home without a master, he asks what book he should buy to help him along.

ANS.—Bartlett, Clapp's Favorite, Howell, Seckel, Beurré Bosc, Lawrence. If "not very dry," the soil should be drained. 2. Good care would insure healthy trees, but it could not prevent the destruction of fruit buds. The proximity to water is an advantage. 3. Any convenient distance will do on the north side; on either of the other sides, it should be far enough away not to shade the roots. 4. Andrew's Latin Reader and Grammar or Harkness's Grammar and Reader.

W. S. F., Kingston, Mass., wants to know how to raise Clerodendron from seed; she has had some given to her; do they require to be kept wet or dry, in the sun or shade?

ANS.—Sow the seed in a well-drained pot, filled to within three-quarters of an inch of the rim with a fine, light soil, such as a mixture of leaf-mold and sand; cover the seed thinly and lay a pane of glass over the pot. The pot should be placed in a warm place in the greenhouse or room, and the soil kept moist. When the young plants are old enough to be handled they should be planted separately in small pots and kept moist, warm and partially shaded. As they grow, richer soil and larger pots will be required, and plants large enough to flower should be potted in a mixture of peat, loam and dried cow or sheep manure, with the addition of a little sand. With regard to the four climatic conditions mentioned in the last part of the question, we would advise to give a judicious mixture, as either one administered singly, might prove fatal.

W. M. K., Washington, D. C., asks our opinion of the Shropshire Damson and the Wild Goose Plum sold pretty extensively in that vicinity last season by tree-peddlers.

ANS.—Downing says: The Shropshire or Prune Damson is an English purple variety, rather obovate in figure, but little superior to our common sorts. The Wild Goose is an improved variety of the Chickasaw, which is nearly as large as the Green Gage. Skin purple, with blue bloom; flesh juicy, sweet, adheres to the stone. Season last of July. We would not advise to deal with tree peddlers, unless they are known to be responsible agents of reliable firms.

R. T., Garratsville, N. Y., asked in our issue of Sept. 13, what is the cause of coated wool in sheep, and the question was then answered, as we understood it. The author of "History of a Poor Farm," however, writes that our correspondent, in his opinion, may have meant "cotted" wool instead of "coated." The former is a sort of felting of the wool and a matting of it down on the sheep's back, caused by wet weather and absence of yolk, by which the wool is felted together. It is a sign of poor condition of the animals.

F. H. D. Corning, N. Y., sends specimens of a flower and asks whether it is worthy of cultivation.

ANS.—This is the Virginia Clematis—C. Virginiana. It is a very rapid grower—is covered with small white blossoms in early August, and is now (Sept. 10th), rather showy in fruit, which consists of whirligig, feathery tails. It is not bad for covering stumps or out-of-the-way places.

J. W. M., Oregon, Mo., asks what is the proper name of what is thereabouts called Grass Wheat.

ANS.—We do not know.

M. B. McC., Beaver Co., Pa., sends a wild plant for name.

ANS.—Gentiana Andrewsii—Closed Blue Gentian.

R. T. Sparland, Ill., sends a leaf, and asks the name of the plant that produced it.

ANS.—It looks like Hibiscus moschentos.

COMMUNICATIONS RECEIVED FOR THE WEEK ENDING SATURDAY, SEPT. 20.

F. A. P.—J. G. B.—I. S.—F. M. S.—L. A. R.—A. R.—A. L. B.—S. L.—E. V.—I. W. J.—C. E. F.—F. F. D. C.—J. S. P.—C. F. R.—M. J. F.—M. A. F.—A. P.—M. B.—P. O. D.—Bessie Victor—T. G. L.—K. S. D.—R. H. C.—J. W. M. G.—C. C. S.—G. M.—W. S. T.—W. S. H.—J. H. L.—A. E. S.—F. F. C. Van A. Thanks — W. T.—Marquerite — Grandmother — Mother-in-law—L. L. D.—E. S. T.—Apiarian—E. W. S.—F. D. H.—F. H. D.—M. E. D.—W. I. C.—W. M. K.—J. D.—G. C. C.—B. S.—J. B. T. W.—S. J. V. C.—J. E. M.—J. B. Thanks—R. L. S.—E. B.—F. D. P.—W. S. T.—W. W.—E. H.—W. B. D.—S. & P.—C. M. S.—J. H. S.—D. W.—E. L. J.—A. J. C.

THE
RURAL NEW-YORKER.
PUBLISHED EVERY SATURDAY.

CONDUCTED BY
ELBERT S. CARMAN.

Address
THE RURAL NEW-YORKER,
78 Duane Street, New York City.

SATURDAY, SEPT. 27, 1879.

THE LESSONS OF ADVERSITY.

ADVERSITY has its lessons in agriculture not less than in politics, medicine, finance, morals. Of the latter we spoke in a late issue. Of those to be drawn from the present agricultural adversity and distress in England we spoke at considerable length a week or two before. If that distress shall lead even remotely to a change or modification of the laws of inheritance and entail, of rental of farms and the compensation to be paid to tenants for the "betterments" they make, of forestry and game, etc., which seem to us Americans not only oppressive and unjust to tenants but most unwise even for the landlords,—if this be the result, then that adversity will not have been without its wholesome effect.

In the different parts of our own country, various forms of adversity have at different times taught their various lessons. In parts of New York, some thirty years ago, wheat raising became almost the exclusive industry; soil and climate seemed to favor, and it paid better for a time than anything else. Every available acre for a few years was put to wheat. Not enough stock was kept to return to the soil in manure any adequate proportion of the fertility exhausted by the successive crops. Of course, adversity followed, crops dwindled. The fly, the "winter-kill" (another name for poverty of soil) and the weevil made havoc. Men of our own acquaintance who had raised two or three thousand bushels of wheat annually, now harvested hardly as many hundreds, and were finally forced to abandon the industry entirely, until the land, as if under the old Mosaic law, had enjoyed its sabbaths of rest. The farmers learned the lesson before the land was exhausted, and now under a wiser system of mixed husbandry, with rotation of crops, and more cattle and sheep, and the freer use of clover and manure, and the careful husbandry of all animal manure, both liquid and solid, the fertility is restored and retained, and even wheat in many cases is yielding nearly its former abundant harvests.

In parts of Illinois the same lesson is hardly yet learned. It was deemed at first that the marvelously deep, black soil had fertility exhaustless, and that manure was needless. Corn after corn, and wheat after wheat were raised and sold off of the farms, the straw and stalks were burned or wasted, and even the manure made by the few head of stock kept on the farms, was not properly saved or used. That which collected about the barns was voted a nuisance and seldom carted to the fields. The joke used to be that when the manure pile grew to be larger than the barn, *the barn was moved to a new spot!* The rich gifts of nature in soil and climate even led to shiftlessness and slovenliness in farming. Of course, reverse would come in time, and already on many farms, and even in whole districts, diminished crops, and frequent failures are teaching that the lavish gifts of Nature are not to be abused or overestimated, and that industry, economy, tidiness, and thoroughly good farming bring their due rewards there even as in the older and naturally less fertile States.

In the dairy districts of New York and Ohio the farmers are learning a new lesson, or rather the old lesson slightly varied. The high prices of dairy products during and after the war led to over-production. In many sections dairying became the exclusive industry. Every acre was devoted to permanent meadow and pasture, and every animal was a cow and every gallon of milk was jealously taken to the cheese factory. The calves were "deacoued" and not raised. Scarcely an acre was plowed in whole townships, and the farmers bought flour and potatoes for their families and shorts and grain for their cows and horses. Ordinary and regular farm work almost ceased, except to milk the cows and cut the hay in summer, and feed the cows and cut the fire-wood in winter. With no regular, steady, well-directed labor, men grew shiftless; fences and farms ran down; old meadows ran out. Simple top-dressing did not bring in the lost seed. Plowing, manuring, judicious rotation, and reseeding were needed. Had the price of dairy products remained high, this wretched state of things might have continued till the farms were even worse run down. Reverse was needed, and the sudden and tremendous decline in prices set men to thinking. It was plain they could not make a living on the old plan, and there must be a change. The orthodox creed that "the cow is better than the plow," began to be doubted. The land long rested from wheat and other grain and vegetables was found to produce fine crops if properly tilled, especially when tile-drained. More plows and other implements for the *cultivation* of the soil, we are credibly informed, were sold in these dairy regions, in 1877 and 1878, than in *twenty years* just before. The adversity in dairying thrust three lessons before the farmers and forced them to heed them:—that farm labor must be regular, persistent, well-directed, and fairly distributed through the year, to meet due rewards; that over-production in any one direction is unsafe; and that in the long run a system of fairly divided mixed husbandry is the best.

But enough of special examples. In general, it may be said that adversity sets men to thinking. It jostles them rudely sometimes, out of the ruts they were mechanically following. It sets them to searching for the causes of failure or distress. It makes them students instead of automatons, men and not machines. It teaches that patient, thoughtful, persistent, well-divided, well-directed effort is sure of reasonable reward.

AN INFLUX OF LABOR.

A very tidal wave of immigration bids fair to overwhelm this country with laborers. The recent report of the condition of labor in European countries made by our State Department has shown that this country is a paradise for the workingman, who here enjoys, not only a measure of comfort, but one of liberty and freedom, unapproached elsewhere. The knowledge of this gained, not only from widely published statements to that effect, but from many years' experience of friends, relatives and neighbors who have found a home here, has created wonderful excitement abroad. The English miners' association, numbering 200,000 workmen, has determined to move hither as soon as possible. English farmers and farm laborers are preparing to come over by thousands. Russians, Swedes, Germans, French, and other Europeans are either coming with all their property and capital, or are preparing to come, and are disposing their affairs with that end in view. Even the Icelanders are abandoning their glaciers, their rocks, volcanoes and sporting geysers, and are coming here where they can still have all these with other more desirable comforts in greater plenty than in their native home. What will be the end of it? Who can forecast the result of this gathering of the nations in this continent? Doubtless as what has occurred in this way heretofore has tended to develop the best interest of the country, so hereafter, civil freedom, material comfort, and ease of position, which every inhabitant may enjoy, will, in the end, make good citizens of these foreigners and the nation will be benefited.

PAY YOUR DEBTS AT ONCE.

FOR years thousands of our farmers have been harrassed by heavy burdens of indebtedness, the interest on which alone has been a grievous annual tax upon their resources. Not a few have been forced to abandon to their creditors the farms in the improvement of which many of the best years of their lives were laboriously expended. Thousands of others are still threatened with a like disaster. Crops nearly everywhere this year are good. Owing to a very unusually wide extent of misfortune to foreign farmers, the prices for farm products here leave a fair margin of profit to those who have raised them. Farmers, therefore, will have more money this year than they have been accustomed to handle lately—probably more than they will handle for some time to come, for we can hardly expect a repetition of this year's disasters to foreign crops, and it may be our own turn to experience such a misfortune next year.

In view, therefore, of the oppression of indebtedness in the past, and of the anxiety and sorrow it has brought upon so many homesteads throughout the country, what better use can be made of whatever money each indebted farmer can spare from the proceeds of his harvest this year, than to promptly employ it to free himself from the load that for years has been an affliction and a menace to himself and those dear to him?

Earnestly, therefore, do we urge all our friends who may be in debt to get rid of it at once. We have lately said a good deal about the evils of getting into debt; much more can be said about the blessings of getting out of it. Now is the acceptable time for doing so. However urgent may be, in your opinion, the desirability of expending your money in other ways, there is none which will bring you and yours more lasting satisfaction and advantage than by using it to clear your homestead of indebtedness with its persistent tax and trouble. You can do so now, wholly or in part. Providence alone knows when you will be able to do so if this opportunity passes by unimproved.

BREVITIES.

THE Farmer says that Indiana is now rejoicing over the largest wheat crop ever secured in the State.

IT will be found that strawberry runners are growing freely now. If *large* fruit be desired another year, cut them off as soon as discovered.

THE London Garden (Aug. 30) contains a beautiful colored plate of varieties of Iris Kæmpferi, seeds of which we are offering in our next seed distribution.

THE volume of mercantile business, judged by clearing-house transactions—one of the best criterions—is nearly one-third greater now than at the same time last year.

"Is Life Worth Living?" is the title of a book lately published in London by William Hurrell Mallock: a pertinent query in that connection would be "Is Death Worth Dying?"

IN the single item of oxen and bulls, the importation into the United Kingdom from this country has increased in value from sixty thousand in 1873, to nearly six million dollars in 1878.

A WRITER in an English agricultural paper says that they are fast getting Anglo-Americanized over there, and that the best thing they can do is to annex the United States. Here is richness for you!

WHICH of our fairs did it? What? Why offered a premium for the best device for irrigating purposes and misspelt the word, "irritating," whereupon a hen-pecked farmer straightway entered his wife for that premium.

THE silk crop of France is not half an average one; the grain crops are short and business is not too lively, yet financiers there, instead of seeking quiet in view of rough times, are unusually busy launching speculative companies.

THE valuation of California has fallen off $37 million, being $547 million against $584 million last year. The new constitution, Kerneyism etc, are believed to have contributed most to the shrinkage. The tax rate now is 62½ cents on each $100 worth of property against 55 cents last year.

MARRIAGES ought to be pretty plentiful here this year, as statistics show, more clearly perhaps than anything else, that there is a constant relation between the number of marriages and the character of the harvest—abundant crops, frequent pairings; harvest scanty, weddings few.

JUST fancy! week before last we actually shipped 4,160,000 bushels of wheat to the European Continent from the Atlantic ports, and 2,936,000 bushels to the United Kingdom, besides sending across the Atlantic 480,000 bushels from California and Oregon, to say nothing of 808,000 bushels of Indian corn, 67,000 barrels of flour, and a large amount of barley, etc.

TUESDAY, the 16th, was a great day for Kansas, when the young giant celebrated its quarter Centennial. At Lawrence a vast multitude of sturdy farmers and others met to commemorate the occasion, while speeches and letters from some of the most distinguished men of the country did honor to the anniversary. Success, a brilliant success, to this vigorous young member of the Union!

FRANCE has the largest wheat area, in proportion to population, of any country in Europe; but while England's average wheat yield is from 28 to 30 bushels per acre, that of France is only 15½. An increase of one bushel an acre there would amount to 16,000,000 bushels. This small yield is attributed to poor cultivation, and, in the South, to the dryness of the climate in spring.

ON the 11th inst. a number of delegates from the tenant-farmers of Ireland, England and Scotland, left Liverpool under the auspices of the Canadian Government, to investigate the advantages for settlement offered in the Dominion and report the same to their constituents. Some of our Southern and Western States would find it to their interest to be equally wideawake on the subject of immigration.

THE walking mania is likely to have a revival again this fall and early winter. Crazes of this kind, like those of other sorts, partake of the nature of an epidemic, breaking out at a great number of places at the same time. The baker's dozen of pedestrians who have just started on a six days' tramp around the sawdust arena in this city, are likely soon to have a host of poor imitators all over the country.

OUR principal exports of cattle are to Cuba, Canada and Great Britain. During the first six months of this year the average price of cattle exported to Cuba was $17; to Canada, $46, and to Great Britain, $96. Cuba is supplied almost exclusively from the ganut herds of Texas and Florida; Canada draws her supplies from the West in a thin condition, and after fattening them, ships them mostly across the Atlantic; while those exported thither from this country are usually in prime condition and belong to the best class of animals.

THE growth of our exportation of cattle to Great Britain during the last five years is as follows:

Year ended June 30—	Number.	Values.
		Dollars.
1874	123	103,800
1875	110	73,300
1876	244	31,220
1877	5,091	546,839
1878	24,982	2,408,813

As the season of cold nights and bleak days is again at hand, we would once more remind our readers of the necessity of shelter for stock, and of timely preparations for winter. So much has been said, year after year, on this point that a reminder alone seems here necessary. Judging by the earliness of frosts in the Northwest, winter promises to visit us unusually early this year, and no time should be lost in getting everything in good order before its arrival.

AMERICAN people of all shades of political faith are likely to extend a hearty welcome home to Gen. Grant, who has just landed in San Francisco from his triumphal trip around the world. Never has any personage, royal or famous, met with so hearty a reception from all classes in every land he has visited; and wherever he has gone, his presence has directed the attention of the people to this country, its advantages and resources, more forcibly than could have been done in any other way.

WE hear so much vague laudation of Old Country folks, and equally vague depreciation of ourselves, that it is pleasing to come upon some close figuring with regard to morals of both sections. From these it seems that here 47 million people consume yearly, 450 million dollars' worth of liquor, while in the United Kingdom 33 million people consume 687 million dollars' worth. We consume 1,021 gallons of alcohol per head, against 2.37 in Great Britain; of beer and wine, Great Britain's consumption is 3¼ times ours.

THERE seems to be a constant shifting of our population. In the political discussions now taking place, several startling figures in this connection have been vouched for as the results of careful statistical research. For instance, Ohio has received from the East 750,000 of her population, and parted with 770,000 to the West, while the census of 1870 showed that there were no less than 138,000 Southern-born residents of that State. A comparison of the statistics of a number of States proves that where one Northern man goes South to live, five Southern men come North to stay.

THERE is an increase of over 100 per cent. in the number of cattle exported from this country during the first six months of the current fiscal year, as compared with the corresponding months of the preceding year, and an increase of 270 per cent. in the value of such exports. The value of exports of cattle during the whole of the year ending June, 1878, amounted only to $3,896,818; whereas the value of such exports during the first six months of the current fiscal year, amounted to $4,974,328, or $1,077,570 more than the exports of the whole of the preceding year. A fine show this for our cattle trade, hampered as it is by European restrictions on our importations!

THE Germantown Telegraph says that "the last new plan for raising wheat is to sow one quart of oats to two of wheat, so that when the frost nips the oats, it falls and acts as a cover or mulch for the wheat. On a trial it is asserted that the crop of wheat was excellent, while in an adjoing field where the old mode was followed, it was very poor. The fact is that the former crop of wheat was so well-cultivated, that it proved to be a good crop in spite of the oats, not on account of it. Winter wheat requires no cover; and if it did, it would hardly be benefited in the result by the oats eating up one-half the fertilization of the soil." We think some account should be taken of what the oat leaves, roots and stems return to the soil.

WASN'T it Rochefoucauld who cynically remarked that there is always a dash of pleasure in learning of the misfortunes of one's friends? There are some to-day so hard-hearted as to agree with the old fellow in this opinion, especially in the case of those who gain by their friends' mishaps; and in the latter case there is probably some truth in the cynicism. While regretting the late "hard times," among our transatlantic cousins, it is hard to check a sense of satisfaction, because they've helped to make easier times here. The Report of our Bureau of Statistics for the year ending June 30 last, shows that the total exports of our merchandise and specie to Great Britain amounted to $363,013,646, while the total of our imports from that quarter, during the same period, amounted to only $111,971,766, an excess in our favor of $251,041,880. In other words, our exports to the United Kingdom were more than three times our imports from that country.

HITHERTO, ever since the outbreak of the late war here, with hardly a single temporary exception, every month has seen this country drained of its gold to pay interest on our debts in Europe, and for goods purchased there, etc. Not only is a vast amount of United States bonds held there on which interest must be paid by the National Government, but Europeans also hold much of the indebtedness of our States, counties and municipalities, as well as a large proportion of our railroad bonds, and stock in a multitude of manufacturing and other industries here, on nearly all of which they are drawing interest. In addition to these drains upon the specie of the country, a large amount of gold earned here is spent abroad by our absentee citizens. In spite of all this, however, so great have been our exports of late that, in addition to paying for all our purchases in the European and Asiatic markets, and for a large number of our bonds held by foreigners, the surplus price of them now causes a heavy importation of gold thence into this country. Since the middle of August this has amounted to $22,000,000, while $6,000,000 more are on their way hither, mainly from Paris, and it calculated that we shall have received from 40 to 50 million dollars specie from Europe by the 1st of next January. Fine times ahead!

Literary Miscellany.

GETHSEMANE.

BY ELLA WHEELER.

In golden Youth, when seems the Earth,
A Summerland for singing mirth,
When souls are glad, and hearts are light,
And not a shadow lurks in sight,
We do not know it, but there lies
Somewhere, veiled under evening skies,
A garden all must sometime see;
Gethsemane, Gethsemane—
Somewhere lies our Gethsemane.

With joyous steps we go our ways;
Love lends a halo to the days;
Light sorrows sail like clouds afar;
We laugh, and say how strong we are.
We hurry on, and hurrying, go
Close to the border land of Wo,
That waits for you and waits for me;
Gethsemane, Gethsemane—
Forever waits Gethsemane.

Down shadowy lanes, across strange streams
Bridged over by our broken dreams,
Behind the misty caps of years,
Close to the great salt fount of tears,
The garden lies. Strive as you may,
You cannot miss it in your way;
All paths that have been, or shall be,
Pass somewhere through Gethsemane.

All those who journey, soon or late
Must pass within the garden's gate—
Must kneel alone in darkness there,
And battle with some fierce despair.
God pity those who cannot say,
"Not mine, but thine," we only pray,
"Let this cup pass," and do not see
The purpose of Gethsemane;
Gethsemane, Gethsemane—
God help us through Gethsemane!

IN FOLLY'S NET.

CHAPTER V.

"DUST IN HIS EYES."

Miss McLeod walked straight up the broad carpeted staircase, to Lady Sholto's pretty drawing-room, and the Earl followed her in a rather ominous silence, which Jean did not quite care to break until they were safe from eyes and ears in the privacy of the drawing-room.

It was a very elegant apartment, hung with the palest blue satin, dotted here and there with rosebuds; a most charming Dubarry combination which all Lady Sholto's visitors admired greatly. The windows, which opened on to the ground, were hung with white lace curtains without, and within, with delicate blue satin with a border of rosebuds running all round them; the chairs were of the softest, most luxurious description, and in the center of the room was a cushioned *causeuse*, bearing on its center pillar a most exquisite bouquet of flowers, chiefly pale pink roses, and their green leaves. A fire was burning on the hearth, although the day was soft, and mild enough, and the windows were opened to admit the soft summer breeze.

Miss McLeod walked straight across to the fire, and stood there in silence; and as the Earl came up behind her, she leant back her saucy piquante face and said with the sweetest intonations:

"Well, Archie."

"Well, Jean."

"What are you looking so sober about? Are you angry with me?"

"Do you not think I have cause?" he said, gravely.

"Cause, of course not — most decidedly not; why should you? What cause have I given you?" she said, laughingly.

"Nay, if you do not know, I cannot tell you," he answered, gravely and a little sadly now.

"What have I done?" the girl said, with comic pathos.

"Jean," he said, sternly, "do you think it a right thing for you to drive that man's horses as you have done to-day?"

"Right!" she repeated, haughtily. "I really cannot see the harm."

"You are trifling with me, Jean," he replied, in displeasure. "Try and be serious for a few moments. Surely you must have known that though I so seldom lay any embargo on your actions, such a course could not fail to be displeasing to me."

Jean did not answer. There was the same little lurking imp of pride in her heart, making her eyes flash, and her lips curl in the haughtiest curves they could take.

"Why did you do it, Jean? It would be unlike you to do it from a deliberate impulse to give me pain," he said, in a moment.

"You do me so much justice then," she said, carelessly. "I did it—I did it—indeed, I can hardly say why—probably *pour passer le temps*—certainly for the pleasure of driving such charming horses."

She threw herself into an easy-chair as she spoke, looking up saucily.

"But, Jean," began the Earl, "it is possible to carry such things too far you——"

"Oh! pray don't begin to preach a sermon on flirtation," she said, interrupting him. "It is rather too late in the day. You knew I was a flirt before you asked me to marry you; if you disliked my ways you ought not to have done so."

There was a moment's silence; then Lord Ivor spoke in a tone of mingled displeasure and sorrow which went to Jean's heart:

"I loved you too well, Jeanie, to dislike any of your ways, as you call them, and I trusted you implicitly; still, as I say, you may go too far, and I am sure you would not wilfully give me pain."

"But this is a mere trifle, Archibald. You are so inconsistent; you say you have trust in me, and for a bagatelle like this you are vexed."

"This is not a bagatelle, Jean," he said, coldly (for though a man's anger is less easily raised it is also less easily laid than a woman's, and though Miss McLeod desired an armistice, she was too sure of the Earl's love for her to show that she did so). "I do not choose to have it said that my promised wife was driving about London with Mr. Blair."

"You do not choose!" Jean said, growing very pale. "Your tone is a strange one."

"Is it?" he retorted, angrily. "I grieve that it should be so, then; but in this matter I must be obeyed."

"Obeyed!" repeated Jean.

"Listen, Jeanie," said Lord Ivor, more gently, and taking her hands in his. "Must I believe that you love me so little as to disregard my wishes entirely?"

"Certainly not," she said, haughtily. "When your wishes are reasonable, you will always find me ready to accede to them; but I do not *choose* to be treated as a naughty child, and ordered to do this or to do that."

He dropped her hand, and turned from her in anger. Jean hesitated a moment.

"What is your objection to Mr. Blair?" she said, quietly.

"I have no objection—at least not much—to him personally," answered the Earl, oddly. "But I say that, in your position as my promised wife, you ought not seriously to encourage his or any other man's attentions."

"Oh! dear," and Jean shrugged her graceful shoulders. "Now I shall have a lecture on the duties of wives, I suppose. Well, I should like a little prospective information."

Then, changing her tone, she drew nearer the Earl, and slipped her hand caressingly through his arm.

"Don't let us quarrel," she said, softly; "it would be so disagreeable, Archie. Why, only last night you said you trusted me, and if you have the perfect faith in my love for you that you ought to have, you must have perfect faith in my actions. Come, kiss and make friends."

But the Earl's grave face did not relax, and Jean's color mounted angrily to her brow. She withdrew her hand from his arm with an impatient gesture, and turned to leave the room.

"You are most unjust and unreasonable," she said, passionately. "You know as well as I do that there was no harm in my drive home with Mr. Blair; and in future," she added, as she put her hand on the handle of the door, "I will ride and drive with him as much as I like—indeed, if the fancy takes me, I may even marry this objectionable Mr. Blair."

As the words were uttered, the door opened from without, and disclosed Lady Sholto, Miss Crawford and Mr. Blair himself; and the expression on their faces showed pretty plainly that they had heard Jean's little speech.

"Mr. Blair has come back to have some tea, Jean," Lady Sholto said, rather nervously. "Archibald, is that you? We have had such a charming afternoon."

Lord Ivor turned from the fire with a few commonplace words of pleasure at their enjoyment and return, his face covered with that mask of smiling indifference which most people wear in society sometimes; and Jean returned into the center of the room, with no remains of her late annoyance in her face, save that her head was held a little more haughtily than usual, and that a bright spot of angry color burned on each cheek. In a few minutes Lord Sholto appeared, and then the conversation, which had flagged slightly after the awkward *contretemps*, became more lively and general; and when, in about half an hour, Mr. Blair took his leave, Lord Sholto pronounced him a very agreeable, amusing fellow.

"You must ask him to dinner, Flo," he said to his wife.

"He is leaving town almost immediately," said Jean, suddenly; "going to Scotland. So you can put off your hospitality until you go to Sholto Hall."

"So I will, little lady," said his lordship, looking over at her with a smile. "You handled those chestnuts admirably this afternoon; there are not many women in London who would have done as well."

"Did you drive home in Blair's phæton, Sholto?" said the Earl, as Jean swept Lord Sholto a saucy *reverence*, and sailed out of the room.

"Of course I did. Capital horses he drives. Is that the dinner-bell? Vanish, Ida. Remember, Murray is coming to dinner."

For some reason or other Collins, Miss McLeod's maid, found her mistress very difficult to please in her dressing that evening; and although she was generally the least vain of belles, she did not seem satisfied with her appearance when her toilette was completed.

"Are you sure my hair is high enough?" she asked. "Put the flower in more to the left, Collins."

And again:

"I don't like the effect of those turquoise ornaments, Collins. Give me my pearls. No; I won't wear the pearls; I shall wear the cameo set Lord Ivor gave me."

And so on, until Collins was not a little relieved when the toilette was completed, and Miss McLeod stood before her pier-glass arrayed for conquest.

"He was very cross, but I was very provoking," she said to herself, as she went down stairs a brilliant vision of shining white silk and lace. "But I was in the wrong, so I must apologise. Dear old Archie, so much too good for such a worthless flirt as I am."

Lord and Lady Sholto and Miss Crawford were in the drawing-room, and Captain Murray, who was the only guest that evening, was coming upstairs, but when Jean entered the drawing-room her betrothed was not there, and for a moment the girl's heart stood still with a sudden fear that the Earl was really vexed; but Ida, seeing the sudden paleness and agitation, said in a low voice, as she passed Jean to greet Captain Murray:

"Lord Ivor is on the balcony," and Jean crossed the room and disappeared behind the lace and satin drapery, shading the window.

Lord Ivor was standing, leaning over the railing and though he heard the soft rustle of Jean's silken robes he did not turn his head, nor, when she put her hand softly through his arm, did he make any answering caressing movement.

"Archie, will you forgive me?" whispered Jean, with a tremor in the low, sweet voice.

He made no answer.

"Archie, I am very sorry," and the low tones were very unsteady now. "Won't you even look at me, and see how sorry I am?"

Such pretty pleading, was it in the power of mortal man to resist it? certainly not in Lord Ivor's, for he put his arm round her and drew her fondly to his side.

"Why did you not tell me that Sholto drove home with you?"

"Because it was no justification of my folly," she answered, frankly. "I believe he only came because he knew you would not like me to drive home with Mr. Blair. Archie, I did not mean to vex you."

"Own that you were very naughty," said the Earl, drawing her nearer to him, and looking down tenderly at the sweet face.

"Confess that you were very cross," Jean replies, with a touch of her old *espieglerie*.

"I was very cross."

"I was very naughty."

Both laughed, and Lord Ivor, stooping, kissed the sweet lips which made confession.

"So you are going to marry Mr. Blair, sweetheart?" he said, smilingly.

"Will you give your consent?" said Jean, laughing in her delight at that reconciliation which is not inaptly called "the feast of love."

"You had better not inquire," answered his lordship, as they went back into the drawing-room, little thinking that a day was not far distant when Jean's light words would come back to her with bitter significance, and when she would wish—ah! how vainly—to have them recalled.

CHAPTER VI.

"I detest that fellow, Kingston!"

The speaker was Mr. Blair, standing at his club window, three or four days after his visit to the Botanical Gardens. He spoke to Mr. Kingston, his *fidus Achates pro tem.*, and he spoke of Archibald, Earl of Ivor, who chanced to be standing on the steps of the club-house talking to one or two men.

"Most men do, when they have known Jean McLeod many days," said Harold Kingston, laughingly. "They are apt to see him through green-tinted spectacles."

"Pooh! it is not that, of course," said Andrew Blair, contemptuously. "But I hate those proud ways of his, so awfully high and mighty, as if he were going to carry all before him."

"He does most things he undertakes," said his friend, indifferently. "So would most men with physique, twenty thousand a year and an earldom at his back."

Mr. Blair muttered an execration, which made his friend stare.

"What makes you hate him so, Blair?" he said, curiously. "He does not interfere with you?"

"Something antagonistic, I suppose," said Blair, carelessly. "I never did like him. When he was a bit of a lad he gave himself airs. Now——"

"He is engaged to a very charming girl, in whom Mr. Blair has a very great interest," said Harold Kingston.

"And who has quite sufficient interest in Andrew Blair to make him a dangerous rival," laughed Blair, who was cutting off the end of his cigar.

"I dare say," replied Kingston, who had a very honest admiration for Mr. Blair; the admiration of a rather weak nature for a resolute, determined and unscrupulous one. "By-the-bye, Blair, is it true that Miss McLeod drove your chestnuts home from the park the other day?"

"Not from the park, my good fellow, but from the Botanical Gardens, and a very good whip she is. Just ring for a sherry cobbler, old man, and I'll tell you all about it."

The sherry cobblers were brought, and Mr. Blair, leaning back in his easy-chair, with an air of nonchalant complacency, told his story of Jean's unlucky drive home with him.

"The cream of the little adventure," said Mr. Blair, puffing slowly at his cheroot, "lies in this—its sting is in its tail, my dear Harold. Just as we pulled up at Lord Sholto's, who should come up in a hansom but the *fiance*. He looked furious. Miss Jean took it very coolly; but I saw that she was a little apprehensive of a quarrel, so I took leave as quickly as I could, and they went in together, to discuss the subject, I presume."

"This is interesting," said Harold, sipping his sherry meditatively. "Pray go on."

"Well, I went on my way, but just near the Albert Gate I met Lady Sholto's barouche; she stopped.

"Did not Miss McLeod keep you to have some tea, Mr. Blair?" she said. "Pray, come back with us, if you have nothing better to do."

"Of course I had nothing better to do, so I came back with them; and just as we reached the drawing-room door, we heard Miss Jean's voice, speaking as if she were not too well pleased.

"Indeed, I may take it into my head to marry this objectionable Mr. Blair," she said.

"By Jove! how furious Ivor must have been."

"Of course we all heard the words, although we all pretended we did not. We found his lordship looking, I must say, remarkably cool and composed; but his lady-love's eyes were more like stars than ever, and all her pretty color seemed to have concentrated itself in one spot on her cheek."

"Sounds like a magazine story," said Harold, laughing.

"Yes; and like most magazine stories, it is 'to be continued,'" said Andrew Blair, rather grimly, as he flung away the end of his cigar and rose from his lounging chair. "What are you going to do this afternoon, Kingston?"

"I am going to Burlington House to see the pictures. And you, *mon cher*?"

"I don't know; I am going to stroll down Bond street just now; I have some purchases to make before I leave town."

"Don't forget our Richmond dinner to-night," said Harold, calling after him as he turned to leave the room.

"No chance of that," said the other, laughing. "By-bye for the present."

And while Harold Kingston turned his face to towards Burlington House, Mr. Blair sauntered off in the direction of New Bond street, with an expression of deep thought upon his handsome face, and his mind so pre-occupied that he had no leisure to use his eyes and admire the many pretty women and charming costumes which he passed on the way.

As he sauntered on, his thoughts went back over a space of twenty years, and he was a boy again—a bold, dashing, dictatorial, bullying Etonian, full of life, health, and spirits, giving willing respect and obedience to no one, and tyrannising to the top of his bent over the younger boys whom chance and their own ill-luck threw in his way. No wonder that Andrew Blair, of Blair Gates, was no favorite among his fellow collegians. Big, strong and handsome as he was, plentifully supplied with pocket money and lavish in his expenditure, clever, bold, daring and heedless, he was in almost every particular a lad likely to become the hero of a school-boy faction, the head of some party, but, strange to say, he was not so. All his brilliant qualities, and they were many, were counterbalanced by a leaven of cruelty and oppression, which the boys were not slow to perceive and dislike; so that Blair's partisans were few and not taken from the better class of boys.

Looking back, Andrew Blair vaguely realized this—realized it with a pang of anger and vexation even after all these years; he remembered the jealousy and hatred with which he had regarded the more popular boys, and the way in which he made his fags suffer for his want of popularity. And as he strolled on there came before him clear as daylight, a scene in that vanished school life.

A retired part of the playground, out of the view of any authority, where no one was likely to interfere or discover any misdemeanor, a little dog, half dead with fright and pain, and some half dozen schoolboys with himself, Andrew Blair, at their head, throwing stone after stone at the wretched little animal, which was fastened to a post, as an illustration of the manner in which the martyrs of old met their deaths. For some short time this abominable pastime had continued uninterrupted, when another personage appeared upon the scene—a tall, slender boy of twelve or thirteen, with big, gray eyes and clustering curls of fair hair, who came running up, and, perceiving their amusement, burst into a storm of anger and contempt, while the handsome, aristocratic young face colored crimson with anger and distress.

"You cowards, how dare you!" he cried, passionately, flinging himself before the ill-used animal. "How can you be so cruel! Leave off, will you, or I'll go straight to Mr. Munster and tell him."

"Sneak! sneak! sneak!" shouted three or four voices. "Tell-tale—tell-tale!"

"I'd rather be a tell-tale than such cowards," the boy retorted, manfully. "I say, leave off, there's good fellows. Blair, don't let them—how can you! Your own little Tomtit!"

"By what right do you interfere, youngster?" said Andrew Blair, contemptuously. "Out of the way, I say, or you may get hit instead of the dog."

"I don't care," panted Lord Ivor, in his distress. "Stone me if you like, but leave the dog alone. Cowardly brutes as you are."

The words had hardly passed his lips when a stone came whizzing through the air and struck him on the cheek; the boy stood his ground manfully, although the pain and dizziness caused by the blow turned him sick and faint.

"Cowards," he cried again; then his strength gave way, and, staggering a pace or two, he fell forward fainting on the ground.

Andrew Blair, twenty years after, saw it all as plainly as then. he remembered the beautiful young face when they had raised him, the closed eyes and pallid lips, the golden curls, and the cut upon the fair round cheek.

"Served him right for interfering," he had said at the time; but it had not ended there, for all the school sent Blair to Coventry for the rest of the time; and his master, whom some garbled rumor had reached, reprimanded him severely and publicly, and that reprimand rankled still in his heart, and his dislike to Lord Ivor existed still, after all those years.

"If it had been any other man," he muttered, *sotto voce*, "I might have given her up, for after all, I, as an Englishman, don't care for stealing my friend's sweetheart or wife; but if I could win her from him, it would wipe out that old score. It will be no easy matter, though, especially surrounded as she is by his people; but, as sure as I live, I will make Jean McLeod my wife, by fair means or foul. She is charming, and well worth trying for; and if the game is a dangerous one, I risk nothing but failure. I can only lose her at the worst. I risk nothing," he repeated over and over again. "Emily will be furious, perhaps; but of course I never meant to marry her. How can I win her? How? how? 'All is fair in love and war.' I will leave no stone unturned. My Lord Ivor, look to yourself, a wolf is after your ewe lamb, and if I judge rightly, she is only too willing to become his prey. Bah! that's an ugly word under the circumstances."

The dinner-party that night at the "Star and Garter Hotel" was a large and brilliant one, and Andrew Blair was one of the most brilliant of the *convives*; he was in the highest spirits, and Lord Sholto, who was of the party, was confirmed in

his opinion that he was a very agreeable man, and as they drove back to town on the top of Lord Beecher's drag, he gave him a very cordial invitation to join the party of friends who were to assemble at Sholto Hall for the shooting season, an invitation which Mr. Blair accepted with an eagerness and *empressement* he could not quite conceal, and which raised in Lord Sholto's mind a doubt as to its wisdom, as he remembered the admiration Mr. Blair had shown for Jean McLeod, and the apparent charm he possessed for his brother-in-law's *fiance*.

"I hope Flo won't mind," he said to himself, rather ruefully. "One must be neighborly, and Blair Gates is not more than ten or fifteen miles from Sholto Hall."

Lady Sholto, however, did not mind, for the reconciliation between her brother and Jean had been so complete, and Jean's pretty tenderness to her *fiance* so charming that her fears had been allayed, and she said that Mr. Blair would make a very agreeable addition to their party, as well as Captain Murray, who had promised to get six weeks leave and spend it with them, and Lord Sholto, as he kissed his wife, wished heartily that this stupid London season were well over, and that it was the 10th of August, that they might all take wing for the Highlands and make havoc among the grouse on the moors.—[*To Be Continued.*

SCRAPING COTTON.

Oh! de noon-time, chillen, is creepin, dis way,
We'll soon hear de dinner horn blow.
Oh! take dem tie-vines—take 'em, I say,
An' pull for de end ob de row.
Oh! times a rollin' on!
Oh! times a rollin' on!
Slay de grass-cross-ways, clip de weeds clean,
Kase time's a rollin' on!

The clouds am a risin' way off in the sky,
I spec' it's gwine to rain pretty soon;
Hit's a mighty good sign when the fish-hawk cry
About dis quarter ob de moon.
Oh! time's a rollin' on!
Oh! time's a rollin' on!
Keep yo' hoes a dancin', handle dem blades,
Kase time's a rollin' on!

Oh! bend to yo' task and wrastle wid de sun,
Don't you mind de sweat a droppin' down;
Des peartin' up quick, 'till de work's well done,
De eatin' time'll soon be around!
Oh! time's a rollin' on!
Oh! time's a rollin' on!
Yonder comes de boss down de little turn row,
An' time's a rollin' on.

Oh! de lightnin' flash an' de thunder speak low,
De black crow's a sailin' wid de win';
Dah ain't a single sign of de crooked rainbow
At de place whar it ought to hab bin.
Oh! time's a rollin' on!
Oh! time's a rollin' on!
Let yo' muscles slip an' de goose-grease fly,
Kase time's a rollin' on!

An' now we 'lustrate to de po' sinner man,
By singin' him dis little song,
To take mighty care dat he aint behind han'
When de las' thunder clap come along!
Oh! time's a rollin' on!
Oh! time's a rollin' on!
Kick de debbil end ways, don't forget to pray,
While time's a rollin' on!

[*Vicksburg Herald.*

BOOKS RECEIVED.

A Manual of International Law. By EDWARD M. GALLAUDET, Ph. D., LL. D. New York: A. S. Barnes & Co.

THE study of international law, though of the highest importance to a correct understanding of modern history and politics, is almost entirely neglected except by specialists, and is nearly as unfamiliar to the average reader as Sanscrit literature or the antiquities of Cambodia. The cause of this is obvious. The text-books on the subject are usually voluminous, expensive and dull. The volume before us has been prepared with the design of furnishing a cheap and convenient manual for educational purposes, and on this account alone would deserve attention. We may also commend it for the interesting manner in which the subject is presented. Prof. Gallaudet begins with a brief account of the progress of international law from the first traces found in Grecian history to the present time. We should have been pleased if that part of the introduction relating to times anterior to the discovery of America had been more complete, and think that a few pages devoted to the general practice of the nations of Western Europe during the middle ages, as to privileges of heralds and those of the clergy, might have been made interesting. This code, a compound of ideas derived from feudalism, chivalry and Christianity, though frequently disregarded, was sometimes appealed to successfully by the vanquished; but, like all other codes supported only by public opinion, it was but a feeble protection where great interests were involved. The history of the law of nations subsequent to the discovery of America is a very valuable feature of the book, but we notice one statement from which we must dissent. The author dates the military and naval decline of Spain from the Seven Years' War. Most students of history will, we think, agree with us that the Spanish Empire had declined very decidedly before the commencement of the eighteenth century. Had it been otherwise, we could not account for the ease with which invading armies traversed Spain during the War of the Spanish Succession, and the capture of Gibraltar could never have been effected as it was.

The first chapter is on the general principles and sources of international law. This is essential to the completeness of the book and seems to cover the ground pretty thoroughly; but the second chapter which treats of the essential attributes of a state is less abstruse and, to our mind, much more valuable. What gives this chapter peculiar interest to the American reader, is the bearing it has on the questions brought up by the recent Civil War and the relations of the States to the federal government of our country. We think a few illustrations from the constitution of the United States of Columbia, might have been introduced with advantage, as this is as near the ideal of a federation as any state in existence. The "Monroe Doctrine" is frequently misconstrued, and Prof. Gallaudet's remarks on this point deserve attention. The third chapter which treats of the rights, powers and duties of States in a time of peace should be studied carefully on account of the important commercial interests involved. The general principles are stated with brevity and precision, and the illustrations are well-chosen. The section relating to naturalization might have been enlarged considerably with advantage; but is valuable as it stands; and that on extradition will be read with interest in the light of several important cases which have occurred in recent years. The right of exterritoriality and the privileges and duties of diplomatic agents and consuls are accompanied by historical facts, which will be new to many readers. The next chapter treats of the rights, powers and duties of States in time of war. We almost uniformly agree with the views expressed by the author, but will except the following points; During the Franco-German war, the German military authorities, finding that attempts to wreck trains were frequent, placed prominent French citizens on the locomotives as hostages. This is condemned by Prof. Gallaudet. Now, to our mind, the wrecking of trains or placing obstructions on railroads tending to that result is no legitimate military operation, and the measure adopted by the Germans was (as tending directly to prevent this, and as only exposing the hostage to a danger shared by his captors) justifiable. The condemnation expressed for the burning of the palace of the Emperor of China by English and French troops, is not as severe as it might well have been. This act of vandalism is scarcely paralleled in this century.

It was not necessary as a measure of warfare as the situation was not, under the circumstances, of strategic importance; it was not on account of the value of the property as this was entirely destroyed; besides, the emperor was a fugitive and the war was practically at an end. Accounts from British sources including the report of the officer (Lord Elgin) responsible for this action disclose its motive; it was done in revenge and from a desire to insult the misfortunes of Hien-fung, and by this humane process obtain satisfactory terms. Again, the indemnities demanded by Prussia from France and other states seem to us the most rational means of terminating a successful war. The fifth chapter treats of neutrality and includes a very interesting history of the subject, in which special prominence is deservedly given to the Alabama claims, and the Virginius affair. The last section of the volume is devoted to maritime prizes, and presents the facts in relation to these as well as possible, considering the diversity of legislation among nations in this respect. Taken as a whole we can commend the book to all who wish to include international law in their reading; even those who possess more comprehensive works on the subject will find it convenient for reference; and its conciseness, apt illustrations and the agreeable style of the author will commend the book to the general reader.

The Voice of Worship: By L. O. EMERSON. A collection of Music for Choirs, Singing Schools, and Musical Conventions.

The members of Choirs and Singing Classes, like other people, like what is new and fresh, although the new may not be better than the old. Hence Mr. Emerson's books, which appear with a certain regularity, and which are in every respect first-class, are always heartily welcomed. "The Voice of Worship" is somewhat smaller than previous Church Music Books by the same author, but is of lower price, its "nine dollars per dozen" carrying us back to prices "before the war." It has about 175 Psalm Tunes, 60 Anthems, and about as many Glees, with 100 exercises, Solfeggios, and easy tunes for Singing School use. The Anthems will furnish opening pieces for a choir during the greater portion of a year. The new Psalm Tunes will, it is to be hoped, enable us to hear some variety of singing, which will partly relieve the monotony of the ten or twelve well-worn congregational "airs," which are getting to be a little wearisome to musical ears, and the whole three or four hundred melodies in the book furnish abundant material, with which a wide-awake Singing School Teacher may make his winter classes a constant delight to all comers.

MAGAZINES.

GOOD COMPANY, NUMBER ONE, is a first and inviting issue of a new volume, with which subscriptions, *which should be sent now*, should commence.

The cover is new in color and design, both in excellent taste, and the latter *sui generis* among magazines. It is the work of Mr. E. J. N. Stent of New York.

After a charming bit of poetry by Lucrece, come some pleasant pages from Mr. Charles Dudley Warner, entitled, A Wilderness Romance. Next there is an account of Hospital Work in New York, carefully done and readable, by Mr. William H. Rideing. Following this are a sketch from life by Mrs. Harriet Beecher Stowe, and some verses by Miss Lucy Larcom, characteristic and therefore good. Miss Larcom has a second poem of one verse near the end of the number.

A gentleman who resided for several years in Japan gives a *resume* of the maxims of their social code. It is entitled The Politeness of Ogasawara.

Several contributions relate to foreign lands:—In the Fatherland, by a lady several years resident in Germany; A German School; and All Day Long in Paris, a pen picture of such a day as thousands of Americans have spent this summer.

For stories, Mrs. Kirk, who writes over her maiden name, Ellen W. Olney, has Mr. Scattergood's First Parish; Mr. Horace E. Scudder has, Do Not even the Publicans the Same?, and Elizabeth A. S. Chester furnishes Along the Line; all good specimens of their respective authors' work.

In The Laborer and his Hire, anonymous, a sketch from life, an intelligent factory operative gives his ideas as to the condition of his class. Something to Do, also anonymous, is by a well informed and competent person, who suggests a course at one of the training schools for nurses as well adapted to many young ladies who in these hard times want preparation for remunerative employment.

The other contributions include, A Committee of Five, a discussion of current fiction in the form of a sketch, by Mr. E. C. Gardner; Is there Not a Lie in our Right Hand? by Mrs. Edward Ashley Walker; Nature and Revelation; and verses by Mrs. Margaret J. Preston, Mrs. Julia C. R. Dorr, and Mrs. Mary Bradley.

The number concludes with The Editor's Table and "Talks."

JAPANESE POLITENESS.—The Japanese are born polite. Their parents were, and these in turn, came from centuries of polite ancestors. As an infant, the native's soft bones and waxen mind took shape from the national mold. From his mother's apron-strings—no figure here—he passed into the judicious care of elderly gentlewomen, learned in deportment, who instructed him, through years of pupilage, till proficient in all the niceties of an etiquette which, as we shall see, approached to the character of an exact science. Arrived at years of discernment, he could not fail to perceive that he not merely should be but must be a gentleman. Decorum was a part of his duty as a citizen, and rudeness a breach of the peace, if not indeed a capital offense. A due observance of the ceremonies was statutory law, and violation of them a misdemeanor which rendered the offender liable to the severest penalties which the linked tyrannies of law and fashion could devise. These regulations covered every relation of society and extended beyond to dictate the etiquette of devotion. Even the gods were to be worshipped in good taste.

The operation of this singular social code resulted in as beautiful a science of manners as the world has ever seen. As nowhere have manners been held in higher esteem, or more studiously cultivated, so never have they been brought to a nicer perfection in any age or country.

The relation of good breeding to goodness we may leave to the metaphysicians. We all feel the advantage which a polished address and culture give the possessor of such accomplishments. At the same time we can see how possible it may be that the very "prince of darkness is a gentleman." There is no scoundrel, after all, like the scoundrel in broadcloth. That the Japanese themselves perceive there is no necessary connection between formal and real courtesy may be seen from one of their popular maxims, which says that "Those skilled in speech and manners have little kindness."—[*H. R. Elliot in Good Company, Number One.*]

DEMOREST'S MAGAZINE FOR OCTOBER. Contents: The Truants—Oil Picture; The Spirit of Faith; The Rustic Bridge; My Sister Bell, Chapter II; Gone, Rose Geranium; Common Sea Weeds, Lizzie P. Lewis; Uncle Martin's Inheritance—Concluded, Augusta de Bubna; Charles Kingsley, Mrs. L. P. Lewis; Old Elsie, Mary Torrence; The Last Course, "Nuts;" Clocks, Past and Present, By Cadmus; Talks with Girls, "Opportunities," Jennie June; Laurel Blossoms, By Estelle; Half Hour Heroics, A Parlor Drama in One Act, Augusta de Bubna; A Summer Afternoon in Germany; In Jersey Sand, Charles H. Wetmore; Three Links Out of a Life, Grace Baylor; Correspondents' Class; Editorium. American Manufactures; Sea Weeds; Sketches in Algeria; Fifteen Years What? Common School Education; The Rustic Bridge; A Shopping Arcade; The Spirit of Faith; Afternoon Parties; The Truants; House and Home; The Law in New York as it Relates to Family, Lillie D. Blake—No. 3 Married Woman's Rights; Pure Tin; Something About Geraniums; Where does the Day Begin; Women of Yesterday and To-day; The Maid of Orleans; What Women are Doing; Young America's Corner. The Little Oddity, Chapter II. Elizabeth Bigelow; The Little Maiden; A New Fairy Tale, Eliza P. Mathews; Jackey Meadowlark's Adventure. Harry Allen; Written Numbers; New Use for Grasshoppers; Why? Illustrated Rebus; Fancy Work, Illustrated; Diamonds of Thought; Spice Box; Scientific Items; Domestic Science; Kitchen; Fashions, Fully Illustrated; Ladies Club; Answers to Correspondents; Literature; In the Mountains; Richfield Springs.

AFTERNOON PARTIES.—One of the most sensible of the new departures in social life which have taken place of late years consists of the afternoon receptions which are so fashionable a substitute for the great evening parties which formerly extended beyond midnight.

It is well known that gentlemen always detested these parties, and avoided them whenever it was possible. Thus, many ladies were prohibited from accepting the invitation of their friends to the annual "crush," and many persons were debarred from reciprocating the civilities they had received, by the modern growth in luxury and the necessity for supplying a gorgeous supper far beyond the capacity of their financial and household resources.

Evening parties are now principally confined to Germans and sociables, given by young people to young people, or small *musicales* and literary reunions, which have a definite purpose, and for which guests are selected with special reference to their interest in these topics.

The regular weekly or fortnightly receptions of an informal character serve to create a number of social centers, each one of which is a *rendezvous* for harmonious spirits, but the afternoon "At Home" is the only successor and the most popular substitute for the social necessity which compels persons who go much into society to, at least once during the year, bring their friends together, and, by one effort, wipe out many minor social obligations.

No special entertainment is needed for a "regular" afternoon reception beyond the refreshments, which are served from a table set either in the dining-room or an extension parlor. Sometimes these consist of pickled oysters, salad, and small sandwiches, in addition to ices, cakes, biscuits, tea, coffee, and the like. But quite often the first of these are omitted and the table supplied only with the lighter viands.

Invitations during the season are always sent a week or more in advance—three weeks is not too much of a margin where people are very fashionable and the society large—but, of course, the more formal the invitations, the more fine and ceremonious the entertainment is expected to be. Ordinarily the waiter who opens the door directs the guests to the dressing room, where they lay aside their wraps. The hostess stands inside the drawing-room door and receives each one as they enter. This is the only formality. The guest is then at liberty to look about for friends, accept the invitation of some gentleman to get an ice, or a cup of tea, and in half an hour make her way back to her carriage, or on foot to her home, in time to superintend the wants of her own family, receive a party to dinner, or prepare for the opera, or spend her evening in mending stockings, as circumstances may determine. The duties even of a woman in society are very multifarious, and some of those who are paraded as the most brilliant leaders are the most efficient in the performance of minute details which belong to home and family life.—*Demorest's for October.*

LIPPINCOTT'S MAGAZINE for October opens with a very bright and amusing article, by Margaret Bertha Wright, depicting the rambles and experiences of a party of American artists in Italy. The illustrations are in keeping with the text, being full of vivacity and point. The fourth chapter of Dr. Oswald's "Summerland Sketches" treats of "The Western Sierras," and is not inferior to the former installments either in the interests of the narrative or the beauty of the illustrations. A third illustrated article, "Chamois-Shooting with the Emperor of Austria," is by W. A. Baillie Grohman, author of "Gaddings with a Primitive People." "Sunday in England" is the production of an English writer, who treats his subject with that intimate knowledge which none but a native could be expected to exhibit. William L. Stone, author of the well-known life of Sir William Johnson, relates the biography of Lady Harriet Acland, whose heroic character and eventful career give her a prominent place in the annals of conjugal devotion. Edward C. Bruce writes instructively on "American Landscape-Gardening." H. M. Kennedy gives an interesting account of "The Study of English in Germany," and Mrs. E. B. Duffey describes "The Buried Wealth of South Jersey."

"Through Winding Ways," which has proved one of the most attractive serials ever published in the Magazine, is concluded in this number, and there are several short stories suited to different tastes. The "Monthly Gossip" is entertaining as usual, and the number on the whole is as readable as any of its predecessors.

For Women.

THE CHEERFUL HEART.

"THE world is ever as we take it,
And Life, dear child, is as we make it."

Thus spoke a granddame, bent with care,
To little Mabel, flushed and fair,

But Mabel took no heed that day
Of what she heard her grandma say.

Years after, when no more a child,
Her path in life seemed dark and wild,

Back to her heart the memory came
Of the quaint utterance of the dame:

"The world, dear child, is as we take it,
And Life, be sure, is as we make it."

She cleared her brow, and smiling thought,
"'Tis even as the good soul taught!

And half, my woes thus quickly cured,
The other half may be endured."

No more her heart its shadow wore;
She grew a little child once more.

A little child; in love and trust,
She took the world (as we, too must,)

In happy mood; and lo! it grew
Brighter and brighter to her view.

She made of life (as we too, should)
A joy; and lo! all things were good,

And fair to her, as in God's sight,
When first he said, "Let there be light."

IN BEHALF OF MOTHERS-IN-LAW.

DEAR MISS RIPLEY:—I do not know whether this will meet with your approbation as a proper subject for an agricultural paper; you are the best judge of that. Pray grant me a little of your valuable time—my motive is a good one.

I have often wished to see something on the subject before I ventured, but having waited and failed to find any one courageous enough to speak her mind, I will wait no longer.

When I was a little child it was very fashionable to have tea parties. A few congenial friends met at my mother's to chat and have a good time. The children of these ladies came after school and stopped until their mothers were ready to go home. After the older ones had their tea, we little folks had ours, and what a happy time we had. Bread and butter never has tasted as sweet since then. These gatherings are bright spots in my life, that I love to think of. I was not a very strong child, and could not romp and play as hard as the others; and being very fond of listening to the conversation of my elders, I often heard remarks that puzzled me. I was too young to un-

derstand them, and as I never forgot anything I heard, after many years I came to realize their meaning. On a certain afternoon I heard the following, which left an indelible impression on my mind:

"No man shall curse me after I am dead and in my grave." This was said by Mrs. H., the mother of a family of fine, bright girls. "No man shall curse me in my grave, for I intend to make good housekeepers of my girls and teach them how to work, and then their husbands cannot blame me if they are not competent."

"You speak as though you were sure they would marry," said Mrs. T.

"Oh, no, I am not sure of anything of the kind, but it is natural they should; and if they do, I hope they will be a comfort to their husbands. And should they not marry, their knowledge will do them no harm."

Now I am coming to my subject. What right has a man to curse the mother of his wife because the wife does not know as much when he marries her as his mother does after twenty or thirty years of experience? Men do it, and as soon as they are married the mother-in-law becomes a bugbear.

It is always the wife's mother who has so many faults; no one would dare to say a word against his mother, yet the wife must submit to have her mother finely rated and not dare resent it, for if she was to take her mother's part it would only call down on her devoted head more of her husband's slurs. No doubt his mother has just as many faults, but the wife has good sense enough to keep her opinion to herself. There has been too much said against mothers-in-law, and I never read of but one man that was manly enough and had courage enough to come out and say anything in their favor, (may peace and happiness always fill his home). These chivalrous fellows think it a fine thing to ridicule some one's mother or sister. They apparently forget their own mother is or may be one of these unfortunates. No right feeling man will encourage it; it is ungrateful and mean. Of course, they do it for a little *fun*, and it's such a good joke, so smart and manly to make fun of and hurt the feelings of women old enough to be their mothers or grandmothers; women who already have had so much to bear and contend with; whose hearts are heavy with sorrows and trials that no one knows of but God. Some one of these kindly gentlemen comes and takes her child from her just as she is becoming a comfort to her and useful in many ways; sometimes it is an only daughter or an only child. The girl loves her husband and goes with him a happy bride to make his home bright, and with every intention to do her duty cheerfully. Very soon she finds that her dear mother is of no account. The faithful one that cared for her in her helpless infancy, watched over her in sickness, "wakeful when others slept:" who made every sacrifice for her cheerfully, overlooking her faults; loving her better than any one ever did or could; knowing this and loving her mother, the wife must not say, "my mother does this or that well." Oh, no! her mother cannot make bread or cook as well as his mother, who does everything better than he ever knew any of *her* folks to; yet he could eat their pies and cake, and other nice things before he married his wife. Her mother was all right then, because he intended to take from her one of the treasures she loved so well.

Do you think he would allow one reflection on his mother? No, not he. There would be such a breeze in that home that his wife would never dare to open her mouth to utter one word again on that subject. If he has so much love for his own mother, and is such a model son, why is it he cannot love his mother-in-law a little, or at least, speak of her in some other way than the "Old Woman," and treat her with respect, if only for the love he bears his own mother.

I know of a man who next to his own mother counts his mother-in-law, the greatest blessing he had. She was always welcome in his house. He said she more than paid her way, by looking after his interest, and he always felt free from care when he left his little ones with her. She would mend for him, repair clothes that he thought were beyond hope; she was interested in all that concerned him; would talk with him about his business, and, in short, made herself so necessary to his comfort, that he was sorry when her visit came to an end. Why should she not feel interested in all concerning him; he stands to her as her own son, if he loves her daughter, is he not near to her? are not his children her children? does not her blood run through their veins? Is it strange that she inquires into all their affairs, and interests herself about them, if her child has gone from her home, she has not gone from her heart. She is just as much interested to-day as she was before her daughter married. Her only motive is to aid them, and help them carry their burden, and if she could she would take it all on herself, so that they could be relieved of what worries them. Because she is just what she is and loves them so well, she cannot see them unhappy without wanting to be in their confidence and sharing all their trouble with them. She is called a "prying old woman;" his mother, however, can do and say anything, or she can neglect them, it is all the same, "*mother means well*."

I expect you are losing all patience with me; do, dear Miss Ripley, bear with me a little longer, I will soon have had my say. Do you not think the newspapers have had a great deal to do with this? Have they not been the greatest enemy mothers-in-law have had! are they not very much to blame for the feeling against this class of women? I am surprised that any mother's son would encourage or take any part in such disrespectful allusions, and as long as men encourage this coarse sort of joking, mothers-in-law will be obliged to hear their best motives traduced. I once thought a step-mother's position a thankless one, now I think a mother-in-law's is fast becoming a most trying one. If you think this fit for publication and it will do any good, I will feel that I have freed my mind and that I can bear a little more, with a better grace, for I am a MOTHER-IN-LAW.

LETTERS FROM A COUNTRY GIRL—No. 17.

MARGARET B. HARVEY.

Painters and Painting.

PERHAPS some of you, my friends, have come to wonder whether I knew anything else than art, as I have talked so much on this subject. Well, patience, sister, I shall soon be done. But I dislike to dismiss it altogether without saying something about its history,—for, I know, if you have become interested in it at all, you will want to learn more of its past. So, preparatory to my taking up literature, and as a fitting introduction thereto, I will give you a list of some of the old painters. Such information, I am sure, is, at present, a dead language to many. Happy shall I be if I can interpret it to one!

You observe that the names are arranged in chronological order, so that they signify not only the flight of time, but the growth of art itself. In a few cases, authorities differ by several years as to dates. If I were you, I should cut out the list and preserve it for future reference. I forgot to say that I have placed, after the name of each painter one of his best known works, as an aid to memory.

ITALIAN PAINTERS.

Cimabue (died 1240.)
Madonna e angioli.
Giotto (1276–1336.)
Portrait of Dante.
Memmi (Simone), (1280–1344.)
Petrarch's Laura.
Taddi Gadi, (1300–1366.)
Annunciation.
Fra Angelico, (1387–1455.)
Angels.
Masaccio, (1402–1429.)
St. Ann, Madonna and Child.
Gozzoli, (1424–1484.)
Angels.
Bellini, (1426–1516.)
Madonna and Child.
Leonardo da Vinci, (1446–1499.)
Last Supper.
Perugino, (1466–1499.)
Portrait.
Garbo, (1466–1524.)
Descent from the Cross.
Fra Bartolomo, (1469–1517.)
Annunciation.
Albertinelli, (1470–1520.)
Descent from the Cross.
Michael Angelo, (1475–1564.)
Last Judgment.
Giorgione, (1477–1511.)
Jacob and Rachel.
Francia, (died 1557.)
Madonna enthroned.
Titian, (1477–1576.)
Adoration of the Holy Family.
Raphael, (1483–1520.)
Transfiguration.
Andrea del Sarto, (1487–1530.)
Madonna enthroned.
Buon Consiglio, (flourished 1500.)
Mater bon Consilli.
Correggio, (1493–1534.)
The Handkerchief of St. Veronica.
Bordone, (1500–1570.)
Madonna.
Voltara, (1509–1566.)
Descent from the Cross.
Vasari, (1512–1574.)
Portrait.
Tintorreto, (1512–1594)
Crucifixion.
Palma Vecchio, (1518–1574.)
His daughters.
Paul Veronese, (1528–1588.)
Marriage at Cana.
Baroccio, (1528–1612.)
Hagar and Ishmael.
The Caracci.
Ludovico, (1555–1619.)
Agostino, (1559–1601.)
Annibale, (1560–1609.)
Antonio, (1583–1618.)
Guido, (1575–1642.)
Ecce Homo and Mater Dolorosa.
Domenichino, (1581–1641.)
Last Communion of St. Jerome.
Strozzi, (1581–1644.)
Esther and Ahasuerus.
Daniel Crespi, (1590–1630.)
Portrait.
Guercino, (1591–1666.)
Sibyl.
Claude Lorraine, (1600–1682.)
The Flight into Egypt.
Sassoferrato, (1605–1685.)
Madonna.
Lorenzo Lippi, (1606–1666.)
Portrait.
Salvator Rosa, (1615–1673.)
Battaglio.
Carlo Dolce, (1616–1686.)
The Infant Jesus.

Next I should advise you to read carefully Mrs. Jameson's little work on the early Italian Painters. You will find among them a host of lesser lights, which you perhaps had better pass. Look up all those given in the list and pause long enough to gain a pretty correct idea of the characteristics of each—only, don't go off into ecstasies as the author does, or you will be woefully shocked when you come to read Ruskin. Next, by rights, I think, you ought to lay aside a sum sufficient to purchase small photographs of some of these great paintings to which your book alludes, a portfolio filled with such treasures would form an elegant addition to your parlor. Large heliotype engravings of many of the most famous pictures, cost only $1 apiece. You can order either, of any great publishing house. When you have finished the work in hand you will probably be filled with enthusiasm, and "adoration of the old." This is well—we must love the child if we would revere the man. But you have yet to learn, that the world, and art with it, have advanced. Be on your guard, however, for the second time lest on the other hand, you be drawn to overrate the new.

You might have read Ruskin's Modern Painters first, as I did, but I think it a better plan to take it up after Italian Painters. The work is a large one,—of five ponderous volumes. You had better take this from a library as it would be very expensive to buy, and it is the least bit out of date. Whether or no, at first you understand the drift of the author, you can scarce fail, to be captivated by the wonderful beauty of his language.

The first object of the book is a defence of Turner, after that of all modern artists. That is, an assertion of their right to be criticised, favorably or unfavorably, upon their own merits without any comparison between them and ancient models. So, as you read on, you will see that of all Mrs. Jameson's idols, only a few absolutely escape censure. Fra Angelico, Massaccio, Titian, Raphael, Tintoretto and Paul Veronese faring about the best.

I would say to you now, look up every name to which an allusion is made, and if possible, procure at least one picture of each. I can give you now some of the older painters belonging to other countries than Italy.

FLEMISH PAINTERS.

Van Eyck (1366-1426) (Hubert), and Van Eyck (1390-1440) (Jan.,)
Altar Piece of St. Bavons.
Quentin Matsys (1466-1529.)
Descent from the Cross.
Hemling (1470-1495.)
Marriage of St. Catherine.
Rubens (1577-1640.)
Descent from the Cross.
Van Dyke (1599-1641.)
Hundred Portraits.
Rembrandt (1606-1669.)
Lesson in Anatomy.

SPANISH PAINTERS.

Velasquez (1599-1660.)
Murillo (1618-1682.)
Immaculate Conception.

GERMAN PAINTERS.

Albert Durer (1471-1528.)
Martyrdom of St. Bartholomew.
Holbein (1495-1543.)
Dance of Death.

These, I think, are the most important of the old masters. Your modern galleries—comprising such painters as Sir Joshua Reynolds, Benjamin West, Angelica Kauffman, Wilkie, Haydon, Calcott, Constable, Ary Scheffer, Turner, and so forth—you may easily form for yourselves. It will be a little more difficult to arrange, as a fixed fact, a collection of painters of to-day—such as Fortuny, Messonier, Rosa Bonheur and Millais—as they have scarce as yet reached the Encyclopedia and Biographical Dictionary. Yet, remember, photographs are cheap.

As to an American school, we hardly have one as yet—nor will we have, while our young artists waste their powers and disown their country by painting European peasant girls and German castles. But so long as we have Bierstadt to give us our own majestic mountains, and Moran to interpret for us our own sweet woods and meadows, we need not fear. This great country, with the grandest of history, of national characteristics, and of scenery, will yet be the home and inspiration of a truer and better art than the world has ever known.

Photographs of statuary are as easily procurable as those of paintings. Now you ought to read Taine's "Philosophy of Art in Greece." Perhaps you will believe, while perusing its pages, as most people do, that ancient sculpture cannot be surpassed. I will not discuss the subject, for I have not sufficient knowledge upon it, but when you have before you the Venus de Medici, the Torso, Venus de Milo, Apollo and Diana, place beside them Bailly's Aurora, and ask yourself seriously, is it not lovelier than any of them?

Accept authority gratefully — those who have studied anything very likely know more about it than those who have not, or why need any of us search for knowledge? — still, as the little fellow said, "What's the use of having a finker if I mustn't fink?" The more we know, the more inclined we are to learn of others, but, at the same time, the more disposed we are to trust to our own judgments. It is not nearly so hard to form a pretty correct artistic taste for ourselves as many seem to think.

SOME MOTHERLY HINTS.

THE RURAL came yesterday, and as usual I turned to the *Woman's Club* as quickly as possible. In answer to "Vida" I think a few plain rules for taking care of children never come amiss. "We know not what a day, or hour, or second, may bring forth." Dr. Nelaton said to his class of medical students, "If by accident you should sever the carotid artery, the patient would bleed to death in four minutes, *therefore, there is no time to be in a hurry.*"

There are diseases that every mother knows children are subject to, and perhaps "they *may have no time to be in a hurry.*" The plans ought to be laid for certain emergencies in cooler moments. For croup, scarlet fever, cholera-infantum, poisoning, etc. I have found out what to do. Gertie has just come through the scarlet fever. The moment I suspected the cause of her sickness which was not more than half an hour, I went to work. In a few hours when the doctor came, he gave no medicine and said "she was very sick, but her mother was doing all he could have done." But I will pass on and show how quick a mother's wits need to act by giving a little of my experience.

First, I must confess that I am not a farmer's wife. I do it with fear and trembling: Must I be cast out of this delightful circle on that account. Wait a moment! There is one thing I think may redeem me. I am the daughter of a whole-souled farmer. So I proceed by your leave.

We live over my husband's store. In one part of it is a wareroom, and in that were paper bags of Paris-green prepared in pound quantities to be ready for customers, but the packages were not tied.

I had a new girl. My faithful one who shares every care, was away on a vacation. In the midst of work one morning, those "jewels of mine" vanished, in what seemed an instant. I started in pursuit, passing through the store. No one was there, from thence to the ware-room. What was my horror to see Gertie and Fred marching from one end of the room to the other, pouring the Paris-green from the bags as they marched. The room was full of the dust, their shoes and clothes were thoroughly powdered with it, neither my husband nor his clerk were to be seen, and customers were coming in besides. I led the children to a retired corner and took off every bit of their clothing but an under chemise, sent the girl to the freight house to call my husband and to the next house for his mother. Another old lady came in her place, and I felt as if she would know just what to do, but she did not—"could not think of a single thing" she said. "Well, Fred must have an emetic," I said, for the powder was on his tongue, so I hastily mixed a teaspoonful of mustard, and the same of salt in a tea-cup of water to give him. Just then my husband questioned. "Do you really know what you are doing?" "Yes," I answered, I know this will empty the stomach of poison or pennies either," and I opened Dr. Chase for reference. In my haste I could not find the place, although my husband said afterward "that I passed it over and over," which proves how much better it is to have knowledge in your head than in books.

"I know it any way," I affirmed, and so we gave him a dose quicker than it takes me to tell of it, and after he vomited we gave him the white of an egg to swallow.

It was a hard ordeal for the little fellow, and I'll not forget his appealing look for me to help him, or his hopeless expression when he found that mamma too had turned against him. Perhaps it was not strictly necessary, as there might not have been any poison in his stomach, but I wanted to be on the safe side. What I inhaled gave me an unpleasant feeling in my throat. If one was sure of poison I would advise the same treatment at the earliest moment, besides sending for a physician.

Lakeshore, Sept. 11. MARGUERITE.

"HILLSIDE" GLEANINGS.

IT is autumn again, and in this chilly climate everything begins to show that the "harvest is past, the summer ended." Only the gleanings remain. Once more we ask ourselves the question "What has the summer done for us?" Are we wiser and better for communing with mountain and shore—? are our spirits refreshed by the voice of the waves? did the trees of the forest have any message for us during the summer holiday? Or were we so taken up with bank failures, and the rise and fall of stock, the changes of fashion, the busy treadmill of the sewing machine that we say now it is over. "I had no time." Alas! I fear for too many of us, this is the truth. This tendency to see only the gloomy side of life reminds me of a lady who visited me when roses were at their bonniest this summer. There was the queenly damask—the pale pure white—the moss and hybrid perpetuals, with a host of tea and noisette roses of every rich or creamy shade. I was myself enchanted with their beauty and fragrance, but she looked from one to the other, and remarked at length—"What a pity the rose chafer has spoiled the leaves."

Yes, here and there in spite of our efforts the rose chafer had worked mischief, but, though it detracted from the beauty of the foliage, it could not spoil the glory of a perfect rose, and there were thousands in bloom around her. But the habit of looking at the faults in everything, picking out flaws and imperfection was such that it prevaded everything and spoiled the enjoyment of the bonnie June roses. I thought at the time it was a lesson we all might profit by. While we can, let us enjoy the beauty around us.

ANNIE L. JACK.

CORRESPONDENTS' CORNER.

WILL some one of the readers of the RURAL furnish for publication, a poem which was published during the war, two lines of which are:

"Now I'm all that's left you, Mother,
They are numbered with the slain."

One verse begins with—

"On the hights of Lookout Mountain."

I saw the poem when I was a little girl, and have often wished to see it again. CORA N. WATSON.

Will you please tell me through the columns of the RURAL what will take the stiffness out of my hands after washing, so as to enable me to practice on the piano. Do you approve of the use of Sulphur soap for the skin, or the use of any other soap? H. W.

ANS.—The first question we submit to the RURAL ladies. Perhaps some of them may be able to give the desired information. Pure white Castile is best and safest for use on the skin. If the skin of the face and hands is tender, Gluten soap, manufactured by Health Food Co., is to be preferred. It is composed largely of gluten, and has little alkali in it.

The following was sent us in response to the inquiry in RURAL of Sept. 23:

HOME, SWEET HOME.

'Mid pleasures and palaces, tho' we may roam,
Be it ever so humble, there's no place like home;
A charm from the skies seem to hallow us there,
Which seek thro' the world is ne'er met with elsewhere;
Home, home, sweet, sweet home,
Be it ever so humble, there's no place like home.

An exile from home, splendor dazzles in vain,
Oh! give me my lowly thatched cottage again;
The birds singing gaily, that come at my call:
Give me them, sweet peace of mind, dearer than all;
Home, home, sweet, sweet home,
Be it ever so humble, there's no place like home.

Domestic Economy.

CONDUCTED BY EMILY MAPLE.

CREAM, DOUGHNUTS, DRIED PUMPKIN, COOKIES AND A REVERIE.

ANNIE L. JACK.

"You can make anything good with cream," she said, as we sat at tea on an island one pleasant afternoon. It was an impromptu picnic, and we were discussing the different cakes before us after partaking of each as one can only when the air and wind add to the usual appetite an enjoyment of food that is never felt when partaking of a regularly cooked meal.

"Yes, those doughnuts were made with cream. I use fine flour and cream-of-tartar, and can judge pretty well the proper consistency. I am glad you like them. Pumpkin pie? yes, dried pumpkin of a year ago. The reason of the light color you admire is that I was careful to dry it quickly and not give it time to catch any burn or dust. If put away in paper bags, it will keep for years."

"But how do you make these cookies so crisp?"

The lady who made the reply was famous for her cookies, so I took the recipe for the benefit of RURAL readers:

One cup sugar, half cup of butter, one cup of sweet milk (cream is better, and dispense with the butter if you have it); two eggs, four cups of flour, or enough to enable you to roll the dough. Put in the whites of eggs and flour last. Roll out with as little handling as possible and bake quickly. Keep them in a dry place, but not *close*, or they are apt to become soft.

The waves of the beautiful blue lake dashed up at our feet and mingled with the conversation. "Darling little white caps," as one of the party called them, danced on the waters, and afar off we could see that glorious Mount Royal, from which Montreal derived its name.

What a rest to weary hands and brain is a day like this, afar from even the petty bustle of village life, where, as the white wings of vessels glide past, we cannot help thinking how suitable the lines:—

"The stately ships go by
To the haven under the hill,"

and then some busy steamer puffs and rushes past in the near distance, reminding us of civilization seen but not felt by us. And even amid the clatter of dishes, the useful exchange of recipes and the light, pleasant laughter of friends, we seem to feel a stillness, and the little trials and larger ills and disturbances of the busy world fade for the time before Nature's wonders, and we say

"What are they all in their high conceit,
When man in the bush with God may meet?"

LOG-CABIN SKETCHES; OR, JESSIE SEABRIGHT'S DIARY.—No. 9.

MAY MAPLE.

JULY 10.—The heat grows more intense as the season advances; every day I am thankful for a good searching draft of air through our cabin chamber. The logs have all been thoroughly whitewashed, since the last jottings in my journal. And the shingles and rafters overhead have been covered with clean newspapers. So the rooms, though so low that I can only stand up in the middle, look clean, airy, and therefore pleasant. A partition crosses the middle of the chamber, with a door in direct range with the windows, and another, stretches across the side of one room, thus making a sort of closet for barrels and boxes, odds and ends that help more or less to make a room appear untidy. The partitioning was made of "building paper," and was the result of a dozen yards of knitted carpeting. These new walls were covered with wrapping-paper tinged with buff color, which cost one shilling per pound, and was paid for in ruffle hemming by hand.

A tiny can of buff paint that cost thirty-five cents, and was paid for in "garden truck," makes my pine bedstead look quite presentable, and a low chest, also painted buff, makes a very good seat by the east window, which looks out upon the garden, now brilliant with flowers and luxuriant vegetables, where an hour or two are spent each day in removing weeds and stirring up the soil. It is a pleasant outlook in the afternoon when the scorching sun has passed over to the western horizon.

A board nailed to the wall with a couple of braces, and covered with paper, answers for a toilet stand, and each room has such a convenience. Some swinging shelves, for books, papers, collar boxes, etc., were made of pasteboard shoe boxes, given me by the boarding-house matron, strung on heavy cord, made of wrapping twine. A handkerchief box was laced together at the ends for a wall pocket for my guest chamber. I often wonder if I should take more pleasure in fitting up a handsome residence, with means at my command, than I do in contriving improvements for my lowly cabin home. I am sure if pioneer women were more engaged in making the best of their surroundings, they would find less occasion for complaining of their humble lot, besides making themselves and their families comfortable and comparatively happy.

"But," says one, "there's no use in fixing up an old log house, for you can't make anything else of it, if you try; and, for my part, I'd rather save my strength and money to adorn a new house, which we shall probably have in a year or two at most."

But the years pass away and others follow in seemingly quick succession, and yet no new dwelling makes its appearance. The old home grows more and more dingy, and more and more dilapidated, as also do the hearts and tempers of its possessors, until there are frowns out-of-doors and frets within. Happiness and contentment spread their wings and fly to more congenial homes, and the grave at last gives a resting place, to the unhappy hearts that have never found the fountain of all true enjoyment, because they were unwilling to collect the sweets from every flower. They failed to obtain many blessings, because they did not "do with their might, what their hands found to do."

DOMESTIC RECIPES.

Baked Indian Pudding.

If Mrs. H. C. G. will try the following recipe for baked Indian pudding, she cannot fail to be pleased with the result, as it is the original recipe of an experienced housewife.

One quart of sweet milk. Heat about half of it. Mix half a teacupful of Indian meal smooth with a little of the cold milk and pour into the scalding milk, stirring meanwhile. Then add one spoonful of flour mixed smooth with more of the cold milk and one beaten egg. Sweeten, and season to taste, with a little salt and lump of butter if desired. Now add the remainder of the cold milk. Bake two hours.

Crab Apples.

No jell can exceed in looks or flavor, that which is made of crab apples. Some may not know that by taking out the core, the jell will be far nicer-looking.

A nice dessert can be made by stewing cored crab apples in sugar very slowly, with a lump of butter. Extract of lemon may be added. Placed on a platter or covered dish, it has a very appetizing appearance. If steamed and sprinkled with sugar, or laid in a sauce dish of sirup, they make a nice sauce for tea.

AUNT EM.

Eggs for Winter Use.

About this time farmers' wives begin "laying down" eggs—or rather standing them up for winter use. As good an article as I ever tried for the purpose, is fine sand, which will keep cool if placed in the cellar, bran, oats, etc., are apt to heat. Place them so as not to touch each other on the smallest end. The philosophy of this is, I suppose, that if placed on the smallest end, the yolk will not settle and stick to the shell, which causes the egg to become unfit for use.

QUESTIONS ANSWERED.

To Wax Natural Flowers—Balsam Apples.

I. D.—Dip the flowers into melted paraffine or spermaceti—a melted candle will answer—withdrawing them quickly. Have the liquid only hot enough to maintain its fluidity. The flowers should be dipped in one at a time, held by the stems and moved about for an instant to get rid of air bubbles. This process is too severe for many delicate specimens melting them, as it were together, and of others, the heat will change the color.

From the Balsam Apple—Momordica Balsamina—a liniment is made by infusing the fruit deprived of its seeds in sweet oil or spirits and used for rheumatism, chapped hands, flesh wounds, etc. The fruit is also crushed and used in the form of a poultice for wounds.

To Dry Corn.

K. L.—Boil the corn for five minutes, take out and when cool cut each row through the center with a sharp knife and scrape out the corn. Dry on plates around the stove or in the sun. If out-of-doors protect from insects. When wanted for use, soak in tepid water just enough to cover, for a few hours, then boil ten minutes, season with cream, pepper and salt, and serve hot.

Martynia proboscoda. (Unicorn Plant.)

R. H. Crane: Gather the pods when about half grown or while tender and succulent—if left until the flesh has hardened they are worthless—and pickle them the same as you would cucumbers.

Canning Tomatoes.

J. M. Gunn: We should not advise you to can your tomatoes in glass but in tin quart cans or stone jugs, holding two quarts or a gallon. If tin be used, skin, slice the tomatoes and drain in a colander, or sieve. Then press the solid part into the cans through the small opening at top, and solder the cover on at once. Immerse the cans in boiling water and let boil for ten or fifteen minutes. Take out and puncture with a sharp instrument like an awl, to allow the air to escape, then immediately re-seal. When stone jugs are used, boil the tomatoes the same as you would for the table, for twenty minutes or half an hour, then pour hot into the jugs, which should be previously rinsed with scalding water. Drive in the corks softened in boiling water, and cover with a cement made of beeswax and resin. This last method of preserving tomatoes will, we think, please you best for your own family use.

Color from Cloth.

Tyro wishes to make a rag carpet and has a quantity of her husband's clothing to cut up for that purpose, but all are so dark colored that she would like to take out the dye and re-color them a brighter shade. We know of nothing that will do this without injuring the fabric, but if any of our readers can aid *Tyro* we would be pleased to publish their experience.

News of the Week.

MISCELLANEOUS.

MONDAY, September 22, 1879.

The trial of Henry J. Gully for the murder of Cornelia Chisolm ended at DeKalb, Miss., last week in a verdict of acquittal, after a deliberation of less than half an hour by the jury. With the picture of this terrible affair and the pathetic story of Mrs. Chisolm so vividly before the public mind, this verdict is likely to be looked upon at the North as a failure to do justice to a very brutal fellow. But there is no telling from the meager reports of the case how the jury may have been influenced by the judge's charge or the technicalities of the law. The trial seems at this distance to have been fairly conducted. The cases against the murderers of Judge Chisolm and his young son John are yet to be tried. The worst feature in the prosecution of the murderers is that the evidence taken on the trial showed that Philip Gully, a brother of the man just acquitted, and 32 other rioters, were indicted for Chisholm's murder two years ago, but that no arrests have ever been made, no bail required and no steps taken toward a prosecution in these cases—a state of affairs almost inconceivable in a community having a grand jury and a prosecuting attorney at all. Gen. Walker intends that the enumerators for the next census shall number one to every 4,000 inhabitants, instead of one to every 20,000, as formerly, and quicker work correspondingly will be made of it. He recommends that persons peculiarly fitted to know the population be selected, as assessors, postmasters in small places, schoolmasters and country physicians. In Germany and England, the school-masters are very much relied upon in taking the census, being well fitted by their daily habit of precise listing and registering.

Of the 125,000 Mormon population, it is claimed that only one-tenth are living in polygamy, that is, that only one-tenth of the male adults avail themselves of the privilege of having more than one wife, poverty and other considerations preventing the rest. Of these only a portion have married since the law of 1862 and a prosecution must follow within five years of the crime, which consists in contracting any marriage subsequent to the first, when the first wife is living. Gov. Emery, who is well-liked and much respected by the way as governor, recommended to Secretary Schurz that Congress make the crime of bigamy to consist in the constant intercourse and living with more wives than one.

The political movements of the week may be briefly summarized. The Wisconsin Democrats are at a loss for a candidate for Governor, Mr. Alexander Mitchell, who was nominated for that office last week, having telegraphed from Europe an absolute declination. Mr. Mitchell is said to be "probably the richest capitalist in the entire Northwest," and so much the best candidate his party could have selected that his refusal to run leaves them in distress. The Wisconsin Democracy being elated two years ago with its reduction of the Republican majority, imagined that all it needed to carry the State was the Greenback vote, which it accordingly solicited with a rag-money platform. The result was disastrous, and this year it resolved that "the constitutional currency of the country and the basis of all other should be gold and silver coin," which, perhaps, was as far as it could go with any show of consistency. The Maryland Republicans held their Convention on Friday, adopted verbatim all of the Saratoga platform which relates to national affairs, except the section referring to Democratic ill-treatment of "Old Union soldiers," and nominated Mr. James A. Gary, of Howard County, for Governor, ex-Postmaster-General Cresswell declining to have his name brought before the Convention. The Massachusetts Greenback-Labor party met in Faneuil Hall Friday, and, after a tumultuous session, nominated General Butler for Governor and Wendell Phillips for Lieutenant-Governor, and adopted a platform which asserts that "the Greenback philosophy has been grandly vindicated" by the stoppage of contraction in 1878 and the receiving of greenbacks for custom duties, and that the coin resumption of the Republican party is a sham and a delusion. Kearney will read with surprise that his Eastern friends believe "labor-saving machinery is a boon of God to the sons and daughters of toil," though they want "the contract system of convict labor abolished."

Governor Robinson has just accepted the renomination for Governor of this State, tendered to him by the Democratic State Convention that lately met at Syracuse. John Kelly, the Tammany "boss," who with his followers "bolted" from that Convention, and was nominated by his "heelers" as a rival candidate for the Governor's chair, is energetically at work organizing his adherents in this city, and wherever there are any considerable numbers of them throughout the State. He says that he has not the slightest expectation of winning the coveted honor himself, but he feels confident that he will be able to draw votes enough away from Robinson to defeat him. The anti-Tammany men, however, say that Robinson's hostility to Tammany will so benefit him in the rural districts that any losses he may suffer here from Kelley's oppositions will be nearly counterbalanced elsewhere. Many of the followers of Tammany Hall, too, will vote for the regular nominee of their party. In the Republican party of this State there are also some signs of discontent with the nomination of Cornell for Governor. It is stigmatized as a "machine" nomination by a few kid-gloved "Simon-Pures" who think they are honoring politics by meddling once a year or so with an election, and are then disgusted unless they are permitted to "boss the job." About half a hundred of these, most of whose names are now for the first time seen in print, have issued an address advising other malcontent Republicans not to "bolt" the ticket nominated at Saratoga, but to "scratch" Cornell's and Soule's names. The Democratic "bolt," however is likely to do more mischief than the Republican "scratch."

Gen. Grant arrived in San Francisco on Saturday evening. Great preparations had been made by the citizens to give him a welcome such as had never been accorded to any one on the Pacific Slope. The Secretaries of War and the Navy telegraphed to their subordinates in California to co-operate in every way with the citizens in welcoming home America's great general. The following is a summary of this morning's telegraphic accounts of his reception:—The great court of the Palace Hotel last evening, when Gen. Grant arrived, was lighted by electricity, and the hotel and its court and the street were crowded. At 10 o'clock the doors were thrown open, and a barouche containing Gen. Grant was driven within the building. As he alighted, however, Madame Fabbre and a chorus of five hundred voices opened from one of the balconies with an ode of welcome, and it was announced to the great multitude in the street that the General would appear on one of the balconies after he had had time to take off his overcoat. As soon as the review was finished the soldiers and sailors, veterans of the late war, repaired to the sand lots with a field battery and fired a salute. After a chorus had been rendered, Gen. Grant, in response to repeated calls, appeared on the balcony of the fourth story and bowed to the shouting populace, and Mayor Bryant appeared and announced that as soon as the General had finished his dinner he would show himself. In a few minutes Gen. Grant appeared, and Mayor Bryant called for order, and the General, mounting a chair, which was passed over the heads of the multitude, was again greeted with cheers. He said:

FELLOW CITIZENS OF SAN FRANCISCO: After twenty-five months absence, I am glad to meet you, and assure you of my cordial thanks for the kind greeting you have given me. I shall stay in your city long enough to greet you more fully.

The General then withdrew. The reception Committee, in the tug Miller Griffith, ran alongside the City of Tokio, about three miles outside the Heads, and as the China, George W. Elder, Ancon, and St. Paul, with their decks black with hats, slowly rounded to, the party went on board. The General and his suite were on the bridge of the Tokio, and the Committee were conducted immediately to him. At about the same time the Government steamer McPherson, with Gen. McDowell and staff, ranged alongside. There were no formalities. The band of one of the steamers played "Home Again," and Gen. Grant was welcomed to the Pacific Coast. The General said that he had ridded himself of some of his superfluous flesh, as he weighed 186 pounds when he sailed from the United States, and now pulled down the scales at 159. On the trip from Yokohama the weather was fine. The departure from Yokohama was attended with elaborate ceremonies, at the instance of the Japanese Government, Gen. Grant and suite being accompanied from the Mikado's palace by the entire Cabinet and all the foreign Ministers. Troops lined the way to the station, and as the City of Tokio steamed out of the harbor salutes were fired. Gen. Grant made no public appearance except to take a ride in Garden Gate Park with Major Bryant yesterday.

The United States marshal, with an execution against the city of Elizabeth, N. J., for defaulting on its bonds, found no property that could be attached. It is stated that the appointment of a receiver for the city will be asked. Daniel Drew had been in his usual health during Thursday. At 6 o'clock he dined with Darius Lawrence, the broker. He returned to his son's house after dinner. Although he complained of feeling slightly unwell, he insisted that no one should sit up with him. About 10:15 Drew walked into the room occupied by Lawrence, and said he felt much more unwell. Medical assistance was at once summoned, but before it arrived Drew was dead. The physicians attributed his death to epilepsy.

FOREIGN.

Thomas C. Scott, the well-known English agricultural authority, writes that the government and trade estimates show that the surplus of wheat in America, Russia and in the East is 4,040,000 bushels less than the aggregate deficiency of the various countries, and that a rise in the prices of breadstuffs is therefore anticipated. Lord Derby, speaking at South Point, England, Thursday, recommended public and private economy for a time, as trade must infallibly revive, seeing that England was not, like the Continental powers, wholly occupied with armaments; and said the furtherance of emigration schemes was more

likely than strikes to be useful in lessening the evils of bad trade. The Emperor of Germany lately visited Alsace, which he wrested from the French in 1870. A Strasbourg dispatch says, upon the entry of the Emperor William many of the shops were closed. Only the official buildings were profusely decorated. The French newspapers have become much more outspoken concerning Alsace and Lorraine, the inhabitants of which provinces have become also much more estranged from the Germans than they were two years ago, when the Emperor William visited Strasbourg and met a comparatively cordial reception.

In England there appears to be a growing discontent against the Beaconsfield government. The recent outbreak in Cabool has served to increase this greatly; and the capture of Cetawayo, in South Africa, has done little to diminish it. There is a strong impression that the peace is in danger of being broken ere long. Germany and Russia are by no means friendly. Although the two emperors are amicable enough, Bismarck and Gortschakoff are directly hostile, and the belief is widespread that the outbreak of hostilities between the two countries is only a question of time, and that of a short time, too. Austria and Germany, according to the latest rumors, are about to guarantee the integrity of each others' territories. This will be bad news to Russia which objects to Austria's occupation of Bosnia, and bad news to Italy which hopes by hook or by crook to gain possession of Trieste and the adjacent territory. In Spain the chief or only matter of interest seems to be the approaching marriage of young King Alfonso.

The European beet sugar crop is estimated at 1,610,000 tons this year, against 1,600,000 last year. In the Kieff districts of Russia, which are generally fertile, the price of wheat and rye per 30 pounds' weight, which was 80 and 50 copecks respectively in 1868, is now 125 and 75 copecks: a copeck is worth about three-quarters of a cent. A Cape Town dispatch says: Sir Garnet Wolseley hopes that Chief Secocoeni will yield without fighting. This is doubtful, as only lately the Kaffir chief was with difficulty dissuaded from murdering two English officers sent to him with a flag of truce to treat concerning an exchange of prisoners. Details of the capture of Cetewayo show that, while the king was being watched on one side by Lord Gifford and his scouts, Major Marter, with a detachment of dragoons, approached him from the other. Lord Gifford, whose presence was unknown to the king, intended to defer the attack until night-fall to prevent his escape into a dense bush. Cetewayo had caught a glimpse of the dragoons, but thought that in consequence of the ground they could not approach quietly. Major Marter directed the removal of all noisy accoutrements and sent the native contingent ahead. These surrounded the kraal where the king had taken refuge and Marter then rode up and called Cetewayo to come out. The king, after some parley, complied. He preserved a dignified demeanor and asked to be shot immediately.

Sara Bernhardt has written a letter formally denying the current report that she has signed a contract with Jarrett of London for her appearance in the United States. The news from Afghanistan grows worse every day. It was at first believed or hoped in India that the attack on the embassy at Cabool was a sudden outburst of fury on the part of mutinous soldiers and the mob, and that Yakoob Khan was deeply grieved by it and tried to prevent it. But this theory had to be given up before the news that there were signs of a general rising among the tribes, and that Yakoob Khan had apparently no authority over anybody. Later accounts point to his complicity with the massacre, or at all events his subsequent acquiesence in it, and it is now reported that Cabool is covered by a considerable Afghan army. Though this is said to be sensation, General Roberts, who commands the British avenging force, evidently cannot advance with the army now at his disposal and will have to wait for reinforcements, which come tardily, and for means of transportation, which are deficient owing to the enormous destruction of camels by the late expedition. The snow falls in the passes early in December, and after that communication becomes difficult or impossible, so that it may be said that he must be in Cabool and have made himself comfortable in winter quarters by the first of December at the farthest. He can probably do this, but it is an arduous enterprise, and its success will not solve the problem. For after having taken Cabool the question presents itself: Can the Indian Government afford to conquer and occupy Afghanistan; and if not, who is to rule it in a manner satisfactory to England? Yakoob Khan, as an instrument of British policy, has broken to pieces.

Holland is, in some sense, the dairy farm of Europe. Some statistics recently collected show that its cheese export in 1878 was 66,365,000 pounds, half of it going to England, which received from this country, in the years ending in 1878 and 1879, 141,654,000 and 123,783,736 pounds respectively. In the case of butter the conditions were reversed, Holland exporting 49,934,200 pounds to England, and this country 38,248,016 pounds last year, and 21,837,117 the year before. In round numbers, this country and Holland export to England about 3,000,000 centals of cheese and butter, or about half her foreign supply, and one-fourth her total consumption of these articles. Of the butter sent out from Holland, more than half is artificial, but the returns from this country give no hint of the oleomargerine exported here. The slaves on the Cuban plantations have demanded their liberty, and their masters have promised it if they will engage to work three years for wages. Many slaves are running away, and the local authorities have asked Captain-General Blanco what they shall do. The Spanish Government will propose to the Cortes that all the slaves be given their liberty July 1, 1880, on condition of seven years' obligatory labor with wages paid. King Mtesa, ruling near the Victoria Nyanza, in Africa, has abolished slavery. At least half a million of slaves are to be liberated this week.

Ask Fifty Ladies in succession what perfume they consider the most delicate, the most pure and salubrious, the most permanent, and in all respects the most desirable, and forty-nine of them will answer MURRAY & LANMAN'S FLORIDA WATER.

The only safe and sure cure for Gravel or Urinary troubles, is Hop Bitters. Prove it.

THE MARKETS.

PRODUCE AND PROVISIONS.

NEW YORK, Saturday, Sept. 20, 1879.

BEANS AND PEAS.—There has been a good export call for marrows, and the market is generally firm at quotations for both new and old mediums and marrows; new not abundant. Old, red kidneys, weak, and 75's are not asked for largely. Green peas in good supply and something steadier, with lighter daily receipts; $1.32½@1.35. Canadian, in bulk and bond, 70c.; So. B. E. peas, $2.75@3 per 2 bush. bag, with sales. Beans, medium, new, $1.47½@1.50; other, $1.35@1.45; marrow, new, $1.47½@1.50; other, $1.30@1.40; pea, new, $1.47½@1.50; other, $1.30@1.40; white kidney, new, $1.45@1.50; red kidney, new, $1.45@1.80; old, $1.65@1.75.

BEESWAX.—There is little trade, and 22@23c. quoted. Exports for week, 3,225 lbs.

BROOM CORN.—Offerings are moderate and demand fair. Brush and short broom, choice, per lb., 5½@6½c.; do., common to good, 4½@5¼c.; hurl, good to choice, 4@5c.; do., common to fair, 3½@4c.; red and crooked, 2½@3½c.

BUTTER.—Receipts for the week, 48,457 pkgs.; do., last week, 58,032 do. Exports, 32,325 pkgs., 25,625 of which are for Great Britain. An exportation of over 66,000 packages in a fortnight is an event for the butter trade, and the market responds to it with strong and higher figures. Early in the week there were sellers who thought the new situation of the market was more of snap than hold, but at the close all dealers, both State and Western, name the new rates with confidence. Some of the coolest merchant receivers, however, still advise country owners not to check receipts by putting imaginary values upon butter, feeling it to be safer to meet the demand, so that winter will not be struck with a heavy surplus. Accumulations have been a terror all summer, and one of the brightest points in the market is the fact that sellers can now devote their undivided attention to fresh regular supplies. The local trade is good, and shippers are paying the inside range, taking full lines of grass and tubs. State, pails and tubs, choice, 20@21c.; best, in lines, 19c.; good to prime, 17@18c.; fair to good, 15@17c.; firkin and tub, dairies, choice, 19c; good to prime, 16@18c.; firkin dairies, 15@16½c.; Welsh tubs, choice, 17@18c.; other, 14@16c; poor, State, 12@14c.; creamery, finest, 24@25c.; other, 20@23c.; sweet cream, 22@23c.; Western creamery, 23@24c; other, 19@22c.; creamery, poor, 19@20c.; Western, imitation creamery, 13@16c.; dairy, fresh, extra, 16@17c; best invoices, 15@16c.; good to prime, 13@14c.; fair to good, 12@13c.; poor to fair, 11@12c.; factory, best invoices, June, 12@13c.; fair to good, June, 11@12c.; best invoices, late made, 11½@12c.; fair to good, 10@11c.; poor to fair, 9@10c.

CHEESE.—The feeling has been a decidedly feverish one all through the week. The country sales were decidedly higher at the opening, and a corresponding advance was held here. Shippers pursued the same course noted in the previous week, when a sharp rise had taken place or refused to meet the figures in anticipation of a more favorable market to them later on. They were, however, forced in later in the week through a rise abroad and freer orders, and some little competition set in to secure the choicest productions, which had the effect of even further advancing prices, as the supplies coming forward were very moderate. The market closed strong at for fancy at 9¾@9¾c.; good to prime at 8¾@9c.; fair to good at 7¾@8½c.; half-skimmed at 6¾@7¾c.; skimmed at 5¾@6¾c. State farm dairy: Fine, 8½@9c.; good to prime at 7¾@8c.; fair to good at 7@7¾c.; skimmed at 5½@6¾c. Wisconsin factory: Fine at 9c.; good to prime at 8@8½c. Ohio factory: Cheddar, fine, at 9c.; do., fair to good, 7@7½c.; flat, fine, 8½@9c.; flat, good to prime, 8@8¼c.; flat, fair to good, 7@8c.; half-skimmed, 6½@7½c.; skimmed, 5@6c.

Liverpool rable, 44s.

Receipts for week, 96,171 boxes; do., last week, 91,733; exports, 63,980 do.

COTTON.—There has been an active excited market, and closing at for September, 12.13@12.14c.; October, at 10.56c; November, at 10.31@10.33c.; December, at 10.25@10.30c.; January, at 10.25c.; February, at 10.47@10.49c; March, 10.60@10.62c.; April at 10.78@10.75c.; May at 10.85@10.90c.

Quotations for spot cotton are based on American standard of classification, and on cotton in store running in quality not more than half a grade above or below the grade quoted.

	Uplands.	N. Orleans and Gulf.	Texas.
Ordinary	11 11-16	11 13-16	11 13-16
Strict ordinary	11 1-16	11 3-16	11 3-16
Good ordinary	11 7-16	11 9-16	11 9-16
Strict good do.	11 11-16	11 13-16	11 13-16
Low middling	11 13-16	11 15-16	11 15-16
Strict low middling	12	12⅛	12⅛
Middling	12⅛	12¼	12¼
Good middling	12 7-16	12 9-16	12 9-16
Strict good middling	12 11-16	12 13-16	12 13-16
Middling Fair	13⅛	13⅛	13⅛
Fair	14	14⅛	14⅛

STAINED.

Good ordinary 10⅞	Low middling 11 9-16
Strict good ordinary 11⅛	Middling 11 13-16

DRIED FRUITS.—Apples are wanted, and the arrivals of new are closely sold at firm prices. Peaches are in fair demand at full prices. Small fruits are quiet.

New North Carolina apples, 5½@6c. for fair; 7@7c. for choice; 8½@9c. for fancy sliced. Patent evaporated apples, choice, in cases, at 11c@12c.; do. fair to good, 8½@10c.; N. Y. State sliced, choice, 5@5¾c.; do, quarters, choice, 4½@5c.; Western quarters, bright, new, 5@5c.; common and old, 2½@4½c.; new N. C. peeled peaches at 14@15c.; do. Georgia, 11@14c.; old unpeeled halves, 4½c.; do., quarters, 4c.; new halves at 5@5½c. Blackberries at 8½@8½c. for new. Raspberries, 29@30c. Pitted cherries at 20@21c.

EGGS.—Receipts for week, 6,979 bbls.; do., last week, 5,637 do. The demand is good, and new and higher prices are strong. Some shippers are mixing limed with fresh; this practice should be at once avoided, as buyers will not accept a second time marks that have been thus trifled with.

Near points, 21c.; State and Penn., 20c.; Western and Canadian, 19@19½c.; off grades, 18c.

FLOUR.—Trade has been extensive, including large orders from home trade as well as export sources, and prices are higher and strong.

Latest sales are at $4@4.50 for poor to very fancy superfine State; $4.60@4.80 for ordinary to very good extra do., odd lots and lines; $4.80@4.90 for very good to choice do.; $4@4.50 for inferior to very fancy superfine Indiana, Iowa, Michigan, &c.; $4.60@4.80 for inferior to good shipping extra do., and $4.85@4.90 for good to choice extra do.; common to choice white wheat extras, $5@5.85; choice to fancy do. at $5.80@6.40; red and amber winter wheat, inferior to very choice trade and family, at $4.85; round hoop Ohio at $4.65@5.00, and trade and family brands of do. at $5.10@6.15, the latter rate for choice; St. Louis, $5.00@5.85 for inferior to very good extra; $5.85@6.65 for very good to fancy; Minn. clear, very inferior to very fancy, at $4.30@6.00; do. "straight," very inferior to strictly fancy, at $5.40@6.50, and patent poor to very fancy at $5.50@8.00; unsound stock at from $3.00@5.75; city mill extra at $5.00@5.90, fair to fancy, for West Indies; do. for England, $4.60@4.90 for ordinary to very choice; do. trade and family extras, $5.75@6.75; do. for South America, $5.60@6.20 for standard to choice brands; No. 2 at $3.30@4.00 for very inferior to very fancy (the latter an extreme).

FRESH FRUITS.—Exports of apples, 1,246 bbls. For the moment there is a rush of apples, and special table and retailing sorts only command the two-dollar and above price. Pears have arrived very liberally. Bartletts pressed for sale, as they are mostly yellowed up. Peaches have kept steady all the week, with little variation from the annexed rates. Grapes low. Plums firm, but are about as high as they can go, with a view to steady business.

Apples—Blush Pippin, up-river, ₱ bbl., $2@2.25; do., Western N. Y., $1.62@1.75; do., Gravenstein, $1.75@2; do., Alexander, $1.75@2; do., Fall Pippin, $1.50@1.62; do., 20 oz. Pippin, $1.50@1.62; do., Maiden Blush, $1.50@1.75; do., Calvert, $1.50; do., Cranberry Pippin, $1.75; do., Strawberry, $1.50@1.87; do., Detroit Red, $1.50@1.87; do., Golden Sweet, $1@1.25; do., mixed lots, sour, $1.37@1.62; Jersey, fair to good, $1.25@1.75. Cranberries—Cape Cod, choice, per bbl., $8@9; do., Jersey, choice, per crate, $1.75@2.25; do., light colored, $1@1.50. Pears—Bartlett, State, good to prime, $4.50@5; do., up-river, extra, ₱ bbl., $4.50@5; do., fair to good, $3@4; do., Boston, per bush. box, $1.75@2; Duchess, Jersey, per bbl., $2@2.50; Sheldon, do., $2@3; Louise Bonne, do., $3@3.50; Virgalieu, do., $2@3; Beurre Bosc, do., $2.50@3, Seckel, $2.50@3.50; Swans' Orange, $2@2.50; Flemish Beauty, State, do., $2.50@3; do., up-river, do., $2@2.75; cooking, $1.50@2. Peaches—M. & D. Smocks choice, per basket, 90c.@$1; plain, 65@80c.; do., white, prime, $1@1.25; do., plain, 70@80c.; up-river, Crawford, extra, per basket, $1.25@1.50; do., fair to good, 75c.@$1; N. J., Crawford, extra, ₱ basket, 1.25@1.50; do., good to prime, 75c@$1; do., poor to fair, 40@60c. Grapes—Del., State, 18 3-lb. boxes, $2.00@3; do., in baskets, ₱ lb. 3@7c.; do., up-river, bulk, ₱ lb., 5@7½c.; do, Catawba, 18 3-lb. boxes, $3@3.25; do., loose, ₱ bbl., $8; Concord, State, 18 3-lb. boxes, $1.50@2; do., in baskets, ₱ lb., 4@5c.; do., up-river, bulk, ₱ lb., 3@3½c; do., N. J., bulk, 2@3. Plums—German Prune, bbl., $12@14; Quackenboss, $10@12; do., ₱ ½ bu. cr., $1.75@2, Purple Egg, bbl., $4@10; Reine Claude, $5.50@7 ₱ ½ bush. crate, $1.25@1.50; Couper, ₱ bbl., $7@8; Damson, do., $5.50@6.50; N. J., ₱ ½ bush. crate, $1@1.25. Watermelons—Maryland, per 100, $8@15; do., N. J., $8@12. Nutmeg melons—Hackensack, prime, per bbl., $1.25@1.50; do., poor to fair, 50@75. Whortleberries—Jersey, per box, 75@90c. Nuts—Receipts lately quite liberal and trade dull. Holders not offering concessions, but the tone of prices is weak. Peanuts, Va. hand-picked, $1.65@1.70; extra prime to fancy, $1.45@1.50.

GRAIN.—All articles have been active, the export demand large and speculation brisk, with prices much higher and strong. Latest sales of wheat are of No. 1 amber at $1.20; No. 2 amber at $1.18½@1.19½; do., September delivery, at $1.19@1.19½; extra white at $1.24; ungraded amber at $1.14@1.18; No. 1 white at $1.20½@1.22; do., September option, at $1.21@1.22; do. for October at $1.20@1.22; do., November, at $1.21@1.22; No. 2 white, at $1.20@1.20½; ungraded white at $1.17@1.22; No. 1 red at $1.20; No. 2 red at $1.19@1.21; do., September option, at $1.19½@1.21½; do., October option, at $1.19½@1.21½; do., November, at $1.19½@1.21½; do., steamer grade, at $1.18; ungraded red at $1.12@1.19; mixed winter at 1.17½@1.18; No. 2 Chicago and Milwaukee spring, new crop, at $1.12@1.14½; New York No. 2 spring new at $1.13½@1.14; do., September option, at $1.12; do., October, at $1.12½@1.13½; No. 2 northwest spring, October at $1.14; No. 3 spring at $1.08@1.10½; ungraded spring at $1.06@$1.12. Rye at 72@74c. for Western. Corn at for New York No. 2 at 51@52c.; do., September, at 51@51½c.; do., October, at 51½@52c.; do, November, at 52½@53c.; New York steamer mixed at 50@50½c for spot lots; ungraded Western mixed at 51@52c.; No. 2 white, in lots, at 57@57½c; round yellow at 62@63c. Oats at New York No. 1 white at 38c.; New York No. 2 white at 36@36½c; New York No. 3 white at 34½@35½c.; No. 1 at 36½c.; No. 2 at 35½@36c.; do., October, at 35½c.; No. 3 at 34½@35c.; New York rejected at 33c.; ungraded mixed Western at 34@36c.; white do. at 36@40c.; white State at 38@41½c; mixed State at 35½@36½; No. 2 Chicago at 36½@36½c.

HOPS.—Emmet Wells in his circular says: "Aside from the export movement, which continues heavy, very few hops have changed hands. About one-half of the arrivals this week were new hops, and of the 2,450 bales shipped to London nearly 2,000 were old. If hops continue going out of this port at the same rate as since the first of the month our markets will soon be cleaned out of old stock, and when our brewers step in to buy, they will have to take new hops at the going prices. New have opened at rather too high a figure to give much encouragement either for export or for speculation, and until we know what stand England will take on our pet ales, little business will be done. No very choice hops of the new growth have as yet reached our market; it would therefore be difficult to say what such would bring. Such as we are now receiving are taken up at from 3@36c."

	Bales.
Receipts for the week	1,869
Total receipts since September 1, 1879	5,283
Total receipts for same period in 1878	1,458
Export clearances for the week	2,450
Total exports since September 1, 1879	7,659
Total exports for same period in 1878	605

Quotations are for New Yorks, new crop, 28@36c.; Eastern, new crop, 28@31c.; Wisconsin, new crop, none; Yearlings, growth 1878, 7@18c Olds, all growths, 4@10c.; Pacific coast, growth 1873, 9@14c.

OIL-CAKE.—Western is quoted at $27.50@28 per ton.

POULTRY AND GAME.—The demand for live poultry has fallen off since the Jewish holiday, wants have been filled; and easy prices are quoted.

Chickens are extremely low; N. J., 10@11c, ₱ lb., Southern and Western, 9@10c.; N. J. & W. fowls, 10@11c.; Southern, 10c. Roosters, 5@6c.; Turkeys from all points, 10@12c. Ducks, price 38@70c. Geese, extra, $1.50; other, $1@1.20.

Dressed poultry is lower with State, and Western shippers enlarging supplies beyond the wants of this end of fall. Near points control the best trade until the weather becomes settled cool; and if there is a lack of stock it can be easily filled up by city killers. Turkeys, Phila., dry-picked, 15@16c., State and Western, 13@14c. Young, 12@13c. Chickens, choice, 15@16c.; other, 12@13c. Fowls, Phila., dry-picked, 15@16c.; N. J., 13@14c.; other, 10@12c.; Ducks, spring, 15@17c. dry-picked, State do., 14@15c.; ordinary, 12@14c.

Supplies of game are moderate, and prices are stronger with the advancing season. Venison now on table. Partridge, State, $1.00@1.62 per pair; Western, $1.25; grouse, 85@90c.; woodcock, State, 85@90c.; Western, 80c.; Eng snipe, per doz. $1.25; plover and big yellow legged, $1.75; small snipe, 40@50c.; wild pigeons, $1.25, light. Wild ducks doing better; red heads, 50@60c. per pair; Mallard, 40c.; teal and common, 30@35c. Reed birds and mixed small, 25@30c. per doz, few needed.

PROVISIONS—Have been excited, active and higher. Mess pork closed at, for September, $8.90 asked; October at $8.85; November at $8.90@8.95, and the December option at $8.90@9; January at $9.35@9.45. Bacon at 5¾c. for long clear and 6c. for short clear. Lard—Western steam at $6.40@6.42½ for spot lots; $6.47½ for October; $6.17½ for November, and $6.10@6.12 for December. Stearine at 6¾c. for Western and 6¾@6¾c. for city. Tallow at 5¾@6c. for prime. Beef hams at $15@15.25. Beef—Plain mess at $10.25@11; extra mess at $11.50@12; packet at $11.50@12; tierced beef, city extra India mess, at $19@22, and Philadelphia do. at $18.25@19.

SEED.—Clover is quiet at 6¾@7¼c. Timothy is in demand and quoted strong at $2.45@2.50.

TOBACCO.—Export demand is still very light and home trade moderate, but prices held firm.

KENTUCKY LEAF.

	Light.	Heavy.
Common lugs	3½@4	4½@5
Good lugs	4½@5	5½@6
Low leaf	5½@6½	6½@7¾
Medium leaf	7 @7¾	8 @8¾
Good leaf	8 @8¾	9 @10¾
Fine leaf	9 @11	11 @13
Selections	12 @—	13¾@14

SEEDLEAF.	Crop of 1877.	Crop of 1878.
New England Havana seed	—@—	22 @30
do. wrappers, common	12 @14	—@—
do. do. medium	15 @17	—@—
do. do. fine	18 @25	—@—
do. do. selections	27½@35	—@—
do. seconds	—@—	10 @12½
do. fillers	—@—	5 @6½
Penn. assorted, common	—@—	10 @13
do. do. fair	13 @14¾	13 @15
do. do. fine	15½@19	17 @22
do. wrappers	20 @40	—@—
do. fillers	9 @10	—@—
N. Y. ass't'd, com. to medium	—@—	—@—
do. do. do. good	12 @15	12½@15
Ohio assorted	9 @12	8 @14
Ohio wrappers	12 @18	—@—
Wisconsin assorted	8½@10	8 @12
Wisconsin Havana seed	—@—	15 @20

VEGETABLES.—Exports of potatoes for week 1,725 bbls. Potatoes rule low: as the export demand has fallen off, and the local trade is yet using miscellaneous items. Early Rose, $1@1.25; Peerless, 87@1.00; Sweet N. J. & Del., $2; Va. and other common, $1.50@1.75. Green corn, per 100, 75c@$1.00; cucumbers, L. I., per 100, 40@50c.; pickles, per 1,000, $1.25@1.50; tom toes, L. I., near-by, per crate, 30@50c.; string beans, ₱ bag, 75@1.00; potato Lima beans, per bag, $1.75@2.00; Lima beans, flat, per bag, $1.50@1.75; do., shelled, ₱ bu. $4@5; squash, marrow, ₱ bbl., 50@75c.; cabbage, flat Dutch, per 100, $3@5.00; onions, white, per bbl., $1.75@2; red, Eastern, ₱ bbl, $1.50; do., Chester, ₱ bbl., $1.37@1.50 yellow, ₱ bbl., $1.50@1.75; beets, N. J., ₱ bbl., $1.00; Russia turnips, Jersey, ₱ bbl., 50@75c.; carrots, ₱ bbl., $1.00@1.25; egg plant, L. I and near-by, per 100, $1.75@2; peppers, bullnose, ₱ bbl., $1.25@1.50; pumpkins, per 100, $2.00@5; Cauliflower, ₱ bbl., $1.50@4.

WOOL.—Demand continues active, and there is a very strong market.

Ohio, Pennsylvania and Virginia.—XXX and Picklock, 40@42c.; XX, 38@40c.; X, 36@40c.; No. 1, 40@42c.; No. 2, 36@38c.; common, 34@35c.; combing, 40@44c.

New York, Michigan, Indiana and Wisconsin.—XX, 34@36c.; X, 33@36c.; No. 1, 37@40c.; No. 2, 34@36c.; common, 31@33c.; combing, 38@44c.

Iowa, Vermont and Illinois.—X and XX, 32@35c.; No. 1, 36@40c; No. 2, 32@35c.; combing, 37@39c.

Missouri, Kentucky and Tennessee.—Washed fleece, 37@40c.; unwashed do., 30@33c.; unwashed combing, 28@33c.

Pub-washed Wool.—Choice, 40@44c.; fair, 38@40c.; inferior and burry, 30@33c.

LIVE STOCK MARKETS

NEW YORK, Saturday, Sept. 20.

BEEVES.—Receipts for the week, 12,699 head; do. last week, 11,821 do. It has been a bad week for sales; a good many unsold car-loads have been lopping upon the market, and on Friday there was a bad break in prices. In a few cases 10@10¾c. was obtained, but 9½@9¾c. were thought full prices for prime to above native steers. For ordinary to good, to dress 55@57 lbs., 7¼@9¼c.; poor, to dress 54 lbs., 6¾@7c.; Texas, 6¾@6¾c., and some at the close as low as 6c. Exports for week, 835 live cattle; 4,881 quarters beef; 1,415 carcasses mutton.

COWS AND CALVES.—Supplies are greatly ahead of previous seasons. Some weeks of late over 200 head have appeared in the offering, or more than double the number for former comparative dates. A good many common cows arrive and have to be quoted down to $20@25 per head, and a very good class of animals do not go above $40@45.

VEAL CALVES.—There is trade enough to sustain 6¾c. for tops, and that says all. Prime fed, 6c.; poor to good, 4@5½c.; grassers, 2½@2¾c; buttermilk, 3@3½c.

SHEEP AND LAMBS.—Receipts for the week, 38,320 head; do. last week, 30,255 do. There is no special animation to note. Lambs, if anything do better than sheep. Sheep range 3¼@5¾c.; lambs, 4½@5¾c. the latter for heavy prime.

SWINE.—Receipts for the week, 29,723 head; do. last week, 22,115 do. There is a good strong tone for hye at $3.50@3.75; with light at $4 per 100 lbs.

New Jersey dressed pork, 40 to 70 lbs., pigs, 6¼@6½c.; 70@100 do., 5¾@6½c.; 100@150 do., 5¾@6c; 150@200 do., 5@5¾c. City dressed, $4.75@5.50.

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Single Copy, per Year	$2 00
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Reading for the Young.

FALL WORK IN THE GARDEN.

THE season for out-of-door gardening is now nearly over; there still remains, however, some little work that should be attended to before cold weather comes. If not already done, it is now high time to plant bulbs of Lilies, Hyacinths, Tulips, Snowdrops, Narcissus, etc. Every member of our society should have at least a couple of Lilies. To have these beautiful flowers to perfection, dig the soil out of the bed or border to the depth of eighteen inches, and fill the hole with a compost of peat, manure and leaf mold about a foot deep; the remaining six inches may be rich garden soil mixed with peat. The bulbs of strong growing Lilies should be planted about four or five inches deep; for the weaker sorts three inches deep will do. The White Lily—Lilium candidum, L. longiflorum and L. tigrinum, the Tiger-spotted Lily, are the most common. They are hardy, but they will flower better next year if they are covered with manure during the winter.

Hyacinths should be planted now. Set the bulbs about eight inches apart and two inches below the surface. The ground should be enriched with well-rotted manure and finely pulverized. Plant also some in pots, soak the soil with water and set them away in a cellar in a cool place for five or six weeks. At the end of this time the bulbs will have formed roots, and they can be transferred to the room or greenhouse where they will flower.

The pots may also be set in a pit in the ground and covered up with soil. This will keep the soil in the pots moist and the temperature even—the most favorable conditions for the formation of roots.

Tulips are planted like Hyacinths, only closer and not so deep. For winter flowering, three or four bulbs may be set in a pot large enough to hold one Hyacinth.

Now is also the time to sow seeds of apples, pears, grapes, peaches, plums, etc. All kinds of nuts can now be sown also. Sow all these seeds in drills about nine inches apart and regulate the depth that each is to be buried by its size; the smaller ones are to be covered but little, the larger ones more. Cover the bed during the winter with long manure. After everything is cleared off the gardens, the ground should be spaded but not raked and lay in this condition over winter. This fall spading should never be neglected; on stiff, clayey soils especially, it is very beneficient.

UNCLE MARK.

THAT GOOD DOG JACK.

SOME dogs, in their love and affection for their masters, have at times equaled human beings in their constancy, and even surpassed them in the marvelous intelligence with which they foresee and avert approaching danger. The following example, related to us by one of the ladies of the story, may prove interesting. Two girls, daughters of an English country doctor, were once out for a walk together. It was an autumn afternoon, sunny and pleasant. They were accompanied by their little dog, named Jack, who was a clever little terrier, and more than once had proved his claim to be considered, as indeed he was, their protector while out walking. Their father often said he felt "quite happy when Jack was with them; he was sure no harm could come to them." The two girls pursued their walk merrily. The fine afternoon tempted them to go further than they ought, however, and by the time they turned the dusk had fallen and they were afraid they would be late for tea. One of them proposed to take a short cut through a wood with which they were so well acquainted, having very often gathered blackberries in it on a summer afternoon. The other agreed, and so they arrived at the edge of the wood and prepared to enter it. "All the same I am rather afraid," said Dora, the younger of the two; "there have been several robberies in the neighborhood, and I saw some very odd-looking men pass our door to-day; besides, I am wearing my new watch which papa gave me on my birthday." "Oh, nonsense!" her sister replied. "It is nearly six o'clock now, and we shall be late. Be sure no one will wish to harm us." "I wish I were as certain as you are. But what's the matter with Jack?" Just as she had said this, Jack advanced toward them, and planting himself in the middle of their path, sat down and whined. "That is odd," said Dora. "I never remember him doing that before." The other girl derided her fears, and attempted to pass the dog; but he caught her dress in his teeth, and held her so firmly that she hardly dared to set herself free. One more effort she made, but Jack was resolute; so at last, seeing how determined he was to prevent their further progress, she gave up trying.

"Well, well, you stupid little brute!" she said angrily. "I suppose we must go all that long way round." So the two sisters abandoned the idea of taking the short path through the wood, and went home by the safe high-road. When they arrived, how grateful, how unutterably thankful did they feel to their little protector, whose intelligence had been so far superior to theirs, and had saved them despite themselves. A man had been found in the wood shortly after they had left it, murdered and robbed, it was conjectured, by the tramps who had passed through the village in the morning. Thus Jack had preserved his mistresses from meeting perhaps a similar fate. Their gratitude, it is needless to add, was profound toward their little four-footed protector, who, we are glad to hear, lived to a good old age.—*Chambers' Journal.*

LETTERS FROM THE COUSINS.

UNCLE MARK:—You say all readers of the RURAL are welcome to join the Horticultural Club, I have taken great interest in it, so I would like to become a member. Flowers are my special pets. I have a great variety and take much pleasure in caring for them. If any of the club grow Fuchsias let me advise them to plant some in the ground next summer where they will be shaded from the noonday sun. I have a bed of them on the north side of the house. It is really "a thing of beauty" if it does not prove quite "a joy forever." But the great desire of my heart has been to have some nice hardy shrubs. We have succeeded well with the RURAL seeds. I have some Weigela plants nearly a foot high now. I have been trying to improve a wild flower that grows here, it is a perennial and a good bloomer, the plants grow about three feet high. I will send you a flower and leaf for name.

AN OREGON FARMER'S WIFE.

Tangent, Oregon.

[You are welcome to join the club. The flowers and leaf sent are those of the Moth Mullein, Verbascum Blattaria. This species, like all the Mulleins, is introduced from Europe, and it now grows wild along roadsides and in waste places all over the country. It is hardly worth cultivating. U. M.]

DEAR RURAL COUSINS:—Good-morning! Is old Jack Frost going to kill all of our flowers? We have had three or four quite hard frosts, but they have not done any harm to speak of. My Dahlias are blossoming quite profusely at present. I have four different kinds, and also some house plants which look very nice. Ivy speaks of autumn as being his favorite season. I think mine must be spring, when the flowers begin to show their faces in the cold days of April. All the seasons bring pleasure with them. I have read some of Sir Walter Scott's poetry and also Poe. Milton I know nothing about; Shakespeare I do not like. For prose writers, Mrs. Holmes, Mrs. Evans and Mrs. Stephens, are my favorites. E. E. Rexford is a good writer, both in prose and poetry, and others too numerous to mention. None of the cousins have spoken of music. I love to hear good music, both instrumental and vocal. My favorite music is that of the Sabbath School, for it means something more than to please the ear. Cousins, I guess that Ivy was our interesting correspondent from the Sandwich Islands, and I believe also that he lives in New York city. Ivysrest may be the name of his residence, and perhaps he occupies a small corner in the RURAL office. This letter is getting most long enough for the waste-basket.

Here is a recipe for a pudding. It is good I know, because we have used it and like it very much.

Queen of Puddings: One pint white bread crumbs, one cup white sugar, one quart of milk, grated rind of one lemon, the beaten yelks of four eggs, one-half cup of butter, all to be mixed and delicately baked in a shallow pan; when cool, spread over with the fruit of peach preserves, drained free from sirup, or with very thick fruit jelly; then beat the whites to a stiff froth, sweeten with powdered sugar, add the juice of the lemon, spread over the pudding and brown, to be eaten cold, with cream. It is better without the cream. This letter is too long already, so I will wish you a kind good-night. OLD MAID.

Hillsdale Co., Mich.

[This is a very good letter from Old Maid; she is, however, mistaken in her conjectures about Ivy.—U. M.]

DEAR UNCLE MARK:—I saw that you wanted the members of the Horticultural Club to report how their plants were getting along. Mine are not getting along as well as I wish they were. I have taken the best care I know how of them, but they do not seem to grow although they blossom very nicely. Some kinds are very large, though and doing splendidly.

I have not a very great variety of flowers this year, for I have not the room, but next year I hope to have more. On my bed I have Asters, Zinias, Marigolds, Phlox, Scabiosa, Verbenas, Portulaca, Petunias, Mignonette, Snapdragon and Cockscomb. My Verbenas, Petunias and Marigolds are very large, while the rest of my plants are quite small. The ground is rich, and I have kept it well weeded and mellow. What next to do I do not know. I hope that when the cooler weather comes they will do better. ALICE B. GIFFORD.

Chautauqua Co., N. Y.

DEAR UNCLE MARK:—I am very glad, indeed, to see so many new members joining our Club, and I hope that there will be a great many more. I would like to know how the cousins raise peanuts and pop-corn. I have noticed that some of them wrote they had planted these; if any of them will tell me I shall be much obliged. I have had a number of radishes, but they are so bitter that we can hardly eat them; I guess I did not water them enough. I liked Ivy's letter very much. I think that Lizzie Hay ought to write again, she has not written us a single line since last spring. Dolly Varden's letter was very nice, it was so lively. My flowers are getting along very nicely indeed. I have such a lot of Portulaca, it is coming up everywhere. The Grapevines look very well, only the fruit is so long in ripening. In a few days we have all got to go back to school again; but I must close now, or my letter will go into the waste basket. Your affectionate niece.

New York City. LIZZIE E. BLAIR.

DEAR UNCLE MARK:—This summer we picked 78 boxes of red raspberries out of our garden. Sold 55 boxes at 10 and 12½ cents per box. My flowers are nice and don't you believe it, I had two nice watermelons which were larger than the rest, and somebody stole them. So I took my dog "Dick," he is a savage hunting dog—and chained him up there, I wish all the cousins had such a dog.

FRANKIE M. A. BROOKS.

Dane Co., Wis.

UNCLE MARK:—I belong to that class of cousins somewhat advanced in years, but still I have a great desire to join your Horticultural Club. I have been thinking it would benefit many cousins out of their teens if they would only do what their hands find to do. I have some pet flowers, of which I think much, and would like to tell about them if I was only a regular accepted cousin. Our plants of Lilium auratum and lancifolium have just faded away, and beautiful and sweet do not do justice as expressions of them. Lilium Humboldtii I could not get acclimated here. Should I be an acceptable member I will call again. Yours truly, J. W. MAPLE.

Oregon, Mo.

UNCLE MARK AND RURAL COUSINS:—I have much enjoyed reading your letters in the RURAL, and would like to become a member of your club. I am very fond of flowers, but have not much of a variety to write about. I planted an Almond about two months ago, scarcely expecting it would come up, but it has, and is growing finely. Can you tell me what kind of culture it will require, and whether it will live out of doors or not in our land of frost and snow? I will write no more now, but will write again some other time if this is acceptable. I am 14 years old. ELLEN BECKWITH.

Chenango Co., N. Y.

[The Almond must be grown in a pot and kept in a greenhouse in the winter.—U. M.]

UNCLE MARK:—I wish to join the Horticultural Club. I have read the letters with great interest and cannot resist the temptation any longer. I have a small flower garden and a fine collection of house plants, among which are sixteen different kinds of Geraniums and seven kinds of Coleus, five species of Cactus, three of Begonia, and a number of other plants, which include Amaryllis, Fuchsias, Calla Lilies, Musk plant, Cigar plant, two kinds of Sea Lily, Oxalis, Strawberry Geranium, Coral plants, &c., &c. But I must close, otherwise you will not want to hear from me again.

Oneida Co., N. Y. CLARA M. WOOD.

DEAR UNCLE MARK:—I have been very much interested in the children's letters, and would like to join the Horticultural Club. I have a nice patch of cucumbers. I sowed radishes twice with seed from the store, but they didn't come up as well as Mr. Vick's seed. I am fourteen years old and go to school; when school is out we are going to have a picnic. We have taken your paper eleven years and think we cannot get along without it. We have picked about 35 bushels of peas for market.

Yours truly, ELLA PADDOCK.

Wyoming Co., N. Y.

DEAR UNCLE MARK:—I wish to enroll my name upon your list of nieces. I am eleven years old, and have been the reader of the RURAL for a long time; I like very much to read the letters from the young cousins. I have been living in Kansas only about seven months, and like it very much. I expect to have a little garden next year, and would like to join your Horticultural Club. Hoping you will accept me, I will sign myself,

Allen Co., Kans. STELLA M. PRATT.

The Puzzler.

ENIGMA.

[THE following beautiful poem, by J. P. Johnston, author of "Galileo" and other poems, is a literary curiosity, and a very ingenious enigma. The name of a lady is here entwined in verse, as a sweet flower hidden in a garden. Who can find it? W. B. D.]

As, in some garden's most uncultured maze,
A lovely rose, with virgin sweets arrayed,
Which breathes a soft and tender perfume round,
Concealed the while from thy most prying gaze,
With eager quest when you at length have found,
You gladly pluck, nor leave it there to fade;
So I—too happy task—have here entwined
A sweet, rare blossom—a most blooming treasure—
A flow'ret, radiant with all light and pleasure,
And tend'rer beauty, though I fear 't will find
No recognition, since it lies enshrined
In my rude verse—a most entangling measure.
Then closely con it till the spell is known,
So deeply hidden, yet most clearly shown.

☞Answer in two weeks.

ACROSTICAL ENIGMA.

My first is in flower but not in seed,
My second's in plant but not in weed,
My third is in silver but not in brass,
My fourth is in something we spy through a glass;
My fifth dwelt in heaven ages ago,
My sixth comes in breezes that merrily blow,
My seventh's in the rivulet murmuring along,
My eighth in the plodder that lists to the song,
My ninth in the traveler, weary and sore,
My tenth's in the caller that knocks at your door.
My eleventh aids the lady that trips o'er the green,
My whole in the RURAL may weekly be seen.

☞Answer in two weeks. MARY W.

HIDDEN CHANNELS.

1. I dinna ken, Ned, you rascal.
2. I am well! In G tongues are salted.
3. The peacock burned to death.
4. Bah! a married flirt is disgusting.
5. I owe no man a cent.
6. Meg! rip open that seam.
7. His talent I crave.
8. That Riki rides well.
9. See the camel, Eda?

☞Answer in two weeks. LITTLE ONE.

PUZZLE.

THE first letters of what five months in the year form the name of a great hero in Mythology.

☞Answer in two weeks.

RURAL SPECIAL REPORTS.

(Continued from page 627.)

IOWA, Florence, Benton Co., Sept. 10.—Wheat was almost a failure here last year, owing to dry weather and the chinch bugs; it yielded only from five to six bushels per acre; but some pieces of Odessa wheat, sown last fall, yielded 30 bushels an acre. Oats and corn are very good crops, the latter is out of the way of frost now. Blount's Prolific has some stalks 11 feet high with four or five ears apiece, and I think it will ripen before frost hurts it. Beauty of Hebron and Early Rose were planted side by side; but the Beauty came up about ten days before the Rose and was growing ever so nicely, when, lo! a frost struck it out of sight, for some time at least, but I've managed to get half a peck of as nice potatoes as ever grew. The Acme tomato is the finest I ever cooked or ate in any shape. We have canned and ate all we wished, and now a bushel hangs ripe on the vines. My next neighbor took a pocketful home for seed; he says they beat anything in the tomato line he ever saw. The lettuce was good, but the beets were a failure. Only a part of the flower seeds came up. The weather has been dry and so are a great many of the wells. Some of our farmers have to go a mile or more to get water for their stock. Some of the sloughs that even "the oldest settler" never knew to have dried up, have done so now, and the fish in them have all perished. Farmers have plowed scarcely anything. A. E. S.

NEB., Purple Cane, Dodge Co., Sept. 4.—We are situated on the north side of the Platte River, which is four miles off. We have the bluffs close to our backs, and see those on the south side of the Platte, say seven miles distant. The intervening country is as flat as a pancake, and in the fall, after frost, of about the same color. Houses and barns surrounded with trees spot the bottom pretty thickly. This pancake upon which we live and move, etc., etc., can be seen 20 miles to the east and to the west. The purple bluffs bound it all round, and just now are saw-toothed with stacks of grain, which seem to shoot up daily, as if Nebraska were just cutting her eye teeth. Yonder to the left is a crowd of men, horses and red machinery, nearly enveloped and hidden in a cloud of golden dust, from which a humming sound enlivened by frequent shouts and cheers, shows that king Barleycorn is having his beard shorn. Just south on a stubble field is a three-horse team and an iron vehicle prancing around the edges, turning under all trash, weeds, etc., for next year's crop of wheat. Along the bank of the river are now in sight three trains of cars, *en route* for San Francisco. In the foreground is the RAWHIDE, not such a one as old-time schoolmasters used, but made of bona-fide water, mud, rushes, reeds, weeds and crookedness. This meanders along through the country and produces crops in abundance of frogs, mosquitoes, snakes, green-head flies, and gives shelter for innumerable blackbirds and brown cats, for we can see their tails sticking up straight out of the reeds all the summer and fall. There are also water hens, thunder pumpers, wolves, polecats, weasels and badgers, and rabbits more than sufficient. The middle of this Rawhide is cattail; then, going toward the banks, common reeds, slough grass, and, along the top of the low banks on each side, a belt of sunflowers. Ribbon gardening is done here on a large scales, as the Rawhide is about 40 miles long. This stream takes its name from an Indian tragedy of revenge enacted on its banks about 20 years ago, and is an enduring monument to the fact that our coppery brethren were the originals of the so-called "skinners," which are now an established order of society.

S. R. M.

TENN., Humboldt, Gibson Co., Sept. 2.—The RURAL NEW-YORKER of Aug. 30 is very interesting, particularly the Pomological Department. I am pleased to see the merits of the new, and also old varieties of fruits discussed. We should hold fast to all old and new varieties which are really good and valuable in every respect. Mr. W. C. Barry, speaking of the Alexander and Amsden peaches, says they were ripe with him this year by Aug. 8; with us they were ripe on June 8. Last year we had them ripe on the 28th of May. Now this makes just two months' difference in their time of ripening between Rochester, N. Y., and Humboldt, Tenn. Our Alexander was two or three days earlier in ripening than the Amsden, which was about all the difference we could see, and ten days ahead of the Beatrice. The Summer Rose apple is one of our best summer apples, and profitable. A few years ago we shipped several barrels of them to Louisville, Ky., when the market was crowded with peaches; yet about the middle of July we received six dollars per barrel containing three bushels apiece—a better price than we ever received for any other variety of winter or summer apples.

Crop prospects with us are unusually promising. We have an abundant rain for fall plowing and seeding. We have no yellow fever in our State outside of Memphis and its vicinity. B. F. T.

PERSONAL ITEMS.

De Lesseps has started, in Paris, a weekly newspaper to advocate his Panama canal.

The Countess of Tankerville, and her eldest son, Lord Bennett, are among the latest converts to the Church of Rome.

The first-born of the colored Senator from Mississippi was baptized in a Cleveland church the other day as Roscoe Conkling Bruce.

Monclar, an eminent French agriculturist, proposes to feed cattle, sheep, and pigs on provender containing savory herbs, to give flavor to the flesh.

Six misbehaving young men were taken from their beds by a mob at Wesley Chapel, Ind., tied to a fence in a row, and whipped almost to death.

Gen. MacDougall, commander of the British forces in Canada, is bitterly accused because he drove through a funeral procession with his four-in-hand.

Austin Buchard, uncle of President Hayes, an old and honored citizen of Windham county, died in Fayetteville, Vt., Monday afternoon, aged eighty years.

Prince Henry XX. of Reuss, having married Mlle. Clotilde Loiset, a German circus-rider, Prince Hatzfeld has espoused her sister, Mlle. Emilie, who followed the same profession.

The death is announced of Mr. Chapman the leading entomologist of Scotland, after a lingering illness, accelerated by the failure of the City of Glasgow Bank, of which he was a shareholder.

The Rev. J. S. Anderson's immorality resulted in his expulsion from a pastorate at Charles City, Iowa. He then opened an office as a physician, but the people would not tolerate him in any professional capacity, and a masked mob drove him out of town.

Queen Isabella does not mean to have the trouble with King Alfonso's second wife, which she had with the first. She has had an interview with the prospective bride and thus renders her verdict:—"What a charming girl! How happy I am that she is to be the wife of my son."

Colonel Thomas Scott has returned from his journey abroad a strong and well man. "I never felt in better health in my life," he said, as he stepped from the steamer. He obtained sufficient pledges of pecuniary assistance abroad, to assure the completion of the Texas Pacific railroad.

The Archduchess Christine, who will soon be Queen of Spain, is described by a German lady as having a tall and slender figure, a loveable face, blue eyes, dimpled cheeks, somewhat fair hair, small hands, almost like a child's, ditto feet, and a silvery voice. Altogether a very graceful figure.

A lady living near Little Britain, Pa., received a piano as a wedding present several years ago. She has no taste for music, but says it attracts the cows in to be milked, and the children pound upon the keys at the proper hour for that purpose. It has, accordingly, been placed in the spring house.

Elisha Grimes said in a prayer meeting at Little York, Ind., that he was wholly prepared to die. George Jones called him out of doors a few minutes afterward, and killed him with a knife. It is conjectured that Jones thought Grimes, professing readiness, might as well die at once, for no other motive has been discovered.

A mob broke into a jail at Pentonville, Neb., took out Barney Thomas, a horse thief, and started for a convenient tree to hang him on. It happened that a party of Barney's friends were lurking in the neighborhood, having made an ineffectual attempt to get him out of the prison. They fell upon the lynchers suddenly, rescued the prisoner, and escaped with him.

Martel Fearing was repeatedly visited, at Plain City, O., so he says, by the ghost of an old hunter, who declared that there was a valuable deposit of lead on the farm. Under the unearthly guidance, Fearing dug night after night to find the mineral; but the ghost did not direct any precaution against accident, and finally the shaft caved in, injuring the miner fatally.

Z. C. Cowley, an aged bachelor, of Wyoming, N. Y., advertised his desire "to correspond with a lady of suitable age, with a view to matrimony." Margaret Backus, 60 years old, a maiden inmate of the Rochester poorhouse, responded with a letter, in which she enclosed a photograph of herself taken ten years ago. The result was a meeting followed by a wedding.

John, second Duke of Montague, directed his tenants and dependents not to work or kill their disabled horses, but to send them to his fine park at Broughton, where anecdotes of his kindness are still told. He had a frightful dog, of which he made a great pet, because he said that no one else would be kind to anything so ugly. He was one of the first prominent apostles of kindness to brutes.

Brigham Young mixed the Mormon Church property with his own in a way that, in law, left it all at his death as one estate. The executors, who are Mormon dignitaries, undertook to separate the two equitably; but the heirs, consisting of the original and only lawful Mrs. Young and her children, have had a receiver appointed, and it looks as though they would finally get the entire amount.

When Gambetta drove to the great review in Paris, the officer who rode humbly at the door of his carriage in command of the escort was heir to the ancient Dukedom of Montmart. He may have Princes of the house of Bourbon in waiting on him a few years hence, when he is President of the Republic. The son of the Genoese grocer of Camors is going as far in France as the son of the Venetian Jew has gone in England.

Mark Twain sent the following reply to a request for a contribution to the battle-flag day expenses at Hartford:—Out of the poverty left on hand by an interminable European trip I very gladly put up the inclosed twenty-five dollars in furtherance of the good cause which you represent. There is nothing nobler than for religion to support patriotism, and nothing wiser than for both to uphold and encourage domestic economy—therefore I subtract this sum from the pew rent.

The Princess of Wales is described as never more radiant than of late, "not even on the morning, sixteen years ago, when in that jaunty hat and mauve poplin dress she stepped ashore at Gravesend, and afterward rode through London, taking triumphant possession of all our hearts." On a recent occasion she "looked almost as young and quite as charming in a costume of black and white striped silk, and it was easy to see how proud she is of her boys."

A little Hop Bitters saves big Doctor bills, long sickness, suffering and perhaps death.

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Various.

RURAL SPECIAL REPORTS.

NEB., York, York Co., Aug. 30.—We had a very wet season for this state through harvest, consequently there is considerable sprouted wheat. We have had splendid weather since harvest was over, and farmers are now busy thrashing out the golden grain which is turning out so light that it makes a good many look rather disheartened. Wheat is worth from 50 to 65 cents, an advance of freights having cut down the price five or six cents per bushel. A good many are sowing fall wheat this season, hoping thereby to get in ahead of the chinch bugs. The barley crop was nearly lost through the wet weather. Oats are a good crop. Corn promises an immense yield. Late potatoes suffered badly from the beetles. Timber grows very fast here; I have some Cotton-woods that have grown over six feet this season, and other timber shoots up proportionately. Wheat runs about 10 to 12 bushels per acre; oats 30 bushels. Hogs are worth $2 to $2.50. Some farmers have their plowing already done for next year's crop. GRANGER.

MO., Hermitage, Hickory Co., Sept. 4.—The Pearl Millet you sent me, was planted about May 1st; the dry weather coming on, many of the seeds did not grow, but what did come up, is "immense." Who said that it would not ripen? I left some eight or ten hills to ripen or grow rather, as I did not think it would ripen, and now I have almost enough ripe seeds to sow an acre, and if frost delays two weeks longer, I shall have a nice lot of seed. The Blount corn is good, but the cut-worms, squirrels and raccoons left me only about half. I presume they thought I was farming on shares, and they did not wait for an equitable division. M. N. N.

PAMPHLETS AND CATALOGUES.

"THE PARKS AND GARDENS OF PARIS." Second revised edition. This is a work that we heartily recommend to every lover of the horticultural. Its author is the founder and editor of the London "GARDEN," a weekly periodical, the best of its kind published anywhere. "The Parks and Gardens of Paris" is a large book of 550 pages, and illustrated with hundreds of original and beautiful engravings. The title is somewhat misleading to Americans. It is not at all confined to a mere description of the parks and gardens of the French capital as such; for the author points out all he has there seen that is worthy and all that is not worthy of imitation. This he does as only a practical, educated horticulturist of refined taste can do. His censures, approvals and praises are all alike sincere, and being guided by excellent judgment, do not fail to carry conviction with them. The book is full of instruction and one reads it from beginning to end, delighted that he is learning so much. The first nine chapters are given to the consideration of the chief parks and squares of Paris. Among the most interesting subjects treated of in the rest of the book, are those under the following headings: Trees for Cities; The Cemeteries of Paris; Winter Gardens; A Few Notes on Private Gardens; The School of Horticulture of Versailles; The Cordon System of Fruit Growing; The Paradise, Doucin and Crab Stocks; Some Notes on Fruit Gardens; Fig Culture in the Neighborhood of Paris; Fruit Culture; How are we to Improve? Implements and Appliances used in French Gardens; The Market-gardens of Paris; Asparagus Culture; Mushroom Culture in Caves under Paris; Flower, Fruit and Vegetable Markets, etc., etc. We wish that those of our countrymen who have to do with *our* parks and squares, could be induced to read this book from beginning to end. It is published by Macmillan & Co., of London, and the price is twenty-five shillings, or about $6.00.

GRAY'S Botanical Text-Book, Part I, Structural Botany. By Asa Gray, L.L.D., etc. Published by Ivison, Blakeman & Co., New York and Chicago. The first edition of this work was published in 1842, the fifth in 1857. Each edition has been in part re-written—the present entirely so. Dr. Gray's First Lessons in Botany are, as the title indicates, for beginners, while the present text-book is intended to thoroughly equip a botanist for the scientific prosecution of systematic botany and to furnish the needful preparation to those who proceed to the study of vegetable physiology and anatomy and to cryptogamic botany. This is the first of a series of four volumes in contemplation. The second (Vegetable Histology and Physiology) Dr. Gray has assigned to his colleague, Professor Goodale; the third (Introduction to Cryptogamous Botany), to Professor Farlow and the fourth (A Sketch of the Natural Orders of Phænogamous Plants and of their Special Morphology, Classification, Distribution, Products, etc.) Dr. Gray "hopes rather than expects himself to draw up." We hope that his hopes will be realized and that his expectations will be wholly disappointed.

Gray's botanical works and writings are models in their way, and they are so accepted wherever botany is studied and the English language is understood. He is possessed of the faculty in a remarkable degree of selecting the plainest and strongest words of the language to express his thoughts. Simplicity, brevity, yet fullness and cleanness are characteristic of everything that he writes.

A CRUMB OF COMFORT.

Jonathan.—"They *du* say we sent you this darn'd weather! Don't know 'bout that! Anyhow, I guess we'll send you the Corn!!

Farmer Bull.—"Thank'ee kindly, Jonathan, but I'd rather ha' done without both!!!"

WHAT OTHERS SAY.

CULTIVATING WHEAT IN ENGLAND.—Our readers well know that we have not favored what is called the new system of "cultivating" wheat, which for the last couple of years, in the Eastern part of our State, has caused some excitement among our farmers. In pursuing the "new" method it was fortified by the statement that it had been adopted by the best farmers in England to the exclusion of all others. In our reading we could not see that this statement was endorsed to any considerable extent, though some years ago it became somewhat practiced. The editor of the RURAL NEW-YORKER, wishing reliable information on the subject, wrote to Dr. J. B. Lawes, of Rothamsted, Eng., and received the following reply:

"No one here cultivates wheat, nor has thin seeding ever made much way. At the present moment the great bulk of the wheat grown in this country is drilled in rows about five inches apart, and the seed used is about two bushels per acre. It stands to reason that if one plant of wheat has possession of one or two square feet of soil, its power of growth must be increased; but except upon garden soil, or upon farms in excessively high condition, I feel sure that thin seeding will never be successful."

This would seem to settle the question, alike as it regards cultivating, thin sowing and drilling-in the crop. In England, where labor is cheap and a ready demand for every bushel of wheat that can be raised at good prices, they are quick at taking up every new idea that looks to an increased production at reduced cost; and this ought to cause American farmers to hesitate to adopt a system that has been tried and abandoned under circumstances so clearly condemnatory of it. — *Germantown Telegraph.*

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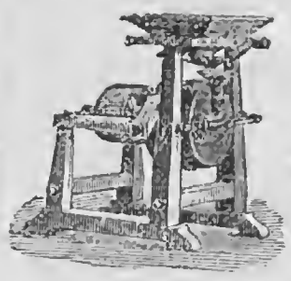

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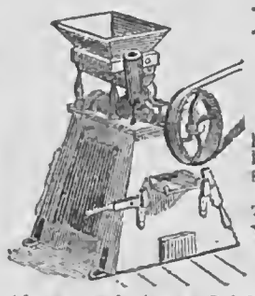

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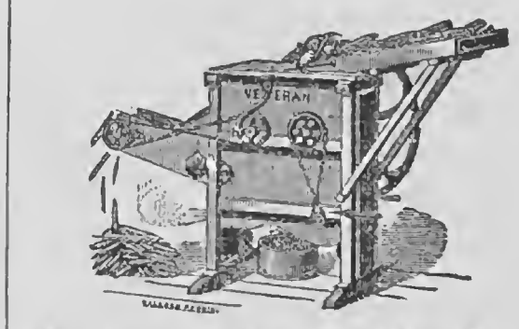

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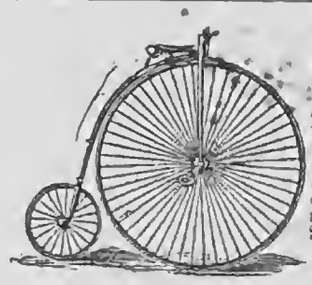

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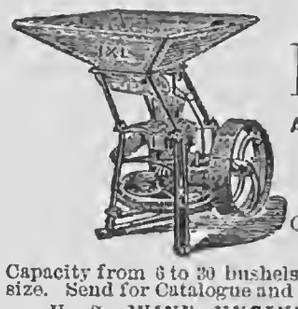

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THE RURAL NEW-YORKER

A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME.

VOL. XXXVIII. No. 40.
WHOLE No. 1549.

NEW YORK, OCT. 4, 1879.

PRICE FIVE CENTS.
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[Entered according to Act of Congress, in the year 1879, by the Rural Publishing Company, in the office of the Librarian of Congress at Washington. — Entered at the Post-Office at New York City, N. Y., as second-class matter.]

Arboricultural.

THE YELLOW WOOD.

(Cladrastis tinctoria.)

This is best known as Virgilia lutea, though Cladrastis—not Cladastris as it is often printed—is now its accepted botanical name. There are urgent reasons why especial attention should be called to this tree, the more at the present time as we approach the fall transplanting season. Let us at once hasten to remove the misconception that seems very generally to exist, that it is difficult to transplant. This seems entirely without any fact to support it. We once received a tree from Rochester, not less than four inches in diameter. During transportation, the branches and upper part of the main stem were so badly injured that it was necessary to cut it back to a mere stump four feet in hight. This was seven years ago. The tree is now the best of our four specimens, one of which—two inches in diameter—was ordered at the same time from a neighboring nursery and cut back as it is usual to prune transplanted trees. From our own experience, therefore, as well as from extended inquiry, we find that, in the place of being one of the most difficult, it is one of the easiest and safest trees to remove.

The Yellow Wood belongs to the Pulse or Leguminous family, like the Pea, Locust, Wistaria, Red-bud or Judas Tree, Kentucky Coffee Tree, etc., etc. It is found in Eastern Kentucky southward along the western base of the Alleghanies, though it is quite hardy in Rochester, and we know not how far North of it. Our engravings of the leaflets, flowers and fruit are from the specimen above referred to as having been received from Rochester seven years ago. It bloomed last June for the first time. The flowers, which are white, are sufficiently portrayed by the engraving. The petiole bears usually seven leaflets of an ovate shape, from two to six inches in length, the the terminal one being the largest and of a more orbicular shape than the others. The petiole itself is about eight inches long, slender, green and swollen at its base, so as to resemble a horse's foot, beneath which is the bud for the next season's growth. The tree may be called a fast grower. Our best specimen, planted, as we have said, seven years ago, is now thirteen feet high, with a proportionate spread in all directions. It is said that it has a tendency to grow faster on one side than on the others. We have observed this tendency, but it is one easily overcome. The bark is always smooth and clean and quite in keeping with the many and marked traits of this tree, which is, in our judgment, one of the most elegant known to ornamental grounds. Gracefully curving, especially in the early part of the season; sufficiently, but not densely foliaged, airy, shapely, though informal—as between the weeping trees that seem ostentatiously sorrowful, and the upright trees that seem pompously unbending, the Yellow Wood is the happy medium.

THE YELLOW WOOD.

SAMUEL PARSONS.

I confess to a very decided preference for the old liquid, musical name, Virgilia lutea, as botanically applied to the tree commonly called Yellow Wood. But the proper authorities have declared for the more difficult and rasping name, Cladrastis tinctoria, so we must even submit. Whatever may be said of the name, however, the Cladrastis tinctoria,. or Yellow Wood, is worthy of much praise for its many excellent qualities as an ornamental tree. Why it is not used more I cannot imagine. Unquestionably it has been widely known for at least 50 years, having been noticed by Michaux at the very beginning of this century. It abounds chiefly in Tennessee, associated with the Kentucky Coffee Tree, Red Mulberry, Walnut, etc. The wood is, of course, of a deep yellow color, whence the name. In branching, leafage and flowers, our specimen is simply admirable, and it is only a fair example of a Yellow Wood of its age grown under tolerably favorable circumstances. The smooth and slightly wrinkled, light-colored bark swathes the rounded growth of trunk and wide-spreading branches in a way that makes one think of some agile, clean-limbed animal. It is literally a tough, brittle-wooded tree, of very eccentric growth, picturesque in both trunk and branches. The leaves are those of a leguminous plant, light-green, small and by no means thick, but growing rather on the outer parts of the branches. As the light falls on it at times, we might think it a round-headed, large-leaved Locust, were not the branches and trunk so distinctly characteristic.

The crowning beauty, however, of the Yellow Wood is its flowers, which, unfortunately, do not come every year by any means. But they do not need to be scarce to render them precious, for their beauty is an all-sufficient recommendation. Seen under favorable lights during June, these blooms, hanging in loose trusses, white and Wistaria-like, are worthy rivals and mates for either the Laburnum or Wistaria. Their effect is also much enhanced by the peculiar light foliage and rounded formation of the tree.

Indeed, I am confident that if people would only seek out and realize the beauty of the Yellow Wood, it would require but a few years to secure well-developed specimens on numerous lawns; whereas now it is a rarity and wonder wherever seen in positive excellence.

FRUIT OF YELLOW WOOD.—REDUCED HALF.

(SEE PAGE 639 FOR FLOWER AND LEAF.)

THE INFLUENCE OF FORESTS ON CLIMATE.

PROFESSOR LEVI STOCKBRIDGE.

In quite recent times, books, periodicals, associations and National and State governments have been calling public attention to the very rapid decrease of our forest area and the consequent climatic effects. The discussion of the subject thus far has not served to educate our people in relation to the true and full meteorological influence of this decrease; but it has served to create the quite general belief that extensive forest tracts have an effective power in increasing the rainfall in their vicinity, and, to some extent, has stimulated to the planting and protection of them for this purpose. Yet it is more than doubtful if they have any such influence.

Primitive New England and New York were described as being a country of "boundless and interminable forest;" but to-day they are so stript of this leafy covering that the fuel and timber to supply the imperative wants of the people, must be imported from Canada or the Gulf States. And yet, had an early record been kept, it would undoubtedly have shown that the rainfall on this territory was no greater in the ten years between 1669 and 1679 than between 1869 and 1879. It is an evident fact, that in relation to forests increasing rainfall, or that, by their planting and growth, a rainless can be changed to a rainy country, error has been inculcated, and this a few considerations will prove.

Forests do not make or impart to a country its general or controlling climatic conditions. These, as a law, are the result of its peculiar location in relation to large bodies of water and their currents, and the great wind currents which ceaselessly circle around the globe in but slightly deviating courses. These currents of the ocean and the air, which are not materially affected by the topography of the land, carry heat and moisture, and, importing them beneath their regular and fixed track, make one region a perpetual desert and another rich and beautiful with the numberless forms of plant growth. In determining the kind, quality and quantity of the products of the different countries of the earth, meteorological influences are superior to those of the soil, and in all these respects forests themselves are the result, and not the cause, of existing climatic conditions. The most dense and magnificent forest growths of the world are found where the air currents direct from the ocean in tropic climes, and loaded with moisture, precipitate it most copiously; and they are the most scant, or entirely wanting, where they are made comparatively dry by passing over hot deserts or lofty mountain ranges. But again, if the rainless regions of the earth are made such because the air currents which move over them in unvarying tracks, are nearly destitute of watery vapor, it is impossible that forests should influence them to give forth rain, which they do not contain, or so change those currents as to bring to them the moist rather than the dry air.

But though forests cannot permanently increase the amount of the rainfall of any section or in this respect produce any radical change in its condition, yet public attention should be so awakened to their importance in other directions, as to cause their protection and planting on a grand scale wherever the rainfall is sufficient to maintain them in the permanent occupancy of the lands. Their first great value is a pecuniary one. Though slow of growth, forests are a soil crop, and should be harvested when ripe, as much as wheat or grass. And if all the land in the New England and Middle States which nature seems to have designed for that purpose—because it is of little value for anything else—were growing wood and timber, it would be but few years before the annual cutting from it would have a value of many hundreds of millions of dollars without lessening its area. In Massachusetts at the present time, notwithstanding its rocky hills have been so generally bereft of their forest growth, the annual value of the harvested crop is more than ten millions of dollars, and the area growing wood is now continually and largely increasing. Forests on mountains and their foot-hills, have a local influence on climate, of great value if the range is interspersed with valleys and slopes occupied for farm purposes. Cold air at rest can be easily endured; but during the fall, winter and spring months the fierce winds of New England tax the utmost endurance of an iron constitution, and have a withering effect on ani-

mals and plants exposed to their full rage. Against these winds, forests thus located act as a screen or shelter for farms and homesteads, checking the force of the blast, breaking its direct current and thus practically elevating its temperature to a point at which it is not injurious.

In extensive forest tracts, both the soil and the air, are warmer in winter and cooler in summer than the soil and the air of the open country. Therefore when the country is varied by field and forest, great extremes of temperature are ameliorated. In winter, the forest warms the frigid air of the open country, making it more tolerable, and in summer it tones down the torrid heat, and acting as a condenser, lessens the loss of soil water by evaporation. Forest soil has a covering of leaf mold many inches or feet in thickness, which acts as a mulch to prevent freezing and evaporation, and is capable of absorbing and holding more than its own weight of water. In cold weather when the earth is not covered with snow, the bare fields are frozen to a great depth, but forest lands little if any. On hills and inclines of the open fields, a large proportion of the rain water, at all times runs from the surface to the streams in the valleys, but this is especially true in winter; then the frozen ground in a hilly country is like the roof of a many-pinnacled house. The falling rain passes immediately to the gutters, or valleys, and increasing its volume by additions from every eminence and gulch, rushes onward to the lower levels a devastating flood, but leaving the lands from which it came so dry that vegetation in summer is soon parched. In the forest, however, the soil, summer and winter, is open and porous. This condition and the mold retain the water of great rains and prevent a large proportion of the surface-wash, allowing it to percolate gradually to the source of the springs. This retardation of the water of excessive rains and melting snow in its course to the valley outlets, and its gradual drainage therefrom, make the springs, brooks, and rivulets among the hills perennial, instead of being, at times, rushing torrents, and again dry water-courses.

In these ways, forests though they do not create certain climatic conditions, serve a most important end in regulating and equalizing them. Efforts should therefore be continued to preserve the wood-lands we now have, and to increase their area by planting. In this connection, several important questions arise, such as: what lands should be planted to forest; what kinds of trees should be planted; and the part the Government should take in the work; but time now forbids their discussion.

Agricultural College, Amherst, Mass.

Floricultural.

FLOWERS FOR A SMALL GARDEN.

JAMES TAPLIN.

These few notes are intended for the unprofessional readers who require a few flowers during the hot months, both as ornaments to the garden, and also to afford a few cut flowers for a friend. We usually see quite a number of flowering shrubs, Pæonies, and other hardy plants, which make the garden gay in the early part of the summer, but after July there is too often a scarcity of flowers; this is not to be wondered at with the professional florist, there being but little demand for flowers at that season, the buyers of flowers being then at the watering places and other hot-weather resorts. Many lovers of flowers, with limited incomes, live in the country during that season, and should have a good display of flowers at that time with very little trouble and at small cost.

There are but few autumn flowering shrubs, but one of the best is the Hydrangea paniculata. This plant, unlike most of the genus, is perfectly hardy and a fast grower. We have a plant, not more than five years old, with over two hundred large panicles of bloom. It will grow in any garden soil, but should be planted in a moist place, or receive abundance of water when in flower. It commences to flower early in July, and the flowers last into autumn, and then make a welcome addition to the collection of dried Ferns and grasses, and are also among the most charming flowers to skeletonize.

I have no doubt most RURAL readers keep a few Geraniums and other tender plants through the winter, and also buy a few Coleuses and other things for garden decoration; but, although these plants are showy and make a good display, they are of little use for cut flowers. A few Heliotropes are useful, but few manage to winter them successfully, without a greenhouse; but the plants are so cheap, and grow so fast that two or three will give cut flowers until frost. A few seeds of the fine varieties of German Stocks and Asters are excellent for both decoration and cut flowers; Double Zinnias, also, and Dahlias are showy, and the roots can be kept in the cellar with potatoes and Cannas. A pinch of Mignonette and annual Candytuft are nice, and the Drummond Phlox will flower all the season. I am glad to see the Gladiolus planted in more small gardens than formerly, but many of the varieties are very poor. This should not continue, as good mixed varieties can be bought for a few cents each. By making several plantings at intervals of two or three weeks, these may be had in flower from June to October.

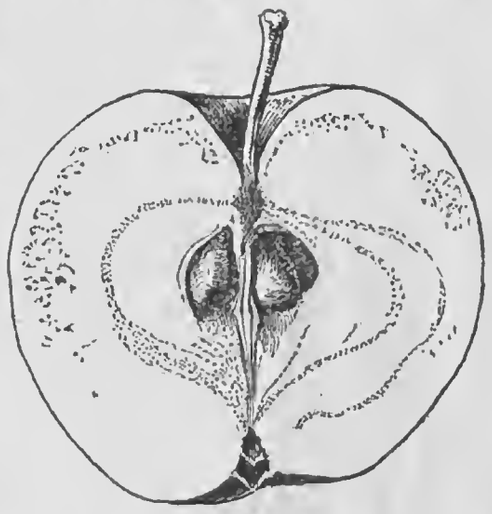
The Japan Lilies are also very showy and quite hardy. These bulbs should be planted in the fall, and not less than six inches deep. A plant of the Pampas Grass is very ornamental on a lawn but it requires protection in winter, which is easily given it by means of some hay or leaves. Monthly Roses will give flowers all the season, if planted in rich ground, well-watered and kept free from insects and mildew; of course, they require a little protection in winter, but the killing of a portion of the top does little harm, if the bottom is safe. The so-called hybrid perpetual Roses of the European grower seldom flower oftener than once in the season in this climate, but the plants are quite hardy if on their own roots. The grafted plants are of little use, the stock not being suitable for this climate. I have wondered that some one has not tried grafting on the Prairie Queen class of Rose.

Maywood, N. J.

Pomological.

PRINGLE'S SWEET SIBERIAN.

The name of Cyrus G. Pringle, of Charlotte, Vt., has become pretty well known to the farmers and horticulturists of this country, and even abroad, by his contributions to the list of new and valuable varieties of garden and field plants. His Snowflake, Alpha and Ruby potatoes; his Conqueror and Little Gem tomatoes; his Champlain and Defiance wheats, have been widely disseminated and generally approved. But while in these easier, or at least more rapid, lines of improvement this skillful and patient hybridist has made a strong mark, it is probable that the future has in store for him still greater successes. His experiments with grapes have resulted in the production of several varieties of decided merit, which are now undergoing the severe test of general trial. His endeavors to improve the apple, with the special aim of developing hardiness adequate to the endurance of the severe climate of the northern portions of his own State, promise valuable results. He was stimulated to these latter experiments many years ago by the complaints of the writer regarding the difficulty of finding any kind of apples except those of Siberian origin, that were hardy in northern Vermont. Mr. Pringle, in reply to my remarks that he would be a very polite man who would accept for eating a second Siberian apple, said he thought he had a Siberian that even I would eat, not only a second but a hatful of, if I were hungry. I said I should be indeed glad to see and try such an apple, and the following September he sent me a box of the fruit illustrated here as "Pringle's Sweet Siberian." Subsequently he sent me cions from the tree, and I now have a number of trees, 10 years old from the root-graft, which have been bearing profusely for the last three years.



PRINGLE'S SWEET SIBERIAN.

The Pringle Sweet was a chance seedling, an accidental hybrid, which came up in Mr. Pringle's garden, and is regarded as probably a cross between the Siberian Crab and the Northern Sweet. The original tree had recently come to bearing at the time of the above-noted conversation, and the goodness of the fruit set Mr. Pringle upon the track of crossing the Siberian Crab with pollen from our best and hardiest apples. The results are not yet, of course, thoroughly worked out, but I have confidence that they will be far from abortive.

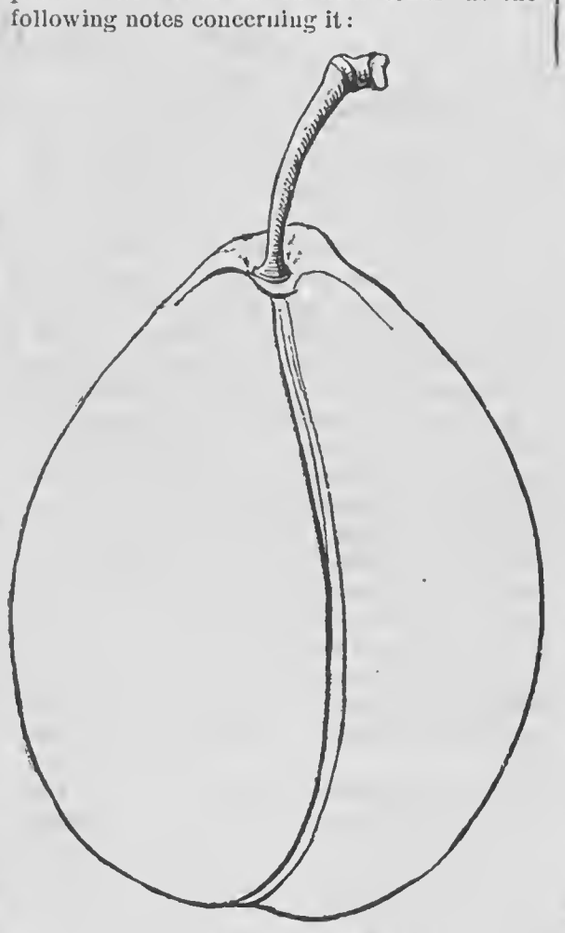
In size Pringle's Sweet is below the medium, but runs very even, few specimens being less than six inches and few more than seven inches in circumference. In color it is a deep, russetty yellow, with bright crimson splashes on the sunny side. The season is early September. Flesh, yellow; core, small; flavor, a rich sweet, with no astringency when fully ripe. Tree, a remarkably thrifty, upright grower, extremely productive in alternate seasons, and as hardy as any Siberian Crab. In this latter particular it is much superior to Van Wyck's Sweet, which, though also of Siberian parentage, is not sufficiently hardy for the severest localities. In fact, the Pringle is the only sweet apple of its season that I have found entirely hardy and at the same time of fair size and good quality. Though small, its excellence, especially as a baking apple, causes it to be highly valued in my family, where hardly less than a peck a day is baked for the table as long as the supply lasts.

T. H. HOSKINS.

Orleans Co., Vt.

A LARGE PLUM.

The accompanying cut was made from a plum sent us by G. H. and J. H. Hale, of South Glastonbury, Conn. The fruit is uncommonly large, and it seems to be a distinct variety, as it has not as yet been identified with any other plum. The above-named firm sends us the following notes concerning it:



A NEW (?) PLUM.

"This fruit has attracted a good deal of attention during the past few years. The fruit sent you, is of about the average size for this year, but much smaller than the average last year, when the largest specimen was 4¾ by 2¾ inches in diameter. The history of the tree is as follows: About ten years ago it was purchased from Rochester, N. Y., with a lot of other trees, as a Pond Seedling; but on coming into fruiting, the fruit was found to be much larger and darker than those of that variety. At the meeting of the American Pomological Society in Baltimore, in 1877, we compared it with some fifty varieties exhibited there, but could find nothing in any way like it. We called it a Pond Seedling, but all the experts there said it did not belong to that variety, but they could not tell what it was. A prominent pomologist thinks it might be a possible instance of a bud variation, a single bud upon a Pond Seedling having sported, as it is no more strange that a single bud upon a tree should sport, in the way of bearing enormous fruit, than it is that a peach bud should sport to produce a Nectarine or the reverse, both having occurred. We have been testing it by budding on other trees, and have one of them in bearing this year and it produces the same fruit as the original tree. We have saved the fruit from the curculio this year, by covering the whole tree with a large hood made of mosquito netting, which does very well for a single tree; but for a whole orchard we think the jarring process the best and certainly the least expensive."

INFLUENCE OF STOCK ON GRAFT.

The article in the RURAL of August 16, by S. B. Peck, on "The Influence of the Stock upon the Graft," was read by me with much interest. Some 25 years ago, I wrote a brief article upon the subject, which was published in the Transactions of N. Y. State Agricultural Society, but it is only within two or three years that I have seen the subject noticed by others. I think, as I wrote in that article in the Transactions, that the Gilliflower Apple is as sensitive to the influence of the stock as any there is, and I would suggest that Mr. Tyler, mentioned by Mr. Peck as experimenting, try cions from a good and juicy Gilliflower in a juicy sour stock, and also in a dry, sweet stock, cut cions from these grafts and regraft on the same tree for two or three years in succession; also cross-graft from one to the other; then, as they begin to fruit, submit them to experts and let them observe the difference.

Conventions discuss regarding the flavors and qualities of apples with much zest, but do they ever think how much the specimens they are discussing may have been improved or deteriorated from the influence of the stocks in which the grafts were set? In many cases the disputants are like the two knights who saw different sides of the same shield.

I am very glad that this subject is attracting attention and that discussion is being had, and think some experiments may be made, which will restore many old favorites to their former popularity.

E. J. HULING.

Field Crops.

WHEAT IN ILLINOIS.

W. B. DERRICK.

The Winter Wheat Crop

of Illinois for 1879, is the largest and best ever produced in the State. According to the report of the State Department of Agriculture, the acreage of winter wheat was 2,440,809. This was exceeded by the wheat acreage of 1863, '67, '68, '69, '74 and '75; but the total yield, 45,417,661 bushels, is the greatest, being over eleven million bushels more than in any preceding year. The value of the present crop, nearly forty millions of dollars, at the low average price of 87c. per bushel, August 1, will not return the producer as large a number of dollars as the crops of 1864, '66 and '67, but as our money has appreciated in value, and will purchase more goods of all descriptions than during the times of general high prices, the Illinois farmers will derive more benefit from their present winter wheat crop than from any preceding one.

The Average Yield Per Acre

is given in two estimates, one of 18¾ bushels, and the other of 19⅜ bushels per acre, for the State from the general averages of all the different counties. The yield varied considerably in different parts of the State, the average in some counties being much higher than in others. In Ogle county, the average yield is 25 bushels, and in Stephenson county, which joins Ogle on the north, and is one of the extreme northern counties of the State, the average is 24 bushels per acre. These estimates are as nearly correct as is possible, as the actual yield on thrashing the crop demonstrates. In this locality the acreage was not large; as until the last three years, winter wheat has not done well here—this being the spring wheat region. The present average yield throughout the State is the largest on record, and is especially large in the northern counties. Secretary Fisher, in his August report of the State Department of Agriculture, says:—"The extra care in seeding last fall has amply repaid the grower for the additional expense and labor in the largely increased yield reported in such cases. The exceptionally large average yields reported generally, consist of new varieties of wheat recently introduced." There is a lesson in this worth remembering in the East as well as in the fertile West, that extra care in seeding will bring an increased reward.

The Varieties of Wheat

that produced the best in this section the past season, are the Fultz and Tappahannock. The Clawson was also grown to a limited extent and proved satisfactory, and the Silver Chaff was again tried, but it blighted somewhat and will not be largely sown here this fall, but enough will be put in to give it another trial. I trust the objections raised against the Fultz and Clawson wheats by some of the Eastern millers will finally be overcome by the improvement of the quality of the wheat through cultivation, or some improvement in the mills for the manufacture of flour, which will save these productive varieties from being discarded.

Winter Wheat Seeding

is now mostly finished in this section. Some commenced sowing the last week of August, and that which was first sown is up and looks well. A large amount has been sown among the standing corn, and cultivated in with a one-horse cultivator or drill, between the rows of corn. As the corn is never—or "hardly ever"—cut off here, as in the East, but is husked from the stalk, the standing stalks prevent the snow from blowing off in winter, and the wheat is thus protected. There is a large increase here in the acreage of winter wheat this fall, and if the crop again proves successful, it will take the place of most of the spring wheat hereafter.

Spring Wheat in Illinois.

The report of the State Department of Agriculture says: "The acreage of spring wheat (303,736) is but little in excess of that of the previous year (302,048). The average yield per acre (11 bushels) of spring wheat, is much below that of winter wheat (19⅜ bushels). The drought during the growing season, and the injury in many localities by chinch bugs, have reduced the yield much below that of a good average. The quality is good in counties where the crop was not injured by chinch bugs and unfavorable weather. The spring wheat crop of 1878 was 3,870,251 bushels; the

present crop is 3,376,400, a decrease of nearly half a million bushels (493,842). The 1878 crop was valued at $3,189,203, while that of the present year is valued at $2,663,882, a decrease in one year of over half a million dollars (525,321)" Thrashing began as soon as the harvest closed, and as the weather has been favorable, most of the grain is now thrashed and has been secured in fine condition.

Ogle Co., Ill.

THE BEAUTY OF HEBRON POTATO.—Owing to favorable reports read in the RURAL during the season of 1878, I concluded to plant a barrel of this variety of potato last spring. I selected a clover sod plowed about nine inches deep, gave it a good covering of barnyard manure, and harrowed it in—soil, a gravelly loam. The potatoes, cut to one and two eyes, were planted on April 15th, in hills three feet apart, two pieces to the hill. At the same time I planted in the same field Early Rose potatoes of medium size, cut lengthwise, two pieces to the hill. Thorough cultivation and two hoeings were given to both and the weeds were pulled late in the season. Results—the Beauty came up three days before the Rose with stalks strong and vigorous. The tops died and the tubers matured at least ten days before those of the Rose, while the yield from ninety-eight hills of each was about a peck more of Beauties than of Roses. The tubers, too, were larger, smoother, and more salable. I am offered 45 cents per bushel for the Rose and $1 per bushel for the Beauty.

Walden, N. Y. RURALIST.

Farm Topics.

WHAT OTHERS SAY.

Common Roads.

Professor R. C. Carpenter, of the Michigan Agricultural College, has lately published an address delivered by him at a Farmers' Institute, on the Transportation of Agricultural Products, from which the following timely extract seems worthy of weighty consideration.

THE common roads have never been used in competition with the railroads since the railroad system has been fairly established. The capabilities of railroads are so much greater than those of common roads that since Stephenson perfected the railroad system, and showed practically what might be expected from it, little attention has been paid to the improvement of the common roads. While it is certainly true that it will not pay to invest a great sum in the improvement of common roads, it is equally certain that it will pay to improve them to a much greater extent than has been done in the past.

The following table shows the average draught over different kinds of roads, from experiments by Sir John Macneill; also the load for a team over each road, deduced on the supposition that an average horse "can exert a steady pull of one hundred pounds, at a speed of 2½ miles an hour for ten hours each day." In the table the net load is assumed as two-thirds the gross load, but in practice it will be found less more often than greater. The cost is also given on the assumption that wages of man with team and wagon are $2.50 per day; which furnishes a means of comparison of the different roads, but except in a few cases, it will not give the exact cost of transportation.

KIND OF ROAD.	Level Road—Proportion that resistance bears to whole load.	Load for two Horses. Net Load.—Two-thirds of Gross Load. Gross Load in Tons.	Net Load.—Two-thirds of Gross Load. Tons.	Net Load.—Two-thirds of Gross Load. Bushels.	Cost per Mile, Assuming Cost of Wagon, Team, and Driver $2.50 per Day.—Distance 25 Miles. Each Ton.	Cost per Mile, Assuming Cost of Wagon, Team, and Driver $2.50 per Day.—Distance 25 Miles. Each Bushel.	Maxmium Distance Wheat worth $1 per Bushel can be drawn.—Miles.
Smooth stone pavement	1-68	6.8	4.52	151	.024	.0007	1,430
Broken stone road on rock foundation	1-49	4.9	3.27	109	.031	.0009	1,111
Broken stone road on earth foundation	1-34	3.4	2.28	76	.044	.0013	770
Gravel road	1-15	1.5	1.00	33	.100	.0030	333
Good earth road	1-11	1.1	0.73	25	.137	.0041	244
Common sandy road	1-7	0.7	0.47	16	.213	.0064	172

The cost of these roads can not even be approximately given, as cost of grading, turnpiking, and putting on the road covering differs so much in various localities. The cost of maintaining is somewhat in proportion to the traffic or tonnage.

The least cost of a gravel road containing 3520 cubic yards of gravel per mile, under the most favorable conditions, will probably be not less than $800 per mile, $400 of which should

FLOWER OF YELLOW WOOD.—SEE FIRST PAGE FOR FRUIT.

be expended in each of the first two years. Under some conditions the cost will amount to four to six times this amount. If the road is well made, the cost of annual repairs will be small; say for the next eight years $50 per mile, that is, a man and team at work constantly would keep in repair fifteen miles. This would give us an average annual cost during the first ten years, for a good gravel road, of $120 to $520 for each mile. For a second term of ten years its cost per mile would be less. A broken stone road would give an average cost of probably twice this amount for the first ten years, whereas, for the second term of ten years its cost would probably be less than that of a gravel road. These figures would indicate a greater economy in a gravel road than is usually supposed. To illustrate this we will take an example which is certainly not unreasonable. Suppose that after a road is improved, 20 loaded teams per day pass over it, carrying per team a load of 33 bushels of wheat or its equivalent, at a speed of 2½ miles per hour. The traffic over the road would amount to 660 bushels per day, and its cost of transportation would amount to $1.98 per mile (see table) per day. To have carried the same amount over our ordinary country roads would have cost $4 22 per mile per day. So that the improved road gives a saving of $2.24 per mile for each day. If we suppose that this traffic is maintained for 300 days in the year, the saving will be $672 per year per mile, and this will probably not be too high an estimate, for when the common roads are much affected by bad weather in spring and fall, the traffic over the improved road will probably be increased to an extent sufficient to make up deficiencies in the traffic that may occur in the winter season, at which time the cost of transportation is about the same over common and improved roads. If the average cost of gravel roads be taken as $250 to $400 per year for each mile, the saving

LEAVES OF YELLOW WOOD—REDUCED HALF.

with the small traffic specified, viz.:—two teams each hour—is enough to pay the cost and a good interest (50 to 100 per cent.) on the investment. Such considerations as these tend to show that time spent in improving the roads, is not entirely thrown away. These figures would also seem to indicate that we are paying in extra cost of transportation over poor roads, a tax which would do much toward building good ones: A poor road is a toll collector that needs no gates to exact its dues. All who pass over it must pay in diminished loads and extra time a tax proportional to its wretchedness. If the general public could be made to feel that waste of time and waste of money are equivalents, and that extra time spent in traveling over the road could profitably be employed at home, some steps would be taken that would lead to an actual improvement in the condition of our common roads.

Farm Economy.

HISTORY OF A POOR FARM.—No. 17.

Growing and Feeding Fodder Corn.

It was in July that we began cutting green sweet corn for fodder. Early Minnesota and Narragansett, planted for ears for market, were ready to pick then, and as the ears were picked the stalks were cut and fed. The late oats were nearly finished and oats and corn were fed alternately. The milk increased a few days after the corn was fed, and has kept up in quantity very well until now (Sept. 20), when the late planting (there is one yet later, planted July 22) is being cut. This is six or seven feet tall and quite fresh and green, having just come into tassel. The cows are gaining a little on this fodder, which is Blount's Prolific corn, and which grows rapidly and is very succulent and heavy—a small bundle weighs 30 pounds, and three of these form a day's ration.

"Do you weigh your fodder every day?" asked Mr. Martin, to whom I had just read over what I had written.

"That is not necessary. Fred can put you up a bundle that weighs within a pound of that, every time you ask him," I replied.

"Fred always was a good figurer," remarked my old neighbor, "and could guess the weight of a load of hay or a fat pig better than any of us."

"That comes of close observation," I remarked. "When a man weighs a load of hay, or a dressed pig, or a bundle of stalks, it is very easy to carry the memory of it in his mind to help in a future judgment."

"Some can do that and some cannot," remarked Mr. Martin; "if a habit of doing it is once formed it is easy; otherwise not. Nine out of ten of our neighbors here cannot tell you the size of any one of their fields, or how much seed they sow per acre, or how many bushels they have reaped on any one occasion in their lives. It is all a matter of total ignorance of everything. No accounts kept, and no accurate knowledge of anything whatever."

"Well, we don't do in that way here," I rejoined; "we know precisely what we are doing in every particular. The fodder is cut and tied in bundles, as it is cut, with bands of tarred twine. The bundles are loaded onto a wagon, and a day's supply is brought in at once every morning. One day's feeding is always kept ahead in the barn, so that the fodder is wilted before it is used, and in rainy weather wet fodder is not given. In the morning it is cut and fed with the meal; at noon it is given whole, and in the evening it is cut and mixed with meal. Each cow gets a bundle, on the average; some eat less and some more; what is left in the troughs is wheeled out to the pigs. Fred has been measuring the yield to-day. We use 69 bundles, or about 2,000 pounds, daily, and it took very nearly 400 feet of row to yield the 2,000 pounds. The rows are three feet apart, which gives 14,520 feet of row to the acre; at five pounds to the foot of row, this gives about 36 tons to the acre. I don't know of any other green crop that gives a better yield for the same cost.

"How long does an acre feed your 23 cows?" asked the old gentleman.

"That is easily figured up. If we use one ton a day, 36 tons will last the 23 cows over a month. This is the best we have done so far, but a field of eight acres which is now being cut for winter fodder, also planted with Blount's corn, is 10 feet high and so thick that it is impossible to crawl through it across the rows. Being so thickly planted in the row, the stalks are not much more than an inch thick, but the rows being three feet apart, the fodder is green to the bottom, and there are many half-grown ears."

"I should say that fodder corn is as good as any root crop," remarked Mr. Martin, "It costs less to grow, and is more certain. Roots this year are a poor crop, and will cost a good deal more than corn."

"Weight or bulk is not the criterion by which we should judge of the value of any crop," said Dr. Jones. "The feeding value depends on the character of the fodder and its nutritious constituents; and in some degree on its digestibility. A recent analysis of fodder

corn made at the Connecticut Experiment station, gave the following

Water	85.7	per cent.
Ash	1.23	" "
Albuminoids	1.20	" "
Crude fiber	4.95	" "
Carbohydrates	6.73	" "
Fat	18	" "
	99,36	

Sugar beets contain the following, according to the tables of Professor Wolff.

Water	81.5	" "
Ash	8	" "
Albuminoids	1.0	" "
Carbohydrates	15.4	" "
Crude fiber	1.3	" "
	100,00	

Now a ton of sugar beets has more than twice the feeding value of the same weight of fodder corn, and a still greater advantage is that the roots may be kept fresh and succulent during the winter, while the fodder corn cannot, and loses in digestibility very much in the curing. I think fodder corn is by no means as valuable as even the poorer roots, mangels and turnips, for instance, or even cabbage."

"Corn fodder is more easily handled," remarked the old gentleman, "and any one can grow it, but few can grow roots. They are a difficult crop to grow."

"Roots, especially sugar beets, will not be a popular crop at present," remarked Mr. Martin; "our system of farming is too rough and slipshod for them to be very profitable. They require the highest kind of farming, and although they may in fact be worth more per ton, ten tons of corn fodder can be grown as easily as one ton of beets, with our average farming. There are many crops of turnips grown about here which will not make 200 bushels per acre, that is, about six tons. This crop of fodder corn will weigh six times as much while green, and quite as much when dried. Now which is the most profitable? 'You cannot make a silk purse out of a pig's ear,' and you cannot make a good crop of roots out of a poorly-farmed field, and before you talk of feeding crops, you must grow them."

The Poultry Yard.

THE BEST BREED FOR AMATEURS.

A. M. HALSTED.

What is an Amateur?

first of all, or rather who are amateurs? Those who raise poultry for eggs and flesh to supply their own tables only? or those who breed poultry as a hobby and amusement to develop some specially fine points; who compete for prizes at some of the exhibitions, but who sell no fowls, except occasionally a pair or trio which are "too fine to kill," and yet not needed in the breeding pen?

Both of these classes are amateurs, yet each looks at his fowls in an entirely different light. One takes a culinary view of them and makes all his selections of breeding stock to that end. The birds that produce the most eggs, that are earliest fit for the table, and that are hardy and best able to take care of themselves, are his choice. The other makes these qualities a secondary consideration, his ambition being to produce something to excel his friends in beauty, in breeding qualities and in size—if in the Asiatic, largeness; if in the Bantam, smallness.

The readers of the RURAL will doubtless be largely of the first class of amateurs, and to them I will address this article, leaving the consideration of the second point for another communication. But even in the consideration of this half of the subject it will be necessary to sub-divide it again, for one person may be, and frequently is so situated that he can keep a few

FOWLS FOR THEIR EGGS,

but cannot raise any chickens. To such an amateur I should recommend some of the non-sitting breeds: either Hamburghs, Houdans and Spanish or Leghorns: *which*, will depend upon his fancy and the suitability of his location. If his poultry yard is on low, damp ground, and exposed to cold storms, he does not want the Hamburghs, for they are too subject to roup when exposed to such conditions. If living in the far north where the winters are intensely cold, neither Spanish nor Hamburgs will be found profitable; they are too tender—good summer layers, but very poor in extremely cold weather and while molting. If located in mountainous localities where hawks abound, the Houdans should be his last choice, for their overhanging crests completely hide from view the approach of any enemy from above; and if the crests are very large, from any direction. If situated where the fences are low, and the flower or vegetable garden is close at hand, neither the Hamburghs nor Leghorns will shirk their share of "garden work," unless their wings are clipped. In such a spot, other things being favorable, the Houdans or one of the Polish varieties will cause least trouble, and, next to them, the Spanish. Of the four above-named breeds, the greatest yearly production of eggs will be, first, from the Leghorns; second, the Hamburghs; third, the Houdans, and, fourth, the Spanish. In table qualities I would place the Houdans first, with the Leghorns second, and Hamburghs third. Of the Leghorns, my preference is the Brown, as being more hardy, larger-bodied, of earlier maturity, equally good layers, and better for table.

The next thing to consider is the kind best adapted to the wants of the amateur who wishes

Fowls for both Eggs and Meat.

My experience with the Plymouth Rocks has been of only two years' duration, and if it continues as it has begun, I should place them among the first in this class, as they are with me good layers, mature early, good broilers, and large-bodied when full-grown. Next I should place the Dark Brahmas with the Light Brahmas third, the difference in favor of the Darks being in their better laying qualities and their more plump condition as broilers. The Light variety, however, are the largest at maturity. With both varieties of Brahmas, there is one drawback, the hens are so large that in sitting they are very apt to break the eggs, and when they tread on a young chicken, which, being so clumsy, they will frequently do, the little thing is usually crushed out of all semblance of life.

For the same reason, and for their persistence as sitters, I reject the Cochins.

Next to the Brahmas, I place the Dorkings, and of them, first the colored variety. Large, plump bodies of the very highest quality of flesh, of fair earliness in maturing, and of good but not extra laying qualities, they have been for many years the type of excellence in the English markets. In France the Houdan takes the same rank for quality as the Dorking does in England. But although a far better layer, it is a non-sitter and necessitates the keeping of some common fowls as sitters. If this were allowable in a question of this kind, I should place them next to the Plymouth Rocks for general utility.

Both Plymouth Rocks and Brahmas have this excellent recommendation: they are very quiet, and will rarely attempt to fly; even a three-feet fence will usually keep them within bounds. The Dorkings and Houdans are both more active and need a high fence or clipped wings. I might add the Games as a desirable breed—and they are in both laying and table qualities—but their pugnacious disposition is so annoying to most people that their good qualities are overlooked or ignored.

With all the above, not a little lies with the fancy of the amateur. Should he prefer Houdans, he will make Houdans the breed which suits him best and gives him the best returns. If it be the Leghorns, none will suit his palate either in eggs or flesh so well, and their superior beauty is something that ought, in his opinion, to be apparent to everyone. If Brahmas fill his desire, then their good qualities more than overbalance those of any other breed.

The would-be amateur, who is looking for some breed with which to stock his poultry yard, may let his fancy have some voice in his selection of any of the above-named breeds and still find he has chosen wisely.

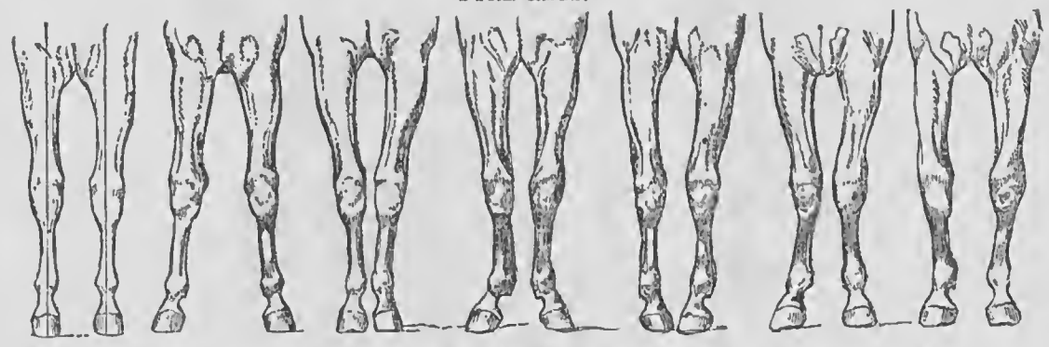
The Horseman.

HORSES' LEGS.

IT is within the experience of nearly every horse owner that more trouble is caused by ailments of the legs than by those of all the rest of the body combined. A large proportion of these are due to malformation or faulty disposition of the limbs, and to lay plainly before our readers the chief shortcomings in the way, we reproduce here the accompanying excellent illustrations redrawn from the English Agricultural Gazette. The cuts with the annexed brief explanations so clearly illustrate the various forms of horses' legs to be ordinarily met with, that little if any further description is necessary.

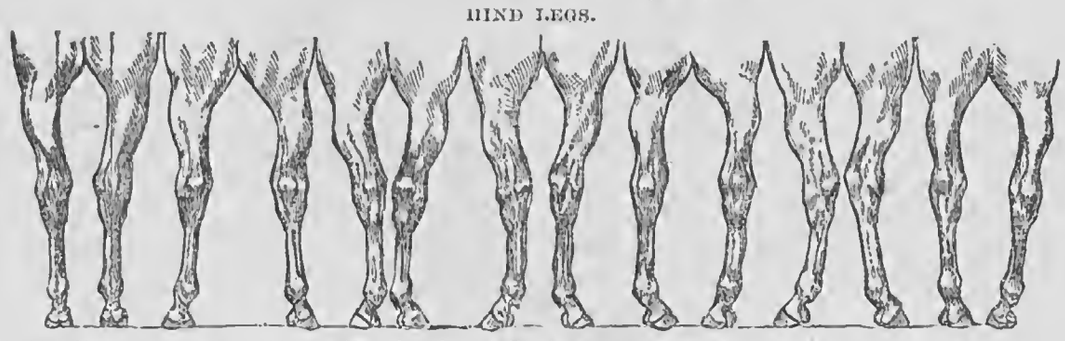
A plummet dropped from the point of the shoulder of a well made animal, will reach the ground at the point of the toe, when a healthy horse is resting on its limbs. If the foot is to the rear of this, the equilibrium is lost, the action clambering and unsafe. If the line falls "without," the legs are too close; if it falls "within," the legs are too far apart. Where the limb quits the trunk, it should be well developed, since here dwells the power by which the lower parts of the limbs are impelled. The flesh should bulge out; for a thin forearm is incompatable with excellence in a horse.

FORE LEGS.



1. Standing true. 2. Too wide. 3. Too close in front. 4. Duck-footed, with cannon twisted outward. 5. Cannons twisted inwards, and pin-toed. 6. Calf-kneed. 7. Knee too open

HIND LEGS.



1. Standing correctly. 2. Too wide 3. Too close behind. 4. Duck-footed behind. 5. Bow-legged and pin-toed. 6. Cow hock. 7. Too open.

Toward the knee the swelling should gradually diminish, leaving upon the surface of the joint a broad, clean and firm appearance. The forearm should be long, the shin comparatively short, for the reach depends mainly on the former, and no muscles of any importance are located in the latter. Though not absolutely straight, the shin should present no obvious inequalities. The bone should be compact, giving to that portion of the limb, when viewed from the front, an appearance of being almost too thin; but from a side view, the lower part of the leg cannot well be too broad; for width and strength are here synonymous. This applies equally to the hind and fore legs: to the hind legs below the hock as well as to the fore ones from the knees down. Each here should be thin when seen from the front; neither can well be too deep when viewed from the side, and both sets should appear solid and feel almost as hard as metal. With regard to the hind legs, a line let fall from the stifle, should reach the ground barely in front of the hind toe, for hunting and draft horses. When the toes recede, as in racing stock, beyond this line, it is a token of a speedy formation. The distance from the stifle line and the toe, may vary from four to eight inches, when the animal is standing at ease.

By bearing in mind the faults indicated in these cuts, note will be taken of misplaced legs and feet, which are frequently the cause of many of the ailments to which horses' legs and feet are subject, such as splints, spavins, thorough pins, curbs, wind galls, sprung tendons, etc.

Sheep Husbandry.

A CHANGE IN FARMING.—COMBING WOOL.

COL. F. D. CURTIS.

AMERICAN farmers should produce, if possible, those things which are imported. This is a wiser political economy than attempting to sell in an overstocked market at home, and to be obliged to send the surplus abroad to convert it into money. A change of policy in this respect would relieve overdone farming in many respects. If one-third of the cheese and butter farmers in the State of New York would fatten their poor cows for the butcher, and sell the good ones to the other two-thirds, and then if these, too, would get rid of their poor milkers, there would be a large increase in the percentage of profit with those remaining in the dairy business. The one-third who go out, should engage in sheep husbandry and grow combing wool, which brings the highest price, and nearly all of that used in this country is imported. The dairyman transformed into a sheep man, would find himself in a new world, as it were. His labors would be so much lessened that he would find time to make many improvements about his home, although his former occupation was not nearly as laborious as many others. There would be the greatest change in the house, with no milk to skim, or churning or butter making, or cheese making, rubbing and turning, there would come a millenium of rest and opportunity for doing a thousand things the hard-worked wife and daughters' could never get time to do before. In spring time the women could find healthful occupation as shepherdesses, with all the romantic associations of out-door life. Here would be, in caring for the sheep, a kind of work not unsuited to females and not half so laborious as dairy work. The cow stables could readily be changed to places for sheltering and feeding sheep. The stanchions being removed and portable racks put in, all would be ready for the sheep.

We recommend combing-wool sheep for the dairy sections, because their wool will bring, on an average, ten cents a pound more than the average price for the lower grades. Furthermore, it will be a business with a long future, as there is such a scarcity of such wools, and but a limited portion of our farmers will ever produce them. The reason for this statement lies in the fact that combing wool in this country and high farming go together. We infer that a class of farmers, who have had the enterprise to develop and build up the factory system of cheese making and the creameries which have made the dairy sections of New York noted the world over, could take hold of sheep and grow combing wool successfully. It must be understood at the outset that this is the most difficult as well as the best paying branch of sheep husbandry. The unnatural influences of climate must be overcome and a new system of feeding be inaugurated.

In the first place, what is combing wool? It is a staple of wool four inches and upwards in length, with as much brightness or luster as possible. The longer the staple and the more lustrous, the more valuable it is. The breeds of sheep which furnish the best combing wools are the Cotswold, Lincoln and Leicester. Sheep of these breeds vary in the length of staple and in the luster, even when fed the same. Some have more open fleeces than others, with long, wavy wool. These sheep have the brightest and best quality of combing wool, but they are never so hardy as the thicker and shorter-fleeced sheep. Such sheep must be carefully housed in cold, wet weather. A medium between the two would be the most desirable, as a little less value in the wool will be found to be more than made up in the hardiness of the sheep. The thicker and shorter-fleeced sheep usually shear as much in weight as the longer and wavy sort, if not more. They are also more easily fattened on account of their stronger constitutional qualities.

A leading exhibitor at the Utica State fair, last year, had a few wavy-fleeced sheep on exhibition, and as they won the prizes, this year he selected none but the wavy ones, and got no prizes. Last year the awards must have been made on the character of the wool, and this year on the character of the sheep. The latter is the most important.

Industrial Societies.

EXHIBITION OF NEW YORK STATE HORTICULTURAL SOCIETY.

(Special Report.)

THIS Society held an excellent exhibition of fruits and flowers at Madison Square Gardens, this city, on the 17th, 18th and 19th inst. The fruits formed the most attractive feature. Messrs. Ellwanger & Barry took first premium for the best collection of pears; their collection contained 116 varieties, in which were the following excellent ones:—Beurré Hardy, Doyenné Boussock, Duchesse Precoce, Beurré Bose, Horton, Canandaigua, and Mikado, a new Japan variety which has just fruited for the first time.

J. H. Ricketts exhibited also a large variety of pears, for seven of which he was awarded first premiums. His seedling grapes, however, were the most interesting of his exhibits. Among these, the Welcome, Lady Washington, Naomi and the Bacchus are new varieties of merit.

The Rev. E. P. Roe was awarded first premium for the best new seedling apple, and also for the best new seedling peach.

C. J. Copley was awarded first premium for the best three bunches of each of the following grapes: Eumelan, Senasqua, Creveling, Salem, Rogers's No. 33, Elsingburgh, and Elvira. Mr. Peter Henderson took first premium for the best six varieties of foreign grapes; these were: Muscat of Alexandria, Victoria Hamburg, Black Hamburg, Royal Muscadine, Muscat Hamburg and Charles Worth Tokay; the last is a beautiful clear grape.

There was an excellent display of potatoes. B. K. Bliss & Son exhibited 150 named varieties, for which they were awarded first premium, being the best collection, and 50 new seedlings that were not named, Mr. P. Henderson took first premium for the new potato, St. Patrick, which was considered the best new

seedling exhibited. It is a beautiful, large white potato. Other vegetables were not plentiful, but all shown were first-class.

The exhibits of cut-flowers and plants cannot be designated as large, comparatively few of our prominent plant growers having contributed. Of the plants, four beautiful Waterlilies deserve to be mentioned. One is the Lotus, or Sacred Bean of India—Nelumbium speciosum—flowers six or seven inches aeross, pinkish, tipped with rose. The others are Nymphea cœrulea, blue, N. Devoniana, rose, and N. dentata, white.

John S. Bush took first premium for his collection of hot-house plants; J. Lowell, of Patterson, N. J., first premium for Geraniums. The Parsons and Sons' Company, of Flushing, L. I., were awarded first premium for a choice collection of evergreens, among which Pinus Massoniana aurea, a beautiful, golden-leaved Pine, especially attracted the attention of visitors. The same firm also took a special premium for their collection of hardy deciduous plants. These were nearly all novelties, very few of them being in common cultivation. A varigated Snowball, recently imported from Japan, and a white-flowered Hibiscus were perhaps the most attractive plants in this collection. F. Rosenbeck, of Bayonne, N. J., made an exhibit of Ferns; he was awarded first premium for the six best Tree Ferns

The best new plant was exhibited by W. C. Wilson, for which he received first premium; it is an Oleobachia palustris. Fine displays of cut-flowers were made by James Vick, Peter Henderson, Dr. F. M. Hexamer and others. Dr. Hexamer received first premium for the best collection of Gladioli and also for the best twelve varieties. Floral designs, bouquets, etc., were quite numerous.

The Society does not encourage amateurs to compete for premiums as strongly as might be desired. The horticultural interest, which it may be presumed the Society has at heart, will best be served by inducing private cultivators everywhere to produce as good specimens and in as large variety as can be furnished by specialists. C. C. G.

NEW YORK STATE FAIR.

Second Notice.

[Special correspondence.]

THE stock show was very full and satisfactory. The novelty was the herd of Mr. T. A. Cole which he has called "Holderness," or "American Holderness"—a most unfortunate title. They are, in my judgment, worthy of a distinctive name, and such a name would make their fame. They are a breed of his own making and compare well with any of the other milch and butter breeds. He bought a cow in 1855, from imported stock, called Holderness. The stock from which she sprang had been imported several years before. From the purchased cow and her bull calf Mr. Cole has produced a herd uniform in appearance, and the members of which seem to be excellent dairy animals. They are large-uddered, large and even-teated, have as rich orange skins and interior of ears as the Gueruseys. In color these so-called Holdernesses are black and white; the black shading from reddish-brown to black in the older cows. The calves are said to be bright-red when dropped. In form they are more like Short-horns than like "Holstein" or Holland cattle, which they resemble in color only. There are now several hundred of the breed and they are in the hands of a number of farmers who value them highly.

The herd of Swiss cattle exhibted by L. Houghton were remarkably good animals. They have a Jersey look, are very hollow in the back and have fine hind-quarters.

The Jerseys were a very nice lot, but nothing extraordinary. L. I. Burditt & Son's "Commander-in-Chief" was a fine bull, as was also "Rowley" belonging to H. and C. H. Holmes. Starin's "Dexter of Staatsburgh" was a very stylish creature. Isaac H. Kelsey's "Marshall" had a magnificent color and fine points. "Ash-Bud," belonging to C. R. Agnew, seemed to be a nice animal, but was lacking the much-admired solid color. Mr. Jno. D. Wing, the Vice-President of the Society, had his usual string of handsome animals. Col. Curtis depended more on quality than quantity for merit. His "Princess Caroline" had a very rich color, and other good points. Mr. Wing's "Oak-leaf" made the fine record of 63¼ pounds of butter in 30 days. L. W. Ledyards "Fernwood Gift" was distinguished by a very fine head. One seldom sees a better in this country.

The Devons of Walter Cole, A. F. Bronson, and B. F. Peck were above the average. John Merryman and Erastus Corning about monopolized the Herefords, and Messrs. Sam'l. Campbell, J. F. Converse and Eugene Ham showed the cream of the Ayrshires. Smiths and Powell, and the Unadilla Valley Stock Association had the largest display of Holland cattle. Mr. Haight's herd of Short-horns were notable for the milking pedigree of the animals. The gem of the lot was "Baron of Milburn." This fine bull was bred by Mr. Haight (calved March 6, '77.) His ancestors on the female side include such splendid milking stock as Baroness, Double Rose, Red Rose 2d, Lady Barrington, and Rose Ann. It will thus be seen that the "Princess" strain, so famous for its milk qualities, is strongly indicated. We may in the near future present the likeness of the Baron to our readers, as he is well worthy of his fame. The bull is now the property of Mr. R. H. Allen who bought him on the fair grounds, and has added him to his herd at Chatham, N. J. The Baron has taken the first premium at both the N. Y. and N. J. State fairs.

The Sheep and Swine were more than an average lot. Mr. Proctor had fine Berkshires; Col. Curtis had good examples of Victorias, and Durocs, and J. S. Woodward excelled in Essex.

Smiths and Powell took about all the desirable stakes in the horse class with their excellent Clydesdales and Hambletonians.

Machinery.

All departments of machinery were well filled, and many new things shown. Especially is this the fact regarding "creameries," as in addition to the "Cooley Creamer," made by the Vermont Farm Machine Co., there were the Ferguson Bureau Creamery, a new device shown by Moseley & Stoddard, one by Bunnell & Brown, and two or three by other individuals. It looks as if the current was setting strongly in the direction of "creameries." The Chadborn & Caldwell Manufacturing Co. have a very pretty exhibit of the "Excelsior" lawn mower, and the Dairy Supply Co. have the most complete display of appliances designed for the dairy, including their Monitor pendulum churn. The only other churn on the same principle is the Davis oscillating, made by the Vermont Farm Machine Co.—a new churn, very highly spoken of. The Blanchard churn is shown by a local dealer. Jones, Faulkner & Co., and Chas Millar & Son, have complete exhibits of cheese-making apparatus, while the Boomer & Boschert Press Co., opposite, have their cider-making machinery in full blast, under the skillful direction of Mr. Boomer. Further a-field, we come to the heavy machinery. The Iron Turbine wind-mill made by Mast, Foos & Co. of Springfield, Ohio, and the "Stover" are the most prominent objects. There are mowers and reapers galore. Bradley & Co., besides their regular styles, show a new manual-delivery binder, which, with the Walter A. Wood binder, was driven about the grounds to show the mode of operating. They attracted great attention. R. H. Allen & Co. had their Dutton new mower, which has a new and peculiar mechanism that is simple and very pleasing. We shall speak more fully of this invention in the future. Of potato diggers and potato bug exterminators, there were several devices shown. There was a test of the potato plows, which was satisfactory to the several exhibitors, at least. C. H. E. R.

FAIR OF THE QUEEN'S COUNTY AG. SOCIETY AT MINEOLA, LONG ISLAND

[Special Correspondence, Sept. 25.]

This is the last day of this, the champion fair, of the great island of Long Island. The grounds of the Association and surrounding country are much flatter than a pancake, so that a box as large as a piece of chalk, may be made to serve as an observatory from which a view "far as the eye can reach" spreads on every side. There, within a mile is the City of the Plain—Garden City—founded by the late A. T. Stewart—a city in the country, a quiet monastery-like, beautifully-somber city, with streets that lead nowhere in particular, and isolated, melancholy-looking houses.

Fully 16,000 people have attended the fair, and it has been the most prosperous season since 1869, when the Society was enabled to pay off its debts. There is little worthy of note. Mr. William Crozier took first premium for Jersey bull three years or over: for Jersey bull over one year and under two; for Guernsey bull one year old, and second premium for Jersey heifer. All Mr. Crozier's cattle are fed on the soiling system. He has 40 head of cattle; 23 South-Down lambs, six horses and twenty pigs on his 40-acre home farm. J. W. Barnum took first premium for Short-horn bull "Oxford Lad"; for Short-horn heifer one year old and for Short-horn calf. Beacon Farm (Delamater) exhibited 16 fine Holsteins and took eight first and second premiums.

For fat hogs, a Chester-white, weighing 900 pounds, took first premium. The display of poultry was highly creditable. Strange to say, there were more Plymouth Rocks than all others together. There was one pair of the queer Japan Silkies, many Silver-spangled Hamburghs; and many Golden-penciled Hamburghs, than which there is no cleaner, or prettier breed; the polished little Silver-laced Bantams, and finally the dignified, handsome French breeds, La Fleche, Creve-cœur and Houdan.

Trophy was the best tomato. St. Patrick, a new potato, attracted, much attention for its length, size and comeliness. There were 14 Early Rose potatoes, weighing 14 pounds, which took the first premium for heavy weights. Prickly Comfrey, Pearl Millet; Early Amber Cane were exhibited among many commoner forage plants.

Among implements Walter A. Wood exhibited one of his celebrated self-binding harvesters; R. H. Allen & Co. one of Hughes' Castor-tooth smooting harrows, the principal novelty in which consists in the swiveled vibrating teeth. Horse-racing, here the first attraction, was watched through stifling clouds of dust, with intense interest by fair women, brave men, children and babies. C.

Miscellaneous.

A VARIEGATED TUBEROSE.

AMONG the latest novelties in floriculture is a variegated Tuberose, of which we represent a part of a leaf, showing the colored margin.

Mr. J. T. Rhea, of Griffin, Ga., with whom it originated, writes us as follows concerning it:

"Two years ago I discovered this plant growing in a bed of Tuberoses and observed that each leaf had a distinct yellow margin running from base to tip of the leaf. I watched it bloom and discovered nothing peculiar about the flower. At the usual time of taking up my bulbs, I laid this one aside carefully, and next spring took the little sets from the main bulb and planted all in a separate row, but in the same patch with other Tuberoses. Each one grew with its distinct yellowish-white stripe on the margin of the leaf, and now I have nine growing bulbs, and believe they will perpetuate their identical markings. The plant grows as vigorously as any other, and presents a marked effect in a growing bed of Tuberoses"

Of course, cases of this sort are usually more interesting for their novelty than even for any special beauty they may develop; but in the present instance the novel variegation is really an additional attraction to the ordinary appearance of a bed of these flowers.

SUGAR FROM SORGHUM.

MY success in making sugar from sorghum has exceeded my expectations. During a visit from a St Louis expert in sugar-refining yesterday, he assured me that my "molado" would average me 40 per cent of dry sugar. I swung some out to-day and got 50 per cent of first granulation. I attribute this success to three causes: improved varieties of cane; more correct modes of working, and the introduction of centrifugal machines. As to varieties of cane, I planted seven of them, two of which I have now finished working up with success; namely, Early Amber and hybrid sorghum. The first is now well known; the second is supposed to be a cross of the old China and Imphee and originated in Pennsylvania. My next working will be on a new variety named Amber Liberian.

So far as I can see there is nothing to impede general success in this industry but the lack of experts and a prejudice against changing the customary routine of farming. Success depends entirely on the defecation of the juice at the boiling point without the use of any chemical agency, except lime. Western farmers have not been encouraged to engage largely in the business this season, as this is considered an experimental year in sorghum sugar making, but still my small works are taxed to the utmost. The works consist of a No. 4. heavy Cook evaporator of copper, and a heater, together with setting tanks and a small copper finishing pan of my own make.

Madison Co., Ill. C. M. SCHWARZ.

ZINC LABELS.

I NOTICE, in the number for Aug. 30, "Professor Gale recommends, in the Kansas Farmer, the use of strips, of zinc for labels." I can show you such labels made and written upon with common lead pencils as much as eight years ago, and if you visit my garden, you will find many such labels, fastened to Gladiolus, Rose and other stakes. They are cheap and durable, lasting a lifetime, if cared for. I find many garden and fruit yards entirely devoid of labels, and others marked by a piece of shingle or stake, written on with pencil. These, as every one knows who has tried them, are very unreliable, as they soon break down or the writing becomes obliterated. I go to the tin shop, obtain some waste pieces of zinc, cut them into strips about 3½ inches long and ½ to ¾ inch wide, punch a small hole near one end, purchase a few yards of copper wire—ordinary bell wire—cut it into pieces about six inches long, put a piece of the wire in each piece of zinc, give it a twist—and my label is prepared ready for use. I keep a box of such ready for whenever needed. I think every one who will try the zinc label will forever after discard wood, and those who have never labeled their trees and plants will be highly gratified with the experiment, and will ever after adopt the plan. GRISWOLD.

BOOKS RECEIVED.

INVESTIGATION OF DISEASES OF SWINE and Infectious and Contagious diseases incident to other Classes of Domesticated Animals. This volume of 292 pages liberally illustrated, is issued by the Department of Agriculture, Washington, D. C. Of it, 177 pages are occupied with the reports of the nine veterinarians appointed in July 1878 by Com. Le Due as inspectors to investigate "Hog Cholera." In the remainder of the book pleuro-pneumonea, rinder-pest, glanders and various other diseases of domesticated animals are discussed. After a more careful examination of the work than has hitherto been possible, we shall refer to it at length hereafter.

Quarterly Report of the Chief of the Bureau of Statistics relative to the Imports, Exports, Immigration and Navigation of the United States for the three months ended March 31, 1879.

WHOLESALE PRICE LIST of the Bloomington nurseries for the fall of 1879, Bloomington, McLean Co., Ill. In this Messrs. J. S. Tuttle and A. Follett, the proprietors, state that the rates given will not be binding after this fall.

CATALOGUE of the Bow Park Herd of the Canada West Farm-Stock Association of thoroughbred Short-horn and Clydesdale Horses.

W. S. LITTLE'S SEMI-ANNUAL CIRCULAR of Wholesale Prices for the autumn of 1879. Commercial Nurseries, Rochester, N. Y.

WHOLESALE CATALOGUE of the Gould Brothers', Monroe County Nurseries, Rochester, N. Y., for the autumn of 1879.

C. V. Riley's Entomological Report, Author's edition, from the report of the Department of Agriculture for 1878.

TRANSACTIONS of the Twenty-sixth Annual meeting of the Medical Society of the State of North Carolina.

DESCRIPTIVE Price List of small fruits grown and for sale by J. L. Dillon, Bloomsburg, Pa.

ANNUAL REPORT of the North Carolina Agricultural Experiment Station for 1879.

No. 1 of the Lake View Horticulturist, published by the Fithian Brothers, Bridgeton, N. J.

The Apiarian.

THE MANAGEMENT OF BEE-KEEPERS.

IT has occurred to me that a word on the management of bee-keepers, would be in order at the present time, when there is little to be done in the management of bees. It has been my misfortune to visit so many wickedly indifferent and incomparably lazy apiarists, that if I address this notice to them I hope to be held excused by my intelligent go-ahead and successful brother bee-keepers. By those who are short of cash, and cannot sell their honey I am frequently asked the question: "What shall I do?" Well, let me tell you, and that very briefly. In the first place, get up early in the morning, and, after you are up, don't sit on a log with your hands in your pockets, but *go to work*. Fix up your apiary so nicely that every neighbor that comes along will want one like it. Then you can sell him some bees, and possibly a 100 pounds of honey. Stick up over the hitching post, a neat sign, saying, "BEES AND HONEY FOR SALE," and have your honey so nice and tempting, when anybody calls, that the visitors cannot help buying. Never send your honey to be sold on commission, but sell it at home. Make a home market. Get the reputation of producing honey in the best marketable shape, and your honey will never go a-begging for customers.

If you are in debt, stop outgoes; put your money in your pocket and button it up. Keep putting in all you can get, but don't let any get out. There is a philosopher's stone for you in a nut-shell. Scrape up all your beeswax on rainy days, but do not send it off by mail or express and lose half in charges: if you cannot sell it near home, club with your neighbors and send a barrel of it by freight. If you cannot sell all your honey and wax for cash, trade for something you know you have *got* to buy. Wear old clothes, and be careful of them. Be careful of everything. Do not make many mistakes and blunders, but make everything and every day count something. Yes, and Sabbath day, too; give God the best day's work of the week, in laying up treasures that do not pass away. J. G. BINGHAM.

Cortland Co., N. Y.

Everywhere.

RURAL SPECIAL REPORTS.

VERMONT, Williamsville, Windham Co., Sept. 23.—On May 10 I turned over some green-sward that had been in grass ten years, spread and harrowed in a light dressing of green manure from the barn cellar. On May 13 I put horse manure that had been worked over by hogs, in the hill for Early Vermont and Beauty of Hebron potatoes and Blount's White Prolific corn. My Beauty of Hebron weighed 2½ oz. It was cut into 13 pieces—there being 13 eyes—and planted in 13 hills. The vines came up quickly and commenced cracking the ground to make room for tubers in the hill two weeks earlier than Early Vermonts. They yield more, and are as nice-looking as I have seen this year. On Sept. 16 I dug them and got 31 5-16 pounds. One potato weighed one pound two ounces, and several were a pound each. I planted 70 hills of corn, two kernels in a hill; in seven days 140 stalks appeared above ground, all looking thrifty. Some of the stalks stand 12 feet high today. I took one stalk 12 feet four inches, and two others with more fully developed ears and a sample of Beauty of Hebron potato to the Windham Co. Fair, and received a premium of 50c. on each. On Sept. 4 I counted 281 ears silked, and on Sept. 16, 363. I think some of it must be full in the milk, but the season will be too short to perfect the whole of it.

We had a slight frost on Sunday morning—the first this fall. It nipped vines but not corn leaves.

Definance Wheat rusted badly by July 1st, consequently the heads are but poorly filled. The Lost Nation Wheat is the variety in favor here now. I shall try Defiance on a different soil. Pearl Millet came up, but soon turned pale and died—some frosty mornings, probably, the cause. Planted the second time, a few came up, but to-day they stand not more than three feet high, a total failure. S. M.

CONN., Poquonock Bridge, New London Co., Sept. 17.—Our Beauty of Hebron is just splendid. Planted side by side with the Early Rose and Early Vermont, with precisely the same treatment, the Beauty far excels both the others *in every respect.* M. W.

NEW YORK, Upper Red Hook, Dutchess Co., Sept. 12.—In this section, as far as rain is concerned, this has been an exceedingly favorable season for farmers. With the exception of a slight drought during the latter part of April, the ground has been kept almost continually moist with numerous and copious showers, and vegetation of all kinds has made a fine growth. Corn looks well; there is a large show of stalks, and it is cared accordingly. Many farmers are busy cutting it. Potatoes gave a fair yield, but the wire-worm has injured them to a slight extent. Rye and oats are hardly loaded as well as last year. Sowing is about completed. Fruit of all kinds we have had in abundance, pears being especially plentiful. Of apples there is a large yield for an odd year, many orchards giving almost a full crop. Most of those from this locality will be shipped to England, and speculators are active. The RURAL has done a *noble* work in distributing such valuable seeds, and is entitled to the thanks of the whole country. The Beauty of Hebron potato is a grand success. I dug mine lately, and everybody was astonished at the yield. From a little potato, weighing not over three ounces, I have grown 21½ pounds of splendid tubers. Five of them weighed over a pound, the two largest, one pound and three ounces each. One of them measured 16¼ by 8¾ inches (outside measure); no small ones among them. The seed potato was cut into 11 pieces, all single eyes. I made ten hills of them. All came up, but one, I believe, was destroyed; another grew in the shade and did not do as well as the others. They were planted in rich garden soil, of rather a moist character, which has been well manured for three or four years. I hoed them but twice, and kept the weeds away. For the purpose of comparison, I dug nine hills of Early Rose which grew alongside and received precisely the same treatment, except that whole potatoes were planted; they weighed but 12½ pounds; this is quite a difference. I did not notice much difference in the time of ripening, though the Beauty was planted a few days later than the Rose. A correct name has been applied to them; they are really *beauties;* the large, handsome and symmetrical tubers were a pleasure to behold, and every one will be saved and planted next spring.

W. S. T.

N. Y., Canaserga, Albany Co., Sept. 18.—My Blount's corn was planted May 19. It grew unusually tall and has from four to seven ears to the stalk, but I fear it will not ripen here. Although the Pearl Millet seems to have been a failure at the RURAL FARM, it is a success with me, 150 miles to the north of that place. It is now in full head and nearly ripe. The Beauty of Hebron potatoes are indeed beauties. Several weigh a pound apiece, and I raised 50 pounds from the single specimen sent me. The ornamental beets are not large, but the foliage is beautiful. The Bronze lettuce raised alongside the Hansen, is fully as good. I have bushels of Acme tomatoes from the seed sent me, and they have a uniform size and ripen perfectly about the stem. I have quite a large number of Hollyhocks, Hibiscus, Weigelas and Calliearpas growing finely. J. E. M.

N. Y., Coxsackie, Greene Co., Sept. 15.—From the Voorhis watermelon seed I gathered two melons on Friday last, and had one of them for dinner on Sunday. I think it was the sweetest melon I ever ate. It weighed 24½ pounds. The other weighs nearly the same. I have saved all the seeds. My tallest stalk of Blount's corn is 14 feet high; and the greatest number of ears on a stalk is six. I had 45 pounds of Beauty of Hebron tubers from my own seed potato, and from the two which a couple of RURAL subscribers in town gave me.

J. H. L.

N. Y., Fulton, Orange Co., Sept. 22.—The two small Beauty of Hebron potatoes sent me I cut into 12 pieces with one eye in each piece, and planted one in each of a dozen hills. From these I dug one heaping bushel of fine, good-sized tubers which are far ahead of Early Rose or Early Vermont in the same field. Half a peck of them took the first premium at our local agricultural fair which has just ended financially successful and to the satisfaction of all our farmers. Pearl Millet was a failure. Crops are first-rate except apples which are poor. F. W. G.

N. Y., Sharon Center, Schoharie Co., Sept. 15.—From two ounces of Beauty of Hebron potato, containing nine eyes, I have dug 17¾ pounds of fine tubers. The Acme and Golden Rural tomatoes are both fine; but the Acme ripened 10 days earlier than its comrade. I don't know where to get a more perfect tomato. Defiance wheat is shriveled up. I won't say a word yet about Blount's phenomenon. Tailby's Cucumber is good; but Green Prolific is far ahead of it in productiveness. S. L

N. Y., Potter's Hollow, Albany Co., Sept. 17.—Last spring I got a barrel of the Beauty of Hebron potatoes from an advertiser in the RURAL, and divided them among my neighbors, all of whom make good reports of them. One to whom I gave three potatoes, has raised 50 pounds from them, another had a bushel from eight hills. I think this will prove a valuable variety, one that will take the place of the Early Rose, which is failing hereabouts. The Acme tomatoes were fine. A. P.

N. Y., Bridgeport, Madison Co., Sept. 22.—I planted the Beauty of Hebron potato about the first of May. It weighed about one ounce. I had ten hills, with a single eye in each. I dug them on Sept. 6 and got 26 pounds of as fine tubers as I ever saw—all large, no small ones. My Blount corn is a curiosity; but not a profitable one in this locality, although it is from 11 to 12 feet high with from four to nine ears to a stalk. S. F. S.

N. Y., Bethlehem, Albany Co., Sept. 12.—My Beauty of Hebron potatoes were dug yesterday and yielded about a peck of the nicest tubers I ever saw. I have had such success with those of the last RURAL seeds that I tried, that I shall plant all of the next seed distribution.

J. VAN A.

N. Y., Orient, Suffolk Co., Sept. 21.—The farmers are busy digging potatoes. My Beauty of Hebron potatoes are of fine appearance and the best I ever ate. I shall plant them next spring in preference to the Early Rose.

S. L. T.

N. Y., Honeoye Falls, Monroe Co., Sept. 14.—The Beauty of Hebron potato yielded 41 pounds by weight. Corn is 11 or 12 feet high and still going up. M. R. P.

MICH., Mayville, Tuscola Co., Sept. 12.—Defiance wheat was with me a signal failure. It shrank very badly and was generally worthless. 'Twas sown on light sandy soil—a piece not particularly favorable for wheat. The Beauty of Hebron sprouted very tardily, the sprouts were thin and spindling, and I was greatly disappointed, but as the season advanced, it grew better and stood the drought first-rate. The yield from a fraction less than two ounces of seed was seven pounds four ounces, or about sixty-fold. Blount's corn started well and grew vigorously on light, sandy loam well fertilized. It stood the drought well and is now vigorous and hardy and just in the milk. It is probably too late for this climate. I count as many as four stalks from one kernel, with from three to five ears to a stalk. It would indeed be prolific, if warm weather lasted a month or two longer. The Pearl Millet was a failure with me. The beets and lettuce did well. The Acme tomato was splendid—the *ne plus ultra* of the early luxuries. W. L.

MICH., Osseo, Hillsdale Co., Sept. 15.—The Blount's corn stands 12 feet high, with from two to eight ears on a stalk. On one stalk there are roots 20 inches from the ground. Our crops here have been beautiful. I have some Minnesota Amber sugar cane that makes the best kind of sirup, and if this is allowed to stand six months, it will turn to soft sugar without draining. The sirup is of an amber hue and far better than any molasses I ever ate. Commissioner Le Due sent the seed here, and quite a large number of people are testing it. C. E. T.

WIS., Louisville, Dunn Co., Sept. 12.—Pearl Millet was a failure. From nine eyes of the Beauty of Hebron, I raised 22 pounds of nice tubers, so I think I can claim the palm on that score. Tall as our Blount's corn is, a flood in the fore part of July nearly drowned it to death, so that I "step down and out" from among the competitors for corn premiums. Our crops here are nothing to brag of. Wheat yields only from five to ten bushels per acre; oats, about 30 bushels. Corn is out of the way of frost. It is nearly all hard, but dry weather has made the ears small. Potatoes are a good crop. Prices are: corn, 30c. per bushel; oats, 15c.; potatoes, 15c.; wheat, 70c. for No. 1. Help has been scarce this summer so that wages have been about $16 per month for the season. The outlook for farmers is rather gloomy, still large numbers of them are sowing Odessa wheat. F. M. S.

WIS., East Troy, Walworth Co., Sept. 18.—We have had no good rains in two months; the pastures are dried up, and we are feeding sowed corn. Winter wheat yielded from 20 to 50 bushels per acre; spring wheat, from 8 to 20 bushels, and oats from 30 to 60. Potatoes are a fair crop, and corn a heavy one. H. A. T.

MINN., Rieeford, Houston Co., Sept. 16.—We have been getting plenty of rain this month, but it has been almost too late to help any growing crop. It has been a great help to the plowing, however. Our crops were rather poor and thin, but what we did raise was of the best quality. Our Beauty of Hebron potato yielded well, we got 33 potatoes from the one, with no extra care. Corn is nearly all cut; the yield is good. Fruit is a fair crop. Wild fruits are in abundance. S. S. S.

MO., Springfield, Greene Co., Sept. 14.—We have had an unusually hot, dry season; but our crops, as a rule, are very good. Fruits of all kinds, however, were failures; but we had a few grapes and are getting a few apples, but not half enough for home consumption.

E. A. W.

VA., Nokesville, Prince William Co., Sept. 18.—Our wheat crop is less than half the usual yield. Corn has been hurt by drought; the late sort may make a fair crop, however. Peaches are too plentiful for profit. Pearl Millet I raised last year and this. I think a great deal of it. The Beauty of Hebron did well for the season; we haven't eaten any as we want all the tubers for seed. We have a live grange here. I think that a stranger coming to this section could tell its boundaries by the superiority of the improvements within its limits. B. C.

LA., Shreveport, Caddo Parish, Sept. 13.—The oat crop is good in this section. No wheat is grown here. Cotton is good and the weather fine for gathering it. Blount's corn turned out satisfactorily. The Beauty of Hebron rotted in the ground—it arrived here too late.

S. W. S

TEXAS, Salado, Bell Co., Sept. 8.—The drought still hangs over us, shutting out all prospect of rain soon. The thermometer moves steadily from 94° to 96° every night and day. Most of our farmers estimate that it will take from 8 to 10 acres to yield a bale of cotton; the usual yield in good seasons is an average of half a bale per acre hereabouts. Corn is being gathered; not only is it short, but of poor quality. Fruit is nearly an entire failure. Many are collecting their cattle and driving them north and west to hunt for water as well as grass. The fine springs at this place are yet flush; but it is distressing to see people come from eight or ten miles with barrels for all the water for use at home. The RURAL, always welcome, has been a blessing to me this year.

E. G. M.

TEXAS, McKinney, Collins Co., Sept. 13.—Wheat sowing is now in full sweep, although the weather and ground are still dry. Stock water is scarce, the rainfall this season having been only 2¾ inches. For cotton picking the weather has been fine; the yield will be about half a crop; but prices are much better than last season. Our section is blessed with good health. W. N. W.

CANADA, Oxford Center, Ont., Sept. 13.—Fall wheat is good; it will yield about 30 bushels per acre. Spring wheat is very poor; it will not be an average crop. Oats are very heavy. There is a fair prospect of a good crop of potatoes. Apples will be scarce this season. Pears are an exceedingly good crop; they are now selling at from 50c. to 75c. per bushel. The weather has been exceedingly dry through the last of August and the first part of September, making the ground very dry for fall seeding. A large area of fall wheat will be sowed this season. V. R.

CANADA, Newry Station, Perth Co., Ont., Sept. 16.—All the RURAL seeds I planted, did well. The tomatoes were the finest ever grown in these parts, and ripened earlier than any others. The yellow ones were especially excellent, the flavor being very fine and the skins thin. I am saving the seeds of both kinds. The Pearl Millet is a failure so far north. It grew pretty well, but an early frost has cut it down. The wheat rusted badly, but grew well and had fine ears—it deserves another trial.

A. J. C.

The Querist.

ANSWERS TO CORRESPONDENTS.

Inquiries about Fodder Plants, &c.

M. M. S., Bieber, Cal, asks, 1, what kind of roots has Guinea Grass, and whether it would be likely to catch on tule slough for hog feed; 2, what kind of root has the English Gore Vetch and whether it is good for hogs; 3, what kind of grain is Egyptian corn and what are its merits as a crop; 4, Our friend got a quantity of seeds from Arthur Taylor Watson, of Mo., who advertised what he called West India Green Valley Grass. It was to produce from 2,000 to 3,000 bushels of seeds per acre. Of the two dollars' worth our correspondent received not a single seed ever sprouted, and a desire is expressed to learn whether the thing was equally a fraud elsewhere. A small packet of the seed is forwarded to us for name. 5, Our opinion is asked about eye-cups for improving the eye sight of short-sighted persons.

ANS.—1. Perhaps Sorghum halepense is meant. This grows like corn and should be treated in every way the same. If you were to send us the flowers or seed heads we could speak more intelligently. 3. Vetches are not raised for their roots, but for the stems, leaves, tendrils and pods. All domestic animals are fond of them, but they are chiefly used as forage for cattle and sheep, especially for the latter. Analysis shows that in nutritive properties they are equal to clover. The stems are from one to two feet, and the pods as many inches long. The latter contain from 10 to 13 globular seeds, which are a favorite food of pigeons and poultry. 3. There are several varieties of what is called Egyptian corn, such as China corn and Brown and White Egyptian; but they are all of the species producing a drooping panicle; hence it has been named Sorghum cernuum. The seeds are about the size of small apple seeds, some white, some brown. The white seeds make a fine flour for pancakes, etc. These plants are said to produce large crops of grain—200 bushels or more to the acre. It may be, but we cannot believe it. As for fodder, none but Sorghum halepense is worth cultivating. The others rarely sucker. They throw up one tall, heavy stock, like corn, about eight feet in hight. But Sorghum halepense will produce an average of eight stalks to a seed. The stems are small, the leaves large. This grows to the hight of about ten feet and will bear cutting once. We have the several sorts growing at both the FARM and RURAL GROUNDS and shall speak more fully of them in a few weeks. 4. This "Green Valley Grass" *is* Sorghum halepense mentioned above. The seeds you send are *not* those of this plant. 5. We are not willing to say that the eye-cup is altogether a worthless invention. We remember that they were advertised some twenty years ago. We have never heard of a case in which they improved the sight permanently. In many cases, used cautiously, they effect a temporary improvement, but in several cases within our knowledge, this improvement has been followed by a relapse to a worse condition than before their use.

Leached and Unleached Ashes.

W. M. K., Washington, D. C., asks what is the worth of soap-boilers' leached ashes as compared with the unleached article.

ANS.—The most valuable fertilizing ingredient in wood ashes is the potash they contain. In the process of leaching a large part of this potash is abstracted; but a good deal still remains. Now, unleached ashes are dry and loose, while the leached sort are much more compact, so that a bushel of the former contains considerably less ashes than one of the latter. Accordingly, in spite of the withdrawal of a good deal of the potash from the ashes in leaching, a bushel of the leached ashes often contains as much, or nearly as much, potash as one of the unleached kind, owing to the greater compactness of the article. The poorer the leaching, of course, the richer the ashes in potash. Moreover, other fertilizing ingredients of the ashes, especially the phosphates, are but little affected by the leaching and are therefore proportionately increased in the leached ashes. By measure, therefore, there is often but little difference for fertilizing purposes between a lightly compressed bushel of unleached ashes, and a bushel of the poorly leached sort; but if taken by weight, the unleached ashes are nearly as valuable again as the leached kind.

Show Points of Plymouth Rocks, etc., etc.

E. H., Brookfield, Pa., asks 1, what are the exhibition points of Plymouth Rock fowls;

2, which is the best for the Lemon—budding, side, cleft or whip grafting; 3, where can lemon cions be obtained; 4, is the Star Insurance Company of this city a reliable concern.

ANS.—Plumage throughout, a bluish gray, each feather distinctly and finely barred with darker gray. Beak, bright yellow; comb, small and straight; bright red wattles and ear-lobes; medium-sized wings on which there should be no white feathers. Tail, rather small and upright; bright yellow legs standing well apart, and as free from dark scales as possible. The fowl should be of medium size, and as evenly-colored throughout as possible. No splashes of white, or reddish or brassy feathers are allowed in any part of the plumage. In exhibiting, the hen and cock must match in color of plumage and legs. 2. Orange trees should be budded, not grafted; the latter practice may be employed, but the former is preferable. 3. For buds apply to John Saul, Washington, D. C., or address a letter to Mrs. Increase Sumner, Starke, Florida, inclosing stamp for answer, and she may kindly give information where buds of a good variety can be procured directly from Florida. 4. Yes.

Planting and Tending Grape Vines.

C. T., Millersville, O., asks what is the best time and mode for planting grape vines; 2, which are the best varieties for family use; 3, what is the proper mode of cultivating them.

ANS.—For several reasons it is preferable to plant grape vines in the fall. The circulation of the sap commences very early in the spring, and if the planting is deferred until then, any wound the vine might receive would cause it to bleed and lose much strength. Again, the soil is seldom fit to plant in as early in the spring as vines should be set out, whereas in the fall it is always ready. If they are planted at this season, too, all wounds will heal during the winter, the roots will be settled in their bed, and even new roots may sometimes form, all of which combine to give the vine a good start in the spring.

As to situation, a full southern exposure is preferable in the Northern States, and sometimes necessary in order to ripen the fruit of late and tender varieties, and if the land descends toward the south, so much the better. If there is a choice of soils, one having a limestone foundation should be chosen in preference to all others. A wet soil must be underdrained, and in all cases it should be pulverized to the depth of 20 inches or two feet, either with the trench plow or spade. In planting the vine, it is well to set it four or six inches deeper in the ground than it stood before; it will then send out fibrous roots from the portion of the cane under ground, which will greatly strengthen it. The distance apart will vary with the variety and the system of pruning adopted. If trained on the fan-shaped system, strong growers should be some fifteen feet apart, and some cultivators have of late advocated even 20 to 24 feet; for weak growers, eight or ten feet are sufficient.

2. Of varieties suited for home use may be named the Concord, Adirondac, Delaware, Isabella, Catawba, Rebecca, Rogers's No. 33, Creveling, Lady, Salem, Iona and Martha.

3. As for pruning, training and cultivating the grape vine, so much is to be said that we can here give only an outline of the work. For complete information we would refer our friend to some comprehensive treatise on the subject, and, above all, he should visit some successful grape-culturist and see for himself how a vineyard is managed. A trellis running east and west is preferable to any other kind of support. It is made by setting good cedar posts 20 or 25 feet apart, between which wires are stretched as tightly as possible, and about ten inches apart. The common or fan-shaped form of training consists mainly in spreading the branches in a semicircle over the trellis. No rule can in this case be laid down on paper for the pruning of the vines, beyond the statement that the growth should be well balanced and that all the young shoots should be shortened to from four to twelve buds, according to their strength and the space they are to occupy. Nowhere should the branches crowd each other, and old, unproductive wood should be cut away, and young wood laid in its place.

Another method of training, to which we are inclined to give the preference, consists in forming two leading branches, one on each side of the stock, and these are to produce the bearing wood which is each year pruned back to spurs. To train a vine in this shape, the young plant is, after the first season's growth, cut back to two strong buds near the base. These two buds will, the next season, send out two branches, which should be tied to the trellis horizontally in opposite directions, and when pruned the second year, shortened to six buds each. The third year these buds will send up the bearing branches, and the whole system of pruning will now consist in pinching the summer shoots, or laterals, and cutting the bearing wood down to one strong bud each year.

By this system the vines may be planted eight feet apart, both weak and strong growers occupying about the same space.

Keeping Dahlia Bulbs in Winter, etc.

E. V., Oxford Center, Ont., Canada, asks 1st, the best plan of keeping Dahlia bulbs during winter; 2d, the best time for planting grape-vines for glass-house or cold-frame; 3d, the best kind of Strawberries, early, medium and late, to plant for family use.

ANS.—1. Keep them on shelves in a dry cellar out of danger from frost. Place them singly on the shelves; if piled one upon another, there is danger of their rotting. Should the cellar be damp, it is best to cover them with dry sand. Dahlia roots should be taken up on a fine, sunny day, the earth shaken off very carefully that none of the roots be broken loose, and they should then be placed in the sun to dry till toward evening, when they can be brought under shelter. 2. In the spring, as early as the plants in the grapery are started. 3. For early, Pioneer, Duchess; for medium, Charles Downing and Sharpless; for late, Kentucky.

Miscellaneous.

Mrs. E. H. C., Pekin, N. Y., asks 1, when is the proper time to trim an evergreen hedge of nearly two years' growth; 2d, the best variety of Primrose for winter blooming; 3d, will Verbenas that have just begun to blossom continue if potted and taken into the house.

ANS.—1. We could answer this question better if our friend had told us what kind of evergreen it is. It will be best to defer the trimming till next spring. Just how much to trim off, to get the best possible result, must depend upon the vigor of the hedge, the desired shape, etc.; no rule can be laid down that will answer for all cases alike. An evergreen hedge, however, should never be trimmed severely; three or four shearings during the season of growth are preferable to a severe one at the end of the season. 2. The single Chinese Primrose, Primula Sinensis, is most easily managed and blooms profusely; if the flowers are wanted for bouquets, the double-flowered is the best. The latter is best propagated by cuttings. Seed of the single variety sown now will flower in the spring. 3. It may, if potted carefully; but it is seldom that old Verbenas that have been used for bedding purposes, do well in pots afterward.

Ivy, Ivysrest, N. Y., asks, 1, how can apple trees be made to bear the odd years; 2, what are the salaries of brakemen, firemen and engineers on the railroads; 3, is it safe for a person who has lost the sight of one eye to run an engine.

ANS.—Apple trees that are in the habit of bearing only every other year, may generally be made to reverse their fruitful years by picking off the blossoms, or the young fruit as soon as they are formed, which, of course, should be done without injuring the spurs. It is better, however, to thin the fruit only moderately, so as to have a crop every year. Overbearing one season so exhausts the tree that it can form no fruit buds for the next. 2. Salaries vary on the different roads and on different trains on the same road according to the responsibility connected with the posts. Brakemen get from $25 to $40 a month, firemen from $2 to $2.50 a day, and engineers from $75 to $90 a month. 3. We should not consider it safe.

J. W. L., Smith's Grove, Ky., asks 1, whether a variety of corn known there as Gen. W. G Le Due's Improved Prolific, is the same as Blount's Prolific; 2, whether McCabe's Universal History is, as it claims to be, without a superior.

ANS.—There is no "Gen. Le Due" corn that we have ever heard of. 2. We don't know the work; but we have little faith in the utility of Universal Histories. The field they pretend to cover is too large for one man to do it justice, and such a meager smattering of information as they can impart, is of little benefit for utility or ornament.

C. S. B., Detroit, Mich., refers to an Editorial Brevity in our issue of July the 26th, in which it was stated that Prof. Lazenby found a cheap, safe and effective remedy for the cabbage worm in the application of a few quarts of tar in a barrel of water, and asks whether coal or pine tar should be used.

ANS.—Professor Lazenby writes us that he has used both coal and pine tar with almost equally good effect, but that he gives a slight preference to the former.

E. L. J., New Haven, Ct., sends a worm which he has taken from a tree in the garden and asks for its name.

ANS.—The worm was dead and crumbled up when it reached us, so we are unable to tell anything about it. Insects sent for name should always be in the imago state. Larvæ molt and change in their appearance so often that they cannot be named with certainty.

J. W. T., New Richland, Logan Co., Ohio, asks where can Defiance wheat be bought; and at how much a peck, and whether it is the sort sent out by the RURAL last season.

ANS.—This is now offered for sale by several seedsmen. B. K. Bliss & Sons of this city are the introducers. We have sown it as a winter wheat and distributed some of it to our friends. The price is now quite low.

J. R., Owasco, N. Y., asks whether a glass pipe can be used in a cistern, instead of a lead one, without discoloring the water.

ANS.—Certainly it can. Were it not for the expense, the risk of breakage, and the difficulty of making bends and joints, glass pipes would be the best, as they certainly are the cleanest, for conveying water.

L. H. D., Newark, O., asks how often must the progeny of a Short-horn bull and a good dam be crossed by Short-horn sires, before they are reckoned as good as Short-horns.

ANS.—Four crosses are allowed to constitute animals substantially as good as a pure-bred Short-horn; that is, the female progeny of a Short-horn sire and an approved dam, must again be crossed by a Short-horn bull, and this must occur a second and a third time, when the offspring of the fourth cross is considered as good as a pure-bred Short-horn.

W. S. A., Petersburg, Va., asks, 1, what varieties of Grapes should he plant for a succession throughout the season; 2, what Plums would be likely to do best in that latitude.

ANS.—Try Lady, for earliest white. For early, Hartford Prolific, Concord. For medium, Ives's, Scuppernong, Delaware. For late, Iona, Clinton, Norton's Virginia: 2, Plums, Damson and Wild Goose.

Mrs. J. B., Owasco, N. Y., asks if Pelargoniums can be wintered in a box in the cellar the same as Geraniums. 2. She raised some Stipa, or Feather Grass, last year which did not blossom this summer, and she asks when it will.

ANS.—1. Yes. 2. The Feather Grass will blossom next summer.

S. S. S., Ricefield Minn., asks whether, when a fruit tree is killed and another grows from the roots, the latter can properly be called a seedling.

ANS —Yes, if the stock was a seedling in the first place, before it was grafted, and the tree is killed off below the graft.

J. H. G., Glenville, N. Y., asks what is the color and season of Mold's Ennobled Oats; also whether it is an early or late sort and whether a well grown berry is longer or shorter than the ordinary kind.

ANS.—Black. Season medium. Longer.

K. Mc. N., Bloomville, Ohio., sends a twig for name.

ANS.—Euonymus Americanus, or American Strawberry Bush; found in the forests from the latitude of New York and southward. It is often cultivated.

S. L., Sharon Center, N. Y., asks whether the Bronze Ricinus will stand the winter out-of-doors.

ANS.—No.

J. I. B., Grundy Centre, Iowa. asks for the name of a reliable grain dealer in this city.

ANS.—R. A. Yellowlee, 45 Pearl St., N. Y.

COMMUNICATIONS RECEIVED FOR THE WEEK ENDING SATURDAY, SEPT. 27.

F. W. D.—T. A. P.—L. A. P.—H. C. E.—O. S. O.—J. W. L.—M. M. S.—G. H.—D. S.—J. B.—L. P.—M. E. P.—T H. H.—L. W. B.—L. W. S.—M. G.—M. L.—S. F. S.—S. L. T.—W. C. H.—G. R.—P. P. C.—H. R. H.—A. S. D.—J. W. L.—F. W. S.—S. W. K.—S. S. S.—G. A. B.—I. Y.—J. A. H.—J. N.—H. R. P.—F. B.—E. L. T.—H. R. P.—"Ivy"—C. W.—A. C.—G. M.—W. H. M.—W. R. L.—An Old Subscriber.—G. B.—S. M.—T. H. H.—F. W. G.—T. R.—J. C. W.—J. A. Van V.—H. T. J.—M. B. P.—J. P. P.—J. A. C.—O. S. B.—L. B. A.—F. H. D.—

Dairy Husbandry.

THE FARM DAIRY.

W. J. B., El Dorado, Kansas, asks for a trustworthy article on cheese making on a farm.

ANSWERED BY HENRY STEWART.

The factory system has almost completely destroyed the farm dairy. This may be a convenience to the farm household, but it is a question if the convenience, ease, or exemption from the labor of the household dairy has not been purchased at too great a price. The labor involved in making cheese is not, or need not be heavy, disagreeable or exacting. By proper mechanical labor-saving contrivances, all heavy lifting, slopping and other work which might be considered undesirable under our present popular notions, may be avoided. The factory system, too, has the effect of producing a homogeneous product. All factory cheese is alike, unless a difference may be made between good and bad, but here the variety ends. The methods in use are not productive of variety. In fact, the whole conduct of dairying from the talk and discussions of the Convention to the work of the "make" and curing room, has an unavoidable tendency to produce sameness in the product. There is nothing else that so palls upon the appetite as a constant repetition of the same thing, and may it not be for this reason, among others no doubt, but for this chiefly that we have seen cheese a drug in the market at five cents a pound, and dairymen mourning over their losses. With a diversity of system there will be a diversity of product, and the farm dairy is productive of just the variety of quality and character that is needed to please a diverse public taste. Practical experience is not sufficient for improvement; on the contrary, it tends to draw people into ruts and narrow channels; but when accompanied by inventive ability, there are no bounds to the extent of the improvements that may be made in any industry. Thus the farm dairy by the necessary employment of a hundred heads and minds, where now but one is at work, offers a great opportunity for the betterment of the dairy industry.

It is an encouraging sign when inquiries are made about the best system of farm cheese making. It shows that a beginning is made in returning to the practice of a legitimate domestic manufacture upon the restoration of which, to a considerable extent, may depend the return of prosperity to the dairy interest and its larger extension in the future. Farm cheese making is apt to fail most frequently for want of specific and accurate knowledge of the small details. Long experience gives this, but it is apt to be a "rule of thumb" and not one of strict weights and measures. There is no work on dairying yet published that gives the needed detailed information with accuracy, so that with the proper appliances used with thermometer, scales, and measure, a cheese of some kind may be made as a beginning upon which to found a practical experience that may be rapidly available. For the use of beginners, if not for older cheese makers, we give some of the needful

Details of Farm Cheese-Making.

The best cheese is made by what is known as the Cheddar system. In this a certain amount of acidity is developed in the curd before it is pressed. The process is as follows:—The whole milk (unskimmed) is used. If a whole day's milk is required, the evening's milk is cooled and stirred at intervals before retiring, and in the morning is again stirred and brought to a temperature of 78 to 84 degrees, the former for warm weather and the latter for cold. This milk is poured into a vat which may be heated by means of a pipe from a boiler, or upon a stove kept in the cheese room. Or the vat may have a false bottom of zinc for the purpose. The morning's milk is strained warm into the vat and the whole is well mixed by stirring. Half a pint of infusion of rennet for each 100 gallons of milk, is then poured into the vat and the whole once more stirred. The infusion is made by steeping a cured stomach of a calf in one quart of salt water for three weeks, when it is bottled for use. At this strength the milk will be curdled at the temperature previously mentioned, in one hour.

The stomach is prepared as follows:—take the true stomach, not the paunch, of a sucking calf just killed, turn out the contents and fill it with salt; then hang it up in a cool place to dry; after that pack it into a paper bag and hang it up in a dry place for a year, when it will be ready for use by merely putting it in water. The curd when made is sliced with a curd knife crosswise, perpendicularly and also horizontally, to bring it into cubes of moderate size, so that the whey may separate. The mass is then heated by means of hot water let into the pipes, or the false bottom and sides of the vat, until it shows a temperature of 100 degrees. This should take half an hour. The hot water is then drawn off and the curd stirred in the hot whey and broken up more finely. After standing half an hour until the curd has settled, the whey is drawn off and set to cool, when the cream which rises upon it, may be skimmed off and saved for butter. The vat is covered with a cloth and the curd left another half hour, when it is cut into pieces, turned, covered and left for half an hour again, when it is again cut and left for 15 minutes. During this period it will have become slightly acid to the taste. Care must here be exercised lest the acid become too much developed. The curd is now torn to pieces, cooled and put into layers in the vat to drain for half a day, until it is dry and tough. It is then broken up, and ground in a curd mill, two pounds of salt to the 100 of curd are added, and then it is placed in the hoop in a cloth and pressed. The pressure is about 2,000 lbs. for a 60 lbs. cheese. The cloth is changed daily for three days, when the cheese is taken from the press and bandaged, unless the bandage has been put on at the last pressing. It is then ready for the curing shelf where it is turned daily and kept in a steady temperature of 65 degrees.

A less troublesome system may be practised, but with some gain in the amount of labor and attention required, there will be a loss in quality of product. The utensils required can be purchased very cheaply at any of the dairy-furnishing stores, and by using the most improved ones, the work is made very light.

THE
RURAL NEW-YORKER.
PUBLISHED EVERY SATURDAY.

CONDUCTED BY
ELBERT S. CARMAN.

Address
THE RURAL NEW-YORKER,
78 Duane Street, New York City.

SATURDAY, OCT. 4, 1879.

APPLICANTS for seeds are requested not to stick their stamps to the letters. This practice causes us much trouble and the stamps are often destroyed in the attempt to sever them from the paper. *Leave them loose in the letters.*

AN IMPORTANT QUESTION.

IT seems to be agreed on nearly all hands that there is about as much loss as gain in cheese production at the present prices. By this condition of the industry the farmers of the country are the only actual losers. The factorymen take care to make a profit of some sort even from their patrons' losses, while the long line of middlemen between the producers and consumers pocket enough to check the consumption of the latter, and thus aggravate the misfortunes of the former.

Several causes contribute to the present depression of this branch of farm industry. For our enormous exports of cheese the British working classes have been the chief customers, and the working classes of Great Britan are now so hard-pinched by the depression universal there, not in agriculture alone, but in all sorts of industries, that they have often to be thankful for the bread without the cheese, or with a much smaller chunk of it than usual By the middle and upper classes, who also use cheese liberally, the home-made sorts, or varieties imported from the neighboring Continent, are more highly prized than the great bulk of that received from this country. We have been catering to the taste and pockets of the masses, and, unfortunately for us and them, the emptiness of the latter now prevents the free indulgence of the former. Owing to the falling-off in the purchases consequent greatly on this restriction, our supply would be too large for the production of even a few years back, and is much too large, to be profitable, for the present make. To secure "paying" prices, therefore, either our markets for cheese must be enlarged, or our production of it curtailed.

The two most practicable ways of increasing our sales seem to be, first, to make a greater variety of cheese, so as to tempt more liberal purchases by appealing to a wider range of taste, and, second, to create a greater home demand for this highly nutritious kind of food. As remarked by Mr. Stewart elsewhere, the chief or only difference in factory cheeses, is that between the good and the bad; while there certainly would be a wider opening for diversity in each of these kinds, and for the production of several intermediate sorts, should cheese be more extensively made under the varying conditions that exist on our farm dairies. Is a return, then, to home cheese-making the only means of obtaining this desirable diversity of product; or will not the factories vary more, here and there, the character of their make?

At fairs and dairy conventions a great deal has been said of late as to the necessity of increasing the appetite for cheese among our countrymen; but a pretty close outlook for the last couple of years has failed to discover a single practical step towards doing so, with the possible exception of the holding of that International Dairy Fair in this city. A fair price for a good article, and a size of cheese suitable for the immediate use of a single family, are two of the foremost means for popularizing the product; but while cheese has been bringing at the factory only six to seven cents per pound, it has been retailing for from 12 to 14 cents at the neighboring grocery, and for from 16 to 18 cents, or more, in city stores. And, worse still, the article, instead of tempting the purchaser to buy it again, is generally so poor that it lessens his taste for cheese. Then, again, who with a moderate-sized family is willing to buy a forty or fifty-pound cheese to have much of it mold before it can be used? For one such man, hundreds would be tempted to purchase a five or six-pound cheese. Yet no effectual pressure has ever been brought to bear upon retailers to moderate their greed, or upon factorymen to help their patrons to a larger market by making smaller cheeses.

Although the price of cheese will probably rise temporarily this fall and, perhaps, the coming winter, still the prospect seems gloomy for our present production. In view of the difficulty of enlarging our market promptly by either of these means, the sensible course in the present emergency seems to be to adopt the other of the above-named alternatives—to curtail our cheese production. To do this to advantage, however, will necessitate the substitution of some more profitable industry by those who are unwilling to work for nothing or at a loss and enterprising enough to step out of the trodden path when it has become too encumbered for progress. What shall this other industry be—long wool raising, as Col. Curtis elsewhere suggests, or what?

MORAL EDUCATION.

INTELLECTUAL education is the great panacea proposed for all social evils. It is advocated as the only means wherewith to check the progress and work the final suppression of crime. While it must be admitted that the tendency of education is to prove this statement true, it should not be accepted wholly without qualification. Intellectual education becomes a blessing, a source of happiness, to the possessor and to the world only so far as the moral qualities keep step with the intellectual in development. An unscrupulous intellectual giant is a being to be feared and shunned rather than admired and sought; for though men of this kind possess the greatest power to do, it is hazardous to intrust them with opportunity to use their power. The many swindling railroad presidents, directors of mining corporations and insurance managers furnish sufficient proof of this.

What, therefore, the world needs is not merely minds with great scope of action, minds that can conceive and carry out magnificent schemes, but they should also be awakened to the responsibility that is inseparable from power, to a sense of the obligation that trust imposes; and this may properly be called moral education. The word, morality, as commonly used, is frequently given a meaning much too shrunken and narrow to convey all that it really comprises. The standard dictionaries define morality as the duties of men in their social character. This clearly includes all the points of right and wrong, that turn up in human intercourse, and is not confined simply to a right private behavior.

The world calls the man moral and honorable who is not lewd and degraded in his tastes, who leads an irreproachable life in his family relations, and pays due respect to society, though elsewhere, in order to enrich himself, he may cause untold suffering and misery by fraudulent dealing. It is this view of morality that in this country, perhaps more than in any other, should receive special consideration. It should be inculcated on the young that, though clothed with the mantle of respectability, it is no less immoral to defraud others by tricks and sharp dealing than it is to be a common thief, drunkard or outcast from society.

OUR CORN PREMIUMS.

COMPETITORS for the several hundred dollars' worth of premiums which the RURAL NEW-YORKER offered last Spring for the largest yield from the Blount's corn which we sent to them, will soon begin to make their reports. We ask them to be as explicit as possible in their statements, since we desire to publish all of them that we can find space for, from which any information of value can be gleaned. Our friends will, therefore, please state the kind of soil; whether it is sandy or clayey; the kind of manure used; how often cultivated; whether the culture was hilled or flat; whether in hills or drills; how far apart; what special causes affected it injuriously or otherwise; the greatest number of ears to a stalk, etc. We would state that in the awarding of premiums the strictest impartiality shall be observed. We have nothing to do with the *names* of our competitors, but only with the largest well-authenticated yields.

The future demand for our meat supply is a matter of interest and importance to all stock owners. Are our present European sales simply a streak of good luck, or are they likely to continue? There can be no doubt but that our transatlantic sales, instead of diminishing, will increase. The population of Europe is increasing much faster than its meat supply, while the improvement in the condition of the lower classes, which is occurring slowly but steadily, must inevitably lead to an enlarged use of animal food. Despite occasional reductions of the wages of laboring people, the tendency of these is constantly upward, and with higher wages will come a more generous meat diet. If Europeans used only as much meat as we use now in proportion to the respective populations, their present meat supply would be entirely inadequate. The fact that our present export of live stock to Great Britain is constantly increasing, in spite of the restrictions upon it, is a pretty certain guarantee of the permanence of the trade. In view, therefore, of this growing market, it is the duty of our farmers to improve their stock steadily, and this can be done effectually only by the use of pure-bred sires; for the introduction of good blood into a herd by this means will often increase its value 25 per cent. in a few years.

Hardy Begonias are becoming very popular in England for bedding purposes. They are found in a number of colors, as scarlet, yellow, buff and white. They are propagated by seed, which, if sown early in the spring in boxes in the greenhouse, produce plants that may flower in the fall; or cuttings may be taken in the fall, kept growing during the winter in-doors and planted out next spring. These plants bloom in the fall, and will continue to bloom profusely, even after the frost has destroyed other bedding plants. They seem especially well adapted to shaded and partly shaded places where other bright bedding plants refuse to do well. The roots are tubers and may, in the middle latitudes, be left out all winter by giving them a good covering with soil and litter. In the Northern States they may be taken up, packed in boxes, and wintered, like Dahlias, in a frost-proof cellar or similar place. Under pot culture they also succeed well, and may be kept in a cold-frame, like Violets, for winter flowering.

BREVITIES.

JAMABUKI is the native name of the hardy shrub Rhodotypus kerrioides, as we learn from the Loudon Garden.

OUR POTATO NUMBER will be issued, probably, Oct. 11th. All articles intended for that number should be in the editors' hands prior to Oct. 5th.

DURING the week ending Sept. 6, there arrived in England from this country and Canada, 1,827 head of cattle; 6,140 sheep, and 389 pigs; also 3,225 quarters of beef, and 630 carcasses of mutton.

AUSTRALIA and New Zealand are among the very best customers of England for her choicest breeds of cattle, sheep, and horses, preferring chiefly the Short-horns among the first and the Clydesdales among the last.

ARE other animals besides man sensitive to ridicule? Certainly some of them are; for instance, dogs often show that they are hurt at being laughed at, while the sportsman's feathered prey strongly object to be made "game" of.

ALL packages sent to us containing fruit, flowers, etc., to be named, must be prepaid in full. And our friends must remember that if any writing whatever is contained in such packages, they must be be prepaid at the rate of letter postage, if sent by mail.

THOSE English farmers that came out to Texas a couple of weeks ago, are reported to have brought an aggregate sum of $150,000 between the 80 of them, or nearly $2,000 a-piece, to say nothing of the skill experience and lusty strength with which they enrich this country. Long live such immigration!

THE Yellow Wood, the subject of several of our illustrations this week, never produces fruit in England. Though tardy in its spring leafage, it holds its leaves and they retain their fresh, green color until after frost. We have never before seen faithful portraits of the leaves, flowers and fruit of this beautiful, but little known tree.

THOSE who propose to experiment in pitting green food for forage, should construct the pits at once according to the directions we have several times given. A good experiment would be to divide the pit or silo into several compartments and in each store a different kind of plant,—for example, Pearl Millet, coru, sorghum—so as to determine which would ensilage best.

SOME of our contemporaries call J. B. Lawes Professor—some Doctor. The truth is, Oxford University conferred upon him the degree of LL.D. Now for more than twenty-five years his name has been known as that of the most efficient agricultural experimenter in the world, and we have a feeling that Doctor or Professor applied to the respected name of J. B. Lawes belittles it.

A BERLIN official report lately issued shows that from August 1, 1878, to August 1, 1879, about 5,000 hams, 60 sides of bacon, 500 shoulders of pork, and 125 roulades were examined. Of these there were reported to the police authorities containing trichinæ, 109 hams, 161 sides of bacon, 7 shoulders, and 4 roulades. Trichinæ were also found in two pigs slaughtered in Berlin.

WE have been saving seeds of the following grapes: Delaware, Lady, El Dorado, Martha, Iona, Secretary, Goethe, Wilder and Salem. We shall send a few of these to each member of the Rural Horticultural Club within a week or ten days. We advise our young friends to plant them *at once* in well-drained pots of good garden soil. The Youths' Department will furnish all particulars.

THE hold that Blount's corn has of the earth is remarkable. The stalks average, in our plot of a quarter of an acre, scarcely less than ten feet; while those in our usual field of corn are not over eight. Now during a recent gale which blew down about half of the corn in our part of the country, Blount's suffered the least. It is worthy of note also, that the corn in our usual field was *hilled up*, while Blount's was not.

PROF. CALDWELL expresses the opinion in the N. Y. Tribune that taking into account the eminent fitness of the nitrogen in nitrate of soda for plant-food, and the uniform good quality of the fertilizer, it would appear to be well worth while in many cases to use it. It is brought from the western coast of South America where there are immense quantities of it. A good deal comes from Chili—hence the name of Chili Saltpeter. It is quoted here at $4 per cwt. which would make the nitrogen cost about 26 cents per pound.

AT the recent exhibition in this city of the New York State Horticultural Society we had the opportunity of seeing the two new seedling grapes, Rochester and Monroe, produced by Messrs. Ellwanger & Barry, of Rochester, N. Y. The bunch of each exhibited was rather small, but quite compact. Rochester is of a brownish-red color; the berry is small and quite sweet; but the skin is very thick and tough, which is a serious drawback to this otherwise promising variety. Monroe is black; berry, small, juicy and very vinous. It will not become popular as a dessert fruit, but as a wine grape it may prove good.

FROM returns presented to them from time to time since January last, insurance men in Liverpool have made some interesting calculations as to the average percentage of loss to live stock, during the voyage across the ocean. Of cattle the loss now is three per cent. of the number shipped; while that of sheep is only two per cent. The heaviest mortality is among pigs, which amounts to ten per cent. The loss among all classes of animals is much less now than when the live stock trade was established; for then the deaths of cattle often amounted to 25 per cent. Now the animals have ample space, a special attendant, and good care during the voyage; formerly they were huddled as closely as practicable and nearly left to shift for themselves during the passage.

WITHIN the past twelvemonth the Nihilists of Russia have set fire to several cities in that country, and thus caused a number of deaths and much suffering and desolation. The last atrocity of the kind of which they have been guilty, is the burning of the city of Kiev, capital of the most fertile province in the Ukraine, and situated on the Dnieper, 270 miles north of Odessa. The miscreants fired this city of 70,000 inhabitants on a stormy night in no less than seven places, causing a large destruction of human life within the two days during which the flames raged, besides an enormous loss of property. If assassination and incendiarism are the best arguments Nihilism has to offer in its own behalf, the sooner the followers of this insensate gospel of destruction are themselves destroyed, the better for society.

FROM a private letter from W. R. Lazenby, of Cornell University, we take the liberty to publish the following extracts:

"I have just returned from visiting some of the agricultural colleges in the west, and have garnered some rich treasures of observation and experience. I saw much to gratify and please. Am more and more convinced that the advantages of any one section are just about counterbalanced by some disadvantages, and a great deal more depends upon the *person* than upon the *place*. I have yet to find a locality where idleness is compatible with thrift, or where men grow rich by doing nothing. Many of the institutions visited—notably the Ill. Industrial University, Mich. Ag. Coll. and Iowa Ag. Coll.—are meeting the demands of the West very fully and very satisfactorily.

WE have been traveling among farmers a good deal of late, and find that many of them do not know what the difference is between bone superphosphate and bone phosphate. They call both *phosphates* as if they were merely different brands of the same fertilizer. We have many times explained the difference in these columns at length. It may be well, however, to state in a few words that they are essentially the same in fertilizing constituents, with the essential difference that the phosphoric acid of the superphosphate is immediately available to the plant, while in the phosphate it is not. If *immediate* effects are desired, therefore, use superphosphate of lime or bone superphosphate which is the same thing; viz., bone dissolved in sulphuric acid. If slower and more lasting effects are desired, use phosphate of lime or bone phosphate or bone flour, which are all the same.

ALL over England local emigration societies are being formed, all affiliated with "The Workingman's National Emigration Society." Their object is to aid members to emigrate either to this country, to Canada or to Australia or New Zealand. Any workingman may join on the payment of three, six, nine or twelve cents a fortnight. At intervals a certain number of members are chosen by ballot who are entitled to a grant of £10 if going to Australia or New Zealand, and to £6 if coming to America. The money is paid to the shipping agent, however, to prevent misappropriation. Those who have no intention of emigrating themselves are urged to contribute, inasmuch as the departure of others will have a tendency to raise their own wages and better their condition by rendering their services of more importance. From present indications it would seem that the exodus from that country is only commencing. It is highly probable, therefore, that the tide of British immigration will soon set in rapidly on our shores. Our capacity for expansion, however, is practically unlimited, and we can extend a cheerful welcome to all labor-seeking newcomers, who will soon add to the number, power and prosperity of our citizens.

Literary Miscellany.

THE WORLD FROM THE SIDEWALK.

Did you ever stand in the crowded street,
In the glare of the city lamp,
And list to the tread of the million feet
In their quaintly musical tramp?
As the surging crowd go to and fro
'Tis a pleasant sight, I ween,
To mark the figures that come and go
In the ever-changing scene.

Here the publican walks with the sinner proud,
And the priest in his gloomy cowl,
And Dives walks in the motley crowd
With Lazarus, cheek by jowl,
And the daughter of toil, with her fresh young heart,
As pure as her spotless fame,
Keeps step with the woman who makes her mart
In the haunts of sin and shame.

How lightly trips the country lass
In the midst of the city's ills!
As freshly pure as the daisied grass
That grows on her native hills.
And the beggar, too, with his hungry eye,
And his lean, wan face and crutch,
Gives a blessing the same to the passer-by
As he gives him little or much.

When Time has beaten the world's tattoo,
And in dusky armor dight,
Is treading with echoless footsteps through
The gloom of the silent night,
How many of these shall be daintily fed
And shall sink to slumbers sweet,
While many will go to a sleepless bed
And never a crumb to eat!

Ah, me! when the hours go joyful by,
How little we stop to heed
Our brothers' and sisters' despairing cry
In their woe and their bitter need!
Yet such a world as the angels sought
This world of ours we'd call,
If the brotherly love that the Father taught
Was felt by each for all.

Yet a few short years and this motley throng
Will all have passed away.
And the rich and the poor and the old and the young
Will be undistinguished clay.
And lips that laugh and lips that moan
Shall in silence alike be sealed,
And some will lie under stately stone,
And some in the Potter's Field!

But the sun will be shining just as bright
And so will the silver moon,
And just such a crowd will be here at night,
And just such a crowd at noon.
And men will be wicked and women will sin,
As ever since Adam's fall,
With the same old world to labor in,
And the same God over all.

[*Chicago Tribune.*

IN FOLLY'S NET.

CHAPTER VII.

"PARTING IS SUCH SWEET SORROW."

It was the 8th of August, and, as is usual at that time of the year, the station of the Great Northern Railway presented a scene of bustle and animation at the hour of the departure of the northern express, and the porters were rushing here and there with piles of luggage of all sorts; servants in and out of livery were hurrying hither and thither in search of their masters and mistresses, of tickets, of luggage, of vacant seats in the carriages, many of which were full, or "engaged."

At the door of a saloon carriage three or four people were standing looking on the confusion around them with the calm self-satisfied air of those who had surmounted their difficulties, and could afford to stand idly, and look at other people surmounting theirs.

This group consisted of four persons, two of either sex; and the quiet, ladylike attire of the two women, and the respectable appearance of the men, one of whom wore the dress of a Highland gillie, easily stamped their position in life as belonging to the upper class of servants. In effect, the young Scotchman was a confidential servant of Lord Sholto's; the other man was his lordship's valet; while the two women were Lady Sholto's maid and Miss McLeod's; the former a pretty, *piquante* Frenchwoman, the latter, Collins, a more staid, steady Englishwoman.

"And what does your young lady say to the Earl not coming with us, Mrs. Collins?" said McCormie, the Scotchman, pleasantly.

"She says nothing Mr. McCormic; but I suppose she thinks the more," said Collins. "She did not seem to care much at first what dresses I packed, until his lordship said he would follow in three or four weeks."

"That's very unlike mademoiselle," said Lady Sholto's maid, laughing. "She is always *si coquette*, that it is quite a pleasure to make her toilette, I should think. Now, miladi is not like her; I don't think she cares much. 'Anything you like, Lisette,' she says. 'Milford does not notice so long as I look nice.'"

"Few men do, Miss Lisette," said McCormie.

"Yes, few among *vous autres Anglais*," she answered, laughing; "but the men of my country always look, and that is why the French ladies understand toilette so well. Ah! there is milord."

McCormie started, and went hastily forward to meet Lord Sholto, who had just entered the station with his wife and sister, both attired in the most becoming of traveling costumes.

"Ah! McCormie," said his lordship, carelessly, "Is all arranged?"

"All is ready, my lord," was the respectful answer. "This is the carriage."

"Ah! a saloon, with an inner compartment," said his lordship, in a tone of satisfaction. "That is capital! Of course you have forgotten nothing, McCormie, such a question is a superfluous one for you. Have Lord Ivor and Miss McLeod arrived?"

"Not yet, my lord."

"It would be very awkward, and," Ida added, glancing at her watch, "they have only a few minutes now."

At this moment Lord Sholto's voice outside was heard exclaiming:

"Here you are, young people; I thought you had entered into a conspiracy to miss the train."

"No, Archie was loyal and would not," said Jean, laughing. "I begged and entreated him to do so, but in vain."

"Archibald, that young woman will give you no end of trouble," continued Lord Sholto, laughing. "If I were engaged to her, I should not let her go to Scotland for three or four weeks without my supervision and authority."

"But I have yours," said Jean, laughing; "is not that enough?"

"My supervision, yes; but I have no authority, you see," laughed his lordship. "You look bent on mischief, and you are certainly arrayed for conquest. That is a most bewitching costume."

"So Archie has just told me," said Jean. "I am glad it gives satisfaction. If you would like the address of my tailor, it is Ulster House, Connaught Street."

"Many thanks. I shall not fail to make use of it."

Jean's costume, which suited her admirably, was a skirt of kilted tweed of a soft brown color, a closely fitting Norfolk jacket of the same material, and a quaint, deerstalking hat of the same shade as her dress, under which her sweet face looked charmingly bewitching and piquant.

"You have just a minute and a half to take leave in," said Lord Sholto, in a moment; "which leaves Jean just half a minute to get into the train. I will be considerate enough to turn my back on you, Ivor."

The Earl laughed as he thanked him with a slight bow; he had been standing silent during the merry war of words between his brother-in-law and Jean, and his handsome face was a trifle graver and paler than usual.

"I wish you were coming, Archie," she said, softly, as he held her little gloved hands close pressed in his, looking down at her from his tall hight with a gravity which was almost prophetic, as if he foresaw the terrible sorrow their separation would bring upon them both.

"I wish so too, my darling," he said, gravely: "but, you see, I cannot. Be a good child, Jean,' he added, half-seriously, half-laughingly, "Don" get into any scrapes while I am not there to get you out, and write every day, love."

"Yes, without fail," Jean said, earnestly, then with a touch of her irrepressible gaiety, she went on: "You won't mind if I send you a post card sometimes, Archie. You would ruin me in stamps otherwise!"

"Jeanie," he said, reproachfully, "don't you care at all—sometimes I think you don't care for me one bit. I feel utterly miserable this morning—as if some foreboding of evil to come were hanging over me; while you——"

"Shall I stay, Archie?" she said, softly. "Aunt Margaret will be glad to keep me."

"No, no, my darling. I am not so selfish," he said, quickly. "Go and enjoy yourself."

"You are overtired," she said, gently. "Let me stay, Archie, I don't like to leave you like this."

"I'm a fool, I think," he said, impatiently. "I let my love make me very foolish where you are concerned, Jeanie."

"Time is up, Ivor, very sorry," said Lord Sholto smilingly, over his shoulder.

"You must go, love. Good-by," said the Earl. "Take care of yourself, and don't fail to write; if you miss a day, I shall think something has happened."

"Good-by, Archie, dearest and best," she said, with a sudden tenderness of voice and gesture; and, regardless of the crowd around them, he strained her to his heart in one passionate, hurried embrace, and Jeanie's sweet eyes filled with very unwonted tears as she sprang into the carriage, and Lord Sholto, with a hurried handshake to his brother-in-law, followed.

The doors were banged, last farewells exchanged, and the northern express glided out of the station, and the last glimpse Jean McLeod had of her *fiance* showed him standing bareheaded as he watched the train and saw the last of the bonnie face he loved so well framed in the carriage window.

When they met again, the shadow of a terrible trouble had fallen upon them both, and Jean's light heart was "fit to break" with a sorrow which she had brought upon the life of the man she loved more than life itself.

The long, wearisome journey—long and wearisome, no matter how many contrivances you can devise to shorten its length and lessen its weariness—was over at last, and Lord Sholto's party arrived at Glossin, which was the nearest station to Sholto, where the carriages and Highland servants were awaiting them, the latter ready to greet 'the laird' with great delight, while Lord Sholto's spirits rose high at the thought of being once more in his native land.

At Glossin, too, they met several friends and acquaintances, and the officials at the little station were having a busy time of it, between travelers, luggage, and hampers, and were all in full activity.

"Are you not glad to be here, Ida?" said Jean, whose eyes and cheeks were radiant with her delight and pleasure at being once more in the "land o' cakes" which she loved so well. "Florence, don't you smell the heather? Oh! my dear country, how I love you; there is no country in the world like you!"

And the day came to Jean McLeod, when she was ready to curse the day on which she set foot in the land.

Sholto was nearly fifteen miles from the station, for it was situated in the midst of wide-spreading moors and hills, and Lady Sholto and Ida, already wearied with their journey, were in no humor to share Jean's raptures at the wild, rugged scenery through which they passed, and were no little pleased at Sholto Hall rising like a haven of rest in the distance.

The house had been built according to a plant made by the late lord; and for although within it was everything that could be desired, without; it presented a strange mixture which surprised those who beheld it for the first time.

The view from the windows, over hill and dale, was a lovely one, the valley just beneath the hill was well cultivated, and the river rolled on swiftly through wooded banks; there was a small space of green pasture land, and then the hills and moors, the mountains of dark heath, the purple bloom of the heather, the roar of the distant waterfall.

Jean stood at her window for sometime drinking in the loveliness of the landscape as it lay flooded in golden light; but as she gazed the sunlight faded, a heavy black cloud hovered over the scene, and then a great sudden thunderclap burst over the castle, and sent Jean, white and shuddering, back into the center of the room.

"Is it an omen," she said, aloud—"is it an omen? Oh! if sorrow is to come to us, let the greatest share be mine, and spare Archie."

And when Collins came up a few minutes after she found her mistress struggling with an hysterical passion of tears, which she could only account for by the thunder and the over fatigue of the last two days.

CHAPTER VIII.

LOST ON THE MOORS.

"As for you, Mr. Blair, I don't think anything in the world would induce you to give up a day's shooting."

"You could make me do so easily," said Andrew Blair, quietly.

It was a glorious day in September, about six weeks after the arrival at Sholto Hall, and Miss McLeod and Mr. Blair were standing together on one of the terraces before the castle, passing away the few minutes which elapsed between breakfast and the departure of the shooting party for the moors.

Mr. Blair was a late addition to the party at Sholto Hall; he had arrived about a week before, having been for some time at Blair Gates superintending repairs, restorations and renovations which demanded, or which he chose to imagine demanded, his own personal supervision. His advent at Sholto had given very general satisfaction, and Jean, especially, had hailed it with delight, for she was tired of the visitors at Sholto, and Lord Ivor had not yet been able to leave town; for, detained at first by parliamentary business, he had afterwards been kept by the illness and death of a college friend to whom he had been greatly attached; he was expected almost daily now; but meanwhile Jean had declared herself *ennuyee a mourir* and desperately in want of some new excitement, and this Mr. Blair's arrival gave her, for she took unfeigned delight in his society.

"Could I?" said Jean, laughing, in answer to his assertion that she could easily keep him from a shooting expedition. "I doubt it; if I asked you to stay at home to day and read Tennyson to us poor, deserted woman folk, would you do so?"

"No," he answered, promptly; "but if you ask me to stay at home and read to one of the woman folk, I will do so with the greatest pleasure."

"An excuse, a base subterfuge," said Jean, with scornful laughter.

"Try me," he rejoined, quietly, and the dark eyes went to hers with an expression of passionate admiration, under which Jean's brown orbs sank.

She was looking lovely as the morning itself in the prettiest of flowing white morning-dresses with a profusion of lace and rose-colored ribbons about it, and a rose in her bosom, and looking down at her Andrew Blair felt his heart beat with a fierce, longing desire—fiercer more intense than he had known yet—to make this woman his wife, to possess her rare loveliness for his own, to press his lips to the tender crimson mouth, and to feel her little clinging hands in his.

"Do you like Tennyson, Mr. Blair?" Jean said demurely.

"Not so much as the man whose poem you are carrying in your hand," he said, quietly.

"Owen Meredith? Do you not really? I never heard anyone who had the courage to confess to such heresy," she said, gaily. "I admire your bravery and would emulate it if I could."

He stretched out his hand and took the book from her fingers, opening it at random.

"Do you remember these words," he went on, immediately, and read:

"'And I know that all is hopeless,
And that which might have been
Had she only waited a year or two
Is turn'd to a wild regret, I know,
Which will haunt us both, whatever the scene
And whatever the path we go.'"

Jean was silent. In a moment Mr. Blair continued:

"And this one," he said. Listen:

"'Away, away, the dream was vain,
We meet too soon or meet too late;
Still wear, as best you may, the chain
Your own hands forged about your fate,
Who could not wait.

"'What! you have given your life away
Before you found what most life misses?
Forsworn the bridal dream you say,
Of that ideal love whose kisses
Are vain as this is."

As he concluded the lines he dropped the book on the grass at their feet and covered his face with his hands. Jean's face paled; it was not in her nature to hear, unmoved, the passion in his voice, the unutterable pathos of his broken tones.

There was a moment's silence.

"Forgive me," he said then, in a lighter voice. "I have no right to obtrude my misery into your bright young life. What are you going to do today?"

"I really don't know," she said, trying to speak carelessly, but with a softer tone in her voice which his jealous ear quickly distinguished. "I am so tired of sitting at home that I am half-inclined to walk over to Glenholme and sketch the ruins of the old church there."

"It is a very long walk," he said, turning away his face to hide the sudden gleam of triumph which flashed into his dark eyes. "Quite six miles."

"Seven miles, Lord Sholto says. I am a capital walker."

"May I meet you and walk home with you?" he said, in a low pleading tone. "It will be getting late for you to return alone if you go unattended; surely you will not refuse me such a pleasure," he added, entreatingly.

"I do not think I need trouble you," she said, hesitatingly and hurriedly.

"Trouble! It will be the greatest pleasure. Ah! surely, Miss McLeod, you will not refuse me such a crumb of comfort?"

She stood hesitating, her eyes fixed on the ground and her little hands nervously clasped together while she restlessly turned round and round her fingers the flashing diamond ring which Archibald had placed there some months ago, in token of the engagement into which she had so freely entered.

He glanced down on the little jewelled hand.

"Ah! he said, suddenly. "I forgot; forgive me."

Jean's fair face flushed; something in his tone stung her pride.

"If you really care for it, and it is not much out of your way," she said, a little coldly, "I shall be very glad to have your escort home."

"Thank you," he said, gravely and quietly, and his tone was eloquent of gratitude.

"We're off, Blair," said his host's voice from a lower terrace. "Are you coming with me to-day or not?"

"I am coming," he shouted back. "When will you start for your walk, Miss McLeod?" he added, hastily, as he attempted to fasten his pouch, but his fingers were so very unsteady that Jean, unconscious of a dozen pairs of eyes regarding her from below, volunteered her assistance.

"Directly after luncheon," she said.

"Thank you. Good-morning," he said, and before Jean had guessed his intention he stooped and kissed the little white fingers on which the diamonds gleamed, and, turning, went hastily down the terrace steps to join the sportsmen, while Jean, a little angry, a little pleased, a little touched, for no woman is insensible to the devotion of any man, whether she loves him or not, went up to her room to ponder over Mr. Blair's words, his strange agitation, and his evident devotion to herself.—*To be continued.*

ORIGIN OF THE NAMES OF STATES.

Maine was so called as early as 1623, from Maine, in France, of which Henrietta Maria, Queen of England, was at that time proprietor. Popular name—The Lumber or Pine Tree State.

New Hampshire was the name given to the territory conveyed by the Plymouth Company to Captain John Mason, by patent, November 7, 1629, with reference to the patentee, who was Governor of Portsmouth in Hampshire, England. Popular name—The Granite State.

Vermont was so called by the inhabitants in their Declaration of Independence, January 16, 1777, from the French *verd mont*, the Green Mountains. Popular name—The Green Mountain State.

Massachusetts was so called from Massachusetts Bay, and that from the Massachusetts tribe of Indians, in the neighborhood of Boston. The tribe is thought to have derived its name from the Blue Hills of Milton. "I have learnt," says Roger Williams, "that the Massachusetts were so called from the Blue Hills." Popular name—The Bay State.

Rhode Island was so called in 1664, in reference to the Island of Rhodes, in the Mediterranean. Popular name—Little Rhody.

Connecticut was so called from the Indian name of its principal river. Connecticut is a Mocheakan-new word, signifying long river. Popular name—The Nutmeg or Free Stone State.

New York was so called in 1664, in reference to the Duke of York and Albany, to whom this territory was granted by the King of England. Popular name—The Empire or Excelsior State.

New Jersey was so called in 1664, from the Island of Jersey, on the coast of France, the residence of the family of Sir George Carteret, to whom the territory was granted.

Pennsylvania was so called in 1681, after William Penn. Popular name—The Keystone State.

Delaware was so called in 1703, from Delaware Bay, on which it lies, and which received its name from Lord de la Ware, who died in this bay. Popular name—The Blue Hen or Diamond State.

Maryland was called in honor of Henrietta Maria, Queen of Charles I., in his patent to Lord Baltimore, June 30th, 1632.

Virginia was so called in 1584, after Elizabeth, the virgin Queen of England. Popular name—The Old Dominion or Mother of Presidents.

Carolina was so called by the French in 1564, in honor of King Charles IX., of France. Popular name of South Carolina—The Palmetto State; of North Carolina—The Old North or Turpentine State.

Georgia was so called in 1732, in honor of King George II.

Alabama was so called in 1814, from its principal river, meaning *Here we rest*.

Mississippi was so called in 1800, from its western boundary, Mississippi is said to denote the whole river, *i. e.*, the river formed by the union of many. Popular name—The Bayou State.

Louisiana was so called in honor of Louis XIV., of France. Popular name—The Creole State.

Tennessee was so called in 1796, from its principal river. The word Ten-as-se is said to signify a *carved spoon*. Popular name—The Big Bend State.

Kentucky was so called in 1792, from its principal river. Popular name—The State of Dark and Bloody Ground.

Illinois was so called in 1809, from its principal river. The word is said to signify *the river of men*. Popular name—The Sucker or Prairie State.

Indiana was so called in 1809, from the American Indians. Popular name—The Hoosier State.

Ohio was so called in 1802, from its southern boundary. Popular name—The Buckeye State. Meaning of Indian word Ohio, *Beautiful.*

Missouri was so called in 1821, from its principal river. Indian name meaning *muddy water.*

Michigan was so called in 1805 from the lake on its border. Indian name, meaning *a weir for fish.* Popular name—The Wolverine State.

Arkansas was so called in 1812 from its principal river. Indian name. Popular name—The Bear State.

Florida was so called by Juan Ponce de Leon in 1572, because it was discovered on Easter Sunday, Spanish, *Pascua Florida.*

Wisconsin was so called from its principal river. Indian name, meaning *wild rushing river.*

Iowa was so called from its principal river. Indian name, meaning *the sleepy ones.* Popular name—Hawkeye State.

Minnesota is also an Indian word, meaning *the whitish water.*

California, a Spanish word, and named from an arm of the Pacific Ocean. Popular name—The Golden State.

Texas, a Spanish word, applied to the Republic. Popular name—The Lone Star State.

Kansas is an Indian name, meaning *the smoky water.*

West Virginia. So called after Virginia.

Nevada is a Spanish word, meaning *white with snow.*

FACTS ABOUT PHILATELY.

PRAKRAMA.

I.—What it is and why it should be studied.

THE study of Philately or stamp-collecting was almost unknown in 1860, but has since increased so rapidly in popularity that the time appears to be not far distant when enthusiastic collectors will be found in every town in the United States and Europe. Already the stamp business has attained considerable proportions; the literature on the subject is extensive, several periodicals being devoted exclusively to it; the auction sales (one of which I described a few weeks ago in the RURAL) are largely attended; and, for the crowning triumph of the new science, an International Congress of Philatelists met last year in Paris. But all this has been accomplished by the efforts of individual collectors, and the subject of Philately is seldom noticed by the press. This neglect has been so general that I think the following facts relating to stamps and the way to collect them may induce at least a few to engage in my favorite pastime. As I am writing, not for the advanced collector, but for the beginner and those not collecting, I will begin with a statement of a few of the advantages gained by the study and a brief historical sketch.

The first advantage in practical importance is that it is an aid to the study of geography. The location of a country, island or city is remembered more readily by the collector when it is associated in his mind with an interesting or rare series of stamps. How many of those who read this and are not Philatelists can think instantly where Sarawak, Curacao, Cundinamarca, Reunion Island, Angola, New Caledonia, St. Lucia or La Guaira are? A second advantage is that the currency of a country is shown by its stamps. At an early stage of his investigations the collector will find, not merely this, but that the money of one country may differ from that of another in which the standard coin has the same name, and that the value of a national coin may be suddenly changed. As an illustration, I will select the postage stamps of Uruguay. The collector will notice that while the values of the 1859 issue ranged from 60 to 240 centesimos, the highest value of the 1864 issue is only 12 centesimos, and only 20 centesimos the following year. How can this be accounted for? The explanation is that in 1859 one real (100 centesimos) was worth 11 cents, and that the currency was changed and one peso (100 centesimos) has since been worth 77 cents. The Philatelist is not likely to forget that a milreis in Portugal is worth nearly twice as much as in Brazil.

Historical events are frequently commemorated by stamps. For instance: on the deposition of Queen Isabella II. of Spain a postage stamp bearing her portrait was surcharged (printed over), "Habilitado por la Junta Revolucionaria" (issued by the Revolutionary Junta), thus recalling the provisional government; while the surcharge subsequently adopted, "Habilitado por la Nacion" (issued by the Nation) shows the existence of a republic. Then the portrait of King Amadeus appeared, and was soon replaced on the stamps by a seated figure of Liberty, showing that the nation was again under a republican government. The present issue with the head of Alfonso XII. proves that the duration of the Second Republic was very brief, while the "Impuesto de Guerra" (war-tax) stamps tell us of the long civil war, and we may see on the "Carlist" stamps the portrait of a pretender to the crown.

Another example may be found in the postage-stamp history of Naples. During the Dictatorship of Garibaldi the national arms were erased from the dies used in printing the stamps and the cross of Savoy substituted, a prophesy of the coming Kingdom of Italy. That the dream of a united Italy was not fully realized at once is proved by the emission several years later of a new series of stamps for the Roman States, on which the tiara and keys are shown. On the first French postage stamps we see the head of Liberty; this is replaced during the Presidency of Napoleon by his portrait, while the inscription "Repub. Franc." remains unchanged. This is succeeded the next year by "Empire Franc.," and in 1863 the head of the Emperor is encircled by a laurel wreath, emblematic of his Italian victories. In 1871 the head of Liberty again appears, a memorial of the downfall of the Second Empire and the restoration of the Republic.

In a collection of stamps we also find portraits of the reigning sovereigns of many countries, or perhaps, if the State is a republic, those of eminent citizens. Sometimes the national arms are shown. In a few instances the inscriptions on stamps are in more than one language, thus showing (except in the new stamps issued as provided by the Universal Postal Union, with inscriptions in the language of the country emitting them, and, also, in French) either that the country was conquered and had not acquired the language of its conquerors like the States of India tributary to Great Britain; or that the citizens are gradually adopting a foreign language for commercial purposes as in Japan. We can even trace some indications of national character in the stamps of a country. This may seem paradoxical but I think a comparison of the early German issues with those of France will confirm it. From revenue stamps in addition to the geographical and historical information, we may learn something of the business transactions of a nation from the nature of the documents, or (in other instances) articles of commerce, which are considered profitable subjects for taxation. For instance, a country destitute of foreign commerce would not find "Foreign Bills of Exchange" of sufficient importance as a means of raising revenue to issue special stamps for them.

The beauty of a collection of stamps in fine condition will be to many a greater attraction than their historical value. As specimens of engraving many postage and more revenue stamps would deserve preservation. As instances I may mention the splendid sets now used for postage by Honduras, Peru, Ceylon and the United States, and the revenue stamps of Chili, Transvaal, Mexico and Ceylon. Most of those I have referred to are also remarkable for beauty of colors, but in this respect I consider the "Inland Revenue" stamps of British Guiana to be equal to any in existence. For beauty of engraving the higher values of United States revenues are probably unequaled. As a contrast to the handsome stamps mentioned, many of the rarest are very coarsely engraved and badly printed. The first issue of British Guiana postage stamps (one of the very rarest known) is a noticeable example, the design consisting of a roughly drawn circle enclosing name of country and value.

Although revenue stamps have been long in use (almost two centuries in Great Britain), they have only very recently attracted attention, and their history has never been thoroughly investigated. This mode of collecting taxes seems to be rapidly spreading at present, new issues appear constantly and no more favorable time could be chosen for commencing a collection of these interesting labels.

The first postage stamps were issued in 1840 by Great Britain, and are known as the Mulready envelopes. Two values of these were issued, the 1d. black and 2d. blue; the design representing Britannia sending letters to all parts of the world. In the same year two small adhesive stamps were issued of the same denominations as the envelopes. Brazil issued a set of three stamps in 1843. The design consists of a large numeral in nearly circular frame; and is said to have been adopted by the postmaster-general because he thought it would be showing disrespect to the emperor to blacken his portrait in cancellation. This idea was adhered to by Brazil for more than twenty years but has now been abandoned, and the portrait of the emperor is given on the stamps. The French postal issues date from 1849; those of Switzerland (Zurich) from 1843; the United States was represented as early as 1842 by a stamp issued by the New York post-office, though no general issue occurred until 1847. Postal cards were introduced by Austria in 1869. Since then they have been very generally adopted; and, in many countries "reply cards" are issued. A "reply card" is furnished with a flap which is torn off and an answer written on it, while the carrier waits.

We have seen it stated that the first known stamp-collector was a Belgian schoolmaster, who used his collection to interest his pupils in geography in 1864; but of course this point must remain doubtful. For the further history of postage stamps, I cannot devote space here, but would refer those interested in this department to the standard authorities on the subject. Postage is now prepaid by stamps in almost every part of the world except in Central Asia and the interior of Africa; the issues of China and Persia being the most important recent additions to the list. In another article I will take up the first principles of Philately, and then explain some of the methods of mounting stamps and arranging them in albums.

MAGAZINES FOR OCTOBER.

THE ATLANTIC MONTHLY.—CONTENTS.—Irene the Missionary, XXVII.-XXXI; Ah, Dawn, Delay, Celeste M. A. Winslow; the Venus of Milo; Giacomo Meyerbeer, William F. Apthorp; Sleep, Katharine Lee Bates; The House of McVicker, M. L. Thompson; Foreign Trade No Cure for Hard Times, W. G. M.; Haroun al Raschid, Thomas S. Collier; Life at a Little Court, Sidney Hyde; Sincere Demagogy; On Lynn Terrace, Thomas Bailey Aldrich; Burns and Scotch Song before Him, J. C. Shairp; Albert Gallatin, J. T. M., Jr.; Socialism in Germany, Willard Brown; Withered Roses, William Winter; A Day at Windsor, Richard Grant White; The Contributors' Club; Recent Literature.

ETON BOYS.—It was now long after noon, and I saw in a field an Eton game of foot-ball. It was played with spirit, but with less dash than I had been led to expect. At another time, however, there may have been more. Apart from their uniforms, the players could not have been distinguished from the same number of Yankee boys, of like condition in life, engaged in the same sport. I also met a large party of "old boys," as they came up, in their uniforms, from a cricket match. A lather lot of young fellows I never saw. Not that they were either weak looking or unhealthy; but they were not at all what the writings of English critics had led me to expect. Not one was robust; only one had color; and there was not a curling auburn head among them. I saw Eton boys by scores, and found them neither ruddy nor plump, but, like most other boys between twelve and twenty, rather pale and slender. The full-dress Eton costume is a ridiculous one. It is a short jacket or roundabout, with a very broad turn-over shirt collar, and a chimney-pot hat. The combination is grotesque; and it is made more so by the solemnity of most of the young chaps when they have it on. Hunger drove me and my young companion into a restaurant, and I shall never forget the looks of a little Eton prig who entered as we were sitting, and took a place over against us. He kept on his preposterous hat, gave his order as if it were for his own capital execution, and ate his cakes and drank his chocolate as if that event were to take place at the conclusion of his repast.—*Richard Grant White in October Atlantic.*

SOCIALISM IN GERMANY.—It has been thought strange that in docile Germany, where order and submission have been proverbial, socialism, with which in the ordinary mind the excesses of the French Revolution are most intimately associated, could ever rise to the hight of a strong party, and assume proportions which for solidity and the prospect of continuation and growth have been equaled in no other country. There are two main causes of this strength: first, the condition of the German laborer is, on account of natural and social causes, one of hardship; and, next, the German nature is made up of feeling to a greater degree than any other European character,—of feeling deep and solid, which, when roused in philanthropy or from convictions of personal injustice, is not turned to this side or that by some slight accident, as is the case in French character, but carries the philanthropist to the end in his plans for assistance; and the heavy, stolid, deep nature of the laborer keeps him consistent in his opposition to a condition of society which his leaders tell him is the cause of his misfortunes. The German laborer, then, is discontented, and educated philanthropists, in sympathy with him, think that in socialism they have found a cure for his hard condition,—a condition depending primarily on backwardness in industries and the poverty of the German soil, which, though fertile in the south, is generally hard, unyielding, and sterile.

Any one who has traveled through the north-eastern part of Germany knows well the hard condition of the peasants,—knows that they are ill fed, hard worked, and that their hovels, many of them with only one window, some lacking even one, are hardly fit for the fowls which share them with the family. There are many huts containing only one room, with damp earth as a floor, and not more than fifteen feet square, where two families dwell; where sons bring their wives; where young and old of both sexes are thrown together; where modesty can furnish no barrier to vice, and fine feelings, if any could arise, are crushed by hard surroundings. There is a look of dejection on most faces, while the women especially seem utterly downcast. One feels that here are the descendants of those who for hundreds of years have been underlings, in whom habits of submission and obedience have been so thoroughly grounded that all will be borne to the last. But there is also a stolid strength here, that, when once roused, knows no retreat.—*Willard Brown, in October Atlantic.*

SCRIBNER'S MONTHLY.—CONTENTS.—The Camp of the Carbonates: Ups and Downs in Leadville, Ernest Ingersoll. Illustrations, by Mary Hallock Foote and J. Harrison Mills: Head-piece—En Route to Leadville—Leadville Lodgings—Up-hill Work—The Shaft House—At the Bottom of the Shaft—The Jig Drill—Athwart an Incline—The Professor in Suspense—A "Good Indication"—"When Drouthy Neebors Meet"—A Sidewalk Study—As Comfortable as Circumstances will Admit—Mosquito Pass from Capitol Hill—Burning Woods—In the Woods—At the Casino. On the the Piping Shepherd of Fortuny, Charles de Kay; With an engraving of Fortuny's "Piping Shepherd," by T. Cole. Field Sports in Minnesota, Charles A. Zimmerman; Illustrations, by the author, or by A. B. Frost after the author; Goose-Decoys—The Menagerie—A Close Shot—Cornered by a Crane—A Side Shot—A "Bond" in Wet Weather—A Mishap—Bond(ed) Goods in Transit—How Prince got his Breakfast—Kandiyohi Pass—Canvas Back and Red Head—A Cold Morning—The Bridge Stand—A Tight Shell—Stopping an Incomer—Goose-Shooting from Stubble—Wild Geese—Wild Ducks. Edison's Inventions, III: The System of Fast Telegraphy, Edwin M. Fox; Illustrations: Portrait of Thomas A. Edison (drawn by Francis Lathrop; engraved by F. Juengling) and Seven Figures showing the workings of the Automatic Telegraph. Journalism as Exemplified by the late Mr. Bagehot. Confidence, Chapters V and VI: Henry James, Jr. English Spelling and Spelling Reform, II: T. R. Lounsbury. Widowed; A. B. Boyle. Sleep of years; John Vance Cheney. "Haworth's," Chapters LII-LIV. (Conclusion); Frances Hodgson Burnett. A Sailor in a Cotton Field; Jack Randolph. The New Year, Philip O. Sullivan; With an illustration by Maria R. Oakey, engraved by Henry Marsh. Brazil, V., Rio de Janeiro, Herbert H. Smith; Illustrations, after drawings by B. Wiegandt; Rua Primeira de Marco—A Narrow Street—Fruit and Cake Seller—Charcoal Seller—Poultry Seller—Up the Bay—The Sugar Loaf, from the South—Water-Carts of Rio—Botafogo and the Corcovado—Tijuca from the Bay—The Organ Mountains—The Gavia—In the Passelo Publico—Porters Waiting for Work—Beer Garden. Arthur Sullivan, Kate Field; with Portrait. Her Conquest, Irwin Russell. Annunciata; Hjalmar Hjorth Boyesen. Dick; William Hawley Smith. The Unknown Ship; William M. Briggs. Topics of the Time; The Popular Wisdom—Good Talking—A Reply from Mr. Riddle. Home and Society; Parlor Plays (Arthur Penn)—A Short Essay on Washing (Mary Dean and S. B. H.)—Fall Work in the Rose Garden (M. S. S). Culture and Progress. The World's Work. Bric-a-Brac. A Pair of Quatrains (A. Z.)—The Fools of Killogue (Irwin Russell)—Souvenirs d'Amour (Walter Carey)—Ups and Downs (Job Case)—The Useful with the Beautiful (drawing by Hopkins)—A Rhyme of the Time (Nellie G. Cone)—Feminine (H. C. Bunner)—The School-master Abroad.

GOOD TALKERS.—The first requisite of a good talker is genuine social sympathy. A man may not say, out of some selfish motive, or some motive of personal policy; "Go to! I will become a good talker." He must enjoy society, and have a genuine desire to serve and please. We have all seen the talker who talks for his own purposes, or talks to please himself. He is the well-known character—the talking bore. The talker who gets himself up for show, who plans his conversations for an evening, and crams for them, becomes intolerable. He lectures: he does not converse; for there is no power of a talker so delightful as that of exciting others to talk, and listening to what his own inspiring and suggestive utterances have called forth. Genuine social sympathy and a hearty desire to please others are necessary to produce such a talker as this, and no other is tolerable. Social sympathy is a natural gift, and there is a combination of other gifts which constitute what may be called *esprit*, that are very essential to a good talker. This combination includes individuality, tact and wit—the talents, aptitudes, and peculiar characteristic charm which enable a man to use the materials of conversation in an engaging way, entirely his own; for every good talker has his own way of saying good things, as well as of managing conversation based on his *esprit*.

Yet it is true that there are no good talkers who depend upon their natural gifts and such material as they get in the usual interchanges of society. For the materials of conversation we must draw upon knowledge. No man can be a thoroughly good talker who does not know a great deal. Social sympathy and "the gift of gab" go but a short way toward producing good conversation, though we hear a great deal of this kind of talk among the young. Sound and exact knowledge is the very basis of good conversation. To know a great many things well is to have in hand the best and most reliable materials of good conversation. There is nothing like abundance and exactness of knowledge with which to furnish a talker. Next to this, perhaps, is familiarity with polite literature. The faculty of quoting from the best authors is a very desirable one. Facts are valuable, and thoughts perhaps are quite as valuable, especially as they are more stimulating to the conversation of a group. The talker who deals alone in facts is quite likely to have the talk all to himself, while the man who is familiar with thoughts and ideas, as he has found them embodied in literature, becomes a stimulator of thought and conversation in those around him. Familiarity with knowledge and with the products of literary art cannot be too much insisted on as the furniture of good conversation.

Beyond this, the good talker must be familiar with the current thought and events of his time. There should be no movement in politics, religion and society that the good talker is not familiar with. Indeed, the man who undertakes to talk at all must know what is uppermost in men's minds, and be able to add to the general fund of thought and knowledge, and respond to the popular inquiry and the popular disposition for discussion. The man who undertakes to be a good talker should never be caught napping, concerning any current topic of immediate public interest.

How to carry and convey superiority of knowledge and culture without appearing to be pedantic how to talk out of abundant stores of information and familiarity with opinion without seeming to preach, as Coleridge was accused of doing, belongs, with the ability to talk well, to "the art of conversation." It has seemed to us that if young people could only see how shallow and silly very much of their talk is, and must necessarily be, so long as they lack the materials of conversation, they would take more pains with their study, would devote themselves more to the best books, and that, at least, they would acquire and maintain more familiarity with important current events. To know something is the best cure for neighborhood gossip, for talk about dress, and for ten thousand frivolities and sillinesses of society. Besides, a good talker needs an audience to understand and respond to him, and where is he to find one if there is not abundant culture around him?—*Dr. Holland in Scribner for October.*

ST. NICHOLAS.—The October number of St. Nicholas closes the sixth volume of the magazine with an array of features hard to match in interest for the little folks.

Louisa M. Alcott contributes the opening story entitled Jimmy's Cruise in the Pinafore, a charming narrative, illustrated with fine portraits of characters in the Children's Pinafore, which will delight every boy and girl who has heard the famous operetta.

The Elevated Railroads of New York are described in a long article by Charles Barnard, and with it are given eight admirable pictures of various views along the lines of the three New York Roads. The text and illustrations also show how the roads were constructed, and together furnish a capital and entertaining account of those wonderful Railroads in the Air.

Noah's Ark Ashore, is the title of another descriptive article which will be eagerly read by every boy and girl. It is a well-told narrative of a visit to a queer Ark on the Amazon river which a kind-hearted native had turned into a sort of asylum for beasts and birds of various kinds. The story of this novel institution is very interesting indeed, and the illustrations are really superb. No finer pictures of animals have been printed of late years than the eight beautiful drawings which accompany this article.

Besides these, there is a timely little paper telling all about the strange doings and mysteries of Halloween, and illustrated with a lovely frontis-piece; while a very Curious Monastery is shown in a full-page picture, and a fascinating School in the

Woods is described by Maurice Thompson, the literary archer.

Of Stories there is a capital budget, beginning with the two serials Eyebright and A Jolly Fellowship, which are both concluded in this number with "climax" installments. Then there is a lively fishing story—Mr. Carother's Secret, written by the author of Dab Kinzer; a pleasant, fanciful tale by Moncure D. Conway, and a strong home story for girls, called What Kate Found in the Well. An Educational Breakfast at the Peterkins', a very comical affair, is told about by Miss Lucretia P. Hale. Mary E. Bradley contributes a fine poem called Duke Leopold's Stone, for which Alfred Fredericks has drawn a beautiful illustration; and there are several funny pictures and verses scattered through the number, while the Departments at the end will look at least as inviting as ever to the young eyes that read them so carefully every month.

MESSRS. LEE AND SHEPARD will immediately publish Jules Verne's new book, "The Tribulations of a Chinaman in China," which has just appeared in Paris. The book is intensely interesting and amusing, and many of the popular features of the day such as the Phonograph, Capt. Boyton in his Rubber Suit, Life Insurance Companies, Banking Speculations, Advertising Schemes and various other eccentricities of the times are woven into the narrative.

BRIC-A-BRAC.

AT SEA.

WORN voyagers, who watch for land
Across the endless wastes of sea,
Who gaze before and on each hand,
Why look ye not to what ye flee?

The stars, by which the sailors steer,
Not always rise before the prow;
Though forward naught but clouds appear,
Behind they may be breaking now.

What though me may not turn again
To shores of childhood that we leave,
Are those old signs we followed, vain?
Can guide so oft found true, deceive?

Oh, sail we to the South or North,
Oh, sail we to the East or West,
The port from which we first put forth
Is our heart's home, is our life's best!

[*F. W. Bourdillon.*

AN EYE ON A SPREE.—An Allegheny physician, who, in his way, is a great wag, tells a story of a North Side gentleman who for years has suffered from periodical attacks of what in medical parlance is known as superorbital neuralgia. Quinine proved of no effect, and the sufferer was almost crazed with pain. A kind-hearted, old lady, living in the neighborhood of the patient, informed him that if he would cut the affected nerve with a pair of scissors or a knife, it would give him no further trouble. It so happens that the superorbital nerve is the one which controls the action of the eyelid, and when a man is in liquor this nerve becomes paralyzed, and it is this that gives a drunken person such a comical expression about the eyes. The neuralgia patient no sooner heard what he supposed the welcome news from the old lady than he repaired to a closet, and with a jack-knife parted in twain the offending nerve, and he now greets his friends with his right eye as sober as a Quaker in a quarterly meeting and the left in a highly intoxicated condition.—*Pittsburgh (Pa.) Leader.*

AN English writer has been sharply criticising the management of the London public schools, known as the "Board schools," and produces the following specimens of the written examination of some of the scholars:

"Where is Turin?"

"Turcen is the capital of Chiner; the peepul there lives on birds nests and has long tails."

"What do you know of the patriarch Abraham?"

"He was the father of Lot and ad tew wifes—wun was called Ilishmale and the t'other Haygur. He kept wun at home and he turned the t'other into the desert, where she became a pillow of salt in the day time and a pillow of fire at nite."

"DE GUATILLION."

GIT yo' pardners, fust guatillion!
Stamp yo' feet an' raise 'em high;
Tune is: "Oh! dat watermillion!
Gwine to eat it bime-by."

S'lute yo' pardners! Scrape perlitely;
Don't be bumpin' gin de rest.
Balance all! Now step out rightly;
Alluz dance yo' level bes'!

Fo'ward four! Whoop up niggers!
Back agin! Don't be so slow!
Swing cornahs! Mind de figgers—
When I hollers den yo' go.

Hands around! Hold up yo' faces!
Don't be lookin' at yo' feet!
Swing yo' pardners to yo' places!
Dat's de way—dat's hard to beat!

Sides fo'ward! When you's ready
Make a bow as low's yo' kin!
Swing across wid op'st lady!
Now we'll let yo' swap agin!

Ladies change! Shet up dat talkin'!
Do yo' talkin' arter while!
Right and lef' don't want no walkin';
Make yo' steps and show yo' style.

ETIQUETTE OF LETTER WRITING.—As a rule, every letter, unless insulting in its character, requires an answer. To neglect to answer a letter, when written to, is as uncivil as to neglect to reply when spoken to.

In the reply, acknowledge first the receipt of the letter, mentioning its date, and afterwards consider all the points requiring attention.

If the letter is to be very brief, commence sufficiently far from the top of the page to give a nearly equal amount of blank paper at the bottom of the sheet when the letter is ended.

Should the matter in the letter continue beyond the first page, it is well to commence a little above the middle of the sheet, extending as far as necessary on the other pages.

It is thought impolite to use a half sheet of paper in formal letters. As a matter of economy and convenience for business purposes, however, it is customary to have the card of the business man printed at the top of the sheet, and a single leaf is used.

In writing a letter, the answer to which is of more benefit to yourself than the person to whom you write, enclose a postage stamp for the reply.

Letters should be as free from erasures, interlineations, blots and postscripts as possible. It is decidedly better to copy the letter than to have these appear.

A letter of introduction or recommendation, should never be sealed, as the bearer to whom it is given ought to know the contents.—*Hill's Manual of Social and Business Forms.*

TREASURES.

THE rose, preserved with tender care,
The perfumed note, the tress of hair
That speak of boyish folly—
From cozy depths of easy chair,
I scan them all with shrugging air
Of cynic melancholy.
The "carte de dance," the crumpled glove;
The netted purse—"with Polly's love"—
(Confound it! *which* was Polly?)

The posey ring I gave to Bess,
When softly came that whispered, "Yes,"
Which seemed a dream of heaven,
We turtle-doves were wont to plan
(On something very small per ann.)
A dainty cote in Devon.
Ah fickle Bess! she ran away
With Puller of the Guards, they say,
And died in '37.

A foolscap page of lover's sighs,
To one whom I apostrophize
As "stony-hearted Janet."
I call the damsel cruel—cold,
In threadbare terms about as old
As this decrepit planet.
Ah, well, those self-same halting rhymes
Did duty half-a-dozen times—
They *all* had hearts of granite!

'Tis sweet to dream of vanished youth,
Of days long dead and gone—in truth,
A pleasing occupation!
Of boyhood's "fitful fever" o'er;
Of follies past—a matter for
Sincere congratulation!
So dusky relics! with a sigh—
(An epitaph unspoken)—I
Consign you to cremation.

Ah, lips of woman!—rosy, ripe—
The amber mouth-piece of my pipe
To me is twice as charming.
When one arrives at fifty odd,
The arrows of the archer god
Have lost their power of harming.
A wounded heart will ache, no doubt
But *then* one finds a twinge of gout
A trifle more alarming! [*The Argosy.*

ORIGIN OF "CHAM," THE PARISIAN CARTOONIST'S NAME.—When the young man, who was a son of the Comte de Noe, first took to caricaturing, he signed his name and title, Viscomte de Noe. His acutely aristocratic father, who had previously cut him off with the legendary shilling, wrote him an indignant letter forbidding him the defilement of his name. Thereupon the young Viscomte assumed the name of "Cham," which is the French for Ham, the outcast son of Noah. Poor old Noe is well forgotten now, if he ever was known, whereas Cham's memory will survive him at least nine days, which is generally considered unusual longevity for fame in our lightning days.

"EXEGESIS."

THREE POWERFUL SERMONS.—Over the triple doorways of the Cathedral of Milan there are three inscriptions spanning the splendid arches. Over one is carved a beautiful wreath of roses, and underneath is the legend, "All that which pleases is only for a moment." Over the other is sculptured a cross, and there are the words, "All that which troubles us is but for a moment." Underneath the great central entrance in the main aisle is the inscription, "That only is important which is eternal."

USEFUL ITEMS.

KRUPP'S NEW STEEL BREECH-LOADER.—The big Krupp gun, a breech-loader made of steel, was tested a fortnight ago. The charge of powder was 440 pounds, and the weight of the shot 1,712 pounds. The velocity attained was 1,650 feet per second at the muzzle. In each of the three rounds the weight of the powder-charge was 440 pounds. The shot in the second round weighed nearly 1,709 pounds; the velocity was 1,644 feet. In the third round the shot weighed 1,707 pounds; velocity 1,645 feet. The first and second rounds were trial shots, for the purpose of obtaining range. The target was distant 2,735 yards. The first shot went over the target, the second fell short of it, but the third made a good hit. The great gun-maker contends that the real measure of the power of a gun is the hight to which it would be raised by the power which is imparted to the projectile when fired. Krupp, with his great breech-loader, gives to a projectile of 770 kilogrammes a velocity of 502 metres per second. This force would lift more than 10,000 tons a metre high, which is the same as raising the gun itself to a hight of 140 metres, or 458 feet. The energy of the shot fired by the Fraser 80-ton gun would raise the gun itself to the hight of 121 metres, or 397 feet. So also the Armstrong gun, of 100 tons, develops an energy sufficient to raise that gun to an elevation of 125 metres, or 410 feet. The power of modern artillery is well illustrated by the fact that the shot flies on its way with a force sufficient to raise the gun itself to an altitude equal to that of the gilt cross on the top of St. Paul's Cathedral, London. Krupp himself lays claim to a power sufficient to make his steel breech-loader of 70 tons soar at least 50 feet above the topmost point.

For Women.

LET BYGONES BE BYGONES.

LET bygones be bygones: if bygones were clouded
By aught that occasioned a pang of regret,
O, let them in darkest oblivion be shrouded:
'Tis wise and 'tis kind to forgive and forget.

Let bygones be bygones, and good be extracted
From ill, over which it is folly to fret;
The wisest of mortals have foolishly acted—
The kindest are those who forgive and forget.

Let bygones be bygones; O cherish no longer
The thought that the sun of affection has set;
Eclipsed for a moment its rays will be stronger
If you, like a Christian, forgive and forget.

Let bygones be bygones, your heart will be lighter
When kindness of yours with reception has met:
The flame of your heart will be purer and brighter
If God-like, you strive to forgive and forget.

Let bygones be bygones: O, purge out the leaven
Of malice, and try an example to set
To others, who, craving the mercy of heaven,
Are sadly too slow to forgive and forget.

Let bygones be bygones; remember how deeply
To heaven's forbearance we all are in debt!
They value God's infinite goodness too cheaply
Who heed not the precept, "Forgive and Forget."

[*Chambers's Journal.*

EXTRACTS FROM AN APPEAL TO WOMEN CITIZENS OF THE UNITED STATES.

BY the unwearied efforts of a few earnest women, we already number thirty years of agitation on the question of woman's enfranchisement, and fourteen years of persistent petitioning Congress for National protection against the tyranny of State action.

While our demands have not yet achieved political equality, they have secured larger opportunities for women in education, industry, art, science, literature and the professions; more humane legislation in regard to her social and civil rights, as wife, mother, widow; and an increasing respect for the right that includes all others—the right to vote.

The 40,000 votes for woman suffrage in Michigan; the 9,070 in Kansas; the 6,666 in Colorado; the large minority votes in many of the State Legislatures in favor of submitting the question; the 26,468 in Minnesota in favor of woman's voting on temperance; the right to vote on the schools already granted, and women actually voting thereon in Kansas, Michigan, Minnesota, Colorado, California, Oregon, New Hampshire and Massachusetts; the Minnesota Legislature at its last session passing a resolution urging Congress to submit a Sixteenth Amendment for woman suffrage; and the enfranchisement of women in Wyoming and Utah; all these facts show that the best classes of men are in favor of Equal Rights for Women, while the ignorant and especially the vicious, are bitter opponents.

The discussion in Congress on the bill to admit women to practice in the Supreme Court of the United States, and its passage in both Houses by overwhelming majorities lead naturally to the conclusion that if a woman may plead a case involving important interests between man and man before the highest judicial tribunal, it is absurd to deny her the right to vote on the closing of a dram-shop or the opening of a town pump.

From the very birth of our nation, gifted women like Abigail Adams and Lucretia Mott, inspired by our grand principles of government, have asked that the rights of women, as citizens of a republic, should be secured.

Our unsuccessful efforts for enfranchisement through the vote of the people in the several States, and the speedy triumph of the African race in achieving political equality by constitutional amendments, have educated us into the broader demand for national protection. Ever since the war, ours has been the only Woman Suffrage organization, and we the only class of citizens who have steadily maintained the doctrine of National supremacy in the protection of "Equal Rights for All," while both of the political parties, and even the Supreme Court of the United States, have played fast and loose with this fundamental principle of a republican government, declaring that only male citizens of African descent are protected in the right to vote by the Constitution. Hence we demand an additional amendment that shall specifically declare woman's right to vote in every State and Territory of the Union, all State Constitutions or Statute Laws to the contrary notwithstanding.

INDIVIDUAL POLITICAL DISABILITIES.

In considering this petition, let every woman remember that, besides the wholesale amnesty act of 1872, Congress has removed, since the war, the legal and political disabilities of 4,926 men, most of whom had taken part in the late rebellion, while the individual petitions for relief from political disabilities of 300 intelligent and patriotic women, never convicted of crime, slumbered in the committees. We now ask Congress to extend to us the same protection granted to other classes; as the Constitution declares its people to be citizens, first of the United States, and second of the State wherein they reside.

STATE LEGISLATURES.

The question may arise in some minds, "If the enfranchisement of woman should in justice be settled by National legislation, why petition the State Legislature?" For this reason: when a resolution in favor of a measure passes a State Legislature the Senators and Representatives of that State in Congress are thereby instructed as to their votes on that particular measure when it comes up for action, and on the other hand, the people of a State are roused to thought on questions under debate in their own Legislatures. Again, the only way a disfranchised class can bring their wrongs before their rulers is through petitions, and to secure these, agitation and discussion are necessary to attract popular consideration. Hence we ask you to circulate the State as well as the National petitions in every school district.

If we had the power to galvanize all women into as much zeal for their own freedom and development as they now manifest in fairs, temperance associations, foreign missions, church building, decoration and donation parties, our cause would speedily triumph.

Women are not idle, but many spend their best forces in dress, dinners, fancy work and social conversation, and in the froth of literature, politics and religion, without ever sounding the depths of those principles on which society rests. The wrangling of parties and sects may not concern woman; but the vital facts of government, the limits of State and church authority should be considered within the sphere of her interests and comprehension. Instead of clubs for the study of Greek Art, Heathen Mythology, and Microscopic Investigations, Woman Suffrage Associations should be formed in every town, county and State in the Nation. A sense of individual freedom, the liberty to think and act within the same limits prescribed to those in authority, complete equality with those around us, give the strongest impulses in the development of a noble character. When we remember that our present demand for National legislation on woman's political status, involves the same principle that has kept up a continual conflict in this nation for a century, the highest motives of patriotism should add zeal to our efforts for self protection. If every woman, however humble would bear in mind that injustice to her is injustice to all; that to acquiesce in the sacrifice of one individual right, is a step towards the downfall of the republic, a new sense of personal dignity and responsibility would inspire all with greater earnestness in advocating their own enfranchisement.

On Behalf of the National Woman Suffrage Association.

MATILDA JOSLYN GAGE, Chairman Executive Com.
SARA ANDREW SPENCER, Corresponding Sec'y.,
ELIZABETH CADY STANTON, President,
SUSAN B. ANTHONY, Vice-President at Large,
JANE H. SPOFFORD, Treasurer.

For further particulars address SARA ANDREWS SPENCER, Washington, D. C.

TWO SIDES OF THE STORY.

A WHILE ago there appeared in one of our city papers this advertisement:

WANTED.—A capable woman to do the housework in a family of four persons, and take the charge of two children, the mother's time being occupied with music.

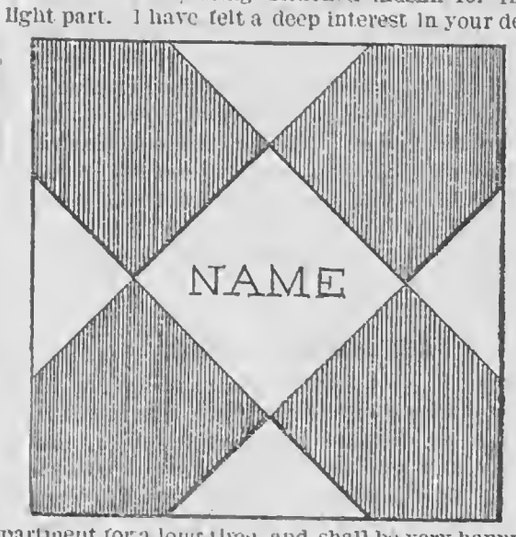
We thought sadly over this advertisement. Evidently there was a husband and wife with two children in this home circle, and the wife and mother so occupied with music as to need hired help to take her natural cares and responsibilities. —*Congregationalist.*

In such cases as this it is necessary to know all the attending circumstances before an intelligent condemnation can be uttered. We are acquainted with a lady who is compelled to leave her children to the care of others, and "occupy her time with music," that she may support herself and them. And we know instances, too, where women have to support a husband as well as children, and while music is the most compensating business she can do, must leave her family in order to support them, she is under the necessity of employing "hired help to take her natural cares and responsibilities." It is quite possible that this was the fact with the advertiser in the above case.—*Standard.*

CORRESPONDENTS' CORNER.

DEAR MISS RIPLEY:—In answer to Constant Reader in RURAL of August 25, I will reply by sending a simple design of a remembrance quilt, which does not require a large amount of material, and is very pretty when made of different kinds of calico; using bleached muslin for the light part. I have felt a deep interest in your department for a long time, and shall be very happy if I can do anything to benefit the dear RURAL sisters from time to time. If we all lend a helping hand, surely success will crown our efforts. We should live for the good of others, as well as of ourselves. Truly yours, E. H. S

Sandy Creek, N. Y.



HOME, SWEET HOME.

'MID pleasures and palaces, though we may roam,
Be it ever so humble, there's no place like home;
A charm from the skies seems to hallow us there,
Which, seek through the world, is ne'er met with elsewhere.
Home, home, sweet, sweet home,
There's no place like home. Oh, there's no place like home.

I gaze on the moon as I tread the drear wild,
And feel that my mother now thinks of her child;
As she looks on that moon from our own cottage door,
Thro' the Woodbine whose fragrance shall cheer me no more
Home, home, sweet, sweet home,
There's no place like home. Oh, there's no place like home.

An exile from home, splendor dazzles in vain;
Oh give me my lowly thatched cottage again;
The birds singing gaily, that came at my call;
Give me them, and that peace of mind, dearer than all.
Home, home, sweet, sweet home,
There's no place like home. Oh, there's no place like home.

K. A. T.

Domestic Economy.

CONDUCTED BY EMILY MAPLE.

MRS. ENDICOT'S JOURNAL.

Children's school clothes—aprons for girls—tomato preserves—reading for winter evenings.

CUTTING out work and getting it ready for the machine are hard work, as my aching back testifies. I did not get the children's clothes just "fixed" as they ought to have been before school commenced, having so much housework to do. I spent Monday in looking over last year's dresses, aprons, coats and pants. When it came to the trying on, I was surprised to see how much Della had grown; as for Harry, it's just as he said, "some shorter boy will have to be found" for his heavy suit. Della's "best dress" last winter was a seal-brown cashmere; now she will take it for school. I shall lengthen it by trimming it with blue and green mixed plaid, a piece about two inches deep around the skirt and about the same distance from the bottom. This piece set in, will make it long enough. This, with the three large bib aprons I cut out this morning, will keep her looking nice all winter. The aprons are as long almost as her dress. They are hemmed around the bottom, and trimmed at the neck and waist with a ruffle; a pocket is set on the right side, and trimmed also with a ruffle across the top. Two of the aprons are of blue and white, the other of brown and white checked gingham. They are easily washed, dried and ironed—a great recommendation for winter time. Harry's shirts I make of the brown and white imported cheviots. Sometimes they have a thread of blue or pink through them. His suits I get made, as I find that I do not know how to give them the finish I like them to have. I have hardly made up my mind what I shall do for Katy yet; the white dresses are so pretty but so troublesome that I should not wonder if soft, fine flannel took their place; with pretty white aprons they still look babyfied.

Harry has just brought a large basket of partly ripened tomatoes from the garden, which I know means, that he wants me to keep my promise and make them into preserves, and this is the way I shall do it.

Tomato Preserves.

Take tomatoes that are partly ripe, peel and put over them sugar, pound for pound; let them set till the next morning; then pour off the juice—you will be surprised at the quantity—and put on in a porcelain kettle; when it is boiling briskly, put in the tomatoes; they will need to cook a long time—three or four hours, until the juice is a thick sirup. We find them delicious, and they are a particular favorite with rich cream. I know many persons do not like them, but I think it is because they do not use enough sugar nor cook long enough. This must be done till the water has evaporated, or they will be insipid.

Mrs. Cox was in this afternoon, and we were talking of the long evenings that are coming so soon, which indeed, have already commenced. This led her to speak of a plan she had thought of for our amusement and improvement this winter. It was this—that as many in our neighborhood as wanted should form a club; each one to select any book he or she wanted, the name of the book with the price to be handed to some one selected, who would buy the whole, thus getting them at a reduction from the retail price. It is proposed that the club should meet once in two weeks at the home of some member; exchange books and spend a social evening. Thus each one would get the reading of a number of books for the price of one. The plan suited me exactly, as we have no library in our town. I told her if she would see part of our friends, I would try and see others, as I had wanted to make some calls for a long time.

SIT DOWN TO WORK.

ALL women should economize their strength as much as possible while they are young and healthy, and still more if they are aged and feeble. One way to do this is to rest one set of muscles while others are in action. Begin early in the morning by sitting down to your work before becoming tired, and you will hold out better through the day.

Place a light box in a chair to make it high enough to sit at the table to work, You can iron, wash dishes, mix bread, roll out pie-crust, and many other things with far less fatigue than if standing. Women cannot keep on their feet very long at a time without injury to their health. All women who have children, whether boys or girls, should teach them early to aid in the kitchen.

Boys as well as girls may be taught to pound out, or rub clothes, and even to wash, rinse and hang them up neatly. They may be taught to mop, scrub, and clean ceilings, iron their own clothes, and others', if need be, clean vegetables, and do many things about the house, and it will make better men of them, than if they were not taught to do these things.

HATTIE HOPEFUL.

DOMESTIC RECIPES.

Muffins.

Three cups of milk; one tablespoonful of melted butter; two eggs; one teaspoonful of salt; three tablespoonsful of yeast; one tablespoonful of white sugar. Mix all in a sponge but the eggs. Half an hour before baking add the eggs and a quarter of a teaspoonful of soda. Let rise ten minutes. Bake in rings twenty minutes.

Cocoanut Cake.

Whites of four eggs; two cups of sugar; one-half cup of butter; one cup of milk; one teaspoonful of cream-of-tartar and one-half teaspoonful of soda; four cups of flour. Bake in layers. For filling:—Take whites of two eggs; one-half tea-cupful of sugar (pulverized) and thicken with cocoanut.

Stewed Green Corn.

Cut the corn from twelve ears; add one pint of milk and cook in a covered pail set in a kettle of water; cook one half hour. Then add three eggs well beaten, salt, pepper and a little sugar to taste. Put a piece of butter in the dish in which you serve it and pour in the corn.

Chicken Salad.

Two chickens; chicken and celery equal parts; cut in small bits—not chopped. Dressing:—Yelks of three raw eggs; one teaspoonful of made mustard; a little salt and red pepper; half a bottle of oil stirred in slowly; vinegar to make a cream. Add to salad just before using. MRS. A. GRISWOLD.

For Hemorrhage.

To stop hemorrhage, or bleeding from the nose, wound, or from any cause, apply dried beef scraped very fine. If it is smoked it is so much the better. This remedy saved a pet horse of ours when everything else failed.

MRS. KENNEDY.

To Cook Carrots.

Slice carrots roundwise, as thin as you please; cover with boiling water, and boil till done, and until all the water has evaporated; then cover with milk and cream, and simmer 20 minutes; salt and pepper to taste. D. M. G.

DEAR MRS. MAPLE:—I should like the ladies to try a Southern dish called

Brunswick Stew.

Stew until tender enough to bone easily, two chickens; take out the bones, add ten ears of corn cut from the cob, a dozen tomatoes, peeled and sliced, and a pint of lima beans; cook all together, add salt and pepper to the taste.

Apple Jonathan.

Fill a pudding dish with apples pared and sliced, and pour over the dish a batter made of buttermilk brought to a foam with soda, and thickened with flour, so it will just spread with a spoon. When the apples are tender and dinner is served, turn upside down on a platter; beat the soft apples smoothly on the crust; add a lump of butter, nutmeg or cinnamon, as one prefers, and serve hot. L. W. BALDWIN.

News of the Week.

MISCELLANEOUS.

MONDAY, September 29, 1879.

The legality of the clauses of the new California constitution forbidding the employment of Chinese on public works or by corporation, is likely to be speedily passed upon by the United States Supreme Court. Oregon has a similar law, which has been declared unconstitutional by Judges Deady and Field of the United States District and Circuit Courts, and, if the Supreme Court sustains this position, California's prohibition also falls to the ground. The San Francisco papers endeavor to sustain the constitution by the plea that our treaty with China only recognizes the inalienable right of man to change his home for purposes of trade, curiosty or permanent residence, and argue that employment on public works or for corporations comes under neither of these heads. The annual session of the American veterinary association, recently held at New York, took steps to memoralize Congress to establish a national bureau of veterinary inspection. Its especial purpose is to be the stamping out of pleuro-pneumonia and keeping foreign countries exactly informed as to the prevalence of the disease in this country, now reported by the State officials of New York and New Jersey to be dying out. This New York action happens to be just in the line of the wishes of the great Western herders, whose 15,000,000 cattle, or nearly half of all in the country, feed over the great cattle belt, which stretches 3000 miles north from the Rio Grande to Manitoba. It costs only about $3 to fatten a $30-steer on those wide plains, but if pleuro-pneumonia once got into the the almost numberless herds, the business would be ruined, for it would be impossible to stamp it out. The chief or only danger is from pure-bred imported cattle, especially bulls, for this belt exports cattle to the infected sections, and the next Congress will receive petitions by the bushel asking immediate agreement on some form of national inspection and quarantine against pleuro-pneumonia and other animal diseases.

The Court of Appeals of this State has decided that mortgages made with bonuses or usurious interest are void. The decision is averse to the Knickerbocker Life Insurance Company, and wipes out over $1,000,000 in mortgages held by that company. From April to August last, over 17,000 cabin passengers left this country for Europe. It would be a low average to estimate that these passengers spend $1000 apiece in Europe, and this means the expenditure of $17,000,000 abroad in gold. During the year ending June 30, 2676 post-offices were established and 1079 discontinued. There were 40,872 offices in the country June 30, and the increase since then is 172. Large numbers of Chinamen have arrived at New York the past week from San Francisco, and one of them states that thousands more are coming. The crusade against polygamy at Salt Lake City is to be vigorously pushed. The United States District Attorney is instructed to thoroughly prosecute every case presented by the grand jury, which meets next month. The judiciary will be strengthened if necessary.

The international walking match for Sir John Astley's Champion Belt, worth $500 and a share in the gate money, took place here during last week at Madison Square Garden—formerly Gilmore's—and excited more public interest than Tammany's "bolt," or the proposed "scratching" party of a-little-poor-milk-and-a-good-deal-of-clean-water Republicans. Thirteen competitors started, each of whom had to pay an entrance fee of $500, the total making a stake of $6,500 which was to go to the winner of the match, in addition to the belt, and one-half of the net gate-money. One of the men, Dutcher, fainted on the track after having walked 23 miles, and was at once withdrawn; and then Panchot was withdrawn after having made 205 miles, owing to lameness, and because his backers preferred not to tire him out now, as he is entered for another match at the same place next week; a third, Jackson, withdrew, "knocked up" and hopeless, after having completed 230 miles; and a fourth, Federmeyer, followed his example at the end of his 369th mile. The contest was to end at 11 o'clock on Saturday evening, but all had retired from the track before ten.

The Daily Record.

The following table shows the amount of work done by the contestants each day:

	1st day.	2d day.	3d day.	4th day.	5th day.	6th day.	Total.
Weston	95	78	78	71	83	50	455
Rowell	127	88	95	93	50	78	530
Hazael	100	86	90	93	70	64	500
Guyon	115	85	70	75	70	56	471
Ennis	102	78	40	90	67	73	450
Merritt	110	87	90	80	74	73	515
Hart	110	83	79	67	77	67	482
Krohne	93	67	73	74	76	68	450
Taylor	80	20	50	90	33	37	250
Federmeyer	85	65	70	68	Out.	Out.	348
Jackson	98	62	70	Out.	Out.	Out.	232
Panchot	100	54	51	Out.	Out.	Out.	205
Dutcher	23	Out.	Out.	Out.	Out.	Out.	23

DISTANCE AND TIME.

The following is the distance covered by each pedestrian, and the actual time occupied:

	Miles.	H.	M.	S.
Rowell	530¼	139	25	0
Merritt	515	139	32	15
Hazael	500¼	139	04	50
Hart	482½	140	24	40
Guyon	471	139	12	30
Weston	455	137	17	15
Ennis	450¼	140	51	32
Krohne	450¼	140	48	25
Taylor	250¼	140	24	40

COMPARATIVE RECORD OF PREVIOUS CONTESTS.

The following table exhibits the recorded time made by the previous winners of the belt, including that of "Blower Brown," in the competition for the belt representing the championship of England:

Hours.	Weston.	Brown.	O'Leary.	Rowell.
5	39	35	29	30
10	63	62	56	55
15	87	88	76	88
20	100	113	101	100
25	124	126	120	110
40	144	146	132	132
35	163	168	147	149
40	185	192	166	172
45	211	214	188	182
50	220	221	203	203
55	238	246	220	219
60	246	266	240	237
65	279	285	262	253
70	303	305	283	275
75	315	310	301	283
80	337	335	311	303
85	356	357	330	323
90	372	381	353	343
95	390	403	373	357
100	405	409	386	364
100	417	429	400	385
110	428	447	420	401
115	450	465	442	420
120	463	480	459	427
125	478	490	468	445
130	496	506	487	463
135	517	522	505	480
140	541	541	520	500
142	550	542	520	500

The entrance fee to witness the contest was $1—double the price charged at any former similar exhibition; but at this figure $73,923 were collected from as many "paying" visitors, to say nothing of a multitude of "deadheads" and of a considerable number who got in on stolen or forged tickets. Of this sum Kuntz Brothers, the lessees of the Garden, get 25 per cent. or $18,480.75, and the remaining $55,442.25 are now in the hands of Mr. Atkinson, whom Astley sent over here to represent him. This will be divided among the eight contestants who made 450 miles. Rowell gets half after all expenses are paid. His share will not be much, if any, under $25,000, which, with $6,500 in stakes, to say nothing of the glory of taking the belt back to England, will pay the plucky little fellow well for six days' work. Merritt, the second, a Connecticut lanky, thin-faced chap, will get about 9,000. Hazael, another Englishman who came in third, will get about $6,000; Hart, a negro who won golden opinions and the fourth place, pockets some $2,000, and the others proportionate sums, according to their place at the finish, none getting less than his entrance money—$500.

Weston, who brought the belt back from England after Rowell took it away from O'Leary, proved as disappointing a fraud as he has done on numerous former occasions. Hundreds deny that he ever made the 550 miles credited to him in his late contest in England. They maintain that it was a "put-up job" in order that the contest might take place here rather than in England. There the gate money amounted at the last contest only to a paltry sum of $6,000 or $7,000, whereas here, the winner always pockets a respectable fortune. Others declare the fellow didn't do his best; and all parties vilify him and have lost confidence in him, owing to his "monkey shines" and antics during the week. Rowell has been already challenged by O'Leary and Panchot.

Ex-U. S. Senator Spencer of Alabama, who is now coining shekels from a Black Hills mine, is already mixed up in Dakota politics, and is making a hot fight to prevent Delegate Bennett's return to Congress next year. The Colorado republican state convention at Denver last week nominated Judge William E. Beck for judge of the Supreme Court, and the democrats Tuesday nominated George O. Richmond of Pueblo. Nearly $2,500,000 of the sum paid out under the pension arrearages bill has gone South, the Southern States furnishing 300,000 white men to the Union forces, not so very many less than New England, whose pensioners receive $3,600,000 under the same bill, those in New York receiving $3,230,000, and in Pennsylvania $3,050,000.

FOREIGN.

In Afghanistan the British are concentrating their forces at Sirgar Valley, about 26 miles from Cabool, preparatory to a rapid advance on that city. Yacoob Khan, his heir apparent, and father-in-law, together with many of his chiefs, have arrived in the British camp. Meanwhile, his capital is the prey of the wildest kind of anarchy; the gates are closed and hasty but confused preparations are being made by the mutineers and populace to resist the English invaders. The Khan's power seems to be limited to a very few districts; as the bulk of the country is without law or order of any sort, except the will of a number of petty chieftains or mutinous leaders. The British movements are retarded greatly through inadequate means of transportation.

In South Africa, Zululand is being rapidly pacified since the capture of Cetewayo who has been taken to Cape Town. There he will probably be held prisoner, although it is not unlikely that his final fate will be decided by the home Government. In Europe the meeting of Bismarck and Andrassy, is supposed to have resulted in the formation of an unusually close alliance between Germany and Austria. It is at present stated that each has guaranteed the possessions of the other; so that the future enemies of either will have to fight both. This close alliance is believed to be due to the danger on the one side from the Russian Panslavic propaganda and on the other from the certainty that France will take the first favorable opportunity for revenging Sedan and regaining Alsace and Loraine. It is rumored that there is no chance of a peaceable settlement between Greece and Turkey and both sides are vigorously preparing for war. It is the opinion that Austria is obstructing the efforts for a good understanding, and that in the event of hostilities, she would immediately occupy Macedonia. Prince Lobanoff is reported to be the bearer of a project for an alliance between Russia and Turkey. It is rumored that Russia is willing to renounce eight hundred million francs out of the twelve hundred million which Turkey had to pay her as a war indemnity, and not a franc of which has yet been paid, and in addition to this Russia would give back some of the former provinces of Turkey in Asia

During a recent fight between the Peruvian ram Huascar and the Chilian transport Abtao and shore batteries at Antofagasta, Chili, Capt. Grau of the Huascar attempted to use one of the new English torpedoes. To the consternation of the Peruvians, however, the infernal machine, after traveling about 150 yards toward the Abtao, turned and came directly back. A fatal collision was imminent, when young Lieut. Diez Canseco jumped overboard, swam to the approaching torpedo and changed its course so that it passed under the Huascar's stern. The Chilian naval and land forces are doing nothing. The Peruvian treasury is bankrupt, $5,000,000 being due the banks and others for war expenses, and there is no money to pay the soldiers or furnish them with rations. The finance minister, appalled at the situation, has resigned. Very little was heard of the loss sustained by the Russians in their campaign in Armenia during the Russo-Turkish war. The correspondents were mostly in the Balkan peninsula, but a recent report from the Russian staff shows that the force engaged lost 30 per cent of its officers and 23 per cent of its men, in all, a total of 2139 officers and 70,478 men about equally divided between the killed or wounded and missing.

The new Khedive of Egypt is economical to parsimony, and saves candle-ends; at least the Paris correspondent of the London Times says that "an eye witness has seen him extinguishing candles which were burning in an empty room."

If the early beginnings of the increasing tide of immigration to this country from Europe give any hint of its character, it will largely consist of the wholesale transfer of particular industries. An English trade journal says that a cutlery firm in Sheffield, with all its capital and a full staff of workmen, is removing bodily to this country. The Paris correspondent of the London Economist reports that an organized company of 50 herdsmen and women is just starting from the Cotentin peninsula in France, the chief butter-making district in the country, to organize a dairy farm in the United States.

During the past six years 93 monasteries and 41 convents have been suppressed in Rome, and their inmates, 2888 in number, cast adrift. The net proceeds of the confiscations and sale of the church property in the city were only $5,000,000—a mere trifle in comparison to the great expectations entertained by the authorities. The slaves of Cienfuegos, in the Cinco Villas, Cuba, have risen in rebellion against the Spaniards and joined the Cuban patriots, taking with them a large proportion of their masters' cattle. A correspondent of the Dundee Advertiser says, in a careful review of Scotch farming, that since 1872, when farmers were

to some extent forgetting their losses by rinderpest, there has been but one crop, '74, which paid its way.

The yellow fever is gradually dying out at Memphis, Tenn., but only for want of more material. People are warned to keep away from the city till it is officially declared safe. Sitting Bull and a Crow warrior had a duel after a fight on June 20, between 200 lodges of Sioux, who went south of the Canadian border after buffalo, and United States soldiers and 250 Cheyennes and Crows. Sitting Bull accepted a challenge, recrossed the line, shot the Crow, scalping him and taking possession of his horses. In the retreat across Milk river into Canada, Sitting Bull personally commanded the rear guard of light warriors, covering the movement, and was himself the last to cross. The estimates of the Board of Education of this city for the coming year, foot $3,558,200, a yearly average of about $33 per scholar, the school year opening with 107,398 in attendance. Mrs. Jane Y. Christmas, only daughter of the celebrated Mrs. Myra Clark Gaines of New Orleans, died last week at Warrenton, N. C., of yellow fever.

VARIOUS.

In the past year there were 68 suicides in the ranks of the Italian army, said to have been caused by *ennui* from military life.

Pedestrianism in Berlin took this form. A young man made a bet that he would run on all fours from Konigsthor to Weissensee, a distance of two or three miles, and won, in a heavy rain, in two hours.

France, Germany, Italy, Austria and Switzerland have agreed that their embassies and consulates shall send home indigent persons of their respective nationalities at half the ordinary railway fares.

Of late wild beasts have appeared in unusual numbers in Russia. In one month ten bears near Burakoff destroyed seven horses, four cows and several sheep, and such annoyances have occurred in other districts. Even in populous Odessa the police were occupied in chasing a wolf in the open streets.

Four horse thieves were captured in Cole County Ark., but a fifth, John Cole, escaped. While the prisoners were being transferred from one jail to another, heavily ironed, and guarded by six officers, Cole suddenly confronted the party in a lonely road, presented a pair of revolvers, drove off the posse, and rescued his friends. But his exploit was so exasperating to the people that they pursued and killed him, although in his final resistance he seriously wounded two of them.

There is a curious sort of modesty prevalent among the owners of great mansions in London, which induces them to retain the name of the original owner, even when his successor is ten times as distinguished. Thus even the Duke of Wellington was satisfied that his famous mansion at Hyde Park corner should continue to bear the name of Lord Chancellor Apsley, its original tenant, although it was entirely reconstructed by the Duke; and Mr. Holford, who owns the most artistic mansion in London, built on the site of what was known at Dorchester House, retains that name.

Prince Bismarck is very fond of farming. The soil round Varzin is neither very good nor very bad; it produces average harvests of rye, and the Baltic sand, the bane of the husbandman, shows itself only here and there. Such pieces of ground have long lain fallow. It takes six hours to drive round the estate. Chornitz, where there was formerly a glass house with Bohemian workmen, also belongs to Varzin. The Whipper flows through a part of the domain, and forms its boundaries in other places. It adds to both its beauty and its value, as the rapid stream, which is well stocked with trout, is used to float the timber of Pomerani to the Baltic.

Exactly a hundred and thirty years ago an obscure and unknown Yorkshireman, Richard Tattersall by name, emigrated from the borders of Yorkshire and Lancashire to London, in the hope of making his fortunes. He had previously tried his hand as a wool comber, but failed thereby to get a living. Between 1742 and 1760 the founder of the Tattersall family had so improved his time and opportunities as to be able to open his now celebrated Repository for Horses at Hyde Park corner, on the edge of the marshes on which now stand Eaton and Belgrave squares. There take place all the great English racing sales, and in its paddock is the great betting exchange known as "Tattersall's," which regulates the odds over much of the world.

Norfolk House, London, where a son and heir has just been born to the Duke of Norfolk and the historic house of Howard, was the birthplace of King George III. It is a very large mansion in St. James's square, next to London House the town residence of the Bishop of London, who has Lord Derby as his neighbor on the other side. Forty years ago St. James's square was almost exclusively occupied by noblemen and millionaires; but now clubs have invaded its precincts, and a few public offices have also crept in. The Junior Carlton Club faces Pall Mall on one side and St. James's square on the other, and the magnificent Army and Navy Club occupies the southwest corner.

A strict observance of Sunday is being urged in Germany, and is looked upon with favor even by those who are not church-goers. It is a social and economical, and not a religious movement, and the end desired is not a Sunday like that of England or America, but one on which there shall be rest and recreation for all, and particularly for the artisan and so-called laboring classes, employers not to be permitted to exact work on that day except in cases of absolute necessity. Sunday in Germany has not been invested with much of a sacred character. In the Catholic parts of the country all classes go to church, but they spend the rest of the day in dancing, beer-drinking and other vigorous amusements. In the Protestant sections they do not even go to church. The houses of worship are few—often not more than one to a dozen villages, and an equally small proportion in the cities—and the small number there are, are ill-attended. At the same time there are fewer offences against the public peace than in church-going England.

CARPETS.—American manufactures are rapidly pushing their way to the front, and in no branch is this more noticeable than in carpets. Domestic floor coverings have all but driven the imported ones out of the market. This is hardly to be wondered at, as our Axminsters, Wiltons, Velvets, Brussels and Ingrains rival the best foreign brands in durability, excellence of material, elegance of design and conscientious workmanship, and can, beside, be obtained for very much less money. The novelties and standard patterns manufactured for the fall trade by John and James Dobson, 40 and 42 West Fourteenth street, N. Y., are conspicuous for beauty of design and superiority of finish.

Baker's Breakfast Cocoa is a general favorite. Medical men recommend it as preferable to tea or coffee for nervous or delicate constitutions. Sold by leading grocers everywhere.

That invalid wife, sister, or child can be made the picture of health with Hop Bitters.

Lyon's Heel Stiffeners keep new boots and shoes straight. Sold by shoe and hardware dealers.

THE MARKETS.

PRODUCE AND PROVISIONS.

NEW YORK, Saturday, Sept. 27, 1879.

BEANS AND PEAS.—Supplies of beans are not pressing and mediums and marrows are firm and higher. Red kidneys dull at easy figures for new and old. No black beans here. Green peas looking up a trifle; quoted, $1.35@1.37½. Canadian nominal at 70c. So. B. E. peas, $2.75@3 per 2 bush. bag. Beans, medium new, $1.47½@1.55; marrow, new, $1.55@1.57½; other, $1.35@1.50; pea, new, $1.50@1.57½; white kidney, new, $1.55; red kidney, new, $1.40@1.70; old, $1.55@1.60.

Receipts for week, 8,275 bush.; exports, 1,014 pkgs.

BEESWAX.—Demand is slack and prices easy. Western and Southern quoted 22@23c.

BROOM CORN.—Is more freely offered but in demand and steady in price. Brush and short broom, choice, per lb., 5½@6½c.; do., common to good, 4½@5½c.; hurl, good to choice, 4@5c.; do., common to fair, 3½@4c.; red and crooked, 2½@3½c.

BUTTER.—Receipts for the week, 42,819 pkgs.; do., last week, 48,457 do. Exports, 24,450 do. There has again been a liberal export demand and a further advance in prices for best grades. The local trade pauses a little under the sudden advances that have occurred of late. Retail distributors always find it rather up-hill work to make consumers follow a material advance in the wholesale market: and at the moment this point checks sales. Part of the improvement State half tubs and Welsh must be ascribed to the better quality of late receipts. Western has better outside rates than before, as hot weather make bargains to fall out of the receipts.

State, pails and tubs, single dairy marks, fresh, extra, 23@24c.; best invoices, 20@21c.; good to prime, 18@20c.; fair to good, 17@18c.; firkin and tub single dairies, choice, 20c.; do., good to prime, 18@19c.; firkins, choice dairies, 19c.; do., dairies good to prime, 17½@18c.; do., fair to good, 16@17½c.; Welsh tubs, best invoices, 19c.; do., good to prime, 17½@18c.; do., fair to good, 16@17½c.; do., tubs, poor, 13@15c.; State creamery, best invoices, 27@28c.; do., good to prime, 25@26c.; sweet cream, best, 25@26c.; do., fair to good, 23@25c.; Western creamery, best invoices, 27@28c.; do., good to prime, 25@26c.; do., fair to good, 24@25c.; creamery, poor, 21@23c.; Western, imitation creamery, 14@18c.; do., dairy, fresh, extra, 17@18c.; do., good to prime, 14@16c.; do., fair to good, 13@14c.; do., poor to fair, 11@13c.; do., factory, best invoices, June, 13c.; do., fair to good, June, 11@12½c.; do., best invoices, late made, 11½@12½c.; do., fair to good, 10@11c.; do., poor to fair, 9@10c.

CHEESE.—Another radical advance at the country markets this week, and in consequence corresponding prices asked here brought business almost to a stand for two or three days, and at the close shippers buy sparingly and a good deal of stock is to be carried over. The market leaves off with a slight modification of views of holders and a nearly nominal situation. Latest prices are:

Fancy at 11@11½c.; good to prime at 9½@10½c.; fair to good at 8½@9½c.; half-skimmed at 7½@9c.; skimmed at 6@7c. State farm dairy: Fine at 10@10½c.; good to prime at 9@10c.; fair to good at 8@9c.; skimmed at 5½@7c. Wisconsin factory: Fine at 10½c.; good to prime at 9½@10c. Ohio factory: Cheddar, fine, at 10½c.; do., fair to good, 8@9c.; flat, fine, 10½c.; flat, good to prime, 9½@10c.; flat, fair to good, 8½@9½c.; half-skimmed, 7@8½c.; skimmed, 5½@6½c.

Liverpool cable, 50s.

Receipts for week, 95,838 boxes; do., last week, 96,171 do.; exports, 35,062 do.

COTTON.—There has been violent fluctuations in prices with an active business. Latest prices are for September, 10.51@10.56c.; October, 10.30@10.31c.; November, 10.15@10.16c.; December, 10.15@10.16c.; January, 10.22@10.23c.; February, 10.37@10.40c; March, 10.51@10.55c.; April, 10.61@10.63c.; May, 10.79@10.83c.

Quotations for spot cotton are based on American standard of classification, and on cotton in store running in quality not more than half a grade above or below the grade quoted.

	Uplands.	N. Orleans and Gulf.	Texas.
Ordinary	9 5-16	9 7-16	9 7-16
Strict ordinary	9 11-16	9 13-16	9 13-16
Good ordinary	10 1-16	10 -16	10 3-16
Strict good do.	10 5-16	10 7-16	10 7-16
Low middling	10 7-16	10 9-16	10 9-16
Strict low middling	10⅝	10⅞	10⅞
Middling	10⅞	10⅞	10⅞
Good middling	11	11⅛	11⅛
Strict good middling	11⅛	11⅜	11⅜
Middling Fair	11⅜	11⅝	11⅝
Fair	12⅜	12⅝	12⅝

STAINED.

Good ordinary	9⅝	Low middling	10 3-16
Strict good ordinary	9⅞	Middling	10 7-16

DRIED FRUITS.—Of apples the receipts from the South are moderate, the demand is fair for the best of the new and prices strong. Peeled peaches show small receipts and a firm market. Small fruits are generally firm.

New North Carolina apples, 6@⅝c. for fair; 8@8½c. for choice; 9@9½c. for fancy sliced. Patent evaporated apples, choice, in cases, at 12c.; do. fair to good, 10@11c.; N. Y. State sliced, choice, 5@5½c.; do. quarters, choice, 4½@5c.; western quarters, common and old, 3½@4½c.; new southern quarters at 4@4½c.; new N. C. peeled peaches at 13@16c.; do. Georgia, at 11@14c. Peaches, Delaware evaporated, peeled at 22@23c.; do. unpeeled at 11@12c.; old unpeeled halves at 4½c.; do., quarters at 4c.; new halves at 5@5½c. Blackberries at 8½@8¾c. for new. Raspberries at 23c. Pitted cherries at 20@21c.

Exports for week, 145 bbls. dried apples.

EGGS.—Receipts for week, 7,215 bbls.; do., last week, 5,979 do. The following rates have been quite steady all the past week. Dealers at the close can name strong prices with the present rate of receipts.

Near points, 21@22c.; State and Penn., 20@21c.; Canadian and Western, choice fresh, 19½@20c.; off grades, 13½@19c.

FLOUR.—The market closed active, with shippers and home trade buyers free operators, and prices are strong.

Latest prices are: $4.55@5 for inferior to fancy superfine State; $5.00@5.25 for ordinary to very good extra do., odd lots and lines; $5.25@5.50 for very good to very choice do.; $4.35@5 for inferior to fancy superfine Indiana, Iowa, Michigan, &c.; $5@5.25 for inferior to very good shipping extra do., and $5.25@5.50 for good to choice extra do.; common to choice white wheat extras, $5.40@6.25; choice to very fancy do. at $6.25@7.00; red and amber winter wheat, inferior to very choice trade and family, at $5.25@6.50; round hoop Ohio at $5.00@5.50, and trade and family brands of do. at $5.50@6.50 the latter rate for very choice; St. Louis, $5.40@6.25 for inferior to very good extra; $6.25@7.00 for very good to very fancy; Minn. clear, inferior to very choice, $5@6.25; do. "straights" very inferior to strictly fancy, $5.65@6.75 (very fancy at $7), and patent poor to very fancy at $6.75@8; unsound stock at from $3.50@6.00; city mill extra at $5.75@6.15, ordinary to very fancy, for West Indies; do. for England, $5@5.25 for ordinary to choice; do. trade and family extras, $5.85@6.75; do. for South America, $5.10@6.50 for standard to choice brands; No. 2 at $3.65@4.35 for very inferior to fancy.

FRESH FRUITS.—Exports of apples past week 4,418 bbls. Receipts of apples have suddenly fallen off and all good table fruit are tending higher. Cranberries have declined. The N. J. crops will turn out well and fully as large as last year's. Berries are small but show less scald than usual. Fine grades of pears are firm and likely to go higher. Delaware peaches done. Others mostly small. Grapes continue cheap. Plums are reduced to few varieties. Melons not wanted. Peanuts firm with limited offerings.

Apples—Blush Pippin, up-river, ₩ bbl., $2@2.25; Western N. Y., selected Fall, ₩ bbl., $2.25; do., mixed Fall, ₩ bbl., $2; N. J., fair to good, ₩ bbl., $75@1.50. Cranberries—Cape Cod, choice, per bbl., $7@8; N. J. choice, per crate, $1.75@2.; do., light colored, $1@1.50. Pears—Bartlett, State, good to prime, $3@9; do., fair to good, per bbl., $2@7; do., Boston, per bush. box, $3@3.50; Jersey, per bbl., $2@4; Sheldon, do., $3@3.50; Louise Bonne, do., $3@4; Virgalieu, do., $2.50@4; Beurre Bosc, do., $3@4; Seckel, No. 1, do., $4@4.50; do. 2, do., $2.50@3.50; Swans' Orange, do., $3@3.50; Flemish Beauty, State, do., $3@3.50; do., up-river, do., $2.50@3.50; cooking, do., $1.25@1.75. Peaches—up-river, Crawford, extra, per basket, 7@1.25; do., fair to good, 75c.@$1.25; Jersey, fair to prime, 75c.@1.25. Grapes—Del., State, 18 3-lb. boxes, $2.25@2.75; do., express lots, $3@3.25; do., in baskets, 6@6½c.; do., up-river, bulk, 5½@6c.; Catawba, State, 18 3-lb. boxes, $2.75@3; do., loose, 5@6c.; Concord, 18 3-lb. boxes, $1.50@1.75; do., express, $2@2.25; do., in baskets, 3½@4c.; do., up-river, bulk, 3@4c. Plums—Reine Claude, ₩ bbl., $7@8; do., pr ½ bu. cr., $1.50@2. Copper, bbl., $7@8; Damson, per bbl., $6@7; do., ₩ ½ bu. cr. $1@1.25. Peanuts, Va. hand-picked, $1.60@1.70; extra prime to fancy, $1.45@1.50; Va., good to prime, $1.30@1.42½; shelled, per lb., 5¾@6c; Chestnuts, ₩ bush., $6.50.

GRAIN.—All articles were lower early in the week, but closed active with a recovery of prices. Latest sales of wheat are of No. 2 amber at $1.25½@1.26½; do., Oct. option, at $1.26; ungraded amber at $1.23¾@1.27½; No. 1 white at $1.27½; do., Sept. option, at $1.27¼@1.28; do. for October at $1.26¼@1.28; do., November, at $1.26@1.28¾; do., steamer grade, at $1.21½@1.25; No. 2 white, at $1.21½@1.25; ungraded white at $1.26@1.26½; No. 2 red at $1.26¼@1.27¼; do., September option, at $1.26¼@1.27¼; do., October option, at $1.25@1.27½; do., November, at $1.21¾@1.27½; do., steamer grade, at $1.24½@1.25; No. 3 red at $1.18@1.20; No. 2 Chicago new crop, at $1.18; New York No. 2 spring, at $1.18; do., October, at $1.13@1.19; No. 3 do. at $1.15; No. 3 Chicago spring at $1.13@1.16; ungraded spring at $1.13@$1.17½. Rye at 75@77½c. for Western. Corn at for New York No. 2 at 53½@53¾c. afloat, do., September, at 53¾@53¾c.; do., October, at 53¼@53¾c.; do., November, at 52¾@51¾@51¾c.; ungraded Western mixed at 53@54c.; No. 2 white at 53c. Oats at for New York No. 1 white at 40c.; New York No. 2 white at 38c; New York No. 3, white at 36¾@37c.; No. 1 at 38c.; No. 2 at 37¼c.; No. 3 at 36½c.; New York rejected quoted at 34@35c.; ungraded mixed Western at 35@37½c.; white do. at 37¾@40c.; white State at 39@43c; mixed State quoted at 37½@39c; No. 2 Chicago at 37¾c.

HAY AND STRAW.—Trade is very fair, but offerings are more liberal, and prices show no change. Shipping hay quoted at 50c.; retail lots at 50@60c. for medium, and 70@80c. for prime; clover at 35@45c. Straw at 55@65c. for long rye, 40@50c. for short rye and 35@45c. for oat.

Exports for week, 3,189 bales.

HOPS.—Emmet Wells in his circular says: The continued heavy exports (2,000 bales again this week) has the tendency to keep the prices firm; but the arrival of nearly 3,000 bales during the same period gives us an average surplus to carry into stock and prevent prices from hardening. Aside from "contract" operations our brewers are at present taking but a few new hops. They do not seem at all alarmed by the heavy shipments to Europe, many of them being well stocked with old hops which they have bought on speculation and for their own use.

	Bales.
Receipts for the week	2,998
Total receipts since September 1, 1879	8,281
Total receipts for same period in 1878	2,262
Export clearances for the week	2,032
Total exports since September 1, 1879	2,691
Total exports for same period in 1878	658

Quotations are for New Yorks, new crop, 28@36c.; Eastern, new crop, 28@31c.; Wisconsin, new crop, none; Yearlings, growth 1878, 26@28c. Olds, all growths, 4@10c.; Pacific coast, growth 1878 (nominal) 9@14c.

HONEY.—A few lots quoted 12@16c., white clover; 10@12c., buckwheat.

OIL-CAKE.—Western is quoted at 23@$23.50.

POULTRY AND GAME.—In live poultry a day or two's trade for Jewish use stiffened prices, but the market is again working in buyers' favor.

Chickens, Southern and Western, 9@10c.; N. J., 11½@12½c.; Western, 10@11c.; Southern, 10c. Roosters, 6@7c. Turkeys from all points, 8@12c. Ducks, price 35@80c. Geese, extra, $1.30; other, $1@1.20.

Dressed poultry arrives rather ahead of trade wants, and the tone of the market is easy. The weather has been cool for several days, and supplies turn out in good order. Shipments should not be too free, as a warm spell may catch a surplus, and that would make a loss.

Turkeys, Phila., dry-picked, 15@16c., Slate and Western, 13@14c. Young, 12@13c. Chickens, choice, 15c.; other, 11@12c. Fowls, Phila., dry-picked, 15@16c.; N. J., 12@14c.; other, 10@12c.; Ducks, spring, 15@16c. dry-picked, State do., 13@14c.; ordinary, 12@13c.

Wild ducks are firm, with a good demand; other birds generally lower, with heavier receipts. Venison has some call at 18@20c., short saddles; 13@15c., long do. Partridge, State, $1.37@1.50 per pair; Western, $1.25; grouse, 75c.; woodcock, 65@75c.; Eng. snipe and plover, per doz., $1.25; wild pigeons, $1.50@1.75; small snipe, 40@50c.; red head and Mallard ducks, 60@75c. per pair; teal and common, 30@40c.

SEED.—Grass are quiet. Timothy quoted $2.35@2.40, Clover at 6¾@7c. for prime Western, and 7¼c. for choice, and State at 7½@8c.

TOBACCO.—Export demand is luggish, but home trade is very fair and prices are unchanged.

KENTUCKY LEAF.

	Light.	Heavy.
Common lugs	3½@ 4	4½@ 5
Good lugs	4½@ 5	5½@ 6
Low leaf	5½@ 6¾	6½@ 7¾
Medium leaf	7 @ 7¾	8 @ 8½
Good leaf	8 @ 8¾	9 @10½
Fine leaf	9 @11	11 @ 12
Selections	12 @—	12½@14

SEEDLEAF.	Crop of 1877.	Crop of 1878.
New England Havana seed	— @—	22 @30
do. wrappers, common	12 @14	— @—
do. do. medium	15 @17	— @—
do. do. fine	18 @25	— @—
do. do. selections	27½@35	— @—
do. seconds	— @—	10 @12½
do. fillers	— @—	5 @ 6½
Penn. assorted, common	— @—	10 @12
do. do. fair	13 @14½	13 @15
do. do. fine	15½@18	17 @22
do. wrappers	20 @40	— @—
do. fillers	9 @10	— @—
N. Y. ass't'd, com. to medium	@—	— @—
do. do. do. good	12 @15	12½@15
Ohio assorted	9 @12	8 @14
Ohio wrappers	13 @18	— @—
Wisconsin assorted	8½@10	8 @12
Wisconsin Havana seed	— @—	15 @20

PROVISIONS—Have tended higher on a strong speculative movement. Mess pork quoted at, for September, at $9.05 bid and $9.10 asked; October at $9.05 bid and $9.10 asked; November at $9.15 bid and $9.25 asked, and the December option at $9.20 bid and $9.30 asked. Bacon at $5.70 for long clear and $6.25 for short clear. Lard—Western steam at $6.42½ for spot lots; $6.45@6.47½ for October delivery, $6.16@6.17½ for November delivery and $6.12½ for December. Stearine at 6½@6¾c. Tallow at 6c. for prime. Beef hams at $15. Beef—Plain mess at $10.25@11; extra mess at $11.50@12; packet at $11.50@12; tierced beef, city extra India mess, at $19@22, and Philadelphia do. at $18.25@19, and unchanged.

VEGETABLES.—Exports of potatoes past week, 8,243 bbls. Prices let the shippers in, and supplies are too large to allow better rates for local use. Early Rose, $1@1.25; Peerless, $1@1.12; Sweet, Del., $2@2.25; N. J. and Va., $1.75@2; Green corn, per 100, 50c@$1.25; cucumbers, L. I., 75c.@$1; pickles, per 1,000, $1.25@1.75; tomatoes, L. I., near-by, per crate, 50@60c.; string beans, ₩ bag, 50c.@$1.00; potato Lima beans, $2@2.50; Lima beans, flat, $1.50@2; do., shelled, ₩ bu., $5@6; squash, marrow, ₩ bbl., 50@75c.; cabbage, flat Dutch, per 100, $3@5.00; onions, white, per bbl., $1.75@2.25; red, Eastern, ₩ bbl., $1.50; do., Chester, ₩ bbl., $1.37@1.50; yellow, ₩ bbl., $1.50@1.62; beets, N. J., ₩ bbl., 75c.@$1; Russia turnips, Jersey, $1.00@1.25; carrots, ₩ bbl., $1.00@1.25; egg plant, L. I. and near-by, per 100, $2@4; peppers, bullnose, ₩ bbl., $1.25@2.00; pumpkins, per 100, $2.00@5; Cauliflower, ₩ bbl., $1.50@5.

WOOL.—The market retains buoyancy and activity, manufacturers, free buyers and the more desirable grades, or medium qualities are getting scarce.

Ohio, Pennsylvania and Virginia.—XXX and Picklock, 40@42c.; XX, 39@40c.; X, 39@40c.; No. 1, 40@42c.; No. 2, 36@38c.; common, 34@35c.; combing, 40@44c.

New York, Michigan, Indiana and Wisconsin.—XX, 34@36c.; X, 33@36c.; No. 1, 37@40c.; No. 2, 34@36c.; common, 31@33c.; combing, 39@40c.

Iowa, Vermont and Illinois.—X and XX, 32@35c.; No. 1, 36@36c; No. 2, 32@35c.; combing, 37@39c.

Missouri, Kentucky and Tennessee.—Washed fleece, 37@40c.; unwashed do., 30@33c.; unwashed combing, 28@33c.

LIVE STOCK MARKETS

NEW YORK, Saturday, Sept. 27.

BEEVES.—Receipts for the week, 12,659 head; do. last week, 12,699 do. The market recovered a little on Wednesday, soon shrunk again under limited demand and free supplies. First quality and next grades of cattle held up to about our last figures, but common have dragged cheaply all the week. The extreme range for native steers, 7@10c. to dress 54@57 lbs.; business largely at 7½@9c. Texas, Cherokee and Colorado cattle, 6¼@7¼c. Exports for week, 500 cattle and 1,940 quarters.

COWS AND CALVES.—Supplies mainly from near points; range, $20@45 per head, no Western bringing the extreme.

VEAL CALVES.—Buttermilk and grass calves were heavily in excess of trade wants; many sent to N. J. for further feeding. N. J. & Buck's Co., fed, choice, 6¾@6¾c.; do., State, 6¼@6¾c., poor to good calves, 4½@5¾c. Buttermilk, 3@4c.; grassers, 2@2½c.

SWINE.—Receipts for the week, 31,627 head; do. last week, 24,723 do. Western packed goods will soon arrive freely. City demand for live not sharp. Full rates at the close, 3¾@4¼c., with a few pigs at 4½c. New Jersey pork, light, 6¾@7c.; medium, 6@6¼c.; heavy, 5¾c.; city dressed, 4¾@5¾c.; pigs, 6c.

SHEEP AND LAMBS.—Receipts for the week, 32,977 head; do. last week, 38,320 do. Small supplies have tended to steady the sheep market; the range is 3½@5c. for common to prime; a car-load of extra Canadian for export, $5.10 per 100. Lambs weak, generally selling at 4¼@5¼c.; full range, 4½@5¾c.

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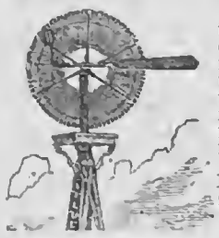
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Reading for the Young.

HANGING BASKETS.

THERE is no prettier ornament for the parlor or sitting room during the bleak winter months than a hanging basket. Plants in any form whether cut flowers or living specimens in pots, when tastefully arranged and well grown, always help to make a room cozy, and have a cheerful influence upon the occupants, but no plant that can be grown in a room can be compared in beauty with a thrifty hanging basket, from which vines droop in rich luxuriance from all sides. Every member of our club, and every cousin whether member or not, should have such a basket, and now is the time to prepare it if they have not already done so. The basket itself need not be expensive. Plants will thrive as well in a cheap home-made wire or cane basket as in one made of costly china-ware. Nor should it be large and bulky; those ugly things called rustic baskets, made of crooked branches and painted brown may do for the piazza, but they are out of place in the house. If a wire basket is used it should first be coated inside with nice moss to hold the soil, and then the soil filled in and the vines planted. Small vines should be stuck in through the meshes of the wire all around to hide the basket and give the whole the appearance of one living mass of foliage. The soil should be a mixture of leaf mold and garden loam with a little manure and sand. It may trouble some of the cousins to obtain the very best kind of plants; those who have Dracænas, Yuccas and similar plants with plenty of all kinds of vines can easily make a handsome basket. In general choose graceful drooping plants in preference to those of a stiff growth such as an old Geranium. In the middle set a tall plant as seen in the engraving and around it arrange the others so that the basket will be nicely balanced. Fuchsias, Ferns, Verbenas, Ivy-leaved Geraniums, Vinca, Oxalis, English Ivy, Saxifrage, Sedum, Lobelia, Tropæolum, German Ivy, Panicum variegatum and similar plants are excellent for baskets. There is the inconvenience with baskets that the water runs through and wets the floor, this can be avoided by watering at a time of day when the room is not occupied and then place a tray under the basket till all the water has run through. A basket planted now will be greatly improved if kept two or three weeks in a greenhouse so as to give the plants a good start. UNCLE MARK.

HOE-HANDLE MEDICINE.

ON a bright, pleasant summer morning, a young man, with a silk muffler around his throat and a woe-begone look in his pale face, plied the big knocker upon the doctor's dwelling. A lady answered the summons and informed the applicant that the doctor was in his garden at work. To the garden the young man went, where he found the man of medicine engaged in hoeing his sweet corn.

"Well, sir, and what is the matter?" the doctor asked, when the applicant had stated that he had come for medical advice and assistance.

"Well, doctor," with a lugubrious face and a whining, moaning tone, "I feel poorly all through. My head has spells of aching; my appetite is poor; my food does not set well, and I am very weak. Really, I need help."

"Yes, I see. Let me look at your tongue. Ah! yes. Now—your pulse."

The pulse was felt, and after due deliberation, said the doctor:

"Look you, young man, you do certainly need help. Now, see; I must attend an important case at ten o'clock, and I must have this corn hoed before I go. So, while I am gone to make up a prescription for you, do you take my hoe and go on with my work here. You know how to use a hoe?"

"Yes, sir. My father was a farmer; but I haven't worked on a farm since he died."

"And you haven't worked much anywhere else, I take it," the doctor threw in, pleasantly.

"No, sir; I am not obliged to."

"Very well. I'll warrant you the work here won't hurt you, so go on with it until I come back."

With that the doctor trudged off, and the young man went at the work of hoeing. He hoed to the end of the row, and there removed the light muffler from his neck. Then he went at it again. Half way down the second row he stopped and looked up, but no doctor was in sight. At the end of that row, as the absent one had not yet appeared, he pulled off his coat.

The third row he hoed more slowly, stopping several times before the end was reached; but he finished it, and after a good rest, attacked the fourth row. There was but one more row after this, and the fancy seized him to have it done before the old fellow got back. It would be a surprise to him. The thought quickened his pulses, and gave him renewed vigor. He had just completed the last hill of the last row when the doctor came back.

"Well, well, my young friend, how are you feeling now?"

The patient really had to consider. He had been looking to see what the physician had brought with him of medicine; but he had brought nothing. His hands were empty. "The work hasn't hurt you, has it?"

"Oh, no, sir," his face glowing with the exercise

"I thought not. Let me feel your pulse again." He held the young man's wrist for a brief space, and then—

"It has worked to a charm. Now, sir, do you go home, and repeat this dose twice a day, every morning and every afternoon; do it faithfully, and be honest with your diet, don't use tobacco, and if that doesn't work a cure, come and let me know. My fee, sir, is one dollar."

"One—dollar?" gasped the astonished youth.

"That is all I charge when patients call at my door."

"But sir, in mercy's name! what is it for? Where is your prescription? What have I taken of yours?"

"My prescription, my dear young friend, I gave you before I left you here with my hoe; the medicine you have been taking in my place—a health-giving potion which I should have enjoyed had I not given it up to you. And now, dear sir, I will tell you frankly, you are rusting out, literally tumbling to pieces for want of exercise of both body and mind. That is all, sir. You can follow my prescription and be cured, or you can take your own way."

The young man paid the dollar and went his way. Not then could he be cheerful; but afterwards, when he had allowed reason fair play, and had come to prove the life-saving and the new life-giving virtues of the doctor's prescription, he came and thanked him.

VICTOR HUGO AND A LITTLE LITCHFIELD GIRL.

THE little girls who write to the RURAL are not the only ones who have their letters published. The following is a translation of a correspondence between a little Litchfield girl and Victor Hugo's private secretary. The New York World published the originals, with a translation, "at the risk of making the life of Mr. Richard Lesching, the secretary of Victor Hugo's correspondence with small girls, a burden to him." The Frenchman's explanation that V. Hugo in Paris must "cross the water" to reach Litchfield is especially naive:

LITCHFIELD, July 7, 1879.

MR. VICTOR HUGO:—Pardon the liberty which I take in writing you this letter. I am a little American girl of Litchfield, Conn. I am learning French and I can already speak a little. I have read "Les Miserables," "The Art of Being a Grandfather" and "93." I admire them much. I have heard so much of you and I should so like to have your autograph, written with your own hand. I hope you will be good enough to send it to me. If you come to America, come to see us at Litchfield. Everybody will be glad to see you. You must come to our house, for it is very large. My father is a doctor, and he speaks French—like an American! My French teacher, Mr. Laloux, will not correct this letter. He says it is well enough written, for me. I shall be so happy when I have your autograph, and the little girls in my class will all be *so* jealous! I thank you many times in advance, and I wish you all sorts of good wishes. *Au revoir*, and do not forget my address.

ANNIE D., Litchfield, Conn.

Send me your portrait, too, if you please!

And here is the answer:

PARIS, August 7, 1879.

MISS:—I am not Victor Hugo and I am very sorry for it, I assure you. But he has instructed me to answer the letters which he receives from little girls, for he receives so many that if he tried to answer them all he would have no time to sleep. I send you the portrait you ask for, with the signature of our master, though I really am not altogether pleased with your letter. I should scold you if I had not a great weakness for little girls. What! You hope to make all your classmates very jealous! That sentiment does not come from a very good heart! I must think the ugly words slipped out unintentionally, for there are very pretty things in the rest of your letter, and I dare say you are the most charming child in the world. At all events it depends only on you to become so. Victor Hugo takes a walk of some hours every afternoon, but I think it would take a longer time to reach Litchfield, especially as he would have to cross the water. Yet the idea is a good one, for I think you asked me also to come. Only we must wait till they build a bridge over the Atlantic. Allow me to kiss you, for I suppose you are still in short dresses, and to call myself your friend,

R. LESCHING.

HANGING BASKET.

LETTERS FROM THE COUSINS.

Another Aunt.

UNCLE MARK:—In the RURAL of July 26 you say any aunt is welcome to join the Horticultural Club, so here I come, I have wanted to come all along, and am glad Aunt Earnest set the example. I love flowers, too, and have all she speaks of in her letter; my bed of Verbenas is just splendid. I, too, have had trouble with Tuberoses, and think they were not kept warm enough. I had one bulb four years before it flowered. Yes, Azilea, I would like to exchange seeds also. Do all the RURAL Cousins know how easy Geraniums can be raised from seed? I had some that flowered the first year from seed, and they were not planted until the first of May. I have found several young plants this summer that came up where my old plants were last year, so it seems the seeds are hardy. Verbenas make nice plants for the house in winter, they flower very freely after they once commence; take off slips now, small ones are best, give a sunny window and keep them growing, pinch off the tops when about six or eight inches high. In the spring they can be planted out in the beds and will keep right on flowering. From

Owasco, N. Y. AUNT MARY.

DEAR UNCLE MARK:—I am a very little girl living away on the Upper Ottawa, and I love to read the dear old RURAL. I have some experience in gardening and wish to join the Horticultural Club. I like boating, fishing, and all out-door games. In gardening I always help mother and have a few vines and plants to care for this year. I have some cucumbers, pumpkins, and watermelons, and also some balsams that were flowering nicely when I left home to live a few days with my big brother. I am ten days away now and don't know when I will get back. But Uncle Mark I suppose you are tired with my letter, you get so many good ones from intelligent American Cousins that I fear you don't like to be bothered with the wild little Canadian girl of the Upper Ottawa.

Temistquemangue. LIZZIE A PICHA.

DEAR UNCLE MARK:—I am a little girl nine years old. I have been going to school six months. This is the first time I ever wrote a letter. I live in Flatbush, L. I. and often visit the Park and Coney Island. I have a brother Edwin, six years old. We have to weed an hour every morning. I love flowers and would like you to enter my name and my brother's name on your Horticultural Club list. Will you please to send me some seeds. FLORENCE H.

Flatbush, N. Y.

DEAR UNCLE MARK:—I have been wanting to join your club a long time. The seeds that we received from the RURAL are doing well. Please put the inclosed names of my sister and myself on the list of your Horticultural Club. Your niece,

Greene Co., N. Y. MINNIE C. STORY.

[You did not give your post-office, Minnie, I must know that also.—U. M.]

Sabbath Reading.

THE GROUNDLESS GRIEVING.

AN end, O soul, to thy poor wearying sadness!
Christ liketh not to see thee bathed in tears;
The Spirit's song is one of trust and gladness,
Not dirgeful moans of melancholy fears.

Dost thou not know tears are for earth, not heaven?
And not earth now, but heaven, is in thy soul;
Let songs, exultant o'er thy sins forgiven,
Through all its corridors and arches roll!

For what is gone weep not, 'tis gone forever;
Nay, 'tis not gone, but by the Lord redeemed;
For what is now, or may be, weep thou never,
Thy spectral ills to Christ have saintly seemed.

Think not by tears to wash out sins, thy Savior
Poured forth not only sacred tears but blood;
Dost think thou wilt be doing him a favor—
To add thy tears to the rich blood of God?

Nay, nay, poor heart, by thy continuous weeping
Thou blindest thee to richer gifts in store;
Lo! while thou agonizest thus, thou'rt keeping
Grace-burdened Christ from entering thy door!

Soul! thou hast had thy cold and cheerless winter,
Thy spring with storm of penitential tears
Now let the sun and song of summer enter—
So with rich autumn fruits to crown thy years!

Denis Wortman, D. D., in Christian at Work.

JESUS THE CHRIST.

WE are accustomed to use the names of the Son of God with little if any distinction, in their significance. We use Jesus, or Christ, or Jesus Christ in conversation and song as if they were one and the same thing. This fact becomes important when we consider the effect upon our opinions that the familiar use of words produces.

There is a difference in the use of these names very clearly marked in the Scriptures. Jesus and Christ are not one and the same thing. One seems rather to be his human designation—the same by which he should be called as man—given to him for the special reason that he was to be the world's Saviour. As the angel declared: "Thou shalt call his name Jesus; for he shall save his people from their sins." Christ, or rather the Christ, on the other hand, is his official designation—the Old Testament Messiah, or the annointed—which makes him and his work specific and unique. This is clearly shown to us by the Apostle Paul, where it is written that, "he mightily convinced the Jews, and that publicly, showing by the Scriptures that Jesus is the Christ."

Greater care is demanded in our use of the names, and like the seamless garment of our Lord, these should not be rent asunder. There is a tendency toward sentimentalism, or religious gush, in the use of the name Jesus, manifested in the familiar and irreverent levity both in prayer and in some of our Sunday-school songs. Skeptical writers invariably use the name Jesus in a complimentary and patronizing way in speaking of the great teacher of Judea; but these ignore the title of the Christ.

We love and rejoice in the name of Jesus! We think of all his life among men, and call him brother and friend because he was partaker of flesh and blood. But he was also the Christ—the anointed of the Father! How clearly the apostles recognized the great truth is seen in the manner of their address after his ascension—the same Jesus who was crucified God hath made both Lord and Christ. Now he has become to them "the Christ," "Christ Jesus," "Jesus the Christ," "the Lord Jesus;" and no approximation to the flippant manner in which he, whose name is above every name, is only too commonly used by us.

Not a little of the prevalent irreverence is due, we think, to the familiar use of the Savior's name—it influences, unconsciously, our thought and conduct. The epithets of endearment often coupled with Jesus in our conversation and singing do not honor or exalt the

> "Strong Son of God, immortal Love,
> Whom we that have not seen Thy face,
> By faith, and faith alone, embrace,
> Believing where we cannot prove."

And when we sing:

> "There is no name ear ever heard
> So dear, so sweet as Jesus,"

it is not true unless it be coupled in our thought and life with the Christ; for this it is that makes Him to be our Lord and our God.—*The Standard.*

WHISKY SELLING.

ANY Christian who keeps a drug store, or business house of any kind, and sells whisky or any other alcoholic stimulant that will make men drunk, ought to be excluded at as early a date as possible.

In view of all the light that has been shed on the temperance question within the last few years, no man can engage in the sale of whisky without crushing the best moral feelings of his nature, and the Christian who goes into it ought not to be countenanced as a Christian for a day.

We have heard of a Christian merchant who has been selling "bitters" under the stamp of the government. He is just as guilty as if he had gone into the regular whisky trade. Yea, more so; for he is trying to cover up his sin, instead of coming out like a man. His church ought to deal with him immediately.

There is no time in this fast age for trifling. If the church is to be the conservator of public morals, she must stand unflinchingly and act decidedly. If any man that is called a brother be a drunkard, or a maker of drunkards, let him be put away from among us just as soon as possible.—*Baptist Banner.*

THE joy of the Spirit is a delicate, sacred deposit, and must be kept in a pure casket; an unholy breath will dim its luster and fade its freshness.

PERSONAL ITEMS.

Blondin, now 55 years of age, gave a performance at Vienna recently.

Cardinal Manning went from Liverpool expressly to christen the Duke of Norfolk's heir, the Earl of Arundel and Surrey, at London.

A man dying recently in St. Louis left $1,000 to an individual who, years before, ran away with his wife. He said in his will that he never forgot a favor.

Clay Rhoades committed suicide at Greenfield, Ohio, because Bob McKinnie had threatened to murder him, and he knew Bob was a man of his word.

When Emperor William of Germany was a young man he indulged in a habit of sleeping, all booted and spurred, on a cannon to exhibit his fondness for military life: in his whole career he has always worn uniform and sword.

A well-dressed woman drew a crowd together in a Cincinnati street by striking a man across the face several times with a whip, and then finishing the punishment with her fists. She coolly explained that he was her runaway husband, whom she had laboriously traced for the sole purpose of whipping him.

Trained from his early youth to the craft of the chamois hunter the Emperor of Austria loves nature too ardently to lend his countenance to the wholesale slaughter of her children. Dressed in his worn shooting costume—a gray frieze coat, short leather breeches, leaving the knees bare, and heavy hob-nailed shoes—he likes to be out alone, or with a single keeper.

Sir Henry Bulwer, uncle of Lord Lytton, for months fancied himself affected with paralysis of the legs, and refused to put a foot to the ground, but was wheeled in a chair by a servant. One day, the Rhone steamer, on which he was traveling, caught fire, and the Captain having run the boat ashore, a plank was thrown out, by which the passengers might land. The first person on this new bridge, and stepping nimbly down, was Sir Henry. When safe on shore, he remembered himself, and called out to his servant: "Carry me, Forster." But it was too late. Forster refused to hear more of his master's folly, and Sir Henry walked very well to the day of his death.

It has just been revealed to startled England that the vicar of Hughenden, Lord Beaconsfield's country parish, is a ritualist. His lordship, about five years since, made a celebrated speech on the Public Worship Regulation Act, in which he denounced the ritualistic service as the "mass in masquerade." But now he finds ritualism carried on in his own parish church by a clergyman—the Rev. H. Blagden—appointed by himself to the living. Lord Beaconsfield, when at home, goes to this church once every Sunday. The family seat is in the chancel. The vicar wears colored stoles, and maintains the eastern position, the communion table being covered with embroidered linen, while on the altar are candles, a brass cross, and lead vases of flowers. As Lord Beaconsfield has doubled his annual subscription from $25 in 1877 to $50 in 1879, it is presumed he sanctions these things.

When worn down and ready to take your bed, Hop Bitters is what you need to relieve you.

Real Estate.

THOSE wishing to sell, purchase, or exchange property, with the view of emigration, are invited to address A. F. COQUILLARD, South Bend, Ind.

GENESEE VALLEY FARMS FOR SALE. Some of the finest residences in the Valley, near R. R. Inquire soon of JOHN SHELDON, upon the premises, at Moscow, Livingston Co., N. Y.

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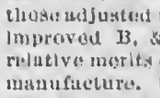
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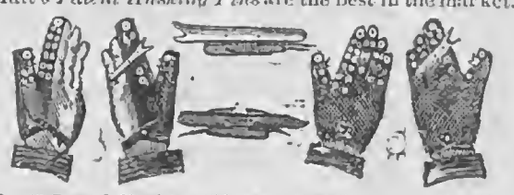

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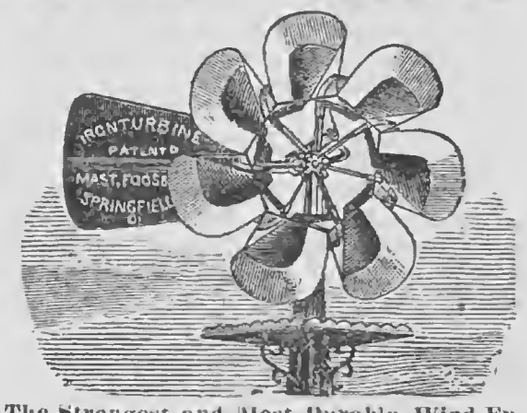

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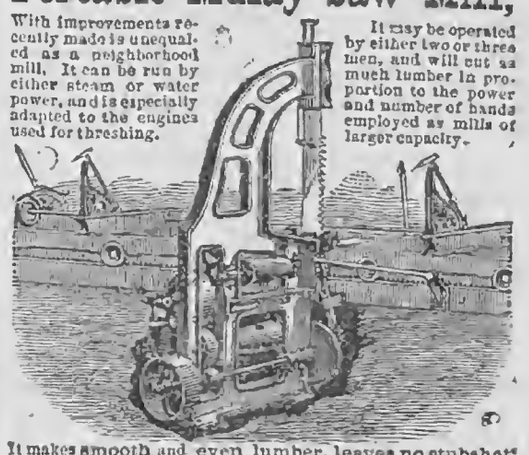

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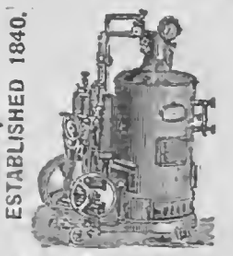

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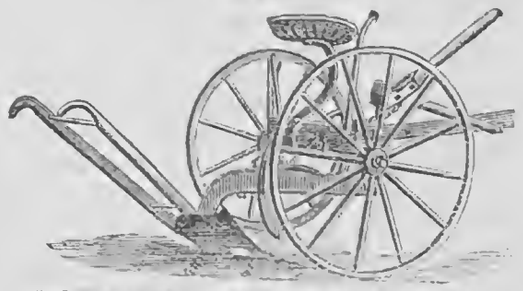

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AND LIQUID is the Cheapest, Most Reliable and Best-Known Method of preserving all kinds of Fruits, Tomatoes, etc. Strawberries, Raspberries, and all high-colored Fruits retain their rich color as well as flavor. One ounce of it (costing 3 cents) is equal to 8 lbs. of sugar in preserving property.
Established over ten years, and endorsed by thousands upon thousands of families. One trial will establish the fact that the American Fruit-Preserving Powder and Liquid will effectually prevent fermentation and preserve all kinds of Fruits, Tomatoes, etc., and keep them the year round, or for years, in jars of any kind or size, or in wooden kegs and barrels, *without sealing air-tight.* Simply corked or tied down with a strong paper is all that is needed.
The fruit will keep *without sugar*, or any quantity of sugar may be added as desired.
Warranted to be as healthful as table salt.
The Fruit, etc., may be cooked little or much, as desired. They will keep without any cooking, or they may be cooked down into sauce. The method is simple and easy. None can fail if the Powder and Liquid is added into the Fruit, etc., in quantity as directed.
One package will preserve 256 pounds of Fruit, Tomatoes, etc., or 2 bbls Cider. Price ONE DOLLAR per package.
Give it a trial. If you cannot get it from your Druggist or Grocer, I will send it prepaid to any express office in the United States east of the Mississippi River, upon receipt of the price; or west of the Mississippi River and east of the Rocky Mountains for $1.25 per package. Local and General Agents Wanted.
Address L. P. WORRALL, No. 24 Liberty St., New York.

FAIR CRITICISMS AND SUGGESTIONS.

VERY many exhibitors at the fairs of county and other local Societies become disgusted with this or that thing connected therewith; for some of these grievances the officers are blamable, such as the admission of lottery dealers, gift jewelry hawkers, horse jockeys and all manner of gamblers; but there is one great difficulty under which such Societies labor, and that is, in securing competent committees to award the premiums. In nearly all cases where I have had an opportunity of knowing, the judges were appointed at a meeting held previous to the opening of the fair. Little attention was given to their qualifications, but a great show of fairness was made by electing to the same committees judges from parts as widely separated as possible in the territories to be affected by the decision. Usually three members are considered necessary to pass upon the merits of each animal or article included in each class. When the time for performing their duties arrives, perhaps one or more of the committee are absent, a substitute is picked up from the crowd and the work goes on. The money and honors are divided up as these men think will be *about right*. The decision is seldom in accordance with the merits of the object, as I have often heard them express themselves thus:—"We know nothing about Ayrshires—could not recognize one in a yard of Devons, but Mr. Jones has the first premium for his bull, so we think it fair to give Mr. Smith the first for his cow." And so it goes through all departments, with a few exceptions, of course, until we come to the horse trot. There any fool can see (if the crowd permit) which horse comes in ahead, but not which is the best horse.

Now would it not be well, for the sake both of profit and reputation, that such organizations should secure the services of experts in the more important departments. If exhibitors were made to know that prizes would be awarded for superior excellence and for that only, a much better show would be the result, and greater benefits would be derived by the farmers in attendance, who are there to learn. Men should be selected from outside the county or State, men of recognized ability, and sound judgment in the matters which they are called to decide, and if they make that one thing their "hobby," so much the better.

M. B. PRINCE.

FAIR NOTES.

AN INDIAN FAIR.—Of all the fairs held lately it is doubtful whether any is more significant of progress than that of the Chippewa Indians held on Thursday, the 18th inst., at White Earth Reservation in the Indian Territory. The exhibits included horses, cattle, grain, vegetables, butter, cheese, maple sugar, sirup, bread and cake, preserves and pickles, rag-carpets, reed mats, moccasins, quilts, bark work and mittens. Most of the judges were Indians. Among those who decided on stallions and brood mares were Waw-waw-me-ke-sence and May-shaw-ke-ge-shick; while among the experts on hogs, sheep and poultry were Say-cah-gay and Wah-ge-ge-shuh. The premiums for bulls and cows were mainly awarded by May-tah-noush, Moh-kah-ge-wenk and Wen-ge-mah-dub; while Mrs. Bay-ke-wah-nonch was among the judges of dairy and kitchen products. The premiums ranged from $5 to 50c. Among the exhibits thus honored was "The breaking plow in best condition after two or more years' use." A prize was given to the farmer who did most breaking the past year; another to the one who cultivated most land with least expense to the Government, and a third to him who owned most farm tools in the best condition. The judges in the farming class were Bay-bom, Me-no-ge-shick and Tay-cum-e-ge-shick, together with three white men without any special distinction even with regard to their names.

WE are indebted to Mr. H. I. Budd, the secretary of the Burlington Co., Agr'l. Society, for a ticket of admission to that Society's fair, which will be held at Mount Holly, N. J., on Oct. 7th to 10th inclusive. Curiously enough, in a note enumerating what visitors may expect to see, the trotting, tournament, bicyclers, etc., are named first, as of superior attraction; while the display of grain, fruit, etc., is placed secondary as a kind of side show.

SOMERSET County Agricultural Fair will be held at Somerville, N. J., from Sept. 30th, to Oct. 2d, inclusive 1879. The secretary who sends us a ticket promises a great display of live stock and all kinds of farm products. For list of premiums apply to the secretary, Mr. Wm. S. Potter, Somerville, N. J.

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Weather Vanes
IN THE COUNTRY.
MANUFACTURED BY
HARRIS & CO.,
54 BROMFIELD ST., BOSTON, MASS.
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PIC-NICS.

IF the Sun were not Broiling, and the Sand didn't get into the Salad, and the Rocks were soft and Smooth, and there were no Hornets, and one hadn't to go Three-quarters of a Mile for Water, what a tame affair a Pic-nic would be!

HEADING OFF A LAWYER.

RUFUS CHOATE, in an important marine assault and battery at sea case, had Dick Barton, chief mate of the clipper ship Challenge, on the stand, and badgered him so for about an hour that at last Dick got his salt water up and hauled by the wind to bring the keen Boston lawyer under his batteries.

At the beginning of his testimony Dick had said that the night was "dark as pitch, and raining like seven bells."

Suddenly Mr. Choate asked him:

"Was there any moon that night?"

"Yes, sir."

"Ah, yes! A moon—did you see it?"

"Not a mite."

"Then how do you know there was a moon?"

"Nautical almanac said so, and I'll believe that sooner'n any lawyer in the world."

"Ah—you are growing sharp, Mr. Barton."

"What in blazes have you been grinding me this hour for—to make me dull?"

"Be civil, sir. And now tell me what latitude and longitude you crossed the equator in?"

"I shan't"

"Indeed! You are chief mate of a clipper ship, and unable to answer so simple a question."

"Yes, 'tis the simplest question I ever was asked in my life. Why, I thought every fool of a lawyer knew there ain't no latitude on the equator."

That shot floored Rufus Choate.

A COLLEGIAN ANSWERED. — A skeptical young collegian confronted an old Quaker with the statement that he did not believe in the Bible. The Quaker said: "Does thee believe in France?" "Yes, for though I have not seen it, I have seen others who have; besides, there is plenty of corroborative proof that such a country does exist." "Then thee will not believe in anything thee or others have not seen?" "No, to be sure I won't." "Did thee ever see thine own brains?" "No." "Ever see anybody that did?" "No." "Does thee believe thee has any?" The young man left.

"INVESTIGATOR" wants to know what is good for cabbage worms. Bless your soul, man, cabbages, of course. A good, plump cabbage will last several worms a week.

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MORE POWER
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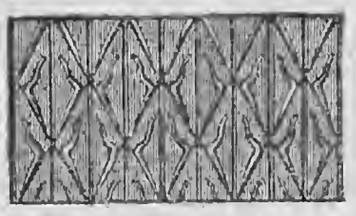
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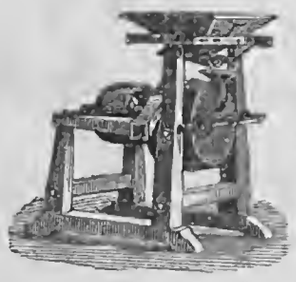
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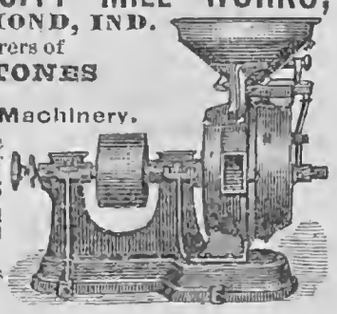

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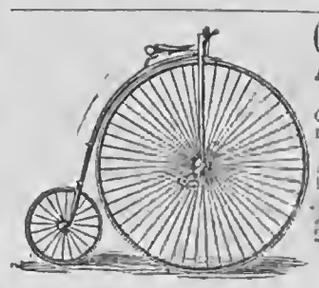
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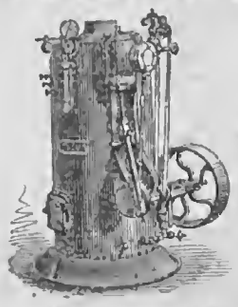
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THE RURAL NEW-YORKER

A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME

VOL. XXXVIII. No. 41.
WHOLE No. 1550.

NEW YORK, OCT. 11, 1879.

PRICE FIVE CENTS.
$2.00 PER YEAR.

[Entered according to Act of Congress, in the year 1879, by the Rural Publishing Company, in the office of the Librarian of Congress at Washington. — Entered at the Post-Office at New York City, N. Y., as second-class matter.]

Pomological.

SOME OF OUR BEST APPLES.
Where they Will Succeed.

We have made a number of accurate drawings from specimens of well-known and well-tried apples, which we shall endeavor to place before the reader before the present planting season shall have passed away. Our present engravings are from specimens kindly forwarded by Messrs. Ellwanger & Barry of Rochester, N. Y. From all sources available to us we append a list of the States in which these varieties will thrive best.

Golden Russet. (See p. 655.)

Fruit, medium in size, generally somewhat oblong, keeps till spring. Flesh, fine, firm, crisp. Flavor, rich, aromatic. Tree, irregular. This apple thrives well in Vermont, New York, Michigan, Wisconsin, and moderately well in Connecticut, Ontario, Minnesota, Oregon, Ohio, Kansas, Utah, California, So. Carolina and Alabama.

Red Canada. (See p. 657.)

(This is the Nonsuch of Massachusetts, Richfield Nonsuch of Ohio, Steele's Red Winter.) Fruit, medium, conical, regular, nearly covered with red, indistinct whitish dots; keeps through winter. Flesh fine, compact with a rich sub-acid, excellent flavor. Leaves wavy; tree productive. One of the best table apples. In some localities the growth is slender, the fruit scabby. Entirely distinct from the Nonsuch of England. It succeeds best in Maine, Michigan, Ohio, Illinois, and moderately well in Connecticut, Indiana and Nebraska.

Esopus Spitzenburgh. (See p. 657.)

This apple of unequaled flavor, is unfortunately a moderate bearer, succeeding best, so far as we are aware, in its native State, New York. The fruit is above medium size, somewhat conical, of a rich red color, sometimes faintly striped. The flesh is yellowish, crisp, very spicy, rather acid. Keeps till spring. Growth erect. Thrives best in New York and California; moderately well in Vermont, Ontario, Oregon, Pennsylvania, Ohio, Indiana, Illinois, Missouri, Nebraska, Alabama and Louisiana.

Roxbury Russet. (See p. 655.)

(Boston Russet, Putnam Russet of Ohio. *Thomas.*) Fruit, medium to large, covered with russet on yellowish-green ground. Occasionally a brown cheek. One of the best of keepers. The quality is very good. Spreading growth. Highly productive, fair fruit always. One of the best market sorts. Succeeds best in Massachusetts, New York, Rhode Island, New Jersey, Kentucky, Louisiana, and moderately well in Nova Scotia, Connecticut, Ontario, Michigan, Pennsylvania, Ohio, Indiana, W. Virginia and Utah.

Cooper's Market.

(Cooper's Market—Cooper's Redling. *Thomas.*) Medium size, splashed and striped with red on yellow ground. Flesh white, tender with a brisk, sub-acid flavor. Keeps through winter. Shoots long, slender. Profitable, though not of best quality. New York, Pennsylvania, New Jersey and Michigan.

Northern Spy.

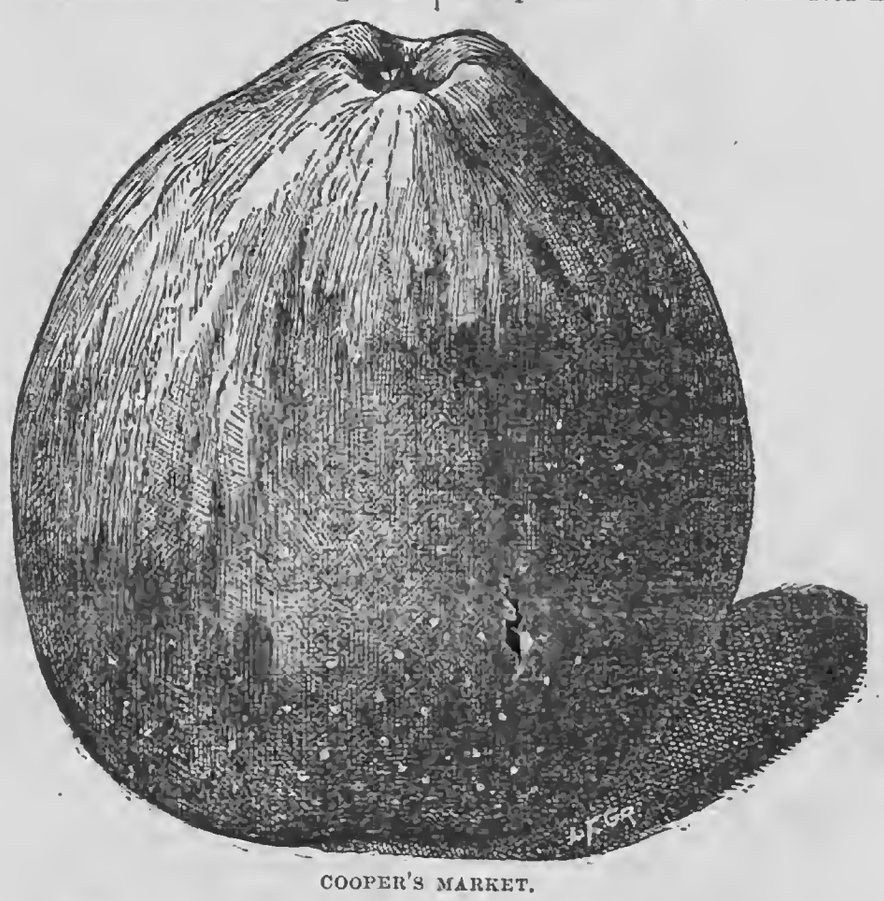
Medium to large, striped, dard-red on sunny side, juicy, aromatic retaining its good qualities until June. Tree a rapid, erect grower and abundant bearer under good culture. It is one of the very best late keeping apples. It is a tardy bearer. We find it does remarkably well on *Paradise* stock, bearing the second year. This fine apple succeeds well in Nova Scotia, Maine, New York, Michigan, Indiana, Illinois, and moderately well in Louisiana, Alabama, California, Utah, Nebraska, W. Virginia, Ohio, Maryland, Virginia, New Jersey, Pennsylvania, Oregon, Wisconsin, Connecticut, Rhode Island, Massachusetts and Vermont.

Horticultural.

STRAWBERRY NOTES.

GEO. J. KELLOGG.

I am situated on light, prairie loam near the timber. After a few feet of soil we strike a firm plastering sand for 70 feet. My strawberry crop the past season was something over 300 bushels from about 1½ acre of ground. My varieties were in about the order named for quantity of fruit.

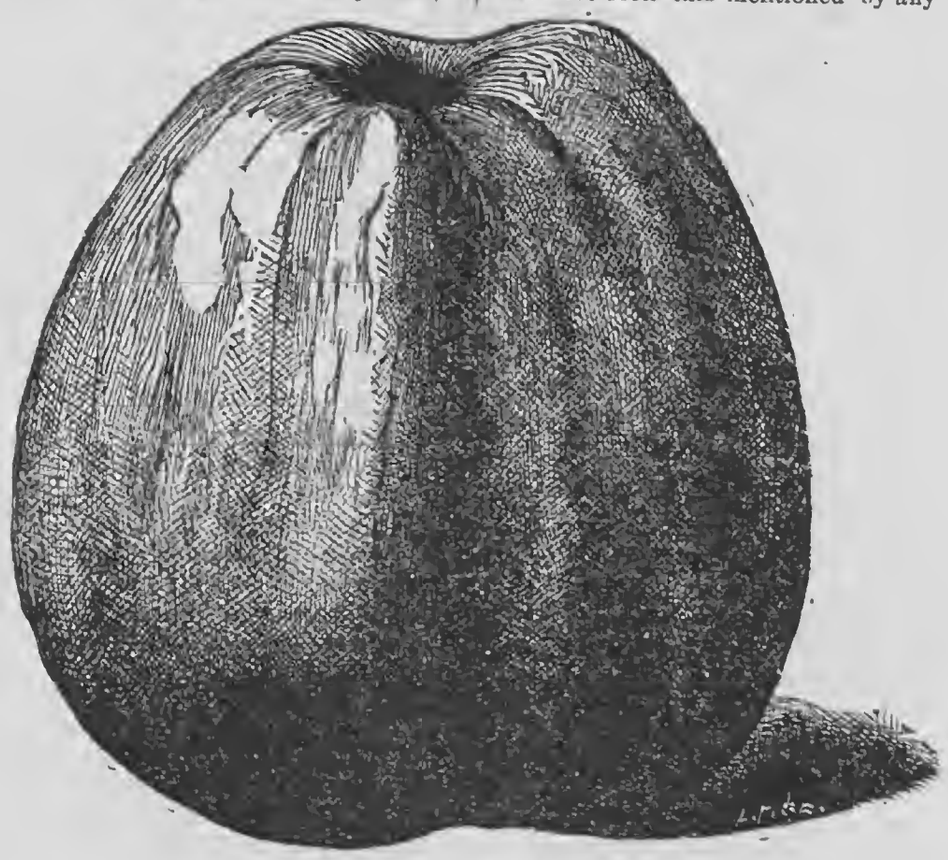


COOPER'S MARKET.

Wilson did nobly; the only fault was rust upon the leaf.

Crescent Seedling, although but the second season's fruiting, has done remarkably well. In the hurry of picking and owing to two days' absence attending our State strawberry show, I failed to keep separate the pick of seven rows, 19 rods long, one year planted, of this kind. The plants were set three by four feet apart, allowed to mat one way, but the seventh row only contained 99 plants set in 1878, in May. On June 16, 1879, in the third picking, one boy in nine hours took from this seventh row 100 quarts of very fine berries. The yield from this bed, I think, did not come up to the 15,000 quarts per acre, but it was quite satisfactory. As to its requirements, I think the late bloom failed to perfect the fruit as well as if a Downing row had been adjacent. It will doubtless do best to set a Wilson, Downing or Captain Jack every fourth row. There seems to be a great variety of opinion as to the quality of the Crescent. With us it is very fine; bears transportation well for a hundred miles, and retains its color, and markets well. Since fruiting, the Crescent bed has taken care of itself, no weeds are allowed to grow, while the foliage is very luxuriant and healthy.

Captain Jack puts in a claim for productiveness ahead of Wilson, and almost equal to Crescent. I find but one objection to this variety—the calyx is left upon the vine in picking. I have not seen this mentioned by any writer.



NORTHERN SPY.

For market it is objectionable, for family use it is in its favor. For market the stem must be *nipped*, and even then the pickers were anxious to leave the Wilson and Col. Cheney and pick Captain Jack. Its size, flavor and firmness are in every way satisfactory.

Prouty's Seedling comes next to Captain Jack, more productive than Wilson, but not worthy of cultivation. The fruit stalk is so short that unless very carefully mulched, the berries rot on the vines before ripening, and the later pickings are of very inferior flavor.

Col. Cheney it is useless to say a word about, except in comparison. It always gives some of the largest berries as well as some of the smallest, both rather soft, except for home markets. It bears nearly equal to Wilson for the same number of vines; but it is worthless if planted alone.

Of Green Prolific the same can be said. So far as quantity for *home market* is concerned, no pistillate is more productive than this, and the quality is all right, if the fruit is eaten the same day it is picked, but with these last two kinds one must set some such varieties as Wilson, Charles Downing or Captain Jack, say every second or third row, or one will not have a bushel to an acre.

Duchess bids fair to be one of the *best early* sorts; being large, productive, and of the best quality.

Forest Rose, Pres. Lincoln, Pioneer, Red Jacket and others did not have as good a chance to show what they could do, as did some others. There is one serious objection to Red Jacket—the calyx adheres so firmly that it wants a knife to detach it from the hard core inside, otherwise, for a soft berry, it would have a run.

We have a third of an acre set to 19 of the best kinds out of 40 varieties, on new soil just from the forest, from which we expect big returns, and a fair test of the kinds, and we propose to tell the faults as well as the good points of all.

The Great American I forgot to mention, because it forgot us; it is worthless on light soil. On clay it will please the grower if he pets it.

Janesville, Wis.

THE LADY WASHINGTON GRAPE.

For the last eight years I have supplied Mr. J. H. Ricketts with a large amount of produce from my poultry yards and farm. To deliver his orders I have to pass his Lady Washington Grape, and have watched its progress with much interest. I am fully convinced it is the most desirable Grape that I can plant. As far as I can see, it receives quite ordinary care—no better than I give my own vines. The large, full clusters of light-green, almost white, grapes at once win the admiration of all who see them, and the very fine eating quality of the fruit must make it a source of profit to those who plant it. To satisfy myself, three times during the past season I have walked up on the hill-side opposite Mr. Ricketts' home place, to watch the progress of his two-year-old vines, planted for the purpose of fruiting next season, as well as of increasing his stock. On August 19, I found the vines had made a growth of from 18 to 30 feet of strong, healthy-looking wood. The ground was closely planted with currants and tomatoes between the rows of vines. I saw four large clusters of the most beautiful grapes I ever beheld, on one vine. I learn that the produce of this vine has been on exhibition at New York, Rochester, Waverley and Philadelphia.

I write the above notes in good faith for the information of Rural readers who have not the opportunity of seeing the vines and fruit, and will add that I shall plant as many of the vines of this Grape as I think I can afford to buy, and regret that I have not done so before.

Orange Co., N. Y. W. C. Hart.

The Great American Strawberry.—It is a pleasure for me to be able to say a good word for the Great American—the more so that it does not meet with universal favor.

In the spring of 1877 I purchased my plants of Mr. Durand, and, with many misgivings, planted them in a moderately rich spot. I per-

mitted them to make as many layers as they would. The following season I found it necessary to move the plants, and did so late in the season, thus securing but little fruit. The past season was the first they have borne a crop, and it was well worth waiting for. The berries were large to very large, the quantity simply immense, and the quality very pleasing. I have always regarded this berry as the product of high culture, and one that would not succeed under ordinary cultivation; the result has been just the opposite, and I am more than pleased with it. My soil is strong clay and moderately enriched with good stable manure. I have given the bed no special care save to keep the thistles out, and to occasionally stir it to keep it from baking. H. T. J.

Rochester, N. Y.

Industrial Societies.

THE MICHIGAN STATE FAIR.

[Special Correspondence.]

DETROIT, Mich, Sept. 20.

THE Michigan State fair held at this city Sept. 15-19, was, as an exhibition, more than an ordinary success. Illinois at Springfield, and the St. Louis Association may excel it—probably they will: Ohio at Columbus did in a few respects; but, on the whole, the Detroit fair so far has been the banner exhibition of the West. In point of attendance it was good, considering that the afternoons of the first and second days were rainy and that Thursday—usually the best day of the fair week—was thoroughly and disgustingly moist throughout.

If the State Board had tried—and I do not know but they did—to find a more unpromising plot of ground in the vicinity of Detroit for fair purposes, they could not have succeeded better. Low and boggy, not half underdrained, with a clay bottom somewhere beneath, and a clayey mud of uncertain depth at the surface, the wet weather gave the people as uncomfortable a time and way of getting about as can well be imagined. But for the admirable arrangement of running the railroad track into the grounds, one can hardly imagine how the heavy machinery could have been got on to or off the place.

Michigan people are rather proverbial for their good taste in external affairs. Their cities and villages are the prettiest of the West; their farm-houses and barns are, on an average, better perhaps than those of any State to the west of the lakes, and what a shock it must have been to them, as they entered these fair grounds, to see what had been done to improve them. Along the right of the walk from the entrance to the Society's office were some neatly constructed newspaper headquarters; but to the left and stretching away down an avenue in front of the president's and secretary's offices, stood such a grotesque row of refreshment stands as never stood before on any fair ground. Instead of erecting halls and uniform booths in which to comfortably feed the people, ground fronting as I have said, was rented at $4 per front foot, it was stated, and every caterer who could raise enough money to secure ten feet—and these included men of nearly all nationalities, races and colors—put up a structure of rough boards in form to suit his taste. Profusely decorated with ten-cent bits of the stars and stripes, they presented a barbaric appearance that would be highly appreciated in Central Africa. Passing by the officers' neat quarters, there appeared a long stretch of canvas covered with distorted paintings of monstrosities and fierce animals and crawling snakes, that rounded out the scene in the most perfect manner. This was the first of half a dozen great fairs, visited this season, where the side shows—those relics of a former decade—were allowed inside the gates.

The grand cavalcade of live stock on Thursday told the story of Michigan's greatness in this important interest. If Noah marshaled such an array as this from the ark and gave to each deserving animal a ribbon, then they had more silk factories in those days than history gives them credit for. The show of draft horses was very fine, Percherons and Clydesdales closely competing for the honors. Michigan is somewhat noted for roadsters, and they were out in full force. There was an excellent array of brood mares and fillies. The race track being so far removed from the exhibition proper, the usual outside trials of speed did not distract general attention and demoralize the show. The herds of Shorthorns represented here are as choice as any State can show. Specimens of the milch breeds were numerous and choice. The exclusion of animals from other States and Canada lessened the number considerably and was the cause of considerable unfavorable comment.

The swine exhibit was good; in fact, though less numerous than I have seen at some of the Illinois and Iowa fairs, in excellence of specimens of the prominent and fashionable breeds, the show would have been a credit to any State.

As a sheep State Michigan retains its supremacy, especially in American Merinos. In the mutton and long-wool classes the display was more than ordinarily good. On the whole, the indications are that Michigan sheep growers have not in these long years of depression, lost faith in their flocks as a remunerative branch of farming.

Except perhaps in Game fowls, the poultry show was of more than ordinary excellence. There were plenty of Games to be sure, but they were not the choicest specimens. The Asiatics, of course, took the lead, though the Plymouth Rocks held their own very well. I noticed but few French fowls. These seem to be losing their hold in this country. The show of aquatic fowls was good. The exhibition of fruit was more than creditable. Michigan is, as every one knows, a most excellent fruit State. Besides her active Pomological Society, with many veteran pomologists as members, she has numerous local horticultural societies composed of active, experienced men bent on developing the interest to its utmost. These nearly all united in filling Fruit Hall with the products of their orchards and vines. The entries were numerous. In this hall was also the floral exhibit—not large, to be sure, but the exhibit of cut flowers by Mr. Vick of Rochester, helped it out finely.

Farm Product Hall was well filled. The exhibits were for the most part by counties, and the competition was spirited. The show of potatoes was exceptionally fine. The collection was much better arranged than is usually the case at Western fairs.

Mechanical Hall, the largest of the lot, was filled to its utmost with a wonderfully varied and interesting class of machines and devices. It was thronged throughout every day. It was a study, and it disseminated a great deal of knowledge concerning inventions and processes.

But the crowning display of this fair was the agricultural implement department. Long lines of shafting run by heavy portable engines, exhibited in motion machines requiring motive power, making them a center of attraction to all classes of visitors. Acres were covered with the best reapers, mowers, rakes, thrashers, clover hullers, harrows, and the like, while many of the manufacturers of plows in Michigan and Indiana made choice and elegant displays under roofs erected for their own special uses. This grand field of machinery was arranged with method and taste. Engines for thrashing and other farm work were numerous. A self-binder in constant operation always had a crowd about it. The fair ground presented an admirable opportunity for showing the working of a first-class ditching machine, but I saw none at work, perhaps none was present. Among the standard and well perfected machinery here exhibited we may make the following brief special mention.

The Wm. Anson Wood Mower and Reaper Co., of Albany, N. Y., through Messrs. Woodford & Niles, Detroit, Mich., their general agents for Michigan and northern Indiana, made a fine exhibit of a full line of their reapers and mowers. The new machines, which we noticed in full at the New York State fair, attracted a great deal of attention. There is no doubt but that these machines will take well with the Michigan farmers, as I heard them spoken highly of by all who saw them. The new reaper especially, on account of its lightness, strength and durability, takes well. The arrangement for raising and lowering both ends of the cutter-bar at once; its adjustability to all kinds of work; its being so nicely balanced, and its general construction (being made of the best of material and in the very best manner), commend it to all who see it.

The Lion self-operating sulky rake and the Howe force pump, made by Messrs. A. W. Miner & Co., Belmont, N. Y., were exhibited by A. F. Chandler, of Coldwater, Mich., their general agent for Michigan and Indiana. The Lion rake possesses many acknowledged strong points, as shown by its being awarded the first premium at this fair, after being thoroughly examined by two committees of practical farmers. For simplicity, ease and nicety of operation, it merits the highest commendation. It has no cumbersome rachet or springs to continually get out of order; the teeth are adjustable, and can be raised or lowered at will by a double crank and two independently-acting clutches. The pump is suitable for all windmill purposes, warranted to be frost-proof; it never needs priming, and works so easily that any child can operate it. It, also, was awarded the first premium.

One of the largest exhibits on the grounds was that of the old and reliable firm of P. P. Mast & Co., of Springfield, Ohio. It included their new Buckeye grain drill, with or without fertilizer attachment, which has the largest sale in this State of any of this class of implements, and is also a "general favorite" wherever used. This drill has many new and important improvements—which we illustrated a few weeks since in the RURAL. Their exhibit also includes a handsome display of their celebrated corn field and fallow cultivators, cider mills, plow sulkies, etc. P. P. Mast & Co. have the largest factory in this country for their class of goods, and have been running to their full capacity night and day, but have yet been unable to fill their orders. A large number of drills was sold on the grounds, purchasers having to wait until the drills could be manufactured. Mr. Butts says that farmers who use the "Buckeye" always wear a smile after harvest.

The Gale Manufacturing Co., of Albion, Mich., made a handsome display of their celebrated plows in a large tent, showing all their different styles; also their hay rake and other goods manufactured by this company. These plows are well known in this part of the country, and kept up their well-earned reputation by taking six first premiums:—1st, the sweepstakes premium for largest and best display; 2d, on best general purpose plow; 3d, on one-horse plow; 4th, on best cleaning coulter; 5th, on best rolling coulter, and 6th, on gang plow. They also took first premium week before last at the Northern Ohio Fair, held at Cleveland. These premiums were well earned, as this plow has made an excellent record wherever introduced. We have often had occasion to speak favorably of it. The Gale Manufacturing Co. are now building a large addition to their factory, so as to be able to fill the constantly increasing orders for their plows.

Newkirk's stock food-steamer and evaporator, exhibited by the patentee and manufacturer, A. Newkirk, of Cleveland, Ohio, was awarded the first premium. This steamer is especially adapted to the general wants of the farmer and stock raiser; it is simple, durable and effective, and made of the very best material. It is simple in its construction, and is fully warranted by the manufacturer to answer all the purposes of a first-class steamer and evaporator. It heats water rapidly, and is very useful for scalding hogs and many other purposes. The furnace is arranged to use either wood or coal. We saw it in full operation, burning green bass-wood. There has been a large number of these steamers sold during the past three years, and the patentee has yet to hear of the first case in which they have not given perfect satisfaction!

The Perry Royce reaper was exhibited by Messrs. Wyckoff, Tuttle & Olin of Perry, N. Y. This reaper is celebrated for its simplicity of construction, lightness, ease of handling and lightness of draft. The separate parts are few in number, and are made of the very best material. Its weight is about 600 pounds. Although the manufacturers ran their factory to its full capacity during the past season, they were unable to fill their orders. They are at present increasing their works, and next season will be able to at least double their supply. From the talk of agents and farmers who have used this reaper during the past season, we should judge that this machine is fast becoming one of the leading implements in this region.

The Robbins's Cultivator Co. of Jackson, Mich., made a large and handsome display of their celebrated cultivators and broadcast seeders, and were awarded the sweepstakes premium. They have taken the medal at the Michigan Fair every year since 1873. The Robbins's Cultivator has been long and favorably known in this region, and is fast gaining a strong hold in Ohio, New York and Pennsylvania. It is a combined corn and fallow cultivator, with an excellent broadcast seeder attachment. It is made of the very best material, and gives the very best of satisfaction wherever used.

At the election of officers, at the Michigan State fair the old officials were re-elected. They are: Pres.—Geo. W. Phillips, of Romeo; Sec'y.—R. F. Johnston, of Detroit; Treas.—A. J. Dean, of Adrian; Members of Executive Committee—Abel Angel, of Bradley; D. W. Howard, of Pentwater; H. O. Hanford, of Plymouth; F. M. Manning, of Albion; A. F. Wood, of Mason; F. V. Smith, of Coldwater; John Gilbert, of Ypsilanti; J. Q. A. Burrington, of Vassar; John McKay, of Sheboygan; C. A. Harrison, of Paw Paw. W. W. C.

NEBRASKA STATE FAIR.

[Special Correspondence.]

BROWNSVILLE, Neb., Sept. 27.

Agriculturally and pomologically, we are in the midst, or rather nearly through with our fairs, State, District and County. The State Fair at Lincoln, and District Fairs at Hastings and Fremont, important interior points, are through with. The State Fair in some respects was the best ever held. Such a display of fine hogs and blooded horses one will scarcely see anywhere. Forty-nine imported thoroughbred stallions were in the stock arena at one time, principally heavy draft strains. It was a grand sight. The cattle show was not as extensive in numbers as at times before. The specimens, however, were as fine as could be desired—Short-horns, Herefords, Alderneys, Holsteins; Galloways, Devons, grades and "Natives." There was a good show of sheep; principally short-wools; and a better exhibit of long-wools than ever before. Hogs were generally of the black breeds—Berkshires and Polands Our people generally have discarded the white breeds. Some of the old Chesters were on exhibition, and a few choice Short-face Lancashires. A few pens, for the first time, of Red hogs—Jersey Reds—attracted attention, and were quite favorably received.

While we consider our fruit of all kinds a failure this year, there was a very creditable fruit exhibit—about two thousand plates, principally apples, pears and grapes. There were but few peaches: strange to state, nearly all the peaches on exhibition were from the interior counties, one and two hundred miles west from the Missouri River, and grown on the high, open prairie. Heretofore, it has been thought by many, that only in the Eastern counties—those on the Missouri, and south of the Platte River—could peaches be grown. I saw, picked and eat peaches from trees in the Republican Valley, over two hundred miles from the eastern border of the State—in the heart of that region designated by Fremont, Miles and other government officials as the "American Desert." The facts are that good fruits can be grown anywhere between the Missouri River and the Rocky Mountains.

It is a matter of regret among true friends of agriculture, that in agricultural products—actual fruits of the farm—our State Fair never made so poor a showing, and this, too, in the face of the fact that we have never had such universally abundant crops.

Crops of all kinds are good in every portion of the State. Seasons have been when corn and small grains have been better, here and there; but never before have there been such average crops throughout the whole State. While hand-bills and posters of State, or county fairs, show in their largest-lettered display lines—"THREE THOUSAND DOLLARS FOR THE SPEED RING"—"RACES EACH DAY"—"SLEEPY TOM WILL TROT"—and no quotations for farm products; while the premium lists provide one thousand dollars for a "Free-for-All" *Agricultural* horse trot, not one of the animals competing, being worth agriculturally, for any practical and useful purpose, six cents; while, on the other hand, twenty dollars is the highest premium for a thoroughbred draft stallion, or mare, or bull or cow, and one dollar for the best bushel of wheat, corn, oats, barley, potatoes, or for the best pound of butter, or cheese, we may expect fairs to run to "hoss trots" and that farmers will keep their products at home. The friends of trotting claim "it draws the crowd, and furnishes gate money!" If that be the only argument, an arrangement with State Executives to turn over criminals to State or County Agricultural Societies and have them publicly executed at the fairs, would draw crowds better, and be equally legitimate *Agricultural* objects!

There has been a great rush of people from from the old States to this new and rapidly developing region, especially the past season. We have quite doubled our population within the last two years; and still they come, and there is room for more. The railroad companies who own large tracts of lands, and those who purchased lands on speculation years ago, are offering most favorable terms. Lands can be had on time to suit desire of purchaser, and at low rates of interest—five and six per cent. ROBT. W. FURNAS.

VERMONT STATE FAIR.

[Special Correspondence.]

THE Vermont State Fair, held this year at the State capital, (Montpelier), was very successful. Not only was there a large exhibit in nearly every department, but the attendance was also greater than in any previous year, except when Horace Greeley, then presidential candidate, delivered the address at St. Johnsbury. The net receipts amounted to $1,200, and the accumulated funds of the Society now reach nearly or quite to $20,000.

In live stock the largest exhibits were in Jersey cattle and American Merino sheep, but the other breeds in both lines were well represented. There were several good herds of Short-horns, and also Ayrshires, while the Devons, Dutch, Swiss and Guernseys were respectably represented. Cotswold sheep, to the extent of 30 pens, were exhibited. In this class the prizes were mostly taken by entries from the Province of Quebec. There were also 15 pens of South-Downs, and the popularity of this breed for mutton and lambs is apparently increasing in the State. Few pigs were presented, mostly Poland-Chinas and Chesters. There was a large and very excellent display of poultry, embracing nearly every breed of hens, ducks, geese and turkeys. There was a number of exhibitors in this class from without the State.

The show of dairy goods, and especially butter, was unusually large, brought out in part by extra premiums offered by the Vt. Machine Co., the Ferguson Creamery Co., and the Higgin Salt premiums, all of which was special, in addition to the regular premiums offered by the State Society. By far the greater portion of this butter was from herds of Jersey blood. There were manifest evidences

of improved care and taste in the putting-up of the butter for market, small packages prevailing, and the Kennerson butter stamp (illustrated in the RURAL some time since), seemed quite generally in use. A number of the exhibits were from creameries, the number of which in the State is rapidly increasing. The low prices and Western competition have not been without some compensating advantages to the Vermont dairymen, by stimulating care in manufacture and neatness of manipulation in the dairy, and now that prices have taken a start, a much better feeling is manifest among the cow keepers in the State.

The implement show was very extensive, the chief novelty being Kemp's manure cart and spreader, which does excellent work with all kinds of manure, distributing it rapidly, evenly, and at the rate of any desired number of loads to the acre. All the principal mowers and harvesters were well represented, as well as rakes and tedders. Tillage tools of every sort, including the newest patterns of plows, harrows and cultivators, were spread out before the people.

The Hall shows were excellent, but in the way of vegetables, grain and fruit, not very extensive. The floral exhibit, though mostly by amateurs, was remarkably fine and quite large, showing, as I think, the influence of such papers as the RURAL in stimulating taste and developing horticultural skill among the people. One lady exhibitor had 95 varieties of blooming plants, another 365 varieties grown from Vick's seeds, still another 36,500 cut flowers; while bouquets, baskets and floral designs in great numbers, and displaying excellent taste, as a rule, occupied the extensive tables. It should be remarked that these exhibitors were not persons of wealth, employing professional gardeners, but the wives and daughters of plain farmers, with no horticultural knowledge other than what they have gained by reading and practice. It was to me the most gratifying part of the whole show. The display of apples, pears, plums and grapes, though not large, was choice, and showed the improvements going on in the development of new varieties specially suited to local exigencies, particularly in the colder parts of the State. Comparatively small as this portion of the show was, it over-ran the space allotted to it, thus indicating a decided advance. If we could have the advantage of a pomological organization exhibiting simultaneously with other branches at the State fair, Vermont fruit-growers could easily fill a very large hall with their choice specimens, and astonish many with her resources as a fruit-growing State. H.

MONTREAL HORTICULTURAL SOCIETY.

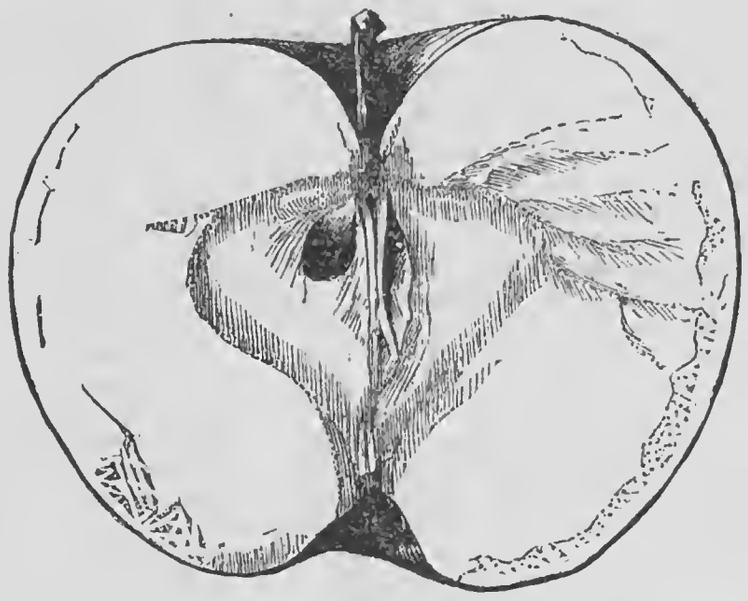
[Special Correspondence.]

THIS organization held its annual exhibition at the Victoria Skating Rink, Montreal, Sept. 16, 17 and 18. The attendance was very large, this society being one of the few in America that seem able to command the attention and patronage of the public. Part of this is to the credit of the people of the Canadian Metropolis, greatly noted for their love of horticulture; and perhaps still more is due to the skill and energy of the management. The president of the Society, B. P. Cheney, Esq., whose extensive operations in wheat growing on the line of the Northern Pacific R. R., have been the subject of much comment in the agricultural press, is also equally *au fait* in the line of horticulture. Mr. Cheney is the principal owner of the America and Canada Express, and his ample means enable him to gratify his tastes, both for farming and gardening, to their full extent. He has also taken great interest in the development of practical fruit-growing in the Province, which has been largely increased by the facilities he has provided for the rapid transportation and delivery of these products in market. His Company deliver strawberries at Montreal during the hight of the season at the rate of twenty tons a day, and nearly the whole of this trade has been developed under the stimulus of the opportunity offered to growers by one who is in sympathy with their efforts, while at the same time he is able thus to aid them. I chronicle this fact as an illustration of how easy it is for the right man in the right place to greatly help the industrial progress of a community in which he resides. Mr. Cheney is a native of New Hampshire, but for many years a resident of Montreal, which is the natural center of his great business.

The floral display at this fair was not only large, but very choice, being enriched by the contributions of the many wealthy amateurs of the city, whose conservatories, vineries and orchard houses were laid under contribution for things rich and rare. Added to this, many commercial florists, gardeners and orchardists, made liberal additions to the display, and amateurs of less means, but perhaps of equal skill and taste, vied with the richer exhibitors, and in specialties sometimes surpassed them.

But fine as was the show of flowers, ornamental and flowering plants, it was not so interesting as the display of fruits. Plums, pears and grapes were in great abundance, mostly, however, the growth of city gardens. In the country, outside of the island of Montreal, the success experienced in the culture of these fruits is but moderate, though it is increasing gradually, as hardy varieties are introduced and more skill acquired in management.

The greatest gain was in the apples, and it is a noteworthy fact that the first prize for a county collection went, this year, to one of the colder counties. Heretofore Huntingdon



ROXBURY RUSSET.

county, which borders on Lake Ontario, and has the mildest climate of any county in the Province, has taken the first premium in this contest. But this year it went to the county of Trouville, among the mountains near the Vermont border, one of the severest localities contesting this prize. The class of apples from this county was quite different from those grown in Huntingdon, embracing more of the native Canadian varieties, with some Russian and new Northwestern sorts. But in an impartial contest, they took the lead for size, fairness and beauty. This is most encouraging; for it establishes the fact that apples of good and merchantable sorts can be successfully grown in districts hitherto thought to be too cold for orcharding.

Among the newer sorts that attracted the attention of fruit growers were a number of fine plates of the new Minnesota seedling, the "Wealthy," which for size, high color, perfect form and fairness surpassed all expectation. The tree is perfectly hardy, bears young and abundantly, and though the fruit can only be classed as early winter, it must be considered a great acquisition in cold localities. It was feared that it would fail is size when brought East, but the specimens shown were fully up to the average of Baldwins. Another new apple, the Canada Baldwin, an apple of the Famense type but a long keeper, bids fair to prove very valuable, especially on heavy soils, where it proves hardy and a great bearer. The quality of this apple is very good, but the size not much above medium. What is still sought for by the orchardists of Lower Canada, is a large apple of fine color, high quality and a good keeper, and at the same time sufficiently productive for profit. Such a fruit would be most valuable for exportation. The home market is so limited that there is danger of over-production, unless a standard exportable fruit can be grown. T. H. H.

Orleans Co., Vt.

Miscellaneous.

A TRIP TO BOSTON AND ITS SIGHTS.

The City Hall and Common.

WITH the special object of visiting the annual exhibition of the Massachusetts Horticultural Society, and at the same time with the intention of improving the opportunity to visit some of the places in the vicinity of interest to a young horticulturist, I set out for the City of Notions, which, according to Dr. Holmes, is the "Hub of the Solar System." Reaching my destination about the middle of the afternoon of the 8th of September, by way of the Fitchburg road, a few minutes' walk took me to the State House, which stands on the highest spot of ground in the city. From its cupola windows I obtained a magnificent view of the city and harbor. In the main hall may be seen the remnants of the flags carried by Massachusetts soldiers in the late war, and the guns carried by the Concord minute-men in the war of independence. Not far from the State House is the Common, the pride of Boston, with its hundreds of stately Elms and broad, pleasant walks, and the Public Garden which is exquisitely laid out and contains about twenty-five acres. Near the center is an irregular lakelet of water, which is crossed by a substantial iron bridge, and contains an island with a pretty vine-clad summer-house. The stretches of green, velvety lawns, dotted and bordered with beds of flowers, are looking especially beautiful at this season. There are many fine specimens of the ribbon or carpet style of planting, the plants most used for the purpose being Coleus Verschaffeltii, Geraniums and Centaureas, and some large beds are planted thickly with hundreds of Gladioli, Japan Lilies and Tuberoses, the latter filling the air with their fragrance in the evening.

The next morning I was up bright and early and spent an hour or two in and about Quincy market. Those who have never visited the markets of a large city, can form but a faint idea of the immense quantity of provisions required for the use of its inhabitants. It is difficult for a countryman to realize that the thousands of bushels of fruit and vegetables and quantities of meat and fish brought in, go down the throats of Bostonians in a single day. After seeing the markets I visited the celebrated pear orchard of Hon. Marshall P. Wilder, reached by a pleasant half hours' ride through the rural-looking Dorchester district. Dorchester is the home of many of Boston's wealthy business-men, and elegant residences surrounded by beautiful grounds are common, but some show the effect of the hard times by the advertisement, "This Estate for Sale," frequently seen.

The Pear Orchard of Col. Wilder

is said to be the finest experimental orchard of the kind in the country. It covers about twelve acres of ground and once contained nearly a thousand varieties which are now reduced, from one cause and another, to between eight and nine hundred. Nearly every tree is bearing fruit this year, a great many are loaded down almost to breaking, and the crop is estimated at not less than 2,000 bushels. The soil is a heavy sandy loam and is plowed and kept clean by cultivation, crops of small fruits and vegetables being grown between the trees, which are from ten to fifteen feet apart, too near it is thought. As fast as the fruit is picked, it is carried to the fruit-house and placed in a cool room in the basement to ripen, and, when in the proper condition, is sorted, packed in boxes, holding a bushel each, and marketed. About thirty bushels of fine-looking (and tasting) Doyenné Boussocks were nearly ready for boxing. The Bartlett is the most popular sort, no other selling well when that is in market. On the lawns about the residence are many fine ornamental trees, among them a large and beautiful specimen of Cut-leaved Birch, which Col. Wilder thinks highly of as a lawn tree. I was kindly showed about the place by a son of the proprietor, to whom I am indebted for most of the above information.

In the afternoon a three-mile ride from Bowdoin Square in a horse-car marked "Garden Street," carried me near the entrance to the

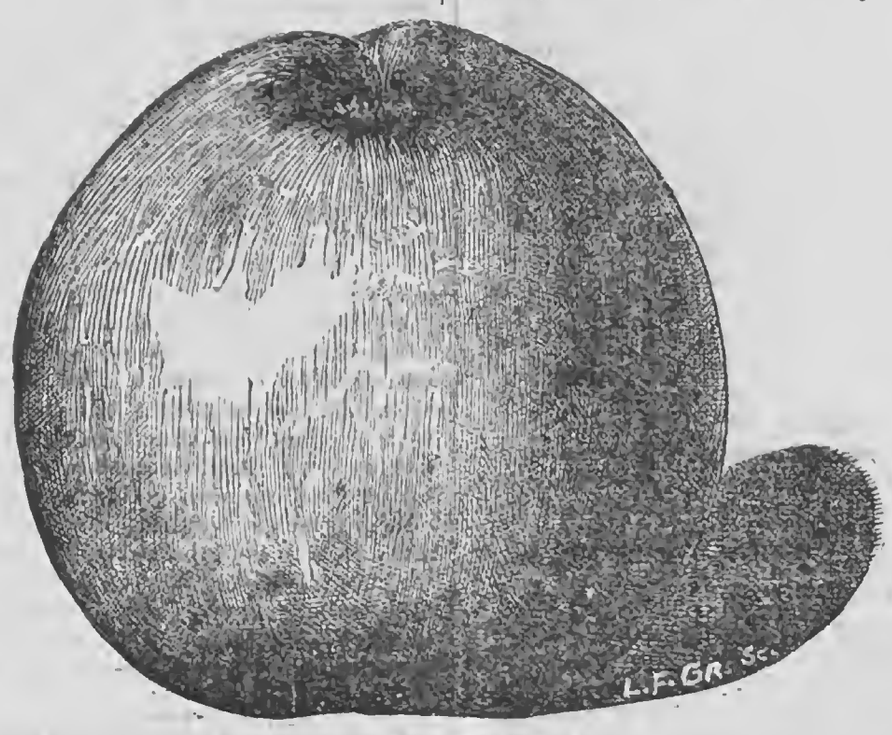
Cambridge Botanic Gardens,

which are fittingly called the Paradise of botanists. About 3,000 species of hardy plants are cultivated in the gardens and 2,000 species of tender plants in the greenhouse, and a student of botany can here gain a better knowledge of the flora of the world than could be obtained from books by months of study. The plants are plainly labeled and classified as far as possible, and Mr. Falconer keeps everything in most excellent trim. The most conspicuous plants now in flower are the numerous species of Solidago (Golden-Rod), and Helianthus (Sunflower), with their wealth of golden flowers, and the Asters, many of which are well worthy of culture in private gardens. Planted among rocks and trees on one side of the garden, so as to give them the conditions of their native homes, are the hardy orchids and spring-blooming plants and bulbs. Secluded from the main part of the garden by the Willows which cover its grassy banks, is a small pond filled with a great variety of aquatic plants. But to mention even a small part of the interesting things to be seen here, would be too great a task; but I must not forget the bed of Cacti planted out in front of the greenhouse, containing, I should think, a hundred species at least, and all looking as green and healthy as though growing in their native climes; nor the fine specimen of that beautiful evergreen tree, Abies Menziesii. This tree is a native of the Rocky Mountains, is perfectly hardy, and the foliage is of a steel-blue color, contrasting finely with the deep green of the lawn, all of which should make it one of the most popular of evergreens.

Exhibition of the Mass. Hort. Society.

The Mass. Horticultural Society, which has done so much for the encouragement of horticultural taste, celebrated its Semi-Centennial Anniversary on Sept. 9, 10, 11 and 12, by holding one of the best exhibitions ever held by it, fully sustaining its reputation of standing at the head of horticultural Societies. Among fruits the pear took the lead this year, nearly 600 plates having been on the tables; all the leading varieties and many that are unknown outside of large collections, being represented. It was too early in the season for most varieties to show to the best advantage. Souvenir du Congres and Beurré Clairgeau were particularly noticeable for large size and fine appearance. A plate of medium-sized Flemish Beauties was exhibited by Wm. Currier, of West Gloucester, which were grown on a graft put into an apple tree 35 years ago; and cuttings of both graft and stock were also exhibited to show that the tree is still vigorous. The exhibit of apples was small in quantity, but some fine specimens were shown. Though early for Grapes, the display of both native and foreign sorts was good. There was a small but choice collection of peaches and plums, and some luscious-looking Early Crawfords measuring three inches in diameter by the rule.

The display of plants and flowers in both quantity and variety was said by good judges to be the best ever made, Hovey & Co., Wm. Gray, Jr., H. H. Hunnewell and S. R. Payson being the largest exhibitors. The first prize for the best specimen plant was awarded to Mr. Hunnewell for Sphenogyne latifolia, and also first "for the best specimen plant not offered in any other collection." Anthurium crystallinum, a magnificent plant with thick, dark-green, velvety leaves, about two feet long and half as wide, having large greenish-white veins, attracted the admiration of all. Among many other rare and beautiful plants that were much admired were Ficus Parcellii; Croton pictum, C. interruptum and Wisemanii; Agave Schidigera, Phyllotænium Lindenii and Alocasia metallica. There were fine specimens of the newer varieties of Coleus, and collections of large and well-grown specimens of fancy Caladiums. Mr. Carl Schaeffer exhibited fourteen varieties of Tuberous Begonias selected from 150 seedlings, some of which surpassed the named sorts. Palms and Ferns were shown in great variety. The exhibit of Gladioli, cut-flowers and bouquets was good. The display of vegetables was very large and of great variety. The tomatoes were especially noticeable, the show consisting of about forty plates of the leading varieties, and I noted that the Acme received the first prize as the best variety for which a premium was not offered in the schedule.



GOLDEN RUSSET.

A pleasing feature of the exhibitions of this Society (and one that many smaller and some large Societies would do well to imitate), which adds greatly to the attractiveness of the display, is the uniformity of the arrangement of the exhibits, competing articles or varieties being placed in proximity, so that comparison can be easily made by judges and visitors. An exceedingly interesting address by Marshall P. Wilder, giving a brief history of the progress of horticulture from the organization of the Society to the present time, was delivered on the last day of the exhibition.

Amherst, Mass. YOUNG RURALIST.

NOTES ON VARIOUS TOPICS.

S. RUFUS MASON.

Breeding for a Purpose.

PROFESSOR BLOUNT is still trying to improve his corn, but it will be a difficult thing to do, as it is so extremely susceptible in its nature. I have now growing, from RURAL seed sent me this spring, a small patch. I also have, some 500 feet off, a patch of between two and three acres from seed grown by myself here on my farm last season (1878), from seed got directly from Professor Blount. My own seed was selected from nearly four bushels—the product of 120 hills of the original seed—by discarding all ears having less than 10 rows. I got about a peck of this seed, and planted it all this season (1879). I made this selection because Western farmers do not like corn with so few rows. I am trying to improve in this way at first. I don't think it safe to undertake too much at the outset. I mentioned that Blount's corn was very susceptible—it is evidently an aristocrat. The corn in my large patch is doing remarkably well. I put it upon land that has never been manured, as I am growing it for seed, and I want it to be honest seed.

The RURAL patch is on the same sort of land on which I put Blount's seed in 1878, and it was manured for the first time then by putting a shovelful of a mixture of one-third of old hen manure and two-thirds of common soil to each hill, after the corn was up.

The RURAL seed—one seed to a hill four feet apart each way—on this manured land, suckers heavily, and most, if not all of it has an ear. But corn suckering in a field planted three or four grains to a hill, and the hills four feet each way, and on heavily manured land, would not produce a single ear of corn: it would soon be a thicket and smother itself out, or at least turn to a grand article of corn fodder. If in this section we are going to grow this corn for *corn*, we must plant thinly, on poorish but on very clean land, and only cultivate just enough to keep down weeds. Too much manure or too frequent stirring of the soil, excites it so much that we should need a step-ladder at husking time. My field of corn does not sucker at all: it has grown just as I would have corn to grow, has met with no mishap so far, is ripening fast and is very prolific. Having now had two seasons' experience with this corn under varied conditions of both seed and soil, I give my deductions as above, *pro bono publico*.

A New Trick in the Trade.

Last fall I planted some plum stones in my garden; they grew about as usual, except one plant which is double the size of the rest. Close by it came up a parsnip from accidental seed. I believe the parsnip in its rapid growth, shooting its root down by and in contact with the plum roots, kept the soil loose and thus favored their growth unusually. It is worth further experiment.

Road-Making.

"There is no royal road to anything," it is said; every one must make a road for himself, then I ask how came those ruts?—Few men in any pursuit follow it long without making a mark of some kind; out of these a very few leave their marks *above* the road, like a telegraph wire, the posts representing their peculiar ideas, and the wires, the chain which connects and forms them into a whole. But the many, unable to lift their ideas above the common level, form ruts, going deeper and deeper until they engulf themselves, and are smothered in the muddiness they have created. The difficulty lies in early life; the path upon which the youth started in his career, was a "blind" one: it was beset and encumbered with clumps and stones, which made it a "hard road to travel," and the traveler, ignorant that, not what was before him, but what he left behind, formed his character, rushed toward the goal, leaving nothing but ruts to show his progress.

His energy spent, his brain weakened by fruitless efforts, his courage lost, retrospection commands but a sorry view. In our early days, the objects of life seem mere playthings, but when we are near the close of our career, we see that a little more *work* would have made a smooth road for our thoughts to travel back upon, and encourage others to at least follow our lead. These remarks have a moral, physical and intellectual application, and even to those who have got well along in their journey I may gently hint—it is not to late to mend.

Where is it All to End?

Is progress a forward or backward motion? Population increases, it must be clothed and fed, meat and grain are the staples, and the demand is constantly for a better quality. We take a breed of hogs, for instance: it has many good qualities, but is not quite perfect. We cross it; we shorten the head; we lengthen the body; we throw weight into the hams; we decrease the offal; we increase the net profit on each animal; but do we get all this for nothing?—I fear not, in fact I *know* we don't. Well! what is the cost of all this gain? First, answer me this:—How many pigs did good sows formerly have at a litter? Answer: from 10 to 15, yes, and raised them all, and when sold they would weigh from 400 to 600 pounds, dressed. Now how many pigs will our best improved breeds produce? From five to eight only, and if at two years they will reach 400 pounds, they are called grand. We will not consider prices, although they are vastly in favor of the past, but are no part of the breeder's especial skill. It is not worth while for me to figure up how much *money*—and after all that is the only test, as glory doesn't pay—can be made by the two sorts; every one can see for himself. Now, will some one please answer my question at the head of this article.

Dodge Co., Neb.

Farm Topics.

THE TRUTH ABOUT IT.

[THE object of articles under this heading is not so much to deal with "humbugs" as with the many unconscious errors that creep into the methods of daily country routine life.—EDS.]

"SHALL HE BE A PRACTICAL OR SCIENTIFIC FARMER?"

IN one of the "Brevities" of the RURAL NEW-YORKER of Aug. 16, the words above quoted occurred. The inference to be drawn from them seems to be that there is a difference, and a sort of antagonism, between the meanings of these terms; that a farmer cannot be practical and scientific both; and that if this be true and the practical farmer is the real one, the scientific farmer is a sham. Now, the writer of that item possibly did not mean all this; but the logic of the sentence is incontrovertible, and the deduction must stand. Unfortunately, there is a very prevalent idea that a scientific farmer is one who is full of crotchets, whims and oddities, who spends money in his farming without any idea of getting it back again, and who is to be considered as an example of all that is wild, foolish, reckless and extravagant.

This idea is not only erroneous, but injurious to a class of men who have done more to improve the practice of agriculture, and the character of the so-called practical farmers, than any other influence whatever. It is the scientific farmer who buys and uses the first ton of artificial fertilizer that is brought into his locality, who introduces the corn planter, the wheat drill, the wheat cultivator, the mower, the agricultural paper, with all that the use of that beneficial influence implies; who brings into his locality a pure-bred bull or ram, or boar, and generously permits the neighbors to use it and profit by it; while many of these laugh in their sleeves, and remark that "neighbor Moneybags will soon run to the end of his tether; that when he is sold out, there will be a fine vendue;" and facetiously quote adages and proverbs regarding fools and their money.

This is a specimen of your scientific farmer, a man of large mind usually, generous, liberal, of business habits, who does not often spend a dollar without knowing where it is going to; but who is very willing to invest hundreds or thousands, if he has them, if he can see in the distance a profitable return for his expenditure, and will wait patiently for his reward. For years back the truly scientific farmers have been draining, fertilizing and improving their land; have been improving seeds and live stock; have been testing implements and applying new methods; and all these innovations have been closely watched by your practical farmers who have been ready enough to adopt those which have turned out to be successful. The fact is, the scientific farmers are the really practical men in their business, for it is surely practical to use every method and appliance for making one's labor more effective and profitable, and quite unpractical to neglect them, and to be content with half-pay for one's work.

If we compare other industries with agriculture, we shall find the same true of them. The most practical electrician is Edison, and he is the most scientific; the most practical shipbuilder of his time was Ericsson, and his most scientific achievement, the building of the Monitor, was the most practical, and laid the foundation of the present iron-clad navies of the world. The most practical engineer of the present day is Capt. James B. Eads who, by the most scientific application of the principles of his profession, has opened the Mississippi River to the fleets of the world by removing the bar which closed this highway of a whole world's commerce.

It is the same with all others: the scientific men are the truly practical ones and keep the practice of their professions and arts in constant progress, and to these really practical men are we indebted for all the advance which the world has made in the past half century. It is time now that the term scientific farmer should be held to mean something more than that formerly reproachful term, "book farmer," and that it should be given at least a parallel meaning with the term practical. There are working farmers who are not practical, but a scientific farmer is eminently a practical farmer and can be nothing else; for if he is not practical, he is a quack and a humbug, and no scientific man at all. S.

Remarks.

It strikes us that there is a good deal of fallacy in the above article, which comes to us from one of our most popular agricultural writers. What makes a scientific man? Is he scientific who is engaged in the *pursuit* of pure knowledge? No, the knowledge must be gained. Science is true knowledge. Of what? Of one thing, or of all things? It is well to understand the difference between *science* and *art*, and to keep the plain distinction in mind. Our farmers can never be *scientific* farmers in the right sense of the word. It would be *impracticable* for them to become so. The pursuit of any single branch of science, with a view to original results, requires an amount of time and labor which the average farmer cannot give, even though his investigations ended in important inventions or discoveries.

A *good* farmer is not necessarily a "scientific" farmer, though good farming is necessarily based upon scientific principles. A good farmer has the intelligence to apply the teachings of science; to understand and to accept the conclusions which scientific investigations have revealed. The average farmer—by which term we mean him who depends upon his farm for support—has no time to inquire and to experiment for the sake of *knowledge*, but for the sake of production. He can be a scientist only to the extent that he is quick to apply the system of rules which science establishes. Science *must be* a profession in itself. Scientific truths of great importance are rarely ascertained by chance, and only those who devote their lives to scientific research have been eminently successful in adding materially to our knowledge. The *good practical* farmer is he who knows how to adapt scientific teachings to his own surroundings and circumstances. He has the practice, the skill, the education, the *art* to do this. He may follow rules, but he has little time for original inquiry.

We assert that the agricultural scientist would starve if he were dependent upon the products of his own farm for support. Can "S" tell us how much it cost to prove that artificial fertilizers could be profitably used in agriculture? How much did the corn planter, the wheat drill, the mower cost those who invented them and caused their usefulness to be made known? Such men are scientists. There is no science in being early to make use of the discoveries or inventions of others. "All these innovations have been closely watched by your practical farmers, who have been ready enough to adopt those which have turned out to be successful," says "S." That is precisely what we want our farmers in general to do. We want them to hasten to avail themselves of the benefits of scientific research. But we want specialists to make those researches. No other journal has been more earnest than this in advocating that farmers educate themselves as far as may be, and that, especially, they educate their sons—not, however, with the view of making them scientific farmers, but in order to enable them to take advantage of agricultural science as it develops.

Dr. J. B. Lawes is a scientific farmer, and he has spent fortunes in chemical researches which have brought to light valuable facts which must benefit agriculture everywhere and for all time. Does "S" advocate that every farmer should become a chemist? that laboratories, rain-gauges, etc., etc., should be established or constructed upon every farm? We would that we might hear less of scientific agriculture and scientific farmers. It is useless to reply that scientific farming merely means good farming. It means something else, or it means nothing. Educated farmers will hasten to avail themselves of all methods which will increase their crops with the same or less labor. But a farmer's life is inimical to scientific investigation to the extent which makes that word applicable to his pursuit.—EDS.

FARM HINTS.—A correspondent from Berlin, Conn., says, that the best purifier of cistern water he has ever tried is a bag of charcoal. Lower it into the cistern with a stone attached to it, to keep it down. The amount of charcoal should vary with the size of the cistern. To change it once a year is often enough. For scaly legs in poultry he has found an effective remedy in a mixture of common kerosene oil and lard, to be applied freely every second day. He has found by experience that this would cure the ailment in a short time.

Sheep Husbandry.

MUTTON AND WOOL.

PROFESSOR E. W. STEWART.

THERE are many considerations which seem to point to a great increase in the consumption of mutton by the people of this country, in the near future. The farming class is a very large proportion of the whole population—embracing, directly and indirectly, more than eighteen millions of people. This class now consumes much more pork than is conducive to the best health, not perhaps because pork is preferred to beef or mutton, but because it is more easily preserved during hot weather. A beef animal is too large to be used by the farmer in hot weather, but sheep are well adapted to furnish the farmer's summer fresh meat, as, with a proper refrigerator, he can use the carcass of a sheep at any time, and the introduction more generally of mutton into the farmer's summer diet would not only greatly promote health, but would create a large home market. It would soon lead to a vast extention of mutton and wool growing throughout the country. A few sheep could be accommodated on a large majority of farms in the older States without much interfering with other operations, and no doubt with an increase of profit. The best system for most farms is variety of products, not trusting the "eggs all in one basket." Variety leads to great economy of resources. A small flock of sheep will bring into use neglected spots and fence corners, will turn to account the gleanings of grain fields and consume many things not as well relished by cattle.

Portable Hurdle Fence.

And as we are treating of improved culture from a better marshaling of all the undeveloped farm resources, let me say that one of the first improvements needed in sheep-keeping on all the farms in the older States, is 50 to 100 rods of movable hurdle fence. By using the hurdle, any piece of after growth or stubble growth may be surrounded in an hour, and the sheep or other animals confined; then the hurdles may be moved over the field till every part of it is eaten and turned into flesh and wool. This will have a double advantage—turning the green food into money and killing many weeds. The portable or rolling hurdle is most convenient, as it is placed so quickly, and rolled so easily along, day by day, to supply fresh herbage, that its slight additional cost may well be afforded.

In this way a flock of considerable size may be kept all the fall upon stubble fields, without interior fences. With small flocks thus kept, it is also easy to add a small grain ration, which, in the warm season, will fatten them rapidly for market. It should always be a prime consideration in feeding sheep for market to do as much of it as possible in warm weather. And if they are to be kept till January or February, still, the feed should be very generous in the fall, that they may be fat enough for the butcher at the beginning of cold weather. It will then be easy to carry them to February in fine mutton order; and it will require much less food to do this than if they are only in a growing condition when cold weather begins. A small grain ration in September and October, on grass, will push them faster than a large one in cold weather. Where only small flocks are kept—and these should be upon most farms—the only profitable system will be that of early maturity and quick returns. A given amount of food will produce more live weight on a sheep in one year than in two; it must, therefore, be most economical of food to keep sheep, intended for mutton or wool, on full rations at all times.

Early Lambs.

The farmer with a small flock has them so under control that he ought to be able to produce the most profitable result. He may understand the needs of each animal and provide for each. He will find one of the most satisfactory items of profit in the sale of lambs. They will bring a better profit for the food expended than older sheep. It costs less to grow the first hundred pounds upon a lamb than the second hundred, or any proportion of it. The food of support is less in the young than the grown animal. Hence a large proportion of what the lamb eats, goes to increase its weight and the consequent profit. Early lambs sell for the best price, and where the shelter is warm enough to insure the safety of lambs coming in January, February and early in March, the extra price will well repay the extra care and food. It is but a few years since

that a lamb of 40 to 45 pounds would bring $8 to $10 in April or May, while late lambs bring but little more than fat sheep. But where the shelter is not such as to protect the young lamb from the rigor of the cold, it is not judicious to attempt raising early lambs. The risks will be greater than the chances of gain.

But whether lambs be early or late, they must furnish a large proportion of the profits of the flock. And to facilitate this result the shepherd should see that each lamb has a full supply of food. The dam sometimes gives less milk than the lamb can thrive on, in which case it should be taught to suck warm, fresh cow's milk from a bottle. But good judgment must be used to know when the lamb has enough—over-feeding being nearly as bad as under-feeding. A slight amount of extra food will produce a marked difference in the thrift of the lamb, and 10 pounds in the weight of an early lamb will add, very often, fifty per cent. to the market price. Early lambs, properly fed, should average, when 80 to 100 days old, 40 to 50 pounds, or one-half pound per day of age. Such lambs will always bring the top figure.

The ewes, whilst sucking, should be fed with reference to the production of milk as much as a herd of dairy cows. And in view of this, the ewes should be selected with regard to capacity for secreting milk. The best milkers will raise the best lambs. But the dams require succulent food, such as some one of the various kinds of roots, and, when these are not at hand, oil-meal, oats and wheat middlings mixed in equal proportions, one pound to each ewe per day. This will be paid for in the growth of the lamb and in the condition of the ewe. It will cause the dams to give excellent suckle to the lambs through the cold weather. These ewes should also have the best hay in the barn. When these early lambs are two or three weeks old it is well to teach them to lick a little wheat middlings, and gradually accustom them to take such food as will develop the first stomach and cause them to chew the cud. Strict attention to all these matters will be well repaid in the market-price of the lambs.

A CHANGE IN FARMING—GROWING COMBING WOOL.

COL. F. D. CURTIS.

A FLOCK of combing-wool sheep may be bred in two years, as a second cross would be three-fourths that of the ram. The quality of the wool would depend upon the blood and in making the cross. In all cases a pure-bred ram should be used—and one with as long a staple of wool as possible coupled with a good strong constitution. A careful breeder would look particularly to the form of the ram and select one with short legs, a small head, a broad, full chest and a broad back. The ewes may be Merino, in which case it would require at least three crosses to change the short and oily wool characteristic of Merinos to the combing standard. If the ewes should happen to be coarse-wooled, the desired quality may be obtained sooner. The Canada grade coarse-wooled sheep are the best for the purpose, and may be obtained for about $2 each, and brought into New York at a cost of less than $4, including 20 per cent. duties and the freight expenses. A pure-bred Cotswold ram may be purchased for from $25 to $50, and a Leicester for the same. The breeders of pure Leicester sheep are very few in the States, but in Canada what are called Border Leicesters are plentiful. We had the last flock of pure-bred Leicesters we know of, purchased by us of Messrs. Nolcott & Campbell, New York Mills, and imported by them from Yorkshire, England. The flock has run out, the Leicesters not being suited to our severe climate.

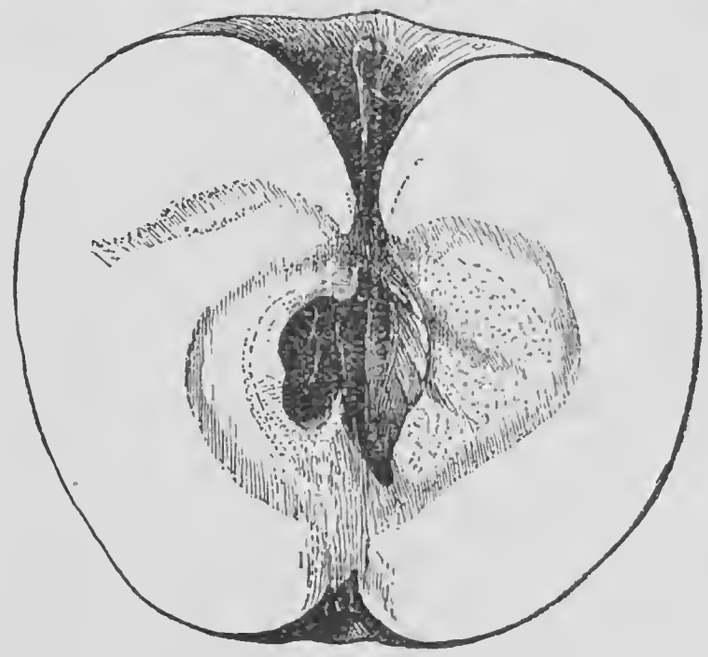
Cotswold rams are plentiful and, with good care, a yearling ram can be made to cover two or three hundred ewes. He should be kept in a stable and be liberally fed and allowed to serve a ewe but once; as soon as served, the ewe should be removed from the flock. The restraining of the sire to one service will insure vigor on his part and produce more twins and stronger lambs. Lincoln sheep have the longest and most lustrous wool when imported, but whether they will maintain this superiority in this country we do not know, but they undoubtedly will for a time. The continuance of the luster will depend upon the care they receive. They are a cross between the Cotswold and the Bakewell Leicester, and possess the size and vigor of the Cotswold with the beautiful staple of the improved Leicester. Careful selection and high feeding have brought them up to a high standard. The only flock we ever saw was that of Messrs. Nolcott and Campbell who imported them about a dozen years ago and are still breeding them. They have spread somewhat, but the number in this country is quite limited. A flock of pure-bred combing-wooled sheep is the most desirable, but is not within the reach of every farmer. A small capital comparatively will enable any one to obtain a good flock by crossing. By saving all of the ewe lambs and continuing the cross of the same blood, an improvement may be made from year to year. In all of the dairy districts the local markets *will* absorb the male lambs at remunerative prices, or the surplus may be sent to other markets.

Field Crops.

NOTES FROM THE RURAL FARM.

Wheat Experiments.

UPON our wheat field for another year oats were raised the past season, corn in 1877. It had been in pasture for six years previously. For corn, Mapes's corn fertilizer was used in the hill. For oats a special oat fertilizer was sown at the rate of 500 lbs. per acre. The oat



ESOPUS SPITZENBURGH.

stubble was plowed under Aug. 28. The field was manured with barnyard manure Sept. 8th, at the rate of 15 two-horse loads per acre. On one part, however, concentrated fertilizer (Crocker's "Ammoniated Bone Superphosphate") alone was used. The guaranteed analysis is as follows:

Soluble phosphoric acid	6 to 8	per cent.
Precipitated " "	2 to 4	"
Insoluble " "	1½ to 2½	"
Ammonia	3½ to 4½	"
Sulphate of Potash	1 to 2	"

The entire field was twice plowed six inches deep, then harrowed, rolled, cross-harrowed and diagonally harrowed. Clawson wheat, at the rate of one and a half bushel, and the above fertilizer at the rate of 250 lbs. per acre, were then drilled in. Three quarts of timothy per acre were sown. We shall harrow in the spring and sow clover.

Special Plots.

No. 1. FULTZ. Drills 12 inches apart, two inches apart in drills. The same fertilizer (the analysis of which is given above, and which we shall designate as C) *sown in drills* at the rate of 500 lbs. to acre.

No. 2. FULTZ. Same as No. 1, except that C was sown broadcast.

No. 3. FULTZ. Drills six inches apart—*no* fertilizer.

No. 4. FULTZ. Drills 12 inches apart—*no* fertilizer.

No. 5. LOST NATION, (from Dr. Hoskins, Newport, Vt.) Drills six inches apart, 500 lbs. C to acre sown broadcast.

No. 6. ARNOLD'S GOLD MEDAL. Sown broadcast. No fertilizer.

No. 7. WYSOR'S FULTZO-CLAWSON. (See Wheat Number of RURAL). Sown broadcast. C at rate of 500 lbs. per acre.

No. 8. ASIATIC WHEAT: 42 kernels (the largest we have ever seen) planted in two drills one foot apart and 33 feet in length. Three drills of BENTLEY (from H. A. Whittemore,) one foot apart, 10 inches apart in drills.

Eleven drills of KNIGHT'S EXCELSIOR (supposed to be a new variety), same as preceding.

Seven drills of GOLD-DROP same as preceding.

Seven drills of OREGON, same as preceding. On this plot (No. 8) C was sown at the rate of 800 lbs. per acre.

No. 9. MOLD'S WHITE WINTER. (Bliss) Drills 12 inches apart, 900 lbs. per acre of C.

No. 10. Mold's White Winter. Drills 12 inches apart. 900 lbs. *unleached ashes.*

No. 11. DEFIANCE. (Bliss). Drills 12 inches apart. 600 lbs. of unleached ashes *and* 600 lbs. of C.

No. 12. DEFIANCE. Drills 12 inches apart, 600 lbs. of C.

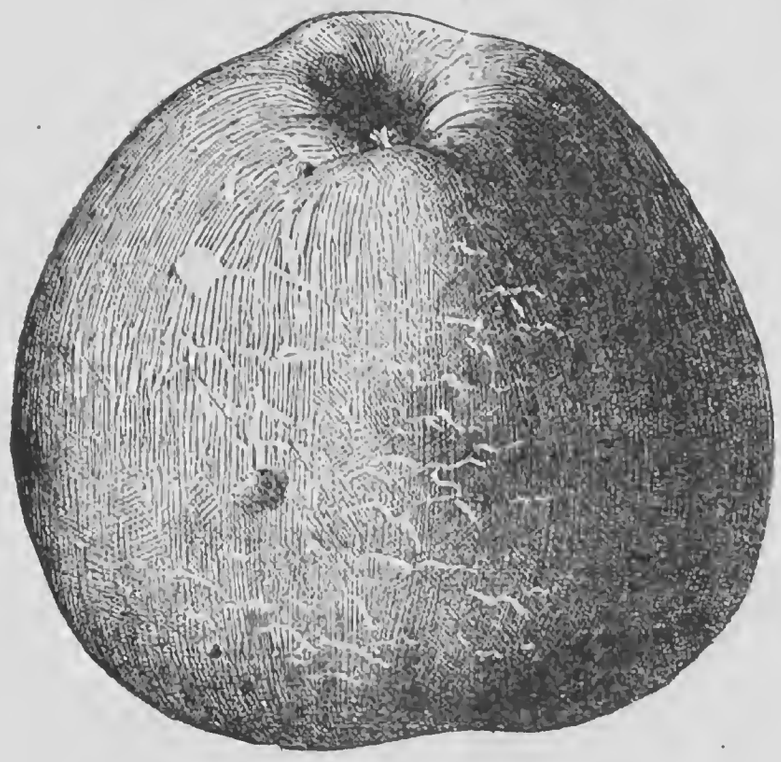
No. 13. CHAMPLAIN (Bliss). Broadcast. 240 lbs. salt—240 lbs. of C.

No. 14. MOLD'S RED WINTER. Broadcast. 1,800 lbs. of C.

No. 15. SHUMAKER. (Mich. Ag. College.) Broadcast. 600 lbs. of C per acre.

No. 16. SILVER CHAFF. Drills six inches apart, 600 lbs of C.

The Clawson field and all of the above plots received a final rolling after the seed was sown. The first was sown Sept. 19; the special plots Sept. 18.



RED CANADA.

The Poultry Yard.

POULTRY AND POULTRY BREEDING.

A. M. HALSTED.

THE science of poultry breeding has grown incredibly during the past few years. Most of us can remember when the chickens were looked upon as a necessary nuisance, to be tolerated only because the female portion of the household looked to them for a supply of pin-money. And those, to us bygone days, are still things of the present in many sections of the country. The fowls are regarded as a species of free-booters, and allowed to range at will. The weight of full-grown fowls in those days was perhaps on the average 3½ pounds: now frequently they weigh eight to nine pounds at maturity, and broilers are made to weigh one-and-a-half pound at six weeks old. Eggs then averaged 12 to the pound, now eight or nine, and even seven. The same ratio is noticeable in ducks, geese and turkeys. Fifteen or sixteen pounds were formerly considered extraordinary weight in turkeys, and if a pair of ducks reached eight pounds, the producer was well satisfied; he had something above the average. Now we often find turkeys in our market weighing twenty to twenty-five pounds, and ten pounds are not an unusual weight for a pair of ducks, while twelve and even fourteen are not uncommon. The same is the case with geese: the improved breeds, Bremen and Toulouse, are often in our Christmas markets weighing twenty pounds; and pairs of the latter have been exhibited in England which weighed, alive, *fifty-six pounds*:—nearly or quite double the weights of good specimens twenty-five years ago.

Nor is the improvement confined to size and weight. Quality as well has been looked for: A plump-bodied, full-breasted, yellow-fleshed and juicy, tender-meated chicken now takes the place of the lean and tough broiler of bygone days. In eggs, too, we find the improvement equally noticeable. The idea that "an egg is an egg," no matter whether fresh or stale, whether stringy and tasteless, or meaty and rich, has exploded. If the fowls have to shift for themselves, getting a precarious living in the barn-yard, or wherever they can pick it up, the eggs can not have the rich melting quality which results from a good, generous diet of grain and prepared food. We might as well expect the same quality of meat in the half-wild Texas steer, as we get in the well fed, pure-bred Short-horn. A thoroughbred, whether of cattle, sheep, swine or poultry, may be relied upon to make a better quality of food than a so-called native mongrel. In egg-production, as in butter, the thoroughbred produces the choicest quality.

Premising this much brings me to consider especially the means of attaining these improvements which is through careful breeding and selection. The two systems, natural and artificial, I shall not contrast, but rather show the use of each and how the second is but an addition to the first. I am well aware that many people ridicule the idea of artificial hatching and culture, and to such self-complacent plodders in the old path, I have nothing to say.

I shall consider this subject as applying to persons rearing poultry for market. The same treatment modified will meet the needs of the small breeder. As to location, I prefer a dry situation, a southern slope on the bank of a lake or pond, or, better, a small stream, with low underbrush. As to buildings, a number of small houses is preferable to one large one. They may, for economy's sake, be built double for two yards of fowls, letting the dividing fence join the houses in the the center. Each yard should accommodate 50 hens, four cocks, and be at least three-quarters of an acre, two-thirds in grass and the rest kept mellow by weekly spading or plowing. The hight of fence must be regulated by the breed of fowls kept. In addition to the buildings for breeding stock, there must be a setting or hatching room, a nursery for young chicks partly roofed with glass, and another room into which they may be turned when four or five weeks old.

In the selection of stock the breeder must be governed by the object to be gained. If it be eggs, Leghorns, Houdans or a cross of these upon some other breed, will be best; if to fatten for market, Brahmas, Cochins or Plymouth Rocks, will prove most satifactory, though there is a great difference of opinion on this point. In the laying stock it is best to have one-half pullets of last season's hatch and the remainder hens, one year old. By this selection we have no cessation of eggs. The pullets commence laying in the fall or early winter, and by the time they have laid their first clutch, the hens are ready to take up their share of the work. Select strong, vigorous males, with a long, loud, full crow. Mate the pullets with the cocks, and the old hens with the cockerels. This mating gives a stronger and more vigorous progeny.

As to the care of eggs, they should be gathered twice a day in cold and once in warm weather, best in the evening. According to the tabular statement which lately went the rounds of the press, said to have been based on a microscopic examination of the ovarium of a hen, the number of eggs possible for any one hen is 600. This number was allotted as follows:

During the first year after birth, the hen was supposed to lay			15 to	20
During the second year			100 "	120
"	third	"	120 "	135
"	fourth	"	100 "	115
"	fifth	"	60 "	80
"	sixth	"	50 "	60
"	seventh	"	45 "	40
"	eighth	"	15 "	20

But for once, science was wrong, as it has been frequently proved of late years that Leghorns and other non-sitting breeds will frequently lay 1,000 eggs during their lives. In my own experience I have had an annual yield of 175 eggs per hen, for two consecutive years from the same fowls. Of course, this production of eggs was forced. The present year, from Jan. 1st to Sept. 1st, from an average of 43 hens, I have gathered over sixty-two hundred eggs.

In breeding for profit this production of eggs should be forced by proper feed and care. Assuming the table given above, to be correct in the proportion of eggs laid at certain ages of the fowl, it follows, that to get the full value of the egg production, we must keep her until the fourth year.

If by proper care and attention, we can cause her to lay three-fourths, or more, of that possible number during the first two years, we can fit her for market, and fill her place in the yard by a younger fowl to be put through the same forcing process. It is folly to keep and feed a hen four years when the bulk of profit may be obtained from her by proper care and feeding in half that time.

Everywhere.

RURAL SPECIAL REPORTS.

N. Y., Clinton, Oneida Co., Oct. 1.—As the season for frosts has arrived with the beginning of October, and consequently the season for vegetable growth is virtually closed, I will no longer defer reporting as to my success with certain seeds, so kindly sent from the RURAL office, in its free seed distribution. And, first, I will say of Blount's Prolific corn, while it may be successfully cultivated in a more Southern latitude, I am convinced that it is not adapted to any portion of Central New York. I planted the seed furnished me, on the 12th of May, but as the balance of the month was quite unfavorable for vegetable growth, the plants were a long time in coming up; but finally made their appearance, though quite irregularly. As the season advanced, it showed a vigorous growth of stalks, attaining a hight of from 10 to 13 feet, with from two to six ears on a stalk. But when the first frost struck it, on the night of the 25 h of September, not one kernel of it was sufficiently ripened for seed, while all my other varieties of corn were fully ripened, and secure from damage by frost. Besides its lateness in ripening, I find other objections to it for my use. I do not care to cultivate a corn which bears its ears eight or nine feet from the ground, rendering a step-ladder necessary to pick them, or a hatchet to cut up, by the ground, stalks having the circumference of my wrist, and almost worthless for feeding to stock. Therefore I say, no more Blount's Prolific corn for me. Of the Beauty of Hebron potato, I received a little over two ounces of seed. From this small sample, I succeeded in getting eight plants, which were planted in as many hills. They were planted in my garden, on the 10th of May, by the side of my Early Rose, for a comparison. Of course, they both received careful garden cultivation, as I desired to give them a fair trial. It occurred to me afterwards, that for a fair test, I should have cut the seed of the Early Rose into as small pieces as I was obliged to make of the Beauty of Hebron.

As it was, I found that the Early Rose were the first to appear above ground, which I attribute to this difference in the condition of the seed planted, and to me it is additional evidence of the folly of being niggardly in the use of seed in planting. Possibly, for the same reason, a smart white frost which appeared on the morning of the 23d of May, cut the Beauty of Hebron down close to the ground, while the Early Rose seemed unharmed. Or, is the Beauty of Hebron the more tender? I could perceive no difference in the time of the ripening of the two kinds, so far as the decay of the tops would indicate, and on harvesting them, about the first of September, there was no perceptible difference in the appearance of the potatoes as to shape, color or size. From the two ounces of seed planted of the Hebrons, I had 10 pounds of potatoes, which I considered very fair for the quantity of seed planted. If the estimate is made from the quantity of ground occupied, the yield would be nothing extra. I have saved all for seed, and shall make a more thorough trial on the farm, in field culture, next year. Of the Pearl Millet I have but little to say. Probably in consequence of the seed having been planted too early, and an unfavorable spring, but little of it germinated. The vigor of the growth of the plant did not at any time equal my anticipations; and as it has failed to ripen its seed, I shall probably not try it again, for I see nothing to convince me that it is to be preferred to sowed corn for soiling purposes in this locality, which is considered fully as favorable as the average of Central New York. The Acme tomato proved quite satisfactory to us, ripening fully as early as the Golden Rural, and some ten or twelve days earlier than the Trophy, which is classed as a rather late variety, but is admirable for canning purposes. I shall continue to cultivate the Acme, both on account of its early ripening, and of its flavor, which is excellent. Indeed, in the latter respect it may be marked as one of the *very best*. The Seedling Bronze Ricinus proved very satisfactory. It is an improvement on the R. Gibsonii, heretofore considered as the best. Of the other seeds received, I may report at a future time. RURAL subscribers are certainly greatly indebted to its conductors for their free seed distribution. It is very warm here at present, and we are suffering greatly from the need of rain. Springs, streams and wells are failing, and we are but illy prepared to extinguish a fire, if one should occur, for our fire department would be almost useless, because of the scarcity of water. L. R.

N. Y., Madalin, Dutchess Co., Sept. 26.—I have been a subscriber to the RURAL for many years, and think the present volume more interesting than any of its predecessors. Your seed distribution has added a new source of interest. Each recipient becomes interested in his neighbors' experiments as well as in his own, and looks in the correspondents' column for their reports. On the 15th of May last I planted 50 hills of Blount's White Prolific corn, three feet apart. Its extraordinary growth astonished every beholder, stretching upward from 14 to 17 feet, and bearing from two to four ears on a stalk. It was planted in the garden on heavy loam, with no fertilizer, except a little ashes left from the burning of some grapevine prunings, weeds, etc. The Beauty of Hebron received had seven eyes which were made seven hills in loamy garden soil, without any fertilizing. The largest eye sent up its vine in about 10 days, strong and vigorous, making a large bushy top from three to four feet in length, bearing several large tubers, one of which weighed a pound. The vines from the remaining eyes were not so vigorous, were much longer in coming up, and the tubers did not attain so large a growth. The product was much in proportion to the size and growth of the tops, yet the aggregate yield from that one potato was 17 pounds. In April last I procured some Snowflake potatoes for planting. The ground, not being in readiness, I dug a trench in a sunny part of the garden and buried the potatoes therein until the *eyes were swollen* and the ground fitted for planting. Having selected the strongest eyes first, and planted them in newly prepared sod land about the first week in May, they came up in a few days, grew vigorously, made large spreading tops, growing until about the middle of August. Eight weeks after planting, the tubers were dug for eating, the size of a hen's egg, and the entire crop was gathered before the first of Sept. in fine condition, giving in some hills over 20 fair-sized tubers, several selected potatoes, weighing from one to one-and-a-half pound each. I now regret that I did not measure the ground and weigh the potatoes, so as to be able to compare the yield with that of the small ones planted at the same time, the yield from the small potatoes being about half the size and quantity. From this and similar experiments, I find much is gained in time and thrift, by starting potatoes before the ground is warm enough for planting. You are thus enabled to select the best seed which, being planted when the ground is fresh and warm, will come up quickly and get the start of the weeds and bugs while the ground is moist, and a fair, if not a large yield is almost assured. W. S. B.

NEW YORK, Pitcher, Chenaugo Co., Sept. 17.—The weather here, since July, has been very dry. It will doubtless shorten the corn crop very much, although some pieces look quite good, while others will not yield more than half a crop. Frequent rains in the early part of the season gave us a good crop of hay and oats. Potatoes are a large growth; but many pieces on very rich ground are badly decayed. My Beauty of Hebron potatoes proved a success. I received of the RURAL one potato weighing from two to three ounces; I put one eye in a hill, and harvested 20½ lbs. My Blount's corn stands from 12 to 13 feet high, with from three to five ears on a stalk; some of the ears stand 9½ feet from the ground. But it will want one month of good warm weather more than we have any reason to expect, to ripen here. I have been holding my breath almost all summer to see if I could not make a good report on Pearl Millet; but I will allow that I am not very favorably impressed by it. The lettuces were splendid. The flower seeds did not grow. A very small portion of the Defiance wheat came up. L. W. S.

L. I., Smithtown Branch, Suffolk Co., Sept. 14.—I have about 170 stalks of the Blount corn growing in my garden. I shall average two good ears on a stalk. It is from 8 to 12 feet high. Some stalks develop four ears. I planted it too thick, not knowing anything of its character. I have a patch of the Pearl Millet doing finely. It was planted the last of May and has been in blossom for more than a week. I have no doubt of its ripening its seed if the frost keeps off a week longer. It stands from five to seven feet high. C. S.

OHIO, Felicity, Clermont Co., Sept. 29.—Crops, especially tobacco, have suffered here on flat ground considerably, owing to a surplus of water. Farmers are now very busy sowing wheat and cutting tobacco. My Beauty of Hebron potatoes yielded well, but were not quite as early as the Early Ohios, which were planted beside them at the same time. Defiance wheat did not fill well on account of drought at the time of filling; and to the same cause I attribute my failure with most of the flower seeds sent me by the RURAL. The Pearl Millet is doing finely, some of it having been cut the third time: if frost keeps off a little longer, I shall have plenty of seed for another year. I only had one Voorhis watermelon that came to perfection, but it was most excellent. The Blount's corn I gave to Charlie to try for a premium. It was doing finely, and was a wonder to all who saw it. It was blown down three times and he straightened it up each time as well as he could; but there were four stalks broken entirely off, from which he husked twenty-one moderately fair ears. One or two stalks have ten ears each, and now the birds have commenced eating a share of it, so Charlie thinks his chance for a premium rather discouraging. L. J. A.

OHIO, Napoleon, Henry Co., Sept. 27.—Wheat was a good crop—equal to that of last year. Yield, from 20 to 40 bushels per acre. Some of it was injured before thrashing. Seeding is not all done even yet. The principal varieties grown are Clawson and Fultz, though Clawson is not as popular as it was, owing to its liability to sprout and to heat after storing. Corn is not as good as last year, but it will be about an average crop. Potatoes are good, both in quantity and quality. A good deal of sorghum is raised around here, the Amber variety being the favorite. Every one, almost, raises his own "bar'l o' 'lasses." Farmers are generally prosperous and in good spirits. V. J. E.

OHIO, Hartford, Trumbull Co., Sept. 30.—My Beauty of Hebron potato had seven eyes. I made six hills of them, and dug 19 pounds of very nice tubers. My Blount's corn is from 12 to 14 feet high. I guess some of it will ripen if it don't freeze up for a month. But it is not the corn for this latitude, in my opinion. There is a comfortable supply of fruit in this region, grapes and pears being very plentiful. A. N.

INDIANA, Madison, Jefferson Co., Sept. 26.—I have been taking the RURAL for a number of years and I like it. I think it is improved and still improving. Farmers' papers are beginning to be what they should be. They are read and thought of now much more than they used to be. Why? Because they contain far more useful information and practical suggestions than farmers generally can make use of. But though these cannot often utilize individually all of which they may approve, yet they need such instruction and are "bound" to have it. Farmers are getting to be wideawake. Many of the old folks and some of the young ones, too, had little or no scholastic advantages in their early days, and these, the best of them, look to their papers to supply this deficiency now. Each of these feels the want of scientific, or in other words, accurate knowledge. He wants to know what different kinds of soil are formed of; what goes to make up the crops he grows; what are the constituents of his manures, so that he can apply them or not according to the requirement of his land. All this and subjects equally instructive are the topics that will make a successful paper, and the RURAL is going ahead in this line. I read articles from it before our Grange and they are generally pronounced good. The Acme and Rural tomatoes are not as early as the Trophy with us. I grew enough of the Beauty of Hebron potatoes to give me seed for next year; this year wasn't a fair test; the spring was remarkably dry and cold. We couldn't get seed to sprout, or if it sprouted, it died. We planted our corn fields three times, indeed we were still planting when harvest began, and even then we didn't know whether half a crop would be obtained. I planted the RURAL'S Blount's Prolific on May 20, 18 inches apart, one kernel in a hill, not having dared to plant it earlier through fear of losing the seed. Out of 150 kernels planted 114 sprouted, and did well considering the unpropitious weather. I plowed and hoed the patch twice. It was in three short rows in our garden which was common garden soil without any extra manuring. Now the corn is nearly ready to cut; for, though some ears are still green, others are quite dry. I have grown 301 ears nearly all of them a foot long—good large ears well filled out to the end, some pushed out of their shucks like an over-grown lad bursting through his over-tight "unmentionables." Moreover, there are shucks with no corn in them and some stubbins. On the whole, considering the year, I think it makes a good crop and I feel proud of it. I wonder if I shall have any chance for one of those prizes; I'd like to crow a little over our Grange if I get one of them; but if others shall beat me, I'll be glad that they have done so well. By the way, there were some barren stalks. J. O. R.

IND., Williamsburg, Wayne Co., Sept. 12.—The harvest in this part of the country was generally good, wheat especially so, yielding an average of from 25 to 28 bushels per acre. Oats, some pieces good, others ruined by rust. Hay, an average yield, good and of excellent quality. Flax, a poor yield per acre, but of fair quality. Prospect for corn, as to quality, fully an average, but it is badly blown down, so much so that if we don't have a very dry fall, a great deal of it will rot, and the prospect now is for wet weather. We have been having very heavy rains every week, which is making seeding progress slowly. What between prostrated corn and wet weather, the acreage sown to wheat will be considerably below what it would have been under more favorable circumstances. Markets here are: wheat, 90c.; corn, 33c.; oats, 20@25c.; cattle, $2.50@4; hogs, $2.50@$3. My Beauty of Hebron potato had 13 eyes, from which I made as many hills; the bugs worked them badly, but I got a yield of 18 pounds of fair tubers, for which I would not take the price of your valuable paper. The Blount's corn gives promise of from one to six ears to the stalk, but looks as if it would not mature well, as it is very late. Taking the crops already harvested and the prospects for the rest of the year 1879, all in all, the outlook is very flattering, and we think will soften the hard times we have all heard so much complaint of, for which we should all be very thankful. W. M. H.

ILL., Lawn Ridge, Marshall Co., Sept. 19.—We have had several frosts that cut off the buckwheat and killed the late potatoes. Oats are half a crop. Corn is good. There are not as many hogs as usual, for so many were sold in June. Apples scarce. Weather very dry all through this section. J. Y.

WIS., Magnolia, Rock Co., Sept. 20.—Last spring I sent to New York for five pounds of Beauty of Hebron potatoes, and planted them with the single potato the RURAL sent me, cut to one eye in a piece, and put one piece in a hill. I dug them about the middle of August, and had 11 bushels and 40 pounds by weight. They ripened about the same time with Early Rose, but the yield was nearly twice as large and the potatoes the finest I ever saw. I shall save them all for seed, as I think they will prove a valuable addition to our early varieties. G. H.

TEXAS, McKinney, Collin Co., Sept. 23.—Of the seed sent out by the "old reliable" RURAL, Blount's Prolific corn was planted expressly to compete for the premium; but the awful drought cut it short, making about at the rate of 40 bushels per acre. As we had 52 days without rain, I think it a good corn to follow stubble. Pearl Millet is not a humbug, nor anything like thereunto; for Hungarian, German Millet and Milletarian all failed, while this is maturing nicely. I could have made two cuttings, but I let it stand for seed. Rabbits, birds, chinch-bugs and other pests have injured it, still I think a prize will be taken at the county fair by 24 mature heads of it 16 inches long and well filled, all from one hill planted with a single seed. Bronze Ricinus ornaments our garden walk "majestically." The Defiance wheat was sent too late, the rust destroyed it. Seeds and plants sent me by Commissioner Le Duc and our representatives in Congress have mostly succumbed to the dry weather—such as Tea plants, Eucalyptus, Japanese Persimmons, etc., although Prickly Comfrey and Amber sugar-cane will probably be valuable acquisitions to our Southern climate. I have succeeded in crossing the Amber with the Silver Drip, and the cross is more likely to give satisfaction than either, because the Amber is too small and the Drip too large and watery.

The Beauty of Hebron is a beauty in the potato line, being earlier than the Early Rose. The Bermuda sweet potato and Brazilian yam yield, in a good year, from 200 to 300 bushels per acre; but they are not as sweet as the Nansemond or the Spanish yam, which only yield about 100 bushels. Cuttings of vines make a small, smooth potato, but slips are much more prolific. Mediterranean wheat yielded about 20 bushels per acre, while Red May (Texas) did not average 10. Farmers, therefore, are sowing chiefly of the former to the chagrin of the millers, who have tried to rule in the wheat raising matter, but at last "give in." The RURAL speaks of better times in the East and sends as encouraging news of the prospects, on account of the recent crop failures in Europe; but what good does this do the farmer who has nothing to sell? Throughout Texas and the adjoining States and Territories the drought has created a considerable "shortage"; for where the showers happened to fall, will not constitute more than one-tenth of the general area; therefore the home consumption will exhaust the surplus. For once, in many years, we must learn to do without hay, and if rains do not come soon to bring forward the wheat and barley for winter pasture, stock must fare badly, if much snow falls this winter.

I would be pleased if every farmer in this section could *read* and *heed* the RURAL'S articles of Cash vs. Credit—for ninety-nine out of every hundred of them have fallen into the habit of going in debt, and a more pernicious and ruinous custom never existed. It is the first step to serfdom. I look upon these hard times as containing one factor of beneficence in the way of teaching farmers to be economical, frugal, and cautious in their transactions. I see in Western, as well as in Eastern Agricultural Journals an effort to put forward honest, energetic farmers for officers of trust and honor. Why not? Does not the farming interest represent by far the larger share of the whole population? And shall a few aspiring, boasting, blowing politicians belonging to a meager minority enact laws for us who should wield the national influence which belongs to us by the right of numbers, intelligence and morality? It is high time that we, the tillers of the soil, should have a voice in matters of state.

Plymouth Rock fowls have proven to be much better for the Southern climate than the Light Brahmas. W. N. W.

The Querist.

ANSWERS TO CORRESPONDENTS.

Cost of Making Butter and Cheese at Creameries and Factories.

"*Kane County*," *Ill.*, asks whether cheese and butter can be made at the factories and creameries for less than two and four cents respectively, and if so for how much less. These are the lowest figures at which these products are manufactured in his neighborhood, and farmers there complain that the factories take every cent of profit in milk.

Answer by Professor L. B. Arnold.

It costs the same to manufacture a given quantity of milk whether made into butter or cheese, and if reckoned by the pounds of product, the price for making a pound of butter should be two and a half times the price for making a pound of cheese. The price at which a manufacturer can afford to make either depends upon several circumstances, the chief of which is the quantity of milk he can depend upon receiving. It will cost more in proportion to make up 3,000 lbs. of milk a day than it will to make up 15,000 lbs. a day. The former will require one hand who is an expert, whose time will be worth, say, $60 a month; the latter can be made up by one expert and three cheap hands worth $20 a month each, equal to a $120 for a month's labor. The cost for water privilege, buildings and apparatus is also much less for a large quantity of milk than for a small one. The price of furnishing and also of board and labor varies in different localities, so that it would be impossible to say just what a pound of butter or cheese could be manufactured for, unless all the varying circumstances were known.

Prices have varied this season very widely. In cheese factories they have run from 80 cts. a hundred, (where there is no charge for use of factory) to $2 50 a hundred and all the whey thrown in, the profits from which vary according to the skill with which it is fed. I find variations running all the way from 20cts. to $1 for the whey from 1,000 lbs. of milk. In Pennsylvania it is a common practice to manufacture milk for one-sixth of the product. In New York State cheese is made by the 100 lbs. at $1 to $1.50, generally at $1.25, which is equal to $3.13 per 100 lbs. for butter. In Canada the average price is $2 for drawing the milk and making and selling 100 lbs. of cheese, the delivery of the milk costing from 40cts. to 75cts. per 100 lbs. of cheese, according to the length and compactness of the routes to be traversed.

In addition to the foregoing, "Kane County" and other parties concerned may be interested in the items of expenditure as they occur in the management of factories. Accordingly I append the actual expenses paid by a Joint Stock Company for running their factory last year.

Pounds of milk received		3,378,116
Pounds of cheese made		327,528
Paid for delivering milk		$1,550.50
Paid for labor of making cheese		$1,308.44
" " 1896 rennets	256.00	
" " 65 cords of wood, including sawing	107.00	
" " 2625 yds. 40 inch bandage at 4¾ cts.	127.97	
" " 11,800 lbs. Liverpool salt, $1.75 for 240 lbs.	78.75	
" " 25 gallons Mitchell's coloring at $3.60	90.00	
" " 5,192 boxes	519.20	
" " furnishing and labor of making		$2,484.36
" " delivering, furnishing and manf'g		4,034.80
" " furnishing and making 100 lbs. cheese		.75 cts. and 85-100c

To this may be added a fair rent for use of factory and apparatus, which would be 30cts. per hundred for cheese or 75cts. per hundred for butter, making the total cost for furnishing and making 100 lbs. of cheese $1,05 and 85-100ct. or for a hundred pounds of butter $2.64½. There was an average of five hands employed in this factory for doing the work which four could have done, and the rennet and coloring were needlessly expensive, while the fuel was below the average cost.

The proper variations for running smaller factories may be made by varying the items above, which would be affected by reducing the milk received.

Picking Apples.

F. W. S., Baden, Pa., wants some information in regard to the picking and saving of apples; he asks, 1, when is the best time to pick; 2, if it is a good plan to leave them out on the sod in the orchard exposed to the weather for two or three weeks after they have been picked; should they be put in the cellar at once? 3. Can the Fallawater be picked October 1st.

Ans.—This depends upon the season of ripening and the character of the fruit. Summer pears and apples should be gathered at least a week before they are ripe; if left on the trees till perfectly ripe, they not only become very liable to injury in packing and shipping, but many of them, especially those of a mealy texture, will be perfectly worthless. Winter apples and pears should remain on the trees until danger of frost. All kinds of fruit should be gathered only when it is perfectly dry; if a shower should come up while the work is progressing, the gathering must be suspended till the fruit has again become dry. Furthermore, the gathering should all be done by hand, and in baskets of a convenient size to be carried up the ladders and in the trees; the branch should be held with one hand and the fruit gathered with the other, being careful not to tear off the leaves or spurs from the tree or the stems from the fruit. In emptying the basket, the fruit should not be turned out, but carefully taken out one by one and at the same time classified into two or more grades, according to size and soundness. Winter fruit should then be brought under shelter in a fruit-house, dry cellar or similar place where it may be laid in heaps four or five thick for two or three weeks in which time a large portion of the "sweat" or superfluous moisture will pass away; it can then be packed and shipped for the market.

It is customary to keep apples in barrels during the winter, but for home consumption it is much better to have them spread on shelves of a convenient width to reach across. This facilitates the selection of just such specimens as are wanted, and, what is of greater importance, the fruit can be gone over whenever needed for the separation of all that is decayed. It often happens that the greater part of a barrel of choice fruit is spoiled by decay, one or two decaying apples rapidly spreading the disease to those around. When spread on shelves, such can immediately be detected and removed. The place in which to keep fruit should be a dry, frost-proof room or cellar, with an even temperature of about 45° F., if possible, and with means of ventilation whenever necessary. The second question is answered by the above. It is a very shiftless and negligent method to leave fruit in heaps in the orchard for two or three weeks after it is picked, exposed to the weather, to marauding animals and a temptation for thieves. 3. Yes. It is a winter apple, and should be picked on the apprehension of frost.

Eucharis Amazonica.

"*Californian*," *Napa Co., Cal.* (*We desire that all inquirers shall give their names and addresses.*) has purchased several bulbs of the above-named plant, but has so far met with complete failure in the cultivation of them, and therefore inquires what treatment they should receive in order to make them flower.

Ans. This plant, which is also known as Eucharis gandiflora, belongs to the Amaryllidaceæ, and is a native of Choco, New Grenada. It is a stove plant and must be grown in a hothouse to attain the best results. The bulbs will succeed well when potted in good fibrous loam, with the addition of a little peat and well decomposed sheep manure, and a slight sprinkling of silver sand. The drainage must be good; and it may here be remarked that good drainage does not consist merely in the quantity of potsherds used, but much more in the careful manner in which they are placed in the pot. The Eucharis can, by a little judicious management, be made to bloom at almost any season, but it is particularly valued as a winter bloomer. To this end, pot the plants, say, in June or July, and set them in a high temperature and moist atmosphere where they should receive a liberal supply of water after they have started to grow, and they should be shaded the same as other soft-leaved stove plants. About September, place them in a cooler house, and give them but little water until the beginning of November. After this period they should be put in a house with a night temperature of about 65° F. and again liberally watered both at the roots and on the foliage when the flower scapes will soon begin to make their appearance.

Cyclopedias.

J. A. C., Greensborough, Vt., asks what are the distinguishing characteristics of Appleton's, Chambers's and Johnson's Encyclopedias.

Ans. — Appleton's, as the only genuine American work of the sort, devotes more space than any of the others to topics of special American interest. It is well arranged; its information is the result of the latest researches, and while there are very few subjects discussed at length, the range of topics embraced in it is very extensive. Chambers's Encyclopedia has a great deal to say on a number of scientific subjects; dwells on matters of interest to the inhabitants of the British Isles at considerably greater length than on subjects in which Americans take special interest, but has the reputation of being very accurate, while revised editions are issued often enough to keep up with the times Johnson's is issued by American publishers in four bulky volumes and contains a large amount of information greatly condensed. It treats of nearly as many matters of interest to Americans as does Appleton's; but at considerably less length. It is an excellent work for its size. The Encyclopedia Britannica, a new edition of which is now being issued in this country, is probably the best of all those here mentioned, in its fullness of information, especially on subjects of world-wide interest; but it, too, is lacking in the minute information on American matters to which Appleton's can lay claim. The first eight volumes only are issued at present, and judging from these, it will be nearly twice the size of Appleton's.

Making Vinegar.

S. O., Aiken, S. C., asks for information about the manufacture of a good domestic vinegar, made from the juice of grapes or apples.

Ans.—Vinegar from grapes may be made as follows: The wine is stirred into a large tun which contains lees, and when thoroughly mixed, is squeezed by pressure through cloth sacks into an iron-bound vat, whence, after standing some hours, it is drawn off into casks for fermenting. These casks have only a small opening at the top, and are kept at a temperature of 77 deg. F., to 86 deg. F. After 14 or 15 days, the vinegar, now formed, is drawn off (cautiously so as not to disturb the sediment) into barrels which contain birch-wood chips. This clarifies it, and after standing a few days it may be syphoned off into the casks in which it is to remain. The residue, containing "mother," is employed to ferment all the subsequent liquor by simply pouring the latter into the cask that was used previously. To make vinegar from cider, the following recipe is recommended. Place in the cider barrel a small piece of bread soaked in vinegar, or else a piece of sour dough. Add about a pint of vinegar and set the barrel in a warm place (75 deg. F. to 85 deg. F.). Malt will produce the same effect as the dough and so will yeast and lean meat. The vinegar will clarify itself by settling, and on being drawn off from the top by means of a syphon, a clear liquid is obtained. A good table vinegar may be made by dissolving three pounds of white sugar in a gallon of water and fermenting with yeast.

Competing for Corn Premiums.

O. L. O., Hunt's Sta., Knox Co., O., says that on account of the dry weather or for some unknown reason, only about half of his Blount's corn came up, so he has but about 70 stalks, and he asks, 1st, will it be worth while for him to report as one of the competitors for the corn premiums; 2nd, at what period must the fodder be weighed.

Ans.—In accordance with the conditions that must be adhered to in order to compete for the premiums, as published in the Rural of April 26th and May 31st of the current volume, our friend can report as one of the competitors if he wishes, but since the premiums are to be awarded according to the yield from the *number of kernels planted*, his chance of receiving one is not very flattering. 2nd. Both ears and stalks should not be weighed until they are ripe, perfectly dry (free from the juices of plant growth) and free from all atmospheric moisture, so far as this can be effected by air-drying. If they were to be weighed in the green state, or at any prescribed period, we could not exercise the fairness we desire in comparing the yields and distributing the premiums. As has been stated elsewhere, it will be well for each contestant to provide himself with *proof* of his entire proceeding, such as the evidence of a justice or other competent authority.

Alfalfa.

J. P. P., Utica, Mich., referring to J. S.'s article on Alfalfa, in the Rural of Sept. 20, asks whether it would be likely to thrive in that section on sandy soil.

Ans.—It is very doubtful whether Alfalfa, or Lucern, would do well so far north. It needs a warmer climate than red clover, requiring greater heat and more sunlight. It is peculiarly adapted to a hot, dry climate, as its roots penetrate to a great depth, far below the influence of an ordinary drought, and there find moisture enough to keep the plant green and vigorous while all other vegetation is scorched or drooping. The roots have been traced to a depth of 13 feet. While a good top-soil is of great consequence with clover, a permeable sub-soil is essential to the success of Alfalfa. This may be loamy, sandy or gravelly, but it must be thoroughly broken up to a very considerable depth to give the plant a fair chance. Alfalfa languishes in a compact clay soil or in light soils lying over an impermeable sub-soil. We do not know of a single instance in which the plant has thriven so far north as Macomb Co., Mich.; though it has done well on a rich, deep, warm soil in several places in the Middle States.

Miscellaneous.

O. S. B. Burdell, N. Y., wants information on the following questions: 1. What can be put around his peach, apple and plum trees to keep the grubs from them? 2. One half of a tree on his place is girdled, shall he let it stand, or set a new one? 3. How much salt is it safe to put around a tree six inches in circumference? 4. Where can he get the best fertilizer for barley, warranted.

Ans.—1. Various remedies have from time to time been suggested, such as heaping up mounds of sand, earth, ashes etc., around the trees, but most of them seem to be of doubtful utility. A mound a foot or more high around peach trees, interferes with the Ransom process of fighting the curculio; therefore it has been recommended to encircle the base of the tree with a sheet of tin a little larger than the circumference of the tree, and fill the space between that and the trunk with coal ashes or earth. This should be done in May; in September the tin is removed, an examination made for borers, which can generally be found by the gum oozing out, and then the trench is left bare during the winter. This will answer also for plums. In the case of apple and pear trees, it has been found that soapy mixtures are obnoxious to the beetles at the period of egg-laying. Soft soap mixed with lime and potash and applied to the base of the trunk in June and again in July, has proved effectual. In September the whole orchard should be examined for borers, and these should be killed either by inserting a wire into the holes or by cutting the pests out. 2. We should in this case take the value of the tree and how well it bears the injury into consideration before it is replaced by another. If it is a large tree, it may be best to save it, if possible. In that case, cover the wound with grafting wax or tar. 3. A couple of handfuls. 4. Of any firm that advertises fertilizers in the Rural. The analyses are in nearly all cases attached to the bags; if not, they will be furnished on application to the dealers.

L. H. R., New Bloomfield, Mo., asks for some good disinfectant for use in stable and privy.

Ans.—Cabolic acid, charcoal dust, chloride of lime, plaster, copperas, and many other substances are effectually used for this purpose. One of the best disinfectants is the surface soil about the house, made thoroughly air-dried and sifted through a coarse sieve to remove sticks, pebbles and other extraneous matters. This can be cheaply obtained by every-body and when enriched by the deodorized substances, forms an excellent manure.

A. L., Crawford, Chenango Co., N. Y., asks several questions respecting the seedling Grapes of the late T. B. Miner, now advertised in this journal.

Ans.—Mr. Miner, two years ago, sent us specimens of his Grapes. They have grown thriftily but have not yet fruited. Illustrations of several of his varieties appeared in the Rural of September 30, 1876, and he brought bunches to this office for examination. They are seedlings of the Concord selected from about 10,000, and we have great hopes that they will prove worthy of extended cultivation.

A. F. F., Fall River, Mass., asks where he can obtain some Mulberry trees he has seen mentioned in the Rural; 2, is there any advantage in grafting the Grapevine; if so, when should it be done and how?

Ans.—If the Mulberry trees are intended for feeding silk-worms, Morus alba, M. nigra and multicaulis are the only ones worth purchasingg, and these can be supplied by most large nurserymen, like Ellwanger & Barry, Rochester, N. Y. 2. The Grapevine can be grafted, but there is no advantage in doing so.

S. M. J., Cleveland, N. Y., sends some variegated leaves from a beech tree found in the woods, and asks whether the variegation is something unusual and how it could be perpetuated.

Ans.—Such variegation is not uncommon in the leaves of Beeches growing in the shade. It is not permanent, however, and cannot be fixed.

Old Subscriber, Decatur, Ala., requests that we give directions for growing an Osage Orange hedge.

Ans.—Will our friend please see the Rural of April 26th where the same query was answered briefly and to the point.

B. F. M., Penryn, Cal., asks if the Bronze Ricinus is a kind of Castor Oil Bean.

Ans.—Yes, in the same manner as the purple-leaved Beech of the gardens is a variety of the Beech growing wild in the forest.

O. L. H., Spirit Lake, Ia., asks where can be got the People's Practical Poultry Book?

Ans.—The work can be obtained through this office, price, $2.

I. F. H., Lynn, Mass., sends flower and leaf for name: he bought the seed for Chrysanthemum Japonicum.

Ans.—That is the right name.

C. W., Church Hill, Md., wants to know now much salt he should apply to the acre of wheat.

Ans.—From three to ten bushels.

COMMUNICATIONS RECEIVED FOR THE WEEK ENDING SATURDAY, OCT. 4.

J. W. G.—L. R.—Clinton—L. J. A.—V. J. E.—C. D.—L. R. H.—F. F. W.—G.—J. W. S.—H. C. E —H. B. K.—T. R.—H. R. P.—W. S. B.—W. M. H.—B. H. —M. S. W.—C. A. H.—A. N. S.—H. S.—F. S.—S. R. M.—E. M. D.—T. M.—H. L. K.—J. G. R.—W. N. W. —N. W. B.—A. M.—R. C.—M. S.—W. H. R.—Mrs. J. E. S.—F. D. B.—G. M. M.—J. M.—E. C. H.—Mrs. W. J. F.—A. F. F.—M. B. D.—W. S. B.—L. W. G.—H. B. K.—J. R.—C. S.—F. G. R.—W. U.—E. M. D.—Mrs. B.—J. A. C.—B. F. M.—G. J. K.—G. M. M.—F. D. B.—C. H. D.—J. W. S.—Miss C. A. N.—

THE
RURAL NEW-YORKER.
PUBLISHED EVERY SATURDAY.

CONDUCTED BY
ELBERT S. CARMAN.

Address
THE RURAL NEW-YORKER,
78 Duane Street, New York City.

SATURDAY, OCT. 11, 1879.

NOTICE.

Our Fair Edition of 60,000 extra copies, is distributed. We cannot any longer, therefore, supply copies to applicants.

THE PROSPECTS FOR THE WHEAT MARKET.

In commenting here, at different times during the last few months, upon the prospective price of wheat, we have always expressed the opinion that it must rise. A careful examination of the various reports of the condition of crops in different parts of Europe and elsewhere, led directly to this conclusion. The nature of these reports has been from time to summarized for the benefit of our readers, so that they might be in a position to act intelligently in either selling their crop at once or retaining it for higher figures. With the same object in view we have also placed before them the chief rivals we have to meet in foreign markets, and the extent of the competition these have maintained with us there for the last three years.

The late advances in the prices of wheat have already justified our predictions, and from our present information we are strongly of opinion that prices must go even somewhat higher. Former estimates with regard to foreign harvests were based, to a great extent, upon probabilities which, as the crops were still in the field, were liable to modification by a week's sunshine, or a day's downpour. By this time the European wheat crop has been gathered and the average yield pretty accurately ascertained by thrashing. As a rule with few, if any, exceptions, the anticipations of a deficient harvest have been fully realized, and in several cases sadly exceeded. In England, for instance, not only is the yield even below what was expected, but the grain is generally of poor quality, and the straw of a dark, mildewy color. Both Mr. Caird and Mr. Scott, the two most trustworthy English authorities on agricultural statistics, place the shortage at 30 per cent. of an average fair crop.

The latter of these experts has been figuring, from the best attainable data, upon the probable relation between supply and demand in the wheat markets of the world for the present crop, and has given to the public the results of his calculations in a recent letter to the London Times. Briefly summarized in a tabular form for the sake of clearness, his conclusions are as follows:—The estimated surpluses of wheat, after repeated revisions down to the beginning of September, are put down for—

The United States and Canada at:	132,000,000	bushels
Russia	40,000,000	"
Turkey, Egypt, India and Australia	24,000,000	"
Algeria	1,600,000	"
Aggregate surplus	157,600,000	"

On the other hand, to supply their wants for ordinary consumption, it is estimated that there will be needed by

England	136,000,000	bushels
France	61,000,000	"
Italy	20,000,000	"
Belgium with Switzerland, China and the West Indies, 16,000,000 bus. each	48,000,000	"
Austro-Hungary, Germany, Spain with Portugal, 8,000,000 each	24,000,000	"
Holland	6,000,000	"
Total deficiency	298,000,000	"
Total surplus to supply it	257,600,000	"
Deficiency unsupplied	40,400,000	"

From information in our possession, collected from various sources, we are disposed to believe that the surplus from this side of the Atlantic is considerably understated in the above estimate; but there is no doubt that the demand will fully equal the supply, and prices therefore must be strongly in sellers' favor. Continental buyers, especially French, have hitherto been the heaviest investors at advanced rates; but English purchasers must soon, however reluctantly, follow their example, and when they do, the upward movement will be more strongly felt in our home markets. Already, in face of by far the largest importations of grain, that have ever occurred, prices for wheat are steadily rising in the markets of Great Britain.

LAND AGITATION IN IRELAND.

Rifle and rent are once more becoming ominously connected in the "Gem of the Ocean." On the first of the month an obnoxious land agent of the Marquis of Sligo was shot at near Castlebar, the capital of county Mayo. The would-be homicide, however, was a poor marksman, for while the agent drove off unscatched, the surer aim of his son who accompanied him, proved fatal to one of their four assailants, who turned out to be a militiaman. The extreme members of the Home Rule Party are doing their best to fan into a conflagration the fire that, with the exception of a few fierce outbursts, has smoldered for centuries in the Celtic heart at the cruel injustice with which the Ironhearts of Cromwell and the mercenaries of William of Orange dispossessed the natives of their ancestral acres. It adds to the bitterness that the largest landowners are generally of a different religion and often of a different nationality to the bulk of the people, and that whatever their faith or their country Ireland seldom knows them except as imposers of hard taxes upon her industrial classes—taxes levied through unscrupulous agents and squandered in foreign lands.

Land meetings at which thousands assemble, are being held or projected in different parts of the country. At these, patriots, politicans, enthusiasts, soreheads and agitators of all kinds loudly lament the tenants' manifold grievances and savagely denounce the heartlessness of their landlords. A considerable reduction of rent is the immediate object of their demands; but an entire change in the land laws and the total abolition of absentee landlordism are the ultimate aims of the agitation.

AGAIN.

We thought we had convinced at least those who read this journal (except, it may be, Professor Riley perhaps), that a small proportion only (very small, indeed, according to our own careful experiments) of *weevil-eaten peas* will grow. An experienced seedsman of this city told us a few days ago, however, that there was no use in trying to make it appear that they will not grow because he *knew they would!* "But have you tested them for yourself?" we asked. "No," he said, "I have sold them too long to make that necessary." Well, we give it up. If people are *determined* to believe that weevil-eaten peas will grow, in spite of trustworthy tests which prove the contrary we must e'en leave them to think so. It may seem strange that many *will* believe that wheat sometimes turns to chess. In this case, however, it is really hard to *prove* that it will not. But if any incredulous body that reads this will, next spring, sow *only* weevil-eaten peas depending upon them for his main crop, we are confident that he will never again feel like casting doubt upon the results of our experiments.

WHEN TO TRANSPLANT?

Just as soon as the leaves have performed their functions. This varies with different genera, species and even varieties. For instance, some Pears lose their leaves in mid-September; better transplant them then than to wait until after frosts; the roots have so much the more time to become established in new soil. The discoloring of the leaves is proof positive (if the tree is in health) that they can be of service to the tree no longer. They have become clogged with mineral matter; the leaf-stalks, though still clinging, are really severed from the stems. The buds for another year are matured, and the sooner trees so circumstanced are removed, the better is their chance of passing the winter unscathed and of making a vigorous growth the ensuing spring. During long, favorable seasons, such as the present has been in this part of the country, many kinds of trees are prone to make a late fall growth. This has little time to mature and generally perishes before spring. Better remove such trees before the late growth starts, in which case the tendency is effectually checked.

BREVITIES.

Prune Grape-vines.

Our Potato Number will be next week.

Golden Russet (see engraving) is extensively grown in Western New York.

We read of 50 bushels per acre of Fultz wheat having been produced in Indiana.

Preserve Mangolds, Beets and Carrots from frost. Salsify is better for being frozen.

Another Dairy Exhibition of the "International" sort will be held beginning about Dec. 15th in the building of the American Institute of this city.

Somebody has said (we forget who) that beets added to apples, in the proportion of one bushel of the former to ten of the latter, will make better cider than apples alone.

"Pay as you go" was the text of President Hayes's address at the late Michigan Fair at Detroit. We heartily welcome this presidential support in our crusade against agricultural indebtedness.

In Colorado, we are assured, steers can be got ready for market at a cost of $4 per head, with a possibility of raising them for a dollar less on a large scale! Isn't cattle-raising in Colorado done on a large scale now?

The editor of the Ouratonna (Minn.) paper asks: "Can there ever be an entire failure of crops in Diversified Farming?" We say no, if the farming be sufficiently diversified: Neither can there be an entire success.

We learn that the position of Professor of Agriculture of the Michigan Ag. College has been offered to our contributor, Mr. W. I. Chamberlain. We know of no other person that combines so much of high scholarly attainments with a practical knowledge of agriculture.

Ex-Gov. Seymour says: "Agriculture has always been known as the basis of civilization with all peoples. But it has rarely if ever happened in the world's history that it has wrought out such marked and rapid changes in the credit and prosperity of a government as those which we now witness in our land."

"In Premiums for Swine" a breeder remarks "the largest hog always takes the premium;" in every-day life, too, who has not noticed that among his acquaintances the biggest hog always appropriates the best of everything; though in both cases the animal has often only a slim claim to what he collars?

We see the advice given to purchase trees now, and, if they cannot be set this fall, to *heel them in* until spring. Our advice is to wait until spring rather than to heel them in. It makes nearly double work, with scarcely any advantage, and the trees are weakened during the winter, unless the "heeling in" is carefully and skilfully performed.

A microscopist, M. Woronin, finds that club-root in cabbages is caused by a minute fungus which he calls Plasmodiophora brassicæ. Sulphur, so effective in killing other fungoid spores, is suggested as a remedy. One crop of diseased cabbages should never be followed by a second cabbage crop, since probably the ground becomes infested with the spores.

This would be a good time for those who want choice English breeds of sheep, to invest in them. Owing to the poor condition of root crops and the general agricultural uncertainty, sheep are now reported a drug in the market. Those exhibited at fairs generally find ready purchasers, but exhibitors this year complain that it is next to an impossibility to dispose satisfactorily of their flocks.

So many experiments will be made all over the country this year in the extraction of sugar from sorghum, beets and corn stalks, that this may well be called a test year in this connection. Should it be definitely decided that sugar can be profitably produced from either of these sources, it is probable that there will soon be a diminution in the area sown to wheat in favor of whichever of these plants may prove more profitable.

One of our farm hands remarked to us the other day while we were surveying a field full of new potatoes, new turnips, beets, etc., which were for the most part failures;—"Tell you what it is, these 'speriment things ain't worth nothing anyhow." It is a truth that testing "novelties" in a large way is a costly business. But gems do crop out now and then and those who aid in making them known, are engaged in a good work.

Under the head "Miscellaneous" in our last issue, a cut was given of a variegated Tubrose discovered by Mr. Rhea, of Griffin, Ga., two years ago, growing in a bed of other Tuberoses. He naturally supposed it a sport, and since then has succeeded in reproducing the variegation by planting sets from the main bulb. Mr. Dreer, of Philadelphia, however, writes to us that he has been offering this variety for sale during the last ten years.

To the managers of agricultural fairs, who insist that "hoss trots" are necessary to the success of their exhibitions, on the ground that they draw a big crowd and thus increase the gate-money, we strongly recommend Ex-Gov. Furnas's suggestion that they should appeal to the Executives of their several States for permission to hang a criminal on the grounds, as a means of drawing a still greater throng, and chiefly of the same rowdy element too.

A root party and farmer's pic-nic was largely attended at Kirby Homestead, Charlton, N. Y., on the afternoon of the 4th inst. The genial Colonel Curtis and his excellent lady extended a cordial welcome to their host of visitors, besides providing a lunch for those who came from a distance. Everything which brings farmers together for instruction or innocent amusement, or, better still, for both combined, is worthy of praise and imitation.

While the weight of Short-horn grades for shipment from this port averages about twice that of Texans shipped from Indianola to Cuba, the former sell for more than five times the price of the latter, owing mainly to their superior quality, though considerably, of course, to the superior advantages of this place as a shipping point. This great difference in price between beasts of different beef qualities should stimulate our farmers and stockmen to still further improvements in their herds.

The lowest price per bushel of wheat on ship-board during the first half of the current year, was at New York, $1; at Philadelphia, $1.06 to $1.16; at Baltimore, $1.06; at Boston, $1. The average price per bushel of red winter wheat on shipboard during the same period was at New York, $1.12, at Philadelphia, $1.11; at Baltimore, $1.6¼; at Boston, $1.06. The average freight per bushel to Liverpool was from New York, 12c.; from Philadelphia, 7½c.; from Baltimore, 13½c.; from Boston, 15c.

English farmers, by late accounts, seem to take kindly to emigration, hopeful of better fortune elsewhere than that which the Mother Country has, in step-mother fashion, allowed them. On four adjoining estates in Yorkshire, no less than 180 farms are deserted, and on a multitude of other estates also, what money will be lost for the next year or two, at least, must come out of the landlords' pockets, who will themselves have to farm them.

According to a recent report of the English Secretary of Legation at Washington, the average weight of pigs shipped from this port to England is 170 pounds. Large hogs are unsuited to the British market. The price for them here averages 5 cts. per pound, varying from 4 cts. to 6¼ and 7 cts. The rate of freight is about 1½ cts. per pound. Such a 170-pound hog would sell on an average in Liverpool for $12, or at the rate of a trifle over seven cents per lb. There cannot be much profit in the exportation of swine at these figures, after a fair allowance has been made for mortality on the voyage.

Depression in agriculture is sure to be attended by depression in all branches of business connected with it. Our manufacturers here must have felt the truth of this during the recent period of distress among our farmers, and the largest English manufacturers of farming goods are now going through a similar experience. Lately Messrs. Lawes & Co. had to give notice to the 300 employés engaged in their Chemical Manure Works of a reduction of 10 per cent. in the wages of all hands receiving $10 per week and upwards, and of 7½ per cent. on wages under that amount. A strike was feared, but the employers have met their hands half-way, and both parties are for the present satisfied.

A trip through Long Island, N. Y., shows that buckwheat has been seriously damaged by frost. Winter turnips will be a magnificent crop. We saw many picking late beans and peas, and others green tomatoes for pickles. There is an immense area of late cabbages raised on this Market Gardeners' Island. Clawson has been sown ten times as much as any other variety. It is three or four inches high on many fields, sown about the 12th of September. Since that time there has been no rain, and many fields yet remain to be sown. A great many sweet potatoes are raised. Nansemonds are thought the sweetest, mealiest and earliest. Peabodys will yield more and grow larger. That is the best that can be said of them.

For the first half of the present year "prime" beef at wholesale for exportation, has ranged between nine and ten cents a pound on shipboard in this city, while common-quality beef has varied from seven to nine cents. Dressed beef shipped in quarters has cost from eight to nine cents. Beeves shipped alive have averaged $5.70 per 100 pounds gross weight, the best grades fetching more, and fair grades less. "Prime bullocks" have averaged 1,400 pounds and "common bullocks" 1,100 pounds. The average freight per head to Liverpool has been $17—though it has been as low $12 and as high as $23. In Liverpool the price of American "prime" beef has ranged from 14 cts. to 15 cts. per pound, though it has sold for as high as 18 cts., but shippers would make a good fair profit at a considerably less price than either of these figures.

Our premium list and posters will be ready the 10th inst., and—please note—all of our readers so desiring, will be welcome to them on application. We certainly hope that our readers can conscientiously speak a good, hearty word of commendation for this journal to their friends, and that our power to improve it through another year will be much increased. One thing is certain, we do not intend to fill up the Rural with premium lists and self-advertisements for the next three months, whether we increase our circulation or not. We are happy as we are, and feel confident that earnest endeavors and conspicuous worth will engage the good opinion of good people everywhere. If for 1880 we can secure an *increase* in our circulation twice as great as was this year's increase over that of last, we shall feel *entirely* satisfied and we shall see to it that our subscribers also fully share in our prosperity.

The old, old question as to whether fall or spring transplanting is better, now comes up again to perplex all who are about to take their first lessons in experience. There are good arguments in favor of each—some against fall transplanting—one against spring transplanting. We need scarcely repeat them, they have been told so many times. Let us say, however, if transplanting is to be done this fall, do it as soon after the leaves have changed color as possible. Dig holes large enough to admit the roots without cramping them. Work the soil well in between the roots and fibers and make the soil *compact*, so that the roots shall be in *contact* with the soil. Raise a *slight* mound about the stem, and over this, in a circle three feet in diameter, place two or three inches of straw, old manure or litter. Currants, Raspberries, Gooseberries and Grapes may be planted with perfect safety until the ground freezes.

Some time back we mentioned, with an expression of incredulity, the report of a newly discovered Australian device by which cattle might be reduced to a condition of suspended animation, shipped to Europe without danger of putrifaction or cost of feeding, and restored to life on their arrival at their destination. Although the process was fully described, in good faith, by a large number of papers, the London Times among them, that pride themselves on their immunity from the possibility of being imposed upon, yet, as we expected, the thing has turned out a complete hoax. We now learn from the same land of marvels that wonderful things are expected from the results of experiments now being practiced there with the object of preserving meat in the carcass by the injection of brine into the blood vessels. A dozen years ago we remember seeing this very experiment made at the beef packeries on Matagorda Bay, Texas. The fault that caused its rejection there was that, while it preserved the meat safely enough, it did so by reducing it to the hard condition of a pine plank.

Literary Miscellany.

EVELYN HOPE.

BEAUTIFUL Evelyn Hope is dead;
Sit and watch by her side an hour:
That is her book-shelf, this her bed:
She plucked that piece of geranium-flower,
Beginning to die too, in the glass:
Little has yet been changed, I think—
The shutters are shut, no light may pass
Save two long rays through the hinge's chink.

Sixteen years old when she died!
Perhaps she had scarcely heard my name;
It was not her time to love; beside,
Her life had many a hope and aim,
Duties enough and little cares,
And now was quiet, now astir;
Till God's hand beckoned unawares,
And the sweet white brow is all of her.

Is it too late, then, Evelyn Hope?
What! your soul was pure and true;
The good stars met in your horoscope,
Made you of spirit, fire and dew—
And just because I was thrice as old,
And our paths in the world diverged so wide,
Each was naught to each, must I be told?
We were fellow mortals, naught beside?

No, indeed! for God above
Is great to grant, as mighty to make,
And creates the love to reward the love—
I claim you still for my own love's sake!
Delayed it may be for more lives yet,
Through worlds I shall traverse, not a few—
Much is to learn and much to forget,
Ere the time be come for taking you.

But the time will come—at last it will,
When, Evelyn Hope, what meant, I shall say
In the lower earth, in the years long still,
That body and soul so pure and gay?
Why your hair was amber, I shall divine,
And your mouth of your own geranium's red—
And what you would do with me, in fine,
In the new life come in the old one's stead.

I have lived, I shall say, so much since then,
Given up myself so many times,
Gained me the gains of various men,
Ransacked the ages, spoiled the climes:
Yet one thing, one, in my soul's full scope,
Either I missed or itself missed me—
And I want and find you, Evelyn Hope!
What is the issue? let us see!

I loved you, Evelyn, all the while:
My heart seemed full as it could hold—
There was place and to spare for the frank young smile,
And the red young mouth, and the hair's young gold:
So hush—I will give you this leaf to keep;
See, I shut it inside the sweet cold hand;
There, that is our secret! go to sleep:
You will wake, and remember, and understand.

Robert Browning.

IN FOLLY'S NET.

CHAPTER VIII.

(Continued from page 645.)

When she went down to luncheon, which, in the absence of *ces messieurs*, was a slender and hasty repast, Jean was equipped for her walk, and Lady Sholto asked her, casually, what she was going to do.

"Something you will not approve of, Florence," answered Jean, trifling with a chicken's wing upon her plate. "The dreadful deed I am going to commit is a walk to Glenholme, to sketch the old church there."

"It is a long walk, Jeanie dear," said Lady Sholto. "Are you sure you are equal to it? You will go by the road of course?"

"Yes, I have often walked further, Flo."

"Yes, I know, last year, with Archie; but you were in practice then, you know, and now you are not."

"Oh! yes," said Jean, laughingly, "I shall not be happy unless I get my sketch, and it is a lovely day."

"Good-bye, Florence," she said, stooping to kiss her. "Don't be uneasy; if I am a little late, I shall get an escort home."

"Good-bye, dear," said her ladyship, rather languidly. "Don't over-tire yourself, Jeanie."

Jean went off gaily, sketch-book in hand, down the terraces, out of the grounds, on to the road beneath, where she started for her excursion, in what professionals would call "very good form," and at a good sound pace.

She gathered some heather, and adorned her deer-stalking cap, and, putting another piece in her buttonhole, she said to herself:

"I will send that to Archie," and then suddenly recollected that she had not yet written her daily budget. "How tiresome! I shall miss the mail. Well, it can't be helped."

But the brightness seemed clouded as she went on her way after that thought. Archie would be vexed, and disappointed, and just now that he is low-spirited about Frank Johnstone's death, he would feel it now, she thought with angry impatience at her own carelessness.

Then another thought came to her. Would Archie approve of her rendezvous with Mr. Blair? Surely not, and Jean made up her mind that she would have to be a very sorrowful penitent when she made confession before Archie would absolve her from such a peccadillo.

"I could not help it," she said, ruefully. "He looked so sorry, poor fellow; and I can't bear making people unhappy. There is no harm whatever."

Good walker as she was, undoubtedly, Jean found that when she arrived at Glenholme she was much more tired than she had expected, and thought to herself that she could not be so strong now as when last year she had taken those long walks with Lord Ivor, during which they had learnt to know each other. The road had been lonely too, and she had only met a few chance passengers between Sholto and Glenholme, so that she was not sorry that the return walk would be made in Mr. Blair's society.

She was glad enough, too, to sit down on a little stone step by the old church, and rest awhile before she began her sketch, and leaning her pretty head against its ruined wall, she fell into a little slumber, which lasted quite half an hour before she awoke to a consciousness of where she was. Then, hastily opening her sketch book, she began to sketch, and was soon so absorbed in her work that she did not notice Mr. Blair's approach, and he stood for some minutes watching her as she sat there, and thinking what a pretty picture she made. The bright interested face, with her pretty brown hair slightly disordered from her walk, her hat thrown carelessly at her side, the graceful figure in its quaint tweed dress, the diamonds flashing on the white, ungloved hand; the background of blue sky, and the solitary ruined church in the foreground. Suddenly looking up with a start, Jean saw the tall figure in his loose shooting garments, standing leaning against a tree looking at her with dark gloomful eyes, which softened into tenderness as they met hers.

"Have you been there long?" she said, lightly. "You quite startled me. Please don't move, for you are just the one thing wanting in my sketch. Stand just as you are now for a few minutes."

"Willingly," he answered. "For as long as you like, Miss McLeod, it could not be too long."

"There," said Jean, after a pause. "I have done, and you are free, Mr. Blair. I am very much obliged."

He came and threw himself on the ground beside her in an attitude of easy grace.

"May I see your pretty sketch?" he said, putting out his hand. "You are an accomplished artist, Miss McLeod."

"It was always my forte," said Jean, lightly. "Have you had good sport to-day?"

"I believe so, yes."

"Is it time to start homewards," she asked, after a moment's silence.

"Ah! no, not quite yet," he said, with quick, eager entreaty, looking up into her face. "You can spare me a few minutes still; see I have 'The Wanderer' in my pocket, and we can amuse ourselves very well for a little while."

"You are constant in your likings," she said, glancing at the little worn edition of Meredith's poems.

"Very constant," he said, quietly. "I never change."

He was turning over the leaves idly as he spoke, looking up into her face covertly.

"What makes you like Owen Meredith so much?" she said.

"Because he writes like a man who has suffered."

"Have you suffered, then?"

"Yes, lately; intensely."

The words dropped from him as if each cost him an effort, and as if spoken in pain; Jean, tender little heart, softened strangely, and her lip quivered; he was silent for a moment, and when he spoke again it was in a different tone, carelessly and irrelevantly.

For half an hour they sat together under the walls of the old, weather-beaten, ruined church; he talked mostly, while she listened at intervals, fascinated and entranced by the singular charm of his conversation, for he had laid himself out to please her, and could not but succeed. He talked of poets and poetry, of sunny southern climes, of that land where "love most lovely seems," Italy, and Jean felt herself carried by his impassioned eloquence far from Glenholme to the magic land of which he spoke.

"By ocean bar, by woodland belt,
Our silent course a syren led,
Till dark in dawn began to melt;
Through the wild wizard work o'er head,
A murmur from the violet sails;
A glory in the golden dell,
There beauty all her breast unveils,
And music pours out all her spell.
We watched towards the land of dreams,
The fair moon draw the murmuring main;
A single thread of silver beams
Was made the monster's rippling chain;
We heard far off the syren's song,
We caught the gleam of sea maid's hair,
The glimmering isles and rocks among,
We moved through sparkling purple air."

It was very pleasant to sit and listen; and when at last he rose from his lowly position at her feet with a long sigh, Jean sighed also, softly and faintly—an echo of his own.

"Time to go—so soon!" she said. "It has been very pleasant. We have a long walk home, though."

"Yes, and I am afraid it is later than I thought, Miss McLeod. It is past five!"

"Past five!" ejaculated Jean, in dismay. "We shall never be at home in time for dinner. There is a short cut across the moor. Do you know it, Mr. Blair?"

"I think I do. Will it save us much?"

"Yes, fully a mile; come, now," she added, gaily, "we must put best foot foremost!"

"Are you going to leave your sketch-book?" he said, lifting it from the ground.

"Oh! I had forgotten it!" she said, laughing. "You have made me forget everything this afternoon but Owen Meredith and Italy!"

His face brightened as they walked rapidly on, talking gaily for some time; but before they had walked a mile Jean's pace flagged, and, without making any remark, Mr. Blair altered his step to suit hers.

They had not gone very far when a sudden, great splash of rain fell upon Jean's cheek, and she started in dismay.

"It is going to rain, I think! Oh! what a heavy, black cloud! Mr. Blair, here is a complication!" she exclaimed.

He looked anxious and uneasy.

"I am afraid it is going to be rough," he said. "I almost wish we had kept to the road. I hope you are not very tired; for we must walk fast."

"I am not tired," she answered. "How tiresome of it to rain!"

They went on more silently now, the rain coming down faster; and the sky darkened rapidly as the evening fell. After a time a sudden stillness—the hush preceding a storm—fell over the face of the wide-spreading moor. It was becoming difficult to see the way; and Jean's little feet were growing more and more weary as they plodded on. Mr. Blair had removed his shooting-coat, and, regardless of her remonstrances, wrapped it round her, so that she was not yet wet, and he had drawn her hand through his arm to help her on; but before two miles had been covered Joan's fatigue almost overpowered her.

"This is terrible for you, my poor child," he said, tenderly. "I am so sorry."

"You are wet through," said Jean, trying to laugh; but she was so weary and exhausted fighting with the wind and rain, that the effort was a decided failure.

"That does not matter. How can I help you?"

"I wonder how far we have to go now?" she said, wearily, as they went on again; but they had not gone many paces when the first flash of lightning and a low roll of thunder sounded the outbreak of the storm.

Jean uttered a cry of terror, and turned to her companion, who put his arm round her and drew her close to his side.

"Do not be alarmed!" he said, in a hoarse, agitated voice. "You are safe, dear child!"

But the girl, who was the veriest coward in a storm, broke into terrified sobs, and struggled in vain to conquer her emotion and terror.

Very gently Mr. Blair bent over her, holding her within his arm, and trying to soothe her and to induce her to go onward; but the progress was very slow, and by the time another mile was walked the storm was at its hight. Jean was half dead with terror, fright and exhaustion, and Mr. Blair was fain to confess that he did not know his way.

They were lost on the moor!

CHAPTER IX.

CAUGHT IN THE NET.

Lost on the moor!

"Have we lost our way?" asked Jean, lifting her head from Mr. Blair's arm in sudden fear as he stopped.

"I almost think we have," he answered, speaking cheerfully, to give her courage. "It is rather a chapter of accidents altogether, is it not? I wish I could find some shelter for you, poor birdie!"

"I think we cannot be very far from home," she said, withdrawing herself a little from his support. "I wonder which way we ought to go?"

"If I could only find some shelter for you," he said again, "I would push on to Sholto and bring a carriage."

"No, no!" with a sudden terror; "you must not leave me, Mr. Blair."

"Of course not here, dear child; as if I could!" There was no attempt at concealment of the tenderness of his voice now, and, terrified though she was, and faint and trembling, Jean recollected her faith to Lord Ivor and his trust in her with a pang of self-reproach.

"Perhaps they will send to look for us," she said in a moment.

"I hope so—I hope so," he said, and at this moment a flash of lightning showed a figure coming towards them across the moor.

"There is some one coming," said Jean, rallying for a moment, and if the darkness had permitted her to see her companion's face she would have seen that an expression of anger and annoyance flashed across it.

The figure came nearer to them, and Mr. Blair called out asking if he could put them in the way to Sholto Hall, and how far it was.

"To Sholto," was the answer. "Troth, man, ye should hae hadden wessel to Sholto; ye're aiblins ten mile or mair awa frae Sholto."

Jean uttered a faint little cry of dismay, and Andrew Blair muttered something between his teeth which might have been a benediction or an execration, or both perhaps.

"Hech! sir, but it's a weary long gate yet to Sholto, and unco heavy road for the leddie," said their informant.

"What can we do?" said Mr. Blair. "It is such terrible weather, and this lady is quite exhausted."

"I kenna, unless ye like to gae down with me to Langdale, and speer for quarters at the hottle there; I'se warrant they'll hae room for ye and your guid wife there."

"How far is it to Langdale?" asked Mr. Blair.

"A gey bit, aiblins twa mile and a bittock," was the reply.

"I am afraid that that is our only resource," said Mr. Blair, bending over Jean again. "Are you strong enough to walk the distance, or shall I carry you, Jean?"

"I can walk," she said, faintly. "You are very good, Mr. Blair," she added as they went slowly on. "I am such a foolish coward."

"It is a terrible ordeal for you, poor child," he said, tenderly. "And you are bearing it far better than most women would. If you will allow me to put my arm round you, I can give you more effectual assistance and support. There is nothing improper," he added, smiling, "you would allow me to do it if we were waltzing, you know, and our friend here thinks we are man and wife, so he won't see anything unusual in the proceeding."

Jean was too weary to make any resistance and she suffered him to pass his arm round her and found it a great help and assistance as they went on; the sturdy yeoman beside them making an occasional remark as to the way, the storm or the distance which Mr. Blair answered.

For some time they proceeded thus, slowly enough, for Jean's strength was failing her, and she leant more and more heavily on the strong arm clasped around her; she did not speak even in answer to a few cheering, helpful words which Mr. Blair addressed to her now and then, she was too utterly weary, every limb was aching with fatigue, and her bodily prostration deadened the sense which had at first made her feel acutely miserable, that Florence would be anxious, and that when Lord Ivor heard of her adventure on the moors he would be seriously displeased. It was all her own fault, she thought, dimly, as her weary head dropped on Andrew Blair's shoulder and her little cold hands lay passive in his, all her own fault; but she had not strength to care much even for Archie's anger.

"The puir lassie is sair tired," said the man once.

"Yes," said Andrew Blair, softly, and Jean felt how the tender clasp tightened round her trembling form.

"My certie, it's but naltural," was the rejoinder. "Your guid wife, sir?"

Andrew Blair hesitated for a moment, then he answered, quietly:

"Yes, my wife."

They went on in silence for a few minutes. Jean had heard the words, but had not cared to contradict them; perhaps Mr. Blair had good reason for making such an assertion.

Suddenly he bent over her and spoke in a low tone.

"Jean, he said, softly, "it will be better for you to pass as my wife at this inn; it might lead to unpleasant remarks otherwise. Are you willing?"

"Yes," said Jean, languidly. "If you like."

Andrew Blair's heart throbbed quickly with mingled joy and triumph, his wished-for object was almost attained. Not only might he possess the wife he longed for, but he might take the cruellest revenge upon Lord Ivor that it was in the power of man to take.

Remember, they were in Scotland—in Scotland "where a man and a woman have only to declare themselves married, and the thing is done."

Poor, light-hearted Jean McLeod, in what a terrible net was she entangling herself! Was there no guardian angel by her side to show her the pitfall open at her feet? What a terrible future of sorrow and suffering she was preparing for herself, and one whose happiness was far dearer to her than her own.

"Courage," said Mr. Blair, softly, as her footsteps flagged, then ceased. "We shall soon be there. It is but a few yards further, dearest child."

Jean made an effort, but stumbled; and Mr. Blair caught her in his arms.

"I cannot," she said feebly. "I cannot; I am so tired. Help me—oh! help me!"

Her eyes closed, and he felt her head fall heavily forward on his breast.

"I am faint," she moaned; then consciousness entirely deserted her, and she lay in his arms in a dead faint.

Mr. Blair lifted her in his strong arms lightly, as he might have done a sleeping child, and the beautiful, pallid face fell upon his shoulders white and still.

"She has fainted," he said, briefly. "Perhaps it is better so. We can step out now, friend."

And the two men quickened their pace, the one apparently as little encumbered by his helpless burden as the other was by the bundle he carried slung on the end of his stick.

The swift motion, however, soon recalled Jean to herself, and in a few moments her eyes opened again. She looked vacantly into the darkness, dimly understanding what had happened, and lifted her head feebly from its resting-place.

"I can walk," she said, in low faint tones; but Mr. Blair peremptorily silenced her.

"You must not think of it," he said, firmly, but tenderly. "I will not allow it. Langdale lights are visible now, and your discomfort will soon be over. Meanwhile rest still, my darling. I will hold you but a few moments longer, my precious little wife."

The last words were said with an inexpressible tenderness. Jean's head rested again upon his breast, and two large tears forced themselves between her long lashes.

Langdale was a wretched little hamlet—a collection of hovels built in a little dell with mountain on one side and moor on the other three. The inn, the largest house among the number, was a square, stoutly-built erection, which had an air of sturdy independence about it.

"The landleddy is a Southerner," said Mr. Blair's guide, as they drew near the house; and Jean uttered a feeble little petition that she might walk; she was quite strong again.

"Please, Mr. Blair."

"Won't you trust me to take care of you, Jean?" he said, softly; and at this moment their guide knocked at the door of the inn, and Mr. Blair placed Jean gently upon her feet.

She was giddy and faint still, and seeing her weakness, he put his arm round her again, and the door of the inn being opened, a flood of light came streaming out, giving a ruddy welcome to the weary travelers; and the occupants of the bar-parlor looking up, saw on the threshold a tall man supporting on his arm the slender, drooping form of a young girl, whose white face lay upon his breast, and whose languid, nerveless movements seemed to denote illness, or the exhaustion following on extreme fatigue, while behind them appeared a farmer-like figure, who was well known to some of them, and who was greeted by one or two as "David Grainger."

A tall, fresh-looking woman came forward to meet Mr. Blair, and looked at him inquiringly.

"Are you the landlady?" he said.

"Yes, sir," she answered, with something of the same sturdy, independent air which characterised her house.

"We lost our way on the moors," said Mr. Blair, speaking with slow distinctness, and in tones audible to most of the men assembled in the lighted bar-parlor; "and this lady, my wife, is terribly tired and exhausted. Can you give us shelter until the storm is well over, and a good fire, if you please?"

"Certainly, sir," was the answer. "You will require private rooms, of course?"

"Yes; and perhaps you can give my wife a change of clothes; hers are wet through, as you perceive."

"This way, sir," the landlady said, showing

them up a little wooden staircase, up which Jean stumbled as best she could, and sank exhausted on a chair, in a cold-looking little sitting-room on the first floor of the house.

"Light a fire with as little delay as possible," said Mr. Blair, hurriedly. "Make as much haste as you can, my good woman."

CHAPTER X.

As Mr. Blair spoke he crossed over to Jean's side and gently removed her hat, which was dripping with water, while the little piece of heather, with which she adorned it in the afternoon, was beaten down and drenched. The young girl tried to laugh as he took her hands and peeled off, literally peeled off, the clinging gloves.

"Are you better dear child?" he said, softly. "You frightened me dreadfully a short time since."

"I am sorry," she said, heavily.

"I think your good lady would be better in bed, while her clothes are drying," suggested the landlady, who had coaxed the fire into a blaze; but at this practical suggestion, Jean exclaimed, in horror.

"Oh! no, please," she said, hurriedly. "It is only my dress which is wet. I had your coat, you know. "It," and she turned to the landlady, "you could lend me something to wear while my dress is drying, that will be all I want."

"Very well, ma'am, I will get you something; but I am a lone woman, sir, she added, "so that I fear I cannot accommodate you."

"And you are in much worse plight than I am,' said Jean, regretfully. "Please go and get your things dry. I think the storm is beginning again, is it not?"

"I am afraid it is," said Mr. Blair, as the landlady left the room, and he looked out on the moor, which lay dark and gloomy before the window. "I am so happy to think you are sheltered, my child," he added, coming back to Jean, who was resting her head against the hard horse-hair bolster of the little sofa, in almost a stupor of exhaustion and fatigue.

"You only think of me," she said, smiling faintly, holding out her hand to him.

"Is it not natural that a man should take care of his own," he said, bending over the little hand and touching it to his lips, just as the landlady returned with some garments over her arm. "Such a dear little wife must be taken care of, must she not?"

Jean laughed slightly.

"And you are the most careful of husbands," she said, as she rose languidly from the sofa with his assistance; for she was stiff and weak still, and her limbs trembled.

"I will go down and see about a hot drink for you," he said, giving her into Mrs. Martin's care (for the landlady, although a lone woman, had taken brevet rank.) "And by the time my things are dry, you will be rested a little."

Almost as he spoke the storm, which had momentarily subsided, broke forth again, and a vivid flash of lightning was succeeded by a long peal of thunder.

Jean shivered.

"You will not be long?" she said, kindly, turning to Mr. Blair.

"Oh, of course not. Take good care of my wife, Mrs. Martin."

"Yes, sir," replied the landlady; while Jean, who was touched by the tender consideration for her he had displayed throughout their adventure, forced a smile as he left the room, and by two words sealed her own fate.

"Take good care of yourself, my husband!" she said.

"You have a very good husband, ma'am," said Mrs. Martin, as she proceeded to remove Jean's wet clothes, and to array her in her own Sunday best garments, which consisted of a deep crimson cashmere gown, which was, of course, considerably too large, long, and full for Miss McLeod's slender figure.

"Yes; he is very kind," said Jean, absently. "Oh! I wish the storm would cease," she added, wearily.

At last Mrs. Martin's performance was concluded; Jean lay back on the little sofa, which was drawn up near the fire, and before Mrs. Martin had finished "tidying up," she had fallen fast asleep; even the storm without did not disturb her, although it raged violently, and ever and anon the little sitting-room was lighted by the red, lurid glare of the lightning, while the roar of the thunder shook the house to its foundations.

When Jean awoke, she felt refreshed and rested, the fire was blazing cheerily, and the storm had died away, and as Jean sat up, pushing away her hair from her forehead, she glanced down at her quaint costume, and laughed softly to herself.

Almost at the same moment there came a knock at the door, and in answer to Jean's "come in," an elderly, hard-featured woman entered with a tray, with tea upon it, which Jean hailed with delight.

The woman placed it on a little table, and brought it to Jean's side, saying she hoped she had rested well.

A little note lay on the tray, and as Jean answered her smilingly, she took it up, and opening it, read as follows:

"MY DEAR LITTLE WIFE,

"I hope you have partly recovered your fatigue. When you are ready to receive me let me know, as I am anxious to see how you are. Will you forgive me for having taken such a liberty with your sketch-book?

"Your affectionate husband,

"ANDREW BLAIR."

The note was written on a leaf torn from her sketch-book, and folded in two. Jean read it, smiling to herself. Then she tore off the blank sheet, and with a pencil, which was lying on the tray, wrote in reply:

"MY DEAR HUSBAND,

"I am quite ready to receive you, and I am anxious that you should see me in my charming toilet. Don't apologise for using my paper. I thought that a wife's property was less her's than her husband's. You see I have a proper notion of what my prospective duties are.

"Your affectionate wife, JEAN."

"Take this note to the gentleman who gave you that one," Jean said to the hard-featured handmaid, who had watched her proceedings with interest.

"It was Mrs. Martin who gave it to me, ma'am," was the reply.

"Well, give it to the gentleman who came here with me," said Jean.

"Twa gentlemen came with ye,' ma'am," said the woman, obtusely. "Never fash yoursel," she added, as Jean made a movement of impatience, "never fash yoursel, it is yer guidman, ye mean?"

"Yes; I mean my husband," said Jean, angrily, just as the door behind opened and Mrs. Martin appeared on the threshold, asking if "Mrs. Blair," had everything she required, and her servant went down to Mr. Blair with Jean's note, which he answered almost immediately in person.—*To be continued.*

RECENT LITERATURE.

American Popular Dictionary of the English Language, Illustrated. New York: Carter & Peck, 271 Broadway. Price, $1.

Unlike most of the low-priced dictionaries which have been extensively advertised of late, this one is worth infinitely more than the amount asked for it. It contains all the information usually comprised in books of its class, beside much other matter generally found in encyclopedias and even there in not so compact a form.

The first 311 pages are occupied by the dictionary proper—i. e., words, their pronunciation and definition—followed by a list of words, phrases and quotations from ancient and modern languages with their signification; a complete list of Scripture proper names; an alphabetical list of American geographical names with their derivation and signification; popular (or nick) names of American States and cities. The treatise on "How to Pronounce Difficult Words," is fully illustrated by examples and this, together with the extensive list of correct pronunciation of words commonly mispronounced, would alone make the book a valuable acquisition to any library. The chapter devoted to showing how to write with elegance and ease, and the other to the enumeration of slang, vulgar phrases, inaccurate terms and expressions, contain information which it is important for every one to know. For the rest, there are tables giving dates of discoveries, lists of aborigines of North America, statistics of American Revolution, Declaration of Independence, the name, birthplace, age of the signers of the same; facts relative to population, public debt, public lands, homestead laws, canals, army, navy, vital statistics, insolvent and assignment laws; newspapers and periodicals of the world; railroads, coal productions, interest tables, and a chronological history of the United States. The book closes with a list of the gods, heroes and goddesses of mythology, with a short sketch of each. It would be all but impossible to find within the covers of any other book now extant, so much useful, curious and interesting information. The faith of the publishers in their ability to satisfy the most critical and exacting of purchasers, is evidenced by the offer they make to refund the money to any who may, for any reason, be dissatisfied with the dictionary.

Summer Savory. By BENJ. F. TAYLOR, LL.D Chicago, S. C. Griggs & Co. Price $1.00.

This volume we are informed in the preface is a "record of gypsy-like rambles in sunny days;" and that these rambles took place in Utah and Colorado, may be inferred from occasional descriptions of scenery and persons. These are interspersed with discourses on hats; funeral extravagance; a caravan which the writer saw when he was a boy; the poetry of picnics; an old-time "meeting-house;" winks and winkers; Webster's Spelling-Book; a country ball-room, and other subjects of equal importance. This literary kaleidoscope contains several pleasing pictures among which those of Colorado mountain scenery seem to deserve special notice; but to us the most interesting passage is the description of the services at the Mormon Tabernacle in Salt Lake City. The account of the caravan is amusing in everything except the closing sentences which relate to the various kinds of lions; these show such traces of careful construction that the effects of the humor are somewhat lost. "The poetry of picnics" will appeal to those who find this the most delightful method of killing time. The author informs us that some of the "Moody and Sankey" hymns have been degraded in certain localities into waltzes. This information is new to us, and possibly may be to some of our readers. If this *is* so, think of the frightful consequences that may result should this new moral disease prove contagious! What if some scoffer should construct a popular schottische from "Old Hundred?" To speak seriously, the style of sacred music now becoming popular, shows a natural revolt of the popular taste against the unvarying monotony of the older hymn tunes, a desire for a more animated style of composition, that may occasionally go a little too far; but how any rational human being can think "Jesus of Nazareth Passeth By" suitable for waltz music, we cannot imagine. In conclusion, we may say that if "Summer Savory" was written only to furnish a means of killing time, it may accomplish this, and its low price makes it an inexpensive investment.

Studies of Paris. By EDMOND DE AMICIS. New York. G. P. Putnam's Sons.

This brilliant writer's previous work on Constantinople won for him golden opinions, his title to which is confirmed by this later production. His marvelous powers of delineation, his ability to seize the central idea of a scene, or the salient characteristics of a race or a city, and by a few happy sentences to bring them vividly before the reader, make his descriptions stirring and picturesque. His art as a writer has enabled him to invest with new charms, even so worn a subject as Parisian sights and sounds. To many readers the extended sketches he gives of Victor Hugo and Emile Zola, replete as they are with interesting facts concerning these authors—the character of their works, methods of composition, habits of life—will be the most attractive portions of the book.

De Amicis hits off most admirably the overweening vanity of the Parisian in the following: "This idea of having been born in Paris, of having had this sign of predilection from God, is the leading thought of the Parisian, like a star which irradiates his whole life with a heavenly consolation. The benevolence he shows to strangers is inspired to a great degree by a feeling of commiseration for them, and his dislike of them is not a profound one simply from the fact that he considers his enemies sufficiently punished by the fate which caused them to be born where they were. For this reason, he worships all the childishness and vice of his native city, and is proud of them only because they belong to Paris, which, to his mind, is above human criticism."

MAGAZINES.

INTERNATIONAL REVIEW, for October.—Contents: The Light of Asia, Oliver Wendell Holmes; The Negro Exodus, F. R. Guernsey; The Political Situation in France, A. Talandier; Mr. Blackmore's Novels, George Barnett Smith; Protection and Socialism: J. Laurence Laughlin; Von Holst's History of the United States, Henry Cabot Lodge; The Study and Practice of Medicine by Women, James R. Chadwick; Contemporary Literature, Pierce's "Æneid."

THE NEGRO EXODUS.—A marked race-prejudice is shown against the negro immigrants by the farmers, who are mainly Republicans in politics. Among the small white farmers of the Louisiana hill-parishes and the German settlers in Texas there is exhibited the same antipathy to negro neighbors. It may be set down as a fact that any community of white men who themselves work in the fields object to being brought into competition with a race considered to be inferior. One of the objections raised by Kansas farmers to negro settlers is that the blacks are immoral, and they fear the results of an association of the children of the two races in the public schools. Ex-Governor Anthony of Kansas, a life-long abolitionist and "pronounced" Republican, said to the writer that he was opposed to a pauper immigration of any nationality or race, and therefore had no sympathy with the enthusiasts who would open Kansas to the pauper negroes of the South. The most potent reason against negro immigration in the minds of the leading men of Kansas is a well-grounded fear that the news of a numerous settlement of blacks in that State would serve to turn the tide of white immigration into Nebraska and Minnesota. A declared inclination on the part of the present administration in Kansas to invite a large immigration of negroes would immensely strengthen the feeble Democratic opposition, even if it should not result in a division of the local Republican party.

The employment of Chinese in the cotton fields of the South has often been mooted; but, to our knowledge, the only practical test, on a large scale of the alleged superiority of Mongolian over African labor has been made in Texas, where about three hundred Chinamen, imported originally to build a railroad, have been employed as laborers on cotton plantations, or have been allowed to become tenant-farmers. These Chinamen have proved to be diligent and satisfactory. They are physically inferior to the negroes, but make up for their deficiency in strength by unremitting industry. As tenants they are very shrewd, requiring that the land they rent be measured by disinterested persons, and confirming the surveyors' report by an independent measurement of their own. They will not submit to extortionate prices, and make their purchases where weights and measures, as well as prices, are satisfactory to them. The Chinaman contrives in some way nearly always to have a little ready money, and is accordingly able to buy his goods where he pleases, and to avoid getting into the power of the grasping merchants. The Chinaman is willing to work six days in a week, while the average negro tenant is likely to make a holiday of Saturday as well as of Sunday. One of the evils of share-farming has been the readiness of the negro to take a holiday when the mood came upon him. Yet the plodding, patient Chinaman, although honorable in meeting the letter of his contract, is not looked upon with favor by the majority of the planters. They prefer the negro race, to all the peculiarities of which they have become used, and regard with disfavor the Chinaman, who is of alien religion, and destitute of every trace of American feeling.—*F. E. Guernsey, in International Review for October.*

THE HERALD OF HEALTH.—Contents for October: Physiological and Sanitary Marriage and Parentage, by the editor; Value of Physical Endurance, by Prof. Huxley; Winter Suits for Little Girls; The Insidious Evil of Tobacco; After Death—Baby's Appeal—Life—Parental; What is a Good Citizen?; Lomi-Lomi; Sir Rowland Hill—Shakespeare; How to Treat Mischievous Children—Idling Well—Weather Prophets—Unoccupied Houses a Source of Disease; Both-Handedness—Hygiene for Stutterers; Starvation in the Nursery—Congestive Headache—A Cheap and Good Pudding; A Judicial Opinion of Fashionable Dress—Death from Soothing Syrup—Moral Effect of Tea, Coffee, etc.; Baked Fruit and Bread Pie—Damp Closets—Current Literature; Health Foods.

HOW TO TREAT MISCHIEVOUS CHILDREN.—Here is a little child, who is a great tease and trouble. He is always asking to do this or that impossible or unpermissible action. He bursts in abruptly upon the conversation of his seniors. He destroys all peace in the house by shouts and screams, imperious demands on the time and attention of every one, endless interruptions of every one's affairs. He is an imp of mischief, breaking furniture, overturning inkstands on the carpet, setting fire to valuable papers, driving nails into the furniture. How shall you abate this nuisance? You may try to destroy these bad habits by scolding him, by rebukes, by lectures, by punishments. That is one way, but not the best. These bad habits often spring from an instinct of activity, an intense desire to do something, which the Creator has given the child as a means of mental and moral growth. In trying to pull up the tares you are in great danger of rooting out the wheat also. If you succeed by force in changing his disagreeable torment of perpetual activity into a dull quiet, you have changed a bright boy into a dull one. A better way than destroying this tendency is to fulfill it by giving him plenty of occupation of an innocent kind. Give him a heap of sand to dig, blocks of wood to build houses with, a box of tools, and boards to saw. Set him at some work, useful or interesting, or, at least, harmless. He will like all this better than he likes mischief. All his irregular activity was a cry for something to do.—*Rev. J. F. Clarke, in Herald of Health.*

USEFUL ITEMS.

THE DARK AGES.—HOW THE PEOPLE OF THAT TIME ENJOYED THEMSELVES.

THE fathers of the printing trade accepted a grave responsibility in exciting a world that was intellectually tranquil. To us, looking back upon them out of the light, those so-called "dark ages" seem sufficiently dreary. In the intervals of those active occupations which are scarcely suited to our quieter modern tastes—feuds, lighting, fire-raising, rapine, rapes, &c.—it appears to us that time must have dragged along very heavily. In reality, to the mass of those who knew no better, those times of universal ignorance and torpidity must have been at least negatively agreeable. With the rare exception of some solitary student, of some scheming churchman, or some statesman in advance of his age, we may take it for granted that nobody thought very deeply. There was no wear and tear of the mental fibers, and, consequently, there were none of those painful brain and nerve diseases that fill our asylums, and are transmitted by descent. So the stomach had a similar immunity from strain, and the unimpaired digestion was never troubled by abstruse thought or far-fetched anxieties—which, by the way, was a most beneficient provision of Providence, when we remember the character of the mediæval *cuisine*, and the habits of feasting among the rich and idle. What passed for thought with society generally was the mechanical action of a languid brain working in the narrowest circles of its immediate interest and cares. Concern with a future state was the special care of clergy; the church had settled the dogmas which the devout had only to receive. It is next to impossible now-a-day to realize the condition of the nobleman or county squire, unable to read or to write, who groped his way from the cradle to the grave in the profoundest mental darkness. He never troubled his head about foreign politics, unless he were personally summoned to serve beyond the seas; or when some strolling wayfarer, like Wilfrid of Ivanhoe, brought news of the wars in France or Palestine. Nor did he concern himself much more about domestic broils, unless they seemed likely to cost him his head, or bring him some addition to his domains. Such conversation as there was over the heavy banqueting, beyond remarks on the cooking of the joints and the quality of the heady liquors, turned generally on matters manorial or parochial. The guests grew excited over the encroachment of some neighbor on the rights of free-foresty, the latest deed of audacity of the nearest band of outlaws, a raid on the droves of swine, or a murrain in the herds of cattle. Men were forced to drink hard and long after supper, since there was nothing else to be done, and so the heavy brains became slowly sodden, and still more insensible to intellectual stimulants.—*Blackwood's Magazine.*

KABUL.—It is somewhat singular that the name of Kabul should have made its first appearance in history as a term of reproach. The Old Testament Scriptures record that when Hiram, King of Tyre, dissatisfied with the twenty cities given him by Solomon, asked, "What cities are these which thou hast given me, my brother?" he marked his displeasure by calling them "the land of Kabul." The picturesque surroundings of the modern city may fairly exempt it from a similar taunt; but not a few Afghans will give the preference to Kandahar, which actually superceded its elder rival as the native metropolis for seventeen years after its foundation, the re-transfer of the seat of government to Kabul taking place in 1776. From a military point of view, however, the strong fortress of Ghazni, lying southwest of Kabul on the great northern road from Kandahar, would be preferable to either. It was captured for the first time in 1839, when a deserter betrayed to the English the secret of a weakly-guarded gate, which was forced while a feigned attack in another quarter distracted the attention of the garrison. Notwithstanding this mischance, however, the city still retains its native title of "the impregnable."—*N. Y. Times.*

MANY kinds of wood are used in making bows for archery service, among which are some beautifully variegated woods from South America. The lance and hickory take the lead among the common varieties, and the elegant snakewood, backed with hickory, makes one of the nicest bows that is made. The snakewood takes a beautiful polish, and owing to its responsive nature, sends the arrow farther and with more certainty than a bow made of any other kind of wood. The nicest bows are planed by hand, great care being required to make the sides curve exactly alike, as any deviation injures the efficiency of the bow. The ends of the bows are carved out of horn. The nicest bows are tipped with buffalo horn. A piece of cork is shaped and glued to the center and covered with plush to make the handle. The power of the bow is measured by the number of the pounds it pulls, a spring scale being used for the purpose of showing this. A bow pulling thirty pounds is considered the right thing for a lady, and fifty pounds for a gentleman.

For Women.

THE BUTTERFLY.

MRS. LAURA S. HAGNER.

SAILING so airily over the clover,
Bending so lovingly over the rose—
Who would not envy thee, beautiful rover?
What dost thou know of our life and its woes?

Thou hast forgotten thy former existence,
Wingless and sad 'mid thy mates of the clod—
So shall *our* earthly life fade in the distance
When we arise in the likeness of GOD!

THE WOMAN'S CLUB.

TO THE MOTHERS.

COME, mothers, let us "reason together," and by our friendly intercourse and exchange of ideas, through the medium of this department of one of the best papers of its kind, tend in some degree toward the elevation of the sisterhood who are so interested in its perusal. There are none of us who have had the care of little ones and watched their growing years, even in never so careless a manner, but may sometimes have had experiences that, if given to the world, would touch a responsive cord in some other bosom. Your position, dear mothers, is not the occupation of a day or a week, but day after day and year after year you have kept your vigilance unabated; ceasing not in your anxiety, but each hour, as it follows the one just gone before, finds you unfaltering at your trust.

When I see a young mother as she fondles and caresses her first baby, in the full joy of possession, a thrilling enthusiasm seeming to pervade her whole being which nothing else can ever give, I feel almost a pang of sadness, for beyond I see long years of care and solicitude, weary nights of watching over sleepless lids. She waits, hopes, looking away off into the future, when the little helpless creature, now so entirely dependent on her for the relieving of every want, shall have developed into a good and high-souled man or woman, with all the attributes which a gracious heavenly Father has given it, cultivated and improved, and on whose loving support she may lean in her declining years. This is a sweet dream, and how sustaining! "If it were not for hope, the heart would sink." Yet too many fall short of the coveted excellence; some children may inherit tendencies, or "natural propensities," that make it very difficult for the mother to train them aright, but in the greater number of such instances the first and all-important fault is in the parent not knowing how to govern herself.

A little babe is given you whose mind is like the blank pages of a book; not an idea has been written there; it breathes and sleeps because this is its nature; it cries when uncomfortable, yet knows not whether it is sick or hungry; yet even in this untutored state it is soothed by the sound of the mother's voice, one of the first to reach its ear and quite the first to be comprehended; it has brought love with it into this "world of woe," and under the influence of love and tender care it is to be guided on its peaceful way.

Then how essential it is that she to whom is given this holy trust should have learned the control of her own temper, keeping down every impulse of harshness, all hasty words such as are often "spoken in a hurry, to be repented of at leisure." Who has not seen the little infant, when a sharp word has been uttered, such as a command to "hush up" (it may be), sob and all its features showing that it is nearly heartbroken?

You should begin your training in a steady, firm, but loving manner, and always do the very thing you say you will. If it is a promise of reward or punishment, have your mind made up deliberately, and, if possible, never vary. Let your children rely on your truthfulness; let them feel that "if mother says so, it is so, if it isn't so;" this will save you a vast deal of trouble and that greatest annoyance, teasing. Do not say, "I didn't want you to go, but you bother me so." Oh! how soon they learn the weak point. I once knew a mother who was so easily diverted that all her children had to do was to make her laugh, and that put her in so good a humor that she could not punish them.

Do not drive your little darlings from you by being too busy to be interested in their play and their petty grievances, seeming so small to you, but often to them as great trials for the time being as any they may have to endure in after life. A few moments' attention, a word of sympathy or a kiss will go a long way toward healing a wounded or troubled spirit. Bring yourselves down to their level, and show them you can make companions of them; encourage them to confide in you without fear of ridicule, and they will never go away from you to find another on whom to bestow their confidence. It is a lovely sight where sons and daughters can thus repose their most perfect earthly trust in the loving heart that has yearned over them from infancy; and this happiness you may enjoy if you only take the right course. How many anxious hours it will save you to know where your children are, and in what company—feeling that they will not deceive their beloved and trusted mother.

YELLOW BECK.

THE PROSE OF LOG-CABINS.

DEAR MISS RIPLEY:—In order to give the ladies some idea of the discomforts almost every new comer has to put up with in making themselves a home, I will go back to our advent here, which was on Nov. 30th, 1877. We bought what they call an *improved* place, but Floridians have a very peculiar way of improving their places. There were fifteen acres of cultivated land with all the dead pine trees standing except those that had blown down. Every stump was left to mark the spot where the giant of the forest had stood, no matter how much in the way it might be; no one here would think of digging out a stump, for that would be a waste of labor, "let them alone, they will rot out in the course of twenty years or so," say they. We had several bearing orange trees and grape fruit, (Shaddock, I think, is the proper name for them) plenty of peach and quince trees, with figs, pomegranites, bananas, mulberry, sassafras, and Pride of India trees, all mixed up together just as though they had been dropped and grew wherever they happened to fall. Scarcely anything standing where a person of any taste would want it, and not a vine, rosebush or flowering shrub of any kind about the yard, here too, where so many things of that kind grow almost spontaneously. But the worst feature about it all was the miserable old log building which they called a house. If any one has any romantic ideas about log houses, let them come to Florida and the romance will soon disappear. Very few of the planters live in any thing else and take them all in all, the surroundings and the inside furnishings, they are the most comfortless abodes I ever saw. I don't think I can describe ours so as to give you half an idea of what a doleful looking affair it was. It seemed to me I could never stay in it over night, but as it would very soon be time to set out orange trees, roses, shrubs, &c., and there was so much work to be done to get ready for that, we decided we must defer building for a few months.

We were boarding in town, but found we could do but little unless we were on the spot to attend to it at all times, so we went to work to see what could be done towards making our cabin habitable. It was built after the fashion, of this country, long and narrow, not a window in it, with two wide doors, one on each side, opposite each other; almost the whole of one end was taken up by the huge fireplace and chimney built of sticks and mud, there was no ceiling overhead and the rafters were covered with an accumulation of spider's webs, which I do not think had ever been disturbed in the whole eight years since the cabin was built. They were draped and festooned in the most fantastic way, some of the patterns so intricate and beautiful, it really seemed a pity to ruthlessly destroy the effects of so much patient labor. I am fond of spiders and dearly love to watch them at their work, but do not quite fancy their dropping down upon me at all times, so the first thing to be done was to have the roof thoroughly swept, the walls well washed with lime water and the puncheon floor well scrubbed with soap and sand.

The cabin was built of round logs, the spaces between having been originally battened with narrow boards split out by hand, many of these were gone, leaving huge cracks which I called my "Bay Windows;" they gave us a good circulation of air, too. I hung up sheets and blankets to hide the ugly walls, curtained off one end of the room for a bed room, spread some pieces of carpeting and some bright-colored rugs on the floor, made a table of a large packing-box, covered it with a spread, and put upon it the books, magazines and papers, I wanted for daily use; put my writing table in a convenient corner, my sewing machine in the middle of the floor, between the two doors, to get the light, hung a few pictures, placed my husband's easy chair on one side of the fireplace, my Victoria rocker on the other, and when evening came it was cool enough to make a pitch-knot fire very comfortable and very pleasant. Indeed, that old fireplace alone was sufficient recompense for many deprivations. How beautifully it did light up those old black rafters. It carried me back, too, to my childish days, when I used to dream over the wood fire and see such wonderful pictures in the coals. If I found myself getting homesick or sighing for the comforts and luxuries of my northern home, thoughts of my friends there, closely shut up within doors, trying to keep warm over their base burners, and looking at the outer world through frosted panes, would soon cure me, for here I was, in mid-winter with the doors wide open and the sunshine pouring in all day long, and living almost entirely in the open air. But this article is already too long I fear; in my next I will tell you about our first winter's work.

L. B. S.

Starke, Fla.

ONE WOMAN'S AMBITION.

DEAR CLUB"ITES." Many topics have been discussed in our meetings, and self-improvement has been not a little dwelt on. Perhaps a chapter on this subject from out of my own life may not be without interest. I ought, I suppose, to preface it with an apology for thus thrusting myself and what concerns me, prominently before the members of the Woman's Club, but as I write solely with the hope that possibly some one may be encouraged by my example I feel justified in waiving the apology.

In my childhood like most girls I was put through a course of piano tuition and was forced to spend many dreary hours practicing. I had in all about seven years of instruction. When my teacher was dismissed I had mastered a few gallops, and quadrilles, some showy pieces of the Shower of Pearls, order, one or two overtures, and this comprised about the extent of my musical knowledge.

All the compositions of Beethoven, Meyerbeyer, and a host of brilliant composers were unknown to me. The fault of course lay with my teacher. He, for it was a *man* with quite a metropolitan reputation as a good teacher—never insisted on my taking a thorough course in scales and exercises, but as soon as I had the least command over my fingers, he gave me piece after piece, no one of which did I ever learn to play accurately. The result was when I came to a brilliant run, I had to stop then and there to learn it instead of having acquired a thorough knowledge of it and similar passages before I had a "piece" at all. Mothers, how many of *your* daughters are rushing into pieces, and wasting their time on silly little polkas before they have mastered the alphabet of music?

After the teacher was dismissed, I dropped playing and for months at a time the piano was unopened. I decided I had no talent and concluded not to waste any more time over it. Years passed and still the piano remained dumb.

Something Miss Margaret B. Harvey wrote, made me question whether I had a right to allow all the time, effort and money expended in the endeavor to make an accomplished pianist of me to go to waste, and the result of my deliberations was that I—who have entered my fortieth year—determined to begin again. For my encouragement, there were the following facts; I am familiar with the notes, their situation, &c., my fingers had been broken in young and so are "limber," and I am possessed of considerable knowledge which it would take a beginner a long time to acquire, so that I had a little capital to start on. On the other hand the disheartenments (if I may be allowed to coin a word) of which the following are the chief made the prospect of success seem rather problematical. To start with I am thirty-nine, and enthusiasm and hope are rather hard to invoke at that age; I am confined in a factory from 8 A. M. to 6 P. M., for 6 days in the week and then I am very poor.

I bought a copy of Richardson's Piano Method, and every night now finds me engaged for two or three hours in a hand to key struggle with scales, arpeggios, five-finger exercises and octaves. I intend to study by myself for one year, and by wearing my old suit this winter and economising in other ways. I hope to save enough to pay for instruction next fall. It is my ambition to be a good pianist in three years, and after that I shall hope to run up the degrees until I reach superlative.

And what advantage will result from it? I do not indulge in many day-dreams on the subject, but this much I know, a brilliant pianist is welcomed in refined, cultivated circles; there are beside many opportunities to earn something at fashionable "musicales." I have now an object in life. When the senseless chatter or the ignoble conduct of the people with whom I am forced to associate is more than ordinarily trying, I turn to my music for comfort and consolation.

I have written thus at length, thinking, perhaps, I may by it encourage some good RURAL sister to do and dare something outside of the demoralizing routine of petty home cares, or of factory or store life, a something which will lift her above the common place. I sincerely hope that success may crown the efforts of every woman who honestly strives to become something more than a machine.

Yours fraternally, EDNA HOUGHTON.

THE SERVANT GIRL QUESTION.

THE experience of "Clare" has been mine for the last five weeks, and as misery loves company, her contribution was read with great interest. You have dear Clare, my sympathy, and I am safe in saying that of many others, who are suffering from this very nuisance. It has been so for years and there is no prospect of any change, one servant out of ten, by chance may be a good one. As long as we have intelligence offices we will not have good servants. They get together there, and discuss every family far and near, and there is always one leader and many weak minded ones, and they do more mischief in one day than can be undone in one year. I called at an intelligence office to get a girl being in a great straight for help. The person in charge, looked me from head to foot and then without asking me to be seated, went on with some writing, directing circulars I took them to be, all the while leaving me standing. After she had finished, she asked me my business. I informed her my object was to get a girl to go in the country for general housework. She demanded two dollars. I told her after I selected a girl I would pay her and not before, so she went into a back room and returned with a very delicate young woman with a child in her arms. She would go a short distance in the country if the family was small and the work not heavy, for she and her child were sick and the doctor said they must have change of air and the child was teething and would die if they stopped in the city, she would go for $12 a month if the work was not too hard. I listened until she had finished, then walked out of the office and will never enter one again. My next experience was hunting over the city. I cut out a number of advertisements from the paper, and as it was raining I put on my rubber cloak and started at eight A. M. Called on seven, some were old and some were young all calling themselves *girls*, but I found most of them thought themselves very fine ladies; at last after five o'clock I found one willing to go in the country, who called herself a middle-aged woman, I engaged her and started for home. The next day when I set her to work I found she was at least seventy, almost blind and very lame, and knew nothing about cooking or anything else for that matter, so I shipped her. By that time I was sick in bed, caught cold in the rain, *girl hunting*. As soon as I could I had a horse harnessed and scoured the country; at last I thought I was about to be repaid for all my trouble, I found one that could do every thing and would go for low wages, a good home being the greatest object, she did not care to run out nights, so I engaged the treasure, but she could not go home with me then she would come next day. So I sent for her the next day a distance of six miles, she was not to be found anywhere. The man waited a while and then by the directions given him went to look for her, finally after a great deal of trouble he found her. I never was so glad to see any one so I met her with a happy smile of welcome, told her to go right up stairs and put on her working dress and hurry down as I had so much to do. She was a long time away so I thought I would go and hurry her, I met her coming down, she said she had forgotten her calico dress but she would go to the village and get one from her sister, and would be back in a half an hour, I felt like giving up, or doing something to relieve myself of servants. Well after three days she came back all smiling with a good story, she found her bundle in the wood-house, and an opportunity to look for another place. All of my neighbors and acquaintances are complaining of the same trouble. Clare we are not alone, if that is any comfort. If every one could give us their experience we would hear of many laughable things as well as annoying ones. If any one can tell us of a way out of this dilemma I hope they will send it to the Woman's Club, and oblige a

HOUSEKEEPER.

THE MUCH-MALIGNED MOTHER-IN-LAW.

AFTER reading "In behalf of Mothers-in-law" in RURAL of 25th of Sept. I felt inclined to cry out "Bully for the Mother-in-law who dared to protest," but considerations of propriety restrained me, and I substituted a milder adjective of the "approbative" degree. But didn't she polish the men off nicely!

It always did seem to me the acme of idiocy for men to go into convulsions of laughter over bald, thread-bare jokes on this class of women. A lecturer or a knight of cork—otherwise a negro minstrel—will ask "Why Adam was a to be envied man?" and although the audience has heard the joke (?) some score of times before, the answer, "Because he had no mother-in-law" is invariably greeted with shouts of laughter. I don't believe the men think it at all funny, they just applaud it on principle because it is a slur on women.

Men don't sneer at or make a joke of their mothers, or their own children, they reserve this species of courtesy for their wives and their wives' mothers.

"Mothers-in-law are meddlesome." Pity they were not more so, if they were there would be fewer broken-down disheartened young wives. John vows to protect, shield and take care of her generally, he can do it so much better than her mother, who being but a woman and having had only 18 or 20 year's experience cannot be expected to know so well as he, the subtile instincts of whose love have taught him the needs of her nature and how to minister to them.

"Subtile instincts of love" are quite delightful in books—makes the sentiment look so high-toned—but they are very unsatisfactory for every day use. The mother very naturally has a most absorbing interest in the welfare of her child, and when she sees this girl imposed on, slighted and brutally treated by her protector (?) is she to stand idly by and let selfish John tyrannize as much as he will?

If ever I have a son-in-law won't I lead him a life! All the wrong done to mothers-in-law from the date man invented the first joke against them down to the present, he will have to expiate.

AVENGER.

CHAIRS AND PLANTS AND GRIDDLE CAKES.

I WOULD like to tell the writer of the "artistic room" how to make a barrel chair. Take an apple or salt barrel and saw it half across, just the hight she wishes to have the seat of the chair, and regulate the width of the seat by the number of staves sawed off and tack the hoops on the part designed for the back. Now with a draw knife fashion the back *with* or *without* arms. To prevent the back being too hollow, take canvas or old bed quilt and tack on the inside of the back, laying an occasional *plait* and fasten over the outside previous to attaching it. Stuff well with straw so as to form a nice cushioned back, and cover with any goods you please. Make a cushion to fit the seat, fill the bottom of the barrel with straw and fit on the cushion. Put four or five castors on the bottom, and your chair is complete. Such chairs are handsome when upholstered.

The first of September I bring all the plants and vines I wish to keep growing through the winter into the Conservatory leaving the doors open day and night, for by so doing plants do not feel the change from out-doors to the house; after repotting such as need it, (I use slips of nearly all plants for winter blooming, especially geraniums, and start them in June,) I wash the jars *clean* and paint them with a paint made of English vermilion, turpentine and a little furniture varnish *mixed*, using a small brush, and then I decorate with *decalcomanie* pictures. With slight expense, and a few hours labor, one can make home look very attractive and cheerful, after the coal fires are started in the fall.

Ornaments on coal stoves that have been discolored by heat can be made to look like new by scouring them with sifted coal ashes.

I make griddle cakes these cool mornings by mixing one-third corn meal, two-thirds wheat flour, with buttermilk and saleratus, nice to be eaten with melted sugar and butter.

Fulton, N. Y. MRS. C. F. R.

HER PLAN.

LET me say in answer to "Matilda" that "how to preserve my RURALS for future use" was long a puzzling question to me. Now, I can exclaim "Eureka" for my plan proves very satisfactory to me, and I think it cannot fail to be so to others. Sew and cut the weekly numbers as soon as they arrive. At the end of each month sew the four or five numbers together firmly in their order. Thus you have each month by itself and as easy for reference as Scribner's Magazine. At the end of the year you have the twelve ready to be bound, if you wish and I think it advisable to have it done. If the sewing is attended to promptly, it is easily done, but it takes hours of work if neglected.

MARGUERITE.

CORRESPONDENTS' CORNER.

WILL some RURAL reader please to furnish for publication the poem beginning:

"Oho! The trumpet sounds; the din of war's alarms,
O'er seas and solid grounds, doth call us all to arms."

Reading to the middle of the lines, downward, as if in columns, gives an American's views on the Revolution; the regular reading, a British Tory's.

READER.

Domestic Economy.

CONDUCTED BY EMILY MAPLE.

MRS. ENDICOT'S JOURNAL.

What to put in the vases; company to tea; pressed chicken; sandwiches; sweet pickles; orange cake; gold cake.

SEPT. 23.—This afternoon I went to call on Mrs. Lee, a friend of Mrs. Cox who is visiting her. She was so pleasant and friendly that I invited her and Mrs. Cox to tea on Thursday. Thinking it over after I came home, I thought it would perhaps be pleasanter if there were other friends to meet them. As I can only accommodate fourteen comfortably at my table, it required some thinking to select the remaining number.

Baby Katy and I quite enjoyed our walk next morning, when we went to give our invitations. Our last call was at Dr. Green's. While talking to Mrs. Green at the door, I happened to see in one corner of the flower garden, a large bunch of old-fashioned Ambrosia. She told me to take all I wanted of it, and as I felt sure we were going to have a hard frost that night, I did so. When we got home Katy was asleep, so, taking my wraps off softly, I hastened to the kitchen with my Ambrosia. Taking one piece at a time I dampened it, then had a pan of flour in which I dipped it, rolling it around so that every part was thoroughly whitened. When all had been treated in this way, I gave a brisk shake to get rid of extra flour, and put them into vases. When Harry came home from school he volunteered to go after bitter-sweet berries, as he knew one place where they were ripe. He found some lovely clusters, which I added to my vases of Ambrosia. The contrast certainly was beautiful.

Wednesday morning Betsy and I held a consultation, the result of which was that we decided to have warm biscuit, sandwiches, pressed chicken, pickles, jelly, orange cake, gold cake, sliced peaches, tea and coffee. Of the biscuit we will have about forty. I always make my sandwiches of light bread, sliced thin, the crust cut off, and spread evenly and thinly with butter. The ham is well boiled, chopped fine and a little mustard added, and placed not too thickly between two slices of bread, which I then cut in three, making sandwiches three by four inches. They look nice piled on the plates, and have quite a relish. I will proceed in this way for the

Pressed Chicken.

Two chickens boiled until the meat leaves the bones easily; then pull to pieces and chop fine, letting the liquor in which they were cooked, boil away until only a cupful remains. About half as much ham as chicken is then added, roll two soda crackers, season highly and pour the stock over. Mix all well together, put in a deep, long pan, pressing down hard with the hand. Fold a napkin several times over the top and put on a weight. This should be prepared the day before using, when it will slice down easily. I examined my pickles which are cucumbers made sweet, after the following recipe. To one gallon of vinegar, add one quart of water, five pounds of sugar, a tablespoonful of salt, one stick of cinnamon. Pour over boiling hot, let stand ten days, then pour over the liquor and boil again, after which they are ready to be set away for use. I found them all right.

Thursday morning we made the cakes after the following recipes and had "splendid luck."

Orange Cake.

The whites of six eggs beaten to a froth; three tablespoonsful of melted butter; one cup of sugar; half a cup of milk; a cup and a half of flour, in which have been stirred two teaspoonsful of baking powder and a very little salt. This makes three thin cakes. About half an hour before eating, take the juice of one large orange, the white of one egg, beaten stiff, and thicken with granulated sugar, spread between the three cakes, and dust powdered sugar over it. I doubled these proportions making two cakes.

Gold Cake.

One half cup of butter and two of sugar stirred to a cream; the yelks of six eggs well beaten, half a cup of milk with half a teaspoonful of soda dissolved in it. With the flour put in a teaspoonful of cream-of-tartar. It should be as stiff as cup cake. Add half a nutmeg, one cup of raisins and half a cup of currants,

Everything was ready in good time; children dressed, table set and dining-room closed, with a little time to rest. Now that I have things once more in running order, I am determined that it shall not be so long again before I entertain some other friends. I believe that a certain amount of company is a good thing for any family.

LITTLE HELPS FROM HAPPY HOME.

DEAR RURAL SISTERS: As I have read your words of help and cheer from time to time, my inward monitor has often asked; Why not add your little mite to the general fund? The RURAL is no stranger to me, as I think I have read, or heard it read, every year but one since its issue, and as I am just thirty-one years of age you see I have almost grown up with it.

I went to the kitchen and hurried up the cakes this morning for a little girl who was going to a school picnic, and this is what I did:

I set out two bowls for cake, (I always use yellow earthenware bowls) and a smaller one for frosting. Then I broke three eggs, placing the three yelks in one cake bowl, two whites in the other, and one in the bowl for frosting. I rolled two cups of sugar, leaving them separate on the rolling board; then I put four cups of flour in two separate dishes, two cups in each, with two even teaspoonsful of baking powder and a very little soda stirred into each. After beating the whites in one bowl to a froth and stirring the yelks in the other, I added to each one-half cup of butter, with the sugar and beat it to a cream. Added to each one-half cup of sweet milk, then stirred in the flour. My cakes were then ready for the tins. I flavored the yellow one with vanilla, poured it directly into the tin and put it into a moderately hot oven. Then the afore-mentioned little girl, who had previously stirred one cake for me while I stirred the other, procured and washed some Rose Geranium leaves which she placed in the tin, while I buttered a paper to lay over them. This makes a very fine and not a common flavoring, notwithstanding the fact that I said "it tastes like a hornet" upon eating for the first time a cake flavored with them.

While the cakes were baking, I made a thick sirup of white sugar in which I boiled a Geranium leaf; then I beat into it the one white of an egg which was left, one tablespoonful of corn-starch, and turned upon it the boiling sirup which made a beautiful, glossy, creamy, frosting, much better and more healthful than pulverized sugar. It requires a very thorough beating after the sirup is added and it is, I am sure, a recipe every farmerine will appreciate, as town is often far away and pulverized sugar not at hand.

I cannot express my appreciation of Annie L. Jack's helpful hints from "Every Day House," also those of Jessie Seabright, Country Girl and many others, whose suggestions and experiences have given new life and vigor to my weary spirit many times when I was feeling keenly the want of society which I cannot have, confined at home as I am by three little children and an invalid mother. Add to that the fact that my own health is very poor and Country Girl will readily see that I have no time for the fancy-work which she and I both love, as, when I am well enough, I have to spend every moment of time that I can spare from my other duties, in doing the sewing for a family of eight. But I think it is just as much my duty to read as to do anything else, so I can read her vivid description of what *may* be done, and enjoy in anticipation the doing of it at some future time when my health may be better and my cares less.

Do any of the RURAL mothers know that milk boiled one hour with a piece of charcoal, the size of an egg to one quart of milk, will agree with any child, when raw milk will be utterly rejected by the stomach? It is best to boil it in a double boiler, and it is excellent food for "dog days" especially when followed by a dose of calf's rennet or pepsine for preparing which, at home, I will give directions in my next letter. MRS. FRANK M. PARKER.

DOMESTIC RECIPES.

Oyster Sauce.

One pint of oysters boiled three or four minutes in their own liquor. Stir in two tablespoonsful of butter rolled in a spoonful of flour, the juice of half a lemon with pepper and salt to taste. Heat a teacupful of milk, pour into the oysters and turn at once into the sauce-boat. MRS. HART.

Quince Souffle.

Take ripe fruit, pare, cut up and stew until tender. Put through a colander, sweeten and turn into a deep glass dish. Make a boiled custard of the yelks of three eggs, and pour over. Whip the whites to a stiff froth, add two spoonsful of powdered sugar, flavor to taste and heap upon the custard.

Baked Macaroni.

Take one-half pound of macaroni, break into inch lengths and boil twenty minutes in salted water. Drain, put into a pudding dish, first a layer of macaroni, then strew with grated cheese, bits of butter, pepper and salt. Fill the dish in this way, pour in a cup of milk and bake covered, half an hour, then brown.

MARY B.

Sponge Cake.

Ten eggs, one pound of pulverized sugar, one-half pound of flour, two lemons. Beat the eggs separately a long time; add the sugar to the yelks, then the whites and then the flour. Do not *stir* the flour in, but dip it in. Lastly add grated rind and juice of lemons. Break the cake instead of cutting it. H. L. H.

News of the Week.

MISCELLANEOUS.

MONDAY, October 6th, 1879.

Kearney has been twice refused a reception by General Grant on sending up his "card," and that, too, after a Chinese delegation had been respectfully admitted. A special reporter of the Chicago Times, who was sent to Yazoo City to ascertain the facts in regard to the killing of Dixon, has given a long and apparently conscientious account of the murdered man's history. It appears from this that Dixon, who was born in Virginia in 1847, and who ran away to join the Confederate army, arrived in Yazoo early in 1866 as a professional gambler, and presently opened a gambling-house, which he gave up only a short time before he ran as independent candidate for sheriff, and on the stairs of which he was lately assassinated. In 1872 or 1873 he openly shot down a negro to whom he owed money. In the political campaign of 1875 he became the head of a body of regulators called "Dixon's Scouts," among whom was Barksdale, and who passed their time in breaking up Republican meetings, terrorizing the colored population, and hanging such of them as were charged with crime or were otherwise obnoxious. One of these victims had $1,600 on his person, which he begged the "Scouts" to send to his mother in Ohio. Dixon demanded this money of the man to whom it was entrusted, and pretended that he paid it into the Democratic campaign fund, to be used "to stuff the ballot-boxes, if nesessary;" but the Democratic Committee denied having received it, and the probability is that Dixon appropriated it for his own advantage. In January, 1876, on the eve of the Democratic return to power through the efforts of the regulators, the county treasurer's safe was robbed of $50,000, an act of which the outgoing treasurer could not be accused, for he had handed over his accounts, but which was publicly fastened upon Dixon by a fellow-gambler named Harrison. This led to frequent encounters between the two men, until Dixon had killed his accuser. He was tried, but was acquitted and escorted home with a brass band. Barksdale at this time was deputy-sheriff, and during the imprisonment an enmity arose between them which culminated in Dixon's death. Barksdale is said to have shot him not because he was trying as a negro candidate to divide his party, but because he had made the grossest and filthiest attacks on the character of his mother and sister. It appears, however, that Dixon was getting to be regarded as too dangerous a man to be tolerated any longer, and that there was some concert in his taking off. In spite of his many atrocities the negroes eagerly followed him as a political leader, and it is plain that the power of such a man in the community, with such a constituency, was as much to be dreaded as if he had been a Northern carpet-bagger. The regular Southern correspondent, however, of the New York Sun (Democratic), stamps the stories to the discredit of Dixon as lies, and charges that his "taking off" was a cowardly premeditated, political murder.

While the revenue of the country collected has increased over $2,000,000, the cost of collection was $728,000 less in 1879 than in 1878. The average cost of collection throughout the whole country was a trifle over 3 per cent., excluding the Territories. The cost of collecting in the States which seceded was 6½ per cent. The revenue from the tax upon banks and bankers, other than national banks, during the last fiscal year, was $3,198,000—a decrease compared with the previous year of $293,000. This falling off is attributed to a loss of confidence by depositors in savings banks. The total decrease of the revenue for July and August, compared with the previous year, is $90,000.

Deadwood, Dakota Territory, has been entirely burnt up, entailing a loss of about $3,000,000. The fire started in a miserable shanty, and in a few hours 500 houses were destroyed.

In Chicago there has been great excitement in the grain market during the week. The bulls and bears have been engaged in a fierce struggle over the price of wheat, the former trying to raise it and the latter frantically endeavoring to pull it down. They succeeded temporarily in depressing it from 4c. to 6c. per bushel, but the bulls soon tossed it up again. Here in New York great excitement has prevailed during the week in the stock market. Railroad and other securities have been subjected to severe fluctuations in prices.

President Hayes has been making an extensive trip through the Western States, and has been cordially received everywhere along the route. He has delivered a large number of speeches on various topics, but especially on those connected with the agricultural interests of the country. Gen. Grant still lingers on the Pacific Coast, where he is being feted and honored as no guest has ever been received there before. By the way, from present appearances, he will, most likely, be the Republican candidate for President at the next election, should he be willing to accept the nomination. Of the Democratic candidates Tilden is in the van, though a good deal will depend in his case, upon the result of the election in this State, this fall. John Kelley & Co., are still earnestly bent upon ruining Robinson's chances to be our next Governor, by dividing the Democratic party. They are organizing their forces briskly here and in a large number of other places through the State, and boast of being able to command 100,000 staunch Democratic votes. If they can deprive Robinson of even half that number of party supporters, they will seriously jeopardize his election. Meanwhile, that corporal's guard of "scratching" Republicans are busy trying to insure the defeat of Cornell by sending out circulars, etc., etc. Already they have advanced so far in organizing as to issue some earnest appeals for money to run their little side show.

The West suffers a great deal from the scarcity of small bills. St. Louis and Chicago banks are unable to supply themselves, nor is this strange, remembering that the volume of small bills has been materially diminished. The natural course would be to supply gold in small denominations, but nineteen-twentieths of the gold coin in the treasury is in $20 pieces, and none of the foreign gold which the Philadelphia mint is recoining is put into smaller denominations than $5 and $10, obviously too large to meet the demand for small bills. The smallest form in which gold can be conveniently handled is the quarter-eagle, $2 50, but the law requires a minimum coinage of $2,000,000 of silver, as its coinage is slow work, the mints have no time to turn their attention to small coinage. It is reported in connection with the suit to upset the will of Mrs. Dorsey, of Louisiana, who left her property to Jefferson Davis, that another suit will be instituted against Davis for alleged conspiracy to deprive the heirs of their rights, and for a yet more serious offense against the law. Widow Oliver, who sued Simon Cameron for breach of promise, is destitute, and she has gone to the almshouse at Washington, the poor-commissioners having promised to care for her.

Another Indian war has begun, and various opinions prevail, even among those well posted in Indian affairs, as to the extent it will attain before it closes. Major Thornburg, with his command of about 180 men, while on his march to the Milk River agency of Ute Indians, was suddenly assailed by about 350 of the latter last Tuesday, on Milk Creek, about 160 miles from Rawlins, Wyoming Territory. When the Indians first appeared, the major refused to fire on them, as doing so would be against the orders given to him on account of our present "peace policy;" the Indians, however, soon settled the matter by opening fire. The command was some distance ahead of the wagon train and while one body of "hostiles" attacked the troops in front, another got in their rear, between them and the wagons. To reach and save the latter, Thornburg made a charge upon the intervening Indians; but though the bulk of his command fought their way to the train, the gallant major fell, pierced through the brain by a couple of bullets. Captain Payne then took command, and the troops, partly sheltered by the wagons, succeeded in repulsing several fierce attacks of the enemy. Every spare moment they employed in digging entrenchments, and by night they had succeeded in still maintaining their position. Then Rankin, the chief scout, crept through the circle of surrounding Indians on the best horse remaining alive in the command, and in 21 hours rode the 160 miles between the place and Rawlins to summon assistance. General Merritt at once telegraphed to all the neighboring posts and to the East; troops were hurried forward from every quarter, and upwards of 1,100 men left Rawlins on last Wednesday to relieve the beleaguered troops. However quickly the relieving troops may have been pushed forward, they could not reach the scene of the conflict before yesterday; and no account of their arrival there has yet been received. Capt. Payne sent word by scout Rankin that he was encamped near water and that he expected to be able to hold out five days. News has lately been received that several bands belonging to other Indian tribes have joined the hostile Utes and strong fears are entertained by many that the small body of our soldiers will be overwhelmed and massacred before the arrival of aid. When Rankin left on the first night of the attack, besides Major Thornburg, Lowry, a scout, 13 enlisted men, the wagon master, McLinisters, and one teamster had been killed and three officers and 35 men wounded. Mr. Meeker, the agent at Milk River Reservation, is believed on all hands to have been tortured to death with his family and attendants, before the red fiends set out to attack Thornburg's command.

Professor Wise, the balloonist, early last week made an ascent from St. Louis, accompanied by Mr. Burr, a bank cashier. The balloon was seen at various places to the northeast of St. Louis until darkness fell; but since then nothing has been heard of either of the men or of the balloon. It is supposed they have met the same fate as Prof. Donaldson some months ago. It will be remembered that he and a companion were lost on Lake Michigan, into which their balloon plunged. Yesterday Prof. Colgrove, an aeronaut, and a Mr. Williams went up in a balloon at San Francisco, during a storm. The balloon was badly filled and did not rise enough to free it from contact with the houses; both Colgrove and Williams were thrown out and killed.

The fever is still afflicting Memphis. Of those who remained in the city all through the pestilence few are now stricken; but many of the refugees have returned prematurely, and are attacked. Yesterday six new cases were reported to the Board of Health, and there were five deaths. Another walking match commenced here in Madison Square Garden at one o'clock this morning. It is for the O'Leary belt—a belt got up by Daniel O'Leary, the ex-champion. Twenty-five competitors have started, among them some good walkers.

FOREIGN.

The election for direct electors to choose deputies to the Prussian Diet took place on Tuesday last, with a result, so far as is known at this writing, decidedly adverse to the Chancellors's pretensions. There are three parties in the field: the Conservatives, who are supporting Bismarck, and who maintain under his guidance that the issue is economical reform and the possession of the Railroads by the Government; the National Liberals, who maintain that it is the preservation and development of parliamentary institutions, now threatened by the Chancellor; and the Ultramontanes, who maintain that it is the liberty of the Church. The last have been thrown into a state of great excitement by the formal announcement through the semi-official paper that all stories of negotiations between the Government and the Pope are false; that the nuncio, Roncetti, was never authorized to open any such negotiations, and has never opened them. Moreover, the new Minister of Worship has just returned an answer to the petition of the clergy of the dioceses of Munster and Paderborn which

shows that Herr Putkammer is not a whit more pliable than Dr. Falk. The petition claimed for the Catholic prelates the right of participating in the organization and inspection of the schools, and asked that the ordinances now depriving them of that right might be abrogated, and the exclusive state inspection and control modified. The Minister replies that the act they complain of is simply a new expression of what has always been the Prussian law, and the situation is of their own creating, and that no change of any kind will be made. The *Germania*, the Ultramontane organ, therefore denounces him as Falk with a new name. But the Socialists have elected two members in Saxony, which is a severe blow to the Chancellor, and has made some sensation throughout the country.

The *Germania* also meets the the National-Liberal cry for "war against Rome" by declaring that the real danger to Germany comes from the growing numbers and the influence of the Jews, and makes four capital charges against them; (1) That they are appropriating an amount of the puplic fortune out of all proportion to the services they render to society, and make their money either without labor, or by trickery: (2) that they mix themselves up in Christian quarrels for the purpose of rendering them more bitter, and attack Christianity itself; (3) that they labor systematically for the corruption of the Christian world by their sensational press, their immoral novels, and their indecent engravings; (4) that in all the political movements of the day they are among the most radical and revolutionary, and wage bitter war against all that is legitimate, historical, and Christian in the national life, and promote all upturnings, knowing that Judaism has always flourished on ruins. The liberal papers make fun of this, but all knowledge that Jews are taking possession more completely every day of the press, the finances and trade of the Empire, and playing a more and more prominent part in all fields of national activity. For their wonderful success in all other pursuits there seems to be only one remedy, and that is the slaughter of all Jewish children!!

Yesterday four monstrous mass meetings were held in Ireland for the purpose of keeping up the agitation on the land question. At the Cork meeting 20,000 were present; at Marysborough, in Queen's County, 14,000; at Dunmore, in Galway, 15,000, and about as many at Ballinrobe, Mayo. Absentee landlordism was bitterly denounced, as were high rents, and the utter neglect of their duties by most of the landlords. Frequent exclamations of "shoot them," "give 'em an ounce of lead" and similar expressions of popular opinion were always greeted with applause. The meetings were addressed by various Members of Parliament belonging to the Home Rule Party who were as earnest in their opposition to the present system as the most extreme tenant-righter.

An English banker, Mr. Newmarch, who has been bringing Tooke's History of Prices down to date, has reached the conclusion that prices are now lower than at any time since 1850, having very nearly fallen to the figures of 29 years ago. From 1850 to 1864, Mr. Newmarch finds that prices increased 72 per cent. Since then they have fallen off, and stood in December, 1878, only four per cent. above the point at which they started. This return of current prices to their original level has taken place in spite of an enormous increase in the circulating medium of civilized countries. The production of the precious metals since 1850 amounts to $4,500,000,000, and the volume of paper money in England, France, Germany and the United States has risen from $375,000,000 to $1,473,000,000, facts which must make it extremely doubtful whether prices are as much affected by the state of the currency as has been supposed.

In France Jules Ferry, Minister of Education and Public Worship, is resolved to free the public schools from clerical control, as he regards priests, monks and other ecclesiastical bodies as hostile to the Republic. As the Legislative Assembly is not in session at present, however, political agitation there is at present dormant. A large meeting of prominent statesmen and merchants assembled yesterday in Paris to listen to Mons. Leon Chotteau's report of his visit to this country for the purpose of forming a more liberal commercial treaty between the two nations. Among several resolutions the following was unanimously adopted:—That considering the government at Washington, as well as the Congress and Chambers of Commerce of the United States, were disposed to open negotiations with France with a view to concluding a treaty of commerce on a basis of equal advantage to both nations, and considering that it was important that the French government should respond to these favorable manifestations. Resolved, That the President of the Republic be invited to appoint three commissioners to study the situation and report to competent Ministers, conferring, if necessary, with commissioners appointed by the American government." Among the audience were Governor Noyes, the American Minister; Mr. Hitt, Secretary of the American Legation; General Fairchild, Mr. Bancroft Davis and MM. Brisson and Bralatour.

As a light, mild beverage, agreeable to the most delicate digestive organs, the Cocoa preparations of Walter Baker & Co. are recommended to invalids and convalescents as well as to those in full health.

Don't physic, for it weakens and destroys, but use Hop Bitters, that builds up, up!

Straighten your old boots and shoes with Lyon's Patent Heel Stiffeners, and wear them again.

THE MARKETS.

PRODUCE AND PROVISIONS.

NEW YORK, Saturday, Oct. 4, 1879.

BEANS AND PEAS.—The market is strong for beans; an advance has seldom been so well supported in the face of new crops. A feature of th week is an export of 500 bbls. of marrows for England. The West Indies usually take the totals given weekly for export. Red kidneys are steadier, but no higher. The trade objects to the many imperfectly cured beans coming forward. Such stock has no regular price here, particularly as the weather is adverse to them. Green peas doing better; $1.45@1.50; Canadian peas have no quotable business. Southern B. E. peas firm at $2.75@3 per 2 bush. bag. New marrow beans, $1.57@1.60; other, $1.40@1.52½. Pea and white kidney, $1.57½@1.60; red kidney, $1.65@1.70 prime; poor or soft, $1.45@1.50.

Receipts of beans for week, 9,444 bush.; exports, 873 pkgs.

BUTTER.—Receipts for the week, 36,950 pkgs.; do., last week, 42,819 do. Exports for week, 16,000 do. Prices have become somewhat shaded during the past few days. Local buyers are forced to reduce their purchases to actual wants and many have dispensed with ice. The export demand is good again keeping down an accumulation. Dealers do not look for a recovery of full prices on state until the weather settled cool, and even then much depends upon the supply and quality of western.

Comparative receipts and exports.

	Receipts, pkgs.	Exports, firkins.
June 1, '79 to Oct. 1, '79	638,290	150,542
" 1, '78 " " 1, '78	554,577	140,866
" 1, '77 " " 1, '77	531,618	105,257
" 1, '76 " " 1, '76	482,593	61,686

State, pails and tubs, single dairy marks, fresh, extra, 24@24c.; best invoices, 20c.@ good to prime, 18@20c.; fair to good, 17@18c. firkin and tub single dairies, choice, 20c.; do., dairies good to prime, 18@19c.; do., firkins, choice dairies, 18@19c.; do., good to prime, 17@18c.; do., fair to good, 16@17c. Welsh tubs, best invoices, 18@18c.; do., good to prime, 17@18c.; do., fair to good, 16@17c.; State, tubs, poor, 13@15c.; State creamery, best invoices, 26½@27c.; do., good to prime, 25@26c.; do., sweet cream, best, 25@26c.; do., fair to good, 24@25c.; Western creamery, best invoices, 26½@27c.; do., good to prime, 25@26c.; do., fair to good, 24@25c.; do., poor to fair, 23@25c.; do., imitation creamery, 14@18c.; do., dairy, fresh, extra, 17c.; do., good to prime, 14@16c.; do., fair to good, 12@14c.; do., poor to fair, 11@13c.; do. June, 12@16c.; do., best invoices, June, 14c.; do., fair to good, June, 12@13c.; do., best invoices, late made, 12½@13c.; do., fair to good, 10@12c.; do., poor to fair, 9@10c.

BROOM CORN—Is offering a little more freely, with prices unchanged. Brush and short broom, choice, per lb., 5½@6½c.; do., common to good, 4½@5½c.; hurl, good to choice, 4@5c.; do., common to fair, 3½@4c.; red and crooked, 2½@3½c.

COTTON—Has shown a full demand and a strong market. Closing prices are for October, 10@10.01c.; November at 9.83c.; December at 9.84@9.85c.; January at 9.94c.; February at 10.06c; March at 10.22@10.24c.; April at 10.36@10.39c.; May at 10.51@10.55c.

Quotations for spot cotton are based on American standard of classification, and on cotton in store running in quality not more than half a grade above or below the grade quoted.

	Uplands.	N. Orleans and Gulf.	Texas.
Ordinary	8 15-16	9 1-16	9 1-16
Strict ordinary	9 5-16	9 7-16	9 7-16
Good ordinary	9 11-16	9 13-16	9 13-16
Strict good do	9 15-16	10 1-16	10 1-16
Low middling	10 1-16	10 3-16	10 3-16
Strict low middling	10⅜	10⅜	10⅜
Middling	10⅜	10⅜	10⅜
Good middling	10⅜	10⅜	10⅜
Strict good middling	10⅜	11	11
Middling Fair	11⅜	11⅜	11⅜
Fair	12⅜	12⅜	12⅜

STAINED.

Good ordinary	9⅜	Low middling	9 13-16
Strict good ordinary	9⅝	Middling	10 1-16

CHEESE.—There has been a good deal of indifference again this week, and only towards the close was there material trade. The shipments are only 30,000 boxes, and supplies steadily accumulate. The latest transactions show some modification of holders' views.

Fancy at 10¾@11c.; good to prime at 10@10¼c.; fair to good at 9@10c.; half-skimmed at 8@9½c.; skimmed at 5¾@6¾c. State farm dairy: Fine at 10@10½c.; good to prime at 9@10c.; fair to good at 8@9c.; skimmed at 5@6¾c. Wisconsin factory: Fine at 10¾c.; good to prime at 9¾@10c. Ohio factory: Cheddar, fine, at 10¾@10¾c.; do., fair to good, 8@9c.; flat, fine, 10¾@10¾c.; flat, good to prime, 9¾@10c.; flat, fair to good, 8½@9¾c.; half-skimmed, 7@8½c.; skimmed, 5¾@6¾c.

Comparative receipts and exports:

	Rec'ts, boxes.	Exp'ts, lbs.
June 1, '79, to Oct. 1, '79	1,558,390	70,505,716
June 1, '78, to Oct. 1, '78	1,351,990	80,237,294
June 1, '77, to Oct. 1, '77	1,478,917	69,335,480
June 1, '76, to Oct. 1, '76	1,287,476	57,226,203

Receipts for week, 55,050 boxes; do., last week, 95,893 do.

Liverpool cable, 46s.

Steam, 60s.

BEESWAX.—A small business is noted and a steady market at 22@23c.

DRIED FRUITS.—Apples have a moderate demand and rule steady in price. Peaches are in light receipt and rule at strong prices. Small fruits are in small receipt and favor sellers.

New North Carolina apples, 6@7¼c. for fair; 8@8¾c. for choice; 9@9¾c. for fancy sliced. Patent evaporated apples, choice, in cases, at 12c.; do. fair to good, 10@11c.; N. Y. State sliced, choice, 5@5½c.; do, quarters, choice, 4¾@4¾c.; western quarters, common and old, 3½@4c.; new southern quarters at 4@4¼c.; new N. C. peeled peaches at 13@16c., do. Georgia, at 11@11c. Peaches, Delaware evaporated, peeled at 22@23c.; do. unpeeled at 11@12c.; old unpeeled halves at 4½c.; do., quarters at 4c.; new halves at 5@5½c. Blackberries at 8½@8¾c. for new. Raspberries at 28@29c. Pitted cherries at 19@20c.

EGGS.—Receipts for week, 6,614 bbls.; do., last week, 7,215 do. The market is weak under rather full supplies. Had it not been for one or two active days at the close, it is thought that prices would have broken down.

Near points, 20@21c.; State and Penn., 19@19½c.; Western and Canadian, fresh, 18½@19c.; off quality, 18c. Limed nauled at 16c. Egg oats, 28c.

MONEY.—There is some offering, but the demand is only for single packages for grocery and other store decoration in the way of novelties. White clover, single comb boxes, 15@16c.; larger, 12@14c.; buckwheat, 10@12c.; extracted, 10@12c.; strained, 8@9c.

FRESH FRUITS.—Exports of apples 6,903 bbls. Receipts fell off early in the week, but are again free and prices quoted full; but fall sorts $2; fair to good, $1.50@1.75; common open heads, 75c@$1.12. Cranberries dull. Grapes have ruled so low that many shippers have quit picking, this has made fine Concords scarce. Quinces are smooth and strong this season. Choice apples, $5@6 ₱ bbl., pears, $3@4. Peaches hardly quotable, all 40@50c. ₱ basket, a few extra table, $2.00. Pears are in good supply and popular in price. Choice Boston and Cal., $3@4 ₱ box. Cranberries—Cape Cod, fancy, per bbl., $5.75@7; Cape Cod, good to choice, per bbl, $6@6.50; Cape Cod, poor to good, $5@6; Eastern, large round hoop bbls., fair to choice, $5@6; N. J., fancy, per crate, $1.75@2; do., good to choice, ₱ crate, $1.50@1.75; Jersey, light colored, per crate, $1@1.25 Pears—Duchess, State, per bbl., $3@4.50; Sheldon, per bbl., $3.50@4.50; Louise Bonne, ₱ bbl., $3@4.50; Virgalieu, ₱ bbl., $5@4; Beurre Bosc, ₱ bbl., $3.50@4.50; Seckel, No. 1, per bbl., $5; do., No. 2, ₱ bbl., $2.50@3.50; Flemish Beauty ₱ bbl., $3@4; Cooking pears, ₱ bbl., $1.25@1.75. Grapes—Delaware, State, 18 3-lb. boxes, $3@3.25; do., in baskets, ₱ lb., 6@7c.; do., 18 3-lb. boxes, $2@2.50; do. loose, ₱ lb., 5c.; Concord State, 18 3-lb. boxes, $1.75@2.25; do., in baskets, ₱ lb., 3½@4½c.; do., up-river, bulk, ₱ lb., 2½@3½c. Plums—Copper Plums, per bbl., $7@9. When new crop peanuts are fully in stock, sales will be made by the pound, no tare and no charge for bags. Market quiet and easier. Va. hand-picked, $1.60@1.65; other, $1.25@1.37½. Shelled, 5½c. per lb. Chestnuts, $3.50 ₱ bush.; shellbarks, $1.50@1.75.

FLOUR.—The export movement is large and home trade demand active, with prices very strong.

Latest prices are: $4.75@5.25 for inferior to fancy superfine State; $5.10@5.35 for ordinary to very good extra do., odd lots and lines; $5.35@5.60 for very good to very choice do.; $4.85@5.25 for very inferior to fancy superfine Ind., Iowa, Mich., &c.; $5.10@5.35 for inferior to very good shipping extra do., and $5.35@5.60 for good to choice extra do.; common to choice white wheat extras, $5.50@6.40; choice to very fancy do. at $6.40@7.00; red and amber winter wheat, inferior to very choice trade and family, at $5.35@5.50; round hoop Ohio at $5.20@5.65, and trade and family brands of do. at $5.70@6.65, the latter rate for very choice; St. Louis, $5.50@6.35 for inferior to very good extra; $6.35@7.00 for very good to fancy; Minnesota clear, inferior to very choice, $5.10@6.25; Minn. "straight," inferior to strictly fancy, $5.75@6.75 (very fancy at $7), and patent poor to very fancy at $5.75@8; unsound stock at from $3.50@6.00; city mill extra at $5.75@6.15, ordinary to very fancy, for West Indies; do. for England, $5.10@5.60 for ordinary to choice; do. trade and family extras, $6.00@7.00; do. for South America, $6.00@6.50 for standard to choice brands; No. 2 at $4@4.75 for ordinary to very fancy (the latter an extreme for even winter wheat product).

CORN MEAL—Sales of Brandywine at $2.90@3, and Western yellow at $2.45@2.75.

GRAIN.—Wheat showing extensive export dealings, the shipments this week reaching 2,700,000 bushels, and an active market generally, with prices favoring sellers. Sales of No. 1 amber at $1.30¾; No. 2 amber at $1.23@1.29; do., October option, at $1.29; ungraded amber at $1.21@1.29; extra white at $1.30¾; No. 1 white at $1.23¾@1.30; do., for October at $1.29¾@1.30; do., November, at $1.30¾@1.31; No. 2 white, at $1.27¾; ungraded white at $1.20@1.28¾; No. 1 red at $1.30¾@1.30¾; do., No. 2 red at $1.29¾@1.30¾; do., October option, at $1.29¾@1.30¾; do., November option, at $1.30@1.31¾; do., December option, at $1.32; No. 3 red at $1.20@1.22; ungraded red at $1.18@1.30; mixed winter at $1.27@1.29; No. 2 Chicago spring at $1.22; New York No. 2 spring, at $1.22; do., October, at $1.22; do., November, at $1.23¾; No. 2 northwest spring at $1.22; do., October option, at $1.23; ungraded spring at $1.17@1.21; New York No. 3 spring at $1.17@1.18. Rye at 77@78c. for No. 2 Western. Corn is active and strong; latest sales of New York No. 2 at 54@54¾c.; do., October, at 53¾@54¼c.; do., November, at 54¾@55¼ c.; do., December, at 55¾c.; New York steamer mixed at 53¾@54c. for spot lots; do. October at 54c.; November quoted at 54c. bid; December at 53c. bid and 54c. asked; No. 3 nominal; ungraded Western mixed at 53¾@55c., the latter for fancy; No. 2 white at 60c. Oats are higher and active; sales of New York No. 1 white at 41c.; New York No. 2 white at 38@39c.; New York No. 3 white at 36¾@37c.; New York No. 1 at 37¼c.; New York No. 2 at 35@37c.; New York No. 3 at 35½c. New York rejected quoted at 34c.; ungraded white Western at 36¾@40c.; mixed Western at 35½@37¾c.; white State at 38@42c; mixed State quoted at 37@38c.; No. 2 Chicago at 37¾c. bid.

HAY AND STRAW.—A fair trade is in progress and prices unchanged.

Shipping hay quoted at 50c.; retail lots at 50@60c. for medium, and 70@80c. for prime; clover at 35@45c. Straw at 60@65c. for long rye, 40@50c. for short rye and 40@45c. for oat.

HOPS.—Clement Wells in his weekly circular says: "We have to report a very strong and active market; the movement has been almost exclusively export. There is no perceptible change in values, though holders of choice goods decline to sell at present quotations, believing that if the export demand keeps up much longer at the present rate the price must advance. How well these anticipations may be realized remains to be seen. An advance to 40c. and over would be likely to check the export movement unless a corresponding improvement took place in London to warrant it. Our brewers remain wholly unmoved by the heavy demand from Europe, still believing there are hops enough of last year's growth and older growths to bridge them over to the next crop, and they seem to fear no 'famine' even though every bale of 1878 is shipped out of the country; 30@33c. have been the ruling prices in the interior this week."

	Bales.
Receipts for the week	5,445
Total receipts since September 1, 1879	13,726
Total receipts for same period in 1878	3,222
Export clearances for the week	4,410
Total exports since September 1, 1879	14,101
Total exports for same period in 1878	658

Quotations are for New Yorks, new crop, 28@36c.; Eastern, new crop, 28@34c.; Wisconsin, new crop, 30@35c.; Yearlings, growth 1878, 7@18c; Olds, all growths, 4@10c.; Pacific coast, growth 1878 (nominal) 9@14c.

OIL-CAKE.—Western is quoted at $28.50.

PROVISIONS—Have been alternately weak and strong, and active. The quotations are for mess pork, October at $9.30 bid and $9.40 asked; November at $9.25 bid and $9.40 asked, and the December option at $9.30 bid and $9.45 asked. Bacon at $6 for long clear and 6¾c. for short clear. Lard—Western steam'ne at nil $6.50 for spot lots; $6.17½ for November, $6.12½, $6.05 for December, and $6.15@6.17½ for January. Steam'ne at 6¾@6¾c. for Western. Tallow at 6¾c. for prime.

POULTRY AND GAME.—The live poultry market is very low for fowls and chickens: 8½@9c. quoted for ordinary, and 10c for selected. Roosters, 5c. Turkeys, N. J., 10@12c.; S. and W., 8@10c. Ducks, 35@6c ₱ pair. Geese lower; choice, $1.25@1.37; other, 87c.@$1.12.

Warm weather has checked trade in dressed, and prices are lower; stock from any great distance selling at inside rates. Chickens not doing much better than fowls.

Turkeys, Phila., dry-picked, 14@15c., State and Western, 12@13c. Young, 13@13c. Chickens, Phila., 14@15c.; other, 9@11c. Fowls, Phila., dry-picked, 13@14c.; N. J., 11@12c.; State and W., 9@11c. Ducks, spring, Phila., 14@15c.; other, 11@12c. Young geese, 13@14c.

Game has met weather too nearly of a summer temperature to hold good prices. There is a liberal offering at the following reduced rates:

Partridge, State, per pair, 75c.; Western, 50c.; grouse, 65@70c.; wild pigeons, flight, per doz., $1.25@1.50; woodcock, State, per pair, 50c.; Western, 50c.; English snipe, per doz., $1.50; plover, $1.50; Minn. venison, short saddles, ₱ lb., 12@15c.; State and Western, do., 12c.; venison, whole deer, 8@10c.

SEED.—Clover is quiet, with Western quoted at 6¾@7c¾., and State at 7¾@8c. Timothy quoted a $2.30.

TALLOW.—Export trade is light, but the home demand is fair, with prices firm throughout and essentially as last week.

VEGETABLES.—Exports of potatoes for the week, 5,536 bbls. The market is unchanged, the assortment is better and quality favors sellers. A few Peachblows, in bulk, $1.50; Rose, in bulk, $1@1.25; Peerless, $1@1.12; double-headed city, suitable for export, $1.25@1.37; a few for the English market, $1.45. Sweet, Del., $1.75@2; Va., $1.50@1.75; N. J., $1.25@1.50. Other items are in full supply and of exceptional fine quality this fall. Green corn, per 100, 25c@$1.00; cucumbers, L. I., 75c.@$1 tomatoes. Long Island, near-by, per crate, 35@40c.; string beans, ₱ bag, 75@87c.; potato Lima beans, $1.50@1.75; Lima beans, flat, $1@1.25; do., shelled, bu., $4.50@5; squash, marrow, ₱ bbl., 50@75c.; cabbage, flat Dutch, per 100, $3@5.00; onions, white, per bbl., $1.75@2.25; red, Eastern, ₱ bbl., $1.50; do., Chester, ₱ bbl., $1.25@1.50; yellow, ₱ bbl., $1.50@1.75; beets, N. J., ₱ bbl., $1.00; Russia turnips, Jersey, 50c.@$1; carrots, ₱ bbl., $1; egg plant, L. I. and near-by, per 100, $3@5; peppers, bullnose, ₱ bbl., $2@2.50; pumpkins, per 100, $2.00@5; Cauliflower, ₱ bbl., $2@5.

WOOL.—There is an active trade and the market presents a good strong appearance. Latest sales of X (and above) Ohio at 38@43c.; XX do, at 41c.; XX and above do., at 41@42c.; State at 35@36c.; medium Wisconsin at 32c.; half-blood State at 38½c.; delaine State at 35½c.; fine Michigan and Ohio at 40@42½c.; spring California at 20@26½c.; old fall do., at 17@22c.; Texas at 20@31c.; Oregon at 28@31c.; Territory at 27½@28½c.; Lake at 34½c.; Nevada at 25c.; super pulled at 41c.; mixed scoured at 60@70c.; Australian at 37c.; Montevideo at 31@32c.; Cape at 30c.

LIVE STOCK MARKETS

NEW YORK, Saturday, Sept. 27.

BEEVES.—Receipts for the week, 10,255 head; do. last week, 12,687 do. Much of the past week has been devoted to closing out back supplies. At the close sellers had been quite successful in this way and though prices are not much in favor of sellers, there is thought to be a better outlook for stock. Texans sold at 6¼@6¾c. to dress 55 lbs., good Colorado steers, 7@7½c. do. Poor to very best natives, 6¼@9¼c.; in a wholesale way, 5¼@56 lbs. Selections, 9¾@10c.

SHEEP AND LAMBS.—Receipts for the week, 30,308 head; do. last week, 33,977 do. With the warm weather of the week supplies have been rather liberal. Dealers after making some concessions were mostly closed out to-day, and prices left off at 5@5c. for sheep; and 4¼@5¾c. for lambs, the latter looking up.

COWS AND CALVES.—Prices are not likely to improve while receipts are so abundant. The wide range of $20@45 is quoted this week.

VEAL CALVES—Barely steady for choice; grassers almost worthless herd. N. J. & Buck's Co., fed, 6c.; fair to prime State and other, 4@5¾c.; buttermilk, 3@3½c.; grass, 1@2c.

SWINE.—Receipts for the week, 29,931 head; do. last week, 31,627 do. Market easy at the close, few bringing the extreme. State live, $3.75@4.25 per 100 lbs.; Western, $4@4.37 do.; New Jersey dressed, 40@70 lbs., 6½c.; 70@100 lbs., 6@6½c.; 100@150 lbs., 5¾@6c.; 150@200 lbs., 5¼@5¾c.; city, $5.12@5.75.

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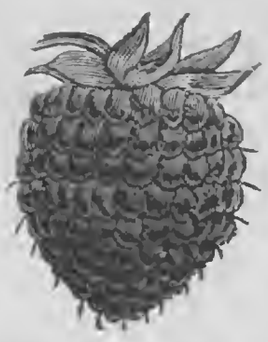

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TOO LATE.
It soon will be. The rise of more than half in the price of Iron is more than we can stand. For a *very short* time only, we will receive orders at old prices, viz.: 5 Ton Wagon Scales $50. All iron and steel. Sold on trial—freight paid by us—no money asked till tested and found satisfactory. All sizes.
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SEED DISTRIBUTION.

How New Varieties of Fruit are Produced.

I TAKE pleasure in announcing that I now have ready for distribution among the members of the Horticultural Club a lot of grape seed, saved expressly for them. The seed is taken from a number of our best native grapes, such as Delaware, Lady, El Dorado, Martha, Iona, Secretary, Salem and others. I distribute this seed among *all* the members who have sent me their post office addresses, though there are some on my list who have not faithfully complied with the conditions that were stipulated as necessary to maintain a good standing in the club—that is, they have sent me no report of what they have been doing all summer; and if, therefore, I should send seed to those only who merit it, I fear there would be some who would not get any. In the future, as the number of members increases, I shall be obliged to follow this rule more strictly. For those who do not know how to sow the seed and raise the plants, I will give the following brief directions: Sow it immediately after its arrival, either in boxes or pots, filled with a mixture of good garden soil and leaf mold. The pot or box should be well drained; that is, the hole in the bottom should be covered with potsherds to give a free outlet to the water, which otherwise would sour the soil. If a pot is chosen it should not be too small, or it will dry out too quickly; fill it loosely to the rim, when shaken down to within an inch of the rim the soil will be of the right firmness; then sow the seed and cover it with a quarter of an inch of soil, water and set the pot away in a moderately warm place. No light is needed until the plants come up, but the soil must, of course, always be kept moist. When the young plants have three leaves they should be potted singly in small pots, in which they can remain till next spring, when they should be planted in the open ground. Do not be discouraged if the seed does not come up immediately. It may come in three weeks, and it may also remain dormant for three months. I send you this seed in the hope you may raise some new varieties. Think what a triumph it would be for you, if in addition to the pleasure of caring for the young vines, you are rewarded by a new and excellent variety, whose fruit may be better than any now in existence. All new varieties of fruit are produced from seed. It was by sowing grape seed that Mr. Ricketts, Mr. Miner and other horticulturists have produced the new grapes which are just now being talked about all over the country, and there is no reason why any of you may not be equally successful.

It is a fact, and why it is so, no one is able to tell, that the seed of apples, pears, peaches, plums, grapes, etc., will very rarely, and I may almost say never, produce trees and vines that will bear fruit which is exactly like the fruit from which the seed was taken. In the majority of instances the seedling fruit is of a poorer quality than its parent, but it sometimes happens that it is better, and when this does happen the fruit is named and propagated and will henceforth take a place among the acknowledged good varieties. Skilled horticulturists may help nature in the production of good varieties from seed by the process known as cross-fertilization, which I have mentioned before in my talks to the Horticultural Club. It consists in transferring pollen from one tree or vine to the pistils of another closely related tree or vine. This is very delicate work and it must be done in such a manner that there is no possibility of the flower to which the pollen is transferred having been fertilized from any other source. Nature cross-fertilizes on a grand scale by the wind and insects carrying pollen from one plant to another, and hence it is that the seed does not reproduce the plant from which it was taken. But it is now too late for this season to cross-fertilize, so perhaps it is best to defer saying more about it till next spring.

UNCLE MARK.

ADVICE TO BOYS.

The following is the substance of an address by Professor Huxley on the occasion of the distribution of prizes to the University College School boys on August 1. It is both entertaining and instructive and is well worthy of perusal by all the boys who read the RURAL:—

WHAT sort of fellows are those who win prizes? Is there in all the long list which we have gone through to-day the name of a single boy who is dull, slow, idle, and sickly? I am sorry to say that I have not the pleasure of knowing any of the prize-winners this year personally—but I take upon myself to answer, certainly not; nay, I will go so far as to affirm that the boys to whom I have had the pleasure of giving prizes to-day, take them altogether, are the sharpest, quickest, most industrious, and strongest boys in the school. But by strongest, I do not exactly mean those who can lift the greatest weights or jump furthest, but those who have most endurance. You will observe, again, that I say take them altogether. I do not doubt that outside the list of prize-winners there may be boys of keener intellect than any who are in it, disqualified by lack of industry or lack of health, and there may be highly industrious boys who are unfortunately dull or sickly; and there may be athletes who are still more unfortunately either idle or stupid, or both. Quickness in learning, readiness and accuracy in reproducing what is learnt, industry, endurance—these are the qualities, mixed in various proportions, which are found in boys who win prizes. Now there is not the smallest doubt that every one of these qualities is of great value in practical life. Upon whatever career you may enter, intellectual quickness, industry, and the power of bearing fatigue are three great advantages. But I want to impress upon you, and through you upon those who will direct your future course, the conviction which I entertain, that, as a general rule, the relative importance of these three qualifications is not rightly estimated; and that there are other qualities of no less value which are not directly tested by school competition.

A somewhat varied experience of men has led me, the longer I live, to set the less value on mere cleverness—to attach more and more importance to industry and to physical endurance. Indeed, I am much disposed to think that endurance is the most valuable quality of all, for industry, as the desire to work hard, does not come to much if a feeble frame is unable to respond to the desire. Everybody who has had to make his way in the world must know that while the occasion for intellectual effort of a high order is rare, it constantly happens that a man's future turns upon his being able to stand a sudden and a heavy strain upon his powers of endurance. To a lawyer, a physician, or a merchant it may be everything to be able to work sixteen hours a day for as long as is needful without knocking up. Moreover, the patience, tenacity, and good humor which are among the most important qualifications for dealing with men, are incompatible with an irritable brain, a weak stomach, or a defective circulation. If any of you prize-winners were a son of mine—as might have been the case, I am glad to think, on former occasions—and a good fairy were to offer to equip him according to my wishes for the battle of practical life, I should say, "I do not care to trouble you for any more cleverness. Put in as much industry as you can instead; and oh! if you please, a broad, deep chest and a stomach of whose existence he shall never know anything. I should be well content with the prospects of a fellow so endowed. The other point which I wish to impress upon you is, that competitive examination, useful and excellent as it is for some purposes, is only a very partial test of what the winners will be worth in practical life. There are people who are neither very clever nor very industrious, nor very strong, and who would probably be nowhere in an examination, and who yet exert a great influence in virtue of what is called force of character. They may not know much, but they take care that what they do know they know well. They may not be very quick, but the knowledge they acquire sticks. They may not even be particularly industrious or enduring, but they are strong of will and firm of purpose, undaunted by fear of responsibility, single-minded, and trustworthy. In practical life a man of this sort is worth any number of merely clever and learned people.

Of course I do not mean to imply for a moment that success in examination is incompatible with the possession of character such as I have just defined it, but failure in examination is no evidence of the want of such character. And this leads me to administer from my point of view the crumb of comfort which on these occasions is ordinarily offered to those whose names do not appear upon the prize list. It is quite true that practical life is a kind of long competitive examination, conducted by that severe pedagogue Professor Circumstance. But my experience leads me to conclude that his marks are given much more for character than for cleverness. Hence, though I have no doubt that those boys who have received prizes to-day have already given rise to a fair hope that the future may see them prominent, perhaps brilliantly distinguished members of society; yet neither do I think it at all unlikely that among the undistinguished crowd there may lie the making of some simple soldier whose practical sense and indomitable courage may save an army led by characterless cleverness to the brink of destruction; or some plain man of business who by dint of sheer honesty and firmness may slowly and surely rise to prosperity and honor, when his more brilliant compeers, for lack of character, have gone down, with all who trusted them, to hopeless ruin. Such things do happen. Hence let none of you be discouraged. Those who have won prizes have made a good beginning; those who have not, may yet make that good ending which is better than a good beginning. No life is wasted unless it ends in sloth, dishonesty, or cowardice. No success is worthy of the name unless it is won by honest industry and brave breasting of the waves of fortune. Unless at the end of life some exhalation of the dawn still hangs about the palpable and the familiar; unless there is some transformation of the real into the best dreams of youth, depend upon it whatever outward success may have gathered round a man, he is but an elaborate and a mischievous failure.

LETTERS FROM THE COUSINS.

DEAR UNCLE MARK:—I thought I would like to have another little chat with you about my garden. I sold the last of my radishes about the middle of July, with the exception of a few that I left for seed; but those that I let remain, do not run up to seed at all, the roots keep growing larger and larger. I fear they will not go to seed. On the fourth day of July I received a package of Dolly Dutton Sweet Corn. I planted it on the fifth. I have now realized about two dollars for my garden produce, and have not disposed of everything yet. We planted our Defiance wheat about the last of April, it grew nicely for a while, but all at once it began to turn a little yellow, headed out all right but not a kernel of wheat could be found in the heads. Our Prolific corn has grown from 10 to 12 feet in hight and still keeps on growing, it has tasseled and begun to silk, but I fear it will not get ripe before frost. How sad it always makes me feel to have our garden and bright flowers cut down by frost. I turn my attention to the care of house plants in the winter. I have some fine Geraniums, among other plants. I have the promise of three more in a short time, a Rose, Balsam, and a fine Double Geranium, they are all presents to me, and I prize them very highly. In a short time I am going to the woods with my mamma to gather leaf mold for repotting my plants. I want to tell my cousins that I have some chickens and ducks as well as plants. My ducks know their names. I expect to go to the fair this fall as we live only a short distance from the fair ground. If I do go I will tell you of some of the nice things I see there. Good-bye for the present. WALTER C. GAYHART.

Lucas Co., Ohio.

DEAR UNCLE MARK:—My little daughter Elinor aged seven, and her brother George six years old, are very anxious to join your Horticultural Club, and they wish me to write for them as they "print" with difficulty. They planted corn this year and squashes; and they also have an interest in the flower garden, I think your club is destined to accomplish a great deal of good among the youth of our country, in stimulating a love for rural pleasures. All children naturally love flowers, but many have no opportunity to develop this love.

I remain, yours truly,

Chula, Va. I. W. B.

DEAR UNCLE MARK AND COUSINS:—My garden has done splendidly this summer after the rain. We had a fine rain the 16th of August, it was very dry before that. This is the third year that we have had a drought. Dolly Varden, I do not want you to scare me like that again; I almost jumped out of my boots. Well, I must close or this may find its way to the waste basket as my last one did, so good-bye. LAKE SIDE.

Wesleyville, Pa.

DEAR UNCLE MARK:—The RURAL has been a welcome visitor in our house this long time, and it is a splendid paper. I love to read the "Reading for the Young" and the letters from the cousins are interesting. If you will accept me as a member of your Horticultural Club, I will write again, and speak about my plants. I hope this will not find the waste-basket. Yours truly,

Prospect, Ohio. MILO GAST.

UNCLE MARK:—I thank you for the seeds you sent me, some grew and some did not. The Asters are splendid. The melons, beets and lettuce were all nice. The weather was too dry here in May for anything to grow well. I have a number of plants, some are very nice. Farewell, Uncle Mark, may the Lord bless you in this world and in the next.

Mont. Co., Ohio. DANIEL WAGNER.

DEAR UNCLE MARK AND RURAL COUSINS:—I am very much interested in the boys' and the girls' letters. I have been reading them this morning and I thought I would write one. I like to tend the flowers and the vegetables. I would like to join the Horticultural Club if you will accept me.

Wash. Co., Oregon. ORIN GOULD.

DEAR UNCLE MARK:—I should like to join the Horticultural Club, if you will put my name down. I have a few plants, one is a Castor Oil plant. I like to read the cousins' letters. Yours truly,

Norfolk Co., Mass. ALBERT THORPE.

DEAR UNCLE MARK:—I received the book last Monday and return many thanks. I have read it nearly through and am *very* well pleased with it.

Your nephew, SAM. SHULL.

The Puzzler.

HIDDEN PARTS OF A FLOWER.

1. That rasca-ly Xerxes shot a sick man.
2. Ico Rolland is very sick.
3. My pet, a lie is a sin.
4. This tame Nanny goat.
5. Philip, I still love him.
6. Poll enticed me to play truant.
7. Don't bunny jump oddly?
8. Eric Otyle done a mean trick.
9. See the caps Ulen wears.
10. Pet, Io left us in rage.
11. The peri car passed fairyland.
12. The race Meta won.
13. Make it teped, uncle.
14. Can't her word suffice?
15. Who "R. L." is, I wonder.

☞Answer in two weeks. LITTLE ONE.

GEOGRAPHICAL DECAPITATIONS AND CURTAILMENTS.

1. Behead an English river, and leave a ridge in cloth. 2. Curtail a town near Minneapolis, and leave a military cap. 3. Behead and curtail a New England city, and leave a kind of liquor. 4. Behead a Scottish lake, and leave to assert. 5. Curtail a river in South America, and leave raw herbs cut and dried. 6. Behead and curtail a Spanish town, and leave a luminary.

☞Answer in two weeks. UNCLE WILL.

DROP LETTER PUZZLE.

.W-e- t-o -l-k-d -a- t-r-e-h -w-y -r-m -i- w-c-e-n-s-w-i-h h- h-t- c-m-i-t-d -n- d-e-h -h-t -h-c- l- l-w-u-a-d -i-h-, h- s-a-l -a-e -i- s-u- a-i-e. Fill the blanks and find a text of Scripture.

☞Answer in two weeks. L.

DIAGONAL PUZZLE.

1. A consonant. 2. The ending of many words. 3. Even (apostrophied). 4. A metal (reversed). 5. A style of architecture. 6. A Scottish dukedom. Primals and diagonals form two European cities.

☞Answer in two weeks. L. O.

PUZZLER ANSWERS.—Sept. 27.

ENIGMA.—["Alice A. Harrison." To find the answer, take the letter of each line corresponding in number to the number of the line—thus: the first letter of the first line, the second of the second, and so on to the fourteenth.]

ACROSTICAL ENIGMA.—FAITH RIPLEY.

HIDDEN CHANNELS.—1. Kennedy; 2. Wellington; 3. Cockburn; 4. Bahama; 5. Owen; 6. Egripo; 7. Talanti; 8. Trikiri; 9. Meleda.

PUZZLER.—July, August, September, October, November.

Sabbath Reading.

THE PERSONAL APPEARANCE OF CHRIST.

THE following item is circulating through the papers, and it has inspired the comments which accompany it:

"M. Meziere's doubt of the authenticity of M. Renan's description of the personal appearance of St. Paul appears to have set the Paris bookworms at work delving among the works of the early church fathers. The result is not only the justification of Renan, but a good many curious discoveries of which the following are perhaps the most notable. St. Clement of Alexandria, thus sketches the Saviour: "Jesus had no beauty of face; his person offered no physical attractions; he only possessed beauty of soul, which is the true beauty." "St. Irenæus, a disciple of St. Polycarp, who was a disciple of St. John, wrote that his master had often heard the beloved disciple say that the hair of Jesus had already turned white when he began his mission."

To us, the last sentence of this stray waif floating upon the sea of newspaper comment is extremely touching. We have read nothing for a long time which we have thought of so often. It expresses what we had not conceived before seeing it in this form. The condemnation of the Jews and their cry of "crucify him," the arraignment before Pilate, the buffetings of the Roman soldiery, the last utterances upon the cross and the dying cry, are tearfully familiar to us all; but that the weight of his great mission bore upon him with such magnitude that he became prematurely gray, awakens a new thrill of compassion within us.

It is plain to understand from so many discrepancies in the testimony of those who wrote on the subject that there is no authentic description of Christ as he appeared on earth, in spite of the last comments of a sympathizing commentator. That of Lenticulas is plainly made up from imagination, credible as it may seem. Still it is singular that there should be no written description preserved by one who must have known him face to face and who seemed to have failed to have written out, for preservation, the characteristics of so wonderful a being. The fact of existence is authenticated in profane history, but his appearance is nowhere described so as to be reliable. Irenæus wrote from hearsay. The gospels are silent, also the apostolic fathers. A hundred years had elapsed before the discussion arose as to his fairness or ugliness. Justin Martyr, Tertullien and Cyril took the homely side of the argument, because of the passage in Isaiah which reads that he had no form of comeliness and no beauty that we should desire him. Ambrose, Jerome and their coterie declared the opposite, that he was beautiful. Reasoning from analogy the artistic and moral world have pronounced him the most beautiful type of a human being, and there it seems the matter must rest, until some stone tablet, like the Rosetta stone, shall be unearthed to tell us the truth. But for some cause the real physical appearance of Christ bids fair not to be known to his most devoted followers.—*Christian Advocate.*

"WHAT MEANEST THOU?"

"WHAT meanest thou?" were the words addressed to Jonah, when, under the displeasure of God, he was sleeping in the midst of the storm. He was a Christian, but a Christian asleep. Duty called him, danger threatened him, but the apathy of sleep was upon him. He was not awake to either the duty or the danger. The fact that he was inert and sleepy did not remove the duty, nor in the least diminish the danger. He was sleeping when any sane man should have been awake and putting forth all his efforts to save lives in such a storm.

What wonder that, in astonishment, they shake and arouse him, crying to him, "What meanest thou?" None but God and his own heart then knew the story of his disobedience to God's commands; and yet these people seem intuitively to have concluded that sleep, under such circumstances, was in itself evidence of criminality. They tried the lot, and the lot fell on guilty Jonah.

Alas! how many Christians sleep! Worldly people regard them with astonishment. If their faith is no fiction, how can such a stupor rest upon them? The duty of active service to God is a reality, the danger to impenitent souls is imminent, and to such poor, apathetic Christians, who cannot realize either of these facts, God will send some voice, in his providence, which shall startle them from out their stupor with the call, "What meanest thou?"

So Jonah saw great and sore trouble; but "when his soul fainted within him," then he remembered the Lord, and said, "I will pay what I have vowed."

Disciplinary trials await drowsy Christians. They are sent by a loving Father to recall us to a sense of our duty; and an aroused Christian conscience can only respond in this one way, and in penitence for past failure in duty cry with Jonah, "I will pay what I have vowed."—*American Messenger.*

A WRITER in the Evangelist has called attention to a small but very common error which older people as well as children make in repeating the familiar little prayer, "And now I lay me down to sleep." Probably there are few persons who do not use the definite article "the" before the word "Lord" in the second and fourth lines. By so doing they simply make an affirmation and not an invocation. This writer with very good reason holds that the prayer should be given as follows:

And now I lay me down to sleep,
I pray *Thee*, Lord, my soul to keep:
If I should die before I wake,
I pray *Thee*, Lord, my soul to take.

No man can be provident of his time who is not prudent in the choice of his company.

PERSONAL ITEMS.

Samuel J. Tilden Vanarsdell is the load which a Kentucky baby has thrust upon it at the very start.

Ex-Secretary of State McLinn, of Florida, one of the members of the famous Returning Board of that State is dead.

There is a report in San Francisco that Ulysses S. Grant, Jr., is affianced to a daughter of Colonel James C. Flood, the bonanza millionaire.

Mr. Archibald Forbes who has made so much reputation as a war correspondent, is going to Afghanistan to write up the expected war there.

A Chinaman in Paris committed suicide because his tormentors had cut off his queue. He fastened the cherished braid with pins to the place where it ought to grow, and jumped into the river.

In Paris, for a long time, Plon-Plon endeavored to live the life of a Roman. Hence his Pompeian villa of Diomede; but it failed. The Prince attempted baths after the Roman fashion, and they made the house too damp to live in. Gradually he got tired of being a Roman, and the villa Diomede was abandoned.

A commercial traveler at Marseilles having refused leave to his maid servant to take his daughter to the skating rink, they did not appear next morning, and on the bedroom begin burst open both were found suffocated. A note in the maid's writing said: "You shall no longer have your daughter; I take her to a better world." The ages were 26 and 14.

M. Kidiger, a Spiritualist, summoned before a St. Petersburg magistrate a few days ago M. Faustint, an Italian conjurer, on the charge of falsely representing himself as a medium. The magistrate, without entering into the merits of the case, dismissed it, on the grounds that the law recognizes no difference between spiritualism and conjuring.

Willie White was the three-year-old pet of a farmer's family at Fulton, Wis., and George Baumgartner, aged 16, was the drudge. George contrasted his own hard usage with the tender treatment of his employer's child until violent envy and hatred were the result. One day Willie was found hanged by the neck, his throat cut from ear to ear, and George was missing.

George P. Sickles, the father of General Sickles, is hale and hearty at the age of 81 years. He is a Spiritualist, and enjoys a matinee by the old masters every afternoon. He has only to rap on his table, when Beethoven, Mozart or Mendelssohn will appear and direct an invisible orchestra. The old gentleman frequently expresses surprise that his visitors do not hear the music as well as himself.

An appeal has been heartily responded to in England in favor of Buckstone, who was represented as in "absolute want." The veteran actor takes $300 a year from the theatrical fund, and John S. Clarke generously allows him $75 a month. The Queen has sent him $250, the Prince of Wales $125, and a knot of aristocratic patrons good sums making the subscription started by George Agustus Sala, very handsome.

The Rev. Albert Whiting, an American missionary in China, died of famine fever while ministering to the starving natives. The Governor of the province offered to defray the expense of sending the body home, and when it was explained to him that Americans did not share in the Chinese horror of being buried in a foreign country, he gave a plot of ground in which to make a grave, and deputed twelve Chinamen to worship the dead clergyman's spirit.

On the day Cardinal Manning assisted at the baptism in London of the Duke of Norfolk's son and heir, he celebrated mass and breakfasted at early morn in Liverpool, reached Norfolk House, St. James's Square, by 2 o'clock, paid a visit to the Archepiscopal residence at 4 P. M., caught the Liverpool express by 5 P. M, and addressed a large meeting of Roman Catholics on temperance in St. George's hall Liverpool at 10 the same evening. This is ecclesiastical activity for one over seventy.

At the carnival in San Francisco in honor of General and Mrs. Grant on Thursday evening, Mrs. Grant was presented with a bouquet composed of the flowers indigenous to the various countries she had passed through in her tour round the world. The flowers were placed in regular order, starting from Philadelphia and ending with San Francisco. The bouquet-holder, five inches long, was of pure California gold and inlaid with quartz and a collection of other metals found on the Pacific coast.

It was Prince Napoleon's speech in the Senate in 1861 which suddenly undeceived the world of its opinion of his stupidity. His splendid eloquence and powerful defence of democratic liberty took the world by surprise. If some actor who had played the part of clown for years had suddenly leaped into fame in one night as the greatest tragic actor of his time the effect could not be more startling and *bizarre* than the revolution which converted the Cloten of the Palais Royal into one of France's greatest orators. The fierce attack on the Orleanists called forth from the Duc D'Aumale a pamphlet and a challenge. The Prince read the pamphlet of *Egalite petit fils* and declined his challenge.

The late novelist, Charles Lever, being once in London with his daughter, absent from his Consuate at Trieste without leave, was invited to dinner by Lord Lytton. "Ah, Lever," said his brother novelist, as he came in, "glad you are come. You will meet your chief, Clarendon (then Foreign Minister)." "I fear I must retire, my nose is bleeding," he replied, making for the door, which at that instant opened, Lord Clarendon being announced. After shaking hands with the host, his lordship espied Lever. "Ah, Mr. Lever, didn't know you were in England; didn't even know you had asked for leave." "N-o-o, my lord," answered the witty novelist, "I thought it would be more respectfu to your lordship to come and ask for it in person."

Virgil James was dying at Little Rock, Ark. It was known that he had $5,000 hidden somewhere, and he was asked to divulge the secret before it was too late. "No," said James; "I will tell my sister when she comes." When he was nearly gone an old negro man, who formerly belonged to the family, went to the dying man, and, leaning over, said: "Mark Virgil, you can't live but a few moments longer. Tell me where your money is, and I'll tell her when she comes." "No," replied James; "I will feel better after a while. My sister will be here pretty soon." Thus, from time to time, he refused. His sister did not arrive. Faster and faster his life ebbed away. Bending over again, they entreated him to disclose his secret, but he died with it buried in his bosom, almost his last motion being a slight negative shake of the head.

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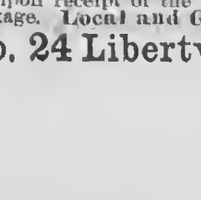

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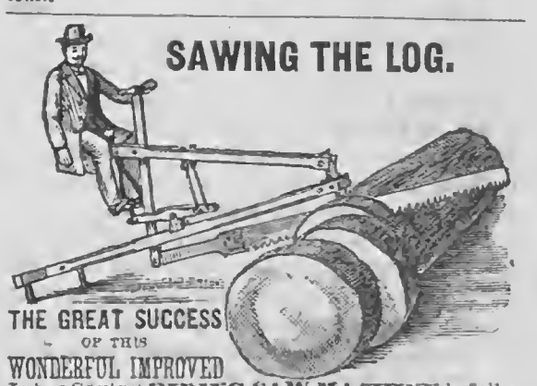

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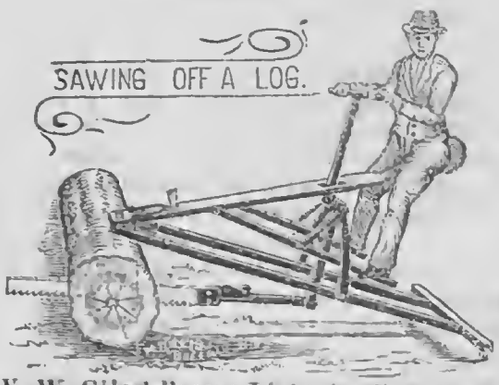

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PORK-PRODUCING VALUE OF CORN.

J. W. SANBORN.

In an article from Professor E. W. Stewart, in the RURAL of August 23, entitled "Pig and Corn Exports," the following sentence occurs: "When this corn is judiciously fed, it will make from nine to ten pounds of pork to the bushel." This estimate is a modest one, and quite within the limits of safety when fed under the conditions named by the writer. The estimate of ten pounds of pork for a bushel of corn is a common one, and seems to have been formed from reported results of good management with good animals. If this basis was a true one for good averages for the pig of the past, it is certainly a strong tribute to the skill of the modern feeder and breeder, for clearly it is not now a worthy product for a bushel of corn.

I say this in no spirit of criticism, for I am aware that there are but few reliable data before the public, upon which to base an estimate. It is in no spirit of presumption, therefore, that I offer, from personal experiments, a few facts that I believe to be of importance, because, in conjunction with the outcome of the experiments of others, they will aid in giving definite information in regard in the pork-producing capacity of a bushel of corn.

In the course of three years of food-weighing for pigs, I find that there are other foods that have a higher feeding value for pork-production than corn, and that they are also cheaper; but as corn only is under consideration, I will confine my figures to this food. The corn given in the experiment was fed only to pigs, and I may say that the pig should be fed only for profit. It is a well known, but indifferently observed, fact, that it is a law of animal growth that a young animal will make a pound of growth on very much less food than an older one. In feeding experiments I am constantly noting corroborating facts, yet farmers ignore in practice this law both in pork and beef production, entailing a great loss upon our agriculture. Making a specialty of early pork and beef production will do much to restore these industries to favor in the East. I will not give the details of the many weighings of food and of pigs, as the condensed results will cover the point of inquiry.

Several lots of Chester White grade pigs of two in a lot, have been fed from the time of weaning until they would weigh, dressed, in round numbers, 200 pounds each. These pigs have been put in pens, from which everything that they would consume was excluded, and their food consisted of weighed corn meal moistened with water—and nothing else. The first year, 1877, 100 pounds of meal made 24.8 pounds of growth. The second year 100 pounds of meal made 24.8 pounds of growth. This year's results are not completed, but are more favorable than heretofore. They will dress when fed and fattened thus: 82 pounds per 100 pounds of live weight; or, one bushel of corn would give 11.38 pounds of pork. It would be proper to say that I do not think this method of feeding is calculated to give the best results that may be gained from corn meal. The experiments in question were comparative, and were not designed entirely with reference to economy. It is perfectly safe to assume that one bushel of corn will make 12 pounds of pork. In fact, I find among my records instances where results far exceeding those given, have been realized.

I have stated what I believe may be an average result from a well bred pig judiciously fed.

Agricultural College, Hanover, N. H.

AN ABORTIVE INSURANCE LAW.

We asked of our Legislature a good law for the organization of mutual insurance companies. What have we got? A law which prohibits the insurance of any building that is not detached one hundred feet from any other building, which practically shuts out nineteen-twentieths of all the farm buildings in the State of New York; a law that authorizes the president of any company organized under it, to sue and collect any assessment of any member, but fails to give the latter in return any power to sue and collect of the company, if it fails to perform its part of the contract. It limits the territory of any company to a single county, thereby making it impossible to build up any strong mutual companies, and impossible—even if it were advisable—for at least three large companies, now doing business in two or more counties, on the honor plan, and carrying six or seven million dollars at risk, in the aggregate, to organize under it. It attempts to go into details of bye-laws and rules, which had much better be left to each company to regulate for itself. In fact, it is a perfect failure, and we want the Legislature to wipe it out and try again.

Meanwhile, let every farmer in the State of New York, when he goes to the polls next November, see to it that his ballot has the names of men on it who will *honestly* try and give us a good Mutual Insurance Law, as well as relief from unequal taxation and unequal freight discriminations, whether he can vote a straight party ticket to do so or not. Attend your primary caucuses and get such men nominated, and then go to work and elect them. If you have not got a co-operative mutual company already organized on the honor plan in your locality, go right to work and organize one. Don't wait for any law, or deceive yourselves with attempting to organize under the present "bastard" statute. A good law will come in due time, if we all work with a will.

G. L. P.

Ridgeway, N. Y., Sept. 11, 1879.

FORBEARANCE.

Young Lady.—"JOHN, how long shall you be, as I want to practice?"
Gallant young Gardener.—"Oh, go ye on Miss AMY,—go ye on! I shan't mind your noise."

WHAT OTHERS SAY.

PRESIDENT T. T. LYON, speaking in the Mich. Farmer of new grapes shown at the meeting of the American Pomological Society at Rochester, says: "The committee on new native fruits had an arduous task to perform, and they felt compelled to be very conservative in their decisions, in consideration of the very high character and the close competition of the new seedlings. The committee, judging, of course, only from what they saw before them, awarded the meed of superior quality to the Duchesse. The others would, in our estimation, judging from flavor, texture, size of bunch and general appearance, rank about in the following order 1st. Niagara, 2nd, Prentiss. 3rd. Pocklington. The last, however, was not fully ripe, hence our estimate of it might under more favorable circumstances undergo a change. The Pocklington and Niagara are very large and showy in both bunch and berry; the Duchesse rather small in berry, but with a good-sized, rather loose bunch. All are claimed to be satisfactory growers, with strong, healthy foliage. The Prentiss is well up to the best in quality, with a compact, medium-sized bunch, and a large berry. It is sure to prove an excellent keeper.

FAIR NOTES.

PRESIDENT WILDER, in reviewing his life-long work in the cause, and his present inability for active labor, urged upon the American Pomological Society the acceptance of his resignation. The Society, however, by a unanimous and standing vote, decided to continue his presidency.

Notes from Broome Co. Fair.

ON September 23d, 24th, 25th and 26th, the Broome Co. Agricultural Society held its ninth annual fair at Whitney's Point. The weather, with the exception of the second day which was rainy, was all that could be desired. The exhibits in all classes were larger than ever before, the total number of entries being about 1,500. It was estimated that there were about 8,000 people on the grounds during the third day, and about 10,000 the last day. The entries of pure-bred stock were large. E. C. Holden, of McGrawville, led in the pure-bred Ayrshires, which numbered seventeen in one class. A. P. Baldwin, of Pitcher, took the lead in Devons. In Holsteins, George S. Blodgett made the finest display, taking six premiums. In Jersey's, Dr. E. G. Crafts had the most entries. The displays of sheep and swine were the largest ever made here. The poultry show was immense. There were twenty-eight coops from East Scott, Cortland Co. There were about 130 entries of hogs made. Bradly & Co., of Syracuse made the best show of farm machinery. There were 800 entries in Floral Hall, consisting of flowers, fruits vegetables, canned goods, needle-work, etc. The display was a third greater than usual.

M. B. D.

Premiums for Swine.

At one of our principal fairs recently, the writer overheard a conversation between several prominent swine breeders in regard to premiums for swine. Said one:—"I have found it useless to exhibit anything but a Poland-China for a sweepstakes premium, for the largest hog always takes the premium, though, for my part, I prefer some of the smaller breeds, the Berkshires, for instance. The Berkshire makes better pork than almost any other breed, and its hams are the finest in the world." Said another; "My experience has been the same. Now the Essex is one of the finest hogs that there is; but it stands no show for a premium in competition with other larger breeds."

The above forcibly shows the fact that size is the principal thing taken into consideration in awarding premiums to swine, instead of quality, and I think that the experience of nearly every breeder will confirm the statements of the gentlemen quoted. Is this as it should be?

Is there nothing so desirable in a hog as size? Are not fineness, ease of keeping and fattening, quiet disposition, and early maturity as desirable as size? If not, then the present method of giving awards is just; but if they are, is it not time for a change to be made?

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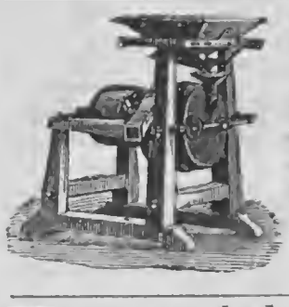

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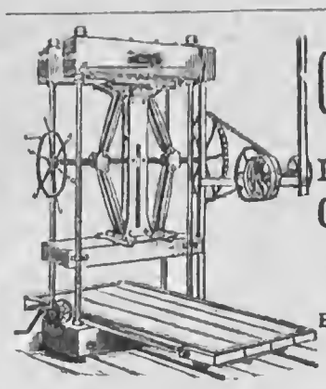

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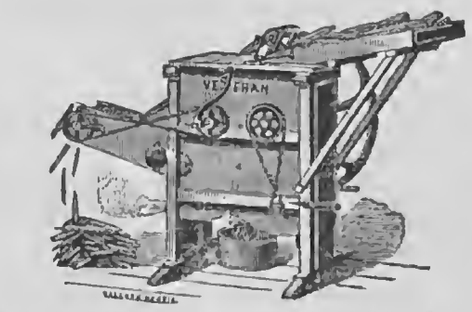

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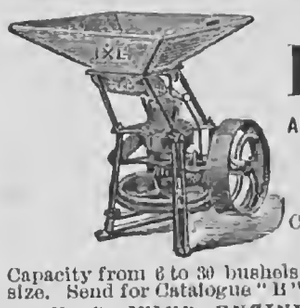

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A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME.

VOL. XXXVIII. No. 42.
WHOLE No. 1551.

NEW YORK, OCT. 18, 1879.

PRICE FIVE CENTS.
$2.00 PER YEAR.

[Entered according to Act of Congress, in the year 1879, by the Rural Publishing Company, in the office of the Librarian of Congress at Washington. — Entered at the Post-Office at New York City, N. Y., as second-class matter.]

Field Crops.

Potato Number.

COMPOSITION, MANURING AND FEEDING QUALITIES OF THE POTATO.

PROFESSOR G. C. CALDWELL.

Composition of the Potato.

THE results of seventy analyses of the tuber, by various chemists, embracing a great many varieties and modes of culture, are summed up in the following table:

	Minimum.	Maximum.	Average.
Water	68.29	82.88	75.77
Nitrogenous substance	0.50	3.60	1.70
Crude fat	0.05	0.8	0.16
Non-nitrogenous extractive substances (starch, sugar etc.)	12.05	26.57	20.56
Fiber	0.27	1.40	0.75
Ash	0.42	1.46	0.97

As the result of fifty-three analyses of the ash of the tuber, we have the following:

	Minimum.	Maximum.	Average.
Potash	43.97	73.61	60.37
Soda	0.00	16.93	2.62
Lime	0.51	6.23	2.57
Magnesia	1.32	13.58	4.69
Ferric oxide	0.04	7.18	1.18
Phosphoric acid	8.39	27.14	17.33
Sulphuric acid	0.44	14.89	6.49
Silica	0.00	8.11	2.13
Chlorine	0.85	10.75	3.11

Six analyses of the tops give the following average results: Potash, 21.78; soda, 2.31; lime, 32.65; magnesia, 16.51; ferric oxide, 2.86; phosphoric acid, 7.89; sulphuric acid, 6.32; silica, 4.32; chlorine, 5 78. Potash and phosphoric acid are therefore the predominating ingredients of the ash of the tuber, and soda and silica are evidently quite unessential since they may be entirely absent; soda may also be entirely wanting in the tops.

From these figures it may be estimated that in a crop of 150 bushels weighing 9,000 pounds, and 600 pounds of tops, we should remove, of the three most valuable ingredients of plant-food, the quantities per acre given in the following table, omitting fractions. For the purpose of comparison, I shall give also the quantities of these three substances gathered by a crop of wheat, 25 bushels, and straw, 2,500 pounds; and of Indian corn, 50 bushels, stover 4,500 pounds, and cobs 600 pounds.

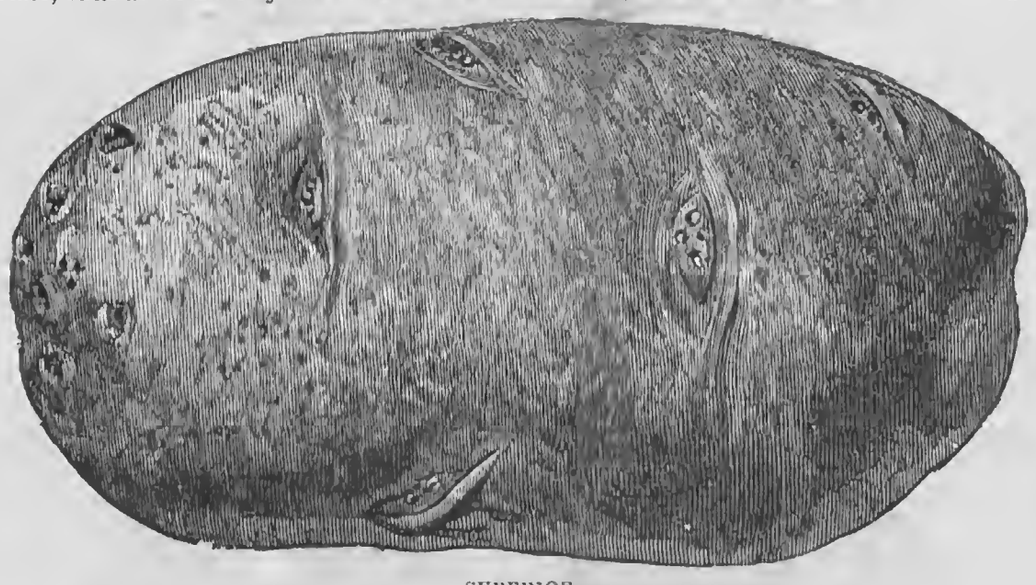
	Nitrogen.	Phos. Acid.	Potash.
Potatoes: tubers	26	15	53
tops	—	4	11
Total	26	19	64
Wheat: grain	30	13	8
straw	12	6	17
Total	42	19	25
Indian corn: grain	48	20	12
stover	22	23	41
cobs	2	—	4
Total	72	43	57

Manuring.

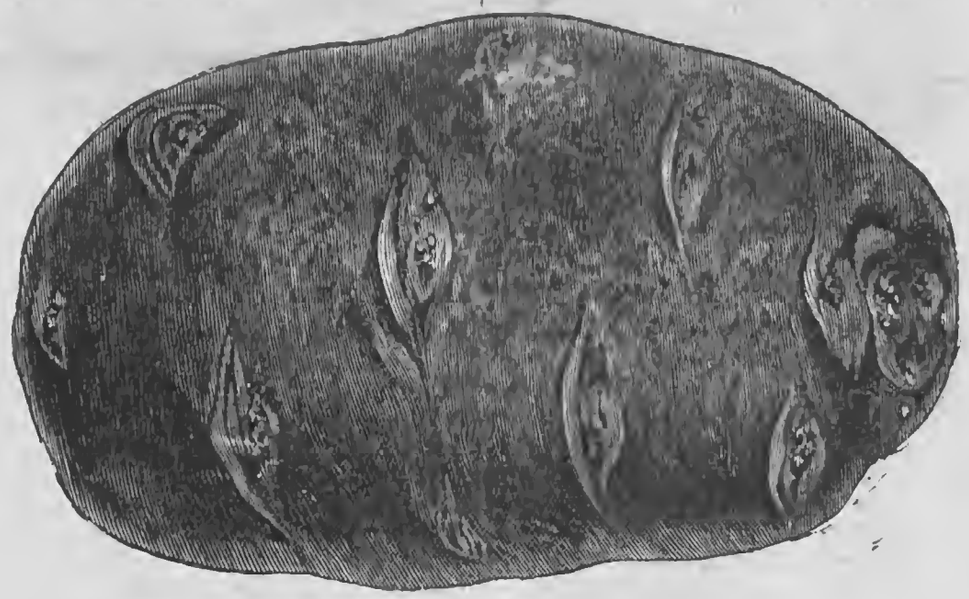
From these figures it appears that to produce the potato crop, potash is required in larger proportion than either nitrogen or phosphoric acid, and that more is required for this crop than for either wheat or corn, notwithstanding that the latter is such a gross feeder. When we come to consider the comparative exhaustion of the soil by the two crops, remembering that of the corn crop only the grain with 12 pounds of potash, is liable to leave the farm, while of the potato crop the tubers, with 53 pounds of potash from every acre, are usually exported, the usefulness of potash manures in potato culture would appear to be very plainly indicated. To the quantity of nitrogen gathered by the potato crop, as given in the table, something must be added for the tops, with reference to which we find no determinations of this element. Making due allowance for this, the best manure for the potato would seem to be a complete one; that is to say, one containing all three of these substances—nitrogen, phosphoric acid and potash, with a large proportion of the last.

No long and careful series of experiments have been tried with various manures and the potato, such as we have by Lawes and Gilbert with the cereals; but the general tenor of the results of such scattered field experiments as have been tried, supports this conclusion:—potash salts added to other manures, have, in most cases, increased the crop to a profitable extent, and, in some cases, very considerably. Of the two potash salts used for agricultural purposes in Germany, and brought over here, the sulphate and the chloride, the former gave decidedly better results in Grouven's experiment extending over three years; but refined Peruvian guano—guano treated with sulphuric acid—gave the best yield, much better than was obtained with stable manure. Bretschneider obtained excellent results on a good soil with potash salts alone, applied broadcast just before furrowing out for planting and harrowing in. Voelcker, as the result of field experiments conducted under his direction by several farmers, concluded that, for light land, 400 pounds of superphosphate, 200 of potash salts and 200 of sulphate of ammonia would be the most profitable manure, and that on heavy land the ammonia salts might be omitted, and a small quantity of nitrate of soda used. Other experiments, in Germany, have obtained the best results with sheep manure to which about one-tenth of potash salts had been added. Lawes and Gilbert have given the results of experiments for two years, which show much better yields with 400 pounds of ammonia salts (or 550 of nitrate of soda), 350 of superphosphate, 300 of sulphate of potash, 100 of sulphate of soda and 100 of sulphate of magnesia, than with 14 tons of stable manure. In the experiments conducted in New England under Atwater's direction, the most uniformly good results were obtained with a complete manure containing a liberal proportion of potash salts, 150 pounds of nitrate of soda, 300 of dissolved bone-black and 200 of chloride of potassium, costing $15.38 per acre, and yielding, in all but one of the experiments, from 40 to 130 bushels increase. But in a small majority of the same series of experiments, profitable results were obtained with either potash salts alone, applied at a cost of $4.50 per acre, or with superphosphate and nitrate of soda costing $10.58 per acre; that is, the increased crop would, at any ordinary prices, more than pay for the manure.

From a general review of all the results, it appears that on ordinary soils only complete manures are the safest, and that manures containing nitrogen alone, and no phosphoric acid or potash, are the most unlikely to yield profitable returns. The larger yield and the better quality of potatoes obtained by so many experimenters with commercial fertilizers than with stable manure, will suggest to the progressive farmer experiments on his own farm with these manures. Salt on potatoes, while it may occasionally somewhat increase the crop, impairs its quality by diminishing the proportion of starch.



SUPERIOR.



RUBY.

MANHATTAN.

Feeding Quality.

The first table given above shows how widely the potato may vary in composition, especially with reference to the albuminous substance, which is taken to represent the proportion of albuminoids. A share of this variation may be due to differences in variety, but it is caused also by different modes of culture. In one experiment illustrative of this, while in the potatoes from the manured plot the nutritive ratio was 1:9, in potatoes manured with stable manure and nitrate of soda, it was 1:6.5. But, although generally the richer an article of fodder is in nitrogenous substance, just in that proportion it is more valuable, this is not always necessarily so, for, as recent investigations have shown, this substance is made up partly of compounds of nitrogen that cannot in any sense discharge the important functions in the animal economy that belong to the albuminoids. In the potato but little more than half of the nitrogenous matter is albuminous. We do not yet know what variations there may be in the proportion of real albuminous matter, whether induced by different modes of cultivation, or the result of difference in variety.

The nutritive ratio of the potato, or the ratio of the albuminoids to the non-nitrogenous extractive matters, plus 2½ times the fat, is given in the books at 1:10.6; this is based on the assumption that all the nitrogenous substance consists only of albuminoids; this reduction in the proportion of albuminoids to about 53 per cent. of the total nitrogenous substance, makes still greater the already wide nutritive ratio of the potato, and increases the necessity of supplementing it, when used for fodder, with other materials, like bran or oil-cake, rich in nitrogen, it being desirable that this ratio should be 1:5 to 7 in all ordinary feeding.

POTATO CULTURE IN OHIO.

W. I. CHAMBERLAIN.

CERTAIN counties or parts of counties in northern Ohio seem specially adapted in soil and climate to the culture of potatoes. Such are portions of Lake, Cuyahoga, Portage and Summit counties. The "potato regions" lie chiefly on, or near, the bank of the lake or of the Cuyahoga River where the soil is a sandy or gravelly loam, where local showers are

frequent, and where drought seldom occurs. Showers seem, as we all know, to follow the water-courses, so that a strip two or three miles wide along the margin of lake or river, is often well watered when severe drought exists through the rest of the neighboring regions. Such favored localities are those mentioned above, and here the potato crop is almost sure. For even excessive rains in a wet season on the soil found there, do not rot the potatoes as in heavier soil. In these localities, therefore, potato culture is, wisely we think, made a speciality, many farmers raising twenty or thirty acres a year, or even more. And in fall and spring hundreds of carloads are shipped from the various railroad stations here to points all over the country. Of course, when the cultivation is on so large a scale, the most convenient tools and implements are used.

The Best Soil for the Potato,

as intimated, is considered to be a rich, sandy loam, sufficiently up from the bed of lake or river, if possible, to make it clear from early autumn frosts. On the lake shore, however, the large body of water, cooling more slowly at night than the land, is of itself considerable protection against frost. This matter is of great importance in case of the Peachblows and other late varieties; for, on low ground, they are often cut off by frost before maturity.

Manuring

in the hill is always objectionable. It is too much work, for one thing; but the main point is that it injures the quality of the potatoes to have manure directly in contact with them while they are growing. Broadcast manuring is not so bad, but even then the manure will get in contact with the tubers, more or less, as they form. A better way is to have the ground sufficiently enriched with a previous crop. A common and much approved practice here is to turn under a rich clover sod late in May, and plant about the first of June. There is by that time a heavy growth of clover, but if it be rolled with a heavy roller in the direction it is to be plowed, and then plowed with a good jointer plow, such as the "Oliver" or "Syracuse" or "Gale," with a heavy chain from end of evener to plow beam, in case of a very heavy crop, the clover will disappear entirely, and never interfere with the planting or cultivation of the crop, but will remain beneath the surface, a constant source of fertility and moisture through the entire season. Potatoes on such ground will stand quite a severe drought. Late

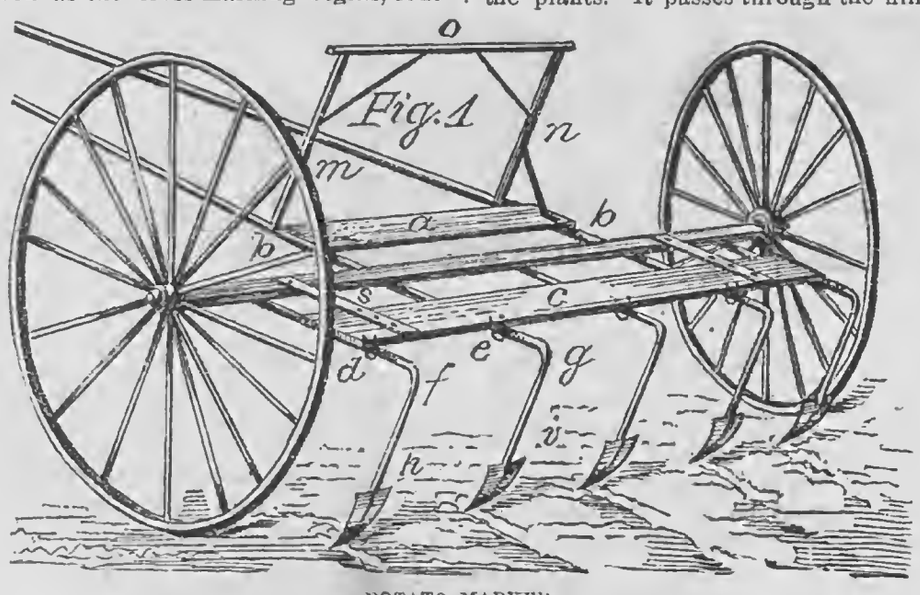
Planting

has come much into vogue here, especially since the advent of the Colorado beetles. It saves the fighting of one crop of bugs, which is quite an item on a forty-acre field. Late varieties, especially Peachblows, do not form much until the cool nights come, in late August and September, so that it is found that when planted late, they mature about as soon as when planted a month or even six weeks earlier. They come up more quickly and grow far more rapidly at first; the ground remains more mellow, and six weeks' extra cultivation of the ground and fighting of weeds are avoided. I have known Peachblows planted as late as June 15, on high ground, to mature a splendid crop before frost. Another advantage in late planting is that it permits the planting and sowing of oats, corn, barley and other spring crops to be entirely finished and out of the way before we begin on the potatoes.

But if the work is deferred so long, it must be done promptly and rapidly when once begun. The cultivator and harrow must follow closely upon the plow, and the marker closely upon the harrow, so that almost as soon as the last furrow is turned, the marking is done one way. Then the marker is started crosswise and the planting at once begins. The horse-power dropper and coverer is not used because it does not do the work with sufficient accuracy for hill culture. The marker most approved here is a home-made one on wheels, which makes three, four, or even five deep, plain marks. It is arranged somewhat like the two old-fashioned, stand-up, steel-tooth dump-rake.

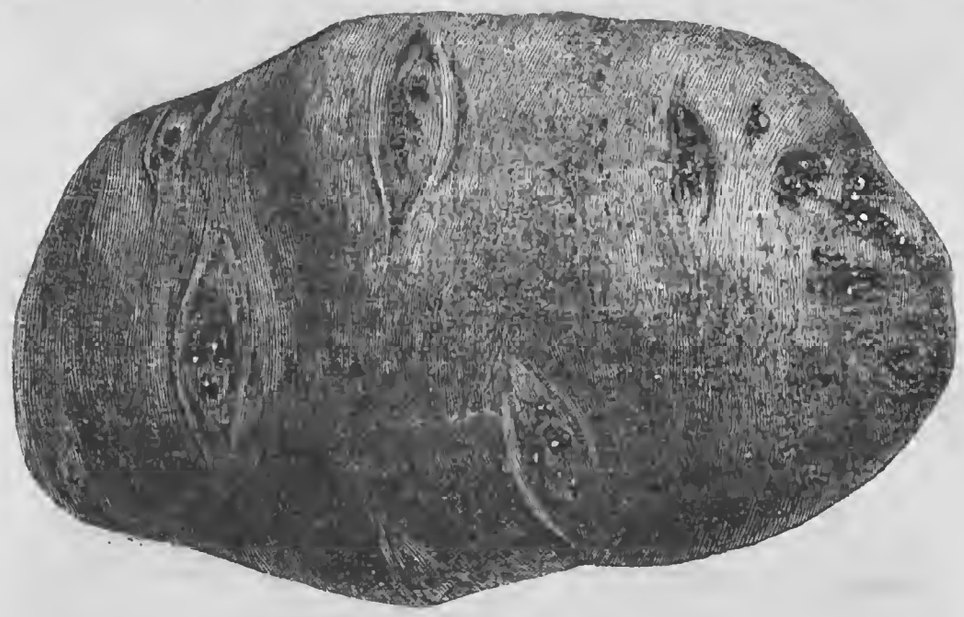
Fig. 1 represents such a marker made to draw five marks at once. The thills are joined to the axle by two long, strong, wrought-iron hinges, playing vertically, (b, b, Fig. 1. A platform, a, about a foot wide is bolted firmly cross-wise to the thills just in front of the hinges for the driver's left foot to rest on, and two standards, m, n, rise vertically from this, well-braced and with a cross-bar, o, for the driver's left hand to rest on, to steady him. Back of the axle is another long board, c, bolted firmly to the axle by the strong slats, s, s. This serves to keep the teeth in position, and is for the driver's right foot to rest on. The teeth, h, i, and e, are wide, V-shaped cultivator teeth bolted to strong iron rods, f, g, and e, that run back horizontally from the axle beyond the range of the wheels, and then vertically to the ground. The teeth can play up and down slightly to adapt themselves to depressions in the ground, but are held from dropping far by the staples, d, e. When the driver bears his weight on the rear platform, c, the teeth are pressed into the ground. When he bears it entirely on the front one, a, *in front of the hinges*, the concern "jacks" and lifts the teeth all from the ground, ready to turn at the end of the rows. A five-toothed marker will mark 25 or 30 acres in a day, one way.

As soon as the cross-marking begins, four



POTATO MARKER.

men begin the dropping, and one man begins to cover with a horse. Each dropper carries about half a bushel of potatoes in a bag, tied corner to corner, slung over the right shoulder and under the left arm, with its open end towards the dropper's right hand. A wagon, loaded with seed, stands at the middle of the rows, and is drawn slowly across the field as the planting progresses, so that its rear end shall always be near the rows that are being dropped. A good, narrow scoop-shovel



ALPHA.

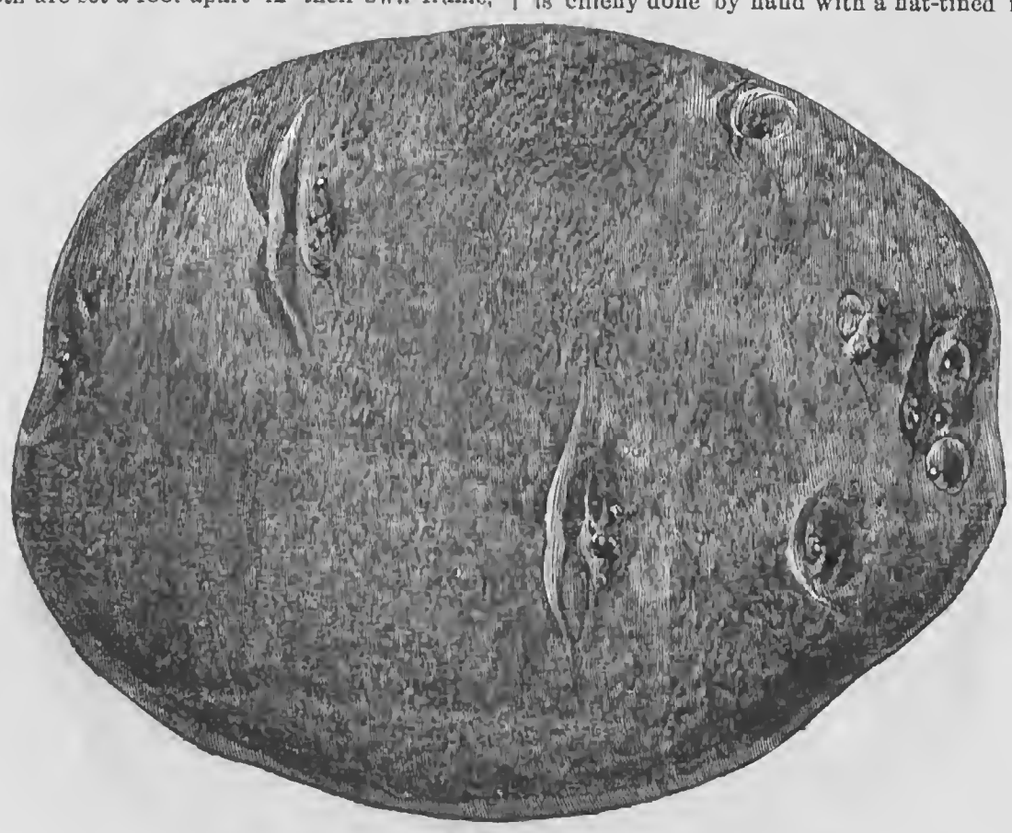
fills the bags readily. Each dropper drops a potato or large piece—never two—at the intersection of the marks and presses it firmly into the ground with his foot as he passes on. This tramping has two objects: first, to "firm" the ground around the seed; second, to prevent the seed from being knocked aside by the horse in covering, or by the harrow in after culture. A man covers with a horse as fast as three or four men drop. Two broad cultivator teeth are set a foot apart in their own frame, or one made on purpose, and turned so as to throw the dirt *in*. The horse walks on the mark, and a neat ridge of dirt is piled up all along the row. If it is desired to "firm" the ground above the seed, it is done with a roller afterwards. A fast-walking horse will cover eight or ten acres a day, as the draft is light and there is no stoppage or hindrance. The horse soon learns to follow the mark.

The After Cultivation

is done entirely by horse, and not at all by hand. As soon as weeds *begin to appear*, the Thomas smoothing harrow should be run over the field, demolishing all small weeds and nicely mellowing the surface. This harrowing should be repeated at least once a week till the potatoes are eight or ten inches high. The Thomas harrow is the only one I know that will do the work well and without damage to the plants. It passes through the hill among the plants, killing all small weeds, mellowing the earth in the hill, and entirely dispensing with hand hoeing. As soon as the potatoes are up enough to show the rows, the cultivator is used in connection with the harrow to secure deeper and more thorough culture between the rows, and to start the hilling. The final hilling, just before the plants begin to "lop" and spread, is done with a good winged shovel-plow. The wings are so adjusted as to throw and hold the dirt close around the vines and make a nice, square hill. Hill culture is preferred to drill culture for two reasons;—it gives a better chance for cultivation with the horse, and it makes the digging far easier. Flat culture, whether in hill or drill, is entirely avoided here, though much advocated in some places. It makes the potatoes hard to dig, and more liable to rot in wet seasons.

The Digging

is chiefly done by hand with a flat-tined fork or hook. With the former a live man can throw out from 50 to 100 bushels, in a day, of Peerless or Early Rose, when the yield is good. These varieties grow in a compact mass and can be thrown out clean at a single forkful, and a sudden flirt of the fork clears them of dirt as they strike the ground. Peachblows spread more in growing and are slower digging; but in the small, high hills they cannot spread very far. The rows are made narrow, usually from 30 to 34 inches apart both ways, and, as many sets per acre are thus planted as the ground can "carry." The vines, when thrifty, completely cover the ground.



BROWNELL'S BEAUTY.

The Varieties of Potatoes

most raised here are those best known everywhere, namely, Early Rose, Early Vermont, Snowflake, Peerless, Brownell's Beauty and Peachblow. The Victor is in high favor with producers, but not with dealers or consumers. And it is found necessary, in raising large quantities of potatoes to use mainly the kinds that sell by the car-lot on regular quotations, either to shippers at the carring stations, or to dealers through commission-men on consignment in the large cities. The Peachblow, the great stand-by for more than 20 years as a late potato, seems to be running out; it blights and does not mature. No new variety seems as yet exactly to take its place.

The Profits

of *successful* potato-raising are large—sometimes immense. I have known a large crop in the "off year," when prices were high, to bring about $150 per acre of gross receipts. But the Colorado beetle and the army-bug, together with the limited area thoroughly suited, in soil, climate and surroundings, for successful potato-raising, have combined to prevent such general over-production as to bring prices down to ruinous rates.

EXPERIMENTS WITH POTATOES.

PROFESSOR. W. J. BEAL.

For the past twelve years or more, many varieties of potatoes have been raised in the garden of the Michigan Ag'l. College. The potatoes have been studied more particularly for the past five years. For a considerable portion of of this time, about 250 of the most prominent named varieties have been grown. The soil is somewhat variable, though it has always been sandy and generally of rather poor quality brought up to good fertility by horse manure well composted. For most of the time the potatoes have been grown on what is called "old land," that is, there was no sod turned under. For the past three years they have been on sod ground, sometimes twenty hills of a variety, and from this down to one, two, or three hills.

In 1868, the highest ten in yield ranked in order as follows: 1, Chenery; 2, Cuzco; 3, Cascoe; 4, Forfarshire Red; 5, Harrison; 6, Shaker's Fancy; 7, Strawberry; 8, Orono; 9, Chili No. II.; 10, Dana's Seedling.

In 1874, the highest ten in yield ranked in order as follows: 1, Climax; 2, Lady Finger; 3. Jersey Peachblow; 4, Early Favorite; 5, Peerless; 6, Breese's King of the Earlies; 7, Kearsarge; 8, British Queen; 9, Snowflake: 10, Tyrrell. The following varieties were not compared with the above list, viz.: Compton's Surprise, Early Vermont. Probably the latter on that year excelled all those named above.

In 1875, the highest ten ranked as follows: 1, Early White; 2, Early York; 3, Early Favorite; 4, Carpenter's Seedling; 5, Pond's Seedling; 6, Early Goodrich; 7, White Rose; 8, Red Jacket; 9, Seedling Mercer; 10, Ice Cream. The Climax was watery and of poor quality This was true of some of the others, but they were not all tested in this particular.

In 1876, the highest ten in yield were: 1, Long Pond (probably Pond's Seedling); 2, Missouri Round; 3, Breese's Prolific; 4, Snowflake; 5, New Kidney; 6, Early Don; 7, Ohio; 8, Early Violet; 9, Early June; 10, Whipple's Seedling.

In 1877, they ranked as follows: 1, Pond's Seedling; 2, Bulkeley's; 3, Climax; 4, Galva; 5, Worcester's Seedling; 6, Early Russet; 7, White Rock; 8, Early Mowhawk; 9, Bulkeley's Seedling; 10, Dyright.

By these figures, of the yield of potatoes planted in small quantities, we may learn something:—We see that they vary in rank; that they should be raised in large quantities on even soil for several years in succession. Then, the quality is a matter that cannot be measured in the half bushel. Some experiments were made in trimming the tops. This, on a fair trial, proved to diminish the yield of the tubers.

Will Potatoes Run Out?

An article on this subject by the present writer was printed in the RURAL some time ago. Further tests since then have resulted the same as those then reported. Those sorts which have been long kept here, have all decreased in yield and most of them have deteriorated in quality. The cultivation has been good in every respect, so far as I can judge, except that for most of the time they were not planted on sod ground, or on new ground. Quite a large number of those first raised have run out. We have lost the seed, as the plants dwindled and failed to set a single tuber. We do not claim that they would run out if treated in every respect first-rate; but, as ordinarily treated, they often, if not always, run out or nearly out.

In some portions of the South, seed is imported from the North every year. The seed

raised in the South is unfit for seed. Let any one look around him for any of the old favorites of 20 years ago or more. Where are they? Many of our new sorts are no better, nor are they more productive than were once those old varities. The old kinds have deteriorated and the new have taken their places; at least this is true so far as the author can learn. This may not be the case in some places which are most congenial to potatoes. The raising of new varieties is as easy as the raising of new sorts of tomatoes. The plants should be started in the spring in a similar manner. The yield is often surprising on the first year. In most places there will be a demand for new varieties every few years. The Early Rose is still popular here, but is evidently on the decline.

Mr. Gulley, foreman of our Horticultural Department, furnishes the following as some of his observations for last year. Most of those he mentions were raised on sod ground in small quantity and for the first time in our garden. They were planted the 20th of May. On August 12th, the following were ripe:—Early Ohio, Bliss's Triumph, Early Goodrich, Extra Early White; on August 19th, Granite State, Carpenter's Seedling, Acme, Bulkeley's Seedling, Red Jacket, Beauty of Hebron. It is fair to say that Alpha is very early, but was not included in the trial above. It was raised in another place. It is one of the very earliest. Other varieties ripened from September 1st to the 15th. The most productive were Burbank's Seedling, Beauty of Hebron, Mammoth Pearl, Garrison's Seedling and Genesee County King.

Michigan Agricultural College, Lansing.

NOTES ON POTATO CULTURE.

E. J. BROWNELL.

SINCE the Colorado beetle became so troublesome, I have attempted to grow only potatoes enough to make sure of a family supply, for a small patch thoroughly cultivated and well taken care of, is more profitable than a large piece, half-cultivated, the vines in which when about half-grown, are abandoned to the ravages of the beetle, as I have seen to be the case with many pieces during the past two years. But, if a small piece can be grown with profit, so can a larger piece, if given the same care and attention, and an observation of a number of years, proves conclusively to my mind that, taken for a series of years in succession, there is no single crop that will afford, or at least has in this locality afforded better profits than potatoes.

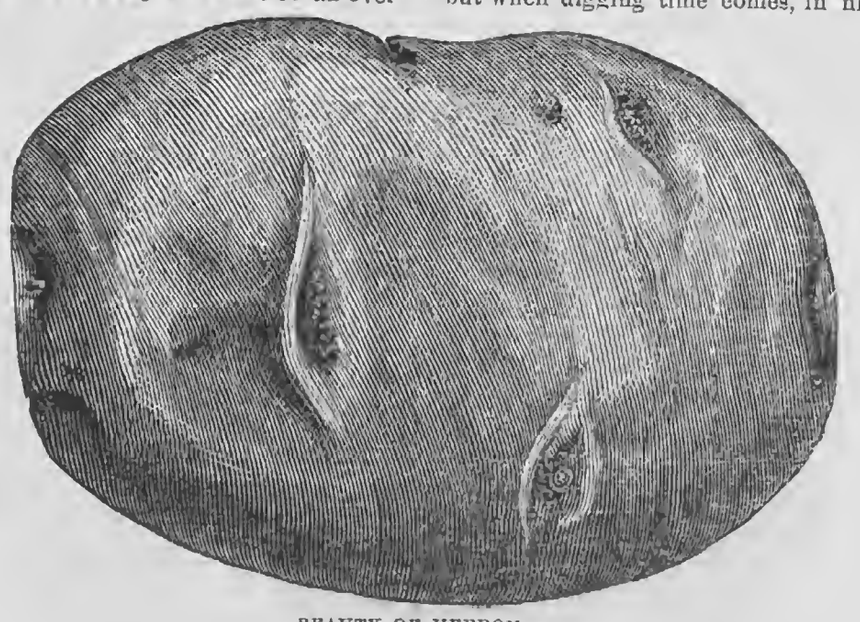
IN SELECTING GROUND for this crop I should look first to the quality of the soil, and, after that, to ease of cultivating it, but between two pieces, one of which was wet and heavy, and the other dry and favorable, except being stony and somewhat harder of cultivation, I should give the latter the preference, as the difference in the quality of the product, even though the quantity might be the same, would be enough to more than compensate for the difference in the trouble of cultivation. Of late years I make it a rule to plant on land that is in a condition of sufficient fertility to produce a good crop without manuring for the current year. I believe the application of barnyard manure directly to this crop, has a tendency to cause the potatoes to rot: and, moreover, I think they are coarser in quality. Perhaps this objection would not apply to the use of superphosphate; at least so some claim, but as I have never experimented with it on potatoes, I do not know what the effect would be. I usually apply unleached ashes as soon as the potatoes come up, at the rate of about a handful to each hill, and I think this improves the quality, as well as adds to the chances for a good crop.

IN PLANTING, if the ground is sufficiently mellow—and on this account I prefer a piece that has been cultivated the previous year, usually either in corn or buckwheat—after thoroughly dragging it, I plow a light furrow in which I drop the seed, and throw another furrow over it. Then, when the tubers begin to appear above the surface, I go over it once with a drag lengthwise of the rows, which levels it down and destroys the weeds leaving it clean, without injury to the crop.

IN SELECTING SEED, I pick out the medium-sized potatoes and cut them so as to leave three or four eyes to each piece, and plant one piece in a hill, the hills being about eighteen inches apart, in rows about three and one-half feet apart.

IN VARIETIES I have found nothing yet that, for all purposes, suits me better than the Early Rose, though the Late Rose yields somewhat better, and is of fair cooking quality; and the Snowflake, though not yielding quite as well, cannot be excelled in quality.

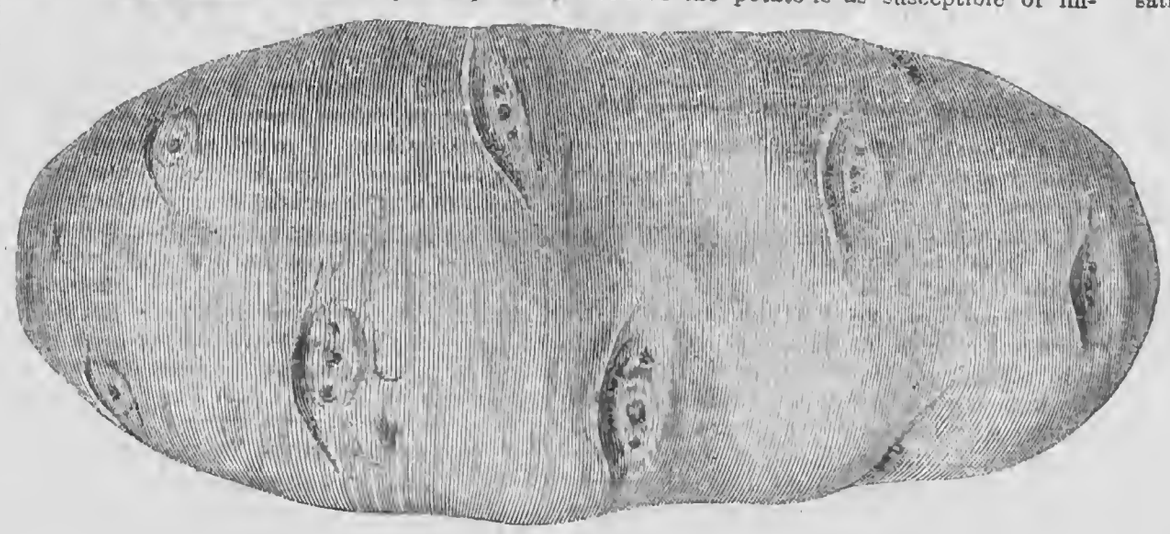
FIGHTING THE COLORADO BEETLE.—Now, I have the potatoes planted and the vines above ground, and here comes the trying time; for the potato beetle has been watching for their appearance, and is in readiness for operation. At the risk of being called "old-fogyish," I shall venture the opinion that it is preferable to hand-pick the pests rather than to use Paris-green, as is commonly done. In my field of about one-half acre, to which none was applied last year, the tops remained green until the potatoes ripened naturally, while there was not a piece in the neighborhood, on which the poison was used, the tops of which did not die down when the tubers were about half-grown. There may have been some other cause for this difference, but it seems to me worth a trial to ascertain positively whether this is the effect of the poison. I know the advocates of its use will claim that it is only the result of an over-



BEAUTY OF HEBRON.

dose that proves thus injurious, but if an overdose has this effect, is it not proof that even a small quantity is injurious, to some extent?

My mode of hand-picking is to take an old pan and hold it under the vines, and, with a piece of shingle, give the latter a light rap, brushing the beetles off into the pan; then I kill them by pouring on them scalding water. I took some pains to make an estimate of the time spent in this treatment last year. I could go over the whole field in two hours, and by doing so twice, or, at most, three times each week, I was successful in preventing the enemy from doing any injury to the crop. If possible, I shall hereafter plant potatoes where I can give the hens the range of the field, and, by scattering corn among the vines, shall try to get the fowls to work there, as I am satisfied that they will pick off a good many of the beetles; and if there are fowls enough in proportion to size of field, they will keep the pests off entirely, for on a piece I planted last season, for early use, where the hens ran a good deal through the season, they kept the vines entirely clear of bugs.



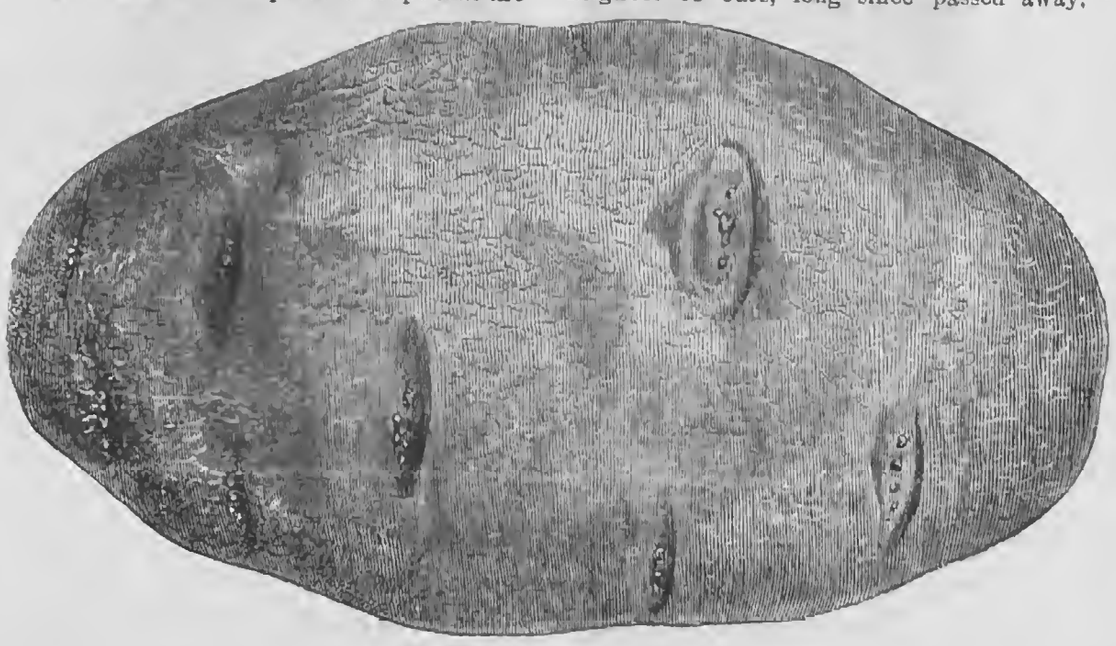
ST. PATRICK.

HOW TO KEEP POTATOES FROM DETERIORATING.

THE potato will be acknowledged by all to be one of the most important crops that the farmer raises, ranking next, at least, to the great bread staples, wheat and corn. In fact I hardly think that an entire failure of the corn crop would be felt more than an entire failure of the potato. And yet, as ordinarily cultivated, we find the potato constantly deteriorating, "running out" as we say. To remedy this, men all over the country are every year producing new varieties. These being given the "highest" kind of culture, produce well, and are thrown on the market and sold to the farmers in small lots at exorbitant prices. The farmer, wishing to get all the seed possible from his new potatoes, again gives them extra garden culture and is well satisfied with his purchase. He now has seed with which to plant his fields. The next year he plants them, and gives them ordinary field culture; but when digging time comes, in nine cases out of ten, he finds that he has spent his time and money "for that which is naught," the old varieties doing generally as well, and sometimes much better than the new.

Now, I believe we are altogether on the wrong track in this matter. I believe if the time and money spent in producing and testing new varieties were expended in improving and perfecting the old, well-established sorts, we should be better off; for I think by judicious selection of seed and proper cultivation, the old varieties may not only be kept from "running out," but may be greatly improved. I believe the potato is as susceptible of improvement as any of the grains. What farmer would go to his corn crib and select his seed promiscuously therefrom, and if corn happened to be a little higher-priced than usual, select the nubbins and pig corn, reserving the best to sell, and not expect his corn to "run out"? And yet that is the way very many farmers manage with their potatoes, and then have to keep changing their seed because their varieties "run out."

There are perhaps but few of the older farmers who do not recollect the old Long Pinky potato, one of the best potatoes ever raised in this country, a potato of medium size, with now and then one quite large. Some forty years ago, when I was but a boy, I recollect a neighbor of ours, long since passed away,



EXTRA EARLY VERMONT.

always selected the largest potatoes of that variety for seed, and in a few years his Pinkies had improved in size until a load of them was a beautiful sight, always meeting with quick sales and good prices, for the times.

Now I will give my theory in regard to the improvement of the potato, a theory which I intend to put into practice in the future. As it will take sometime to fully test its value, I hope that many of my brother farmers will join with me in carrying out some such plan by which varieties of potatoes may not only be kept from deteriorating, but may be improved.

Perhaps all who have dug potatoes have noticed occasionally a hill of large yield of large, uniform-sized tubers in comparison with those from the surrounding hills. I would select a half bushel, more or less, from such hills to commence my seed patch. I would keep them at such a temperature that they would be sure not to sprout until I wanted to plant them. I believe the first sprouts have far the most vitality and that all others have a tendency to deterioration, so I would get them into the ground with their first sprouts perfect, not more than four to the hill, and not cut too near to the eye. I would give them *good* ordinary culture. From this patch I would again select from those hills that gave the best yield of good-sized tubers, reserving the rest for general planting.

If this were done for a series of years, I believe the potato might be bred up to as high a standard as any of our grains or even our farm stock.

W. E. MANCHESTER.

Lackawana Co., Pa.

POTATOES FOR THE NORTHWEST.

S. RUFUS MASON.

FOR an early potato for Nebraska, none has done so well in my land, a black, sandy loam, as the Extra-Early Vermont. It is nearly two weeks earlier than the Early Rose, two-thirds more productive, dry and mealy from the first digging, and now—Sept. 22—as good as any potato I ever tasted. If it can be kept through the winter and spring, so as neither to freeze nor sprout, it might take the place of all late potatoes; but it is very susceptible to warmth and moisture, and should therefore be dug as soon as the vines die in August, to prevent second growth, and also be kept from sprouting in the spring till time for planting. I am satisfied that allowing potatoes to sprout out of season, is the main cause of their deterioration.

For a late potato, I know nothing better than the White Peachblow. To insure good tubers, plant in good, dry soil; cultivate once a week till blossoming; dig as soon as the vines die; store in a perfectly dark place, and prevent sprouting till time to plant. I believe this programme will suit the world over.

Soil For Potatoes.

There are few natural soils which are just right for a potato patch, but any soil may be made right, even upon the worst material for a foundation. The field should be high enough to be entirely free from standing water at all times, and may then be made perfect at little expense. If it is a heavy clay, it will be naturally cold and in suitable condition late, besides being cloddy and lumpy. To such a soil apply chips from the wood-yard, short straw, bottoms of old hay or straw stacks or any half-rotted, coarse manure. These have the effect to keep the soil open mechanically, to allow warmth and moisture from above to enter, to prevent baking in a drought and packing by heavy rains. If the soil is too sandy, work in muck, old, dense, well-rotted manure, light clay soil, or any friable material at hand. Any intelligent man can make a soil for potatoes, by giving it the following essential properties, using any artificial means he may have at command:—It must be medium between light and heavy; rich, but not with green manure; warm by a natural exposure to the east, northeast or south, but not towards the west, as it would then be too hot; moist by such openness and such friability of the soil as will enable it to extract its main supply of moisture from the atmosphere.

After giving the soil the additions which will produce this condition, it must be thoroughly worked once a week from the time the plants show through till they blossom.

A tight, hide-bound soil, makes small potatoes, poor seed and short crops; an open, loose soil allows the tubers to grow and crack the earth around the hill, to attain full size and to ripen well. To keep up the quality of potatoes, always save for seed the finest in shape, size, and maturity or ripeness. Cut to two eyes, with as much of the body of the potato to each piece as possible. In planting, put two pieces in each hill.

Dodge Co., Neb.

FIRST-CLASS POTATOES.

IT is surprising, almost incredible, that such a large proportion of the potatoes grown for home table use, and those which find their way to market, are not of the first quality. To grow fine-flavored, good-cooking, mealy potatoes for the table requires a soil and culture peculiarly adapted thereto, as well as a favorable season and weather. Just what the essentials may be will vary in different localities. Although the tastes of different individuals may

vary in regard to what constitutes first-quality tubers, yet vary as they do and may, there is scarcely any one who will not accept as good potatoes those that in boiling or baking, cook through evenly without any watery, salvey, or hard core, and which crack open evenly when lightly pressed, presenting a mealy mass, floury and light without being so dry to the taste as to be flavorless, and which, when eaten with a little salt, tempt the appetite to crave more of the same sort. Such potatoes I have received and tested from "potato breeders;" but I have seldom been able to grow them. The nearest I have been able to come to it, was growing on a sandy loam soil newly broken, with a light sod, like a clover sod, fertilized with plaster and ashes. Animal and farmyard manure, unless thoroughly rotted, I have found not good for the potato crop, and, when applied, it is better not to place it in contact with the tubers. On arable soil I have noticed that the best success was had on such as was in good heart from the manuring of previous crops, and which had not grown potatoes since broken from a sod, and that had been fertilized with mineral matter. Large growth of tubers I have observed to be less favorable to quality than a medium growth. The routine of culture will vary according to circumstances, so that it is not necessary to say farther here.

Worcester Co., Mass. W. H. WHITE.

NOTES FROM THE RURAL FARM.

Potato Tests.

THE potatoes given below were planted upon moist ground and manured with well rotted barnyard manure only. Cut to single eyes.

SEEDLING from D. S. Marvin; one potato, dark-red in color, narrow, long. Planted April 24—six pieces. Dug August 19. Weight of yield, four pounds.

EARLY ROSE.—Same date; one potato, four pieces. Dug August 19. Weight of yield, 9¾ pounds.

TROPHY.—April 26; four pieces. Weight 2¾ pounds. These resemble Beauty of Hebron in shape and color.

SEEDLING from John F. Beard No. 1; four pieces—April 24. Yield seven pounds—all large or medium. White, oblong, flattened.

SEEDLING from John F. Beard No. 2; four pieces. Yield 11½ pounds. Grow remarkably close in hill. Very white. Heavy, solid, of good flavor.

MANHATTAN.—Planted May 20; one potato of good size; eight pieces. Yield, 18 pounds. Light-purple skin, often splashed with white. Average large.

WASHINGTON.—Same date. One potato; seven pieces. Yield 12 pounds, some large, many small. Color of Early Rose, long, narrow; rather soggy when cooked.

EUREKA.—Same date. One potato; seven pieces. Yield 15 pounds. Color of Early Rose. Long, oblong, flattish; average large.

CENTENNIAL.—Same date. One potato, small; six small pieces. Yield six pounds. All medium size, roundish, prominent eyes. Reddish color.

BEAUTY OF HEBRON.—Same date. One potato, small. Six small pieces. Yield 10 pounds.

BURBANK'S SEEDLING.—Same date. One potato, small; eight pieces. Yield seven pounds. Resembles Beauty of Hebron. All medium.

EXCELSIOR.—Same date. One potato, small; six pieces. Yield four pounds.

IMPROVED PEACHBLOW.—Same date. One potato, small; five pieces. Yield two pounds.

EXPERIMENTS WITH POTATOES.

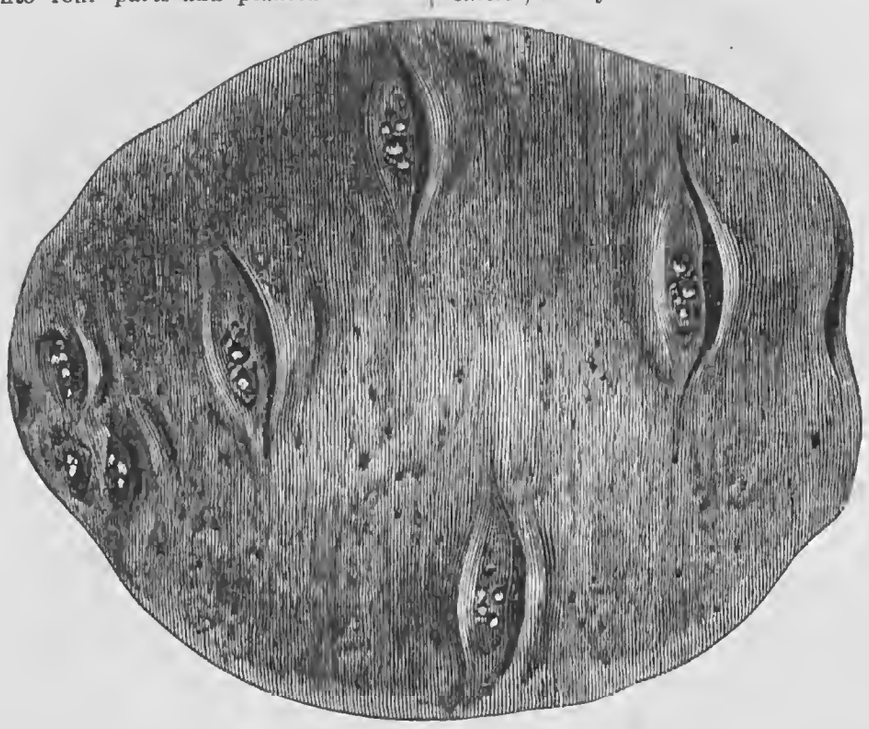
IN order to test the relative cropping qualities of the few varieties of potatoes I cultivated out of the multitude introduced to the public within the last few years, on the 5th of May I planted eight hills of each of the following kinds. The soil was a sandy clay loam—a clover sod. No manure was used. The tubers were cut to single eyes, and one eye planted in a hill. The care given all was the same in every particular. At digging time I selected four hills of each variety, with the following results when the respective yields were weighed:

Dunmore Seedling	13 lbs.
Genessee Co. King	26 "
Compton's Surprise	19 "
Early Rose	11 "
Late Rose	22 "
Tompkin's Surprise	10 "
Calico	9 "

Owing to drought during the past summer the yields were not large; but the figures show the relative productiveness of the various sorts.

I also made the following tests with and without fertilizers:—I planted eight hills of the same varieties under each condition, and out of these I selected and weighed the product of four. These weighed: — without fertilizer, nine pounds; with a tablespoonful of salt sprinkled at the roots of the vines after hilling up, 12 pounds; with a compost of one part of salt to five of unleached wood-ashes, 14 pounds; with one part of salt, five of unleached wood-ashes and three of decomposed heu manure, a handful of the mixture having been placed at the roots after hilling up, 22 pounds. I also used leaf-mold with splendid results.

Concerning the cutting of seed, I made the following trial in ten hills of the same varieties under each of the named conditions. 1st, I planted whole medium-sized tubers, one to a hill; 2d, medium-sized tubers cut into four parts, one piece to a hill; 3d, I cut to a single eye and planted one piece to a hill; 4, I cut one eye into four parts and planted one of



BLISS'S TRIUMPH.

these small sets to a hill. The result of each lot of ten hills was:—Whole tubers, 20 pounds; quarter tubers, 27 pounds; single eyes 38 pounds; one eye divided into four parts, 21 pounds.

A. CRAWFORD.

Lapeer Co., Mich.

POTATO NOTES.

D. S. MARVIN.

The "Rural" Seedling Potato.—(See p. 673.)

THE RURAL Potato Number is the appropriate place to make a record of a promising new seedling potato of mine. In order that a better judgment may be formed of its characteristics I mail herewith a typical tuber. I have named it the "Rural," for, like its namesake, it is in advance of others, the best for the farmer, well-bred, of high quality, healthful and refined. It is a seedling of Brownell's Beauty, three years from the seed-ball, and among six bushels—all there are of them—there isn't a single ill-shaped potato. The skin is white, rough and thick, so that worms can hardly affect the tubers which are of a medium and quite uniform size; the tops are small, healthy and expend all their energies in developing tubers. It will rank in quality with the Snowflake which it looks like; but it matures three or four weeks sooner and yields better. I should be pleased to have it tested on the RURAL Experimental Grounds, and perhaps the Conductors of the paper may like it well enough to distribute specimens of it among their subscribers after next season.

In comparison with it I have tested some others under the same conditions of soil, climate, manure, etc. Among these was the Beauty of Hebron which I find a valuable potato. The yields of it and of the "Rural" are about equal; but the latter matures much the earlier. The Beauty, however, has more large tubers, and more scraggy ones, and evidently belongs to the Rose family. The Garnet-Chili family, to which Brownell's Beauty belongs, I believe to be healthier and longer-lived as well as less subject to rot. The "Rural" keeps well and sprouts late in spring.

Planting Potatoes in the Fall.

The only other practical notes of value I have to record, relate to the success of some experiments I have now been carrying on, for a number of years, in planting potatoes in the fall, instead of in the spring. My attention was first directed to the subject from observing that volunteer hills from seed left in the ground, grew with greater vigor, matured earlier, and yielded better than those planted in spring. I have therefore found in practice upon a small scale, that there are really decided advantages in this new method. The work is done at a slack season when it can be well done, and the only objection is the danger of the seed freezing; but at the North where the snow lies deep, there is seldom any loss. The seed should be examined in spring, and if loss has occurred, the ground can be replanted, and will yield all the better for the fall fitting. A well drained, dry soil, must be selected, the tubers planted whole, and about four inches deep. I do not approve of planting very small, refuse potatoes; but a better crop can thus be secured than from large ones planted in the spring. The culture and other conditions and management are the same as in spring planting. It is a good practice to spread long manure over them in the fall and to harrow the ground early, before growth in spring, with a smoothing harrow.

Jefferson Co., N. Y.

POTATO CULTURE IN NORTHERN VERMONT.

T. H. HOSKINS, M. D.

IN the Vermont county of Orleans potatoes are, after butter, the money crop of the farmers. We all raise them, and many of us make them a specialty. The questions of how to prepare the land, how to prepare the seed for planting, how to plant and how to cultivate with an eye to the best results, are prominent topics among us. The following are the conclusions reached by, at any rate, quite a number of growers within my acquaintance. In

Preparing the Land

an effort is made to have a deep and mellow seed-bed. I have myself found the best success with potatoes after corn; the corn having been well dunged, the land fall-plowed after the corn is harvested, and again the last of April before planting time. But, unfortunately, not one-tenth as much land is here planted to corn as to potatoes, so that the great bulk of our potato crop is grown upon a reversed sod. The disc-harrow is an almost necessary tool for fitting this reversed sod for potatoes. Two methods of manuring are practiced: — the first is to spread the dung upon the sod in the fall, and not to turn it until spring; the other is to plow in the fall, dung in the spring and work fine with the Randall or La Dow harrow. In either case it is usual to use plaster, ashes, or superphosphate—the latter at the rate of about one barrel to the acre, applied in or near the hill. I think the best results follow fall manuring and spring plowing. In properly

Preparing the Seed,

it is generally cut, though a good many farmers drop in a hill one whole potato, just too small to be merchantable. My best results are uniformly from cut seed, and this planted as soon as convenient after cutting. Two eyes to a piece are enough. I never fail of a good stand this way; while in trying to "season the sets" by keeping awhile after they are cut, there is often a loss. Rolling the cut sets in plaster seems to at least do no harm. Two sets are dropped in a hill. In drills one is dropped every ten inches. As an almost universal rule,

Potato Planting

here is done in hills, so as to be cultivated both ways. A great deal of hand-hoeing is yet practiced, and is necessary where pains are not taken to have the hills at equal distances and in tolerably straight rows. Different implements are used for furrowing out and cross-marking. Share's horse-hoe, with the teeth removed and the wings closed, is the best tool I have ever used for the former. Chains attached to a pole work well for cross-marking. I have, myself, in planting potatoes after corn, found the best results from planting in drills. When the seed is covered four inches, there is no danger in cross-harrowing these drills with an ordinary harrow, just as the potatoes are breaking the ground. This, with two horse hoeings, makes clean tillage where the previous corn crop has been properly tended. Upon sod plantings the sloping-tooth harrows would be better for that purpose. Though it saves much work in weeding, and, indeed, renders hand culture unnecessary, this practice of harrowing potatoes comes very slowly into use. Hereabouts absolutely level

Culture

is not in all cases practicable with potatoes. But in drill cultivation, where the seed is put in from four to six inches deep, there is no need of hilling to secure the best results. Three-and-a-half feet is near enough for the rows in this way, and I prefer in the last cultivation to throw some dirt towards the vines to cover the small weeds, rather than to run the hoes deeply and closely enough to the row to eradicate them. Those who plant in hills, upon sod, usually hill up moderately at the last hoeing, but the hills are made low, broad and dishing.

The crops in this county are almost uniformly large. I think they will average nearly 200 bushels per acre. I know many large fields that go over 250, and occasional yields of 300 and even 400 bushels are reported. Early Rose is still the principal variety grown. Prices range from 25 to 40 cents; or, in exceptional years like the last, 50 and 60 cents. At the latter prices, they pay well; at the former, poorly; yet better now than cows, sheep or hops.

POTATOES IN CALIFORNIA.

LUTHER BURBANK.

IN California we have so many varieties of climate and soil that what thrives in one place may fail in another when the conditions appear to be about the same, yet the potato, like most robust-growing vegetables, may be grown from one end of the State to the other and from the mountains to the sea; but the best results in its culture are always obtained on a loose, sandy or loamy soil and in a cool climate. These conditions are found along the coast where potato culture and dairying are profitably carried on together. There the cool, moist trade winds and fogs from the Pacific, aid in retaining in the soil the moisture so necessary to the potato and in keeping the grass fresh and green for the dairy.

The markets of San Francisco are furnished with large quantities of early potatoes from the islands and banks of the Sacramento River and from the land around the city and half-moon bays, but the larger portion of the main crop comes from near Humboldt, Bodega, and Tomales Bays. Potatoes of excellent quality are also produced among the foot-hills of the Sierra Nevada and in various places in the central part of the State. In the warm, fertile valleys which produce the best corn and wheat, the yield of potatoes is usually small, though good crops of some of the early kinds may be raised if planted early enough to complete their growth between winter frosts and the hot, dry weather of June.

POTATO CULTURE here differs but little from that in the East. For the main crop the ground

CENTENNIAL.

is plowed rather deep soon after the winter rains are over. As the plowing proceeds, pieces of potato are dropped along every fourth furrow; the ground is afterwards thoroughly harrowed and, if still rough or lumpy, is rolled or "clod-mashed." A light harrowing as the vines are coming up, and one cultivating are usually about all the attention the crop receives until digging time.

THE DIGGING, which is always done with a long-handled shovel, is mostly performed by Chinamen who go from field to field pitching their tents near-by, where they board and lodge themselves until the season is over.

It is rather astonishing to see the dexterity and economy of muscle with which "John" inserts the shovel under a hill, usually exposing the whole lot at the first scoop. As soon as dug, the potatoes are stored in bulk in the field, or, more commonly, assorted and placed in gunny sacks and packed away in warehouses ready for shipment.

THE VARIETIES which do well here are not as numerous as they are east of the mountains. The "Bodega Red," a hardy, strong-growing kind, is the one almost universally planted for the main crop. It requires a longer season than any other potato grown. Of it there is a sub-variety (sport) having a white skin; the Red, however, is preferred by growers because, if exposed to sun and air, the injury is less apparent to the eye, although it is none the less apparent to the taste.

In the old potato-growing sections, both these sorts seem to be failing; perhaps from old age, but more probably from planting small ones from year to year and a lack of potash in the soil, which is sure to occur when land is long cultivated to potatoes. Most growers have found that a load or two of ashes or a few loads of well rotted straw-stack per acre, will double the yield. Both these fertilizers used to be thought worthless, but they are now carefully saved for this purpose.

Most of the new varieties have been tried here, yet only a few of them have been found profitable. Each locality has its favorite, the Indiana Premium and Late Rose are the best for *dry* land: Peerless, Snowflake, Jersey Peachblow and Burbank yield heavily on moist land. The potato beetle has not yet made its appearance in the State, or, if it has, no damage has been reported.

The late spring showers of this year gave an opportunity to plant later than usual; in many places fine fields may be seen growing, which were planted after removing a crop of hay or grain.

Early potatoes have been so low as hardly to pay for digging; prices are better now, but there is little prospect for any great improvement, for there is more land planted to potatoes here this year than ever before.

Sonoma Co., Cal.

FACTS ABOUT POTATOES.

HENRY STEWART.

Rotting.

THE most frequent cause of rotting of potatoes in pits or cellars is putting them away before they are thoroughly dry and well ripened. The safest way to manage them is to cover them from the sun while digging, as the heating is injurious. Then when well dried in the field, remove them to a dry, airy barn floor and scatter them on a straw bed a few inches thick and air them thoroughly. If the doors are opened for this purpose, the tubers must be kept from the light by a covering of straw. When it is dangerous to keep them longer in this way, they may be removed to the cellar and kept in barrels or bins with ventilating holes or spaces made in them. Potatoes thus cured will not sprout readily until the spring arrives.

The Feeding Value of Potatoes.

The actual money value of nitrogen and starch for feeding purposes has not been determined so accurately as that of the constituents of fertilizers. Now if we had such a guide, we could fix the price we could afford to give or take for any of our products. Unfortunately we are in the dark greatly in this respect. But from many actual tests and comparisons it is pretty well certain that a bushel of potatoes is worth 25 cents to feed, either to horses, cows or pigs. The 15 or 16 per cent of starch they contain is not the only valuable constituent: they have some albuminoids which are to be considered: 2½ pounds, of starch are worth one pound of fat or oil for feeding. Potatoes are then worth nearly as much per pound for the starch as any substance having six per cent of fat. The following comparison may not please a chemist but may be near enough for a farmer who uses the materials. Cotton seed cake meal contains 10 per cent of oil, at least that is all I have ever been able to get from several different samples by treating it with ether, and I have fed up some tons of it and tested every lot. But it has very little water, while potatoes have 75 per cent. If we equalize the two, then, as regards water and also equalize the starch with the oil in the above ratio, we have the following: viz.

	Fat.	Cost per lb. for fat or starch
Cotton seed meal dry	10 per ct.	2½ cent.
Potatoes dry	24 per ct. (equal to 60 per ct. starch.)	1⅔ "

This would tend to show that potatoes are a cheaper food at 25 cents a bushel, than cotton seed meal at $25 per ton, taking into account only oil in one and the starch in the other, and equalizing them. At this rate a good many potatoes might be fed profitably this year.

Cooking Potatoes.

Raw starch is only very partially digested in an animal's stomach, and the cells may be found in large numbers voided whole in the dung. But in cooking, the starch cells are burst open and the starch is rendered soluble and digestible. Therefore if it will pay to cook anything, it will pay to cook potatoes. When boiled and fed cold, they are excellent for horses; good for cows; and for pigs, boiled with corn ears, there is no more healthful or better fattening food than potatoes. Poultry are remarkably fond of them, and a few hot baked or boiled potatoes, right out of the oven or pot, will help to fill the egg basket about the holydays and later in the winter.

The Potato Rot.

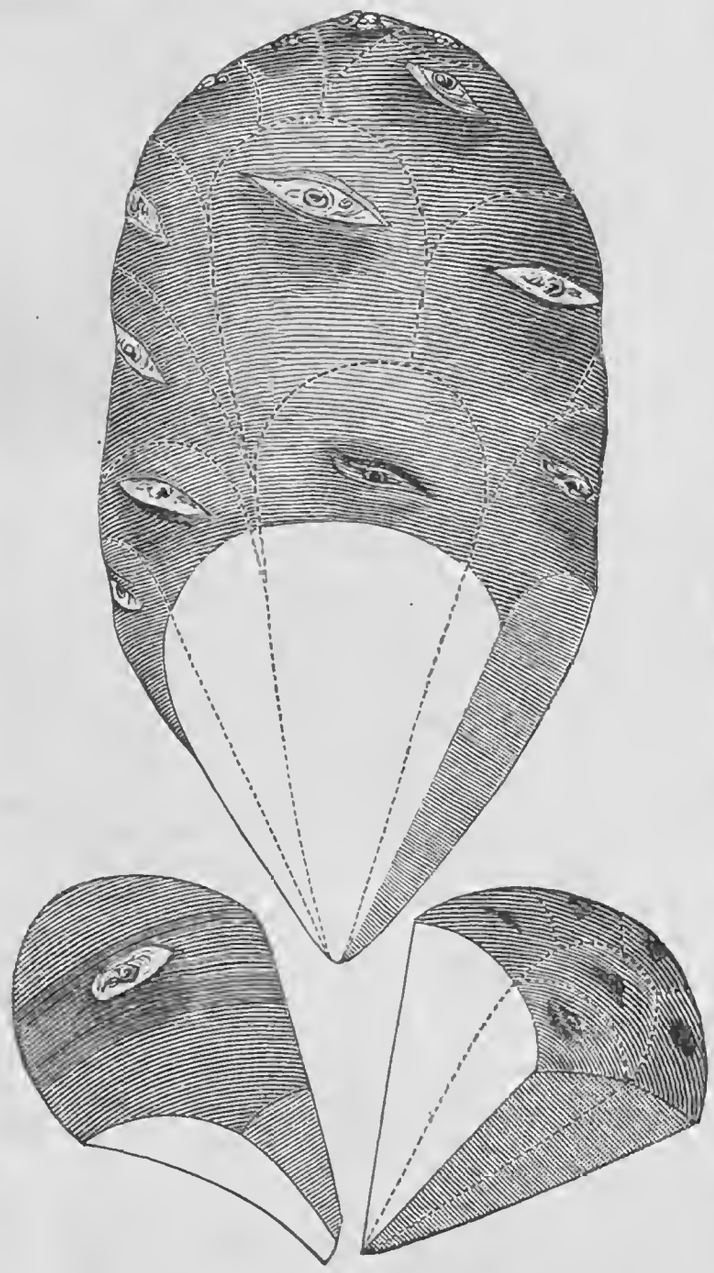
It is well-known now that the potato rot is caused by the growth of a parasitic fungus named by Prof. A. De Bary of Strausburg, *Phytophthora infestans*. The spores of this fungus finding a seeding place upon the plant, send their mycelium through the spidermis, or skin, of the leaves and stems and penetrate the substance of the plant and grow among its living tissues, pushing branches between the cells and often directly into the interior of them, thus completely destroying them and changing them to a dark-colored substance. It is needless to say a word about the distinctive character of this fungus and the rapidity with which it spreads over an extensive district. These are well understood. Our business is to find out how the rot may be prevented or avoided. Unfortunately the complete life-history of this fungus is not known. How or where the spores or seeds pass through the winter is at present a mystery. It is well known that they emerge from some quarter in the spring and that the planting of potatoes apparently sound but yet containing mycelium of the fungus, will infect the crop with the disease. The planting of tubers, then, from a crop that has been diseased in any portion, is to be avoided. The destruction of rotten potatoes or diseased stalks by burning is a useless trouble, as it is known that as soon as they decay, the parasite perishes with them. Lastly, the feeding of diseased potatoes is injurious, because the starch has been destroyed with the cells, and the substance of the tuber is at the best watery and innutritious. But so far as we know, all fungi spores are to be avoided as suspicious if not dangerous, and we cannot tell what seeds of disease may lurk in diseased food. It is always best to be safe.

THE "RURAL" potato, Mr. Marvin's Seedling, is shown above. We thank Mr. Marvin for the name and hope it may prosper.

HOW TO CUT TO A SINGLE EYE.

MR. B. K. Bliss furnishes us with the following plain directions for cutting potatoes to single eyes:—

Take the potato with the stem end—the place where it was joined to the vine—down. It will then be noticed that the eyes are arranged around the tuber in regular ascending rotation from the bottom to the top, similar to the thread of a corkserew, each eye being a little above and further around the side than the one next below it. Now take the potato in the left hand, with the stem end down, keeping it in a perpendicular position throughout the entire cutting. Take a sharp, thin-bladed knife and remove the first eye, by placing the knife about equally distant between it and the eye next in rotation above it, sloping it to the indenture left by the stem—see dotted lines in center cut—removing the flesh with it. When the first eye is removed, turn the potato around in the hand until the next eye above appears. Remove this one in the same manner, and keep on turning the potato, removing each eye as it appears in exact rotation, always sloping the knife to the stem. After three or four eyes are thus removed, the bottom part of the tuber will have a somewhat pyramidal form—see cut. It will be noticed that each eye removed has a similar form to that represented by the cut on the left, and has its proportionate share of the flesh attached.



CUTTING TO A SINGLE EYE.

After the first two eyes are removed, no further trouble will be found until the seed end is reached, and only a little extra care will be required to remove these closely-clustered eyes. The cut on the right represents what remains of the potato after all but the small eyes are removed, while the dotted lines show how to separate each of these. It will be noticed that the base retains the same form throughout, and by sloping the knife each time, and cutting down to the apex of this inverted pyramid—which is the center of the tuber—each eye will be supported by an equal amount of the flesh which is to start it into a strong, healthy growth. With common varieties, where seed is cheap, many will think this manner of cutting too troublesome. But if every farmer should save one-half his seed, as he easily could do—for it will only require two barrels of sets for an acre, instead of four, as are usually planted, the increase being equal—thousands of bushels would annually be saved, worth many thousands of dollars. But to those who wish to obtain a large increase from a small quantity of seed, as is necessary to those who buy the new and valuable varieties, this manner of cutting so that every eye is saved, will prove invaluable.

DESCRIPTION OF ENGRAVINGS

BURBANK'S SEEDLING.—White flesh, fine grain. Medium early. Large. Eyes not prominent. Very productive.

BEAUTY OF HEBRON.—See "Everywhere" reports in RURAL NEW-YORKER for the past six weeks.

WASHINGTON.—Origin unknown. Long and rather thin. Eyes shallow. Flesh-color. Very productive. Ripens after Early Rose.

ST. PATRICK.—A cross between Garnet-Chili and Early Rose. White skin, few and shallow eyes. Medium early. This was offered last spring for the first time.

LATE SNOWFLAKE.—A sport from the Early Snowflake and more productive.

MANHATTAN.—Like Compton's Surprise though more regular. Skin dark purple, with white splashes. Origin unknown. Flesh white. Very productive and a good keeper.

SUPERIOR.—A cross between Brownell's Beauty and White Peachblow. Very productive. Dark skin. Eyes small. Medium early.

CENTENNIAL.—Same parentage as Superior. Eyes few—not prominent. Skin dark; flesh white. Second early. Productive.

IMPROVED PEACHBLOW.—Cross between Jersey Peachblow and Excelsior. Said to be as good in quality as the Peachblow and more productive.

RUBY.—Parentage Early Rose and White Peachblow. Flesh white, fine-grained and of good flavor. Matures with the Early Rose and is said to be equally productive. Red skin.

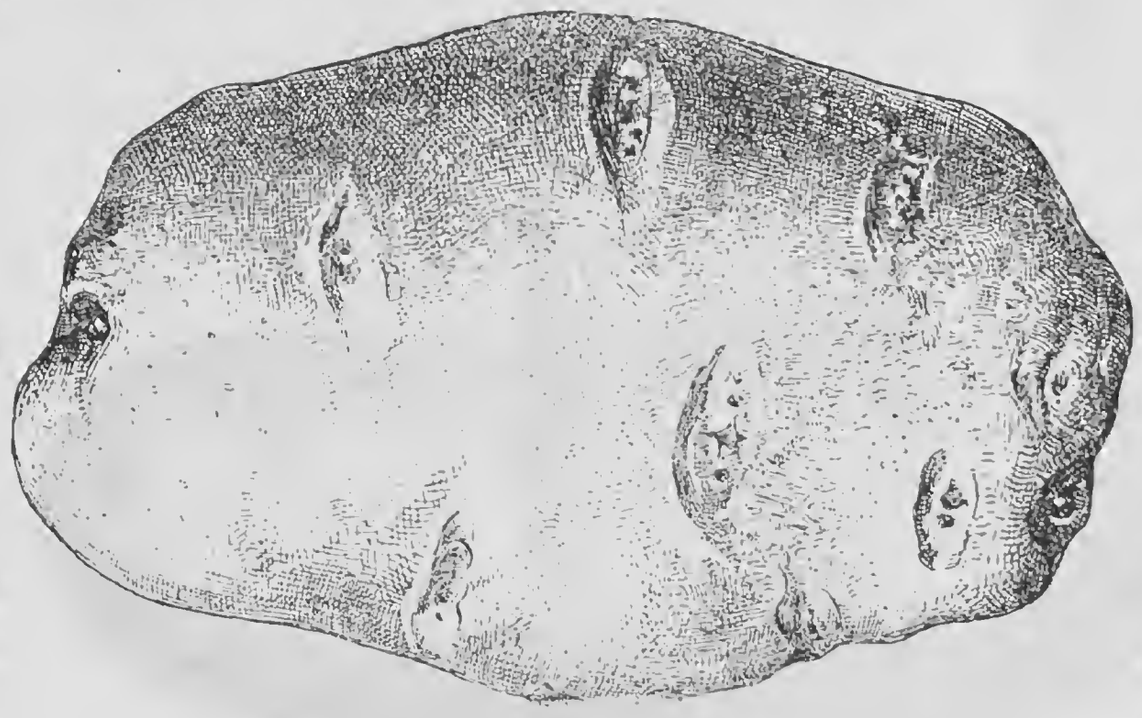
ALPHA.—This is, no doubt, the earliest potato in cultivation. Parentage, Early Rose and Sebec. White skin, slightly red about the eyes.

SNOWFLAKE.—Ripens about the same time as Early Rose. Eyes few and flat. Skin, white. Flesh, white. Fine keeper.

BROWNELL'S BEAUTY.—Eyes few and small; flesh white. Very productive.

EXTRA EARLY VERMONT.—One of the earliest of potatoes. Mr. Bliss mentions one of these raised by a Mr. McLeod, that weighed three pounds twelve ounces.

BLISS'S TRIUMPH.—Originated in Connecticut a few years ago. It is a cross between the Peerless and a seedling of Early Rose, and matures a few days in advance of the latter. Tubers of medium size, round and uniform in shape. Color, light-red; flesh of fine texture and excellent flavor.



THE "RURAL."

LAYERING POTATO TOPS.

As a ready and simple means of increasing the yield of potatoes, we may mention the layering of the tops. This is practiced in Europe by nearly all gardeners and by many farmers, and it is a wonder that it is not more commonly resorted to in this country, especially when it is desired to augment the yield of new and valuable varieties.

About the time when the first new tubers are large enough to be used at the table, the patch should be gone over for this operation. With a hoe remove the earth near the first hill in the row almost as deep as the roots of the plant, then bend the stems into the hole thus formed and cover them up with earth, giving the tips an upward turn, and let them reach four or five inches above ground. Proceed with the next hill in like manner, bending it over the first, and so on until they have all been layered. The stems thus buried will send out roots and set tubers the same as the original roots of the plant. We have seen a potato patch thus treated, give at least a one-half greater crop than a similar patch close by on which the tops were not layered.

"MR. HENDERSON will be glad to hear me say that I saw Pearl Millet, raised from his seed, from 10 to 13 feet high, and having a stem as thick as a lady's finger. To judge from what I saw of it, I should say half an acre of evergreen sweet corn would be worth, as green food for milch cows, and for stock generally, more than a whole acre of this exaggerated grass plant." The above is what "B. F. J." says in the Country Gentleman.

OUR POTATOES.

Our potato crop this season is not nearly so great as the yield reported from many places, but it is much better than that of last year. About four bushels were planted and forty or more harvested, not including those consumed by the family from the advent of "new potatoes," till digging-time. Last year our potato crop was poor, owing to rot. This year our folks resolved to try a change. Accordingly, in addition to such ground as was formerly planted, a side-hill piece of green-sward was broken up. No manure was used upon it; yet just there it was that our best, our fairest and smoothest potatoes were grown, both Snowflakes and Early Roses.

Some of the seed potatoes were cut in sections; the "seed ends" only of some were planted; some were planted whole; but our largest potatoes were grown from large potatoes quartered, lengthwise, one piece only being put in each hill.

As soon as the vines were up, the warfare with the potato beetles began. The pests were hand-picked thoroughly from the first, and every egg that could be found was destroyed; consequently the potatoes got a good start before sustaining any marked injury. So persistently were the beetles dealt with that but one crop was hatched, but, in spite of all our vigilance, that beetle crop was a prolific one. The warfare continued until the potato tops gave evidence of maturity, when we abandoned the field.

As our potatoes were planted early, they were necessarily dug out the last of August. The weather being fair, they were quickly dried off in good condition for storing, and were immediately put in bins in the cellar. Some predicted universal rot in consequence; but while on nearly all sides we hear of potatoes rotting in the ground, in some instances so badly as to render digging useless, we have as yet found but few rotten ones in the cellar; and we think that perhaps those might have been affected when dug, as we found a few rotten ones at that time. However, should our potatoes keep well, we shall ascribe it to having adopted the plan recommended this season in some of the newspapers, that of sprinkling slaked lime plentifully under and amongst the tubers in the bins at harvest time. It is said to absorb the moisture and prevent rot.

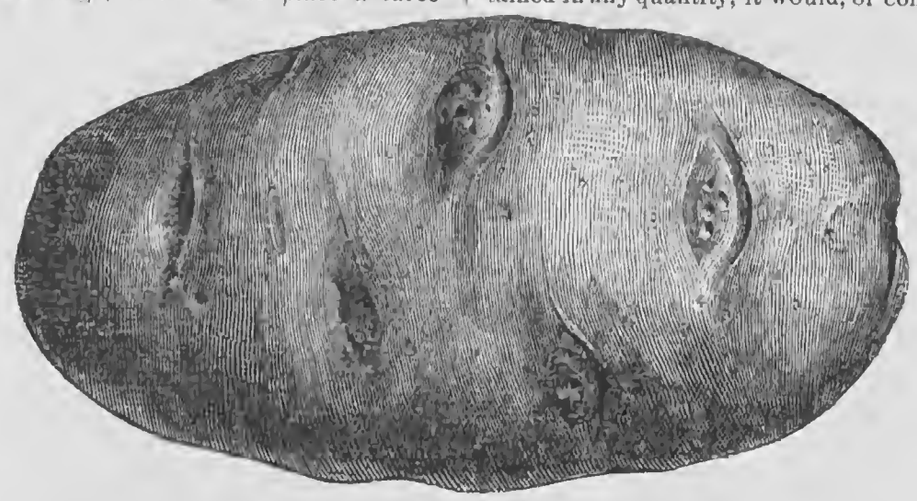
Our potatoes are mostly Snowflakes, a potato that I can heartily recommend; indeed, on all accounts, except that the Early Rose—our long-time favorite—may be a trifle earlier, justice compels me to place the Snowflake ahead of every variety with which I am acquainted. For cooking purposes, baking included, I have never seen its equal—with the Beauty of Hebron I am not acquainted. As a keeper, the Snowflake seems all that can be desired; in proof of which it may be stated that last spring, at time of planting—middle of May—it was not sprouted at all, while some of the Early Rose had sprouts six inches in length.

Year after year our potatoes have one peculiarity—they are more or less marred by rough, unsightly blotches, generally reaching below the surface. My experience is that these are not more liable to rot than those not so affected, the greatest disadvantage being that so much of the potato must be wasted in paring off the affected part. Some claim that it is a sort of blight or rust, others that the tubers have been eaten by angle-worms or by a small wire-worm, while others ascribe it to ashes, as in planting on newly cleared land it is sometimes found to have badly attacked those planted where log-heaps have been. But owners of old farms complain of the same thing in some degree; so, since our garden abounds in these rusty potatoes and we seldom find in it an angle-worm, neither theory seems to me to be correct. With us the land is new, having been mostly cleared from one to seven or eight years only—soil a heavy, black loam, in places gravelly.

MRS. J. A. VAN VALKENBURGH.
Ulster Co., N. Y.

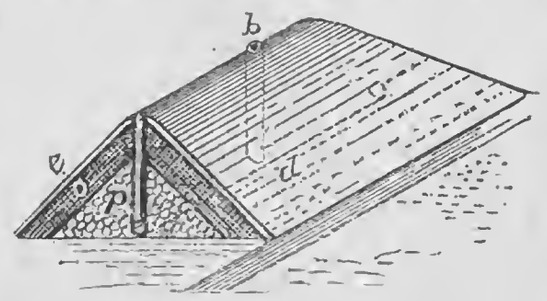
STORING POTATOES IN MOUNDS.

Every farmer raises more or less potatoes, at least enough to supply his own household. But it is not every farmer who has a frost-proof cellar in which to store the crop during winter, and those who have no such convenience must either sell out in the fall or store the crop out-of-doors. There are two methods of keeping potatoes out-of-doors: either in a pit in the ground, or in a mound above the ground. Of these we give preference to the the mound, because stored in that manner they are kept drier and are, therefore, less liable to rot; moreover, they are much more easily gotten out again in spring. Level a piece of ground nicely in some dry place and pile up the potatoes, as seen in the cut; then cover with a layer of straw ten inches or a foot in thickness, and, finally, put on five or six inches of earth. The more straw used, the less liable the potatoes are to freeze. Of earth alone it would require several feet in thickness to keep out the frost. Last winter the ground froze three feet deep in many places in the Northern States. But the straw absorbs the moisture from the pile and confines a layer of air that helps to keep out the frost. If the mound is large, it is well to place a three-



BURBANK'S SEEDLING.

inch tile in the bottom along the middle, and also upright ones at intervals of about six feet, as shown by the dotted lines b and d. These will cause a circulation of air and keep the potatoes dry. When cold comes, these openings must be stopped up and if necessary, another layer of straw and earth must be added. This is the way that potatoes



POTATO MOUND.

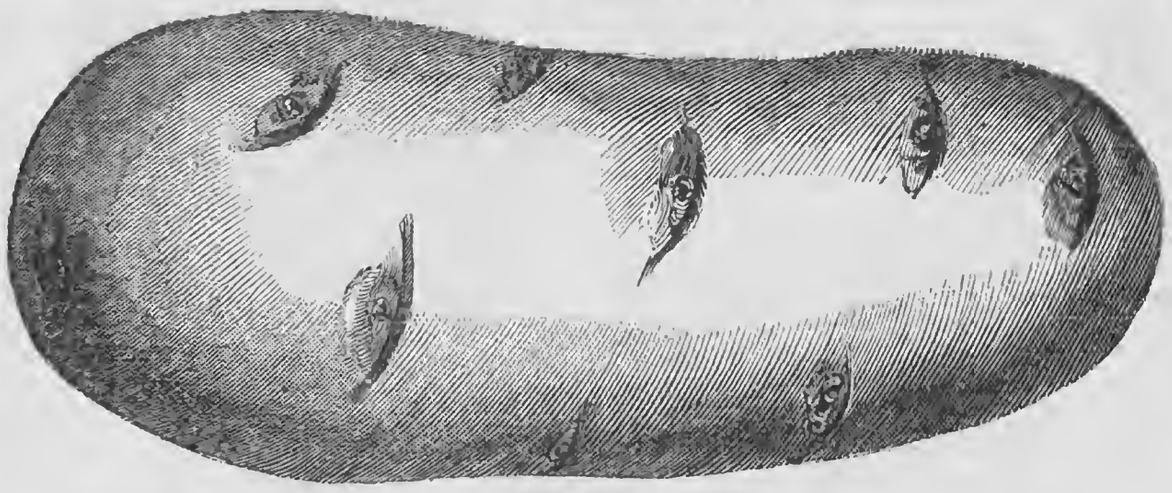
are stored in northern Europe and when the work has been properly done, we have never known them to suffer from cold or rot.

HOW POTATOES MAY BE RAISED FROM CUTTINGS.

In the beginning of March a hot-bed should be prepared in which to raise the cuttings. Any ordinary hot-bed will answer, and farmers who do not generally use hot-beds can prepare one as follows: Dig out a pit two feet deep and as large as needed. It should not be less, however, than four feet square in order that the hot-bed may maintain a moderate heat. Fill this three feet high from the bottom with hot horse manure mixed with straw or leaves, and well shaken together, so that the mass can heat equally throughout. Next, place a frame and sash on the heap and place a layer of soil four inches thick in the frame; the soil should be turned over once a day for two or three days till it is warmed through. Now divide the potatoes lengthwise and place the pieces, on top of the soil, with the cut side downward. They should not be watered until the wounds are healed, to avoid rotting. The sprouts will soon appear, and when these have reached a hight of three or four inches, they may be cut off an inch above the potato, and set in rows in the soil of the hot-bed, like other cuttings. They must be watered and will also need to be carefully shaded from the sun till they have struck roots. The potatoes will continue to send up sprouts, and all may be cut off and set in the ground in like manner. These cuttings will soon form independent plants, and when they have reached a hight of five or six inches, their tops may, in turn, be cut off and set as cuttings.

In May or as early as the ground is fit to work and the weather will permit, transfer all the young plants that may be ready to the open ground at distances precisely as the tubers are planted. This work is best done on a cloudy or rainy day, to avoid their wilting. Once well started, these plants will grow rapidly and should be treated like other potatoes. It is not advisable to make cuttings later than the beginning of July, as tubers from later cuttings cannot mature before frost.

This method of increase is to be recommended only for new and costly varieties; for older sorts of which tubers can be obtained in any quantity, it would, of course, not prove profitable. When, however, a variety costs from one to three dollars a pound, the desirability of a rapid increase from a small stock, becomes apparent. The quantity that in this way can be raised from a single potato may thus be estimated: A good-sized potato has about fifteen eyes, and from these, by repeated cuttings, may be obtained at least 50 plants. Each of these 50 plants may again yield three more, which, when planted out, will make altogether 200 hills; with the very small yield of a pound and a half from each hill, this would be 300 pounds, equal to about two barrels from one potato.



THE WASHINGTON.

POTATO NOTES.

Cost for Fertilizers of 100 Bushels of Potatoes.

	Pounds.	Price ₱ lb.	
Nitrogen	9.60	21½c	$2.05
Phosphoric acid	10.80	9c.	.97
Potash	33.60	7½c.	2.53
Cost for 100 bushels			$5.54

Potatoes Converted into Other Forms of Food.

Mr. Conrad Wilson says:—

How to convert potatoes, with the best economy and with the largest profit, into other forms of food, into milk, butter and meat, is a problem not yet fully solved. Various estimates have been made by practical men as to the effective value of the potato in the production of beef, mutton and milk; and though opinions still differ, the proportion of other food staples that potatoes are capable of yielding, is nearly indicated in the following statement:

A bushel of potatoes, when judiciously fed to animals of a good breed, will produce:

Of Beef	from 2 to 3	pounds.
Of Mutton	" 4 to 5	"
Of Pork	" 4 to 5	"
Of Milk	" 35 to 40	"
Of Butter	" 2 to 2½	"

It is, of course, not supposed that potatoes are fed *exclusively* in producing these results, but in a suitable combination with other kinds of feed.

If now we apply to this estimate the figures of the above table, we should discover

What an Acre of Potatoes Means,

when expressed in the form of other food staples. We shall find that it is measured

In Beef	by 400 to 500	pounds.
In Pork	by 800 to 1,000	"
In Mutton	by 800 to 1,000	"
In Milk	by 7,000 pounds, or over.	
In Bread	by 4,000	"
In Butter	by 400	"

Again, as the total potato product of this country is nearly certain to reach 200 million bushels as the average for the next decade, it will be seen that if the above figures are extended so as to meet this case of the total product, then it will be found that

The Annual Potato Crop of the United States

is equivalent

In Beef	to 400,000,000	pounds.
In Pork	to 800,000,000	"
In Mutton	to 800,000,000	"
In Milk	to 7,000,000,000	"
In Bread	to 4,000,000,000	"
In Butter	to 400,000,000	"

WHAT OTHERS SAY.

Seed Potatoes.—The crown-eyes of the potato are the only ones which yield vigorous plants, according to the London Ag. Gazette; the produce of the other eyes is feeble and unremunerative. If, therefore, potatoes are cut for seed, they should not, (as is usual) be cut in their length, by which the crown is divided and eyes of all kinds introduced into the seed, but they should be cut across, the half containing the crown-eyes planted, and the other half consumed as food. The very best results are obtained when large potatoes are taken, all eyes excepting those of the crown cut out, and the whole remaining potato planted. Stebler points out that the potato is an underground stem, and the crown-eyes the buds at the end of a branch. That the terminal buds of a branch are always far more vigorous than the lateral buds, any one may ascertain for himself by watching the growth of trees and shrubs at the present season of the year. The degeneration of varieties of potato is believed by some of the German writers to be largely due to repeated propagation from small potatoes and feeble buds.

Seed Potatoes.—More depends on getting good strong eyes than on their number, remarks W. J. F., in the Country Gentleman. A potato that has greened in the sun is always a good seed potato. We keep our seed potatoes too close and dark before planting. This tends to develop the eyes too rapidly, and this premature growth exhausts the vitality of the potato. He suspects that one reason why potato seed this year is inferior, is because the winter was so long and cold that potatoes had to be kept too dark and warm, to prevent freezing. A year ago an opposite season produced the same result. The warm winter of 1877-8 produced too much premature growth of potato eyes, which had to be rubbed out before planting, and a fresh start made from dormant buds.

(For continuation of Potatoes see page 678,)

FAIR NOTES.

The Battenkill Valley Industrial Society.

The above-named Society held their first Annual fair at Factory Point, Vt., Oct. 2d and 3d. Last year a move was made to see what interest the people in this vicinity would take in a town fair. The results were encouraging, and last winter a Society, comprising the north shire of Bennington Co., was organized, and the necessary steps taken to hold a fair. Two buildings were erected, one, 26x38 feet, which was used for Mechanic's Hall; another, 26x50 feet was used for Floral Hall. There is a good half-mile track on the grounds, which the directors spared no pains in putting in good order. The first day was fine and the grounds quite well attended. The second day there was the largest crowd the writer ever saw in Manchester. Membership tickets were sold for $1 apiece which secured admittance for the holder, wife and necessary help to care for stock, etc. Something like $800 were taken at the gates, which places the Society on a firm financial basis, and insures its future success. The show of horned cattle was good for a small place. A full-blooded Holstein bull that was brought into the place about three years ago, has influenced the herds to a considerable extent, and black calves and two year-olds predominate. Swine and sheep have not received so much attention. There is a marked improvement in horses in the past three years. The farmers are taking pride in being able to take a premium if it is small. The poultry department included some fine birds. The exhibit was certainly larger, than the writer has seen at the State fair held at Rutland, Vt. As this is not a manufacturing town, little could be expected in that line; but Mechanic's Hall was pretty well filled and showed some fine specimens of home skill in the trades. Floral Hall was crowded. It is useless to try to enumerate the articles worthy of mention, but I will say that this department was a complete success. E. L. T.

The Fair of the American Institute is now in progress at the Institute Hall, at 63d Street, this city. It is an artisans' fair of the most pronounced type, and is of but little direct interest to the tillers of the soil. Horticulture, however, is represented by a few good collections of fruit, of which the one shown by Ellwanger & Barry, of Rochester, is by far the largest and best. Mr. C. J. Copley, of Stapleton, Staten Island, exhibits a fine collection of grapes. Mr. C. has for some years past raised numerous seedling Grapes, some of which prove to be of first quality. Vegetables are present in small quantities; among others are some extra fine tomatoes. Cutflowers make a good display and fill the air with aroma.

A Disaster at a Fair.—A disaster occurred at the Adrian (Mich.) fair-grounds the other day by which 16 persons lost their lives and many more were hurt. About 2,000 people had assembled on the newly erected grand-stand to witness the races when the center of the structure gave way with a crash. The front part fell outward, and the back fell into the river, precipitating the mass of people among the ruins.

Everywhere.

RURAL SPECIAL REPORTS.

N. H., Reed's Ferry, Hillsborough Co., Oct. 1. The Blount corn received was planted on May 20. It grew three and four stalks from one seed, with from two to seven ears per stalk. It did not ripen before the frost. It was a curiosity for this place; but I shall have to throw up the sponge in regard to the premium. The Golden Rural tomatoes were very fine and bore an abundance of fruit; but the Acme is the "boss" tomato. We never had anything like it and consider it worth the price of the RURAL—which, by the way, we think is better than ever We don't think much of Pearl Millet. The Beauty of Hebron proved to be a fine potato. We raised from one small potato fifty-two tubers. The Voorhis watermelon did not get ripe. A part of the flower-seeds did not come up; others were very fine. Our crops in this section are very good. Potatoes are a large yield, and we have a good many apples for the odd year. F. F. W.

VT., Manchester Depot, Bennington Co., Oct. 3.—I think I can give as good report of the Beauty of Hebron potato as any of the RURAL subscribers. Through an oversight, I suppose, last spring I received from the RURAL two packages of seeds. In one package there were two potatoes; in the other one only. I gave one potato to an uncle who raised from it six pounds of tubers. The other two father planted on land that has been used for a garden for 15 years. He put manure in a trench and placed the seed about 10 inches apart, one eye in a hill. He had 18 eyes; the result was 58 pounds of tubers. Of these 15 of the largest weighed 15 pounds; of the next size, 40 weighed 23 pounds. There were 97 suitable for table use and 35 small ones, making 132 in all. My uncle raised from potatoes of the "Burbank Seedling" variety a full barrel of tubers on a plot of ground eight by forty-five feet, which is a very good crop. If any RURAL subscriber can beat this for a potato story, I should like to hear from him. The other seeds sent I shared with my neighbors, and they have given satisfactory results. The Millet, however, is of small growth; it is too far north here, I think, for its successful cultivation. The potato crop has been the heaviest that has been known here for years. They are worth 30 cents per bushel; oats, 35 cents; hay, $10 per ton delivered. Corn is about an average crop. E. L. T.

MASS., Blackstone, Worcester Co., Oct. 1.—I planted my Blount corn on the 26th of May, and had it cut on the 26th of September. I planted one kernel in a hill, three feet apart in the rows and about 3½ feet between the hills. The ears average four on a stalk; the stalks average 13 feet in hight. I do not think the season is long enough for it here. I shall have seed enough to try it again next year. Two hills of my corn I had carried to the cattle show; there were 19 ears on the two hills. Pearl Millet would be a good soiling plant if the season were long enough. I planted mine the same as I did the corn, on the same land and the same day. It did not grow much until the middle of June. Some of it was pulled up, it looked so much like barn-grass; but by the first of July it was as much as 18 inches across, with a very thick bottom. The tallest of mine was over seven feet high, with a blossom spike over a foot long. O. W. F.

N. Y., Bloomville, Delaware Co., Sept. 24.—The weather here is very dry at present, although we have had plenty of rain during the summer. The crops have been very abundant. The Beauty of Hebron potato is very fine; I raised from the potato you sent me, which weighed two ounces and had eight eyes, 30 pounds and 11 ounces of very large potatoes. The Defiance wheat was nearly a failure; it rusted badly and was very much shriveled. Pearl Millet did not any of it grow. T. R.

N. Y., Belfast, Allegany Co., Oct. 4.—I cut the Beauty of Hebron seed potato into 13 pieces, each having a single eye, and planted one piece in a hill. From these I have obtained 32½ pounds of large tubers, the largest weighing 1½ pound. The Golden Rural tomato is the best I ever had. H. C. E.

PA., Monroeville, Alleghany Co., Oct. 5.—The Beauty of Hebron potato did splendidly. The Acme tomato was not a whit behind it in well-doing, and we like it greatly. The Pearl Millet, however, is rather late and I fear much of it will not mature seed. Some of the flower-seeds didn't come up; but others did very well. N. B.

OHIO, Mt. Vernon, Knox Co., Oct. 2.—I grow from eight to ten acres of potatoes each year, and find good crops can be grown almost every season with a little care in the selection of ground on which to plant them. For this purpose, I prefer a clover sod and let the clover grow as long as I dare, say, to the 15th of May in this section. I then turn it under and plant the potatoes immediately in drills, two feet four inches apart for varieties with medium tops and two feet six inches for those sorts that spread large tops, putting the seed, cut to two eyes to a piece, 12 inches apart in rows. So soon as the vines make their appearance, I harrow with a light harrow and keep the ground free from weeds by "working" until just as they begin to blossom, when I hill them up with a single-shovel plow with wings attached made to expand as may be needed.

I prefer upland to bottom for potatoes. Take any good free soil and mark out drills, say, 4½ inches deep and put in them, say, two inches of well-rotted manure, or, what is better, scrapings from an old chip pile, or rotted pomace from a cider mill. Cover the potatoes slightly and till the ground well, and you are sure of a crop, bugs or no bugs. This season my crop per acre was:

Brownell's Beauty	150	bushels
Burbank's Seedling	200	"
Early Vermont	125	"
Alpha	140	"
Dunmore	150	"

This week I have been digging Burbank's Seedlings that weighed from one pound ten ounces to two pounds thirteen and a half ounces each. The potato of the latter weight I have now on exhibtion and it alone would make a dinner for any man, with some to spare. Price of potatoes here is:—40c. per bushel with indications of reaching 50c. soon. M. W.

KANSAS, Edgerton, Johnson Co., Oct. 1st.—A few weeks ago I thought my Blount's corn would surely take the prize, and so thought some of my neighbors who saw it growing; but since reading in the RURAL some of the reports of corn 16 feet high and stalks 10 inches in circumference, averaging 10 and 12 ears to the stalk, I think my chances for a premium exceedingly slim; in fact my visions of a prize have almost entirely vanished. I planted 123 grains in 100 hills, three feet each way, on April 29; but as some of the grains were poor, they did not all grow. Others died after they came up, so that by transplanting where there were two in a hill, I barely succeeded in getting 100 stalks to grow in as many hills. I had some stalks 14 feet high; but I don't think they would average that. I had one stalk that had 20 ears or rather nubbins. There, now, who can beat that? A great many grains produced three good-sized stalks, and no stalk had less than three ears, while some had nine. I cut up my corn Sept. 1st, and it made the tallest and biggest stook of corn I ever saw. My Pearl Millet is all ripe, many of the stalks measuring 11½ feet high, with heads fully 12 and 14 inches long. I planted my Beauty of Hebron together with a package sent me by Gen. Le Duc; in all about two quarts, one eye in a place, and 18 inches apart in the row, on the same day, and side by side with Early Rose. I have dug them and have six heaping bushels of as nice potatoes as ever grew. I give the measurement of five of them, 5½x16, 10x15, 9½x17, 9½x18, 10½x13½. They beat the Rose badly for earliness, size, and productiveness, and I think they are of better flavor. I shall plant them altogether next year. Defiance wheat was badly shriveled, on account of rust. Our Acme tomatoes were the finest we ever raised. They were admired by all who saw them. Our flower and shrub seeds did not do so well on account of drought. Altogether what I have raised from seed sent me by the RURAL, is worth more than five times the price of the paper. A. B. D.

KANSAS, El Dorado, Butler Co., Sept. 30, 1870.—In the cultivation of potatoes in Kansas we find it quite difficult to secure a good crop of the late varieties. As regards Peachblow, Early Rose, Snowflake, Early Vermont and Early Ohio, all do well if planted very early in the spring, as they mature before the drought commences; but to obtain a good crop of late potatoes we have to give at least from one to two feet of straw mulch which is generally put on as soon as the potatoes are planted. As it is not customary to manure our land here for any crop at present, I cannot say what would be the result, if we planted as we used to do in the East. By the following plan, I never failed of a good crop:—Plow the ground deep, as early in the spring as possible; then drag it smooth. When ready to plant, mark out with a common plow good deep furrows three and a half feet apart. In the furrows place well rotted cow manure, and drop the potatoes on top; then follow with five parts of land plaster and one of salt, mixed; cover with a small plow and drag smooth, and keep the drag going until the potatoes are well up. Then cultivate in the usual way, and you can be sure of a good crop of nice potatoes even in a dry season. Perhaps some may say "too much trouble!" but when the time comes for digging there is no more work in digging a good crop than a poor one. I call it up-hill business to dig an acre for 50 bushels when you can, by this method, get 200 or more. J. J. B.

MO., Benton City, Audrain Co., Oct., 4.—Benton City is on the St. Louis, Kansas City and Northern railroad, one hundred miles from St. Louis and seven miles from Mexico, our county seat, which has three railroads and a population of about 6000. Good unimproved land, prairie and timber, is worth $4 to $8 and improved land, $8 to 16 per acre. Wheat is yielding 15 to 30, and corn, 30 to 60 bushels per acre. We have good soil, markets, timber, water and stock range and also good schools, good society and a mild and healthful climate, but the country needs more good farmers and mechanics. I have been here several years and I find I can do better on a farm here than in any of the several States in which I have formerly lived. Recently there has been considerable inquiry for land and farms here, by parties from the North and East, who after thorough investigation, find that they can do much better here than farther west. Many of the bargains have been taken, but still there is plenty of room. To all who wish to get good homes and cheap homes, I would say:—"Come now while you can select; come and help us to make Missouri one of the best States in the Union!" B. F. W

S. C., Aiken, Aiken Co., Oct. 4.—The crops of this section of South Carolina may be classed as a fair average. At one time it was feared that the long drought in June would have cut them down much below the average, but we are thankful to be able to say such fears have not been realized, and the farmers generally are contented with their prospects. One thing in their favor is that they are less in debt than in former years.

There is comparatively little small grain planted in this section in consequence of the expense of cutting and harvesting it by hand, and hauling it to the water-power mills to be trashed. It appears to me if the patentees and manufacturers of machines and implements took the trouble to bring there inventions to notice in the South that their is, in that line, a fine field open for business. Now that the South is recuperating from the disastrous effects of the war, and the farmers are getting out of debt, they are beginning to make improvements and adopt new methods of culture. As illustrating one of our needs, most of the lumber is worked by hand. In this county, with a population of 25,000, I know of only one planing mill, while there are probably a hundred or more saw-mills. If wood-working machinery were exhibited and explanations of the advantages made personally, instead of by circulars, many might be induced to add such machinery to their mills, as water power is abundant. The fairs which take place throughout the South, generally in the fall, would offer an excellent chance to show the machinery in practical operation. The State Fair this year takes place Nov. 11, in Charleston, and power will be furnished to those desirous of exhibiting machinery in operation. I trust some of the enterprising men who advertise in the RURAL will give this matter more than a passing thought, for it will not only be advantageous to them, but it would aid in diversifying the products of this section. The South, heretofore, has paid comparatively little attention to manufactures or to inventing machinery for the saving of manual labor, consequently a favorable opportunity is afforded for the introduction of implements adapted to the peculiar needs of the people. Machinery for making brooms, turpentine and other barrels, rice and kaoline tierces, wooden-ware and a thousand and one like conveniences, could be advantageously introduced. There are very few tanneries here, while large quantities of hides are shipped North. Near this town there are immense beds of the finest kaoline and clays suitable for pottery works, but no one thinks of utilizing them, other than by drying the material, packing it in tierces and shipping it abroad. A party in middle Georgia informed the writer that he had made $600 last spring by the use of a portable thrashing machine. As indicating the change which is taking place, the recent report on cotton manufactures states that the increased consumption of cotton last year by the Southern mills, was 26 per cent. while that by the Northern mills, was only two per cent. The assessed value of land in this section is about $2 an acre, although much is sold for a less price; that lying near railroads and towns, as a matter of course, commands a better price.

To those desirous of changing their location, the midland region of North and South Carolina and Georgia offers many advantages, especially to those whose health or the health of whose families is delicate. The first visitors of the season are arriving. As is well known, Aiken is quite a favorite resort for invalids in the winter, thousands having been benefited by a short residence here. Heretofore, one of the drawbacks has been the high price charged for board, but now, as prices of other goods have fallen, so has the price of board. The competition in this line is strong, and the housekeepers are anxious to get boarders early in the fall, so that now one by looking around, can find board at the private houses at very reasonable prices. Many who are out of health, make a mistake by deferring coming South till late in the winter or early spring months, when it would be far better for them to come and enjoy the magnificent weather of the fall months when they can remain with pleasure out-of-doors all the time. E. G. C. W.

The Querist.

ANSWERS TO CORRESPONDENTS.

Care of Gold Fish.

O. A. H., Stamford, Conn., asks for information concerning the care of gold-fish.

ANS.—We referred the question to a lady friend who said she had some experience with them, and she answered that they nearly always died after having been confined in a basin in the parlor for a month or so. We have, however, had better success; some that were kept in a tank in the greenhouse lived almost three years. If kept in a small basin, fresh water every day is absolutely necessary, and the water should not be taken from a well but from a stream or clear pond. Large fishes also need to be fed on crumbs of bread and very small pieces of meat, if there is nothing in the water on which they can feed. Attention should also be given to the temperature of the water; for, though they can bear great variations of heat and cold, a constant temperature of about 60 degrees seems to be most favorable to their well-being.

Weighing Corn for Premiums.

O. W. F., Blackstone, Mass., asks: 1, how long a time must elapse after the Blount corn stalks are cut until they can be weighed; 2 how long after the corn is husked until the bushels can be weighed; 3, whether Hollyhock and Rose of Sharon will winter-kill in that latitude—the boundary line between Mass and R. I.

ANS.—1 and 2. We have not specified the time in either case, and only stipulate that both stalks and corn must be dry before they are weighed. Under ordinary circumstances we would consider four weeks a sufficient lapse of time. However, if our friend wishes to compete for the book premiums offered by the Farmers' Publishing Company, the corn must be weighed three months after harvest, as stated on the announcement of the premium 3. They are hardy.

Miscellaneous.

F. McC., Wenona, Ill., 1. has some house plants, and she has been wondering how she should manage to keep them from freezing this winter. She has heard that to wrap a newspaper around them affords a good protection; she wants advice. 2. Some time since she found that the roots of some of her Geraniums were affected with a small white worm, and the soil of plants thus affected did not dry out, she wants to know the reason.

ANS.—1. Any ingenious housewife who loves her plants is far better able to devise means of protection than we are. She knows just where is the best place to put them at night and can take advantage of many circumstances we know nothing about. Newspapers are good to wrap around plants as a protection against a light frost. 2. The soil in those pots did not dry out because the plants were sick and did not absorb and evaporate the moisture. In healthy plants the roots absorb moisture and the leaves evaporate it, which process was in this case at a stand-still.

K. H., Bolington, Va., sends an insect which he saw sting a poplar post; thinking it might be injurious, he asks for its name and habits.

ANS.—This is the common horntail or Tremex Columba. It belongs to the lowest family of the Hymenoptera. By use of its ovipositor—the stiff, horn-like organ which gives it its common name—it bores into Maple, Beech, Bass-wood, Elm, Pear, Button-wood and Poplar, and lays its eggs in the hole which it forms. It is often found fast to the wood, being unable to withdraw its ovipositor. The larva feeds on the wood, but the insects are too rare to do much or any harm. The horn tail is 1½ inch long, or 1½ inch to the end of the so-called horn. The colors are black, brown and yellow.

G. H. T., Granville, Mass., asks, 1. whether the rubber boots advertised in the Fair No. of the RURAL, are really what is claimed for them: 2, some recipe for extracting grease, dirt and paint from clothing.

ANS.—1. Yes, they are just what is claimed for them; otherwise we should not have admitted the advertisement. 2. A deodorized preparation of benzine is good for this purpose; so are some French chalks and patent soaps. The next druggist can either supply them directly or procure them for a purchaser.

W. T. T., Salisbury, N. C., asks where can he get cans and other fixtures for carrying on a retail milk dairy.

ANS.—Dairy Supply Co., 261 Greenwich St., N. Y., or Jones & Faulkner, Utica, N. Y.—[N.B. Many questions and answers are crowded out of this number.—EDS.]

COMMUNICATIONS RECEIVED FOR THE WEEK ENDING SATURDAY, OCT. 11.

A. W. C.—W. C., thanks—A. L. J.—H. F. S.—B. C. D.—F. A. B.—W. T. T.—D. J.—D. W.—C. P. B.—M. L. B.—O. W. F.—M. W.—E. L. T.—E. J. C. W.—B. F. W.—S. H. D.—J. G. R. K.—J. A.—A. E.—B. P.—J. E. S.—E. L. D.—F. D. C.—J. B.—M. M. P.—A. T.—L. W. G.—T. H. H.—L. A. K.—L. J. W.—J.

THE
RURAL NEW-YORKER.
PUBLISHED EVERY SATURDAY.

CONDUCTED BY
ELBERT S. CARMAN.

Address
THE RURAL NEW-YORKER,
78 Duane Street, New York City.

SATURDAY, OCT. 18, 1879.

FAIRS.

At the present time, and at this season each year, the average farmer is regular in his attendance at fairs. State, local and county fairs are now in full blast, and a glance at the Rural's list is a satisfactory proof that the article is supplied in quantities equal to all demands. As it is thus conclusively shown that there are fairs enough to go round, it may be worth our while to ask the question, "What do they amount to as a means of enlightening the classes for whom they are especially designed?"

In theory a fair is the least expensive and most convenient means of assembling all that is best in live-stock, farm products, machinery and horticultural novelties for purposes of study, comparison and sale, and the several exhibits are presumed to be so arranged and disposed that these objects may be easily attained. A fair is nothing if not educational in its tendencies, at least. As a matter of fact, managers of agricultural societies seem to lose sight entirely of fundamental principles, and conduct their shows just as would any shrewd amusement-monger whose only aim is to make the gate-money the index of success.

It looks as if there was no confidence placed in the idea that the farmers take an interest in the profession to which they are wedded; hence horse-trots, tournaments, and other heterogeneous displays are interjected into fairs, taking oft-times the most prominent part. In short, a fair without the racing features is considered by many as the play of Hamlet would be without the Prince. No more successful policy could be adopted to bring the system into disrepute.

As at present planned, the agricultural fair is quite unsatisfactory to the student of agriculture. There seems to be a lack of system and ideas among the managers. Little heed is paid to compactness and coherence of arrangement. The live-stock is often stalled without such an arrangement in classes as would enable a visitor to take a comprehensive view, and the animals, when judged, are led into a prize-ring in a hurly-burly fashion that is confusion worse confounded. After the awards are made, the inquisitive farmer may straggle about the pens and gaze at some blanketed creature, adorned with a blue ribbon, and get what information it is possible to extract from some ignorant, indifferent attendant. If he is interested in Jerseys, for example, he will probably find them sandwiched between other breeds, according to the convenience of the exhibitor or the whim of the superintendent. After having been trotted out for the delectation of the judges, the horses are as inaccessible for purposes of study and comparison as if they were precious jewels done up in cotton.

The horticultural display is arranged to suit the convenience of exhibitors, and apples, grapes, etc., are as inextricably mixed as if they were different varieties of the same species. It would seem idle to add that this is all wrong, and that such an arrangement defeats, in a measure, the purpose which brought them together. There should be intelligent method. Things of the same kind should be grouped together, no matter if, in doing so, one man's entries are placed in fifty different places. There should be more compactness. Entry cards should state clearly the class, name and particulars of the exhibit. It is not enough to affix a number to a stall, for instance, and leave a wide field for speculation as to whether the thing shown is a pyramid or a pig. Everybody cannot afford to procure catalogues, and even when purchased, they are no great aid, as it is unusual for more than two-thirds the entries to be actually represented, while many exhibitors are on hand who have not entered at all. Prize-takers in every class should be conspicuously shown, and all pains taken to explain their merits. If these things were done, a fair would fulfill its mission and our question receive a complete answer. The matter, after all, is considerably controlled by farmers themselves; let us see, then, if next year we cannot chronicle an improvement. In the meantime our readers are, at the present time invited to post themselves upon Potatoes.

UTILITY OF A SEED-CONTROLLING STATION.

A Seed-Controlling Station has for several years been in operation in Denmark. The object of this institution is to ascertain the quality of the seeds sent in for analysis as to their purity, germinating power, percentage of weeds, percentage of unsound grains, etc., and thus to protect farmers, gardeners and others, who use seed, from being imposed upon by unscrupulous dealers, and to advise them as to the use of seeds they may already have on hand. The station has done some excellent work and given much satisfaction. However, in a late number of "Ugeskrift for Landmænd" a prominent farmer, in a somewhat striking manner, proves that either the system adapted for analysis is at fault, or the work is carelessly conducted. He selected samples of clover seed, red and white, filling several bags with the same kinds and from the same bins respectively, then sealed up the bags, stamped them with different stamps and sent them by different routes to the station. Not dreaming that the samples were from the same lot of seeds, or even from the same man, the officials found an undue discrepancy in the quality of the seeds, which ought to have been alike, and the writer therefore argues that there is something wrong.

Whatever may be at fault in this case, the advantages of a Seed-Controlling Station, when properly conducted, are easily seen. The standard of quality of both farm and garden seeds would immediately be raised, and by virtue of the strong competition already existing, every seedsman would be obliged to deal in nothing but the best seeds or else retire from the business. The constant liability to analysis would do away with the many adulterations now practised of seed sold on a large scale. The trade in seeds, especially in those that are raised largely as farm crops, constitutes no little item of commerce. Statistics show that during the three months from the first of January to the 31st of March, 1879, our exports of seeds, mainly clover and timothy, amounted to no less than $1,005,206, which is even less than for the corresponding period of last year, while our imports of seeds for the same three months of the current year, amounted to $89,295, and those of last year to $102,151. The price that the cultivators must pay for these imported seeds when retailed to them, will run up to at least twice or perhaps three times the above values.

We urge that a Seed-Controlling Station be established by the Agricultural Department at Washington. The expense to be incurred would be small beyond the salaries of competent and trustworthy men to do the work, while the benefit it would confer upon our farmers and planters, and upon this branch of our commerce, would be inestimable.

PEARL (CAT-TAIL) MILLET.

Last year we raised a few rows of this now much-talked-of forage plant at the "Rural Grounds," Bergen Co., N. J. The soil is there a clayey loam. As may be seen by reference to this journal of November 2d, 1878, our best plant grew to the hight of ten feet one inch. There were 56 stalks, and the weight of the entire plant was 42½ pounds. The soil was not highly manured, nor was any special care given to the plants. Taking such a plant as our unit of measure, the yield per acre would have proven something prodigious. But such estimates are usually very deceptive, and we took occasion (as reference to the above number will show) to guard our readers against extravagant expectations. Some time after Mr. Peter Henderson reported *his* yield under high cultivation. It was so much greater than ours that we remarked upon it and he replied that in fact his yield was greater than he had stated. This year we planted Pearl Millet in considerable quantities at our farm. Here, unlike the "Rural Grounds," the soil is a sandy, sometimes gravelly loam, and the situation within three miles of the ocean. We planted it in four different parts of the farm. One was manured with stable and barnyard manure; another with liquid barn-yard manure; the third with superphosphate and wood-ashes, and the fourth with stable manure and superphosphate. Strange to say, there was not a plant that attained the hight of six feet, and the average hight was less than five. Strange again, there was no difference in the growth as between the several plots. The plants were all alike, dwarf and slender, unmindful whether heavily manured or not manured at all; whether manured with ashes, superphosphate, stable or barnyard manure, one or all. Those who have read our voluminous "Everywhere" reports will not be surprised at the above report from our farm. In a majority of instances our correspondents have met with failure in this their first trial of Pearl Millet, while a small minority have met with gratifying success. The upshot of it all is that while its cultivation may in a few places in the North be profitably continued, there need no longer be any doubt entertained as to whether Pearl Millet will ever meet the grand expectations which the results of a few garden trials have excited.

Mr. B. K. Bliss, at our request, sent to the Rural Farm one peck (15 lbs.) of Late Snowflake potatoes. These were cut to single eyes and two pieces were planted six inches apart in each hill. They were planted not until June 18. It is a matter of guess-work whether, if nothing had occurred to interfere with their growth, they would have matured. Just as the tubers were beginning to form, however, a terrible rain-storm occurred which for several hours inundated the field in which they were growing, killing late pea and cucumber vines and injuring many other vegetables cultivated in the same field. To what extent the Late Snowflakes were injured we can not say. The crop was dug Oct. 1st, and, although most of them were very small, the *average* was at least 60 potatoes to a hill. In one hill there were 80, counting every one even if no larger than a pea. We have since cooked some of them and a whiter, brighter, mealier potato we have never seen or tasted.

BREVITIES.

There is probably no potato that is a better keeper than Snowflake.

Two sound eyes to a hill are sufficient. As many potatoes can be raised therefrom as if whole potatoes are used.

The best potatoes, grown under favorable circumstances, contain 20 per cent. of starch; poor ones, about 10 per cent.

Taking this number all-in-all, it will be seen that we have in no wise exaggerated the yield, earliness or quality of the Beauty of Hebron sent free to our subscribers.

We take the liberty to regard the use of bags as a covering for bunches of grapes, thereby protecting them from insects and birds, as one of the vagaries of enthusiastic horticulturists.

We are much indebted to the following persons for the use of many of the engravings of potatoes used in this number of the Rural New-Yorker, viz: B. K. Bliss & Sons, J. M. Thorburn & Co., James J. H. Gregory, Peter Henderson.

A cellar that is cool, dry and dark, and yet well ventilated, is the best place for preserving potatoes in large quantities. When smaller quantities are to be preserved there is nothing like dry sand. The same may be said of fruits and roots of all sorts.

Farmers do not attach enough importance to the preservation of the *leaves* of the potato plant. They too often wait for the potato beetle to destroy a part of the leaves before Paris-green is applied. A full crop of tubers is *impossible* without perfect leaves.

Our special correspondent at the Illinois State Fair says that the horse premiums went directly where they should go—into the pockets of men who breed for *useful* rather than for *sporting* purposes. He attributes the high order of visitors and the spirit of candid inquiry that were everywhere seen and manifested to the absence of the trotting horse.

The imports of England for the first four weeks of the new harvest exceeded 7,200,000 cwts. of wheat and flour against 4,400,000 cwts. in 1878; 4,100,000 cwts. in 1877 and 3,400,000 cwts, in 1876. It is estimated that the sales of foreign wheat during that time have been seven times greater than sales of home-grown wheat.

A dozen years ago British consumers required a trifle less than two pounds of imported ham and bacon per head; now they require a trifle over twelve and a half pounds for every man, woman and child in the country. As we said editorially the other day, our foreign market for stock products is growing apace.

At the International Patato Show at the Crystal Palace, the American potatoes held a prominent place. In the great open class of 24 varieties, the first prize was awarded to a collection having nine varieties of those sent out by B. K. Bliss & Sons, of this city. Another class of twelve varieties of which six were American, took second premium.

In all accounts of fairs lately held in nearly every part of the country, there are few things more remarkable than the rapid propagation of Jersey cattle noted by the prominent positions they hold at the different exhibitions. A few years back, a Jersey was seldom seen at any of the fairs, except here and there in the East, whereas, now according to nearly all reports, they number as many as any other breed, and often more.

Autumn is the best time to cleanse fruit trees, and indeed all plants, from scales and other insects. Now the fruit trees can be handled with less liability of breaking buds and spurs than in the spring after the buds have begun to swell, and the work will be as effective now as then. Use strong soapsuds of whale-oil soap. Apply it with a stiff brush; and do not confine the washing to the trunk, but go over all the small branches and everywhere on the tree where scales are found.

A third batch of prospecting English farmers have arrived in Canada to "spy out" the suitability of the land for the settlement of many intending agricultural emigrants. It matters little ultimately to this country whether these men settle here or in the Dominion; for the immigration across the border from our neighborland bears an annual ratio to the number of new settlers there: the more newcomers enter the Dominion, the heavier the emigration thence to the United States.

And still they come:—Another batch of 267 farmers with their wives and families left Liverpool for Texas last Thursday. For years Texas has directed considerable attention to inducing foreign emigrants to settle in the Lone Star State. She has sent several prominent men as agents to Great Britain who have there delivered addresses in public halls and elsewhere, setting forth the advantages of that State for settlement, and now she seems to be reaping the advantages of her past efforts.

We see in the Pacific Rural Press the statement that Staphylea Bolanderi, about which little has been hitherto known, has been rediscovered by Prof. J. G. Lemmon, of Sierra Valley. Prof. Bolander found it many years ago, but only in bloom. The shrub has its leaflets in threes. The fruit is an inflated pod from two to three inches long, pendant, like a pear, hanging in clusters of three or more. They remain upon the branch through winter. The shrub grows about 10 feet in hight. It belongs to the order Sapindaceæ, in which there are but four other genera.

The growing importance of our live-stock interests urgently demand more attention to the improvements of our herds, and whatever tends to bring this about by impressing the advantages of it upon the public mind, deserves commendation. Of this character is the Fat-Stock Show to be held in Chicago on November 10. Entries for it must be made with Mr. Fisher, Secretary of the State Board of Agriculture, at Springfield, Ill., on or before November 1. Successful as was the first show of the kind last year, we trust that the coming one will be still more fortunate.

Not since O'Connell's days have the Irish people been so thoroughly stirred up as they are at the present time. A large number of landlords are following the example of their English compeers, and making reductions in rent; but this concession can be of little benefit to tenants who can absolutely pay nothing in a majority of cases. Passive resistance to the payment of rent is the course urged upon the tenant-farmers by their leaders. If this advice is followed, it is hard to see how the landlords can enforce their claims. The entire eviction of the recusant farmers of a country so purely agricultural as Ireland, is impracticable.

The English potato crop is so remarkably poor this year, that it is estimated that farmers must lose at the lowest estimate $25,000,000 by this crop alone. A dozen years ago the average quantity of imported potatoes used in Great Britain was only five pounds per head, and that was nearly double the amount used in the two preceding years; now the population use an average of a trifle under 29 pounds a head; and this ratio must be largely increased the coming season, owing to the failure of the present crop. It is, therefore, probable that the export demand from this side of the Atlantic will stiffen up prices for potatoes at least along the States east of the Alleghanies.

Cover such plants as Pampas Grass, Tritomas, and remove Dahlias and the like to the cellar where it is best to cover them with sand. Hardy bulbs may now be reset for another year. Dig over the beds and put them in order for next spring. Prepare the ground for lawns and sow Blue-grass. An old bucket or paint keg half-filled with stable manure, and filled with water as used, will furnish enough fertilizing material for 500 plants during the winter. Cover the keg with a board. Wash all pots clean before they are used. Pot the Tube-roses that have not bloomed—they will bloom during the winter. If Mignonette seeds be sown now, the plants will bloom before spring. Deutzia gracilis is a fine plant for forcing. Cyclamen Persicum is one of our prettiest winter-blowing bulbs.

Two days after publication in our last issue that the price of wheat must go even higher, it went up from four to seven cents, and there seems little danger of its declining, except, perhaps through some temporary flurry. Speculators complain that this year there is much less chance than usual for them to realize heavy profits, inasmuch as farmers have themselves been holding back their crops for good prices. This step they attribute to the wider knowledge of the state of the markets and the probable outlook diffused among farmers by the agricultural press. Heretofore these men bought at low figures, so cutting short the farmers' remuneration; held on for a rise, and reaped a large profit from other mens' labors; now the profits go, to a great extent, where they ought to go—into the farmers' pockets. Usually we do not advise farmers to become speculators in their own products; but this year the certainty of good prices for nearly all farm products justifies a judicious change in this matter.

The annual convention of the North American Bee-keepers' Society will be held in the Lyceum Theater, Des Plaines St. Chicago Ill, commencing at 10 A. M. on Tuesday the 21st inst. Present indications point to a very large and enthusiastic meeting. Arrangements have been made with a number of railroads to carry those going to the convention at reduced rates, but in order to avail themselves of this reduction of fare, they must obtain a certificate from the chairman of the executive committee, Mr. T. G. Newman, (whose address we believe is 972 West Madison St. Chicago,) which is to be presented to the railroad officials. Those of our bee-keeping friends who may find it convenient to attend, will probably have an opportunity to learn much that may prove advantageous. Twenty-five of the most prominent bee-keepers in the country are appointed to present essays on all the topics that at present are of paramount interest to the business.

Industrial Societies.

ILLINOIS STATE FAIR.

[Special Correspondence.]

SPRINGFIELD, Ill., Oct. 11.

THIS fair opened at Springfield on Sept. 29, and closed on Friday, October 3d. The total number of entries in all the Departments, was 12,840, this being several thousand more than at any previous exhibition under the auspices of the Society.

Lack of Preparation.

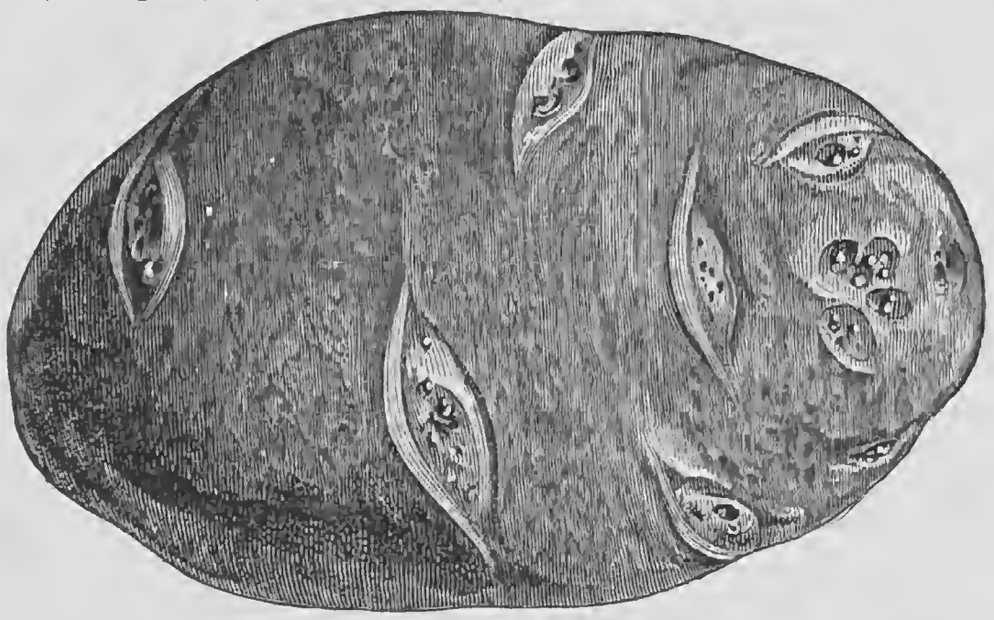
The weather throughout the week was extremely warm, and a brisk breeze swept clouds of dust from the parched earth, adding to the discomfort of a burning sun. Fair-goers, however, can stand anything but rain and mud; so they took in their allotted "peck of dirt" and went smilingly on with their work and their sight-seeing. Monday, Tuesday and Wednesday were discouraging days to exhibitors. A committee of Springfield citizens last winter gave bonds to the State Board of Agriculture for the performance of a contract to erect buildings, pens and stalls, for the different departments; to furnish adequate power for the running of machinery and so on, agreeing to have everything in readiness by the opening day. They wretchedly failed to carry out the contract. Exhibitors came here with the material to make one of the finest exhibits ever seen in the country. They might almost as well have landed on an open prairie The buildings were nearly all too small; the new ones were incomplete; hundreds of additional pens and stalls were needed for the accommodation of live stock; boxes of poultry lay scattered about Poultry Hall, without coops for their display; the shafting for machinery designed to be shown in motion, was not in readiness, and when, on Wednesday, attachments to power were made, the power was totally inadequate. Machines that had been transported hundreds of miles, at great expense, were rendered almost useless for the purposes for which they had been sent. A mutiny seemed imminent, and loud protests went up to the Board at their evening sessions, and it is not unlikely that suits will be brought against the Board for the recovery of money uselessly spent in making what would otherwise have proved most valuable exhibits. The Board threaten the local committee with litigation. Whatever may be the outcome of this talk, it is certainly a fact that great damage has resulted to the prospects of the fair here next year. With the office of Secretary in this city and the Board Committee on Grounds, in frequent sessions here before the fair, it seems a little strange that matters were allowed to drag on in this way. There are people who intimate that less attention paid to presidential receptions and more to preparations for exhibitors would have bettered things materially. The presence of President Hayes and party probably added a trifle to the gate receipts; but not very largely, as the total receipts for the week were below those of a number of previous fairs. However, if the final result is what a great many predict that it will be viz: a vote by the Board to locate the fair permanently at some central point, or to open three separate fair grounds in the State—one northern, one central and one southern—the annoyance here will not be regretted.

Horse Exhibits

In many respects the horse show was the most remarkable ever made in the State or in the West. The entries footed up a trifle over 1,400. There were 60 in the thoroughbred lot; 178 roadsters; 185 all-work; 46 imported draft horses; 103 home-bred draft: 211 agricultural-purpose horses; 35 carriage; 57 driving teams; 21 saddle horses; the balance being made up of the different sweepstakes lots Illinois has more Norman-Percheron horses than any other State. L. Dillon & Co., of McLean Co., began the importation of these horses more than twenty years ago and they have continued the business of importing and breeding them to this time. Mr. Dunham, of DuPage Co., has done a great work in this line. Others too have become worthy competitors until we have hundreds of specimens as fine as can be found in France. The Clydesdales are not behind them in the estimation of many men. Their number is less, but among them are some of the finest specimens of the breed in the world. The premium for the best draft team was given to a pair of Clydes owned by the Canada West Breeding Association, and the 2d to Dillon & Co., on a fine span of Percherons. Moffatt Bros. Paw Paw Grove, Ill., took a large share of the premiums in this class on their most excellent French horses. A. & S. Pickrell, Mechanicsburgh, were also prominent exhibitors in this class. The thoroughbred horse is not as largely bred here as in Kentucky; but the blood tells in the general all-purpose horses of the State. The exhibits of horses indicated careful and intelligent breeding and were convincing evidence of the steady improvement that has been going on for many years until the general average of horses in Illinois is better than in any other Western State. No finer rings were ever shown in the West than delighted the crowded amphitheatre at Springfield. The Board of Agriculture some years ago decided to leave out the Agricultural "hoss trot," and, as a result, the fast element in man that is the invariable accompaniment to the fast horse, did not appear here. The horse premiums went directly where they should go, into the pockets of men who breed for useful rather than for sporting purposes. If the Board continue firm in this attempt to purify its fairs by keeping out the jockeys and their disreputable hangers-on, the fairs will steadily increase in popularity and in the accomplishment of good work. Exhibitors of machinery, of fruits and farm products, of specimens of fine arts, and of live stock, all testify to the high order of visitors at this fair. They pay marked tribute to their intelligence and the spirit of candid inquiry that was everywhere manifest, and they justly attributed the past change to the absence of the trotting horse.

Cattle Exhibits.

The chief feature of the cattle department was the fine display of the milch breeds. The Jerseys took the lead with 156 entries, and among them as fine animals as the country affords. Samuel Stratton, of Montgomery Co., and Churchman and Jackson of Indiana, showed the largest number and took the largest amount of premiums, though the smaller exhibitors had very choice animals. The Holsteins contributed 82 entries and were admirable specimens. They were mostly from the dairy regions at the north part of the State where they are rapidly gaining in popularity, their admirable combination of milking and beef qualities suiting those enterprising dairymen. Several premiums were awarded to the fine imported Holsteins owned by Paul Rothbarth, of Chicago. The Ayrshires were more numerous than ever before at an Illinois fair. The Devon herd of Mr. Ross, of Fulton, has few equals in any State and undoubtedly stands at the head of the Western herds. His strongest competitor was David Whitmore, of Miami Co. O. The Herefords were there in full force. T. L. Miller, of Will Co., and Mr. Culbertson, of Cook Co., were chief among the exhibitors in this class. This breed is developing strongly in this State. Mr. Culbertson's late importation of some of the finest animals to be found in England, adds much to the position of the Herefords in the ring contests with Shorthorns. It is generally conceded that this was the finest Hereford show ever made in the United States. The Short-horns were less numerous than was anticipated. Just why this falling-off is something of a mystery to the public. We had but two herds here. They were owned by Samuel Pratero and by J. H. Potts & Sons, of Central Illinois, and were as fine herds as the State can produce.



SNOWFLAKE.

The Swine Exhibits.

were large and excellent. The Poland-Chinas and the Berkshires were about equal as to number. The Chester Whites were more numerous than I have known them for the past three or four years. The Duroc, or Jersey Reds exhibited by a Pennsylvania breeder, attracted much attention and will be bred in the West to a considerable extent at no distant day. The small breeds are not gaining very rapidly in the corn regions.

The Sheep Exhibits

were of very high character though not as large as at some former shows. There were four exhibitions of Merinos; two of Shropshires and two of Hampshires; four of South Downs and half a dozen of Cotswolds and Leicesters.

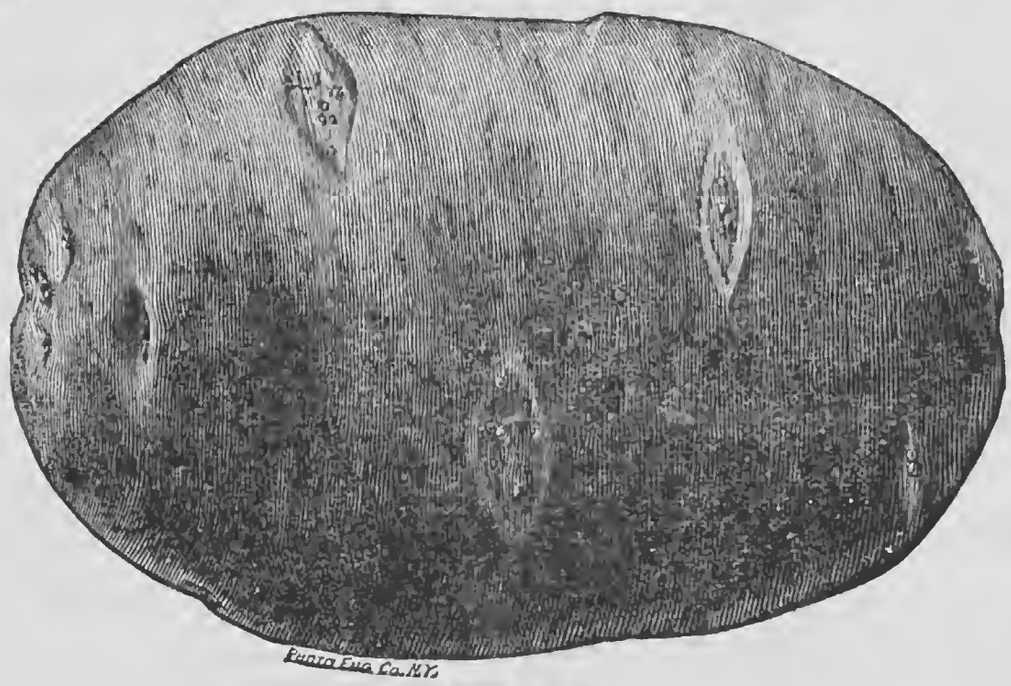
Both the Swine Breeders' and Sheep Breeders' Associations held evening meetings on the ground, at which international papers were read. Both interests exhibited a healthful energy.

The Poultry Exhibits

at Illinois fairs have usually been very mediocre, but on this occasion the collection was uncommonly large and of most excellent and varied character. In Brahmas, Light and Dark, Cochins and Games, the show was very superior; while in all the other popular breeds competition was lively.

The Fruit Exhibit

was, of course, very largely made up of apples, though the display of grapes was good. The Warsaw Horticultural Society sent some valuable contributions, as did many of our most prominent orchardists and nurserymen. In all respects this exhibit was much finer than last year's. In plants and flowers I noticed little change from the usual display. This feature is an attractive one, and adds especially to the pleasure of the ladies.



LATE SNOWFLAKE.

The Dairy Exhibit

was meagre, far more so than should have been the case in this State, where the dairy interest is of such magnitude. It is to be hoped that the show at Chicago soon will be more creditable, as no doubt it will be.

The Agricultural Machinery Department

was simply immense, and it was varied beyond any precedent within the State. But the space for it was limited and its arrangement far from satisfactory to either managers or exhibitors. Ohio, Indiana, Wisconsin, Michigan, Missouri and other States contributed of their best. Next to St. Louis, manufacturers delight in exhibiting to an Illinois crowd. So far as they were concerned, they would have made this the most satisfactory machinery exhibit of the season. As it was, the people enjoyed it greatly and they ordered largely of every class of machinery. Here are grouped together a few special mentions of prominent exhibits in this department. Messrs. John Deere & Co., of Moline, Ill., made a magnificent display of sulky and hand plows, walking and riding cultivators, etc., in their building on the grounds. Messrs. Deere & Co. have the largest plow works in the country, and have made and sold over 150,000 implements in one year. The central point of their exhibit was the handsome Gilpin Sulky plow that was sent over to the Paris Exposition last year. This plow, which we noticed at the time, is one of the finest pieces of mechanism ever turned out in this country. The "Gilpin" went into the field trial at Paris, and was awarded the grand prize [a Sevres vase, valued at one thousand francs] over fifty competitors. Another prominent feature of the exhibit was their new Deere walking cultivator. The new features in this implement are:—an improved coupling, which admits of the shovel gang being adjusted to the exact width desired, also readily changing the hight of ends of beams, thus altering pitch of shovels for depth, and, having long bearings both ways, this gives great steadiness and effect to side motion; and *a spring* which does not lose its tension or sustaining force until the gangs are hung up, assisting in all the operation; a spring which is made to carry just as little of the weight of the gangs as is desired, by simply hooking the chain in different links, making the side movement for dodging crooked rows and hanging up the shovels *mere child's play;* transferring the weight of gangs and of the pole to the wheel; decreasing the wear on bottoms of shovels, and lessening the draft.

In connection with the new departure in dairying, or the Fairlamb system of making butter by collecting cream from dairies, instead of the milk, the cans for raising the cream and transporting the same were on exhibition by Davis & Fairlamb, manufacturers, Arena, Wis., and could not fail to attract the attention of dairymen looking for improvements in butter-making. Each can is provided with an air-chamber, and a perfectly tight air-cover, and an arrangement for measuring the cream, the whole forming a system that is perfectly reliable. This system is largely in use in the Northwest and should be investigated by Eastern dairymen, as it is one of the plans of the future. The writer had an interview with a prominent manufacturer of creamery butter in this State and his verdict was, that better butter was made by the Fairlamb system than could be made in his creamery. His reasons were, 1st. "The milk is set at the dairy at the time of milking." 2nd. "No injury is done to the cream by transportation." 3d. "The dairyman is always receiving a premium (for producing the best quality of milk, keeping best grade of stock and feeding higher) by the extra quantity of cream he has to sell, and from the cream a better quality of butter is produced than by the customary way of feeding cows for a quantity of milk."

The Stoughton Wagon made by T. G. Mandt, Stoughton, Wis., was delayed in transit, the wagons not arriving until late on Thursday afternoon—too late for the Committee to report on them, and only in time to give the enterprising manufacturer a chance to exhibit his goods to a few. If these wagons had been here before the Committee reported, without doubt they would have received the first premium. The Stoughton wagon is well known among the farmers of Wisconsin, Minnesota and throughout the Northwest for its ease of draft and durability. The manufacturer is a pusher and spares no pains to put out a wagon that is first-class in every respect. He has made for it the best of reputations at home, and proposes now to extend its usefulness all over the country. Those who know this wagon consider it equal to any farm or lumber wagon built; while at the same time it has several points that are not found in other wagons. It has a patent adjustable reach that can be extended long enough to carry lumber twenty-four feet in length; also a spring to hold up the tongue; also a patent gear brake which is an important improvement. These wagons are built of the very best material and in the most substantial manner. The manufacturer warrants them to be all that is represented, and will be happy at any time to furnish our readers with full information in reference to them.

There was a fine display of tile and brick-making machinery, which would have been a great deal more effective if the management had supplied the power, as they had agreed to. As it was, the exhibitors made as fine a show as possible with the power at their command. The Tiffany Improved Tile machine with brick attachment, exhibited by H Brewer & Co., Tecumseh, Mich., was awarded the first premium. This is an auger machine and attracted a great deal of attention. In it the pressure is applied to the disc upon a very small area; it dispenses with the bridge, or bracket, used on other machines. The rotary motion of the core pins, as the tile issues from the disc, produces the same effect as when smoothing plastic material with a knife, thus producing a very fine tile. J. W. Penfield, of Willoughby, Ohio, exhibited his new

IMPROVED PEACHBLOW.

Auger Tile Machine which he has been perfecting for the past six months. Mr. Penfield has long been known as a reliable manufacturer of brick and tile machinery, and in his new machine he intends to combine both the advantages of the perpendicular and horizontal machines. It makes tile from two to twelve inches in size. He has not been able to fill orders for this machine this season; but by enlarging his works he expects another year to be able to supply the rapidly increasing demand for the Penfield machines.

Cooley's Patent Creamer manufactured by John Boyd, Chicago, Ill., was shown in operation by J. J. Lockwood. We have often spoken highly of this system, and many of our readers are familiar with it. By it farmers and dairymen get all the cream there is in the milk. It makes the best quality of butter, is cheap and durable, and it pays for itself by the saving of labor in handling the milk. It works equally well in all seasons of the year. Mr. Boyd has put out nearly 3,000 creamers this year, and has yet to hear of the first one that does not give satisfaction.

Messrs. C. Aultman & Co., of Canton, Ohio, made a large and handsome display of their celebrated Buckeye self-binders, mowers, reapers, Canton Monitor engines, Sweepstakes thrashers, etc. Their exhibit attracted a large crowd and showed that the "Buckeyes" are very popular machines in this State. Their engines and thrashers were in full operation working to perfection. The "Monitor" is now made with a traction and self-propelling steering attachment which has proven a success. Messrs. Aultman & Co., have had a very successful season, finding it hard work to fill their constantly-increasing orders.

A fine exhibit of Porter's patent wire cable derrick and Porter's wood track hay-carrier for barns was made by J. E. Porter, of Ottawa, Ill., and was awarded two first premiums. It attracted a great deal of attention. Mr. Porter showed his machines in operation, practically illustrating to visitors their simplicity and the ease with which hay, straw, etc., can be handled both in stacking in the field and in moving them away in the barn.

An ingenious arrangement, in the shape of an automatic check rower, was exhibited by Mr. Jas. Rothschilds. This implement is manufactured by the Sucker Check Rower Co., of Millwood, Ill. It will meet a want long known to the farming community. It is cheap, simple and durable, and we are assured by the patentee that it will do and has done all the work that is claimed for it. Our readers can obtain full information of this new invention by addressing as above.

The Racine farm fan, warehouse and elevator mills were exhibited by the manufacturers, Johnson & Field, Racine, Wis. These improved fan mills combine all the advantages of the various kinds now in use, and also many important and greatly needed improvements introduced by these manufacturers. Although this is comparatively a new firm, still their mills are already sold all over the country and have obtained an enviable reputation. Their warehouse mill gives the best of satisfaction and attracted a great deal of attention on the grounds. It was shown in full operation, cleaning all kinds of grain and seeds. It is particularly adapted for separating oats from barley. This is a point that warehousemen should take into consideration, as this mill is acknowledged by leading barley men to have no superior in this respect. The manufacturers are always glad to furnish information.

The "Boss" churn carried off the blue ribbon. Messrs. Rhoades & Palmer, of Rockford, Ill., have built up a very large trade in these churns. They are manufacturing them by the thousand and are sending them by the car-load to Vermont on orders from dairymen who are qualified to judge of their merits. They have also received an order from a London, England, firm for churns to be used in making butter for the great London Exposition.

W. W. C.

BRIEF SUMMARY OF POTATO REPORTS TO THE AGRICULTURAL DEPARTMENT.

We thank Mr. A. E. Carman, Acting Commissioner of Agriculture, Washington, D. C., for a large manuscript summary, in advance of publication, of the reports made to the Department from various parts of the country with regard to the results obtained from specimens of the Beauty of Hebron and a few other promising new varieties of potatoes sent out by Commissioner Le Duc to be tested. Of these reports we have condensed a few selections from those States about which our "Everywhere" has given rather meagre information:

Alabama.

BEAUTY OF HEBRON.—Lowndes Co. "Planted March 8; ripe in 90 days; yield 317 bushels per acre."

Shelby Co. "Second crop planted August 12; grew well until frost cut them in October; a few nice tubers were made. Two crops can be grown."

Autauga Co. "Foliage luxurious; blossomed April 30; decayed in 150 days; solid; delicious."

VICTOR.—Lowndes Co. "Planted February 1; decayed July 1; yield light; flavor excellent."

Monroe Co. "Growth vigorous and fine, no blossoms; yield 400 pounds to peck; superior in every respect; early as E. Rose; best ever planted."

ALPHA.—Autauga Co. "Foliage slender; pale; blossomed April 25, decayed in 95 days; not large or many in a hill; very inferior."

RUBY.—Autauga Co. "Foliage large; luxurious; blossomed April 20; decayed in 95 days; very prolific; good; as fine as E. Rose."

Arkansas.

BEAUTY OF HEBRON.—Franklin Co. "Foliage strong and copious, decayed in 130 days; yield, 6,000 pounds per acre, uniform size and shape, mealy and superior flavor."

Lonoke Co. "Foliage rank and beautiful; yield large; a splendid table potato."

Garland Co. "March 21, planted eight quarts; matured June 1; yield, 450 pounds; quality very good; handsome shape and size."

Saline Co. "Planted March 18; dug July 8; earlier than Victor; yield, 44 pounds for one; fair size; flavor good; adapted to this climate."

Johnson Co. "Planted two quarts March 20; foliage large, thrifty, decayed in 55 days; dug June 24; yield, 79 pounds from two quarts; fine, thin skin; mealy."

Independence Co. "Planted March 19; foliage healthy; blossomed May 15, decayed in 78 days; yield, 210 pounds; medium size; most excellent, mealy and delicate."

Crawford Co. "Better than Early Rose in all respects; it grows 'two stories,' one pushing the other out to get room in the soil; it is the potato beyond all others; I get two crops a year."

VICTOR.—Saline Co. "Planted Feb. 14th; dug July 8th; yield 24 pounds for ¼ pound—very large—mealy and delicious when boiled."

Johnson Co. "Planted one quart, March 20th; foliage large, decayed in 115 days; dug August 20th; yield 66 pounds; large, mealy, fine-flavored."

ALPHA.—Franklin Co. "Foliage delicate; decayed in 120 days from planting; yield at rate of 4,200 pounds per acre, irregular in form, smooth and tender when cooked."

Johnson Co. "Planted two quarts, February 2nd; foliage thrifty, decayed in 115 days; dug August 20th, yield 66 pounds, large, mealy, fine-flavored."

Washington Co. "Planted March 23d; bloomed May 25th, ripe July 10th, yield moderate, size medium, white, mealy and smooth."

RUBY.—Franklin Co. "Foliage vigorous, decayed in 145 days from planting; yield 6,600 pounds per acre; irregular in shape, clammy when cooked—not good."

Johnson Co. "Planted one quart, March 20th; foliage thrifty; decayed in 91 days; dug July 25th; yield 3,600; rather small, cook well; extra flavor."

Florida.

BEAUTY OF HEBRON.—Willsboro' Co. "Reported to grow thriftily and to be of good quality. November is the best month to plant."

Columbia Co. "Planted 1 quart August 15; bloomed in 63 days; vines vigorous, decayed in 70 days; yield over 80 pounds; as good as Early Rose."

Taylor Co. "Planted 1 quart September 28; foliage healthy; decayed in 74 days; yield 10 pounds to a quart, good quality."

Hillsboro Co. "Fine for table."

Taylor Co. "Not successful."

Georgia.

BEAUTY OF HEBRON.—Forsyth Co. "Grew well; ripened quickly; fair yield; mealy and good quality."

Johnson Co. "Planted five potatoes August 12; bloomed September 18; gathered 360 potatoes; very good."

Coffee Co. "Yield small, but fine, smooth tubers."

Early Co. "Good yield."

Bullock Co. "Ready for use in 50 days; superior."

Charlton Co. "Dry and mealy."

Sumter Co. "Fine yield and quality."

Kentucky.

BEAUTY OF HEBRON.—Owsley Co. "Planted August 15; matured in 120 days; yield 280 pounds for eight pounds; mealy, delicious for table."

Warren Co. "Beautiful potato; 50 from four potatoes; better and earlier than E. Rose. Superior to any other."

Shelby Co. "Planted April 1 on sod land; foliage luxuriant, decayed in 100 days; yield 190 pounds for 12 planted; quality equal to E. Rose."

Bath Co. "Strong foliage and bloom; yield 600 pounds for 16 planted; large tubers; excellent."

VICTOR.—Bath Co. "Strong foliage; ripe in 115 days; 252 pounds for four quarts planted."

Scott Co. "Foliage healthy; yield heavy; excellent quality."

ALPHA.—Owsley Co. "Planted August 15; ripe in 120 days; yield 210 pounds for eight; mealy and of fine flavor."

Bath Co. "Delicate foliage; ripe in 100 days; yield small, but tubers good."

RUBY.—Owsley Co. "Planted August 15; matured in 90 days; yield 250 for eight; flavor good; fair and smooth, not so large as Victor."

Maryland.

BEAUTY OF HEBRON.—Cecil Co. "Yield, 173 pounds from two quarts; very good quality; nearly identical with the Early Rose."

Montgomery Co. "One quart yielded 27½ pounds, each potato weighed 11 or 13 ounces, and some one pound."

Anne Arundel Co. "Yield, 27½ pounds from one quart; very fine, rich potatoes."

VICTOR.—Cecil Co. "Very productive, but not so good as Beauty of Hebron."

Howard Co. "As good as Early Rose and better than Alpha."

Carroll Co. "Planted 10 pounds, and in 90 days dug 184 pounds; not so good as Early Rose."

Mississippi.

BEAUTY OF HEBRON.—Clark Co. "Yield, 54 pounds for one planted; excels all other potatoes."

Noxubee Co. "Fine yield and quality."

ALPHA.—Fayette Co. "Yield good; tubers size of turkey eggs; fine flavor and quality."

Jefferson Co. "Excellent yield."

RUBY.—Grenada Co. "Superior yield and quality."

North Carolina.

BEAUTY OF HEBRON.—Yancey Co. "Yielded 72 pounds for eight planted."

Richmond Co. "Yield, 9,872 pounds per acre."

Nash Co. "Nine potatoes produced 3½ bushels."

Alexander Co. "Yield, 300 pounds from eight quarts; large."

ALPHA.—Henderson Co. "The earliest potato grown."

Orange Co. "Yield, 17 pounds from one quart."

RUBY.—Henderson Co. "Yield, 40 pounds for one quart."

Oregon.

BEAUTY OF HEBRON.—Grant Co. "Great acquisition; we'd like to have them throughout the county."

Curry Co. "Foliage blighted; no bloom, decayed in 125 days; yield 133 bushels per acre; sound and very good.

Clackamas Co. "Planted March 15; vines strong and green; no bloom: ripe July 20; yield at the rate of 200 bushels per acre; mealy and very good for the table; good and solid."

Multnomah Co. "Foliage thrifty; bloomed June 20, decayed in 85 days; yield 120 pounds from 36 hills; very fine for the table.

Tillamook Co. "Planted April 13; prolific; blossoms decayed July 18; dug July 29; planted four quarts, dug 252 pounds; cook very readily; the finest I ever used.

Lane Co. "Foliage healthy; decayed in 95 days; yield fair; size large; of excellent quality.

VICTOR.—Josephine Co. "Foliage healthy; did not bloom; decayed in 75 days; yield moderate; quality fair—not dry enough.

Multnomah Co. "Foliage thrifty; bloomed June 14; decayed in 79 days; yield 180 pounds from 36 hills; excellent for the table.

Douglas Co. "Foliage healthy; yield 100 pounds from two quarts; superior quality; a great acquisition.

Tillamook Co. "Planted April 18; blossomed June 15; decayed July 25; dug August 1; planted two quarts, dug 194 pounds; quality good."

Lane Co. "Foliage healthy; decayed in 100 days; yield 12-fold the seed planted; good quality and keeps well."

Curry Co. "Foliage healthy; no blossoms; decayed in 119 days; yield, at the rate of 200 bushels per acre; best quality known here."

ALPHA.—Josephine Co. "Foliage not large; no bloom; decayed in 60 days and rotted badly; sound ones dry, mealy and of good flavor."

South Carolina.

BEAUTY OF HEBRON.—Newberry Co. "Good yield, quality and flavor."

Abbeville Co. "Yield, 50 pounds to two quarts, inferior."

VICTOR.—Abbeville Co. "Yield, 1½ bushel from one quart; good."

Hershaw Co. "Good as Early Rose; more prolific."

RUBY.—Newberry Co. "Superior quality."

Tennessee.

BEAUTY OF HEBRON.—Greene Co. "Yield 40 pounds to two quarts; excellent."

Unicoi Co. "Twenty-four potatoes yielded 274 pounds."

Sevier Co. "Healthy, yield 28 pounds to one quart seed."

VICTOR.—Sumner Co. "Yield 70 pounds per quart; fine, large, mealy."

Jackson Co. Tubers equal to E. Rose."

Sevier Co. "Yield 53 pounds from one quart."

ALPHA.—Overton Co. "Yield fair, tubers fine."

RUBY.—Overton Co. "Good yield; superior to Alpha."

Sevier Co. "Yield from one quart 66 pounds, extra."

Texas.

BEAUTY OF HEBRON.—Burleson Co. "Yield six bushels from eight quarts."

Bee Co. "Largest potato ever raised here; smooth, sweet and mealy."

Washington Co. "Is a great acquisition; would not take $1 a pound for the seed if I could not get more."

Angelina Co. "Splendid yield, not to be excelled; very early."

VICTOR.—Isleta Co. "Yield 154 pounds for five pounds planted."

Burleson Co. "Very good yield."

Brown Co. "Yield 170 pounds from two quarts."

Virginia.

BEAUTY OF HEBRON.—Prince William Co. "One quart yielded 85 pounds, and I also got 91 pounds from one quart planted late."

Highland Co. "Very fine and the earliest potato raised here."

Dinwiddie Co. "Yield six pounds from two potatoes.

Stafford Co. "Yield 180 pounds from two quarts."

Mechlenburgh Co. "Planted March 15; bloomed in May; ripe July 1; large, smooth, medium-sized; yield 67 for 1."

Lee Co. "Excellent; yield 160 pounds from four quarts."

Caroline Co. "Well adapted to this climate, fine."

Amelia Co. "Yield 104 pounds to one quart. Superior."

Westmoreland Co. "Yield from 15 potatoes one bushel of extra-fine tubers in flavor and quality."

VICTOR.—Wise Co. "Large yield, fine quality."

Mechlenburgh Co. "Yield 48 potatoes for one."

RUBY.—Fairfax Co. "Yield light but fine."

Wise Co. "Excellent quality."

ALPHA No. 2.—Stafford Co. "Planted April 1; bloomed in 40 days; ripe June 20; yield 100 pounds from two quarts; white and mealy."

Mechlenburgh Co. "Yield 180 pounds from four quarts, white, mealy, good flavor."

West Virginia.

BEAUTY OF HEBRON.—Mason Co. Strong growth; yields well; early; handsome; we prize it highly.

Morgan Co. Good yield—40 pounds from one quart.

Roane Co. Much larger than Early Rose. Superior quality and yield.

Jefferson Co. "Magnificent yield. Superior."

ALPHA.—Mason Co. Yield 45 pounds, good quality, from one quart.

RUBY.—Mason Co. Foliage healthy. Yield 65 pounds from one quart; color pink; good growth; excellent.

Literary Miscellany.

IN FOLLY'S NET

CHAPTER XI.

MAKING DOUBLY SURE.

MR. BLAIR entered the room with his usual easy grace of manner and self-possession, and Jean, rising from the sofa, stood before him, a quaint, odd figure, in her trailing crimson draperies, with the white kerchief crossed over her breast, and her pretty hair fastened up high on her graceful head.

"How do you like me?" she said, sweeping him a saucy courtesy.

"How do I like you?" he repeated, looking down at her with smiling, tender, dark eyes. "I like you always far too well for my peace of mind, Jean."

Jean's fair face flushed, and she repented her little coquettish movement.

"May I give you some tea?" she said, with a pretty assumption of hauteur, which Mr. Blair thoroughly admired. "I hope you have had something substantial."

"Yes," he said, absently. "But I shall like some tea, if you will be good enough to give me some."

Jean poured out some tea, coloring a little as she gave it to him, at the thought that they were here together, domesticated "as man and wife," and there was something significant in Mr. Blair's glance, as he lifted his eyes and met hers.

"I have just despatched a messenger to Sholto," he said. "It was impossible to do so before, in the storm. As it is, I think we must reconcile ourselves to passing the night here. It is getting late, and the night is dark."

"Oh! I hope not," said Jean — most sincerely. "They would be so anxious."

"Their anxiety will be relieved by the arrival of my messenger," said Mr. Blair.

"True," assented Miss McLeod, looking into the fire. "It is a most dreadful *contretemps* altogether."

"I cannot but——" he stopped abruptly, then went on—"I cannot regret what gave me the intense pleasure of your society for so many hours," he said. "I can never regret our adventure, Jean, and it will be the object of my life to prevent you from regretting it also. Ah! think," he went on "what happiness it must have been to feel that you were with me, dependent on me for help and protection; to have held your little hands in mine—to have felt you cling to me in your terror, to have held your dear head against my breast—to have carried you in these arms—these arms that have yearned to hold you ever since my eyes first fell upon your face. Ah! Jean, those hours of terror and distress to you were hours of unutterable joy and delight to me; to the man who loves you—who loves you dearer than his life—dearer than his honor." He had caught her hands in his, and was holding them tightly, pressing them passionately to his lips and to his heart, while Jean, faint and trembling, shrank from the burning passion in his eyes.

"Does my love frighten you, little bird?" he said, in a moment, in a voice of the softest tenderness. "You must not let it, my pretty, timid child, for it is yours to order, mine to obey. I shall be wax in your hands, Jean. You shall never repent your trust in me. You shall be very happy, my darling."

"I do not understand you," she said, with a little faint shudder—"I do not understand you. You are terrifying me, Mr. Blair; it is not generous, when I am so completely in your power."

"Ah! forgive me, my darling; I will be patient. Do not fear, Jean. In time, when you shall be my wife, not in name only, but in heart and mind, then my love shall not terrify you as it does now."

His words, which she did not understand, but which startled her with a sudden, vague dread, were hardly uttered, when the door of the little sitting-room was thrown hastily open and before Jean's hands were free from Mr. Blair's eager clasp, Lord Sholto, followed by Captain Murray, appeared on the threshold. Jean sprang forward with a little cry of surprise and joy; but before Andrew Blair turned to greet his friends, he pushed into the breast pocket of his coat a crumpled paper which he had picked up from the floor by Jean's sofa.

It was the note he himself had written to her.

"We met your messenger, Blair," exclaimed Lord Sholto. "Well, Jean, how are you? half drowned, and terrified out of your life at the thunder? Whose garments are those you are wearing?"

"The landlady's," said Jean, laughing, recovering her usual good spirits at the prospect of deliverance. "Don't I look bewitching? would you like a *trois temps* with me?"

"Immensely," laughed his lordship. "Are you coming with us? or do you prefer spending the night here; you look very cosy, I must say."

Jean flushed a little.

"Was Florence very anxious?" she said.

"A little at first; but when I told her Blair had left us to go and meet you she knew, I suppose, that you were in good hands, and set her anxiety at rest. Collins put in some dry clothes for you, Jeanie."

"Did she? That was thoughtful," said Miss McLeod. "Is that my bundle, Captain Murray? So many thanks. Now I shall get rid of my picturesque garments; I will not be many minutes."

So saying, she disappeared into an inner room and divested herself of Mrs. Martin's flowing garments; dressing for about the first time in her life without the assistance of a maid, and in a few minutes she was equipped and ready to start. She found Lord Sholto and Captain Murray alone in the sitting-room; and the former volunteered the explanation that Blair had gone to settle with the landlady.

"If you are ready, Jeanie, we can go down to

the carriage," said Lord Sholto, offering his arm. "It will be one o'clock before we get home, so we must not delay."

"You will not be able to conduct me down those stairs," laughed Jean, as they stood at the head of the narrow staircase. "I will precede your lordship."

She ran down lightly; in the bar-parlor, empty and deserted now and but dimly lighted by one small lamp, Mr. Blair and the landlady were talking with more earnestness than the settling of an account would seem to warrant; but there was gold on the counter under Mrs. Martin's hand, so that it was evident that Mr. Blair had remunerated her for her accommodation in a manner befitting the profuse liberality of the Australian millionaire. He turned as Jean appeared.

"You are ready?" he said, with a touch of embarrassment. "We have concluded our business also. Good-night, Mrs. Martin."—*To be continued.*

BOOKS RECEIVED.

Haworth's. By MRS. FRANCES HODGSON BURNETT. New York: Scribner's Sons. Price, $1.50.

IN spite of the power and dramatic force of the writer, the strongest impression left by the book is its aimlessness. There are a number of strongly drawn characters; there are dramatic scenes in abundance; but of sustained action, leading up to a final climax, there is none. The characters go on their separate ways, utterly independent of one another, and the reader is filled with a vague wonder as to why he has been led through many pages of careful character delineation and exciting incident to learn in the end that Mr. Ffrench, Haworth and Saint Meran mysteriously disappear, and that of the others only one (Granny Dixon) does anything definite—*she* dies; the rest walk out of the door and out of the book at the same time, or else sail away.

Haworth, the hero, is admirably drawn. A coarse, bold man, the author has not hesitated to paint him as he was, sins, vulgarity and all. Miss Ffrench, a cold, proud beauty, who is so self-contained as to be quite above and beyond the emotions and interests of ordinary humanity, is interesting as a character sketch but repellant as a woman.

The quaint shrewdness of Janey, the child whom much serving has made a woman in spite of her tender years, is effectively contrasted with the fierceness of Granny Dixon, whose shrill tones and spiteful remarks ring through the entire book.

The most charming and lovable of all is the mother of Haworth. By her true womanliness and her abiding affection for her son she wins and retains the love of the reader. After the turbulence of Haworth, the frigidity of Miss Ffrench and the morbidness of Miss Murdock, it is refreshing to turn to this sweet-tempered, natural woman.

The Great Speeches of Daniel Webster, with an Essay on "Daniel Webster as a Master of English Style." By EDWIN P. WHIPPLE. Boston: Little, Brown & Co. Price $3.00.

THE opportunity here afforded of obtaining some of the best of Webster's speeches will be eagerly embraced by many whose limited means have prevented their indulging in the six-volumed "Life and Works of Webster" issued in 1851. Of course this work does not pretend to any such completeness as the earlier edition, but still from the forty-three speeches given one can form a correct idea of Webster as an orator. Quite apart from his eloquence and the perfection of his style, it is interesting to learn what so prominent a statesman thought on the questions of his day. (His speech on "Executive Patronage and Removal" contains many timely and valuable suggestions which we would commend to the notice of "machine" politicians of to-day.) To attempt anything like a criticism of these speeches would be like "gilding refined gold" for no praise, however generous, could add any weight to this wonderful man's reputation as an orator and a statesman. The best monument of his intellectual greatness is his own words, the careful study of which as embodied in his speeches, arguments and diplomatic correspondence cannot be too strongly urged upon all.

From Attic to Cellar. A book for Young Housekeepers. By Mrs. OAKEY. New York: G. P. Putnam's Sons. Price, 75 cents.

The author is already favorably known to the reading public through her various contributions on home matters, in which she has given evidence of a thorough appreciation of the difficulties and trials of housekeeping, and by her common sense directions has indicated a way out of the same. Her tour from "attic to cellar" is very thorough, nothing however trivial having seemingly escaped her notice, and accomplished indeed must be the housekeeper who will not be profited by going "upstairs and downstairs and in my lady's chamber" in company with so experienced a guide as Mrs. Oakey.

Of books on household decoration and on cookery we have had enough and to spare and it is therefore really a treat to have some one discourse to us on choice and arrangement of a home; daily habits; duties of servants; house cleaning; home and society, and dress. It is impossible in a short notice to give any thing like a fair idea of this book. It has to be examined to be fully appreciated.

Our Folks; A Play in Three Acts. By GEORGE M. BAKER. Dramatized from Running to Waste: The Story of a Tomboy. Boston: Geo. M. Baker & Co. Price 15 cents.

THIS little play is for amateur theatricals, and it is so arranged that little or no expense need be incurred for costumes or stage properties. There is not a villain in the play; it depends for success upon pictures of home-life and the characterization of homely, everyday people.

Life at Home; or, The Family and its Members. By WM. AIKMAN, D.D. New York: S. R. Wells & Co. Price $1.50.

THIS book is designed mainly for the newly married. Not but that those who are old in Hymen's service may not be benefited by it, but it is meant rather as a guide to show young couples what errors of conduct to avoid. Much of the advice is admirable, particularly that relating to the *permanency* of the marriage relation. We take exception, however, to the tone assumed in pointing out the duties of the wife. The day has passed for the *obedience* theory. The wife of the future will call no man master save the "Man Christ Jesus."

Alpine Flowers and Other Poems. By AUGUSTA CLEVELAND PRINDLE. Sold by Whitney & Adams, Boston. Price $1.00.

THERE is nothing very much to be said of these verses. The sentiment is sweet and pure, and not ungracefully expressed.

MAGAZINES.

APPLETONS' JOURNAL—CONTENTS FOR OCTOBER.—Vivian the Beauty, by Mrs. Annie Edwardes, author of "Archie Lovell," "Ought We to visit Her?" etc.; Chapters V. to IX. Leaves from the Laurels of Moliere. The French Play in London, by Matthew Arnold. Art and Criticism, by Sidney Colvin. The Seamy Side, by Walter Besant and James Rice; Chapters XVI. to XVIII. Conspiracies in Russia, III.; by Karl Blind. A Dialogue on Human Happiness, by W. H. Mallock. The City of Rocks, by F. Murphy. Poems: "Dulce est desipere," by F. A. Symonds; "Her Cuckoo," by Frederick Locker; "Portent," by Edgar Fawcett; "Facing the Hights," by Howard Glyndon. Editor's Table: The Nude in Art once more; Women as Horticulturists; Art and Democracy. Books of the Day: Herbert Spencer's "Data of Ethics;" "The Life and Letters of Madame Bonaparte;" Warren's "Recreations in Astronomy;" Brooke's "Milton;" "Travels with a Donkey in the Cevennes;" Quatrefages's "Human Species;" "Roman Days;" "Spain in Profile;" "Delicia."

FACING THE HIGHTS.

I.

SINCE the one song we can sing is
But a sad one!
Since the presence that we bring is
Not a glad one:
Must we—you, my heart, and I—
Stay to watch the world run by,
While we two sit back and cry—
Wearily?

II.

What! Is this our strait? and truly
Is all lost?
Is Hope given up and duly
Shrived and crossed?
Come, heart! Can not you and I
Yon untrodden country try,
Rather than lie down and die—
Drearily?

III.

Seems to me, the hills glow greenly
Over there.
If our Fate has served us meanly,
Can't we bear?
Let us trudge it, you and I,
Heart, to where those new lands lie;
Let us bid the old good-by—
Cheerily! HOWARD GLYNDON.

Appletons' for October.

WOMEN AS HORTICULTURISTS.—Flower-culture has greatly increased in recent years in the vicinity of all our large cities, but the taste for flowers is something that grows upon what it feeds, so here is large space for women to exercise their skill and industry. The supply and the demand for cut flowers are both very large, and probably keep pace with each other, but window flower-culture is only in its infancy. Within the last few years an increased taste for this sort of ornamentation has been very evident. Ten years ago there was probably not an hotel or restaurant in New York that planted flowers in its courtyards or approaches, and now nearly every one has them. Very beautiful, indeed, is the flower garniture at some of these places. In private dwellings window-boxes of flowers are becoming more and more common, but the majority of houses are still without this pleasant and graceful ornamentation, and hence the ladies who take up plant-growing might with a little tact greatly stimulate the public taste in this particular. And what more fitting pursuit for women than the cultivation of flowers? In what more charming conjunction can we imagine them? what employment is there anywhere that accords so exactly with their love of color, their passion for beauty, their delicate susceptibility to odors, their delight in whatever is sweet, cleanly, pure, and needing care and nurture? It is a wonder that flower-rearing is not already generally in their hands.

The practical difficulties with young women searching for a vocation is that they have no capital, no special training, little knowledge of current commercial needs, and no disposition to enter untried fields of labor. They are ceaselessly demanding new avenues for employment, under the impression apparently that by talking about them vigorously these new avenues will open of their own accord. Assuredly fruit-growing, flower-culture, and kindred pursuits offer no great obstacles to young women with a small measure of determination and a little activity of imagination. The great point with us all is to be able to think out things, and this is what we mean in this instance by imagination. Neither men nor women are likely to gain much success in established vocations, much less enter upon untried ones, unless they have ideas, the power to construct, to form, to plan, to discover relations between facts and possibilities of facts, to detect significances and follow them to their logical outcome. In flower-growing, however, there is this advantage—many ladies have natural taste and a little smattering of the art, and hence it would not be difficult for them to gain sufficient knowledge from books and practical experience in their own gardens to make a test of the suggestion which the writer in "Macmillan" makes; and eventually training-schools may be established in which young women could enter. The thing is, to make a beginning; and to make a beginning the very first requisite is practical intelligence.—*Appletons' for October.*

For Women.

CONDUCTED BY MISS FAITH RIPLEY.

LETTERS FROM A COUNTRY GIRL.

MARGARET B. HARVEY.

READING FOR PROFIT.

TO BE able to read and enjoy Ruskin is a long step forward in the true appreciation of good literature. If any of you, my friends, can do so at present, you will find little difficulty in selecting a library—and if not, you need not be discouraged. Every one cannot understand Carlyle, and Emerson, and John Stuart Mill, but this is no reason why every one should not admire and love Miss Alcott. Her books I recommend unhesitatingly to all who would form a good literary taste. Not only is the language forcible, but the sentiments are good and the characters life-like. And when you know the "Little Men" and "Women," and the "Old Fashioned Girl," and "Rose," and "Christie, and all their friends and adjuncts, I don't think you will care very much for "The Red-Headed Scalper of the Bloody Plains" on the one hand, or "The Misfortunes of Celestine Florentina, Countess of Fiddle-Faddle," on the other. But very likely you will care for those standards of English literature, the works of Scott and Dickens.

A few years ago, to mention these last was to indicate a stupendous task to many, in the way of accumulating sufficient funds to purchase the books. Girls supporting themselves by their needle, and boys apprenticed to trades, very often had ten cents when they hadn't two dollars, consequently they bought what they could for their money—flashy weeklies. But now the productions of the brightest and wisest flood the country in a form as convenient and at a price as low as any of the trash-papers. So it is easy to read almost anything that one wants, or to send the same to young friends at a distance.

Having finished Scott and Dickens, you will find it but an easy transition to Miss Muloch and George Eliot. Among translations from foreign languages it would be well to revel among the fantastic creations of Jules Verne and the wonderful conceptions of Victor Hugo. It is scarcely worth while to spend any time over the constant stream of new novels regularly issued from great publishing houses, for out of twenty you will probably not find one worth finishing. Of all appearing within the last six months, I remember but two I would care to read again—"Sir Gibbie" and "Miss Margery's Roses."

Probably by this time in your reading you have met with extended allusions to certain things in the domains of science, art, philosophy, history, and so forth, which have opened your way for new and far-reaching trains of thought. Follow these up at your first opportunity, and *always* look out any name or date or circumstance mentioned. Your dictionary and encyclopædia thus will grow to be your right hand men. And so, before you know it, you will find that you are gradually accumulating an invaluable stock of general information.

You are now especially led, according to the peculiar bent of your mind, towards works on Botany, Geology, Architecture, Political Economy, and what not. Giving each one chosen the attention it deserves, you will suddenly wake up to the fact that you know just nothing, but that you have nevertheless reached a much higher intellectual state, and that you could not now endure the mental food upon which you once lived. Now you are ready for the solid wisdom contained in the fascinating prose of the writers whom I mentioned at the head of the article.

POETRY.

Talking of authors, what do you know of them? Well, unless you know something of them—their nationality, character, habits and, above all, the age in which they lived—you can't more than half appreciate their books. So you must begin and play the "Game of Authors" in earnest. And a priceless aid in learning of English writers, is Cleveland's "Compendium of English Literature," with its sequel, "Literature of the Nineteenth Century." These are better than the encyclopædia, inasmuch as they give an extended notice of each, with a specimen of his or her authorship.

If you like prose, you ought also to like poetry. You hear it said that this is a prosaic age, that fact is opposed to poetry, and so forth, but this is a serious error. The truth never wars against itself. Let the prose be true and the poetry be true, and all will be well. Besides you ought to love a thing for what it is. Love a rose because it is a rose, and don't think that you might cook it if it were a cabbage. Roses and cabbages have respectively their places, and keeping in them, antagonism between them is impossible. If you would truly love prose, I repeat, love poetry also.

Perhaps, I admit, you cannot right away. The distance between "Mary had a little lamb," and "The Drama of the Exile" is infinite. But don't attempt too much at once, neither settle down with too little. Take some volume of selections like Dana's "Household Book of Poetry," or Whittier's "Songs of Three Centuries," and read a small amount in your leisure moments, and I truly believe a love for the beautiful in thought, embodied in the beautiful in rhyme will grow upon you. Then you may profitably follow up your new pursuit in more extended works. You will like Longfellow probably, most people do. Whittier and Bryant, perhaps, you will soon learn to think even finer. Tennyson you surely ought to love, as also sweet Adelaide Anne Proctor, while much of Byron and Shelley you may profitably skip. The grandness of Milton and Dante, and the Brownings, require, for thorough comprehension, a certain maturity of mind, which, however, will be vouchsafed to the earnest seeker, amply repaying him for every effort.

There is extant a little book entitled "How to Read," which was published late last year. The hints given in it are valuable, but what I chiefly recommend it for, are its valuable lists of works upon every conceivable subject. These alone are worth more than the price of the book, one dollar. Those who have this at hand need no information of mine.

And I believe this is all I really have to say upon the subject of forming a correct literary taste, for, after all, such a thing is an individual matter. I might add, however, as regards periodicals, unless you are sure of your own judgment, turn away from all except those which you know to be thoroughly respectable—for instance, those noticed in the columns of your valued household journals. Remember, too, that you always have your Bible, which, aside from any sacredness generally attached thereto, is in itself, a model of literature—historical, poetical, philosophical—in matter, figure and language.

WHAT BOOKS TO BUY.

One word upon buying books. If you have but a limited sum to spend, lay it out judiciously. That is, don't buy a host of ephemeral volumes that you'll only read once, or at most twice, and so have nothing left for valuable books of reference that you'll always need. I have seen great bookcases piled full with "Jennie Ray" and "Annie Gray" and "Fair and False," and "Advice to Young Ladies," with nothing whatever in the shape of a dictionary, or gazetteer, or encyclopædia, or concordance. Be extremely cautious about buying from a publisher's circular. This is precisely the process by which your grandmother's garret came to be piled with a lot of musty tomes that are worth nothing now, and, but for associations, would ere this have been converted into kindling. No, if you have only one shelf, and the money to fill it, put there a Webster's Unabridged, an Appleton's or Chamber's Encyclopædia, a Lippincott's Gazetteer of the World, a Smith's Dictionary of the Bible, and, of course, a Bible—or perhaps the first two, and the last one alone—even if you never purchase another book as long as you live. What you have is and always will be,—in your day, at least—worth its weight in gold. Next, get some of the classics of your language,—Shakespeare and Milton and Chaucer and Spencer and Pope and Bunyan and Carlysle and Ruskin and Mill and Emerson and F. W. Robertson and Charles Kingsley. Afterwards, perhaps, Scott and Dickens and a few other popular novelists, but the supposition is that you have read them already, consequently don't need to own them yet awhile. Anything else you can always obtain, either from the library or your friends,—but you have no call whatever to possess a book at all, unless you really need it, or, upon becoming thoroughly acquainted with it, like it or love it well enough to want to keep it near you.

Of course, if you are well off in the world's goods, it is your duty to buy books largely, not only because with your abundance you ought to do all in your power to make trade good, but so as you will be able to lend to poorer friends—for lending books, within proper limitations, I think as much a duty as the dispensing of ordinary courtesy.

There's always a way to read, however. It used to be my boast that I had read everything, yet never owned a book. This would not be strictly true to-day, however,—still, exclusive of school-books, I have all told, only about eight, some of which are a dictionary, an encyclopædia, two testaments and a Bible. I have one novel, one little book of religious meditations, and one treatise on water-colors. Before you begin to pity me, however, sisters dear, let me tell you what a gentleman friend said to me upon my mentioning the scantiness of my library—a gentleman, by the way, whose culture and knowledge are something wonderful. He said, "I think your way's the best. I used to buy all the books I read,—and now I have a lot of useless lumber on my hands, and I wish I had my money back again."

Now another heresy (for most writers, I think would call it heterodox in me to advise economy, in book-buying—still, I know the world) *don't* read much. I think poring steadily over books one of the worst things a woman could do,—not only will it draw her attention away from present duties, but it is unhygienic. A walk or ride in the open air might do her more good in less time. I think more than an hour's reading at one sitting, unless in special cases, injurious, producing very often headache and lassitude. A strong, healthy woman may not feel it at first, but she will in time. Let her begin by being a bookworm and she will end by literally "reading herself out,"—that is, getting herself in such a habit of exhausting her strength, that the very effort of settling her thoughts upon a subject will grow wearisome, finally impossible. One hour in the daytime, with perhaps two in the evening, every day, is enough for any one, according to my belief and experience. The little gained then and well-digested, will be worth days of reckless devouring, and the interim between reading discontinued and reading renewed, will give opportunity to question and think and reason, and to return to the book refreshed and well able to continue:

WHICH IS WORTH MOST.

And, after all, I have learned, there are better things than books. Men lived and loved and suffered and achieved and died before books were known, and perhaps were as good and as happy as some of us are. The mirror is less than the image it reflects. The life is more than the meat, be that meat mental or material, though both kinds of meat are necessary. The grandest descriptions of natural scenery are less than the valleys and woods and mountains themselves; the most exciting of plots are tame compared to the intense comic and tragic in our own lives; the noblest of sentiments expressed in written language are far, far less than we may feel in the sorrow and suffering and love and hope and joy which we are all called upon to experience. Read, then, to help yourselves to live,—but never, as you value life itself, never sink living, actual living, in reading and thinking about living. Geometry is a science and books are useful, rightly to interpret it,—but geometry is independent of its interpreter, and its facts would exist were all the books relating to them blotted out forever.

So, I think, with all our reading, it is not so important what or how much we read, but how we show forth in our daily lives the benefit of what we actually do read. And more than this,—it is possible for us to live nobly, purely, even grandly if we never open a book,—though it is well to open many and often.

Domestic Economy.

CONDUCTED BY EMILY MAPLE.

INVALIDS CONVALESCENT.—CHAPTER 2.

MARY BEAL M'LOUTH.

In chapter first, the RURAL of July 26 made me say *crushed* coffee for invalids. It should read *crust* coffee. This is made by putting a crust, or pieces of bread, in the oven and browning slowly until the pieces look a rich color to the center. Pour boiling water over and let stand a few minutes. I could hardly recommend Java coffee for the sick, though some might drink it without realizing any ill effects. Pardon the digression.

I have often wished that some of the tired, over-worked, poorly-paid sewing girls in some of our cities might find their way into the country. But there seems to be some attraction—what, I cannot say—that binds them to such a life. The few in this country—and I guess the trouble is general—who can afford to hire, must, with a few exceptions, accept of young, inefficient help or none. The average farmer's wife, if she has any interest in the work—and if she has not, she has made a great mistake in marrying a farmer—begins life hopefully. She labors to her utmost strength, hoping for better times, though she knows not when they are coming, for she finds, as years roll around, her cares increase, and although it is sometimes true that every back is fitted for its own burden, there are many backs broken because of the burden being too heavy. And it is often increased by one's own false pride, in attempting to follow in the wake of dame Fashion. If all made their garments plain, sewing machines might be a help to those who are able to use them. But with their early appearance there arose a multitude of burdens heavier than all the previous ones; and these must be borne, or else one is excluded from society. Under the present administration sewing machines are sure destroyers of health, and those who value their future happiness—for what enjoyment is there without health?—must either lay them aside entirely, or use them in all moderation, getting along with less ruffling, edging, trimming, flouncing, shirring, fluting and stitching.

One curse to farming life is land. Nearly all farms contain more acres than the owners can cultivate *well*, which necessarily calls for much hired help. But greedy to own as much as neighbor so-and-so, farmers will buy more, keeping in debt, instead of putting their surplus means in improvements. And so their lives are worn out before their prime. I have known what it was to cook for a host of harvest hands in the hottest part of the season, and I set my wits to work to contrive some way to get out of it, and still not lose financially. Hiring so much, boarding the men, thrashing the grain, and driving nine miles to market, take off the profit. For my part, I was thoroughly sick of it; cooking for so many confined me to the house constantly, and I knew my health was failing. I had read of women going West doing *farm* work and gaining strength, and concluded their health was not renewed by going West, but by the farming. Perhaps with some the first and greatest trouble will be in getting their husbands to consent to any such plan. But fathers are generally glad of the girls' help, so girls had better learn before they get married.

All young ladies who have worn short dresses in practicing calisthenics, at school, realize how much more easily and quickly one can step so clothed, than when obliged to carry around several pounds of trail, with heavy trimming added. In short, make your working dresses loose, plain, short and as comfortable as possible. In repairing what has been a nice dress for every-day wear, the first sensible thing to do, is to cut off the back breadths of the skirt, so that they shall not be any longer than the front ones, and take off the trimming. Now, equipped for active labor, you must persuade your husband every morning to fill the large wood-box, and on wash days to bring tubs, benches and pounding barrel, with several pailsful of water. Teach the children to stand over the table or wood-box when eating fruit, and, above all, not to wipe their hands on their clothes or soil the table-cloth. They will learn very young to be tidy, but begin just as soon as they are weaned to teach them how—it's much easier than to break them of a habit after it is once formed. Our boy does not soil his clothes at the table one time in twenty, and has not used a bib since he was three years of age. But he has a napkin to wipe his mouth and fingers, and in giving sauce, or bread and milk, I give him fruit without the juice, and moistened bread—not bread swimming in milk.

If anything is spilled on the table-cloth, wash it out and always take care to fold it exactly as it was when first ironed. This to avoid large washings. Have a large apron for all dirty work; it can be easily slipped off, leaving you in a presentable condition, if your dress is short. Perhaps Mrs. Grundy might raise her nose a degree or two higher, but compare your condition with hers some morning after you have fed the lambs and chickens, and perhaps gathered some fruit. Her drabbled, long dress must be changed for a dry one, and perhaps washed, while you can go on in your employment without any interruption. Fold the sheets and the every-day under-clothes when they come from the line, and with a few shakes hang them on the bars to dry more thoroughly. You will be just as comfortable and sleep just as soundly as though you had worked a long time ironing. Heavy churnings are too much for any woman, so tell your husband that if he will churn this morning, you will dig a couple of bushels of potatoes. The children can pick them up, and then he can carry them into the cellar. Do not spend every moment you have to spare, scrubbing, cleaning, mopping and sweeping, using up the best of your life fighting that much-to-be-dreaded enemy, dirt; but take life as it comes, and, if friends call, tell them you have learned that "health" lives out-of-doors, and if you spend all of your time in a heated kitchen, you will never find it.

Chapter III. will tell you what a woman can do out-of-doors. And though I have seen some of the wealthiest who did not hesitate to do any work which came in their path, I have found others who did not possess fifty dollars' worth of property, who were afraid of soiling their delicate hands by physical labor.

DOMESTIC RECIPES.

Boiled Potatoes.

Wash the potatoes, leave the skins on and throw into boiling, salted water. When a fork will easily pierce them, throw in a small dipperful of cold water. Let stand two minutes, throw off the water and stand on the back of the stove, with the pot lid half removed, until the steam is evaporated. Take up, peel and send to the table in an open dish.

Gravy for Potatoes.

Put a spoonful or more of butter, according to the quantity of potatoes you have, into a frying-pan and set over the fire until brown, being careful not to scorch it. Mix a spoonful of flour in a cup of thin sweet cream—or milk, if one has no cream—pour into the browned butter, boil up, season with pepper and a little salt if necessary, and turn over the boiled potatoes. This is a very nice way to serve small potatoes. MRS. W. BIGELOW.

To Boil Potatoes.

Select those of about one size, wash very clean but do not pare. Put into a pan of cold water for an hour before boiling. In boiling use no more water than will cover them. The moment they are done, turn off the water and set the kettle on the back of the range with a cloth over the potatoes and the cover drawn to one side. After a few moments, take off the cloth, sprinkle a little salt over, put on the cover and shake up the potatoes. Let them stand with the cover on for a minute or so, then serve.

Saratoga Potatoes.

Pare the potatoes and cut into slices so thin that one can almost see through them. If for breakfast, prepare them the night before and let stand in a dish of ice-cold water. Just before frying drain them from the water and wipe them dry with a cloth. Fry only a few at a time in boiling lard as you would doughnuts. Before putting in the potatoes, separate the slices from each other and do not attempt to cook more at a time than you can keep separate. Tend with a fork, tossing them over and over until browned evenly and delicately. Take up with a skimmer and place on a sieve. Sprinkle with salt. MARY B.

Sweet Potatoes.

Boil the potatoes until tender, peel, cut lengthwise, put flat side down on a greased pan and place in a hot oven. As the potatoes begin to crust, baste with a little melted butter. Repeat until nicely browned.

Potato Soup.

Peel and boil ten good-sized potatoes; turn off the water and rub through a colander. To the potatoes add two quarts of boiling water and simmer for one hour. Then add two tablespoonsful of butter, pepper and salt to taste with a tablespoonful of minced parsley. Let boil up, then add two cupsful of hot, thin cream or rich milk and pour out. Serve with "crisped crackers." MRS. JAMES BAKER.

To Boil Potatoes.

Select and pare potatoes as near the same size as possible; throw into cold water for half an hour, then put into a sauce-pan and cover with *cold* water. When the water boils, check it several times by throwing in cold water—a little at a time—as the slower the potatoes boil the better they are. When tender throw off the water and sprinkle a little salt over them. Set on the back of the stove to dry with the lid off. Serve in an open dish.

ENGLISH HOUSEWIFE.

Potatoes and Onions.

Boil potatoes until tender but whole and cut into slices while hot. An hour or more before preparing this dish, dress and slice a few onions and let stand in salt and water. Put a little butter or drippings into a frying-pan, put in the sliced onions and cook until delicately browned. In a vegetable dish place the onions and potatoes in alternate layers, add a cupful of vinegar to the gravy in the frying-pan, bring to a boil and pour over.

Potato Pie.

One cupful of grated raw potatoes, one quart of sweet milk, three eggs, a little salt, sugar and nutmeg to taste. Let the milk come to a boil, stir in the potato, let cool, add the well beaten eggs and other ingredients. Bake with an under crust.

Potato Souffle.

Boil five good-sized potatoes, press them through a sieve. Bring to a scald half a cupful of milk with a spoonful of butter, add to the potatoes with pepper and salt and beat to a cream. Then beat the yelks and whites of four eggs separately, add the yelks first, one at a time, beating thoroughly, then the whites, just stirred in without beating. Turn at once into a buttered pudding dish and bake twenty minutes in a quick oven. The dish should be large enough to permit the souffle to rise.

MRS. HOPKINS.

QUESTIONS ANSWERED.

Crystallizing Grasses.

M. W., Poquonoc Bridge.—Dissolve 18 ounces of alum in a quart of soft water, heating it over a slow fire in a covered tin dish and stirring it occasionally with a stick until dissolved. When nearly cold, suspend the grasses to be crystallized by a thread from a small stick laid across the mouth of a deep glass or earthen jar into which the solution is poured. Let remain in the alum water 24 hours, take out and suspend in the shade to dry. The crystals will be larger if the solution is allowed to become almost cold before putting in the grasses.

News of the Week.

MISCELLANEOUS.

MONDAY, October 13th, 1879.

The National Miners' Association has ordered a strike for a 10 per cent advance in several middle district mines of Pennsylvania, and miners in the Clearfield, Cambria, Westmoreland and other districts are in the movement. All the miners in the bituminous coal region are expected to follow the national association's orders, and the strikers, now numbering 5,000, will probably soon increase to from 10,000 to 15,000. Mollie Maguire outrages in some of the lawless mountain regions are rumored, but the miners generally behave quietly. Where riotus demonstrations appear the authorities are preparing themselves for emergencies. Startling developments are expected.

The Supreme Court of Pennsylvania has rendered a decision holding the County of Allegheny in that State responsible for losses occasioned by the Pittsburgh riots of 1877. The suit was brought to recover the value of whiskey shipped at Cincinnati for Philadelphia, and destroyed *en route*. The Legislature of Pennsylvania in 1841 passed an act making the counties of the State responsible for all losses by mob or riot within their borders, and it is on this act that the decision is based. The counsel retained by the county made the point that the disturbances through which the loss was caused were not such as were contemplated by the law, but amounted to an insurrection spreading through several States. The court, however, disposed of this very speedily, and no one who remembers the disgraceful circumstances connected with the Pittsburgh riots can fail to recognize the justice of its remarks:

The Southern papers are considerably rejoiced that the consumption of their cotton-mills increased 26 per cent. during the past year and of mills at the North but 2 per cent. The whole consumption, 186,489 bales South and 1,375,384 North, was the largest ever known, though British consumption in the same time was smaller than in any previous year since 1869-70. The South is certain to manufacture still more of its cotton during the next two years, and the general introduction of Northern Alabama coal, which is rapidly driving Pittsburg coal from the lower Mississippi, is helping on the gradual establishment of cotton-mills in that section. Cincinnati, which has a quiet way of doing a big thing, is having an exposition, all by herself, whose attendance for the first 23 days has been 319,951; the paid admissions at the Centennial exposition for the first 19 days were only 378,930. A new oil region has been discovered in Trumbull county, Ohio, and one of its peculiarities is a well of the finest lubricating oil, near West Mecca, flowing five barrels a day, refined and ready for use on the nicest machinery. Speculators have leased 2,000 acres in the vicinity at enormous prices, for the oil brings $16 a barrel, while that of the Pennsylvania oil region brings less than 70 cents. The New York usury law whose faulty construction as to the date at which it goes into operation has led to long controversy, is clear enough in one particular—it makes it a State prison offense to lend a man money after January 1 next at any rate over 6 per cent., though it were to save him from bankruptcy. During last August 12,881 immigrants landed at New York, 60 per cent more than in the same month last year. Of the August immigration this year one-half was from England and Germany, in equal shares. A farmer attempted to cut into a premium pumpkin at a fair at Council Grove, Kan., to get a few of the seeds, but found it made of wood. It had taken many prizes at fairs for its weight, 230 pounds, and its circumference, seven feet.

"We see no evidence of any serious attempt upon the part of the local authorities to suppress it. At the time of its commencement a feeble attempt was made by the sheriff, resulting in the enrollment of some half-dozen deputies. But there was no proclamation calling upon the body of the county to come to his assistance in preserving the peace. No one doubts at this day that, if a proper effort had been made at the proper time, the mob could have been held in check." Pittsburgh's fire marshal, assisted by a committee appointed by the county officials, fixed the total loss of the riot at $2,832,918, of which $1,301,800 was property of the Pennsylvania road, $1,200,000 freight and individual cars, and 331,118 private property. The county tried to bribe the last Legislature to shoulder the debt on the State, but only succeeded in ruining a number of politicians with an itch for gain, and must now add the amount to its present debt of $1,750,000. This addition will increase the county tax about 31 per cent.

Enormous speculative transactions at the Stock Exchange still continue and have at length begun to attract general attention. The business in shares alone has averaged over 400,000 shares each day, and on one day the aggregate was 489,000 shares. A remarkable feature of this business, is that less than one-fourth of it is in stocks which pay any dividends. The fluctuations in prices, too, are as remarkable as the great number of shares which change hands. Although speculation is wild, and such reasons as there are for a recovery from the depression of the last five years are greatly exaggerated, yet the speculation is not unaccountable. The resumption of specie payments enlarged the currency, inspired confidence, and put the money market on the same basis as foreign money markets. Then the refunding of the public debt turned out of 5 and 6 per cent. U. S. bonds a great many millions of dollars, part of which returned to 4 per cent. bonds, and a part went into other securities paying higher interest. During the transfer there was a strong inducement for all who had speculative ventures to float to bring them out in the most attractive way. Refunding of the debt induced the Treasury to use its influence to keep money very easy, which helped outside speculations as well as the Government bond market. Following this refunding, with its direct and indirect influences, came the good harvests in this country and the short crops throughout Europe, and as the logical result of this came the importation of gold. Since August 1 nearly $39,000,000 of foreign specie, almost all gold, has arrived, and about $15,000,000 more are afloat bound for New York. Except for these specie imports the speculation which had been built on the favorable events of the early part of the year must have broken down for want of money facilities; but the gold imported has been sufficient to move the crops, to carry the new securities which have come into being by the million, to sustain the advance in the price of old securities, and to furnish bank facilities for the enlarged volume of mercantile business. It has, however, been barely sufficient; there has been nothing to spare. These are the main reasons why Wall Street and other departments of speculation are wild.

Rome wasn't built in a day, but Deadwood has been rebuilt in a day, or a few days at least, which is all the same. Merchants rehung their signs while the ashes were yet hot, and in more than one case the carpenters blistered their hands at work on new buildings in the midst of smouldering debris. In answer to a Chicago inquiry as to whether help was needed, an enthusiastic reply was shot over the wires as follows: "Ours is a land of gold. Save your money for Memphis. Deadwood is able to contribute to more needy cities." General Stoneman derides General Fremont's scheme for turning the waters of the Colorado into the desert basin of California and Arizona. He says that, presuming the connecting canal to be 1,000 feet wide and 10 deep, and running at five miles an hour, it would take 200 years to fill the basin. After being filled it would, he asserts, require an additional cutting of the same depth and 250 feet wide to compensate for evaporation.

Gov. Luke P. Blackburn, of Kentucky, has pardoned 37 convicts from the State penitentiary during the 34 days of his administration. By the way, there seems now no doubt but that this is the Doctor Blackburn arrested in Canada for conspiracy to introduce yellow fever into Northern cities during the war, by the introduction of infected clothing. Great damage has been done in various parts of the country by prairie fires. Owing to the severe droughts that have lately prevailed in most parts of the country, there is great danger from this cause in wooded and prairie regions. Near Wright, Texas, Thursday, white men called a colored woman and her two children to the door and shot them dead in cold blood. We are told that "the authorities are working faithfully to bring the murderers to justice." This is hopeful, certainly, as from the numerous cold-blooded murders in Texas recently one would judge there were no officers of the law in that State.

Capt Payne's command was rescued from the beleaguering horde of Indians by Gen. Merritt's forces last Monday. After leaving Rawlins, Merritt pushed rapidly forward over execrable roads or rather tracks accomplishing forty miles on the first day, the same on the second and *seventy* miles on the third during which he pushed on day and night. On his arrival the Indians withdrew after a slight brush, and a parley. They offered to surrender on condition that the troops would not advance to their Reservation, but declared that they would fight to the last man in case this condition were refused. It was refused; they are now reported to be fortifying all the hill tops lining the various routes to the Reservation. Sheridan has telegraped Gen. Merritt that he must insist on an unconditional

surrender as the only terms on which peace will be granted the "hostiles." Merritt is preparing to advance through a difficult country towards the Reservation at the head of about, 1,500 men. During the seige Payne lost only two men killed and a number wounded, in addition to the loss of Major Thornburgh, and those who fell with him at the outset. On the Friday before Merritt's arrival to relieve Payne, the latter had been joined by Capt. Dodge and his company of 40 colored cavalry. Dodge heard of Payne's predicament twenty-five miles away, and gallantly resolved at all hazards to make his way to his side. Accordingly, after a rapid march, he burst through the circle of surrounding red-skins, though with the loss of every horse in the company but three, and shared with Payne and his men the dangers of the rest of the seige. Much praise is justly given to him and his men for this chivalrous action. The news of the death of agent Meeker is confirmed, but the report that he was tortured is denied. A couple of Indians entered his office, grasped him by the throat, flung him to the ground and shot him dead. The employes of the Agency fled to a barn from which they offered a vigorous resistance, but the building was fired by the Indians, and as its occupants rushed out from among the flames, they were shot down. The women at the Agency were alive at last accounts, having been saved from outrage and massacre by Chief Douglas who also takes care of the children, money and papers, and hopes to make use of the white people in his charge as hostages, by whose means he expects to be able to obtain better terms finally, for the members of his tribe who have committed the recent outrages.

With regard to the walk for the O'Leary belt we have had here for the past week, a little fellow, 18 years old, named Murphy came in first with a score of 505 miles, beating all who at the outset were considered certain to be ahead. He comes from Haverstraw in this State, where he used to push a brick cart from one part of a brick-yard to another. The practice he had in moving about in this way got him $5,000 for six days' work last week, besides perquisities doubtless from those who won by betting on him. Well, the walk was a success for Dan O'Leary and the other fellows who got it up. Their expenses for paying the walkers, hiring the hall, etc., were about $25,000, and they took as gate-money, for hire of stalls, etc., about $50,000, leaving them about $25,000, to divide among themselves. Walking matches have become mere business speculations, and the sooner this gambling, rowdyish, disreputable thing is over, the better for public morals. After all, what are the best feats of these fellows on a prepared track, with music and applause, drinks, trainers and attendants, in comparison with Rankin's journey of 160 miles in 24 hours over a villainous country, with a possible enemy at every bush, with darkness half the time around him and nothing to cheer him on but the knowledge that his speed might save Payne's beleaguered forces?

FOREIGN.

The returns of the Prussian election which are just over, put the Liberals in a decided minority. The Liberals and Progressists together elected thus far number 135, while the Conservatives and Ultramontanes together number 246. There are 25 nondescripts outside these divisions. A majority made up of Conservatives and Ultramontanes may not be manageable, but in one way or another Bismarck will make it serve his purpose. He promises a reduction of direct taxes, the purchase of the railroads by the State, and a subsequent reduction of fares and freight charges by a reduction in the expenses of management. His visit to Vienna has been a great success. He was well received by everybody, and is said to have come to a thoroughly good understanding with Austria as to the course to be pursued in case of any further trouble in the East on the part of Russia. The agreement surmised here a couple of weeks ago, has been completed:—In the event of either Germany or Austria going to war with any other nation, the forces of both countries will be united for the defence of either. This object achieved, Bismarck has obtained from the emperor leave of absence for five months to recuperate, on condition that he shall still control any question of importance that may arise in the meanwhile. Andrassy, too, has retired permanently from the Ministry of Foreign Affairs in Austria, on account of ill-health from overwork. He has been succeeded by Baron Hemyrle, a friend of his, and secured the thanks of the emperor for the valuable services he has rendered the State.

There is little or no progress visible in the discussion of the land question by the politicians in England. The Liberals promise to take it up whenever they get into office, but nobody of note is willing to say what they ought to do. The discussion in the press seems to point to legislation removing some or all of the present legal restrictions on absolute ownership—that is, putting an end to entails under marriage settlements and wills, and perhaps forbidding mortgages; or, in other words, obliging a man when he wished to raise money on his land to sell some of it. This would gradually, effect a great change of ownership. Land would pass rapidly from the possession of needy, indebted men into the possession of men who could pay cash for it. But who would these men be? The Conservatives maintain they would be rich men owning large estates, because poor men could not afford to own property yielding so small an interest, and the Radicals that they would be peasants seeking small holdings. The Conservative view assumes, probably falsely, that land would not fall heavily in value if it were no longer possible to use it as an inalienable basis for family influence, social and political. If it did fall heavily it would pay a very good interest.

Anti-rent meetings are still the order of the day in Ireland. Yesterday one was held at Cavan, at which 30,000 people were present. The Irish land question seems just now to be attracting even more attention than the English; mainly, however, because the Irish are more demonstrative. "Don't pay a farthing of rent," seems to be the general advice, "and they won't dare to turn out all the farmers in the country, to say nothing of bringing starvation upon the multitude of laborers and their families depending for "praties and salt" on the neighboring farmers."

VARIOUS.

How old is Glass?—The oldest specimen of pure glass bearing anything like a date is a little molded lion's head, bearing the name of an Egyptian King of the eleventh dynasty, in the Slade collection at the British Museum. That is to say, at a period which may be moderately placed as more than 2,000 years B. C., glass was not only made, but made with a skill which shows that the art was nothing new. The invention of glazing pottery with a film or varnish of glass is so old that among the fragments which bear inscriptions of the early Egyptian monarchy are beads possibly of the first dynasty. Of later glass there are numerous examples, such as a bead found at Thebes, which has the name of Queen Hatasoo or Hashep, of the eighteenth dynasty. Of the same period are vases and goblets and many fragments. It cannot be doubted that the story prepared by Pliny, which assigns the credit of the invention to the Phœnicians, is so far true that these adventurous merchants brought specimens to other countries from Egypt. Dr. Schliemann found disks of glass in the excavations at Mycenæ, though Homer does not mention it as a substance known to him. That the modern art of the glass-blower was known long before is certain from representations among the pictures on the walls of a tomb at Beni Hassan, of the twelfth Egyptian dynasty; but a much older picture, which probably represented the same manufacture, is among the half-obliterated scenes in a chamber of the tomb of Thy at Sakkara, and dates from the time of the fifth dynasty, a time so remote that it is not possible, in spite of the assiduous researches of many Egyptologers, to give it a date in years.—[Saturday Review.

Majolica.—The name is derived from the Island of Majorca, where the Saracens established manufactories of the ware. Afterward the ware was imported into Italy, where it borrowed the classic forms and myths of ancient Greece and Rome. Hence it is at once domestic and refined in character, Oriental and classic; with the harmony of color of Chinese faience, the grace of ornamentation of the Persian and the Grecian classic simplicity and symmetry of form. It was famous for its lustre, but modern lustres are inferior in beauty to the old methods, especially the secret one which produced the golden lustre—a yellow color overlaid with mother-of-pearl.

Health is often impaired by the excessive use of tea or coffee. The strengthening qualities of Broma or Cocoa are known to the student, the invalid, and to the hard worker, the world over. To secure such in its greatest purity, ask your grocer for Walter Baker & Co.'s. This house has the highest reputation for its goods, dating back to 1780.

25c. buys a pair of Lyon's Patent Heel Stiffeners and make a boot or shoe last twice as long.

There are more cures made with Hop Bitters than all other medicines.

THE MARKETS.

PRODUCE AND PROVISIONS.

New York, Saturday, Oct. 11, 1879.

Beans and Peas.—The market for beans is firm and the local demand is somewhat checked by the strong rate asked for mediums and marrows. Exports for the week 1,675 pkgs, again including some for England and also some for the Continent. Green peas firm at recent advance. $1.55@1.60; Southern B. E. lower; $2.75 for 2 bu. bag. Canadian, nominal at 70c. Medium beans, $1.60@1.62½; marrow, new, $1.60@1.62½; other, $1.49@1.55; Pea, $1.60; W. Kidney, $1.60@1.65; R. Kidney choice, $1.55@1.65; poor or soft, $1.45@1.50. Black are in market but not regularly offered. Receipts 19,525 bush.

Beeswax.—Offerings are fair and demand slack; quoted at 23@32½c. for Western and Southern.

Exports past week, 8,625 lbs.

Broom Corn.—New is wanted, as the stock of old is well absorbed. Brush and short broom, choice, per ℔., 5½@6½c.; do., common to good, 4½@5½c.; hurl, good to choice, 4@5c.; do., common to fair, 3½@4c.; red and crooked, 2½@3½c.

Butter.—Receipts for the week, 30,785 pkgs.; exports, 17,000 do. A feeling of depression prevails in butter, and the sudden change from a brisk to a quiet market will be apt to injure prices. There has been more or less marking down in State all the past week, and best buyers are shifting their purchases from high priced creamery to the improved style of tubs, provided by the fall season. Exports look large, but unfortunately the mostly represent old business. Western holds up well in the new order of matters. Dealers apprehend an accumulation before the demand revives; still as stock is of a better keeping character than much that has been got rid of, the apprehension does not create much uneasiness.

Cotton—Has shown a fair export demand, and the market is generally steady. Sales at the close: October, 10.16@10.17c.; November, 9.95@9.99c.; December, 9.99c.; January, 10.09c.; February, 10.23c; March, 10.37@10.38c.; April, 10.54@10.55c.; May, 10.68@10.70c.; June, 10.82@10.84c.; July, 10.91@10.93c.

Quotations for spot cotton are based on American standard of classification, and on cotton in store running in quality not more than half a grade above or below the grade quoted.

	Uplands.	N. Orleans and Gulf.	Texas.
Ordinary	9	9⅜	9⅜
Strict Ordinary	9⅜	9½	9½
Good ordinary	9⅝	9⅝	9⅝
Strict good do	10	10⅛	10⅛
Low middling	10¼	10¼	10¼
Strict low middling	10 5-16	10 7-16	10 7-16
Middling	10 7-16	10 9-16	10 9-16
Good middling	10 11-16	10 13-16	10 13-16
Strict good middling	10 15-16	11 1-16	11 1-16
Middling Fair	11 7-16	11 9-16	11 9-16
Fair	12 3-16	12 5-16	12 5-16

STAINED.

Good ordinary	9 3-16	Low middling	9¼
Strict good ordinary	9 9-16	Middling	10⅛

Cheese—Shipments for the week have been only 27,700 boxes. In the early part of the week trade was about at a stand, and the situation was nominal, but later the receipts were small and comprised little fancy stock, while the English markets were advancing, which served to strengthen shippers who became freer buyers and had to meet firmer prices on late made choice. Latest sales are of. Fancy at 10½@11c.; good to prime at 9@10c.; fair to good at 8@9c.; half-skimmed at 5½@8½c.; skimmed at 3@5¼c. State farm dairy: Fine at 9¾@10c.; good to prime at 8½@8¾c.; fair to good at 7½@8¼c.; skimmed at 3½@5½c. Wisconsin factory: Fine at 9¾@10c.; good to prime at 8¼@9¼c. Ohio factory: Cheddar, fine, at 9¾@10c.; do., fair to good, 8@9c.; flat, fine, 10@10¼c.; flat, good to prime, 9¼@10c.; flat, fair to good, 8@9¼c.; half-skimmed, 5½@7½c.; skimmed, 4@6c.

Liverpool cable, 50@50s. 6d.

Steam, 50@50s.

Receipts for week, 30,890 packages; exports, 32,000 do.

Dried Fruits.—Apples have a steady, fair inquiry, and are firm on most grades. Peaches are steady and in demand. Small fruits generally unchanged.

New North Carolina apples, 6¼@8c. for fair; 8¼@9c. for choice; 10¾c. for fancy sliced. Patent evaporated apples, choice, in cases, at 12c.; do. fair to good, 10@11c.; N. Y. State sliced, choice, 5@5½c.; do. quarters, choice, 4¼@5c.; western quarters, common and old, 3½@4c.; new southern quarters at 4@4¼c.; new N. C. peeled peaches at 14@17c., do. Georgia, at 12@16c. Peaches, Delaware evaporated, peeled at 22@26c.; do. unpeeled at 11@12c.; new halves at 7c. Blackberries at 9c. for new. Raspberries at 28@29c. Pitted cherries at 18c.

Eggs.—Receipts for week, 5,768 bbls.; do., last week, 6,641 do. The weather has been against sales and prices have weakened at the close. Prime marks only meet a demand. There is a light inquiry for limed for bakers' use.

Near points, 20c.; State and Penn., 18½@19½c.; Western and Canadian, fresh, 18½c.; off grade, 17@17½c. A few limed at 16c.

Flour.—An active business has been noted and prices well sustained.

Latest sales are at: $5.10@5.65 for inferior to fancy superfine State; $5.50@5.75 for ordinary to very good extra do., odd lots and lines; $5.75@6.00 for very good to verychoice do.; $5.10@5.65 for very inferior to very fancy superfine Ind., Iowa, Mich., &c.; $5.40@5.75 for inferior to very good shipping extra do., and $5.75@6.00 for good to choice extra do.; common to choice white wheat extras, $6.35@6.75; choice to very fancy do. at $6.35@7.50; red and amber winter wheat, inferior to very choice trade and family, at $5.65@7.00; round hoop Ohio at $5.50@6.00, and trade and family brands of do. at $6.10@7.00, the latter rate for very choice; St. Louis, $5.35@6.65 for inferior to very good extra; $6.75@7.50 for very good to fancy; Minnesota clear, inferior to very choice, $5.50@6.65; Minnesota "straight," inferior to strictly fancy, $6.00@7.25, and patent poor to very fancy at $6.15@8.50; unsound stock at from $4.25@6.50; city mill extra at $6.15@6.50, ordinary to very fancy, for West Indies; do. for Buckland, $5.50@5.75 for ordinary to choice; do. trade and family extras, $6.25@7.25; do. for South America, $6.50@6.75 for standard to choice brands; No. 2 at $4.35@5.10 for ordinary to very fancy (the latter an extreme for even winter wheat product).

Fresh Fruits.—Exports of apples 8,033 bbls. Low prices have brought out shippers. The weather has been severe upon tender fruit, and the retail demand, is runing largely upon fine pears. Extra hard showy apples, $2; good to prime, $1.37@1.50; poor to fair, 75c.@$1.25. Cranberries are lower. The supply of quinces makes a sudden pressure, hence the easier rates. Grapes have never had a period of such long, low ruling. All nuts have declined. Cranberries—Cape Cod, fancy, per bbl., $6@6.25; do., good to choice, $5.50@5.75; do., poor to fair, $4.50@5.25; Eastern, large round hoop bbls., fair to choice, $4.50@5.50; N. J., fancy, per crate, $1.75; do., good to choice, $1.50@1.62; do., light colored, $1@1.25. Pears—Duchess, per bbl., $2@3.50; Sheldon, $2@3.50; Virgalieu extra, $3@4; do., inferior, $@2; Beurre Bosc, $3@3.50; Beurre d'Anjou, $2.50@3.00; Beurre Diel, $@2.50; Seckel, choice, $3@4; do., inferior, $1@2; Cooking pears, $1.25@1.75. Quinces—Apple, State, choice, per bbl., $3.50@4; do., inferior, $1.00@2.50. Grapes—Delaware, State, 18 3-lb. boxes, $2.00@3; do., in baskets, ℔ lb., 6c.; Catawba, State, 18 3-lb. boxes, $2@3.50; do., loose, per lb., 4@5c.; Concord State, 18 3-lb. boxes, $1.25@1.50; do., in baskets, ℔ lb., 3@3½c.; do., up-river, bulk, ℔ lb., 2@3c. Isabella, State, 18 3-lb. boxes, $1.25@1.50; do., bulk, per lb., 2@2½c. Peanuts, Va. hand-picked, $1.50; do., extra prime to fancy, $1.20@1.30; do., good to prime, $1@1.15; do., shelled, per lb. 5½@5¾c. Chestnuts, $1.25@1.50 ℔ bush.; Hickory, shellbarks, 75c.@$1.

Grain.—The exports of wheat are not as large, yet have reached 2,000,000 bushels for the week; demand is liberal on speculative account, and the upward movement has made decided progress; latest sales are of No. 1 amber at $1.37¾@1.38; No. 2 amber at $1.33½@1.37; do., October option, at $1.37; ungraded amber at $1.31½@1.38¾; No. 1 white at $1.36½@1.37¾; do., October, at $1.36¾@2.37¾; do., November, at $1.38¾@1.39½; do., December option, at $1.40@1.40¾; No. 2 white, at $1.34½@1.35; ungraded white at $1.35@1.38; No. 1 red at $1.37½; No. 2 red at $1.37@1.37½; do., October option, at $1.37@1.38; do., November option, at $1.39@1.40; do., December option, at $1.40¾@1.41½; No. 2 red steamer at $1.35½; No. 3 red at $1.25@1.26; ungraded red at $1.30@1.36; mixed winter at $1.35¾@1.35½; No. 2 Chicago spring at $1.23; No. 2 Milwaukee at $1.30; New York No. 2 spring, at $1.27@1.28; do., October, at $1.28@1.28½; do., November, at $1.32; No. 2 northwest spring, November option, at $1.20½; ungraded spring at $1.19@$1.22½; No. 3 spring at $1.23@1.25½. Rye at 52@53c. for Western. Corn is active and firm in price; sales of New York No. 2 No. 2 at 55c.; do., October, at 55c.; do., November, at 55½@56c.; do., December, at 56½c.; steamer mixed for October at 54½c.; ungraded Western mixed at 55@55½c.; No. 2 white quoted at 62@63c. for car lots; round yellow at 60c. Oats are rather more in favor of buyers; sales of New York No. 1 white at 43c.; New York No. 2 white at 40¾@40½c.; New York No. 3 white at 38½@39c.; New York No. 1 at 40c.; New York No. 2 at 39@39½c.; New York No. 3 at 38¾@38½c.; New York rejected at 37c.; ungraded white Western at 38@46c.; mixed Western at 37½@41c.; white State at 41@43c; mixed State at 40@41c.; No. 2 Chicago at 40c.

Hay and Straw.—There is a very fair inquiry and prices generally steady.

Shipping hay quoted at 50c.; retail lots at 50@60c. for medium, and 70@80c. for prime; clover at 35@45c. Straw at 60@90c. for long rye, 40@50c. for short rye and 40@45c. for oat.

Exports for week, 579 bales.

Honey.—Receipts are free, but the offering is not large at the prices. White clover comb, single, 15@16c.; larger boxes, 12@14c.; buckwheat, 10@12c.; clover extracted, 10@12c.; strained, 8@9c.

Hops.—Emmet Wells in his weekly circular says: "The extreme firmness which has characterized the market for the last three weeks has culminated in an advance of 1@2c. per ℔, on new hops, 37c. now being obtainable for a choice article. The receipts show a heavy increase over last week, while the shipments have fallen off considerably. Scarcity of freight room is the cause assigned for the small exports. It is now quite evident that England will take every bale of hops that we can spare, and will do so provided we do not run our prices too high, for every mail we receive brings more and more discouraging news from the English hop plantations. The yield is not only coming down much below early anticipations, but the quality is very deficient. England can get but little help from Germany, for that country will want all of the hops they have grown for their own use. The market closes very strong, with a fair prospect of a further advance within a day or two."

Quotations are for New Yorks, new crop, 30@37c.; Eastern, new crop, 30@35c.; Wisconsin, new crop, 30@36c.; Yearlings, growth 1878, 7@18c. Olds, all growths, 4@10c.; Pacific coast, growth 1878 (nominal) 9@14c.

	Bales.
Receipts for the week	7,519
Total receipts since September 1, 1879	21,215
Total receipts for same period in 1878	5,069
Export clearances for the week	2,024
Total exports since September 1, 1879	16,125
Total exports for same period in 1878	1,006

Oil-Cake.—Western is quoted at $28.75 per ton.

Poultry and Game.—Moderate supplies of game have made the market better for sellers. Parcels, however, must be really prime to bring our ex reme rates. A good many lots have suffered from the recent warm spell and some have proved a complete loss.

Partridge, State, 50c@1. per pair. Western, 50c.; grouse, 50c@1; woodcock, 50@60c.; wild pigeons, $1.25@1.50 per doz. Snipe not wanted; $1.50 selected. Red head ducks, 70c. per pair; mallard, 60@70c.; other, 30@40c. the latter for Teal. Reed birds, $1@1.25 per doz., other small birds, 20@25c. not wanted. Venison saddles short, 12@15c.; whole deer, 10c.

Dressed poultry from distant points has turned out badly, and for that matter some lots of State have been rejected. Near points in limited demand and likely to be until the weather changes.

Turkeys, Phila., dry-picked, 13@15c., State and Western, 12@13c. Young, 12@13c. Chickens, Phila., 15@16c. State and Western, 11@13c. Fowls, dry-picked, Phila., 13@14c.; State and Western, do., 11½@12½c.; scalded, 10@11½c. Spring ducks, 14@16c.; other, 10@13c. Young Phila., geese, 12½14c.

Live chickens of good size are selling well. For fowls the demand is fair; almost summer weather having given city killers continued business. Turkeys mostly common. Prime ducks wanted. Chickens, N. J., 11@12c. State, 11@11½c. Western, 9½@10c. Fowls, N. J., 11c. State, 11c. Western, 10@10½c. Roosters, 6@8c. Turkeys, 10@12½c. Ducks, 40@70c. per pair. Geese, choice, $1.37; other, 87c@1.25.

Provisions—Are generally higher with an active trade. Mess pork closed at for October at $9.90 bid and $10 asked; November at $9.90, and the December option at $9.80@9.90; January at $10.40 bid for new. Lard—Western steam at $6.50@6.52½ for spot lots; $6.50 for Oct., $6.20@6.22½ for November and December. Stearine at 6¾@6¼c. Tallow at 5¾@6¼c. Beef Hams at $14.25@14.50. Beef at for plain mess at $10.25@11; extra mess at $11@11.50; packet at $11.50@12; tierced beef, city extra India mess, at $19@22; and Philadelphia do., at $13@13.50,

Seed—Timothy is quiet at $2.15@2.25. Clover seed at 7¼@8c. for choice new Western.

Tobacco—The home demand is very good, but export trade slack. Prices are essentially as last week.

Vegetables.—Exports past week, 8,250 bbls potatoes. Supplies are heavy and the market is unchanged. Early Rose, State, double-heads, $1.25@1.37; in bulk, $1@1.12; Peerless, do., $1; Peachblows, $1.50. Sweet, Del., $1.62@2; N. J., $1@1.25; Va., $1@1.50; cauliflower lower. Green corn, per 100, 25@75c.; tomatoes, Long Island, near-by, per crate, 20@30c.; string beans, ℔ bag, 50@75c.; potato Lima beans, $1.75@2; Lima beans, flat, $1.25@1.50; do., shelled, bu., $4.50@5; squash, marrow, ℔ bbl., 50@75c.; do., Hubbard, $1@1.25; cabbage, per 100, $2.50@3; onions, white, per bbl., $1.75@2.50; red, Eastern, $1.50; do., Chester, $1.25@1.50; yellow, $1.50@1.75; beets, N. J., 75c.; Russia turnips, Jersey, 50c.@$1; carrots, 75c.@$1; egg plant, L. I. and near-by, ℔ 100, $4@8; peppers, bullnose, ℔ bbl., $1.35@2; pumpkins, per 100, $2@4; Cauliflower, ℔ bbl., 75c.@$2.

Wool—Has continued in active demand on wants of manufacturers, and prices have hardened. Sales of X and XX Ohio and Michigan at 39@43c.; State at 38c.; medium Ohio at 40@43c.; heavy, fine, unwashed Western at 22@23c.; low Western combing at 42c.; spring California at 25½@32c.; Texas at 25@28c.; scoured Texas and Colorado at 57½@70c.; Colorado at 23@25c.; Oregon at 28@30c.

LIVE STOCK MARKETS

New York, Saturday, Oct. 11

Beeves.—Receipts for the week, 11,004 head; do. last week, 10 255 do. The week has been an unsatisfactory one for sellers. Sales were slow and only followed long bargaining. Some stock unsold at the close. Ordinary to fair Texas and Cherokee cattle, 6¾@6¾c. dress 55 lbs.; Colorado, 6¾@7¼c.; poor to good native steers, 7@8¾c.; prime to extra, 9¼@9¾c. dress 56 lbs.; very fancy, 10@10¼c. Exports very light.

Cows and Calves.—There are no new features old prices are named, few lots or single cows worth $45.

Veal Calves.—Choice calves have been scarce and the market is firm. Extra 7c.; choice Buck's Co., 6¾@6¾c., prime State, 6@6½c.; poor to good, 4@5¾c. Buttermilk, 3@4c.; grass, 1¾@2¾c.

Sheep and Lambs.—Receipts for the week, 30,579 head; do. last week, 30,308 do. There has been a fair demand for prime sheep, but the offering of that class was not liberal. Very common sheep sold down to 2¾@3c.; extras, 5¾c.; good State, 4@4¼c. Lambs in good demand, Western, 5c. State and Canadian, 5¼@6c.

Swine.—Receipts for the week, 33,756 head; do last week, 29,331 do. Live hogs been wanted at $3.90@4.40. Trade has been slack in N. J., owing to the warm weather, 40@70 lbs., 6¾@7c.; 70@100 lbs., 6¾@6¾c.; 100@150 lbs, 6@6¼c.; 150@200 lbs., 5¾@6c. City dressed, 5¾@6c. Pork tenderloins, per lb., 8c.

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Reading for the Young.

AT THE BOTTOM OF THE SEA.

If we had fish nature enough to take up our abode in the ocean and for some time explore the hidden recesses of the deep, we should no doubt meet with some very singular creatures. The forms of life, both of plants and animals, would be more strange by far than any to be found on the land, and we should likely discover wonders that are now unknown, and perhaps forever will be. Deep water can only be explored by sinking a heavy instrument that will grasp and carry up a portion of the mud from the bottom, which is then examined and conjectures made of life in the deep from what small animals and shells it may contain. But much as there is yet to be learned about life in the water, a great deal is already known. Many curious animals have been studied and classified according to the rank they hold in the animal kingdom.

The engraving is designed to show a quiet nook between the rocks at the bottom of the sea and the inhabitants that people it. The animals here seen belong to the class known as Echinodermata, which includes sea-urchins, star-fishes, some animals which are attached to a stem and fixed to a rock like a plant, called Crinoids, or feather-stars and many others. The broad five pointed body towards the top of the picture is one of the common star-fishes very often found on the sea shore, and vary in size from one inch to a foot across. It differs from the two snake-tails, or brittle-stars with their five long arms, seen just below, mainly in that the stomach of the star-fish is prolonged into the arms while the long arms of the brittle-star are merely limbs for locomotion and does not form a so necessary part of the body.

In star-fishes the mouth is situated in the center of the body on the under side of the surface. They live on all kinds of small animals that they catch, but not being rapid swimmers themselves they seldom succeed in making prey of anything but snails and other shellfish, that are still slower in their motions. When their prey is so placed that they cannot get the mouth around it, they have the power of extending the stomach out of the body and throwing it around the victim. The bulky, cucumber-like body near the bottom, is one of the animals commonly known as trepangs, or sea-cucumbers. As a rule, the skin of these is leathery and often covered with scattered spines. They move along by twisting and contracting their bodies like worms. The tuft of feathery ornaments at one end of the body are tentacles which surround the mouth and help to catch the food. These animals are rare and can only be obtained by dredging in deep water. Some of the tropical forms attain a large size and some are largely sought after to be sold to the Chinese who regard them as a delicacy. UNCLE MARK.

LETTERS FROM THE COUSINS.

DEAR UNCLES AND COUSINS:—Uncle Mark, I thank you very much for the radish seed and corn. The radishes were the best I ever ate, but I cannot judge of the corn, as it was so late when I received it, that it did not grow much. My sister saved her seeds for next year, in case mine should not ripen; it was well she did, for none of mine did ripen. I have charge of all the seeds from the RURAL, and I had just helped to plant them when I wrote last. The watermelon seeds were overlooked and forgotten until it was too late. Deutzia crenata and Callicarpa Americana did not germinate. Three of the Yucca filamentosa came up, but are so small I fear they will not live through the winter. The tomatoes, Ricinus and Hollyhocks grew finely. I planted the Vitis with the Clematis and Maurandia in a box and set it where I thought it would be out of the reach of the hens, but, of course, they did get into it, while I was at school, and dug them all out. From the small potato sent, about eighteen pounds of large mealy potatoes were raised. Father says they are the best he ever raised; he tells every one about my splendid new potatoes.

Anna has brought in her plants for the winter; they are looking better than ever before. She tried the soil recommended in the RURAL, for Geraniums and Heliotropes instead of the soil she generally uses, and finds it is much better. I have an orange tree three years old. Will it ever blossom in this climate? Is it necessary to bud it? Do Balm and Rose Geraniums blossom?

Why does Ivy think I failed to do justice to Hawaii Nel's letters? I think they were very interesting, and I would like to see more as good. If I cannot write anything interesting I like to read good letters. I almost won a volume of poems, last winter, but almost isn't quite, and so I lost it. The winner was to select the author. I think I should have chosen Longfellow. When I first read Jean Ingelow's "Story of Doom" I did not like it, but after reading it again, I like it very much.

Our school presented the teacher with a volume of Tennyson's poems or rather money to buy it, as there was not sufficient time for us to procure it before the close of the term.

> Kindness to any is ne'er thrown away,
> God will remember us for it one day.

In my last letter my name was printed WISE. If there were anything in a name I should wish it was mine, as I am *very* far from WISE, and instead am a very ordinary and useless WIRE. Wires are a very necessary and sometimes ornamental article but I am an exception. Now, please don't try to make people think I am wise, this time, Mr. Compositor if you please. LENORA WIRE.

[The Orange will blossom in this climate; of course it must be grown in a tub and kept indoors in the winter. It is not necessary to bud it, but it will probably be the better for it. You can bud it with the Sweet-scented Orange. Balm and Rose Geraniums do blossom.—U. M.]

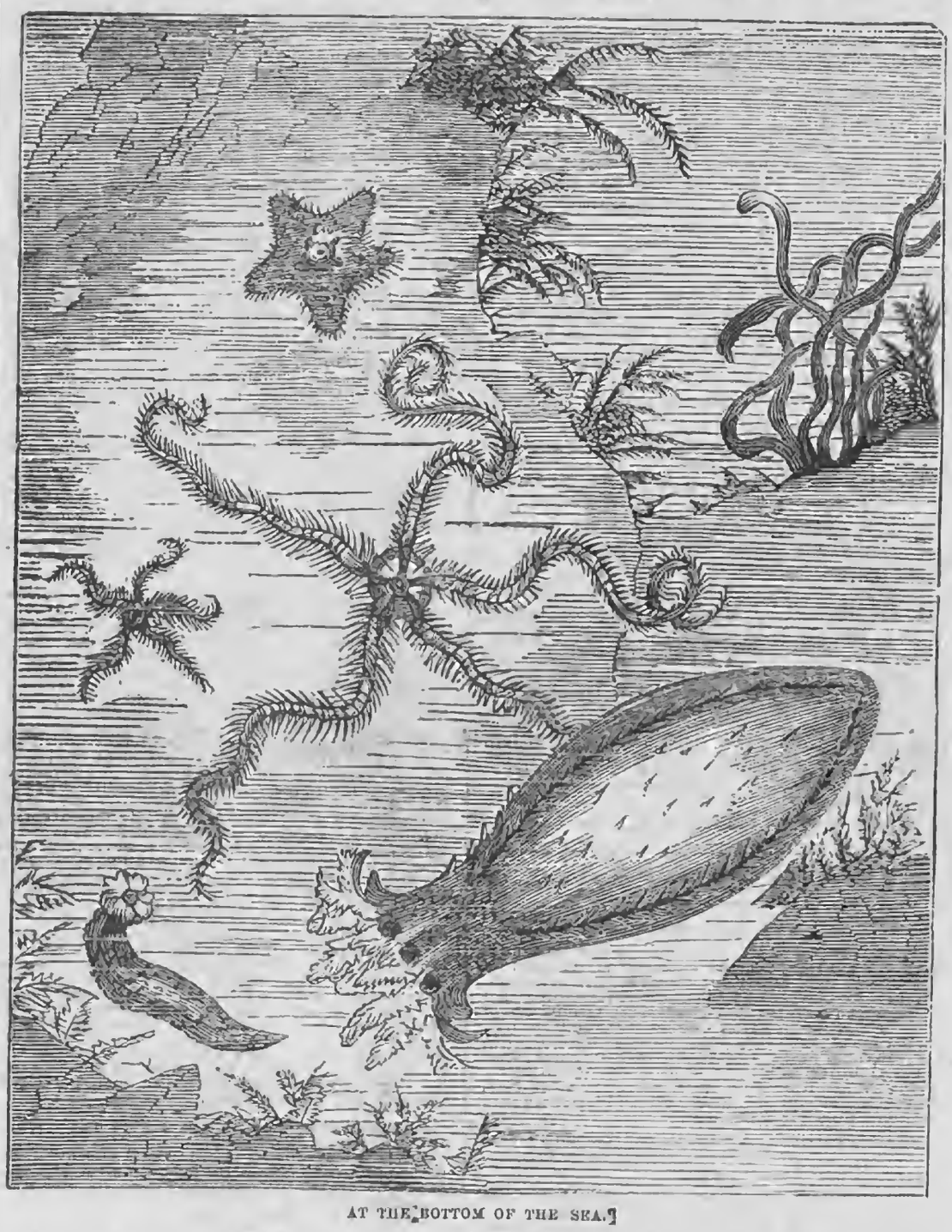
DEAR UNCLE MARK:—I ought to have reported before now, but have found so little time to write this summer, that it was impossible to do so. One of my chief duties was the charge of the chickens and in hot summer weather when they need almost constant attention and care, between them, housework and the garden, not much spare time was left. I am afraid I cannot make as good a report as some of the cousins, for the weather was so unfavorable here. My plants could not grow as fast or be transplanted as early as they should have been. Some of my seeds did not come up and those that did were so parched they could not grow. Neither my Callicarpa nor Dutchman's Pipe seeds came up. Do either of them require any special treatment? The Aquilegia came up nicely, were transplanted in good time, and were growing well when papa hoed them up. Where can I get more seed? The Pansies are beautiful. I love Pansies. Every face is so loving and at the same time so mischievous, that how any one can look at them and not notice their dear little human faces, I can't imagine. To me they seem to have just been to a funeral and while they still wear their mourning garments, they are laughing. Our Pansy bed is situated in the lower part of our garden, the soil is a rich black loam, and they seem to thrive well in it; one of the Pansies now before me measures two inches across both ways. The Petunias and Pinks came up well and are very fine. I have two strong plants of Hibiscus alive. Does the seed of the Variegated Vine need special treatment, also the seeds of Leavenworth's Eryngo? Neither came up. I did not try the Mimulus as I could not give it the right treatment. The Phloxes are very beautiful. The Dolly Dutton corn and the radishes were very nice. We think the Christina melon the best muskmelon we ever ate. The strawberry bed has done pretty well, but it needs weeding just at present. But I must close now, my letter is too long already.

Yours sincerely, MINNIE S. WHITE.
Erie Co., N. Y.

[This is a very creditable report. Though Minnie has not met with a brilliant success, I think I can say that she takes a deep interest in her garden, and where the interest is success is sure to come. Neither of the seeds mentioned need any *special* treatment—U. M.]

DEAR RURAL COUSINS:—I once more take my faithful pen in hand to write you a letter, hoping to interest you a few minutes in a brief description of Ivy's Rest. This place is situated in a most beautiful valley in the southern part of the Excelsior State, near one of the many tributaries of the grand old Hudson. Our scenery is indeed delightful. We are surrounded on every side by the giant old hills, which serve as a protection from the winter storms, while further west we see the dark, gray mountains towering in the distance, dotted here and there with large and no less beautiful summer resorts. Seen in the dull, gray twilight of evening, these look like some huge Castles of which we read in the legends of old. Fruits and milk constitute the chief products of this region for the export of which the railroad (one of the many links of civilization) proves a great benefit to our people. Autumn is here, and cruel Jack Frost has already visited different parts of our town, and our forests are now assuming a golden aspect; the Ivy (what relation) as it clings closer to its friend the old Oak tree, alone retains its natural color, but it, too, must soon yield to King Winter's chilly embrace, only to start again in the coming spring, and so continue on its course, onward and upwards, long after I, its lover and namesake, have left this world of joy and sorrow, and I trust that God will pilot me (and all the cousins) safely through life's journey, as he does the Ivy on its course. I sympathize with the Two Sisters in regard to their loss; they will please to come again, as I like their letter very much. It would also please me much to see another letter from Wild Fern. She would write if she only knew how I value her letters. Now, Mr. Editor, I will close, thanking you for the space allotted to my last letter, and trusting you will see this safely by that much dreaded place, the waste-basket.

Once more, Adieu, IVY.
Ivy's Rest, N. Y.



AT THE BOTTOM OF THE SEA.

DEAR UNCLE MARK:—I would like very much to join the Horticultural Club. I would be very much pleased if you would place my name upon the list. I have not a very large garden of my own but have a couple of flower beds. I have some Petunias, Phlox and Zinnias. I live in the country and my father is a farmer. I don't think I should like to live in town at all. May be I would if I were used to it. This being my first letter I will shorten it some. If it doesn't find the waste basket, perhaps I will write again. I am thirteen years old.

Williams Co., Ohio. MARY SCHAEFFER.

P. S. I forgot to say that the corn you sent to papa (Blount Corn, I guess) is ten feet high and very heavy. Almost every stalk has four or five ears, and some more than that. But it is so slow getting ripe that papa is afraid it will get killed by the frost. The Acme tomatoes are splendid, we got more than ten bushels from our vines. M. S.

DEAR UNCLE MARK:—Seeing there are so many little girls joining your Horticultural Club we concluded we would send our names. It has been so dry that our flowers did not do well this year. We have Balsams, Verbenas, Asters, Zinnias, Star Flowers, Portulaca, Cannas, and several other kinds. In the spring we have a great many flowers. We dearly love flowers and think it a great pleasure to attend to their wants. We also have a little garden for vegetables, but they did not do well, perhaps because they were planted rather late in the season, besides, the summer was so dry and we all went to school, so we could find no time to water them, but we hope to have better success another year. Yours respectfully,

Spencer Co., Ky. BARBARA & LIZZIE POUND.

DEAR UNCLE MARK:—I wish to join your Horticultural Club, if you will be so kind as to take me in. Mamma and I have a great many flowers; we have three hundred and twenty-five pot plants and a great many in the yard and garden. We have twenty-four varieties of Coleus, sixteen varieties of Begonia, twenty varieties of Geranium and six varieties of Cactus. We have six hanging baskets and a great many other varieties of pot plants. I will write no more at present but will write again, if I see this published. I am eleven years old.

Warren Co., O. EVA M. DAWSON.

DEAR UNCLE MARK:—I have long had a great desire to join the Horticultural Club, and now wish you to place my name on the list. I did not have many flowers this year, but will try and have more next year. I will write no more now, but will try and write again, if I see this in print. I am twelve years old. RETTIE CLARK.

Cayuga Co., N. Y.

DEAR UNCLE MARK:—I thought I would write and ask you to accept me as a member of the Horticultural Club, I am very much interested in the culture of small fruit. I am about setting out a small strawberry bed of three or four hundred plants, which I hope will prove a success. I set out a bed last fall but they winter killed badly. With kind wishes to all the RURAL Cousins. I will close. Your friend,

Chittenden Co., Vt. W. H. RAND.

Sabbath Reading.

"THE CHRISTIAN LIFE A GAIN."

BY HENRY WARD BEECHER.

THE day is largely gone by—certainly with us—in which the entrance upon a Christian life and the prosecution of it are beset with such difficulties as they used to be when I was a child, and as they still are, I suppose, in some communities. There are a great many who seem to feel as though complying with the requirements of the phrase, "giving up all for Christ," was to be a process of plucking off; as if it were the duty of everyone that is going to be a Christian to throw down everything and give up everything.

I think there can scarcely be any phrase that is worse adapted to give a true conception of duty in Christian life than that. For entering upon a Christian life, so far from being a process of giving up everything, is a process of gaining everything.

Is a person called to give up bodily health? It would be a great sin to do it. In some churches and by some teachers fasting and maceration, and mortification of the body, are thought to be great duties. Christ did not think anything of the kind. He laid no such injunction upon any. On the other hand, to seek vigorous health, a good condition of the body, is our duty to ourselves, to our God and to our fellow-men.

Are we called to give up any of our friends—father or mother, brother or sister, husband or wife? If the time should come when by reason of persecution or revolution there should be the choice forced upon us either of abandoning father or mother, brother or sister, husband or wife, or of taking Christ, under such circumstances we must take the greater, but this choice is not forced upon a person once in a generation, or in a hundred years; and when one becomes a Christian, so far from giving up friends, he takes them in a dearer manner than he has ever done before. Love ought to be deepened and made more delicate and more heroic by piety. When one enters a Christian life, so far from losing home, or the flavor of home, he comes to have an increased attachment and relish for home. There is a power in true piety which is able to make home shine as it never did before.

Well, must the scholar give up his study, and the mechanic his labor, and the husbandman his toil, on entering a Christian life? Why, no. "Diligent in business" is the command of God; and in every rightful calling we are serving not ourselves alone but the whole community; and we must not give up that service. When a person becomes a Christian he is not called upon to abandon his occupation or industry—very far from it.

Well, are we to give up good spirits and laughing cheerfulness when we become Christians? No. On the contrary, we are commanded to rejoice; and the scope of the command is so great that if the earth were to forget to bring forth, and everything were to fail, the prophet would yet rejoice in the Lord; and the New Testament echoes it. Not only are you to rejoice if you have animal spirits that are buoyant and cheerful, but you are to rejoice when the circumstances around about you are not favorable to joy. You are to rise, even in the darkest places, into such an atmosphere that you can rejoice in God, if you do not rejoice in the things that surround you.

Well, what do you give up? To be sure, if you are pursuing any disreputable course, if you do anything that is mean, if you are indulging in any vice or crime, that you give up; and you ought to be willing to give it up. Nobody ought to call it a sacrifice to give up that which is wrong. Everything that is right you are to keep. "Whatsoever things are true, whatsoever things are honest, whatsoever things are just, whatsoever things are pure, whatsoever things are lovely, whatsoever things are of good report, think on these things," the apostle says. Hug them, as it were, to the soul.

When, therefore, a man enters a Christian life he enters upon a nobler life, a truer life, a purer life, a more loving life.

Throw away, therefore, I beseech you, every conception of the Christian life which represents it as a life that requires you to give up everything. You that are old in the Christian life, never say again, "Give up all for Christ." Rather look upon the Christian life as a life by which you are to inherit all, to take on all, to be more joyful, and to be stronger, with an increased desire for things that are beautiful and good.

The Christian life requires that one should lay just so much violence on himself as to make that straight which is crooked, and that right which is wrong, and to overrule selfishness and vanity, and subdue everything which prevents harmony, and establish perfect joyfulness in himself.

Blessed is he that enters into the service of the Lord Jesus Christ, and that has the spirit of Christ in him, and that day by day, at home, at school, in business, in pleasure, in social relations, everywhere, has the consciousness that he is walking in the spirit of Christ, in the love of Christ, in the presence of Christ, and with the influence of Christ upon him.—*Boston Advertiser*.

As one who carries gunpowder would not wish to be where sparks are flying, lest he should be destroyed; so should we carefully avoid such places and company as may lead us into sin.

PERSONAL ITEMS.

Ex-Doorkeeper Fitzhugh who was "a bigger man than Old Grant," is now doorkeeper to the Texas Legislature.

At the solicitation of Dr. Kenealy, the Tichborne claimant, has consented to contest the representation of Nottingham at the next election.

So good a man was Indian Agent N. C. Meeker esteemed by the people of Colorado that all through the State they spoke of him as "Father Meeker;" and yet his goodness didn't save him from the murderous hands of the Utes.

In the court at Mount Vernon, Ill., a few days ago, the anger of the prosecuting man, John Slaughter, ran so far ahead of tardy justice that he drew a revolver and killed Robert Wilson, the defendant.

Moltke's sister married an Englishman named Burt, whose daughter, by a former wife, became the Marshal's wife. She was 16, he 39. It was a thorough love match. Moltke has a fine estate in Silesia, to which he is greatly attached.

Prof. Swing, the noted Chicago preacher, hopes returning good times will not bring back the old rage for property which created frequent mortgages. "They are," he says, "a pestilence under which estates die, and churches sicken and have to be sat up with at night."

The Princess of Wales, altho' she left Denmark nearly twenty years ago, is still as great a favorite with the Danes as in her girlhood; they always welcome her visits with immense enthusiasm. The Copenhageners used to call her by the pet name "Olestenen"—"The apple of our eye."

General Passenger Agent Farmer, of the Pennsylvania Railroad Company, after a four month's vacation for the benefit of his health, has resumed the duties of his position. We are glad that one farmer at least can afford to take a four months' holiday trip, even for the sake of recuperation!

Queen Victoria once signified to Viscount Macduff, now Earl of Fife, that she would not be unwilling to have him for a son-in-law. He is not yet 30, was schooled at Eton, has eight residences in the Highlands, and is warmly spoken of by all classes. His four sisters are ladies of extreme beauty, but have not all been enviable in their wedded life.

Among the persons who pressed forward to shake hands with President and Mrs. Hayes at the depot in Parsons, Kansas, recently, was a Mrs. Slaughter, who lives near Altamount. Before Mrs. Hayes had taken the lady's hand she exclaimed: "Why, Amanda, where in the world did you come from?" Mrs. Slaughter was a schoolmate of Mrs. Hayes, but had not met her since her marriage, many years ago.

Miss Jennie Flood, who, according to report, is betrothed to U. S. Grant, Jr., is the only daughter of James C. Flood, the head of the Bank of Nevada, and next to Mackay, the richest man on the Pacific slope. Miss Flood is about twenty-four years old, has dark brown, luxuriant hair, blue eyes, full face, beautiful teeth and a tall, handsome form. With the exception of a brother, who has been feeble since childhood, she is an only child. She was educated in a convent, and is an accomplished, amiable, practical girl.

Major Thomas T. Thornburgh, of the Fourth United States Infantry, who was killed by Indians in the action at Milk Creek, Col., September 29, graduated at the Military Academy at West Point in 1867. He had previously served as a volunteer in the army during the rebellion, and was in several engagements. His first commission was as Second Lieutenant, Second Artillery. He served in California and Alaska, and in 1871 was detached as Professor of Military Science at East Tennessee University. He afterwards served in Texas, Nebraska and Wyoming.

Ex-Governor Throckmorton was defending a murderer the other day, at Gainesville, Texas. He desired to convince the jury that the man whom his client killed, although in his shirt sleeves and without a pistol pocket in his trousers, might still have been armed. The lawyer had prepared himself to illustrate his argument. Taking off his coat and standing before the jurors, he said, "Can you see any sign of arms about me?" They shook their heads. Then he drew a pistol from under each arm, one from each boot leg, and a long knife from the back of his neck.

The cook of Emperor William is a fickle Parisian, with whom his Majesty has had several quarrels since the Franco-German war, owing to the cook's irrepressible patriotism. Several times he has been discharged, and each time taken back into favor, owing to the imperial love of the French cuisine. After the last scrimmage the chief offered to return on the following conditions only: "Majesty, if I am not allowed my liberty in the kitchen, I shall leave your service and for the last time, because neither my health nor my peace can stand this incessant wrangling!" The Emperor smiled and submitted, being really attached to the chief, who has been with him for many years, and has grown rich.

The Hon. and Right Rev. Monsignor Stonor has been proposed to the Holy See and accepted for one of the new English Roman Catholic Bishoprics. Monsignor Stonor has been President of the English College at Rome, and is well known to English-speaking visitors for the amiable manner in which he performed toward strangers the duties of assistance formerly performed by the Hon. and Rev. Monsignor Talbot, the convert brother of Lord Talbot de Malahide. Monsignor Stonor is a son of the aged Lord Camoys, for many years lord in waiting on the Queen, and his now eldest brother Francis is married to the second daughter of the late Sir Robert Peel, who is a lady in waiting to the Princess of Wales.

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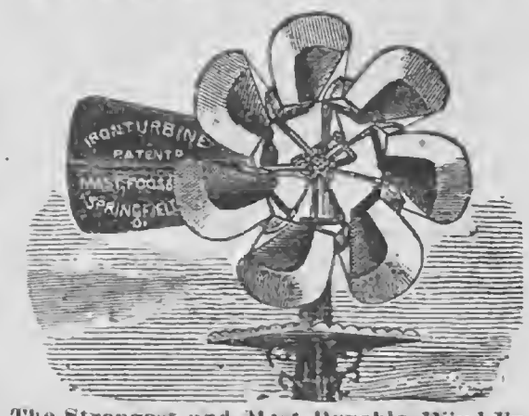

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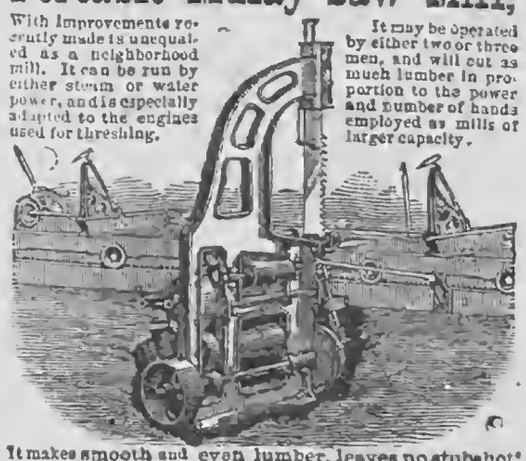
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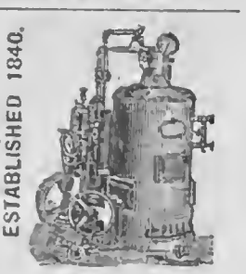

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CRUEL DEVICE.—A new device for the bedevilment of lovers was operated successfully by a heartless young man on the local train yesterday. A couple sat in the seat before him; the lady was young and modest, and the swain wore very large cuffs. One arm was thrown carelessly along the back of the seat, and upon this the evil-minded person behind rubbed some phosphorus. The affectionate performances of that cuff, when the train was rushing through the kindly darkness of the tunnels, were beheld by all the unfeeling and snickering occupants of the car, whose cruel enjoyment was not a little increased by the demure and unconcerned appearance of the lovers each time the train bounded again into the light.—*Virginia (Nev.) Chronicle.*

A SMALL boy was sent to the country to board a short time ago. He promised his mother that he would write a good long letter, describing his trip and boarding place, etc. A week went by, and his poor mother was nearly distracted when she got the following interesting letter from him: "I am here, and I swapped my watch for a pup, and he is the boss pup; and I went in swimmin' fourteen times yesterday, and a fellow stole my pocketbook, and I want some money; and I shall bring the pup home."—*Boston Globe.*

HARD TO PLEASE.—"Did you make the train?" "No," was the reply. "it was made in the car shops." "I mean did you catch the train?" "Of course not; it's not infectious." "Well, you fool, did you arrive at the depot in time?" "No, you idiot, I arrived in an omnibus." "Great Scott!" shrieked the interlocutor, "did you board the cars?" "Jumping Jerusalem!" bawled the questioned man, "you know I don't keep a boarding-house."—*Richmond Dispatch.*

TEACHER—"Now, boys, quadruped and biped, you know, are two kinds of animals. Quadruped, animal with four legs, such as cow, elephant, horse, etc. Biped, animal with two legs, such as—well, ah—. Yes, there is a biped," pointing to a goose on the wall, "and I am a biped, and you are all bipeds. Now, what am I?" Pause. One of the bipeds—"A goose, sir!"

"ARE you building air-castles in Spain, Mr. Jones?" said a landlady to a boarder, who was thoughtfully regarding his coffee cup. "No, madam, only looking over my grounds in Java," replied Jones.

"How to tell bad eggs," is the title of an article in an exchange. When you have anything to tell a bad egg, you must be careful not to break the shell while imparting the information.

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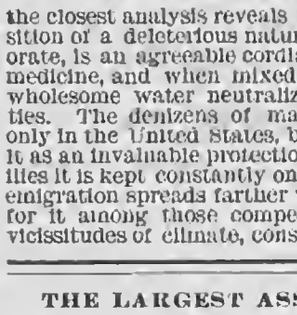

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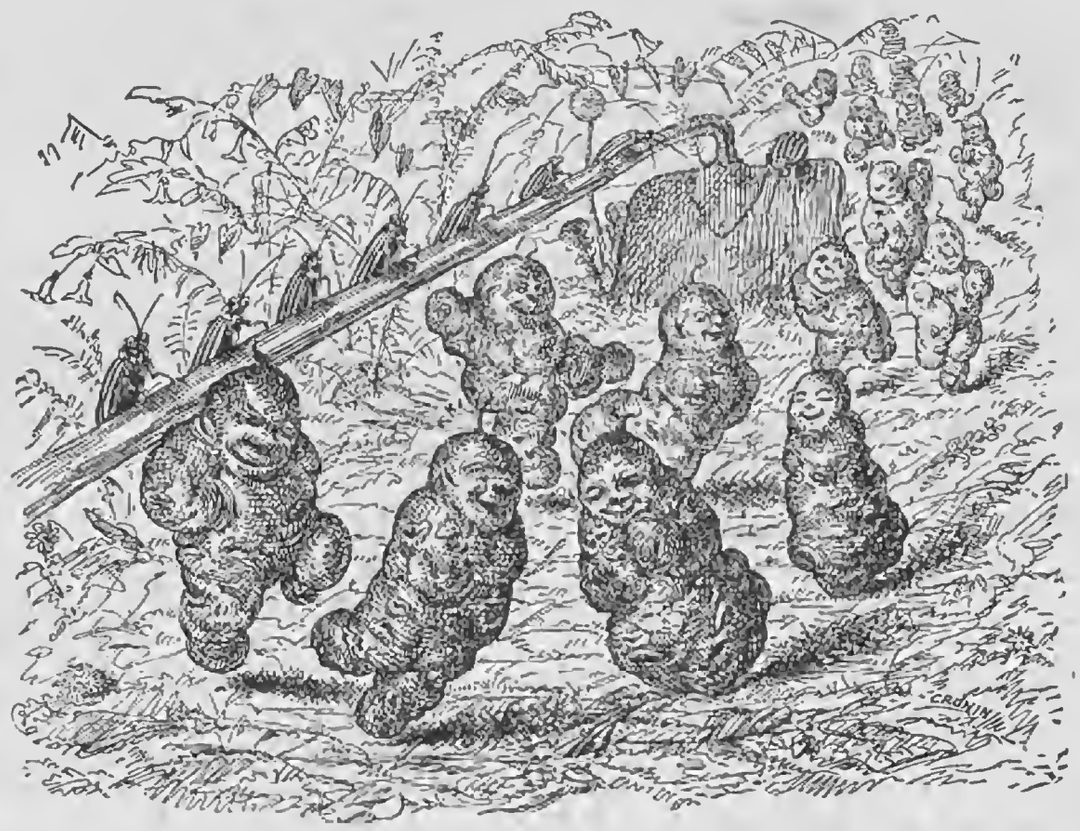

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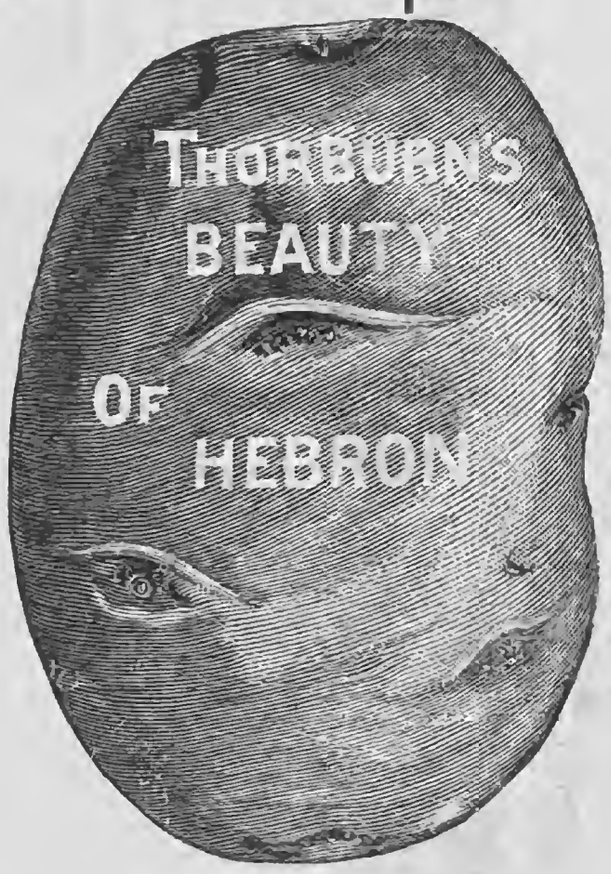

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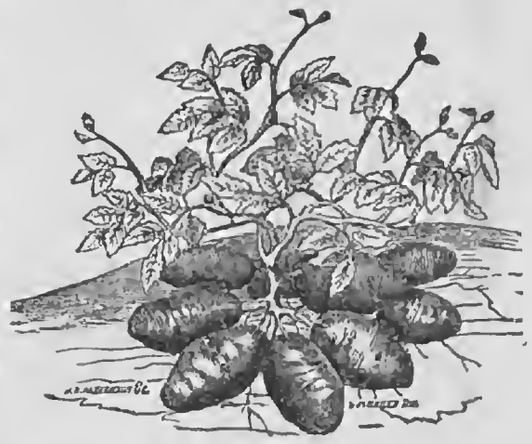

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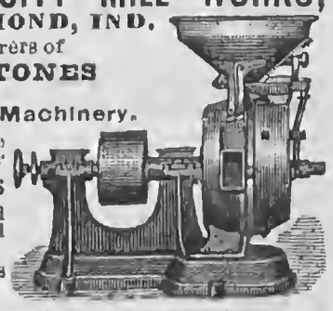

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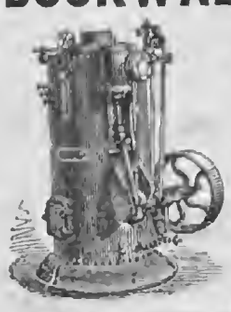

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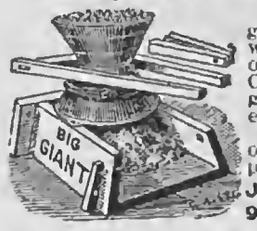

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THE RURAL NEW-YORKER

A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME

Ralph Evans 1190

VOL. XXXVIII. No. 43.
WHOLE No. 1552.

NEW YORK, OCT. 25, 1879.

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The Vineyard.

THE NIAGARA GRAPE.

Among the many kinds of new seedling hardy white grapes which we have seen and examined during the past five years, we have rarely met with one that in essential respects seems to promise more than the Niagara, two bunches of which from life are here portrayed. They were sent to this office by Mr. J. S. Woodward of Lockport N. Y. and drawn by our artist without the slightest embellishment. Mr. Woodward informs us that the seed was produced by a cross between the Concord and Cassady, the latter, a hardy white grape, the pollen parent. The seeds from this cross were sown in 1868 and produced several varieties, of which only the Niagara was deemed worthy of preservation. It has fruited since 1872 and been tested in different places showing no signs of disease or defects of any kind. The vine is said to be a strong grower, more so even than the Concord, and the leaves are large, glossy and thus far entirely free from mildew. The bunches are very compact, and the berry, about the size of the Concord, is of a light pea-green, having a firm skin, a soft pulp and a flavor sweet and agreeable. It ripens with Hartford Prolific and the berries are said to hang upon the vines for several weeks after ripening and yet remain firm and sound. The Niagara is not yet offered for sale, but we have thought it well to introduce it to our readers as worthy of being borne in mind. Mr. Woodward informs us that such good authorities as Mr. T. S. Hubbard of Fredonia and Mr. A. C. Younglove of Vine Valley, express the opinion that it is destined to supplant the Concord as the Grape for the millions.

THE NIAGARA GRAPE.

MODE OF CULTIVATING THE GRAPE-VINE IN CALIFORNIA.

It must be remembered by Eastern readers of the RURAL that our climate differs considerably from theirs, and Grape-vines may require different treatment in both places. As we have no heavy freezing winters, our plowing and seeding, pruning and planting are done between the first heavy rains—usually in November and the following March.

As soon as the leaves fall, pruning is begun. We use the saw and small hand shears, also the double hand shears, the handles being from 12 to 16 inches in length. This style is coming into general use now, as it has the power to cut limbs two inches in diameter. Vineyardists never use the trellis; but short stakes are used the first year. The vines are set from six to eight feet each way and are pruned low to form heads, usually about twelve inches from the ground, which, in a few years form strong stumps with many spurs. These spurs, or shoots, are cut back to three or four eyes, or buds, and only as many are left as the vigor and age of the vine will justify. The soil has much to do with the pruning. A strong, deep soil will be able to support twice as many spurs as a poor and thin soil.

There are many different theories here in regard to the best time and mode of pruning, so I will mention only what I have practised and found successful:—I prune altogether with the long-handled shears. I cut out all the dead wood and those spurs which are too close. I cut out in order that the vine will let the more sunshine through it. I cut each cane back to three eyes and leave on a vine of six inches in diameter fifteen spurs, often less, according to the shape of the vine. The third or fruit bud will start first, and in a few days the next will swell. Those are the fruit buds. The first or base bud, is dormant and only produces wood for the next season.—(? EDS.) The buds are well out by the last of March, and, should we have a frost, as we sometimes do, the first buds are killed. The others that were not so forward, may escape, in which case they will now start out with much vigor, and make up partially for the loss of the first buds. A frost at that season usually injures the grape crop very much.

After the pruning is done, the brush is carried to some convenient place and burned, and the plow is put to work turning under the grass and weeds. After plowing, the harrow is used both ways; then the ground is cross-plowed, harrowed and rolled, or rubbed with plank to break the lumps. That is all the plowing required for the season. The cultivator is now used until the grapes are nearly ripe. I have practised summer-pruning on land that is rich, but I have some doubts as to the benefits derived from it. If pruned, however, while the shoots are young and tender, the vine forms a head and shades the grapes from the hot summer sun which often burns them on the vine. Summer-pruning is done by clipping the tops of the young shoots with a large knife. It should be done in the latter part of April in this county. Mildew has been

troublesome on low land that is rich and damp. Summer-pruning is beneficial in such places, as it will allow the air to circulate through the vines.

California from west to east and north to south is the home of the Grape-vine. Grapes are cheaper than any other product of the farm. The distilleries and wineries only pay $10 to $12 per ton, while barley averages $25 and wheat $35 per ton. Yet it will pay to raise grapes even at those figures.

Sacramento Co., Cal. P. H. MURPHY.

Grape Notes.

Mr. J. Steigleder, of Shelburne Falls, Mass., has favored us with a box of grapes containing several fine bunches of Shelburne, Pocumtuck and Count Bismarck. Of the Shelburne he says that it did better than the Concord with him. The Concord mildewed and the fruit rotted on the vines from continued cool rains. We gave a cut and description of this grape in the RURAL of Oct. 26th, 1878. It is a white (or green, no color); a seedling of Allen's Hybrid. Bunch large, sometimes shouldered, compact, long. Skin thick; fruit sweet; originated in 1869. Ripens Sept. 1. The Pocumtuck is a seedling of the Delaware crossed with Allen's Hybrid. It originated in 1869, and fruited for the first time in 1873. In most respects it resembles the Delaware, but Mr. S. asserts that it has decidedly healthier foliage. It has medium-sized bunches, not shouldered. Skin thin, like the Delaware; fruit vinous, rather sour; white, rosy-tinted. Count Bismarck, Mr. S. states, does not ripen so far north. The bunch is loose, with medium-sized berry; very green in color; sweet but sprightly, with a thick skin.

Farm Topics.

THE TRUTH ABOUT IT.

[THE object of articles under this heading is not so much to deal with "humbugs" as with the many unconscious errors that creep into the methods of daily country routine life.—EDS.]

HARD TIMES—WHAT MAKES THEM.

WE recently paid a visit to the home of our boyhood in a beautiful valley of interior New England. Thirty years have passed since we went therefrom to battle with the world. We found there the same cry as here, "Hard times; want of money." We presume it was the same in the olden time and always will be, simply because of the want of the public for things just a little beyond their ready reach. People exert themselves to get what they could get on without, and thus strain their purses. A little comparison of things as they were in that vicinity 40 years ago and now, may do no harm.

We see a child's carriage of ingenious construction and superior workmanship; an elaborate and expensive top shields the occupant from the rays of the sun, and the nicely-adjusted springs overcome the inequalities of the road. All very nice, very comfortable and also very expensive—that carriage cost at least 25 dollars. Very likely the carriage provided for the father of the child who rides in this one, was of far different construction. The wheels, of which there were probably only two, were solid, cut from plank, and the body, a rough box—cost, all told, perhaps a dollar-and-a-half.

And now we are on the subject of carriages, let us look at larger ones. In the olden time the lumber box wagon, without springs, served to carry its owner and family to mill, to market and to meeting. A pleasure wagon was a novelty and a carriage with a top seldom seen. Now the lumber wagon is kept only for heavy work on the farm; the market wagon is as easy as a coach, and phaetons and carriages abound. To draw these, different horses are required. Old Dobbin is still kept for the heavy work, but is not fit to use on the road, and it would not answer at all to 'tackle' the phaeton to an animal that could not make ten miles in an hour without urging. I will not even guess at the difference in value of the horses and wagons in the township between now and 40 years ago. And this is not all. Fine horses are expensive to keep, require fine harnesses and, beside that, time to use them.

Leaving this subject, let us take a look in the country store where we used to think every necessary thing was kept for sale, and see there many articles we never saw before leaving home; articles of luxury merely; they cannot be necessaries, because in former times they were not to be had and people lived very comfortably without them. Articles of dress, of household adornment, of food; articles that would come under neither of these departments are there displayed and sold.

There is also a difference in the furniture and furnishing of the houses and in the dresses of the inmates, that is notable. But says one: "Do you object to any or all of these things? Is it not well for all people to surround themselves with as many comforts as possible?" Most certainly I do not object, and should be very glad to see every one in possession of all the comforts he can wish for; but I would remind him of the old saying: "You cannot eat your cake and keep it."

The truth about it is that this talk of "Hard times" comes, not because there is not more money earned and received by the people at large to-day than formerly, but because it is more readily spent now than then, and for *wants*, not *needs*, and our wants increase correspondingly to what we see others about us have. Franklin said truly, "The eyes of other people are the eyes that ruin us. If all but myself were blind, I should want neither fine clothes, fine houses nor fine furniture."

L. A. ROBERTS.

HISTORY OF A POOR FARM.—No. 18.

FISH PONDS FOR FARMERS.

A FARMER may enjoy every delicacy which the earth, the water or the air affords. He is the only man who lives neighbor, as it were, to Dame Nature and upon whom she lavishes her neighborly favors. Every product of the soil may be his; the game which inhabits his fields and woods are his, and where a stream or springs afford a water supply, he may provide his table with a bountiful supply of fish at the cost of a few days' labor.

Needing a large supply of muck to replenish the empty yards, cellar and pens, which have all been cleared to furnish manure for the fall grain and grass-seeded fields, I have undertaken to dig a pond 600 feet long, 15 feet wide and from three to four feet deep, that being the depth of the muck at the edge of a meadow at the foot of the hill. Numerous springs break out and furnish a copious supply which will keep the pond always full of clear, cool water, the best conditions for the successful

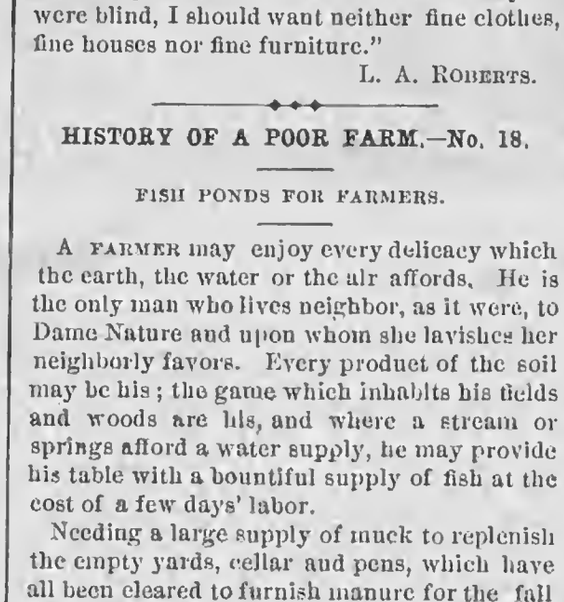


Fig. 1.

growth of trout. My plan is as follows: (see fig. 1). The pond is dug out down to the sand underlying the muck, and the bottom is, of course, somewhat uneven. In places where it is possible to do so deep holes are dug to furnish hiding places for the fish in winter time, when the pond may be frozen over, and in which they can lie in comparatively warm spring water. To make the digging easier and to keep the holes free from water as the pond is made, it is dug in sections, as follows (see fig. 2). A square of 15 feet is first dug out, marked 1. Then No. 2 is dug out leaving a piece a foot thick, marked by the shaded lines between 1 and 2, to keep out the water which by this time has filled No 1. When No. 2 has been dug out to the bottom, the piece left is cut down with a sharp long-handled spade and is drawn out of the water with a grab hook, a Hexamer prong hoe is the best tool I have used for the purpose. It does not matter if this piece cannot all be taken out, on account of the oftness of the bottom and the water; it is of

Fig. 2.

very little consequence anyway. Then No. 3 is dug, leaving the strip as before. In this way the whole work can be done with dry feet, as the water rises only from the sand at the bottom; the surface water being dammed out. A quantity of large boulders and stumps has been drawn from the woods and these will be rolled into the pond here and there, and rough branchy stakes are being driven in places, both to prevent the boys from netting the pond at night, and to supply rubbing and hiding places for the fish.

The pond, P, discharges into a creek, C, by means of a channel, Q, which is crossed by a dam, D D, about 18 inches high, in which is a gate, G, that closes itself at high water from a freshet in the creek. The pond, P, is thus protected from high water and there is no danger of the fish escaping into the creek. At the head of the pond, P, is a four-foot ditch, O, cut down to the sand and connecting with a large spring, S, having a gravelly bottom. This ditch, O, is shut off from the pond by a wire gate, W, and is intended for a spawning bed for the trout which can be let in at the proper season and shut out when it is over. The young trout can be kept in this pond, and hereafter it is intended to add other ponds at right angles to the main one for yearlings and small fish, as may be required. All the expense will be repaid by the muck dug out of the ponds, which I consider is worth one dollar a load.

I might have had the muck dug out here and there in holes, and left unsightly puddles, useless and disagreeable. It costs no more to dig the muck in this shape than in irregular holes and the ground can then be made exceedingly valuable. Forty dollars will purchase 1,000 trout to stock the pond, and 50 cents will supply water-cress seed to plant the borders of the pond, and the cress will furnish haunts for sufficient aquatic insects to feed the trout, besides giving a valuable harvest in itself. A small drain in the large swamp sown with water cress has this year supplied 320 baskets which brought 25 cents a basket, net. It will not be long before the pond will return its cost in fish to be had for casting the line at any time a mess is required in the kitchen. Former experience in a similar way, has proved to me that any farmer with a large spring, a constantly flowing drain, or a stream which can be made to run through a pond without danger of overflow, can secure a constant supply of fish for his table and a few to sell occasionally, without any trouble in feeding them or keeping so many as to be forced to strive against unnatural crowding and other costly or disastrous conditions.

Sheep Husbandry.

IMPORTING SHEEP DUTY FREE.

COL. F. D. CURTIS.

The Proper Care and Feed to make Combing Wool.

When sheep are imported for "breeding purposes," the duty—twenty per cent. on the cost—will be abated. This is a material reduction in the cost, which can be saved by those who import ewes to breed from.

Next to breeding, feeding is the most important consideration. Combing wool with a length of staple and degree of luster which will command the highest price, can only be produced by following a careful system of protection and feeding. The flock should never be exposed to the storms of autumn, winter, or the early spring. Such exposure will surely enfeeble the constitutions of the sheep, and so wash the wool and the skin, that instead of the fleece being soft and lustrous, it will be harsh and dingy. The sheep will not yield as much wool per head besides being constantly subject to disease. The increase in the productiveness of the flock, when carefully housed, will always pay for the trouble and increased expense in doing so. When sheep are thus handled, they will almost instinctively return to the fold when a storm is brewing, or by a little training they will come at the call. A cold wind is injurious to coarse-wooled sheep, and they should never be allowed to be thus exposed. When it is possible for them to do so, they will seek a cover of some kind to get out of a cold wind. The open fleece makes a coarse-wooled sheep particularly sensitive and many times a farmer wonders in the winter why his sheep have not done well, when, if the truth were known, the cause would be found to have been exposure to winds and storms while in the pasture. No one need expect to succeed with a flock of coarse-wooled sheep, who disregards their protection.

Ordinary keeping will not produce combing wool. The sheep must be fed both rich and succulent foods. These, if properly combined, will produce a physical condition of healthfulness without which there will not be a growth of fleece of the required standard. The sheep must be kept in a fleshy condition so as to insure a sufficient secretion of oil to give gloss and strength to the wool, and at the same time the system must be kept free from fever and constipation which will produce fever. A sheep may fatten when in this condition; but the wool would show the effects. It would be useless to attempt to grow combing wool without first providing a liberal supply of roots. Regular rations of this food should be given daily, from four quarts to a peck, according to the size of the sheep. This will keep the bowels open and prevent the sheep from having "stretches" and other diseases incident to constipation. Roots aid in the digestion of other food and promote assimilation in the stomach, so that they have a feeding value beyond their actual worth as food. Oil-cake meal is another essential pre-requisite for producing wool of a high luster, and, without it, the finest samples of combing wools could scarcely be produced. Cotton-seed meal will answer very well as a substitute, but is not equal to the linseed. A gill a day is ample for a large sheep. Mixed with the oil meal and the roots, there should be a feeding daily of oats or bran. Good, bright straw can be utilized in the feeding of sheep in connection with the nutritious foods we have mentioned. When yeaning time approaches there should be a liberal supply of clover, hay and strong feeding which should continue to shearing time. An abrupt check in feeding sheep before shearing, with the consequent depletion of the system, will reduce the growth of wool and often causes a break in the fiber, which spoils the wool. A steady and uniform growth makes a strong and even staple which is desirable. Regular feeding, without any sudden changes in the diet or condition of the animal, will insure this. It must be remembered that this liberal feeding will reward the farmer not only in the growth of a long and beautiful staple which will bring the highest price, but also in the increased volume of his manure heap containing a fertilizer rich in the most desirable requisites of plant-food.

The Herdsman.

FEEDING COWS IN PASTURE.

ONE advantage in soiling cattle is that, when the work is properly done, the animals always have a sufficiency of food, and if they are cows in milk, they will give a larger product than if allowed to roam and depend upon what they can get. At this time of year pastures are apt to be short, and to grow poorer until snow comes and the stock is put into winter-quarters. Grass makes little growth in this State after the first of October, but cattle are often kept at pasture till December. During these two months they roam over the fields soiling whatever feed there happens to be, and often animals are nearly starved, because it has not come to the time of year when farmers deem it necessary to feed. This is a a mistaken policy. At any time when pastures begin to fail, stock should be fed, and with all they can eat. A piece of drilled corn is excellent early in the season; but if this has not been provided, some corn meal, or a mixture of corn meal and wheat bran will be found admirable. It is real economy not to let cows fall in their milk through lack of feed—if the flow is checked, it cannot be re-established to its previous amount by high feeding afterwards. A cow half dried by being stinted in the fall, will not hold to her milk nearly so well through the winter.

Low as dairy products have been, it pays to feed cows well. Getting the bulk of their food in the pasture, what is given in addition goes mainly to increase the milk, butter and cheese product. There is also a natural gain from increased value of manure made from cows which are fed in pasture. It is, in fact, one of the best means of enriching a farm to make it carry all the stock it will bear and buy feed as needed when the home-grown supply is short. In this way the number of cows a place will carry can soon be so largely increased that the farm will be well able to maintain its own fertility. On the other hand, very close pasturing in the fall should be avoided so far as possible. It is better always with clover and timothy to leave some growth in the fall as a winter protection for the roots.

W. J. F.

Monroe Co., N. Y.

The Apiarian.

HINTS ON WINTERING BEES.

THE main subject that at present should engage the bee-keeper's attention is the wintering of his stocks. Four points that are of paramount necessity for successful wintering, may be thus enumerated:—first, the bees should go into winter-quarters in a healthy condition; second, they should have a sufficient quantity of healthful food; third, the colonies should be strong, and, fourth, they must have protection against cold.

The diseases from which bees are liable to suffer are: dysentery and "foul brood." From the nature of dysentery, it is only dangerous in winter while the bees are confined. Foul brood, on the other hand, is a summer disease. It is a minute fungus that attacks the brood, causing it to decay, and, consequently, also causing a failure of rearing young bees. As the germs of the fungus readily spread, it is the

most terrible scourge the apiarist has to contend with. If a colony has been suffering from this disease until late in the season, so that no young bees have been reared, there is but little chance for such a colony to pass safely through the winter; or, if it should, it is almost certain to succumb under spring dwindling, though the disease be eradicated.

The consideration of food involves the most important factor in connection with successful wintering. A large proportion of the many stocks that perished last winter, died of starvation, either from an absolute lack of food or from its being covered with ice and inaccessible to the bees. If on examining the colonies now, it is found that they will need more honey to last them through the winter, this should be supplied immediately. Thirty pounds of honey are the least quantity that a colony can safely be trusted to subsist on during the winter, and experience and observation have convinced us that this should be of the best capped honey. Sweets gathered from cider mills or molasses factories are unfit for bee-food, and will in most instances cause dysentery and great mortality. If no capped honey is on hand, feeding may be resorted to, which should either be of the best extracted honey, or a syrup made from the best quality of granulated sugar. It is a mistaken policy to rob the bees of their choice treasured honey for the sake of making a few cents, and as a substitute feed them on foul, adulterated and worthless stuff that is hardly fit to be put on any table. The little that may be gained by the sale of the honey is lost tenfold by the weakening and loss of colonies. "The laborer is worthy of his hire," and whoever attempts to defraud the bees of their well-earned hire, must suffer the inevitable penalty. It is also essential that the colonies should be strong; they will not then suffer so severely from spring dwindling, nor from the cold during the winter. Weak colonies should therefore be united, and if any is without a queen, one should be introduced without delay.

When these three conditions—the health, food and vigor of the colonies—are satisfactory, the next point is a suitable protection against cold. Before the hives are put in winter-quarters, they should be carefully gone over, the frames arranged in a compact form in the middle, closed up by division boards, and covered with a quilt or cloth. To facilitate the communication from frame to frame, and thus enable the bees to get at the food without separating from the cluster and traversing the round of each frame, a hole of about half an inch in diameter should be made in the middle of each comb. This provision is of more importance than is generally supposed. If, in a protracted, severe cold, the honey becomes exhausted on two or three of the middle frames and there is no passage through the middle, the bees have but the alternatives either to starve or separate from the cluster and one by one crawl over the edge of each frame till the honey is reached. The first alternative is a sure death, and if the second be chosen, many will undoubtedly be chilled, fall to the bottom and there perish.

If there is any vacant space in the hive, this should be filled with chaff or cut straw, which help to absorb the moisture evolved from the bees, as well as to keep them warm. It is well also to cover the entrance with a piece of wire-gauze, or with a piece of tin in which holes have been punched; the bees will thus be shut in, and the mice out, otherwise these might make their way through the entrance.

A dry, dark, frost-proof cellar or room, in which can be maintained a temperature of between 35 and 45 degrees F., will form the best winter-quarters for bees, and if such a place cannot be secured, the nearer the place chosen comes to this standard the better. In most cellars ventilation will be needed. This may be effected by connecting a stove-pipe with a chimney above, and letting it extend downward to near the floor. If no suitable house-room can be had, the ingenious bee-keeper can winter his bees very successfully out-of-doors on the summer stands, or in some place sheltered from the winds. Here each hive should be surrounded by a box nailed together of rough boards, and supplied with a movable, slanting cover. The box should be so large as to permit a space of a foot, or, better still, a foot and a half, to be packed with chaff or dry straw, on all sides of the hive. To permit flight when desired, and thus avoid dysentery, let a wooden tube lead from the entrance of the hive to the outside of the box. Two or more hives may also be placed together, and one box made to answer for them all. The straw should be packed very tightly around the hives, and this can be done most effectually if it is cut up in lengths of two or three inches.

See to it that every hive is clean, dry and tight, and that the best possible provisions for successful wintering are made in every particular. Were there means of knowing just how severe the winter would be, some work might perhaps be saved, but as it is, no bee-keeper can be considered prudent who does not provide for the worst.

The Poultry Yard.

POULTRY AND POULTRY BREEDING.

A. M. HALSTEAD.

Where the hens are to do the hatching they need to be removed to the "sitting" room. This should be done at night. Move the hen carefully and quietly and put her on a nest with dummy eggs for a few days until she is sitting steadily. The French use turkeys and do not wait for them to be "broody," but make them drunk with a wineglassful of spirits when they are wanted for use. An ordinary-sized turkey will cover 20 eggs and may be used for several lots of eggs.

Incubators and artificial mothers, however, have been brought to such a state of perfection that it seems folly to cling to the old method. The saving comes from the avoiding of loss by breakage, by hens leaving the nest or trampling the half-hatched chicks to death. Moreover, the incubator and brooder are always ready for use and save the time of hens, which can be devoted to laying. In both the natural and artificial method it is necessary to full success that the eggs receive a daily airing.

As the chicks hatch, remove them from the nest as fast as dry, and cover them with some warm material until ready to put them out. Here is when the brooder artifical mother comes into play. The chicks may be taken from the hen or the incubator, and put into the brooder; where, by means of a small lamp, they are kept warm and dry, and receive all the brooding they need—more than with the hen, for the brooder is always ready to hover them, while the hen is not.

The young chicks need no food for the first twenty-four hours. After that they should be fed plentifully and often. At first give them the yelks of hard-boiled eggs, chopped or crumbled fine. After the second day, mix coarse corn meal and wheat bran, equal parts, and scald it. When two weeks old, begin feeding cracked corn or wheat for their night food. In addition to this, they may be given occasional feeds of boiled rice, small potatoes boiled and mashed and mixed with a little corn or barley meal, bread crumbs and stale bread steeped in milk or water; in fact, all the scraps from the table should be saved and given to them. Green food—cabbage chopped fine, onions, ditto, celery tops and, best of all, lettuce—is highly relished and should be fed to them often. To give delicacy to the flesh of the chicks designed for the table, make their principal feed, for a week or ten days before killing, barley-meal moistened with milk and occasionally alternate with Indian meal.

The greatest profit in raising chickens must come by getting them fit for market at the earliest possible age. The average cost of hatching and raising chickens (I speak now of doing so by artificial means) until they are eight weeks old, is not over fifteen cents each. At this age they should weigh from one and a half to two pounds. The cost for the next two months will be more than doubled, while the increase in weight will not be over fifty per cent. It follows, therefore, that the most of the profit comes from the first two months' care and feeding. Broilers at that age will sell in April and May in our large cities at from 75 cts to $1.00 per pair and sometimes for as high as $1.50.

QUESTIONS AND ANSWERS.

Among the questions oftenest asked me are the following: Are the chicks as healthy under the care of the artificial mother, as under the natural parent? Answer—More so, and especially because they escape the lice pest which always attacks chickens soon after they are hatched. Question—Are artificially hatched chickens likely to have gapes and chicken cholera? A. After careful examination and experiment I am satisfied they are not. Q. Is it necessary to be very careful in handling eggs? A. No; not as careful as we are apt to think. Jolting does no harm, though a sudden jar which separates the inner connection with the shell, does. Q. Is it good to wet food long before feeding? A. Yes. Unless wet long enough before feeding to allow it to swell, it will distend the crop, and is apt to cause sickness and sometimes death. I always prefer to cook food for chickens and all stock, and believe in the practice most heartily. Q. Is cistern water injurious to fowls? A. Not if pure. Q. Is it a good plan to put pepper in food? A. I don't believe in stimulants of any kind, or in any of the condiments and artificial foods in vogue. Good wholesome food, fed often, is best, and helps most to force the six-weeks' broilers, in the sale of which lies the profit of poultry raising. The question about gapes and cholera was put to me because it seemed that the artificial method would prevent the spread of such contagions. As to the tick and gape worm Dr. Law thinks it not unlikely that the gape worm lives in a parasitic state in the abdomen of the tick, and he gives an instance of a similar case in a certain species of tape-worm common in dogs.

POULTRY NOTES.

I wish through the Rural to call the attention of our farmers to the proper care of their chickens, prompted to do so by witnessing the daily havoc among the flocks of my neighbors, one of whom has lost 185 birds within the past month, while another has lost 119, and I am fully convinced that there isn't a farm in the whole parish on which some loss in poultry has not occurred. In the cases in which I had an opportunity of making an investigation, I found the remnants of the flocks generally suffering from diarrhœa, while in several instances the surviving fowls were badly infested with lice.

As to lice, the pests are the results of gross negligence, and may be removed by the use of a dust-bath in which powdered sulphur has been mixed; a little lard, too, should be applied under the wings. This treatment, accompanied by an energetic white-washing of the poultry house, will soon rid the poor creatures of this misery-producing annoyance. With regard to diarrhœa, and all other diseases to which fowls are subject, prevention is much easier and better than cure. I have raised a large number of fowls this season, and of them I have lost only four, and these by accident. Although my poultry house is by no means a comfortable structure, yet I always keep it dry and clean, and feed the birds regularly twice a day myself. This is a job which I would entrust to no one else. I make a mixture of 4 oz. of saltpeter; 4 oz. of Talamonicum; 6 oz. powdered rad. gentiana; and 4 oz. powdered rad. calami. Any drug store should be able to put up the prescription. Of this mixture I give the whole flock, young and old, numbering 200, four ounces mixed with corn meal twice a week and find that it increases their appetite. Chickens, ducks and turkeys, eat it with considerable gusto. George Marx.

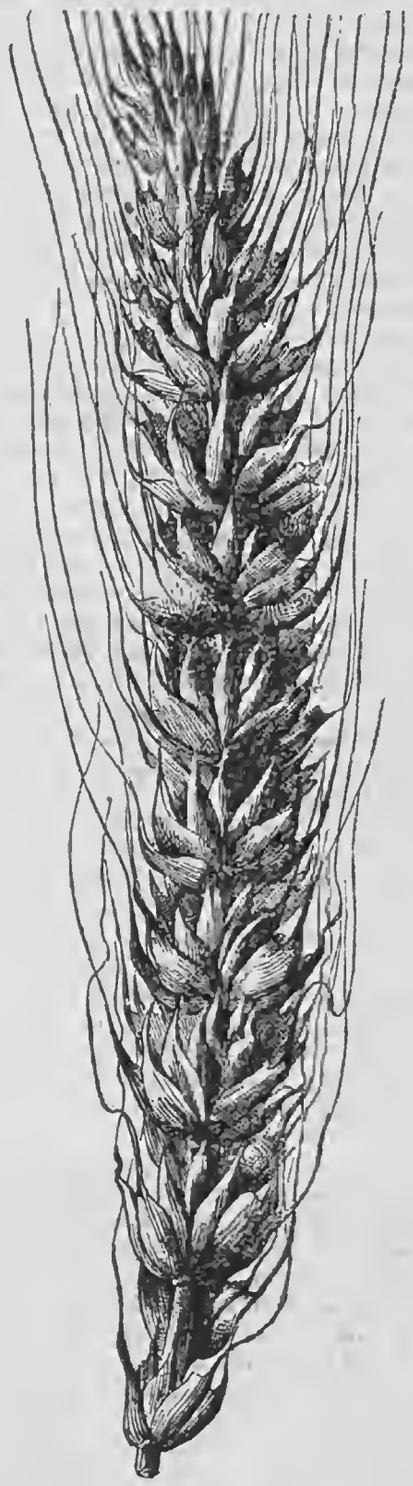
Somerset Co., N. J.

[Diarrhœa to which our correspondent refers above without giving any remedy therefor, is generally due to a scanty supply of grain—which necessitates an excess of green food—dampness and unwholesome food of any description. When the disease is caused by a diet of green or soft food, the diet must be changed and water given sparingly. Five grains of powdered chalk, the same quantity of rhubarb and three grains of cayenne pepper, may be given with advantage; and if the looseness is not speedily checked, a grain of opium and one of powdered ipecacuanha should be given every four or six hours. When the ailment arises from undue acidity chalk mixed with meal or rice-flour boluses are excellent.—Eds.]

Field Crops.

A GOOD VARIETY OF WHEAT.

The accompanying engraving represents a specimen of winter wheat sent us by Chas. Kroff, Esq., of Hickory County, Mo., which he calls the Gipsy wheat. He writes concerning it as follows: "My Gipsy wheat out-yields any other variety grown in this section. I have raised it for five years and the lowest average has been 22½ bushels per acre. In 1877 on nine acres I raised 254 bushels from 11¼ bushels of seed sown broadcast on corn land and plowed in with a double shovel three times in a row. It makes excellent flour as white as that of any red variety." We may add that of all the varieties of wheat sent us from different parts of the country, none has pleased us better than this. The berries in the heads we have received, are of medium size and appear somewhat shriveled; this, however, may be due to early cutting. The beards of the head illustrated have been shortened.



GIPSY WHEAT.

CASTOR-OIL BEAN.

JAMES BARTON.

This agricultural product is named in botany *Ricinus communis*. In the United States it is cultivated in California, Kansas, Missouri, and southern Illinois; but the fall frosts will almost surely cut short the crop if planted north of 38 deg. Possibly other portions of the Southerly States produce the article in a small degree. The East Indies, Italy, and the United States produce all, or nearly all, the beans the world requires.

Its cultivation in Southern Kansas is deservedly increasing in popularity, and its uses in the arts, manufacture, and for medical and lubricating purposes are rapidly increasing. There are mills for extracting the oil in Fort Scott, Kansas, St. Louis, Missouri and in California. I don't know of any more west of the Mississippi. The business is connected with the extraction of linseed oil from flaxseed. Several qualities of castor oil are made. The purest quality is made on the "cold drawn" plan; that is, the seed is crushed and the oil extracted without the application of heat. The inferior qualities are crushed from seed that has had heat applied to it. As a lubricator for axles of wheel carriages, it is generally thought to be superior to all others, and is as economical as the various cheap oils, on account of its durance being much longer.

The mode of cultivation is much like that of Indian corn. It is planted in hills four feet apart. Two beans are dropped in each hill, and if both germinate, the weaker plant is destroyed. It is planted during the corn-planting season; that is, when no further frost may be expected. It is cultivated after the manner of corn. The hight of the plant varies from three to eight feet, according to the soil and season. There are two varieties of the oil-bean, namely, the blue-stem and the red-stem; some farmers prefer the red and some the blue. There is a so-called castor-bean plant that is magnificent in its tropical luxuriance, but it is more a foliage than an oil plant, the beans being out of favor with the oil-crushers.

The beans mature during August and September, or rather the maturing continues till the frost kills the plants and all the immature beans. The plant throws out during this period, from time to time, what are called the spikes, to which are attached the pods containing the beans. These spikes vary in length from four or five to 15 inches, the average

being about 10 inches. The spike is in the form of a cone and stands erect on the plant.

The harvest commences when the first beans begin to pop. The shell holding the bean explodes and the bean is ejected a number of feet. The cause is doubtless the same that produces the popping of corn, being the application of heat to the inclosed moisture. Children are used with economy in the gathering of the spikes. A sled, about three feet wide, is generally used, which is drawn between the rows. The spikes that have thrown out one or more beans, are detached with a knife, and the others are drawn to the popping floor near the homestead. The floor is prepared by clearing from grass a level space of an extent corresponding to the amount of the crop. The spikes are thrown upon the floor without crowding one on the other, and the sun gives the heat to expel the beans. They are then winnowed from the chaff and are ready for market.

The price is now 90 cents per bushel, of, say 42 pounds. There is always a market for them, yet the buyers are in a "ring." The few mills regulate the prices. All the buyers are local agents for the mills, and while there is generally no competition, the crushers are aware that they must pay at least a certain price, or the beans will not be likely to be produced the following season. The yield varies from 10 to 18 bushels per acre. In other words, the yield is as near that of wheat as can be determined. Farmers are not in unison as to the kind of soil best adapted to the bean; but the general opinion is correct, and that is, the better the natural soil, the better the crop.

There is a great advantage arising from raising beans, and it is, that the soil becomes decidedly and greatly improved. It is generally supposed that this arises from so many of the beans being unavoidably expelled in the field. There is a singularity attending the gathering of the beans that is both peculiar and unpleasant. A dizziness and qualmishness frequently attack the gatherer. These are manifested particularly after a heavy dew or a rain, when the sun is shining hot. An odor is then exhaled from the crop, which causes the nausea; but there are infidels who attribute all this to imagination. The writer is in this case one of the faithful.

It is perhaps not generally known that live stock will become sick and frequently die from eating the beans. As a rule stock that is decently fed, will not touch them. They are equally dangerous to persons who may partake of them.

The time will surely come when the Ricinus communis will be one of the leading foliage plants. Its hight, shield-shaped leaves—eight and nine cleft, of a breadth of eight to twelve inches—stems the color of the grape bloom, and the blossoms, rich and red on the conic spikes, give it, all in all, a tropical character.

Soublette Co., Kan.

Alfalfa.

I HAVE read with care the article on Alfalfa, in the RURAL for Sept. 20, by J. S., of Fort Collins Col., and I write now to indorse every sentence of that article, as according perfectly with my experience of the past four years with it, here in Washington Co., Mo. Hay-making before spring frosts cease and after the frosts of autumn begin, is a rather unusual experience, but it is done with Alfalfa. Most of our citizens emigrating from Germany or France are familiar with this grass by the name of Lucern, and I have yet to meet one who fails to testify to its great value as a forage and especially as a soiling plant. I cut a crop for hay the first week in October. N. W. B.

Kingston Furnace, Mo.

Miscellaneous.

NOTES ON VARIOUS TOPICS.

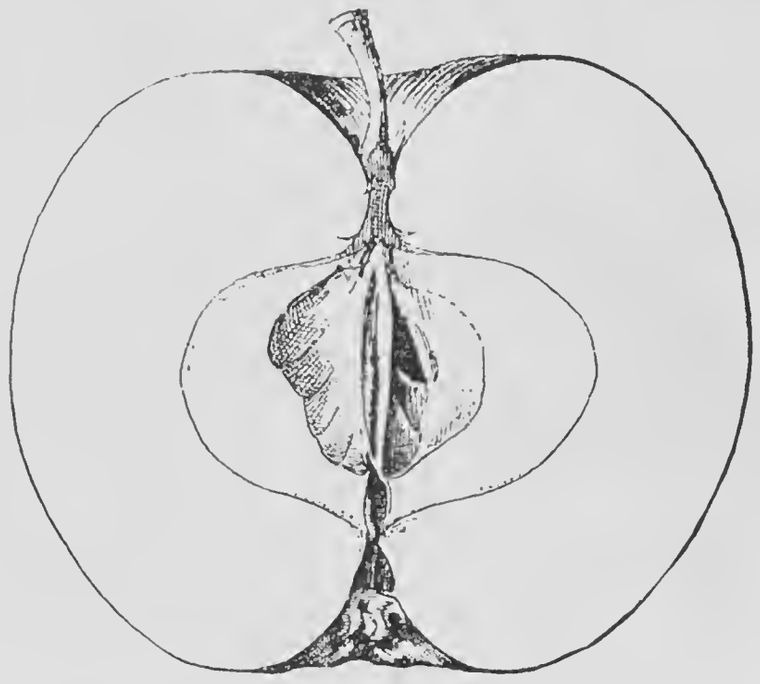
S. RUFUS MASON.

Strawberry Soil.

THE difficulty found by different persons living near together, in growing the same kinds of Strawberries on apparently exactly the same kind of soil, is caused, I believe, by the difference in kinds of manure and amount of water applied: I don't say *moisture*, for mere moisture won't grow Strawberries—they must have a flood of water regularly and often. The best strawberry bed I ever had or ever saw, was manured heavily with hog-pen manure where leaves from the woods had been used for bedding. I also let water from a hydrant flow into the bed every morning during the flowering and fruiting seasons till the plants were nearly covered. To enable such a little plant to bear so large a crop as is its tendency to bear, and such delicious fruit, it must be fed abundantly, at the right time, and with the right sort of food. I know of no richer manure for any plant or crop than hog manure and decayed forest leaves worked together as only hogs can do it. If, however, this composite is not kept soaking wet, it becomes hard, dry and lumpy, and the plant at once dries up. In my soil out here, over-luxuriance keeps us busy cutting off runners.

If a Strawberry is good in all points except firmness of fruit, grow it *well* as I indicate above, and that difficulty will nearly or quite vanish. Half-starved flesh of all kinds is *always flabby*.

Here is a sum in arithmetic which seems



WINTER ST. LAWRENCE—SECTION.

never to have been worked out by cultivators in general: how long can a plant keep up its character while starved and kept in a hide-bound soil? To those who have never yet got as far as the "single rule of three" I would say, study Peter Henderson's "Gardening for Profit" on that subject. He crams his soil with manure and his purse with dollars, but that is the "double rule of three," far beyond the general ken.

The Manure Question.

Never apply heating manures upon a dry soil, or cold ones on a wet one. All manures which attract moisture should go upon a dry soil, such as plaster, salt, ashes, etc., etc.; to put such manures upon wet soils is to flood them and leach out their virtues. Much disappointment is experienced by novices—old or young—who don't know the nature of the fertilizer they employ. To have manure do all its work, it must have water either from irrigation, the subsoil or the atmosphere. Dry manure is worse than none.

Vegetable Pits.

If Mr. Mylius—whose pit for preserving gardener's stock is illustrated and described in the RURAL for Sept. 27—will put all his sashes on the south side of his pit and run a partition along the middle of it down from the ridge-pole, he can then have his vegetables in the dark, and his Roses in the light, where they should be; now they both have darkness and light half and half.

Dodge Co., Neb.

WESTERN SMALL FRUIT NOTES.

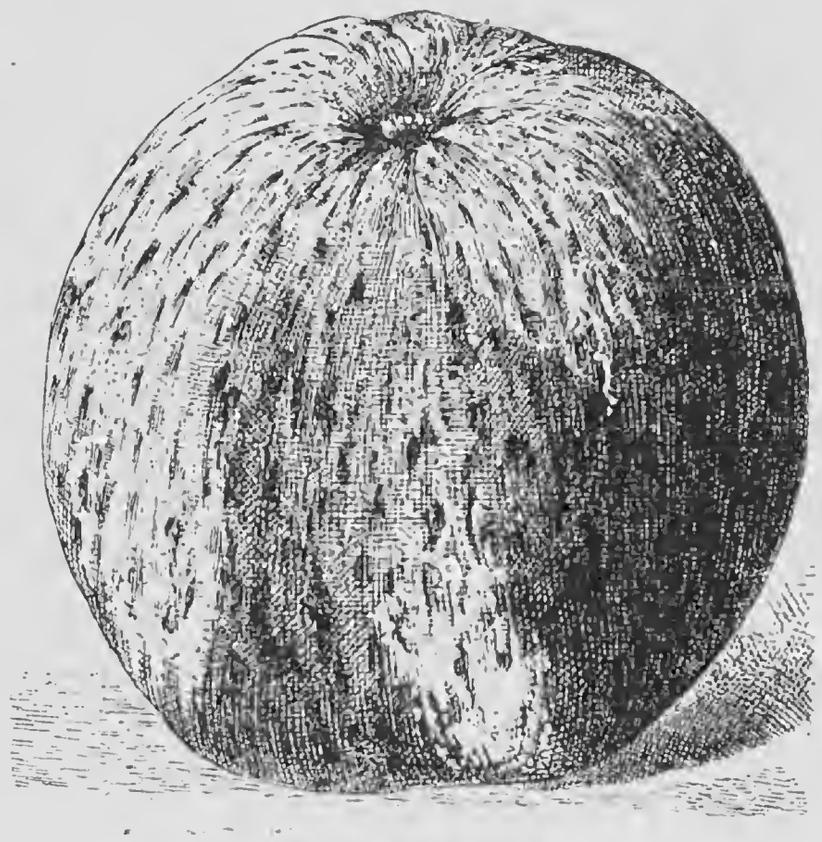
CUMBERLAND TRIUMPH is very large but too soft and light-colored. Cowing's Seedling gave us our largest berries, but is *very* irregular. I have fruited several newer kinds, but not enough to speak of their merits. I got plants of New Rochelle and Caroline, from Mr. Carpenter, of New Rochelle, a year ago last spring. They fruited this year, and if they will not do better than they have done, I would not give them garden room. New Rochelle was very full of large berries, but the quality was so poor that we did not pick a quart. Caroline was not so large, and berries were poorer yet. The Black Defiance I find the best flavored berries among over 20 varieties. I do not recommend it for market, but it should be in every family garden. Capt. Jack was much more prolific this season than Wilson's Albany. It dwindles in size at the last, but no more than the Wilson, while its superior color and equal firmness make it a desirable market variety. It has, however, to recommend it, the fact that it is the firmest red berry. The berries are fully as solid as the black ones, and on that account it is a good shipping berry. Among Raspberries the Thwack is the best red I have yet fruited. It was entirely uninjured last winter when Philadelphia and Mammoth Cluster were somewhat hurt, the Herstine about half killed and all Black-caps, except Snyder. Western Triumph and Taylor's Prolific, killed to the snow line. In quality it equals the Herstine. It also equals it in size and is much firmer. [In quality, to our taste, it is the poorest berry we have ever eaten. Eds.] Up to this year I have considered the Turner the best red. Brandywine is a weak grower and poor bearer. The quality is not as good as that of Turner. W. J. C.

La Pate, Ind.

Pomological.

THE WINTER ST. LAWRENCE APPLE.

OF this apple I am not able to say much. It has appeared at the fruit shows of the Montreal Horticultural Society and elsewhere in the Province in increasing quantity for a number of years, and during the present season frequently with the name of "Manx Codlin" affixed to it. Good judges, however, declare it not to be the true apple of that name. From inquiry and observation in orchards where this apple is grown, I find it increasing in consideration as a very good fruit both for home use and market. Its keeping quality is not definitely ascertained, but it is probably good. Size, medium to large. Tree hardy, a good grower, and productive. This apple is more conical than the fall apple known as St. Lawrence, with finer striping, somewhat duller color and greater regularity of form. It has many of the characteristics of a profitable market fruit. T. H. HOSKINS, M. D.



WINTER ST. LAWRENCE.

Industrial Societies.

THE ST. LOUIS FAIR AND EXPOSITION.

[Special Correspondence.]

ST. LOUIS is in the central part of the Mississippi Valley, the richest agricultural country in the world. The city is easily accessible from all directions by both river and rail; and in the amount and value of its manufactures it ranks as the third city in the United States. With all these advantages in its favor it is but natural to expect that the St. Louis fair should be as nearly a model fair as any in the country. Just what a model fair should be I would not like to say; but while it has much to commend it I do not think that the St. Louis fair has yet reached perfection, or that its example is one which can be blindly followed in all things. Too much attention is given to exhibits which, however attractive they may be, are of very little real value, while articles of far greater importance are almost entirely neglected. As instances of this, artificial flowers received premiums to the amount of about one hundred dollars, while wheat received only twenty; rabbits received fourteen and oats ten dollars; pigeons sixty-nine dollars, and corn thirty. The building for the exhibition of grain, fruits, vegetables and other farm products was much smaller than that devoted to poultry, and while ample space was given to the large exhibits of bees, no room could be spared for flowers or plants. Another point which I heard freely criticised was that in one department the Superintendent was a large exhibitor, that he appointed the judges, waited on them himself, *and took all the principal premiums*. This certainly was not in good taste, nor did it show good judgment on the part of the Fair Association to allow such a thing to be done. It is to be hoped that this may not be repeated in the future for even an appearance of crookedness in making the rewards will do more to destroy the reputation of a fair, than years of honesty can undo. I was surprised to see anything of the kind at the St. Louis fair, as heretofore it has had the name of being managed by straightforward men; but this year a grave mistake was made in the management of at least one important department.

The two leading features of the fair seemed to be the mechanical and live stock departments. Excellent stalls, forage and water were provided for stock, and unlimited space allotted to implement manufacturers and exhibitors.

The grounds of the Fair Association are the largest and most conveniently arranged of any in the West, if not in the entire country, and are one of the most attractive places in the city. The annual fair has always been a financial success, and as all the profits are expended in making improvements, the grounds are now all that could be asked by a landscape gardener. Shade trees are abundant, the walks and drives are all nicely covered with concrete pavement, a picturesque little lake affords daily boat-rides to hundreds of children, and beautiful flower beds are everywhere to be seen. About fifteen acres of the grounds nearest the main entrance, are used as a zoological garden where a remarkably fine collection of animals is kept, second only to that in Fairmount Park at Philadelphia, after which the garden is modeled. On the opening day of the fair the heart of Secretary Kalb was made glad by the advent of a young zebra, the only one ever born in the United States. The garden and grounds are open to the public every day throughout the year, and whenever the weather is pleasant, they are well filled with visitors from both city and country, and the gate receipts from this constant stream of visitors go a great way in enabling the Association to offer the liberal premiums which are given in most departments.

The Exposition.

The Exposition opened on September 22d, two weeks prior to the opening of the fair on October 6th. The manufacturers of heavy and cumbersome machinery, and implement dealers who wish to make large exhibits cannot well afford the expense involved in making displays for so short a time as one week, and for their benefit the Exposition which includes the agricultural machinery, general machinery, textile fabrics, mechanical, geological, chemical and mineral departments, was instituted a few years ago and has, so far, been moderately successful. As an exhibition, it has been a complete success, but for some reason it does not attract visitors as was expected. The public knows that the fair will be a still larger exhibition, and persons from the country who can make but one visit to the city, usually wait for "fair week" before coming. The attendance this year, however, was better than ever before, and exhibitors say that it pays them to spend the two weeks of the exposition for the sake of having everything in good shape for

the fair when they can devote their whole time to visitors.

The Fair

opened on Monday, Oct. 6th, after most of the county and State fairs were over, and exhibitors had little other business to attend to—this, of course, is an advantage in many ways, as parties who had been in attendance at other fairs could go to St. Louis before returning home, with very little extra expense, and as this is recognized as the leading fair in the West, a St. Louis premium is valued more highly than any other.

Live Stock Department.

Of Short-horns only forty-eight animals were shown, a much smaller exhibit than was made during the previous week at Springfield, Ill. J. H. Potts & Son, of Jacksonville, Ill., had the largest herd — sixteen animals, and most of them very choice. Prather, of Illinois, and Larrimore, of Missouri, showed some choice stock, but, as a whole, the show of Short-horns was not what it should have been.

Although the Holsteins are a comparatively new breed in the West, the show of them was large and of fine quality, Paul Rothbarth, of Chicago, being the leading exhibitor. Most of the Holsteins in this country came from North Friesland, but Mr. Rothbarth makes all his importations from West Friesland, and thereby secures a much finer-boned animal, better milkers, and at the same time loses nothing of the easy fattening qualities which are so essential for all profitable animals. The Holsteins are much larger than any other milk breed, but, excepting this herd, most of those exhibited were too coarse-boned for the best beef. The Holsteins are very popular in the West, and although there were several fine herds on exhibition, I saw none that I liked as well as these, and none which proved so attractive to the dairymen present. Mr. Rothbarth secured the first premiums for bulls, cows and heifers in several rings, taking both first and second premium, and also receiving the sweepstakes for best herd led by his bull Gruneo.

Of Herefords, T. L. Miller, C. M. Calbertson and J. S. Hawes, each exhibited herds, but Mr. Miller, who has done more than any other man in the West to introduce this breed, took the lion's share of prizes.

The exhibit of Jerseys was larger than that of any other breed, there being 152 animals present, the largest herd being from Churchman and Jackson, of Indiana. Four herds were shown from Missouri, the other exhibitors being mostly from Illinois and Kentucky.

The Ayrshires numbered seventy-one, none of which were from Missouri; Ohio and Pennsylvania being the principal exhibitors.

That the Devons are still a popular breed was shown by the six herds present, numbering sixty-one animals.

Many exhibitors in this department made the too common mistake of having their animals too fat to be of any value to any one but the butcher, and, although it is frequently the case that the fattest animals take the premiums, I cannot speak too strongly against the practice of making animals so excessively fat simply for exhibition, and thus ruining them for breeding purposes. The exhibits of

Sheep and Swine

were neither very large nor unusually good, prices having ruled so low for several years, that breeders have given less attention to such stock than heretofore. Poland-Chinas and Berkshires seemed the favorite breeds of swine, while Cotswold and Leicestershires were the leading sheep.

Farm Produce.

In this department the show was very much better than last year, but still far from what it should be. It is emphatically the neglected part of the exhibition, and in this I think the Association makes a great mistake. The offer of liberal premiums for farm products is the only way to interest farmers in the fair, and as long as the largest premiums offered are only ten dollars, large exhibits cannot be expected. Of wheat there were only four entries, the premium going to a fine sample of the Fultz. In corn the competition was more interesting, about twenty samples having been shown. Some of the lots were composed of enormous ears, fully three inches in diameter and thirteen to fourteen inches in length. I did not like these large styles as well as some of those of more moderate dimensions, having longer grains of corn and smaller cobs. In oats there was but one sample, and that of only fair quality. Potatoes made the largest show of any one article in this department, there being about one hundred and fifty baskets present. The first premium went to a basket of Snowflakes and the second to the Peerless. The Victor seemed a favorite sort, and I noticed a few very fine Beauty of Hebrons. The show of vegetables was very fine, although one very large collection from E. H. Smith, of Dubuque, was delayed on the road and almost ruined. Mr. Smith informed me that of 320 varieties of potatoes grown by him, he has found none more profitable than the Victor.

The Missouri Agricultural College was represented by a very fine collection of grain, corn and potatoes from the experimental farm. The wheat and oats were shown both in the sheaf and in glass jars, and every article was plainly labeled with the name of the variety and the yield per acre. The exhibit was arranged with great care to make it as instructive as possible by showing the comparative merits of the different varieties, and was of more real value than any similar collection I have ever seen. I wish that it could be exhibited in some of the Eastern cities to show some of our self-satisfied farmers what the West can do when it tries. Missouri certainly has reason to be proud of her Agricultural College which is doing such a work for her farmers.

Fruits.

The show of fruits was better than was expected, having been more than four times as large as last year. In apples the principal exhibitors were from Illinois, although Missouri had a few good collections on exhibition, notably one from St. Joseph, which was the largest and finest I have ever seen in St. Louis. Pears were fairly represented, and of very fine quality. The same might also be said of grapes. Mr. Ricketts was present with a fine collection of his seedling grapes which attracted more attention than did any others, both for their fine quality, and from the fact that they had never before been seen in the West.

Honey should have been in this department, but there was none shown, the nearest approach to it being a model hive, bee smokers and comb foundation from A. J. King, of New York. The smoker was a modified Quinby, but was decidedly the best I have ever seen.

Butter and Cheese

were shown in considerable quantities, but almost entirely by a few commission merchants of St. Louis, no creameries being represented directly. The Cooley milk cans and the rectangular churn had no competitors.

Agricultural Machinery.

There was a gigantic array of mechanical work in the shape of farming implements, and those interested in such a display found abundant room for study and improvement. Very few premiums, excepting medals and diplomas, were offered in this department, yet exhibitors almost without number came forward to show the public what had been accomplished during the past year in the way of inventing new and improving old labor and time-saving machines. This department formed one of the most interesting features of the whole fair.

Of course, plows formed a leading portion of the display and these were exhibited in every variety of form from the old cast-iron plow of Pennsylvania to the hardened steel for the Western prairies and the highly polished adamantine implement needed for the "gumbo" lands of Texas. RURAL readers may not be aware that there are but three plow manufactories of any note in the Mississippi Valley, excepting in the State of Illinois, and it is doubtless true that Illinois manufactures more plows than all other States west of the Alleghanies combined. The exhibit of chilled plows was larger than ever before, owing to the increased popularity of these implements in the sticky soils of Texas and other Southern States. Other styles of plows were, of course, represented by hundreds, but although, the common walking plow is still the one in general use, the sulkies seemed to attract the closest attention, many farmers saying that they intended to purchase them as soon as their present plows are worn out. On Western farms where large and comparatively level fields are the rule, the sulky can certainly be used to great advantage, as it not only performs its work more rapidly, but with greater ease to the team on account of its lighter draft.

Many of the exhibitors in this department have erected permanent buildings for their own accommodation.

Walter A. Wood has a neat pavillion for his display of reapers, and the McCormick, Champion, Marsh harvester and others also have special buildings. C. Aultman & Co. make a fine exhibit with their Buckeye machines. The Whitman Agricultural Co., of St. Louis, had several buildings, located near the RURAL headquarters, for their exhibit of general farm machinery, which covered more than double the space of any other exhibit on the grounds and included over 250 different implements and machines.

Implement manufacturers are generally a good-natured set of men, who will put up with almost anything, but those who were here made loud complaints, some of which, at least, were very reasonable. Exhibitors who had large and attractive pavilions well filled with implements were unable to procure a single pass for either proprietors or employes, while to other exhibitors passes were issued freely. The Superintendent and his assistant were on the grounds but a few hours daily, and the department was left almost entirely to run itself.

The Gale Manufacturing Co., Albion, Mich., made a truly magnificent display, embracing a full line of their rod and wood beam plows, sulky hay rakes, etc., etc. This exhibit was said by visitors to be the handsomest and most complete show of hand plows ever made on these grounds. At all times during the fair it attracted a large and appreciative crowd. The Gale plow is very popular in this section, as was attested by the large number of orders taken by their enterprising agent. Their new rod beam plow has proved a great success, and sells rapidly wherever introduced. Farmers have but to test these plows to be convinced of their merits.

J. E. Porter, Esq., of Ottawa, Ill., made an exhibit of a full line of his celebrated haying implements, and carried off first premium on his wood-track hay-carrier, and first premium on his hay fork.

The Whitman Agricultural Company, of St. Louis, made the largest single exhibit on the grounds. Their display included a full line of their celebrated corn-shellers, of which they make ten different kinds, with capacities ranging from 10 to 300 bushels per hour; also their Monarch and Young America corn and cob mills, which grind from 15 to 16 bushels of feed per hour, according to fineness. These mills also make fine meal for family use. Their display attracted a great deal of attention.

The St. Louis branch of the Gibbs & Sterritt Manufacturing Co., Corry, Pa., made their usual fine display of Climax mowers and reapers. This season they have added to their line a new, light, inclosed gear mower, which has met with great success in the field. This mower is light, weighing about 575 pounds; it is simple in its construction, made of the very best of material, and has given perfect satisfaction wherever it has been used. At the late Exposition at Kansas City, Mo., the Gibbs & Sterritt Co. carried off the first premium on their combined Climax mower and reaper, and again, at the St. Joseph's, Mo., Exposition, they were awarded the first premium, $25 and a silver medal, on the same machine. They may well feel proud of their success in the West this season. A very large number of Climax machines has been sold this year, and the prospects are that the manufacturers will have to increase their works next season so as to be able to fill orders.

Messrs. J. A. Fields Son & Co., St. Louis, Mo., made a fine and handsome display of machinery, including all the machines that they were agents for. A prominent feature of the exhibit was a full line of their well-known Big Giant corn and cob mills, which they showed in full operation. This mill was, as usual, awarded the first premium. They have this season added an automatic sifter to this mill, which is a very important improvement, as they can sift the meal as fine as wanted for family use by simply gauging the meshes of the sieve. Messrs. Field Son & Co., have had a fine business the past year and the constantly increasing orders for the Big Giant indicate its steadily growing popularity.

The Highland Machine Works, of Highland, Ill., exhibited the Payne sulky attachment which is novel and valuable. Like other attachments, it has a wheel to support the driver, and one under the forward end of the beam; but the essential feature of this sulky is a small wheel, between the mold-board and the land-side of the plow, which bears the weight of the plow and the furrow slice, and thus the sliding friction of ordinary plows is converted into rolling friction, by which the draft is very materially lessened, and the plow runs much more steadily. The attachment is perfectly adjustable for all depths of furrow and can be fastened to any plow.

The Baker screw-feed grain drill, manufactured by the Mechanicsburg Machine Co., Mechanicsburg, Ohio, was exhibited by the inventor. This new and popular machine was greatly admired by both farmers and dealers. This drill is a radical departure from the common drill. Among many of its special points of merit are: 1, the spring pressure on the hoes, which insures the covering of the grain under the most unfavorable circumstances; 2, the wrought or gas-pipe frame is a model of neatness and possesses great strength and durability; 3, the screw is one of the most even force-feed distributors yet invented. At the late exposition held at Kansas City, Mo., although the Board of Managers did not offer any premiums on grain drills, yet for these special points of merit the committee recommended that an award of a silver medal be made to the Baker screw-feed grain drill.

One of the features of the exhibit on the Whitman Mfg. Co.'s platform was a miniature Chicago Pitts thrasher and horse power. This elegant little model—which is a perfect facsimile of the celebrated Pitts machine made by the firm of H. A. Pitts' Sons Mfg. Co., Chicago, Ill.—was in full operation and attracted a great deal of attention. The principal new features of the Chicago Pitts machine, as put out this season, are the end-shake shoe, link sieves, and improvement in throat and concave. The new shoe can be raised and lowered, making it perfectly adjustable to all kinds of grain. The increased width of the machine increases its thrashing, separating and cleaning capacity. The Messrs. Pitts have met with a great success this season on their improved machine, which warrants us in saying that the "Chicago Pitts" will long hold the enviable reputation that they have maintained for the past forty years.

THE WAYNE AGRICULTURAL WORKS, Richmond, Ind,. made a fine exhibit of reapers and grain drills. Their Richmond Champion force-feed grain drill was awarded the grand gold medal last week at the Cincinnati Exposition over all competitors. They have lately added a force-feed fertilizer attachment to this drill, which is very simple and effective. A few of them were put out the past season, and in each case they give the best satisfaction. Next year the manufacturers will be prepared to put them all over the country

A. P. DICKEY'S celebrated farm and warehouse fan-mills, were exhibited by Mr. A. P. Dickey, Racine, Wis. There are six sizes of these mills made with capacity of from 40 to 400 bushels per hour. Mr. Dickey is a veteran in the business, and these mills are well and favorably known all over the country. The Dickey is unequaled for its simplicity, and grading qualities and for separating foul and refuse matter from oats as well as for separating wheat, barley, oats, and other grains.

THE OLIVER CHILLED PLOW CO., South Bend, Ind., made a magnificent display of their justly celebrated plows in their new pavilion. Their exhibit included plows of every description, made to suit the wants of farmers in all parts of the country. The Casaday Sulky plow made by them attracted a great deal of attention. This plow is making as good a reputation as a sulky plow as the "Oliver" chilled has as a hand plow. Now that the season is over, the Oliver Plow Co. are making increased efforts to be ready to fill the immense demands that are already pouring in on them for next year. They have made large additions to their works and hope to be prepared to fill all orders.

BARNES' WIRE CHECK ROWER was exhibited by the manufacturers, Messrs. Chambers Behrin & Quinlan, Decatur, Ill. The success of this check rower is beyond all question. Only the best annealed steel wire is used in its construction; this being superior to other wire, there is no stretching or drawing up. The wire does not cross the machine; thus all unnecessary friction on the pulleys is avoided. This feature also lightens the draft and does away with all side draft. The check rower is indispensable to farmers using corn planters, as it saves time, labor and money. The Barnes' check rower has been in the market for the past six years, and the constantly increasing sales bear evidence of its great and extending popularity. This firm also make Brown's elliptical ring and triple-groove hog and pig ringer, which is the only ring that we know of that closes on the outside of the nose, overcoming the objections that are made to rings that close with joints in the flesh.

THE new Barlow rotary corn planter exhibited in the display of the Vandivere Corn Planter Co., Quincy, Ill., by its inventor, attracted a constant crowd. This planter has been thoroughly tested for the past two years and has proved a perfect success. The new feature is a revolving seed cup, which enables the driver to see the corn ready to drop five hills in advance. It is simple, reliable, and fills a want long felt by our farmers. These improvements make this planter one of the most desirable in the market.

One thing the St. Louis Fair lacks, and that is means for reaching the grounds from the city. Four lines of street-cars are entirely insufficient for transporting fifty thousand people to and from the fair daily, and if railroad connections could be made with the grounds the attendance would be increased fully 50 per cent. The railroads running into St. Louis all make very liberal reductions on rates, exhibitors from the East being especially loud in their praise of the exceedingly low figures and excellent management of the Wabash route, both in regard to passengers and fast freight.

S. M. T.

Industrial Implements.

AT the St. Louis Fair Messrs. Cornish & Curtis of Fort Atkinson, Wis., made a handsome exhibit of a full line of their celebrated Rectangular and square box churns and lever butter workers. Mr. Curtis showed his churns in full operation, exhibiting gilt-edged butter made on the grounds, showing practically that the Rectangular would do all that was claimed for it. At the Minnesota State Fair, held last month, butter made by the Rectangular churn carried off twenty-two out of twenty-five premiums offered by the Society, and at State and County fairs in Wisconsin, eighteen out of twenty premiums were won by butter made in the same churn.

Everywhere.

RURAL SPECIAL REPORTS.

VT., Newport, Orleans Co., Oct. 9.—A cool summer has been followed by a cold, wet September, with frost on the 25th, that put a stop to vegetation, catching at least three-quarters of the corn in an unripe state. My own crop of the Pierce or "Pedigree" sort, was, however, fully ripe September 16, or only eight days later than last year. It is now in process of husking, and will average 80 bushels per acre, of dry, shelled corn. This is a variety that might suit those who find the Blount corn too late. Since October came in, we have had dry, hot, hazy weather; hot not only by day but at night; indeed, the hottest weather of the year. Potatoes are rather more than an average crop, and selling at 20 cents. Oats are good, as well as other small grain; the hay crop has been large, and the fall feed is far better than in average years. The rise in the prices of butter and cheese is cheering to our farmers who have been rather blue lately. The fruit crop is a fair one, but Northern Vermont will buy a good many apples for several years yet, as most of the orchards are young, the people having only recently found varieties adapted to the climate. T. H. H.

MASS., Fall River, Oct. 7.—I let some of my Pearl Millet grow to see how tall it would become, and now it measures nine feet nine inches and is still going up, with heads from 10 to 14 inches long. Never before have I had so much fodder on so small a piece of ground. My Blount's corn has not cared out so well as some other varieties; but there are three or four ears on a stalk. The Beauty of Hebron I planted beside the Early Rose; they ripened about the same time, but the Beauty gave the best yield. My Acme tomatoes are very fine; I trained them up about three feet and then let them fall over. A. F.

N. Y., Elmira, Chemung Co., Oct. 13.—The dry weather, which has been a cause for much complaint by farmers of this valley for more than two months, still continues. Never before, within the memory of our oldest inhabitants, was there known such a scarcity of water. Springs, creeks and wells are drying up, and in many cases farmers find it very inconvenient to obtain water for their stock. Pastures are yielding so little feed that foddering has already commenced and in consequence hay has advanced to $14.50 per ton, with prospects of its being still higher. Straw brings from $6 to $8; oats, 30c. to 35c. per bushel; wheat, $1.15 to $1.20; rye, 55c. to 60c.; corn, 55c. to 58c.; barley, 60c. to 70c. For the past two weeks the weather has been very warm for October and would have been timely in July or August. We had a light rain Sept. 24, which started wheat to growing, but dry weather immediately followed, so that it is making but little growth and bids fair to go into winter in poor condition. G. A. G. JR.

N. Y., Le Roy, Genesee County, Oct. 3.—The two small Beauty of Hebron potatoes sent me last spring, contained 13 eyes. I planted one eye in a hill on good soil for corn. I have dug them and got about three-quarters of a bushel of splendid tubers—no small ones. They ripened a little earlier than the Early Rose. I shall keep them all for seed. The Acme and Golden Rural tomatoes are very fine and of excellent quality. The Acme ripened first, and should be classed with the Hebron potato as a beauty. From the Voorhis watermelon seed I gathered three large melons of most delicious quality. Blount's corn has grown almost too well—from 12 to 15 feet high. The ears have set well, but I fear the season will not be long enough to ripen them. D. J.

OHIO, Foster's Crossings, Warren Co., Oct. 9.—My Pearl Millet grew slowly at first owing to our cold weather in June; but it has since grown finely. I have harvested some of it and expect to cut some more to-morrow. I have one magnificent hill which I am saving for seed. The Columbine is growing finely, and so is the Rose of Sharon of which we have several small trees. The Weigela too is doing well. Blount's corn was planted in the garden and is doing well. There are three stalks to a hill and two large ears to a stalk. I intend to plant it in the field next year. The other seeds failed for one cause or another. J. D.

WISCONSIN, Porter's Mills, Eau Claire Co., Oct. 1st.—My corn has done finely. It was planted on the 10th of May, four feet apart each way, three to four grains in the hill with no manure. I put on some plaster at the second hoeing, and hoed it every week till harvest commenced. It is over twelve feet high with from four to seven ears to a stalk. It is too late for this climate; but I saved some for seed before frost came; it is all frost-bitten now, but I shall save almost all of it for seed. It will grow, if properly dried. The Beauty of Hebron potato did well. From the single potato I obtained all the tubers I could pile on half a bushel. There were very few small ones among them. I could not see that they ripened any sooner than the Early Rose; but they will yield more large potatoes. Defiance wheat rusted badly with me. It is all shriveled up. I sowed it in drills, hoed it, put ashes on it at the first hoeing, and, after a while, plastered it well with lime and hoed it in, and still it rusted badly, but stooled out to beat anything I ever saw. I shall try it another year. The tomatoes are first-rate; very smooth and solid. Wheat here is a poor crop, but of better quality than last year. Oats are good, I may say splendid. Corn is good; husking is commencing now. T. M.

MICH., Eastport, Antrim Co., Oct. 6.—My Beauty of Hebron far exceeded my expectations. I had six hills, with one eye in a hill, and from them obtained 14 pounds six ounces. The Pearl Millet was a failure. Blount's corn is too late for this latitude. The Acme tomatoes rotted somewhat. The lettuce was the best I ever raised. Of the flower seeds only three kinds grew, owing to the extremely dry weather we had. This also injured all early and put back all late crops. Frost, however, has held off until almost everything is secure. We finished planting late potatoes on July 13. They came up, but seemingly did not grow until about the middle of August, when, after rain, they began to grow rapidly, and now they will weigh from one to two pounds and are still growing. M. M. P.

KANSAS, Fort Larned, Pawnee Co., Oct. 7.—This year our fall and spring wheat, as well as oats, rye, potatoes and beans, have all proved failures. We had no garden, though we planted many seeds. Corn was a light crop; Egyptian corn, a medium one. There is nothing to sell but a little millet and wild hay, and these bring only $3 per ton. Dry! Dry! Dry! and windy. Droughty Kansas! E. S. B.

NEB., Rising City, Butler Co., Oct. 7.—I consider Blount's corn an entire failure. It is true it will set from one to six and eight ears on a stalk, and the stalks will grow 12 or 14 feet high; but the ears are small and will not begin to yield with our common field corn, but I think it has given a good lesson for farmers, as it has cost them nothing but the time. My experience in raising corn for the last twenty years in corn States is that hills four feet each way and three stalks to the hill, and one good ear on each stalk, will produce more corn to the acre than I can get from any other mode of cultivation on a large field. The Beauty of Hebron potato is a success, and is worth the price of the paper. I received one small potato containing seven eyes. I cut one eye on a piece and planted one eye in each hill, making seven hills. I gave them no manure and no extra care. I dug them on the first of September and got a heaping half-bushel. As an early potato I did not test them as I wanted them all for seed. Pearl Millet is worth nothing with us as a fodder plant. We can raise eight times the amount of sowed corn on the same area of ground. The Voorhis melon is of fair quality, but not as good a bearer as other varieties with us. Defiance wheat rusted; I sowed too thin. Shall give it another trial. The Golden Rural tomato is splendid for the table and a good bearer. Crops in this section are good and corn extra. Wheat is yielding from 12 to 20 bushels per acre. Potatoes are plentiful and of superior quality. Our season has been a peculiar one—dry through March, April, May and the first half of June, wet through harvest, then dry again up to the present time. F. A. B.

MO., Lowrey City, St. Clair Co., Oct. 7th.—The Beauty of Hebron potato I sprouted in a hot-bed and made 24 hills, and in spite of standing the severe drought, I have 30 pounds of splendid tubers. The Pearl Millet is a great curiosity to the "Natives," all asking for seed. I counted 40 spikes from one seed, and all stalks nine feet high. But few of the flower seeds grew, owing to the dry season. The Blount corn was planted in second sod. I had 62 hills, with two stalks each; but five hills were destroyed by storms. The only cultivation it received was two hoeings. It got no manure. It was ripe and gathered the 1st of September. It weighed 80 pounds in the eob. Five ears the largest number on any one stalk. I omitted to mention that I dug a hill of Hebron potatoes on the 1st of July and planted for second crop. These I dug on the 1st of October, and they were just as fine as the first planting. I often see inquiries in the RURAL by persons about the lands in different States, but none about southwest Missouri; there is no better land and climate to be found anywhere than here. T. J. R.

VA., Bonsack's Roanoke Co., Oct. 11.—We have quite a drought in this part of the country, and unfortunately it is in the hight of seeding; farmers are putting their seed into the dust, fall pastures are failing fast, feeding stock will commence this fall a month earlier than usual. We have had two frosts, yet the days are as hot as in July. S. C.

N. C., Brookston, Warren Co., Oct. 8.—Here only enough potatoes are grown for use during early summer or until sweet potatoes are large enough to eat. The variety in general cultivation is the Early Rose. Seed is procured from the North every year at a cost of $1 25 to $2 per bushel. Planted in February, they are ripe in June; yield, light; quality, good. A late crop, planted in July, sometimes succeeds, but usually the earth is too hot and dry, causing the seed to decay before growth commences. The more elevated portions of this State are said to produce fine crops of late varieties. I have seen specimens that were large and fine in appearance. M. B. P.

CANADA, Chateauguay Basin, Province of Quebec, Oct. 1.—The Beauty of Hebron is a success in size, flavor and productiveness; we are proud of it and of its propagator. One of the tubers I should like to have exhibited; it would make a meal for a small family. The crop in this vicinity is good and perseverance has vanquished the potato beetle, though it entails extra work on the farmer in the busy summer season. The Pearl Millet has grown about five feet, but will not form seed with us, as we may expect a sharp frost any night. A neighbor to whom I gave a few seeds, hoed it all up as a grass when it was a few inches high and then thought the seed to blame. This often happens in one way or another, and seedsmen are unjustly blamed.

I want to get the Cuthbert Raspberry—such good accounts are given of it. The Clarke has done wonderfully this season, bearing steadily since July, and to-day I had a few brought in from the plantation, and instructed the children to go along and clip off blossoms and green fruit, as they would injure the canes for next year. The moist season has doubtless helped to lengthen the fruiting. Our seeds from the Rural Grounds are a constant source of pleasure to us, and this year we received first prize for Gladioli at the Montreal Horticultural Society's Show, owing largely, I think, to one fine specimen sent by Uncle Mark of the RURAL to one of the children who joined the club. A white Abutilon given me by the editor some years ago, was in full bloom and took the second prize. These little things are encouraging, especially to the young people of a family who are interested in horticulture. A. L. JACK.

CANADA, Northfield Center, Brant Co., Ont., Sept. 23.—Most of my seeds from the RURAL have done as well as I expected. The Blount corn (the mammoth of corns) stands over 12 feet high, with seven and eight ears set on a stalk; but it will require a longer season than we have just here for it to ripen, although it is doing well, as the frost has not harmed it yet. The Pearl Millet did not appear to do as much as was anticipated, growing very slowly. The Hebron potato has given me the most satisfaction. I received two little, puny fellows. The first received came at a very unexpected time, the coldest day of the winter—the 28th day of February—but it was all right; the other came when the weather was warm, good and sound, both together weighing about three ounces. I cut and planted them on the 8th of April (13 eyes), and have just dug, and on weighing them, I have 13½ pounds of very nice potatoes, making a yield at the rate of 72 bushels to one. The spring wheat was like the Millet—of but little account. As we cannot raise spring wheat in this region, I do not wonder at its failure. Of the flower and other seeds I have a fair show. The Beets, Hibiscus militaris, Rose of Sharon, Aquilegia, Yucca, Acme tomato and Hollyhocks have all shown their good will in raising heads above ground, though some of them did so very late. I presume this tardiness was due to the very dry weather in the first of the season. D. S.

The Querist.

ANSWERS TO CORRESPONDENTS.

Inflammation of Lungs in Sheep.

W. C., White River, King Co., Wash. Ter., says:—We have a few sheep and have been trying to improve them, but all the best ones die and we cannot understand why a fat sheep which we know was lively and apparently well yesterday, should to-day be found dead—lying in an easy position, as if the death had been sudden and painless. A few days since I found the best yearling ewe upon the place dead; the nose lay upon a rail as if the animal was sleeping and in such an easy position that I spoke to her to make her get up and then took hold of her, when I found she was cold and stiff. She was fat. Several have gone the same way. In May a Hampshire Down ewe, nine years old, was sheared in the afternoon; was *very* fat and lively; next day she was dead. Their pasture is river bottom land, clay loam, very productive of timothy, clover and weeds. If it is something they eat that kills them, why is it that some of the poorest ones do not die? One of my neighbors has a few sheep running upon sandy bottom land set in timothy and clover. There are some sloughs running through it with water containing a little iron, but sheep seldom drink in summer here; there are heavy dews. Sixteen of his best sheep have lately died very suddenly and mysteriously. They were very fat and were not known to be ailing until found dead. Everybody said that Dolbear's sheep were healthy and fit for the butcher; but, without any warning of disease, the very best ones have suddenly been found dead. A few days since a ewe lamb born in January, was found lying stretched out on her side dead, as if she had died without pain. Mr. Gwinnette, an Englishman who knows more about sheep than all the rest of us, was sent for. He made a thorough examination, and found the lamb very fat—a heavy caul and the kidney perfectly loaded with tallow. The liver was all cut to pieces and not one leech was found. The animal appeared to be all right—the large stomach contained no worms and looked well. The gall was perfectly black, the lower portions of the lungs were as black as ink, the rigging around the upper part of the heart was shriveled and wasted away. The spleen and kidneys were in good condition so far as we could see. There are three other flocks of sheep running on three sides of the fields where Dolbear's sheep are kept, and none of them die. The soil, water, grass and weeds and other productions are the same in all the fields. Dolbear's sheep had the best of care during the winter, were fed shelled oats for about six weeks while not one man in a hundred in this country ever feeds grain to sheep. I would like to know what causes the death of these sheep and what is the remedy."

ANSWER BY HENRY STEWART, AUTHOR OF THE SHEPHERD'S MANUAL.

The disease is undoubtedly inflammation of the lungs, probably complicated by bilious disorder and pericarditis. Fat animals are more disposed to inflammatory diseases than those in moderate condition. Excessive fat is a disease, for the system becomes engorged with carbonaceous products, the blood becomes charged with unhealthy matter, the bile is usually in excess, the digestive apparatus is overtaxed and an inflammatory condition is general. Consequently, high-bred and rapidly growing and fattening animals are frequent victims to inflammatory disease. The lungs are usually first affected, and then the liver and other intestines. Inflammation of the lungs appears in a flock sometimes, and indeed frequently, as an *endemic* disease, attacking many at one time, few of the flock that are in a plethoric condition escaping. This is explained by the fact that the conditions which cause the disease in one are present with all, and there is simply the result in each case of a malady occurring from causes which are general and not individual. The disease consists of inflammation of the substance of the lungs (pneumonia), frequently with hydro-pericarditis (dropsy, or atrophy of the heart-bag), as in the case referred to above, with diarrhea, sometimes with pleurisy. When pleurisy occurs, the animals suffer much pain and there are heaving of the flanks, grinding of the teeth, much thirst and other indications of suffering. Without pleurisy, there is little exhibition of pain; the sheep isolate themselves, lie upon the belly with the head stretched out, and so die without struggling. The always fatal end is sudden, and is generally reached in 24 hours and before any symptoms are observed. Usually the exterior lobes of the lungs only are affected, and sometimes but one lobe. The symptoms usually present when the disease has progressed somewhat are: redness of the eyes, rapid breathing and discharge from the nostrils. But none of these may be present, and the only indication of the trouble may be the hiding away of the sheep and great tenderness of the loins, which is always present. From the rapid course of the disease, treatment is unavailing. Prevention is the better way. Every flock-owner should see and count his sheep once or twice every day; should observe any redness of the eyes, dryness of the muzzle, discharge at the nose, foulness about the hind parts or other unusual appearance, and at once investigate it and apply proper remedies. Sheep that are in high condition should be watched with extra care. Store sheep should not be fed high, but kept in fair condition only. Those prepared for sale should be hurried off as soon as ready for market, and without delay. Where danger is suspected, a dose of two ounces of salts, repeated in diminishing quantity until the bowels are well relaxed, may be given. A seton in the brisket, or the application of mustard to the sides of the chest, may be found useful, and the feed should be reduced very liberally.

Muck, Its Use and Value.

J. D. C., Cambridge, Erie Co., Pa., says:—I have just thrown out of my muck swamp 100 loads of muck which I expect to haul in winter. It lies in a long ridge beside the ditch from which it was thrown, the ditch being about four feet wide and the same in depth. After clearing off the turf or top sod, which is about four inches in thickness, I find one foot next below it quite spongy, dark-brown in color, then two feet black and fatty or oily; next one foot reddish-brown in color and smelling like an old cow stable, apparently free of greasy matter next above it, and lying on a bed of very soft ash-colored clay. As I am not familiar with muck and its formation, I describe this to learn whether this is the

usual formation of such beds. 2. Shall I not have difficulty in removing this muck on account of frost congealing it into a solid mass by next winter? 3. Shall I get the best results by applying to sandy or clayey soil? I have both. 4. Are thirty loads put through the barnyard worth as much as fifty applied directly from the swamp? 5. May it be freely applied to Strawberries on sandy soil? and is it beneficial to such soil only on account of its manurial value or are its mechanical effects advantageous also? 6. How will the kind of muck herein described, compare, load for load, with barnyard manure, in value as a fertilizer?

ANS.—1. This description of swamp muck agrees with the general character of it when in beds of such depth. The lowest layer which smells so strongly, is in the process of decomposition which has already reduced the next layer above it to a pasty mass. 2. If the muck is left in its present condition, it will, probably, freeze solid and cannot be removed until the spring. But if it is thrown into heaps of 30 or 40 loads each, the brown, spongy and fibrous matter will, in process of fermentation, heat to some extent and will only freeze on the surface, and, possibly, if that becomes dry, it may not freeze at all. 3. This muck will be of greatest benefit on sandy land; but the fibrous portion *must* be rotted or it will dry and remain unchanged in the soil for years; at least, it has behaved in this manner on the writer's farm. 4. Yes; and more; because it becomes decomposed and absorbs valuable liquid manure. 5. The beneficial effects of muck are obtained from its fertilizing value, also from the darkening of the color of the soil which renders it more absorptive of heat, and also for its increased capacity for absorbing moisture. Five hundred loads per acre on a sandy soil, might be applied with benefit; this would give only about three and-a-half inches in depth, which, mixed with eight or nine inches of soil, would vastly improve it, adding to every acre an enormous amount of matter containing, probably, one or two per cent. of nitrogen. 6. The two can hardly be fairly compared, because barnyard manure is in a different condition from the muck, being available to some extent, while the muck will require some time to develop its fertilizing properties. Theoretically the value of the muck will be about half as much as that of the manure; practically, not so much, because it will not be available so soon as the manure would be, and time is an important element in the estimate of the value of any fertilizer.

Weak Eyes In Horses.

M. B. P., Warren Co., N. C., says: A large percentage of our horses in this vicinity are afflicted with what I suppose to be ophthalmia. Many different opinions are current as to the cause, the most prevalent being expressed in the words: "Feeding corn;" but when we notice that our horses are kept in dimly-lighted stables with from one to six months' accumulation of manure under them, I think we must be stupid indeed, if we cannot see or, at least, smell the true origin of weak eyes. Will Doctor Salmon, or some other good veterinarian tell us the "Truth about it?"

ANSWERED BY DR. D. E. SALMON, D. V. M.

ANS.—It seems very probable that M. B. P. is right in attributing the cause of this trouble to the condition of the stables. It is certain that dark or dimly-lighted stables, and especially those in which what little light enters must strike the horse directly in the eye, have an injurious effect, and if not exciting causes of ophthalmia, they are undoubtedly predisposing causes. If we add to this the emanations from such accumulations of manure and urine, it would hardly seem necessary to look further for an explanation of such a disease. Horses raised under such conditions and particularly those that, in addition, are starved while growing, are very subject to *rheumatic ophthalmia* and *specific ophthalmia*. These are exceedingly frequent and very troublesome diseases in the South and West; they make their appearance when an attempt is made to put the animal in extra condition by increasing the ration. There are many horses which cannot be put in salable condition on this account. The great trouble is the constitution and temperament of the animal have been ruined by improper surroundings and care while growing, and they can never afterwards be repaired. Medical treatment is often, as a consequence very unsatisfactory, though in some cases it is very effectual. It must be varied according to the condition of the parts and in severe cases must be directed by an intelligent veterinarian. The common practice of putting powdered, caustic substances in the eye, cannot be too strongly condemned. Ten grains of sulphate of zinc and one grain of sulphate of morphia dissolved in four ounces of water, make an excellent local application, but nothing stronger should be used except by professional direction.

The Two Best Grapes For the Table.

L. J. W., Trumansburgh, N. Y., asks what two varieties of grapes are most desirable for table use. He has room for two vines only, and wishes to set out those best suited for family use.

ANS.—We answer "Delaware" for one, unhesitatingly; but, really, it is not easy to answer for the second. There are at least 50 of the newer varieties of grapes better than Concord for home family use; better than any of Rogers's Seedlings, which are highly valued in many parts of the country. During the past month many different varieties of new grapes have been sent to this office, all of which were said to be very hardy and many of which were of fine flavor. There are several of Miner's Seedlings now offered for sale (seedlings of the Concord), that, as grown at Linden, N. J., seem all but perfect. There are also some 15 or 20 of Ricketts's Seedlings (many of which are crosses between native and foreign sorts), that, as grown by Mr. R., are incomparable both as regards size of bunch and flavor. But will they succeed in a given locality other than that of their nativity? *That* is the thing to be demonstrated. Out of the scores of new grapes offered, unquestionably *some* will succeed with our questioner. Perhaps the Delaware will not succeed in his grounds. We advise him and all who desire such information, to read all that is said of grapes in current literature, and to answer such questions for themselves by personal experiment. It is the only *safe* guide.

Where to Settle in Delaware or Va.?

D. Watson, Dundas, Ont., Canada, asks our advice as to where it would be most advisable for him to settle in Delaware or Virginia. He wants information as to the quality and price of land; the facilities for transportation to market; the distance from town; the amount of "improvement;" the class of society, and any other points of interest that may suggest themselves.

ANS.—Even if we were very well acquainted with the respective advantages of all places in the above-named States, we would hesitate to recommend any one of them in particular as the best for settling in, even to a man with whose character and circumstances we might be acquainted. 'Tis a thankless job to advise in such a matter, and one that begets subsequent grumbling oftener than thanks. In the present case, though we are pretty well acquainted with many parts of Del. and Va., still there may be among the places there which we have never seen, some that would suit our friend better than any we have visited; and, moreover, we know nothing of his character, circumstances, or of the business he intends to follow. We must therefore decline giving any advice in the matter. We give the name and address of our correspondent in full, however, so that any of our friends who may know of an eligible locality in either Del. or Va., may communicate directly with him.

Wood-Ashes As a Fertilizer.

A. L. F., Oshawa, C. W., asks 1, whether wood-ashes are a good manure for apple trees; what quantity should be used, and the best time for applying them; 2, whether the ashes are also good for fall wheat, and if so, how much should be used and at what time; 3, whether lime and ashes would lose any of their fertilizing virtues if mixed with muck drawn out in winter and heaped up in the fields for top-dressing meadow lands.

ANS.—Wood-ashes are an excellent application to apple trees or any other trees or plants. Spring is the best time to apply them. Regulate the quantity by the facilities for obtaining the supply. There is little danger of applying too much, unless the land is surfeited with potash. Ashes are good for fall or spring wheat. They may be sown at any time, though we would prefer spring; and there is little fear of applying too much of them, as a liberal dressing strengthens the straw, and enlarges as well as improves the grain. Composting either lime or wood-ashes with muck is one of the very best methods of utilizing them for manurial purposes. None of their own fertilizing virtues are then lost, while they help greatly to neutralize the injurious acids of the muck and to render its manurial elements fit to be readily taken up as plant-food.

Remedy for Foul Sheath.

An old Subscriber, Bethlehem—just a dozen Bethlehems in the U. S.—has a pair of three-year-old steers which are "foul," and he asks whether there is any remedy for the ailment.

ANS.—Our friend does not state what kind of "foul" is meant, whether in the feet or sheath, but we presume it is in the latter. Give each steer a quarter of a pound of Glauber salts daily with bran to act on the stomach and kidneys, and wash the parts with extract of Witch Hazel. The latter will allay the irritation and cure the soreness, and the former will remove the cause. A syringe may be used to force the extract up into the sheath.

The "Enigma" Seedling Potato.

J. S., Norwich, N. Y., sends us a specimen of a seedling potato, raised by him, three years from the seed-ball. He describes it as a great yielder, surpassing in this respect the Snowflake, Rose, Garnet and California, the only other sorts he cultivates, and he asks us whether we know the variety, and if it belongs to no named sort, to suggest a name.

ANS.—Different varieties of potatoes are produced from seed (that is, the seed of the fruit or potato "ball"). Some seedlings very closely resemble the parents, but generally there is a marked difference either in appearance or yield. Perhaps we do not get our friend's meaning. If this is a seedling, it may be supposed to differ from named varieties, and therefore to belong to no named sort. How would "Enigma" do for a name?

Miscellaneous.

L. J. A., Felicity, Ohio, inquires how she can propagate the Lantana. She seldom fails to root cuttings from other plants, but somehow she failed every time with the Lantana.

ANS.—The Lantana may be propagated by seed, cuttings and layers. We have never had any trouble in making cuttings take root, though they will do so more readily if struck in a hot-bed or propagating house where they can get heat from below. Layering will be a sure process. Make an incision on the under side of a young branch, then bend it into the ground so that the cut will be at the point buried deepest, and keep it in position with a hook. It will take root in the course of a few weeks.

F. P., Dodge's Corners, Wis., has some trees which he wishes to graft and he asks when he shall cut the cions and when to graft according to the method recently illustrated in the RURAL.

ANS.—Cions may be cut any time during the winter and early spring before the buds start to grow. If cut before they are used, they should be kept in moist sand or earth until spring. Grafting by the method advocated by Professor Gale in the RURAL of Sept. 20th, may be done any time during March and April.

S. H. D., Fishers' Island, asks where a pure-blooded Cotswold or Lincoln ram can be bought.

ANS.—Wm. H. Smith, Ketchum's Corners, Saratoga Co., New York, has a fine flock of Cotswold sheep. Messrs. Wolcot and Campbell, New York Mills, Oneida Co., N. Y., have Lincoln sheep for sale. Sheep-breeders would find it to their advantage to advertise in the RURAL.

C. P. B., Edwardsville, Ill., asks whether clover seed is likely to be more abundant this year than last, and at what price can it be bought in large quantities in this city.

ANS.—It is thought that this year's crop of clover seed is somewhat less than that of 1878. The wholesale price in this city can be found every week among our Market Reports.

H. L. K., Republican City, Neb., asks what we think of glass instead of earthenware flower-pots.

ANS.—There are several objections to their use:—They are considerably more costly; they lack porosity, and the roots are liable to injury through the action of the sun through the glass.

A. H. A., Volusia Co., Fla., asks for the names of reliable manufacturers of bone fertilizers in the North.

ANS.—L. L. Crocker, Buffalo, N. Y.; Baugh & Sons, Philadelphia, Pa.; W. H. Bowker & Co., Boston, Mass.; Mapes's Formula and Guano Company, 160 Front St., N. Y.

A. N. S., Savannah, Ga., asks where can "The Parks and Gardens of Paris," spoken of in the RURAL of Sept. 27, be bought.

ANS.—At the office of the publishers, Macmillan & Co., 21 Astor Place, New York City.

A. B., Monroeville, Pa., sends a leaf and asks the name of the plant that produced it.

ANS.—We cannot determine the name of the plant by the leaf alone without the flower.

E. S. W., Stanton, Kans., asks if we can recommend the $25 Osgood Scale advertised in the RURAL?

ANS.—Yes, it is a good scale.

H. B. K., So. Westminster, Mass., asks if Geraniums can live out doors during the winter.

ANS.—No, that is if Pelargoniums are meant. There are several hardy Geraniums.

COMMUNICATIONS RECEIVED FOR THE WEEK ENDING SATURDAY, OCT. 18.

M. J. G.—J. G. S.—A. P. A.—A. G.—T. J. B.—L. J. T., Too late for potato No.—M. E. L.—J. F. D.—J. D.—W. C. H.—F. R.—"Justice"—M. L. S.—E. S. M.—W.—E. J. T. B.—A. H. & Son.—W. J. B.—L. W. B.—W. T.—L. P. J.—"Long Island Farmer"—C. W. B.—N. C.—S.—D. E. S.—G. G. Jr.—H. B. K. G. H. T.—A. B. D.—W. C. H.—S. F. B.—W. T. T.—A. H. L.—L. F.—J. S.—A. T.—M. M. P.—J. D.—E. S. B.—R. C. P.—H. S. C.—J. H. C.—I. F.—J. W. N. & B.—B. M. S.—C. A. M.—A. L. F.—L. S.—M. J. G.—F. J. L.—P. S.—S. L. R.—F. L.—W. H. M.—T. B.—"Aunt Flora"—S. A. M.—H. L. W.—G. D. S., M. D.—H. J.—W. M. K.—F. P.—J. S. C.—C. C. H.—L. A. B.—H. R. R.—H. E. E. R.—O. E. D.—A. L. J.—H. A. W.—F. L. R.—W. H.—F. N. W.—S. R.—

Various.

CATALOGUES, PAMPHLETS, ETC.

STATEMENTS and arguments in behalf of American Industries against the proposed Franco-American commercial treaty, submitted to the Special Committee of the San Francisco Chamber of Commerce. This bulky volume of 220 pages contains some excellent pleading against the treaty of commerce which French free-traders have lately been trying to induce this country to form. The wine interest of the Golden State would suffer proportionately more from French competition than any other branch of domestic business, hence the bitter opposition to the projected treaty manifested in this work.

VICK'S FLORAL GUIDE for Autumn. Success makes flower culture delightful, and Mr. Vick wants all his customers to succeed. He therefore sells seeds that will grow, if only a fair chance is given them. The present catalogue, however, has to do with bulbs and plants. To get an idea how interesting and useful it is our readers should order it. James Vick, Rochester, N. Y.

WILLIAM PARRY, Cinnaminson, New Jersey, Catalogue of Strawberries, Raspberries, Blackberries, Grapes, Currants, Gooseberries, Apple, Peach, Pear, Cherry, Ornamental Trees and Shrubbery. Also a catalogue of *new Strawberries* of great promise illustrated with colored plates. Free to applicants.

John S. Collins, Pleasant Valley Small-Fruit Nursery, Moorestown, Burlington Co., N. J. Wholesale price-list of small fruits and plants. The Cuthbert and Gregg Raspberries, Crescent Seedling, Miner's Great Prolific, Sharpless and the Kieffer Hybrid Pears are given special prominence. Free.

Gibson & Bennett, Woodbury, N. J., Descriptive (illustrated), Catalogue of small fruits, fruit and ornamental trees, hardy shrubs, Roses, etc. Free to applicants.

EDWARD A. FROST, Rochester, N. Y. Wholesale catalogue (No. 4) of the Genesee Valley Nurseries for autumn of 1879. All sorts of fruits and ornamental trees.

CIRCULAR. Moore's Early Grape, John B. Moore, Concord, Mass. Also, circular of Medium Yorkshire Swine.

FASTENING ZINC LABELS ON TREES.—Unless frequently examined the wire used to fasten labels to trees, as recommended by "Griswold" in a late RURAL, is apt to injure the tree by cutting into and sometimes girdling it. An improvement on this is to make and attach the labels as follows: A convenient size is five or six inches long, an inch wide at one end, tapering to a point at the other. Write the name, date of setting and anything else of special interest in connection with the specimen, on the widest end with a common lead pencil, and wind the pointed end round a limb. As fast as the tree grows the flexible zinc unwinds without injuring the tree. The pencil marks unite chemically with the zinc and soon become indelible. The best zinc for the purpose is that which is thin, old and corroded. I obtain them at the tin shops here, cut to order, for 25 cents per hundred. L. W. G.
Amherst, Mass.

WHAT OTHERS SAY.

PROFITS FROM BEES.—Mr. G. M. Doolittle, the well known bee-keeper of Borodino, N. Y.; in an article to the American Bee Journal, says: Perhaps it may be interesting to the readers to know how our report stands for the past seven years, for it is only by a number of years' experience in any business that a true result as regards profit or loss can be obtained. Our average yield for each colony in the spring of 1873, was 80 pounds; in 1874, a fraction of a pound less than 100; in 1875, a little over 106; in 1876, just 50; in 1877, a little less than 167; in 1878, 71; and in 1879—the present season—58 pounds, making an average yield of a little over 90 pounds per colony for the term of seven years. By looking over our diary we ascertain that our honey has sold at an average price of 21¼ cents per pound, the highest price having been obtained (28½c.) in 1874, and the lowest (10½c.) in 1878.

From past experience, we believe a thorough practical workingman can do all the work required to be done with 100 colonies of bees, and from the above he should obtain for an average term of years, 9,000 pounds of honey annually, which at 21¼c. per pound would bring him a yearly income of $1,912.50. Although the average yield per colony for seven years to come, may be increased, yet the price during that time is likely to be lower, as the high prices caused by the war are passed, and unless we have some unforeseen event to raise the price of honey, it will probably never bring 28 cents per pound again. Still, with a much lower price for honey than that averaged for the last seven years, bee-keeping ranks favorably with almost any other pursuit.

THE
RURAL NEW-YORKER.
PUBLISHED EVERY SATURDAY.

CONDUCTED BY
ELBERT S. CARMAN.

Address THE RURAL NEW-YORKER,
78 Duane Street, New York City.

SATURDAY, OCT. 25, 1879.

APPLICANTS for seeds are requested not to stick their stamps to the letters. This practice causes us much trouble and the stamps are often destroyed in the attempt to sever them from the paper. *Leave them loose in the letters.*

INHERITANCE.

FROM time immemorial, until comparatively of recent date, the possessions of a father, on his death, descended to his posterity, in some cases all to his oldest son, in others to all children, but in different proportions, and in others still to wife and children in equal amounts.

Innovations on this custom were made at different periods, and the State or the king claimed a portion of every estate, the rest being distributed. In still later years a person while living was permitted to dispose, by will to take effect at his death, of one-third of his property, the rest being divided between his widow and the king. The right of the king to any portion was afterward contested, but that of the widow to her dower still remains intact, while the remainder, in case no will is made, is divided among the blood relations of the deceased in such way as is by the law provided.

Where property has come into the possession of a person by inheritance it seems right that it should pass down in the blood as it is termed, but wherein children or other relatives, the wife excepted, have any right to the property accumulated by another by his labor, skill, or business capacity, we fail to see, and the fact that the law admits of a parent's right to dispose of his property without consulting his children, shows the growth of public opinion in the right direction. The children, however, do not seem to see it in that light. They appear to feel that the parent's duty is to roll up a competence, by hard labor if need be, that they may live lives of ease and luxury. Hence it is that we have so many contested wills and disputes about estates occupying the time of the courts, at great expense to the public who have no interest in the matter.

It is true that children do not come into the world of their own volition, and the responsibility of the parents is recognized in that they are obliged to support them during their infancy. It is supposed that every child is an expense until it arrives at the age of 10 or 12 years. From this age, for three or four years, it is considered able to earn its own support, and after that until the age of 21, to earn enough more than its necessary expenses to refund to the parents what they may have been out of pocket on its account during its infancy. In the present condition of society, the parent is usually considerably out of pocket when the child attains its majority, but that is, perhaps, not the fault of the child. The law supposes the account to be adjusted and the books balanced when the child is 21 years old and sets out in the world for himself.

But whatever may be right as to inheritance of property, there are inheritances of other kinds that the child has an inherent right to demand from its parents, and which if they neglect to provide they do an injustice and a wrong that cannot be made good either in this world or in the next. First, and most important of these rights, is that of a good constitution, for on this one thing depends mainly the child's chances of success in all things. Above all money valuation is a sound mind in a sound body, and without the latter the former is seldom found. It is therefore the most solemn duty of the parents to so live, and obey the laws of their physical being that their children shall inherit none of the ills that flesh is heir to, but be strong and vigorous. Further, it is now the universally received belief that children inherit from their parents mental as well as physical qualities, and that even to the third or fourth generation the peculiar characteristics of the ancestors can be found with more or less clearness in their offspring.

Has any parent a moral right to make his child a thief or drunkard? But thousands are so living to-day that children yet unborn will be what the lives of the parents now live will make them. We may not be able to trace depravity so far back as Adam, but an honest son is pretty good evidence of an honest father. Just so sure as the inordinate use of tobacco, alcohol or opium in a parent begets a love of stimulants in his children, is it that the improper use of any of the moral or mental faculties will prove injurious to coming generations. We can only touch on these points; but are glad to be able to refer those interested in the subject to many valuable works now easily procured and which should be generally read.

Another inheritance parents should be proud to leave, is a good name. However much they may be lacking in worldly possessions, or vigor of mind or body, this is always within their reach. Rectitude and righteousness every man can have if he will; if he have them not, he deprives his children of a birth-right of no little value, beside weighing them down with a load that it may take a lifetime of earnest endeavor to get rid of.

Parents, think of these things, and for your own sakes as well as that of your children, live wisely, think rightly, act nobly and you will leave such inheritance that your children will rise up and call you blessed.

THE FIELD FOR VETERINARIANS.

IT is a noteworthy fact that while on the other side of the Atlantic veterinary surgeons are almost as numerous, and we may say, considered relatively as indispensable as doctors of medicine, they are practically unknown in the United States. The whole number of educated and skilled veterinarians in this country at present, it has been asserted on good authority, does not exceed three hundred, at the most liberal estimate. It is only in the large cities where great numbers of domestic animals are congregated, such as car-horses and dairy-cattle, that there has been made any skilled effort for the prevention and cure of diseases from which these animals may suffer.

This almost total absence of veterinarians is not due to a lack of work for them, but rather to a want of appreciation of what they might accomplish in saving animal life.

The live-stock interest and its relation to veterinary practitioners may appear clearer when put in figures. In 1870 the total value of the live-stock in the United States was estimated at two thousand million dollars, while since then it has increased by hundreds of millions. During the three first months of the current year, when lives-tock trade was at its slackest, the exportations of live animals amounted to $1,764,568. Yet it is a fact that this enormous quantity of perishable property, from which this country is prepared, to a great extent, to supply the markets of the world with beef, mutton and pork is, practically left unprotected against the inroads of disease, by a lack of skilled veterinarians. At the opening on the 2nd inst., of the American Veterinary College of this city, the President stated that the loss of animals by disease in the State of New York alone, had for a single year run as high as $10,000,000. The bulk of this sum might have been saved, had proper treatment been available. But especially is the lack of veterinarians felt when contagious diseases make their appearance. The dreaded pleuro-pneumonia infecting the cattle on the Atlantic coast, and which a few months ago threatened to be so destructive both to commerce and animal life, could never have gained so tenacious a foothold had there been men qualified to discern and stamp out the disease from the first. But not only from a financial point of view is veterinary skill needed; humane considerations also demand that means should be provided to relieve the suffering animals that now are either subjected to the barbarous operations of ignorant quacks in the profession, or drag out a miserable existence till they finally drop and die.

Here is a field of work for energetic young men—a field, too, that offers as honored a position, and as good compensation as that of medicine or better. Should one in three of those who now study to cure the afflictions of the *genus homo*, turn their attention to animal diseases instead, we believe that the veterinary field would, for a quarter of a century to come, only be partially filled, while the doctors of medicine would still increase in undue proportion to the population.

THE YIELD OF OUR BLOUNT CORN.

THE mistake which we made in our Blount corn test, was in the selection of a plot on the supposition that the season was to be a dry one. The plot had been in pasture for a number of years, the ditches had become obstructed so that when the heavy storm of early summer visited us, the water remained in places long enough to kill many plants and so to weaken others that they never amounted to anything afterwards. A frost also killed a number of plants while few of those from the second planting had time to mature. We beg to state that we have no interest in Blount's corn or in any other corn, seeds or plants whatsoever, beyond what their merits justify. But it is only fair that the palpable causes should be stated why our yield of Blount's corn was not considerably greater than it turned out to be. The plot was an exact quarter of an acre, *i. e.* 82½x132 feet. Ten loads of coarse barnyard manure were plowed under, and 100 lbs. of Baugh & Son's superphosphate sown broadcast. Then it was harrowed and rolled each three times. One kernel was planted every 14 inches in the rows, the rows four feet apart. We have harvested from this plot 18 bushels of shelled corn, or at the rate of 72 bushels per acre, which, when the disadvantages under which the crop was grown are fully considered, proves this in our estimation to be the most prolific variety of corn we have ever cultivated. Whether this opinion of ours is or is not well founded, will soon be determined by the reports of the thousands among whom our seed was distributed.

SOLUBLE AND INSOLUBLE PHOSPHATES.

FOR the first crop it is often supposed that soluble phosphate (*i. e.* super-phosphate or bones or mineral phosphate dissolved in sulphuric acid) is nearly twice the value to a crop that insoluble phosphate is.

During the past three years this question has been the subject of a very thorough investigation in Aberdeenshire, as we learn from the London Gazette, and the results are by no means in accordance with the above supposition. On comparing the dissolved with the undissolved phosphates, the superiority of the former has been found to be "only slight" and not maintained at all the stations where this series of experiments has been carried on. The importance of a *fine* state of division is strikingly illustrated by the differences shown in the crops grown by bone *powder* and bone *flour*. The first crop from the flour is heavier by about a fourth than that grown by the powder, though the first contained the same quantity of phosphates as and rather less nitrogen than the latter. It would appear from these experiments that the costly process of dissolving is for some soils, at least, altogether unnecessary. It is very hard to get at the "true inwardness" of the action of concentrated fertilizers.

Salt and the Pear Blight.—What can our readers tell us about the probable benefit of salt around pear trees? Does it prevent the blight? Are the trees near the salt ocean coast as liable to be injured as those in the interior? Have any tried the effect of sowing salt thickly under and around the trees? The inquiry is prompted by information in regard to the matter, that suggests further investigation.

BREVITIES.

GIVE the potato ashes, lime, superphosphate, bone flour or plaster.

THE Jerusalem Artichoke is recommended as the next best thing in England to make amends for the loss of the potato crop.

IT seems there are many now who agree with our correspondent Mr. Lovett, viz. that Cuthbert and Queen of the Market are the same Raspberry.

Thanks for *one* experiment. "Clinton," who may be trusted, gives the results of his test with weevil-eaten peas, printed on last page of this issue.

THE experiments of Dr. Voelcker go to show that the most valuable manures for potatoes are phosphoric-acid and nitrogen, and that potash is only occasionally helpful.

THERE is probably no better time in the whole year than the present for pruning and cutting back grape-vines, all sorts of fruit trees and ornamental trees and shrubs.

SIR Garnet Wolseley has had a new cucumber named after him. It produces cucumbers in abundance, of a pale green color, "of excellent flavor," 20 inches long and of the same thickness from end to end.

THERE is one matter that most farmers neglect viz., to have a large quantity of coarse, pure sand in their cellars or out-houses where roots etc., are wintered. There is not a root or fruit that we know of that will not keep better in sand than out of it.

THE specimen of the Winter St. Lawrence apple received from Dr. Hoskins, and illustrated on page 688, was very handsome, with firm, fine-grained flesh, and spicy, subacid taste, though it is not yet in eating, and therefore a reliable judgment of its quality cannot be given until later in the season.

THE editor of the California Horticulturist mentions the fruiting of Akebia quinata on his place as something worthy of record, as he deemed it dioecious and there was but one blooming plant. Our own vines have never fruited, but we have often noticed both male and female flowers upon the same plant.

M. ERWOOD sends us a basket of leaves and fruit of his Erwood's Everbearing Raspberry. We have had several plants of this variety for several years. The berry is of medium size, red and of fine flavor. But the vine is not an abundant bearer with us at any time, though after the regular early fruiting, it continues to ripen a few berries until frost.

IN Hillsboro' N. C., we learn there was an orange tree growing under a large tree of the Osage Orange. When the fruit of the true Orange was produced, it revealed a remarkable combination of the qualities of the fruits of the two trees which are so similar in name but so distinct in nature. The case is well-established—having been closely observed by those who were intelligent. But we cannot believe the phenomenon due to the contiguity of the trees.

THOUGH the United States are pre-eminently characterized by their numberless companies and organizations of all kinds, Europe is ahead this time. Denmark has an insurance company against damage to crops by hail-storms. Hailstorms are quite frequent in the spring of the year in the countries around the Baltic, though it is only occasionally that the hailstones are large enough to do severe harm. The company is said to be liberally patronized by the farmers.

MR. L. S. Hardin says in the London Ag. Gazette, speaking of our great International Dairy Fair that "It is to be hoped that the dairymen of England will send over their best goods, and, as they will find both the markets and awards remunerative, we hope they will take full advantage of the opportunity, and send us shiploads of exhibits. We would be glad to see a much more extensive exhibit of dairy utensils than was shown last year. Whatever is done, we hope it will be by early and energetic action.

IN Centennial days a great splurge was made over standard Currants and Gooseberries. All the finest European sorts could thus be successfully grown upon the Missouri currant stock. They would resist mildew and borers. Engravings of plants *loaded* with fruit were published in the leading papers. Two dollars each were charged for single plants, and many were sold. The RURAL bought six, as we remember. Except that they are interesting to strangers, few who have tried these standards would care to purchase them again at any price.

THE French are, almost proverbially, poor colonists. In a new settlement they perform all the early duties of a colonist excellently, and conciliate the natives better perhaps than people of any other nationality, but their colonies do not increase. The fact is that the French inhabitant of a city seldom emigrates, and the French peasant or farmer, never—well, hardly ever. It is a trifle strange therefore to hear that a body of 259 small farmers are now on the way to settle in this country. Well, French farmers are the thriftiest in the world; and may in this respect teach most of our farmers a useful lesson.

THE Duke of Beaufort and Mr. Walter, M. P., proprietor of the London Times, are among the latest prominent public characters in England, who have declared their belief that Great Britain cannot compete with this country in wheat production. They advise native farmers to plant less wheat and pay more attention to products in which there is less to be feared from foreign competition—such as stock raising. In reality, however, it is by no means improbable that with the rapid improvement of our herds here, American meat will ere long be as powerful a competitor of home-raised meat in the British markets as American wheat is now of home-grown wheat.

ONE important consideration anent English agricultural depression, seems to a correspondent of the London Agricultural Gazette, to have been overlooked. It is that truth lies at the bottom of a well. Now, he thinks most of the inquirers are busily engaged upon the surface, reporting the state of farms and so forth. Mr. Jenkins has gone to Denmark, Messrs. Pell and Read to America, entrusted with the office of investigating the agricultural resources and methods of various sections of the country—*but* nobody has been commissioned to go down the well where the whole truth of the matter lies hid. Sooner or later *somebody must* go down this well. It cannot much longer be shirked.

SEEDSMEN and others inquire of us for seeds of the Golden Rural tomato. We have none to sell—none to give away. The entire stock is in the hands of our subscribers. We have several distinct varieties of red tomatoes which, in the course of a year or so—life spared—we hope to offer to our subscribers. We have been breeding for two years for a better keeper, while yet the new sort shall preserve the *medium* size, round, seamless contour and solidity of flesh which characterize the good Acme. As regards *selling* seeds, it is necessary we should repeat that we have never yet, in a single instance, sold a seed or a plant. Our old friends must excuse us for repeating this so often. They know our rule, but our *new* friends do not.

A NOVEL system of agriculture has for a number of years been practiced on a farm in Hertfordshire, England. The owner, Mr. Prout, instead of harvesting the crops himself, divides the fields into lots when the grain begins to ripen, and the crops are sold upon their roots at public auction. No live stock is kept, and the fertility of the soil is entirely kept up by artificial manure. For the thirteen years, since 1866, the average expenses of running the farm have yearly amounted to $16,500, and the net income for the same period has yearly averaged 16 per cent. of that sum, or $2,640. It has thus proved a decided success, while numberless farms cultivated by the ordinary method, have been barely able to pay expenses, and many have run behind-hand.

Literary Miscellany.

DE 'SPERIENCE OF DE REB'REND QUACKO STRONG.

SWING dat gate wide, 'Postle Peter,
Ring de big bell, beat the gong,
Saints and martyrs den will meet dar
Brudder, Reb'rend Quacko Strong.

Sound dat bugle! Angel Gabrel!
Tell de elders loud an' long,
Cl'ar out dem high seats ob heaben,
Here comes Reb'rend Quacko Strong!

Turn de guard out, Gin'ral Michael,
Arms present, de line along,
Let de band play "Conk'rin Hero"
For de Reb'rend Quacko Strong.

Den bid Moses bring de crown, an'
Palms, an' weddin' gown along!
Wid processions to de landin',
Here's de Reb'rend Quacko Strong.

Joseph, march down wid your bred'ren,
Tribes an' banners musterin' strong;
Speech of welcome from ole Abram,
Answer, Reb'rend Quacko Strong.

Tune your harp-strings tight, King David,
Sing your good Ole Hundred song,
Let de seraphs dance wid cymbals
'Round de Reb'rend Quacko Strong.

Angels hear me yell Hosanner,
Hear my dulcem speritool song;
Halleluyer! I'm a comin',
I'm de Reb'rend Quacko Strong.

Make that white robe radder spacious,
And the waist belt 'strodn'ry long,
'Cause 'twill take some room in glory
For de Reb'rend Quacko Strong.

What! No one at de landin'!
'Pears like suff'n' 'nudder's wrong;
Guess I'll gib dat sleepy Peter
Fits—from Reb'rend Quacko Strong.

What a narrer little gateway!
My! dat gate am hard to move,
"Who am dat?" says 'Postle Peter
From the parapet above.

Uncle Peter, don't you know me—
Me a shinin' light so long?
Why de berry niggers call me
Good ole Reb'rend Quacko Strong.

Dun'no me, why! I've convarted
Hundreds o' darkies in a song.
Dun'no me! nor yet my massa!
I'm deReb'rend Quacko Strong!

Ole Nick's comin', I can feel it
Gettin' warmer all about.
Oh! my good, kind, Kurnel Peter,
Let me in, I'm all too stout

To go 'long wid Major Satan
Into dat warm climate 'mong
Fire an' brimstone. Hear me knockin',
Ole church member, Quacko Strong.

Dat loud noise am comin' nearer,
Drefful smell like powder smoke;
'Nudder screech! Good heaben help me—
Lord, forgib dis poor ole moke.

Allers was so berry holy,
Singin' and prayin' extra long;
Now the debble's gwine to catch me,
Poor ole nigger, Quacko Strong.

Hi! dat gate swings back a little,
Mighty squeezin' to get froo!
Ole Apollyon howlin' louder,
Every thing around am blue.

Bang de gate goes! an' Belzebub,
Bunch ob wool upon his prong,
Goes along widout the soul ob
Missabul sinner, name ob Strong.

IN FOLLY'S NET

CHAPTER XI.

(Continued from page 669.)

"Good-night, sir. Good-night, ma'am," said the landlady, curtseying low. "Good-night, gentlemen; I wish you a safe drive home."

And so they entered the carriage, and drove through the silent night, with a starlit sky overhead, back to Sholto Hall a rather silent quartette, for Jean was weary, and angry with herself and Mr. Blair; the latter was silent and absent in manner, and Lord Sholto was turning over in his mind the scene which his unexpected arrival at the Langdale Inn had disturbed, and wondering whether Jean McLeod were merely a foolish, giddy girl, true at heart for all her careless gaiety, or whether she were a thorough paced flirt, unworthy of his brother-in-law's passionate devotion.

"I wonder whether I ought to tell him," mused his lordship, leaning back in his corner, feigning sleep. "She had no right to make the rendezvous with Blair at all, and it is very wrong of her to have encouraged him as she does. One can hardly blame him, for it would be hard for any man to resist Jeanie when she means to be fascinating. Why in the world cannot she be content with the heart she has won? Well, Ivor will be here in a day or two now. I wonder if I ought tell him; I must consult Flo. Poor old fellow, I would not touch his faith in her for the world, and he loves her so entirely that it will go hard with him if she turns out a jilt."

"Here we are," said Captain Murray, at this juncture, as the lights in the windows of Sholto Hall began to gleam, and the carriage turned into the avenue, "safe and sound. Are you very tired and sleepy, Miss McLeod?"

"Very," said Jean, emphatically.

"And yet you had a very cozy nap at Langdale," said Mr. Blair, rousing himself from a reverie into which he had fallen.

"So I had," she answered, laughingly. "I can never forget how good you have been, Mr. Blair," she added, in a gentler tone, as he helped her to alight.

"Good," he answered, hastily, in lower tones, which, however, reached Captain Murray's ears. "Must I remind you again that it is natural for a man to be good to his own property?"

Jean did not reply; indeed, she hardly heard the words, for the great hall door was wide open and Lady Sholto's pretty figure, in her evening dress of silk and lace, was on the first step.

"Oh! Jean, you naughty girl!" she exclaimed, in a flutter of tears and laughter. "What a fright you have given us!"

She caught the girl in her arms as she spoke, and embraced her; but Jean's nerves had been sorely tried in the last few hours, and her composure was giving way under Lady Sholto's tearful welcome. She dared not speak, but stood very white and still, suffering the embrace, but not returning it.

"Don't let me see anyone else to-night, Florence," she said, hastily, in a moment; "I cannot bear it. I am so tired, I must go to my room."

"I think she had better go upstairs at once, Lady Sholto," interposed Mr. Blair. "She has gone through a great deal, you know, and to-morrow, when she has had a good night's rest, she will be able to give you an account of our adventure. She is very tired now, you see."

"So she is, poor child," said Lady Sholto, too much agitated to notice what did not escape Lord Sholto or Captain Murray—Mr. Blair's cool tone of proprietorship when he spoke of Jean. "Come up, my darling; you must indeed be tired to death."

They went upstairs together, Jean with the same unnatural composure on her pale face; but when she had gone up a few steps, she turned with a vague idea that Mr. Blair had been kind and careful of her, and that she had not been grateful enough, and held out her hand to him.

"Good-night," she said, with a faint smile, and Mr. Blair quietly lifted her hand to his lips, and said:

"Good-night, Jean."

"Oh! Jean," began Lady Sholto, with irrepressible excitement, when they were safe in Jean's bed-room, "I am so thankful you are home again. It has been such an anxious time, and one or two of those women have been saying such unkind things—insinuations, you know—nothing that one could take hold of and contradict."

"Have they?" said Jean, mechanically; she was weighed down by a strange, undefined sense of terror and a foreboding of evil, for which even her utter weariness could not account.

"Yes," said her ladyship, whose anxiety and agitation had been too long repressed easily to be silenced when once they had given way. "I have a letter for you, too, from Archie. It came by the evening mail. I hope—oh! I hope they won't say them before him, Jeanie; it would pain him so horribly. Here is your letter, dear."

But to Lady Sholto's intense surprise Jean flung the letter from her with a passionate gesture of pain.

"I do not want it," she said, in hoarse, broken tones. "Take it away. I am not worthy to touch his letter."

And she flung herself, face downwards, on the rug, in a hysterical passion of sobs and tears, which made Lady Sholto ring for Collins in alarm.

"She is overtired, my lady," said the maid, as she raised Jean and placed her on the sofa, white and exhausted now, with faint sobs breaking from her white lips; "your ladyship knows how frightened Miss McLeod always is in a storm. She will be better directly, and a good night's rest will do her good. There, you are better now, Miss Jeanie, are you not?"

When the hysterical passion was over, Jean was too utterly prostrated to do more than smile faintly in answer to Lady Sholto's tender good-night, and half an hour after, when the maid went down stairs, she knocked at Lady Sholto's door to tell her ladyship that Miss McLeod was asleep now and resting beautifully, which announcement interrupted Lady Sholto's animated account of her interview with Jean to her husband, who was sitting in an arm-chair by his dressing-room fire, with his little wife perched upon his knee.

"She threw the letter on the ground," resumed her ladyship, when Collins had been answered, "saying that she was not worthy to touch it; that she did not want it."

"Archibald's letter?" ejaculated his lordship, in surprise, fondling the tiny hands he held in his.

"Yes, Archie's letter. And then she threw herself on the ground and sobbed and cried as if her heart would break. Oh! Arthur, what does it all mean, do you think?"

"I suppose she is overwrought altogether," said his lordship, sagely, "and she is full of remorse about her little flirtation with Blair, which takes tremendous proportions in her present excited state. Archibald is the only fellow who can manage her, though I believe at heart she is as sweet and true as she can be. I believe that from the bottom of my heart, Flo."

"And so do I," said Lady Sholto, warmly. "And Archibald is so devoted to her that it would break his heart if anything came between them."

"Hearts are not very brittle now-a-days, wee wifie mine," said Lord Sholto, laughingly, "or if they break, they are very easily mended. And now jump up, my darling, for I am tired to death and shall be very glad to find myself in the arms of Somnus or Morpheus, or whichever of those gods and godesses presided over 'tired nature's best restorer, balmy sleep'."

CHAPTER XII.

A TERRIBLE AWAKENING.

THE next morning Jean McLeod awoke without a trace of the exhaustion of the previous night, nor any ill remaining from the fatigue of her adventure on the moors.

Almost her first action on awaking was to stretch out her hand for the letter which she had so passionately repulsed the night before, and having read it, fell asleep again, with her cheek resting upon it, and her smile as bright and sweet as the smile seen on the face of a slumbering child. When she awoke again, the sun was high in the heavens, and Collins was standing by her bedside with a cup of tea, and some letters on a silver waiter.

"Is it very late, Collins?" asked her mistress, rather sleepily, stretching her white arms lazily. "I have been sleeping so soundly."

"Yes, miss. Her ladyship thought I had better not disturb you," answered the maid, as she deposited the tray on a little table by the bedside and crossed the room to open the curtains and admit the bright sunshine; while Jean, raising herself on her pillows, sipped her tea, and glanced at the superscriptions of her letters, one of which she recognized as in Lord Ivor's handwriting; and as soon as Collins was safely in the dressing-room, she broke open the seal. Archie's letters were too precious, and her love for the writer too sacred, to be made public.

It contained but a few short lines; but few and short though they were, they made Jean's heart beat and her eyes brighten with joy, for they said that when she would be reading that letter Lord Ivor would be on his way to the Highlands, and hoped to be at Sholto on the evening of the day on which she would receive it.

"How glad I am!" said Jean to herself—"how glad I am! My darling, my darling, how happy I shall be to see you!"

"Where is everybody, Collins?" she asked, when the maid returned.

"The gentlemen are away on the moors, miss," said Collins; "and her ladyship and the other ladies have all gone out driving: they were going to visit the ruins of Walsing Abbey, her ladyship said. She left this note for you, miss."

"Are all the gentlemen gone shooting, Collins?" said Jean, glancing up from the perusal of Lady Sholto's note.

"Yes, miss."

"You are sure?"

"Quite sure, miss," said Collins, looking quite surprised.

"Everybody out, then, and her ladyship says they will not be home to luncheon. It's hardly worth while getting up," said Jean. "Hand me a glass, Collins; I must look my best to-day. The Earl is coming."

"Indeed, miss!" and Collins brought the glass, and stood by while Jean examined herself, half-seriously, half-laughingly, and handed it back when the inspection was over, with a little smile. The fatigue of the day before had not paled her pretty wild roses, nor dimmed the lustre of the sweet, wine-brown eyes; and Jean, with her hair streaming around her, in her pretty white drapery, was very fair to see.

"Ah! well," she said, after a time, having perused her letters and finished her tea, "I may as well get up; and when you have dressed me, Collins, we can decide upon a dress for to-night. What have I got that is very pretty? His lordship will be here for dinner."

"I think it will have to be that white silk, after all, Collins," she decided, finally. "You must put some fresh tulle in at the neck and sleeves, of course, and some ribbons, I suppose."

"What color, Miss Jean?"

"I don't know, I am sure. Suppose you put flowers instead of ribbons, Collins. I leave it to you; you know what suits me better than I do."

"Shall you dress again to-day, miss?"

"No, not until this evening. I am going down into the library to write some letters, Collins; give me my letter-case, please."

The great house seemed very silent and deserted as Jean went lightly through the long galleries, down the broad, carpeted staircase into the drawing-room. While there, she suddenly remembered a song Lord Ivor had sent her, and which she had not yet learned; so she sat down to the piano, and tried it over, singing it in her sweet contralto, until she knew it perfectly, and then went on her way to the big, empty library.

The library at Sholto Hall looked, like the drawing-room, on the pleasure-grounds, with long windows opening to the ground. It was a handsome, modern room bright and cheerful, and generally rather a favorite resort of Lord Sholto's guests.

Jean deposited her letter-case on one of the tables; but she was apparently not in a writing humor, for she wandered aimlessly about the room, took up one book and glanced at it, then, putting it down, took up another with the same result.

"I ought to write to Archie," she said at last, half aloud. "It is much easier to write a confession than speak one."

Seating herself at the table, she opened her writing-case, selected a pen with elaborate care, and set to work. At first her task proceeded but slowly; but after a few moments the pen traveled more quickly over the dainty, cream-laid note-paper and she became absorbed in her letter—so absorbed, indeed, that she did not notice that a gentleman entered the room by one of the open windows, and sat down quietly in one of the great arm-chairs.

He did not disturb her, or give any sign of his presence until, having finished her letter, Jean proceeded to put it into an envelope, directed it in her bold, dashing, fashionable hand-writing, to "The Earl of Ivor;" and, turning round, started a little on perceiving the intruder.

"Ah! Mr. Blair," she said, surprisedly, "I did not hear you come in. I thought you were out with the sportsmen."

"No; I did not go this morning," he said, quietly. "I had a purpose in staying at home which purpose I have gained."

Jean colored a little at the significance in his voice; but she made no answer, and he did not speak.

"I need scarcely ask if you have recovered from your fatigue of yesterday," he said, in his soft, caressing voice. "The question is superfluous."

"Thank you, I am quite well," she answered, a little coldly. "And you, yourself?"

"Perfectly well, thank you," he answered. "We have the house to ourselves, I believe?"

"Yes," Jean said, a little nervously. "Lady Sholto has driven over to Walsing Abbey."

"So one of the servants told me," he answered, absently.

"Have you been reading, Mr. Blair?" said Miss McLeod, in a moment, trying to overcome her growing embarrassment.

"Yes; 'Vanity Fair,'" he replied, glancing at the book he held.

"Ah! one of the best works ever written," she said, warmly. "If not the best."

There was a long pause then, which neither seemed willing or able to break. Mr. Blair turned the leaves of his book idly, with an expression of grave pre-occupation on his handsome, dark face, and Jean sat in silence, playing with her pen-holder, with rather unsteady fingers.

At length he rose, put down his book, and drawing up a chair near the table, where she was sitting, threw himself into it, and leaning forward, put his hand gently over hers.

"Well," he said, softly, "have you nothing to say to me to-day?"

Jean colored hotly with surprise and some annoyance, and tried to disengage her fingers from his clasp; but he held them fast.

"What, still shy?" he said, with gentle raillery—"still coy. Surely after the occurrence of last evening coyness and shyness are out of place between us, Jean."

"I do not understand you," she said, haughtily. "Will you be good enough to release my hand, Mr. Blair?"

He smiled to himself, and glanced at her crimsoned face.

"You do not understand me," he said, in the same gently mocking tone. "If you think a little you will do so. Do you remember what happened last night?"

"Perfectly," she answered. "You were so good to me yesterday, Mr. Blair, that I cannot but feel grateful to you. Do not change my gratitude into dislike."

"That would be an unfortunate change," he said, coolly. "Dislike between two persons who are bound to spend a life-time together would be a most undesirable sentiment, would it not?"

Jean looked at him in speechless astonishment; she had risen from her seat and stood before him, for her hands were imprisoned still, regarding him with angry, wondering eyes. He gently forced her to seat herself again.

"You do not answer me," he said, quietly. "It would be a very undesirable sentiment, my dear Jean, as a little consideration will show you."

"How dare you speak to me in that tone?" she said, haughtily, angry tears rising in her eyes. "I was foolish yesterday, I admit; but my folly has not given you a right to insult me."

"Nothing is further from my thoughts or wishes," he said, lightly. "Foolish yesterday! You were charming yesterday—most charming! I can never forget how charming. By the way, Jean, under the circumstances, would it not be as well to discard this?"

As he spoke he touched the hoop of diamonds on the third finger of her left hand.

Jean's color faded slowly, leaving her pale as death, and she made another movement to rise from her chair; but he detained her once more.

"Sit down, Jean," he said, firmly. "Let us understand each other—we have had trifling enough. Are you willing to listen to me while I explain to you the position in which we stand to each other? If so, sit down."

The young girl obeyed. She was as pale as death—even her lips were white in the agitation of the moment; but her eyes met his frankly and proudly.

"I do not suppose you are ignorant of the laws of this country which is yours and mine, Jean, on the question of marriage," Mr. Blair said, quietly. "Have you ever heard of such a thing as a Scotch irregular marriage?"

Whiter and whiter grew the beautiful young face opposite to his, while into Jean's eyes stole an expression of unutterable terror and dread.

"Ignorant or not," he went on, gravely, "it does not matter; for ignorance of the law cannot affect the question. In this country, if a man and woman declare themselves man and wife in the presence of a witness, they are married, and if they entered into any other matrimonial contract, it would subject them to be prosecuted for bigamy."

Jean was silent. She could not force her lips to speak; but, looking at her face, Mr. Blair saw its unutterable horror and terrible pallor.

"Did you understand, me, Jean?" he said, gently. "Do you understand now your relationship towards me?"

"Do you mean that I am your wife?" said Jean, with her pale, parched lips quivering.

"I do," he answered, gravely.

"But it is impossible;" she cried out, with sudden passion—"it is impossible! I did not mean to marry you. You did not mean——"

"I beg your pardon," he said, interrupting her. "I did mean to marry you."

Jean looked at him in horror; then, wrenching her hands from his clasp, she went on in a broken, passionate voice, full of pain:

"You are jesting, Mr. Blair," she said, piteously. "You could not be so cruel. It would be too dreadful! You do not mean it! It cannot—it cannot—it cannot be!"

"I am very sorry to distress you," he said, gently. "But it is so. By the law of this land, you are my wife, and I your husband."

"Oh! Heavens, it cannot be true!" said Jean, turning from him in a passion of despair—"it cannot be true!"

There was a moment's silence.

"Mr. Blair," she said, turning to him desperately, "even if it be true, although I cannot believe it, you cannot wish to hold me to such a contract."

"You do not see yourself as you stand now, Jean," he said, smiling, "or you would not ask such a question."

"Oh! have pity on me!" she cried, passionately. "You know that I do not love you! You know that my whole heart belongs to another! You cannot wish to break my heart!"

"You are using bad arguments, Jean," he said, quietly. "I love you!"

"If you loved me," she said, piteously, "you would not pain me so terribly. I will not believe it!" she added with sudden passion—"I will not believe it!"

She turned from him scornfully as she spoke. Mr. Blair bit his lip.

"Listen to me," he said, quietly. "I have no wish to make any assertion which cannot be proved. I claim you as my wife! I can bring witnesses to prove that you acknowledged me as your husband—willingly, without any compulsion. I am quite certain that we are legally married; but I am quite willing to abide by the opinion of a lawyer. It will be better, if possible, to avoid the publicity of a court; and if you were more experienced in such matters you would know that in almost every case, the appeal to a court has merely caused the ratification of the marriage."

Jean made a gesture of despair.

"Have pity on me!" she said in a moment, turning to him, holding out her little, trembling hands in supplication. "Have pity on me! I love him! I love him!"

"And I love you!" he said, softly. "Jean, what can I do? If the law has made you my wife, what can I do?"

"Is that all you have to say to me?" she said, in a moment, regaining some appearance of calmness. "May I go?"

"Certainly," he said, with gentle reproach. "You will always find me ready to accede to your wishes, Jean. I told you last night, it is yours to command, mine to obey."

She turned to the door silently, then, remembering her letter, turned back for it. Mr. Blair detained her gently.

"Forgive me," he said; "but this letter—I must ask you not to send it, Jean,"

"Very well," she said; and without hesitation she tore the letter across and threw it into the waste-paper basket.

"Thank you," he said, gently; and, moving away, she left the room.

With a slow, feeble step she climbed the broad staircase she had descended an hour before so brightly and gaily; and when she reached her own apartment she let herself fall on the sofa with a gesture of passionate despair.

"It has come," she said, brokenly; "the trouble has come. How can I tell him? Oh! Heavens how *can* I tell?"—*To be continued.*

FACTS ABOUT PHILATELY.

PRAKRAMA.

II.—The Different Kinds of Stamps.

NEARLY all stamps may be divided into two classes, postage and revenue stamps. A postage stamp represents money paid to a government, corporation or person voluntarily, and for which the party making the payment receives an equivalent in the transmission of his correspondence or merchandise. The character of a revenue stamp is essentially different; it represents a tax, the payment of which is compulsory, and for which the payee receives no equivalent. The authority to issue revenue stamps belongs exclusively to the government of a country, but where this is federal, may also be exercised by the individual States. Thus, several of the United States have issued revenue stamps, those of California being the most numerous, varied and interesting. The Match, Playing Cards, and Proprietary stamps inscribed with the names of the manufacturers, which have been issued in this county, are not exceptions to the definition I have given.

Postage stamps may be classified in several ways. Those issued officially, but only for a single post-office, should not be mixed with the general issues of a country, and must also be separated from unofficial emissions like the stamps issued by express companies in the United States, and the "Diligencia" stamps of Monte Video which were issued by the proprietors of the diligences running between that city and towns in the interior. The terms "local stamps" and "locals" are applied to these private stamps as well as official "locals," but this use of the word is inaccurate, as an express company would ordinarily use the same stamps at all points on its lines. Again, we may classify postage stamps by the purposes they are used for, as ordinary postage, unpaid letter, registered letter, and returned letter stamps, newspaper stamps, and official stamps and franks. In addition to these, Spain has "Impuesto de Guerra" and the United States of Colombia "Anotacion" stamps; while Austria and Italy have special sets for the foreign branches of their post-offices. Adhesive stamps should be separated from stamped envelopes, and both of these classes from postal cards. Newspaper wrappers and letter sheets impressed with stamps are usually grouped with stamped envelopes.

The taxes for which revenue stamps have been employed have varied so much in different countries that it would be impossible to form a complete list, but there is an evident distinction between those required on documents and those representing taxes on merchandise. Among documents, receipts and bills of exchange have been very frequently taxed. As telegrams are a kind of correspondence and thus connected with postage stamps, it seems proper to separate telegraph from document stamps; but in the case of the first issue of United States revenues this can not be conveniently done. The new Spanish stamps inscribed "Correos y Telegs." defray the cost of telegrams as well as postage, and thus introduce a new complication. Document stamps are either adhesives or stamped paper, but only the former are ordinarily collected. A few varieties of stamped wrappers have been used for taxes on merchandise in this country, but I cannot now recall a single foreign example.

III.—What to Study about Stamps.

The nationality, the purposes for which they are used, the designs and colors of stamps are so obviously essential that I need not remind even a beginner of their importance; but there are other facts which are necessary to a real knowledge of Philately and are extremely interesting that might pass unnoticed. The date of issue is indispensable to the arrangement of a collection; but this has been already determined in regard to nearly all postage and many revenue stamps. Information as to the date of issue of the fiscal stamps of some countries is now very desirable, and, as this is a good field for study and research, I would advise collectors to notice the dates of cancellation, or, if possible, obtain official information, and then compare notes. No historical facts connected with the emission of stamps should be neglected; the names of the engravers, the processes by which the designs are produced, and even the machinery employed in their manufacture are proper subjects for investigation. The way in which cancellation is effected should be noticed as this is sometimes curious; the United States Tobacco stamps which are cancelled with a steel die which cuts out very small pieces of the stamp exemplify this.

The provisional use of postage for revenue stamps or *vice versa* is of exceptional interest. For instance: the high values of Hong Kong revenue stamps are used also for postage, and the only way to distinguish the latter is by noticing whether cancellation is effected by a postmark or otherwise.

IV.—Surcharged Stamps.

A surcharge is any inscription printed officially over a stamp, and not intended as a cancellation. The purposes for which surcharges have been adopted have been quite varied. They may indicate conquest. An example of this is found in the stamps of the South African Republic which were surcharged "Transvaal" when the country was annexed by Great Britain. A surcharge may be adopted to designate the stamps of a tributary state or province; as on some of the India revenue stamps which are surcharged "Mysore," and the Canada Bill stamps surcharged "N. S." for use in Nova Scotia. A surcharge may also indicate the purpose for which a stamp is used. Thus the provisional India official postage stamps are revenue stamps of that country surcharged "Service Postage" and the first issue of Quebec Law stamps were surcharged with initials to indicate their use. The recent change of currency in Mauritius and the adoption of the rupee as the unit of value necessitated the emission of new stamps, and while the dies were being prepared the stamps in use were surcharged with new values in "cents" over the old ones in "pence" In many instances the supply of a particular value has become exhausted, and the demand has been temporarily met by surcharging another stamp. The United States Tobacco stamps have been surcharged on several occasions when the tax has changed: the first issue of postage stamps for Straits Settlements were those of India surcharged with a crown above and value in cents below over the old values in annas; and the "Escuelas" stamps of Venezuela (so called because the revenue collected in this way is applied to the maintenance of the schools—*escuelas*) have printed across the face a microscopic inscription giving the date of the law authorizing their emission. The bill stamps of Mauritius present an interesting peculiarity. They are printed one value on a sheet, but are surcharged "First of Exchange," "Second of Exchange," or "Third of Exchange" consecutively, so that when correctly separated they come in sets of three. The Match stamps of the United States exemplify another use of surcharges. Some of these are found surcharged with the initials of a new firm which has purchased the business. Varieties of surcharge may perhaps pass unnoticed when the printing is defective, or, as sometimes happens through carelessness; inverted, and anything about a printed cancellation which appears unusual should be carefully examined.

THE RIGHTS OF OTHERS.

THE use of tobacco by any person, is a persistent and flagrant transgression of the rights of others. Persons claim the privilege of doing as they please; but no principle of law, gospel or common sense allows any man to please himself by displeasing or annoying others. If a man had neither father, mother, wife, nor child, nor friend; if he lived as a hermit in a hole on some desert island, untrodden by any human foot, he might perhaps claim the natural right to do as he pleased, provided there was no God and he was without moral responsibility. But it is impossible for society to exist unless men will consent to the abridgement of their personal rights or privileges, and learn to consider and respect the rights and inclinations of others. All law is based upon the principle that the inclinations of the individual must yield to the good of the community. He who refuses to accept this principle of action, speedily finds himself an outlaw. He arrays himself against society, and society avenges itself upon him by compelling him to submit to wholesome authority. No man moving in society has a right to make himself a nuisance or an occasion of offense to others. He is bound to observe the proprieties and decencies of life. As a member of society he must do nothing by which society itself would be subverted. No man living has the right to defile the water I drink. No man living has the right to poison the air I breathe. Every man who uses tobacco is continually doing this very thing: He burns his filthy cigar or his nauseous pipe, drawing smoke into his own mouth and then puffing it out for me to inhale. What right has he to poison the air I breathe? What right has he to give me the headache, or in any way deprive me of the privilege of breathing the vital air which God has made necessary to my very life? If he could get away beyond all human fellowship, where no one could see him, hear him, or be in any way affected by his conduct, the case would be different; but he intrudes himself upon others; he poisons the air I breathe, and seems to imagine that he has a perfect right to do this; and that I have no right whatever to object to his doing it. He is mistaken. It is not only my right but my duty to protest against his impudence and selfishness. No man has a right to poison his wife, or make his children sick, by the use of tobacco. Thousands are nevertheless doing it from day to day. Helpless women, little children, feeble and sensitive, suffer headache, nausea, and untold disgust, because some selfish and uncourteous man claims the privilege of doing as he pleases in regard to personal habits, without respect to the rights of those around him. Such men have mistaken their position. They may be able, under the law of brute force, to do as they please, but under the higher law of right and propriety they are unquestionably condemned.

One marked effect of the use of narcotics seems to be to blunt the conscience and render the mind insensible to delicate moral and equitable distinction, consequently men, without the slightest apparent sense of impropriety, commit the greatest breaches of public courtesy. A man has no more right to smoke in my face than he has to spit in my face; and yet I can hardly go on the street without being sickened by the nauseous puffing of a smoker who seems to have no more idea that he is making a nuisance of himself than a Fejee Islander has of the indecency of going naked. If these men who do this could know the loathing which they cause in the minds of men and women whom they meet from day to day, it is certain that unless their consciences and sensibilities were thoroughly calloused they would rid themselves of a habit so uncourteous to others and so unjust to themselves.—*The Christian.*

NEW PUBLICATIONS.

Abraham Lincoln and the Abolition of Slavery in the United States. By CHARLES GODFREY LELAND. Price, $1 50. New York: G. P. Putnam's Sons.

THE author brings to his task an absorbing admiration and enthusiasm for the subject of his sketch, and as may be inferred we are given a rose-colored view of Mr. Lincoln's character and conduct. In spite, however, of Mr. Leland's lack of discrimination and his inability to do justice to those whose political creed is opposed to his own, he has written a very pleasant book. The circumstances of Lincoln's birth, his early struggles and all the steps by which he raised himself from poverty and obscurity to the most exalted place in the nation, together with the conscientious manner in which he discharged the duties of his responsible position, are carefully portrayed, and an instructive and entertaining narrative is the result. Most of Mr. Lincoln's life was passed amid stirring scenes and any record of him must include mention of public events and political parties, and so the growth of abolition and "emancipation" sentiments are traced and the prominent battles of the civil war are described.

The information which the author furnishes relative to his own magazine ventures, is not only wholly uninteresting, but is in the worst possible taste, and as for the two collections of doggerel by courtesy, called poems—The Black Regiment and The Proclamation—they would disgrace an old-time dime novel. Here is a sample stanza or two:—

THE PROCLAMATION.

Now, who has done the greatest deed,
Which History has ever known?
And who in Freedom's direst need
Became her bravest champion?
Who a whole continent set free?
Who killed a curse and broke the ban
Which made a lie of liberty?
You, Father Abraham—you're the man!

* * * * * *

The word is out, the deed is done,
The spear is cast, dread no delay;
When such a steed is fairly gone,
Fate never fails to find a way.
Hurrah! hurrah! the track is clear,
We know your policy and plan;
We'll stand by you through every year,
Now, Father Abraham, you're our man.

Leland's Lincoln is the initial volume of "The New Plutarch" series, and the following are the other volumes of the series:—Coligny; The Failure of the French Reformation, by Walter Besant, M.A.; Judas Macabæus and the Jewish War of Independence, by Claude Reignier Conder, R. E.; Victor Emanuel; The Attainment of Italian Unity, by Edward Dicey, M.A.; Joan of Arc; The Expulsion of the English from France, by Janet Tuckey; Alexander the Great, by Rev. W. J. Brodribb, M.A.; The Caliph Haroun al Raschid; Saracen Civilization, by Prof. E. H. Palmer, M.A.; Richelieu and his Court, by Walter H. Pollock, M.A.; Hannibal and Carthaginian Civilization, by Samuel Lee, M.A.; Harold Fair Hair and the Scandinavians, by Erik Magnusson, M.A.; Charlemagne and his Time, by Prof. Beesley; Gustavus Adolphus and Whittington, Lord Mayor of London.

Easy Lessons in Popular Science. By JAMES MONTEITH. New York: A. S. Barnes & Co.

THIS little volume is designed to furnish a means of scientific instruction for small children. The object is certainly commendable, and the manner in which it has been executed deserves some praise and shows traces of careful selection and arrangement. The method advocated—that is, a series of conversations between the teacher and pupils, in which the scientific facts shall be presented and illustrated—is perhaps the best, where practicable, but requires exceptional qualifications in the teacher. Thus: the lessons are supposed to be illustrated by blackboard and drawings. Now, not one teacher in a thousand can make a blackboard drawing that will give a clear idea on the appearance of an animal that is less characteristic than that of an elephant. Where statements are made to children they should be strictly accurate, especially so as ideas derived from school-books are not easily corrected; and we regret to notice several departures from this rule. The author mentions a cuttle-fish as a very curious fish; to which we may add that it is *so very curious* that it is not a fish at all. Is there any need of teaching children such nonsense? We believe not, and that it would have been quite as easy to have stated what a cuttle-fish *is*. The distinction between a vertebrate and a mollusc is not beyond the comprehension of any child old enough to understand the difference between an exogen and endogen, which is given correctly enough in the book. The doubts we have entertained of the advisability of teaching the natural sciences to small children have only been increased by a perusal of Mr. Monteith's "Easy Lessons."

The Bodleys Afoot. With Sixty Illustrations. By HORACE E. SCUDDER. Boston: Houghton, Osgood & Co.

OUR old friends, the "Bodleys," appear this time "afoot," and what could be more timely, is not pedestrianism the rage? Unlike professional walkers, this family did not confine itself to a saw-dust ring and go round and round the same. The Bodleys extended their walks to Peru, Russia, Rocky Mountains, indeed it would be rather hard to say where they didn't go. Then they are such an inquisitive, adventurous family, and withal so jolly, that of all possible traveling companions they are the most delightful and entertaining. The illustrations are numerous, varied and in excellent taste, some of the designs being exceptionally dainty. The covers of the book and the fly-leaves are unique, and altogether, both inside and out, the book cannot but delight the heart of any of the "little folks" who may be so fortunate as to obtain a copy.

Eyesight and How to Care for It. By GEO. C. HARLAN, M. D., Surgeon to the Wiss Eye Hospital. Philadelphia: Lindsay & Blakeston. Price 50 cents.

IN this useful little book, every thing of interest concerning the eye is to be found. The author's lucid style and simple language, taken in connection with the illustrations, serve to give the reader an intelligent idea of what this organ is like, and how best to care for it. The anatomy and physiology of the eye, the ophthalmoscope, injuries and diseases of the eye, optical defects, spectacles, practical suggestions and effects of school-life upon the sight, are some of the topics treated of. One important advantage of this series is, that it contains the very latest discoveries regarding the different "Health" subjects, which is more than can be said of many more pretentious works.

MAGAZINES.

HARPERS MAGAZINE FOR OCTOBER.—Contents: On the Skirt of the Alps.—Illustrations.—At the Public Well; a Morning Scene in Venice; Balcony Marketing; Riva, from the Ponale Road; Lemon Gardens, Lake Garda; Limone, Lake Garda; Tremosine, by Lake Garda; San Giovanni, Bellaggio, on Lake Como; Lecco; A Street in Bellaggio; Villa Serbelloni. Painted Glass in Household Decoration.—Illustrations.—Painted Glass, Twelfth Century, at Liege; Painted Glass, Canterbury Cathedral; Specimen from St. Denis; Painted Glass, Strasburg Cathedral; Specimen from the Chapel du St. Sang, Bruges; Fragment of Disk of antique Colored Glass; Screen; Fruit and Game, Dining-room Decoration; Memorial Window in Society Library. The Connemara Hills.—Illustrations—Pilgrims at the Holy Well; Roundstone; "There, Ma'am, is America;" The Little Cabin; The Bathers; The Dance; Flanigan's Lunch. Fifty years of American Art, III.—Illustrations.—"View on the Kern River;" "The Yosemite; "The Bathers;" Landscape; "County Kerry;" "The Adirondacks;" "Ship Ashore;" "A Foggy Morning;" A Marine; "Arguing the Question;" "The Rose;" "Dress Parade;" "A Bed-time Story;" "The Scout;" "On the Old Sod;" "Lost in the Snow." A Ramble in Central Park.—Illustrations.—A-Maying in the Central Park; A rustic Arbor; Riding the Donkey; Equestrians; A Flirtation; Island in the Lake; The Cave; Feeding the Swans; Goat Carriage; Children and Lambs; A hot Day; King of the Inclosure; Gardening in Central Park. The Two Burdens.—A Poem—With two Illustrations. Through Texas.—Illustrations; "Mebbe you'd like to go Quail-baggin';" Bagged; G. T. T.; Galveston Bar and Roadstead; Immigrant's Camp; Cotton Wagons; Elm Street, Dallas; Cow-Boys; Court House, Fort Worth; Yuma Stage leaving Fort Worth; Group of Texan Hunters; Colorado River, from Mt. Burnell; View on the Comal River; Street Scene in San Antonio; A Stampede; Buffalo Hunter's Camp; "Gwine Home to Georgy;" Cotton Compress. White Wings: A Yachting Romance.—Chapter VIII and IX.—Illustrated. The State of the Alcohol Question. Belle's Diary. Young Mrs. Jardine—A Novel.—Illustrated. The Revolution in the Life of Mr. Ballingall. Mary Anerley—A Novel—Chapters X to XIII. Editor's Easy Chair. Editor's Literary Record. Editor's Historical Record. Editor's Drawer.

One of the newspaper letters says that the "vulgarity" of Jews is undeniable. It admits the good character and refined manners of many ladies and gentlemen of the Hebrew race, but it says that the number of the vulgar of that race who go to summer hotels is disproportionate. This is the point upon which the emphasis is laid. They are welcome to their religion, but as a class they are vulgar; therefore they are avoided, and therefore the hotels are compelled to exclude them. This is iterated and reiterated as the reason of the exclusion; but it is not the true reason. The fact is plain. There may be a great many vulgar Jews. But Jews are excluded from hotels not because they are vulgar, but because they are Jews. They are ostracized at hotels for the same reason that they are ostracized at clubs—an instance of which we mentioned a year or two since. There was no pretense that the gentleman proposed for the club was any more vulgar than a great many of the members, nor that he was not both refined and accomplished, and a perfectly clubbable man, except in one fatal point: he was a Jew. The exclusion at Saratoga and at Manhattan Beach pleaded vulgarity because it did not dare to make the real plea.

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There was no question of vulgarity. Jews as a class may or may not be especially vulgar, but they are no more refused for that reason than colored applicants would be. Some years since an accomplished Haytian, the minister of his govern-

ment to the United States, went to Newport in the summer. He was altogether a gentleman, of singular grace and charm of manner, and remarkably intelligent. Indeed, in social graces and wide knowledge of the world there were few gentlemen in Newport who were comparable to him; but he was politely requested to eat at a second table because he was not perfectly white. He was, in fact, of mixed negro blood. Another gentleman, more than twenty years ago, crossed the Atlantic on the same ship with some Southern gentlemen. They had the pleasantest intercourse during the voyage, for the gentleman in question was unusually well educated and refined. He was not especially dark in complexion; but as the voyage was ending, he requested the captain to mention to the Southerners that he was a grandson of a slave. Upon hearing the astounding truth, his late pleasant companions were ready to cast him into the sea.

This sense of caste is due to the prejudice of race. It is a wrong which the law no longer sanctions, but it survives socially. It is a relic of barbarism, and how sacredly it is cherished the attitude of the hotels, largely sustained by private feeling, however loudly it may be publicly condemned, plainly shows. Yet it is a mere prejudice unworthy a generous nature and a civilized people. The debt of Christendom and of civilization to the Hebrew race is incalculable, and the root of the prejudice is but the tradition of Christianity that Jews crucified Christ. It is a terrible retribution. A whole race is held responsible for the crime of a Syrian mob two thousand years ago. Men of no Christian principle whatever flout better men today because other men murdered the founder of Christianity. The mischief of this hotel exclusion, which the law, indeed, prohibits, is that it fosters this revolting prejudice—a prejudice which is barely urged as its own justification, and which both by our religious and political principles is especially unworthy of Americans.—*Editor's Easy Chair, Harpers for October.*

SOCIETY OF THE DAMNED.—A curious institution still exists in Paris—the Society of the Damned. These damned are dramatic authors, and they meet once a month and dine at Brebant's. Their number has no fixed limit, only every member, to be eligible, must have been hissed. An eminent dramatist is selected as chairman, and holds the post for three months. His election generally follows close on a splendid failure. M. Meilhac, M. Dumas, Jr., M. Zola and M. Offenbach have all filled the chair and presided at the monthly dinner. These dinners are given on the last Friday of the month, and are extraordinarily hilarious.—*The Theater.*

For Women.

CONDUCTED BY MISS FAITH RIPLEY.

ONLY A LETTER.

ONLY a letter that came last night,
A dear, little love bird, winged with white,
That whispered the words in the maiden's ear
Of the sweetest song that a maid could hear,
And sang it over and over again,
Aye! the charmed din and the soft refrain,
And the burden was this—so old, so new,
"Do you love me as I love you?"

Only a letter, by Cupid sent,
That maketh the maiden's heart content,
That bringeth the blushes sweet and shy,
And the tell-tale light to her azure eye!
A missive read in the shadiest nook,
And dearer far than the choicest book,
Then hid with the precious things and few,
Tied with a band of love's own blue!

* * * * * * *

Only a letter that came this morn
With the heaviest weight that could be borne;
And yet it seemed to the man in gray
But a trifle light as he passed his way.
A wife is stunned by the sudden blow,
A mother's heart is filled with woe,
For the bird of omen tells a tale
That would make the stoutest spirit quail.

Only a letter, thin and white,
That has robbed a home of its joy and light,
That has hung, by the cruel news it bore,
That funeral crape on the outer door!
A missive clutched with hopes and fears,
And drenched with mourners' scalding tears;
Read and re-read with lips grown white,
Then laid with a shudder out of sight.

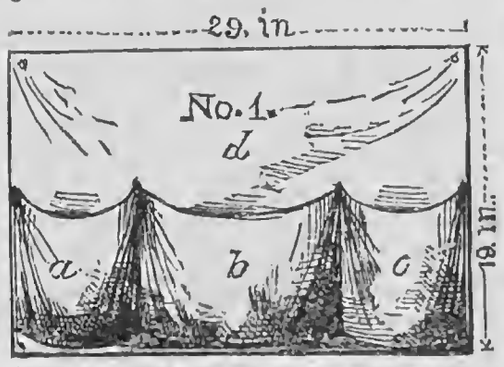
[*Chicago Times.*

A VISITOR.

MRS. J. E. S.

DEAR "CLUBITES."—Every one ought as she gathers in be willing to give out. Many are willing but want of practice, a fear of not being able to write well, or a dozen and one other reasons deter them from putting their thoughts upon paper. While the peculiarities of other people should to a certain degree be respected there is no reason why we should cater to our own or wish others to. Having read with much interest the various articles of the Woman's Club and received some very valuable suggestions; and being under great obligation to our Editress for permitting us space, it appears to me that in no way can I so well pay the debt I owe as in writing about some things that I am doing; also inquiring about other things that I want especially to know.

Wanting a place for brushes, slippers, combs etc., in the bathroom I took a piece of striped blue and white ticking and made two wall pockets. In No. 1, I let *d*, run up behind the mirror leaving just space enough to readily take out or put in the brushes at *a*, and *c*, and the slippers at *b*. In No. 2, I made two sets of pockets, 1, 2, 3, 4 and 5 for brushes etc., 6, 7 and 8 for tooth brush and combs. After stitching all around the edges of the back piece and twice between the divisions of each pocket they were finished in feather-stitch with scarlet yarn around the pockets and edges. Having a mania for driving nails, I put a shingle-nail in each of the corners and the middle of the opposite sides and drove them into the wall. They are so firm that should I want to take them down it might be a little difficult. Better so than to have them so slipshod as to be an annoyance, instead of a convenience and comfort as they were designed.



So many things are done carelessly that I can not afford to do anything slack. And too, we know not how many slight their work because you or I do. All have an influence either for good or bad. It may be an unconscious one, that is, we may not realize how little or how much influence we do exert; still every act, word or look in the presence of others leaves its impression, so also does our daily work leave its impression, and the manner in which it is done fades not slowly away. Annoyance has been so plainly depicted upon the human face divine that now whenever I put a tidy upon a chair, sofa or sofa-pillow it is fastened so well and firm that it remains as placed. The man of the house says "those tidies behave so well that they are a luxury."

More especially came I to the "Club" to present the subject of *using alum*. Many articles are written by eminent M. D's about its being deleterious to the stomach etc., and the use of baking powders in which it is found is being discouraged, in other words using alum it is claimed produces a hundred and one ailments to the consumer. It occurs to me that those who have studied up this matter ought to be shown some respect for their opinions until we prove them false. If alum is hurtful *why* put it into pickles? Why put it into bread? Why use it except for medicinal purposes? We can not afford to harden our pickles or whiten our bread at the price of our health!

A VIRGINIA LETTER.

DEAR MISS RIPLEY:—How time flies! Summer is gone, and I have not written. "Why? The answer to this question would fill a volume. Immediately after the hurry of spring work came the berry season. And this would be Chapter 1. After putting up many gallons of strawberries, I found it was "Love's Labor Lost," for they became tough and all went to juice. The mere heating results so. Blackberries do better, but rival all the *blacks* in the South for *working*. I soon found it would not do to trust them in my dark closet of preserves, and I had to give them a probation in the spring-house. But whortleberries do behave well and retain all their attractions in imprisonment, rigid or careless. That which will *sour* the disposition of any other fruit has no effect upon this. I always like

To Can Whortleberries.

Put one pint of water in a kettle, fill with fruit; pour over it one pint of sugar, let it get hot through; fill the jars while in the hot water—(why does'nt some enterprising Yankee invent a crate and boiler accompanying his jars, for holding them in the water?)—with the fruit, leaving the syrup, to which add more fruit, till all the cans are full. Lift from the water and seal.

Then came the harvesting of early matured vegetables, dried beans and their hulls. I always save the hulls in tubs along with the bran, waste salt, nubbins of sugar corn, etc., and pour boiling slops over them as a warm porridge for my cows, on winter mornings. In Summer, when the grass is green, they do not need them, and in Fall, I feed them the bottom leaves of the cabbage, the turnip tops and whatever will not keep for winter.

After harvesting these and rushing through a thousand other little preparations, I ran down home (parental) for a spell. Here I saw many things. The Pinafore and Tournament were chapters for other papers; and I *must* give Uncle Mark's boys a description of the watermelon patch belonging to the cousin who came home with me from that fine old farm. I knew she was accustomed to good living, so I tried (vainly often) to improve my dishes. She liked

Waffles and Corn-batter Cakes.

Two eggs well-beaten, stir in a little flour, then one teacup of buttermilk, in which has been dissolved one teaspoonful of soda, one teacup of sweet milk, then the remainder of one quart of flour. For batter-cakes, stir in meal instead of flour. Use plenty of lard in baking—or gravy, or butter. For dinner we had

Fruit Pudding.

One egg well-beaten; one cup sweet milk; one and a-half cups of berries; half cup of sugar; one spoonful of butter; one cup bread crumbs. Bake in a shallow dish.

Roll (steamed.)

Line steamer with pastry, fill with alternate layers of fruit and thin dough; steam one hour, turn out on a large dish; (it looks like a big, white cheese), and serve with sugar and cream in Summer; with hot sauce in Winter. I like cool things in Summer, and hot in Winter.

One afternoon I was getting a nap after the fatigues of superintending dinner, and Cousin called to me "Here is something will arouse you," and began reading that "Vigorous Protest" by "A Woman," about scouring the coffee pot with ashes, and I *did* feel just a little indignant at first, and resolved to reply to it, and next morning, (for I always write in the forenoon when I am fresh) began "*Woman* thy name is Frailty" and wrote a long piece proving the carrying out of my idea of economy in using ashes and water instead of soapsuds. For the alkali—and grease (accumulating from butter used in parching coffee) unite and make a soap for cleansing and sweetening. Only those pots used and blackened by fire *need scouring*. My *new* and *hard* coffee pot, never was nor ever will be scoured till it becomes leaky and like the other two has had the second and third bottom put in; then when accidentally smoked, it will be brightened by rubbing (no friction) with ashes. I never allow any new thing with a high polish to be *scoured*. It at once takes on a *pewter* look, and I supposed this would be taken for granted. I have never so much as cleaned my watch chain by shaking it in suds in a bottle, though "old gold" is so *fashionable*. I like it to glitter with *new luster* if the intricacies do hold dust.

Yes, I wrote an article, but before I sent it, we took a trip to one of the greatest curiosities in Virginia. A lake on top of the mountain four thousand feet above the sea. Then I forgot the coffee-pot woman, and went off into writing of "Bald Knob, Mountain Lake, The Cascade, Pompey's Pillar," and wrote eight pages of foolscap, and could have written for weeks of the beauties and wonders of this spot. I saw the mountains of five States from the highest point in Virginia where, the Alleghany covers a greater breadth than in any other State. I brought away a wealth of lichens, mountain-ash berries and plants, and will submit to be advised what to do with them to preserve them in the most attractive form. Of course "A Woman" will be the proper person to enlighten me and here she may expend her superabundant supply of information to some purpose.

Then we went to the Fair at Wytheville and I caught many ideas, and a cold. I took my shell frame and a premium on it, (as well as on my horse Harry Hot Spur.) The frame was oval cut from a thick plank, left rough and covered with putty. Little spiral shells were sunk into the putty for the inner and outer margins; at the top, and bottom and sides a rose was made by pressing the hinge-point of bivalves into the putty around a pointed shell, beginning with small and gradually increasing and expanding as the petals of a rose. The spaces were filled with other designs and a ground work of small insignificant shells. It is best to frame a wreath of shell flowers on a back ground of black velvet. Use wax or putty or white lead. Into pink wax, press a spiral and surround it with bivalves with the hinges out. These are smooth and pinkish and look like dahlia petals, make sprays of leaves by threading on silver wire small rice. Four or five smooth white shells secured by wax make pretty single flowers and may be worn at the throat or for ear-drops. I had such a spray on a black card beneath the frame, held by a photograph holder made of oblong bivalves, fastened to a little square of onyx bought at the Centennial as a specimen of William Emperor of Germany's mantle-piece for which he paid $25,000. The onyx and shells were the same color, creamy opaque with wavelets of greenish transpareney. With white putty I stuck the little pair on at the hinge, open at the top just wide enough to admit a photograph and it holds the magnificent dark ground picture of my cousin, on a little bracket, apparently, sawed walnut, but only stained paste board. M. L. S.

Reeds Island, Va.

HIS METHOD vs. HER METHOD.

So much has been said and written about want of system and thoroughness on the part of women, that I a member of the much maligned sex, offer the following facts as evidence that want of thoroughness is not as much a matter of sex as is generally supposed.

There are at present two prominent societies for aiding those who desire to improve their minds. The one, the Chautauqua Literary and Scientific Circle, the other, the Boston Society to Encourage Home Study. The first named is managed by men—a clergyman being at the head of it, the other, is under the control of ladies. The former *should* be characterized by thoroughness, that being pre-eminently a masculine attribute, if report speaks true. A review of the plan of each society's work will best illustrate which is superior.

The Chautauqua Circle, is a four years' course, the time required for study being an average of 40 minutes reading each week-day, from Oct. 1 to July 1. Those who feel so disposed can devote *hours* to studying, but the time per day, specified above, is considered by the management sufficient for the student to perfect himself in the list of studies given. For the year 1879-1880, the following are the appointed studies:

General History of Rome.
Text-Book on Roman History.
Primer of Latin Literature
Philosophy of the Plan of Salvation.
Text Book on Christian Evidences.
English History and Literature.
How to Get Strong and How to Stay so.
History of the United States.
Text-Book on American History.
Primer of American Literature.
Biology, Botanical and Geological.
Text-Book on Biology.

Postal card blanks for three-quarterly reports are furnished all members, on which students are requested *to give the names of the books they have read, and the number of hours devoted to reading*, this constitutes a report.

"I now repeat what I said in my closing address of last year, that the ground of your acceptance of the C. L. S. C. will be the statement of the simple fact that you have read the required books or their equivalents," so says the official circular.

In nine months with 40 minutes study a day, it is expected that students will master the elements of some eight or nine studies, and the "reports" consist of a simple statement of the number of hours employed in studying. Pray, what idea of progress can be gained by knowing that a student has read a book for three or four hours? He may in that time have thoroughly mastered a dozen paragraphs, or he may have skimmed through thirty or forty pages. It would seem that cramming a pupil with a few facts about half-a-dozen different studies, and rating him by time expended in study, instead of by the amount of information acquired, is hardly calculated to "develop the habit of close connected, persistent thinking," which the Circle declares it is their object to do.

The Boston Society allows the student to select her course of study. Usually but one course is chosen; some, however, take two, and a very few three courses. One study constitutes a course, which is not measured by years, but by *books*, so the student, by little or much study, herself determines the length of the course. By concentrating all her efforts on one study, the student becomes thoroughly posted on it and acquires a stock of available information, instead of dividing her time and energy among several studies, no one of which can she, by any possibility, gain more than a smattering of.

After the course has been selected, the address of one of the Society is given, to whom the student sends monthly reports, which consist of notes taken on all she reads. The notes are taken from day to day from *memory*, and the Society correspondent returns them to the student with explanations, corrections, etc. When the book is finished—not the course, but the first book of it—a printed list of questions is sent the student, the answers to which are designed to test her conscientious application to the task assigned her. She has to write out the answers from memory, and is allowed only 2½ hours to do it in. Finally, the student is expected to write an abstract of the book—not a mere catalogue of facts, but to give the drift of the thought of the work. This, too, is to be done without any reference to books. What with notes and abstract, the student cannot fail to have a firm hold on the facts given for her consideration. Slighting is not possible under so thorough a system. EDNA HOUGHTON.

THE FAIR MONTH.

SEPTEMBER has come and gone, and with it the great annual reunions of the farming community—the Agricultural Fairs. Nothing in the life of a genuine farmer so tends to stir the languid pulses and quicken every honorable ambition as these gatherings. There is food for every taste and help of some kind for every class. People are benefited without knowing it, in many ways.

Care-worn women, whose busy lives do not afford them time, or who have not room convenient to cultivate house-plants, have their eyes gladdened by the sight of beautiful flowers on exhibition. The narrow-minded farmer who travels in his little round throughout the year, feels a wholesome pang of discontent with his own stunted apple trees, as he sees the choice specimens that are so tastefully displayed. He goes home determined to post himself a little better on the culture of fruit.

The staid old ladies scan with a critical eye the samples of woolen yarn, stockings and mittens entered for premiums, and descant on the better times in their young days, when such kinds of work were done so much better.

The children who have resolved themselves into a "committee of the whole" to judge the quality of the candies, peanuts, and other eatables for sale, are not behind the rest in enjoyment. The looker-on, too, has a treat in watching the different countenances, and studying the varying expressions of the changing sea of faces. Looking over such an assemblage the other day, I was highly edified at some remarks I could not help overhearing. Two over-dressed men were standing near, looking about them with that pompous air of superiority which cannot be described. Incipient office-seekers they probably were.

"Well," said one, "what do you think of the show?" "Barely passable," returned the other; "hardly worth one's while to throw away his time on; but I suppose these things serve their purpose by amusing the *common people*."

One of the "common people" was certainly amused at their wise discourse, but I have often since found myself wondering what quality of the mind is called into action by this feeling of being so much above, or superior to common humanity. It certainly is not refinement, or modesty, or cultivation, or self-knowledge, which thus sets itself on a pedestal above the mass of mankind. None, who truly identify themselves with the spirit of our fairs can entertain such a foolish estimate of themselves. B. C. D.

Elkhorn, Wis.

EDITORIAL ANNOUNCEMENTS.

IN our issue for November 1, will be published illustrations of the latest fashions in overskirts and polonaises, suitable for ladies and young girls.

The following week (Nov. 8,) a full account of modish goods, for house and street wear will appear.

CORRECTION.—In answer to an inquiry which appeared in the RURAL NEW-YORKER relating to "Home Sweet Home," I would suggest that the word parent be used instead of mother in the second verse of the poem as given in RURAL of Oct, 4. It would then be a correct copy of Payne's original. R. M. L.

Oak Burn, N. Y.

Domestic Economy.

CONDUCTED BY EMILY MAPLE.

MRS. ENDICOT'S JOURNAL.

Putting away summer clothes; bread-making; keeping sponge over; ammonia for cleaning paint; how to clean a carpet.

Oct. 10.—Monday was such a beautiful day, the clothes drying so quickly, that I had many summer clothes washed, ready to be put away. I think it is so much better not to have them lie with the starch in, especially if there is much white about them, as it is almost sure to turn yellow. I don't know but I have rather a novel complaint to make for a housekeeper—that of too many closets. Our house has a very peaked roof, and the rooms up-stairs have a strip taken off of each side, so as to make the ceilings square, giving two closets the whole length in each room, and in one there is a third made by the chimney. My trouble comes in spring and fall, when their contents have to come out. It being so handy, many things get tucked away that should have been disposed of at once. I made quite a large package of the children's outgrown clothing for the Dorcas Society. As I had planned more extra work for this week than Betsy could do alone, I thought I would bake bread while she ironed, on Tuesday. Keeping that in mind, I had my potatoes for dinner mashed on Monday. When they were boiled sufficiently, I had my flour in a jar—about three pints, I should think—and over it I poured the water in which the potatoes were boiled. After they were mashed, I left two good spoonsful in the kettle, to which I added about a pint more of water and put all in the jar, stirring till perfectly smooth. Just after supper I added a cupful of soft hop yeast and set it on the hot-water tank of my stove, in a dish, not wanting such another experience for Betsey as I had while she was gone. (Coming out one morning, I found my sponge running over tank and stove, and dripping down on the clean floor.) Before breakfast next morning I stirred my sponge down, adding a cupful of warm water. After breakfast I mixed my bread, adding one more cup of warm water and kneading the dough thoroughly. By nine o'clock it was ready to work out into the pans. Before our 12 o'clock dinner I had four beautiful, smooth, brown loaves of bread, which, when cut, were all one could ask for. Now that the weather is getting cool, I will not bother with yeast any more, but each time save a pint bowl of sponge, which I will use to start the next. I think it makes superior bread.

Wednesday morning was not just the kind of a day I would have chosen for house-cleaning, but as we only intended to clean two chambers, and only in one of them did the carpet have to be taken up, I concluded to go on. I was glad I did, for by nine o'clock the sun was shining brightly. Barton being too busy to help us, he sent a colored man, who took up the carpet, switched all the dust out of it, folded and carried it up-stairs, thus saving us much time and strength. The beds I put out in the sun and air; had the room swept with a damp broom; then the wall wiped off by tying an old flour bag over the broom. In Harry's room I took some spots off the paper by rubbing with a dry crust of bread. Then I called on my old assistant, the ammonia bottle, without which I wonder how anyone keeps house. The addition of two or three spoonsful to a bucket of water made the paint look beautifully clean without any soap and with but little rubbing. The carpet in my east room, which I did not have taken up, is rather light. I had Betsey take a bucket of water, just a little warm, with but one spoonful of ammonia in it, and wipe it all over, just as you would an oil-cloth, only wringing the mop drier. You would be surprised to see how clean and bright this treatment made the carpet look. The windows in this room I had her leave until afternoon, as it is my experience that it is almost impossible to clean glass and make it look clear when the sun is shining on it.

RAG CARPETS ONCE MORE.

While I do not wish to awaken a spirit of strife among the Rural readers in regard to the economy of making rag carpets (for there has, as we all know, been enough said already concerning them), yet, being in favor of their use, I have thought I might help "Tyro," to a way of disposing of her woolen rags, by relating my experience. One knows well enough that, when woolen carpets are sold so reasonably as at present prices—and they exceed in beauty, if not excellence, the homely rag covering—those who are not very industrious would be but poorly rewarded for their toil and time in making rag carpets. But those who need them, and can find plenty of material, may be quite surprised at the cheapness of dyes, within the reach of all. I have noticed that the aim of weavers and those who employ them, is to imitate closely in colors and striping, the home-made woolens which the farmers' wives used to manufacture; hence the dyes are the main expense.

As so much more cotton is woven in nowadays than formerly, the many new ways of coloring cotton, without *weeds*, give one better advantage for imitation of the striped yarns, once so desirable. I, like all new beginners, aimed for beauty in shades, and having more white cotton than woolen fabric or prints to dispose of, found that the coloring of the goods would be of more expense than I liked to bear; besides, the dyes, many of them, are very unhealthy to use, but I was well enough suited with the durability of them in all cases; hence I yet speak in their favor, wherever they can be used advantageously. Having found among my woolen materials a homely variety of shades with no harmony in colors and not enough in quantity to go through all the breadths alike, what better way was there to dispose of such than to have them all immersed in a black dye? Many say, such rags show dust, and soil so easily; but do not any of the fancy colors look well when divided by a black stripe of a thread or two? Again, old calico dresses—faded—often make rags strong enough to wear well, but *so homely* as to look like an old carpet if used much in striping.

When I had 10 pounds of motley shades of woolen, which would not spot or fade, they were all colored black. When 15 pounds of cotton, faded in all sorts of colors, were wound into skeins, a dye was made by covering a copper wash-boiler full of the boughs of common willow, with water, and boiling them until the twigs could be easily separated from the bark. Throw out the twigs and put the bark into the boiler again. Steep with renewed heat, and, when well boiled, remove the bark, refill with twigs and add a pound of copperas. After removing the twigs bark, boil your calico until the color you wish is made. If you want more than the pretty shade of drab you get, then add an ounce or two of logwood, well dissolved, and a slate color will be the result. Or you can leave out your willow entirely, and color faded calico with logwood and copperas, and any sort of rags will look well beside these shades, whether gay colors or dull.

I have always disliked blue in a carpet, but I saw that there were chemicals which produced such lovely shades, by magic almost, that I found my alliance to human nature was such that I must imitate the carpet-makers and have plenty of green—my yellow and blue being used to produce it—and an over-supply of blue was the result. Then my natural prejudice against blue in any carpet of rags, made me wish I had not bought so much dye, but as I had several yards of carpeting woven and never a bit of blue in it, I resolved it should have a place, or be re-dyed; so, as an experiment, I took my warp, which was a very dark blue, to the weavers, with only three colors of rags—black, blue and drab. The result was, a carpet which took the first premium, over nine other pieces, at the county fair. The center of one stripe was three threads of drab cotton, next two of black, three of blue, two of black, three of blue, four threads of black and drab twisted—each color twisted slightly by itself, then twisted together. Next three threads of drab cotton, then a stripe composed of eight threads of black and blue, alternating, the black joining the drab, or the reverse. When finishing the stripes, add three threads of drab cotton. Next is a dark stripe made of nine threads of black woolen, three threads of dark navy blue, three of bright dark blue alpaca. Next a stripe of seven threads of blue cotton, four of one dark shade, three of sky blue and two of black. Next a stripe of drab cotton of six threads in width, this stripe ending with a center of 11 threads of black and drab cotton—six of black and five of drab alternating.

My experiment was not displeasing to my eye, hence a good, durable and handsome carpet was the result, and though rather sombre at first glance, yet with suitable paper hangings and other adornments, it would add much in beauty and comfort to the home of a poor woman who could not afford the more expensive dyes or carpeting. I spent only three whole days in preparing the 15 pounds of cotton drab goods, after the skeins were sewed, and 15 cents in money. But after all the time and labor of making the rag-carpets, I think with pleasure of the comfort (as my imagination gives coloring to the picture) of a floor which a woman has within a few months described in the Rural. It was made of boards of one kind, alternating with another variety, then oiled and brightened by handsome rugs for ornament or warmth. Yet the good substantial rag carpets, save the strength of the busy house-keeper, who has not the new handsome floors.

If my experience of a lifetime, in the making of rag carpeting, will benefit the ladies who read the Rural, then my time and approval of them thus expressed, will not be uselessly given.

A Reader.

DOMESTIC RECIPES.

Onion Sauce.

Boil five small white onions until tender, then chop fine. Boil a cupful of milk, add a piece of butter, with pepper and salt to taste. Stir in the minced onion with a small spoonful of flour moistened with milk.

Butter Taffy.

Two coffeecups of white sugar, three-quarters of a teacup of vinegar, three-quarters of a teacup of butter. Boil until brittle. Pour into buttered dishes.

Mary B.

To Cook Cabbage.

If any of the Rural readers are so lucky as to have cabbage, I should like them to try my method of cooking it. Cut the cabbage fine as for slaw, then put a tablespoonful of lard in a skillet, and when heated, put in the cabbage. Season with salt and pepper. Stir until tender, then pour sweet cream over it, just enough to moisten. It is excellent. No water is needed. Worms have eaten all the cabbage around here.

If Mrs. Endicot could see my three little boys gathered around the table eating "Farmers Rice," she would smile, I am sure. Papa is as anxious for his share as the children.

Ill. Mrs. Trouble.

Crullers.

Two quarts of flour and four large teaspoonsful of baking powder sifted together; two teacupsful of sugar; two eggs; large cupful of new milk; flavor to taste. No shortening is required in this recipe.

Lemon Snaps.

Two teacupsful of sugar; one of butter; two-thirds of a teacupful of milk; four teaspoonsful of baking-powder and about two quarts of sifted flour. Roll thin and bake quick. Flavor with lemon.

Molasses Cookies.

One pint of molasses; one egg; one cupful of shortening; two teaspoonsful of saleratus; two tablespoonsful of ginger. Roll about quarter of an inch in thickness. Bake in a quick oven.

Mrs. T. D. Carman.

News of the Week.

MISCELLANEOUS.

Monday, October 20th, 1879.

A member of the Dominion Parliament and Canadian Minister of Finance Filley, have been at Washington studying our national banking system. The bank failures in Montreal and elsewhere have proved the weakness of Canada's present system, and the next session of Parliament will attempt to build a new one something like what we have. The Supreme Court of Indiana has decided the State statute constitutional which gives the wife of an insolvent under $20,000 possession of a third of his property, when the rest is sold for the benefit of the husband's creditors. The deadly quarrel between the Underwood and Holbrook families at Graysaw, Carter Co., Ky., has resulted in the murder of five Underwoods and one Holbrook in three weeks. Atlanta, Ga., the busiest little city in the whole South, has put up 550 new houses during the past year and expects to be the biggest city in the State when the census is taken next year. The coroner's jury which has been investigating the grand-stand disaster at the Adrian (Mich.) fair grounds, by which 15 or 16 lives were lost and 270 persons injured, have rendered a verdict finding W. T. Lawrence, owner of the stand, Sizer, the architect, and E. H. Armstrong and Henry Armstrong, the carpenters who built it, guilty of criminal negligence. All but the latter have been arrested on the charge. During the year ending June 30, 19,300 applications for patents were received at the patent office, and 2674 caveats were filed, while 12,471 patents were issued, 1547 trade marks and labels were registered, and 828 patents were granted, but withheld for the payment of final fees. The receipts of the office were $703,146, being $154,495 in excess of its expenditure.

Large meetings have been held in British Columbia, and resolutions passed and petitions to the Premier of the Dominion government, protesting against the employment of Chinese labor in constructing the Canada Pacific railway. The judge of Baldwin county, Ga., has made an application to Governor Coquitt for a military organization to suppress the "Georgia Tigers," a band of outlaws who hold half the county in awe and defy arrest. They killed two men Tuesday and burned several houses. During the past three years they have killed twenty men and women, mostly negroes. The Governor will send the military if needed. In Washington it is semi-officially stated that Congress will be asked to retire Justice Hunt on full pay, and that Attorney-General Devens will be offered the position by Hayes. The Secretary of War's estimate for the fiscal year ending June 30, 1881, aggregate $40,000,000 or $344,000 less than the estimate for the current year. This is the lowest appropriation asked for in twelve years. The next season's orange crop of Florida promises to be from 10 to 20 per cent. larger than the last one.

The returns to the Department of Agriculture at Washington for the month ending October 1, 1879, show an average condition for the cotton States of 81, being a decline since September 1 of 5. Arkansas and Tennessee are the only States showing an increase over the condition at this time in 1878. The condition of tobacco October 1 had improved from that on September 1 in nine of the producing States, has declined in two, is unchanged in one. The State averages are, Massachusetts 103, a gain of one; Connecticut 110, a gain of 10; Pennsylvania 111, a gain of 11; Maryland 98, a gain of 2; Virginia 87, a gain of 5; North Carolina 90, a gain of 3; Tennessee 104, a gain of 14; Kentucky 95, a gain of 9; Indiana 99, a gain of 9; Ohio 70, a loss of 4; Missouri 78, a loss of 10; while Illinois remained unchanged at 100; total average for these States 93, a gain of 6. Early planted tobacco ripened well, and has been harvested in good condition, showing in general an excellent quality. Late crops were materially damaged by frost in Ohio, and slightly so in a few localities in Virginia and Tennessee. The decline in Missouri is ascribed to drought. The forthcoming annual report of the Commissioner-General of the Land Office will contain an interesting comparative statement of the disposals of public lands to actual settlers during each of the last five fiscal years. The totals range from about 3,500,000 to 4,000,000 acres each, for the years 1875, 1876 and 1877, 7,166,974 acres for the year ending June 30, 1878, and 8,650,119 acres during the 12 months which ended with last June. The totals of entries under the homestead and timber-culture laws contrast as follows: for the fiscal year of 1877, 2,698,771 acres; 1878, 6,288,779; 1879, 8,026,685 acres. The cash sales show a decrease 255,000 acres since last year, when they aggregated about 877,000 acres. But the net increase in the amount of land taken by actual settlers during the last fiscal year is found to have been nearly 1,500,000 acres.

Of the 8,000,000 immigrants who have found a home in the United States during the last thirty years, 6,000,000 landed in New-York. This proportion of three-quarters of the whole in favor of New-York has of late years been largely augmented. Immigration attains its fullest volume in the spring. For instance, this year, though January and February brought over nearly the same number of immigrants, 3,996 and 3,983, there was an increase of almost 100 per cent. in March, and another augmentation again, of not quite 100 per cent. in April, when it was 14,238. May was the largest month of immigration yet recorded for 1879, for it was 22,049. In June the number diminished, and was 19,068; in July it was 16,263, to increase a thousand in August, until last month its exact figures for New York were 21,755 making a total for the nine months, up to the 1st of October of 126,489 persons. This month the indications are that the total of immigrants will be very nearly as large as in May, somewhere in the neighborhood of 22,000. It is quite possible that during the coming months of November and December, immigration will diminish, but with such experience in this business as may be gathered from the Secretary of the Board of Commissioners of Emigration and from the steamship companies, fully 10,000 more people may be expected before New-Year's The total immigration, then, for 1879 will be very nearly 159,000 persons. This mighty influx will compare closely with the immigration of the year 1863, though 135,000 less than that during the most memorable year of 1872, when 294,581 foreign persons were landed in New-York, there having been a single day of 8,000. Last year—1878—may be called the commencement of the turn in immigration. After 1872, the influx of foreigners had declined, year after year, until in 1877 the minimum of 54,536 had been reached. In 1878 the first jump was taken, an increase of over 20,000.

As to division of nationality, during the last nine months, the Germans stand first as to numbers, being 24,218; the Irish next, 16,658; the English are 14,213; Swedes, 9,947; Scotch, 4,300; Norwegians, 4,188; Swiss, 3,703; Welsh, 1,866, and French 1,664. Russia presents a fair number of immigrants this year, having sent us so far 2,138. If immigration is somewhat capricious in its movements, it seems to incline to very gradual augmentations, but with sharper declines. Between 1863 and 1872, from 155,844 to 294,639, the increase was 138,795, but from this maximum it fell in 1877, a period of only six years, to something not much over 54,000.

It is quite impossible to determine what exact amount of property these immigrants bring with them—what addition they make to the riches of the country. Intelligent efforts, made some years ago, failed to arrive at any definite results, but the Commissioners of Emigration think that about $70 is a fair estimate of the money brought by each person, and that their effects amount in value to about as much. If, then, we are likely to receive in New York 159,000 foreign persons this year, their total capital will represent something like $22,260,000. Any one who will take the trouble of going to Castle Garden will be surprised to see how well clad are these immigrants, representing, as they do, a class much higher in the social grade than those of former years. There can be no doubt that before long many honest and capable English farmers will take up their lot with us—men with money, who will bring with them the capital necessary to make a fair investment in land. Some of the Russian immigrants have come fairly provided with means, and the case is cited of some 20 families, not numbering 100 persons, whose capital amounted to $85,000. With our vast extent of territory, with only some thirteen people to the square mile, with the easy methods of distributing any incoming population, no matter how large it may be, even such an immigration as we will have this year can be most readily absorbed.

On Thursday last the rowing contest between Courtney, the American and Hanlan, the Canadian was to have come off at Chautauqua Lake, N. Y. The betting before the time for the race was 100 to 75 in favor of Hanlan, and at there figures it is said that at least $240,000 were staked. On the night before the race, however, both the boats Courtney had brought with him to row in, were sawed, one asunder and the other nearly so. There was no other boat on the lake in which Courtney would consent to row, so Hanlan rowed over the course and claimed the stakes, $6,000, offered by the agent of Hop Bitters. His claim has been refused, however, on the ground that there was no actual competition and that before the money is paid, the contestants must really row together. There is a world of crimination and recrimination as to which side was guilty of the disgraceful action, owing to which the race failed to come off. Courtney had two men to guard the boat house, but they very conveniently abandoned it for an hour or more during which time, it is said, the mischief was done. Hanlan, therefore says Courtney was afraid to meet him, and to avoid doing so, connived at the cutting of the boats. On the other hand, Courtney and his colored trainer "Frenchy Johnson" have made affidavits that Ward, Hanlan's friend and backer, tried several times to induce Courtney to "throw" the race on the ground that Hanlan wouldn't row unless he was sure of winning, as he intended to get up a race with Elliott of England, in which the betting would be heavily in his favor if he went over triumphant, and that he intended to lose the race after his friends had taken all the bets offered by his English backers, thus pocketing a fortune. They say that a large sum was offered to Courtney to lose the race, and that on his refusal, the Canadians cut the boats. All agree that there never—well, hardly ever—was such a saturnalia of gambling and rascality as that at Chautauqua during the race excitement.

After relieving Payne's command, Gen. Merritt pushed rapidly forward to the White River Agency where Agent Meeker's body was found with a chain tied round the neck, by which it was evident that the old man had been dragged around before his death. The bodies of most of the other agency employes were also found, but those of some were not discovered so that it is supposed that these are still alive either with friendly Indians or among the miners in the neighboring hills. The women at the agency as well as the books and money have been taken care of by Chief Douglass, who has remained faithful. Indeed, it now seems that the late outrages and hostilities were undertaken solely by about 250 Indians whose whereabouts is now unknown. It is supposed they have scattered in small bands and will be befriended by the roving, hunting Indians of the Uintah and Arrapahoe tribes. A week ago it appeared probable that the military would be permitted to deal exclusively with the Utes, but since then the "peace policy" has gained the upper hand, and Agent Adams has been commissioned to obtain from the Indians the surrender of the arms of the late hostiles and of

the persons of these who were guilty of murder and other crimes during the outbreak. The Interior Department, therefore, has taken charge of the affair, and consequently all of Gen. Merritt's command have been ordered to their stations, leaving only a small number of troops at the White River Agency to guard the supplies collected there and on which they can subsist during the winter in the event they are snowed in and orders recalling them cannot reach them. The only explanation given by the Secretary of the Interior is that the Department has the fullest confidence in the plan now being followed, and that it would be folly to expose the army to unnecessary risks, with winter weather already threatening their march toward Rawlins. What the special instructions of Agent Adams are cannot be ascertained, but they are said to be wholly of a conciliatory nature.

The walking craze seems on the wane in this city and, indeed, elsewhere also. Here the public has been surfeited with the thing. After the contest for the Astley belt came another for the O'Leary belt, and yet another last week in the same place for prizes ranging from $1,600 for the first to $200 for the sixth. The men had to walk only 14 hours a day, resting from 12 o'clock at night until 10 in the morning, and all who had not made 50 miles a day when retiring, were excluded from further competition. Forty entered and only seven continued the struggle until the end of the week. The attendance was never over 2,000 at any time, and often the large garden was apparently deserted by all but a few deadhead loafers. It can scarcely have paid the managers. That Mrs. Anderson, too, is trudging an innumerable number of quarter miles in as many quarter hours in another hall here, but there are few who care to see her. The same want of public patronage meets a half a dozen other similar exhibitions in various parts of the city.

Yellow fever still continues to plague Memphis, chiefly among returned refugees. Yesterday there were two new cases and one death. The cold wave now moving South will probably kill the Yellow Jack, or rather, cause him to hibernate until next autumn or late summer. So Ohio has gone Republican by about 23,000. This issue is supposed to be the death-blow of the greenback doctrine, known also as the "Ohio idea," and also of the presidential hopes of Allen Thurman, who will not be re-elected to the Senate, as both branches of the State Legislature are Republican.

FOREIGN.

Englishmen seem to have taken up the "personal journalism" of this country, long after it has fallen into discredit here, just as they are taking up the caucus after the best Americans have grown sick of it, and are anxious to find means of escape from it. The two leading ventures in this field have been very successful and have had a good deal of excellent writing, but their main attraction has been the gossip of society and piquant details of the private life of well-known persons. Another leading feature has been savage attacks on the conductors of obnoxious newspapers, in the style of the late James Gordon Bennett. One unhappy man, Buchanan the poet, appeared on the scene some years ago in the character of the Indignant Moralist, and tried to stop their excesses by a series of prosy articles on the "Signs of the Times" in the Contemporary Review. He had only issued one when he disappeared under a retort from the World which covered him with mud as no man was probably ever covered before. Since then the fun has grown fast and furious, Truth, under the editorship of Mr. Labouchere, leading the way into fresh fields every day. Having fallen foul savagely of one Lawson, the proprietor of the Daily Telegraph, there followed the old-fashioned American street-fight—Lawson with a cane, Labouchere with an umbrella—in which Labouchere apparently got the worst of it, and is now threatening his opponent's life in default of "satisfaction." He is known to his brother-editors of the same school as "Labby" and "Henry." One of the fraternity, the editor of the Town Talk, is in Newgate awaiting his trial for a criminal libel in announcing proceeding for divorce by the husband of one of the reigning beauties, Mrs. Langtry. The whole business is a much more disgusting mess than anything of the kind we have had here, owing to the popular eagerness to know what the aristocracy are doing—a passion of which we have here no counterpart. Both Mrs. Langtry and Mrs. Cornwallis West, the two best known "beauties" of London, have brought actions for libel against this Jewish editor. He charged that the husband of the former had applied for a divorce from her and implicated the Prince of Wales and other notabilities. Mr. Langtry appeared in court and swore that he never hand any charge to make against his wife. He had also foully belied Mrs. Lewis on several occasions. In court he abjectly apologized, for his lies but was sent to await trial to Newgate, in default of $10,000 bail.

Fifty-eight Servian deputives being opposed to the government's bill for the emancipation of the Jews, it is thought it will not obtain the two-thirds majority requisite to its passage. Count De St Vullier, the French ambassador at Berlin, has been specially requested to tender heartfelt thanks to Prince Bismarck for the kind and friendly way in which he spoke of France during his late visit to Vienna. The city of Chichuahua, Mexico, has been captured by revolutionists under Macherro. General Trivino, with federal forces, is en route for the scene. The Russian committe of the volunteer fleet has ordered a fifth cruiser constructed at Marseilles at a cost of £100,000. The duchess of Edinburgh was delivered of a still-born child, Monday. She is progressing favorably.

The Afghans made a feeble defence, as usual, on the hights outside Cabool, and at the last accounts General Roberts was in possession of the city. The inhabitants, as in 1842, have tried to relieve themselves from complicity with the mutineers, and the Indian Government seems to be thoroughly puzzled by Yakub Khan's position. They apparently cannot make up their minds whether he sympathized with the revolt or not. He is so weak in every way that he probably cannot tell himself. Herat is still in the hands of its rebels, and there is talk of a proposal on the part of Russia that she should take that province, and England the rest, but this is hardly likely to be entertained in London. Herat is the most important stronghold in Central Asia. What will be done with Cabool remains to be seen. Sending another envoy there to be guarded by an army would hardly look well at the elections, and it would probably be difficult now to find one who would go without an army. By this morning's cablegrams it appears that Yakub Khan insists on resigning; the English are taking measures for assuming the government of the country, and have definitely informed Russia that English influence *must* be paramount in Afghanistan. General Hill has been appointed military Governor of Cabool. The magazine of Bala-Hissar has been blown up, killing 27 English and a great many natives. Desultory fighting is going on in various parts of the country—exclusively of a guerrilla character.—The Irish land agitators have got past argument and entered on coercion. The English papers are full of accounts of threatened landlords, and of tenants who have waited in a body on their landlords to ask for lower rents. On the estate of Lord Normanton, an absentee landlord, 300 tenants, headed by their parish priest, demanded lower terms of the agent and promptly rejected his offer of a small reduction. The Marquis of Headfort and his agent have been served with a like demand, backed by a thinly-veiled threat of death if the reduction was not granted. A "lady of rank" writes to the London Times that her agent cannot collect the rents which make up her marriage jointure, because any farmer paying rent is threatened with a shot from the hedge. These are isolated instances which show a general state of affairs which perhaps renders the occupation of the country by troops only a question of time.

In England the Irish land agitation is the most serious subject that at present engages the public attention. The commotion in the Green Isle is waxing fiercer daily, and English statesmen and the English public are becoming apprehensive of its ultimate issue. At home the farmers are still either preparing to emigrate in large numbers, or doing so. Miners, too, are about to leave the country *en masse* almost, and it is expected that this country will soon be overstocked with this class of labor. Manufacturers are trying to regain their hold on foreign markets by reducing the prices of their wares. This they can do only by lowering the wages of their hands, and the attempt to do this is resisted by strikes in a large number of places. Times are so hard, however, that the masters generally triumph; but on the arrival of better days, the men are bound to renew the struggle by again "striking." In a public speech the other day, the Marquis of Salisbury, Secretary for Foreign Affairs, electrified the public by a speech in which he strongly denounced Russia's policy of constant aggression by which she seeks universal dominion. He said that if Germany and Austria had really concluded a defensive alliance, the news should be hailed with joy by all civilized nations unwilling to be terrorized by the semi-barbaric Slav; and that Austria henceforth, from her position in Bosnea, would be the sentinel at the door of Constantinople, who would render it impossible in future for Russians to cross the Balkans.

The treaty here referred to, lately concluded by Bismarck during his trip to Vienna, has been ratified during the week by the Emperors William and Francis Joseph. Although the tone of the Russian press towards Germany has become somewhat milder, there is now no doubt that war between Russia and Germany is merely a question of a few years, to be deferred probably until after the death of the German Emperor now over 80, or of the Czar, already broken down in health. Meanwhile, Russia's aggressive career in Central Asia has received a temporary check by the defeat of the expedition against the Tarcomans. The Muscovites have retreated, but only, of course, to advance again with greater strength. In France the main topic of interest is the struggle between the Republic and the Church, hinging just now mainly on the educational question; the clericals insisting on religious instruction and their own control of the matter, and the Republicans maintaining that education should be solely secular in the public schools.

In Spain the chief talk until the last few days, was about the approaching marriage of the King. Owing to the uncertainty of the Spanish Monarchy of late, the bride's dowery of 20,000,000 francs, or about $4,000,000 has been deposited in Vienna, so that she may not have to starve, should her husband be driven from the kingdom by rebellion or sent to the grave by the assassin's dagger or bullet. On Wednesday, however, a great disaster in the provinces of Almena, Malaga and Alicante, has given the people something else to talk about. A great inundation has caused immense loss of life and property in these southern provinces. According to this morning's cablegrams, in the Malaga and Alicante districts, 2,000 houses have been destroyed and it is believed 500 persons perished by the floods. The damage to property is estimated at 30,000,000f. A later telegram from Murcia states that 570 bodies have already been found. It is believed that over 1,000 people have perished.

Baker's Chocolate, so noted for its nutritive, salutary, and delicious qualities, hardly needs any further indorsement after the awards given for its excellence at the leading expositions in this country and Europe. A trial is all that is needed to convince any one of its great merit.

That tow, nervous fever, want of sleep and weakness call for Hop Bitters.

Sour stomach, bad breath, indigestion and headache easily cured by Hop Bitters.

THE MARKETS.

PRODUCE AND PROVISIONS.

NEW YORK, Saturday, Oct. 18, 1879.

BEANS AND PEAS.—There is a slight pressure in the bean trade, but a fair active demand has left the market steady for prime parcels of new. Exports for week, 1,226 pkgs. Receipts 15,836 bush. Business in green peas is unprecedented this year and the market is higher with continued free sales, $1.65@1.70; Southern S. E. peas, $2.50 per 2 bu. bag. Canadian scarce and firm at 70@75c. bulk and bond. Marrow beans, new, $1 60@1.62½; do., $1.40@1.50; medium prime, new, 1.55@1.60; White Kikney, $1.65@1.70; Red Kidney, prime, $1.60@1.65; poor, $1.40@1.50; Black, $1.75@2; pea, $1.65@1.70

BUTTER.—Receipts for the week, 27,100 pkgs.; do., last week, 30,785 do.; exports, 18,000 do. The market regained its feet quite promptly with the reappearance of shippers. The local trade is steady again, but as before, running upon State dairy stock, which has the usual fall attraction in quality. Western butter has a buoyant tone in sympathy with State.

State, pails and tubs, single dairy marks, fresh, extra, 22@24c.; best invoices, 20@22c.; good to prime, 19@19c.; fair to good, 17@18c. firkin and tub single dairies, choice, 20@21c.; do., dairies good to prime, 18@19c.; do., firkins, choice dairies, 20@21c.; do., good to prime, 17@19c.; do., fair to good, 15@16c.; Welsh tubs, best invoices, 18@20c.; do., good to prime, 16@17c.; do., fair to good, 15@16c.; State, tubs, poor, 13@14c.; State creamery, best invoices, 27c.; do., good to prime, 25@26c.; do., sweet cream, boat, 24@26c.; do., fair to good, 22@24c.; Western creamery, best invoices, 27c.; do., good to prime, 24@26c.; do., fair to good, 22@24c.; creamery, poor to fair, 20@22c.; do., imitation creamery, 15@19c.; do., dairy, fresh, extra, 17c.; do., good to prime, 14@16c.; do., fair to good, 13@14c.; do., poor to fair, 11@13c.; do., June, 12@16c.; do., factory, best invoices, June, 15c.; do., fair to good, June, 12@13c.; do., best invoices, late made, 12@14c.; do., fair to good, 10@12c.; do., poor to fair, 9@10c.

CHEESE.—Shippers have been indisposed to operate in excess of actual needs, on account of a still further advance, which was impelled by the country advices, where the offerings are moderate. Fancy late made lots have been chiefly taken, and towards the close 12½@13c. was paid The exports have amounted to 36,000 boxes.

Quotations are for State factory: fancy at 12½@13c.; good to prime at 11½@12½c.; fair to good at 10½11c.; half-skimmed at 8@10½c.; skimmed at 6@7½c. State farm dairy: Fine at 12@12½c.; good to prime at 11@12c.; fair to good at 10@11c.; skimmed at 6½@7½c. Wisconsin factory: Fine at 12@12½c.; good to prime at 11@13c. Ohio factory: Cheddar, fine, at 12@12½c.; do., fair to good, 10@11c.; flat, fine, 12@12½c.; flat, good to prime, 11½@12c.; flat, fair to good, 10@11½c.; half-skimmed, 8@9c.; skimmed, 6@8c.

COTTON—Has shown a full speculative movement, and prices closed strong at for October, 10.38c.; November, 10.52c.; December, 10.48c.; January, 10.55c.; February, 10.68@10.69c; March, 10.83@10.85c.; April, 10.95@10.97c.; May, 11.10@11.12c.; June, 11.17@11.19c.; July, 11.25@11.27c.

Quotations for spot cotton are based on American standard of classification, and an cotton in store running in quality not more than half a grade above or below the grade quoted.

	Uplands.	*N. Orleans and Gulf.*	*Texas.*
Ordinary	9 7-16	9 9-16	9 9-16
Strict ordinary	9 13-16	9 15-16	9 15-16
Good ordinary	10 3-16	10 5-16	10 5-16
Strict good do	10 7-16	10 9-16	10 9-16
Low middling	10 9-16	10 11-16	10 11-16
Strict low middling	10¾	10¾	10¾
Middling	10¾	11	11
Good middling	11⅛	11¼	11¼
Strict good middling	11⅜	11⅝	11⅝
Middling Fair	11¾	12	12
Fair	12⅜	12⅝	12⅝

STAINED.

Good ordinary	9⅝	Low middling	10 5-16
Strict good ordinary	10	Middling	10 9-16

DRIED FRUITS.—Apples are wanted, especially sliced lots at strong prices. Peaches are unchanged with a moderate degree of activity. Small fruits are generally firm.

New North Carolina apples, 8¼@8c. for fair; 8½@9c. for choice; 10@10½c. for fancy sliced. Patent evaporated apples, choice, in cases, at 12@12½c.; do. fair to good, 10@11c.; N. Y. State sliced, choice, 8@8½c.; do, quarters, choice, 4½@5c.; western quarters, common and old, 3¾@4c.; new southern quarters at 4@4½c.; new N. C. peeled peaches at 14@17c., do. Georgia, at 12@16c. Peaches, Delaware evaporated, peeled at 25@27c.; do. unpeeled at 10@11c.; new halves at 7c. Blackberries at 9@9½c. for new. Raspberries at 28c. Pitted cherries at 15@18c.

EGGS.—Receipts for week, 5,675 bbls. Sales are moderate as buyers are cautious while the weather is so detrimental to quality.

Near points, 21@22c.; State and Penn., 19@20c.; Canadian and Western, 19c.; which is easier for the latter. Limed not moving.

FLOUR—Is active, including speculative demands and prices are higher and strong.

Latest prices are: $5.50@6.10 for inferior to fancy superfine State; $5.85@6.15 for ordinary to good extra do., odd lots and lines; $6.15@6.25 for good to very choice do.; $5.45@6.10 for inferior to very fancy superfine Ind., Iowa, Michigan, &c.; $5.90@6.15 for inferior to good shipping extra do., and $6.15@6.35 for good to choice extra do.; common to choice white wheat extras, $6.50@7.35; choice to very fancy do. at $7.35@8.50; red and amber winter wheat, inferior to very choice trade and family at $6.45@7.85; round hoop Ohio at $6.00@6.50, and trade and family brands of do. at $6.50@7.85, the latter rate for fancy; St. Louis, $6.40@7.25 for inferior to very good extra; $7.25@8.25 for very good to fancy; Minnesota clear, inferior to very choice, $5.85@7.00; Minnesota "straight," inferior to strictly fancy, $6.40@8.15, and patent poor to very fancy at $6 40 @9.00; unsound stock at from $4.75@6.75; city mill extra at $6.85@7.25, ordinary to very fancy. for West Indies, do. for England, $5.50@6.35 for poor to choice; do. trade and family extras, $6.75@8.00. do. for South America, $6 8@7.25 for standard to choice brands; No. 2 at $4.65@5.50 for ordinary to very fancy.

FRESH FRUITS.—Exports for week, 11,878 bbls. Even with the large shipping business prices have ruled weak, and holders have been glad to push stock from the stations. Louisiana oranges not of good quality. Marking boxes "Florida" will deceive no dealer here.

Prime State apples in shipping order, $1.75@2; mixed, fall, $1.25@1.50; poor and open-head bbls., 50c.@$1. Some extra showy Kings, $4.25. Cranberries weak, with a pressing stock. Cape Cod, fancy, bbl., $8; good to choice, $5.25@5.75; poor to fair, $4.50@5; Eastern, ordinary, $4.50@5.50; N. J. crates, best, $1,75; other, $1@1.62. Pears have again had bad weather and few lots have realized full rates; but the market is firm for all prime sorts. Duchess, $4@5.50 bbl.; Sheldon, $4@5; Virgalieu, $4.50@5.50; poor do., $2@3; B. Bosc, B. d'Anjou, B. Diel, $4@5.50; Lawrence, $5; Seckle, extra, $6@8; soft, $2@4; cooking, $1.75@2.50; Boston boxes, $1.50@2.50 each. Choice quinces, $5@6, bbl.; other, $1@4. Grapes have still a full supply and low prices. Catawbas, cases, 18 3-lb. boxes, $1.75@2; loose do., 4@5c. per lb.; Concord, loose, 2@3c.; Isabella, cases, 18 3-lb. boxes, $1.25@1.75; bulk, 2@3c. New peanuts quoted, 2¾@3¾c. for green and 5@6c. for prime per lb.; (the new regulation). Old, irregular and pressed for sale. Chestnuts, $1.25@2; Shellbarks, 75c.@$1; Pecans, 10@10½c.

GRAIN.—Speculation has been of an even more extensive character, and full exports also are steadily taking place. Nothing like the present activity was ever before known here. It does not seem a question of price so much as to secure supplies. The latest sales of wheat are of No. 1 amber at $1.53½; No. 2 amber at $1.49¾@1.50; ungraded amber at $1.46@1.50½; No. 1 white at $1.48¾@1.52; do., October, at $1.50¾@1.51½; do., November, at $1.52@1.53½; do., December option, at $1.55@1.56¾; No. 2 white, at $1 47¾@1.48½; ungraded white at $1.48 @1.51; No. 1 red at $1.51½; No. 2 red at $1.51@ 1.52½; do., October option, at $1.51¾@1.52¾; do., November option, at $1.53@1.54¾; do., December option, at $1.55¾@1.56¾; No. 3 red at $1.45@1.46; ungraded red at $1.48@1.51; mixed winter at $1.45@ 1.50; No. 2 Chicago and Milwaukee spring at $1.40@ 1.41; New York No. 2 spring, at $1.40; do., October, at $1.40¾@1.41¾; do., November option, at $1.41½ @1.42¾; do., December option, at $1.43½; No. 2 northwest spring, October option, at $1.41; do., November, at $1.42@1.43; No. 3 spring at $1.35@1.36; ungraded spring at $1.36¾@1.40. Rye is at 85@90c. Barley at 95@98c. for No. 1 Canada; $1@1.03 for No. 1 bright do. Corn—New York No. 2 afloat at 61¼@ 61¾c.; do. in store at 60¾@61c.; do., October, at 61@ 61¾c.; do., November, at 62@62¾c.; do., December, at 63¾@64¾c.; ungraded Western mixed at 61@61¾c.; No. 1 white quoted at 67c.; No. 2 white at 66c.; round yellow at 61@65c.; low mixed at 65c. Oats—New York No. 1 white at 46½@47c.; do. No. 2 white at 44@ 44½c.; do. No. 3 white at 42@43c.; New York No. 1 at 43½c.; New York No. 2 at 43¼@44c.; do., November option, at 44c.; New York No. 3 at 42@42½c.; New York rejected at 40c.; ungraded white Western at 43@46c.; mixed Western at 42@44c.; white State at 44¾@48c; mixed State at 43½@45c.; No. 2 Chicago quoted at 43½@44c.

HAY AND STRAW.—Receipts are rather moderate the demand continues fair, and prices are on a firm basis.

Shipping hay quoted at 50c.; retail lots at 50@60c. for medium, and 70@85c. for prime; clover at 40@50c. Straw at 65@70c. for long rye, 40@50c. for short rye and 40@45c. for oat.

HONEY.—Supplies arrive liberally. Sales light, weather against sales. White clover single, 15@16c.; larger boxes, 12@14c.; buckwheat, 10@12c.; clover extracted, 10@12c.; strained, 8@9c.

HOPS.—Emmet Wells in his circular says: "Receipts and exports for the week are nearly equal. The predictions in our last issue of an advance have been more than realized. Considerable excitement prevails in the hop-growing districts, caused by several of our leading shippers paying 40c. for large choice lots. These prices appeared high several weeks ago; but from late foreign advices received here, there can be little doubt that full figures will be maintained. The reason we do not quote above country prices, is because parties who have fine shipping hops do not offer them.

Quotations are for New Yorks, new crop, 30@40c.; Eastern, new crop, 30@38c.; Wisconsin, new crop, 30 @38c.; Yearlings, growth 1878, 7@18c.; Olds, all growths, 4@10c.; Pacific coast, growth 1878 (nominal) 9@14c.

	Bales.
Receipts for the week	7,969
Total receipts since September 1, 1879	29,214
Total receipts for same period in 1878	7,203
Export clearances for the week	7,376
Total exports since September 1, 1879	23,501
Total exports for same period in 1878	1,492

OIL-CAKE.—Western is quoted at $28.75 per ton.

PROVISIONS.—Hog products have been active and higher. Mess pork quoted at for October at $10.05 bid and $10.10 asked; November at $10.05 bid and $10.15 asked, and the December option at $10.15@19.60; January at $11.05 bid for new, and $10.15@10.20 for seller's option, old and new. Beef at for plain mess at $10.25@11; extra mess at $11@11.50; packet at $11.50 @12; tierced beef, city extra India mess, at $19@22, and Philadelphia do., at $19@19.50. Beef Hams at $14 @14.50. Tallow at 6¼@7c. Stearine at 6½@6¾c. for Western. Lard—Western steam at $6.40 for spot lots; $6.40 for Oct., $6.32½ for November, $6.40 for December, $6.50 for January.

POULTRY AND GAME.—Receipts of live poultry light, prices better, with a good demand.

Chickens, N. J., ₱ lb., 12¾@13c.; State and Penna., 11@12c.; Western, 10½@11c. Fowls, N. J., ₱ lb., 11@ 12c.; State and Penna., 11@12c.; Western, 10½@11c. Roosters, old, 5@6c. Turkeys, N. J., State and Pa., 12@13c.; Western, 10@12c. Ducks, N. J., N. Y. and Pa., per pair, 50@70c.; Western, 40@45c. Geese, N. J., $1.25@1.50; N. Y. and Pa., $1.25@1.50; Western, $1@ 1.12. Pigeons, 25@30c.

Dressed Western and State turn out poor. Demand improving, regardless of the unseasonable weather. Lots in choice order quoted.

Turkeys, Phila., dry-picked, 15@16c., State and Western, prime, 12½@13c.; young, 12½@13c. Chickens, Phila., 15@17c.; State, 13@14c.; Western, 11@12c. Fowls, Phila., dry-picked, 11c.; N. J., choice, 13@14c.; State and Western, dry-picked, 12@13c.; scalded, 11@12c. Ducks, spring, Phila., dry-picked, 15@17c.; State, 13@14c.; West'n, ₱ lb., 11@12c.; old, Phila., dry-picked, 12@14c. Geese, young, Phila., 12@14c. Squabs, white, ₱ doz., $2.75@3; dark, $1.50@2.

Game arrives in poor condition; good quality birds only wanted at prices. Wild ducks scarce, but not inquired for.

Partridge, State, prime, per pair, $1@1.25; soft, 40@50c.; Western, 75c.@$1. Grouse, prime, 90c.@1.12; soft, 50@75c. Wild pigeons, stall fed, per doz., $1.75 @2; flight, $1.25@1.50. Woodcock, State, per pair, 50@60c.; Western, 40@50c. English snipe, per doz., $1.25@1.75. Plover, $1.25@1.75. Minn. venison, short saddles, ₱ lb., 14@16c.

TOBACCO—Export demand is moderately active, but home demand is quite brisk, and especially for seedleaf, with prices generally steady. Quotations are for Kentucky leaf.

	Light.	Heavy.
Common lugs	3½@ 4	4½@ 5
Good lugs	4½@ 5	5½@ 6
Low leaf	5½@ 6½	6½@ 7¾
Medium leaf	7 @ 7¾	8 @ 8½
Good leaf	8 @ 8½	9 @10½
Fine leaf	9 @11	11 @ 12
Selections	12 @—	12½@14

SEEDLEAF.	Crop of 1877.	Crop of 1878.
New England Havana seed	— @—	22 @30
do. wrappers, common	13½@15	13 @16
do. do. medium	16 @17	16 @18
do. do. fine	18 @25	20 @25
do. do. selections	27½@35	27½@35
do. seconds	— @—	10 @12½
do. fillers	— @—	5 @ 6½
Penn. assorted, common	— @—	10 @12
do. do. fair	13 @14½	13 @15
do. do. fine	15½@18	17 @22
do. wrappers	20 @40	— @—
do. fillers	9 @10	8½@ 9½
N. Y. ass't'd, com. to medium	— @—	— @—
do. do. do. good	12 @15	12½@15
Ohio assorted	9 @12	8 @14
Ohio wrappers	12 @18	— @—
Wisconsin assorted	8½@10	8 @12
Wisconsin Havana seed	— @—	15 @20

VEGETABLES.—Exports potatoes past week, 5,212 bbls. Supplies very dull; prices unchanged. Garden stuff has a long lease of life, owing to the extended warm weather. Early Rose, double-heads, $1.35@ 1.37; in bulk, 1@1.25; Peerless, do., $1@1.12; Sweet, Del., $2@2.25; N. J., $1.25@1.50; Va., $1.75. Onions improving. Green corn, per 100, 25@50c.; tomatoes, L. I., near-by, per crate, 15@75c.; string beans, ₱ bag, 50@75c.; potato Lima beans, $1@1.50; Lima beans, flat, $1; do., shelled, ₱ bu., $3@3.50; squash, marrow, ₱ bbl., 50@75c.; do., Hubbard, $1@1.50; cabbage, per 100, $2 50@3.00; onions, white, per bbl., $2@2 50; red, Eastern, $1.50; do., Chester, $1.25@1.50; yellow, $1.50 @1.75; beets, N. J., 75c.; Russia turnips, Jersey, 50@ 75c.; carrots, 75c.@$1; egg plant, L. I. and near-by, ₱ 100, $4@5; pumpkins, per 100, $2@5; cauliflower, ₱ bbl., 50c.@$1.

WOOL.—Prices tend upward, with an active call for supplies and sharp competition to secure the coarse and medium grades. Quotations are for domestic fleeces.

Ohio, Pennsylvania and West Virginia—XXX and Picklock, 44@46c. ₱ lb., XX, 41@43½c.; X, 41@43c.; No. 1, 41@45c.; No. 2, 36@38c.; common, 32@34c.; combing, 43 @45c.

New York, Michigan, Indiana and Wisconsin—XX, 38@40c.; X, 37@40c.; No. 1, 41@42c.; No. 2, 34@36c.; common, 31@33c.; combing, 41@43c.

Iowa, Vermont and Illinois—X and XX, 36@39c.; No. 1, 40@42c.; No. 2, 32@36c.; combing, 39@41c.

Missouri, Kentucky and Tennessee — Washed fleece, 36@40c.; unwashed fleece, 30@35c.; unwashed combing, 30@34c.

LIVE STOCK MARKETS.

NEW YORK, Saturday, Oct. 18

BEEVES.—Receipts for the week, 11,030 head; do. last week, 11,004 do. Cattle sold with less difficulty this week, and the yards were cleared at a trifling advance over Wednesday's figures. Very light natives sold at 6¼c., to dress 54 lbs., but the range was mainly at 7¼@10c., to dress 54@59 lbs. Texans sold at 7@7¼c., to dress 56 lbs.

COWS AND CALVES.—Receipts are liberal. Shortened pasture hereabouts adds some stock to the supply. Best New York price this week, $45; common down to $20@25.

VEAL CALVES.—There is a good sale for prime veal. Heavy Mount Holly calves begin to arrive. Hog-dressed calves have sold at 9@10c., but it is a risk to send them this sort of weather. Choice fed calves, 7@7¼c.; other, 5½@6¾c; buttermilk, 2¾@3c.; grass, 2@2½c.; Mt. Hollys, 6¾c. to 5c., 250 lbs. to 300 do.

SHEEP AND LAMBS.—Receipts for the week, 29,482 head; do. last week, 30,519 do. Trade has had a very fair run at 5¾@6c. for ordinary to prime sheep and 5@6¾ for common to choice lambs. A car-load of extra Ohio wethers sold at 5¾c.

SWINE.—Receipts for the week, 37,030 head; do last week, 33,758 do. Extra Ohio, corn, sold at 4¾c.; but the market was generally quiet at $3.70@4.15 per 100 lbs.; city dressed hogs, 5¾@5¾c.

Country-dressed pork has no steady quotation, as the weather forces sellers to accept the best terms packers or butchers will offer; 5@6¼c. was the last range for heavy to light N. J. in good order.

Reading for the Young.

BOTANY.—NO. 3.

UNCLE MARK.

Inflorescence.

In two previous lessons in botany, I have spoken of leaves and of the flower, and I now propose to give a short talk on inflorescence. Some of the cousins, I have no doubt, are not familiar with this word and they may wonder what it means. To such I will say that it is derived from a Latin word which means to begin to blossom, and as applied to the science of botany it has reference to

THE ARRANGEMENT OF FLOWERS ON THE STEM.

By examining several plants you will notice that the flowers do not all occupy the same relative position on the stem, and that some are solitary while others appear in clusters, and thus give rise to great variations. The Rose, for example, bears its flowers on the ends of the branches, the Geranium sends out its flower cluster from the side of a branch just above a leaf, others like the clover have the flowers arranged in a compact bunch called a head, and still others like oats and many grasses bear the flowers in a large loose bunch called a panicle. It is all these different manners in which the flowers appear that are designated by the general term inflorescence.

FIG. 1.

Before we proceed any further it will be necessary to define a few names that you must learn before you can understand what is to follow. *Sessile* is a term used to designate a flower that has no stalk to support it, but which is attached directly to the branch; the same term is also applied to a leaf that has no stalk. You will remember that in the lesson on leaves the stalk of a leaf was called a petiole, and if the leaf was compound the short stalks that supported the leaflets were called petiolules. Now, the stalk of a flower is called a *peduncle*, and if the peduncle is divided so as to support several flowers, each individual little flowerstalk is called a *pedicel* (p' fig. 2). A *bract* is a small leaf that grows on a peduncle (b' fig. 2). A *scape* is a flower stalk of such plants as the Tulip or Hyacinth which have no stem for the leaves to grow on above ground; such plants are therefore called stemless, or acaulescent. There are two classes of inflorescence, 1st, Indefinite, 2d, Definite. The type of

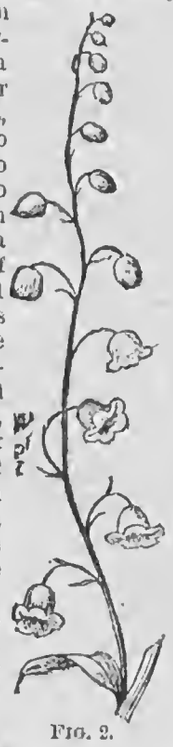


FIG. 2.

Indefinite Inflorescence

is seen in fig. 1, which represents the end of a branch of the Moneywort, Lysimachia nummularia, a trailing plant very commonly planted in hanging baskets. It is called indefinite because the branch, having a leaf-bud at the end, continues to grow on *indefinitely*, developing leaves and flowers in their axils (the place just above a leaf is called its axil, and the bud generally found there is called an axillary bud) as it grows. Fig. 1 also shows the very simplest inflorescence we can have, a *solitary* flower, a single flowerstalk bearing a single flower. The principal divisions of this class are the *raceme*, the *spike*, the *spadix*, the *catkin*, the *head*, the *corymb*, the *umbel* and the *panicle*.

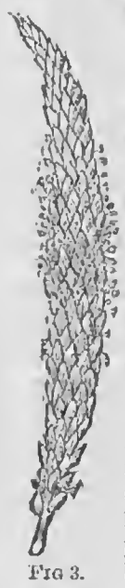


FIG 3.

THE RACEME

is seen in fig. 2. You will notice that it is not a single flower, but a flower cluster that springs from the axil of a leaf; each flower is supported by a pedicel, and the older ones are at the bottom of the raceme.

THE SPIKE

differs but little from the raceme (see fig. 3), the only difference being that here the flowers have no stalks. If we could remove the pedicels in fig. 2 and attach the flowers directly to the common flowerstalk we should have a spike. Mullein and the common plantain found along road-sides furnish good examples of the spike.

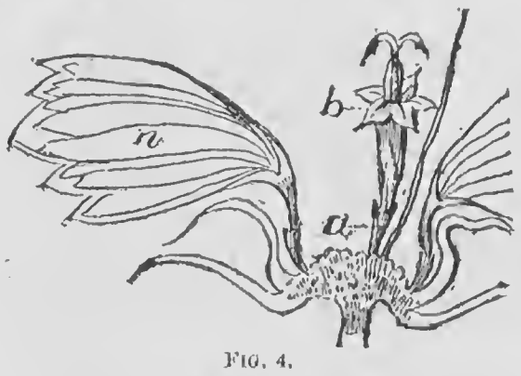


FIG. 4.

THE SPADIX

is a form of inflorescence much like the spike; the Calla is a familiar example. Botanically considered, the large white leaf of the Calla, commonly called the flower, is not the flower at all, but a sheath enveloping the spadix or fleshy spike of flowers,

THE CATKIN

is also a kind of spike. It is the name applied to the drooping, scaly, flower cluster borne by the Birch, Poplar, Willow and other trees.

THE HEAD

is a cluster of sessile flowers, of which the outer ones expand first. Red Clover is a well-known example. You will see that if we could push the spike together into one globular bunch, we should have a head, or, if we could elongate the head, the result would be a spike. There is another kind of head, by some authors called a capitulum, which, however, means the same thing, that is very commonly mistaken for a solitary flower. I refer to the heads of the large family of plants known as *Compositæ*, including the Asters, the Dandelion, Coreopsis, and many others. The shining flowers are heads of flowers as may be ascertained by picking them to pieces. The circle of expanded floral leaves that are commonly mistaken for the corolla are called ray-flowers and are neutral, that is, they produce no seed. In fig. 4 is seen a section of such a head showing two of the ray-flowers and one perfect flower with its calyx, corolla stamens and pistils and a bract, standing on the *receptacle* of the head. The green leaves at the base of such a head is not a calyx, but a collection of bracts called an involucre.

FIG. 5.

THE CORYMB

is like the raceme except that the lower pedicels are so long that all the flowers are raised to the same hight so as to form a level-topped bunch. This kind of inflorescence is seen in Fig 5. The Hawthorn is an example.

THE UMBEL

is shown in fig. 6. It resembles the corymb in that all the flowers reach to the same hight, but differs from it by having the pedicels of equal length and all proceeding from the same point. The flower cluster of a Carrot is an example of an umbel.

THE PANICLE

is but a compound raceme, the pedicels being divided and subdivided several times. It is shown in fig. 7. Oats and several kinds of grass are good examples.

It is noticeable that in all these forms of indefinite inflorescence, the flowers begin to expand first at the bottom of the branch, raceme, spike, etc., and at the outside of the head and umbel, and gradually go toward the top or the middle of the cluster.

The Definite Inflorescence,

is an arrangement of the flowers on a somewhat different plan from the one just described. In this case, the oldest flowers are at the top instead of at the bottom of the cluster. The plan is illustrated in figure 8; the oldest flower is seen at a, just on top of the stem, while the younger ones are on the outside. When the flower at a was formed, the stem or branch could grow no farther in that direction, that is, it was then *definitely* settled that it should grow no taller. The buds just below the flower then started to grow and the flowers b, b, were formed, and in like manner the buds c, c.

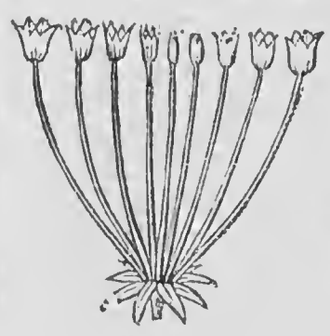


FIG. 6.

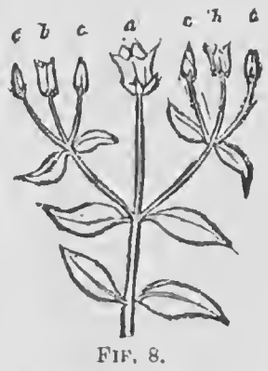


FIG. 8.

FIG. 7.

There are comparatively few plants that flower on this plan, nor are the sub-divisions numerous, the most common being

THE CYME,

which is any flat-topped, rounded or expanded inflorescence, whether simple or compound of the definite class; the Dogwood and Hydrangea are examples. The *Cymule*, *Fascicle* and *Glomerule* are other forms differing but little from the cyme.

There are still other kinds that might be mentioned but they are not common and therefore of little importance.

A BEAUTIFUL STORY.

COLERIDGE relates a story to this effect:—Alexander, during his march into Africa, came to a people dwelling in peaceful huts, who knew neither war nor conquest. Gold being offered him, he refused it, saying that his sole object was to learn the manners and customs of the inhabitants. "Stay with us," said the chief, "as long as it pleaseth thee." During this interview with the African chief, two of his subjects brought a case before him for judgment. The dispute was this:—The one had bought a piece of ground, which, after the purchase, was found to contain a treasure for which he felt himself bound to pay. The other refused to receive anything, stating that he had sold the ground with what it might be found to contain, apparent or concealed. Said the chief, looking at the one, "You have a son;" and to the other, "You have a daughter; let them be married, and the treasure given them as a dowry." Alexander was astonished. "And what," said the chief, "would have been the decision in your country?" "We should have dismissed the parties and seized the treasure for the king's use." "And does the sun shine in your country?" said the chief; "does the rain fall there? Are there any cattle there which feed upon herbs and green grass?" "Certainly," said Alexander. "Ah," said the chief, "it is for the sake of those innocent cattle that the Great Being permits the sun to shine, the rain to fall and the grass to grow in your country."

GRAMMAR IN RHYME.—It is seldom that one sees so much valuable matter as the following lines contain, comprised in so brief a space. Every little grammarian just entering upon the mysteries of syntax, will find it highly advantageous to commit the "poem" to memory, as by so doing many a "black mark" will be avoided, for with these lines at the tongue's end one need never mistake a part of speech.

1. Three little words you often see
   Are Articles—*a*, *an*, and *the*.
2. A Noun's the name of anything,
   As *school* or *garden*, *hoop*, or *swing*.
3. Adjectives tell the kind of Noun,
   As *great*, *small*, *pretty*, *white*, or *brown*.
4. Instead of Nouns the Pronouns stand—
   Her head, *his* face, *your* arm, *my* hand.
5. Verbs tell of something to be done—
   To *read*, *count*, *sing*, *laugh*, *jump*, or *run*.
6. How things are done the Adverbs tell,
   As *slowly*, *quickly*, *ill*, or *well*.
7. Conjunctions join the words together—
   As men *and* women, with *or* whether.
8. The preposition stands before
   A Noun, as *in* or *through* a door.
9. The Interjection shows surprise,
   As *oh!* how pretty—*ah!* how wise.

The whole are called Nine Parts of Speech,
Which reading, writing, speaking teach.

The Puzzler.

MISCELLANEOUS ENIGMA.

Composed of 75 letters.

My 59, 45, 17, 25, 26, 21, 69, 38 is a modern writer of comic paragraphs, one of which forms the answer to this enigma.

My 27, 28, 32 is part of a musical instrument.
My 39, 24, 31 is a pronoun.
My 6, 12, 50, 15 is a girl's name.
My 66, 51, 70 is a garden tool.
My 61, 60, 29, 64, 63 is a disease.
My 4, 2, 22, 10, 46 is used by the bakers.
My 13, 11, 9, 5, 8, 7, 20, 33, 35, 34 is a merchant.
My 48, 53, 47, 16, 41, 24 is commendation.
My 74, 62, 75 is an American poet.
My 36, 73, 65, 67 is a flying toy.
My 55, 54, 53, 52, 44, 14, 49 is result.
My 18, 19, 37, 1, 30, 3 is a driver of cattle.
My 43, 40, 57, 58 is a plaited cloth worn round the neck.
My 42, 56, 72, 71, 68 is XL.

☞Answer in two weeks. UNCLE WILL.

HIDDEN GRAINS.

1. How heat tans your skin.
2. A cherry enticed the bird.
3. Drink goats' milk.
4. I curl my lip in scorn.
5. He shot a buck, W[illiam] Hea told me so.
6. I'll be with you in a trice.
7. Don't rob Arley.
8. Mamma, I zealously love you.
9. I wonder if laxatives are good.
10. I like to hemp pillow cases.
11. I saw Atho, Miny and Tom.
12. Give the cub room, Cornelia.
13. Is Bascom ill, Ettie?
14. With a young man.
15. The clove rose in my throat.

☞Answer in two weeks. LITTLE ONE.

ILLUSTRATED REBUS.

☞Answer in two weeks. W. B. D.

How can you spell "potatoes" with one letter?
What has more eyes than ears?

☞Answer in two weeks. W. B. D.

PUZZLER ANSWERS.—Oct. 11.

HIDDEN PARTS OF A FLOWER.—1. Calyx; 2. Corolla; 3. Petal; 4. Stamen; 5. Pistil; 6. Pollen; 7. Pod; 8. Cotyledon; 9. Capsule; 10. Petiole; 11. Pericarp; 12. Raceme; 13. Peduncle; 14. Anther; 15. Whorl.

DIAGONAL PUZZLE:—

V
I E
E'e N
N o r I (Iron)
N o r i C
A r k y l E

Primals form "Vienna;" diagonals form "Venice."

GEOGRAPHICAL DECAPITATIONS AND CURTAILMENTS:—

1. S-WALE.
2. SHAKO P.
3. S-ALE-M.
4. N-AVER.
5. SALAD-O.
6. O-SUN-A.

DROP LETTER PUZZLE.—When the wicked man turneth away from his wickedness which he hath committed and doeth that which is lawful and right, he shall save his soul alive.

CONNECTICUT AGRICULTURAL EXPERIMENT STATION.

BULLETIN 33.—OCT. 7, 1879.

Fertilizer Analyses.

306. Decomposed fish and beef bones. Manufactured by the Earle Phosphate Co., Providence, R. I. Sampled and sent July 7, by R. S. Hinman, Birmingham.

312. Americus ammoniated superphosphate.

313. Universal superphosphate of lime. Both the above were manufactured by Rafferty & Williams, 44th Street and East River, New York city. Sampled and sent August 14, by D. H. Van Hoosear, East Wilton.

	306	312	313
Nitrogen	3.92	2.33	2.41
Sol. Phos. Acid	6.03	7.52	5.63
Rev. Phos. Acid	4.96	0.95	0.93
Ins. Phos. Acid	1.70	2.29	2.17
Potash	.60	2.09	1.84
Chlorine	.49	2.53	4.80
Est. value per ton	$42.97	$35.02	$30.18
Cost per ton	60.00 (?)	33.00*	28.00*

*In New York.

307. Leached ashes, from stock of Nelson Alvord, Southport, 12½ cts. per bushel of 56 lbs.

308. Leached ashes from stock of D. Thorp, Southport, 14 cts. per bushel of 54 1-5 lbs.; 307 and 308 were sampled and sent August 8, by Moses Sherwood, Southport.

309. Canada ashes from asheries about Ontario. From stock of J. A. Bill, Lyme. Sampled and sent August 8, by Henry Baldwin, South Canterbury, 16½ cts. per bushel of 58 lbs.

	307	308	309
Moisture	26.88	21.05	33.99
Char	1.96	3.08	1.48
Insoluble in acids	9.82	5.76	7.65
Oxide of Iron	1.43	2.60	1.46
Lime	29.83	33.59	28.71
Magnesia	3.23	3.07	2.61
Potash	1.00	1.23	1.04
Soda	0.61	0.53	0.62
Sulphuric acid	0.13	0.13	0.13
Phosphoric acid	1.30	2.02	1.55
Chlorine	trace	trace	trace
Carb'c acid by differ'e	23.82	23.90	20.76
	100.00	100.00	100.00

314. Deposit from the bottom of a pond hole. Sent August 11, by D. H. Van Hoosear, East Wilton.

Water	31.44
Organic and Volatile	2.78
Insoluble in acids, sand and a little clay	59.20
Soluble in acids	3.58
	100.00

316. New Jersey green marl. Kirkwood Marl and Fertilizing Co., Kirkwood, N. J. Dealer, Paul Thomson, West Hartford. Sample received from Paul Thomson, August 25. Price at Hartford, $4 per ton.

ANALYSIS.

	316	By N. J. geologist
Moisture	16.70	9.66
Combined Water	3.26	
Sand (insoluble silica)	18.33	
Silica, soluble	26.65	50.80
Oxides of Iron	23.90	17.63
Alumina		8.77
Lime	.43	2.13
Magnesia	3.12	3.54
Potash	5.69	5.18
Soda	.60	....
Phosphoric acid	.90	2.24
Sulphuric acid	.42	.39
Other matters undetermined		....
	100.00	100.34

The green sand marl has long been a staple fertilizer and amendment in the State of New Jersey, where it occurs as a geological deposit, or rather as three distinct deposits (upper, middle and lower marl beds), which stretch across the State from the Highlands of Navesink near Sandy Hook, to the Delaware River below Wilmington, and in many localities admits of easy excavation. In composition it is somewhat variable, as shown by the analyses above given, made on separate samples which were obtained quite near each other. If the value of the potash and phosphoric acid in the above analysis is reckoned, for the former, at its lowest price, viz., 4½ cts. per lb., and for the latter at 9 cts. per lb., the value of reverted phosphoric acid, we have, in 2,000 lbs. of 316, no less than 114 lbs. of potash worth $5.13, and 18 lbs. of phosphoric acid worth $1.62, the total being $6.75. The same reckoning applied to the other analysis which is published by Professor Cook in the Annual Report of the State Geologist of New Jersey for 1878, p. 45, gives 103.6 lbs. potash worth $4.66, and 45 lbs. phosphoric acid worth $4.03, the total being $8.69 as the worth of a ton.

It must be conceded, however, that the green marl contains its potash not in the freely soluble state of muriate or sulphate, but as a less soluble silicate, not worth, commercially, so much as the potash of potash-salts. Experience shows, however, that vegetation makes ready use of the plant-food contained in the marl, its application having a speedy effect on clover and grass.

The silicate of alumina, iron and potash which constitutes the green sand (or *glauconite*, as the pure green mineral is termed by geologists), in fact readily suffers decomposition with liberation of its potash, and at the same time furnishes in the residual silicate the substance which confers on good soils their remarkable quality of retaining the soluble fertilizing elements which would otherwise go to waste. No doubt it is this silicate which largely accounts for the striking improvement of the light, sandy soils of Eastern New Jersey, large tracts of which have been transformed from a desert to a garden, mainly as a consequence of the use of this marl.

At the price charged, the green sand marl will be found, to judge from the results of its use in New Jersey, a cheap means of improving not only our very light soils, but also the better loams, which require constant manuring to maintain their fertility.

This marl must usually be applied in large quantities, several tons to the acre, in order to get good results. It then forms a valuable amendment and a durable source of potash.

Correction.

In Bulletin No. 31 the cost of Lombard & Matthewson's superphosphate, Station No. 295, should be $38 instead of $40.

S. W. JOHNSON, Director.

PERSONAL ITEMS.

George Washington is the name of one of the Ute chiefs now seeking to thrash the country of which his illustrious namesake was the father.

While looking at the big trees in the Yosemite Valley a few days ago, Senator Morgan, of Alabama, fell from a boulder and broke his collar-bone.

Captain Payne, whose creditable service in the Ute country has won him admirers, is a younger brother of General William H. Payne, of Warrenton, Virginia.

The editor of the Paris (Texas) Banner said in print that Lawyer Bonner was a murderous ruffian, and Bonner proved the justness of the characterization by shooting him dead in the street.

Miss Lillie Ayer, daughter of the dead pill-maker, is reported to be engaged to the impecunious grandson of Dom Pedro, of Brazil, Prince Philippe Louis Marie de Bourbon. She will furnish $5,000,000 capital for the new firm.

John J. Bailey, who married a daughter of the late Governor Ford, of Illinois, and who was for many years chief librarian of the St. Louis public school collection, was arrested in St. Louis the other day for pocket-picking.

Mr. N. C. Mecker, the agent of the Ute Indians in Colorado, who was killed the other day, gained considerable reputation a few years ago as the founder of the town of Greely, Colorado. When that enterprise was undertaken Mr. Mecker was the agricultural editor of the New York Tribune.

The heirs of Mark Hopkins, the California millionaire, are surprised to find that Mr. Hopkins neglected to mention a little sum of $5,000,000 in United States bonds and $300,000 in gold in the inventory made by him of his property. This little sum was hidden away in the Treasury at Washington.

Reed and Pell, the British Commissioners to examine American agriculture, are highly pleased with the Northwestern States and Territories. They say that Minnesota's climate is a luxury and her soil unsurpassed, her only need being people and trees, which will come in good time. They are now on a tour through Nebraska, Kansas and Texas.

Charles A Pawbey, a general service clerk in Adjutant General Wherry's office at West Point, N. Y., has been court-martialed for attempting to black-mail a cadet, found guilty, dishonorably discharged, stripped of all pay due and coming due, and sentenced to two years' imprisonment in a military prison.

There is peace in the Mormon Zion again. Emeline A. Young and the other heirs of the late Brigham who sued John Taylor, the present head of the church, and his co-executors in the management of Brigham Young's estate, have settled the suit for $75,000. The charge was fraud or breach of trust, and this compromise looks as if it was not as easy to set up a good defense as to buy off the complainants.

Hon. George Vickers, ex-United States Senator, died at his residence, in Chestertown, Md., on the 8th inst, of heart disease. He had been in public life for a number of years, having served several terms in the State Legislature, during the last of which he was Speaker of the House. Afterwards he was elected State Senator, and subsequently, at the expiration of his term, he was sent to the United States Senate, where he served two terms, his successor being Senator Dennis.

Charles Young whipped his wife at New Philadelphia, Ohio, within a week after their marriage. She had been a popular belle, and a party of young men, probably including disappointed suitors, decided to avenge her wrongs. They seized Young in the street on a dark night, carried him to the gas works, and pumped warm coal tar on him until, the substance cooling, he was coated several inches deep. Then they took him home, placed him against the door-post, and rang the bell.

Senator A. Douglas, of Illinois, and his brother Robert M., of North Carolina, sons of the "Little Giant," have recently come into the possession of $200,000—the Court of Claims having awarded them that amount for cotton belonging to their father, which the federal troops confiscated in Washington county, Miss., during the war. Senator Douglas came into possession of slaves through his first wife and they raised the confiscated cotton on James Hulton's plantation in Washington county.

Mr. Gladstone is to be the guest of the Earl of Roseberry at Delmeny Park during his canvass for Midlothian against the Earl of Dalkieth, the son and heir of the Duke Buccleuch. Though the canvass will not fairly begin till the end of November, the preliminary contest has already been opened with spirit at Edinburgh by a meeting held on the 4th inst., at which the well-known advocate, Mr. C. L. Guthrie, made a dashing speech in support of the candidature of Mr. Gladstone.

Dr. Julius Lemoyne, one of the leading advocates of cremation in the United States and designer and builder of the cremation furnace at Washington, Pa., died there this week aged 81. Yes; he was cremated in his own furnace. He was quite wealthy and is said to have disinherited a son who refused to permit a dead child of his to be disposed of in this way. It is also reported that in his will he cancels any bequest made to any of his legatees who refuses to sign an agreement providing for the cremation of his own body after death.

P. P. Roots, a resident of West Point, N. Y., whose shrunk shank is no reproach, for he has walked through seventy-two Octobers, got it into his head that he needed a good, plump, peachy wife. Being a man of business, he advertised for such a person. Now, down among the prickly pears of Texas there wilted the Widow McMullen, aged forty-five years, and three thereof without a mate. The Widow McM. answered her distant Roots and fixed upon Fort Madison, Iowa, as the trysting place. On the 4th inst. the two met at the place appointed, and in one hour the Rev. Mr. Powell had joined them.

Five years ago Alderman Orndoff, of Virginia City, Nevada, and Farmer Treadway, of Carson, Nevada, made a wager of $100, the one that he could within five years breed a bull-pup the weight of which should be seven and one-half pounds, and the other that he could cultivate a cabbage that should weigh forty-five pounds. Each man deposited his money in the Carson Bank. Both went to work on scientific principles. Now, at the expiration of the time, Alderman Orndoff has reduced his dog to seven pounds and Mr. Treadway has sent his cabbage up the scale to forty-eight pounds, and both cabbage and bull-pup will be presented to General Grant upon his arrival in Virginia City.

Mrs. Mary Eddy Huntoon is a sister of the Eddy brothers, whose spiritual materializations used to draw so many visitors to Spirit Vale, Vermont. She went into the same business lately; but people would no longer go to her home to pay for seeing the supernatural wonders, and she was compelled to make tours. She went to North Adams, a few days ago, and excited a great deal of interest among the credulous part of the population. Editor Mabbett of the Transcript and the Rev. Dr. Osborne of the Baptist Church, resolved to expose the fraud by main strength. Mrs. Huntoon's seances usually closed with the appearance of a materialized Indian, who bounded out of the closet, in the ghostly light, with a yell that curdled the blood of the assembly. The editor and the clergyman chose this juncture for action, the understanding being that the former should grab the Indian, while the latter held Webster Eddy, who was constantly on guard. The Indian had no more than yelled before Mr. Mabbett grappled with the figure, and in an instant they were rolling and tumbling on the floor. Eddy attempted a rescue, but Dr. Osborne wrestled with him vigorously. The melee continued until somebody turned up the light, exposing Mrs. Huntoon as the personator of the Indian. She said there was no humbug; the spirit withdrew as soon as touched by the editor, leaving the material of the medium; but the feathers and other toggery could hardly be explained away. Hereafter, she subsequently declared, she will arm herself with a knife, and further attempts to interfere with her will be attended with serious consequences.

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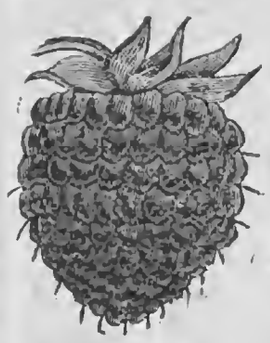

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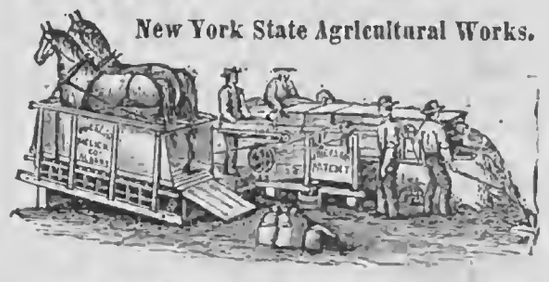

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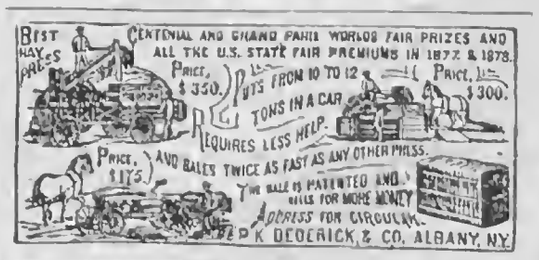

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BRIEFLETS.

Is it wrong to color butter if the coloring is harmless? . . . Salt in small quantities is good for poultry. . . . There is nothing better than *straw* as a winter covering for *straw*berry plants. . . . The markets are now full of Sheldon pears. . . . The Chicago Live-stock Journal says that the small Yorkshire is the finest-boned, smallest-eared, shortest-headed, most dish-faced, shortest-legged and most easily fattened pig in existence. . . . Wollney has shown that dark-colored soils are warmer in hot weather and cooler in cool weather than light-colored soils; that is, they absorb as well as radiate heat faster. . . . WILDER, Rogers's 22, is one of the largest black grapes, . . . Moore's Early seems to be ten days earlier than Concord, but the fruit is inferior in flavor and the vines less vigorous. , . . The Niagara is a beautiful new white Grape of fine promise. . . . The Lady is fulfilling our prediction, made over two years ago. It thrives in many parts of the country, is earlier and better than Concord. Bunches small, compact, white. It is a pure Concord seedling. . . . Josiah Hoopes says, in the N. Y. Tribune, that the cracking of pears has been cured in its worst form by merely incorporating a liberal supply of unleached wood-ashes in the soil. . . . Mr. Meehan thinks the St. Michael d'Archange the best early September pear for his section (Philadelphia). . . Prof. Loomis's machine for preparing fiber from Palmetto, is working satisfactorily in Florida. . . . Pres. Wilder says: "Plant the most perfect and mature seed of our very best fruits, as the means of more rapid progress, to cross-fertilize our finest fruits for still greater excellence." . . . Baldwin apples of one grower bring two to three dollars per barrel, while his neighbor's bring but one dollar. This is owing to selection and packing. . . . According to Mr. Hubbard, the Talman Grape, which had been rechristened Champion, is now again named Beacousfield in Canada. . . . Elvira and Noah are said by Isador Bush to be the best of the new varieties of Grapes for Missouri. Noah is also valuable in Kansas and in lower Iowa. . . . T. S. Hubbard was awarded the Wilder Silver medal for the largest and best collection of grapes exhibited by an individual. . . . Mr. Wm. Saunders thinks that the days of indiscriminate pruning of orchard trees would some day be considered as the barbaric age. . . Evidence accumulates that the Japan Persimmon is not hardy north of Washington. . . . Mr. M. B. Batcham thinks that grape-rot is caused by damp weather and a consequent plethora of sap. The watery portion of sap cannot escape in moist weather, hence fungus growths, rot, mildew and blight. It is a time when all human diseases, too, increase. . . . Mr. Campbell says that the Delaware is exempt from grape-rot; we have so found it. . . . Mr. Purdy thinks the Gregg Raspberry is the best Black-cap in cultivation. He deems it identical with the Great Western. . . . Mr. T. T. Lyons thinks Moutclair a fine Raspberry—he is right. Mr. J. J. Thomas says it is good and hardy. . . . Mr. Strong deems Pride of the Hudson worthless in Massachusetts; Mr. Purdy (Rochester) says it is worthless with him. Surely a *new* fruit of any kind has a cruel gauntlet to run—and, so, indeed, it ought to have. . . Snyder Blackberry is very much praised. . . . It is asserted by a French agricultural journal that whenever angle-worms become troublesome to pot plants, they may be killed by watering the plants with water in which a quantity of finely-crushed horse-chestnuts has been soaking for some time. The nuts contain a principle that is poisonous to the worms, and these will immediately come to the surface and die. Even dried horse-chestnuts preserve their poisonous qualities for angle-worms.

Worm-Eaten Peas.

I desire to add my testimony to what has already been said in the RURAL in regard to the worthlessness of worm-eaten peas for seed. I recollect that, when a small boy, I frequently heard it stated, with much positiveness, that the insects did not injure the peas at all for seed. I doubted the truth of the assertion even at that time, and have always made it a rule to reject such samples as were much affected, when selecting peas for seed. Indeed, I did not suppose that in this enlightened age there could be any difference of opinion upon the subject. But it seems from what has appeared in the RURAL, that I was mistaken. I therefore concluded to try an experiment for myself, and accordingly, on the 15th of July last I selected 25 sound peas, and an equal number of those that had been worm-eaten, but were otherwise apparently just like the first. I planted the two samples, side by side, on the same day and both with equal care. The result was such as I had anticipated. While of the 25 sound seeds, 23 came up promptly, the plants being strong and vigorous, of the 25 unsound seeds planted, but *two* ever showed any sign of germination, and of those two, the plants never gained a hight of six inches. This experiment fully confirmed my former opinion of the folly of sowing worm-eaten peas. CLINTON.

Oneida Co., N. Y.

Wit and Humor.

THE AGRICULTURAL INTEREST IN ENGLAND.

Landlord (to tenant who had given up farming at the end of his lease, to await better times.) "Well, Jackson, how do you like living on your capital?"

Farmer.—"Not too well, my lord; but I find it cheaper than letting you live on it!"

HOW LONG PAT WORE HIS SHIRT.—An officer, who was inspecting his company one morning, spied one private whose shirt was sadly begrimed.

"Patrick O'Flynn!" called out the captain.

"Here, your honor!" promptly responded Patrick, with his hand to his cap.

"How long do yon wear a shirt!" thundered the officer.

"*Twenty-eight inches!*" your honor.

AN English visitor at Peshawur sends home the following inscription copied by him from a tombstone in the English graveyard there: "Sacred to the memory of Rev. Blank Blank, A. M., who spent seventeen years as a missionary among the Afghans, and translated the Holy Writ into their language. He was shot by his attendant. 'Well done, thou faithful servant.'"

A PHYSICIAN should know something of the human heart. Mme. de C—— sends for her medical adviser, and as soon as she sees him she bursts out with—"Doctor, I am ill; my nerves are out of order—I feel melancholy—I"—— The doctor, interrupting her: "The fact is you want a change." "Just so." "Well, then, send your husband to the country."

A LITTLE religion is a dangerous thing. That was well illustrated in the case of the fire-eating Virginian, who, while returning from a camp-meeting, held out his hand to an old enemy and exclaimed: "Give me your hand, Sanders; I've got religion, and I feel mean enough to shake hands with a dog."—*Oshkock Christain Advocate.*

GEORGE is five years old. His mother had undressed him for a bath before putting him to bed. As soon as he stood before her he said: "Now, mamma, I'm a kid." "Yes, dear," said she. "You know what kind of a kid I am, mamma?" "No, darling." "Well, na-kid." His mother thinks that is good for a kid of his age.

HE had an auburn-haired girl, and promised to take her out riding. She met him at the door when he drove up, and he exclaimed: "Hello, Ready?" She misunderstood him, and they dont't speak now.

"I WOULD rather," says the editor of the Okolona States, "be a living ass than a dead lion." Nature having gratified him in this particular, what in the world is he growling about?

A MUSCULAR girl at Wabasha
Was insulted one day by a "masher;"
He appeared, when she'd done,
As though he'd been run
Through a mower and reaper and thrasher.

"WOMAN is a delusion, madam, exclaimed a crusty old bachelor to a witty young lady. "And man is always hugging some delusion or other," was the quiet retort.

THE old story of Romulus and Remus being raised by a wolf is outdone every day in Kentucky, where men are raised by mules, sometimes fatally.—[St. Louis Times-Journal.

FATHER (to sleepy boy)—"Come, James, you ought to be up with the lark on such a beautiful morning." Matter-of-fact boy—"All right, but how'm I going to get up there?"

DOES a standing joke ever require a seat.

The False Notions

Exist in the minds of many otherwise intelligent people as to the requirements of a disordered stomach or liver. The swallowing of nauseous and powerful drugs is the way to encourage, not to cure dyspepsia and liver complaint. Nor can a constipated or otherwise disordered condition of the bowels be remedied by similar treatment. That agreeable and thorough stomachic and aperient, Hostetter's Bitters, which is the reverse of unpleasant, and never produces violent effects, is far preferable to medicines of the class referred to. It infuses new vigor into a failing physique, cheers the mind while it strengthens the body, and institutes a complete reform in the action of the disordered stomach, bowels and liver. Appetite and sleep are both promoted, uterine and kidney affections greatly benefited by its use. It is indeed a comprehensive and meritorious preparation, free from drawbacks of any kind.

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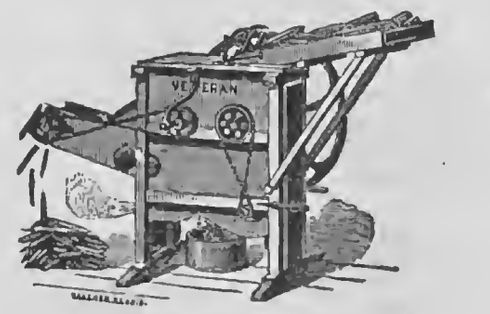

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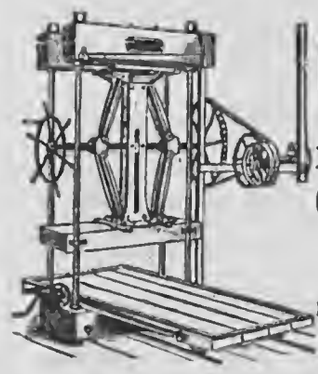

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THE RURAL NEW-YORKER

A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME

VOL. XXXVIII. No. 44.
WHOLE No. 1553.

NEW YORK, NOV. 1, 1879.

PRICE FIVE CENTS.
$2.00 PER YEAR.

[Entered according to Act of Congress, in the year 1879, by the Rural Publishing Company, in the office of the Librarian of Congress at Washington. — Entered at the Post-Office at New York City, N. Y., as second-class matter.]

Arboricultural.

JAPANESE MAPLES.

JAMES HOGG.

WITHIN the past twelve or fifteen years numerous additions have been made to the already large list of the genus Acer, by the discovery of several new species in Japan and Amoor. Dr. Savatier and M. Franchet, in their catalogue of Japanese plants, enumerate twenty species, viz. *A. Japonicum*; A. *Sieboldianum*; *A. pictum*; *A. truncatum*; *A. trifidum*; *A. diabolicum*; *A. circumlobatum*; *A. Burgerianum*; *A. palmatum*; *A. capillipes*; *A. spicatum*; *A. Tartaricum*; *A. micranthum*; *A. rufinerve*; *A. cratægifolium*; *A. carpinifolium*; *A. distylum*; *A. argutum*; *A. pycuanthum*; *A. sessilifolium*; *A. cissifolium*; and *A. nikoense*. To these Dr. Maximowicz has added *A. tegmentosum*; *A. monomaxim* and *A. barbinerve*. Many of those enumerated by Dr. Savatier were discovered by Dr. Maximowicz.

The most of the garden varieties which have been introduced into this country and Europe are derived from *A. palmatum* of Thunberg. He gives as species *A. septemlobum* and *A. dissectum*, but these are only varieties of this species. Dr. Siebold called it *A. polymorphum* on account of its great tendency to vary in its foliage. It will thus be seen that these names which are given in the nursery catalogues as distinct species, are only synonyms of *A. palmatum*. Strange to say, although the species was introduced into England as far back as 1820, none of the varieties was introduced until within the past few years. There is also a variety of *A. platanoides*, variously known in the European nurseries as *A. palmatum*, *A. crispum* and *A. laciniatum*, which has the lobes of the leaves deeply jagged, with acuminated bristle-like teeth on the edges; this should not be confounded with the Japanese species. Dr. Savatier, speaking of the latter says: "The form of the leaves varies much. Sometimes they are palmate with 5 to 7 narrow lobes (*A. palmatum. Thunb.*) or divided into 7 to 9 much larger lobes (*A. septemlobum Thunb.*), or even more multiparted palmate, with narrow laciniations (*A. dissectum. Thunb.*). These three principal varieties subdivide themselves into many others, which the industry of their gardeners has multiplied *ad infinitum*."

Thunberg gives the following description of this species. "Leaves palmate, serrate, smooth, flowers umbellate; tree medium-sized, entirely smooth; branches and branchlets opposite, round, turning purple, spreading leaves on the extremities of the branchlets, stalked, incisely palmate; 5-7 nerved, smooth on both sides; lobes 5-7, (Siebold says 3-9) lanceolate, acute, equally sharply serrate; nerves sometimes hairy."

Another class of the garden varieties is derived from *A. trifidum*. Their foliage is not so finely dissected and so fern-like in appearance as that of the previous species. Dr. Savatier says, in speaking of it "The leaves of this species are very variable; are sometimes almost entire, sometimes more or less deeply tri-lobed; some have broad lobes, others have narrow ones, some are smooth on the edges, others are dentated." Thunberg describes it thus, "Leaves undivided, entire, trifid; branches round, smooth, purplish; leaves at the ends of the branchlets, few, undivided, bilobed, or trilobed, entire, on both sides smooth, above grass-green, below paler, ovate, acute; lobes ovate, acute, wide. Some of the varieties of this species have blotched leaves. It is very distinct from the previous species and produces correspondingly distinct varieties. It has larger, different shaped leaves and a stronger and different habit of growth.

A. Japonicum is a very beautiful species, the leaves are large, almost circular in shape, and notched on the edge into 11 or 13 sharp lobes. Multipartedly incised, opposite, serrate, on both sides downy, petioles short; the nerves at first hairy; branches and branchlets round, purple and smooth; umbels many flowered; flowers sub-umbellate, purple; seeds winged and woolly.

A. pictum has the leaves smooth, palmately seven-lobed; lobes acuminated, oblong, entire, alternate, aggregated together at the ends of the branches, smooth on both sides, variegated with white; branches smooth, ash-colored.

A. carpinifolium is a rare species, the foliage of which is so unlike that of a Maple and so closely resembles that of the Hornbeam that none but the most experienced botanists would recognize it as a Maple, except they saw the flowers and the fruit. I am not aware of there being any varieties of it.

I do not think that *A. cratægifolium* has been introduced into this country, but a very beautiful variety with deeply incised leaves has been. It is of upright growth with brownish-red bark and is quite different in appearance from those derived from *A. palmatum*.

These are all that have been introduced into this country, so far as I know. The other species named would no doubt be desirable additions to our lists of ornamental trees. Many of them are closely allied to our American species, and can hardly be distinguished from them; for instance the Japanese *A. spicatum* differs from the American species of the same name, but not sufficiently so to warrant making it a distinct species. *A. circumlobatum*, *A. argutum*, and *A. barbinerve* are allied to *A. glabra*. *A. capillipes*, *A. rufinerves*, and *A. tegmentosum* are related to *A. Pennsylvanicum*.

Much difficulty has been experienced in propagating the various varieties of Japanese Maples. As a rule they are of delicate growth and require to be grafted on some good stock to insure a reasonable strength of growth. They will take on some of the American species and will make a good growth for a year or two, when suddenly, sometimes within twenty-four hours, the whole plant will die. This could be overcome only by importing plants of the type species to be used as stocks. The type can be propagated by cuttings, but as some of the trees originally imported are now beginning to produce seeds, stocks will be more readily obtained. The Japanese increase them all by grafting, principally by inarching. As the varieties generally produce long, slender branches, they place a row of stocks—six, eight or more—close to the mother plant, and three or four inches apart; they then inarch a branch at as many different points as there are stocks to graft it on; an eye or bud being left at each inarching. They graft in this way in order to obtain as many grafts as possible, and not to dwarf the plants, as is generally supposed. They also have a fashion of training up a stock with a clean stem five or six feet high, and then inarching a number of varieties—sometimes a dozen—upon it, on different sides, producing a very novel and beautiful effect.

I trust that what I have written above will, in some measure, clear up the confusion which exists among horticulturists

JAPANESE MAPLE.
Acer palmatum var. dissectum atropurpureum. — (See Ed. Brev.)

in regard to these Maples. Unfortunately nearly all the information that can be obtained about them can only be had in the works, difficult to be obtained, of Maximowicz, Savatier, Miguel, Siebold, and Bunge of the past few years, and of Thunberg and Trattinick of seventy or eighty years ago. No American or English botanist has yet made Japanese Maples a special study.

NOTES FROM THE RURAL GROUNDS.

Select Trees and Shrubs.

For the consideration of those who, during the present fall, intend to select ornamental shrubs or trees, or both, we give below a list of a few of those which are as desirable as any with which our experience has made us familiar. Many, if not all of them, have been described in previous numbers, and portraits from life have been presented from time to time of some of those which we have supposed were unknown to a majority of our readers. We have prepared, and are still preparing, life-drawings of other new and valuable trees and shrubs, which, in their turn, will be published between the present time and next spring, which latter period is, in our estimation, if not in that of most experienced horticulturists, the safest for transplantation, all things considered, for this and more northerly climates.

Trees.

Fagus sylvatica purpurea.—This is the Purple-leaved Beech which, among all trees cultivated for *purple* leaves, we place first.

Fagus sylvatica pendula, the Weeping Beech, the most picturesque of weeping trees.

Cladrastis tinctoria, or Virgilia lutea. Yellow Wood. Described and illustrated in Rural of 4th inst.

Fagus sylvatica heterophylla. This Beech is of very slow growth, but its habit is compact and shapely.

Salisburia adiantifolia. The Maidenhair or Jingko tree. Of slow growth for a few years. Later it grows rapidly. Unless cut back from year to year, a habit too spreading and open mars its beauty.

Liriodendron tulipifera. The Tulip tree. We recommend this for the lawn only on the condition that it be cut back severely every fall or spring. The only safe way to remove this from the fields or woods is to select young trees about an inch in diameter and cut off the stem two inches above the roots, planting only the roots.

Magnolias. See Fair Number of the Rural New-Yorker.

Salix pentandra (?). We do not think this is *pentandra*, though so catalogued by most nurserymen who have it for sale. It is but a Willow, but it here resembles in its general appearance the Big Laurel of the South, though growing only to the hight of about 20 feet. For its large, dark-green, lustrous leaves; for its symmetry and compactness; for its hardiness and vigor, we prize it among our finest trees, and there are no others that more excite the admiration of our visitors. Several years ago we distributed cuttings (which root freely) among our subscribers, and it is proposed, as our stock is again sufficient, to make another distribution next spring.

Shrubs.

Viburnum plicatum. One of the handsomest of shrubs and far more desirable than the Hobble-bush (V. lantanoides), the High Cranberry (V. Opulus), or the Guelder Rose.

Pavia macrostachya, or Æsculus parviflora. Long-raceme Pavia. A low-growing, wide-spreading tree, or large shrub. Some specimens attain the hight of 15 feet and a diameter of 30 feet. This will be illustrated in this journal in a few weeks.

Hydrangea paniculata grandiflora.—Coarse, but very showy when few other shrubs are in bloom.

Hibiscus Syriacus variegatus, or variegated Tree Hibiscus. Leaves half green, half creamy-white. Probably our best variegated shrub.

Berberis vulgaris purpurea. Purple-leaved Berberry.

Diervilla hortensis nivea. White-flowered Weigela.

Cydonia Japonica. Japan Quince. White, rose and dark-red varieties.

Chionanthus Virginica. White Fringe.

Cercis Canadensis. American Red-bud.

Stuartia pentagyna.

EVERY-DAY NOTES.

Samuel Parsons, jr.

The Chinese Sumac.

This Chinese Sumac differs in several ways from other forms of the Rhus species with which I am familiar. It grows larger and more like a tree than its relatives, for one thing, and for another, its leaves are broad and massive and specially distinguished by a marked extension of the leaf half an inch wide along the entire midrib. This peculiarity is visible at a considerable distance. But the crowning charm and fitness for ornamenting the lawn possessed by Rhus Osbecki is its wonderful fall coloring. All Rhuses are fine in the fall, and everywhere on our hill-sides common Sumacs glow at that season with the most vivid scarlet and dark-red tints. The great advantage, however, pertaining to Rhus Osbecki is, considering the species, the extraordinary size of the leaf as well as the tree. On these leaves, under strong sun-light, burn in the most effective manner broad masses of scarlet, shading into blood-red and brown; or, on the other hand, into brilliant yellow, curiously mottled or solid, as the case may be. The flower itself is decidedly attractive.

Mingled with common and cut-leaved Sumacs, Rhus Osbecki would be equally effective on the outskirts or in the middle of the group. An isolated position, however, accords better with its rare and showy merits. In general behavior R. Osbecki much resembles its American relatives. I should also note that its employment on any lawn in America is very recent.

Trees Green in Late Autumn.

With the various seasons come associations according with the time of the year. In fall, we think of garnered crops, luscious, rich-hued fruits and golden or crimson autumn leaves. I fear, however, few incline to dwell sufficiently on the charms of certain trees remarkable for retaining green foliage late in fall. At no time of the year is the contrast of full life with fading vegetation more striking than during the autumn. Elms, Poplars, Horse-Chestnuts, Lindens and even Maples are fast turning brown and sere. How refreshing, then, to behold bright green foliage amid general decay, and how important to secure the few trees for the lawn that are capable of thus resisting fall decay. Let me call your attention here, for example, to three or four choicer specimens of this kind.

The Weeping Slippery Elm has perhaps received due attention, but I cannot help commenting briefly once more on the excellence of its late vigorous foliage. This year it has been very marked. There has been little frost before October 15, and much dry weather, and leaves generally are simply drying up and falling off. But the Weeping Slippery Elm stands almost perfect in coloring and clothing of foliage.

Three very slow-growing trees noteworthy for late retention of foliage in fall, are Fraxinus excelsior atrovirens, Ulmus Siberica and Ulmus viminalis. Fraxinus excelsior atrovirens, a rare tree, has the blackest green I ever saw on tree leaves. These leaves are, moreover, curled, shining and tough, making very odd-looking, diminutive trees of most persistent character. Persons accustomed to the appearance of the ordinary European or American Ash could never believe this Fraxinus atrovirens a member of the former species. In every way, as far as I know, this peculiar Ash is as hardy, long-lived, etc., as any of its relatives.

Ulmus Siberica is round-headed, slow-growing and decidedly rare. I know of but one good specimen, although there are, doubtless, others scattered about the country. This specimen presents a very curious appearance, with its dark decided green fully evident at the very beginning of winter. It is, otherwise, massive and even elegant as well as unquestionably long-lived. The leaves, likewise strongly curled and closely grouped about the branches, have a certain elm-like aspect, but at the same time little of the general habit of the species.

Ulmus viminalis is a very scarce and odd tree of dwarf character. A very distinct and elegant variety, it has small, rough leaves and numerous slender, smooth, twig-like branches, somewhat pendulous, like those of the Cut-leaved Birch. I speak of its dwarf character with entire faith, because I note this habit in a specimen that is before my eyes frequently. In view of this fact, I was somewhat startled by noting in a horticultural journal of high repute that some one declared he had an Ulmus viminalis that had grown 40 feet in 30 years. May I dare to surmise that this specimen consisted simply of the common European Elm which, from being originally the stock of Viminalis, attained higher dignity on the death of the grafted portion of the tree. Yet could any one mistake the Viminalis for the common European Elm? At any rate, all must concede that U. viminalis is an excellent and curious tree in fall.

I should like to speak also of Ulmus Berardii, a beautiful miniature variety, of slender growth and pyramidal habit, with deeply and delicately cut foliage held late in fall, but I have referred to such trees merely as types of what may be added to the ornamental character of the lawn in fall. Lawn planting for autumn effects, should constitute a distinct and carefully studied department of landscape gardening.

THE YELLOW WOOD.

The interesting articles on this tree, which were given in the Rural of Oct. 4, tell so much about it as to seem to invite whatever scraps of addition may be made to those statements. It has shown some rather curious behavior here among the Alleghanies, which must be attributable rather to the dry mountain air than to any lack of good quality in the soil. One of our trees is on the Juniata bottom, where the stream is as yet but narrow, and another is set on the front of a terrace of triple depth of good soil, both with good drainage. A severe freeze on the third of May killed tender foliage here, taking all our Grapes but those sheltered by leaves etc. The leaves of the Yellow Wood were nipped twice, and this seems to have completely stunned the trees. There has not been a perfect leaf on either, nor any extension of growth during the whole summer.

But this does not prove that the tree is tender, for some vigorous currant bushes in excellent mulched soil and with plenty of room, have ponted in the same way since being deprived of their leaves by the worms about the middle of May. We had cool, rainy weather during the summer, more than was good for corn, and just the thing, one would think, for the hardy Currant, but not one smile—not one green leaf—would that row of stumped bushes give to the sunshine through all the summer, up to this middle of October. Nurserymen soon learn by the knife what a disaster to the growth of a young tree it is to prune it when the leaves are just opening. Even the rubbing off of redundant buds under grafts etc., must be done by the clock, if we would gain the good results and avoid the harm. The buds should be rubbed off *as soon as they swell*, and as this cannot be done all at once, one finds gain in going over them two or three times, thus making the operation more gradual.

Like Mr. Parsons, I regret that the liquid name Virgilia, which Michaux gave to the tree found on the banks of the Tennessee River, in honor of the poet Virgil, has not been retained by our botanical authorties. The French seem to adhere to it. They like euphony and the music of vowel sounds, and will strain a technical regulation for the sake of it. Cladrastis is, indeed, a rasping and drastic name for so soft and neat a tree, which was the favorite of A. J. Downing, above all the growth of the forests.

W.

Central Pa.

Farm Topics.

THE TRUTH ABOUT IT.

[The object of articles under this heading is not so much to deal with "humbugs" as with the many unconscious errors that creep into the methods of daily country routine life.—Eds.]

GOOD LUCK IN FARMING.

W. I. Chamberlain.

"You've had prime good luck with your young Maples, ha'n't ye?"

I was so busy trimming the roadside hedge that I had hardly noticed the coming of the wagon, whence the voice proceeded. Now I looked up. It was rather a "shackley rig," and the speaker looked the worse for the wear. I didn't recognize him, though he was probably one of my "neighbors" living a few miles further back from town.

"Yes," I replied, "first-rate luck. Only one has failed out of 175, and I guess that will make out to live yet. And my apple trees and peach trees all lived."—

"Wall," he replied, "that's jest the way some folks always do seem to have luck, but I never did. Once in a while I take a fit to have an orchard or some shade trees, but it's no good. What don't die the first year, mostly give in the second, and there a'n't enough left to fuss with. Get up, Polly!"

As he drove on towards town I fell to trimming the hedge again, and to thinking wherein my "luck" consisted. In the first place, I had the bad luck to have a wretched clay roadside to set the trees in. It had been cut up by wheels in muddy weather till it dried up as hard as the middle of the road. But I had the "good luck" to work over it three seasons, plowing, manuring and working until it became quite respectable. Then I had the luck to take Maples from the nursery, well used to sunshine and ordinary soil, and to take them up carefully and have them in the ground again before the rootlets were dried at all. I also had the luck to have by each tree a bushel or more of the best soil on my farm to put around the roots before filling in any of this roadside soil, even though much improved. The trees were set in October. I had the bad luck to have a most severe April and May drought, but the good luck to mulch the trees and draw wagon-loads of water from my pond and thoroughly soak the ground above the roots of each tree with eight or ten gallons of water at a single watering. It did not need to be repeated, and when the abundant rains came, the last of May, the trees had the "luck" to be leaved out and growing nicely and ready to start on with a leap, as if they had never been transplanted. But for the preparation of the tough soil and the mulching and the heavy watering, there probably would not at the end of this severe drought have "been enough trees left to fuss with."

The truth about it is, that most of the "good luck" in farming and gardening is simply the result of good management and faithful, persistent industry. Good luck wintering cows means warm, well ventilated stables, good feed, regular feeding and careful handling and attendance. Good luck with early spring lambs, means careful previous management of the ewes, warm quarters and prompt attention when the lambs are dropped. Good luck selling them to the butcher, means that they are of the proper mutton breeds, and thrifty and well-fattened; and also a knowledge of the markets and the ability to hold if you cannot sell to advantage. Good luck with fruit, means a selection of varieties adapted to the given soil, climate and market, good thorough culture, and care in handling and sagacity in marketing. Good luck marketing butter, means good "butter breeds" of cows, good feed and feeding, scrupulous neatness from the milk-pail to the churn and butter crock or package, and a knowledge of the markets and of the value of the product. Good luck in curing hay, means good implements and barns, and sagacity in prognosticating the weather, or sense to read the prognostications of "Old Probabilities." Good luck raising wheat, means a rich, warm, well-drained soil, proper preparation of the ground and good seed and good sowing and spring tillage with the smoothing harrow or other harrow. A shrewd neighbor said to me "Winter-killing of wheat is only another name for poverty of soil."

And so we might go through the entire catalogue of farm and garden processes and products. Good luck seems to be a compound, which in the "last analysis" resolves into sagacity, industry and perseverance. These three things, in agriculture and horticulture as well as in business and the professions, seem always to be rewarded. Elsewhere as well as in the law is it true, as Webster said, "There is always room up higher."

Summit Co., O.

A PROJECTED AMERICAN ROTHAMSTED.

The editorial remarks on a practical and scientific farmer, in the Rural for October 11, are very much to the point. What is there said with regard to the nature of scientific farming in contradistinction to practical farming, is quite correct. At present I am in the midst of scientific and experimental farming, which, should it not enrich the principal, will, it is to be hoped, do a world of good to those in the vicinity who watch the results. Great preparations are in contemplation, and the work this fall will chiefly consist in getting everything ready for spring. A record of all the proceedings will be kept, and, I presume, published in due time. The soil will be fed with all varieties of fertilizers, a different kind being applied to each plot of a quarter of an acre. With regard to dairy cows and sheep husbandry, especially the breeding of early lambs, the animals will be divided into groups, and each lot treated in a different manner, so as to ascertain the most profitable method of handling them for the purposes intended.

Orange Co., N. Y. John Bull.

Field Crops.

BLOUNT'S PROLIFIC CORN.

H. L. Wysor.

On the agricultural page of one of your city journals for Sept. 10th, appeared the following note from the Editor: "This new white corn was so highly recommended by the originator and others who had it for sale that we were induced last spring to plant about an acre of it, in order to learn its value from practical experience. While other excellent yellow and white sorts, planted at the same time, are ready for harvesting, the Blount is going upward and onward with a very small show of ears for the time of year, Sept. 1st. The originator claimed that this variety would give from four to twelve ears on a stalk, but we will be content with one, if that matures before frosts, which is more than is promised at the present writing. Why any farmer wants to raise corn with stalks as large and tall as hop poles, and then get no more than one or two small ears on each, is something we cannot understand, for it is a waste of the fertility of the soil, for the large stalks are of no value whatever. The name of Blount's Prolific should be changed to Blount's Folly."

This same journal accused the Rural sometime before of pronouncing a general opinion without sufficient authority in regard to the hardiness of the Japanese Persimmon, and now it is itself guilty of the same thing in re-

gard to Blount's corn. It is, no doubt, true that this corn is too late for the latitude of New York [It is not too late with us.—Eds.], as I gather from the reports of the correspondents of the RURAL in that State, but that it will not succeed in New York is no reason that it will not succeed in other parts of the country. It is also true that the corn grows unreasonably tall, especially when the smallness of the ears is considered; but, nevertheless, I think it will be found that it will yield more here, and in the greater part of the West than any other variety. Professor Blount asserts that the hight to which it has grown this season, is owing either to the over-enrichment of the soil by those contending for your premiums, or else to its being planted on alluvial land.

From my own experience, I am driven to the conclusion that it is owing, in far greater part, to the nature of the corn itself. I have twelve acres of the Blount, which grew on river bottom—no manure or other fertilizer having been used—to an average hight of twelve feet. On a small plot of the same character of land in a much higher condition and manured besides, corn of the sort commonly grown here reached a hight of not more that seven feet.

This tallness is a serious objection to the corn in more ways than one. For one thing, it occupies too much space, as, in order to give it room enough, it should be planted four feet each way. Then, it is more apt to be blown down by high winds. In this connection, I notice it remarked in the RURAL Brevities that it stood up better than other sorts. Unquestionably it has a firm hold of the ground, but I suspect that the RURAL has already found that as it approaches maturity, the stalks begin to break down a foot or more above ground. Other sorts, when they are blown down, are turned over from the roots, but this is snapped off or bent down in the manner described. The stalks are too soft, as the stubs of many of them can be mashed in the hand, as soon as the upper part has been cut away. Finally, it is necessary to cut the corn nearly two feet from the ground, and even then it is impossible for an ordinary man to tie the shocks sufficiently near the top to make them stand well. It appears to me, then, that Professor Blount, in the further improvements of his corn, should direct his efforts principally to increasing the size of the ears, lowering the stalk, bringing the ears nearer to the ground, and hardening the stalk. I have set forth my objections to this corn, its merits will appear in the report I have to make of its yield with me this year.

As already stated, I planted twelve acres on May 1st, the harvesting of which was finished the 18th of last September. It is now nearly ready to go in the crib. The average number of ears to the stalk is three, many stalks having six. I have already husked enough to ascertain the yield with a very near degree of accuracy. Eight acres of the twelve will yield 100 bushels per acre, the other four having been injured by the white sand which was thrown on them by the flood of last year, will average 50 bushels. The average for the whole will be a little over 80 bushels per acre.

This yield has been made in the face of a drought which lasted six weeks at a time when the corn was in a critical stage of its growth—in silk and tassel. It is remarkable, too, how few unsound ears are in the whole of it. There is hardly one damaged ear in a hundred. This, together with the weight of the grain, will make up in a great measure for the smallness of the ears, as the large gourd-seed varieties are chaffy and many of the ears immature. Blount's corn will probably weigh 60 pounds to the measured bushel, the gourd-seed not over the standard.

Pulaski Co., Va., Oct. 13, 1879.

Pomological.

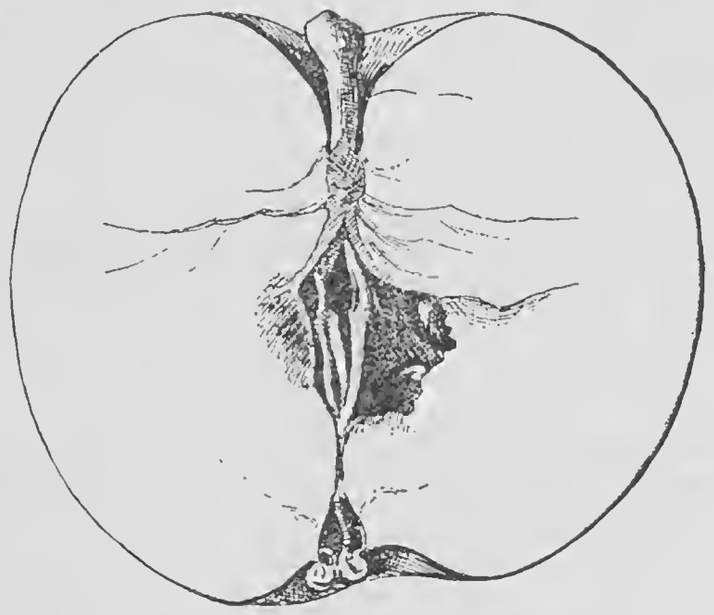
INFLUENCE OF STOCK UPON GRAFT, ETC.

S. B. PECK.

I AVAIL myself of my first leisure hour to accept the RURAL's offer, of Aug. 16 last, to continue this subject, not so much for the purpose of persuading any one to believe in this theorem, as to open another subject in pomology, to wit: the manner of raising commercial fruit trees.

I consider the fact as pretty well established that the stock *does* have an effect upon the product of the cion inserted in it, an effect perhaps not always apparent, but always liable to produce a deleterious or beneficial effect. Downing admits that the stock has sometimes an effect on the quality of the fruit. B. Hathaway, a leading pomologist of Michigan, says:—"The results of my own experience and observation go clearly to show that the stock has an influence in determining every character of the fruit."

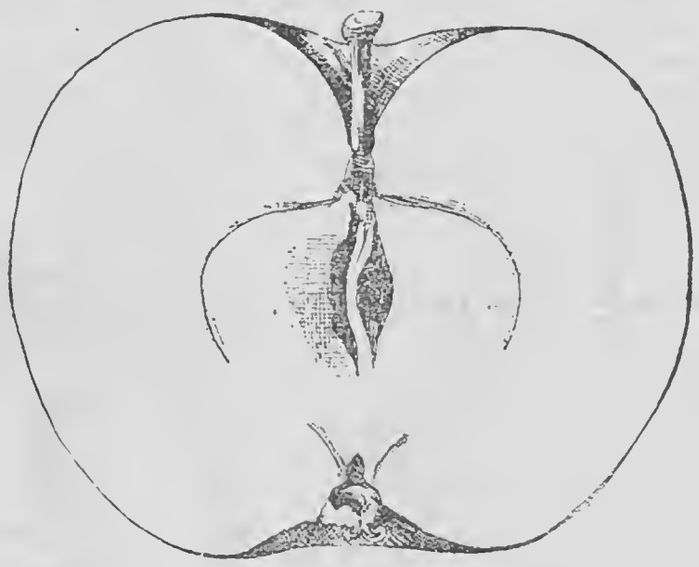
Further evidence to the same point is not lacking, but I proceed to the other question:—Does or does not the ordinary manner of producing nursery trees tend to shorten their lives, diminish their fruitfulness, weaken their constitutions, make them more liable to disease and less able to overcome the injuries of insect enemies? P. Barry says:—"Half of the maladies of trees originate in the negligent or vicious system of propagation." The common practice, as I understand, with propagators is to take the seeds promiscuously from



WHITE WINTER CALVILLE (ABBOTTSFORD).

the pomace at the cider mills, and, after one or two years' growth, to graft into the whole or a part of the root the cions of the variety desired, or to bud into the stock in the fall. L. H. Spier, of Vermont, says:—"Trees grafted in the root, as is practiced in many Western nurseries, will not flourish here, being too contrary to nature for our climate." "As good trees and as good fruit can be raised here as in any State in the Union." Downing says:—"Budded trees usually have much better roots than root-grafted ones." J. J. Thomas says: "A single root will sometimes make but one graft; but more commonly two or three." C. W. Dickerman, author of the Farmers' Book, says:—"The seedling root is cut off at the crown." Barry says:—"The graft is always made at the collar." The last two evidently do not admit the propriety of making several trees from one seedling root. A man, whose name I cannot give and whose words I cannot quote, related, in a pomological meeting, his experience in grafting the Wagener Apple. He said substantially that cions set in the upper part of the root, bore fruit soonest.

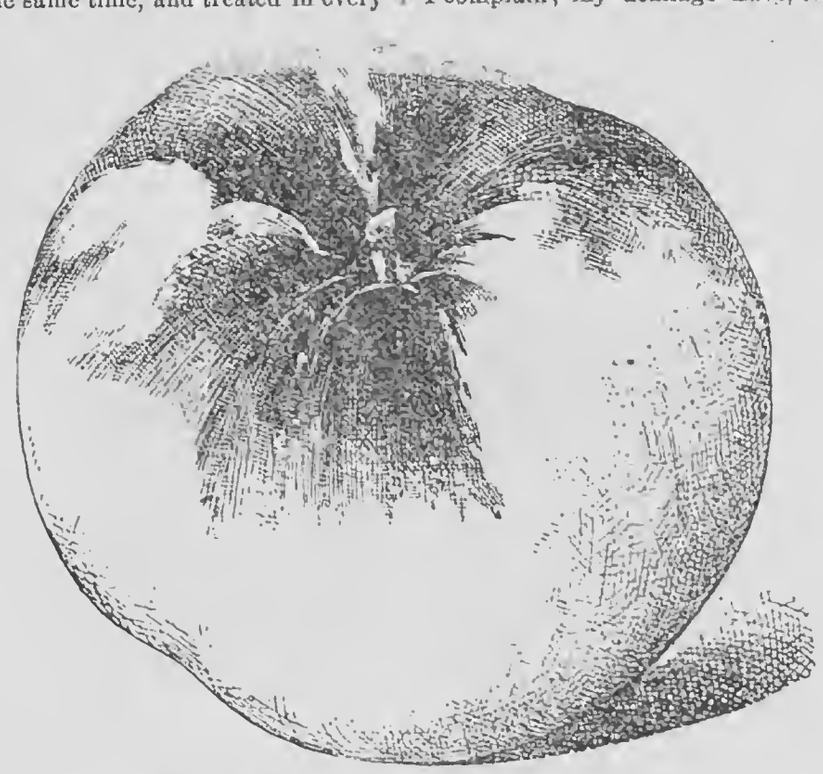
This brought to my mind my own experience with regard to five Wageners, bought and planted at the same time, and treated in every way alike; yet one fruited three years before the rest. Of two Talman's Sweets, also, planted two rods apart in 1862, treated in precisely the same way and looking to-day almost exactly alike, one has borne six to ten times as much fruit as the other. Two other trees, on the same acre, of like age, soil and culture—(American Golden Russet and Red Astrachan), always bear full crops biennially, while some others, seventeen years planted, have never shown a blossom. Others—and some of them covering an area of 20 feet in diameter—have not borne enough to identify their variety, not enough to satisfy the cravings of the early



WHITE WINTER CALVILLE (OF ST. HILAIRE) SECTION.

crop of codling-moth larvæ. All the above, except the Wageners, are on one acre of level, uniform soil, planted at the same time (1862), and always treated alike. About two-thirds of them succumbed to the hard winter of 1874, the rest now appear healthy. Others planted near by in 1864 and '65 from the same nursery (which, I think, is now extinct), have behaved in about the same way, while seedlings from seeds planted about 1864 and replanted at the proper age, have borne every other year all I could expect.

I wage no war with nurserymen. I know that there are men of that profession as honorable as any in the world, men possessing, besides superlative honor, the requisite industry and care to secure their patrons against loss and disappointment. That there are other nurserymen of precisely opposite qualities and habits, the eight varieties of apples which my trees have borne, that were never either ordered or billed to me, afford abundant proof, to say nothing of the failure to raise from them a single specimen of Red Russets or Baldwins, the trees of which I ordered most and which were quite plentiful in the bills sent me. It is not of tree peddlers or professional agents that I complain; my dealings have, in the main, been directly with proprietors through correspondence, and I have not told a quarter of my grievances. I have only spoken of apple trees, as I am more familiar with them than with other fruit trees. I do not claim to be able to say how trees should be raised in the nursery, to insure the best results to the orchardist, but I feel sure that there are faults in their propagation somewhere. If we plant a seedling tree, we have confidence that, with proper culture, it will at a proper age blossom and bear fruit. In my boyhood, say from 1810 to 1820, my principal fall labor was gathering apples and making cider. Our trees were all natural fruit, and seldom any two trees bore fruit alike. There were great differences in the bearing qualities of the trees; many of them bore profusely, but I think we never had a barren tree of proper bearing age.



WHITE WINTER CALVILLE (OF ST. HILAIRE).

My object, in this article, is to obtain light on this dark subject. I write in the hope that the science and perseverance that have quintupled the productiveness of the Strawberry and the size of its fruit, tripled the quantity of corn per acre, given us luscious fruits, instead of the crabbed, acrid ones which nature once provided, may, by the application of profound study, experiment and persevering industry, yet produce fruit trees that the orchardist, by giving them judicious care, can rely upon for productiveness and the possession of that peculiar flavor and aroma which belonged originally to the variety. That such trees cannot be raised for the paltry prices now obtained, I am well aware, and that purchasers and fruit-growers must be more liberal in the prices they will pay, is also certain, if they would have evidence of greater perfection in the trees purchased.

The advantage of the selection of perfect seed from which to breed, is becoming every year more apparent. We have examples of it in the two farm products corn and potatoes. Every good farmer selects for the former his best ears, and to this cause I impute the great increase in product, while it is quite common to plant of the latter what has been discarded for the table, and, instead of 200 to 400 bushels of sixty years ago, we now average less than 100.

Muskegon Co., Mich.

THE WHITE WINTER CALVILLE APPLE OF ABBOTTSFORD, QUEBEC.

THE following description is abbreviated from the Reports of the Montreal Horticultural Society for 1876, and of the Abbottsford Fruit-growers' Association of 1875:

"This fruit, though smaller, yet strikingly resembles the *Calville Blanche d'Hiver*, of France. It was brought to Abbottsford from St. Hilaire 20 years ago, though, strangely enough, the St. Hilaire apple-growers have not, so far, recognized it. At Abbottsford it has proved hardy and vigorous, and in productiveness very nearly equal to Fameuse. Fruit medium, yellowish when ripe, with a blush on one side; flesh firm, crisp, juicy, mildly sub-acid; its only fault is its color, which shows bruises and prevents its being a first-class market fruit; otherwise, it bears carriage well and keeps until April."

If this apple is the French one mentioned above and described by Downing as of inferior quality when grown in the United States, it has in Canada retained its high quality while decreasing in size. I have found, by recent inquiry among Canadian orchardists, that it ranks among the best for profit, preferably for a near market; and I have ocular demonstration of its abundant fruitfulness. I think it well worthy the attention of orchardists in the "cold belt."

Orleans Co., Vt. T. H. HOSKINS, M. D.

THE WHITE WINTER CALVILLE APPLE OF ST. HILAIRE, QUEBEC.

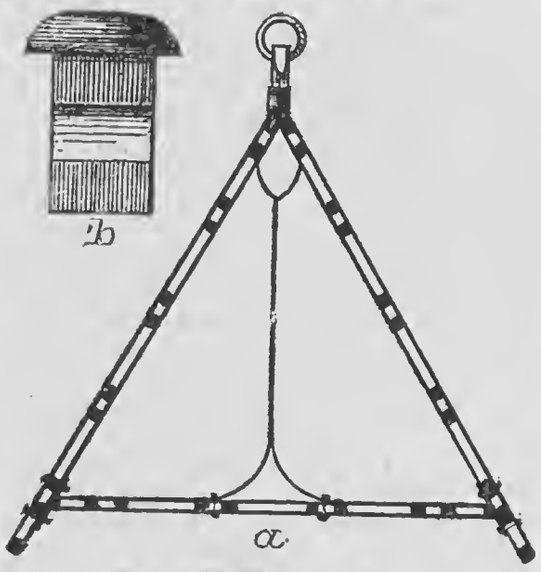
SAYS the Montreal Horticultural Report for 1876: "This seedling originated in the orchard of the late Jean M. Ducharme. The original tree was bearing in 1822, and still bears. It bears heavily, but not young. Fruit, large, roundish, whitish, blushed in the sun. Flesh, tender, juicy, and of a pleasant sub-acid. This apple is attractive, but its tender flesh and delicate color cause it to be easily bruised and injured." I was favorably impressed by what I saw of this apple in the Canadian orchards, but it was evident that it does not stand so highly in the esteem of growers as the Calville of Abbottsford, elsewhere described and figured. But it excels that variety in its delicate beauty, with a skin of ivory and rose leaves, a circumstance which makes it the peer, if not the superior, of any known apple for decorative use, while its quality for the dessert, does not disappoint the expectations excited by its remarkable appearance. T. H. H.

Farm Economy.

A GOOD HARROW.

MR. J. BUNDY, of Belmont county, Ohio, contributes the accompanying diagram of a harrow which he asserts is the best he knows of. It can be easily made by any blacksmith and is not expensive. Each of the three sides of the frame consists of two bars of iron two inches wide by one-quarter inch thick, and

placed an inch and a quarter apart. Between these are inserted the tooth-holders, one of which is shown at *b*. This is a block of cast iron, two inches long, clear of the projection above, one and one-fourth of an inch wide and three-quarters of an inch thick, with a groove into which the tooth fits. Two



of these are used for each tooth, and they are fastened by half-inch bolts. The advantages claimed are that the implement is very durable and that the teeth, being movable, their number can be changed to suit the occasion. An entirely new set of teeth of another shape from the one commonly used, can also be inserted if the soil should require it.

WIRE FENCE.

W. I. CHAMBERLAIN.

It is now fully time to take precautions against snow-drifts during the approaching winter, and one of the best preventives of these along the highways, is the erection of wire fences. One of the strongest points in favor of these is that snow cannot drift behind them. Last winter was an unusually bad season for snow-drifts and great damage was done. Thousands of miles of highway, in short or long stretches, all over the land were literally blocked up, and the teams forced to go through the adjacent fields. Fences, trees, and nursery stock were injured and broken down by the weight of the snow as the drifts slowly settled in thawing, and wheat and rye were to some extent smothered by the compact burden. Hedges, stone walls and board and rail fences will always harbor huge drifts where the wind has a fair chance, and the drifts will block the highway or fill the railway "cuts" or crush fences or nursery stock as the case may be. The obstruction of highways, however, is the point specially requiring the attention of our law-makers. Farmers and railroad companies will look out for themselves in the matter, but the traveling public seem to need the aid of the law. For more than three months in this locality (Northern Ohio) not naturally a snowy one, the teaming of hay, large logs, or anything at all top-heavy, was last winter rendered practically impossible on northerly and southerly roads. Light sleighs would skirt the edges of the huge drifts, one runner a foot higher than the other, or go through the adjoining fields, but top-heavy loads would be capsized. And long after the snow was gone from the fields and most of the way in the roads, the trouble still remained in places. The writer started a man with a load of hay for market. He got two miles, almost capsized, dared neither to advance nor retreat, and the load had to stay there some three weeks on the barn-floor of an accommodating farmer, till the huge drifts settled, before it could be taken either to market or home. And one of my neighbors some weeks earlier had a load capsized in the road, and burried by subsequent storms of drifting snow because it could not be removed.

Is Wire Fence Effectual?—Against cattle and horses it is a perfect barrier, if properly made. The barbed twisted wire used much at the far West, is ugly, savage stuff; but even by this stock is seldom injured. They soon learn to have too profound a respect for it to venture near it, the only danger being to wild or restive animals ignorant of the virtues of the fence. Perhaps, however, a better form is that made with smooth wire, with a barbed strip of wood, an inch or more square, hung loosely to the wire next to the top. This *shows stock there is a fence*, pricks them if they touch it, but swings away without goring or lacerating. The wood strip is patented, but farm or township rights to use it, are sold at fair rates and without humbug or swindle. The nature and unwieldiness of the strip prevent its being manufactured and sold through regular channels of trade, and seem to justify the usually objectionable feature of the sale of a right, rather than of the manufactured article.

Durability.—If the wire is of sufficient size and galvanized or painted to protect it from rust, I see not why the fence should not be as durable as the posts; nor why the wire should not be used again on new posts.

Heaving with Frost.—Posts will heave more or less with frost, just as in board fence. But in the latter the posts cannot be driven back to place with a maul or sledge in spring time without shattering the boards loose. But posts of wire fence may be driven without damage.

Unsightliness.—The eye has been accustomed to hedges, stone walls, fences, etc., which strongly mark the boundary lines of farms and fields; and wire fences, showing little but a line of posts, seem at first unsightly. Whether they will cease to seem so I cannot tell. But I find my eye already prefers them to the "Virginia rail fence." For road fence along a tidy farm, they are nice, for they show crops and culture so well.

Sheep and Pigs.—The former are easily kept in by a fence of four or at most five wires, the lower ones being placed not more than six inches apart. Pigs will stretch and spread the wires and get through; but they are a nuisance on a farm except in a pen or yard or lot exclusively devoted to them, and fenced *pig-proof*.

Breakage.—I hear complaints of breakage, and failure to repair. I have never been troubled in this way; but can conceive that if a long stretch of wire were drawn very tight in hot weather, the contraction in severely cold weather might break it. The tools for tightening, loosening and repairing are not expensive, and should be at hand.

Expense.—In constructing a wire fence a post at the end of every rod is quite near enough, so that half the posts needed for board fence will suffice. The entire expense of material and labor (except setting the posts) is about 50 cents per rod.

There are some objections to the fence, doubtless, not yet discovered. But on the whole, taking into the account cheapness, durability, effectiveness, and protection against snow drifts, convenience in tilling and harvesting crops, non-protection for briars and weeds along the line, and the growing scarcity of lumber, I am inclined to think wire fence in some form will be the fence of the future in the Great West. Or at least it will divide the honor with the osage orange hedge. I have seen the statement that at present prices of land, labor and lumber, the fences in New York would buy the land; and in Ohio the ash, cherry, butternut and black-walnut rails would go far in that direction. The Far West cannot afford such fences. Can we?

QUANTITY OF MANURE PER COW.

Very few farmers have any idea of the amount of fertilizing material produced by a cow in a year, or during the six months in which cows at the North are usually housed and the manure saved. Some interesting experiments are on record in relation to this matter. The most extensive and prolonged are those of Professor Dana, author of the "Muck Manual," who found by actual weighing that the average solid excrement daily, for nine-and-a-half years, of fifty cows, was 56 pounds per cow. These cows were kept at the print works in Lowell, Mass., their manure being used in the process of printing calicoes. The dung was kept free from litter, and carefully collected and weighed each day. In order to lessen the cost of this manure, these cows were purchased when fresh, well fed, and the milk sold to the milkmen of the town. Professor Dana was employed as chemist to the print works, and being much interested in agriculture he availed himself of the favorable opportunity for experimenting. We owe him much for the definite facts he was able to supply in relation to the subject.

Other experimenters, who have weighed the manure of cows for shorter periods, give similar results. James Thompson, of Massachusetts, in a paper printed in the agricultural report of that State for 1868-'9, reports that the solid excrement of five cows for the winter of 1867-'8 amounted to 73¾ pounds daily from each.

Professor Dana fed his cows with a ration of 12 pounds of potatoes and 24 pounds of hay, daily. The ration of Mr. Thompson's cows was six pounds of stewed corn-stalks and poor hay, mixed with one quart of corn-meal, in the morning, with five pounds of hay following. At noon they had six pounds of straw or rowen; in the afternoon two quarts of fine feed and a peck of roots, with seven pounds of hay for the last feed.

It is well understood that nothing comes out of a cow but what has been put into her, in some form. The value of her manure when neither gaining nor losing weight, is less than that of the fertilizing material contained in her feed only by the amount withdrawn in her milk, provided all the excrement, liquid as well as solid, is saved. This refers to pure dung and urine, without reference to bedding or other absorbent material that may be used.

It follows from the facts mentioned that all the manure of a cow, preserved and applied to the land without loss, is capable of reproducing the food consumed, in the same or some equivalent form, provided nothing is lost from it in the soil. Experiments have shown that practically some of the nitrogen is lost. But, on the other hand, considerable nitrogen is added from the snow and rainfall. Some plants, such as clover, seem to possess the power of adding to the available nitrogen in the soil, while requiring very little to be supplied to them during growth. The phosphorus and potassium salts increase naturally in available forms under tillage. Therefore, we may assume that under the ordinary rotation of a well managed farm, the manure of a herd of cows will, where butter-dairying is practiced, and the skim-milk is fed to other stock, be sufficient to reproduce their food continuously. If there is any falling-off it may be made good by moderate purchases of highly nitrogenous feeds, such as oil-cake or bran; or of nitrogenous fertilizers, to be applied to the grain and grass crops of the farm. These must be increased, with perhaps the addition of phosphates, when cheese or market milk is sold, or where young animals are reared for sale or to replace older ones turned off to the butcher. Much can be done to provide for losses of this kind by making all waste materials available for fertilizing purposes, using them as absorbents and in compost. Deposits of muck are particularly useful for these ends, especially on the lighter soils. T. H. H.

Tether-Pegs.—An excellent tether-peg can be made by any blacksmith from a bar of iron, say, three-quarters of an inch thick, by

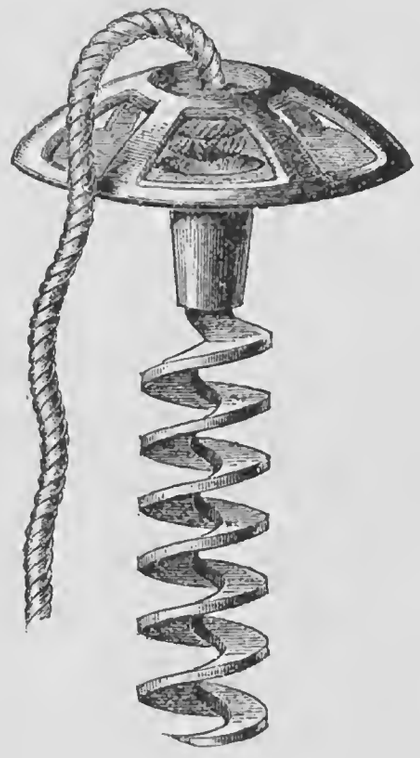


Fig. 2.

twisting it into the shape of a corkscrew, and bending the top into the form of a ring to which the rope is fastened. When screwed into the ground such a device is represented at Fig. 1. A neater but somewhat more expensive tether-peg is shown at Fig. 2. Pegs of this kind are patented and sold in most of the hardware stores. Here the top is hollowed out and the rope secured by a large knot, as represented. It is impossible to pull out such a peg, neither can the rope be twisted or caught round the top.

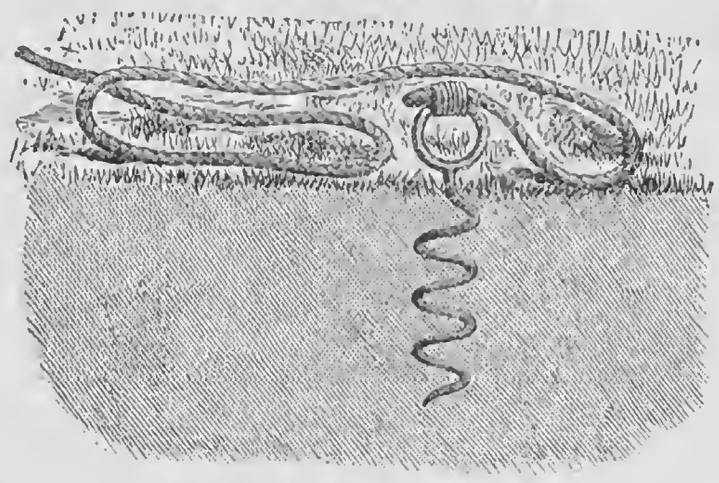


Fig. 1.

The warm weather continues. Our wheat is making an immense growth. Should this "growing" weather last, it may be feared that the stalk will be so far developed as to be killed during the winter.

Miscellaneous.

WHAT OTHERS SAY.

Sugar from Corn and Sorghum.—Mr. C. J. Reynolds gives his experience on the above topic to the Elmira Farmers' Club, as reported in the Elmira Husbandman:

The first experiment this year was with 400 hills of Stowell's evergreen sweet corn. From that we extracted forty-three gallons of juice. It was placed in a heater tank of about one hundred gallons' capacity, and lime added in proper proportion, after which the juice was reduced to nine gallons of very good molasses—better than most of that sold in country stores.

The next experiment was with Amber cane, the seed of which was not advanced to such a degree as to show ripeness. The cane was raised by Mr Nixon, of Caton, the crop of seventeen rods of ground. The juice was worked by the Clough process, the result about thirty gallons of good dense molasses. We continued working such lots as we could get, including corn and sorghum. The results with two lots of sweet corn satisfied us that the statement made by Gen. Le Duc, at the sugar convention held here last spring, and by Mr. Stewart of Pennsylvania, and Mr. Kinney, of Minnesota, regarding the product of an acre, were rather below, than above the truth. I think we have shown that good crops of sweet corn may give as much as three hundred gallons of molasses to the acre, with no serious difficulty in the way of producing either the molasses or the sugar from it. We have not yet been able to extract more than 85 per cent of the juice, because of the imperfection of the machinery, but even with this it is shown that the estimate of yield made by these gentlemen may be accepted. It is claimed that ten pounds of sugar may be made from a gallon of molasses of thirteen and a quarter pounds' density. I have molasses that bids fair to yield a satisfactory sugar product, but I cannot say what result will be attained until after the time has passed to perfect the crystallization.

The whole subject is attracting much notice. Farmers have shown great interest in the experiments I have made—they have watched the work with evident desire to get at the truth. It is a matter of regret that not enough cane or corn has been available to permit operations to be conducted on a scale large enough to show facts more fully than we have obtained them in small trials.

Judge Balcom.—How much molasses do you think might be obtained from a good crop of cane or sweet corn?

C. J. Reynolds.—Three hundred gallons, without doubt, from a good crop, worked up at exactly the right stage of growth.

Judge Balcom. Of what value?

C. J. Reynolds. I can only say that I have submitted samples of that we have produced to examination by good grocers in Corning, and they put the value of some at thirty-six cents ranging from that price to 60c. a gallon. The best has no green shade, no bad taste, it is even better than any brought to our markets.

Judge Balcom—You mean retail prices?

C. J. Reynolds—No sir. Wholesale.

Judge Balcom—Which is the greater cost; to raise the crop, or to work it into molasses?

C. J. Reynolds—To raise it, no doubt. I think an acre of corn stalks, or Amber cane, may be worked up at less expense of labor than would be required to cut, husk and crib the product of an acre of field corn. Of course, when I say three hundred gallons of molasses may be produced from an acre, I mean good ground, good care of the crop in growing and skillful handling in the process of working.

Judge Balcom—Say from land that would produce sixty or eighty bushels of corn to the acre?

C. J. Reynolds—Yes sir—land that will give that amount of shelled corn will produce as much as three hundred gallons of good molasses to the acre.

J. F. Copley—Have you tried beets?

C. J. Reynolds—I have not, but I intend to make the trial on a small scale using the Stewart process. Gen. Le Duc said in the late convention that beets might be worked successfully by it, but I have no practical knowledge of the working. Every body knows that molasses produced from beets is good for nothing to be used as molasses—it is only good to work into sugar.

W. A. Ward—What proportion of the crop of Amber cane, or sweet corn, would it be fair to pay for the labor of working the whole into molasses.

C. J. Reynolds—My idea is that a mill should be so located that the crops to be worked up might be produced within reasonable distance; there should be an abundant supply of good water (for it requires a considerable amount in the process of working) and then the proprietor might buy stalks and pay six or eight dollars a ton, or charge by the gallon for working, perhaps fourteen cents, possibly more. I have cut

different lots and worked up, but I have not sufficient knowledge of the cost to enable me to say definitely what prices could be paid for the stalks stripped and brought to the mill, or to enable me to say exactly what price per gallon should be charged for the working: possibly it may be done for twelve cents a gallon, with the very best stalks in exactly the right condition, but there should be a fair allowance for profit.

W. A. Ward—How many tons of stalks would you expect from an acre?

C. J. Reynolds—Twelve or fourteen tons I should consider a low estimate. Mr. Smith, a farmer near Corning, had a lot of stalks he thought of getting worked up and he tried binding them, but they were so heavy he abandoned that idea. He said "they weighed like pig-iron." Few persons have a true idea of their great weight.

W. A. Ward—The leaves make good green fodder, I suppose?

C. J. Reynolds—Yes, sir; the strippings are all good. About the 20th or 25th of last August I suckered a lot and fed the green leaves to cattle; they ate them greedily. To get good sugar it is important that the stalks should not be frozen, but for molasses it does not hurt the juice if the stalks are frozen hard. Last week a lot of stalks was brought to us one morning when they were frozen nearly solid. They were set up until afternoon and then run through the mill, and the juice made very fine molasses. Last year I cut some stalks when the ground was frozen—the stalks had been frosted a dozen times, I presume—but they gave a good product in molasses. It will not do to leave the stalks long after they are cut before working, for the juice at the butts becomes oxidized and is then nearly worthless.

Judge Balcom—When you estimate the yield of an acre at twelve to fourteen tons, you mean with the leaves and tops, I suppose?

C. J. Reynolds—No, sir; the stripped stalks. The leaves and tops should be taken off before the stalks are cut. The leaves can be stripped rapidly by striking downward with a lath. The inquiry is often made:—"What will a mill and other suitable apparatus cost?" I may say the whole can be procured ready for work, of capacity enough to work up the crops of several farms, for about $150.

Geo. Chamberlain—There is one trouble, that of ridding the ground of roots after the crop is taken off.

C. J. Reynolds—That is not a serious matter if the stubble is left until the following spring. The roots run deep, it is true, but it is not a difficult matter to dispose of them if left as I have said. The crop may be exhausting to the soil—I suppose it is, but I do not know.

W. A. Armstroug—It should not be especially so. The seed is not perfected, and that is what exhausts the land.

HOLSTEIN CATTLE.—Our occasional correspondent, Mr. L. S. Hardin, writes to the London Ag. Gazette as follows:

Considering the favor with which this breed of cattle is being received in the dairy circles of this country, it strikes one at this distance as remarkably odd that the breed should be so nearly omitted from the list of dairy cattle exhibited at Kilburn.

To one who stands in the neutral position of your correspondent it is interesting to note the struggle that is now being inaugurated in this country between the Holsteins and Jerseys for public favor. It may be said that the Jerseys have possession of the field in advance, which is practically true, as the little cow is an immense favorite, and she numbers among her friends and advocates the large class of "gentlemen farmers" who are so fond of writing their experiences to the papers. This keeps the little Jersey constantly before the public, but gives her rather a fictitious value, as this class of writers is not always composed of the most judicious people in the world. On the other hand, the Holstein is generally owned and handled by men of less means, but more experience; men who, from practical handling, have better ideas as to what constitute the real points of merit in a dairy cow. This difference of judgment is most strongly marked in their choice of points to praise in their favorites. Each Jersey breeder gives long dissertations on milk veins, escutcheons, black points, yellow skins and solid colors. The Holstein writers generally confine themselves to long rows of figures, showing how this herd made an average of 8,000 lbs., that one 9,000, and the other 10,000 lbs. of milk in a year, or an average of 350 to 450 lbs. of butter per cow. [Oh!]

This kind of writing never reads so prettily; but somehow or other these figures get in the mouths of our dairymen, and seem to stick there; so much so that the Jersey must look sharply to her laurels if she hopes to retain them.

ABOUT SELECTING TREES.—The Country Gentleman says that if people neglect to inform themselves in relation to the most desirable sorts, and the prices to pay for them, they invite imposition and extortion. The best thing to do, now that the purchasing season is approaching, is to order at once the catalogues of the principal nurserymen, and then to examine them for the names and prices of the best old standard sorts, and then purchase directly of those nurserymen, or of their regular accredited agents, and avoid high-priced novelties.

DALRYMPLE.—The Prairie Farmer says, that on the great Dalrymple farms in Minnesota, comprising a total of 20,000 acres of grain, 115 self-binding reapers cut 1,500 acres a day. In thrashing twenty steam thrashers are employed. The yield this year will be somewhere between 20 and 25 bushels per acre. Fifteen cars of grain will be shipped per day when the season commences.

To Our Agricultural Exchanges.

Agricultural papers are earnestly requested to publish this call, and draw attention to the fact that it is to be held Dec. 9th, during the first week of the International Dairy Fair, and all interested in such an organization are earnestly solicited to attend.

A CALL.

THE indications from every part of the country point to the great necessity for the combined effort of all persons interested in dairy cattle, to collect and disseminate authenticated records of the yields of dairy cows, to the end that we may with far greater precision, intelligence and method than it is now possible to do, improve and fix in our various breeds of cattle higher and more persistent milking qualities, and the ability to transmit those good qualities to their offsprings.

To accomplish this purpose, we, the undersigned, agree to meet in convention at the American Institute in New York City, December 9, at 12 o'clock M., and organize an association for testing and recording the yields of dairy cows:

X. A. Willard; Henry E. Alvord; F. D. Curtis; Colin Cameron; T. S. Gold; S. M Wells; L. S. Hardin; William Crozier; T. M. Seaver, Sec. Int. Dairy Fair; J. H. Reall; Miss Midy Morgan; James Nelson; Lawson Valentine; H. C. Hoffmann; R. H. Allen, B. F. Small, and others.

Hurdling off Farm Crops.

Professor Stewart's article on Mutton and Wool in the RURAL for Oct. 11 is thoroughly practical and truthful. The remarks on the movable hurdle fence are good, and it would be no small benefit to farmers if they would use such fences with sheep while eating off root crops, as well as various other farm crops, such as clover, rye, rape, etc. Iron hurdles on wheels are coming largely into use in England, and if a movable shed also could be devised to give shade in summer and shelter in autumn and early spring weather, the folding of sheep would be more economical than the homestead soiling system. Having been raised and having afterwards farmed in the greatest sheep district in England, where there were thousands of sheep in every parish around me, I am fully acquainted with the extraordinary benefits derivable from sheep husbandry conducted extensively during a great part of the year on the system of hurdling off the crops. SHEEP FARMER.

The Herdsman.

LONG-HORN CATTLE.

Long before the now famous Short-horns had anything more than a circumscribed local reputation, the Long-horns were highly prized through most of the midland counties of England. To Yorkshire is generally ascribed the credit of having produced both breeds, tradition assigning the rich district of Craven in

HEAD OF LONG-HORN.

the West Riding as the original home of the Long-horns, and the fertile alluvial tract of Holderness in the East Riding as that of the Short-horns, although some consider that the neighboring strip of Durham along the Tees, has a prior claim to this honor. The origin of the Long-horns, like that of the Short-horns, is a matter of conjecture, it being unknown whether they were imported from Ireland, or some foreign country, or whether they were locally developed by the peculiarities of the soil and climate of the district of Craven. Certain it is, however, that two or three centuries ago the long-horned cattle of this region had acquired a wide reputation as good beef animals and excellent milkers. Whether these merits were due to any special system of breeding or to merely natural development is uncertain; but the probabilities are in favor of the latter alternative.

The earliest record extant of any systematic attempt to improve Long-horns dates back to Sir Thomas Gresley, of Burton-on-Trent, and to the commencement of the eighteenth century. After him, in 1720, came a farmer and farrier, named Welby, most of whose improved herd died of disease, thus impoverishing their owner. The next improver of the breed was a Mr. Webster, of Canley, who is said to have produced the best dairy herd in the kingdom. Then came the greatest of all breeders, the celebrated Robert Bakewell, of Dishley, Leicestershire. Although his fame is mainly founded on his great improvement in Leicester sheep, yet had not this been so transcendent, he would have become famous for his improvements in Long-horned cattle and in cart horses. During his long life of 70 years he wrought a mighty change in the character of his herd of this breed. His improvements consisted mainly in the production of animals with a much smaller proportion of bone and offal, a larger one of meat, superior quality of flesh, earlier maturity, greater aptitude to fatten, and a more symmetrical form. Moreover, they consumed a smaller quantity of food than the unimproved breed in proportion to their size, but their milking qualities were considerably lessened. On this last account, while the improved animals become great favorites with the graziers, the dairymen and cottagers preferred the old sort, which gave a large mess of rich milk, and took on fat not unkindly when turned off for the butcher.

After Bakewell's death, in 1795, the character of the Dishley Long-horns is said to have deteriorated somewhat in the hands of his successors who lacked his extraordinary skill, sagacity and experience. The great merits of the Short-horns, too, were soon after developed by the skillful labors of the Collings, who commenced to breed them in 1780, and by the enthusiastic efforts of their numerous imitators in the improvement of that breed. Nowadays even in the midland counties of England where a century ago the Long-horns were the prevailing stock, they are now nearly every where replaced by the Short-horns and other popular strains. Lately, however, an attempt has been made to revive the interest in this fine old breed; a Herd Book containing the names and pedigrees of 286 bulls and a still larger number of cows has been published, and it is hoped that from these the breed may once more be widely disseminated.

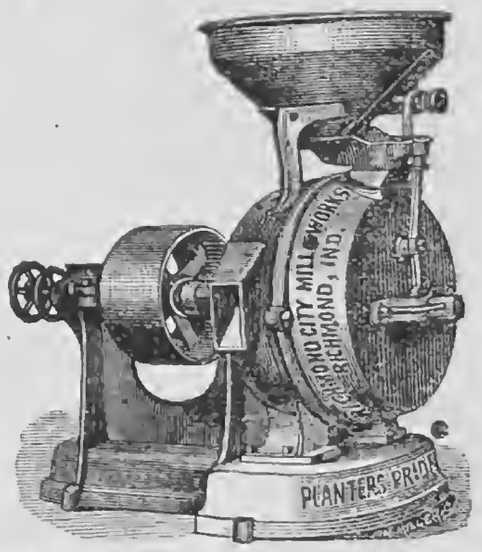
HEAD OF LONG-HORN.

The horns from which the cattle derive their name, are unusually large, sometimes projecting nearly horizontally on both sides, often hanging down on both sides of the face so as almost to prevent the animal from grazing, or curving inward so as to threaten to meet before the muzzle, or penetrate the nose. In color the Long-horns are red, red-roan, blue-roan, yellow-red, or inclining to fawn color; and sometimes white in the back and belly. In size they are above medium, ranging in bulk and weight fully with the Herefords. A few specimens have been imported here and there into this country, but more from motives of "fancy" than profit, as other breeds are held to be more convenient to handle and more remunerative. The two strikingly characteristic heads here presented, we have redrawn from the fine new work on Dairy Farming of our correspondent, J. P. Sheldon.

Industrial Implements.

THE PLANTER'S PRIDE MILL.

THE economy of using ground feed is strikingly demonstrated in cities, where large corporations employing many horses invariably grind both corn and oats, and cut the hay into fine particles. The stock thrives apace, and the percentage of food consumed is smaller than if fed without having been passed through the grinders. Farmers may as well desire the same benefits by feeding in the same manner, particularly as in their circumstances, they can extend the benefits of such a system to horned cattle, hogs, etc., and by so doing enable them to lay on good flesh rapidly, which is both a direct and indirect profit, as they sell for a better price and the result is more rapidly attained. The saving can be mathematically demonstrated. If this plan is pursued it should be done in the most economical manner, and that way is to secure a good mill that will do the amount of work required with the least expenditure of power and the smallest amount of wear and friction.



We illustrate, this week, a very compact, well-made mill that is manufactured by the Richmond City Mill Works at Richmond, Ind. It is just adapted for the use of planters, farmers, stock-raisers and millers and is very popular in the East and South where large sales lately have been effected.

The Mill (except the stones, which are of the best selected French buhr stock) is built of iron and steel, and is very compact, weighing 700 pounds and requiring a space on the floor of only 28x40 inches. The buhrs are 18 inches in diameter, and are banded, faced, furrowed and put in perfect balance. The bed stone is cemented in the front half of the hoop or case, which is held in position by bolts passing through rubber springs, which yield when any hard substance passes in *with the* grain, thus preventing breakage.

The spindle is made of the best quality of machinery steel with extra-long Babbit-metal bearings and large oil cups with hinged covers, and is also provided with a relief coil spring by which the runner stone is drawn back from contact with the bed stone, when it is desired to stop the feed. The driving pulley is 12 inches in diameter, 7 inches face, and the mill should be run at from 400 to 600 revolutions per minute, requiring from three to six horse power. The capacity is from 10 to 20 bushels of corn, and 15 to 30 bushels of feed per hour.

The mill is neatly finished, painted and varnished, and loaded on the cars at the works, free of charge. The tie or fastening bolts are sent with each mill, and it is only necessary to bolt it down, attach the belt, and straightway the mill is ready for business.

Everywhere.

BEYOND THE MISSISSIPPI.

To-day I want to tell something about the dairy interests in this county. In dairy matters but few of the farmers here are prepared to successfully compete with Eastern farmers. In building a new house it is but rarely that a cellar is built under it, the excuse being that it is impossible to drain it. This may be true in some instances, but I have never seen in Missouri a prairie so flat that a good building site cannot be easily found, that can be drained at but small expense. The real reason is that farmers *here*, as all over the United States, are too prone to follow in the same ruts their grandfathers made. Fortunately all are not so minded. Six miles north of our county-seat, Kirksville, stands a large farm-house, almost hidden from view by two fine locust groves that border the drive leading up to the entrance. This is the home of Judge David Ely, the largest land-owner in the county, and one of its best and most progressive farmers. A half-mile further on we see a neat white cottage, literally embowered and engulfed in a mass of vines, trees, shrubs, and rare flowers of every description. Here we have the home of John Ely, son of the judge. He is as far in advance of the majority of farmers in method, order, neatness and head-work, as one of his own magnificent Devons is ahead of a common "native." I have frequently been over his farm, garden, orchard, dairy, cow-stables, sheep-yards, pig-pens and poultry yard; and have on every visit been more impressed with the fact that if farmers would only use *brains* more and *muscle* less, they would achieve grander results. The great wonder is that some farmers succeed at all, so little of forethought, and brain-work is brought to bear upon their farming operations.

Most of Mr. Ely's cows are Devons, and his dairy product bears evidence to the excellent milking qualities of that breed. He is now milking 21 cows, and ships weekly to St. Louis from 60 to 80 pounds of delicious golden butter. This is nicely packed in twelve-pound pails, the lid securely fastened, and in three days from the time the milk is carried to the dairy, some of this butter finds its way to the table of the consumer. The cows during milking time, are fed with oats in the sheaf, cut fine, and, judging by the noise they make, they enjoy their allowance—rewarding their owner with overflowing pails. The calves on this farm are not allowed to obtain their morning and evening meals from nature's source, as other more privileged calves are allowed to do; but are early taught to eat what is set before them. Skim-milk thickened with corn-meal mush has made as nice a herd of calves as ever chased each other over the meadows, and they eat their rations with as much gusto, and as many enthusiastic "bunts" of the pail, as though they had never tasted warm sweet milk fresh from the cow. The process of raising calves in this way, is called "yanking," from the fact that the Yankees practice this method extensively. Very few being prepared to pasture their cows on their own premises, the practice of letting the calves take the "top" milk, the owner taking the rest, prevails here to a great extent. Cows that run on "the range" will not come home unless they are "sent for," if their calves do not obtain their meals in this way; and as it is a good deal of trouble to hunt for them every evening, farmers generally practice this plan and leave "yanking" to those who have "home pasturage." Everything that runs out on the prairies wears a bell, and any one accustomed to it can tell the sound of his own bell a long distance off. The wild pasture contains a good deal of blue-grass, which is indigenous to Missouri soil, and helps to make good butter. Mr. Ely has his meadows set with blue-grass and red clover, and on one side of the meadow a miniature lake sparkles and glistens in the sunlight. This was built for the accommodation of the farm, and is about 10 feet deep. On the side of the embankment, and so arranged that all offensive drainage is carried *away* from the lake, stands the pig-pens, and a steam-heater near by cooks the rations for the Berkshires and Poland-Chinas. In dry seasons, stock on "the range' sometimes have to travel five or six miles in search of water, and then, when they do find it, it is full of all sorts of filth, and nothing but overpowering thirst would induce cattle to drink it. Here, at this lovely artificial lake, every precaution is taken to keep the water pure and clean, so that the cows have this supply to assist them in yielding an excellent quality of milk. There is nothing which becomes tainted so soon or easily as milk, and the drinking of impure water just as certainly affects it as impure odors will after it is taken to the dairy. This fact Mr. Ely not only *knows*, but has *profited* by, and the result is good stock water.

The same cleanliness and care prevail in the making of the butter. The milk is set in large, shallow pans, about three inches deep, and is placed on the cellar bottom, which is cemented and sprinkled with dry lime. The churn is a patent. The power stands outside the dairy, and is a big woolly sheep, that patiently walks its treadmill, cheered by sweet apples occasionally, until the butter comes, when it is released from its labors and set at liberty. Between the dairy and the stables extends a ravine which is now effectually bridged by a *hand* railroad. The track is about four feet in width, and at the highest point is 15 feet from *terra firma*. Almost everything that has to be conveyed from the barn to the house, or from the house to the barn, is carried upon the car which plies its trips free of charge. This piece of farm equipment is entirely of home construction, and saves every year in *time*, to say nothing of hard labor and nervous force, more than the cost of constructing it. Another triumph of mind over muscle! You who have the milk of 10 or 15 cows to carry by main strength from the cow-stables to the dairy, please make a note of this convenience, and construct one immediately; and remember that those only are successful farmers who use their brains to plan, as well as their hands to execute. All others are but plodders, and will always remain such.

Sublette, Adair Co., Mo. BESSIE VICTOR.

NOTES FROM WESTERN ARKANSAS.

LEAVING Erie, Penn., some two weeks since for a trip to this State, having in view the selection of a suitable and permanent location for a home in Western Arkansas, I arrived here in due time well pleased with my journey. From general report, we had expected to find a lawless set of people inhabiting Arkansas, but were exceedingly surprised to meet with straightforward, honest, hard-working and law-abiding citizens, wherever it became our lot to stop; and by strict attention to their business, they will soon lift from the State the name she has borne since the war. All they need is help in the shape of good, healthy and industrious people to clear up the mighty forests, till the vast amount of rich soil, and unearth the boundless treasures of mineral resources, and one day she will stand second to no State in the Union. The Indians, who are just over the line, are friendly and hundreds of them come over every year to pick cotton.

After leaving St. Louis, the soil is rather light, but, passing down through the State, it becomes more rich and heavy. Not much prairie land is found northeast of Little Rock, but upon striking a distance of twenty miles west, it is a splendid rolling country to Fort Smith, abounding with luxuriant pasturage, and capable of raising an endless amount of fruit and produce, grain and cotton. Very little rocky soil is found except on the ridges.

The climate of Arkansas is mild and salubrious. Sudden changes of temperature are less frequent than in the Eastern States in the same latitude, and cases of sun-stroke and headache from heat are rarely known, as in the summer it is no warmer than in the Northern States, and in the winter the thermometer rarely marks lower than 20 deg. above zero.

Western Arkansas abounds in valuable timber in all sections, and the revenues from it are of the first importance, constituting the great wealth yet to be realized in the improvement of the State. The Yellow Pine forests predominate, covering about one-tenth of the area of the State. Several varieties of Oak abound and attain large proportions. Cabinet woods occur in abundance, of which the Black-walnut, Cherry and Maple are the most valuable. Besides these varieties there are the Ash, Hickory, Gum, Sycamore, Elm, Cottonwood, Cedar and Black-Locust, with an undergrowth of Spice, Paw-Paw, Hazel, Cane and large Grape-vines. Arkansas is, beyond doubt, the best watered State in the Union, having nearly 3,000 miles of inland navigable waters, so distributed that they intersect nearly every portion of the State, and afford steamboat facilities the greater portion of the year. Its mineral resources are beyond estimation; coal, iron, lead, zinc and associate metals, together with marble, gypsum, salt, hone and whetstone, granite, &c. Cotton has been the staple product for many years, but of late corn and wheat have received considerable attention, and are found to yield a better profit to the farmer. Corn yields 30 to 50 bushels to the acre, and grows to an enormous hight. Potatoes grow abundantly and as the season is long, have plenty of time to mature, while the sweet potato is right at home here, and specimens have been shown to us as weighing five pounds. Fruits of all kinds are almost a sure crop, and are of excellent flavor and large size, peaches sometimes measuring 13 inches in circumference. The forests abound with several varieties of wild Grapes, which are gathered and made into excellent wine. Sorghum also grows to an immense size, and is cultivated very extensively for sirup.

Gardening seems to be a favorite pursuit for those who reside near the larger towns where they can command a good market for produce. Stock-raising will eventually become one of the leading occupations, as the winter is short enough to admit of their running at large the entire season, while the lands abound with excellent grasses.

I would, say in conclusion, that all those who contemplate going West, had better look in on this part of the State before going elsewhere. They can, I think, get suited here somewhere. The Government land is mostly taken up. Railroad lands vary from $2½ to $5 per acre. Those wishing to rent farms can do so either on shares or by the acre. PIONEER.

Franklin Co., Ark.

RURAL SPECIAL REPORTS.

N. Y., Fluvanna, Chautauqua Co., Oct. 12.—The Beauty of Hebron potatoes were a grand success. I planted 21 hills with only one eye in a hill, and the result was three pecks of as fine tubers as one could ask for. They are at least one week earlier than Early Rose. The Blount Prolific corn will require a longer and warmer season than this latitude generally furnishes. The seed sent me germinated slowly, making it at least one week behind usual seasons. The growth was all one could desire averaging 12 feet—highest, 13 feet, lowest 11 feet two inches. Several stalks produced seven and others nine ears each; none bore fewer than five. Most of it got hard, but the yield was so poor, that it is not worth trying to compete for premium. The Acme tomato is superb, when not affected with rust or rot. Many of them showed signs of decay at the under-side or blow end. The Golden Rurals are fine, but nothing to be compared to the Acme. The Pearl Millet was about half a crop. Owing to the cold, dry season, some of the other seeds did not germinate; those that did, have proved a success. The weather is delightful, if one can so speak of October weather, with mercury at 88° and 90° at 2 p. m. in the shade. Crops generally are good. The apple crop is very abundant, and buyers are picking up all they can, at $1.25 for good winter fruit and $1 for fall apples. Winter wheat is looking fine. During a ride of 40 miles yesterday, I saw many pieces looking all the farmer could wish. Potatoes are a liberal yield and of fine quality. They are marketing at 30c. per bushel. Corn, although injured somewhat by early frosts, is more than an average crop. Feed is generally short, and the butter supply equally short; it is being held for 23@24c. Pork is dull at 5c., dressed. Wheat was a fair crop, average yield about 20 bushels per acre. Buckwheat is a light crop, having been hurt by frost. From my diary of 32 years I find no record of weather like the two weeks past—so warm, equal to average August weather.

H. H. W.

N. Y., Hornby, Steuben Co., Oct. 10.—We have had a very dry season. Crops are therefore short. My Beauty of Hebron potato I cut to 10 single eyes and put one in a hill. On digging them I had 23 pounds of nice tubers, three of them weighing 17 ounces each. The Golden Rural tomato is a perfect beauty.

G. W. B.

OHIO, New London, Huron Co., Oct. 16.—September was a cool and somewhat frosty month, but the frosts were only just heavy enough to kill down the tops of vines and bite some pieces of corn on low land pretty hard, but on most grounds uncut corn and late potatoes are quite green yet. October came in glowingly hot, and keeps so up to this time. To-day the thermometer marks 100° on a limb of a tree in the yard at two o'clock p. m. Grass was light throughout this section. Wheat was very good; oats a large crop; corn very fair. Potatoes were a good crop where the bugs were kept off; the old long kind was with us by countless millions. Apples and peaches are short crops. Hickory-nuts are very plentiful. Fall feed is very good. I presume more wheat has been sown here than ever before, and it is looking well, but needs rain now. My Beauty of Hebron potato did not give me a large yield, owing to the long drought in the fore part of summer; I have only nine pounds from the two small potatoes sent me. The Golden Rural tomato is well liked and yielded a large crop of medium-sized fruit. My melons were gobbled up, or down, by the bugs as soon as out of the ground. My Blount corn was cut up yesterday and pronounced fully ripe. After cutting it half waist high, I had to stand on a salt-barrel head to tie it three feet below the top of the stook. B. P.

ILL., Elm Point, Bond Co., Oct. 15.—Wheat looks well now. It is uncommonly warm for this month. September was very cool. We have only had one frost, and that didn't hurt anything. Tuberoses are in full bloom. Tomatoes and Lima beans are as green and fresh as in August. Corn is all dry and the leaves are all dead, while Pearl Millet is green and growing; I intend to give it a good trial next year. Our stock relish it as well as any feed they get; it has done well for such a dry season. Blount's corn did well. The Beauty of Hebron potatoes are large and nice. We did not get them planted as soon as our old kinds, so I can't speak about their early qualities. Potatoes are scarce and high; it was too dry for them. R. C. P.

MINNESOTA, Le Sueur, Le Sueur Co., Oct. 13th.—Harvest has long since been ended, and thrashing is now in progress. There have been only five accidents from steam engines up to date. In two instances the separator, as well as numerous stacks, was burned. Grain turns out a fair yield to the acre, averaging 10 to 15 bushels, according to locality. The quality is good. Prices are fair, with a prospect of a rise. My Blount's corn is astonishing to behold. The stalks are from fifteen to sixteen feet high, and the ears as large as pop-corn, with from six to eight rows, and kernels as large as pumpkin seeds, and as white as milk. P'q'liar corn I call it. My wife and I think the Golden Rural tomato the earliest and best we ever saw. From the seed obtained from the RURAL we raised all we could eat and can for future use, besides giving away a good many, while many more went to waste on the ground. I have just received four pigs and a South-Down ram from Philadelphia. The pigs and ram cost me $65.00. The Express charges amounted to $54.00. The weight of the lot, including boxes, was 600 pounds. "How's that for high?" Our friend Vick, of Rochester, has been waging a bitter warfare on the U. S. Mail officials for the exorbitant charges on seeds, and I think somebody ought to bestow a little attention of a like character on the Express companies. G. D. S.

KANSAS, Parsons, Labette Co,, Oct., 4—Our growing season is being prolonged a little more than usual. Generally our first frosts are with us at this date, but so far this fall our coldest morning has not been lower than 46 deg. As our corn has long been ripe and as we have very few roots, there is no advantage in this prolongation of the season other than for grass and the castor-oil bean. Our Pearl Millet is mostly ripe. It was sown the 24th of May. Being instructed to plant four feet apart, each way, and having counted the seeds, I found I should require an acre of ground and did not care to risk that much on an article then unknown here. Finally I spared about one-tenth of an acre in an abandoned barnyard. The seed was used liberally, but no Millet came above the ground in three-fourths of the hills. The cause may have been partly in planting too deep, but chiefly in our having too much rain a day or two after planting. I cultivated what grew, and have lots of seeds. As I did not plow deep, owing to the hardness and dryness of the soil, some of the hills have blown over. I chopped off the mud and some of the roots, and put the Millet within reach of the stock. The hogs have corn before them nearly all the time, and the cattle have a good pasture, but they "made for" the Millet lively and soon there was nothing left but the small bunch of roots, the fiber, and the "tail." I have never seen anything devoured with greater avidity, and it was not because of a change from dry to succulent feed, as the hogs have every day more or less grass, weeds, beet-tops etc. But they did *not eat the seed*. This was three or four weeks ago. I don't know how much one of the hills weighed, but it was more than I found easy to shoulder. Each hill was the product of one seed. One of the hills has 99 tails, the others vary from 20 to 75. The Millet is from four to 8½ feet high and the tails five to 12 inches long. The smaller hight and smaller tails are where it was planted, say three feet apart. I intended mine for seed, and so did not cut any except one crowded hill. This was a month ago, and despite uninterrupted and intense heat and drought, the cut stalks in this hill shot up well. I have not the least hesitation in pronouncing it one of the best, yea, by far the best plant here for fodder. Ours should have been planted by April 15 at the latest, and in that event, in an ordinary season, it might have been cut by July 1, and as there will be 2,700 hills, at four feet each way, this would yield, at 25 pounds per hill, over 33 tons of green fodder. My hills that were blown down, including a small portion of root, weighed, I guess, from 40 to 60 pounds each. Now, in this latitude two crops can be had in any season; so the crop is a great deal greater and the quality better than anything known in these parts. Whether it will exhaust the soil much, I don't know; but one can afford to fertilize an acre of land that will produce a crop such as I have figured upon. It must not be forgotten that our latitude is 37 deg. 40 minutes, and our altitude 960 feet.

Our Kansas corn crop is made, and the yield varies from 30 to 75 bushels per acre, the first quantity on poorish high land, and the last on rich creek and river bottoms. Intermediate yields are on mounds and lands between the bottoms and the high "white" lands. The eastern tier of counties, bordering on Missouri, have an unprecedented crop. In this area, comprising 200 miles by 20, the corn is better than any corn ever seen in Illinois; so says a reliable man who lived 15 years there. The yeomanry have got the recurrent fever badly; I mean the excited state in which this body finds itself every two or three years. Sometimes it has saccharine symptoms; at others cereal symptoms. The latter is the

epidemic now. Wheat! Wheat! is everywhere, and, to tell the truth, it looks splendid. The only fear is that there may be too much growth, if this fine weather continues. J. B.

KAN., El Dorado, Butler Co., Oct. 15.—We have been having the best kind of weather for farmers since the first of the month, owing to numerous showers, which have caused the parched pastures to become green and fresh and the wheat fields to look splendid, giving promise of a bountiful harvest. Most of our fall work is already finished, and corn is now being cribbed rapidly; the quality is good; the yield rather below the standard. Large quantities of hay have been put up here for parties who have stock on ranges. The making of molasses has been the order of the day for the past few weeks. I had a test between the best cane grown by my neighbors (White Top) and the Early Amber grown by myself, to see which would produce the most from a given quantity. Mr. J. D. Green, an expert worker of cane, manufactured the products, and the following are the results: 51 gallons of expressed juice from White Top produced 10 gallons of nice molasses, and the same quantity of the Early Amber produced 13½ gallons. As yet it has not shown any indication of granulation. Farmers generally are feeling good, as all kinds of farm products have an upward tendency. Wheat sells from 85c. to 90c. per bushel; corn, 15c. to 20c.; oats, 25c. to 30c.; butter, 20c. to 22c.; cheese, 10c.; eggs, 10c.; hogs, $2.75 to $3 per 100 lbs. As all goods we have to buy are down to bottom prices, we in Kansas are happy and are looking forward to a bright future. W. J. B.

IOWA. Ashantee, Carr Co., Oct. 11.—My Hollyhock, Aquilegia and Dutchman's Pipe, came up and so did the Cock's-comb. The hot, dry weather, however, killed the Pipe, but the others did well, the Cock's-comb being the finest I ever saw. The Rose of Sharon is doing finely. Defiance wheat, however, was a failure. H. R. R.

WYOMING TERRITORY, Colfax, Whitman Co., Oct. 10.—Pearl Millet was a failure with us. Our nights are too cold and we have frost one or two nights in every month in the year. The Voorhis watermelons were fine. Some of our neighbors who tasted them, said they were the finest they had seen since leaving Tennessee and Missouri. Defiance wheat did very well, and was quite an improvement on the seed we sowed, but it is not equal to the kinds grown here. The Acme tomato was very fine, smooth and solid. General crops here are good. Wheat in some places was injured by frost, we had quite heavy frosts in June, July and August. Wheat is worth 40c; potatoes, 50c; and very fine specimens indeed are selling for that figure; butter, 25c; eggs, 10c. We have had rain the past week sufficient to start the bunch-grass. Horses, cattle, and sheep are doing well. H. M.

N. C., Brookston, Warren Co., Oct. 15.—The time has arrived when we can get pretty nearly an accurate estimate of the crops for this year. We started in last spring with a glowing prospect. Especially did corn and cotton give promise of extra crops until late in June when the former began to show the ill effects of a severe drought. It is seldom that cotton is injured by lack of rain, but during July it suffered severely, and at one time the prospects for a half crop of anything except wheat and oats, which were already secured, we thought were exceedingly poor, but about August 1st the blessed rains came and we were saved. The last four weeks have been very dry, fine for curing tobacco, picking cotton, etc. There is not much growing vegetation to be injured. To sum up, taking 10 as an average of last year, we can put corn at 7; cotton at 8; wheat at 10; oats at 9; tobacco at 10, though late, and the increase in acreage will nearly bring corn and cotton up to the average amount in this county. The biggest thing I have to brag of in Blount's corn is a stalk and sucker from one seed, on which were one fair ear and four nubbins. Pearl Millet made one good cutting and two light ones, filling a place just after the early sowing of corn. The few plants saved for seed gave from 10 to 15 heads, averaging about 15 inches in length, a very few produced heads with but few seeds on each. The Golden Rural tomato ripened July 1; the Acme, two days later. The Acme is a little the larger—quality and productiveness much the same. Both rotted in July, cracked badly the first half of August, but have given and are giving us a bountiful supply. No frost yet. Voorhis watermelon was a complete failure, not attributable to the variety or the seed, however. M. B. P.

ALA., Carrollton, Pickens Co., Oct. 14.—I have three young specimens of Pinus edulis that promise to do well, judging by the way they grow. Most of the seed sent me by the RURAL came up and grew well. We had the finest corn of Blount's Prolific variety that I ever saw. We have given our friends seed, so that they may try what it will do next year. We are having splendid weather for fall work. Corn is turning out well in this section, while cotton, our great staple, is not so good as thought to be. There is a tendency on the part of farmers here to raise more small grain and a finer grade of stock and less cotton than ever before. There is room for great improvement in stock of all kinds in this part of the country. The farm fences generally need repair, and most of the farm houses are not of a very elegant style. Now that our farmers are on the road of improvement, they ought to build good residences and adorn their places with a choice selection of hardy evergreens, ornamental trees, flowers and fruit trees, all of which make the homes attractive to old and young. M. E. L.

TEXAS, Houston, Harris Co., Oct.—The few light showers October has brought us, have in a measure relieved us of the severe drought that has afflicted us from early spring throughout the whole of summer, in consequence of which crops have turned out very light, if not entire failures. Cotton suffered least, though the yield is far below the average. Our days now are very hot, but our nights have become cool and dewy. Grape-vines are secreting new sap and beginning to sprout, and many leafless fruit trees are blooming. This will spoil the chances of their bearing next year. Texas never will be a fruit country, in spite of all the "blowing" about the likelihood of its being one. G. M.

CANADA, Nova Scotia, Oct. 11.—I received 130 kernels of Blount's corn, and planted 125, about 120 of which germinated and grew. I planted it on the 27th of April, one kernel in a place, on rich, well manured ground, and put to each kernel one spoonful of superphosphate. It came up and grew until some of the stalks are from 10 to 14 feet high. From three to five ears set on each stalk, but it failed to do more than produce a few ears with anything like well formed kernels, and it did not advance far enough to be fit for seed or even green corn. It evidently will not answer for this latitude. A frost about a fortnight since, checked its growth, or, I presume, it would have kept on growing and added a foot or more to its already remarkable hight. Has it succeeded well anywhere this season? Is it not one of the humbugs of the day? I should like to see it planted in some congenial soil, under the tropics, to see when it would get tired of running away from mother earth. The Early Canada or common yellow corn, as a general rule, ripens well with us, and produces fair crops. C. C. D.

The Querist.

ANSWERS TO CORRESPONDENTS.

Cheese Factories.

H.E.E. R., Hosensack, Pa., asks a number of questions about cheese factories answers to which are condensed as follows:

ANS.—The factory system in dairying has the advantage of doing in one building and by one expert man or woman, all the work that would otherwise be done by twenty—fifty or more families, in as many separate houses. It therefore possesses the merit of economy. It has also the advantage of combining all the work in one operation and of making a quality of product which is always the same, and generally better than the home-made product by reason of the use of the best machinery, utensils, and method, and the employment of the best skill. It therefore possesses the merit of effectiveness. Whether or not it is preferable to home dairying, each must judge for himself. Of course, every patron who makes use of the factory and saves labor in consequence, pays to have his work done for him, and this is the only disadvantage of the system. His family gain the ease, and lose what it costs to purchase it. Factories are conducted either on the joint-stock or share system, and are often private enterprises, purchasing the milk at a stated price. Many factories make butter of the cream, and "skim-cheese" of the milk, with profit; the majority make full-milk cheese, but there must be butter factories, and it is a question what shall be done with the skim-milk if not made into cheese. Creamery butter brings the highest price in the markets. Milk has brought the past season about three-quarters of a cent per pound; but the price is now higher since the advance in cheese. There is one price for milk; and this is an injustice which as yet there has been found no way to avoid; but factorymen look after their own interests well and do not take "lean" or poor milk. There is little difference in "makes" of machinery, the furniture of a factory for 200 cows will cost $600 and upwards. Full information on this point can be obtained of Jones and Faulkner, or Charles Millar, of Utica, or of Whitman & Burrell, Little Falls, N. Y.

Wintering Rhubarb.

D. Y., no address, asks what he shall do to his rhubarbs to carry them through the winter and insure an early growth in the spring.

ANS.—Rhubarbs are hardy and need no protection during the winter. No plant is more easily forced, if wanted early. To this end dig up the plants in the fall, and keep them with adhering earth under a shed or similar place. About January transfer them to a greenhouse, where they can be grown under the shelves, to a furnace room or even to a warm stable. They need no light while growing; the stem will be tenderer without it; all that is needed are moisture and a uniform temperature of between 50 and 60 degrees. Another method is to cover up the plants with leaves to keep the ground from freezing; then, about a month before spring opens, invert a barrel over each plant, and heap manure and other heating material around them to produce some artificial heat.

The Rat Pest.

W. M. K., Washington, D. C., complains that his stable is full of rats, that are too wise to go into the traps which are set for them, and he is afraid to use poison for fear they would carry it to the horse feed on their feet, and he asks how to get rid of them.

ANS.—Plaster-of-Paris mixed with Indian meal set about the stable and water near by, so they can drink when they have eaten, is said to be an effective remedy. Pieces of cork small enough to be swallowed whole, fried in fat to make them attractive, will produce the same result. If they can drink soon after they have eaten, these pieces will swell in the intestines and produce constipation. Probably the best remedy is phosphorous paste, a recipe for which was given in the RURAL for September 27. This, though a poison, cannot be carried about as above indicated.

Apples for Southern Minnesota.

W. F. S., Minnesota, asks the names of the various varieties of apples suited to the climate of southern Minnesota.

ANS.—Saint Lawrence, Sops of Wine, Tetofsky, Plumb's Cider, Talman's Sweet, Red Astrachan, Fameuse, Duchess of Oldenburg. These are reported to do well in Minnesota; the following may possibly also succeed in that locality: Roxbury Russet, Shockley, Sweet Winesap, Utter, Roman Stem, Smith's Cider.

Miscellaneous.

D. L. R., Fredonia, N. Y., asks 1, will oxide of iron do to paint an old wagon that has never been painted; 2, what proportion of oil meal, bran and cut hay—mixed or otherwise—should be used for feeding milch cows, calves and fattening cattle, and also for horses; 3, would it be advisable to roll a piece of clover this fall, that was too poor to cut for hay or seeds; 4, what should be the proportions of salt, wood-ashes and lime for gravelly land and also for clay land.

ANS.—1. Oxide of iron, or metallic paint, so called, forms with linseed oil, a hard, waterproof covering which is not easily destroyed. It can also be procured pure, while lead is almost universally adulterated. It will make a very good paint for wagons, if the brown color is not objectionable. 2. One quart of cotton-seed meal, two or three quarts of bran and 20 pounds of cut hay, will make a fair daily ration for a cow; and one-third as much for a calf. A fattening animal may have two quarts of cotton-seed meal and six quarts of corn meal daily, with what hay and straw it will eat. For horses, corn and oats ground together are the best food, and three to six quarts daily, with 20 pounds of cut hay, will be sufficient. 3. Rolling is of no use, except to pack the soil and break up lumps. There is no need to roll a clover field now; it will do no harm and can do no good; all the rolling possible will never add one iota of fertility to the soil. Rolling clover in the spring is useful in smoothing the soil for the mower, that is all. 4. No benefit can occur from mixing the substances mentioned. Five bushels of salt, 40 to 100 bushels of ashes, and 50 bushels of lime per acre are the usual quantities. Lime is better than ashes for clay land, as it loosens the soil, while ashes make it stiffer; with this exception gravelly land may be treated the same as clay land.

F. M. M., Cross Creek Village, Pa., wants to know where and at what price she can obtain a work on astronomy, a physiology and a good dialogue and speech book suited for a common-school literary society; also what is the price of "Ten Nights in a Bar-room."

ANS.—To tell just what books would best suit the age and attainments of our correspondent is no easy matter, since she does not inform us on these particulars. Supposing, however, that she is a beginner in the sciences, we should consider Steele's series of scientific works as among the best she can purchase. Steele's "Fourteen Weeks in Astronomy" costs $1.25, and that is also the price of his Physiology, Botany, etc. If more comprehensive works are desired, we should first name Dalton's School Physiology as the best on that subject, and White's Astronomy. The price of each of these is about two dollars. Lovell's United States Speaker is perhaps as good as any in that line—price $1.25. "Ten Nights in a Bar-room" costs $1.25. These books can be had by addressing the American News Company, New York City; but as those named may not be exactly what is wanted, we recommend that she send to Dick and Fitzgerald, Ann St., New York, for catalogue of books sold by them.

O. C. D., Wellville, Va., asks for information about the Nansemond Beauty Apple, and also for the names of the varieties of Apples likely to do well in his part of the country.

ANS.—The Nansemond Beauty is of medium size; very good quality for family or market. Season of use, winter. Does quite well in Virginia. The apples which experience has shown do well in Virginia are:—Nickajack, Pryor's Red, Rawle's Genet, McAffee's Nonsuch, Monmouth Pippin, Mother, Newtown Pippin, Northern Spy, Ortley, Peck's Pleasant, Porter, Red Astrachan.

B. P., New London, O., is a competitor for the premiums offered for the greatest yield of Blount's corn sent out from this office to our subscribers, and he asks when it should be husked, in what way the yield should be given and at what time, to fill all the requirements.

ANS.—In the RURAL of Oct. 11 a similar question was answered, to which we call our correspondent's attention. For statement of what the reports must contain see editorial page of this issue.

J. G. S., Paonee Rock, Kans., wants to know how he can keep sweet potatoes over winter, so that he can use them for raising plants in the spring.

ANS.—It is essential that they should be kept warm and dry; to this end pack them in a barrel of dry sand and keep them in a warm place, as in a greenhouse, near a furnace or similar place. The cellar suitable to preserve the common potato, is much to cold and damp for the sweet potato.

H. L. H., Republican City, Neb., sends specimen of plant and asks its name. In Mich., where he obtained the seed, it was called the "Bean tree." It bloomed and matured seed the first season. The Michigan tree grew fifteen feet high, and that was the only one he has ever seen.

ANS.—This seems to be American Senna, Cassia Marilandica, though this seldom grows over six feet high.

C. Bros., Pella, Iowa, sends specimens of plants and seeds, and asks their botanical and common names.

ANS.—Callirrhoe triangulata, or Triangular-leaved Callirrhoe, belonging to the Mallow family, as nearly as we can determine without upper and lower leaves. 2, Dolichos, or Black Bean. We cannot give the species, without the flower—Sinensis, or Black-eyed Bean, probably. 3, Sorghum vulgare, known commonly as Indian Millet, or Doura.

H. W., Warren, O., asks what is the best breed of sheep, hardy, healthy, neither fine nor coarse-wooled; yet good for mutton and wool.

ANS.—This description would answer for the South-Downs. The South-Down mutton is the best and brings the highest price. Feeders generally, however, prefer grade Cotswolds or some other of the large, long-wooled breeds.

B. D. M., Sherbourne, N. Y., asks when and how to plant peach stones.

ANS.—Plant them now in rows 15 inches apart, and about 2½ inches deep. If a large quantity is planted, the rows should be far enough apart to admit of the use of the horse cultivator.

S. F. B., Buckeye Center, Ill., is in trouble with his kerosene lamp, the cap on top is loose and he can't fasten it any way he tries. He wants advice.

ANS.—Mix water and plaster-of-Paris till the mass is in a semi-fluid condition, then fill the brass cap and press it on the lamp.

G. W. G., Pentwater, Mich., asks, 1. where can French Lucern seed be bought; 2. what is the difference between it and Alfalfa; 3. whether any firm in this city would buy the handsomest of ferns well prepared.

ANS.—1. From any large seedsman; 2. they are identical; 3. we do not know of any.

W. F. M., Wales, Ill., asks, 1, how much should a bushel of leached ashes weigh; 2. how much should be used per acre.

ANS.—1. About 50 pounds; 2. that depends greatly upon the nature and condition of the soil; but 50 bushels are seldom *too much*.

O. S. B., Burdett, N. Y., asks where he can buy potash and pearlash, and what is the price per pound.

ANS.—Of Newman & Ranehl, 32 and 24 New Chamber St., this city. Potash costs 4¼c. per pound, pearlash 6c.

COMMUNICATIONS RECEIVED FOR THE WEEK ENDING SATURDAY, OCT. 25.

F. S.—S. B. P., thanks.—G. B. A.—W. T.—J. & R. C.—M. M.—B. D. N.—E. J. F. B. sends good Everywhere, but no address.—G. M.—E. F. B.—M. B. P.—F. C.—O. P. C.—R. C. P.—B. D. N.—B. G.—F. B.—C. P.—A. B.—J. H. J.—R. S.—F. J. B.—S. E. W.—T. J. B.—W. F.—C. M. S., thanks.—J. S.—G. G.—F. D. C.—S. W. J.—S. A. M.—H. C. B.—E. E. B. S.—B. B.—T. H. H.—G. W. G.—S. A. L.

THE
RURAL NEW-YORKER.
PUBLISHED EVERY SATURDAY.

CONDUCTED BY
ELBERT S. CARMAN.

Address
THE RURAL NEW-YORKER,
78 Duane Street, New York City.

SATURDAY, NOV. 1, 1879.

OUR ANNUAL PREMIUM LIST AND POSTERS ARE NOW READY. THEY WILL BE MAILED, WITHOUT CHARGE, TO ALL WHO APPLY.

WHY DESPOND?

THOUGH the spirit of speculation is not so rife as it was a few years ago, it is certain that there is still an unwarrantable eagerness to make large and quick profits—a making haste to be rich. This spirit is very unfavorable to those important pursuits which demand patient toil and waiting for the rewards they promise. Crops must have time to grow, and when one crop fails, a long time must elapse before the next effort can bring relief. While this eagerness for rapid accumulation turns many from the safe and honorable callings of plain industry, it also exerts a potent influence on many who are devoted to different branches of agriculture. They are too much affected by the restlessness of the speculative temper. If they fail to meet the rewards of labor, which they anticipated, they are tempted to abandon their occupation or sink into a very unpleasant and hurtful despondency.

As the old crops are about finished and preparations for the new are under way, it is an appropriate time to call upon the heroes who have struggled in the peaceful conflicts of the farm to summon their calm judgment and moral manhood, as they face the prospects of another year. Especially do we appeal to those who, from any unforeseen cause, have encountered bitter disappointment. They are in danger of rash conclusions or unmanly down-heartedness. Let them consider that if they have been faithful, they are as worthy and as free from blame as if they had succeeded. Happy is that man who is without cause of self-censure in the day of trouble! Let them remember that failures are seldom as disastrous as they at first appear. Evils of many kinds often threaten to overwhelm the men they attack, and then with astonishing rapidity diminish their threatening, if they do not entirely vanish. Who has not been in straits that were fearful, which were passed in a very short time, to deliverance?

Let the disappointed look around and see if there are not good ways to meet the demands of the emergency. Such cases have often revealed unsuspected advantages and capabilities. Failures have frequently led men to success and fortune which would otherwise never have been realized. One reason is that failures call up the slumbering powers and develop resources that were before undiscovered.

Another natural idea is that the worst failures seldom go farther than to necessitate a cheaper style of living. Any one would be surprised to know how many things he can spare without any great loss of comfort or well-being. While most of our wants are artificial, few are really indispensable. It is, then, a sheer want of manliness for one to yield to losses and go moping about under disappointments. It is childish. True manhood is always ready to bear self-denial, not only when it is necessary, but even when it contributes to a good cause. Failures require self-denial, and self-denial makes men nobler, stronger, and, often, happier. Failures may necessitate unwonted economy; but the habit of that economy may be the certain guide to greater success in the early future. Cowards feed the ranks of despair and suicide. They want courage to "bear the ills" they have. Let the unfortunate cheer up! Let them try harder and hope fondly for better results of labor next time. Let them see if there have been no mistakes which may be avoided in future. Let them remember the story of Bruce and the spider. Let them mark the example of many in every generation of the past. Above all, let them trust in Him who is "good when He gives—no less when He denies." Farmers dealing, as they must, so directly and constantly with nature, need a quiet, abiding reliance on a beneficent Providence.

TME CORN PREMIUMS.

JUDGING from the many inquiries we receive concerning the corn premiums, the mode of reporting, etc., it seems necessary that we should make another statement in regard to this matter. All who registered their names in this office before August 1st as competitors for the premiums, and who have otherwise complied with the rules as announced in the RURAL of April 26, are entitled to partake in such competition. In previous announcements we have not definitely stated *when* the corn should be weighed, only stipulating that it should be dry, thus, of course, giving considerable scope for the competitors to exercise their own judgment; but this seems to be a troublesome point and some desire a more definite statement.

In view of this, and to avoid misunderstanding, we have decided that both corn and stalks shall be weighed *four weeks* from the date of harvesting, or, if this time should already have expired, then it should be done immediately on receipt of this announcement. The premiums will be awarded according to the *greatest weight of shelled corn from the number of kernels planted;* thus the one who has the greatest weight will receive 1st prize, the next in order 2d prize, etc. But for purposes of information and comparison we also desire to know the number of bushels of shelled corn, the weight of stalks, the average number of ears to the stalk, the length of growing season, the kind of soil, the kind of manure, if any were applied, and also the mode of culture. To be explicit in this report, it should be put in some tabular form thus:

1st. Date of planting.
2d. " of harvesting.
3d. " of weighing.
4th. Weight of shelled corn in pounds.
5th. Measure of shelled corn in bushels.
6th. Weight of stalks.
7th. Average number of ears per stalk.
8th. Character of soil.
9th. Manure;
10th. Cultivation, including distance apart, whether the suckers were pulled, etc.

Any remarks that the cultivator desires to make, can then be added.

The book premiums offered by the Farmers' Publishing Co. constitute a different series, and will be awarded to the heaviest weights of shelled corn respectively, the corn to be weighed *three months* after date, and for which, of course, a second report must be given.

A PROBABLE CHANGE IN OUR "FREE SEED DISTRIBUTION."

WE learn through Mr. Robert Douglas, of Waukegan, Ills., that Professor Sargent, of the Arboretum of Harvard University, is of the opinion that Abies Sibirica (seeds of which we have offered as one of the ten kinds of our next "Distribution") will *fail except at the North.*

Mr. Douglas himself writes us that he was not aware that this tree would not stand further South than New York, but that he now recalls that during his recent trip East he did not see any specimens about Washington or Baltimore, that were in good condition. It will be better, therefore, that we should send seeds of this tree only to our subscribers living north of the latitude of New York City. For those living south of it we shall substitute either plants or seeds which we were reserving for a *supplementary* distribution. We shall not *begin* to distribute our collection until after the first of January, before which time other changes may suggest themselves which shall enable us to make it of more value to our readers, and that is the very thing we earnestly desire to do.

In this connection, we beg to state that already many of our subscribers have, in making their applications, failed to comply with our directions. Some have forgotten to sign their names; others to give the town or State; still others so incorporate their application in the middle of letters that they are liable to be overlooked. No doubt such of our friends will think they have occasion to censure us if, through necessity, their applications are disregarded.

A LULL IN THE EXPORTATION OF BEEVES.

ALTHOUGH the freightage on that class of goods has lately been reduced about one-third, yet exports of American live cattle have been greatly falling off of late, until now some of the heaviest shippers have suspended that branch of the business, while continuing to send across a diminished, but still a goodly supply of dressed beef. The causes of this lull in the trade are mainly two:—First, it is deemed safer to ship beef than beeves in winter time; but the second is the chief cause, and that is the low price of meat in Great Britain at present. The root and hay crops have been so poor this year in England that farmers and graziers are throwing an unusually large quantity of their meat stock upon the market rather than incur the high expense of wintering them in face of the poor outlook for profit next year, owing to the close competition from this country. This unusually large supply has depressed prices, especially owing to the prostrated condition of various industries and the consequent impoverishment of those dependent upon them for a livelihood. Next year, however, it is nearly certain that the trade will be much brisker than ever before, owing to the diminished home supply in Great Britain and, it is hoped, to the better condition of business there.

DWARF PEARS.

DWARF PEARS have many friends and many enemies. It is not surprising at all. The Dwarf Pear requires peculiar treatment to bring out its good qualities. Those who give it such treatment can never become its enemies, if they never become its friends. We know of one person who, ten years ago, ordered a goodly number without knowing either what Pears would thrive in his section or what Pears would thrive upon quince stock. They were planted so that the juncture between the Pear and Quince was above ground and in small holes dug out in sod ground. Even the circles about the stems were not kept free of weeds or grass. Several died years ago, and those that remain were better dead. The owner is an enemy of Dwarf Pears! We know of another place where Dwarfs have been growing for 15 years. They were set in cultivated soil and the ground is cultivated every year. They were set so that the junction of the stock and cion was three or four inches below the surface. The main stem is washed every spring with lime and potash. The varieties are Seckel, Dutchess, Louise Bonne and Howell. The trees are in perfect health and bear well. The owner is a friend of Dwarf Pears! Who's to blame?

A REAL THANKSGIVING DAY.

THE year is drawing to its close—growing thin, so to speak. One can almost look through it and see the shadow of 1880. After a long period of depression, everything again looks bright for our favored land—favored as few other lands are favored upon the face of the earth. Individuals, as heretofore, and as must ever be, have had their sorrows and sufferings to bear; but the nation has never in its history been placed under a heavier load of obligations to Him who directs the sunshine and the rain—the germinating plants and their maturing fruits. It is with a saddened feeling that one sees in some of our home journals an ill-disguised satisfaction that we must be the gainers for the depression in other countries. We have enough to be thankful for without the heaping measure which the sufferings of others may for a time secure us. The National Day of Thanksgiving draws nigh. If we would have it a day of *real* thanksgiving, let us, while we rejoice over our own abundance, heartily sympathize with those who, from no apparent indiscretions or faults of their own, are deprived of their daily bread.

WHEAT AND OATS.

A NUMBER of agricultural journals have advocated sowing oats and wheat together. The leaves of the oats are supposed to keep the snow from blowing away; to prevent the sun from thawing the frozen ground and to make a good top-dressing for the growing wheat in the spring. But it seems plain that if wheat make a fair growth in the fall, its own leaves will arrest the snow as well as out leaves, while they would serve just as well to arrest the action of the sun upon the frozen ground. As a "top-dressing" we do not believe the wheat crop would be appreciably benefited. Not until the leaves were plowed under and rotted in the ground, could any benefit be derived from them as a manure. So far as we can see, therefore, the oats, instead of benefiting the wheat, would simply exhaust the soil of nutriment and moisture.

ROLLING AFTER SOWING WHEAT-FIELDS.

THE objection to rolling wheat fields after being sown, has been made that the snow will blow off or collect in drifts here and there. But if wheat is sown early, the leaves should cover the entire surface before winter, and we should suppose would hold the snow as well as a rough soil-surface. Whether this supposition is well founded or not, we have this fall rolled five fields after the seed had been drilled in or sown broadcast, and another season will probably enable us to test the question.

BREVITIES.

SEE that the poultry are not obliged to roost in a draft.

THUS far, tea culture in California is quite unsatisfactory.

MR. ROE is propagating a new variety of Grape—a sport of the Concord.

DON'T store celery too early. Don't cover strawberry beds until after the ground is frozen an inch in depth.

THOMAS Hogg, the White-flowering Hydrangea of late introduction, has bloomed with us during the entire summer.

GOLDEN Russet, Northern Spy, Roxbury Russet are among the most profitable kinds of Apples for the State of New York.

COMPETITORS for our corn premiums need not hurry themselves. The premiums will not be awarded until all have had time to make mature reports.

THE prettiest *green* in the world is that of a well-sown, well-manured wheat-field at this time, if sown before September 25. There is much about wheat to justify the present wheat mania.

MR. WOODWARD writes us, date Oct. 20: "I wish you could drop down in Lockport and see the vines (Niagara) the foliage yet dark and vigorous and looking as if freshly varnished."

THE California Horticulturist has a neighbor who has tried Prickly Comfrey for chickens, pigs and cows with the result of their unanimous refusal to do more than look at it. The editor thinks the name of "Forage" plant a misnomer.

COL. CURTIS says, in the N. Y. Tribune, that "Another folly is the importing mania. It is time this senseless practice was stopped. What we want is to improve the herds we have now, by mixing the blood of animals whose value is known by actual test and record."

THE heavy importation of food into England, from all parts of the world, but especially from this country, will hardly surprise any one on reflection that a country not so large as New York and Pennsylvania, has to support a population nearly as large as that of the United States.

WE regret to learn that with the present number of the New England Farmer, the connection of Russell P. Eaton, who has been its Editor and Publisher for over twenty years, comes to a close. Mr. Eaton through this long term of labor has made many friends among the farmers of New England to whom he has rendered signal service.

IT is reported ("by an Italian," that is all we know about it) that grapes may be kept in fine condition until March if buried in pits under ground. The branches and fruit are cut off in the fall and hung in the pits which are made two or three feet deep in high, dry ground. Then boards are laid across to hold the earth above. The pits are not opened until the grapes are needed for use.

LET'S make sheep dogs a feature of our agricultural fairs, following Lord Bective's action. Give prizes for the best bred and best trained. Judging other farm districts by our own, two-thirds of the farmers own dogs and a majority of them are "tow-rows" or yelping, mischievous, worthless curs. Collies are useful dogs and cost no more to feed and take care of than the others.

AN International Dairy Fair has just closed in London, England, and despite the agricultural depression among our trans-Atlantic cousins, it is reported to have proved very successful. Unlike the late show of the Royal Agricultural Society at Kilburn, this exhibition had a fine display of American dairy products and machinery, and both classes of goods are said to have made a very favorable impression on English dairymen and the general public. The exhibits from this country were in charge of our correspondent, Professor J. P. Sheldon, and of Mr. Oliver. A fine display of dairy stock formed a marked feature of the Show, and among them was a large number of Holsteins entered for competition for premiums for the best milk yield.

THE PURPLE, DISSECTED-LEAF JAPAN MAPLE.—The picture of Acer palmatum var. dissectum atropurpureum, presented this week upon our first page, is an exact copy of a sprig from a plant growing on the RURAL GROUNDS. We believe it to be one of the best, if not the very best, of the Japan Maples. Besides what Mr. Hogg says in his accompanying article, it needs only to be added that it has proven hardy with us. The leaves are of a dark purple color during spring, fading during summer to a deep green, not unlike the color of the leaves of the Purple Beech at the same time of year. The habit of this fern-like tree is pendulous. The growth is slow, never attaining a hight greater than that of what we usually term shrubs. The RURAL NEW-YORKER has had much to do with the introduction of the Japan Maples, and they still seem to us among the most desirable of the many beautiful plants for which we are indebted to Japan.

ON Wednesday, Oct., 22, a number of gentlemen, connected in one way or another, with agricultural interests, met together in this city at the room of the Farmers' Club, in Cooper Institute for the purpose of organizing a National Agricultural Society, on somewhat the same plan as that of the Royal Agricultural Society of England. After the delivery of an address by J. H. Reall, chief organizer of the Dairy Fair held here last winter, and the reading of a number of letters sympathizing in the object, a committee of thirteen was appointed by the chairman to issue a call and make preparations for a meeting here, at a date to be decided on hereafter, for the purpose of organizing the projected Society. The following gentlemen were appointed as such committee: J. H. Reall, of New York; Colonel William Crozier, Prof. H. E. Alvord, Lawson Valentine, ex-Governor Hyde, Colonel J. B. Mead, Dr. A. S. Heath, L. S. Hardin, James Neilson, Ezra Whitman, T. S. Gold, and Victor C. Piolette.

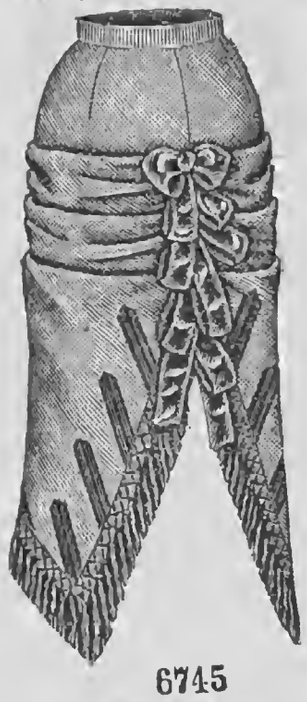
For Women.

CONDUCTED BY MISS FAITH RIPLEY.

DESCRIPTION OF CUTS.

FIG. No. 1.—The skirt is four-gored and cut from striped goods. It is simply faced at the bottom and left perfectly plain. The two curtain-portions which turn back in *revers* are separately added and extend only just underneath the lower edge of the scarf above. This consists of a straight width gathered or shirred at the center and harmoniously draped at the side where it and the curtains are overlapped by the edges of the back-breadth. The latter is of oblong shape and is draped so as to form a *panier*. The model of the skirt is No. 6737; price, 25 cents. The basque is coat-like. The front is of the ordinary basque depth and is ornamented with long lapels. The back is in square coat-tail style. The model is suitable for any material made up into costumes and is No. 6736, price 30 cents. The hat is of felt.

No. 6757.—The material selected for the formation of the garment is soft all-wool suiting, and the trimming consists of silk several shades darker. The front buttons from the throat to the depth of a basque below the waist-line, and then each side turns back upon itself to form *revers* that



6745

widen gradually toward the bottom. The closing edges are straight and fold under in broad hems and each side is conformed to the figure by means of two bust darts. A cluster of six plaits is folded in the back edge of each front portion, draping it handsomely in *panters*, and drawing the reversed edges still further apart. Adjoining the front on each side is a side-back gore, proceeding from the arm's eye and extending in the outline of a broad, straight panel to an even depth with the remainder of the back portion, which consists of only one division, the curved seam through the center terminating just below the waist-line, where the fullness is formed into a double box-plait on the under side. Three upturning plaits are folded in each side edge a little lower down, and these, with the double box-plait, produce a stylish effect. Price of pattern 30 cents.

6745

No. 6746.—The fronts of this polonaise are so effectively curved at the closing, that but one bust dart and one under-arm dart are required in each side. The closing extends to about the depth of a basque, and then the edges of the front are sewed together for a few inches and the seam shirred closely so as to form numerous soft, graceful wrinkles in the drapery below the hips. Below the termination of the shirring the edges are sloped off with a slightly diagonal effect so that the edges fall a little apart. These wrinkles merge into three plaits that are folded under each under-arm seam, and are located just opposite three more similarly arranged in the back drapery. The back is somewhat longer than the front, and from its mode of draping, partakes of the fashionable *panier* style. All the lower edges of the garment are bordered with a two-inch wide band of striped silk, which is also continued up the front opening. A band of the striped material passes across the back in the outline of a pelerine collar, and proceeds in vest outline down each side of the front as far as the shirring. A bow of ribbon falls over the shirring. This model may be worn with either a walking skirt or a train of moderate length. Fringe, lace, plaitings, scolloped or slashed edges are fashionable decorations, but the prevailing feature of the present fancy is to trim one kind of goods with another; striped fabrics predominating as decorations. They are cut crosswise, engthwise and bias. Price of pattern 35 cents.

6748 6748

No. 6754. Ladies' Cloak.—The front is narrow and double breasted, with curving front edge and above the bust is slashed straight across as far as its edges are lapped. Below the slash it is closed with one row of buttons and button-holes, and upon the sides are large, oblong pockets, with turn-over laps whose side edges are sloped off with pretty effect. A stylish rolling collar is sewed to the neck within a few inches of the outer edge of the front, whose tops are reversed in fancy lapels as far as the slash. The edges of the cloak, pockets and lapels are bound with silk braid, and the pocket-laps are faced with silk. Rows of buttons and silk-bound button holes ornament the pockets and the skirt-laps of the back. This model is adapted to all the fancy and plain dress and cloak fabrics in vogue, and may be trimmed with fur bands, braid, piping, or machine-stitching. Price of pattern 30 cents.

No. 6747. Ladies' Coat.—The fronts are in cutaway shape, and fall over a straight, double-breasted vest, which turns back in lapels at the top and closes in the usual manner, a row of buttons being added on the over-lapping side. The vest-fronts extend to the under-arm seams at their lower parts, but for the remainder of their length they are over-lapped by the coat-fronts for only about two inches. This process of uniting coat and vest is productive of a very attractive effect. Fancy pocket-laps rest upon the sides and a rolling collar encircles the neck and forms notched corners where its ends meet the lapels, with which they are reversed. All kinds of coatings are made up in this way. The edges may be piped, corded, under-faced, machine-stitched or ornamented with braids. Price of pattern, 30 cents.

No. 6745. Ladies' Overskirt.—The material is fashionable suiting, and the decorations embrace bows, fringe and satin pipings. The *tablier* comprises two gores, which are bias at their front edges for some distance from the top and then sloped off diagonally toward the bottom, so that they fall apart in Vandyck shape. The bias edges are sewed together, and then three rows of shirring are made, commencing about six inches from the top and extending to the end of the seam, wrinkling the upper portion of the front into a soft, graceful drapery. The back of the overskirt consists of a single breadth of the goods, which is rendered stylishly *bouffant* by means of three plaits folded downward in the side edges and tacked in the same folds at the center. Suit goods of any kind, from the cheapest to the most expensive, make up stylishly in this way. Lace, plaiting, ruching, or any fashionable decoration may be used. Price of pattern, 30 cents.

6747

No. 2.—This costume is composed of two garments, a skirt and waist. The material represented is a soft, all-wool camel's-hair, trimmed with bands of a contrasting shade. The front and sides of the skirt are laid in side-plaits from the belt to the bottom, and before the plaits are folded five bias bands are stitched upon the material that is to be used. After the plaits are laid, they are pressed to position and tapes fastened upon the under side. The upper part of the back-breadth is perfectly plain, but the visible portion is plaited to correspond with the remainder and similarly ornamented. The drapery is a graceful modification of the *panier* style, and consists of two front-portions and a back-portion. Each front-portion descends in curtain style from the belt at the center of the skirt, and is draped by plaits at its back edge, which is of the same depth as the back-breadth. The skirt pattern is No. 6741; price, 30 cents.

6747

The waist has a plaited body and a plain yoke and closes at the back. It is completed with a belt and has a standing collar. Sometimes the waist and drapery are alike and contrast with the skirt. The waist model is No. 6740; price, 20 cents.

No. 3.—This costume is a Princess, made to cling to the figure. Pointed straps of silk proceeding from openings made in the skirt in front of the outer plaits, cross the top of the plaits and are buttoned together over the middle one with a button and button-hole. The front, which is cut on a fold of the goods, is faced from neck to hem with silk to simulate a *plastron*, the facing being continued about the neck in the shape of a deep, round collar. The *plastron* is further outlined by a narrow fold of silk neatly applied just outside its margin, and the neck is completed by a standing collar of the goods. A round, silk cuff-facing, surmounted by a narrow silk fold, trims the coat sleeve neatly. Three similar folds decorate the skirt back of the *plastron*, between which and the box-plaited back-skirt the upper fold is surmounted by perpendicular bands of silk about three inches long, and placed at equal distances apart. Lace, ruffles, plaitings or any decorations preferred, may be used instead of the bands. This costume is made of cashmere of a deep wine shade, but the model is adapted to all sorts of plain and figured fabric. The pattern is No. 6750, price 25 cents. The hat is a wine-colored felt, trimmed with a silk scarf and a fluffy ostrich feather.

6754

No. 6753.—This misses' *panier* polonaise is made of suit goods and trimmed with plaiting of the same silk bands, and ribbon bows and the construction is quite simple. The ornamentation upon the bust is quite a novel addition and beside being very pretty in itself, is an ingenious device to improve the immature figure of a miss. A bias piece of the material is shirred four times at the top and turned in at the bottom for about an inch and shirred three times. The top is then inserted in the shoulder seams close to the neck, and the bottom extends down the front by the closing to a little below the top of the dart. A piped military collar completes the neck and a bow is fastened at the throat. Price of pattern 25 cents.

No. 6748.—This misses' basque with vest is made of plain goods and trimmed with striped material. The front is overlaid with cutaway jacket portions, which are sewed in with the shoulder and under-arm seams. These jacket portions extend to within an inch of the neck at the shoulder seams, and by their curved outlines are especially adapted

6754

to improve the figure of a miss. They are laid up in three shallow plaits at each back edge near the bottom and these plaits produce just enough of the *panier* effect to be coquettish. The basque is

No. 1.

completed with a round cuff-facing made of the striped material. A standing collar also of the striped goods encircles the neck. Price of pattern 25 cents.

Literary Miscellany.

IN FOLLY'S NET

CHAPTER XIII.

(Continued from page 694.)

THE SHADOW OF A TROUBLE.

"JEAN, Archie is here!" said Lady Sholto, putting her head in at Miss McLeod's door, on her way to her own dressing-room. "He is waiting in the library. He hurried over his dressing on purpose to have a glimpse of you before dinner; and if you are ready to go down you will have a clear half-hour, for the dressing-bell has just rung."

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"Very well," Jean said; "I am ready, Florence, and will go down at once."

And as Lady Sholto closed the door and the sound of her quick footsteps died away, Jean rose slowly from her chair, and turned to the door with a faltering step. She was alone in her room, for she had dismissed Collins as soon as the important operation of dressing was over, during which process her maid had found her young mistress strangely languid and indifferent, notwithstanding her anxiety of the morning to look her best. All the brightness and animation had faded out of her face, too, and it wore a strange look of pain and trouble.

Glancing at herself in the glass, Jean shivered a little at the wan, white face which met her gaze, and mustering her courage by a strong effort, she turned resolutely away and went down to the library with a quick step, as if she feared her courage would not last her until she reached her destination. Making a desperate effort, she pushed open the door, and Lord Ivor, who was alone in the room, uttered a glad exclamation and came forward to meet her.

6753

Jean lifted her eyes, and with one look at the beautiful, smiling face of her lover, one glance into his proud, tender gray eyes, her self-control deserted her; she sprang forward, and as he clasped her in his arms, she burst into a passion of tears, the saddest, saltest tears Jean McLeod had ever shed in her life of twenty-two summers; for she had sailed under fair weather skies hitherto, poor child, and now that the storm was threatening she had not courage to meet it.

"Jeanie, why, Jeanie, darling, what is the matter?" said the Earl, surprised beyond measure at her agitation, and a little alarmed. "Are you so very glad to see me that you are crying for joy, or," with a touch of serio-comic reproach in his rich, deep tones, "are you sorry that I have come at last?"

"Ah, no, no, no!" said Jeanie, through her sobs; and her clasp tightened round his neck, and her head pressed closer against his shoulder.

"Not sorry! Then look up, my darling, and let me see if I can read in your eyes the reason of this foolish agitation," he said, tenderly. "It is so unlike my little Jeanie to give me such a tearful greeting that you quite alarm me, pretty one!"

Still the passionate sobs continued rending the slender white-robed form which trembled in his arms, still Jean McLeod clung to her lover, weeping bitterly—hopelessly, in a silence which she could not break, and which at length seriously alarmed the Earl. The smile faded from his lips, and with a look of tenderest anxiety on his proud face he bent over her, trying gently to raise the bowed head lying upon his breast.

6757

"My darling, you are alarming me terribly. What is it, Jeanie? Are you ill?" he said, in a tone of unutterable love and tenderness.

She shook her head faintly.

"Not ill?" he said. "Then what is it, Jeanie? My child, it is almost cruel to keep me in this suspense."

"Archie, Archie!" said Jean, brokenly, "I cannot—I cannot tell you!"

And then the tears broke forth afresh, and she trembled so exceedingly that Lord Ivor's fears redoubled, and he saw the necessity for soothing her with as little delay as possible.

"Jeanie," he said, with gentle firmness, "try and tell me what is troubling you, my love. Nothing can hurt me so terribly as your evident suffering, but at least give me an idea of its cause, and let me see if I can alleviate it in any measure."

"When I tell you," said the girl, faintly, her tight clasp round his neck relaxing a little, "you will put me out of your arms and wish you had never seen my face."

"Whatever happens, it will always be the dearest face in the world to me," he said, fondly lifting it a little and bending his lips tenderly to the wet cheek lying against his heart, and softly putting away the soft, bright hair, loosened by her agitation, straying over his breast. "Come, my dearest, take courage and tell me what it is."

Earl put his arm around her, giving her his support with perfect gentleness and patience.

"What is it?" he said, in a moment, bending over her with a smile, as she took his hand and, clasping it in both hers, pressed it fondly to her feverish lips. "Have you been a very naughty child during my absence? Have you been flirting very desperately, and do you think I shall be very angry?"

"You will hate me," she said, piteously. "And yet—oh! Archie—I did not mean—you know I did not mean it, do you not?"

"And so it is a flirtation," said Lord Ivor, drawing a long breath of relief. "Come, then, mademoiselle, confess, and I will forgive all, absolutely and entirely, for the sake of the penitence you have evinced."

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He encircled her again fondly with his arms, and Jean trembled and shivered at the tenderness of his touch.

"You know I cannot be very angry with you, Jean," he whispered, tenderly. "Tell me what it is without fear, my child—here—in my arms. Now are you comfortable? Yes? Then I am ready to hear this history."

"And when you have heard it you will put me out of your arms forever," said, Jean, with weary sadness.

"Try me, darling," he said, touching his lips to hers.

Huddled up close to him, with her head resting upon his shoulder; her eyes seeking his face in unutterable love and sorrow, and her hands still clasping his, Jean told him; and short and simple as the narrative was, it was often broken

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by irrepressible sobs and once by a short silence, when her voice failed her from very weakness and her eyes closed in a momentary faintness, during which her head lay yet more heavily upon his breast.

The Earl listened in complete silence, by no word or gesture did he interrupt her story, although his color faded perceptibly once and a gleam of passionate anger shot into his eyes at the *denouement*. Even when she had ended he was silent for a moment, though he held her still close to his side with undiminished love and tenderness.

"And so he thinks he can take my darling from me so easily," he said at last, when he had stifled the anger in his voice, in the fear of increasing her agitation and alarm. "And you think I am going to let him do so, Jeanie," he added, with a little, low laugh, at which Miss McLeod lifted her head and looked at him with some faint surprise on her fair pale face.

"But, Archie, he seemed so sure, he asserted it as a fact," she faltered. "He said he would prove it."

"My darling," the Earl said, impressively, "put your heart at rest. Let him prove it if he can; but my opinion is that not even the abominable law which is in force could prove *that* a marriage."

"Oh, Archie!" the flood of relief and joy at Jean's heart almost suffocated her, and she turned so ghastly pale that the Earl was startled and rose to ring for assistance.

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"No, don't ring," she said, faintly. "I am not ill, but the reaction is terrible. Oh, Archie, if you knew how I have suffered since this morning! I dared not see you, and yet I longed for your coming with such an intense longing. I thought you would help me if anyone could."

"Poor little girl," said Lord Ivor, compassionately. "Such a white, wan face appeared when you opened the door, that I was quite startled. Have you told anyone else, Jeanie?"

"No," she answered, with a startled glance. "I did not say anything. Lord Sholto was out, you know, and I knew Florence would be dreadfully distressed. Besides——" she hesitated.

"Besides what, my dearest?"

"Besides if you had told me that I was his wife, Archie, I should have run away to-night, and never seen any of them again."

"That would have been a very foolish and childish proceeding," said the Earl smiling a little

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He had seated himself on the sofa as he spoke, and drawn Jean gently down to a place at his side, and holding her little hand in his, waited silently for a moment. The young girl's sobs had ceased; but the exhaustion, which could not but follow such excessive agitation, had succeeded it. She was white as death, her breath came in hurried gasps, and her head sank forward heavily. The

sadly. "Very unworthy of my strong-minded Jeanie, who was so eloquent about the rights of women a few weeks ago. And now, Jeanie, listen to me, dear child. I must tell Arthur."

"Must he know, Archie?" she said, coloring a little.

"Of course he must, dear child, but I think it need go no farther than Arthur—which means Florence, of course—and we must consult a lawyer, you know. Mr. Blair cannot be very sure of his ground; but, at any rate, as he has chosen to abide by a lawyer's decision, we will do so also. I will write to my father's old University friend, Sir David Cairnes, to-night, and to-morrow we shall have his decision. Meanwhile, Jeanie, I am going to send you to bed, for you are not fit to put in an appearance at dinner with that white face and those tell-tale eyes."

"I will go up stairs," she said, wistfully; "but I need not go to bed, Archie. Cannot you come up to Florence's boudoir after dinner and sit with me?"

Lord Ivor hesitated a moment.

"I think I had better not, my dearest," he said, with a slight constraint in his voice. "I shall have a great deal to do this evening, and I think you will be all the better for a good long rest. You must try and sleep soundly to-night, dear child, and be calm and strong to-morrow for the council of war."

"The council of war!" she repeated, vaguely.

"Yes, the council of war, love," he said, with a slight laugh. "We will have the lawyers here, my darling, and a regular cross-examination will be held, you know."

"Oh, Archie!" she said, shrinking back from him with a face full of pain.

"We will make it as easy as we can for you, Jeanie," he said, tenderly.

"Oh, do not!" she said, with tears in her eyes and voice. "Do not—your kindness is breaking my heart. I deserve that you should be so angry with me, Archie, and you are so good. Oh, my dearest and best, how I love you! how unworthy I am of all your tenderness and trust!"

"Foolish bairn," he said, smiling, but with a very unwonted dimness in the proud, gray eyes. "It is I who am unworthy of your true, pure love."

"Unworthy!" she said, passionately; "do not say so, Archie! Sometimes I wish—I wish with all my heart—that you had never seen me. I seem to have brought you so much sorrow and trouble. And you are so patient with me, so forbearing, so long-suffering, that you make me feel ashamed of my own unworthiness, of my wicked folly——"

"Jeanie, I cannot have you talk so," he said closing her lips with a kiss. "Hark! there is the second bell, love. If you wait one moment you will be able to escape to your room without detection; What! more tears, Jeanie—nay, if you are so childish, I shall have to scold you really."

At the door, when she had crossed the room, her hand still clasped in Lord Ivor's, Jean paused and lifted her eyes to his; it seemed to the Earl's excited fancy as if she were bidding him a long, silent farewell. He took her to his arms again.

"Jeanie, love," he said, brokenly, "you are paining me terribly."

She made no reply, but putting up her two little hands, clasped them round his neck, and drawing the tall head down to hers, kissed him twice passionately, then loosing her clasp, she slipped from his arms and was gone; while the Earl went slowly back into the center of the room, with a face full of anxiety and alarm.

"Has that fellow good grounds for his assertion?" he muttered to himself, as he stood there for a moment in deep thought. "If he has—if he has, Heaven help us both!"

Then composing his features as best he could, and assuming an air of quiet indifference, he left the library, and made his way to the drawing-room, where most of Lord Sholto's guests were assembled waiting for the announcement that dinner was served.

* * * * * * *

CHAPTER XIV.

THE SHADOW DEEPENS.

"Do you mean to say that he claims her for his wife—that he asserts that they were married by what passed between them at Langdale?"

And Lord Sholto, with an expression of the deepest astonishment on his face, looked over the table at his brother-in-law, who was lying back in a deep arm-chair with a cigar between his lips, but with the deepest perplexity and distress depicted on his handsome countenance.

The Earl nodded his head slowly.

"But on what grounds?" said Lord Sholto, after a moment's silence, with the blank astonishment visible on his face still.

"On these," said Lord Ivor, curtly, throwing away his cigar, and rising from his chair. "And, Sholto, bitter as the thought is, I believe he has some show of right on his side. You know, or perhaps, you don't know—the Scotch laws with regard to the most sacred and holy contract into which two persons can enter. You have heard, surely you have, of Scotch irregular marriages?"

Lord Sholto shrugged his shoulders.

"Of course I have heard of them," he said. "But I know nothing whatever about them, Archie. Does Mr. Blair—confound him!—pretend that Jean went through an irregular marriage ceremony with him at that wretched inn?"

"There is no necessity for any ceremony whatever," said the other, gravely. "In this country, Arthur, a man has merely to call a woman whom he wishes to marry his wife in the presence of witnesses, and she becomes so, and *vice versa*."

"Legally his wife?" asked Lord Sholto.

"Legally his wife," was the answer. "Look here, old fellow, while I was waiting for you here, I searched for law books in your library. You don't appear to possess many, but I found one."

He turned to a table, and took from it a dusty volume, which he opened at a place that he had marked.

"Listen to this, Arthur," he said; and, in a husky, strained voice, he read as follows:

"'No form or ceremony, civil or religious, no notice before or publication after, no writing, no witnesses even are essential to the constitution of this, the most important contract which two private parties can enter into. Matrimonial consent may be verbally and effectually interchanged when no third party is present, and if it can be proved, even at the distance of years, by subse-

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quent written acknowledgments, or oath of reference, or in any other competent way, that such consent was given, the parties will be held to be married."

There was a momentary silence when the Earl had finished reading the paragraph. Then the book fell from his fingers, and he covered his face with his hands.

After a time Lord Ivor uncovered his face, and pulled himself together, as it were.

"It is no use studying that horrid law-book," he said, with a sad attempt at laughter. "Neither you nor I have brains, even if we were in a fit state, to understand it, Arthur. Of course, this terrible question must be settled with as little delay as possible."

"What is to be done?" said his lordship, rather helplessly; for, thoroughly kind-hearted, honest, upright gentleman as he was, Lord Ivor's brother-in-law was not over burdened with brains.

"Poor Jeanie was in such terrible distress, that I was obliged to make light of it," said the Earl, rather irrelevantly. "That fellow stayed at home this morning on purpose to see her, and she was thoroughly overcome with the tidings which, in your absence, she was obliged to hear in silence. But it seems that he stated that he was willing to take a lawyer's opinion in the matter, and I think the only thing we can do is to agree to his proposition."

"But if the lawyer decides in his favor?" said Lord Sholto, in dismay.

The Earl turned frightfully pale, then a gleam of fury lightened in the gray eyes.

"I will kill Blair," he said, slowly.

"And be hanged for murder," said the other, more calmly. "Don't talk nonsense, Ivor. If the decision is in Blair's favor, you must bear it like a man, and not add to Jean's suffering by yours. Surely, however," Lord Sholto went on, "there is a court to which one can appeal?"

"I have looked through this," said the Earl, wearily, "and in every case the court has ratified the marriage. Besides, it would kill Jean. No matter what the lawyer's decision is, we must abide by it, Arthur. If it be for us, well and good; if it be against us"—his face was pale as death as he concluded, brokenly—"Heaven help us both!"

There was another silence, which Lord Ivor broke at length.

"I am going to write to Sir David Cairnes," he said. "In memory of his old friendship for my father, I think he will help me in this. I will entreat Sir David to come to-morrow."

"I am sure he will do so," said Lord Sholto. "I will send McCormic at once. He is to be trusted to any extent. Sir David has always been most cordial to Florie and myself," he added, crossing over to ring the bell, while the Earl went to a writing table and took out writing materials.

"Send McCormic to me," said Lord Sholto to the servant who answered the bell; "and order a conveyance to be ready to take him to the station at once."

"Yes, my lord," said the man; and when the door closed after him, Lord Ivor looked up from his writing.

"You must do something else for me, Arthur," he said. "I cannot see Blair."

"Of course I will see him, my dear fellow," said Lord Sholto; "only you must give me directions. What am I to say?

"Just tell him merely, as quietly as you can, that we have sent for our lawyer; and ask him if he has any legal adviser for whom he wishes to send. Give him every facility," added the Earl. "I cannot see him."

"No; you shall not, Archie. I must tell my wife."

The Earl smiled sadly.

"Of course you must, old fellow. Poor little Florence, how sorry she will be! Don't tell her until to-night, when you are alone, Arthur, or her distress may give your guests a clue to what is going on, and for all our sakes that had best be avoided. Ask her to be good to Jeanie" he added, softly, as he bent over his writing again.

In a few moments the door was opened, and McCormic appeared. In a few brief words Lord Sholto gave him his instructions, and while he went to make his arrangements the Earl completed his note.

"Use all diligence, McCormic," said his master, when the man reappeared. "Perhaps Sir David Cairnes may return with you from Edinburgh to-morrow. I can depend upon your seeing to his comfort in every way. As you go through the hall send Burton here to me."

"I am going to send for Blair," he added, turning to his brother-in-law as the gillie disappeared.

"Then I will go back to the drawing room," said the Earl, rising. "I don't want your visitors to suspect anything, Arthur; so don't look too solemn when you come back with him."

"All right," said Lord Sholto, mentally wondering how he could help doing so, and heartily wishing for the time when he could take Florence into his confidence over his dressing-room fire; and while the Earl went back to the drawing-room he despatched the butler with a message to Mr. Blair: "His lordship's compliments, and if Mr. Blair were disengaged would he be so kind as to step into the library for a few moments."

In the drawing-room all was very gay and animated, some one was singing at the piano a sad little song about grief and parting, which seemed to the Earl almost prophetic, as he stood leaning against the wall, looking with proud, weary eyes on the pretty scene.

Lady Sholto, looking very delicately pretty in her black velvet dress and diamonds, was sitting on a sofa near the fire, holding a little screen between her face and its glow; she was talking to an elderly dowager and the old minister of the parish, a benign, kindly, white-haired man, of dignified presence. His was a face which wore the marks of sorrow, borne and conquered, and the Earl remembered having heard a sad story about him; how he had laid his young wife and two little ones in one grave, years ago, when a terrible fever had raged in the neighborhood.

"He was a young man then," Lord Ivor thought, wearily. "How did he bear it? How shall I bear my life if they give my darling to that man."

And the lady at the piano sang softly in her rich soprano voice, going on with the last stanza of her song:

> "Beating heart, why thus lament?
> Woe is thine, then be content;
> Tho' on earth no more we rove,
> Softly sighing vows of love,
> Find my heart, in this relief,
> Yielding to these words belief,
> I shall see thee yet again
> Though to-day we part in pain."

"Is that his consolation?" thought Lord Ivor, looking at the old clergyman. "Will that be mine?"

At this moment his sister, catching his eye, beckoned him to her side, and leaning over the back of her chair, he tried to interest himself in a conversation about parochial matters, in the midst of which he saw Lord Sholto and Andrew Blair enter the drawing-room side by side; but in a few minutes they separated, and while Mr Blair strolled across the room to the piano, Lord Sholto made an almost imperceptible sign to his brother-in-law and sauntered into the conversation where Lord Ivor shortly after joined him.

"He agrees to everything," said Lord Sholto, with some depression making itself felt in his tone. "He said one lawyer was sufficient, but I persisted, and he at last named Cantire of Glossin: we will send a carriage for him in the morning if Sir David comes."

"Does he seem sure of his ground, Arthur?"

"Horribly sure," said Lord Sholto, ruefully. "But he is just the kind of fellow to be sanguine if he wished for anything," he added, to cheer up his brother-in-law. "Don't be down-hearted, Archie. All will be well yet."

"I trust so," said the Earl, rather sadly, and shortly after, pleading fatigue from his journey, he took leave of his sister and went to his own room when he rested from his fatigue by pacing up and down restlessly, indefatigably, all the livelong night, and finally throwing himself on his bed as the dawn looked in at his windows.

The morning brought a telegram from McCormic, Sir David could not be with them until about three o'clock on the same afternoon; but they might expect him without fail, and, allowing the distinguished advocate an hour for repose and refreshment, the "council of war," as Lord Ivor had called it to Jean, was fixed for four o'clock and a carriage was sent down to Glossin with a note from Mr. Blair, requesting Mr. Cantire's attendance at Sholto Hall on urgent private business.

CHAPTER XV.

SIR DAVID'S DECISION.

The long night hours which had been so dreary for the Earl and Lord Sholto, had not been less long or dreary for poor Jean McLeod, for during them she had not closed her eyes in sleep for one moment; nor had she, for an equally short period of time, ever lost sight of the possibility that these lawyers might give the decision in Mr. Blair's favor, that decision on which hung, not only her happiness—that would be a small matter—but Archie's.

Towards morning, however, the maid induced her to take a dose of chloral, and had the satisfaction of seeing her fall asleep at last, with tears still glittering on the long lashes, and a sorrow on the fair, pale face, terrible to witness on one so young.

Jean slept through the morning hours, and Lady Sholto, coming down to her brother with the tidings, wisely suppressed the other information Collins had given her of the dreadful night of unrest her mistress had passed, for the Earl was looking so ill and haggard himself that Lady Florence's loving heart ached for his suffering, and it was difficult for her to pay to Mr. Blair the ordinary civilities of a hostess.

The consultation, or council, or whatever the correct term may be for the strange and unusual discussion which was about to take place, was to be held in the library, at four o'clock all the personages interested in it were assembled there, except the one of all, perhaps, most nearly interested, Jean McLeod.

Sir David Cairnes, who was a tall, thin, rather hard-featured man, had seated himself at the center table, in a large, high-backed chair, in which he looked quite official, while Lady Sholto, pale and nervous, occupied a low chair by his side, and her husband stood on the hearth-rug with Lord Ivor, whose handsome face was very pale, but proud and calm as usual.

Mr. Cantire, a handsome, brisk-looking little man, was also seated at the table; he had bright, dark eyes, regular features, an unusually pleasant, talkative manner, which was, however, completely subdued by the awe he felt for the distinguished company in which he found himself. A note-book and pencil lay before him, and he was twisting his fingers nervously in and out of his curly dark hair, in evident discomfiture. Mr. Blair, looking supremely haughty, resolute, and rather paler than his wont, had thrown himself into a deep arm-chair, in an attitude of careless attention; he was looking unusually handsome, and Sir David Cairnes, who was a great admirer of masculine comeliness, gave an occasional admiring glance at the proud, dark face, the flashing eyes, and the careless grace of his posture.

They had been silent for some minutes; but previous to that, Mr. Blair had been exchanging courteous observations with Sir David, on the weather and his journey, and Lady Sholto had answered rather hesitatingly and unsteadily truly, some remarks which the latter had made to her. All her thoughts were with Jeanie, and she was wondering what was detaining her upstairs, when there was the sound of a soft footfall on the marble floor of the hall without, the library door opened, and the young girl came in with a slow quiet step.

The few hours quiet sleep which the opiate had given her had not prevented Jean's face from being very pale, and the hollow circles around her eyes made them look larger and darker than their wont. Her lips were closed firmly, and the shadows lay heavily round the sweet sad mouth; but Mr. Blair started at the change a few hours had made in the bright girl; she looked years older, the mirth had faded from her eyes, and the mouth looked as if it had forgotten how to smile.

All the gentleman rose at her entrance and bowed; Jean inclined her head slowly, as she stood at the door, in recognition of their salutation; then, as she came forward, with her slow noiseless step, Lord Ivor went to meet her, and took both her hands tenderly in his.

"Courage, my darling," he said, softly, his proud gray eyes looking defiance at the handsome, dark face, which had grown suddenly very pale, over Jean's shoulder, and he led her to a couch, on which she sank down, while the Earl stood, erect, proud, and motionless, at its head.

There was a momentary silence, then Lord Sholto spoke.

"Sir David," he said, quietly, "we have requested your presence here to-day in order to put before you a matter which is of the deepest interest and moment to us all. We do not wish to enlist your sympathies on one side or on the other; we wish merely to place before you a fair and impartial statement of certain events, trusting to your knowledge of the law to set us right in the matter on which we are at variance."

"I shall be most happy to give you any advice or judgment in my power," said Sir David, looking a little mystified.

"And we are content to take your decision as final," interposed Mr. Blair, suavely. "Your experience at the Scottish bar, the well-known integrity of Sir David Cairnes, and the professional distinction he has obtained are sufficient guarantee that the decision will be a correct one and according to the law of this country, which has no abler exponent."

Sir David bowed slightly, Mr. Cantire glanced admiringly at Mr. Blair, and Lord Sholto, breaking in rather abruptly, said:

"We have given Mr. Cantire a memorandum, which he will be good enough to read, and which will put you, Sir David, in possession of the facts of the case. Will you be kind enough to proceed, Mr. Cantire?"

"As your lordship pleases," said the little solicitor, briskly; and taking up his note-book he proceeded to read a short, concise, and correct account of the adventure of Mr. Blair and Miss McLeod on the moor, with which my readers are all, I hope, well acquainted. He had not proceeded very far with his narration when Sir David interrupted him.

"I beg your pardon," he said, ceremoniously, "Did I understand you to say that the gentleman and lady met by appointment?"

Mr. Cantire hesitated; his instructions did not contain the answer to Sir David's question, and he looked from one to the other of the persons assembled for their assistance.

Mr. Blair sat quietly with his eyes downcast apparently he did not choose to speak, and no one else save Jean could answer the interrogation. The girl's color came and went as Sir David repeated the question.

"Yes, by appointment," she said, faintly, and almost involuntarily she put up one little trembling hand and touched Lord Ivor's as it lay on the head of the sofa, instantly his palm closed over her trembling fingers and he gave her a little reassuring smile.

"By appointment; thank you," said Sir David, quietly, making a note of the answer. "Pray continue, Mr. Cantire."

The narration went on for some few minutes uninterrupted, when Sir David interposed again.

"You say the lady did not contradict the asser-

tion that she was his wife, that she silently admitted the truth of it," he said, "Did she at any time call him her husband?"

"Yes, my lord—yes, sir," stammered the little lawyer, getting rather confused, "twice or three times in the hearing of the innkeeper and her servant."

"Did she say anything about the length of time they had been married?" said Sir David, using his pencil again.

"Yes; in answer to a question from Mrs. Martin the lady said they had been married a very short time,"

"Thank you. Go on, if you please."

A few more lines finished the reading; Mr. Cantire put down his note-book and took up his pencil; Sir David glanced over his notes he had taken, with a grave abstracted expression; and while Lady Sholto leaned back white and trembling in her arm-chair, her husband crossed over suddenly and took his place by the Earl, putting his hand affectionately on his shoulder. Lord Ivor's face was very pale but calm still, although his eyes were watching Sir David's face with a strained anxious gaze painful to see. Jean sat with her head bent on the cushions of the sofa, perfectly still and motionless save when a long shudder ran through the slender bowed frame. Andrew Blair alone sat calm and unmoved, in the same attitude of careless ease. his head resting on his hand and his dark eyes fixed thoughtfully on the fire.

"Are any of these statements disputed, Mr. Cantire?" said Sir David, after a pause.

"I believe not, Sir David."

"In case they are, would witnesses be forthcoming?"

Mr. Cantire glanced at Mr. Blair, who inclined his head slightly.

"Yes, Sir David."

Another pause, a terrible pause.

"You are doubtless aware, Mr. Cantire, that the question before us, that of an irregular marriage, is one on which opinion is divided," said Sir David, quietly. "One lawyer takes one view of the question, and one another. What is your view of this case, Mr. Cantire? Do the statements you have read prove a marriage in your opinion or not?"

The little lawyer hesitated; he did not like to hazard his opinion before Sir David had given his own, and there was a pause.

"Well, sir," said Sir David, rather sharply, lifting his steel blue eyes on Mr. Cantire's face, "have you formed any opinion?"

"Yes, Sir David," said Mr. Cantire, at length mustering courage.

"Will you favor us with it, sir?"

"My opinion, Sir David, is that there is before us strong evidence in favor of marriage ——" he hesitated again, and in the slight pause that followed, Jean lifted her head and fixed her brown eyes on the lawyer's face with an expression which made him turn away his own, and made the conclusion of his sentence rather unsteady—"and I think the lady and gentleman who met at Langdale are, according to the laws of this land as I understand them, husband and wife."

A low, faint, shuddering cry broke from the cowering figure on the couch, and the beautiful head fell into its former attitude of abasement.

A slight gleam of triumph lighted up Mr. Blair's dark eyes, but he said nothing, nor did he move from his place. Lord Ivor stood proud, silent and motionless, waiting, as it were, for Sir David's decision.

Very slowly and distinctly the words fell from his lips, as if each one were uttered with due deliberation.

"My opinion coincides with yours, Mr. Cantire," he said, quietly, and for a few minutes the silence in the room was so complete, that you might have heard a pin fall.

Then the Earl made a slight movement forward and an attempt to speak; but his voice died away, and he turned with a mute appeal to Lord Sholto, who said:

"Did you understand Sir David, that the lady denies any intention of marriage or any consent?"

Sir David raised his eyebrows slightly.

"But the evidence proves otherwise," he said, quietly. "I am giving you judgment according to my light," he went on, calmly. "Another lawyer might give a different opinion; but even that is doubtful, although, as I said, there is a variety of opinion in the matter."

"Is there any chance if the matter were brought before a court of his decision differing from yours, Sir David?"

"A slight one, a very slight one," was the quiet answer. "Lord Sholto, I am bound to tell you that marriages have been declared legal on less than the evidence brought before me to-day. I will quote but one. A gentleman called a woman his wife, in the presence of a servant, with the intention of committing suicide the next hour, and the few words he spoke gave her every right as his widow to claim his property."

Another silence, a terrible silence, during which Lord Ivor staggered back a pace or two with a face of unuttered anguish, while Lord Sholto threw his arm round him, fearing he was about to fall.

"Sir David's decision is to be final, I believe?" said Mr. Blair, quietly, at length rising from his seat, and resting one hand on the table, when Jean suddenly stood upright, her slight figure swaying to and fro in her weakness, but with the strength and courage of despair on her beautiful, miserable face.

"One moment," she said, in a piercing voice of agony. "Do you mean to say that a few words spoken in jest make that man"—oh! the contempt in her voice at the words—"my husband? Do you mean to say that I belong to him because in my mad folly I allowed him to call me his wife, to prevent any unkind remarks the innkeeper might have made? Do you mean that those words are sufficient, without one scrap of writing, to give me into his power?"

To be continued.

Domestic Economy.

CONDUCTED BY EMILY MAPLE.

PEN THOUGHTS FROM EVERY DAY HOUSE.

ANNIE L. JACK.

Our youngest girl has quite a faculty for staining her dresses with every imaginable thing—fruit of all kinds, of course, and butternuts. Last week, when putting away summer clothing, I found several dresses in a very bad state, and determined to try a recipe I had seen floating through some Western newspapers. So I made a solution of Epsom salts and moistened the spots, then rubbed well and moistened again. While the material was wet a tin vessel was filled with boiling water and set on the stains in rotation. It was left on each spot for some minutes and the water kept hot. After this came a thorough washing, and the dresses were kept out in the hot sun for more than an hour. I do not say they were as good as new, but many of the ugly, dark stains, had disappeared.

How plentiful the apples lie about the doors where chickens and children have access to them! A brood of late ducks finds a tender feast in the ruddy cheek of a Fameuse, and if a giant Alexander drops to the ground there is always a stray hen ready in the orchard to peck it. A friend in Boston sent me the other day a new recipe for cooking apples, which I will give in her own words. "We are trying a new combination in apples that I got at Salem. They are cut up as for apple sauce, stewed a long time with a little water, a cup of molasses and some spices. At the time of taking off the fire, stir in a quantity of hot toast cut into little squares. Eaten cold with cream, we think it delicious." If I should tell you the house from which this recipe came to me, it would add to its prestige, but the sacredness of friendship forbids publicity.

How tired one gets of anything so plentiful as to be always in sight! When apples first come in and when they are getting scarce, we relish them with double zest. Just now, eating so many fresh from the tree, we almost feel it a trouble to take up our time cooking them. Yet an apple freshly baked, or made into a sweet and wholesome sauce, is always suitable and healthy food. Just now we are busy in the garden at intervals taking up the last of the plants. I find coarse boxes filled with sand and a little earth better for those to be wintered in the cellar, than *heeling* them in. Mine last season lived quite well, and came out in the spring a yellowish green, that soon became fresh wood and early bloom, when planted out. Parsley must be cut and if tied in small bunches and dried by hanging, head downward, in a dark pantry, will be found to remain as fresh and green as if tied and put into bottles. So *many* things to do at this season and frost is coming!

SYSTEM IN HOUSEKEEPING.

When I step into a friend's house and see every thing at sixes and sevens, as regards its domestic arrangements, I feel as though I should like to take hold and produce order out of the chaos. This, no doubt, sounds egotistical; but to an order-loving mind the sight of dust and disorder, to say nothing of bad management, is simply a tormenting aggravation; and a person of such a character can no more help thinking that if she were at the wheel the domestic machinery would run with less friction, than she can help breathing. Permit me, Rural sisters, to tell you my way of managing housework. In the morning, after dressing herself neatly—and it is only necessary to wear a well-fitting, clean calico wrapper, with ruffle of the same at the neck, if one does not care for a white collar, and with hair tidily arranged and a clean apron on—the housewife is ready for the day's duties. Before leaving her sleeping room, she should take the blankets from off the bed and open the windows, that the fresh air may enter. The next step of a housekeeper is supposed to be in the kitchen, especially when there is no servant, where breakfast should be made ready as speedily as possible, that the "guid man" may not be kept waiting longer than is really necessary. A substantial and nourishing meal may be easily prepared, out of few and simple materials. For example, let us take the following for one morning, varying it as you choose from time to time:—Coffee, nicely prepared, and a little observation and experience, will teach one how to make this just right. Take the potatoes left from yesterday's dinner and warm them up. Spread the table with a clean cloth; place the dishes in their proper places, and now with good, sweet bread and butter and a dish of fruit, you will have a plain but good breakfast. As soon as the meal is over, wash up your dishes and put them in the closet, each kind in its appointed place. Do not leave them standing, to draw flies, or until they become dry, and consequently hard to wash, in order to do something else, as I have frequently seen housewives do, but get them out of the way and off your mind, that you may take each duty as it comes along.

After your dish-washing is finished, if you have no extra, pressing duty, sweep your kitchen, dust the furniture, and be sure your cook stove is clean and black; for who wants to eat food cooked on a dirty, greasy stove, covered from morning till night with ashes and chips? Next, arrange your sitting-room, that you may not feel mortified should you have a morning call. Then pay a visit to your sleeping apartments, carefully and neatly making the beds and putting each garment that happens to be lying around, in its proper place. After this, various duties will occupy your attention—baking, preparing vegetables for dinner, etc., etc.

Of course, those who live on a farm, have the care of milk and butter, but with a little tact and good management, these duties come in their proper places. Of course, all of these things are not easy to do, and they tax woman's strength sadly sometimes; but if she looks well to the ways of her household, and is a frugal helpmeet to her husband, she must expect to be weary many times. After dinner, which should be served at twelve o'clock, if possible—and in the country it generally can be—when the dishes are washed and put away, what remains for the housewife to do but make herself tidy and sit down to her sewing or whatever she chooses to do? To be sure, there will be days when extra work will keep her busy from morning till night, and days when company will come and interfere with the usual routine of work. But a neat, industrious housewife, who systematizes her work, will not be flustered or "put out" because she has extra duties, or because company unexpectedly drops in upon her.

AUNT PATTY.

DOMESTIC RECIPES.

Rice Griddle Cakes.

One cup of sifted flour; two cups of warm, new milk; three eggs; one cup of boiled rice; teaspoonful of salt; large teaspoonful of baking powder. Mix the flour with one cupful of milk, then add the rice—which must be newly boiled, or reheated by steaming and then beating light with a fork—and thin with the other cupful of milk. (All of this last cupful may not be required to reduce the mixture to the proper consistency.) Beat the yelks and whites separately, whipping in the yelks first and the whites last. Add the baking powder mixed with a little flour and bake at once.

Prune Whip.

Stew one pound of nice prunes with very little water and sweeten with white sugar. Beat the whites of five eggs until stiff and stir to the prunes. Put into a pudding dish and bake half an hour. Serve when cold with cream.

MRS. DENTON.

Quail on Toast.

Dry-pick them, singe, draw, cut off their heads and legs at the first joint, split down the back, wash and wipe dry with a cloth, rub a little melted butter over each bird and broil over a clear fire. Turn often and dip once or twice into melted butter. Season with pepper and salt. Take as many half slices of bread as there are birds, toast to a delicate brown, butter and place a bird breast upwards on each piece. Thin slices of broiled bacon may be served with the quail.

E. L. G.

QUESTIONS ANSWERED.

Bread-Making.

Mrs. Gunn wishes directions for making good, sweet bread.

Ans.—*For yeast:* Four large spoonsful of flour; six grated potatoes; three spoonsful of sugar; two spoonsful of salt, and one of ginger, mixed to a paste. Simmer one handful of hops in a quart of water for half an hour, strain and pour boiling hot over the above mixture, stirring the meanwhile. When cooled, stir in a large cupful of yeast. Put into a stone pot, let rise in a warm place, then keep in the cellar.

The Sponge: One quart of warm water, three mashed potatoes, with enough sifted flour to make a stiff batter. Beat well, then stir in one coffeecupful of the above yeast and let rise in a warm place. Do this the evening before baking.

Kneading, Baking: In the morning sift several quarts of flour into the mixing-bowl. We are careful to have more flour in the bowl than needed, so that the dough never adheres to the sides or bottom of the bowl. The surplus flour can be re-sifted and returned to the barrel. Make a well in the center of the flour, stir in a piece of lard the size of an egg, two tablespoonsful of white sugar and a large handful of salt. Pour in the sponge, then very gradually add a quart of warm water with one hand, while with the other carefully mix in the flour. The process of kneading is very important. The flour should be worked in by degrees, and not "dumpt" in. The dough must not be too stiff, neither should it be sticky. No exact directions can be given, but experience and practice will prove the best guides. When thoroughly kneaded, form into a round mass, cover and let rise in a warm place. When light, mold into loaves. At this kneading no more flour should be used than necessary to keep the dough from sticking to the hands and board. The loaves should rise one-half hour before baking. Bake from three-quarters of an hour to an hour. After the first fifteen minutes the heat should be moderate. Good flour, good yeast and care are requisite in bread-making, and without which no housekeeper can expect to make *good, sweet bread.*

News of the Week.

MISCELLANEOUS.

MONDAY, October 27th, 1879.

After the Republican victories in Ohio and Iowa the chief interest in the political world seems at present centered in the contest in this State. All parties are actively canvassing. Robinson expresses confidence in his re-election, John Kelly declares that Robinson's defeat is a foregone conclusion, and that the struggle lies really between himself and Cornell. The latter says nothing, but is working hard, while his followers are loud in their certainty of electing their man. The "Scratchers" are pushing vigorously a pamphlet and circular warfare against the Republican candidate, and rejoice in the name of "Young Republicans," though most of the leaders of the movement are old stagers.

As a sequel to that boating fiasco of Hanlan and Courtney at Chautauqua Lake, Mr. Blaike, the Referee, applied for the money at the Bank in Rochester where the $6000 stake had been deposited by the Hop Bitters agent. He wished to draw out the cash to be handed to Hanlan who had rowed over the course unopposed. The Bank, however, refused to pay the amount, unless a *bona fide* contest took place, whereupon Mr. Blaike urged Hanlan to row the race over again as the speediest means of settling the dispute. This, Hanlan has agreed to do, provided the stakes are so placed that there will be no difficulty in the winner's obtaining them after the next race. The donor of the stakes writes, suggesting that the next race should take place at Washington, D. C. Courtney has not yet been heard from. The most important news from the scene of the late Indian hostilities is that Gen. Adams has succeeded in unconditionally obtaining possession of the women and children saved from the massacre at Meeker's White River Agency. The whereabouts of the hostiles is still in doubt, some reports sending some of them north to join Sitting Bull, while others say they are scattered among the tribes of friendly Indians. The Interior Department is confident of securing the peaceful surrender of the men guilty of the late outrages and an amicable yet satisfactory settlement of the entire difficulty.

Memphis rejoiced yesterday in the first frost of the season severe enough to destroy Bronze Jack for certain. The number of deaths daily from the fever had dwindled down two or three before Jack Frost routed Yellow Jack. The railroads are already running on regular time to the plague-smitten city; refugees are returning from all quarters, and business will soon be all the livelier for its late collapse.

According to the international postal law, the following articles are prohibited from transmission in the common mails: Tobacco to England; salt, daggers, sword canes, and pistols of small size to Italy; copper coin, and copper, silver, and golden articles to Holland; cigars in lesser amount than 3,000, also alcohol, liquors and beer to the United States and Canada. Although San Francisco's chartered wheat fleet numbers 62,744 tons against 34,279 at this time last year, tonnage is so scarce that shippers are telegraphing for vessels to Australia, New Zealand and Callao, Peru. The export demand is enormous and farmers and exporters are anxious to ship right-away on account of the recent foreign advance in the price of wheat. There are 15,953 tons of disengaged shipping at San Francisco, but the captains, who are Americans, are holding off for higher rates and sailors are so hard to get that a dozen loaded ships cannot leave for want of hands. Portland, Oreg., is in the same fix. The pleasure-traveling Gate City guard of Atlanta, Ga., have been enjoying an exceedingly cordial reception in New England—first at Hartford where ex-Gov. Hubbard and Gen. Hawley were among the speakers of welcoming addresses, and next at Boston where they were handsomely treated. The Mollie Maguires are on the war-path again in the region between Pittston Junction and Scranton, Pa., and their outrages by incendiarism and other means are numerous. Last week a gang of 20 attacked a passenger train on the Lackawanna and Bloomsburg railroad. They signaled the engineer to stop, but he, surmising danger, let on steam. The response was a volley of shots, riddling the cab, and one ball plowed through the scalp of the brave engineer.

FOREIGN.

The Austrian and Hungarian governments have accepted the war estimates for maintaining 800,000 men in the Austrian Imperial army for the next 10 years. A statement submitted by the Hungarian government shows that when the military systems of Europe are completed, Italy will have over 2,000,000 soldiers; France, which has 1,815,000 now, will have 2,723,000, Russia has 2,389,000 already, and Austro-Hungary 1,194,000, what wonder that Europe is becoming impoverished with so many of her sons taken away from productive industry in the prime of their lives, and living upon the labors of their fellow-countrymen! The committee at Madrid having in charge the

subject of slavery have adopted, by a vote of 16 to 5, a report proposing that slavery be abolished in Cuba, but that the negroes who are enfranchised shall, during a maximum period of five years, continue to work for their present masters, receiving not less than 10 pesetos per month. Beyond the capture of the Iluascar and the seizure of Antofagasta, Chili has accomplished little in its war with Peru and Bolivia, but she has been fortunate in carrying on the war without its interfering with foreign trade or the development of internal resources. About one-third of her exports are from her mines, and the mineral products exported from the Republic in the first six months of the present year were $8,371,427 in value, against $7,888,257 in the same period last year, an advance of five per cent. Wheat stands next among Chilian exports, and the area of wheat this year is the largest ever sown, and promises to yield an export of twice the usual value. The imports are steadily increasing. Chili, so far, has fought the war without a loan, and the payment of interest on the public debt has been continued, but payments to the sinking fund of 2 per cent, by which the debt is to be eventually redeemed, have been suspended.

A number of Russian Nihilists, seeing that their views are not practicable for the present, and only bring upon those who hold them useless martyrdom, have declared themselves, in proclamations addressed to the people, as simply Republicans. This declaration has been very badly received by the real Nihilists. The party seem, for the present, at any rate, to be shrinking sadly, owing to the large numbers of the most prominent members transported to Siberia, the great many who have abandoned it, at least temporarily, owing to the present prosecutions of its adherents, and to a considerable emigration of those who prefer to abandon their country rather than their opinions. The canton of Uri is the only division of the Swiss Republic that has thus far readopted capital punishment. Now another canton is considering the expediency of taking the same step, and it is a significant fact that of all the Swiss cantons these two have been the most backward in respect to public school instruction. Statistics officially compiled for the German Government show that the present population of the empire very considerably exceeds that of 1816. In 1875 it was 42,727,360, for the whole country, of which Prussia had 25,742,404, and Bavaria 5,022,370; in 1816 the population of the whole country was 24,831,396; for Prussia, 13,706,978, and for Bavaria, 3,607,036. The figures for the other and smaller States are in about the same proportion, being on the average an increase of nearly 100 per cent, notwithstanding emigration and war.

In France the question of the hour is the relation of the government to the amnestied Communists who have just returned from penal servitude in New Caledonia, whither they were sent for the crimes they had committed during the existence of the Government of the Commune in Paris in 1871. A few of them have escaped, like Rochefort, since the date of their transportation; a large number have died; some of the worst criminals are still imprisoned, but the large bulk of the survivors, having lately been pardoned, have returned to France, glorying in the deeds for which they were punished, violent in their denunciations of the government which condemned them and arrogant in their demands that the wretches still unpardoned shall be liberated and honored for the part they took in the Communal troubles. Some of them have offered themselves as candidates for office in cities where the rabble have much power, and one of them has been elected to the national legislature from a section of Paris mainly inhabited by the working and criminal classes. The government seems resolved to punish severely any outbreak or denunciations of these fellows, who delight to pose as martyrs to liberty, which with them means license. The monarchists and imperialists are cheered by the action of these returned convicts, inasmuch as their extreme violence tends to alarm the quiet masses of the people, who, in their alarm, might be tempted to prefer a settled and peaceful despotism under a King or Emperor to a factious republic with the dregs at the top instead of at the bottom.

The inundations in southern Spain are far more disastrous than reported last week. Whole provinces of rich country have been submerged, except the high places. Immense numbers of stock of all kinds have perished. Almost all the crops have been destroyed; buildings and "improvements" of every description have suffered very severely, and, worst of all, a large number of people have met their deaths. Already, 2,000 corpses are reported to have been found and the tale is not yet all told. Subscriptions to relieve the distressed are flowing in from all over Europe, and from this country also.

WHAT OUR PREMIUMS ARE.

ARTICLE No. 95 on our Premium List is the "Aquapult" which means that it is a machine for throwing water to a distance, just as the Ancient called the engines which they used for hurling stones, catapult. But our Aquapult is a pump, as may be seen in the illustration. It weighs only nine pounds, and is very compact. There is a stirrup that slides up and down the cylinder, adjusting the depth to which it is desired to immerse the cylinder. This is a great convenience because the pump may be used in a pail, spring, or running stream, while the foot holds it firmly in place and the hand and arm are free to exert their full strength in pumping. The uses to which the Aquapult may be put are many. It is a small fire-engine for one thing, throwing a stream as high as the windows of the second story. Nothing could be better for washing windows, and for sprinkling flowers, vines, and for general use in the garden. It is excellently constructed (mainly of brass) and as it is supplied by THE RURAL has a discharge pipe, two nozzles, and three feet of rubber hose. As it is only necessary to send ten subscribers at $2 each, to possess the Aquapult, we think that many might employ a spare hour profitably in canvassing and earn an implement that is almost always in demand about the house and grounds.

THE season for contracting that disagreeable and really serious disease, Catarrh, is at hand. Dr. Sykes, of Chicago, has a remedy that he offers this week, in which he has the greatest confidence. He has the most positive assurance of those who have tried it that it will do all that is claimed for it.

Bilious persons should avoid the use of coffee, and nervous persons the use of tea. An agreeable and healthful substitute is found in Cocoa. Walter Baker & Co.'s Chocolate and Cocoa preparations are highly recommended by the medical faculty, and are sold by all grocers.

Nothing is uglier than a crooked boot or shoe; straighten them with Lyon's Heel Stiffeners.

When life is a drag, and you have lost all hope; then trust in Hop Bitters.

THE MARKETS.

PRODUCE AND PROVISIONS.

NEW YORK, Saturday, Oct. 25, 1879.

BEANS AND PEAS.—The demand for beans continues steady and the whole has a strong tone in prices, with exceptional marks of old marrows and new mediums tending higher. Export trade good: 900 pkgs. for week. Sales for abroad exceed those of last year at this date about 3,000 bbls. Green peas have further advanced and the outlet seems yet unfilled. Canadian and B. E. peas quiet and in buyers' favor. Marrow beans, old, $1.45@1.55; new, $1.62½@1.65; medium, $1.60@1.62½; pea and w. kidney, $1.70@1.75; red kidney, $1.65@1.70, prime; 1.45@1.55, soft; So. B. E. peas, 2 bush. bag, $2.40@2.50; Canadian, in bulk and bond, 70@74c.

Receipts of beans for week, 10,816 bush.

BUTTER.—Receipts for the week, 33,375 pkgs.; exports, 17,000 do. There has been a steady, active movement and quite a stiff advance, particularly for the high grades of stock. Exporters are not seeking creamery to any extent, but have worked liberally upon fine State firkins and tubs, and showy styles of Western. Welsh tubs are a scarce item this fall. Most of the receipts to date are out of market stock. It looks at the moment as if there would be an early break in the receipts, the weather is cold and reports are numerous of diminished pasture. The feature of the week is the sudden advance that has attended under grade State and Western stock.

State, pails and tubs, single dairy marks, fresh ends, 28c.; best invoices, 26@27c.; good to prime, 24@25c.; fair to good, 22@24c. firkin and tub single dairies, choice, 26c.; do., dairies good to prime, 23@25c; do., firkins, choice dairies, 25c.; do., good to prime, 23@24c.; do., fair to good, 20@23c.; Welsh tubs, best invoices, 24@25c.; do., good to prime, 22@24c.; do., fair to good, 20@23c.; State, tubs, poor, 15@18c.; State creamery, best invoices, 30c.; do., good to prime, 28@29c.; do., sweet cream, best, 29@30c.; do., fair to good, 26@28c.; Creamery, poor to fair, 24@26c.; Western imitation creamery, 22@24c.; do., dairy, fresh, extra, 23@23c.; do., dairy, good to prime, 19@21c.; do., fair to good, 17@19c.; poor to fair, 15@17c.; do., June, 17@20c.; factory, best invoices, June, 18@19c.; do., fair to good, June, 16@17c.; do., best invoices, late made, 19@20c.; do., fair to good, 16@18c.; do., poor to fair, 14@16c.

CHEESE.—With the country advices of higher markets prices were put up here, but exporters have not been willing to follow any improvement, and there has been a very dull condition of trade through the week. At the close the feeling was rather easier. Shipments for the week have been only 28,400 boxes.

Quotations are for State factory: fancy at 13@13c¼.; good to prime at 12@12¾c; fair to good at 11@12c.; half-skimmed at 9@10c.; skimmed at 6@7½c. State farm dairy: Fine at 12½@13c.; good to prime at 11¾@12½c.; fair to good at 10½@11¼c.; skimmed at 5@8c. Wis. factory: Fine at 12½@13c.; good to prime at 11¼@12c¾. Ohio factory: Cheddar, fine, at 12½@13c.; do., fair to good, 10½@11¼c.; flat, fine, 12½@13c.; flat, good to prime, 11½@12c.; flat, fair to good, 10@11¼c.; half-skimmed, 8@10c.; skimmed, 5@7c.

Receipts for week, 77,922 pkgs.; exports, 27,000 do.

Liverpool cable, 63s.; steam, 55@60s.

COTTON—Unusual excitement has prevailed the past week, with very variable prices; closing, however, showing a strong market and quoted at for October, 11.33@11.35c; November, 11.27@11.28c.; December, 11.29@11.30c.; January, 11.40c.; February, 11.54@11.55c; March, 11.69@11.70c.; April, 11.84@11.85c.; May, 11.96@11.98c.; June, 12.11@12.13c.; July, 12.17@12.20c.

Quotations for spot cotton are based on American standard of classification, and on cotton in store running in quality not more than half a grade above or below the grade quoted.

	Uplands.	N. Orleans and Gulf.	Texas.
Ordinary	9 15-16	10 1-16	10 1-16
Strict ordinary	10 5-16	10 7-16	10 7-16
Good ordinary	10 11-16	10 13-16	10 13-16
Strict good do	10 15-16	11 1-16	11 1-16
Low middling	11 1-16	11 3-16	11 3-16
Strict low middling	11¼	11¾	11¾
Middling	11⅜	11½	11½
Good middling	11⅝	11⅞	11⅞
Strict good middling	11¾	12	12
Middling Fair	12⅜	12⅛	12⅛
Fair	13⅛	13¼	13¼

STAINED.

Good ordinary	10⅝	Low middling	10 13-16
Strict good ordinary	10⅝	Middling	11 1-16

DRIED FRUITS.—Offerings of sliced apples are larger, but demand quickens and prices of choice lots are strong. Peaches are slow and unchanged. Small fruits are generally strong.

New North Carolina apples, quoted at 5¼@5c. for fair; 8¼@9c for choice; 10@10¾c. for fancy sliced. Patent evaporated apples, choice, in cases, 12½@13c.; do, fair to good, 10@11c.; N. Y. State sliced, good, old, 5@5½c.; and choice held higher, in small lots up to 8@9c.; quarters, choice, 5@6½c.; western quarters, common and old, 3½@4¼c.; new southern quarters at 4@4½c.; new N. C. peeled peaches at 14@17c., do. Georgia, 12@16c. Peaches, Delaware evaporated, peeled at 25@27c.; do. unpeeled at 10@11c.; new halves at 7c. Blackberries at 10c. for new. Raspberries at 28c. Pitted cherries at 15@16c.

Expo ts since January 1st, 25,421 pkgs. of apples; same time last year, 12,532, do.

EGGS.—Receipts for week, 5,769 bbls.; do. last week, 5,326 do. A better demand is looked for with improved weather. Former October receipts have lost seriously—as badly as in a summer month. Uncertain quality has checked sales, and many lots of so-called good hang upon the market. Cheap buyers are using prime limed in preference to risking low-priced fresh.

Near points, 22c.; State and Penna., 20½@21c.; fresh Western and Canadian, 20c.; poor, 18@19c.; limed State, 16@16½c.; Western, 15½@16c.

FRESH FRUITS.—Exports of apples past week, 13,694 bbls.; since Jan. 1, 133,340 do.; same time last year, 76,335 do. Light receipts and the advancing season have improved apples. The exports now include a good many winter sorts. Cranberries are looking up. Pears are reduced to small lots. Quinces scarce and wanted. Grapes higher. Peanuts dull, 4½@5c. per lb. for new choice; 2½@3½c. for other. Hickory nuts, 75c.@$1. Chestnuts, $2.50 for prime; extra, $3. Apples—Kings, State, good to choice, per bbl., $2.50@2.75; Baldwin, $2.25@2.50; Greening, $2.25@2.50; winter apples, mixed, good to choice, $2@2.50; fall apples, do., $1.75@2; do., do., poor to fair, $1.50@1.75; N. J., fair to good, $1.50@2. Cranberries—Cape Cod, fancy, bbl., $6.25@6.50; good to choice, $5.50@6; fair to good, $5@5.50; Eastern, large, round hoop bbls., fair to choice, $4.50@5.50; N. J., fancy, per crate, $1.87; good to choice, $1.50@1.75. Pears—Duchess, per bbl., $5@6; Boston, per box, $2.50@3; Virar or Wakefield, per bbl., $2.50@3.50; Lawrence, $4@4.50; Beurre Clairgeau, Boston, per box, $3@3.50; Beurre d'Anjou, $2.25@3; Beurre Bosc, $3@3.50; Seckel, choice, per bbl., $4; inferior, $2@5; cooking pears, $1.75@2.50. Quinces—Apple, State, choice, per bbl., $6@7; pear, do., do., $5.50@6.50; State, poor to fair, $1.50@5. Grapes—Catawba, State, 18 3-lb. boxes, $3@3.25; do., do, loose, ₩ lb., 5@7c.; Concord, up-river, bulk, 4@5c.; Isabella, State, 18 3-lb. boxes, $1.50@2; bulk, ₩ lb., 2@4c.

FLOUR.—There has been rather less export movement, and prices at times have been lower, but they left off firm, with some improvement in demand.

Latest sales are at $5.35@5.85 for inferior to fancy superfine State; $5.75@6.00 for ordinary to good extra do., odd lots and lines; $6.00@6.25 for good to very choice do.; $5.35@5.85 for inferior to very fancy superfine Ind., Iowa, Michigan, &c.; $5.75@6.00 for inferior to good shipping extra do., and $6.00@6.25 for good to choice extra do.; common to choice white wheat extras, $6.25@7.25; choice to very fancy do. at $7.25@8.50; red and amber winter wheat, inferior to very choice trade and family, at $6.35@7.75; round hoop Ohio at $5.90@6.45, and trade and family brands of do. at $6.00@7.25, the latter rate for fancy; St. Louis, $6.35@7.25 for inferior to very good extra; $7.25@8.50 for very good to fancy; Minnesota clear, inferior to very choice, $5.75@7.00; Minnesota "straight," very inferior to choice, $6.35@8.00 (fancy held higher), and patent poor to very fancy at $6.50@9.00; unsound stock at from $4.75@6.75; city mill extra at $6.00@7.25, ordinary to fancy, for West Indies: do. for England, $5.75@6.25 for poor to choice; do. trade and family extras, $6.75@8.00; do. for South America, $6.75@7.15 for standard to choice brands; No. 2 at $4.25@5.25 for poor to fancy.

GRAIN.—For wheat, trade has been feverish, irregular market at times much lower, but closing with some recovery of prices and a more active speculative tendency. The export movement has been more moderate. Latest sales of No. 2 amber at $1.45@1.46; do., October, at $1.45, ungraded amber at $1.40@1.45; extra white at $1.47; No. 1 white at $1.46@1.47; do., for October, at $1.45½@1.47; do., November, at $1.46¾@1.47; do., December option, at $1.49½@1.50; No. 2 white, at $1.42@1.44; ungraded white at $1.40@1.45; No. 2 red at $1.43@1.48; do., October option, at $1.45½@1.46¾; do., November option, at $1.46¾@1.48; do., December option, at $1.48¾@1.51½; No. 3 red at $1.42; ungraded red at $1.38¾@1.46; No. 2 Chicago and Milwaukee spring at $1.36@1.38; New York No. 2 spring, at $1.39 bid; do., October option, at $1.36; do., November option, at $1.35@1.36¾; do., December, at $1.38¼@1.39; No. 2 northwest spring, November, at $1.38; No. 3 spring at $1.31@1.33; ungraded spring at $1.31@1.39. Rye at 89@90c. for No. 2 Western. Barley at $1 for ungraded Canada; 85c. for six-rowed State. Corn has been easier and less active; latest sales are of New York No. 2 afloat at 61@62c.; do., October, at 61@61¼c.; do., November, at 62@62¼c.; do., for December, at 63¾@64c.; New York steamer mixed at 61c. bid; ungraded Western mixed at 61@62½c.; yellow Western at 62½c. Oats are offered at the close at a decline. Sales of New York No. 1 white at 45c.; do. No. 2 white at 41½@42½c.; do. No. 3 white at 41¾@41¾c.; New York No. 1 at 42@42¾c; New York No. 2 at 41¾@42c.; do., December option, at 45c.; New York No. 3 at 41c.; New York rejected at 39c.; ungraded white Western at 42@44c.; mixed Western at 40¾@42½c.; white State at 43@45c; mixed State at 43c.; No. 2 Chicago 42¾c.

HAY AND STRAW.—Trade is active and prices strong.

Shipping hay quoted at 50c.; retail lots at 50@60c. for medium, and 70@85c. for prime; clover at 40@50c. Straw at 70c. for long rye, 40@50c. for short rye and 45@50c. for oat.

Exports since Jan. 1st, 61,464 bales; do., last year, 49,800 do.

HOPS.—Emmet Wells says in his circular: "The continued heavy export movement has caused a further advance on choice new hops of 3 cents per lb.; sales having been effected this week at 43 cents, and bids as high as 45 cents made in some instances, but declined by holders. While it is acknowledged on all sides that hops are "booming," a slight feeling of uneasiness pervades the trade, holders and shippers generally wondering what effect the heavy arrivals will produce upon the London market. It is believed that a decline in the price there would be instantly felt here, though we think there is not much to fear on this score, when taking into account the great shortage in England, and the small amount we have yet to spare for export. Our brewers are just beginning to wake up to a realizing sense of the situation, and are feeling around to see what they can buy; they find but few good hops offering below 40 cents, while 45 is generally asked."

	Bales.
Receipts for the week	8,229
Total receipts since September 1, 1879	37,443
Total receipts for same period in 1878	9,457
Export clearances for the week	5,462
Total exports since September 1, 1879	28,933
Total exports for same period in 1878	1,462

Quotations are for New Yorks, new crop, choice, 40@43c.; New Yorks, new crop, medium, 35@38c.; New Yorks, new crop, low to fair, 30@33c.; Eastern, new crop, 34@40c.; Wisconsin, new crop, 30@40c.; Yearlings, 7@18c.; Olds, all growths, 4@10c.; Pacific coast, new, 35@40c.; Pacific coast, olds, 9@14c.

OIL-CAKE.—Western is quoted at $23.75 per ton.

PROVISIONS.—Prices have tended upward with active export and speculative demands. Mess pork closed at for October at $10.80 bid and $10.90 asked; November at $10.80 bid and $10.90 asked, and the December option at $10.80@11; January at $11 for seller's option, old and new. Bacon at 6¼c. for long clear and 6¾c. for short clear. Beef Hams at $14@14.50. Lard—Western steam at $6.95@6.97½ for spot lots and for Oct., $6.97½ for November, and $7.05 for December. Stearine at 6¾@7c. for Western. Tallow at 6¼@6¾c. for prime.

POULTRY AND GAME.—Supplies of live poultry have been heavy and prices have been dropping for the past three days. Few turkeys arriving; held in the country for next month.

Chickens, N. J., ₩ lb., 11@11½c.; State and Penna., 10@11c.; Western, 9@10c. Fowls, N. J., 10@10½c.; State and Penna., 9½@10c.; Western, 9@9½c.; Roosters, 5c. Turkeys, 8@10c. Ducks fair, 40@65c. Geese choice, $1.25@1.50; other, $1@1.12. Pigeons, ₩ pair, 30@35c.

Dressed poultry is in good supply; ice packed parcels have sold the best. Dealers look for an improved trade, still supplies should not be rushed forward without advice from consignees. Prices are easy in sympathy with live.

Turkeys, Phila., dry-picked, 15@16c.; State and Western, prime, 12@13c.; do., fair to good, 10@12c.; Chickens, Phila., 14@16c.; do., Jersey, 12@14c.; do., State and Penn., 11@13c.; do., Western, 10@12c. Fowls, Phila., dry-picked, 14c.; Jersey, choice, ₩ lb., 11¼@12½c.; State and Western, dry-picked, 11@12c.; scalded, 10@11c. Ducks, spring, Phila., dry-picked, ₩ lb, 15@16c.; State, ₩ lb., 12@14c.; Western, ₩ lb., 9@12c.; old, Phila., dry-picked, 11@12½c. Geese, young, Phila., ₩ lb., 12@13c.; old, Phila., dry-picked, 10@11c.; Squabs, white, ₩ doz, $2.75@3; dark, ₩ doz., $1.75@2.

In game woodcock are lower, but other birds are fairly active, prime grouse and partridge leading the sales. Venison has sold promptly on cool days. Wild ducks, $1@1.25; for Canvasback, 70c.; for Redhead, 65@70c.; for Mallard, 45@50c.; for Teal, 25@30c.; for common, per pair:

Partridge, State, prime, per pair, 1.25; soft, 60@75c.; Western, @$1. Grouse, prime, 1.25; soft, 60@80c. Wild pigeons, stall fed, per doz, $2; flight, $1.50@1.75. Woodcock, State, per pair, 40c.; Western, 30@40c. English snipe, per doz, $1.75@2. Plover, $1.75@2. Tame pigeons, shot, $1@1.25. Minn. ven son, short saddles, ₩ lb, 18c. State and Western, ₩ lb., 15@16c. Whole deer, 11@13c.

SEED.—Clover has been in active speculative demand and is much higher, quoted at 10@10½c. for good to choice Western. Timothy is strong at $2.50@2.75.

TOBACCO.—An active business is reported in seed-leaf, at strong prices, but Kentucky leaf is rather quiet. Prices have not varied.

VEGETABLES.—Exports potatoes past week, 5,721 bbls.; since January 1, 148,900 do.; same time 778, 154,500 do. The demand is good for potatoes, but Western receipts begin to add to what were already in surplus, and prices will rule easy while so much stock is visible and accessible. Garden truck has become firmer since our recent frost. Early Rose, State, per double-head bbl., $1.25@1.37; in bulk, per bbl, 1@1.25; Peerless, State, do, $1; N. J., do., 87c.; Sweet potatoes, Del., $2@2.25; N. J., $1.25@1.75; Va., yellow, $1.75. Green corn, per 100, 25@50c.; tomatoes, L. I., near-by, per crate, 25@40c.; string beans, ₩ bag, 75c.@$1.25; potato Limas beans, $1.50@1.75; Lima beans, dull, $1.25@1.50; squash, marrow, ₩ bbl., 50@75c.; do., Hubbard, $1@1.25; cabbage, per 100, $2 50@4; onions, white, per bbl., $2@2.50; red, Eastern, $1.50@1.75; do., Chester, $1.50@1.62; yellow, $1.75@2; beets, N. J., 75@87c.; Russia turnips, Jersey, 50@75c.; carrots, 75c.; egg plant, L. I. and near-by, ₩ 100, $3@4; pumpkins, per 100, $2@5; cauliflower, ₩ bbl., 75c.@$1.75; celery, per doz., 87c.

WOOL.—Trade is brisk and prices have further advanced. Sales of X and XX Ohio at 44c.; X and above do. at 41@44c.; XXX do. at 45c.; medium Pennsylvania at 45@46½c; spring Texas at 27c.; new fall do. at 23@27c.; scoured Texas at 66@70c.; spring California at 21@33c.; Mexican at 17@18c.; Nevada at 25½c.; Eastern Oregon at 31@33c.; unwashed Western at 31@36c.; Donskoi at 17@21c; Cape at 33c.

LIVE STOCK MARKETS

NEW YORK, Saturday, Oct. 25.

BEEVES.—Receipts for the week, 13,203 head; do. last week, 11,089 do. Without showing much animation the market has had an element of steadiness that has sustained prices. At this season of the year a good deal of rough stock, and many animals that farmers wish to avoid carrying over, come forward, but they meet with low prices, say 5@7½c. The market closed ½c higher than for Wednesday last. State Texas quoted 6¾c.; fresh Texan and Cherokee, 7@8c.; common to prime native steers, 7¾@9¾c., to dress 55@56 lbs.; extra and fancy, 10@10½c., to dress 56@57 lbs.

VEAL CALVES.—Prime grades of veal scarce; extra N. J. quiet at 8c.; prime State, N. J. and Buck's Co., 7½@7¾c.; good, including State, 6¾c.; heavy Mount Holly ranged at 6@7c.; buttermilk calves, 3@4c.; grassers, 2@2¾c.

COWS AND CALVES.—Market dull. Receipts include many near-by cows since pasture has shortened. The range is $30@60, the latter for a few singles.

SHEEP AND LAMBS.—Receipts for the week, 37,605 head; do. last week, 29,482 do. Not as active as at our last; sales generally at 3½@3¾c. for poor to good sheep and 5¾@6¼c. for ordinary to prime lambs.

SWINE.—Receipts for the week, 39,787 head; do. last week, 37,000 do. Hogs begin to be wanted; late sales prompt $3.85@4.05 for State and $4.15@4.20 for Western. Country-dressed pork has been unsettled during the week.

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Reading for the Young.

THE CHILDREN'S CHICKENS.

ALICE P. ADAMS.

Tom and Kitty had always lived in the city, until their father moved to California to take charge of a large ranch. Their knowledge of domestic animals and fowls was quite limited, as their pets in the Eastern home were only two—Beauty, the gray pony, and Tiny, a saucy little Scotch terrier.

So the children were greatly pleased when, on the very day after their arrival in the new, strange land, the chickens were given to them, on condition that they assumed entire responsibility, and gave food and drink at the proper time. The two young people soon became fascinated with their feathered pets, and spent hours in the poultry-yard watching every motion and daily discovering wonderful traits of character.

Of course names were given to all the favorites, and prominent among these were Jack and Jill, a pair of handsome Light Brahmas. Old Jack was so large that he could pick corn from the top of a barrel while he stood on the ground, and he stalked about the yard in a lordly manner that greatly impressed the other roosters. He was not greedy, and when he called to the hens, or "gurgled" as Kitty expressed it, he never ate the nice tidbit himself, but gave it up with evident satisfaction.

Jill was the largest hen in the yard, with an abundance of fluffy white feathers and a little perky tail. She was Tom's especial favorite, and would hop into his lap and eat corn from his hand as long as he would feed her. She never objected to being carried anywhere about the place, or even to being stroked on the head and back when she was on the nest; but when Kitty took liberties and shook Jilly's bill she would "sing," and her song was the most unmusical croak I ever heard.

Then there were little Jack and Jill, young Brahmas, resembling the older pair so much that they were called by the same names with the diminutive prefix. Little Jill was very tame, and would walk up to you at any time if you held out your hand, and allow herself to be taken up, and curl her claws contentedly over your finger. But I imagine that this docility was partly due to the fact that she expected something to eat, for she was a sad gormand; Kitty declared that she never carried her head like the other chickens, but always held it down, looking for some unlucky insect to snap up. One day when Papa was planting the premium corn sent by the RURAL, he heard a slight noise, and turning around found that little Jill had been complacently following, picking up the kernels as he dropped them. And when the corn came up there was a long empty space, a monument to little Jill's gluttony.

Perhaps the homeliest hen in the yard was Nettie Danford, who wore yellowish-brown with considerable red about the head, and had a disagreeable habit of picking at the buttons on Kitty's wrapper. She received the name of an unsuccessful lady editor whose paper was discontinued within six months after the first issue, and whom she was supposed to resemble in personal appearance. Nettie had the reputation, too, of being a most astonishing scratcher. She executed no fancy figures but every scratch counted, and woe to the luckless chick that stood behind her energetic claws.

Two of the roosters were special pets; one of them, Dr. Latham, a dashing White Leghorn, was named for a spruce young doctor in the neighborhood; the other, a handsome Brown Leghorn, was also very gay until he had a serious fight with old Jack in which the latter was victorious. After the battle when Jack came near, the Leghorn would slink away with drooping head and tail, his whole attitude so expressive of humiliation, that Tom christened him Mr. Church, in memory of a little insignificant gentleman living at their old home, who never dared to make a remark unless it was sanctioned by his wife. Poor Churchy! The children tried in vain to help him recover his lost spirits. His tail feathers drooped lower and lower till they swept the ground, he refused to eat, and one morning Tom discovered him in an out-of-the-way corner, dead.

A trim little Quakeress was Friend Ruth, dressed in modest gray with a touch of white, having a shining gray topknot, and a hint of worldly vanity in the delicate sea-green of her ear lobes.

Then there was the old Gourd Hen, so called because she hatched her first chickens in a large gourd; and Yankee Doodle, who had a very peculiar crow, supposed to resemble the first strain in the chorus of the song for which he was named; and a host of others all more or less famous, but the one that was most frequently shown to visitors in preference to the rest was undoubtedly Shanksy.

He was noticed from the first as having a long slim body, and after the down came off from his back and wings it was nearly two months before the feathers appeared. He possessed a long thin neck, also destitute of plumage, that he was continually stretching "upward and onward;" and he presented such a ridiculous figure with his naked wings which looked as if the sun had blistered them, that his name was remarkably appropriate.

Shanksy's plumage diminished his queer appearance but little; for the feathers on his neck would not lie smooth, but bristled as if he was in a chronic state of irritation; and he had a most comical tail composed of a bunch of down with one black feather shooting out at the side.

The children had many disputes over the sex of Shanksy. Tom declared him to be a rooster, and Kitty as stoutly insisted that *she* was a *hen*. I heard them one day as they were coming from the chicken yard.

"Now, Kit, *any* body that's got eyes could tell 't Shanks is a *rooster*!"

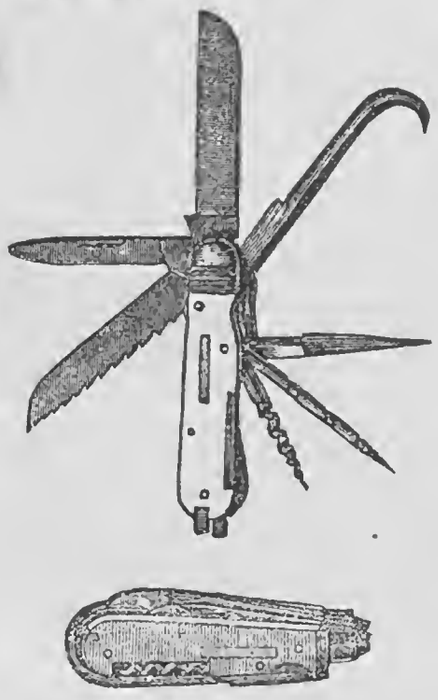
"Humph! You don't know any thing about it. Shanksy told me *herself* that *she* was a dear little *pullet!*"

Los Angeles Co., Cal.

A REMARKABLE KNIFE.

DEAR NEPHEWS:—I venture to say that most of you are perfectly posted in regard to premium lists and other devices that the insinuating publisher, about this time of year, sends around to all his friends, and to a great many people besides whom he would like to secure for friends. They are works of art, and I always like them because they are full of pictures and nice, seductive little romances, which, like the stories in the dictionary are "unco short," but very plain as to meaning.

Well, the RURAL'S publisher has proven no exception to the rule, and I find on my table (fresh from the mail,) a very nice premium list, indeed. One article took my fancy captive immediately and carried me back to days when I should have considered that to possess it would have been the acme of happiness. It is simply a jack-knife, but *such* a jack-knife! Look at it.



It would have been worth more to Robinson Crusoe than his man Friday, could he have owned it. Old as I am, I nevertheless, could not resist the temptation, and I now own a "multum in parvo" knife, as it is called. Indeed, it *is* much in little. I have gone about the house hunting for loose screws on which to try the screw-driver, which is so conveniently placed in the head of the knife just beside the big blade. I have notched the furniture (on the sly) with the saw-blade, have bored into door-jambs with the gimlet (I had nothing that I could open with the cork-screw), punched with the brad-awl, used the hook-shaped blade to lift covers from your Aunt True's stove, and then cracked nuts in the jaw formed by half closing it; in short, I have been the grand nuisance of the house (so your aunt says) for one whole day.

Now, boys, if you want something that will be more useful than your best friend, do as I did and get the knife—but, something occurs to me. You can't secure it as I did. I had to pay money, you may have it for nothing, or what amounts to the same thing, by merely sending in the subscriptions of five of your friends, which will cost them two dollars, each. I am not sure that I would own a nephew who would do without this knife—I would turn him over to Uncle Mark. I want to hear from the first boy who raises a club and pockets a *multum in parvo*, because then he can compare notes with UNCLE TRUE.

PENITENCE.

THERE is a touching story of the famous Dr. Samuel Johnson, which has had an influence on many a boy who has heard it. Samuel's father, Michael Johnson, was a poor bookseller, in Litchfield, England. On market-days he used to carry a package of books to the village of Uttoxeter, and sell them from a stall in the market-place. One day the bookseller was sick, and he asked his son to go and sell the books in his place. Samuel, from a silly pride, refused to obey.

Fifty years afterward Johnson became the celebrated author, the compiler of the "English Dictionary," and one of the most distinguished scholars in England, but he never forgot his act of unkindness to his poor, hard-toiling father; so when he visited Uttoxeter he determined to show his sorrow and repentance.

He went into the market-place at the time of business, uncovered his head, and stood there for an hour in a pouring rain, on the very spot where the book-stall used to stand. "This," he says, "was an act of contrition for my disobedience to my kind father."

The spectacle of the great Dr. Johnson standing bareheaded in the storm, to atone for the wrong done by him fifty years before, is a grand and touching one. There is a representation of it (in marble) on the doctor's monument.

Many a man in after life has felt something harder and heavier than a storm of rain beating upon his heart, when he remembered his acts of unkindness to a good father and mother now in their graves.

Dr. John Todd, of Pittsfield, the eminent writer, never could forget, how, when his old father was very sick and sent him away for medicine, he (a little lad) had been unwilling to go, and made up a lie that "the druggist had not got any such medicine."

The old man was just dying when little Johnny came in, and said to him, "My boy, your father suffers great pain for want of that medicine."

Johnny started in great distress for the medicine, but it was too late. The father on his return was almost gone. He could only say to the weeping boy, "Love God and always speak the truth, for the eye of God is always upon you. Now kiss me once more, and farewell."

Through all his after-life Dr. Todd often had a heartache over that act of falsehood and disobedience to his dying father. It takes more than a shower of rain to wash away the memory of such sins. Dr. Todd repented of that sin a thousand times.

The words, "Honor thy father and thy mother," mean four things, always do what they bid you, always tell them the truth, always treat them lovingly, and take care of them when they are sick or grow old. I never yet knew a boy who trampled on the wishes of his parents who turned out well. God never blesses a wilfully-disobedient son.

When Washington was sixteen years old he determined to leave home and be a midshipman in the Colonial navy. After he had sent off his trunk he went to bid his mother good-by. She wept so bitterly because he was going away that he said to his negro servant, "Bring back my trunk; I am not going to make my mother suffer so by my leaving her."

He remained at home to please his mother. This decision led to his becoming a surveyor, and afterwards a soldier. His whole glorious career in life turned on this one simple act of trying to make his mother happy. And happy, too, will be the child who never had occasion to shed bitter tears for any act of unkindness to his parents. Let us not forget that God has said, "Honor thy father and thy mother."—*Youth's Companion.*

LETTERS FROM THE COUSINS.

DEAR UNCLE MARK:—I have been a constant reader of the letters from the cousins belonging to the Horticultural Club, and have been so much interested that I, at this late date, request the best of Uncles to enroll my name with the rest of the Rural Cousins. I am eleven years old and am very fond of flowers, I can do a great many kinds of work, but my delight is the flowers of which we have many kinds. We have also a great many beautiful wild flowers. I wish you could see them, they are such curiosities. Your nephew,

Butler Co., Kan. LUTHER H. BROWN.

UNCLE MARK:—Will you please put my name on the list of the Horticultural Club. Papa gave me all of the flower seeds from the RURAL this spring, some of the plants are nearly three feet high now. Papa made me a rustic flower-stand for the window this winter, it is filled with plants now. Uncle Mark, will you please tell me how to grow English Ivy from cuttings, I have tried it and they all die.

Your niece NELLIE.

Hamilton Co., Ohio.

[Cut off the cutting just below a leaf and also half way between the second and third bud, set them in a pot or box and keep them moist and warm.—U. M.]

UNCLE MARK:—I am nine years old. My father has a farm, and has given me a piece of ground to cultivate. I have raised some nice vegetables this year. He takes the RURAL too and from the Acme seeds which you sent to him, he raised some of the finest tomatoes ever grown. I like to read the letters from the boys and girls and I also wish to join the Horticultural Club, if you can take me as a member. WILLIE C. HOYT.

Dutchess Co., N. Y.

UNCLE MARK:—I see that you are letting the Aunties join the Horticultural Club and as I am a lover of flowers and also of the RURAL, I thought I would like to join. I have two sisters, Abbie and Hattie, with me and we each have quite a variety of house plants. If I am accepted as a member I will write again. AUNT ELIZA.

Oakland Co., Mich.

[You are welcome Auntie.—U. M.]

DEAR UNCLE MARK:—I was very glad to see my letter in print, but I was sorry I did not tell you where I live, as I want to join the Horticultural Club with the rest of the cousins. Please put my name down now. Mamma and I dug the Beauty of Hebron potato you sent, and we had eighteen pounds from one potato; fifty-four large ones and thirteen small ones. FREDDIE STACKPOLE.

Snohomish Co., Washington Territory.

DEAR UNCLE MARK:—I am a very little girl, but love flowers so much. I and little sister Nellie try to have nice flowers all the time. We have such lovely warm weather here, that we can have flowers all the time. Nellie and I wish to join your Horticultural Club, so we can get some of your flower seeds. EUGENIA S. MITCHELL.

Fort Meade, Fla.

MAGAZINES.

HARPER'S MAGAZINE FOR NOVEMBER.—Contents:

The Old National Pike.—W. H. RIDEING.
With Twelve Illustrations by Pyle.

Early American Art.—S. G. W. BENJAMIN.
With Eleven Illustrations.

Rosamond. A Poem.—C. P. CRANCH.

Upon Julia's Clothes.—ROBERT HERRICK.
With Illustrations by Abbey.

A Legend of All-Hallow-Eve. A Story.
With Three Illustrations.

The Sparrow War.—Prof. H. W. ELLIOTT.
With Two Illustrations.

A Night on the Tete Noire. A Story.
With Four Illustrations.

The Mimicry of Nature.—J. C. BEARD.
With Fifteen Illustrations by the Author.

The Cobbler's Catch.—ROBERT HERRICK.
With Illustration by Abbey.

The Cattle Ranches of Colorado.—A. A. HAYES, Jr
With Fourteen Illustrations by Rogers.

White Wings: A Yachting Romance.—W. BLACK.
With Two Illustrations.

Young Mrs. Jardine. A Novel.—D. M. CRAIK.
With Two Illustrations.

Mary Anerley. A. Novel.—R. D. BLACKMORE.

STOCK RAISING IN COLORADO.—It is carried on, as must be generally known, from Texas to a region considerably north of the Union Pacific Railway, and great herds pass from the Lone Star State through Kansas, and up to the great iron roads running east and west. In New Mexico, in Southern Colorado, on the Arkansas and its tributaries—the Fountain, the St. Charles, the Muddy, the Cucharas, the Huerfano, and others— in the great parks over across the range, and over the plains in Colorado, Nebraska, and Wyoming, the herds roam, and the *rancheros* ride. Between Denver and Julesburg, on the Union Pacific Railroad, lay the immense range of the late Mr. Ayliff, one side of which was fifty miles in length. He is said to have begun fifteen years ago with a capital of $100, and his estate is valued at $1,500,000. It was interesting and instructive to hear how one of his friends accounted for this unusual success: "Some people try to attend to several things, or to do more than one kind of business, but he only thought of one thing for those fifteen years, and that one thing was cattle. And attending only to that, and working at it and thinking about it all the time, he came to understand it wonderfully well, and to have perfect judgment about making the most of stock."

A dissertation on the cattle herds of the Great West would occupy a large volume, and those who have chosen other parts of this domain than Southern Colorado are doubtless competent to "give a reason for the faith which is in them," and amply support the wisdom of their choice of location. To us this same Southern Colorado seems to present on the whole, the greatest advantages. It is traversed by railroads, and accessible from all sides; and the climate is most salubrious, and so mild in winter that the stock can remain on the range throughout the year. Other things being equal, there are many men who highly prize the grand, ever-present spectacle and genuine companionship of "the everlasting hills." No doubt in other regions land can be had more cheaply, and sometimes occupied without fee or reward, but there are sure to be counterbalancing disadvantages.

Above a certain latitude, and notably in Wyoming, great losses have occurred from severe winters, and not very far to the north the "Lo family" (as the noble red man—"Lo! the poor Indian"—is called on the plains) comes in to disturb and molest. All admirers and advocates of these hyperborean regions have ample opportunities to rise and explain; be ours the pleasant task, reclining under the spreading cotton-wood, and in the shadow of the Sierra Mojada, of singing the eclogues of the valleys of the San Carlos and the Huerfano,, for it is "not that we love Cæsar less, but Rome more."

We have said that water was the prime requisite, and the banks of streams are the first sought. Government land is divided into sections of 640 acres (a mile each way), and quarter sections of 160 acres. What more simple and easy, we hear some one ask, than to take up four quarter sections in a line along the stream, and while we only own, strictly speaking, a quarter of a mile in width, to occupy, without let or hindrance, away back to the divide (ridge between that valley and the next), being sure that no one will have either the motive or the will to dispute with us the possession of this arid area? Nothing, certainly, except that a number of able-bodied citizens beside yourself have not only conceived this same idea, but acted promptly on it, and that in consequence, the supply of water frontage may be found inadequate to meet the demand, and its market value, consequently and proportionately increases. There are always, however, ranchmen willing to sell, for one reason or another, and no one need despair of obtaining a good location at a fair rate, with the improvements ready made. Then he can buy his stock, mainly, if he be wise, on the spot and in the neighborhood; for, with the great improvement now taking place in breeds, it is no longer desirable to buy largely in Texas. Then come his "cow-boys," or herders, not Mexicans, as in old times, but generally stalwart Americans, quick of hand and deliberate of speech. They are provided with swift and sure-footed horses, generally, in these days, of the *broncho* type— a mixture of the American horse and the mustang.

It may now fairly be asked, where else in the world, and in what other known way, can a man sit down and see his possessions increase before his eyes with so little exertion involved on his part? With the dawn the cattle are all grazing. Thin and gray enough the grass looks to the inexperienced eye, but the ranchero well knows the tufts of buffalo and gramma growth, gauges the value of this feed as compared, in the matter of nutriment, with the richest greensward of apparently more fertile regions, and remembers that it grows afresh twice a year. Then, with the utmost regularity, and some time before noon, the whole herd—the splendid bulls, the plump steers, the red and white and roan and mottled cows—take their accustomed trail, and seek the water with unerring certainty. Then back to the grazing again, and again, and feed until

> "The embers of the sunset's fires
> Along the clouds burn down,"

and night brings them repose.—A. A. HAYES, in *Harper's Magazine for November.*

THE MUSICAL RECORD for Oct. 18, besides many interesting articles on musical matters contains the music of Michalis's celebrated Turkish Parade March, and that of Handel's popular, Angels Ever Bright and Fair. The Record is published by Oliver Ditson & Co., Boston. Single copies .05. Yearly subscription $2.00.

PERSONAL ITEMS.

Mrs. Nellie Sartoris, accompanied by her husband, will sail for this country in a few weeks.

Shakespeare was married when he was 18, Dante at 23 and Brigham Young when he was 18, 19, 20, 21, 22, 23, 24 and so on.

It is announced that Elizabeth Cady Stanton has a daughter old enough to vote. Thus will the suffrage movement be kept going.

Property left for educational purposes by William Hulme of England, valued in 1691 at $200, is now estimated at from $2,500,000 to $3,500,000.

Empress Eugenie's household at Camden Place is broken up. Her faithful henchmen, Dr. Conneau and M. Pietri, have virtually taken their leave of her.

Ex-Governor Hendricks has a bet of a cane with Editor E. B. Martindale, of the Indianapolis Journal, that Grant will be the next Republican Presidential candidate.

Sir Garnet Wolseley is not an Irishman, it is now reported, but the head of the family is Sir Charles Michael Wolseley, an English baronet of a creation in 1682 and a Catholic.

Ella Judd was a clerk in the Post Office at West Stockbridge, Mass. She could not bear to let the letters sent by Mr. Paulding to a young lady pass through her hands without reading them. She was caught opening them, and will be prosecuted.

A Miss Whitten, now at Damariscotta, Me., has probably the longest hair of any woman in the world. It is eight feet long and when dressed in a French twist it passes six times around her head. The growth is perfectly natural.

Nordenskjold, the explorer, is a man of medium hight and robust frame, with hair of the true Viking color, a hale, fair complexion and a clear, bright eye, whose powers of vision, however, are somewhat dimmed, if wearing spectacles is any criterion.

Alfred Bentley of Hardinsville, Ky., refused to pay the rent of the farm on which he lived, and declared that he would submit to no remonstrance about it. James Bight, the landlord, rode to the place to confer on the subject, and the tenant shot him on sight with a rifle, killing him.

Gasparoni, a brigand, who in his day was the terror of all Italy, and of whom all manner of strange and romantic stories have been told, is dead at last, at the age of 90 years. Very peaceably did the old man die, "in the poorhouse at Ablategrasso," says the telegram from Rome.

It is the common belief that Sitting Bull is the chief of the Northern Sioux. The Sioux City (Iowa) Journal says that he is not the chief, but that Black Moon is head chief or "President," Sitting Bull "Secretary of War," Iron Crow "General" and Big Road "Brigadier-General."

The late Major Thornburgh is said to have been one of the best marksmen on the frontier. He could break glass balls with almost unerring skill; a friend relates that on once tossing a nickle into the air Thornburgh fired at it, and the bullet struck the piece of money when about 15 feet from the ground.

Cetewayo, the Zulu King, is rather a handsome man. He has a singularly dignified and stately air; a tall, sinewy figure, good features, a fearless glance, beautiful teeth, a head splendidly set upon his shoulders and a velvet skin. His attire is likewise impressive—a $2 tablecloth of the ordinary red and green pattern.

Mr. Blaine is a distinguished-looking man with broad shoulders, snowy beard and iron-gray hair. It is said, moreover, in reference to his manner of speaking, that he is "a thorough stumper. He must have a space in which to speak, at least ten feet by four and he will cover every foot of it, and keep those crowded about the borders dodging to avoid his fists."

Isaac G. Jenkins, a wholesale merchant, of Syracuse, N. Y., wound up the week on last Saturday evening and wearily trudged home, thinking as he went that the world's a hard world at best. When he took a seat in his library a letter was handed to him, and opening it carelessly he was electrified to find $2,500, with the simple explanation: "I robbed you of this years ago." Mr. Jenkins hasn't an idea who the conscience-smitten person may be.

Over the entrance to the main reception room at Senator Sharon's residence, on the night that the rich Californian entertained General Grant, was a floral piece which has occasioned much comment. It was the word "Welcome," each letter being a lovely marvel of alternate natural color. The "W" was of carmine geranium bloom, the first "E" and the "M" of white jasmine, the "C" and final "E" also of carmine geranium, and the "L" and "O" of alternate Swiss violets and ageratum. The "Welcome" was the only floral motto.

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Miscellaneous.

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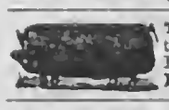

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Miscellaneous.

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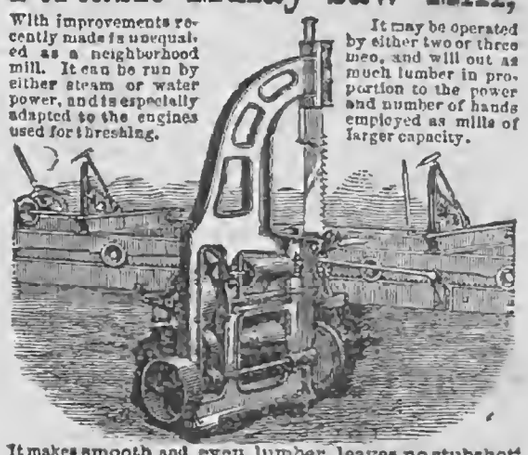

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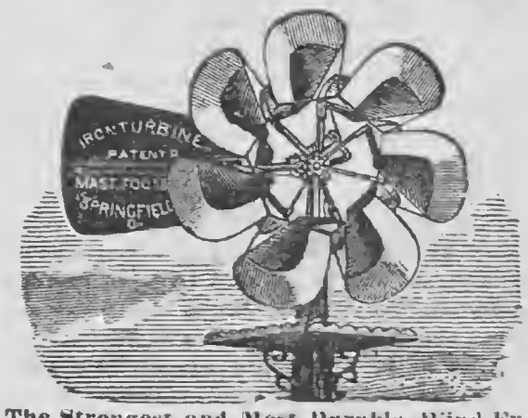

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BRIEFLETS.

THE foreign demand is for American *red* wheats. . . . Yankee speculators are accused of running up the price. . . The Cucumber has been cultivated for more than 3,000 years. . . . "James Veitch" is considered by many the finest Strawberry in cultivation in England. . . . The English potato, "Magnum bonum," has never yet, it is said, been attacked by *Peronospora infestans*. . . . Why not buy and sell eggs by the pound? . . . Disbudding apple trees to change the bearing year is, according to Mr. Robert Manning, a failure. . . . A. O. Scott, in the N. Y. Tribune, tells how a cat, having lost her young, adopted six young rats after killing their mother. . . . Sugar's up. . . . The acreage of wheat in England is less than for many years. English farmers have lost confidence in their climate and in their market. . . . Barley is more remunerative. . . . Many farms for sale—few buyers. . . . Come hither, cousins! . . . For the English farmer there is a great abundance of one commodity—advice! . . . In the face of want, one sickens of advice. . . . The London Times says that a keen appreciation of novelty, a readiness to adopt improved processes and the extensive application of machinery, constitute important elements in the industrial successes of the United States. That's the way we economise time, labor and expense. . . . J. J. Mechi cannot understand why farmers manure their gardens more abundantly than their fields. . . . The Mass. Ploughman says that the Belle Lucrative is the most delicious of autumn pears. . . . The Country Gentleman thinks that in quality the Croton is superior to Duchess, Prentiss, Lady, Niagara, or Pocklington, though of less vigorous growth. The Rebecca grape has a sweet, rich and very agreeable flavor, but the vine sheds its foliage too early and the fruit, therefore, fails to mature fully. . . . Croton is a yellowish-white, handsome grape, but the vine is subject to mildew. . . . A vineyard should not be cultivated later than July; late cultivation causes late maturity of the fruit. . . . Prof. Beal holds that of all organs the styles in the apple blossom are the most reliable for distinguishing varieties. . . . The Prentiss, which is sometimes spoken of as a new Grape, originated at Pultney, Kenka Lake, N. Y., where it has fruited for 15 years. . . . There are 10,000 acres in Grapes in Ohio. . . . Maine farmers get $5.75 a ton for sugar beets. . . . The growing wheat in southern Indiana and south-western Ohio is reported to be greatly suffering from the Hessian fly. . . The Nebraska Farmer thinks that hay is very beneficial to hogs. Cut itwith the hay-cutter—the greener the better—and mix with bran, shorts or middlings and feed the same as other food. . . The Rome Herald thinks that camphor is a cure for gapes. "An hour after a chicken has swallowed a camphor pill," it says, "the chicken smells of camphor. Camphor is a strong vermifuge and the worm dies." . . Now is the season, if ever, to graft Grape-vines. . . J. S. Wells, of Woodbury, N. J., bought a pound of the St. Patrick potato. It produced "two baskets" but they were "unfit for the table." . . . Mr. Bateham says, in the Ohio Farmer, that Duchesse d'Angouleme, Louise Bonne de Jersey and Beurre d'Anjou are the only pears which on quince stock can be recommended "for profit." . . Gen. Diven says that pasturing on low, marshy land is a cause of "ropy" milk; Mr. Copley thinks it due to impure water; the editor of the Husbandman quotes Dr. Henry Leffman (microscopist) to show that it is due to low forms of vegetable life by some means (unknown to him) infused in the milk. . . . John Roy spread 2½ bushels of salt on his wheat per acre and the growth of the wheat is decidedly stronger than on a piece not treated to salt. . . Judge Balcom says timothy may hurt wheat if sown in fall. Another member of the club remarked that if timothy made a good growth in the fall, clover will not take so well the next spring. . . . The London Ag. Gazette thinks that the only persons certain to be benefited by the Royal Commission are two members of Parliament, who have been paid to come here where no doubt they will have a most enjoyable time. . . "Cross a pure-bred Galloway with what you like," says a correspondent of the the London Ag. Gazette, "nine times out of ten progeny will be horuless and in other respects resemble the Galloway more than its other parent, which is a good proof of the breed being long established." . . Reports from Bessarabia (Russia) and Silesia (Ger.) state that rinderpest is very prevalent. . . American innovations in the way of farm utensils and machinery are the constant wonder of foreigners. . . England is discussing the merits of the Cooley creamer and generally with approval. . . Wages per month by the year in 1879 were lower in South Carolina than in any other State, and highest in California and Nevada. . . The Suffolk is the popular breed of hog among the nobility. . . Ten years ago, good grapes brought twenty-five cents per pound, now the average is less than five. . . The Hessian Fly has been very destructive to wheat in Russia. . . The Mennonites of Kansas have been successful in raising silk-worms. No doubt the United States is destined some day to become a great silk-raising country. The Mulberry grows luxuriantly, so does the Osage Orange. The one thing wanting is cheap labor. . . "People who are considered church folks are delighted with horse-racing at fairs. They would not attend a circus or allow their children to go, but an 'agricultural fair' is different you know."—N. Y. Tribune. . . The premiums for the next fat Stock Show in Chicago (Nov. 10—15) aggregate $5,000. . . "The Foster peach," says J. J. Thomas, "has proved one of the most profitable market peaches in Western New York and handsome profits have been realized. It resembles Early Crawford."

"ONE TOUCH OF NATURE."

(George has promised his Ethel the first shot for luck! A covey rises!)

Ethel (at the critical moment).—"Oh, George! Perhaps they, too, have loved!"

CORRECTION.—The modern name of Atlas, must be compositor, because his shoulders are so broad, and he so obligingly bears all the mistakes in the printing office. A case in point:—We had in our recent Fair number an advertisement setting forth the merits of Dr. Sykes's Catarrh cure and his insufflator, for which latter he charges $1.50. The compositor thought it would be an improvement to substitute "insufficator"—whatever that may mean—and he also came to the conclusion that doctor's price was too high, so he put it at $1.40, a reduction to which Dr. Sykes objects. Hence if our readers want an *insufflator* they must remit $1.50.

The North Pole and Equator

Are not more widely distinct than the standard tonic, stimulant and alterative, Hostetter's Stomach Bitters, and the cheap and fiery local bitters which unscrupulous venders foist upon the unwary as medicated preparations with remedial properties. The latter are usually composed in the main of half rectified alcoholic excitants, with some wretched drug combined to disguise their real flavor and are perfectly ruinous to the coats of the stomach. Hostetter's Bitters, on the contrary, has for its basis choice spirits of absolute purity, and this is modified and combined with medicinal extracts of rare excellence and botanical origin, which both invigorate and regulate the bowels, stomach and liver. They effect a radical change in the disordered physical economy, which is manifested by a speedy improvement in the general health.

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Bradford Mill Co., Cincinnati, O.

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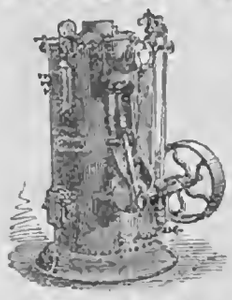

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Manufactured at Springfield, Ohio. Send for Descriptive Pamphlet.

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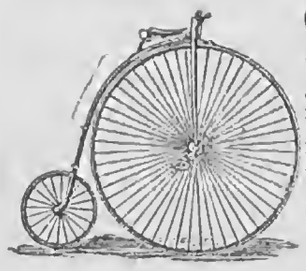

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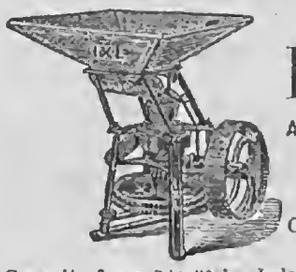

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A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME.

VOL. XXXVIII. No. 4. WHOLE No. 1554. | NEW YORK, NOV. 8, 1879. | PRICE FIVE CENTS. $2.00 PER YEAR.

[Entered according to Act of Congress, in the year 1879, by the Rural Publishing Company, in the office of the Librarian of Congress at Washington. — Entered at the Post-Office at New York City, N. Y., as second-class matter.]

Biographical.

DR. ASA GRAY.

BY PROFESSOR W. J. BEAL.

PROBABLY every person in the United States and in the British Provinces of North America who has any knowledge of botany, has heard of Dr. Asa Gray and has some idea of the work he has done for his favorite science. At the present time, the masses of educated people have a much greater respect for botany than they had twenty or thirty years ago. They have learned that botany does not consist merely in hard names; that there is something more to learn about a plant than its name and description.

No person in America has done more to bring about this respect for botany than the subject of this sketch. He has done much to show how plants are constructed, how they grow, and how they behave. He has frequently pointed out some of the relations of botany to agriculture and horticulture, and the relations which plants sustain to all of the organic and inorganic world. He has done much to make botany popular, by his essays, by his books and by his teaching in Harvard University. In 1836 his first text book appeared and was called "Elements of Botany." Since then, at various times, have appeared others, till now we have "How Plants Grow," "How Plants Behave," "Lessons in Botany," "Manual of Botany," "Field, Forest and Garden Botany" and "Structural Botany." These are all good, but the best of them it seems to the writer, is "The Lessons," and the poorest. "The Field, Forest, and Garden Botany." A new edition of the "Structural Botany" has just appeared. This has been almost entirely rewritten; much matter has been dropped, much added, and the book brought up to the times. He has omitted most that pertains to the anatomy and physiology of plants and also the illustrated accounts of the prominent natural orders. The work is adapted to advanced students, and it is the best work we have in the English language on the subjects on which it treats.

In 1842 he was elected Fisher Professor of Natural History in Harvard University, and has occupied this chair ever since that time—a period of thirty-seven years. Until within about five years, he has taught the classes in botany at Harvard. It may not be generally known that his name appears as first among the list of Professors appointed in the University of Michigan. This position he never filled, but soon resigned to go to Harvard. As a teacher his greatest forte is in directing the studies of his special or advanced students. He is extremely fond of plants and everything that pertains to them. He admires their beauty; he likes to study all of their adaptations to the rest of the world. It is almost impossible for any person to work under his direction and in his presence without catching something of his inspiration. Nearly all the leading Professors of Botany in the colleges of the United States, have been students of Dr. Gray for a greater or shorter period.

By many he is known for his valuable text books just enumerated, but these constitute but a small part of his work. He has described and named a vast number of flowering plants which have been collected in numerous exploring expeditions. These descriptions appear in numerous government and State Reports which need not here be enumerated. These are very valuable contributions to science, but they are almost lost sight of by the mass of the people. One of his earliest contributions was a work on grasses, sedges and the like, the former of which are of such great value to the farmer. One of his greatest works is "The Flora of North America," begun in 1838. The first two volumes were prepared jointly with the late Dr. Torrey. They extended through the *Compositæ*. Dr. Gray has lately renewed the work and has alone printed part first of a third volume. In 1848 appeared the first volume of his "Genera of the Plants of the United States." The object in this work was to describe a prominent species of each genus of plants in North America. These were accompanied by detailed drawings by Isaac Sprague, the best botanical artist in this country. These drawings are marvels of accuracy and have never been excelled in any land, and probably they were never equaled. The text was prepared with great care. The work only passed through two volumes. It is now rare and costly. Dr. Gray was ready to continue the work, but the artist could not be induced to do so. He thought his drawings were not appreciated.

In connection with his other work, Dr. Gray did considerable towards maintaining and increasing the botanic garden, greenhouses, etc., at Cambridge. In the early part of his studies, he was an industrious collector of plants and laid the foundation for the great herbarium at Harvard. He has made valuable contributions to botany in a host of miscellaneous papers and reviews contributed to the American Academy of Arts and Sciences, to the American Journal of Science and Arts, North American Review, Atlantic Monthly, Transactions of the American Pomological Society, and to numerous Journals of Agriculture and Horticulture.

In 1837—42 years ago—appeared the first contribution we find in the American Journal of Science and Arts. This was a paper read before the Lyceum of Natural History in New York, October 24, 1836. The subject was "Vegetable Fecundation." Then soon follow other valuable papers—one on synonymy of several plants of the orchid tribe, notes on European herbaria, and a botanical excursion to the mountains of North Carolina. In 1853 Dr. Gray appears as associate editor of the journal last named, and has held this position up to the present time—a period af 26 years. One of his ablest articles was that in which he points out the relations of the Flora of Japan to that of Eastern North America. Almost every work of any merit on botany, which has appeared in any country within the last twenty-five years, has been ably reviewed by Dr. Gray in the American Journal of Science and Arts. His own works were reviewed by others. He has taken up many knotty problems in botany, and has lived long enough to see most botanists fall in with his conclusions on the subjects investigated.

Asa Gray was born in Paris, Oneida County, New York, November 18, 1810. He graduated as Doctor of Medicine at Fairfield College in 1831; received the degree of LL. D. from Hamilton College in 1861. For some years he was president of the American Academy of Arts and Sciences, and in 1872, president of the American Association for the Advancement of Science. He is honorary or corresponding member of any number of leading foreign scientific societies. His name stands above that of any other American botanist, and ranks with the best of those in Europe. Systematic botany is his forte. He is especially intimate with Charles Darwin and Sir J. D. Hooker.

All this work has required a long life with great industry and perseverance. He has enjoyed almost uninterrupted good health which he has preserved by good regular habits and some relaxation at regular intervals. He does not find it necessary or best to study all night, or for half the night for a part of the time, and then rapidly break down and rest or recruit for a long time. He lives on plain food. His best hour for work is from 9 to 10 P. M. when he is not likely to be interrupted. He retires at 10 or 10½ o'clock, sleeps well and long. Although he has done a vast amount of work, on account of his excellent habits he seems still active, in full vigor, and good for many years yet to come.

DR. ASA GRAY.

The author acknowledges some items from the first volume of the Popular Science Monthly. To some this sketch may seem too much like a eulogy. It is true of Dr. Gray, as of every one, that he has some faults. In this case they are of minor importance. He has done much to help others. He has never sought his own advancement. He is not a schemer in any sense of the word, but rather retiring and avoids notice or promotion. He is strictly honest in every sense of the word, and likes to see fair play and justice done to every one, even the humblest worker. A man with such sterling qualities is so rare that he should be held up as a grand example for young students to follow.

Agricultural College, Lansing, Mich.

Field Crops.

EXPERIENCE WITH BLOUNT CORN.

L. J. TEMPLIN.

THERE seems to be such an interest felt in the above variety of corn that I have thought that a report of my experience with it, might be of interest to the readers of the RURAL. In the spring of 1876, just before leaving Union City, Ind., for this place, I received through the editor of the Union City Eagle, a small packet of the White Prolific corn direct from A. E. Blount, of Cleveland, Tennessee. In the confusion and hurry of moving this long distance and getting started in business, this corn was forgotten till late in June, when it came to light. I planted it in the garden near the house in a rich, friable, loamy soil. It grew well till the locust invasion that began on the 28th of August, and lasted seven days. During all this time the "hoppers" were about us as thick as they could hop, frequently averaging one for every square inch of the ground. The corn had just reached the early stage of the milk state. The locusts "went for" it, and I "went for" them, but they were "too many" for me. I soon found that a retreat was necessary to save a single vestige of the much praised corn. I therefore cut it off at the ground and carried it to the cellar. Here it remained till the destroyers had left us. I then carried it out and set it against the fence till thoroughly dry. I then pulled it off, husk and all, and laid it away in a dry place till spring. It then appeared to be simply chaff, but I determined to give it a chance. To make sure of a stand, I put from six to eight grains in a hill, and, to my surprise, every grain seemed to grow. From this I learned a lesson about seed corn. Of course, I had to pull up over half of it, but I still had enough left to give me two or three bushels of good, sound corn.

In the spring of 1878, on the first day of April, I planted two acres of this corn five feet apart each way, among some young timber just set. The soil was a light sandy loam, the season was very wet, and it was cultivated but twice. I did not measure the corn, but I never saw such a wilderness of corn before. It ran from three to five ears to the stalk, with occasionally seven to nine inferior ones. I thought this was *the* corn. The ears were of good size, plump and sound with small cob, and, what is of importance here, it was but little injured by the corn worm.

I was so well pleased with it that I planted last spring, about 22 acres of it. The soil is good, black loam. It was planted in good season and well cultivated. It grew well till shooting and filling time, when the drought, which had been prevailing to a greater or less extent all the summer, became so severe as to seriously check its growth. The result is about 15 bushels of small ears to the acre. Two other varieties, one white and the other yellow, growing in the same soil and with similar culture, yielded about double as much as the Blount.

Now, what is to be done? Am I to conclude it is a failure and discard it? I do not think so, but I think I have learned something of its nature and requirements. As many of the RURAL readers have doubtless learned this season, this corn is a very rank grower, making a wonderful growth of both stalk and foliage. It is consequently a gross feeder, requiring an abundance of available plant-food to meet its requirements. A rich soil deeply stirred, with plenty of moisture, seems to be demanded by this plant. Another condition required for success with it, is abundance of room. If I were planting for the best results in this part of the country, I should plant at least four feet apart each way; and am not sure but 4½ by 4½ would be still better. I should then never leave more than two stalks in a hill. It grows so tall and has such a wealth of foliage that it requires considerable room for the sunlight and air to pass through it.

This corn has some qualities that recommend it to the attention, among which are its prolific character, the smallness of the cob and its comparative immunity from the ravages of worms. As I have said above, when it does well it yields enormously. Mr. Blount speaks of trying to still farther reduce the size of the cob. This seems to be scarcely needed, as the cob is already so slender that it requires rather careful handling in husking and shelling to prevent breaking the cob near the middle. Besides, a small cob is not considered so desirable a quality in this country as in other places, on account of the fact that corn cobs are generally used for fuel, so a large cob is desirable rather than objectionable. One difficulty we have to contend with in our corn crops in this region is the spindle-worm, which works in the grain on the ear. Frequently almost every ear is more or less injured by this insect. The Blount corn, on account of the closeness of the husk or other cause, is very little damaged by this injurious caterpillar. This enables us to market it at a better price than can be obtained for corn otherwise as good, if not superior.

My experience with this corn leads me to these conclusions:—1, where the conditions are favorable, it is a profitable crop to raise; 2, its liability to failure in the absence of these favorable conditions, at least in this country, renders it unsafe to depend upon it for a principal crop. In conclusion therefore I would say: those who have been charmed with its vigor, prolificacy, etc., this year, should plant with caution next year, while those who have been disappointed in it, should not condemn it without further trial.

Reno Co., Kan.

Farm Topics.

AUTUMN WORK.

OUR object in this article is not to give any definite hints or instructions in regard to particular work to be done at this season of the year, but rather to offer some suggestions on the general principles that should guide us in deciding on the method and order of fall work, and, from the errors of the past season, to point out the mistakes which the careful farmer should avoid next year. Prominently in the mind of every farmer at this season of the year should rest the great fact that

Winter is Coming.

Future rain, wind, snow, frost and steady cold, with frozen ground, are, each and all, important factors in deciding the question, often a puzzling one, what class of work or what particular job of work shall be done first. Roads, markets and varying prices must be considered, too. A general knowledge of the condition of the crops throughout the country will be deemed essential by every intelligent farmer in deciding whether to market or hold any particular crop; and to gain this knowledge he will carefully read two or three good agricultural papers that give reliable information on this point from all parts of our broad land.

These general principles will become clearer by a few illustrations. For instance, take the factor, frost. Thousands of acres of hill corn this year, in the Middle and Eastern States, had the stalks *entirely ruined for fodder* by a September frost. We refer to those parts of the country chiefly east of Indiana, where the fodder of hill corn is deemed an important item—indeed, *the one item* that makes corn-raising pay at all in competition with the "Great West." Now this corn was sufficiently ripe (glazed) to cut up and "shock" before the frost came. But other fall work was pressing, and corn-cutting was deferred, till finally a big September rain cooled the air, and a stinging frost settled the fodder question. The writer chanced to drive 50 miles the day after the frost, and saw scores of farmers eagerly cutting up the corn, *just one day too late*. Almost any other fall work might better have been deferred. Not a day should have been lost after the ears were glazed so as not to shrink by the cutting of the stalks.

Again, suppose that, October 1st, the roads are good, weather fair, late potatoes ripe or the tops killed by frost, and prices high, but the acreage and yield large throughout the country. The shrewd farmer, knowing these facts, and living within a day's drive of a good city market or country shipping station, will strain every nerve to dig, team and market his potatoes before the roads grow heavy or the market breaks. "The early bird catches the worm."

Or, again, suppose the general acreage and yield to be small, or the roads bad and the weather "catching." Now the shrewd farmer will use his best endeavors in fair weather to get his potatoes out of the wet ground and into the dry cellar or store-house. He will let the marketing go, lest old Winter *freeze* his potatoes in before he *gets* them in. All other work will receive the "go-by."

In general, it is well to drive the work and not let the work drive you. Once behind, and it is hard to catch up. We know some farmers who were born two weeks too late, and have never yet made up that fortnight! And a farmer trying to catch up with his onstriding work, is like the belated passenger trying to catch the departing train—both find it "up-hill work" even on level ground. The farm, like the "steam wagon," will always have a passenger aboard that it has "left behind." It is far better, we repeat, to drive or be a little ahead of the work. For example, it is well to have the marketing of early apples, potatoes, etc., as well as all cutting and curing of aftermath, Hungarian grass and fodder corn—including hill corn—well out of the way in the pleasant weather of August or early September, before the late potatoes and the winter fruit are ready to handle. Then these can be promptly finished before the time for husking and other late fall work. When two pieces of work are both ready to be done at the same time, the general rule would be, of course—unless it be possible and wise to increase the working force temporarily—to defer the one that can be postponed *with the least risk*. For example, there is little risk in deferring turf-plowing or tile-draining in October, but great risk in deferring the digging of potatoes, or the pulling, drying and housing of field beans after they are ready. And so

The Lazy Man's Motto,

"Never do to-day what can be done *just as well to-morrow*," is often sound philosophy for the farmer in deciding on the order of fall work. In general, we should say that it is well to get ready for winter before beginning on tile draining, clearing rough pastures, plowing turf and similar work that can be suspended at any time or continued more or less through a mild winter.

SALT AS A PREVENTIVE OF RUST AND AS A FERTILIZER.

H. S. WYSOR.

It is worthy of note that the present fall has brought out many inquiries through the columns of the agricultural press in regard to the virtues of common salt as a manure. In the columns of the RURAL especially, I notice several questions as to when salt should be applied, and how much. As much interest seems to be manifested in the subject, perhaps the following information, collected mainly from Johnson's Encyclopedia of Agriculture, may prove of value.

Salt as a Preventive and Destroyer of Rust.

Salt, if not a complete preventive, is an effectual cure of the mildew. Mr. Chatterton, a Lincolnshire farmer, says, in the 44th vol. of the Annals of Agriculture: "On the seaside wheat is little damaged by the mildew, yet within three miles inland, the crops are as much affected as those still further from the sea. This fact can be supported by the experience of most farmers whose fields skirt our native shores, and unquestionably it is owing, not only to the fact that soil contains a greater proportion of common salt than is found in more inland soils, but because the sea-breeze, which rises almost nightly in the summer season, bathes, as it were, the crops in the immediate vicinity of the coast, and this haze holds in solution a portion of salt." (Has the RURAL any information on this point in regard to the wheat fields bordering on *our* sea-coast?) [We have never raised a crop of wheat without rust, and the Rural Farm is close to a salt-water bay. Spring wheats of last year were sensibly injured by it.—EDS.]

It is well known, as it is an experiment which has been repeatedly tried, that a solution composed of one pound of salt to a gallon of water—a safer solution would be 8 oz. of salt to the gallon of water—laid on with a plasterer's brush, has completely subdued the rust after it had already considerably affected the wheat plant. It is said that two men will get over about four acres a day with this mixture. (It is evident that this application is not practicable except on a very small scale.) The straw recovers its original color and brightness in less than 48 hours after the solution has been applied. The action of the salt is thus explained:—Mildew, being a parasitical plant of the fungus tribe, its principal constituent is water, and when salt is applied to it, the aqueous portions are immediately absorbed and their vitality destroyed.

Salt as a Manure.

It would be, perhaps, difficult to name any other substance in the catalogue of modern fertilizers, whose powers have been so often and so warmly disputed, as common salt. The following conclusions, which I merely summarize, seem, however, to be established:

1. In *small proportions* it promotes the decomposition of animal and vegetable substances.

2. It destroys vermin and kills weeds, which are thus converted into manure.

3. It is a direct food of some plants; and it has been clearly ascertained that if salt is applied to the soil, the vegetables afterwards grown on that land, are found to contain an increased proportion of common salt.

4. Salt acts on vegetable substances as a stimulant.

5. Salt preserves vegetables from injury by sudden transitions in the temperature of the atmosphere. That soils, when salted, do not freeze as readily as usual, is well known. (I have myself observed that in places where cattle are wont to be salted, the ground seldom or never freezes.)

6. Salt renders the earth more capable of absorbing the moisture of the atmosphere. Salt rarely causes the wheat plant to grow larger or taller, but it fills up the ear better, and brings the weaker plants forward. Mr. Sinclair tells us that salt appears to lessen the production of straw and increase the weight of the grain. Salt should be applied some time before sowing the seed, not less than ten or more than twenty bushels per acre. This quantity gives an increased yield of six bushels per acre. The subjoined experiment was conducted by Mr. Johnson himself in 1820.

Produce per Acre.

	bus.	lbs.
No. 1. Soil without manure for 4 years.....	13	26
" 2. Soil manured with stable dung to the previous crop (potatoes).....	26	52
" 3. Soil with 5 bushels of salt per acre, and no other manure for 4 years.....	26	12

As refuse salt can be purchased at comparatively cheap rates, I trust the experiments conducted this coming season, will give us more satisfactory evidence of its value.

Entomological.

VINE-LEAF HOPPER.—(Tettigonia Vitis.)

S. B. PECK.

Except the codling-moth, the above-named insect pest is the most uncontrollable and unconquerable I have ever encountered—and if any one can, through the RURAL, give me and many others any valuable light on the subject, he shall have my most hearty thanks, and can call on me for a basket of grapes, taking his choice of my 25 bearing varieties. By a correspondence with Professor Riley, I learn that there are several generations of the vermin in a season; that the eggs are probably inserted in the veins on the under side of the leaf; that the insect hibernates in the perfect form in any shelter afforded by cracks or loose bark of the trellises or stakes and under the fallen leaves.

I have for the two past seasons raked up all the fallen leaves and prunings and burnt them, and on the appearance of the winged insect the past season, I drenched the vines with a solution of 10 pounds of lime with two ounces of sulphur, and with one drachm of carbolic acid to a gallon of water, and one spoonful of benzine to a pail of water. These two are supposed to mix with water, and are used with a syringe; I also used kerosene poured onto water and skimmed off and applied with a whisk. Moreover, I drenched the pests with tobacco tea; but it was all to no perceptible effect. I have burnt tar and tobacco stems under them; put vinegar on chloride of lime under them; hung sprigs of tanzy, of cedar, tomato vines and stramonium among the vines; burnt torches of fat pine, dipped in kerosene, among them by night and by day, all of which, although the treatment has evidently disturbed them somewhat, has failed to diminish their numbers or ravages.

That they have a choice in the varieties of Grapes, like the rest of us, is quite evident. They seem to prefer, for first choice, the Clinton, next the Taylor and Winslow, leaving the Franklin, which is similar in fruit and leaf, preferring to that the Delaware, Iona and Israella. I find plenty of them also on the ten varieties of Rogers's Hybrids that I have, but the leaves of these being large and thick, their ravages on them are not so plain. They like the Isabella much better than the Catawba or Diana. The Concord alone seems invulnerable to them, though the Hartford and Ives's and a few others having similar leaves, are not much injured. The last remedy tried was firing an old Revolutionary musket under them, hoping to kill them by the concussion, as had been proposed; but it only jarred some to the ground and astonished them, but seemed not to have hurt a hair of their heads.

That many insects have a dislike to certain odors or perfumes and will avoid them, I am well satisfied. The evidence is quite strong that the presence of hogs and sheep keeps away the codling-moth from their immediate neighborhood; but that the destruction of their larvæ by the eating of the unripened fruit by these animals, has any perceptible effect in reducing the number of the pests, I cannot believe; for of the fallen unripe fruit I venture to assert that not one in 50 falls with the worm in it. On my grounds a row of 24 Clinton vines of one year's growth, had tomatoes transplanted between them. Before that there were evidences of these pests; but since a few days after that, not one has been seen there. The conclusion I arrive at is, that though these odors and appliances may keep off the parent insects, they have little effect in destroying their progeny, if applied only after the hatching of the eggs. I resolve therefore that in the event of no further light being thrown on this subject, I shall, before tying up the vines next spring, bespatter the wooden part of the trellises with the solution of lime and sulphur, using a garden syringe, and during summer, supplement this with the other strong-scented washes and sprigs.

The cut-worm, the plum curculio, the pear and cherry slug and the potato-beetle I know how to manage; the cabbage worm I never saw, because I neither raise nor eat cabbages: the lice on trees and plants generally leave of themselves after a year or two, as little Bopeep's sheep came home; but these leaf-hoppers and the apple worms steadily increase on my hands, or rather on my plants, in spite of all my efforts to diminish them.

Muskegon Co., Mich.

Floricultural.

EXPERIENCE WITH FLOWERS.

I LOST three Coleuses of different kinds by not being ready for cold weather and Jack Frost. I had brought the plants I intended to keep up-stairs onto a south porch. The weather was so warm that I put off day after day the task of putting them in their winter-quarters—two shelves at a south window in my sitting-room. One night I was up rather late, and stepped on the porch before going to bed. The air seemed a little sharp, as though there was a touch of frost in it. We had had none to harm even the tomato vines, and they, you know, generally give the first sign of Jack Frost's presence. I was tired, it was late, and it would be no little work to carry all of the pots into the house, so I persuaded myself there would be no danger if they were left where they were. But to guard against risk, I picked up a table-cloth lying near, and spread it over the plants. In the morning—well, the ground looked as if snow had been sifted over everything, and my heart grew heavy at the thought of the beloved plants I had been so proud of. I hurried to ascertain how much harm they had suffered. I lifted the cover; all seemed right but one Geranium, which was nearest the front and had been accidentally left uncovered. It was frozen stiff. I set it on one side, supposing, of course, it was killed. No such thing. As the sun gradually came up and rested upon it, and the air grew warmer, it thawed out, and now I do not know which one was frozen. The sun which saved my Geranium showed, as the day advanced, that more serious harm had been done. Three of my finest Coleuses gradually drooped and died. Of over 20 different kinds of plants, they were the only ones which perished. I had been told they were tender, but I supposed no more so than Salvias, Begonias, Achyranthes and others.

Can Smilax be grown luxuriantly in our common sitting-rooms? [Hardly.—EDS.] Mine troubles me considerably. It was sent to me last spring—a fine, large, dry bulb. I potted it and sank it in the ground. It started to grow finely. All at once it stopped growing; the leaves turned yellow. I imagine it was because I did not water it enough. Again it started, and the potato bugs ate every leaf off of it. I cut it back, and now, a third time, it is trying to get a start, but it has not grown six inches in as many weeks. How do florists manage to raise it by yards, as they certainly do? [Florists who grow Smilax largely have greenhouses in which they grow little or nothing else, and the soil, temperature and moisture are made to conform to the requirements of the plants.—EDS.]

I found something queer, or at least it was so to me, on a small Abutilon. It had seemed to droop for several days, I thought perhaps from lack of water, but, as after watering it did not seem to recover, I picked it up one day to examine it. To my surprise the stem of the plant and even the leaf stems were all rough and knotty-like and brown in color. I took a

pin and scraped the stem, and all of the knots or scales fell off. Now what were they? I have heard of such a disease as the brown scale; was this it? [Yes.—EDS.] At any rate, it has killed my Abutilon. I find no trace of the ailment on other plants.

Last winter I had no sign of an insect of any kind on my plants all the winter through, and I attribute it to smoke from the stove. It was a base-burner, and was out of order some way, so that it troubled us a great deal "smoking," and I think the gas and smoke together killed the insects, and they came near killing all my plants, too. One night the stove "smoked" all night and the room was shut up; in the morning we could not see into the room. As a consequence I had rather a sickly lot of plants for a while, nearly every one dropped its leaves, and I felt sure they were all going to die; but they gradually recovered; *perhaps* it did them good.

I have two Geraniums I am very proud of, Master Christine, a pink, and Pride of Mount Hope, a bicolor scarlet. I had a plant of each last winter, which gave bloom incessantly from the first of November till I sank the pots in the ground in the middle of April. I thought they ought to rest then, so I pinched off all buds and left them to take care of themselves. Soon they threw up flower-stalks again, bloomed and ripened seed. I dropped these beside the plants and slightly covered them with earth. Soon they were up. This fall the Pride of Mount Hope seedlings are not over three inches high, but of the Master Christine seedlings, one was larger than the parent plant, and was in bloom by the middle of September; the others were budded when I took them into the house. Who can beat that? The old plants took no vacations, but bloomed all summer, and I believe would all winter, if I had not put them in the cellar.

I raised some Browallia this summer and was much pleased with them. There are so few blue flowers suitable for bouquets, that can be obtained at all times during the summer! This blooms till frost comes. This year is the first I ever raised Sweet Alyssum, to give me satisfaction. Turnip bugs generally ate it up or there was some other trouble; and I used to wonder why people recommended it so highly. I know now. It looked like a bed of Snowflakes this fall.

I tried an experiment with Lilium lancifolium this spring. After other Lilies were a foot high, a friend gave me three dried-up bulbs which had been out of the ground all winter. I planted them, and in due time they budded and bloomed; each bulb gave two blossoms; but the stalks were not over 18 inches high—regular dwarf Lilies. Now the question is, will they *stay* dwarf? [We think not.—EDS.]

Macoupin Co., Ill. MRS. M. A. BUCKWELL.

Horticultural.

THE HAWTHORN-LEAVED RASPBERRY.
(Rubus cratægifolius)

THIS new Raspberry is a native of northern China and Japan. When we planted it, two years ago, we thought it was a blackberry bush which its stems and leaves much resemble. It did not fruit with us last year, but it did so heavily this one, and lo! it is a true and handsome raspberry bush. Though a sturdy grower, it is not rampant; its stems are upright to arching, short-jointed, and, from near the base upwards, full of little branchlets. It is medium to late in fruiting season, a good cropper and keeps in bearing condition for three weeks. The rasps are very pretty, of a brilliant orange-red color, medium-sized or under, firm-fleshed, and nearly globular in form, but of poor quality as regards flavor and juiciness. The fruits of the other Red Raspberries growing near it, were considerably damaged by grubs, but not even one fruit of this new sort was injured in that or any other way, so far as I could see, and my opportunity to notice it was ample, as I picked all the fruits as they ripened, to save them for their seed. It has been growing here in the open garden for the past two years, and in winter time has received no protection whatever, and so far has proved as hardy as a dandelion. It retains its leaves till late in the fall, when they assume a deep crimson color.

As a garden Raspberry it is useless in its present state, but in the hands of hybridizers I look for exceptionally valuable results. The soil where it is growing in our garden is moderately heavy loam, unmanured, on a stiff bottom—brick-clay with veins of sand; land level and wet in winter. I state these facts because I feel confident better results can be obtained by better treatment. W. FALCONER.

Cambridge, Mass.

Gooseberries.

Of this fruit I have found nothing I like better than Downing. Roe's Seedlings, Ruby and Emerald mildewed so badly with me that they lost their leaves early in the season, and later in the summer they died outright.

Blackberries.

One of the things that small-fruit growers now seem to want is a large Blackberry, with hardy prolific cane. I have tried many and have found them all wanting in some way or other. Among those that have been made more prominent and without special value are Agawan and Western Triumph. Taylor's Prolific, from different reports I had hoped would prove to be the desideratum in the blackberry line. While it was with me, the past winter, perfectly hardy even to the terminal buds, and is of excellent quality and prolific, it is but a slight way in advance of the Snyder in size of berry. The same may be said of the Wallace.

MONMOUTH.

HAWTHORN-LEAVED RASPBERRY.

Miscellaneous.

HANDY THINGS TO KNOW, TO DO, AND TO HAVE.

One needs constant practice and an active, quick mind to be to that degree possessed of these handy things that they will always stand him in good stead. Some persons are unhandy and unpractical by nature, and will never be anything else. Others are the reverse and will always find something at hand to help themselves with. I have known some amusing instances of this. Miles from any habitation on a sharp gravelly road, a friend of mine was riding a horse which only a few days before had grown lame from the loss of a shoe, when to his great distress, the same shoe came loose again. His former experience had led him to provide a few nails, but he had no hammer. He was in great haste, but he dared not go off a walk, and he could not find a stone bigger than a robin's egg, or anything else that he could use to drive a nail with. He was almost in despair, for his errand was a most important one and demanded speed; when an old friend came along and as soon as he understood the situation—what do you think he did, reader? He pulled off his boot, and using the heel for a hammer, had the shoe tacked fast in two minutes.

This faculty may be cultivated; and it ought to be, especially by boys and young farmers. They ought to know the use of tools and the use of ropes, "blocks and tackle," wires, and their uses, rivets and rivet sets, more or less black-smithing, how to file and set a saw, and a hundred other things which I include in my idea of things handy to do, to have and to know.

WHIPPING A ROPE'S END.—Ropes are wonderfully handy on a farm. The first thing to do when you get a rope, is to "whip" the ends to prevent untwisting and fraying out. To do this well, provide some fine, strong linen cord or pack-thread, if the rope be a small one; see that the strands of the rope are twisted hard and placed in order to the very tip. Then the

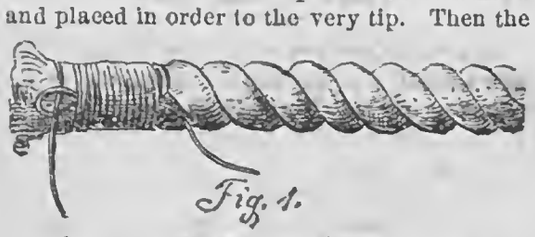


Fig. 1.

b A WHIPPED ROPE'S END.

bit of string to be used to whip with, is laid in a loop lengthwise near the end, as shown in fig. 1, and the end *b* is wound several times around, being drawn tight each time. When near the end of the rope, pass the end *b* through the loop and pull upon the other end which we will designate *a*, until *b* is drawn quite out of sight; then cut both *a* and *b* off as close as possible, and dip the end in the tar bucket.

Every rope about the farm should have its ends whipped—every tie rope, halter rope, garden line, and even every good piece of cord. A whipped rope's end will go through any hole that the rope will go through, and this is a saving of time well worth thinking of. When you get a good rope, after whipping the ends, the next thing is to tar it well. I do this by stirring any common grease and pine tar well together about half and half in proportion, and saturating the rope with the mixture. I presume that seamen may have some other proportion, but this does very well.

THE "TIMBER HITCH."—When this "hitch" can be used, it is perfection in its way. If you want to hoist or haul a stick of timber; a round peeled log, if you please; or if you want to make fast a rope to a tree for a purchase, a stay, or any steady pull, use the timber hitch, Fig. 2. One end of the rope is passed around the object; then under and around the "standing part," as the sailors say; then twice or more times around its own part. As soon as any draft comes, the end jams, holding the loop

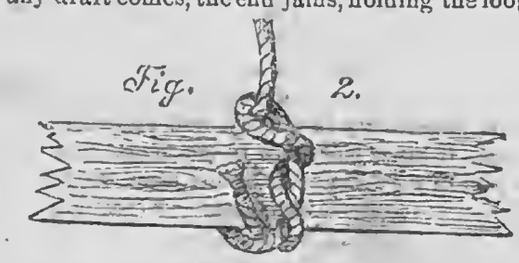


Fig. 2.

THE TIMBER HITCH.

or bight that the standing part draws through very firmly.

THE SQUARE OR OVER-HAND KNOT.—Every child ought to know how to tie a square knot

Fig. 3.

A SQUARE OR OVER-HAND KNOT.

(Fig. 3.), and yet just as often as not, if one examines a knot, he will find it a "granny" knot (Fig. 4.). The former has both the end and the standing part of the same piece in the loop on each side, and when drawn tight, both

Fig. 4.

A "GRANNY" OR FALSE KNOT.

ends jam so as rarely to slip, and yet may be easily untied, while in the other, the ends do not jam or do so very imperfectly, so that the knot is quite untrustworthy.

THE FARMER'S OR STRAP KNOT.—Fig. 5 is a handy knot for a farmer. It is almost the only way to tie two straps together. One rope is formed into a loop, and the other is passed

Fig. 5.

A FARMER'S OR STRAP KNOT.

around it, the end going under its standing part and through the loop first formed, This knot, when well tied, jams so hard that it is hardly possible to untie it without damaging the rope, and the ends may be cut off close to the knot without danger of its slipping.

THE BOWLINE KNOT.—Fig. 6 is one of the most useful of knots, being perfectly secure. It never jams and so may be untied or loosened and cast off in an instant. The best way to learn to tie it, is by imitating the picture of it, and as one becomes familiar with the knot, he will find out easy ways of making it.

The Bowline Knot is one of the safest and best knots which it is possible to make. It is equally good for tying a hawser, a chain or a whip-cord: it never becomes unfastened, however loosely made; never jams so that it cannot be loosened instantly. It seems a little complicated, yet is very simple if studied. It takes a handy man to tie it and make use of it, but any one can learn it. Every sailor must learn it before he learns anything else, except "aye, aye, sir."

Fig. 6.

A BOWLINE KNOT.

This letter is knotty if not abstruse, but if you think it will do any body any good, I will give you another on some other topic, but about handy things. B. ☞ Y.

JOTTINGS AT KIRBY HOMESTEAD.

COL. F. D. CURTIS.

The Millet Question vs. Corn.

THE long and short of Millet is that corn is far preferable. Our Pearl Millet is now all headed out and in blossom, and is six feet high with a stem a half inch in diameter at the base. The German-Golden Millet is four feet and ten inches high with a very large seed bunch in blossom on the top. The common Millet is five feet and one inch high, and a new kind, which tops out like broom corn, on which the seed is nearly ripe, is four and a half feet high. The latter is the nearest like grass of any, and we are favorably impressed with it on account of its earliness, as it is fully two weeks earlier than the others, and on account of the fineness of the stalk. It has one excellence over all other varieties that we know of, in that it will ripen the seed sufficiently for maturity and allow the stalks to be cut while yet green. This fits it for a forage plant without the deteriorated condition which is usual with other similar plants when allowed to mature the seed. Sweet corn, planted the same day as the Millet—the 13th of June—is seven feet high on the same ground, with the stalks more than an inch in diameter and short

ears in every stalk. We have no doubt that there is more saccharine matter in one stalk of this sugar corn than in a half dozen of Pearl Millet. The amount of sugar contained in these plants is the best measure of their value, and in this the corn always excels—hence we have superiority in quality, and superiority in bulk. It takes less labor to put in and cultivate a plot of corn than one of any kind of Millet. It is not any more exhausting to the soil and no more difficult to cure than Pearl Millet. For a hay crop, Hungarian grass would be preferable to either, on account of the rapidity of its growth and from the fact that it may be sowed broadcast, requiring no extra tillage in order to get a full crop. Not so with Pearl Millet. A mistake is made by most farmers by sowing corn too thick in the drill. It should be thin enough so that the stalks will grow up and set for ears; when this is the case a full measure of sweetness is obtained. When too thick in the drill, the stalks are soft and washy, lacking sweetness and substance, and unsatisfactory in feeding value. This is the reason why there is so much controversy on the corn-fodder question. People who grow these soft and washy stalks, contend that corn fodder is worthless, and they are half right, while people who grow the mature stalks on which nubbins are formed full of sweet juice and substance, contend that green corn stalks are valuable fodder, and they are wholly right.

Care of Calves and Lambs.

We have begun already to *winter* our calves and lambs. Our experience teaches us that it does not pay to let these young things run down. The calves are brought in every night and fed a pint of shorts each, with some hay to pick at. In the morning they get another feeding of shorts, when they are allowed to go with the cows to the pasture, unless a cold storm should prevail, when they are kept in. In this way the calves grow all the time, and come to the barn in the winter strong and vigorous, able to withstand the cold and the rigors of winter. The lambs are being weaned in a box stall where they are fed oats, a gill apiece daily, with plenty of clover hay. Two or three old sheep put with them, will teach them to eat the oats and make them more contented, so that they will not get home-sick and lose their appetites. It is an important thing to handle young animals or any animal so that they will not get home-sick, for when in this condition they will not thrive. Like members of the human family, they want company. When alone they are restive, and pine away.

Castrating.

A Victoria boar eight years old, was castrated to-day and the wounds treated with crude coal tar. This will keep out the flies, and cause the parts to heal rapidly. The spermatic cord was scraped apart instead of being cut square off. This causes it to bleed less, as the blood coagulates more quickly and the flow is stopped. A square, clean cut does not allow this. Twisting off with a pair of forceps is also a good way, and will also prevent bleeding. The coal tar keeps the air out and prevents the formation of "proud flesh" as it is antiseptic in its effects. There is no more merciful or healing application after castration than crude coal tar.

Gapes.

Yesterday a chicken was nearly dead with the gapes and to day it is entirely well. An inhalation of tobacco smoke until it was stupified, cured it.

Phosphate on Buckwheat.

A dressing of phosphate last year gave us a superior crop of buckwheat on a poor field. This year there has been no dressing and the buckwheat is a light crop. These fertilizers must be renewed every year to get any benefit from them. Would it not be better to expend the same money for a substantial basis of growth in the shape of barnyard, or stable manure which would last for more than one crop? If this form of manure cannot be obtained, then perhaps it is best to try the others; but we must all the time remember that they stand in the relation to the soil that bread and whiskey do to a hungry stomach—one is food, the other is stimulant.

Best Seed Corn.

Mr. Wm. McConchie is a careful and painstaking farmer. By selecting his seed corn from the earliest and best ears, and where there were two on a stalk, he has so improved his corn that it ripens in less than ninety days and yields a splendid crop. The selected ears are twisted up and hung in the sun to dry. His seed always grows and he always has plenty of it, because it is his yearly practice to gather sufficient as soon as it is ripe enough. Most farmers wait till husking time to secure their seed corn and sometimes do not save it at all, but depend on their more thoughtful and careful neighbors to supply them. Their lamps are not trimmed and burning, and hence they are often put to great trouble for seed, when, by spending a part of a day as Mr. McConchie does, they might be ready and improve their crop. It is not too late yet too save the seed corn, and it should be done as soon as possible. Corn can be improved by selection as well as anything else. Mr. McConchie has got his up to the thoroughbred standard, excellence and uniformity. Nearly every stalk has two ears. The kind he has perfected is the sweet-white. This is an excellent variety for early feeding, as it is softer than the yellow kinds and shells easier. Pigs can eat it on the cob when they cannot the others.

CAUSING PLANTS TO FLOWER OR FRUIT.

There is a principle governing certain stages of a plant's life, which ought to be more generally known. It partakes in fact of the nature of an axiom:—"Anything done to a plant to check its growth or threaten its life, will throw it into flower or fruit." Of course, this has reference to plants of a sufficient hardness of tissue to be able to produce fruit, but which obstinately refuse to do so. Expert gardeners and fruit growers employ this principle to much profit; in fact, so strong is its influence that some plants may be thus forced prematurely. For instance, a fruit tree is of ample age, but does not bear. If we go around the tree with a sharp spade and insert it perpendicularly down among the roots, about a foot to eighteen inches from the trunk, we shall cut off all the small roots in the way, and the next season it will show fruit. If, in addition, we dig a trench around the tree, say eighteen inches deep, and fill it in with good soil or some well rotted old manure, which must be made very fine, we shall check the tree and fruit and also nourish it for succeeding crops, thus keeping up its newly-made vigor. Flowering bushes of most kinds may be similarly treated with good effect. In regard to flowering vines, the treatment is different. As long as a vine can climb and find support, it will refuse to flower, and if the pole or strings are long, will reach the second-story window, without a bud; but train low, or tie to short poles so that the vine has to hang down at the top, and, as if by magic, it flowers profusely. Many modes of applying the principle will suggest themselves, but they must have one aim, that of thwarting the natural habit. Lima beans grown to four-feet poles will produce double the amount of those on eight feet poles.

Dodge Co., Neb. S. Rufus Mason.

Poinciana.—A family relation of the Virgilia lutea or Yellow Wood is that pretty eight-foot shrub the Poinciana Gillesii which has bloomed here as freely as an Oleander by using the same care with it, of lifting and storing it in a cellar. It is not evergreen, nor does it want a continuous soak of water. Its growth resembles that of the Honey-Locust, without thorns and on a smaller scale; and one trial of buds set into a hedge shoot of this nearly related tree, seems to show that it will grow upon it by grafting. A few pods form here from the numerous, unique and very showy blossoms, but the seeds fail to ripen, even when growth is started early in March. It is said to be a native of the Argentine Republic, latitude of Buenos Ayres. The charmingly neat leaflets, of a peculiar bluish green, show to great advantage by contrast with the foliage of other shrubs around, and they fold like those of the Mimosa, when the plant goes to sleep at dusk.

Central, Pa. W.

WHAT OTHERS SAY.

A Potato Contest.—The New England Farmer tells of a potato contest instigated by the members of the Franklin Farmers' Club of Mass. The contest was confined to one square rod of ground, and the competitor who should win was entitled to the product of all the other competing rods. Competitors were required to plant from the same lot of seed, the Early Rose being selected as the sort to be planted. Of the eleven competitors, Mr. A. W. Cheever, the agricultural editor of the good journal from which we make these notes, produced the largest yield. The land on which he grew the trial lot, had been under cultivation several years, chiefly under forage crops. Soil, a heavy loam, quite moist early in the season. It was plowed but once this year, a light coating of stable manure being turned in about seven inches deep. Rows were marked out about 18 inches apart. Before planting, about 800 pounds of guano and 400 pounds of sulphate of potash per acre, were spread broadcast over the furrows. The seed was exposed several days to a strong light to start the sprouts into a short, healthy growth. When ready to plant, single eyes were cut from the potatoes, selecting only those which were well started and of good strong appearance. Most of the eyes were cut from the stem end or middle of the potato where a good bit of the potato could be taken out with each eye. Then they were laid in a basket with plaster dusted over them, to cover the cut surface and give protection to the sprouts while being handled. The pieces were dropped singly about 14 inches apart. The sets were covered not over an inch deep. When the shoots broke through, the plot was dusted over with guano at the rate of 200 pounds per acre, and raked into the soil with a garden rake, killing at the same time all the small weeds which had started. As the potatoes were so near the surface, and so thickly planted, it was found impracticable to hill them in the ordinary way, so the ground was mulched with chopped straw for a protection, not only against weeds, but to keep the new potatoes from being sunburnt as they showed themselves above the surface. The mulch also, in a measure, secured a cool, moist soil during the hot, dry weather of midsummer. The straw was put on some three inches deep, but soon settled to one inch, and was then covered with a second coat of mulch which remained undisturbed till digging time.

To keep the bugs in check, a sprinkling of dry plaster was used three or four times, with just enough Paris-green to shade the plaster, giving it a slight greenish tinge. A very few weeds were pulled by hand during the season of growth, but it was the aim to travel over the patch just as little as possible, as the plants covered nearly the whole surface. The yield per rod was 183 pounds, equal to a yield of 488 bushels per acre. The most important lesson which Mr. Cheever learned by the experiment is that potatoes *must* have room to grow *under* ground, or the yield will be diminished and the quality impaired. He would never plant so near the surface again, and with an equally favorable season should expect to do better another year.

Early Amber Cane.—A correspondent of the New York Tribune says that this variety of cane if planted the 10th of May, is ready to work ordinarily by the middle of August. Recent experiments have satisfied him that one acre of this cane will supply the annual wants of most families, or, to be more explicit, with the rudest implements, such as a $65-mill to express the juice, two seventy-gallon pans of galvanized iron that will cost less than $10, and the common cider-mill or cheese press to express the sirup from the sugar, one acre of average cane, drilled, will yield 500 pounds of sugar, and 700 pounds of fine sirup. This is based upon a yield of 140 gallons of molasses, weighing thirteen pounds per gallon, per acre. A recent experiment of his upon one-fourth of an acre, indicates more than this, although the object was molasses solely. In addition to what he has said of the Amber cane for the farmer, he is satisfied that if a neighborhood will organize a company with a capital of $1,000, the yield of sugar can be raised to seven pounds per gallon, by the use of lime and sulphurous acid, and the process is within the capacity of the most ordinary farmer, but let it be distinctly understood that the Amber cane will yield a fine sugar, in paying quantities, treated exactly as sugar or maple water is treated, save that it must be set aside in proper vessels to granulate.

Profitable Farming.—"The lesson is this—let us grow only *profitable* crops. The truck farmers grow such crops as years of experience have shown them can be produced at a profit: there may be an occasional failure from local causes, but the general result is profitable. If a crop is produced at a loss, they look for the reason, and if it is one which they cannot remedy, they cease to cultivate that crop. Now the same rule, modified somewhat, might be adopted by farmers with the best of results. I can point out scores of farms on which it is a rare thing that a profitable crop is grown, and by a profitable crop I mean one that will pay a moderate rent for the land, and fair wages for the labor expended, and leave a surplus. Now, the remedy is to be found in cultivating less land and doing it better." So writes "Waldo" in the Ohio Practical Farmer.

"Agriculture has always been known as the basis of civilization with all peoples. But it has rarely if ever happened in the world's history that it has wrought out such marked and rapid changes in the credit and prosperity of a Government as those which we now witness in our land. It could never before be said, with even a show of plausibility, as I now say, in full faith that American farmers, beyond lifting up their Government from its low financial condition, beyond giving food to suffering classes in other lands, exert a potent influence in the political affairs of the civilized world."—*Horatio Seymour.*

A Curious Change.—"Formerly an apple tree on the farm of Deacon Paige, Prescott Hill, Mass., bore the even year, but was split in two by a heavy wind some time ago, and the two parts were brought together again with an iron bolt, and have now grown together to all appearances. But the strange thing of it is that this accident caused one of the parts to bear the odd year, while the other continues as was its wont."—[N. E. Homestead. [It is probable that the roots of the tree so split were not equally divided or proportionate to the roots. In this view, one part for the first year after the accident would receive more nourishment than the other, which might account for the change in the bearing year. Eds.]

Apples for Arkansas.—An Arkansas correspondent of the Rural World gives the following list of Apples which have proved valuable in that State:

Summer—Early Harvest, Red Astrachan, Sweet Bough, Summer Queen, Julian and Horse. Astrachan sometimes rots on the tree.

Autumn—Seek-No-Further, Fall Wine, Rome Beauty and Yellow Bellflower. Seek-No-Further is best; Yellow Bellflower poorest.

Winter—Winesap, Ben Davis, Limber-Twig, Shockley, Shannon, Caroline, Winter Queen. Ben Davis rots badly; Shannon is excellent, but a poor bearer.

Where to begin Farming.—Mr. Goessman is credited by the Mobile Register with the sensible remark that "farming operations should begin in the garden, and get out of it only when the household has ample provisions made for its own table. The garden, too, is the best of schools, and it is rarely that the farmer steps from the garden to the poor farm."

PAMPHLETS AND CATALOGUES.

Wattle Bark.—This pamphlet of 27 pages contains the Report of the Board of Inquiry appointed by the Government of the Province of Victoria, Australia, in January, 1878, to investigate the subject of wattle conservation and the concomitant industry of bark stripping. There are three species of Wattles indigenous to Australia—Acacia pycnanthe, the Golden or Broad-leaved; A. decurrens, the Black or Feather-leaved, and A. dealbata, the Silver Wattle—all of which grow very extensively in Victoria, affording in their bark the best kind of astringent for tanning purposes. It is from these the mimosa bark of commerce is derived, and the species are here mentioned in the order of the superior excellence of their bark product for this purpose. Although they grow spontaneously as readily as grass, yet, owing to the extensive and frequent forest fires, to the advancing area of cultivation, and especially to the inconsiderate greed of bark-strippers, who recklessly ruin large areas of Wattles in collecting the product for exportation, there is danger that the supply will soon prove insufficient for home demand. Owing to the proximity of this superior material for tanning, instead of exporting hides, Victoria has for years been manufacturing into leather not only her own hides, but large importations from other countries, and it is the dread of losing this trade that led to the appointment of the Board of Inquiry whose report is here given. The work gives a full account of the above-named Wattles and their uses, together with a statement of the profit to be derived from their systematic cultivation, etc. Sold by Geo. Robertson, Little Collins St., Melbourne, Australia; price three pence—six cents.

Dairy Farming, being the Theory, Practice and Methods of Dairying, by J. P. Sheldon, Assisted by leading Authorities in Various Countries. The publication of this work marks, it is to be hoped, the commencement of a new era in agricultural literature. Judging from the four numbers already given to the public, there certainly has never been published, within our knowledge, a work relating to any department of agriculture so thorough in its information, so lucid in its treatment, so artistic in its illustrations, and so admirable in all its details. The high reputation of its author, until lately Professor of Agriculture at the Royal Agricultural College of Cirencester, England, with whom our readers are already acquainted through his contributions to these columns, is an ample guarantee of the care, caution and erudition employed in its composition. The work is issued in monthly parts, and will be completed probably in twenty-five numbers. It promises to be exhaustive in its treatment of every branch of dairy farming, and to be, in short, a standard encyclopedia of information on dairy matters. As a frontispiece to each number is a fine, full-page, colored illustration of some subject treated of in the body of the work, while numerous smaller engravings embellish the other pages and exemplify clearly to the eye the implement or other object described in the text. The type is large, the paper tinted and of excellent quality, and when completed, the work will form a superb book of reference, which should be found in every farmhouse throughout the land. Each number costs only 40 cents, or the three first will be furnished as specimens for $1; yearly subscriptions in advance, $4.50. The high-standing of the publishers, Messrs. Cassell, Petter, Galpin & Co. of this city, renders it, of course, unnecessary to say anything to our readers as to the confidence with which they may forward their subscriptions. We shall, doubtless, in future issues have to refer frequently to the work, as each succeeding number is published.

How to Select Dairy Cows; or, The Guenon System, simplified, explained and practically applied, by Willis P. Hazard, with nearly 100 illustrations photographed from Guenon's engravings. In 1878 the State of Pennsylvania appointed a Commission to test the above system and report the results. Of this commission Mr. Hazard was appointed

Secretary, and during the subsequent investigations he became firmly convinced of the justice of the claims made by the advocates of the Guenon system. In this work of 84 pages he has given a sketch of M. Guenon and the progress of his discovery; some extracts from his preface explaining his views; an explanation of his system of escutcheon marks; a description of the various escutcheons and their indications of value and quantity, and directions how to practically apply them, together with the report of the Pennsylvania Guenon Commission. Much has been said and written for and against this system, and whatever may be the reader's opinion of it, it is hard to rise from the perusal of this work without a willingness to comply with the author's request, that whoever reads his pages will patiently, book in hand, go into the farm-yard and judge of the value of his stock by the rules here set forth, compare the results with his individual knowledge of his stock, and fairly estimate the value of the system. The book is published by J. M. Stoddart & Co., Philadelphia, Pa.; price 50 cents.

THE Report of Michigan State Board of Agriculture for 1878 is before us. It contains a full report of the condition and work of the several departments at the Agricultural College. The reports of the horticultural and agricultural departments are especially instructive. Prof. Beal here gives the results of his seed tests, which have, for the most part, been published in the RURAL. But perhaps the most valuable portion of the report is that relating to the several Farmers' Institutes that were held in various places of the State during the year. A large number of the able addresses delivered on these occasions, both by members of the faculty and by prominent farmers, are reported in full or in part, and contain, we may say, the most advanced views on agriculture as suited to the climatic conditions of the State. The Secretary of the State Agricultural Society fills over 100 pages with his report, and Dr. R. C. Kedzie's tables of meteorological observations for the year complete the volume.

THE Illustrated Book of the Dog, by Vero Shaw, B. A. Cant., Assisted by the Leading Breeders of the Day; Illustrated with Colored Plates drawn from Life. This work is got up in the same admirable style as Prof. Sheldon's "Dairy Farming." It will be completed probably in 30 numbers, price 40 cents each, or the whole for the same price as "Dairy Farming." Messrs. Cassell, Petter, Galpin & Co., deserve well of the farming world for the superb manner in which they have produced these two works connected with the agricultural interest.

CATALOGUE OF THOROUGHBRED STOCK for sale by Benson, Maule & Co., of Philadelphia, for 1879-1880. This catalogue contains illustrated descriptions, prices, etc., etc., of Jersey, Guernsey, Ayrshires and Short-horn cattle; South-Down, Cotswold and Leicester sheep; Chester White, Berkshire, Small Yorkshire, Poland-China, Jersey Red, and Essex swine, together with a long list of various choice breeds of poultry, including hens, ducks, geese and turkeys. Free to applicants.

FARM DRAINAGE. This useful circular contains an essay on Farm Drainage by our occasional correspondent, Prof. G. E. Morrow, Dean of the School of Agriculture, Illinois University; and Important Results from Drainage, by Geo. E. Waring, C. E., besides statements of practical farmers giving results obtained from tile draining, and a great deal of other useful information on the above subject. Published by the Board of Agriculture of Ill.; S. D. Fisher, Sec., Springfield, Ill.

UNITED STATES PUBLIC LAND LAWS.—This pamphlet of 170 pages is an exhaustive compilation of the laws, rulings, decisions, and late Acts of Congress with reference to the agricultural, mining, and other lands of the United States, with the instructions of the Commissioner of the General Land office regarding them. The work is very useful to all intending emigrants, and interesting to others. It is published by D. H. Talbot, Sioux City, Ia. Price 50 cents.

A. HANCE & SON, of Red Bank, N. J., notify us by postal card that their stock of large and small fruits and ornamental trees and shrubs is superior to that of preceding years; also that they offer Mr. Ricketts's white seedling Grape "El Dorado."

THANKS to Mr. S. Ott, of Aiken, S. C., for a box of beautiful rose buds; to Mr. John B. Moore, of Concord, Mass., for a specimen vine of Moore's Early Grape; to Mrs. Annie L. Jack, for a pair of Muskoka ducks.

AMERICAN POMOLOGICAL SOCIETY, address of Marshall P. Wilder at the Seventeenth Session held at Rochester, N. Y., Sept. 17, 18, 19, 1879.

CATALOGUE of Select Fruit and Ornamental Trees, Shrubs, Roses, etc., for sale by Fred. W. Kelsey, Rochester, New York.

BOTANICAL INDEX, an illustrated quarterly botanical magazine published in Richmond, Ind.

CIRCULAR.—Ricketts's New Grapes. Address James H. Ricketts, Newburgh, N. Y.

Farm Economy.

SPREADING MANURE IN WINTER.

IN looking back over old numbers of the RURAL to find seasonable hints for the early winter months, I have just come upon an article by William J. Fowler in the RURAL for January 25th last, on the subject of spreading manure in winter. Therein he recommends the hauling and spreading of manure in winter on the snow or otherwise, and says that its fertilizing properties cannot evaporate and must leach downward, and that the soluble parts will not wash away. To this doctrine and the practice founded upon it, although they have many advocates, I must enter a strong protest. According to the old adage, "Seeing is believing," with me at least generally it is—and having frequently seen the purple flood running from fields treated in this way, I cannot believe that the practice causes no material loss of the fertilizing ingredients of the manure.

That under some circumstances, on certain kinds of soil and where the lay of the land will not permit undue leaching, the practice may be followed without much loss, I do not deny; but to advocate the method as a rule here in Western New York, where the soil is often frozen from two to three feet, and snow banks often rise to the hight of from five to ten feet and more, while a large proportion of the subsoil is clay, seems to me to be the result of a rash theory rather than of practical experience.

In this connection allow me to relate my first experiment made many years ago. I drew a pile of, say, 50 loads of choice manure in winter on to a level piece of clay land. There was no snow of any consequence on the ground; the land was seeded to grass and was frozen. Now for the result. Spring came, a heavy rain followed, and I had the curiosity to go and see how my experiment worked. On reaching the place a purple flood met my view, running from my land on to neighbor P's., and thence down to Black Creek. I was fully satisfied with one experiment of this kind.

From observation where such a practice has prevailed, I am forced to the conclusion that frozen soils, solid clay subsoils and rolling ground unfrozen, will take up very little of the soluble portion of the best manures during heavy rains, or during the melting of the snows in a winter like the last, when the piled mass rose from three to twenty feet. While most soils in spring or fall will absorb largely, it does not follow that a frozen or a clay soil can do so, as they are both impervious to a very great degree, and every school-boy knows that in case of a heavy rain or freshet the surplus water goes to the brook as quickly as possible, carrying with it much of the soluble substances it may find on the surface of the ground it travels over, and not always avoiding the barnyard as at present constructed.

I, for one, shall oppose the risks of such practices, and would as soon think of purchasing costly commercial fertilizers and casting them upon the snow banks, frozen soils or hill-sides, as of submitting the treasures of the barnyard, pig-pen and the stables to a similar risk of loss. However plausible an agricultural theory, the careful farmer will not largely embody it in his practice until it has been satisfactorily tested by practical experiments under various conditions. D. R. PRINDLE.

Genesee Co., N. Y.

BEET SUGAR MAKING IN CALIFORNIA.

WE have a beet sugar factory here which is doing well. Five years ago it was removed to this place from Alverado, about a hundred miles north of us, not far from San Francisco. The reasons for its removal were two:—first, the land here was better adapted to the growth of beets, and, second, by the change a great saving in the item of fuel was effected. Here wood is used, which can be obtained cheaply; there coal, which was much more high-priced. The factory the past year turned out about 70 centals, or 3½ tons daily. Directly and indirectly, about 160 men obtain employment through the running of this establishment, and about $75,000 are paid out in this county by it. The company has $250,000 invested, which pays a good dividend. The market for the beet sugar this year is as good as the average. The mill is running at full capacity. Five thousand tons of beets were raised in Pajaro Valley for the factory. Pajaro is 15 miles below here; the beets were shipped by rail. The land in that valley seems especially adapted to this culture, in some cases yielding as high as 25 tons to the acre and averaging 20, all round. At $4.75 per ton, the price paid cultivators the past year, the average return from the land in this crop has been $95 per acre. The land is so rich down there that some of the beets grow too large; but that can be obviated by planting more closely. This year the price of beets is $5 per ton. The sugar is very nice, sweet and white, and cannot be distinguished from cane sugar. Only one quality is made—fine crushed. M. P. O.

Soquel, Santa Cruz Co.

EXPERIENCE WITH SORGHUM.

The new variety of sorghum, Amber Liberian, spoken of in my last, published in the RURAL of Oct. 4, has more than fulfilled its promise. When tested by the polariscope, it showed 14½ per cent of sugar, 11 Baume, and when fully ripe it went up to 14 Baume. It granulates readily. I am now working the regular Liberian for sirup, as I am not prepared to make sugar for customers, being forced to grind by steam, having 200 tons of cane in the yard. This sort of cane has been more extensively grown hereabouts for sirup than any other, as it is thought more productive than any of the older kinds. It is not so good for sugar, however, the grains being too fine to swing well; but it might do better, if boiled in a vacuum pan. The Honduras is our latest and largest variety here, and is still standing in the field, but ripe enough to be cut now. As a whole, this has not been a good season for cane. The late rains, coming after a very dry summer, made it sucker badly, which detracts much from its yield, and causes more trouble in defecation.

Madison Co., Ill. C. M. SCHWARZ.

The Herdsman.

LARGE vs. SMALL COWS.

T. H. HOSKINS, M. D.

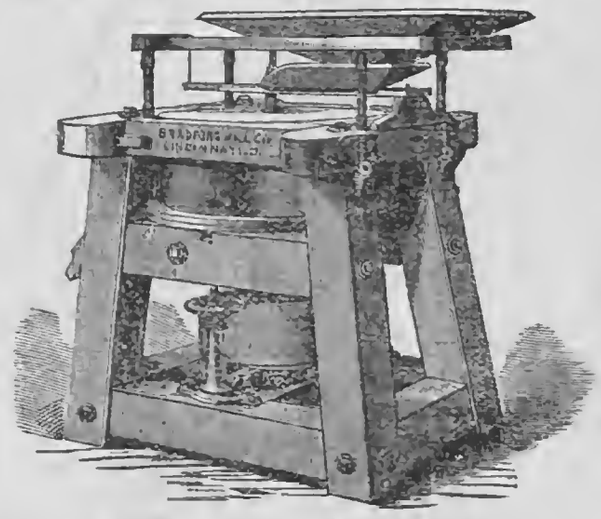
IT is a question worthy of very serious consideration to the dairy farmer, at this time, whether a herd of large or small cows is the most profitable for him to keep, supposing that he can make as much butter from the small ones, per head, as from the large ones. It has been stated, as a general rule, that a quantity of good hay equal to three per cent. of her live-weight, is required by a cow in milk to keep up her condition and maintain her flow—this, irrespective of the size of the animal. On the other hand, a few experiments have been published, tending to show that an equal quantity and quality of feed will yield a more valuable product of milk from large cows than from small ones. Both of these statements appear problematical to me. It seems more probable that a small cow would require more feed, relatively to her weight, than a large one, to produce equally in milk, since a larger surface proportional to weight, is exposed to the atmosphere, and small cows are commonly more active than large ones. On the other hand, more feed must be required to replace waste of tissue in the larger animal than in the smaller one. These points need the elucidation of vastly more numerous and more accurate testings than we yet have record of.

Pending these, I wish to state the result of some actual comparative observations made with the view of solving this problem. Looking over the best butter herds in Vermont, I find Mr. Douglas, of Whiting, reports an annual average of 200 pounds each from 34 Short-horn grades; H. C. Cleveland, of Coventry, 224 pounds each from 20 Short-horns, mostly thoroughbred; Mr. Crampton, of Swanton, gets an average of 275 pounds from 21 selected common cows. Mr. Wood, of North Pomfret, gets 291 pounds each from 13 cows of Jersey blood, and the averages of five other herds of Jerseys, in the same time, range from 250 to 285 pounds per cow.

I have seen all of these herds except that of Mr. Crampton. No two of them are fed exactly alike, though the manner of feeding with all the Pomfret farmers is similar. The Short-horn men claim that they feed little or no meal. They have large and rich farms, which yield an abundance of the best feed, both for hay and pasturage. The Jersey men have smaller, and generally hill farms, where the pasturage is short, but rich, and the hay-crop not usually adequate to winter all the stock which the pastures will carry through most of the grazing season. Consequently they feed a mixture of corn and oatmeal, or of corn meal and shorts, during the winter, with occasionally small quantities of the same where the pastures are short, or where there is not enough green feed grown to eke out in a dry time. It is plain that the elements of an exact comparison do not exist here. Mr. Crampton feeds his herd of natives (averaging but little more than Jerseys in weight) meal and mill-feed the year round, in addition to grass and hay. His pasture, however, is poor. As nearly as I have been able to judge from my own observations and the statements of the parties, the value of feed given to each cow is no greater for the small cows than for the large ones. Few of the owners of the former would agree that it is as great. Certainly all these herds are well-fed, the object being to make as much butter as possible. The product of the small cows in pounds of butter is decidedly the greater, and the price received is also more. The parties all seem to be reasonably satisfied, but Mr. Douglas admits to a growing belief that the Jerseys are the most profitable. I find that all the Jersey men believe that they have the best and most profitable cows in the world for butter. So I leave the question, hoping for more numerous and exact statements and tests hereafter.

Industrial Implements.

THE BRADFORD UNDER-RUNNER MILL, illustrated this week, is a portable mill, with recent (1876) patented improvements that adapt it to the farmer's and miller's use for grinding corn, feed, middlings, wheat, and, in short, anything susceptible of pulverization between buhr-stones. Its claimed advantages are partly comprised in an iron bridge-tree with center-lift step and oil box that are adjustable with set-screws and check-nuts, supported on a wrought-iron lever; a hammered wrought-iron spindle, with an adjustable driver that drives equally on both ends; a cast-iron back on the runner in connection with the eye bush, both being cast in one piece, which overcomes the chance of the driver-box getting loose in the stone. The iron bridge and bush supporting the collar of the spindle, under the running stone, have three adjustable followers, also held in place by set-screws and check-nuts. The buhr-stones used are of the best quality (usually in one block). The upper one is stationary and strongly attached to the frame, which, it will be seen, is of solid timber, well bolted. The upper stone, by a hinged device in the frame, is easily turned over for purposes of dressing, and, in fact, all parts that it is necessary to inspect are conveniently arranged for that purpose. While it is not desirable to run the



mill at too high a rate of speed, yet it will not choke in feeding, no matter what the speed. In short, the mill is constructed of the best materials, after improved patterns, and is claimed to be as good as can be made. The company has had an experience in manufacturing and supplying mills and milling accessories for upwards of 36 years, and to-day it is one of the leading houses in the business. Address the Bradford Mill Co., Cincinnati, O., for particulars.

A NEW FEED CUTTER.

MR. DAVID LAWTON, of Racine, Wis., is making a feed cutter that has excellent points. There are four sizes with a capacity ranging from twenty-five to twelve hundred bushels of cut feed per hour. (The larger quantity is cut by power.) In this machine, which is very strongly and solidly built, the cutting knives are attached to a large wheel which revolves with great rapidity and force at the expense of but little power. The cut is clean, sharp and true, the fodder being severed in four lengths, ranging from one-third of an inch to two inches, at the option of operator. The change in cut is made very easily and quickly, there being no substitutions of parts, extra wheels, etc. A very important feature is a reverse lever and gears that can be made to stop the feed instantly and set the rollers revolving backwards. This is a perfect safeguard in case of accident, or in the event of any foreign substance passing through the cutter with the chaff. While the feed is stopped, the power is not, the momentum continuing ready for application to the work as soon as the cause of the stoppage is removed. The cutting capacity is said to be greater than that of any machine of the same cost. As this cutter is so highly spoken of, it may be to the advantage of our readers to give its merits more careful consideration than we are enabled to do in a brief mention.

Everywhere.

RURAL SPECIAL REPORTS.

CONN., West Haven, New Haven Co., Oct. 24.—We have had a favorable season for the growth of vegetation and all kinds have improved it. There have been frequent rains all through till within a few weeks, with very good haying weather in its season. There are some drawbacks, however. Potatoes have decayed badly, except those planted very early and on dry ground. Then about the middle of August we had heavy winds, which blew the corn down, breaking off many stalks and damaging all more or less. Of the White Prolific I planted 128 kernels in 64 hills, 3½ feet each way; 124 stalks came up, most of which grew vigorously to the hight of 12 feet and more. The stalks are larger and the corn of a later kind than I like. Perhaps I shall be happily disappointed when it is husked and shelled. The Hebron potatoes grew well, but shared the fate of other kinds; I have about 20 sound ones left. The Acme tomatoes are very nice, but did not ripen quite as early as the Trophy. Pearl Millet, planted May 30, grew very slowly at first. It was only two feet high when sweet corn, sowed at the same time, was five feet. Afterwards it grew rapidly. Had it been cut at three feet, it would probably have been ready to cut again. Defiance wheat is much shriveled. But few came up. I shall try the little I have again. The flower seeds did not germinate well, except the Hollyhock; perhaps partly from our own fault. L. A. B.

N. Y., Croton, Delaware Co., Oct. 25.—The season just past has been a very productive one in this locality, with perhaps the exception that the fall product of butter will be very light, owing to a scarcity of fall feed caused by the severe drought of the latter part of the summer and fall. Very little rain has fallen hereabouts since haying, and consequently water is very low. October, until a few days past, has been uncommonly warm, there being two or three days, the second week of the month, when the thermometer stood at about 85 deg. in the shade, but yesterday and to-day have been cold enough to remind us forcibly of the approach of winter, and the ground is covered with snow. A large proportion of the butter in this immediate vicinity has been sold at prices ranging from 15 to 20cts; but within the past week prices have advanced to about 25c. and I hear of some refusing an offer of 26 cts. and even more for their entire dairies. We farmers begin to assume a more cheerful expression of countenance than for a year or two past, and feel that brighter times are in store for us. E. J. B.

NEW YORK, Corning, Steuben Co., Oct. 25.—I am very much pleased with the product from the Beauty of Hebron potato received from the RURAL. The one I planted weighed only about two ounces, and it produced just 16 pounds. Now, if any one can show a better yield, let us hear from him. I have not had any cooked, as I wish to save them all for seed. As to Pearl Millet, I think it is a failure in this locality, judging from my own and my neighbors' crops. I planted a plot in the center of my corn field, which was well manured and cultivated, and it did not produce as much fodder, to a hill, as the corn. However, I shall give it another trial next year. Buckwheat is only about half a crop, owing to the drought, which has been quite severe. Many wells are dry. Corn is generally quite good, though not as good as it would have been if it had not been so dry; and pumkins are quite small. Potatoes are not as good a crop as was anticipated, hence it would seem that the price should be higher. F. H. D.

PA., Derry Church, Dau. Co., Oct. 22.—The weather has been very dry again for the last six weeks, so that the fly has made its appearance in the wheat. Corn turned out to be a better crop than was expected, especially that which was late planted, as it had the benefit of a rain just as it was setting ears. But alas for my Blount corn! About three weeks ago, one night two half-starved, vicious cows—which, by the way, are the pests of the whole neighborhood—got into the patch and broke and trampled it down so that out of a hundred and nineteen, there were only eight plants left standing that did not bear any marks of the beasts' teeth. The day before I had been through it, and counted, with not a little pride, 119 fine growing plants, with few suckered ones, and from two to seven ears on a stalk, which I had raised out of 127 seeds sent me. When I received the seed I looked over it and laid aside seven seeds which I thought were worthless. I planted them, nevertheless, and four of them came up, but three of those I considered good did not sprout, so I had in all 120 fine growing plants until about four weeks after they were up when one of the plants died, so I had 119 left. I must say I had some thoughts of taking a prize, as most of it had ripened finely before frost came. Well, through my misfortune there is one competitor less. I still have a few fine ears left, which I shall carefully preserve for seed next year. From all I could learn of it, I think it is a very healthy and hardy grower, and one of the most, if not the most, prolific sort I ever grew. Wheat has been rising in price—it is now $1.30; corn, 55c., and oats, 32c. per bushel. Butter is worth 12c. per lb.; eggs, 16c. per doz., and potatoes, 55c. per bushel. E. E. B. S.

CENTRAL PENNSYLVANIA, Oct. 23.—The weather has been remarkably hot and dry since we had one snap of frost, Sept. 26. Wheat, turnips, unwatered strawberry beds, etc., are at a forced standstill, and fruit is ripening on the trees and rotting in cellars most alarmingly. The crop was very good and the samples handsome. The favorable side is that all trees and shrubs have ripened their wood unusually well. The forest leaves colored in the first week of October, and are falling fast so dry that fires have been prevailing for two weeks and the air is now thick with smoke. W.

MICH., Bradley, Allegan Co., Oct., 19.—Farming prospects are brightening greatly. Corn, wheat, potatoes, onions, hogs, milk, butter etc., are all coming out much better than I expected, and sell at good prices. Onions cost me 50c. per bushel, I am now selling them at 75c. per bushel. Potatoes cost me 28c. per bushel, the price now is 35c, but I have not sold my crop yet. Everything is correspondingly on the mend. H. F. B.

OHIO, Conneaut, Ashtabula Co., Oct. 22.—My Beauty of Hebron had eight eyes, which I planted in as many hills, on May 10, in sandy loam soil without manure of any kind. I dug them Sept. 30 and got 45 good-sized tubers, which I consider a good yield for the past season which was very dry here. Pearl Millet I planted about the middle of May. It all grew up rapidly and headed out, some of it three times. A part of it that I left to ripen stands from five to seven feet high and is ripe at this date. I have been a subscriber to the RURAL for 30 years, and it has always been a good paper, but now it fills the farmer's bill much better than ever before. Defiance wheat did first-rate. Blount's Prolific I planted, May 15, on a sandy loam in six rows 30 feet long. I manured it once soon after it came up with hen manure, cultivated it the same as field corn and the result has been 221 ears of large size, sound and ripe. Some stalks had as many as five or six ears, while others had none. The tomatoes did splendidly in productiveness and flavor. I think they are hard to beat. P. J. B.

OHIO, Garrettsville, Portage Co., Oct. 26.—My Blount corn was planted too late, so that it did not have a fair show; but it did well for the chance it had, growing from 12 to 14 feet high and setting from two to five ears to a stalk. My Beauty of Hebron had 10 eyes; one eye was planted in each of 10 hills which yielded a peck of nice potatoes in look and shape like the Early Rose, color white, quality, first-rate. The Acme tomato was the best I have ever raised—a valuable variety. The lettuce was splendid and very prolific. Potatoes in this section are reported as rotting badly—price 25@30c. per bushel. This year the RURAL saved me $40 in my potato crop. R. B. C.

ILLINOIS, Kankakee, Oct. 24.—I planted, May 12, 123 grains of the Blount corn. From these 101 stalks came up. Five of these were destroyed after they appeared; the rest grew rapidly till they silked out, when there were from three to seven silks to a stalk. But the weather after this was rather dry, and the result is, 14 stalks had no ears and none of the others had more than three ears to a stalk. So my name can be dropped from the list of competitors for premiums. The Beauty of Hebron potato is good. I had a fair yield, but the quality is not so good as that of the Snowflake. J. M.

WIS., Lavalle, Sauk Co., Oct. 23.—We had quite warm weather from Sept. 27 to Oct. 19, when we had another frost and it is cooler now. A large breadth of wheat has been sown and some of it is quite heavy on the ground. Wheat is selling for $1.05 to $1.16 per bushel; potatoes are a good crop; price, 25c to 30c; corn is late. W. S. H.

IOWA, Red Oak, Montgomery Co., Oct. 22.—We are having a most delightful fall. No frost that has touched the tomato vines in any garden, has yet visited us. We are having nice lettuce from second crop. I am highly pleased with the Acme tomato and the Beauty of Hebron potato, Voorhis watermelon and Pearl Millet, from each of which we have saved seed for next year. Blount's White Prolific has secured very little favor from me. H. L. W.

KANSAS, Hutchinson, Reno Co., Oct. 22.—The season has been quite dry in this region, and still more severe farther west of this. Our crops have been much shortened as a result of the drought. Much of the wheat failed entirely from this cause and owing to a severe hail-storm on the 30th of April. Oats are short, much of the crop having failed entirely. Corn did well and gave promise of an unusually large yield till about the filling time, when it yielded to the influence of the drought and was seriously shortened. Stock of all kinds has done exceedingly well. On account of the low prices that prevailed last winter, farmers became discouraged in the hog business, and the number of these in this county is, I think, far less than last year. There is a growing disposition among farmers to turn their attention mainly to cattle and sheep. The demand for young cattle is so great here that probably not more than one-tenth of it can be met without going out of the county to find a supply. We have as yet very few sheep in this county; but what are here are giving such excellent satisfaction that I think before many years sheep husbandry will be among our leading industries. The fine climate and abundance and excellence of grasses for both hay and grazing, make this a very desirable locality for the sheep raiser. A large amount of prairie hay is being shipped west to Colorado and New Mexico from this place. The highest price paid here is three dollars per ton, and it brings at various points west from $40 to $120 per ton. Dealers and shippers make the profits. Our county is filling up rapidly, but still there is room for thousands more. L. J. T.

NEB., Purple Cane, Dodge Co.—Some twenty odd years ago a party of young men left Omaha on a hunt to the westward. They were in high glee and bent upon a good time. One of the number in his rollicking humor averred that for fun he would shoot the first Indian he saw. Upon the second or third day out, they came upon a small party of Indians mostly women, as at first appeared. The young man, true to his threat, drew his rifle upon a squaw and killed her. The report roused from the tall grass near a sluggish stream a number of Indian braves, who surrounded the young men, and upon learning who the guilty party was and the cause of the wanton act, seized the perpetrator, and while they compelled the rest of the party to look on, absolutely flayed him alive, stripped off his raw hide, and then allowed the rest to pass on. This gave the name of Rawhide to a water-course which starting from Schell Creek in Colfax Co., runs in a S. E. course till it meets the Elkhorn River in Dodge Co. It is about 20 miles long from head to mouth, but is so extremely tortuous as to become at least 40 miles in length finally. In the spring of the year it is impassable for man or beast, but in the fall dries up; and in winter watery spots freeze solid to the bottom, when teams, cattle and people cross anywhere. When a person stands on the bluffs and looks down upon it, it looks as if a string of "hooks and eyes" had been sketched out through the level prairie. Here is the home of the mosquito, and as a wet season produces them in most astonishing abundance, I have often wondered what they lived upon, as I do not believe there is in all Nebraska, among all the men, women, children and animals one feed of blood for each mosquito. Can any RURAL reader tell how they exist? S. R. M.

CALIFORNIA, El Dorado, El Dorado Co., Oct., 20.—Defiance wheat did very well, considering that the birds gave it no peace. I saved five and half pounds of it which I shall test again next spring. Blount's corn was the admiration of all who saw it. It was from 12 to 14 feet high, with from three to seven ears to the stalk. I took two hills, containing three stalks and fifteen ears, to the county fair, and they took the first premium and would have taken the first premium at the State fair, had it been there. My premium will pay for another year's subscription for the RURAL. This is one of the finest fruit-growing counties in the State. Considerable attention is also paid to dairying and sheep raising J. A.

KENTUCKY, Bowling Green, Oct. 13.—The Blount corn came up splendidly and looked finer than anything I ever saw. It was planted in drills 18 inches apart; rows 3½ feet wide, manured with well rotted manure. I think I had a pretty good chance for one of the premiums, but some breachy cattle broke in one night in early September and destroyed all but five stalks and left only two and three ears on those stalks, where they had from four to eight ears before. The Pearl Millet I don't like at all; the stalks are too large, and I don't think it would mature, or at least mine has not. I saved only one vine from the Voorhis watermelon and that had only one melon on it, but it was the sweetest melon I ever ate. The Defiance wheat was drilled and made a little over three quarts of as fine grains as you ever saw. There has been a larger acreage sown to wheat this season than ever before. On account of the drought of June, July and August, the corn will not "turn out" more than half a crop. Everything was cut short about half by the same cause. J. D. S.

N. C., Chapel Hill, Orange Co., Oct. 20.—The weather has been remarkably dry. There has been very little rain-fall during the year—since early spring. The drought was severe, but not so destructive as one would have supposed. Occasional light or brief showers seemed to have wonderful effect. The Equinox failed to bring its expected relief. The streams are very low. Springs and wells have held out surprisingly, but are failing now. Some that have scarcely ever been known to give out, are yielding to the long-continued drought. Still the season has been highly favorable to cotton and tobacco, as to the picking and curing. Sowing wheat is backward, for the want of a fit season. Turnips are a comparative failure. Potatoes, a light yield. No frost here yet. State Fair in full blast, with a very fine exhibition expected. Plenty of horse-racing to make it a success (?) "*O tempora! O mores!*" M.

N. C., Henderson, Granville Co., Oct. 21.—There is plenty of room for improvement hereabouts. We have been here three years, and every year we have kept adding to our cultivated area. This is a fine climate, and especially favorable to flowers and garden vegetables. R. S.

FLORIDA, Rock Ledge, Indian River, Oct. 16.—We are begining to realize the fruits of our labor! Lime trees paid us last season $25 per tree; a neighbor's averaged $26½. At this price 200 trees per acre make a nice thing. The Lime is quite susceptible to frosts, and can only be grown successfully where freezes seldom obtrude. They bear the third year from the seed, and a tree five years old will pay $15 to $25. The juice can be expressed from the fruit and put up in bottles and kept for months for "limeades" and culinary purposes, and is an excellent substitute for cream-of-tartar. Thousands of seeds will be planted this season, and in four years Limes will be one of the leading products of our River. What fine sports we have, sailing our yachts upon old Indian River; bathing and sporting in her waters; angling for her variety of salt-water fish, and hauling in 10 to 40-pound fellows; throwing nets and taking in 20 to 60 fine mullet at a throw; spreading turtle nets and entangling 10 to 60-pound fellows from which we fry the finest steaks, and "gulch the green turtle soup." And, then, too, her oysters! the finest that ever grew, we roast, fry and stew. A. N.

ARKANSAS, Greenwood, Sebastian Co., Oct. 20.—Splendid fall weather. No signs of frost at present. Cotton pickers very busy. Crops abundant. Corn all secured; not an average crop. Prices for produce:—cotton, 8c. per pound; corn, 30c. per bushel; sweet potatoes, 25c.; Irish ditto, 75c.; sorghum, 50c.; cotton seed, 5c.; wheat, $1; oats, 40c,; butter, 12½c.; eggs, 10c.; beef and pork abundant and cheap. This county is fast filling up with northern settlers. Land is plentiful and cheap. Homes for all who are willing to work. Best country for fruit on this side of the Rocky Mountains. R. R.

CANADA, Brantford, Brant Co., Ont., Oct., 21.—My Blount's corn is not yet ripe; I am afraid that it will require a longer season than we have here to mature it. The Beauty of Hebron potatoes are taking a fast hold hereabout. I sent to Thorburn of New York and purchased seven and a half pounds besides the one the RURAL sent. I gave them no particular care; yet I obtained three bushels, good measure. They are spoken of very highly by all who have cultivated them, both in regard to yield and quality. I think the Acme tomato is quite an acquisition. The meat is firm and of good flavor. Most of the flower seeds obtained of the RURAL grew, and I have no doubt all would had I treated them properly. I have Raspberries whose second crop is ripe, and strawberries of a good size, with the vines in full bloom. We have had several weeks of some wonderfully warm weather, although it was very cold in September, when we had some very heavy frosts. J. F.

CANADA, Pelham, Welland Co., Ont., Oct. 20.—The Beauty of Hebron sent us by the RURAL was a small potato weighing three ounces and containing seven eyes, yet we have harvested from it no less than 26 pounds of as fine tubers as one could wish to see, being a yield, as you will see, of nearly 14,000 per cent. We have not noticed such a yield in any of your correspondences, and being Canadians, you know, you will please pardon the national pride we feel in the matter. B. B.

The Querist.

ANSWERS TO CORRESPONDENTS.

Postal Rules for Mailing Packages.

J. G. R. K., Lovettsville, Va., writes, "Please help us out of the postal muddle. We are cautioned not to write on or in any third-class mail matter. Now tell us how to get the editors to know from whom the specimens of fruit or plants etc., are sent, especially the former. Is it allowable to write the name of the article or separate articles on the parcels or the name of the sender on the package?"

ANS.—The law declares that any package containing writing, otherwise than what is

specified as allowable, shall be considered as mail matter of the first class and, as such, be charged with letter postage. According to the classification of mail matter as now arranged, the third class consists of books and other printed matter, while the fourth class comprises all that may be denominated merchandise in a general term, which would include fruits, plants and the like, as mentioned by our correspondent. In regard to the writing that may be conveyed in packages of this class, the law, according to the Act of March 3, 1879, section 231, reads as follows: "Upon any package of matter of the fourth class, the sender may write or print his own name and address preceded by the word "From." and there may also be written or printed the number or names of the articles included; and the sender thereof may write or print upon, or attach to any such articles by tag or label, a mark, number, name or letter for purpose of identification." According to this, then, the sender can *write* the name of, and attach it to, each article in the package, and on the outside of the package he can write his own name and address, preceding it with the word "From," which is all that is necessary. Should he add anything beyond what is here made allowable, it is the duty of the postmaster to charge letter postage.

Wintering Bees.

F. H., South Jefferson, N. Y., asks, 1, at what time bees should be taken into the cellar; 2. also if the hives should be left on the bottom boards and the entrance closed; 3d, if hives are left on the summer stands, should they be closed to keep the bees off the snow.

ANS.—1, The bees should be removed to their winter-quarters on the approach of cold weather, which, of course, will vary with the latitude. For Central New York, the beginning of November will generally be time enough. 2, The hives should remain on their bottom boards at all times, though it is convenient to have the latter loose for purposes of cleaning, transferring, etc. The entrance should be closed against mice and also to keep the bees in, but not so as to exclude the air. A piece of wire-gauze, or a piece of tin perforated with small holes, tacked over the entrance will answer the purpose well. 3d, If the hives are left on the summer stands and well protected against the weather, it is not necessary to close the entrance to prevent the bees from flying out on the snow; on the other hand, it is preferable that they should be permitted to fly when needed, which can be done by letting a wooden tube lead from the entrance to the outside of the covering. Were the hives to be left uncovered, it would be necessary to close the entrance, as the sun might raise the temperature within and excite the bees to fly when it was yet too chilly for them outside; but in hives properly covered, the temperature will not be subject to such fluctuations, and the bees will venture out only on warm days. But though it is desirable in this case to allow a passage for the bees, the entrances should, nevertheless, be closed against mice. To effect this: tack a piece of tin over the opening so that the lower edge of it is one-quarter of an inch from the bottom board; this will allow a passage for the bees and still exclude the mice. For the method of packing the hives, see Apiarian in RURAL for October 25th.

Bone Fertilizers, etc.

J. M. G., Tulahoma, Tenn., asks 1, whether bones simply burned will make a good durable fertilizer; 2, which is the more valuable for fertilizing purposes—bone flour or hen manure; 3, where can he obtain the Gipsy wheat illustrated and described in the RURAL for Oct. 25.

ANS.—Burnt bones retain all their fertilizing ingredients except from two to four per cent of nitrogen they contain in the raw state. As bones are used chiefly for the phosphoric acid they contain, the loss of this small percentage of nitrogen, is counterbalanced by the great ease with which they are reduced to powder, so as to be readily available as plant food. To reduce bones to this condition on a farm, it is doubtful if there is any better means than burning them. If desirable the small loss of nitrogen can be readily made good by supplementing the pulverized bones with a small proportion of guano, blood, or some other nitrogenous fertilizer. 2. Bone dust is for most crops a more valuable fertilizer than hen manure, although the latter will often have a more powerful effect on the first crop, but the former is more lasting in its effects. Hen manure, however, is rich in nitrogen; bone dust, in phosphoric acid, so that where either of these ingredients of a complete fertilizer is deficient in the soil, that form of fertilizer that contains the most of what is lacking, will generally have the best effect. 3. We do not know.

The Paradise Stock.

J. F., Brantford, Canada, wants to know what is the Paradise stock spoken of in a recent RURAL, as a suitable stock on which to graft other Apples.

ANS.—The Paradise Apple is a distinct species of Apple, Pyrus Malus præcox. Its home is in Russia, and from there it has been spread to all parts of the world wherever pomology is recognized as an industry. It is very dwarfed in its growth, and is therefore admirably fitted for stocks on which to graft dwarf apple trees. One American author asserts that the tree never grows more than three or four feet in hight; we have, however, many times picked apples, in Europe, from Paradise trees 10 to 12 feet in hight. The fruit is poor, small, oblong, sweet with a touch of bitter, and ripens very early. We have never known a tree to send up a single straight trunk from the root, but always a number of branches, of which one or two were slightly stronger than the others. From this characteristic it is properly a shrub, and not a tree. In Europe, where dwarf trees are in high favor, it is used extensively as a stock, and its use here for the same purpose is increasing.

Miscellaneous.

A. C. W., no address, asks, 1, for a description of the Hoope Apple; 2, what is the origin of the grub worm; 3, who manufactures self-binding reaping machines; 4, when were they first introduced to the public, and by whom.

ANS.—1, We presume our correspondent means the Hoopes, also called the Hopsey, but more commonly known as Grey House. According to Downing, it is supposed to have originated in New Jersey. It has been long grown and is highly valued for cider-making. Tree, a strong, erect grower, and productive. Fruit medium, oblate, nearly globular, dull-red, with faint stripes. Flesh firm and dry, poor in quality. A long keeper. 2, We are not sure that we know what is meant by the grub-worm. "Grub" is the general term applied to the larva of a beetle, and grub-worm may therefore with equal propriety be applied to thousands of species. If the white, fat pest is meant that is so injurious to potatoes, corn and the roots of other crops, then it is the larva of the June-bug or Dor-bug, Lachnosterna fusca. 3. Self-binding reapers are manufactured by the Walter A. Wood M. & R. Co., Hoosick Falls, N. Y.; by D. M. Osborne & Co., Auburn, N. Y; Johnston Harvester Co. Brockport, N. Y; C. Aultman & Co., Canton Ohio. The self-binding reaper was invented by Mr. Locke, and first made and sold by Walter A. Wood named above, who introduced it in 1876.

E. J. B., Croton, N. Y. inquires what can be the probable cause of the unthriftiness of a variegated Ivy which has only grown four inches in two years. He has noticed, however, that the leaves and stem are covered with a scaly insect similar to the bark louse of the apple tree.

ANS.—The plant is choked with scales. Wash every part of the leaves and stem in strong soap-suds to which has been added a little carbolic acid, and when the scales are all removed, sponge off the plant in clean water. The variegated varieties are not vigorous growers, though they are in good health.

W. E. M., North Branch, Lapeer Co., Mich., asks if we know of any illustrated work on lawn planting.

ANS.—F. J. Scott's Landscape Gardening is a very beautiful work. Downing's Landscape Gardening is also excellent, it costs about $6.50. Kemp's Landscape Gardening is a smaller work, but very good. Any bookseller can supply or procure either work.

B. D. N., Sherburne, N. Y., asks what is Uncle Mark's address.

ANS.—"Uncle Mark" RURAL NEW-YORKER, 78 Duane St.

COMMUNICATIONS RECEIVED FOR THE WEEK ENDING SATURDAY, NOV. 1.

E. J. F. B.—A. C. H.—W. B. D.—G. P. V. D.—W.—J. H. C.—H. V.—T. I. B., thanks—Clara—T. T. L., thanks—R. R.—L. J. T., (Kansas)—G. H.—A. E. H., thanks—J. E. T.—W. S. H.—W. M. N.—J. G. H.—T. B. G.—G. L. G.—H. S. W.—W. H. N.—W. E. M.—W. I. C.—E. J. B.—H. A. W.—Mrs. R. R.—J. F.—W. P. S.—S. J. B.—T. G. B.—J. P.—J. W. S.—J. M. G.—J. H.—P. S.—A. L. H.—N. R. O.—T. H. M.—B. S.—R. N. B.—B. D. M.—J. S.—O. R. W.—C. B.—H. J. S., thanks—M. E. T.—C. G.—M. L.—S. O., many thanks.—A. J. R.—L. E. K. T.—C. & B.—E. E.—B. G. J.—M. W.—F. D. C.—H. S.

Various.

CONNECTICUT AGRICULTURAL EXPERIMENT STATION.

BULLETIN 34.—OCT. 17, 1879.

Analyses of Hay.

SAMPLES of hay from A. J. Coe, West Meriden, received June 27, 1879:

LXI.—Cut May 30, from dry upland, gravelly loam. Seeded with blue grass, white clover, timothy and red-top and mown three years.

LXII.—Cut June 5, from dry upland. Seeded with red clover and timothy and mown two years.

LIX.—Cut June 17, from dry upland. Seeded with timothy and red-top and mown three years.

LXIII.—Cut June 18, from moderately dry irrigated intervale. Seeded with timothy and red-top and mown four years.

LX.—Timothy. Cut June 23, from meadow never plowed. The growth was very rank, the stalks averaging 4—4½ feet high.

The water contents of these hays when received at the laboratory was as follows:

	Per cent.		Per cent.
LXI	13.42	LXIII	17.91
LXII	16.85	LX	16.77
LIX	14.7[illegible]		

To render the results comparable with other analyses on record, they are all reckoned on a water content of fourteen and three-tenths per cent. For comparison, are given Wolff's averages of German hay from "Menzel & Lengerke's kalendar" for 1879. See also report of this station for 1878, page 57.

	West Meriden, Ct.						Germany and Austria.			
Time of cutting.	LXI.	LXII.	LIX.	LXIII.	LX.	Inferior.	Better.	Very Good.	Extra.
	May 30.	June 5.	June 17.	June 18.	June 23.				
Water	14.30	14.30	14.30	14.30	14.30	14.30	14.30	15.00	16.00
Ash	5.30	6.49	5.57	6.86	3.27	5.00	5.40	7.00	7.70
Albuminoids	14.42	11.62	7.75	8.97	4.83	7.50	9.20	11.70	13.50
Fiber	19.66	26.06	24.72	28.45	22.81	33.50	29.29	21.90	19.39
Non-nitrogenous Extract	43.23	42.07	45.08	39.20	43.29	38.20	39.70	41.60	40.40
Fat	3.09	2.46	2.48	2.22	1.45	1.50	2.00	2.80	3.00

Classified according to the results of German analyses these five samples would rank: LXI as "extra," LXII as "very good," LXIII as "better," and LIX and LX as "inferior." They were sent by Mr. Coe as samples of early-cut hay and it will be observed that, with one exception, the quality deteriorates with age. It is an undoubted fact that early-cut hay is, in general, superior in quality to late-cut, other things being equal, but while some of the variations of the above samples must be attributed to this cause, they are probably also caused in part by differences in soil, manuring, species of grass, etc. Very likely the high percentage of albuminoids in LXI and LXII is to some extent to be attributed to the clover which they contain, though the low percentage of fiber, especially in LXI, shows that the vegetation was still immature.

In comparing the results of these analyses with those previously made at this station (see Bulletin 23), we should consider separately those containing clover, and those free from it. To the former class belong XLVIII, LII, of Bulletin 23, LXI, LXII, and of these the two latter, cut about the first of June, show a decided superiority, both as regards albuminoids and fiber, over the two former cut respectively in July and August. It is to be remarked, however, that coarse and rank grass, like LII, is generally woody and poor in albuminoids, as is well illustrated by LX.

Of those samples containing no clover, viz.: XLIX, L, LI, LIII, LVII, LVIII, LIX, LXIII and LX, the earlier cut ones reported in this Bulletin, show a slight superiority as regards albuminoids over the later cut ones formerly reported, but none of them are equal to the average German hay as given by Wolff. From all the analyses thus far made it would appear that our hays as ordinarily met with are of a coarser and more woody quality than those of Germany and Austria. Whether this difference is due to soil, climate or the kind of grasses grown, would be an interesting point to determine.

In three of the above samples an attempt has been made to separate the true albuminoids from the non-albuminoid nitrogenous matters. The albuminoids were determined by four different methods, with concordant results, as follows:

	Total Nitrogenous Matter. Per cent.	Albuminoids. Per cent.
LXI	14.42	11.41
LIX	7.85	7.13
LX	4.83	3.90

These results show that a not inconsiderable part of the so-called albuminoids in these samples consists, in fact, of substances whose nutritive value is much less. At the same time the differences are not nearly as large as those which have been obtained by various German observers and may possibly indicate that our apparently poorer hays contain relatively as much true albuminoids as the seemingly better German ones. The nature of the non-albuminoid nitrogenous matter is still under investigation.

This bulletin has been prepared at my request by Dr. Armsby, chemist to the station.

S. W. JOHNSON, Director.

Sheep Husbandry.

A PROFITABLE SHEEP ACCOUNT.

IN view of the increasing interest felt in sheep, we send the following to remove, if possible, the doubts of some who may not believe sheep raising to be a profitable business. In the first place, we wish it understood that the flock from which the account was taken were not fancy sheep; for they are nothing more than what any intelligent farmer might possess; that is, good cross-breeds. Secondly, we do not write this as an advertisement, for we say plainly that we have no sheep to sell, and we contemplate purchasing instead. The lambs from the flock were from a pure South-Down buck. The buck lambs were sold to butchers by the pound, the ewe lambs were *kept* and are valued at five dollars each, which is less than the price for which they could be bought. The following is the account.

Dr.	
18 Ewes, @$5	$90.00
One South-Down buck	25.00
	$115.00

Cr.	
18 Ewes, @$5 each	$90.00
One South-Down buck	25.00
14 Buck lambs, 1,006 pounds @5 cts. per lb.	50.30
10 Ewe lambs, @$5 each	50.00
85 pounds of wool, 33 cents per pound	28.05
	$243.35
	115.00
	$128.35

The ewe lambs are worth the same as their dams, as we used a thoroughbred buck, which improved them. The 18 ewes consisted of five yearlings (two of which were barren) and the remaining 13 were two, three and four-year-old breeding ewes. There were 25 lambs—nine pairs of twins. We lost one by accident, some of the buck lambs were sold at the age of three and a half months. They simply had good care—no petting. The 18 sheep could be kept on the same feed that would be required for two cows, and they would not require more than a quarter as much care. By the way, we think it worth mentioning that we had the curiosity to weigh one of the lambs in the spring, and it weighed 55 pounds when 52 days old. Can you beat that?

Saratoga Co., N. Y. ABEL HOYT & SON.

SHELTERING SHEEP.

I think that Col. Curtis in his article on the proper care of long-wooled sheep in the RURAL of Oct., 25, has exaggerated a trifle with regard to the necessity for sheltering them, etc. I was raised on the Cotswold Hills; my father had a flock of about 450 sheep. After I left him and started on my own account, I had a flock of about 700, and farmers in all that part of Gloucestershire had flocks ranging from 300 to 800, in a few instances to as many as 1,000. I have helped the shepherd in his care of his charge, generally getting wet once or twice a week and sometimes it would rain for days together, yet none of those sheep was ever sheltered, except the ewes for one month and then only in a yard. The wool of the tegs etc., however, was so long and dense that I don't believe it often got wet through, and the animals were so thriving that they never seemed to mind the exposure. They would eat about 20 to 25 pounds of cut swedes per day along with their hay and would weigh 80 to 100 pounds, dressed, and cut from eight to ten pounds of wool. Those having barley, peas or oil-cake would weigh from 100 to 120 pounds and cut from 12 to 14 pounds of wool. These would be about 14 months old. It is the keeping of sheep too warm and dry that makes them tender. In the Northern States, however, I concede that sheep require shelter in winter.

By the way, I allow that the RURAL was right in its remarks on my communication published in the issue of Aug. 23. with reference to the depressed condition of English agriculture. Later information convinces me that the plight of the Bristish farmer is much worse than I was then aware of. G. G.

Orange Co., N. Y.

THE BLACK-FACED SCOTCH SHEEP, the oldest breed in Scotland, are very muscular, active and extremely hardy, able to endure the privations incident to a life of continual exposure upon the bleak and storm-beaten mountains. In storms they instinctively herd together, and, although completely buried in a snow-drift, will manage to push the snow from their bodies and form a cave over them, in which they will live on what scanty herbage may be within their reach, until help comes. Thus buried, they have managed to live two or three weeks before they have been found and extricated.

THE
RURAL NEW-YORKER.
PUBLISHED EVERY SATURDAY.

CONDUCTED BY
ELBERT S. CARMAN.

Address
THE RURAL NEW-YORKER,
78 Duane Street, New York City.

SATURDAY, NOV. 8, 1879.

OUR ANNUAL PREMIUM LIST AND POSTERS ARE NOW READY. THEY WILL BE MAILED, WITHOUT CHARGE, TO ALL WHO APPLY.

"GOOD RESULTS" IN FARMING.

SOME weeks ago we quoted on this page a few words on "Good Results" from one of our correspondents. We did so because they agreed so exactly with our own observation and experience. Scarcely any expression is so often used in agricultural circles. We see it in all the agricultural papers, and hear it at all the farmers' clubs and grangers' debates, but always used in a very loose and indefinite way. "Good results" follow on the use of this, that or the other fertilizer, implement or mode of culture. But we fail to be informed *just what* results, just how much or even *about* how much money a certain sum expended in a certain way, has returned to the pocket of the farmer.

We were particularly struck with this a few weeks ago at an "open meeting" of a certain Grange, which we were invited to attend. This man had used the Buffalo pure bone dust "with good results"; that one, the New York Excelsior superphosphate, "with good results"; another the Chicago, or Albany, or Baugh & Son's, or the Stockbridge specials, or land plaster, or salt, and always "*with good results.*" One had used the fertilizer broadcast; another in drill or hill, and both "with good results." Some had used the Thomas harrow, or the Shares's or spring-toothed, or the Syracuse cultivator, or the disc cultivator "with good results." But when we asked in our bewilderment just how much money a given sum, expended on this, that or the other fertilizer, returned in actual, definite increase in wheat-yield or corn-yield, or even which of the various ones yielded the most, we failed to be enlightened. Or, when we asked just what effect a given implement produced, whether to stir the soil deeply and coarsely, or to make the *surface* fine and mellow, and compact the soil below, as is required for wheat; whether the given implement could be used as a broadcast weeder on growing crops of wheat, corn, potatoes, etc., or whether it would "root up the wheat also with the tares;" or which implement would do the most different kinds of work on the farm, and do them well, we again failed to be informed. And when we finally asked if the Grange as a local body had instituted any *definite experiments* through careful farmers belonging to it, who could be relied on for candor and accuracy, the Grange Master replied that he had often thought it would be a good plan, but it had not been done.

This brings us to the point we had in mind to insist on, viz: the great value of accurate, definite, protracted experiments in agriculture, and of absolute candor and fairness in reporting them, and the worthlessness and often harmfulness of all others.

For instance, on the question of summer-fallowing, the 28 years' careful experiment made by Dr. J. B. Lawes, of England, and lately published by him in our columns, is of great value. But for the first five or six years it proved absolutely nothing, and might have happened to prove the reverse of the truth. And just so, any experiments on home-made manures and commercial fertilizers, with a view to ascertaining the comparative value of the two, would need to be continued for several years, and to be made with great care each year, to be really conclusive. But on an ordinary farm it is perhaps impossible to have either the time or accuracy requisite to make the experiments conclusive on all points. It is therefore fortunate and greatly promotes the growth of agriculture, both as a science and art, that there are and have been such men as Lawes, Gilbert and others in England, who have means, time, taste and capacity to carry on many and extended experiments in field and laboratory, and thus discover both the facts and the causes. In our own way, too, both at the Farm and the Grounds, we are conducting many experiments patiently, carefully, fairly we think, and enthusiastically. Some of our contributors, too, at the Agricultural Colleges and elsewhere, are conducting experiments on various subjects. The results or outcome of such experiments we shall endeavor to publish fairly, so far as they may be of general interest and profit, whether they seem to prove or disprove any of our theories or doctrines. If these are wrong, they ought to be corrected.

But while accurate experiments are often costly and tedious, there is a class that may be made with sufficient accuracy on any good farm. For instance, in regard to many of the common brands of superphosphate, bone-dust, etc., an experiment for four or five years on a ten-acre field, say, treated in ten plats, one with stable manure, one with no fertilizer, one with clover plowed under, and the rest, each one with a different commercial fertilizer, might *practically* settle several questions:—1st, which, if any, of the commercial fertilizers pay for themselves the first year in actual increase of wheat or corn; 2d, which, if any, serve merely as stimulants, and leave no permanent benefit, or perhaps even an injury; 3d, which is, on the whole, *worth the most* on a given soil. These and similar questions might be settled to the great advantage of the locality where they were made, and at no very great expense. And any expense incurred might fairly be borne by a farmers' club or Grange.

We shall be glad to report any such or similar experiments, provided they seem to have been made with candor and fairness, and with sufficient accuracy to make them trustworthy. We predict that all who experiment fairly on fertilizers and modes of cultivation, will be convinced of two things: 1st, that *good* farming pays, if any kind does; and 2d, that no one can afford to buy commercial fertilizers till he has carefully made and saved, and properly used all the stable and green manure the farm is capable of producing. We do not agree with an enthusiastic friend of ours, who lately said to us, "Why, phosphate is cheaper than stable manure a mile off, to be had for the drawing."

A FINAL WORD.

"PAY AS YOU GO" and the "ABOLITION OF HORSE-RACING AT AGRICULTURAL FAIRS" are two subjects which for a long time the RURAL NEW-YORKER has endeavored to keep before its readers. Many journals throughout the country have joined us in our advocacy of both. As to the first, we believe, as a rule, there is no other precept the observance of which will tend in a greater degree to promote general happiness and prosperity. As to the second, we had rather the agricultural fair itself should be abolished than that horse-racing with its evil associations and tendencies should be tolerated as one of its chief attractions. Horse-racing has in no fair sense anything whatever to do with agriculture. Beyond what is required of a horse to perform in the way of useful service, speed has no intrinsic value. All other things being equal, a horse that can trot a mile in four minutes is worth just as much as another that can trot a mile in two minutes and a half. The great difference in price that the two horses will bring in the market, is owing to the conventional value which is placed upon *speed* by men who keep horses for *other* than useful purposes. If agricultural fairs are of so little real value that they cannot be maintained without the race-course, we say "Give them up, and recognize the fact." It were better to have it known that agricultural fairs are failures than that horse-trots should thrive under a false name, and furnish a plausible excuse for the attendance of thousands of people that are too sneaking to support them openly. Agriculture is a child too noble and thrifty to be obliged to lead by the hand annually, in order to appear herself, a bastard that was conceived by gamblers and that has ever since been the especial champion of loafers, pickpockets and thieves.

THE PRICE OF INDIFFERENCE.

WE wish we could awaken village, town and city people to a sense of how much they lose by accepting, uncomplainingly, the many sorts of inferior fruits known as good "market" varieties. It is not fair to blame the market-men. It is their business to supply the demand with the least cost to themselves. It is the consumer that alone has to do with quality, and if he is satisfied with the Wilson strawberry, the producer can have no interest in cultivating and sending to market for the same price better kinds which are less prolific and which cost him more to produce. If "Sheepnose" and Crab apples could be sold for the same price as Northern Spy, Spitzenberg, Baldwin, etc., the latter would rarely, if ever, be offered for sale. But people have learnt to discriminate so far between different kinds of apples and pears that the better varieties are demanded, and the supply is therefore regulated accordingly. It is not so, however, with small fruits, more especially with raspberries, strawberries, and grapes. In these, productiveness and firmness are first considerations with the producer and middlemen. To the consumer a strawberry is as yet a strawberry—and raspberries are all alike. Some prefer light-colored grapes; some, black. It matters little otherwise. And yet there is just as much difference between the different varieties of raspberries, strawberries and grapes as there is between different varieties of pears and apples.

People who depend upon markets for their small fruits must content themselves with the poorest sorts so long as they are satisfied to permit sellers to make their selections.

THE ORGANIZATION OF A NATIONAL AGRICULTURAL SOCIETY.

IN our last issue we mentioned briefly that a convention had been held in this city with a view to organize a National Agricultural Society. This movement was first started by Mr. J. H. Reall, of New York, who early in the fall issued circulars to a number of the most prominent agriculturists all over the country, inviting them to meet in convention to consider what should be done towards effecting such an organization. The proposition created at once a lively interest, and on the 22d ult., a convention was held, in which all the Eastern and Middle States were well represented. All present considered the scheme a feasible one, and enthusiastic speeches were made in its favor. A committee of thirteen was appointed on organization, with power to add five members more from each State of the Union. Before adjourning, it was decided that a second meeting should be held on December 10, next, at which time a report is to be given by the committee appointed, and the organization effected, if possible. The committee of thirteen appointed a sub-committee of five, mentioned here last week, to act as the executive committee in completing the work of organization.

The idea appears to us to be one that deserves the commendation of all who have the great agricultural interest of our country at heart. Much can undoubtedly be done by a powerful far-reaching Society in the way of leveling the general path for agricultural progress. But an outburst of passing enthusiasm will be of no value. To be of service to the country and deserve the name of National, the Society must be subject to the most thorough organization and must be composed of earnest, thorough-going, hard-working men, representing every section of the country, and including all the prominent men connected with all branches of agriculture throughout the land. Let such men everywhere join in the movement; the object is worthy of sublime success, and if the work is rightly conducted, success must attend the effort.

ASA GRAY.

WE are pleased to be able to place before our readers in this issue an excellent portrait of that worthy and justly distinguished man, Asa Gray, and a sketch of his life and works by one fully competent to write it in fitting terms, Professor W. J. Beal. The portrait is engraved from a photograph sent to us by Dr. Gray at our request.

BREVITIES.

"STATESMANSHIP OF THE PLOW" is good.

"IT becomes evident," says the London Agricultural Gazette, "as thrashing proceeds, that the wheat crop is even worse than was anticipated."

IN Scribner, E. P. Roe says that to people who live in the country, small fruits are like heaven, objects of universal desire and very general neglect—which is putting it strong.

NEW YORK newspapers, all of which have suffered, more or less, from the recent run of "hard times," are rejoicing at the prospect of a large increase in their circulation on account of the advent of the present reign of prosperity throughout the country. In many cases this increase has already begun.

"WHEN we take into account," says Horatio Seymour," the values and tenures of European lands and compare them with the low prices and free titles of our own fertile soils, it is clear that they cannot be brought into such close practical proximity without making great changes upon both continents."

THE present is probably as good a time as any in the year to cut out the canes of Raspberries and Blackberries that have borne fruit. The canes of Raspberries of doubtful hardiness, like Brinckle's Orange, Thwack, Pride of the Hudson, should be laid down, a stone or block resting upon the tips, and then lightly covered with earth or straw.

MR. DOUGLAS writes us that he has traveled several thousand miles to convince himself of the value of Catalpa speciosa, and he believes it to be of incalculable value to this country as a forest tree and a much finer ornamental tree than C. bignonioides or syringæfolia, as it is much hardier—a more upright grower and produces much more beautiful flowers.

"Go and get your leaf-mold from the woods." And yet the woods are crowded with trees, shrubs, weeds and grass. Year after year they grow and thrive. The falling leaves and decaying twigs and branches are their only fertilizers. Let some enterprising "fertilizer man" analyze this leaf-mold and manufacture his "complete manure" accordingly.

THE Cincinnati Gazette says: "THE RURAL NEW-YORKER gives reports from 13 States very favorable to the growth of its protégé, the Beauty of Hebron potato. In many places, it was considered better than Early Rose. The yield was various—the highest seems to be about 50-fold—50 pounds for one." The highest report made gives 50 pounds from about four ounces, obtained by sprouting.

MR. J. G. Burrow, of Fishkill, N. Y., answers an inquiry of ours as follows: "As regards ripening grapes in bags, my opinion is decidedly against the plan, if paper is to be used. If they must be ripened in bags, I would by all means, recommend mosquito bars, millinet or gauze. I have ripened them very nicely with mosquito netting made into bags, but paper does not let sufficient light through to give them their natural color or flavor."

A RURAL friend from Livingston Co., N. Y., who has fruited 35 varieties of Strawberries the past season, among which were the Sharpless, Pres. Lincoln, Cumberland Triumph, Crescent Seedling, Duchess, Monarch of the West, Duncan, Prouty's Seedling, Springdale and Miner's Prolific, writes us that he assigns the premium for general excellence to the last-named. With him it has been very hardy, healthy, and exceedingly prolific of large, firm and delicious berries. In his experience it stands at the head of its class.

GOOD cats are unquestionably very useful if not indispensable upon the farm. Emasculated cats are growing more and more in favor everywhere. They generally grow to twice the ordinary size;—they are more healthy because more quiet and less dissipated; they are more amiable and display a warmer sense of gratitude; they are more cleanly and, as a rule, better rat-catchers. We recognize the value of cats in general. But we would be glad if the race could be kept up as well and yet consist only of impotent males!

ONE of the simplest ways of propagating the Grape-vine is simply to make cuttings of the prunings, about a foot long always, including one or two joints, and bury them so that the upper end is an inch above the soil. Cover them with straw, hay or any other coarse material at hand. A large proportion will grow next spring. The same may be said of currant and gooseberry cuttings. The roots of Raspberries may be cut up into bits three inches long, and placed in boxes, alternating a layer of soil and a layer of root cuttings. The boxes may be buried in a dry place out-of-doors, or kept in the cellar until spring.

SIGNS of the growing prosperity of the country multiply. The number of failures for the first nine months of the present year is only a little over half that for last year, while the sum of the aggregate liabilities in 1879 is considerably less than half that for 1878—failures in the first nine months of 1878, 8,678; liabilities, $197,211,129; failures in same period in 1879, 5,320; liabilities, $81,054,940. Moreover, for the three months ending Nov. 30, the failures are only half those for the same period last year and the liabilities only a fourth of the amount of those in 1878. In Canada, on the other hand, the failures and liabilities this year are from a third to a half greater than those of last year.

WATER is an excellent protector for half-hardy plants against frost. In southern Europe where the winters are light, many tender plants remain safely out-of-doors all winter without being covered, by twisting straw into heavy ropes which, on cold nights, are made wet and then wound in zig-zag lines around plants and among the branches of trees and shrubs, each end being submerged in a pail of water. The water will rise by capillary attraction and keep the rope wet the whole length, and in the act of freezing enough heat is liberated from this water to raise the temperature of the atmosphere surrounding the plants, and thus save them from the cold. It is for the same reason that trees on a moist ground can withstand a severe frost better than trees on a dry soil.

DISEASES of trees come and go the same as diseases in animals. It is the same with insects. Conditions favorable to their increase, of which we know nothing, occur and they threaten the very extermination of certain species of plants upon which they live, or for long periods render valueless, over extensive districts of country, certain fruits previously of great value to the inhabitants. All at once they nearly or entirely disappear—we know not why. But in general the last or popular remedy for their destruction receives the credit. The history of medical practice through ages gives convincing proofs of the credulity of human nature and of the utter worthlessness of medicines which for years at a time were supposed to possess remarkable specific curative powers.

WE have ourselves neither praised nor condemned Com. Le Duc. But we have felt like praising him for his energy and for his manifest *desire* to benefit the agricultural interests of our country. Whether his energy has been and is being wisely expended or not, is not yet fully apparent. In either case we know of no reason or excuse for the hasty and violent denunciations of many journals, and we note with satisfaction that a strong counter-current is setting in from many different quarters. It is not to be supposed that any man filling a government office, how earnest or pure soever his motives may be, can hope to escape the sneers of those pests of the land, that can see nothing to praise that reflects no credit on their political or personal preferences.

For Women.

CONDUCTED BY MISS FAITH RIPLEY.

POEMS OF HOME.

A CRADLE IN THE HOUSE.

We have got a cradle in the house,
And we have something in it,
A freakish, wayward, winsome bairn,
Not bigger than a minute.

Although no diadem he wears
But his ringlets soft and brown,
His every smile and frown we heed,
As if he wore a crown.

No scoptre in his hands he holds,
But then his pinky fist, so small,
He, like a royal monarch wields,
And we are humble subjects all.

And when his tiny foot he stamps
If aught, caprice, or whim displease,
The brightest gift in babydom
We bring, him to appease.

And when he wills to close his eyes,
We on tip-toe through the house:
Even papa's heavy-booted foot
Falls softly as a mouse.

We have got a despot on a throne,
Reclining like a kinglet,
For we have a cradle in our house,
And we have something in it. [*Household.*

A MOTHER'S DIARY.

Ah! Baby on the floor,
Making for the fender;
Sunlight seems to make it sneeze;
Baby "on a bender?"
All the spools upset and gone,
Chairs drawn into file,
Harnessed strings all strung across,
Ought to make one smile.
Apron clean, curls smooth, eyes blue,
(How these charms will dwindle,)
For I rather think—don't you—
Baby "is a swindle?"

Noon! A tangled, silken floss
Getting in blue eyes;
Apron that will not keep clean,
If a baby tries!
One blue shoe untied, and one
Underneath the table;
Chairs gone mad, and block and toys,
Well as they are able;
Baby in a high chair, too,
Yelling for his dinner.
Spoon in mouth; I think—don't you—
Baby "is a sinner?"

Night! Chairs all set back again,
Blocks and spools in order;
One blue shoe beneath the mat
Tells of a marauder;
Apron folded on a chair,
Plaid dress torn and wrinkled,
Two pink feet kicked pretty bare,
Little fat knees crinkled;
In his crib, and conquered, too,
By sleep, blessed evangel.
Now I surely think—don't you—
Baby "is an angel?" [*Baltimore Sun.*

BABY HAS GONE TO SCHOOL.

The baby has gone to school; ah, me!
What will the mother do,
With never a call to button or pin,
Or tie a little shoe?
How can she keep herself busy all day,
With the little "hindering thing" away?

Another basket to fill with lunch,
Another "good-bye" to say,
And the mother stands at the door to see
Her baby march away;
And turns with a sigh that is half relief,
And half a something akin to grief.

She thinks of a possible future morn,
When the children, one by one,
Will go from their home out in the world
To battle with life alone,
And not even the baby be left to cheer
The desolate home of that future year.

She picks up garments here and there,
Thrown down in careless haste,
And tries to think how it would seem
If nothing were displaced.
If the house were always still as this,
How could she bear the loneliness?

MY LITTLE WIFE.

She isn't very pretty
(So say my lady friends);
She's neither wise nor witty
With verbal odds and ends.

No fleeting freaks of fashion
Across her fancy run,
She's never in a passion—
Except a tender one.

Her voice is low and cooing;
She listens more than speaks:
While others talk of doing,
The duty near she seeks.

It may be but to burnish
The sideboard's scanty plate,
Or but with bread to furnish
The beggar at the gate.

So I, who see what graces
She sheds on lowly life,
To fashion's fairest faces
Prefer my little wife.

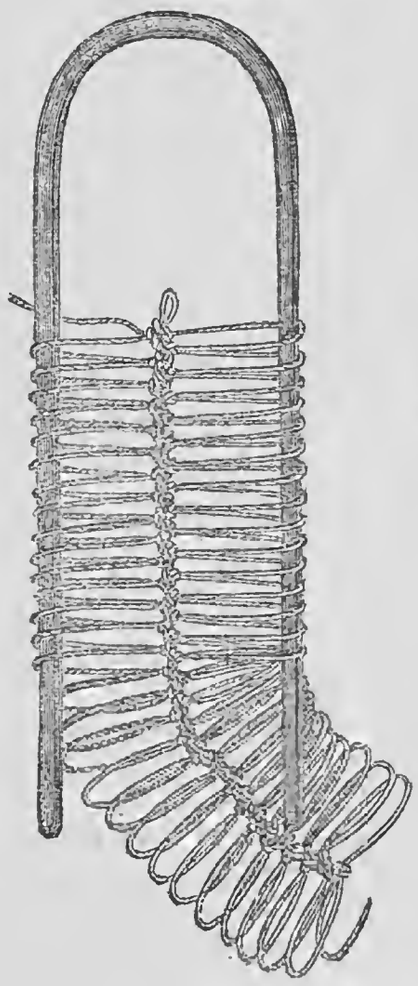
And though at her with pity
The city dames may smile,
Who deem her hardly pretty
And sadly out of style:

To me she seems a creature
So musically sweet,
I would not change one feature—
One curve from crown to feet.

And if I could be never
Her lover and her mate,
I think I'd be forever
The beggar at the gate. [*Chicago Times.*

DESCRIPTION OF ENGRAVINGS.

HAIR-PIN WORK.

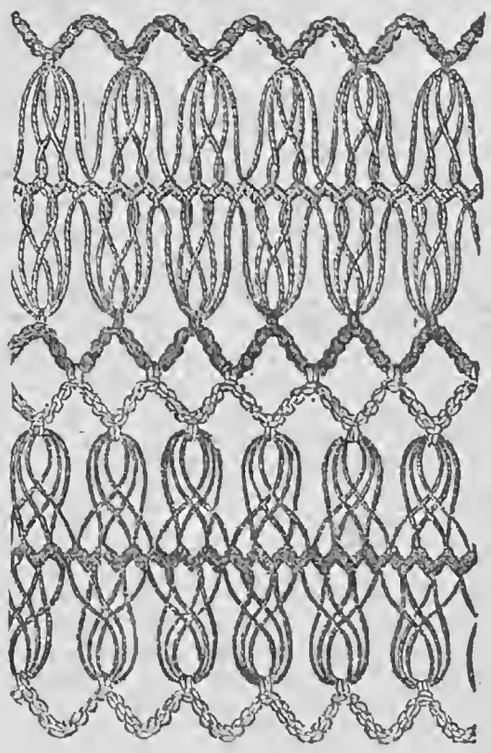


No. 1.

The *Modus operandi* is given at No. 1. and the completed pattern at No. 2. This is a very pretty substitute for ordinary styles of crochet work.

PIN TRAY.

For the bottom of the tray eight pieces of cardboard are used cut "diamond shape." Four of the pieces are covered with pale pink silk and ornamented with embroidery in light blue floss as



No. 2.

shown at No. 5. The remaining pieces are plainly covered with blue silk as per No. 4. The rim of the tray is crocheted after pattern at No. 6. and the whole is finished with bows of mixed pink and blue satin ribbon.

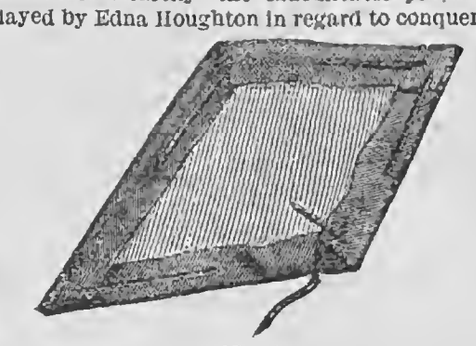
FLOWER MAT.

The foundation is of wine-colored cloth and the dahlias are of silk, alternately pink and wine-colored. The embroidery may be confined to these two colors, or the vine may be shaded green and the flowers pink. A plaiting of wine-colored satin ribbon around the edge completes the mat.

THE WOMAN'S CLUB.

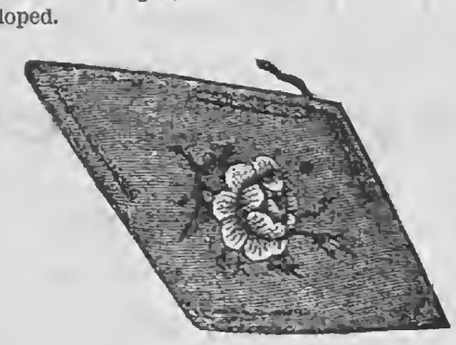
A REVIEW OF THE OCTOBER CLUB.

Dear Miss Ripley: I read with pleasure today, in our Rural, some letters from ladies to your department; they were so natural in expression, I cannot forbear adding a few lines myself in regard to the subjects treated of. I admire most heartily the indomitable pluck displayed by Edna Houghton in regard to conquering



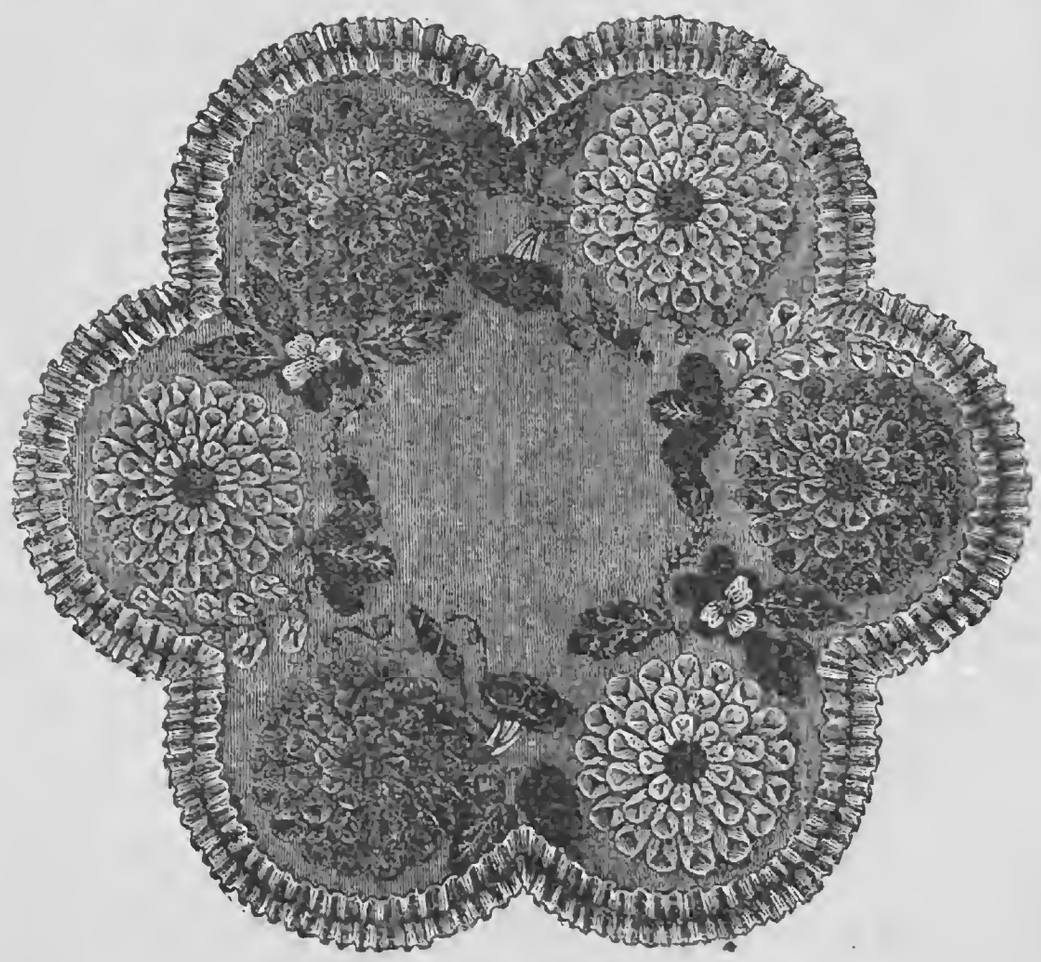
No. 4.

her difficulties in music. I have been a music teacher for the last 15 years and right here let me say that most of the trouble in this music business, lies with the parents of the pupils. Not one parent in fifty is willing that the child shall progress by regular system. They see no use in scales, exercises etc., "*there's no tune in them.*" A pupil has hardly mastered the notes when presto! the "Little Brown Jug" is far more acceptable, and of course more readily understood, than the finest sonata of Beethoven. There was a circus in our town last spring, the usual rush was on hand, every one of course came to see the "Elephant." Among other attractions (?) in music they had a steam piano, (which is nothing more nor less than the Calliope used by southern steamers) Well, I should call it an "Infernal Machine" from its noise. It was perfectly deafening when near it. But you just ought to have seen the crowd with open eyes and mouth, listening to the "delightful music" while I felt a wicked wish to choke the performer or blow him up in his own concern. There is a general knowledge of music here but with some few exceptions it is of a low grade, I don't mean vulgar, but uncultivated and undeveloped.



No. 5.

I have a warm fellow feeling for the ladies on the servant girl question. I have lately had some experience in that line and I'm truly glad its over. My baby boy is now nearly six weeks old, but when I did need a girl what a dance they led my husband! They thought I was in their power and they acted accordingly; they would come and stay a few days and then "dust" while my "better half" in a very irreligious frame of mind set out to seek another. Thus they acted till nearly worried to death, we determined to get along without such "help." I have three little ones the oldest only seven years of age, but I would endure

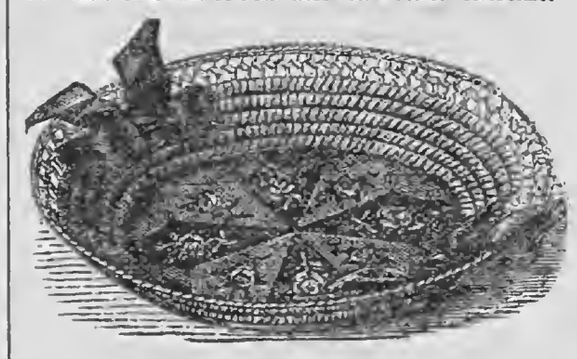


FLOWER MAT.

WATCH STAND.

The frame is of ebony, covered with canvas embroidered in crewels. Cording and tassels of blue are the ornamentations used, as shown at No. 7. almost any amount of labor or discomfort before I would; or could live in "hot water" all the while with a lot of vain shiftless girls. I never have a hired girl except as a matter of "dire necessity," and never intend to endure them again.

I think "Avenger" has come with a vengeance to the rescue of the poor unfortunate mother-in-law and bids fair to run into the other extreme.



No. 3.

If those afflicted mortals would stop and think awhile they would see that all this mother-in-law business arises from "jealousy." You see mankind loves to be "number one" and the mother very naturally doesn't care to give up "her rights" and so the ball is set rolling. I fully agree with the person who said there never was a house big enough to hold two families. "That's what's the matter," I would rather live in a shanty than in the finest mansion on earth with *any* people-in-law, on whatever side. When two people marry they are supposed to "branch off" and form new ties, but the idea of "tacking on" our relations, is the veriest nonsense. We can love them just as well and still not be obliged to live with them in daily intercourse, I think "Avenger's" daughter will bid fair to be an "old maid," if her mother intends to visit the sins of all the defunct sons-in-law on his devoted head. There are two sides two every question and I think the best plan to settle this is to live apart. I expect I have overrun the bounds, but if I am in the way, throw me in the waste paper basket, and I'll not trespass again with such a lengthy document; but those ladies' letters rather "stirred me up," and while the inspiration was on me, I thought I would write as the spirit moved me. Ladies' departments are becoming fashionable in newspapers. I'm glad the "lords of creation," are coming to see that even "weak woman" has some brains that are worthy of recognition. Mrs. Arthur Galpin.

Waterville, Kan.

WHIFFS FROM OILDOM.

I have often thought I would like to be personally acquainted with some of the "clubites" of the Rural, and I believe I come pretty near it when *one of them bears the same name* as myself, and another is the sister of my girl's former employer. Living in the country far from town, where literature is hardly thought of by many, it is really a luxury to become acquainted with those of congenial tastes.

The falling leaves remind me that the Winter's blast will soon compel us to close the doors and windows, and to find employment and amusement in the house, and how much more pleasantly the time will pass if the rooms are cheerful and bright. I wish to tell the sisters of some improvements we made in our living rooms last Spring, and of some others we have in contemplation. The mirror hung between two windows, without any support; the clock—an old family one—was also fastened

No. 6.

against the wall without any shelf. One day, when Hubby was not busy, I asked him to put a plain shelf under the mirror and another under the clock. He did as desired, but how rough they looked without paint or finish of any sort. I speedily devised a plan for their embellishment. The shelves *must* have lambrequins, but what was I to make them of? Eva and I racked our brains, and the house, (the store was not to be thought of). At last an old, plain grenadine overskirt, trimmed with lace was found; later, some worn out red flannel under-clothing was brought to light. Laying the grenadine over the red flannel produced a pretty effect, so we cut scallops for the drape of the lambrequin, sewed on lace headed with dainty, red braid, tacked this to the shelves, headed with strips of flannel, pinked at both edges. Some

No. 7.

pieces of marbled oil cloth were found to marble-"ize" the top and our shelves were complete, the one under the mirror for receiving combs, brush

&c., the other could hold a vase of flowers or any small ornament beside the clock. A newspaper portfolio was also improvised out of a large piece of pasteboard, which was covered with the same material as the lambrequins, then folded portfolio-wise and black silk cord sewed at the ends to represent lacing. It was edged all around with pinked strips of flannel, and finished in the center with a medallion made of an oval shaped piece of red flannel pinked around the edge, with a decalcomania bunch of flowers in the center. This made a very pretty wall-pocket, and was hung under my clock shelf. C. E. J.

"Olldom," Pa.

NEWSPAPER HYGIENE!

An article on "Rest as a Medicine" which appeared in a late issue of a widely circulated and much quoted fashion journal contained the following:

"Here is a capital tonic in the form of a bath. Well lather the body with soap and water, from head to foot, by means of a bathing glove. Then immediately after take a cold sponge-bath, which should be ready at hand.

* * * * * *

The bath should be taken the very first thing after getting out of bed, and if afterward a short walk be taken before breakfast, the sense of exhilaration will be very great."

It is hardly possible to conceive of advice better calculated to inflict misery on any one foolish enough to follow it. If a person in robust health should pursue such a course for any length of time the result would be an increased susceptibility to atmospheric changes and a lowering of the tone of the system, but for invalids—the class especially addressed in the article—a bath and walk before breakfast would be slow murder. It seems to me about time to warn the public against acting on the hygienic recommendations published from time to time by the press. The regular staff of a newspaper does not usually include a physician and the average editor is not especially wise about health matters, then why regard the journal as a trustworthy medical adviser? Why not find out the truth of the matter for yourselves? Years ago such information was buried in large volumes of materia medica, full of technicalities and perplexities to the uninitiated, but now when two or three houses are publishing "health primers" at 50 cents per volume, written by physicians—who are specialists in the subjects on which they treat—with a view to instructing the laity on such important topics as diet, bathing, ventilation and the diseases of different bodily organs why remain ignorant or trust to chance newspaper articles for information?

If celery is recommended for rheumatism or sage tea for promoting the growth of the hair, no harm will result from following these suggestions even though the desired result may not be attained, but when it comes to advocating the indiscriminate use of Turkish baths, or baths generally, the press is no longer a safe guide.

We are not amphibious animals and yet one might infer we were from the persistency with which we are urged to bathe, bathe, bathe. The morning plunge, the morning sponge and the shower are the form of bath torture, usually recommended.

The majority of the physicians are agreed that as a rule people bathe too much. A daily cleansing of some sort is undeniably a necessity, but making a practice of spending 15 or 20 minutes in the water or sponging in cold water before breakfast so far from being conducive to health, depresses the vital energies, and develops latent tendencies to various forms of disease.

In a series of "toilette" papers published in a popular journal about three years ago, great emphasis was laid on the exhilarating effects of the Turkish bath. It was claimed that this form of bath, beautified the complexion, improved the general health, and gave tone to the system. To my subsequent sorrow I read, believed and acted. A course of Turkish baths left me with so little vitality that I could hardly drag myself across a room. I was not an invalid to start with and I took the baths only twice a week (I have seen them advised for daily use.) Turkish and Russian baths are undoubtedly useful but they should be taken only by the advice of a competent physician.

The writer of these same papers advises the frequent taking of warm baths, and the lying in them for many minutes so as to thoroughly open and cleanse the pores. Cleansing the pores is certainly most necessary but the method here prescribed is altogether too expensive. No one—especially a woman or child—can afford to waste her energies and weaken her vitality by any such exhaustive process. And yet we must bathe, how and when is it best to do so?

I can not consistently answer these questions, for has not this whole article been devoted to condemning anonymous contributions on health subjects? Those who are interested in these matters can very easily supply themselves with authentic information if they care to do so. Jacquelina.

A COMBINATION CONSERVATORY AND REFRIGERATOR.

Dear Miss Ripley:—Though somewhat tardy in acknowledging the pleasure it afforded me, yet now let me assure my young friend "Marian" that I am truly glad to form her acquaintance, and feel that we shall be firm friends.

I approve of Marian's mode of protecting vines from the chills of Winter—as described in Woman's Department, August 30—and if it were necessary, I should adopt it. But, fortunately, I have just had a conservatory completed, and as all of my rare vines are on movable frames, I shall keep them in the conservatory with my Geraniums and other plants.

Allow me to say a few words in regard to this conservatory, which is built on rather a novel plan. Three sides are entirely exposed, while at the back it is dug down ten feet below the surface, and a large room walled in, for keeping ice. There are steps extending through the center of the conservatory down into this ice apartment. So you see that I have a "cold"-house and a "hot"-house combined.

I notice a great deal in your columns about training our daughters to work, every word of which I heartily endorse. Although, before the late war, I lived on a farm and had some sixty servants, yet all of my daughters were taught to perform the necessary duties of housekeeping. I told them that if they never had it to do themselves, yet they ought to know when it was properly done by others. And now (when servants are so untrustworthy) they are all good housekeepers and thankful for their early training. But some of your lady correspondents have a "cross to bear" which I am happily spared, that is, the trouble of *keeping* servants. Some of the faithful ones of "old times" are still with me, have always been, and say they will always be, so long as I am willing. But to those housekeepers who are not so situated I offer my sincere sympathy, and if I could suggest any remedy for the great evil, I should be more than happy to do so. Cannot some of the lady friends offer some suggestions for curing this prevalent source of domestic discomfort? Mrs. T. J. B.

AUTUMN LEAVES, HOUSE PLANTS AND STOCKINGS.

Dear Miss Ripley:—Now that fall is here, and there are so many autumn leaves to be had for the picking, one can make a great many pretty things in the fancy line without incurring any expense. Picture frames of autumn leaves made in the following manner are extremely pretty: Make a frame of pasteboard, and sew on it leaves that have been pressed, covering the stem of one leaf with the next leaf. When hung upon the walls, these frames look very well. Fern and maple leaf decorations, bouquets of dried and crystalized grasses, wax flowers arranged in wreaths or clusters, all tend to make home bright and attractive. A few house plants are very pleasing to the eye when Winter has stripped the foliage from every bush and tree, and the presence of these in-door plants reconciles one in a measure to the dreariness of winter.

When one gets new stockings, she will find a great advantage in taking them, before they are worn, and running the heels and toes with No. 21 knitting yarn; they will wear much longer.

D. A. Rea.

Note.—The fashion article announced for this issue has been postponed for one week to make room for the regular meeting of the Woman's Club.—Eds.

Literary Miscellany.

THE FARMER'S WOOING.

The daisies nodded in the grass, the buttercups were sleeping,
And just across the river sang the farmers at their reaping;
Upon the hills, so blue and far, the maple leaves were showing
Their soft white beauty in the breeze that from the sea was blowing.
A little maid came through the land with song and rippling laughter;
The buttercups made way for her, the daisies nodded after.
A strong young farmer saw her pause beside the parting river;
She drew a lily from its depth with golden heart a-quiver.
"Thou art more fair than lilies are," said he, with head uplifted,
And threw a poppy, as the stream toward the maiden drifted.
She set the flowers in her hair—the red and white together;
A cloud grew black before the sun, and rainy was the weather.

He came across the river then, this farmer, from his mowing;
He minded not the water's depth, he cared not for its flowing.
"O love!" said he, "if gleaming sun and cloudless skies o'erlean us;
The river's barring width may roll unpassed, untried between us;
But when loud thunder fills the air, and clouds and rain come over,
I'd cross the ocean to your side—I am no fair-day lover!"

And so one noon the village bells rang out across the river,
Their music set the buttercups and daisies all a-quiver,
While some one drew a lily from the stream so blithely flowing,
And plucked a blood-red poppy that amid the wheat was growing;
The maiden set them in her hair—the red and white together—
With many a smile, a tear or two, and glances at the weather.
They passed beneath the chapel's shade—the farmer and the maiden—
Where arches crossed above their heads, with snowy blossoms laden,
And in that place of holy calm, the binding words were spoken;
He in his heart bore out the truth, she on her hand the token.
The years went by, and some were bright and some were clouded over,
But ever stood he at her side—he was no fair-day lover.

[*Boston Transcript.*

IN FOLLY'S NET

CHAPTER XV.

(Continued from page 712.)

"Young lady," said Sir David, gravely, "I can only repeat that, as far as I understand the law of this land, you are the wife of the man with whom you went to the inn. I can repeat, also, that a court might, but it is improbable, decide otherwise, and your only chance of that consists in the fact that there is no writing to prove your intentions or his."

"But my oath," faltered Jean.

"His would contradict yours," said Sir David Cairnes, calmly.

"But," Jean then began, trying to speak very quietly: but her composure gave way, and she stretched out her hands to Sir David, and in a voice of agonized entreaty, she continued: "Oh! sir, have pity on me. Think, for the sake of every one dear to you, and in very mercy recall your words. Oh! consider I was the promised wife of a man whom I love with my whole heart, and who loved me. Is it likely that, such being the case, I would marry another? For pity's sake—" she sank on her knees by the table, her long, soft draperies falling around her, her arms thrown on the dark velvet cover—"do not ruin my life and his! It is not true. I cannot—I cannot be that man's wife!"

As she spoke her eyes turned to Andrew Blair's face with an expression of contempt and disdain.

He himself, still standing by the table, looked at her compassionately.

"I cannot recall my words," said Sir David, more gently. "If this gentleman claims you as his wife, I believe that you are legally married to him."

"If he claims me," she repeated, faintly. "But will he? Oh! Mr. Blair, you hear?" she went on excitedly. "It lies in your hands. For Heaven's sake retract your claim, and——"

"Jean—Jean!" said Lord Ivor, hoarsely. "Not to him—not to him!"

Jean staggered to her feet once more, and stood looking in pitiable despair from Sir David to Mr. Blair; while the Earl's heaving chest and flashing eyes showed how terrible his agitation was.

Mr. Blair glanced significantly at his lawyer, and with a little embarassed cough Mr. Cantire spoke.

"It would be as impossible for this gentleman to deny the marriage as it is for you to do so, madam," he said. "It is impossible to foresee what circumstances may arise which would in the future urge you to plead this very marriage, which you now deny. Am I not right, Sir David?"

"Quite right," said Sir David, rather sadly, for Jean's terrible anguish and the Earl's haggard, despairing face touched him, lawyer though he was.

"Besides," continued Mr. Cantire, "proof of this marriage exists in writing."

An exclamation of surprise broke from Lord Sholto. In her confession Jean had forgotten the notes exchanged between her and Mr. Blair, and as the lawyer produced them the Earl leant forward eagerly.

The little lawyer opened and smoothed them with his hand, then passed them over to Sir David, who took them and read them in silence.

"Are you aware of the contents of these letters, my lord?" he said, when he had perused them.

"No," stammered Lord Sholto. "Jean—Miss McLeod—mentioned no letters."

"Ah!" exclaimed Sir David, with a severe glance at Jean, which spoke volumes of reproof and some disdain. "Then, when I do so, you will see that no court, in the present state of Scotch law, could deny the marriage. Listen. This is the note written by the man to the woman he has married:

"'My Dear Little Wife:—I hope you have partly recovered your fatigue. When you are ready to receive me let me know, as I am anxious to see how you are. Will you forgive me for having taken such a liberty with your sketch-book? Your affectionate husband, Andrew Blair.'"

"And this," continued Sir David, putting down one note and taking up the other, "is her reply:"

"'My Dear Husband:—I am quite ready to receive you, and I am anxious that you should see me in my charming toilet. Don't apologise for using my paper. I thought that a wife's property was less hers than her husband's. You see I have a proper notion of what my prospective duties are. Your affectionate wife, Jean.'"

"Jean wrote that!" said Lady Sholto, in surprise.

"She does not deny it," said Sir David, coldly. "And, whatever your ladyship's opinion may be I can hold but one. She may have repented for what she has done, but she was a willing agent throughout."

Jean lifted her brown eyes with a touch of hauteur, which faded almost immediately.

"The note was written in jest," she said, feebly.

Sir David shrugged his shoulders incredulously.

"I am sorry to appear discourteous to a lady," he said, quietly, "but I cannot alter my opinion, and I am certain that any judge trying the case would hold the same."

"Archie," cried Jean, suddenly turning to him for the first time, and stretching out her hands in an agony, "surely you do not doubt me?"

Greatly as his faith was tried, deeply as he was suffering from her folly, his trust in her and his love for her shone undimmed still.

"No, love—no," he said, instantly. Then he went a step forward. "Will not ignorance of the law affect the question, Sir David?"

"No, it has been decided otherwise," said Sir David.

"Then all is hopeless," said Lady Sholto, bursting into a passion of tears. "Oh! Archie—Archie, my brother!"

"Hush!" said her husband, imperatively, seeing that the Earl's anguish was almost unbearable.

Mr. Blair came slowly round the room towards Jean, who was standing perfectly still and motionless, with a dull, calm despair, dreadful to see, settling over her face.

Lord Sholto pushed open one of the glass doors leading on to the lawn, and led the Earl out, dumb, passive, unresisting; stricken to the earth by the blow which had fallen upon him.

Sir David and Mr. Cantire looked very much distressed and uncomfortable. Lady Sholto sobbed passionately; but Jean stood as if turned to stone, with the same stupefied, submissive despair on her face.

Mr. Blair moved forward, and put his hand gently on her arm; and at his touch the life came suddenly into the still, carven face, which woke into an expression of the most intense horror and bitterest contempt.

"Do not touch me!" she said passionately, in a voice very unlike Jean McLeod's—"do not touch me! I loathe you! I hate you!"

Mr. Blair sighed a patient sigh, which enlisted all Sir David's sympathy.

"You are speaking to your husband, madam," he said, in a grave reproof; and the anger died out of Jean's face, and she turned her eyes to him with a dumb anguish in their depths.

"I forgot," she said, slowly, "Must I go with him?"

"He has a right to compel you," was the quiet answer.

Jean shuddered.

"Sir David," spoke Mr. Blair, in a quick, aggrieved tone, "this is inexpressibly trying to me."

"I can well believe it," said Sir David; and again Mr. Blair turned to his wife, for she was that, poor Jean!

This time she suffered his hand to rest upon her arm, but for a moment only; for he had barely touched her when, like a woman shot through the heart, she fell, like a log, at his feet.

CHAPTER XVI.

THE MORNING AFTER.

"It is altogether a most unfortunate business," said Sir David Cairnes, a few hours later. "But your ladyship must excuse me for holding to my first opinion. Mr. Blair is an unusually fascinating and excessively handsome man; and you yourself own that Miss McLeod was attracted to him on their first acquaintance. Indeed, her husband tells me that he himself overheard her say to Lord Ivor that 'she would marry Mr. Blair if she chose.'"

"Yes, but she had been quarrelling with Archie," said Lady Sholto, quickly.

"About some remonstrances he had made about her conduct with Mr. Blair," said Sir David coolly.

"No, no, Lady Sholto, I am an old man, and my judgment is calm and impartial, my knowledge of human nature tolerably extensive, and I believe firmly that Miss McLeod married Mr. Blair, knowing she married him; and if she afterward repented, it was seeing your brother's suffering and at the thought that she had lost a title."

"You are prejudiced against poor Jeanie," said Lady Sholto, sorrowfully.

Sir David smiled, glancing down at the little lady with a kind glance in his cold blue eyes.

"Prejudiced," he repeated. "My dear child, is that possible? I never saw her until to-day, I never heard of her except as a very charming young lady to whom Lord Ivor was betrothed. How, then, could I be prejudiced against her? I look at things as they are, dear Lady Florence," he went on, gently. "Your kind heart and your affection for your brother and your friend are likely to lead you astray in your judgment. Mr. Blair is all that is kind and considerate, also, in his dealing with his wife, and, for my part, I think he is greatly to be pitied."

"Oh! Sir David!"

"I do, indeed, Lady Sholto. His wife is a woman of strong feelings, a woman who will hate well; and I foresee many a cloud on the sky of their domestic life."

"Poor Jeanie!" sighed Lady Sholto.

"And poor Mr. Blair," smiled Sir David. "Has Mrs. Blair decided on leaving Sholto Hall?" asked Sir David, after a pause.

"Yes, she prefers going; she says she cannot stay here without her brain giving way," said Lady Sholto, sadly. "And it is better for Archie's sake that they should go."

"Poor fellow, where is he?"

"With my husband," said her ladyship, with a stifled sob. "They are in his study."

"How does he bear it?" said the advocate, in a tone of sympathy.

"He says nothing, or very little," said Lady Sholto; "but he looks unutterably wretched. Arthur says he dares not leave him. Oh! Sir David, he loved her so passionately."

"Poor laddie," said Sir David, softly. "It is hard for him; she has deserved her share."

"Oh, hush!" said Lady Sholto, passionately. "If you could see her, Sir David, you would think more gently of her."

And Lady Sholto's thoughts flew to poor Jean, lying white and still on the couch in her dressing-room, tearless and motionless, with no sign of life save the awful sadness and pathos in the great brown eyes.

"They will not meet again," said Sir David, in a moment.

"Yes; Jean begged it, and Mr. Blair acceded to her request. To-morrow they are to say good-bye."

"When do the Blairs leave?"

"To-morrow, as soon as the shooting party have started," said Lady Sholto, wearily, as she went back to the drawing-room to her duties as hostess, duties terribly irksome just now, in her heaviness of heart, and the visitors, who had not failed to notice that something unusual must have occurred to occasion the absence of the Earl and their host, and Miss McLeod's indisposition, were on the *qui vive* of curiosity and expectation.

"Thank goodness that this party breaks up in a day or two," said Lady Sholto to herself, escaping from the drawing-room for a moment, and going swiftly along the passages to a small room Lord Sholto reserved exclusively for himself.

In answer to Lady Sholto's knock, her husband opened the door, and, seeing who it was, put out his hand and drawing her to him kissed her in silence, closing the door carefully after her; and

Lady Sholto went forward to her brother's side as silently. The Earl was leaning back in a deep, low chair, in an attitude of extreme fatigue or depression, his handsome fair head thrown back, his face worn with suffering, the beautiful proud face usually so kind and so gay.

"Archie, dear," said his sister, softly; and turning towards her with the faintest, saddest smile, he put out his hand and took hers. His palm was dry and burning with fever, and held her fingers in a close almost convulsive clasp. There was no light in the room but that given by a shaded lamp on the table; but that sufficed to show the young nobleman the tears in his sister's eyes, the tender pity on her fair young face, and drawing her to him he rested his head on her shoulder while Lady Sholto put her arms round his neck and stooped her cheek to his curly fair hair as tenderly and as gently as she nursed the sturdy two year old youngster in the nursery upstairs.

"Archie, dear Archie," she repeated, softly.

"Don't pity me, Florie," he said, hoarsely; "I cannot bear that."

For some minutes they continued thus, and looking over at her husband, Lady Florence saw that his eyes were dim with tears.

"How is she?" said the Earl, then, and his sister told him softly that Jean was better and wanted to see him in the morning, if he would see her once more.

"Does she think I am angry with her, Florie?" he said, looking up for a moment. "Foolish child, tell her, there is no room for any feeling but love in my heart for her. Tell her that if I could hope she would be happy I could bear my share of suffering—my poor Jeanie—my poor little love, *his* wife."

He turned away abruptly to hide the quiver of his lip, and fell upon the table, covering his face with his arms, and Lady Sholto went back to her guests with a feeling of pain which was new and strange in her heart, for she, like Jean, had lived in the sunshine hitherto, and knew not how to bear the storm.

As Sir David had said, Mr. Blair had been to all appearance exceedingly kind and considerate in his dealings with his wife. He had said that if she chose to remain longer at Sholto Hall, she was welcome to do so; but Jean, in her unselfish thought for her friends' feelings, knew that Mr. Blair's presence could not be but distasteful to them, and decided on going immediately to Blair Gates, which, her husband said quietly, had been some time in readiness to receive his bride. He acceded without hesitation to her wish to have a last interview with the Earl, for having attained his end he could afford to be generous, and the look which he had seen on Lord Ivor's face as his brother-in-law led him from the library, showed him plainly that his revenge had been complete, that not only had he won the wife whose person and whose fortune he coveted, but he had caused the man he hated the keenest, bitterest suffering it was possible to endure.

Cleverly his measures had been taken, he knew perfectly well that Sir David Cairnes would come to no other decision than the one arrived at, and that Jean was his wife legally and indisputably he was certain before the lawyer's inquiry had been made. He cared but little for her sorrow; he had been prepared for tears and fainting fits, he knew Jean well, and he knew that once installed at Blair Gates she would take her place as his wife in a way which would do him honor; while he knew that the Sholto's affection for her would not allow them to break off their acquaintanceship with her husband.

He knew that their pride, as well as Jean's would keep the chief facts of the marriage a secret, and that he would have the *eclat* of having carried off not only a beauty and an heiress, but the promised wife of an Earl; so it was in a very well pleased and self-satisfied state of mind that he betook himself to his slumbers on the night before his departure from Sholto Hall, a night which was to three or four of its inmates as wretched, nay, a great deal more so, than the previous one.

"I wonder how Emily likes it?" he said to himself, with a smile, as he put the finishing touches to his hair the next morning, "I'll be bound that she is in a fearful rage; but she'll keep outwardly within bounds for fear of my anger, and this little wife of mine has plenty of pluck and will stand her ground against her housekeeper. Brett is a very valuable woman though," he added, "and I should never get such another housekeeper, if she is obliged to go; for, of course, go she must, if she cannot keep the peace. Fortunately Jean is not likely to be jealous of her beauty, for she *is* beautiful and not one of the women here, not even Jean, is to be compared with her. It was lucky though, "was his conclusive thought, "that we were in Australia when I made her a certain promise, or I should find myself in the wrong box now, for she is a vindictive, clever woman, and would have soon found out a way of making me keep it."

And Mr. Blair, looking very handsome and *debonnaire*, went downstairs to breakfast, always an informal meal at Sholto Hall, and his first glance round the table showed him that both Lord and Lady Sholto were in their places, Lord Ivor was not present.

Lady Sholto's greeting was of the coldest, and her husband was too much absorbed in the *Times* to hear his guest's salutation. Andrew Blair smiled grimly to himself under his moustache, and, dropping into a seat by Sir David Cairnes, prepared to enjoy his breakfast with his usual appetite.—[To be continued.

RECENT LITERATURE.

Past Thirty. By Mrs. H. E. Monroe. Price 50 cents.

While this story lacks the symmetry and finish which characterize the writings of experienced novelists, there are abundant traces in it of earnest thought, careful study and original views of life.

The main drift of the story is that the chief passion of life comes after thirty. Love in all its phases, even the slow crucifixion of it after marriage, is portrayed with startling fidelity. To those wives who love their husbands too much—and there be many such—we commend the cure for love recorded in the twelfth chapter of the story. The advice given is practicable and wholesome.

Room for One More. By Mary Thatcher Higginson. Boston: Lee & Shepard. Price $1.25.

In this story the reader is introduced to some very charming little folks. To be sure, the conventional good boy is conspicuous by his absence, but the genuine "humanness" of the Rand children is infinitely more delightful than the abnormal righteousness of the much-extolled good boy; and while there are no very startling climaxes, the incidents are sufficiently varied and entertaining to make a most attractive story. This is reported to be the author's first venture in juvenile literature; if this is so, she has reason to congratulate herself on the success she has "scored."

MAGAZINES.

Demorest's Monthly—Contents for November.—Fashions—(Illustrated). Review of Fashions; Description of Plate; Illustrations Described; Fall and Winter Costumes; Fall Wraps and Winter Cloaks; Children's Costumes; Illustrations Described; Various Dresses and Hints on Children's Fashions; Seasonable Fabrics; Trimmings; Gloves, Shoes, and Hosiery; Coiffures; Millinery; Lingerie; Domestic Art. Miss Melinda's Black Bonnet, by Mrs. Annie E. Preston; Gentle Words (Poem); Mediæval and Louis Quinze Rooms, by Mrs. C. A. Merighi; Set Free (Poem), by Eben E. Rexford; Miss Harrington's Prediction (Concluded); Too Late (Poem); Flower Talks, New Series, No. 10, by Eben E. Rexford; Little Things (Poem); Nellie's Hermit, by "Chris;" Miscellany; M. Worth's Show Figures; A London Interior; High Art in a Western Court; The Art Students' League; Æsthetics; A Lost Continent; False Education; Red Canaries; French Collectors; The Little Sisters of the Poor; Wishes (Poem); Small Talk; Household Department; Recent Literature; Mosaics; Answers to Correspondents; Publishers' Department.

Fancy Costumes for Children.—As the season approaches when the little folks must find much of their amusement in-doors and may indulge in fancy costumes, impromptu or otherwise, the following descriptions of a few classical dresses from Mother Goose may be found acceptable:

"Mistress Mary, quite contrary."—Pink quilted skirt, with pictures of pretty girls all around, framed in silver cord; blue bodice and tunic, the latter cut in vandykes, with silvered bells and shells between each; hat of blue satin, and carries a small rake, hoe, and watering-pot.

"Little Miss Muffet."—Blue quilted skirt, overdress of pink opera in front, with square bodice and elbow sleeves; powdered hair, red roses in the hair, straw hat with blue ribbons.

"Humpty Dumpty."—Yellow-pointed shoes and yellow stockings. Short blue breeches vandyked round; loose sack belted in, blue hood, both vandyked round, and a basket of artificial eggs in his hand.

"Jack."—Shoes and silk stockings, black velvet breeches, long-skirted black velvet coat opening at the waist to show a cambric shirt; short cape of black velvet trimmed with gold braid, red rosettes on each cuff and each corner of the skirt of the coat, ruff round the throat, red velvet hat, a pail in his hand.

"Jill."—Striped red and white short skirt, looped-up tunic of blue, low bodice to match, with white pointed girdle laced with red. A Dorothy hat, with red and blue ribbons; pail in her hand.

"Polly, put the kettle on."—Pink skirt touching the ground, white and blue-striped tunic and bodice, muslin cap; little tea-kettles as ear-rings and locket, a tea-kettle hanging at her side and a kettle-holder worked with her name.

"Jack the Giant-killer."—Blue trunk hose, close-fitting red coat with short basque, confined by belt at the wait; sleeves tight to the waist, a puff at the top; slashed helmet on the head, and carries a shield and sword.—*Demorest's Monthly.*

The November Atlantic has several important articles. Perhaps the one which will attract most attention among thoughtful people is "The Prospect of a Moral Interregnum," by Goldwin Smith, who predicts a period of laxity and license in consequence of the alienation between religion and the scientific thought of the time. Col. Geo. E Waring, Jr., writes a curiously interesting account of "The Waldenses of To-Day." A skillful writer, whose name is withheld, discusses with great force and interest "Our Military Past and Future." The author of "Massy Sprague's Daughter" contributes "Sister Mary's Story," which is easily one of the best magazine stories recently printed. Jennie Young writes of "The Ceramic Art in America;" "Irene the Missionary" is concluded. "Englishwomen in Recent Literature," "Mysterious Disappearances," and "Late Books of Travel," though anonymous, are thoroughly interesting. Richard Grant White discusses "Assorted Americanisms" as heartily and freshly as if it were a wholly new topic. The Contributors' Club abounds in bright things, and a chapter of "Recent Literature" concludes a very good Atlantic. Scores of thousands will be delighted to learn that Mr. Howells will begin a new serial story in the January Atlantic.

The Prospect of a Moral Interregnum.—A collapse of religious belief, of the most complete and tremendous kind, is apparently now at hand. At the time of the Reformation the question was, after all, only about the form of Christianity; and even the skeptics of the last century, while they rejected Christ, remained firm theists; not only so, but they mechanically retained the main principles of Christian morality, as we see very plainly in Rousseau's Vicaire Savoyard and Voltaire's letters on the Quakers. Very different is the crisis at which we have now arrived. No one who has watched the progress of discussion and the indications of opinions in literature and in social intercourse can doubt that, in the minds of those whose views are likely to become—and in an age when all thought is rapidly popularized soon to become the views of society at large, belief in Christianity as a revealed and supernatural religion has given away. Science and criticism combined have destroyed the faith of free inquirers in the Mosaic cosmogony, in the inspiration of the Bible and the genuineness of many books of it, in large portions of the history of the Old Testament, and in the history of the New Testament so far as it is miraculous or inseparably connected with miracles. The mortal blow has been given by criticism in disproving or rendering uncertain the authenticity of the historical books of the New Testament.

Not supernatural religion alone, but the existence of a Deity itself, has for many minds, and those the minds of good, able, and highly instructed men, ceased to be an object of distinct belief, if it has not become an object of distinct disbelief. The emancipated and emboldened lips of science have met the theist's argument of Design with the apparent evidences of the absence of design, waste and miscarriage in the heavens and the earth, seemingly purposeless havoc and extinction of races; while philosophy has breathed doubt upon the logical validity of the reasonings which satisfied the apologists of former days. The argument of Beneficence is encountered by the perplexing array of the cruelties—often apparently gratuitous cruelties—of nature. Above all, creation is supposed to have been supplanted by evolution, which, in spite of partial objections, lingering doubts, and the imperfections sure to be found in any newborn theory, is to all appearances destined soon to be the creed of the world. With the belief in a Deity perishes that in the immortality of the soul, which, apart from animistic superstitions and special fancies about the other world, is a belief in the connection of the human soul with the Eternal. Nothing apparently is left but the secular consequences of conduct, human law, which the strong may make or unmake, and reputation, which success, even criminal success, may to a great extent command. That which prevails as Agnosticism among philosophers and the highly educated prevails as secularism among mechanics, and in that form is likely soon to breed mutinous questionings about the present social order among those who get the poorer share, and who can no longer be appeased by promises of compensation in another world.—*By Goldwin Smith in November Atlantic.*

St. Nicholas For November opens the seventh volume of that magazine, with wider margins, thicker paper, twenty-eight additional pages, two frontispieces, a red-line title-page for the volume, sixty or more pictures, and fourteen short stories. Among the chief features of the number are: a lively home story by Mary Mapes Dodge, the editor; a story by Sarah Winter Kellogg of How some Dolls Broke the Law; an indescribable story, The Gudra's Daughter, written by Frank R. Stockton in his peculiarly funny style; a description of the Centaur Boys of Thrace and their games, and "go-as-you-please" matches, with three illustrations by the humorous artist, F. S. Church; an ice-raft story of a boy who saved Mrs. McGlinty's Pigs from an icy death; an account, by a boy, of how he hunted Jack-rabbits in Kansas; a short story of the Life of the Lost Dauphin, with a frontispiece portrait of the little prince, engraved from a painting by Greuse; and a thrilling historical story of the Black Prince and Philip the Bold, telling how when boys they fought like heroes at Crecy and Poitiers. This last paper is illustrated with two striking full-page battle-pictures.

A new serial story of boy-pranks, fun, and out-door life, written by William O. Stoddard, author of Dab Kinzer, and entitled Among the Lakes, is begun with a lively installment; and there is an exciting account by Frank H. Converse of a lad who was left Adrift on the Ocean, visited a wonderful volcanic Island, and had many strange adventures.

An Article by Olivo Thorne, illustrated with eleven pictures by Jessie Curtis, describes the Playthings of all times and climes; and a clearly written paper with carefully prepared diagrams, tells how to make A Few Pretty Things in Fancy Work.

The Very Little Folk have four pages of large type and four pictures to themselves; and the departments, Jack-in-the-Pulpit, Letter Box and Riddle Box, are crammed with funny items, the boys' and girls' letters, and riddles of all sorts.

VARIETIES.

A PETITION TO TIME.

Touch us gently, Time!
Let us glide adown thy stream
Gently—as we sometimes glide
Through a quiet dream!
Humble voyagers are we,
Husband, wife and children three—
(One is lost—an angel fled
To the azure overhead!)

Touch us gently, Time!
We've not proud nor soaring wings;
Our ambition, our content,
Lies in simple things.
Humble voyagers are we,
O'er Life's dim unsounded sea,
Seeking only some calm clime:—
Touch us gently, gentle Time!

Barry Cornwall.

The Responsive Chord.—In the early spring of 1863, when the Confederate and Federal armies were confronting each other on the opposite hills of Stafford and Spottsylvania, two bands chanced one evening, at the same hour, to begin to discourse sweet music upon either bank of the river. A large crowd of the soldiers of both armies gathered to listen to the music, the friendly pickets not interfering, and soon the bands began to answer each other. First the band on the Northern bank would play "Star Spangled Banner," "Hail Columbia," or some other national air, and at its conclusion the "boys in blue" would cheer most lustily. And then the band on the Southern bank would respond with "Dixie," or "Bonnie Blue Flag," or some other Southern melody, and the "boys in gray" would attest their approbation with an "old Confederate yell." But presently one of the bands struck up in sweet and plaintive notes, which were wafted across the Rappahannock and caught up at once by the other band and swelled into a grand anthem which touched every heart, "Home, Sweet Home?" At the conclusion of this piece there went up a simultaneous shout from both sides of the river. Cheer followed cheer, and those hills, which had so recently resounded with hostile guns, echoed and re-echoed the grand acclaim. A chord had been struck, responsive to which the hearts of enemies—enemies then—could beat in unison, and on both sides of the river,

Something down the soldier's cheek
Washed off the stains of powder.

THE SAME CANTEEN.

There are bonds of all sorts in this world of ours;
Fetters of friendship and ties of flowers,
And true-lover's knots, I ween;
The girl and the boy are bound by a kiss,
But there's never a bond, old friend, like this—
We have drunk from the same canteen!

It was sometimes water and sometimes milk,
And sometimes applejack, fine as silk:
But whatever the tipple has been
We shared it together, in bane or bliss,
And I warm to you, my friend, when I think of this—
We have drunk from the same canteen!

The rich and the great sit down to dine,
And they quaff to each other in sparkling wine,
From glasses of crystal and green;
But I guess in their golden potations they miss
The warmth of regard to be found in this—
We have drunk from the same canteen!

We have shared our blankets and tents together,
We have marched and fought in all kinds of weather,
And hungry and full we have been;
Had the days of battle and days of rest,
But this memory I cling to and love the best—
We have drunk from the same canteen!

For when wounded I lay on the outer slope,
With my blood flowing fast and but little hope
Upon which my faint spirit could lean,
Oh, then I remember you crawled to my side,
And bleeding so fast it seemed both must have died,
We drank from the same canteen!

[*Charles G. Halpine.*

The following stanza contains every letter in the alphabet:

Except with zeal we strive to win
God's just and holy love,
We cannot conquer strife and sin,
Nor walk with Him above.

A Chinese proverb says:

When sabers are rusty, and spades are bright;
When prisons are empty, and granaries full;
When the steps of temples are worn, and of tribunals are grass-grown;
When the doctors go on foot and the bakers on horseback;
The Empire is well governed.

The Latest English Idiocy.—An entirely new pastime has been invented in England for country houses in the shape of tea-tray tobogganing. The way of it is thus described by a correspondent of Vanity Fair; "You take a tea-tray to the top of a good flight of stairs, sit in it, hold on to the sides of the tray with both hands—and let yourself go. If you manage well you slide down the whole flight of stairs quickly and easily, and bring up on the landing at the bottom; if you don't manage it properly, you turn round when part of the way down, and get a good crumpler. The advantage of this game is that ladies can play at it, and in the house where I saw it played they tobogganed far better than the men, who generally lost their tray and themselves half way down the stairs."

A Baby Socrates.—He is a very small boy, just beyond the limits of babyhood. His precociousness is well recognized by those that know him—and sometimes people try to corner him in a logical way. The other day some one took him up and asked him if he was papa's boy. He answered yes. "Are you mamma's boy, too?" "Yes," replied Charley. "Well, how can you be papa's boy and mamma's boy both at the same time?" was asked him. "Oh," replied Charley, indifferently, "can't a wagon have two horses?" That settled his questioner.

"ONLY."

From "only" one word many quarrels begin.
And "only this once" leads to many a sin.
"Only a penny" wastes many a pound,
"Only once more" and the diver was drowned.
"Only one drop" many drunkards have made;
"Only a play" many gamblers have said.
"Only a cold" opens many a grave;
"Only resist" many evils will save.

Poor Grammar Betrayed Him.—Prof. Thomas, recently connected with Butler University, was noted chiefly for his exactness in the use of vernacular. One night he was awakened at an unseemly hour by discordant sounds of midnight revelry from the direction of a student's bedroom. Dressing himself hastily, he hurried down the hall, and, after a few knocks on the bolted door to enforce silence, he called out, "Hi, you fellows in there! Can't you make less noise?"

"Who's out there?" was the response.

"It's me."

"Who are you?"

"Professor Thomas."

"You're a liar. You can't fool us. Thomas would have said, 'It is I.' Come on boys, just once more." And the strains of "Landlord, fill the flowing bowl!" resounded through the house till daylight. The affair was never alluded to by the Professor.—*Evening Argonaut.*

Domestic Economy.

CONDUCTED BY EMILY MAPLE.

MRS. ENDICOT'S JOURNAL.

Apple jelly; how to make and flavor; to put away; delicate cakes.

Oct. 11.—Betsy's brother brought a load of apples to market this morning and as he called to see if I wanted any, I bought half a bushel, thinking they would make nice jelly. They were a tart apple—Maiden's Blush, he called them. Betsy first washed and wiped them, then we cut them into quarters and filled a good-sized porcelain kettle, adding only enough water to keep them from burning. When soft we strained them through a coarse muslin bag, then through a finer one, and put back on the stove with three-quarters of a pound of sugar to every pound of juice. In about twenty minutes the first kettleful was ready to come off. I always take out a little into a cup and set it in cold water, and if it commences to thicken at once, I know the jelly is done and that there is no danger of its having to be boiled over. When the next was done, I stirred into it extract of vanilla, until it tasted strongly of it—one has always to remember that food flavored while hot, tastes stronger of the extract then than it will when the mixture has become cold. The last kettleful was flavored with strawberry. Apple jelly made in this way is very nice, and as it is liked by almost every one it is very handy for the table. While Betsy prepared tea I cut rounds out of the finer kinds of brown paper that comes around tea and dry-goods. These I wet in cold flour and water, mixed as for starch, and put over my glasses, bowls and cups of jelly, pressing down smoothly around the sides.

Oct. 12.—The first thing I did this morning, so as to get it out of the way, was to mark my jelly. The paper covers were dry and as tight as drum heads. On each of them I wrote with pencil the kind, naming them by the flavoring. I have found that the best place I have to keep anything of the kind, is in the dining-room closet. They should be where it is cool, dry and dark.

After the children had started to school and when Katy was sleeping, I went into the kitchen and finding the cake box entirely empty, concluded to try a recipe given me by Miss C—, called

Delicate Cake.

One and a quarter cup of sugar, half a cup butter, half a cup of milk, three eggs, two cups flour, into which has been thoroughly mixed one and a half teaspoonful of baking powder. The eggs should be beaten in last. Flavor with nutmeg and bake in little tins—I used my gem irons. When cold, frost. Two eggs will be sufficient for the frosting. These proportions made in my pans two dozen and one cakes. Think next time I will double the quantity, for, if put away in stone jars, they will keep moist for a week, or longer.

HYGIENIC FOOD.

Being somewhat interested in hygienic cooking, and not seeing very much on the subject in the RURAL, I thought a few words would stir up the contributors on the subject. We are a nation of dyspeptics; and would it not be well to try and make our dishes more easy of digestion? It is well known that hard-boiled or baked eggs are very indigestible. Can any one tell us whether they are as indigestible when baked in custards, cakes and pies? Let us have some receipes for puddings, pies, etc., that will be palatable and *healthful*. E. H.

DOMESTIC RECIPES.

To Cure Hams.

Cover the bottom of the cask or barrel with coarse salt; put in the hams with the skin side down and sprinkle over fine salt. Place in another layer of hams and so on until all are in. Make a brine according to the following proportions: Nine pounds of salt, four pounds of brown sugar, three ounces of saltpetre and one ounce of saleratus to six gallons of water. Boil, skim and when cold pour into the cask until the hams are entirely covered. Let remain in this pickle three months.

MRS. A. M.

Cranberry Sauce.

Look over and wash a quart of berries, put on to cook with a coffee-cupful of water. Stew slowly, stirring often, for an hour or even longer. Take from the fire, sweeten liberally with white sugar, put through a fine colander and let form in a wet mold.

Chocolate Tartlets.

Grate one half cake Baker's chocolate; rub smooth in four tablespoonsful of milk. Heat over the fire, add four tablespoonsful of white sugar and a tablespoonful of vanilla. Stir constantly. Then whip in the beaten yelk of four eggs and a tablespoonful of melted butter. Make and bake some rich tartshells, put a small spoonful into each, cover with a meringue made of the whites and a little powdered sugar, and put into the oven until delicately browned. MARY B.

Chocolate Drops.

Two and one-half cups of granulated sugar and a half cup of water boiled for four minutes. Flavor with vanilla. Then beat with a fork until cool enough to make into little balls. Have half a cake of Baker's chocolate melted and roll the balls in to the chocolate.

Roast Goose.

Stuff with a dressing of finely mashed potatoes, seasoned with minced onion, pinch of sage, butter, pepper and salt. Before making the gravy skim off a good deal of the fat in the pan. MRS. A. E. B

Roast Turkey with Oyster Dressing.

Take a loaf of stale bread, cut off crust, crumble fine, add butter, pepper and salt. Strain the liquor from off a quart of oysters, bring to a boil and pour over the crumbs, adding the crusts previously soaked. Fill a well dressed turkey first with a spoonful of dressing then three or four oysters and so on until all are in. Draw together, rub butter, pepper and salt over the turkey, place in a dripping pan, pour in half a pint of hot water, and roast in a well-heated oven from two and a half to three hours. Baste frequently with a little water, butter, pepper and salt, kept in a cup on the back of the stove. Half an hour before it is done baste and dredge with flour. When making the gravy if there is much fat in the pan pour off most of it, add the chopped giblets with the water in which they were boiled. Thicken with flour—browned—made smooth in a little cream. Season. MRS. BRAYTON.

THE NOVEMBER SCRIBNER (of which 100,000 copies are printed) opens with two frontispiece portraits of Bayard Taylor, one engraved by Cole from the large photograph by Gutekunst, the other by Juengling from a replica of the bronze bass-relief by the sculptor O'Donovan, which was executed for Cornell University.

An interesting feature of this number is the first installment of The Grandissimes, Mr. Cable's new story (and first novel) of Creole Life, which succeeds Mrs. Burnett's Haworth's, and is to be one of the principal attractions of the magazine for the next twelve months. The opening scene is at a masked ball at the old Theatre St. Philippe, New Orleans, at which there is some lively coquetry on the part of two of the characters, ending in their unmasking to each other; later chapters describe the approach of immigrants up the Mississippi, and relate the ancestry of the great Creole families of the Grandissimes and De Graplons, the feuds of which are the basis of the story. It is a field combining fresh and diverse elements of interest, and one that Mr. Cable has made his own.

Ably supplementing the part of The Grandissimes relating to the river, is the paper on the Mississippi Jetties, by Mr. E. L. Corthell, the resident engineer at Port Eads. There is a portrait of Captain Eads, and the work is made clear by plans. A timely paper on The Agricultural Distress in Great Britain is contributed by Mr. P. T. Quinn, of the New Jersey State Agricultural Association, who concludes from personal observation of English farming during the past year, that it has irretrievably lost its prominence as an industry of the kingdom. This effect is attributed partly to the system of renting, partly to the conservatism of the farmers themselves, but chiefly to American competition. A strong contrast to this state of affairs is presented by Mr. Henry King's Picturesque Features of Kansas Farming, which incidentally shows an unexampled state of prosperity; Illustrated papers of an interest somewhat allied to these are on Rare Lawn-Trees, by Mr. Samuel Parsons, Jr., of Flushing, L. I., and on Success with Small Fruits, by Rev. E. P. Roe, of Cornwall, N. Y. Both of these papers are by experts, and contain much information for the planting season.

Nine other papers give variety to the number, viz.: an account by Clarence Cook of Mr. Morris Moore and his Old Masters, with three engravings, including one by Cole of the celebrated Apollo and Marsyas of Raphael, discovered and owned by Mr. Moore, a painting which it is hoped may be purchased for America; the first part of Mr. E. C. Stedman's critique of Bayard Taylor's poetry and literary career, involving the consideration of other American literature before the war; a curious study of How Animals get Home, by Mr. Ernest Ingersoll, whose conclusion is against any special "homing instinct;" a picturesque illustrated article by Mr. W. H. Rideing on The French Quarter of New York; Extracts from the Journal of Henry J. Raymond, edited by his son, Mr. H. W. Raymond, and principally devoted to reminiscences of Webster and the campaign of 1848, including Webster's opinion of Clay; a paper on the habitat and game qualities of The Michigan Grayling, by the late Thaddeus Norris; the fourth installment of Mr. Henry James's Confidence, in which the scene changes to America, and two clever pieces of romance—one a story of Americans in Europe by Mrs. Elizabeth A. Read, entitled A Sigh and the other of the Schleswig-Holstein war, by Mr. H. H. Boyesen, entitled Ilka on the Hill-top, and introducing a Swiss yodeling song.

The poetry of the number is contributed by Austin Dobson, Mary Mapes Dodge, Charles G. D. Roberts (a young poet of promise), William C. Bonaparte Wyse (three sonnets on his cousin, the Prince Imperial), Mary J. Jacques, and Eliza O. Hall.

In his department of Topics of the Time, Dr. Holland writes of Peter the Great—apropos of Mr. Schuyler's history, to be published in Scribner, and discusses The Nation's Doctors and Is Life Worth Living? The Home and Society department contains practical advice on Weaning the Baby by Catherine Owen, and a paper from Charles Barnard on Light, Heat and Power for the Householder, considering "what has been done and what is likely to be done in these fields of domestic economy." Culture and Progress includes a long review of Haeckel's Evolution of Man and other notices. The World's Work treats of Important Advance in Metallurgy, Improved Builder's Platform, Novel Application of the Pendulum to Useful Work, etc. Bric-a-Brac, which is principally taken up with light satire, is especially bright.

GOOD COMPANY NUMBER TWO.—The opening sketch by Octave Thanet, is at once vigorous and pathetic, in which all the characters have been drawn from life. The central figure is a western Methodist minister who against his will drifted in his belief toward Schopenhauer's ideas. Other characters are a brother clergyman, a noble illustration of Methodist warm-heartedness, and a lady from Pittsfield, Mass., with her husband.

Another vivid portraiture is Mr. W. M. F. Round's description of an experiment he made in smoking opium in a Chinese opium den in Boston.

The Men of Lake Tahoe graphically pictures the hardy lumbermen of that wonderful and beautiful California lake, six thousand feet above the sea in the Sierra Nevadas, and some experience on its shores.

Around St. Paul's describes some of the endless and interesting peculiarities of London.

The stories are A Fragant Vase, by Mr. Horace E. Scudder, A Kid of the Goats, by Mrs. Lizzie W. Champney; and the Cornet Solo, by Miss Elizabeth W. Denison.

The verses include one of Miss Elaine Goodale's charming flower poems, Fringed Gentian; and others by Mrs. Celeste M. A. Winslow, Mrs. Mary Bradley, and Mrs. Helen Ekin Starrett.

Rev. Dr. James M. Whiton has Bible Bygones; there is a *resume* of the various Sunday laws of the different New England States, given apropos of the recent Sunday discussion in Norwich, Conn. an article on the charities for children in New York; an article by Mr. Arthur Dilman entitled The Gospel Doctor, timely in view of the five hundredth Wiclif anniversary which occurs next year; The District Attorney and crime by Rev. Charles Caverno; and a sketch, Nooktown Gossip.

WHERE THE BEEF COMES FROM.

THE November Lippincott's contains a timely and interesting article on "Where the Beef Comes From." The following extract shows from what small beginnings our present and ever-increasing beef traffic sprang:

It was during the last days of the war that the Texan cattle-trade first assumed large proportions. At that time Northwestern Texas was swarming with cattle, which possessed little or no value on their native ranches. They were not a choice breed. Large, raw-boned, with wild eyes and long outspread horns, fierce in temper and forbidding of aspect, they were about as low a grade of the bovine race as could be found. The cows were never milked and the oxen never yoked. Still, their flesh was meat, though dark in color and rather coarse in flavor and texture, and meat was at that time in active demand at the North. Some large government contractors tried the experiment of importing them. They found that they could buy two-and three-year-old steers in Texas at six to eight dollars per head, and sell them in Missouri at thirty to thirty-five dollars per head. This paid very well. At first only small droves—or "bunches," as they are called in the West—of from three hundred to five hundred head each were bought; and so careless were the Texan stock-raisers, and so high was Northern credit, that the bunch was usually paid for by note at twelve months. The cattle were driven North through "the Territory" (Indian Reservation) to the Neosho Valley, and thence along the boundary-line between Missouri and Kansas. Coffeeville was one of the favorite markets of the day. Old cowboys still speak of it with oaths. It seems that it produces the largest and most blood-thirsty herds of musquitoes in the West, and on hot nights the cattle, driven to frenzy by their insect tormentors would stampede and scatter over the country.

In the course of a year or two the profits of the business became an open secret, and capital was embarked in it by several dealers in St. Louis and Chicago. From a few hundred head the bunches swelled to a thousand or more and the price of three-year-olds rose in Texas to ten and fifteen dollars. Simultaneously, settlements began to thicken on the Kansas border, and, the settlers naturally objecting to periodical invasions of wild cattle, the Northern rendezvous was moved to the vicinity of Topeka. It did not stay long there, for many reasons, and after a general consultation among dealers, Abilene, a new town on the Kansas Pacific, some twenty-five miles farther west, was selected as the future cattle market of the Western country. It was surrounded by rolling prairies still covered with buffalo-grass, well supplied with water, easily reached from the South and connected with the East by a line of railway.

News of the Week.

MISCELLANEOUS.

MONDAY, November 1st, 1879.

Before this shall have reached most of our readers, the November elections, which now engross the greatest share of public interest, will have been decided by the votes of the people, so that any thing that could now be said in reference to that matter, would be useless. In this State all parties seem to be working hard, and each expresses itself confident of effecting the object it has in view. The Robinsonites say they will gain enough of dissatisfied Republicans, mostly "Scratchers" to compensate for the handful of John Kelley's followers who have bolted the regular Democratic nomination. John Kelley, while bitterly denouncing all newspapers that fail to support him, is still confident of a sufficient "backing" to enable him to defeat Robinson or rather Tilden whom he is really fighting; Cornell's or rather Conkling's followers, express a quiet confidence of success, and that the "Scratchers" are not equal to even a very small fly on a very big wheel, especially as they call themselves Administrationists, yet Secretaries Evarts and Sherman have spoken here against their movement. The "Scatchers," on the other hand, say that if they cannot defeat the Republican candidates whom they are fighting, they will at any rate so reduce the majority for Cornell and Soule below that of the ticket, that their strength will be apparent to everybody, and that scratching nominations which one disapproves is the best way to secure good ones. Well, to-morrow will settle all these questions.

Senator Zach Chandler is dead. He was found dead in his bed at the Grand Pacific Hotel, Chicago, early on Saturday morning, after having delivered one of the most powerful speeches of his life before an audience of 5,000 persons the previous evening. The coroner decides that he died of an inrush of blood upon the brain—apoplexy. The dead statesman was born at Bedford, N. H., Dec. 10, 1813. He received an academic education; but when quite young moved West and settled in Detroit, Mich., then a mere trading post but lately surrendered by the English. He started in the dry goods business, which he followed successfully until 1850, when he first took part in politics in opposition to Gen Cass, who at that day domineered political matters in Michigan as head of the local Democratic party. The desperate struggle which followed between the old Democratic party under the veteran leader Cass, and the young Republicans under Chandler resulted in the election of the latter to the Senate in the winter of 1857. There he took a prominent part in the violent discussions that preceded the outbreak of the late war, being always one of the boldest and most out-spoken of the Republican leaders. During the war he was the author of the Committe on the Conduct of the War which contributed greatly towards the ultimate triumph of the Union arms. He was re-elected to the Senate at the end of this first term, in 1863, and again in 1869; but at the close of his third term in 1875, he was defeated by Christiancy during the anti-republican flurry of that time. In October 1875 he was made Secretary of the Interior by Grant, which position he held to the end of the latter's administration on March 4, 1877, gaining the reputation of being the very best official who had ever held the position. He was always noted for his radical Republicanism, and his hatred of Great Britain; but not even his bitterest enemy has ever ventured to reflect on his personal integrity, which won him the sobriquet of "Honest Zach Chandler." In his business and real estate transactions he acquired a large fortune—several millions—and had the reputation of being very liberal. His loss is deeply mourned by a host of friends everywhere.

During the past week death also claimed Gen. Joseph Hooker—Fighting Joe Hooker—who died at Garden City, Long Island, where he had for some time made his home. He was born at Hadley, Mass., in 1815; graduated at West Point in 1837; served in the Florida and Mexican wars with distinction and was gazetted captain, major and lieutenant-colonel for gallant services in the battles of Montery, National Bridge and Chapultepec. In 1853 he resigned his commission, and become a farmer in California. At the beginning of the civil war he re-entered the service and was appointed brigadier-general of volunteers in March, 1861, and served in the neighborhood of Washington until March, 1862, when he took command of a division of the army of the Potomac. He was made major general in the following May and took an active part in McClellan's peninsular campaign. He was made brigadier general of the United States army in September of the same year and commanded a grand division under Burnside at the battle of Fredericksburg. He succeeded the latter in command of the army of the Potomac on January 26, 1863, and fought the battle of Chancellorsville at the beginning of May. On June 27 he resigned the command on account of a "difficulty" with Halleck, and was succeeded by Meade. In September he was placed in command of the 12th and 13th army corps, which were concentrated at Chattanooga, and took an active part in the series of battles fought there under Grant in November, and was made brevet major general for his services on Lookout Mountain in his "Battle above the Clouds," on which some discredit has lately been thrown by Gen. Grant. While in command of the Army of the Cumberland—the 20th army corps—he was prominent in the operations about Atlanta. He resigned his command in 1864 in consequence of a dispute about rank. In September he was placed in command of the Northern Department; in 1865 in that of the East, and in 1866 in that of the Lakes. He was mustered out of the volunteer service on September 1, 1866, and on October 15, 1868, was made brevet major general of the United States Army, and retired from the service. Since then his time has been chiefly passed in elegant leisure.

Dakota is the next candidate for Statehip, and is being put forward as a proper community to be admitted to the Union, especially by Republican newspapers. The late Dr. Francis J. Lemoyne, the American apostle of cremation, was of French descent, and so ardent an abolitionist in his younger years that he was nominated as vice-president on the ticket with James G. Birney in 1839. He was also the first abolition candidate for Governor in Pennsylvania, and founded a college for colored people at Nashville, Tenn., to which he gave $30,000. He was so economical that he burned candles instead of gas, and is said to have piled up $300,000. Though full of eccentricities and whims, the old man was charitable in his way, and had a native shrewdness and acquired fund of information that made him a good companion. Sir Fran-

cis Hincks, president of the Consolidated Bank of Montreal, has been convicted of signing false returns of the bank's condition. This is the fall of a distinguished man, for Sir Francis was instrumental in negotiating the reciprocity treaty with the United States in 1854; promoted the construction of the Grand Trunk railroad; was Canadian Minister of Finance from 1859 till 1872, and his reputation as an able financier made his name a tower of strength in the commercial world.

The Ohio river is lower than it has been for 20 years, and navigation between Pittsburgh and Cincinnati is suspended. This has doubled the price of coal at Cincinnati and accumulated 18,000,000 bushels at Pittsburg awaiting a heavy rainfall. The continued drought has damaged wheat in Ohio and Indiana. Robert Bonner sold a number of his trotting horses at New York Wednesday, about 5,000 persons, including prominent breeders and sporting men, being present, but the prices brought were generally low. "Keene Jim," a four-year-old, with a record of 2.18¾, went for $4,000 to Charles A. Dana of the New York Sun; and "Prince Imperial," dam the celebrated "Flora Temple," record 2.23¾, for $1,425 to W. F. Osborn of Ansonia, Ct. The congressional investigations of this recess will cost $20,000,—much less than was expected. Wright's labor committee has used up $7,000, the Ingalls investigation $4,000, the Cheyenne $5,000, and the Civil-Service researches in New England about $3,500.

According to latest reports, the trouble with the Ute Indians is in a fair way to be peacefully adjusted. The head chief, Ouray, and Gen. Adams are now negotiating for the surrender to the United States of the hostiles who were engaged in the late outbreak; Mrs. and Miss Josephine Meeker, together with Mrs. Price and her two children, the only known survivors of the White River agency, have been surrendered, and have arrived among their friends at Denver and Greely, Col. Gov. Pitkin, of the latter State, however, urges the extermination of all the hostiles and the removal of the other Utes to another reservation, together with the forfeiture of their present possessions, including some of the finest farming and supposably the richest mining lands in the State. Gen. Merritt's command is in winter-quarters, two miles from the destroyed agency, where winter has already set in, in snow and bitter cold.

FOREIGN.

The south of Ireland has applied to the British government for the inauguration of public works to be paid for by the national government to relieve the threatened famine during the coming winter. The petitioners have been referred to the Lord-Lieutenant at Dublin. There is little prospect now that Parliament will be dissolved this year. It must be next, as the term of the present House of Commons then expires, and the Conservatives hope by that time to be in a better position to face the country in a general election. There is a growing coolness between England and France, owing to the latter's jealousy of the former's increasing friendliness with Germany. It is now said that the agreement between Bismarck and Andrassy stopped short of a definite treaty by which each was to guarantee the integrity of the other's possessions, and that it is limited to a pledge of friendship whose object is to secure the peace of Europe, so that other countries also can join in.

Great Britain and Russia are still watching each other with no friendly eyes. The former insists that Turkey shall begin the promised reforms in Asia Minor; Turkey says she can't, and, it is said, she is supported by Russia in her refusal. The British fleet has been ordered into Turkish waters. England and France are not going to have it all their own way with regard to the settlement of Egyptian matters. Italy, some time since, claimed a voice in the matter, and was pooh-poohed; now Austria puts her finger in the pie, and as there is a heavy hand behind it, the other parties respect it. This new move of the Kaiser is considered a result of his recent alliance with the Emperor William. The inundations in Spain are still devastating the southeastern part of the country. Upwards of 3,000 deaths are known to have resulted from the floods, besides enormous losses in property.

In Afghanistan, the English have hung eleven of the highest dignitaries in the country for the part they took in treacherously killing Cavagnari and his attendants. The Ameer, too, if not actually guilty of instigating the murder, was certainly grossly careless in permitting it as it has been pretty clearly proved that he could have prevented it. had he tried; but although urged to do so by one of the principal native priests, he remained calmly passive while the handful of British were assailed. He has just offered his resignation to Gen. Brown, the English commander and the latter has accepted it, and issued a proclamation assuming control of the government of the country and urging the native chiefs to peace. It appears the present intention to portion the country among petty chiefs subject to Great Britain. The Ameer is doubly guarded, as he has just manifested a desire to escape.

Iceland is progressing famously under the liberal constitution granted by King Christian five years ago, and elects its new Parliament, the second, next year. Though taxation is light; there is a growing surplus in the treasury; compulsory education has been introduced and receives popular support, and convenient roads are building throughout the island.

It is a generation of old men which troubles the peace of Europe to-day. Prince Gortchakoff is 82, Lord Beaconsfield 74, Prince Bismarck 65, Count Von Moltke 79, and the Emperor William 83. The youngest of the leading figures in diplomacy are old—Count Andrassy 56, and Count Schouvaloff 52.

THE season for contracting that disagreeable and really serious disease, Catarrh, is at hand. Dr. Sykes, of Chicago, has a remedy that he offers this week, in which he has the greatest confidence. He has the most positive assurance of those who have tried it that it will do all that is claimed for it.

Consumers desiring the very best Chocolate or Cocoa should purchase that prepared by Walter Baker & Co. Established in 1780. Walter Baker's Chocolate has no superior, and its standard is always maintained. All grocers sell it.

NO SAFER REMEDY can be had for Coughs and Colds or any trouble of the throat, than "*Brown's Bronchial Troches.*" Imitations are offered for sale, many of which are injurious. The genuine Bronchial Troches are sold *only in boxes.*

Kidney and urinary trouble is universal, and the only safe and sure cure is Hop Bitters—rely on it.

Get Lyon's Patent Heel Stiffeners applied to those new boots or shoes before you run them over.

THE MARKETS.

PRODUCE AND PROVISIONS.

NEW YORK, Saturday, Nov. 1, 1879.

BEANS AND PEAS.—Receipts of beans for week 6,864 bush.; exports, 1,365 pkgs. All grades of beans show an important advance, the chief change occurring during the last three days. Some of the strength is derived from speculation, but there is a good business for use even at the decided advance. Green peas firm at $1.95@2; Southern B. E. peas weak at $2.35@2.40 per 2 bush. bag; Canadian peas nominal. Most of the arrivals go abroad direct. Mich. field peas, 75@80; marrow beans, new, $2; old, $1.70@1.85; medium, $1.80@1.85; pea, $1.90@1.95; white kidneys, $1.95@2; red do., $1.70@1.90; black, $2. Exports of peas for week, 10,500 bush

BEESWAX—Shows a small business and 21½@22½c. quoted for Western and Southern.

BUTTER.—Receipts for the week, 41,601 pkgs.; do., last week, 33,377. Exports, 1,143 do. The week has developed that State butter is largely controlled by New York merchants, and a general marking up of prices has followed an active demand to hand and abroad. The new rates have not been sprung upon buyers, but are consequent upon the reduced fall receipts of choice. Farmers may feel a little sore at having parted with their dairies so early, since the market has taken such a favorable turn for owners, but there is this consolation; it is a long time since capitalists have had confidence enough to warrant them in taking a winter chance with long lines, and the events of this season indicate that butter in future will hold a legitimate speculative position. Most of the larger lots have been secured at figures which will permit sellers to humor the demand for consumption; that is, any good buying tendency will not be checked by extravagant ideas. The cause of light supplies this fall is owing to so much butter having been sent in fresh. This had to be done in many instances, as the season was a peculiar one and lent a risk to holding. Western butter is doing comparatively as well as State.

State, pails and tubs, single dairy marks, fresh ends, 3 @ 30c.; best invoices, 28c.; good to prime, 25@27c.; fair to good, 23@25c. firkin and tub single dairies, choice, 28c.; do., dairies good to prime, 24@26c; do., firkins, choice dairies, 26@27c.; do., good to prime, 24@26c.; do., fair to good, 22@24c. Welsh tubs, best invoices, 26@27c; do., good to prime, 24@26c.; do., fair to good 22@24c.; State, tubs, poor, 19@21c.; State creamery, best invoices, 34c; do., good to prime, 30@33c.; do., sweet cream, best, 31@32c.; do., fair to good, 28@30c.; Creamery, poor to fair, 27@28c.; Western imitation creamery, 25@25c. do., dairy, fresh, extra, 24@25c.; do., dairy, good to prime, 21@23c.; do., fair to good, 18@21c., poor to fair, 16@18c. do., June, 18@22c.; factory, best invoices, June, 19@20c.; do., fair to good, June, 17@18c.; do., best invoices late made, 20c.; do., fair to good, 18@19c.; do., poor to fair, 16@18c.

CHEESE.—The export movement has been very slack all through the week, but holders have been unwilling to recede and have held firmly 13@13½c. for fancy factories. Stocks have steadily accumulated, but they are carried along with confidence under expectations of an early revival of export trade. The shipments for the week are 28,700 boxes. Fancy, 13@13½c.; good to prime, 12@12½c.; fair to good, 11@12½c.; half-skimmed at 10@10c.; skimmed at 6@7½c. State farm dairy: Fine at 12@12½c.; good to prime at 10½@.2c.; fair to good at 9@10½c.; skimmed at 6@8c. Wis. factory: Fine at 12½@13; good to prime at 11½@12½c. Ohio factory: Cheddar, fine, at 12½@12½c.; do., fair to good, 10½@11½c: flat, fine, 12½@13c.; flat, good to prime, 11½@12½c.; flat, fair to good, 10@11½c.; half-skimmed, 8@10c.; skimmed, 3@7c.

Receipts for week, 69,520 boxes; exports, 27,539 do.

Liverpool cable, 62s.; steam, 40s.

COTTON.—There has been an active market, and closing firm at for November, 11.14@11.15c.; December, 11.10c.; January, 11.22@11.23c.; February, 11.37@11.38c. March, 11.54@11.55c.; April, 11.68@11.70c; May, 11.84@11.85c.; June, 11.97@11.99c.; July, 12.07@12.09c.

DRIED FRUITS.—Apples have a fair demand partly on export account, and prices ruling firm. Peaches are quiet and unchanged. Small fruits are also quiet.

New North Carolina apples, quoted at 6¼@8c. for fair, 8½@9c for choice; 10@10½c. for fancy sliced. Patent evaporated apples, choice, in cases, 13c.; do. fair to good, 10@12c.; N. Y. State sliced good, old, 5@5½c.; and choice held higher, in small lots up to 8@9c; quarters, choice, 5@6½c.; western quarters, common and old, 3½@4½c.; new southern quarters at 4@4½c. new N. C. peeled peaches at 14@17c, do. Georgia, 12@13c. Peaches, Delaware evaporated, peeled at 25@27c.; do. unpeeled at 10@11c.; new halves at 7c. Blackberries at 9@9½c. for new. Raspberries at 28@28½c. Pitted cherries at 18@19c.

EGGS.—Receipts for week, 7,681 bbls.; do. last week, 5,709 do. Sales continue moderate, though the demand is steady. Quality must have a better reputation before a large business springs up. For prime fresh lots the market is doing better. Limed quoted at good figures, considering they have lost most of an ordinary selling worth.

Near points, 23@24c.; State and Penna., 21@22c.; Western and Canadian, fresh, 20½@21c.; poor, 18½@19½c.; limed, 16@17½c.

FLOUR.—After rather a lull in the early part of the week, there is a more active trading, and prices have recovered and closed firm.

Latest prices: Ia 25@5.75 for inferior to very choice superfine state; $5.50@5.85 for inferior to good extra do., odd lots and lines; $5.85@6.10 for good to choice do.; $5.25@5.75 for inferior to fancy superfine Ind., Iowa, Michigan &c.; $5.50@5.85 for inferior to good shipping extra do., and $5.85@6.10 for good to choice shipping extra do.; common to about choice white wheat extras, $6.10@7.00; choice to fancy do. at $7.00@8.25; red and amber winter wheat, inferior to very choice trade and family at $6.10@7.65; round hoop Ohio at $5.65@6.25, and trade and family brands of do. at $6.30@7.75, the latter rate for very choice; St. Louis, $6.10@7 for inferior to very good extra; $7.00@8.50 for very good to very fancy; Minnesota clear, inferior to fancy $5.60@7.00; Minnesota "straight," very inferior to fancy, $6.25@8.00 (fancy held higher), and patent poor to very fancy at $6.35@9.00; unsound stock at from $4.50@6.50 city mill extra at 16.25@6.60, ordinary to fancy, for West Indies; do. for England, $5.50 5.85 for poor to choice; do. trade and family extras, $4.35@6.75; do. for South America No. 2 at $4.35@4.85 for poor to very choice (an extreme).

FRESH FRUITS.—Exports of apples past week, 12,654 bbls. Apples look stronger than before this season. English advices are good for good stock, and in the home trade fewer other items now conflict with apples. Pears not much of a feature.

Apples—King of T. C., per bbl., $2.57@3; Baldwin, $2.25@2.50; Greening, $2@2.25; winter mixed, $ @2.25; common, $ @1.75 Cranberries—Cape Cod, good to fancy, bbl., 80@1.50; other, Eastern $5@6.75; N. J., crates, $1.50@1.87. Pears—Vicar per bbl., $2.50@3; Lawrence, $4 5; Seckel, $2@4; cooking, $1.50 2.50; Boston boxes—Beurre Clairgeau, Duchess, Beurre Bosc, Beurre d'Anjou, $2.25@3.50. Quinces, per bbl., choice $2@3; $1@2. Grapes easy again. Catawba, cases, 18 3 lb. boxes, $3.50. loose, 4@4½c.; Isabella, cases, $1.50@1.75; loose, 2@3c. New peanuts, per lb., 3½@5½c.; old, 85c.@$1.05 per bush.; chestnuts, $2.25@3; hickory, thin shells, $1@1.50 per bush.; B. walnuts, 50@63c.; Pecans, 9@10c. per lb.

FURS AND SKINS.—Foreign advices indicate very slight interest in the late offerings. Common American skins, such as muskrat and skunk, very much neglected.

GRAIN.—Wheat has shown sharp fluctuations, but closed somewhat better and more active; latest sales are of No. 1 amber at $1.41½@1.43; No. 2 amber at $1.40½@1.41½; ungraded amber at $1.33@1.41; No. 1 white at $1.40@1.42; do., for November, at $1.41½@@1.42; do., December option, at $1.46@1.47½; No 2 white, at $1.36; ungraded white at $1.30@1.38; No. 2 red at $1.41@1.42½; do., November option, at $1.41½@1.44; do., December option, at $1.46@1.48; do. January option, at $1.50½; No. 3 red at $1.33@1.35; ungraded red at $1.12½@1.41; mixed winter at $1.39; New York No. 2 spring, at $1.50; do., November option, at $1.31; do., December option, at $1.35½@1.36; No. 2 northwest spring, December, at $1.36; No. 3 at $1.24@1.27; ungraded spring at $1.29@1.31. Rye is firm at 58c. for State, and 85@87½c. for No. 2 Western. Corn closed higher and fairly active; latest sales of New York No. 2 at 59½@59½c.; do., Nov. at 59@59½c.; do., Dec at 61½@61¾c.; New York steamer mixed at 57c.; do., Nov. option, at 57c.; ungraded Western mixed at 58@59½c.; round yellow at 64½@66c.; low mixed at 60½c. Oats are more active and closed strong in price; closing prices are for New York No. 1 white at 43½@44c.; do., No. 1 white at 41@41½c; do. No 3 white at 40c.; New York No. 1 at 41c; New York No. 2 at 41½@41c.; New York No. 3 at 39@39½c; New York rejected at 38@38½c.; ungraded white Western at 40@45c.; mixed Western at 40@41c.; white State at 41½@44c; mixed State at 40½@41½c.; No. 2 Chicago at 41c.

HAY AND STRAW.—Receipts are moderate, and prices rule firm.

Shipping hay quoted at 50c.; retail lots at 50@65c. for medium, and 70@90c. for prime; clover at 40@50c. Straw at 65@70c. for long rye, 45@50c. for short rye and 45@50c. for oat.

HOPS.—Emmet Wells in his circular says: "Although the exports to London show a considerable falling off from last week, the market has ruled strong all through the week, with a good demand from brewers, and the price 1 2c. per lb. better on all descriptions of new hops the range now being from 32@45c We hear of one sale to a brewer of about 101 bales as high as 48c, on 60 days' time. Old hops have not changed in value, and seem quite neglected."

	Bales.
Receipts for the week	7,793
Total receipts since September 1, 1879	45,236
Total receipts for same period in 1878	14,048
Export clearances for the week	3,700
Total exports since September 1, 1879	31,933
Total exports for same period in 1878	1,785

Quotations are for New Yorks, new crop, choice, 43@45c; New Yorks, new crop, medium, 37@40c. New Yorks, new crop, low to fair, 32@35c.; Eastern, new crop, 32@42c.; Wisconsin, new crop, 32@42c.; Yearlings, 7@8c Old, all growth, 4@10c; Pacific coast, new, 37@42c.; Pacific coast, olds, 9@14c.

HONEY.—Sales still of a retail character. Crop held to be lighter this year than last; this may help rates when the weather becomes seasonable for use. White clover, single comb, 18c.; larger boxes, 14@15c.; buckwheat, 12@14c.; extracted clover, 11@13c.; strained, 8@10c.

OIL-CAKE.—Western is quoted at $29.50@30 per ton.

POULTRY AND GAME.—Receipts of live poultry are large; shippers are sending a good many rough ends of broods. Prime fowls and chickens are in good demand, but prices are very low as the dressed receipts are drawing a large rate of trade Fowls and chickens range 8@9½c.. turkeys, 8@11c.; ducks, 40@60c.; choice geese, $1.50; other, $1@1.37.

Dressed poultry is in good supply, and the demand is enlarging. Many common cases and barrels are included which sell little better than live. Avoid mixing fowls and chickens in same package when the latter is of a commercial size. The demand for turkeys will improve this month.

N. J. Turkeys, 12@13c., fair to best, other, 10@12c.; Phila., dry-picked, 13@15c.; do., chickens, 13 16c.; good to prime, other, 11@13c; common, 9@.; Phila., dry-picked fowls, 12@13c. good; other, 10@12c.; poor, 8@9c. Ducks, P. d p. 12@14c; other, 10@14c. Geese near by 10@ 2c.; Western, 9@10c. Squabs, white, $2@2.25 per doz; dark, $1@1.50.

This week opens the quail market, a possible rate is $1.5 @2. There is a fair demand for good quality, birds. Southern pigeons not wanted.

Partridges prime, ₱ pair, $1 15 poor to fair, 75c.@ 1. Grouse, $1.50. Woodcock, 45@50c.. Wild pigeons, stall fed, per doz., $1.75; dark, flight, $1.25@1.50. English snipe and plover $1.75@2. Canvas back ducks, per pair, $1.7 @2. Red head Mallard, 70@75c. Teal, 50@60c. common, 30c. Venison saddles, Minn., 18@ 19c. State, 18@19c. Whole deer, 11@13c. Rabbits, per pair, 40@50c.

PROVISIONS.—Hog products have been active and have shown violent fluctuations. Mess pork closed at $10 for Nov.; $10.10 for Dec; $10 20, sellers' option, old or new for Jan. Bacon at 6¾c. for long clear nom 6¾@6¾c. for short clear. Beef at for plain mess at $10. 0@ 1; extra mess at $11@11 50; packet at $12 @13; tierced beef, city extra India mess, at $24@25, and Philadelphia do. at $ 5@24. Beef Hams at $15.50 @16.75. Lard—Western steam at $6.70 for spot lots, $ .65@6.67½ for November, $6.77½@6.80 for December, $6.90 for January and $7 for February. Stearine at 7¾@7¾c. for city and 6¾@7c. for Western.

SEED.—Grass are quiet and easier. Clover quoted at 9@9½c.; timothy at $2.50@2.75; flaxseed at $1.45.

TOBACCO.—Export trade is without improvement, but the home demand is good for seedleaf. Prices are without change.

VEGETABLES.—Exports potatoes past week, 3 800 bbls. The market is a shade stronger. The advance in beans has some effect upon local sales; last prices paid more freely. Early Rose, per double-head bbl., $1.25@1.50; bulk, 1.12@1.37; Peerless, State, $1.12@1.25; N. J., 80c.@$1. Sweets dull; Del., $1.25@2.50; N. J., $1.50@1.75; Va., $1.50@1.75. Onions higher. Green corn, per 100, 25@75c; tom toes, L. I., near-by, per crate, 7 c.@$1; string beans, ₱ bag, $1.25@1.50; potato Lima beans, $1.75@2; Lima beans, flat, $1.50@ 1.75; squash, marrow, ₱ bbl., 50@75c.; do., Hubbard, $1@1.25; cabbage, per 100, $2 50@4.50; onions, white, per bbl., $2 50@2.75; red, Eastern, $2@2.25; do., Chester, $2@2 25 yellow, $2.25@2 50; beets, N. J., 75@87c.; Russia turnips, Jersey, 50@75c.; carrots, 75c.; egg plant, L. I and near-by, ₱ 100, $2@3; pumpkins, per 100, $2@5; cauliflower, ₱ bbl., 1.50@2.50; celery, per doz., $1@1.50

WOOL.—Trading is brisk and supplies are being reduced materially, with prices harder to get. Latest sales of XXX and picklock Ohio at 45@46c.; X and XX do. at 41@44c.; XX do. at 44c. medium Pennsylvania at 46@47c.; medium unwashed Western at 36c., spring California at 29@33c.; new fall do. at 20@ 30c.; scoured do. at 65c.; spring Texas at 22@33c.; fall at 26@27c.; scoured do. at 6 @70c. Oregon at 31@35c.; Utah at 28½c.; Nevada at 27c; washed combing at 43c; Mexican at 17@18c.; domestic pulled at 37@45½c; Cape at 28@30c.

LIVE STOCK MARKETS

NEW YORK, Saturday, Nov. 1.

BEEVES.—Receipts for the week, 14 362 head; do. last week, 13,208 do. Trains arrived late and a more stagnant market followed Buyers appeared not to want cattle at any price, though tempted by concessions, first of $1 per head, afterwards of ¼c. per lb., and in some instances cattle were offered at less than cost in Chicago and not sold. The best 40 cattle in market were from Southern Ohio, weighing close to 1,570 lb average, and sold at 10c. per lb., to dress 57 lbs., with $1 per head on 13 and 50c. per head on 12, and a few other premium cattle reached 10c. per lb., and 10c. per lb. with $1 per head off; but 9¾c., to dress 56 lbs., was about the top figures today, even for extra Ohio and Kentucky steers of 1,500@1,600 lbs., and not a few poor native scrubs went as low as 7@7½c., to dress 56 lbs. Texas, Cherokee and Colorado-Texas steers ranged from 6c., to dress 55 lbs, up to 7c., to dress 55 lbs. About 100 fat steers were purchased for the export trade at 9¼@ 9¾c. per lb., to dress 56 lbs.

COWS AND CALVES.—There is no change to note; former prices are extreme.

VEAL CALVES.—A good demand prevails for good to extra; prices for fed running a good average through. Live calves, Jersey & Buck's Co., choice, 7¼@7½c.; prime, 7@7¼c.; State, choice, 7@7¼c. do., prime, 6¾@6¾c.; fair to good, 5½@6½c.; Mt. Holly, 200 to 250 lbs., 6¾@6¾c., 250 to 300 lbs., 6@6¼c; 300 lbs. up, 5@5¼c.; buttermilk, 3@4c., grass, 2@2½c; hog-dressed, 9@10c.

SHEEP AND LAMBS.—Receipts for the week, 41,405 head; do. last week, 37,705 do. The market has ruled dull and weak. Latest sales show a decline. Sheep, 3½@4½c.; lambs, 4½@5½c.

SWINE.—Receipts for the week, 40,143 head; do last week, 39, 37 do. There is a firm tone for live few unsold.

City-dressed, 5½c.; heavy, 5¾c., pigs. Hogs, Jersey, dressed, 40 to 70 lbs., 6@6½c.; 70 to 100 lb., 6@ 6¼c; 100 to 150 lbs, 5¾@6c.; 150 to 200 lbs., 5¼ 5¾c.; 200 lbs. up, 5@5¼c. Live hogs, State, light, per 100 lbs., $4.12@4 25; medium, heavy, do., $3.75@3.87; Western, $4@4.30; tenderloins, prime, per lb., 8c.

TERMS FOR 1879.

THE subscription price of THE RURAL NEW-YORKER is

Single Copy, per Year	$2 00
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Reading for the Young.

THE NATIONAL SABBATH SCHOOL MEETING.

MRS. W. C. G.

DEAR RURAL YOUNG FOLKS:—I want to tell you something about Chautauqua Lake, and its great Sunday School Assembly. But first let me tell you where Chautauqua Lake is. Most of the Geography scholars in the States of New York, Pennsylvania and Ohio, can point to it readily on their maps, for it has become so famous, that it is a familiar household word; but we must not forget that the dear old RURAL visits children in the far West, in the sunny South, in Canada, and even finds its way to the isles of the ocean. Chautauqua Lake is a lovely sheet of water eighteen miles in length, and from one half to two miles in width, in the western part of the great State of New York. It is the highest water in the world, navigated by steam, (2) being 1300 feet above the level of the sea, and more than 700 feet above Lake Erie, from which it is distant about eight miles. On account of its cool, bracing, and healthy air, it has become a famous summer resort for the tired and heated pleasure seeker from the city. On its shore near the head of the Lake, are located the grounds of the National Sunday School Assembly, and it is of this Assembly I wish to tell my little friends. Happy is the child, whose parents own a cottage, or strike a tent on this delightful camping ground during the three weeks in August, which include the meetings. There are so many things to please the eye, and render the long summer days a constant round of enjoyment aside from the instruction one receives, that it seems almost a fit representation of Paradise. Besides the boating and bathing, there are the rambles in the woods to gather ferns and wild flowers, rustic seats and rustic bridges over ravines, fountains, statuary, and flowers. In addition to the Auditorium, which consists of seats in the open air, where the audiences gather in pleasant weather, and the vast Amphitheatre whose roof covers seats for six thousand people, the good men who love children, and are trying to do all they can to induce them to grow up in the good way, have built a Children's Temple, which is dedicated entirely to the service of the little folks. Here they gather every morning for Sabbath School which is made so entertaining and instructive, that it is always a pleasure for the children to assemble. On the last day but one of the Assembly of 1879, the children marched to the music of the band to the Amphitheater to listen to Dr. Vincent's story about

THE MAGIC BOOK.

I must tell you that Dr. Vincent was the originator of this great Sabbath School enterprise, and is such a wonderful man, that he at once wins the hearts of all the children and, I may add, the hearts of the grown people likewise. I wish I could make you realize with what breathless expectation he held the attention of every child, for his manner was so winning, and his story so fascinating, that I am sure no one of the vast audience either young or old, will ever forget it. I must needs tell you in a few words his story of an hours length, which of course must lack a great deal in interest, but I hope you may glean a useful lesson from it. Dr. Vincent said: "I am going to picture to you this magic book, of which if I had sufficient money I would have a copy printed and presented to every boy and girl in the land. On the first page, beautifully illustrated and surrounded by lovely flowers and vines, is an N., nothing more. On the next page still more beautiful, if possible, than the first, is a C., nothing more. On the third page—in letters of gold beautifully embossed and decorated is another N. nothing more. On the fourth page transcendently bright and lively, is another C, nothing more. Turn the page, and lo! glittering in glory again, appear the magic letters

N. C.—N. C.

Now who can tell me what these magic letters signify?" A few, only of those who had been held spell-bound and mystified, had divined the meaning, and a few voices answered triumphantly, "*No Cross, No Crown!*" "No Cross, no Crown" repeated the Dr. "you have guessed rightly my dear children. These words are the key-note to success all through life, and he or she who is not willing to work, and wait long and patiently, need not expect to win. I will tell you of two girls, Anna and Mary, we will call them. Each had a present of a fine piano from her kind papa, with which of course she was much delighted. Anna, not satisfied with the lesson, and the regular hours of practice assigned by her teacher, begged permission to practice six hours. She was sure she would never tire. Well, the first day she practised four hours, the next three and a half, the next three, the next two, and before a week was gone her mother had to urge her to practice the one hour. Before the end of a month a piano was the 'meanest old thing' she ever saw, and she wished she had never had one. Her teacher wished her to practice only exercises that she might, as it were, become familiar with the alphabet of music, but she soon tired of this and began to tease her mother to let her take a piece, 'just one piece,' and her foolish mother consented, and her teacher much against her will was obliged to comply.

The consequence was she learned to play just four pieces, passably well, which she played on all occasions, whenever asked. The other little girl, Mary, took her lessons and her practice daily, and though sometimes tired, and discouraged with the monotony of the exercises, and in her heart longing to 'take a piece,' yet encouraged by the kind words, and good counsel of her mother, persevered under the instruction of her teacher, till at last the day arrived when a quite difficult piece of music was placed before her—'May, can you play hat.' After looking at it a moment, 'Oh, yes that easy enough.' A still more difficult piece was brought, and still another, she played them readily. And now she reaped the reward of perseverance for the most difficult pieces of music were easily mastered by her, and all who heard her play praised her proficiency. One evening at a party, a group of young people were gathered in the back parlor when the sounds of a piano were heard. 'Who is that,' asked a young man who was a stranger in the place, 'Oh' replied another, that is Anna she can play just four pieces, and those are,—naming them. Surely enough the four pieces were played in the order named, and she arose from the piano, 'I told you so,' said the young man 'she always plays those four pieces, and nothing more.' Then Mary sat down, her skilled fingers ran over the keys, now in tones low, and sweet, as an Æolian harp now in wild bursts of melody like the joyous song of the lark, as he mounts up to meet the sun then in plaintive trills, or merry waltzes, till she showed herself complete mistress of the instrument, and sounds of enthusiastic applause went up from the company. And now she found her crown for her long working and waiting."

Young people, does not this story teach an important lesson? Dr. Vincent also told a story about two boys, which was quite as good, but I must not attempt to repeat it here, or Uncle Mark, will surely throw this in the waste basket, and then you will know nothing about the National Sabbath School Assembly.

A COUSIN IN THE BACK-WOODS.

DEAR UNCLE MARK:—I am a little girl ten years old to-day. I have a little garden planted with flowers. I have one flowering pea. I live in the back-woods twelve miles from any town. There are very few people here but there are plenty of bears and cougers. Uncle Mark, would you please let a little back-woods girl join your club? Now I will close. I hope my letter will not find its way to the waste basket. LAURA MCGEE,

Washington Ter., King Co., Sept. 23.

[It gives me much pleasure to hear from this little cousin, and to think that the influence of the Horticultural Club reaches to the very boarders of civilization. It is a very gratifying thought, that even in the back-woods of Washington Territory where the sound of the wood-man's axe is heralding the advance of the white man, where bears and wolves sneak about in search of prey, and where the log cabin is a palace for comfort, that even there I have a little niece who each week eagerly reads the letters from her many RURAL Cousins, who has her little garden, tends her flowers, enjoys their beauty and is happy. You, of my nieces and nephews who are much more favorably placed, and who are perhaps at times discontented with what you have, should at such moments think of this your cousin and be thankful for the advantages you enjoy.—UNCLE MARK.]

LETTERS FROM THE COUSINS.

DEAR UNCLE MARK:—I would like to join the Horticultural Club, and write you a letter occasionally. We have taken the RURAL for several years, and I am the first to read it. I am the only child and 13 years old. I was born in Galveston, and now live two miles from the city, on the beach, about a hundred yards from the Gulf of Mexico. I have a small garden of my own, and have now growing cauliflower, cabbage, lettuce, beans, mustard, etc. My father has a large garden, and I help to set the plants. We have out 9,000 cabbages, 4,000 cauliflowers and other vegetables. We often grow cauliflower heads measuring 20 inches across, which is very large, considering that we live on an island of sand. I wish the cousins could see our hedges of red and white Oleanders, and our beautiful Orange trees loaded with fruit. We have Roses and flowers both winter and summer. I am afraid this letter is too long, but you will hear from me again, as I have many interesting things to tell you of. Yours truly, LESLIE STRINGFELLOW.

Galveston Co., Texas.

UNCLE MARK: I hope you will give me a welcome to the Horticultural Club. I have read the letters, with much interest, for some time; and finding among the writers some as old as myself, I have concluded to become one of the cousins. I think there is much knowledge to be gained from such a club; and flowers are something in which nearly every one must take an interest. I see, too, that the members do not confine themselves strictly to this subject but discuss books, music, and anything that may prove interesting and profitable. I will make my letter only enough longer this time, to ask one question; how does Gynerium argenteum, Pampas Grass, look when it first comes up? Does it bear any resemblance to grass?

CARNATION.

New Bedford, Mass.

[How can a "Carnation" be otherwise than welcome to any Horticultural Club, particularly when she is in full bloom? Gynerium argenteum is a grass, and looks like one.—U. M.]

DEAR UNCLE MARK: I thought I would write and ask you to accept me as a member of the Horticltural Club. I am much interested in the letters from the cousins. I have a few house plants. Papa took the RURAL before I can remember. I, too, like it very much. He has promised to give me a garden next year. I am ten years old. Your friend. GRACE S. GREEN.

Jefferson Co., N. Y.

[I will enroll you, Grace, when you send me your post office address.—U. M.]

DEAR UNCLE MARK:—I would like to join the Horticultural Club. I have flowers and like to tend them. We have Zinnias, Phlox, Balsams, Asters, Cockscombs, California Poppy, Nasturtium, Pansies, Gladioli, Tuberoses, Four-o'clocks, and various other kinds; they are all doing well. We like the RURAL, and also the letters. I am 13 years old. If I see this in print I may write again. Your friend, SUSIE A. SHISLER.

Erie Co., N. Y.

DEAR UNCLE MARK:—I have a nice patch of Strawberries and Raspberries, also a number of choice house plants. The seeds we received from the RURAL did nicely. The Bronze Ricinus was quite a curiosity. I would like very much to join the Horticultural Club. Yours truly,

Broome Co., N. Y. FRANKIE WEDGE.

The Puzzler.

HIDDEN FEMALE TITLES.

1. Did you count Essie's rings?
2. I pity the lad you saw.
3. He said, "I am Adam."
4. He missed his lesson.
5. At the bar one's spirits raise.
6. I can dip R in cesspools.
7. Last March Ion essayed to study.
8. There is "Ledu," chess champion.
9. To get at the gem, press the string.

☞Answer in two weeks. LITTLE ONE.

ANAGRAM.

Hontlg, lijengero, rroosiwng,
Wonard hhtrugo file eh soge;
Hace romginn eess mose kast gebin,
Chae ecnnigv eess stl coles.

☞Answer in two weeks. M. SCHAEFFER.

DIAGONAL PUZZLE.

1. A consonant; 2. Duplicate vowels; 3. God's noblest work; 4. The cry of an ass; 5. A city of Nebraska; 6. Choice. Primals and diagonals form two trees of India.

☞Answer in two weeks. L. O.

HALF SQUARE.

A liquor; something we find in the papers; a cave; a girl's nickname; a consonant.

☞Answer in two weeks. UNCLE WILL.

DROP LETTER PUZZLE.

"Th-- sh-lt n-t st--l." Fill with vowels and find one of the Commandments. L. O.

☞Answer in two weeks.

PUZZLER ANSWERS.—Oct. 25.

HIDDEN GRAINS.—1. Wheat; 2. Rye; 3. Oats; 4. Corn; 5. Buckwheat; 6. Rice; 7. Barley; 8. Maize; 9. Flax; 10. Hemp; 11. Hominy; 12. Broom-corn; 13. Millet; 14. Hay; 15. Clover.

ILLUSTRATED REBUS.—POTATOE.

MISCELLANEOUS ENIGMA.—"Very prekoshus children are like very prekoshus fruit,—apt to drop off before they get ripe."

Sabbath Reading.

THE INFLUENCE OF JESUS.*

"THE Influence of Jesus" is the last book sent to us out of the life of Phillips Brooks. We say *life*, because in his words, more than in any words one is almost ever asked to read about religion, there seems to speak and glow the life of the man who writes them. The very atmosphere of life is in his sentences, because it is in his thought. The present work is remarkable. It is the best study of Christ's character and work we have ever read. Without aiming to write a life, he has done so, if a life may be written not so much by the orderly treatment of events, as by a disclosure of the heart which made events possible.

There are four lectures in the volume. They were delivered on the Foundation of John Bohlen of the Church of the Holy Trinity, Philadelphia. They discuss the influence of Jesus (1) on the Moral, (2) on the Social, (3) on the Emotional, (4) on the Intellectual Life of Man. The great question is, "What is the power of Christianity over man—its source, its character, its issue?"

The underlying idea which runs through all the lectures is, "The Fatherhood of God and the childhood of every man to Him." This is the *idea* of Jesus. The aim of His whole life is to redeem men into this Fatherhood of God. "His power is His idea multiplied by and projected through His personality."

With this conception of the life of Jesus, it is easy to see how these lectures become a familiar and loving study of Christ and His work. This is one of the charms of Phillips Brooks. Very many men take the incidents of the Incarnate life and treat them so that you feel them to belong foremost to a great theological being. Here, the first impression is of a man moving in and out among His neighbors. Coming into this man's life first, you then feel His power. The order is natural—first the man, and then, by acquaintance, the Son of God.

(1). His Influence on man's Moral life is to lift it up into the atmosphere of a Sonhood passing in and out before the Fatherhood. That relation is one of love, and so of obedience, and is therefore constantly deepening the Father's nature in the Son.

This makes Christian morality different from all other. "First, in the complete combination of pattern and power in the source from which the morality proceeds; second, in the combination of reason and authority in the basis upon which the morality is constantly recognized as resting."

The Father is the *pattern*—"Even as your Father which is in heaven is perfect"—and *power*—"that ye may glorify your Father which is in heaven." The *motive* is love, which consists of admiration and affection. Admiration for what Christ is doing, and then love because He is doing that for us, this is the way we come into the fullness of His moral life. Thus we realize in our sonship the Sonship of the Son of God. "The model and impulse of all duty He carried in His own filial heart, which was forever bearing witness to Him of His Father's perfectness." "Duty must have been its own revealer and its own reward." "The doing right and the being right must have been like the sunshine and the sun."

(2). His Influence on the Social life is founded on the same great idea. In the family, in social relations, in friendship, as teacher and citizen, always He and all men are foremost the sons of God. It is the power of all His relations with men, to redeem into this consciousness of sonship. It underlies the church which is a family of God's Sons; it gives meaning to Reform and Education. As this idea is realized in each man, his life becomes exalted and inspired. "It makes all history divine."

(3). His Influence on the Emotional life is a study of Christ living in His great idea and finding how "His life was ever coming out through His evident suffering or happiness, and entering into other men through the happiness and suffering that He awoke in them." Not because He was sad or happy, but because of what He did. Life first, and then what that *life* brought Him. That life is the idea of sonship which He is living out daily that He may make these men know that they are also the sons of God. "When that is touched behold the miracle! See how the dry roots of obedience fill themselves with love; see how the hard stalk of experience grows soft and pliable with purpose; and then see how the flower of pain utters a life profoundly deeper than itself, and tells the world that story which it is the struggle of all pain and pleasure in the career of Christ to tell, which all healthy pain or pleasure in the career of man is tempting him to learn,—of man's unbroken sonship to his Father, of the belonging of his soul to the soul of God." So there are two questions. 1. What is the position and meaning of enjoyment and sorrow in the life of Jesus? 2. In the life of His disciples? The discussion of these questions runs through (1) Physical joy and pain, to show His complete human life, to register the disorder of the world, and to develop His spiritual consciousness.

(2). Through His social life to show how perfectly He entered into men's relationships. (3). Through His moral life to show how acute was His perception of right and wrong. Moral emotions, enthusiasms, pains must be in his life. But they are always connected with the actual personal life of men. Whatever is right or wrong is viewed in its relation to men's honor or degradation. So also it is the Father who is insulted or honored. Enthusiasms are not with Him abstract, but living, real.

(4). His Influence on the Intellectual life of man is seen in the use Jesus makes of the word *Truth*. It is a word not of the intellect alone, but of the intellect together with the affections and the will. This comes out in the use He makes of it. "A man of the truth, is a man into all whose life the truth has been pressed until he is full of it." He is "always a complete being whose unity is in that total of moral, intellectual and spiritual life which makes what we call character." "He never simply knows, but loves and resolves always at the same time, with the same action."

We see constantly knowledge divorced from life, but in Him knowledge passes into life, and thus He speaks of His life as truth. So "the greatest men that have ever lived are those in whom you cannot separate the mental and the moral lives." "What God knows is the same with the love with which He loves, and the resolve with which He wills."

Here, then, comes into play the Idea of Jesus. He is the Son of God, and the Son of God is the repetition and manifestation of the life of God, and hence all the methods of that life must be found in the Son. Now to develop this in Him we see the deep significance of the Temptation and the Garden, where the question is not one of intelligence, but of will. This profound harmony in which He lived with the Father is seen in the many words strewn through St. John's Gospel like "As my Father hath taught me, I speak these things."

This completeness of *His* inspiration is the secret of His influence on men. "Not from simple brain to simple brain, as the reasoning of Euclid comes to the students; but from total character to total character."

In one word the eternal distinction between Socrates and Christ is found in this, that Socrates reasons and argues, *e. g.*, when he talked with his followers then in the prison before his death; while on the other hand Jesus is divinely certain. There is no shadow, because He is in the very sun-center of light. The Disciples gained certain characteristics of intellectual life from Jesus: "A poetic conception of the world combined with a willing acceptance of mystery; an expectation of progress by development; an absence of fastidiousness that comes from the sense of the possibilities of all humanity; and the enlargement of thought from the arbitrary into the essential."

Or, in other words, He the Son reproducing the Father's life; all men the sons to reproduce that same life. The world is sacred and full of God, progress is coming by natural development, sympathies are broadened to embrace all men, and special laws are doors which open into universal principles.

Everywhere the Fatherhood is over the earth like the heavens, and we are to move beneath it as the sons of God, doing His will and rejoicing in His life.

This is the brief outline of a most suggestive and noble book. It is the natural conclusion of premise. Accept the *idea*, and every page is its reiteration and every event of His life its disclosure

* The Influence of Jesus. By Phillips Brooks. New York; E. P. Dutton & Co.

PERSONAL ITEMS.

It is reported that Jefferson Davis is growing blind.

A missionary who returned from Zululand before the late war gives the pronunciation of Cetywayo as "Tsewayo."

Cabinet-size photographs of the late Gen. Hood's children are offered for sale in New Orleans, the proceeds to go to swell the $5,000 already contributed for the orphans.

It has been discovered that the sermon plagiarzed from the Rev. Dr. Parker of London by the Rev. Dr. Lorimer of Chicago, was also used by a Canandaigua clergyman as an original dedication discourse.

Mrs. C. M. Williams, who was elected president of the State National Bank, at Raleigh, N. C., in place of her husband, lately deceased, is the first woman to hold such an office in the history of this country.

Mary Dean, who made her entry into Indiana six years ago in a Bloomer costume, with a revolver displayed at her belt, and became a public speaker on woman's rights, now retires to a prison as a thief.

It is a matter of some interest at Washington to know who will take Thurman's place in the long winter evenings when he formed one of a whist quartet, the other three being Edmunds, Bayard and Conkling.

Orson Pratt, a leading Mormon, goes in for roasting every Gentile who says anything against his institution. More than that, he offers to furnish the wood and light the fire. Orson is a very liberal man.

Sir Garnet Wolseley is a little more than 40 years old, and after the Ashantee campaign he might have had a baronetcy that he refused. He did not, however, decline the $100,000 which were offered to him. He was badly wounded in the Crimean war.

Charles P. Edison, the inventor's nephew who died in Paris the other day, closely resembled his uncle in face, manners and intellectual promise. He readily became expert in handling the most intricate inventions and was looked to by his uncle for many points.

Robert P. Crockett, the only surviving son of "Davy" Crockett, has a farm near Granbury, Texas, and is the keeper of the bridge across the Brazos river at that place. Ashley Crockett, one of Robert Crockett's sons, is one of the two editors and proprietors of a flourishing newspaper of that region.

Ex-Governor Hubbard, of Texas, has gathered statistics to prove that there is less crime in Texas in proportion to the population than in one-half the other States. He thinks the next census will open the eyes of the world to the fact that before the end of the century Texas will have passed up to the head, the foremost State of the Union.

David Dixon and Mary Swinton were to have been married at 2 o'clock in the afternoon, at Embarrass, Wis. An hour earlier, he and others were in her room, where the finishing touches were being put on her toilet. An old pistol lay on her bureau. He supposed it unloaded, playfully snapped it at her, and shot her dead.

Henry Smart, the English musician, and composer of the music, "Hark, Hark, my Soul," "From Greenland's Icy Mountains," and of hundreds of anthems and sacred songs, was recently offered by the British Government the choice between a knighthood, or a pension of $500 a year. He chose the pension. Smart fellow!

Henry Bessemer, the English inventor, has taken out 160 patents. One of them, his process for making steel, ranks as one of the most brilliant inventions of the century. It converts pig-iron into steel in a few minutes, and has reduced the price of steel rails per ton from $200 to $30. Ten times as much steel is used in the world now as was used prior to 1856.

Sir Rowland Hill, widely known as the originator of the system of cheap postage in England, died in London, August 27th. His life was a long one, dating back to 1795; but until within six or seven years he was full of activity, and continued to render the English Government valuable service in many ways, and took a prominent part in bringing his admirable system before the American public.

Mme. Nilsson is to sing twelve times in opera at Madrid during the festivities in connection with the royal marriage. She will be paid eighteen thousand dollars. For singing in a single concert at Cologne on Dec. 6 Patti and Nicolini will receive twenty-two hundred and fifty dollars. Great singers are scarce nowadays, but they know the value of their voices and make the public pay accordingly.

Parnell, the Irish Home Ruler, has a slim and almost effeminate exterior, but an iron will. He has a harsh, monotonous voice and his manner is stiff, calm, cool, bloodless—he is a man nothing can move. O'Connor Power grows savage under the exasperating treatment of the House, and O'Donnell hisses his words through his teeth with ill-disguised resentment, but Parnell remains invariably imperturbable.

A new anecdote is told of Bishop Peck, of Syracuse. The Bishop's weight is between three hundred and fifty and four hundred pounds, and when, recently in the middle of the silent night his bed crushed under him, the gentleman at whose house he was visiting ran upstairs in great alarm. "What's the matter, Bishop?" anxiously inquired the host. "Nothing at all," groaned the clergyman, "just tell your wife if I'm not here in the morning to look for me in the cellar."

Antole Menloe is the name of a pretty but rather plump Indian girl who serves as a chambermaid in a hotel in Virginia City, Nevada. A number of ladies were expressing their admiration at its honey-sweet mellifluence the other day, when one of them bethought her to inquire the meaning of such delightful words. "Me heap big 'round," replied Antole in broken English, musically gurgled; "me heap big, and the squaws called me 'Antole Menloe' for 'fat goose.'"

Four Scotchmen, one of whom was Lord Dunmore, have been indulging in real heroism. A pleasure yacht was wrecked in the Hebrides, leaving four men, three women and two children on a desolate storm-swept rock, eleven miles from the coast. They clung there, with nothing to eat, and suffering intensely from cold, for a day and a half. No boat would attempt the perilous voyage necessary for their rescue, until Dunmore and his companions put out in an open fishing smack. The lives of all the nearly exhausted party were saved.

George H. Pendleton's entrance into public life was, he declares, an accident, "I really loved the profession of the law," he says, "and desired to practice it, and if I was to meet with any distinction, desired it to be there. It got into the head of my law preceptor, the late George H. Pugh, to want to be United States Senator, and he asked me to run for the Legislature, so as to be a vote there in his favor. I ran and was elected, and Mr. Pugh reached the Senate. I attributed my political career to nothing beyond the desire to gratify Mr. Pugh."

Haynes set himself up for a religious leader in Texas, even claiming to be a divinity, sent to earth to take charge of all spiritual affairs. He said that he was physically invulnerable, and that it was impossible for anybody or anything to hurt him. His converts, of whom there were hundreds believed his pretentions, and it was said that a bullet fired at his breast had dropped harmlessly at his feet. But there were scoffers at Corsicana, and they rode Haynes on a rail. His miraculous power failed him in this emergency.

Walt Whitman, who is resting at the home of his brother in St. Louis, gives his opinions of the American literary men: "Our greatest man is Emerson. Bryant, I think, has a few pulsations. Whittier is a Puritan poet, without unction—without juice. I hardly know what to say about Longfellow. Our living Bancroft and our dead Ticknor I think first-class men. Bret Harte is smart, facile and witty. But the best promise in America is in certain young men who are coming on the stage, though yet voiceless. They cannot speak because the magazines are in the hands of old fogies like Holland or fops like Howells. Yet they will burst forth some day."

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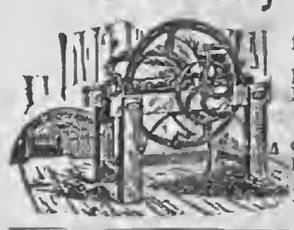
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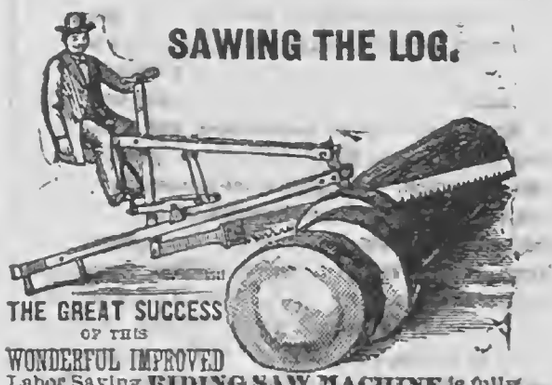

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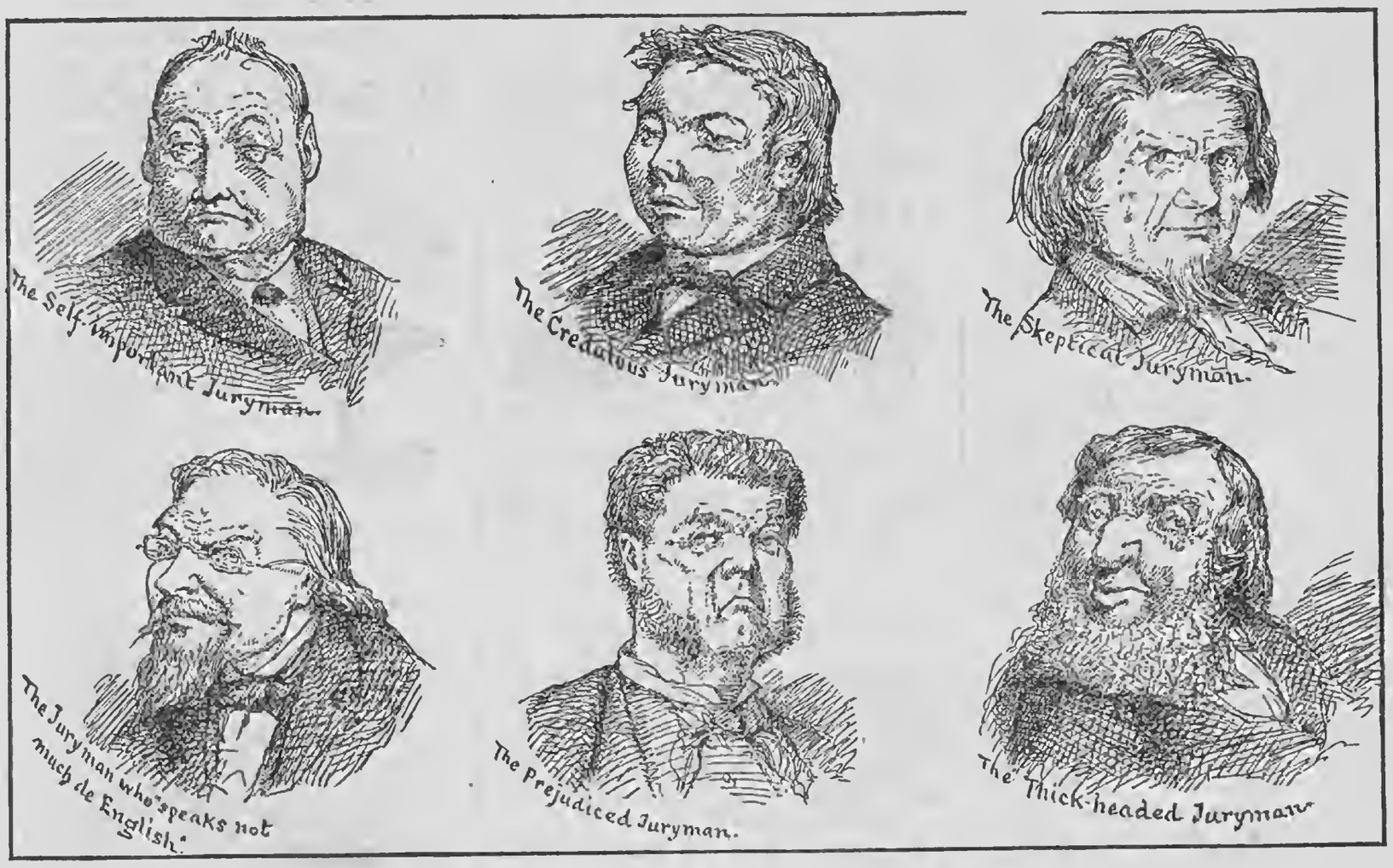

CHARACTER SKETCHES.--JURYMEN.

BRIEFLETS.

D. D. Simmons stated to the Farmers' Club, as reported in the American Rural Home, that he grafted the Pear on the Crab Apple last spring. The cions grew well till summer, when they died. . . Mr. Allis had met with success in grafting Apples on Crab and Pears on Thorn Apples (Cratægus). Had also grafted Pears on common Apples and "they did well". . . Mr. Smith knows of an instance in the eastern part of the State (N. Y.) where the Pear does well on the Mountain Ash. . . Mr. Reynolds asked if any one in his experience had ever known wheat destroyed by making too much growth in the fall? . . Mr. Fowler thought that if wheat grows till it makes a joint, it would be lost. . . Pres. Clark had tried the experiment of sowing one piece of wheat on the 25th of August and another on the 12th of September. The first now looks much the better. . . Mr. Allis thinks the best way to keep apples is to barrel and put them in a cool cellar. Mr. Reed picks and puts in barrels, unsorted, taking to fruit-house, emptying out, and leaving till cool weather before assorting and barreling. What are then sound will keep, and buyers will pay a shilling more for apples thus treated. . . Pres. Clark advises keeping till winter, when barrels will be cheaper and apples higher. "Put them in the cellar; keep them cool through winter. They will bring nearly twice as much in spring." . . Mr. Goshorn says it would be about as wise to plant corn in sod, with the view to grow both corn and hay together, as to expect good growth for a tree in sod. . . It is said that very fine coal ashes mixed with linseed oil, make a very fair cheap paint. . .

THE ROYAL COMMISSION.

When the M. P.'s arrived out West,
Across a Yankee wag they fell;
Said he "First lessons you suggest,
For one is *Read*, the other's *Pell*."

London Journal.

. . . Chloride of lime is recommended as an insect deterrent for plants, trees and even for the soil. . . Keep sweet potatoes *dry* and in a uniform temperature above freezing. . . "Many remedies have been tried for the pear blight," says the Country Gentleman, "and with superficial observers those which happened to be applied just before the disease passes off, have the credit of being a certain cure." . . Mr. Meehan remarks that if the seed of cabbage be sown as soon as ripe or at that time of year when it naturally ripens, instead of plants making solid heads, they will "bolt" and run to seed. . . Major Freas says that the American Aloe which adorns hundreds of the fronts of private residences, is "an ugly-looking plant and not one in a thousand will bloom during a natural lifetime." We should not think much more of the Century Plant if it bloomed every year. . . Wheat is king. . . W. A. Armstrong says: "I have used a fence of three wires as a line fence between two pastures, cattle and horses running on each side, with great satisfaction and with the least possible amount of trouble and repairs. The barbed wire has solved the question of fence for the West." . . The French Minister of Agriculture calls attention to the gross adulteration of olive oil carried on in the south of France. . . . It is going the rounds of the French agricultural journals that anise-seed has the power to attract and destroy weevils in grain. . . The American Miller says: "There is no such thing as the shifting of the *wheat belt*, only in so far as the exhaustion of the soil renders such a shifting a necessity. Any acre of land will raise wheat forever if its capabilities are not taxed too much." . . . "As agriculture is the most powerful of interests, all great political movements rest more or less upon it." Do you realize that, readers? . . The Fuchsia is here known as a small pot plant, but in New Zealand one species, Fuchsia excorticata, grows as a tree of imposing dimensions, attaining a hight of fifty or sixty feet, with a trunk three feet in diameter. . . . Asparagus can still be planted in the Southern States; Conover's Colossal is one of the best, if not the best variety. . . 70,000 baskets of peaches were the past season raised on one farm in Maryland. The crop sold for about $42,000. . . . The Mississippi Valley Cane Growers' Association will hold their first annual meeting in St. Louis, Mo., commencing the first Wednesday in December. . . . Now is the time to prepare the trenches in which to winter celery. They should not be over 18 inches wide or deeper than the plants are high. Cover the plants gradually as the cold increases. . . . Oliver Chapin, of East Bloomfield, N. Y., is reported to have this year gathered 10,000 barrels of apples from his 100-acre orchard.

The old canes of Raspberries and Blackberries can now be cut out . . . . Root-cuttings can now be taken from both of the last-named small fruits, and may either be planted at once or kept in moist earth till spring. . . . . All the hardy bulbs may yet be planted in the open ground. Nothing is more charming in early spring than a gay bed of handsome Tulips, Crocuses, Snowdrops and lovely sweet-scented Hyacinths. . . . Now is the time to make alterations and improvements in the garden, to lay drains, remove old trees, lay out walks, cut away or fill in etc. . . . . Dahlia roots should now be in the cellar. . . . . Rake the fallen leaves in between shrubbery that receives clean culture, and let them remain there till spring. . . . Mr. W. Crozier has lately sold six Ayrshires to the Hon. H. B. Hyde, President of the Equitable Insurance Co., of this city, for $1,000, all calves but two. He has also sold the Ayrshire Bull, Dairy Boy, to Rob. McElroy, Charleston, S. C. . . . Mr. C. has also lately added to his herd the young bull, Brookdale Chief, full brother to the celebrated Jersey cow Filbert, which was lately sold for $1,500. . . . Mr. C. remarks that if the cow is worth so much, a bull equally good is worth at least double as much, as his descendants may be at least 40 times as numerous as hers. . . . Messrs. Smiths and Powell, of Syracuse, N. Y., sold last week to J. D. Guthrie, of Shelbyville, Ky., the following Holsteins, to replace the Shorthorns they sold some time since. . . . Imported two-year-old heifer, Lady Fisher; imported yearling heifers, Callie, Cornelia, Jessie, Carnation, Silvia and Southern Beauty; imported heifer calves, Marcia, Inez, Polly, Kentucky Belle, Sunbeam, Countess, Joan and bull calf, Appollo. These animals are all of superior breeding, and Kentucky may well feel proud of them. Holstein breeders will be pleased to learn that a Short-horn breeder of the standing of Mr. Guthrie has taken hold of the introduction of Holsteins in that State.

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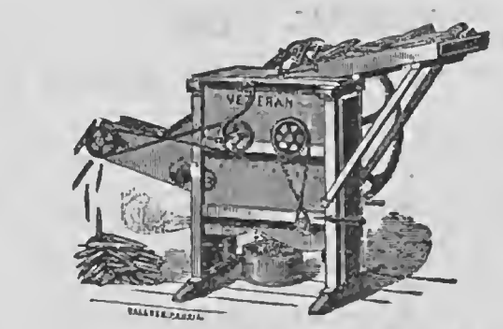

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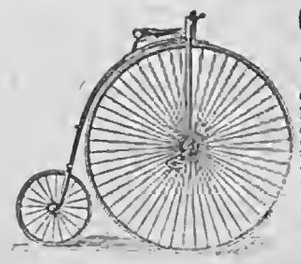

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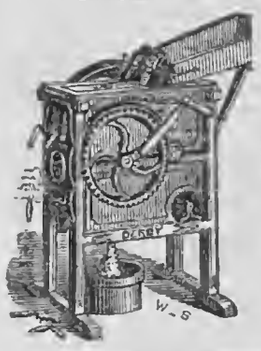

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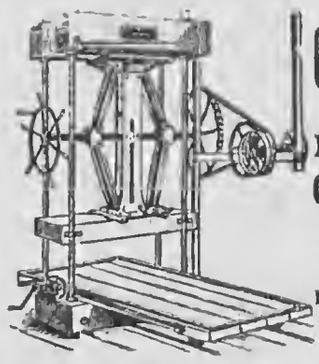

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THE RURAL NEW-YORKER

A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME

Vol. XXXVIII. No. 45.
Whole No. 1555.

NEW YORK, NOV. 15, 1879.

Price Five Cents.
$2.00 Per Year.

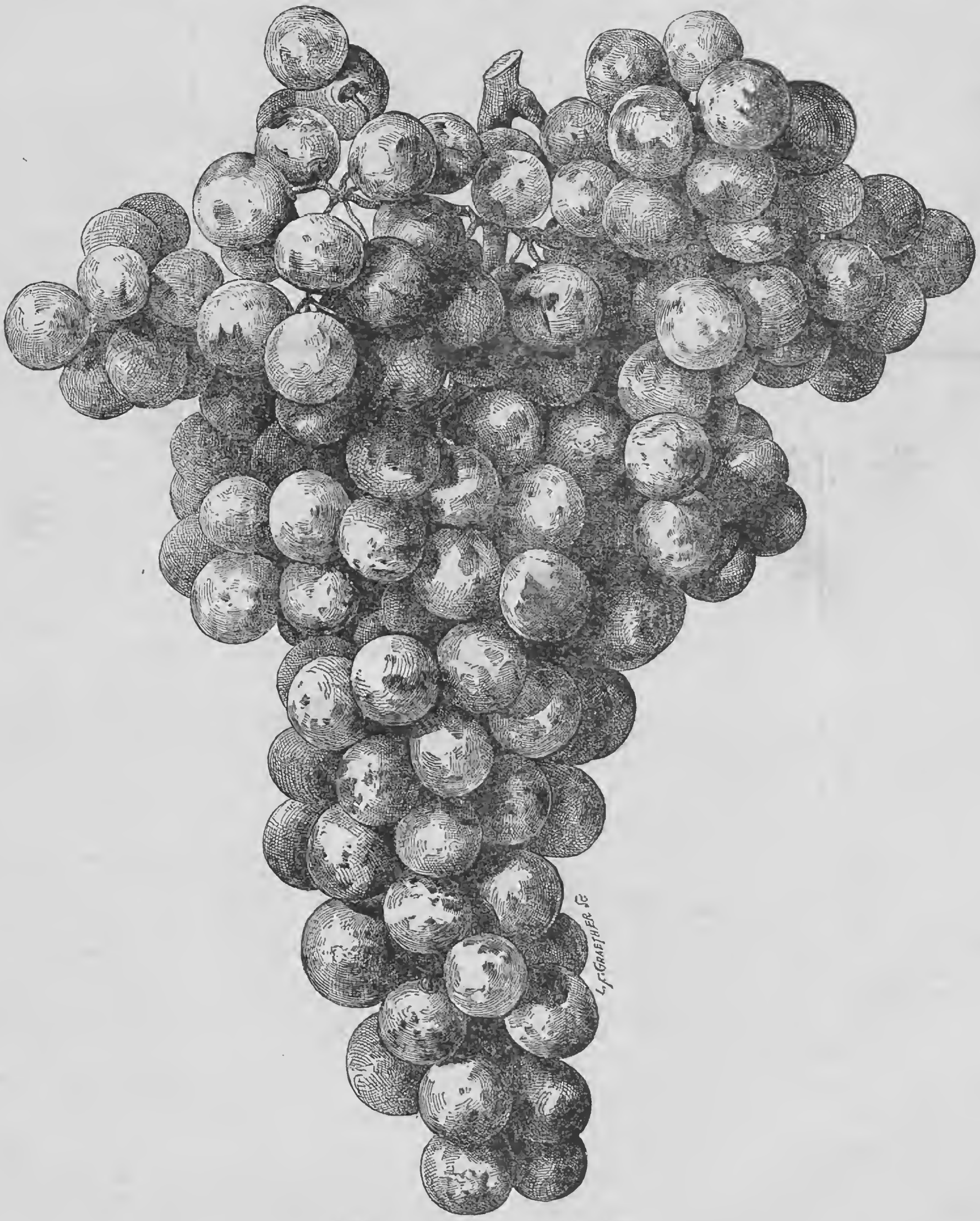
[Entered according to Act of Congress, in the year 1879, by the Rural Publishing Company, in the office of the Librarian of Congress at Washington. — Entered at the Post-Office at New York City, N. Y., as second-class matter.]

The Vineyard.

THE "WELCOME" GRAPE.

If the introduction of new fruits is indicative of a growing taste for pomology and horticulture among the people at large, a very wonderful advancement has been made in this direction during the past few years. With the exception of the Strawberry, which is so easy of cultivation and of which new varieties can be raised and tested so readily and rapidly, no line of fruit has of late been increased by so many and excellent new varieties as that of the Grape. A desire (and a very commendable one it is) for raising seedling Grapes, seems to have seized upon a number of horticulturists at about the same time, and the results of their efforts are now becoming apparent.

Mr. J. H. Ricketts, who has acquired great fame for his seedling Grapes, is the orginator of the "Welcome," the subject of our present illustration, and a decidedly "welcome" addition it is to the list of hot-house Grapes. It was referred to in these columns last year, but we were not at that time able to procure a good illustration. It is a cross between Pope's Hamburg and Canon Hall Muscat, and, like these, it cannot be ripened out-of-doors in this climate, but it is suited for both the cold and hot grapery. All good judges of fruit pronounce it superior, not only to both of its parents, but to any foreign variety. The vine is a vigorous grower, with foliage resembling that of the Black Hamburg. Bunch large-shouldered, moderately compact; berry large, roundish-oval, black, covered with a grayish,



THE "WELCOME" GRAPE.

blue bloom; flesh tender, juicy and sweet, with a rich aromatic flavor.

Farm Topics.

AUTUMN WORK.

Preparing for Winter.

LAST week we suggested some general principles that might help to decide the method and order of fall work on the farm. We now call attention to certain *minor items* of work apt to be neglected, or put off too long.

Fall work naturally divides itself into three classes: 1, harvesting the crops of the season: 2, putting things to rights before snow and steady cold come, and 3, permanent improvements, or work for the coming year or years. The first of these is of first importance, and should be well finished before the others are begun, unless, indeed, the weather be such as to permit work on *them*, and not on it. The second, as intimated, is of a kind most likely to be deferred or neglected. Much of it is small, "fussy," unpleasant, and apparently not remunerative. You don't seem to be accomplishing anything when at work at it. When you harvest and market the season's crops, and with the proceeds make much-needed purchases, or forever wipe out some annoying debt, you feel as if you were "doing something." Work of the third class, too, brings the same feeling in a slightly different form. If you thoroughly tile-drain a field of stiff clay, you feel that you have doubled the value of the land for tillage, and that *under proper cultivation* the cost of labor and material will be repaid, net, by one or two succeeding crops. If you have cleared a rough and half-productive pasture of its stones, grubbed its useless bushes, trees and stumps, and plowed the whole, your work, except the plowing, will never have to be repeated. Such jobs as this and the draining are permanent improvements. They have a certain fascination about them. They make you feel that you are "getting on," doing something that shall last, and show, and pay every year of your life, and bless others when you are dead. You have a good right to like such work.

But work of the second kind has little fascination about it. It may be necessary to bank cellars, strip bean poles, clear eaves-troughs, repair barn doors, nail loose battens, set broken glass and "fix up" for winter, but it is not inspiring. You dislike to let your horses lie idle while you "potter" over it. And so the strong tendency is to keep at work on the "big" and "important" jobs, and neglect these smaller matters. Hence the need of special reminders in regard to them. And yet we prefer to suggest some general principles, and present some considerations that may help to remove the feeling of dissatisfaction, that comes over one when engaged in this "pottering" work, rather than to give minute and specific hints and exhortations. For "nagging," as Dr. John Hall calls it, is bad both for man and beast. Constant "clucking," twitching of the reins, and small whipping will spoil the freest horse. The best parents suggest rather than command. The best teachers *teach* little. They put their pupils in the way to learn. They make them *think for themselves*. We once heard a wise college president quaintly say that he "never believed in chewing a boy's bread-and-butter for him."

Now farmers feel in the same way. A feeling of disgust comes over them as they glance down three or four columns of minute "Instructions for the Month" for "farm, garden, orchard and nursery," arranged alphabetically, perhaps, and prepared by some city editor who does not know half so much of the *minutiæ* of farm work as the farmers themselves do. And so we prefer to suggest general principles, as already intimated, and illustrate by a few specific examples. And we beg pardon in advance for the somewhat dictatorial tone induced by our effort to secure conciseness. We trust we shall never forget that we are writing for intelligent farmers, some of whom have far greater knowledge of detail than, perhaps, we can ever hope to possess.

First, then:—Be fore-handed. "Fore-armed is well armed." Take pleasant weather, too, if possible, for this kind of work. There is nothing more disheartening than to see the belated farmer rush about in the first snow-storm, mending barn doors, windows and floors ready to stable his shivering cows. Even if the cows are not stabled at milking time all summer—as they should be—the stable should at least be in perfect readiness for them, as feed shortens and winter approaches.

The cellar should be banked, if necessary, and the double windows and storm-doors put up in the dwelling-house, *before they are needed*. A shrewd satire on many farmers, and many other men, too, is the story of the shiftless but witty fiddler. He was playing beneath his leaky cottage roof, and a passer-by who tried to share his shelter (?) said, "Why don't you mend your thatch?" "Why, man, I should get wetter yet in doing that!" "Yes, but I mean why don't you mend it when it doesn't rain?" "Why, man, it *doesn't leak then!*"

Second:—Do such work *yourself*, and don't let it stop the team work, either. Don't trust this "pottering" work to hired man or boy. They will not do it well or expeditiously. Set them at work on steady jobs with teams—plowing, drawing manure, or something of that kind—where they will do as much as if you were there—or if not, you can know it—and yourself do this kind of work. It needs ingenuity and good judgment. A hired man seldom has these—a man fit to be a farmer must have them.

Third:—Aim at permanence, even in such work. Not all of it needs constant or even annual repetition. Avoid make-shifts, patch-work. "Once well done is twice done." Make barns, fences, etc., thoroughly, and they will seldom need repairing. When they do, repair them thoroughly, and it will not soon need to be repeated. Cellars, too, need not be "banked up" every year. Tan-bark and sawdust all around the cellar, held in place by boards and stakes, are unsightly and expensive. They must be taken away in spring and renewed each fall. If the grading is properly done, they are needless. If not properly done, do it this fall. Set men and teams at it, and manage it yourself. Put "dump-boards" on your wagons and draw good dirt and make a slope, or terrace if necessary, up within half a foot of the sill or clapboards all around the house, and turf it firmly and neatly. It will never need to be done again, and the cellar will not freeze if it has double windows and a good double door or hatchway, unless it freezes down from above through a cold house or room.

So, too, if the eaves-troughs get stopped with leaves, cut away the limb or tree that shed the leaves. The roof should not be shaded. A damp house is an unhealthy one. Or again, if the outlets of tile drains tend to stoppage, they should be bricked or stoned up well, and a wide, open ditch, with well-beveled sides, be dug till it shades off at the surface of the ground. It will last for years, if made deep enough and protected from the tramping of animals. Illustrations might be extended indefinitely, and they all say, "work for permanence, or aim at thoroughness."

Fourth:—Do not let such work accumulate. As soon as a thing breaks or gets out of repair, mend it. As soon as you are done with tools or implements or machines, house them, and as soon as you are done with each for the season, store it snugly for the winter. It is easier to keep things in order than to keep putting them in order. Don't let things get into a condition—like Aunt Dinah's kitchen in "Uncle Tom"—to require a grand "cl'ar'n up."

Finally, settle it well in your mind that even this kind of work *pays*. It certainly does, and you can have no heart in it unless you believe it does. It pays in comfort, and in cash, too. In comfort, for any neglected duty brings uneasiness, and its performance brings relief. And the smaller the duty and the less time required for its performance, the greater the folly of its neglect. An unhoused mowing-machine, or a row of bean poles with their dry vines whistling in the winter wind, is a constant "thorn in the flesh," unless your flesh is dead and yourself "lost to sense and hope." Pull out the thorn and take the resulting comfort. Don't endure weeks of torture with an aching tooth when three seconds of "cold iron" will end it.

This kind of work, too, pays in *cash*. Dr. Franklin's Poor Richard said: "A penny saved is a penny earned." This is both true and false; true as he meant it; false as some people understand it. True if the penny is saved from waste or foolish expenditure; false if it be hoarded and kept from wise use. Miserly laziness is not as good as productive industry. The writer's good father used to tell of a rich man who would dismount, in riding, to pick up a nail, because "he could save it quicker than he could make it." But if his time was worth anything, he was a fool for doing so. If *he* couldn't make it quicker, some one else could; and if he couldn't *make* it quicker, he could earn it quicker. The real cost of the nail was its infinitesimal value as iron, plus the click of a machine that turns out about three hundred to the minute. Its cost to him was the labor of a whole minute. If you cannot save a thing, even from waste, quicker than you can "make" or "earn" it, then do not save it. But in the kind of work we are speaking of, *you can*. It pays even under this close test. You can save more by housing implements, and getting—or keeping—things snug and tidy and in repair, and ready for storm or winter, than you can earn in the same time in any other way. The tidy farmers are the ones that make the money. It costs less to house a mower or reaper in the barn or tool-house than in the fence-corner. "Housed" there, it will not last half so long, and will break in harvest and hinder all your hands. It will cost less even to pull and house your bean poles, as soon as they have done their season's work, than to let them rot in storm and mud until next May. You can cut and house your year's stove-wood at the proper time far more cheaply than you can bake your bread with green or wet wood.

We are sure this second class of autumn work pays, both in cash and comfort.

THE TRUTH ABOUT IT.

[THE object of articles under this heading is not so much to deal with "humbugs" as with the many unconscious errors that creep into the methods of daily country routine life.—EDS.]

SHALL HE BE A PRACTICAL OR SCIENTIFIC FARMER?

MUCH good may be done by asking a question. A question fitly put, may set in action a world of thought, and lead to most important results. The question above proposed by the Editors of the RURAL NEW-YORKER, in the issue for August 16, cannot be answered without a great deal of deliberation; and might well serve as a text for an essay. To develop all its points would require many columns, but every reader may study the question with profit, who studies the pages of the RURAL. The remarks upon my former reply, published in the RURAL for October 11, leave the question where it was originally, but still more loaded down with difficulty, for they have used words in an unusual sense.

What is *art*, and what is *science*? Science is either pure science, as mathematics; or it is the basis upon which art is founded. Take a ship-builder, for instance. A practical carpenter can build some kind of a ship, and, in doing so, exercises an art. But a steam-ship or a clipper is scientifically built. The plans are all drawn by the scientific builder, from abstruse calculations of the resistance of fluids to moving bodies; of the proper form to insure stability, capacity and strength. These plans are given piece-meal to different artisans by whose *art* the ship is put together. These work in the dark; they know not if the ship is to sink or swim; but the builder can tell to a minute, how many knots she will sail under given circumstances. The man who makes a sloop from patterns his father constructed, and which he has followed for a lifetime, dare not vary his plan, lest his boat go over when floated. Here are a practical ship-builder and a scientific one. The parallel holds good as to the farmer. There are experimenters in ship-building as well as in farming, who figure out new forms, calculate the lines, resistances, floating capacity and what not, and consult with or suggest to the builder; but the experimenter is purely scientific, and never practices the art of building.

So with agricultural experimenters. I feel sure that Mr. Lawes would not claim to be a farmer. A farmer is one who works a farm for a living or for profit. It is a business with him and not the pursuit of knowledge. Mr. Lawes has spent his time, talents and money in scientific investigation. He is an original investigator. Can no man be a scientific man but an original thinker or worker? If so, our scientific men are few indeed. No. A man may become scientific by studying the works and the results wrought out by others. There is not one scientific man living at this time, otherwise; for is not the bulk of our knowledge inherited? "There is no science in making use of the discoveries of others" you say. Then where are our scientific astronomers, chemists, physicians, physiologists, etc., etc. Why, the larger portion of their knowledge comes down from the discoveries of men who lived centuries ago. One man's life is too short to discover everything, and so one generation inherits the labors of the former ones, and bequeaths all it has to the next one. I do not advocate that every farmer should become a chemist, or use laboratories or a rain gauge; (a rain gauge might usefully be on every farm and would greatly interest a farmer to use it, but there is no science about that), or duplicate or multiplicate what has already been done for him better than he could do it, and of which he may learn by proper study in one hour what it required years of scientific labor to discover. What I advocate is what I try to practice, to study the principles of my art, the basis of science upon which the practice is founded, so that I can work understandingly and profitably, and in addition, find that intense enjoyment in my work and its results, that makes even the cleaning of a stable and the loading and spreading of manure, a work of interest, by reason of the results which I look for from it in addition to the mere value of the crop. I desire that every farmer should do as much, at least, and more.

I would not use names, but as many of the contributors to the RURAL are public property, I will ask if E. W. Stewart is not a scientific farmer, although most of what he knows of feeding stock and the use of feeding stuffs may have been acquired by study and proved by practice. Is not W. I. Chamberlain another scientific farmer? You say he is a scientific man, and he is a farmer—the rest follows of course. We may find *good* farmers who never read a book or a paper. Some of the best-farmed localities in the country are occupied by such. They farm by rote, as their fathers worked and taught them. They plant by the moon, and their wives and daughters work barefoot in the fields and barnyards. They have fine barns, and stock, and crops, and live in hovels, and have bonds and mortgages hid away under the rafters. They are good, practical farmers—I have lived among them and know them—but I want a farmer to be able to answer all the questions put to a student of an agricultural college on his graduation, and then use that knowledge in a good business way; and I will call him a scientific farmer, and his wife and daughters may enjoy all the comforts and ease that culture can afford, and never be called to do more than they wish to do of the farm work.

In all industries whatever, it is the scientific worker alone who can fully succeed; the practical man is the laborer, the scientific man the employer. This is so invariably, and all those industries and arts which depend upon scientific knowledge for the best practical working, employ experts whose sole business it is to experiment and investigate and discover improvements. But these are merely investigators—nothing more. The wonderful aniline dyes have thus been brought into existence in the laboratory, have been tested by the scientific dyer, and have been worked up by his practical artisans. It is so in brewing, working metals, tanning, mining, navigation, milling, and, more than all, in farming. The agricultural colleges, if successful in their purposes, ought to turn out some scientific farmers, and there are some educated business and professional men, who have adopted farming as their employment, who are, or will become, scientific farmers. And hundreds of young farmers whose tastes for knowledge have been quickened and developed by agricultural literature, and who are busy studying the science of their art, will in time become scientific farmers. And the more of this kind there are, the better will be the world for it.

HENRY STEWART.

Pomological.

SELECT LIST OF APPLES AND PEARS.

PRES. T. T. LYON.

WERE we considering the question, "What to plant," our first thought would be to determine definitely the special purpose for which such planting is to be done. A farmer, with ample space for the purpose, will, as a matter of course, be likely to desire a supply of fruit throughout the season; and, if he—as will naturally be the case—aims to provide *the best* of each season, both for dessert and culinary purposes; and if, at the same time, he shall be ambitious to provide the *variety* needful to suit a contrariety of tastes, as well as to meet the multifarious wants of a household, the selection of varieties possessing the requisite qualities in the highest degree, and at the same time equably distributed over the season, becomes a matter of no little moment; and, at the same time, one upon which a very considerable amount of pomological knowledge may be very profitably employed.

The purposes for which market or commercial orchards are planted are so essentially distinct, that I leave them, for the present, out of the case. The accompanying lists, are, therefore, to be considered as having strict reference to the supplying of the home want. The varieties are named as nearly as practicable in the order of their ripening. I confine myself to the Apple and the Pear, as by far the most important fruits, while at the same time, their use is well-nigh universal.

List of Fruits for a Family Orchard.

DESSERT APPLES.—Early Harvest, Primate, Buffington's Early, Early Strawberry, Summer Rose, Early Joe, Garden Royal, American Summer Pearmain, Chenango Strawberry, Porter, Mexico, Hawley, Dyer, Ohio Nonpareil, Melon, Shiawassee Beauty, Jonathan, Peck's Pleasant, Pomme Grise, Northern Spy, Golden Russet, Red Canada.

CULINARY APPLES.—Red Astrachan, Duchess of Oldenburgh, Gravenstein, Lowell, Alexander, Keswick Codlin, Fall Pippin, Yellow Bellflower, Rhode Island Greening, Baldwin, Roxbury Russet.

SWEET APPLES.—Large Yellow Bough, Golden Sweet, Jersey Sweet, Munson's Sweet, English (Ramsdell's) Sweet, Bailey Sweet, Talman Sweet, Lady's Sweet.

Pears.

Madeleine, Doyenné d' Eté, Bloodgood, Tyson, Rostiezer, Sterling, Fondante d'Automne, Clapp's Favorite, Bartlett, Washington, Beurré Bosc, Howell, Sheldon, Seckel, Onondaga, White Doyenné, (where it does not crack), Beurré d'Anjou; Lawrence, Winter Nelis, Columbia.

I doubt the value of culinary pears, and therefore omit them. The above lists are given with reference to *Michigan* more especially,

although they will doubtless apply, with but slight modification, to Ohio and the States farther eastward.

There is an extensive class of mechanics and business-men, having, as a rule, limited grounds. I have adapted these lists to the idea that generally such persons will, of necessity, confine themselves to the earlier varieties of fruits, since such can rarely be procured in good condition and at moderate prices in the markets; while such is not usually the case with late autumn and winter fruits. Such planters have only to commence at the first on the lists and adopt those named, *seriatim*, as far as their limit will permit. I suggest, moreover, that they can secure greater variety, and, at the same time, a more fitting selection for limited grounds, by planting dwarf trees, which will be adapted to much closer planting.

The great objection to dwarf trees—especially Pears—lies in their tendency to early and excessive bearing, from which cause they are not unfrequently hopelessly ruined before they have become well established in the orchard or garden. The remedy for this lies in prevention. No dwarf should be allowed to mature more than a specimen or two during the first season, or even the second season, after having been removed to its final position; and for several years, the fruit should be so thinned as to leave abundant vigor to be expended in wood growth. Finally, it must be always kept in mind that dwarf trees cannot safely be permitted to overbear.

THE CANADA BALDWIN.—(See Cut.)

I CONSIDER this an unfortunate name, because it would lead many to the inference that it is applied simply to Baldwin Apples grown in Canada. The Canada Baldwin is a very distinct sort of the peculiar type of Lower Canada Apples. Its origin is not certain, some reports making it a seedling of an old Canadian Apple the "*Pomme de Fer*"—Iron Apple—while others regard it as one of the innumerable seedlings of the Fameuse. The Abbottsford Fruit Growers' Association's report for 1875, says of this variety:—"The fruit is conic in shape and somewhat like the Fameuse, though lighter in color, and specked with white. It bears carriage well, keeps till June, and is very salable. The trees are heavy croppers, strong in growth and very thrifty. They were thought exceedingly hardy; but during the last five years the old ones, 17 years planted, have shown a tendency to sun-scald." The same Society, in its last, 1878, report, says:—"This seedling of St. Hilaire we wish to call renewed attention to. It was described in our fruit list for the Province of Quebec, in 1875, also in the second report of the Montreal Horticultural Society, p. 28; but experience to date shows us that in both cases we criticised it too harshly. The tree is of undoubted hardiness, but its fault is that on warm, dry soils the sap rises too soon; hence, if the hot suns of early spring are quickly followed by severe freezing, the trunk is apt to become sun-scalded. Should this happen, the tree still holds on to life with great tenacity. In heavier soils, even though in localities less favorable to apple-growing, and in cold and even wettish soils, where Fameuse, planted alongside of it, have died, the Canada Baldwin is a success, both in tree and fruit. In quality it is good; in color mainly red and quite prepossessing in appearance. Its fruitage is heavy and keeps well until April or May. All things considered, we know of no long-keeping apple more worthy of planting in such soils as suit it."

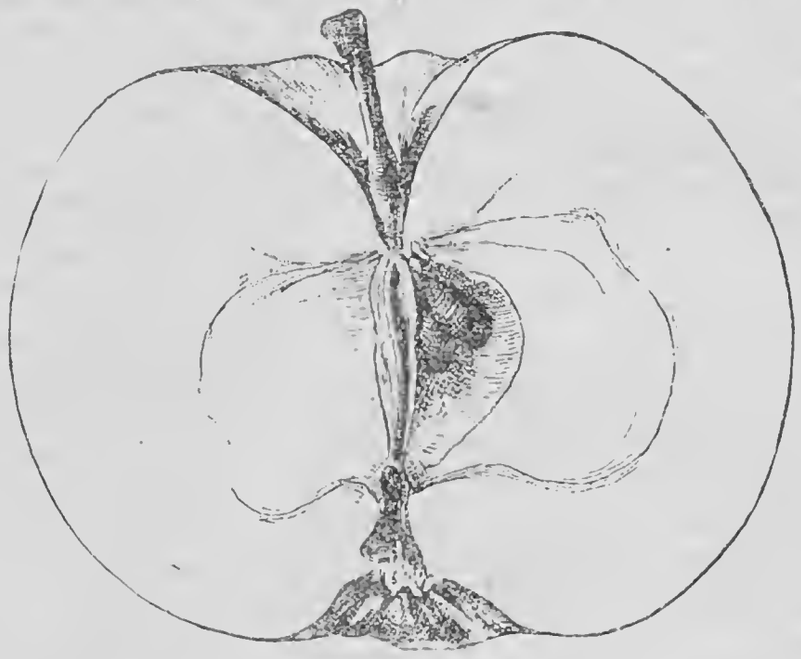
In addition to this, I can say that in the heavy soils around Lake Memphremagog, the Canada Baldwin is regarded as a great success. In quality it is better than "good," deserving to rank with the "very good," if not with the "best" of pomological lists. For light soils, I am sure it may be easily adapted by top-grafting in the limbs upon varieties with a less sensitive bark, such as Duchess of Oldenburgh or Wealthy. I find, by the examination of many old trees, that only upon the trunk is the bark-scald manifest. In size, the Canada Baldwin is above medium.

Orleans Co., Vt. T. H. HOSKINS, M. D.

THE LATE STRAWBERRY APPLE OF CANADA.—(See Cut.)

I make the following extract descriptive of this Apple, from the last report—1878—of the Abbotsford Fruit Growers' Association of the Province of Quebec. "Late Strawberry, Winter Strawberry, has not yet been described in the reports of our Provincial Society. One tree of this variety was brought here by the late Col. O'Dwyer, about 1812, from the Spaulding nurseries on Shefford Mountain, the grafts of which came from New England. It also found its way into Brome, where it has long been known as Wheeler's Lawrence. In nursery, the tree is of slow growth and ungainly form. In orchard, it forms a round, but "bushy" head, and needs much pruning. It bears its fruit on the ends of the twigs, causing the tree to become drooping soon after it attains bearing age. The fruit is above medium to large, roundish, somewhat oblate and conic, often angular and furrowed. Flesh yellowish, yielding, juicy, with a peculiar aromatic and sub-acid flavor. It begins to ripen a few specimens in August, and continues thus to ripen till the last of September. Those then barreled keep till February. This habit of uneven ripening is not against the fruit for family use. The tree is not to say long-lived, yet it bears so young and so regularly and heavily, and the fruit is so salable that we recommend it as a profitable market fruit."

I have, this season, not only seen this Late



CANADA BALDWIN.—FROM LIFE.

Strawberry in market and on the tables at fairs, but have visited orchards where the Apple is extensively grown, and am led to think it is a sort well worth the notice of those attempting fruit culture in the "cold North." I give it very much the preference over the Haas of the West, which it somewhat resembles, but exceeds in size as well as in quality. Careful examination makes it quite certain that this "Late Strawberry of Canada" is distinct from any of the "Strawberry" Apples of the books. T. H. H.

SALT FOR PEAR BLIGHT.

GEN. WM. H. NOBLE, OF BRIDGEPORT, CONN.

IN a late number are queries about salt as a remedy for pear blight. The writer suggests a top-dressing of salt, and asks the experience of sea shore pear tree cultivators. I give my observation as one of that class. My place is directly on the harbor of Bridgeport—the salt water laves my borders. I have never had a case of blight killing more than a limb; and only one instance of that kind. I have seen in this sea-side vicinity an occasional case of this limited character, but nothing like that sweep of ruin which has visited many regions.

But this freedom from limb and wood blight does not extend to the leaf. Some trees more than others, suffer blight of leaf and fruit. I think this is much more marked on the sea-board than in the interior. Certain kinds of fungoid mildew are much more destructive along the salt water, than inland. Army tents, and all canvas covers mildew in the breath of the ocean much more readily than beyond the reach of its saline touch. But the blight of leaf is a very different thing from the blight of wood. The sea air, which exactly suits that fungoid growth that cracks the fruit and drops the leaves, may be death to that other insidious fellow that kills the limb or tree. That is, one fungoid's meat may be the poison of its kin. So, as Captain Cuttle says: "make a note of it." Let some other man, sea-board or inboard, go and do likewise. There is a heap yet to be gold, for centuries, that will be revealed to him who looks and reads while he runneth.

What shore-man speaks next of salt sea breath and blight?—What land-man, far away from the ocean, has strewn salt beneath his trees? And if any one has done so, what came of it?

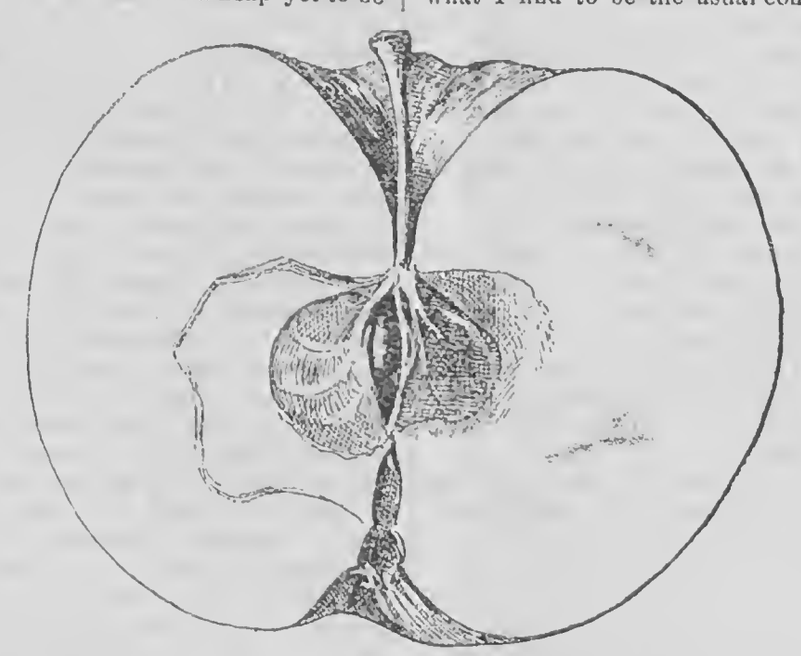
KEEPING APPLES THE YEAR ROUND.

I have seen the following mode of keeping apples frequently recommended in agricultural papers during the past few years, but cannot learn of its having been practiced to any considerable extent. Having given it a test for two seasons past, perhaps the result of my experiment may be of interest to RURAL readers, especially to such as are lovers of fresh fruits, and as this is the proper season for the trial, some may be induced to try it for themselves.

The plan is to wrap each apple by itself in a piece of paper, pack carefully in barrels or boxes, and cover tightly, so as to exclude the air. Some may be deterred from making the trial on account of the amount of time and labor it requires; but if such will give it a trial this year, on a small scale, I think they will find it less troublesome than they suppose, as by taking old newspapers, and folding and cutting them to a proper size for the apples selected, they can be wrapped very rapidly. The variety which I selected was the Northern Spy, which with ordinary care will keep until May, but packed in this way, one need have no fears to leave them without any attention until June 1st or even later, when, if others' experience agrees with mine, they will be found in finer condition for eating than they ever attain to, if kept in the ordinary way, having a crispness and aroma never equaled by any Spys I ever saw, not treated in this manner.

We ate the last of ours this year on Aug 14th., when they were still fresh and crisp, and I have no doubt some of them might have been kept much longer, had not the temptation to test their quality been too strong. By the way, in your notes on the Northern Spy, in the RURAL of Oct., 11th, you say it is a tardy bearer, a statement in which all who have grown it, will concur; but it has one redeeming quality you failed to mention, that is its productiveness after it attains age enough to bear.

Delaware Co., N. Y. E. J. BROWNELL.



WINTER (OR LATE) STRAWBERRY OF MONTREAL.—FROM LIFE.

Arboricultural.

HOW TO PLANT A SHRUB GROUP.

LET me depict to you, as nearly as I can, what I find to be the usual conception of a learnt about the health and ails of all that grows. There is many a golden truth hidden in the mind of some observing fruit lover, that should be placed on the house-top. There are lots more priceless truths that have lain around loose and under foot, like Captain Sutter's well planted shrub group; I mean a shrub group properly planted according to the standard of most gardeners and lawn-planters. It consists simply of an oval or circle of spaded earth, filled to repletion with shrubs planted two to three feet apart. Cultivation and mass planting are evidently here kept in view—laudable objects, certainly, in their way—but how about the arrangement of color and form in foliage and flower? What evidence is shown in such cases of knowledge and adaptation to the various seasons for blooming peculiar to species and varieties? I fear both knowledge and taste here fail lawn-planters and gardeners in very many cases. Must we draw the inference that lawn-planting skill is at low ebb among those who should know it best? If not, how otherwise can we account for the fact that knowledge and taste are so conspicuous by their absence in the construction of most shrub groups? One might fancy that the bedding-out system applied to ribbon gardening, had furnished models for planting many of our deciduous shrub groups. But no, I would not so insult bedding out, oftentimes excellently done, by making it responsible for such slovenly, ignorant work. Here you have generally a fair study of color and form and time of blooming. In deciduous shrub groups, on the other hand, small plants even are frequently huddled where large plants ought to be, and *vice versa*. Perhaps you will say this is mere captious fault-finding. I can do no more, then, in defense of these assertions than tell you briefly what I consider a well-planted shrub group. Assuming first a knowledge of the seasons of blooming and the colors and forms of shrubs, I would look at any hill-side group of wild plants and get what hints I could from their arrangement. In short, I would ordinarily plant my shrubs four feet apart—in rare cases, three—dig only a circle of about one foot in diameter around the plant, and fertilize liberally on top of the ground. Frequent spading for cultivation is as necessary here as ever, and is generally neglected. The grass must, of course, be kept nicely trimmed among the plants, and though the use of a sickle be found necessary at times, the improved and cleanly appearance thereby attained will fully repay all trouble.

And now a word as to arrangement. It is commonly the habit, where any defined system of arrangement is attempted, to place the large plants in the center and the low ones on the outer edges. In a general way this is correct, if the work be not executed in a formal manner. Such grouping is, however, not strictly correct from the standpoint of natural planting. Here and there through the mass, even to the extreme end, taller plants, such as Tamarisks, etc., should be so disposed as to give an irregular, waving sky line. No sharp transitions in hight should be allowed; that is, a shrub adjoining this specially tall one should not be enough smaller to make a sharp contrast. Again, plenty of shrubs of the same variety may be massed in the center of the group, but on the outskirts more numerous varieties may be disposed. This applies, however, only to groups of considerable size. Smaller groups may be planted with shrubs, each of a different variety. Trees of moderate size may be planted in the group instead of the larger shrubs, which ordinarily should form the high points of the sky line. Large shrubs or low trees dotted singly near points of outer curves also increase the natural effect. Due regard should be given to scattering different colors about the mass, so that a number of red flowers, for instance, may not be crowded in one spot, and none at all be seen elsewhere. The same management should apply to the arrangement of the plants which bloom at different seasons of the spring and summer. I doubt not that many will wonder that so much study should be given to a group of shrubs. But it would not be thought much if it were once understood, and the effect is really greatly superior to the common style of nondescript arrangement. In conclusion, I should say what has been already implied, that culture is obtained as well in this way as in any other. It is also in place to call attention here to the yearly necessity of pruning shrubs at the special season when provision is best made for flowers during the coming years. S. PARSONS.

Field Crops.

OUR WHEAT EXPERIMENT.

E. WILLIAMS.

WE have not attempted to grow any wheat for a number of years till the present—it was so unreliable. Rye was more certain, and for a number of years previous to '78, the straw was in such demand at good prices, that of the two it was the more profitable grain to grow; but for a few years past the Clawson wheat has gained such a good reputation for yielding well over a large extent of country, that the success of a neighbor with it, induced us to try our luck once more. We had a small field in potatoes last season, which we concluded to devote to the experiment. We thought there was from an acre and a quarter to an acre and a half in the field, but recent measurement shows that it contains only about an acre and

one-twentieth. On this we sowed 2¼ bushels of Clawson. Fearing the manure applied for potatoes was not sufficient for the success of the experiment, we concluded to make an experiment with fertilizers at the same time; consequently we procured two bags, 400 pounds of Mapes's Wheat Manure, "A" brand, and used 200 pounds on each side of the field, leaving a strip through the center—nearly one-third of the piece—without any.

The wheat came up very evenly and covered the ground nicely before winter set in. The sides of the field showed the effect of the fertilizer from the start. It was plainly visible in spring, and so continued till the wheat headed out, when the difference was not quite so apparent; but we had faith that it would show in the yield of grain. To test this, at harvest we saved five swaths through the middle of the field, and five through both sides, and stored them separately. On September 26th we had it thrashed with the following results:—the five unfertilized swaths from the center, yielded five bushels; the five fertilized swaths from one side gave five bushels, and the five from the other side, five and a half bushels. We confess to disappointment. We do not know how to account for the difference of half a bushel in the product of the two fertilized portions, as the contents of each bag of fertilizer covered about the same area. Had we saved but the portion yielding the five and a half bushels, to be compared with the product of the unfertilized portion, we should have given the fertilizer the credit of the extra half bushel at once, and proceeded to calculate how much its use had increased the crop; but since the yield from the fertilized portion on one side, is no greater than that from the same area unfertilized, we have no data to calculate from, and the query arises:—Where does the profit or benefit appear? We could see no difference in the grain from any portion of the field. The total yield was 30 bushels, to us a very satisfactory one, with or without the fertilizer. Had we not gone quite so far, but accepted the looks of the growing crop as sufficient evidence of the value of the fertilizer, our faith in it would have been stronger. Now it is wavering and uncertain.

We have sown the adjoining field to Clawson this fall, and it is up and looks well. We have used no fertilizer yet, not that we expect or believe we shall have, or ought to have, as good a crop without it, but because of doubts as to what it was best to use. When we decide this point we can apply it as a top-dressing.

The guaranteed analysis of this "A" brand we applied, is as follows:

Ammonia	3	to 4	per cent.
Phos. acid, soluble and available	10	" 12	"
" " insoluble	2	" 4	"
Actual potash	2½	" 3½	"

A total of 17½ to 23½ lbs. per 100, the balance being sulphate of magnesia, soda, lime, sulphuric acid, etc. This is claimed to be a complete manure, containing even a larger than usual percentage of phosphoric acid, the most essential element that the wheat crop is claimed to need.

Now, are we to deduce from this experiment that our soil is already rich in the above ingredients, and needs no addition? If so—and the crop seems to hint that way—it seems a useless expenditure of money to add to it what it does not need, except on the principle of feeding it before it is hungry—generally a safe thing to do. Our theory is that a soil that will give a good crop without manure, ought to give a better one with it, and unless we can see the increased profit from the application, we are apt to be dissatisfied with our investment. We cannot divest our minds of the idea that our new wheat field needs something, but what should it be? This is our dilemma. Who will aid us in its solution?

Montclair, N. J.

WEEVIL-EATEN PEAS.—Professor Henry Comstock, Professor Riley's successor in the Entomological Division of the Department of Agriculture, Washington, D. C., writes us that although his opinion on the above subject cannot be worth very much, as he has never tried any experiments on the germinating power of such peas; yet, were he a farmer, he certainly would not plant peas injured in this way, if sound ones could be procured. For even in those cases in which the embryo is not injured, it is evident that the young plant will suffer from want of the nourishment usually derived from the cotyledons.

When so trustworthy an authority as the editor of the Germantown Telegraph, says that he knows that weevil-eaten peas are *not* worthless for seed, having "seen good crops from such seeds," we need no longer wonder that farmers and gardeners in general hold the same opinion. The tests which we and others have made and printed in these columns, give abundant proof that weevil-eaten peas are worthless or so nearly so that they are not worth sowing, much less paying for. If the editor of the Germantown Telegraph next spring will, himself, select 100 weevil-eaten peas and plant them, we agree to make him a "handsome present," if so many as fifteen of them germinate and mature fruit—provided he will make us a "handsome present", if less than fifteen germinate and bear fruit. Respectfully submitted, Major Freas.

Farm Economy.

HISTORY OF A POOR FARM. No.—19.

The Value of Lime in Composts.

"Are you going to fill up your cellar?" asked Mr. Martin, in a joking manner, as my man was busy unloading swamp muck into it from the wagon.

"Yes, I intend to fill it up. Let us see how much it will hold:—It is 50 feet long by 24 wide, and I will fill it six feet deep. That is 7,200 cubic feet, equal to 240 loads of 30 cubic feet each. I intend to fill it every month during the winter. I am spreading nearly a foot thick of swamp muck from my fish pond, alternately with a layer of manure, and am mixing lime, as you see, with the swamp muck."

"Mixing lime in your manure cellar!" Mr. Martin ejaculated.

"Certainly; why not? what are you afraid of?"

"You will spoil the manure, that's all," remarked my old neighbor.

"I don't know," said William; "we have been putting lime on the wheat fallow, right after we spread the manure, and you have done it ever since I knew anything or can remember, and you never told me that it would hurt the manure."

"But that is different from this," replied his grandfather; "here the lime is put right on the manure, and that will surely spoil it."

"Why does it not spoil the manure in the field?" I asked.

"Because it is in the soil; the good of the manure goes into the soil, and nothing is wasted then."

"Precisely," I replied; "you are right, no doubt, and cannot you see that I am right, too. Look at that swamp muck covering the manure for a foot in depth. Is not that sufficient to hold everything that may escape from the manure, if anything should escape—which I doubt. Besides, the lime is mixed with this muck and will not reach the manure until it is dissolved and is carried up and down by the circulation of moisture. You see that hose; we turn that on to the stable floor and wash it down occasionally, and that keeps the manure below, quite moist."

The old gentleman shook his head. Mr. Martin said, "I don't know how it will turn out, but I have read a hundred times that lime should never be mixed with manure."

"But you know it is done, year in and year out, by good farmers who know their business, and who grow good wheat and raise good crops of clover, by manuring and liming their fields at the same time. Now, I am saving labor and putting the lime and manure together here, in place of making two jobs of it in the field."

Fred had nicely leveled off the top of the heap and was coming out of the cellar when I took from my pocket-book a strip of red litmus paper and asked him to test the heap where it was steaming the most and from which the strongest smell came.

"What is that?" asked the old gentleman.

"That is a strip of litmus paper, which is used to test liquids or vapors for acids or alkalies. Red litmus paper is turned blue by an alkali, and when blue, is turned red again by an acid, and it is so sensitive that a very small trace of ammonia or acid is detected by it."

Fred went all over the heap and at last dipped the paper in a small pool of liquid at the bottom of it; but even there the red color did not change. "You see there is no ammonia about this heap of manure, and the strong smell which now comes from it, must be something else."

"The fact is," remarked Dr. Jones, "it is a great mistake to suppose all the smell that comes from manure is ammonia. The decomposition of organic matter gives off much sulphuretted and carburetted hydrogen, and these are the foul-smelling gases which we notice so much. These gases are acid, and that is the reason why Fred's litmus paper is not changed by the moisture charged with them."

"It is only free ammonia that can escape and waste, and fresh manure has very little free ammonia in it, especially when the stables are sprinkled, as this is, with plaster every time it is cleaned out," said Fred.

"Well said, Fred," replied Dr. Jones, "I suppose you could tell us something about the nitrification of organic matter in such a heap as you have in that cellar."

"Certainly, if you wish; it will explain a good deal about the action of lime in composts," said Fred.

"In former times, when the saltpeter beds of Chili were not discovered," said Dr. Jones, "and the supply of saltpeter was small, it was procured for war purposes for making gunpowder, in precisely the manner in which that heap of manure is made. There were—and are now—what are called saltpeter caves in which the soil impregnated with organic matter and potash and lime, undergoes a process of nitrification, in which the nitrogen of the organic matter unites with oxygen in course of the slow decomposition of the organic matter, and with water or hydrogen, and forms nitric acid. This acid immediately combines with any potash or other alkaline substance, as lime or soda, and forms nitrates. In the old method, the earth of barn-yards and under stables, or manure, leaves, etc., were packed in heaps, mixed with soil, ashes and lime, and were kept wetted; urine and other liquid matters rich in nitrogen were poured on to the heaps and after a time the heap was leached, and the lye evaporated, leaving an impure saltpeter which was purified for use. It was in this rough way that our ancestors found materials for killing each other by means of 'villainous saltpeter,' and now we use the very same method, or may do, to make our soil rich and feed and keep each other alive. But excuse me for interrupting you, Fred."

"I think you have told the whole story," said Fred. "But I might add that it is a question whether ammonia is used by plants until it is changed into nitric acid, and if it is not used in a free state or in combination, as salts of ammonia, then the production of nitric acid and of nitrates is what should be aimed at in making composts and in managing manure, and if any ammonia is formed, we should try to fix it by using plenty of absorbing matter, as earth or muck, or by using plaster or other sulphates to neutralize it. But there is a large portion of carbonic acid given off in such a heap as we have there, and that will combine with any free ammonia and fix it. I don't think all the ammonia that will be lost from that heap, will make us poor; it will be out of the cellar and another one begun before a month. We intend to fill and empty that cellar once a month regularly after this."

"Then you will have corn to sell and to keep, Fred," said Mr. Martin. "But I want to know how much lime you are using."

"One barrel of lime, slaked fine by exposure to air for a few days, just covers the whole heap so as to make it white. There are three barrels in the heap so far, and it is three feet deep," replied Fred.

"The fact is," I remarked, "there is a good deal of error spoken and written about the use of lime with manure. The old Scotch and English farmers, good old *practical* farmers they were, with no science about them—talk of science to them and they would ask if it was a new kind of manure—"

"That they would," said Dr. Jones. "I have heard of one of those old-fashioned farmers who, on being told that some Unitarians had moved into the neighborhood, asked soberly, 'What be they? Be they a new koind o' cattle? If they'll beat the Short-horns, I wants some on 'em, sure!' No science about those fellows, but they grew fine crops."

"Well, I was going to say that those farmers always used lime in their composts with the manure and plenty of ditch scourings, old turf from hedge rows and other general scrapings-up of clearings about the farm and buildings. When visiting in England and Scotland, many years ago, I have seen the limestone hauled, and burned in a kiln, to be used for this sole purpose, and compost heaps on a farm of 100 acres, which, put together end to end, would reach across the farm. That is how eight quarters (64 bushels) of wheat per acre can be grown. But of late, because lime or ashes act to liberate ammonia from its solution in water or from combination with carbonic or sulphuric acids, and set it free, it has been taught that it should *never* be mixed with manure. But *never* is a word I discard altogether. A mere practical farmer who knows nothing of the causes of the effects he produces, or of the laws which govern the behavior of manures, plants, soils, air, water and chemical substances, should perhaps never do it. But a farmer who is educated in the science of his business—a scientific farmer such as Dr. Jones, for instance—may do it when he pleases, because he will know why and for what purpose he does it, and what will be the consequences; and, knowing that the effect of the lime will be to increase the fermentation and to hasten the decomposition of the manure or compost, he will be careful to use such absorbents, and keep the heap in such a moist condition, that if any ammonia is produced, it will be absorbed and held securely. We need to give our crops food that is digestible. Raw food they will not touch. And of all the agents we possess, which will help to prepare—or cook, in fact—the food we offer to our crops, there is none better or cheaper than lime; and I do not know of any method of using it, that is better or more convenient than this that we are practising."

"Don't you think ashes are as good as lime?" asked the old gentleman. "I have used thousands of bushels, and I can show you land that was dressed 25 years ago, that has greener grass on it now than where I have put no ashes. It is a pity ashes are so scarce."

"Ashes are better than lime," I replied; "because while they consist, for the greater part, of lime, they contain some potash. Unleached ashes contain 10 per cent of potash and 20 or 40 per cent of lime; and leached ashes contain scarcely any potash, and, of course, a larger proportion of lime than the unleached ashes. I consider the lime of ashes more useful than the stone lime, because it has once existed as organic matter and probably sooner enters into that condition again than mineral lime. But where can we procure ashes? The supply is exhausted, and therefore we are forced to use lime to help make composts."

MANAGEMENT OF QUACK.

H. IVES.

The foul crop commonly called quack, comes so stealthily on to a man's premises that, often before he is aware of it, his farm will be overrun with it, or it will obtain such a firm root-hold in some fields that the owner, hardly knowing how to manage it, allows it to remain a few years for mowing or pasturage, during which time the ground is so filled with a complete net-work of root-stocks or subterranean stems—not roots properly so called—making horizontal growth about three inches below the surface, that the growth of the stock and leaf above ground is impeded. The extermination of this pest has so often been found an arduous task that many deem it useless to try to eradicate it; but years of experience in killing it have satisfied me that any land, free enough from stones, stumps and trees to allow the proper working of the plow and other implements, can be cleared of quack with an outlay of no more labor or cash than might be profitably expended in the proper management of such crops as the ground may produce while undergoing treatment for clearing it of this foul pest.

There are three ways of managing quack. The first is that followed by the timid man who fears it is impossible to get rid of the nuisance. He works or half works the infested ground with poor tools. This will give the pest just enough tillage to renovate its strength, renew its growth and impart to it sufficient vitality to choke out everything else. The second way is to give the ground good tillage which will check the foul crop enough to prevent it from greatly disturbing the growing crop, and if this method of management is continued with good tools, the good farmer has little inconvenience to fear from having quack on his land. In fact, after having had a good deal to do with it, I have come to the belief that it is not so much of a curse, after all; for if the land gets overrun with it, it will be resting from other crops, and the ground will become so filled with the dense, vegetable growth of the roots as to be really enriched when these are killed by the cultivation necessary for another crop. And if such crop should fail, or if the seeding to grass or clover should not "catch," then the quack—which has been biding its time—will very soon cover the ground and to have the soil covered with something I think so important to agriculture that, when my clover did not catch well on some dry years, I was almost thankful to see quack thicken over it. Then the thorough tillage needed to keep the quack from injuring, say, a hoed crop, was pretty sure to secure a better yield from the latter than if that extra tillage was not required. For this kind of management of quack, it is important that the land should be plowed quite deep in the fall; for as the roots are not very far below the surface, a deep furrow turned pretty flat, will give a layer of clean soil above the roots of the pest, to plant and work in, and then by cultivating once a week to keep the grass from showing itself above ground, it can be kept well under during the whole season, whether the ground is summer-fallowed or planted to corn or potatoes. If intended for the latter purpose, however, it should be cultivated late in the fall, to expose the old roots to the winter's frost.

The third mode of managing quack is to kill it out completely, so as to entirely rid the ground of it. There are two ways of doing this. The first is to summer-fallow the field, thoroughly cultivating it as often as once a week through the season. Plow it late in the fall as deep as it was broken in the spring, and the next year plant for a hoed crop, so that it can be watched for the purpose of destroying any single root of quack that may have survived. This, I know, will prove effectual, for I treated a six-acre lot of heavy quack in this way seven or eight year ago, and have not seen a spear of the pest there for several years. This, however, involves the loss of a year's use of the land, and the expense of working it a year.

The best and cheapest way, however, of clearing any land of quack, no matter how completely it may be over-run by it, is begun by plowing the tough turf in the fall. Then in the spring, drag or cultivate or gang plow the ground to subdue it, as in summer-fallowing, until rather late planting-time, when a hoed crop, preferably corn, should be put in, and it will come up quickly enough to permit the use of the cultivator before the grass gets a start. Continue to cultivate as often as once a week; give the corn one good hoeing, and a second if it needs it; but after the first hoeing, the cultivator will do better work by throwing the earth every time up to the corn, as the implement is run first one way, and the next time

crosswise, so that the first time it will cut the grass down along one row, and the next time it will cut what remained standing between the hills, and cover what was cut by the previous cultivation, making a clean, thorough tillage which can be kept up till the corn is full-grown, or begins to glaze, as I did ten years ago, greatly to the advantage of the crop, besides keeping the quack entirely out of sight. This treatment gives the corn a little more cultivation than it would be likely to get on clean soil, but no more than will prove profitable. The more quack, the more hoeing; the more hoeing, the more corn; the more corn, the greater profit. The corn stubble should be plowed and cultivated before winter, and the next year planted again to a hoed crop, so as to afford an opportunity to watch for and destroy any quack that may perchance have outlived the previous treatment. This time I prefer to plant the ground with potatoes, with rows both ways; for then I can do most of the tilling and hilling with the shovel-plow, seldom having to use the hoe at all, while securing a very clean culture and completely eradicating the pestiferous quack.

Genesee Co., N. Y.

THE HIGHWAY LAWS OF N. Y. STATE.

I DO not think that any State in the Union has better highway laws than New York. We have a very good Act prohibiting cattle occupying the highway, except as they are driven along it. This statute enables farmers to dispense with fences along the roadsides, to grade these and cultivate their lands to the edge of the road-bed, if they wish. They can do this with safety; for, inasmuch as they are obliged to take proper care of their own stock, so they have the means of compelling others to do the same with theirs. Now, if farmers would generally adopt this course with their road fences, their wealth would be materially increased, the appearance of their farms be improved and the roads be much more passable in winter. In St. Lawrence county, for a larger portion of last winter, the roads were through the fields. Why? Simply because the road fences, not more than three rods apart on most of the roads, and five or six rails high, caused the snow to lodge in such quantities that nearly all roads were impassable. I do not think that this would be the case if farmers could see the propriety of dispensing with their road fences. Not the least benefit intended to be conferred by the statute, is that of avoiding the outlay for keeping up these road fences. It is in all cases a useless expense.

Another and later statute has also failed to accomplish the same end of improving the roads in winter. This Act provides that on highways liable to drift, farmers may lay down their fences in fall, and may commute their next season's road work to the extent of the time thus spent. I have never known of a farmer who availed himself of this privilege. In the face of these two statutes, our roads continue to be impassable winter after winter.

Still another statute that aims as strongly at improvement, provides that tax-payers may commute their road tax for the succeeding year by setting out certain varieties of trees along the highway. Few farmers, as near as I can learn, avail themselves of this opportunity of improving their farms.

It is not fair to attribute disregard of the statutes, I have mentioned, to anything but ignorance of their existence. I have discussed the merits of these statutes with farmers who are eminently practical, and the provisions therein contained meet their heartiest approbation. I think it would be well to bring the matter home to the farmers throughout the State, and more especially to road commissioners and overseers. I think a general discussion of the subject *pro* and *con.* would not be without a good effect. There are, of course, arguments, I do not know how strong they may be, against these statutes. I think, however, that the subject will bear thorough discussion, and that the statutes referred to, are fully able to stand on their own merits.

St. Lawrence Co., N. Y. F. K. MORELAND.

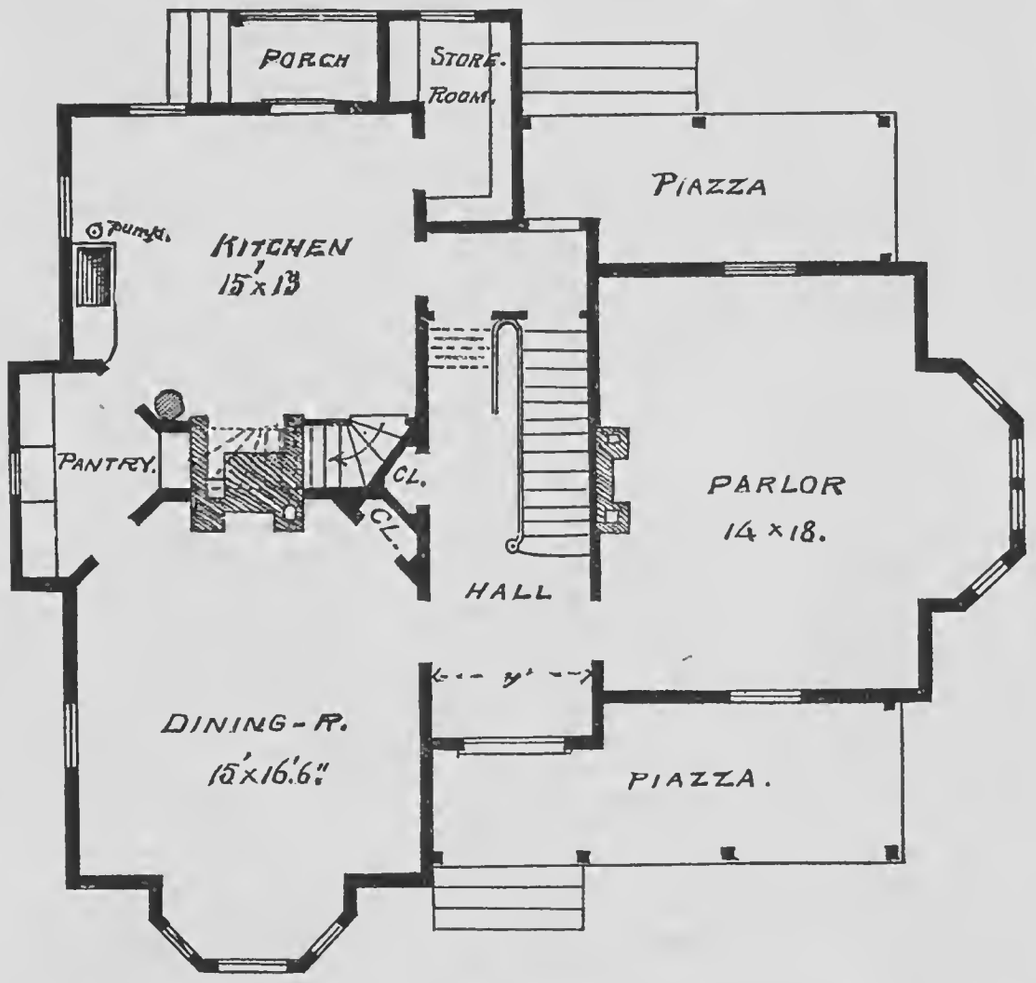
Rural Architecture.

IMPROVED HOUSE PLANS.

A SUBSCRIBER to the RURAL furnishes us the accompanying house plans about which he writes: "In a previous issue you published plans and elevation of a cottage that pleased me very much, but in studying the internal arrangements, I discovered several defects, which a friend and practical builder has undertaken to remedy in the plans herewith presented. The improvement can be made without any increase in the cost.

The kitchen, (see first story) is 15 by 13 feet. The flue from the range is carried over to the chimney in the dining-room, as indicated by the arrow and under the private stairs which are shown by dotted lines over the fire-place, and the breast over the range is carried up to the ceiling.

On the second floor, the chambers are all private and easy of access from the kitchen or main hall. The bath-room is placed over the pantry, making close connection with pump and boiler, and can be reached from any chamber without passing through another. The



FIRST STORY.

situations and proportional dimensions of all rooms and closets, are so plainly indicated on the plans that they will need no further explanation." E. W.

Miscellaneous.

A PRETTY LITTLE WATER PLANT.

IN one of our greenhouses we have a small wash-tub filled with water, and in it are growing half a dozen plants of Aponogeton distachyon—a little aquatic from South Africa—in as many four-inch pots. Since October twelvemonth, until late in summer, these plants bore uninterruptedly their conspicuous white and fragrant blossoms. The leaves are oblong, on long stalks, and float on the surface of the water; the flowers rise an inch or two above it. About the middle of last September, a year ago, we got these plants from Kew, England; their corms were done up in damp moss packed in a small tin box which came by mail Using a compost of chopped sphagnum-moss and fibrous old sod, a little leaf soil and sharp sand, I planted each "root" or corm in a three-inch pot and submerged them a finger-length in the tub of water. Right-away they started to grow—leaves and flowers coming together. This little beauty should be grown in shallow water, and is hardy if the roots are beyond the reach of ice. But, like most African plants, it is essentially a winter-bloomer; and, as a pot plant in a bucket of water, it thrives robustly, and blooms freely as a window plant, requiring no care beyond keeping the bucket full of water. W. F.

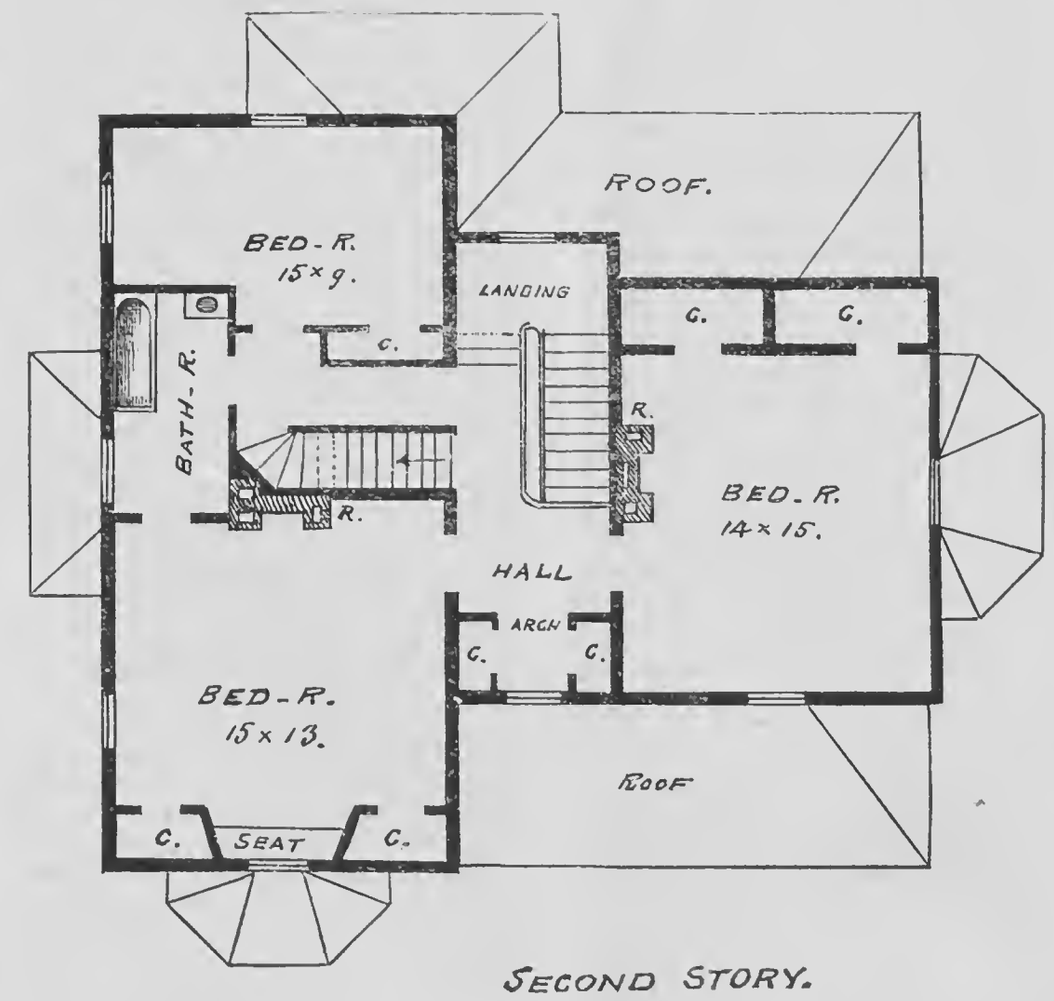
Extirpation of Weeds.

The distribution of weeds by purchasing wheat, rye, oats, barley and corn from weedy sections of country for seeding purposes, is probably far greater than that caused by any neglect to kill weeds at home. As it is estimated that weeds absorb one-half of the fertilizers used, besides smothering the crops, their extermination becomes of paramount importance. Good, clean seed and clean culture will soon put even a poor farm on its feet. Every farmer should grow on a specially prepared field all the seed he wants to sow, and care in weeding and in cleaning the seed, combined with a close cultivation, cannot fail to improve the quality, quantity and price obtained, as well as to reduce the labor of production.

The spending of a few dollars in sieves of meshes suitable to pass weed seeds through, while holding the largest and plumpest crop seeds back, is all that is necessary. S. R. M.

WHAT OTHERS SAY.

FREQUENT MILKING.—In favor of frequent milking *L'Industrie Laitiere* reports that in an an experiment with three milkings a day for eleven days, a cow gave 170 quarts of milk. With two milkings the same cow gave only 146 quarts in the same number of days. Moreover, analysis showed that the milk in the first case was richer in butter globules than that in the second case in the proportion of 4. 1 to 3. 5. Observations with similar results have often been made in this country. The fact is well established that the shorter the time the milk remains in the udder, the greater the quantity and the richer in butter, the wasting away of fats being less and the aggregate secretion more copious. The owner of the Whitestown herd of Holsteins finds it a paying practice to milk three times a day.



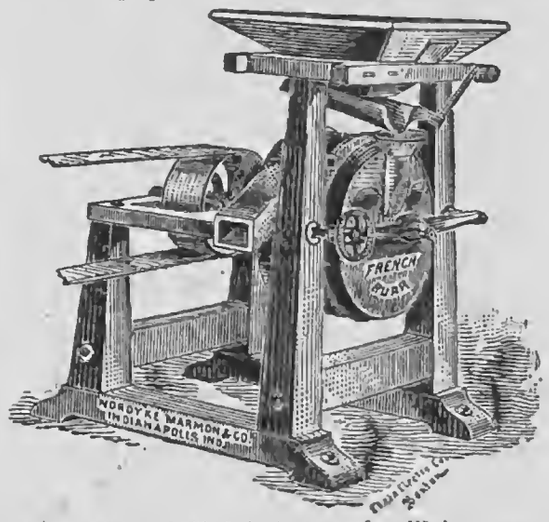
SECOND STORY.

Industrial Implements.

FLOUR, CORN AND FEED MILLS.

THE Nordyke and Marmon Company of Indianapolis, Ind., is one of the largest corporations in the country engaged in the production of milling machinery and appurtenances. We have chosen for illustration two of their mills, showing the horizontal and vertical styles. Without entering into technical details (which will be freely supplied on application to the

company), we may say that these mills are perfectly adapted to the work required of them. Especially is the extremest care used in the selection of buhr-stones with a view to securing evenness of texture and perfect grinding surfaces. The firm have now in operation over two thousand of their mills, which is a satisfactory proof of merit. We have often



expressed our belief that a good mill is a necessity on the farm, and it is a question simply of cost with the farmer. We think he can easily demonstrate the saving and profit to be reaped by grinding feed, if he gives the question careful consideration.

THE Birdsell Manufacturing Company of South Bend, Ind., have just finished their new office. This new building is situated opposite their clover thrasher and huller shops on Columbia street. It is a handsome brick building, 33 feet square, with projections front and rear. The main office is handsomely frescoed and finished off in black-walnut, ash and cherry. The desks are French walnut with ground French glass fronts. It makes one of the finest agricultural implement manufacturing offices in the country. The Birdsell Manufacturing Company have done a very large business this season, finding it hard work to fill the constantly increasing orders for their celebrated "Monitor" clover hullers and thrashers.

IN our report of the Pennsylvania State fair, while mentioning that the firm of Nichols, Shepard & Co. had on exhibition an engine of very superior workmanship, and one of their well-known "Vibrator" separators, we did not add an item equally important, to wit, that the engine was awarded a first premium. Subsequently, at the Delaware State fair, at Dover, both engine and separator were awarded a diploma, which will of course go back to Battle Creek, but the engine and separator will remain in the State, having been sold to enterprising men, who will show the Delawareans splendid results next season.

THE six-days' bicycle race, which took place at Agricultural Hall, Islington, England, during the first week of September, resulted in a victory for the present champion long-distance rider, Mr. Waller, of Newcastle-upon-Tyne, who obtained the lead at midday of Monday, and held it until the close of the contest, winning the belt, valued at £100, and £125 in money. He totally eclipsed all his previous performances, being credited with the remarkable record of 1,404 miles, 6 laps. The attendance was large and enthusiastic, especially on the last day, when 10,000 persons were present.

P. K. DEDERICK & Co. have finished two railway hay-baling establishments for Colorado. These establishments consist of a railroad car forty feet long and containing a steam engine and perpetual hay press. The work is all done in the car, which is moved from station to station, according to requirements. There are also accommodations for the workmen to live and sleep in the car. They have also just finished a handsome cotton ginning and pressing establishment on the same principle.

Everywhere.

NOTES FROM NORTHWESTERN MISSOURI.

While so much attention is called to other parts of the Great West, in the Rural, may I be allowed to say a little of this region which is in the extreme northwest corner of Missouri, embracing Atchison and Holt counties. Although these two counties are so newly settled, yet in the census of 1870 they took a very high rank as producers. Nearly half of them is composed of the very fertile, alluvial soil of the Missouri River bottom lands. From these bottom lands, which are nearly all prairie, the ascent leads up very lofty hills to the upland prairies. On these are some of the loveliest views in the world. As far as the vision can extend, it takes in parts of Kansas, Nebraska and Iowa. On clear days one can plainly see a tree or house 25 miles off, without the aid of any glass. The soil of all this region, on both sides of the Missouri River, is of inexhaustible fertility, and is without that impervious subsoil which is a characteristic of some other parts of the Missouri prairies. Rain may therefore fall for a week without preventing the plows from running. I think this deep porosity of the soil has caused a permanent change in the climate, for when the century-matted sod has been torn loose, the waters no longer run off, but penetrate far down, to be pumped up by the warm rays of the sun in due season. Accordingly, so many millions of new acres having, of late years, been plowed over west and north of this, the air has lost its aridity, and continues very damp during the whole summer. For eight years past this has been noted. If this change has really occurred—and these late years seem to declare that it has—then farewell to the two drawbacks to successful agriculture here—droughts and burning winds; winds so dry and hot that they withered the foliage.

The question of most interest to newcomers with families, is health. To preserve this blessing let those who are not accustomed to the low lands of the West, keep away from the bottoms and margins of streams, no matter how small the latter may be, and also from the neighborhood of ravines. These upland prairies are the healthiest regions in the world. I except no part. Lands are very cheap—as cheap as in Kansas. Unimproved prairies are $10 per acre; improved, from $15 to $22, according to the nature of improvements. The lands are now going up, and will soon be as high as those in the best parts of Illinois. Our winters are milder and shorter than in central Ohio, and the roads, with rare exceptions, are very good and dry all winter and spring. To-day the foliage is as green as in June.

Owing to the superiority of this region for fruit-raising, Holt county is known as "The Orchard County." This term more properly applies to the southern part—about one-third of the county. There are many farmers here who get, every year, from one to five thousand dollars each for their fruit. There are several farmers in Holt county who are very rich, having made all their money here. There are some who are worth from $100,000 and upwards to close on to half a million (!!). Yet the county is not half settled.

The same may be said of Atchison. Those travelers who ride over the Kansas City, St Joseph & C. B. R. R., as they pass through the fat acres that bound the road, will see why these men have become rich. World-wide travelers admit that this globe has no such sight. And I say that the time is rapidly coming when this wonderful Missouri Valley, which stretches so level and so far, beginning just above Forest City Station and extending away beyond Yankton, Dakota, will have an exalted reputation in the world. People talk of this spot as being the Garden of the West, of that as being the Paradise, of another playing the *role* of the Nile Valley, but all must rank far behind this. Bayard Taylor truly declared it to be "the largest body of the most splendid farming land in this world." Of this, to tell the truth, the very central Eden for farmers, because of its superior productiveness, is the valley of the Nishnabotnas about 50 miles above here, extending northeast from the Missouri boundary to Red Oak, Iowa,—a beautiful rolling bottom land, immensly wide, entirely prairie; a very remarkable region. The fruit line does not extend far above this point. In truth, the northern part of this county is ill adapted to its growth, owing to exposure to winds and hard freezings. There is a belt of hill country beginning a little west of this, from five to ten miles wide and extending not over 40 miles southeast, which of all the West is the best adapted to the raising of apples and especial of early peaches. Thousands of teams visit this place every year from Nebraska, Dakota and Kansas, for fruit. This being the the first point they reach in seeking fruits, they pay us the best prices here. Not one-third of this region is occupied, and the lands are very cheap, about four to five dollars per acre. Any young man can get him a few acres, say 10, and by putting them in early Peaches, Blackberries, Raspberries and Apples, he may become a well-to-do man soon. A competence here is certain; but perverse humanity prefers the almost certain poverty and starvation of the mines for the slim chance of striking a bonanza. Here are produced the finest peaches, without exception, and almost with dead certainty, that were ever seen. Any poor, ambitious youth can get his fruit farm in order while working out to keep himself and buy trees.

One more point. Soon good timber will be worth its weight in—well—almost in silver. If a company were to put a half section or so in first-class timber and cultivate it, securing meanwhile a State bounty, by 12 or 14 years what magnificent returns there would be! There is no speculation to compare with it. But men prefer insurance, lotteries, cards etc. Yet here is a certain fortune for one's family in return for a small outlay. Who will make it?

Oregon, Holt Co., Oct. 26. "Holt."

RURAL SPECIAL REPORTS.

O., Mt. Vernon, Knox Co. Oct. 26.—Wheat needs rain badly. Potatoes are all dug and some are rotting. I find it is not a good plan to use any manure for potatoes, unless it is well rotted; for where other sorts have been applied, the tubers have rotted worse than in any other part of the field. Corn turned out a much better crop than was expected. Frost hereabouts has been much earlier and more severe on low lands than on uplands, and as we are on a ridge here, we have about two months more fine weather than our low-land neighbors, escaping late spring and early fall frosts. I have planted a small grapery chiefly of Concords, with some of the White Lady recommended by the Rural. M. W.

Ohio, Atlanta, Pickaway Co., Nov. 2.—In consequence of a drought now prevailing hereabouts, wheat is suffering badly, and some of it also has been nearly destroyed by the Hessian fly and rust. A heavy acreage was sown this fall. Corn is being gathered and brings in market from 35c. to 40c. per bushel; wheat, $1.25@1.30; hogs are dull at $3@3.80 per 100 pounds; cattle are selling for $3 to $4 50; horses $80 to 125 per head. A. L.

Illinois, Baileyville, Ogle Co., Oct. 28.—The first three weeks of October were unusually warm, but since then the weather has been cooler, with occasional hard frosts; no snow here yet, and the weather is highly favorable for gathering autumn crops. Corn-husking is now more than half completed; potatoes are all dug and apples picked. The yield of corn is satisfactory, but not as large as appearances in August indicated. Potatoes are of good quality, but rather scarce, though enough for home consumption and some to ship. Apples are a light crop, and the recent hot weather has prematurely ripened them, so they are not keeping well. The growing grain has a fine appearance, and pasturage is good, but it is now in need of rain. Timely showers have kept vegetation from suffering, but our streams are low. W. B. D.

Ill., Crystal Lake, McHenry Co., Oct. 28.—We have had the worst season for raising sorghum or Early Amber ever experienced in this section. Not more than one-fourth of the cane ripened, and the juice only averaged 7½ degrees Baumé; yet with all these drawbacks we have made about 45,000 pounds of sugar and demonstrated the fact that sugar can be made from the Amber cane in paying quantities on a large scale. With ripe cane and juice testing as strong as it has done in most sections, we would have accomplished astonishing results. As it is, I have no doubt but that the opinion of our Commissioner of Agriculture, Gen. Le Duc, on the feasibility of profitably supplying our entire home demand for sugar by making it from sorghum, will be verified within six years, this county producing all the sugar it will need. A. J. R.

Wis., River Falls, Pierce Co., Oct. 26.—We liked the Beauty of Hebron potato and the Acme tomato very well. From our seed potato we raised a heaping half bushel of good-sized tubers. Although the corn grew to an immense hight, it did not yield well or mature before frost. The Millet grew well, but is no better for fodder than sweet corn. Of the flower seeds only three grew. S. W.

Nebraska, Kearney, Buffalo Co., Oct. 21.—We live in the midst of the country described by Fremont and others as "The Great American Desert"—an arid waste whose only vegetation was Sage-brush, Cactus, Sand-burrs and a stunted growth of Buffalo-grass. But what does the traveler see here now, as he is whirled across the "Great Plains" by the never-tiring "iron horse?" He sees thousands of stacks of straw, from which millions of bushels of grain have been thrashed during the present fall. He sees thousands of acres of corn awaiting the busy hands of the homesteaders to gather the yellow treasure, and a golden one it will be this year. He sees millions of cattle and sheep grazing on fertile prairies. He sees thousands of hay stacks to feed these herds this winter. He sees dozens of thrifty villages and towns along the line of the railroad, and hears the clatter of hammers in the hands of hundreds of carpenters, and the hum of busy workmen as they are transforming these villages and towns into cities. He sees thousands of acres of virgin sod turned over the past season for cropping the coming one. This is only a part of the abundant life and wealth that he sees to-day on the "Great American Desert," and should he return in half-a-dozen years, he will see here the Garden of America, the Granary of the World. A. W. W.

Maryland, Denton, Caroline Co., Oct. 30.—This season has afforded a grand opportunity to those wishing to post themselves as to comparative merits of peaches on our "Shore." In fact, we had a few too many peaches here in the middle of the peach season. Even your huge city exhibited symptoms of surfeit; but to work among them day after day, gathering them fresh and fragrant from the burdened trees, changing from good varieties to better, until *best* is reached, how he who has a *strong* liking for the fruit, or as it is commonly put in Eastern Shore parlance, he that is a *lover* of peaches, sighs for a stomach of larger dimensions! A mere theorist falls far short in these sweet realities. J. W. K.

West Va., Huntington, Cabell Co.—I entered for a premium on the Blount corn; manured highly a good piece of garden soil; planted 3x3 feet, on the 15th of May, one grain in the hill. It came up well, was well cared for, watered during dry weather, and urged along generally. It sent out "lots" of suckers, which I destroyed, except one to the hill, two stalks at three feet each way being enough of any corn, in this country. It set from three to seven ears to the stalk, and I was sure of a premium. But when I read of parties, with their corn only partly grown, having stalks 3½ inches in diameter (10 inches around) and 16½ feet high, I retired—as did my corn. It was ripe by September 28, about twelve feet high, with from two to three small ears (we call them "nubbins" here) on the stalk. I had "popcorn" that beat it two to one, having six to eight full ears to the stalk. It only cost me $5 to raise 50 cents' worth of the Blount. I had also one pound of it from Thorburn, which I planted on rich, virgin soil; but it won't do here. The "Chester Mammoth" is a much better field corn—ears, 15 inches long; stalks, seven feet high. I got also one pound of the Beauty of Hebron, besides what the Rural sent me. *It* is all right—early, productive, large and good. The Acme tomato is the best I have raised,—better even than the Trophy. The Golden Rural is good, but yellow and small. Pearl Millet does tolerably well,—a *good fodder* plant; but the season is too cold for it here to mature seed fully. The Defiance wheat had such a sickly look, that I threw it away—and in doing so, did well. I had an ounce of the Royal Australian prize wheat from Burpee of Phila., Pa., which I sowed for a prize, and expect to get one. It did not have a good chance either, having been sowed on October 26th, a hard winter and an excessively dry spring following, so as to nearly destroy my crop of Fultz wheat, as I got only six bushels per acre, instead of 20 last year. I sowed the ounce in five drills, 12 inches apart; grains dropped by hand, five to six inches in the rows. About a quarter of it froze out; but I got five gallons from the ounce, and some stools have as much as 67 heads, five to six inches long, to the grain of wheat, while most of them had from 25 to 35 heads. The ground had no manuring, was not rich, and no extra care was taken of the wheat, it having been only once hoed out to destroy the weeds. I sowed it on Sept. 29 this year, because I think it is a good wheat. Apples are scarce here—one-tenth of a crop. The wheat crop was poor, on account of dry weather—from six to ten bushels per acre. Late rains redeemed the corn, which we had "given up," and we now have a fair crop. F. D. B.

The Querist.

ANSWERS TO CORRESPONDENTS.

South Carolina Mineral Phosphates.

O. W. F., Blackstone, Mass., asks, 1, what is South Carolina phosphate rock, and where is it found; 2, what is the analysis of it, and also of raw bone; 3, what is the price per ton of the rock, ground and unground; 4, the amount of sulphuric acid required to convert a ton of the rock into superphosphate, unground and ground.

Ans.—1. The mineral phosphates of South Carolina, in the rough state, consist of hard masses of grayish or bluish-white rock, which break readily into fragments, and which have been called nodules. They are irregular in form, water-worn and rounded, often perforated by boring mollusks, though generally only the casts of these remain. Under the microscope they exhibit unmistakable characters of bone, and are easily soluble, even in dilute acids. The chief beds are on the Ashley River, extending from about seven miles above Charleston for ten or fifteen miles. The land rolls in low bluffs, generally 20 to 40 feet high and at right angles to the course of the river. Between the bluffs are swamp lands, once well drained for cotton culture. In these low lands the rich top soil is from four to six inches deep: then follows a light sandy stratum, generally 18 inches deep, underneath which is the stratum of nodular phosphates, varying from four to 18 inches in thickness, rarely increasing to two feet. The nodules are generally buried in adhesive blue clay and sand, though sometimes they are packed close together in continuous beds, or are in the form of large lumps or conglomerates of soft, chalky consistency, as if originally a soft, pasty mass of phosphatic mud that in the course of ages had become semi-consolidated. Associated with the nodules is a wonderful assortment of the remains of marine and terrestrial animals, but chiefly of the former. Under the bed of nodules a phosphatic marl occurs, reaching to the depth of 400 feet, as ascertained by boring, containing as much as 14 per cent. of phosphate of lime, and of vast extent.

2. The composition of the phosphatic rocks varies considerably. Prof. C. W. Shepherd, Jr., of Charleston, gives the following analysis of nodules varying in size from that of a man's fist up to that of a man's head:

Moisture driven off at 212 F.	3 05
Water and organic matter	6.03
Sand and sesquioxide of iron	12.83
Carbonate of lime	8.06
Sulphate of lime	2 20
Phosphate of lime and iron	69.00
	101.17

The phosphate of iron rarely exceeded 5 per cent. The amount of nitrogen did not exceed 0.5 per cent. of ammonia.

According to the analyses of Dr. T. Antisell, the chemist attached to the Department of Agriculture at Washington, in 1868, specimens of the phosphatic rocks sent to him contained:

	No. 1.	No. 2.
Moisture and organic matter	2.50	1.80
Insoluble silicates and sand	19.40	9.20
Phosphate of iron and alumina	12.20	6.00
Phosphate of lime	56.00	64.10
Carbonate of lime	8.00	17.40
Magnesia	Trace.	Trace.
Alkaline salts, chloride and sulphur	1.80	1.10
	99.90	99.90

No. 1 represents the nodules, and No. 2 the fossil bones found associated with them in the beds. According to Fremy, the analysis of the raw bone of an ox, deprived of its organic matter, is as follows:

Per cent. of ash	3.17
Phosphate of lime	62.50
Phosphate of magnesia	2.70
Carbonate of lime	7.90

The following analysis of dry ox bones is by Berzelius:

Phosphate of lime with a little fluoride of calcium	57.35
Bone gelatine (all the organic matter)	33.30
Carbonate of lime	3.85
Phosphate of magnesia	2.05
Soda and a little chloride of sodium	3.45
	100.00

The nitrogen in the organic matter varies from two to about four per cent.

3. Crude rock is sold only by the cargo, and in this way it is worth, per ton of 2,240 pounds, from $5.50 to $6.50, according to its quality. The ground rock is worth, per ton of 2,000 pounds, from $12 to $14, according to its quality also.

4. Before reducing the rocks to a commercial superphosphate, they are always ground, and a large item of expense is incurred in freeing them from clay and other extraneous matter. The quantity of sulphuric acid required to acidulate the ground rock depends somewhat upon the percentage of carbonate of lime it contains. An outside proportion of sulphuric acid—50° in strength—would be equal weights of acid and rock. For preparing good acid phosphate, or superphosphate, from 1,500 to 1,600 pounds of 50°-acid are used to every 2,000 pounds of ground rock; but for the highest grade a larger proportion of acid is required. The retail price of this superphosphate is $25 per ton. Ground rock is seldom or never called for by farmers, and unground rock never.

Sheep on Rich, Moist Land.

E. B., Windham Co., Conn., asks what is the best breed of sheep for rich, moist land.

Ans.—Moist, rich land is unfavorable for sheep; at least for any breed now kept in this country. This kind of land is sure to provoke bilious diseases, which result in what is known as the liver rot; a disease in which the liver becomes clogged and inactive, and unable to free the blood from bile; when the blood is overcharged with this secretion, all the tissues and the fat are colored a deep-yellow, and by-and-by diarrhea or dysentery results, being finally fatal. This is the inevitable consequence of keeping sheep for a long period upon moist lands. But if the sheep are kept only for fattening and are pastured but one season, the condition produced by such a pasture is favorable for rapid fattening, and the yellow-colored fat is even attractive to

the butchers—so that a moist, rich pasture could be very profitably used for fattening a flock for the market. In this case, the kind of sheep known as Canada sheep,—grade Cotswolds, Leicesters and Lincolns—all heavy-bodied, large sheep, would be the best to choose. These can be picked up in the Boston or New York markets in store condition, and by breeding them, raising market lambs, and fattening them off on the pasture as soon as possible, a very profitable business may be done. The sheep may be purchased in the fall, fed in yards over the winter, and fattened after the lamb is sold off, and themselves sent to market by July or August, all within a year, giving a lamb, a fleece and a carcass, and a pile of manure, for the money invested. A breed of sheep is kept in England purposely for feeding on marsh land. It is known as the Romney Marsh sheep, a heavy-bodied, long, coarse-wool sheep, that raises a good lamb and produces excellent mutton. This breed would doubtless be of great value in such localities as that above referred to. They can be procurred cheaply, not being fancy stock, and if some were imported, they would doubtless soon become popular.

Corn Premiums.

W. P. S., Norwich, Ohio, asks us to publish once more the list of premiums offered for the largest yield of Blount's White Prolific corn sent out to the subscribers of the RURAL. 2. He also asks how and when the report of the yield should be made.

ANS.—Having had several inquiries to the same effect, we comply with our correspondent's request, and give below the list of premiums. Comparatively few reports have yet been received. We prefer that all who have registered would report promptly. *All reports must be in on or before December 15th.* After that date we shall proceed to award the premiums. 2. This question is answered on the editorial page of RURAL of November 1.

Prizes.

No. 1. $100 in gold given by the proprietors of THE RURAL NEW-YORKER for the yield that shall have most successfully fulfilled all the conditions, and attained the highest general average of points.

No. 2. A FEED AND MEAL MILL (value $65), given by the CHALLENGE MILL CO., of Batavia, Ill., for the yield that is next in order.

No. 3. The Improved BIG GIANT FEED MILL (value $45), contributed by J. A. FIELD, SON & CO., St. Louis, Mo., for the third best result accruing from the competition.

No. 4. The "VETERAN" CORN-SHELLER (value $35), made by the SANDWICH M'F'G CO., of Sandwich, Ill., and given by them as a prize for the fourth best result.

No. 5. The WHEELER & MELICH CO., of Albany, N. Y., give a choice of their LA DOW'S PULVERIZING HARROW, or a two-horse DISC CORN CULTIVATOR (value $30), for the fifth prize.

No. 6. For the yield of corn sixth in order of merit, MESSRS. RUMSEY & CO., of Seneca Falls, N. Y., offer a choice of anything from their catalogue to the value of $25.

NOS. 7 AND 8. TWO HAND CORN-SHELLERS (value $5 each), donated by LIVINGSTON & CO., of Pittsburgh, Pa., for the seventh and eighth best results from the corn distribution.

Farmers' Publishing Company.

1. For the best weight of Shelled Corn per bushel, to be weighed three months after harvest, 30 vols. of Harper's Half-hour Series.
2. For second best, Dickens's Works, in 19 vols., (D. Appleton & Co.)
3. For third best, books from Scribner's Catalogue to the amount of $5.
4. For fourth best, the Wilson Series of Agricultural Works, in cloth.
5. For fifth best, one year's subscription to RURAL NEW-YORKER.
6. For sixth best, Miles's Stock-breeding.

Total value not less than $30.

About Chinese Yams.

C. & B., Pella, Iowa, ask, 1, whether the RURAL makes any charge for answering questions; 2, which is the best way to grow Chinese Yams, if one wants to raise small tubers on the vines—to brush them or let them run on the ground; 3, what is the best way to preserve the small tubers—to hang them in bags in the cellar, or to place them in boxes, mixed with earth; 4, are they hurt by light frosts before they are gathered; 5, which is the best way to keep one-year roots—in a pit with potatoes or in a cellar with or without an admixture of earth.

ANS.—1. We are always glad to answer, *gratis*, any questions in which our readers may be supposed to take an interest. 2. Our vines are tied to arbors, the same as Grape-vines. Bulblets form in the axils of the leaves very freely. We should prefer brushing. 3. Either way will answer. Keeping them in paper bags is the least troublesome. It is only needful to keep them *dry* and in a temperature above freezing. 4. No. 5. In a cellar, mixed with sand.

Site for a Quince Orchard.

M. W. Mt. Vernon, Ohio, intends to plant a quince orchard in spring, and having for its site a fine, rich, loamy black soil, inclined to be a little wet, but which he intends to drain, as its situation easily permits, he asks whether this would be a good position for it, or whether one on higher and drier ground would be preferable.

ANS.—We should consider this a very good site, if properly drained. The Quince is indigenous to Southern Europe where it grows in the wild state in moist soil along streams and rivulets. This, however, does not warrant the common idea that it will grow nowhere but in a wet and neglected place. The cultivated Quince is like other fruit trees, it thrives best in a rich, well-drained loam, and is as appreciative of care and culture as the Apple and Pear. It should never be planted on very dry, sandy or gravelly land.

Sulphur for Sheep.

W. M. N., Burbank, O., asks whether sulphur is good for sheep, and if so why, and how much of it should be given them, and how often.

ANS.—Sulphur is needed by sheep in moderate quantities. The reason is that the fleece contains a considerable quantity of sulphur, the composition of pure washed wool being as follows:

Carbon	49.25 per cent.
Hydrogen	7.57 "
Nitrogen	15.86 "
Sulphur	3.66 "
Oxygen	23.66 "
	100.00

Besides this, the yolk of the fleece contains sulphur, and when we consider how much of the yolk is washed from the fleece by rains and that this loss of it must be constantly replaced, the need of sulphur becomes still more apparent. A fleece weighing 10 pounds, contains about half a pound of sulphur, including the yolk. The best practice is to mix one quart of salt with half a pint of flowers of sulphur, and give each sheep a small handful once a week.

Miscellaneous.

J. T., Boston, Mass., asks what is the latest and best practical work on sheep, their care and disease; also on buildings and appliances for sheep husbandry on a large scale. He has Randall's Practical Shepherd and also his Sheep Husbandry for the South, and asks whether there is any later and better work on the subject.

ANS.—Randall's works are somewhat out of date at the present day, just as are some of his contributions to the RURAL while editor of its sheep department some years ago. Undoubtedly the best recent work on the subject is The Shepherd's Manual, by our contributor Henry Stewart. The work contains full information with regard to sheep husbandry on a large or small scale, together with designs and descriptions of buildings and other appliances connected with the industry. American News Company. Price $1.50.

S. C., Bonsack's, Va., asks, 1, which of the six ears borne on some of his Blount's corn, should be saved for seed; 2, a cure for bitter rot in fruit trees; 3, where can Hop Bitters, advertised in the RURAL, be obtained.

ANS.—1, Many prefer the topmost ear. Choose invariably the earliest, largest, best formed and best filled for seed; even if found on the lower half or near the middle of the stalk. 2, This peculiar disease which attacks the skin of the apple, causing the appearance of a tiny brown spot, that gradually enlarges as the disease penetrates into the flesh, is not curable, as far as we know. But being no doubt of a fungus origin, it seems that if sulphur could be applied on the first appearance of the malady, it would prove a remedy. High culture, manure, lime in the soil and pruning are the preventives. 3, In any drug store.

E. M., Van C., Seneca Falls, N. Y., asks which is the best cutting box for cutting cornstalks, hay, straw, etc., to be operated by hand, and where he can get it.

ANS.—Baldwin's American Fodder Cutter is the best we know of. It is manufactured in several patterns; the one turned by crank will cut any kind of fodder. Sold by R. H. Allen & Co., 189 & 191 Water St., N. Y.

J. M. G., Tullahoma, Tenn., asks which we think the best potato for general use, and whether there is any better than the Peerless and Early Rose.

ANS.—That depends upon the locality. Early Rose and Beauty of Hebron do well in many different sections. A trial of several of the most popular sorts can alone determine which would be most profitable for the above place. Snowflake (Early and Late) is an excellent sort.

COMMUNICATIONS RECEIVED FOR THE WEEK ENDING SATURDAY, NOV. 8.

M. H. S.—G. S.—M. S.—E. M.—"Claudia"—W. T.—J. H. S.—C. I.—D. H.—G. S. H.—Subscriber.—H. H. L.—F. D. S.—W. J. B.—J. C.—W. I. C.—E. M. V. C.—T. H. H.—L. A. R.—A. L.—G. A. G., Jr.,—G. H.—W. H. M., thanks.—E. W.—M. M.—J. S., thanks.—W. E. M.—L. A. R.—W. R. B.—W. N. W.—M. W.—W. B. G.—E. E. T.—G. R. B.—B. T. S.—W. P.—W. W. D.—J. H.—M. B. McL.—G. S. C.—F. W. P.—L. W. R.—F. W.—L. K. S.—L. L. G.—T. K. S.—J. A. M.—N. H. P.—F. W. S.—A. T. R.—F. D. F.—O. T.—G. E. B.—A. H.—C. R.—H. A. D.—A. M. S.—B.—M. A. D.—A. J. A.—W. B.—W. H. C.—J. F. P.—M. J. S. — R. A. N. — M. E. T. — L. B. R.—T. D. O.

Industrial Topics.

MANUFACTURE OF MENHADEN FISH GUANO.

EDWARD J. BOYD.

OMITTING here an account of the manner in which the Menhaden are caught, let us begin with them when they arrive at the "fish factory," as the place where they are converted into guano, is called. This is generally a two-story building with a "run," which is an inclined plane supported by trestle-work, upon which a dump-car runs to convey the fish from the boat to the "receiving tanks." These are situated outside the factory and from them a sliding door opens to the tanks in which the fish are boiled. These are long, water-tight uncovered boxes, having in the bottom a coil of perforated pipe for the admittance of steam for the purpose of boiling the fish, and a plug-hole through which the water in which they have been boiled, can be drawn off. They will each hold from 50 to 5,000 barrels of fish. In the factories south of Montauk, L. I., the fish are counted by the thousand; in those east of Montauk, by the barrel, which is supposed to contain 250, four barrels thus making a thousand fish. These fish sold during the past season for one dollar per thousand. In a certain sense the business is a monopoly, as the owners of the different factories meet every year and decide upon the price to be paid during the ensuing season.

When a steamer or "sailing gear"—the name given to sailing vessels engaged in Menhaden fishing—is sighted, the preparations at the factory begin. The tanks are filled half-full of salt water; the "hydraulics," or hydraulic presses used to press the fish, are supplied with water, and everything is got into "ship-shape" order. On the arrival of the vessel, the fish are loaded into the dump-cars by means of "tubs." These are the barrels by means of which the fish are counted. The freighted cars are then run up to the receiving tanks and unloaded; the slide is opened, and the cooking tanks are filled; steam is admitted and the process of cooking begins. When the fish have been "cooked," so that they fall readily apart, the water is drawn off; but, instead of being thrown away, it is conducted, by means of gutters, to an oil-room situated on the ground-floor of the factory. When the water has all been drawn off, a slide in the end of the tank is opened, and the pomace—the name given to the cooked fish—is raked into perforated cylinders, fitted with hinged bottoms, called "curbs." When these are full, they are set under the "presses," and hydraulic pressure is applied to them. The water and oil thus forced out through the perforated "curbs," fall on the floor which is water-tight and divided by gutters leading to the oil-room. After having been cooled there, the water, owing to its greater specific gravity, settles at the bottom and the oil floats on top, and is skimmed off, like cream from milk. The oil is then placed in vats and boiled to free it entirely from water, after which it is put into bleaching tanks where it is clarified, and then it is barreled.

The oil and water having been pressed out, the "curbs" are run into the "scrap" house and are emptied of their contents through the hinged bottoms. The fish is now worth $10 per ton as "green scrap." In from 24 to 48 hours a fermentation takes place, which produces a darker shade, caused by the escape of ammonia, and it is then called "old scrap." The next step towards "curing" it for the farmers, now takes place by removing it to the "dry works," as the factory in which the fish is dried, is called. Here, the first process is "pickling" it. This is done by putting it through the "picker," a cylinder armed with teeth revolving against set teeth, like the cylinder of a thrasher. The fish comes from the "curbs" in hard masses that sometimes require considerable exertion to break up; but when it comes out of the picker, it is very fine—completely shredded.

The next step, "drying," now begins. This is effected either by the sun or by artificial heat. In drying by means of the sun, the scrap is spread out, early in the morning, on a platform, made like a floor inclined just enough to allow any rain that may fall on it, to run readily off. During the day the scrap is constantly stirred by means of a wooden harrow drawn by a horse, until four o'clock, when it is gathered by means of a "hoot." This is made exactly like a sled, but with a sliding tail-board which is held down by the driver until the space between the runners is full, when it is lifted and the scrap laid off in windrows, like hay in the field. It is next gathered into the "cure," which is simply piling it into a heap into which perforated pipes are inserted for the purpose of conducting away the latent heat that may be developed. Next day the "cure" is "turned;" that is, merely shoveled over and made into another heap. About four "turnings" generally cool the scrap enough to fit it for shipment. It is now worth from $35 to $40 per ton to manufacturers of fertilizers.

In rainy weather "platform-curing" is, of course, impracticable; so artificial heat is employed. This is a quicker process, but by its use about one-tenth more of the scrap is lost than by sun-curing. The driers are revolving cylinders, like boilers, with shelves running spirally through them. A very hot fire is built in the fire-box at the front end, and the heat passes under each cylinder to the back, and then through the cylinder to the front end where stands the smoke-stack. The drier is fed at the front end, and as it revolves, the scrap is carried up by means of the shelves until it reaches the top, when, the shelves being inverted, their contents fall to the bottom, to be carried up again in the same way. Every time the scrap falls, it falls a little farther on in the cylinder, on account of its being pitched forward a trifle at each revolution of the drier, until, finally, it passes out at the back, and down a chute to be caught up by means of elevators and deposited in the carts placed to receive it.

The length of time it takes a charge of scrap to pass through the drier, depends upon the length of the latter and the number of times it revolves in a minute. In a 25-foot drier, revolving eight times a minute, each charge takes about half an hour to reach the back end, during which time it alternately comes in contact with the hot cylinder and the hot air in it, all its moisture being thus evaporated. Very wet scrap requires from two to five dryings before it is ready for the "cure." The moisture is carried off by means of the natural draft, and with it go the fine particles of the scrap, a loss not incurred in platform drying; although a heavy thunder shower, when the platforms are "charged"—that is, covered with scrap—will wash away many dollars' worth of it. Indeed, I have seen four or five tons of scrap washed away by a heavy rain. After the scrap passes through the driers, it undergoes the "curing" process in the same way as "platform" scrap. Green scrap is mostly used for platform drying, and is very bulky when dried. Old scrap, too, is generally placed on the platform for 12 or 24 hours, if very wet, to dry the excessive moisture, because if it were put into the driers in its soaked state, instead of drying, it would make "pills," or round, hard balls. One "dry works" can dry the scrap from several "fish factories" as the fire is kept up constantly as long as operations last, or there is work to be done.

For export, the scrap is ground and bolted. For this purpose a special mill is used—the only kind of mill that will grind the scrap so that it can be drilled in with grain. It has two cylinders, with cone-shaped bearing faces. One of these makes about 2,500 revolutions per minute; and the other, which is the feeder, about 800. Marvelous is the speed with which one of these mills grinds up the scrap. I have seen two men shoveling it in as fast as they could, while a torrent of ground scrap poured out like a stream of water. Pieces of iron, or anything short of a young anchor, cannot choke its greedy throat. The ground scrap is worth from $45 to $50 per ton.

The scrap will pay for the fish and the cost of working, leaving the oil a clear profit. A thousand fish, costing $1, will yield about five gallons of oil, worth forty cents a gallon. This oil completely fills the place of "boiled oil" in the composition of paints. Nearly all the chemical and prepared paints are mixed with fish oil. Fish guano forms the base, or principal part, of the so-called complete manures, as well as of some sorts of Peruvian guano, etc., one ton of fish guano being "worked up" into six tons of many of the fertilizers sold to farmers. Sand and clay are the chief adulterations of fish guano. These make weight. Nothing, I believe, is so rich in ammonia as fish scrap, certainly, not so far as the odor it emits is an indication. In my experience, on a Sunday when the platforms were being charged with scrap six months old, the windows of a church two miles away, had to be closed. Fancy how persons stand it, who have to work among it! But from my own experience I can say that the odor is never noticed by a person after he has been a week or so in the factory; but so powerful is the perfume he carries about with him, that while he remains there, he is debarred from all social relations with the outside world.

THE Menhaden belong to the herring family and appear on our coast in the latter part of April, and depart in November. The business of catching the fish for oil and guano has increased rapidly within the last 18 years. It is carried on from Maine to New Jersey, and is especially prominent in the northeast portion of Long Island. In 1873 there were 62 factories in operation on the coast of New York and New England, employing 383 "sailing gear" and 20 steamers, with 2,306 men ashore and afloat. Total capital then invested: $2,388,000; total catch, 1,193,100 barrels, yielding 2,214,800 gallons of oil, and 36,299 tons of guano; value of products, about $1,600,000. Since then the business has largely increased, especially in northeastern Long Island.

THE
RURAL NEW-YORKER.
PUBLISHED EVERY SATURDAY.

CONDUCTED BY
ELBERT S. CARMAN.

Address
THE RURAL NEW-YORKER,
78 Duane Street, New York City.

SATURDAY, NOV. 15, 1879.

SPECIAL NOTICE.

THOSE who are interested in extending the circulation of this journal for 1880 are solicited to send for specimen copies, premium lists and posters—any or all—which will be forwarded promptly without charge. It is our wish and intention to make the RURAL NEW-YORKER for the coming year more attractive, more valuable than ever before, whether its circulation be increased or remain at its present number. We ask of our present subscribers that, for the benefit of agriculture and horticulture, they will state to their friends, at fitting times, the estimation in which they hold this journal, whether such estimation be one of approbation or disapproval. It is a plain duty that rests upon us all to encourage that which seems worthy of success; and the duty is equally plain that we should not countenance any public enterprise which does not strive to promote the welfare of the public it professes to serve. The art and science of agriculture and horticulture have assumed in our country an engrossing magnitude far beyond anything we could have dreamed of a few years ago; and among our most urgent needs are representative journals that, original, conscientious and independent, shall forcibly construe and advance the interests involved.

EXTRAVAGANCE?

THERE is probably no word more often used without a distinct idea of its meaning in the mind of the user, than extravagance. When Mrs. Jones says Mrs. Smith dresses extravagantly, it is doubtful if she could explain, even to her own satisfaction, just what she means, and as the word is used in common conversation, it conveys no definite idea further than that the person to whom it is applied, has not the commendation of the one using it. If we turn to the dictionary for a solution of the question, we find it may be synonymous with wasteful or unreasonable, or it may only mean profuse.

Then again, what might be considered extravagant expenditure for one, would be only a judicious investment when made by another. In *ante bellum* times, the writer heard an old, white-headed planter in Carolina, remark of a young neighbor who had been compelled to sell a slave to raise money:—"I allers knew he would come to nothin'. Extravagant dog! Eating boughten flour and wearing store clothes!" For the rest of the community corn bread was the standard and homespun served to clothe rich and poor alike. These were all that were considered needful, and anything more than these was extravagant. We knew one good old lady in a country town, who remarked upon the extravagance of the minister's wife, because she had a pair of new kid gloves every year.

It would be very difficult to draw a line just beyond which extravagance lies. Much depends on one's condition, habits, means and surroundings. Shall one with a limited income, who denies himself, it may be, some of the more expensive and unnecessary, although very common articles of food, for the purpose of being able to indulge his taste for some fine book or picture, thus gratify his intellectual or æsthetic taste without deserving the epithet. Or shall a lady who chooses to have less ribbons and laces, and applies the money thus saved, to the ornamentation of garden or lawn be considered by society as extravagant?

We labor, and hope to receive a reward for it. It seems only proper that one should use that which is his as best pleases him, provided always no harm is done to others; but society must be considered and Mrs. Grundy conciliated. We can, and do often, to our own discomfort and displeasure, refrain from doing things we would like to do, and in the doing of which there would be no wrong, rather than act against public opinion, or in ways that would be objectionable to our friends.

If one spends beyond his income, as he may perhaps and still spend but little, while his expenditures might not by a majority of people be called extravagant, they certainly would be injudicious, for they would be leading him into debt. On the other hand, one may spend less than his moderate income, and be open to the same charge. How to adapt our expenses so as to harmonize at once with our needs, our wants and our receipts, is a puzzling problem. Some have a faculty for really getting more for a dollar than others—more things of real use, we mean. Given two families with the same numbers and the same income, and we often see the one with apparent abundance; while the other is always in straightened circumstances. This comes from knowing how to spend money to the best advantage.

But we have not yet an answer to the question:—What is extravagance? Does one spend money unnecessarily for the mere gratification of pride? That is foolishness. Is one's expense account high because he takes no care of the things he has, and from this want of care is obliged to renew them often? That is negligence. Does one buy an article at a price, when another for less money and a little planning could be made to answer the same purpose? This is want of frugality. Is the table set with a multitude of dishes, including fruits and vegetables out of season and therefore expensive? That is foolish gratification of the palate, and often to the injury of the stomach as well as the purse. Does one housewife by her attention and skill, provide her table as well as, and at less cost than, another? That is economy. Does one consider what is necessary, and in procuring only that, save from a slender salary means to accumulate against a "rainy day"? That is prudence. Is one with an income beyond his greatest needs extravagant if he rides when others, not so rich in worldly goods, walk, or if he dresses in fine clothes while they are clad in homespun? He is gratifying his desires and spends for the purpose only the money he might otherwise have laid aside to be spent, perhaps, by his heirs in riotous living, or divided among lawyers in a contest over his will. When one pays large prices for pictures or statuary without materially depleting his purse, buys fine horses or cattle which, although done for his own gratification, may be, and usually are, the means of improving the stock of all in his neighborhood; when one builds a house large, commodious, convenient and beautiful, and pays for it with money fairly earned, leaving enough to amply supply all his other wants, these expenses may be profuse and lavish, but because they are so, are they necessarily to be condemned?

When one spends money in a greater degree and for other purposes than is generally done by the people by whom he is surrounded, who are in the same pecuniary circumstances, he is, in their opinion, extravagant, and that is about all the word means.

THE FARMERS' BONANZA.

PROFITS made by one class in a country from other classes, however much they may enrich the fortunate class, add not a dollar to the wealth of the nation—so far as that is concerned, it is like a person changing money from one pocket to another. What is gained by exporting goods to foreign countries, however, increases not only the wealth of the exporting class, but also of their country at large. During the current year our farmers have been eminently successful in enriching themselves both from their fellow citizens and from other nations, and from the latter source they have added so many hundred millions to the aggregate wealth of the country that all other classes can well afford to contribute to the well-being of that which, more than all others combined, has been the means of restoring activity to our workshops, liveliness to all kinds of business and prosperity to the land.

Excellent as was the agricultural outlook early in the season, it has been constantly improving since then. A careful review of foreign and domestic crops, from the best attainable sources of information, enabled us from the first to prophesy an advance in price of grain, and to suggest to our friends the advisability of holding back their crops for higher figures than those that were then offered; but we hardly hoped that the advance would have been so great as it has proved. Taking as a standard the Chicago market, both as a central point and as the largest in the country, we find that in the middle of last August, winter wheat was selling at 90c to 93c; No. 2 spring wheat for 85c; corn for 33½c; and oats for 23½c to 24c. At these prices farmers made a fair profit, nor did they expect that they would get much higher figures for their crops. Whatever, in addition to these prices, they have since obtained for these products, is an unexpected addition to their wealth.. Last week, winter wheat was selling there for $1.25 to $1.27, an advance of 38 per cent over the price in the middle of August; No. 2 spring was quoted at $1.18, a rise of 38 per cent; corn brought 47c, a rise of 40 per cent; while oats were 32½c, a rise of 45 per cent. Quotations in the other large grain markets show a relative advance, and it may be fairly held that, as compared with the figures in August last, at all points in the country, the prices at present have risen in the same proportion.

Of course, a good deal of the crops was marketed before the advance began, and a good deal also during the course of the upward movement; but, taking into account the known receipts of grain at different centers, and the fact that farmers have this year been less precipitate than usual in rushing their harvests to market, it is not unfair to estimate that, as a body, they have got 20 per cent more for their cereals than the prices offered at the middle of August. From the estimated crops of the Northwest alone this would make a total sum of close upon $100,000,000 for the farmers of that section—an enormous aggregate that must be nearly tripled for the farmers of the country at large. Morever, the advance has not been confined solely to cereals—butter and cheese as well as hogs, have also shared in it, and, more or less, nearly every product of the farm.

In view of the fact that, as a class, farmers would hardly have grumbled at the prices offered for their products a couple of months ago, they should now rejoice and be thankful at the unexpected bonanza they have since stricken in the shape of the hundreds of millions they have gained from the late advance in the prices of their wares. Of course, the proportion of the prize pocketed by each, must be comparatively small; but even this will, in most cases, be individually very satisfactory, and, moreover, each can cordially rejoice in the good fortune of his neighbors.

PREPARE FOR THE CENSUS.

ACCURATE statistical information with regard to the agriculture of this country is of prime importance not to our own farmers and citizens alone, but to the world at large. Recognizing this fact, Congress by an Act, approved March 3, 1879, provided that the next census should be completed within the month of June, 1880. By this provision it is expected to avoid most of the errors in former agricultural reports, due to the fact that many of the products returned embraced those of two different crops. As the next enumeration will be completed between June 1st. and the 30th inclusive, nearly all the crops harvested one year can be pretty accurately ascertained. Those for the calendar year 1879 will include the cereals, peas, beans, rice, tobacco, cotton, potatoes, fruits of all kinds, hay, clover, grass seed, hemp, flax, honey, sugar-cane, sorghum, and, in short, everything harvested this fall. The crops of the calendar year 1880 will be few, embracing maple sugar and molasses, and wool clipped chiefly in spring, except in Southern California, Texas and some of the other Southern States where two clippings a year are obtained. For certain agricultural products there is no regular harvest, for they are gathered as they mature, week by week, and day by day. These comprise butter, cheese, milk sold, value of animals slaughtered, yield of market gardens, timber of all kinds, and home manufactures.

It is extremely desirable that the returns on all these topics should be full and accurate, and this end can be best secured by the hearty and intelligent cooperation of our farmers. Accordingly, Francis A. Walker, Superintendent of the Census, strongly recommends them to make notes, from time to time, of the quantities and values of the several crops gathered; of the number of acres planted to each, and of all other particulars that will enable them to make prompt, full and accurate returns when the census canvassers call upon them next June.

ANOTHER CHECK ON OUR LIVE STOCK TRADE.

LAST Thursday's cablegram announced that the English Privy Council had just issued orders that after the fourth of next month live sheep imported into Great Britain from this country must be subjected to the same regulations as imported live cattle. They must therefore be killed at the port of debarkation, and for this purpose increased accommodation must be constructed, while the profits of the trade will be lessened, and consequently the price paid for sheep by the exporters to our farmers. The cause assigned for this additional restriction on our live stock trade is that among the numerous shipments of American sheep, a few cases of scab had been discovered on several occasions.

A few months ago we called attention to the fact that the Government veterinarians who inspect at Liverpool the live stock landed from this country, had declared that sheep infected with this highly contagious disease, were among those landed from several vessels, and at the same time we insisted on the urgent necessity that existed for the appointment of skilled veterinarians as examiners of stock at the ports of Portland, Boston, New York, Philadelphia and Baltimore, whence this branch of trade is carried on, for the purpose of guarding against the exportation of what, if persisted in, must certainly, ere long, close this important outlet for a growing branch of agricultural industry. About the same time Gen. Le Duc appeared before the Senate Committee on Agriculture, and among other measures urged this one also. The matter has been grossly neglected, however, and as a consequence, the sheep husbandry of the country has received as severe a check as Administrative dilatoriness and Congressional neglect could inflict upon it.

From England's action with regard to the importation of live cattle from this country, it could be readily inferred that the Government merely wanted a plausible pretext for putting an embargo on other branches of our live stock trade also, and the strictest precautions should have been taken here to prevent the exportation of any animals not thoroughly sound and in good condition, lest disease should become developed or generated through the hardships of the voyage. Politicians, however, have been appointed examining officers, instead of skilled veterinarians—and a promising branch of agricultural industry consequently suffers a serious check.

BREVITIES.

A PHOTOGRAPH (card) is received of a basket of splendid tomatoes, without name or address of sender.

IF YOU want to turn a *wild* Strawberry into a *Wilder*, give it lots of potash, no soda, plenty of magnesia.

"ROCHESTER, N. H., is excited over matters growing out of their late fair. . . On Sunday before the fair, the trotting men trained their horses all day."

LATE English journals tell us that the present advance in grain, etc., is due to "desperate speculation on the other side of the Atlantic." Say rather to desperate need of food on the European side.

ONWARD.—Mr. Ott, of Aiken, S. C., sends us some tea of his own raising. The leaves were dried without manipulation. The quality we thought about the same as that of "English Breakfast" that sells for 75 cts per pound.

THE papers are now printing a good deal about Teosinte (Reana luxurians) as a new fodder plant. Readers will bear in mind we tested this at the Rural Grounds over a year ago, and found that it needs a warmer climate than ours.

REFERRING to the decay of our Central Park, Mr. Meehan says that he will not join in the crusade against the politicians who control it, but blame the respectable citizens of New York by whose apathy the politicians get such control—which is, no doubt, the proper view to take of the matter.

IF it pays to purchase costly agricultural implements, it certainly pays to take care of them, now that they are to be laid by for a six months. The time to care for all farm tools is *now*. Put them in complete order that they may be ready for use when needed in the spring, and time presses. This is trite advice, readers, but we all stand in need of it.

THE following note from a friend explains itself: "Several of our correspondents agree with Mr. Lovett, in RURAL of Oct. 25th, as to the identity of the Cuthbert and Queen of the Market Raspberries. Did the public ever hear anything of the Queen of the Market before it was advertised for sale? Where, when, and by whom did it originate? Who christened it? Who knows? Is it not about time some one arose to explain?

RURAL READER."

WE hope our nurserymen and, indeed, our readers interested in such matters, will try budding and grafting different varieties of Pears upon the Japan Quince. Mr. W. C. Strong has so budded 10,000, using seedling Japan quince stocks. He has found that the average growth of cions is greater than that of Pears upon the common Quince. There are but half a dozen kinds that do well upon the common Quince. Perhaps the employment of the ornamental Quince for stocks, may increase this number.

WE learn from our respected friend and contributor, Mrs. Annie L. Jack, of the Province of Quebec, that among Apples they prize Fameuse first; Red Astrachan, second; St. Lawrence, third; Alexander, fourth; Tetofsky, Duchess of Oldenburg and Pewaukie, fifth. Among Pears, Flemish Beauty does well. The Hartford Prolific Grape is often mildewed; Concord, never. Eumelan does well, is generally loaded with fruit and free from mildew. The Delaware also does well. All require protection during the cold season. Among Strawberries, the Wilson and Charles Downing do best. Seth Boyden has been discarded. Cap. Jack, Jucunda and Golden Defiance, have done well the past summer.

For Women.

CONDUCTED BY MISS FAITH RIPLEY.

THE HOMELY BABE.

A Railway Incident.

BY PARMENAS MIX.

Good nature reigned throughout the car, the day was
cool and bright;
The time was passed in merry song and conversation
light.
Though here and there a veteran of railroad travel
dozed
Or read some lately published work—with book and
eyes half closed.

My journey had been long, and yet my destination lay
Beyond the distant mountains, near a thousand miles
away,
And being wearied with my ride, I neither talked nor
sung,
But kept my teeth well-closed and made a captive of
my tongue.

A well dressed mother looked with pride upon her
laughing child,
A handsome babe with dimpled cheeks and blue eyes
large and mild—
So handsome that at last it drew all strangers' eyes
that way,
And many rose and gathered round where the charm
ing infant lay.

No honest pride can equal hers who heard her baby's
praise
From the lips of those whose thoughts were shown in
their admiring gaze,
And I doubt if great Napoleon e'er felt one-half as
proud
As did that happy mother 'mid that kind, admiring
crowd.

There was still another infant and a mother just as
dear—
She sat alone, unheeded, in a seat far in the rear,
And her scanty garb and thin, pale face on which
care's shadow lay,
Said plainly that the light of hope shone dimly on her
way.

Her child was far from beautiful, and poorly, sparely
dressed,
And she seemed to say as to her heart its form she
closely pressed:
"Poor, slighted child, no kind caress but mine brings
solace here—
My kiss alone falls on your cheek—my praise is all
you hear."

Then for the first time I perceived two brown eyes
quite intent
In watching this poor, lowly pair—the gaze was kindly
meant,
For the eyes were full of sympathy and I could read
therein
That their owner could enact the role of "Good Sa-
maritan."

Producing four fine oranges, the young man crossed
the aisle,
And speaking to the woman with a kind, assuring
smile,
He placed the fruit upon her lap and said in accents
mild,
"Your child is very quiet—I so love a quiet child."

Her face shone with pure gratitude, her sad eyes grew
more bright:—
She felt so proud of what he'd said, and truly well she
might,
For had not her babe received the praise of the no-
blest heart by far—
The truest, tend'rest, bravest heart that beat within
that car? *Detroit Free Press.*

SOME POMPS AND VANITIES.

THE painter rather than the scribbler should assume the task of describing the fashions for the coming winter. A few strokes of the brush and the marvellous designs would shine from the canvas, but the written description, even supposing it to be the best, conveys but a confused idea of the fabrics under discussion.

The unfortunate fashion-writer realizes to her utter despair the abject poverty of language when she sits surrounded by costumes and fabrics, regal in their beauty, which defy the power of description, and bankrupt her of adjectives in the first sentence.

Nothing less brilliant than the pen of an E. de Amicis—who is par excellence, the "word painter of the day"—can do justice to the "fall fashions" in material and style.

Orientalism reigns supreme. *The* costume and bonnet of the day are no longer quiet and elegant; they fairly blaze with magnificence of design and material. Magnificence albeit that is somewhat subdued. No glaring contrasts are allowed, but the brilliant colors are so ingeniously combined as to present only a rich effect.

MILLINERY.

The flaring and very much indented bonnets are no longer to be seen. The "Cottage" shape and variations of it are most popular. Black velvet has, in a great measure, been superseded by black satin for hat material and when trimmed elaborately with jet, makes a most elegant head covering. Flowers are not at all used, but birds, in greater or less quantities, appear on *every* hat. Sometimes it is the head and breast of a large bird, sometimes a head and wing; again, there are clusters of from three to six small humming birds. Whatever else is lacking there must be at least one bird, or a fraction thereof, to give the bonnet *style*.

Turbans are often made to match the costume, and trimmed with plumes and the inevitable delegate from the natural history department. One turban composed wholly of variegated wings and trimmed on one side with a large English starling, was odd and by no means unpretty. Another, with the crown of Persian cashmere, had a rim of old gold satin, with bird and feather to correspond.

A most exquisite hat had a crown composed wholly of Impian feathers,—sometimes twenty birds are used in making one of these crowns, only the most beautifully tinted feathers being used. Satin scarf of old gold and bronze with plumes to correspond, satin Turk strings and rainbow jet completed one of the most *distingue* hats imaginable.

A capote shape in gray felt, with rim of embossed velvet and a soft crown was trimmed with shaded ribbon and a "cashmere" breast. It had a facing of shirred velvet. A novelty was a "jet" hat. The crown was embroidered in jet and a fringe of the same fell over and below the crown forming a sort of cape. The garniture was black plumes, and satin Turk strings and three jet and gold bars. A pretty little dark green felt with a brim rolled back, was faced with green velvet, and a single gold thread was sewn on the extreme edge of the brim all around. Satin ribbon and plumes of green and the inevitable bird finished the bonnet. A number of sapphire bonnets were shown in Terry velvet and satin de Lyon. Most of them were composed almost wholly of the one color. Some, however, were enlivened with brocaded ribbon, or jet or fancy ornaments in gold and jet. One sapphire Terry velvet was made gorgeous by a face trimming of rainbow jet. Very few gray bonnets were to be seen. One in felt was finished with a garnet satin scarf and a gray bird, and another in Terry velvet had a scarf of the same material and a bird, but they looked almost austere in contrast with the brilliancy and sparkle of their companions. A plain brown Terry velvet was made to appear very jaunty by means of two beautifully shaded—pink and brown—plumes placed high on one side. A little "Fanchon" shaped jet hat was decorated with feathers, two clusters of humming birds, and two large gilt pins. Chenille and lace were used for the strings.

For evening wear, flower hats are extensively worn. One composed of lilies-of-the-valley and Duchess lace, had a cluster of humming birds in a rosette of lace just above the face. The most showy "dress" bonnet, however, is the Continental. In shape it bears somewhat of a resemblance to the Revolutionary Continental. Several long ostrich plumes are required to finish this style of hat. White is the color usually selected and what with the stylish shape and the graceful mass of ostrich plumes it would be hard to conceive of a more elegant *chapeau*. An effort is being made to introduce large flaring beaver hats. They are exceedingly becoming to round youthful faces, but they are rather trying to most people. The general taste seems however to have set in the direction of quiet shapes.

Remember that you must have a bird or at least a section of one, if you would escape having your new bonnet pronounced "unstylish."

CLOAKS.

The dolman and variations of it are the most popular styles for outside wraps. Their elegance consists principally in their decorations and linings, the latter in the most fashionable garments being quilted satin of cardinal or old-gold shade. A sumptuous one of *matelasse* made very long, was trimmed with a ruching of narrow satin ribbon, chenille fringe and masses of jet, a deep collar of jet finished the neck. The lining was quilted cardinal satin. Another of *Sicilienne* had three rows of plaited French lace around the bottom, and a jabot of the same down the front. Under the sleeve-portions were rows of chenille fringe six inches deep, while the sleeves were one mass of *passementerie* with jet pendants. This wrap was moderately short.

The more expensive outside garments are made of silk, satin de Lyon, *Sicilienne*, *matelasse* rep-beaver and Armure cloth. Great quantities of *passementerie* embroidered with jet, chenille crimped fringe, jet fringe and fur are used. A brown *Sicilienne* Paletot was finished with bands of seal-skin, the effect was rich and elegant, and one could hardly realize that this "plain" garment was as costly as the bejetted ones until the price ticket was glanced at. It revealed $1,500 as the cost of this not very pretentious garment.

A rep-beaver dolman with a broad band of *passementerie* across the back, between the sleeves was elaborately trimmed with crimped chenille fringe. Trimming a garment of this class across the back is an excellent mode of relieving the extreme plain look of many of the long dolmans. Beside circulars and dolmans, there are the cloaks of jacket form, coat basques, half-fitting, double-breasted demi-long cloaks and the Ulster. Seal-skin sacks are shorter than they were last season, and the circulars so much in vogue last winter are still worn. It is almost impossible to put enough trimming on a "dress" wrap. Fringe in the most elegant designs, *passementerie* loaded with jet, are used in profusion. For every day wear, on the other hand, the extreme of simplicity is reached. Fancy cloth cloaks designed for every day wear are frequently finished merely with machine stitching.

Sometimes the collar and lapels, cuffs and pockets, are faced with seal or some other fur, and while this is far from expensive, the effect is luxuriously elegant.

Those who own camel's-hair shawls will be glad to learn that fashion has decreed that they may again be worn. They are a fitting finish for costumes trimmed with fabrics in the new Persian and Oriental designs. One of these shawls was shown, which had been made into a rather short dolman-shaped garment. The edge was trimmed with black feather ruching, sparkling with jet and rainbow pendants. It was more youthful and richer-looking than when arranged shawl-fashion.

I cannot leave this subject without describing a certain opera wrap, which was—to be artistic—a symphony in white. A modification of the dolman was the shape, the material white *Sicilienne*. Around the lower part of the back portion was a deep row of crimped chenille fringe, the sleeves and lower fronts were finished with crystal fringe and the neck and breast profusely trimmed with crystal and chenille *passementerie*. The lining was of quilted white satin. The effect of the whole was indescribably lovely.

Thanks are due Messrs. Lord & Taylor, of Broadway and Twentieth street, for their courtesy in furnishing information as to fashions, in fabrics and in styles.

The RURAL of November 22 will contain a full description of dress materials, trimmings, hosiery and lingerie.

RESULTS OF ARCHERY.

THE returns from the Female Archery Clubs of America for the season of 1879 are now all in. We gather from them the following interesting statistics which indicate that this branch of industry is in a flourishing condition: The target was hit during the season three times out of a possible score of 84,000,000. The rumor that these three times were accidents is without foundation; 2,874 of the archers have become hopelessly engaged to the young gentlemen who were so kind as to teach them how to aim; 8,940 other girls are sure they would have become engaged had it not been for these 2,874. The 8,940 do not hesitate to assert that the 2,874 took unfair advantages and were unbecomingly forward. The matter is to be brought to the notice of the next National Convention of the Archers. During the year 184,948 barn doors were well hit. Of this number, 92,474 appertained to barns less than a mile to the right of the target; 92,474 to barns situated less than that distance to the left of the target. The casualties of the year are immaterial and considerable less in number and severity than those of the season of 1878. It appears from the returns that only 280 cows, 18 horses, seven goats, five pigs, 82 small boys, and 23,720 peddlers of a new map of Palestine were either killed or wounded during the season, and that in every instance the blame was with the animal hit. The archers to a girl have filed affidavits from which it appears that each one of those cows, horses, goats, pigs, and boys were recklessly exposing their lives by standing within 5,280 feet of the respective targets at the time the accident occurred.—*Albany Journal.*

A LADY'S RESPONSE TO THE TOAST OF "THE MEN."

MRS. DUNIWAY, of the New Northwest, at a literary reunion at Salem, Oregon, "toasted" the gentlemen as follows:

"God bless 'em! They halve our joys, they double our sorrows, they treble our expenses, they quadruple our cares, they excite our magnanimity, they awaken our enthusiasm, they arouse our affections, they control our property, and out-maneuver us in everything. This would be a very dreary world without 'em. In fact I may say, without prospect of successful contradiction, that without 'em it would not be much of a world anyhow. We love 'em, and the dear beings can't help it: we control 'em, and the precious fellows don't know it.

As husbands they are always convenient, though not always on hand. They are most agreeable visitors; they are handy at State Fairs, and indispensable at oyster saloons. As our fathers they are inexpressibly grand. A man may be a failure in business, a wreck in constitution, not enough to boast of as a beauty, nothing as a wit, less than nothing as a legislator for woman's rights, and even not very brilliant as a member of the press; but if he is our own father we overlook his shortcomings and peccadilloes with the divine mantle of charity. Then, as our husbands, how we love to parade them as paragons!"

COLLECTING AND PRESSING SEA-WEED.

FIRST wash the sea-weed in fresh water, then take a plate or dish (the larger the better), cut your paper to the size required, place it in the dish with fresh water and spread out the plant with a good-sized camel's-hair pencil in a natural form; then gently raise the paper with the specimens out of the water, placing it in a slanting position for a few moments, so as to allow the superabundant water to run off, after which place it in the press (not THE FREE PRESS). The press is made with either three pieces of board or paste-board. Lay on the first board two sheets of blotting paper; on that lay your specimens; place straight and smooth over them a piece of old muslin or fine cambric, then some more blotting paper and place another board on the top of that and continue in the same way.

The blotting paper and the muslin should be carefully removed and dried every day and then replaced; at the same time those specimens that are sufficiently dried may be taken away. Nothing now remains but to write on each the name, date and locality. You can either gum them in a scrap-book, or fix them in, as drawings are often fastened, by making four slits in the page and inserting each corner. This is by far the best plan, as it admits of their removal without injury to the page at any future period, if it be required to insert better specimens or intermediate species.

Some of the larger specimens, or "algæ," will not adhere to the paper, and consequently require gumming. The following method of preserving them I have tried, and with perfect success: After well cleaning and dressing, brush the coarser kind of algæ over with spirits of turpentine in which two or three small lumps of gum mastic have been dissolved by shaking in a warm place; two-thirds of a small phial is the proper preparation, and this will make the specimens retain a fresh appearance.—*Detroit Free Press.*

CORRESPONDENTS' CORNER.

IN response to "Reader's" request which appeared in the RURAL of Oct. 11, we have received several copies of the desired poem. Those who have been at the trouble of writing and sending us the verses will please accept our thanks for their courtesy.

A SINGULAR OLD SONG.

This *double entendre* was originally published in a Philadelphia newspaper a hundred years ago. It may be read three different ways. First, let the whole be read in the order in which it is written. Second, read the lines downward on the left of each comma in every line. Third, in the same manner on the right of each comma. In the first reading the Revolutionary cause is condemned and by the others it is encouraged and lauded:—

Hark! hark! the trumpet sounds, the din of war's
alarms,
O'er seas and solid grounds, doth call us all to arms;
Who for King George doth stand, their honors soon
shall shine:
Their ruin is at hand, who with the Congress join.
The acts of Parliament, in them I much delight,
I hate their cursed intent, who for the Congress fight;
The Tories of the day, they are my daily toast,
They soon will sneak away, who Independence boast;
Who non-resistance hold, they have my hand and
heart,
May they for slaves be sold, who act a Whiggish part;
On Mansfield, North, and Bute, may daily blessings
pour,
Confusion and dispute, on Congress evermore;
To North the British lord, may honors still be done.
I wish a block or cord, to General Washington.

WHICH IS IT?

I WILL take the liberty to send another poetical curiosity. Read as written and it gives one view of a certain matter. Read alternate lines, that is, first and third, and second and fourth, and thus to the end; this gives another view:

The man must lead a happy life
Who is directed by his wife;
Who's free from matrimonial chains,
Is sure to suffer for his pains.

Adam (we read) could find no peace,
Until he saw a woman's face;
When Eve was given for a mate,
Adam was in a happy state.

In all the female hearts appear
Truth, darling of a heart sincere
Hypocrisy, deceit and pride,
Ne'er known in woman to reside.

What tongue is able to unfold
The worth in woman we behold?
The falsehood that in women dwell
Is almost imperceptible.

Fooled be the foolish man, I say,
Who will not yield to woman's sway;
Who changes from his singleness,
Is sure of perfect blessedness.

Literary Miscellany.

WITHOUT AND WITHIN.

My coachman in the moonlight there,
Looks through the sidelight of the door;
I hear him with his brethren swear,
As I could do—but only more.

Flattening his nose against the pane,
He envies me my brilliant lot,
Breathes on his aching fists in vain,
And dooms me to a place more hot.

He sees me in to supper go,
A silken wonder by my side,
Bare arms, bare shoulders and a row
Of flounces for the door too wide.

He thinks how happy is my arm,
'Neath its white-gloved and jeweled load,
And wishes me some dreadful harm,
Hearing the merry corks explode.

Meanwhile I only curse the bore,
Of hunting still the same old coon,
And envy him outside the door,
In golden quiets of the moon.

The winter wind is not so cold,
As the bright smile he sees me win,
Nor the host's oldest wine so old
As our poor gabble, sour and thin.

I envy him the ungyved prance,
By which his freezing feet he warms,
And drag my lady's chains and dance
The galley slave of dreary forms.

O could he have my share of din,
And I his quiet—past a doubt,
'Twould still be one man loved within
And just another bored without.

[J. R. Lowell.

IN FOLLY'S NET

CHAPTER XVII.

PARTING.

LORD SHOLTO excused himself that morning again from accompanying his guests on their shooting expedition, and Captain Murray was enjoined to take his place and see that all went well. The young officer accepted the duty a little reluctantly, for Ida had told him the night before, with her pretty eyelids red with the tears she had shed, of Lord Ivor's trouble, and he would have preferred remaining at home.

"Can't I be of some use at home?" he whispered, as he left the table and went to the sideboard, where Lord Sholto stood asking his sister some questions about Jean. "I hate leaving you in this trouble."

"Thanks, old fellow," said Lord Sholto, while Ida Crawford shot a soft, grateful glance at him from out her pretty blue eyes. "But if you'll get these fellows off as quickly as you can it will be the greatest kindness you can do us."

"All right," said Captain Murray, resignedly, performing his commands so well and with such diligence that before half an hour had elapsed the shooting party were on their way to the moors and Sholto Hall was left in comparative peace.

Breakfast over, and the gentlemen gone, the ladies of the party scattered; some assembled in the drawing-room and talked gossip and dress, others went to their rooms to write letters and hold consultations with their maids, and Lady Sholto and Ida were free to go to Jean and tell her that Lord Ivor was watting for her in Lord Sholto's study.

"The carriage is ordered in half an hour," said Lady Sholto, "so they will not have much time. I hope Jeanie will bear up well. I am so anxious about Archibald, he is looking so dreadfully ill and haggard. You know he has decided on going away almost immediately, Ida."

"Yes," said Miss Crawford, sadly. "It is terrible for him."

"Hush!" said Lady Sholto, "here comes Jean."

She was coming towards them along the passage dressed ready for her departure, and seeing the anxious faces, tried to force a smile to her pallid lips; but the smile was sadder—infinitely sadder than tears, and Ida's blue eyes filled with water.

Jean was looking frightfully pale: but she was calm and composed, and spoke quietly, in almost her usual voice. She was dressed in a dark cashmere dress, and wore over it a long, fur-trimmed mantle, while her face was shaded by a broad-brimmed Spanish hat which Collins had chosen, because it partly concealed Jean's pallor.

"Are you cold, dear," said Ida, in surprise, "that you have on your furs?"

"Yes," said Jean, quietly. "It is a chilly morning, is it not?"

Ida had taken her hand; it was cold as death, and when she released it, it fell heavily at her side.

"I will say good-bye now," said Jean, calmly. "Ida, I shall not see you again. Will you come and see me—not yet, but bye-and-bye? Good-bye, Ida, I hope you will be very happy, dear."

She bent forward and kissed her on the cheek, the girl clung to her, weeping passionately; but no tears dimmed Jean's eyes, which shone with a feverish lustre. "I will not say good-bye to you, Florence," she said, with another pale, sad smile; "you will come and 'speed the parting guests.'"

She passed on quietly down the broad staircase, and without any pause or hesitation, pushed open the door of Lord Sholto's study, and entered.

The Earl was there alone, and waiting for her.

But though he was waiting for her, Jean's slow, noiseless step and the soft unrustling cashmere dress she wore did not betray her presence, for the Earl neither turned, nor looked up.

The air was close and heavy. Jean softly crossed the room and unlatched the window; the autumn sunbeams slanted in at the casement and fell, almost in mockery, as it seemed, on the bowed golden head; the soft air stole in refreshingly, and the Earl, lifting his head, sank back in the arm-chair, shading his eyes as if the light hurt him; while Jean could have cried out with pain at the sight of the change in the beloved face, so white—so haggard—so terribly sad. Jean went back to his side, kneeling down with her head upon the arm of his chair; and then, for the first time, he was conscious of her presence, and putting out his hand felt blindly for the bent head; but Jean caught his fingers and drew them softly to her lips.

"Archie," she said, softly, "can you ever forgive me?"

"There is no such word between you and me, Jeanie," he said, in an almost inarticulate voice, looking down at her, with his face white and quivering, but trying to smile at her with the weary, sad, gray eyes—the eyes which had made all her sunshine in by-gone days—the eyes which, for both their sakes, must not look upon her face again until they had both learnt that hardest of lessons, a lesson which can never—never be thoroughly learnt—to forget.

"There can be no such word between you and me, Jeanie," he repeated, trying to speak more calmly.

"Can you listen to me, Archie?" she said, softly, at length. "We have so little time before us, my dearest, and I have so much to say to you."

"Say on, my darling," he answered, in a hoarse, unsteady voice. "I will not pain you again by my weakness."

But if Jean had so much to say she was strangely silent for some minutes, and she turned her face on his shoulder and hid it there for a moment, struggling for calmness and composure.

"I want you to promise me something, Archie," she went on, then lifted her face a little so that she could look into his eyes.

"What is it, Jeanie?"

"That you will not grieve much, dear," she said, entreatingly. "The blackest spot in my own sorrow is caused by the thought that I have laid such a burden on your shoulders. If I could think, my dearest, that you were conquering your trouble, that you were learning to—to"—her voice failed a moment—"to forget the unhappy girl who has repaid your love so ill, I think I could bear it better."

"Poor child!" he said, with a sad, bitter smile. "Do you think I *can* forget?"

"It will be hard," she said, brokenly—"it will be hard—oh! so hard, my darling; but harder lessons have to be learnt sometimes. You will go away, you will travel, you will see new strange countries, perhaps. Oh! I hope so, dearest. Perhaps you will find some one whom you can love as you loved me in the past, and who will make you as happy as I would have tried to do if—if—if——"

She shivered and drew closer to him; he stooped his lips to her hair. She had removed her hat and thrown it from her as she entered.

"And if you find her, Archie," she went on, bravely—"if you find her and win her heart, you will remember that I told you I hoped it would be so. I will pray that it may be so."

"Do you know what a man's love is, my poor child?" he said, with intense sadness. "Ah! no, you cannot, or you would not tell me to forget. Jeanie, if you had died, if I had buried you under the cold earth, and seen the flowers growing on your grave, I would not have forgotten, but I would have borne my sorrow, and in time resignation would have come; but as it is, knowing that you love me, and that you are that man's wife, how can I forget? How can I? How can I give you to him and forget?"

She shivered again, clinging to him with her little trembling hands; she tried to speak, but no words came.

"Jeanie," he said again, in a moment, "have you thought what it will be to spend our lives asunder? Have you thought what it will be to love as we love when such love is a crime? No, my darling; if you had thought you would not tell me to forget—to marry another woman. There are enough miserable women in the world, Heaven knows, without my adding to the number by marrying an unloved wife."

He paused, with a short, bitter laugh. Jean put up her hand to his mouth to silence him; but he caught it in his, and held it closely.

"Oh! my darling," he said, passionately, "would to Heaven I loved you less—would to Heaven that I loved you with a love that could bear your shame; for if I did, kneeling now at your feet, I would ask you to go with me away, far from that man who has robbed me of you; for it was a theft, Jeanie. Your own words would not make me believe that you were willing to become his wife—willing to break my heart."

"Archie, you are killing me!" she moaned, with her white face upon his breast, and her lips parched with pain.

"Forgive me, Jeanie," he said, in a moment. "Forgive me, love—I am mad, I think."

There was a long silence during which Jean lay white and shivering in his arms, and Lord Ivor tugged fiercely at his moustache, trying to stifle the fierce passions of anger and sorrow which were burning within.

"You have not given me the promise, dear," she said, softly, at length lifting her eyes to his face, and carrying his hand to her lips and to her brow.

"What promise, Jeanie?"

"To go away and forget me."

"I am going away," he said, huskily. "I don't know, nor do I care, where; but I am going—the farther away the better. Ah! my darling, do you guess how hard it must be for me to say, the farther away from you the better?"

"And you will forget, Archie?"

"Forget!" he repeated. "If I can."

She thanked him, softly, trying to shut her ears to the bitterness of his voice.

"Is that all I can do for you, Jeanie?" he said, in a moment. "Is there anything else in which I can help you, my child?"

"No," she said, softly. "Florence will give me news of you. You will do nothing rash and reckless," she added, lifting her head with a gesture of sudden terror, as if the thought had struck her. "You will remember that my life is bound up in yours, Archie, and that if anything hurts you, it will hurt me equally."

He smiled sadly.

"You bid me remember that?" he said, softly. "You bid me remember that, Jean? and in the same breath you tell me to forget you. Ah! foolish lassie, your theory is easier than your practice!"

There was another long pause. The room was very still and silent; outside the servants' steps could be heard as they passed to and fro, then the sound of a carriage driving up to the front entrance, and Mr. Blair's voice in the great hall made Jean start.

"I must go," she said, faintly. "Oh! Archie, I must go."

He held her more closely for a moment, then he unclasped his arms from around her, and Jean rose dizzily to her feet.

The Earl rose also.

For a moment they stood in silence, Lord Ivor looking down with intense passion, scarcely repressed, on the beautiful, wan face, on which he was looking his last; and Jean, with her long lashes resting upon her cheek, dared not meet his glance, but stood erect, pressing her little cold hands against her heart as if to stille its rapid throbs.

At last she held out her hand to him with a pale, wistful smile.

"Good-bye," she said, faintly.

"Good-bye," he repeated. "Are you going to leave me thus, Jeanie?"

The girl lifted her eyes then, eager, startled, imploring, shuddering a little as she read the infinite reproach and love on his face.

"Let me go," she said, faintly, "Archie."

"No," he cried out, passionately, catching her in his strong arms; "I cannot let you go thus—thus as if we were mere friends or acquaintances. Not thus Jean, not thus."

White and passive she stood still in his arms, while he looked down at her, in the fierceness of his pain, with despairing eyes.

"You love me, Jean," he whispered, abruptly.

The girl gave him a wild, helpless look, and shuddered.

"You love me," he repeated.

"Oh! Archie, think. I am—oh! Heaven help me—I am his wife!"

Slowly his arms fell from around her, leaving her free, and he drew back a step.

"His wife!" he repeated, hoarsely. "True, I had forgotten."

They stood and looked at each other in unutterable, heart-breaking pain, and there was a stillness as of death in the room.

As of death! Aye, was not death in the room? Had they not the death of their hopes and love to mourn for?

"You love me," he said, slowly, in a moment. "Let me think of that. You are his wife; he can take you from me—he has taken you; but your love will be mine still wherever you go. He cannot take that from me—it is mine. Oh! great Heaven," he went on, in a moment, "must we part—loving as we do?"

"Archie—Archie, let me go; they are coming for me," the girl said, piteously, trembling in every limb and white as death.

A low knock came to the door at this moment, and the Earl took Jean's hands in his, looking into her face with hungry, yearning, gray eyes.

"I may kiss you once," he said, in the voice of a man in deadly pain. "There can be no sin in that, Jeanie; for you were mine, and your heart is mine still. Heavens, how pale you are, my child!"

He broke into a despairing malediction; then, seeing Jean shudder and shiver, struggled for calmness again.

"One kiss, my darling," he said, brokenly. "It will be the last."

He drew her into his arms again and pressed his lips to hers in one long, last, lingering kiss.

The door opened softly, and Lord Sholto came in, looking pale and agitated.

Lord Ivor started and lifted his lips from the mouth which he had touched with a passionate force in his despairing embrace, and he released Jean.

"Take her away," he said, hoarsely, putting her hand into Lord Sholto's, as she stood passive, while, despairing before him, and then as his brother-in-law drew her slowly towards the door, he flung himself down upon the couch, covering his face with his hands to shut out sight and sound.

At the door Jean paused, and, turning round, stood still a moment, looking with a heart-broken face at the bent figure, then disengaging her hand from Lord Sholto's she went back a few paces, holding out her arms towards her lover. With a quick gesture of pain, she turned away, putting out her hand to Lord Sholto with an appealing gesture which she understood. He put his arm round her, and as the beautiful head fell upon his shoulder, he led her gently from the room out into the hall.

In the great hall Mr. Blair was waiting; the hall door was open, and the carriage was waiting without.

"Jeannie," whispered Lord Sholto, "try and be brave, dear child. Don't let the servants have reason to suspect anything."

The girl trembled a little; but withdrew herself from the support of his arm and went forward alone, calmly and proudly.

Lady Sholto came out of the library, looking white and trembling. Collins was standing on the steps, while the butler, looking a little mystified notwithstanding all his efforts, was holding open the door. Mr. Blair's profuse generosity had made him rather a favorite with the household at Sholto; but they could not quite forgive him for having won Jean's affection from the Earl; for though they had learnt the marriage, they were unaware of its real facts.

Jean paused for a moment. Lady Sholto put her arms round her and kissed her gently.

"Go to Archie," Jean whispered, softly. "Florie, dear help him to bear it; and when you see his suffering, forgive me if you can."

She released herself from Lady Sholto's embrace and went on.

"I am sorry to have detained you," she said to Mr. Blair, quietly, as she took Lord Sholto's arm down the steps.

"Collins, you must go inside," she said, calmly, to the maid. "Get in," she added, as the woman hesitated; but, obeying her mistress's glance more than her words, she entered the carriage.

Jean followed, and then, leaning forward, she held out her hand to Lord Sholto.

"Good-bye," she said, in a rather constrained voice, with a little tremulous smile. "Bring Florence over to Blair Gates soon."

He touched her hand to his lips in silence.

Mr. Blair entered the carriage, the footman closed the door, sprang on the box, and the husband and wife drove away on the first stage of that life journey they had undertaken together, and which promised such little happiness for either.

CHAPTER XVIII.

HUSBAND AND WIFE—EMILY BRETT.

They had been married now for six weeks; the nine days' wonder was over; people had ceased to talk of the romantic marriage, and all the great people in the neighborhood had called on Mrs. Blair. They had some dim idea that she had behaved badly to the Earl of Ivor; but that must be forgotten, they decided, it would never do to slight Mrs. Blair on that account; so they came one and all, and Jean had received them with gracious, if rather cold, politeness; and they had gone away with the impression that she was very lovely, very beautifully-dressed, very cold, and very unlike the Miss McLeod, whom one or two of them had seen the year before at Sholto Hall.

Jean was, perhaps without exception, the most unhappy woman in the shire. Too proud to show her misery, even to the man who had caused it, she opposed a cold, impenetrable dignity to his advances, although no wife, however devoted, could have done her duty more truly and well to the household, few of whom guessed the state of things. But this cold, calm, contemptuous dignity—the icy tones of her voice when she answered him (for she never directly addressed him)—the look in her eyes when they met his—were, of all things, most galling to Andrew Blair. If she had shown sorrow, if she had been angry, if she had stormed, if she had wept, he would have infinitely preferred it; it was this complete indifference which angered him, which roused him sometimes to fury.

On the morning on which we find them again the breakfast had proceeded in almost complete silence. Jean, at her place near the urn, glancing over her letters, and sipping her tea; while Mr. Blair, reading his paper, glanced up at her now and then, with half reluctant admiration. He did not love her; all the attraction she had possessed for him was over; but he would not help admiring her, and admiring in her too what most repelled him, the calm hauteur and haughty indifference.

She wore a rich, dark wine-colored morning-dress, faced and trimmed with velvet of the same shade, and made in a quaint, half-foreign, eminently graceful manner. She had no other color about her, and the rich, dark shade became her fair complexion and delicate coloring admirably.

Suddenly throwing down his paper, Mr. Blair said, coldly:

"There is something here which will interest you."

Jean made no reply, but she lifted her eyes inquiringly.

"Yes," he went on, harshly: "your old lover has not remained long away. He has returned not only to England, but to Scotland. He is to spend Christmas at Sholto Hall."

A slight start from Jean had not passed unnoticed.

"Indeed!" she said, calmly.

"Are you not glad?" he went on, coldly. "You appear to take the tidings very indifferently."

She made no answer.

"Well," he said, angrily, "why don't you say something?"

"About what?" she said, calmly; although he could see that she was trembling, and his face lighted up joyfully.

Her indifference was disturbed at last. As long as the Earl of Ivor had been absent from Scotland, she could be indifferent. Now——

"Are you not glad to hear of his return" said her husband, with a sneer.

"Very glad!" said Jean, tremulously. "Very glad!"

"And you dare say so to me—to your husband?" he said, with a sudden gust of fury.

Jean faced him haughtily.

"Of course I say so," she said. "I shall be yet more glad to be sure that he has returned, having forgotten that the miserable woman who is your wife had ever the supreme happiness——"

But he interrupted her furiously.

"Take care," he said—"take care! You may go too far, Jean!"

She turned from him with a contemptuous glance.

He resumed his seat quietly, for he had risen in his anger, and there was a short silence.

"It was always my father's habit," he said, quietly, "to keep Christmas merrily at Blair Gates. I propose to follow his example."

She made no reply, but he saw that the shadow deepened on her face, and an expression almost of fear crossed it.

"I propose to keep it right merrily," he went on, calmly, watching her face closely the while. "We will fill the whole house with guests, and give them a ball fit for royalty. Blair Gates never had a fairer mistress. I want to see my taste appreciated as it deserves. You do not speak? Really, Jean, at times you make me wonder if I have married that marvellous being, a silent woman."

"What would you have me say?" she said, calmly, but with beating heart, for his proposal had filled her with anxiety.

"Express your approval of my scheme," he answered. "Of course you approve of it. All women like gaiety."

"I do not approve," she said, slowly.

"Not? And wherefore?"

She hesitated a moment.

"I do not approve," she said, earnestly. "Let gaiety alone this Christmas. What heart have I for gaiety? Why—oh! why do you wish to fill this house with guests to show them the misery which exists here? It will be wiser—believe me, it will be wiser not to do so. Let it alone."

"Your request is an extraordinary one," he said, knitting his brows.

"But you will accede to it?" she said, eagerly.

"I see no good reason for doing so."

She rose from her seat, and crossed over to his side, putting her hand on his arm gently and entreatingly.

"Andrew," she said, pleadingly, "it is the first favor I have asked from you. Take me away. Let us go abroad—where you will—for Christmas. Oh! think how short a time you have given me. I am your wife, it is true; but," she clasped her hands in dreary pain—"but because I wear your ring upon my finger, I do not—I cannot forget! If we go away—I will try—believe me, I will—to do my duty as your wife;"

"You must try to do your duty here," he said, coolly.

"Do you mean that you will not take me away?" she said, with a great horror dawning on her face.

"I do, most certainly."

She retreated from his side with a passionate gesture of pain and horror.

"You will ask them here? You will ask Lord Ivor here?" she said, hoarsely.

"Most certainly. If you do not choose to be sociable, I must be so. If you do not choose to issue invitations for a ball, I will do so."

"You are resolute? You are determined?"

"Quite resolute—quite determined. My mind is made up."

"Very well," she said, calmly. "Remember, it is your own wish, your own doing. If ill come of it, let it be on your own head!"

"If ill come of it! My dear Jean, I have too good an opinion of you to think that any ill should come of it."

"You know that I do not love you!" she said, in a tone of concentrated scorn. "You know that I love him still with my whole heart and soul!"

"I must believe it if you say so," he returned, with a sneering laugh.

"You know that not only do I not love you, but that I hate you—I loathe you! that I should rejoice—Heaven forgive me!—if I saw you dead at my feet! that, if I could, I would kill you!"

"Take care!" said her husband, interrupting her with a laugh; "you are overheard!"

Jean turned quickly. During her speech a woman had entered the room and stood at a little distance from the table, in an attitude of respectful waiting, but with an expression in her face which showed that she was not unmindful of Jean's passionate words.

The color faded from Jean's face as she turned.

"Do you want me, Brett?"

"I beg your pardon, ma'am; Barnsby said you desired my attendance."

"Barnsby was mistaken—I do not!" said Mrs. Blair, haughtily. "You may go."

An evil flash lighted up the woman's face for a moment, and she stood motionless, with her head as haughtily erect as Jean's own.

She was a woman of thirty years of age, or thereabout, and superbly handsome. Altogether, the housekeeper at Blair Gates—for the woman was no other than Emily Brett—was a very beautiful and distinguished-looking personage.

"You may go!" repeated Jean, haughtily; and, with a slight inclination of her head, the housekeeper was turning away, when Mr. Blair's voice detained her.

"Wait one moment, Mrs. Brett," he said. "Will you be good enough to give orders to have Blair Gates ready for company? I intend to fill the house from garret to basement for the New Year. I can depend upon you, of course?"

"Certainly, sir," answered the housekeeper, with another slight inclination of the head. "Is there anything else?"

"Not at present. Mrs. Blair will give you any further directions."

With a slight curtsey, Emily Brett turned to leave the room, and when she had reached the hall an expression of the deepest hatred and dislike crossed her beautiful face, and, turning, she shook her finger at the closed door in warning or menace.

"She hates him," she said, slowly. "She hates him even as I hate him. Ah! no, she cannot do that, for she never loved him as I did! But she wishes him dead; I heard her say so, and I shall not forget the words—'I should rejoice to see you dead at my feet! I would kill you if I could!'—These are the words she used, and I shall not forget them."—*To be continued.*

FACTS ABOUT PHILATELY.

PRAKRAMA.

V.—Varieties of Paper, etc.

To those who have never studied Philately it may seem surprising that the paper on which stamps are printed should be one of the facts about them to be noticed, but some stamps show such interesting peculiarities of this kind, that few branches of the science have more attractions for the attentive Philatelist, and many make a specialty of it. Stamps printed on colored paper are of frequent occurrence among the issues of some countries, and this sometimes enhances the effect by a pleasing contrast. Almost every conceivable shade is found among these varieties, the 3-cents Sarawak receipt stamp which is printed in black on gray paper being a curious though hardly a handsome example. Again: the paper may be printed over with a pattern of some kind before the stamp is impressed. Where this is of the same color as the stamp it may be confounded with the subsequent impression, but it can be distinguished when found to show slight variations in different specimens. In some instances stamps are found with inverted groundwork, caused by the printer's taking up the sheet by the wrong end. The postage stamps issued by the German authorities during their occupation of French provinces (usually called the Alsace and Loraine stamps, although the correctness of the name is very questionable) are the most celebrated instance of this, and command quite fancy prices; but I hardly think they deserve collection, being of course accidental. The groundwork is often of a different color from the stamp, and in such cases the latter is frequently black. The United States Tobacco and Cigar stamps have been printed on mottled paper, and the postage and fiscal stamps of Brazil on chemical paper. A few postage stamps occur on paper crossed by colored silk threads having a definite arrangement, and a large proportion of the revenues of the United States are or have been printed on paper containing fibers of colored silk.

Instances occur in which stamps have been printed on other materials than paper. Goldbeaters' skin was used for this purpose by Prussia; several varieties of United States Tobacco stamps exist on tin foil; and a still more curious instance is the extremely rare Cotton stamp issued in this country in 1870. It consists of a thin arrow-shaped brass strip ten inches long which bears the inscription.

Many of the varieties of paper described have been adopted as safeguards against counterfeiting, and there is still another very effectual method—watermarked paper. The watermark is produced when the paper is being made, and appears nearly transparent when the stamp is held between the eye and a light. Though no very elaborate designs can be produced with sufficient distinctness by this process, some of those which have been used are quite handsome.

A few instances may be mentioned in which the backs of stamps have been impressed either with a single numeral or a more or less elaborate pattern, which being covered with the gum would only appear after the stamp had been used. Many persons might be entirely ignorant of its existence, and the genuine stamps could thus be distinguished by the officials from imitations. The "Contribucion Federal" (Federal Contribution) stamps of Mexico are numbered consecutively like bank notes, the numbering however being on the back. In some instances the gum used on the stamps has been peculiar, and this should of course be noticed.

VI.—The Separation of Stamps.

Various ways have been adopted for facilitating the separation of stamps and sometimes (particularly among old issues) the method has been left entirely to the purchaser. The first advance on an unperforated stamp is one which is issued pierced. Rouletting and hole-perforation exhibit further improvements, and in addition to these a few stamps are found pierced on colored lines or in parallel lines. These varieties may properly be collected by advanced Philatelists, but it would not be advisable for the beginner to attempt the collection of any except perforated and unperforated. In a few instances the stamps have been cut out with a die; the star-shaped 4-cent. Proprietary stamp of J. C. Ayer & Co., being perhaps, the most remarkable example.

VII.—What Varieties Should be Collected.

The tendency among Philatelists seems now to be to collect everything that may be construed into being a variety, but I believe a little moderation in this particular will be advisable, unless the collector has an inexhaustible purse to draw on. I will then state my own views on the subject, observing, however, that if the reader will consult a dozen Philatelists he may expect just one dozen different answers.

The first suggestion I would make is that when the inscriptions on a stamp are type-set errors of spelling, they are undeserving of collection. Many stamps have been re-engraved, and in other instances several varieties occur in the same sheet. As these are presumably accidental, I would not recommend their collection unless very noticeable. The colors of stamps vary somewhat, and if a very light and a very dark specimen can be secured, it will add considerably to the interest of a collection. Where the difference in color is so marked as to be presumably an intentional change, the varieties produced are essential.

Varieties of watermark may interest some Philatelists, but should be disregarded by beginners. Surcharged stamps frequently show varieties of type and color in these inscriptions; and I am inclined to recommend their collection. The revenue stamps of Peru surcharged with the names of the towns in which they are used present another debatable point. Should all of these varieties be collected? The supply of these stamps is so limited, that the collection of all the surcharges is nearly or quite impossible, and for this reason, if for no other, seems to me inexpedient.

The collection of varieties is carried to the greatest extreme by those who make stamped envelopes their specialty, some even accepting the varieties of watermark, quality of paper, size of envelope and shape of flap. To me these seem trivial; their collection is expensive, and they usually divert the Philatelist from more valuable researches. The beginner will find that the design and color of the stamp, and the color of the paper, offer an ample field for study.

VIII.—Essays and Proofs.

Essays and proofs are varieties never issued to the public. Though not without value as aids to a comprehensive study of Philately, they should be regarded by the beginner, if he accepts them at all, merely as curiosities. They never possessed an intrinsic value, and lacking this essential attribute of a stamp, only exemplify the ideas and experiments of engravers and printers. Stamps sometimes occur with the word "specimen" printed on them. The United States official stamps are all sold in this condition to collectors foolish enough to pay face value for them. As they could never be used for postage, they are no more *Postage Stamps* than a collection of counterfeits would be. Stamps which have become rare have often been reprinted, but as the philatelic value of these is very much inferior to that of original impressions, they should not be accepted when the latter are attainable. In a future article, I will make a few practical suggestions relative to the arranging and mounting of stamps, the detection of counterfeits, &c.

SPLITTING PAPER.

It is one of the most remarkable properties of that wonderful product, paper, that it can be split into two or even three parts, however thin the sheet. We have seen a leaf of the Illustrated News thus divided into three parts, or three thin leaves. One consisted of the surface on which the engravings are printed; another was the side containing the letter press, and a perfectly blank piece on each side was the paper that lay between. Many people who have not seen this done might think it impossible; yet it is not only possible but extremely easy, as we shall show.

Get a piece of plate glass and place on it a sheet of paper; then let the latter be thoroughly soaked. With care and a little dexterity the sheet can be split by the top surface being removed. But the best plan is to paste a piece of cloth or strong paper to each side of the sheet to be split. When dry, violently and without hesitation pull the two pieces asunder, when part of the sheet will be found to have adhered to one and part to the other. Soften the paste in water and the pieces can be easily removed from the cloth.

The process is generally demonstrated as a matter of curiosity, yet it can be utilized in various ways. If we want to paste in a scrap book a newspaper article printed on both sides of the paper, and possess only one copy, it is very convenient to know how to detach the one side from the other. The paper when split, as may be imagined, is more transparent than it was before being subjected to the operation, and the printing ink is somewhat duller; otherwise the two pieces present the appearance of the original if again brought together.

Some time ago the information of how to do this splitting was advertised to be sold for a considerable sum. We now impart it to all our readers gratuitously.—*Design and Work.*

THE TRUE STORY OF "ROBIN ADAIR."

The hero of "Robin Adair" was well known in the London fashionable circles of the last century by the sobriquet of the "Fortunate Irishman;" but his parentage and the exact place of his birth are unknown. He was brought up as a surgeon, but "his detection in an early amour drove him precipitately from Dublin," to push his fortunes in England. Scarcely had he crossed the Channel when the chain of lucky events that ultimately led him to fame and fortune commenced. Near Holyhead, perceiving a carriage overturned, he ran to render assistance. The sole occupant of the vehicle was a "lady of fashion, well known in polite circles," who received Adair's attentions with thanks, and, being lightly hurt, and hearing that he was a surgeon, requested him to travel with her in her carriage to London. On their arrival in the metropolis she presented him with a fee of 100 guineas, and gave him a general invitation to her house. In after life Adair used to say that it was not so much the amount of the fee, but the time it was given, that was of service to him, as he was then almost destitute. But the invitation to her house was a still greater service, for there he met the person who decided his fate in life. This was Lady Caroline Keppel, daughter of the second Earl of Albemarle and of Lady Anne Lennox, daughter of the first Duke of Richmond. Forgetting her high lineage, Lady Caroline, at the first sight of the Irish surgeon, fell desperately in love with him, and her emotions were so sudden and violent as to attract the general attention of the company. Adair, seeing his advantage, lost no time in pursuing it; while the Albemarle and Richmond families were dismayed at the prospect of such a terrible *mesalliance*. Every means were tried to induce the young lady to alter her mind, but without effect. Adair's biographer tells us that "amusements," a long journey, an advantageous offer, and other common modes of shaking off what was considered by the family an improper match, were already tried, but in vain. The health of Lady Caroline was evidently impaired, and the family at last confessed, with a good sense that reflects honor on their understanding as well as their hearts, that it was possible to prevent, but never to dissolve an attachment; and that marriage was the honorable and, indeed the only alternative to secure her happiness and life. When Lady Caroline was taken by her friends from London to Bath, that she might be separated from her lover, she wrote, it is said, the song of "Robert Adair," and set it to a plaintive Irish tune that she had heard him sing. Whether written by Lady Caroline or not, the song is simply expressive of her feelings at the time, and as it completely corroborates the circumstances just related, which were the town talk of the period, though now little more than family tradition, there can be no doubt that they were the origin of the song.—*New Castle Courant.*

What's this dull town to me?
Robin's not near,
What was't I wish'd to see?
What wish'd to hear?
Where's all the joy and mirth,
Made this town a heaven on earth?
Oh! they're all fled with thee,
Robin Adair.

What made th' assembly shine?
Robin Adair.
What made the ball so fine?
Robin was there.
What,—when the play was o'er
What made my heart so sore?
Oh! it was parting with
Robin Adair.

But now thou'rt cold to me,
Robin Adair.
But now thou'rt cold to me,
Robin Adair,
Yet he I loved so well
Still in my heart shall dwell.
Oh! I can ne'er forget
Robin Adair.

Fairy Pipes.—It has for some time been a matter of dispute amongst antiquaries whether the custom of tobacco-smoking originated in the Eastern or the Western continent; but of late years America has been generally accepted as the birthplace of the art. The discovery, however, of large numbers of pipes, apparently of considerable age, in Great Britain and various parts of the Continent, has recently given rise to new and extravagant conjectures as to the antiquity of the tobacco-pipe in Europe, and a certain class of archæologists have arrived at the conclusion that the luxury of the pipe was known to the inhabitants of the Old World, long before the discovery of the New. Tobacco-pipes of clay, exceedingly diminutive in size, have been found in great numbers in the British Islands. In England these are popularly termed "Fairy Pipes;" in Scotland they are known as "Keltie" or "Elfin Pipes," whilst in Ireland they are called by the peasantry "Dane's Pipes." They are also designated in different parts of the kingdom by the names of "Mab Pipes," "Old Man's Pipes" and "Carl's Pipes." Irish legends attribute them to the fairy dwarfs, and in certain localities where pipes are particularly abundant, these mischievous little men are believed to have used them in smoking on festive occasions.

The Fairy Pipes of Ireland, illustrate probably, the most ancient form of pipe found in the British Islands. It is difficult to assign positive dates to them, though some of the earliest have the names of their makers stamped upon them. The mode of using tobacco in those days rendered the contents of the smallest of these Fairy Pipes a sufficient dose. This method has been described by an old writer, Oviedo, who visited America shortly after its discovery by Columbus, and who wrote a book which was published in Spain in 1526. He says: "The Caciques and principal men have small hollow sticks about a span long and as thick as the little finger. They are forked but both forks and stalks are of the same piece. The fork ends are inserted in the nostrils and the other end is applied to burning tobacco leaves which are rolled up in the form of pestils. The men then inhale the smoke till they fall down in a state of stupor, in which they remain as if intoxicated, for a considerable time. Such of the Indians as cannot procure a forked stick, use a reed or hollow cane for the purpose of inhaling the smoke.—*American Antiquarian.*

Alum not Allowed in English Bread.—George Allen, baker, of Walsall, was summoned at the instance of Mr. C. W. Stephens, sanitary inspector, for selling an article of food not compounded of the ingredients demanded, and also for selling bread containing alum, so as to be injurious to health. The inspector stated that he purchased a two-pound loaf at the shop of defendant, and forwarded it to Mr. E. W. T. Jones, the borough analyst, whose certificate of analysis he produced. The certificate showed that the loaf was adulterated with alum in the proportion of 36 grains to the four-pound loaf, and that such adulteration would tend to render the bread indigestible. Dr. J. Maclachlar, medical officer of health, gave it as his opinion that the quantity of alum stated would be likely to make bread injurious to health. Addressing the bench for the defence, Mr. Nanson said he did not dispute that there was alum in the loaf, but he urged that none was put in by defendant or at his establishment, and that the flour was used just as it came from the miller. The bench, after hearing the defendant, considered the case proved, and imposed a fine of £5 and costs on the first summons, the other being withdrawn. The fine and costs amounted to £7.14s.

MAGAZINES.

Appletons' Journal for November:—The City of Antwerp, by the Rev J. H. Pettingell; Otway; The Seamy Side, by Walter Besant and James Rice, Chapters XIX to XXI; Two Men of Letters, Charles Lever and Theophile Gautier, by George Saintsbury; Vivian the Beauty, by Mrs. Annie Edwardes, Chapters X to XIII; The Malakant, Spiritual Christians in Eastern Russia, by G. M. Asher; A Walk in a Wood, by Anthony Trollope; Memoirs of Madame de Remusat; Editor's Table: Is Pomp Popular? An Ancient Imposter; American Fiction; Mr. Froude on Aristocracy: Books of the Day; Johnston's History of American Politics; Stickney's A True Republic; Studies of Paris, by Edmondo de Amicis; The Value of Life; A Reply to Mallock's; Is Life Worth Living? Korley's Burke; Greene's Russian Army; Haworth's; Webster's Great Speeches and Orations; Zola's Rougon-Macquart Family and Conquest of Plassans; Leland's, Abraham Lincoln.

MR. FROUDE ON ARISTOCRACY.

In all nations which have achieved any kind of eminence, particular families have stood out conspicuously for generation after generation as representatives of political principles, as soldiers or statesmen, as ruling in their immediate neighborhoods with delegated authority, and receiving homage voluntarily offered. They have furnished the finer tissues in the corporate body of the national life, and have given to society its unity and coherence.

Hitherto no nation has been able to sustain itself in a front place without an aristocracy of some kind maintained as the hereditary principle. So far the answer of history is uniform. The United States may inaugurate a new experience. With the one exception of the Adamses, the great men who have shown as yet in American history have left no representatives to stand at present in the front political ranks. There are no Washingtons, no Franklins, no Jeffersons, no Clays or Randolphs now governing States or leading debates in Congress. How long this will continue, how long the determination that all men shall start equal in the race of life will prevail against the instinctive tendencies of successful men to perpetuate their names, is the most interesting of political problems. The American nationality is as yet too young for conclusions to be built on what it has done hitherto or has forborne to do. We shall know better two centuries hence whether equality and the ballot-box provide better leaders for a people than the old methods of birth and training.

This is the language of Mr. Froude in an article in the September number of "Fraser." It would be curious to compare with this statement a history in detail of the aristocratic families of the European monarchies. If civilization has advanced; if legislation is wiser to-day than it was in the past; if justice is more uniformly administered; if, as a whole, right ideas of government have superseded wrong ideas of government; if life and property are more secure; if personal liberty is better guaranteed now than formerly; if despotic rule has yielded to the authority of law; if there are rights, privileges, protection, security, legal safeguards, religious liberty, social advancement—if in all these things the nations of to-day are better off than the nations of the past, how much of all these beneficent results do we owe to those aristocratic leaders whom Mr. Froude thinks so indispensable for our prosperity and eminence?

We apprehend that a close examination of history would show that pretty nearly all the modern world has accomplished in political advancement and reform has been won directly in the face of great hereditary families. It is no doubt true that the great families have produced a few statesmen who have struggled to arrest the exercise of despotic power on the part of sovereigns, but as a rule family leaders have not been leaders of the people beyond their own tenantry, have not identified themselves with necessary reforms, have done little to secure for the world those precious boons of religious and political liberty which England now enjoys. The great families have done some good, however. Their conservative influence has at times been useful; they have doubtless checked disorder and prevented unwise haste, and contributed a good deal to the social balance and well being of society; but, when Mr. Froude declares them necessary to the achievement of national eminence, one can but wonder that before writing that sentence he did not cast his eyes backward. The aristocracy has contributed its share to warlike eminence, but everything really great in Mr. Froude's beloved England has come of the commonalty: the grand energy that has carried its ships to every sea, that has peopled vast colonies, that has built up the greatest industries the world has ever seen; the resolute and turbulent spirit that has conquered the right of free government; the righteous forces that have made its jurisprudence respected and studied by all mankind; its superb and copious literature in every department of thought—all these things are products of energies that have found very little support in the hereditary influence of great families. If Mr. Froude argues that an hereditary aristocracy is indispensable to the conservative order and permanent welfare of nations, it may not be easy to gainsay him; but it seems to us obvious that the forces which give eminence to a community in all worthy things are the energies of the people rather than the restrictive tendencies of a cautious aristocracy.—*November Appletons' Journal.*

Domestic Economy.

CONDUCTED BY EMILY MAPLE.

THANKSGIVING.

MRS. M. G. RAND.

Bills of Fare for Thanksgiving Dinner.

No. 1.

FIRST COURSE.
Oyster soup, crackers and celery.

SECOND COURSE.
Roast turkey, cranberry sauce, mashed potatoes and turnips.

DESSERT.
Coffee, cake, and fruits.

No. 2.

FIRST COURSE.
Beef soup, with bread and celery.

SECOND COURSE.
Fresh fish, baked or boiled, stewed tomatoes and pickles.

THIRD COURSE.
Roast turkey, currant jelly, mashed potatoes, squash.

DESSERT.
Coffee, cake, pumpkin pie, cheese, fruits.

We have just entered upon the month in which, according to a national custom, our annual Thanksgiving occurs.

It is, to most of us, a day that is associated with pleasant family re-unions but for those who have made new homes for themselves in the Far West, and are obliged to keep the "feast" alone, the day is full of sadness. With some families, especially New Englanders, the Thanksgiving dinner is the event of the season. The preparation of the meal calls for an undue amount of anxiety and labor on the part of the housewife. She is so fatigued from working beyond her strength, that it is only with an apparent effort she is able to entertain her guests—surely a more plainly prepared meal would be preferable. The dinner too is generally an extravagant affair. Frequently the fanciful and untasted desserts cost as much as a substantial meal.

The day is set apart as one of thanks to the "Giver of all good for His mercies." Would it not be more in keeping with such an appointment to give less attention to feasting? Even then the family need not be deprived of the usual turkey and its desirable accompaniments. There are poor families in almost every community, who have nothing wherewith to keep the Thanksgiving feast. There are also persons in every neighborhood each of whom might, on such an occasion, spare enough from his own store, to provide, at least *one* meal, for one poor family, or person. The *gratitude* of the recipient, could scarcely equal the *satisfaction* of the donor, showing that "it is more blessed to give than to receive."

Pumpkin Pie for Thanksgiving.

One quart of strained pumpkin (squash will answer); one quart of milk; one tea-cup of cream; one tea-spoonful (scant) of salt; two teaspoonsful of powdered cinnamon; two of ginger; one grated nutmeg; two tablespoonsful of dark molasses; sugar, according to taste; two large spoonsful of flour; five beaten eggs.

TO MAKE:—Put the stewed pumpkin into a large bowl: add the flour, molasses, salt and spices, and beat thoroughly. Then add the eggs, milk, cream and sugar, and beat again. If the mixture seems too thin, add more pumpkin; if too thick, add milk. Bake in pie tins, lined with paste that is not very rich. Bake until solid in the center, and of a rich bronze color.

Thanksgiving Cake.

Three cups of very light bread dough; three cups of sugar; one cup of butter; three eggs; one small nutmeg; raisins; one teaspoonful (scant) of soda, dissolved in a little hot water.

TO MAKE:—Rub the butter and sugar together; add the eggs and spice; then the dough, and mix all thoroughly. Add the soda and beat it well into the dough. Flour must be added to make a rather thick batter—if too thin, it will not bake well. Bake in two loaves. Leave one plain. In the other, put two cups of stoned raisins which have been soaked in brandy over night. The dough for this cake should be raised with *potato* yeast. The cake keeps well, especially if covered with a thin icing. The cake can be baked as soon as mixed, but will be lighter if allowed to stand in a warm place for half an hour before baking.

Clinton Co., Iowa.

THANKSGIVING DESSERTS.

Fruits and Nuts.

A RAISED center-piece of mixed fruits is an appropriate and delicious dessert, as well as an indispensable ornament to an elegant dinner-table.

Apples and Nuts.

Polish the apples and crack the nuts.

Snow Flakes.

Grate the cocoa-nut into a glass dish, and serve with jellies or cream and powdered sugar.

Grapes, Chestnuts and Apples.

Arrange the grapes and apples in fruit dishes. Boil the chestnuts in salted water for ten or fifteen minutes, drain, stir a little butter into them, toss up till dry and serve in a deep dish.

Fried Bananas.

Peel off the skin, slice lengthwise, fry in butter and sprinkle with sugar.

Ambrosia.

One-half dozen sweet oranges peeled and sliced; one large cocoa-nut, grated. Alternate the layers of cocoa-nut and oranges. Sprinkle powdered sugar over each layer.

Nuts and Raisins.

Crack the nuts and select nice bunches of fresh, plump raisins. For dessert use, the "Muscatels," and "London Layer" take the preference.

Orange Pyramid.

Cut the peel into eight different pieces, from the stem downward—careful not to cut through into the juice cells. Peel each piece down to little more than half way, and bend sharply to the right. Pile the oranges in the form of a pyramid on a high fruit dish.

Grape Pyramid.

Build up of Malagas—an imported grape—Delaware and Concords.

CREAMS.

Whipped Cream.

Place the cream where it will become thoroughly chilled, and whip with an egg-beater. Should the cream be difficult to bring to a froth, beat with it the white of an egg. While whipping take off the froth and place on a seive, re-whipping all that passes through. Sweeten and flavor. Fill jelly glasses one-third full of currant jelly, and fill up with the cream.

Spanish Cream.

Dissolve one-half box of Cox's gelatine in half a pint of cold milk. Into one quart of boiling milk stir a small teacupful of sugar and the beaten yelks of four eggs. Pour this upon the dissolved gelatine. Flavor when cool or add a small wine-glass of wine. Turn into cups and cover with a merangue made of the whites, half a cup of powdered sugar and a little extract. Brown in the oven. Eat ice-cold.

Italian Cream

Soak one-third of a box of gelatine in a little cold milk. Bring to a boil one quart of rich milk; then stir in a cup of sugar, the beaten yelks of six eggs and the dissolved gelatine. When it begins to thicken, take from the fire and pour over the beaten whites. Whip together; flavor to taste and pour into a form, Make a few hours before needed.

PUDDINGS.

Frozen Pudding.

Make two quarts of rich, boiled custard; add to it two tablespoonsful of gelatine dissolved in a little milk. Put into an ice-cream freezer, and as soon as it begins to freeze, stir in a grated cocoa-nut and a few blanched almonds. Let it become solid.

Fruit Pudding.

One cup of sweet milk; one cup of molasses; half a cup of melted butter; one beaten egg; one cup of stoned raisins; half a cup of currants; two cups and a half of flour; half a teaspoonful of soda. Mix well together, salt, pour into a mold and steam two hours. Eat with hard and liquid sauce. Pour over a little brandy and light just before sending to the table.

Ribbon Blanc-Mange—A Pretty Dish.

Dissolve one ounce of gelatine (Cooper's) in a small cup of milk. Put a quart of rich, new milk over the fire, and when it boils, sweeten to taste; add the dissolved gelatine, and boil five minutes, being careful not to burn. A "double" kettle or a tin pail placed in a kettle of boiling water should be used. Strain through a salt bag—washed and dried—into four bowls, an equal quantity into each. Into one stir enough grated chocolate, mixed to a paste with a little milk, to make a rich brown color. Into the second stir the beaten yelk of an egg. The third a little cranberry juice. The fourth leave white, and flavor with lemon. Flavorings may be added to suit the maker. The chocolate may be flavored with vanilla; the cranberry with rose, etc. When the blanc-mange begins to cool and congeal, dip a mold into cold water; pour in half of the rose, then the white, next the yellow and brown. Again the rose; the others following as before. Make the day before it is to be eaten.

BRIEFLETS.

"WHAT fools these mortals be." There is some truth in that. . .

Oh, dear, what can the matter be?
Oh, dear, what can the matter be!
Oh, dear, what can the matter be?
Johnny's *so* sick of the Fair!

. . . Rye may still be sown to plow under in spring. . . If you have nothing else to do, gather leaves. . . Cions for grafting in the spring may now be cut and preserved in sand in a cool cellar. Bevel one end, mark the name of variety in pencil. . . Friends of the Brighton Grape are multiplying. . . A report is made to the California Academy of Sciences that sulphate of iron (copperas) is a remedy for mildew and grape-rot. A mixture of four pounds to five of water is applied to the stems of the vine. . . Lard and resin make a good varnish that may be applied to all metal surfaces to prevent rust. . . A regular contributor to the American Agriculturist writes to that paper as follows: "I must say I believe in getting the farmers out to the fairs. If they will not come to the sober matter-of-fact, strictly agricultural show, let us give them something that will draw. A few horse-trots, side-shows and even a rope-dancer are harmless." Oh, oh! what's the use of splitting hairs? Add "a bar-room, a ten-pen alley, a billiard room, a cockpit and a bull-fight." . . "It may appear a little strange," says Mr. Roe in Scribner's Monthly, "that the luxurious Romans who fed on nightingales' tongues and peacocks' brains, and scoured earth and air for delicacies, should have given but little attention to the Strawberry." . . If Mr. Roe were restricted to *one* variety of Strawberry, he would take Triomphe de Gand! . . . . An establishment near Paris works 30 incubators, and up to September of this year has "turned out" 42,000 chicks! . . Our monthly magazines are talking a good deal about agriculture, which, as a straw, shows which way the wind blows. . . Writes a friend of the RURAL, who has, himself, been eminently successful in improving his stock, "The importance of using pure-bred males for the purpose of speedily improving the live stock of the country, and consequently increasing its value, cannot be too strongly impressed upon our farmers and stockmen." . . Under the United States law admitting, free of duty, animals imported for breeding purposes, it has lately been decided by court of law that grade animals might come under the provision of the Act, inasmuch as the *bona fide* intent and purpose for which animals are imported, whether good or inferior stock, must decide the question of their liability to duty. The United States Treasury has appealed the case to the United States Supreme Court, insisting that the exemption applies only to choice stock. . . Prof. J. P. Sheldon, in "Dairy Farming," thinks that the quantity of cheese, if not of butter, made in the British Isles, is yearly diminishing, and that it is not improbable that in the course of time Englishmen may depend almost wholly on foreign supplies of cheese, and to a very great extent, on foreign supplies of butter; their own dairy farming being chiefly devoted to the milk trade. . . The Anglo-American Cattle Company is the name of an English association that expects to realize immense profits from breeding and purchasing cattle on our Western prairies. Their agent says he has already purchased in Kansas 103 thoroughbred bulls and is acquiring 2,000 heifers and as many steers, from which a profit of from $35,000 to $40,000 is expected the first year! . . There's a dispute with regard to success or failure of Percheron horses in Ohio. Wallace's Monthly insists that they have proved failures; the National Live Stock Journal maintains that they have been eminently successful in improving native stock on which they have been crossed, and that though their prices are lower now than a few years ago, when all prices were high, they sell to-day at higher figures than any horses except the speediest on the running or trotting turf. . Chas. Miller, of Ionica, La Salle County, Ill., has just bought of the Messrs. Smiths and Powell, Syracuse, N. Y., the lately imported Clydesdales stallion Donald Dennie, a beautiful dark dappled brown of great size, fine form and action; and also the three-year-old Hambletonian stallion, Power's Hambletonian by Ashbert Bonner, by Rysdyk's Hambletonian, a dark bay of elegant style, with three Hambletonian crosses and 20 crosses of Messenger blood. Both these horses are pretty sure to be heard of, so soon as their foals shall have time to show their mettle.

News of the Week.

MISCELLANEOUS.

MONDAY, November 10, 1879.

In the elections on Tuesday last the Northern States gave solid Republican gains, and the Southern won solid Democratic victories. In this State Cornell, Conkling's nominee, was elected governor by about 40,000 majority. Kelly received about 70,000 Democratic votes, which lessened Robinson's support by at least that figure, thus insuring his defeat. The rest of the State ticket is still in doubt, and it will require the official count to decide who are elected. Both the Senate and the House are overwhelmingly Republican, which will insure the election of a Republican United States Senator, instead of Kernan. In Conn. the Republicans have also elected a majority of both Houses of the Legislature and will send a Republican to the United States Senate instead of Barnum. In Pennsylvania they have carried the State by about 60,000 majority, which entitles them to a U. S. Senator in place of Wallace; while in Ohio, Garfield will probably succeed Thurman, or if he doesn't, some other Republican will. In New Jersey, they have also gained pretty heavily, and swept Kansas and Nebraska. In Virginia they hold the balance of power between the two parts of the Democratic party, one of which insists on paying the State debt in full, while the other wishes to adjust or scale it. Maryland has gone Democratic by a certain but decreased majority, and Mississippi is solidly Democratic.

Special Agent Adams reports that the Government's demands for the surrender of the Ute Indian murderers will be complied with. A commission consisting of Gen Hatch, Chief Ouray and Adams met at Uncanpahgree, Col., on the 8th to investigate the White River Utes to meet there. Gen Adams went to Denver on Tuesday last to take testimony from Mrs. Meeker and the other female captives. Mrs. Meeker is not expected to survive the hardships she has gone through. The Colorado press generally urge that the Indians be killed off, and their reservations confiscated and thrown open to miners and settlers. The crusade assumes a political aspect, and will play an important part in the Presidential campaign and the next Congress. The hostility against the Indians is something unparalleled. "No quarter" is the cry, and the only Utes who have any chance for justice are Ouray, the head chief who interposed in favor of the captives, his wife, Chepeta, and his sister Susan, the wife of Johnson, who tended and greatly protected Mrs. Meeker, her daughter and Mrs Price and children. The mines of the Ute reservation are richer than at first supposed, and the governor will be pressed to call out the militia to quell the war which will follow if the miners crowd, hunt and bush-whack as they threaten. Agent Adams says that he made no pledges to the Utes, at the late meeting, except to promise to stop the troops' advance. At the council some chiefs wanted to continue the fight. Sapa-ranora made a fiery speech announcing that if the Utes did not yield to Adams he would join the white soldiers. Ouray has ordered the hostiles to meet him in ten days. Adams believes that about 25 of the hostiles will be executed.

There will be in the neighborhood of 4,000,000 pounds of grapes shipped from the Keuka lake region, Steuben Co., N. Y., this year. There is likewise a very large crop in the Seneca lake country. It is said after this year new and faster boats will be put on these lakes to transport the crop. An experienced apple buyer estimates that 150,000 barrels will be bought at Lockport this season, and that the crop is about one and a half times larger than usual. The Central Pacific railroad company, under the Thurman act, is required to pay into the sinking fund for the year ending December 31, 1878, about $1,000,000, and for the current year about $900,000. The recent decision of the Supreme Court put a stop to all efforts to resist payment. The Union Pacific company, in consequence of the large amount of business transacted for the government, will not be called upon to pay any cash to the sinking fund during the current year. During the year 1879 closing with August, not less than sixteen million acres of government lands were taken up by homestead entries alone, and fully fourteen million acres of new lands were sold to settlers. It is estimated that half a million people settled upon the new lands in 1878, and the number for the present year promises to be even greater. The drought is causing very serious trouble here and there throughout the country, not only in agricultural districts but also in some manufacturing centers, at Paterson, N. J. Nearly four thousand operatives are out of employment because the mills are unable to run with low water.

Secretary Sherman's estimates for the next fiscal year ask $7,000,000 more than requested last year—three millions for taking the census and two millions for pensions. Edward S. Stokes, the slayer of Jim Fisk, has just returned from San Francisco to this city. He is said to be but the shadow of his former self; his hair and mustache are white, and he looks like a man of 50 years.

FOREIGN.

The cable dispatch that Austria has interfered in the settlement of the Egyptian debt means something more than a grumble, from Vienna; it is the extension of the influence of the double alliance between Germany and Austria over the Levant, and threatens the close corporation management of Eyptian affairs hitherto carried on by France and England, but with what result it is impossible to say. It may end in giving England exclusive control through her relations with the alliance. The precise point at issue arises from the fact that the khedive borrowed freely on account of Egypt, pledging its revenues, and on his own private account, pledging his personal estate. The "international" tribunal decided that, as every piaster the khedive was worth had been made out of Egypt, his private estate was liable in equity to the Egyptian bondholders. The khedive watched his time, kicked out the court of Egypt, and paid neither set of creditors. Since then the policy of France and England toward Egypt has been apparently under the control of the Rothschilds, and directed in favor of the Egyptian bonds, of which the great bankers are large owners.

Private letters from Russia state that immense activity prevails in all the arsenals of the empire. A full force of workmen in all these establishments is employed working on full time. A number of guns and ammunition are being turned out ready for use and deposited in neighboring magazines. It is believed in St. Petersburg and in Moscow that this activity foreshadows some step soon to be taken on the part of Russia which will plunge Europe into a general war. Louis J. Jennings, the World's London correspondent, sent at midnight Saturday this cable dispatch: "It is rumored to-night in well-informed circles that Russia is preparing to declare war against England. No certain information can be obtained on the subject. Official personages are reticent, but the probabilities are that the markets will be disturbed by the

story on Monday. At the municipal elections throughout England, Saturday, wherever political considerations were involved, the Liberals were mostly triumphant. In one or two very important boroughs the balance of power was completely reversed in favor of the Liberals. In Liverpool, where the town council stood 42 Conservatives and 22 Liberals, it now stands 34 Conservatives and 30 Liberals. Representatives in the Spanish cortes from Cuba and Porto-Rico have decided to ask the ministry to present to the legislature, simultaneously with the bill for the abolition of slavery, bills for the reform of the tariffs and commercial relations between Spain and the colonies. If these demands are not conceded, the members talk of withdrawing from the next legislature. The epidemic of typhoid fever and measles at Cape Clear, Ireland, continues to extend. One hundred cases were reported on Saturday. Many of the inhabitants have left.

The peculiar condition of the relations between Germany and Russia is still the subject of much discussion in governmental and diplomatic circles. While the feeling between the two governments is still by no means cordial, there is little doubt that a better understanding has been reached, and the friendly sentiment between the two empires is increasing. The German ambassador at St. Petersburg has recently had an interview with Prince Gortschakoff relative to the formal complaints made by Germany concerning the immense Russian army maintained on the frontier, and particularly the large force of cavalry. Satisfactory explanations were made, and the apprehensions of the German government dispelled. Germany and all the European powers heartily approve the promptness of Great Britain in demanding of the Porte the prompt fulfillment of its agreement concerning reforms in Turkey. The dispatch of the fleet to Beska bay and the vigorous language of Minister Layard have had the desired effect, and the Sultan sullenly submits to the demand that the stipulations of the Berlin treaty be immediately carried into practical effect. The reports of a probable rupture of the relations between Great Britain and the Turkish government are regarded as entirely sensational and unfounded. Prince Hohenlohe, the German ambassador to France, will have an important interview with minister Waddington immediately upon his return to Paris. The Czarowitz is expected to visit Berlin the latter part of the present week, and afterwards Vienna. The emperors of Germany and Russia are also to meet.

In Ireland the land agitation is aggravated by a threatened famine in the Southern part of the country, and an outbreak of contagious maladies here and there. In England business is improving. The farmers are helped by the advanced price of farm products there as well as here; manufacturers are aided by the increased trade with this country which our more prosperous times enable us to sustain; and the outlook generally is considered less gloomy, though hardly bright yet. In France the matter that excites chief interest now in home affairs, is the election to the Senate of Marshall Canrobert, from the Department of Lower Charente, on avowedly Bonapartist principles—which shows that imperialism did not perish in the Zulu country with the son of Napoleon III. In view of the short harvests in some parts of Germany, it is not improbable that Bismarck will delay the imposition of that tax on imported cereals, which the late laws authorized after January 1, next. In Spain public attention is divided between rejoicings over the approaching marriage of the young king, and mourning over the 3,000 or 4,000 deaths, and the enormous losses of property caused by the recent floods in Murcia and a couple of other Southern provinces. In Italy the republican faction, whose life is one of excitement and conspiracy, is hotly agitating the recovery of Trieste from the Austrian yoke; but the latter power, strengthened by its late treaty with Germany, is pretty sure to hold as tight a grip on Trieste as Germany intends to hold on Alsace and Lorraine.

IF SUCCESS be the true test of merit, it is certainly a settled fact that "*Brown's Bronchial Troches*" have no equal for the prompt relief of Coughs, Colds and Throat troubles.

Use Walter Baker & Co.'s CHOCOLATE if you desire the *best* in the market. The verdict of experts, both in Europe and America, has for many years testified to its great excellence.

Boils, Pimples, Freckles, Rough Skin, eruptions, impure blood, Hop Bitters cure.

Prevent crooked boots and blistered heels by wearing Lyon's Patent Metallic Heel Stiffeners.

THE MARKETS.

PRODUCE AND PROVISIONS.

NEW YORK, Saturday, Nov. 8, 1879.

BEANS AND PEAS.—The speculative movement in beans has not subsided, and buyers are showing strong confidence by purchasing largely to arrive. There is besides enough regular business to help fasten the advanced rates. Green peas are further in sellers' favor with sales at the improvement, quoted, $2; Southern B. E. peas quiet and lower; $2.30@2.35 per 2 bush. bag. For field peas either Ca. or Mich. there is no late quotation. Old marrow beans, $1.85@1.95; new, $2.05@2.10; medium, $1.80@1.85; pea, $2@2.05; white kidney, $1.80@2.10; red do., $1.90@2, primo; poor, $1.80@1.85; black, $2.

BEESWAX.—Has a high inquiry and 21½@22½c. quoted for Western and Southern.
Exports for week, 6,156 lbs.

BROOM CORN.—There is a quick market for the upper grades, and otherwise a fair business.
Brush and short broom, choice, per lb., 5½@6½c.; do., common to good, 4½@5½c.; hurl, good to choice, 4@5c.; do., common to fair, 3½@4c.; red and crooked, 2½@3½c.

BUTTER.—Receipts for the week, 39,862 pkgs. Exports, do. 7,400 do. The delightful prerogative of ruling the market for an indispensible item of food supplies is still enjoyed by butter dealers. Customers use the old threat of "looking further" without disturbing the commercial equanimity of the seller, for the latter knows that concessions are not likely to be met with when fine stock is in treaty. The buyer consequently can be safely counted upon to return, especially if he wants to duplicate a line or parcel of stock required by his retail trade. All grades at the close show some advance, creamery and little special dairies showing most firmness.
State, pails and tubs, single dairy marks, fresh ends, choice, 34@35c.; best luvoloes, 32@33c.; good to prime, 29@31c.; fair to good, 26@29c. firkin and tub single dairies, choice, 31@32c.: do., dairies good to prime, 28@30c.; do., firkins, choice dairies, 28@30c.; do. good to prime, 26@28c.; do., fair to good, 24@26c.: Welsh tubs, best invoices, 29@30c.; do., good to prime, 26@28c.; do., fair to good, 24@26c.: State, tubs, poor, 20@23c.; State creamery, best invoices, 37@38c.; do., good to prime, 34@36c.; do., sweet cream, best, 35@36c.; do., fair to good, 30@34c.: Creamery, poor to fair, 25@30c.; Western, imitation creamery, 28@28c.; do., dairy, fresh, extra, 26@28c.: do., dairy, good to prime, 23@25c.; do., fair to good, 21@23c.; poor to fair, 18@21c.; do., best invoices, June, 21@23c.; do., fair to good June, 18@20c.; do., best invoices, late made, 22@23c.; do., fair to good, 19@21c.; do, poor to fair, 16@19c; Roll butter, prime, 25@26c.: do., fair to good, 22@23c.

COMPARATIVE RECEIPTS AND EXPORTS,

	Receipts, pkgs.	Exports, lbs.
June 1, '79, to Nov. 1, '79....	1,808,590	78,658,743
June 1, '79, to Nov. 1, '78 ...	2,147,080	88,718,146
June 1, '77, to Nov. 1, '77....	1,670,961	75,574,500

COMPARATIVE RECEIPTS AND EXPORTS.

	Rec'ts, boxes.	Exp'ts, lbs.
June 1, 1879, to Nov. 1, 1879,	733,232	195,393
" '78, " '78,	892,821	140,630
" '77, " '77,	564,467	121,159

CHEESE.—The export trade has been slack, the shipments for the week only 9,741 boxes, but holders have been confident and supplies not released except at steady prices. Supplies steadily accumulate.
Quotations are for State factory: Fancy, 12¾@13c.; good to prime, 12@12¾c; fair to good, 11@12c.; half-skimmed at 9@10c.; skimmed at 5@7c. State farm dairy: Fine at 12@12½c.; good to prime at 10½@12c.; fair to good at 9@10¾c.; skimmed at 4@8c. Wis. factory: Fine at 12¾@13c.; good to prime at 11¾@12¾c. Ohio factory: Cheddar, fine, at 12¾@12¾c.; do., fair to good, 10¾@11¾c.: flat, fine, 12¾@13c.: flat, good to prime, 11¾@12¾c.; flat, fair to good, 10@11¾c.: half-skimmed, 8@10c.; skimmed, 3@7c.
Receipts for week, 29,751 boxes; exports, 10,000 do.
Liverpool cable, 60s.; steam freights, 40@42s.

COTTON—Has been active and closed strong at for November, 11.51@11.52c.; December, 11.51c.; January, 11.62c.; February, 11.78@11.80c; March, 11.97@11.97c.; April, 12.12@12.15c.; May, 12.28@12.30c.; June, 12.43@12.43c.; July, 12.54@12.58c.

Quotations for spot cotton are based on American standard of classification, and on cotton in store running in quality not more than half a grade above or below the grade quoted.

	Uplands.	N. Orleans and Gulf.	Texas.
Ordinary.....	10	10¼	10¼
Strict ordinary.....	10⅜	10⅜	10⅜
Good ordinary.....	10⅜	10⅜	10⅜
Strict good do.....	11	11⅛	11⅛
Low middling.....	11⅛	11⅛	11⅛
Strict low middling.....	11 5-16	11 7-16	11 7-16
Middling.....	11 7-16	11 9-16	11 9-16
Good middling.....	11 11-16	11 13-16	11 13-16
Strict good middling.....	11 15-16	12 1-16	12 1-16
Middling Fair.....	12 7-16	12 9-16	13 9-16
Fair.....	13 3-16	13 5-16	13 5-16

STAINED.

Good ordinary.....10 3-16	Low middling.....10⅛
Strict good ordinary.10 9-16	Middling.....11⅜

DRIED FRUITS.—Apples have a good inquiry, and prices generally are strong. Peaches have a fair sale and are well sustained in price. Small fruits generally are quiet and steady. Exports for week, 651 bbls. dried apples.
New North Carolina apples, quoted at 6¾@8c. for fair; 8¾@9c. for choice; 10@10½c. for fancy sliced. Patent evaporated apples, choice, in cases, 13½@14c.; do. fair to good, 12@13c.; N. Y. State sliced, new, 8@8½c.; quarters, choice 5@5½c.; western quarters, common and old, 4@4½c.; new southern quarters at 4@4½c.; new N. C. peeled peaches at 14@17c., do. Georgia, 12@16c. Peaches, Delaware evaporated, peeled at 25@28c.; do. unpeeled at 10@11c.; new halves at 7c. Blackberries at 10c. for new. Raspberries at 28@29c. Pitted cherries at 18@19c.

EGGS.—Receipts for week, 10,730 bbls.; do. last week, 7,681 do. There is a good demand for prime stock and not a free supply to meet it. The market will be apt to drag until stale lots are out of the way.
Near points, 24@25c.; State and Penna., 23@24½c.; Canadian and Western, choice, fresh, 21½@22c.; inferior or stale W., 19½@20c.; State limed, 17@18c.; W. do., 16½@17c.

FLOUR.—The market does not show radical changes, prices alternately weak and strong, but the fluctuations within 10 to 15c. per bbl. Activity has not been marked, and the export purchases rather moderate.
Latest prices are: $4.75@5.25 for inferior to fancy superfine State; $5.50@5.85 for inferior to good extra do., odd lots and lines; $5.85@6.10 for good to choice do.; $4.75@5.25 for inferior to fancy superfine Ind., Iowa, Michigan, &c.; $5.50@5.85 for inferior to good shipping extra do., and $5.85@6.10 for good to choice shipping extra do.: common to about choice white wheat extras, $6.10@7.00; choice to fancy do. at $7.00@8.15; red and amber winter wheat, inferior to fancy trade and family, at $6.00@7.75; round hoop Ohio at $5.65@6.15, and trade and family brands of do. at $6.25@7.75, the latter rate for very choice; St. Louis, $6.00@7.00 for inferior to very good extra; $7.00@8.50 for very good to very fancy; Minnesota clear, very inferior to fancy, $5.60@7.00; Minnesota "straight," very inferior to fancy, $6.25@8.00 (fancy held higher), and patent poor to very fancy at $8.35@8.75; unsound stock at from $4.50@6.50; city mill extra at $6.25@6.65, ordinary to fancy, for West Indies; do. for England, $5.50@5.85 for poor to choice; do. trade and family extras, $6.35@6.75; do. for South America, No. 2 at $4.00@4.65 for poor to fancy.

FRESH FRUITS.—Exports of apples past week, 14,717 bbls. Canada is also shipping heavily. Cheap rates early in the fall enabled exporters to make a good trial of tender apples abroad, but it will require a good reception of winter sorts to make up for losses. At the moment foreign advices are favorable for sound carrying varieties. Rates here are steadily advancing and the moderate upward movement is supported.
Apples—Kings, $3@3.25; Baldwin, $2.25@2.50; Greenling, $2@2.12; winter mixed, choice, $2@2.25; poor to fair, $1.50@1.75. Cranberries—Capes, $6.25@7.25; other, Eastern, $5@7; N. J., crates, $1.50@2. Pears—Vicars, per bbl., $2@3; Lawrence, $3.50@4; cooking, $1.75@2.50; Boston boxes, $2@4. Quinces, prime, $5@6.50; other, $3@5. Grapes, cases, Catawba, $2@2.25; loose, 3@4c.; Isabella, cases, $1.25@1.50; loose, 2@2½c. New peanuts, hand-picked, per lb., 5¼c.; other, 3½@4¾c. Chestnuts, per bush., $2.25@2.50. Hickory, shellbark, $1.25@1.50; do., Ohio, $1@1.25. B. walnuts, 50c. Pecan nuts, per lb., 9@10c.

GRAIN.—Wheat has been less active and has shown variableness, closing firm. The exports for the week have been 1,100,000 bushels. Latest sales are of No. 2 amber at $1.36¾@1.37¼; do., November, at $1.37@1.37¼; ungraded amber at $1.30@1.36¾; No. 1 white at $1.39¾@1.39¾; do. for November at $1.36¾@1.39; do., December option, at $1.40@1.43; ungraded white at $1.31½@1.36; No. 2 red at $1.37@1.39½; do., November option, at $1.35¾@1.40; do., December option, at $1.41@1.41; do., January option, at $1.45¾@1.43; ungraded red at $1.20@1.37; mixed winter at $1.34¾@1.35; New York No. 2 spring, at $1.30 asked; do., November option, at $1.29; No. 2 northwest, December, at $1.35; ungraded spring at $1.25@1.27¾; No. 3 at $1.26. Rye at 87@89c. for State. Corn is fairly active and closed strong at for New York No. 2 at 57½@58c.; do., November, at 57¾@57¾c; do., December, at 59¾@60¾c.; New York steamer mixed at at 55@55½c.; do. December at 55¾@56¾c., ungraded Western mixed at 57¾@58c.; round yellow at 58c.; No. 3 white at 57c.; No. 3 at 51@55c. Oats are active and closed strong at for New York No. 1 white at 46c.; do., No. 2 white at 43@43¾c.; do. No. 3 white at 42@42½c.; New York No. 1 at 43¾c; New York No. 2 at 43@43¾c.; New York No. 3 at 42@42½c.; New York rejected at 41c.; ungraded white Western at 43@45c.; mixed Western at 42½@43½c.; white State at 44@45¾c; mixed State at 43@44c.; No. 2 Chicago at 43¾c.

HAY AND STRAW.—The arrivals run moderate and the demand continues good, with prices strong.
Shipping hay quoted at 80c.; retail lots at 60@75c. for medium, and 75@90c. for prime; clover at 40@50c. Straw at 70c. for long rye, 45@50c. for short rye and and 45@50c. for oat.
Exports for week, 377 bales.

HONEY.—Outside figures are for small lots. White clover, single comb, 18@19c.; larger boxes, 14@16c.; buckwheat, 12@14c.; extracted clover, 11@13c.; strained, 8@10c.

HOPS.—Emmet Wells in his circular says: "Notwithstanding the intervention of the election holiday, a large business has been done this week, both with brewers and for export account. England draws upon us for over 3,000 bales again this week, the total shipments since September now reaching 35,000 bales, which, for the period of year is unprecedented. Brewers have been quite free buyers at from 40@45c., and a few sales are reported as high as 48c. and 50c. for extra choice lots, but we hardly feel warranted in quoting at over 47c. for choice State hops."

	Bales.
Receipts for the week.....	8,151
Total receipts since September 1, 1879.....	53,392
Total receipts for same period in 1878.....	16,355
Export clearances for the week.....	3,016
Total exports since September 1, 1879.....	34,943
Total exports for same period in 1878.....	2,525

Quotations are for New Yorks, new crop, choice, 45@47c.; New Yorks, new crop, medium, 40@43c.: New Yorks, new crop, low to fair, 35@37c.; Eastern, new crop, 35@45c.; Wisconsin, new crop, 35@45c.; Yearlings, 7@18c. Olds, all growths, 4@10c.; Pacific coast, new, 40@45c.; Pacific coast, olds, 9@14c.

OIL-CAKE.—Western is in good demand and quoted at $30 per ton.

POULTRY AND GAME.—The supply of dressed is liberal from all sections. Turkeys have had rather more demand, and prime lots have favored the seller, but there are a great many lean, pin feathery lots which are very dull and low. Such turkeys are often packed with better ones and greatly injure their sale. Chickens and fowls are plenty, and most lots are not good enough for outside quotations. Nice ducks are selling very well. There are fully as many geese arriving as can be promptly sold. Squabs not selling so well since the arrival of quails. Thanksgiving occurs on the 27th inst. For that market, choice, small turkeys will be wanted; lots should arrive by the 24th.
Turkeys, Jersey, good to prime, 13@14c.; State, Mich., Northern Ohio and Penn., prime, 12½@13c.; other Western, prime, 11½@12½c.; fair to good, 10½@11½c; poor, 8@9c.; Phila., dry-picked, 16@17c.; do., chickens, 14c.; do., Jersey, per lb., 12@13c; do., State, Mich., Northern Ohio and Penn., prime, 11@12c.; do., fair to good, 9@10c. Fowls, Phila., dry-picked 12@12½c.; Jersey, good to 12c.; State, good to prime, Western, good to prime, 9@10c.; poor to fair, 8@9c. Ducks, Phila., dry-picked, 12@16c; Jersey, 12@14c.; State, 12@13c.; Western, 10@12c.; do., geese, 10@12½c.; Jersey, 10@11c.; Western, 9@10c. Squabs, white per doz., $2@2.50; dark, $1.25@1.50.
Live poultry—Arrivals and demand light. Prices low most of the week. The trade is nearly all using dressed poultry. Only very light shipments of live will be needed henceforward.
Chickens, J'y, State & Pa., per lb., 9c.; western, 9c.; fowls, J'y, State & Pa., per lb. 8c.; western, 7½@8c.; do., roosters, old, 4@5c.; turkeys, J'y, State & Pa., per lb., 9@10c.; western, 8@10c.; ducks, J'y, N. Y. & Pa. per pair, 55@65c.; western, 50@50c.; geese, J'y, $1.25@1.50; do., N. Y & Pa., $1.25@1.37; do., western, $1@1.12; pigeons, do., 25@30c.
Supplies are in better condition and sales begin to be steady; a larger variety calling out more buyers.
Wild ducks selling at $2.50 for prime western Canvasback, 75c.@$1 for Havre de Grace Red head and 75@80c. for western, 65@75c. for Mallard, 40@50c. for Teal, and 30@35c. for common, per pair. Rabbits plenty from Jersey; they generally run small and sell at 30c. per pair; only extra large will reach 40c. Quail, trapped, per doz., $3@3.25; partridges, State, prime, per pair, $1; western, 75@87c.; soft, 50@65c.; grouse, prime, $1.12@1.25; wild pigeons, small red, per doz., $1.75@2; flight, Southern, $1@1.12; woodcock, State, per pair, 70@75c.; western, 60@65c.; English snipe, per doz., $1.75@2; plover, $1.75@2; tame pigeons, shot, $1@1.12; rabbits, per pair, 30@40c.; hares, 50@60c.; Minn. venison, saddles, per lb., 18@19c.; State & western, 16@17c.; whole deer, 12@13c.

PROVISIONS—Have been active and fluctuating, closing firm at, for pork, $10.40 for Nov.; $10.40@10.50 for Dec.; $10.50@10.60, sellers' option, old or new, for Jan.; $11.75@11.80 for new do. for do., and $11.75@11.85 for February. Bacon at $5.10 for long clear and $6.25 for short clear. Lard—Western steam at $6.85 for spot lots, $6.90@6.92½ for December, $7.03½@7.05 for January $7.12½@7.15 for February and $7.22½@7.25 for March. Stearine at 7@7½c. for Western. Tallow at 7¼@7¾c. for prime.

SEED.—Clover is firm and in demand at 9¾@10¼c for choice to fancy. Timothy is strong at $2.60@2.75.

TOBACCO.—Export demand continues very light, but the home trade is good and prices are very steady. Quotations are for.

KENTUCKY LEAF.

	Light.	Heavy.
Common lugs.....	3½@ 4	4½@ 5
Good lugs.....	4½@ 5	5½@ 6
Low leaf.....	5½@ 6¼	6½@ 7¼
Medium leaf.....	7 @ 7½	8 @ 8¾
Good leaf.....	8 @ 8½	9 @10¾
Fine leaf.....	9 @11	11 @ 12
Selections.....	12 @—	12¾@14

SEEDLEAF.	Crop of 1877.	Crop of 1878.
New England Havana seed....	— @—	22 @30
do. wrappers, common....	13½@15	13 @15
do. do. medium.....	16 @17	16 @18
do. do. fine.....	18 @25	20 @25
do. do. selections...	27½@35	27½@35
do. seconds.....	— @—	11 @14
do. fillers.....	— @—	6 @ 7
Penn. assorted, common.....	— @—	10 @12
do. do. fair.....	13 @14½	13 @15
do. do. fine.....	15½@18	17 @22
do. wrappers.....	20 @40	— @—
do. fillers.....	9 @10	8½@ 9½
N. Y. ass't'd, com. to medium	— @—	— @—
do. do. do. good....	12 @15	12½@15
Ohio assorted.....	9 @12	8 @14
Ohio wrappers.....	12 @13	— @—
Wisconsin assorted.....	8½@10	8 @12
Wisconsin Havana, seed.....	— @—	16 @20

VEGETABLES.—Exports of potatoes for the week, 9,059 lbs. Prices are a shade higher, and if reports do rot and other blemish are in any measure authentic Potatoes will soon have their "boom" as well as other produce Onions higher. N. J. sweet potatoes of poor quality the same. Early Rose, State, per double-head bbl., $1.37@1.62; State, in bulk, 1.25@1.50; Peerless, State, bulk, $1.12@1.25; Jersey, bulk, $1@1.12; Sweet potatoes, Del., $2@2.25; Va., Jersey, $1.25@1.50; squash, marrow, ₩ bbl., 50@75c.; do., Hubbard, $1@1.50; cabbage, per 100, $3@5.00; red cabbage, $4@6; onions, white, per bbl., $2.75@3.25; do., yellow, $2.75@3; red, Eastern, $2.50@2.75; do., Chester, $2.50@2.75; beets, Jersey, 75c.@$1; Russia turnips, Jersey, 75@87c.; carrots, 75c.@1; pumpkins, per 100, $4@6; cauliflower, ₩ bbl., $3@5; celery, per doz., $1.25@1.50.

WOOL.—Prices steadily advance, the demand being active and supplies working down so fast that a larger number of orders are sent to the other side. Quotations are for domestic fleeces.
Ohio, Pennsylvania and West Virginia—XXX, 47@50c.; XX, 44@46c.; X, 44@46c.; No. 1, 45@48c.; No. 2; 40@42c.; coarse, 33@35c.; combing, 44@50c.
New York, Michigan and Wisconsin—XX, 40@43c.; X, 40@43c.; No. 1, 43@45c.; No. 2, 39@41c.; coarse, 32@35c.; combing, 45@47c.
Indiana, Kentucky and Tennessee—XX and X, 40@43c.; No. 1, 42@45c.; No. 2, 38@40c.; coarse, 32@35c.; combing, 42@45c.; do. unwashed, 31@37c.
Illinois, Iowa and Minnesota—X and XX, 38@41c.; No. 1, 40@43c.; No. 2, 38@39c.; coarse, 30@36c.
Georgia, Alabama, Mississippi and Louisiana—Fine unwashed, 38@40c.; medium do., 36@39c.; coarse do., 26@30c; burry, 17@21c.

LIVE STOCK MARKETS.

NEW YORK, Saturday, Nov. 8.

BEEVES.—Receipts for the week, 12,106 head; do. last week, 14,362 do. Cattle dealers have had a rough deal this week; Wednesday's market was quite devoid of profit or interest for that important sales-day. Common cattle were scarcely looked at, and the quotation of 9¾c. for extras is a mournful illustration of the situation in the fore part of the week. Election times are generally attended with a broken trade, but it is doubtful if any of the unsuccessful candidates felt or looked blue the day following the ballot than did our salesmen friends at the drove-yards. The closing market shows little improvement and shippers have in many cases lost $50@100 per car-load. Dealers think that bottom has been reached, and that prices are likely to soon improve. A large number of Texas steers sold at 6@6¾c. per lb., to dress 51@55 lbs. to the gross cwt.; a number of car-loads of Colorado cattle at 6@7c., to dress 55 lbs.; several car-loads of State bulls, dry cows, young heifers and light steers were sold at 2@3½c. per lb., live weight; light Virginia steers at 6¾@7c., to dress 55 lbs.; ordinary to good Western steers at 7¾@8¾c., to dress 55@56 lbs., and prime and extra do. at 9@9¾c., to dress 56 lbs.

COWS AND CALVES.—Notwithstanding the heavy receipts, the trading of the week has been good enough to bring the range of prices up to $35@60. Market dull at the close, but dealers still name the new rates.

VEAL CALVES.—Choice quality live meet ready sale; common and medium stock slow. Many buyers for ordinary market use will soon have the customary offering of hog-dressed to draw from. New Jersey and Buck's Co., choice, 7¾@7¾c.; prime, 7@7¼c.; State, choice, 7@7¾c.; do., fair to good, 5¾@6¾c.; Mt. Holly stock, 5@6¾c.; buttermilk, 3@3¾c.; grassers, 1¾@2¾c.; hog-dressed, 9@10c., good to choice.

SHEEP AND LAMBS.—Receipts for the week, 32,350 head; do. last week, 41,405 do. The market has ruled low; returns have been generally unsatisfactory. Sheep common to good, 3@4¾c.; poor to choice lambs, 4@5¾c.; mixed State, 4@4½c.

SWINE.—Receipts for the week, 14,861 head; do. last week, 10,142 do. The market has had a quiet run.
Hogs, Jersey, dressed, 40 to 70 lbs., 6¾@6¾c.; 70 to 100 lbs., 6@6¾c.; 100 to 150 lbs., 5¾@6c.; 150 to 200 lbs., 5¼@5¾c.; 200 lbs. up, 5@5¼c. Live hogs, State, light, per 100 lbs., $3.88@4.12½; medium, ₩ 100 lbs., $4; heavy, do., $3.75@3.87; Western, $3.87@4.12½; tenderloins, prime, per lb., 9c.

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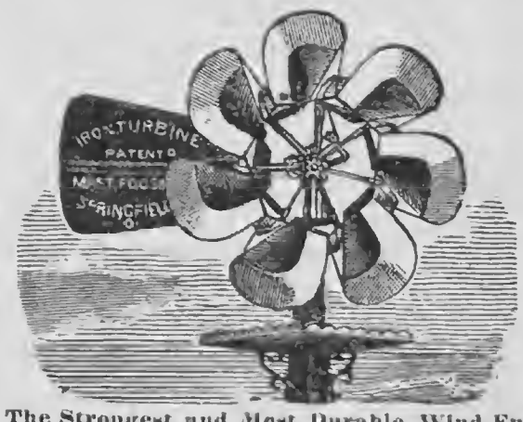

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Reading for the Young.

THAT BROTHER OF MINE; OR, HORTICULTURE IN-DOORS—SPICED.

MRS. M. L. S.

WILL—"Sister I do believe everybody knows your hankering after uncommon things! Even Dick Brown has sent you this great clump of pine cones—to remind you of his *nose* I reckon."

BLISS—"His nose? I don't see the resemblance."

WILL—"It's (k)notty."

BLISS—What a horrid pun! "Wit without *modesty* is disgusting."

WILL—"Dis gust or dat gust. 'It's an ill wind that blows nobody good—besides 'Where ignorance is *Bliss*, 'tis folly to be *wise*.'"

BLISS—"Yes, and 'Where there's a *Will* there's a way'—to be very disagreeable."

WILL—"That's why I say we were named wrong; you are the woman with a *Will*, without any right to me either. But our names are significant. You are the first born when *bliss* was the ruling idea and they called you Bliss. By the time I squeaked for a name, Ma showed her *Will*, and then little sister wanted a name, and they called her Minerva."

BLISS—"Do brother, run; get some furniture glue and that cocoanut—I intend to make a vase for Blooming a hyacinth in, this winter. These four cones stand out just like feet. Now split two cones in two, and please cut this stem off just the length of the cones. Now we'll glue a half cone on each of four sides, and the cocoanut on top. The glue is exactly the color of the burs and cocoanut. Now varnish and sprinkle with those brass and copper fillings which we picked up in the shop."

WILL—"Yes I see—a *rustic vase*—a *burlesque*! *blissful* thought! It's a wonder you don't make something of this cow's *horn*."

BLISS—"A cornucopia, I thank you for the idea. It is already bleached by the weather, that will save me the trouble of boiling it in lye. Scrape it for me—now bore two holes for the string by which to suspend it. But no, it would look better fastened with putty to that piece of petrified bone which I brought from Florida, the weight will hold it steady. Now fill with sand and plant Tradescantia and Rose Geranium."

WILL—"Now hadn't you better set your *corn* in a corner?"

BLISS—"Yes, and prop it till the putty dries."

MINERVA—"Sister, see what I found."

BLISS—A goblet with the stem broken off—I'll just fasten this with a ball of putty to that preserve-dish bottom, and stick a row of those rock crystals around on the putty—then little Sis will have a vase for her flowers which she is going to put on the table X'mas morning—those double daisies and pansies. This is deep, but may be filled with moss and ferns first.

WILL—Now, as the vase is finished it must be propped up for several weeks for the putty to harden and dry. All right! These rocks are the *proper* things to prop with. I'll now call on the name of some genius to guard this blissful artisan that her ingenuity may be preserved for future great deeds.—To be continued.

PRINCIPLES, NOT MEN.

This was the political motto of an old and very influential journal sixty years ago, which I used to see for 20 years daily. It impressed me, not in a political sense; for I am no politician, but in a general one. It induced me always to look for the governing principle in any matter which I undertook to investigate. It has become a governing principle of my life, and now sixty years of its uses and teachings induce me to advise every young man to adopt the same general plan.

Since I have become a cultivator of the soil, it has stood me in hand in many cases when it was impossible to make progress otherwise. If I have a new plant or crop to attend to, I first "go to the bottom of it;" nothing stops me till I know what it needs, what it likes, or what it must have to insure success. I then give it all I have at command, being careful to pay due respect to the principles involved. This is really science, but I began to study principles long before science was ever dreamed of being applied to cultivation. If every farmer would adopt the same plan, there need be no "Errors of Judgment," because the judgment would become mature, and then errors could not arise.

The days of swindling tree peddlers will end as soon as the farmer knows that upon principle their representations are false. S. RUFUS MASON.

Purple Cane, Dodge Co., Neb.

LETTERS FROM THE COUSINS.

Jumping Jack Responds to the Call.

RURAL FRIENDS:—Some one makes inquiry about "Jumping Jack," and asks for another "brilliant effusion." I can answer for the former, but feel a timidity in vouching for the latter, particularly the "brilliant" part. Since I wrote you last I've been trying carefully to care for my weakened eyesight, and my pen has lain idle for many months, for, beyond an occasional contribution to our county papers, I could count on the fingers of one hand, all the articles I've written since I wrote the last "effusion." So please do not accuse me of forgetfulness or a non-appreciation of your kindly inquiries.

Week before last our county held one of its annual fairs at Washington, and won't you think it was well attended when I say that the sale of tickets for one day was over ten thousand? The fair continued four days; and at night the halls were lit by gas, presenting quite a novel (I believe it is not customary for county fairs to be opened at night,) as well as beautiful sight.

Many of you have read in different papers of Dr. Lemoyne and his famous cremation furnace, and have also read of his death noticed in a recent RURAL. By his own wish his body was cremated in the crematory on Gallow's Hill, overlooking "little" Washington. Knowing him personally as I did, I shall not mention any eccentricities, but merely state that his was a very great mind in its palmiest days, and that he was a Christian and a gentleman. I cannot forget the satisfaction and pleasure I once derived from a rummage I had among the hundreds of volumes that compose the library which he gave to our town. Each book was then covered with a paper covering, and all the work of his own aged hands. He was much given to works of philanthropy, and spent much of his accumulated fortune that way. A few weeks since the "County Institute" met at this place. Before this year it always was held the week between Christmas and New Year, but the new superintendent changed the time. It was a good time to learn things, also to hear the teachers disagree.

I want to tell you of the seeds I got from the "Rural Experimental Grounds." Year before last I got four bulbs or seeds of the Chinese Yam (Dioscorea Batatas). I planted them, and got four large bulbs or roots. Two of these were lifted, the other two remained in the ground all winter, and came up in the spring, doing better than the ones kept in the house. I had some splendid vines, and they were much admired, but I was disappointed that they bore no blossoms. The Shell Flowers proved to be curious, and grew well. The tropical looking Ricinus gave much satisfaction, as did others. Some of the seeds did not germinate. I gave the best attention I knew how, but something was lacking. I want to accept of the free gift this year, but, being absent from home when the RURAL announced the distribution, I know not the amount of stamps to send. Will some one be kind enough to inform me? [6c.—ED.]

I believe I've "written all the news." And my pen seems to have run as it pleases, and *now* I please that it shall cease. Good-bye to you all.

Washington, Pa. JUMPING JACK.

The Report from Cousin "Nell."

DEAR UNCLE MARK:—I ought to have reported ere this, but like Minnie S. White, have been very busy. I have not had the time to devote to the care of my flowers that I wished for; but have learned some things, and derived a great amount of pleasure from this summer's experience.

I cannot report very good success with the RURAL seeds. Have four plants each, of Rose of Sharon and Amorpha fruticosa, averaging about four inches in hight. Have also, one Pinus edulis, one Yucca filamentosa, and two strong plants of the Hollyhock. I could not induce Aquilegia, Callicarpa, and several others to germinate. I exchanged a part of the seeds with a friend, or I would not have the Hollyhock and Rose of Sharon. I had better success with annuals. Of the charming little trailer Abronia, I planted eight seeds in a four-inch pot, April 6, I think. They all grew, and in May I transplanted them. They grew finely, and filled to overflowing a circular bed four feet in diameter. There are several of the little pink blossoms on the vines now. For a basket plant it would be lovely. I mean to try it next year.

Our Pansies are beautiful. My husband admires them more than other flowers. We have every shade, it seems to me, from White Treasure to King of the Blacks. The Petunias, also, were very nice. There were purple, white, striped, blotched, and several shades of red. My Pinks were a great favorite—they were admired by all who saw them. The Phloxes were very pretty. I had six or eight varieties, and some are still in bloom. There was a little space devoted to the sweet Mignonette. It is very nice for bouquets.

My Balsams were splendid, and as double as could be. I had white, pink, red, purple, flesh-color and several spotted and striped varieties. I had rather poor success with the Verbena—the seeds would not germinate. However, I have a few plants. I had the prettiest Poppies I ever saw; so silky, and such a lovely bottle-green center. There were all shades—from pure white, to dark red—red with white edges, and white with red edges, etc. I will send some seed to Uncle Mark. The plants continue to bloom a long time. Of Gladioli I had only two shades of red, but they were very thrifty, the flower stems averaging three feet in hight. The Asters were beautiful, so very double, and so many shades and colors, but not half the buds had blossomed, when Jack Frost took them. I also had Dahlias, German Stock, and a few other kinds of flowers. Have planted part of the Grape seed. Uncle Mark, please accept my thanks for the seed, and the book you so kindly sent me. I would like to tell you of my trip to the woods after Arbutus, but this letter is now too long, and I will close. Yours, sincerely, NELL.

Sanford, N. Y.

[Please tell us of your trip.—U. M.]

DEAR UNCLE MARK:—I felt so discouraged about my garden, I was almost ashamed to write to you any more about it, until I learned you wished the cousins to write often. Between the bugs, pigs, grubs and dry weather, I did not have anything hardly. My Gladiolus, that I thought so much of, the grubs got at and ate the stock off, down close to the bulb; it did not hurt the bulb, but it did not blossom. I felt so sorry, because I wanted to see what color it would be. My corn grew nicely and had quite a lot of nice ears on, but my brother's little pigs got in one night and destroyed all but four or five ears. I'm going to save those for seed, if nothing happens to them. My radishes were planted in two places. The first ones I planted came up real nice, and I watered them every night; but one day I went to look at them, and something had been eating the leaves, and on the under side of the leaves were little white bugs. I put ashes and Persian powder on them, but neither seemed to do any good, and in two or three days they were all gone, but in the other place I raised some. I saved some seed, and I'm real glad I did, for may be I shall do better next year; I hope I will. I am so pleased with my book, and I wish to thank you. If this letter is too long, you need not print it. From your affectionate niece, BERTHA H.

West Town, N. Y.

[Circumstances will sometimes conspire wonderfully to work unfortunate results; but after all, these lessons of disappointment should only serve to make one more vigilant in one's efforts. Next year, I dare say, Bertha will be careful to look out for grubs around her choice plants, and for insects on their leaves, and see that the gate is shut against pigs and other depredators.—U. M.]

DEAR UNCLE MARK:—As so many of the cousins are writing I thought I would write too. We have taken the RURAL a great many years, and I like it very much; especially the letters from the cousins. I am very fond of flowers and have a very few. Will you please tell me why my Oleander does not blossom? It looks thrifty, but it has never blossomed. Please put me down as a member of the Horticultural Club. As this is my first attempt, I will not tire you with my nonsense; but if this does not find an untimely grave in the waste basket you will probably hear from me again.

POCAHONTAS.

Reynalls Basin, Niagara Co., N. Y.

TWO NEW AUNTS.

BOYS AND GIRLS:—In desiring to become an aunt I assure you I have no designs upon your Uncle Mark. I am already provided for he is the very Nick, (when I am not at home) But I wanted to tell you of the splendid time I had last summer at Roanoke in

That Watermelon Patch.

It was a triangle, perhaps a hundred feet on each side, of sandy loam, covered with vines and a thousand watermelons. The melons near the hills were pinched off, and every shoot near a melon was pinched off. To guard against depredators, invisible wires runing around and through the patch, attached to stakes by means of little rings, communicated the slightest touch to a little bell which hung over the head of the boy with a pistol, who slept in the bunk of straw, in one corner of the patch. He was provided with books to read, and all the small melons out of the twelve which were pulled every evening to cool for the following day. Some weighed twenty-five pounds. He was a proud and happy boy.

* * * * * * *

Grapes.

Company came to-day and interrupted the nice things that I would have said about Uncle Mark's possible good looks, in apology for my beginning. I had grapes for dinner and the conversation turned upon that subject. What a year for grapes! Our bunches were immense. I dipped the stem of each cluster in cement and placed them after drying out, in layers, in paper boxes, with paper and leaves (perfectly dry) between. They will keep till Christmas.

Beauty of Hebron.

As a gift of the RURAL, I received by mail two wee marbles (and much ridicule from Nick) but these "small potatoes" being argus-eyed, planted 17 hills fertilized with stable and hen manure. After a summer of intense heat, and drought and the depredations of moles, we dug a large peck of 36 potatoes weighing 12 pounds. There is now, a good deal of talk at our house about *our* potatoes. I might say a great deal more, but this will do for an introduction. You will no doubt hear from me again sometime in the future, meanwhile I remain your aunt X'MAS.

Reed Island, Va.

[This very original aunt sent also a recipe for making wine from grapes. She, of course, did not know that Uncle Mark is strictly temperate in his habits, and that he desires all his nephews to be the same. For this reason he could not publish it though it may have been a very excellent recipe.]

DEAR UNCLE MARK:—I have read with pleasure to-day some of the articles and letters in your department of the RURAL, I am not, 'tis true, one of the "little folks" (being the mother of three little ones myself), yet, I love to see or hear from children; their thoughts and aims are so pure and innocent. I observed a Biblical question in the RURAL of September 20. It may have been answered, but I now send the answer; the question is titled "How many were there?" The answer is 12 boys in the class, and here is the solution. Jacob had 12 sons, Israelites compassed Jericho seven times, Boaz gave Ruth six measures of barley, Hanan had 10 sons. There were seven of each clean beast entered the Ark; 50 of the sons of the Prophets went to seek Elijah after his translation. Joseph was 30 years old when he stood before Pharaoh; David had five smooth stones in his sling to kill Goliath of Gath; Bethany was 15 furlongs east of Jerusalem. There were four anchors cast at the time of Paul's shipwreck. There were eight people saved in the ark.

I would also like to join the Horticultural Club, if I am not debarred by age. I would love to meet with the little ones every week and enjoy their company. I would like to tell you that I have some seeds of the Southern "China Tree," that I will send you if you wish. I have trees four feet high now, raised from the seed. I left them out-of-doors last winter without any protection except winding with straw, and putting a layer of straw round their bodies over the roots. In their natural state in the South (as I remember them when a girl) they grew to forest size, and every spring were loaded down with clusters of lilac blossoms. I will not write any more at present, but hope to greet the little ones often if I am accepted as a member of your household band. Yours, &c.

Marshall Co., Kans. MRS. M. J. GALPIN.

[Please come in and make yourself at home. We shall be glad to hear from you every week. Whatever seeds you may send we will try at the Rural Grounds. U. M.]

Sabbath Reading.

A POSITIVE CHRISTIANITY.

I ONCE had a conversation with an intelligent infidel, who stared me in the face, while he asked me if I was positive that my Christianity was true; to which I replied that I had not a doubt, and that the evidence was fixed in my heart; to which he replied that it had always been a difficult thing for him to believe a doctrine that was a matter of so much uncertainty to so many who call themselves Christians. "Well," said he, "I am in the habit of asking Christians whether they have the assurance that the Lord is with them, and when they answer in the affirmative their faces betray them, and look as though they had been caught in the act of stealing. And, for my part, I never can be a Christian as long as I find such poor representatives of Christianity. Why, sir, it is the rarest thing that I can find a man that is positive; and, therefore, there must be something wrong. When a business man makes himself known to me as such, he does not say, 'I *think* I am a member of such and such a firm,' 'I *hope* I am thus and so.' I do not question his veracity, and rarely think it necessary to ask him for any papers to prove it, because he is positive about it; but the usual answer to my plain question is, "I hope so;' 'I am trying to be;' I used to be;' 'or would like to be.' Suppose I was appointed prime minister to some foreign State, and my business was to represent the interests of the United States of America, would I leave any room in the mind of the governor as to the genuineness of my mission? If the Bible is true, and you are the representatives of its blessings, why are you ashamed to own it?"

I was not just then prepared for such a sermon from this celebrated infidel. Although he did not seem to doubt my statement, yet he taught me a lesson I will not soon forget, and that lesson was the awful responsibility of professing Christians.—*Advocate of Christian Holiness.*

"ALL THINGS ARE NOW READY."—From age to age the call is still the same. As one generation sweeps another off the stage—some heeding, some despising, some not even hearing the benignant invitation, it is still repeated: "All things are now ready." Yes, at whatever moment the poor, sin-sick, starved, exhausted sinner first begins to feel his want, and turns his dim and haggard eyes toward that scene of splendor and festivity, before unknown or madly disregarded—however untimely the appeal may seem—though the prayer be breathed at midnight, in the dark, from the beggar's hovel, the field of battle, of the dungeon, or the scaffold—the response is still the same: "Come, for all things are now ready." The resort to this supply can never be too early; it should never be too late. It can never be too early; for the soul is never without consciousness of want—a restless craving for enjoyments, better than the best it has experienced. It should never be too late—as it is, alas! too late for thousands—because all things are now ready; and when all things are now ready, and the opportunity afforded of securing them but transient, it is self-destruction to refuse acceptance,—it is folly, it is madness even to postpone it.—*J. A. Alexander.*

THE SECOND COMMANDMENT.—The second commandment not only forbids *worshipping* graven images, but it forbids *making* them. At the time when the commandment was given the tendency to the worship of images was so strong that even the making of them could not be allowed. That danger having passed away *for us*, the prohibition has passed away *for us*, for the Divine precepts are not arbitrary, but reasonable. When a dangerous road had been repaired, the sign, "No passing here," is taken away. So we read the commandment, "Thou shalt not make any graven image;" we respond, "Lord, incline our hearts to keep this law;" and we fill our houses with statuary. The spirit of the law has passed into other forms, prohibiting idols of the imagination, idols of the intellect, especially all religious views, practices, notions and doctrines that are unworthy of God, or dishonorable to him.—*Dr. J. M. Whiton, in Good Company, Number Two.*

RESURRECTION.—We believe that Christ was not only buried, but rose from the dead on the third day. He rose with a material body identical in a true sense with the body as it was before He died, and yet omnipotently changed to incorruptibleness and power, and fitted for the fullness of the Spirit and a state of glory. We believe that Christ will come again the second time in that very resurrection body, and raise up His people with a like literal real body of incorruptibleness and power, controlled by the Spirit and fitted to the final state. "We look for the Saviour, the Lord Jesus Christ, who shall change our vile body that it may be fashioned like unto His glorious body." The fall of man brought ruin to body as well as soul. Salvation is not complete till body, as well as soul, is redeemed.—*Church Helper.*

IT is well to bear in mind that unsound teaching cannot always be condoned for the sake of activity and zeal in an associate body of workers, any more than great soundness of doctrine can justify inactivity and sloth in the Master's work. The unsound teaching and the slothfulness are each to be deplored and condemned, and, so far as possible, done away with.—*Churchman.*

THERE is a great deal of ceramic religion, fine earthenware Christianity, old china church membership. Lay it gently on the shelf, a cracked and faded and useless thing. It certifies to a certain spiritual respectability of the happy possessor, but is of no use on the tables of the church.—*Interior*

PERSONAL ITEMS.

The Crown Prince of Germany has two sons, Prince Frederick Charles one, and on those three lives the Hohenzollerns depend. Prince Bismark is anxious to see one married.

Governor Blackburn, of Kentucky, has been in office about two months and has pardoned two hundred and ten convicts, or four for every week-day that he has been at the head of the State Government.

Captain Carey, who was with the late French Prince Imperial when he lost his life, and who was afterwards condemned by court-martial for abandoning the Prince, but subsequently relieved from blame, in South Africa, will retire from his regiment, it is said, and enter the church.

Daniel McFarland, who shot and killed Albert D. Richardson and was acquitted, and Abbey Sage Richardson recently arrived at Leadville, Col., on the same day. He was a decrepit, ragged old man, evidently in great want, pain and misery; she was in the garb of a well-to-do lecturer. A sorry contrast between the ex-husband and wife!

The Duke of Beaufort, who recently returned to England from this country, has written a letter, in which he warns the English farmers that they must not expect the present competition from America to cease. On the contrary, he anticipates a continually increasing export of American grain and he thinks the English farmers had better give up the unequal struggle and devote themselves to cattle and sheep.

"Dat cullud pussun on de jury, him's de man I objee' to," said a negro when put on trial in the Marion, S. C., Court the other day. The black, good man and true was unseated, and the prisoner given acquittal. After his release, the darkey was asked what he had against a juryman of his own color. "Nuffin at all, boss," said he, "but, ye see, I knowed if I flattered de prejudus ob be odder jurymen dat I get off, an' golly I did."

Squaw Susan, who so heroically bent her energies to save the captive wife and daughter of murdered Agent Meeker, was herself once rescued from death in a romantic manner. Susan was captured by a band of Arapahoes, who put up a stake at the mouth of the Cache La Poudre, intending to burn her to death. The commanding officer at Fort Collins, having heard of the proposed barbarity, by alternate threats and promises obtained Susan's release. It probably was in remembrance of this that the squaw became so devoted to Mrs. and Miss Meeker.

"Mrs. Grant says that the General once lost all his money in a potato speculation. He paid $750 for 150 bushels of potatoes, planted them, expecting to make a large profit, but when they were ripe, potatoes were too cheap to pay for the digging." This is a "Personal" that is now briskly "going the rounds" of the papers. Five dollars a bushel for seed potatoes! Why, they must have been a new variety. How foolish of the future President to invest *all* his savings in such a venture! But, perhaps, after all, it's like many other "Personals," made out of "whole cloth," and very poor cloth at that, filling some reporter's cranium.

General Hooker was fully six feet in hight and weighed in the neighborhood of 300 pounds. Of a florid complexion, his face sometimes wore a hectic flush that gave his round, good-natured face a boyish expression. Since his paralytic attack the General has led a quiet, sequestered life at the hotel in Garden City, Long Island. His manservant, Tom, was constantly at the General's side, to assist him to rise from his chair and walk up and down stairs. When the Queen's county hounds met at Garden City, the General often followed the pack by the country roads in a carriage. He did not look upon the sport with favor, however, and often remarked that it was un-American. General Hooker married, soon after quitting the service, the daughter of the Hon. William S. Groesbeck, of Cincinnati.

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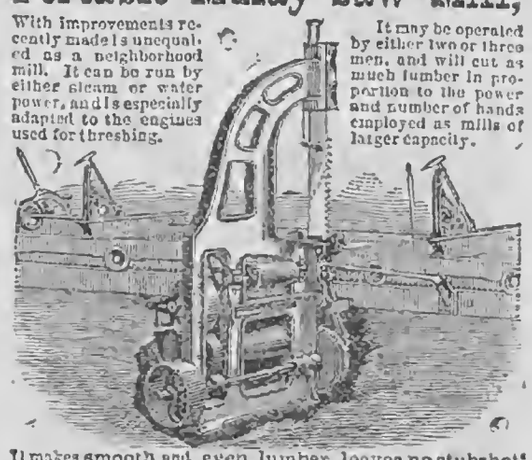

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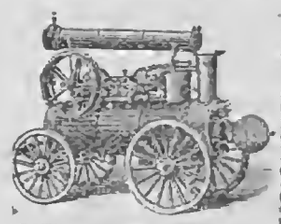

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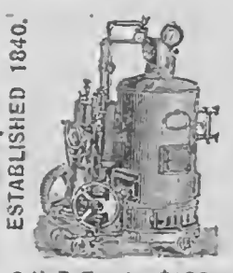

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PRECEPT AND EXAMPLE.

Great Grandpapa.—"Oh, indeed! you can lick your sisters at Lawn-Tennis, can you? Well done, my boy! but beware of self-conceit, and never brag. Why, I could lick everybody at Lawn-Tennis, when I was your age—or could have done if there'd been any Lawn-Tennis to play! I was the best cricketer, the best fencer, the best boxer, runner, jumper, swimmer, and diver I ever came across, either at school, or college, or after; and in classics and mathematics I beat 'em all clean out of the field! As for riding, no one ever touched me; or dancing either; let alone that I was the handsomest man in the county, and the best-dressed, for that matter; besides being the wittiest and the most popular. Ay, and such a song as I could sing, too! And yet a more modest and unassuming demeanor than mine it's never been my good fortune to set eyes on, man or boy, these fourscore years and ten—for I'm all that, my boy, and more, though you'd never believe it, to look at me!—Beware of self-conceit, my boy, and never, never brag!"

THEY stood all alone and 'twas late,
And deep shadows were cast, by the gate,
When her very bad brother, the scamp,
Climbed the post, and lighted the lamp;
And the meeting adjourned without date,

"You must find that I am very badly dressed," said a gentleman to a Paris tailor who was measuring him for a new suit. "Oh, no," replied the artist, "You are are not dressed at all; you are simply covered.—*New York World.*

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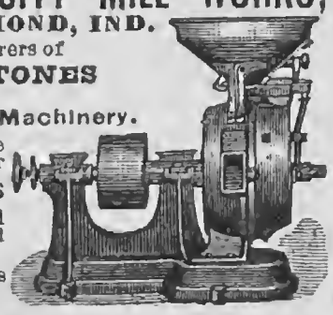

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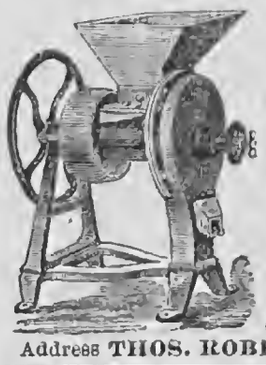

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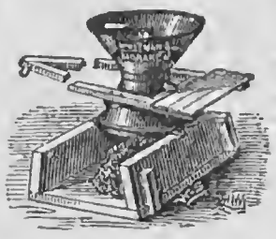

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A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME

VOL. XXXVIII. No. 47.
WHOLE No. 1556.

NEW YORK, NOV. 22, 1879.

PRICE FIVE CENTS.
$2.00 PER YEAR.

[Entered according to Act of Congress, in the year 1879, by the Rural Publishing Company, in the office of the Librarian of Congress at Washington. — Entered at the Post-Office at New York City, N. Y., as second-class matter.]

The Herdsman.

SHORT-HORNS.

AMONG English-speaking people no breed of cattle is more highly prized than the Short-horn, nor is any more widely diffused. In England, Ireland, Wales and Scotland their influence is almost everywhere; in Canada and the United States they have found a congenial home, and are rapidly improving the native and grade cattle; in Australia and New Zealand they are prized as highly as in their native island. Nor are their praises unsonnded in foreign tongues. They are raising the standard of the vast herds of Russia; the best German breeders profit by their prepotency; France does not prize her own choice strains so highly as to think that her herds cannot be bettered by an admixure of Short-horn blood; even Japan has become Europeanized in its appreciation of Short-horns as well as in other respects.

Yet world-wide as extends the fame of this breed to-day, until just about a century ago what reputation they had, was confined to Durham, York, Westmoreland and Northumberland, the two first-named counties, on either side of the river Tees, having been for a couple of centuries especially appreciative of their beef and milking qualities, whether known as Teeswater or Durham cattle.

It matters little, except to the curious trifler, whether their characteristics of yield, form and color, were due to local development, natural or artificial, or to a just possible admixture in remote times of native blood from the Chillingham, or of alien blood from Scandinavian cattle; what does matter considerably to the intelligent stock-owner, as a proof of what can be done by careful breeding, is an idea of what-like the old-fashioned Durham cattle were before the modern system of breeding developed their present merits. According to the best accounts, then, a hundred years ago, or so, the best specimens of Short-horns were generally wide-backed, well-formed animals, deep in the fore-quarters soft and mellow in the hair and "handling," possessing average milking qualities, but a remarkable aptitude for fattening. Their horns were somewhat longer than those of their descendants, and widened upwards. Their shoulder joints and hips, however, were unduly prominent; they lacked length in the hind-quarters, width in the chest and fullness before and behind the shoulder as well as on the shoulder itself. They were also unduly large-bellied, too long in the legs and deficient in substance, while their failure to take on flesh evenly and firmly gave them an uneven appearance. Here and there an unusually large milker or an uncommonly fine beef animal, or a beast combining to an extraordinary degree both these properties, attracted especial attention, and the progeny of such animals would doubtless fetch a few shillings more than the offsprings of less noted beasts, but no successful attempt was made to perpetuate these qualities, inasmuch as no effort was made to concentrate them by "in-and-in" breeding.

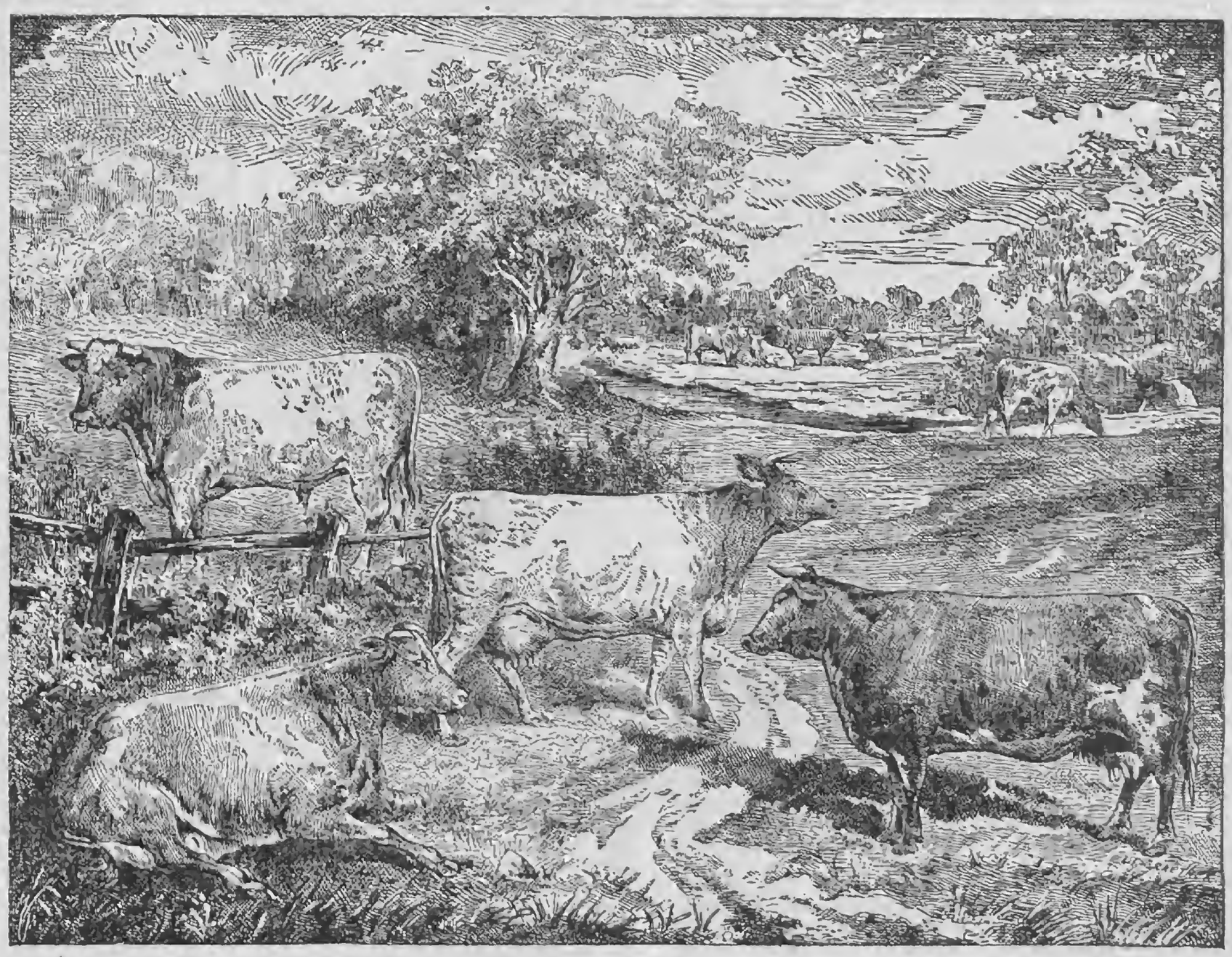
The genius of Robert Bakewell first discovered the paramount advantages of this system in transmitting the properties he wished to perpetuate, and his marvelous success with Leicester sheep, cart-horses and Long-horn cattle attracted widespread attention. Among those whose interest in his results led them to visit Dishley, were two young men, Robert and Charles Colling, the sons of a substantial Teeswater farmer and breeder, who were about to start in business on their own account. During repeated visits they carefully examined his stock, learnt all they could of his system, not from his willing lips, however, for he kept his principles a strict secret; but from his casual remarks and their own close observation. On their return to the north they applied what they had learnt to the breeding of Short-horn cattle, being more fortunate in their selection of a breed to start with than was Bakewell with the Long-horns. Commencing business jointly in 1780, they amicably separated three years later, Robert, about 30 years old and a confirmed bachelor, settling on a farm at Barmpton, and the more wide-awake, interprising Charles, married though a couple of years younger, taking another farm at Ketton. The farms were not so far apart as to prevent the brothers from using the same bull in the same or alternate seasons, as might be most convenient, while each profited by the other's experience. Each, however, had his own cows carefully selected from the surrounding Short-horn herds, the choice of every purchased animal being always determiued by its possession of some particular excellence which the purchaser wished to introduce among his own stock. Thus they labored, Charles for 30 years and Robert for 40, with such marked improvements in the herds they bred, that under their management the Short-horn race attained an unprecedented popularity which has continued to increase until to-day.

The system they pursued was identical with that established by Bakewell, and the same, with a few slight modifications, as that by following which the most celebrated subsequent breeders have accomplished their highest successes. It consisted in breeding "in-and in" as closely as possible—often father to daughter and mother to son—so long as constitution, vigor, quality, health and fecundity remained unimpaired by it. By this means they concentrated in the members of one family all the virtues they sought to perpetuate, so firmly as to induc them with the faculty of transmitting their qualities to a greater extent than had ever before been found possible, or than could have been accomplished by any other system of breeding; for it is the general opinion that uniformity of type and quality can be attained sooner and more certainly by this method than by any other. It has been found, however, that the system, if long persisted in, results more or less disastrously in weakened constitutions, liability to disease and frequent barrenness. Later breeders, therefore, have often found it to their advantage to modify the system somewhat by the introduction into their herds of fresh blood from more or less closely collateral lines of descent.

On the sale of the Ketton herd in 1810 and of the Barmpton herd, in two lots, in 1818 and 1820, the choice results of the labors, skill and experience of the Collings were scattered among a number of the best breeders of the day, who eagerly competed for the famous animals at unprecedentedly high figures. Among these breeders the most celebrated are Thomas Booth, founder of the Booth Short-horn herd, and Thomas Bates, founder of the Bates herd. The former was a neighbor and rival of the Collings, having begun breeding in 1777, on a farm near Sudley Park, although the legitimate foundation of his herd was laid in 1790 at his Killerby and Warlaby estates, near Darlington, Yorkshire, at no great distance from Barmpton and Ketton. His two sons, Richard and John, afterwards joined him in breeding Short-horns, and at his death, in 1835, succeeded him, the former at Warlaby and the latter at Killerby.

On the death of the genial bachelor, Richard, in 1864, his nephew, T. C. Booth, whose untimely end was mourned by the Short-horn world a few months ago, inherited his estate of 310 acres at Warlaby, and also the Short-horn herd the improvement of which had been his chief occupation since he settled at that place in 1835. The new owner possessed all the skill in breeding, which should rightly belong to him through his father. John, his grandfather, Thomas, and his deceased uncle, Richard, all of whom were among the foremost breeders of their time, and under his management the Warlaby herd, surpassing those of Killerby and Studley at their best, grew to be the finest representatives of the "Booth blood." To this blood belong some of the most famous tribes of Short-horns, whose names are known in Short-horn circles every where. What lover of this fine breed has not heard of the Fairholme or Blossom tribe, the Bright Eyes, the Halnaby or Strawberry tribe, the Bracelet, Isabella, Farewell, Boughton, Dairymaid or Moss Rose, tribes, all of which, whether belonging to the Killerby, Studley or Warlaby contingent, have spread the virtues and fame of the "Booth blood" far and wide.

A worthy rival of the Booths was Thomas Bates, crotchety, kind-hearted, acrimonious, and oh! so skillful a breeder. Having started Short-horn breeding in 1800, at the age of 25, he devoted an ample fortune, no mean abilities



CHOICE SPECIMENS OF SHORT-HORNS.—Suggested by a Colored Plate in Professor Sheldon's (London) New Work.

and the remainder of a long life, to the production of a herd of such transcendent merit as should insure his lasting fame. Given time enough, persistent, well-directed effort seldom fails of its object, and at Bates's death, in 1849, no Short-horn herd in the world excelled his, judging by the prizes, prices and renown since won by the tribes he had established. Of these, first in order of time, in his affectionate care, and in world-wide celebrity comes the Duchess, closely followed by its near relative, the Oxford, while the Waterloo, Red Rose, Wild Eyes, and Foggathorpe tribes have each won no small measure of merited reputation.

What, then, have these famous breeders and a multitude of others—some of them only a trifle less renowned—done for the Short-horn in the course of a century? How do the characteristics of the Short-horn of to-day compare with those of the Short-horn with which the Collings began their improvements? The bygone Short-horn is described above; the modern Short-horn—who has not admired, at agricultural fairs or on way-side pastures, its symmetrical proportions, its expressive head, broad across the forehead, tapering gracefully below the eyes to the open nostrils and fine, flesh-colored muzzle; its bright, prominent, placid eyes; its mild expression; its fine, erect and hairy ears; its white, or yellowish, short horns; its moderately thick neck set straight on its wide shoulders; its prominent breast and straight, short legs standing wide apart; its broad, flat back; its—but what need of describing its appearance to farmers, especially as the space at our disposal ends here?

PRINCIPLES IN STOCK FEEDING.

J. W. SANBORN.

No well defined system of stock management resting upon the laws of animal growth and of the relation of foods to each other in animal nutrition, is in practice to any considerable extent in this country. It is a self-evident statement that working in harmony with law is working to the best advantage. As farmers, we are sadly out of harmony with the best methods of stock management, thus coming greatly short of obtaining the possible effective value of our foods. Feeding is not as yet a developed science, but a very hopefully developing one. Closely pressed by having to compete with the low prices of prairie steers, the only hope of Eastern feeders lies in the search for, and observance of, the laws that control in this department of farm husbandry. Allow me then to name a few important points that have come under my observation in experimental feeding for a few years past.

The Steer to Feed.

Every reader at once declares that the matter is clear—it must be a steer that has been well bred, that inherits a large capacity for consumption, digestion and assimilation of food. It is useless to attempt to feed any other for profit in the East, but under the head of "the steer to feed," I wish to make this point, resting upon my own observation and that of others:—this is the only steer that one can afford to feed high; for, when fed an increased ration over an ordinary one, the well-bred steer assimilates a very much heavier percentage of this increase than an average steer, and the poorer steer's capacity for assimilation is so low that it will not give a favorable response to a heavy ration.

Large Breeds.

Our steer must be of the larger breeds; for a rapidly growing, or a large animal, will make more growth on a pound of food than one of a smaller breed. A large beast presents less radiating surface in proportion to weight, than a small one; thus, in case of the latter, more food is required, particularly in winter, to maintain the animal heat. On this head practical experience confirms theoretical considerations. The animal should be early matured. If a steer is sold when four and one-half years of age, weighing 1,600 pounds, then his average weight for his lifetime would have been not far from 800 pounds. Such an 800-pound steer I have found will consume 14 pounds of hay a day as maintenance fodder, making no growth. Now the steer has consumed 14 pounds a day for 4½ years—how many steers require 6 years to weigh 1,600 pounds!—simply to run the machine. It is the hay given over this amount daily that makes the growth. Growing our steer to 1,600 pounds at 2½ years, will save maintenance fodder for two years; or, in round numbers, for two winters, or 360 days, we shall save 2½ tons of hay, as well as two years' pasturing. But again, I find that a young animal will make more gain on a pound of food than an older one, thus making a double gain. Moreover, an animal when small, will make very much more gain than an animal nearly matured. The difference is so great as to become of much importance. This fact should lead us so to breed as to get an animal that will come into shape to command full market prices at a much less weight than that named. Could a market demand be developed for 800-pound calves, these could be furnished at a profit by the side of Texas steers.

Feed for Manure.

Unhappily most farmers consider this heading as a part of another question. It is, however, inseparably connected with the entire system of mixed farming with us. For a generation most of the stock of New England has been kept for the direct purpose of manure-making, and they are yet its cheapest sources. Were it not so, in a comparatively short time there would be but little stock in the East. Yet in feeding, the prime object—the fact that our steers are simply manure manufactories—is lost sight of. The Englishman's first question is:—"What is the manure value of the food?" Then in buying foods—I buy heavily because I find it the cheapest means of obtaining plant-food, and for another object I will name further on—I always consider the amount of the elements of plant-food contained in the proposed purchases. I do not say that that shall be the sole criterion of purchase, but it must have a determining recognition. It not unfrequently happens that a nitrogenous food is nearly, or quite, worth its cost, as a manure. Intending here to call attention only to prominent points in stock management, that are settled but not accepted generally in practice, I will forego details and simply say that in practice I can give corroborative evidence from my records, of the facts here stated.

Combination of Foods.

Chemistry has blundered around badly on the question of the nutritive value of foods, as it has on other questions in agriculture. But the stimulus it has given to practical investigators, pointing to the door, and as an aid to them, will result in an immense saving of food values. Pardon me for referring to personal data again; such data, however, always bear more directly on the point than what one has heard of. As the result of three years' careful weighings of food for several sets of steers, I am thoroughly convinced that an extremely important saving can be made in feeding mixed rations, and that it is not enough that these mixtures be indiscriminately made. In general terms, nitrogenous foods should be mixed with carbonaceous; or bran, peas, cotton-seed, oil-cake, blood, meat and clover should be given in connexion with coarse foods, like straw, corn fodder and swale hay. Happily it is the first-named foods that are rich manure-makers, and, in using them, we accomplish two important purposes.

State Farm, Ag'l College, Hanover, N. H.

Sheep Husbandry.

SHEEP COMPARED WITH COWS—THE RELATIVE PROFITS.

COL. F. D. CURTIS.

According to statistics furnished at a recent Dairymen's Association meeting, the average income per cow in the great dairy district of New York, in the year 1868, was $28. This year it will be no more. Of course, many dairymen realized more than this. In this section of the country mixed husbandry is carried on, and small butter dairies are kept as an important feature; but cows are not made a leading part in the farmer's business, as is the case in a considerable portion of the State of New York. Twenty-eight dollars per cow are not a remunerative income. This includes both cheese and butter dairies, but where milk was all manufactured into butter, the average yield would be greater. In the small dairies, cows make, on an average, not more than 150 pounds of butter. To this as a part of the income, should be added the skim-milk which will make one hundred pounds of pork when fed to a pig, and the price of the calf which might be worth five dollars more. The account in the small butter dairies would stand thus:—

150 pounds of butter @ 20c.	$30
Pork made, and price of fatted calf	10
Total	$40

This estimate is undoubtedly greater than the amount realized by the majority of small dairymen. A cow will consume as much food, if kept in a profitable condition, as five coarse-wooled sheep, and as much as seven South-Down or Merino sheep. Let us look at the comparative income and profits of sheep and cows, not taking into account the difference in the amount of labor which is seventy-five per cent. more with the cows than with the sheep.

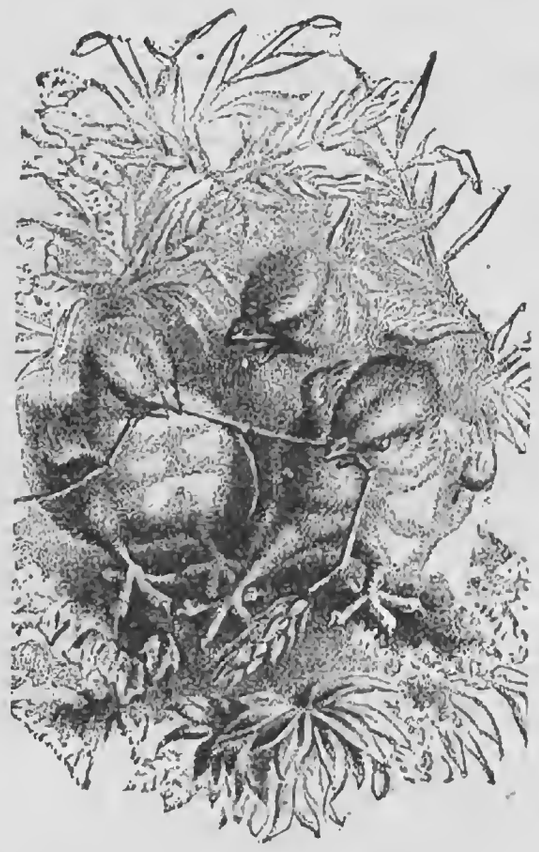
Five coarse-wooled sheep will produce lambs at the rate of one and one-half to a sheep, but quite often they will double their number. Medium-wooled sheep may safely be relied upon to increase their number one and one-half, while fine-wooled sheep will return a lamb for a sheep. The value of the lambs depends upon their quality, when kept for breeding; or on their earliness and condition, when fitted for market. The price of lambs of these various breeds will range from three dollars upwards. Wool was worth the past season from 35 to 45 cents per pound. Six pounds of wool per head are not an extra average for a well kept flock of sheep. They may be made to average more than that by extra care. A flock of combing-wool sheep, with the same care and feeding which a good dairyman would give his cows, will average, per sheep, at least ten dollars. This would afford an income of $50 on a flock of five in the place of one cow. The proportion of income would not be so great in a large flock, as the average yield of wool would be less. The percentage of increase is likewise reduced, owing to the fact that the ewes receive less care and to their increased liability to accidents. If the flock should be separated and kept a few in a place, not exceeding 12, a month before yeaning time, the losses would be very few. In our estimate of the income from cows, we have made no allowance for the cost of the pig.

We will now add, as a practical illustration of the comparative profits of cows and sheep, several statements: Alexander Davidson had, last spring, a flock of 50 grade South-Down sheep, two of which were bucks, and several were last year's lambs. Thirty-five ewes raised 45 lambs. His wool was sold early in the season and brought $65.67. The lambs sold brought $93.50. Twelve were kept at home, which would have brought three dollars each. This would make a total income from the 50 sheep of $195.17. In this case, it must be remembered that there were 15 unproductive sheep and that the wool was sold low, and still the income is $27.28 to a cow, rating seven sheep as equal to one cow. With these returns the sheep would be the most desirable on account of the reduced labor. Fifty breeding ewes would have increased the profit, and made it almost one-third more. These sheep had no extra feed other than hay and corn-stalks in winter, with a little corn.

Another farmer, Mr. Valentine, purchased 17 ewes—grade South-Downs—for which he paid $75. The next season he sold one sheep and his lambs, reserving 12 of the best. The stock sold and the wool, came to $34 35 more than the sheep cost. Here was a gain of $34 35 in cash and 12 lambs worth five dollars each, over the entire cost of the flock.

Mr. Wicks wintered 17 ewes of common blood. One of them did not have a lamb. The 16 ewes brought 22 lambs, which were sold for $3 25 each. Six were reserved, for which he was offered four dollars each. The sheep were light shearers and averaged about four pounds of wool per head, which was sold for 32½ cents per pound. The total income was $38.75, which would be equal to $37.91, estimating at a cow ratio, offsetting three cows against the flock of sheep. In the above statements it must be understood that the lambs were sold to local butchers, and the wool at the lowest price before the market was fairly opened.

The Poultry Yard.



VALUE AND VARIETY OF POULTRY.

HENRY HALES.

Of all the useful creatures domesticated and bred by man, perhaps no one species offers such a wide range of size, color, form, beauty, and utility, as we find in domestic poultry. Added to all this is a language—I know no other term—that expresses a greater variety of meaning than that uttered by any other one species of beings on the globe, except man. It is remarkable to look back and see how little was done by man, for many centuries, in perfecting or bringing out the many peculiarities that lay dormant in the common, natural fowl of our ancestors; but so great is the change brought about during the last thirty years, by selection and careful breeding, that the birds of our poultry exhibitions now, show such perfection of variety as to astonish people who are not familiar with the subject. Even of the imported foreign breeds, many are so improved that only faint traces of the originals remain. No wonder that so many poultry-breeders are infatuated with their pursuit, when they see how fowls can be changed or improved by a little care and judgment in selecting birds to produce the desired effect.

Domestic poultry are generally considered to be all of one species. They are, however, divided into classes, such as the Asiatic class: the Spanish class, which includes Leghorns and Andalusians, the Minorcas, etc., or the Game, or Dorking class. These are again sub-divided into breeds. The term breed is applied to such fowls as have been bred to a certain form, size and color, so as to be distinguished from any other birds, and which have been recognized by fanciers as such breeds. Most of these are described in the "American Standard of Excellence," with their characteristics.

The term variety, as generally understood, means a difference less than is usually implied by the word breed, such as a change in color or comb only, as Pea-combed, and Single-combed among Partridge Cochins; Gray and Silver-Gray among Dorkings, and Silver Duckwing and Yellow Duckwing among Games. The different breeds and varieties form so long a catalogue that the premium list of the National Exhibition of Poultry to be held at Indianapolis, Ind., comprises 71 kinds. Premiums for about the same number are also offered by the New Jersey State Poultry Society, at Newark.

Not the least important peculiarity about all these different breeds is that, with external differences, each one develops some other quality in a different degree from the others, such as that displayed by sitters or non-sitters; greater or less prolificacy as layers, the production of larger or smaller eggs; differences in shades and sizes; flesh of peculiar flavor and color; vivacity, docility, or pugnacity of disposition. As to constitution, too, each class has its weaker or stronger points. In size the difference between full-grown birds varies as much as pounds to ounces, or even as much as from eight ounces to fourteen pounds.

In commencing a new series of articles on poultry, in the RURAL, I shall endeavor to describe as plainly as possible, the peculiarities of most of these different breeds, from a practical knowledge of them, so that the farmer or the amateur fancier can get an idea of what is most likely to suit his purpose. Not that any one can be so thoroughly acquainted with all kinds as to be able to properly judge of their merits; for every fancier knows that each class has its specialists when close judging for exhibitions is required; yet, having kept a great many breeds for many years, I hope to be able to give such general information as will be acceptable to the many readers of the RURAL NEW-YORKER.

Entomological.

LOPHYRUS OR PINE SAW-FLY LARVÆ.

B. PICKMAN MANN.

DR. Asa Fitch says, in his fourth report on the noxious and other insects of the State of New York, p. 59, that all the species of the genus Lophyrus, whose habits had been observed up to the time of that writing—which was in the year 1857—feed upon the Pine or Fir.

Edward Norton, in the Transactions of the American Entomological Society, v. 2, p. 321–330, gives an account of eleven species of this genus, found in the United States up to that time, 1869, and repeats the assertion that the larvæ feed upon the Pine and Fir. These eleven species are the following:

L. Fabricii, L. compar, L. pini-rigidæ, L. Abbotii, L. Akhursti, L. abietis, L. pinetum, L. abdominalis, L. Americana, L. Lecontei, L. Edwardsi.

In 1872, Mr. Norton described the female of another species, L. fulva, from Texas. Only a few of these species have been observed in the larva state, and the following information in regard to these larvæ is all that can be collected at present:

The larvæ are 22-legged; that is, they have sixteen belly-legs besides the usual six jointed breast-legs; they are cylindrical, slightly tapering from before the middle backwards, and occur in dense groups on the trees which they infest, denuding the branches.

The larvæ of L. abietis and L. Lecontei are easy to distinguish. L. abietis is from 12 to 15 mm. long, when full-grown; but L. Lecontei grows to be 25 mm. long. Abietis is dirty-green, or almost yellow; while Lecontei is dirty-white, or yellowish-white, and without any greenish hue. The head of abietis is black; that of Lecontei is shining reddish-brown, with a black eye-spot on each side. Abietis has a light stripe along the top of the back, separating two darker-green stripes, and has two dark-green stripes on each side of the body also, while Lecontei is not striped. Able-

tis has no black spots on the back or sides, but such spots are present on Abbotii and Leconteі, being closer together in the former than in the latter, and, as far as a published figure of Abbotii, by Riley, can be relied upon, there are three rows of these spots on Abbotii, the spots being twice as long as wide, while in Leconteі there are four rows of spots, or even six rows, the spots in the back being somewhat triangular, the upper spots on the sides being nearly square and the lower spots on the sides being smaller black marks; the young larvæ of Leconteі, however, have no black spots.

Another larva, whose parentage is not certain, was described by Asa Fitch in his 4th report, p. 58. It is 25 mm. long, white, with black head; the body is not striped, but has two rows of oblong black spots along its back and a row of broader, square spots along each side. It seems to resemble L. Leconteі in all except the color of the head.

As regards the time of year at which the larvæ may be found, this is various. The parents of L. Leconteі appeared in New Jersey February 15; others were captured in Northern New York in the middle of May, and larvæ were found in New Jersey in October. It seems evident, therefore, that there must be at least two broods in the year. In the absence of further positive proof, we may conjecture that the larvæ could be found in June and July and in September and October.

Asa Fitch says of the undetermined species above referred to, that at least two broods appear annually, the one in July, the other in September and October, the latter often remaining on the trees after frosty nights have occurred.

The parents of L. abietis appear in May, and their larvæ in June and July. Some at least of these larvæ reach the winged condition near the end of July and August, but Harris thinks it probable that the greater part of them remain unchanged till the following spring. Fitch suspects that there are two generations annually, the flies, which come out of their cocoons about the beginning of August, producing another brood of the larvæ in the autumn; but Norton says if there is a second brood in September, the number must be comparatively small, for he has not seen them or any fresh cocoons late in the season.

The parents of L. Abbotii appear early in June, and there is but a single brood of larvæ annually. The larvæ remain on the trees in Illinois until November, and do not change into pupæ until the winter is passed.

The larvæ of L. pinetum were described by J. Kirkpatrick, Nov. 24, 1860. If any inference can be drawn from the date of this publication, the larvæ must occur late in the fall.

As said above, these larvæ, so far as known, feed upon Pines, Firs and Spruces. L. Abbotii and Fitch's undetermined species feed on the White Pine [Pinus Strobus]; L. Leconteі, on the Scotch and Austrian Pines [P. sylvestris and P. Austriaca]; L. pini-rigidæ, on the Pitch Pine [P. rigida], and L. abietis on Firs and Spruces [Abies], and perhaps also on the Pitch Pine. L. abdominalis and L. pinetum feed on Pines, but we are not told on which species they feed. It seems that L. Abbotii, L. abietis and L. Leconteі strip off all the leaves from the branches, as they pass over them; but Fitch's undetermined larva eats only the previous year's growth of leaves, never touching the new leaves at the outer end of the limb.

The larvæ are social, living in considerable swarms, or in clusters. Sometimes two larvæ of L. abietis may be seen feeding together on the same leaf, and sitting opposite to each other. In order to lay hold of the leaf more firmly, they curl the hinder part of the body around it, and, if they are disturbed, they throw up their heads and tails with a jerking motion. The larvæ described by Fitch are so large, when nearly mature, that probably the end of a single leaf of the Pine does not furnish them a sufficient mouthful, hence two larvæ often stand face to face and hold, pressed together in a bundle as they eat them, the five leaves which grow from each sheath of the White Pine, beginning to eat at the tip and gradually stepping backwards as the leaves become shorter.

L. Leconteі and the species Fitch described make their cocoons at or beneath the surface of the ground, under fallen leaves or other shelter. Harris and Fitch say that most of the larvæ of L. abietis do the same, or creep into cracks in fences or into other crevices to make their cocoons, and that it is usually the healthy larvæ which do this, those that make their cocoons among the leaves on the tree usually perishing from the attacks of internal parasites; but Norton says that most of the cocoons of L. abietis, which he has seen, were formed upon the branches of the trees on which the larvæ fed, and that they often adhere to the leaves until the next season.

When L. abietis comes forth from the cocoon, it cuts a circular piece from one end of this, as cleanly as if the cut had been made with a knife. This piece sometimes remains attached by one side, like a lid.

Harris says that it is probable that the eggs are laid in slits which the parent flies make with their saws in the edges of the leaf. This is stated positively to be the case with the eggs of L. pini-rigidæ, the eggs being laid singly in the side of the pine needle, sometimes one on each side of the leaf.

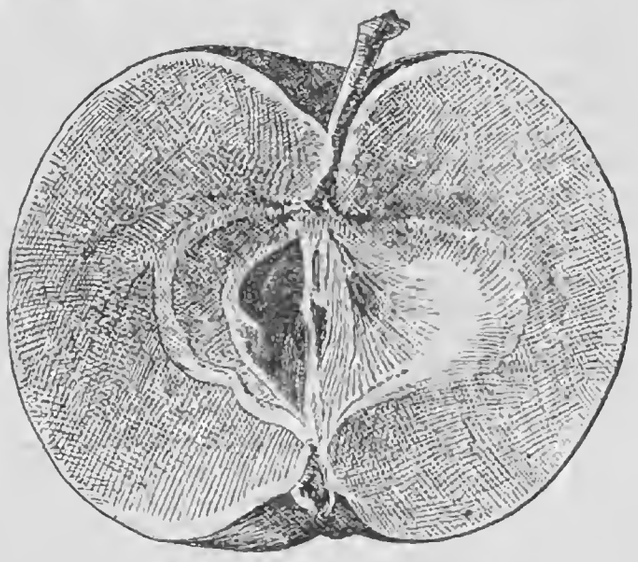
Norton has bred ten parasites from the cocoons of L. abietis. A list of these, and descriptions of some of them, are given in the Transactions of the American Entomological Society (Philadelphia) v. 2. p. 326 327. Most of these parasites burst their way out of the side of the cocoon, cutting with their jaws a rough passage, which may thus be distinguished easily from the clean-cut passage made by the rightful tenant of the cocoon.

L. pini-rigidæ has been observed as yet in Massachusetts only; L. abietis in Massachusetts and Connecticut; L. abdominalis in New York and in the territory northwest of the Mississippi River; L. Leconteі in New York and New Jersey; L. Akhursti in New Jersey; L. Abbotii in Georgia, Indiana and Illinois; L. Americana, L. compar and L. Fabricii in Georgia; L. fulva in Texas, and, L. pinetum in Ohio. Probably most of these species are widely distributed over the Northern or Southern States.

Pomological.

A STRAWBERRY-COLORED APPLE.

We have noticed that several of our exchanges have of late made mention of a red apple sent to them from somebody in Missouri. We, too, have received an apple of which the accompanying cut shows a section. The sender did not favor us with his name, but, on the other hand, to save us "trouble and expense" he sends us quite a lengthy notice of this wonderful apple, written editorially and setting forth its qualities in high colors, which he desires us to publish, and ending with the statement that the supply being limited and the demand quite large, those wanting this curious apple should direct a note to River's Strawberry Apple at some place in Missouri,



STRAWBERRY-COLORED APPLE.

The apple is of medium size: skin straw-colored, and the flesh is of a beautiful red strawberry color all through; rather dry, mealy, with but little flavor; it is of but little value except as a curiosity. It corresponds in size, taste and peculiar color with the Surprise apple, which is an old and well known variety, and the probability is that they are identical.

The peculiar method of sending this apple to editors without giving name of sender, and the fact that nothing at all is said of the origin of the tree, or who named it, hint strongly at fraud. If, therefore, our readers think the apple a desirable curiosity, let them procure it from a reliable nurseryman and not from anonymous peddlars.

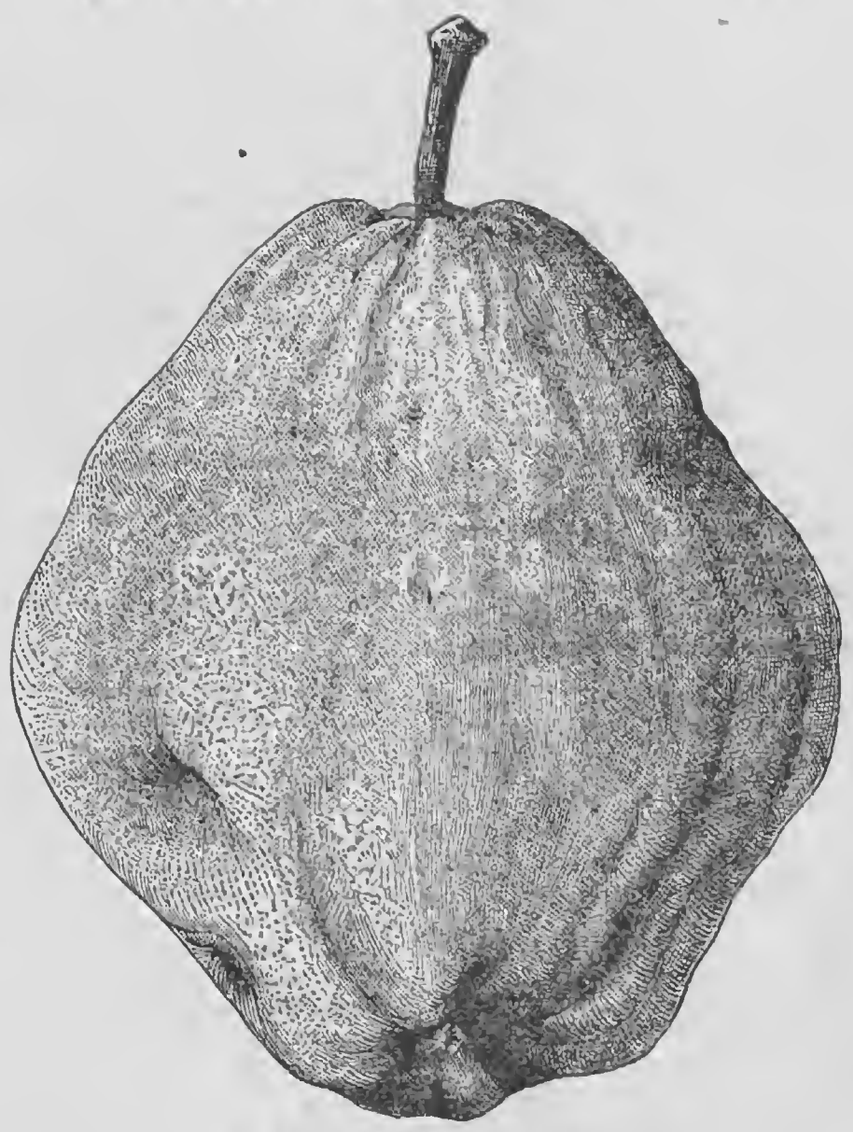
KIEFFER'S SEEDLING PEAR.

Among the valuable new Pears that have recently been produced is the Kieffer "Hybrid" Seedling Pear, an illustration of which we this week present to our readers. We are indebted to Mr. John S. Collins, of Morristown, N. J. for the specimen from which the engraving was made. He writes us that it was rather a poor specimen, having been picked from a small tree that was planted last spring. As the illustration shows, the pear is rather rough, of a handsome yellow color with minute dots, and a slightly ruddy cheek. The flesh is firm, juicy, of fair quality, but we did not think it superior to the Duchesse d'Angouleme which it somewhat resembles. Mr. Collins writes, "I do not claim high quality of fruit, but the tree is vigorous, free from blight, an early bearer and very productive. It retains the foliage late, and the leaf is rather broad and finely serrated. It is a valuable market pear, ripening as it does, from the first to the middle of October. When laid away, it ripens up slowly to a russet-yellow pear-color. I saw one pear on a small tree at Mr. Kieffer's, the originator's place, which he said measured over eleven inches around. The original tree, which is a seedling of the Chinese Sand Pear, is now eleven years old and was the only valuable one of about 2000 seedlings."

A BLIGHT-PROOF PEAR.

WILLIAM PARRY.

Kieffer's Hybrid Seedling Pear is growing in favor wherever known. It originated about the year 1868, from the seed of the Chinese Sand Pear, and is supposed to be crossed with the Bartlett, as the two trees grew near each other. The new seedling commenced to bear fruit in 1873, and has borne about all the tree could sustain every year since, the quantity increasing with the size of the tree, which is now about six inches in diameter, and yielded, in 1877, four bushels; in 1878, five bushels, and in 1879, more than seven bushels of pears, which sold in market each year readily at 50 cents a half peck, or at the rate of $4 per bushel. The fruit ripens in October, is large, 10 to 12 inches around, double-turbinate in shape; flesh white, and remarkably firm, until fully ripe; then rich, juicy, with a pleasant vinous flavor and of excellent quality. It is a good shipper, may be carried for a month, or more, and arrive in better condition—ripening on the way—than when started, having a rich yellow appearance.



KIEFFER'S "HYBRID" SEEDLING PEAR.

The tree is a remarkably vigorous grower. Young trees transplanted last spring, have grown during the summer and fall four feet and more. They are of handsome shape, and make a fine appearance. One fruit grower being satisfied of its great value as a market fruit, planted an orchard of 500 Kieffer's Hybrid Pear trees, and set more than 20 of them in the front lawn for ornament, and, although it is in sod and has been for years, yet the trees have grown more than three feet the first season after transplanting, and have borne some fine specimens of pears. The trees are beautiful in summer while covered with rich, glossy foliage, and not unsightly in the fall, when the limbs are bending in graceful curves, laden with the golden fruit. They grow well in any ordinary soil—heavy clay or light sandy land. The largest growth made by trees planted this year, was on light sandy soil; many branches made a growth of four and a half feet in length.

The great superiority of this variety over other Pears, in addition to the large size of the fruit and the wonderful productiveness of the tree, is its perfect health, partaking in this respect of the characteristics of the parent Chinese Sand Pear, which has been cultivated half a century in America, and has never shown any signs of blight or other diseases, which are so very discouraging to pear growers. Many pear trees of other varieties, partly dead with blight, have been restored by cutting away the blighted limbs and grafting with Kieffer's, which flourish and grow vigorously in the midst of others blighting and dying around them.

In 1876 the Kieffer Hybrid Pears attracted much attention at the Centennial Exposition. The prize medal and certificate of award were given to P. Kieffer for this variety. The Committee's report says:—"He exhibits a hybrid pear of remarkable excellence, between the common pear of cultivation and the Chinese Sand Pear, giving promise of a new race of great excellence."

Wherever exhibited in Pennsylvania or New Jersey, this variety has always taken the highest prize for the best hybrid seedling blight-proof Pear.

Clunaminson, N. J.

PEARS AND PEAR TREES.

I. J. BLACKWELL.

It is supposed in this section that Pears, or rather that pear orchards, are not profitable. I will acknowledge that the profits are small, compared with those of twenty years ago, or when the White Doyenne was the most popular pear. At that time there was not a pear orchard of one hundred trees in our township. A Bartlett or Duchesse d'Angouleme was a curiosity. It was about then that the pear mania commenced. The nurseryman planted trees that sold readily, and what he did not sell were left to fruit. Orchards sprang up on most farms and in most gardens, and if the blight had not put in an appearance, pears would have been so abundant that every man, woman and child could know the virtues of good fruit, and have plenty of it. Every catalogue had a long list of varieties, from earliest to latest, embracing hundreds of different sorts, ninety-nine out of each hundred of which the orchardist, or the man that planted a few trees, did not want.

The amateur plants to please some fancy, and may think that he can afford to have a little pear that costs a good deal of money. The more it costs, the better it tastes. Of several varieties that I have, there are only a few that "pay" for home use. It is proper to have early pears for this purpose, and, maybe, a few for a local market. I would not like to be without Manning's Elizabeth, a tree each of Doyenné d'Eté and Rostiezer for early, and perhaps a tree of Madeleine. Kirtland should have a place, even for market; not many of them would be needed, for the Bartlett comes here from all the South. The Bartlett, Belle Lucrative, Seckel, Duchesse d'Angouleme, Beurré d'Anjou, Onondaga, Lawrence and Vicar of Winkfield will supply a farmer with pears from the middle of July until Christmas, and twenty-five trees will only take a quarter of an acre of land; and if he uses this at the same time as a place for poultry, or for hogs, it will be all the better for the trees. Twenty trees, fifteen years after planting, will average a bushel to a tree, worth, on an average, fifty cents a bushel if sold, and ever so much more

if used at home. If desired, potatoes, corn, Strawberries, etc., can be grown on the same lot until the trees are large. If the orchard is planted with three dwarf pear trees between each standard tree, it will pay in five years, and at ten years give a profit, provided it is set with Duchesse d'Angouleme and Vicar of Winkfield. These kinds do well on the Quince, especially the Vicar; for, if set three inches below the junction of the Vicar and Quince, nine trees out of every ten will strike pear roots, and make the best of trees. All other varieties, so far as I know, are failures on the Quince, either in growing or else they will not sell after they are grown.

The orchardist of the present day must consider before he plants. We have fruit coming from Georgia first, and fruit growers there can make it pay only by sending fruit of good size and appearance. It will not pay to have anything but the best to be had at the season; the cost of transportation eats up all profit from poorer sorts. The ripening of fruit extends gradually north, so that all northern sections have to compete with Bartletts grown to the south of them. As we all know that nothing else brings a price equal to that obtained for this variety, it follows that all parts of the North have to grow pears to compete with Southern Bartletts. Later on in the season, the position changes, and the south and middle section have to compete with Northern Bartletts. To make the matter plain: the Bartlett comes from the south to New York City early in August; New York, Michigan and Massachusetts keep up the supply through September, and for two months of the pear season, the Bartlett fills the market, and no rival has yet appeared to dispute its sway.

We see that if the above be correct, the Bartlett is the earliest Pear worth planting north of Georgia. It is also the latest worth planting south of Washington City. After it comes the Seekel—and a few of them are plenty—Duchesse, d'Angouleme—standard or dwarf—Beurré d'Anjou, Lawrence and Vicar of Winkfield. Most of the others will not pay here. Onondaga is a fine fruit, but blights badly, or has done so here. There is a host of varieties that grow fairly, without a standing in the markets, and so they had better not be grown. It must be a superior fruit that can compete successfully with old standard sorts.

Mercer Co., New Jersey.

Field Crops.

THE PLANTING AND CULTIVATION OF THE CRANBERRY.

There are throughout the country numerous marshes and muck beds that now are productive of only weeds and briers, which could readily be converted into flourishing cranberry beds, and become rich sources of income to the owners. Not only are these places waste land, but they cause, in addition, untold misery by generating malaria that poisons the air for miles around.

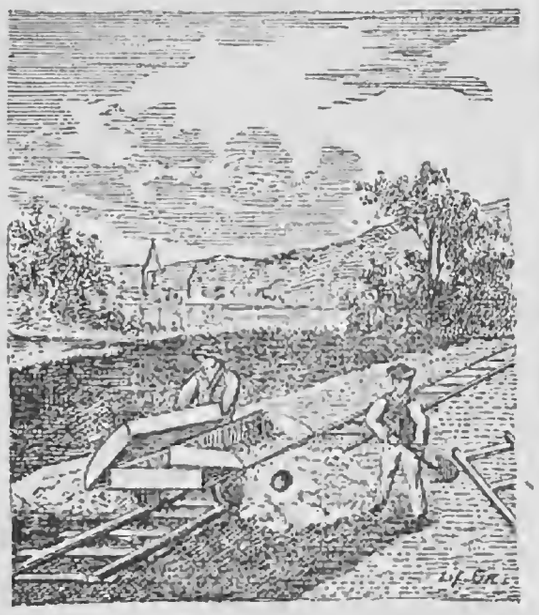


FIG. 1.

We would urge upon every farmer who owns a suitable cranberry bog, to let it remain a waste and a nuisance to the community no longer, but at once to make preparations to cover it with a vigorous vegetation that may absorb the poisonous gases and bring him a comfortable return from the sale of the much-sought berries. The Cranberry may be planted at almost any time of the year when the ground is not frozen; fall and spring, however, are considered the most suitable seasons, and even now it is not too late to plant, if the land needs but little preparation. A few words with reference to the character of the land will here be in place. As to location, it should, if possible, be so situated that it can be flooded at will from a stream or lake. All cranberry growers agree on this point. Especially during winter should the vines be flooded; the water not only protects the stems in severe frosts, but it kills all insects and their larvæ, that may harbor in the soil and on the plants, and also acts as a fer rrying in a quantity of organic matter. A clayey soil is unsuitable, as is also a dry, sandy and gravelly one. A soil formed from the deposits of muddy water, or, in other words, of an alluvial formation, is most suitable for the Cranberry. It should also admit of being drained, so that the water level can be lowered during the growing season to from 12 to 18 inches below the surface. A muck bed to which has been added several inches of coarse sand, will also produce a thrifty growth of vines.

Having such a soil, the preparation should begin by cutting a main ditch through the lowest line of the land; this will give an outlet to the surplus water, and thus make the rest of the work easier. Next, clear off the brush and briers; level the land, if necessary, and drain it, either by laying tile or by a series of open ditches. The whole meadow should next be covered with a couple of inches of coarse sand. This work is greatly facilitated by laying down a rude movable track, as shown in figure 1. It is best made of 4x4-inch pieces, securely bound together by cross-bars, and it should be in lengths of 12 to 15 feet, so that it can be extended at pleasure. The illustration shows how readily the sand can be dumped and spread. Where the meadow is flooded during the winter, this coat of sand may be spread on the ice in like manner.

The plants are really cuttings, the vines being cut in pieces, as shown in Fig. 2, and these set in the ground. They may be sown broadcast over the land and afterward pressed into the ground with a forked stick; or each piece can be more advantageously but also more laboriously, planted with a dibble; but the best method, one by which the work can be done both efficiently and quickly, is perhaps the one illustrated in fig. 3. In this case, furrows are made with a small plow and a single horse, three feet apart and four or five inches deep. In these the plants are set one foot apart, one man going ahead, who drops the plants,

FIG. 2.

and another following with a hoe to cover them up, two-thirds of their lengths. If this method is employed, the sand should not be put on till the vines are planted, it being put on not only to improve the soil physically, but also to act as a mulch and to suppress the weeds, and it will mix quite enough with a loose soil in the course of a year by the necessary use of the hoe and cultivator. Should the vines be ordered from a distance and be received apparently dry, they will recover by soaking them in water for 24 hours; or should they arrive too late to be planted, they can be packed in layers, with moist earth in a box, and kept in a cellar till used.

A substantial dam should be built across the lowest border of the meadow, to hold the water when flooded. If this is built of brush and muck carelessly thrown together, it will soon leak and wash away. The best way is to dig through the muck for five or six feet, and fill up with firm earth to the required hight, giving the embankment a slope of about 30 degrees, and covering the slope with turf. The flood-gate should be in the lowest place, and securely constructed. The water should cover the vines between one and two feet, and can remain on till the middle of May.

During the summer, until time arrives for gathering the fruit, there is but little to be done in the meadow. It is, however, well to destroy the most persistent weeds for the first couple of years until the vines cover the ground.

VARIETIES.—Cape Cod Bell, an early berry of medium size, dark red. The Bugle, early, medium to large, medium bearer, dark scarlet, a good keeper. Cherry, of which there are several sub-varieties that differ but little, medium size, bright red, good bearer, late. Two new varieties, Eaton's Early Black Bell and Mansfield Creeper, are being introduced.

FIG. 3.

The first is of medium size, dark-red, good bearer and keeper, early; the second is of a creeping habit, large, scarlet on one side, whitish on the other, a good keeper.

Industrial Societies.

VIRGINIA STATE FAIR.

[Special Correspondence.]

THE Virginia State fair, for cogent reasons, ought to be a full and complete exposition of the resources of the State. Impoverished and depopulated by the war, the State is in pressing need of immigration, and, indeed, as may be seen by a reference to our advertising columns, colonists are urged to settle there. The annual fair affords a good opportunity—if rightly managed—for those interested, to see and talk with the people, and to judge of the resources and products of the land by the samples shown. From this point of view, the fair was a dismal failure, and that it was so seems to be due, in large measure, to inefficient management on the part of the officers of the Society. The premiums were injudiciously apportioned, the bulk of them being devoted to purses for horse-racing and a bench-show of dogs, not to mention a prize military drill—all good enough in their appropriate places, but it will hardly be assumed that those places were within the boundaries of an agricultural fair.

The show of stock was not an average one. There were a few good Short-horns and a good lot of fat sheep and fat cattle. In the sheep-pens were a few superior Downs of each kind—some of them imported stock—and a few head of superior Angora goats. In swine the Berkshires were the most noteworthy, and it was pleasant to see them, as the native pig is susceptible of a world of improvement. A long struggle for daily existence has been productive of too much length of snout and body. Specimens, seen roaming at large, looked as if they might have the fleetness of deers, and certainly the most prominent characteristic was spare-rib.

The poultry display was fairly large and various, but there were too many Game varieties to make it of much use to the farmer. M. B. & A. P. Rowe were the largest exhibitors, and they had, on the whole, the best birds. The horses—the best of them—were racers, roadsters and saddle animals; the draft horses were a poor lot.

In the departments devoted to farm products the display was beneath the level of criticism. Some very good plates of fall and winter apples, contributed mainly by Bedford and Augusta counties, were the chief pomological feature. A prominent railroad company sent fine samples of coal and iron, and, in fact, the mineral resources of the State were energetically represented.

By far the largest and best display was the implements and machinery. The local dealers, acting as agents, had samples of the manufactures of leading firms. H. M. Smith & Co., whose exhibit was the largest, most complete and representative, included in their space the Oliver plow, Tompkins Co. rake, Clark's root cutter, Excelsior lawn mower, the drill, rake and clover huller of the Hagerstown Mfg. Co.; the Geiser separator, Gill's separator and power, as also Heebner's, the Mitchell, Studebaker and Cortland wagons, etc. As manufacturers, they also exhibited a very complete thrashing machine and their Virginia Jack power which took first premiums. Walter A. Wood had his new string binder in operation, and it carried off the honors as against the McCormick. The Eureka mower took first premium. P. H. Stark represented the Gale & Dixie plows, Philadelphia seeder, Giles's riding saw and the Empire drill and rake. The Silver and Deming Mfg. Co. had their power feed cutter on the grounds, while C. T. Palmer, in addition to his plow, showed the Richardson rake and a reaper and mower of his own. The Cooley creamer and Davis churn—Vt. Farm Mch. Co.—attracted a large share of attention and took first premiums.

Among the new things was the Bates harvester, a light single-wheel reaper weighing about 750 pounds. The machine is so perfectly balanced that the guards can be tilted with one finger. The outer end is raised and lowered by simply turning a screw—a very neat, strong device. The novel features—besides the screw—are driving the rake without a chain or flexible connection, making the revolutions at a uniform speed, without that jerk attendant on chain rakes when delivering the sheaf. The inside end of the grain-bar may be raised or lowered without the driver leaving his seat. The Central Mfg. Co., of Lewisburg, Pa., the makers, also showed a mower which is a modification of the Buckeye. Both implements are characteristic of simplicity, strength and completeness.

The exhibit of grain drills was very large, comprising some of the best-known in the country, so that the two first premiums taken by Bickford and Hufman, of Macedon, N. Y., on their Farmer's Favorite grain drill, and grain and fertilizer drill, with grass seeder attachment, were very gratifying marks of approval. It is a curious and interesting fact that Bickford and Hufman exhibited the first fertilizer drill ever shown, and it was at the Virginia State fair in 1854. Since that time—even including the period of the war—their drills have been in constant use and demand in Virginia, and are to-day probably the Farmer's Favorites. Their drill, as improved for this season, has strong points. The Bessemer-steel axle combines lightness with strength and the new spring tube is so arranged that rubber is discarded, and if broken, it may be repaired at home, thus saving expense. The Bonanza grass seeder can be placed at back or front of drill, and will sow large, small or mixed seeds equally well. The fertilizer attachment will distribute fertilizers in any condition, and, altogether, the drill is a captivating piece of machinery for style, finish and effectiveness.

Roberts, Throp & Co., Three Rivers, Mich., had in operation one of their 32½-inch "Invincible" vibrator separators, which attracted a large share of attention on account of its comparative noiselessness in operation, its simplicity, strength and handsome finish. Mr. Cyrus Roberts, the head of the establishment, was the inventor of the vibrating principle (1848), and since 1856 has been established at Three Rivers and steadily employed in manufacturing and perfecting this justly popular separator. The strong point of the "Invincible," is its ability to thrash grain well, no matter what its condition, and in flax and timothy it has accomplished the most satisfactory results.

Altogether, the handsome and full display of machinery saved the fair from utter failure as an agricultural show, and it is to be hoped that next year the new managers will profit by the lesson.

C. H. E. R.

LIVE-STOCK AT THE QUEEN'S COUNTY FAIR.

IN the account of the Queen's County fair, published in the RURAL of Oct. 4, Mr. William Crozier, of Northport, Long Island, is credited with having taken the first premium for Jersey bull three years old or over; the first for Guernsey bull one year old, and the second premium for Jersey heifer. The number of prizes actually awarded Mr. Crozier, however, is as follows:

First premium of $15, on all Jersey bulls three years old and over, won by his imported bull, Rival, A. J. C. C. H. R. No. 3,762. He is considered the un-Rivaled Jersey bull of this continent by the best judges. He is of a golden orange color, without any white. He has a large body, on fine, well-set limbs, full black points, and, besides the premium, won the admiration of all lovers of fine stock at the Queen's County fair. In the Island of Jersey he is entered as Foundation stock No. 143. His sire, Jolly, Foundation stock No. 230, and his dam, Daisy, was also registered as Foundation stock No. 884. Next to him stood Crozier's two-year-old bull Cassock 7th, A. J. C. C. H. R No. 3,745, a long, solid-colored bull of dappled fawn, dark around the head and neck. His dam, Josephine Beacon, was awarded second premium at the Centennial in 1876, as the best two-year-old, and was one of the herd that won the gold medal at the New York State fair for two seasons, as well as the herd prize of $100 at the Queen's County fair. Cassock 7th was awarded the first premium as the best two-year-old bull at the late show. Mr. Crozier was also awarded first premium on young Jersey bull Long Island Starr, A. J. C. C. H. R. No. 3,605. Bertram 2d, belonging to the same owner, was awarded second premium on yearlings. In the class for Jersey bull calves, first prize and gold cup were awarded to Crozier's A. J. C. C. H. R. No. 3,983. He is by Victor, the first-prize bull on the Island of Jersey for three years in succession. He also took the first prize over all Jerseys in 1878, and again in 1879. This calf is a solid orange fawn, with the exception of one white spot on his shoulder, with full black points, except the tongue, which is neither white nor black, but between the two. It is intended that this bull shall appear at the World's Fair in 1883.

On Jersey cows Mr. Crozier was awarded the sweepstakes or herd prize for bull and five cows. Of these the above-named Rival was the bull, while Belle Hinman, Jessamine, Eugenie 2d, Nellie of St. Peters and Lucy Simont were the cows in this prize herd. In single prizes the same owner was awarded first prize on Belle Hinman for the best three-year-old cow; second prize for Jessamine as best in the two-year-old class; first for Nellie Le Brocq in one-year-olds; first for Carrie Cass, and second on Princess Eugenie, making, in all, 11 prizes for Jerseys.

Mr. Crozier was also awarded first prize on his Ayrshire bull, Robert Mars, a two-year-old, which took seven first prizes last year when only a trifle over one year old. The same owner also got first prize on Laird Craigie in the one-year-old bull class. The same animal also got first prize in the same class at the late N. Y. State fair at Utica. Besides taking the first prize on bull calves, Mr. Crozier also obtained the first prize in cows, for imported Brown Lady, whose sire, Pollsher,

took over 20 prizes in open shows in Scotland, where her dam also won several first premit nms. The second prize was awarded to the same owner's Nellie Riddle, bred by W. Wiley, winner of two first prizes in Scotland. She was also one of the herd of Ayrshires that won the gold medal and diploma at the Centenuial Exhibition in 1876. Mr. C's Lillie was awarded first prize as the best two-year-old, and his Dew Drop 6th also took a first prize. He likewise received the herd prize of $25 on Ayrshires, and, altogether, bore away nine premiums on his herd of this breed.

In Guernseys Mr. Crozier's imported Venus took first prize in the three-year-old cow class. The same owner also took first prize in the two-year-old and also in the one-year-old cow class, and also the first prize for Guernsey bulls. In fact, he took every prize that was offered in all cases where he made entries for premiums, winning, in all, $250.

Many excellent judges of live stock, from South Carolina to California, attended the fair and were well rewarded for their trouble. Besides the Jerseys, Ayrshires and Guernseys above mentioned, there were on exhibition there the best specimens of Holsteins the owner could find in the native land of the breed. No better Devons could be anywhere found than those shown at this fair; and on all hands the Short-horns were acknowledged to be excellent. As for the half-bred and grades exhibited there, they have not been equaled at any show I have seen this year. The Holsteins were purchased shortly before in their native country regardless of expense, and, although they had no competitors, they certainly deserved all the premiums they obtained. In short, all the neat cattle shown at this fair were worthy of attention, both on account of their remarkable merits, and of the high honors many of them had won in Europe, before their importation into this country.

South Down sheep were exhibited by John Taylor of Bayside, Long Island, that could not have been surpassed in England, as they were bred direct from the first-prize ram of the Royal Agricultural Society's Show. In swine it would be no easy task to excel the beautiful Berkshires, that deservedly won a great deal of attention there. Though the poultry exhibit was small, the birds were of fine quality and the highest strains of blood. On the whole, I must protest that there was at the Queens' County show a great deal worthy of notice. W. C.

Scientific and Useful.

CONNECTICUT AGRICULTURAL EXPERIMENT STATION.

BULLETIN 35.—NOV. 8, 1879.

Analyses of Maize Kernel.

XXXIX.—Coe's Prolific, crop of 1878. From W. W. Fowler, Guilford.

XL.—Old-fashioned Yellow, crop of 1878. From Bethuel Brockett, North Haven.

XLI.—Benton, crop of 1878. From G. W. Benton, Guilford.

XLII.—Mammoth Sweet, crop of 1878. From S. D. Woodruff, Orange.

XLIII.—Scioto, crop of 1878. From Rufus Leete, Guilford.

XLIV.—White Ohio, crop of 1878. From F. Johnson, Branford.

XLV.—Wisconsin, crop of 1878. From Rufus Leete, Guilford.

LXX.—White Prolific, crop of 1878. From G. W. Bradley, Hamden.

LXXI.—Extra Early Adams, crop of 1878. From E. B. Clark, Milford.

The impression appears to prevail that there are considerable differences in the quality of different varieties of Indian corn. Some of the popnlar ideas are certainly erroneous, as will appear from the examination of seventeen analyses recently made in the laboratory of the Station, thirteen analyses executed at the Agricultural College of Michigan under the direction of Prof. Kedsie, and eight analyses made by Dr. Atwater of Middletown.

So far as can be judged from these analyses, the following conclusions are correct, viz.:

1. From the point of view of chemical composition, there are, broadly speaking, two kinds of Indian corn, the common and the sweet.

2. The average composition of these two kinds in the water-free condition, is as follows:

AVERAGE COMPOSITION OF AMERICAN MAIZE.

	Sweet.	Common.
Ash	3.2	1.7
Albuminoids	14.0	11.9
Fiber	2.7	2.1
Carbhydrates (starch, sugar, gum)	72.1	79.0
Fat	9.0	5.3
	100.0	100.0

The sweet corn contained, on the average, 9.9 per cent. of water and the common contained 11.7 per cent., but the samples were unequally dried, and the analyses probably do not show the proportions of water that exist in corn in bulk, as found in the crib or in market.

The figures above given for *Common corn* are the average of 28 analyses, and may be considered as substantially correct; those given for *sweet corn*, are the average of only three analyses and will need revision, as analyses accumulate, but the greater richness of sweet corn in albuminoids and fat is very decided, and indicates a higher nutritive value than that of common corn.

3. The range of variation in the several ingredients is shown by the following statement of the lowest and highest percentages as found in these analyses:

RANGE OF COMPOSITION OF AMERICAN MAIZE.

	Sweet.	Common.
Ash	3.1 — 2.3	1.4 — 2.0
Albuminoids	12.5 — 15.9	10.2 — 13.9
Fiber	2.1 — 3.0	0.9 — 3.0
Carbhydrates	69.6 — 73.9	76.2 — 82.3
Fat	8.3 — 10.1	4.4 — 6.3

Sweet corn in all the analyses contains more ash, more fat and less carbhydrates than common corn.

4. Flint and Dent Corns have practically the same composition, as will be seen from the average of 11 Flints and 14 Dents.

AVERAGE COMPOSITION OF FLINT AND DENT CORN.

	Flint.	Dent.
Ash	1.7	1.7
Albuminoids	11.7	12.0
Fiber	2.0	2.3
Carbhydrates	79.4	78.8
Fat	5.2	5.3
	100.0	100.0

The average water content of Flint corn was found to be 11.7 per cent., that of Dent corn 11.4 per cent.

5. Western corn has about the same nutritive value as Eastern corn. Below is the average composition of 15 samples of corn raised at the East, and 10 samples of corn raised at the West.

AVERAGE COMPOSITION OF EASTERN AND WESTERN CORN.

	Eastern.	Western.
Ash	1.7	1.6
Albuminoids	11.8	12.3
Fiber	1.9	2.5
Carbhydrates	79.4	78.2
Fat	5.2	5.4
	100.0	100.0

The Eastern corn averaged 10.7 per cent. of water and the Western 13 per cent. To institute a strict comparison, any constant difference in water content should be taken into the account. It is not certain that the differences shown by the analyses are true of corn in bulk, but if they do represent a real difference, 100 pounds of shelled corn contain:

	Eastern.	Western.
Water	10.7	13.0
Ash	1.5	1.4
Albuminoids	10.5	10.7
Fiber	1.7	2.2
Carbhydrates	71.0	67.9
Fat	4.6	4.8
	100.0	100.0

The slightly higher content of albuminoids and fat in the corn raised at the West, if it should be shown by further analyses to be constant, is due either to difference in climatic conditions and the methods of cultivation, or to difference in the chemical composition of the varieties most commonly cultivated in the two sections.

We have no analyses of varieties known to be identical, raised in the East and also at the West, except of Tuscarora, which makes a third kind, intermediate in composition between common and sweet corn. The analysis by Prof. Kedzie, and that made at the Station are fairly accordant. Among those analyzed in this laboratory are three:—Ohio Dent, White Ohio, and Wisconsin, which were raised in Connecticut, whose names suggest a Western origin, though the history of the seed is unknown.

The average of these is as follows:

Water	10.1
Ash	1.6
Albuminoids	11.0
Fiber	1.7
Carbhydrates	70.9
Fat	4.7
	100.0

It results that these corns, pound for pound, are worth fully as much or slightly more than corn raised at the West.

It should be said here, that the popnlar idea that Western corn is inferior to Eastern corn, is probably correct, if by "Western corn" is meant the corn as it comes in bulk from the West to be ground for feed.

The samples of Western corn whose average composition is given above, were, no doubt, taken from the field or barn to the laboratory, and had been properly cured and stored. But when corn is raised on a large scale for market, at the West, it cannot be as carefully cured as with us. Many times it cannot be put under cover at all, but is stacked in the field, and necessarily deteriorates, from exposure to the weather. A single analysis of such corn, made by Dr. Atwater of Middletown, gave the following result—calculated on a water-free basis:

Ash	1.5
Albuminoids	10.3
Fiber	1.8
Carbhydrates	81.8
Fat	4.6
	100

It will be seen that it has one and a half per cent. less albuminoids, and six-tenths per cent. less fat than the average of Eastern corn, and two and four-tenths per cent. more of carbhydrates, while the ash and fiber are approximately the same. Dr. Atwater says the sample contained unsound kernels, bits of cobs, fine prairie soil, and other refuse.

6. Unripe maize, so far as its composition is illustrated by three analyses of the same kind of sweet corn, is richest in albuminoids—the rarest and most costly element of food.

These samples of sweet corn, harvested by Mr. Gold Aug. 9, Aug. 25 and Sept. 25, 1877, respectively, had the subjoined composition:

	Aug. 9.	Aug. 25.	Sept. 25.
Water	10.1	10.1	9.5
Ash	2.3	2.1	2.1
Albuminoids	14.5	15.3	14.4
Fiber	2.6	2.5	1.9
Carbhydrates, starch, etc.	62.7	61.8	63.0
Fat	7.9	8.2	9.1
	100.0	100.0	100.0

The albuminoids found in the earliest are indeed scarcely more than those of the latest corn. But the earliest-cut sample was very small and immature, and was shelled from a cob that contained 8.6 per cent. of albuminoids, while the others were from cobs of 3.0 and 2.7 per cent. albuminoids, respectively. The comparison is therefore properly between the corn of Aug. 25 and that of Sept. 25.

The mature corn contains a less percentage of albuminoids than the immature because, in the latter stages of growth, starch and sugar, as well as fat (oil), are formed in the seed at a more rapid rate than albuminoids. The percentage of fat increases from 7.9 to 9.1.

7. The ripe grain, as a crop, contains absolutely more of every ingredient than the unripe. The yield of vegetable matter per acre in the three crops, is not known; but the relative yield of the two later crops is as follows per 1,000 pounds of total harvest, reckoned water-free:

	Corn.	Cob.	Fodder.	Total.
August 25	304	88	608	1,000
September 25	356	94	550	1,000

Doubtless 1,000 pounds of the dry matter of the standing crop on Aug. 25, would have increased to 1,250 pounds, more or less, by Sept. 25, so that the acreage yield of total vegetable substance, as well as the relative proportion of grain, would increase to the time of full ripeness, while the cob and stover would increase absolutely, but not so rapidly as the grain, and relatively to grain would appear to diminish. In fact the grain increases at the expense of stover and cob as well as of roots, while the entire plant gains by growth as long as the leaves are green and unshriveled.

S. W. JOHNSON, Director.

COMPOSITION OF MAIZE KERNEL.

AIR DRY.

	XXXIX	XL	XLI	XLII	XLIII	XLIV	XLV	LXX	LXVI
Water	9.55	10.58	10.70	9.43	10.43	9.70	9.72	10.14	10.94
Ash	1.45	1.43	1.57	1.93	1.53	1.79	1.56	1.67	1.75
Albuminoids	10.13	9.81	9.98	12.32	9.25	11.28	11.60	9.19	10.81
Fiber	2.19	1.39	1.36	2.75	1.80	1.73	2.06	1.34	1.48
Carbhydrates	72.70	72.11	71.40	66.09	73.98	71.30	70.17	73.38	70.21
Fat	3.98	4.68	5.00	7.48	4.01	4.20	4.89	4.28	4.81
WEIGHT OF CORN AND COB, CURED.									
Corn, weight in grams	454	467	509	424	518	467	574	344	336
Cob, " " "	98	94	84	116	78	111	103	57	89
Relation of cob to corn	1:4.9	1:4.0	1:6.0	1:3.6	1:6.6	1:4.2	1:5.5	1:6	1:3.8
Cob expressed in per cent. of corn	20.1	16.5	16.5	27.3	15.1	23.8	18.0	16.3	26.5

COMPOSITION OF MAIZE KERNEL.

WATER-FREE.

	Coe's Prolific.	Old-fashioned Yellow.	Benton.	Mammoth Sweet.	Scioto.	White Ohio.	Wisconsin.	White Prolific.	Early Adams.
Ash	1.60	1.60	1.76	2.13	1.71	1.88	1.73	1.86	1.97
Albuminoids	11.21	10.99	11.18	13.60	10.31	12.50	12.85	10.23	12.14
Fiber	2.42	1.55	1.52	3.04	2.01	1.92	2.38	1.49	1.66
Carbhydrates	80.36	80.63	79.94	72.97	81.49	78.95	77.72	81.66	78.83
Fat	4.41	5.23	5.60	8.26	4.48	4.65	5.42	4.76	5.40
	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
DIGESTIBLE NUTRIENTS, ETC., OF MAIZE KERNEL IN PER CENT. OF AIR-DRY SUBSTANCE.									
Albuminoids	9.42	9.23	9.39	11.42	8.66	10.50	10.79	7.35	8.73
Carbhydrates	78.40	76.36	75.70	69.72	77.34	74.93	73.90	66.19	63.97
Fat	3.35	3.97	4.26	6.28	3.41	3.53	4.12	3.10	3.51
Nutritive Ratio	1:9.2	1:9.3	1:9.2	1:7.5	1:9.9	1:7.9	1:7.8	1:10.1	1:8.3
Calculated val. ₰ 100 ℔	$1.26	1.26	1.27	1.39	1.22	1.28	1.31	1.05	1.11

Farm Economy.

SOME REMARKS ABOUT HARROWS.

H. L. WYSOR.

SEVERAL years ago, I bought one of Colton's all-iron-and-steel coulter harrows. This harrow, as is perhaps known to many readers of the RURAL, is made in sections two feet in width, the bars of which are curved somewhat in the form of the letter S, and the teeth bolted in the bends of the curves. There are eight teeth in a section, all having the shape of a common coulter, except that they are on a much smaller scale, and the harrow is generally composed of three sections hinged together. I found, on using this implement, that on account of the shape of the teeth, it clogged badly, even in ground comparatively free of weeds and trash. Briers, roots, and everything which came in its path, caught across the broad foot-pieces of the coulters, so that the harrow could not be cleaned except by taking the sections apart, and tearing out the accumulations with the hands. I bethought me of a plan to remedy this defect, which I here present for the benefit of any RURAL readers who may have been troubled in like manner.

I had the teeth turned round in the frame till the foot-pieces, instead of pointing forward as before, pointed backward. I then had a blacksmith to flatten them and give them a curved front edge, somewhat in the shape of a butcher's-knife, keeping them wedge-shaped from back to front, so that they would always wear themselves sharp. They now stand nearly perpendicularly on the point, while the curved front edge gives all the advantages which are claimed for harrows in which the teeth are inclined backward, and at the same time the work is better done. In all ordinary cases, the teeth clean themselves, as they draw over all trash that may lie in the way. In firm soils, the harrow may now be used to cultivate corn without regard to the rows, but in very loose or sandy soils, it will tear up too large a proportion of the plants. The only fault which can be urged, is that the teeth, having been originally set in the frame to allow for the width of the coulter, are now, after their change of form, rather too far apart. I have also had hooks put on both ends of the harrow, so that, if desired, it may be used with the teeth pointing forward in the manner of a bull-tongue.

A great deal has of late been claimed for hinged or jointed harrows, it being said that they adapt themselves to the inequalities of the land. This, in my opinion, is no advantage whatever, since the ridges and holes are simply smoothed over and left as before, while the stiff-framed implement will reduce the inequalities by filling up the hollows and leveling down the ridges. On steep hill-sides the sections are particularly troublesome, as they frequently come apart, or keep the harrows slipping down hill. In point of form, there is no harrow so convenient for passing obstructions, such as stumps or large stones, as the A-shaped, which passes easily and works sufficiently close to them.

I think the wheel harrow now coming into use, will be found to answer all the purposes for which the harrow is designed, better than any other implement of the kind. The draft on the horses is greater in this sort of work than in anything which is done on the farm. The use of wheels will greatly diminish this draft, while the weight of the harrow can be greatly increased. Some of these implements are made to weigh 500 pounds, a weight which on teeth could not be drawn by two horses. They penetrate the soil from five to six inches, and yet it is impossible for them to get clogged.

Pulaski Co., Va.

Wind-Mills for Farmers.

FEW farmers who have never had experience with wind mills, know their real value when used as a power upon the farm. Doubtless, they are most useful for pumping water for stock, for which purpose they are not only very convenient, but almost perfectly reliable, if properly managed. But pumping water is not the only use to which they can be put. They may be geared so as to propel a corn sheller, saw wood, turn a grind-stone, etc. All good farmers know the advantage gained in having plenty of pure water in their barnyards and stables in winter. When stock of any kind are obliged to go a considerable distance for water in cold, stormy weather, they become chilled by the large draughts of ice water which they drink and the exposure while going and returning, so that more feed is required to keep them in good condition than would be needed were they confined in a sheltered yard. The late improved mills are so constructed as to combine strength, durability and beauty. They are self-governing and will not blow away. In the fall of 1876 we erected a 10-foot Halladay's standard wind mill on our barn. So far, it has given perfect satisfaction as a light power. We have used it for pumping water, sawing wood, shelling corn, turning a grind-stone, and washing wagons. It has stood the most severe storm of wind that our oldest inhabitants have ever witnessed, without injury, and although a large tobacco shed but a short distance from it, was moved from its foundations, the wind-mill stood firm and was not in the least harmed. G. G.

Everywhere.

RURAL SPECIAL REPORTS.

N. Y., Ithaca, Nov. 8.—We have had a few days of winter weather. The mercury was down to two degrees above zero on Nov. 4th. Four inches of snow fell on the 4th and 6th, but it has since disappeared. We have had a smaller rain-fall this season than on any in the remembrance of the oldest settler. The first snow fell in the dust. Crops generally were not a good yield, except potatoes and oats. Cattle are plentiful and cheap, owing to the high price of fodder. Wheat is worth $1.30 to 1.45; oats, 35 cts.; buckwheat, 52 cts.; corn, 55 to 60 cts; butter 25 to 30 cts; eggs, 20 cts., potatoes, 30 to 35 cts; apples, 40 to 50 cts per bushel; hay, $12 to $15 per ton.

There seem to be a great many farmers that have never learned to be careful in their farming operations, or, in other words, to reap the largest benefits from their labors. In fact, people of that class, I think, are in the majority, in this locality as least. Look over the young orchards in spring, and see the young trees that have been ruined by mice or rabbits; while a few strips of lath carefully tied about them in the fall, would have saved all these. Strawberry or other small plants will seldom fail to grow, if they are carefully puddled when set out, be it ever so dry; but how many do it? And so I might continue to give examples of neglect with regard to operations whose importance is from time to time fully explained in the RURAL and other agricultural journals. As times become more prosperous, farmers, as a rule, become more slack in the details of farm-work, that are seemingly small, but which, in the end, amount to a great deal. One of the greatest evils is the annual waste of manure, an indispensable article for the success of the farm. I think that the fertility of the soil could, by the judicious use of all accessible substances for manure, be so increased as to yield a product one-fourth greater than at present—through the East at least. FARMER.

N. Y., Cuba, Allegany Co., Nov. 2.—I planted my Beauty of Hebron potatoes beside the Early Vermont. They both ripened about the same time, but the Beauties yielded most from the amount of seed planted. I had two small tubers which I cut to one eye in each piece, making 20 hills, and dug 17¾ pounds, or 79 potatoes, most of them good-sized and beauties. I think them rightly named. Pearl Millet was a failure; there came a cold rain soon after planting and it did not come up. I have a few seeds left which I shall plant next spring. Defiance wheat was a good yield. I shall sow it again in the spring; then try it as a winter variety. The watermelon did not do well; my soil is not suitable for it. The Golden Rural tomato ripened several days before the Acme. They are both very nice. W. W. D.

PA., Wallsville, Lacawanna Co., Nov. 6.—I sowed two packets of the Defiance wheat in drills on rather poor wheat ground, and got about one quart of small-sized but plump grains. I shall try it again. Pearl Millet was a failure in this section; of the Beauty of Hebron I received two small tubers and cut them to one eye in a piece, and put one piece to the hill. I dug 26½ pounds of very fine potatoes. I think very highly of them. The Blount's corn proved too late for this section. I planted it on May 17, on ground prepared as follows: I took a plot that bore a good crop of Stowell's Sweet corn last year; put on a light coat of stable manure; plowed and harrowed and marked it out in rows 3½ feet apart. In the hill I used the following fertilizers: I made a large hill of cobs; covered them with good road-wash dirt, like a charcoal pit; gave air enough so the cobs would all burn to ashes; then mixed the dirt and ashes all together—a good way to use cobs, I think. When ready to plant, I mixed half as much hen manure with the burned dirt and ashes, put about four quarts in a hill and dug it in thoroughly; hills two feet apart two grains in each hill. The stalks grew to an average hight, I should say, of 12½ feet, some stalks reaching 14 feet. I cut it up on September 24. It was then just good "green corn." That night there was a very hard frost. With me the corn did not prove as prolific as many report—one or two stalks had four ears; several had three; most of them but two, and some but one. I think this, however, was owing to the season, as common corn has cared very poorly. We have had plenty of rain during the season. Corn has made a large growth of stalks, but some pieces where the ground is very rich, do not yield more than a fourth of a crop. Although the Blount corn, on account of its late maturing, has proved a failure in many sections, yet I think if we take a right view of it, we all may be benefited by the experiment. Wherever it was planted, it has borne unmistakable evidence that corn may be greatly improved by judicious management. What Professor Blount has done for the White Prolific may be done by the same management with any of our native varieties that will mature in any given section. I think the Professor says he has been 14 years in bringing this even to its present state of perfection; now we can accomplish the same in a much shorter time by adopting what I would call the seed-plot plan; that is, to plant a small plot on purpose to raise seed. By this plan we may select the very best ear or two to commence with; plant on good ground; and give good cultivation; again select the best top ears of the most prolific stalks, taking the next best for field planting. By this plan we can also easily cut out all false or barren stalks—as recommended in the Corn Number of the RURAL—which I think would tend greatly to increase its prolific qualities. W. E. M.

MICH., Otsego Co., Nov 5.—An abundant harvest rewards the toilers in this newly settled place, only five years ago a wilderness. Cereals and vegetables have been grown, which cannot be excelled either in quantity or quality, while fruit trees show cheering promise for the near future. We have already good schools, churches and a live newspaper, which, with two railroads running through the county, give us all the advantages of civilization. Land is cheap and the climate remarkably healthful. To all honest, industrious people, who are searching for a good locality, to build up a home, we say: "Come and abide with us." B. G. M.

UTAH, Glenwood, Sevier Co., Nov. 3.—Farming here is different from what it is in the Eastern or even in the Western States, as every crop has to be irrigated from two to six times. In the northern part of this Territory small grains have to be flooded by means of double furrows run on the highest portions of each field, generally on the "bi-furrows"; but in this, the southern part, every crop is "furrowed out" from one to two feet apart, according to the condition of the land for "soaking." Sometimes the grain has to be "watered up," but this is more or less injurious to the crop, and it can generally be avoided by watering the land before the crop is put in. Fall wheat, is always a better crop here than spring wheat under favorable circumstances, but the fields are usually "thrown open" after the harvest is gathered and the crops put in, in the fall. For this purpose the ground has to be carefully furrowed, and then these furrows are so trampled down by the stock that water cannot run along them properly. Great efforts, however, are being made to "fence in" the land and keep the stock off the fall grain and Lucern. The latter is becoming quite a favorite crop here, and most people contrive to sow a portion of their "city" or town lots with it. It is cut about four times during the summer, and produces about four tons of dry hay to the acre.

The varieties of wheat principally grown here are Club Head and Toas or Touse, a name derived from the Mexican town, from the neighborhood of which it originally came. On rich ground they are generally mixed, the Club Head standing about two-thirds as high as the Toas, which forms a second story, head and shoulders above the other; the Club Head preventing the Toas from falling down, which it is liable to do when the crop is watered at the time the heads are full.

Corn is not a sure crop in this Territory, except in the neighborhood of Salt Lake. The higher valleys are so subject to frost as to make it somewhat risky to grow this crop, and the late and tall-growing varieties never mature. Here, in the Sevier Valley, we have a semi-tropical climate, but even here we are liable to frost on any night after a "blow." The wind generally comes up from the Gulf of Mexico, and in passing over the barren wastes of Arizona and New Mexico it is so robbed of its moisture, that on its arrival here, it is as dry as if it had passed through a red-hot furnace. This state of the air causes such sudden evaporation as to bring down the mercury to freezing point in July and August. Tender vegetation, such as beans, squashes, tomatoes, melons, etc., consequently very often get nipped before bearing.

Some of the potatoes illustrated in the RURAL Potato Number have found their way to this Territory, and are supplanting the old-fashioned "Mechanic." The Early Rose and Snowflake are common. Wheat brings about $1 per bushel here in the southern part of the Territory, while in the north—Cache county—it sells for about 55c. The potato crop is almost a failure; I hear that $1.50 per bushel has been offered by farmers for seed for next season, though probably $1 is an average. Oats and barley, sacked, bring $2 per 100 pounds. Most of the surplus grain from this section is freighted to Pioche and other mining towns in Nevada, and costs about $2 per cwt. for freight. Poultry, eggs, pork, fruit, etc., are shipped thither in considerable quantities. Good apples bring about $4 per bushel; chickens from $5 to $7 per dozen. Now that the railroad is crawling towards the mines, freighting is getting the "dumps," as its days are numbered. W. M. C.

TEXAS, McKinney, Colin Co., Nov. 3.—We are having an extremely dry fall after a droughty summer, causing stock water to be scarce and considerable inconvenience to the stock-men who have not tanks and good water facilities. Wheat is now spreading, and would be fine if a good rain would fall on it before the freezing weather comes; rolling and packing the ground now will prevent it from "heaving." The acreage sown is 25 per cent. larger than has been sown here on any previous year. The late frost cut off the top or second crop of cotton. Fencing and fall plowing are now the rage—as farmers generally are preparing for large crops another year. W. N. W.

The Querist.

ANSWERS TO CORRESPONDENTS.

Bacilli Suis and Hog Cholera; Rust on Wheat, Etc.

A. L., Atlanta, Ohio, asks, 1, what is the nature of *bacilli suis;* are they possessed of animal life; and how do they produce hog cholera; 2, what is the nature of rust on wheat, and how is it produced; 3, at what time in the year should Alfalfa or Lucern be sown, and should it receive any special treatment afterwards.

ANS.—The word *bacilli* is simply the plural of *bacillus*, a form of bacterium which is an exceedingly minute and low vegetable form of monad, a monad being the simplest, indivisable form of life; *suis* is the genitive or possessive case of the Latin word *sus*, a pig; the *bacilli suis*, therefore, are merely the bacilli of the pig, many other forms of bacillus being found in other animals as well as in vegetables. The term was first employed the other day by Dr. Detmer, in the report he made to the Department of Agriculture on the Diseases of Swine. He describes these bacilli as small, almost straight, cylindrical bodies of about 0.003 to 0.005 millimeter in length, and 0.0007 to 0.0008 millimeter in thickness; sometimes moving and sometimes not; in certain stages of development slightly moniliform, or connected like a necklace. They multiply by first lengthening out and then dividing into pieces, each one of which becomes a distinct bacillus. Dr. Law also speaks of them in his report on the same subject, but under the name of bacilli, bacteria or micrococci, the name given them by Dr. Klein.

While it is highly probable, indeed almost certain, that these bacilli and their germs, which are found with them in affected animals, in the form of round, microscopic granules, are the medium by which the contagium of swine plague is propagated, it has not yet been demonstrated that this is the case, or that other causes also may not exist which produce the same effect. As to the mode in which they might spread the malady:—the excretions of diseased animals are full of them, and it is supposed that these rise in the air in day-time, are carried off to a certain distance by the winds, and come down again during the night with the dew, as dew collected from the grass of a pasture adjoining a lot in which diseased pigs were confined, was found, on microscopic examination, to contain both the bacilli and their germs abundantly. It can therefore be readily seen that they could be easily introduced into the organism of animals feeding on such herbage, or upon old straw, or, indeed, on any substance on which the infected dew had collected. It has also been found that animals whose bodies are wounded in any way, are peculiarly liable to the contagion, and it has therefore been inferred that the infectious principle, coming in contact with the raw surfaces, is absorbed by the veins and lymphatics. It has also been observed that hogs having access to water—such as creeks and streamlets—running from the quarters of diseased animals, are themselves soon infected, while those having access to such streams higher up, are exempt from the malady, unless infected by other means. Although the infectious principle must be floating about abundantly in the air in the neighborhood of diseased herds, it is thought hardly probable that sound animals are affected by breathing such air.

2. The red dust or mildew, commonly called rust, that infests the wheat plant and often proves so destructive to the crop, is a minute parasitic fungus, or flowerless plant, known to botanists as Puccinia graminis. It has been known to exist as a scourge to the wheat crop from very ancient times; but it was not until the invention of the microscope that it was ascertained to be a vegetable growth, and not until recent years has its real nature been studied out. The best authorities on the subject contend that this fungus passes through a cycle of changes, each year appearing in different forms and even on different plants. Strange as this arrangement seems, it is not at all unlikely; there are striking parallels among insects and the lower marine animals. Thus, in the fall the wheat rust forms spores—spores of flowerless plants answer to seeds of the flowering ones—that remain over winter in a dormant state and are scattered far and wide by the winds, or which adhere to the straw, stubble and other objects. In the ensuing spring stimulated by warmth and moisture, these germinate when placed in a favorable condition, but this time they infest, not the wheat, but the Barberry, and doubtless also other plants, as this shrub is sometimes entirely absent from localities where the rust prevails. Here, in germinating, they penetrate the epidermis, or covering, of the leaves, fill the tissues with *mycelium*—which is the name given to the fine net-work of threads that may be compared to roots—and shortly appear on the surface in the form of yellow spots. On examination with a microscope, these spots are found to be clusters of small, open cups that slightly protrude through the epidermis. These cups are filled with millions of minute spores which, as they ripen, are scattered through the atmosphere. It is these that now attach themselves to the stem and leaf of the wheat plant where they germinate and appear as rust; this time, however, not in the form of cups, but as tiny filaments crowned with two enlarged cells, one above the other, and crowded together in blotches and streaks all over the plant. This is the rust so familiar to the harvester. It again produces the spores that remain over winter, ready to begin life on the Barberry the coming spring.

3. It is generally sown early in spring, and in the South, where the ground is in a fit condition to receive the seed sooner, it has been successfully sown in January and February, as shown by reports in back issues of the RURAL. It may also be sown in fall. Lucern needs a rich soil, with a permeable subsoil, and great care should be taken to thoroughly clear the ground of weeds; otherwise success with it is doubtful. To facilitate thorough weeding for the first year after planting, it should be sown in drills 15 to 18 inches apart, and hoed whenever weeds make their appearance. A top-dressing of gypsum, lime, ashes or barnyard manure is also beneficial. After the first year it will need little attention and bear abundant crops for an indefinite period.

The Hessian Fly.

W. S., Hoyleton, Ill., sends two wheat plants in which were imbedded a great number of what he thinks must be eggs of an insect that this fall has been very destructive to the wheat crops in that region, having destroyed nearly all the early-sown wheat, but the late sown, he states, has not suffered so much. The same pest was in the wheat before harvest. He asks us to name it, and, if possible, suggest a remedy.

ANS.—The plants sent contained a great abundance of the pupæ (not the eggs) of the Hessian fly. When the larvæ pupate, they are commonly spoken of as being in the flax-seed state, from the resemblance the pupa has to a flax-seed. In the RURAL of July 13, 1878, will be found an article with illustrations describing this destructive insect. This fly deposits her eggs on the leaves of the young wheat plant. The eggs soon hatch, when the larvæ crawl down to the base of the leaf and there live by absorbing the juice of the plant. Half a dozen such larvæ will in a few days completely destroy the plant which turns yellow and falls to the ground. Ordinarily there are two broods in a season, but when the spring begins early and warm weather continues late in the fall, there may be three broods. The pupæ which our friend had observed in the wheat before harvest, were doubtless of the second brood, and the flies which emerged from them, again deposited their eggs on the wheat sown this fall, of which we received the two plants containing the pupæ. There are no artificial remedies for this pest. All that can be done is to sow the wheat late, and thus give time for the multitudes of the second brood to pass away before the wheat appears above ground. In some seasons even late-sown wheat suffers much; but in spite of all that may be said to the contrary, the experience and observation of entomologists and practical farmers prove that generally early-sown wheat suffers most, and late sown, least. In seasons, therefore, when the flies are abundant, it is prudent to delay the sowing as late as the season will permit, and better still to sow a strip around the outskirts of the wheat field early, which will then serve as a trap for the swarms of flies that are waiting for a chance to deposit their eggs. Later, when the whole field is sown, this strip should be plowed under and seeded down anew. The Clawson has been found to withstand the ravages of the fly better than almost any other variety of wheat. There are numerous parasites that prey upon the eggs and larvæ of the fly. It has been estimated that nine-tenths of the latter were destroyed by parasites. For this reason the flies appear periodically in great numbers. When they increase rapidly the parasites also increase rapidly, and finally overpower their supporters which then for years may almost entirely disappear.

"Horn-Ail"

M. M. W., Pittsfield, asks for a remedy for "horn-ail" in a cow. A new milch cow of hers was troubled with garget, and subsequently become afflicted with "horn-ail" and she asks

whether the latter caused the former, or *vice versa*.

ANS.—"Horn-ail" or "hollow-horn" is one of the imaginary diseases of cattle. What is commonly called by these names, is not a distinct ailment, but merely a symptom of some more deeply seated malady. In all serious troubles of animals there are times when the extremeties—the ears, horns, and limbs—grow cold or alternately hot and cold, hence the error of supposing that the ail is there. The base of the horn is very thin and covers one of the most vascular parts of the whole body. If that place is cold, therefore, it shows that the blood is no longer circulating through the small vessels, but congesting around some important organ, which is the seat of inflammation. The symptoms sometimes accompany catarrh, and are also caused by exposure, indigestion, constipation, and want of proper attention; in fact, by any thing that causes an unnatural distribution of the blood. Both the garget and the symptons designated "horn-ail" may be due to the same derangement of the system, in this case produced perhaps by taking cold. For the treatment of garget, see RURAL of Sept. 14. In the absence of further information as to the real cause of the "horn-ail" symptoms, we would advise our correspondent to stimulate the digestive organs, to use aperients, if the animal is constipated, and to apply stimulating liniments to the roots of the horn.

Kidney Inflammation in a horse.

B. G. I., Decatur, Ill., has a poor, weak mare that began to fall away about the first of last December. She has been worked only very moderately since then. She foaled in April while in poor condition, and has been failing steadily since. At times she is so weak across the loins that she gives down while drawing an empty wagon a few miles. This faintness is first shown by a dragging of the hind legs; then she reels like a hog affected in the kidneys. Her urine is varnish-colored, and very ropy or as thick as the white of an egg, with a scum on the top of it, after it has settled, and he asks what ails the animal and what should be the treatment.

ANS.—The horse is suffering from inflammation of the kidneys. The treatment is to give a pint of linseed oil and repeat in two days; to foment the loins with hot water and apply a hot bran poultice for an hour; after the poultice has softened the skin and opened the pores, a mustard plaster is to be applied. Warm drinks of slippery elm bark decoction or linseed gruel are useful, but no diuretic should be given; saltpeter and resin which are popularly supposed to be proper in such cases, are seriously injurious. After this treatment has been applied for a few days, a course of bitter tonics should be given, viz: half an ounce of powdered gentian root and one drachm of sulphate of copper, which may be given in the food. No corn should be given, but bran mashes or boiled oats. Musty hay or grain is a frequent cause of this disease.

Weakness of the Loins in Rams.

G. S. H., Warthen, Ga., has a fine ram that is weak in the loins, and he asks whether there is any remedy.

ANS.—The weakness is caused by disease of the spinal marrow or its covering membrane. The nerves which control the motion of the hind-quarters and the action of the digestive organs, proceed from the spinal cord near the loins, and disorder there affects not only muscular action but the digestion as well. The usual treatment is to apply a counter-irritant to the loins, such as turpentine or a mustard plaster, and wrap a warm rug about the animal; also give a good warm, soft bed, and bran slops slightly warm, with one drachm of saltpeter dissolved in each morning's feed. Sometimes the paralysis is caused by disease of the kidneys, in which case the above treatment is appropriate.

Miscellaneous.

A Farmer, Ithaca, N. Y., says that from the two small seed potatoes sent him by the RURAL as Beauties of Hebron, he has obtained two distinct varieties of tubers: one, much like what the Beauty would be according to the description of it, but mottled, though a good table potato; the other, a large, white very prolific potato, but not a first-class cooking one. Of this he sends a specimen; and asks how the difference could have occurred.

ANS.—In some way or other the seed potatoes are "mixed." We have never seen Beauty o Hebron "mottled." The potato sent us resembles more a Snowflake than any other kind we are familiar with. But the quality of the Snowflake is excellent. It is barely possible it is a "sport" of the Beauty. Such "sports" not unfrequently occur. Late Snowflake is a "sport" of Early Snowflake; Late Rose a "sport" of Early Rose, etc.

H. G., Peterborough, Ontario, asks where he can obtain a bone-grinding machine, and what would be its probable cost; and also if we can give him the name of any publication that offers information on the crushing of bones. He will also be glad to know if the bones undergo any treatment before they are ground. It is proposed to crush the bones small for agricultural purposes.

ANS.—The United States Wind, Engine and Pump Co., Batavia, Ill., and L. J. Miller, Cincinnati, Ohio, make mills that are adapted to the above purpose; the price will vary with the size, and can best be ascertained from the manufacturers. We know of no publication especially devoted to the treatment of bones for this purpose. Manufacturers of fertilizers ordinarily clean the bones of any meat or fat that may adhere to them, but this is not necessary. We know of no manufacturer of ground bones situated near enough to the above place, to whom we could refer our friend for practical information.

J. A. B., Quantico, Md., having seen the Japan Quince recommended as a hedge plant in the RURAL, asks, 1, if it will do well in that climate; 2, how many years will it take to make a good hedge; 3, will it turn stock as well as the Osage Orange; 4, where can he get seeds or plants.

ANS.—1, Yes. We see no reason why it should not do well in Maryland. 2. That depends very much upon the treatment of the hedge. If judiciously pruned, it will form an efficient fence in four years. 3. It will turn stock as well as the Osage Orange, but it cannot do it so soon as the latter, since it does not grow so fast. 4, Seeds and plants can be obtained from any large nursery firm, like Parsons Sons' Co. Flushing, L. I., Ellwanger & Barry, Rochester, N. Y., and others. We would recommend to set plants one year old from cuttings rather than raise them from seed.

J. A. P., Conn., asks, 1, what will prevent a cow from milking herself; 2, whether hens can be kept too well, so as to prevent them from laying freely. He has 48 hens and doesn't get over an egg a day from the whole four dozen, though corn is always at their disposal.

ANS.—There are various mechanical devices for this purpose, one of which was illustrated and described in the RURAL for July 26.

2. Yes. Hens are often fattened so much as to impair their prolificacy, and sometimes to almost entirely prevent their laying. Corn all the time is not a good food to promote egg-production. Hens, like humans, are fond and in need of variety. Give these plethoric birds less corn and more of other kinds of food; do not allow them to gorge themselves, except from the results of their own industrious hunting, and there should be eggs enough for the whole family for breakfast, with plenty for custards besides.

Mrs. A. C. H., Roanoke, Ind., wants to know what she shall do with her salsify roots. Mr. Vick has told her to treat them like parsnips, but these she leaves in the ground all winter, and if she also left the salsify out, the roots would not be available when wanted most.

ANS.—Dig up all that are wanted for winter use, and pile them snugly with alternate layers of moist sand on the floor in the cellar or in a box and put this under shelter in an out-of-the-way place. The roots should be kept moist to prevent their withering. What are not wanted for use can be left in the ground, being perfectly hardy.

J. H. L., Shelby, N. Y., asks, 1, what is the value for manure of one ton of night soil as it is taken from the privy vault; 2, does it deteriorate by lying in the vault for a few years?

ANS.—1. The value of night soil is much less than is generally supposed. It is worth very little more than good barnyard manure. One ton contains 16 pounds of nitrogen, 12½ pounds of phosphoric acid, and 4½ pounds of potash, being poorer in nitrogen and potash, and richer only in phosphoric acid than mixed barnyard manure. 2. After lying in a vault a year, the nitrogen will have been lost by dissipation.

A *Subscriber, Newark, N. J.*, has a sod lot on which he intends to plant potatoes next spring and he asks, 1, which is the better plan—to plow it now or wait until then. 2. He inquires whether the Japanese Persimmon would prove hardy, if grafted on a native hardy tree.

ANS.—1. We should plow as soon as time and suitable weather and condition of the soil permitted. 2, Grafting it upon our Persimmon (Diospyros Virginiana) would not help it much. What other stock is there to graft it on?

G. M., Houston, Texas, sends a leaf and a part of a flower taken from a herbaceous, tuberous-rooted, climbing plant, and asks the name of the plant. He also wants to know where he can obtain *Le bon Jardinier*, a French work of over 1000 pages, edited by some of the best French horticulturists, botanists and nurserymen, and treating exhaustively of the whole horticultural art.

ANS.—1. Antigonum leptopus. 2. From F. W. Christern, 77 University Place, this city.

O. M. T., Orland, Ind., asks where he can obtain seed of Pearl Millet and Beauty of Hebron, and at what price.

ANS.—These can now be had in any well appointed seed store. We do not know the price of Millet; Beauty, $4 per bbl.

W. H., Norwich (one of the seven in the U. S.) wants the address of a firm in New York that he can buy groceries of in small quantities, and get good goods.

ANS.—H. K. & F. B. Thurber, New York city; F. W. Legget & Co., Reade St., N. Y.

G. W. M., Leesburg, Florida., asks if there is any barbed wire manufactured with the barbs one inch apart.

ANS.—No, so far as we know.

COMMUNICATIONS RECEIVED FOR THE WEEK ENDING SATURDAY, NOV. 15.

A. W. A.—J. B.—I. A. P.—W. M. C.—G. G. W., thanks—F. D. P.—T. D. V.—M. E. M.—F. McM.—A. J. C.—Subscriber—L. M. J.—B. & E., thanks—W. S. F.—H. D. F.—M. M. W.—J. F. L.—W. H.—W. J. L.—M. M. N.—J. G. B.—G. M.—G. G.—S. W. J.—E. J. T.—P. L. C.—"Farmer"—"Two Sisters"—J. W. S.—M. H. H.—W. S. S.—M. E. W.—G. J. G.—W. M. C.—H. H.—W. J. H.—S. O. S.—A. M. B.—S. C. S.—F. D. C.—J. N. D.—I. J. B.—W. J. F.—H. L. W., have attended to—H. S.—W. I. C.—L. A. R.—W. B.—H. D. T.—G. G.—S. B. M.—E. G.—F. H. D.—J. R. S.—C. D. B.—C. A. B.—H. B.—F. K. M.

Miscellaneous.

PLANT RESISTANCE TO COLD.

THERE are more opportunities of noting the powers and idiosyncrasies of plants in districts where they are exposed to severe climatic trials than where they have an even temperature. Just where the writer lives, the frost of May 12, last, cut off the blossoms from all fruit trees and Grape-vines: only a few sorts of Pears and Grapes saved, here and there, a sample of their fruits. The season up to that date, had been the most favorable and promising, all through autumn, winter and spring, that could be remembered. There had been an exuberance of congratulation and delight over the mildness, the geniality, and the prospects of abundant food for all the faculties of enjoyment possessed by man as a tenant of the earth.

A singular effect of this cruel sweep of untimely cold was the fact that the more tender sorts of Grapes, such as the Iona and Enmelan, suffered less than the ones that resist, as to their wood, the utmost severity of our winter's cold, such as the Clinton, Hartford and Concord. These lost all their fruit, excepting, here and there, a bunch sheltered under eaves; while the sorts more tender as to wood, retained and perfected a number of bunches, although they were in free air, quite unprotected. But we see a similar phenomenon in the behavior of half-hardy trees and shrubs, such as the Peach, the Fig, the Orange, Oleander, etc which retain their leaves and seem unhurt by October frosts, while the leaves of our native Grapes and trees generally are curled and killed by the first hard snap. Among herbaceous plants I have noticed that the Egg-Plant, which cannot bear even a single chill when it is young and growing, has not succumbed quite to the three or four frosts that we have had up to the end of October.

In this connection I will mention that, happening to have covered a favorite young Geranium with a newspaper to protect it from a frost in early October, the paper was drenched with red stains, like blood, next day. This came from an Achyranthes which had been left to its fate as too large for the house, and which leaned over the Geranium. The frost, light as it was, had burst the cells and even the outer integument, and thus the unfortunate plant had literally bled its life out. In the ability which some tender plants show to resist severe trials by frost, there seems to be some analogy with the behavior of women, apparently weak, yielding, and ready to faint and drop, who yet, on the occurrence of distress or trial, show even more capability of resistance and endurance than sturdier man. They seem to bend, like the reed, and recover themselves from a storm that lays Oaks prostrate.

I may add to this that the grape bunches that escaped, have kept unusually well and excel in flavor. They were formed early, had little competition, and so had fully matured. It is a lesson as to the policy of thinning out the bunches well, if we would improve the quality and keeping properties of grapes. The kinds that had then 12 to 18 inches of strong growth entirely frozen dead to the base, made very much less than the usual quantity of wood, but what they made, ripened very well, thanks to the dry and protracted autumnal weather. W.

WHAT OTHERS SAY.

LIGHT AND HEAVY OATS.—The N. Y. Tribune gives a summary of good evidence to show that light oats are not always the best. A short time ago Grandeau published, in the *Journal d'Agriculture Pratique*, a very interesting paper showing that there is no relation between the weight of oats per bushel and their feeding value, as measured by their nutritive ratio. Mr. Ottenheimer, seeing this, wrote to inform Grandeau that his own experience corresponded with his results, and he gave the following account of an interesting experiment of his own:—He had under his care two sets of horses driven by the same postillion over the same post route, for the same distance and at the same speed, and in every respect made to do the same work. The horses were of the same breed, and of the same age and size, and numbered 12 in each lot. One set was supplied for six months with the lightest oats that he could get in the market, weighing 28 pounds to the bushel; the other set was supplied with the heaviest oats he could procure, weighing 40 pounds. During the whole period of the experiment the two sets of horses appeared equally strong and hearty, and both were in equally good condition at the end of the six months. In conclusion, Grandeau says that a chemical analysis of the stock of oats on hand for the season, furnishes the only safe basis for deciding on the proper quantity to be put into the ration. The General Carriage and Omnibus Company of Paris now has such analyses made for this purpose.

THE FALL IN THE VALUE OF LAND.—The following suggestive note is from London Truth. "If you can buy land in America as good as land in Berkshire for a few dollars an acre, land in Berkshire cannot be worth a rent of £1 per acre for agricultural purposes. The sole difference, assuming land in America and Berkshire to be equally fertile, between the two values, must be the difference in the cost of the carriage to market. Taking four quarters as the yield of an acre, the rent that can be paid for an acre of land in Berkshire over and above what an acre is worth in a Western State of America, is the excess of the cost of the carriage of the produce of an acre in a Western State to London over the cost of the transport of the produce of a Berkshire acre to London. The reduction in the value of land in England is, therefore, not only permanent, but the decrease in value will augment in proportion as more and more land is devoted to agricultural purposes out of England, and as the means of transportation are facilitated. We are only at the commencement of the equalizing effect on value of land produced by cheap intercommunication. Why, in Hungary and Transylvania, fowls, fattened on maize, may be bought for three pence in any number, and they might be brought to England in refrigerating wagons for about one penny apiece. To sell them, therefore, for sixpence each in London would return a handsome profit. And it is merely a question of time when these fowls will be seen in our markets, competing with the produce of our own farm-yards."

HORSE SHOEING.—Dr. Fleming says that the face of the hoof should on no account be rasped or scraped, so as to remove or destroy the beautifully-smooth, polished surface which an unshod hoof always exhibits, and which every hoof would show if the farrier did not attempt to make "fine work," and waste his time and tools. No oil or rubbish, designated hoof-ointments, should be applied to the horn. They are not only useless, but positively injurious. To the unrasped wall of the hoof, nothing is better than water applied by means of a sponge or soft water-brush when necessary.

ANOTHER COMPLAINT.—A peculiar complaint about the hardness of the times has just reached us. It is from the bacon-curers. Hitherto these gentlemen have done very well, and in Waterford many of them have amassed princely fortunes. But the process of accumulation has not lately been going on so rapidly. The bacon-curers have been losing money, and the old cause is assigned—American competition. It seems that in this respect, as in so many others, we cannot now successfully compete with our enterprising Yankee cousins.—The Farmers' Gazette.

PRESERVING PUMPKINS.—The editor of the Germantown Telegraph preserves his pumpkins on a scaffolding put up in the cellar, allowing them to lie side by side, but only in a single layer. He uses them as needed through the winter, and finds that from a dozen to a dozen and a half are ample to supply the family as long as they care for them. On two occasions he kept one or two over to discover how long they *would* keep, and found them in good condition *in August*, but that was about the end of their time.

TO BE FOLLOWED.—The London Farmer says: "We have adopted the factory system of cheese-making from America. Our Dairy Farmers' Association is an imitation of the Dairymen's Societies of the United States. There is yet another Transatlantic Society which may be followed with advantage. This is the new Dairy Record Association which is about to be formally inaugurated in response to a 'call.'"

PAMPHLETS AND CATALOGUES.

Descriptive Price-list of Grape-vines and small fruits; also of high-class poultry bred and for sale by Geo. S. Josselyn, Fredonia, N. Y.

Catalogue of Bulbs for Autumn Planting offered by Wm. H. Carson, No. 125 Chambers St., N. Y. All sorts of Hyacinths, Tulips, Lilies, etc. Free to applicants.

THE
RURAL NEW-YORKER.
PUBLISHED EVERY SATURDAY.

CONDUCTED BY
ELBERT S. CARMAN.

Address
THE RURAL NEW-YORKER,
78 Duane Street, New York City.

SATURDAY, NOV. 22, 1879.

AN APOLOGY.

We have often stated that the Rural New-Yorker admits no deceptive or untrustworthy advertisements and we have made such statements with all sincerity. Nov. 8th an advertisement of an establishment which professes to cure Cancer *was* admitted, and for this we apologize to our readers. It was an oversight due to the absence of the superintendent of the advertising department. The institution referred to may be perfectly respectable. We know nothing against it. As, however, we do not believe that cancer can be cured "with little pain" or, indeed, at all, we are unwilling to be instrumental in influencing our readers against our own very decided convictions.

THANKSGIVING.

A New England historian, many years ago, wrote of this annual festival as follows:—

"The corn is garnered, the crop is gathered, the work done. The Earth has begun her rest, and the husbandman is in harmony with her. Again are heard the notes of preparation; on Sunday the sounding proclamation is listened to with attentive ears—how the year has been crowned with goodness; how peace is upon our borders and plenteousness in our palaces; how the clouds drop fatness, and how servile labor and vain recreation are on this day by law forbidden. The week is full of bustle, consecrated to the mystic rites of the kitchen, the body becomes great—almost god-like. For it is elaborated the great chicken pie; tarts and custards and seed cakes, are adorned with unintelligible characters, clearly not Hebrew. Fires are burning; the hearth is swept and all is expectation. Fathers and mothers and sisters and cousins, children and grandchildren and even dogs are ready to welcome to the old New England homes the crowd of returning children. Thursday is well spent, even with some excesses, for all good and kindly feelings are called into fervid action. Hatred, malice, and uncharitableness are banished. The day is a holy day, and as such is to be cherished and preserved."

To this he adds a prediction that this institution, begun in New England and there so firmly rooted, will follow the children of New England and become established throughout the Union. We have lived to see the prediction verified, and never do we remember a year when the whole country could with one accord better unite in fervent thanksgiving for unbounded prosperity, than on the one now near its close. The harvests of the various crops in the various sections have been abundant, the surplus above what is needed for home use finding ready market abroad. There is not one of the agricultural products of our whole country that is not readily salable at a good price. Our manufactories, also, many of which have lain idle during a season of business stagnation, are now in successful operation, giving employment to thousands who depend upon them as a means of earning a subsistence. To dispose of the products of the soil and the manufactured goods has given a much-needed revival to business, and there is not a class in the whole community that is not feeling the effect of brisk trade.

We have, furthermore, reason to rejoice and be glad in the general healthfulness that has prevailed. With the single exception of a limited area, there has been no fatal epidemic, and we think the death rate for the year will be found considerably below that of the average of many years. Droughts and floods have been confined to restricted limits; insect pests have not been so destructive as in former years, and in whatever way we review the year, we find cause for rejoicing and giving thanks.

In this world there is much theory and sentiment; more than of practice and fact. How many who gather round the festive board on Thanksgiving Day will do it with a spirit of thankfulness; and even when the words of "grace" are said, in how many cases will they be only as a cold formality. In how many families will thought be given to those who would seem in the eyes of the prosperous to have little to be thankful for, and who would make a feast from that which could be spared without notice from the overabundance of their neighbors' tables. Charity is not necessarily an adjunct to thankfulness, and one who is in a grateful spirit may forget the necessities of those about him; but it would seem that even a slight modicum of the love for our fellowmen, merely as a portion of the human race, should at such a time be sufficient to awaken our sensibilities and induce us to do at least a little to awaken thankfulness on the part of a less prosperous neighbor, and not merely thankfulness toward us, as individuals, but a feeling that he is a portion of the great mass of humanity over which a constant care is exercised by that Power without whose notice even no sparrow falls.

With Thanksgiving Day comes a great temptation to sin. The savory odors of the nicely prepared food; the number of courses and variety of dishes; the company of relatives and friends, all join in keeping us long at the table, giving more time for the indulgence of appetites and urging on to excesses.

We rejoice at the annual return of the day for the pleasures it gives to ourselves and others—the pleasures of social communion, of family reunions, of good dinners and hearty cheer, of dances and games and general merry-making. Of all these we hope our readers will have plenty; but, while wishing them the most enjoyable of days, we cannot refrain from this bit of advice: *Don't eat, and, above all,* Don't drink, *too much.*

CULTURE ON THE FARM.

It has truly been said that culture is the acquisition of no single effort. It is rather the resultant of constant progress, the improvement of every advantage bestowed on the otherwise crude and uncouth mind. Our cosmopolitan nation, while affording an ample field for mental and physical culture, embodies an ample fund of inventive genius which is subject to mental discipline and refinement. Yankee ingenuity and Western enterprise are two of the chief forces that give zest to American life. Each, to insure success, implies efficient work and deep-fathomed schemes. To a certain degree manual labor always precedes mental, after which, to preserve our individuality, they should be rivals; for neither is adequate to sustain its colleague. Undivided attention to one is positively fatal to the other, while both are essential. Our literary circles sparkle with the wit and wisdom of former times, and the lore of the present day; our laborers hammer at the forge and guide the plow-share. Neither knows the pleasures of the other, but if the former are brilliant in letters, the latter need not be ignorant. A prevalent idea is that mistaken one so often assumed—the idea that culture cannot attend a farmer's life. It is, however, true that no being with self-regard, can afford to sacrifice self-improvement for worldly devotions, and totally disregard the refining influences of his associates, but every person does owe a first duty to himself, and that duty is to make himself a *man.*

The rural districts may be deprived of many cultivating sources familiar to the city, but country homes need not be gloomy and unattractive. On the contrary, each home is a little world in itself. The reliable medium of books and papers should provide for every kind of life. Our best authors and educators should find their way into every rural home, and, beyond developing a taste for facts or serving as an amusement, they should furnish the choicest language, and suggest the best ideas; for language, written or spoken, is undisputably the highest deputy to culture. Rural people unavoidably associate with the illiterate, and for that reason encounter difficulty in preserving intact their purest ideas. Regardless of this, the farm has fostered our best statesmen, orators and poets. It has nourished the strongest bodies and clearest intellects; it has filled the chief offices and served the highest honors. Men are not born great. They may breathe almost the first breath with ambition for great achievements, but the record of success is the indelible record of old age. It is the little parts that compose the great whole. No generation should retrogress. The past can be reachieved and the present improved. If books, as silent companions, do not produce the required result, one's own resources must submit to one's will, or society supply the deficiency. Our subject then incurs the query: How shall rural customs contribute the best advantages? The innate feelings of each person require various modes to deduce the greatest benefit. Some individuals are brilliant only in conversation; others in writing, and many only in tact or executive ability. Separately, however, they are susceptible to their surroundings, and he who cannot grow amid books, can cull sermons and inspiration from nature, and can profit by conversation. It is impossible to be familiar with anything without catching something of its inspiration. Our rural homes can be surrounded by richest luxuries, and it requires only a little care and diligence to secure the aids to self-improvement, but it requires constant attention to appropriate the benefits of our resources and imbibe the highest culture.

ROOTS AND TUBERS.

We often see sweet potatoes, "Irish" potatoes, Dahlias, Jerusalem artichokes, beets, carrots, etc., referred to indiscriminately as *roots* and *tubers.* It is well that the distinction should be observed. A potato is a *tuber*; so is an artichoke. A sweet potato is not a tuber. Neither is a Dahlia nor a Pæony. A tuber is an underground branch or thickened rootstock. The so-called eyes of potatoes are really buds, as much as those which occur in the axils of the leaves of stems above ground, and the rudimentary leaves beneath may be seen in the form of little scales. Sweet potatoes, Dahlias, Pæonies, etc., are swollen roots, though the sweet potato does produce buds, particularly at the upper end, and it is for this reason that it has been mistaken for a tuber. He who will take the pains to examine the underground growth of each will see that the difference is very marked. Often the roots of sweet potatoes swell to the size of one's little finger, and so remain, while, beyond, another swelling upon the same root may so enlarge as to make a potato fit for eating. The Irish potato forms at the end of the stem, and forms no fibrous roots of its own. The eyes may be compared to the nodes or joints of the rootstocks of the well-known couch, or quick-grass (Triticum repens), so troublesome to farmers all over the country, each one of which will grow more quickly for being detached from the rest of the stem. Beets, turnips, carrots and parsnips are roots. The seed is planted one season and an accumulation of nutrition is stored in the root which, if planted again, produces flowers, fruit and seeds while it is itself consumed. The tomato and potato are closely-allied plants. The former produces fruit freely, but never tubers—the latter fruits sparsely, but produces tubers freely.

TIMELY WARNING.

Readers of periodicals should be particularly careful in regard to trusting their money to strangers who ask for it through the medium of an advertisement. This caution is undoubtedly a trite one, but it is peculiarly pertinent at this season. The unscrupulous men who concoct alluring announcements in which a great deal of value is apparently exchanged for a very trifling consideration, choose this season in preference to any other, and their advertisements will be found in a great many papers. Indeed, a publisher must not only edit his advertisements with extreme care, but must, in addition, have a running knowledge of the individuals themselves in order not to be deceived. In our own office, very recently, we rejected an advertisement that, to all appearances, was unexceptionable, because we knew the advertiser, and felt certain that any of our readers who dealt with him would have good cause for dissatisfaction, to put it no stronger. The latest rank swindle is that advertised as the North Denver Land Co. The corporation was one man—S. A. Grant—and he was, at last accounts, in the hands of the sheriff. Grant is an old offender and very clever at concocting plausible swindles. We trust none of our readers were induced to send him a dollar to secure a tax-free title to a lot in the Utopian North Denver, as they will certainly never again see their dollar. It is unnecessary to add, perhaps, that "North Denver" was a waste place, and every promise made in the advertisement a delusion.

It would be a wise course to pursue to write to your papers for information regarding any advertisement or solicitation of which you had the slightest reason to be suspicious. It would save you many dollars probably.

BUD "HYBRIDS."

A bud is an undeveloped stem. To unite two buds is really the same as uniting two stems. If we were to split two buds of different varieties of Apples in two, and then, taking a half of each, cause them to unite by grafting them upon an apple stock, we should suppose the result would be precisely the same as if entire stems—cions—from different varieties were grafted upon the same stock, viz., each bud or cion alike would bear the fruit of the tree from which it was taken. If it were possible to cut a bud into 100 pieces and cause them to unite to 100 other pieces, we should suppose that each of the 100 pieces would bear the fruit of its kind. Uniting the halves of two buds or of two stems merely forms a compound or aggregate cion or bud. The individuals remain as distinct as ever. A blending of the qualities of different plants so as to form what are popularly called "hybrids," can, as we believe, be effected only through the reproductive organs.

BREVITIES.

Mrs. Jack, of the Province of Quebec, Canada, tells us that Alfalfa is *hardy* there.

Does anybody know that "Kieffer's Hybrid Pear" *is* a "hybrid"—by which we mean a *cross-breed.* Is it a guess, or what?

Those who are prone to eat too much of the Thanksgiving dinner, will do well to return thanks before commencing the feast. There is such a thing as being too full for utterance.

Soot from a chimney where wood is used for fuel, is an excellent fertilizer for pot-plants. Put into a pail and pour hot water upon it; then water the plants with this every few days.

Cap. Jack may conduct himself admirably West, but he *is* a "gay deceiver" with us, and we hazard the prediction that having served a full term, our Western friends will not re-elect him. They would again vote for Wilson rather.

We shall send out the raspberry plants to applicants so long as the ground remains open. The seeds will be distributed during the winter and the rest—the great bulk, of course—of the raspberry plants in the spring.

One of the finest plants for forcing is the Bleeding Heart—Dicentra spectabilis. The roots of old plants may be taken up even now. Place in a cool window or greenhouse and it will bloom by the 1st of February and continue to bloom until May.

Last year a contributor to this journal asked us to state several plants which could not be subjugated by repeatedly cutting off the foliage and stems. We mentioned several, but not the Nut-grass of South Carolina, which did not at the time occur to us. Probably no other pest is more tenacious of life.

By a decree of November 3rd, 1877, permission was given to import cows intended for breeding purposes into Cuba, duty free. The term for which this concession was made, having just expired, the Cuban Treasury has ordered the Custom House to resume the collection of duties on such cattle.

A friend shows us a specimen of a new seedling potato which is said to be *perfect* as regards quality, and an abundant yielder. We may say that in appearance it is as shapely as the Snowflake which it somewhat resembles. It has been tested by Dr. Hexamer who pronounces it the best potato he has ever seen, which is *very* high praise. It has thus far been designated only as B.4. We suggest the name when this variety shall be offered for sale. "Before."

Mr. C. W. Garfield, Secretary of the Michigan State Pomological Society, writes us the following of Kieffer's Hybrid Seedling Pear, and what he says we heartily indorse. "Without having as yet fruited it, I have one objection to it, and that concerns its name. There is no use in trying to exhaust the description of a fruit by giving it a long name. "Kieffer" is enough without having to run twice across a written page with the rest of the name. Our Society will try and give short names to the fruits which it "dubs." For instance: two Strawberries we have named this year, the "Marvin" and the "Shirts," are models in brevity of nomenclature.

The Thwack.—A friend from La Porte, Ind., writes us that in view of our derogatory estimate of the Thwack Raspberry, he is of opinion that we have not the genuine sort, or else that the kind he cultivates under that name, is not the Simon-Pure article, as he and others in his neighborhood think their Thwack fully equal in quality to the Herstine, while some deem it superior to that excellent variety. We have no doubt as to the genuineness of *our* Thwacks, and the opinion we have expressed as to their merits, like all our opinions with regard to the various plants we have tested, is the unbiased result of our experience with them. It *may* be that our correspondent and his neighbors have not the real Thwack. There is, of course, no doubt that nearly all varieties of fruits give more satisfaction in some soils and climates than in others.

Mr. E. H. Libby, several years ago founded the Scientific Farmer, a Monthly published in Boston. Several months ago he relinquished his interest in that journal to his partner, Dr. E. L. Sturtevant, to manage a new weekly which was to have been called the Country Home. It was advertised widely, but did not appear, because just at that time Mr. Libby preferred to accept the position of Editor-in-Chief of the American Agriculturist, and the "Country Home" was abandoned. For reasons not known to us, he soon retired from that position and, after a brief visit to England, has now returned, and the first number of Land and Home, an agricultural weekly of which he is the manager, is now before us. It seems to be about two-thirds the size of the Rural New-Yorker, and proposes to work in essentially the same field of labor. This enterprise could not have been started at a more auspicious time. We heartily wish it and all other agricultural enterprises, the full measure of success which they deserve.

For Women.

CONDUCTED BY MISS FAITH RIPLEY.

A POOR MOTHER.

"I wish you joy." Her lips put on a smile
To mock the woeful shadow in her eyes.
"Nay. I have no mind to blame you—tears and sighs
Won't make a word, but only the surprise—
So sudden! Let me breathe a little while.

"See, dear,—'twas only yesterday I thought,
Looking abroad, the world seemed green and glad.
I thought, God's given me this—the kindest lad,
The dearest child that woman ever had—
And health and hands, I envied no one aught.

"My life was full; my heart went beating fast
With pride, with hope, with mother's happiness.
I held both hands above it, to repress
Great thrills of joy. O God! I could not guess
How brief a time my counted wealth would last.

"I knew you loved her? Child, I never knew,
I saw you walk and talk, and dance, and jest,
It seemed but foolish pastime at best,—
You were both so young, I made no test
Nor question of the future for you two.

"But marriage is not death! you'll love me still?
A little—yes—with such love as may spread
In overflow beyond your child's bright head,
Your wife's fair eyes. Ah no—the past lies dead—
And time goes on, and Nature has her will.

"Hush—hush; forgive me. I must weep or die!
Still, dear, I bless you! Through these blinding tears,
I greet you bravely, beyond doubts and fears.
For all the happiness of coming years,
I greet the man; but oh, my boy, good-bye!"

DESCRIPTION OF CUTS.

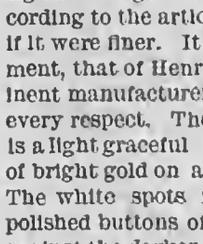
The premium list issued by the Rural New-Yorker this year contains a number of pieces of handsome jewelry selected mainly for its suitableness for presents. Great care has been taken

that it should be of the best quality, superior in finish, and of the latest and most fashionable designs. The gold is from 14 to 18 karats fine, according to the article, it would not be serviceable if it were finer. It all comes from one establishment, that of Henry C. Haskell, one of our prominent manufacturers, and it is fully guaranteed in every respect. The lady's cross, (premium No. 15) is a light graceful design, with a delicate tracery of bright gold on a back ground of Roman gold. The white spots in the illustration are highly polished buttons of gold that stand out in relief against the darker colored gold. Any one sending the Rural a club of twenty-three subscribers will receive this cross.

The lace pin shown in the accompanying engrav-

ing is premium No. 10 and is given for a club of sixteen. The artistic effect of the chasing is enhanced by using gold of two colors, light and dark. These lace pins are extremely popular because they can be used in an ornamental way for various parts of a lady's toilet, and in selecting one we think we have secured the prettiest design shown this season.

We have also chosen several kinds of rings, one of which, premium No. 7, is here shown. The ring



is a band of gold tied in a true love knot, and depending from it is a horse shoe, (typical of good luck). These bangle rings, as they are called, are very fashionable in New York, and we have here presented one of the latest and most popular styles. This ring is presented for a club of seven subscribers.

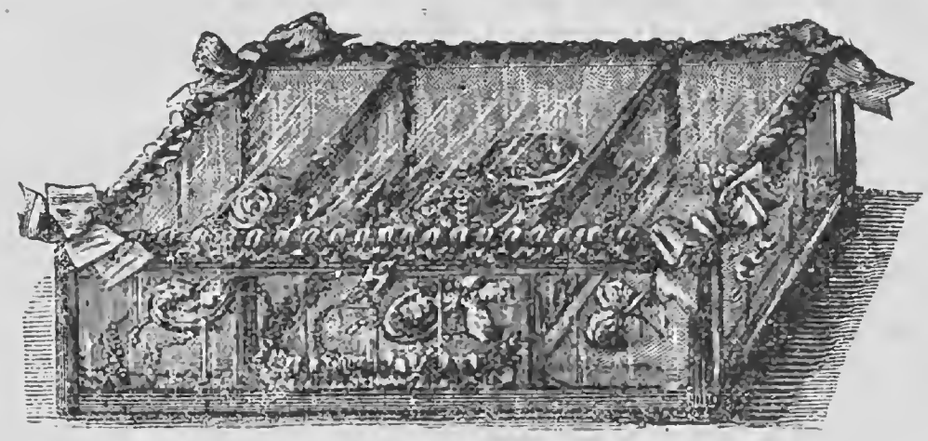
Nothing prettier or more suitable for presents could be found than these premiums, and it requires so slight an effort in proportion to the reward given, that we should suppose Rural ladies would be quite willing to make it, and secure at least one Christmas gift practically without any expenditure of money.

No. 1.—JEWEL-CASE.

The case is made of a plain deal box. Any old box will do for the purpose. It is padded and lined with purple velvet. The covering is purple cloth, embroidered with rose-colored marking floss in cross-stitch. To keep the design even, canvas must be tacked over the cloth and the stitches worked over it. The threads of the canvas may be drawn when the work is finished.

No. 2.—JARDINIERE.

The framework is of bamboo. These frames are sold at most fancy-work shops, with a tin tray to put the flower-pots into. To hide the tray, drapes of embroidered cloth are placed in each division; these are pinked or cut in points at the edges, and ornamented round with simple designs in embroi-



No. 4.

dery. A scroll in braid or embroidery ornaments the middle of each drape.

No. 3.—BOOK-MARKER.

The foundation is of dove-colored ribbon, the cross is worked in fine silver thread, and the forget-me-not flowers and foliage in their natural

No. 3.

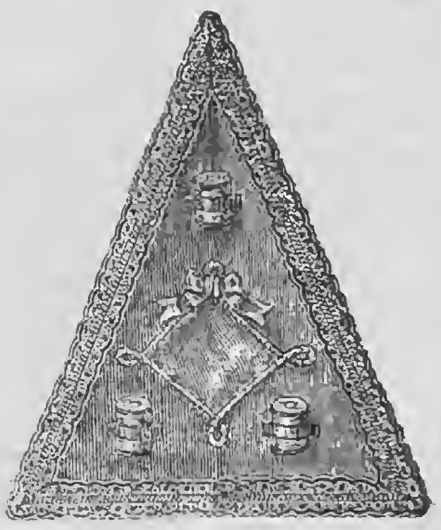
colors. The marker is lined when the work is finished, and a silver fringe completes it.

No. 4.—CRYSTAL BOX FOR TRINKETS.

Materials: Pieces of window-glass; glue; white paper; ribbon ¾ inch broad; sewing silk of the same color. Have the glass cut by a glazier to the size you desire the box to be. When cut, bind the separate parts with white paper firmly glued on; next cover the paper with ribbon, which must be glued on. When it has become firmly fixed, sew the separate parts together. Finish with a ruche of ribbon and bows at the corners. The back bows form the hinges; the front the fastenings of the box. Boxes of this kind are often prettily ornamented with leaves, grasses, sea-weed and decalcomanie pictures.

NOS. 5 TO 7 WORK-TABLE STAND.

The frame for the pretty little stand must be purchased. The foundation may be of cloth, velvet, silk, or satin. The hight of the frame must, of course, rule the size of the triangular pieces, which are cut and fitted to it. No. 7 shows an embroidered border for the edges; and No. 6 the mode of fitting one of the sides with elastic straps to hold



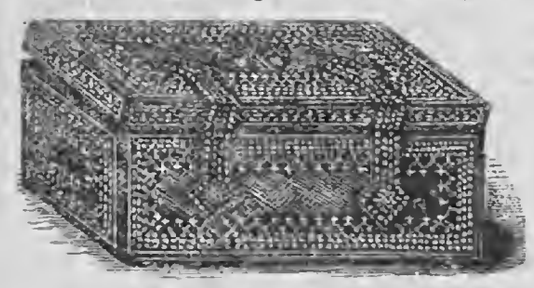
No. 6.

of cotton is placed at the top. The sections are sewn at the top to the stand, and are tied at the bottom with bows of ribbon.

STUDYING EXERCISES BY METHOD.

I am glad to see that the question of music-lesson taking is being discussed in the Rural. Mrs. Galpin, I think, offers the true explanation when she says that the parents are at fault in the matter of pupils neglecting exercise practice.

If parents could only be brought to see the folly of hurrying children through pieces before they are conversant with the rudimentary parts of piano playing, there would be fewer indifferent performers. Children who have been at school three or four quarters are not expected



No. 1.

to interpret Shakespeare or Longfellow and yet it would be no more unreasonable to expect them to do so than it is to require a music pupil of a quarter or two to properly play a "piece." The school pupil has the advantage too, of being able from the start to use her voice with very much more ease than the piano scholar can her fingers.

Edna Houghton has very properly decided to begin with scales and arpeggios and I would like to ask her if she ever met with or heard of Mason's Pianoforte Technics? I have myself studied music for many years, and gone through scores of exercise books, but in my estimation Mr. Mason's Technics are incomparably the best and most systematic arrangement of scale and arpeggio exercises I ever saw. There are in all about two hundred different exercises, which can be multiplied into thousands by the pupil. They (the exercises) are to be *learned* slowly, then played rapidly, and lastly "in velocity" or very fast. The different kinds of touch "plain legato," "mild staccato" and "elastic" are fully described and illustrated. In the book there are practical exercises, consisting altogether, of the scale of C. played in forty-five varieties of time, and with forty-five ways of applying the accent; a treatise on the relation of the mind to playing; one hundred varieties of Rhythm in which music may be written. Seventy two-finger exercises which furnish a tremendous amount of hard work for those who are willing to encounter it. Scales in all varieties of motion and arrangement and an exhaustive study of arpeggios. These last are served up in all approved styles.

A thoroughly drilled player may, in fact, acquire the ability to play a piece of fair difficulty never before seen, with ease, and by Mr. Mason's method the pupil is "thoroughly drilled." One peculiarity of this system is that the scholar is taught to play even scales and arpeggio exercises *with expression;* a something of incalculable benefit in training the fingers to follow the impulses of the mind or the taste. Of course, all this is the barest outline of the "Technics." A circular giving full particulars may be obtained of Oliver Ditson & Co. of Boston, who publish the book.

No. 5.

I would like to have Mrs. Galpin write an article on music, if she will, and I would also like her to express her opinion of Mason's Technics. Having been a teacher for fifteen years, she can, of course, write most intelligently about this system, and I know of no subject more likely to interest Rural New Yorker ladies than that of musical methods, for many of them are piano performers. JICKS.

THE BEE.

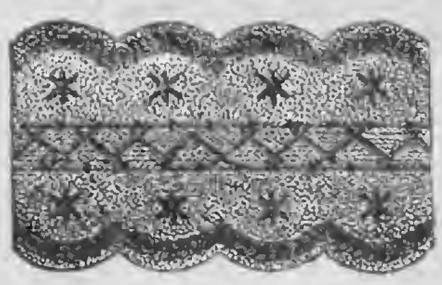
L. S. HAGNER.

Lancer of the golden belt!
Errant knight in ladies' bower!
I have caught thee fairly now,
Hid within this lotus flower.

Ivory palace meet for thee
Boon companion of the light!
Drowned in nectar thou shalt be
Tiny Clarence of delight!

Golden youth, beware! beware!
Touch not, taste not, lest ye die—
From this wanderer of air
Learn forbidden sweets to fly.

A New Coffee-Pot.—I think there are not quite so many kinds of Coffee-Pots as of Washing-Machines, but the number is increasing. The last presented to my notice is called the "Blanchard Improved Coffee-Pot," and is sold by the Blanchard Food Cure Co. of this city. In this pot the coffee is cooked by the passage of steam through it, boiling water being placed immediately beneath a vessel containing cold water. The cold water condenses the steam containing the aromatic part of the coffee, and returns it to the water below. This admits of boiling the coffee eight or ten minutes—thus setting free all the caffering, while it is claimed

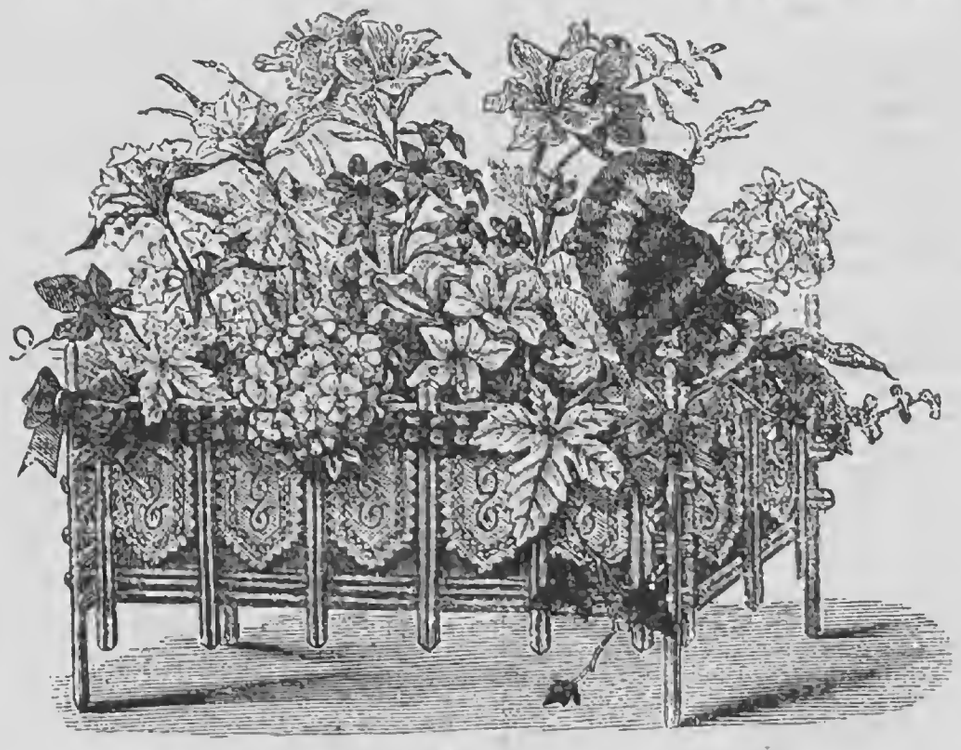


No. 7.

the tannic acid so injurious to the digestive organs, is retained in the grounds. It is claimed further that there is a saving of at least one-third of the coffee, an absence of the bitter, tannic acid flavor, perfect freedom from grounds or settlings, and the production of a decoction, invigorating and tonic in its effects, and of a delicious flavor.

To this last I bear willing testimony, and I may, with further experience, be able to certify to all that is claimed for the pot. I am now glad to recommend it to Rural readers, confident that it has sufficient merit to be worthy of their attention. L. A. E.

New York.



No. 2.

SUMMER AND WINTER.

Just a boquet of roses, faint pink and deep red;
Just a note from him, saying—you guess what it said.
Just a heart for her keeping, a crown for her life;
Just a girl whose sweet eyes read through tears the word "wife."

Just a handful of rose leaves, brown, scentless and dead;
Just a few shaded skeels filled with pale, silken thread;
Just a memory left her, a thorn in her breast;
Just a woman who's waiting, just waiting for rest.

CORRESPONDENTS' CORNER.

I cannot tell how much I have been indebted to the Rural for its valuable articles on every subject pertaining to agriculture and kindred branches. Its beautiful tales thrill me with delight. "In Folly's Net" is now drawing me so strongly, that although the sun is low I am going to the Post Office (a mile distant) to get this week's Rural, to see how matters stand with poor Jean. I trust that she gets off from Blair, that charming scoundrel. I have to read the story to my daughters, married ladies, who live nearer the Post Office, every night the Rural comes before I bring it home.

Very respectfully, Wm. S. F.
Reidsville, N. C.

Dear Miss Ripley:—Please state what are the "Seven Wonders of the World."

1. The Pyramids of Egypt, begun 1500 B. C. and completed 1082 B. C.

2. The Mausoleum, erected 350 B. C. over the tomb of Mausolus, King of Caria, by Artemisia, his Queen.

3. The Temple of Diana at Ephesus, built 552 B. C.

4. The walls and hanging gardens of the City of Babylon, which were constructed by Nebuchadnezzar, between 600 and 606 B. C.

5. The Colossus of Rhodes, which was a brazen statue standing over the entrance to the harbor of Rhodes, so large that the vessels sailed between its legs.

6. The ivory and gold statue of Jupiter Olympus, made by Phidias, 440 B. C.

7. The Pharos or watch-tower built by Ptolemy Philadelphus, King of Egypt, 280 B. C. It was a tower built of white marble, on the top of which fires were kept constantly burning. It stood at Alexandria and served as a beacon to sailors entering the bay.

Miss Faith Ripley.—Will you or some of the lady readers of the Rural please give a recipe for dyeing carpet rags a bright red?

Hallock Mills, N. Y. Mrs. G. J. G.

Ans.—Use Leamon's Aniline dye.

Dear Editor.—Will you please give me the name of a reliable fur house or of a dealer in furs, and oblige A. Reader.

Belfast, N. Y.

Ans.—Messrs. C. G. Gunther's Sons, 184 Fifth Avenue, New York.

Dear Miss Ripley.—Will you please give directions for making air castles and card receivers of cardboard and zephyr? I would also like a recipe for making apple butter. Everlasting cookies: One cup cream, two cups sugar, one-half cup butter, two teaspoons cream-of-tartar, one teaspoon soda, two eggs, these will keep one year. Yours truly,

Troy, Pa. Minnie E. W.

Literary Miscellany.

HER LOVERS.

My first, my very first, his name was Will—
A handsome fellow, fair, with curling hair,
And lovely eyes. I have his locket still.
He went to Galveston, and settled there,
At least I heard so. Ah, dear me—dear me!
How terribly in love he used to be!

The second, Robert Hill, he told his love
The first night that we met. 'Twas at a ball—
A foolish boy! He carried off my glove.
We sat out half the dancers in the hall,
And flirted in the most outrageous way.
Ah me! how mother scolded all next day.

The third woke up my heart. From night till morn,
From morn till night again I dreamed of him;
I treasured up a rose bud he had worn;
My tears and kisses made his picture dim.
Strange that I cannot feel the old, old flame,
When I remember Paul—that was his name.

The fourth and fifth were brothers—twins at that;
Good fellows, kind, devoted, clever, too.
'Twas rather shabby to refuse them flat—
Both in one day; but what else could I do?
My heart was still with Paul, and he had gone
Yacht sailing with the Misses Garretson!

He never cared for me—I found that out—
Despite the foolish clingings of my hope;
A few months proved it clear beyond a doubt.
I steeled my heart; I would not pine or mope,
But masked myself in gayety and went
To grace his wedding when the cards were sent.

So those were all my loves. My husband? Oh,
I met him down in Florida one fall—
Rich, middle-aged, and prosy, as you know;
He asked me—I accepted; that is all.
A kind, good soul, he worships me; but then
I never count him in with other men!

IN FOLLY'S NET

(Continued from page 712.)

CHAPTER XIX.

CHRISTMAS AT BLAIR GATES.

The invitations to the Christmas festivities at Blair Gates had been issued, and almost all had been accepted. A great number of the "nobility and gentry" in the neighborhood were spending their Christmas holidays on their estates, and there was no good reason for them to refuse the invitation to Blair Gates. Those at a distance accepted the invitation for the three days for which they were asked, for the "rest day, the drest day, and the prest day" of Sir Walter Scott's time, those nearer at hand accepted for the ball only, some to pass the night at Blair Gates, others to return to their homes.

Blair Gates was in a state of activity and bustle very unusual to it, for Mr. Blair was evidently desirous that nothing should be wanting to make the festivities a great success, and to attain his end he spent money lavishly. Decorators, cooks, servants, and upholsterers were sent for to London itself, as if Edinburgh could not furnish anything sufficiently *recherche*. Mr. Blair's own *chef* was already well-known in the county as admirable, but he would have his hands more than full.

Jean, herself feverishly anxious though she was that all should pass off well, that the skeleton in the Blair Gates cupboard should not be discovered, that no one should suspect her misery, for her sensitive pride was all in arms at the thought that her domestic miseries should be county gossip, had but little to do. She had given all necessary orders, and the housekeeper carried them out in a manner which left nothing to be desired, and although Jean felt a strange, unaccountable dislike for Emily Brett, she could not help feeling that she took a great deal of trouble from her shoulders. She noticed also, it was impossible not to do so, that Emily had a certain influence over her husband, that he never seemed quite at ease under the glance of her dark, lustrous eyes, and that her manner, outwardly perfectly respectful and suited to her station, had occasionally a shade of contempt which she did not attempt to disguise.

Three or four times Lady Sholto and Miss Crawford had driven over to Blair Gates, and though they could not but remark the splendor with which Jean was surrounded, the beauty of her house, the number and excellence of her servants, the apparent devotion of her husband, they had not failed to notice also the change in Jean, which, though less apparent to others, was but too plainly visible to those who had known and loved her in former days. The stately calm which had replaced her former bright grace of manner, the absence of the once so frequent smile, the complete disappearance of the *espieglerie* and brilliance which had been so charming, the hectic flush on the fair cheek, the hollow circles round the sweet eyes, the firmly set curves of the beautiful lips, all these things spoke loudly to those who cared for Jean, and who saw the suffering she so successfully hid from others. On several occasions when Lady Sholto called, Mr. Blair had been present during her interview with his wife, and though Jean had been sweetly cordial and affectionate, they had not exchanged one word of confidential intercourse; but once, when Mr. Blair had been obliged to go to Glossin for a political meeting, from which he could not absent himself, Lady Sholto had driven over alone in her pony carriage, and had found Jean in her boudoir for once in solitude.

The boudoir was a beautiful room. Lady Florence saw at a glance that no room at Sholto Hall or at Glen Ivor itself could compare with it. The hangings were of the palest cream-colored satin, dotted here and there with bunches of blue convolvuli, borders of the same were embroidered on the curtains and carpet. *Plaques* of blue Sevres were let into the wood of the piano; the chairs were of the softest, most luxurious description, and on a couch amid all this splendor lay Jean huddled up in an attitude of misery, from which she started up with a little cry on perceiving her visitor.

"Don't move, dear," said Florence, coming forward; and kneeling down beside her, she took the poor aching head upon her bosom, and for once Jean let her grief have full sway.

"You will not tell Archie?" were her first words, when she was calm enough to speak. "It would make him so wretched. And now, oh! Florence, tell me what I have wanted to know so long—how is he?"

"He is well," Lady Sholto said, softly, smoothing back the bright hair with pitying fingers. "He is quite well again, he tells me, and Jeanie, will you be glad or sorry, dear? he is coming back to us for Christmas."

"I am glad he is to be with you," Jean said, softly. "Do not let him think of me as miserable, Florence, it would make him so unhappy, and it would prevent him forgetting, and I want him to forget."

And during Lady Sholto's visit, Jean sat with her head resting on her shoulder, speaking a few words now and then, once or twice breaking into sobs, which she repressed, and holding her friend's hand in a clasp—a close, feverish clasp, which said more than words.

"Oh! think," she said once, in an accent of heart-broken despair—"think all my life has to be lived yet, Florence, and I am married to that man."

And Lady Sholto went from her with tears in her eyes and sorrow at her heart; the words had said much; the tone in which they were spoken had said much more.

The day fixed for the ball at Blair Gates was the 28th of December, and the guests were to arrive on the 26th and 27th. Mr. Blair had fixed the day wisely, for on Christmas day people rarely leave their own homes, and for the first day of the year the Duchess of Glossin had issued invitations for a ball and amateur theatricals, to which, of course, the Blairs had received invitations, and on Christmas day they were to dine at a great house in the neighborhood, which enabled Jean to refuse a loving little note of invitation from his wife which Lord Sholto had brought her himself for that day. She had not been once to Sholto Hall since the day she had left it as Mr. Blair's wife; she was not strong enough for that yet. And during all that stately, dreamy ceremony at Merlyn Castle, her thoughts were with the party at Sholto Hall, the happy little family party on which her folly and imprudence had cast such a heavy shadow.

On the 26th and 27th December, Blair Gates was pervaded by a very pleasant bustle and animation, and many arrivals had broken in upon the usual stately decorum reigning there. Guests from a distance were arriving in rapid succession, and having been courteously received by the "laird" and his young wife, were shown up to their rooms, while their equipages were taken round to the stables and coach-houses, which presented a scene of crowd and bustle which soon extended to the hospitable mansion itself, and to the bedrooms, and dressing-rooms where lady's-maids were unpacking boxes and dress-baskets, and valets were laying out dress clothes and opening dressing-cases.

The party from Sholto Hall, which included Captain Murray, who, as Ida's *fiance*, was spending Christmas at the Hall, were only to arrive on the morning of the 28th, and spend one night at Blair Gates, and as the time for their arrival drew near, Jean's nervous anxiety was almost overwhelming. Would the Earl come? was the question which she had been asking herself for the last few hours incessantly. He had accepted the invitation; but Jean half hoped, half feared that he would at the last moment devise some good excuse for changing his mind.

Fortunately for her she was kept fully occupied by the claims of her guests upon her time and attention, their admiration for Blair Gates seen for the first time since the complete renovation which Mr. Blair had effected on his return there was outspoken and sincere, and several of her lady guests complimented Jean smilingly on her beautiful home, all of which admiration and compliments Mrs. Blair accepted with a cold, smiling grace, which matched the smiling hauteur on her face, the languid indifference in the weary, brown eyes. And at night in their dressing-rooms, over the hair-brushing operations, young ladies discussed that "beautiful, proud Mrs. Blair," and said, enviously, what a happy woman she was to possess such a home, and such a handsome, delightful husband, who was everything that was perfect. How could they guess, those girls, who from the nurseries were brought up to think that riches, position, and an eligible establishment were the chief end and aim of existence, that the woman who possessed all these things was more miserable than the most miserable collier's wife in the district?

How could they guess from that cold, smiling, impenetrable face that her heart was dead within her, dead to all hope and joy, alive only to grief and suffering? How could they tell that in those calm night hours, when they lay smiling in their sleep, dreaming of a time when they, too, should have a husband and a home, that alone in her chamber Jean Blair was struggling against a despair which grew hourly more terrible—more awful? Many and many a morning when Collins entered her mistress's room, she would find her lying where she had fallen in the exhaustion succeeding her terrible passion and long night of tears, stretched white and shivering on her bed or on the floor, half disrobed, with her hair falling about her, and her wild eyes dry and glittering as they had been when she faced her own sorrow, until the light of the breaking day had crept in at the casement, and found her hushed at last by exhaustion. Many and many a morning had Collins lifted up the slender form, cold and shivering from the long exposure, and laid it on the bed, with tears in her own honest eyes and tender, pitying words, her heart bleeding for her mistress's awful sorrow; and once, when the maid had come into her room in the night, hearing the rapid, restless pacing to and fro, Jean had turned to her and flung herself into her arms in such a passion of heart-breaking tears that any sympathy was gratifying.

"Oh! hush, Miss Jeanie, dear," the woman had said, tenderly. "If the master were to come in, what would he think?"

"Do you think that he does not know that my heart is broken?" Jean moaned through her white lips. "He knows—oh! Collins, if I could die!"

"Hush! Miss Jeanie," Collins repeated—"hush, my dear, my poor dear! Happier days will come by-and-by."

"Happier days!" said Jean, bitterly. "Happier days can only come to me when he dies!"

And neither of the two women knew that in the dressing-room within, quick ears were drinking in poor Jean's despairing words, and that she would have to pay a terrible price for them.

Yes, that was the happy, blessed Mrs. Blair these girls envied, seeing her in her diamonds and laces at the head of her table, cold, smiling, serene! Ah! we all live two lives, some one says. It was true, at least, of Andrew Blair's wife—one life was calm, passionless, cloudless; the other, the real inner life, racked with misery, tortured by pain, until Jean wondered that her brain did not give way.

It was impossible but that her suffering should leave outward marks. The fever of her mind kept her eyes bright, glittering with fever, and her cheeks bright with one vivid red spot, which made her look well; but she grew daily thinner, the circles deepened her eyes, lines came into the fair, smooth brow, and the dry, burning lips had a sad droop pitiful to see.

Daily Collins remarked how rapid the alteration was, how slender and frail the small white hands were becoming, how languid each movement; and sometimes the maid thought, with tears, that the death for which she craved would not be long in coming, that the suffering which never gave her one moment's respite—even her sleep was troubled and haunted now with dreams of the past and visions of the present—would wear her to her grave.

It was just before luncheon that the Sholtos came—Lady Sholto, Ida, and Captain Murray in the barouche, his lordship driving over in his mail phae on Lord Ivor.

"Give me some water," she said, hoarsely, to Collins, who was watching her anxiously. "I am faint."

But the faintness was quickly conquered, and Jean went calmly down stairs to receive her guests, with the feverish lustre in her eyes, the hectic flush on her hollow cheek.

Mr. Blair was waiting in the hall, and a number of his guests had followed him, ostensibly to see the Sholtos, really to see how Mrs. Blair would meet her old love. In her heart Jean blessed their curiosity. It roused all her pride, and neither step nor voice faltered as she went forward to meet them.

"Ah! Florence—ah! Ida," she said, with her quiet smile. "Did you find it very cold driving? Your lordship is heartily welcome," she went on, giving her hand to Lord Sholto, and then passing on to the Earl.

His hand was unsteady as it touched hers; but though her fingers were cold as death they neither shook nor trembled.

The greeting was a very brief one. Lord Ivor turned quickly away to shake hands with some friends, while Jean went forward to Captain Murray, and gave him her hand, saying a few gentle words of congratulation in her soft, sad tones—not cold when she spoke to him—which made his own voice rather husky as he answered, and they all went in to luncheon together.

The meal was a gay one, informal as luncheon should be everywhere, especially at a country house; but gay, although the mistress of the house said little. Still she smiled often, and a pair of sad gray eyes, which often went to her face from their station, at the other end of the table, saw that the smile was utterly sad and forced.

Ida was by her side, looking very bright and pretty in the new found happiness of her lover and her engagement, and Jean spoke to her once or twice in a low, gentle tone, saying something which made her smile and give a happy glance down to Captain Murray's end of the table.

After luncheon the men went to the billiard room to pass the long afternoon, for it was snowing heavily; the women scattered to various occupations; books, work, gossip, music, and periodicals were brought into play, one or two went to their rooms to have a nap between whiles, and wake up fresh for afternoon tea and flirtation in the grand old hall, where it was generally served, and where the men would come dropping in from the billiard-room, and *tabagie* by-and-by. Jean sat in the drawing-room, with her calm, proud face, not making even a pretence of work; but talking as much as was necessary, and holding Lady Sholto's hand closely in her own. Twice she was disturbed by the arrival of more guests, and once when the Duchess of Glossin had concluded a panygeric on Blair Gates and its master, which she thought highly pleasing to her hearer, and to which Jean listened with her cold smile and the weary indifference in her eyes, Lady Sholto saw her rise, clutching at her throat as if something stifled her, and leave the room. In a few moments she returned, calm, smiling, indifferent as ever.

None of the gentlemen, save Capt. Murray, who was still too much in love to voluntarily exile himself for a whole afternoon from his divinity's side, came into the drawing-room during the afternoon; but when afternoon tea was served on the oaken table, drawn up close to the blazing log fire on the hearth in the great hall, with its antique armor and china, and great bear-skin and tiger-skin rugs, they sauntered in, and the ladies woke up from their sleepiness and brightened and sparkled. The stimulant of male society is wanted by many women to make them brilliant.

It was a pleasant scene, Lord Ivor coming in from the smoking room with his host, and Captain Murray thought how pleasant it was in the strange, dusky, half-lights, for the firelight alone illumined the groups gathered round the table. The graceful forms of the women in their pretty warm-colored winter dresses, with jewels on their slender fingers and white wrists; the men, bending with facile compliment and often unmeaning flattery over their chairs, handing tea in the delicate Sevres cups, and bread and butter, and macaroons. Pretty girls were smiling and blushing, Ida and Captain Murray in a settle near the chimney corner were talking in under tones, secure as they imagined, in their dusky corner, the fire was blazing up royally, casting old shadows and playing fantastic tricks with the armor on the walls and the deep stained glass windows, and Jean, in her long, simple, falling velvet dress, with soft laces at her throat and wrists, was standing, a tall, slight figure by the table, listening to the Duke of Glossin's rather stupid conversation, with her abstracted smile, and the firelight falling full on her face.

How beautiful she was; beautiful—more beautiful now than she had been in the days of her happiness. The fair face looked as if carven in stone, save for the fire in the great, somber, wistful eyes, her white hands were loosely clasped before her, on one of them she wore her wedding ring, her only one; she had ornaments of dead gold in her hair, at her throat and wrists, and a girdle of the same round her waist.

The Earl's eyes went to her with longing, pitying admiration, Mr. Blair's with some pride and triumph. If Jean were less beautiful than Emily Brett, she possessed that natural distinction and that proud grace of high breeding which can never be attained by any amount of study or patience.

"Does your lordship go in for tea?" said his host, carelessly to the Earl. "I never do, except at breakfast, and even then I must have my own particular brew made in a separate teapot. Go to Jean if you do, she will be pleased to give you a cup. She may think your example will convert me."

He sauntered away as he spoke, and Lord Ivor went slowly across the room to Jean's side, many admiring glances followed him as he went, and the Duke gave him his place with a slight bow, and took himself off. The Earl was looking pale and worn; but there was a smile upon his lips as he bent his handsome, fair head and asked if he might have some tea.

Jean gave him some, holding out the little fragile cup with rather trembling hands. As she tendered it to him their fingers met for one instant, and taking it from her the Earl turned away with an

abrupt gesture of pain, while Jean, her lips pale with emotion, bent down to answer some trivial remark from a lady seated at the table.

"What madness it was to come," said Lord Ivor to himself, as he went to his room to dress for dinner. "I only increase her wretchedness and rend my own heart without doing any good. That message she sent me that she was happy was not true one. Happy! my poor Jeanie. How could she be happy—here!"

CHAPTER XX.

DURING THE BALL.

THE ball was at its hight; strains of the softest, dreamiest dance music issued from the ball-rooms, light forms floated by in the airest and gayest of ball costumes, ices were being discussed, and champagne and *parfait amour*. Flirtations reigned supreme, vows were exchanged, vows professing to be eternal and lasting until "next time" only, flowers drooped their graceful heads in the heated air, soft voices rose and fell, deeper tones softened and grew tender under the magic influences of the hour, silver laughter rippled from coral lips, flowers were exchanged, little gloves given, tiny hands pressed, in this hour sacred to youth and happiness, where all was bright, and gay, and glad.

The ball was a success; no one could dispute that fact for a moment looking round at the flushed, happy faces and bright smiles. Her grace the Duchess of Glossin, moving through the room in her purple velvet dress, and diamonds on her bare, white shoulders, devoutly hoped that the entertainment at Glossin Castle would prove as successful. There were eligible men and pretty girls in plenty; the latter are seldom rare in an English ball-room, it is the former who are generally conspicuous by their absence; the dresses were all fresh and charming, the refreshments of a description which was full of promise for the supper by-and-by, the wine, perfection, the ices, Gunter's. What more could you have? Nothing; for the music was just what dance music should be, gay, bright, soft, inspiriting, and the floor had a delightful, elastic spring.

"A most delightful ball," said the Marchioness of Belwether, as she saw how much her daughters, Ladies Fannie and Margaretta, were enjoying themselves. "A most delightful ball, my dear Lady Melvil."

"Delightful indeed, dear Lady Belwether. No expense spared, nor trouble. I am sure we owe Mr. Blair many thanks for such a charming entertainment!" simpered Lady Melvil.

"It is a very good *debut*," said the Marchioness, coolly, fanning herself languidly. "I daresay, Mrs. Blair originated it, she was always fond of balls before her marriage. Where is she, by the way?"

"She was here a minute ago. Ah! there she is, talking to his Grace."

And Lady Melvil made a slight movement of her fan to the place where Jean was standing, talking to the Duke of Glossin, and looking as if her powers of endurance were near their end. She was dressed in sapphire blue velvet, high to the throat, where it was finished off by soft, filmy lace and a collar of diamond stars; on her arms, bare to the elbow, glittered the same precious stones, and in her hair was one creamy tea-rose.

"She looks well! What diamonds!" said the Marchioness, critically, and wished in her heart that Jean McLeod had left Mr. Blair free for one of her own daughters, for though by marrying him she had left one prize in the matrimonial market unclaimed, Lord Ivor did not seem inclined to profit by his liberty, not though Ladies Fannie and Margaretta, with their aristocratic outlines and cold blue eyes, would, either of them, have been charmed to surrender at discretion.

"Yes, she is a most fortunate woman," said Lady Melvil.

A fortunate woman!

Lady Melvil could not follow her as, a few minutes after, she left the ball-room, and went away swiftly and silently to her own boudoir, to drop for a few moments the mask she was forced to wear. Lady Melvil could not see her, as bowed upon the soft cushions, she covered her face with her frail, little fingers, to hide the tears which fell slowly but heavily on to the blue velvet of her dress. If she could she might have changed her opinion.

But if Lady Melvil did not follow her another did, and it was thus he found her.

Lord Ivor had watched her, unnoticed himself, closely; he had seen through the artificial smiles, and sounded the hollowness of her gaiety. He had seen how, at length, the forced smile faded, the graceful head drooped, and the little hands clasped themselves together in pain; then he saw her leave the ball-room, and, with an irresistible impulse, he had followed her, and, entering the boudoir after her, softly closed the door before she was aware of his presence. Standing there, pale and silent in the shadow of the dimly-lighted room, he watched her with an aching heart; he watched her as she fell, with an air of lassitude and exhaustion, on the cushions of her sofa; he saw how her hands went to her face, and how the tears fell through the frail, slender fingers, and he thought, with an aching heart, that he had no right to comfort her, no right to show her any sympathy, or offer any help.

No right, although he loved her with a love which would have held it a light sacrifice to lay down his life for her sake.

It was hard—it was bitterly hard.

Faintly the distant music came to his ears; there was a fragrance of roses on the air—roses in in the blue Sevres vases in the boudoir.

At length she rose, staggering a little, as if faint and dizzy; then, crossing the room, she threw open a window, and as the cold wind blew into the room, bringing with it a thick rush of snow, she leant out into the dark night.

But she was softly drawn back, the window was closed by a firm, gentle hand, and, white, giddy, half-stupefied as she was, she felt two tender arms enfold her, and a tender voice chided her softly for her imprudence.

"Archie!" she said, faintly, pushing her hair from her brow dizzily—"Archie, is it you?"

"Yes," he said, softly. "Yes, my darling!"

She lifted her eyes to his, and saw him through the mist which obscured her sight—saw that he was pallid as death, worn and sad; and she forgot everything save that he was with her again, and that she loved him.

"Oh! my love—my love!" she said, and fell on his neck, and clung to him like a tired child, with her head upon his breast.

There was a long silence then, broken only by the moaning of the wind without and the sound of the distant music. His arms were still around her as they stood, her face still buried on his breast.

Then suddenly she remembered; a burning flush colored her white face, then fading, left her whiter than before, she strove with her little feeble hands to unloose his clasp, and put his arms from around her: there was a dull, confused singing in her ears, something which seemed to tell her that he ought not to be near her, to hold her thus—to hold her, another—another man's wife; and at the thought she shrank away from him with a little cry of shame.

Lord Ivor guessed her thoughts; he loosened his arms from around her, suddenly and completely, and moved away from her a few paces.

"Forgive me," he said, in a low tone of pain—"forgive me!"

The tone of sincere contrition and humility struck home to the aching, suffering heart. His sin had been but slight after all, the forgetfulness had been momentary.

"I saw you leave the ball-room," he said, in a moment, speaking more calmly, but in a tone still low; "I ventured to follow you. I was wrong, perhaps; but I feared you were ill. Do you forgive me?"

"Oh! yes," she said, faintly, and facing him, with one hand raised to her throat as if the diamond collar choked her,

"I could not resist the temptation," he said, hurriedly. "I wanted to see you one moment alone, and there are so many calls upon your attention."

The tone of ceremony, of distant politeness was hard to maintain; he paused abruptly. Jean, looking up, met his

"Eyes of dangerous gray,"

and her own dropped.

"You sent me a message by Florence," he went on, less calmly. "You said you were well and happy. I came here, Jean, to see with my own eyes the truth of your assertion. Your falsehood was kindly meant," he added, with a weary sigh; "but it was a falsehood, Jeanie. One glance at you undeceived me. You are neither well nor happy!"

"You look ill," she said, hurriedly. "Do not talk of me. Tell me of yourself. Are you keeping your promise to me? It was not wise—it was hardly kind—to come, Archie; and yet I so longed to see you."

"Hush! dear," he said, softly. "Do not drive me from you at once—do not make it harder for me! My poor Jean, do you know what it has cost me to see you suffer thus and to know that I am powerless? It is hard," he went on, brokenly—"it is bitterly hard!"

He turned from her and walked the length of the room in silence; then coming back to her side,

"This man, your husband, he is kind to you?" he asked.

She bowed her head in silence.

"Yes, he is kind to me," she repeated, slowly.

"Jean," he exclaimed, with quick pain—"Jean, are you learning to love him?"

"I must first learn not to hate," she said, bitterly. "Oh! Archie."

"My child, I did not mean to hurt you," he said, softly. "Sometimes I wish you could love him."

"Love him!" she cried, bitterly. "Love him! I hate him with the bitterest hatred."

She drew herself up, clenching her slender hands in her earnestness.

"Oh! my child, hush; you have your life to pass with him," he forced himself to say, although the words were half suffocating him.

"Do you think I can forget that?" she said, passionately. "I do not need reminding."

"Would to Heaven I could help you," he said, pacing up and down. "It is maddening to see you—to see your face with its terrible sorrow, which you try to hide by smiles more terrible still; to see your strength fading; to know how you are suffering and not to be able to help you—not to be able to win back your peace."

"You think I am looking ill, then?" she said eagerly. "Oh! thank Heaven, life used to look so short when I was going to spend it with you; but now, however short, it will be too long. Look at my hand, it is almost transparent. Oh! Archie, don't, dear, it makes me so happy to think that perhaps it may soon be all over, and that I shall be at rest."

"Dear, you are breaking my heart," he said, sadly and brokenly.

"And yet if you love me you should be glad," she answered, sorrowfully. "To think that from this life, from which you cannot save me, death, more powerful than you, Archie, will release me."

"Jean, hush, you are tempting me horribly!" he exclaimed, hiding his face in his hands.

"Tempting you!" she repeated, faintly. "Tempting you! How?"

"Do you not understand?" he said, passionately, taking her hands in his, and almost bruising them in the closeness of his grasp. "You are tempting me to forget manhood and honor; you are tempting me to soil your purity by a thought unworthy of you and of myself. Jean, in pity, let me think you happy—let me think you happy, or the temptation will be beyond my strength."

"What temptation?" she said, faintly, hardly able to bear the passion of feeling at her heart, while the room went round and round her, and a mist came between her eyes and his beloved face, blotting it out from her gaze.

"The temptation to steal you from him, as he stole you from me," he said, with fierce sorrow. "To bring you, Heaven forgive me, to yet greater unhappiness."

She smiled at him as she scanned her face, smiled sweetly and sadly into his passionate eyes.

"You love too well," she said, brokenly; "and I love you too well to go with you, Archie."

He dropped her hands with a murmured "Pardon;" and Jean sank on the couch, white and strengthless, now that her passion had died away.

"You must leave me now," she said, feebly. "You will be missed. Do not look so anxious," she added, forcing a smile. "Dear, it is only what I deserve. Do you remember how I used to tease you by my flirtations in those old happy days, which seem so long ago—oh! so long ago? Do you remember how I vexed you by that drive with him, and how I threatened to marry him if I liked? How naughty I was, and how good you were!"

"Jean, you are torturing me!" he said, hoarsely.

"Am I?" she said, dreamily. "Forgive me, dear—forgive me, and leave me now."

He hesitated a moment. Her voice had been growing fainter, and her breath was coming in quick gasps. He was afraid to leave her thus; but there was no resisting the soft, mute prayer in the eyes lifted to his. He lifted her hand—the little, death-cold hand—which hung helplessly by her side, as she drooped upon the sofa, and touched it to his lips, turning from her with a face as white as her own, and, leaving the room with an uneven step; and as the door closed after him a charitable oblivion blotted out all Jean's sorrow for a few moments, as she fell back, fainting on the cushions.

The chill, reviving air from an open window brought back her consciousness a few minutes after. There was a cool sprinkle of some strong scent on her brow; and as she raised herself from her cushions, she saw that Emily Brett was standing beside her.

"You are better, ma'am," she said, quietly.

"Yes, I am better. I don't know what made me faint. I am tired, I suppose."

"The scent of the flowers was too much, perhaps, ma'am," suggested Emily, offering the *vinaigrette* she held; but her mistress pushed it away impatiently.

"I do not need it. I am better now. You need say nothing to—to—Mr. Blair about this, Brett."

"No, ma'am," was the quiet answer; and Jean rose feebly, and went back to the ball-room, to the lights and the laughter, and the glitter and the mirth, and forced her pale lips into smiles, and tried to seem as if she had her part in the bright pageant, and as if all the brightness had not faded out of her life.

"I cannot suffer much more," Jean thought to herself, wearily, when the visitors had departed and Blair Gates was quiet again. "I have drained the cup of misery to its dregs; it cannot contain much more bitterness."

But there was more to suffer yet. The cup was not yet empty. Almost the bitterest draught was to come—almost the bitterest for Jean, but quite the bitterest for those who loved her.—*To be continued.*

THIRTY REASONS FOR THE PROHIBITION OF THE TRAFFIC OF INTOXICATING LIQUORS.

1. They deprive men of their reason for the time being.
2. They destroy men of the greatest intellectual strength.
3. They foster and encourage every species of immorality.
4. They bar the progress of civilization and religion.
5. They destroy the peace and happiness of tens of thousands of families.
6. They reduce many virtuous wives and children to beggary.
7. They cause many thousands of murders.
8. They prevent all reformation of character.
9. They render abortive the strongest resolutions.
10. The millions of property expended in them are lost.
11. They cause the majority of cases of insanity.
12. They destroy both the body and the soul.
13. They burden sober people with millions for the support of paupers.
14. They cause immense expenditures to prevent crime.
15. They cost sober people immense sums in charity.
16. They burden the country with enormous taxes.
17. Because moderate drinkers want the temptation removed.
18. Drunkards want the opportunity removed.
19. Sober people want the nuisance removed.
20. Tax-payers want the burden removed.
21. The prohibition would save thousands now falling.
22. The sale exposes our families to destruction.
23. The sale exposes our persons to insult.
24. The sale upholds the vicious and idle at the expense of the industrious and virtuous.
25. The sale subjects the sober to great oppression.
26. It takes the sober man's earnings to support the drunkard.
27. It subjects numberless wives to untold sufferings.
28. It is contrary to the Bible.
29. It is contrary to common sense.
30. We have a right to rid ourselves of the burden.—*National Temperance Society Tract.*

RECENT LITERATURE.

Mr. Phillips' Goneness. By the Danbury News Man. Boston: Lee & Shepard. Price 50 cents.

THIS is one of the books for an idle hour. It describes characters in a country printing-office, and portrays several amusing incidents from the experiences of the editor of an out-of-town newspaper. The chief character is Mr. Phillips, who makes several futile attempts to declare his admiration for certain young ladies, who reciprocate his regard and cause him unprecedented embarrassment. The book savors of wit and descriptive power peculiar to its author, and in general tone is like earlier publications by the same writer.

MAGAZINES.

THE ATLANTIC MONTHLY for December completes an excellent volume and year of this standard magazine. Like the previous numbers, it comprises a judicious mingling of admirable stories, papers on practical subjects, essays of biographical and historic interest, criticism, and poetry. It opens with "Thirty-Seven Hundred and Fifty-Eight," a paper full of curious conjectures in regard to civilization, science, and religion when the Christian era is twice as old as now. "Kansas Farmers and Illinois Dairymen" presents some plain facts which will interest all who think of migrating to Kansas or Illinois. "Some of Us: A Southwestern Sketch" is a capital description of some typical Southern characters. Col. Waring contributes a useful paper on "The National Board of Health," stating what powers it has, what it has done and aims to do, and pointing out the injustice of sundry criticisms it has received. Hon. W. A. Phillips, of Kansas, describes "Three Interviews with John Brown." Clara Barnes Martin, under the title "The Greatest Novelist's Work for Freedom," shows Turgenef's noble record as a lover and champion of liberty. George Washington Greene gives "Reminiscences of George Grote," the great historian of Greece. Richard Grant White treats of "English Manners." An anonymous paper of no little interest is "The Man who was to have Assassinated Napoleon." The Contributors' Club is even brighter than usual, having a short essay on "The Burden of Charity Fair Journals," evidently by Mark Twain; and the reviews of new books are full, as usual.

THE ATLANTIC MONTHLY for 1880 promises to be better than ever,—having serial stories by Mr. Howells, Mr. James, and Mr. Aldrich, three of the brightest and most attractive American story writers now living, and all its other departments equally well filled.

ENGLISH MANNERS.—English people impress you first of all by a sense of the genuineness of their actions and of their speech. Warm or cold they may be, gracious or ungracious, arrogant or considerate, but you feel that they are real. Englishmen adulterate their goods, but not their conduct. If an Englishman makes you welcome, you feel at home; and you know that, within reason, and often out of reason, he will look after your comfort—that for your well-being while you are under his roof he considers himself responsible. And yet he does not thrust himself upon you, and you may do almost what you choose, and go almost whither you will. If he wants you to come to him, he will take more trouble to bring you than you will to go, and yet make no fuss about it any more than he does about the sun's rising, without which he would be in darkness. If he meets you and gives you two fingers, it means only two fingers; if his whole hand grasps yours, you have his hand, and you have it most warmly at your parting. His speech is like his action. His social word is his social bond; you may trust him for all that it promises, and commonly for more. If you do not understand him well, you may suppose at first that he is indifferent and careless, until something is done for you, or suggested to you, that shows you that his friend and his friend's welfare has been upon his mind.

The god of English social life next in dignity to mammon is propriety. Now propriety, rightly worshiped, is a very good god; his very rites are sweetness, order, decency, and in their practice they involve that consideration for others which is the highest form of morality, and even of piety. But the British Philistine (and all England is more or less given over to Philistinism, which invades the very social regions in which it is most dreaded and decried) makes propriety a Moloch, before whom he prostrates himself, and before whom he often makes his very children sacrifice some of the beauty of their youthful lives. The highest social aim, the greatest social Law, to this sort of Englishman is to do the correct thing. Having attained this, he feels that he has absolved himself of every social duty, and clothed his soul in panoply of proof. Whether the correct thing be really the right thing, he does not know, does not seek to know. That so it has been and that so it is, are for him both logic and religion. In his mouth the greatest reproach is "unprecedented;" the mere statement of the fact that an act has not been done before, that a word has not been spoken before, being to him its condemnation. Wherein re he lives his life surrounded by dead, shriveled forms, eyeless, brainless, bloodless, whose only voice is from the grave of a dead past. If he breaks away from this oppression, he is likely to run into extremes which violate all decency, all decorum, all propriety. Freed from his accustomed restraint, he is apt to add a grossness to vice which makes it more hideous, if not more harmful.—*Richard Grant White, in Dec. Atlantic.*

THE ELECTRIC REVIEW, published by the Pulvermacher Galvanic Co., of Cincinnati, Ohio is a large, handsomely illustrated publication, devoted generally to a popular exposition of the benefits of electricity as a remedial agent, and particularly to an explanation of the uses of the Pulvermacher galvanic belts, giving scientific reasons, (advanced by such men as Dr. Mott, Prof. Henry, Sir Henry Holland and others) why they should prove so efficacious in the treatment of most stubborn diseases. The review (sample copy) is sent to applicants free.

Domestic Economy.

CONDUCTED BY EMILY MAPLE.

LITTLE REPAIRS.

MRS. M. G. RAND.

Now is the time, before cold weather comes upon us, to make little repairs about the house and premises. If neglected until winter, when the short days are crowded with work, they will be imperfectly made, if made at all. If the gentlemen of the household have no mechanical skill, the services of a carpenter will be necessary. Before he comes, however, some member of the family should go through the house on a visit of inspection, and a memorandum should be made of whatever defects are discovered. Then, when the carpenter comes, he can commence work at once, and as soon as he completes one piece of work, he can, without useless delay, begin another, as the employer dictates. Having the work planned previously, will prevent a loss of time and patience on the part of the carpenter. It is a saving of time and money also to those who employ workmen, to furnish them *always* with some systematic plan for work.

The proper time for making small repairs, is just before the fall house cleaning. Every door and window, and the fastenings of each, should be examined, and if found out of order, "make a note of it." There are many houses in which the doors and windows have settled, so that they can be opened and closed only with difficulty. And they are allowed to remain in that condition year after year, because the owners lack order and perseverance. The best-built house will sometimes settle, but it will not, as a rule, regulate itself. Persons stopping at hotels will see cards of "Regulations" fastened to the inside of the doors of sleeping apartments. One of the rules is that the occupant of the room shall "*bolt* the door," to insure safety. But even in hotels, the bolt does not always strike right. The writer has seen a trunk rolled to the door to do duty in place of an imperfect bolt that might have been put in working order in five minutes' time.

If the front gate is out of order, *now* is the time to "fix" it. It is common to see a gate-latch so useless that a piece of rope must be used in place of the latch. Other gates have to be lifted bodily, because the hinges have given out, while others are down entirely, so that where cattle have free range, they find pasturage in front yards. The gate tells its own story. The surroundings of a home—gates and fences included—give an insight into the character of the possessor.

DISAGREEABLE AND AGREEABLE HOUSEKEEPING.

LORETTA E. K. TURNER.

I BELIEVE I have as much liking and admiration for neatness and cleanliness as any housekeeper; but there is an unpleasant style of neat housekeeping I neither like nor admire, where everything is put away and considered too good to be used, and where one is pursued with broom and dusting brush, from morning until night, while the housewife's high-pitched voice is incessantly bemoaning the awful amount of work she has to do. Now, if any one can be comfortable in such an establishment, she must be very insensible to the words of its mistress. I never knew one of these excessively neat housekeepers that was not a scold and a fault-finder—usually a thoroughbred virago.

I heard a lady once say that she liked to visit people who were extremely neat, for she went home inspired to do her own work more thoroughly. But I always feel uncomfortable for a month afterwards for fear I had set a chair out of its place, or left an unnecessary crease when folding my napkin. Then, imagine my horror when such people visit me, and poke around into corners and closets and out-of-the-way places to discover something amiss, and woe to me if a spider has spun his web since my last visit with the broom!

Pray do not think that I am an enemy to order and neatness; for I truly admire both, and believe in keeping everything as clean as possible in a quiet, unobtrusive way, and letting well enough alone. Have home pleasant enough for one to rest in without continually thinking of the labor it takes to keep it in order, so that one can relish his food without swallowing with each mouthful a protest that it has been prepared at the expense of so much strength. I have thought sometimes I would rather go with one meal a day—and that a crust.

These extra-nice housekeepers so seldom get their work done, and sit down for a quiet, restful time! With an old, faded-out calico dress on—their dresses are always faded—sleeves rolled up and a distressingly homely apron on, they work from morning until night, cleaning where it is clean.

The other extreme in housekeeping is far more disgusting, where the breakfast table stands uncleared in the middle of an untidy, unswept room until the middle of the forenoon, and the one whose business it is to look after things stands or lounges around, looking out of the window or reading cheap novels, while she is adorned with a greasy, soiled dress, slippers down at the heels, and *bangs* done up in papers. While idling away the time, she knows she will have to do the work when it must be done, and suffers more in dreading it than in performing it, for it is harder to look forward to than to do.

If work is done when it ought to be, and done properly, a woman of ordinary abilities, with reasonable health, ought to keep house for a small family and have many hours of rest, ease and comfort.

DOMESTIC RECIPES.

Beef Steak.

I think there is no way of cooking beef-steak like the following: Pound it, if you choose, but it is not necessary. Place it in a frying pan over not too hot a fire, and let it steam, having it covered closely. Do not add any water. After half an hour, or more, remove the cover, salt; add a good lump of butter, and fry until done. Care must be taken not to burn it while frying.

Soup.

The richness of soups, should depend upon the stock, that is, the jelly obtained by boiling the meat, and not at all upon the fat, which should be carefully removed. Many people would as soon think of eating a tallow candle, as soup with grease floating on top. It seems fully as palatable to a civilized palate. All sorts of vegetables may be added to the soup, according to the taste of those who are to eat of it. Onions are extremely disagreeable to many people, and turnips are to others. The vegetables are chopped fine and boiled till well done. Soups may be thickened with rice, barley or vermicelli.

Force Meat Balls.

Chop lean veal fine, together with a little raw pork; season the meat with salt, pepper, curry powder or cloves. Make it up into balls the size of half an egg. Boil part in the soup fifteen minutes, and fry the remainder and serve up in a separate dish.

Quick Cake.

A favorite cake of ours is made in the following way: One cup of sugar; one egg; one half cup of sour milk; a little over one cup of flour; one teaspoonful of soda and one of cream-of-tartar. Bake in a quick oven. This is nice for jelly-cake, when baked in thin cakes and excellent when chopped raisins are mixed with the jelly. Or, it may be put together with a rich custard, but I often bake in one loaf. Raisins may be added to the loaf if desired.

Scalloped Oysters.

One quart of oysters to two quarts of rolled crackers; a good quantity of butter, and salt and pepper. Enough oyster juice to moisten them well. Bake until brown. L. E. K. T.

Flat Jacks. (Griddle Cakes.)

For many years I tried in vain to get some "Flat Jacks" that would taste like my mother's did some fifty years ago; but never felt that I succeeded till a week ago.

I think the secret is this: I now put in the mixing milk about one third of good cream, and for a small dishful I add one egg. One should be careful not to get too much flour in them, as that will impair the nice flavor. There is such a difference in flour, that I would not dare to give the measure for a certain measure of milk, as some flour does not swell as other varieties do. A cook must have some experience as well as common sense in order to make good cakes. The best of flour, too, makes the best cakes—not the finest by any means. AUNT FLORA.

QUESTIONS ANSWERED.

A subscriber wishes recipes for polishing a rosewood piano and walnut furniture.

ANS.—To *polish the piano:*—Saturate a piece of chamois skin in sweet oil and apply faithfully to every part. Then, with a dry skin rub well, renewing the pieces as they become greased with the oil. It will require one hour, or even longer, of constant rubbing to give it the gloss desired.

Polish for Walnut Furniture:—Take three parts of linseed oil to one part of spirits of turpentine. Put on with a woolen cloth and when dry, rub with woolen. The polish not only covers the disfigured surface, but restores the wood to its original color and leaves a lustre upon the surface.

Cement for Lamps.

Mrs. M. L. wishes a recipe for a cement for kerosene lamps.

ANS.—Three parts resin, one of caustic soda and five of water. Mix this composition with half its weight of plaster-of-Paris. It will set firmly in about three-quarters of an hour,

The cement commonly used is simply plaster-of-Paris, which is porous and quickly penetrated by the kerosene. The above mixture is said not to have this defect.

BRIEFLETS.

The Western Rural thinks that a pair of rapid walkers (horses) will pay the farmer far better than a pair of fast trotters, so far as his own work goes. . . The farmer will find more profit in breeding carriage horses than he will in breeding trotters. . . It will not pay once in a hundred times to breed trotters. . . "It is significant of much," says the London Gazette, "that the two greatest novelties in dairying—the deep-setting of milk and the patent separation of cream by machinery—should be foreign and not English discoveries." . . Why do we not hear more of the Beurré Coit Pear? . . Give us, foremost, agriculture and horticulture; then we will talk of politics and all lesser topics, if we have time. . . Our "Monitor" churn was thought well of at Islington. . . Prof. Caldwell states, in the N. Y. Tribune, that parsnips appear to rank first in value for horses. In some parts of France this root is substituted for oats, 40 pounds being given in a daily ration. The horses maintain a good condition and the parsnips cost only a fourth as much as oats. . . Middlemen—Prof. Sheldon calls them vampires between producer and consumer. . . As seen on the grounds of Mr. Cobleigh (Geneva, N. Y.), Mr. Thomas Meehan would put the Brighton at the head of table Grapes. . . Poor Abies Menziesii! We had grown to prize its steel-colored leaves and peculiar looks in connection with *Menzies*. Dr. Englemann says we must drop it. If Colorado Menziesii, then we must call it Picea pungens; if Pacific Menziesii, then we must call it Picea Sichtensis. The worst of it all is that Abies are Piceas, and *vice versa*. How scientists do keep things in an uproar! . . Mr. Talbot says: "Graft a pleasant Apple upon a very sour apple tree, and the wood will be different from either stock or scion." . . Mr. Wood says: "The plan of ennobling fruit trees proceeds on the principle of grafting on superior stocks." . . The Germantown Telegraph says that there is no bird we have among us that destroys more insects infesting farms and gardens than the English sparrow. . . Notwithstanding all the modern improvements of husbandry, the matrimonial harvest is still gathered with the cradle and thrashed by hand—Toronto Graphic. . . By the way, why should not a circus have a chaplain just as well as Congress? Modern Argo. Or the Agricultural Fair? . . A Dutchman makes use of electricity instead of tobacco smoke with his swarms of bees from which he wishes to take honey. The bees, choked by the electricity, revive in from ten minutes to eight hours. But none are killed. . . FIFTY *patent cow-milkers* and yet milking done by hand! . . The Cal. Farmer recommends one-stroy dwellings for the delightful climate of California. These will save a deal of time, trouble and strength in running up and down stairs. "Besides, *one-story dwellings don't shake down* in an earthquake as easily as the lofty ones." . . Marshall P. Wilder thinks the Beurré d'Anjou the best and most profitable very late pear with which he is acquainted. . . According to the American Rural Home, Mr. Hayden, of Middlebury, N. Y. took from ten hives this season 1,100 pounds of box-honey. . . Many a politician who resembles a sturdy Oak in his native town, when he is telling his constituents what policy he proposes to pursue, becomes a mere Willow when he reaches Washington and mingles with our great American statesmen—Herald . . . It is one of the hardest things to make these BRIEFLETS fresh and interesting. . . It is not feathers of a standard color we want from poultry, but eggs and tender, juicy meat. . . The best way of getting a milking sire is to go to any good herd and bespeak the bull calf of their best dairy cow—London Gazette. . . Every farmer who owns a "sugar bush," should not neglect to tap his Maples the coming spring and make sugar and molasses; it is thought that the supply is less than one-tenth of the demand. . . Be sure that your bees have a liberal supply of good sealed honey for winter. . . Leave no more combs in the hive than the bees can cover. . . With due protection a hive may winter as well outside as in-doors. . . Use honey wherever you can in place of sugar and sirup. . . Equal parts of borax and salicylic acid, dissolved in 25 times their weight of distilled water, are a cure for foul brood. . . The price of fruit is rising, procure your winter supply at once. . . M. Waromin, a European microscopist, is reported to assert that club-foot in cabbages is caused by a fungus, which he calls Plasmodiophora brassicæ. . . We overheard one of two traveling agents (who had just returned from a "drumming" trip) say to the other: "The 'boom' extends all over the country. If you have anything to sell, you can sell it now." . . The Country Gentleman says that the exportation of dried fruit will not improbably exceed in future all other departments of the trade. . . Soot has been used to prevent the depredations of wire-worms with success. . . E. L. S. says, in Land and Home, that cooked food *and care* are better than uncooked food and *no care*. He finds no evidence worthy of the name, that *cooking* increases the digestibilty of cattle food. . . Pres. Abbott, says the last-quoted journal, is trying to find the best man for Professor of Agriculture in place of Prof. Ingersoll who was recently captured by Purdue University. We think Pres. Abbott has found him, and we hope he will not let him escape. . Mayor Freas considers the Dana's Hovey a superb fruit, possessing an aroma he has never found in any other pear. . . The Housekeeper asks, "What shall we do with our daughters? . . Professor Bessey of the Agricultural College of Iowa, has met with success in growing Lima beans without poles. He made them bush by the pinching process. . . There is nothing better than milk for fowls. . . The Weeping Willow (Salix Babylonica) is probably a native of China or Japan. The trees upon which the captives of Israel hung their harps were probably Poplars of some kind. . . Land and Home truly says that it is a lamentable fact that too many rural homes, too many farmers' houses lack many adornments, make the kitchen the center of all things, almost the only room for the waking hours, while their occupants not merely work to live, but apparently live to work.

News of the Week.

MISCELLANEOUS.

MONDAY, November 17, 1879.

Speculation is raging here beyond all recent precedent. The misfortune is that when the reaction comes, as come it must, it will not only affect these reckless gamblers, but will also fall upon the productive industries. For although the latter are in no way engaged in the madness when disaster follows, the money market will be everywhere disturbed, and general credit be damaged. Prudent men will keep clear of the maelstrom which almost inevitably destroys the majority of those who ever enter into its wild current. The cry for water goes up from many and various parts of the country. In some farming regions cattle are driven long distances to drink, or water is hauled in barrels for all purposes indoors and out. In many cities and villages active measures are being taken to relieve present want and guard against future drought.

Four persons formerly United States senators, ran for local offices in the West this fall. Ex-Senators Jones and Dodge, democrats, were defeated in Iowa. In Minnesota ex-United States Senator Wilkinson (rep.) was elected county attorney and ex-United States Senator Rice county treasurer, on the Republican ticket. The Postmaster General says lottery companies may expect no mercy, as it is the settled policy of the government to prosecute them to the extent of the law. The following is the condition of cotton, wheat, tobacco, and corn, as issued by the Department of Agriculture on Saturday last, the 15th inst.:

Cotton.—There was a decided increase in the condition of cotton during the month of October. Unfavorable weather was reported in Georgia and Alabama; in all the other States it was favorable. The returns indicate a yield per acre of 176 pounds lint, against 131 last year. This yield, estimating the area planted at 2 per cent. more than last year, would make a deficit in this year's crop of 290,000 bales of 450 pounds each. All the South Atlantic States show some decline. Texas falls off 35 per cent. All the States bordering on the Mississippi River show decided gains.

Wheat.—The returns of Nov. 1 to this department show an increase in wheat of 26,000,000 bushels over that of last year. This great increase is the result of the very large yield in all the States bordering on the Ohio River and Missouri. The North-western States show little variation from last year. Kansas and California both decline in yield. Texas, of all the Southern States, is the only one that falls off in yield this year.

Tobacco.—The indicated produce for the entire country is 98 per cent. of that of 1878. The gain has been greatest in Tennessee, Connecticut, and New-York, the loss greatest in Ohio, Missouri, and West Virginia, with a material decrease also, in Maryland, Illinois, and Indiana. In general, the quality is better than that of the previous crop, though damage to some extent from "house-burn" is reported from Kentucky and Virginia, and from frost in Ohio.

Corn.—According to the returns of Nov. 1 the corn crop promises an increase of over 200,000,000 bushels, or nearly 15 per cent over last year. The Atlantic and Gulf coast States notes some decrease, but the other portions of the Union have greatly increased their yields. The Southern Inland States increased nearly 30 per cent, and the other parts of the Mississippi Valley nearly 20. The Pacific States report about the same yield as last year.

The New York grain trade board has decided not to carry into effect the cental system of measuring grain. With the advent of good times, prices of goods are going up. A table covering the prices of all the staples January 1, 1879, and October 18, published by the New York Commercial Bulletin, shows an average increase of 23 per cent. Textiles are omitted from the list, as the fluctuations have been small during the last nine months, or for a longer period. During the year ending November 1, the national bank circulation increased $15,000,000, one-half of which was in the last two months. The increased demand was almost entirely from the East. From January 1, 1874, to January 1, 1878, the bank circulation decreased $50,000,000, then it was stationary for awhile, now it is rising again on account of the demand for money.

New Orleans is considering a thorough system of sewerage, which will cost, according to the plans,

$1,500,000. A good system of sewerage would be as repellant to Yellow Jack as was Ben Butler. Kearney is organizing a secret society in San Francisco, whose alleged object is the hanging of all merchants who employ Chinese. Any attempts in that direction would put Kearney in the predicament in which he would have found himself, had he burned General Grant in effigy. Major Reno has been getting drunk again, insulting a married woman and fighting with brother officers, who in both cases whipped the sot. Only the clemency of the President prevented him from being dismissed from the service for a similar offense some time ago. He is again to be court-martialed, and whatever sentence may be imposed will this time, it is likely, be executed.

The total product from gold and silver mines in this country since mining began in California is estimated at $1,617,000,000. The value of staple agricultural products harvested this year alone is $100,000,000 larger. Alaskan explorers report one of the largest rivers in the world, the Yukon, as navigable for steamers 2500 miles, and at 500 miles from its mouth it receives a very large navigable tributary. The basin formed by the confluence is 24 miles wide. The Yukon is nearly as large as our Mississippi. Indians are everywhere, and war between tribes is a fixed institution. There is snow for six months, and without roads dog sledges find good traveling. Game abounds and the Indians have an easy life. The grand aggregate of the army roll is 2187 officers and 24,262 men in service and 388 officers retired. The Treasury's monthly statement shows the extraordinary decrease of $10,352,906 in the United States debt in October. Wonder if it is altogether accidental that so good a showing was made just before the elections.

A new association has just been inaugurated in this city for the sale of horses. The board of directors includes the names of some of the wealthiest and most noted lovers of horse-flesh in the city. Such as W. H. Vanderbilt, Leonard Jerome, etc., its object is to form a perfectly trustworthy medium for the sale of all kinds of equine stock here and abroad. Farmers and others throughout the country can become associate members by the payment of a small fee, and to all such members veterinary advice will be furnished *gratis*. By next week we shall be able to give our readers full particulars of the movement, which we believe to be a good one, tending greatly to their interest.

FOREIGN.

An alliance, it is reported, has been concluded between the Balkan Principalities, ostensibly against foreign intervention, but really against Austria. The treaty stipulates that, in the event of Austria extending her operations beyond Novi Bazar, Servia will furnish 120,000 men, Montenegro 20,000 and Bulgaria 90,000 to form an allied army, and that Servia will advance Montenegro 75,000 ducats for military expenses. The appointment of a commander-in-chief is left open for the present. It is believed that the appointment of a Russian general was originally contemplated. The war in South America between Chili, on one side, and Peru and Bolivia on the other, seems drawing to a close. At the Chilian legation in New York city Tuesday, the news of the capture of the Peruvian town Pesagua was confirmed. It is claimed that the capture was attended with important strategic results. The Chilians thus place themselves between the Peruvian forces at Arica, Tacara and Iquique and the sea, and cut off their supplies, thus forcing Iquique to surrender. Don Abelardo Menez, of the Chilian legation, says that Peru is greatly crippled. He expects that the recent Chilian successes will compel Peru to sue for peace.

The details of the capture of the Peruvian ironclad Huascar are given by a Lima letter. The Huascar carried 240 men, two 200-pounds rifled Armstrong guns in her turrets and two 40-pounders on deck, while her plating was four inches of iron. The Chilian iron-clads Encalada and Cochrane had each six 300-pounds rifled guns and nine inches of iron plating. They, with the gunboats O'Higgins and Loa, overhauled the Huascar and the gunboat Union, October 8, but the latter escaped by her superior speed. A terrific fight ensued in the harbor of Mejillones, and the Huascar was crushed, captured and towed away, after badly damaging her adversaries. The loss of life was great. Peruvian Admiral Grau was killed early in the action, and his executive officer, Capt. Aguirre, was fatally wounded, while only four other Peruvian officers are reported as surviving. Admiral Grau's wife died from the shock of hearing of her husband's death. The loss of the Huascar is severely felt in Peru, but the war enthusiasm is increased, and a commission has been sent to Europe to purchase new vessels and armaments. In Lima 200,000 solos have been subscribed for a new iron-clad, to be called the Admiral Grau.

In Europe the German-Austrian alliance is still the subject of most interest. To counterbalance it, there is a good deal of talk of a coalition of the Latin nations—France, Italy, Spain and Portugal. Reports vary greatly as to the health of Bismarck—some say he is much prostrated and in poor condition; others that he is as well as ever. England seems to be drawing closer than usual to the new Teutonic alliance, and receding just so much from her late friendship with France. The floods in Spain still divide attention with the approaching marriage of the King. The destruction of life and property was even more widespread and disastrous than was at first imagined.

Yakub Khan is now on his trial for complicity in the massacre of the British in Cabool, and evidence is fast accumulating against him. It seems it was not the original intention to murder Cavagnari and his followers; but merely to so frighten them—killing perhaps a few—that they might consider their lives insecure at Cabool, and retire to India. The soldiery, however, having been urged on to assault the residence of the British were exasperated by the vigorous fusilade opened upon them, and in their wrath at the death of upwards of 200 of their number by the handful of English, they went further than was intended, and finally the Khan in his alarm, permitted the destruction of the entire party, on the ground that dead men tell no tales. At present he is a close prisoner and if convicted will probably remain so for his lifetime.

A Favorite Youth's Paper.

The *Youth's Companion*, of Boston, has steadily grown in public favor for more than fifty years, and is now one of the most admirably conducted papers in the country. It has recently been increased in size, and is illustrated by our best artists.

SUDDEN CHANGES OF THE WEATHER often cause Pulmonary, Bronchial and Asthmatic troubles. "*Brown's Bronchial Troches*" will allay irritation, which induces coughing, oftentimes giving immediate relief.

Nervous people should avoid the temporary relief of tea and coffee. A cup of pure Cocoa will be found nutritive as well as sedative. Insist upon your grocer's furnishing Walter Baker & Co.'s preparation.

Inaction of the Kidneys and Urinary organs causes the worst of diseases which Hop Bitters cure.

Correct your habits of crooked walking by using Lyon's Metallic Heel Stiffeners.

THE MARKETS.

PRODUCE AND PROVISIONS.

NEW YORK, Saturday, Nov. 15, 1879.

BEANS AND PEAS.—Receipts of beans have arrived liberally and though the market is not actually weak, prices have not the loud outside snap that has prevailed. Many holders of special marks of standards are asking last week's prices regardless of the enlarged offering. After all the lull is a natural one and might be expected after the recent prompt wholesale outlet. Green peas have a fair demand at $2 strong; Southern B. E. peas quiet at $2.30@2.25. Old marrow peans, $1.50@1.55; new, $2; medium, $1.00@1.80; pea, $1.80@2.10; white kidney, $1.95@2.20; red do., prime, $1.95@2; poor, $1.50@1.85; black, $2.

Receipts of beans for week, 12,156 bush. exports 1,100 pkgs.

BROOM CORN.—There is a quick sale and a strong market. Quotations are for brush and short broom, choice, per lb., 5½@6½c.; do., common to good, 4½@5c.

BUTTER.—Receipts for the week, 36,791 pkgs. Exports, do. 4,630 do. The strong holding rates of all stock of table merit has checked consumption to some degree, and there has been latterly some yielding in under grade State. This feature, however, is not a prevailing one and is hardly noticeable in finest creamery and fresh ends or tops of dairies. Several very warm days have given buyers some advantage where receivers were well stored up. Parcels on the floor or sidewalk have not shown well on the tryer, and when such lots were in treaty concessions have been made. Dealers look for an active demand from the East this month, though prices are in ranges not attractive to thrifty New England buyers. Firkins have a good movement for Southern use. Western dairy and factory have worked up to points that ought to draw forward better grades than the stock exhibits. Shippers are using some Western, but will have to wait for orders before they handle State at present hint prices. Rolls open with a good inquiry. The demand for this old-fashioned style of stock need never have fallen off if so many bogus lots had not been intruded upon the market. Genuine, clean wrapped rolls should always find a sale. Packing them without cloth is always detrimental. Use new, undressed muslin, and pack in half-bbls. when practicable. We repeat quotations:

State, pails and tubs, single dairy marks, fresh ends, choice, 34@35c.; best invoices, 32@33c.; good to prime, 29@31c.; fair to good, 26@28c. firkin and tub single dairies, choice, 31@32c.; do., dairies good to prime, 28@30c.; do., firkins, choice dairies, 28@30c.; do. good to prime, 26@28c.; do., fair to good, 24@26c.; Welsh tubs, best invoices, 29@30c.; do., good to prime, 26@28c.; do., fair to good 24@26c.; State, tubs, poor, 20@23c.; State creamery, best invoices, 37@38c.; do., good to prime, 34@36c.; do., sweet cream, best, 35@36c.; do., fair to good, 30@34c.; Creamery, poor to fair, 28@30c.; Western, imitation creamery, 29@33c.; do., dairy, fresh, extra, 26@28c.; do., dairy, good to prime, 24@25c.; do., fair to good, 21@24c.; poor to fair, 18@21c.; do., best invoices, June, 21@23c.; do., fair to good June, 18@20c.; do., best invoices, late made, 22@23c.; do., fair to good, 19@21c.; do., poor to fair, 16@19c; Roll butter, prime, 25@26c.; do., fair to good, 22@23c.

CHEESE.—Shipments for the week are only 23,600 boxes. This very moderate movement has failed to disturb prices of really fancy lots, but otherwise there has been more of a disposition to meet buyers. Choice stock is generally 12¼@12½c.; but an occasional lot reaching 13c.

Quotations are for State factory: Fancy, 12¼@13c.; good to prime, at 11¼@12¼c; fair to good, at 10¼@11¼c.; half-skimmed at 9@10c.; skimmed at 5@7c. State farm dairy: Fine at 12@12½c.; good to prime at 10¼@12c.; fair to good at 9@10¼c.; skimmed at 4@8c. Wis. factory: Fine at 12½@12¾c.; good to prime at 11¼@12¼c. Ohio factory: Cheddar, fine, at 12¼@12¾c.; do., fair to good, 10¾@11¼c.; flat, fine, 12½@13c.; flat, good to prime, 11¼@12¼c.; flat, fair to good, 10@11¼c.; half-skimmed, 8@10c.; skimmed, 3@7c.

Receipts for week, 38,948 boxes; exports, 24,415 do.

Cable quotations advanced to 63s.

COTTON—Has been unusually active and as a rule advancing, closing at for Nov. 12.33@12.34c.; Dec. 12.36@12.37c.; January, 12.41c.; February, 12.55c.; March, 12.68@12.70c.; April, 12.81@12.82c.; May, 12.99@13.01c.; June, 13.12@13.15c.; July, 13.21@13.24c.

Quotations for spot cotton are based on American standard of classification, and on cotton in store running in quality not more than half a grade above or below the grade quoted.

	Uplands.	*N. Orleans and Gulf.*	*Texas.*
Ordinary	10 13-16	10 15-16	10 15-16
Strict ordinary	11 3-16	11 5-16	11 5-16
Good ordinary	11 9-16	11 11-16	11 11-16
Strict good do	11 13-16	11 15-16	11 15-16
Low middling	11 15-16	12 1-16	12 1-16
Strict low middling	12⅛	12⅛	12⅛
Middling	12⅛	12⅛	12⅛
Good middling	12⅜	12⅜	12⅜
Strict good middling	12¾	12¾	12¾
Middling Fair	13⅛	13⅛	13⅛
Fair	14	14⅛	14⅛

STAINED.

Good ordinary....11	Low middling....11 11-16
Strict good ordinary...11⅛	Middling....11 15-16

DRIED FRUITS.—Apples have an active demand and rule very strong in price. Peaches are in freer demand, and favor sellers. Small fruits meet with a good sale.

New North Carolina apples, quoted at 6½@8c. for fair; 8½@9c for choice; 10@10½c. for fancy sliced. Patent evaporated apples, choice, in cases, 13½@14c.; do. fair to good, 12@13c.; N. Y. State sliced, new, 8@8¼c.; quarters, choice, 6½@7c.; western quarters, common and old, 4@4½c.; new southern quarters at 4@4½c.; new N. C. peeled peaches at 15@17c.. do. Georgia, 13@16c. Peaches, Delaware evaporated, peeled at 25@28c.; do. unpeeled at 12@14c.; new halves at 8c. Blackberries at 10c. for new. Raspberries at 28@29c. Pitted cherries at 19c.

Exports for week, 125 bbls. apples.

EGGS.—Receipts for the week, 13,068 bbls.; do. last week, 10,750 do. A continuance of mild weather has had a detrimental effect upon general sales; a few receivers of extra fresh or marks high in repute quote the extreme stiffly. The bulk of supplies, however, indicates holding, and buyers will not take hold freely. Limed quoted as before, but as high as they can stand.

Near points, 25@26c.; State and Penna., 22@23c.; Canadian and Western, choice 20@21½c.; off grades, 19@20c. Southern begin to show; prime quoted, 20@20½c.; limed, State, 17½@18c.; Western, 16½@17c.

FLOUR.—There has been less life to the market and prices have ruled easier, but closed more active and stronger.

Latest prices are: $4.70@5.15 for inferior to fancy superfine State; $5.50@5.90 for inferior to good extra do., odd lots and lines; $5.50@5.90 for good to very choice do.; $4.65@5.15 for inferior to very choice superfine ind., Iowa, Michigan &c.; $5.25@5.60 for inferior to good shipping extra do., and $5.60@5.85 for good to very choice shipping extra do.; inferior to about choice white wheat extras, $5.65@6.65; choice to fancy do. at $6.65@7.85; red and amber winter wheat, inferior to fancy trade and family, at $5.65@7.60; round hoop Ohio, $5.40@5.85, and trade and family brands of do. at $5.90@7.65, the latter rate for fancy; St. Louis at $5.65@6.65 for inferior to very good extra; $6.65@7.85 for very good to very choice; Minnesota clear, very inferior to fancy, $5.25@7.40; Minnesota "straight," very inferior to fancy, $5.85@7.50, and patent poor to very fancy at $6.10@8.50; unsound stock at from $3.65@5.75; city mill extra at $6.25@6.65 for common to very choice for West Indies (fancy do. quoted at higher figures); do. for England, $5.25@5.75 for poor to choice; do. trade and family extras, $6.25@7.25; do. for South America, $6.40@6.75; No. 2 at $4.00@4.60 for poor to fancy.

FRESH FRUITS.—Prime apples of solid keeping quality are not pressed for sale, now that receipts are falling off. Kings are very scarce; they have obtained a valuable reputation as a fine fall apple. Lady apples are in very early; no steady quotation. For stock fruit the market will have to depend mainly upon Greenings and Baldwins. Spitzenburgs and Fameuse are scarce, and will be held for holiday use. Cranberries quiet, but firm; warm weather curtails wants. Pears of not much commercial importance. Rochester is sending some fine Duchess. Quinces dull; high sugar has checked demand for ordinary preserving. Grapes low as before. Fla. oranges quoted, but they are of poor, irregular quality, thus early. Peanuts in good demand; other nuts dull.

Apples—Kings, State, good to choice, per bbl., $3; Baldwin, $2@2.50; Greening, $1.87@2.12; winter mixed, good to choice, $2@2.25; poor to fair, $1.25@1.75; Jersey, fair to good, $1.25@2. Cranberries—Cape Cod, fancy, per bbl., $7@7.25; good to choice, $6.25@6.75; fair to good, $6@6.25; Eastern, large round hoop bbls., fancy, $6.50@7; do., fair to choice, $5@6; Jersey, fancy, per crate, $1.87@2; good to choice, per crate, $1.50@1.75. Pears—Vicar of Winkfield, per bbl., $2.50@3.50; Lawrence, $4@4.50; Boston, choice varieties, per box, $2.00@4.50; cooking $1.75@2. Quinces—State, choice, per bbl., $5@6; poor to fair, $3@4.50. Grapes—Catawba, State, 18 3-lb. boxes, $1.50@2.25; do., loose, per lb., 3@5c.; Isabella, State, 18 3-lb boxes, $1.25@1.75; bulk, per lb., 2@3½c. Oranges—Florida, choice, per ½ bbl. crate, $3.50@4; fair, $2@3; choice, per bush. crate, $2.50@3; fair, $1.25@2. Peanuts, Va., new, hand-picked, per lb., 5@5½c.; new, extra prime to fancy, 4@4½c.; do., good to prime, 3½@3¾c.; shelled - new, 4¾@5½c.; old, 5¼@5¾c.; Chestnuts, per bush., $2@2.25.; Hickory, shellbark, $1; do., Ohio, 87c.@$1; B. walnuts, 40@50c.; Pecan nuts, per lb., 9@9½c.

Exports for week, 15,439 bbls. apples.

FURS AND SKINS.—Dullness abroad and large stocks carried over will tend to start a low market here this season.

No. 1 quality.	Nor. & East.	W. & S. W.
Otter, each	$5.00@7.00	$4.00@5.00
Grey Fox	55@ 65	40@ 50
Red Fox	1.15@1.25	1.00@1.15
Black Bear	5.00@8.00	4.00@7.00
Cubs and yearlings	2.00@4.00	1.50@3.00
Fisher	5.00@7.00	4.00@6.00
Mink, dark	1.00@1.25	50@ 70
Mink, pale	50@ 60	30@ 40
Muskrat, winter	10@ 12	9@ 10
Muskrat, fall	7@ 8	5@ 7
Kilts	—@ 2	—@ 2
Beaver, per lb	1.50@2.00	80@1.25
Raccoon, each	50@ 60	40@ 50
Opossum		5@ 15
Skunk, black		60@ 70
Skunk, half-striped		35@ 40
Skunk, striped		15@ 20
Skunk, white		8@ 10

GRAIN.—Wheat closed active and higher: latest sales are of No. 2 amber at $1.40@1.40¼; ungraded amber at $1.34@1.41; No. 1 white at $1.39½@1.40; do. for November at $1.39½@1.40; do., December option, at $1.42¼@1.43¼; do., January, at $1.46¾@1.47; ungraded white at $1.33@1.38; No. 2 red at $1.40¼@1.42¾; do., November option, at $1.41@1.42; do., December option, at $1.43@1.45; do., January option, at $1.47½@1.48; No. 3 red at $1.33; ungraded red at $1.24@1.31; No. 2 Milwaukee at $1.32@1.33; No. 2 Chicago at $1.21; New York No. 2 spring, at $1.29@1.30; do., November option, at $1.31; do., December option, at $1.34; No. 2 northwest spring, November, at $1.32; do., December, at $1.35; No. 3 spring, at $1.25@1.27; ungraded spring at $1.20@1.33. Rye is quiet at 86c. for Canada. Corn has a better inquiry, and prices are higher and closed strong; sales of New York No. 2 at 58¾@59¼c.; do., November, at 59c.; do., December, at 60¾@60½c.; New York steamer mixed at 57½@57¾c.; do., December, at 56¾@57c. ungraded Western mixed at 58¾@59¼c. Oats have a good demand and prices firm; latest sales are of New York No. 2 white at 45¾@45½c.; New York No. 3 white at 44¾45c; New York No. 1 at 44@45¼c; New York No. 2 at 45@45¼c.; do., do., December, at 35½c.; New York No. 3 at 44@44¼c.; New York rejected at 41@42c.; ungraded white Western at 46c.; mixed Western at 41@44½c.; white State at 45@49c; mixed State at 47c.; No. 2 Chicago at 45c.

HAY AND STRAW.—Trade is quiet and prices are firm throughout

Shipping hay quoted at 50@55c.; retail lots at 60@75c. for medium, and 75@85c. for prime; clover at 40@50c. Straw at 75@80c. for long rye, 50@55c. for short rye and 45@50c. for oat.

Exports for week, 1,100 bales.

HONEY—In fair demand; prices somewhat firm. White clover, single comb, 18@19c.; larger pkgs., 14@15c.; buckwheat, 12@14c.; extracted clover, 11@13c.; strained, 8@10c.

HOPS.—Emmet Wells in his circular says: "The activity which has characterized the market for several weeks past has almost entirely subsided. The late advance in values is the direct cause for the present lull, shippers now claiming there is no margin of profit for them, prices now being higher here than in London, and until there is a corresponding advance in that market no fresh orders can be executed. The hops now coming into market are mostly those of last month's purchase, and the same goods will be forwarded on to London to complete old orders: that done, the export traffic will cease until it again shows a profit to the operators. Brewers are taking a few new hops right along, and without grumbling at the price: and a characteristic feature of the trade with them is that the higher the price the less fault do they find with the quality. We hear of no concessions or giving away in price; on the contrary, the market shows as much firmness as ever, and it is the belief of many that the present lull is only temporary, and that before the new year we will see higher prices."

Quotations are for New Yorks, new crop, choice, 45@47c.; New Yorks, new crop, medium, 40@43c.; New Yorks, new crop, low to fair, 35@37c.; Eastern, new crop, 35@45c.; Wisconsin, new crop, 35@45c.; Yearlings, 7@18c. Olds, all growths, 4@10c.; Pacific coast, new, 40@45c.; Pacific coast, olds, 9@14c.

OIL-CAKE.—Western is quoted at $32.50@33.

POULTRY AND GAME.—Live poultry has merely the passive market incident to date. Fowls and chickens range at 7@8c.; turkeys, 8@10c.; roosters, 4c; ducks, 10@70c. ₱ pair. Geese, $1@1.50; the latter for N. J.

Dressed poultry has met several unfortunate warm days that has spoiled both stock and demand. Quotations are very low, but are full for doing business. Many stale lots of Western have been condemned. We repeat for the benefit of new shippers whom this paper will reach, have Thanksgiving stock here by the 25th at latest.

Turkeys, Jersey, good to prime, 11@12c; State, Mich., Northern Ohio and Penn., prime, 10@11c.; other Western, prime, 10@11c.; fair to good, 6@9c.; poor, 3@5c.; Phila., dry-picked, 12c.; do., chickens, 11@12c.; do., Jersey, per lb., 9@10c; do., State, Mich., Northern Ohio and Penn., prime, 8@9c., do., poor to fair, 3@7c. Fowls, Phila., dry-picked 10c.; Jersey, good to prime, 7@8c.; poor to fair, 4@7c. Ducks, Phila., dry-picked, 11@12c.; Jersey, 11c.; State, 9@11c.; Western, 9@11c.; do., geese, spring, 9@10c.; Jersey, 9@10c.; Western, 5@8c.

Game is all more or less badly weather-blemished, and prices have ruled irregularly.

Quail, prime, ₱ doz. $1.50@2; do., soft, 60c.; Partridges, State, prime, ₱ pair, 70@75c.; do., soft, 25@50c.; Western, 25@60c.; Grouse, undrawn, prime, $1@1.12; prime, drawn, 65@80c; Wild pigeons, ₱ doz., 25@75c.; Tame squabs, light, $1.50@1.75; dark, $1@1.25; Pigeons, live, ₱ pair, 20@25; shot pigeons, ₱ doz., 75c@1; woodcock, State, ₱ pair, 20@30c.; English snipe, ₱ doz., $1.25@1.50; plover snipe, $1.25@1.50; large yellow leg snipe, $1.25@1.50; small, 50c.; Sand snipe, 40c. Wild ducks, Havre de Grace canvas, $1.25@1.50; Red heads, 40@50c.; black heads, 20@30c.; Western canvas backs, $1@1.25; do., red heads, 30@40c.; do., Mallards, 30@40c.; Teal, 25@35c.; wood and common, 15@20c. Venison, Minn., saddles, 10@11c.; other, 8@10c.; Venison, carcasses, 4@6c.; Hares, per pair, 25@35c. Rabbits, 20@25c.

PROVISIONS—Have tended higher on more active dealings. Mess pork quoted, $10.90@10.95 for Nov.; $10.90@11 for Dec.; $10 97½@11.05 asked for sellers' option, old or new, for Jan.; $12.35@12.45 for new do. for do., and $12.45@12.50 for February. Bacon at 6@6.20 for long clear and $6.37½ for short clear. Beef—Plain mess at $10.50@11; extra mess at $11@11.50; packet at $13@13.50; tierced beef, city extra India mess, at $24@26; and Philadelphia do. at $23@24. Beef hams at $15.75@16. Tallow at 7¾c. for prime. Lard—Western steam at $7.35 for spot lots, $7.30@7.32½ for Nov. and Dec. $7.47½ for January. Stearine at 7½c. for prime Western.

SEED.—Clover is strong at 8¾@9¾c. for good and prime and 10@10¼ for fancy. Timothy is quiet at $2.60@2.75.

TOBACCO.—Trade continues slack in Western, and prices are unsettled; Seedleaf sells well.

KENTUCKY LEAF.	Light.	Heavy.
Common lugs	3½@ 4	4½@ 5
Good lugs	4½@ 5	5½@ 6
Low leaf	5½@ 6¼	6½@ 7¼
Medium leaf	7 @ 7¾	8 @ 8½
Good leaf	8 @ 8½	9 @10¼
Fine leaf	9 @11	11 @ 12
Selections	12 @—	12½@14

SEEDLEAF.	Crop of 1877.	Crop of 1878.
New England Havana seed	—@—	22 @30
do. wrappers, common	13½@15	13 @15
do. do. medium	16 @17	16 @18
do. do. fine	18 @25	20 @25
do. do. selections	27½@35	27½@35
do. seconds	—@—	11 @14
do. fillers	—@—	6 @ 7
Penn. assorted, common	—@—	10 @12
do. do. fair	13 @14½	13 @15
do. do. fine	15½@18	17 @22
do. wrappers	20 @40	—@—
do. fillers	9 @10	8½@ 9½
N. Y. ass't'd, com. to medium	—@—	—@—
do. do. do. good	12 @15	12½@15
Ohio assorted	9 @12	8 @14
Ohio wrappers	12 @18	—@—
Wisconsin assorted	8½@10	8 @12
Wisconsin Havana seed	—@—	16 @20

VEGETABLES.—Exports of potatoes for the week, 7,162 bbls. The market for potatoes is gradually improving, though perhaps the higher rates is to some respect due to some higher grade quality now offering. Onions came forward freely after the late advance, and have declined. Early Rose, Maine, per dish bbl., $1.87@2; State, $1.50@1.75; in bulk, per bbl., 1.37@1.50; Snowflake, per dish. bbl., $1.37@1.62; Peerless, $1.25@1.50; bulk, per bbl., $1.12@1.25; Jersey, 87c.@$1; Sweet potatoes, State N. J. and Del., per bbl., $2@2.25; Va. and Jersey, $1.25@1.50; squash, marrow, ₱ bbl., 50@75c.; do., Hubbard, $1@1.50; cabbage, per 100, $2@5.00; red cabbage, $3@6; onions, white, per bbl., $2.50@3; do., yellow, $2.25@2.50; red, Eastern, $2@2.25; do., Chester, $2@2.25 beets, Jersey, 75c.@$1; Russia turnips, $1; carrots, 75c.@$1; pumpkins, per 100, $2@5; cauliflower, ₱ bbl., $1@4; celery, per doz., $1.25@1.50.

WOOL.—There is a hardening market and a liberal demand; latest sales are of XX Ohio at 48½c.; X, XX, XXX, and No. 1 do. at 44@50c.; X State at 44@45c; tub washed at 53c.; fine washed at 44c.; spring California at 31c.; scoured do. at 62@68c.; fall and lambs' California at 21@34c.; spring Texas at 30c.; fall do. at 24½@32c.; scoured Territory and Texas at 64@71c.; Territory at 29@31c.; Oregon at 29½@36c.; Colorado at 22c.; black do. at 18@20c.; super pulled at 42½50c.; Cape at 25c.; Smyrna at 17@18c.

LIVE STOCK MARKETS

NEW YORK, Saturday, Nov. 15.

BEEVES.—Receipts for the week, 9,518 head; do. last week, 12,105 do. Lighter supplies have restored some steadiness to the market, but the advance is small over Wednesday's prices. The weather has been against meats of all kinds. This will prove a bad month for cattle in the aggregate, as another dull week must be counted upon for Thanksgiving, when poultry rules so much demand. Cherokee cattle sold at 7c.; medium to good native steers, 7¾@8¼c.; prime, 9@9¼c., to dress 56 lbs; a fine drove of 119 Illinois steers sold at nearly 9¼c. right through.

MILCH COWS.—Heavy receipts have broken the market, and an easier range of 35@55 is now quoted.

VEAL CALVES.—Butchers' wants are moderate for small meats with bad selling weather, and calves must be in fine order to bring the extreme. Hog-dressed very unsettled, fair to prime, 7¾@8¼c.; grassers, 3@4c. Live Calves, N. J., and Bucks choice, 6¼@7c.; fair to good, 6@6¼c.; State, prime, ₱ lb., 6¾@6¾c.; fair to good, 5¾@6c; extra fed, light, 5@5½c. Buttermilk, 2@2½c.; grassers, 1¾@2.

HOGS.—Receipts for the week, 41,736 head; do. last week, 44,861 head. Kentucky hogs sold at 4c. State and Western, $3.62@4

New Jersey pork, light, 6@6¼c.; medium, 5¾@5¾c.; heavy, 4¾@5c. Pork tenderloin, 8c.

SHEEP AND LAMBS.—Receipts for the week, 27,693 head; do. last week, 32,380 do. Trade has been poor. Western sheep in some cases received a bid no higher than home cost. The selling range was $3.85@4.75. Lambs, $4@5 31¾ per 100 lbs.

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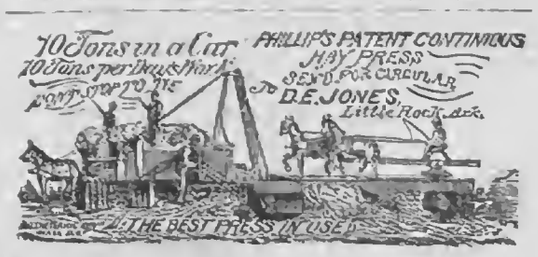

Reading for the Young.

OUR PREMIUM NO. 91

is peculiarly adapted for the boys. Of late these saws have grown into the widest popularity, and justly, as their use supplies no end of healthful amusement and gives scope to the mechanical instincts with which every boy is, to a greater or less extent, endowed. We think every boy will like this premium, and for this reason select it from among our long list for a brief description. All of the working parts are of iron and steel including the strong, compact frame. The table on which the work is done tilts at various angles,

giving greater scope for manipulating to advantage delicate or intricate designs. The treadles work very freely and smoothly, giving a very rapid motion to the saw-arm. Everything requisite to operate it is sent with the saw, and it will be found on inspection to be a very fine tool. Its price is $3, but we shall be pleased to send it as a present to any young Ruralist who sends us five subscriptions at $2 each. One of the pleasant facts incidental to the possession of a scroll saw is, that in addition to its being a means of amusement, it is also susceptible of being turned to profit—a lad skillful at sawing out ornamental designs for brackets, etc., can always turn his labor into money.

LETTERS FROM THE COUSINS.

Letter from Hawaii Nei.

THE real, original Hawaii Nei has written a letter to her RURAL uncles and cousins. So long had she been silent that her existence had almost become a myth, and conjectures were freely made on all sides that there was no such person; but now that doubt is forever banished. Hawaii Nei is a real person, and is as sprightly a little niece as any uncle can wish for. In a private letter to Uncle Mark she expresses her desire to become a member of the Horticultural Club, to which privilege she, of course, is very welcome. But he confidentially asserts that he experienced just the least little touch of jealousy when he found inclosed the autographs of the King and Queen of the Hawaiian Islands, which she requested him to deliver to Uncle True, with her compliments. Uncle True was delighted, and felt highly pleased at this assurance that his little niece, from whom he had heard nothing in a long time, still so kindly remembered him. Uncle Mark's jealousy soon disappeared, however, on reading that she also would try to procure him the autographs (for which favor he would be truly grateful), and furthermore, finding a map of the Hawaiian Islands and a number of very pretty fern leaves for himself, objects which he shall henceforth class among his most precious keepsakes. In the same letter she says: "In one of the back numbers of the RURAL some one speaks of preserving the paper. I have preserved mine ever since we first took it, in 1874, and now have it bound up to 1878. I would not part with the RURAL, for there is so much good reading in it. Of all the papers and magazines I have read, the RURAL is my favorite."

Here is her letter to the cousins:

DEAR UNCLES AND COUSINS:—How do you do, one and all! I am happy to meet you once more. Do not think, because neglected so long, that I have forgotten you; far from it. As soon as a mail arrives, after the perusal of my letters, I look for the RURAL, and Uncles True and Mark, as well as the cousins' letters, are all of great interest to me; nor must I omit the stories—these, too, I enjoy exceedingly.

Do not look so astonished at my laughing—I cannot help it—to think that some have expressed doubts as to my being a Sandwich Islander; and yet I sigh to think it is the way of the world. People are like Thomas, who disbelieved that the Savior had risen from the dead (some people, I should say). Seeing is believing.

Cousin Lenora, I am, in very truth, a native of "Hawaii Nei," born in Honolulu, the capital; my parents are foreigners. As to my being a "missionary's daughter," I reply in the negative, at least not in the sense you put it, but I hope and believe that I am a "missionary of Christ," "a soldier of the Cross."

Thank you, Cousin Ivy, for speaking in my favor, and for your nice, long letter. I hope to hear from you again soon. In speaking of rowing, I would like you to be with us some moonlight night, when, in a little sail-boat, the "Pumpkin Seed," we sail out of the harbor, some three miles along the coral reef. It is just splendid!

Hush! Perhaps I can tell you something that will interest you, namely, a visit to the King's palace. A friend of mine was desirous to procure his Majesty's autograph. At Emma Square, one Saturday afternoon, listening to the band, I saw the King. Being well acquainted with him, I asked if he would grant me a favor, said favor being permission for a friend and myself to visit his Majesty, in order to procure his autograph. The answer I received was, "Certainly, I will grant you any favor you ask."

Monday, Sept. 15, at noon, we would be received. At the time appointed we were at the palace gates, which were opened by a soldier; another showed us to the King's private parlor; a servant announced our coming; his Majesty came forward. After presenting my friend, he shook hands with us and asked us to be seated. After the weather, etc., had been discussed, the King wrote on our albums, also on slips of paper; these latter were for us to send to relatives and friends. We were pleasantly entertained for an hour, talking upon various subjects—one was his (the King's) visit to the States. He made the remark that every little village they passed through, before refreshments could be partaken of, he was besieged for his autograph. My friend asked if it did not become monotonous, to which he answered, "No; it was rather amusing." Soon after we took our leave, thanking his Majesty for his kindness.

Uncle Mark, will you put my name to the already long list of the members of the Horticultural Club? Since last I wrote, we have moved to a new home of our own, pleasantly situated on the outskirts of the city; attached to it is an acre of ground. Being very fond of gardening, I am trying to make a pretty garden. Roses are my favorites; I have quite a number planted. My Stephanotis, as well as my fernery, are in a flourishing condition; besides, I have planted Heliotrope, Pinks, Sweet William, Mint, Myrtle, Geranium, several kinds of Lilies, English Ivy, two kinds of Ginger (native and foreign), both having sweet and pretty flowers. Here we have perpetual summer all the year round; no frost or snow to kill or hide the pretty flowers. As for fruit trees, we have the Mango, Guava, Rose-apple, Breadfruit, Banana, and several others, names unknown to me.

Mamma started a vegetable garden. The pumpkins, cucumbers and sweet potatoes do nicely, but the peas and beans are a failure. There seems to be something, close to the ground, eating the stalks; we think it is a cut-worm; perhaps Uncle Mark can tell of something to kill this insect.

My! but I must draw to a close, and leave what else I have to say for another time. Hoping that the blessing of health is enjoyed by you all, uncles and cousins, I bid you "Adieu" with "Aloha nui."

Honolulu, Sept. 29. HAWAII NEI.

A New Cousin Who Knows How to Raise Big Radishes.

DEAR UNCLE MARK:—I guess I am not too old to join your Horticultural Club. I know I am not too old to be interested in it, and the letters from the cousins, and so would request you to put my name on your list.

I am a young farmer of the "Great Plains," and am going to pay considerable attention to gardening the coming season. Did not do much at it the past season, but I must tell you of some radishes I raised. They were of the California Winter variety, and were planted on the 7th day of July, on new ground, without any manure or cultivation whatever; and on the 23rd. of October I pulled a couple. One weighed three and a half pounds, and measured one foot in length and 15 inches around, and was crisp and tender throughout; the other weighed three and three-quarter pounds and measured 14 inches in length and 15 inches around. I saved it for seed and so cannot say whether it is crisp or not. Next season I am going to try and raise a ten pounder and still be tender.

I have heard of planting watermelons on pieces of sod in the house, early in the spring, and transplanting them to the open ground when danger from frost is over; do you think this would forward the melons enough to have ripe melons a week or two earlier than planted in the ordinary way. [Yes, if judiously managed.—U. M.] Oh dear, I have so many things to tell you about and questions to ask but there that boy comes with the empty waste basket, and it is hungry, so with best wishes to you and the cousins, I bid you good-bye for the present. Your nephew.

Kearney, Neb. PRAIRIE RAMBLER.

Letter from a Veteran Horticulturist.

UNCLE MARK:—Good morning. Here I am again to chat with your Horticultural Club and tell how I have done with our fall work in the flower garden. I have just finished planting out hardy bulbs, such as Tulips, Snowdrops, Crocuses, Hyacinths, Lilies, and many others too numerous to mention. All do well, but Hyacinths and Crocuses to use the common phrase "run out" in a year or two. Tulips are so pretty that every cousin should plant at least one dozen to get acquainted with them. My Lilies increase in size and number very fast. One bulb two years old weighed two pounds. It is *Lancifolium rubrum*. I have given my *tender Roses* some protection until severe cold weather comes, then I intend to bend them down to the ground and cover with earth. Most failures attending this method are caused by taking them up too soon. To-day I re-set our "Rural," *Yucca filamentosa* which I received two years ago. It has increased two-fold. Such success is the desire of the RURAL's Managing Editor, to whom I am under many obligations. Dear Uncle, you will find inclosed seeds of Celosia cristata variegata for you to distribute to your young relatives of the club, as you think best. I know that all who give them a trial will be pleased with them, as the combs were really beautifully variegated. I received some variegated seed from E. S. C., a few years ago, which he said was not very reliable, but I have succeeded in getting good variegated plants and have improved them to some extent. Fearing that I may be intruding upon your valuable time, I will close for the present. J. W. MAPLE.

Holt Co., Mo.

UNCLE MARK:—I was quite delighted to see my letter in the RURAL, and I will write again telling you how nicely my plants are growing. Nearly all of them are potted for the winter, and my grandpapa made me a nice window garden, which takes nearly all of my small plants. I would like to see Eva M. Dawson's collection of Coleus and all of her plants, too. Uncle Mark, I thank you ever so much for those seeds you sent. The Acme tomato seeds you sent papa grew and were splendid, a great deal better than our old kind. The Hollyhock were all that came up. How do you start Pansy and Verbena seeds for the garden? I never could have any luck in raising them. I think all the cousins should join with me in wishing that you would send us your photograph for a Christmas present. I won't write any more or you will never want to hear from me again. Yours, CLARA.

Whitestown, Oneida Co., N. Y.

[Pansy seed will grow very nicely in the open ground. Verbena seed will do best if sown in a pot or box early in the spring in-doors.—U. M.]

DEAR UNCLE MARK:—Good morning. I come again. Not having written in some time, I thought I would write a few lines to you. Please enter my name on your Horticultural Club list if you have not done so. I wrote and said I would like to join it. I never received anything and mamma says you did not accept me as a member. We have not very many flowers and but few vegetables. I like flowers real well, but don't care much about vegetables. I think the cousins ought to write something funny sometimes, and I do want to ask where all our old cousins are, if anyone knows I want them to say so. Perhaps some have quit taking the RURAL, and some have married and got other things to tend to, and oh, perhaps some are dead; that is not funny. I hope this letter will interest the cousins, I never thought yet that I interested them and if there is anything they don't like I want them to criticise me good. LUDIE FLEMING.

Griffin, Spalding Co., Ga.

DEAR UNCLE MARK:—I wish to become a member of the Horticultural Club. I have two flower beds in the yard which have been a great pleasure to me and my little sisters all summer, and when I think that the frost will soon kill them it makes me feel sad. My papa has bought a farm in Nodaway Co., and we expect to move there in a few months. The morning the Post Master brought us the Beauty of Hebron potato we took a hearty laugh at the idea of raising anything from a single potato, but papa cut it in five pieces and sent it to the farm, and we have eight quarts which we shall keep for seed. Papa says he expects to raise a quite a crop from them next year. He did not get any of the Blount corn he reads so much about, but hopes to get some next spring. I am ten years of age. Yours respectfully,

St. Joseph, Mo. LULU POOLER NICHOL.

The Puzzler.

HIDDEN FRUITS.

1. Miss Loella is married.
2. Rema z arduously labored.
3. Tell me how Hort Leber! R yelled.
4. Do call nurse, Della.
5. On Tampa bay, Berr Yorston lives.
6. Has haddock a pleasant taste?
7. Let cousin Annie be Pie—Rye crop is in, so let her stay.
8. My dear Herman, Gus Teener called to see you.
9. As to the check erberr, you'll have to give it to me.
10. A bottle of musk me longs to smell.
11. Help the cidar mull, Berry, please.
12. Dear Seguin, cedar is an evergreen.
13. Remau meets his fate.
14. This wine is sour, Sophia!
15. While getting more sap, Adil ladled off the the sugar.
16. He held Erber R yesterday.
17. Adam's on the jury.
18. With ex-president Polk berryl gems were a hobby.
19. You must have the pip.—Pine-gum is a remedy.
90. The bruise is black and blue, Berry.
21. At Leuera, Bapple said good-bye!
22. Don't call Gen Cass a valr, man!
23. Coal is a shining black, Berrylio.
24. Mrs. Atchlek amo-yams are very nice.

☞Answer in two weeks. LITTLE ONE.

DIAGONAL PUZZLE.

1. A consonant; 2. A French pronoun; 3. A sort of nose; 4. Lazy; 5. A stream of water: Primals and diagonals for two animals.

☞Answer in two weeks. L. O.

A PYRAMID PUZZLE.

A consonant; Likewise; The noise of a sheep; To respire. Centrals form an insect.

☞Answer in two weeks. O.

PUZZLER ANSWERS.—Nov. 8.

HIDDEN FEMALE TITLES.—1. Countess; 2. Lady; 3. Madam; 4. Miss; 5. Baroness; 6. Princess; 7. Marchioness; 8. Duchess; 9. Empress.

ANAGRAM:

Toiling, rejoicing, sorrowing,
Onward through life he goes;
Each morning sees some task begin,
Each morning sees its close.

DIAGONAL PUZZLE:

```
      B
    A A
  M a N
  B r a Y
  O m a h A
  O p t i o N
```

Primals form "Bambo."
Diagonals form "Banyan."

HALF SQUARE:

```
C I D E R
I T E M
D E N
E M
R
```

DROP LETTER PUZZLE.—"Thou shalt not steal."

Sabbath Reading.

WHAT I LIVE FOR.

I LIVE for those who love me,
For those whose hearts are true,
For the Heaven that smiles above me,
And awaits my spirits, too;
For all human ties that bind me,
For the task my God assigned me
For the bright hopes left behind me,
And the good that I can do.

I live to learn their story,
Who've suffered for my sake,
To emulate their glory,
And follow in their wake;
Bards, martyrs, patriots, sages,
The noble of all ages,
Whose deeds crown history's pages,
And time's great volume make.

I live to hold communion
With all that is divine,
To feel that there is union
'Twixt Nature's heart and mine,
To profit by affliction,
Reap truth from fields of fiction,
Grow wiser from conviction—
Fulfilling God's design.

I live for those that love me,
For those whose hearts are true,
For the heaven that smiles above me
And awaits my spirit, too:
For the wrongs that need resistance,
For the cause that needs assistance,
For the future in the distance,
And the good that I can do.

DR. ADAMS'S REMARKS

At The Funeral of Gen. Hooker.

"How rapid the passage of events in the grand drama of human history! It seems but yesterday that the whole nation was convulsed in strange and terrible strife. Now the war has ended. The thunder of cannon has been exchanged for the hum of industry and the arts of peace. How many in those days of tumult, clamor and bloodshed have passed away from the sight of man! Soldiers who survived the shock of arms, as they hurled their columns hither and thither, have, one after another, in rapid succession, fallen before the common enemy—Death.

"The lesson of these facts is briefly summed. Men die, but the Kingdom of God in the world survives and advances. One generation passeth away, and another cometh; but the eternal purposes of God are forever unfolding in more of design, order and harmony. Citizens, public and private, follow each other to the tomb, but the country never dies; and that kingdom which is righteousness, joy and peace will continue to flourish so long as the sun and the moon endure. More than two hundred years ago, John Hampden, in a charge of cavalry, fell on the neck of his faithful horse, and was borne from the field to die. But the 'good old cause' for which he prayed and shed his blood has never receded, but advanced, and is advancing more and more throughout the world.

"Is it not a timely question, in this presence, what is *the true value of life?* We attach great importance to life, and it is the Christian believer who values it most highly. And why? To attain *fame?* But what is fame, if it be not the echo of personal *worth?* To acquire great *wealth?* But what is wealth, since the rich man and the poor can take nothing with them out of the world. Greatness? What *is* greatness? Jesus Christ has answered the question, correcting the false conceptions of all mankind, in all ages. Not to covet authority, not self-aggrandisement, but a disposition like His own, to serve, to minister to the welfare of others, to do our duty faithfully as His servants and disciples—in short, to be personally attached to His kingdom, and so share in its blessedness, and glory and immortality. It is the arcanum of Divine Providence to make even the wrath of man to praise him, causing the involuntary agony of man to contribute to his own designs.

"But this is the true value, the dignity, the honor of human life, of our own choice and purpose to be identified with that kingdom of the Redeemer which gives to time all its importance and to eternity all its glory. Two kinds of life enter into our present personality. Two births, which are contrasted in the Holy Scriptures. By the one we enter into this present life, and this life is transient. 'For all flesh is grass and all the glory of man as the flower of grass. The grass withereth and the flower thereof falleth away.' But there is another life contrasted with this. Being born again, not of corruptible seed, but of incorruptible, by the Word of God, which liveth and abideth *forever*. And this is the Word which by the gospel is preached unto us.

"We have our excitements and agitations now, and such there will be for a long time. In the midst of such violent agitations, death intrudes upon the scene, waves his skeleton arm, and the statesman, the politician, the soldier, disappears, as if to teach us all of how little importance is the individual man when compared with the destiny of nations and the ascending and brightening changes of the world.

"Leaving it for his comrades in arms and his associates at other times and in other places to rehearse the exploits of the soldier now lying on this bier wrapped in the flag of his country, it is for me in this presence and at this hour only to preach that Gospel which insures to us all honor, glory and immortality. Could those lips that once shouted commands on the field of battle break the silence to which they are now sealed, and address us words of counsel, what wiser thing could they utter than that we should be well and wisely prepared for the great event which befalls all?

"Soldiers, brave and true, honored of your country, honored beyond all which can be expressed by funeral signs, the flags at half-mast, the minute gun, the muffled drum, the monumental urn, hear, hear this word, not of man but of God, ringing out clearer and louder than any bugle blast—'The sting of death is sin. Behold the Lamb of God which taketh away the sin of the world.' 'Thanks be unto God which giveth us the victory through our Lord Jesus Christ.'"

PERSONAL ITEMS.

The widow of James Fisk. Jr., boards at South Deerfield, Mass, with a couple who were formerly her cook and coachman. She has a handsome competence.

A "Mecker Testimonial Fund" has been started in Denver, with the purpose of erecting a monument to the heroic services of the late N. C. Meeker, the murdered Indian agent.

Mrs. Charlotte Letcher, the widow of ex-Governor Letcher, of Virginia, died at Frankfort, Ky., on the 29th of October, from a dose of arsenic which she took by mistake, supposing it to be burnt alum. She was eighty-seven years old.

General J. W. Whitfield died in Lavaca, Texas, a few days ago. Had his death occurred twenty years ago it would have caused a national sensation, for he was the recognized leader of the Southern party in Kansas during the trouble that led up to the war.

General Fitzhugh Lee made himself very unpopular with the Repudiators in Virginia The other night a crowd of the Repudiators at Falmouth made an effigy of him and rode it around on a rail. They were about to burn the figure when some more sober-minded men interferred.

Young Seward placed a pistol at his head, in the presence of the girl who had rejected his suit, at Houstin, Minn., and said he was going to commit suicide. He counted, "One, two——," and she covered her eyes with her hands. "Look at me," he said; she obeyed; "three!" and into his brain went the fatal bullet.

Bride and bridesmaids were ready, the church was lighted and the clergyman stood waiting, in Galveston, last Wednesday, but no bridegroom appeared. August Hummorder, a German youth, had dressed for the ceremony, and then, in sheer despair at the thought of facing the matrimonial music, had shot himself through the head.

Signor Dario Mazzei, stenographer to the Italian Senate, has invented a machine which claims to reproduce a speech in the ordinary printed characters as rapidly as it is spoken, a word of several syllables being recorded by a single touch of the keys. There is hope for the deaf in modern inventiveness. Few need the aid of inventive genius more.

Miss Nora Griffing, of Logansport, Ind., was to have been married on Tuesday evening to Mr. Lute J. Smith. The guests had assembled and the minister was waiting to perform the ceremony when a messenger handed the would-be groom an incoherent letter from Miss Griffing, which was soon followed by the news that she had eloped with a young lawyer.

General Hooker is said to have left a handsome fortune, which will probably go to his sisters, Mrs. Brainard and Mrs. Wood, of Watertown, New York. Among his effects is a large picture of the battle of Lookout Mountain, for which he paid $25,000. He had prepared a book on the battle of Chancellorsville, which is now in the publisher's hands, and was about to begin a book on the famous engagement on Lookout Mountain.

Rev. Dr. Budington, the well-known Congregational clergyman of Brooklyn, is slowly dying of cancer. The whole lower part of his face is now covered with a cancerous growth, and the poison of the disease has eaten through the lower jaw-bone. A council of physicians was recently held to consider the feasibility of removing the lower jaw-bone to arrest the disease; but as the cancer had doubtless poisoned his blood, so that its reappearance was but a question of time, it was determined not to add to the patient's agony and to the mutilation of his face.

At the last October meeting at New Market the Duchess of Montrose had a thoroughbred Alderney cow conveyed there to give milk during the race week. On being informed of its safe arrival, she sent word to Alec Taylor, her husband the Duke's trainer, to have the cow milked at once; but neither Taylor nor his head lad was *au fait* at the business. Thereupon the Duchess, who was in the midst of her toilet, slipped on a *peignoir*, and going out to the loose horse box in which the cow was lodged, performed the operation with the skill of the most experienced milkmaid.

By all accounts Marshal and Gov. Manteuffel's first impressions of Metz cannot have been very agreeable. On the day of his formal entry, the streets were almost deserted. The few persons out of doors turned their backs on the procession and studied the shop-windows. The silence was broken only by an occasional cry of "Vive la France!" At his hotel, the Marshal found a great pile of letters, that were anything but pleasant reading. He invited the municipal authorities to dinner; only one man, a banker, presented himself. No wonder the Marshal lost his temper, tapped his sword, and warned the Metz officials that he would not tolerate any intriguing with the foreigner against Germany.

The audiphone is a newly-invented fan-shaped device by which the deaf can hear, by placing the end of it against the teeth when the vibrations of the air caused by the human voice or any other sound, impinge on the sensitive "drum" of the contrivance, and convey the sounds distinctly through the auditory nerves. R. S. Rhodes, the inventor, says that the first man to use the fan-shaped instrument was Joseph Medill, the veteran editor of the Chicago Tribune. "I warned him that my patents were not yet complete," said Mr. Rhodes, "and enjoined upon him not to tell anybody what it was for. He said he wouldn't. He carried it to California and back, using it as a fan and lending it to anybody who wished to take it, for nobody would suspect it had any use except to agitate the air. He attended the Editorial Convention with it, merely holding it 'accidentally' against his upper teeth when anybody was speaking."

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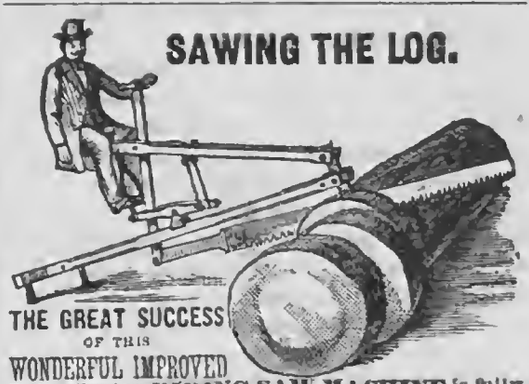

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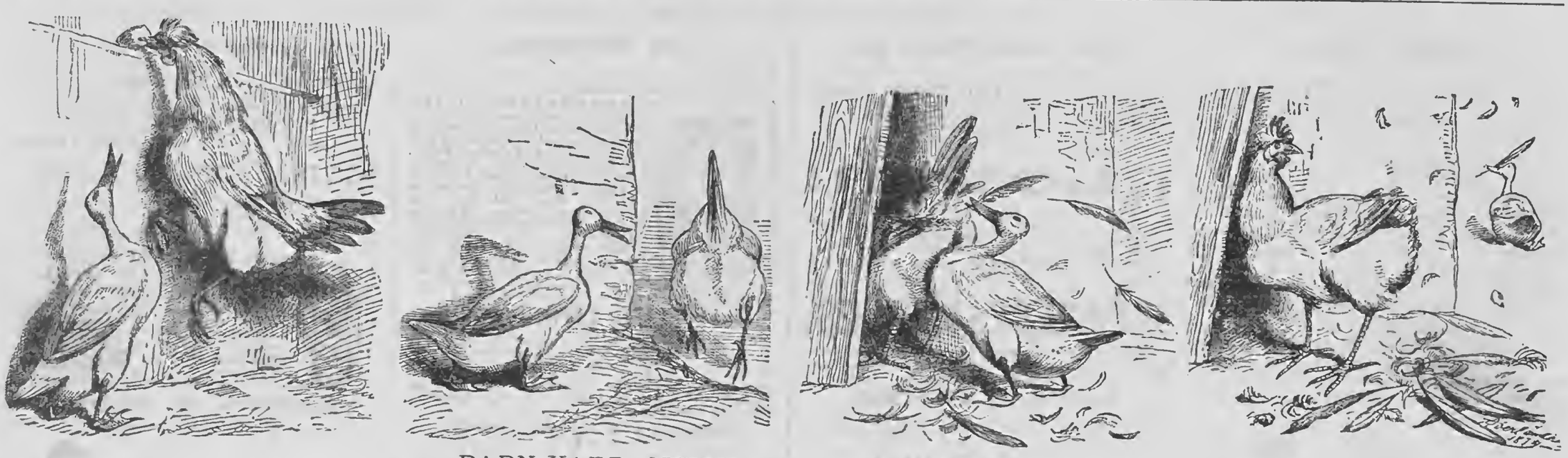

BARN-YARD STUDY.—THE REVENGE OF A DUCK.

Wit and Humor.

A TAKING MAN.

He took her fancy when he came;
He took her hand, he took a kiss;
He took no notice of the shame
That glowed her happy cheek at this

He took to coming afternoons;
He took an oath he'd ne'er deceive;
He took her father's silver spoons,
And after that he took his leave.

[*Mrs. Hemans.*

"ESQ."

A YOUNG man, whose money didn't hold out so long as the State Fair, dropped into the telegraph office yesterday and sent a dispatch to his father in an interior town to forward him cash to reach home with. When the receiving clerk saw that the dispatch read, "To John Blank Esq.," he suggested that a saving could be made by erasing the "Esq."

"Well, mebbe you think you so, but I don't." replied the sender. "When I am home I can call him 'dad' all day long, but when it comes down to black and white you have got to 'Esquire' him right up to the nines, or walk home by the dirt road. Don't you dare leave that off—not with the roads as dirty as they are now!"

In about an hour the following answer was received:

To——

"John Blank, Esq.," forwards you $10, and you can have more if you want it.

JOHN BLANK, ESQ.

"Didn't I tell ye," chuckled the young man as he read it. "Dad's common enough when we're all at home and rushed to get fall wheat in, but the minute his back gets rested and a stranger comes along he weighs more to the ton than any "Esquire" on legs. I tell ye, you don't know a man till ye've hoed corn with him!"—*Detroit Free Press.*

THE MIND READER.

WITH sudden burst of pent-up ire,
Cries Dick, no longer cool,
"You either think I am a liar
Or most consummate fool."

Says Harry, "Since you force me, Dick,
A fool I was inclined
To reckon you until so quick
And true you read my mind."

Boston Transcript.

RATHER AWKWARD.

Young Rattleton Bragge, (affably to middle-aged stranger whom he finds alone in Brown's studio:) "Good picture, ain't it? Old Stilton's bought it. The Duke, you know. Brown's going down to Stilton to shoot. Wish I could go with him, but I'm booked in London till Christmas. Just my luck! Capital old boy, Stilton! Looks like an old clothesman. Gets tight after dinner; tells rummy stories; makes you roar. Fine old place, capital shooting! Awf'ly jolly girls, the Ladies Cammembert. Nearly a dozen of them, all freckled. Duchess tremendous matchmaker. Bag you before you can say Jack Robinson if you don't look out! Awful fun the old Duchess! D'you happen to know her by sight? Shiny red nose, and as underhung as a bulldog. Ah! here's Brown at last." (Enter Brown, suddenly.) "Ah, Bragge, how are you? Let me introduce you to the Duke of Stilton?"

JOINT STOCK IN A KITTEN.

A lady contributor tells this story: "I had been out in Westchester county on a visit, and while there I found a kitten which I brought home as a plaything for my two children. To prevent any dispute about the ownership of the puss, I proposed, and it was agreed, that the head should be mine, the body should be the baby's, and Eddy the eldest, but three years, should be the sole proprietor of the long and beautiful tail. Eddy rather objected at first to this division, as putting him off with an extremely small share of the animal, but soon became reconciled to the division, and quite proud of the ownership in the graceful terminus of the kitten. One day soon after I heard poor puss making a dreadful mewing, and called out to Eddy, 'There, my son, you are hurting my part of the kitten; I heard her cry.' 'No, I didn't mother; I trod on my part and your part hollered.'"—*Wayne Press.*

A LAY

OH, those memories all flow inward,
On my tired heart to-day.
And I almost smell the clover,
While I list the robins lay.

LATER.

Sweet the summer breezes gently
Sweep along the cottage thatch,
And I almost smell the clover,
While I list the robins hatch.

LATEST.

And while autumn winds are sighing,
Echoing my heart's sad throbbin's,
Yesterday we shot and made a
Bully pot-pie of the robins.

A LETTER, addressed as below, was sent to the New Haven post-office, one of the localities where Postmaster-General Key's "misdirection order" was a peculiar injustice:

Mr. Enos A. Hale,
Assistant Postmaster,
240 Orchard street,
New Haven,
City of New Haven,
Town of New Haven,
County of New Haven,
State of Connectient,
United States of America,
Western Continent,
Planet Earth,
Solar System,
Universe.

SQUASH.

Ah, there you lie in beauty manifold;
Though graceful less than phlox or mignonette,
You move the soul with thought divinely set
To loveliest music. As I watch your gold-
En face I long, indeed, I long to hold
You in my hand in the shape of a piece of pie.

MEETING a newsboy whose face was scarred with scratches, and looked like a map of some great railroad center, a Register reporter asked the youngster what the matter was. "Feller spoke disrespectful of my sister; said he'd bet she was cross-eyed, and I sailed in." "Is your sister cross-eyed?" asked the reporter. "Hain't got no sister," was the reply. "It was 'the prineiple of the thing what I got licked for."

SQUAWS of big chiefs oft remind us,
We should pick our squaws with care;
So we may not leave behind us
Half our natural crop of hair.

"YOU see, massa," said the old colored washerwoman, "since dey's got dese here big crayvats, we don't hab so much to do. De gemmen puts on a big crayvat now-a-days, instead ob a clean shirt. You don't know much about dese matters, but if you take off all the cravats in this town, and make the gemmen show up, landsakes! you'd see de worst lookin' white men you ebber laid yo' blessed eyes on."—*Syracuse Herald.*

Tossing upon a Bed of Agony,
Tortured in every joint with inflammatory rheumatism, is a prospect which may become a melancholy fact if the twinges of the dread disorder are not checked at the outset. Persons of a rheumatic tendency find Hostetter's Stomach Bitters a useful remedy, nor do they encounter the risk in using it they do from resorting to that active poison Colchicum, which is often employed to arrest the malady. The use of the Bitters is equally as effective in its results, and is attended with no risk. There is ample testimony to prove that the medicine possesses blood depurating qualities of no common order, besides those of a tonic and general alterative. It stimulates the action of the kidneys and promotes the removal from the system of impurities which develop disease, and are fraught with serious danger. Fever and ague, dyspepsia, debility, nervousness, constipation, &c., are remedied by it.

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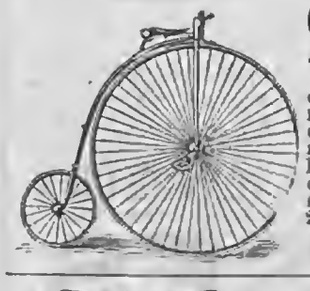

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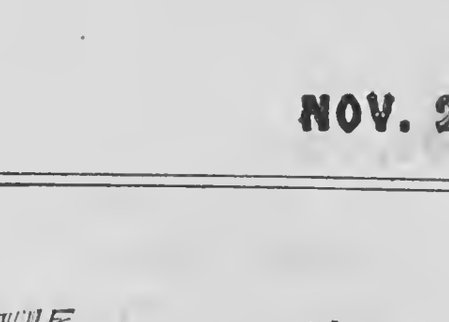

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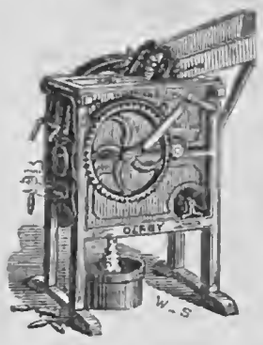

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THE RURAL NEW-YORKER

A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME

VOL. XXXVIII. No. 48.
WHOLE No. 1557.

NEW YORK, NOV. 29. 1879.

PRICE FIVE CENTS.
$2.00 PER YEAR.

[Entered according to Act of Congress, in the year 1879, by the Rural Publishing Company, in the office of the Librarian of Congress at Washington. — Entered at the Post-Office at New York City, N. Y., as second-class matter.]

Rural Architecture.

DESIGN FOR BRICK COUNTRY HOUSE.

PALLISER, PALLISER & CO., ARCHITECTS, BRIDGEPORT, CONN.

THIS cottage was designed for erection in a rural part of Michigan, where brick cost $5 per thousand and lumber is very low-priced—to be had for the working, almost. The columns of verandas, frame-work of gables, etc., are of oak, oiled, with panels painted white, and the brick-work is ornamented by the introduction of black brick in the frieze, etc., and is all laid in red mortar, making a very picturesque and effective exterior produced solely by the merits of the design and the proper use of color—the two important things which mar or make the effect of any building.

The interior, which is fully explained by the floor plans, is very convenient in arrangement, though, of course, it will not suit everyone, as individual wants and ideas differ. In fact, it is seldom that two persons want the same arrangement of rooms, etc. All the wood-work and finish in the interior correspond with the exterior, being finished in natural colors and beauty, polished, with chamfers and cut-work picked out with raw sienna stain, through which the grain of the wood shows.

We trust this design will be appreciated by readers of the RURAL, as it is very rarely that one sees a brick cottage or a wood one, for that matter, in the country, with any real artistic merit, which should always be aimed at, without gewgaw and gingerbread work plastered on to buildings, to decay and drop off after a year or two's exposure to the weather. Of frippery of this sort too much is seen, instead of good solid work rightly designed, and which costs less to execute, being plain and useful in its position rather than tawdry and stuck on for mere ornamentation.

To build and construct honestly, the style of construction must be ornamental; that is, the work must be so constructed as to make it ornamental without additions of filigree, scroll-work and such-like, planted on for decoration, and which are obnoxious to the cultivated taste. Yet, with few exceptions, our rural architecture has not deserved or gained an enviable reputation. On the contrary, there has been an artistic, æsthetic, and sanitary deficiency here, in which pretension has overcome grace and the fitness of things

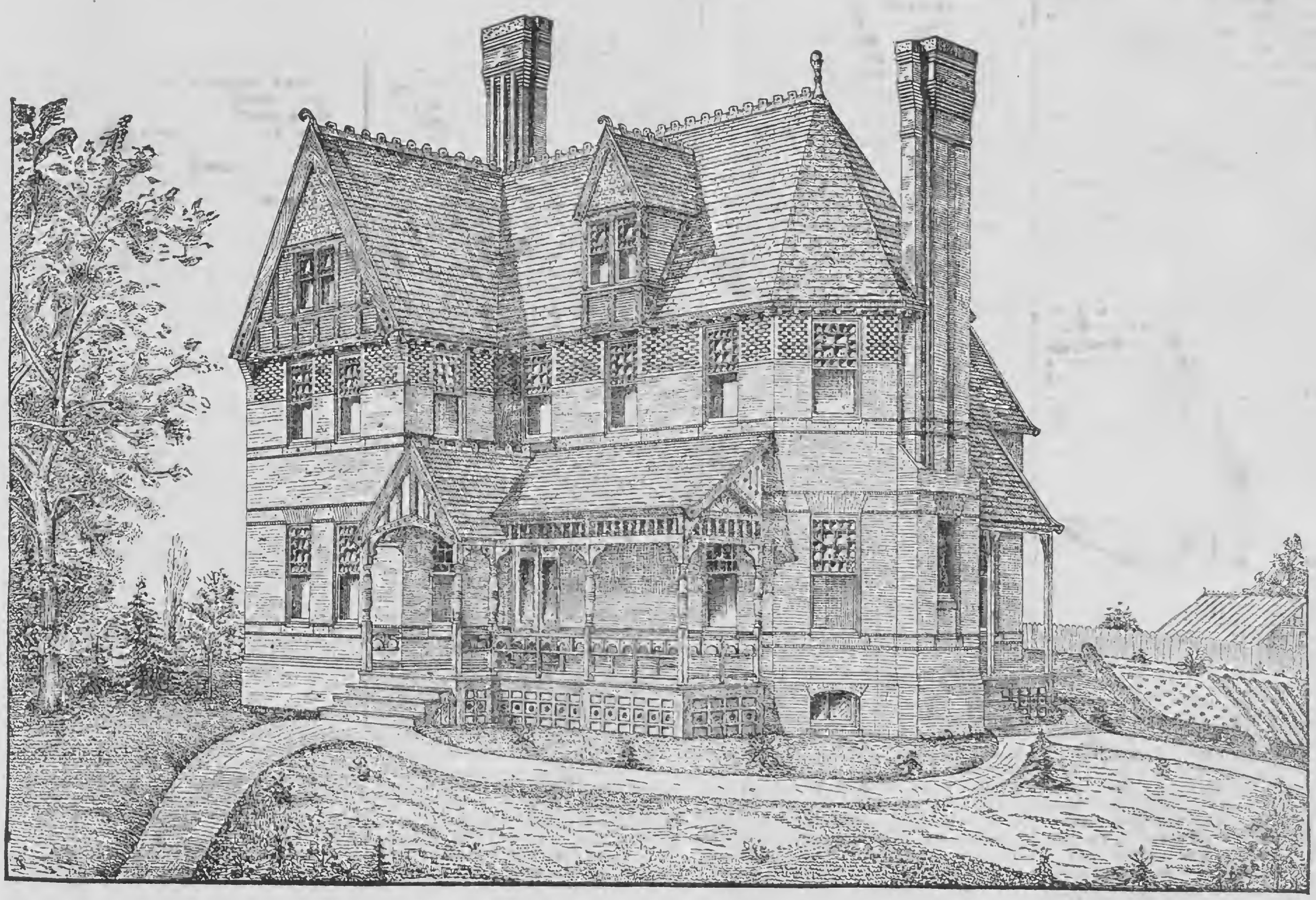
Now let us look into this and see if we can discover the reasons for these defects. In the first place, architects are not employed to design nine-tenths of the buildings erected in the rural districts, simply because people are penny-wise and pound-foolish. It certainly is not because there are not able architects enough in the United States who can render necessary service and await employment by the public.

In the second place, half of the people who employ professional skill in building, think they know more about building than the architect, and he is made a mere draughtsman in the client's eyes, employed merely to carry out the latter's views, and not to thwart him with suggestions of his own; but if he has sickness in his family, he does not presume to advise his physician as to the proper mode of treatment; nor would he feel warranted in suggesting to his lawyer how to carry on an important suit, but, when it comes to house building, that is wholly a different thing. There he feels at home, and will have everything his own way. He seems blinded to the fact that the health of himself and family are at stake, and that the investment of a considerable sum of money, perhaps only once in a lifetime, ought to have due and careful consideration as to whether it will be judiciously and properly expended or wasted.

What does a man know about building affairs unless he has given the matter especial study? Some people will say that for an ordinary dwelling, it is only necessary to employ a builder, but it must be remembered a builder is not an architect, and knows nothing beyond the mechanical system of his trade; and the public are oft-times very ready to take their education in architecture from the village carpenter, simply because it is cheap and the carpenter, of course, wants work and does not want any one stepping between him and the owner, so that he can have the entire work in a pecuniary light all to himself.

A thoroughly conscientious builder and one who wants to do good work and something new and different from what is usual, will ask when any one calls on him with respect to building: "Where are your plans and specifications and all the details of execution?" Ignorance on such matters will at once exhibit itself; and the builder will inform him: "Without these it is impossible for me to do anything; for as the compass is necessary for the mariner to guide his vessel over the deep, so the plans, specifications and details are necessary for me to properly carry out your wishes in harmony with artistic taste." It is, however, only this class, of which there are but few, who will do this, and the other class are numerous and are a sort of amateur architects, and people seem to lose sight of the fact that a poor article can always be obtained at small price. If you get cinders in your iron, it is because there are cinders in the pay; there is always good iron to be had.

Our advice to every one who contemplates building is: Secure the services of a really well-trained and capable architect; pay him properly and be guided by his judgment and experience. This will also be the advice of any one experienced in such matters, and of others who regret that they built without such aid. Of course, every one has his peculiar wishes to be pro-



DESIGN FOR A COUNTRY HOUSE—(BRICK.)

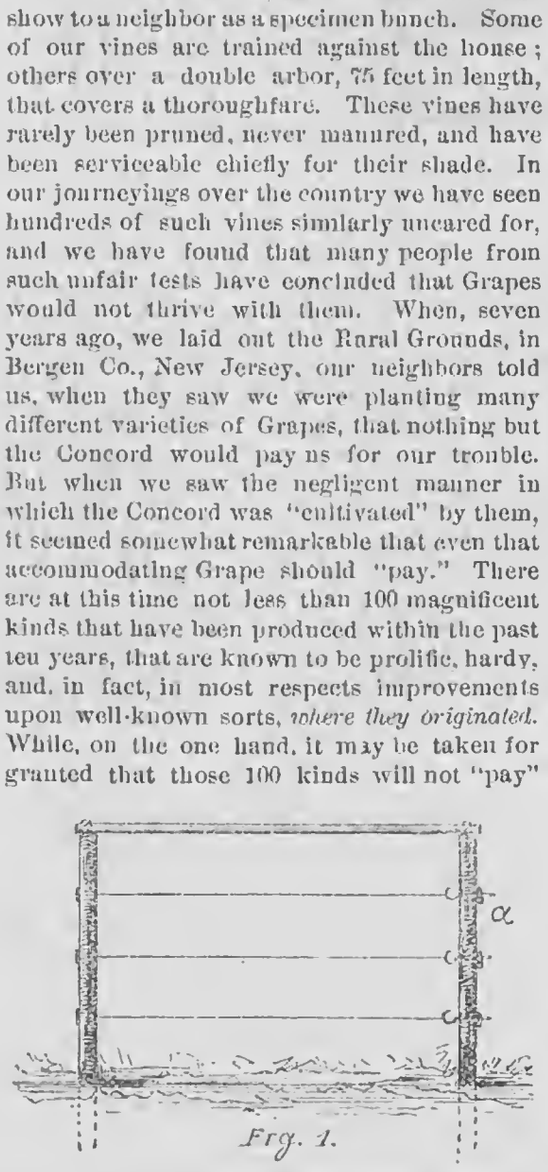
vided for, and all these should be presented to the architect before he commences the design. Architects have their own ideas as to what form the building ought to take, and should be allowed to use their own cultivated taste, which it has taken years of constant study to acquire, and this should not be thrown away for any momentary caprice, which the client would be sorry for in the end.

The Vineyard.

NOTES FROM THE RURAL FARM.

About Grapes.

For the better than twelve years that we have owned this farm, a bunch of grapes has never been raised here, that one would care to show to a neighbor as a specimen bunch. Some of our vines are trained against the house; others over a double arbor, 75 feet in length, that covers a thoroughfare. These vines have rarely been pruned, never manured, and have been serviceable chiefly for their shade. In our journeyings over the country we have seen hundreds of such vines similarly uncared for, and we have found that many people from such unfair tests have concluded that Grapes would not thrive with them. When, seven years ago, we laid out the Rural Grounds, in Bergen Co., New Jersey, our neighbors told us, when they saw we were planting many different varieties of Grapes, that nothing but the Concord would pay us for our trouble. But when we saw the negligent manner in which the Concord was "cultivated" by them, it seemed somewhat remarkable that even that accommodating Grape should "pay." There are at this time not less than 100 magnificent kinds that have been produced within the past ten years, that are known to be prolific, hardy, and, in fact, in most respects improvements upon well-known sorts, *where they originated.* While, on the one hand, it may be taken for granted that those 100 kinds will not "pay"



everywhere, or even under widely different conditions of growth, on the other hand, there can be no doubt that they will, all of them, "pay" in *some* other parts of the country besides those in which they originated. Where these other parts are, is the thing for people to find out. They can never find it out by saying the "Concord is the only kind that will pay with us." They can never find it out by sticking grape-cuttings, or even roots, in the ground, and then leaving them to struggle with weeds and grass. We urge it upon our readers to plant Grape-vines and to give them the little care they need. Let those who can afford to do so, purchase the new varieties and test them. Let those who cannot afford to make such experiments plant those which are known to thrive best in their localities, even though they be but Concords. The Concord itself is too excellent a fruit to justify anybody in not raising grapes at all.

Grape-Arbors.

Several weeks ago we prepared a plot of ground, about 30 feet square, for nine different kinds of vines. The ground was thrown out about 20 inches in depth; the poor earth carted away; the good mixed with ashes, muck and stable manure, and replaced. Three arbors were constructed as shown in fig. 4; set parallel to each other, 10 feet apart, as shown in

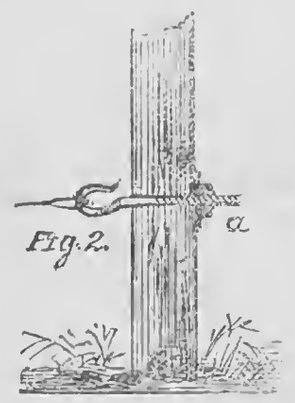
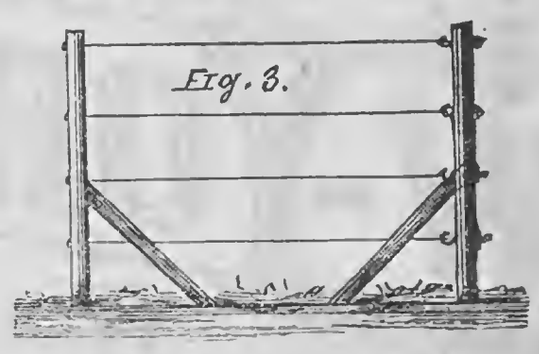
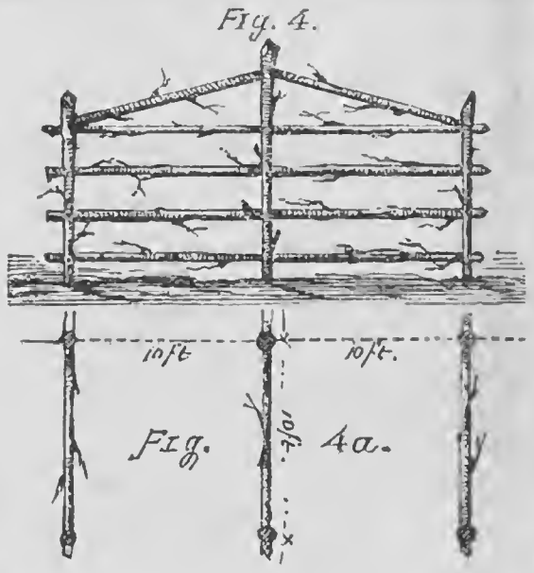


fig. 4a. The wood is red cedar, cut down from hedge-rows in various parts of the farm. Arbors of this sort are very durable, and, as they require little mechanical skill, may be quickly "thrown together" so as to be decidedly ornamental, as well as useful. The bark is left upon the trees and the lateral branches cut off only to within two or three inches of the main stem. These stumps add to the rustic appearance of the arbor, and are handy projections upon which to fasten or tie the growing canes. Arbors are often made as in fig. 3 with wire supports. Or, the braces are sometimes sunk beneath the surface of the ground. A more convenient and less expensive design, however, is shown at fig. 1, in which the wood strip across the top renders bracing quite unnecessary. Fig. 2 merely shows an easy method of tightening or looseuing the vines, as needed.



It is unusual for us to speak of horticulture under "Notes from the Rural Farm." As a rule, our tests of different grains and roots are



as much as, indeed, more than, we can well attend to here, so that horticulture in all its branches, has been hitherto entirely neglected. The Rural Grounds, however, are at present so full of experiment things that we are now obliged to send hither plants that can no longer be accommodated there.

GRAPE ROT AND ITS CAUSES.

Discussion at the late Pomological Meeting.

M. B. BATEHAM.

Many readers, and some editors, of agricultural papers, do not appreciate the importance of this topic, or understand what great losses are annually sustained by the people of the country at large, and especially of Western States, from the malady called grape rot. I have noticed that a majority of the writers who have given reports of the discussions at the late meeting of the American Pomological Society at Rochester, have passed over what was said on this subject, as of very little account, or, with the remark that nothing new in relation to it was elicited, and that the speakers disagreed, etc. This, to my mind, only shows that these reporters did not give attention to what was said, or were not present at the time, and only picked up the items for their reports from the city papers.

To correct these impressions, and to afford those who were not at the meeting some idea of what was said, I give the following abstract from my notes; and I am convinced that those who have suffered from grape rot, and are familiar with what has heretofore been published on the subject, will admit that more progress was made at this meeting than ever before towards solving the vexed problem as to the causes of the malady.

Mr. Isidor Bush, a very intelligent grape grower, from Missouri, read an essay giving the results of many years' observations and experience with grape rot, correcting some popular errors in regard to the nature and causes of the mischief and showing that it does not result from any disease of the vine or defect in the soil or cultivation, but that in some way it arises from atmospheric influences—unfavorable states of the weather—that, as a rule, it makes its appearance during hot, sultry and damp weather, such as usually accompanies thunder storms. Mr. Bush did not attempt to explain how such weather might cause the disease, and the manner in which he alluded to an article of mine on this subject, showed that he misapprehended my language, in that he supposed I attributed the rot to debility of the vine. On the contrary, I have found in all my observations that the more luxuriant the vine, the greater the liability of the fruit to rot.

After the close of the essay, I took occasion to say a few words on the subject—first distributing to the audience clusters of Catawba and Iona grapes, cut from my vineyard the day previous, showing the effects of an attack of rot the past summer, three-fourths or more of the berries being black and dried up, while the rest remained sound, though in some cases all are often destroyed by one or more attacks of the disease. I said, in substance, that this malady had been troublesome to grape growers in Ohio for the past thirty years. It first caused the destruction of a thousand acres, or more, of promising Catawba vineyards in the neighborhood of Cincinnati, planted by Nicholas Longworth and other citizens of that place. Afterwards it was thought the Ives's Grape was proof against the disease, and this was planted largely for wine making; but after bearing a few good crops these vineyards also succumbed to the rot, and the wine makers commenced planting on the lake shore and islands as sources of supplies of grapes.

In the mean time it was generally believed that the Concord Grape was proof against all diseases, and although not good for wine, it was "the grape for the million," and its culture for the markets was profitable. Hence many vineyards, of a few acres each, were planted in different parts of the State, making several thousand acres in the aggregate. Within the past four or five years the fatal rot has also attacked these, excepting in a few hilly localities, and also near the lake shore, and after repeated failures of the crops, very many of the vineyards have been grubbed out, and grape growers are, of course, much discouraged throughout a large portion of the State.

For the past six or seven years, we have had, in Ohio, an aggregate of about 10,000 acres of vineyards. About half of these are on the lake shore and islands, and mostly of the Catawba variety, the fruit being chiefly used for wine. The rest of the vineyards are dispersed over the State, and consist mostly of Concord, Delaware and other varieties, chiefly for table or market. But, while it is known that planting has been going on to the extent of not less than 500 acres per year, in the favorable districts, the aggregate of vineyards in the State has decreased fully to the same amount each year for several years past, showing that about a thousand acres per year have been destroyed on account of the rot. In this calculation no account is made of the tens of thousands of home gardens, where once fruitful vines have become worthless from the disease. I say, then, that there is no topic of more timely importance than this, likely to come before this meeting for discussion, or on which more of the people are at this time desirous of gaining information.

As to the causes of grape rot:—my observations of more than twenty years, have led me to the same conclusions, in the main, as those of my friend, Mr. Bush. The difficulty is certainly not in the soil or cultivation, or in the vine, or the effects of insect ravages, though each of these may increase the liability to disease. This is especially true of moist or rich soils and sheltered locations. It has long been observed in Ohio that much rain in June or July is sure to be followed by grape rot, when succeeded by hot and sultry weather; and the greatest exemption from disease is in seasons of least rainfall in these two summer months, especially if there is an absence of close and hot, damp weather, as was the case generally the past summer, though one or two thunder showers passed over portions of the State, and grape rot followed in their tracks. It is also understood that the peculiar exemption from disease, of the island and lake shore vineyards, is mainly owing to the small amount of rainfall and the almost entire absence of dews in that section during the summer months. To this may, no doubt, be added the greater purity of the atmosphere, or its freedom from the spores of fungus which generate the rot—the same being measurably true of a few elevated and hilly localities, which are found favorable for Grapes, in other parts of the State.

With the foregoing facts admitted, I think that a little light from science will enable us to see what are the causes of grape rot; although it may not be so easy to discover the means of its prevention. The conditions, as stated, are: thrifty vines, moisture of the soil from rains, with hot weather, causing an abundant flow of sap; this requiring that evaporation should go on rapidly from the leaves, to carry off the watery portion of the sap, in order that the vital processes of elaboration and assimilation may proceed, and for this there must be sunshine and air. But just now occurs a day or so of sultry, cloudy and damp weather, when clothes will not dry on the line, and fungus spores start into life everywhere, as is seen in mildew on bread and other articles in pantries, and cellars, and the quick fermentation of liquids, like vegetable juices, containing sugar, gum, starch, etc. Of course, evaporation from the grape leaves is stopped, or so greatly checked that little or no elaboration goes on, and a plethora of crude sap exists in every leaf and berry. In the latter, especially, this sap is in just the condition, while thus stagnant, to invite the action of fungus spores, which are vitalized by the heat and moisture outside, and penetrating through the skin, their poisonous work is as rapid as the action of yeast plants in dough—and *rotting is the result.* When the barometer rises, and sunshine or wind causes evaporation to proceed, *presto!* the vital activities are resumed and the rot at once ceases—often to be resumed the next week, or when the "muggy" weather occurs again.

The questions were asked in the meeting: how I would account for the facts that the rot is so much more prevalent of late years than formerly, and why do young vines commonly escape rot until after bearing several crops. I replied, that, while I did not pretend to be able to account for all the facts that had been observed, it was my belief that the spores or seeds of the rot fungus had gradually become more abundant and diffused over the country, especially in districts where old Grape-vines exist; just as the fungus diseases of Apples are found to increase where old orchards abound. Another reason why young vines are less liable to the disease than old ones, may be that their roots, being more superficial, do not find so abundant a supply of sap during the heat of summer.

Col. Colman, of St. Louis, said, in his opinion the pear-tree blight was produced by the same causes as the grape rot, as it made its appearance during the same kind of weather, and when the growth of trees is most rapid. In this opinion I concurred, and added also, the apple twig blight, remarking that these ideas would be found set forth in the recent report of the Ohio State Horticultural Society.

Painesville, Ohio.

Farm Topics.

AUTUMN WORK, COMPLETED.—III.

We have spoken in former articles of the method and order of fall work; of harvesting and marketing the season's crops, and of putting everything in readiness for winter.

Now the prompt and energetic farmer will often have this all fully done before winter even begins to come on; and a feeling of real satisfaction comes to him as he looks over his well cleaned fields, at his warm house and barn, and his well filled cellar, wood-shed, barn, corn crib, meal room and hay mows, and says, "Now come on, Old Winter, we are ready for you!"

But often winter delays, or begins so mildly that a month's work may yet be done on permanent improvements or work for the future. Such work should be previously planned and laid out, so that it may be begun at once when the fall work proper is done.

Tile draining

may be carried on more or less all through a mild winter in latitude of 40, and sometimes even 41 degrees, provided the work is properly laid out beforehand. All surveying, leveling and locating should be done, and the ground should be staked and mapped, if necessary, in dry, pleasant weather. Also a very deep furrow, or dead furrow, should be cut wherever a tile drain is to be sunk. This serves two purposes:—it saves nearly half of the hand-digging, and it makes a place for light snow to lodge and prevent the ground from freezing so hard that it cannot be dug. Even without snow, the loose earth at the bottom of the furrow is a protection, except in quite severe weather. The tiles, too, should be distributed before the ground is too wet, in snug piles of about 30 tiles each, at proper distances along the furrows. Then the tiling can go on whenever the cold is not so severe as to freeze the earth to the tools. This will not be until the thermometer is three or four degrees below the freezing point, since the warm earth constantly warms the spade as it is thrust down through it. But in cold or "catching" weather, we must cut the "gutter" or "groove," lay the tile and fill the ditch as fast as it is dug, or at least before the clay thrown out has time to freeze. Especially at night must we finish up all work begun, put a wad of straw or grass in the upper and unfinished end of the tile, and dam the furrow above, so as to prevent wash in case of rain. If we do this, a hard freeze or a heavy rain will do no harm, and as soon as suitable weather returns, even if not till March, the wad of straw can be removed and the work proceed without delay. In filling, only the part thrown out by the spade need be shoveled in. The bottom half foot, at least, should be thoroughly packed or "tamped." The surface earth thrown out by the plow may be plowed back in the spring, and thus much hand work be avoided.

Tile draining thus done, involves little actual expense, except the cash paid for tile, which will be from $12 to $15 per acre for two-inch laterals and three or four-inch mains, the laterals being 33 feet apart.

Turf Plowing

is another kind of late fall work. The grass protects the ground from freezing, so that this work may be continued till quite severe cold. Clay turf may be safely plowed in the fall or winter, even when quite wet, as subsequent frosts crumble the soil and prevent the packing and lumping that otherwise follow the working of clayey soils when too wet.

Fruit and Ornamental Trees

may be set late in the fall, if the roots are not

exposed to frost. But this work is better and more safely done in October or early November.

Rough Pastures

may be cleared at this season. Many pastures in the dairy regions of Ohio and New York shade off gradually into the woods, there being no dividing fence, and on all the decent farms the best trees along the edge of the woods having been culled out for timber or wood, what are left are gaining nothing by growth, but only growing worse and shading the ground, which might otherwise furnish good pasturage. All over many dairy pastures are scattered worthless trees, such as Beech, Elm, Pig-Hickory, Thorn-Apple, etc., whose roots exhaust the soil, whose branches shade it, and whose whole appearance is unsightly. An occasional handsome Elm or Maple for shade, especially along a fence line where it will not interfere with future tillage, adds beauty to a landscape, but we speak of pastures disfigured by scores of worthless trees and thorn bushes. Such pastures furnish excellent late fall work. Bowlders and cobbles can be pried out and drawn off in dry, warm weather, and when the ground is soaked, men and teams will dig and pull out thorn bushes and quite sizable trees faster than any one unaccustomed to it could believe. Cut the roots opposite to the way the tree leans, hitch a long chain well up in the branches and let your steady team pull and twist, as your man cuts the other roots. Trees that are too large to be handled with the team, may be trenched about deeply, and the roots cut, and the frosts and rains and thaws and winds of winter will capsize or loosen most of them by spring. A part of the pasture may thus be cleared ready to fence and plow in spring. When steady cold comes, the "ragged edge" of the woods can receive attention. Strike a straight line through the edge of the woods, parallel with the highway or with your line fence, and back far enough to take in all the scattering timber, and clear off all that lies outside of this line. Save and use all that is fit for wood or timber, and burn the rest and the brush as soon as they are dry enough. The ground thus cleared will furnish pasturage instead of that you have just converted into plowed land or meadow, and will greatly improve the appearance and real value of the farm.

Such are a few of the jobs of late fall work that may be found on most farms. They will vary much on different farms. We intend to suggest specimens rather than enumerate all. They are chiefly permanent improvements, or work for the future year or years. They bring a feeling of real satisfaction. We can almost imagine that the farmer whose farm is so "snug" and tidy and well cleared and drained and fenced that he can absolutely find *nothing* of this sort to do, nothing to increase *permanently* the beauty or productiveness of his farm,—we can almost imagine that such a one, if such there be, might well sit down, like Alexander the Great, and "weep for other worlds to conquer."

WORK FOR LATE AUTUMN.

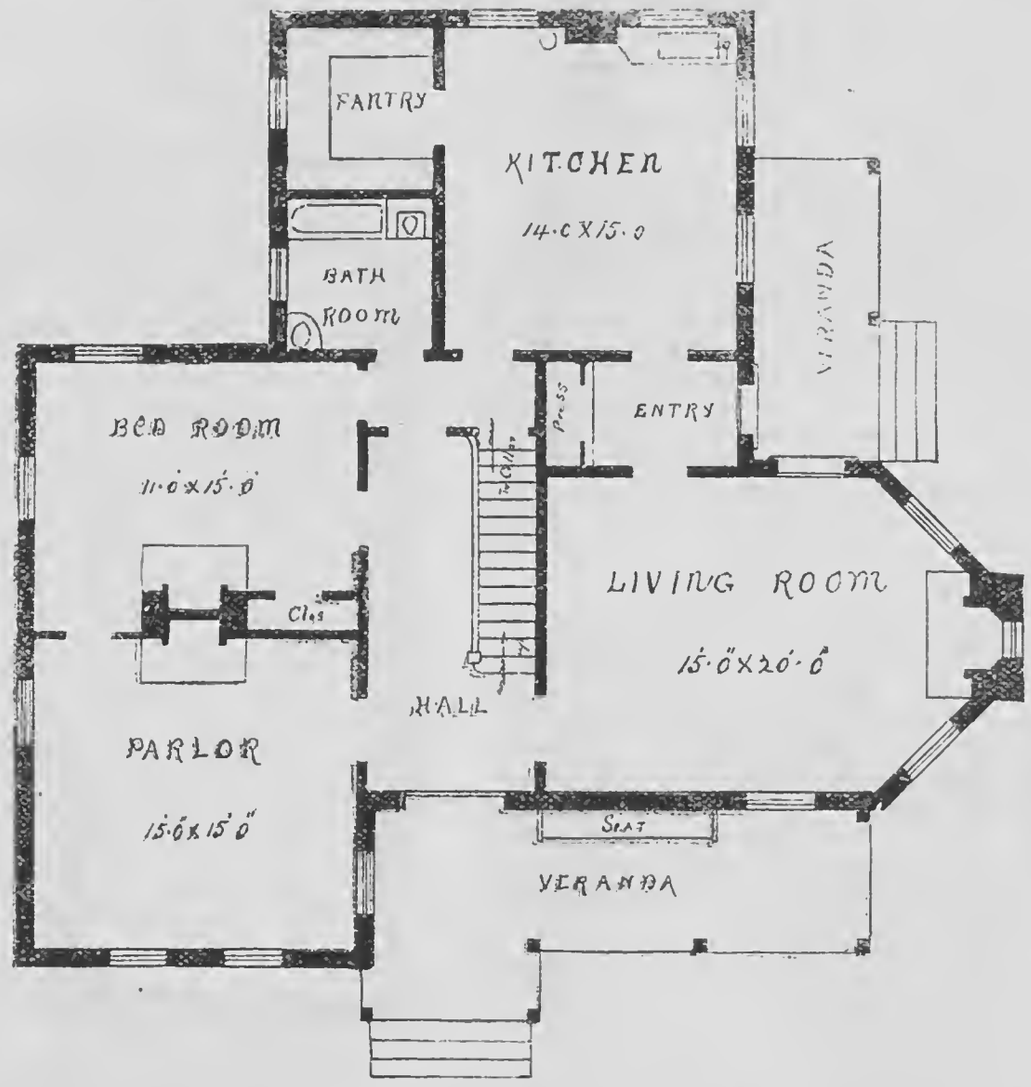
MANY farmers think because the crops are all harvested and the general farm work of the year is finished, that there is nothing more to be done. This may be the case on some farms; but in many cases if the farmer will look around him, he will find some things which might be done profitably before winter sets in. There is no time in the whole year which furnishes a better opportunity for farm improvements than these late autumn days, when there is little else to do. Repairing out-buildings and fences, picking stones and making them into walls for fences, or piling them into heaps to be drawn off on sleds in winter, or any kind of work which may suggest itself to the farmer, may be done now with profit.

Fall plowing is very popular in many localities and with many farmers. Farmers who have teams standing idle, may use them profitably in plowing fields where oats or barley are to be sown next spring. This not only saves work in the spring, which is a busy time for farmers, but all clay soils are benefited by being plowed in the fall. It is better that the ground should be left rough after the plow, so that the more surface will be exposed to the action of the frost, which sometimes works wonders in pulverizing lumpy, bakey soils. Especially should gardens, where early vegetables are to be grown, be plowed before the ground freezes.

Stock of all kinds should have some protection from pelting storms of snow and rain. If this is not already provided, it would be well to invest a few dollars in erecting new shelters and repairing old ones. Every good farmer knows that it is a saving of feed to give stock comfortable quarters in the winter. Animals will require much more fodder when exposed to cold pelting storms than when they have a comfortable protection. Therefore, as the drought has shortened the supply of feed over a great extent of country this season, it will be economy to see that stock have good shelter for the coming winter. Domestic animals should have especial attention at this season. There is a period between grass and hay when there is danger of their becoming almost spring-poor before their owners are aware of it.

Farmers who have manure in their barnyard would do well to draw it out and spread it before the stock are turned in for winter.

Chemung Co., N. Y. G. GOFF, JR.



FIRST FLOOR —(SEE FIRST PAGE.)

JOTTINGS AT KIRBY HOMESTEAD.

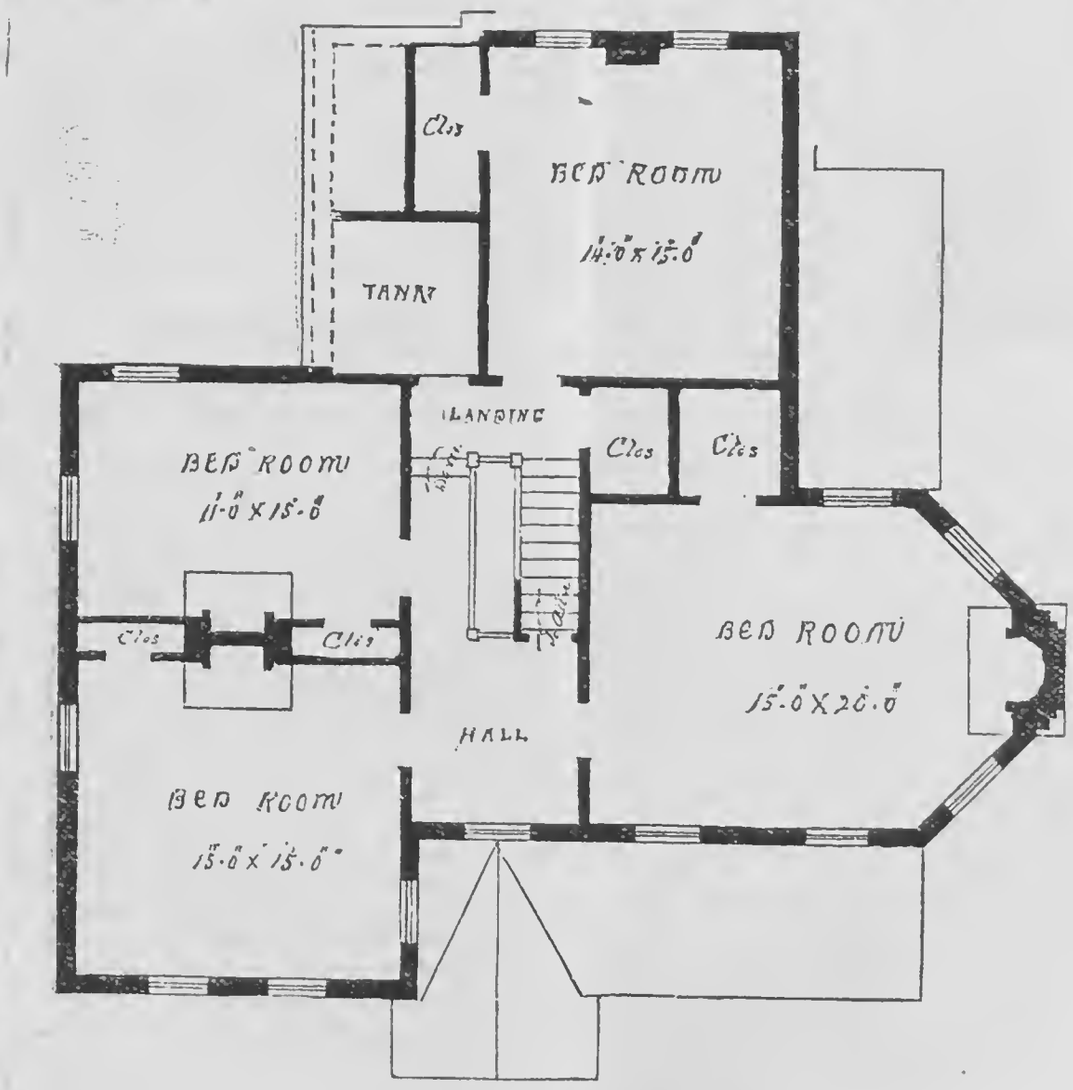
COL. F. D. CURTIS.

How to Grow Good Corn.

THE best piece of corn grown in our neighborhood belongs to Mr. Veeder. It was manured in the hill with well rotted barnyard manure. A small shovelful was thrown into the hill, on which the seed was dropped. This corn came up rank and vigorous, and grew rapidly. It kept ahead of other corn all the season. We are convinced that it is the best plan to apply manure directly to the roots of plants, or, in other words, to so place it that the roots of plants can feed upon it as soon as they begin to grow. An early start is a good start, hence it is advisable in sowed crops to harrow the manure in. Mr. Veeder's corn field was an old meadow not particularly rich. The crop was thoroughly cultivated, which helped largely to make it such a good one. There is no doubt but that it would pay every farmer well to prepare a compost, especially for his corn crop, and put it in the hills. The fine manure could be set apart for this purpose. In it should be mixed the contents of the privies and chamber wastes and soap-suds. A quantity of plaster—sulphate of lime—should be thrown over the pile frequently, and mixed through it from time to time to prevent the escape of the gases. Plenty of plaster will also make the compost dry and in a condition to be handled. The hen manure should be carefully saved, and may be added, mixed with plaster, so that its volatile properties shall not be lost. A little pains-taking on the part of farmers at the beginning of winter and during the season when they have plenty of leisure, will enable them to accumulate a quantity of compost which will cost them but a trifle, and which will insure them a good crop of corn. The same kind of compost will be valuable for a root or any other kind of crop, but particularly for corn, owing to the fact that it grows in hills and requires a good start if a fine crop is expected. We believe that a handful of this compost put into a hill, with frequent and thorough cultivation—and by cultivation we mean with a horse and cultivator—will produce a better crop on ordinary land than plowing under a liberal coat of manure, with a lack of cultivation. The compost pile should be kept in a dry place where it will not be leached by rains, and where it can be turned over occasionally.

Value of Rural Seeds.

Esquire Davidson, one of our best and most thorough farmers, says that the Beauty of Hebron which he received from the RURAL office, will be worth to him several years' subscription. The Golden Rural tomato he thinks is the best variety he knows of. We coincide with him, and like them the best of any to eat raw. They do not cook quite so well as some other kinds.



SECOND FLOOR.—SEE FIRST PAGE.

Shelter Belts.

We realize the benefits this fall of the protection from the cold wind afforded by a belt of trees, when gathering the roots. On the east side of the shelter belt the roots were not frozen and were gathered in nice order, while at the same time on other portions of the farm not thus protected, the ground was frozen and the wind blew so cold that the work could not have been done. We regret that the whole west side of the farm had not been planted years ago with a hedge of evergreen trees.

Tainting Milk and Butter.

Turnips of any kind will taint the milk and butter when fed to the milch cows. Beets and mangels will not do it, but will improve the quality and quantity. We have tested the matter thoroughly this season. Our oxen are plowing every day and doing good service with a feeding three times daily of mangels and hay. We find this to be the cheapest keeping for them. In the spring we intend to give them the same rations, and expect that they will perform a large amount of work, and at the same time be in good condition.

Planting Nuts.

We hope all the RURAL boys and girls have planted nuts this fall. We have put in a bushel of different kinds for the babies, and we had the pleasure of gathering in the nut grove a nice lot of English filberts and some of the native sort. Our Spanish chestnut tree blossomed, but did not bear. Next year we shall look for a crop of chestnuts on it. It is only eight feet high and has been set out only three years. These trees will bear nuts six years from planting, as they do not grow so large as our native kinds. The hickory trees grow slowly. By-and-by we expect to see the nuts on them, but it will not be until the babies get to be young people. This makes it all the more important to start them as soon as possible. The nuts must be planted before they get too dry, and must not be covered up deep. An inch under ground is enough. Pick out good kinds, and there will be lots of fun ahead.

Arboricultural.

AMERICAN TREES FOR AMERICAN LAWNS.

SAMUEL PARSONS.

THERE are two or three questions that present themselves forcibly to every thoughtful lawn planter in America. He makes, in short, as he looks mentally over the best lawns of the country, several pertinent reflections. When he asks himself why it is that the best work in lawn-planting is essentially English work, done after English patterns, he will be apt to ascribe it to the not exclusively American fashion of imitating foreigners. Yet he reflects that very perfect lawn-planting surrounds the homes he has seen or heard of in Great Britain. This being the case, is it surprising that Americans, cultured or otherwise, want to possess similar abiding places? They have seen the thing done abroad: they can obtain veritable British gardeners; why should they not create the same effects here? In fact, the successful American believes, at least as much as his European neighbor, that money is King and will accomplish anything, if used in sufficient quantity. But can money give him an English lawn? I believe it cannot.

Leaving questions of the value of foreign methods, we are met by another query, namely:—why plants popular on English lawns from adaptation to English climate, are almost exclusively used in this country. The answer again suggests itself, that Americans perhaps are too much absorbed by foreign models to recognize their own wealth of lawn plants. I don't believe Americans are naturally snobbish, nor do I believe they would neglect American lawn-planting material, if they realized its value. It is certainly not unreasonable that they should imitate the excellent lawn-planting of Europe. They could scarcely be expected to copy, to any extent, American models of lawn-planting; for such models are few and far between. This is all very true. We are yet in swaddling-clothes, as far as our own lawn-planting goes, and may be readily excused for following the lead of elders and betters.

But must we always remain mere imitators? Can we not originate veritable American lawn-planting founded on the employment of home material. The general principles of lawn-planting are always the same the world over. It is simply a question of judgment and taste in selecting and arranging materials after time-honored methods. By American lawn-planting, furthermore, I mean a system that retains such portions of English landscape-gardening and lawn plants as will suit America, but which, in the main, employs American plants. Just think for a moment what excellent lawn plants we have! Positively we cannot, any of us, realize their qualities or we would not neglect them. The American Oaks alone, with their rich, enduring and wonderful forms, would make any lawn a success on which the

were properly and harmoniously grouped. Where are our Slippery Elms, our Kentucky Coffee Trees, our Liquidambar, our Magnolias, Cypresses, Virgilias, Andromedas and Stuartias? They are almost unrivaled as lawn trees, especially in America, and they are scarcely seen on lawns in either Europe or America. Why not be distinctively American? Do not our chances of success in lawn-planting lie just in that direction? Should the frequent failure of European lawn plants—Deodar Cedars, Mahonias, Hollies, Aucubas and what not, encourage us to use them exclusively on American lawns? Evergreens of most kinds never attain the perfection here they do in Europe. Yet, where we must use the evergreens, we gain by using American evergreens. The White Spruce (Abies alba) and Engelmann's Spruce (Abies pungens) are both more satisfactory plants in America than the universally popular Norway Spruce. These are questions and reflections which deserve serious consideration, if we are to develop anything distinctive or national—anything worthy of being called American lawn-planting.

Do not understand what I say as intended to decry the cultivation of European plants generally; for to Europe we must ever look for some of our best lawn-planting materials. I would even secure, for the sake of variety, somewhat tender European plants in sheltered spots, Mahonias, Chinese Arbor-vitæs and choice evergreens of like tender natures. But these should not make up the major part of the lawn, as often occurs. I would keep, in fact, evergreens of all kinds, both shrubs and trees, in strict abeyance on the lawn to hardy deciduous American plants. Believe me, I do not exaggerate when I say that American lawn-planting would soon enter a higher and more prosperous phase of its existence—for it does exist—if European models were followed soberly and with discrimination.

The Herdsman.

JERSEY CATTLE.

F. K. MORELAND.

It is an axiom in breeding that "like begets like;" and also that a well-bred animal has greater power in stamping his own likeness upon his offspring than is possible with scrub stock. A cow of dung-hill breeding may drop a calf totally opposite to herself in appearance, color and form. A red cow may drop a calf of white, a brindle or black color, according to the color of the animal with which she is coupled. It is almost impossible for a dung-hill animal to produce offspring in its own likeness, even if that likeness is a poor one, and the cause is simple:—there are no marked characteristics which, according to the established principles of breeding, must be impressed upon the progeny of scrub stock. Take any of the pure breeds of dairy animals, and couple a male or female with one of the opposite sex of dung-hill breeding, and, in nine cases out of ten, the progeny will bear the likeness of its thoroughbred ancestor. There may be many marks of the dung-hill ancestor, but the offspring of such a union will possess undeniable distinguishing marks of the existence of good blood in its system. It is only upon this principle that thoroughbred stock becomes valuable for improving scrub stock. There may be native stock as valuable for feeding purposes as the Short-horns, as valuable for dairy purposes as the Ayrshire or the Jersey; but their value for breeding is unimportant. Where a thoroughbred animal, when coupled with its kind, will produce offspring as good as the average of its breed, with the greatest regularity, a dung-hill animal, no matter what good qualities and excellent points may predominate, has a slight chance of producing offspring having the same exceptional qualities, even to a modified extent. The older the breed, and the more permanent and well fixed its distinguishing characteristics, the greater is its value in improving other stock. And it is for this purpose and this reason that the Jersey stands pre-eminent among all other breeds for the improvement of other stock. The breed is an old one; it has been so placed that there was but little danger of the introduction of foreign blood, and, moreover, the authorities on the Island, more than one hundred years ago, prohibited the introduction of foreign stock. The good citizens of Jersey evidently thought that their breed was good enough, and it is to their far-seeing policy that we are indebted for the present valuable race of Jerseys. These may not compete with Short-horns in converting corn and grass into beef; but they will make much more butter from the same amount of corn and grass. They may not give as much milk as the Ayrshire or Holstein; but the Jersey butter is known the world over for its superior excellence.

One word as to the growing importance of the breed in the United States. There are more Jerseys bred in this country to-day than in any other. Our breeders, with an enthusiasm that is commendable, annually import from the Island the best specimens of the breed that can be purchased. This course cannot be continued many years, without its effect being felt here as well as on the Island of Jersey. That our breeders should import the best and only the best that are bred in Jersey, is quite right, as they can breed the inferior grades with but little trouble. But it is not only to the importation of the very best that can be obtained, but also to great success in breeding that the growing importance of the American Jersey interests is due. There are many large herds of Jerseys to-day that in purity and value will compare favorably with anything in any other country, even in the Island of Jersey. The American Jersey Cattle Club takes just as effective precautions to preserve the purity of the breed as is possible for the local authorities of Jersey. And we have other advantages in the breeding of Jerseys, and, among them, one that the Island breeders must soon see:—we breed the cattle throughout the extent of a vast country, through a vast diversity of soil, climate and herbage. All these influences must have their effect, and in less than ten years we shall not only export Jerseys to every country to which the Island exports them, but we shall also export Jerseys to the Island of Jersey. This is not an absurd statement; the Short-horn breeders of England have for several years purchased cattle from our breeders, and why may not the breeders in the Island of Jersey come to us for Jerseys, in the same way. We are making as good progress in breeding Jerseys as we ever did in breeding Short-horns.

But this is the future. We can use this valuable breed for a much better purpose than as the foundation of "castles in the air." The breed is designed to be *the* breed for this country. While occupying an unassailable position in those States that are especially devoted to the production of butter, cheese and milk, the breed is yet to contest for first position in those States that are still devoted to the production of beef. Cheap lands and cheap grain will not always continue at the West, and the farmers will be compelled to try some other branch of husbandry than the production of beef.

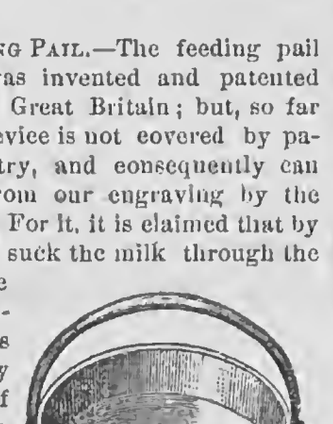
In the Eastern States where any attention has been paid to the production of butter, we find that Jerseys already take a first rank, and we have not only many herds of pure Jerseys, but also many other herds of high-bred grades; and as grades they are excellent in disposition, beauty and value. A three-fourths Jersey is, I think, as pretty an animal as can be found. In St. Lawrence County, we have not only several good herds of pure Jerseys; but numerous dairies possessing a strong infusion of the best of Jersey blood.

St. Lawrence Co., N. Y.

Herdsmen's Conveniences.

Anti-Sucking Device.—The accompanying engraving illustrates a device found very useful in preventing calves from sucking cows and also cows from sucking each other, a fault they sometimes fall into, but it is not very effectual in preventing cows from sucking themselves, an effective contrivance for which purpose we shall give in our next issue. The spikes in the halter are simply wrought-iron nails, with flattened heads, stuck through a stout piece of leather, and the heads protected underneath by another piece of the same material. The engraving sufficiently describes the form, size and method of attaching the halter. Prof. Sheldon says that after trying many devices for the above purpose, he has never found any so effectual as this.

A Calf's Feeding Pail.—The feeding pail here illustrated was invented and patented some years ago in Great Britain; but, so far as we know, the device is not covered by patent in this country, and consequently can safely be made from our engraving by the nearest tin-smith. For it, it is claimed that by causing the calf to suck the milk through the india-rubber tube shown in the engraving, nature's process is closely copied, and the calf cannot gulp down its food, as is too commonly done when drinking from a pail; moreover, the saliva of the mouth mixes freely with the milk, and the digestion is thereby promoted. Then again, it obviates the necessity of putting one's finger into the little thing's mouth, and, furthermore, as the pail stands on a broad base and cannot easily be knocked over, one person can tend a number of calves while they are being fed, and none of the food is wasted. A pail of this kind, 'tis true, requires a little more cleaning than an ordinary pail, but the extra trouble is amply repaid by the extra convenience.



Horticultural.

PITS FOR WINTERING PLANTS.

In every garden, be it large or small, and especially if bedding and pot plants are grown to some extent, nothing is of greater convenience or, in fact, more indispensable than a pit for wintering plants. Many petted plants that are too valuable to throw away or that have become too dear to be parted with, are yet for the want of room, against the inclination of their fair owners, turned out of the pots and abandoned to their fate in the fall, when preparations for winter must be made. Or, if retained, they are stored away in cellar, in sitting-room, bed-rooms and in every available window where Jack Frost can be kept at bay, till their number quite discommodes the occupants.

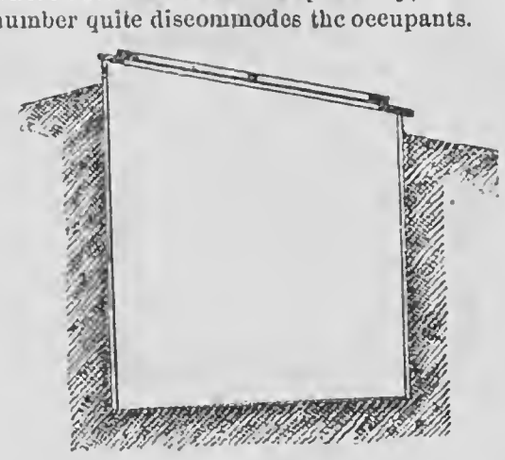


Fig. 1.

In the pits we here illustrate a large number of such plants can be wintered as well as, or better than, anywhere else. In fig. 1 can be kept tall-growing, half-tender shrubs and plants, like Roses, that only require to be sheltered from frost. The pit represented by fig. 2, has two shelves on which can be placed plants like Cenerarias, Pinks, Violets in pots, etc., that must be close to the glass; while the sunken path through the middle can be filled with taller plants.

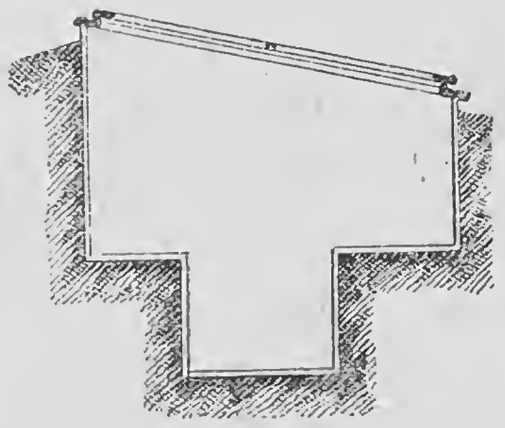


Fig. 2.

Such a pit should be lined inside with boards, and drained if the ground is damp. If made so that the ordinary sashes from the hot-bed or cold-frames can fit it, the expense of building will be very small. For a large part of the winter the sashes alone are sufficient covering, and when the cold increases, frost can readily be kept out by covering with straw mats, hay and the like.

Miscellaneous.

HISTORY OF A POOR FARM. No.—20.

Farming Sixty Years Ago and Now.

My old neighbor is what one might very justly call a good practical farmer. He is one of the old style that are fast disappearing. Beginning his farming experience more than 60 years ago, he has varied his management and his methods very little from that day to this. Born on a farm 87 years ago, and brought up a farm boy, he learned his business under very different circumstances from those of the farm boy of the present time. To hear the old gentleman,—still shrewd, sharp, with all his faculties as bright as ever, but somewhat garrulous as may be expected in so old a man—recite his early experiences is both interesting and amusing. Sitting in his ample kitchen, in his stone house that has withstood the storms of more than a century, with a broad, open fire-place that still holds the long-accustomed wood fire with the enormous back log that, smoldering, gives out a plentiful but not too fervent heat, he relates his past history when his farm was worked by slaves, and a large family of them filled this broad and capacious kitchen. Then he talks of his long experience in farming, and laments the changes and new-fangled ideas which he fears will yet bring trouble to those who come after him. The old gentleman's greatest trouble seems to be the papers and books which his grandson and his great-grandchildren—and more especially the oldest, Fred, who has been to college—read and study so frequently.

"We had no books in those days" said the old gentleman, "and if we got a letter once in three months and heard the news when it was a month old, that was enough for us. We had no time for such things, nor money either. We raised corn and pork, grew our own wool, spun our own yarn, wove our own homespun; my wife and mother cut out the clothes for the slaves, and the wenches sewed them; we were not bothered for shoes, because I had but one pair which I wore to church on Sundays, and they lasted me 10 or 12 years; different shoes they were, too, from what we have now. We were up long before day and went to bed at dark, or sat around this same fire-place and spun wool by the fire-light. We had no lights in those days but rushes dipped in beef tallow, no lamps, no oil, no carpets, no store chairs, only what we made at home; nothing to buy and scarcely anything to sell, and there was but little money to get or to use. Grandmother used to ride to market on horseback, and take some butter and eggs, and I used to go in the cart and carry some flour and bacon and other things, and bring back, sugar and coffee and whatever else we wanted, and maybe a few silver dollars and some shillings for the boys. There were no wages to pay and we needed little money and had nothing about us that could tempt thieves; the latch-string was out all night, and we never kept awake o'nights afraid of burglars. We had good crops; the big barn was always full and so was the cellar. Those were good times—no hurry, no fretting, no worry, no crying out for money to buy this or that every day in the year; we had all we wanted and we wanted very little; we worked hard but we were happy enough, I warrant."

"What crops did you raise when you first began farming here?" asked Mr. Martin.

"Corn mostly, to feed the hogs and make the bread of; a little wheat or rye for bread; barley and oats for the horses; and the cows and sheep ate the straw. We raised flax to spin for our linen, grew potatoes, but never seeded to grass until we began to grow clover about 50 years ago. Then we began to farm pretty much as we do now. I have not changed the work much for fifty years; except that we don't raise as much pork since we have had no slaves to feed."

"How many slaves did you keep?" asked Mr. Martin.

"I had seven men and two women, all raised in the family, and some came to me with the farm when I bought it; and one of the men is working for William now; he was born in this house 70 years ago, and thinks the whole place belongs to him. If any thing should go wrong, he would go crazy, I think."

"How long have you followed your present plan?" I asked.

"A good many years. At first we did not care so much for manure, but soon found we could not get along without it. Now we feed nearly everything we grow, and for a good many years have sold only butter, some sheep and wool, potatoes, a spare fresh cow or some fat ones and fat calves; and William is raising a good many lambs now. William wants to sell hay and straw, and buy bran and oil meal, but I don't see the use of it. We can save two or three hundred dollars every year, and I am satisfied. When I am gone, William will have his own way, he will drain the meadow I suppose, where I have cut hay every year for 40 years or more, and plow it up; he will spend all he makes in buying feed for his cows and fertilizers for the fields; but I don't see the use of making with one hand and spending with the other."

"Grandfather has his own way pretty much," remarked William; "he has his notions and I do as he wants me; but I am sure we could have doubled our corn and wheat this year, if we had used some superphosphate on them. He thinks we are doing well enough, and so we would; but I don't want my wife and girls to go barefoot, and hoe corn along with old Joe, in place of a hired man. We have been growing good crops; we have plenty of manure, and lime a field every year when we seed it down. We get 40 or 50 bushels of corn to the acre; 100 bushels of potatoes; 15 or 20 bushels of wheat; 40 bushels of oats and about a ton and a half of hay; that is as much as, or more, than any of the neighbors; but I am not satisfied with that. We can make ends meet and a little more; but there is nothing to pay interest on the cost of this farm, and if I had rent to pay, I couldn't meet it and keep my family as comfortable as I want them to be, buy a few books and papers and have a carpet on the floor. If we wanted to live in the old style, we could save money now; but there are some things that are worth more than money, I think. I want to get a larger yield than we are now getting, and I think I could, by spending some money for feed and for fertilizers."

"You are right," remarked Dr. Jones. "We cannot farm now on the old plan. Habits are

changed and the very necessities of our lives are different from what they were even 20 or 30 years ago. The railroad, the telegraph and all the modern improvements in business and social matters, have worked a wonderful change which we must conform to or stay behind. We must take advantage of every facility offered to us to improve our methods of working. I believe the owner of a farm, if he is an intelligent man, and knows his business, is worth more than a dollar a day. But if he is working in the field, hoe in hand, with a hired man by his side, he is simply earning a dollar a day or whatever he pays his hired man. But there is more valuable work to be done on the farm by the owner than laboring.

Every farmer should try to find out for himself what this is; it is there, and the intelligent farmer will soon find it, if he looks for it. I would not make radical changes; such, for instance, as trying to farm with chemical fertilizers only, or growing corn continuously, or such risky novelties in farming. But William is on the right track. He needs to make haste slowly. If he has not manure to make his land rich enough to grow 80 bushels of corn or 40 bushels of wheat per acre, he should try to get as near to that as he can with artificial fertilizers, to help out the manure; feed his cows richer food and make more butter; spend five dollars wherever he can see that he can get back ten; keep an extra man in his corn fields killing weeds for two months after planting, and by so doing add two or three times the amount paid, to the value of the crop; grow a few acres of mangels instead of the turnips he raises, and raise a few heifer calves into cows, and keep these on his extra roots, in place of selling veal. There are other ways that will open out as soon as he gets on the broad road, and he can take his choice as to which he will follow; for they will all lead to one end, and that is better crops, richer land, more stock, more manure to keep the land more productive, and more profit. There is a certain yield which the land will give naturally which may be increased by better culture and some judicious expenditure, and this increase may be expected to repay its cost with 100 per cent. profit. That is where good farmers must look for their profits now. The land may return a bare living under certain circumstances, and a handsome profit under others. To discover what are the methods of doing the latter is the business of the farmer of to-day, who cannot live as did our grandfathers 50 years ago."

"You might live worse," remarked the old gentleman. "I don't think the world is a bit better for all these new-fangled ideas, for all the gold and silver there may be flowing into people's pockets. Men are never contented. Where are you going to stop? Get all you can now, and what will you want 20 years to come? Maybe you may hear your grand children talking of things then as you talk now. Why not? Things have changed in the last 20 years as much as in 50 before, and where will you be 20 years from now?"

"Let us wait and see, and not fret about that just now," said Mr. Martin. 'Sufficient for the day is the evil thereof;' and a farmer's business is not so brilliant, after all, to-day as folks are bragging it is. Crops are good no doubt, and prices are good; but the speculators have the cream of the profit from the high prices, and we have the pleasure of seeing the money we worked for falling into the pockets of men who never worked a day in their lives."

"That was not one of our troubles in my day" remarked the old gentleman, "that comes of your new ways, and is one of your modern improvements."

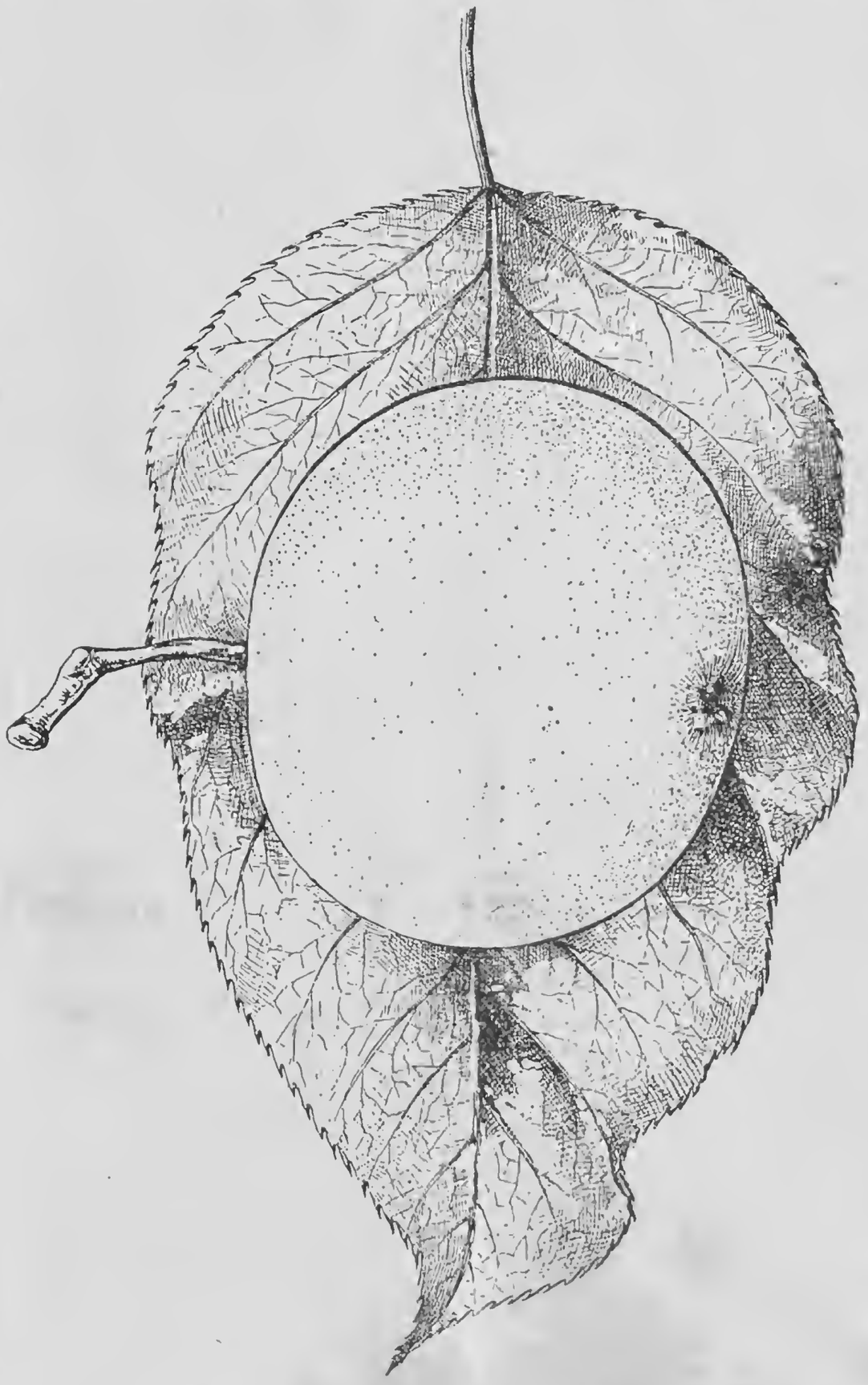
PAMPHLETS AND CATALOGUES.

The Native Flowers and Ferns of the United States; By Thomas Meehan. Published by the American Natural History Publishing Co., Philadelphia. We have now to acknowledge Parts I., II., III., IV., of the second series of Vol. I. Referring to the colored plates with which this work is embellished, Dr. Asa Gray thinks that they compare "not unfavorably" with those of Mr. Sprague who is placed at the head of our botanical draughtsmen. Considering the extremely low price at which this work is offered, this is indeed high praise, as Mr. Meehan remarks. We have recommended this work to all of our readers, without reserve. To the botanist; to the amateur; to the lover of flowers, it is alike a work that can not fail to please and instruct. Each series is complete in itself. Those, however, who purchase one series could scarcely rest content without the others. The colored plates in the Parts now before us are as follows: Part I, Drummond's Pitcher-plant (Sarracenia Drummondii); Cut-leaved Englemann Flower (Engelmannia pinnatifida); Sandpaper Starwort (Diplopappus linarifolius); Sensitive Fern (Onoclea sensibilis). Part II. Parrot-headed Pitcher-plant (Sarracenia psittacina); American Yellow Lily (Lilium Canadense); Torrey's Solanum (Solanum Torreyi); Californian Polypody (Polopodium Californicum). Part. III. Spotted Touch-me-not (Impatiens fulva); Spring Iris (Iris verna); Common Woodsia (Woodsia obtusa); Red-flowered Trumpet Leaf (Sarracenia rubra). Part IV. Bipinnate Phacelia (Phacelia bipinnatifida); Brilliant Cone-flower (Rudbeckia fulgida); Stemless Moccasin Flower (Cypripedium acaule); Walking Leaf (Camptosorus rhizophyllus).

Pomological.

THE JAPAN PEAR.

This remarkable pear tree, Mr. James Hogg informs us, was originally imported into this country from France about forty-five years ago. One of the first specimens that were grown in the vicinity of New York, was planted in the nurseries of Messrs. J. & T. Hogg, in the upper part of the city, near Second Avenue, in 1841 or '42: but the tree is now frequently met with both in nurseries and private grounds all over the country. The tree is a very vigorous grower with long chocolate-colored branches, and bearing large white flowers, and very large, deep-green, shining leaves. It is handsome, and its conspicuous flowers, rich foliage and symmetrical fruit—of which it annually bears an abundant crop—combine to make it one of our most beautiful ornamental trees. It is also very hardy, and is never affected in the least by blight, for which reasons it has sometimes been recommended as a stock on which to graft more tender and sickly varieties; but it is not suited for this purpose; the wood seldom or never unites with the graft, though the bark does, and the graft is therefore easily broken off and the growth impeded.



FRUIT AND LEAF OF THE JAPAN PEAR.—(FROM LIFE.)

The leaf and fruit shown in the illustration, are drawn from specimens sent us by Mr. T. S. Force, of Newburgh, N. Y. As will be observed, the fruit is of a spheroidal form, smooth and regular and marked with numerous minute dots. The color is green, but changes to yellow by keeping. It has a somewhat astringent, slightly acerb taste, which does not improve by keeping, and it is never eatable unless cooked. For cooking purposes, however, it is fully equal to the quince, and when properly preserved, it has the consistency of Canton preserved ginger.

The tree commenced bearing in this country from seedlings, and some pseudo varieties have been advertised as being great acquisitions to our orchards; but none of them is better than the original species.

MICHIGAN STATE POMOLOGICAL SOCIETY.

Annual Meeting in Allegan, Dec. 2, 3, and 4, 1879.

In acceptance of an invitation from the Allegan County Pomological Society, the State Society will hold its annual session in the village of Allegan, December 2d, 3d, and 4th, opening with an evening lecture at seven and one half o'clock, Tuesday the 2d proximo.

The following list comprises the main topics for discussion during the day sessions:

1. Pruning pear trees.
2. Scale of points in judging fruits and orchards.
3. Is the grape rot doing damage in our State?
4. Growing native Ferns.
5. Mutual relations of nurserymen and fruit growers.
6. How to use flowers in the home, the school-room and the church.
7. Culture of the Quince in Michigan.
8. Distances apart for planting fruit trees and plants.
9. Habits of observation a practical assistance to the fruit-grower.
10. Native and introduced climbers.
11. Influence of local horticultural societies upon communities.
12. Practical workings of the yellows' law.
13. Grape-vine thrips and how to battle the pest.
14. Management of young orchards.
15. Horticulture at the Agricultural College.
16. Are we not lowering the pomological standard of merit by too often applying the market test?
17. Describing Apples by their flowers.

Aside from the above topics there are two resolutions laid over from former meetings to be taken up at this session of the society as follows:—

Resolved, That the Michigan State Pomological Society recommends the use of hedges for fencing in Michigan.

Resolved, That the name of our Society be changed to accord with our work, that henceforward it shall be known as the Michigan State Horticultural Society and that the president be instructed to so modify the constitution as to accord with this resolution.

The annual election of officers will occur during the afternoon of Wednesday, December 3d.

The Allegan people will be prepared to entertain all the members from abroad who notify the Secretary of their intention to be there. The hotels will grant reduced rates to others who shall attend, and from the importance of this meeting there is no doubt but the attendance will be large.

It is important that all who are to attend shall notify the Secretary at Grand Rapids at once, that he may if possible secure arrangements for reduced fare on the railroads. Without the names of those who are to be in attendance, no progress can be made in this direction.

Any further information that may be desired will be cheerfully given by the Secretary on application. T. T. Lyon, President.

Chas. W. Garfield, Sec'y.

Industrial Implements.

SHELL YOUR CORN ON THE FARM.

Most Western farmers understand the advantage of shelling corn at home; most Central-Western and Eastern farmers don't comprehend the saving at all. We shall try to demonstrate it by a few figures. Corn on the cob is computed at 70 pounds to the bushel. Shelled corn is sold at 57 pounds to the bushel. Now, suppose it becomes desirable to sell one hundred bushels of corn, we will see if we cannot demonstrate that it is wise and more economical to sell the shelled product.

Hauled to market 100 bushels—or		7,000 lbs.
Cobs and chaff weigh	1,150 lbs.	
Clean corn weighs	5,850 "	Total 7,000 "
100 bushels shelled corn; legal weight	5,600 "	
Total loss on 100 bushels	250 "	or 4½ bushels,

besides which you haul to market (five, six or ten miles, as the case may be,) 1,100 pounds of cobs which you *give away*, and possibly haul back coal at $3.50 to $5 00 per ton. For fuel, 100 pounds of cobs are worth as much as 100 pounds of coal; therefore we figure your loss on this 100 bushels of corn, as follows:

4½ bushels shelled corn at 40 cts. (say)	$1.80
1,100 lbs. cobs at $4.00 per ton (say)	2.20
Hauling 1,100 lbs. cobs to town (say)	1.50
Total loss	$5.50

These figures are worth pondering, as it is by just such savings that farming is made to pay.

One of the best shellers is made by the Sandwich Mfg. Co. There are various sizes made, and there is the chance of making it pay as an investment, if several club together, buy a power sheller, and after shelling their own corn, do the same for their neighbors, applying the profit made on the work to paying for it.

In the long ago it was much cheaper for a farmer to take his grain to the miller, and by paying him one-eight or twelve and one-half per cent., have his grinding done at a fair price. Now, the miller will obligingly exchange from 18 to 35 pounds of flour for a bushel of wheat, so that if the wheat is worth 50 cents a bushel, the farmer pays the miller 16 bushels of wheat for a barrel of flour, or nearly 70 per cent. of his wheat for the grinding. The charge for grinding corn is 10 cents per bushel; that is, the husbandman is permitted to pay the miller one load of corn for grinding another. Such being the case, an agriculturist cannot afford to feed stock ground food, or indulge very liberally in wheat bread, unless he does his own grinding. Good farm mills are now so cheap, that it is real economy to buy one.

Those using wind power will appreciate a little iron oscillating mill made by the Stover Wind-Engine Co., of Freeport, Ills., and Green Castle, Pa. It is a novel and ingeniously arranged grinding mill, made to attach to ten and twelve-foot pumping wind mills, operated by an elbow connected with main pumping rod in such a manner that it can be attached or detached in a minute, so that one can either pump or grind, or do both at the same time. It works with a reciprocating lever, so arranged that it grinds on the up motion of the wind-mill. The grinder consists of a double metal case and three burrs, two remaining stationary and one revolving in the center, producing a double grinding surface, and it will grind more than the ordinary farmer needs. It can be changed from grinding coarse to fine by simply turning one screw. It can be attached to any wind-mill. We would recommend that the four main tower posts be boarded up, say from six to eight feet, and covered with a hipped or pointed roof, in which a bin or hopper can be made to hold as much grain as desired, and which can be filled at leisure, leaving the ground feed to run into a box, or on the floor of the grinding room, as desired.

This convenient little mill grinds constantly, day and night, and it costs, complete, only twenty dollars.

Everywhere.

RURAL SPECIAL REPORTS.

MASS., Chelsea, Suffolk Co., Nov. 10.—We have had some cold weather here, which has about put an end to gardening. It seems fortunate that there is something that suspends the growth of weeds, for otherwise the warfare against them would be tiresomely endless. Yet even with weeds one could get along; but insects are still more pestiferous and abundant, and I believe there isn't a more favorite haunt of the pests than right here. They all visit us in due time, rose bugs, squash bugs, cabbage worms, currant worms—but there is no need of completing the list; everyone who has tried gardening knows from personal experience what some of them are, and the experiences of all seem combined here. Yet, despite these drawbacks, when winter has come, I look back with pleasure at my summer's garden work, ponder where I might have done better and plan for more successful results in future. By the way, one thing I have learnt is that Yucca filamentosa seed should be soaked in warm water before they are planted. Of all places in the country, this is the most delightful for a bug-hunting entomologist. C. A. B.

MASS., Palmer, Hampden Co., Nov. 13—I was much interested in the article "Handy Things to Know, to Do, and to Have" in the RURAL of Nov. 8th, but would like to suggest one improvement:—in whipping the end of a rope, use small-sized copper wire instead of thread. The wire never wears off. The ends should be turned under and driven into the rope. H. D. F.

OHIO., Bethel, Clermont Co., Nov. 8.—The seed of Blount's Prolific, sent by the RURAL to me, to test its merits by experiment, was a miserable-looking specimen of corn. But I determined to do my best with it, and compete for the RURAL corn premiums. I must say that the plat of 33 feet square planted grew such fine-looking corn, that it drew the attention of every person who saw it, and they invariably asked of me an explanation in regard to the kind of corn and my method of planting it. The only wonderment was whether it could ripen. This problem is solved by the harvesting of the corn on my plat, in a perfectly matured and dry state, producing a pretty grain, despite the fact that the season was extremely unfavorable for ripening, being very wet from the middle of August to the middle of September. In ordinary culture this kind of corn should be planted not later than the first of May. As a corn to be raised for all purposes I can't recommend it; but I believe it would be highly profitable for feeding cattle, stalk and corn together, as the ears can be masticated in the husk readily; stock could also consume the greater part of the stalk, as it is soft and light, when cured out. I also believe, from the appearance of the grain, that it will make good meal for table use, and in roasting time it is sweet and good. Next spring I expect to plant one bushel of my seed in rows 3½ feet apart, one grain in a place, 20 inches apart, so as to make proper proportion of grain to the stalk. For this method of planting the ground should be clear from weeds. In our county corn will husk about half a crop. The wheat crop harvested last will not give much more than enough for home consumption. Oats were a half crop; of rye, not much is sown here; barley, good; potatoes, a full crop, and thousands of bushels to sell. The wheat sown this fall has been greatly damaged by the fly. The greater part of October being very warm and dry, was suitable to its work of destruction. Many farmers have resowed. In the last few days we have had some cold weather, the mercury falling to 13 above zero. This is the first warning of winter, as we have not had the snow squalls that usually envelop us before this late date in the season. G. G

WIS., West Salem, La Crosse Co., Nov. 13.—Some of all the flower seeds I received from the RURAL came up and are doing well. Defiance wheat rusted badly, as did all spring wheat here last summer. Pearl Millet grew to be six feet high. I do not think it is suitable for this climate. The seasons here are not long enough for Blount's corn. It grew very tall; had from one to five ears; but frost killed it when in good roasting ears, on September 29th. Winter wheat was good; corn was never a better crop; potatoes were a good crop and sold at from 25 to 35 cts a bushel. M. L. H.

KANS., Atchison Co., Nov. 9.—Our growing season is past, and our harvest is garnered. The RURAL's Beauty of Hebron gave a satisfactory yield, though potatoes generally just here have been a poor crop. I have just dug an acre, and for all my trouble I only got just one bushel and a half. The average in the country, however, is somewhat better—or rather less bad—amounting to about ten bushels per acre. Corn is the principal crop in this county, and this year averages from 15 to 40 bushels per acre. It is a favorite crop here, because it needs no manure. Blount's Prolific will not do for this section, as the ears are too small and it takes too long to mature. Wheat does well here, and an unusually large acreage has been sown this year. In our market wheat sells for 90cts; oats, 35cts; corn, 27 cts; butter, 25cts per pound; chickens, $2 per doz.; hogs, $3.10 per 100 lbs. C. W. B.

NEB., York, York Co., Nov. 10.—We have had a very warm, pleasant fall here, and farmers have taken advantage of the favorable season by getting nearly all their fall plowing done for next spring's crops. Quite a good many pieces of fall wheat were put in this season in our county, and it is looking first-rate. As the chinch bugs have been with us to a limited extent this season, there is quite a demand for flax-seed for next spring. Wheat is quoted at 86c; corn, 15c; oats, 20; hogs, $2.50 to $2.75 per 100 pounds. GRANGER.

The Querist.

ANSWERS TO CORRESPONDENTS.

All About Horse Manure.

A farmer, Long Island, asks for an analysis of horse manure, and all about it as a fertilizer.

ANS.—Horse manure consists of the liquid and solid excrements; the former consists of water 940 parts, urea 7 parts and saline matter 53 parts in 1,000. The urea is not the only nitrogenous portion of the urine, as some of the saline substances contain nitrogen The quantity of urea contained in the urine depends greatly upon the condition of the horse and the nature of its employment. A horse that is constantly worked hard, wastes a large proportion of muscular tissue, which is used up in the exercise of the force exerted, and this waste of fibrous tissue is carried off through the kidneys in the form of urea. So that the urine of a hard-worked horse is richer in nitrogen than that of one whose life is easier. The quantity of nitrogen and saline matter also depends upon the nature and quality of the food; oats, bran and other foods, rich in nitrogen and potash, produce urine which is far richer in these substances, than that produced from corn and straw. The saline or mineral portions of the urine contain 2½ per cent. of hippurate of soda, 0.9 per cent. of carbonate of soda, 0.9 per cent. of chloride of potassium and 1.1 per cent. of carbonate of lime; the rest consists of carbonate of magnesia and chloride of sodium. The solid excrement consists of 75 per cent. of water and 25 per cent. of solid dry matter. The dry matter contains:

Carbon	38.7 per cent.
Hydrogen	5.1 " "
Oxygen	37.7 " "
Nitrogen	2.2 " "
Ash	16.3 " "
	100.00

The ash consists of

Silica	62.4 per cent.
Potash	11.3 " "
Soda	2.0 " "
Lime	4.6 " "
Magnesia	3.8 " "
Oxide of iron	1.2 " "
Oxide of manganese	2.1 " "
Chlorides of sodium and potassium	0.3 " "
Phosphoric acid	10.4 " "
Sulphuric acid	1.9 " "
	100.00

The quality of the solid excrement depends upon the condition and employment of the animal, and the character of the food. A full-grown and fat horse makes richer manure than a young or a thin and ill-conditioned one. A horse that stands idle a great part of the time also produces richer solid manure (but poorer urine) than a hard-worked horse. The effect of the food on the dung may be illustrated by the following example given by Boussingault, viz.:

A horse was fed on a ration of 16½ pounds of hay and five pounds of oats in 24 hours. The food contained:

	Carbon.	Nitrogen.	Saline Matter.
Hay	45,500 grams	1,500 grs.	8,960 grs.
Oats	15,000 "	650 "	1,180 "
Total	60,500	2,150	10,140

There were given off from the lungs and skin in the 24 hours, 37,960 grams,

leaving to be excreted in the dung and urine

22,540 grs.	2,150 grs.	10,140 grs.

There were actually found in the excretions

22,540 grs.	1,770 grs.	10,540 grs.

The missing nitrogen would be used in the repair of the wasted muscular tissue, which reappeared in the saline matter. For 1,000 pounds of dry food and litter may be expected 2,000 to 2,300 pounds of fresh manure, and the whole manure, including litter, will, of course, be modified considerably by the presence of the added material.

A Would-be New Cereal.

M. M., Bryan, Texas, sends us an extract from a Galveston paper describing what it calls a new kind of cereal, and asks our opinion as to what is said of it, and where seeds can be obtained. The correspondent who describes this plant had 40 acres of sod turned over last spring, and having procured several quarts of the seed, with an ordinary seed-planter he deposited two or three grains a foot or two apart in the sod. There had not been a drop of rain for the previous eight months, and it did not rain for five weeks after the planting, yet the seed germinated. The corn came up and grew finely. After it got fairly started, the hot blasts came up from the Llano Estacado (Staked Plains), burning up the grass and every green thing in the gardens, scorching like the blasts from a furnace, and yet it did not affect the new-comer from Egypt a particle. It grew right along, in spite of the heat. Then the rains came on, and the sturdy grain was equally indifferent to that. It grew right on, and ripened about the 1st of September, yielding, Deacon Hollister thought, some 60 bushels to the acre, weighing 60 pounds to the bushel. The stalk for some three feet from the ground is about as large as a man's coat-sleeve, and is a perfect wood. This, in all the treeless region east of the mountains, is a most important fact, as an acre or two will furnish fuel for a family for an entire year. From the top of this woody substance issues a stalk, on the top of which a tuft, something like that of Sorghum, issues; this soon droops over, and the whole bunch is one mass of the grain. The kernel is about the size of a grain of wheat, perhaps a little smaller, and more nearly round. Each one is inclosed in a shuck, or independent capsule. The grain can be ground into an excellent flour, from which bread and other foods can be made; it can be boiled and eaten as rice and cracked wheat, and, in fact, can be used for any purpose for which our ordinary cereals are employed. Thus the article in question goes on.

ANS.—This plant is, no doubt, the Drooping Sorghum. It is far from a *new* plant. We tried, the past summer, half a dozen different sorts of this Sorghum, called by many different names, such as Doura, White and Brown Egyptian Corn, Guinea and China Corn. So far as we can see or ascertain, they are all varieties of the common Sorghum—S. vulgare. Whether the fact of a drooping fruit panicle is enough to justify the specific name of Cernuum, we cannot say. In some of the upright sorts a disposition of the stalk to bend downwards was evident. Some of the drooping seed heads were less drooping than others. In other respects there were no marked differences that we could discover. There was one variety, viz., that which was sent to us as Doura, which produced an average of six or eight stalks from one seed. This will bear cutting at least twice. As a fodder plant, we should much prefer it to Pearl Millet, so much talked of during the past two years. The other sorts from one seed produced but one heavy stalk, rarely throwing up a sucker. When cut off, like corn stalks, there is no further growth. All of the above varieties that we know of do well in Georgia and Florida, and, no doubt, they would thrive with our correspondent. Seeds can be procured of W. B. Jones, of Herndon, Ga., and, indeed, of many prominent Northern seedsmen.

About the next Census.

G. D. S., Le Seur, Minn., asks when, in 1880, will the next census be taken; will the enumeration be made by the old plan of going from house to house; who is the superintendent; what steps would be necessary to secure the appointment of census-taker for a county or city, by one possessing the necessary qualifications.

ANS.—The Act of Congress authorizing the taking of the next census—the tenth national one—provides that the enumeration *must* be completed within the month of June, 1880, commencing on the 1st, and ending on or before the 30th day of said month. The superintendent of the census is Francis A. Walker, Census Bureau, Washington, D. C. In the taking of the last census, the U. S. Marshal of each district had the direct appointment of the enumerators for his district. The law now provides for the appointment of a supervisor for each district by the President. The total number of these shall not be more than 150 for the whole country. By the 1st of next March the Secretary of the Interior must designate the number of supervisors, and these will then be appointed by the President. They will have the appointment of the thousands of enumerators who will canvass from house to house for the census returns throughout the land. To facilitate the taking of the census, blank schedules will be furnished by the enumerators to householders and others for the purpose of having them filled up. The questions to be by this means submitted to the people will be far more numerous than ever before, covering all sorts of statistics concerning the actual population, race, age, sex, nativity, products, commerce, etc., etc., etc. The pay of the enumerators will range from four to six dollars per day, according to the sparseness or density of the population in the sub-division in which they labor. The law provides that each of them shall be a resident of his district and of the sub-division allotted to him, and that they shall be chosen solely with reference to their fitness, and without reference to their political affiliations. Properly supported application to the supervisor of each district—when the appointment shall have been made—will be the best way to obtain the position of enumerator in each sub-district. It is probable that the several districts will be defined, and their supervisors appointed considerably before the first of March.

Sainfoin.

M. M., Bryan, Texas. sends us a few seeds of what is there called the California clover, and asks its real name, as he supposes that by which it is known in his neighborhood, is a mere local name. He thinks it the best green pasture for winter in his latitude, that he ever saw. It comes up as soon as the fall rains set in; stays green all winter; needs no cultivation after it gets a start, and will kill out everything except Bermuda grass. It ripens its seed in June, and lies on the ground until it is ready to start again in the fall. All stock eat it greedily and fatten on it. He has ten acres sown to it, and intends to plant Bermuda grass among it so as to have a good pasture all the year.

ANS.—The imperfect seeds sent are those of Sainfoin (Onobrychis sativa) of the order Leguminosæ. It grows spontaneously in middle and southern Europe and Asia. The roots are perennial and, like those of Alfalfa, penetrate to a considerable depth. It is valuable in England; but is not very well-suited to our agriculture. Bermuda grass belongs to the grass family; that is, it is a grass proper. Its botanical name is Cynodon dactylon. In many parts of the South, especially on sandy soils, it is considered a blessing, as it affords fair pasturage and covers the ground tenaciously, thus preventing the shifting of sands. In other places, it is deemed a pest, owing to the persistency with which it spreads on all sides, and the difficulty of getting rid of it.

Pears for the Eastern Shore of Md., etc.

W. H., Cambridge, Mass., asks, 1, what varieties of Pears would be likely to thrive best and prove most profitable in Dorchester Co., Eastern Shore of Maryland—soil light sandy. 2, which would be the best—dwarf or standard, or should one alternate, now a dwarf, next a standard; 3, what variety of Quince would be the best for the same locality.

ANS.—1, Bartlett. Beurré d'Anjou, Howell, Lawrence. 2, The question: "Which would be the best—dwarf or standard," cannot be answered. As a rule, standards are more valuable than dwarfs. There are not over six varieties of Pears (so far as we are informed) that do better on quince than on pear-stocks. If *yield* is the first consideration, we should always prefer the latter. Dwarfs bear in from two to four years; standards in from four to ten years. If dwarfs are planted deep, so as to cover the jointure three or four inches, the pear-stock will sometimes throw out roots and ultimately make standards of what were originally dwarfs. It is a good plan to alternate. Then, if desirable, the dwarfs may be removed when the standards come in bearing. 3, Rea's Mammoth is as good as any.

Grafting Apple Roots in Winter.

S. E. L., Brevard, N. C., asks, 1, in grafting cions on pieces of apple seedling roots at night, during winter, is it necessary, after tying the connection, to paste grafting wax around the wounds; 2, is sand better than sawdust for packing them in, before putting them away; 3, should they be packed immediately after they have been grafted, or may they remain loose till morning; 4, in planting, do nurserymen bury the top bud below the surface or leave it just above; 5, how many buds should be left on the cion in addition to the one at the junction; 6, what is the usual length of the piece of root used.

ANS.—1. Yes. 2, Moist sand is best; sawdust generates fungus. 3, Don't allow the roots to dry out; immediate packing will best prevent this. 4. Leave a small bit of it projecting above the surface. 5, Two are enough. 6, Six to eight inches.

Blackberry Culture.

J. R. S., Benton Harbor Mich., has several acres of Blackberries which suffered greatly from drought last summer, and he thinks they would have been benefited if the roots struck deeper, and he asks the opinion of those who have had practical experience in the matter, as to the best mode of blackberry culture in spring with the view of causing the roots to penetrate deeper.

ANS.—Loosen the soil to a greater depth and apply a mulch. It is generally thought that Blackberries do not need manure. It is a great mistake. The finest we have ever seen were set six feet apart each way in a loamy sand highly manured. It occurred to us, while looking at the monstrous berries the canes bore, that could all see them they would change their views respecting the culture of Blackberries, as we did.

Wire for Trellises.

S. E. L., Brevard, N. C., asks what is the proper size of wire used for grape trellises, the cost per pound, the difference in price between common and galvanized wire, and a reliable house that manufactures it.

ANS.—Each of the different sizes of wire manufactured is designated by a number. Numbers 12 and 13 are suitable for grape trellises. Number 12 measures 33 feet to the pound; number 13, 42 feet. Number 12 costs

11½ cts. a pound; number 13, 12½ cts. Bought in lots of five bundles, a discount of 50 per cent. is given. Galvanized wire is the same in all respects, except that only a discount of 40 per cent. is given on five bundles. Each bundle of numbers 12 and 13 weighs 63 pounds. Washburn and Moen, 21 Cliff St., N. Y., sell the wire.

Miscellaneous.

J. S. M. W., Whitby., asks 1, are the corn premiums to be awarded according to the number of kernels planted, or from the number that grew; 2, in making out the average number of ears per stalk, should the actual number of stalks be considered or the number of kernels planted?

ANS.—The premiums will be awarded according to the number of kernels planted We announced this last spring when the corn was distributed. Some kernels were unsound, others small and broken, and the number of kernels sent to applicants was not the same in all cases, as this would have necessitated our counting the contents of each package. To obviate any injustice from this inequality in number, and to be fair to all, we stated that each competitor could reject all kernels he considered worthless, and in the report notify us of the number planted, which should then form the basis for awarding the premiums. 2. From the actual number of stalks.

J. M. G., Tullahoma, Tenn., asks, 1, for directions for cultivating the tea plant; 2, are leaves worth anything for fertilizing purposes, and which are best—oak or hickory leaves.

ANS.—2, This question will shortly be answered at length in the RURAL. 2, Dry leaves should not be used as a fertilizer; but when they have been composted for a couple of years and the heap turned three or four times in that period, leaf mold is formed, which, applied in liberal quantities, may be used as a fertilizer. It is an indispensable soil for pot-plants. Practically there is no difference between mold from leaves of Oak and Hickory. Gather either or both, as may be most convenient.

F. McM., Red Bank, N. J., asks 1, where he can obtain Dracæna stocks for propagating; 2, where he can get seeds of Pandanus utilis, Latania Borbonica and similar plants; 3, whether there is a variegated Heliotrope in the market; 4, how late will it do to plant Hyacinths and Tulips, and will they make any growth in the fall, if planted.

ANS.—Apply to Wm. Bennet, Flatbush, L. I., or to W. C. Wilson, Astoria, N. Y., for Dracæna stocks; 2, of J. M. Thorburn, 15 John St., N. Y. 3, We know of but one variegated Heliotrope and it is not a type of excellence. 4, They may be planted as long as the ground is open. They will make no growth above ground in the fall, but they will make a growth downward in formation of roots.

Rose Farm, Red Bank, N. J., referring to Abel, Hoyt & Son's sheep account, published in RURAL of Nov. 8, says he doesn't understand how the expenses for feed and care are got rid of, as no mention is made of that item in the statement of profits given.

ANS.—We presume that the $128.35 with which the flock of 18 ewes and one ram, is credited over and above the price paid for them, must be offset against their keep, which would leave a handsome balance of profit, after deducting the cost of the ordinary care and maintenance which, according to the statement, was all they received. The actual expense of keeping them, we shall be pleased to publish, should the Messrs. Hoyt furnish it to us.

G. R. B., Broken Straw, N. Y., asks, 1, whether grass seed would "eatch" better, if dragged in after sowing winter wheat; 2, if it would injure the wheat to do so in the spring; 3, is there any sure way to get rid of Canada thistles where there are but a few; will repeated cuttings kill them.

ANS.—1. Yes. We drill in our wheat and sow timothy and clover and then roll. But this might not prove advisable if the land is clayey. 2. No. 3. Yes. By repeated cutting. Where there are but few, it is as well to dig them up carefully.

B. A., South Lowell, Ala., sends a part of a plant and asks for its name.

ANS. Eupatorium fœniculaceum.

H. H. L., Selden, L. I., asks where seed of Jerusalem artichoke can be had.

ANS.—From any large seedsman. Peter Henderson, 35 Cortlandt St., N. Y., sells strong tubers for 25 cents per quart.

COMMUNICATIONS RECEIVED FOR THE WEEK ENDING SATURDAY, NOV. 22d.

J. M. G.—E. G. T. B.—J. S. M. W.—M. M.—J. S.—L. A. R.—G. W. M.—P. R. F.—J. B. R.—C. P.—V. M. W.—S. T.—A. W. M. (have sent)—A. R. L. D., best thanks.—H. S.—O. W. D.—H. C. W.—J. S. W.—F. K. M.—M. M., thanks.—J. A.—M. L. H.—I. H. T.—C. E. L.—E. W. B.—R. L. S.—F. K. M.—G. M.—C. D.—M. L. S.—T. G. L.—J. W. B.—P.—W. H. C., M. D.—E. D.—M. L. S.—G. H.—G. D.—G. D. S.—I. A., thanks.—J. L. E.—J. G. B.—D. B.—J. P. B.—O. F. B.—T. G. L.—C. W. B.—O. A. S.—S. R. M.—A. C. W.—C. F. R.—J. M. D.—W. J. S.—C. ...S.—N. R.—R.—J. H.—P. H.—E. M. A.—A. D. M.—S. L. J.—P. C. A.—H. T. A.—M. C. A.—E. K B.—C. W. G.—F. D. C.—S. R. M.—J. Q. R.

Various.

WHAT OTHERS SAY.

BUTTER MAKING.—The Earl of Bessborough has issued a letter to his tenants in Ireland, which is full of useful hints. We reproduce the following: "For the information of those who have not yet been able to make good butter I offer the following suggestions: Have a separate room for your milk, well ventilated, but not too light, far away from stable, piggery, or manure heap. The floor should be of flags, tiles, or concrete, very close and evenly made, so that it can be easily washed without leaving any substance behind likely to create a bad smell, as it would be injurious to your milk and butter. Clay floors are very bad. Be sure not to use your milk room for any other purpose than your milk and butter. Wash the cow's udder before milking, and your own hands before commencing with each cow. Use the finest hair strainer you can get. Keep all your milk vessels scrupulously clean; never use soap in cleansing your milk vessels, nor even in washing your hands, when engaged with your milk or butter. Do not keep your milk too long standing before churning. Twenty-four to thirty-six or forty-eight hours, according to the temperature of the weather, will be enough. Avoid all touching of the butter by the hand. Use the best salt, made very fine. Wash and press all the milk out of the butter before salting, using plenty of cold spring water. You cannot be too careful about this. In packing in firkins, get the best you can of well-seasoned oak, beech or ash, clean-looking and smooth on the inside, and bring them clean to market. In preparing your firkins let them be filled the day before wanted with boiling water, let stand until cold, then rinse with clean cold water, into which a couple of handfuls of salt have been put. This will make your firkins sweet and staunch. Pack your butter in the firkin as closely as possible, and send it to market as soon as you can. Let cleanliness be your constant care, from the milking of the cows until you bring your butter to the market."

SEED CORN.—Rarely do farmers question the quality of the seed they use, though oftentimes it would be profitable to discard the seed at hand and purchase anew, even at a high price. In Dr. Sturtevant's experience, as given in Land and Home, he has had crops of 55 bushels and 410 bushels of shelled corn per acre from the same field; one half planted with seed from one source and the other half with seed from another source. He asserts emphatically that the most important, and the most difficult to attain, of all the conditions necessary to secure a yield of 100 bushels of corn to the acre, is this one of good seed. In order to obtain it we must use seed which has come from prolific plants, and whose parents have inherited prolificacy from both sides. Of course, every one knows that the tassel bears the male element, the pollen; while the silk is the female organ, which is to receive the pollen and transmit it to the ovary. As the conditions are such that the plant seldom self-fertilizes, the importance of securing pollen from prolific plants is recognized as being in accordance with correct theory and sound practice.

In order to secure these practical conditions, the good seed must be bred. Just before commencement of the bloom—before the silk is ready to receive pollen—we should pass through the field and cut away every infertile stalk, or every one which does not bear distinct signs of large earing capacity. Thus, the pollen which falls a few days later, will be only from desirable plants—from plants bearing ears—as all others have been removed from the field.

WINTERING GERANIUMS, by those who are not provided with a greenhouse, may be done in a well lighted house cellar which never freezes. Take the plants up carefully, cut them back freely, so as to give a good future shape; place them in a shallow box about two feet square (a size which will hold a large number) and fill in perfectly and compactly among the roots with damp sawdust. Place the box against the largest and lightest window, and wet the sawdust two or three times during winter. If the cellar is cool they will grow but little; if warmer, they will make a small growth. It will be seen that the object is to imitate their condition in a greenhouse; giving light, moderate but sufficient moisture, and a temperature so low that they will remain nearly dormant. Early in spring start them in a hot-bed, and set out in open ground as soon as the season is warm enough. This treatment, after a number of years' trial, has never failed. It requires but little care or skill, and almost no labor except taking up. A brilliant elliptical bed, ten by twenty feet, was densely filled this year with plants wintered in this way. The directions we sometimes see to hang up the denuded roots in a cellar, will apply to those cellars only which happen to possess the right temperature and dampness, and will entirely fail in nearly all cases.—This is from the Country Gentleman. This plan of wintering Geraniums by hanging them up in the cellar, we condemned from the start: first, because it seemed senseless; second, because we tried it and failed. But we see that the plan is still advised by some country journals.

TOP-DRESSING.—"How much manure do you apply to the acre?"

"On an average, twelve loads."

"At what time of the year do you make the application?"

"I make it a point to have my manure evenly spread on my field just before the equinoctial storm. The rains carry into the soil all the ingredients that give growth power. Then comes winter, throwing its warm and fleecy mantle over the earth, which keeps the results of leaching there. When spring returns and the snow melts away, the grass quickly puts forth its blades, bearing a richness of green and thrift that I do not observe when the manure is plowed in, for the reason that in top-dressing, the nutritious elements of the manure are where they ought to be—where the roots can luxuriate in them. I find, too, that the soil holds the productive elements successfully for at least three years. My idea is that when manure is plowed in, a large share of its virtue never enriches that portion of the soil where the grass takes root. Manure leaches more than it evaporates; we want to enrich our soil, not our hard-pan."—Cor. Am. Cultivator.

ENSILAGE.—"I have the impression" says Prof. Arnold in the Home Magazine, of Ontario "that ensilage will not be likely to meet the high anticipations of some of its advocates. . . . When dairymen will adopt the practice of cutting the winter food for their dairies early, while it is in its best condition, instead of leaving it to ripen till it loses in value and digestibility because it will dry quicker, there will be little occasion for ensilage to improve the quality or increase the quantity of milk. For this purpose dried grass and other dried food, with such green roots as can be easily preserved, it is believed will be found cheaper and superior to the same material fermented in silos. Whatever the result may prove when fully tested, it will be the part of wisdom to move cautiously in its adoption."

FEEDING YOUNG CALVES.—"Young calves that are intended for dairy cows eventually," says Prof. Sheldon, in "Dairy Farming," should always be allowed to receive a sufficient quantity of milk for the first three or four weeks; after this period skim milk may be fed to them, but it must be improved by ground linseed, with ground wheat or oatmeal added. And these additions to skim-milk should always be boiled or steamed, and not given raw to the calves—not so much that they may possibly do harm in the raw state as that they are made more effective and more easily digested by having been cooked, and the food when it is given to the calf, should be at a temperature of 95 deg. to 98 deg. which is the temperature of the milk in the cow's udder."

LARGEST YIELD OF WHEAT.—A short time ago, says the Indiana Farmer, Gen. John Gibbon, of St. Paul, made the assertion that one hundred bushels of wheat had been raised on an acre of ground in the Territory of Montana. The statement having been received with incredulity, he wrote to the president of the First National Bank, in Helena, for proof. In reply he received the certificate of the president and secretary of the Territorial Fair Association that one James L. Ray, of Lewis and Clark county, was awarded first premium for the best acre of wheat, being one hundred and two bushels to the acre. This is believed to be the largest yield of wheat on record.

IT IS AN ILL WIND, ETC.—J. J. Mechi, the well-known English farmer, says that farm implements are "dirt cheap," hardly salable at any price. A steam plow and apparatus, complete, £34—$164 56—a good mowing machine, 30s.—$7.26—his man saw them sold. "This is a rare time for a 'going-in' farmer," he says, "for we may reasonably expect some hot, dry, cracking seasons, when grain will thrive, even on undrained clays. Cheap rents, cheaper machinery and impliments, and cheap live stock, are all in favor of going-in tenants or expired leaseholders; so it is an ill wind that blows nobody good, but landowners are in a fix."

TWO AGAINST ONE.—We hear of a small but mean trick that has been practiced by certain grocers upon some of our readers who are marketing potatoes in this city. The dealer and one of his clerks assist in unloading, and both keep tally, as well as the farmer. When the load is measured out, the grocer and his clerk count up their tally marks and find that both accounts are alike and a few half bushels short of the tally kept by the farmer. As there are two against one, the latter has to accept the situation and lose the price of a few bushels of potatoes. This trick has been played so many times that farmers should be put on their guard against it.—Indiana Farmer.

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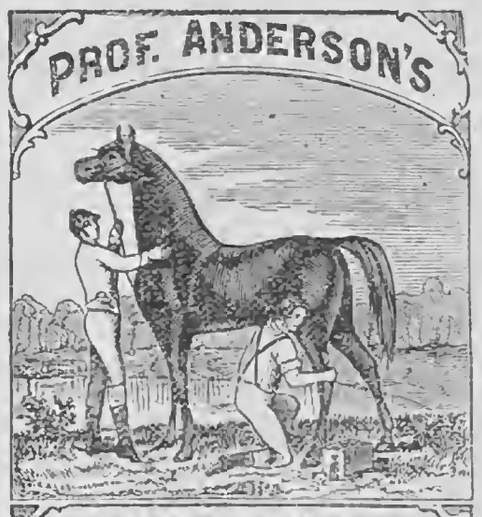
GOOD FOR MAN AND BEAST



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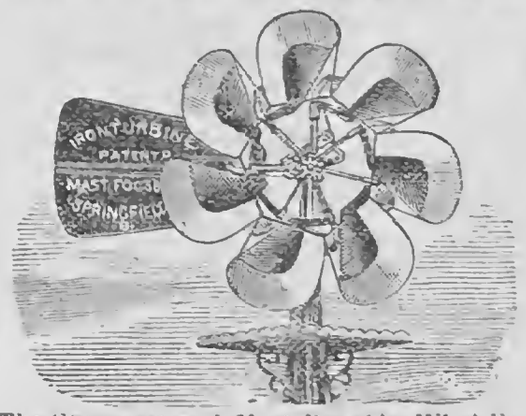

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PUBLISHED EVERY SATURDAY.

CONDUCTED BY
ELBERT S. CARMAN.

Address
THE RURAL NEW-YORKER,
78 Duane Street, New York City.

SATURDAY, NOV. 29, 1879.

The RURAL NEW-YORKER will be sent from now until January 1st, 1881, for $2.00.

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THE SUGAR INDUSTRY.

THE two main sources from which the world has so far drawn its supply of sugar, are the sugar cane and the sugar beet. A third source, however, and one that for this country promises to be far richer than either, has been fairly opened during the past year; we refer to the manufacture of sugar from sorghum. Never before has a farm industry been developed under more favorable circumstances, or been seized upon with so much enthusiasm.

It is not easy to imagine any industry the development of which would better meet an existing want, by profitably supplying from our domestic resources a product for which enormous sums are now annually paid to foreign countries. During the year 1878 the United States paid $77,537,569 for imported sugar and molasses, and were it not for the certain development of the manufacture of sugar from sorghum cane, this amount would increase rather than diminish with coming years.

The area along the Gulf of Mexico on which the sugar cane may be successfully cultivated is far too limited to produce the needed supply. Careful and intelligent observers have estimated that, even at the best, Southern resources could not furnish more than about one-fifth of the sugar needed. The manufacture of sugar from beets, which has become an extensive industry in France, has not, so far, proven very successful here. The expensive machinery and nicety of manipulation required to reduce the beet juices to sugar, are serious drawbacks to the development of the business in this country.

With regard to sorghum, however, the fact that sugar can be made from it in paying quantities has been established beyond a doubt by the past season's experiments. Crude as have been the operations, still the results have been almost uniformly satisfactory. The most encouraging feature of this cane is, that while the sugar cane proper will thrive in only certain portions of the South, sorghum cane will thrive over the whole country, and is more especially adapted to the North. The variety known as Minnesota Early Amber has so far given the best results; but improvements have already been made, and a cross between the Amber and Liberian varieties is now mentioned as being richer in sugar than either of its parents. Well grown canes, cut and worked up at the proper time, yield as high as ten per cent. of crystallizable sugar, which is equal to the quantity yielded by the average Louisiana sugar cane.

Its cultivation is so similar to that of corn that any farmer who can raise good corn can raise sorghum cane also. Nor is the cultivation expensive. It has been estimated that a crop can be raised at from $17 to $18 per acre, including the cost of drawing the cane to the mill; while an average product of ten tons per acre may be calculated upon, which, when sold to the mill, will realize at least $3 per ton. This is not a large profit, though it will compare favorably with the average of other crops, and if the cane is worked up at home, the profit will, of course, be greatly increased.

But if sugar is to be manufactured in telling quantities and on the most practical and best-paying basis, it must be done in large manufactories. The best machinery and expert sugar-makers must be employed to attain the best success. This point is fully realized by those who are best informed on the business, and more than one company is now being organized for the erection of proper works. The industry is now fairly started, and experience will suggest the improvements in the manufacture, that are needed to produce the highest attainable results.

WASTED TIME.

THAT which grieves the attentive observer most forcibly in regarding the young is the waste of time, the, careless disregard of precious minutes that are so lavishly thrown back into the past, heaping up the store of lost opportunities and making, later in life, that background of bitter reflection whose sorrowful thought finds expression in the wail, "it might have been." Rightly used, time is the most valuable possession of the young. It is the real Archimedian lever that prizes difficulties out of the path of success. System and application are the powerful fulcrums used to accomplish its important results. Aimlessness and lack of motive are the chief obstacles to the best and most profitable use of time. With a goal to attain, an end to accomplish, and force of character sufficient to hold the mind steadfastly to its purpose, the sands of time are easily transmuted into golden rain. Life is made worth the living, and an elation is felt only to be compared to that state of feeling which is described by Mad. de Stael as the gradually successful attainment to the object in view, and which, she says, is the secret of true happiness.

How much wiser, then, would it be if our country youth should earnestly resolve to cultivate their opportunities as sedulously as their fathers cultivate their farms. Instead of dawdling about the thresholds of taverns among associates whose influence is too often corrupting, let them resolve in the future to turn to the best account the wasted moments, and when their opportunity comes to them, as come it does at least once in a lifetime to all of us, be prepared to seize it and extract all of advantage it promises. This can be done only by preparing one's-self in advance. An athlete does not rest supinely until the day he is to make the one supreme effort. He prepares for it weeks in advance. He utilizes the minutes. The men who have most distinguished themselves, have risen to power and fame against the friction of adverse circumstances. Elihu Burritt, "the learned blacksmith," found time during his work at the forge to master several languages, and surprised cultured Europe by addressing its chief learned body in Sanskrit. Hugh Miller learned the secrets of the old Red Sandstone in the capacity of a day laborer. While his fellow workmen idled during their mornings, he was actively at work finding out the *why* of the specimens and fossils his hammer disclosed. Lord Chesterfield relates of one of his friends, that he wrote a book of an abstruse character during the intervals of waiting for his wife to appear at breakfast. He utilized moments that we usually waste, and see the result! Wellington attributed his success to the fact that he knew the value of minutes.

Why not, then, profit by such examples? Consider what might be accomplished in a year, if the time now wasted were devoted to acquiring a knowledge of botany, and if farming is to be your vocation, consider how much better equipped you would be for its intelligent prosecution by thus investing your waste moments.

It is in the power of every one to improve, and it may almost be said that the young hold the future in their hands, to make of it and themselves what they will, if they but appreciate the power of system and application, and the value of a moment.

SUCCESS vs. FAILURE.

IF some one would present an infallible rule for success, it would doubtless be eagerly grasped by everyone. So valuable a thing would supply a universal demand; but, unfortunately, it is among the things not known. This fact, however, does not preclude our giving positive reasons for many of the failures which occur. To begin with primary causes:—not a few parents conceive the idea of educating their sons either in the occupation of the father, or in one of the learned professions, regardless of the capacity of the son. Following such a course strictly is doubtless fatal to the success of many a promising man, and he who is the admired darling of doting parents is frequently among the real unfortunates; for he is left either too weak to develop any abilities he may naturally possess, or too dependent to originate any schemes of his own. Of such a one little can be expected.

There is still another class who never compute the cost of any projects they may be about to enter upon; but rashly enlist in the boldest attempts, trusting blindly to fruitful results. These are generally vacillating in character, and rarely thoroughly test the merits of any single occupation. They seldom display any aptitude for real work, and never attain their ambitious goal. Life is a kind of lottery, in which only few can succeed, the majority living a hopeful but deceptive existence. Were we to consider nothing but results, comparing successes with failures, we should quickly discover some misguided efforts, and our fitting conclusion would be at least a reflection on the education of our subjects. By education we do not mean those vapid methods employed to give every child a few facts, but we comprehend the word in a deeper sense. It is that training which inclines the youth to expand his own resources, to rely on himself, and to adapt himself to circumstances without experiencing those hindrances which surely attend the uninitiated. Our rarest men have not been those bred in the lap of luxury; our poorest men have not all been prospered. The latter, however, can not attribute their difficulty to their associations. The fault exists in the actor himself, and can be referred to one of two classes—lack of energy or incapacity. These are deficiencies which can not be easily supplied. We assume—and our theory is no conjecture—that the proper discipline has not been rightly bestowed. Pages might be written on this neglect, but ill results can not be obviated until the cause is removed, and this we deem the field for home training.

STILL ONWARD.

THE rise in the prices of farm products during the past few months, while adding greatly to the aggregate wealth of the farmers of the country, has put a vast deal of money into the pockets of speculators who never worked a day in their lives, and many of whom look impudently down upon the class by whose toils they profit. A fair knowledge of the prices of farm products in the chief markets of the country, coupled with an acquaintance with the prospective relation of supply and demand, would have saved to our industrious farmers no small proportion of the sums that have thus found their way into the coffers of middlemen and speculators.

It is the duty of those who have the interests of agriculture at heart, not merely to spread abroad a knowledge of the best principles and practices of farming, but also to place before their friends the correctest attainable information by which they may be enabled to market their crops to the best advantage; for there is often as much profit made by selling produce wisely as by raising it well.

It was this motive that led us to secure the multitude of reports of crops and prices that have appeared weekly in the RURAL, and particularly in our special numbers, such as the Corn Number. For the same reason, also, we have from time to time given to our friends the results of our careful reviews of the most trustworthy calculations as to the crops and prices in every country whose products come into competition with our own. More deeply impressed than ever with the importance of this sort of information, by the current season's experience, we have resolved to place weekly before our readers, in future, correct reports of the prices of farm products in the chief markets of the country, as telegraphed down to the latest possible moment before the paper goes to press. In connection with these reports special attention will be given to summarizing all information with regard to the condition and prices of crops in other countries in so far as they may be likely to affect our farmers' profits from their products. Any other circumstances, also, foreign or domestic, that may bear on the same subject, will be duly noted whenever it comes to our knowledge.

By means of the various reports, each of our readers everywhere, or pretty nearly everywhere, will be able to see at a glance the condition of the market at the collecting center to which his district is tributary, and to compare the prices there with those at other centers: while a remembrance of the accompanying week-by-week notes with regard to crops, markets, prospects, etc., elsewhere, will help him materially towards deciding intelligently as to the advisability of holding on to his products or marketing them at once, and sometimes, also, as to what prospective crop is likely to pay best. Thus each of our friends may justly take our own motto, STILL ONWARD.

PEARS UPON ORNAMENTAL QUINCE.

WE have more than once touched upon the question as to whether it was or was not desirable to use the Ornamental Quince a sa stock for dwarfing the Pear, instead of the common Quince, and have advised a trial in an experimental way. One of our first nurserymen writes us a personal letter, from which we are at liberty to print the following:

"I do think this talk of W. C. Strong about Pyrus Japonica as a stock for Pears is much cry about very little wool that is worth anything. The fact is the Pyrus Japonica suckers to a very serious degree. We have grafted choice varieties of P. Japonica on the parent, and have invariably found them almost ruined in a few years (two or three) by suckers. The same fate has attended the growth of grafted Pyrus Japonica imported from Europe. Nurserymen, therefore, grow the Pyrus Japonica almost universally from cuttings. They do not want the suckers of an inferior stock to injure the value of a superior graft. I do not say that nurserymen generally are aware of this difficulty. The cheapness of the system of growing by cuttings is sufficient. But intelligent, experienced growers should recognize the fact that a plant that suckers like the Pyrus Japonica, is unfit for a stock on which to graft Pears. The continual cutting of suckers would be a serious bar to their usefulnesss. At any rate, people should be warned not to make extensive experiments in grafting Pears on Pyrus Japonica with any assurance of success."

IN a week or so we shall present a full first-page engraving of the so-called Southern Cow Pea, drawn from one of the varieties raised at the Rural Farm the past season, and a very interesting account of Cow Peas in general by Dr. A. R. Ledoux, Director of the North Carolina Experiment Station. In the course of this article Dr. L. says: "I trust that some Northern farmers may be induced to make a trial of this crop and prove to be true what I *firmly believe*—that some varieties of this valuable plant will thrive and ripen seeds in the Middle States. If so, then will the agriculture of sandy Long Island, of Connecticut, Central New York and New Jersey receive an impetus that will be surprising. The outlay for commercial manures will be materially lessened, and *once understood*, the Cow Pea will maintain a hold on the intelligent Northern farmer, second only (if at all) to clover."

THE friends of the RURAL NEW-YORKER are respectfully reminded that the present is the *harvest* of rural journals. We hope that they will kindly tell their friends *just what they think of our work during the present year*, and that they will in this way assist in making *our* harvest *just what it ought to be*—neither more nor less.

BREVITIES.

IF this world were only as full of love as it is of beauty!

FARLEY and Anderson have sent us a box of fine Duchess grapes for which they will please accept thanks. We shall notice this Grape more at length in another issue.

PROF. Johnson finds that the greater richness of sweet corn in albuminoids and fat is very decided as compared with other corn, indicating a higher nutritive value. Flint and Dent corns have practically the same composition, and Western corn has about the same nutritive value as Eastern corn.

FROM all parts of the country come reports that wheat has never made a greater growth than during the present fall. Let us bear this important fact in mind and see what the outcome will be. The acreage under it is very considerably larger than ever before, in many sections as much as from 15 to 25 per cent more.

IT pays now above all other times of the year to take care of the poultry. See that the houses are warm. See that their drinking water does not remain frozen over. Pour kerosene over the perches. Clean out the nests and supply them with clean straw. Dust sulphur in the nests. Supply them with sifted coal ashes and sand for dusting baths. Give them green food of *some* kind daily. Give them *sweet* food—it matters less what kind than that they get a variety. This is the way to make "winter layers."

PETTING BULLS.—"I have a thoroughbred Hereford bull" says I. T. S., in the Country Gentleman, "that is as gentle as a lamb, and I always petted him and never thought I was doing wrong. The fact is, animals are like men; some are made to mind through fear, others through kindness." That is our belief, as a rule. We have a young Alderney bull that has been petted from birth until of late months. Now there is not one of us that would feel safe to approach him without something to defend himself. Is not this the rule with Alderney bulls?

For Women.

CONDUCTED BY MISS FAITH RIPLEY.

TOO LATE.

BY ANON.

ONCE your heart was mine, all mine,
Then I turned from you away,
Dreaming not the love you gave me,
I would crave from you to-day.

Weary years have left me, left me,
With a sad and aching heart;
Knowing now, too well, my darling,
I must live from you apart.

Yet I'm weary, still so weary
Longing for your smile once more,
For the old love that you gave me,
And I threw away before.

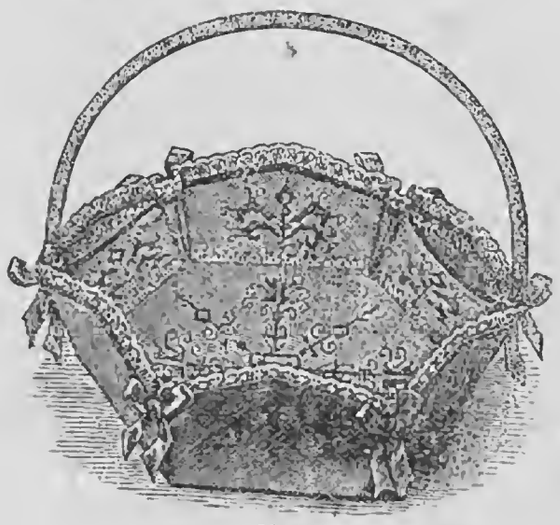
I have lived and waited, waited,
Hoping on from day to day;
Empty arms are reaching to you,
But you never come this way.

Now my heart is yours—all yours—
Ah! you turn from me away,
Wanting not the love I give you;
Loving some one else to-day!

DESCRIPTION OF CUTS.

NOS. 1 AND 2.—LAMP MAT.

THE mat measures nine inches in diameter. It is shown in a reduced size in No. 1, and the border in the full depth in No. 2. The mat is of cloth of two colors; an olive-green center with pale blue border, is pretty, or a dove-colored center with crimson border, looks equally well. The tassels which measure an inch and a half when finished, are of best fleecy wool tied with silk, combed and steamed, so as to give them as fluffy an appearance as possible. The border must be finely pinked, and laid over the center. The lattice pattern is of wool sewn over with silk; the cross and long patterns are of silk of two colors. The mat may be mounted on a foundation of cardboard or not, according to taste.



No. 3.

NOS. 3 AND 4.—WORK-BASKET.

For the foundation of the basket, cut two large hexagons, one of crash and the other of blue cashmere. Embroider the center of the crash with a design in cross stitch. Now cut cardboard to the shape of a smaller hexagon, and place it between the cashmere and crash, to make a firm bottom to the basket, tack the materials together to keep the cardboard in place. Next cut six pockets, embroider each with a cross-stitch design, line with blue silk or cashmere, and bind with ribbon at the top, sew these pockets into the point of the hexagon, fitting the bottom of pocket to one side of center hexagon (see illustrations), bind the edge of the basket with ribbon, and edge with torchon lace. The handle is made of a piece of whalebone, measuring 13 inches in length, covered with crash, embroidered with a narrow cross-stitch stripe; it is fixed to the basket with ribbon bows; lengths of ribbon are also sewn to the side of the basket to tie it in shape; notches are made in the diagram to show where the ribbons are to be placed.

No. 5.

NO. 5.—DOILY: CREWEL-WORK.

The dolly is of art canvas, with border and fringe of drawn threads. A spray of crewel-work ornaments the center.

NO. 6.—FOOTSTOOL.

The top of the footstool is of crimson cloth, embroidered with design in cross-stitch; it is cut in a circle of eight large scallops, measuring altogether in circumference 40 inches. The sides, measuring four inches deep, are of plush of the same color as the top, and are sewn to it, a crimson silk cord being sewn to both edges; a piece of stout black cloth or baize will serve for the bottom. The cushion must be well stuffed with wool or hair, and when finished, a cord like that on the edges is drawn tightly down between the scallops and over the outside, a loop of the same being left in the center by which to raise the cushion.

MOTHERS AS EDUCATORS.

MRS. T. H. GRIFFITH.

EDUCATION is holding the light up higher and higher, every year, saving its millions from the darkness of ignorance and superstition; schools and colleges dot the land North and South, East and West, books and papers flood the country bringing within the reach of all the richest thought from the most cultured minds, while science is continually crying out "Excelsior!"

Home education, however, is becoming a thing of the past, and mothers are forgetting their mission as educators of their children.

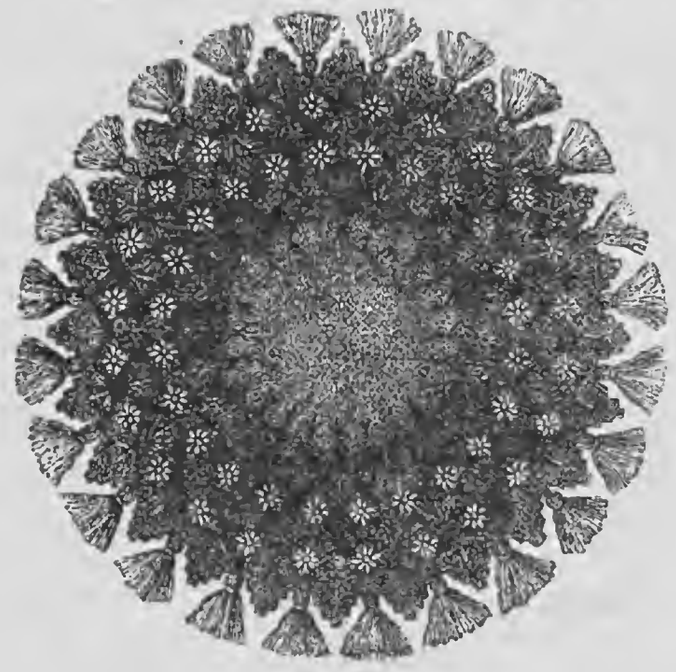
"But, we have so much to do," urges some one of these domestic burden-bearers, "what with keeping a nice table, and fixing the children up so they can look as well as anybody, and entertaining company, we haven't a moment of time to devote to their education. We pay for their tuition, and let them go to good schools where the teachers understand the system much better than we do."

Ah, my dear sisters is this all that is needful? Is there not an educating influence to be brought to bear on the minds and hearts of children, which no one can exert but yourselves? But how to accomplish these things? In the first place we mothers must educate ourselves, for if the instructor knows nothing, how shall she impart instruction to her pupil? It is natural that the child should look to the parent for precept and example, and imitate that which he so closely observes. A little couplet says:

Baby's skies
Are mamma's eyes.

How true! Let mamma get up in the morning with a cloudy temper, and worry and fret over the difficulties besetting her path, and baby lets fall a shower of tears directly, while Johnny and Minnie get behind the door to pout, and make things generally disagreeable. But if mamma rises with a smile on her lip and a song in her heart, what sunshine gilds the day with brightness. Baby sees the blue sky directly, and basks in the genial glow of the sunny smile, while the gentle tone, and brisk light step, make Johnny and Minnie feel like loving each other and all the world.

It is a true saying, that "our children are very much what we make them;" and the power of the mother, as an educator of her offspring, is almost unlimited. She is with them constantly, from the time of their birth to that critical time when they are in such haste to put away childish things and become men and women; and upon her devolves the power, in great measure, of developing them into true men and true women.



No. 1.

No. 2.

It seems to me that our girls should be taught, from the first, to care for their bodies; to regard them as not their own, to trifle with, and render weak and unfit for the sacred duties awaiting them in the years to come. A great lack of judgment is shown by the mother in the yielding to the earnest protestation against wearing overshoes, because "they make their feet look so big." Instead of strength of mind, weakness and pride of their natures, that boys should sow wild oats, and learn the ways of vice and corruption. I believe they are born with as great a spiritual tendency as girls, if it was *nourished*. But instead of providing for their uneasy, restless spirits at home, gaining their confidence and love by a well-directed sympathy, they are thrust out on the street at an early age, to pick up vicious associates, and wallow in the mire of evil inclinations.

course, but that's not the thing. How is Nellie to learn to make bread and cook potatoes unless you teach her. It will take a little time, busy mother, but you will have it back again in the years to come. Most children love to learn, and love to be useful; I have a little girl of eleven years living with me, whom I have taught to cook as well as to wash dishes; and although, sometimes, when she is mixing up bread, I ache to do it myself, I don't! She must learn, and if her pie-crust is a little tough, sometimes, and her bread not as light as it might be, she has learned the first principles, and only needs practice to attain perfection.

There is another scene upon which we must look. The girl enters upon the threshold of womanhood, casts off short dresses and dons trails, does up her hair, and makes ready for beaux and society. This is no doubt the most critical time of her life; the time when she is the most unteachable, and the least confiding, and consequently, the time when the instruction should be skillful and interesting. But instead of keeping her hands and head employed in household work, and good, healthful reading—the mother reading with her—encouraging letter-writing and good correspondents, and insisting on an early bed-going, she is given her time to dress and prepare for evening entertainments, from which she rarely returns until twelve and one o'clock; and is allowed to go with anybody she "takes a fancy to," regardless of the pernicious influence of the many characterless young men she mingles with. No wonder so many of our young women grow up weak and vapid, fretful and diseased. Mothers, realize your responsibilities! In these matters you are their educators.

With boys there is, if possible, a greater deficiency. There is an idea afloat that there is not as much expected of them, so far as morals are concerned, as of their sisters. If *they* go astray, if *they* sin, the world will look over it; society will wink at it, and laughingly say "Oh, Tommy will come out all right. He's a little fast, now, but he'll get married after awhile, and then he'll sober up."

It is considerd almost a thing impossible for boys to grow to manhood without doing things, which, if committed by a girl, would banish her from society, and in very many cases, steel the mother's heart against her. Oh, mothers, is not a sin a *sin*. Does God make a difference? It is not a *necessity*

"Ain't you glad it's a boy," said a woman when my little son was born, "he'll be out of your way so much sooner than a girl." "Out of my way!" Is it not as much my duty to teach my boy to cultivate a vigorous constitution and healthful impulses; to look forward to becoming a husband and father; to lay something by for a home and support; as to instruct my daughters in the like duties? Oh, mothers, awake to a sense of your responsibilities! "The night is far spent, the day is at hand." Let us watch over the souls of our children as those who must give an account of our stewardship, and that we may be enabled to see them grow up strong in the knowledge that shall never fade away; and then, when we are old and well-stricken in years, they will rise up before us, strong men and good women, and call us blessed.

SPECIAL ANNOUNCEMENT.

Rural from date to January 1881 for $2.00.

ARTHUR has just proposed to Clara and has been accepted.—Clara—"Dear Arthur, what pleased me most in your declaration of love, was the fluent eloquence with which you expressed your desires!"

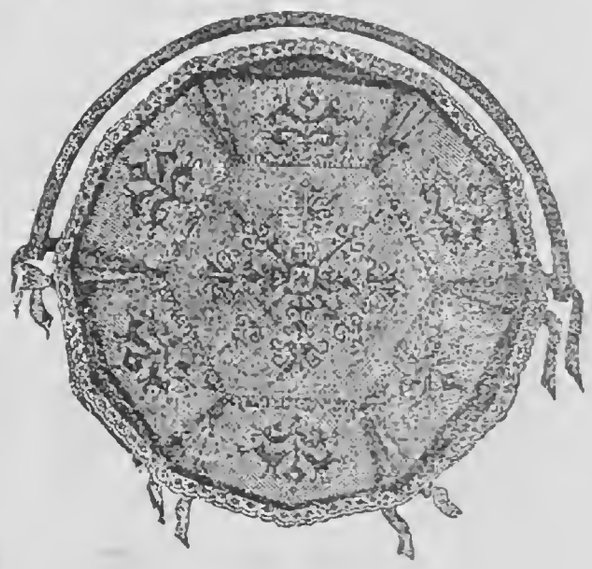
Arthur (forgetting himself)—"Yes, dearest, that is the result of long experience!"

SKETCHES OF GERMAN LIFE.

BERTHA A. WINKLER.

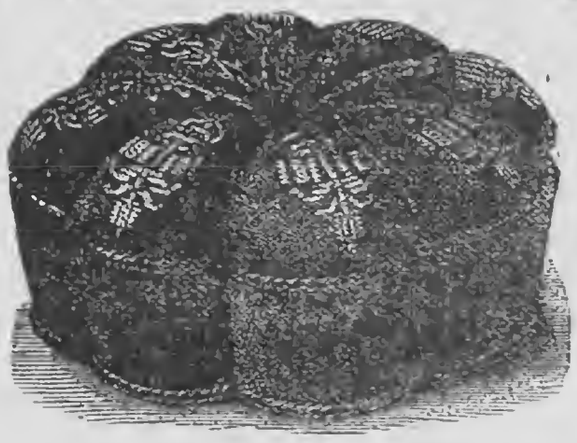
A Village.

WITH German soil beneath our feet, a clear blue sky above our heads, and the cool, bracing air of a lovely October morning sharpening our sensibilities to a keen perception of the new and beautiful around us, we started afoot for one of those numerous little villages which nestle in the bosom of huge, vine-clad hills along the Rhine.



No. 4.

The highways throughout Germany are either bordered with trees, hedges, or low stone banks. Here, the effect was singularly beautiful for stretching far into the blue distance, the white smooth road, lined on either side with fruit trees, looked more like a fashionable promenade than a lonely country road. Apples and pears were thickly scattered beneath the trees, and my companion observing a couple of demure looking children gathering them in baskets, very innocently proceeded to fill her satchel with some choice pears, when the sharp prolonged noise of a rattle reminded her that she was in Germany and liable to arrest and fine if discovered by the Feld Schutz (Field Guard), who is particularly zealous in exercising his authority upon any who may chance ignore or forget the presence of his important self. Many amusing incidents of cunning trickery and hair breadth escapes are related by youthful Teutons, who rather enjoy these dangerous exploits and evince a special relish for fruit captured under the very nose of this dreaded protector and guardian of the fields.



No. 6.

Whether the scattered trees and open unfenced fields and vineyards really require such stringent laws for their protection, or whether these laws are but another evidence of the peoples' subjection to a despotic government which forces its officials into every village and hamlet for the most trifling duties, I have not yet ascertained, the fact, however, that the peasantry are forever waging a secret war of words with these blue coated servants of the law, inclines me to favor the latter supposition.

I have found the German peasant a most liberal and warm hearted character. Whenever we passed a jolly group of apple-pickers their morning salute was invariably followed with an invitation to "help ourselves." Their manners, too, though crude, are far superior to those of Americans of the same station. Every clumsey Bauer (peasant) who came rumbling along in his huge wicker-wagon, piled with bags of potatoes and apples, doffed his triangle-shaped hat with a broad smile and a hearty "Guten Tag!" the very absence of polish revealing more plainly their simple, cordial ways,

their kind noble impulses and their unaffected friendliness toward all

After ascending a somewhat steep eminence, another quaint evidence of German hospitality, or rather thoughtfulness for the tired foot-sore pedestrian, presented itself to us in the sweet word "Ruhe" (Rest), hewn in a long, moss-grown stone seat. It was one of those rough but welcome resting-places which give these provincial highways an air of antique quaintness suggestive of primitive pilgrims and images of saints long since crumbled into dust. Surrounded as this seat was with a group of tall, slender poplars, whose silver-spangled foliage glistened tremulously in the morning sun, we yielded to the mute invitation to "rest," and gazed with silent admiration upon the broad highly cultivated fields, stretching away to the east; the huge, vine-clad hills crowned with some old ruin of historical or traditional interest, and the blue waters of the lovely Neckar rolling through a checkered landscape of luxuriant fields to join the Rhine. Over all this fell the soft October light, so that the entire landscape left upon us an indescribable impression of gentleness and peacefulness, and in the quiet scene around us we almost forgot that we were in a land where sweet Liberty was held imprisoned by the iron grip of Despotism whose galling yoke had long bent the proud neck of poor Germany.

Again the field guard's rattle, reverberating in a thousand echoes among the hills woke us from our revery and hastily resuming our journey we soon arrived in sight of the village churchyard with its white headstones lying in full view of the morning light. Passing the schoolhouse surrounded with shady trees and filled with restless inmates as the shuffling of feet and low hum and murmur from within indicated, we wandered along the village street which, save for a mischievous urchin contesting, with a flock of viciously hissing geese for the possession of a puddle of water in which he was lustily splashing his own brown extremities, was quiet and deserted. Farther on the stately *Rathause* with its massive barred doors, and the gray silent church with the kingly stork sailing around its lofty steeple, alone asserted their importance among the long irregular rows of queer quaint houses which stood directly upon the street, pavements or even narrow footwalks being unknown conveniences in the smaller towns of Germany.

After rambling through a perfect labyrinth of streets, an old weather-beaten sign of a golden ox swinging over the entrance of a barn-like structure arrested our attention. Doubtful, however, whether the sign advertised a slaughterhouse or the long looked for inn, we hesitated to enter, when a portly figure dressed in the well-known garb of a jolly German Wirth viz.: long white apron and round tassled smoking cap, appeared at the door and informing us with bows and smiles that the "Golden Ox" could offer the best of accommodations to his guests, hustled us without further ceremony into a large room full of tobacco smoke and beer drinking *Bauerstente*.

A DEFENSE OF THE C. L. S. C

In an article "For Women"—in the RURAL of October 25—headed, "His Method vs. Her Method," there is, perhaps unintentionally, a wrong impression given of the Chautauqua Literary and Scientific Circle, and its work. I have the good fortune to be one of several thousands who are engaged in that course of reading. The *list* of books given for this year's work looks more formidable to one who knows nothing of them, than the books *themselves* on our tables.

To make the matter clear to those who know nothing of Chautauqua methods, it should be explained that the "*Text Books*," instead of "constituting" other studies, are admirable little books with the most "systematic" arrangement of leading facts, review outlines, etc., which afford the best possible aids to the memory. They are the best representations I have ever seen of "*multum in parvo*" and are arranged especially for the Chautauqua work. Any one who has examined no more than Text Books Nos. 4 and 5, prepared by the honored president of the C. L. S. C., would know that "want of system" could only be attributed to him with the greatest injustice, even though they were ignorant of the great work in which he is engaged and its *system of systems*.

We count *literature* a part of the history of every people, so the first three books named form *one* study. The others are grouped in like manner. Three of the studies are continuations and a review of last year's reading, so there are but *three* new subjects for those who read last year's course. Those who commence this year will later on read what we had *last* year, and those subjects will then only be new in part to them. The "postal cards" comprise but a small part of our "reports," as those of us realize who have filled out last year's "memoranda."

The quotation given from the "official circular," like many a quotation taken apart from its surroundings, and what calls it forth, might produce unfair judgment, while in reality the words were "words fitly spoken" to cheer and encourage many a one unaccustomed to habits of study who would have otherwise been discouraged. I do not wish in the least to reflect upon the Boston Society for the Encouragement of Studies at Home; but if I understand the matter the C. L. S. C. with its broader platform and less rigorous requirements, reaches many thousands in our country who would otherwise not pursue *any* systematic, or even profitable course of reading, and who would not as yet select any one study for a specialty. It is *not* expected that forty minutes per day will enable "the student to perfect himself in the list of studies given," but it is expected it will provide for the careful reading of the books, and those who can give more time can, of course, do more thorough work. The four years course of reading will give a wider range of thought, a taste for better literature, and an incentive to higher attainments, to many a grateful member of the circle.

I need not say "*will*," for already is the leaven working, and although the circle has only begun its second year's work its good influence is far-reaching. After the "superficial" work of the four years, if we are not able to make it more than that, we shall, at least, have spent our time with good reading, and shall have discovered what study we prefer to make a specialty, and many of us no doubt will continue to be students for life, and may hope for some degree of thoroughness.

If any one who has not before known of this circle wishes to learn more about it, address, The President of the C. L. S. C., Plainfield, New Jersey. Hoping many new names may be added to the list of students at home, and wishing the highest possible success to *all* efforts for the encouragement of such work, I am very truly,

Chautauqua Co., N. Y. EUNICE E. TUTTLE.

DEAR MISS RIPLEY;—Thanks for Mrs. T. J. B.'s profession of friendship, which I assure her is duly appreciated, for are not the readers and contributors of the RURAL congenial friends, belonging to the same family circle?

Having rare vines on movable frames is a new and improved way of keeping them in a conservatory, and it would be well always to follow this plan.

In reply to E. H., on Hygienic Food—under Miss Maple's department—I agree with her that it would be well if we paid more attention to a subject that so closely affects our health and comfort. We are a nation of dyspeptics, the result of the over-indulgence of our appetites, of fast living and of our not taking sufficient time to masticate our food. I consider eggs, when baked in custards and pies, as indigestible as when hard boiled or baked I give below some recipes for pies and puddings, which are both healthful and digestible.

I consider the use of saleratus objectionable in all kinds of cookery, while at the Hygiene Institutions they discard the use of salt, and consider it a poison — I claim that it is when used to excess—but I would give the preference to it rather than to saleratus. Cannot some of our RURAL readers give us a substitute for the use of saleratus, and thereby help make our food more healthful and still as palatable?

I consider apple pudding one of the most simple and substantial of puddings, and it may be made in various ways, viz: Pare and core nice, tart apples and put them in a deep dish, make a batter same as for griddle cakes, pour over the apples and bake. This is to be eaten with cream or syrup, according to taste. Or line a deep dish with crust made as for biscuit, fill with apples, place on a top crust same as for pie; or take bread-crumbs soaked in milk as a substitute for a crust; pour this on top of stewed apples and eat with sauce. Next I would place

TAPIOCA, OR SAGO PUDDING.

Put one teacup of taploca or sago in three pints of water, let it stand where it will be quite warm, but not warm enough to cook; slice half a dozen good-sized, tart apples, then take one teacup of sugar, sprinkle in cinnamon and bake until it becomes a jelly.

BAKED INDIAN PUDDING.

Eight tablespoonfuls of Indian meal stirred into three pints of scalding milk; add one pint of cold milk, a large handful of wheat flour; when cold, add one egg, half a cup of molasses, or more if liked, and sliced sweet apples. Bake slowly for three hours.

CORN STARCH PUDDING.

Six tablespoonfuls of corn starch to one quart of milk. scald the milk and add the corn starch dissolved in cold milk; boil a few minutes, stirring briskly. This same may be cooled in molds.

SNOW PUDDING.

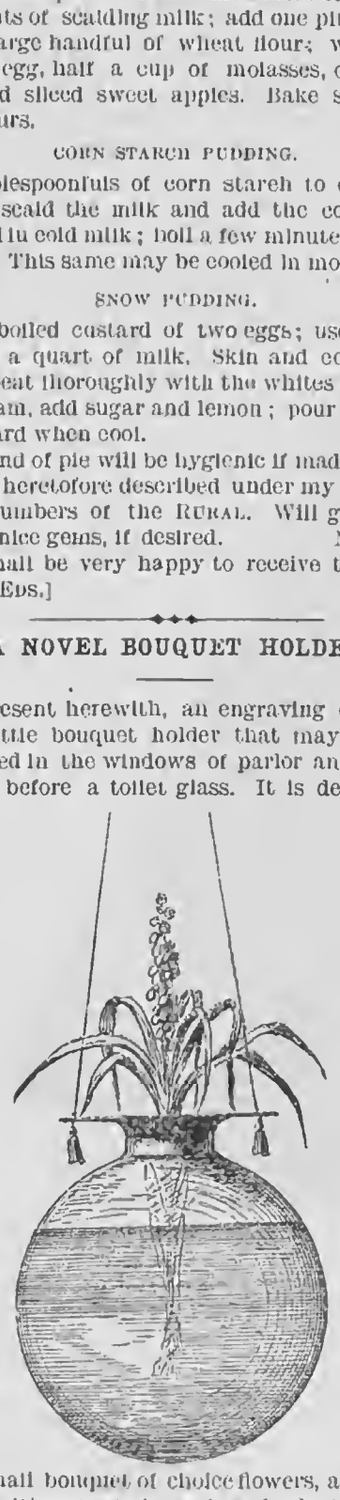
Make boiled custard of two eggs; use only the yolks in a quart of milk. Skin and core baked apples, beat thoroughly with the whites of eggs to a stiff foam, add sugar and lemon; pour this upon the custard when cool.

Any kind of pie will be hygienic if made of plain crust, as heretofore described under my signature in past numbers of the RURAL. Will give recipe for very nice gems, if desired. MARION.

[We shall be very happy to receive the "gem" recipe.—EDS.]

A NOVEL BOUQUET HOLDER.

WE present herewith, an engraving of a very pretty little bouquet holder that may be effectively used in the windows of parlor and sitting-room, or before a toilet glass. It is designed to



hold a small bouquet of choice flowers, and should be filled with water to keep them fresh. It is a ball of brown glass, of the kind used by sportsmen to shoot at for practice, and measures about three inches in diameter. This kind of ball can be obtained of almost any gun dealer at the minimum cost of about two cents a-piece. A tin flange is put around the neck to separate the strings, which gives it a more elegant appearance: but, of course, they can be obtained without this flange, if desired. Mr. C. P. Bauer of Edwardsville, Illinois, sent us the ball from which the drawing was made.

Literary Miscellany.

IN FOLLY'S NET

(Continued from page 759.)

CHAPTER XXI.

DIED FROM THE EFFECTS OF POISON.

THE ball at Glossin Castle on New Year's night took place in due course, and was a brilliant affair, but ungraced by the presence of Mr. or Mrs. Blair. Lady Sholto, who was looking forward anxiously to seeing Jean, was disappointed; and in answer to her inquiries, her Grace said she had received a few lines from Mrs. Blair, excusing their non-attendance on the plea of indisposition on the part of the owner of Blair Gates himself.

"I do not think it is anything serious," said the Duchess, carelessly. "Mrs. Blair speaks of slight indisposition; she would hardly do that if he were seriously ill."

But although at Glossin Castle they could speak so carelessly of Mr. Blair's indisposition, the household at Blair Gates were by no means easy on his account.

He had been taken suddenly ill in the morning, and there was something strange and mysterious in the illness, which made Jean anxious and uneasy in the highest degree.

They had had hard words the night before about a party at Sholto Hall, to which Mrs. Blair refused to go, and which her husband insisted on her attending. One or two of the servants had heard voices raised in violent altercation—his, cold, stern, menacing; hers, at first entreating, then passionate and menacing also. Nay, both Bransby the butler and Mrs. Brett had heard words of the bitterest anger, and, drawn to the door by the unusual discussion, they had both heard the young wife's last words spoken with cold, distinct menace in her tones:

"I am weary of this bondage! I will submit to it no longer! If you will not give me freedom, I will make myself free! I do not care for ignominy! If you will not liberate me, I will liberate myself without your help or any man's! I am not naturally a patient woman—you have made me a desperate one. So beware!"

And she had come out of the room with a strange, fierce glitter in her eyes, passed the frightened servants as if she had not seen them, and had gone up to her room with a slow, proud step, and her cheeks in a blaze of anger; and Mr. Blair had driven over to Sholto Hall alone.

When the carriage had driven away, Jean came down, white and trembling now, her passion gone; and she had gone into a little room where Mr. Blair kept a family medicine-chest, and which he used as a kind of laboratory, for he was fond of chemical pursuits.

"I am faint," she said, quietly, to Emily Brett, who met her at the door. "I am going to get something to take away the faintness."

She was not many minutes in the laboratory, and when she came out the bright, hectic flush was burning again on her face, and she went straight to her own room, locked herself in, and was seen no more until the morning—not even by Collins, who looked anxious and distressed at this unusual proceeding on the part of her mistress.

But the next morning Jean had come down to breakfast with the usual set, still expression on her face—the dull calmness habitual to her—and which did not change until, looking up suddenly at her husband, she saw his face contracted as if with pain, and that the usually bright, dark eyes were heavy and dull.

"Is anything the matter? Are you ill?" she said, hastily.

He made no answer, but rose from the table, growing very pale. Jean rose, too, in alarm, and crossed over to his side.

"Can I get you anything?" she said, gently. She was too much a woman not to be pitiful at the sight of suffering, even though she did not love the sufferer.

He put his hand heavily on her shoulder.

"No!" he said, faintly. "Stay here—by me!"

He sank heavily on a chair again, and his head fell against her shoulder. Jean stood still, supporting him, and in this moment of his weakness and suffering she felt her anger against her husband fade away, and pity stole into her heart.

In a few minutes he lifted his head.

"I am better," he said, slowly; "but I feel faint and stupid still. No, don't ring for Bransby—I hate men about me Can you find me some cognac in the sideboard?"

She brought him some; he drained the glass feverishly, and in a few moments his color came back, and he rose, shaking himself like a huge Newfoundland that has been in the river.

"All right again!" he said, cheerily. "I hope I did not startle you, Jean?"

She forced a smile, but made no answer; and a few minutes after he went away to have an interview with his steward; and Jean, going up to her boudoir, lost herself in one of those day-dreams which are half sad, half happy, and wholly useless and unwholesome.

Believe me, gentle reader, it is far wiser, far better, to make the best of what *is*, than to waste time over regrets for what might have been.

At luncheon-time Collins came up to her.

"If you please, ma'am," she said, "the steward has sent a groom to Glossin for Dr. Mackenzie. Mr. Blair is not well."

Jean started up.

"Where is he? In his room?"

"No, in the library."

"Why did they send for Dr. Mackenzie?" said Jean, angrily, meeting Mrs. Brett on her way to the library. "Mr. Powle is a much abler man."

"The master preferred Dr. Mackenzie," said the housekeeper, defiantly, and Jean was passing on, when she detained her.

"If you please, madam, Mr. Blair gave orders that no one was to disturb him," she said.

"I presume that such orders do not apply to me!" said his wife, haughtily, as she went on.

"Pardon me, madam," said Emily, coldly. "He begged you would not trouble yourself to go to him."

Jean's face flushed; she turned away slowly, and went back to her apartments with the angry feeling in her heart again.

Dr. Mackenzie came and went, without giving the patient any diet, or giving any opinion as to his indisposition; and in the evening Jean's anxiety grew unbearable, and she went to the library, notwithstanding the injunction against her.

To her surprise, she found that not only had Dr. Mackenzie returned, but that Mr. Powle was with him, and the two doctors were standing in the embrasure of the window in grave consultation. Her husband was lying on the sofa, ghastly pale, with his face drawn and shrunken with pain, his hands clenched. The housekeeper was standing beside him, holding a glass, but his head was averted from her. His own servant and the steward were standing near, looking anxious and disturbed.

At Jean's entrance, her husband lifted his heavy eyelids, and looked at her with reproach in his dim eyes.

"Why would you not come to me?" he said, faintly.

"I did not know you wanted me," she answered, kneeling down at his side.

"I told Brett to tell you," he murmured, putting his heavy hand on her trembling fingers.

"The doctors said you were not to be disturbed," spoke up Mrs. Brett.

He turned away with weary indifference.

"Mr. Blair will not drink this, ma'am," went on the housekeeper. "Perhaps you can prevail upon him to do so."

"It is no use," he said, angrily. "It does me no good. You torture me. Jean, tell them to leave me alone."

"It is for your good," Jean said, softly, feeling terribly distressed as she bent over him. "Give me the glass, Brett."

She gave it at once, and as his wife held it to his unwilling lips, he smiled faintly.

"Some wretched poison or other," he muttered; and Jean uttered a little cry of alarm, which brought the doctors to the side of the couch.

"You do not like the word?" said Mrs. Brett, coolly. "How your hand shakes, madam!"

"Shall I send to Edinburgh for further advice?" Jean said, softly, as she saw her husband sink back heavily on his pillow, and a bluish-violet tinge come round his lips through the ghastly pallor of his face.

He lifted his heavy eyelids once more.

"Do you want me to live?" he said, feebly. "Will not my death set you free?"

She shivered.

"Hush!" she said, pitifully, "I cannot bear that now."

"Now, because I am dying," he said, bitterly. "Does your hatred die with me, Jean?"

The doctors glanced at each other with a significant look, which Mrs. Brett caught as it passed from one to the other.

"Oh, hush!" said Jean, with a sob, and, unable to meet the grave, cold displeasure in his glance, she dropped her head on the pillow by his side, and hid her face.

Slowly the night hours wore on. Mr. Powle went away, but Dr. Mackenzie kept watch by the sofa; the breathing of the sick man grew thick and slow—he seemed unconscious of what was going on around him; Jean, white and shivering with terror at the sight before her, crouched by the sofa, her large eyes fixed with horror on the drawn, discolored face. From his chair by her side Dr. Mackenzie watched her closely, and the housekeeper's dark eyes never left her master's face, except to go to his wife's.

Once the heavy eyelids unclosed as if with an effort, and the dark eyes went thirstily to a carafe of water on the table The doctor rose and poured out a glass, giving it to Jean; but Mr. Blair made a feeble movement of impatience

"Not from her—not from her!" he said, in a slow, thick, stifled voice; and his wife shrank back with a faint cry of terror.

Dr. Mackenzie's face changed, and he looked up at the steward with a very meaning glance. He took the glass from Jean's shaking hand, and held it to the dying man's lips.

"Why not from her?" he said, in a low tone.

"She—she hates me!" muttered Mr. Blair; then his eyelids fell again, and the shadow on his face deepened.

"This is terrible!" said Jean, staggering to her feet. "I cannot bear it—let me go!"

"Your place is here, Mrs. Blair," said the doctor, gravely.

"But I cannot bear it!" she said, in irrepressible terror. "Let me go!"

"No, stay!" said her husband's voice, with sudden energy; and she sank on her knees again, with her hands clasped convulsively in her terror and distress.

"It is cruel to keep me here!" she said, passionately. "You will kill me!"

Again the doctor and the steward exchanged significant glances, but said nothing.

The silence grew terribly oppressive; the watchers seemed to hold their breath as they waited, and the awful stillness had such an effect on Jean's nerves that she had a difficulty to keep from screaming aloud.

The long winter night passed on, and just before the day broke, the dying man opened his eyes, staring before him with a look of unutterable hor-

ror, rage, and despair; then it faded slowly; a faint smile softened the rigid curves of his lips, his heavy hand felt feebly for his wife's bowed head, then his eyes closed, a long shudder went through his frame, and all was over.

"He is dead!" said Dr. Mackenzie, raising quietly; and while the housekeeper bent down and closed the staring eyes, a terrible cry broke from Jean as she tottered to her feet.

"It is all over," repeated the doctor, quietly, looking at the young girl with close attention, noting the marble pallor of her face, the awful horror in her dilated eyes. "You are free now, Mrs. Blair."

"Yes, free from her bondage!" cried the housekeeper, bitterly. "Even her hate must be satisfied now."

Jean looked at her vacantly as she moved away; all her senses were confused by the sudden and awful death she had witnessed. She pressed her hands to her brow, and with wild, haggard eyes, shivering and trembling, she went to the door.

"Yes," repeated the doctor, distinctly, "even hate must be satisfied. He has died from the effects of poison."

"No—no—no!" cried out Jean, in a voice of such shrill horror and anguish, that it rang through the room with startling distinctness; and putting her hands before her eyes, as if to shut out some horrible vision, she staggered forward a few steps, then fell heavily to the ground, striking her head violently against a heavy piece of furniture as she fell, and losing all consciousness.

So the New Year's night passed at Blair Gates sadly, wearily, slowly, and the second morning of the year found the master lying cold, silent, still, in the library, "dead from the effects of poison," while in her room above, Jean Blair lay unconscious of all that surrounded her, and never opening her lips, save to utter wild, raving words of delirium and horror.

In the evening, Collins, who had dispatched a messenger to Sholto Hall, was sitting by her mistress's bedside, her heart heavy, with a foreboding of evil which cast a dark shadow upon her. Her attendance on her mistress had prevented her from knowing what terrible suspicions were being entertained in the household below, or what horrible insinuations the housekeeper was letting drop, or her heart would have been yet more heavy, and that little gleam of hope, which would shine through the darkness, would have been extinguished forever. Her young lady was free now, and when her mourning was over, those happier days would come to her, bright with the sunshine of the Earl of Ivor's deep love.

"Collins," said a faint voice from the bed; and the maid hastened to answer.

"Yes, Miss Jean." Whenever her mistress was ill or in trouble, she became "Miss Jean" again to Collins.

Jean put out her hand, and grasped her maid's wrist with her little burning fingers.

"Collins," she said, hurriedly, "do they say there will be an inquest?"

"Yes, Miss Jean."

"Oh, Heavens!" and Jean sank back on her pillows with a cry of anguish so keen that it went to the servant's heart.

She brought her mistress some restorative, but the girl turned away from it impatiently.

"Must it be" she said, fixing her glittering eyes on Collin's face—"must it be Collins?"

"The examination? Yes, Miss Jean," she answered, wondering at the agitation which shook her mistress' frame

"It must be prevented. It is too horrible!" shuddered Jean. "I could not bear it, Collins. I am sure he would not have wished it," said the maid, soothingly.

"Collins," said Jean, after a moment. "go down to Dr. Mackenzie, and ask him to come to me."

"You are too ill, dear Miss Jean," remonstrated Collins.

"No; I must see him?"

Collins left the room, and Jean lifted herself from her pillows with feverish strength. Her horror of a *post-mortem* examination was extreme; she could not quite account for it, but it weighed upon her like an awful nightmare, from which she could not escape.

When the doctor came to her bedside she spoke with feverish rapidity and earnestness.

"Dr. Mackenzie, my maid tells me you think it necessary to hold an inquest," she said hurriedly. "The idea is so very dreadful to me that I am prepared to make any sacrifice to prevent it."

"To prevent it, Mrs Blair!" he exclaimed. "It is impossible!"

"I will give money—anything you like! I will give a thousand pounds," she said, in pitiable entreaty. "Don't you see that the very thought is killing me! Take my whole fortune if you will, only spare me this awful trial!"

"This is most extraordinary," he said, "It is impossible, Mrs. Blair. Do you know to what suspicion such a request will make you liable?"

She did not appear to heed.

"Will you stop it? Oh! Dr. Mackenzie, I have borne so much—this seems so horrible—it fills me with horror. I would sacrifice anything to put a stop to it!"

"It is utterly impossible, Mrs. Blair," said Dr. Mackenzie, rising. "It must be done. Nothing can prevent it. It is but right in the interest of justice," he added, gravely.

"In the interest of justice!" repeated Jean, looking at him with her pale face, and her eyes full of horror, and an undefined dread; and with a terrible cry, which brought Collins to her side, the unhappy girl fell back on her pillows and her senses fled.—To be continued.

ANNOUNCEMENT. — The closing paper on "Philately," will appear in RURAL of December 6. It will treat of the selection of an album; the mounting of stamps, and a description of the materials used for that purpose; how to avoid counterfeits; where to buy genuine stamps, and conclude with general advice to beginners.

A "CRICKET" THAT SHOULD BE NEAR EVERY HEARTH

Is the "RURAL" Cricket Clock (Premium No. 82) which is here illustrated at one-quarter its actual size. This clock has three conspicuous merits, its accuracy, its thorough and durable construction,

and its beauty. The case is a single piece of copper, stamped out in the form as seen. It is then heavily nickel-plated, and the works (which run thirty hours) are securely fastened and covered by a dust-proof metal back, hence it is impossible for any injurious substance to enter them. The winding and setting are done by turning little buttons. This handsome clock is given by THE RURAL for only five subscribers at $2.00 each.

HITTING THE PRINCE OF WALES.

The Sharp Rebuke of Canon Wilberforce.

CANON WILBERFORCE, however, has used an incident which occurred just before the Bernhardt departure to point a moral and adorn a tale, and in a powerful sermon preached at Westminster Abbey he inveighed against the laxity of morals prevailing in the present day, and alluded to the Bernhardt in the following terms:

"It was a strange commentary upon the blending together of the world and the Church * * * to witness during this past season at the Albert Hall that wonderful gathering representing the wealth, the beauty, the high birth of our land, engaged, mark you, professedly in the godlike work of charity for the purpose of aiding the poor foreigners of London; and there, side by side with England's proud nobility, sharing, if not monopolizing, the homage of the representatives of royalty, might be seen a certain talented unmarried foreigner with her son openly by her side. Why, we dare to ask in grief and astonishment, does society tolerate now that which it would not have dared to tolerate in the days when the Consort of England's Queen was living? Why is vice permitted now to flaunt her painted cheeks in open day?"

This is rather plain speaking to H. R. H. the Prince of Wales who attended the Albert Hall Bazar, and brought his wife with him to help him in throwing his £5 notes right and left with a reckless prodigality which called forth from the Comodie Francaise ladies the oft-repeated eulogium, "Oh, qu'il est genereux!" No one can blame the Princess for going—very much against her inclination, I am told—to patronize, or be patronized by a lady who, though possessed of undoubted talents, has no more sense of propriety than to openly bring her illegitimate son into good society.

If the Prince and Princess had not happened to be there, Belgravia would have been shocked long before Canon Wilberforce called attention to the circumstance from the pulpit. I hope the Canon's plain, courageous, outspokenness won't interfere with his chances for a Bishopric; royal personages sometimes have inconveniently long memories.—*London Letter in Philadelphia Telegraph.*

ALL ABOUT ONIONS.

THERE are persons who have stomachs that will digest onions; but their asserted wholesomeness, cooling and tranquillizing qualities, gentle action on the liver, etc., is all nonsense. Some persons make themselves believe that they are wholesome because they like them, but to a man or woman with an average digestion they produce nothing but indigestion, wind in the bowels, and such an unpleasant breath as to be a nuisance to everyone who has not also been eating them. We have always maintained that they are not wholesome. However, a single onion may be eaten at dinner with relish as well as a single pickle; but there is perhaps no vegetable more misused than onions. We know housewives who imagine that they cannot make a good soup without onions, while all the effect is to flavor the kitchen and the house with their odor. In boiling them the very volatile and abominable onion flavor disappears entirely by volatilization in the air. Some people use them as a medicine for all diseases; when any one has a cold they are given fried or boiled onions to eat, and when the cold gets better of itself, as is the case with most all colds, the onions get the credit of it. Then they slice onions and apply them to rheumatic joints—in short, onions are used exteriorly as well as interiorly for most all kinds of common diseases, and it is to be regretted that some other less unsavory and inert article has not attained the reputation that onions have undeservedly reached.—*Manufacturer & Builder.*

RECENT LITERATURE.

The Temple. By W. O. PERKINS, MUS. DOC. For Classes, Conventions and Choirs. Boston: Oliver Ditson & Co.

This well-chosen name belongs to a new book of the composite order, being either a Choir Book or a Singing Class-Book, as you please to look at it It is not so large as full-sized Church Music Books, and larger than those made of late years for classes. It is, however, very well put together, and has the advantage of an *ante-bellum* price; being furnished at $9.00 per dozen.

Considered as a Singing School Book, it at once pleases us by the assertion in the preface, that "work, work, work" is needed in the class, and it provides for that labor most generously. It has 161 numbered exercises, most of them in the form of tunes, with words: about 75 pages of Glees, quite fresh and wide-awake, and 150 pages of Sacred Music, including a large number of Metrical Tunes, of Anthems, Sentences and Chants.

Considered as a Choir Book, we have only to reverse the order. The 150 pages of Sacred Music furnish abundant material for singing on Sunday, and the Anthems will serve as opening pieces at least for an entire year. The Glee collection furnishes just the practice that is wanted in rehearsals and social singing meetings.

In Conventions, the variety of music provided answers an excellent purpose.

CLAXTON, REMSEN & HAFFELFINGER, publishers, 624, 626 and 628 Market street, Philadelphia, will publish, November 25, "The Egotist; Essays of Life; Its Work and Its Fortunes; Its Joys and its Sorrows; Its Success and its Failures." By Henry T. King, member of the Philadelphia Bar. 12mo. Cloth. 270 pp. $1 50. In form, this book stands between Bacon's Essays and his Apothegms. In substance it is, as the author claims, an original book—very original—full of thought, and spicy. In the matter of style, it is written in good English—vigorous and forcible, condensed and to the point. On the whole, the work is manly, practical and well calculated to instruct.

MAGAZINES FOR DECEMBER.

HARPER'S MAGAZINE FOR DECEMBER: The Fortunes of the Bonapartes, with seventeen illustrations; The New York Cooking School, F. E. Fryatt, with six illustrations; The City of Atlanta, Ernest Ingersoll, with fifteen illustrations; The Palestine of To-Day, Dr. J. F. Hurst, with thirteen illustrations; The Iron Pen; A Poem, H. W. Longfellow; Sea-Drift from a New England Port, Lizzie W. Champney, with eleven illustrations; Blossoms; A Poem, Philip O. Sullivan, with one illustration; London's Glory and Whittington's Renown; A Ballad, with five illustrations; White Wings: A Yachting Romance, William Black, with two illustrations; The Connemara Hills; II., J. L. Cloud; Young Mrs. Jardine; A Novel, D. M. Craik, with three illustrations; A New and True Ghost Story; A Poem, James T. Fields; Will's Will, and His Two Thanksgivings, Rose Terry Cooke; Mary Anerly; A Novel, R. D. Blackmore; Editor's Easy Chair; Editor's Literary Record; Editor's Historical Record; Editor's Drawer.

NAPOLEON'S MARRIAGES.—The marriages of the Bonapartes play an important part in the story of their fortunes, and none of them were so significant and important as those of the Emperor. To one who, like him, looked upon the world as made for him, and upon laws merely as something which were good for him to impose upon others, it must have appeared that his two wives were admirably planned for his use. Josephine de Beauharnais was an ideal wife for a young and rising man of genius. She had everything which would appeal to a fancy like his, at once selfish and passionate. She had beauty, rank, the power of pleasing, and a certain indolent grace that promised an obedience reasonably free from jealousy. Up to the time that he mounted the imperial throne and seated her by his side, she was all that his narrow heart and boundless ambition could desire. But after the marvelous victory of Wagram had opened up to his fevered imagination still wider perspectives of dominion, he looked for another style of wife, and found her in Maria Louisa of Austria. Her blonde beauty, formed of pink and white color and roundly curving lines and the golden floss of a child's hair, appealed strongly to his jaded taste. He was not old, but, as he said to the Directory, "one ages fast upon the field of battle," and he wanted some such solace as this soft, unintellectual beauty (somebody has called it the Alderney style of prettiness) in his home, if such a word may be used of the Tuileries. Besides, he doubtless felt that an emperor should have an emperor's daughter to wife, and this was a young girl who had a hundred monarchs for her ancestors, and yet she would be gentle and obedient, and not argue with him or answer him, and would give him heirs. He was genuinely attached to her, and if he knew nothing about her, and had no premonition of Count Neipperg, it was all the better for him. She also was quite taken by storm with him, and for a while the novelty of being loved by an ogre—for such she had always considered him—was agreeable to her. But his tumultuous glory was quite too much for the daily food of such a human small being as the Empress, and she was doubtless relieved when the indignant soul left his body at Longwood, and she was free to follow her ignoble little heart and marry Neipperg.

Josephine would have had her revenge if she could have foreseen the course of history for even a few years. It is she, and not the pretty Austrian, who will be known forever as the wife of Napoleon. It is her statue that rises in marble in the public places of Paris. It is her name and those of her children that mark the great avenues of the metropolis—Avenue Josephine, La Reine Hortense, Boulevard du Prince Eugene. Though she was ousted remorselessly from a throne to make room for Maria Louisa, it was her children—the children of the creole proscript—who should become the tenants of palaces, and not those of her rival. The Duke of Reichstadt was to pass a youth of inglorious pleasure, and was to die before his prime, and leave no son to inherit his claims to empire; while the Beauharnais line was to stretch out like the swarm of kings seen by the Thane of Cawdor in his vision. Eugene, her heroic son, after the fall of the Napoleons, returned to the court of his father-in-law, the King of Bavaria, and became Prince of Eichstadt, Duke of Leuchtenberg, and first nobleman of the kingdom. His daughter, united to the son of Bernadotte, became Queen of Sweden; another became a princess of Hohenzollern, and a third Empress of Brazil. His oldest son won the hand of the Queen of Portugal, and the younger married a daughter of the Czar Nicholas of Russia. And whatever doubt might be thrown on the purity of the Napoleonic descent by which the Emperor Napoleon III. claimed the throne, he was unquestionably the son of Hortense, and was Beauharnais and Teacher-la-Pagarie beyond challenge. The grandson of Josephine, Louis Napoleon, ruled France in peace and with a sort of splendor for the space of twenty-two years, while the period of the first Napoleon's reign, counting Consulate and Empire together, was but fifteen—though so powerful was the personal imprint made by the uncle, and so vague was the individual character of the nephew, that the shorter reign seems like an age, and the longer like an episode.—*Harper's Magazine for December.*

GOOD COMPANY ($3.00 a year. Springfield, Mass.) Number Three. Three of the best known writers of really good short stories are represented in this issue; Mrs. Rose Terry Cooke by Doom and Dan, a characteristic specimen of her work; Miss Sarah O. Jewett, the author of Deephaven, by Good Luck, in her usual finished style; and Mr. Edward Bellamy, whose story is called Jane Hicks. There are also two sketches based upon characters in real life; Saved from Himself, and a Holly Leaf, which last savors of temperance and Christmas Both are written in an intense style. The most important article, perhaps, is An Answer to the Cry for More English, by Prof. A. S. Hill, of Harvard College, which will be of interest to all who are interested in educational matters, particularly such as believe in a more thorough training in English than is generally given. Prof. Hill's opinions should from his position have weight.

Mr. Geo. M. Towle's paper on Gladstone includes personal reminiscences of the great statesman as an orator, such as are always acceptable about distinguished men. Mr. Towle will have several similar papers in Good Company hereafter, including personal reminiscences in each case. The next will be about Gambetta.

Mr. H. P. Goddard has a sketch of the late Rev. Dr. Horace Bushnell, drawn largely from personal acquaintance.

Tales of the Civil Damage Law relates various cases that illustrate how far retail liquor sellers can be held responsible for the doings of persons when intoxicated by liquor they have sold.

Freethinking gets vigorous treatment at the hands of a freethinker.

Assaying in a New Camp is by Ernest Ingersoll, and an article on Opportunities West makes enough remarkable statements to satisfy the most enthusiastic westerner.

The Food of the Poor is by William H. Rideing, and Rev. Charles Caverno contributes The Judges and Crime.

The editorial articles and notices of new books complete the number, in which are included poems by Rebecca N. Hazard, Emily A. Braddock, T. S. Collier and Caroline A Mason.

SOME SPELLING BY CANDIDATES FOR ADMISSION TO HARVARD.—Many, a larger number than usual, spelled as if starting a spelling reform, each for himself. Of these vagaries specimens are subjoined, including vain attempts to reproduce proper names that were printed on the examination paper itself: —duells, jelosie, cheif, opposit, surprising, Collossus, compaired, repetedly, fourth (for forth), to (for too), thrown (for throne), ficle, white-winged angle, beaverage, broak, carrige, champaign (for champagne), insted, hailed (for hailed), endevors, sucess, preasant, and preasance, widly, wailing, differance, supereeeded, prepaired, comand, conspiritors, to finnish, avaritious, undoubtibly, graniather, peice, fashionable bell, writen and writtings, maniger (for manager), untill jovility (for jovialty), fictichous, couard and couardise (for coward), exhisted, origen and origonal (for origin and original), knceded (for needed), genious, marrid, mad (for made), wer (for were), cleaverly, differculty, existance, absent, olier, repare, ennoubling, ugrieved, of (for off), susceptable, proclamed, loose (for lose), principle (for principal), lead (for led), Rip Van Rincle, Adison and Adderson, Queene Ann, Macauley, Thackery, Steel (Sir Richard), Henery, Harries (for Harry's). Of these mistakes some are evidently much graver than others; but some of the worst were found in several books, and not a few are apparently due to an unconscious effort to represent to the eye a vicious pronunciation. Many books were deformed by grossly ungrammatical or profoundly obscure sentences, and some by absolute illiteracy.—[*Prof. A. S. Hill; Good Company, Number Three.*

Every honest voter is bound to take the ticket offered him and scrutinize it carefully, and erase every name of a candidate who is unfit to hold office. The fact that a worse man is running on the other ticket is no reason why he should vote for a bad man. He cannot excuse himself for doing wrong on the ground that if he does not do it, somebody else may do a greater wrong.—*Editor's Table; Good Company, Number Three.*

THE SATURDAY MAGAZINE.—With the number for November 29 this magazine completes its first year. In a notice written when only a few numbers had been issued, we confidently predicted its success, and our prediction has been verified. The magazine has been all it promised to be. The selections have been made with taste and judgment, and have covered a wide field, embracing History, Romance, Science, Biography—in fact, the whole scope of literature. It differs from most magazines in that its articles are, as a rule, complete in one number. There have been improvements in its appearance since the beginning, but we miss the "Amenities" and brisk editorials from the later numbers. The Saturday Magazine is edited by Fred. B. Perkins and published weekly at 11 Bromfield street, Boston, Mass.

Domestic Economy.

CONDUCTED BY EMILY MAPLE.

HOUSEHOLD COMFORTS.

L. E. K. T.

I do not know of any more serviceable home-made rugs than braided ones. With the colors well arranged, they may be made to look quite pretty. The strips should be cut coarser than for carpet rags, doubled evenly, and care taken to have the braid lie flat. It is best to sew the braids together as you make them. Make each color just go around, one, two, three or more times, as you choose, but do not let it lap past or fall short of meeting, for that gives it a "botched" appearance. It takes some time to make one, but when done, you have a good, serviceable article.

A pretty work basket may be made of odds and ends, which can be found in almost any household. Take a heavy paste-board box and sew some good stout cloth around it to keep it firm and in its place. Then take a piece of worsted, silk, velvet, or any other material you may have that will go around the box and cover it. This cover may be put on straight or plaited or shirred. I would suggest that dark brown drilling would make a good serviceable one, and look very nice too. The lining, which, by the way, should be in first, may be of any pretty color or stuff, that will go well with the outside. For a handle, use a piece of paste-board one inch wide, supported by an old hoop, sewed to each side and in the middle, these covered with some of the material used for the outside, and sewed to each side of the box. Pockets should be put in each end, and it is very convenient to have a little box for buttons made stationary. There should be a loop for scissors and a pin-cushion and needle-book, and all the other little conveniences which will suggest themselves. Dark-colored drilling is very serviceable for covering lounges for common use.

PLANTS, PICKLES, CARE OF CHILDREN, ETC.

DEAR RURAL SISTERS:—Here at my home in the city of Rochester, this 22d day of October, the Quinces are smiling from over the way, clothed in yellow and looking so tempting in the sunshine; and our Snow-flake potatoes are still to be garnered. We have dug a few for dinner the last few weeks, and how mealy they looked and delicious they did taste!

The Morning-glories are peeping in at me from the sitting-room window, and look as if saying: "We will have a good time while we can; for we feel Jack Frost is not far distant." The Geraniums I potted in September, were plunged into holes made in the ground just deep enough for each pot, taking care to put them in a shady place — being very careful to water them well until they had a vigorous, healthy appearance. They rewarded me for my care, and now everybody, on coming into my sitting-room, exclaims, the very first thing: "Oh! how beautiful your plants look—how did you manage it?"

The bottled fruit is keeping well in the cellar. I have twenty bottles of peaches and ten of plums, and a few of strawberries and other fruits. The pickles are all made. Beside the usual spices, I added some brown sugar which will make the vinegar stronger, and will prevent scum from rising to the top of the vinegar. I find that the only way to be a good housekeeper is to do as the man said when he met his friend, who went into raptures over the way he had tied his cravat: "Why you see, my dear fellow, I give the whole of my mind to it."

Don't imagine, mothers, that close attention to the details of domestic life is a drudgery unworthy of you; for the character of the next generation of citizens depends on how you feed, clothe and care for the young under your charge. Will you send out your children with good, sound, healthy bodies, and well disciplined minds; or by foolish neglect as to what they eat and drink, will you send into the world a puny, enfeebled set of men and women? See that your children do not get into bed with the clothes they have worn during the day. Strip them to the skin, and put good long, clean night dresses on them. Don't let them go unhappy to bed and to sleep; for children are sensitive, and a happy mind is of vital importance to the growth and proper development of the young. M. H. S.

DOMESTIC RECIPES.

To Scour Zinc.

Housekeepers will find that zincs may be scoured with great economy of time and strength by using either glycerine or creosote mixed with a little diluted sulphuric acid.

To Make Boots Water-proof.

Melt together four ounces of beef tallow, one ounce of resin, one ounce of beeswax. When cold add a quantity of neat's-foot oil equal to the mass. Warm the boots or shoes before a fire, and apply with a rag to the soles as well as uppers. Two applications will make them thoroughly water-proof.

To Restore Morocco.

Varnish with the white of an egg. Apply with a sponge.

Wax for Furniture.

Put one ounce each of white and yellow wax in a clean dish over a slow fire. When melted, take from the fire and add four ounces of spirits of turpentine. Stir until cold.

Varnish for Drawings.

Dissolve one ounce of good isinglass in a pint of water over a slow fire. Strain through muslin. Try first on a piece of paper. The mixture should be moderately warm. If the size glistens, it is too thick and should be thinned with water. If it soaks into the paper it requires more isinglass—it should merely dull the surface. Give the drawing two or three coats, letting it dry between each. Apply with a flat, camel's-hair brush, and be careful, particularly in the first coat, to bear very lightly on the brush. Finish by giving three coats with the best mastick varnish.

Glue.

The hotter the glue when applied, the stronger the parts glued together. As glue loses much of its strength by reheating, that newly made is preferable where great strength is required. It is a very good plan to add salt to the water in the outer vessel, for then the water will not boil until heated above the ordinary boiling point, and as a consequence, the heat is retained instead of passing off by evaporation, and when the water boils, the glue will be thoroughly melted. A little glycerine added to glue will prevent its cracking, and a small quantity of muriatic acid added to dissolve glue will keep it in that condition for some time—it will neither dry up nor ferment.

Liquid Glue No. 1.

Of the best white glue 16 ounces, dry, white lead four ounces, rain water one quart, alcohol four ounces. Put all but the alcohol into any kind of a vessel that may be placed within another vessel containing hot water. Stir until the lead and glue are dissolved then add the alcohol and continue the heat for a few minutes longer. Pour into bottles while hot.

Liquid Glue No. 2.

Or, fill a glass jar with bits of broken glue and cover with acetic acid. Set in warm water—gradually raising the temperature until the water is hot—until the glue is all melted.

Very Strong Glue.

Dissolve by application of moderate heat, one ounce of best isinglass in a pint of soft water. Strain through a piece of cloth and add an ounce of glue, previously soaked for a few hours in a small quantity of water, and a gill of vinegar. After the isinglass and glue are brought to a solution, boil up once and strain off the impurities.

Good Mucilage.

Of gum-arabic three ounces, distilled vinegar three ounces, white sugar one ounce. A small quantity of sulphate of quinine added to the solution is a complete protection against mold. Instead of the vinegar one part acetic acid, and five parts water may be substituted.

Paste for Hanging Paper.

Four pounds of good, wheat, flour, sifted, with enough cold water to make a stiff batter free from lumps. Thin it with cold water to the consistency of pan-cake batter and add two ounces of finely powdered alum. Have ready plenty of boiling water. Take from off the fire and pour gradually over the batter, stirring constantly. When it begins to swell and lose the white color of the flour it is cooked enough. This makes about three-fourths of a pailful of solid paste. Let it become cold before using. A pint or so of water over the top will prevent its skinning. Thin with cold water so that it will spread easily and quickly under the brush. Where great adhesiveness is required, such as in papering over a varnished surface, etc., add one ounce of powdered resin to each gallon of paste. Set the pan containing the paste over a slow fire, stirring constantly until the resin has melted. Reduce the paste with thin gum-arabic water.

Paste for Cleaning Brass.

Rotton-stone four ounces, oxalic acid one ounce, sweet oil one and a half ounce, turpentine to make a paste. Apply with woolen and rub with leather. A solution of oxalic acid rubbed over tarnished brass, will make the metal very bright, but it must be washed off at once and the article polished with whitening in powder and soft leather.

News of the Week.

MONDAY, November 22, 1879.

MISCELLANEOUS.

G. F. SEWARD, Minister to China has resigned. Some grave charges were, some time ago, made against him on the ground that he had used his official position to feather his own nest warmly and a trifle unjustly. His resignation has been followed by that of his cousin F. W. Seward, assistant Secretary of State, in Washington—the latter, it is said, having taken place on account of ill-health in the family. Col. J. Hay, formerly Secretary of President Lincoln, and later author of "Little Beeches" and various other popular poems, has been appointed to fill the vacant place.

It is said the Rothschilds will furnish one-third of the capital for the inter-oceanic ship canal down on the Isthmus, on condition that Gen. Grant becomes president of the company. Grant, however, says before moving in the matter he must feel sure that ample subscriptions will be forthcoming. He has had, during the past week, a magnificent ovation at Chicago, and all along the route from Galena, thither and back again. Wherever he goes, the people seem wild with enthusiasm for the silent "man on horseback." There is a good deal of newspaper talk lately about the South making him its candidate for President next year, as the best way to secure peace and restore public confidence by closing up that "bloody chasm." Talk, talk, and little more. A statue to the brave, skillful, patriotic soldier and true gentleman, Gen. G. H. Thomas, was unveiled during the week at Washington, in presence of the President, a large number of distinguished soldiers and civilians and a vast concourse of admirers of the dead hero.

The United States Supreme Court has just decided that there is no Constitutional authority by which the Government can grant to any individual the exclusive right to any special trade-mark. Well, there ought to be a valid authority for such a concession, so that a man or company might reap the legitimate reward of a long period of honest dealings, and to prevent the dishonest from foisting upon the public inferior goods sold under the trade-mark of honorable firms. For the first time in the history of the Government, the Secretary of the Navy has a surplus, and turns into the Treasury $1,500,000 out of the $13,000,000 appropriated for his Department. In the election in this State, Cornell, for Governor, has 40 172 plurality; Hoskins, Lieutenant-Governor, 1,130; Carr, Secretary of State, 4,411; Wadsworth, Controller, 7,659; Ward, Attorney-General, 7,909; Wendell, Treasurer, 4,651; Seymour, Engineer and Surveyor, 9,969. All these are Republicans except Seymour. Kelly's vote is 77,471. It must be borne in mind that Cornell's majority is due to Kelly's bolt from Robinson. Tammany Hall voted for the rest of the Democratic ticket; but although Cornell runs considerably behind his ticket in the number of votes actually cast, Kelly's help gives him a larger plurality than the majority of the remainder of his ticket. Seymour was popular, owing a good deal to his own character and not a little to his father's name; whereas Soulo, his opponent, was unpopular, as a canal trickster, and was bitterly opposed by the "Scratchers." By the way, these are about to maintain their organization, to increase their weight in future elections.

The government commissioners are having trouble out in Colorado in pursuing the Ute investigation. The Indians either lie incorrigibly or won't testify at all; it begins to seem improbable that the White River agency murderers will be given up. Ouray, the head Ute chief, who has hitherto done everything in his power to facilitate matters has suddenly grown morose and uncommunicative, and it now looks as if the war must go on. Gen Sherman says he believes the Utes are talking against time in order to postpone a decisive result until it will be too late in winter for military operations. He thinks the Indians really mean trouble and that the army must eventually be called on. Nothing can probably be done this year, but in the spring he says "We will make quick work of them."

Nothing could better mark hard times in San Francisco than the recent order from there for pennies received at the Philadelphia mint. Time was 20 years ago when a quarter was the least any self-respecting 'Friscan touched; then usage permitted the bit or dime, the hated nickel was admitted after a struggle, and now Californians count their cents in their small change like the rest of us. Three families and other persons numbering 18 in all have just arrived in New York from Liberia and been sent back to the Carolinas. Of 370 negroes who went out to Liberia by the ship Azor, only 60 are now alive in Monrovia, the rest having died or come back to this country. Yet the effort to induce colonization is still kept up. Twenty-four Chinamen were killed and a number of others were fatally hurt by three explosions in tunnel No. 3 on the narrow-gauge railroad between San Jose and Santa Cruz, Cal., this week. The new Washburn, A, flouring-mill, now building at Minneapolis, Minn., will be the biggest thing of the kind in the country, having a milling capacity of 2500 or 3,000 barrels of flour daily and a storage for 100,000 bushels of wheat. Corn is cheaper in Iowa this fall than in any other place on the globe, selling at 18 and 20 cents at the depots, and 10 and 15 cents at places distant from the railroads. It is reported to be very ripe, sound and sweet, and there will be 150,000,000 to 200,000,000 bushels, not one-sixth of which can be shipped out of the State. The commissioner of internal revenue reports that the government has lost $11,000,000 revenue by the reduction of the tax on tobacco and the consumers have gained nothing.

FOREIGN.

The death ratio in England among infants of the "comfortable class" where light, air, heat and food are all provided for the tender life, was recently put by Dr. Drysdale, an English authority, at 80 per 1,000. It is somewhat smaller in the highest classes, where all the resources of great estate are used to keep alive the young heir or possible heiress. Taking all classes, however, in places like Liverpool or Manchester, the rate rises to 240 or 300 per 1,000. King Alfonso's marriage is definitely fixed for the 27th. The Archduchess Marie Christine stopped off at Paris last Wednesday on her way Spainward to call on ex-Queen Isabella. The Spanish papers are announcing in a cold-blooded way that the ceremonial at the marriage will be "precisely similar" to that at the first nuptials of the young king. As the New England woman said, when the parson handed her a marriage certificate uninclosed and folded simply: "I allus has had 'em in an envelop." Meanwhile, the world's large-hearted charity is coming generously to the relief of the wretched survivors of the southeastern Spanish provinces which have lately suffered from inundation, especially Murcia. Crops, houses, vineyards, inhabitants, nay, the very soil down to the bed-rock have been swept away by the on-rushing waters. More generously than all others has France come to the relief of the afflicted, and the Spanish government has specially returned thanks for the god-sent French charity which knows no national frontiers.

There seems a growing *probability* in Europe tha Russia and Great Britain will soon settle their differences by the crucial arbitriment of arms. Russia boasts—whether she thinks so or not—that she can whip England in India; while the latter believes that having had full command of the vast resources of that empire for half a century nearly, she can bid defiance to a hostile world in that quarter; nay, that she can summon the innumerable legions of her Eastern subjects to adjust the balance of European power in favor of her Western children. This she did when, during the Turko-Russian war, there was a probability that she would become embroiled in the trouble. The possibility—probability—of the outbreak of such a war, however, has revived the operations of Russian merchants and citizens, in contributing from their private resources towards the building of a fleet of privateers to prey on English commerce. The committee which has charge of this enterprise had raised $2,500,000 at the close of the Turko-Russian war, and subscriptions since then amount to $900,000. As a hand-book for the officers in command of the five vessels purchased by this committee, a condensed account of the cruises of the Sumpter and Alabama has been published in Russian. An abstract of this publication given in an English paper furnishes very interesting reading to ship-owners under the British flag, although the danger is rather hypothetical. Insurrection has broken out afresh in Cuba. The prospects of a splendid sugar crop and of high prices for it have encouraged all classes to anticipate the speedy recovery of their losses, but the threatening state of political affairs in the interior has caused a general feeling of gloom at Havana. There is a rebellion going on at Hayti and the capital is undergoing siege. There is a local revolution in Chihuahua, Mexico, against the State government, and the pronunciados have occupied the capital, capturing the governor and all the State officials.

The excitement in the British Isles at the Irish anti-rent movement is intense. On Wednesday last the Government arrested a couple of the most violent of the agitators, named Michael Davitt, an ex-Fenian prisoner, and a bitter advocate of the total abolition of landlordism, and James Daly, Editor of the Connaught Telegraph, and a consistent Home Ruler and anti-rent agitator. The whole country at once burst into a flame of excitement. Public meetings, to protest against the "outrage" are being held in all the chief centers of commotion. Parnell, the leader of the movement, and member of Parliament, has deferred his intended visit to this country for the purpose of arousing our Irish fellow-citizens, and with the other leaders, is delivering speeches daily. Tenants willing to pay full rent are threatened with all sorts of horrors by the anti-renters, and in one case, a poor fellow who had paid in full was taken out at night and flogged almost to death besides losing a part of his ear. The tenantry throughout the country are secretly banded together, and though the leaders counsel moderation, there is danger of an outbreak at any time. Meanwhile, the landlords seem ready to combine to exact their rights. The police force is everywhere prepared for emergencies. Troops are being hurried from England to the most violently disaffected districts; other troops are held in instant readiness to move, in the most convenient barracks in England; the officers in command in Ireland have been instructed not to mince matters in case of an outbreak, but to suppress it at once at all hazards. In short, there's trouble ahead, and it may come at any moment.

BUTTER-MAKING IN JULY AND AUGUST.

Butter-making can be carried on in hot weather as successfully as in June by using the Gilt-Edge Butter Maker. It reduces time of churning one-half. Increases production 6 to 10 per cent. Storekeepers pay 3 to 5 cents a pound extra for butter made with it. Sold by druggists, grocers and general storekeepers. Send stamp for "Hints to Butter-Makers." Address Butter Improvement Co., Buffalo, N. Y.

OUAQUAGA DAIRY, SUSQUEHANNA VALLEY, N. Y., May 28th, 1879.

BUTTER IMPROVEMENT CO., Buffalo, N. Y.:

Gentlemen—Please accept a sample of butter made from "hay fed" cows and with the use of your Gilt-Edge Butter Maker, without its use the butter made was almost as white as lard, while with its use (as you will observe from the samples sent you) the butter is of a very beautiful, even golden color leaving nothing to be desired in that direction. Several of my neighbor dairy farmers have tried your powder and are loud in its praise. It passes in mark as "creamery butter" and is worth from 3 to 5 cents per pound more than dairy butter. H. C. BRYANT.

FOR CATARRHAL and Throat Disorders "*Brown's Bronchial Troches*" are renowned and marvellously effective, giving immediate relief in most cases.

Walking made very easy with Lyon's Heel Stiffeners; they keep your boots and shoes straight as new.

A good excuse for sickness of yourself and family is that you don't use Hop Bitters.

The Markets.

THE GIST OF THE MARKETS.

As will be seen by the accompanying reports the prices of the chief farm products have still an upward tendency throughout the country. In each center there have been during the week various slight fluctuations in prices, but the general drift, if any, has been upward. The early closing of canal transportation throughout the Northern States and the approaching impediments to Lake navigation, are the chief domestic causes likely to affect prices by giving a monopoly of transportation to the greedy railroads which are sure then to raise their freight charges still higher. The Erie Canal, the great water route between the Lakes and tide-water, will be closed on Dec. 1st, if ice does not close it sooner. The cold snap on Friday night froze in 586 grain-laden boats between Buffalo and Troy, N. Y. and speculators at once stiffened prices on the ground that 2,776,000 bushels of wheat, 1,612,000 of corn, 60,000 of barley and 25,000 of oats were thus locked up until spring thaws. The ice is being cut, however, and all the boats will get through. It is estimated that at least 25 per cent of the wheat crop is still in the hands of the producers. The visible supply—or that in the markets in various places and *in transitu*—is extremely large, about 25,000,000 bushels—just what the Dept. of Agri. estimates to be the increase of this year's crop over last year's. On the 13th the aggregate visible supply in the U. S. plus the amount on passage to Europe, was put down at about 59,000,000 bush. The amount on passage has lately been reduced, however, by a temporary slackness in orders produced by our high prices, the shipments from this port for the last couple of weeks being in the neighborhood of 3,000,000 bush. per week, instead of about 5,000,000 for a considerable time before that. So rapidly has wheat been rushed on to England and France from this country and Russia, that vast quantities of it are there accumulating in the hands of legitimate buyers and speculators. Mail advices of the 10th state that the quantities of wheat and flour thus held were unprecedentedly large both in France and Great Britain. Russian crop reports just officially published state that the cereals, on the whole, were a fair average. Prices at the Black Sea and Baltic ports, however, are unusually stiff. Anyhow Russia's average surplus is less than a dozen million bushels—a mere trifle to the European need.

In England, according to the Mark Lane Express, of the 19th, all the crops were harvested, but in Scotland the harvest would last for about ten days more. Much of the cereals were harvested in an unripe condition amid the snow. A good area has been sown to wheat under favorable conditions, but as the decrease last year in the wheat area was upwards of 300,000 acres, it is certain that this year it will be still greater owing to hard times, discouragement at the prospect of ruinous American competition, the large number of farms thrown on the hands of landlords, etc., etc. The necessary imports of foreign wheat are agreed to amount to 146,000,000 bushels. In view of the large visible supply, prices had fallen off a trifle; but later advices show that they have recovered. The English crop is short 30 per cent., and millers complain that it is so poor that not more than 30 per cent. of it can be mixed with other wheats to make salable flour. Milled by itself, most of it would be unfit for the market. It is thought that much of it will be used as feed, and that it will take two years to work the crop off. Roots were not much more than half crop.

The shipments of live stock are growing smaller, but those of meat are increasing as stormy weather and cold come on. The prospects for a brisk trade in spring are considered excellent. By the way, mail advices just to hand, show that the cablegram about the restrictions on our sheep importations into the British Isles, referred to editorially, week before last, was wrong. So far as Great Britain is concerned, all restrictions were to be *removed* after Nov. 23. Our strictures on the appointment of stock examiners at the various ports, however, were deserved, although the text for them was a mistake.

SPECIALS FROM ALL CENTERS.

Until Saturday, Nov. 22.

Baltimore.—Wheat, Southern, scarce and firm; red, $1.40@1 45; amber, $1.50@1.56, an advance of 10c. per bushel on the former and from 5c. to 6c. per bushel on the latter since Monday. Western wheat dull and weak, at $1.41¼@1.42 for spot, an advance of half a cent since Monday's quotations. Corn, Southern white, 56@57c.; do. yellow, 51@55c.; last Monday's prices being 52@57c. and 51c. to 52c. respectively. Western mixed, spot, and Nov., 55¼@55c.; last Monday's price, 57c. Oats steady; Southern, 46@48c.; Western, white, 46@47c.; do. mixed, 44@45c.; Penn., 46@47c.—an advance of from 2c. to 4c. per bushel on all kinds since Monday last. Rye, 85c., steady. Hay, prime to choice Penn. and Md., $17@18—an advance of $2 per ton since Tuesday's quotations. Butter, firm, prime to choice Western, packed and rolls, 23@28c. Eggs, fresh, 20c.; limed, $16@17c.

Boston.—Corn quiet; old mixed and yellow at 62@65c.; new, 60@63c. Oats in fair demand at 48@50c. for No. 1 and extra white; 46½@47c. for No. 2 white, and 43@44½c. for No. 3 white and No. 2 mixed. Rye sells in small lots at 95c @$1. Shorts, $16.50@$17; fine feed, $17@17 50, and middlings at $18 to $20 per ton. At the Brigton Stock Market, extra quality beef cattle, per 100 lbs. live weight, $5 31¼@$5 75; first quality, $5@5 25; second quality, $4.62@4.87½; third quality, $4.12@$4.50; poorest grades of oxen and bulls, etc., $3@$4; milch cows, extra, $45@$60; ordinary, $20@$44; farrow, $11@$25; springers, $18@$45. Hogs, 4¾ per lb. live weight.

Chicago.—During the past week wheat was steady with a slight advance, the market opening on Monday at $1 15@1 15¼ for No. 2 Chicago spring, and closing on Saturday at $1.16¼. Corn fell a cent a bushel during the week, opening on Monday at 41¼ cash, and closing on Saturday at 40¼ cash. Oats dull and lower, Monday 33¼ cash. Saturday 32¾@32¾. Rye steady at 72c. Barley, steady and unchanged during the week at 78@80c. Timothy seed, $2@2 40 per bushel. Flax seed, $1.53@1.55. Eggs; fruit house, 16@18c.; fresh, scarce at 21@22c. per doz. Pork active, $10.25@$10.50. Lard, $6.65@6.70. Hogs, mixed packing at $3.80@3.92½; choice heavy at $3.95@4.15; light bacon at $3.70@3.95. Cattle, good shipping, $3.70@$4.75; stockers and feeders, firm at $2.25@3.75; cows, $2@3.25; Western, strong, at $2@3.75.

Cincinnati.—Wheat firm at $1.28@$1.30 for No. 2. red—an advance of 4c. since Monday. Corn in fair demand No. 2 mixed old shelled 48c; new ear 38@40c. Oats firm, No. 2. mixed 34@35c. steadily all the week. Rye 82@85c—an advance at from 2 to 5c. since Monday. Barley quiet at 92@95c.—an advance of from 2 to 5c. during the week. Butter, prime to choice Western Reserve 22@25c; do. Central Ohio, 20@22. Hogs active and firm, at $3.25@3.75 for common; $3,80@4. for light; $4@4.20 packing, and $4.10@4.20 for butchers'; cotton, middling 11¼; low middling 11¼; good ordinary 11¼.

Indianapolis.—Wheat here has advanced from 1 to 2c. per bushel during the week; No. 2 red is firm at $1.25@1.28. Corn steady, new at 37½@38c. Oats 32½@31½c Hogs strong at $3.90@4.35, a rise of from 25 to 50c. since Monday.

Louisville.—Wheat here has varied little during the past week and is firm at $1.22@1.25. Corn is steady; white at 48c; mixed 46c. Oats dull; white at 37½c; mixed 36c, a rise of 1c. since Monday. Rye 85c; an advance of 5c. during the week. Hogs active and firm; packing, $4.10@4.25 an advance of from 25 to 35c.

Milwaukee.—Wheat had an upward movement during the week; No 1. Milwaukee hard opening on Monday at $1.17¼, soft, $1.17¼, and closing on Saturday at $1.19 and 1,18¼ respectively. No. 2. Milwaukee, $1.16¼ cash, an advance of ¾c. since Monday. Corn, quiet but steady at 40½c. for No. 2. a fall of 1¾ from Monday's quotation. Oats, dull at 33c. for No. 2. a rise of ¾c Rye, quiet at 70¾ for No. 1 a rise of ¾c. during the week. Barley No. 2. spring, at 71¾@71¾, a rise of 2c. per bushel since Monday.

New Orleans.—Corn scarce and firm at 52@58c. for yellow and 60c. for white. Oats in good demand at 44@45c., from 3c. to 4c advance since Monday. Rice, ordinary to choice, 6¾@7¾c. Corn meal firm at $2.85. Hay quiet; choice, $21.50, an advance of $2 50 per ton. Bran, 85c. Cotton in fair demand; middling, 11½c; low middling, 11¾c.; good ordinary, 11¾c.

Philadelphia.—Wheat has a fair demand from millers and for export, and has advanced from ¾c. to 1¾c. during the week, according to the grade; Western rejected, $1.33; No 2 red. on track, $1.42; Southern amber, $1 44. Rye, supplies come forward slowly at 87@88c. for Western and Pennsylvania. Corn fell a shade during the week; Penna. and Southern yellow, 57@58c., chiefly at 57¾c; old Western low mixed, on track, 56c; old high mixed do., 57c.; new Southern yellow, on track, 52@51c. Oats dull; Western rejected, 40c; dark and light mixed, 40½@41c.; stained, 41@42c; good white, 42½@43c.; choice and fancy, 43¾@44¾c; prices varied little during the week, with just a shade of advance in some sorts. Eggs, Penna., 21c.; Western, 22c. Cheese, N. Y. factory, 13½c.; Western full cream, 12½@13c.; do., good, 11@12c.; do., skim, 7@10c. Butter, creamery, 35@36c.; Bradford Co. and N. Y., extra, 32@34c.; West-Western Reserve, extra, 25@28c; do., good to choice, 20@23c. Clover seed dull at 7¾@9¾c.; timothy, $2.25@2.30; flax, $1.48@1.50. Bran, $14.50@14.75 per ton.

St. Louis.—Wheat unsettled at $1.26@1.26¼ for No. 2 red fall. A shade of advance from Monday's price, $1.25@1.26. Corn, $1,37¼, cash. A shade lower than at the opening of the week. Oats steady at 31c. cash. Rye, dull, at 74c. Barley active and firm; choice at 85@90c. Pork, $10 75@10,80¼. Lard, $6.65. Hogs, packing, $3.60@3.85; butchers', $3.85@4. Cattle, firm, the demand exceeding the supply, good to choice heavy shipping, $4.10@4 90; light, $3.25@4. Native cows and heifers, $2.25@3 25; grass, Texans, $2@3; corn-fed, do., $2,75@3 75. Sheep, fair to good muttons, $3,50@3; choice to fancy, $3.25@3 75. Cotton dull, middling, 11¼; low middling, 11¼; good ordinary, 11.

Toledo.—Wheat steady; No. 2 red winter, spot and Dec., $1.30¼; Jan., $1.33¼; Dayton and Mich. red $1.25¼; corn, high mixed at 46c.; No. 2 at 44¾; new, 43¼; oats, 31c. for No. 2, dull, with a slight upward tendency. Clover seed prime, $5 20—an advance of 5c. per bushel during the week.

NEW YORK, Saturday, Nov. 22, 1879.

BEANS AND PEAS.—The moderation in demand is most perceptible in mediums, and for that sort prices are not strong. Marrows are steady in tone, but extreme selling price. Red and other fancy beans hold full last figures. Supplies not oppressive. Green peas have a straggling sale at the moment, but $1.90@1.95 are the asking prices for prime. Southern B. E. peas neglected at $2.30@2 35 ₱ 2-bush. bag. Field, Can, and Mich. without quotable rates. Old marrow beans, $1.80@1.90; new, $1.05; medium, $1.60@1.65; pea, $2 05@2.10; white kidney, $1.85@2.20; red do., prime, $1.95@2; poor, $1.80@1.90; black, $1.80@1.95.

Receipts of beans for week, 13,900 bush.; exports, 1,507 pkgs.

BEESWAX—Small sales reported at 22¾@23½c. Exports for week, 2,404 ₱.

BROOM CORN.—Supplies have been pretty closely taken, and there is a strong market. Brush and short broom, choice, per ₱, 7½@8c.; do., common to good, 5@7c.; hurl, good to choice, 6@7c.; do., common to fair, 5¼@6c.; red and crooked, 4@5c.

BUTTER.—Trade has been quiet enough to have softened rates materially if the market had not the support of firm holders of stock. State butter that has been bought high is not put out when a decline is hinted Stock that gives owners the benefit of the almost doubled early rates is not pushed yet, as the season is young and Western is not a heavy competitor. The local call is at ll light, especially among sellers who retail to ordinary to poor sections of the city. A good many lots have been selling at under figures, owing to bad condition upon arrival during the remarkably warm portion of the month. Under grades of butter will be wanted this coming week for Thanksgiving pastry use, though at present figures hardly anything sounds like under grade. Dealers may take advantage of the baking inquiry to work down remnants of heated stock that cannot be trusted to carry. By closing such parcels out the stand rd of supply would be raised, and a consequent support obtained for the high region of rates than the demand enlivens. Heretofore all fine creamery has rated close, but fresh State is now quoted second to Western, as the latter contains its customary advantage of being grain-fed. In quotations creamery holds up, but other grades of State are fully 1c. lower.

State, pails and tubs, single dairy marks, fresh ends, choice, 31@31c.; best invoices, 30@32c.; good to prime, 28@30c.; fair to good, 26@28c. firkin and tub single dairies, choice, 30@31c.; do., dairies good to prime, 27@ 29c.; do., firkins, choice dairies, 28@29c.; do. good to prime, 26@28c.; do., fair to good, 24@25c.; Welsh tubs, best invoices, 25@30c; do., good to prime, 26@28c.; do., fair to good 24@26c.; State, tubs, poor, 20@23c.; State creamery, best invoices, 37@38c.; do., good to prime, 34@36c.; do., sweet cream, best, 35@36c.; do., fair to good, 30@34c.; Creamery, poor to fair, 28@30c.; Western, imitation creamery, 29@30c.; do., dairy, fresh, extra, 25@28c.; do., dairy, good to prime, 23@25c.; do., fair to good, 21@23c.; poor to fair, 18@21c.; do., best invoices, June, 21@23c.; do ,fair to good June, 18@20c.; do., best invoices, late factory made, 22@23c.; do., fair to good, 19@21c.; do ,poor to fair, 16@19c. Roll butter, prime, 22@25c.; do., fair to good, 22@2 c.

Receipts for week, 32,050 pkgs.; do., exports, 2,900 do.

CHEESE.—Shipments for the week have been only 13,400 boxes The dull market has been without marked effect upon prices, most of the business has been in grades to be had at 12½c down Really fancy factories have brought 12¾@13c.; and special lots have reached 13¼, and in one or two cases 13¾.

Quotations are for State factory: Fancy, 12½@13c; good to prime, at 11¾@12½c; fair to good, at 10¾@11¾c.; half-skimmed at 8¾@9c.; skimmed at 6@8c. State farm dairy: Fine at 12@12½c.; good to prime 10¾@12c.; fair to good at 9@10¾c.; skimmed at 6@8c. Wis. factory: Fine at 12½@12¾c; good to prime at 11½@12½c. Ohio factory: Cheddar, fine, at 12¼@12½c.; do., fair to good, 10@11c.; flat, fine, 12½@13c.; flat, good to prime, 11@ 2c.; flat, fair to good, 10@11c. half-skimmed, 9@10c.; skimmed, 6@8c.

Receipts for week 46,172 boxes; exports do. 15,000; do

Cable quotations 64s. Steam to Liverpool 30s.

COTTON—Has been feverish and fluctuating violently, closing firm at for Nov., 12.10@12.12c.; Dec. 12.11@12.12c.; Jan., 12 21@12.22c.; February, 12 37c.; March, 12.52c.; April, 12.67@12.68c; May, 12.82@12.83c.; June, 12.95@12.98c.; July, 13.01@13 04c.

Quotations for spot cotton are based on American standard of classification, and on cotton in store running in quality not more than half a grade above or below the grade quoted.

	Uplands.	*N. Orleans and Gulf.*	*Texas.*
Ordinary	10 11-16	10 13-16	10 13-16
Strict ordinary	11 1-16	11 3-16	11 3-16
Good ordinary	11 7-16	11 9-16	11 9-16
Strict good do	11 11-16	11 13-16	11 13-16
Low middling	11 13-16	11 15-16	11 15-16
Strict low middling	12	12¼	12¼
Middling	12¾	12¾	12¾
Good middling	12⅞	12⅞	12⅞
Strict good middling	12¾	12¾	12¾
Middling Fair	13¾	13¾	13¾
Fair	13¾	14	14

STAINED.

Good ordinary	10¾	Low middling	11 9-16
Strict good ordinary	11¾	Middling	11 13-16

DRIED FRUITS.—Apples are in good demand and are the turn dearer. Peaches rule at strong prices with a good demand. Blackberries are firm. Cherries are doing a little better.

Apples—New North Carolina, are: 6¾@8c. for fair; 8¾@9c for choice; 10@10¾c. for fancy sliced. Patent evaporated apples, choice, in cases; 14¾@15c.; do. fair to good, 12¾ @13¾c.; N.Y. State sliced new, 8@8¾c; quarters, choice, 6¾@ 7c.; western quarters, common and old, 4@4¾c.; new southern quarters at 4@4¾c.; new N. C. peeled peaches at 16@17¾c., do. Georgia, 13@16c. Peaches, Delaware evaporated, peeled at 25@28c.; do. unpeeled at 13@15c.; new halves at 8c. Blackberries at 10c. for new. Raspberries at 28@29c. Pitted cherries at 18@20c.

Exports for week, 75 bbls. apples; do., receipts, 1,110 pkgs. various.

EGGS.—Receipts for the week, 10,432 pkgs.; do. last week, 13,668 do. The market has had a tame run, but with prospective better business for next week prices are named with more confidence. For other than mixing use there must be a newer, even grade of good quality in wholesome parcels of Western to draw a steady trade. Limed are selling finely well. Near points fresh, 27@28c.; State and Penna., 21¾@25½c.; Canadian 19½@20c; Western, choice 22@23c. off grades, 18@19c. State limed, 17@18c.; Western, 16@17c.; Canadian, 16@17.

FLOUR.—Has tended to rather better figures on increased demands on export and home trade account Latest prices are: $4.90@5 40 for inferior to choice superfine State; $5.40@5 75 for inferior to good extra do., odd lots and lines; $5.75@6 00 for good to very choice do.; $4 00@5.50 for inferior to very fancy superfine Ind., Iowa, Michigan &c.; $5 40@5 75 for inferior to good shipping extra do., and $5 75@6 00 for good to choice shipping extra do.; inferior to about choice white wheat extras, $5.90@6.75; choice to fancy do. at $6.85@8 00; red and amber winter wheat, inferior to fancy grade and family, at $5,85@7.75; round hoop Ohio, $5 65@6 00, and trade and family brands of do. at $6 10@7.75 the latter rate for fancy: St. Louis at $5 90@6 90 for inferior to very good extra; $6 90@8 00 for very good to fancy; Minnesota clear, very inferior to fancy, $5.40@7.00; Minnesota "straights," very inferior to fancy, $6 00@7.75, and patent poor to very fancy at $6 75@8.75; unground stock at from $5.85@6 75; city mill extra at $5.40@6 75 for common to very choice for West Indies (fancy do. quoted at higher figures); do. for England, $5 50 6.00 for poor to choice; do. trade and family extras, $6 65@7.50 do. for South America, $6.60@7.00; No. 2 at $4.20@4.90 for poor to very fancy.

FRESH FRUITS.—Receivers of apples are rather anxious about the condition of incoming lines, as sudden variation of temperature is not favorable for quality. Good stock firm and going abroad liberally. The pear crop seems about gone. California will have a very clean market if shipments are made. Cranberries will move well the coming week; prices firm. Florida oranges have no steady inquiry, as quality is uncertain.

Apples—Kings State good to choice, per bbl., $2.75@3; Baldwin, $2.25@2 50; Greening, $1 87@2.12; winter mixed, good to choice, $2@2.25; poor to fair, $1.25@1.75. Cranberries—Cape Cod, fancy, per bnl., $7@7.25; good to choice, $6.25@6 75; fair to good, $5@6.25; Eastern large round hoop bbls., fancy, $6 50@7; do., fair to choice, $5@6; Jersey, fancy, per crate, $1 87@2; good to choice, per crate, $1.50@1.75. Pears—Vicar of Winkfield, per bbl., $2.50@3.50; Lawrence, $1@5; Boston, choice varieties, per box, $2.50@5; cooking, per bbl., $2@2.50. Grapes—Catawba, State, choice, per case, $2 25@2.75; do., poor, $1.25@1.75; do., loose, per lb., 3@6c.; Isabella, State, 18 3-lb. boxes, $1.25@1.50; bulk, per lb., 2@5c. Oranges—Fla., choice, per ½ bbl. crate, $3.50@4; fair, $2@3; choice, per bush. crate, $2.50@3; fair, $1.25@2. Peanuts come forward freely, but they are selling well. The Producers' Price Current gives the following crop statistics:

	Virginia.	Ten'ssee.	N.Carol'a.
1879-80	1,100 000	550,000	120 000
1878-79	875,000	410,000	85,000
1877-78	405,000	305.000	85,000
1876 77	780,000	50-,000	125,000
1875-76	450,000	285,000	100.000

Peanuts, Va., new, hand-picked, per lb., 5@5¼c.; new, extra prime to fancy, 4@4½c.; do., good to prime, 3¾@3¾c.; shelled, new, 4@4½c; old, 5@5½c; Chestnuts, per bush., $1@1.50; Hickory, shellbark, $1@1.12; bull nuts, Ohio, 40c.; B. walnuts, 40@50c.; Pecan nuts, per lb., 9@9½c.

Exports for week, 17,865 bbls. apples.

FURS AND SKINS.—Dullness abroad and large stocks carried over will tend to start a low market here this season.

No. 1 quality.	Nor. & East.	W. & S. W.
Otter, each	$5.00@7.10	$4.00@5.00
Grey Fox	65@ 65	40@ 50
Red Fox	1.15@1.25	1.00@1.15
Black Bear	5.00@8.00	4.00@7 00
Cubs and yearlings	2 00@4.00	1.50@3.00
Fisher	5.00@7.00	4.00@6.00
Mink, dark	1.00@1.25	50@ 70
Mink, pale	50@ 60	30@ 40
Muskrat, winter	10@ 12	9@ 10
Muskrat, fall	7@ 8	5@ 7
Kitts	—@ 2	—@ 2
Beaver, per lb	1.50@2.00	80@1.25
Raccoon, each	50@ 60	40@ 50
Opossum		5@ 15
Skunk, black		60@ 70
Skunk, half-striped		35@ 40
Skunk, striped		15@ 20
Skunk, white		8@ 10

GRAIN.—In wheat there has been less interest shown by speculators, but a fair export trade, and shipments for the week reach 1,300,000 bushels; prices closed strong; latest sales are of No. 1 amber at $1.45; 2 amber at $1.43@1.44½; ungraded amber at $1.38@1 41; No. 1 white at $1.44¾@1.44; do. for November at $1.43¾@1.44; do., December option, at $1.41¾@1.45; do., January, at $1.48@1.48¾; No. 2 white at $1.39@1.40; ungraded white at $1.41@1.43¾; No. 1 red at $1.41¾@1.45¾; No. 2 red at $1.44@1.44¾; do., November option, at $1.44¾@1 45; do., December option, at $1.45¾@1.47½; do., January option, at $1.49@1.49¾ No. 3 red at $1.35; ungraded red at $1 25@1.45; mixed winter at $1.40@1.41¾; No. 2 Chicago spring, at $1.35; New York No. 2 spring, at $1.34@1.34½; do., November, at $1.34½; do., December option, at $1.35¾@1.35½; No. 3 spring, at $1.29@1.32; ungraded spring at $1.33@1.37. Rye favors sellers; prime State sold at 90@90¾c. Corn is higher and strong, with increased demand; latest sales are of New York No. 2 at 60¾@61c afloat; do., November at 60¾c; do., December, at 61½c.; New York steamer mixed at 59@59½c.; do., December, at 58c. ungraded Western mixed at 59¾@61c; steamer white at 61¾c.; No. 3 at 58c.; No 2 white at 61c. Oats are more freely offered and favor buyers; latest sales are of New York No. 1 white at 47c.; New York No. 2 white at 46¾@46¾c.; New York No. 3 white at 44½@44c.; New York No. 1 at 45¾@46c; New York No. 2 at 45¾@45¾c.; New York No. 3 at 45@45¼c; New York rejected at 43¾@44c.; ungraded white Western at 46@48c.; mixed Western at 45@47c.; white State at 47@49c; mixed State at 64@47½c.; No. 2 Chicago at 46c delivered.

HAY AND STRAW.—There is a full demand strong prices.

Shipping hay quoted at 50@55c.; retail lots at 60@75c. for medium, and 75@80c. for prime; clover at 40@50c. Straw at 75@80c. for long rye, 50@55c. for short rye and 45@50c. for oat.

Exports for week, 1,722 bales.

HONEY—There is a fair demand, and the novelty of the market is after the dragging trade of back seasons, prices have a firm tone. White clover, single comb, bxs., ₱ lb, 19@18c.; larger glass bxs., ₱ lb, 15@17c.; Buckwheat, in glass bxs, ₱ lb, 13@15c.; Clover, extracted; ₱ lb, 12@14c.; Strained, ₱ lb, 9@10.

HOPS.—Emmet Wells in his circular says: "Inactivity is still the ruling feature. There is a marked falling off in receipts, and exporters have taken only 894 bales against 1,602 last week But a more important feature is the arrival here of an invoice of German hops, which, though perhaps not of sufficient quantity to influence the market unfavorably is looked upon by many as a forerunner of what may possibly follow in the shape of important arrivals. The duty of 8 cents per lb. on foreign hops will, it is believed, be no particular barrier against importations, as it is but a small advance on the present high prices of American that brewers will not count. Our extreme quotations this week are nominal, and the general market shows considerably less firmness than last week."

	Bales.
Receipts for the week	2,687
Total receipts since September 1, 1879	60,8 7
Total receipts for same period in 1878	24,098
Export clearances for the week	894
Total exports since September 1, 1879	37,554
Total exports for same period in 1878	5,486

Quotations are for New Yorks, new crop, choice, 45@47c; New Yorks, new crop, medium, 40@44c. New Yorks, new crop, low to fair, 35@37c.; Eastern, new crop, 35@45c.; Wisconsin, new crop, 35@45c.; Yearlings, 7@8c Olds, all growths, 4@11c.; Pacific coast, new, 40@45c.; Pacific coast, olds (nominal), 9@14c.

OIL-CAKE.—Western is higher; sales at $33 ₱ ton.

PROVISIONS—Have been more active at variable prices, closing week at for pork, $10.90@10.95 for Nov.; $10.90@10 95 for Dec.; $10 95@11 for sellers' option, old or new, for Jan.; $12.35 for new do. for do., and $12.35 for February.

POULTRY AND GAME.—Live poultry has sold well to fill extra wants of fresh, bright-looking stock, which was hard to find early in the week Fowls and chickens, 7@8c.; roosters, 5c; turkeys, 9@12c.; ducks, 40@70c ₱ pair. Geese, $1@1.50.

Dressed poultry started off this season with a most discouraging week. Much western had to be sacrificed for about freight expenses. At these close affairs look more favorable; rough stock is out of the way, and cold weather has revived a good demand.

Turkeys, Jersey, good to prime, 14@16c.; State, Northern Ohio and Pennsylvania, prime, 14@15c.; other Western, prime, 14c.; fair to good, 13@13c.; poor, 15@16c.; Phila., dry-picked, 16@ 7...; do., chickens, 13@14c.; do., Jersey per lb. 14@14c; do., State, Mich., Northern Ohio and Penn., prime, 12@ 3c.; other western, prime, 11@12c; fair to good, 10@11c; poor, 8@9c. Fowls, Phila., dry-picked 12@12c.; Jersey good to prime, 11@12½c.; State, do., 10@11c, Western, do., 9@10c.; poor to fair, 8@9c. Ducks, Phila., dry picked, 14@15c; Jersey, 13@14c.; State, 12@14c.; Western, 10@13c.; do., geese, Phila., dry-picked, 11@12c. N J, 9@11c; State, 9@11c.; Western, 1@ 0c.; squabs, white, ₱ doz., $1 75@3; do, dark, $1.25@1.50.

Game has also got over its bad spell, and prices are assuming cold weather firmness for all sound stock.

Quail, trapped, ₱ doz, $3@3.50; Partridges St te, prime, ₱ pair, 90@$1.; Western, 80@90c.; soft and drawn, 40@60c.; Grouse, prime, $1.25; Wild pigeons, stall fed, ₱ doz., $1 75; flight, southern, 25@30c.; Woodcock, State, ₱ pair, 50@70c.; western, 45@60c.; English snipe, ₱ doz., $1 75@2; plover, $1.50@2 Tame pigeons, shot, ₱ doz., $1.25; Rabbits ₱ pair, 30@35c.; Hares, 30@40c.; Minn. venison, short saddles, ₱ lb., 12@13c.; State & west., short saddles, 8@12c.; whole deer, 3@10c

SEED.—Clover is quiet and quoted at 8¾@9¼c. for prime to choice western and 9¾c. for extra choice. Timothy quiet at $2.60@2.75.

TOBACCO.—Export movement continues moderately, but there is a fair home trade, with prices without important change.

VEGETABLES.—A gradual improvement to be noted in the demand which may develop into activity; prices are much the same as for last week. Peachblows are in stock. Onions have improved again with a falling in receipts. Other items steady. Sweet potatoes have advanced with decrease in supplies. Early Rose, Maine, per 6-bush. bbl., $1.75@2; State Peachbows, 6-bush., $2; State, $1 50@1.62; in bulk, per bbl., 1.25@1.37; Snowflake, 6-bush. bbl., $1.75@$1.50; Peerless, $1.25@1.37; bulk, per bbl.; New Jersey Peerless, 87c.@$1; Sweet potatoes, Del., $3; N J. and Va., $2; squash, marrow ₱ bbl., 75c.; do. Hubbard, $1@1.50; cabbage, per 100, $3@5.00; red do., cabbage, $4@5; onions, white, per bbl. $2 80@3; do., yellow, $2.50@2.75; do., red, $2 25@2.50; do., Chester, $2 25 beets, N. J., 75c.@$1 Russia turnips, 75c.@$1; carrots, 75c.@$1; pumpkins, per 100, $2@5; cauliflower, ₱ bbl, $75c.@3; celery, per doz., $1.

Exports potatoes for week, 6 100 bbls.

WOOL—Has further advanced, the demand continuing active. Supplies much reduced and the reports from the auction sales abroad showing better prices Quotations are for domestic fleeces:

Ohio, Pennsylvania and Virginia—XXX and picklock, 50@52c.; XX, 48@50c.; X, 47@ 0c. No. 1, 46@42c.; No. 2, 45@47c.; common, 40@41c.; combing, 43@52c.

New York, Michigan, Indiana and Wisconsin—XX 46@45c.; X, 40@45c; No. 1, 47@ 9c.; No. 2, 42@46c.; common, 38@42c.; combing, 47@50c.

Iowa, Vermont and Illinois—X and XX, 38@45c.; No 1, 45@49c.; No. 2, 41@44c.; combing, 46@48c.

Missouri, Kentucky and Tennessee — Washed fleece, 45@50c. unwashed fleece, 33@40c.; unwashed combing, 33@40c.

LIVE STOCK MARKETS

NEW YORK, Saturday, Nov. 22.

BEEVES.—Receipts for the week, 10,633 head; do. last week, 9,518 do. The market is a trifle better since Wednesday, and trade about covered the receipts. Cold weather has improved the demand for wholesale cattle, but buyers will operate cautiously for a week or so, as poultry will diminish butchers' trade to some extent. At 10 o'clock a. m. the market appeared to be dull, but buyers patiently waited and sellers had no difficulty in making a good clearance at full former quotations, or 7½@10¾c. per lb. for common to extra steers, and $3.50@3.50 ₱ 100 lbs. for fat bulls and old dry cows. General sales of fair to good steers were at 8¾@9¾c. ₱ lb, to dress 56 lbs. The best 10 steers in market averaged 1,550 lbs., and sold at 10¾c., to dress 57 lbs.; poorest car-load of native steers averaged 1810 lbs., and sold at 7¼c, to dress 55 lbs. Shipments for the week, 339 live cattle and 5,296 quarters of beef to Great Britain, and 31 live cattle to the Bermudas.

MILCH COWS.—There is no change to note.

HOGS.—Receipts for the week, 29,798 head; do. last week, 41,798 head. Supplies have run light and prices higher under strong competition; good to prime, $4@$4.87 ₱ 100 lbs.

Quotations for dressed have ruled uncertain owing to bad weather. Pork tenderloins in cases, 9c.

VEAL CALVES.—Supplies have been small, and choice. Harlem and N. J. both have made 7c@7½c.; Grassers, 2½c@2½c. Shipments of hog dressed will resume if the weather holds.

SHEEP AND LAMBS.—Receipts for the week, 29 349 head; do. last week, 27,500 do. The demand was fair at about the advanced prices noted yesterday, and a larger business was done at 4c @5¼c ₱ lb for sheep and 5½c.@6¼c. for lambs. The pens were entirely cleared, however, and the tendency towards the close favored buyers. 227 State sheep, 122 lbs average for export at 5¼c ₱ lb. Shipments for the week, 1,633 carcasses of mutton and 60 live sheep.

Reading for the Young.

LETTERS FROM THE COUSINS.

UNCLE MARK:—I have been thinking for some time that I would like to join the Horticultural Club, but I have put it off because I thought I was almost too old—just out of my "teens." But when I read the letters from quite a number of aged aunts, I concluded that the best thing for me to do was to write and see if you would accept *me* as a nephew. I have taken the RURAL for about three years, and like it very much. I raised a nice pink Geranium from the seed received from the RURAL two years ago. The seeds that were sent me this year did not germinate on account of the dry weather. Two years ago I budded a fine Gen. Jacqueminot Rose on an old Rose-bush which I have had seven years, and which had never blossomed. The bud grew, and this year it had a number of fine Roses on it. I have also budded a white Rose on the same stock, which I think will live. It will be pretty to have the red and white Roses blossoming on the same bush at the same time. I would advise all the Rural cousins to try budding. It is very easy, and I think all could succeed after a little practice. I have another thing which I would like to tell you about. This summer, one of my Geraniums blossomed, and after the petals had fallen off, a new shoot came right out from the cluster, and this grew, and, after a while, it blossomed. Is this anything unusual? I have tried to make a little sketch so that you may better understand what I mean. And now, hoping to be received as your nephew, I will say good-bye, for a short time.

Fair Haven, Conn. QUINNIPIAC.

[The above letter leads me to say a few words on some

Curious Freaks of Plants

which perhaps may interest the cousins. In answer to Quinnipac (that must be Greek) I will say that though it is not very common for Geraniums to push a branch through the flower-cluster, as was the case with his, still they have often been observed to do so. But perhaps none of the cousins have seen such a case before, and I have therefore had an engraving made from the sketch this new member of the Club sent me. As may

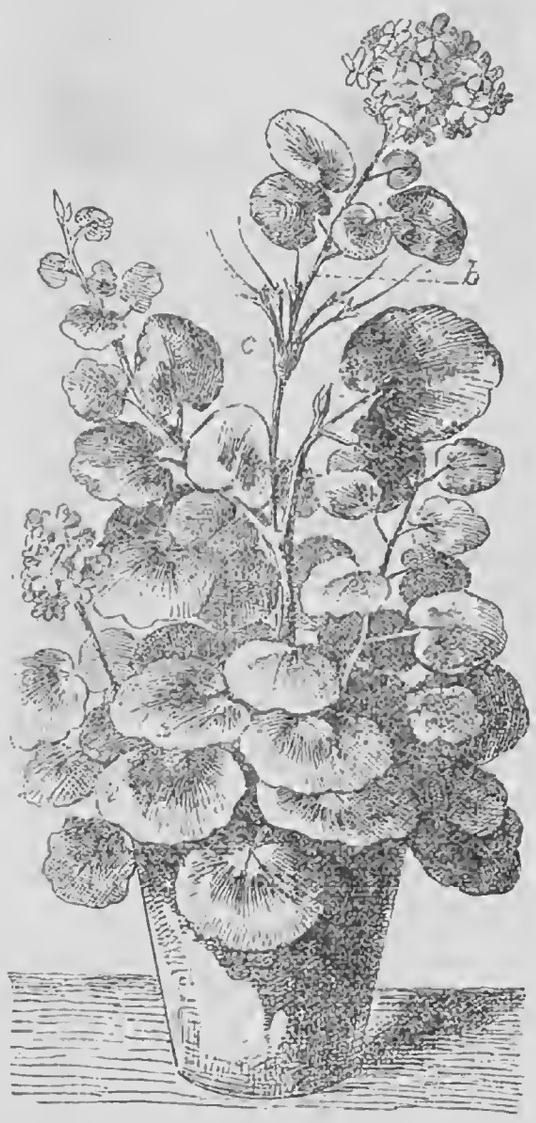


FIG. 1.

be seen the seed pods of the old flower-cluster, from which the petals have long since fallen. Now, it is generally the case with Geraniums in pots, that when the flowers fall, the flower stalk also withers; but in this case it has received new vigor, and instead of withering has pushed out the shoot *b*. The artist thought, no doubt, he would improve the picture greatly by putting a flower-cluster on top, which he did, and by so doing committed a serious blunder. But I saw at once that it was an excellent illustration of mistakes that are often made by persons who do not observe correctly, and that it teaches a timely lesson of the necessity of seeing things "straight," and I therefore admit the picture. You must all by this time have seen what the trouble is; if you have not you will see it immediately when you call to mind where the flowers of a Geranium appear, whether on the end of a branch or in the axil of a leaf. The artist put the flower-cluster on the end of a branch, but in reality it always springs from the axil of a leaf. It is of the utmost importance to all students of the natural sciences, and particularly so to all botanists, that they should make correct observations. A botanist should see everything about a plant at once, and remember it. Such conspicuous points as whether a plant is large or small, trailing or upright, anybody will notice, but the student should go farther and notice the position of the leaves, their shape, how the flowers appear and other peculiarities.

But I am straying from the subject. Another curiosity, and one not so common as the above, is shown in Fig. 2. It is a spike of the common plantain, or ripgrass, that grows along road-sides. It was exhibited at a meeting of a botanical club not long since, where all the learned doctors regarded it as a great curiosity, and thinking it might interest the cousins, I have had it engraved. It will be remembered that generally this ripgrass bears no leaves at all on the flower-stalk, but in this case leaf-buds have been formed at the top of the spike and a whorl of leaves pushed out. There are many other similar cases. In the Rose we often meet with instances in which the stem has grown through the flower and formed leaves and more flowers beyond. Indeed, some varieties always do this.

FIG. 2.

Indian corn, which all are familiar with, bears the tassels of male flowers on tall stalks, and the ears are set lower down in the axils of the leaves, but frequently there are kernels and imperfect ears formed on top of the stalks among the flowers on the tassels. Instances might be multiplied, but this will be sufficient for the present.

UNCLE MARK.]

GRANDMA'S WOLF STORY.

"ONLY one more story, about when you were a little girl, and lived in the woods," said Frank.

Grandma drew off her spectacles and shut her book. She leaned her head back against the large easy-chair and shut her eyes, thinking.

"I remember, as if it were only yesterday," she said, raising her head and looking at the children who had gathered around her. "I was only seven and my little brother wasn't a year old. 'I'm going to the spring-house,' said mother, 'and you must stay in the room and rock the baby if he wakes.' So I took my knitting, for I had learned to knit, and was very proud of the stocking that was growing under my arm. It was a cold day, late in the fall, and all the doors were shut. Baby slept and I knitted for half an hour. Then he awoke and began to cry. As I got down from mother's great easy-chair I thought I heard a strange noise outside. It wasn't Lion, for he had gone off with father to the mill. Something rubbed against the door and made the latch rattle. I felt afraid, and went to the door and fastened the bolt. I stood still, listening, with baby in my arms—he had stopped crying—and could hear my heart thump, thump, thump!

"All at once there came a cruel kind of bark, and then a snarl. A moment after the window broke with a loud crash, and I saw the long head, open jaws, and fierce eyes of a wolf glaring in upon me. An angel sent by our Father in heaven must have told me what to do. The wolf was climbing in through the small window, and to have lingered but a second would have been death. Moved as if by a power not my own, and without thinking what was best to do I ran, with baby in my arms, to the stairs that went into the loft. Scarcely had I reached the last step ere he was in the room below. With a savage growl he sprang after me. As he did so I let the door, which shut like a cellar-door, fall over the stairway, and it struck him on the nose and knocked him back. A chest stood near, and something told me to pull this over the door. So I laid the baby down and dragged at the chest with all my strength. Just as I got one corner over the door the wolf's head struck it and knocked it up a little. But before he could strike it again I had the chest clear across. This would not have kept him back if I had not dragged another chest over the door, and piled ever so many things on top of these. How savagely he did growl and snarl! But I was safe.

"And now I thought about my mother. If she should come back from the spring-house the wolf would tear her to pieces. There was only one window or opening in the loft, and that did not look toward the spring-house; and so there was no way in which I could give her warning, or let her know, if she had seen the wolf, that we were safe. For a long time the wolf tried and tried to get at us, but at last I could hear him going down the stairs. He moved about in the room below, knocking things around for ever so long, and then I heard him spring up to the window. At the same moment I heard my father's voice shouting, not far off. Oh, how my heart did leap for gladness! Then came Lion's heavy bark, which grew excited, and I soon heard him yelling down the road in the wildest way. The wolf was still in the window. I could hear him struggling and breaking glass. Lion was upon him, when my father called him off in command. All was silent now, but the silence was quickly broken by the sharp crack of a rifle, which sent a bullet into the wolf's head, killing him instantly.

"'Father, father!' I cried from the loft window. He told me afterward that my voice came to him like one from the dead. He ran around to that side of the house. Mother was with him, looking as white as a sheet. I saw them both clasp their hands together and lift their eyes in thankfulness to God. When I tried to pull the chests away I could not move them an inch. So father had to climb up by a ladder to the loft window to release baby and me from our place of refuge. Mother did not know anything of our danger until she had finished her work at the spring-house. Just as she came out she saw the wolf's head at the window, and at the same moment father and Lion appeared in sight."

"I wonder the wolf didn't get you," said Frank, with wide-open eyes, breathing deeply.—*Christian Advocate.*

Sabbath Reading.

TWO THOUSAND YEARS AGO.

Two thousand years, two thousand years,
Our bark o'er billowy seas,
Has onward kept her steady course
Thro' hurricane and breeze.
Her Captain was the Risen One—
He braved the stormy foe,
And still He guides Who guided her
Two thousand years ago.

Still onward rides our gallant bark,
With all her canvass set,
In some few nations still unknown,
To plant her standard yet—
Her flag shall float where'er a breath
From human life shall glow;
And millions bless the bark that sailed
Two thousand years ago!

Not unto us, not unto us,
Be praise or glory given,
But unto Him who watch and ward
Hath kept for her in heaven;
Who quelled the whirlwind in its wrath,
Bade tempests cease to blow,
The Lord Who launch'd our vessel forth,
Two thousand years ago!

Then onward, speed thee, brave old bark,
Speed onward in thy pride,
O'er sunny seas and billows dark,
The Holy One thy guide;
And sacred be each plank and spar,
Unchang'd by friend or foe,
Just as she left Jerusalem,
Two thousand years ago!

BY THEIR FRUITS SHALL YE KNOW THEM.

F. R.

THE religious beliefs and creeds of the world are now on trial, and by many persons they have been found wanting and retired with other matters which have been outgrown. The present unsettled state of religion has, perhaps, little effect on those of mature life whose convictions are not likely to be "blown about by every wind of doctrine," but with young people the case is different. They have never thought over matters of conscience for themselves, but have simply accepted the faith of their fathers, on trust, and when the narrow creeds they have been trained in, are intelligently assailed, they immediately conclude that Christianity itself must be a lie, since particular church tenets have been proven false.

So far as a man's moral nature is concerned, what matters it whether the opening chapters of Genesis contain a scientifically accurate account of the creation or are simply a pictorial way of accounting for the material world as we find it? Why quibble with scientists and liberals over matters of this class? The questions which are of vital concern to Christians are not, whether the Bible is infallible and inspired, or whether Moses did or did not write the books ascribed to him, but was there a Christ and what were His doctrines?

That Christ really lived we have the testimony of profane as well as of sacred writers; about that there can be no question. As to His doctrines, or His system of morals, it is: "Love the Lord thy God with all thy heart and thy neighbor as thyself." The whole duty of Christians is thus epitomized by Christ Himself. The man who conscientiously follows the command, "Love the Lord thy God," must strive to make himself more like the object of his affectionate devotion; to elevate, refine and spiritualize his nature. To "Love thy neighbor as thyself," a man may neither lie, nor steal, for by so much is his neighbor defrauded out of the truth or of his property; neither may he covet and, least of all, can he give free reign to his baser nature. For by his example he *may* tempt others to sin, and he *does* encourage wickedness in the already vicious.

Looked at in a common sense way Christianity appeals to the noblest part of man and stimulates him to be truthful, honorable and righteous. Its most determined opponent cannot charge that Christianity degrades men. Can as much be said for any one of the various systems which are offered to us as modern improvements on the Christian religion, and whose founders and apostles expend most of their energies in picking flaws in the old faith?

An avowed Agnostic—Agnosticism is the word now used to designate a hostile attitude to Christianity—has given to the world in a recent issue of the British North American Review, a sketch of himself, for the express purpose of showing the actual outcome of liberal ideas as exemplified in his own life. His most salient characteristics, by his own showing, are a colossal egotism, an intense selfishness, and a decided tendency to pander to his most ignoble passions. Space will not admit of a review of his "Confessions" but as an example of his selfishness the following is given. He does not believe in matrimony and so he persuaded an attractive respectable young woman to live with him, without the usual formal ceremony. They had been living together for sometime, when he fell ill. The woman nursed him tenderly and patiently through a tedious sickness and when he was convalescent she pleaded with him to make her his wife before the law, and he *refused*. If he held the priest in contempt the magistrate was still left and he could without sacrificing any principle have had a civil marriage, but no! Not even to please the woman who had sacrificed so much for him nor for the sake of his innocent little children would he consent.

That woman occupies a position which places her on a level with the most degraded of her sex, and the children are dishonored from their birth, and for what? To gratify the whim of a man whose god is himself. An application of the Golden Rule of the religion we are said "to have outgrown" would have made that woman a respected wife and her children a blessing and an honor.

No clearer evidence of the measureless superiority of the Christian religion over any system of morality invented by man, could possibly be given than this contrast between the life of Christ and that of the Agnostic.

Verily, "by their fruits shall ye know" both men and systems.

Various.

BRIEFLETS.

SALT is a very important—not to say indispensable—article in the dairy. The International Dairy Fair appreciates this fully. . . Are English sparrows useful birds or are they pests?" Here is another irrepressible question. . . Dr. Hoskins says that a Chicago banker let the cat out of the bag when he said: "If the farmers were out of debt, they could hold their wheat and corn and derive the natural benefit of the inevitable rise in prices before another harvest." . . . Nothing strikes us more unpleasantly than to find a believer in the Christian religion afraid of scientific studies. How weakly grounded must that faith be which dreads increase of knowledge about any of the works of its God! . . . Calling each hog three feet long that was packed in the West the past year, and putting them in single file, they would reach 6335 miles, or from New York across the continent and Pacific Ocean, into China.—Drovers' Journal. What is the width of the Pacific Ocean? . . . Chicago wants the next World's Fair, but perhaps the next world won't have any.—Drovers' Journal. At any rate, Chicago had better wait until it gets there.—Land & Home. At this rate there will never be another World's Fair. . . . Everything is *booming* except the Ohio River. That is lower than ever before. . . . A Utica boot-black who was driven out of that city, claims consideration here as a Polish refugee.—Syracuse Sunday Times. . . . Another way to settle the Indian problem is to have all the white folks killed off.—Detroit Free Press. . . . When a lead-pencil drops from behind a man's ear, it always lands on the point and the latter breaks off. If the pencil has no point, the pencil doesn't drop.—N. Y. Star. . . . From Canada we learn that the wheat has made such a rampageous growth that some farmers have used the mowing machines, and others turned stock in to eat it off. . . . The Farmer's Advocate (Canada) offers its patrons this queer bit of advice. "November is *said* to be the best month to transplant evergreens, Try it!" We should much like to know *who said* that! . . . Put aside a little bucket of horse or cow manure. Water thrown upon this as needed will serve as the best of fertilizer for house plants during the winter. Remember, however, that *only* healthy plants that get the sun need any manure. . . One orchard on the Hudson River contains 38,000 trees and bushes. . . Geraniums for bedding next year can be kept in a frost proof cellar all winter, heel them in a box of light soil and, keep just moist enough to prevent shriveling. . . A good heating apparatus is now the most important feature of a greenhouse. . . The latest in Pansies is a variety with striped flowers. . . The Toad Flax—Linaria cymbalaria—is a handsome, creeping plant that may be used for covering greenhouse walls. . . Get a wheelbarrow, if you have'nt one; it is an indespensible implement. . . A new process for curing tobacco with water has been patented. . . No one objects to seeing the Indian summer here, but out in Colorado they say they would rather see the Indian somewher' else.—New Bedford Standard. . . . The term "*impertinent*" has been very properly applied to those who wish to regulate the style in which a farmer ought to live.—Ag. Gazette. . . . Good farmers are not to be easily frightened out of a business which they have followed with success; but unless they can hire land cheaper and labor cheaper; unless they can be free from vexatious covenants as to cropping, the nuisance of over-preservation of game and the constantly-increasing burden of taxation, they will cease to farm.—Idem. . . . For wheat, this is the very worst year within my memory.—J. J. Mechi, England. . . . Talmage is lecturing on "blunders." The greatest blunder of his life was when he became a minister instead of a circus manager. Bangor Commercial. We believe that. . . . The Michigan Farmer appears in new type and a new title-head, a decided improvement upon its old one. It is growing as pretty as it has long been valuable. . . . The Prairie Farmer thinks it would be a pity to drag Gen. Grant from his present exalted place in the hearts of his countrymen down in the mire of political strife. . . . The best thing that Gen. Grant can do is to buy an Experimental Farm and contribute notes to the Everywhere department of the RURAL NEW-YORKER. . . . The Western Rural remarks: "If you want to send a hundred-weight of grain from Chicago to New York, you will please pay forty cents a hundred pounds for doing it. In July last you might have sent it for fifteen cents a hundred. The roads have got the pistol to your head, and the only thing for you to do is to comply. . . . Insurance rates on the Lakes ended on the 15th inst.; railroads, therefore, will soon be raising their rates on freights from and to the West. . . . A model routine farmer is the East Indian ryot, who abominates to move on to the level road of progress out of the abysmal ruts sunk for him by untold generations of ancestral ignoramuses. . . . So obstinate is the ass in using any bull—generally the worst—on his cows, that it is seriously proposed that all unfit bulls should be castrated by the Government; that proper bulls should be licensed and branded, numbered and registered, and that all herds should be mustered and examined once every two years, to prevent evasion in the use of the good males. . . . Wherever hog cholera breaks out in the West, fat-rendering establishments soon make their appearance, to utilize the diseased hogs. The hog-collectors for some of these are accused of spreading the plague by dropping pieces of infested pork where healthy swine can find them, the eating of such morsels by sound hogs being the surest way of propagating the malady.

PERSONAL ITEMS.

A single hair from the head of a pretty woman brought $80 at a raffle for the benefit of General Hood's children, in Lowndes county, Ala., the other day.

Ex-Senator Simon Cameron tells an interviewer that the immediate cause of Senator Chandler's death undoubtedly was over-exertion in the late campaign.

Miss Josephine Meeker, daughter of the late Indian Agent who was killed by the Utes, has been offered a clerkship in the Interior Department by Secretary Schurz.

A recent social event in Pittsburg, Pa., was the marriage of a Philadelphian to the daughter of Dr Hostetter the patent medicine man. The presents of the bride's father were worth over $100,000, and it is reported that he has given her $1,000,000 in bonds.

Mrs. Ruth Richmore, of Brownington, Vermont, ninety-four years old, has given up her pipe, after smoking constantly for thirty years, and thus far has experienced no ill effects. Had she continued using the weed, however, it is not unlikely she might have died of it in another dozen years or so.

Senator Chandler's estate was set down as worth $3,000,000, but it is now said will not exceed $1,800,000. The estate consists of twelve stores and a fine dwelling in Detroit, a fine dwelling in Washington, a valuable farm near Lansing, extensive pine lands and $100,000 in bank stock.

Eliza Pinkston, of Returning-Board fame, was arrested at Canton, Miss., Saturday, charged with murdering her husband, who died suddenly. The couple had been married only two years, had had frequent quarrels, separated two weeks ago, met and quarreled Friday. The coroner has the case under investigation.

Poor little Prince Elmayou, son of the late unlucky King Theodore, of Abyssinia, died last week at Leeds, England, of broncho pleuro-pneumonia. He had arrived at Leeds but a little while before his death, having come up into civilized lands with the laudable purpose of going to school. He was only nineteen years old.

Judge Beaman, whom Gov. Croswell of Michigan appointed senator in place of Chandler, is in feeble health and declines, so that the governor has finally appointed Henry P. Baldwin of Detroit. Mr. Baldwin was governor for two terms (1869-71), and has been engaged in banking. He is a native of Coventry, R. I., and was formerly in business at Woonsocket, migrating to Michigan in 1838. Ex-Gov. Baldwin is a clean man and has the making of a good senator. In addition to his interest in the banks he is the leading boot and shoe manufacturer in the State.

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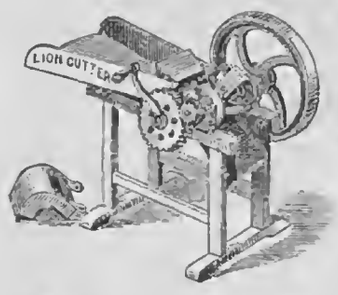

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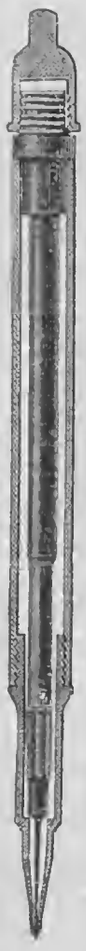

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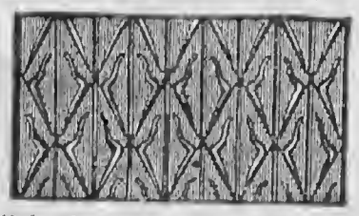

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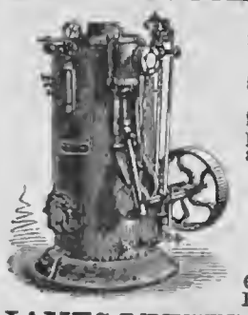

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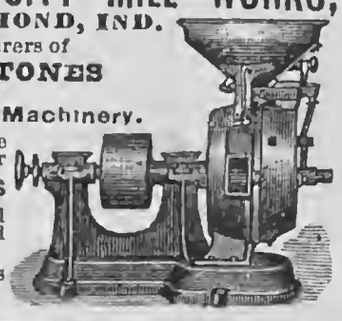

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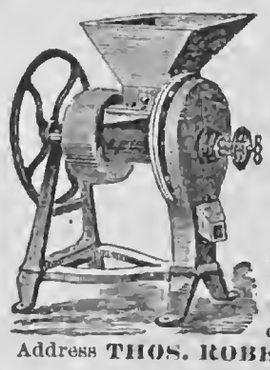

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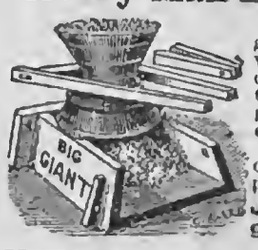

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A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME

VOL. XXXVIII. No. 49. WHOLE No. 1558. | NEW YORK, DEC. 6, 1879. | PRICE FIVE CENTS. $2.00 PER YEAR.

[Entered according to Act of Congress, in the year 1879, by the Rural Publishing Company, in the office of the Librarian of Congress at Washington. — Entered at the Post-Office at New York City, N. Y., as second-class matter.]

The Vineyard.

THE DUCHESS GRAPE.

J. T. LOVETT.

EVER since the introduction of the Concord, grape growers have been seeking for a grape possessing all its merits—with perchance some of its demerits—and *white* or amber in color; as it has long been known that white grapes meet a more ready sale and command better prices in market than those of any other color. When the Martha was produced, the venders of the vines shouted "*Eureka*" and called it "*White* Concord;" but time has proven that while it possesses the very important points of vigor and hardiness of vine, early maturity and certainty of a crop, it is quite too crude and foxy to ever be considered a first-class grape. Many years passed and many varieties were produced almost all of which quickly passed into oblivion, until the public was given the Lady. This grape most surely surpasses by far any of its predecessors, being a pure seedling of the Concord and possessing the sterling qualities of its parent, with the additions of ripening very early and being less harsh. In the opinion of the writer, this may be regarded as a really *good* grape, and is justly entitled to the extended sale and warm welcome it has received through the country: but, alas! it, too, has a failing—it is found to be a poor keeper. For home use, it is undoubtedly the best white grape yet introduced for general planting.

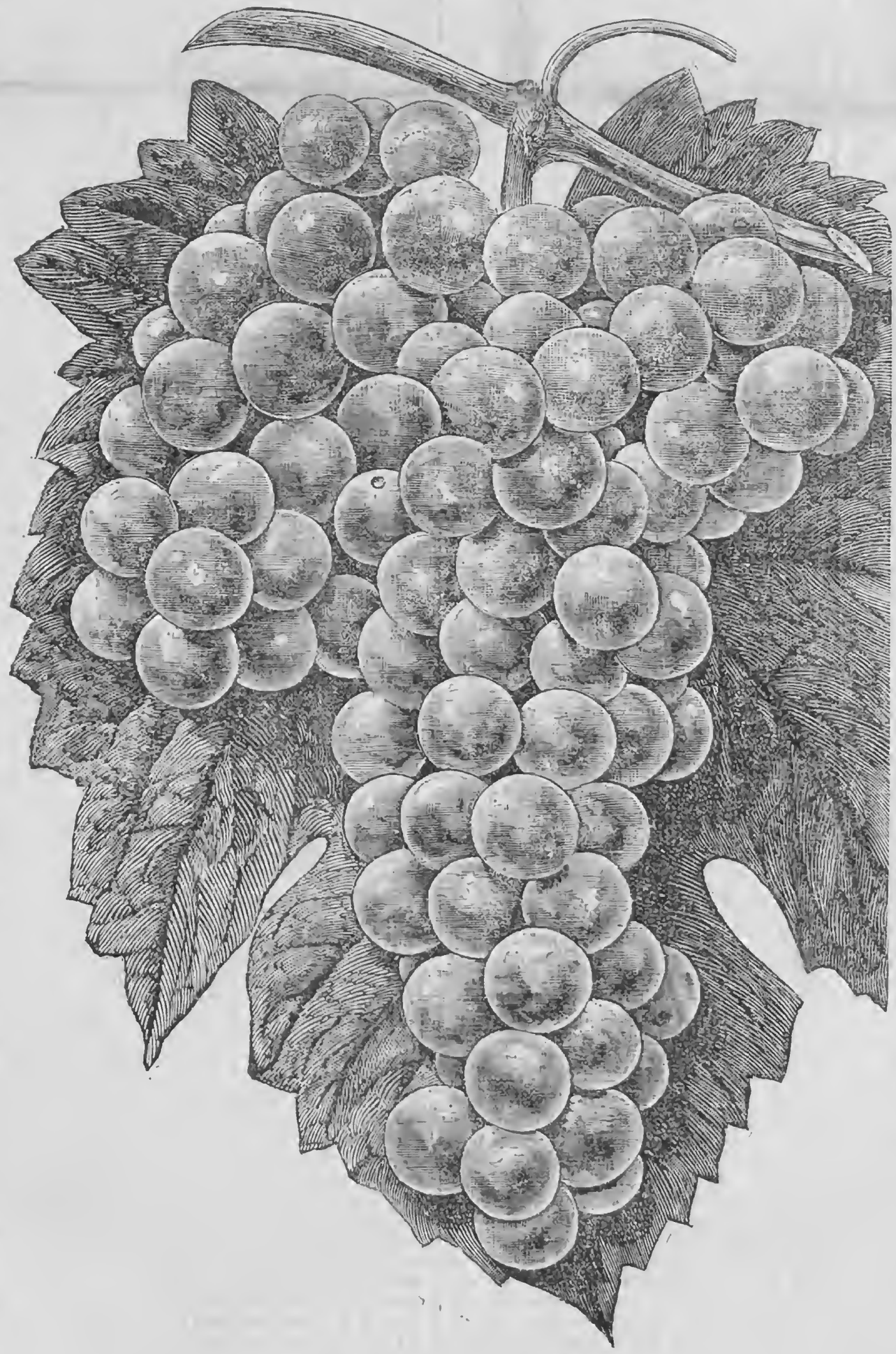
Now comes the Duchess, which is believed to possess more merits and those of a higher quality than any other white grape. It is a seedling from a seedling of the Concord, crossed with one of the hybrids—Walter I think—and, what is unusual, it has been tested for ten years before being offered for sale, and that, too, in many and widely separated parts of the country. From this thorough trial, extending from the north to the south, it has been proved to be of general adaptability, to possess equal hardiness of vine, and that both vine and fruit are exempt from mildew and other diseases and the depredations of insects to the same marked degree as the "old reliable" Concord, with even greater productiveness and growth of vine. The berries are greenish-white, round, medium to small and possess the valuable properties of being one-seeded and clinging to the stems so firmly as to remain on the vine until winter, if left ungathered. Bunch good-sized to large — selected clusters measuring eight inches in length and weighing a pound—compact, long, quite often shouldered, as shown in the engraving, and decidedly handsome.

The reliability of the vine, together with the size and beauty of its fruit, would be sufficient to warrant the dissemination of this grape, even were it of but ordinary quality; but its excellence in this particular is one of its leading merits; for among all hardy grapes of any color whatsoever, I know of none so refined. The skin is thin and free from the acidity so common with American grapes: flesh tender, without pulp, surpassingly rich, sweet, and sprightly, free from foxiness, with no unpleasant taste at the center, and breaking like the foreign grapes. I can best state its superior quality by stating that the Committee on New Native Fruits, of the American Pomological Society, at the recent meeting held at Rochester, awarded the Duchess the palm of superiority of flavor over all others, including many of the new white grapes of recent origin, namely, Poeklington, Niagara, Noah, Prentiss, etc. Duchess, however, cannot be regarded as an early grape, ripening as it does with, or a little later than, the Concord; but what grape growers will be most pleased to hear—and on which most of its permanency and popularity must rest—it is said to be one of the best of keepers, and—what seems strange for a thin-skinned grape, yet is assured us true—it is an excellent shipping sort.

In conclusion, I would state that, after a somewhat close scrutiny of the Duchess for some years, from its "combination of excellencies" and freedom from defects I esteem it a variety well worthy the attention of both the amateur and professional grower of this popular fruit.

Little Silver, N. J.

DUCHESS.—Berries of medium size, light green. The skin is thin and the flesh, as in foreign sorts, adheres to the flesh, so that one is tempted to eat skin and all. It is semi-transparent; clings to the peduncle firmly; is sweet and yet sprightly enough to be very pleasant. The bunch is shouldered and compact. At this time the bunches sent to us by Messrs. Farley & Anderson, are as sound as if lately picked from the vines. No doubt the Duchess is a good keeper and carries well.



THE DUCHESS GRAPE.

Farm Topics.

NOTES FROM THE RURAL GROUNDS.

Germination of Seeds.

QUITE a number of our friends have written us that some kinds of the seeds we have sent them did not grow. Others have written that all of the kinds grew. The difference, therefore, has been owing to different treatment. Seeds of hardy plants are generally slow to germinate. Clematis seeds, for instance, sometimes require a year or more. But by special treatment, the germinating period of all sorts of seed can be hastened.

In our last seed distribution, Hibiscus Moschentos (Marsh Mallow) was one of the kinds offered. Two months ago we planted 40 seeds in a pot. They began to germinate not until the seventh week. Five days ago we planted about the same number in another pot of the same size. Three of them have already germinated, and, no doubt, the others will make their appearance in a few days. The first lot was treated in the usual way; the second on the plan of a

Miniature Hot-bed.

A flower-pot, eight inches in diameter, was filled one-third full of coarse gravel or pebbles, finishing with finer gravel or coarse sand. Then it was filled to the brim with a mixture of leaf-mold (decayed leaves), old manure and sand in about equal proportions, all pressed through a fine sieve. This was made moderately firm, and the seeds were pressed down an eighth of an inch and covered. The pot was then plunged in a pan of hot (not quite boiling) water, and there left until the surface soil was wet, and then placed upon a stone mantel over the kitchen range. The pot was then nearly covered with a pane of glass, a half-inch space being left for ventilation. Simple as is this contrivance, it furnishes every advantage of a hot-bed of the carefullest construction, the stone slab which is always hot, supplying the bottom heat which in a hot-bed is supplied by the fermenting manure. We advise our friends to try this "epitome" hot-bed. Grass or common seeds of any kind may be used at first to experiment with.

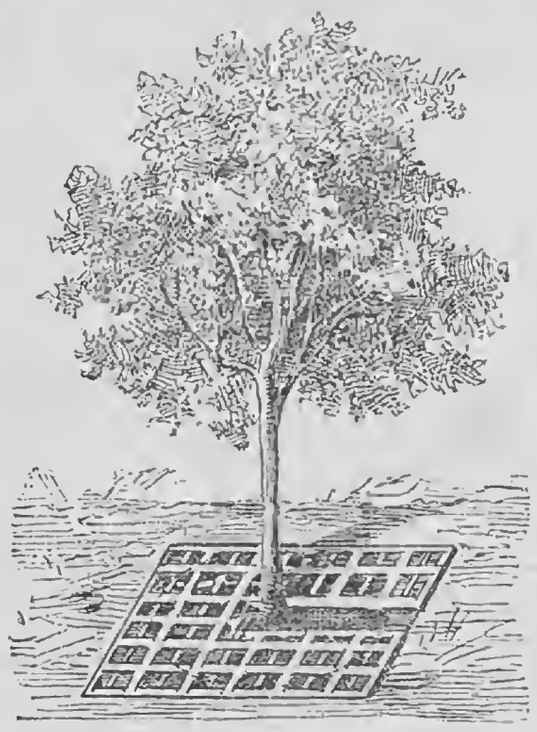
The "California" and Other Privets.

"A friend in need is a friend indeed." The present storm, Nov. 20, has scattered the Autumn leaves, and the trees are as bare as in mid-winter. It is now that one prizes evergreens and such deciduous trees and shrubs as hold their foliage late. Of the latter we may mention the "California" Privet, which is still as green as at any other time of the year, and it will so remain for quite another month. If this shrub is annually cut back, it forms, in so far as foliage and shapeliness can make it so, a very handsome plant; for its flowers, though resembling those of the white Lilac, are borne in smaller panicles, while there are fewer of them. One learns to prize such shrubs as of real value when he finds they remain fresh and green for a long time after other deciduous plants have lost every vestige of foliage. The botanical name of this is Ligustrum lucidum—by some, L. ovalifolium. It is probably a variety of L. Japonicum, which, though it bears larger and thicker leaves, is not hardy here. The common Privet, L. vulgare, is everywhere well known, but for ornament it is not to be compared with the "California" Privet. We call it by this name for no better reason than that it is so named in many of our nurserymen's catalogues. Among varieties of the common Privet are the Variegated and Weeping. The first is really fine, the leaves being pretty well divided between cream-color and green, and, when young, suffused with a delicate pink. The second is a lawless thing that can send out shoots in more directions than any other plant we know of.

Orchards in Hen-yards.

Will plum trees ripen plums in hen-yards?

Some say yes—some no. One can find out by trying, which is the thing we propose to do. Horticultural experiments, many of them at least, require a world of patience and industry. And then, after all, the results may be told in a word or so, which does not, by any means, *pay* the *editor*, who must fill his columns weekly. No doubt the pages of the RURAL alone would more than suffice to chronicle the results of all the horticultural experiments which are being tried in every part of the world. We have often thought that, if the members of horticultural societies were as fond of making and recording experiments as they are of reading essays, their "Transactions" would prove more instructive to all hands, while the secretaries would find their tasks greatly lightened.



The area of our new hen-yard is about 25 x 300 feet. Of Pears and Apples we have planted dwarfs only, viz., of Pears: four Duchess, four Seckel, six Louise Bonne, four Tyson, four Howell, six Bearré d'Anjon, and four Lawrence. Of Apples (all on Paradise stock), one each of Baldwin, Gravenstein, Hub. Nonsuch, and Red Astrachan. These we have already planted. The Plums, owing to the lateness of the season, we concluded to leave until spring, the holes and soil being already prepared for them. In order to prevent the fowls from scratching the earth over the roots, we made for each tree a lath frame, as shown in the sketch, first covering the ground with salt hay. These frames may be tacked together in a few minutes. An opening may be left as shown in the figure, so that they can be removed when digging or cultivating about the tree is deemed needful; or a perfectly square frame may be made, in which case the frame can be tilted up during cultivation. Five years hence, life spared, we may tell our readers to what extent fowls are helpful in keeping down curculios, codling moths, bark lice, etc., etc. It is *something* to look forward to, kind readers.

FARM WORK FOR DECEMBER.

PROFESSOR W. J. BEAL.

Attending Society Meetings.

THERE are granges, clubs, and institutes to attend. There are special conventions of various kinds for the purpose of considering some breed of cattle, the dairy interest, horses, sheep, swine or poultry. These must not be neglected. Before going, the farmer may think it will not pay to attend, and hunt up various reasons for not doing so or taking an active part, yet, if he ignores these obstacles and joins in the work, he will fill his head and notebook with new ideas which he will wish to try next year. Besides learning something and keeping up with the times, a farmer is likely to return from such a convention thinking more of himself and his brother farmers, with broader and higher views, and with more enthusiasm for his occupation. Do not forget or neglect these gatherings for improvement. They will not interfere with the rest which is so much liked in the winter months. Man was not made like a coon, a bear or a mud-turtle to hibernate in the coldest of the year.

Have Things Handy.

At this season of the year in the Northern States, the chief occupation of the farmer is to "do the chores." If former hints have been heeded, some attention has been given to making every thing as convenient as possible. Labor is costly; time is money. The barns, doors, sheds, pig-pens etc., should be arranged inside and out to save needless steps, and lifting of materials. Study to save labor in keeping the stables in good order and in supplying the water. It would naturally seem to be a loss of labor to omit digging a well, and drive the cattle all winter to some stream or to a "cat-hole" where the ice must be frequently cut and the filthy water dipped up by hand for the stock to drink. A good spring or a rapid brook near by is a great convenience; but its place may be well supplied with a windmill. The worst arrangement is a shallow pond where the cattle tread up the mud and spoil the water with their droppings. If water can come fresh from a well, spring or cistern where it is several degrees above freezing, it is much better for all kinds of stock. Cattle are like human beings—a little inclined to be lazy. They will often stand about the yard and suffer for hours instead of venturing out in the cold wind or rain through an unbeaten track for a drink in a distant brook.

Roots and Oil-meal.

It is a great change for cattle or sheep to go from the pasture where they get green food and plenty of exercise, to a stable or yard where they are deprived of both. Dry food—hay, oats, corn and meal—produce costiveness. The hair shows it; the animal is uneasy and not likely to be thrifty. As a sanitary measure, people eat coarse food, apples, berries and other fruits. Their value cannot be measured by the amount of fat or nitrogen or starch they contain. Just so with green food for all sorts of stock, even to poultry. This is the chief value of mangels, rutabagas, carrots and potatoes for domestic animals. Roots in winter keep the bowels loose; they prevent a too sudden change from green to dry food. Oil meal fed in small quantities, is a very good substitute for roots. I quote an idea to the point from the National Live Stock Journal.

"Every dairyman, so far as he can, should supply himself with a pint of oil meal for each cow per day, or a half pint of flax seed, which should be boiled to jelly and given with her other food. Oil-meal is worth all it costs for food, besides being a most excellent preventive of disease. We have never had any trouble with cows at calving when fed a small quantity of oil-meal during winter. The small quantity of oil left in it seems to perform the same office as a little grass or carrots and beets would to cleanse the bowels." For a similar purpose I know of some prominent men who use linseed in some form or other for their sheep in winter.

Improve the Stock.

For about half the year we have to fodder cattle and sheep. Shall they grow while young steadily all the time till they are mature? Or, shall they be fed and sheltered by a straw stack or a rail fence just enough to hold them in place during winter and let them do all their growing during a part of the warm months? As the country grows older, competition becomes greater in everything. It requires better management to make money. Poor stock, poorly managed, cost more than it will bring. Within a few years the prices of choice animals have declined, till they are within the reach of every man who keeps stock. Now is a good time to select a good, well bred bull for use next season or later. The prices will be lower now than in the spring when such animals are most salable. A thoroughbred male, of course, pays his way when used with pure-blooded females; but in a still more marked degree does he pay his way when used with grade or common stock. These are points which are well established beyond controversy.

Industrial Topics.

EMBELLISHMENT OF COUNTRY SCHOOL GROUNDS.

CHAS. W. GARFIELD, SEC'Y, ETC.

AT the winter meeting of the Michigan State Pomological Society, a very suggestive essay upon "The Improvement of Country School Grounds" was presented by W. C. Latta, of Mason. The discussion which followed awakened in me a desire to carry on the discussion farther, and, if possible, get at some practical method of accomplishing some work in the matter. It is a great deal easier to write essays, deliver addresses and talk fluently in conversation upon this topic than it is to actually grapple with the difficulties to be overcome, and to carry out some plan that shall really awaken in school patrons a practical interest in the work, that will bear fruit in making the places where country children attend school, better than the average farmer's barn.

In traveling over Michigan it is very rare to find a school-house situated upon a piece of ground larger than a quarter of an acre, and it is still more rare to find a single example of neatness and taste in the interior and exterior arrangements. We pass over the State by highway or railway, and when we find a neighborhood of tasty houses with good out-buildings, we know it is a thrifty community; the land is good and the right kind of farming has made an independent, thrifty people. Should we, by some strange dispensation in our travels, pass by a school-house built in good taste, nicely arranged in its appointments, having neat out-houses and a yard deftly planted to trees, shrubs and vines, with a beautiful lawn as a foundation, we should, with reason, remark: "This neighborhood takes an interest in education. The people have broad views of what school training should do for their children, and they evidently believe that the richest inheritance they can give their boys and girls, is an education acquired under the tuition of pleasant associations as well as good instructors."

But, if we judge of the interest that Michigan people have in the best and purest education that can be given their children, by the appearance of the places where the business of giving that education is carried on, what must be our judgment! Can it be doubtful that this is a proper gauge to measure by? We judge the tree by the fruit which it bears. We judge the man by the company he keeps. We say that the books one reads are his associates and friends and have as much to do with the molding of his character as have the people with whom he associates and converses. We say, too, in speaking of the home, that the lives of people are influenced very largely by the surroundings and associations of childhood's home. We believe these to be facts. Why do we not apply them to the places that stand next to our homes in influencing the minds and hearts of children? These are at school over half of their waking hours. They go there for the avowed purpose of learning. They go from homes provided with music, pictures and all sorts of beautiful things, to a bare, often untidy, unpleasant school-room, and a majority of them don't like to go there, and their parents wonder why it is their children are so anxious to do anything rather than attend school.

The school-house should be the center of attraction in every country district. It should be a model in its inner arrangements and outward embellishments. We have now to deal more particularly with the latter, because these come within the realm of horticulture. In the same way that a museum of specimens is collected for instruction within-doors, there should be a collection of trees and plants about the house. Pupils should be made familiar with the growth of plants, shrubs, and trees by immediate and constant contact with them at school, and they will become especially interested in any that are placed under their care and protection. The idea that the school grounds are simply a romping place is erroneous. There is nearly as much to be learned in the yard as in the house from May until October, and the material brought into the yard should be protected as carefully as maps, charts, globes, etc., in-doors.

The first and greatest objection that will be made by the majority to the use of the school yard for purposes of instruction, is that the children must have a place to run and play games without the danger of continually injuring something. They must have fun, and he cannot appreciate the necessities of childhood who would so hedge about its sports as to take all the activity from them. This objection is easily met by the assurance that it is in the power of any teacher of gumption to originate and assist in maintaining such sports as will in no way conflict with the growing of plants, shrubs and trees, and even annual flowers in the school-yard. Because boys desire to play "long-ball" or "ante over" is no argument in favor of doing without windows in the school-room. If these games break window lights, there must be a substitution of a less objectionable game. Some one has suggested that the school grounds should be beautifully planted and everything placed in the best of order before the children are allowed there, and then, when school opens, the mandate should go forth that everything in the yard is for purposes of instruction, and must be used as globes and maps are used, and cared for in the same manner.

This is wrong in principle and policy. It were better to begin with bare school-house and grounds, and let every addition be made by the pupils under the judicious guidance of the teacher. Each scholar should feel an interest and pride in the development of the work; and this state of feeling can only be brought about by having their hands do the work. Just so soon as the pupils appreciate the fact that they are partners in the possession of each added tree or vine, a detective force is at once formed for the preservation of the property. But just so long as the feeling is engendered that the school-house and grounds are district property, with no responsibility, save in a Board of Trustees, there will be constant difficulty in maintaining the property in presentable condition.

Again, aside from the use of the appointments of the school yard as means of giving instruction in the names and habits of plants, the school premises should be a model for the neighboring homes, and, if proper attention is given to the matter, this will be the case without any endeavor to make it such. The work done in the school yard will be the inducement to work at home, and there is no doubt that in a decade, wondrous changes might be worked throughout the country in the ornamentation of the exteriors of our homes, if the work could only be started about the school-houses. It is said that public opinion must be manufactured before anything can be done of worth in the ornamentation of school-yards; but may not the work done by the aid of pupils, under the direction of the teacher, be the manufacturer of the public opinion?

The expense in ornamenting school grounds should be nothing in cash. The work should be all a donation, and the plants and trees should be from the woods near at hand, or from the gardens of the patrons, and the teacher who will not take hold of a work like this as earnestly as of the teaching of geography and grammar, lacks an important element the possession of which should aid him in securing a certificate. The subject is one of grave importance to our country people and worthy of an important place in our family papers. Papers like the RURAL, that are received as members of so many households, can by giving space to a discussion of this topic, so awaken thought regarding it that people will see that something ought to be done. I confess that the teachers should initiate the work, but the people should support them cordially in any efforts like those suggested above.

Grand Rapids, Mich.

Sheep Husbandry.

WHAT SHALL BE DONE WITH THE SHEEP?

JONATHAN TALCOT.

TO-DAY the snow is falling steadily and as wet as rain, although it does not melt quite as fast as it comes. In the RURAL NEW-YORKER for October 25, page 686, Col. F. D. Curtis says: "The flock should never be exposed to the storms of autumn, winter or the early spring. Such exposure will surely enfeeble the constitution of the sheep, and so wash the wool and the skin that, instead of the fleece being soft and lustrous, it will be harsh and dingy." The Colonel gives other reasons why sheep should be housed from the storms of autumn, winter and early spring, that to me are conclusive, and which every owner of a sheep in this latitude should heed, not only for the welfare of the sheep, but for the extra profit that will arise to the owners of all flocks thus cared for. While the writer concurs in the statements made by Mr. Curtis in regard to the need of protection for flocks from the storms of fall, winter and spring, and thinks the problem at the head of this letter fully answered in his own mind, others may be in doubt as regards the necessity of sheltering their flocks in such weather, thinking that they will be more hardy if permitted to "rough it," or seek shelter where they can best find it, if, indeed, they can find any at all.

For instance, in the RURAL of November 8, page 723, "G. G." says: "I think that Colonel Curtis, in his article on the proper care of long-wooled sheep, in the RURAL of October 25, has exaggerated a trifle with regard to the necessity of sheltering them," etc. G. G. tells us where he was born, and gives some of his experiences in early life, but he gives no argument to prove that the sheep, even on his native hills, would not have been better off for housing in cold, wet storms; which, no doubt, they would have been. G. G., in conclusion, says: "In the Northern States, however, I concede that sheep require winter shelter." If sheep require winter shelter, they certainly do fall and spring shelter, as our storms of fall and spring are much more trying to animals than those during the winter.

If I understand Colonel Curtis aright, it is during the rain storms of fall and early spring that sheep should be more particularly cared for and kept dry. A sheep with a dry fleece can, if well fed, stand the cold of winter as well as any animal on the farm; it is only the sheep that has a wet fleece on its back that is suffering from such exposure, and all such sheep suffer more or less whether they are long-wools or short-wools, only the former varieties suffer most, from the fact that their wool is more open, and therefore they are more susceptible of getting wet through to the skin more quickly than the short-wooled sorts, whose fleece is denser.

In the early life of the writer, sheep were not cared for as many good farmers now care for their flocks, and an open shed, under which they could go at will, was then considered all that the sheep needed. And if they would go under their sheds in all inclement seasons, that arrangement would do very well, but it unluckily happens that they will not do so always when it rains, so that they are liable to get wet and take colds from their exposure. The only safe measure, therefore, is to furnish a place where they can be shut in out of the storms of fall, winter and spring.

For the benefit of some new beginner, I will give my method of caring for the few sheep I have on the farm, and the reason therefor:—

In the open-shed method of my boyhood s days, more or less sheep were lost during winter and spring by negligence on the part of the flock-master—as I now think—in not properly caring for his flock; and my own early experience was like that of my neighbors who miscared for their flocks in this way. After a short experience of such mishaps, however, hoping to improve my flock, and thereby my own means, I used for their benefit a part of an old cow-house, by boarding it up and putting in racks and mangers for their use, and in that place they were kept and fed during the winter on all stormy days and also during the nights. This improvised stable was well ventilated, and as a result of its protection, the sheep came out fit for the butcher in the spring, having been fed a light ration of corn, or corn and oats, daily. In view of the lesson then learned, from that time to the present I have considered protection from all storms in fall, winter and spring to be one of the requisites of good sheep husbandry, and that sheep so housed and fed will pay as well for such care and feed as any other farm stock—and I think even better. By the old method of treatment very many lambs were lost in the spring, that might have been saved had the sheep had proper care and feed during the winter previous. My present method is to house my sheep from all storms in fall, winter and spring; to feed a daily ration of grain from the time the animals go into winter-quarters till they are again accustomed to the grass in the spring—grass that has sufficient nutriment in it to keep them gaining. I have now in my flock sheep that reared twins last winter and spring, and I think them fatter than most fat sheep that go to the butcher. The lambs were sold for early market lambs.

Many farmers are afraid to have their sheep get too fat, some saying that a fat sheep is not good to breed from, and that if a sheep once gets fat it should be sold to the butcher, as it will never get so fat again. From actual experience I know that this theory is unsound. In my flock the ram is allowed to run with the sheep, and the lambs come early. Having a warm place for my sheep, I have been very successful with them and their lambs ever since I adopted the rule to keep them out of all storms in fall, winter and spring, and to feed daily to each a small ration of corn, or corn and oats mixed; say, from one gill to begin with, to half a pint or more when once established in their winter-quarters. My sheep are Cotswold and Merino, and these I think as profitable a sort as the common farmer can have for mutton and wool combined.

If, impelled by the results of any actual experience related briefly in this letter, any flock-owner, in deciding the question asked at the head of it, shall come to the conclusion to give his sheep protection from all storms in fall, winter and spring, and to give them liberal feeding, if they have not had it before, I am fully convinced, from my own experience, that he will not again return to the old practice of letting his sheep seek their own shelter wherever they can find a semblance of it; nor will he stint them in their rations enough to prevent them from always being in a thriving condition.

The Swine-Herd.

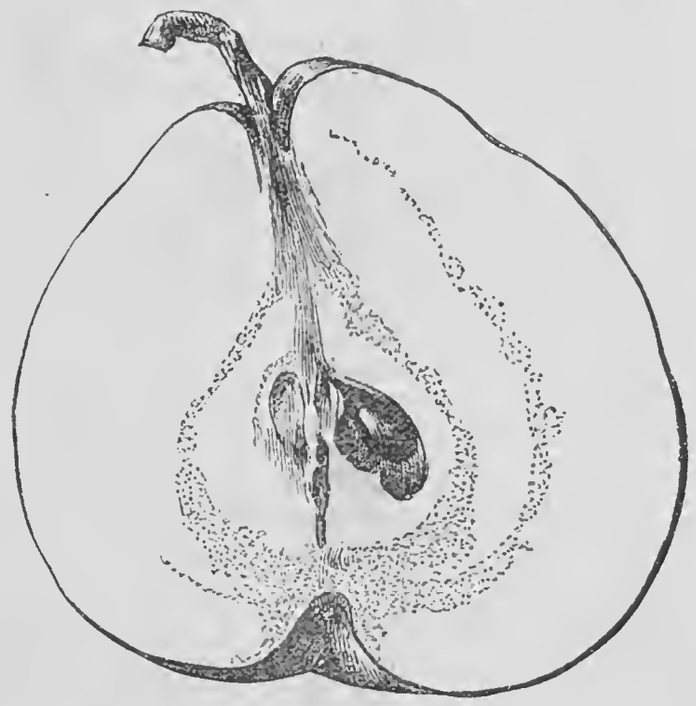
HISTORY OF SWINE—THE NATIONAL CONVENTION.

COL. F. D. CURTIS.

PREVIOUS to 1872 there was no established standard of characteristics for the different breeds and families of American swine. Different breeders had standards of their own, or else bred pigs without any standard, and the same breeds, identical in most respects, were known by different names: thus, the hogs now known as the Poland China were called the Magic, (M. Magie being a leading breeder of them), and also as the Butler County, Warren County, Big China and Poland China. Chester White Hogs were bred with lop ears and straight ears. Hogs of all forms were called Cheshire, and grade pigs of English breeds were sold as thoroughbreds.

For some years a necessity for a better order of things, both in swine literature and in the breeding of swine, had been discussed; but the matter did not take any definite form until the writer of this article read an address before the Farmers' Club of the American Institute in New York, setting forth the importance of action in establishing, in an authoritative manner, the origin, history, and characteristics of the different breeds of swine in America, urging that a national convention be called of the swine breeders of America and Canada, to settle all of these questions and to take such other action as they might deem best. The resolution was adopted and such a convention was called to meet at the Cooper Institute, New York, May 14, 1872. The time which intervened between the call and the day selected, proved to be too short, and so little opportunity was given for making known the objects of the convention that when it assembled, it was found that there was no representation from the West, where there was the largest pecuniary interest connected with swine.

The convention, therefore, in order to secure an active co-operation from swine breeders generally, and especially in the West, decided



WINTER NELIS—SECTION.

to adjourn to a more central point and to appoint a committee to make all needful arrangements, both in regard to time and place. The new committee consisted of F. D. Curtis, M. C. Weld, Henry Stewart and L. A. Chase. This committee chose Chas. D. Bragdon, of the RURAL NEW-YORKER, as secretary, and selected Indianapolis, Ind., as the suitable place for the next convention, and the time November 20, 1872. This committee were also instructed to designate the order of representation for the delegates to the next convention which, they decided should consist of one delegate at large from each State, and one delegate from each State for each breed of swine raised therein. These delegates were to be selected by the swine breeders' associations where there were any such, or by the proper officers or members of the State Agricultural Societies, or State Boards in connection with the swine breeders of the respective States. Great pains were taken to secure a full and just representation of this great interest from the whole country. The committee also were empowered to select a committee to compare reports upon the history, characteristics and a scale of points of the different breeds and families of swine, and upon the question, "What constitutes thoroughbred swine?"

The committees upon the different breeds were selected from names furnished and recommended by prominent swine breeders, in the different States and Canada. In most instances, the committee thus selected, forwarded reports to the Indianapolis convention, and where they failed to do so, that convention selected other committees to perform the work. Alexander Heron, Secretary of State Board of Agriculture of Indiana, at Indianapolis, was requested to receive the various reports prior to the convention, and to make the necessary arrangements, which services he faithfully performed. As the convention was to be a delegated and also a legislative body, the committee, in their circular announcing their programme, and the committees on breeds urged the swine breeders to select the most intelligent and impartial ones of their number to attend the convention, and thus help to inaugurate a new era in the breeding and improvement of swine.

When the convention met it was found that nearly all of the committees had prepared full and complete reports, which, with some modifications, were adopted, and the action of this convention, so fully and fairly represented, has been accepted as conclusive, and has become authority on the questions and histories involved.

The Poultry Yard.

ORIGIN OF DOMESTIC POULTRY.

HENRY HALES.

NOT much need be said of the ancient history of poultry; enough is well known to show that the Egyptians, Greeks, Romans, and all the earliest nations were acquainted with and kept poultry, even when their superstition or religion forbade the eating of them, as it is said of the ancient Britons. In early pictures of poultry, many of the peculiarities of our modern breeds are seen both as to colors, top-knots, shapes and sizes.

It is only within the last, comparatively, few years that fowls have received a share of the attention that had for a long time previously been given to the improvement of other live stock. Since then, however, careful breeders have developed the original sports, or variations, into what are now known as distinct breeds. The great change brought about within the memory of the present generation, is enough to show that much more may have been done during past ages by food, climate, local in-breeding, or selection by the caprice of man.

How often has the question been discussed concerning the plurality or singularity of the origin of our domestic animals, including poultry. Some will say of the stately Dorking or Brahma, "Is it possible that such monstrous birds can claim the same ancestry as the diminutive Bantam? Or, can the heavy, trousered Cochin claim the same parentage as the neat, clean, close-feathered Game, or as the Silky, with its odd covering and dark skin?" To answer this question, let us look a little further into the laws of nature, as we observe them. Every species of birds or animals has its peculiar voice, song, call or cry, that distinguishes it from all other species. There is no mingling or jumbling together of sounds. This is strikingly shown in all the feathered kingdom. The voice of every little bird is wholly its own Among the few small birds that visit both the American Continent and Europe from the far north, such as the Snow Bunting and Lesser Redpole, the rolling note of the former is precisely the same, whether heard in New Jersey, Scotland, or Siberia.

With poultry it is just the same. I have listened to the notes of fowls from India, China, Japan, Spain, and Italy: all cluck just alike to their chicks; call them by one note; give the same notes of alarm, prate the same, and all give the same crowning crow. Although bred apart for so many ages that no one can even guess the time when they first sprung from a common source, yet their notes are precisely identical, varying only with the size of the fowls—the larger the bird, the longer and more sonorous the crow. There are some slight variations to the rule, as some breeds are more inclined to deeper tones than others, and active breeds are more noisy than the more sedate sorts. Yet size is the controlling rule—the larger the Asiatics are bred, the longer their crow, this getting shorter till we come to the quick, shrill crow of the Bantam. Some song birds have the power of imitation so as to change their songs; our canaries can be taught other birds' notes. Their natural "call," however, is always the same. This would seem to show that all poultry have the same common origin, all descending from one species. If thousands of years of separation, all kinds of climates, food and breeding, do not change their notes, does it not seem to point to such a single original source?

In accounts given by many naturalists, only one wild species is known that has the crow of the domestic cock, namely the Gallus Bankiva. It has a wide territorial distribution, from the Himalayas to Burmah, the Malay Peninsula, India, China, and the Phillipine Islands. Mr. Darwin, in his "Variation of Animals and Plants under Domestication," says: "This species varies considerably in the wild state," and goes on to show various colors observed in different countries, especially in the hackle; but these mostly resemble the colors of the Black-breasted Red Game; and it is well known to breeders that all our varieties of fowls of this color have single combs, except Pea-combed Partridge Cochins. There are several other wild species of fowls, but with characteristics further removed from the domestic fowls, and with different voices. These produce only "mules," when crossed with the tame fowls, while Gallus Bankiva breeds freely with them, and little difference can be distinguished between them and the Games as ordinarily bred.

While most naturalists in India settle on Gallus Bankiva as the parent of the Game fowls, and, perhaps, of all our domestic breeds, yet sufficient force is not given to the underlying *voice* in deciding this question. As I have before said, if *one voice* is the property of only *one species*, as we notice in other birds, then all fowls are descended from one origin.

Pomological.

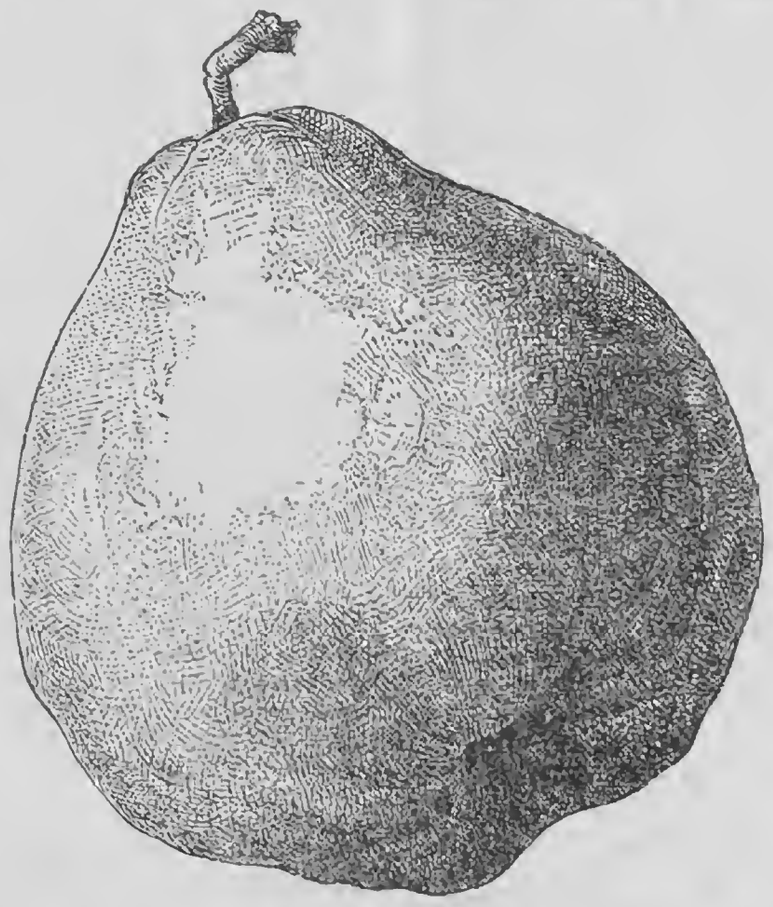
WINTER NELIS PEAR.

CONTINUING our sketches from nature of the best fruits in cultivation, we now present the Winter Nelis pear. In 1832 it was spoken of in the Pomological Magazine as follows:—

"An excellent winter pear, in perfection in December and January, originally raised by M. Nelis of Mecklin (Belgium) in honor of whom it was named. It bears pretty well; the fruit is of high quality, and is expected to become a favorite of the dessert. Skin yellowish, sometimes nearly covered with russet-brown; flesh yellowish, melting, buttery, juicy, very rich and high flavored."

Mr. Thomas's description of this fine pear (see American Fruit Culturist, p. 291) in 1875, does not differ materially from the above. He says: "Flesh yellowish-white, fine-grained, buttery, very melting, rich, sweet or slightly vinous, perfumed, aromatic, with an excellent flavor."

According to the best information we can gather, Winter Nelis thrives best in the following States: New York, Michigan, Pennsylvania, Ohio, Kentucky, Tennessee, California, and moderately well in New Hampshire, Vermont, Massachusetts, Connecticut, Ontario, Wisconsin, Oregon, Maryland, Virginia, Indiana, Illinois, Missouri, Utah, South Carolina, Georgia, Arkansas, Mississippi and Louisiana. It is to-day ranked as one of our very best winter pears for family use. It is of medium size as shown in the engraving of a half section. The tree is of straggling growth and with us the top of the branches bend over at least 25 degrees towards the north. We know nothing of this fruit from experience, our only tree having borne the past season for the first. The pears were small and failed to ripen. We do not learn that it succeeds anywhere in New Jersey that these comments will not influence persons



WINTER NELIS PEAR.

living in the States enumerated above, especially as it does not usually do well until it has acquired some age.

SALT FOR PEAR BLIGHT.

Not long ago I saw an inquiry in the Rural about salt for pear blight, and again in the issue of November 15, Gen. Noble asks the experience on this head, of inland growers. To this class I belong, having an orchard of 3,500 trees of different ages—all Duchesse. My neighbors say it is one of the finest orchards they ever saw, and Mr. Moody says it is the best his eyes ever fell upon. The land is a rather strong clayey loam, sloping to the south; not very dry, although no stagnant water is either on or in the soil at any time. I plow towards the trees once a year, and use the cultivator the remainder of the time. I have annually given a light dressing of salt, wood-ashes and bone dust to each tree, and never any other manure. I have not cropped the land. I have never had a leaf, twig or spot in the least affected with the blight. The trees make a fine growth and always look as though they had just been to supper. I have also put salt around older trees formerly very badly affected with blight, and though it may not be a specific for blight in all cases, I believe it is one of the best fertilizers we can use, both on Pear and Quince. Indeed, unless in a very unfavorable soil and situation, I should have very little fear of blight where salt is freely used.

Niagara Co., N. Y. J. S. Woodward.

THE YELLOW TRANSPARENT APPLE.

In the list of Russian cions sent out by the Department of Agriculture at Washington, in 1869-70, that numbered 334 and named "Skwosnoi Krasnoi, or Yellow Transparent," was the apple figured on this page. The tree, grown from the single cion received by the writer, began to bear in 1875, and the past season yielded not less than four bushels of fruit. The cut is an exact reproduction, as to size, of an average specimen from that crop, but is at least one-half smaller than specimens from the same tree in previous years. If the fruit had been thinned one-half, I have no doubt that the measure of ripe fruit would have hardly been lessened. This apple is, when ripe—in mid-August—of a delicate straw-yellow, with the wax-like beauty of skin that marks so many of the Russian apples. In texture the flesh is very soft, almost melting; but if gathered a few days before full ripeness, the fruit bears transportation very well, owing to the firmness of the skin. The flavor is mild and pleasant, but not high. The fruit adheres well to the tree, in which point it is far superior to the Tetofsky. I regard it as likely to be a very profitable apple for a near market, while the hardiness of the tree adapts it to climates where the Early Harvest will not succeed. The fruit has always been perfectly fair. T. H. Hoskins.

Orleans Co., Vt.

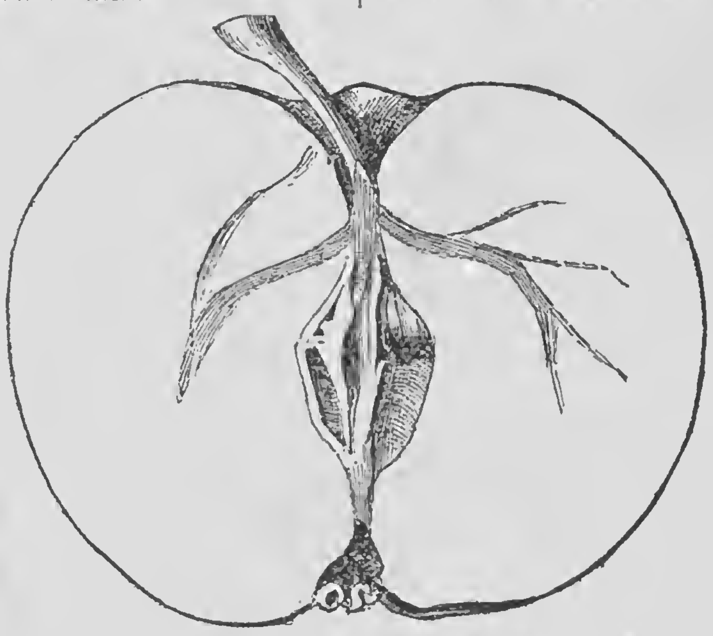
Floricultural.

FLORICULTURE IN TEXAS.

G. MARTI.

The generality of flower gardens in Texas this fall are a rather dreary sight for us who have been used to see them in full splendor at this time, rivaling, if not excelling, their appearance even in spring. This is due to the unprecedented drought we have experienced from early spring to this late autumn. The effect of this parchingly dry weather continuing for such an extended term, is manifest everywhere, not only by the stunted growth most plants made, but also in the culling out and entire destruction of some or our choicest specimens. It has worked a sad havoc, especially among Roses. There are some of the most recently introduced sorts, which seem to have had their vitality and vigor so much impaired by hybridizing, crossing and re-crossing, and rapid, forced greenhouse propagation and culture, that, when planted out, no amount of care and nursing in this, for them, unwonted condition, will save them from gradually dwindling away and dying. And if one, after all his pains-taking, is fortunate enough to see the so-much-looked-for flower, in nine cases out of ten he finds himself disappointed in looking upon—despite all the favorably descriptive adjectives catalogues lavish upon these sorts—a poor, flabby thing in comparison with which a Wild Brier Rose would be a model of perfection.

Wonderful as are the improvements that have lately been made, and are still being made, in certain classes of flowering ornamental plants, as a whole they amount to very little in the Rose family. Is there, for instance, in the Bourbon class any novelty that beats the old Souvenir de Malmaison—free-blooming qualities, size, fullness and portliness of flower and hardiness of plant under even a parching, tropical sun, considered? Or, does the name of Hybrid Perpetual come nearer to truth in any new variety than in such ancient sorts as the Queen or the Giant of Battles? Or, does the fragrance of most of the recently introduced Tea Roses come anything near to that of such reliable old sorts as the Thea lutea, Devoniensis, Gloire de Dijon and others?



YELLOW TRANSPARENT APPLE — SECTION.

Very few of the small-leaved evergreens or conifers will stand the summer here; but we are fully paid for this deficiency by a great number of large-leaved evergreens, mostly greenhouse shrubs in the North, but fully acclimated here. They even stand, unharmed, a degree of frost to which our Northern florist never would venture to subject them. I have seen orange trees cut down to the roots by a frost which would not harm such plants as Cape Jessamines, Pittosporums, Sweet Myrtles, Eriobotrya Japonica, or the Japan Medlar, Laurestinuses, Sweet Olives, Camellias, Crataegus Chinensis, and the pretty evergreen climber Rhyncospermum jasminoides. Somewhat more tender are such of the greenhouse deciduous shrubs as Lantanas, Lemon Verbenas, Hydrangeas and Erythrinas. Even Crape Myrtles and Pomegranates will suffer occasionally. This is due to the fact that they are easily excited to growth, a few warm winter days causing the sap to rise, when a cold snap following will hurt them, which would not have the least effect upon them in a state of rest. Hydrangea paniculata grandiflora is worthless here; despite copious waterings, it loses its leaves through the summer, dwindles and at last dies. Lilies in general, with the exception of L. longiflorum, also Tulips and Crown Imperials die out. Hyacinths, Narcissus and Jonquils succeed very well. Even Ranunculuses and Anemones give satisfaction; they grow like Violets through the winter, and bloom early in the spring. Most of the Amaryllis feel at home here, and multiply fast.

Not all of the hardy flowering shrubs, however, will endure the long summer. Spiraeas and Deutzias do moderately well. Weigelas will frequently bloom in the fall again, though it stunts their growth. Lilacs and Snowballs are failures. I tried the last, grafted upon the Black Haw—Viburnum prunifolium. It takes to the stock well, but fails to give more satisfactory results than on its own roots. Dahlias will bloom from May until frost, if proper care is bestowed on them. They require a naturally well drained soil, and almost daily waterings during the hottest days. It is better to raise them from slips from the roots, than to rely on these last; for in this case, they degenerate speedily. Carnations are difficult to manage; they stand a good deal of drought but summer rains and hot moisture work speedy destruction to them. With no amount of care will Paeonies succeed here; they are very tenacious of life, however; the roots will push a few leaves in spring; these will soon die again; repeat the same process next season, but never show a flower. The greater part of annuals give the best satisfaction if sown in fall; thus they will be in their prime in the spring and early months of summer, before the hot days are upon them.

Harris Co., Texas.

WINTERING STANDARD ROSES.

One of the difficulties that attend the cultivation of Standard Roses, in this country, is successful wintering. The plants may be taken up and heeled-in in a shed, or other pro-

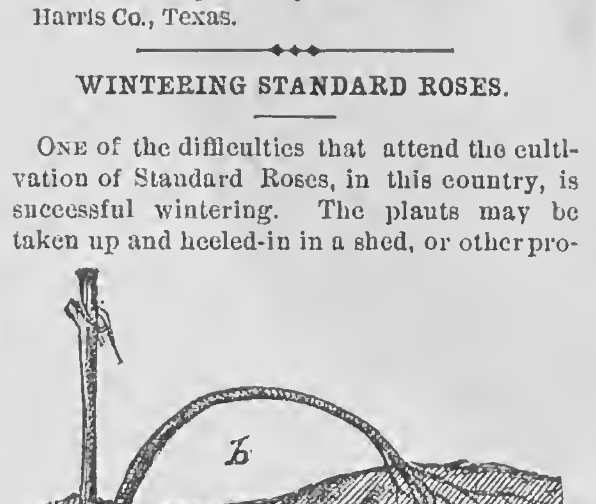


Fig. 2.

tected place, but besides being a great deal of work, the roots are always more or less injured, and when the plants are re-set the coming spring, it takes them often to midsummer before they again start to grow, and many never start at all. Wrapping the heads in straw is not only much work, but in our severe winters it is rarely they can get sufficient protection this way, and, besides, it does not add beauty to the landscape to have small straw-stacks scattered over the lawn all winter.

The most successful way of protecting the plants is simply to bury the heads in the ground, as shown in the engraving. Fig. 1 shows the plant in its natural position, and fig. 2 shows how it should be buried. A hole is dug in the soil large enough to hold the top, which is bent into it and covered with fine soil. The work can best be done by two men; one carefully bends the stock toward the ground, while the other, to relieve the strain, thrusts a digging-fork under the plant on the opposite side, and gently raised the roots on that side.

Fig. 1.

This will not injure the roots to any extent, and in the spring the plants can again be re-adjusted without difficulty. As the cold increases, both roots and top can be covered with leaves as thick as needed.

Farm Economy.

THE BEST TIME TO MARKET WHEAT.

This question has been discussed pretty thoroughly by the Onondaga Co. Farmers' Club; and at the last meeting a report was made of the prices, in this market, for the last ten years, that may be useful to the farmers throughout the State. Syracuse prices, of course, correspond with the prices elsewhere, making due allowance for distance from market, freightage, etc. Below is the report with table annexed.

Mr. E. M. Gilson, to whom a resolution on the subject of market values was referred at a previous meeting, submitted a report as follows:—

"In accordance with a resolution offered at the last meeting of this club, I present the following table, showing highest and lowest prices of wheat in this market for each month for ten years, from October 31st, 1869, to October 31st, 1879.

I have computed the averages, and arranged the figures in a convenient form for reference, showing highest and lowest prices for every month in the period named, and with summaries carried out, showing extremes reached during each year, and the whole range of ten years for each month of the year. The highest price recorded is $2.30 per bushel, which was paid in May 1877; the lowest, 95 cents, in October, 1878."

Averages by months, beginning with the highest, are as follows:—May, $1.49 2-5; June, $1.45 17-20; July, $1 30 3-10; February, $1.39 1-5; April, $1.38 11.20; March, $1.37 6-10; December, $1.36 9-10; November, $1.33 1-5; October, $1.32 19-20; January, $1.31 4-5; September, $1.29¾, and August, $1.29 6-10. A difference of 20 1-5c., in the highest and lowest average prices for the whole year. As will be seen by the above, July is just as good a month in which to sell as February is. In the order named, December, November and October prices average better than those in any other months until the last of winter. In August and September prices average about 3c. lower than in October; 4c. below prices in November and 7c. less than in December. After January there is a steady gain in prices until May, when according to the record, the highest average is reached.

		Janu'ry	Febr'ry	March	April	May	June	July	August	Sep't	October	Nov	Decem'r	Y'r
1879	Highest..	1.00	1.01½	1.03	1.03	1.10	1.15	1.15	1.10	1.12½	1.40	...	...	1.40
	Lowest..	1.00	1.00	1.00	1.00	1.05	1.15	1.00	1.00	1.00	1.00	...	...	1.00
1878	Highest..	1.40	1.40	1.28	1.35	1.35	1.30	1.15	1.12½	1.07	1.03	1.06	1.00	1.40
	Lowest..	1.30	1.18	1.20	1.23	1.25	1.15	1.00	1.00	1.00	95	1.00	1.00	95
1877	Highest..	1.60	1.55	1.58	1.80	2.30	1.90	2.00	1.50	1.45	1.45	1.45	1.40	2.30
	Lowest..	1.35	1.40	1.40	1.55	1.65	1.80	1.40	1.26	1.40	1.35	1.35	1.35	1.35
1876	Highest..	1.45	1.45	1.45	1.45	1.45	1.45	1.40	1.25	1.35	1.36	1.30	1.50	1.50
	Lowest..	1.15	1.25	1.20	1.20	1.35	1.32½	1.20	1.10	1.05	1.15	1.10	1.25	1.06
1875	Highest..	1.17½	1.15	1.12½	1.25	1.30	1.30	1.41	1.55	1.50	1.40	1.40	1.50	1.65
	Lowest..	1.12½	1.00	1.00	1.00	1.10	1.05	1.10	1.10	1.30	1.25	1.30	1.10	1.00
1874	Highest..	1.70	1.75	1.80	1.75	1.75	1.55	1.50	1.36	1.36	1.25	1.25	1.25	1.80
	Lowest..	1.60	1.50	1.50	1.50	1.75	1.50	1.45	1.12½	1.12½	1.10	1.15	1.15	1.10
1873	Highest..	1.80	2.00	2.00	2.00	1.80	1.70	1.65	1.60	1.85	1.75	1.60	1.65	2.00
	Lowest..	1.60	1.50	1.50	1.70	1.75	1.60	1.55	1.50	1.35	1.50	1.20	1.60	1.20
1872	Highest..	1.60	1.55	1.60	1.70	1.80	1.80	1.70	1.60	1.65	1.80	1.80	2.00	2.00
	Lowest..	1.40	1.60	1.50	1.55	1.60	1.60	1.50	1.40	1.40	1.50	1.70	1.40	1.40
1871	Highest..	1.50	1.65	1.60	1.63	1.60	1.55	1.45	1.21	1.50	1.50	1.65	1.62½	1.65
	Lowest..	1.40	1.60	1.50	1.50	1.50	1.40	1.25	1.25	1.25	1.40	1.32½	1.30	1.35
1870	Highest..	1.26	1.25	1.30	1.35	1.38	1.50	1.50	1.45	1.55	1.30	1.45	1.50	1.60
	Lowest..	1.05	1.05	1.06	1.15	1.15	1.40	1.40	1.35	1.12½	1.25	1.30	1.35	1.05
1869	Highest..	...	...	...	...	...	...	...	...	...	...	1.30	1.35	1.35
	Lowest..	...	...	...	...	...	...	...	...	...	...	1.12½	1.10	1.10
10 yr's	Highest..	1.80	2.00	2.00	2.00	2.30	1.90	2.00	1.60	1.85	1.80	1.80	2.00	2.30
	Lowest..	1.00	1.00	1.00	1.00	1.05	1.05	1.00	1.00	1.00	95	1.00	1.65	95
Average......		1.31 4-5	1.39 1-5	1.37 6-10	1.38 11-20	1.49 2-5	1.45 17-20	1.39 3-10	1.29 6-10	1.29¾	1.32 19-20	1.33 1-5	1.36 9-10	

The above table is compiled from the books of Jacob Amos & Sons, who own one of the largest flouring establishments in this part of the State, and is reliable, as it shows actual purchases. From the apparent advantage of holding wheat until May—which this table shows—we should deduct interest, liability of loss by fire, destruction by rats, etc., before deciding whether it is wisest to hold the crop, or not. Nelson Ritter.

LOSSES IN THE CELLAR.

It is rare to find cellars which are every way adapted to storing roots. Some are too wet, and vastly more, which are perfect as cellars in every other respect, are, for that reason, too dry. There is a constant evaporation going on from fruit and roots, and in the latter especially the loss of weight from evaporated moisture is sometimes a serious item. Where there is no rot in potatoes, the shrinkage from storing till mid-winter is generally two to five per cent., unless, indeed, the potatoes are stored in such large heaps that only a small surface is exposed to the air. But in this case the potatoes suffer loss from premature starting of the eyes, and this is worse than the other. All that the bud or eye grows is so much lost to the nutritive value of the potato; all its weight has come out of its salable value, and if the eyes have grown much, it will need a sharp advance in price to cover these losses. When men put several hundreds, or perhaps thousands of bushels of potatoes in the cellar in the fall, they can never take out as many bushels in the spring. There is always some rot, and, with the best of care, other losses cannot always be avoided.

Cellars are generally too warm, and if this is guarded against, it is by admitting outside air, which increases evaporation and endangers freezing. If we could keep cellars four to six degrees above the freezing point, it would be just right for potatoes. A still lower temperature, bordering on freezing, is better for apples and turnips. In ordinary winters, storing potatoes in pits is much the best way where it is certain that they will not be needed until spring. Some farmers here pit all their seed potatoes, selecting those of good shape and rather under-sized for market. Seed potatoes thus kept can be unpitted in April as fresh and sound as when put up. Keeping them in a light, cool and dry room until ready to plant, will give about as good seed as need be asked.

Beets and other roots suffer greater losses by evaporation than potatoes. Turnips, especially, are apt to become dry and stringy from loss of their juices. One way to partially prevent this is to throw a few sods over the heap in the cellar, which can be removed whenever the housewife has occasion to attack the root pile during the winter. As a rule, the early and sugar beets and white turnips are only fit

for fall and early winter use. Rutabaga turnips keep until spring, and really improve while in the cellar. The coarse mangel-wurtzel is always better towards spring than the finer varieties. The catalogues classify Swedish turnips and mangold beets "for cattle," but both are really good for the table in their proper season. The best rutabaga turnips are, to my notion, sweeter and richer than the smaller white turnips, and they entirely supersede them for my eating after January.

Monroe Co., N. Y. W. J. FOWLER.

ALL ABOUT MUCK.

MUCK is the richness of the uplands washed by the annual rains down to the lowlands. It accumulates there, because it can get no lower, and coming down in a semi-liquid condition, as soon as it is at rest, the sun evaporates the water from it, and leaves a (generally) black, unctions mass of soil which is composed almost entirely of soluble material. Cultivating the uplands to exhaustive crops, and washing the remaining richness out by rains, soon render such lands nearly barren. Digging out this deposit and hauling it to such fields as supplied it, is merely restoring a runaway to its home. As the muck, in its passage downhill, has lost the coarser parts of the original soil, which made a loose and porous seed-bed, it has become so solid, so compact, that the atmosphere is absolutely excluded, and the muck by itself is a mere paste, impervious to air, warmth and all the invigorating influences of summer rains. To make it again valuable, then, it must not be merely carted out and spread over the field, but it must be mixed with the soil as deep as the roots of the crop require, by plowing, harrowing or shovel-plowing under. This process restores it to the place it occupied before the washing-out process took place, and to enable us to do this cheaply, the unctuous mass is dug out in the fall, piled up on a slope to drain, and left to freeze friable during winter; then it will return to its proper place in the barren soil and *at once* restore its original fertility. M.

Field Crops.

TOBACCO IN VIRGINIA.

THE peculiarity of the fancy yellow tobacco made in a few counties of Virginia and North Carolina, is that it is tobacco with the least tobacco in it. Although it has a superior flavor and a beautiful color, and is a luxury almost innocent, yet it contains so little of the narcotic properties that are found in the heavy shipping tobacco, that it is almost a different commodity. The chewers or smokers of this article would reel with drunkenness from the effect of one quid or pipeful of the heavy, strong article made in the Western States. The fancy city gent can safely puff his pipeful of "Gold Dust" without any of the brain weakening, stomach sickening effects, usually attributed to tobacco. I have often wondered what becomes of the immense amounts of heavy tobacco that are grown in the United States. I am certain I have never met with a dozen men that could use it, and these dozen were Irish colliers.

Now, I never saw the great sin of a moderate use of any luxury. If we were to confine ourselves to the real necessaries of life, we would play sad havoc with many industries. I think that a nice chew of fancy Gold Leaf tobacco is an innocent luxury. I never knew many men injured in health or pocket by such indulgence. When a man can bring himself to the point to use mean, poisonous stuff, he at once loses caste with the aristocratic fine-twist chewer, and is ostracised at once. What real gentleman could think of associating with a man who would pull out a plug of black "navy," and take a chew!

Really there is something more in this little pleasantry than you would at once perceive. That men will use tobacco is a foregone conclusion. That abuse, ribaldry and insult will not break them of the habit, is undeniable. Now, if they *will* use tobacco, I think it is best to try to elevate their taste and insist on their using the fine, harmless article. In promoting this form of culture one will find few opponents.

Ashville, N. C. S. C. SHELDON.

Horticultural.

WESTERN SMALL FRUIT NOTES.

I FRUITED over 20 varieties of Strawberries this year.

THE BLACK DEFIANCE stands No. 1 for flavor, among all the kinds I have ever seen. The unanimous testimony of all who tested it hereabouts was that they never tasted anything to equal it. It was not large, ranging rather below than above medium in size. Though it may not prove profitable for market, it should have a place in every family garden.

THE CUMBERLAND TRIUMPH seems very much like an over-grown Green Prolific. Plants, very vigorous and productive; but berries too soft and too light-colored for market.

THE GREAT AMERICAN is a failure here. Probably on heavy soil with extra care, it may do better; but on this soil it was not prolific and the berries were small.

COWING'S SEEDLING gave the largest fruit this year. But the very large berries were the most irregular in shape, that I ever saw. Many of them looked as if two or three very flat berries had grown together. Otherwise, Cowing's Seedling resembles the Charles Downing very much.

THE MONARCH OF THE WEST gives the most *very large* berries of any variety I have grown. On good soil without extra care it will average larger than any other kind that I have tested.

THE TURNER stands No. 1 for market among the Red Raspberries that have been thoroughly tested here. The fruit is not as large as the Herstine, but the bushes are more prolific and are perfectly hardy. The berries are of good flavor and stand shipping very well, if put up in pint boxes.

THE BRANDYWINE is not a success here, the bushes are weak growers and not very prolific. The berries are smaller than the Turner and very poor-flavored. They are, however, very firm, coming nearer the Black Caps in this respect than any other red berry I have seen. On this account they may prove valuable for shipping to distant markets.

THE THWACK is the most promising that I have fruited among the newer varieties. It is vigorous and productive and seems to be hardy. It was not hurt at all last winter, when Kittatinny, Wilson's Early, Early and Missouri Mammoth Blackberries near-by were killed to the snow line. The berries are large and resemble the Herstine very much in color, size and flavor.

THE GANARGUA has nothing to recommend it, and may as well be dropped from the list as worthless.

THE NEW ROCHELLE is hardy, vigorous and remarkably productive. The berries are large, but very dark-colored and the flavor was so bad we could not eat them, and did not pick a quart, but allowed the whole crop to waste on the bushes.

THE CAROLINE is not so vigorous, but is hardy and productive. But the color is objectionable, being a dull, dirty yellow; and the flavor is, if possible, worse than that of the New Rochelle.

THE SENECA, among the Black Caps, is worthless, being no larger than the Doolittle, while it is as late as the Mammoth Cluster.

GREGG'S MAMMOTH was no larger or better than Mammoth Cluster this year.

KITTATINNY, WILSON'S EARLY AND MISSOURI MAMMOTH Blackberries being killed to the snow line, yielded very few berries.

SNYDER, WESTERN TRIUMPH AND TAYLOR'S PROLIFIC were uninjured. The Snyder, though not equal to the Kittatinny in size or flavor, is more profitable for market, because hardier. The Western Triumph is hardy, vigorous and very productive. The berries are very sweet and fine-flavored; but are rather small. The fruit of Taylor's Prolific resembles the Kittatinny very much in shape and flavor, but is not quite so large. W. C. STEELE.

La Porte Co., Ind.

Miscellaneous.

A HOTEL FARM.

MR. T. R. PROCTOR, of Utica, N. Y., is the proprietor of three hotels—two in Utica and one in Richfield Springs. To supply them with fresh vegetables, poultry, milk, etc., he has established a farm just beyond the limits of Utica, known as Bagg's Hotel Farm, which is a model one in many respects. Of the 60 acres comprising the farm, 48 are devoted to growing vegetables; 15 acres are used in raising seed, and the truck garden is laid out on a comprehensive plan. Sufficient grain and hay are produced to meet the requirements of stock, etc. The stock is, to visitors, one of the most attractive features. The animals are mainly thoroughbred, comprising Jerseys and other good strains. A herd of over 120 head of swine are in the pens, at the head of which are such animals as imported Yorkshire boars "King George," "Sir John," (purchased from R. H. Hoe.) besides the sow "Grand Duchess" and eight others of the same breed, imported by the proprietor. The Berkshires are led by "King Philip" (bought of T. H. Cooper).

The farm is under the management of Mr. Thomas Hagnes, who has, during the past six years, paid the closest attention to securing the best results from land and stock. Everything about the premises, including buildings, is kept up in the most perfect form, and in addition to supplying the hotels with most of the food consumed, there are raised and sold each year from three to five hundred thoroughbred pigs. At the State fair Mr. Proctor exhibited some fine cattle and swine, securing five premiums, and at the Oneida Co. fair 14 premiums were awarded the stock and products of Bagg's Hotel Farm.

Mildew and Salt.

The word, mildew, as a name for the condition to which excessive temperature and, perhaps, other unknown causes, reduce the leaves of many plants, is a misnomer. It leads directly to the idea that *dew*, or a slight *dampness*, is the cause of it. It is, in fact, a fungus growth, which can only exist in an extremely hot and *dry* atmosphere. It has, in that respect, a similarity in the exciting cause, to the generative sources of some sap-suckers or some species of aphides. Now, the remedy for all destructive life, animal or vegetable, produced by dry heat, is the opposite condition—a cool moisture. Salt strewn upon the ground under gooseberry bushes, by attracting moisture from the air *and holding it there*, counteracts the tendency to mildew. Mulching has the same effect, is more lasting, and is, also, of great benefit in protecting the surface roots from the intense heat. I consider salt only of real use when mulch cannot be applied, as in the case of grain fields, closely-set plants in ribbon beds, or any similar cases where plants are too close to admit of working between them.

Dodge Co., Neb. S. RUFUS MASON.

AN ITENERANT HUMBUG.—"It is said that the Chinese have a method of preserving grapes during the entire year by cutting a circular piece out of a ripe pumpkin or gourd, making an aperture large enough to admit the hand. The interior is then completely cleaned out, the ripe grapes are placed inside, and the cover replaced and pressed in firmly. The pumpkins are then kept in a cool place, and the grapes will be found to retain their freshness for a very long time."

The above paragraph is "going the rounds" of the newspapers; but I wish some of these wise philosophers should inform us how to preserve the pumpkin. I think if one were to pack grapes in this manner, he would have a *delicious* mess long before the year rolled around. It is curious to note how such "*booky*" screeds as the above receive such an extensive circulation, while really sensible and practical ones, are hardly noticed.

As an eminent writer says:—"The more gross the fraud, the more glibly will it go down, and the more greedily will it be swallowed, since folly will always find faith wherever imposters will find impudence." N. R.

Onondaga Co.

The Herdsman.

CHICAGO FAT-STOCK PRIZE WINNERS.

THE fat-stock show that closed in this city, at the Exhibition building, on Saturday evening, Nov. 22, was the most successful exhibit the Association has given. From first to last the attendance was good, and the show gave high satisfaction. The lessons to be learnt from it will form the subject of another communication; but, meanwhile, inclosed is a list of the chief prize-winners, as a due economy of space will, doubtless, prevent the RURAL from giving the full list:—

LOT 1—SHORT-HORNS.

Steer, 4 years old or over, 5 entries—First premium, Wing & Thompson, Bement, Ill., $25; second premium, Wing & Thompson, Bement, Ill., $15.

Steer, 3 and under 4 years, 2 entries—First premium, J. H. Graves, Chilesburg, Ky., $25; second premium, John B Sherman, Chicago, Ill., $15.

Steer, 2 under 3 years, 4 entries—First premium, J. N. Brown's Sons, Berlin, Ill., $25; second premium, J. N. Brown's Sons, Berlin, Ill., $15

LOT 2—HEREFORD.

Steer, 4 years old or over, 4 entries—First premium, T. L. Miller, Beecher, Ill., $25; second premium, John B. Sherman, Chicago, Ill., $15

Steer 3, and under 4 years, 2 entries—First premium, T. L. Miller, Beecher, Ill., $25; second premium, Thos. Clark, Beecher, Ill., $15.

Steer, 2 and under 3 years, 1 entry—First premium, T. L. Miller, Beecher, Ill., $25.

LOT 9—DRESSED BULLOCKS.

[The bullocks to be killed, dressed and weighed under the direction of the Awarding Committee. The dressed carcasses to remain the property of the exhibitor. Bullock dressing the largest per centage of meat in proportion to live weight.]—Premium, T. L. Miller, Beecher, Ill., $50.

LOT 10—HEAVIEST FAT STEER.

First premium, John B. Sherman, Chicago, Ill., $75; second premium, George Gray, Rushville, Ind., $50; third premium, J. H. Graves, Chilesburg, Ky., $25.

CLASS C—SHEEP.

LONG-WOOLS.

Wether 2 years old or over—First premium, George Hood, Guelph, Canada, $15; second, T. L. Miller, Beecher, Ill., $10.

Wether 1 and under 2 years—First premium, George Hood, Guelph, Canada, $15; second premium, J. A. Brown's Sons, Decatur, Ill., $10.

Wether 1 year—Second premium, George Hood, Guelph, Canada, $10.

LOT 13—MIDDLE WOOLS.

Wether 2 years old or over—First premium, Geo. Pickrell, Wheatfield, Ill., $15; second premium, Geo. Cary, Rochelle, Ill., 10.

Wether 1 and under 2 years—First premium, Geo. Pickrell, Wheatfield, Ill., $15; second premium Geo. Pickrell, Wheatfield, Ill., $10.

Wether under 1 year—First premium, Geo. Pickrell, Wheatfield, Ill., $15; second premium, Geo. Pickrell, Wheatfield, Ill., 10

LOT 15—SWEEPSTAKES—OPEN TO ALL.

Wether, 2 years old or over—Premium, T. L. Miller, Beecher, Ill., $25.

Wether, 1 and under 2 years—Premium, Geo. Hood, Guelph, Canada, $25.

Wether, under 1 year—Premium, George Hood, Guelph, Canada, $25.

CLASS D. SWINE.

LOT 18—LARGE BREEDS.

Hog, 2 years old or over—First premium, B. J. Orton, Cambridge, $15; second premium, Oliver, Fell & Miner, Toulon, $10.

Hog, 1 and under 2 years—First premium, J. A. Countryman, Rochelle, $15; second premium, H. C. Castle, Wilmington, $10.

LOT 19—SMALL BREEDS—EITHER SEX.

Hog, 2 years old or over—Premium, Taylor Bros., Waynesville, $15.

Hog, 1 and under 2 years—Premium, Frank Wilson, Jackson, Mich., $15.

ANTI-SELF-SUCKING DEVICE.

PROF. SHELDON says, in Dairy Farming, that the nose-piece, herein illustrated, effectually cured a cow of his of a persistent habit she had acquired of sucking herself. Various other devices for the same purpose had been vainly tried previously; but where they failed, this succeeded completely. It was made out of a piece of oak board, eight inches long, five inches wide, and about a quarter of an inch thick, and was shaped as shown in the cut, fig. 1. The cow's nostril was sprung or bent until the piece fitted, as seen in fig. 2. Again and again the cow tried to get one of her teats into her mouth, but all to no purpose, for the nose-piece, hanging down, always came between her mouth and the teat. At length she gave it up in disgust, and went on grazing. The device formed no obstacle to her eating, as it floated over the grass without being any detriment whatever.

FIG. 2. FIG. 1.

In making such a nose-piece, care must be taken not to make the two points of it too far asunder, as it would then easily slip off the nose. The points should be about half an inch apart, and nicely smoothed and rounded off, so that they will not hurt the cow.

Industrial Implements.

FARM GRINDING.

LAST summer J. A. Field, Son & Co., of St. Louis, Mo., sent us for trial one of their Big Giant farm mills, for grinding feed by horse-power. We do most of our grinding with it at The Rural Experiment Farm, and find that it fulfills the claim made in its behalf.

It is an iron mill, cylindrical in shape, with its least diameter in the middle. The inner side of the outer cylinder is corrugated, and revolves about a chilled iron cone, likewise ridged. A V-shaped wooden lever extends out a sufficient distance to allow the horse a clear circular track in supplying the power. We have ground corn just as it is plucked from the stalk—husk, cob and all. The product was used for stock-feeding. We have used it also on shelled corn, which has been reduced to various degrees of fineness, and by means of the automatic sieve attachment have made a fine quality of meal. The sieve can be used or removed at will.

We should say that one of these mills would be valuable on every farm. The simplicity, strength, ease of operating, makes it easy for anyone to use it, and the price is reasonably moderate. The Fields have built up a flourishing trade, East and West, and have sent mills to Egypt and other foreign countries. Any one sufficiently interested to wish further information, may write to the manufacturers, mentioning the RURAL, and detailed information will be given.

THE Sèvres vase awarded the Johnston Harvester Co., at the field trials of harvesting machines, at Marmont, in France, has just been received at Brockport.

It is a very valuable and handsome trophy, standing ten and one-half inches high, and measuring fifteen inches across its top, which is a broad, plane surface, holding in its center a medallion representing the head of the goddess Ceres. Surrounding this medallion are appropriate designs in wheat and fruit subjects. The exterior is in blue and gold.

This vase is intrinsically valuable, being the product of the famous Sèvres factory, which ever since its acquisition by Louis XV., in 1760, has been maintained by the government, and its rare art products almost entirely reserved for presents to kings, ambassadors, etc.

It will serve as a lasting and beautiful token of the triumph of "The Johnston" over its 35 competitors, on the occasion in question.

Everywhere.

CHAT WITH THE RURAL.

EX-GOV. ROBERT W. FURNAS, OF NEBRASKA.

I HAVE read that excellent, old and familiar visitor, the RURAL, with pleasure and profit, these many years. If I were sure its originator would not hear me, I would say that as it grows older I like it better. People should grow better as they grow older. Why should not publications, especially those devoted to agriculture, horticulture, pomology, and kindred subjects, do so?

While we out West—in the very "Far West"—talk and write among, and with, ourselves about agriculture, do you know how timid and embarrassed we feel to appear before a Far East audience, or through the columns of an agricultural periodical older than many of us? More appropriate for us to sit at the feet of such men as Wilder, Thomas, Downing, and other silver-locked veteran teachers and laborers, and learn from them lessons of wisdom, speaking from age and experience. This would seem the more proper. And yet, while we obtain fundamental general principles, and much else desirable and valuable from the old States, and from the brains of honored forefathers, do you know that we have had much to learn, out here, from actual experience, having had not a few original problems to solve.

You will remember when *we* "studied geography" that all now known as the Great West, more particularly that region west of the Missouri River and east of the Rocky Mountains, was designated, characterized and set apart by the books as the "Great American Desert." Government officials—General Fremont, Captain Miles and others—reported it a barren waste. Twenty-three years' successive residence in Nebraska, an eye-witness to the wonderful changes that have taken place within that time in the climate, rainfall, and actual soil products, warrants the concession, at least, that the data upon which was based our boyhood geography was correct. Allow me to mention one single instance or feature of the great changes I have personally witnessed.

What was known, even since the beginning of the current decade, as "the Sand Hills" in Platte Valley, near Fort Kearney, were actually as destitute of any kind of vegetation as the mid-street of Broadway in your city. Now luxuriant native grass grows all over these hills. Cattle and live stock of all kinds grow fat and sleek among them, and thousands of tons of blue-stem hay are put up annually. Ten years ago one knowing this region could not be induced to take a million acres of these lands as a free gift—now they are being occupied by enterprising tillers of the soil and good crops raised. I made a short trip through this section of the State the present season, and confess to great surprise at what "my own eyes beheld."

When I first came here, settlers—"squatters" they were then called—"hugged" the west bank of the Missouri River, never dreaming of going further into the interior than eight or ten miles. The valleys of the Nemaha, Blue, Platte and Republican Rivers further inland, were "good enough, perhaps, but we will never live to see the country settled up and civilized out that far!" The man who talked of planting fall wheat, for instance, was "crazy." One who would plant a fruit tree then would have been sent to the lunatic asylum, had there been one near enough. You can readily imagine that "we old settlers" had not much to encourage us—that all was an experiment. Without particularizing, you are familiar with results and the facts as they exist to-day. No portion of our national domain stands higher as to general and diversified agricultural products. The "twin sisters"—Nebraska and Kansas—have carried away three first national pomological premiums awarded by the American Pomological Society—the former two, the latter one. While, as before conceded, we learned much from the East—brought much of it from there with us—we have had much more to learn for ourselves, and are, therefore, entitled to some credit for originality. Don't you think so?

The present season with us has been an unprecedented one in many respects: crops have been good all over the State, in some portions, however, better than in others, and some kinds better than others. Corn and wheat—the great staple products—are more than an average. Prices are better than usual. Farmers, and, consequently, *all* the people, are in better condition and heart than for many years. More good, solid improvements are being made. Hundreds who came here a few years ago, and have delved along, living in "dug-outs," are now enjoying comfortable, in very many instances, even luxurious homes, with all modern advanced civilized and enlightened surroundings. More railroads are being constructed this season than in any two or three years before. The rapid filling up of the State, together with the advantageous facilities for railroad building, warrants this increase. A few years more and Nebraska will be spider-webbed with railroads. We have "passed through the deep waters," are out on high, dry land, and on the road to future greatness as a people. We now have more to encourage—more to live for, methinks, than you in the old and established portions of the United States. There is more of the future before us, more to make, more to obtain.

The grazing interest in the western portion of the State, and west of that, has already assumed unthought-of proportions. I dare not tell you, and you would be slow to believe, how many hundred thousand head of live stock are now feeding and keeping "beef-fat" the year round, on simply the nutritious native grasses on the plains east of the Rocky Mountains, and how many go annually to feed the consumers of the East. This "Great West" is the bread and meat-producing region of the world.

Digressing a moment, I agree with the RURAL in its interpretation of the word "extravagance." One is entitled to, and even criminal if he or she neglects, to enjoy and absorb all there is good in this world, legitimately and rightfully obtainable. So long as expenditures are kept below one's honorable income, there is no extravagance. The moment this boundary line is overstepped, whether the amount be one cent or one million dollars, then there is extravagance.

When I sat down to partly fulfill a promise to write you, I had no intention of sermonizing; but on looking over my hastily-penciled pages, I find that I have come well-nigh to it. It is Sabbath, and I had just returned from church, after hearing an excellent discourse on the subject—"Progress." Hence the line of thought indulged in. I had promised you some notes in relation to my new forty-acre fruit farm, planted this season. But as I have now already imposed on your good nature [No, no.—EDS.] in a rambling manner, let it suffice for the present. Perhaps, some other time I may let you know how many apple, pear, peach, plum, prune, nectarine, apricot and cherry trees, grape-vines, flowering shrubs, and so on, I have planted; the varieties, what distance apart, location, soil, manner of treatment, etc., etc.

Brownville, Neb., Nov. 16, 1879.

RURAL SPECIAL REPORTS.

N. Y., Elmira, Nov. 22d.—We have been favored by a heavy rainfall which has put an end to the most severe drought ever known in this locality. It has filled dry wells and cisterns and started streams and has improved greatly the condition of winter wheat, which owing to the dry weather has made but feeble growth. Farmers about here have been very busy for the past 10 days stripping tobacco, which was taken down in fine condition. Owing to the warm, wet weather, and the unusual green state of the stalks, it was necessary to strip the leaves from the stalks in the least possible time, to prevent damage from heating in the pack, which had commenced in many cases.

The past few weeks have witnessed a marked change in the prices of nearly all agricultural products. An upward tendency is clearly visible, and our farmers begin to feel encouraged over their future prospects. The prices of the most important products are as follows: wheat, $1.30 to $1.35; corn, 60cts. to 62 cts; oats, 36 to 40 cts; barley, 65 to 75 cts per br.; hay, $12 to $14 per ton; butter, 28 to 30 cts per pound.

N. Y., Syracuse, Onondaga Co., Nov. 21.—We are now in the midst of a cold snap. The thermometer stood at 14 degrees above zero this morning, with a piercing wind, and a slight fall of snow. My Grape-vines are about half laid down and covered. While I shall probably have open weather to finish the job, I should much prefer not to have the vines exposed to even this slight freeze. Many grape growers in this vicinity leave their vines up all winter; but I prefer to be on the safe side.

N. R.

MICH., Gagetown, Tuscola Co., Nov. 20.—On the 2d day of November we were visited by a heavy snow storm which lasted about six hours; but did no damage. There has been more wheat sown in this county this fall than in any one season before, and it is growing rapidly; even late sowed wheat is in excellent condition for the winter. Potatoes are a good crop and nearly all have been secured. Corn is above an average yield throughout the county, and farmers are busily engaged in husking and storing it. N. E. D.

CAL., Penryn, Placer Co., November 14.—We are having our first genuine rain storm for the season, and from necessity we are compelled to stay in the house, which I often think is providentially arranged that we may perform long-neglected duties without interfering with out-door work. I have long had a desire to write to the RURAL, but for very many reasons have been unable to do so. Perhaps many of your readers who desire to change their residence from the climate of the Eastern States for our beautiful climate would do so at once if they could be satisfied first that they really knew from reliable information what they could do when they got here. The great trouble with many who have come here with high hopes, has been that the information that sent them hither was obtained from circulars sent out by our railroads and colonization companies or societies. These have been so highly colored that they were, in fact, misrepresentations. They have taken exceptional cases and represented them as the general results. The consequence has been that we have been compelled to hear "curses loud and deep" from very many who have come to California within the last few years, when really any sensible man must have known that the expectations to which these exaggerated circulars gave birth, could not be realized. Our particular locality affords at this time an opportunity for a man of small capital, say from $2,000, to $3,000, to make a good investment and by industry and reasonable economy he may expect to make money. Understand in this connection I wish it distinctly understood, that it is necessary that a man should have a practical knowlege of fruit raising in all its details. With this knowledge and the habits I mention, it is almost impossible to fail. Our soil is a decomposed granite which, I am told, has proven the very best for the production of fine grapes and many other fruits. Our markets are San Francisco, Virginia City and many other smaller places east and west on the line of Central Pacific R. R. We are within about eight hours of San Francisco, sufficiently near to ship berries. Our peaches—of which we produce more than of anything else—usually bring in the San Francisco market from 30 to 50 per cent more than those from any other part of the State. Both soil and climate are particularly adapted to their successful cultivation. For the past two seasons we have been setting out Oranges, Lemons, and Limes, as it has been proven, beyond a peradventure, that they can be cultivated successfully on our foot-hills. There have been trees in bearing, in our neighborhood, for 10 or 12 years, raised from seed. I have thought that perhaps these were more hardy than budded trees—time will tell. For the production of berries of all kinds, our foot-hills are equally well adapted. Now this being the case, a man with practical knowledge of the business and reasonable expectations, can find among us a home that should be satisfactory in every way. In reference to climate, we have the very best, and, of course, this implies that it is very healthful. Land, uncultivated, can be bought at from $10 to $20 per acre, according to quality and location; if situated near a railroad station it would, of course, be worth more than if it were a considerable distance from it.

Of the seeds I received from the RURAL last spring, the Acme tomato has proven the best we have ever raised. From the seed sent I shipped about 45 forty-pound boxes. The Golden Rural is excellent, but the color and size are objectionable for market, except for preserving. The Beauty of Hebron potato proved to be about equal to the Early Rose, both in quality and earliness: the Voorhis watermelon did exceedingly well. From the seeds sent I raised fifteen melons ranging from 10 to 20 pounds each, and they proved both early and delicious. Pearl Millet I must say I do not like as well as Egyptian corn, neither for quality nor quantity of feed produce. Blount corn was not a success. We made a failure with our flower seeds from the fact that other duties, more pressing, caused us to neglect them. Seedsmen, I think, are oftentimes censured when the blame for poor returns lies with the man who plants the seed. J. W. B.

CANADA, St. David's, Lincoln Co., Nov. 17.—Crops of nearly every description have turned out well in this section, and the prices realized therefor have been satisfactory. The yield of late potatoes is excellent; though in some places they are rotting badly. My Blount's corn has just closed a most remarkable career of stalk-growing, and has, besides, yielded ears and nubbins to the amount of one bushel from 64 hills—two stalks to the hill—while my Early Canada corn adjoining it yielded from 1½ to 2 bushels from the same number of hills, the culture being the same in both cases. Therefore no more Blount's corn for me; besides, had the Blount's corn yielded well, in this locality it would not ripen one year in ten. Whether scientific training has made it so I know not; but this corn has developed some peculiar characteristics—one is its tendency to unite heaven and earth in a straight line; unless magnificent one is to vary the number of rows on the cob from 8 to 16; and still another, to vary the shape of the kernel, on some ears it being broad and indented; on others slender, flinty-looking kernels are found with no indentation. It also varies in color from ears nearly purple to those of a pure glossy white. The only thing approaching uniformity in this variety—that I can discover—is, first, its multiple earing, and, second, its tall growth; and both of these traits I regard as faults, the first when more than two ears are attempted on one stalk, and the latter absolutely, unless the stalks can be utilized for fire-wood or fencing material. I think it time that farmers were disabused of the idea that the corn that attempts the growth of six or eight ears on a stalk, is *the* corn. Why raise so many nubbins to produce the same weight of corn as will grow on two ears, and thereby necessitate so much extra work in husking? Moreover, the husks around these nubbins and the cobs therein, to a great extent, are a draft upon the vigor of the plant, that should be expended in producing grain. My opinion is that breeding for more ears will not be attempted by the corn-breeder of the near future, but the ears will, perhaps, be thinned, as we now thin fruit, and fewer but longer and more perfect ears be striven after. If Blount's corn does not "mend its ways," ten years hence it will be spoken of only as one of the thoroughly-tried but discarded varieties of the past. E. M. A.

The Querist.

ANSWERS TO CORRESPONDENTS.

Plaster and Charcoal.

P., Portsmouth, Va., asks the relative value of plaster and charcoal as a top-dressing for clover or grass, and also in a compost.

ANS.—Plaster and charcoal have nothing in common by which they may be compared. Charcoal is absolutely inert and of no use as a fertilizer; it may operate indirectly as an absorbent of oxygen, or other gases, for which it has a great affinity, and serve to hold them until the roots of plants which come in contact with it can make use of them; but it has no power to act in any other way. Charcoal contains the mineral matter—the ash—of the wood of which it is made, and a portion of the cellular tissue in a state of carbonization. In this state it is practically indestructible, and may remain in the soil for years unchanged. Plaster, on the contrary, is a salt of lime, soluble in water, and possessing the power of chemical reaction when brought into contact with substances upon which it exerts its effects. It consists of sulphuric acid, 46½ per cent., lime, 32½ per cent., and water of combination, 21 per cent. The chemical union between the base (lime) and the acid is rather weak, and is dissolved when the plaster is brought into contact, in solution, with a base, such as ammonia, for which the acid has a stronger affinity than for lime. This case of decomposition is one of its chief values, agriculturally, as it acts very usefully in combining with free ammonia and fixing it as sulphate of ammonia, leaving the lime free to enter into combination with carbonic acid, for which it has a stronger affinity than for sulphuric acid. As to the actual money value of the two, it may be said that charcoal is worth no more than for the potash contained in its ashes, which is, perhaps, a cent or two a bushel; while plaster is worth its usual market value, which is about 40 cents a bushel when ground for use, this value being more than that of its acid and lime merely, on account of its favorable action, chemically, in other ways than by the addition of its simple ingredients to the soil, and also because of its effect upon the clover crop, an effect that is not, as yet, fully explained.

"Burry" Wool, etc.

B. L. B., Bucksville, S. C., asks, what is the difference in price between wool with cockle burrs in it and that free from them; 2, how should they be removed; 3, will the Department of Agriculture, at Washington, analyse minerals; 4, when should alfalfa and orchard-grass be sown in that latitude?

ANS.—Wool with burrs in it goes into market as "burry," and is considerably reduced in value. The prices quoted in a trade list, now before us, are, for tub-washed, choice, 50 cents per lb.; fair, 45 cents; and for burry, 36 cents. So that the loss in value is from 9 to 14 cents in tub-washed wool. Low grades of wool lose even more, and "burry" will bring 33 per cent. less than "fair to good," free from burrs. Burrs can only be taken out by machinery in the factory, and even then some burrs will be left in, as may be discovered by the unfortunate wearer of underclothing, in the material with which some burry wool has been mixed. It is this difficulty which causes the loss in value. The Agricultural Department at Washington does not analyze minerals. That is not in its province. Any specimens you may send to us will be named for you, and if they are sufficiently valuable for analysis, there are parties in New York who would make an analysis for about $3.00. But very few minerals need a complete analysis to ascertain their value. Alfalfa should be sown early in the spring. Orchard-grass should be sown in your latitude in September.

Miscellaneous.

A. D. M., Detroit, Mich., intends to plant 1,000 Grape-vines; 1,000 Currants; 800 Gooseberries; 600 Raspberries and 500 dwarf Pears, planting two rows of the small fruit between the rows of Pears; the land is good, black garden soil manured every year and this fall and productive of a good yield of any garden crop, and he asks 1, what should be the nearest distance in the row; 2, whether wood ashes mixed with lime, would be a good application; 3, which would be the better time to apply it—now or on in spring—; and which would be the better—barnyard manure or wood ashes; 4, whether manure should be put with every tree when planted, or whether the land is already rich enough without any additional application.

ANS.—1. We should not plant Currants, Gooseberries and Raspberries—much less Grapes—between Pears—but that is not answering the question. Ordinarily dwarf Pears (on Quince stock) should be at least ten feet apart. Gooseberries and Currants and Raspberries should be four feet apart. Grape-vines should be set not less than ten feet apart. Now our friend can answer the question for himself. If, for instance, between two rows of Pears, two rows, one each of Currants and Gooseberries, are to be set, then let the distance between the Pears be 18 feet. (2. and 3.) The land needs no manure whatever. Do not apply lime at all—the ashes will furnish enough of that. We should defer applying the ashes until the second spring after the trees are set. 3 If only one or the other, manure is better than ashes unless the land is rich in everything but potash. 4. We would not advise you to put *any* manure with the trees or vines. It will be better to apply manure not until the second year after planting as we have stated, and then, if the soil is as rich as you suppose, little benefit will be derived.

A Subscriber, Baden, Pa., picked his apples in good condition, and put them on shelves in the cellar, in layers about 15 inches deep, and finding them showing signs of rotting, he asks whether if they were "picked over," the sound ones would be likely to keep all the better for it; whether 10 or 15 per cent. of rotten apples will injure the rest by coming in contact with them; whether "picking them over" in the cellar would injure the apples, as some people say.

ANS.—There is no doubt that rot in one apple coming in contact with a sound apple will hasten decay in the latter. If handled very carefully, no harm will be done. It is the bruising of apples by careless or hasty handling which induces rot. Covering the sound apples with pure sand would help to preserve them. Otherwise we can only advise cool, dry air, and a low, uniform temperature, above freezing.

H. B. R., Queens Co., N. Y., asks as to the value of leached ashes.

ANS.—About the same as that of lime. The chief difference between leached and unleached ashes is that the former has about nine per cent of potash while the latter has but one per cent.

K. B. M., Byesville, O., wants to know if Daniel F. Beatty, whose advertisement she has seen in the RURAL, is reliable.

ANS.—We have no reason for not thinking that he is reliable in every respect.

A. L. C., Boston, Mass., asks certain questions respecting the house plans presented in last week's RURAL.

ANS.—We must refer him to the architects, Palliser, Palliser & Co., of Bridgeport, Conn.

E. J. F. B., Middleboro, Mass., asks if the climate in which Blount's corn is grown will be taken into account in awarding the prizes.

ANS.—No.

COMMUNICATIONS RECEIVED FOR THE WEEK ENDING SATURDAY, NOV. 22d.

B. F. R.—M. W.—S. B—G. A. G., Jr.—J. B. A., thanks—"Eva"—G. G.—N. S. G.—M. W. F.—I. A.—W. H. M.—W. W. M.—T. J. E.—F. K. M.—W. V.—N. R.—A. J. R.—H. H.—E. A. R.—A. M.—G. G.—E. N.—W. I. C.—T. E. W.—J. G. C.—F. D. C—C. D.—S. P.—B. C. D.—A. L. J.—C. M.—A. M. V. A.—R. S. T.—J. K. M.—A. J. B—W. H. D.—M. W.—T. H. H.—W. J. B.—H. C. U.—R. R.

Industrial Societies.

THE ANNUAL CONVENTION OF THE NATIONAL GRANGE.

THE National Grange commenced its thirteenth annual session at Canandaigua, N. Y., on Wednesday, November 19. Never before has there been so large an attendance at the opening of the session. Thirty-one States were represented, besides the Dominion of Canada.

After roll-call and the transaction of other unimportant preliminary business, N. G. Wayne, Master of the New York State Grange, delivered a brief but eloquent address of welcome. He said they had gathered from all the different States of the Union with one mind and one purpose in view, and that purpose was the elevation of the producing people to a higher and nobler manhood and womanhood—to a purer and better social standing. They had come with fraternal feelings extended to all the different classes scattered over our whole country, looking, not back to the past, but forward to the future, with the further purpose in view of creating a more perfect union of sentiment and feeling towards a government that should protect all its citizens alike, whether rich or poor, without regard to location or other surrounding circumstances. Our work, as representatives of the great industrial productive interests, will be for the better protection and advancement of these interests, which are the foundation upon which our prosperity as a nation rests. "Our government was designed," said Master Wayne, "for the express purpose of dealing out simple justice to all its citizens alike, and should not be diverted from that purpose. It would not be but for the spirit of party which now prevails to such an alarming extent as to crush out justice and equity. Powerful moneyed corporations now control our State and National governments, and unless a change is effectually made, and that speedily, we shall all go down under the enormous burdens that are now being imposed upon us. We have come to counsel together and to point out a remedy for the evils that afflict us. We have come with honest purposes, and shall use our best efforts in awakening our people to their true interests, and inducing them to ask our government, respectfully but earnestly, to deal out equal and exact justice to all its citizens."

The Hon. J. M. Lipscomb, of South Carolina, was appointed to respond to this address of welcome. This he did in a very earnest, eloquent and hearty manner. He referred to the plan of the Order, which was well and wisely conceived, its foundations being deeply and firmly laid and its superstructure being appropriately and ornamentally built. He hoped that the labors of this meeting might advance the Order some steps onward towards that perfection we so confidently believe and hope it will finally attain.

After this response to the address of welcome, the annual address was made by the Worthy Master, Hon. S. E. Adams, of Minnesota. This was listened to with both pleasure and profit.

The next business of public interest was a public address by the Rev. T. K. Beecher, of Elmira. He selected for his subject, "Men and Women—the Best and Costliest Products of the Farm." It was a theme upon which he was well qualified to speak, and the address, which occupied nearly one and one-half hour, was replete with good thoughts and practical suggestions.

A considerable amount of time was devoted to hearing reports as to the membership, working condition, efficiency, etc., of the subordinate Granges in the various States. Although the reports, as made by the different States, showed some decline in membership, there had been no decline in real efficiency, and the Order, as a whole, was pronounced stronger than it had ever been before.

Mortimer Whitehead, from New Jersey, the Worthy Lecturer, presented an able and interesting report. He dwelt at length upon the educational features of the Order, the relation of the Grange to railroads and other powerful moneyed corporations, the imperfections of our patent laws and the National Department of Agriculture. The report was a suggestive one, and was listened to with great attention and evident satisfaction.

Saturday was occupied mainly with the election of officers. The term of office is two years, and certainly no organization ever selected its standard-bearers with less unseemly strife or more deliberation. The Worthy Master announced the places to be filled and bade the members prepare their ballots. The Secretary then called the roll of States; the representatives advanced to the table of the tellers, depositing their ballots simultaneously with the call until the roll was finished; then the count was made and the result announced.

I append the full list of officers:—Master, J. J. Woodman, Michigan; Overseer, Put. Darden, Mississippi; Lecturer, H. Eshbaugh, Missouri; Steward, A. J. Vaughn, Tennessee; Assistant Steward, W. Sims, Kansas; Chaplain, S. H. Ellis, Ohio; Treasurer, F. M. McDowell, New York; Secretary, W. M. Ireland, District of Columbia; Gatekeeper, O. H. Dinwiddie, Indiana; Ceres, Mrs. J. J. Woodman; Pomona, Mrs. Put. Darden; Flora, Mrs. J. W. Nicholson; Lady Assistant Steward, Mrs. W. Sims.

W. R. LAZENBY.

Various.

WHAT OTHERS SAY.

A NEW MANURE.—At a recent sitting the Academy of Science (France) received a communication from M. de Molon relative to the production of a new manure suitable for the use of farmers. Manures of any sort, M. de Molon points out, can only serve for the nourishment of plants under the condition that they dissolve in the soil, and that such dissolution is produced under the influence of atmospheric agents, and more particularly of the carbonic acid accumulated in the soil by the decomposition of the organic matters it contains. In the special case of phosphates, this carbonic acid, dissolving in the water of the soil, plays the part of the acids employed in the manufacture of superphosphates, and gradually dissolves the phosphates. If, therefore, we could contrive to submit phosphate of lime, previous to its employment in agricultural operations, to an action similar to that which it undergoes in the soil, but more energetic, we should obtain it in the condition most favorable for assimilation by plants. Phosphate of lime mixed with stable manure before it has fermented, fulfils this condition. Marine plants, also, such as the Fucus vesiculosus and others which are met with in such abundance on many coasts, when combined with powdered phosphate of lime, are capable of producing a sufficiency of carbonic acid to beget chemical action. Successive layers of powdered phosphate and the wrack or sea-weed are piled together in a closed shed, or in a pit, in proportions necessary to induce fermentation, which will vary, of course, according to the nature of the phosphate employed and the variety and humidity of the wrack. The mixture is left to ferment for six weeks or two months, according to the heat of the weather, and if, after this interval, the decomposition of the organic matter is not yet complete, it must be turned over again, which will induce a fresh fermentation, completely decomposing the wrack, which disappears under it entirely. The manure thus prepared contains, besides the phosphate of lime in an easily assimilable form, all the elements of fertilization contained in the vegetable or animal matters employed—that is to say, the nitrogen, the mineral salts, potash, soda, and magnesia.

VACCINATION FROM THE COW.—Dr. Drysdale writes to the London Times saying:—"In the month of September, as member of the International Congress of the Medical Sciences held in Amsterdam, I had the advantage of visiting the general hospital at the Tour when vaccination from the calf was going on there. The room was full of mothers, with their infants ready to be vaccinated direct from the calf, which reclined comfortably on the table, while the physician performed the little operation of transferring lymph from the animal direct to the arm of each infant. I was informed that three-fourths of all the vaccinations in Amsterdam are now performed direct from the calf in this way." He thinks that the authorities ought to take up this matter. 1. Because in times when small-pox is epidemic, a quite unlimited supply of calf lymph can be obtained in about five days, while human lymph at such times is often quite insufficient. 2. Because when we—as he believes we have the right to do—force parents to vaccinate their children, we ought to give them the choice between human and animal vaccine. Vaccination, being the greatest triumph of hygienic science, should be made as popular as possible.

PRESERVING EGGS.—The Backer-und Conditor-Zeitung has put to a practical test a system of preserving eggs which has been lately recommended, and finds it to answer exceedingly well. On March 27, of the present year, the eggs were placed for an hour in a solution of 50 grammes of salicylic acid and a little spirits of wine, diluted with one litre of water, and afterwards packed away in bran in the cellar. At the end of June they were found in perfect condition, and as well flavored as if just fresh-laid. Autumn-laid eggs thus treated should keep good for a much longer time, as they would have all the advantage of colder weather in their favor.—London Farmer.

CABBAGE WORM.—We (Country Gentleman) have seen a statement in some of the papers that cabbages had been kept entirely clear of the insect by the aid of chickens, in a plantation of some thousands of plants. Screenings were first scattered to attract the fowls among the cabbages, and then discovering the worms, they kept the patch clear. We have found this method to answer well, provided the chickens are not full-grown; when older, they eat the cabbages. Young turkeys are still better; their keen eyes and quick motions allow nothing to escape. A member of the Elmira Farmers' Club kept his cabbages entirely free by cayenne pepper.

PAMPHLETS AND CATALOGUES.

THE SHEPHERD'S MANUAL; by Henry Stewart. At the present time there is no more promising branch of rural industry than sheep keeping. The increasing development of woolen manufacture offers an almost unlimited market for wools, both as regards quantity and kind, and the growing appetite for good mutton at home and the constantly enlarging export trade in live sheep and dressed carcasses, furnish an outlet for all the mutton that we can produce. The works upon sheep that are now extant, with a single exception, relate to past and gone facts and experiences, and are out of date and obsolete. The exception is the work now under notice, and which we have examined with much interest. It describes many breeds which have only been brought into existence by skillful and successful crossing during the past few years, and also points out the various districts in which the culture of these different breeds may be made successful in America. It is an American book, written by an American shepherd, who has made the rearing of sheep an especial business for years, and who writes of what he knows from experience. It is plainly and simply written, and is a manual for the man or boy who would keep a few sheep, as well as for those who are extensively engaged in sheep husbandry. A large portion of the book is devoted to the diseases of sheep, and contains not only the treatment of these, but, what is of far greater consequence, the means of preventing them, considering prevention as the best cure. The work before us is a new edition, revised and enlarged, and contains a chapter devoted entirely to a description of the important districts, North, South, East and West, where sheep keeping may be successfully carried on, describing the system and methods followed on the great Western plains and in California and Texas with much particularity. It is, in short, a book that is needed by every one who keeps a few sheep or who has a large flock, as well as by all who may ever own a flock at any time. The price is $1.50, sent post-paid by the American News Co., New York.

CATALOGUE of Michigan State Agricultural College, containing a full description of the objects of the institution, courses of study, names of students etc., and also, in a supplement, the triannual catalogue of the officers and graduates of the college.

Descriptive Catalogue of Fruit and Ornamental Trees and Shrubs of Oak Hill Nurseries, Brenham, Wash. Co., Texas. Also small fruits, Roses and ornamental plants in great variety. This catalogue will interest many of our Northern as well as our Southern readers

TEA CULTURE as a probable American Industry, by William Saunders, Superintendent of Gardens and Grounds, Department of Agriculture, Washington. A pamphlet of 20 pages, in which the author discusses the probable future of the tea plant in this country.

The Hessian Fly. A lecture by Prof. Cook, of Mich. State Agr'l College, sent prepaid by mail for 10c. It imparts information on the above subject, that every farmer in the country ought to possess.

Fourth report of the Montreal Horticultural Society and Fruit Growers' Association of the Province of Quebec, for 1878.

Transactions of the Massachusetts Horticultural Society for 1879—part 1.

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THE
RURAL NEW-YORKER.
PUBLISHED EVERY SATURDAY.

CONDUCTED BY
ELBERT S. CARMAN.

Address THE RURAL NEW-YORKER,
78 Duane Street, New York City.

SATURDAY, DEC. 6, 1879.

We are having many calls from all parts of the country for electros of our engravings. Months ago we offered to sell them for twelve cents the square inch. Our object in making the price so low was to place before as many interested readers as possible portraits true to nature, that might hasten an appreciation of valuable farm and garden plants. As, however, we are obliged to bear the expenses of the original drawings and engravings — a heavier item of cost than many may suppose— we felt that the Rural New-Yorker should be credited when such cuts were used in other journals. Such credit, however, has not, as a rule, been given, for which reason, and for others which need not be specified, we respectfully decline to sell our original cuts in the future for less than 25 cents per square inch, while we shall require the payment in advance. We cannot send proofs of our engravings to anybody.

When the *size* and *quality* of this journal are considered; its accurate *illustrations* from *nature*; the *standing* of *its* world-renowned *contributors*; its *exclusion* of *untrustworthy* advertisements; its Free Plant and Seed Distributions; its *market* and Special Reports from all parts of our country; its Experiment Grounds; its independence of all merely personal interests, we submit that it is *by far the* Cheapest Country Home Journal in the World. It will be sent from now until Jan., 1881, for Two Dollars.

We would state to the readers and subscribers of the Rural New-Yorker that we would be happy to send them specimen copies, free of charge, in any numbers that they would kindly distribute among their friends, upon receipt of a postal card making the request.

If any of our subscribers do not receive the Rural New-Yorker promptly, they will confer a particular favor by advising us of the fact.

The Rural New-Yorker will be sent from now until January 1st, 1881, for $2.00.

HIGHWAY FENCES.

This subject is attracting considerable attention. What is justice to land-owners, and what to the traveling public? Are existing laws and usages just, or did they grow up under circumstances that seemed to justify them, but which have changed? Do these changes require, or justify, a change in the laws? If so, what? If the farmer does not *himself* need road fences, has society a right to make him build them? If he chooses to "soil" his own cattle, or use his fields that border on the highway for grain fields or meadows, can the public require him to fence such fields along the highway to keep out *their* cattle? Between himself and his neighbor each farmer builds *half* of the line-fence. Can you ask him to build more than half between himself and the public? Can you require him to build any? Has the public any cattle and sheep? If so, should it not own a farm? Or is the whole highway the farm of the public? Each farmer buys (in most States) the highway bordering his farm. If his farm lies on both sides, he buys and *owns the whole road.* The public, for good and sufficient reasons, reserves the right to travel on it. Does it reserve any other right? *Has* it any other that it can reserve? Each farmer not only owns his highway land; but, in most States, pays taxes on it, just as on the rest of his land. Not only that, but a part of his whole tax goes for road improvement. If he "works out" his road tax, it is deducted from his tax total.

For his owning, tax-paying, and working of his own highways, he receives a part of his equivalent every time he drives to town or city over the roads similarly owned and kept in repair by other farmers and property-owners, and in a year he receives his full equivalent. But if the public claims the right to use the highway as pig-pen or cow pasture, or for any other purpose than for travel and the necessary driving of stock, how can the individual farmer get his pay for this use of *his land?*

Take another aspect:—In general, the highways are now fenced. Most of the fences are now made so as to harbor huge snow-drifts in windy stretches of land, that often completely block the highway. Has the public a right to object to this? Has it a right, as one correspondent, himself a farmer, suggests, to compel landowners to build wire fences that will not harbor drifts? or, to give him the right, as another correspondent suggests, and as the N. Y. law actually does, to lay his road-fences flat each fall, rebuild in spring, and commute, to the amount of the actual cost, for his next year's road-tax? Has it a right to *compel* this? But thus to level and rebuild stone-wall or board fence would cost, in labor and damage, ten times the annual road-tax, and to level a hedge is to destroy it.

Take still another aspect:—Suppose all road fences removed, as our correspondent suggests, and the ground cultivated on each side to the ditch that marks the line of actual necessary travel: can law keep the traveling public within those lines in muddy weather, or will men ride and drive on the less muddy turf of the adjoining meadows? Or, in summer, can cattle be driven on the highway without rushing through the grain fields and meadows that tempt them on either side?

These and similar questions are doubtless more easily asked than answered. One thing is certain:—the burden of road-side fencing, and the waste of untilled, uncropped road-side land, are immense. They amount to millions of dollars each year. Has the law a right to perpetuate this burden and this waste, unless both are absolutely necessities?

NATIONAL AGRICULTURAL JOURNALISM.

Probably there is no other agricultural or horticultural journal published whose circulation is more evenly distributed over our entire country than that of the Rural New-Yorker. Our reports, under the department of "Everywhere," show this to our readers, no less than our subscription lists show it to us. The present managers have labored to make this journal more and more *national*, so that, though published in New York, its readers should feel that its comprehensive views were as well adapted to the West and Far West as to the East; as well to the South as to the North. We do not care much for any interests that are so local that they cannot be made to unite with those underlying principles of agriculture which are everywhere the same. Whether we speak of fruits or grains; of grasses or vegetables; of shrubs or trees; of cattle or any other farm stock; of agricultural implements or of methods; of markets, domestic, or literary matters, we address neither individuals, sects, parties, nor States;—we write for all who are interested in the Farm, Garden, Orchard and Country-Home — *Everywhere.* We print our paper in New York because it offers to enterprise facilities offered by no other city in the country. But our contributors live in England, in Canada, in other foreign countries, and in every State in the United States. If persons, interested in so doing, would examine wherein sectional farm journals are peculiarly adapted to the North, South, East, or West, it would be found, we think, that one column weekly would suffice to present, in full, the agricultural methods *peculiar* to that section. County and State journals are valuable to residents, as they present facts which are interesting from associations, or an intimate knowledge of people and events. But those who would stand foremost in the art and science of agriculture, must free themselves of every vestige of sectional prejudice; must study the world's progress, and stand ready to seize upon that which, upon their own farms, may enable them to produce more with the same, or a less, amount of labor.

SELF-SUSTAINING EXPERIMENT GROUNDS.

We have been reading, in the Trans. of the Wisconsin State Agricultural Society, a discussion as to whether State Experiment Farms should be expected to maintain themselves from the products of the experiments. The object of an experiment is, as might be supposed, to discover something not previously known, or, at least, to prove something respecting which doubts previously existed. The past fall we have sown over twenty kinds of wheat. We do not *believe* that there is *one* of them that will *pay* us as well as Clawson, which we have cultivated for years. But we cannot *know* this without comparative tests. And these comparative tests, made in a small way necessarily, and for the most part by hand-work, let the harvest be what it may, could not possibly pay for the time and expense of conducting them. We have tried many different kinds of spring wheats, all of which were failures. Our "cultivation" of wheat was a failure, though it cost us a good deal of time and puttering. Last season an acre of our best land was prepared with the greatest care for new vegetables, not one of which proved to be equal to better-known sorts. Another plot was trenched two feet deep, and the soil loaded with fine, rich, old manure, and planted to mangels. A fourteen-pound mangel was the heaviest of the yield, while the yield of another plot, prepared with ordinary care, was better. We might multiply such instances, to show that we learn nothing, except what failures teach, from most of the experiments we make, and the loss attending them is such that they cannot be conducted if a *money*-profit is to be counted in the results. Yet it is by faithful and intelligent experiment alone that solid advances are to be made, and we have, therefore, little to expect from those experiment stations which are fettered by the condition that they must prove self-sustaining.

The farmers of the country may be divided into two classes, according to age and experience,—the old and the young. While there are many exceptions, as to each class, it must be admitted that the old are too prone to continue old ways and methods, and the young are too ready to disapprove of the old, and risk their interests on what is comparatively new. The true policy is, to cling to any custom until something better is learned; but to be sure, while clinging, to be on the alert for any improvement. Much of the life and interest of farming arises from its being a progressive work. Many important truths have been developed during the last few years, causing important changes in the means and methods of agriculture. Those who disregard these developments must, of necessity, fail to compete successfully with producers who judiciously adopt what is good in the new, and hold to that only which is good in the old. A plain, middle-aged farmer tells us that, in his community, the younger men are succeeding much better than the older, because the former are using more of the fruits of recent experience.

Mr. Robinson, the editor of the London Garden, referring to the several articles concerning the distinctions between good and scientific farming, that have appeared in these columns of late, writes as follows:—

"I was going to write to you some time ago, in sympathy with a man who held that good farming was scientific farming. I am no farmer, but I am often annoyed by this misuse of words, and such an expression as right theoretically and wrong practically is to me nonsense. I am sure such expressions are very much against progress in our art, and in all others, and I know they are wrong scientifically. They are declared to be so by Herbert Spencer, in one of his books. No man can be right in theory and wrong in practice, or *vice versa.* The real question is, right or wrong."

Our trees have never been so much infested with the bark louse as during the past two years, and—what is something unusual—the thriftiest trees are as much infested with them as those which have made little growth. We have been experimenting carefully with kerosene and other washes, in the hope of finding a remedy. In reply to a question, Mr. Charles Downing writes us as follows:—

"I have not had any experience with kerosene, and would not like to risk it. I have found potash, dissolved in water, a good remedy,—one pound of potash to one-and-a-half gallon of water—put on with a paint brush; and now is a good time, when the leaves are off, or any time before the buds begin to swell in spring. The trees should be washed as far up as there are any insects, even to the ends of the branches."

We find that several of our readers, accepting our suggestion, are working to produce a variety of tomato that shall keep better than any at present known in the market. One of our friends in Ohio has a cross between the Acme and Trophy, that will keep well for from 15 to 20 days. We ourselves, as before stated, have been *selecting* seeds for two or three years with this object solely in view. In another season we hope to be able to report our progress. In breeding for a better-keeping sort, we should never lose sight of productiveness, and that quality, so valuable in the Acme, of ripening about the stem.

BREVITIES.

The Plymouth Rock among fowls is just about what the Concord is among grapes.

Subscribers will now please send in their reports for corn premiums as soon as possible.

The Prairie Farmer says that "so far the Illinois Industrial University has only been playing with agriculture"!

We have received from Mr. John S. Collins, of Moorestown, one of the Kieffer "hybrid" pear trees, the fruit of which was illustrated in a late Rural.

Among our collection of Raspberries there are two sorts which hold their leaves still, for the most part, green One is the Gregg, the other the Cuthbert. Nov. 29.

Sutton's Magnum Bonum potato has proven so productive and so disease-resisting in England and Ireland that we propose importing a sufficient quantity another season to give it a trial here.

Those intending to make new strawberry plantations in the spring, cannot do better than to plow or spade up the soil *now.* The grubs of May Beetles, so destructive to this plant, will thus be exposed to frosts and killed.

Our next original portrait will be that of Ex-Gov. Furnas, of Nebraska, who, as we are informed, has devoted the greater part of his life to the interests of pomology in the Far West, and the greater part of his fortune as well.

We have twice tried to raise plants from Rhus glabra *var.* laciniata. Not less than 50 seeds were planted, but all failed to germinate. It would be interesting to know if seedlings from it would resemble most the variety or the species.

We have been eating some of our spring Plymouth Rocks and Black Cochins. All decided that the meat of the latter is sweeter, more juicy, and more tender. But there is more breast meat in the Plymouth Rocks of the same age. They mature earlier and lay earlier.

We have no longer any doubt as to the identity of Henrietta and Belle de Fontenay. The leaves dry up and adhere precisely in the same way. The petioles cling in the same way. Canes of the same stage of maturity assume the same color, etc. There are certain characteristics which, at this season, serve better than at any other to identify varieties.

In pruning trees, all stems half an inch or more in diameter, should be covered with some water-proof substance like grafting-wax or shellac, of the consistency of cream. The bark and outer wood will thus be preserved and the wound will in a season or so be covered with new bark. If this precaution be not taken, the end of the branch will decay from exposure to wind, rain, heat and cold.

It is a mistake, that some of our contemporaries have fallen into, to suppose that ice in cellars will mitigate frost, or in any degree serve to prevent plants from freezing. Tubs or pails of water will exert such an influence. The heat is given off during the *process* of freezing only. If the temperature of a cellar is above 32°, ice would serve to make the air colder in being converted from solid to liquid matter.

Within the past week we have received musk-melon seeds from Mr. Isaac Alter, of Lake Co., Cal.; sample of wheat from J. Millen, Topeka, Kansas; an apple from Mr. Charles Downing, which is being engraved; several new shrubs and trees from the Kissena Nurseries, of Flushing, Long Island; half a dozen packages of corn starch from G. Gilbert, of Buffalo, N. Y.; several potatoes, one fine specimen of Blount's corn, and several specimens of grasses for name—all of which will receive due attention in due time.

In consideration of the fact that the Holidays are close at hand, we suggest that our readers send to us for one of our *Premium Lists*, wherein over 100 articles are described suitable for holiday presents. We do not *sell* any of these articles, but would be very happy to *exchange* them for subscribers. We should much like to have these mementoes in the homes of our readers and (by the way!) the subscribers' names upon our books. Again, "by the way"—and this to our *wealthy* patrons (!):—Would it not be a capital idea, instead of purchasing perishable presents, to subscribe to the Rural for a few hundreds of the needy farmers and gardeners and fruit-growers living about you!

It is a pity that there is no word in common use that comprises both agriculture and horticulture. If we speak of the Rural as an agricultural or farm journal, we feel we do not do it justice, since it gives as much attention to horticulture as to agriculture, and the constant use of both words is out of the question. It does not seem that the word terraculture, though the right one by derivation, will ever come into general use. To speak of terracultural colleges, stations, and newspapers, would sound funny enough. Horticulture is properly garden culture, but it is now accepted as including fruit culture and flowers, shrub and ornamental tree culture also. We want one popular word that shall comprise everything that is meant by both agriculture and horticulture.

Mr. Charles Downing says of the Winter Nelis, engravings of which from nature appear on page 767, as follows: "It holds in our estimation, nearly the same rank among winter pears that the Seckel does among the autumnal varieties. It is a very hardy and thrifty tree and bears regular crops of pears which always ripen well. In perfection in December and keeps till the middle of January." The specimen from which our engraving was made, was grown in California and purchased in Washington Market this city. It was by no means the finest specimen we could find, as it was selected with reference to show average rather than the maximum size. This pear sold readily for the high price of 60 cents a dozen.

For Women.

CONDUCTED BY MISS FAITH RIPLEY.

THE HIGHWAY COW.

THE hue of her hide was a dusky brown,
Her body was lean and her neck was slim,
One horn turned up and the other down,
She was keen of vision and long of limb;
With a Roman nose and a short stump tail,
And ribs like the hoops of a home-made pail.

Many a mark did her old body wear;
She had been a target for all things known;
On many a scar the dusky hair
Would grow no more where once it had grown:
Many a passionate, parting shot
Had left upon her a lasting spot.

Many and many a well-aimed stone,
Many a brickbat of goodly size,
And many a cudgel, swiftly thrown,
Had brought the tears to her bovine eyes;
Or had bounded off from her bony back,
With a noise like the sound of a rifle crack.

Many a day had she passed in the pound,
For helping herself to her neighbor's corn.
Many a cowardly cur and hound
Had been transfixed on her crumpled horn;
Many a tea-pot and old tin pail
Had the farmer boys tied to her time-worn tail.

Old Deacon Gray was a pious man,
Though sometimes tempted to be profane,
When many a weary mile he ran
To drive her out of his growing grain.
Sharp pranks she used to play
To get her fill and to get away.

She knew when the deacon went to town,
She wisely watched him when he went by:
He never passed her without a frown
And an evil gleam in each angry eye;
He would crack his whip in a surly way
And drive along in his "one-horse shay."

Then at his homestead she loved to call,
Lifting his bars with her crumpled horn;
Nimbly scaling his garden wall,
Helping herself to his standing corn,
Eating his cabbages one by one,
Hurrying home when her work was done.

Often the deacon homeward came,
Humming a hymn from the house of prayer;
His hopeful heart in a tranquil frame,
His soul as calm as the evening air,
His forehead as smooth as a well-worn plow,
To find in his garden that highway cow.

His human passions were quick to rise,
And striding forth with a savage cry,
With fury blazing from both his eyes,
As lightnings flash in a summer sky;
Redder and redder his face would grow,
And after the creature he would go.

Over the garden round and round,
Breaking his pear and apple trees;
Trampling his melons into the ground,
Overturning his hives of bees;
Leaving him angry and badly stung,
Wishing the old cow's neck was wrung.

The mosses grow on the garden wall,
The years went by with their work and play,
The boys of the village grew strong and tall,
And the gray-haired farmers passed away
One by one as the red leaves fall,
But the highway cow outlived them all.

All earthly creatures must have their day,
And some must have their months and years;
Some in dying will long delay.
There is a climax to all careers,
And the highway cow at last was slain
In running a race with the railway train.

All into pieces at last she went,
Just like the savings banks when they fail;
Out of the world she was swiftly sent,
Little was left but her old stumpy tail.
The farmers' cornfields and gardens now
Are haunted no more by the highway cow.

THE WOMAN'S CLUB.

HIS MOTHER.

IT really seems too bad to have the subject of mothers-in-law dropped too soon, now that it has been revived after so long a rest, so I have decided to prolong the strain; besides, I really have something to say on the subject.

I desire to express my sympathy for the writer of the first article on this subject—the mother-in-law, I mean, who evidently wrote from the depths of a full heart. It is said that trials sometimes make us selfish; that is, if we hold them too closely before our eyes, they blind us to the trials of others, and I have thought, from the bitter allusions to "his mother," that such has been the case with the writer referred to, or, at least, that she has had only a one-sided experience, and that if she has sons, they are still unmarried. Old Fea's song in the fairy tale,

"Oh, my son's my son till he gets him a wife,
But my daughter's my daughter all her life."

like most quaint old sayings, is really true. In fact, a daughter, after marriage, is much more faithful to her mother than a son is to his. This is in the very nature of things, for a woman is more steadfast in her affections than a man is, or, at least, a woman's mind is never so completely taken up with the new interests that she forgets the old. This very fealty, unwisely displayed, may be the cause of much of the trouble between the mother and son-in-law. But it is not my purpose to discuss this side of the question, but simply to present some facts in behalf of "his mother." I ask, would not any mother consider it a far greater trial to feel the tender love of her child for her growing into indifference, his interest withdrawn from her, than to know that she is unappreciated by one who is not her own? and, indeed, can a mother-in-law expect what is withheld from a mother? Ah! there is greater void made in a mother's heart by the marriage of a son than by the marriage of a daughter. The daughter has only added to her care and affections; the son has transferred his. To be sure, the separation may be as sad and the presence of the daughter more missed than the son's, but there is a separation more complete than distance can make and a presence in which one feels more forsaken than in absence.

The bride might be held somewhat responsible for this, but I know that she is young and interesting, while "his mother" is not; so I will not hint that she may not be, even at this most interesting time of her life, wholly free from the great failing of the human race, selfishness, but will speak of one fault which is often a great source of annoyance to "his mother," and which, I believe, causes much of the unpleasant feeling between families thus joined, especially between mother and son-in-law. It is this:—From childhood up, the daughter, now the young wife, has been accustomed to confide to her mother everything, which is just as it should be, and cannot be too highly recommended; but now matters are somewhat changed—there is a new home. To be sure, a daughter may confide much to her mother, and gain greatly thereby, but in every home there are a hundred little circumstances occurring which should be sacred to that home, and should never be whispered to one outside its threshold. A man would never think of repeating them—we must give him this much credit—but the wife pours them into her mother's ear, with all that she knows or can find out about her husband's family. Why, tell her mother! of course, she always tells her mother everything! It cannot be expected of the most exemplary son-in-law, one that gives to his mother-in-law all due respect and love, that he will entertain this same feeling of confidence. It is not natural. It is impossible. He will always feel that there should be a reserve of confidence and a failure to respect and hold inviolate this feeling will arouse unpleasantness, and, to "his mother," who, of course, can hold none of this "kindred" feeling, this invasion of family secrets is a trial almost unendurable.

This vexed question has more than one side, and I have not begun to represent this side; but my article has grown longer already than I had intended it to be, so I hasten to close. Lecture the men on their duties as sons-in-law—the most of them deserve it; it will do the best of them no harm, and it may set them thinking—but spare "his mother" your bitter references. Her son is none too faithful to her at the best; she deserves your sympathy far more than your sarcasm. No doubt, in order that any degree of harmony shall prevail between families brought together by intermarriage, there must be a great amount of forbearance exercised by all parties, and, generally speaking, upon no one does there fall a heavier share than upon "his mother," and by no one is it borne more faithfully or cheerfully.

ONE INTERESTED IN BOTH SIDES OF THE QUESTION.

NOW-A-DAYS.

YES, there is a world of difference between doing housework now, and twenty-five or fifty years ago. Whether folks are happier is a doubtful question; that they are not as healthy, is certain. Women have a harder time than they used to have, notwithstanding all the conveniences, and patent rights, and labor saving inventions. I do not wonder at all, that they get all tired out, and are feeble and sickly, and it is strange that men do not see it, but I suppose people have to follow the fashions, even if it does make martyrs of them. Now when I commenced housekeeping, I expected to work hard; but my husband and I were young, strong and healthy. I was married Thanksgiving time, and it was Thursday night. We had a real old fashioned wedding, not such flunkin affairs as weddings are now-a-days. We stood up in the square room, and the minister tied the knot, and made a short prayer; then they kissed the bride, and such hosts of introductions as they had. I got used to my new name before supper was ready. All the people in the neighborhood were there. There was no aristocracy in town in those days. Everybody who behaved well, and was industrious, was respectable. We had wine passed around to the company, and everybody took a sip of it. For supper, there was roast turkey, chicken pie, plum pudding, apple pie, mince pie, pumpkin pie and custard pie. For vegetables, we had potatoes, turnips and squash, and there were sauces of all kinds, and tea and coffee. It was a good, substantial old fashioned supper, worth eating too, for my mother was a first-rate cook, and taught her girls to cook, also. After supper they cleared off the table in a jiffy, and we had a dance, no waltzing, or Germans, but a respectable dance. I led the first figure with my father-in-law, and my mother danced with the bridegroom, and my father, and his mother, danced together; we never broke up till two o'clock in the morning; but I was going to tell about keeping house, but ran off the track a little. The next morning we went to our home, it was a new house and there were only a kitchen, pantry and bed-room finished off. My setting out had all been moved over there the day before Thanksgiving, and so all we had to do was to walk right in and take possession. My brother went over before light and built a good fire, so it would be warm, and I do not believe there ever was a happier bride than I was, in my new home. Oh, what lots of work I did that winter! I spun and wove over seventy yards of linen; my father gave me the flax; and my house was as neat as a new pin. We used to go out for evening visits, or have company at home almost every night. He cut and hewed the timber for a new barn, and drew almost two thousand spruce logs down to the saw-mill. When I got dressed in the morning it was for all day; I did not spend two or three hours every day changing my clothes; if company came I was glad to see them, and set such victuals before them as I ate myself. We lived as well as our neighbors, for it did not do in those days to lay out all a man could earn in nicknacks, and if people now-a-days could be more economical they would be better off, and not have so many failures. The fact is, now-a-days, everybody is too extravagant. They spend too much on dress, on food, and in keeping up style. It will never do, never. A young man cannot get married now-a-days unless he has a thousand or two dollars to start with, he cannot afford it. A girl would turn up her nose at a nice, strong fellow, if he had not the stamps, and could not dash out in style; and unless a girl can dress and be right in fashion, she stands no chance to get the first offer. No matter how good and sweet she is, if she is not furbelowed out with feathers and flowers, and can put on airs, and drawl out her words, she can't get a beau. Every thing is changed now-a-days, and I do not believe it is much for the better either. It does not seem to me that people can be as happy and contented as they used to be. They can never be satisfied with their belongings. They want something more. Somebody dresses smarter, has nicer furniture, a better team, and so they are discontented and uneasy.

Talk about progressing!—it may be in some things, but take it all in all, the world is, to my thinking, no better than it should be, now. Common sense is done up in a napkin, now-a-days, and buried out of sight. Don't you think so?

GRANDMOTHER.

A "PURITANIC" VIEW OF "IN FOLLY'S NET."

DEAR MISS RIPLEY:—Will you kindly allow me a little space in your department for criticism or fault-finding, whichever it may be? It is not of yourself nor of the conduct of your columns, and the Dear Old RURAL in its completeness is usually so faultless, that it is with great hesitancy my pencil traces words of criticism on any matter printed in its ample pages. But as the leading story "In Folly's Net," develops from week to week, the impression grows upon me that if the Editor had known the end from the beginning, he would scarcely have given it a place in his columns. Surely, stories so full of emotion and romance, and whose counterparts are never found in real life, are not the best and safest reading for the young. Young people, and children almost without exception, read the *story* in the paper, whether they read the more solid parts or not; romance and fiction have magic charms for the young. Then how important that only pure, wholesome, mental food be placed before them, food which is conditioned to a healthy growth, and not stimulants which excite, while they do not nourish.

Life is a *reality*, and the sooner young people come to realize this the better it is for them. The highly wrought imaginative doings of lords and ladies in high life, have little in common with the Republican simplicity of young men and women in America for whom the RURAL is printed, and whose lives are more or less influenced and moulded by every weekly issue. False notions creep into the heads of silly young girls through reading romantic tales, which not unfrequently result in much harm. I think you will agree with me, that a large proportion of newspaper stories are ill no-wise beneficial—they do not tend to cultivate the mind or improve the heart, they simply excite the imagination. And while I would not place the story under discussion in the category of "positively pernicious," allow me to say in all candor, that in my humble opinion, its place might have been filled with something having a better influence—some pure, sweet tale of domestic life—or record of moral heroism and sacrifice for the good of others worthy of emulation. Possibly I may be Puritanic in my notions, but there is so much of wrong, and the path seems so short and easy to travel, and the boundary so indistinctly defined between the good and the bad, that it becomes every lover of right to stand like a rock in defense of the truth. Forgive me if I have been unjust in defense of the truth. Forgive me if I have been unjust in my criticism for the RURAL, I know it always aims to be on the right side, and that it exerts a vast influence for good.

MRS. W. C. G.

MISAPPLIED RIDICULE.

THE Massachusetts Legislature passed an act last winter permitting women to vote for school committees (which are elective by popular ballot in that State) on the same terms as men as to age, residence and registration, and on condition of having paid taxes within two years upon separate, real or personal property, or of paying a poll tax amounting to some dollars before registering. Under these circumstances a thousand women have been admitted to register in the city of Boston for the purpose of voting for members of the school committee at an approaching municipal election. The paucity of this number—the total male registration being more than fifty thousand—is made a pretext for ridicule by our neighbor, the Evening Post, which we think is undeserved. It strikes us, on the contrary, that it is a pretty formidable expression of feminine desire for suffrage when so many as a thousand women will go to equal trouble and expense to vote for a single class of officers which the fifty thousand men incur for the privilege of voting for a vast variety ranging in dignity from Presidential electors down. Suppose that a special taxpaying and registering were necessary to entitle men to vote for the school committee in Boston, what portion of the fifty thousand would volunteer the expense and trouble of qualifying for that purpose? Not a very great one, we imagine. Besides, the novelty of the experiment, the sensitiveness of women to publicity and their usually scanty control of money with which to pay poll taxes for a purpose disapproved in many instances by their husbands or other male connections, all must be taken into consideration. We feel far from ridiculing this female registration in Boston. It is the most respectable demonstration of desire for suffrage ever made by women anywhere in the country, both from the number and from the character of those engaged in it, who comprise some of the most staid matrons in the city, including several hundred property owners to an amount greatly surpassing the average of the male voters.

AUSTRALIA is the servant-girl's paradise. A lady in Melbourne, who had advertised for domestic aid, received a call from a pretty maid, with unexceptionable references, a pleasing manner, and a willing disposition. The lady was charmed and engaged her on the spot. "But I have always had a whole day's leave of absence every fortnight," the young girl remarked, pausing on the threshold, "and an evening a week besides." "You shall not be deprived of them," was the encouraging reply. "And this is a very lonely place, ma'am," the girl rejoined, "and I could not come home by myself. Would the master mind coming for me?" The lady hesitated a moment, but as a good girl is not to be picked up every day, she finally consented; and when her husband returned, she informed him that he would have to refuse all invitations for two nights in one week and one in the other in order to go after the new help.

CORRESPONDENTS' CORNER.

WHO is the author of "Prue and I," and is it a nice sort of a story? L. A. D

Indianapolis, Ind.

ANS.—Geo. Wm. Curtis. It is not a story, but a series of sketches of men and manners.

How shall I whiten my teeth? Is Sozodont good for that purpose? GERTRUDE.

ANS.—Do not try to whiten your teeth. If they are disfigured with "tartar" use prepared chalk and a small stick to clean them. All prepared washes are injurious to the teeth.

WILL you tell me who the father of the present Prince Napoleon was? A SUBSCRIBER.

Seabrook, N. J.

ANS.—King Jerome of Westphalia, whose first wife was Betsy Patterson, of Baltimore, and whose second wife—mother of the present Prince Napoleon—was Princess Catharine of Wurtemburg.

WE never learned until this autumn, that artichokes made such excellent soup, quite as good in fact, as salsify or vegetable oysters, and nearly as good as genuine oysters. The artichokes are first pared, then sliced, and the soup is made precisely as from vegetable oysters. MRS. W. C. G.

CAN you direct me to a reliable firm in New York, who make a specialty of new designs in floor coverings? MRS. L. B. D.

Lincoln, Neb.

ANS.—Messrs. Dobson & Co., Fourteenth Street, are manufacturers, and their assortment of carpets, rugs, mats, etc., is second to none in beauty and variety of design, and in excellence of material.

WHAT will be a suitable Christmas gift for a young girl who is fond of pictures? I cannot afford to pay more than three or four dollars for the gift. LUCY S. TATHAM.

Orange Co., N. Y.

ANS.—Imported photographs 18x20 inches, and so exquisitely fine as to look like engravings, can be bought for $1.75. A beautiful frame of natural wood with a French plate glass will cost $2.25, additional. Less elegant photographs, same size can be had for 75c. and $1 00.

I WANT to tell the ladies that if any of them have a fever sore which they want to get rid of, it can be done most effectually either by applying pulverized alum, or bathing it in water in which carbonate of soda has been dissolved. Some cannot use glycerine without it bringing out a crop of pimples, to all such I would recommend Vaseline. My own skin is so delicate that glycerine always acts on it as a violent irritant, and yet I can and do use Vaseline without any but the best effects. LINDA BROWN.

MY DEAR MISS RIPLEY:—At this season of the year, when making over is the order of the day, perhaps some of your readers may like the following directions for washing black cashmere or other dress goods:

Prepare the water, by putting in so much borax as will make it quite slippery. Wash the goods, using soap on the dirty spots; squeeze, but do not wring, and rinse in *very* blue water. Hang up the pieces until they stop dripping, then roll in clean cloths, until somewhat dry. Iron on the wrong side, being careful to iron until the goods are perfectly dry. Goods that are quite rusty can be made to look fresh by this process.

A very nice Christmas present for one's husband or brother,—or almost any one indeed,—is a pair of crocheted bath towels. They are made of No. 8 knitting cotton, and are done on a long needle, the square "Afghan" or "princess" stitch being used. One hundred and fifty stitches make an excellent width. When long enough, eight rows of loops (five stitches to each loop,) are crocheted on each end and a fringe knotted into the last row of loops. The towels are extremely pretty, and more satisfactory than any I have used.

Very truly yours, L. S. H.

Ithaca, N. Y.

Literary Miscellany.

IN FOLLY'S NET.

(Continued from page 779.)

CHAPTER XXII.

ACCUSED.

"ARE you going to Blair Gates this morning, Florie?" said Lord Sholto to his wife, as they rose from breakfast the day but one after Mr. Blair's funeral. "I wish you could get that poor girl to come over to us; she will not quickly get well or strong if she remains there."

"She is going to Edinburgh to stay with her Aunt Margaret, as soon as she is well enough to undertake the journey," said Lady Sholto, with a glance at her brother. "The complete change of air and scene will do her most good, she thinks. She was much better last night, Collins sent me word."

"She will improve rapidly as soon as she gets

away from these parts," said his lordship. "Well, her probation was not a very long one, poor child! I wonder how the unfortunate man came by his death?" he added, musingly. "I should not imagine he had done it himself; he was the last man in the world to commit suicide, according to my judgment."

"Some accident, perhaps," said Captain Murray, suggestively.

"Or some of the household who owed him a grudge," said Lord Sholto. "Although it is an awful thing to suspect any one of murder!"

"Awful, indeed!" said Lady Sholto, shuddering a little, as she slipped her hand through her husband's arm. "It seems very dreadful to think of any one dying so unregretted!"

"Poor fellow! he had not time to make many friends in this part of the world," said Lord Sholto. "If he has any, they are in Australia. His brother's widow is a cold, hard woman, who, it seems, has not forgiven him for inheriting the property which she thinks was hers by right."

"The inquest was very unsatisfactory, I think," said Captain Murray, meditatively. "They seemed to be able to discover nothing but that he was poisoned by arsenic; how administered, or when, it seemed impossible to ascertain."

"Dr. Mackenzie laid much more stress than was necessary on Jean's absence," said Lord Sholto. "Very few women but would have sunk under such a blow; and that cut on her forehead must have given her great pain."

"She was delirious for a day or two," said his wife; "and then her weakness was so extreme, it would have killed her to appear at that inquest."

"Are you going there this morning, Florie?" said Ida. "You have not answered the question."

"Yes; will you come?" said Lady Sholto. "I will take you with pleasure; but as I am going in the pony carriage, there is no room for Algernon."

"Ida, you promised to walk with me," said Captain Murray, quickly. "Have you forgotten?"

"No, of course not," said Miss Crawford, smiling. "You will be very cold driving in the pony carriage, Flo."

"I shall wrap up well," said Lady Sholto, laughingly. "Are you coming, Ida?"

"I suppose I must not?" Miss Crawford answered, smiling, with a glance at her *fiance*. "Algie says I am going with him."

"Getting her into training, Murray," said Lord Sholto, gaily. "What time shall I order the ponies, Florie?".

"In half an hour, dear," said her ladyship, and as she spoke she crossed the room and went to Lord Ivor's side where he stood near the window.

"Will you come with me, Archie?" she said, smiling.

"May I? Would it be right? You know what I would give to see her, Flo, but I cannot let people talk of her, poor child!" he said, eagerly.

"You can drive me there, and if she is well enough to see you, I think as an old friend you might be admitted," said Lady Sholto her affection for her brother, and her pity for his anxiety about Jean, leading her to commit a decided breach of *les convenances*, and Lord Ivor's eyes brightened a little as his sister left him to prepare for the drive.

The news of Mr. Blair's death had come upon the Earl like a thunderclap, and had for a time overwhelmed him; then the blood had rushed quickly through his veins, his heart had beat rapidly, furiously, joyfully. Mr. Blair's death meant freedom for Jean, and freedom for Jean meant happiness to them both. And ah! what happiness would that be! What a feast "of joy after its first course of misery!"

It was so horrible, and he felt it so, to rejoice at a death, especially one so sudden and terrible; but he could not still the rejoicings. He had gone to his room when the news had come to them, and in the solitude and stillness he had tried not to rejoice—he had put his head on his hands, and had thought of that sudden ending to a life which should have been great and noble and he had tried to be sorry for the man who had injured him so terribly; but, strive as he might, there was a tide of suffocating joy welling up in his heart which could not be kept back; which would rise in spite of all his efforts, when he thought that Jean was free, and that their suffering was over.

How they had suffered! Of Jean's suffering he could not doubt; its physical effects upon her were visible enough; his poor, drooping, pale lily, battered and beaten down by the storm which had passed over her, she would win back her roses when they were together again; win back, perhaps, those old bright smiles. Ah! no, never win back quite the old girlish sunshine; never the old mirthful smiles and bright *espiegleries*—the storm had been too heavy for that. The girl had become a woman, and her womanhood had dawned in darkness; but there was a rainbow in her sky now.

Yes, she had suffered—suffered as any loving woman will suffer when she thinks that through her folly she has brought a heavy sorrow on her dearest one; but had her suffering equalled his? Ah! no! his had been the anguish of a strong man who sees his dearest earthly treasure stolen from his very arms; who sees the cup of joy struck down when his lips had already tasted its nectar; and he had been forced to stand still under the blow, and let the storm beat upon him as it did upon his darling, knowing that he was powerless to shelter her from the tempest.

Those had been terrible weeks which had elapsed between that October day when he had said farewell to his love and his hopes in Lord Sholto's study, and that morning early in the year when the news of Mr. Blair's death had been brought to him; and now, in the reaction of his joy and his relief, he shuddered at the thought of the awful blackness of despair which had shadowed his life. Again he seemed to pass through those sleepless nights of yearning and anguish, those long, long days of sullen gloom, broken by sudden outcries for revenge, of a maddening thirst for vengeance on the man who had so cruelly avenged himself for a boyish ill-will during those days he had become haggard, worn, weary, morose and hopeless; he had felt his life wrecked, his career blighted, his ambition dead within him.

But now, all that was changed, hope relighted in his breast, ambition flamed up afresh. Jean had always so rejoiced in his political successes, and the love he bore for Jean need no longer be crushed and stifled; it might have free course now and they would be so happy—happier than they had ever been—happier than they ever would have been, if the trouble had never been, for they knew now what misery was, and the knowledge would but make them prize the happiness more.

He turned away from the window when his sister left him, and went out into the hall to throw on his great fur-lined coat. There was a light in his gray eyes which had been a stranger there for many weeks past, and there was a new, sweet music in his voice, as he thanked the servant who assisted him on with the overcoat, which even the footman could not but notice.

Lady Sholto, coming down in her velvet and furs, looked at the tall, graceful figure with a smile in her blue eyes. It made her happy to see her brother thus, for they had been very anxious about him lately—Lord Sholto and herself. But now it was his old self returning—the gray eyes were bright, the lines in his face were smoothed out the gold-touched fair hair was thrown back from a serene and cloudless brow.

"Are you ready, Florie?" he said, in his pleasant voice. "I hope you are well wrapped up, dear; the wind is very keen."

He put her carefully into the carriage, and drew the fur rugs round her before he got in himself; then he took the reins from the groom, gave the ponies their heads, and they started gaily.

It was a glorious January morning. The year had been ushered in by hard frost and sunshine, and there was a crisp, pleasant coldness in the air; a bright blue sky overhead, and the sunbeams shining on the trees of the park were clothing the branches with myriads of diamonds, and every blade of grass was sparkling with hoar-frost.

"What a glorious morning!" said the Earl, as they drove on. "It makes one happy to live!"

"And yet what a melancholy Jacques you have been lately, Archie! You said that to live and to suffer were synonymous."

"So they have been lately," he said, with a half smile. "I hardly can tell now how I lived through it."

"Poor fellow!"

"And that poor child!" he went on, in a moment. "The night we were at that ball, I went to her. I saw her leave the room, and I followed her. She looked so terribly ill and miserable, and she said she was longing to die. It almost drove me mad, Florence. I could have taken her from him then. I should have done so had I loved her less."

"Poor Jeanie!" sighed Lady Sholto. "Well, happier days are coming, Archie."

"Yes, thank Heaven!"

They drove on rapidly, slackening the ponies' speed as they entered the Blair Gates grounds. Half-way up the avenue a servant met them—a maid-servant, who had run down to meet them, with her face pale with terror, her eyes streaming with tears.

The Earl pulled up, his own face growing white with dread, as the fear of some new misfortune struck upon his heart.

"Oh, my lady!" sobbed the servant, in answer to Lady Sholto's agitated question, "do you know what you are saying? Oh, it is dreadful!"

"What is it?" said the Earl, hoarsely.

"They are saying that they are going to arrest Mrs. Blair," said the girl, piteously.

"Arrest Mrs. Blair! You are crazy!" said Lord Ivor, staring at her with incredulous horror in his eyes. "Arrest her! What for?"

"For the murder of her husband. They say that she poisoned him."

Lady Sholto uttered a little cry of pain, and sank back trembling, and covering her face with her hands. The Earl sat, with incredulous horror deepening in his face, uttering not a word.

"They say she hated him!" continued the woman, through her sobs. "Jean had been kind to her, and in her calamity she was faithful. "They say she hated him, and that she—poisoned him!"

A laugh broke from the Earl—a short laugh, bitter and mocking.

"Poisoned him!—Jean!" he said. "Fools and madmen!"

That was all; but in the next moment, as he urged the ponies on, Lady Sholto saw that her brother's face was white as death, and stern as the grave itself.

In a few moments they reached the house; the hall-door was thrown open, and a group of frightened servants were gathered round—the men flushed and excited, the women pale and trembling. A man came hastily down the broad marble steps and stood at the ponies' heads; the Earl sprang out, gave his hand to his sister to help her out, and as they went up the steps together, he held her fingers close in a clasp which hurt her in its unconscious vehemence.

In a minute they were among the group in the great hall, who parted to let them enter, and the steward of Blair Gates came hurriedly forward.

"Thank Heaven! your lordship is here," he said, huskily. "This is a terrible business!"

Before the Earl replied, he put his sister into a chair. She was faint and trembling with terror, and stooping over her, he said a few reassuring words; then he turned to the steward calmly:

"What is all this, Mr. Freeman?"

Hastily the man explained; Mrs. Fergus Blair, sister-in-law of the dead man, had arrived; she had long interviews with the doctors and lawyers; the death by poison had been proved; and to one person only did suspicion—nay more, suspicion supported by proof—point, to the wife of the dead man. Words which had been overheard, passionate threats and menaces, the doctors' suspicions, increased by Jean's awful terror at the death-bed, by her passionate refusal to be present at the inquest to answer any questions, all these things had told against her; she was to be arrested that morning.

"I expect them here every moment, my lord," added the man, with great drops of water standing in his cold, blue eyes. Man of business though he was, he could not but feel for the poor girl's terrible position. "What is to be done?"

"Where is she?" said the Earl, briefly.

"In her own apartments, my lord. She knows nothing. It will kill her."

"Who is to tell her?" said the Earl, growing white to his lips—white with a terrible pallor. "She must be told; it would indeed kill her to let the blow fall suddenly."

"No one dare tell her, my lord; Mrs. Collins is in great distress," said Freeman, sorrowfully. "Oh! my lord, it will kill her!"

The same thought was in Lord Ivor's heart, but he could not give it utterance. In mute pain, stunned with the blow which had fallen upon him—striking through her he loved—he stood for a few moments motionless,

"Florence, can you do it?" he said, at last, bending his head down to his sister where she shivered in the great arm chair.

"Oh! Archie, I cannot!" said Lady Sholto, faintly; and her brother saw that it was not a selfish dislike to trouble, but a physical inability which prompted her words.

The gray pallor deepened on the Earl's face as he spoke again:

"I must do it, then," he said, in a voice strained and broken with the intensity of his pain. "How shall I find the strength—where shall I get the courage to break her heart?"

"They are coming—they are coming!" said a voice from the group of startled maids, and Lord Ivor started.

"Florence, let me take you from here," he said, touching his sister's arm; and as she rose, he led her into one of the sitting-rooms, and called the servant who had met them in the avenue, leaving Lady Sholto to her care. As he turned to leave the room, Florence sprang up and threw her arms round him.

"Oh! Archie—what can I do?" she sobbed.

He bent his head over her, and his lips quivered with pain.

"What can you do?" he repeated, gently. "Poor child—nothing but pray for her—pray for me—pray that before they try her for this fancied crime, Heaven may be merciful and take her from her woe."

As he spoke, he put her gently from his arms and placed her in a chair; then, turning slowly, left the room on his fearful mission.

Men have stood bravely before a cannon's mouth ere now, and met a cruel death calmly, fearlessly; men have walked with a smile on their pale lips to their death on the scaffold for the love of right and liberty, and the world has extolled their courage, and history has given its record, and made their fearless, dauntless bravery immortal. Courage such as this was needed by Archibald, Earl of Ivor, as he went slowly up to the room where Jean was, carrying with him her sentence—a sentence more cruel than death!—To be continued.

FACTS ABOUT PHILATELY.

PRAKRAMA.

IX.—The Selection of an Album.

THE arrangement of a stamp-collection in such a manner that the specimens comprised in it shall be correctly classified, and readily examined and compared, is an invaluable aid to the study of Philately. An album is usually employed for this purpose, and great care should be exercised in its selection, as a mistake can only be corrected by buying a new album, in which case in transferring the stamps some of them may be injured. Those commencing the collection of postage stamps usually prefer an album with spaces ruled and descriptions of the stamps which they are intended to contain; but the advanced Philatelist will find this inadequate to his wants, as none published provides spaces for all the varieties which should be included. I would caution beginners not to buy albums containing pictures of stamps; for when, as is sometimes the case, these are larger than the stamps they represent, the latter, when inserted, will have very unsightly borders around them. If the Philatelist is desirous of having exactly such an album as his collection will be displayed in to the best advantage, he can have one made to order by any manufacturing stationer, and then rule spaces for every variety he intends to accept. Whatever classification is adopted should be adhered to throughout, and a combination of a geographical with an alphabetical arrangement is probably the best. Thus: all European postage stamps would be arranged alphabetically by the names of the countries emitting them, and would be separated from those of Asia, Africa, North America, South America, Australasia and Oceanica, the stamps of each of which divisions would be similarly arranged.

The revenue stamp collector should commence with a blank album and arrange it throughout himself, as none has been published—at least, none that I have seen or heard of—that is complete enough to be worth half the price asked for it. Some of the finest sets, like the United States Document stamps, the Documentos y Libros issues of Mexico and the fiscal stamps of Ceylon and British Guiana, are suitable for framing, and when thus displayed present an elegant appearance. Perhaps it may be found preferable to mount stamps on sheets of drawing paper and keep these in a portfolio, this method having at least one advantage, that the collection can be extended indefinitely. If an album is intended to contain cigar stamps among other kinds, it should measure not less than 22 inches across the page; but if these are not collected, it may be much smaller. In a large album, however, stamps can be displayed to much better advantage than in a small one. I have seen paper of a neutral gray tint recommended for albums; this would bring out some colors finely, but where the stamp was of the same color as the paper, the effect would be entirely spoiled; and this seems to me to outweigh the advantages. The national arms and flag of a country and portraits of its rulers form very pleasing ornaments for an album, and their use is quite general.

X.—How to Mount Stamps.

Adhesive stamps should never be attached entirely to the leaves of an album. If this is done they cannot be easily removed to make room for better specimens, and, what is more important, their backs cannot be examined for a watermark or other peculiarities. A stamp may be mounted very conveniently by gumming the end to a strip of tissue paper, which is then folded back and attached to the place prepared for it. The stamp can thus be raised for examination or removed without injury. A further improvement is the attachment of the tissue paper hinge to a piece of paper of the same size as the stamp, on which any interesting facts about it may be written; this is attached in the album by a few dots of gum on the back, one at each corner being sufficient. Other methods of mounting adhesives may occur to the Philatelist, and it would be well to experiment on common stamps as to improvements in this direction. Where stamps require washing, it should be done with the utmost care, so as not to fade the colors. The best way to remove paper from the backs is to float them face up on a dish filled with cold water. The colors of many Russian postage stamps and a few others dissolve in water and they must be kept entirely dry.

The best way I have yet seen for mounting entire stamped envelopes is to cut slits in the pages of the albums at distances a little less than the sizes of the envelopes, and insert the corners in them. Stamped newspaper wrappers may be folded and inserted in the same way. For postal cards, the album published by Scott & Co., of New York, will probably meet the wants of the amateur, as both sides of the card are exhibited. The only available way for exhibiting stamped letter sheets, and stamped match, medicine and tobacco wrappers, is to fasten them by the corners.

If the gum used in attaching stamps is not of the very purest quality, they will probably be ruined. The best gum arabic dissolved in cold water should be used. Prepared mucilage should never be employed, as it will in time change the colors of many stamps, and if the gum becomes sour the same results will follow. It is perhaps unnecessary for me to remark that the beginner should not cut off the perforations of stamps, but this has sometimes been done, and an equally absurd practice, that of cutting out the stamps from envelopes and wrappers is unfortunately very common. In consequence of this, many stamped envelopes are almost unattainable in an entire condition. When a stamp is unperforated it should never be trimmed unless cut very irregularly, as its value is enhanced by a broad margin, which is the only evidence that it has not been tampered with.

XI.—The Detection of Counterfeits.

With regard to stamps, as well as bank notes, it may be said that an acquaintance with the genuine article is the only safeguard against taking counterfeits, but with this knowledge it is usually easy to detect them. A large proportion of the genuine stamps issued have been engraved, and the imitations of them are frequently lithographs. If the collector would distinguish readily between these styles of printing, he can soon learn by examining various fine specimens of engraving and lithography with a microscope of low power, when the appearance of the work, particularly of the hair lines, will be found totally different. Counterfeiters usually follow the prominent features of the design very closely and fail in the details; for which reason it would be well to notice small peculiarities, such as the shading of the letters, the closeness of the groundwork, and when the stamp should be watermarked this is usually, if not always, omitted in counterfeits. The fine geometrical lathe-work, which occurs in many modern stamps, has very seldom been imitated so well as to be at all deceptive. If the Philatelist buys a stamp of a high denomination, and finds the engraving coarser than that on a low value of the same set, he may conclude that it is a counterfeit; and if a rare stamp is offered at a very low price, no careful collector will buy it until a thorough examination has proved its genuineness. Sometimes an enterprising swindler tries to sell stamps which have never had a genuine existence; but these ventures have seldom been very successful. It may be safely said that if Philatelists were always careful in their purchases and a trifle less eager to secure great bargains, they would seldom find that they had been victimized.

XII.—Good Advice.

In closing this series of articles on Philately I would like to give those commencing the study a little really good advice. The first point I would make is that the Philatelist should never buy stamps from any parties who give only a post office box as their address. This is not the way in which respectable business houses transact business, and is usually done with a direct intention to swindle the customer. I am not aware that a legally incorporated company is in existence in the stamp business, and when such a style is used fraud may reasonably be expected, or at least a desire to avoid responsibility for mistakes. If the collector lives in a city where there is a reliable stamp dealer, by all means buy of him, as no advantage gained in cheapness can equal that of being able to select specimens at leisure from a large stock. The following dealers, I believe, will be found entirely reliable, and any one of them will, doubtless, give satisfaction: Scott & Co., 146 Fulton St., New York, Wm. P. Brown, 145 Nassau St., New York, F. Trifet, 61 Court St., Boston, J. W. Haseltine, 1225 Chestnut St., Philadelphia, L. W. Durbin, 105 S. 5th St., Phila. As I have

confined my purchases in stamps entirely to New York dealers the others are given as they have been reported to me favorably.

Do not attempt the collection of every kind of stamps for unless you can spend several thousand dollars you will have a first-class collection of *nothing*. For instance, take the postage stamps of Europe; collect all the desirable varieties you can obtain; study them carefully; try and learn something new and interesting about them. If you do this you may obtain a fine collection in a few years and will derive more pleasure from the study than if you had a collection of every class of stamps, and nothing complete, nothing rare in it, no stamp or set of stamps which a Philatelist who saw it would care to possess.

Those who take up stamp-collecting merely as an amusement will find that like other amusements when the charm of novelty has gone it will become distasteful; while any one who really makes a study of Philately will find the field of his researches constantly expanding. The science has an intrinsic interest aside from the mere fact of rarity, and after an experience of ten years or fifty years the subject is not much nearer exhausted than when the Philatelist was dazzled with the first package of stamps.

MARK TWAIN ON BABIES.

At the banquet of the Army of the Tennessee, at Chicago, a toast was proposed to "The Babies." Mark Twain responded as follows:

"The babies."—As they comfort us in our sorrow, let us not forget them in our festivities. [Laughter.] I like that. We haven't all had the good fortune to be ladies. [Laughter.] We haven't all been generals, or poets or statesmen. But when toasts work down to babies, we stand on common ground, for we have all been there; we have all been babies. [Laughter and applause.] It is a shame that for thousands of years the world's banquets have utterly ignored the baby as if he didn't amount to anything. If you gentlemen will stop and think a minute; if you will go back fifty or one hundred years to your early married life [laughter], and contemplate your first baby, you will remember that he amounted to a good deal, and even something over. You soldiers, you all know when that little fellow arrived at family headquarters, you had to hand in your resignation. [Laughter.] He took entire command. You became his lackey, his mere body-servant, and you had to stand around, too. He was not a commander who made allowances for time, distance, weather or anything else. You had to execute his order whether it was possible or not; and there was only one form of marching in his manual of tactics, and that double-quick. He treated you with every sort of insolence and disrespect, and the bravest of you didn't dare to say a word. You could face the death-storm of Donelson and Vicksburg, and give back blow for blow [applause]; but when he clawed your whiskers and pulled your hair and twisted your nose you had to take it. [Laughter.]

When the thunders of war were sounding in your ears you set your face toward batteries and advanced with steady tread; but when he turned on the terrors of his war whoops you advanced in another direction [laughter]; and mighty glad of the chance too. When he called for soothing syrup, did you venture to throw out any side remarks about certain service being unbecoming an officer and a gentleman? [Laughter.] No; you got up and got it. If he ordered his pap-bottle, did you talk back? No; you went to work and warmed it. You even descended so far in your menial office as to take a sup at that warm, insipid stuff yourself to see if it was right, three parts water to one of milk, a touch of sugar to modify the colic, and a drop of peppermint to kill the immortal hiccough. I can taste it yet. [Roars.]

And how many things you learned as you went along. Sentimental young folks still take stock in that beautiful old saying, that when the baby smiles in his sleep it is because angels are whispering to him. Very pretty, but too thin. [Laughter.] Simply wind on the stomach. My friends if the baby proposed to take a walk at his usual hour, 230 in the morning, didn't you rise up promptly and remark with a mental addition which wouldn't improve the Sunday School book much, that it was the very thing you were about to propose yourself? [Roars.] Oh, yes, you were under good discipline, and as you went fluttering up and down the room in your undress uniform, you not only prattled undignified baby talk, but you tuned up your martial voice and tried to sing 'Rock a by, baby, in the tree top,' for instance. What a spectacle for the Army of the Tennessee, [roars of laughter,] and what an affliction for the neighbors, too! For it isn't everybody within a mile around that likes military music at three o'clock in the morning, and when you had been keeping this sort of thing up two or three hours and your little velvet had intimated that nothing suited him like exercise and noise, what did you say? You simply went on till you dropped in the last ditch. [Great laughter.]

The idea that a baby don't amount to anything! If the baby can't furnish more business than you and our whole Interior Department can attend to, he is not enterprising. Irrepressible, brimful of lawless activity, do what you please, you can't make him stay on his reservation. [Prolonged laughter.] Sufficient unto the day is one baby. As long as you are in your right mind, don't you ever pray for twins. Yes, it was high time for the toast-master to recognize the importance of babies. Think what is in store for the recent crop.

Fifty years hence we shall all be dead, I trust, and then this flag, if it still survives—and let us hope it may—will be floating over a republic numbering 200,000,000. According to the settled laws of increase, our present schooner of State will have grown into a political leviathan Great Eastern, and the cradled babies of to-day will be on deck. Let them be well trained, for we are going to leave a big contract on their hands. [Applause.] Among the three or four million cradles now rocking in this land are some which the nation would preserve for ages as sacred things, if we could only know what ones they are. In one of the cradles an unconscious Farragut of the future is at this moment teething. Think of it. And his father is putting in a world of dead earnest, unutterable, but perfectly justifiable profanity over it, too. In another a future renowned astronomer is blinking at the shining milky substance with but languid interest, the poor little chap, and wondering what is to become of him. In another a future great historian is lying, and doubtless he will continue to lie till his earthly mission is ended. [Laughter.] In another a future President is busying himself with no profounder problem of state than that of what the mischief has become of his hair so early, and in mighty array in other cradles there are some 60,000 future office-seekers getting ready to furnish him the occasion to grapple with that same old problem a second time. And still in one more cradle somewhere under the flag the future illustrious commander-in-chief of the American armies is so little burdened with his approaching grandeurs and responsibilities, as to be giving his whole strategic mind at this moment to trying to find out some way to get his own big toe into his mouth. [Applause.]

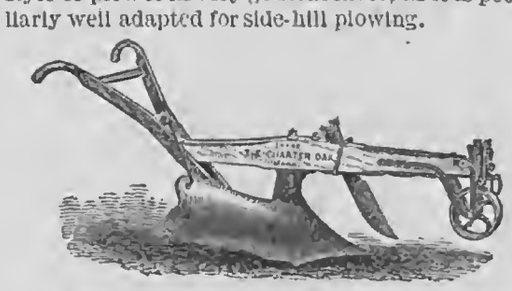
SMOKING IN PUBLIC CONVEYANCES.

The question has been asked, have the managers of public conveyances the right and power to put off from their vehicles people who persist in smoking? The answer is that the right and the power generally exist in such managers to make and enforce reasonable regulations for the comfort of the general public, and the prohibition of smoking comes within the rules, until it can be proved that tobacco smoke is not noxious nor offensive, and that the great majority of persons are smokers. Smoking is an indulgence, not a necessity, and no man has a right to procure his personal pleasures at the cost of inconveniencing and annoying others. But underlying all this the point of gentility comes up.

Will any gentleman insist upon smoking in a public conveyance when he cannot help knowing that in doing so he is annoying both women and children, and often causing them serious trouble and nausea? Some flippant reasoners try to draw the line at a cigarette or a mild cigar, but the offence against good manners is the same, differing only in degree. Tobacco smoke is tobacco smoke, though some may only make a lady sneeze, while some is strong and rank enough to upset a delicate stomach entirely. A gentleman is known, not by his style of dress, but by his consideration for the feelings and comforts of others. The same applies to tobacco chewers, who distribute their saliva in public places to the injury of women's dresses and the annoyance of all people of delicate sensibilities. The difficulty, however, in talking about these matters with an eye to the public comfort lies in the fact that persons who are guilty of these habitual breaches of decorum are not likely to heed any remonstrances, no matter how pointed and emphatic.—*Baltimore American.*

PREMIUM NO. 57.

This premium is the Charter-oak swivel plow, that is made and supplied to us by the Higganum Mfg., Corporation. In the Eastern States this style of plow is in very general favor, as it is peculiarly well adapted for side-hill plowing.



Our illustration shows the plow we offer, which is full-rigged. It is a two-horse plow. This is thoroughly a farmer's premium, and is a capital gift to receive for sending us only 18 subscribers. Our new premium list contains quite a number of farming tools that will be acceptable on almost every farm, and certainly no simpler or better way could be devised to turn the idle winter days to profitable account than by placing a good paper in the hands of your neighbors, and receiving a useful present in return for your trouble.

RECENT LITERATURE.

Harry Ascott Abroad. By Matthew White, Jr. New York: Author's Publishing Co. 115 pp. Price 60c.

This is an American boy's experience abroad, charmingly narrated in genuine boyish spirit; and with a naturalness that fascinates while it instructs. He hunted out the wonders which boys delight in, and describes them with continuous interest.

The peculiar sights of Hamburg, Frankfort-on-the-Maine, Heidelburg, Baden-Baden, Stuttgart, Nuremburg, Dresden, Berlin, Cologne, Bale, Berne, Interlaken, Lucerne, Paris, London, etc., fairylike castles, eccentric acquaintances, royal turnouts, curious student caps, chairs that played tunes when sat upon, glittering hussars in white boots, horse cars made wrong side out, and thousands of other oddities and pleasing curiosities for young eyes, are charmingly described.

MAGAZINES FOR DECEMBER.

Appletons' Journal.—Contents: Memoirs of of Madame de Remusat. (Continued); Vivian the Beauty, by Mrs. Annie Edwardes. (Conclusion); Some Aspects of Robert Burns; The Seamy Side, by Walter Besant and James Rice. Chapters XXII. and XXIII.; Parliamentary Government in America, by Horace White; Charles James Matthews; Domestic Art, by Eustace Balfour; Fragments: Dr. Hillebrand on Modern England; George Eliot as a Godless Writer; Editor's Table: The Purpose of Fiction—Histrionic Realism—The Obelisk; Books of the Day: The Light of Asia—Blanid—Bayard Taylor's Studies in German Literature—Apthorp's Hector Berlioz—What Mr. Darwin saw in his Voyage round the World in the Ship Beagle—Jules Verne's Exploration of the World—Harper's New Latin Dictionary—Early Christian Literature Primers.

The Purpose of Fiction.—" " " Now, the real reason for the novel, the why and wherefore that men and women delight in the fictitious fortunes of other men and women, is because something is given which supplements nature, which bestows that which life too often denies. Every man has at heart a passionate love for what may be called the symmetries of fate—for the rewards that follow earnest and honest endeavor, and the justice that gives us finally full compensation for all that we endure. Through all the calamities and mishaps that surround us, we dream of possibilities—we imagine the good that will come by and by to cheer us; of difficulties that are assailed and overcome, of enemies that are put down, of the felicitous completion of our schemes. And it is exactly because these dreams so rarely come true in real life, that we delight in those inventions called novels, wherein wrong and suffering are suitably rectified. When mischance pursues us, there is sweet compensation in following the career of a hero who overcomes misfortunes, and wrests things to his own ends. In real life, bitterness and jealousy may be felt at the better fortunes of other men; but in the novel the hero is the very reader's self, and all the felicitous achievements and successes are enjoyed with almost as much zest as if they were his very own. The very foundation of fiction, its significance and meaning, lies in this power to reflect each reader in one of the principal personages. It shows us what we would like to do, and what we know we feel. " " " If fiction did not succeed in getting us out of ourselves, in creating worlds more delightful than the world we experience, in fashioning things better to our liking than Fate fashions them, it is certain that novels would go generally unread. " " "

Distinctly, nobody wants novels that reproduce all the sufferings and struggles of real life unless supplemented with those compensations that in real life ought to follow, but rarely do; for the novel is nothing more than a device for setting the disorders of life right, and making us all happy by the contemplation of final, and so often rightly called poetic justice. The novel that does not do this thing for us may entertain a good many people by its character sketches and its descriptions, but, in missing the fundamental purpose of the novel, must fail to command the earnest sympathies of the general world of readers.—*Appletons' Journal for December.*

Phrenological Journal. Contents: — Henry Kiddle, Late Superintendent of New York City.—With a Portrait; The Vow of Faith; The Color Sense; The Elevation of the Individual; The Town at the End of the Rainbow; Henry C. Carey; The Skimmias.—Illustrated; Henry A. Hartt, M. D.—With Portrait; "Unwarrantable Positions;" Comparative Value of Common Articles of Food; The Earth Cure; Nurse Girls. Poetry—In the Van; A Boyhood's Memory. Editorial Items.—To the Reader; Sponges; Some Very Common Lunatics; Popular Inanity; Further Showings from French Sources; Memory Strengthened by Practice; Causes of Sudden Death, etc. Notes in Science and Agriculture.—A Cave Wonder in Arizona; Forest Consumption; Iron and Glue in Street Dust; Hard and Soft Water; The Production of a Single Bean; A Horse Killed by Tea; Apples Every Year; The Blood in Diagnosis; To Remove India Ink in Carpets; A Home-made Galvanic Battery; To Get Rid of Rats; Grafting Grape Vines. Answers to Correspondents.—Conscience; Location of Organs; Mushrooms and Toadstools; Children and Flesh Diet; Physiognomical Sign: Unwholesome Cookery; Glucose and Digestion; Immortality and Immorality. Our Work, and What our Friends Think of it. Personals—Wisdom—Mirth—Library.

Causes of Sudden Death.—Very few of the sudden deaths which are said to arise from disease of the heart do really arise from that cause. To ascertain the real origin of sudden deaths, an experiment was tried and reported to a scientific congress at Strasburg. Sixty-six cases of sudden death were made the subject of a thorough post-mortem examination; in these cases only two were found who died from disease of the heart. Nine out of sixty-six had died from apoplexy, while there were forty-six cases of congestion of the lungs—that is, the lungs were so full of blood they could not work, not being room enough for a sufficient quantity of air to enter to support life. The causes that produce congestion of the lungs are—cold feet, tight clothing, costive bowels, sitting still until chilled after being warmed with labor or a rapid walk, going too suddenly from a close room into the air, especially after speaking, too hasty walking, or running to catch a train, etc. But one of the signal reasons for congestion of the lungs and sudden death is the decreased action of the heart, caused by the use of coffee and tobacco. The use of spices has a similar effect. The heart stops from a paralysis of the nerves which promote its action, and a post-mortem examination would not reveal the fact. There is really no disease of the heart, simply a suspension of its action by a paralysis of the nerves which give its motion. These causes of sudden death being known, an avoidance of them may serve to lengthen many valuable lives, which would otherwise be lost under the verdict of heart complaint. That disease is supposed to be inevitable and incurable; hence many may not take the pains they would to avoid sudden death, if they knew it lay in their power.

The Youth's Companion.—The extraordinary popularity of the Youth's Companion, with its circulation of nearly 140,000, is a gratifying proof that a first-class, pure and high-toned family paper is widely appreciated. It may be safely inferred that, in any home where the Companion is found, none of the objectionable periodicals that flood the country can find access. The care with which the proprietors of this paper have guarded their pages against anything of a detrimental nature, either to mind or morals, has thus far been amply rewarded, and no publication in the world furnishes its readers with more narratives, stories, sketches, adventures, anecdotes, poems, jokes, puzzles, pictures, descriptions of foreign lands, travels, tales, biographies, articles on the social, moral, political, financial, literary and scientific questions of the day, than the Companion, all being original, and from the pens of the best writers of the age. The Companion is a weekly, published by Messrs. Perry Mason & Co., 41 Temple Place, Boston, at the extremely moderate price of $1.75 a year.

VARIETIES.

THE HEALTH TO MISS O'NEILL.

The death and burial, last week of a poor forlorn old woman of 80, the once famous Washington belle, Mrs Eaton, who in General Jackson's time caused so much stir, by her resolute will as well as her beauty, has revived, among other things, the fact that it was she of whom Edward Coate Pinkney, half a century ago, wrote his famous song, which was afterwards published under the caption "The Health," and was widely and deservedly admired as a fine and polished piece of literary work, as well as for its spirit. Pinkney, though an American in everything but the accident of his birth (his parents happened to be abroad at that time), was born, like Praed, in London, and in the same year—1802. Pinkney died prematurely, in 1828, or he might perhaps have produced poems still more notable. Here is his famous "Health," in honor of the then beautiful Miss O'Neill:—

"A HEALTH TO THE MOST BEAUTIFUL WOMAN IN AMERICA."

I fill this cup to one made up
  Of loveliness alone,
A woman, of her gentle sex
  The seeming paragon,
To whom the better elements
  And kindly stars have given
A form so fair, that like the air,
  'Tis less of earth than heaven.

Of her bright face one glance will trace
  A picture on the brain,
And of her voice, in echoing hearts
  A sound must long remain;
And memory such as mine of her
  So very much endears,
When death is nigh my latest sigh
  Will not be life's but hers.

Affections are as thoughts to her,
  The measure of her hours:
Her feelings have the fragrancy,
  The freshness of young flowers.
And lovely passions changing oft
  So fill her, she appears
The image of themselves by turns
  The idol of past years.

I fill this cup to one made up
  Of loveliness alone,
A woman of her gentle sex
  The seeming paragon.
Her health! And would on earth there were
  Some more of such a frame,
That life might be all poetry,
  And weariness a name!

The London Times thinks it is well for the credit of the British nation "that foreigners do not habitually study the reports of the business done at assize towns. It is well, too, that races whom it is our work in the world to teach, elevate and civilize do not know of the unfailing tale of brutal acts of violence which come before our criminal courts. The knowledge of these ugly facts might be seriously injurious to the good name and moral influence of England." The particular case which excites this comment is as follows: A shoemaker asked his wife for a shilling. She refused to give it to him and he accordingly rushed at her, struck her violently, knocked her down, dragged her across the road, dropped her in the gutter, kicked her on the head and upper part of the body, and then took away her shilling. The next day he called in the doctor, who arrived after the woman was dead. During all this time both the man and his wife were sober; drink was not the excuse. The man was put on trial for feloniously killing his wife, not for murder or manslaughter. He was found guilty, but recommended to mercy. The lord chief justice of England sentenced the brute to six months' imprisonment with hard labor. It does not seem to be very hard to understand why violence is common in a country where that is deemed adequate punishment for such a crime.

Dyeing the Eyes.—A learned German doctor has, it is announced, discovered a means of dyeing the eyes of animals in general and of man in particular any color he pleases. He is accompanied on his travels of propagation by a dog with a rose-colored eye, a cat with an orange-red eye, and a monkey with a chrome-yellow eye. But the most curious specimens of his art are a negro with one eye black and the other blue, and a negress with one eye gold-colored and the other silver white. The doctor says the process of ocular transformation, far from injuring the sight, strengthens and improves it.

According to the "Parisian" the wedding-dress of the future Queen of Spain will be of white baccarat, covered with a court mantle of excessively fine lace. All the escutcheons of the ancient kingdoms of Spain and their alliance are reproduced by a process hitherto unknown. The escutcheons form the border, and the ground of the mantle is flowered. The bridal veil is a reproduction in miniature of the mantle. The gala toilette will be of gold brocade, embroidered with touffes of roses in relief, joined together by bands of myosotis and little feur-de-leus. Another grand reception toilette will be of silver brocade embroidered with geranium flowers of all shades.

Domestic Economy.

CONDUCTED BY EMILY MAPLE.

LOG-CABIN SKETCHES; OR, JESSIE SEABRIGHT'S DIARY.—No. 9.

MAY MAPLE.

September 24, 18—.

How the weeks glide by; and oh! such busy ones! I often wonder how so many of my neighbors can find time to visit so much, and then complain of being lonely if they are compelled to remain with their families for a day or two. My time is so fully taken up that I never think of being lonely. Yet I enjoy the society of my friends most intensely when I am privileged to meet them.

For the last few weeks all my spare time has been employed in making a pair of white bedspreads. I used the heaviest sheeting, bleaching it myself till it was pearly white. I marked one in diamonds and the other in checks an inch wide. Then I tied in coarse knitting cotton so that it looked like little balls of fringe. The spreads were really pretty, and the material for the pair cost only $1.50. This I earned picking berries and selling them to those of my neighbors who had either no strength or time for such work. A week or two ago John invited me to go over to Mr. White's. So I took one of my counterpanes and rolled it up into a snug parcel, and carried it to Louise for a present.

I think I never saw anyone more pleased with a costly gift than she was with my humble offering. Of course we enjoyed the visit, as we always do, and had many a merry laugh as we looked about the cosy home, finding so many counterparts of the "Seabright Cabin." Soon after our entrance to the house, Mrs. White called my attention to some improvements her husband had made quite recently; for instance, a flight of stairs in place of the ladder.

"Oh! that is nice," said I. "I wish Mr. White would let his mechanical cloak rest on John's shoulders for awhile, for that is just what we need so much."

"Why," said John, who was standing near, "I thought my wife was a born carpenter, and I have been looking for those stairs to make their appearance for the last six months."

"That being the case, you shall not look in vain much longer," said I.

But how the work was to be accomplished was more than I could tell. And for the next ten days I thought of but little else. There was no way that I could see for getting the material, for my purse was nearly empty—no new thing—and there seemed no way of replenishing it.

Yesterday morning I had scarcely finished my work when our friends, Mr. and Mrs. White, drove up to the door, with what appeared to be a wagon-load of lumber. And, sure enough, when Mr. White came in, he brought in a flight of steps, and told Louise to move the ladder out of his way. In half an hour the stairs were placed and the partition boards up. Of course, Louise and I had not been silent all this time; but when the work was all done, Mr. White turned to me, with a low bow and mock gravity, and said: "Accept this little service from your friend Louise and her other half, as a token of sweet remembrance for your own kind deeds." We both laughed at his dignified speech, but the tears would come to my eyes as I thanked them most heartily for this unexpected gift.

When John came in an hour later, he declared there must have been conjurors about the house; and at night, when he went upstairs to bed, he thought our present really worth having; he had never thought there was so much difference.

Ah! he had not been obliged to climb that ladder twenty times a day, bundles and boxes in hand, and at the same time holding up dress skirts from beneath the feet, or he probably would have found, long ago, that a ladder in the house for a woman to climb was not a convenient thing.

A LITTLE GIRL'S CLOTHING.

E. K. R.

I HAVE just been dressing my little nine-year-old daughter in her winter clothing, which I have been at work on for several days. She and I are so delighted with the suit that I am tempted to describe it for the benefit of other mothers, who may be as ignorant as I once was of making clothes in the most healthful and comfortable manner.

First comes a high-necked and long-sleeved red flannel chemise. The neck, which never is seen above the dress, is simply bound with plain red calico and the short opening down the front is also faced with that; but the sleeves I button-hole-stitched in small scallops with red worsted, which would look a little neater in case they accidentally showed at the wrist. The binding, however, wears a little better for the neck. Next comes a long waist made of brown drilling (waist lining) fitted, but loosely, by seams under arms and on shoulders and buttoned up the back. On the lower edge, directly under each arm, is a button-hole into which one end of the stocking elastic is buttoned, the other end is fastened to the stocking by a buckle. There are two rows of buttons around the waist, the lower ones for the drawers, the upper ones to fasten the skirts upon, so that there might not be the slightest dragging upon the hips.

If all of the present mothers would take these precautions, to *suspend the clothing upon the shoulders instead of the hips*, would not that be one step toward insuring better health for the coming generation of women? The drawers, of thick, firm flannel, are made long enough to reach underneath the stockings to the tops of the high-buttoned calf-skin shoes. They are cut quite tapering, so as to fit rather snugly below the knee, (not to fill the stockings too much), and are left open three or four inches at the bottom, to allow drawing on easily. This opening is lapped together before pulling the stocking up. To avoid all clumsiness possible, the drawers are not hemmed, but are overcast with needle and thread. On best occasions a pair of muslin drawers tucked, puffed, or embroidered at pleasure, may be worn over these; but they are unnecessary for "every day." The skirt is butternut-colored, thick, home-made flannel, cut goring and trimmed with three rows of narrow, black braid just above the hem. The band at the top is made of strong drilling with button-holes for attaching to waist. The bands to the drawers should also be made of strong cloth, or they will be worn out before the flannel is. Her dresses are all cut after the Princesse pattern and made without much trimming, as large aprons nearly cover them.

Gingham always seems the most suitable apron material, and yet my little girl loves best one made of bright, pink calico, which was her own selection at "our country store." Children like pretty colors best, and why not indulge them sometimes, even if it isn't "the fashion to wear 'em."

THANKSGIVING WINE AND BRANDY IN RECIPES.

MRS. EMILY MAPLE:—I have been a reader of the RURAL in all its departments and am especially interested in that conducted by you; for what woman or housekeeper is not? In last week's number—Nov. 15—I notice some Thanksgiving items. That from Clinton Co., Iowa I most heartily approved of, for it has always seemed to me a sinful waste of time and strength to spread such *loaded* tables before our families and friends upon Thanksgiving or any other day. *Enough* and *good* is *good enough*. We are naturally a gormandizing people, who cannot withstand temptation of good things. In the same number of the RURAL are many good and inviting recipes for Thanksgiving preparations. But the wine and brandy found in some of them are dangerous. If dangerous in the saloon, surely they cannot be less so upon the home table prepared by the mother's hand! Old appetites have been aroused and new ones formed, which have led to ruin, by the use of these articles in the preparation of food. Uncle Mark refuses to publish a recipe for making wine, to which I call attention. If these few words may set some mothers to thinking of these things, my effort will not be in vain. Yours, for the general good,

MRS. E. W. BENEDICT.

QUESTIONS ANSWERED.

Boston Brown Bread.

Wanted—A good recipe for the above.—GEO. HENDERSON.

ANS.—One heaping coffee-cupful each of Graham flour, rye flour, and Indian meal. Sift all together, and mix thoroughly with two coffee-cupsful of molasses, two of sweet milk and one of sour, a teaspoonful of salt, and a dessert spoonful of soda.

Pour into a buttered tin pail or form; the batter should not quite fill it, as it must have room to swell; cover tightly, place in a kettle of cold water, put on and boil four hours, looking, from time to time, to see if the water is boiling away, and replenishing always with hot water. The water should not boil over the top of the form. Take the bread out at the end of the four hours, and set with the lid off in the oven for about ten minutes. This is to dry off the outside steam and form a tender crust.

To Roast a Pig.

Wanted—Directions for the above.—MRS. E. NEWTON.

ANS.—See that the pig is well cleaned; wash in two or three waters—a little soda may be added to the first water; wipe dry inside and out.

Prepare a dressing of crumbs, seasoned with a little minced onion, two teaspoonsful of powdered sage, yelk of an egg, salt, pepper, and butter, and moisten with a little water, Stuff into his original shape. Sew up, place in a kneeling position in a dripping-pan, skewering the legs in place. Pour a little hot water in the pan. Baste once or twice with butter and water; afterwards with the gravy in the pan. Roast in a moderately-heated oven from two hours to two hours and a half. To keep the skin from cracking, rub every few minutes with a rag dipped in melted butter. Garnish with parsley, or blanched celery tops.

News of the Week.

MISCELLANEOUS.

Monday, Dec., 1, 1879.

A brief summary of the President's Message may be given as follows: The President congratulates Congress upon the success of resumption, but takes the ground that unless the coinage of silver dollars is limited, gold will soon begin to flow out of the country and will be replaced by silver. He says that as it has been the policy of the government, ever since the adoption of the constitution, to pay all indebtedness as soon as possible after it has been incurred, a sinking fund should be provided by which the public debt can be paid within some limited time. Very decided ground is taken in regard to polygamy in Utah. This Territory will soon demand admittance as a State, and he recommends that polygamy be made a bar to suffrage and to the sitting on juries, and that the test oath be used to ascertain the facts. Considerable space is devoted to civil-service reform, and the improved condition of the public service is referred to, with the recommendation that a commission be appointed to consider the subject and act as an advisory board. The President reports a very agreeable condition of affairs with all foreign nations. He advices against reopening the question of transferring the Indians to the care of the army. He also gives renewed attention to the election laws, and urges that a sufficient sum of money be promptly appropriated to pay marshals for whose services Congress at its last session refused to pay.

From Boston we learn of the following sudden deaths:—William A. Heeney, of Cambridge, while intoxicated fell down stairs last week and broke his neck. James Woods, of Greenfield, shovelling sand was buried alive, the embankment giving way. Charles Stevens, a bachelor farmer, of North Pond, aged 45, was found insensible in his barn. His skull was fractured. It is supposed that he fell from the scaffold. He died.

A terrible explosion of a portable saw mill occurred at Rush Creek, Indiana, last week. The mill was blown to atoms. Joseph Hanger, engineer, was struck by a piece of the boiler and carried across the highway. The body was found an unrecognizable mass. Three school children near the mill, were cut and scalded, but not fatally. Most of the mill hands were away at the time and escaped. The mill was old. Hanger, on leaving home, Monday, said to his mother: "I'll be home Saturday, unless the old boiler blows up and kills me."

The fools are not all dead yet. One day last week a young man named George L. Sherry of Brooklyn, attempted to commit suicide by shooting himself in the left breast. He gave as the reason of this outrageous act, that he was suffering from ill health from which he thought he could not recover. His wound may prove fatal. Another man, also of Brooklyn, named John S. Francis, attempted to take his own life in the same manner and on the same day. He may possibly recover. He could give no reasons for the act.

The Smithsonian Institution has received from Professor Forester, of Berlin, the announcement of the discovery by Palisa, at Pola, November 24, 1879, of a planet of the eleventh magnitude, in two hours ten minutes right ascension, 15 deg. 15 min. north declination, with a daily motion of 40 sec. in right ascension and one minute south.

An enormous fire on the 25th ult. completely destroyed the stables belonging to the Eighth Avenue horse railway, situated at Eighth Avenue and 49th street, this city. The fire broke out about six o'clock in the morning, at which time there fortunately were assembled a large number of drivers and conductors at the stables ready to commence the day's work. There were about 1,200 horses in the stables, most of which were on the fourth floor, and in spite of all efforts about 200 horses perished in the flames. Total loss $150,000, most of which was covered by insurance.

One-half of the town of Owensburg, Greene County, Ind., was destroyed by fire on the 26th. The fire originated in Burchom's Hotel, which, with the greater part of the mercantile establishments, was destroyed. The population of Owensburg is between three and four hundred.

Treeless Iowa is being transformed into a forest-covered country, by a law which remits certain taxes for five years on every acre of fruit, and 10 years on every acre of forest trees planted and kept alive. Over 75,000 acres of fruit and forest trees have been planted, and $200,000 have been remitted in taxes. The Poncas are now doing well in Indian Territory. Houses are built for many of them, and by the 1st of January all will be supplied therewith. They have also become acclimated, and the health of the tribe has greatly improved. Indian children are as bright and teachable as white children of the same ages. Exclusive of the five civilized tribes of Indian territory, there are now over 7,100 children taught at agency schools. The five civilized tribes have 6,250 children at school.

The agent in charge of the White Earth Reservation in Minnesota reports to the Interior Department that the Chippewa Indians have made a very gratifying success of the experiment of raising sorghum in that part of the country. Twenty-five acres upon which the experiment was tried last season yielded 160 gallons of syrup per acre. The Chippewas are much pleased with the industry, and next year will plant 200 acres with sorghum. The agent reports that it will grow and ripen upon any lands capable of producing corn. The Chippewas, about one thousand in number, who were all wild Indians ten years ago, have also this season raised abundant crops of grain and vegetables, and are reported to be happy and contented.

The South Carolina rice crop last year was a short one, 72,903 tierces, but this season's harvest is estimated at 81,000 tierces—the largest since the revival of rice culture in 1865. The annual acreage is steadily increasing, extending inland and reclaiming abandoned coast plantations.—This year's crop of Louisiana sugar will realize $25,000,000, and it is expected that next season will see plantations in cultivation that have been waste places for years.

Despatches from San Francisco have been received at New Bedford, and give some interesting details concerning the Arctic whaling fleet. The Helen Mar brought home 1,100 barrels of oil and 1,600 pounds of bone. Captain Hickmott says that when he abandoned the bark Mercury on October 24, she was caught in the ice just north of Herald Island, latitude 72 deg. 10 min. north, longitude 172 deg. west, and at the time had on board 4,500 pounds of ivory in addition to 1,000 barrels of oil and 900 pounds of bone. His wife and child were with him, and all were rescued by the Helen Mar. The Mercury's freight was estimated to be worth $30,000; the vessel was only insured for $40,000.

A despatch to the Galveston News from San Antonio states that a private letter dated Chihuahua, Mexico, Nov. 14, says:—The Indians are reported as depredating the country 100 miles west of El Paso, Texas. A party of fifteen men went in pursuit, and followed the trail to the Candeleria Mountains, where the Indians ambushed themselves all but one or two. When the news reached the town a strong party organized and started on the trail. Arriving at the scene of the massacre they commenced to bury the dead, and while thus employed were fired upon and eighteen killed. The Indians apparently were armed with Sharpe's rifles and supposed to be frequenters of the State's reservation. A large force has been organized.

Mr. William H. Vanderbilt has sold 150,000 shares of New York Central railroad stock, equal to 15 million dollars, to a syndicate of foreign and domestic bankers. In an interview with a Herald reporter he stated in substance that he had learned that a strong public sentiment had been created against him for monopolizing railroads, and to appease this feeling in a measure, he had sold the above large amount of stock. The noted desperado Allen Palmer brother-in-law of the equally notorious James Coys, was recently captured in Texas. Palmer has been in the hands of the authorities before but have always managed to escape justice. He is known to have belonged to several desperate gangs, and is charged with a dozen murders.

In the Senate on Monday last, the only new member sworn in was ex-Governor Baldwin, of Michigan, in place of the late Zach. Chandler. Six Congressmen were also sworn in on Monday, namely—Horace Davis, Horace F. Page, Romauldo Pacheco, republicans; and Campbell P. Berry (democrat), of California; Waldo P. Hutchins (democrat), of New York, vice Smith (republican), deceased; W. G. Thompson (republican), of Iowa, vice Clark (republican), deceased. This will make a full house of 293 members, of whom the democrats have 150, the republicans 131, greenbackers, 11, independent democrat (Dr Felton) 1. This gives the democrats a majority of seven over all.

There are to-day more than 242,000 Government pensioners. The amount of the year's pensions to all pensioners is $25,493,742; but the actual payment is millions in excess, because the newly-admitted cases have arrears of pension due.

EGGLESTON TRUSS CO.—*Gents:*—Your Truss is a perfect support for my hernia. It has not come down for some time; I am sure it is getting well. It is adjustable to every position of the body. I have tried a number of trusses, but I never found one before that would serve me. There is quite a number of men around here that are ruptured. They have been asking me about your Truss; of course I recommend it. Send me some bills for them, and I will get their orders. Yours,

Murray, Iowa. L. M. WALKER.

Dr. Pierce's Extract of Smart-Weed is a compound fluid extract of smart-weed, or water-pepper, Jamaica ginger and other ingredients known to be efficacious in curing colic, diarrhœa, dysentery, blood-flux, and kindred affections. It also breaks up colds, fevers, and inflammatory attacks. Sold by druggists.

The Youth's Companion.

For judicious editing, select and popular contributors, and sprightly, entertaining reading, the *Youth's Companion* has no superior among the Youth's publications. It has twice the circulation of any similar publication, and unquestionably merits its success.

A FAVORITE COUGH REMEDY.—For Colds, Sore Throat, Asthma, Catarrh and other diseases of the bronchial tubes, no more useful article can be found than the well-known "*Brown's Bronchial Troches*"

ON account of the rise in the price of iron, Osgood & Co., of Binghamton will charge $40 for their Scales on and after Janury 1st, 1880. [See advertisement.]

For General Debility and Prostration Hop Bitters will do wonders. Prove it by trial.

The most comfortable boot in town is that with Lyon's Patent Metallic Heel Stiffeners.

The Markets.

THE GIST OF THE MARKETS.

During the week the markets for agricultural products have been pretty steady with slight fluctuations in nearly everything and a decided upward tendency in wool and hops. The greatly increased trade of England with this country in woolen goods within the last few months, and the brisker home trade have created an unusually active demand for the former, while the latter are scarce here and in Europe. The low prices of hops last year led many to plow up their hop fields even in the this State, while the objection Eastern brewers expressed to Michigan hops added to the despondency of hop growers in that State and caused most of them either to discontinue altogether or greatly curtail hop-raising. In England the hop crop is even more of a failure than the cereals, the average crop of 300,000 bales, being only 80,000 on picking. In Germany it is also poor so that hops are now "booming." Three months ago the crop of 1878 was selling at 6@8c. and that of 1879 is now fetching 45@47c.

Reports in papers all over the country show that, on the whole, fall-sown wheat has gone into winter-quarters in fair condition. Droughts affected it somewhat injuriously some time after sowing, but late rains have put it in a thrifty condition. Here and there resowing has been necessary, and the chinch bugs and fly have been depredating, but, taken all in all, the state of the crop is a good average. The area sowed to it is nearly everywhere larger than usual and in the Far West much lately broken land has been sown to it, so that the aggregate acreage to winter wheat will be much larger than heretofore.

The prices of breadstuffs here depend, of course, greatly, if not wholly, on the European demand for our surplus harvests and the more detailed the particulars of the shortage there, the greater it appears. France will want at least 80,000,000 bushels of wheat and that country and Great Britain combined are put down for 224,000,000 while the available surplus from this country is estimated to be not much over 175,000,000 bushels. Other countries also have, of course, a surplus, but the crops too are short in other countries besides those mentioned. A telegram from South Australia just received says:—"Reaping has commenced in the northern districts. It is estimated there will be 375,000 tons of wheat for export." Turkey has just forbidden absolutely the exportation of grain from any of her provinces on the ground that the crops are very short in some sections, and that all indications point to higher prices in the near future. In England millers and other buyers are trying hard to "bear" prices, by ordering only what is necessary, but holders are stiff, knowing that they can afford to wait for better figures.

SPECIALS FROM ALL CENTERS.
Until Saturday, Nov. 30.

Baltimore.—Wheat—Southern red, $1.40@1.45; do. amber, $1.50@1.60; No. 2 Western winter red, spot and November, $1.45½; December, $1.46½@1.46½; January, $1.49½@1.50; February, $1.52@1.53. Corn—Southern steady; Western dull and lower; Western white, 52@58c.; do. yellow, 53@54c.; Western mixed, spot and November, 61½c.; new, 55½c.; December, 57½@57½c.. Oats—Firm and fairly active; Southern, 46@47c.; Western white, 46@47c.; do. mixed, 44@45c.; Penn., 46@47c. Rye—Quiet, 80@85c. Hay—Firm; prime to choice Penn. and Md., $17@18. Butter—Steady; prime to choice Western packed and roll, 22@28c. Eggs—Firm; fresh, 21@22c.; limed, 16@17c. Cotton—Firmer; middling, 12½@12½c.; low middling, 11¾c.: good ordinary, 11¼c. Beef Cattle—Trade fair and prices fully ¼c. higher all round; very best, 4¾@5¼c.; first quality, 3¾@4¼c.; medium, 2¾@3½c.; ordinary, 2¼@2¾c.; most sales from 3¼@4¼c. Swine—5@6½c. Sheep—3½@4¼c. lambs, 3@5c.

Boston.—Corn—Old, 63@64c.; new, 60@62c. Oats—47½@50c. for No. 1 and extra white; 46½@47c. for No. 2 white; 43@44½c. for No. 2 mixed and No. 3 white. Rye—95c.; shorts, $16.50@17; fine feed, $17@17.10; middlings, $18@20. Wool—Demand continues active and prices are steadily advancing; sales of Ohio and Pennsylvania fleeces at 48@52c., but there is very little choice wool offering under 55c., and holders are indifferent about selling or naming the price at present. Michigan and Wisconsin fleeces firm at 47@48c, for X and 49@50c. for No. 1; combing and delaine selections range from 45@55c. for coarse and desirable grades; medium unwashed wools are sought after and range from 40@45c., and are scarce at these figures; Missouri and Maine mediums in demand at 40@42c., and are difficult to find; California in request at 25@41c. for spring and 19@35c. for fall; Texas fall in demand at 30@35c. The movement in foreign wool is unimportant.

Chicago.—Wheat quiet but firm No. 2. red winter $1.24@1.25; No. 2 Chicago spring $1.19½ cash; $1.19½1.19½ Dec. $1.11½ Jan. No. 3 do $1,08½; rejected 91½@92c. Corn quiet but steady 39½@39½c. cash 39½@39½ Dec. 39½ Jan. 43½c. May. Oats firmer 33½c. cash; 32½c. Dec; 32½ Jan; 36½c. May. Rye steady 72½@73. Barley firmer 83c. Timothy seed $2,30@2,38. Flax seed $1,53@1,55. Eggs higher; ice house 18@20c; strictly fresh 30@22c; pickled 14@16c. Cattle good shipping steady at $1.50@5.15 fair to good $3.50@4.25; butchers' slow at $2.00@3.50; feeders and stockers $2.30@3.50. Western and through Texans $3.00@3.50. Hogs—mixed packing $3.75@3.90; choice heavy $3.95@4.25; light $3.70@3.85. Sheep dull $3.50@4.20.

Cincinnati.—Wheat steady with a good demand at $1.23@1.30. Corn in active demand at 43@48½; new 40@42c; Dec. 44c. Oats firm at 34@35c. Rye strong at 85@86c. Barley dull 90c. Butter prime to choice Western Reserve 22@25c do Central Ohio 20@22c. Hogs common $3.20@3.75; light $3.80@4; packing $4 @4.20; butchers' $4 10@4.25. Cotton strong; middling 11¾: low middling 11⅝; good ordinary 11¼

Detroit.—Wheat easier; extra White Michigan, $1.31; No. 1 White Michigan, $1.29¼; Nov. at $1.29½; Jan. $1.33; Feb. $1.35½; No. 1 milling at $1.23½; amber Mich., $1.29½; No. 2 red, $1.29½. Corn easier; No. 1 yellow at 50c.; high mixed, 49c.; No. 1 white mixed, 48c.; No. 2 do., 46c. Oats strong; No. 1 white, 35c.; No. 2 do., 36½; No. 1 mixed, 36½; No. 2 mixed, 34½. Clover seed firm; demand limited; prime, $5.25; choice, $5.65. Dressed hogs firm at $4.75@4 80.

Indianapolis.—Wheat firm; No. 2 red, $1.26@$1.28. Corn, 37½@38c. Oats strong at 32½@34½. Hogs quiet, $3,50@4.15.

Louisville.—Wheat firm at $1.23@1.25. Corn steady; new white at 42c; mixed at 40c. Oats—White, 37c.; mixed, 36c. Rye quiet at 85c. Cotton—Middling, 11⅞c.

Milwaukee.—Wheat strong and advancing; No. 1 Milwaukee hard at $1.21½; do. soft, $1 20½; No. 2 Milwaukee at $1.19½, spot and Nov.; $1.20, Dec.; $1.21¾, Jan.; No. 3 do. at $1 08; No. 4, $1 03; rejected at 95c. Corn dull and lower; No. 2 spring, 29½c. Oats higher: No. 2 at 33½c. Rye, No. 1, 72c. Barley, No. 2 spring, 73c.

New Orleans.—Corn in fair demand at, 52@56. Oats steady at 44@45c. Hay quiet, prime $17@18; choice at $22@23. Sugar active and firm; inferior, 5½@6c.; common to good common, 6¾@6¾c.; fair to fully fair, 6⅞@7¼c.; prime to choice, 7½@7¾c.; yellow, clarified, 8¼@8½c. Molasses, common, 25@27c.; centrifugal, 25@32c.; fermenting, 25@30c.; fair, 30@32c.; prime to choice, 33@38c. Rice, Louisiana ordinary to prime, 6¾@7¼c. Bran firm at 85c. Cotton—middling, 11⅝c.; low middling, 11⅜c.; good ordinary, 11⅛c.

Philadelphia—Wheat lower; Western rejected on track, $1.40: Western and Penn red on track, $1.42; Southern amber do. $1.45@1.46; No. 2 red, in elevator, in car lots, $1.43½; No. 2 red, spot, $1.43½ bid and $1.44½ asked; Dec. $1 44 bid and $1.43½ asked. Rye—not much coming forward; Penn. 87@88½. Corn, from ½ to 1c higher; old Western, on track and in depot, 58@59c; old Penn. and new Southern yellow, do. 59@60c; new Southern yellow, 53@55c; new white, 55c. Oats steady, 43½c. bid, 45 asked for No. 2 white. Butter, creamery extra at 31@36c; Bradford Co. and New York extra, 25@27c; Western Reserve, extra, 25@27c; do. good to choice, 20@24c; rolls, Penn. and Western Reserve, extras, 25@27c. Eggs, Penn. 25c; Western, 21@23c. Cheese, N. Y. factory, 13½c; Western full-cream, 12½@13c; do. good, 11@12c.; do. half-skims. 7@10c. Feed, bran, $15@$15.25. Cotton middling 12½c; low middling. 12½c.; good ordinary, 11¼. Wool, market excited and prices advancing. Ohio, Pennsylvania and West Virginia, XX, and above, 50c.: X at 48@50c.; medium at 55c.; coarse, 50c.; New York, Michigan, Indiana and Western, fine, or X and XX, 46@48c.; medium, 53@55c.; coarse 48c.; washed combing and delaine, fine washed delaine X and XX, 50c.; medium washed combing and delaine, 57@60c.; coarse, do. do. do. 50c.; Canada washed combing, 46@50c.; tub washed, choice, 55@60c.: fair, 50@53c.; unwashed combing and delaine, medium unwashed combing and delaine at 40@42c.; coarse do. do. 38c.; bright unwashed clothing fine, or X and XX 30c.; medium 28@40c.: coarse, 37@38c.; dark earthy unwashed clothing, fine, 25c.; medium, 30@33c.: coarse, 28@30c.; Oregon, fine, 30@40c.; medium, 35@42c.; coarse, 35@40c.; California fine at 30@40c.; medium at 35@40c.; coarse at 35@37c.: New Mexican and Colorado fine, 30@33c.; medium, 30@33c.; coarse (carpet wool), 26@28c.; pulled extra merino, 49@50c.; super, 48@50c.; lambs, super, 48@50c.

St. Louis.—Wheat—No. 2 red, fall, $1.29½ cash; $1.30@1.30½ Dec.; $1.33½@1.34½ Jan.; No. 3 do. at $1.23½. Corn declined a trifle, 38½c. cash. Oats, 32½c. Rye, 73½c. Barley, choice, 85@90c. Hogs, Yorkers, $3.50@3.60; packing, $3.65@3.80; butchers' to select, $3.80@3.90. Cattle active; choice to fancy shipping steers, $1.50@4.75; extra-heavy export steers, $5; fair to prime, $3.50@4.40; feeders, $3@3.60; stockers, $2.50@2.90; cows and heifers, $2.15@3.25; corn-fed Texans, $2.75@3.75; grass do., $2 25@3.25. Sheep strong and scarce; fair to good muttons, $3@3.50; choice to fancy, $3.60@3.85. Cotton—middling, 11½c.; low middling, 11¼c.; good ordinary, 11c.

Toledo.—Wheat—No. 2 red winter, spot, $1.31½; No. 2 Dayton and Michigan red, $1.31; No. 3 do., $1.28½; amber Illinois, $1.34. Corn—Lower; No. 2 at 43½c.; new, 42½c.; rejected, new, 41c. Oats—No. 2, 34c.; rejected, 33c. Clover seed steady; prime, $5.30; No. 2, $5.04. Dressed hogs, $4.75.

PRODUCE AND PROVISIONS.

New York, Saturday, Nov. 29.

Beans and Peas.—The market for beans is too tame for a full range of values to be given. Receipts are heavy and consequently there is a strong effort to work off parcels a shade below prime in quality. Quotations are for truck lots of mediums and marrows. Kidney and other fancy unchanged, but the demand is not active and they may follow the standards. Green peas quiet, though receipts have fallen off. $1 90@1.95. Southern B.E. peas have rather more call at the easier figures of $2.25@2.50 ℔ 2-bush. bag. Marrow beans, $1.65@1.85; medium, $1.60@1.75; pea, $1 75@2.00; white kidney, $1.95@2.15; red do., prime, $1.85@2; poor, $1.80@1.90; black, $1.85@2.00.

Receipts of beans for week, 14,708 bush.; exports, 1,185 pkgs.

Beeswax.—The low prices latterly have caused meager shipments forward from the South, and of Western lots the arrivals are moderate, consequently prices are now working up. Sales at from 4@25½c. for Western and Southern. Exports since Jan. 1st, 34,418 ℔s.; same time 1878, 152,037 do.

Broom Corn.—Manufacturers have been eager buyers, and the supplies of choice stock have been closely taken; hurl. is worth 8@7c. for good to choice, and 5½@6c. for common to fair; brush and short broom at 7½@9c. for choice, and 5@7c. for common to good.

Butter.—Another week of quiet is to be noted. Trade in the early part of it was about at the closing figures in our last. Inside rates, are the lowest we hear of for any grade of state showing table merit. There has been of late a pretty solid attempt on the part of buyers to bend prices from their high limits. Holders, however, have exhibited their strength by refusing to make concessions that would be bad for future business. At the moment it looks as though retailers have more pressing want of stock, and with any general attendance it would not be surprising if quotations were to recover a full range if not an improvement in extra styles. The scarcity of fine is still a power for owners. Those who have to break off fresh ends and choice tops of dairies will only do so when the rest of the line will not suffer badly in a possible average. Liberal receipts of Western will soon appear and will be welcomed by a class of buyers whose trade is seriously interrupted by restrictive quotations. Western creamery now outsells any mark of state. Factory turns out better and prices ought to send more this way. The high markets of late have tempted large quantities of oleomargarine into use. Butter dealers are about to try and enforce retailers to sell it for what it is as some of the latter are putting it out as genuine fair grade butter. The movement is a just one for consumer and merchants especially for the latter as strict legislation prevents imposition on the part of wholesalers. We note State pails and tubs, small dairy and fresh ends, 31@32c.; best lines, 28@30c.; good to prime, 27@28c.; fair to good, 24@27c. firkin and tub single dairies, choice, 29@30c.: do. fair to prime, 16@28c.; do., firkins, choice dairies, 28c.; do. fair to prime, 23@27c.; Welsh tubs, 23@28c.; poor State, 20@22c.; creamery, finest, 36@37c; good to prime, 31@35c.; sweet cream, 35@36c.; poor to good, 27@33c.; Western imitation cream. 23@30c.; dairy, fresh, extra, 28c.; poor to good, 18@22c.; factory late made made, 23@24c.; poor to good, 14@21c.; very poor Western, 10@12c.; Rolls, 20@24c.

Receipts for week, 27,682 pkgs.; do., exports, 1,670 do.

Cheese.—This has been a very dull week. Nothing encouraging from the other side, and shippers holding off or buying small lots as may be needed to replenish assortments, and only 8,000 boxes shipped this week. Home demand has been without much life. Receipts have not been large, and prices steadily held.

Quotations are for State factory: Fancy, 12¾@13c.; good to prime at 11¾@12½c; fair to good, at 10¾@11¾c.; half-skimmed at 9@10c.; skimmed at 6@8c. State farm dairy: Fine at 12@12½c.; good to prime 10½@12c.; fair to good at 9@10½c.; skimmed at 6@8c. Wis. factory: Fine at 12½@12¾c.; good to prime at 11½@12½c. Ohio factory: Cheddar, fine, at 12½@12½c.; do., fair to good, 10@11c.; flat, fine, 12½@13c.; flat, good to prime, 11@12c.; flat, fair to good, 10@11c. half-skimmed, 9@10c.; skimmed, 6@8c.

Receipts for week 43,372 boxes; exports do. 15,003; do.

Cable quotations 64s. Steam to Liverpool 35s.

Cotton.—The foreign advices have been more encouraging and speculation has been extensive, the market leaving off strong at 12.55@12.57c. for November; 12.49c. for December; 12 61c. for January; 12.79c. for February; 12.96c. for March; 13.10@13.11c. for April; 13.26@13.27c. for May, and 13.39@13.41c. for June.

Quotations for spot cotton are based on American standard of classification, and on cotton in store running in quality not more than half a grade above or below the grade quoted.

	Uplands.	N. Orleans and Gulf.	Texas.
Ordinary	11 1-16	11 3-16	11 3-16
Strict ordinary	11 7-16	11 9-16	11 9-16
Good ordinary	11 13-16	11 15-16	11 15-16
Strict good do	12 1-16	12 3-16	12 3-16
Low middling	12 3-16	12 5-16	12 5-16
Strict low middling	12⅜	12½	12½
Middling	12½	12⅝	12⅝
Good middling	12¾	12⅞	12⅞
Strict good middling	13	13⅛	13⅛
Middling Fair	13½	13⅝	13⅝
Fair	14⅛	14¼	14¼

STAINED.

Good ordinary	10¾	Low middling	11 9-16
Strict good ordinary	11⅛	Middling	12 3-16

Dried Fruits.—Apples come in slowly; Southern lots are especially wanted, and sellers have a decided advantage. Evaporated stock is quick and oftener at outside prices. Peaches are in full demand and rule strong, as also small fruits generally.

Apples—New North Carolina, are: 6½@8c. for fair; 8½@9c. for choice; 10@10½c. for fancy sliced. Patent evaporated apples, choice, in cases, 14½@15c.; do. fair to good, 12½@13½c.; N.Y. State sliced, new, 8@8½c.; quarters, choice, 6¾@7c.; western quarters, common and old, 4@4½c.; new southern quarters at 4@4½c.; new N. C. peeled peaches at 16@17½c., do. Georgia, 13@16c. Peaches, Delaware evaporated, peeled at 25@28c.; do. unpeeled at 13@15c.; new halves at 8c. Blackberries at 10c. for new. Raspberries at 28@29c. Pitted cherries at 19@20c.

Eggs.—Receipts for the week, 8,881 bbls.; do. last week, 10,932 do. There is a general complaint about the mixed condition of supplies. Retailers do not take hold to the extent they would if lots were running uniform. A good many Western called fresh will only bring 20@21c. Southern fresh will soon have a place. Shippers should pack them in uniform barrels or cases.

Near points fresh, doz., 20@27c.: State and Pa., 21½@23c.; Canadian 19½@20c; Western, choice 22@22½c.; off grades, 18@19c. State limed, 17@18c.; Western, 16@17c.; Canadian, 17@17½c.

Flour.—A feature of the market this week has been the liberal drafts made upon the supplies made upon the supplies by exporters. Large shipments have been made to West India and South American markets, comprising full lines of winter wheat grades and of city mill product, and some 60,000 bbls. have been taken for European posts. Prices have worked up a little.

Latest sales are at: $5@5.50 for inferior to choice superfine State; $5.65@5 90 for inferior to good extra do., odd lots and fines; $6.00@6.25 for good to very choice do.; $5.10@5.65 for inferior to very fancy superfine Ind., Iowa, Michigan, &c.; $5.70@6.00 for inferior to good shipping extra do., and $5 90@6 25 for good to choice shipping extra do.; inferior to about choice white wheat extras, $6.00@6.85; choice to fancy do. at $6.90@8.00; red and amber winter wheat, inferior to fancy trade and family, at $6,00@7.75; round hoop Ohio, $5 75@6 15, and trade and family brands of do. at $6.25@7.75, the latter rate for very choice; St. Louis at $6@7 for inferior to very good extra; $7 00@8.00 for very good to fancy; Minnesota clear, very inferior to fancy, $5.60@7.00; Minnesota "straight," very inferior to fancy, $6 10@7.00, and patent poor to very fancy at $6 75@9 00; unsound stock at from $3.85@5.75; city mill extra at $6.70@7.00 for about fair to choice for West Indies (fancy do. quoted at higher figures); do. for England, $5.70@6.15 for poor to choice; do. trade and family extras, $6 85@7.65; do. for South America, $6.75@7.25; No. 2 at $4.25@$4.85 for poor to fancy.

Buckwheat—Is at 61@63c. for prime, and buckwheat flour at $2.30@2.60.

Fresh Fruits.—Apples are going into store freely, and dealers count upon an early advance if the weather does not turn adverse. Greenings look rugged this fall. Spys, Baldwins and a temporary offering of Spitz, are being used for city wants. Shippers continue to fill special steamer space. They have to take a little chance in quality, fearing that new figures may shut them out suddenly. Besides, they yet have the advantage of hauling from boat or station. Cranberries have led a good trade and prices have become quite set, as the supply is not likely to be oppressive this year. Grapes are dull; prime Catawbas scarce. Florida oranges have no sale; most of them are small and green, and shippers make nothing by sending them.

Apples—Kings, State, good to choice, ℔ bbl., $3; Baldwin, $2.25@2.50; Spitzenburg, $2.50@3; Greening, $2@2.25; winter mixed, good to choice, $2@2.25; poor to fair, $1.25@1.75. Cranberries—Cape Cod, fancy, per bbl., $7@7.25; good to choice, $6.25@6 75; fair to good, $6@6 25; Eastern, large round hoop bbls., fancy, $6.50@7; do., fair to choice, $5@6; Jersey, fancy, per crate, $1 87@2; good to choice, per crate, $1.50@1.75. California has an opening for pears and is sending a good offering of the styles that have made a winter market here. Winter Nelis, Glout Morceau and Easter Beurre are very salable at $4 per case; fine Boston Duchess and B. d'Anjou in light supply at $4 per bush. Cal. quinces of good size, $3 50 per bush. Grapes—Catawba, State, choice, per case, $2 25@2.50; do., poor, $1.50@1.75; do., loose, per lb., 3@5c.; Isabella, State, 18 3-lb. boxes, $1.25@1.75; bulk, per lb., 2@3c. Oranges—Fla., choice, per ½ bbl. crate, $3.50@4; fair, $2.50@3; choice, per bush. crate, $2.50@2.75; fair, $1.50@2. Peanuts, Va., new, hand-picked, per lb., 5@5½c.; new, extra prime to fancy, 4¾@4¾c.; do., good to prime, 3½@4c.; shelled, new, 4@4½c. Chestnuts, not wanted. Hickory, shellbark, $1@1.12. B. walnuts, 40@50c.; Pecan nuts, per lb., 9@10c.

Exports for week, 16,675 bbls. apples; since Jan. 1, 210,585 do.; same time 1878, 134,482 do.

Furs and Skins.—The collective demand is not so encouraging for small lots as it was last season, and the outlook for irregular parcels of cheap sorts is poor.

No. 1 quality,	Nor. & East.	W. & S. W.
Otter, each	$5.00@7.00	$4.00@5.00
Grey Fox	55@ 65	40@ 50
Red Fox	1.15@1.25	1.00@1.15
Black Bear	5.00@8.00	4.00@7.00
Cubs and yearlings	2.00@4.00	1.50@3.00
Fisher	5.00@7.00	4.00@6.00
Mink, dark	1.00@1.25	50@ 70
Mink, pale	50@ 60	30@ 40
Muskrat, winter	10@ 12	9@ 10
Muskrat, fall	7@ 8	5@ 7
Kitts	—@ 3	—@ 2
Beaver, per lb	1.50@2.00	80@1.25
Raccoon, each	50@ 60	40@ 50
Opossum		5@ 15
Skunk, black		60@ 70
Skunk, half-striped		35@ 40
Skunk, striped		15@ 20
Skunk, white		8@ 10

Grain.—The English markets have been less encouraging for wheat at current prices, which have been held up chiefly by speculative manipulation. The exports this week scarcely reach 800,000 bushels. Sales are of No. 1 white at $1.45½; do. for Nov. at $1.45½@1.45½; do. for Dec. at $1.45½; do. for Jan. at $1.49; No. 2 red at $1 46¼@1.47¼; do for Nov. at $1.47@1 47¼; do. for Dec. at $1 47½@1.47¾; do. for Jan. at $1.50½@1.51; No. 1 amber at $1.46½@1.47: No. 2 winter at $1.46@1.46½; New York No. 2 spring, at $1.37@1.37½; No. 3 spring at $1.31@1.33. Rye strong at 9_c. for Canada in bond and 91c. for No. 2. Corn is active, and the exports for the week are are 780,000 bushels, closing firm at 60½@61c. for No. 2.; 60½@61c. do. December; New York steamer mixed at 59½c.; do. for December at 58½c. Oats have been received very moderately, and speculators have taken hold of them, paying an advance; latest sales are of New York No. 1 white at 48c.; New York No. 2 white at 46½@47c.; do. for December at 47.; New York No. 3 white at 45½@46½c.; New York No. 1 at 46c½; New York No. 2 at 46@46½c.; New York No. 3 at 45½c.; white Western at 47@48½c.; mixed do. at 46@47½c.; white State at 48@49c.; mixed do. at 46½@48½c.

Hay and Straw.—Receipts are very small; straw has made a sharp advance, and there is a slight improvement on retailing grades of hay; sales are 50@55 for shipping hay; 60@75 for medium to 75@90 for prime. Straw is at 90@95 for long rye; 60@65 for short rye, and 60@65 for oats.

Exports for week, 400 bales. Since Jan. 1st, 65,350, or 15,000 more than for corresponding period last year.

About 10,000 bales of hay were damaged at the recent burning of the 6th Av. R. R. stables. Shipping grade of hay received a temporary firmness in consequence.

Honey—The market is firm with an upward tendency, particularly for single comb bxs. Single comb ℔ lb, 18@19c.; double and larger, 15@17c.; buckwheat, 13@15c.; clover extracted, 12@14c.; strained, 9@10c.

Hops.—Exporters have shown little interest this week, and trade from brewers has been moderate, but holders have been confident and have refused to make concessions.

Quotations are for New Yorks, new crop, choice, 45@47c.; New Yorks, new crop, medium, 40@43c.; New Yorks, new crop, low to fair, 35@37c.; Eastern, new crop, 35@45c.; Wisconsin, new crop, 35@45c.; Yearlings, 7@18c. Olds, all growths, 4@10c.; Pacific coast, new, 40@45c.; Pacific coast, olds (nominal), 8@14c.

Leather—Has further advanced and is quoted at 27@31 for light hemlock; 27@31 for middle do.; 27@31 for heavy do. and 25½@28 for good damaged.

Oil-Cake.—Western is higher and quoted at $33.50 ℔ ton.

Provisions—Have advanced on a brisk speculative trading. Mess pork quoted at $11.35@11.50 for November and December; $11.10@11.55 for sellers' option, old or new, for Jan.; $12.90@13 for new do. for do. Bacon at $6.45 for long clear and $6.75 for short clear. Beef at $10.50@11 for plain mess; $11@11.50 for extra mess; $23@25 for extra India mess, city brands. Beef hams at $15.50@15 75. Tallow at 7@7½c. for prime. Stearine at 7½@7½c. for prime.

Poultry and Game.—Owners of dressed poultry missed their customary Thanksgiving harvest this time. The earlier shipments of turkeys would have done well if stock had not been of such commonplace quality and size. Buyers were on hand by Tuesday, and good weights, 11@14 lbs., started at 14@15c. for nice waxy scalded and standard dry-picks. While the search for such grades was going on, supplies began to pile in by express and regular freight, and kept up until late Wednesday p. m. The market broke by Tuesday afternoon, and 12c. was extreme for selections, while 10@11c. bought good, useful stock; so we have only an ordinary market to note for a holiday. Still, there is some consolation in the fact that easy prices may tend to open a general demand, and the surplus of future supplies will find an easier outlet than if special rates had ruled. A good deal of the brightest stock has gone into cold storage; still there is a large offering, and prices were seldom if ever as low before as the annexed.

Turkeys, Jersey, good to prime, 8@9c.; State, Northern Ohio and Pennsylvania, prime, 8@9c.; other Western, prime, 7@8c.; fair to good, 6@7c.; Philadelphia, dry-picked, 10@11c.; do., chickens, 10@11c.; do., Jersey, per lb.. 8@9c; do., State, Mich., Northern Ohio and Penna., prime, 7@8c.; other Western, prime, 6@7c.; fair to good, 5@6c. Fowls, Phila., dry-picked 9@10c.; Jersey good to prime, 7@8c.; State, do., 6@7c, Western, do., 4@6c. Ducks, Phila., dry-picked, 10@11c; Jersey, 8@9c.; State, 7@9c.; Western, 7@8c. Geese, Phila., dry-picked, 9@10c.; N. J., 8@9c.; State, 7@8c.; Western, 6@7c.; squabs, white, ℔ doz., $2.25@2.50; do., dark, $1.25@1.50.

Game has sold unusually well; quotations, however, will be apt to tone down after the holiday flush subsides. Canvas-backs, $1.75@2 50; red-heads, 40@75c.; Mallard, 60@75c.; common and Teal, 20@40c. The lowest rates are for Norfolk birds.

Quail, trapped, ℔ doz., $2.25@2.50. Partridges, State, prime, ℔ pair, 85@90c.; Western, 75c.; soft and drawn, 50@60c.; Grouse, prime, 85c.; Woodcock, State, ℔ pair, 60@65c.; English snipe, ℔ doz., $1.50; plover, $1.50; Tame pigeons, shot, ℔ doz., $1@1.25; Rabbits, ℔ pair, 25@30c.; Hares, 30@35c.; Main, venison, short saddles, ℔ lb., 11@13c.; State and Western, short saddles, 9@11c.; whole deer, 7@8c

Live poultry has no demand above 8c. for fowls or chickens; 8@9c. for turkeys; ducks, 40@75c; geese, $1@1.37.

Seed.—Clover has a good demand and is selling at 8½@9½c. for western and 9½c. for extra choice. Timothy is at $2.60@2.70. Flax seed at $1.75@$2.

Vegetables.—The offering of potatoes is large, and there are many sellers at inside figures. Potatoes, Peachblows, d.-h., 1.87@$2; Snowflake, d.-h. $1.87@$1.80; Early Rose, Maine, d.-h. $1.75@2. State, $1 50@1 62; do. in bulk, 1.25@1.50; do. Peerless, $1.25@1.37; New Jersey Peerless, 87c.@$1; Sweet potatoes, 2.25@2.25; squash, marrow, ℔ bbl., 75c.; do. Hubbard, $1.25@1.50; cabbage, per 100, $4@6.00 red do., cabbage, $5@7; onions, white, per bbl., $2 50@3.50; do. yellow, $2.50@2.75; do., red, $2.25@2.50; do., Chester, $2@$2.25; beets, N. J., 75c.@$1; Russia turnips, 75c.@$1; carrots, pumpkins, per 100, $2@6, cauliflower, ℔ bbl., 75c.@3.50. celery, per doz., $1.

Exports potatoes for week, 2,981 bbls. Of onions 55 do.

Wool.—There are quick buyers, and the market would be swept were there free sellers. The auction sales abroad have shown that there is margin for a further advance here to admit of free importations from the other side. All grades of domestic fleeces are getting much reduced in stock. We again advance quotations. Quotations are for domestic fleeces:

Ohio, Pennsylvania and Virginia—XXX and picklock 5_@51c.; XX, 51@5_c., X, 51@52c.; No. 1, 52@55c.; No. 2, 47@4_c.; common, 40@41c; combing, 48@52c.

New York, Michigan, Indiana and Wisconsin—XX 42@47c.; X, 42@47c.; No. 1, 49 51c.; No. 2, 44@48c.; common, 38@42c.; combing, 4_@50c.

Iowa, Vermont and Illinois—X and XX, 42@48c.; No. 1, 47@51c.; No. 2, 41@44c.; combing, 47@48c.

Missouri, Kentucky and Tennessee—Washed fleece, 45@50c.; unwashed fleece, 33@40c.; unwashed combing, 33@40c.

LIVE STOCK MARKETS.

New York, Saturday, Nov. 29.

Beeves.—Receipts for the week, 11 511 head; do. last week, 10,633 do. Poultry week generally operates against trade at the drove-yards, but this week has been an exceptionally sore one on sellers. Sometimes supplies have been regulated down to a point which allowed owners to come out whole, even with a slack demand. This week, with quotations off a ¼c. compared with Wednesday's rates, hardly a drove was sold that did not lose money. The extremely low prices of poultry have cut into the beef trade. If an item of food obtains the compliment of being "cheaper than beef" there is a general rush for a change. The offering was well sold up at the close, as the low prices quoted proved attractive to wholesale butchers. Some long lines of Cherokees sold at 7½c., fair quality. Common to fair native steers, 7@8½c., to dress 55@56 ℔s.; good to prime, 8½@9½c., to dress 56 ℔s.; extra, 10c., to dress 56@57 lbs.

Sheep and Lambs.—Receipts for the week, 36,439 head; do. last week, 29 349 do. Heavy receipts struck a market largely supplied with other stuff, and prices rule weak. Sheep, 3½@4½c. for common to good; 5@5½c. for extra. Lambs, 4½@5½c. for poor to choice.

Hogs.—Receipts for the week, 42,361 head; do. last week, 29,793 head. Receipts are in excess of packers' wants with the soft, fickle weather at the close, and 4½@4¾c. are full rates for good to prime. N. J. prime, light, 6@6½c.; medium, 5½@5¾c.; heavy, 4¾@5c.; city dressed, 4¾@5½c. Pork tenderloins, 8@8½c ℔ lb., in cases

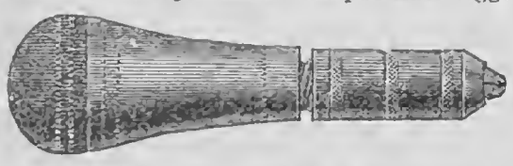
Veal Calves.—The market is quiet being rather overstocked. Choice N. J. and Bucks Co. live bring 7c. for small use; other prime calves 6@6½c. fair to good, 5@6c.. Heavy Mount Hollys 4@5½c. 300 to 25_ lbs. Buttermilk 4@5c, grass 3@3½c.; hog dressed fair to prime 7½@10c. fed. Grass hog dressed 3½@4½c.

Milch Cows.—Receipts continue quite liberal and include some attractive heads. In fact, the average quality of single cows this fall has been much better than when stock could be pastured and wintered cheaply. Trade is not active but there is a steady and better range of 40@60 the latter for fine singles.

Reading for the Young.

A CONCENTRATED TOOL CHEST.

MY DEAR NEPHEWS:—There can be no doubt that your uncle is growing young again. Yesterday was rainy, and I passed the time in-doors Lying on my study table was this little Tool-Holder, and Hand-Vise, both sent to me from THE RURAL Office. In a polite note the publisher begged



my acceptance of the present, addlug "that if I would try them and tell him what I thought of their utility, he would feel obliged." It was very kind of him, and I thought the least I could do was to try them. Alas! Those innocent-looking tools made me loose the entire day. I'm going to tell you about it, and take a mean revenge on THE RURAL.

The Tool-Holder is as you see, a nicely polished case of hard maple, hollow, and screwing together. In it are some twenty cast-steel tools which I found to include ten brad awls of various sizes, a gouge, wood reamer, iron reamer, harness needle, screw-driver and scratch awl. The jaw for holding these tools is a patent adjustable affair that spreads wide enough to clasp and hold firmly an eight-inch file, or shuts close enough to hold a cambric needle. The hand-vise is just as handy a piece of mechanism as one could wish.

It occurred to me that first I would show them to John, my hired man, and that was my first mistake. He suggested that I try the harness needle on some repairs. After three hours' work I had mended everything in the stable, and started for the house for dinner. I showed the tool-holder to your Aunt True. It was just what she had been looking for. Remembering my experience with John, I offered to make her a present of both articles, as I had something important to attend to. She wouldn't listen to that proposition, but suggested I should show her how the tools were used. That finished me. For four hours I was busy, mending shelves, bells, and a dozen other things, I was glad enough to escape. During the evening I wanted to do a little mending in my study and looked about for the tool-holder. It had disappeared! I "raised the roof" and declared I never could keep anything! At this John came in, looking sheepish, and confessed that the thing was so handy, he thought he would keep it at the barn, "As you know, Mister True," he said, "I can use it to better advantage than yourself."

That is the end of my Tool-Holder. Now, boys, if you want a quiet time, and don't care to be a "handy" boy, and do the mending for the entire family, *don't* do as THE RURAL asks you, viz. Send them five subscribers, at $2.00 each, and receive the Tool-Holder and Hand-Vise for your trouble. UNCLE TRUE.

THAT BROTHER OF MINE.

Or, Horticulture and Fun In-doors.

"Do brother Will, come and see this Hyacinth bursting the frozen earth in my cocoa-nut vase!"

"Yes, here it is Bliss, The cultivation of the Hyacinth all in a nut shell. But isn't the flower bud coming out like a regular *scape goat!* and the slight freeze, he has escaped unhurt; but how is your Wandering Jew in old Beauty-cow's horn, on the window sill?"

"Oh! my cornucopia is ruined. The Tradescantia is frozen; but I shall try the dark closet which restored my Geraniums last year."

"Yes, sister, a dark closet is good for frozen plants, preserves, and other sweet things like naughty girls—and boys."

"You speak from experience brother, but I think it was the preserves rather than the darkness that brought you out sweet-tempered from your lock-up."

"Yes, and who knows but that striped straggling Israelite of yours may strike a new *streak* and *wander* in the dark, as I did when I found those fruits—fruits of perseverance, and come out as variegated as I did, needing a bath, too."

"Come, brother, it is too cold for the plants in the window at night, make me another corner bracket near the fire. Here is a square box; while I hold it up inverted with one corner fitting into the corner of the room, you drive a nail through each side into the wall. I can cover it with moss and fasten a moss-covered branch with three twigs, beneath it apparently to support it. You will have to stand on something, for the higher we place the bracket, the better; you know the warm air rises."

"Yes, and that is why I grow hot-headed as I grow older, if father is right in what he says."

"I hope you'll keep growing, brother, till *rarefaction* will make you cool-headed, and the heat will strike at the right place to make you warm-hearted. It makes little difference about the pedal extremities if they are in the right path."

"Hurrah for the big words. What does pedal mean?"

"Pedal means foot—pedestal, pedestrian, peddlar, don't you see they all bear some foot significance."

"Oh! yes, now I understand why peduncle means the stalk of a flower. But tell me, Bliss, why is Uncle Mark our ped-uncle?"

"I don't know unless it is because he holds up the flowers for the Horticultural Club to examine.

Now, the moss is beautifully arranged and I hope my Tradescantia will revive and wander over it as naturally as over the moss-grown rocks in its native woods." MRS. M. L. S.

WINTER EVENINGS ON THE FARM.

ARE not long winter evenings a delightful season on the farm? What a pleasant picture one may behold on looking into a cozy farm-house some fine evening of the coming winter or even now in late fall. Around the fireside are gathered the members of the family. The farmer is perhaps reading aloud from the family paper while the housewife is busy at some light work. The younger members of the family are engaged in getting their lessons for to-morrow's school, reading and playing; or it may be the larger girls are doing some fancy work while their brothers are making brackets, picture frames etc., on the scroll saw for what home is complete without one of these machines? It is really astonishing what ornamental and useful articles an ingenious boy with a scroll saw can make. Will not some of the RURAL Cousins tell us what they are making these evenings with their scroll saws? This would be a new topic for them to write about, and they could undoubtedly give one another many useful hints on the subject.

Social intercourse with neighbors and friends should also be cultivated these long winter evenings. Where the tone of society is pure nothing is more refining and educating or better calculated to arouse a healthy ambition in the young, than to let them mingle with neighbors and friends in a social frolic occasionally. Let their games be directed by some self-possessed, good-natured and kindly aunt for whom all have respect and everything will go smoothly. While the writer was a boy among the New Hampshire hills. it was customary for neighbors to visit each other frequently, and I think it resulted in much good for the young folks. Such pleasant visits not only cultivate a kindly feeling, but they make childhood happier and fill the memory with life-long, treasured recollections. F. H. D.

Steuben Co., N. Y.

LETTERS FROM THE COUSINS.

DEAR UNCLE MARK AND COUSINS:—Our locality was visited by a refreshing rain about the middle of August. Which to the parched earth was like a cooling draught to a thirsty person in a mid-summer day. We, prompted by experience, took advantage of the rain and commenced planting, and have long since gathered the fruits of this little seasonable effort. We had fine watermelons, squashes, and cucumbers, and will soon have other vegetables that grow here all winter. Okra and butter-beans are bearing splendidly. The melons and cucumbers we make doubly useful as they are valuable for picking and preserving. The sunsets here are lovely. We wish our cousins could see the retiring sun with its streams of gold and lakes of silver, as viewed from our seaside home; it is a view beautiful beyond description. We have heard persons remark that it could be favorably compared to the sunset of Italy of which so much has been said and written. Many thanks to Cousin Ivy for his sympathy. His description of the fading forest reminds us of an expression of one who has long since found the rest of saints, namely that the forests of the Eastern and Middle States in autumn and the dying dolphins might in a certain sense be compared. Although nature is wearing such a spring-like appearance here, the flocks of birds and a high northern wind reminds us that a change of seasons is approaching. Many thanks to Uncle Mark for the grape seeds. We have them planted according to directions. The RURAL and Rural Cousins have the kind wishes of the

Refugio, Tex. TWO SISTERS.

UNCLE MARK—Dear Sir: Please accept my thanks for the engraving. It is very nice, and I think you are very kind to your nephews and nieces. I was much surprised on receiving the grape seed, and I hope that I shall have success in raising grape vines from them. I have some thirty varieties of house plants. Our fair is a thing of the past, but Floral Hall was gorgeous with floral displays of both cut flowers and house plants. All of the other divisions in that hall were full also, and the organs dispensed music to the crowd. Agricultural Hall contained the usual display of grains, fruits and dairy products, with the exception of corn, of which but little was present. In the baking department was a ginger-cookie old lady, with her apron and sun-bonnet, and lunch-basket on her arm, and a stick over her shoulder with strings of cookies, going to the fair. This piece of art work received first premium. In front of Mechanical Hall was a rocking-churn power. They said of it that one could rock the baby and do the churning at the same time, thereby killing two birds with one stone. In the Poultry House was a pair of goats that attracted a good deal of attention, especially from the children. Among the stock near the Jerseys was an India or Sacred cow; it had a hump on its back like a camel. Well, as we have reached the secretary's office, we will pass out through the gate. Yours truly,

Allegany Co., N. Y. EUSEBIA A. DICKINSON.

DEAR UNCLE MARK:—I will write and tell you how I sowed the grape seed you sent me. I got papa to put two partitions in a box three inches deep, nine inches wide, and fifteen inches long. Then I filled it with a mixture of garden soil and leaf mold, and in this I sowed the seeds. I am now patiently waiting for them to come up. I like to read the letters from the cousins very much. Where are Slayer-of-Conceit and Mad-Cap Molly and Rocky Montain Joe? I never see any letters from them. I think I must bring my letter to a close. My love to all the cousins. Your affectionate niece,

Bruce Co., Ont. AMANDA BURNHAM.

DEAR UNCLE MARK:—I would like to join your Horticultural Club. I am eleven years old. I had a garden last summer, in which I grew beans, Petunias, Batchelor's Buttons, etc., and I also raised some watermelons and muskmelons. I sold some of my melons and made about a dollar by it. I like to read the letters from the cousins very much. If this is printed I will write again.

St. Clair Co., Mo. WIGHT BINGTON.

The Puzzler.

A MALTESE CROSS.

Top—A name for a cat; an article used in the laundry; a consonant.

Right—A sort of beer; a cape of N.E.; a personal pronoun.

Bottom—A city of Japan; to obtain; a consonant.

Left—An arbor; a fish; a consonant.

Center, Top—An animal. Right—A period. Bottom—A lady's name. Left (when read up)—A lady's name.

Downwards means expelled, and across means straying.

☞Answer in two weeks. LITTLE ONE.

ACROSTICAL ENIGMA.

My first is in plate, but not in dish;
My second's in meat, but not in fish;
My third is in pie, but not in cake;
My fourth's in the leaven used in the bake;
My fifth's in the pantry, not in the hall;
My sixth's in the milk-room, not at a ball;
My seventh's in the chamber, weaving warp;
My eighth's in the parlor, playing the harp;
My ninth's in the laundry; my tenth's in a chest.
My whole is a riddle I leave you to guess.

☞Answer in two weeks. MARY WALEY.

HIDDEN VEGETABLES.

1. Nic R. essayed to speak.
2. Green, stagnant water breeds disease.
3. Did you ever spin a chain.
4. In an old caul I flowered.
5. When divers go below they run much risk.
6. Beg her kindly.
7. I have a gum boil.
8. The beggar licked the rowdy.
9. Percy M. linked his fate.
10. Shall other means be provided.
11. The cook raved.

☞Answer in two weeks. LITTLE ONE.

PUZZLER ANSWERS.—Nov. 22.

HIDDEN FRUITS.—1. Sloe; 2. Mazard; 3. Whortleberry; 4. Sedelia; 5. Bayberry; 6. Shaddock; 7. Nannieberry; 8. Mangusteen; 9. Checkerberry; 10. Muskmelon; 11. Mulberry; 12. Quince; 13. Mammee; 14. Sour-sop; 15. Sapadilla; 16. Elderberry; 17. Damson; 18. Polkberry; 19. Pippin; 20. Blueberry; 21. Crabapple; 22. Cassava; 23. Blackberry; 24. Chickamoya.

DIAGONAL PUZZLE:—

T
A I
P u G
I d l E
R i v e R

Primals form "*Tapir.*"
Diagonals " "*Tiger.*"

PYRAMID PUZZLE:—

F
I L k
B l E a t
B r e A t h e

Centrals form "*Flea.*"

Sabbath Reading.

DICKINSON'S ENGLISH.

ONE thing our Bible revisers know enough to abstain from attempting: they will not undertake to improve the English of the old version. The words of one of the most accomplished among them, the Rev. Dr. Chambers, would probably be assented to by all of them: "It is neither prejudice nor thoughtlessness which affirms this book to be the first of English classics. Indeed its pages speak for themselves. In simplicity and strength, in the union of Saxon force and Latin dignity, in idiomatic ease and rhythmic flow they have no superior."

This is not the narrow judgment of a devotee; literary men of all faiths and of no faith agree in pronouncing the Bible a model of literary excellence. Mr. Huxley, who is himself master of style, says, "It is written in the noblest and purest English, and abounds in exquisite beauties of mere literary form." Lord Macaulay and Matthew Arnold are equally positive in their praise. Indeed not the least of the benefits that our English Bible has conferred upon the people who have read it is the influence that it has had upon the language, in preserving it from corruption. "Perpetually in the hands of the people," says Dr. Chambers, "used in public and private worship, resorted to in all controversies, employed in schools and education, in short, a daily companion from the cradle to the grave, it has so shaped the tastes and judgments of men that, however for a time misled, they were always in the end recalled to the older and better model, and renewed their adhesion to the pure well of English undefyed."

The high estimate which is placed by them, and by most sensible men, upon the English of the Bible has not, however, been universally held. Now and then a tidal wave of euphuism or turgidity has swept over our literature, big words and stilted expressions have come into fashion, and the victims of this verbal epidemic have sometimes been filled with a great disgust for the simple Saxon style of the Bible, and have cried out for a new translation.

One of the worst cases of this distemper was that of the Rev. Rodolphus Dickinson, a clergyman of the Episcopal church in this country who, so long ago as 1833, made up his mind that the present English Bible was no longer to be endured on account of its inelegance, and set about making a new translation. This is the way he discourses about it, in his preface:

"The lapse of centuries has produced a revolution in the English language, requiring a correspondent change in the version of the Scriptures: and, I may add, that the errors in grammar and rhetoric, the harsh and indelicate expressions, dispersed through the generally adopted text, demand amendment. The style of that translation, regarding either its propriety, or purity, is, to a great extent, obsolete. There is much inelegance and inaccuracy, in the selection of words, the structure of sentences, and in every compartment (*sic*) of composition. Elementary expressions, individual and complex phrases of various description, pervade it, unknown to the existing advanced state of literature. If they were admissible, at the period of that publication, it is sufficient to aver, that they are now exploded."

Mr. Dickinson now breaks forth in a panegyric upon "the existing advanced state of literature" and so forth: "The mansions of refinement are less haunted by the spectre of decayed or impoverished learning. Cultivated life extensively recoils from the familiar survey of relics that belong to the quiet of the tomb. They are fast ceasing to deface the exquisite elegance of the literary and theological landscape. Luminaries more effulgent enlighten and adorn the summits of the social state. A renewed lustre illumines the vales," and so on. As a consequence of this advancement, Mr. Dickinson thinks that it is high time we had a more mellifluous and magniloquent Bible. "While various other works, and especially those of the most trivial attainment, are diligently adorned with a splendid and sweetly flowing diction, why should the mere uninteresting identity and paucity of language be so exclusively employed in rendering the word of God? Why should the Christian Scriptures be divested even of decent ornament? Why should not an edition of the heavenly institution be furnished for the reading room, saloon and toilet, as well as for the church, school and nursery? for the literary and accomplished gentleman as well as for the plain and unlettered citizen?" If "the train of selfish, ordinary composuists," (*sic*) should prevent this consummation, Mr. Dickinson predicts that "the heavenly balm will be extensively untried; and the deprivation may cause many a valuable patient to be successfully visited by the lethargy of spiritual death."

This dire calamity he will do what he can to avert. Therefore he offers his translation of the New Testament. A few quotations from it are quoted, by way of showing the Revision Committee how not to do it.

"Broods of vipers! who has privately admonished you to fly from the approaching vengeance! Produce, therefore, the appropriate fruit of reformation!"

"When thou art beneficent, let not thy left hand be conscious of what thy right hand performs." "Contemplate the lilies of the field how they advance."

"Seek first the empire of God and the integrity he requires, and these I be superadded to you. Be not, therefore, anxious for to-morrow; since that will claim correspondent attention."

"At that time Jesus took occasion to say, I entirely concur with thee, O Father, Lord of heaven and earth, because having concealed these things from the wise and intelligent, thou hast revealed them unto babes."

"Then his disciples approaching said to him, Art thou conscious that the Pharisees were offended when they heard this observation? But he answering said, Every plantation which my heavenly father has not cultivated shall be extirpated. And Peter replying said to him, "Elucidate this parable."

"His master said unto him, Well done, good and prudent servant! You were faithful in a limited sphere. I will give you a more extensive superintendence; participate in the happiness of your master."

"Now Jesus, replete with the Holy Spirit returned from the Jordan. . . . And his renown pervaded all the adjacent country. And he instructed in their synagogues with universal applause."

"Salt is salutary; but if the salt has become vapid, how can it be restored?

"Moreover there was a Pharisee whose name was Nicodemus a senator of the Jews. He came to Jesus by night and said to him, Teacher, we know that thou art an instructor emanated from God; for no one can achieve these miracles which thou performest unless God be with him. Jesus answered and said to him, Indeed I assure you that except a man be reproduced he cannot realize the reign of God. Nicodemus says to him, How can a man be produced when he is mature? Can he again pass into a state of embryo and be produced? Jesus replied, I most assuredly declare to you that unless a man be produced of water and of the spirit he cannot enter the kingdom of God. . . . Be not surprised that I announced to thee, ye must be reproduced."

"His brothers therefore said to him, Remove hence and repair to Judea that the disciples also may see the works that thou performest. For no one does anything in obscurity while he himself wishes to be in celebrity."

"For this the Father loves me, because I give up my life to be afterwards resumed. No one divests me of it but I personally resign it. I have authority to surrender it, and I have authority to resume it.

"There are numerous apartments in my Father's temple; if not I would have informed you."

"For corporeal exertion is of minor advantage; but piety is advantageous in all respects, having a promise of the present and of the future life."

"This is a correct remark that if a man ardently wishes a spiritual superintendency, he earnestly desires an honorable employment."

"And he said to me, it is accomplished. I am the Alpha and Omega, the commencement and the termination."

These resplendent gems of speech have been selected at random from the pages of this wonderful book. Writing equally fine can be found in almost every paragraph. Of course the man who perpetrated this thing honestly thought that he was doing the church a great service; he did not know that he was making of himself a laughing-stock. Johnsonian inflation must have been at its light when he was learning to write, and his style is an extreme illustration of its ridiculous pomposity. The Johnsonese had its day, but the people were soon as sick of it as they were of the continental currency, and willing enough to come back to plain English. And while they have in their hands a book like the Bible, no stilted or tawdry fashion of speech can ever long prevail.—*Sunday Afternoon.*

PERSONAL ITEMS.

Gen. Grant is 57
Gen. Sherman is 59.
Phil. Sheridan is 48.

Collections for Gen. Hood's orphan children amount to $15,000.

Gov. Long of Mass., is 41, the youngest Gov. the State has ever had.

Labouchere calls G. A. Sala the best after dinner speaker in England.

General Grant's father died at the age of eighty and his mother is still living.

Postmaster General Key loves to play cards and frequently has a game of solitaire.

General Ben Butler, in paying his campaign bills, finds a little item of "$18,000 for printing."

The historian Bancroft, who in his old age likes to ride horseback, is an enthusiast on the subject of music.

Queen Victoria has commissioned eight premiers and outlived all but Lord Beaconsfield and Mr. Gladstone.

Baring-Gould says:—"An English woman is lovely, a French woman is charming, a German woman is angelic."

Secretary Thompson, of the navy, goes to bed at half-past nine, and he is a good talker, especially on theological subjects.

A town in Iowa has been named Thornburgh, after the gallant major who fell bravely at the outbreak of the late Ute troubles.

Dennis Kearney, the agitator, has been arrested in San Francisco on a charge of attempting to extort money from a prisoner.

Gen. Schenck, ex-minister to England, has become rich, it is said, by the rise in Northern Pacific stock, which he once thought had ruined him.

Jefferson Davis, who is writing his contribution to the history of the late war, said a year ago, privately:—"I suppose our personal resentments all die as we grow old."

THE temperance women of Utica, N. Y., provide coffee at the polls on election days, as a regular thing, and this year they furnished 4,000 cupfuls, which left their treasury 79 cents behind.

Bachelor and millionaire Peter Goelet, of this city, aged 80, has just died, leaving property estimated anywhere from $10,000,000 to $20,000,000 to be divided between his nephews and nieces.

W. T. Blackwell, the tobacco manufacturer of Durham, N. C., pays, it is said, more taxes to his government than any other man in the world. They amount altogether to about $500,000 a year.

The son of Col. Colt, the revolver man, has just come of age, and into a net sum of upwards of $2,000,000 cash, besides the business and enough more property to save him from the poor house.

Thurlow Weed was eighty-two years old Saturday week. His health is remarkably good, and he continues to take a lively interest in all matters relating to religion, politics and the stock market.

Schuyler Colfax says he has laid up $40,000 from lecturing, since retiring from politics. He once advised General Grant to lecture, but the General feared he would speak to empty seats after the first night.

Mrs. Cornwallis West is rather charming than beautiful; she is a strawberry-and-cream, fair and freckled, irregular but expressive features, and a mass of rippling hair, cut like a boy's, in clusters of short curls.

Montreal rumors indicate that the Princess Louise will not return from England and that the Marquis will resign and go home. Another rumor says the Princess is about to become a Roman Catholic.

The Czar has a nice little income—a trifle over $25,000 a day. The Sultan gets $18,000 a day, the Emperor of Austria $10,000, the Emperor of Germany $8,200, the King of Italy $6,400, and the King of the Belgians $1,643.

Stanley, the African explorer, writing from the mouth of the Congo river, September 13, says he has equipped one expedition on the east coast, besides reconstructing another and making personal visits to several new districts. He has 15 Europeans and 200 natives with him.

There is talk of making Grant Captain-General of the U. S. Army at a salary of $25,000. The Congressman who will probably introduce the bill, is ex-Confederate General Joseph E. Johnston, who was Quartermaster General of the United States Army at a time when Grant was a captain.

Jay Gould, the other day, gave his check for $3,800,000 to Commodore Garrison for a controlling interest in the Missouri Pacific Railroad, with the remark that that was *a part* of the money he had made in a recent transaction. It is thought to have been the largest check ever given here by a private individual.

Both the daughters of Father Meeker, the murdered Agent for the Ute Indians in Colorado, are now lecturing in that State. Josephine addressed a full house at Leadville, Saturday night week, and on the same evening, Rose addressed an audience at Greeley. The recital of the fiendish conduct of the captors of Josephine and her mother is described as blood-curdling.

Mr. George Augustus Sala, the English journalist, arrived last week by the Scythia and stopped at the Brevoort House. He is a portly, bluff looking Briton, with a rapid manner of ejaculating his words, a delightful absence of all ceremonious pretension and a manifestly deep-rooted aversion to being interviewed. He says he is going to Florida and New Orleans for a holiday.

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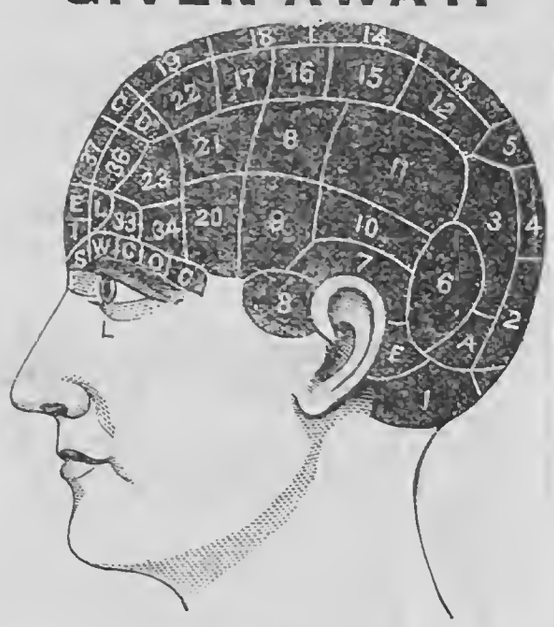

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BRIEFLETS.

Mr. Fowler says it takes a really good farmer to get much benefit from agricultural papers. But how is a farmer to *become* a *good* farmer, Mr. Fowler? Must poor farmers always remain so, and is it only good farmers who have a chance for improvement? . . Mr. Parsons says the berries of Callicarpa purpurea are as large as ordinary birdshot. Does he mean shot for snow-birds or shot for wild ducks? . . Lycenm barbarum (Matrimony Vine) is spoken of, in the Country Gentleman, as a shrub that did no one know how old and well-worn it is, would rank with the best of recent introductions of a similar character. It might have been added that it is the best bait in the world for the potato beetle. . . Down with the canes of Raspberries and Grape-vines that are to be covered. . . Place a light covering of straw over strawberry plants, securing it with evergreen sprays or sticks, or narrow strips of wood. . . The term Morphology, now so often used by botanists, is no chicken. It was introduced into science by Goethe at least as early as 1817. . . The farmer or gardener can now turn his attention to no more profitable work than collecting everything that can be turned into manure for another year. . . We send Premium Lists and Posters to those ONLY who apply for them. . . The Phylloxera (grape louse) is said to be fond of asparagus, and the suggestion is made to plant the vegetable about Grape-vines as a trap. . .

> A pledge be this, though winter's wing
> Obscure our path, another spring
> Shall come, and all things laugh and sing. . .

Now that many of our readers will have occasion to write us in renewing their subscriptions, we would be pleased to have them state what parts of the Rural they like best—what parts least—all for our future guidance. . . M. B. Bateham tells the Ohio Practical Farmer that he has much faith in the Pocklington white grape as a market variety, but he wants something of higher quality for home use. He thinks Lady Washington the finest white grape of the Rickets's collection. If it will resist the attacks of disease, we can hardly ask for a better white grape. . . Mr. Finlay Dun, the London Times's commissioner to investigate agricultural matters in this country, finds among us a degree of prosperity that must attract both capital and labor from England, and he deems our future most encouraging. Well Dun! . . "Nothing," says the Mass. Ploughman, "will fatten poultry so rapidly as corn meal mixed up with milk, especially if scalded and fed warm." . . We ought to talk more of our country as Fodderland. . . The editor of the Germantown Telegraph accepts our proposition as to testing the value of weevil-eaten peas. . . The poorer the paper the bigger the premiums. . . A man in St. Johns, N. B., bought two barrels of potatoes, which were all rotten before he had them a week. They were called Early Rose and Blue Nose, but he changed the names to Goldsmith Maid and Dexter, because they were such fast-rotters.—Wheeling Leader. . . Here is a prognostication for you, coupled with a "*positive*" statement! The New York Sun agricultural editor says that the time *may* come, even in the *near future*, when our Northern States will be able to produce all the sugar required for home use, either from sorghum or sugar beets, but it has *not yet come*, and none know it better than the persons who are trying to get up another sugar mania in order to sell their patent machinery or clarifying compound. The italics are ours. . . It is worthy to note that celery, to be used before February, does not need to be removed from the original trenches in which it is grown. Simply cover it over. . . The Germantown Telegraph says that the innumerable articles which continually appear on "How to make the farm pay," are enough to make a horse sick. . . It is curious to note how a flaming new silk handkerchief will struggle up from the deepest breast-pocket into the light of day and linger there, while the soiled cotton one skulks at the bottom, making only now and then a hasty sally into the open air.—Rochester Express.

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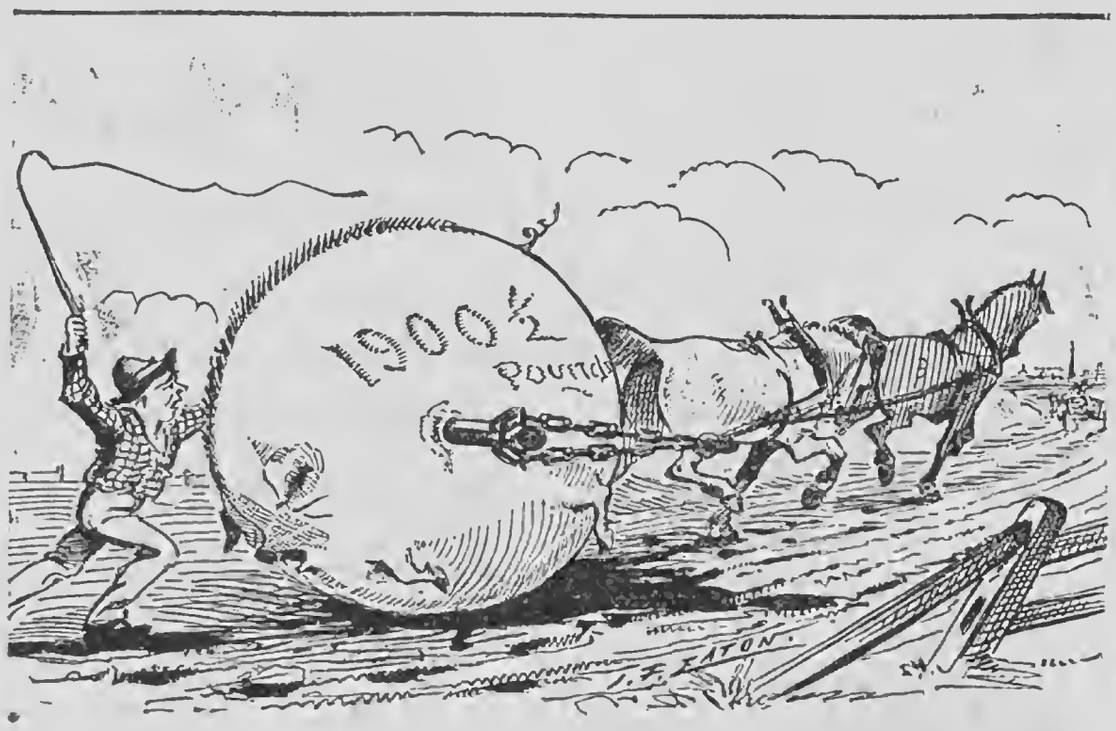

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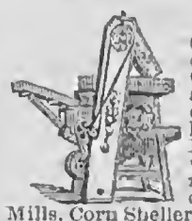

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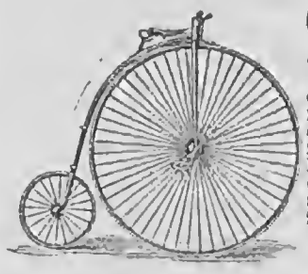

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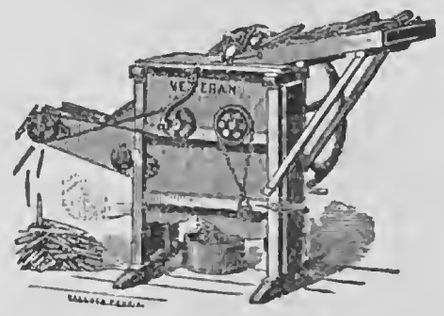

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THE RURAL NEW-YORKER

A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME

Vol. XXXVIII. No. 50. Whole No. 1559. | NEW YORK, DEC. 13, 1879. | Price Five Cents. $2.00 Per Year.

[Entered according to Act of Congress, in the year 1879, by the Rural Publishing Company, in the office of the Librarian of Congress at Washington. — Entered at the Post-Office at New York City, N. Y., as second-class matter.]

Industrial Topics.

THE TEA PLANT.

Thousands of our readers who, from childhood, have been accustomed to sip the fragrant extract we call tea, may know nothing of the nature of the plant which produces this article, and, perhaps, they have never seen the leaves in any other form than as the dried, curly material they purchase of their grocers, ready for the tea-pot. To such, the engraving of a branch, flowers and fruit of the Tea plant, which we here present, may be of interest. Botanically, the Tea plant belongs to the family Camilliaceæ, and the whole plant greatly resembles the much-admired Camellia, so common in greenhouses. Like this, the leaves of the Tea plant are alternate, evergreen, of a shining dark-green, and somewhat leathery, when full-grown. The flower, seen at *a*, is white, with a tint of amber, fragrant and much smaller than the flower of the Camellia; the petals are thick and the stamens numerous. At *b* is seen the ripe fruit, and at *s*, a single seed. Mr. S. Ott, of Aiken, South Carolina, who sent us the original from which this engraving was made, states that the plants flower and mature seed freely in that latitude.

Though Tea has been cultivated in China for upwards of 1,200 years, it is said to be found in its really wild state only in Upper Assam, and that plants found growing wild in China are fugitives from cultivation; but this whole question of fugitive vegetation is one on which many different opinions are held by eminent botanists. The Assam Tea plant —Thea Assamica—differs, however, from the Chinese—Thea viridis—in several particulars:—It grows quicker, does not bear seed so readily, and the leaves often measure nine inches in length, when full-grown; the Chinese plant is also much hardier.

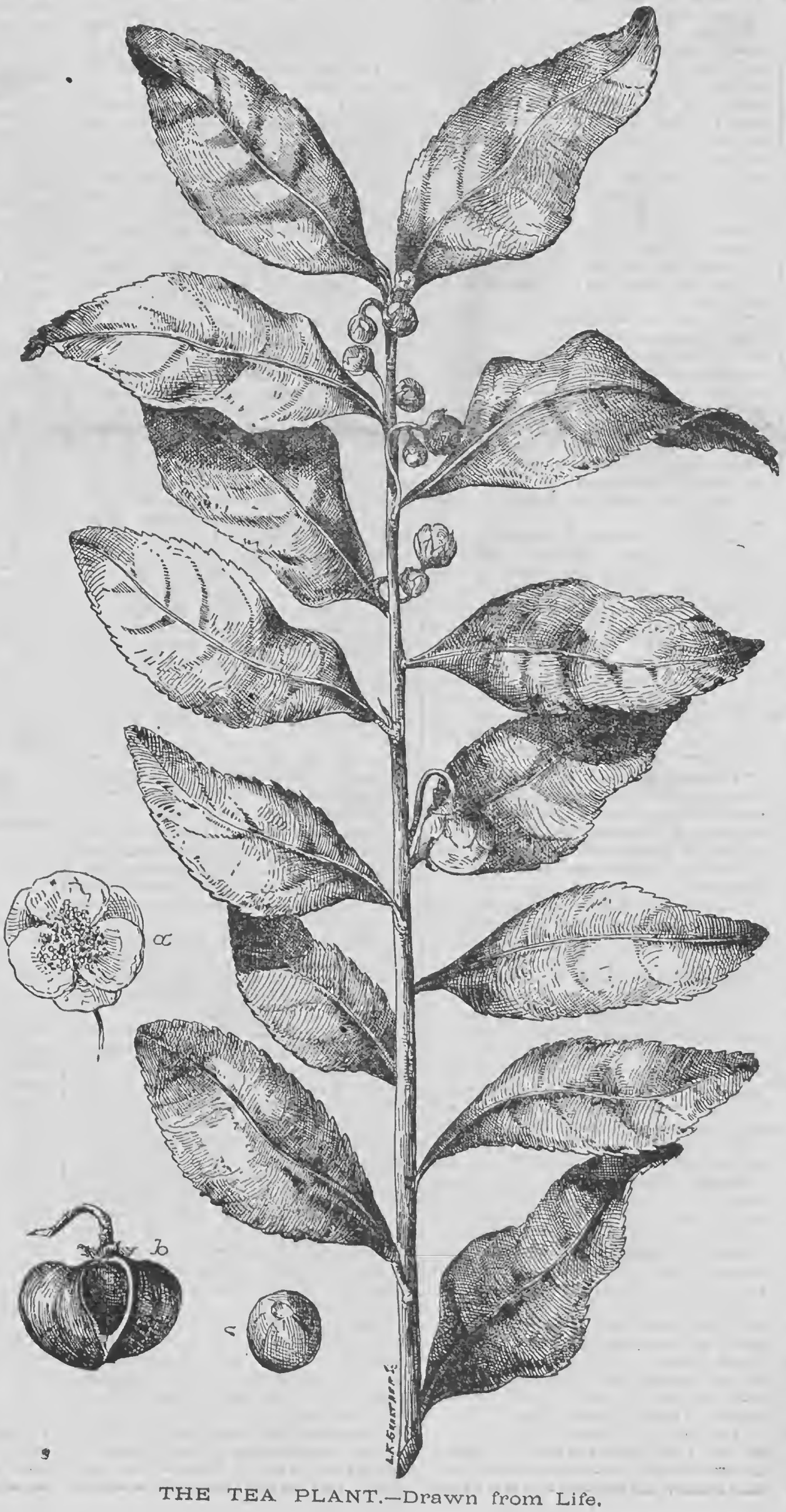
The Tea plant was brought to this country about 60 years ago. In 1858 the United States Government imported 10,000 plants from China, with a view to try them in this climate, and this number being soon trebled by propagation, they were distributed in many parts of the Southern States. From the outbreak of the late war, and during the whole period of this domestic trouble, but little attention was paid to tea culture; but after the war had closed, the interest was again revived, and the Department of Agriculture has since distributed a large number of plants each year.

These numerous trials have established the fact that the plant can be grown in this country, though, perhaps, not so rapidly as in Asia. It will withstand a light frost unharmed, and the temperature has even fallen to zero without causing it any material injury; but it succeeds best in a hot, damp climate, with copious rainfalls during the spring and early summer.

Only the young and tender leaves can be used for tea; if full-grown, they are much too hard and coarse to pay for the manipulation. The leaves shown in the engraving are too old to be used. In India, where the best tea is now made, there are five distinct stages in the manufacture. These are as follows:—1st, withering of the leaf; 2d, rolling; 3d, fermenting; 4th, sunning; and, 5th, firing. To obtain the best results it requires a skill in the details of each operation, which can only be attained by experience.

The rolling is done to extract a portion of the juice and also to give the leaves a twist. They are then left in compact balls, in which condition fermentation soon sets in. Having fermented enough, the balls are broken open and dried in the sun; and, finally, the drying process is completed by heating in a furnace. This is for black tea. The manufacture of green tea is somewhat different. In this case, the leaves are not withered and fermented, but repeatedly heated in pans, rolled and sun-dried. The difference between green and black tea lies wholly in the manufacture, not in the plants.

No conclusions can yet be drawn as to the practicability of manufacturing tea at home. Labor is too high in this country to admit of the mode of manufacture now practised in China and other Asiatic countries. Much of the work which is there deemed necessary is done, however, with reference to an ocean voyage for the product, and could be dispensed with for home use. Much work is also expended for the purpose of meeting existing commercial ideas of the appearance of the tea, without bettering the quality of it, and if such prejudices were overcome, the cost of production would be materially reduced. No process of manufacture is yet known by which we, in this country, can produce an article at a paying rate that can at all compete with foreign teas in the market. But we see no reason why these obstacles should not be overcome. The adoption of an industry so exclusively foreign must necessarily be gradual, and the failures which the attempts of a few unskilled amateurs have resulted in, do not prove that success will never be reached. Much harm has been done to the enterprise by a class of journals which are too ready to denounce new ideas and their promulgators. The home production of our tea is a proposition so pregnant with interest as to justify the most complete and thorough experiments, and to discourage such experiments tends to blight the development of the industry. When by thorough trials it shall have been found to be a failure, then it is time to denounce the idea of producing tea at home. Mr. S. Ott gives the Rural his experience in tea culture as follows:—



THE TEA PLANT.—Drawn from Life.

"I have some twenty-odd plants that grow finely and yield good tea, and are fine, flourishing, ornamental, evergreen shrubs. The largest bush is four feet nine inches high, and quite strong and bushy. That the tea plant will flourish in this climate is easily proved by examining these fine plants, which do so well with no special care, or enrichment of soil. I find no trouble in raising them from seed or plants, *if one* particular point is attended to; and that is, that while young, and for the first two or three years, they be shaded so that the heat of the sun will *not reach the roots*, as this kills them. They can be shaded by anything that keeps the roots cool. I lost quite a large number of plants until I learned that point. Then I mulched my plants with 'pine straw'—leaves of the pine tree—some six or eight inches deep, and this protected them perfectly. The leaves of the plant are not affected by the heat of the sun, or by freezing in the winter in this climate, where the thermometer marks down to 18°, and even 15° sometimes, though very seldom.

"The blossoms of last year are now just ripening into tea-nuts or seed. My plants first blossomed in October and November of 1877, and the buds, after blooming in December, were frozen during some severe cold weather, and I thought, of course, that ends them;' but the following fall —November, 1878—I found all were safe, and I gathered several quarts of fine tea-nuts. So now the fruit of last year's blooms—like the specimen sent—is just ripening and the nuts falling, and at the same time the bushes are covered with blooms, which, I believe, is a rare thing in plants.

"We have used the tea made from the young leaves in the spring, and our friends unite in its praise for its fine, fresh flavor and extra quality of the Oolong variety. In the green or growing state, there is no flavor to the leaf; but killing the leaf with steam—cooking the juices in the leaf—and then drying in a slow oven, bring out the tea flavor. Of course, we do not manipulate it so as to make it look like the imported Chinese

article; but the flavor is all right and the aroma perfect.

"The plants require deep tillage and rich, moist ground, and from seed-planting until the plants are large enough to begin to yield a crop, will take four or five years. Then, with proper care and treatment, I can see no reason why they would not last for many years. To pick off the young leaves is about the same as picking berries, only the former are lighter in weight; but then comes the steaming, manipulation and care in preparation, which produce a fine article, of pleasant, rich flavor, which, no doubt, would bring at least double the price of any of the imported tea, for its purity and freshness.

"It will make its way slowly, but, I think, surely, as one of the staple articles of culture in this part of the South, and the time will come when its cultivation will be one of the important industries of this section."

Farm Topics.

HISTORY OF A POOR FARM.—No. 21.

Employment of Capital in Farming.

My old neighbor never tires of grumbling about the recklessness of modern farming, and is especially severe upon Dr. Jones and myself for turning William's head, as he says. William has recently purchased 200 loads of manure from a neighbor at a dollar a load and borrowed the money from the bank on his note, to pay for it. The old gentleman thinks the man who sold the manure has far the best of the bargain. William is a model grandson. He humors the old gentleman's ideas in a very respectful manner, and in this instance has agreed to give one-third of the increase of the crop to his grandfather for the use of 10 acres, upon which he intends to put the 200 loads of manure.

"But he is paying out $200 for 10 acres," said the old gentleman complainingly, to Mr. Martin.

"Well, what of it?" replied Mr. Martin. "Suppose he is: he will put 20 loads of the best kind of manure on the land, and he will put sweet corn in it. That manure is a year old. The man he bought it from keeps a mill, and feeds the mill waste, bran and sweepings to his cows and pigs, and has only eight acres of land which is as rich as a garden, so that he does not want it himself. The manure is of the richest kind, and is worth twice what William gave for it, I should say. How is it, Fred, what ought that manure to be worth in cash?"

"The manure is well rotted and fine, and in the best condition: it has been gathered since last winter, and has been trodden and turned over by more than 20 hogs since then. I never saw better manure than that my father is now hauling home. Perhaps there never was any like it analyzed; so that it will be fair to take Dr. Voelcker's estimate for its value: one ton would contain 11½ pounds of nitrogen worth 25 cents a pound, or $2.87½; 10 pounds of potash worth 60 cents, and six pounds of phosphoric acid worth 60 cents; in all, $4.07½ per ton. Father will draw two tons of this in a load in his rack market wagon, which is the way he bought it, so that each load will be worth over $8.

"I was once asked $15 for such a load of manure, which was hauled from a Philadelphia horse-car stable, when living in that neighborhood a few years ago," I remarked, "and the owner was not at all anxious to sell it even at that price."

"Manure is worth less or more, according to the use you put it to," remarked Dr. Jones. "If you use it to grow market truck which sells for $400 or $500, or even more an acre, it is worth much more to you than if you top-dressed a pasture with it and grazed cows for milk at two cents a quart. Money must be judiciously spent for fertilizers, or it may be very easily thrown away; but if we could buy good manure for 50 cents a ton, or even four times that price, it will pay. A neighbor of mine put $80 worth of manure on 1½ acre of early potatoes, and sold 150 barrels at $3 a barrel. He had at least half the value of the manure returned a second time in a crop of late cabbage. It is the use made of it, in which its value lies."

"Precisely," remarked Mr. Martin, "and William will make $100 an acre from his sweet corn, if he has but a moderate crop and only moderate prices, and a lot of fodder for his cows, and he can get a second crop from the field, besides. Don't you think he can do that?" asked Mr. Martin of the old gentleman.

"He ought to do that," he replied, "and I know if he had not the manure the field would have no crop worth speaking of, for the clover has run out. But to borrow the money first is too risky."

"The old gentleman has some 4-per-cent. bonds salted away, and thinks it a very safe investment; but the $20 an acre spent by his grandson will pay more than 100 per cent. interest, and perhaps twice and three times as much; and yet he cannot see it," I remarked, aside to Dr. Jones.

"That is the usual way with farmers," replied the Doctor, "few of them can be made to see that the safest and most profitable investment is the improvement of their own farms; and that the employment of capital is the only way to make their farms pay. But capital can only be profitably employed by those who have business skill to use it. Solomon said that 'wisdom is a defence and money is a defence, but the excellency of knowledge is that wisdom giveth life (let us say profit, instead) to those who have it.' He also said 'money answereth all things,' and if there is one place in which it answers a better purpose than in another, it is on the farm. The History of this Poor Farm is altogether one of the wise uses of capital, for I think capital has been used wisely here. There is no show, or fuss; and our old friend even, I think, cannot point to anything in which the money spent has not been used judiciously and economically."

"Dr. Jones is pleased to be complimentary, more so than I deserve, and I can point out myself some things which I am not satisfied with."

"Let us have them," said Mr. Martin, "an honest confession is a good thing."

"Well, I don't agree with Solomon altogether, because money won't answer in place of brains. Money may be thrown away very easily, if one does not watch its expenditure very closely. The fact is, I have not been liberal enough in my expenditures; in some instances, I have quite failed to get my money back again. In others, I have employed labor without watching the men closely enough, and the work done has been lost in great part. I can point you to one item alone:—the woods' pasture was all cleared and the brush piled, but as I was not with the men to direct them, the brush was heaped right under the best of the shady Beeches, so that to have burned it there would have destroyed them. When this work should have been done and the ground cleared for sowing to grass, the beets needed weeding and cultivating, and the man had to be taken for that; the woods' pasture grew up with brush once more and the work has to be all done over again; that is a loss of from $50 to $60.

"That was your mistake and none of Solomon's," remarked Dr. Jones. "If you had been wise enough to have employed a second man and spent six dollars for a week's labor, the work would have been finished, the pasture would have been ready for use in the fall and the loss prevented. The proverb is true; your wisdom and the money would have been a defense against loss and injury, but you see you failed to employ either."

"Well, go on with your confession," said Mr. Martin.

"Last year," I continued, "I used 600 pounds per acre of artificial fertilizers on whatever crops I put them on, corn, beets, rye and potatoes; and it paid me to do it. This year I used 300 pounds per acre, and it did not pay."

"Just so," remarked Mr. Martin. "I think I said as much at the time. It is as though you fed your horse well last year, and he was fat, worked well, and was healthy. This year you put him on half rations, and he has been poor, hide-bound, weak, and sick, half the time. So you half-starved the land and you find it doesn't pay."

"I took our old friend's advice, you see; he thought I was extravagant and wasteful, and did not believe in using artificial manures so recklessly, as he thought; and I was desirous of trying it. Consequently, I have, as usual, paid for my experience, and we all have the benefit of it."

"The season has been a bad one, very dry and hot, and you plowed the corn too deep; that spoiled the crop," replied my old neighbor.

"That is true," replied Dr. Jones. "You will always find that it is the crop that is not well fertilized that fails in critical seasons. Make the soil rich, and your crop strikes its roots deep and can resist unfavorable weather. A poor crop goes down at once; a strong, healthy one stands up in spite of dry weather. It is the same universally. The weak and poorly-nourished people are the first to succumb to disease of any kind. A robust child goes through the measles and all the infantile complaints without being sick, and is playing about while the weak one needs the most careful treatment or even dies speedily, in spite of it. So that, after all, it was the fault of the half-fertilizing, and not the season, that spoiled the corn. My corn did not suffer, as you saw for yourself, nor did Mr. Martin's."

"The credit for that belongs, not to me, but to Mary and Fred," said Mr. Martin "he advised her to have all the manure in the yard put on that field, and she would have it and gave me no peace until it was done, and we had a fine crop of corn, in spite of the dry weather. I think Dr. Jones is right."

"I am sure of it" I replied, "and as the bad boy said 'I will never do so again.' Capital is the life blood of agriculture, just as it is of any other industry, and the more of it that we can use to good advantage, the more profitable will be the business of agriculture. William is on the right track, and his small beginning will prove it to him and I think to his grandfather, too. Suppose a man who had a factory should put half his money in government bonds or a mortgage, and, instead of buying coal to keep all his machinery going, buy only half enough; and half enough cotton and wool to work up into cloth; or suppose a store-keeper should loan out his money to his competitor across the street, and keep half his shelves empty and turn away half his customers; we should say they were poor business-men. But we see farmers do the same thing year after year, or if they have not money to lend, they are afraid to borrow a few hundred dollars to expend in stock or manure, to make their land rich and productive; and yet they will buy a piece of land which they cannot use, and give a mortgage on it for half the cost of it. A farm is a factory; and nine out of ten farms are half-worked or less, and their owners not only lose interest and pay taxes on their idle land, but they fail to make the profit which they might do by making use of it. The owner of 100 acres of land cannot afford to be his own laborer. He should be an employer of labor. Four men could very well be employed on 100 acres of land rightly cultivated. The owner must have money and skill—'wisdom and money'—to employ and direct the laborers who have not the skill to direct themselves, and for every dollar paid to them for wages, the farm ought to produce five. English agriculture has been carried on in this manner for years and has supported laborers, tenant farmers and land-owners."

"That has come to an end now," said the old gentleman.

"No," I replied, "I don't believe that. Don't let us make a grand mistake and build up false hopes upon it, or we may come to grief. English agriculture is suffering from a succession of bad seasons, which have caused the farmers heavy losses in some cases; but, nevertheless, the laborers have been paid and the owners have had their rents. It has been there as it is here:—there are farmers who have not lost money, although they have had five or six bad crops successively, and there are those who have had their farms in good order and well cultivated; the poor farmers only have fared the worst. A system of agriculture which can keep alive under such unfavorable circumstances, will revive with the first favorable season. Their system is one in which as much capital as possible is used; every possible improvement by which stock can be kept and fed, and manure made, is adopted; the average working capital of the English farmer is $40 to $50 an acre, and the owner's capital, in land and buildings, is $500 per acre. The former returns, in an average season, 12 per cent., after paying all the expenses of the farm and the farmer's family; and the latter yields 3 per cent. Fancy an American farmer using $5,000 on 100 acres, in the purchase of stock, tools and fertilizers, and in paying wages! What a difference we might see in the yields of our crops and the condition of society, when four men were employed on every 100 acres! What a volume of business would be set on foot! What a home market we should have, and what a hive of industry would be exhibited!"

"And to return to our starting point," said Mr. Martin, "the basis of the whole is the use of manure, of which we must make what we can, and buy what we cannot make."

"What would you say to this?" asked Fred. "I cut this out of an agricultural paper, the other day, and it is the opinion of a farmer, who writes: 'We tillers of the soil can't work just for manure; we must realize money, or 'up we go.'"

"Well, what would you say about it yourself? You know, Fred, what we are working for here is manure, and we think manure is money; or, at least, the only money we get is through its use," I rejoined.

"Certainly," replied Fred. "I think this farmer does not see clearly. If a man wants to make money out of his land, the first thing he needs is manure. If he has money to spend on his land, manure is what he looks for first; as he cannot buy it very often, he must make it, and the only way to begin to do this is to get stock—cows, sheep, beeves, or what-not—and buy feed, and manage so that he gets the money back from them, and has the manure for his profit: then, if he uses the manure, well, he turns that into money, and I do not know any way in which money can be made from a farm, unless the farmer works 'just for manure.' If he doesn't do this, 'up he goes,' and no mistake."

"That is what Fred has been saying to me for months," remarked his father. "It was he who advised me to buy the miller's manure pile, and I think it will be a good investment. I have borrowed the $200 for nine months, at 6 per cent. interest; the interest will be $9. If I cannot make $209 extra out of the 10-acre field next year, from those 200 loads of manure, I know I can get half of it, and half the next season; but I feel sure I can double it the first year. I have done as well as that from manure made on the farm, but with our stock we cannot make enough: and I cannot see but that it will pay me to buy manure at one dollar a load, as for you to feed cows and buy cotton-seed meal and bran to make it."

THE TRUTH ABOUT IT.

[The object of articles under this heading is not so much to deal with "humbugs" as with the many unconscious errors that creep into the methods of daily country routine life.—Eds.]

IT IS NOT SOUR LAND BUT POOR LAND WHICH PRODUCES SORREL.

COL. F. D. CURTIS.

Men of science sometimes tell us queer things, and one is that sorrel is an effort of nature to get rid of the acid in the soil, and as a remedy for the acid condition of the soil, and to get rid of the sorrel they recommend the free use of lime to sweeten the ground, thus by removing the cause, to cure the evil.

The truth is, sorrel delights in light and dry land. The sandy plains in this county are just suited to it; when the land gets so run out that nothing else will grow, the sorrel will cover the ground. The seeds are in the ground, ready, as soon as a seeding of grass seed fails or any crop, to spring up and clothe the otherwise barren fields with their useless burden. When the soil has heart enough to produce other crops, the sorrel is kept in the background growing feebly, or not at all, waiting for its turn, which it is not slow to improve, either in patches or all over a field just as the case may be. There are no earlier, or warmer, or *sweeter* lands in Saratoga county than those where sorrel is most at home and most abundant. Vegetable substance in the shape of soil, is what they lack, and when this is supplied in the form of barn-yard manure, grain or grass can be produced and sorrel disappears. Run a lot out, however good it may be, and the sorrel comes in. It seems to be latent in the soil ready to grow when its time comes, and its time will come on the best of sandy, or even loamy lands, if they are allowed to run down.

Now, let us look at the lime theory in the light of these facts. The office of lime mixed with soil is to dissolve vegetable matter and thereby stimulate growth, or to increase the decomposition of organic matter, and thereby add to the fertility of the land to which it is applied. It is a question whether the land has, of itself, any direct manurial property, and if it has, it is very small; at least its effects are very limited as positive plant-food. How much land would a load of lime sweeten? On our sandy fields the sorrel would grow just as freely by a heap of it as anywhere else. If this theory of changing the state of the soil from sour to sweet, is correct, a sour-apple tree could be made to produce sweet fruit by a plentiful use of lime; for, according to this sort of science, it must be an acid condition of the soil, which causes sour apples to be produced. Trees and plants bear fruit after their kind, or they do not bear at all, and exhausted lands, or *empty* lands, bear sorrel, because it is a plant of a low or weak order, nearly as low as lichen, and comes in where others will not.

Sheep Husbandry.

COUPLING SHEEP.

FORREST K. MORELAND.

It is during this month that the farmers in this section attend to the important duty of coupling sheep. All sheep-owners do not attend to this matter at precisely the same time. One farmer may be a breeder of thoroughbred sheep of some popular variety, and, wishing to raise early lambs for the local shows, must necessarily turn the ram with the ewes at a much earlier season than if this were not his object. A sheep-breeder who has this for his object will, if he has suitable accommodations for young lambs, try and have his lambs come in January, or perhaps in February. This is always considerable trouble, and nothing but a strong desire to excel will ever induce a farmer to have lambs come in midwinter. A farmer going largely into sheep, and wishing to grow early lambs for the high prices which good early lambs always command, will also have his lambs come as early as he can attend to them. But, aside from these two objects, viz., growing early lambs for show purposes and for early sale to the butchers, it is not considered profitable to have the lambs come when there is any danger of loss from the inclemency of the weather. The loss from this source too often overbalances any profit that might arise from having early lambs to sell. The greatest profit from sheep-breeding in this section is found to result from saving as much labor as possible, and also avoiding, if possible, all chances of loss. The first of May is a

time when lambs are reasonably safe; the weather is mild, and if the lambs are attended to as soon as possible after they are dropped, they will soon gain sufficient strength to be out of danger.

We will presume that the buck has been kept from the sheep for some time; for if this is not the case, the lambs will be coming quite early and at all times. It is better that he should not only be kept separated from the sheep, but also be fed for the season. It is a good plan to commence feeding a small allowance of corn or oats about six or eight weeks before the season and increasing this amount to a quite liberal allowance, which should be continued throughout the season. The buck should in no case be deprived of sufficient exercise, for if such were the case, and the stimulating food continued, he might commence the season with his vigor very much impaired. If it is found inconvenient or undesirable to keep him away from the rest of the flock, he may be fettered; that is, a fore and hind foot should be tied together in such a manner as to interfere with his freedom of action. Another method which I have found satisfactory—except that it does not prevent the buck chasing the ewes—is to tie an apron under his belly by cords passing between his fore legs and over his neck in front and over his back behind. In this case the ram is perfectly safe, except for his disposition to worry the ewes. I have found no plan that would give as much satisfaction as separating the buck from the ewes. He can be fed properly and the ewes are safe from any danger of being injured, or getting with lamb before it is desirable that they should.

The buck may be turned with the flock altogether, or he may be allowed to go with them for a few hours at a time each day. Where there is a large number of ewes to be served, I consider the latter the better plan. Where this plan is adopted, the buck, after serving the ewes that may be in season, is removed, and is more apt to keep quiet, will go through the season to much better advantage and will get much better and stronger lambs than if allowed to run with the flock all the time. If it is not convenient to attend to serving the ewes, then it will be found a very good plan to mark the buck with fresh paint between the fore legs before turning him with the ewes. By adopting this device, it becomes an easy matter to keep a record of the date of the service of each individual ewe; or, if this is not desirable, then it serves to satisfy the farmer that all of the flock are served, if such should be the case, or, if otherwise, to distinguish those ewes that have not been served. This is sometimes very essential to know, as the farmer might wish to turn off, during the winter, those ewes that are not with lamb. Three or four weeks at the farthest is a sufficient time to allow the buck to remain with the ewes, after which he should be removed. An old buck is too apt to injure the ewes during the winter, if allowed to run with the flock, and on no account should an old buck be allowed to run at large. If the buck has been used for the last time, then he should be disposed of as soon as possible. If he is a young one and it is desirable to use him during another season, even then it is a good plan to keep him in a separate inclosure. The breeding ewes should be well cared for during winter, as it is desirable to raise as many lambs as possible from the number of ewes kept. The greatest mistake, I think, that I ever made in keeping sheep was to feed my breeding ewes too high. I had a flock of 20 large long-wool ewes, and I fed them pretty liberally all winter on grain. I kept my ewes fat and feeling well, but I did not have very much success with lambs.

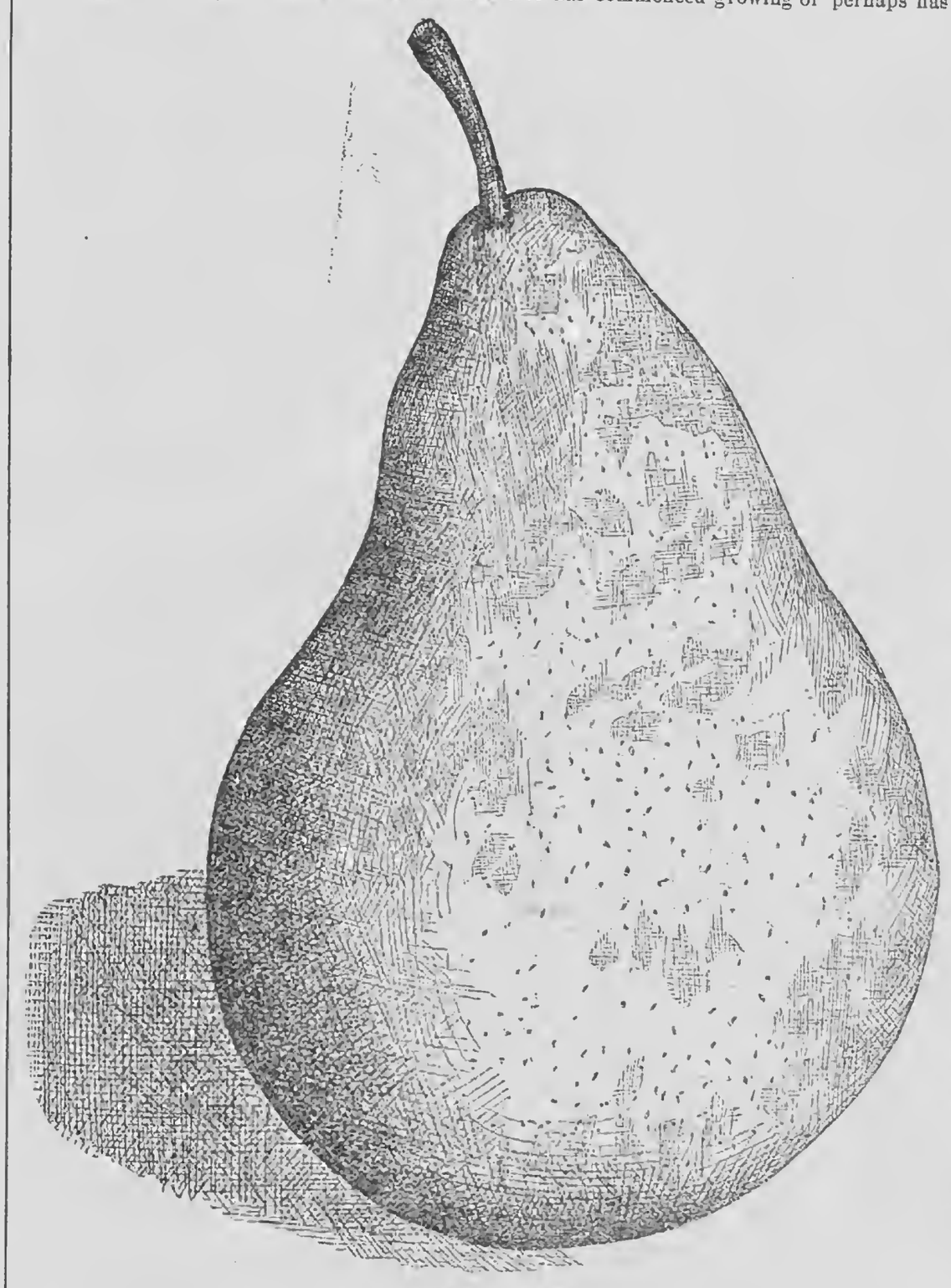
Sheep should be kept in some place where they can always be well bedded with good, clean straw. They should not be crowded, and they do not require as warm a stable as cows; and yet the side of a straw-stack is not sufficient for their comfort. Sheep should be fed in the stable. Where they can have constant access to good, sweet hay, I have used a very serviceable rack for this purpose, holding a small quantity of hay, with no danger of the sheep getting it under their feet. But a small quantity of hay should be fed at a time, as they eat it much better if it is always fresh. At the base of the rack there is a broad and shallow trough to catch any seeds that might fall to the ground and be wasted. This trough also serves for salt and roots, or grain, and by being placed in the position I have described, it prevents the sheep rubbing against the feed rack and getting their wool filled with dirt. I do not advocate high feeding of breeding ewes, but I do think that a small allowance of roots daily will be found beneficial. They should be allowed the run of a good yard during a large portion of the day, but should not be allowed to run with other stock. With judicious care, there is but little danger of sickness in the flock; and by treating my flock in the manner I have described, I have had uniformly good success with my lambs, usually raising, on an average, three lambs to every two ewes, and sometimes even more. Indeed, I now recall one season when I kept 10 breeding ewes and raised 21 lambs. When sheep are kept in such a manner that the possibilities of the stock being profitable are realized, no farmer will abandon sheep-breeding for any other stock. There is a fascination about this occupation which few farmers can resist. Pay-day comes twice a year—from lambs and wool—instead of once a year, or once in two or three years.

St. Lawrence Co., N. Y.

Pomological.

BEURRE BOSC.

In this market Beurré Bosc meets with a ready sale during mid-autumn. Our sketch is that of a pear purchased at one of the thousands of "Apple" stands, one or more of which will



BEURRE BOSC PEAR.

be found upon nearly every corner of prominent thoroughfares. The price for the size represented was ten cents each. The skin is quite smooth, of a deep-yellow color russeted in patches. The flesh is juicy, rich, very buttery, perfumed, sweet and fine. This is one of the many sorts that fail on quince stocks. The growth is moderate on pear stock, but regular. Its origin is Belgium, and it has been found to succeed well in New York and Massachusetts and fairly in most of the Middle States, as also in Georgia, Missouri, Kentucky, Tennessee and Virginia.

PROTECTION OF ORCHARDS AGAINST MICE IN WINTER.

Growing an orchard does not consist entirely in setting out trees and cultivating them; they demand constant care. "Eternal vigilance" is the price of an orchard. They must be cared for from the time they are set out as long as they exist; from early spring until late in the autumn, and, indeed, there is no time, even in midwinter, when it is safe to allow the orchard to take care of itself. That is something an orchard cannot do in this section and climate.

For instance, some of my neighbors lost a great many young trees last season by having them girdled by mice. One of them who had lost a large proportion of his young orchard in this manner, in speaking of his mishap, made the remark that the cause of the injury was so very simple that if he had only thought of it, he could have prevented all danger of loss from such a cause. When once he had met with the loss, he knew of any number of good preventives. But it was locking the stable after the steed had been stolen. A tree once girdled, is useless. True, it can be saved, but I prefer cutting it down at once. Having done this, you know straightway the extent of the loss, and there is no valuable time wasted in the perhaps *fruitless* nursing of an invalid tree. Let it be once understood that if a young tree has been badly girdled, it means a total loss of the tree, and it then becomes much easier to impress on the minds of tree growers the importance of carefully guarding against this evil. It is not the trees of a single year's growth alone that are in danger. Trees of five, six and ten years' growth, are just as liable to be attacked, and to have the tender inner bark destroyed in midwinter, as the youngest trees in the nursery.

A young tree just taken from the nursery, is not worth more than 25c. or 35c., for you can procure all you wish for this price; but after you have purchased the tree and set it out, it becomes much more valuable. After a tree has commenced growing or perhaps has attained several years' growth and commenced bearing, it is of course worth still more. A tree that has reached the size and age which warrant a reasonable expectation that it will bear with moderate regularity, is worth shillings where a nursery tree is worth cents. Another thing:—when once an orchard has been set out, the trees are all of one size, and while they remain so, the orchard presents a much more pleasing appearance than if some trees are smaller or larger than the remainder. If a few trees are lost annually by being girdled by mice, they must be replaced, and the beauty of the orchard is at once injured. I have known orchards abandoned for the simple reason that by losing a few trees annually for several years, they came in time to present such a ragged and irregular appearance, that their owners lost all hopes of ever making anything from the money invested. This could all have been prevented. It is not the proper way to set trees in the place of those destroyed, but rather not to allow any to be destroyed. If perchance a few should be lost, then, of course, they should be replaced. But the farmer is not entirely blameless who is not satisfied the loss could not have been prevented. From the length and severity of our winters, nurserymen and fruit growers in this section are peculiarly liable to losses of this character. In nurseries a shallow trench between the rows of young trees is a pretty sure remedy, especially if the trunks of the young trees stand in the highest places between the trenches. I have used the same remedy in a modified form in a young orchard of 200 trees, with perfect success.

I believe that trees will not grow unless they have sufficient plant-food. No farmer feels disposed to set out a young orchard and give the young trees sole possession of the soil for the several years that must elapse ere they commence bearing, and yet it is just this that the trees require. Inasmuch as the soil is being constantly cropped, it becomes necessary that the trees should be manured. Now, I practice manuring my young orchard in the fall. Before it freezes quite hard, I scrape my barnyard and haul to my orchard the manure I succeed in gathering, and put three or four good shovelsful to every tree; I do this in such a manner as to make a sharp cone at the root of the tree. Since I commenced doing this I have not lost a tree from mice. The reason is simple:—mice when traveling under the snow, always turn aside at the least obstruction; they cannot burrow in the ground and thus reach the tree, and the banking around the latter is a certain protection. In spring, the manure should be carefully spread away from the tree, and whether the orchard is cultivated or kept in sod, the manuring of the young trees in this manner will generally be found sufficient.

Another method which answers very well, but one that is quite troublesome, inasmuch as it requires constant attention during winter and especially after every snow storm, is that of keeping the snow well tramped around the trees. In a large orchard and during a severe winter, this would be found a rather irksome task, and yet, if I had neglected all other precautions, I should not hesitate to adopt this method of protecting trees from mice. I have tried it and found it satisfactory, but not a pleasant job. Mice will not work at a tree unless they can work under the snow. By tramping the snow around the tree, the snow tramped becomes too compact for the mice to penetrate it easily, and as they will not attack the tree above the snow, the result is that it escapes.

Another very successful protection against mice, adopted by a friend who is a successful fruit grower, consists of taking sections of worn-out and damaged stove-pipe, and, after opening a section at the seam, clasping it around the tree and settling it in the ground. When this has been once properly done, it will last for several years and is perhaps the safest protection that can be adopted. Pieces of old tin can be used in the same manner, but usually damaged stove-pipe can be procured and if used in this way, it will be found much better than throwing it away. It is a perfect protection, for the reason that mice never attack trees while they can procure other food, and when they cannot, the ground is frozen so that they cannot burrow under the pipe and they never attempt to go over it.

I have only attempted to describe a few of the many remedies for this serious evil. And when we consider how important are the fruit-growing interests, we cannot but conclude that it is a poor remedy for any threatened danger, and especially the danger of having trees destroyed by mice, that is wholly unfit to be tried. Those who have small orchards and have occasionally lost a few trees and have not taken the trouble to try any preventive, should test something that promises success, and not run the risk of losing their entire orchards, as they do every severe winter. One prolific cause of mice working in an orchard is cropping the orchard with corn or grain crops. If root crops are grown, the danger is considerably lessened. However, by resorting to any one of the methods of protection which I have described, or any other which may suggest itself, any crop may be grown in the orchard with impunity.

St. Lawrence Co., N. Y. F, K. M.

A VISIT TO A MAMMOTH PEAR ORCHARD.

MRS. ANNIE L. JACK.

"Where are we going?" I asked, one bright morning in early November when I was called to take my place in the carriage for a drive. The answer was given in the cordial tones of my friend. "Why, to Marshall P. Wilder's. You said yesterday you would like to see his pear orchard."

I felt, while in Boston, very much as if in my case there was something real in the story we often read of a good fairy who is ready to grant us our wishes if we just say the word—and never more so than during that charming drive. At last, when we had passed through miles of a delightful country road, we came to what would be in summer time a shaded lane of great beauty. Our driver stopped—"This is Mr. Wilder's place," and we stepped out to find ourselves before a large house that, without great pretensions, seemed to speak of comfort and elegance. The veteran horticulturist was in his library and though recovered from his recent indisposition, was not able to go about as usual—except to drive. His son, with an obliging air that I could not help admiring, knowing how much he must be tried by visitors, volunteered to show us the grounds.

We went to the pear-house first, where in every stage of ripening were giant specimens of every variety one could mention. We held our breath when he told us, with a very nonchalant air, that they had now *only* 800 varieties. Every va-

various "Beurré" was represented there, and in the cellar were the later sorts, to be kept back as long as possible, until the market was relieved of its present rather full supply. The trees are set out in avenues across the lot, and between them are planted Raspberries, that, at the time of our visit, were carefully laid down and apparently covered with earth. The trees were tall, straight and slender of stems, with full branching tops, and seemed in a very healthy condition. Their chief enemy is the canker-worm which I notice is more dreaded in Boston than as yet in our northern locality. The grounds of Mr. Wilder gave evidence of careful attention and intelligent work, and I considered it a great favor to walk through a pear orchard that is famed throughout the horticultural world. In the greenhouse was a giant Maréchal Niel Rose that caused me to break the tenth commandment. I *did* covet it, or one like it; for it takes so long to grow those thick old stems and yards of vine. Our guide was generous as well as patient and with a free hand broke off cuttings of a plant or two I ventured to admire, and which, now transplanted to my home, bid fair to grow. We were also presented with some very fine pears, that came to "Every-day House" in good condition and were a treat to my horticultural-minded "gudeman." And in looking back at the many and rich enjoyments of my visit to Boston, I find none more satisfactory than that morning drive to the orchard of M. P. Wilder.

P. S. Please, horticultural readers, don't all go at once to see for yourselves, or young Mr. W. will not thank *me* for this little article; unless, as I was, you are so fortunate as to have a friend who is a member of the Massachusetts Horticultural Society, in which case, that fact will (so my experience goes) at once be the "open sesame" to his favor. A. L. J.

SALT FOR PEAR BLIGHT.

Having noticed in a late Rural a communication from Gen. W. H. Noble, on the above subject, I herein give the results of my single season's experience:

I purchased a ton of refuse salt, and applied it, mixed with plaster at the rate of 100 pounds of each to the acre, on clover and oats, and having some left, I put it, mixed with coal ashes, around some very thrifty pear trees. I had a row of 25 alternate standards and dwarfs of different varieties on which I had devoted a good deal of labor, and they were just commencing to bear a few specimens. Now, as to the effect of salt:—On the clover and also the oats no perceptible effect could possibly be seen more than a top-dressing of plaster would have produced, but my pear trees are killed, or nearly so, by something as nearly like blight as anything I ever saw. Every one says it is blight. I think the salt did the evil, for mine are the worst-blighted of any in my neighborhood.

My soil is a clayey loam sloping slightly to the north, giving sufficient drainage. I have cultivated thoroughly, manured liberally with stable manure on previous years. I put on two or three shovelfuls of the salt and ashes to each tree. I also placed some around some peach trees, and they died almost immediately. If the salt did not do it, what did? I would like to be assured that it was not the salt. I live about 300 miles from the sea-board, in Ontario County, New York State, as good a spot to live in as anywhere; but pear trees *do* blight, and I am anxious to learn of a preventive and cure, and in the meantime shall use salt cautiously. [The trouble was probably caused by using too much salt. In large quantities it acts as a poison. It agrees with some trees better than with others. We have known a Poplar for instance, that was "salted" to such a degree that it appeared on the surface of the leaves and still the tree lived, and on the other hand we have seen shrubs killed in a few weeks by scattering too much salt about them.—Eds.] H.

A CURIOUS PEAR.

I have a small, stunted, dwarf pear tree of the Seckel variety, which I would have consigned as fuel to the cooking-stove long ago, but for its odd peculiarities. This little cripple never sets any fruit, but blossoms freely twice every year. This is nothing very strange, but what many pear trees will do here. But the singularity of this tree consists in the fact, that the blooms it shows in the fall have very large petals and are as double as those of a Rose. These flowers are very lasting. Last year the receptacle (or future fruit) of one of these double blossoms commenced to swell, but retained the large and conspicuous petals which had opened in September, until January, when a hard frost cut both the fruit and its petaline appendages. By cutting the fruit in two, and examining it, I found it was hollow, with the calyx end open, round, and inside of this opening the petals were inserted. This fall the tree, as to the doubleness of flowers, exhibits the same phenomenon, though so far no fruit has been forming. The spring blossoms are generally normal. G. M,

Houston, Texas, Nov. 17.

Floricultural.

SOMETHING ON DOUBLE FLOWERS.

GEORGE MARTI.

Botanists tell us that double flowers are produced by a superabundance of sap and great vigor caused by excessive nourishment and cultivation. As true as this may be in some kinds, in most cases it is just the reverse. For instance, any one that ever had a hand in raising double Petunias, Gilliflowers, Carnations, Chinese Primroses, Dahlias and the like, must have observed, that generally the smallest, puniest seedlings turn out to be the double ones, while the most vigorous, free-growing ones only give single flowers. Again, a young Rose-bush as long as it pushes vigorous shoots, produces flowers which will stand no comparison with those it puts forth when its stems and wood come to a certain degree of maturity.

Last year I shifted a perfect, full Camellia from a four-inch right to a seven-inch pot, in order to get more vigor into it, and prepare it thus for planting it out in the open air. This result I obtained; it made an astonishing growth, but at the expense of the flowers, which came later and were only semi-double. I have seen gardeners in Europe cutting back large specimens of Camellias whose flowers had become somewhat degenerated owing to too much wood-growth, and then grafting them again with the cut-off branches in order to obstruct the circulation of sap in a certain degree, and they attained the sought-for result. In Texas, the only way we can keep Dahlias true to color and form, is to raise them, every spring, new from cuttings. The first flowers of Zinnias are never so double as those that appear later in the season when the plants become tougher and the shoots less vigorous.

There is hardly any phenomenon which demonstrates more clearly the importance of raising and sowing sound and perfect seed in order to get a sound and perfect plant, than that which nature manifests in producing these impotent monstrosities, the origin of which may be traced to their parent plants and their seed. However well a double flower may please the eye, practically we must look at it as an imperfect creation of nature. Seed raisers in Erfurt, Prussia, so famous for raising choice flower seeds, crowd several single-flowered Stock (Gilliflower) plants in a small pot containing poor soil. They subsequently take care to keep the beneficial influences of dew and rain from these plants, and water is but sparingly applied to their roots—just enough to keep them alive. By this harsh treatment the plant produces only a few imperfect seeds the offsprings of which are the beautiful Stocks that delight our eyes. In Sanvitalia procumbens the small, defective, three-cornered seeds give the double flowers. This same law applies, in some measure, to Zinnias and some other plants of the order of the Compositæ. Seeds gathered from small, puny flowers of the Aster, which appear on lateral branches close to the ground, produce plants which give the fullest flowers.

The majority of annual and biennial double flower seeds, however, are raised from such double or rather semi-double flowers as have not all their usual organs transformed into petals, and are able to form, if not in the usual quantity they would if the flowers were normal, some vital seeds. Sometimes, if the stamens are all transformed but the pistil left, the latter has to be fertilized artificially with sound pollen from a flower with stamens, as is mostly the case with Petunias and Carnations. In this last case, however, only a small percentage of double plants may be counted upon. Many monstrous flowers originated directly by what gardeners call sporting, either directly by the plant or by some of its parts or through the seed. No true clue has yet been found as to the cause through which these sudden freaks of nature originate.

Harris Co., Texas.

Arboricultural.

TWO WELL-KNOWN MAPLES.

SAMUEL PARSONS.

The Sugar Maple.

To all persons genuinely interested in trees, no species or variety is common. Though they were written about a thousand times, some new and interesting feature would always discover itself to those associating with them. I fancy few dwell sufficiently on the individual attractions and peculiarities of interest that mark different specimens of the same variety. In looking at the ordinary Sugar Maple, I will content myself with noting two or three points of value, that have struck me as regards its behavior in certain localities and positions. Of course, it is hardy, produces sugar, is more pyramidal than other Maples, and colors finely in fall, though not so finely as the Scarlet Maple. Every one knows, or ought to know, these facts; but does every one know why the Norway Maple, a slower-growing tree, actually surpasses the Sugar Maple in rapidity of growth on Long Island and in other sections where sandy land predominates? The Sugar Maple is considered the best tree in many sections, because it grows faster than the Norway Maple. The fact is that the Norway Maple succeeds in sandy soil, or, rather, endures sandy soil, better than the Sugar, a somewhat dainty tree that likes good, rich loam, though it be mingled often with a goodly quantity of rocks. The rocks, indeed, used do no harm to either tree, for rocks may be easily managed to secure good drainage.

The other point of interest in the Sugar Maple is a lawn-planting feature. It makes, in short, the best of road trees, but not the best of lawn trees, unless planted alone where its fine pyramidal form may show forth. If mingled at all, it should be mingled with lower, round-headed trees. Pyramidal trees, as a rule, do not group effectively together; some contrast is needed. The Sugar Maple, notwithstanding the general fertility of the genus in producing varieties, seems to have given forth no sports deemed sufficiently valuable to be perpetuated.

The Scarlet Maple.

Every one has seen the magnificent crimson and scarlet maple leaves of fall, but not everyone realizes that virtually one species of Maple alone produces this effect in most sections. Of course, on the hill-sides of Vermont and elsewhere, the Sugar Maples change and glow splendidly; but, ordinarily, we look along the swamps for the finest autumn leaves. Here abides, indeed, the Scarlet Maple, or Swamp Maple—Acer rubrum. Its habitat is decidedly damp, and hence the absurdity of attempting to transplant Scarlet Maples, six inches in diameter of stem, to the road-side, instead of nursery-grown plants. They may live; but their appearance, for many years, will hardly do the transplanter credit. There may be some excuse for attempting to move the American Elm from the woods, but none for moving the swamp-grown Scarlet Maple. Its nature is always tough and unyielding, hard to adapt to new conditions. Many are discouraged from attempting to plant young Scarlet Maples, even from the nursery, because they are crooked; but it should be remembered that all trees have a marvelous faculty of straightening themselves as they grow older. The tree, once planted in an erect attitude, and pruned from time to time to retain a due balance of branches, little serious trouble will come from early crooked growth.

In growth, the Scarlet Maple seldom distinguishes itself. It develops in a solid, firm, healthy, long-lived way of its own, not as rapidly, to be sure, as the Sugar, Silver, Norway, or Sycamore; but yet into size enough to class it decidedly with the large-growing Maples. I should say this, perhaps, with some qualification; for peculiar conditions develop strange anomalies of growth in all trees. The foliage of the Scarlet Maple always reminds me of that pertaining to the Silver Maple:—it is a little darker, and less irregular, and decidedly more compact. The leaves are smaller than those of either the Norway or Sycamore, and, in appearance, they occupy an intermediate position between the Sugar and Silver.

The varieties of the Scarlet Maple are neither numerous nor distinct. There is one really good one—a pyramidal form, distinct and strong-growing. The remainder, such as A. globosum and fulgens are not very distinct, and hardly merit attention on this occasion.

The Poultry Yard.

PREPARING POULTRY FOR MARKET.

As the season for dressing poultry for the holidays is near at hand, I have thought I would write for Rural readers a few directions which, if heeded, will put a good many dollars into the pockets of those who ship to large markets.

In the first place, the poultry must be well fattened; and however well the fowls may have been fed while at liberty, they will be greatly improved by being shut up for a week or ten days and carefully fed and watered. About a dozen should be confined in a warm well ventilated apartment about four feet square. The feed may consist of boiled potatoes and corn meal mixed in the proportion of two of meal to one of potatoes, and fed warm three times a day. The feed-dish should be such that all can eat at the same time. After allowing about an hour for each meal, the dish should be removed; and, if convenient, the apartment should be darkened, to prevent fighting and feather-eating. Nothing but clean food should be used. The above directions are for chickens. The poultry, at the end of ten days, should be fat enough, if in good, healthy condition when shut up.

On the day on which you wish to dress the fowls, they should have no food or drink. Take the chick, with the legs held firmly under your left arm; with your left hand open the mouth; then, with the right hand, insert a narrow-bladed, sharp knife about as far down as the ears; then give a sharp, quick cut across the roof of the mouth. If done neatly, the chick will bleed and die as soon as if decapitated, and there will be less dirt about. Now, go to work and pick it as rapidly as possible, *without* scalding. Nothing but experience will enable you to dress it handsomely. Commence at the head and pick *clean* as you go; do not go over the bird any faster than you can go, clean. If the skin tears easily, grasp with the left hand firmly on the under side, and with the right hand pull a few feathers at a time perpendicularly, until the tender place is passed over. In drawing the poultry, make a small incision above the rent, reaching down into it, and remove the intestines cleanly up to the gizzard, which should be left untouched; the crop, too, if empty, should be left in. The small feathers on the *last* joint of the wing may be left on and the wing brought forward, lifted over the neck and turned back over the shoulder. A little experience will enable one to do this in a second. It gives the birds a plump appearance and they pack better in the box. As soon as drawn, a string should be tied around the legs and the birds hung up in a cool, dry place for 12 hours, at least; but do not freeze them.

In packing, for chicks, use boxes about two feet wide, two and a half feet long, and two feet high. These are convenient and large enough. Do not use barrels; they are the worst kind of package. Before packing, the heads should be cut off and the blood wiped off clean, if such a mode of dressing is preferred in your market, as it is in Boston. Now place a little clean straw in the bottom of the box—enough to prevent the birds from getting bruised. Next pack a row of chicks lengthwise of the box, on their backs, with the feet towards the middle of the box and the necks turned under the backs. Put as many as you can in a row. Now pack another row opposite, with the feet of each row between the breasts of those in the opposite row. Put a little more straw, or coarse cloth, on top of these, and fill up the box in this way, putting on top straw enough to make the cover fit down tight. Ship to your consignee so that the consignment will reach him at least two days before the holiday for which it is intended. Send an invoice by mail; another in the package.

Never kill a poor bird for the Boston market. A little experience will enable you to tell when it is fat; by lifting up the wing, you can see the skin of the bird, whether a chick or turkey; and if fat, it is easily seen.

The above directions were written for chickens and fowls, but are applicable to turkeys and geese, excepting that turkeys fatten very well at liberty, and geese require to be kept a longer time confined, unless they happen to be in very good order when they are shut up. Geese do better with part corn and a mixture of beef scraps in their meal.

Bristol County, Mass.

Farm Economy.

HOW TO USE COTTON-SEED MEAL.

HENRY STEWART.

As the use of cotton-seed meal for feeding is to be encouraged, I wish to reply in this general way to an inquiry made of me by one of your readers as to the best methods of using it. Like all very rich foods, it requires to be fed cautiously; but its character is such that it comes in most usefully at nearly all seasons, but especially when cows are on grass or fed with roots. With good grass or green crops and plenty of roots for winter, I would desire no other concentrated food than cotton-seed meal, but when dry fodder only is given, it cannot be used alone safely. This meal is the cake left from the hulled cotton seed which has been pressed between hot iron plates to exclude the oil. The cake is ground into meal, and is of a bright-yellow color and a sweet, nutty flavor. It contains 10 to 20 per cent. of oil which has not been pressed out, and a very large portion of albumen and other nitrogenous matter. Chemically, its constituents may be given as follows:

Ash	6.28	per cent.
Albuminoids or flesh formers	44.69	" "
Crude fiber	3.33	" "
Carbhydrates or fat formers	26.29	" "
Fat	19.41	" "
	100.00	

The ash consists of, in 100 pounds of meal,

Potash	1.90	pounds.
Lime	.27	"
Magnesia	.89	"
Phosphoric acid	2.81	"
Sulphuric acid	0.07	"
Silica	.34	"
Equal to	6.28	

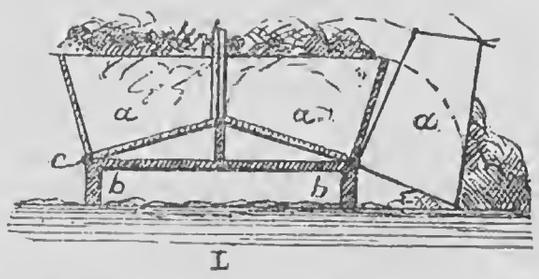
A ton of meal contains 38 pounds of potash and 56 pounds of phosphoric acid, with 78 pounds of nitrogen; it is thus rich enough in these elements to be useful as a manure

which purpose, indeed, it is extensively used in the South. But being so rich a food, it cannot be given to animals, except in small quantities: Two pounds daily are quite enough for a cow that is milking; a calf should not have more than two to four ounces; pigs will not thrive on it at all, as it is too rich for them, except when given in small quantities mixed with bran slops or cut roots. Horses do well on it, if given two pounds daily with corn meal; I think two pounds of it equal to 10 pounds of oats. But if fed too abundantly, the bowels are made very costive and the kidneys are affected. This is doubtless on account of its highly nitrogenous nature, as the waste nitrogen is eliminated from the system through the kidneys, and they are too actively excited by very rich food. The next ill effect is an inflammatory condition of the system, and in cows there is danger of garget, and horses suffer from irritation of the skin, sore mouth and hide-bound. It is as though a man were fed on extract of beef, rich pastry and such food only; when he would soon be in the doctor's or undertaker's hands.

When used judiciously and with a knowledge of its character and value, it is the cheapest (at its present price, $30 a ton,) and one of the most useful foods we have. Being rich in nitrogen and oil, it should be used with food rich in starch, as potatoes and roots. One pound of cotton-seed meal mixed with half a peck of boiled potatoes and mashed together, would make a good feed for a fattening pig or a milking cow, but the pig should have corn or bran for the second daily feed. One pound of cotton-seed meal I consider equal to two pounds of corn meal. If I were feeding store pigs, I would add a peck of the cotton-seed meal to a barrel of sour milk or milk slops, and give one feed of it every day; but I would in no case use the meal exclusively for food any more than I would feed myself on "pies and things."

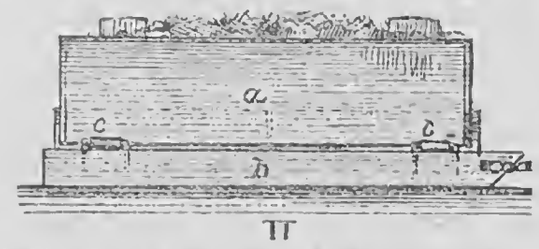
AN EASY-DUMPING SLED.

Our readers sometimes ask for illustrations of home-made farm implements which they can themselves construct during the winter months, when there is but little else to be done on the farm. Besides being inexpensive such implements often have merits that may be looked for in vain in shop-made goods. We here present an easy-dumping sled that is especially suitable for drawing manure, sand and the like, and which anybody handy with tools can make. A rear view is seen of the sled in



I.

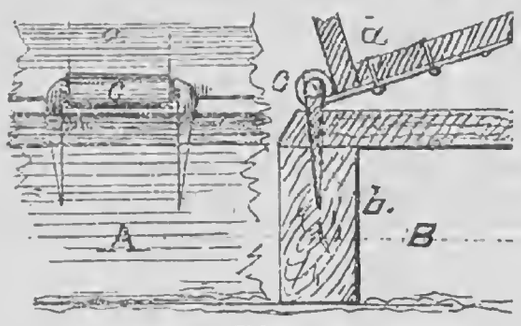
fig. I. Instead of one, there are two boxes, a, a, each of which is hinged to the corresponding runner. To bring the center of gravity nearer the outside and thus facilitate the dumping, the boxes stand on inclined planes and also flare outward. At a, on the extreme right, is shown the position of a box when dumped. It is easily turned back again, and a bolt is passed through the two adjoining sides of the boxes to



II

hold them together, or this may be done with a hook. The two runners, b, b, can be made of any durable hard wood, but to make the sled run lighter, they should be shod with iron.

Fig II gives a side view of the sled, and in fig. III is shown the manner of hinging the boxes more in detail. A is a side view, showing



III

how the staples are driven into the runners, and B gives an end view of the same, showing how the hinge is fastened to the bottom of the boxes, thus serving to strengthen the bottom at the same time.

ENGLISH FARMERS.

I must take a different view of the present condition of the English farmers, from that of the "Eds. Rural New-Yorker." English farmers are not a thinking class; they are mere tools in the hands of the owners of the land, who in their turn are entirely governed by the Professors of Agriculture. The farmers are *not* fitted by education to be trusted with the ordering of the land; the owners (the nobility mostly) *are* fitted by education, but unfitted by their social and political duties, and the only class which has brains adapted to the arts of production, and which is entirely untrammeled by outside influences, is the professional one.

The present arrangement is a happy condition for the agriculture of that country, and to a certain extent, it would be a blessing to America, but the everlasting Yankee "can't be quiet;" he must be farmer, owner and professor on his own land. It is a great undertaking, but he would not be a Yankee if any one else had to do his thinking for him—he would then be an Englishman.

Now the reason why we are beating the English on our own ground *and theirs too*, is that we are on the right track. In their little pent-up country, every man may follow one lead, but in our vast extent of soil and climate, every farm must have its separate thinker, and, lo! it has him.

To give a homely comparison in England the flock follows a few wise old rams, here every man rams around for himself. S. R. M.

Miscellaneous.

VAN'S VIEWS.

On Worm-Eaten Peas.

Now I have no wish to contradict any one; in fact, I do not believe my evidence will contradict, for I believe we are all working at different problems. I will not now raise the question of different varieties of pea bugs; for I am not sure there are different varieties, but may not the bugs have different ways of working? I think you will all agree with me when I say that if the germ be not destroyed, the pea will grow. [No, *we* cannot agree to this, because we know from careful experiments that such is not the case. Just in the proportion that the cotyledons (first leaves) are injured, in just that proportion the plant will be weakened. The germ (embryo) *must depend* upon the first leaves for nourishment. As they get less or more the plants will be weak or strong.—Eds.] I will not say how vigorous a growth it will make; but will merely say that it will grow. My seed peas last spring were badly worm-eaten, and I had doubts about their growing. A son of one of my neighbors said they would grow as well as any peas, and in proof thereof showed that the germ was in every case left perfect. Still skeptical, I sowed them, and he, taking a handful, counted out 25 peas, all worm-eaten, and took them home and planted them in a row in the garden. In due time 25 peas grew from those sown. In my field the peas grew thick enough, but were very uneven—when the first were ripe some were still in blossom.

Now, to my mind this proves that *some* worm-eaten peas will grow, or a very large percentage will; but that they are very poor seed for causes named. [We ask our friend to select weevil-eaten peas *only*, *himself*, plant them—give them every care and report the results to us.—Eds.]

Scrap-Books.

Don't cut up the Rural New-Yorker to make a scrap-book; don't cut up any paper that is in convenient shape for binding; but in many families there are several papers taken, which are not worth preserving and have many good things in them which one would wish to save. To meet this case, make a scrap-book. You can get, from a junk dealer, some old books with good bindings, as, for example, old blotters, day-books, journals, etc., of defunct firms; Patent Office reports, reports of Congressional committees, Census reports, etc. A neighbor, the other day, bought at auction sixteen volumes of the "Ku Klux Klan" reports, and nine volumes of the Patent Office reports for $1.60. At many newspaper offices they are sold still cheaper.

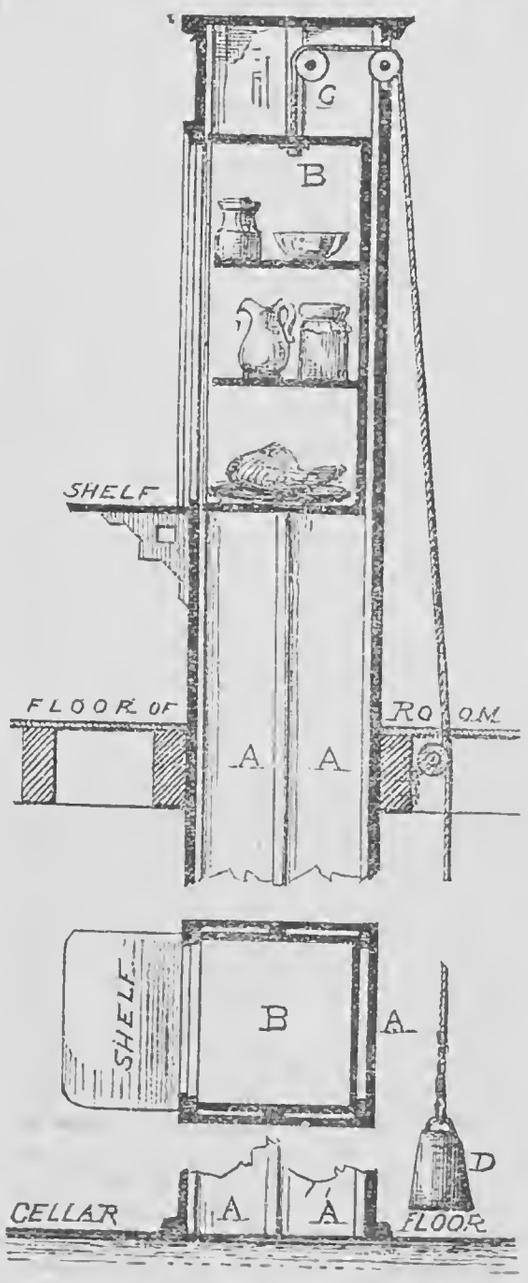
I would leave the fly leaves blank, and cut out, as I filled in, two-thirds of the leaves. Use flour paste; rye is best; never use mucilage. Go to a stationery store and buy a blank book indexed clear through: or, if you feel able, get "Gould's Index Rerum," (not Todd's). Always index under at least two titles. Study up the articles on indexing in the Rural for 1878, and common sense will greatly help you to get a good grip on indexing. It is tedious work, but it is worth a mine when done. It is not a bad plan to cut slips from political papers from time to time, which represent your views politically. A back look at these will give you an idea of how men change, and will tend to make a man less partisan.

Remarkable!

About thrashing time, wheat was from 80 to 85 cents, (No. 1 spring). Many farmers having machine notes to pay, rushed in with their wheat until it began to rise; then they paid part of their notes and got an extension on the balance, paying a bonus therefor. As wheat climbed up, they slapped their hips and looked wise. It touched $1 27 and then began to recede. Now when you meet them, they will ask you: "How's wheat?" and look blue. It seems improbable that wheat will again reach that figure before New Year's, and they begin to think of greasing their wagons again.

A DUMB-WAITER FOR THE FARMERS' WIVES.

This is the season of the year when the thoughtful farmer can "fix up" handy little



contrivances for the "gude wife," about the house, to make work less laborious and save time, and thereby money—and, better still, health. I know of no device that would be more acceptable to the majority of farmers' wives than a dumb-waiter from the kitchen, pantry or dining-room, to the cellar. The number of steps it would save in running up and down stairs, cannot be estimated—so many little things, like a pitcher of cream, an opened can of fruit, a fowl or joint of meat, the dish of tapioca or boiled custard, can then be sent to the cool regions of the cellar and brought up therefrom without taking a step.

The construction of such a device is a very simple matter. Construct a rectangular box, A, two feet square, and long enough to reach from three or four feet or more, if desired, above the floor, down to the cellar bottom. This may be made of inch boards. Sliding freely within this box is the carrier, B, without front or back and with any number of shelves. It should be three inches narrower than the box, A, to allow room for cleats to guide it in its passage up and down. To the top of the carrier, is attached a rope, C, which passes over two small pulleys, and thence down through the floor to the counterpoise weight, D. A door should be fastened to the front of the box above the floor.

Ontario Co., N. Y. William R. Brooks.

PAMPHLETS AND CATALOGUES.

The Audiphone.—This pamphlet of 36 pages, gives a full description of the device lately invented by Richard R. Rhodes, by means of which, it is claimed, the deaf can hear through the medium of the teeth and the deaf and dumb can hear and learn to speak. From the illustrations and description, this invention in its natural position looks like a rectangular fan with a convex end. When not in use for hearing, it can be employed as a fan, and so its real purpose may be concealed. When prepared for use as an aid to hearing, it is bent somewhat by pulling a string which connects the handle with the outer end. The extent to which it should be bent, or, in other words, the amount of tension needed for each person, and under different conditions, is regulated exactly by experience. Many testimonials of its efficiency, some of them from well-known public men, together with a number of newspaper notices and several interviews with deaf people who have tried it, make up the bulk of the pamphlet. The audiphone is sold only by Rhodes and McClure, Methodist Book Block, Chicago, Ill. Price for Conversational Audiphone $10; Opera, $15. We may have occasion to refer more at large, ere long, from practical experience, to this invention, which, if it does only a part of what is claimed for it, must be an invaluable blessing to a class than which none stands more in need of aid from science or ingenuity.

Circular.—New York State Dairymen's Association, the Annual Convention of which will be held in Stanton Opera House, Oneonta, Tuesday, Wednesday and Thursday, December 16, 17, 18.

Sale of Imported Cattle.

Philadelphia, Dec. 3, 1879.

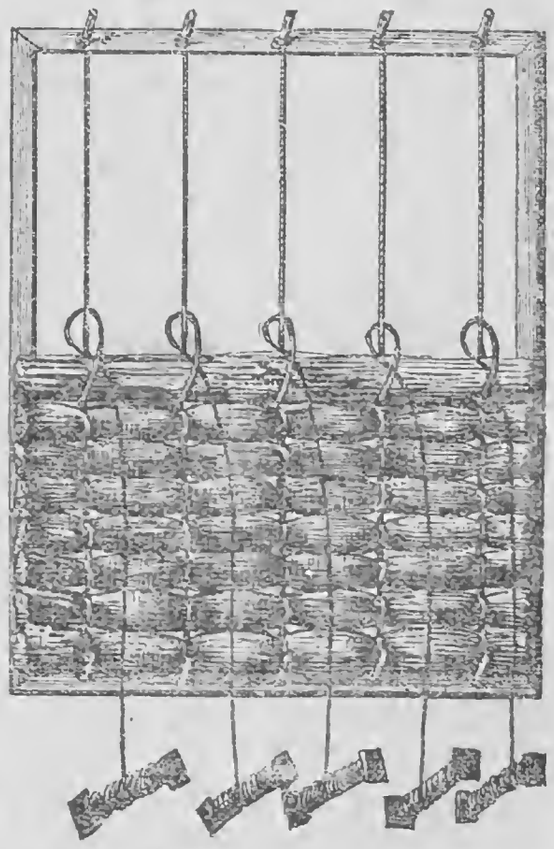
At the auction sale of imported cows and heifers from the British Isles, which took place yesterday at Herkness's Bazaar, the following were the most prominent lots offered and disposed of:—

Blythesome, calved Sept. 25, 1877; Mr. T. S. Cooper, Coopersburg, Pa.	$310
Apple, Oct. 2, 1874; ex-Governor Smith, of St. Albans, Vt	240
Kisber, Jersey bull, two years four months old; ex-Governor Smith	300
Winsome, July 2, 1877; Mr. S. H. Gilbert, Philadelphia	240
Lily, Feb. 13, 1877; Mr. R. F. Warner, Philadelphia	330
Pansey, Oct. 2, 1874; Mr. John E. Phillips, Baltimore	350
Ma Belle, Sept. 28, 1875; Mr. S. M. Burnham, Saugatuck, Conn	300
Lady Jane, April 6, 1877; Mr. J. D. Lippincott, Philadelphia	270
Coquette, two years old; Mr. E. P. Coffin, agent, Pittsburg, Pa.	205
Surprise, Oct. 18, 1877; Mr. Jas. Mooney, Philadelphia	240
Lively, Dec. 20, 1877; Mr. P. McElroy, Trenton, N. J.	265
Belle de Trodais 2d, April 8, 1877; Mr. W. R. McCready, Saugatuck, Conn.	400
Chevalier, Sept. 4, 1864; Mr. W. R McCready.	270
Gipsy Maid, Feb. 16, 1878; Mr. H. Watson, New York	230
Rosalind, Aug. 1, 1877; Mr. H. Watson.	230

H.

HOW TO MAKE STRAW MATS.

Every body who has had any experience with cold-frames and hot-beds knows how useful straw mats are as a protection against frost. Not only are they much more easily handled than straw or hay, but they keep out the cold better, and the surroundings can be kept more tidy. Nor are they useful as a covering for sashes alone, there are many occasions on the farm when straw mats are more handy for covering things than anything else, as, for instance, to throw over a heap of potatoes, if the cellar should not be quite frost proof, or for lining the inside of a cold stable, and the like. To bind straw mats, the first thing to be provided is the frame. It may be nailed together of three-inch wide strips of a one-inch thick board, and it should be of a size that will suit the purpose for which the mats are to be used. For hot-beds the mats should be at least a foot longer than the sashes they cover, so as to overhang a little at both ends. Mats about seven feet long and four feet wide, are as large as can be conveniently handled. At each end of the frame, put in five or six pegs, according to its width, and to these tie the strings serving



as "warp" on which the mat is bound. To each bottom peg, tie also a cord wound on a "spool," as shown in the engraving, and the operation of binding can commence.

Now take a small lock of clean, straight, rye straw, and turning the butts outward, make the first knot on the outside cord, by putting the spool above the straw and around the cord, as shown in the cut. Next, take a similar lock and in the same manner tie that to the cord on the other side of the frame, and then, keeping the tops straight in the middle of the mat, the remaining knots are tied. The process is very simple and, once started, there is no variation till the mat is completed. The cord used should be tarred hemp twine, as it will last longer than if not tarred. Straw mats properly made, not too roughly handled, and if spread out to dry whenever they have become wet, will last three winters as a covering for hot-beds.

Everywhere.

A PLEASANT JAUNT IN CALIFORNIA.

J. B. ARMSTRONG.

THERE have been gentle showers; a few more, and plowing and seeding will fairly begin in California, to continue through the next three months, until completed. The time of sowing makes little difference in the date of harvesting; though, as in the Atlantic States, it sometimes makes a difference in the product. November lies between the parched season of summer and the rains of winter. It is a month of Indian summer—a sort of neutral ground, where the seasons meet in amity. Sea breezes stop blowing, and the days and nights are the perfection of a calm, mild climate, with just enough rain to lay the dust.

For once, avoiding the customary routine letters of the correspondent about crops and fertilizers and insect pests, I will take you, my friendly reader, with me on a little trip across the Santa Rosa Valley, to Russian River, and beyond, a distance of twenty miles. You may ride, invisible, without once opening your mouth, if you choose, though using your eyes and ears for ten hours to almost as good advantage as if you had paid for an overland ticket and spent a week coming hither.

The road is level and smooth, and bordered all the way with farms. Picket fences, made of redwood, driven a foot into the ground, and wired at the top, are the common inclosures. The material must be hauled a long way: and, because the wood is as durable as red cedar, it is the custom to build neat picket fences at first. There are, here and there, fine old Oaks scattered over the fields where they are burning stubble to prepare the ground for the plow. Columns of smoke are rising in various directions, above the tree tops: and here, as we pass a well-kept place, three miles out, a man with a plow is running a furrow next the fence, to keep the fire away. His home-like, white dwelling stands back behind the orchard and a 10-acre vineyard. There are children and women gathering grapes in 50 pound boxes. The bunches often weigh four or five pounds; but the average may not exceed two. Some apples are on the trees, but more are on the ground, in golden piles, where they will remain all the rainy season until spring, unless sold. They keep as well there, in this climate, as anywhere.

We meet a four-horse wagon loaded with grapes piled high in boxes, with bunches of luscious Muscats and Black Hamburgs. The winery pays from $15 to $25 per ton for grapes. The average yield of a vineyard is about three tons an acre; the labor to produce a crop is much the same as for corn. But my invisible companion can no longer restrain his curiosity. He wants to know why the vineyard and the orchard are plowed and harrowed until not a weed can be found? Well, my dear sir, experience has shown that without cultivation we get no crop of fruit in this dry climate. In the course of our trip you shall see many orchards and vineyards gone to ruin for want of cultivation. This farm is a heartsome place to live on. There are 160 acres, with good improvements and water. It looks like some Pennsylvania homestead inhabited for generations; so rapidly do places age in this region. It would possibly sell for $75 per acre. Quite a grove of evergreens, Monterey Cypresses and Australian Gums, from 30 to 75 feet in hight, ornament the lawn. Their growth is so exceedingly rapid that one may grow a forest like these in five or six years.

At the next ranch we see a young chap riding on a chisel cultivator, an invention apparently of the Evil One to promote laziness. He is driving four mules, and trying to scratch in some of the shattered grain left from the harvest, for a crop of hay next year. On fair land, with a favorable season, he *may* cut two tons of hay per acre; the likelihood, however, is that he will not get one. Our best farmers plow and sow as for a wheat crop.

At the blacksmith's shop, which is surrounded with horses waiting to be shod and wagons and farm implements to be repaired, we meet O. A. Taylor with a load of pumpkins of most preposterous size, even for California. Something like the following colloquy takes place:

"Good morning, Mr. Taylor. What do those pumpkins weigh?"

"They average over 100 pounds each."

"How many tons do you grow on an acre?"

"This year the crop is short; it will not exceed 40 tons on an acre and a half. Last year we grew 75 tons on a lot of one acre and three-quarters."

His land is a rich, alluvial deposit, from the overflow of Mark West Creek. Driving along, we find the journey enlivened with the songs of blackbirds and larks. The blackbirds feed in large flocks over the stubble fields, and are a great pest to farmers. Larks perch on the fences, making music beyond compare finer than any warblers we ever heard. Their call begins low and clear, and swells with prolonged and musical notes till the air is full of melody. They are numerous, and add a great charm to out-door life.

We cross the Laguna, dry in the summer, on a long bridge resting on piles. The timbers and flooring are bolted and clamped down firmly, for it is sometimes many feet under water during the rainy season. Even now, the waters are appearing in pools. They always rise mysteriously before the rains set in. This, perhaps, is owing to the shorter days and lessened power of the sun's rays in autumn.

We meet other teams; some are loaded with wheat. My invisible friend wants to know why all the men wear full, shaggy beards, and long, unkempt hair; why they affect slouched hats with broad brims, and big boots with trousers stuck in the legs. Well, we suppose it is because most people here have been miners, or soldiers, or frontiersmen, roughing it always and delighting in adventures of all kinds. The unambitious, easy-going citizen stayed at home, while California is populated with a great many men who do not take kindly to civilization. They pride themselves upon their rough manhood, and the kindly climate enables them to live almost in the open air. There is no winter, and nothing is needed but a shelter from the rain. Still, there are many others who possess all the comforts and refinements of older communities.

The mountains have been in view all day, at first distant and blue, with dark and bright patches of color, forests and pastures, on their sides. Early in the morning mists curled around the loftiest peaks; as the sun's rays gained power, they gradually dissolved in snowy fleeces and drifted inland across the valley. When we stop to water our horses in Greene Valley Creek, my sight-seeing companion may gaze at the sands and pebbles shining in the water. For, though we have been long enough here to know better, one cannot but think, "Who knows, there might be quartz somewhere above, and gold may be glittering in the sand?" And so there is wherever there are streaks of black sand; but it is not often in paying quantities. Pits of charcoal burners are scattered among the low hills, and the air is heavy with smoke.

A few miles beyond we come to the ranch of Lawson Ross, where four cork trees are growing in his lawn. The seeds were furnished by the Department of Agriculture at Washington, in 1858. They are about twenty feet high and a foot in diameter, with evergreen foliage and bark thick enough for vial corks. Mr. Ross grows a meadow of Texas Mesquite grass on his wet land, which yields two tons of good hay per acre. He states that it has driven the red sorrel out entirely. In his other fields he only succeeds in keeping the latter pest down by raising hoed crops and frequent cultivation. The writer does not know, but thinks the Mesquite would not be hardy north of latitude 35 deg. north, on the Atlantic side of the continent.

As we approach the river, the character of the country changes. We climb hills, and descend long defiles bounded by forests of huge Redwoods, and Fir, and Laurel; all valuable timber for the carpenter. Along the streams, growing wild, are Snowdrops, Azaleas, Calycanthus, (Sweet-scented Shrub) purple and white Ceanothus, and Ferns with great branches like young Palms. Though well along in November, the foliage is green, except along the water, where there are thickets of Maples and vines, with pretty red and yellow leaves, illuminating the woods, like a fringe of fire. Our drive ends at the cabin of a woodman near the river, where, as we drive through the ford, there is a fifty-acre field of Alfalfa, knee-high and growing rapidly. Five years ago it was a dense wilderness of Redwoods, as attested by the stumps yet standing. The Korbel Bros. sawed up the timber, cleared off the land, put in Alfalfa, and stocked the place for a dairy. The cattle are not pastured; but the hay is cut three times a year, yielding from one ton to a ton and a half per acre each mowing. It seems as if every condition for success exists. The soil is a deep, sandy loam that preserves its moisture; and its fertility is evidenced by the enormous growth of timber which made over 100,000 feet of sawed lumber an acre. The owners state that Alfalfa hay is the equal of any kind for stock. They were familiar with it under the name of Lucern in Europe, and say there can be no doubt of its success anywhere in the Middle States, if planted on good ground. The soil must be plowed deep and made as mellow and fine an an onion bed before sowing. Twenty-five pounds of seed per acre, bushed in, is the proper quantity, and corn-planting time is the season for sowing, except in California.

Santa Rosa Co., Cal., Nov. 15.

RURAL SPECIAL REPORTS.

OHIO, Clarksfield, Huron County, Nov. 25.—Wheat was a fair crop, from 15 to 40 bushels to the acre. Hay was a very light crop—not more than one-half an average one. Corn was scarcely an average crop, owing to the cool weather. Potatoes were a light crop, but of good quality.

This township is principally devoted to the dairy interest. We have three cheese and butter factories in our township. The season has not been favorable for this branch of industry, owing to short pastures and low prices; though, perhaps, the latter part of the season will pay better. There are about 1,200 cows kept in this township—five miles square. Notwithstanding the low prices of cheese and butter that have prevailed for two years, I am satisfied that dairying has paid *better* than anything else we could have done on our lands here—I mean to those that stuck to it. The trouble with many is, they buy a lot of cows, milk them one season, or, perhaps, two, then sell them for what they can get; and, when they settle up, if they don't have their pockets all well filled with cash, they blame the business. I have kept a dairy of from 15 to 30 cows for the past ten years, and am well satisfied that I could not put *my* farm to a better use. But, like any other industry, to insure success requires careful management. Of the seeds received of you last spring, I can truly say they have more than paid me the cost of your paper, as the plants and their fruit have been a constant source of pleasure from their springing up to their maturity. The Golden Rural is a good tomato; but not quite equal to the Acme, in that the latter is larger, a little more solid, of a little better flavor, and has the advantage of the Golden in appearance. They ripened about the same time, with me. I had 14 pounds of healthy potatoes from the two small Beauties received. I planted the six Voorhis Watermelon seeds by the side of my Blount corn; five of them came up and produced 16 melons, weighing 196 pounds; the largest weighed 23 pounds. All ripened, though four of the late ones were not as good as the others, and were quite small; the others were exquisite. I regard this as an excellent variety, having a very thin and tender rind, affording a larger eatable percentage of the melon than any other kind I have ever raised. My Blount corn has done remarkably well, of which you will hear more from my special premium report. A. J. B.

OHIO, Mt. Vernon, Nov. 26.—The weather is cold here at present, but it is all for the best, as many things were needing a change, especially wheat that was sown early. When I last wrote I predicted a rise in the potato market, but, alas! the tubers have done as the RURAL predicted—gone down, down. They sold readily at 40cts. and 50cts. at digging-time; now they bring only 30 and 35cts. I had about 800 bushels myself, but by watching the RURAL's general reports, I sold them from the field at 40 and 45cts. We have a ready market for all farm and garden produce now. Wheat sells for $1.15 per bus.; oats, 37cts.; corn, 40cts; potatoes, 30cts.; beans $1.50; cabbage $4 per 100; celery, $3 and $4 per 100. M. W.

WIS., Freedom, Outagamie Co., Nov. 29.—We could not ask for more favorable weather for work on the farm than we have had this fall. Plowing is mostly all done. Fall wheat, of which there is more than the usual amount sown, has made a fine growth and is looking well. Roads have been good and business lively, especially that of marketing the last season's crops. To-day the wind is in the northwest, and it will freeze quite hard to-night; in fact, the weather is decidedly wintry, as the circle drawn around the dry maple-wood fire in the open fire-place plainly indicates. J. R.

KANSAS, El Dorado, Butler Co., Nov. 24.—Our most thrifty farmers are from Illinois, Michigan and Ohio. Last year, on a special plot of ground, I planted two kinds of corn—the Chester County Mammoth and Kansas Yellow Dent. The latter has a very large, long kernel, and the former a very long ear, with small kernels. I crossed the Dent on the Mammoth, to get the large kernel on the large cob, with perfect success. I intend to follow up the cross, as I am so well pleased with the corn. I estimate the yield to be over 100 bushels of shelled corn per acre. Next year I shall set apart an acre of ground for experiments, and test all the different kinds of corn I can obtain. Why should not the readers of the RURAL, in every section, experiment with corn and other farm products, and report their experience through the columns of their paper? Such a practice must benefit farmers generally, besides benefiting and interesting the experimenters. [We think so, too.—EDS]. I have everything ready for winter, but as yet the weather is summer-like; though we expect every day a blizzard—the name given here to a thoroughly wintry storm. H. J. B.

OREGON, Oakland, Douglas Co., Nov. 13.—We have had splendid weather for seeding. Lots of grain have been sowed, and it looks well. No frost to hurt anything yet. H. C. W.

VA., Henrico Co., Nov. 29.—The weather has been dry for the past three months; our crops however, were very good for the season. Early planted corn was very light, but that planted late was good. Early potatoes were almost a failure, and late ones not much better. Wheat was a fair yield. Oats were very light. Hay was about half a crop. Sweet potatoes were the best of all our farm crops, yielding from 150 to 200 bushels per acre. I tested six kinds of tomatoes the past season—Acme, Golden Rural, Early Conqueror, Canada Victor, Trophy and Hathaway Excelsior. The Acme ripened first; next came the Conqueror; then the Victor, followed by the Golden Rural and Excelsior, and last but not least, the Trophy. All the seeds were sown at the same time; the plants were set at the same time, and all received the same treatment. Give me for early market the Acme; for late market, the Trophy, and for preserving, the Golden Rural. Wheat is worth from $1.30@1.40; oats about 35c. per bushel; corn 45@50c.; potatoes, Irish, 60@70c.; sweet, 45@50c.; butter, 25@30c. per pound; eggs, 28@30c. per doz.; apples, $1.75@2 per barrel; hay, first crop, $15@18 per ton; second crop, $12@15 per ton. W. B. H.

N. C., Warren Co., Thanksgiving Day.—Beautiful weather for closing up the harvest of corn or cotton. Wells and springs very low. No rain to soak the ground for nearly, or quite a year. Cotton, 11c. Tobacco market opening strong; best brings 60c. M. B. P.

S. C., Aiken, Aiken Co., Nov. 20.—Yesterday a couple of inches of snow fell here and now lies on the green bushes and on the Roses in full bloom, a rare and beautiful sight as they peep out from their snowy mantle. This is the first snowfall here in three years. S. O.

ARKANSAS, Augusta, Woodruff Co., Nov. 25—It is pleasant to read such communications as appeared, from one of your Arkansas correspondents, in the RURAL a few weeks since. A more intimate knowledge of this much-abused portion of our country would soften the asperities of many minds and be of material advantage to the State. I indorse all your correspondent has written, with the exception of what he has said of the sudden changes of climate; my experience of a ten-years' residence has been that the changes are more sudden and severe than any ever experienced at the North, the thermometer occasionally falling, in winter, 40 and 50 degrees in a night; but, with proper care, these changes are not attended with any ill effects. The season has arrived at a point when farmers see the results of their year's work, and are wearing smiling faces. The cotton crop, though fully a third short of last year's, has, owing to the remarkably fine weather all during the picking, been saved in fine condition and brings the top of the market. The crop has been made at less expense than in years previous; consequently less goods were bought on credit, and there is more money in hand now to show for the year's labor. The "credit system" in farming is year by year "growing smaller by degrees and beautifully less." Cotton is an expensive crop to raise, at best, but by giving more attention to hogs, corn and small grains, our farmers are getting to be more self-supporting, and at the same time they have nearly gotten rid of that incubus of debt contracted during the flush times succeeding the "surrender." Although cotton is the staple here, the soil and climate are very favorable for cereals. Corn thrives wonderfully, yielding 35 to 40 bushels per acre under the ordinary scant attention given it, and under good cultivation running as high as 65 bushels. This last figure was the average yield of a fifty-acre field last year, as given me by the owner. He also says that he sold none for less than 50 cents per bushel, and part of it he sold at $1 per bushel. In this heavy bottom land soil wheat does not do very well, though it is raised in spots all over the county, and a steam flouring mill at this place converts it into flour. Small fruits do well, and it is from Arkansas, I think, that St. Louis gets her earliest supplies of strawberries, etc. The attention is not given to the raising of fruits that should be, and there is money in the business to the man that will take hold of it understandingly. Last season I followed out the RURAL's instructions in regard to growing tomatoes on a trellis, and like the results so well that I propose this winter to put up a permanent trellis for my next season's vines. The fruit ripened earlier and better than by the old method, and the vines were loaded with fruit in all stages of maturity when they were killed down, about four weeks since, by a heavy frost. Cotton is selling at 10½c; corn, 65c.; Irish potatoes, $1 25; sweet potatoes, 75c.; butter, 25c.; eggs, 30c.; chickens, $2.50 ₰ doz., beef, 8@10c. ₰ lb. S.

The Querist.

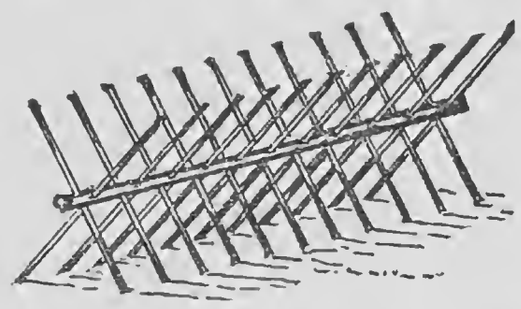
ANSWERS TO CORRESPONDENTS.

Hurdles for Sheep.

J. H., Marshall, Wis., referring to Prof. E. W. Stewart's article on Mutton and Wool, in RURAL of Oct. 11, asks what is meant by the rolling hurdles therein recommended for the purpose of confining sheep to certain limits on different parts of the farm.

ANS.—The rolling hurdle common in England, and used to a considerable extent in this

country, is made somewhat like the old revolving hay-rake. Each is 12 feet long and made of stout poles bored with two series of holes 12 inches apart. Stakes six feet long are put into these holes, so that they project from them three feet on each side of the pole. One row of the holes is bored at right angles to the direction of the other, and when the stakes are all properly placed they form a hurdle, the end of which looks somewhat like



the letter X. The engraving shows how the hurdles are made. In using them a row is placed across the field, a strip of any desirable width being set off, upon which the sheep feed. After they have eaten up all the herbage on this strip and all they can reach by putting their heads through the hurdles, the latter are turned over, exposing another strip of forage, and so on. By using two rows, the sheep may be kept in a narrow strip between them. By this means the droppings of the sheep are very evenly spread over the field, which is very richly fertilized by them. When the crop to be eaten off is a heavy one of clover, rye or other herbage, it is sometimes mowed and thrown on top of the hurdles, which then act as a rack, or pitched inside them. This may be made a valuable way of improving run-down land, or, indeed, any other sort of land. A much longer iron hurdle has also been lately introduced, built fence-shape, with two wheels attached to a horizontal cross-piece at each end. As this is very durable, it would be the cheapest, perhaps, in the end. Mr. Mechi, the well-known English farmer, uses them, and in England their employment has been extending since their introduction, half a dozen years ago.

Miscellaneous.

W. V., Oxford Center, Canada., asks, 1, to name the six best varieties of Grapes for culture under glass; 2, would we recommend the Welcome, a bunch of which was recently illustrated in the RURAL, and the Syrian Grape; 3, how far apart should plants be set in a vinery; 4, a reliable nursery from which to purchase vines; 5, a good book that treats of the culture of Grapes under glass and in the vineyard; 6, agents are offering a new hardy white Grape named Pocklington, is it all it is recommended to be; 7, do we accept Canadian bank bills for subscriptions.

ANS.—1. Muscat of Alexandria, Victoria Hamburg, Black Hamburg, Muscat Hamburg, Royal Muscadine, and White Tokay. We cannot say positively that these are the best for your purpose, but they are rated first-class varieties. 2. The Welcome is a very superior Grape as yet but little known. We do not hesitate to recommend it for trial. The Syrian is a very strong grower and produces some enormously large bunches, but the berries are not so sweet and richly flavored as some others. The bunches will keep well on the vines till Christmas. 3, It will depend entirely upon the system of pruning. If each plant consists of a single cane reaching to the top of the house with spurs along the whole length, which is an excellent way of training vines under glass, they should be about three feet apart. 4. There are many reliable nurseries, and it would be unfair and possibly incorrect, should we point out one firm as superior to all others. Purchase direct from an old and favorably known nursery. 5. Fuller's Grape Culturist is perhaps as good as any. 6 There is a new white Grape named Pocklington of fair quality, but whether it is all the agents claim it to be, we cannot say, since we do not know how rosy they paint it. Time alone can tell. 7. Yes.

J. R. M., Falmouth, Me., asks, 1, what kind of trees would form the best wind-break in that section; 3, whether Salix pentandra, seeds of which the RURAL intends to distribute, would do for the purpose, and, if so, where can cuttings be obtained; 3, fruit trees from New York nurseries have not thriven there, as they take a long time in coming into bearing, while many have died out, and he asks whether this is due to some climatic cause or to a probable division of the roots by nurserymen in root-grafting.

ANS.—1, It is not stated whether evergreen or deciduous trees are desired. If the first, Scotch or White Pines, disbudded or cut back from year to year. In this way as dense a growth as need be, can be effected. 2, We have no doubt that Salix pentandra would prove hardy in your climate. It will bear cutting back to any extent, grows compactly and would prove, we should suppose, a suitable and handsome screen. It is offered by our prominent nurserymen, catalogues of which will be noticed early in the spring. 3, Climatic rather than for the other reason given.

A. W., Tampico, Tenn., asks for the address of some reliable dealers in poultry, game, etc., in this city.

ANS.—We are pleased to give our readers any information in our power, whether such information gives "free advertising" to individuals or not. Our Querist columns, during the past two years, offer abundant proof of this. Such questions as the above, however, we would prefer not to answer, for the reason that we do not *know* who are trustworthy, or who are not. What we consider fair treatment, others may not. Because we have been treated fairly by a certain dealer, or because a certain dealer bears a good reputation, we have no right to assume that others in dealing with him would be well satisfied. We give the following name, without any indorsement whatever: W. Carr & Co., 37 Pearl Street, will correspond with our inquirer, if he sends him his address.

C. M., Black Creek, N. Y., asks: 1, whether the riding-saws, advertised in the RURAL, are capable of doing really good work as easily as it is advertised they do; 2, the address of a firm in this city that will supply harness trimmings in small quantities and of good quality.

ANS.—We have not personally used a riding-saw, but hear that they are giving great satisfaction wherever used. 2, The Union Hardware Co., New York.

H. F., Mathews County, Va., asks whether a certain firm in this city is trustworthy in business matters and desires us to answer at once by mail.

ANS.—We do not feel justified in expressing an opinion on the business standing of men doing business in an ordinary way, unless we *know* that our friends are pretty sure to lose by dealings with them. How can we answer by mail to the above address?

B. M., Chazy, N. Y., asks where medical works can be obtained.

ANS.—From the American News Company of this city all works on any subject, published anywhere here, can be obtained at publishers' prices. Lindsay & Blakeston, 25 South Sixth St., Philada, Pa., are publishers of medical works.

J. H. C., Toledo, Ohio, asks why we do not put the full address of each contributor at the end of his article.

ANS.—Most of our contributors would seriously object to the trouble and correspondence that would, most likely, be entailed upon them. Then there are other good reasons for the rule we follow.

P. C. A., Berenda, Fresno Co., Cal., We cannot tell from the seeds sent us what the plant is. Leaf and flower would be necessary. We would gladly distribute our seeds and plants *now* if this were possible, but for the rest of the year, the business of the subscription department is the most we can attend to with our present facilities.

COMMUNICATIONS RECEIVED FOR THE WEEK ENDING SATURDAY, NOV. 29.

N. E. D.—C. E. V.—W. H. M.—A. M.—J. McG.—E. W.—W. E. M.—D. E. H.—D. C. A.—G. H. T.—E. & R.—E. T.—J. R.—P. T., Jr.—N. W.—S. B. M.—"Subscriber"—A. M.—M. B. P.—E. L.—H. J. S.—M. A. A.—J. L. D.—D. B. S.—E. B.—J. J. S.—B. M.—W. B. H.—H. F. W.—O. A. S.—M. B. B.—E. R. B.—J. B.—L. A. P.—G. K.—G. G.—P. M. G.—M. L. S.—J. P.—A. G.—L. W. G.—A. L. J.—C. E. F.—E. W. S.—J. L. R. N.—F. K. M.

Various.

WHAT OTHERS SAY.

SHIRLEY HIBBERD ON POTATO-GROWING.—From a long article in the Mark Lane Express (England), we cut out the following notes: "The potato requires for its perfect development a dry, fertile and mellow soil, free from large stones, and fully exposed to the light and the sun during all the daylight hours. The beautiful samples that are seen in winning collections at exhibitions are the produce, generally speaking, of soils that are of a clean, pulverulent texture, and which, while they afford abundant nutriment to the plant, permit the tubers to expand equally in all directions, so that they attain their full size and natural shape quickly and without encountering obstructions that would mar their beauty. In a lumpy or strong soil the tubers are necessarily misshapen, through the impediments to uniform expansion. In a pasty loam or stiff clay the resistance to expansion is equalized, and the uniform compression co-operating with excess of moisture in such soils, produces tubers that have the consistence of putty, and to the educated palate are simply uneatable. Hence, the self same sort, however good initially, may be handsome and eatable when grown on a light, friable, warm, dry soil; but when taken from a stiff clay or badly worked loam, will be more or less deformed, and such as to be unfit for any respectable table, so far as regards high quality. . . . Perfect drainage seems to be the very first requisite to success. From the moment the plant becomes water-logged it has received its death blow, . . . When all the circumstances favor the plant it yields a greater gross weight of wholesome food than any other known plant of temperate regions. . . . My own idea of a good sort includes, in addition to healthiness and productiveness, beauty of form and white flesh of a dry, mealy texture and delicate, nutty flavor. . . . For general usefulness, as adapted to resist disease, there is nothing to equal Sutton's Magnum Bonum, which should be planted in rows not less than four feet apart, and will pay better on strong land at five feet than at any less distance. . . . Ripe whole tubers of middling size, say from four to six ounces, are to be preferred; these should be fully exposed to the light to render them green and hard and promote their keeping. When planting time is near, the seed should be spread out in full daylight and be slightly sprinkled with water to promote sprouting, and when the sprouts are half an inch long, and stout and firm, the planting should be proceeded with. Sets that have made long white sprouts in the dark are not to be desired. . . . As to the manner of planting, it must be determined by the nature of the soil. On light, dry land the sets may be put into trenches six inches deep, but on heavy land they should not be put into trenches at all. They should be grown above the level, not below it. The land being well prepared, the sets should be laid on the level and be covered with soil from between the rows. In due time the ridge thus formed should be added to by the process of molding up until in the end the plant will stand high and dry to catch the sunshine, and the channels between the ridges will carry away surplus moisture. On this point I wish to make an observation of very great importance. It is the custom everywhere—a most injurious custom—to mold up too much and too suddenly. I have found it possible, in an unfavorable season, to obliterate a crop by molding up too soon and too high, and yet when the work was done it looked well to see the green shaws riding on the tops of high ridges. On the same land the same season I have had good crops that were not molded at all, and that in many instances grew out of the ground and became green, so that a large proportion was fit for seed only. This proves the need of care as regards the molding. But I approve of molding, because the tubers are formed above the level of the original planting. . . . As regards manure for potato land, it should be remembered that the plant is characterized in respect of its chemical constitution by its large proportions of potash, sulphur, salt and phosphorus. It follows that alkaline and phosphatic manures are particularly adapted to produce profitable results. On any and every kind of light soil that is well drained, farm-yard manure is invaluable. The Yorkshire plan of laying a coat of long dung in the trenches and putting the sets thereon answers admirably, as may be seen by the ash-leaf potatoes that are sent from the West Riding to the London and other markets. . . . It is better on strong land to plant potatoes without manure, in fields that were liberally manured for a corn (grain) or a fodder crop, to which the 'noble tuber' forms a suitable rotation. On poor, sandy soil, kainit and superphosphate of lime are the cheapest and most effective fertilizers. On clay land, a dressing of lime may often prove advantageous, and magnesian lime, which is generally objectionable, will answer the purpose; for the potatoes will soon take the magnesia out of it. In fact, so useful to the potato are alkaline salts that many of the mineral waters that run to waste would be of incalculable service in dry, hot seasons if they could be cheaply employed to irrigate potatoes. . . . I have said nothing about change of soil and change of seed, because there is no crop grown but is advantaged by occasional changes of soil and seed. . . . I could cite many instances of potatoes yielding good crops on the same plots of land for twenty years in succession. But the world is not governed by exceptions, and in potato-growing, as in other matters, rules represent experience, and it is a safe and good rule to shift potatoes about instead of keeping them for a number of years on the same plots of land.

TULIPS.—"Some surprise is from time to time expressed by Tulip growers that the self-colored, or 'breeder' Tulip, preserves its characteristics for a time, and then, at the expiration of from two to six years, 'breaks' into its true character and becomes 'rectified.' Why so much surprise should be felt at what is a very ordinary phenomenon in plant-life is in its turn a matter for surprise. The case is only exceptional in degree. Every plant, and every part of a plant, like every animal, passes through more or less distinctly defined stages, the duration of which is extremely variable. Surely it is no unusual thing for a plant not to manifest its true character all at once, but only after an interval. The little Heath-like Retinosporas, for instance, are but the juvenile forms of a tree which in the adult stage is very different in appearance. Sometimes—why, we know not—the juvenile stage is never grown out of; the plant remains a baby though old in years. In the case of a Tulip, the seedling bulb is doubtless in a condition nearest to the original wild form, but as years roll on it acquires force and vigor, and under the gentle persuasion of the grower it breaks into a bravery of apparel unknown in the juvenile state, and still less frequent in the wild state." The above is from the Gardeners' (London) Chronicle. Our Red Cedar often—indeed, generally—shows this youthful, feathery form in very young plants. "Tom Thumb" Arbor-vitæ retains the feathery form for some years. But we have never yet seen a plant that would not, in six years, throw out shoots of the parent form.

PACKING ORANGES.—E. Williams of Montclair, N. J., says, in the N. Y. Tribune, that he has received oranges from Florida with a loss of less than two per cent. and others a total loss. He attributes the chief cause of failure to the handling by the average "baggage-smasher." A sudden jar or slam of the box bursts the fruit, and stored in the vessel's hold with a temperature none too low at the best, but greatly enhanced by the heat of the furnace and boilers, fermentation and decay are immediate and rapid. With judicious selection of the best varieties, proper care in picking and packing, and anything like decent handling and common sense in storing by the forwarders, the best Florida oranges can be placed on our Northern markets with a mere nominal loss; and with better transportation facilities and lower freights, the time is not distant when the poorest of our laboring men can enjoy the luxury of Florida oranges. The freight from the Mediterranean is less per box than from Florida. A little more competition would help things.

BAD BUTTER cannot be made good; "not all the spices of Araby" can do it. The taste may be disguised, but it is there still. The usual method practiced by dealers in order to improve inferior butter is as follows: Cut up the butter into thin slices, wash it in a brine of salt and carbonate of soda, and set it away for 12 hours in a brine made of salt, with four ounces of sugar and one ounce of saltpeter to every gallon. Then work the butter in fresh water, salt it with fresh salt at the rate of one ounce to the pound, adding to the salt one-fourth as much white sugar and one-eighth as much saltpeter finely powdered. The butter should be worked in one of the rotary butter-workers. It is then packed in sweet, new firkins and sold without delay.—N. Y. Times.

JERSEY MILK.—The peculiarity of Jersey milk, says Dr. Sturtevant in Land and Home, seems to lie in its abundance of cream, in its indigestibility as compared with other milks. It is a well-known complaint among Jersey breeders, over that of the breeders of other stock, that their calves scour to a troublesome degree, which is ascribed to the richness of the milk. *The cause at the bottom is the difficulty of digesting the curd of the Jersey milk.* Indeed, it seems probable that a delicate infant can scarcely be reared on Jersey milk; and that oftentimes illness and death among children brought up on the bottle, are to be ascribed to this injurious effect of the kind of milk used, rather than to its quality. Jersey milk is the milk popular with grown-up people in rugged health. The Jersey is, hence not the family cow to be praised, if by family we include the infants and growing children.

ENGLAND'S CEREAL NEED.—Our correspondent, Mr. J. B. Lawes, of Rothamsted, England, estimates that, as 5½ bushels of wheat per head of the population of 34¾ millions, are annually consumed, they will require a total amount of 23¾ millions of quarters, of which 18¾ millions must be supplied from stocks of foreign sources. The average weight per bushel this year at Rothamsted is only 53⅜ lbs., whereas the average weight for the preceding eight years has been 61¼ lbs. The farmer will thus have to deliver more than nine bushels to supply the same weight as in eight bushels of the previous season. So much for the effect of circumstances beyond the farmer's control.

COMPARATIVE VALUE OF FISH SCRAP AND HORSE MANURE.—Fish scrap and horse manure contain in 1,000 parts the following:

	Fish Scrap. Pounds.	Horse Manure. Pounds.	Value. Cts. ₩ lb.
Nitrogen	90	5¾	25
Phosphoric acid	135	2¾	10
Potash	3	3	6
Water	126	713	..

—Prof. Johnson.

PIGS.—Parsnips, carrots, Swedish turnips, and especially mangel wurzel will all fatten pigs. These roots ought not to be given in a raw state, but always cooked, and mixed with beans, peas, Indian corn, oats, or barley, all of which must be ground into meal. When pigs are fed on such cooked food as we have stated, the pork acquires a peculiarly rich flavor, and is much esteemed, especially for family use.—Dublin Farmers' Gazette.

THE
RURAL NEW-YORKER.
PUBLISHED EVERY SATURDAY.

CONDUCTED BY
ELBERT S. CARMAN.

Address
THE RURAL NEW-YORKER,
78 Duane Street, New York City.

SATURDAY, DEC. 13, 1879.

FINAL notice is given that those competing for the Corn Prizes offered by the RURAL NEW-YORKER, must send in their certified reports prior to January 1st. The prizes shall be awarded thereafter as soon as we can determine who are entitled to them.

SPECIAL NOTICE.

THOSE who are interested in extending the circulation of this journal for 1880 are solicited to send for specimen copies, premium lists and posters—any or all—which will be forwarded promptly without charge. It is our wish and intention to make the RURAL NEW-YORKER for the coming year more attractive, more valuable than ever before, whether its circulation be increased or remain at its present number. We ask of our present subscribers that, for the benefit of agriculture and horticulture, they will state to their friends, at fitting times, the estimation in which they hold this journal, whether such estimation be one of approbation or disapproval. It is a plain duty that rests upon us all to encourage that which seems worthy of success; and the duty is equally plain that we should not countenance any public enterprise which does not strive to promote the welfare of the public it professes to serve. The art and science of agriculture and horticulture have assumed in our country an engrossing magnitude far beyond anything we could have dreamed of a few years ago; and among our most urgent needs are representative journals that, original, conscientious and independent, shall forcibly construe and advance the interests involved.

WE would state to the readers and subscribers of the RURAL NEW-YORKER that we would be happy to send them specimen copies, free of charge, in any numbers that they would kindly distribute among their friends, upon receipt of a postal card making the request.

ATTENTION is called by M. J. Poisson, of France, to our Western plant, Mentzelia ornata, as a beheader of flies. Some of the leaves secrete a viscid matter which attracts insects. But there are other bristles (harpoon-like), that though they present no obstacle to the introduction of the fly's proboscis, prevent its being withdrawn. The fly, in distress, passes round and round until he twists his head off. Professor Gray requests those who have good opportunities of obtaining Mentzelia ornata, or its more common relative M. nuda, to investigate the matter and ascertain whether this charge of cruel behavior is well founded.

WE are glad to see quite a large number of papers, agricultural and political, now supporting the views we expressed a year ago, with regard to the necessity of the Government's appointment of skilled veterinarian inspectors of live stock, not only at the ports of shipment to foreign countries, but also in each district in which contagious diseases of a dangerous nature are known to prevail. Some advocate one method by which such provision should be made: some, another; but having no private axe to grind, looking solely to the interests of agriculture, we care little by what agency the needed measure is effected, or under what department of Government it may act. The only care we have is, that a provision so beneficial to our vast live stock interests should be made at the earliest moment.

OUR correspondent, Mr. James Taplin, tells us that as an insecticide he has found nothing better than acetic ether. This will destroy all sorts of greenhouse insects, while it does not harm the most delicate plants, probably on account of its exceedingly volatile nature. The mealy bug, that disgusting pest of house-plants, is killed instantly by acetic ether, while several applications of alcohol often fail. It may be supposed, also, that it would kill the scale insects. It is at least worthy of trial. Mr. Taplin says that lime, with enough glue to make it somewhat adhesive, is the best wash he has ever tried for scale upon fruit-trees. It should, according to his experience, be applied thick, for the reason that the insects beneath the scales are killed by being smothered. He disapproves of oil for this purpose, as it sometimes kills and often injures the parts to which it is applied.

"WHEN people are determined to quarrel, a straw will furnish the occasion," is an old-time adage as true of fault-finding as of the quarreling to which it often leads. The other day a lady down in Florida had the satisfaction of using some home-grown coffee, the product of the first coffee-berries that had ever ripened in the open air in this country. Straightway, upon this text, some of our "irreconcilable" journalists indulge in would-be-humorous gibes at the Department of Agriculture in general and its present head in particular, one of them even insinuating that the Florida coffee-plant might have been grown and its berries ripened in the conservatory attached to the Department at Washington, and then surreptitiously transported to the Land of Flowers, for the purpose of adding to the *eclat* of Gen. Le Duc in his efforts to introduce other branches of agricultural industry into this country. Yes, truly, "when people are determined to quarrel, a straw will furnish the occasion."

WE learn from various sources that the culture of the Tea plant is promising in some parts of the South. Gen. Le Duc does not expect that home production, if successful ultimately, will make itself felt in the foreign commerce of this article for many years to come. Under favorable circumstances, the trees yield but few pickings the third year after planting, and not until the fifth year may we look for enough leaves from the 50,000 tea plants which the Department of Agriculture has sent out, to commence "in earnest the manufacture of tea for commercial purposes." In raising Tea plants, it is important to shade the young plants from the direct rays of the sun. When sown in greenhouses and covered with glass, this being slightly shaded, the seeds germinate in about four weeks and grow thriftily. In the open ground, however, the first growth will dry up as soon as exposed to the sun's rays, and it is, therefore, necessary to select shaded positions for seed-beds, or else cover the ground with straw or some other airy protection. The Tea plant seems to require plenty of moisture, though it will not endure wet, heavy land. For detailed information the reader is referred to our illustration from nature, upon our first page, and to the accompanying article.

THE National Association for the Prevention of Adulteration in Butter, held a meeting at the Butter and Cheese Exchange, in this city, last Friday. This Association was formed about two years ago, to resist the encroachments on the sale of genuine butter by the manufacturers of oleomargarine. As noted in these pages at the date of its passage, about two years ago, a law of this State provides that each package of grease butter must be distinctly marked with the word, oleomargarine, plainly stamped or written upon it, under penalty of a fine. Many of the packages of this stuff, however, found abundantly in every grocery-store in this city, are marked so imperfectly that often a magnifying glass would be needed to detect the stamp or writing. It is proposed by the Association to take prompt steps towards prosecuting every house selling adulterated butter or grease butter in a manner contrary to law, and to raise a fund of $5,000 to supply the wherewithal to prosecute the offenders. As to the merits or faults of oleomargarine, there is no need here to discuss them; but every honest man will agree in insisting that the article, whether good or bad, should be sold on its merits, and not, as is too often the case, be palmed off upon the ignorant or unwary as genuine dairy butter.

THE Cane Growers' Association held its annual meeting at St. Louis, on Thursday last. Our telegraphic reports give every encouragement to the expectation that we shall, ere long, be able to supply our home demand for sugar by manufacturing it all over the Northern States from the juice of some varieties of Sorghum. Mr. A. J. Russell, of Chrystal Lake, Ill., manager of the largest works in the country for the manufacture of sorghum sugar, turned out 45,000 pounds of splendid sugar the past season, from very inferior juice, obtained largely from unripe cane. His experience convinced him, as he said in an "Everywhere" in the RURAL four or five weeks ago, that with proper machinery and juice weighing 10 degrees Baumé, cane can be ground one day and the sugar from it be ready for market the next day, instead of, as frequently happens now, carrying stock six months before the sugar is ready for sale. Samples of juice, tested by Mr. G. W. Belcher, the Association's expert, polarized from 4.47 to 12.86. Polarization in Cuba rates 14 to 16, and some kinds of sorghum have polarized as high as 14½. The high prices of sugar the coming season, due in a great measure to the shortage in the beet sugar crop of Europe and to the fresh outbreak of civil war in Cuba, will doubtless have a favorable influence upon the development of this new agricultural industry.

AN INJURIOUS PRACTICE.

THE practice of eating snow and ice, so common among the school-children of the Northern States, is a fruitful cause of catarrh. It is common to see boys and girls devour a snow-ball as though it were an apple, or an icicle as eagerly as a bit of candy. The hard palate which forms the roof of the mouth also forms the floor of the nostrils, and is no thicker than pasteboard. The chilling effect of snow and ice brought freely in contact with this thin partition, the upper covering of which is a sensitive secreting membrane, made up almost wholly of fine blood-vessels and nerves, produces a congestion, often succeeded by chronic inflammation. As a consequence, these snow and ice-eating boys and girls almost always have "colds in the head" and running noses. This is the foundation and origin of one of the most disagreeable, persistent and incurable affections to which the people of the North are subject—nasal catarrh. Catarrh is said to lead to consumption. Whether this is so or not, the chilling of the nasal membranes, a part of whose function it is to warm the air in its passage to the lungs, cannot but injure those organs, particularly in people of a delicate constitution.

"BUD HYBRIDS."

IN the RURAL of November 22 we called attention to what seemed to us the absurdity of producing "hybrids" from uniting split buds or grafts. We solicited the opinion of one of our first pomologists (whose name we do not feel at liberty to print), and the following is his reply:—

"I have heard occasionally, for many years past, the assertion that the sweet-and-sour apple originated by placing two split buds together; but I never yet found the man who had performed the operation. I have often seen the sweet-and-sour apple, and have always regarded it as something like the ribbon-grass,—the sweet, or light-colored part, less developed in size and flavor. It is rather insipid than sweet. If it were possible to make the halved buds grow together, it is quite obvious what the result would be—one side of the tree would be one kind and the other the other kind.

"But is it possible to cut two buds exactly through the axis, and make each part unite and grow? I would almost as soon think of cutting two animals through the center and making a compound of them. In common grafting, all we have to do is to make a mass of vessels and cells adhere by advancing growth; but the vital point in a seed or bud is a different thing. It is quite possible to make two halved grafts adhere, for it would be nothing more than grafting the one to the other; but each half would remain as distinct from the other half, as the graft and stock are distinct in common grafting. It might be that, in an extreme case, one half might modify temporarily the other, just as the stock, in rare instances, modifies the character of the graft; but the opinion that a hybrid could be thus produced, is contrary to all analogy and fact. In the millions of trees grafted and budded in nurseries, such a change was never effected."

THE TOMATO OF THE FUTURE.

OUR "Everywhere" reports furnish very trustworthy evidence that the Acme is, at the present time, the best tomato in cultivation. Its shape, evenness and solidity are its main merits. As compared with the Trophy, which, notwithstanding the scores of varieties that have of late years been introduced, still holds the second place, the Acme has the advantage of uniformity of size, freedom from deep seams, and of ripening fully about the stem. It ripens earlier also. The Trophy has the advantage, from a *market* point of view, of being larger and far more prolific. Size, however, in tomatoes, as in potatoes, as well as in apples, pears, etc., is a characteristic we shall value less as people learn that large size and excellent quality rarely go together. Taking the Acme as perfect in size and form, we want a variety that shall be as prolific as the Trophy, and possessed of such keeping qualities that we can send it to England and have ten days to sell it in her markets before it begins to soften or decay. Is this impracticable? Isn't the tomato susceptible of so great a change? The fact is, that this grand fruit grows with us so freely—with so little care of any kind; it sells in our markets for a price so feebly remunerative to the producer, that few have set about to improve it in a way that was likely to produce any good results. Many, it is true, have selected seeds from year to year; but only with a view to precipitate an early maturity, the last thing to be thought of, if real improvement is to be aimed at. Our earliest sorts are our poorest. We may, perhaps, obtain them still earlier; but, except in name and appearance, we shall find ourselves further than ever from those qualities for which the tomato is most esteemed.

In the improvement of the tomato, we want our horticulturists to make discriminate and systematic experiments, the same as have been made in other fruits, and we are glad to know that our suggestions for the past year or so in this direction, have been followed by some of our readers. In due time, we hope to make it appear that we have ourselves, the while, been practicing our own teachings, and that if we do not actually succeed in producing the tomato that can be shipped to and sold in England, we shall be able to present one that, while it equals the Acme in general excellence, shall prove a long way ahead of it in *keeping* qualities.

THE Gardener's Monthly is never timid about speaking its mind. We value, accordingly, the following little compliment from its accomplished editor, in the current number of that journal:

"THE RURAL NEW-YORKER, as it is now, will compare favorably with any agricultural serial issued, to say the least of it."

BREVITIES.

"NAGGING" at our hired help discourages the honest worker.

TURN over the earth in the hen-yards. It will purify it and set the poultry to scratching.

ONE of the fears entertained in England is a *permanent* depreciation of all farm property.

THE plan adopted by our City Horticultural Society of awarding money premiums and then accepting them from the prize-taking competitors to pay the expenses of the Society is—novel, to say the least of it.

THE Report of the Commissioner of Agriculture for 1878, just received, is one of the most interesting and instructive documents of the kind we have seen. We shall make several references to it in the future.

DR. Warder and Mr. M. B. Bateham were appointed by the Governor of Ohio to represent that state at the (Reall) National Convention to be held in this city the 10th inst. But the thirteenth annual meeting of the Ohio S. H. S., of which the first named gentleman is President and the second Secretary, will be held in Canton, the 10th, 11th and 12th inst. Hence they were constrained to stay at home.

AN American writer states, in the London Agricultural Gazette, that there are no farmers in the world who manifest such indifference to modern discoveries and new systems as those in the United States, and that, relying chiefly on the labor they do themselves and can drag out of hired men, they nearly all abhor scientific or "book-farming."—It seems to us that there are, in the three distinct assertions in the above paragraph, at least three distinct errors.

PRESIDENT HAYES says it is a sound policy that has brought about good times. This in a letter to a friend meant for the public. In the numerous addresses he has made during the past season at agricultural fairs all over the country, we have a distinct recollection that he constantly attributed the return of good times mainly to the results of the agricultural labors of our farmers. But, after all, he *may* mean good farming by the phrase, "sound policy," although it looks mightily as if he referred to John Sherman's financial operations.

LAST Thursday Mr. Atkins, of Tennessee, introduced a bill into the House of Representatives giving the Commissioner of Agriculture a seat in the Cabinet. The measure is to be voted upon to-day. We hardly expect better success for this salutary proposition now than it met with when made during the last session of Congress. Reforms are made slowly by the Anglo-Saxon race, especially when they take the shape of an innovation on an established system and when there is no strong pressure of public opinion in their favor. The farmers of the country do not yet seem fully awake to the importance of having a representative among the chief executive officers of the nation, any more than they are yet fully alive to many other rights which their number and standing entitle them to. The day, however, is not far distant when the agriculture of this country—incomparably the most important interest in it—will be duly represented in every department of the government.

For Women.

CONDUCTED BY MISS FAITH RIPLEY.

THE GREAT SPIDER.'

DEDICATED TO SALOON KEEPERS.

A SPIDER sat in his basement den,
Weaving his snares for the souls of men.
"I will not work with my hands," quoth he;
"An easier pathway must open for me."
He spreads his tables of greenest baize,
And many a cunning trap he lays.
The marble halls are smooth and white,
The den is blazing with floods of light.
Behind the bar the spider stands;
There is not a wise man in the land
But will lose his wit and and become a fool
If he yields himself to the spider's rule.
There is not a man so strong and brave
But the spider will dig him a shameful grave.
There is not a youth so noble and fair
But will learn to drink, and gamble and swear
In the spider's den. But do not, pray,
Dare to dispute the spider's sway;
If you sweep the den with the law's strong broom,
Perhaps you might make a cleaner room;
But then men are fearful—a little afraid,
In fact—on the spiders to make a raid;
'Twould stir up excitement, and spiders must live;
So our dear household treasures we patiently give.
The spider still sits in his basement den,
Lying in wait for the souls of men.

[*Mrs. E. J. Richmond.*

What! rob a poor man of his beer,
And give him good victuals instead?—
Your heart's very hard, sir, I fear,
Or else you are soft in the head.

What! rob a poor man of his mug,
And give him a house of his own:
With kitchen and parlor so snug?—
'Tis enough to draw tears from a stone.

What! rob a poor man of his glass,
And teach him to read and to write?
What! save him from being an ass?
'Tis nothing but malice and spite.

What! rob a poor man of his ale,
And prevent him from beating his wife,
From being locked up in a jail,
With penal employment for life?

What! rob a poor man of his beer,
And keep him from starving his child?
It makes one feel awful queer,
And I'll thank you to draw it more mild.

[*John B. Gough*

LETTERS FROM A COUNTRY GIRL.—No. 19.

MARGARET B. HARVEY.

A French Talk.

WHERE is that little girl (or big one), who is generally to be found in every obscure corner of the country, who "wants to learn French," but whom almost everybody delights in telling that she "can't do it without a master," "short methods are humbugs," "it won't do any good," and "it's all a waste of time?" Well, mademoiselle, I was that girl once. *Then*, I had a remote suspicion that, after all, I might know my own business best; *now*, I know I do.

For my part, I say that the acquisition of any knowledge, even under the most favorable circumstances, is impossible, without plenty of will; and under the greatest of discouragements, it is easy *with* that same amount of will. You know about Elihu Burritt and Grace Anna Lewis, so I need not tell you what they did.

Those people who tell you that you can't learn a language are either very pedantic, or very ignorant. Don't mind the first, and prove to the second how much mistaken they are. So far from its being very difficult to learn a foreign language, you will be astonished, when once you have fairly entered upon the pursuit, to find how many, many little helps there are, all along the way. And when you have learned one, you have already accomplished more than half of another.

The reason of all this is plain. Modern European languages are only modifications of three or four ancient tongues, notably Celtic, Gothic, Latin and Greek, which themselves were direct outgrowths of one still more ancient mode of speech prevalent in India, which to-day is known as Sanscrit. All subordinate dialects, whether ancient or modern, may be traced to this classic Hindoo language, so far as is yet known. I do not mean to go into comparative philology,—I may be touching upon important side questions which I am incompetent to answer,—but I do want to indicate this fact, that however much modern languages may vary externally, there is a similar principle running through them all.

But they don't differ so very much, either. Almost any word in English, which is not unmistakably Saxon, you will be likely to find very little altered, in French and Latin,—in many cases, the spelling is identical. You will be surprised to discover how often this is the case.

To take up a language as a study, be sure first that you are thoroughly grounded in English grammar. Unless you know the structure of your own vernacular, I cannot imagine how you can make any progress in another tongue.—that is, if you expect to study without a teacher. The reason why students spend so many years over French, Latin and Greek, is because they have to begin at the beginning and learn the grammar,—if they take up a foreign language early, the supposition is that they don't yet know their own. But when I say, learn grammar, I don't mean, wade through a two-inch volume of controversies,—a little abstract, such as Hart's smaller book, will be more than you need. It gives the essentials of the language, and if you find yourself in doubt over some technicality, you can refer to the authority, Goold Brown's Grammar of Grammars, in the public library.

We will suppose that you "know your grammar." Then you have won half the battle, for the grammar of other languages (French and Latin at least), is substantially the same. The slight differences are no more than you can see and comprehend for yourself. But I will briefly point out a few of the most important in the two languages above mentioned, for I am not familiar with any others.

You will probably notice first of all, the great amount of transposition in both, notably in the latter. In French, the adjective frequently follows the noun; as, *bas bleu*, blue stocking. The object of a verb, when that object is a pronoun, is usually placed before the verb, directly after the nominative; as, *Je vous aime*, I love (or like) you. Akin to this last construction, we have the reflective verb, similar to the passive voice (though there is a passive voice, also, in French.) in which the agent acts upon himself, this being specified by two pronouns placed before the verb, one of which is nominative, the other, objective. What in English would be an intransitive verb, will most likely be reflective in French. For instance, we would say, *I walk;* a Frenchman would say literally, *I walk myself*, (*Je me promene.*)

Some constructions incorrect, though common enough, in English, are perfectly proper in French. Especially is this the case with the double negative, which occurs everywhere in the latter language. We could not say *this here* and *that there*, but the French can and do. *It is me, it is her, it is him*, are shocking in English, but all right in French. Further than these, there are no very striking idioms, other than that there is no neuter gender, everything, even inanimate objects, being masculine or feminine. Out of this fact grow a few important considerations. A word in the feminine gender is usually denoted by the termination *e;* adjectives, articles and possessive pronouns—in short words qualifying nouns—have their gender, as also their number, to correspond with the nouns to which they belong. It will not do to say, *Un beau table*, however pretty the table may be; the noun *table* is in the feminine gender, consequently the adjective and article must be also. *Une belle table* is correct; so, if I mean a particular one, *La belle table*, (not *le; la* and *le* both mean *the.*) If the table is mine, I cannot say *mon table*, for *mon* is masculine. Nor, were it "thine" could I say *ton table*. I must have it; *ma table* or *ta table*. If it belonged to you and me in partnership, *notre table;* to you and some one else, *votre table*. Were there more than one, I could speak of them as *mes tables, les tables, nos tables*, or *vos tables*, as I could whether the noun happened to be masculine or feminine, the possessive plural being the same for both *mon* and *ma, ton* and *ta*, while *notre* and *votre* are already singular as to the object possessed, plural as to the possessors, *nos* and *vos* plural as regards both possessors and possessed.

In Latin, you may especially remark the absence of the articles, *a* and *the;* the abundance and frequent recurrence of emphatic words; and the excessive use of the participle.

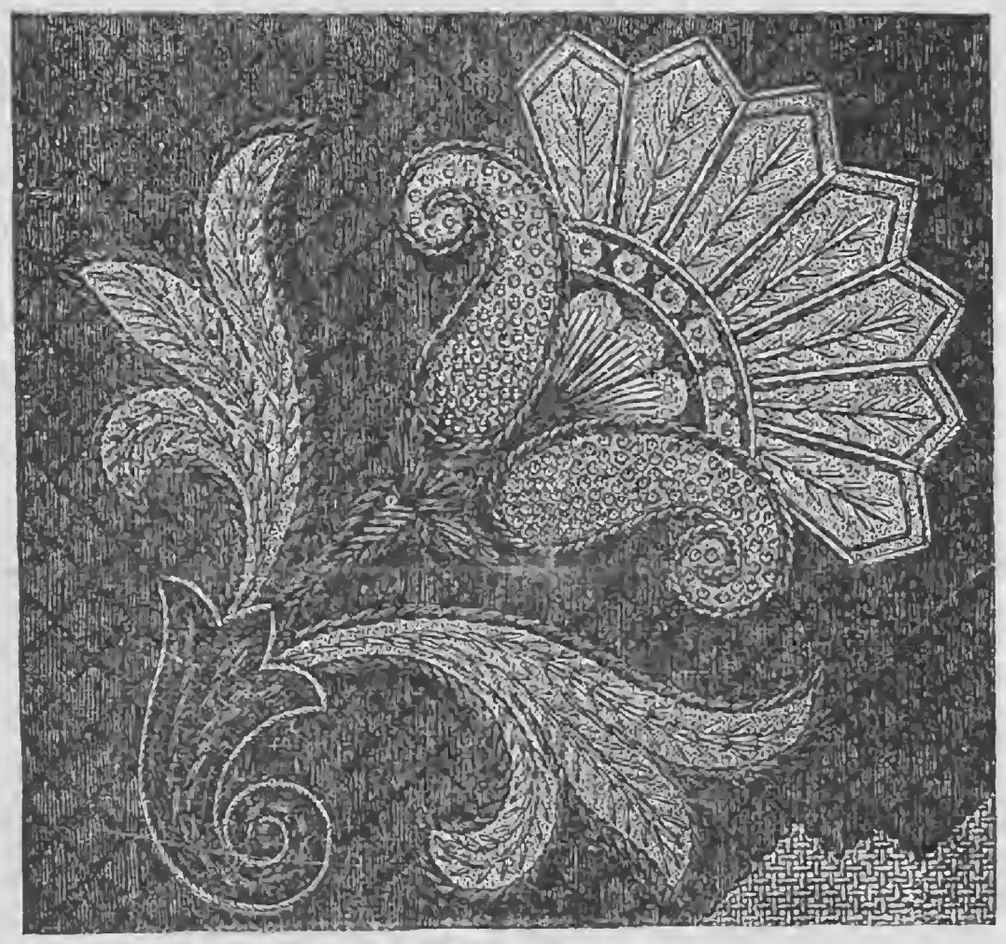
DIFFICULTY OF A NEW LANGUAGE.

The real difficulty in learning a new language is to master the declensions or variations of the form of words. In French, these are found only in the verbs, which though professing to have but four modes of conjugation, have, in fact, so many irregularities as to amount to over eighty. Don't believe anybody who tells you that the English language is the most difficult to learn. The spelling may be hard, but the verbs are nothing—French verbs are barbarous. In Latin, though far less capricious seemingly, the verbs are almost as formidable; and added to which is the stubborn fact that the nouns, adjectives and pronouns also change their form to express gender, number, person and case to agree with other words in a sentence. There is no necessity, however, for you to learn all the declensions at once. If you attempt it, you will probably discover nothing more than what a dry study you have taken up. Don't be startled if I tell you to begin right away and translate.

"Translate!" you exclaim, "How can I if I don't understand the language?" Well, let me undeceive you a little. Contrary to general belief, translation is the easiest part of acquiring a language. Anybody can translate, but not everybody—not a great many, in fact—can so master a tongue as to write it, speak it, think it, as though it were their own. But if he could at last, he would most likely have to translate at first.

He couldn't, though, and you couldn't, take up Victor Hugo's incomparable work Les Miserables, and write it out in an elegant form worthy to be given to the world. *That* kind of translation must ever be reserved for master minds. The kind you undertake must be so far from ambitious as scarcely to escape from the privacy of your own room.

It matters not what language you start to learn, the mode of procedure will be the same. Latin, it seems to me is especially valuable not as an accomplishment, but as the foundation of an education, because English, French, Spanish and Italian are largely derived from it, and because its terms enter into every department of Science, Medicine, Botany, Mathematics and what not. French is also valuable because, next to the English, it is most widely spoken; because of its priceless scientific literature, notably on Chemistry and Physics, and because it is a new, vigorous, growing tongue, not confined like many others within a limited area. By the way the French are not the light, frivolous creatures they are often supposed to be. No nation in the world can boast brighter names among its philosphers and novelists and poets. Witness those of Ganot, Lavoisier, Victor Hugo, Madame de Stael and Fenelon. I know nothing of German, other than what I have gleaned through translations, but surely, Schiller, Goethe, Jean Paul and Herder are worthy to be read in the originals. Italy and Spain offer to us Dante and Petrarch, Cervantes and Lope de Vega. Italy and Germany, however, speak to us in a diviner language, the universal one of music.



DESIGN IN APPLIQUE AND EMBROIDERY.

Spanish, I am told, is exceedingly easy—so easy that any one could learn it in six months, or, with a moderate knowledge of French as a foundation in three. Italian, also, is far from difficult, closely resembling French and Latin.

HOW TO BEGIN.

Provide yourself first with a good though inexpensive dictionary—Fleming and Tibbin's for French, Ainsworth's for Latin, some friends can probably inform you whose for other languages. Tables of all the verbs are given in the front of the French dictionary, while for the Latin paradigms you can procure a little work containing them, from any great publishing house, for twenty-five cents. Don't, as yet, bother with grammars. For translation, procure a copy of some work *with which you are already familiar*, so that in case of doubt you can easily refer to your English version. For several reasons probably the best book for this purpose is the New Testament. First, its cheapness, you can buy a Testament in French for twenty-five cents, one in Latin for fifty; second, your pre-supposed familiarity with it; third, its correct diction and its pre-eminent place among the classics of all civilized languages; fourth, it will indirectly aid your faith and Christian knowledge.

Armed now with Testament, dictionary and pen and ink begin to work. Hunt out every word, and write out a *literal* translation, it will be time enough to render it into correct English when you know more. Grapple with every difficulty boldly, pausing when you come to a different form of a word long enough to learn it, and don't refer to your English Testament except as a last resort. Persevere in this, even if you don't write more than a quarter of a chapter a day, it won't be many months before you can easily finish several at a time. When you see exactly what the declensions *are for*, why *then*, learn them verbatim.

Of course, there is to be no play about all this. Such a pursuit may be carried over several years, the time being lengthened or shortened, according to your perseverance. But within a year you ought to know your French Testament well enough to read it without assistance, and six months later to comprehend any extended work in that language, while at the end of two years, you should read almost anything—that is, enough to know that you are very near the goal. If you have no other pursuits on hand, I don't see what need prevent your accomplishing it all in about six months.

PRONUNCIATION.

French, I believe, is almost the only language in which speaking materially differs from writing. The tongue, as it were, lightly skips from word to word, seizing each by the beginning and jumping from it ere reaching the end. It is said that a true French pronunciation cannot be attained without a native teacher. Perhaps not—but certainly something better than the mongrel American style can. Try and remember the following principles:

1. The French *never* pronounce the final consonant of a word (except that consonant be *c, f, l,* and *r*), unless the next word begins with a vowel, in which case the final consonant is joined to that next word. Thus, *Je vous aime*, is pronounced, *Zhe vou saime*, *s* sounded like *z*, *vou*, like *vou*, and the *e* in *je* like *e* in *hen*.

2. *N* at the end of a word is not precisely dropped, but sounded somewhat like *ng* in *song*. *N* generally, is one of the indistinguishable nasal sounds.

3. The combinations *in, ain, ein*, are pronounced like *an* in *can*, while *im* and *aim*, are sounded as *am* in *lamb*. The *n* and *m* sounds, however, are more nearly alike than in English, both being nasal. Never say *mering*,—say *merang*,—for *meringue*.

4. *En* and *em* are pronounced *ong*. Thus, the word *temps* sounds almost exactly as though spelled *tong*.

5. *E* alone is nearly like our long *a*, as in *day; i*, like *e* in *me*.

6. *Gn* has the sound of *ny*. We have a word anglicized which contains this combination, *mignonette*, whose correct pronunciation is *min-yo-nette*.

7. *Ll* is as much like *ye*, in yes, as I can write it—sounded very lightly, however. Thus, in *merveille*, pronounced *mer-vi-ye*, the *ye* is little more than a lengthening of the preceding *i*.

8. *Oi* is like *wa* in *wall*.

9. *A* alone is either like *a* in *ah* or in *at*.

10. *On* is nearly like *one* in *lone*, except that the *g* sound is slightly apparent.

11. *Au* is like *o* in *hope*.

12. In *re* and *le* the consonant sound is so shortly pronounced as scarcely to touch upon the *e*, as in *centre* and *peuple*, pronounced *sontr* and *pupl*.

13. *Eu* is the hardest sound for an American to make. He either gets it like *u* in *under*, or *ur* in *burr*. But we have the exact sound in English—it is like the *e* in *her*, the *i* in *fir* and the *o* in *work*. Give the vowel in each, clipping off the *r*, and you have it, little wave and all.

14. Generally, when two vowels are combined, the combination is sounded like the last simply. For instance, *ai* and *ei* are pronounced like *i*, as in *life*.

15. The final *s* in a plural is not sounded, nor is the previous consonant, which would not be if alone. The *s*, however, is carried over to the next word, if beginning with a vowel.

16. The various terminations of a verb, except *ons* and *ont*, both pronounced *ong*, are not sounded.

17. The French do *not* accent any syllables; every syllable has exactly the same value as every other. Accents in French have nothing to do with emphasis.

18. The principal exceptions to these rules are in the words *et* and *fils*. The *t* in *et* is never pronounced, while *fils* is read as though written *fiss*.

Make it a point always to read your lesson over aloud, and by this means you will soon become familiar with the spoken as well as the written language.

I don't say all this will teach you to converse, for it won't. To do so requires a fluency of thought, a thorough acquaintance with the idioms, so as to have them at your tongue's end, and, above all, confidence in yourself and constant practice. For all this you want a teacher; but until you are ready, I repeat, to begin actually and converse, you don't need any instruction at all, other than you can, by steady application, give yourself. If you can afford to spend only a small sum upon language lessons, save it for the last, the finishing; there is no earthly use in giving any man or woman a dollar, or even fifty cents an hour, to hear you define a word or repeat a conjugation, unless you are one of those unfortunate individuals who cannot learn anything alone. If you can't lay out any money at all, why you need not be discouraged, nor will your labor be lost if you succeed in reading the choice works in foreign literature, even if you never open your lips save in your mother tongue.

DESIGN IN APPLIQUE AND EMBROIDERY.

THIS design placed at equal spaces on the canvas, is suitable for chair-seats, cushions, stools etc. The applique may be of cloth or velvet. The foundation is canvas, and the grounding is a diaper pattern of wool. The outline of the leaves is in cording stitch, with coarse silk; the colors may be selected according to taste

FEMININITIES IN BRIEF.

Martha Washington handkerchiefs in black net with jetted frills are stylish.

Beetles and bugs in natural tints have taken the place of the reptiles popular last winter in adding the finishing touches to bonnets and hats.

Silk handkerchiefs are favorites for neck-wear. They are manufactured in rich, dark and brilliant colors, both plain and figured, the designs being noticeable for their oddity and variety.

For evening entertainments, matrons who wish to wear dark colors will choose a costume of all black or garnet, as much handsomer by gaslight than deep gray, blue, brown, green or any of the similar shades.

For your piano cloth fashion demands that it shall be white or cream-colored velvet, hand-painted in water-colors, or wrought with the finest silk *broiderie* in wreaths of holly, in fronds of fern or in garlands of violets and smilax.

Literary Miscellany.

THE PASTOR'S RESIGNATION.

BY I. EDGAR JONES.

THE aged pastor bowed his head within the altar's railing;
His hands were tremulous with age, his sight and hearing failing;
Fond faith and trust were striving hard to fight away his fears,
But yet his heart was sore and sad and sought relief in tears.

For forty years his tongue proclaimed to all salvation's story.
For forty years to all who came he offered hope of glory.
For forty years the bell that echoed now from out the cupola
Proclaimed that here his warning voice had tidings for his people.

But now the leaders of the church—an influential clan,
Had called on him to yield his place to hold a younger man;
His energies had long been spent, 'twas meet he should retire
That they might call a man of mark endowed with youthful fire.

With quavering voice he gave response to friends who offered greeting,
And listened in an absent way to members in the meeting—
Discoursing in familiar tones of changes they were making—
And asking him to make remarks, although his heart was breaking.

But yet he spoke—as oft before—his voice aglow with feeling,
While down his faded, furrowed face slow tears were softly stealing,
A holy hush pervading all, as though an angel spell
Had rested on them, as he rose to bid his flock farewell.

He spoke of memories sad and sweet, of dim and distant days,
Of forty years of constant toil, of pain and prayer and praise—
Of children—christened by his hand who stood before him still,
While some reposed beneath the flowers upon the distant hill.

And here his voice sank sad and low—for there his child and wife
Were laid when death had left him lone to live his laboring life—
Far more were they he once had known, who 'neath the willows slept,
Than they who sat before him now, and o'er their memories wept.

For all he prayed as fathers plead for children whom they love,
That all might once again be joined in God's abode above;
And then, in voice replete with tones of love and fond caressing,
He raised his trembling hands aloft and gave to all his blessing.

The saddened people silent sat as he resumed his chair,
While rays of sunshine softly fell and played upon his hair,
And rested there with light caress, as though a golden chain,
By which an angel message sought and soothed him in his pain.

The organ broke the silence then with sweetly solemn roll,
That wailed in waves of silver song across the saddened soul,
With "Rock of Ages," old, yet new—majestic, grand, and strong—
Well may the angel choir above, its quivering notes prolong.

The people rose to be dismissed; their pastor lingered still,
And smiling looked upon the graves that crowned the distant hill;
But when they sought with gentle touch to wake the musing mind,
They found that death had called him hence; *their pastor had resigned.*

IN FOLLY'S NET.

(Continued from page 794.)

CHAPTER XXIII.

TAKEN.

JEAN was alone; she was sitting in a little quaint octagon room, which had always been a favorite resort during her unhappy residence at Blair Gates. It was hung with crimson, scented with flowers, winter though it was, and on the hearth burned a warm, glowing fire of logs, which threw a ruddy warmth over the room, with its rich-hued coloring and rich furniture.

She was leaning back in a deeply-cushioned armchair, her beautiful head resting against its crimson cushions, her hands clasped in her lap in idleness, her lids half closed over the dreamy, musing eyes, which looked into the red glare of the fire. She was dressed in black—all the heavy outward signs of mourning were upon her; the long cashmere, with its crape coverings, swept the ground around her feet; but her face was not sad. It was grave, certainly — very grave and still; but the lips were parted in the faintest little smile, as if they held some happy secret, and a faint rose-color had crept on in the pallor of the soft cheek which had been pale so long.

For some time she had been sitting thus idly, doing nothing, for the languor of her recent indisposition was on her yet, and she was but weak and feeble still. No noise nor confusion reached her in her little far-off room, shut in so cosily; no suspicion of the trouble about to overwhelm her in her calm security; she had no *soupcon* of the terrible gulf on whose brink she stood; she had forgotten even the suffering of the past few weeks in the day-dream which she was dreaming in the firelight.

The door opened softly, and Jean lifted her eyes; but the person who stood there chimed in so aptly with her waking dream, that his presence gave her no surprise. The handsome, fair face had been so vividly before her as she dreamed, that now, as he stood there a living presence, she felt no astonishment, no wonder—perhaps she hardly realized that he was there really, as her eyes dwelt upon him with unutterable tenderness, and her lips parted in a soft, welcoming smile.

"Archie," she said, softly, in a voice of music, so low, so hushed that the words barely stirred the air, "is it you?"

He came forward hastily, before she could move, and sank on his knees beside her, putting his arms round her as she sat, and drooping his head until it rested on her knees, mute in his awful sorrow, unable to tell her why he was there, knowing that his words would break her heart.

For a few minutes they were silent; the Earl's head sunk on her knees; his breath coming with suffocated gasps; his hands unsteady and trembling. Jean was the first to break it.

"Something has happened," she said, and her voice, faint though it was in her terror, did not falter. "What is it?"

A long shudder ran through Lord Ivor's strong frame, a shudder such as shakes a man's limbs under some terrible bodily torture, but he did not speak.

"Tell me all," pleaded the low, sweet voice, steady, unfaltering still. "You are safe—you are well; it cannot be anything so dreadful, that I cannot bear it—I have borne so much."

"Poor child!" he said in unutterable tenderness, lifting his head and looking at her with the weary pain in his eyes, the contraction of a great torture in the quivering lines of his face.

"Dear," she said, softly again, with her tender hand lying lightly on his shoulder—"if you can, tell me—"I can bear anything, but this suspense."

Anything!—could her wildest dreams have told her the awful reality!

Listening to her soft, sweet tones, meeting the sad tenderness in the lovely, wistful eyes, a deadly pallor came over the Earl's face; his lips grew white; his heart almost ceased to beat!

"Archie!" she said, tenderly, "you are ill!"

His head sank forward on her shoulder for a moment in unconquerable weakness, and he strained her to his breast with a close, convulsive clasp. In silence she submitted, waiting until he was stronger—able to tell her.

At last he rose from his knees and loosed his arms from around her, looking down at her the while in tenderest compassion, then a great sob burst from him.

"Oh! my darling, how can I tell you!" he said, piteously, all his manhood deserting him now, his heart wrung with anguish, his limbs trembling and nerveless.

She looked up with wondering, wistful eyes.

"What is it, dear?" she repeated, gently. "How your hands burn! How you suffer!"

She rose from her seat and went to him; she forgot in her anxiety that the sod was freshly turned on her husband's grave—she only knew that the man she loved was with her in some new fearful grief; she saw that he suffered as no physical anguish could make him suffer; that his limbs were weak—his eyes dim with an agony which no bodily pangs could wring from him. She put her arms round him, she lifted her fair, pale face to his, and her eyes questioned his mutely—but earnestly.

"Jean," he said, in the faint voice of a man weak from long illness or bodily infirmity, "it would be easier to die than to tell you."

"Say on dear," she murmured, "it may be easier when I bear it with you. Tell me all."

For all answer he pressed her to his heart, and kissed her many times, with a fierce, passionate despair in each caress, the fever of his lips burning hers like fire—then in silence he released her again.

Suddenly there was the sound of steps upon the stairs; he turned from her, and crossing to the door with a hurried step, he locked it, coming back to her again, hardly daring to look at the questioning eyes with which she watched him.

"Great Heaven!" he said, clasping her hands in his with unconscious passion; "how can I tell her! How can I tell her!"

He sank down on a couch and drew her down to his side—she let her hands lie passive in his and watched him anxiously; her love for him was strong—so strong, that it excluded all thought of self, but she knew that, for suffering to touch him so keenly, it must touch him through her.

"Dear," he said, in a moment, huskily, "you know how dear you are to me—how infinitely precious you are—you know that I would cut off my right hand to save you a pang."

"Yes, I know," she said, softly.

"Then you will know what it costs me to come to you to-day."

"I can see how you suffer, Archie," she said, tenderly, sweeping back the hair from his brow with a pitying, compassionate caress.

"Oh, if I could keep it from you!" he said, brokenly. "I came to save you pain, Jean, and I am doubling yours. Oh! love—love, listen—they are coming for you."

"Coming for me!" she repeated, her eyes seeking his with an undefined dread. "Who?"

"Don't look at me so, my darling! Your pure eyes break my heart. Oh! the fools, the madmen to doubt you!"

She half rose; some dim revelation of the truth was coming to her, but he drew her back into the shelter of his arms.

"To doubt me?" she repeated slowly.

"Oh, child, if I could keep you always," he groaned. "My darling you will not be afraid; they cannot prove their vile suspicions. Jeanie, don't look thus, love; you are breaking my heart."

"Their vile suspicions," she said. "They are coming for me. Do they think—Archie, they cannot—do they think I did it?"

"They cannot prove it, sweetheart," said the Earl, brokenly, as in a sudden access of terror, she clung to him with convulsive strength. "They cannot prove it, my poor, wronged darling. Heaven give you strength to bear it! It cannot be for long. All will be cleared up soon."

"You will not let them take me!" she entreated, clinging to him with her tiny hands. "Archie, you will not let them take me!"

"Oh! darling, if I could —" he stopped, choked with the great sob which rose in his throat

"You will hold me very tight?" she said, in strong, feverish excitement; "you will keep me from them, Archie, dear, if you love me—you will hold me fast from them!"

"If I love you! If I love you!" he repeated in anguish, and a great passion of sobs broke from him in his agony. Powerless to help her—powerless when his love was so great.

At the sight of his anguish she calmed her own, and unclasped her clinging arms.

"Forgive me," she said, gently, "I did not mean to hurt you, Archie. I know that, if you could, you would keep the trouble from me. Dear," she went on, tenderly, lifting his bowed head from his hands, and looking into the gray eyes she loved so well, "do not grieve so terribly. They cannot hurt me, you know."

She was stronger now—he who should have strengthened her was encouraged by her brave words, her unselfish devotion.

A knock came to the door—a hasty knock, and Collin's voice:

'Oh! my lord, they are coming—they are here!"

Jean rose, and went to the door, as if to unlock it, but he drew her back.

"Not yet—one moment yet," he said, brokenly. "My dearest, they shall not! oh! great Heaven, this is unbearable!"

He held her close then, strained to his breast; she could feel the uneven panting of his heart against her shoulder; the hot tears fell from his eyes on her upturned face.

"Archie, you hurt me," she said, piteously.

"Oh! Heaven!" was all he said, holding her close.

It was a terrible thought. At the door they were waiting to take her—his darling—to a felon's cell!

Strangely enough—and yet not strangely, perhaps—she had never thought it necessary to assert her innocence to him. True, he had never doubted her, even in his thoughts, for a moment. And measuring his love and trust by her own, she had not doubted him.

"Archie," she said in a moment, speaking the words she had spoken to him once before, "let me go—they are coming for me!"

But he only tightened his clasp, and as the sound of another hasty, imperative knock came to the door, he bent his head and rained kisses and tears on the beautiful, still face near his shoulder.

"Archie" she whispered, faintly, "Archie, help me!"

The two simple words recalled him to himself; he released her and stood erect, dashing the tears from his eyes; then crossing over he opened the door. Two or three men stood without, and Collins was shrinking back in the shadow of a dark velvet curtain which shaded the entrance.

"Collins," said the Earl, calmly, "bring your mistress her cloak."

It was there ready, and with trembling hands the maid wrapped the rich, dark furs around her, and stooping when she had completed her task, she kissed the little cold hands.

"Thank you, Collins," she said, gently, and taking the Earl's arm, she went quietly down stairs, through the group of weeping maid-servants and staring men, to the carriage which waited.

And so they took her from him to the prison cell.

CHAPTER XXIV.

BEFORE THE TRIAL.

SIR David Cairnes sat in his study—a handsomely furnished but essentially business-like room—in his house in Edinburgh. He was seated before his writing-table, glancing over his correspondence, sorting papers in an alert, orderly manner, with his clear, steel-blue eyes still undimmed and keen, although he had seen nigh sixty winters pass over his head. It was yet early in the day, for the clock on the mantel-piece pointed to eleven; Sir David had given orders that he should never be disturbed by visitors before noon, but it wanted almost an hour to that time when his butler entered with a card.

"His lordship begs you will receive him, Sir David," he said, respectfully. "His business is urgent."

Glancing at the card, Sir David read the name and a slight expression of pity crossed his face.

"Ask his lordship to be good enough to come to me here," he said, quietly; and as the man left the room, he went on with his letters until the door opened again, and the servant announced:

"The Earl of Ivor"

Sir David rose, and held out his hand to the young nobleman as he entered, and one glance at his face showed that he was haggard and weary, and travel-worn. His proud gray eyes had dark shadows under them, and his face was very pale.

Neither spoke until the servant had closed the door; then Lord Ivor said hurriedly:

"I ought to apologize for troubling you so early, Sir David, but my business is urgent."

"No apology is needed," said Sir David, cordially. "Whatever chance brings your father's son is a fortunate one for me."

"You are very good, Sir David," said the Earl, wearily. "My business—you can guess it, can you not?"

"Partly," said the lawyer, cautiously.

"You have heard?" Lord Ivor said, eagerly.

"Yes, I have heard," Sir David answered, quietly.

"And you will help her—you will help us?" said the Earl, in the same eager tone.

Sir David hesitated a moment.

"Do you wish me to undertake the defence, Lord Ivor?" he said, lifting his eyes suddenly.

"Yes."

There was a short silence.

"You will not refuse us?" the Earl said, then.

"I am afraid that what I am going to say will pain you," was the answer, gently spoken. "You wish me to prove the innocence of a person whom I may—I do not say I do—think guilty."

"Guilty!" repeated the Earl. "Guilty!—Jean!"

"Listen to me, my lord," said the lawyer. "I think the lady in question had a strong hatred to her husband; I think she was almost desperate, and I think that she is a woman of deep feeling, likely to commit any——"

"Hush!" said the Earl, haughtily. "You know little of her, Sir David, and you judge harshly."

"I judge as the world will judge," he answered, rather sadly.

"Then I cannot count upon your friendship," said Lord Ivor, rising.

"Certainly you can," the advocate answered, instantly. "You may always count upon that, my lord. Are you returning to Glossin to-day?"

"Yes," said the Earl, his face brightening a little.

"Then I will return with you. Excuse me while I make some necessary arrangements."

An hour afterwards the Earl and Sir David were dashing towards Glossin as fast as the express train could carry them, arriving there at dusk that afternoon, and going straight to the prison, within whose frowning walls Jean Blair was imprisoned.

The arrest of Mrs. Blair on the accusation of the murder of her husband had caused the greatest excitement in the county. At first people were astonished and incredulous; they would not believe it possible; then, when it was impossible to doubt any longer, they were loud in their condemnation. It seemed to many of the great people with whom Jean had mixed for so long that they themselves were personally insulted by her suspected guilt. Some whispered among themselves that she might be guilty; others threw back the accusation with scorn. They knew she was in prison; that was sufficient proof for some to think her guilty. She would never have been arrested had there not been strong proof of guilt. They thought and began to wonder already what the verdict would be.

Mrs. Fergus Blair, the dead man's sister-in-law—a woman of an inferior rank of life to that held by her late husband—was very bitter against her beautiful sister-in-law. She had been exceedingly mortified at merely receiving a jointure, her husband having left the estates and fortune to his brother; now it was rumored that the late owner of Blair Gates had left the whole property to his wife, and Mrs. Fergus Blair may have thought it in her interest to have Jean declared a felon. It must be owned, however, that she believed firmly in her guilt. She knew little or nothing of Jean; she had seen her once or twice in society, and the girl's beauty, her haughty carriage and grace had aggravated the dislike she was prepared to feel for one who had so supplanted her.

"It is said they lived a cat-and-dog life," she whispered to her intimates. "And every one knows she loved Lord Ivor, and wanted to be a Countess, only poor Andrew had been so infatuated with her that he had inveigled her into a Scotch marriage. It is all very sad and very dreadful, but I hope she will suffer for her infamy."

Such was the charity with which Mrs. Fergus Blair regarded the unhappy girl. Happily for Jean, however, she had powerful friends, and she knew everything would be done, not only to ameliorate her position, but to provide her with efficient advocates.

Jean was alone in her cell when Sir David Cairnes was admitted; an open book lay before her, on which she was trying to fix her attention. She had promised Lord Ivor, who had obtained permission to visit her, that she would do her utmost to divert her thoughts from her terrible position, but it was a difficult matter. She was an ardent lover of poetry, but Tennyson's beautiful Idyls, open before her, might have been Greek lines for all the sense they conveyed to her bewildered brain.

She lifted her head sharply as Sir David entered, and a little flush stole into her cheeks. The old lawyer's bearing was perfectly courteous and respectful—a little cold, perhaps; and Jean had a vivid recollection of the circumstances under which they had last met. Insensibly, however, as the interview went on, Sir David's coldness melted, his tone became cordial, kind, almost parental; Jean's sweet, pure face and clear, sad eyes were telling their own tale. He had entered the prison with a strong suspicion of her guilt; he left her with as firm a conviction of her innocence.

"I can see but little proof against you," he said, gently, at length. "The housekeeper states she saw you leave the laboratory on the night before. I must ask you, and you must tell me freely, you know, my child, if I am to be of use to you, what you went there for?"

"Must I tell you?" she faltered, her long lashes drooping.

"If you please," he answered, firmly. Then he put out his hand, and laid it on her little cold fingers. "I am an old man, my child; you can trust me fully. There is little of the folly, the weakness, the wickedness of our humanity which I have not come in contact with. Let us hope my experience has taught me wider charity."

"I was very wretched!" Jean said, brokenly "so wretched, that for a moment I thought that it would be no sin to end my wretchedness *and my life.* I went to the laboratory to get——"

She paused, and the beautiful, shamed face sank until it touched his hand.

"I understand," he answered, gravely. "And you brought some poison from there?"

"Yes. I was sorely tempted, Sir David," she said, through her sobs; "but Heaven, in its mercy, kept me from harm that night. My pain—my pain and Archie's—was driving me mad; but I was spared that sin."

"What did you do with the poison?"

"I put it in my dressing-case, meaning to return it to its place; but the next day——"

Her voice failed her at the remembrance of the next day's misery.

Sir David's face grew very grave as he remembered that they must have found it there; but he was silent, smoothing with his hand the beautiful bowed head.

"Keep a good heart, my child," he said, at length. "The hour before dawn is the darkest hour, you know. I trust the day will break clear for you. You know we will do our best for you?"

"Yes," she said, forcing a smile—"yes, I know that, Sir David."

He stooped his lips to her hand as he bade her farewell, and his steel-blue eyes were dim with moisture as he left her.

"Poor child," he said to himself; "what a cruel fate!"

As he passed into the governor's room his face was very grave. Lord Ivor was there waiting; Mr. Challoner, the governor of the prison, was with him. He was a fine-looking man, grave in manner, but kindly; a bonnie little girl of five or six, with big blue eyes and a mass of golden curls, was playing about the room—his daughter.

The Earl turned rather eagerly as Sir David entered, and Mr. Challoner rose to greet the great advocate, whom he knew well by reputation.

"She is bearing up bravely," said the lawyer, in a few moments. "I hope we shall prove her innocence, which, to me, is as clear as the sun in heaven."

"And to me," said Mr. Challoner, warmly. "I would stake my life upon her truth."

The Earl held out his hand in silence; it was as cold water to a thirsty soul to hear these men affirm her innocence so warmly, and hope sprang up in his breast. Her guiltlessness must be proved—it could not fail to be so; for she was innocent, and Heaven is just.

* * * * * *

It was the day before the trial, and Jean Blair had been five weeks confined to a solitary prison cell, for the assizes had been that space distant when she was arrested. Through the kindness of the governor, she had been spared some annoyances and discomforts; but no care could save her from many, and she had felt her imprisonment acutely; it could not but be so.

She, who had never known any want of freedom, felt stifled and suffocated in her restraint, and she rebelled fiercely against the iron hand which kept her there. Sometimes in her darkest moment she had regretted that she had not yielded to that dreadful temptation, that she had not taken the poison and so saved herself; but the feeling was quickly repulsed. She would be patient she would trust; and sometimes the terrible misery she suffered made her cry out, at others, the beautiful resignation to the will of Him who doeth all things well made Mr. Challoner's eyes grow dim with tears.

She had books and writing materials provided for her, but she made little use of either, although at times she tried to read; it seemed as if the trouble which had fallen upon her had confused the bright, clear intellect; and sometimes, in moments of irrepressible weakness and rebellion, her mind had seemed to wander. She was not without visitors either. The Earl came daily; once his sister had come, but her distress at Jean's position had been so overpowering, that she had fainted away, and Jean was too unselfish not to refuse any further visits from her. Collins was with her constantly, and her presence gave Jean very great consolation. The woman's love was strong and faithful, and her education had not rendered her so sensitive to outward things as poor, pretty Lady Florence's. Her calmness and cheerfulness, too, helped Jean greatly; for Lord Ivor, though he was brave in her presence, could not hide the marks which suffering and anxiety had graven on his face, and his visits give her a pleasure evenly mixed with pain.

The long confinement was telling on Jean's strength; she was very weak and languid, her sleep was troubled, she arose as fatigued in the morning as she had been over night, and it was an effort to drag her weary limbs across the cell when she went to meet the Earl when he came to pay his daily visit, striving bravely, poor child, to hide her languor and debility from his eyes—striving vainly but bravely, for his eyes saw, and his heart ached bitterly.

The dusk was gathering around her—it grew early dusk in the cell—but the setting sun, ere it sank to rest, sent a last red glow at the little window and brightened the dying day. Jean was standing by the window, in the sunlight, leaning her white brow against the cold bars wearily, while large tears rose in her eyes and fell heavily upon her clasped hands, tears of anguish unutterable, which she was too weak to force back.

Steps came along the passage, the key grated in the lock, but she did not turn round; she knew the step which entered the room, and she did not wish her lover to see the tears.

"Come and watch the sunset," she said, holding out her hand, but still keeping her face to the window. "There is such a beautiful 'golden glory' in the sky Archie."

He came to her side, and holding her tenderly within his arms, looked for a moment down at her, then turned his eyes away to the "golden glory" in the far west. Jean leant her head against him wearily; the support of his arm was pleasant to her in her weakness, but her eyes did not move from the sunset, which she saw but dimly through the welling tears.

"How are you to-day, my darling?" he said, at length.

"Very well," she answered, gently. "I have been expecting you, Archie; you are late to-day."

"I have been with Sir David," he answered. "He is very hopeful for to-morrow, Jeanie."

She smiled a little sadly.

"And you, are you hopeful, my dearest?" he said, softly.

"I think I am past hope," she answered, with a tiny laugh. "I feel as if nothing can hurt me any more, Archie. I think my heart is dead."

He looked down at her with a new anxiety in his eyes.

"My heart is dead," she repeated, wearily. "I have no strength even to suffer now. I am only longing for rest. Do you think rest will come to me soon, Archie?"

"My poor darling," he answered, tenderly, "I do not wonder at your depression, and I have so little comfort to give you. Only you must not wish to leave me, Jean."

"You would not keep me here, Archie, if you love me," she said, with a little pale smile.

He drew her closer to his side, smoothing her hair with tender hands.—To be continued.

RECENT LITERATURE.

Winter and Its Dangers. By Hamilton Osgood M. D., of Boston. Published at Philadelphia by Lindsay and Blakeston. Price 50 cents.

This is the sixth volume of the "American Health Primer" series which—in the language of the editor, Dr. W. W. Keen—is designed to diffuse as widely and cheaply as possibly among all classes, a knowledge of the elementary facts of *Preventive* Medicine, and the bearings and applications of the latest and best researches in every branch of Medical and Hygienic Science. They are intended to teach people to take care of themselves, their children, pupils and employes. They are written from an American standpoint with especial reference to our climate and mode of life; each volume, if the subject calls for it, being fully illustrated, so that the text may be clearly and readily understood by any one heretofore entirely ignorant of the structure and functions of the body. The object of the series is to furnish the general and unscientific reader, in a compact form and at a low price, reliable guides for the prevention of disease and the preservation of both body and mind in a healthy state."

The editor has shown admirable judgment heretofore in the selection of both writers and subjects and the work under notice is if possible more excellent than any of its predecessors.

The author is "dreadfully in earnest." He pleads right heartily with his readers to avoid errors of living; in fact, his earnestness is a marked quality of his writing. What would be thought of a lawyer who should urge on people's attention the beauty of the Golden Rule, and warn them that litigation was unnecessary? Would not his disinterestedness amaze us? And yet, here is a physician who, with all the might of his really able pen, pleads, urges and beseeches us to do away with the physician.

The earnestness, strong common sense, lucid style and disinterestedness of the author appeal to the reader's attention at every turn. As for the book itself, it tempts an inordinate use of the scissors.

The book is divided into ten chapters, as follows:

I. General Considerations.
II. Dangers Arising from Errors of Dress.
III. Carelessness and Ignorance in Bathing.
IV. Inattention to Pulmonary Food.
V. Danger from Over-heated Air.
VI. Indifference to Sunshine.
VII. Sedentary Life and Neglect of Exercise.
VIII. The Dangers of School Life in Winter.
IX. Winter Amusements.
X. Closing Considerations.

Chapters III. and IV. deserve the careful consideration of every parent in the land. The appalling ignorance on the subject of bathing and the indifference to pure air are responsible for many painful diseases and much avoidable pain and misery.

If any words of ours could induce readers generally to invest in Dr. Osgood's book, we should say them, reiterate them, and print them in italics, for the work deserves a place in every library in the country.

Water Color Painting. By Aaron Penley. Edited by Susan M. Carter. New York: G. P. Putnam's Sons. Price 50 cents.

From the author's preface we quote:

"Thirty-seven editions having already passed into the hands of the public, will, I think, be a sufficient guarantee that the contents of my little Work have been fully appreciated and acted upon. Although the pages are few, yet they are the result of a long experience; while they explain, in as simple a manner as possible, the whole system of Painting in Water Colors, showing the means by which effects are produced. The several Tables of Colors will be found to comprise combinations of every tone and tint requisite for the representation of nature under all circumstances. Attention to detail, and a careful reading of each progressive step, will, I think, ensure success in the execution of a Water Color Drawing; but it must ever be borne in mind that, without practice and study, it will be impossible to arrive at any degree of proficiency, even as regards manipulative dexterity, in so beautiful a branch of the Fine Arts, as painting in Water Colors." And in the introduction the editor says:

The intention of this system of Water Color Painting is to direct the student in this branch of Art, by pointing out the means by which the several combinations of color are produced, as well as to explain all the manipulative processes exhibited in the present advanced state of Painting in Water Colors.

Assuming that a knowledge of the proper materials for Water Color Painting has been obtained from other sources, (See Rowbotham's "Art of Painting in Water Colors"), and that the reader has made himself familiar with the management of the pencil, so far as outline and form are concerned, (See "The Art of Sketching from Nature," in this Series of "Art Hand-Books,") we will, after a few words upon "dulish" and upon the principles and the necessary requirements of Art generally, enter into the practical details of this branch of Painting, going through its several stages of progression, and endeavoring at the same time, to give some insight into the method by which certain effects are produced. The aim and scope of the work are well set forth in these extracts, and for ourselves, we can heartily commend the volume to all interested in this branch of art.

"AN' SILLER HA' TO SPARE."

Next to walking in silk attire, as the old song has it, it is a good thing to have silver-ware to spare, and silver-plate answers the same purpose with the advantage that one is free from the attacks of thievish covetousness, while possessing an article equally as serviceable as silver. Our illustration is taken from premium No. 68 of The Rural's premium list for this season and shows the latest design of Messrs. Hall, Elton & Co., one of the largest and oldest firms in the country in this business. This ware is especially noteworthy for its durability. It is *standard* plate. One dozen of these forks or one dozen tablespoons are given for a club of 16 subscribers, or one dozen teaspoons for 8 subscribers. Agents are supplied with sample copies, posters and every requisite for a vigorous canvas on application. As a present, nothing is superior to good silver-plated ware, and the plan on which it is offered enables us to give agents these goods for such very small clubs that it is an easy matter for an active person, either man, woman or child to collect the small club by a slight personal effort among friends and neighbors. Every subscriber also gets the seed premiums, so it will be seen that all are thought of and share in the general distribution of good things given by the Rural.

Our whole list is full of attractive things and it will be a very easy thing to secure one or more if one goes to work *now* and takes advantage of the subscription season which is just opening. All the specimen copies needed will be furnished on application.

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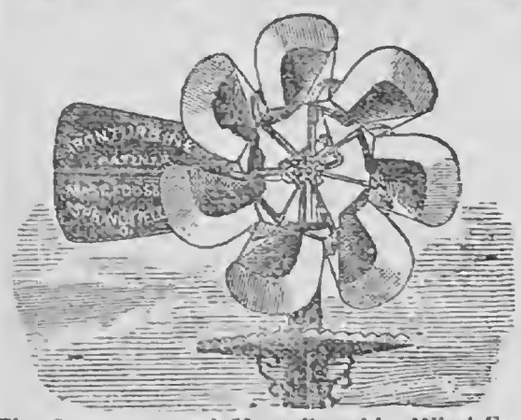

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Miss Annie Green, of this city, 88 Larrabee St., came to Dr. Sykes for treatment after having vainly tried Colorado and numerous physicians. Her palate was entirely gone, and a hole as large as the end of the thumb was eaten through the veil palate. A hole was also eaten clear through the nose. In addition to this her lungs were weak and sore; she had a bad cough, and no appetite. By six week's treatment the holes in the palate and nose were completely healed, the breath was sweet, there was no cough or soreness of the lungs, and she had gained 22 pounds in flesh.

Mrs. Nancy Mitchell, of Juniata, Neb., has just made the following statement:

I came to Chicago from Juniata, Adams Co., Neb. and put myself under Dr. Sykes' treatment for a Cancerous Catarrh, which had eaten a hole through the roof of my mouth as large as a 25-cent piece, and had then eaten through into my nose, and actually destroyed more than one-half of my nose, removing two large bones. It had also eaten clear to the corner of one eye, and to the ridge above my nose but left the lower end of it round. Both my nostrils were as raw as they could be; and now, after only two weeks' treatment, my recovery has been so rapid I am sure in a short time to be entirely cured.

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THE REPUBLICAN.
Springfield, Mass.

Domestic Economy.

CONDUCTED BY EMILY MAPLE.

PEN THOUGHTS FROM "EVERY-DAY HOUSE."

MRS. ANNIE L. JACK.

"And I know why the bird with the spring time
To the gnarled old tree comes back;
He has tried the south and the summer,
He has felt what the sweet things lack."

So wrote a dear friend of mine who is one of America's sweetest singers, and the lines haunted me, with a truth I could not deny, during my homeward journey toward this land of snow. Full and rich had been the days and weeks. No words of mine can tell in a "pen-thought" of the enjoyment I found, meeting, as I did, many of the men and women of the day, whose words of wisdom and songs of melody are known to thousands. Science, art and literature, each and all, gave me a glimpse of their treasures and spoke words of kindness and regard. Besides this, I saw the "*Rural*" and his wife and "weans," as the Scotch folk would say. I enjoyed with them, at the Rural Farm, the pleasure of a Sabbath day's rest and their large hospitality, and witnessed the entire interest and enthusiasm they evince in every department of this paper.

But New York is a noisy city to quiet country people. We stared in amazement at the elevated railway, and gazed with awe at the seeming pigmies working with nothing but wires on the East River bridge; and then came the truth of Trowbridge's lines:

"Land all houses, and roads all stones,
That deafen your ears and batter your bones"

So, after all, we turned homeward, resolved to once more seek the "simple tastes and mind content" that lie within our sphere, and to tell the result of our experience to the Rural sisters.

There is no class to whom a glimpse of the outer world is more necessary than those interested in domestic economy. We learn a great deal by comparison, and every housekeeper is on the alert when at other people's tables, to gain some new idea or plan, that will make home brighter, or add to her satisfaction therein. During the first few days after one's return is a very good time to take judgment upon your own works. Are the children where you have visited better behaved, as well or better dressed, than yours? Are the daughters more loving and dutiful, the sons more helpful? Was the table and its appointments more neatly kept, the food better cooked, than yours? All these and other questions, by way of comparison, present themselves to your mind, and are valuable, as they encourage you to better things and help to make home more attractive. The contact with the busy outer world is a good tonic to our sleepy, stagnant lives; the stirring words that fall from the lips of an orator, or the poems we may hear from one with voice too sweet for aught else of earth, may refresh and cheer us; but I think every housekeeper will agree to the feeling I have mentioned—the value of distance and return to home, in the way of *comparison*.

MAKING "HIRED HELP" RESPONSIBLE.

MARY WAGER-FISHER.

ONE of the rules at "our house" is to make the "help," both on the farm and in the house, responsible for the loss and breakage of articles confided to their care and use. The result is that the breakage of crockery is almost nothing, and other losses are in proportion. I think that "help," as a rule, like this method of management much better than the "fuss" and scolding that usually accompany breakage. They learn a double lesson in this way: to be careful, and to know the cost and value of things. Of course, the master and mistress can always make whatever allowance they think best in regard to accidents. Whenever I have occasion to introduce "new" help into my family service, I inform her at the outset, that what she breaks she will have to pay for, and the announcement is always good-naturedly received. Not long ago, I overheard a new arrival in the kitchen remark to my housekeeper: "Madame's rule is a good one about breaking dishes. I was at a place two years ago, where there was the same rule, and where I broke some dishes. But mind you, I haven't broke any since. Some girls slam the dishes around and don't care whether they break 'em or not. I guess if they had 'em to pay for they would be more careful," and I was quite of the same mind. It is sometimes well to know the opinions of hired help on household management.

DOMESTIC RECIPES.

Raisin Pie.

ONE egg; one-half cup of raisins well stewed; one cup of sweet cream; sugar to taste. Beat well together, and bake with two crusts. Currants (dried) instead of raisins are very nice.

Hasty Pudding.

Place on the stove a pan containing six teacupsful of sweet milk. Beat two eggs well, and add one teacupful of milk; six tablespoonsful of flour and a little salt; beat well together—then stir it in the milk on the stove just before, or as it begins to boil. When as thick as mush put in greased cups to mold. Made in the morning and eaten with sweetened cream for dinner, it is excellent.

Gingerbread.

One cup of sugar; one cup of sirup; one cup of sour milk; half cup of butter; one tablespoonful of ginger; one teaspoonful of soda; flour enough to make it thick but not so stiff but that it will smooth without the aid of a spoon. Bake in a small-sized dripping-pan and cut out as you want for the table.

MRS. H. C. UNDERWOOD.

Apple Jelly.

A beautiful and delicious jelly may be made of any sour red apples such as Spitzenbergs, Baldwins or Northern Spys. Wash, quarter and core without paring and cook until the whole mass has a red tinge and is soft. Pour into a colander, drain off the juice and run it through a jelly-bag. Boil again one-half hour. Measure and to every three cups of juice allow two cups of sugar and boil again fifteen minutes. If highly-flavored jelly is liked, lemon or vanilla may be added before it is turned into the cups. Most jelly recipes give an equal measure of sugar and fruit juice, but in making jelly of winter apples I have found two of sugar to three of fruit, give a good firm jelly that will cut smoothly with a knife.

Apple Sauce.

By using a little care in making fresh apple sauce, it may be a much more appetizing dish than the "mussy pop" that is often seen on our tables. If you have a variety to choose from, always take those that do not go to pieces readily when cooked. (I have found the Spitzenberg to be the best). Peel, core and cut into nice even quarters, rejecting any bruised or knotty pieces. Cook them in a porcelain kettle or any earthernware dish. I have an old-fashioned granite-ware pudding-dish that I have used for years in cooking apples. Pour *plenty* of boiling water on them and boil until you can pierce them readily with a fork, and no longer. Then turn carefully into your table-dish without breaking the pieces; sprinkle with sugar and cover until cool.

Canned Quinces.

Quinces are scarce in this section of the country this year, and therefore our supply for canning is limited. I may as well confess that *my* supply was *quite* limited; in fact, I had just two nice, fair quinces, which a kind neighbor had sent me. Yet from those two quinces I managed to fill four quart cans with most delicious sauce.

In the first place, I pared the quinces, being careful to save every particle of the skin, the cores and the seeds, which I boiled together in a little water until soft. Boiling extracts from the cores a gummy substance, which is peculiarly rich in that delicious flavor which constitutes the only value of a quince, and of which I wished to save every atom. To the water which I strained from these after boiling, I added the two quinces cut into eighths, four pounds of sugar and eight pounds of rich, sweet apples, pared and cut into nice even quarters (that were without spot or blemish), with water enough to cover them. I boiled them nearly two hours, until the apples were perfectly soft and yet held together nicely; then sealed them in quart cans. Being cooked in so much sugar, they hardly needed self-sealing cans, but the cans are so cheap now that it seems better to use them; then one need have no anxiety about fermentation. At this time of year one has cans that have been emptied of strawberries and other fruit put up early in the season. The remnant that remained after filling the cans was eaten at the tea-table, and was honored by a compliment; for paterfamilias, being ignorant of the large substitution of apples, innocently pronounced them the "best canned quinces he had ever eaten." E. S. R.

CHRISTMAS SWEETS.

Hickory-nut Macaroons.

MAKE frosting as for cake; stir in enough pounded hickory-nut meats, with mixed ground spice to taste, to make convenient to handle. Flour the hands and form the mixture into little balls. Place on buttered tins, allowing room to spread, and bake in a quick oven.

Hickory-Nut Cakes.

One cup of white sugar; one beaten egg; half a cup of sifted flour and a cup of minced nuts. Drop on buttered tins.

Ice-Cream Candy.

One and one-half pound of "A" sugar; two tablespoonsful of butter; one and a half teacupful of water; the rind of half a lemon. Boil until it will crisp when dropped into cold water, set aside and when it has cased bubbling, stir in the juice of a lemon. When cool, take out the peel and pull until white. Draw into thin sticks and cheek into three or four-inch lengths. The sirup should be stirred all the time it is boiling. MARY B.

News of the Week.

MISCELLANEOUS.

Monday, Dec., 8, 1879.

A sad spectacle was witnessed at Smithport, Pa., on the 4th inst.; it was the execution of Andrew Tracy of the same place, who, on the 18th of last September, shot and killed his sweetheart, Mary Ittley, in the street. When the drop fell the rope broke and precipitated the doomed man on the ground; a new rope had to be provided and adjusted and he was picked up and brought on the scaffold a second time, all of which painfully prolonged the scene. He was convicted of the crime and there can be no doubt of his guilt, but there is doubt as to the justness of this severe sentence. Tracy was an educated and even learned young man, but if the published peculiarities of his character and behavior are true, he could not have been in his right mind, neither at the time of the tragedy nor for years before. But he is gone and the law is satisfied.

A dispatch from Toronto, Dec. 4th, states that smuggling is carried on to an immense extent on Lake Erie at the nearest points to the American shore. The attention of the Dominion Government is being directed to the circumstance and immediate action will be taken to prevent it. The matter will also be brought to the attention of the authorities at Washington with a request for interference.

Employers are beginning to respond to the impulse of the better times. The wages were recently raised from five to ten per cent. for 600 mechanics employed in the car shops of the Delaware, Lackawanna, and Western Railroad at Scranton, Pa., without any request on their part.

The Virginia Legislature met at Richmond last Wednesday in the first biennial session, and the readjusters elected all the officers in both houses. Gov. Holliday's message is almost wholly devoted to a discussion of the public debt. He fully indorses the settlement made during the last session, known as the McCulloch bill, by which the creditors agreed to forego back interest due on their money, and states that, notwithstanding all the agitation looking to a repeal of the measure, nearly $8,500,000 of old bonds have already been exchanged for new ones. Louisiana voted last week for State officers and on the adoption of the new State constitution. The democrats have probably elected Wiltz governor by 20,000 majority. The new constitution was adopted by a large majority, while the debt ordinance was probably defeated. The democratic majority in New Orleans is about 6,000.

Chief Colorow surrendered himself to the peace commission at Los Pinos, Col., Monday, and testified that he took part in the Thornburgh fight, which he said, was caused by accident. The troops were trying to avoid the Utes by taking the trail, instead of the regular road through Milk River canon, while the Indians were trying to do the same thing. They were surprised when the command came up, and began the fight quite unexpectedly to themselves. Colorow swore positively that the Mormons had promised to assist the Indians in any war with the United States troops. The commission is now much more hopeful of accomplishing something than formerly. The surrender of 12 Indians engaged in the White River massacre will probably be demanded Saturday. Ouray will attempt to carry out the demands, and a lively Indian fight may be witnessed. The Utes attacked the herders of a herd at White River, from which the troops obtained their meat, Sunday night and drove off the whole herd.

FOREIGN.

The land agitation in Ireland is still the chief topic of interest in Great Britain. The arrested agitators have been committed for trial, but in the meanwhile all three of them have been released on bail, and with the *eclat* of their "persecution" fresh upon them, are now spreading their opinions, a trifle more guardedly, before vast audiences in different parts of the "Gem of the Sea" and the "Tight Little Island." Immense crowds in Liverpool, New Castle and London, have been sympathizing in the fiery accounts of Irish grievances eloquently expounded by Parnell, McDavitt and others; and there is even some hope that the more phlegmatic and law-abiding English tenants will share in the agitation for a modification of the present land laws. In Ireland itself the public feelings are kept at fever heat by patriotic spouters and inflammatory newspaper articles. Landlords are beginning to see that very considerable concessions are indispensable; and the public authorities must soon realize that the arrest of a few extreme mouthpieces of popular discontent is a poor expedient for removing its cause. Mr. Gladstone, now canvassing in the Liberal interest for election to Parliament in Edinburghshire against the whole power of the local chief potentate, the Duke of Buccleuch, says boldly that Ireland should have Home Rule in local matters. On Friday last Thomas Brennan, another of the most turbulent orators, was arrested in Dublin for a speech made at a huge mass meeting at Balla on the 22d ult. This has intensified the excitement.

The cold in Afghanistan is intense. The English troops are in winter-quarters. Russia and Persia are less friendly; the latter will occupy Herat. Afghanistan, along with the English in spring. Several of the newly appointed governors of Afghan provinces have been resisted; one or two of them slain and now that military movements are suspended, the whole country beyond the British lines, seems to have fallen into a state of anarchy. Yacoob Khan is on his way to India, a close prisoner, a condition in which he will probably remain for years, if not for life. Although it seems impossible now to legally convict him of having caused the massacre of the embassy, there is no more doubt but that he could have prevented it, had he not been culpably negligent. Negotiations between Germany and Austria for a commercial treaty giving free trade, have fallen through. Germany wanted too much; Austrian merchants disgusted.

John T. Delane, for nearly 40 years editor of the London Times is dead at the age of 62. Baker Pasha fixes the Turkish police force at 60,000 men. Russia seems desirous of conciliating Germany by granting long-refused commercial facilities to Teutonic traders. The German Baltic provinces of the Czar are violently agitated by a project to make the Russian language the legal language therein, and in other ways to Russianize them.

The King of Denmark has been visiting Berlin and is reported to have come to a settlement with regard to the claims of his son-in-law, the Duke of Cumberland, to the throne of Saxony. He will probably resign his claims, and in return be made Duke of Brunswick and receive back his confiscated millions. The latest cablegram, however, says that not a word was spoken about the matter.

Saturday week Alfonso, of Spain, took the Archduchess Christine of Austria as his second wife, to succeed poor dead Mercedes——bull-fights, galore and all sorts of joyous manifestations. The emancipation of Cuban slaves will probably receive some attention now that due measures have been taken to provide an heir to the Spanish throne. Meanwhile a fresh rebellious outbreak in the "Ever Faithful Island" has inflicted great damage on the sugar industry in the eastern part of the island, and threatens more.

In France the sessions of the Legislature have been removed from Versailles to Paris, where the first session has just been opened since the Communistic revolt of that city in 1871. Another batch of 80 Communists has been pardoned, but agitation still continues for a complete amnesty. The Extreme Republicans in France insist that all office-holders not actually belonging to that party, should be dismissed at once. Lately, however, this faction has received a severe check, by a very decided vote of the legislature repudiating their extreme measures. This, however, has caused a split—a number of 'em rather—in the Republican ranks, and a speedy change of the present Ministry is probable.

On Dec. 1, as the Czar was approaching Moscow on his way to St. Petersburg from the Livadia where he had been staying some weeks, an attempt was made to assassinate him. The railroad track over which his train was to pass had been undermined and a large quantity of explosive material placed there, which was to blow his brains to pieces. A change of schedule on the road, however, caused the explosion to destroy another train. It was understood that on his arrival at Moscow he intended to call a number of unofficial advisers to aid him in governing the empire as well to liberalize his government; but now it is probable repressive measures will be more rigidly enforced than ever. The weather all over Europe is very unusually severe. In the British Isles a 20 hour snow storm has covered the country many feet deep, and caused much delay in railroad travel. Germany and northern France are much in the same condition, while the more northerly countries are suffering from a winter of nearly unexampled severity so early in the season.

A Berlin dispatch of the 2d inst. says that Prince Bismarck will probably arrive there on Thursday. It seems that the negotiations between Bismarck and the Vatican have suddenly closed, as Bismarck will not agree to the restoration of the German Bishops. There seems to be every probability that the old struggles are recommencing. An appeal from Cardinal Manning for subscriptions to alleviate the distress in Ireland was read in all the Catholic churches in London on Nov. 30. It is stated that in the West of Ireland such hunger, poverty and want are now to be seen as have never been known since the great Irish famine. A general collection all through the Roman Catholic churches in Great Britain was made yesterday.

Figures Don't Lie.

SPARTA, Union Co., Oregon, May 30, 1879.
BUTTER IMPROVEMENT CO., Buffalo, N. Y.:

Sirs—The package of "Butter Maker" forwarded by you to W. W. Ross, Esq., of this place, was handed over by him to me for trial, and orders to report the results to you, as I have the management of his dairy.

I have the honor to report that one gallon of sweet cream churned at a temperature of 55 deg. and treated with the "Butter Maker" according to directions accompanying package, produced four and one-half pounds of butter of a fine golden color, and firm, waxy texture, and of delicate flavor; time occupied in churning and gathering the butter, twenty minutes.

One gallon of sweet cream, same lot, churned without the powder, produced four pounds of butter several shades lighter in color, not so firm or waxy in texture, but no perceptible difference in flavor; time occupied in churning, at same temperature as above, forty-five minutes. The fine, even grain, rich golden color, increased quantity from the same amount of cream, and the difference of time occupied in the churning and gathering the butter, are greatly in favor of using your preparation, and I have no hesitation in recommending the same to my friends and the public generally. Very respectfully, your obedient servant, G. W. EASTERBROOK.

FOR BRONCHIAL, ASTHMATIC, and Catarrhal Complaints, and Coughs and Colds, "*Brown's Bronchial Troches*" manifest remarkable curative properties. Imitations are offered for sale, many of which are injurious. The genuine "*Brown's Bronchial Troches*" are sold *only in boxes*.

IN answer to numerous inquiries, we can cheerfully say that Dr. C. R. Sykes, whose card appears in this issue, is an old resident of Chicago, a regular graduate, honest, honorable, and responsible, and as a physician takes first rank in his chosen specialty of Catarrh and its complications.—*Farmers' Review*.

Feeble Ladies, Aged Persons, Weakly Children, Persons of Sedentary Habits, all need Hop Bitters.

Lyon's Patent Heel Stiffener is the only invention that will make old boots straight as new.

The Markets.

THE GIST OF THE MARKETS.

PRICES of farm products still have, in most cases, an upward tendency at the chief collecting centers. The higher figures for grain for future delivery up to May next, show that speculators have little fear of any immediate fall in prices. Besides the loss from vermin, the risks of fire and the cost of storage, however, farmers who are holding back their crops, should not forget the considerable loss in weight of grain during storage. The amount of this has lately been determined with the greatest accuracy by officials in charge of the State Granaries of Prussia on the basis of many years' experience. The loss in wheat, rye, barley, and podware amounts to 1.3 per cent. in the first quarter of a year; 0.9 per cent. in the second three months; 0.5 in the third, and 0.3 per cent, in the fourth quarter a loss, therefore, in the first year of exactly 3 per cent. In each following year the loss is estimated at ¾ per cent. in the three months, or 1 per cent. annually. In the case of oats the loss is 1.7 per cent. in the first quarter, 0.9. per cent. in the second, 0.6. per cent. in the third, and 0.3 per cent. in the fourth, a total loss therefore during the twelve months of 3.5 per cent. In each succeeding season the loss is at the rate of 0.3 per cent, per quarter, or 1.2 per cent, in the year. These observations relate only to the high class grain stored in the Government magazines; in inferior grain the loss would be proportionately considerably higher.

All over the country as the packing season progresses, the prices of hogs are rapidly advancing until now Chicago pays higher figures for her supply than at any time within the last two years. Nearly a twelvemonth ago we predicted that the pigs-pen was likely to pay this season, and suggested that it would not be Solomon-like for farmers all to get disgusted at the low returns that then prevailed. It looks as if the top figures for hogs this winter are several steps higher than those now obtained.

By mail advices of Nov. 24 we learn that the *Echo Agricole*—the first authority on French agriculture—estimates the French consumption of wheat this cereal year at:

Bread	230,400,000 bushels.
Seed	38,400,000 "
Feed for Stock	13,720,000 "
Total	282,520,000 "

Mr. Scott, writing to the the London Times, however, puts it at 328,280,000, which seems to be a trifle too large as it would amount to eight bushels or 504 lbs. per capita, whereas 5½ bushels per head serve the usual wants of European people.

The Mark Lane Express of the 2nd inst. in reviewing the British grain trade for the previous week says, that the autumn sowing was not completed and that farmers must wait for a thaw. Farmers were pushing forward their grain to market, but so poor was it and unfit for milling, that but little of it sold except at reduced rates. Large arrivals of Russian wheat depressed the market somewhat; but holders were still firm and confident, as the Russian surplus must soon be exhausted, and the American supply cut short by the closing of the canals, while the winter consumption would increase. Indian corn was in better demand and advanced ½c. a bushel. The imports into the United Kingdom during the week ending Nov. 22, were 1,644,738 cwts. of wheat and 250,696 cwt. of flour.

Cablegrams from Liverpool, England, dated Thursday, Dec. 5, say that the grain trade during the week was extremely active, with a better consumptive demand at higher prices both for English and foreign cereals. Cargoes off coast were firmly held, while those for future arrival were in request at steady figures. Transactions that day in wheat and corn were at full rates, with an advance of 2c, in American red winter wheat. The final rates were ½c. above those for the previous Thursday. The receipts of wheat for three days were 140,000 centals, of which 88,000 were American. Wheat, No. 3 spring, steady at 10s. 4d. per 100 lbs; No. 2 spring, steady at 10s. 10d.; new western winter steady at 11s. 5d. Corn, mixed steady at 5s. 9d. per central. Cotton had declined ⅛d. early in the week, but later on prices had become firmer and closed on Thursday ⅛ cent above those of the Thursday before. American cheese on Wednesday last brought 66s. per cwt. for the best grades. From Mincing Lane (London), same date, we learn that the deficiency in the beet sugar supply of Europe is 250,000 tons, as compared with last year's yield.

SPECIALS FROM ALL CENTERS.

Until Saturday, Dec. 6.

Baltimore.—WHEAT—Southern red, $1.40@1.45 do. amber at $1.50@1.60; No. 2 Western winter red, spot, $1.50½@1.51; a rise of 4c. during the week. CORN—Southern White, 59@61c.; yellow, 60@61c.; Western mixed, spot and Dec. 63c; new, 61@61½c.—a rise of from 8@10c. per bush, in each class during the week. OATS—Southern at 47@48c.; Western white, 47@47½c.; mixed, 45@46½c.; Penn., 47@47½—a rise of about 1c. a bushel all round since last Saturday. RYE steady at 86@88c. HAY, prime to choice, Penn. and Md., $17@18 steady for the week. BUTTER, prime to choice, Western packed, 23@23c.; rolls, 22@24c. EGGS, fresh, 22c.; limed, 16@18c. COTTON—Middling, 13c.; low middling, 12½c.; good ordinary, 12½c.

Boston.—CORN—Old mixed and yellow, 63@65c.; new, 61@63c. OATS—No. 1 and extra white, 50@53c.; No. 2 white, 49@49½c.; No. 3 white and No. 2 mixed, 46@47c.—a rise in all grades of from 3@6c. since Saturday previous. RYE, 95c. Shorts, $16.50@17; fine feed, $17@17.50; middlings, $18@20. COTTON—Middling, 13½c.; low middling, 12¾c.; good ordinary, 12¾c. BRIGHTON CATTLE MARKET—Beef Cattle, ₹ 100 lbs. live weight, extra quality $5.50@5.75; first quality, $5@5.37½; second quality, $4.50@4.87½; third quality, $4.12½@4.37½; poorest grades of coarse oxen, bulls, etc., $3@4. Supply and quality better than during previous week, a falling off of fully ½c. ₹ lb. on common stock. Milch Cows, extra, $45@65; ordinary, $20@44; farrow cows, $13@26; springers, $18@25; trade improved of late; good cows sell quickly at fair figures. Sheep and lambs, 4@5c., live weight. Fat hogs, 5½@5¾c.

Chicago.—WHEAT—No. 2 red winter $1.26½@1.27; No. 2 Chicago spring, $1.25½ cash, higher for future delivery; No. 3 rejected, 96½c., a rise of from 1@4c. since Saturday. CORN 40½c. cash, a rise of 1½c. during the week. OATS, 34c. cash; higher for futures. RYE, 75c. BARLEY, 91c. TIMOTHY SEED, $2.58@2.65. FLAXSEED, $1.49@1.50. The cereals generally during the week were in good demand at higher prices than the previous week, with an upward movement at the close. HOGS—Market booming; highest prices in over two years, generally 20@30c. higher; mixed at $4.70@4.90; heavy, $4.95@5.20; light, $4 50@4.90. CATTLE—Shipping, $3.40; butchers', $2 25@3.50; feeders and stockers, $2.50@3 40; Colorados, $3.50; Texans, $2.40@2.75. SHEEP, $3.60@4.

Cincinnati.—WHEAT, $1.29@1.31. CORN, 41@43c. OATS, 35@38c., a rise of 2c. since Saturday. RYE, 86@88c. BARLEY, 90@93c. BUTTER—Choice Western Reserve, 22@23c.; prime do., 18@20c; prime to choice Central Ohio, 18@20c.—a shade lower than last week all round. HOGS—Common, $2.75@3.75; light, $4 30@4.50; packing, $4.70@4.90; butchers', $4.80@4.90—a rise of from 30@50c. since Saturday. COTTON—Middling, 12½c.; low middling, 11¾c.; good ordinary, 11¼c.

Detroit.—WHEAT—Extra white Mich., $1.33½; No. 1 white Mich., $1.33½, higher for futures; No. 1 milling, $1.29; No. 1 amber, $1.33½; No. 2 red at $1.33¾—about 3c. higher all round than last Saturday. CORN—No. 1 yellow at 49c.; high mixed at 47c.; No. 1 mixed, 45½c.; No. 2 mixed, 44c.—a couple of cents higher. OATS—Scarce; No. 1 white at 38½c.; No. 2 white at 37c; No. 1 mixed at 36½c.; No. 2 mixed at 30c.—1c. higher all round than the week before. CLOVER SEED—Prime, $5.20; choice, $5.60. DRESSED HOGS very retive, $4.90.

Indianapolis.—WHEAT, No. 2 red, $1.30@$1.32—a rise of 2c. to 3c. CORN, 33@30c. OATS, 35@37c. HOGS, $4.65@4.80—a rise of from 25 to 50c.

Louisville.—WHEAT, $1.28@1 30. CORN, white 44c.; mixed 41c. OATS, white, 38c.; mixed 37c. RYE, 83@85c.—an advance of 3c. on wheat; oats steady; rye 1½, fall as compared with prices a week ago.

Milwaukee.—WHEAT, No. 1 Milwaukee, hard, $1.25½; do. soft, $1.24½; No. 2 Milwaukee, $1.24½, spot and Dec; $1.26½ Jan.; $1.27½ Feb Prices all round about 3c. per bushel higher than last Saturday. CORN, scarce, No. 2 at 40c. OATS, No., 2, 34⅞. BARLEY, No 2 spring, 77½, a rise of 3c. during the week. RYE, No. 1 at 75c½.

New Orleans.—CORN, 54@57c. OATS, 50c. HAY prime, $22; choice, $23. SUGAR, inferior, 5½@6¾; common to good, 6@6½; fair to fully fair 6⅞@7⅜; prime to choice, 7⅛@7¼; yellow clarified, 8@8¾. RICE, Louisiana, ordinary to choice, 6¼@7¼. BRAN, 85c. COTTON, middling 12c.; low middling, 11¼; good ordinary, 11½.

Philadelphia.—Wheat, Western rejected $1.35; No. 3. red in elevator $1.43; Penn. red, on track, $1.48; Southern amber, do. $.140; No. 2 red in elevator, car lots, $1.49@1.50 higher for future delivery. Prices for lower grades a trifle off; but somewhat higher than on last Saturday for upper grades. RYE.—Penn 89c. CORN.—Old Western mixed, on track, 61; new do. sail at 58@59c. New Western mixed on track 58c. New white 57@60@62c. prices from 1c. to 3c. higher than a week ago. SEEDS,—Clover seed 7@9¼; flax seed wanted at $1.60@1.65. BUTTER.—Creamery extra 33@35c; Bradford Co. and N. Y. extra at 30@31c; Western Reserve extra 24@26c; do. good to choice 18@23c; rolls, Penn. extras 23@25c; Western Reserve 23@25c.—a fall of from 2c. to 4c. all round from last Saturday's prices. EGGS—Penn. 24@25c; Western 22@23c. CHEESE.—N. Y. factory 13½; Western, full-cream, 12½@13c. do good @12c. do. half skims 7@10c.—steady all the week. FEED—bran $16.50@$17—from $1.25 to $1.50 higher than last Saturday. COTTON.—Middling 13¾c; low middling 13c; good ordinary, 12⅜c.

St Louis.—WHEAT, No. 2. red fall, $1.32½, cash; $1.35@1.35½ for Jan.; $1.39@1.39½ Feb.; No. 3, red fall, $1.21½—from 2c. to 3½c. higher all round than last Saturday. CORN, 31½@37½ cash—steady during the week. OATS, 38½@38¾. Cash. 37½@37½; Jan.; 38¼ Feb.—from 5c. to 5½c. higher than a week ago. RYE, 79@79½—5c. higher. Barley, choice, 85c. steady. Cotton, middling, 12c.; low middling, 11¾; good ordinary, 11½. HOGS, light shipping, $4.25; heavy do., $4.50@4.75; packing, $4 45@4.75; butchers' to select at $4.80@4.95—about 60c. higher all round than last Saturday. Cattle, choice to export steers, $4.40@4.90; fair to prime, ranging from 1,000 to 1,300 lbs., $3.50@4.35; cows and heifers, $2.25@3.12½; feeders $3@3 50; grass Texans $2.25@3 25.

Toledo.—WHEAT, amber Mich. spot and Dec. $1.31½; Jan. $1.36½; No. 2. red winter $1.35½ higher for future delivery about 2½c. higher all around than on Saturday. CORN, high mixe, 42c; No. 2 spot 42½; May 48½; rejected at 42c. a rise of from 2c. to 2½c. during the week. OATS No 2, at 36½. Clover seed, prime, $5.15; No 2. $4.90 Dressed hogs $5.15.

PRODUCE AND PROVISIONS.

NEW YORK, Saturday, Dec. 6.

BEANS AND PEAS.—The market is largely stocked with beans, and prices favor buyers in all grades Red beans, as well as standard whites, quoted nlf. Sales of the former are to a few Cuban shippers. Locally market produce is cheap, particularly potatoes, and when this is the case, many grades of beans weaken. Buyers seem well supplied with green peas; prices lower, @ $1.80; Southern B. E. peas dull at the late decline; $2.25 ₹ 2-bush. bag. Field peas nominal. Marrow beans, $1.50@1.75; medium, $1.40@1.65; pea, $1.70@1.95; white kidney, $1.85@2.10; red do., prime, $1.90@2; poor, $1.65@1.70; black, $1.87@1.95.

Receipts of beans for week, 27,140 bush.; exports, 1,619 pkgs.

BEESWAX.—Deliveries to this market are very small, and some little interest is shown by shippers. Sales at from 24½@25½c. for Western and Southern.

BROOM CORN.—Receipts are small and demand from manufacturers steady. Brush and short brush, choice, per lb., 7½@9c.; do., common to good, 5@7c.; hurl, good to choice, 6@7c.; do., common to fair, 5½@6c.; red and crooked, 4@5c.

BUTTER.—The volume of trade in State has not run up to a marked wholesale measure, still where steady wants of upper quality are needed there are buyers enough to give a busy aspect to dealing. Selling prices, as before, for ordinary to good table styles, are made to respond a little to the clamor for "something off," and, as before, there is no yielding in the strictly fancy fall grades. The extremes of last week are not given, but dealers have such full control of the supply that they are enabled, with the present liberal storing, to regulate their offering, and "best" often means the best that has been decided upon to show. Quite an offering of Welsh has appeared, but as it is quoted close up to half tubs it loses its special call from eastward and medium-price customers. We have seldom seen a market so generally representing owners' interest as this season's does. Even such fresh State as may straggle in while the weather permits churning for market, cannot compare favorably with city-owned reserves, and farmers will have only limited participation in the butter "boom" of '79 and '80. Western butter holds a good business locally, and exporters have reduced the stock of cheap to some extent. State pails and tubs, small dairy and fresh ends, 30c.; best lines, 28c.; good to prime, 26@27c.; fair to good, 22@24c. firkin and tub single dairies, choice, 27@28c.; do. fair to prime, 22@26c.; do., firkins, choice dairies, 26c.; do. fair to prime, 22@25c.; Welsh tubs, 22@26c.; poor State 20@22c.; creamery, finest, 35@36c.; good to prime, 33@34c.; sweet cream, 34@35c.; poor to good, 27@33c.; Western imitation cream, 23@28c.; dairy, fresh, extra, 25@26c.; poor to good, 13@23c.; factory, late made, 20@22c.; poor to good, 13@18c.; very poor Western, 10@12c.; rolls, 20@22c.

Receipts for week, 25 885 pkgs.; dos. exports, 4,500 do.

COMPARATIVE RECEIPTS AND EXPORTS.

	Receipts, pkgs	Exports, firkins.
June 1, '79 to Dec. 1, '79	931,757	216,364
" 1, '78 " " 1, '78	840,975	164,450
" 1, '77 " " 1, '77	780,775	129, 00
" 1, '76 " " 1, '76	746,150	87,8.0

CHEESE.—More has been done this week on export account, in the desire to get suitable grade for the Christmas trade abroad and shipments reach the comparatively fair amount of 39,200 boxes. Steadiness has prevailed as to prices, which show no marked change.

Quotations are for State factory: Fancy, 13c.; good to prime, at 11¾@12¼c; fair to good, at 10¾@11¾c.; half-skimmed at 3@10c.; skimmed at 6@8c. State farm dairy: Fine at 12¾@13c.; good to prime 10¾@12c.; fair to good at 9@10½c.; skimmed at 6@8c. Wis. factory: Fine at 12¾@13c.; good to prime at 11½@12¼c. Ohio factory: Cheddar, fine, at 12¼@12½c.; do., fair to good, 10@11c.; flat, fine, 12¼@13c.; flat, good to prime, 11@ 2c.; flat, fair to good, 10@11c. half-skimmed, 9@11c.; skimmed, 6@8c.

Liverpool cable quotation, 65s. Steam to Liverpool, 35@37s. 6d.

COMPARATIVE RECEIPTS AND EXPORTS.

	Rec'ts. boxes.	Exp'ts, lbs,
June 1, '79, to Dec. 1, '79	1,881,135	82,578,021
June 1, '78, to Dec. 1, '78	2,460 614	98,504,050
June 1, '77, to Dec. 1, '77	1,970,761	81,6 0,295
June 1, '76, to Dec. 1, '76	1,739,808	69,223,500

COTTON.—Speculation has been unusually brisk and prices have worked upward. Latest prices are for Dec. 13.32@13.33c.; 14.42@13.50c. for Jan; 13.70@13.71c. for Feb.; 13.80@13.90c. for March; 14.05@14.06c. for April; 14.15@14.20c. for May; 14.30@14.33c. for June; 14.38@14.39c. for July, and 14.40@14.45c. for August.

Quotations for spot cotton are based on American standard of classification, and on cotton in store running in quality not more than half a grade above or below the grade quoted.

	Uplands.	N. Orleans and Gulf.	Texas.
Ordinary	11 13-16	11 15-16	11 15-16
Strict ordinary	12 3-16	12 5-16	12 5-16
Good ordinary	12 9-16	12 11-16	12 11-16
Strict good do	12 13-16	12 15-16	13 15-16
Low middling	12 15 16	13 1-16	13 1-16
Strict low middling	13⅛	13⅛	13⅛
Middling	13⅛	13⅜	13⅜
Good middling	13⅜	13⅝	13⅝
Strict good middling	13⅝	13⅞	13⅞
Middling Fair	14⅛	14⅜	14⅜
Fair	15	15⅛	15⅜

STAINED.

Good ordinary 11¼	Low middling 12 11-16
Strict good ordinary 12¾	Middling 12 15-16

DRIED FRUITS.—Demand is very good for apples, and prices have worked up a little this week. Peaches are firm and in steady, fair demand. Small fruits are steadily held.

Apples—New North Carolina, at 7@8¼c. for fair; 9@9½c for choice; 10½11@c. for fancy sliced. Patent evaporated apples, choice, in cases, 15@16c.; do. fair to good, 13½@14½c.; N.Y. State sliced, new, 8@8½c.; quarters, choice, 8@8¼c.; new southern quarters scarce and nominal; new North Carolina peeled peaches at 16@17½c., do., Georgia, 13@16c. Peaches, Delaware evaporated, peeled at 25@28c.; do. unpeeled at 13@15c.; new halves at 8c. Blackberries at 10c. for new. Raspberries at 28@29c. Pitted cherries at 18@20c.

EGGS.—Receipts for the week, 7,150 bbls.; do. last week, 8,831 do. The demand is light, and prime fresh—the only grade sought for—about supplies it. The stale remnants of Western are large, and holders are willing to let buyers make the price, allowing loss off. State eggs now turning out well. Southern begin to arrive.

Near points fresh, doz., 26@27c.; State and Pa., 21@23c.; Canadian 18@20c; Western, prime to extra, 20@22c.; off grades, 18@19c. State limed, 17@17½c.; Canadian, 16½@17c.; Western, 16@16½c.; Southern, fresh, 21@22c.

FEED.—Sales of 40 lbs. at $18@19; 60 lbs. at $18@19 100 lbs. at $20@21, and rye feed at $17@17.50.

FRESH FRUITS.—Exports of apples for week, 19,700 bbls The offering of prime is light, as holders no longer fear heavy future supplies. Exporters continue to operate liberally, and the outlook for prices is good. The open weather is against large buying at the moment. Few Kings left. Cranberries tending higher. Lawtence and Vicar pears, $2 50@4.

Apples—Kings, State, good to prime, ₹ bbl., $3@3.50; Baldwin, $2.50@2 75; Spitz. and Spys, $2.50@3.25; Greening, $2.25@2.50; winter mixed, good to choice, 2.25@2 50; do, poor to fair, $1.50@2. Cranberries—Cape Cod, fancy, per bbl., $7.75@8; good to choice, $6.75@7 25; fair to good, $6.50@7; Eastern, large round hoop bbls., fancy, $6 75@7.25; do., fair to choice, $5.50@6.50. N. J. crates, fancy, $2; good to choice, $1.75@2. Boston box pears, per bush., $2@3; Cal. do., $3@4; do., quinces, $3@3.50. Grapes are of no particular interest. Catawba, cases, $1 75@2.50; do., loose, per lb., 3@5c.; do. Isabella, $1.25@1.50, bulk, ₹ lb., 2@3c. Nothing really prime in the line of Fla oranges has arrived: a few hf. bbl. crates have realized $3@3.50. Peanuts are in large supply with a good demand. Va. handpicked, per lb., 5@5½c.; extra prime to fancy, 4¾@4¾c; do., good to prime, 3¾@4c.; shelled, 4@4½c., Hickory, shellbark, $1@1.12. B. walnuts 40@50c. Pecans were never before in such liberal supply; 9@10c. per lb.

FLOUR.—The exports this week have reached close to 100,000 bbls, while this has taken in some full lines of city mill product for the West Indies and Provinces yet a more than usual full quantity has gone direct abroad. On shipping grades prices are very strong. Latest prices are as follows: $3.20@3.65 for inferior to fancy superfine State; $3.75@4 00 for inferior to good extra do., odd lots and lines; $4@4.25 for good to very choice do.; $4.10@4.75 for inferior to very fancy superfine Ind., Iowa, Michigan, &c.; (the latter an extreme); $5.75@6.00 for inferior to good shipping extra do., and $6@6.25 for good to fancy shipping extra do.; inferior to about choice white wheat extras, $6.00@6.85; choice to fancy do. at $6.90@8.00; red and amber winter wheat, inferior to fancy grade and family, at $6.00@7.75; round hoop Ohio, $5.85@6.25, and trade and family grands of do. at $6.25@7.75, the latter rate for very choice; St. Louis at $6@7 for inferior to very good extra; $7 00@8.00 for very good to fancy; Minnesota clear, very inferior to fancy, $6.75@7; Minnesota "straight," very inferior to fancy, at $6.20@7.00, and patent poor to very fancy at $6 75@9 00; unsound stock at from $3.85@5 75; city mill extra at $6.70@7.00 for about fair to choice for West Indies (fancy do. quoted at higher figures); do. for England, $5.75@6.15 for poor to choice; do. trade and family extras, $4.85@7.15; do. for South America, $6.75@7.25; No. 2 at $4.25@5 for very poor to fancy.

GRAIN.—For wheat, while the cable advices would seem to indicate a relatively higher market here than abroad, yet steady, full quantities find their way to the other side, and about 1,100,000 bushels have been shipped this week. The stocks here are liberal, or about 10,000,000 bushels but the closing of canal navigation will admit of their being reduced, especially as the railroads have been bringing lighter quantities.

Latest sales are or No. 1 amber at $1.51; No. 2 amber at $1.50@1.50½; ungraded amber at $1.45@1.48¾; extra white at $1.40; No. 1 white at $1.47¾@1.48¾; do. for December option, at $1.48; do. for January, at $1.52; do., February, at $1.54@1 55; ungraded white at $1.45@1.48; No. 1 red at $1.51@1.54½; No. 2 red at $1.50½@1.51; do for December option, at $1.50½@1.51; do. for January, at $1.52¾@1.54½; do., February, at $1.57@1 57½; No. 3 red at $1 41@1 42; ungraded red at $1.35@1.50; New York No. 2 spring, at $1.39 No. 2 Chicago, choice, at $1.41; No 2 Northwest at $1.39; Chicago No. 3 spring at $1.35@1.35½; ungraded spring at $1.29@132. Corn has arrived very moderately, and sold up a little; shipments for the week, 710,000 bushels. Sales of New York No. 2 at 62½@63c.; do., Dec., at 62¾@62¾c.; do., for Jan., at 62.77@62.80c.; New York steamer mixed at 61@61½c.; do., for Dec., at 59½c; do., Jan., at 60¾@60.70c.; ungraded western mixed at 60½@63¾c.; No. 3 at 60¾@60¾c. Oats have been unusually active and higher, closing with sales of New York No. 1 white at 52c.; New York No. 2 white at 50¾@51c.; New York No. 3 white at 49@49½c.; New York No. 1 at 49½@50c.; New York No. 2 at 49@50c.; do., for January, at 50c.; New York No. 3 at 48½c.; ungraded white western at 50@54c.; ungraded mixed western at 48@50½c.; white State at 50@54c.; mixed State at 51c; No. 2 Chicago at 49¾@50c. afloat.

HAY AND STRAW.—There is a good, steady demand, and with receipts moderate, prices have advanced, with shipping grade of hay selling at 60@65c., retaining qualities at 70@95c; clover at 55@60c, Straw at 90c.@$1 for long rye; 60@75c. for short rye, and 55@60c. for oat.

BUCKWHEAT Flour brings $2 30@$2.60.

HONEY—Market firm; single cases comb 1c. above annexed extremes. Single comb ₹ lb., 17@18c.; double and larger, 14@16c.; buckwheat, 12@14c.; clover extracted, 11@13c.; strained, 8@9c.

HOPS.—Emmet Wells says in his weekly circular: "The market continues dull and prices show a further decline of 2c per lb., 48c. now being the top cash price attainable for choice hops. The dullness of trade is attributed to a weakening tendency in the London market and the absence of fresh orders for export, but a more direct cause of the present stagnation is the continuance of arrivals of German hops. But little alarm was created by the receipt of the first one or two hundred bales, as a few German hops are imported to this country every year; but further importations (some brewers direct) has caused no little uneasiness on the part of holders of and speculators in the home article, who had hoped to reap a fine profit on their investments before the close of the season. We know of one hop firm who have already received over 500 bales, and who report more on the way."

Quotations are for New Yorks, new crop, choice, 41@43c; New Yorks, new crop, medium, 37@39c.; New Yorks, new crop, low to fair, 33@35c.; Eastern, new crop, 33@41c.; Wisconsin, new crop, 33@41c.; Yearlings, 7@18c. Olds, all growths, 4@11c.; Pacific coast, new, 38@43c; Pacific coast, olds (nominal), 7@12c.

There have been received this week 2,070 bales, and exported only 650 bales.

OIL-CAKE.—Western quoted at $33,50 ₹ ton.

POULTRY AND GAME.—The weather has continued bad for all fresh dressed, and, of course, stall has not improved. Canners have operated largely, induced by the unusually low figures for sound stuff. Lots that were stored on ice after the late glut do not turn out regularly good. The bulk of supply, fresh or left over, is off ring at unpaying figures.

Live poultry is low, ranging at 6@7c. fowls and chickens; 6@8c. turkeys; ducks, 35@60c. Geese, as an exception, doing well for Jewish trade, ranging $1@1.50 ₹ pair.

We quote dressed turkeys, Jersey, good to prime, 8@10c. State, Northern Ohio and Penn., prime, 6@8c.; other Western, prime, 6@7c.; fair to good, 4@6c. Fowls, Phila., dry-picked 8@11c.; Jersey good to prime, 7@9c.; State, do., 6@7c, Western, do., 4@6c.; poor, 3@4c. Ducks, Phila., dry-picked, 10@12c; Jersey, 8@10c.; State, 7@9c.; Western, 7@8c. Geese, Phila., dry-picked, 9@10c.; N. J., 6@8c.; State, 4½@6c.; Western, 3@6c.; squabs, white, ₹ doz., $2@2.25; do., dark, $1@1.25.

The demand is special, and for fine birds only. The weather does not permit lots at all off or soft to be utilized. Venison dealers request that affidavits proving when State deer were killed to be sent with invoices. This is to avoid trouble with the game law.

Canvas-backs, Havre de Grace, $2 50; W. & Norf., $2@2 25; red-heads, Western, 50@70c.; do., Norf., 40@50c.; Mallards, W. & Norf., 50@60c.; common and Teal, 20@40c. Quail, trapped, ₹ doz., $2; Partridges, State, prime, ₹ pair, 75@8 c.; Western, 60@70c.; soft and drawn, 40@50c.; Grouse, prime, $1@1.25. Tame pigeons shot, ₹ doz., $1@1.25; Rabbits, ₹ pair, 30@35c.; Hares, 35@40c.; Mink, venison, short saddles, ₹ lb., 12@14c.; State and Western, short saddles, 10@12c.; whole deer, 6@9c

PROVISIONS—Have been very active and advancing, largely due to speculative demands, which have come chiefly from a Wall street combination. Towards the close prices have receded a little. Mess pork quoted at $12.30@12.60 for old for December and January; $13.75@14 10 for new do. Bacon at 7¾c for long clear and 7¾c for short clear. Lard—Western steam at $8.07½@8.15 for spot lots; $8 10 for old for December; $8.12½ for new for January, and $8 25 for new for February. Steamline at 8@8½c. for Western. Tallow at 6¾@7c. for prime. Beef hams at $15.50@15 75. Beef at $10.50@11 for plain mess; $11@12 for extra mess.

SEED.—Flaxseed has a light sale, quoted at $1,75@2. Timothy is steadily held at $2.70@2,75. Clover in demand at 8¾@9¾c. for Western and some extra choice at 9¾c.

TOBACCO.—Export trade is very moderate, and home demand fair. Prices are unchonged.

VEGETABLES.—There have been larger exports of potatoes this week, but the stock has received additions of Nova Scotia, and prices were no better. In fact, with the large offering some grades are in buyers' favor; besides, there is no promise of an extended trade for shipment. Other items show little variation in prices. Trade fair. Potatoes, Peachblows, d.-h., 1.75@$2; Snowflake, d.-h. $1.37@$1.50; Early Rose, Maine, d.-h, $1.62@1.75; State, $1 50@1.62; do. in bulk, 1.37@1.62; do. Peerless, $1.25@1.40; N. J. do., $1; Nova Scotia, $1.50@1.75; Sweet potatoes, 2@3; squash, marrow, ₹ bbl., $1; do., Hubbard, $1.25@1.50; cabbage, per 100, $4@5.00, red do., cabbage, $3@4; onions, white, per bbl., $3 00@4 00; do. yellow, $2.50@2.75; do., red, $2.25@2.50; do., Chester, $1.75@2.25; beets, N. J., 75c.@$1; Russia turnips, 75c.@$1; carrots, 75c.@$1; pumpkins, per 100, $5@8; celery, per doz., 75c @$1.

Exports potatoes for week, 16,831 bbls.; of onions, 118 do.

WOOL.—Prices have not further advanced, but they are very strong. Manufacturers are eager buyers, but there is less of a speculative feeling, and, in consequence, fewer lots changing hands among dealers. The supplies in the country are brought down to so moderate amounts that there is no fear of an inability to sustain prices, and as the foreign markets are relatively higher than this, the only important issues are on account of manufacturers direct, who must have special assortments.

Ohio, Pennsylvania and West Virginia—XXX, 52@53c.; XX, 50@52c.; X, 50@53c.; No. 1, 53@57c.; No. 2, 47@50c.; coarse, 40@43c.; combing, 45@55c.

New York, Michigan and Wisconsin—XX, 46@50c.; X, 46@50c.; No. 1, 50@52c.; No. 2, 46@50c.; coarse, 38@40c.; combing, 45@53c.

Indiana, Kentucky and Tennessee—XX and X, 46@50c.; No. 1, 50@53c.; No. 2, 46@50c.; coarse, 38@40c.; combing, 45@53c.; do. unwashed, 35@40c.

Illinois, Iowa and Minnesota—X and XX, 43@47c.; No. 1, 48@52c.; No. 2, 43@45c.; coarse, 37@40c.

Georgia, Alabama, Mississippi and Louisiana—Fine unwashed, 43@45c; medium unwashed, 40@43c.; coarse unwashed, 34@38c.; burry 18@24c.

LIVE STOCK MARKETS

NEW YORK, Saturday, Dec. 6.

BEEVES.—Receipts for the week, 9,543 head, do. last week, 11 341 do. Moderate supplies have taken the depressed tone from the market that has prevailed for a week or so. Closing quotations show a small but positive advance over Wednesday's market, with the yards at Jersey City and 60th street cleared early in the day. Fancy stock for Christmas showing is already on the way. Sixty head of elegant Durhams, fed by J. R. Gillett, will be exhibited by their purchasers, W. Ottman & Co., at Madison Square Garden. Poor to fair native steers quoted 7¾@8¾c., to dress 55@56 lbs.; good to extra, 9@10¼c., to dress 56@57 lbs.; prime exporting goods sold at 9¾@10c.

VEAL CALVES.—Live calves not plenty, and a special call pays high prices Extra fed N. J. and Bucks Co. and choice Mount Hollys, 7¾@7¾c.; State, fair to best, 6@7c.; buttermilks, 4@5c.; grassers, 2@2¾c.; fresh hog dressed, 9@10c; fair to good, 7½@9c. Market quiet, owing to abundant cheap poultry.

SHEEP AND LAMBS.—Receipts for the week, 27,309 head; do. last week, 36,439 do. The market has been heavily supplied, and an increased demand has not kept down the offering to a price-improving limit. Sheep quoted 3¾@5¾c. for poor culls to choice wethers. Fancy Ohio export sheep brought 4¾c. Lambs, 5@6c., common to extra.

MILCH COWS.—Sales are moderate but prices hold up to $40@60 for good to prime milkers. Holders of choice animals are in no hurry to sell, as receipts will be apt to turn in their favor.

HOGS.—Receipts for the week, 40,704 head; do. last week, 42,364 head. Market firm and ¼c. higher. Sales of prime Western pork at $4.62½@4.75; N. J. pigs, 6¼c.; light pork, 6@6¼c.; other weights, 5¾@5¾c.; city dressed, 5½@6c. Tenderloins, 7incases, 7c,

Reading for the Young.

FLORICULTURE FOR YOUNG PEOPLE.

JOHN N. DICKIE.

Now, boy and girl readers of the RURAL, I design in this and succeeding articles to give you an insight into the culture of flowers. I shall endeavor to talk plain, and expect you in turn to reward my efforts by making a trial of your strength next spring, a solid phalanx of lads and lasses deep in the mysteries of practical horticulture. We will assist one another, and square accounts when the flowers go to seed.

I am going to talk to you mostly of annuals, those plants which grow from seed, blossom, perfect their seeds and die the same season. Having cultivated nearly every annual offered by our seedsmen, I have selected a number which I think are particularly worthy of cultivation, and which I always give a prominent place in my garden; and of these I shall make special mention. Now, right in the start, let me entreat you never to beg flower seeds. Don't expect to procure pleasure with a "thank you." Buy seeds of a reliable seedsman. Don't have anything to do with those kept on sale in the stores. If you do, expect poor flowers.

Never sow flower seed in the open ground unless of sorts difficult to transplant, such as poppies, larkspur, &c. A hot bed is a useful thing, but that you are not expected to have. A cold-frame is good—a box set on a bed of light, mellow soil, with a sash on top; but, for young folks, let me describe what I term a "battery bed," which for raising a small number of plants is unequaled.

Procure some flower pots, and fill with soil scraped off of sod dug out of some fence corner I said "fill" the pots. That is correct, as far as it goes, but you might go too far. Fill to within one inch and a half of the top. Sow the seed carefully, and sprinkle with sifted soil pressing it down firmly. Your pots are now ready to form the "battery." Say you have nine pots. Choose a warm, sunny location, and excavate a place sufficient to admit the pots three in a row. When in position, pack around with earth, taking care that the rims of your pots are just level with the surface of the ground. Now water, and place over the pots panes of glass, and you have a propagating bed as good as the best. When the seeds germinate, raise the glass on hot days, closing down at night. Thus at a slight expense you have a battery that will electrify the whole neighborhood when they come to see the fine flowers in your garden. It grieves me to say it, but I am compelled to stop right here. It is one of the most perfect stopping places I ever expect to find. So you will please reflect on what I have told you, and wait until we meet again.

Morrow Co., O.

THE GOOD DOG JACK.

ONE warm spring morning we heard a great shout, and on going to the door to see what it all meant, we saw a large, dark object just sweeping out of the river into the lake, and realized, before any one could tell us, that the ice had carried away our bridge, and that all communication between us and the town was, for the present, cut off. How now were we to get our mail, fresh meat, and dozens of other things which we were dependent upon the village for. We bewailed our isolated condition for a day or two, when a ferry was established, which was hauled from one side to another by ropes. This was very tedious for foot passengers, and as the ferry was large and clumsy, the man that tended it found it very hard to pull across and back for only one person. So some large planks were fastened together, forming a float, that reached clear across, and although it was very narrow walking and the river very deep at this point, we soon grew accustomed to it, and ran backward and forward without fear.

One day I went to town on an errand, and meeting some young cousins, they proposed buying a couple of gallons of molasses and having some candy and stacked corn. So we got a large jug and had it filled at the store, but on returning home they found their mother anything but pleased with the idea.

"I can't have the kitchen all in a muss with molasses candy," she protested; "you will get it all over everything, daub up every pan I've got, and leave it all for the girl to clean up; she's busy enough now, and I won't have it." In vain we promised all sorts of good behavior, Aunt L. was cross and obstinate.

"Never mind; don't let us be cheated out of a good time this way. Come over to my house and we will pop corn and boil candy as long as we feel inclined to," I urged. So we all started, four of us, with little Schuyler, a lad eight years old, carrying the jug of molasses. He ran ahead of us and commenced to cross the river on the float. Suddenly there was a scream, a loud splash, and there was Schuyler in the water, and even as we looked he sank out of sight. No man was in sight, not even the ferryman, and we all ran toward the spot, screaming and wringing our hands; but some one else was along that was not counted when I said there were four of us. That fifth one dashed like lightning past us, reached the spot before we could, and, springing into the water, caught Schuyler with his teeth as the child came up, and held his head out of water.

It was dear old Jack, who had taken in the situation as quickly as ourselves, and rushed to the rescue. Our agonized screams attracted attention, and soon half a dozen pair of arms belonging to some fishermen had relieved Jack of his burden and placed Schuyler, all dripping and terribly frightened, on the plank-float again. As soon as his chattering teeth would let him, he wailed out, "Oh, the jug! I had to let go of it, and it has gone to the bottom." Dear little cousin, we were only too rejoiced that it was the jug, and not he, that had "gone to the bottom," which he certainly would have done had it not been for Jack. In falling in he had pitched forward, and was so far from the float that we could not reach him when he came up the first time, and as it was several minutes before help came, he would certainly have been drowned but for the dog.

"How came he to fall in?" Well, he was running along, faster than he should go in such a dangerous place, and stubbed his toe. Somehow we had lost all desire that day for molasses candy, and we returned to aunt's a very sober and crestfallen party. When Jack had shaken himself dry, we hugged him and praised him all the evening.

While the ferry was still in use, and before the new bridge was finished, I concluded one day to take the next early morning train for Cleveland. One of these same cousins was with me the evening before, and as I had to get up before daylight to catch the train she proposed that I get ready and go home with her that night, as her house was much nearer the depot, and she feared the ferryman would not be on hand early enough in the morning to take me across the river. I fell in with her plan, and after packing a hand bag, gathering a big bouquet to take to friends in Cleveland, we locked up the house and started for my aunt's. When we reached the ferry no one was there to haul us over. We waited a long time; it was growing quite dark, still the ferryman did not make his appearance. "Let us go around by the railroad bridge," I suggested. "I am afraid to," answered my cousin. "It is so lonely there, so far from any house, and there are such dreadful stories now-a-days about tramps." "We have got Jack with us," I urged, "and he is ample protection. It is growing later all the time, and we will have to go at last, I fear, no matter how long we wait." So we started, and soon reached the bridge, which was a swinging one, one half open and the other half covered close by sides and top. When we had crossed the open space, and were about to enter the covered part, which was so dark we could only feel our way along the planks that were laid for foot passengers, we heard footsteps approaching and Jack, who was ahead, commenced to growl ominously. "Get out, you brute," we heard a man say, but Jack kept on, and cursing and swearing fearfully the man retraced his steps. When we got through the bridge, with our hearts beating fearfully and clinging to one another in fright, there, on an elevation, where Jack had driven him, was one of the worst specles of tramp we had ever seen. A brawny dirty, desperate looking fellow, who looked as if ready to do any wicked deed. Jack kept between us and the man until we had passed, then fell in our path, following *after*, not dashing ahead as before. Oh, how relieved we were when we neared the first house on the road, and how thankful to reach home, and how often we were called to relate our adventure, and every time we told it Jack sat up slowly wagging his tail as if he understood that he was the hero of the hour.—*Cleveland Herald.*

LETTERS FROM THE COUSINS.

UNCLE MARK:—I am perhaps writing too soon, if so, lay my letter aside until the proper time to print it. I should not so soon have taken advantage of Uncle Mark's humorous welcome, if I had not wished to acknowledge the receipt of the Cuthbert Raspberries. I am greatly obliged to the sender. I was very much pleased with the compact manner in which they were prepared for mailing. They are nicely set out. It will not be the fault of the plants if they do not live for they had the best of roots. My house plants are not looking as nice now as they will a little later. I have a Calla in bloom The warm weather of a few days past, has caused me to miss the flowers more than I have before since they were cut off. The beautiful summer days would be far from perfect if they did not bring with them their floral offerings. I sought the other day for some of my pets that had braved the stinging breath of the previous days. I was rewarded by the sight of half a dozen saucy faces nodding at me from my Pansy bed. One, I think the most beautiful Pansy I ever saw, was a deep rich blue merging at the center almost into black. Beside the plants which I intend shall form a part of my enjoyment for the winter months, I have my canary. While I think of it I must tell of the wild birds that we have around us in summer. My mother and I have been in the habit of feeding them until they have come to consider their bread and cracker a right, and if it is not forthcoming they remind us of their presence by flying before the window. I must close now, hoping my letter is not too long.

New Bedford, Mass. CARNATION.

DEAR UNCLE MARK:—I have long wanted to join your Horticultural Club, before I knew you would take those beyond their teens, and I have only waited for a chance to write for the last three months. Will you accept me? I have five windows full of plants—most of them rare. The plants never did better than the past summer—nearly all were put out in the ground toward the last of May. Some of my Geraniums bloomed profusely; one, not over eight months old, of the La Neige variety, had from 17 to 20 trusses of flowers at a time. I cut back some of the older stocks of Geraniums, when I bring them in the house, and some sorts are still blooming very finely. I am acquainted with one of your members, little Frank Thatcher, who has a garden and home in Meeker Co. I visited him some months since, and was astonished to see that he had every weed pulled out of his garden, and took especial pride in keeping it clean, although he is but six years old. Please, can we ask Uncle Mark about our flowers and plants—especially their hardiness? If so, will he tell me if this Myrtle and Thyme, a sprig of which I enclose, are hardy enough for our Minnesota winters, with a little protection, out-of-doors? S. A. M.

Howard Lake, Minn.

You are welcome to join, but I cannot register your name till I get something more of it than the initials. The Thyme is hardy; the "Myrtle" I have some doubt about.—UNCLE MARK].

DEAR UNCLE MARK:—The prize book you so kindly offered came about two weeks ago. When I opened the package I was agreeably disappointed to find such an entertaining book. Please accept my warmest thanks. My father says he thinks Uncle Mark is a "brick," and if you should ever come to California we would be very glad to see you at our house. Southern California is so different from the East that we could show you a good many new and interesting sights. We live about a mile from a Spanish Mission over a hundred years old. There are Orange and Lemon groves, and very large vineyards reaching almost as far as one can see, and lovely canyons in the mountains where we have our picnics. We have beautiful flowers here all the year round. Thanking you once more, I am

Your sincere niece,

Los Angeles Co., Cal. GERTRUDE B. ADAMS.

[Thanks for your invitation, Gertrude, if I ever find myself in your neighborhood I shall be pleased to call.—U. M.]

DEAR UNCLE MARK:—We are but recent subscribers to the RURAL, but we like it ever so much. I should like to join the Horticultural Club if you will place my name upon the list. I have had a beautiful flower garden this summer, and we have a good many house plants. We have several fig trees. I have put one in the cellar, but have left the rest in the garden, do you think they will live through the winter? (No.) Yours truly

Jones Co., Iowa. EMMA. L. TUCKER.

Various.

BRIEFLETS.

ONE of our friends writes us that he fears the much-advertised, much-talked of English Magnum Bonum potato is more magnum than bonum. . . A distinguished lady writer of England thinks the very best food for young turkeys is *custard*. She makes it by beating up an egg in a cup of milk and baking it. . . All fruits—the most tender—must never stir in their boxes or barrels until removed from them. . . The best material for general packing is dry, soft moss. This is especially true for grapes. The steady pressure of the lid upon the elastic moss keeps every berry in place. . . Col. Curtis, in the N. Y. Tribune, says that old farmers have reason to smile at the vaunted discovery which a noted seedsman has recently made, that perfect success in growing seeds and plants lies in "firming" the soil.—This is rather disrespectful, Colonel. You are not old enough yourself to talk in that way. . . Montana is now the best place for old maids, cooks, and house-servants generally. . . The International Dairy Fair's $10,000 worth of premiums ought, of itself, to excite a deal of interest. T. M. Seaver, of 309 Greenwich Street, is the Superintendent, and of him all particulars can be gleaned. . . Keep the temperature of the root or fruit cellar just above freezing. . . Compost the muck with lime. . . Read, think and plan for another year. . . Put on a bright face, and make your family happy for the holidays. . . It is impossible for house-plants to do well, if the earth about them remains wet for any considerable length of time—say two days. Plants need *fresh* water the same as individuals. Let the earth be so porous and the drainage so complete that the plants will *need* watering daily. . . Readers are respectfully reminded that the RURAL NEW-YORKER is *invariably discontinued* at the end of the subscription term. . . We read in not less than twenty-five journals that their Premium Lists offer "the most valuable collection of articles ever before offered by any other journal in the world." . . We cannot say so much for ours. BUT, in so far as we can judge from what we have *seen*, it is as valuable as *any* of them. Send for it and judge for yourself. . . The one thing essential to the success of the proposed "National Agricultural Society," is to make it appear that Agriculture is the thing to be benefited. The trouble is to select officers that care more for agriculture than for the hobbies so many love to ride. So soon as it appears that anybody is grinding his own axe, both axe and individual should be cast out. . . The use for which the blank form upon our last page may be put, will readily suggest itself to all intelligent readers. . . The RURAL NEW-YORKER will prove, we are confident, a useful present to any friend, and it will be adequately prized at the end of the year, if not at the beginning. This will entitle the recipient to a share in all of our plant and seed distributions, and the giver to our best thanks. The paper will be sent from now until 1881 for $2.00. . . The Dutchess Farmer says:—"If farmers would plan recreation for their wives and families, they would remove one cause of gloom and sickness from their houses." . . In those parts of the country where the ground is still very dry, it would be well to mulch evergreens. The season of 1873-'4 will be remembered as peculiarly destructive to them, and the ground was then, as now—dry. . . Dr. Hoskins would like to see farmers' sons taught the principles of finance, as a protection against usurers and speculators, and of political economy, as a shield against the treachery of representatives and schemes of monopolizers. . . Mr. Wood, of Wisconsin, says that if a man wants a farm, he had better go right into the midst of a prairie country where there is not a tree; better go and take his farm there and plant trees, rather than go into a heavy timber country and hew out his farm. . . Mr. Welsher says that there is not a spring bursting from one of our thousands of hill-sides, which is not capable of supporting hundreds of speckled trout, with a small outlay in the construction of ponds. . . What constitutes "a disgrace to journalism" is a question before the London courts. It would be a hard question to settle in this country. . . The Cincinnati Enquirer, speaking of killing a hog, says: "Reader, for a moment put yourself in his place." . . The Boston Journal says that nowadays farmers may raise high-grade colts with profit, because there is a demand for them *while they are very young*. . . Frosted bits pain and injure horses' mouths on wintry mornings. Warm the bits, therefore, before using them. Rubber instead of iron bits are coming into use in cold weather. . . You can now commence to prune fruit trees and grape-vines whenever the weather is pleasant. . . How cheerful a few fragrant Pinks, Violets and Monthly Roses now are! . . Electricity was used to transport motion for one and a half mile in France. The motive power was strong enough to run a thrashing machine. . . Large quantities of California grapes have been sold in Eastern cities for twenty to twenty-five cents per pound. . . . The wood of the so-much-hated Ailantus is strong, durable and susceptible of a fine polish.

There's trouble among the millers and dwellers at Maxwell City and along the James River, Dakota. The people of the James River Valley built dams and mills for grinding their wheat; but lately a party of speculators, higher up the river, have shut off the water, and the mills stand idle without motive power, while the neighboring people have to go to Yankton, sometimes from a distance of 75 miles, to get their flour for family use. There's rough talk out there of destroying the Lake dam, which holds the needed water above. Surely there should be some legal remedy for such selfish injustice as those speculators have been guilty of. . . . The Millers' International Exposition will open a fine show at the Industrial Exposition Building, Cincinnati, Ohio, on June 1st, 1880, lasting two weeks. . . . The cotton mills of Augusta, Ga., pay a dividend of 28 per cent. on a capital of $900,000. . . . The Penn. R. R Co. are about to erect a mammoth grain elevator in Jersey City, at a cost of half a million dollars. It will be capable of cleaning 6,000 bushels per hour, and will be ready for use by next August. . . . The Canadian railroad lines from Detroit to Suspension Bridge have felt severely the stoppage of American cattle transportation through the Dominion, and now ask permission to carry cattle between the two points in sealed cars, no animal to be landed in Canada, and the cars to be used exclusively for that purpose. . . . Bad crops in some parts of Germany have already produced a famine in Upper Silesia where in many of the villages one-third of the people are reported to be starving. Among the peasants and weavers in Saxony famine has also made its ghastly appearance. . . . Out of the 30 costly grist mills of which Rochester N. Y. once boasted, 13 only are now running, 15 of them being now used as manufactories of machinery, while two have been burnt. . . . A perfect fruit famine prevails in the Grecian Archipelago. Rhodes which used to export 100 ship-loads of fruit, now imports lemons from Candia, while oranges have been annually diminishing with the rainfall. . . . The Short-horn breeders of Ky., at a meeting in Lexington, Nov. 25, resolved to purchase the copyright of the Short-horn Record from the estate of the late Major Evans. Subscriptions to the necessary amount—$5,000—have been collected. . . . An outbreak of pleuro-pneumonia has just occured in Monmouthshire, England. . . . The rinderpest in Russian Poland continues to extend and the establishment of a military cordon on the frontier by the Russian authorities may be shortly expected. . . . The vineyards of Malaga, Spain covering an area of 20,660 hectares (about 74,000 acres) have been attacked by the phylloxera. The pest is increasing in Gerona and Calalonia. . . . The N. Y. State Dairymen's Association will hold its annual convention at Onconta on Dec. 16, 17, 18. Papers will be read from Prof. L. B. Arnold, Rochester; John S. Shattuck, Norwich; F. R. Gilbert, Stamford; Fred. I. Evans, of this city; M. S. Wilcox, Jefferson; S. Hoxie, Whitestown; and others. Those attending the meeting can obtain reduced rates of fare from the following railroads: return for one cent a mile on the Delaware and Hudson River Canal Co., and return free on the Delaware, Lackawana and Western R. R., Utica and Chenango, and Rome, and Clinton Divisions. . . . The Dairy Exhibition in this city opens to-day, (Dec. 8th,) at the American Institute Building, 3rd Avenue and 63rd Street and will continue open two weeks.

PERSONAL ITEMS.

Mark Twain is 44.

Bancroft says he keeps in good health by being busy.

San Francisco has fined Kearney for carrying concealed weapons.

In Brazil photographs of Charles Francis Adams are used for making artificial ice.

San Francisco Kearney is said to have become a bloated, "leacherous" capitalist by stock speculations.

Abraham Lincoln's mother, Nancy, died in her husband's cabin in Carter township, Indiana, last October.

Mrs. Gladstone, the ex-Premier's wife, is one of the most charitable women in Europe, and is personally known to nearly all the poor in London.

New babies have conferred the honor of grandfatherhood this fall upon Longfellow, Tennyson and Bismarck, and a host of other old fellows.

Kossuth is no longer a Hungarian citizen. The Chamber of Deputies have adopted a bill declaring that any native who lives out of the country for ten years shall lose his civil status.

Mrs. Parnell, mother of the Irish agitator, is generally regarded as the leading lady operator in Wall Street. Parnell has "sisters, cousins and aunts" and a brother or so in this country also.

W. H. Vanderbilt is now the largest single holder of United States bonds in the world, having just registered $5,000,000 worth, purchased by the proceeds of his late sale of New York Central Railroad stock.

On being complimented, the other day, on the receipt of some handsome bouquets placed on his desk in the Senate, Thurman smilingly remarked, "Oh, yes; some kind friends have sent these to decorate my official coffin."

Five of New York's millionaires, estimated to have been worth three hundred and eight million dollars, dropped off close together. John Jacob Astor went first, and then in quick succession Commodore Vanderbilt, A. T. Stewart and William C. Rhinelander, and now the money worshipper, Goelet. Astor's wealth was estimated at $50,000,000, Vanderbilt's at $100,000,000 and Stewart's about the same. Rhinelander's property represented, it is supposed, $10,000,000 and Goelet's at $20,000,000.

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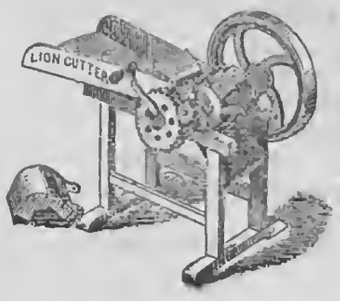

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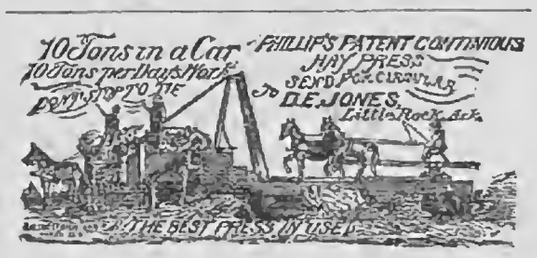

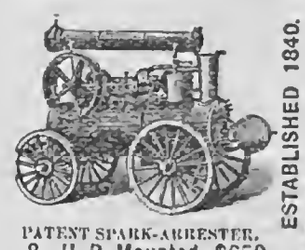

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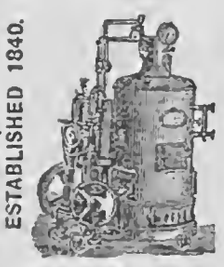

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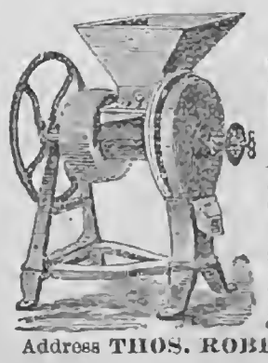

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THE RURAL NEW-YORKER

A JOURNAL FOR THE SUBURBAN AND COUNTRY HOME

VOL. XXXVIII. No. 51.
WHOLE No. 1560.

NEW YORK, DEC. 20, 1879.

PRICE FIVE CENTS.
$2.00 PER YEAR.

[Entered according to Act of Congress, in the year 1879, by the Rural Publishing Company, in the office of the Librarian of Congress at Washington. — Entered at the Post-Office at New York City, N. Y., as second-class matter.]

Ralph Evans
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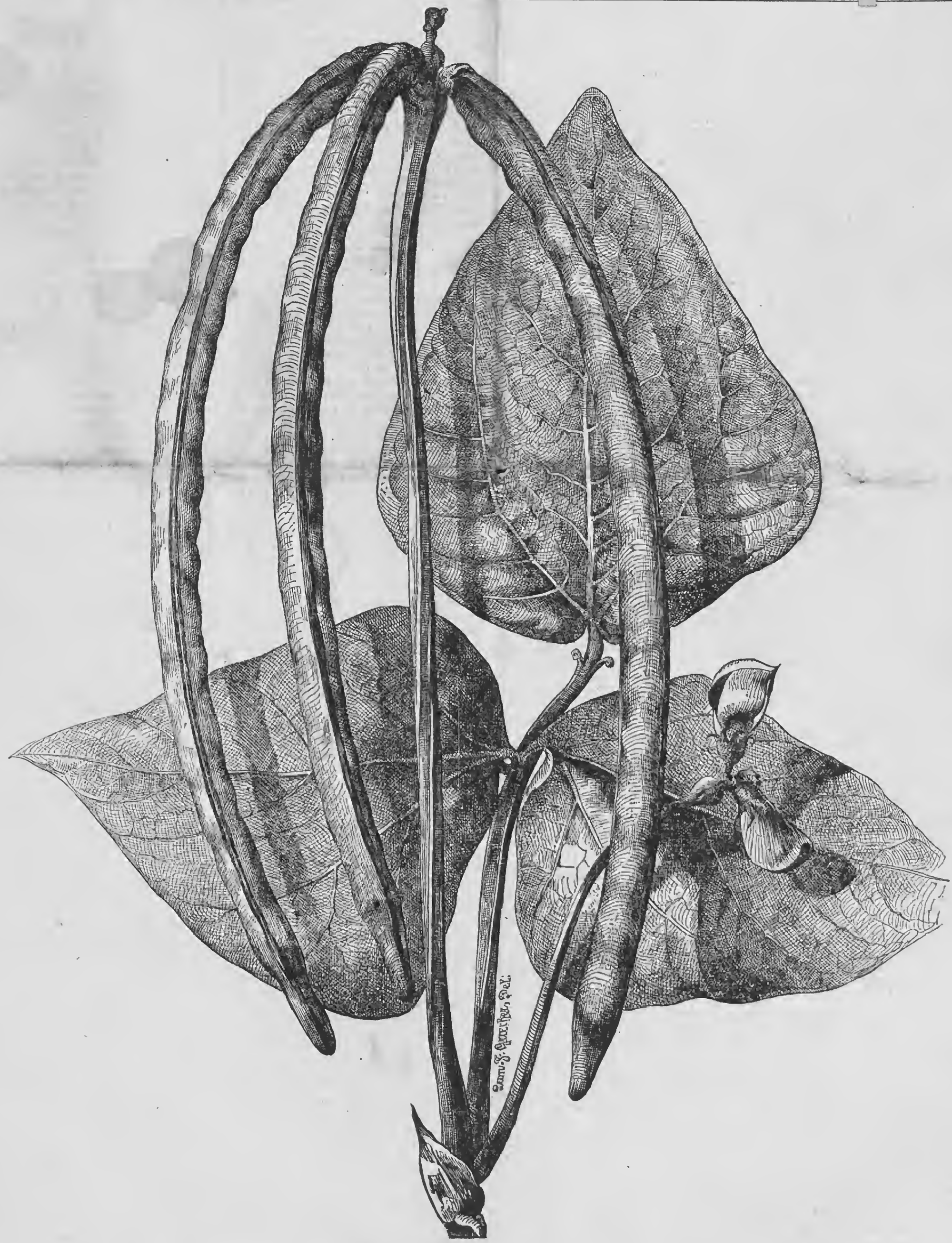


THE SOUTHERN COW "PEA."—DOLICHOS SINENSIS (?)

Field Crops.

THE SOUTHERN COW PEA.

DOCTOR A. R. LEDOUX, DIRECTOR OF NORTH CAROLINA AGRICULTURAL EXPERIMENT STATION.

THE history of the Southern Cow Pea is involved in obscurity, and the oldest and best of our farmers are divided in their opinions as to its origin. Some claim that it is indigenous to the soil, having been found growing in luxuriance over our savannahs and upland meadows when first the white man traversed the fertile plains of North Carolina. Others hold that it was introduced by the incoming colonists; while still a third party have suggested that the seed was brought from Africa with the slaves as a cheap and nourishing food on the voyage. I am at present endeavoring to trace the "Pea" to its source. So far, I am led to believe that it was introduced by the French or Spanish, and that its culture has gradually extended northward from Florida or Louisiana.

The name "Cow Pea" is calculated to deceive. It is not a pea, and has no relation to the English or garden pea—Pisum. Its botanical status, strange to say, has never been fully established. Its merits have been unwritten, except in local newspapers, or but casually mentioned in agricultural works. It has held its name, and extended its area of cultivation, solely by its intrinsic worth. The Southern farmer has found in it a nourishing food for his family, the best food for his stock, an easily cultivated renovator of his worn-out soils, and a sure weed-destroyer. The large number of varieties unquestionably belong to the genus Dolichos or to "Vigna," as our modern botanists prefer to class it, of which over 60 species are described in Don's "General History of Dichlamydeous Plants." It is an annual, the seed ripening from July to September, according to location and species. The number of varieties is legion, since all the species hybridize with the utmost ease, and the new varieties resulting from the cross, will perpetuate themselves with constant characteristics obtained from each of the original species. No less than 20 varieties are distinctly recognized, and have obtained popular names derived from association, color, or some other individual characteristic. That they can all be referred to the Dolichos Sinensis of Linnæus or the modern Vigna Sinensis, is a very doubtful assertion.

The following are among the common names existing in various localities: "Yellow Pea," "Black Pea," "Black Eye," "Crowder," "Sugar Crowder," "Clay-bank," "Clay," "Red Cow," "Ripper," "Brown Eye," "Field," "Long-pod," "Yard," "Java," "Speckled," "Whip-poor-will," "Shiuy," etc., etc. The varieties best known are the followiug:

(1). "Whip-poor-will" or "Speckled;" small, speckled (like the bird); makes little vine.

(2). "Clay" or "Crowder"—clay-color, largest of all, not prolific and hard to raise. Named from color and from the crowded position of the seeds in the pod.

(3). "Black Pea," chiefly used for green manuring and hay. Has enormous vines. The seed is not esteemed as food.

(4). The "Lady Pea," small, variegated, the most esteemed for table use.

(5). "Black-eyed Pea," grown for food; makes good hay also. These are the principal varieties grown in North Carolina, but they so run into and cross with each other, that new varieties constantly come forward with special claims.

They have no tendrils like the pea proper, but twine like beans, running on their own foliage.

The cultivation of the Cow Pea varies according to the purpose for which it is grown—whether for food for man, beast or hungry soil—from no cultivation at all to the use of the drill and cultivator. When planted to renovate worn-out land, they are usually harrowed into well-broken ground and left to themselves. The Black and Speckled peas are preferred for this purpose. Some, more painstaking, drill them in rows, two feet apart, and plow once, when a few inches high. Then, left to themselves, they will soon destroy even the most hardy weeds, such as the thistle, ragweed, etc., and, in three months' time, an astonishing mass of vegetable matter, rich in plant-food, will be ready to be turned under. This is usually done, when the pods begin to ripen, with a large two-horse plow with sharp rolling coulter, preceded by a roller, or heavy chain attached to the doubletree to hold the vines down. The crops grown upon the poor, sandy lands of the tide-water belt of the South, after one turning under of a growth of "pea vines," are the astonishment of Northern farmers. Some planters apply lime to the soil before plowing under the vines, especially upon land inclining to acidity. When planted for food, they are simply dropped among the corn in hills about five feet apart. For feeding cattle, sheep or hogs, they are usually sown in rows with the corn, allowing the former to get a start before sowing the latter. After the fodder is "pulled," and the corn secured, the stock are turned in and fatten upon the vines, of which they are very fond. To preserve the vines for winter hay, some experience is necessary. If dried too much or too rapidly, the leaves fall off and are lost. If put up too green, they heat, ferment, and are ruined. Properly cured, they are a very valuable addition to our winter hays.

As most RURAL readers have, doubtless, never seen the analyses of the "Cow-Pea," I will append them, trusting that some Northern farmer may be induced to make a trial of the crop, and prove to be true, what *I firmly believe*, that *some varieties* of this valuable plant will thrive and ripen seeds in the Middle States. If so, then will the agriculture of sandy Long Island, of Connecticut, Central New York and New Jersey, receive an impetus that will be surprising. The outlay for commercial manures will be materially lessened, and, *once understood*, the "Cow-Pea" will maintain a hold on the intelligent Northern farmer, second only (if at all) to clover.

SAMPLES OF BLACK COW PEA.
Analysis—Fresh Seeds.

	PER CT.	
Moisture	20.85	
Ash	2.94	PER CT.
Albuminoids	20.08	Containing Ammonia, 3.89
Cellulose	4.34	
Fat	1.28	
Carbohydrates	50.51	
	100.00	

SAMPLE OF YELLOW COW PEA.
Analysis—Fresh Seeds.

	PER CT.	
Water	19.20	
Ash	3.31	PER CT.
Albuminoids	23.02	Containing Ammonia, 4.46
Cellulose	5.03	
Fat	1.37	
Carbohydrates	48.07	
	100.00	

Analysis—Water-free Seeds.

	PER CT.	
Ash	4.10	PER CT.
Albuminoids	28.50	Containing Ammonia, 5.52
Cellulose	6.23	
Fat	1.68	
Carbohydrates	59.49	
	100.00	

ANALYSIS OF THE ASH OF YELLOW SEEDS.

Ash	3.31 per cent.
Potash	30.16 "
Soda	11.71 "
Magnesia	6.16 "
Lime	4.84 "
Phosphoric Acid	30.06 "
Sulphuric Acid	3.13 "
Silica	1.65 "
Chlorine	0.35 "
Oxide of Iron	0.39 "
Carbonic Acid	8.10 "

COMPOSITION OF ASH.
With Silica and Carbonic Acid, Deducted.

Potash	33.42 per cent.
Soda	12.99 "
Magnesia	6.83 "
Lime	5.36 "
Phosphoric Acid	33.30 "
Sulphuric Acid	3.69 "
Chlorine	0.39 "
Oxide Iron	0.43 "

From these analyses we can see that the composition of the fresh seeds of the yellow variety is as follows, in 1,000 parts:

	PARTS.	
Water	192.00	
Potash	10.08	
Soda	3.98	
Magnesia	2.14	
Lime	1.78	
Phosphoric Acid	10.05	
Sulphuric Acid	1.09	
Silica	0.65	
Oxide of Iron	0.23	
Chlorine	0.22	
Carbonic Acid	2.88	
Albuminoids	230.20	Containing Ammonia, 44.61
Cellulose	50.30	
Fat	13.70	
Carbohydrates	490.70	
	1,000.00	

ANALYSIS OF ASH.
With Silica and Carbonic Acid Deducted.

Potash	18.68 per cent.
Soda	29.40 "
Magnesia	8.51 "
Lime	28.49 "
Phosphoric Acid	11.71 "
Sulphuric Acid	2.97 "
Chlorine	0.24 "
	100.00

1,000 pounds of the fresh vines will contain as follows:

	LBS.	
Water	728.10	
Potash	2.96	
Soda	4.66	
Magnesia	1.35	
Lime	4.51	
Phosphoric Acid	1.86	
Sulphuric Acid	0.47	
Silica	0.21	
Oxide of Iron	....	
Chlorine	0.04	
Carbonic Acid	3.94	
Albuminoids	18.50	Containing Ammonia, 3.56
Cellulose	152.70	
Fat	2.10	
Carbohydrates	78.60	
	1,000.00	

The value of the Cow Pea as an article of food, and of the vines for feeding and fertilizing purposes, will best be shown by a comparison with seeds and grains of well-known, standard qualities.

TABLE I,

Showing comparative composition of certain grains and seeds, calculated to *water-free substances* for uniformity:

	Ash.	Albuminoids.	Crude fiber.	Carbohydrates.	Fat.
Cow Pea, Black	3.72	25.37	5.48	63.81	1.62
Cow Pea, Yellow	4.10	28.50	6.23	59.49	1.68
Maize (Corn) Kernel	1.66	12.76	2.53	77.37	5.68
Field Beans	4.00	29.94	13.45	53.21	2.33
Garden Peas	2.91	26.13	10.73	61.02	2.91
Wheat	2.53	15.18	3.50	78.97	0.58
Acorns	2.21	4.54	10.20	82.95	5.22

From this comparison we can readily locate the Cow Pea in its proper place as a feeding stuff. Taking the nutritive ratio of the bean as the unit, the other substances will come in the following order: 1, Field Bean; 2, Yellow Cow Pea; 3, Black Cow Pea; 4, Garden (English) Pea; 5, Wheat; 6, Maize; 7, Acorn. The garden pea and the bean being the most nutritious vegetables, weight for weight, we see how near the Cow Pea approaches to these as a food for man or beast, and how high it stands in the scale of value.

Last spring our friend, Mr. M. B. Prince, of North Carolina, was kind enough to send us a small box of the Southern Cow Peas In it were many different varieties from the size of small peas to that of bush beans. In color they were white, cream, brown, red, purple, mottled, &c., with variously colored eyes. Of the entire collection, we planted six kinds described by Mr. Prince as Clay-Colored, Black-eyed, Black, Crowder, Lady Finger and Red. As these plants cross very readily and different varieties result every season, such names can be of little value. They were planted in a row 50 feet in length about the middle of May. They germinated freely and grew rapidly. About the 1st of June a frost occurred which injured bush beans growing near. Corn was also injured—but the Cow Peas were not. Our engraving is that of the variety sent as "Crowder." The size, form and color of the leaves and fruits of the several varieties differ, but all made an immense growth of vines which after attaining a hight of nearly two feet spread out on either side, covering the ground five feet in width. This we are aware is not in accordance with Prof. Ledoux's statement that some varieties make "little vine." That most of the above varieties will "thrive and ripen seeds in the Middle States" there can no longer be any doubt.

COW PEAS IN TEXAS.

G. MARTI.

THE common name of Cow Peas is given in general to a large genus of plants, the Dolichos, which are closely related to our common garden beans. There are a good many species, varieties and sub-varieties of this vegetable, differing widely in the style and hight of growth, form of pods and the color of flowers and beans. They are extensively cultivated for home consumption in warm climates, as Algiers, Egypt, Spain, the southern part of France and, to some extent, in our Southern States. Several efforts to introduce them in the Northern parts of France and Germany resulted in failure; the climate was found to be too cold and the summers too short for them to ripen their pods. The Cow Pea is a tender vegetable and warmth is one of its chief requirements in order to make a robust growth.

It is very productive, especially the dwarf and half-climbing or trailing kinds. The coarser red and seeded sorts cooked, make a substantial feed for hogs. It is said that fed to cows in the same manner, it increases the flow of milk greatly, though it impairs the quality of the butter. The pods may be used as snaps in their tender state, and, though of a rather peculiar and strong taste, they are a welcome dish at a time when the scarcity of other green vegetables is keenly felt on the Southern farmer's table. Exclusively for this last purpose, the Long-podded yard bean (Dolichos sesquipedalis) is planted, as it is too scant in seeds and the few there are, are too meager and inferior to make it a good and prolific sheller. For a shell-pea for human food, the Black-eyed Ladies' or Bird's-foot Pea, (D. unquiculatus) is considered the best among the cow pea family, and it is the only one that is brought to market and sold there on vegetable-stands either shelled or in pods in a half-ripe state. It is very prolific: the pods are well filled, the beans plump, of a whitish color with a black eye. They make an excellent dish.

All kinds of stock devour the luxuriant herbage of the different sorts of Cow Peas greedily, though, in this case, the same precautions have to be observed as in feeding young clover. Dried, the vines make a good hay of great substance. The Cow Pea is highly recommended for plowing under in a green state, in order to supply vegetable mold to old and worn-out fields. The climbing kinds sown broadcast and left trailing on the ground, will form such an entangled mass of foliage as to smother out some of the most obnoxious and tenacious weeds, and leave the ground in a moldy, fine condition for after-tillage. Not very long ago a market gardener in this vicinity, who has the misfortune to have his field infested with Coco or Nut-grass—from one corner to the other, triumphantly assured me that, at last, he had found the true means of getting rid of this pernicious pest by simply choking it out with Cow Peas. This assertion however,—knowing a little of the tenacity of life of this hydra, the Nut grass, I take with many grains of salt until more fully convinced by his success.

The way in which cow peas are usually planted here is in the corn-fields as an after-catch. They are planted in rows after the second plowing. The dry corn-stalks, by the time the peas have grown up, serve them as supports or stakes. Broadcast, they are sown rather late in the spring and harrowed in. The harvest in this way, is often reported as from 20 to 40 bushels per acre. Though, preferring a sand loam, they are not particular as to the quality of the ground, so that it be not too wet. Last season a neighbor of mine raised a fine patch of Cow Peas with an abundance of well filled pods, in a field of a very heavy, tenacious and waxy clay soil. On the whole, the Cow Pea is cultivated far less than it deserves to be, in a climate fit for its growth. Perhaps not the least cause of its not being cultivated more extensively lies in the fact that the bean weevil infests it badly, especially the dark-seeded varieties. Not seldom does one put up his bag of apparently sound seed peas, to find them, at planting time, converted into a mass of dust and skins.

COW PEAS IN NORTH CAROLINA.

As one of the more important and special productions of the South, the Cow Pea receives less attention than it deserves. Though grown to a considerable extent in this State, it is usually compelled to take its chances as a catch crop among corn or as a fallow crop after wheat or oats, yet with a cleanly cultivated soil to start on, it never fails to pay the full principal with large interest on the investment. As a green crop for plowing under, it is considered fully equal to clover. Some accounts are current of land sown with wheat for several consecutive years, each successive yield being better than any previous one, no manure being used, except a crop of Cow Peas, sown immediately after the removal of the wheat, and plowed under in time for the next crop of wheat, Drilled in June and properly cultivated, they will be well matured by the first of October, and afford a fine start for the fattening hogs or cattle intended for beef. Giving them the range of the field saves all expense of harvesting, and but very little will be wasted. Mown when the seed is just forming, the vines make most excellent hay.

Dr. Ledoux in his analyses, ranks cow pea vines more nutritious than corn fodder, though inferior to timothy or clover, and the ripe Cow Peas he places second as compared to beans, garden peas, wheat, maize and acorns, beans holding the first position. I suppose the first analysis, that of the vines, to have been made before any seeds were formed or at least when free from all pods, from which we must see that fodder made from cow pea vines, when the peas are well formed, though not dry, must be much more valuable. M. B. P.

Warren Co., N. C.

COW PEAS AS A FODDER CROP.

HENRY STEWART.

FOR the Southern States nothing need be said in regard to the value of the Cow Pea. It is there so well known and so widely grown that its value is as well established as that of clover in the Northern States. But in the Middle and Northern States the Cow Pea is almost unknown. A few farmers only, ever on the alert to learn some new thing, have heard of the Cow Pea and have tried it. Fodder crops here are our most valuable ones, and the eagerness with which every newly introduced plant is welcomed and tried, from Prickley Comfrey upwards and downwards—if there is a downward from that atrocious humbug—is a proof that a greater variety of green or dried fodder is desired. Cow Peas, I feel confident, will become largely grown in the North, as soon as their value has been discovered. By the kindness of Prof. Blount, who sent me the seed, I was able to test a bushel the past season. The seed was sown in drills, 18 inches apart, in the same manner as our ordinary peas. This was a mistake, and 27 inches apart would have been better, as the vines will run and mat together closely at the latter distance. The soil was a very light sandy loam, had been in turnips the year before, and in rye cut green for fodder the present season. Last year 600 pounds of Mapes's complete manure had been used for the turnips and the present year no fertilizer was used. The peas were sown June 2d, and the dry warm weather of that month and the next seemed, to suit them well. The late season helped them to make a good growth, and in September early I commenced cutting them. There were no blossoms and the vines were thick, so that it was necessary to cut or "pull" them with a scythe as common peas are gathered into bunches. The cows eat them greedily and the milk came up at once, and kept up, from 75 to 83 lbs. at a milking to 92 to 98 pounds. This being more milk than I needed, the daily ration of meal was reduced one quart per cow, and the milk fell back then very little. The increase in the milk may have been due to the large quantity of peas consumed, as 14 cows (4 dry ones included) eat up

the whole acre in one week, besides a feed of green corn at noon. With better soil the yield might have been much heavier, but it amounted to at least as much as a fair crop of fodder corn. As to its nutritive qualities, the fact mentioned is satisfactory to me in a practical manner. For those who love figures I can give them the following analyses which show what Cow Peas ought to do in comparison with clover and fodder corn, our most common green fodder crops. The analysis of the Cow Peas is taken from the Agricultural Report, 1874, and that of fodder corn from the report of work done at the Connecticut Experiment Station by Prof. Atwater in 1878.

Composition of	Fresh.				Dry.			
	Water.	Organic Matter.	Ash.	Albuminoids.	Carbohydrates.	Cellulose.	Ash.	Fat.
Cow Peas	86.8	11.9	1.2	14.6	38.0	36.5	8.6	2.1
Red Clover	83.0	15.5	1.5	18.6	43.5	25.5	8.4	3.9
Fodder Corn	84.3	14.6	1.1	10.3	51.4	30.1	6.9	1.01

As might be expected from its leguminous character, the Cow Pea is richer in albuminoids than corn fodder; in practical use I think the peas considerably more valuable than green corn. Besides, the above analysis of Cow Peas was made when the plant had not blossomed and was immature; if it can be brought by forcing cultivation into a more mature condition, it might more nearly approach in value to red clover. It is a plant worth testing either for green fodder or for hay. It is one of a class of which we cannot have too many, and which will come in a succession after rye and that may be removed from the ground in time to plow and sow rye again; that is, when the rye is used for green fodder. In soiling it will come in at a most convenient season, when cows are getting tired of green corn.

Bergen Co., N. J.

EARLY AMBER CANE.

In a late RURAL under the heading of "What Others Say," I noticed a quotation from the Elmira "Husbandman," in which C. J. Reynolds is given a vast amount of credit and the Elmira Farmers' Club likewise for experiments conducted by others with Minnesota Early Amber cane. It may not be amiss to say that Mr. Reynolds was the first to introduce the subject of cane raising in this locality to the Corning Farmers' Club of which I have the honor to be secretary; but that the experiments were conducted under his *personal supervision* or that any especial pecuniary assistance was rendered by him in the enterprise I deny. Mr. Reynolds was merely the secretary of a stock company formed here for the purpose of testing this new industry, and was expected to report to us, so that we were surprised to find his first report coming indirectly through the RURAL.

For the benefit of RURAL readers I may say that, considering our limited advantages for testing it, Early Amber cane can be grown with profit by farmers as high as the 44th parallel for home consumption at least. Below I give a series of experiments with this variety of Sorghum, as reported at our Club meeting, Oct. 25th. The reader can readily see the possible results to be obtained, were a more practical effort made to obtain a larger growth. The first was that of Mr. Henry D. Smith. He says:

"My ground planted with cane measured 35 rods. I obtained 38 gallons of sirup at a density of 35°. The crop was in a measure injured by drought. It was certainly no more than three-fourths of a crop. The soil was gravelly and dry. In a moister season the result would have been decidedly better."

Geo. P. Nixon said: "My seed was planted May 27th, two and one half by three feet—one-eighth of an acre in all. I considered it only fair corn land. It was seriously affected by the drougth, of course: for corn near it on the same quality of soil was an inferior crop. The young cane grew slowly and would at first have discouraged the most sanguine cane grower, but when once started, the rapidity of its growth was astonishing. By actual measurement it made five inches in 24 hours. From the one-eighth of an acre I obtained 40 gallons of fine sirup, but it would probably be 30 gallons if reduced to the proper density for sugar—14 pounds to the gallon."

S. G. Hay reported: "I had only 20 rods of ground planted to cane. It was seriously injured both by drougth and wire-worms. It was not more than three-fourths of a crop, yet I extracted 13 gallons of fine sirup."

R. L. Potter: "My experience with cane was on green, damp bottom land, It received but little care and came up badly making a poor stand. I planted 60 rods, or three-eighths of an acre, and extracted 70 gallons of very thick sirup, most of it at a density of 40°."

S. H. Reed: "I only planted a piece 28 by 40 feet. The soil was very poor. No horse was used to cultivate it, and it was only hoed twice. The drought affected it badly, and although there were no missing hills, many of them were very small. It was not suckered, as it always should be, and gave an average of three stalks to the hill. I obtained six gallons of very thick sirup."

M. W. Robbins: "I planted one-eighth of an acre, three feet apart each way, making 600 hills. I used sod ground on a steep side-hill. Much of it failed to germinate. The average was about three stalks to the hill. Corn by the side of it on the same quality of soil was a scant half-crop. I received 21½ gallons of first-rate sirup."

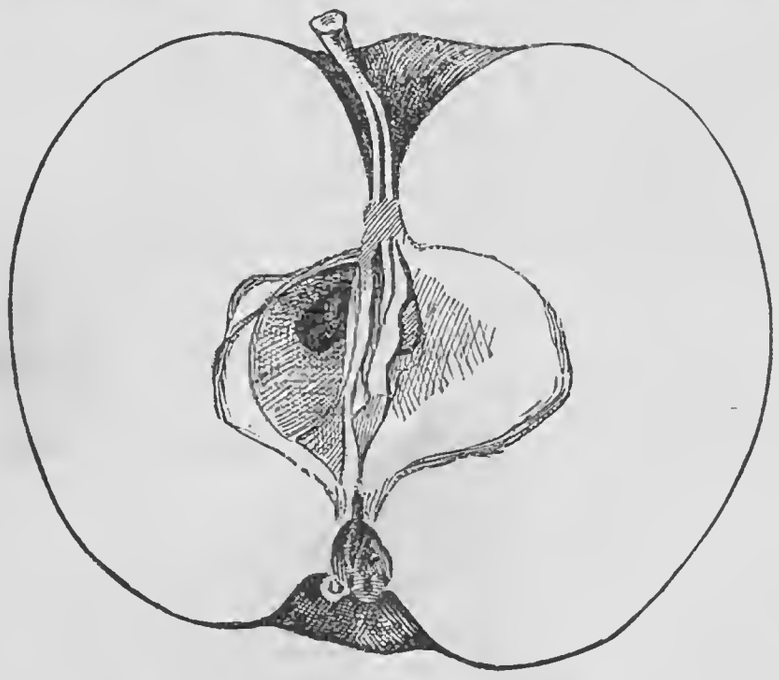
By the above—the real experiments of practical farmers—we see that the culture of Early Amber cane can be made profitable at least. Among these six men 170 gallons are the smallest rate of yield per acre. Estimating this at 25 cents per gallon, we have the sum of $42.50 from the product of an acre, and the past has been a most unfavorable season for conducting the experiment. From the first of July we have had scarcely any rain and what little fell was in small showers that did but little good to growing crops. A poor corn season is a poor cane season, and corn with us is a most inferior crop. Whether this product could be grown profitably for market remains to be learnt; but that farmers can grow their own sirup and sugar is a fact. Cane sirup forms sugar readily, not however without the aid of chemicals. The preparation manufactured by Dr. Stewart answers all the requirements of a crystalizing agent, and by its use sugar can readily be obtained.

In the culture of cane of this variety, no more care is required than for corn. It starts slowly at first, but grows rapidly. After the first hoeing, care should be taken to pack the earth down firmly about the seed, for without this precaution, much will fail to germinate. The suckers should be removed, for unripe cane is injurious to the sirup, and the suckers, of course, are not matured. A crusher suitable for the use of a neighborhood can be procured for $60 and the evaporating pans will not cost more than $10.

HECTOR BERTRAM.

A POTATO EXPERIENCE.

WHEN the Alpha potato was first introduced to the public, the writer, who had, a year or two before, had it from the originator, was



SECTION OF WEALTHY APPLE.—FROM LIFE.

offered so liberal a price for his stock of seed that he parted with all but half a peck of small, ill-shaped tubers. These he planted in his garden, and when he dug the crop he realized, as he never had done before, the truth of the saying, "Like produces like." The lesson was heeded, and only a dozen or so of the smoothest of these potatoes were preserved for seed. And now it has taken him four years of successive selections to bring back his stock of Alpha (the best of all early garden potatoes) to its original regularity of form and full size. I commend this experience of mine to those cultivators who believe that small potatoes are as good as any for seed. Though this may seem to be true in a single experiment, a continuance in planting small, imperfect seed will surely result in that "running out" of which we hear so much. I believe that potatoes will never "run out" where care is taken in the selection of seed and in the cultivation of the crop. The old Mercer, Chenango, Neshannock, or Philadelphia potato (I have known it under all these names), though little seen in market, is still grown by one farmer of my acquaintance in as great perfection as I knew it to possess forty years ago, when it was as standard a variety as the Early Rose now is.

T. H. HOSKINS, M. D.

Pomological.

THE WEALTHY APPLE.

"THE Wealthy Apple, as I have seen it for several years," Mr. Charles Downing writes us, "is a very promising variety for the amateur and for family use. It is over medium in size, very beautiful in appearance; flesh white, very tender, juicy, with a refreshing vinous flavor, and of excellent quality. This Apple originated with Peter M. Gideon, of Excelsior, Minnesota, who says the tree is very hardy, of vigorous growth, an early and abundant bearer."

Mr. Gideon tells the RURAL "The seed from which I grew the Wealthy, I procured from Albert Emerson, Bangor, Maine, some 16 years ago. It came labeled as Cherry Crab seed, and I think it was true to name, as shown by later acquaintance with the variety, and the fruit of seedlings raised therefrom. Though none of these were so large as the Wealthy, yet many were of fair size and of excellent quality. The original tree now stands where the seed was planted. It fruited seven years from seed, and is a profuse yearly bearer, various trees having to be propped up for three and four years in succession. Wood rather dark; a pretty strong grower, forming a handsome rather round-headed tree, as hardy, I believe, as any of the little Crabs, and it takes readily and smoothly on them as if on its own stock, and roots as readily from a layer as does a Currant.

WEALTHY APPLE.—FROM LIFE.

The first crop of fruit was shown at the State fair nine years ago, and at the same time a seedling Crab of my own growing. The one was pronounced by the judges to be the best apple on exhibition, and the other to be the best crab; but some of those running the fast-horse business had apples and crabs on exhibition, and to secure the prizes ruled mine out as seedlings, and divided the premiums among themselves. Perhaps it served me right, as the reward of keeping bad company—a sin not repeated since and certain not to be in future. Though I have raised many fine varieties of later origin, that I take pride and pleasure in exhibiting, yet no award could tempt me to put them on exhibition at a horse-racing carnival, to do homage to the most alluring evil that curses the agricultural fairs of the country."—[Good! EDS.]

The Vineyard.

THE LADY GRAPE.

MR. J. T. LOVETT, in remarking upon the Duchess Grape in the RURAL NEW-YORKER of Dec. 6, incidentally speaks of the Lady grape, and very properly alludes to the fact that it is "a poor keeper." I believe this is true of all the Concord class of grapes; but there is another peculiarity of the Lady grape, which to some extent neutralizes, or compensates for, its want of long-keeping. Although it will not keep very long in good condition after being gathered, it will hang upon the vine, even after being fully ripe, for many weeks without falling from the cluster, without decay, and without loss of flavor or quality. Ripening in August, before any other good grape, its principal value will be for early and near-by market and for home use. Its thin skin and delicate character will render it, like the Concord, unsuited to distant shipment, except with very careful handling. But I have several times covered the grapes with a net to protect them from birds, and had them remain upon the vines in good condition until we had severe frosts in October.

Another apparent fault of the Lady vine I am confident will be more than compensated for by time and patience, those who have had but two or three years' experience regard it as a weak or slow grower. This is, I believe, usually true with young plants; but the Lady vine makes, from the first, very large and abundant roots, in proportion to the top, apparently laying a solid foundation for future vigor and usefulness; and although it makes rather a small growth for the first two or three years, it has been, with me, steadily progressive—never going back, but increasing in vigor each succeeding year. The fruit also as regularly increases in size of the clusters, as well as in productiveness; and the growth of all my older vines has been, the past season, all I could ask or wish, and fully equal to Concords in their best estate. I am confident, from its hardy and healthy character, and from its gradual and constant improvement, it will be one of the most permanent and long-lived vines in cultivation.

By contrast, I have found, after many years of experience, that some vines, which make an immediate and very rapid growth at first, after a few years begin to decline, and, instead of progressing, gradually become weaker and eventually become unfruitful, and finally die outright. This has been the case with several of the "Hybrid" varieties.

Delaware Co., O. G. W. CAMPBELL.

Horticultural.

OUR RASPBERRY PATCH.

IT covers about thirty square rods of ground. From it we used all we could in our family during the season, then sold surplus berries to the amount of $50, the prices averaging 10 cents per quart. They were carried 10 miles to market on a spring wagon without injury, and were pronounced just splendid by our customers. Those who buy them one year are sure to want more the next. There is real satisfaction in selling something that everybody wants.

With us, the Philadelphia ranks among raspberries where the Wilson does among strawberries. It is the berry for the people, being hardy, a good bearer—bearing a full crop every year—and the fruit is a good berry; we know of no better. This year the fruit commenced ripening about the time the Black Caps were going, giving us fresh fruit every day for about four weeks.

We plant in rows about eight feet apart, and from three to four feet in the row, so that the cultivator and plow can be run one way. We make the land rich and give good cultivation early in the season. We do our pruning in the spring, cleaning out all dead and weak canes, leaving from four to six canes to a hill, cutting those back about one-third. Really, our hills mostly run together after the second year, making a continuous row one way.

We prefer to do our pruning in the spring for the reason that our bushes then stand the winter better, and we have a better chance to select the best canes. In making new planta-

tions, we have lately adopted the plan of using suckers of the present year's growth, setting them in May or June, using two or three strong plants for a hill. If carefully set, they will make a fine growth, and be ready for bearing the next season. J. R.

AN IDEA.

I DO not know that it is new, but think it good—the plan of setting apple trees among Raspberries or other small-fruit bushes, the bushes serving as a protection for the trees against the summer's sun and heat, and also against the winter's cold and wind. I find that the trees, as they grow larger, are no disadvantage to the bushes. I know that those trees set among my Raspberry bushes look healthier, are more thrifty and have made a better growth than those set at the same time and receiving the same care and cultivation in the open ground. I set a row of trees in about every fourth row of Raspberries, they being about eight feet apart. Then, as the bushes grow and fill up the rows, they serve to still further protect the trees from the plow and whiffletrees. Those who have had young trees "barked" by a careless plowman, will appreciate this point. The bushes should not be allowed to crowd the trees while young; as they grow older they will look out for themselves. JOHN RUSTICUS.

Outagamie Co., Wis.

Farm Topics.

NOTES FROM THE RURAL FARM.

Corn Fertilization.

MANY will say, when we publish our premium reports, that the test of a fortieth of an acre of Blount's corn is not a fair test; that it is easy to give high cultivation to so small a plot, and that competitors have manured and cultivated, in the expectation of gaining one or more of the prizes, far beyond what it would pay them to do were they working for a profitable crop only. This would be true of most competitions of the kind—but it is not altogether true of Blount's corn, or, indeed, of any corn. Most of our readers probably know that often—if not in a majority of cases—the silk of an ear does not receive the pollen from the tassel of its own stalk. Probably in a majority of cases the pollen and silk of a given stalk are not ripe at the same time. We remember last summer to have shaken a cloud of pollen from the tassels of stalks before the silk had appeared outside of the husk. We also tried the experiment of planting 150 kernels of sweet corn ("Washington Market") in a single row, 10 inches apart. Many of the ears were imperfectly "filled out," some of them had not filled at all. In this experiment it is evident that unless the silk (pistils) were pollenated by the tassels (stamens) on the same stalk, the silk was dependent upon some of the other plants for pollen—a very uncertain dependence, too, if the wind chanced to blow briskly away from, instead of with, the row during the maturity of the pollen. The advantages, therefore, derived from the high cultivation of small plots of corn are offset in some measure by (first) the fact that the male and female organs are not ripe simultaneously, and that, therefore, (second) the smaller the area under corn, the more pollen there is scattered ineffectually by the wind. This dichogamous character (*i. e.*, the two kinds of reproductive organs maturing at different times) of some varieties of corn is that which causes them to intercross to a far greater extent than they would otherwise. A hundred different varieties of corn might be planted in the same field, without the slightest danger of mixing, if their respective reproductive organs performed their functions at different periods. Our readers will remember that last spring we planted, in one end of our five-acre corn-field, about 60 different kinds, at least 15 of which were distinctly marked, as, for example, white and yellow Flint, white Dent, red, variegated, etc., etc. All of these sorts were selected from those sent to us by subscribers as having produced large yields, and they were generally splendid specimens. During growth previous to caring out, all who saw the field predicted that that part of it upon which the mixed lot was planted would yield much heavier than the rest—and so it would have done, had it filled out as well. But it yielded an immense quantity of imperfect ears and nubbins, and the yield was considerably less. But, to return to fertilization. On some kinds, as, for instance, the variegated or Calico, the ears were filled out perfectly, and there was no evidence of any crossing having taken place at all. All were striped, as in the parent seed. Occasionally among the other kinds mongrel kernels appeared, but there was no such a grand mixture as we were led to suppose there would be from the number of dissimilar kinds planted. The "Calico" was among the first to ripen—possibly the first. If so, there was no chance for crossing. But we cannot account for the ears being so well filled out, except on the supposition that the male and female organs matured at the same time, and that there was little wind at the time of their maturity. The white Dent sorts were mixed very little, but the ears were very imperfect—sometimes there were less than half the usual number of rows, the other side of the cob being bare or having only a straggling kernel or part of a row. Now, so far as we have observed, the male and female organs in white Dent sorts do not mature simultaneously; for which reason, as the plants were scattered here and there, poorly-filled ears were to have been looked for. It was the same with the Flint varieties. It may or may not be worthy of remark that though not a kernel of *black* corn was planted, nor was there an ear of black corn harvested, a great many *black* kernels were found among the Dent sorts.

MAKING SUGAR FROM SORGHUM.

SEVERAL of our friends, particularly in the West, who during the past season have been experimenting in making sugar from Sorghum, have met with considerable difficulty especially in clarifying the sirup before it goes into the pans, and in producing granulation. Among the most successful and extensive manufacturers of sorghum sugar in the country, are A. J. Russell, Vice-President of the Northern Cane Growers' Association and general manager of the Amber sugar refineries, at Crystal Lake, Ill., and Mr. C. W. Schwarz, of Edwardsville, Ill., who has on several occasions given our readers the results of his experience in this connection. Both of these have kindly furnished us with their views on this subject, and although it is too late to profit this season by the information, yet the very difficulties or failures some have experienced in their attempts at sugar-making will tend to impress the lessons here given more deeply on their minds for use next season.

Mr. Russell says: "Our experience in making a little over two car-loads of beautiful sugar this year has taught us that the industry can be profitably carried on in no other way than by having proper machinery to clarify, evaporate and finish the sirup at the lowest possible temperature, thereby making a beautiful light-colored sugar and sirup free from sorghum flavor. Sometimes the juice requires special treatment, information on which can be given only on knowing the nature of the soil on which the cane was raised. There is no special preparation that will cause granulation; that can only be brought about by the proper manipulation of the juice with machinery adapted to the purpose and operated by those who thoroughly understand the business, or who are working under instruction from some one who has had practical experience and who has succeeded in making this sort of sugar.

The mechanical appliances now in general use make too much caramel and glucose instead of sugar, to make a financial success in making merchantable sugar that will be fit to compete in our large trade centers with the best product from sugar-cane. We have demonstrated, however, that this can be done by the intelligent use of proper machinery. But we would have added another failure to the long list of former ones to produce sugar from sorghum in paying quantities, had we not discarded old-fogy notions and appliances, and taken a new departure in this promising industry."

Mr. Schwarz says that he has found the following method of making sugar from Early Amber cane, most successful in his practice:—

"Work up ripe cane fresh from the field; heat the juice to about 180 deg. Fahr., and neutralize with milk of lime mixed with about a pound and a half of sulphate of baryta to 100 gallons of juice, so as to change blue litmus to purple. Bring the juice to the boiling point and let it settle. Draw off the clear juice and add to it about five pints of alumena jelly (made by dissolving porous alum and sal-soda separately in water and pouring together, making a jelly compound); then boil on evaporator to 220 Fahr., and finish in a separate pan to about 234 deg. Juice thus manipulated, has granulated solid by the time it has cooled down to 90 deg.

This process looks simple, but there are some difficulties in it:—first, the sulphate of baryta is patented under the Clough Process, and its use restricted; second, it is almost impossible for a beginner to judge the right quantity of lime for a good defecation, as by an over-dose the sediment becomes very bulky and restless in the tank, tempting the operator to use still more, which would darken the juice. Dioxide of sulphur has been recommended as an antidote against an over-dose of lime, but the difficulty of getting this of standard strength in market this season, has caused many failures. I have, in my later experiments, been able to reduce the quantity of lime over one-half, discarding the litmus test as unreliable; for the very bulky sediment is not all impurities, but a great waste of sugar. It is now too late in the season to make sugar but these difficulties will all be overcome by next season.

The following method works the best for late cane in making sirup:—To 100 gallons cold juice add 1½ pint of lime with or without baryta, and run it into the settling tank immediately; vary the quantity of lime according to results. As for a granulating compound, there is no such thing; if the sugar is not in the cane, none can be got out. Such is the case with cane long exposed to the weather. Light sirup made early in the season can be made into sugar any time, if the conditions are complied with in the first boiling.

I am still very busy with late cane. Farmers are yet hauling from all directions: but I hope to get through before Christmas. The Honduras cane I spoke of in my last, has been made up and made the largest yield of any. I made it into sirup only, which is very fine and shows a tendency to granulate, but its lateness of ripening makes it risky to plant it extensively.

Farm Economy.

THE IMPROVED HOME-MADE SMOKE-HOUSE.

LAST season I presented to the notice of the RURAL readers a sketch and description of a home-made smoke-house, using an underground furnace and a barrel. It was very extensively copied and used with good results. Our own worked first-rate, but the trench needs digging over every season, and this year I have made a more permanent arrangement above ground; and as it is so simple and cheap, I send a description of this one, for the benefit of those who have not something more pretentious.

Having several stones and mortar left over from some building done this fall, we resolved to construct a smoke-house; so one afternoon last week father and I went to work.

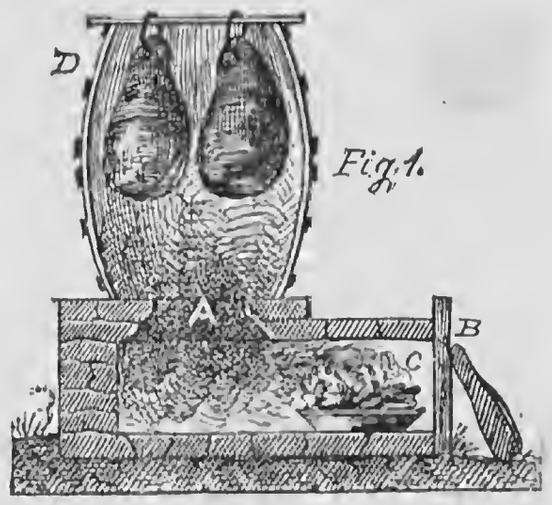


Fig. 1.

Fig. 1 is a sectional view, and shows the arrangement very plainly. We first laid, in mortar, a foundation of flat stones, about three by three and a half feet square; then raised the sides and one end about a foot, and covered the top with flat stones, leaving an opening at A for the exit of the smoke. The front end is left open, and is closed by a board or short piece of plank, as shown at B, and held up by a stone. A less primitive way can easily be adopted if desired. C shows the pan of smoking cobs. Over the opening, A, may be placed a headless barrel, D, which will accommodate three or four good-sized hams or shoulders. They are hung from a stick placed across the top of the barrel, and the whole should be covered by an old blanket or oil cloth, to keep in the smoke. The advantages of placing the opening, A, at one end, instead of directly over the pan of cobs, are, to avoid the heat, and, in case one of the hams should drop by the breaking of its string, it will not be injured by getting into the coals.

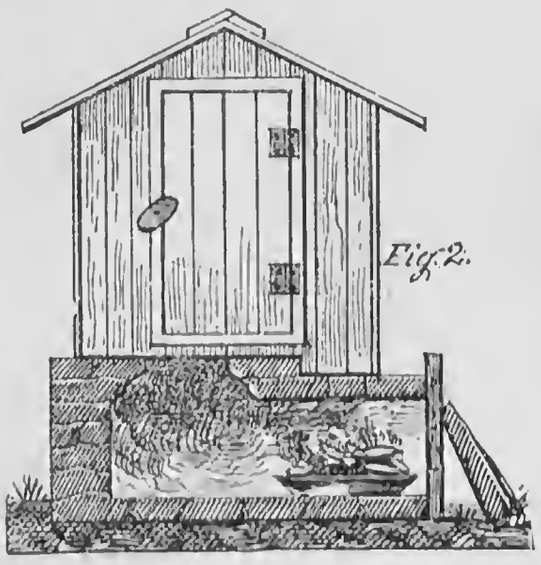


Fig. 2.

Instead of the barrel, a more commodious, square house may be built of boards, as shown in fig. 2, giving an outside view of the house and a partial sectional view of the same foundation or furnace as shown complete in fig. 1. This house may be three feet square for the above, and of any convenient hight, and would smoke a large number of hams, shoulders and pieces of bacon. Of course, the entire arrangement may be built much larger, if desired, and would work equally well.

Co., N. Y. WM. R. BROOKS.

The Herdsman.

WINTER FEEDING OF STOCK—No. 1.

PROFESSOR E. W. STEWART.

THE live-stock interest of the United States has grown into very great proportions. Our exports of animal products amount, in round numbers, to $140,000,000 annually, and are likely to reach $200,000,000 within a short period. But those exports represent but a small proportion of our live-stock interest. The home consumption of animal products is some six times greater than our exports. This, then, may be considered the great agricultural interest, and all the economies relating to it should be thoroughly studied and practiced. The common mistake has been to consider feeding animals a matter so simple as to require no particular knowledge; whereas, a little reflection will show it to be, perhaps, the most complicated industry pertaining to agriculture.

The elements of animal bodies are very diverse, and nature has furnished a great variety of foods to nourish and build them up. But farmers are too apt to think their animals can thrive on a single food, although they well understand the necessity of a variety of food for themselves. They do not study the laws of animal growth as their interest requires them to do. The largest part of all the labor performed by farmers has relation to the feeding of stock. All the hay and other fodder raised, and more than half of all the grain, is for the consumption of their animals. Look at the labor expended in fencing pastures, amounting, as many have estimated, to more than all the other improvements upon farms. How important, then, that all these results of labor should be used with the greatest economy. And as I propose to discuss the feeding of animals during the cold season, let us first consider the question of

Temperature in Feeding.

Farmers are learning every year more of the laws governing animal life, and few, perhaps, can now be found who do not know the effect of a low temperature upon animals. They have a general understanding that it takes more food to keep an animal warm in cold than in warm weather, yet few have an accurate idea of the extra food required during exposure to severe winter weather. I have had reports from careful open-air feeders in Illinois, that, during a severe February and March, they could not add anything to the weight of steers, when feeding even three-quarters of a bushel of ear-corn per day, considered equal to one-half bushel of shelled corn; while upon half that amount they would make a respectable gain in moderate weather. This presents a pretty strong view of the food required to keep up animal heat in very cold weather—28 lbs. of corn to prevent steers from losing weight.

The writer tried an experiment with 10 steers for three months, during December, January and February. Five were fed in a warm stable, and five in a yard having a high fence that broke off much of the wind. The steers in the stable weighed 5,800 lbs. and those in the yard 5,825 lbs., and the two lots were in equal apparent condition. Each lot was selected for the purpose of making an equal division of the two lots. Twenty pounds of good hay per steer were given to both lots as a maintenance ration; and, to those in stable, 12 lbs. of corn meal, and, to those in yard, 16 lbs. of corn meal each per day, for the first month, and for the next two months 14 lbs. of meal to those in stable and 20 lbs. to those in the yard. At the end of three months those in the stable weighed 6,925 lbs., and those in the yard 6,500 lbs.;—the former had gained 2½ lbs. per day and the latter 1½ lb. per day. If we are to suppose the 20 lbs. of hay sufficient for maintenance, then the 1,200 lbs. of corn meal made 225 lbs. of increase on those in the stable, or 1 lb. of gain to 5.33 lbs. of meal; and as those in the yard gained only 135 lbs. each, this would require 720 lbs. of corn meal, and as they consumed 1,680 lbs. of corn meal each, it must have taken 960 lbs. of corn meal extra to maintain them in the cold, open air; this is 11 lbs. of corn meal extra per day expended to keep up animal heat in the cold air. The weather was somewhat colder than average seasons, but it shows what may be lost in extreme cases, even with the shelter of a high fence. This may be considered almost as great a loss, proportionally, as 28 lbs. of corn fed in the West, in hard winters, as a maintenance ration without gain. This experiment was made in the early part of the winter's feeding, and was sufficiently impressive not to require a repetition. Five steers were fed because a test with a single animal would be unreliable.

It is quite safe to say that, in average winters, it requires an addition of 75 per cent. to the maintenance ration of an animal, if exposed to the temperature of the open air, over that needed if it is kept in a warm, well-ventilated stable. Temperature has, therefore, much to

do with successful feeding, and must be considered in the older States, if great loss is to be avoided. In the West, where corn is reckoned at 20 cents per bushel, some successful feeders think they can warm up the animals cheaper with corn than with warm stabling. This may have some plausibility for a few years, but cannot stand as a permanent system. Under the best system of feeding, it is difficult to make much profit upon the animals themselves; the controlling profit must be sought in the manure—keeping up the fertility of the farm for future crops.

As I design to touch shortly upon the various classes of stock, we will take, as first in order:—

Feeding Work Horses.

The horse is the principal motive power on the farm, and therefore needs the best attention. This class of stock is kept wholly for its muscle, and the working and culture of the farm must depend greatly upon the character and condition of the horses. The winter season is one of comparative leisure for horses, as farms are usually managed, and farmers appear to think horses require little attention when they are not in hard labor. They are quite in the habit of keeping them upon poor hay and straw at this season, reserving all grain for spring feeding. But this is very bad policy. Horses generally come to winter-quarters in thin condition from their summer's labor, and require judicious feeding and good care to recover their full working capacity; and farmers should remember that it is much cheaper to put horses in condition when work is very light, and that all the extra flesh put on in winter represents so much extra labor available in spring. Besides it should always be the aim of team owners to keep their horses in good working condition, for it takes less food to keep up condition than to recover it when lost.

Let us examine a few rations for work horses in winter. Horses are often subject to colic from improper feeding. When fed upon corn meal alone, its large percentage of starch renders it too heating, and, besides, it is a very concentrated food, and being just moistened with saliva so as to be swallowed, it goes into the stomach in the compact form of dough, and the gastric juice cannot circulate through it so as properly to perform its office, and internal heat, fever and colic often occur from want of proper digestion. All such concentrated food should be mixed with cut hay, the hay being just moistened so that the meal will adhere to it. This mixes the concentrated with the bulky food, and the hay separates the particles of meal so as to render the mixture porous, and the gastric juice now circulates freely through the mass and operates upon the whole contents of the stomach at once. The best way to use corn meal, as a single grain food, is to mix it with moistened clover hay. If the clover is of good quality, it contains a larger percentage of albuminoids (muscle-forming food) than corn meal, and thus helps to balance the constituents.

But one of the best rations for work horses is corn, oats and flaxseed, ground together—the corn and oats in equal weight, and to 19 bushels of the mixture of corn and oats add one bushel of flaxseed, and grind fine all together. The corn and oats make a well balanced ration, and the flaxseed is rich in oil, muscle-forming and bone-building elements; but its oil is its greatest sanitary element. This small proportion of oil is just sufficient to keep the bowels in excellent condition, the coat sleek, and every part of the system in well balanced activity. And then by feeding this ground mixture with twice its bulk of moistened cut hay, you have as perfect a ration for work horses as can be compounded. All regular grist-mills now have an apparatus for mixing different grains together, so that the farmer has only to carry the oats, corn or flax seed, in proper quantity to mill, and they will all be mixed without hand labor. If the farmer has no straw-cutter, he may use oat, or wheat chaff to mix with the meal to render it porous.

In wintering horses that are doing but little work, straw may be fed with the last ration and the horses will do well. From eight to ten pounds of this meal to each horse daily will bring them through finely, even on good straw. When oats are too expensive, corn-meal and wheat bran mixed in equal weights, with one pint of oil-meal to each horse, will give a good result. If hay is scarce, two pounds of decorticated cotton-seed meal, four pounds of corn meal, four pounds of bran and straw will winter horses well. But there should always be variety in the food. If the farmer has clover hay and straw, these should be mixed together—better if both be cut before mixing, but they may be mixed in the manger without cutting.

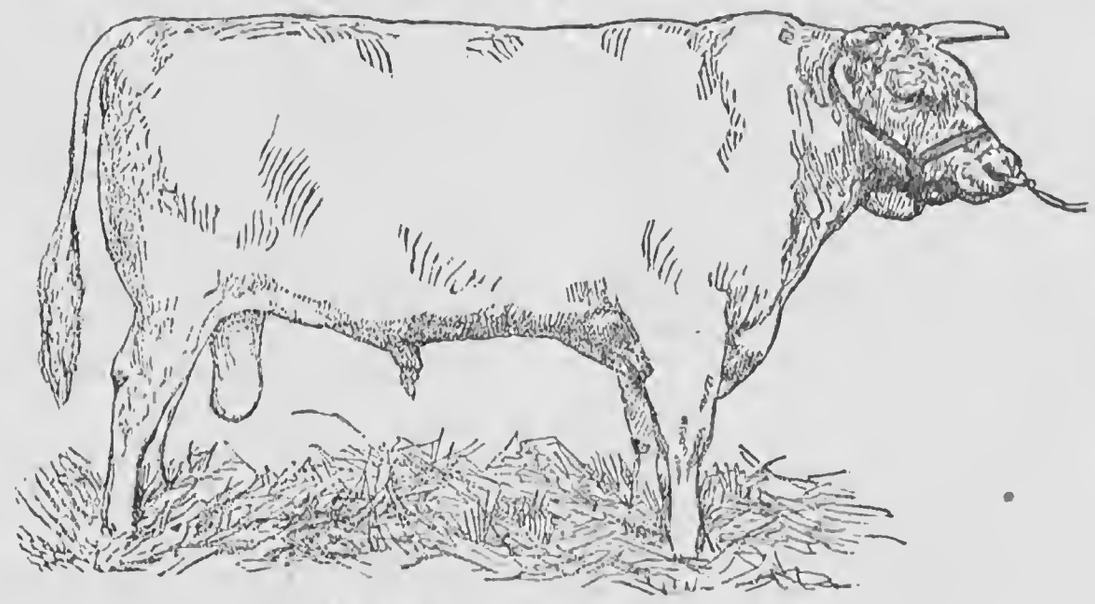
Feeding Colts.

The first winter is a trying time to the weanling colt. If the dam was a large milker and it had abundant nutriment, grew finely till weaned, and was then made dependent on grass, it has had a set-back before cold weather came. And if it is still to be dependent upon hay and straw for growth through the winter, it will be but little heavier in spring than when weaned. It is food only that develops young animals, and a good digestion is all-important. If a colt has been fed well before weaning, and after weaning has had deficient nourishment, this has not only checked its growth but commenced contracting its powers of digestion, and will soon incapacitate it for digesting sufficient food to make a vigorous and rapid growth. Many a fine horse has been spoiled in the defective growth of the colt. But the food given to the weanling should be appropriate for the development of frame and muscle. Such food as will produce fat rather than muscle cannot be too strongly condemned. No corn meal should be given to the young colt.

If the colt is in the poorly nourished condition I have been describing, the best chance of recovery is with the milk ration. The colt may be taught to take fresh, warm milk and when it has learned to take this, skim milk may gradually be substituted. Even sour milk will generally be taken greedily, but in the winter skimmed milk need not be sour. This milk contains so large a proportion of casein, or muscle-forming food, and phosphate of lime, that it is exactly adapted to the growth of muscle and bone. I once saved, by the use of sour milk, a very likely colt that had got extremely poor by bad management, and it afterward made a fine growth. Cow's milk will do what no other food can for a stunted colt. The best grain ration for a colt is one to two quarts of oats with a pint of oil meal twice per day. This and good hay will keep a colt in fine condition through the first winter. Although the colt should be well sheltered in a good stable, yet it should have an opportunity for exercise every day.

OUR ANIMAL PORTRAITS.

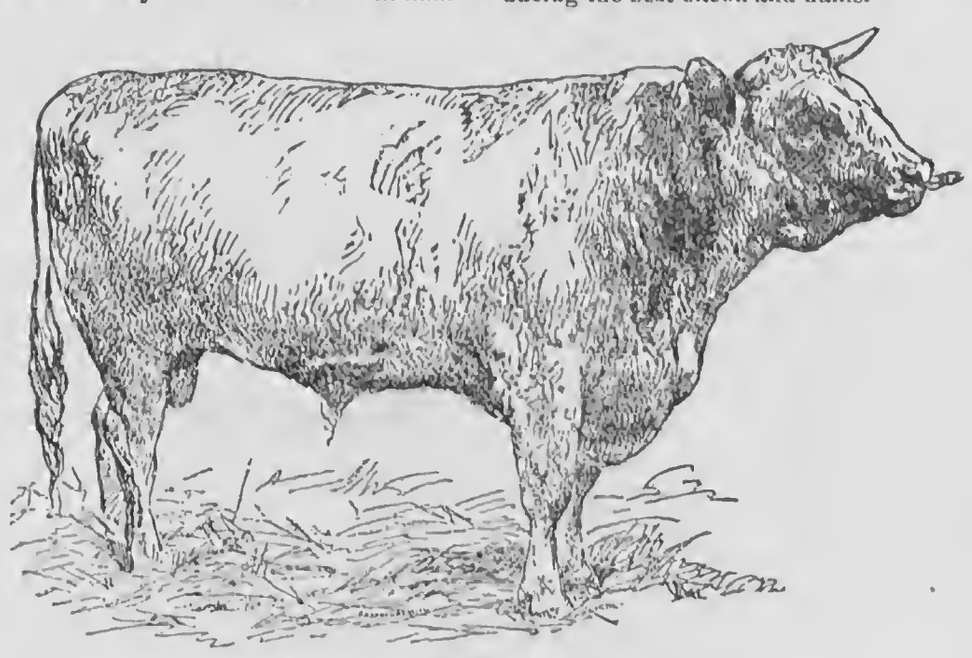
This week we present to our readers the portraits of two celebrated Short-horn prize-winners at the English cattle shows—the bulls Royal Windsor and Rear Admiral. They were bred by Mr. T. Willis, of Carperby, one of the oldest Short-horn breeders in Great Britain. They are closely akin both by recent crosses and by collateral descent from famous ancestors. Both belong to the old Rachel tribe and both are also large inheritors of the Warlaby branch of the Blossom or Fairholme blood. This is the oldest tribe of the Booth Short-horns. Away back before 1790, Thomas Booth, the first of the famous breeders of that name, purchased three heifer calves of Mr. Broader of Fairholme, the possessor of one of the finest herds of Short-horns of those remote days. Under the Booth management these became the ancestresses of several celebrated tribes, the most renowned of which was the Blossom. In the days of the elder Booths this became divided into four branches, two of which were sold to outsiders, while one was kept by John Booth when he settled at Killerby on his marriage in 1819. Thomas Booth, having resigned Killerby to his newly wedded son, removed to Warlaby, taking with him the remaining branch of the Blossom tribe along with most of his herd, and there continued breeding until his death in 1835. His son Richard and his grandson T. C. Booth who, one after the other, succeeded to the estate, continued to increase the fame of the Warlaby herd until the death of the latter a few months ago, the representatives of the Blossom tribe being always among the best of their stock. Of these, two renowned bulls were Fitzclarence and Windsor, both of which are in the pedigrees of the two fine beasts here represented.



Shorthorn Bull "Royal Windsor."

It is from this source probably that have come the strong frames and excellent outlines which have secured so many victories for both animals. As a young bull Royal Windsor won wherever he was exhibited, and now at eleven years of age, with sons, grandsons and great-granddaughters in the show-yard, the fine old animal still holds a front rank, has kept his fine shape, and stands comparison well with the youngest of his competitors.

Rear Admiral is also a famous prize-winner at several shows, the chief fault ever noticeable in him, being confined to his mean horns, a defect which of late he has measurably outgrown. The portraits are drawn from the English Agricultural Gazette.



Shorthorn Bull "Rear Admiral."

The Swine-Herd.

BERKSHIRES.—THEIR HISTORY AND CHARACTERISTICS.

COL. F. D. CURTIS.

Every breed of swine has its merits, arising either from natural differences which fit it for a specific purpose, or from local wants, or to correspond to some fancy or prejudice, which is often stronger than anything else; thus many people will not breed black pigs on account of the color, when there is really no difference between such a one and a white one, except a darker shading in the outer cuticle which is not black, but a bluish-white. This is the chief objection to the Berkshire breed, unless to it may be added, a want of large size with those who demand excessive weight. Berkshires possess all of the good qualities of other breeds and also a characteristic of having more lean meat mixed with the fat than any other. This characteristic was formerly more uniform and deeply marked than now. In the early history of Berkshires it was a peculiar feature and gave the breed great favor as producing the best bacon and hams.

The origin of Berkshire hogs dates back longer than that of any other improved breed. The name is derived from the Shire, or county of Berkshire, England. They were originally sandy or buff-color, or spotted with black. They were of large size and slow to mature. I can remember seeing Berkshire hogs of this description, when a small boy, and this was the character of some of the hogs originally imported. Improvements were made by selection, and the bodies were rounded and shortened with greater aptness to fatten and for early maturity. The peculiar markings of the modern Berkshires were not then established, but were made afterwards by crosses. About a half a century ago some breeders of Berkshires began crossing them with the Siamese hog—a smaller and finer pig, with a dished face, erect ears, and very broad, with extra heavy hams and shoulders. The old-time Berkshires had lopped ears. The Siamese cross changed the form of the ear and the whole contour of the pig. It also introduced more uniformity in the color of the breed, making more black and plum colors. It is not an uncommon thing now-a-days to meet with pigs of a rich plum-color, showing the effects of this cross. Pigs entirely black are also often seen, which demonstrates to my mind that subsequent crosses have been made with either the Essex or the Neapolitan hogs, both of which are pure black. The latter cross is the more likely to have occurred, since the pigs are sometimes almost without hair, which is a feature of the Neapolitan, and sometimes of the Essex, which they, too, have derived from the same source. We have seen in the same litter of pigs out of imported stock, a pure black pig, a plum-colored one, and the others with sparse hair, or heavy coats, showing without doubt the double crosses which had left their taint in the blood of the Berkshire, which a half a century of breeding had not eradicated, and which will not be eliminated for a century more, if it ever is.

Notwithstanding these exceptional markings, Berkshires have long been established as a thoroughbred breed of swine, and justly stand at the head of the list for their antiquity and uniformity. The peculiar markings of white feet and white blaze in the forehead, with a white brush, are probably the result of another and still later cross with the Chinese hog. The white markings are not always confined to the extremities, but are quite frequently found on the cheeks and sides, and sometimes all over the body in the form of patches and flecks. The later crosses of the Berkshires have reduced the size so that they are now mostly medium, or below medium in size, weighing, when full-grown, from 300 to 400 pounds, and the so-called improvements have also lessened the amount of lean meat in the sides, so that a rasher of bacon from a modern Berkshire is nothing in lean meat compared to what it was before the crosses were made to thicken the sides, shorten the noses and enlarge the cheeks.

Berkshires were imported into this country early in the present century and at the latter end of the 18th century. Although there is now no record, I am of the opinion that importations were made fully a hundred years ago in the vicinity of Baltimore and Washington. Importations were made in 1823, says A. B. Allen, who is excellent authority, by Mr. Brentwood of New Jersey, followed in 1832 by Mr. Haws, Albany, N. Y. Subsequent importations were made by those enterprising and leading men, Samuel Thorne and Gen. Morris, who did so much even in those early days for the improvement of American stock. A. B. Allen was also an early and prominent importer and to him the American public is indebted more than to any one else for an authentic history of this valuable breed of swine.

Berkshires will improve almost any breed of swine for fattening, when crossed upon them. So extensive has their breeding become that several years ago an association of breeders was formed and a Herd Book established, in which the pedigrees of pure-bred animals were recorded. The Berkshires are suited to any climate. The following is the adopted standard of characteristics and marks:

Color, black, with white on feet, face, tip of tail and an occasional splash of white on the arm. While a small spot of white on some other part of the body does not argue an impurity of blood, yet it is to be discouraged, to the end that uniformity of color may be attained by breeders. White upon one ear or a bronze or copper spot on some part of the body, argues no impurity, but rather a reappearing of original colors. Markings of white other than those named above are suspicious, and a pig so marked should be rejected. Face, short, fine and well dished, broad between the eyes. Ears, generally almost erect, but sometimes inclining forward with advancing age; small, thin, soft and showing veins. Jowl full. Neck, short and thick. Shoulder, short from neck to middle; deep from back down. Back, broad and straight or a very little arched. Ribs, long and well sprung, giving rotundity of body: short ribs of good length, giving breadth and levelness of loin. Hips of good length from point of hips to rump. Hams, thick, round and deep, holding their thickness well back and down to the hocks. Tail, fine and small, set on high up. Legs, short and fine, but straight and very strong, with hoofs erect, legs set wide apart. Size, medium. Length, medium; extremes are to be avoided. Bone fine and compact. Offal very light. Hair, fine and soft, no bristles. Skin, pliable.

Everywhere.

RURAL SPECIAL REPORTS.

MASS., Amherst, Dec. 7.—The changeableness of our New England weather was well illustrated during the past autumn. The weather of most of October would have been no discredit to midsummer, the mercury ranging from 70° to 80° on many days. This ended on the 24th with a hard thunder-and-hail storm, followed by a foot or so of snow and a week or two of real winter weather, the mercury going down to 4° on the 5th of November. Then we had two weeks more of warm weather, after which came another "cold wave," few days in midwinter being colder or more disagreeable than Friday, the 21st. Now it is as warm and pleasant as September, and no frost in the ground. Corn was about an average crop, but a good deal of it was soft and poor. Potatoes were a good crop, but they rotted badly in some fields, those on moist land and manured with animal manures suffering most, while many fields on dry, sandy land were entirely exempt. Apples were unusually good for the odd year, and the crops of pears, peaches and grapes were large. Pearl Millet is not wanted in this climate; it may be valuable further south, but here corn is preferable for fodder, and has the advantage of being more easily grown. The Millet so nearly resembles some kinds of wild grass, when young, that it is almost impossible to tell the difference. As I wanted to see what it would do on ordinary soil, I planted a couple of rods on land that would probably produce 30 bushels of corn per acre, but gave it up as a bad job at the first hoeing, after picking out one row. The plants in this row grew to a hight of four to six feet, and headed out somewhat before frost. Some of it was offered to the cows, but they would not touch it unless very hungry. I adopted the RURAL'S suggestion, started a plant in a pot the middle of April and transplanted it to the center of a highly-enriched flower-bed the 1st of June. It proved very effective for this purpose, and many were the inquiries from visitors and passers-by as to what it was. It grew to a hight of eleven feet and a diameter of five, producing 58 stalks, which weighed, when dried, 23 pounds. L. W. G.

OHIO, Norwalk, Huron Co., Dec. 9.—We are having splendid weather for this time of year. Business is quite lively, and this little town is improving very fast. The winter wheat looks very nice. Price of wheat, $1.25; corn, from 40@44c.; oats, 30c.; onions, $1.20 per bushel—the highest figures they have brought for years in this town; potatoes, 35@40c.

CONSTANT READER.

KANSAS, Everett, Woodson Co., Dec. 7.—We have had a very fine fall, taking it altogether. The crops were not as heavy as we expected, owing to the dry weather in the spring; but they are fair. The fruit-crop here this year was very short. J. J. D.

KY., Milton, Carrol Co., Dec 6th.—The Hessian fly has done irreparable damage to our wheat. The very late sown escaped its attack, but it is ill prepared to stand the winter. I found 35 of the pests in the flax-seed state in one stem of wheat. Who can beat that? Corn is light, averaging about 30 bushels per acre, worth 25 cents per bushel. Wheat is selling at $1.20 per bushel; apples, 50 to 60 cents; potatoes, 35 to 50 cents; oats, 30 cents; beef cattle, $2.75 to $3.50 per cwt.; hogs, $3.75 to $4.25 per cwt.; butter, 18 to 30 cents per pound; eggs, 20 cents per dozen. Our tobacco crop is much better than we expected it would be, and is selling at $7 to $17 per cwt. Tobacco growers are the only men in this vicinity with short faces. S. E. H.

ARKANSAS, Sebastian Co., Dec. 8.—The immense forests of Western Arkansas present a more extensive variety of timber than can be found in any other Western State. Men who have only cultivated lands opened by their fathers, or who have been unduly impressed by the advantages of a prairie land, may have some dread of a forest country; but the extra labor of clearing a forest farm is but a tithe of the cost of fence and fuel on the prairies. Good water, fuel, building-material and timber for all kinds of implements and tools, always on hand, are not small items in the cost and comfort of life. A man who arrives here during the months of November and December will have ample time to erect a log-cabin and commence getting fields fenced and ready for the plow by the 1st of February. They actually plow here right in the woods. The roots of the trees project downwards, and one can work as close to them as he could to a rotten stump. Of course, the timber is first girdled, unless the trees are needed for rails, when they are taken off first. Any one coming here is surprised to see immense fields of corn, cotton, sorghum and sweet potatoes growing right among the dead timber. No cold winters here to eat up the fruits of the summer's labor; climate unsurpassed; high elevation, and a splendid country for fruit. PIONEER.

The Querist.

ANSWERS TO CORRESPONDENTS.

WE have repeatedly said that any inquiry sent to this department *must* contain the writer's name and address, to insure attention. Yet quite a large number of questions now remain unanswered because this requirement has not been complied with. Where the answer would be of general interest, we have frequently disregarded our rule of paying no attention to anonymous correspondents; but where the inquiry is of a personal character, and one that should therefore be answered by mail, we have not felt justified in taking up the space that belongs to our readers in replying to those who have neglected to observe the rules which have been established for excellent reasons. It would be a great convenience also, if, in writing to us, our friends would put on a separate piece of paper any question they may wish to have answered in this department. We shall always be pleased to answer all questions from those who comply with the above simple proviso.

Ground Limestone and Lime.

S. B. M., Saltsburg, Indiana Co., Pa., asks, 1, does the burning of lime add to, or abstract any good properties from the limestone as a fertilizer; 2, what is the difference in the action on the soil between ground limestone and burnt limestone; 3, to what degree of fineness should the limestone be ground. There is limestone on his land and throughout the surrounding region, and if it is worth using as a fertilizer, he intends to procure a mill to grind it.

ANS.—1. Raw limestone is a carbonate of lime; that is, it consists of lime and carbonic acid for which the chemical formula is Ca CO3. In the process of burning, the carbonic acid (CO2) is expelled, and the oxide of lime (CaO) remains. This change in composition causes also a change in properties. Limestone, or carbonate of lime, is *mild* in its alkaline properties; while burnt lime is *caustic*, i. e., it has a very strong alkaline reaction. 2. Applied to the soil, the action of carbonate of lime and that of burnt lime are widely different. Powdered limestone will be of little value to the soil, beyond furnishing one of the essential elements of plant food which is generally abundant in the soil naturally, and, if it is applied in large quantities, it may alter the soil physically; but its action on substances in the soil is feeble and very slow. Burnt lime, on the other hand, is a powerful agent in decomposing the inert or inactive vegetable matter in the soil, and making these available plant-food. Besides this, it also acts on the compound silicates of the soil and liberates potash, another essential element of plant food, one that is seldom found in large quantities in the soil in the soluble form, and is therefore readily exhausted. Any one can readily satisfy himself of the difference in action between burnt lime and ground limestone, or chalk, by comparing the effect of slaked lime—as in fresh mortar—on his boots with the effects of chalk on the same. In the long run, the caustic lime is again changed into carbonate of lime, but not until it has combined with its full supply of carbonic acid. Its activity is vastly greater than that of carbonate of lime, however finely ground the latter may be. In the caustic state we have lime "with the feather edge on." 3. We would not advise the application of ground limestone, except where the soil is destitute of lime in sufficient quantity to supply what is needed as plant food, and this is rarely if ever the case, and the finer it is then divided the better, even then we would use lime in preference.

Apple tree Pests.

D., Little Rock, Ark. has several trees which grow thriftily, make wood freely, bloom well and bear fruit abundantly until the latter are about the size of a hickory-nut, when they begin to fall off and continue to do so until they are all off, or till those that remain are ripe, when they seem affected with dry rot and have a musty core. When the fruit is half-grown, the core is moldy. The roots are full of small fibers looking like tufts of grass, and the large ones are disfigured with knots, showing that insects have been at work on them. Our correspondent asks what can he do to cure the trees without cutting them down. He has applied half a bushel of lime to each tree, as well as wood and coal ashes, and likewise salt and gas-house lime.

ANS.—The apple-root aphis causes excrescences upon the roots. When very numerous, the growth of the tree is checked. The pest is destroyed by digging the earth away and washing the roots with strong suds. We have several apple trees at the Rural Farm infested with the borer, that act much as those described by our friend. It should be borne in mind that these insects may be for several years destroying the inner bark of the tree while there is little evidence thereof on the outer bark. They enter as little grubs. They come out as perfect insects three-quarters of an inch long, cutting round holes just large enough for their bodies to pass through. Supposing that they remain in the tree but a year (as many say), several of them might so nearly destroy the outer wood and inner bark as to greatly impair the tree's vitality. In this case, the tree blooms—makes an irregular, eccentric growth—sets fruits but has not the vitality to nourish them to maturity. The round holes caused by the borer's exit, are easily overlooked by the careless observer. Sometimes they are a little beneath the surface soil. The female deposits her eggs in May, June or July under the scaly bark. The worm which hatches out, eats into the tree, making a hole no larger than a buck-shot. At this time a knife or wire (as we have often explained) may be effectually used in crushing it. This is really the only effectual remedy. Washes applied in May and June will ofttimes prevent the beetle from depositing its eggs. The salt and ashes (except as fertilizers) can do no good and the gas-lime will prove injurious.

Bermuda Grass.

A. G., Eagleford, Dallas Co., Texas, has an orchard of peach trees on a slope of sandy land, and heavy rainfalls wash the sand away. To prevent this he has it in mind to turf the land with Bermuda grass; but some of his neighbors say it will kill the trees; others, that it would spread all over his fields in spite of all his efforts, and he asks what kind of grass should he use for the above purpose.

ANS.—Our friend cannot get a grass that will answer his purposes without some attending disadvantages. Bermuda grass (Cynodon dactylon) will "run all over." It will run over rocks six feet across and cover them. It will grow vigorously on sandy hill-sides and prevent them from washing. When fully established, it is hard to force a plow through it. It is sometimes said of this grass in the South that it would "take a team of six bull elephants to draw a thumb-lancet through it." It was cursed in the South before the war, but is now in many parts, looked upon with much favor. It will stand parching suns and present a fresh appearance if kept mown. It is therefore a good grass for Southern parks in *summer*. In winter it disappears from view. It would be necessary therefore to mix it with blue grass, and white clover which would spring up to cover the ground in winter. Cattle are extremely fond of this grass. It will withstand any amount of heat and drought J. B. Killebrew says that it has (where indigenous) a great reputation as a fertilizer and that many fields so worn-out as to be worthless, have been reclaimed by it. The labor of plowing it up is considerable, but some of the many improved plows of the present day could be easily dragged through it. Mr. Affleck says that no other grass will yield such an amount of valuable hay, surpass it in nutritive qualities, support on an acre of pasture such an amount of stock, improve the soil more quickly, or so effectually stop and fill up a wash or gully. But, on the other hand, its *extirpation* is almost impossible, though to check and weaken it, so far as to grow a grain or cotton crop, is easy enough. There is nothing better than Bermuda grass for our friend's purpose. We have presented both sides—he must judge for himself whether the reasons *con* are more or less cogent than the reasons *pro*.

Worms in Swine.

A. W. B., Monument, Mass., says that a neighbor, in cutting the lights of a hog killed a few days since, found therein numerous small worms, about an inch long and the size of a fine needle. The hog seemed healthy, except that it coughed a little, and he asks what were the worms: what caused their presence there, and a remedy for them.

ANS.—Fluke worms and other parasites are often found in the intestines of hogs, and sometimes in the flesh. It is a rare thing to find them in the lights (or lungs). We do not believe that, when such is the case, the disease can be cured; at least, we do not know of any effectual remedy. Doses of turpentine will destroy tape-worms and other parasites in the stomach and bowels, and possibly in the lungs. This can only be done by the absorption of turpentine into the blood, in which it will be carried to the lungs, and by absorption in the tissues of the body, by which a small portion will reach the lungs. Whether enough would do so to eradicate the disease is doubtful. Fluke worms in the lungs of sheep are quite a common disease in England, and one that is incurable. The presence of the worms in the lungs would account for the cough, and in time, like sheep with the same disease, the hog would pine away and die. The hog could have caught the disease by feeding where sheep with the same disease had pastured, by eating the grass, or where pigs had run, as animals with parasites in the lungs will cough them up (or the germs, which will produce them). Animals showing evidences of this disease should be immediately confined by themselves, to prevent its spread. We know of no cause, except as indicated above, or by animals eating the flesh of others which were infected by parasites.

An Exploded Swindle.

G. K., Litchfield, Mich., asks whether the Denver Land Co., which he has seen advertised in several papers, is an honest affair.

ANS.—In a short editorial in our issue of November 22 we warned our readers against having anything to do with this arrant swindle. The affair was gotten up by a notorious fellow whose last of several aliases was Grant. He obtained a title to some sand-hills about 30 miles from Denver, Col., and then advertised in about 800 papers that he would give a lot of 25x125 feet in East Denver, Col., for one dollar. Since then he has been arrested for the swindle, and at last accounts was in prison. That the gullible fools are not all dead yet was amply shown by the piles of letters with remittances that filled the mails to his address before his arrest. So obviously was this a swindle on the very face of it, that it seems strange any reputable paper should have given it a place even in its advertising columns. The advertisement was promptly rejected by the RURAL, as are others, less obviously dishonest, every week.

The Best Hardy Monthly Roses.

J. H., Dayton, Ohio, asks which are the best hardy Monthly Roses, and where can he order some for delivery by express in spring.

ANS.—The best hardy Monthly Roses are:—Achille Goudot, Ardoise de Lyon, Auguste Mie, Baronne Provost, Caroline de Sansal, Charles Lefebre, Duchess of Southerland, Elizabeth Vigueron, Enfant de Mt. Carmel, General Jacqueminot, Glory of Waltham, Henry IV., John Hopper, La Reine, Gustave Bonnet, Mad. Louise Carique, Mad. Trotter, Phœnie, Pius IX., Prince Camille de Rohan, Reynolds Hole. They can be had from Ellwanger and Barry, Rochester, N. Y.; Parsons and Sons' Co., Flushing, L. I., and of several other nursery firms.

Miscellaneous.

S. E. H., Milton, Ky., asks whether we think the manufacture of sugar from sorghum will prove profitable in this country.

ANS.—The industry is, in reality, as yet in a state of probation—on trial. Some of those who know little or nothing about it practically, seem much inclined to pooh-pooh it; those who have invested both money, time and talent in it, seem quite hopeful of success, as may be seen by the opinions in another part of this issue.

M. N. F., Monroeville, Pa., asks where can he get Angora goats, and what would be their probable price.

ANS.—Angora goats are for sale—or were, a short time ago—by W. Kloewne, Hicksville, L. I.; J. S. Goe, Brownsville, Pa.; Richard Peters, Atlanta, Ga.; price about $80 per head.

W. W., Deer River, N. Y., asks to whom should he write concerning some property situated in the city of Colmar, Elsass, Germany.

ANS.—Apply for information to the Consul-General of Germany, 2 Bowling Green, this city.

E. T. F. B., Providence, R. I., has received some rye from California, which he has planted in a box, and he asks if he can leave it out-of-doors during the winter.

ANS.—We should sink the box in the ground to the rim and give it shelter out-of-doors.

J. P. S., Pittsburgh, Pa., asks if Cohoes or Troy is the terminus of the Erie Canal.

ANS.—Albany is the eastern terminus of the Erie Canal.

W. Bros, Nashville, Tenn., asks where can the Duchess Grape be obtained.

ANS.—From J. T. Lovett, Little Silver, Monmouth Co., N. J.

COMMUNICATIONS RECEIVED FOR THE WEEK ENDING SATURDAY, DEC. 13.

L. E. T.—H. B. D.—T. M.—H. K.—H. S.—G. U. A. A. S.—W. H. B.—G. W. S.—W. M. L.—A. E. B.—H. M. Y.—W. H. W.—"Heliotrope"—W. J. F—A. L. J. W. J. C.—E. A.—W. E. M.—G. E. W.—J. H. J., thanks—"Constant Reader"—O. W. H.—A. K. —W. E. A. S.—"Malthea"—W. L. F.—J. G. L.—N. C.—B. G.—H. D. R.—J. L. S.—T. G. B.—J. S. V. W. —A. B. W.—J. L. B.—M. B. P.—M. L. S.—A. L. J. —J. L. McD.—S. E. H.—E. & B., thanks—J. J. D.—M. J. G.—E. W. S.—R. V. S.—W. W.—"Bittersweet"—G. G.—F. K.—M. N. F.—S. R. M.—R. C. R. —A. G. R—D. & S.—S. O., thanks—W. B.—G. W. C.—F. D. C.—P. C. A.—J. S. C.

Various.

WHAT OTHERS SAY.

ADULTERATION OF FOOD.—Prof. A. R. Leeds, of the Stevens Institute of Technology, has undertaken the investigation of a large number of articles of domestic consumption as a part of the work devolving upon him by his

connection with the New Jersey Board of Health.

He says that many of the fears awakened in the public mind by the discussions in the newspapers concerning the deleterious or even poisonous character of various substances said to be used in the adulteration of many articles of food, are entirely groundless, and that the most searching analyses in his own laboratory failed in nearly all cases to reveal their presence, although the articles tested were for the most part purchased at the meanest shops, whose custom consisted of the poorest class of the community. The adulterations found consisted mostly of substances harmless in themselves and used for the purpose of increasing the weight or bulk of the articles sold. Such adulteration must of course be branded as fraudulent; but while it is an offense against public morality, it is not one against public health. The following are some of the articles examined.

It has been objected to by some that bread is adulterated with potatoes, but this addition, so far from being injurious, actually improves the quality of the bread. A few samples of bread contained very small quantities of alum said to be used for the purpose of making it whiter and lighter. Some contend that a very little alum is not injurious because it is rendered inert by the phosphate of lime contained in the flour, and also by the acids of the gastric juice. Not the slightest trace of copper was revealed in the bread examined by the most searching methods of analysis. Saleratus was found in nearly all cases to consist, as it should, of perfectly pure bicarbonate of soda; but cream-of-tartar was found to be adulterated in some cases as much as sixty per cent. Baking powders, which should consist of bicarbonate of soda and cream-of-tartar in suitable proportions, kept from combination by the admixture of a little starch powder, were found to vary greatly in the amount of their effective constituents. All the sugars examined were found to be perfectly free from all injurious substances. No sulphuric, nitric, or hydrochloric acids were found in vinegar. All the samples examined derived their activity from acetic acid, of which, however, they contained different proportions. In other words, some of them were more or less diluted with water. None of the samples of milk examined were found to contain any more serious adulterant than water. A diligent search was made to find brightly colored cucumbers whose tint would indicate that copper had been used to make them more attractive: in none of them, however, was even the faintest trace of copper found to be present. Canned goods were found to be free from all deleterious substances. Spices procured from various sources differed greatly in strength, and all contained foreign substances increasing their bulk and diluting their pungency Different samples of teas examined chemically and under the microscope revealed the fact that they were adulterated by leaves of other plants to a very great extent. Some of the cheapest kinds, selling, say for 35 cents a pound, contained no tea leaves whatever. Candies were found to be much more free from injurious substances than the public has been led to believe. Many of them contained a large mixture of glucose, but the coloring matters used were comparatively harmless. In some of them analine colors were used, which, although poisonous, cannot be fairly so called in the very minute quantities necessary to color candy.

Prof. Leeds examined green wall papers for arsenic, and exhibited several tubes containing arsenic extracted from them. These papers must be condemned as highly injurious, especially as the arsenic is but loosely applied to the surface and is easily diffused through the air, whence it finds its way into the lungs. One specimen of arsenic shown was extracted, curiously enough, from a little green Christmas tree candle.

He concludes by saying that three things are necessary to keep the practice of adulteration in check: a strong public sentiment kept aroused by the public press; the enactment of stringent laws; and the appointment of competent persons to execute them.

ROTHAMSTED CROPS.—"If the results obtained at Rothamsted," writes Dr. J. B. Lawes to the English Press, "both in the permanent wheat field and with the numerous varieties of wheat, be accepted as indicating the quality as well as the quantity per acre over the country at large, the farmer will benefit but little by the rise of price hitherto reached. Thus the average weight per bushel of the 23 varieties of wheat is this year only 53¾ lbs., whereas the average weight over the preceding eight years has been 61¼ lbs. It is, therefore, this year 12½ per cent. less than the average. It is obvious that the farmer would have to deliver more than nine bushels of the produce of this season to supply the same weight as in eight bushels of the previous seasons. Nor would this be all, for with the lower weight per bushel much of the grain is so thin, and contains so much husk and so little flour, that it will be only fit for the mill at all when used with a large admixture of foreign grain, and will consequently command comparatively low prices. In 1863, which is the year in which I commenced to give an annual report and estimate of the wheat crop, the main produce of the three artificially manured plots was 55 bushels per acre, with an average weight per bushel of 62⅝ lbs. In 1879 the very same manures have given an average of only 19⅝ bushels, at 53⅜ lbs. per bushel, equal to only 16¾ bushels at the same weight per bushel as in 1863. We have here a striking illustration of how great is the influence on the result of the farmer's efforts of circumstances entirely beyond his control, after he has employed all the resources at his command to obtain a good crop."

CROSS-BREEDING AMONG FISH.—Mr. Robert B. Roosevelt, so well known in connection with fish breeding, is responsible for some surprising assertions with regard to the intercrossing of distinct species of fish. Some two years ago the eggs of a shad were placed in a pan of fresh water, which could not have contained any milt of the male shad. This done, the eggs were mixed with the milt of a striped bass, and they were immediately fertilized. They were then placed in the shad-hatching boxes, and fully 10,000 young cross-breeds were the result. They were turned into the river at the proper time, and it is not yet time for them to return, if they follow the customs of their mother.

That the hybrids are likely to thrive and breed is thought probable after the perfect success that has followed the crossing of the California salmon and the common brook trout. Mr. Roosevelt says: "We have crossed fifteen or twenty different breeds, and all successfully, and I can assure you that the result is a strong argument in favor of Darwinism, for it shows that all fish may possibly have grown out of one or two varieties. This would account for what is called the 'land-locked salmon,' which is found in lakes having no communication with the sea. The object of this crossing and breeding is to improve the fish, just as they cross neat cattle and horses, and even fruits and flowers. The result will be to make fish food plenty and to add a large number of 'queer fish' to the number already in existence."

HYBRID SHAD.—Mr. Seth Green has recently called attention to the fact that it has been customary for the last four years at the shad-hatching works on the Hudson River, whenever an opportunity offered, to impregnate the spawn of the shad with the milt of the white bass. He says that these eggs have hatched out in quite as large a percentage as those impregnated with the shad milt. The young fish look very much like small shad, but their actions are so entirely different that they are readily distinguishable while in the hatching boxes. The attention of fishermen and others is particularly called to the fact that such hybrids now exist in the Hudson, and they are requested, if any such be caught, to make known the fact through the papers or otherwise, describing as particularly as possible the appearance, characteristics, etc., of the strange fish.—Scientific American.

PUMPKINS.—Dr. Horne, says in the Country Gentleman, that he has himself fed cows to repletion on sound, ripe pumpkins, all the season with the best results. He has also known many persons give cows all the pumpkins they would eat, with good results. In his practice he has never known a single instance of abortion, or any other disease to result from feeding pumpkins. Some claim they make the best of butter; some say they injure the butter. He cannot of his own knowledge say as to this, but is quite inclined to believe they cannot in the least injure the butter, especially if fed with corn meal, etc. The seeds act powerfully on the urinary organs, and should always be taken away, so that the cows cannot eat them. Cattle of all kinds will maintain good condition, largely fed on pumpkins, and so will horses. This he knows.

ABOUT GOING WEST.—The class of men who can go West, or to a new country, and succeed, are those who are strong to labor, who have pluck and energy, and who possess enough means to give them a good start. * * *

But, having determined to go, what is the next step? Personally inspect the localities to which your thoughts are turned. Do not invest a dollar on the recommendation of others. Better spend all needful time and money in thoroughly acquainting yourself with the advantages and disadvantages of the country. Then you will not be disappointed. * * * *

The most essential thing needed by the emigrant is "pluck." Go determined to win. Do not be frightened by a single disastrous season. Thousands turned their backs on Kansas and Nebraska after a grasshopper year, who to-day heartily wish themselves back there. Remember there are bad years and hard places for farmers everywhere, and "having put your hand to the plow, do not look back." Why should a young man settle down on a worn-out farm for a life-long struggle with debt, that will make him sordid and old before his time, simply because he happened to be born there? A popular writer has compared such a one to "a hen sitting on an eggless nest."—Ohio Practical Farmer.

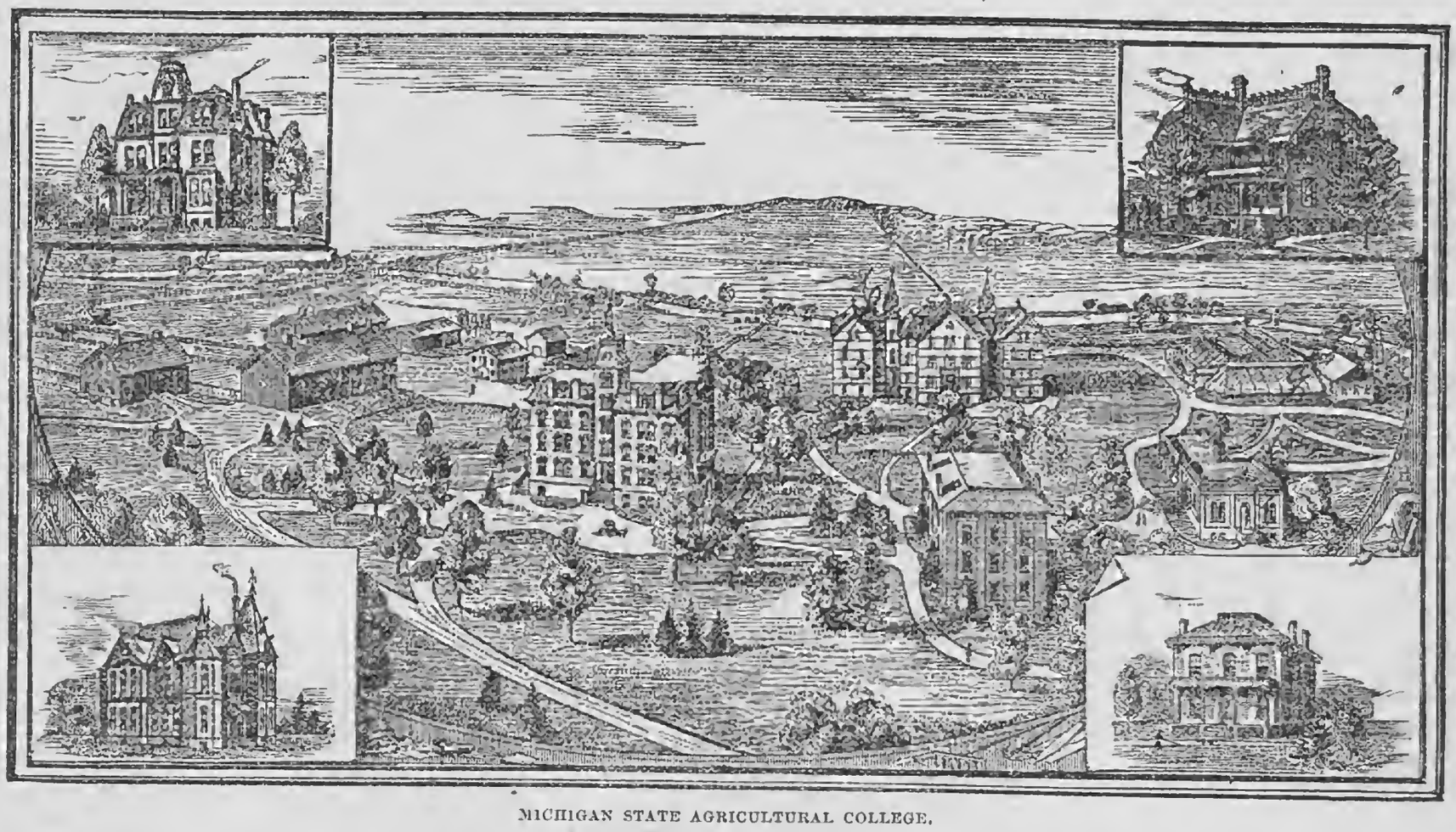
WHAT IS WANTED.—Mr. L. S. Hardin says, in the London Ag. Gazette, that it is his notion that it is about time the breeders of Shorthorns began to look at home for the trouble about the neglect of their pets by the graziers. They must abandon the chase after pedigree, and remember that when the city merchant sits down to his roast beef, it is a matter of no moment to him whether he is eating a piece of beef from the wilds of Texas or a slice from the loin of the fourth Duke of Glo'ster. What he wants is a piece of juicy, tender meat, and that is all he is willing to pay for; and the grazier wants animals with not only iron constitutions, but, above all, they must be sure getters and early breeders.

GOOD CEMENT FOR CHIMNEYS, ETC., J. R. Leute tells the N. Y. Tribune, may be made by simply wetting Rosendale cement with paint oil. Mix thoroughly and to a consistency that will not run. No sand or other ingredient is needed. It adheres well to wood or brick, and sets hard and tough.

Industrial Topics.

THE STATE AGRICULTURAL COLLEGE OF MICHIGAN.

WE here present an engraving of the State Agricultural College of Michigan, which is situated three and one half miles east of Lansing, the capital of the State. It is the oldest college of the kind in the United States, having been opened to students in May, 1857. A few years later Congress offered a land-grant to each State for the establishment and maintenance of agricultural colleges. Michigan accepted this offer, and 235,673 acres, all located within the State, were appropriated to the support of the college. The proceeds from the sale of these lands are placed in the State Treasury, and the interest alone goes to the college. Lands to the amount of somewhat over $250,000 have now been sold. Besides this, additional appropriations are made by the State Legislature to defray necessary expenses. The management of the institution is in the hands of the State Board of Agriculture, which consists of a body of six men appointed by the Governor, each holding office for six years.



MICHIGAN STATE AGRICULTURAL COLLEGE.

Great improvements have been made at the college since its opening. Then there were but two halls, erected in the midst of the woods, with numerous stumps around the very doors; now the grounds are studded with dormitories, halls, laboratories, greenhouses and barns. A botanical laboratory, recently erected, is shown in the lower left-hand corner of the engraving; the buildings in the other three corners are specimens of the professors' dwellings. A farm of 676 acres is attached to the college, about 300 acres of which are under cultivation. Various approved breeds of cattle and other domestic animals are kept on the farm for the instruction of the students.

The college is provided with an able corps of professors, all of whom are scientific men and able teachers, and several of them are known as writers upon agricultural and scientific subjects. T. C. Abbot has been President of the college since 1859; Dr. R. C. Kedzie occupies the chair of Professor of Chemistry; W. J. Beal is Professor of Botany and Horticulture; A. J. Cook of Zoology and Entomology, and R. C. Carpenter of Mathematics and Civil Engineering. Two able professors recently left the College; G. T. Fairchild was called to the presidency of Kansas Agricultural College, and C. L. Ingersoll to the chair of Practical Agriculture in Purdue University, Indiana.

The institution has now graduated 211 students, over 60 per cent. of whom are engaged in agriculture or related industrial arts. The classes are constantly increasing in size, as the college is in renown and usefulness. The present year's catalogue shows a total of 232 students. The college year commences in September, but during the winter there is a three months' vacation, which furnishes an opportunity to teach school to those of the students who may desire to do so. Tuition is free to all, and students not well supplied with means have opportunity to defray their expenses in part by working on the farm and gardens. What has become known as the labor system has here been introduced, and works to perfection. All students not exempt by physical inability, are required to work three hours a day, for which each receives compensation according as he works, the maximum rate at present being eight cents an hour.

The course of study occupies four years, and embraces mainly the Natural Sciences, Mathematics, English Literature and Practical Agriculture. Due prominence is given to sciences closely related to agriculture, such as Botany, Chemistry, Surveying and the like.

As this institution is the oldest Agricultural College in the Union, so it is generally held to rank also as the best. In spite of a fierce popular prejudice which assailed it in the early years of its existence, it has won the way to favor, popularity and success. We trust it may continue to increase its educational facilities and spread its influence in the future as it has in the past. This is preeminently an agricultural country, and whatever institution helps to educate the farmer and elevate agriculture deserves the fullest measure of success.

THE
RURAL NEW-YORKER.
PUBLISHED EVERY SATURDAY.

CONDUCTED BY
ELBERT S. CARMAN.

Address THE RURAL NEW-YORKER,
78 Duane Street, New York City.

SATURDAY, DEC. 20, 1879.

TO SUBSCRIBERS.

We cannot promise, but we can *nearly* promise, to place an assortment of the Cow Pea in our present free seed distribution. We may deem it advisable to substitute this for the Telephone Pea, as the stock in England is next to nothing. In this case, we shall present our own stock of the Telephone to our subscribers as a supplementary distribution, as far as it can be made to go. We have also two other announcements to make as soon as arrangements are completed. As to the Cow Pea, we do not believe, from our own experience, and from what we have gleaned from several private sources, that we can do our readers better service than by offering them the opportunity of testing its value.

We venture the prediction that those nurserymen who are propagating a large stock of the "Sunray Pine" (Pinus Massoniana var.) will reap a golden harvest when they offer it for sale. It is one of the most striking beauties we have ever seen; and, in so far as it may be judged by a test of the past three years in our grounds, is perfectly hardy. It was well described and illustrated from life in this journal, Dec. 29, 1877.

Our best thanks are due to many of our subscribers who have sent and are sending us small clubs. It is too early as yet to speak definitely. But the promise is that we shall have for next year all we have asked for, viz., double the *increase* of the present year. Our friends probably have little knowledge of the *aggregate* benefit we derive from their good words and the occasional subscriptions solicited from their acquaintances which they forward to us. Such subscribers are of the very class we prize most highly.

At the very best it need not be hoped that the American Agricultural Society will, at the outset, be free from flaws. If the will of all good men deeply interested in agriculture were to rule, it could prove no less than an efficient instrument of noble service from the start. But it is the will of the *workers*, whether good or bad, that rules. Hence the necessity of men to do the Society's work who, while they have the good of agriculture at heart, can *afford* to give their time and their best thoughts to its wholesome progress. Grand—magnificent are the *possibilities* of this national organization!—we grant that. But possibilities here imply earnest, patient, well-directed, unremitting labor. It is the rush after alluring *probabilities* that saps the life out of benevolent enterprises and tumbles them down.

There can be no doubt about it, of course, that tarred paper, in many cases, has satisfactorily answered the purpose of keeping mice away from the stems of trees during winter, else its use would not be so often recommended; but it is a remedy we should never resort to. We have seen fruit trees seriously injured—as good as killed, indeed—by its use. We have never had a fruit tree injured by mice, and we attribute our immunity to the fact that their stems have been washed every fall and spring with a mixture of lime, sulphur, hellebore, soft-soap, soot, and red mineral paint-powder—the two last added so as to make the wash a near approach to the color of the bark. The stem up to the branches is washed with this, while just at the base it is spread on in a sufficient quantity to wet the surface of the ground about the stem. Tar paper confines the air—holds the moisture, and induces a soft, tender condition of the bark that, by alternate freezing and thawing, often ends in decay.

We need not call attention to Doctor Ledoux's article on the Southern Cow Pea. If there be any likelihood, or even possibility, of its becoming as valuable in the Middle, Western and Eastern States as it unquestionably is in the South, then it is worthy of extended trial. Knowing little of the manner of its growth, we made the mistake of planting the seeds too close together. The consequence was an entangled mass of vines that rendered it difficult for us to separate one variety from another, and note the peculiarities of each. We should be very glad if we could distribute samples of this Pea (which is not a pea) among our Northern readers during next spring, as a supplementary distribution. We already have too much on our hands at present, however, to feel justified in expressing any more than the *wish* to do so. The reader will see that the note on another part of this page speaks more positively as to this matter.

While listening, the other evening, to the amusingly innocent remarks that dropped from the lips of the crowds of city ladies and gentlemen admiring the various groups of cattle at the Dairy Show, we were strongly impressed with the conviction that the breed, name, age and chief merit of each animal should be plainly written or printed on a card, nailed conspicuously to the railing in front of it. It would also be both interesting and instructive, not to cockneys only, but often also to country visitors, if an enumeration of the points of excellence of each breed were prominently displayed on a card close to the quarters in which the representative animals are confined. Apart from the stimulant it is to further exertion on the part of the breeder, the only object that justifies the granting of premiums to such exhibits, is the instruction the examination of them affords the public, and this object would be much more effectually attained if the public were informed of the merits for which each class is distinguished, so that each visitor might examine personally how far such excellences are embodied in each animal on exhibition. The winning of premiums is a mere secondary object in such displays; public instruction should be the main end in view, and nothing that could facilitate this should be neglected. Of the numerous fairs we have attended in at least twenty States in the Union, we do not remember one in which the adoption of the above suggestions would not be an advantage.

THE AMERICAN AGRICULTURAL ASSOCIATION.

In a former issue we stated that steps had been taken for the organization of a National Agricultural Society. This organization was completed last week at the Metropolitan Hotel, in this city, where, on the 10th, 11th and 12th, delegates to the number of about 150 met in convention, representing fourteen States. The committee on organization reported a constitution which, with slight alterations, was adopted by the convention. The Society takes the name of The American Agricultural Association, and its avowed object is, in short, to further the interests of agriculture in all its branches, by all the means in the power of the Association. The membership fee is one dollar, on the payment of which all who are in any way connected with agriculture may join the Society. The officers were elected under the constitution; President, John Merryman, of Maryland, with a very long list of Vice-Presidents. Mr. J. H. Reall, of this city, was made General Secretary. A permanent executive committee of five, with the President and first Vice President, constitutes the working force of the Association.

Many prominent farmers and scientific men throughout the Union have identified themselves with the movement, and we trust these will earnestly take the matter in hand and in unison work for the good of agriculture. There is an unlimited field for improvement, and there can be no doubt that an Association of this character, if rightly managed, can discover facts, reach conclusions and disseminate knowledge that may help greatly to develop our agricultural resources, and thus indirectly benefit farmers.

The Association should not merely be a body of men that meet once or twice a year and listen to some lectures and essays, and have a good time generally. There is work to be done, which we have no doubt the Association fully realizes. We know not how the Society proposes to go to work; but it appears to us that if sections or standing committees were appointed, each committee having some special subject to investigate, valuable results could be most surely and satisfactorily reached. Thus, a committee on animal diseases, composed of the veterinary experts of the Association, should thoroughly investigate this important subject; another committee could deal wholly with diseases of plants, especially destructive fungi; still another with field culture and the extermination of weeds; another with destructive insects, etc., each section, of course, being composed of experts in that specialty. The undertaking is highly commendable, and we heartily wish it success.

RAILROADS AND THE FARMERS.

"The farmer pays for all." Especially does he pay for the railroads. The dividends which give value to these enormous enterprises come from the freight of his wheat and corn. The farmer, then, should be interested in knowing something of the true inwardness of the great railroad corporations which he supports. A case of unusual prominence has recently been made public. It concerns the greatest owner of railroad stock and probably the richest man in the world, and it shows the enormous profits made from investments in railroads. It is as follows: Mr. Vanderbilt, the President of the New York Central railroad, recently sold to an association of capitalists 150,000 shares of stock in his road, at $120 a share, and an option of 100,000 shares more at the same price. This sale involves a sum of $25,000,000. It is of great interest to trace out the profit of this transaction to the seller and to show how enormous wealth is made to pour into the coffers of great railroad capitalists.

In 1868 a scrip dividend of 80 per cent. was made upon New York Central; in other words, the capital was increased to that extent by a few strokes of the pen. No money passed in this operation; the 80 per cent. increase was a fiction in one way; but an enormous reality in so far as those were concerned who had to provide dividends, which gave the increase a substantial existence. In 1869 the N. Y. Central and the Hudson River railroads were consolidated; and at this time, *to equalize values*, a further scrip dividend was made on the N. Y. Central stock. Thus, without the payment of one cent. in money, one hundred dollars of stock was suddenly made to represent a value of more than two hundred dollars, and the increase on the quantity of stock in question would stand as follows:

Par value of the stock in 1868	$12,077,295
Eighty per cent. scrip dividend	9,661,836
Second scrip dividend	3,260,869
	$25,000,000

Since 1869 the consolidated stock has paid annual dividends, on the more than doubled value, of 8 per cent.; the dividends and other profits on the stock since then would stand thus:

Eleven years' dividend on stock	$22,000,000
Profits on sale, at 20 per cent	5,000,000
	$27,000,000
Add capital stock	$35,000,000
Total stock and dividends	$62,000,000
The original cost of the stock was	$12,077,295
Eleven years' interest, at 7 per cent	9,299,517
Total legitimate investment and profit	$21,376,812
Increase of value	30,623,188
	$52,000,000

In plain words, the actual value of the stock has been increased by stock dividends, usually called "*water*," and 8 per cent. annual dividends upon it, by a gross sum of more than *thirty million dollars!* This gross sum has actually passed, or will pass, into the possession of the selling party. Whence has this money come? A large part—the annual dividends on the suddenly-created stock from scrip dividends—has actually come from those who have paid the freights which have made up these enormous profits of over 16 per cent. per annum. This can be traced clearly. The rest comes indirectly, or will come when it is actually realized, from the same sources. But it must be remembered that, as yet, this portion is intangible.

"A breath unmakes it, as a breath has made,"

and it represents a value that only exists as it draws interest; it is yearly interest capitalized. The fact remains, however, that the public must toil and labor to pay the 8 per cent. dividends which give this stock actual value. What is wealth? This question naturally presents itself to our minds as we consider this astounding transaction. How were these millions created? We read of the famous lamp of Aladdin, by the mere rubbing of which untold treasure rolled at the feet of the fortunate owner. We always thought this story was a fiction of those Arabian nights. But here is the famous lamp, and here we have the fortunate owner. But who pays for it all? "There's the rub." How many years would a farmer have to work to save a thousand dollars; and here some one makes as much in a few years as 30,000 farmers could save in a lifetime. Truly, "farming don't pay" as well as some things."

BREVITIES.

The city of New York is filled (to exaggerate a trifle) with dairymen and farmers. Where are the dairymaids?

The more we learn of the past harvest the more correct seem the inferences drawn from the hundreds of reports in our special crop numbers.

We hope that the ladies who attended last year's Dairy Fair, were educated up to being able to distinguish this year a churn from a washing-machine

Mr. W. Robinson, Editor of the London Garden, writes us under date of Nov. 10:—"You are making a wonderful improvement in the Rural New-Yorker. I am delighted to see those original and bold cuts of good plants."

The latter days of 1879 will be remembered as having given birth to an American Agricultural Society. The trouble with other such infants that have been born from time to time, has been that there was no Reall vigor in their bodies.

Notwithstanding the huge obelisk, the occasional mounds and the frequent plateaus of cheeses at the International Dairy Show, the *milkiest* collection of the article there is that of old Stilton.

By careful computation, according to the comparative estimates of the agents of the respective sorts, there are some churns at the Fair that will produce butter in 48 hours and ten minutes before the cream has been put into them.

Professor A. R. Ledoux, the accomplished Director of the N. C. Ag. Experiment Station, whose valuable article upon the Cow Pea will be found elsewhere, says: "I hope some of your readers will try this crop next spring, and report the results through your columns."

We read of a case in France when a horse seized a brutal master that had been kicking him mercilessly, and bit him several times so injuring him that he was carried to a hospital. We sometimes wish that all good horses had the sense to "fight back" when they are treated with cruelty.

Among the most important conditions of a healthy diet is that food must be adapted as regards quantity and quality to the amount of work to be done by beast or man As a rule, this is not considered at all. We eat what our appetite craves and until it is satiated. Hence it is (if our readers will pardon the expression) we "burst our boilers."

Will our friends have the kindness, when they write us on several topics, to write each on a different piece of paper. Thus it will save us much trouble, and insure our friends more prompt attention if they, instead of sending subscriptions, questions, "Everywhere," etc., on one sheet, would put each subject on a separate one. In sending stamps do not stick them to the paper.

We are preparing our *Index* with much care. Last year's index was the best the Rural has ever had. This year's will be still more accurate and full. Our aim has been so to index the subject-matter of articles that reference to any topic, regardless of its title, will be readily found. The excellence of an index ought to be rated as high as the excellence of the work itself.

During the coldest part of winter, when the ground is frozen, every hen-house should be provided with a box six inches deep, with sifted coal-ashes and sand for the fowls to dust in. Occasionally, when the weather is so inclement that they prefer to remain in the house, it is well to throw the corn, oats and wheat into this box, that they may be induced to scratch and exercise.

Potatoes that were at all affected with disease before being dug should be frequently looked over, so as to remove those that are decayed, otherwise the whole will quickly become affected. Window plants suffering from plant-lice, should be smoked with tobacco. Place the plants under a barrel, and also a pan with some live coals upon which put some tobacco, moistened so that it will not blaze. If the plants are left in the fumes for ten minutes the lice will be killed and a good syringing will finish the work.

A suggestion to Messrs. Pell and Sewell. They have had five successive bad seasons in England. This is quite enough to have produced agricultural depression there or anywhere. Why not suggest to the government and people of the United Kingdom that they move to a climate that is good for something. Either that, or the government and people must *change* the climate. What's the use of making a complexity of this simple problem?

Among all the orators at last year's Dairy Show, Gen. Butler bore away the palm for statistics. This year, however nearly every speaker seems to have been busy with agricultural and commercial reports, to compile long arrays of figures that should leave Ben's cyfering a world behind. And, then, what enormous possibilities in the way of sum-making does the subject possess! Thirteen million milch cows in the country! Just think of them! An aggregate of thirteen hundred million pounds of butter and cheese produced from them, to say nothing of all the milk they have supplied to our tables! There's food for the imagination as well as for the million!

There is no grape of which larger quantities are sold in the Northern markets, at this season, than the Catawba. It is, among our hardy sorts, substantially the only grape now retailed in fruit-stores and from street-stands. The boxes sell readily at from 20 to 25 cents each. They hold about three pounds, the boxes averaging a little over one-eighth of a pound. The Catawba always sells for from five to ten cents more per box than the Concord, when the market is well supplied with each. That forthcoming hardy white grape (that has been forthcoming so long), which shall bear transportation and keep as well as the Catawba, will meet with a hungry market and a ready sale.

Industrial Societies.

INTERNATIONAL DAIRY FAIR ASSOCIATION.

SECOND GRAND EXHIBITION.

Opening Ceremonies.

Display about the same as last year.

[Rural's Special Report.]

THE second annual exhibition of the above-named Association was opened Dec. 8th, at the hall of the American Institute, Sixty-Third Street and Third Avenue, New York. The gratifying success of the first fair resulted in a permanent organization; which, during the past year's consolidation, has been able to complete arrangements for a succession of exhibitions which promise to be of the greatest interest and value. The need for the Association was unquestionable. Our dairy interest is of great value, and is susceptible of enormous profitable expansion. In fact, with regard to cheese, it may justly be said to be in a condition of embryo, and quite undeveloped as far as the supply of our home wants is concerned; and an exhibition of the products of other countries, which are excellent and popular in their several localities, may very well serve to educate both the general public and the dairymen; the one as to the various kinds and qualities of cheese which may become desirable articles of consumption, and the other as to the manner of offering their products in useful and attractive forms to their possible customers.

The dairy interest has everything to gain from making itself familiar with the public, and the public may learn much by becoming familiar with the technical matters relating to dairying. The exhibition now open in this city presents a general view of the dairy business. There are some fine herds of cattle on view. At the entrance, on the right, are a selection of Dutch (so-called Holstein) cows and a bull, from the herd of Mr. Neilson, of New Jersey; on the left, some Jersey cows shown by Dr. Newell and Mr Holly, also of New Jersey. Mr. Crozier, of Long Island, exhibits, at the other end of the hall, 32 head of Jerseys, Guernseys and Ayrshires; and Mr. Wells, of Conn., has a herd of Ayrshires. As specimens of these dairy breeds it would, perhaps, be difficult to select better subjects for exhibition. Passing the first herds mentioned, the visitor meets with piles of native-made cheese, of sizes varying from the few pounds of the "Young America" "Pine-Apple" and other small kinds, up to the ordinary factory cheese and the monstrous cylindrical masses weighing a thousand pounds. In a conspicuous position on the floor are pyramids of fancy foreign cheeses; the exquisitely rich Stilton, the globular Edam, the flattened Gouda, the Leyden, Brie, Parmesan, and other highly-flavored and *scented*, but toothsome, kinds, which please the palates of English, French, German, Dutch, Italian and Spanish cheese-eaters, with whom cheese is an article of steady daily diet. An enormous pile of salt in bags—a veritable pillar of salt—serves to preserve the memory of a well-known dealer in this commodity, and to attract attention by its apparent incongruity and uselessness in such an exhibition. Why might not an enormous pile of bales of hay, or of bags of feed, answer as useful a purpose in a dairy fair as all this salt?

Passing on, the visitor sees utensils of every kind and of the most novel character, as well as the standard sorts which have been proved by years of use in the dairy. To note even the most conspicuous of these in detail is impossible as yet, for a day's work is not sufficient to make a full record of all the noteworthy things which are on view; and on the first visit of the season an interested person cannot go into detail in a methodical manner. The men one meets here are by no means the least important part of the show. Brushing past a Wisconsin dairyman, well known in his craft, one elbows a Californian fresh from his pastures in the foot-hills or watered on the western shores by the fogs of the Pacific. Here is a venerable Eastern dairyman whose fame is world-wide, and there one from a Southern State, who has proved that the indigenous grasses of the sunny fields of Mississippi can be turned into the choicest butter by a herd of excellent Jerseys.

And so we see that all over our broad land the dairy can be made a source of wealth, and that the widest interest is shown in this Association by our enterprising dairymen. A glance about the broad hall, as one turns to take a general survey, gives a faint idea of what the details consist of, and of what interesting matters can be met with in a closer scrutiny; it shows that this is an instructive exhibition, and that American dairying is by no means an insignificant business, but one that calls forth the intelligence and the enterprise of a vast army of industrious workers in many different fields of labor.

SOME DAIRY IMPLEMENTS.

THE largest display in any one class at the fair consists of the numerous patterns of milk coolers. There seems to be a determination on the part of inventors to exhaust their ingenuity in discovering all the infinite varieties of ways and means by which cold air or water may force the cream from milk. There are certain features characteristic of them all:—The idea, for instance, that they are manufacturing a cabinet, that is, a parlor ornament, never leaves their minds. Their exhibits, therefore, to the plain farmer, must look more like furniture for drawing-rooms than the old idea of an every-day milk room. They all in some way, take their motive power from ice or water at a low temperature. The idea of keeping the milk as nearly as possible in a solid body instead of spreading it out as was the former custom, is common to them all.

As we approach this class of implements along the south aisle, the first one we reach is The Ferguson Bureau Creamery. This is a very handsome piece of furniture with drawers like a bureau, as its name suggests. The milk is poured into pans some eight inches deep, and by a happy contrivance these are pushed into the cabinet where the ice in a chamber above, has lowered the temperature to about 58 or 60 degrees. This creamery is more upright than broad. About one-third of its space at the top is taken up with an ice chamber with glass windows for detecting the disappearance of the ice. Under this ice chamber is a row of drawers on wheels or castors, resting on a movable tramway which is taken off when the drawers are pushed in. Below this row comes a second row of drawers, and below these, are a chamber for cream and butter and another for a heater in cold weather. The theories in support of this creamer differ from those on which all the others are founded, in that they never desert the old faith that cream rises best at sixty degrees and should at all times be perfectly ventilated. There are no great claims made for cheapness in behalf of this creamer, as it is the faith of the agent that the best is the cheapest so long as the price is reasonable.

The next cooler reached is Clark's Improved Revolution Milk Pans. These are a series of long, deep pans set on their edges and nearly touching each other in a square box so arranged that water cooled with ice can run between them. There is no provision for the storage of ice in this creamer, so that some other contrivance must effect that. The novel feature of this plan consists in a contrivance for tilting the pans up on their ends and from pitcher-like mouths pouring the cream off. This position is handy for cleaning the pans. This creamer claims the virtue of being very cheap, and certainly in its general get-up, has none of the pretentions that are so characteristic of its neighbors in this class.

The next in order is the long row of elegant creamers from the Vermont Machine Company's works—the Cooley Creamers. The pluck and energy with which this creamer has been urged and the success its reception has met with at the hands of the public, are the probable incentives to many of the new designs now pleading for public favor. The submerged theory is still the leading idea in the Cooley can. The inverted pan over the top of the can for the purpose of allowing the cans to be submerged under water, is still the leading feature, while many devices are resorted to in the way of simplfying this difficult point to handle. They have, however, with great ingenuity devised a handle to the can, so arranged that it receives the rim of the inverted pan through a slot and holds it secure and free from touching the rim of the can. The concave bottom of this pan prevents the water that condenses on the underside from dropping back on to the milk, causing it to run off at the sides, thus relieving the fears of some dairymen that animal odors thus accumulated, if allowed to return to the milk, would injure the butter. The above-described contrivance has not yet been made thoroughly public, though we were allowed to make allusion to it. There is such sharp competition between these cooler gentlemen, that, when one hits upon a good thing, he must secure his patents before he allows his contemporaries a chance to "improve" upon it. One other novel feature in the Cooley Creamer this year, is the introduction of an elevator. With these heavy cans of milk to handle, this is certainly a most commendable effort. The empty cans are set upon a movable platform that just fits in the creamer. By means of chains and a crank this platform is lowered and raised just as the "Old Oaken Bucket" went up and down the well when we were thirsty boys. The proper manipulation is to stop the descent of the platform when it is half way down, and fill the cans with milk; then let them proceed to the bottom. When the cream is ready to be taken off, the crank is put in motion and the cans raised all the way up. A small gutter of galvanized iron is then laid between the cans, and a peculiarly constructed faucet by which you turn the spout instead of the handle to make it draw, delivers the skimmed milk first and subsequently the cream into this gutter which leads it into a pail set on the floor. When the cans are empty, they can be lowered half way and filled again without washing. This faucet is a new feature with the Cooley Creamer. The stationary part that fits to the can, has an opening on the side, the spout fitting over this, moves from right to left. When turned to the right, it is closed; but when turned to the left, the hole in the spout, comes in line with the opening in the stationary part, so that milk or cream readily passes through it. There are very ingenious contrivances for taking this faucet apart for cleaning. It is almost too intricate, however, for us to attempt a description of it. These new features—the spout, cover and elevator—will add but little to the cost of the creamer There is every disposition on the part of those who are putting new creamers on the market to keep the prices as low as a fair profit will allow.

Next in order as we proceed northward along the aisle, is Moseley's Cabinet Creamery, a most beautiful and tastefully gotten-up box. The peculiar features of this creamery are a jacket or well that allows the can to set in water and the milk or cream to be drawn from it at the same time. Like many of the others, the upper third of the box is taken up with an ice chamber. Leading down from this into the air chamber below are jackets into which are set the cans of milk; there being an inch space between the jacket and can, cold water can circulate about the cans. Spouts, with glass necks, are inserted in the bottoms of the cans, which pass through holes in the bottom of the jackets, thus allowing the milk to be drawn from the bottom, the glass allowing the operator to see when the cream makes its appearance, so that the faucet can be closed until a change of pails can be made. There are ventilators in the tops of the cans and also in the lids to the box, so as to remove the animal odor.

On the northern aisle we come to Butler's cabinet creamer. This is arranged so that when the can of milk is in its place in the creamer, the upper half is in either ice or water, while the lower half is in air. The most novel feature with this design of creamer is the conical glass bottom of the can, so that the milk can be seen while escaping, and stopped as the cream approaches.—To be continued.

PROCEEDINGS OF THE MEETING FOR A TEST OF RECORD OF DAIRY COWS.—OFFICERS AND RULES.

FOR some time the agricultural press has discussed the importance of a Society to test the actual producing value of dairy cows in milk and butter, and to have it done in such a manner that it would be accepted as authoritative. In obedience to public notice, a large and representative meeting convened December 9th, in the rooms of the American Institute, in New York city. Dr. A. S. Heath was called to the chair, with L. S. Hardin Secretary. Mr. Hardin stated the objects of the meeting. He said it was of vital importance to dairymen to know whether any or all of their cows paid a profit, and it was important to purchasers to know just what a cow could do. We want to set on foot some plan to cover this ground. A trial farm had been suggested, where cows should be sent. This would be too expensive. Another mode put forward was to employ men to go about and make the tests. This would, he feared, cost too much: better fall back on the highest test known in law,—take a man's oath. The tests should be thorough to be useful, and take into consideration the feed, time of milking and period of gestation—everything connected with the condition of the cow. Such a system in successful operation would reach out over the whole dairy world.

Mr. Rutherford, N. Y., said all the restrictions possible should be adopted. The Society should always have power to supervise tests. Tests must be reliable to amount to anything. In all cases where there is doubt, there must be personal examination by the Society.

Mr. Barnes, Ohio, had worked on a plan of his own, and thought all tests should be made for a year, as there were so many variations during the year. He could tell how to feed his cows, as he could always tell by his test when they were "out of sorts." He could tell the actual value of food, and what to feed and how much. This was worth all of the trouble. The interests of owners would lead them to keep a true account; if they did not, they must keep two books.

Mr. Mason, Vt., had 40 years' experience in testing cows. The system was valuable.

Mr. Michener, Pa., thought the plan a good one. He tested cows to find out the good ones. This was knowing in black and white. The value of the milk for butter ought to be tested; one of his cows gave 37 pounds of milk which only made one pound of butter. The best milk he ever had to make a pound of butter was 18 pounds of the former to one of the latter. The calves of his best cows usually made good cows.

Mr. Hazard, Pa., did not want the escutcheon theory talked about as some had alluded to it. Are the proposed tests valuable? Do we want them? Shall a plan be adopted? In the best dairies 20 per cent. of the cows are unprofitable; in the poorest 35 per cent. The tests must be by public authority. The truth can be got at if supervisors from the neighborhood are selected to attend to it, and these can be had from the local agricultural societies or granges.

Mr. Whittaker, Mass., "Discrepancies need not arise when sales are made, as a man swears to what a cow has done, not to what she will do. The greatest difficulty is to get at a basis of feeding to make tests uniform, as there is so much difference even in hay. Farmers breed from their best cows now. I do not weigh my milk, but I know my best cows. I tell by the pail. A man's word ought to be as good as his oath. The best organization is personal effort."

Prof. Alvord, Mass. "A Society would encourage the idea of testing cows, and this would be a step forward. Records would be good lessons, and men with poor cows will not be contented until they get good ones. A record of every month would be more valuable. The details should be as simple and plain as possible." He showed samples of butter from a Jersey cow which had produced, from March 5, 1878, to March 5, 1879, 705 pounds of butter. Mr. Sharpless, of Pennsylvania, had offered $10,000 for her. A Swiss cow had made 493 pounds in one year.

Mr. Willard, N. Y., thought if dairymen could be induced to keep a record, it would be profitable to them. A record was necessary to weed out poor cows.

Mr. Hoxie, N. Y., kept a record for three years of all his cows, and thus found out their value.

Dr. Sturtevant, Mass., believed in precision in agriculture, and in the dairy it is specially important. He had kept a record of all of his cows (from 12 to 60) since 1867. There had been no guess-work. A record might injure a cow, as each one had a normal capacity of from 1,000 to 4,000 quarts, and to force her above it would tend to reduce her usefulness afterwards. The cow forced from 4,000 up to 5,000 quarts would be likely to fall back to 1,000 the next year. He was afraid records would lead to undue forcing.

Mr. Hoxie, N. Y., said stimulation in a cow will improve the offspring in that direction.

Prof. Gold, Conn., said the Association could get records which farmers would not dispute, and they should be of breeds as well as cows. He agreed with Dr. Sturtevant that forcing will injure a cow's future usefulness.

Mr. Hardin said that we want a standard of profit so low that any cow can come in.

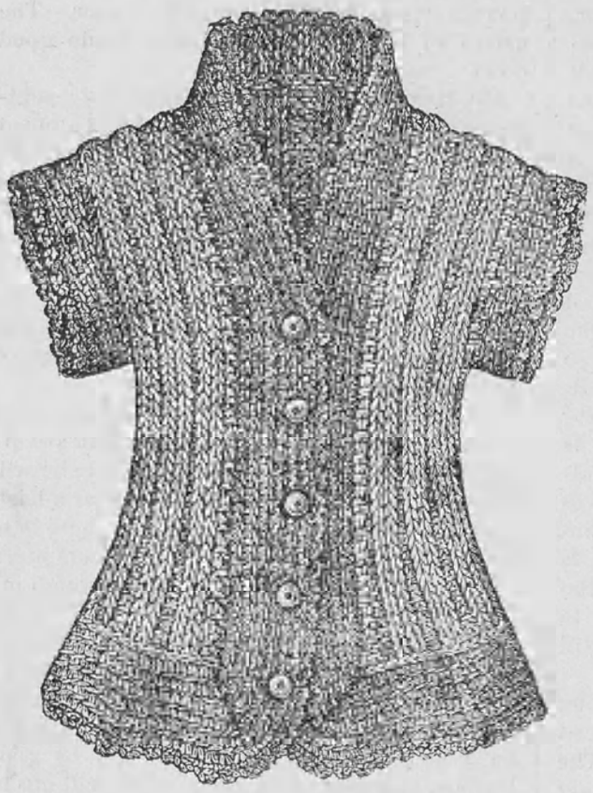
Dr. Sturtevant:—"This is no struggle between thoroughbreds and natives. I want to help you all I can, without having much faith in it."

Mr. Neilson, N. J.:—"The feeding-test is important, as it will be an educator. My cows which do best often have calves good for nothing. This, I think, substantiates Dr. Sturtevant's theory, that forcing injures a cow. I have been told that the next generation would make it all right."

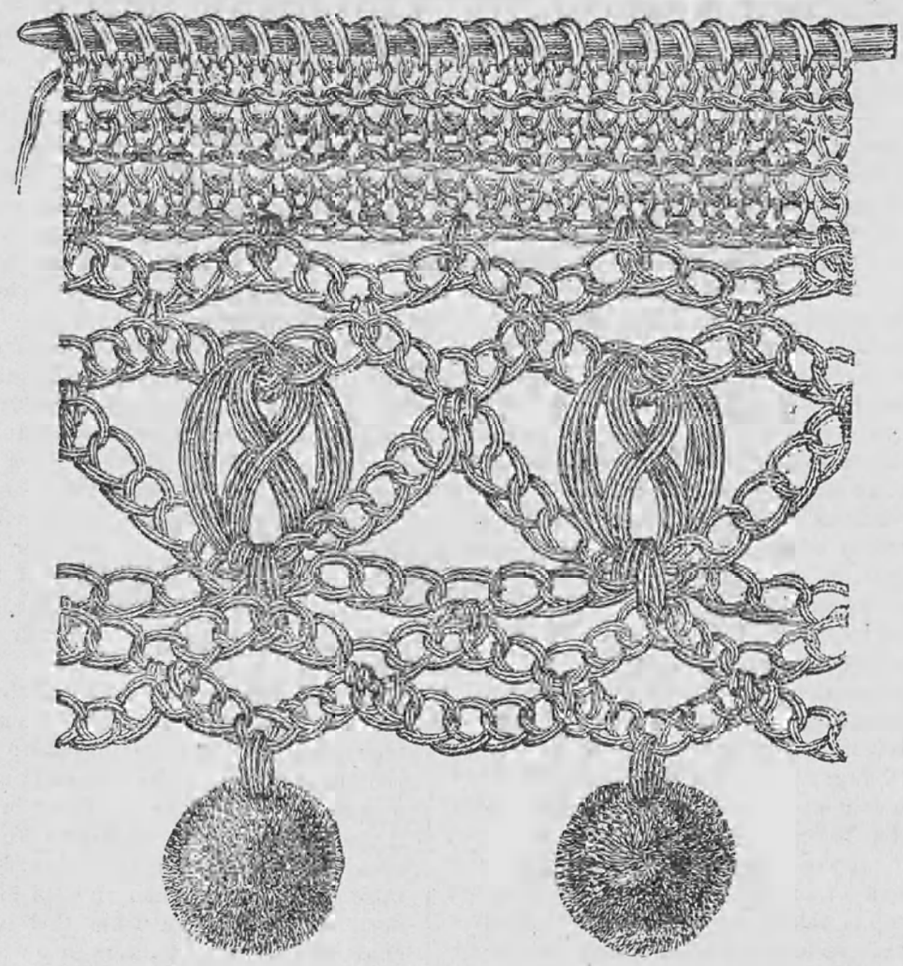
Mr. Barney, Ohio, did not think forcing injurious.

Dr. Heath:—"The principle of Dr. Sturtevant is endorsed by medical men. Over-work and over-stimulation do injure the vitality and strength of an animal."

Mr. Hardin moved that the meeting proceed to make an organization and that a committee of five be appointed to draft a constitution and by-laws—carried. The committee were L. S. Hardin, Ed. D. Barney, F. D. Curtis, E. Reeder, W. L. Rutherford. The meeting then adjourned until evening when the committee reported a constitution and by-laws which were adopted. The name of the new organization is The National Dairy Cattle Club. The following officers were elected: Pres. T. S. Gold, Conn.; 1st Vice Pres. H. C. Hoffman, N. Y.; 2d Vice-Pres. H. Stewart, N. J.; Sec. L. S. Hardin, N. Y.; Treas, R. H. Allen, N. Y.; Executive Committee, F. D. Curtis, N. Y., W. L. Rutherford, N. Y.; Jas. Neilson, N. J., Edw. E. Barney, Ohio, Ezra Michener, Pa. The above gentlemen represent all of the different breeds, including the natives. At a meeting of the Executive committee who were charged by the Constitution with preparing the necessary rules and regulations to govern the Association, it was agreed that: the fee for membership shall be $3, and for record $3, with 25 per cent discount to members. The fee for a subsequent record of the same cow and for the other cows in the same dairy, $1. There shall be three grades of test and record for milk or butter:—one of a week; one for three days during the first week of each month, and one continuous for the entire year. A standard of profit for a cow was set at 4000 pounds of milk for a year, and of butter 200 pounds. Further principles and details were subsequently agreed upon to place the club upon a working basis. The officers in charge are men of experience, and state that they realize the difficulties in the way of success and will work carefully.



No. 3.—Jacket for Ladies.



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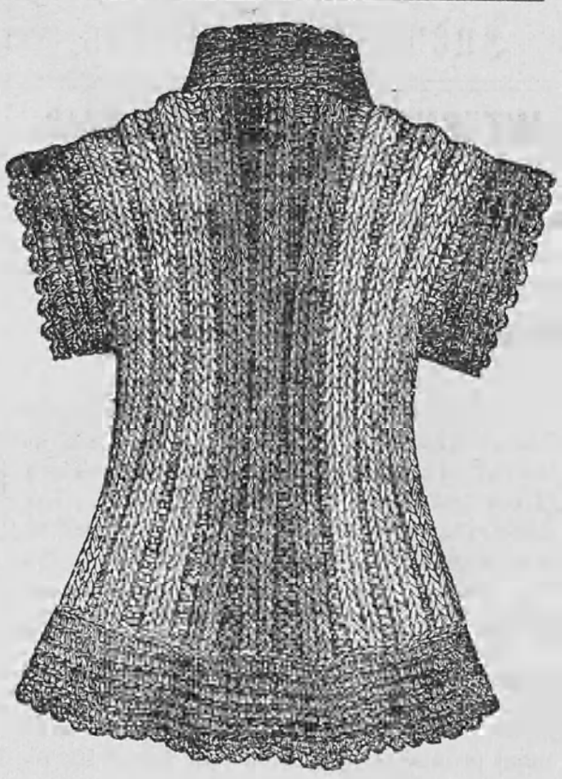
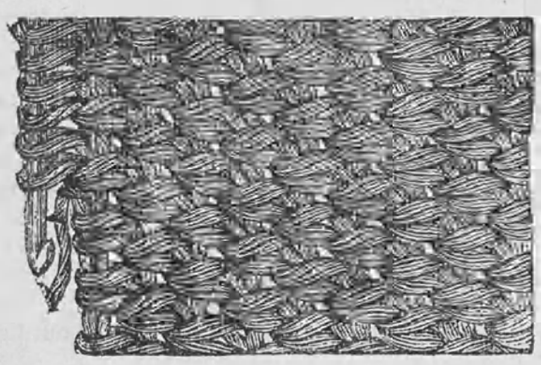


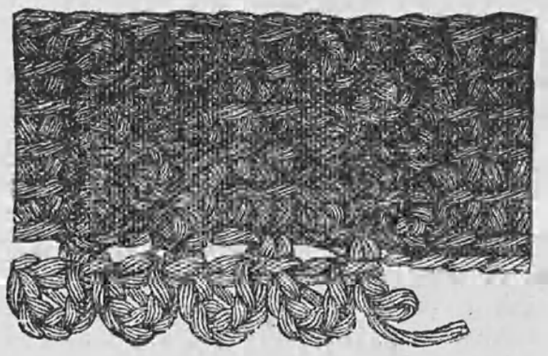
No. 4.—Jacket for Ladies, (back).



No. 6.

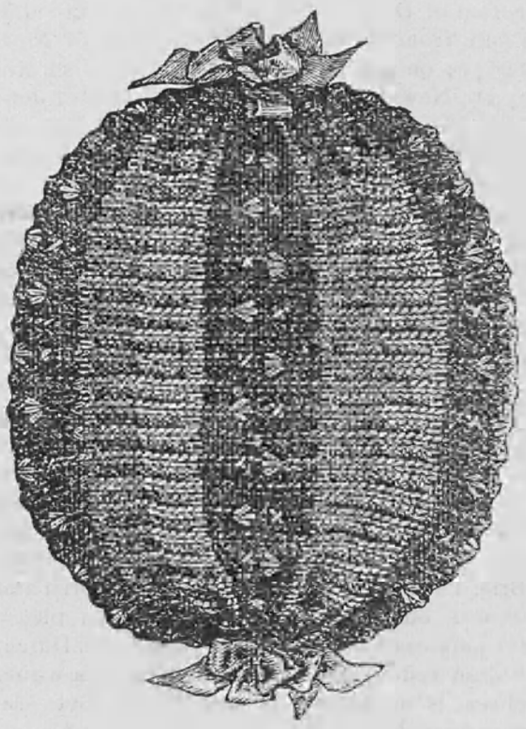
Nos. 6 & 7.—Scarf; Crochet.

No. 8.—Glove; Crochet and Knitting.



No. 14.

No. 14.—Child's Chest Protector.

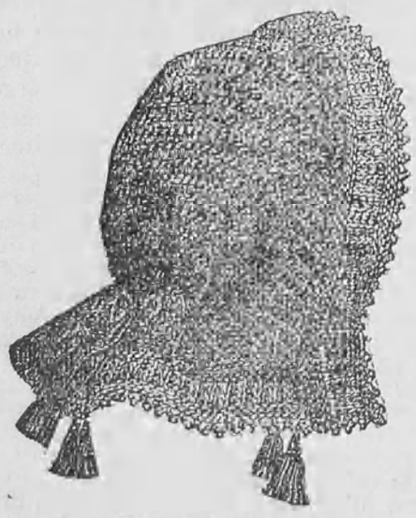


No. 9.—Knitted Ball.

No. 10.—Infant's Jacket.

No. 12.

Nos. 1 & 2.—Knitted Shawl with Crochet Border.



No. 11.—Infant's Hood.

Nos. 12 & 13.—Infant's Boot.

IMPORTED NOVELTIES IN KNITTED AND CROCHETTED GOODS.—Full Description in Rural, Jan. 6, 1880.

Literary Miscellany.

OVER THE WIRES.

I HEAR a faint, low singing,
Like the sound of distant choirs;
'Tis a message gleefully winging
Over the telegraph wires.
And what are the glad wires humming
As they stretch in the sunlight away?
"I am coming, coming, coming—
I am coming home to-day!"

And now I hear a sobbing,
Like some soul sitting alone,
With a heart that is wearily throbbing,
And lips that can only moan.
Oh! what are the sad wires sighing
As they reach through the darkness of night?
"He is dying, dying, dying—
Come on the wings of light!"

The titillation of laughter
Next falls upon my ear,
And a burst of mad mirth after,
Like the sound of a distant cheer.
And what is the gleeful story
That the round wires spread afar?
"*Our Nine* is crowned with glory—
Hip, hip, hip, hurrah!"

Oh! what are the wires relating,
Morning and noon, and night?"
"The market is fluctuating!"
"Report of the Senate fight!"
"Cashier S—— a defaulter!"
"Arrest a man named Brown!"
"Jones died to-night by the halter!"
"Wheat went suddenly down!"
"Dead!" "Born!" "Going!" "Coming!"
"Deluge!" and "Drought" and "Fires!"
Singing, and sobbing, and humming
Over the telegraph wires.

Baltimore Sun.

IN FOLLY'S NET.

(Continued from page 811.)

CHAPTER XXV.

TRIED FOR HER LIFE.

"Did you sleep last night, Jeanie?"

"Yes, soundly," she replied, smiling still.

"Are you feeling less strong, then, my dearest?" he said, tenderly.

"I have no strength, Archie—it has all left me."

"Jeanie," he said, with an irrepressible gesture of pain, "you are breaking my heart."

"And yet you should be glad," she whispered, gently, turning her face so that she could look full into his eyes. "Darling, we were very happy once—that happiness must suffice for me. I could never be so happy again, I think—it will be best so——"

"You wish to leave me, Jeanie?"

Her eyes rested still on his face, never losing their fixed loving gaze; with his arms around her, with her head resting on his heart, she was willing, more than willing, to lay down the burden of life, to go home.

"At one time I should have thought it hard to leave the world where you were," she answered tenderly, lifting up one little frail hand and pushing back his hair from his forehead. "Now it is changed; and lately I have brought you such sorrow that you ought to rejoice if I am taken. Oh! Archie," and she clung to him with a sudden terror, trembling in every limb, "if I could die before to-morrow—I am afraid—I am afraid!"

He carried her to a seat, and, kneeling beside her, tried to soothe and reassure her with tender words and caresses.

"Oh! think," she said, with a long shudder—'think how dreadful it will be—the crowd of people, the faces on which I shall read contempt and disgust! That good man who came to me to-day—the chaplain, I mean—told me not to think of it, that as my day so would be my strength; but I cannot help dwelling on it, Archie; it seems to me that one glance from all those eyes will strike me dead."

"But you will be cleared, darling child," he murmured, soothingly.

"Cleared! ah! no; even if they cannot prove my guilt, they cannot prove my innocence to those thousands who believe in my guilt," she moaned. "Archie, pray that I may die!"

A swift shudder ran through him.

"Jean," he said, softly, I love you!"

The tender words loosed the heavy rain of tears, and as she bent her head upon his breast and clung to him weeping, the deadly fear of the morrow passed from her, and she was strong to endure once more.

For some time they were silent. When the paroxysm of tears passed away, she leant against him faint and passive, but calm, with a smile upon her lips.

"You will never doubt me, Archie?" she said, at length, when he rose to go. "I can bear all the rest."

THE court-house of Glossin was crowded; the interest in all other trials was tame and cold beside the interest taken in this. The judge had been sitting for two days on an important trial of forgery and fraud, but the court had been comparatively empty; but on the morning when Jean Blair was tried for her life, for the murder of her husband, it was crammed to excess.

Not merely was it crowded by the lower and middle classes, but the aristocracy of the land was represented there; and when Jean entered, with her languid step and heavy mourning garments, she saw many a familiar face among those around the judge upon the bench—faces which she had seen in brilliant assemblies amid the soft light, with the flash of jewels around them, the rustle of silken robes, the soft sound of music stirring the air. As she sat down, there came before Jean's eyes, as in a mirage, the Ball room at Blair Gates, with its brilliant throng, its silvery laughter, the soft, perfumed air, the dreamy dance-music.

She saw, when the first moment of pained sightlessness was over, Lord Sholto's frank, handsome face, grave and sorrowful now; the Duke of Glossin's familiar features; the Earl of Ivor's pale, worn face, with the gray eyes so anxiously tender as they sought hers; and beside Archie, with his hand clasped in his, sat Captain Murray, his pleasant face white and pained, and his lip tremulous under his drooping moustache.

Jean was very pale but very calm. Her face, even her lips, were bloodless, and the circles under the sweet, brown eyes were deeply marked; while the heavy, sombre folds of her mourning-dress made her look still paler and thinner. Collins was with her; by special permission she had been allowed to attend her mistress, and as she took her seat beside her, with an almost involuntary movement Jean slipped her hands into the maid's in mute appeal for help and assistance. One glance only she had given Lord Ivor, trying to smile at him with her parched, white lips; then she sat white and still, with her long lashes resting on her cheek, and a sorrowful droop on her sweet lips.

There was hardly an unmoved countenance in the sea thronging the court-house; many of those present knew her face well—had known it in its bright beauty and wilful *espiegleries*; and later, in its proud, sad loveliness, and they could not but feel for her now in her desolation and woe. From her face they glanced at the Earl's; they knew, most of them, of the engagement between them; one or two had heard a vague report of the circumstances of her marriage with Mr. Blair (they thought, perhaps, that if she were guilty, there was some excuse for the crime), and one and all wondered what his thoughts were. The handsome face was very pale, colorless as the girl's own, the gray eyes were sorrowful and anxious, but whenever they went to the accused face, they filled with unutterable tenderness; his love and faith were unchanged.

No. 16.

The barristers and lawyers were in their places, and some little sensation was caused in court by the appearance of Sir David Cairnes, for though people had guessed that Jean would be well defended, they had not thought that the great lawyer would be her advocate. He looked calm and composed as usual as he took his place, giving Jean a courtly bow and a reassuring glance. She did not see it for her lids drooped still; she only realized the fact that she was to be tried for her life—that it was in the power of the twelve grave men in the jury-box yonder to give her life or take it from her. What would their decision be?

The indictment was read. Jean heard it but dimly, although it was read in a clear, distinct voice. There came no change in her face when she listened; but when the question was asked her whether she was "Guilty or not guilty," she lifted the sweet, sad eyes, and answered in her low, rich voice, faint, but unfaltering:

"Not guilty."

Then the lawyer for the prosecution began. He was a distinguished member of the Scotch bar, and a clever man; his speech was eloquent and exhaustive. He commenced by giving the court an account of the circumstances of Jean's marriage.

"It is greatly to be deplored," he went on, "that the late gentleman insisted on the legality of the irregular marriage which took place at the little Moorlands inn. That she, who thereby became his wife, and who is present among us, accused of a terrible crime, bitterly regretted having placed herself in his power by a few light words, is no secret. She rebelled greatly against the marriage; but Mr. Blair infatuated with her beauty and grace, had held to it, hoping, doubtless, to win her love in time. He won no love, gentlemen; he won her hatred. Perhaps he laid too much stress on his power to please—for that the murdered man was a gentleman of great personal advantages and fascinating manners, all those who knew him can testify, and perhaps he thought too lightly of the fact that Miss McLeod's affections were irrevocably bestowed upon another. There was no conjugal felicity in the splendid home to which he brought his bride; there was domestic discord of the gravest character. The heads of the house were divided against themselves. Of this, gentlemen of the jury, you will have ample proof later on.

This is the more to be regretted, because, notwithstanding his wife's indifference to himself, Mr. Blair invariably treated her with kindness and courtesy, and even, if she would have permitted it, with the affection he assuredly felt for her."

Then Mr. Donaldson proceeded to enlarge upon the domestic differences at Blair Gates and upon the sudden death of its master, and the circumstances thereof; and the beautiful face of the woman in the dock grew lividly pale as she hid it in her hands. It was terrible torture to hear the domestic misery which she had kept so carefully concealed, as she hoped, from the world, thus dragged before the public; and the pitying eyes that watched her saw the long shudder of agony which ran through the slight frame as she listened.

Towards the end of his speech Mr. Donaldson's eloquence rather failed. He had done his duty in putting the case for the prosecution clearly before the court, but when it came to uttering words condemnatory of that slight, pale girl before him, his heart failed; and all in court noticed that the conclusion of his speech lacked the brilliance with which it commenced, that his voice grew husky and unsteady, that he resumed his place with an air of relief.

The first witnesses called were some of the household, whose testimony was slight and unimportant. They told merely of the want of harmony which existed at Blair Gates, said that the husband and wife were but little together—that Mrs. Blair was often moping and miserable, her husband moody and irritable—and that they saw each other as little as possible, save when they were in company.

No. 14.—Knitted Galter.

The next witness was Mr. Powle, but his deposition said merely that he had been called in by Dr. Mackenzie; that, in company with that gentleman, he had made the *post mortem* examination, and found arsenic in the body of the deceased but he had only seen Mrs. Blair for a few moments during her husband's illness.

"Will you tell us what passed during those few minutes?" said the counsel.

"To the best of my recollection, Mrs. Blair came into the room unsummoned, and her husband held out his hand to her, asking why she had not come to him before."

"What was her reply?"

"She said she did not know he wanted her; and he said he had sent for her."

"Well?"

"The housekeeper, who was standing by, said she had not told her mistress, as the doctors had wished him to be kept quiet."

"Was anything else said?"

"Yes; Mr. Blair refused persistently to drink a mixture Dr. Mackenzie thought necessary, and the housekeeper thought if Mrs. Blair offered it he might be willing."

"Did she do so?"

"Yes, she took the glass, and begged him to drink it. He said it was some wretched poison or other."—To be continued.

For Women.

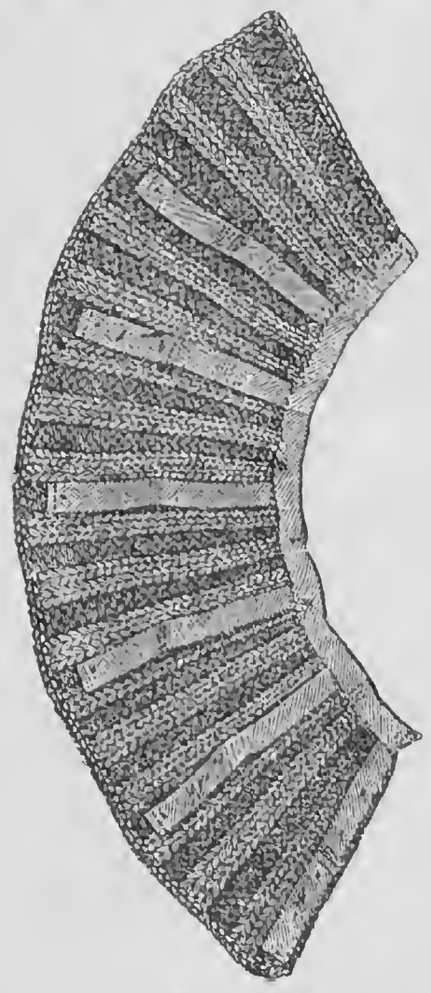
CONDUCTED BY MISS FAITH RIPLEY.

CORRESPONDENTS' CORNER.

Bitter-Sweet on "In Folly's Net."

MY DEAR MISS RIPLEY:—I was once standing before an unfinished painting, and casually ventured a remark on the coloring. My artist-friend turned quickly and said half angrily, "that shows how much you know about art—no true artist ever criticises a picture till it is finished." I have always remembered the rebuke and refrained from criticising any work that was incomplete.

As I was brought up in strict sense a Puritan—and I trust retain many of the good old principles—I would ask to be allowed space for a few thoughts, suggested by reading "A Puritanic view of 'In Folly's Net.'"



Nos. 15 & 16.—Deep Knitted Band for Petticoats.

I do not think our editor would admit a story to his columns that he did not know "the end from the beginning," nor would he accept one that the moral influence was not on the side of right. Flirting is made by many of the writers of the present day a pleasant pastime, that provokes a quarrel; and after a few tears and explanations the cloud passes and the sun shines brighter than ever; when in point of fact flirting is a dire evil, wrecking the happiness of many lives; and casting a shadow as dark and deep on American life as ever fell on those of "Lords and Ladies." I doubt not there are many women in real life to-day, as miserable as Jean is represented to be. Our young people must be taught what to shun as well as what to emulate. If Jean's trials could turn the tide of many gay thoughtless girls both the writer of the story as well as the editor will achieve a success. One point especially worthy of note, and we should do well to impress it upon the minds of our daughters—is that true love—shields the object of devotion from doing as well as seek their happiness.

In American society there are many men equally as bad as Mr. Blair, who may learn a lesson from his untimely end.

We must teach our young people to separate the wheat from the chaff. We should be especially thankful that the laws of our land are far superior to those of "Bonnie Scotland." BITTER-SWEET.

CAN you or any of your subscribers tell me of anything that will prevent the hair from falling out, strengthen the roots and make it grow?

Trappe, Md. SUBSCRIBER.

ANS.—Vigorous brushing free use of cold water, and the application of Vaseline night and morning are best methods known to us. Possibly, some reader may know of another remedy. We strongly advise you against all patent hair restoratives.

DEAR MISS RIPLEY:—I wish to purchase a good, cheap dictionary, what one would you recommend?

ANS.—Webster's Pocket Edition Dictionary, price $1.00. Several dictionaries are advertised at lower rates, but almost without exception, they are worthless. The one we recommend you to purchase, is *the* standard, and of course thoroughly reliable, an indispensable attribute in books of this class.

KNITTED AND CROCHETTED GOODS.—On page 826 we publish illustrations of knitted goods to which we invite the attention of our lady patrons. We have been at great pains to select and arrange these engravings and in order that they may be of the greatest benefit it has been decided to give fullest possible descriptions. This will necessitate our devoting several columns to merely descriptive matter and as we will not have the space to spare for a week or two, the RURAL of Jan. 6, 1880 has been selected as the earliest issue in which the knitted goods can be described.

FEMININITIES IN BRIEF.

Trimming extending down the sack-shaped cloak or mantle is greatly admired. A succession of broad tabs of velvet bordered with satin cording, placed with the point of each overlapping the upper part of the one below, and with a jet ornament sparkling on every tab, is a stylish method.

THE rage for Oriental effects in designs and combinations of colors, extends to all classes of goods, whether intended for personal adornment or for house-furnishing, and to meet the ever-increasing partiality for floor-coverings of this style Messrs. J. & J. Dobson show some exquisite rugs and carpets in Persian and other Oriental patterns, which are, by the way, marvels of cheapness.

JACKETS made out of Indian shawls are worn on chilly days by wealthy Parisians. They are *demi-ajustees*, have wide sleeves, and are trimmed with rich fringe, in which the several colors of the cashmere are repeated. The handsomest are made out of gold-embroidered shawls; it is, however, very easy to outline the designs on a cashmere shawl with gold thread; and many ladies have succeeded admirably in bringing the pattern into relief and adding to its richness by this means.

The new styles of table linen have designs in white of a marine view, a landscape, a gothic cathedral, pagodas covered with creeping plants, columns and vases, chariots and the chase; also, lotus flowers on a panel that represents the glistening water of the lake, and the material is pink, gray or buff damask, with colored borders or trimmed with colored fringes, and even laces are used. Silk damask and embroidered linen are employed, and even black satin.

Enamelled buttons, in the shape of a slender bar about a quarter of an inch wide, finished with designs in gold and black, sapphire, dark blue, brown, gray or garnet, are fashionable on black goods and other fabrics of medium value. Steel is shaped in similar style, and pearl buttons, either round or long, are sometimes enamelled with gold. The bar-form, about half an inch wide, is equally popular. Dark buttons, inlaid with pearl flowers and various other designs, are selected for dark-colored silk, or fine wool goods.

TO FIX SEAWEEDS IN BOOKS.—If not too fine, the weeds must be soaked in salt and water, then dried in a towel, laid on a table or suitable board, and pasted over on one side with a camel's-hair brush or pencil dipped in a solution of gumdragon; the gummed side must be applied to the paper; when this is satisfactorily achieved, for which patience is exceedingly requisite, stretch a piece of clear muslin over the specimen, and then put eight or ten pieces of blotting-paper, cut to size, upon it, afterwards placing a heavy weight on the top. Leave it for twenty-four hours, then remove the top, gently take the blotting-paper and muslin, and replace them by fresh pieces, taking great care not to disturb the specimens in the least degree. In three or four days, if the weather be dry, the specimens will be dry also. They will retain their color for years, if prepared as above, directly after they come from their briny home.

Domestic Economy.

CONDUCTED BY EMILY MAPLE.

"HOW TO MAKE GOOD COFFEE."

MARY WAGER-FISHER.

I AM often amused at the various recipes I see for making coffee. At our table we *never* have poor coffee, because the making of it is so simple that no skill is required in its preparation. In the first place, I buy the coffee green—unburnt Java and Rio, which I mix before burning—a third of the latter to two-thirds of the former. Mocha I use pure. Once a week I have coffee burnt, so that is always comparatively fresh.

My coffee-pot is a filterer—commonly called the "French Coffee-pot." It is a very nice-looking machine, will hold coffee for a dozen persons, and it cost $1.10. When breakfast is ready to be served, the coffee is ground, put in the filterer, and *boiling* water slowly poured in from the tea-kettle. Then the cover is put on the pot—the cover being already on the spout—and the coffee is made, with scarcely a breath of the aroma lost. When the coffee is poured out it is as clear as amber and as delicious as—coffee! Then we drink it without milk, because milk destroys the flavor, and renders the coffee indigestible. If your cook, or coffee-maker, pours into the filter water which is *not* boiling, you will know it at once—the coffee will have a dead taste. A very little practice will enable one to tell when she has poured enough water into the filter, by the weight of the coffee-pot, for she can't well look inside to *see* the amount. Of course, the nicest and daintiest way to make both coffee and tea, is at the table. But, for this one requires a nicely polished tea-kettle with a burner under it, and this pretty arrangement costs from 10 to 15 dollars; but it is a machine that will last for generations, with good care.

But to go back to my coffee making. After breakfast the coffee liquid and coffee grounds are poured into a coffee-pot of the ordinary kind. This, when boiled, makes quite as good a drink as the ordinary mode of making coffee, and serves for such members of the family as prefer their coffee *boiled*. But even if no further use is made of the "grounds" I think the French method is *more* economical than the American or English way of preparing coffee. The grains should be ground fine, as the hot water more readily extracts the flavor. Anybody who has the French Coffee-pot for sale will tell you how to use it if you need to be told. It is hardly necessary to add that the coffee-pot after use should be rinsed in hot water and well dried. With proper care, it will last for several years. In conclusion, I may say that I am convinced beyond all doubt that there is no way so good to make coffee as the one I have described, and none so simple and expeditious.

Bryn Mawr, Pa.

A MEETING OF THE KITCHEN CLUB.

MRS. ANNIE L. JACK.

THE Kitchen Club held its first meeting for the season at our house, and it was one of great interest to us all. As many of the ladies live at some distance, we always have an early tea, and there is a by-law that provides only one kind of cake shall be allowed on the table, the recipe for which is to be handed to the Secretary, and is open to be copied by any of the ladies present. It being near the time for Christmas baking, mine had been a fruit-cake that would *keep*, and which I transcribe for the benefit of readers: 1 lb. powdered sugar, 1 lb. butter, 1 lb. flour, 10 large or 12 small eggs, which are about equal to a pound; 1 lb. currants, washed, *dried* and dredged; 1 lb. raisins, seeded with a raisin-stoner; half a pound of candied peel, a little nutmeg, cloves and cinnamon. I cream the butter and sugar and add the yelks of eggs; beat well and then add half the flour; then the whites, after being whipped to a froth, and the rest of the flour. A wineglassful of brandy helps to keep the cake moist and fresh; but, if objected to on temperance principles, I have found icing as soon as cool quite satisfactory. And a cake thus treated remains good after three months' keeping, if *kept locked up*.

One lady of the club did not see the point in regard to "locking;" but I remembered, when explaining wherein the necessity of it lay, that there were no children in her household.

The subject under discussion was boiling, and a lady present read a valuable article from Scribner's on the subject. My own opinion was given chiefly in regard to vegetables. On this point I mentioned, from practical experience, the fact that all vegetables were more easily boiled and retained color and flavor better when put into *soft boiling* water, than when boiled in hard water, regardless of the time when put in. Miss Corson gives the following table for vegetables, when neither too old nor too new:—"Spinach, 10 to 15 minutes; peas, cauliflower and asparagus, 15 to 20 minutes; potatoes, cabbage, corn and string beans, 20 to 30 minutes; turnips, onions and squash, 20 to 40 minutes; beets, carrots and parsnips, one hour." My own experience would place turnips among the last-named on the list. One hint given by the same lady I have found useful in regard to turnips: "A lump of sugar boiled with them neutralizes their bitterness." Potatoes of all kinds, but especially sweet, are often spoiled by injudicious selection, and the small ones found quite watery while awaiting the cooking of the larger ones.

In regard to meat, it was conceded that boiling was the most economical method of cooking; for, if properly done, it preserves all the nourishing juices. The meat should always be put into *boiling* water and boiled five minutes. This, according to Liebig, coagulates the albumen, so as to crust the surface and keep in the juices; after this, cold water is added, the temperature reduced to 165° Fahr., and this gentle heat kept up through the process of cooking, which is till the meat is tender.

With many added bits of wisdom, our meeting closed, one little lady, a novice as yet, remarking regarding the last-mentioned item, "Who would think of looking for a thermometer in the dinner-pot!"

DOMESTIC RECIPES.

House Plants, Chicken Pot-Pie.

Plants should now be washed thoroughly every week with strong soap-suds (any kind of soap will do). The large plants as Abutilons, Oleanders, etc., I take into the kitchen, set them in an empty tub on the floor, stand on a stool and pour suds over them. After such treatment there will be no more "brown scales" found on them, such as Mrs. B—— in the RURAL for Nov. 8, complained of. Liquid manure should be applied freely. In December I dissolve a handful of glue in a pail of warm water and pour around the roots a few times. I think it starts the blossoms sooner.

I have had chicken pot-pie three days in succession for dinner, and it has been, good, better, best. After the chicken is cooked sufficiently, I take it out into the dish that I send it to the table in; then season the soup, or the liquor the chicken was boiled in, highly, with butter, pepper and salt, taking care there shall be enough soup to cover the pastry while boiling. To make the pastry:—one pint of rich buttermilk, a teaspoonful of soda, a piece of butter the size of a hen's egg; mix with flour very hard, cut in slices half an inch thick and about three inches square, drop in while *boiling*, and keep boiling till done—covered tight; after a few minutes, I set it on top of stove to keep from burning. When done, pour over the chicken in the dish. MRS. C. F. REYNOLDS.

Sausage Meat.

Two ounces of pepper, one-half pound of salt and two teacupsful of pulverized sage to twenty pounds of meat. MISS CRONK.

Christmas Plum Pudding.

One quart of fine bread crumbs, eight eggs beaten separately, pint of sugar, quart of seeded raisins, pint of currants, quart of chopped apples, pint of chopped suet, grated nutmeg, teaspoonful each of salt and cinnamon, and a teacupful of milk. Into a large bowl, put the beaten yelks, sugar, spice and milk, stir in the floured fruit and apple, with bread crumbs and suet, adding whites and enough flour—a quart will be sufficient for fruit and all—to make the ingredients stick together. Dip a pudding cloth into hot water, dredge on inside a thick coating of flour, put in the pudding, tie tightly, allowing room to swell and steam three hours and a half.

Send to table with a sprig of evergreen stuck in the top. Eat with hard and liquid sauce.

MARY B.

QUESTIONS ANSWERED.

Orange Jelly.

Please give directions for the above.

MRS. E. L. B.

ANS.—Soak one box of Cox's gelatine in a pint of cold water for an hour, then add a pint of boiling water, a pint of orange juice and a pound of white sugar; bring to the boiling point, strain through a jelly-bag and pour into molds.

Corn Starch Cake.

Please give directions for the above.

MISS. E.

ANS.—One cup of granulated sugar, half a cup of butter, whites of four eggs beaten to a stiff froth, half a cup of sweet milk, one cup of sifted flour, half a cup of corn starch (Gilbert's), two even teaspoonsful of baking powder. Flavor with almond. Cream the butter and sugar, add the milk, then the corn starch, beat well, whip in the whites, then the flour with the yeast powder. Bake in a very moderate oven. The success of the cake depends upon the baking.

News of the Week.

AGRICULTURAL NEWS.

The total number of bushels of grain received at this port during the past four years through the canals, from the opening to the closing of navigation and until the present time this year, is as follows:

1876	27,563,032
1877	48,438,209
1878	68,438,801
1879 (so far)	53,889,040

There are about 20,000 bushels afloat for this port, which may or may not get through before the ice closes the canals. . . Napa Valley, Cal., produced 1,700,000 gallons of wine this fall. . . Stealing a $10 horse lately cost a Colorado man his life though he had been tried and acquitted five different times for murder. . . So depressed is the value of land in Ireland, that of seven estates offered for sale on Nov. 7, four only were sold at low figures, while for two there was no bid. . . T. L. Miller, of Beecher, Ill., writes us that the Hereford Herd Book, for cattle of that fine breed in this country, will be in the printer's hands by January 1st, 1880. . . The Conn. State Board of Agriculture will hold its winter's Farmers' Convention at Willimantic, Dec. 17, 18, 19. Among the chief speakers will be Richard Goodman, T. S. Gold, Hon. E. H. Hyde, Dr. E. L. Sturtevant, Profs. Cressy and Brewer. . . The College of Agriculture of the Illinois Industrial University will hold its annual course of lectures and discussions on agricultural topics during the last week of Jan., commencing Jan. 27. All farmers with their wives are cordially invited to attend *gratis*. Reduced rates on railroads, and cheap board and lodging are held out as additional attractions. . . On Tuesday last Mr. Gillette, of Iowa, introduced a resolution into the House sympathizing with the people of Ireland in their present alarming condition from threatened famine and in their efforts to obtain relief from the oppressive landlord system, and hoping that arrangements may be speedily made by which the Irish peasants may become the owners of the soil they cultivate. . . . Florida is planting fig trees. . . . Many English tenant farmers, with a capital of from $1,000 to $5,000, are writing to this country as to the desirability of settling in Oregon. . . . The Denver News says that the portion of the Union west of a line drawn north and south through Denver is good for mining and grazing, but not for agriculture—surely California and Oregon are not included. . . . Some time ago Lord Beaconsfield called Manitoba the Farmer's Paradise; now a special correspondent sent out by the London Times to investigate the place, says there is an enormous amount of good land there, but that prudent emigrants find fault with the lack of cheap and convenient transportation. . . The weather prophets are coming out strong once more. Many of our farmers along the Hudson River who foretell the weather by watching the action of animals during the fall, predict a mild winter. Vernon, the Canadian prophet, and Blake, the Illinois weather-wise man inclines to the same opinion. . . There are in Ireland 526,628 tenants at will—that is, who can be ruthlessly evicted at once whenever their landlords may wish to turn them out. Taking the average of each household at five, this would give 2,106,512 persons who are dependent on sufferance for a home. . . Nearly all the rivers and brooks in Transylvania have overflowed their banks, laying under water vast tracts of country and destroying bridges and houses, interrupting communication and sweeping away farming utensils, cattle and grain. In some cases the inhabitants were for days on trees and roofs of houses awaiting rescue. The overflowing of the rivers Coros and Maros has caused fearful destruction. The city of Arad, on the Maros, and several other towns have been ruined and their inhabitants driven away. Fully ten thousands persons have been rendered homeless. The News' Pesth despatch says six villages have been ruined by the flood near Arad. Many entire families who had found refuge in neighboring woods were frozen to death. Several hundred persons are missing. . . As a preparation for Christmas 20,000 turkeys are expected in Liverpool from this country. Ireland has hitherto been the chief source of extraneous supply. . . At the annual meeting of the Russian Society of Political Economy a report was read, which, in its conclusions, might very well be taken for an essay on the state of Ireland, if only the names were altered. The member who prepared it said that it would be well to think of replacing the nobility by another class as owners of the soil; that the peasants should be placed in a position to purchase the land at a price which would render it possible for them to cultivate it with profit. Another speaker insisted on the necessity of the government being compelled to aid the movement by legal agitation, and although the discussion was adjourned the feeling was in favor of the proposal. There is a smack of the universal feeling of the benefits of a peasant proprietary about the debates at the Russian meeting. . . Some months ago, as noted here at the time, the Produce Exchange of this city, passed a resolution to the effect that all produce should be sold in this market by the cental system of 100 pounds, instead of by the present denomination of bushels, etc., the change to take place on Jan. 1, 1880. The proposed change has had many bitter opponents, however, and finally, on last Saturday, a vote was taken on the question whether the former resolution should be rescinded or not. The total number of votes cast was 1,273, of which 668 were against rescinding and 605 in favor of it, so that, according to this decision, the cental system comes into use here after New Year's Day. Nearly all the grain operators voted in favor of rescinding, and threaten to secede and form a new Grain and Flour Exchange. . . The Canadian prohibition against the importation of cattle from the United States is, says an English paper, having a damaging effect on the Dominion export trade. As an instance, a dealer at Belleville, Ont., who recently received an English order for 2,000 prime head of cattle for the Christmas market was compelled to execute it from Boston, Mass., owing to his inability to find suitable stock in Canada. . . Our old prophecy has come true. The Missouri State Grange Association has issued an address contradicting the report that they are opposed to immigration of farmers, mechanics and others to that fine State. They extend a cordial welcome to all honest and worthy new-comers . . The Erie Canal was closed at Albany at 12 o'clock on the night of the 6th inst., for the winter. No more boats were allowed to go Westward after that hour. . . The N. O. Cotton Exchange says that all reports indicate an increase in the total crop as compared with last year's, of 12 per cent. in La., 15 per cent. in Miss., 23 per cent. in Arkansas. . . The Nat. Association for preventing oleomargarine frauds has $3,000 on hand, and intends to make things lively here for tricky grease-butter sellers. . . In the Sagua district in Cuba there will be a falling off of 20 per cent. in sugar, owing to poor cane. Trinidad expects an unusually large sugar crop. . . The cattle plague has broken out in England's new possessions—the island of Cyprus.

Pilgrimages to Buffalo, N. Y.,

are made by thousands of invalids annually to consult with the medical and surgical staff of the World's Dispensary and Invalid's Hotel, the largest private sanitarium in the world. All chronic diseases are treated by scientific methods. The practice is divided among nine eminent specialists. Among the most popular domestic medicines in the land are those manufactured by this Association, among which are Dr. Pierce's Golden Medical Discovery, the greatest of alteratives or blood-cleansers, and Dr. Pierce's Pellets (little pills) that have largely superseded the old-fashioned coarse pills. Compound Extract of Smart-Weed is deservedly popular as a remedy for diarrhœa, dysentery, flux, and kindred diseases; also as a pain-killer and remedy for colds. Dr. Sage's Catarrh Remedy is the "Old Reliable." Invalids' Guide-Book—10 cents, post-paid. Address World's Dyspensary Medical Association, Buffalo, N. Y., or London, England.

EGGLESTON TRUSS CO.—*Gents:*—I purchased one of your Trusses in October, and it has proved in every way as recommended. I had two ruptures, one healed very soon, the other was longer in becoming perfectly sound, but is now all right. There is surely one Truss firm who are square men, and do all they promise, even though that promise is a permanent cure. Yours,

Malden Bridge, N. Y. W. S. MOORE.

A Paper for Young People.

The *Youth's Companion*, of Boston, employs the same writers as the best English and American magazines, and no other publication for the family furnishes so much entertainment and instruction of a superior order for so low a price. Its illustrations are by our best artists, and it has recently been greatly enlarged.

Oh, how refreshing, palatable and reviving is a draught of cool water with Hop Bitters in it, to a fevered patient.

FOR RELIEVING THROAT TROUBLES, "*Brown's Bronchial Troches*" have a world-wide reputation, and as they contain nothing that will injure the system, they can be used without fear of bad results.

The habit of running over boots or shoes corrected with Lyon's Patent Heel Stiffeners.

The Markets.

THE GIST OF THE MARKETS.

An examination of this week's reports of the condition of the produce markets in the chief collecting centers will show that the general drift of prices for grain is still upwards; and indeed, with brief fluctuations, this will probably continue to be the case during at least most of the winter; not, perhaps, in all sorts of produce, but as a general rule. This is strongly indicated by the speculative prices for future delivery, and is the general experience of past years. A glance at the summary of the nature of the week's operations at each of our chief markets, prefixed, for convenience's sake, to our regular reports, will show that the advance has by no means been uniform, even in the different grades of the same product in the same place. For instance, look at the difference in the advances in different grades of wheat at Philadelphia, Chicago and Baltimore; while the rise in oats varies all the way from just a shade in Philadelphia and New Orleans to 4½c. in Toledo, and 7c. on No. 2 in Detroit. Because there's an upward movement on some kinds of goods in a market, therefore, or even in some grades of the same product, it would be unsafe to believe, as we have known some farmers to do, that the rise is general. Of course, the same rule holds true with regard to a fall also. The decline in the price of hogs at the chief packing points is probably only temporary, and is, most likely, due to the unfavorable weather for packing, and to an extra supply sent forward on account of the recent sharp rise in prices.

Mail advices from England, under date of Dec. 1, tell of a very reluctant upward movement of prices for American grain. Owing to the unusually severe weather all over northern and middle Europe, shipments from the frozen Baltic had almost ceased. At that date the wheat afloat on the way to Great Britain amounted to 16,160,000 bushels, coming from California, our Atlantic ports, Chili, India, Russia and Australia proportionately in the order of their names here, the first sending 9,200,000 bushels, and the last 400,000. This, with the large

stock accumulated on hand, it was hoped would suffice for winter—but, probably, only on condition that the famine now pressing sorely in some parts of Ireland, should extend its ravages to England also.

A cablegram of the 9th inst., from London, quotes the Mark Lane Express as saying that English farmers have not suffered much owing to the early frosts, but in Scotland plowing is in arrear; 668,272 bushels of foreign wheat had arrived in London during the previous week, and 1,680,000 bushels in Liverpool during the previous fortnight. Though in excess of present requirements, these supplies did not depress the market, owing to stiff prices here, the closing of shipments from the Baltic, and the expected stoppage, or great curtailment, of those from the Black Sea. This country is said to hold the key, and other nations must pay what America demands. Maize went up 1½c. a bushel in consequence of a scant supply. Oats were hard to sell at from ½c. to 1½c. a bushel reduction on account of a heavy supply from Russia. The sales of English wheat were 307,424 bushels, at 46s., 7d., against 462,848 bushels, at 40s., 11d., during the corresponding week last year. Wheat, No. 3 spring, steady at 10s., 6d. per 100 lbs.; No. 2 spring steady at 11s.; new winter Western steady at 11s., 7d.—an advance of 4c. per 100 lbs. in each grade since our last week's report. American cheese, choice, 66s. per cwt.

SPECIALS FROM ALL CENTERS.

Until Saturday, Dec. 13.

Baltimore.—During the week Southern red wheat advanced 10c. per bushel, do. amber, from 3c. to 5c.; Western winter red from 6@6½; corn went up from 3c. to 5c. on Southern white and yellow, and from 5c. to 6c. on Western; oats fell 1c. on Southern white and remained pretty steady on other grades. Rye advanced from 4c. to 7c. Hay, butter and eggs stationary. WHEAT—Southern red $1.53@1.55, do. amber $1.55@1.63, No. 2 Western winter red, spot and Dec., $1 56@1.56½; Jan. $1.58@1.58½; Feb. $1.60½@1.60¾. CORN—steady for spot and easier for futures; Southern white, 62@63c.; do. yellow 63@65c.; Western mixed, spot 67¼@67½c. OATS—Southern 45@47c.; Western white 47@48c.; mixed 45@46½c.; Penn. and Md. 47@48c. RYE—90@95c. HAY—Prime to to choice Penn. and Md. $17@18. BUTTER—Prime to choice Western packed 23@28c.; roll 20@25c. EGGS—Fresh 22c.; limed 16@18c. COTTON—Middling 13¼c.; low middling 12¾c.; good ordinary 12¾c. Weekly net receipts, 1,634 bales; gross, 6,093; total exports 5,158; sales 2,956; spinners 315.

Boston.—During the week corn remained steady; oats advanced from 2c. to 3c. with a further advance demanded at the close; rye, a shade higher; shorts went up from 50c. to $1; fine feed, 50c.; middlings, steady. CORN—New mixed and yellow, 63@65c.; old, 65@68c. OATS—53@55c. for No. 1 and extra white; 52@53c. for No. 2 white; 49½50c. for No. 2 mixed and No. 3 white. RYE—95c.@$1. FEED—Shorts, $17,50; fine feed, $17.50@18; middlings, $19@20. COTTON—Middling, 13¾; low middling, 12¾c., good ordinary, 12¾c. Weekly net receipts, 11,880; gross 23,525; exports, all to Great Britain, 5,308. BRIGHTON CATTLE MARKET—Beef Cattle per 100 lbs. live weight; extra quality, $5.50@5.75; first quality, $5@$5.37½; second quality $4.50@$4.87½; third quality $4.12½@4.37½; poorest grades of coarse oxen, bulls, etc., $3@4.50. Though the prices have not fallen off during the week, the class of cattle brought to market has been poorer; but few sales were made at the quotations. Little or no demand for cattle for export at this time. MILCH COWS—Extra, $45@65; ordinary, $20@43; farrow cows, $11@27; springers, $18@50. SHEEP AND LAMBS—Those from the west cost 4½@5¾ live weight, landed at Brighton.

Chicago.—During the week No. 2 red winter wheat and No. 2 Chicago spring advanced 1c. per bush. and rejected 1c; corn is a shade higher; oats 1¾c. higher; rye went up 4c. and barley fell 1½c. Timothy seed dropped from 5 to 9c. and flax seed 2c. Owing to warm weather and heavy delliveries, hogs dropped from 25c. to 40c. Cattle and sheep were pretty steady with a shade higher prices. WHEAT. No. 2 red winter $1.31; No. 2 Chicago spring $1.29¼ cash; $1 29¼ Dec. $1.30¾ Jan; $1.32c. Feb. No. 3, do. $1.15; rejected 97c. CORN.—41¼@41c. cash; 41¾ Jan; 42c. Feb; 47c. bid for May delivery; rejected 38¾c. OATS.—35¾c. cash; 34¾@35c. Dec.; 35¼ Jan; 35⅝ Feb; 40½c. May. RYE 79c. BARLEY 89¼' SEEDS.—Timothy $2.45@2 65; flax seed, pure $1 47. HOGS.—Mixed packing $4.45@4.65; choice heavy $4.70@4 80; light $4.50@4.65. CATTLE.—Common to fair shipping $3.50@4 25; good to choice $4 50@5; some Christmas cattle $5.45@5.75; butcher's $2.25@3.25; feeders and stockers $2.50@3.50; Texans $2 @353.90 SHEEP. $3.50@4,75.

Cincinnati.—Since last report wheat has gone up from 4c. to 5c. per bushel; corn is a shade higher; oats from 1c. to 3c higher. Rye has advanced 7c., and barley is about the same as at last report, with a slight upward movement in the best grades. Butter is stationary. There have been considerable small fluctuations in prices of hogs, and at the close they were a trifle lower than at last report. WHEAT, $1.33@1.36. CORN, 41@45c. OATS, 39@41c. RYE, 93@95c. BARLEY, 90@95c. BUTTER—Choice Western Reserve, 22@23c.; prime do., 18@20c.; prime to choice Central Ohio, 17@19c. HOGS—Common, $3.80@4.15; light, $4.20@4.50; packing, $4 60@4.80; butchers', $4.80@4.85. COTTON—Middling, 12¾c.; low middling, 12c.; good ordinary, 11¾c. Weekly receipts, 15,421 bales; shipments, 15,029; sales, 1,361; spinners, 200.

Detroit.—Since last report wheat went up from 4c. to 5¾c.; corn a shade higher on lower grades; oats advanced from 1c. on best grades to 7c. on No. 2 mixed Clover seed has a slight downward tendency in the absence of a demand for it. WHEAT.—Extra white Mich., $1.39½; No. 1 white Mich., $1.38¾ cash and Dec.; $1.39 Jan.; $1.42 Feb.; $1.44¾ March; No. 1 Milling, $1.33; No. 1 amber Mich., $1 38¾; No. 2 red Mich., $1.38¼. CORN—No. 1 yellow, 49c.; high mixed, 47½c.; No. 1 mixed 47c; No. 2 mixed, 45c. OATS—Strong and scarce, No 1 white, 39½; No. 2 white, 38; No. 1 mixed, 38¼; No. 2 mixed, 37. SEEDS—Clover in very limited demand; prime, $5.15; choice, $5.60. HOGS—Dressed firm at $5.30@5.35.

Indianapolis.—Since last report wheat has advanced from 5 to 6 ½c. per bush; corn, 4c; oats from 2 to 2½; while hogs have fallen from 30 to 40c. WHEAT.—No. 2 red $1.36½@$1.37. CORN.—42c. OATS—strong at 37½@39½c. HOGS.—quiet at $4.25@4.50.

Louisville.—During the week the range of prices of wheat has been somewhat larger than at date of last report, going from 1c. per bush. lower to 3c. per bush. higher; corn is from 2c. to 3c. higher; oats, 2c. higher, while rye has rushed up from 7c. to 9c. WHEAT firm at $1.27@$1.33. CORN fine; white 46c; mixed 44c. OATS white 40c; mixed 39c. RYE steady at 92c. COTTON—middling 12¾. Weekly receipts, 818 bales; shipments, 592; sales, 579; spinners, 7; stock on hand 2,505.

Milwaukee.—Since last report wheat has advanced fully 5c. per bush. on all grades both for cash and for future delivery. Corn has moved up 2c; oats ½c; and rye 3c. while barley fell 2c, having gained 3c. the previus week. WHEAT.—No. 1. Milwaukee hard $1.31; do. soft $1.30½; No. 2. Milwaukee $1.29¾ spot and Dec. $1.30¾ Jan; $1.32¾ Feb; No. 3 do. at $1.14½; No. 4 do. $1.06; rejected at 97c. CORN.—No. 2. 42c. OATS. No. 2. 35c. RYE.—No. 1 78½c. BARLEY. No. 2 spring 75½c.

New Orleans.—Since last report corn has been steady; oats are a shade lower; of hay there is none in the wholesale market, but the present high prices will probably soon bring so abundant a supply that prices will, ere long, be more reasonable. Sugar and rice are a shade lower, and bran has dropped 5c. Cotton is stationary. CORN—In good demand at 56@57c. OATS—active at 49@50c. HAY—$25; this was the last wholesale quotation on Tuesday last, since which date it has been held considerably higher at retail, as there has been none in first hands. SUGAR—Inferior 4@5c.; common to good common 5¼@5¾c.; fair to fully fair 6@6¾c.; prime to choice 7@7¼c.; yellow clarified 7¾@8¼c. RICE—Louisiana, ordinary to choice, 6¾@7¼c. BRAN—80c. COTTON—middling 12c.; low middling 11¾c.; good ordinary 11¾c. Net receipts during week 61,854 bales; gross 74,713; total weekly exports 51,326; sales 44,100; stock 268,755 bales.

Philadelphia.—During the week wheat has advanced, but very unequally for different grades:—Western rejected has risen 15c.; Penn. red about 7c.; Southern amber, 16c., and No. 2 red, 6¾c. Rye has gone up 2c.; corn has risen about the same as last week—from 1c. to 3c.; oats are just a shade higher; seeds steady; butter 1c. ₮ lb. lower all round; eggs steady; cheese stationary; cotton, do. WHEAT—Western rejected, $1.50; Penn. and Del. red, on track, $1.45@$1.55; Southern amber, $1.56; No. 2 red, in elevator, $1.55¼@$1.56; No. 2 red, $1.55¾, cash; $1.57¾ Jan. RYE—Scarce at 92c. CORN—Old Western mixed, on track, 62c.; new white, on track, 62@63c.; Southern yellow, ungraded, 60c. OATS—Good and choice white, 50@51c.; Del., 50@52c. SEEDS—Clover, 7@9¾c; flax wanted at $1.60@$1.65. FEED—Bran, 17.75@$18.50. BUTTER—Creamery, extra, 32@34c.; Bradford Co. and N. Y., extra, 29@31c.; Western reserve, 23@25c.; do., good to choice, 18@21c.; rolls Penn. and Western reserve, extras, 20@22c. EGGS—Penn., 24c.; Western, 22c. CHEESE—N. Y. factory, 13¾c.; Western full cream, 12¾@13c.; do., good, 11@12c.; do., half skims, 7@9c. Live chickens, 7c.; do. turkeys, 8@9c.; do. ducks, 7c.; dressed chickens, choice dry-picked, 8@10c.; or. dinary to good, 7@8c.; do., scalded, 5@6c. COTTON—Middling, 13¾c.; low middling, 13¼c.; good ordinary, 12¾c. Net Receipts for week, 2,258 bales; gross, 7,306; total exports, 1,677; sales, 6,570; spinners, 5,004.

St. Louis.—Since last report wheat has advanced from 1@2½c., according to grade, in spite of the fact that St. Louis millers lately declared that they couldn't grind at a profit, when prices ruled from 7@15c. lower than now. Corn a shade lower; oats steady; rye 1c. higher; hogs from 15@30c. lower; cattle somewhat higher. WHEAT.—No. 2 red fall, $1.35, cash; $1.37¾@1.39 for Jan.; $1.41¾@$1.43½ for Feb.; No. 3 red fall, $1.25¾@$1.26. CORN.—36¾@36¾c., cash; 36⅞c for Dec.; 37¾@38c. for Jan.; 39c. for Feb.; 40¾@40¾c for March. OATS.—38¼c, cash; 38¾c Jan.; 39@39¼c Feb. RYE.—80c. BARLEY.—choice, 85c. HOGS.—Light to heavy shipping at $4.10@4.60; packing, $4.30@4.60; butchers' to select, $4.50@5.00. CATTLE.—Fair shipping steers 5,40@6,450; good, $4.60@4.75; cows and heifers, $2.50@3.10; native butchers' steers, $3.75@4.25; Southwestern steers, $3.40@3.60; feeders, $3.50@3.75. SHEEP.—Scarce and firm; fair to fancy, $3@$4. COTTON.—Middling 12c.; good ordinary, 11¾c.; weekly receipts, 24,456 bales; shipments, 19,047; sales, 7,282.

Toledo.—During the week wheat advanced from 5¾c. to 6c; corn went up 2c, on high mixed 1½c. on No. 2 and fell ½c. on rejected; oats have risen 4½c. and clover seed 15c. on prime. WHEAT.—No. 1. white Mich. $1.38; amber Mich; spot, $1.41; No. 2 red winter, spot and Dec. $1.41¾; Jan. $1.42; Feb. $1.44½; March $1.47; Western amber $1.44. CORN—high mixed 45c; No. 2 ...ay 49¾; rejected 41¾. OATS.—No. 2 spot 41c; Feb. 42c. SEEDS clover, choice, $5.35; prime $5. 25; No. 2, $5 bid.

PRODUCE AND PROVISIONS.

NEW YORK, Saturday, Dec. 13.

BEANS AND PEAS.—Heavy receipts of beans continue to depress a market that has not opened a wholesale winter call. Prices have been marked down to nearly the whole list, and for local use dealers regard the month as about lost. Considerable stock is going through eastward. Green peas easy with a larger offering, and Southern B. E. peas in good supply; selling price not above: Marrow beans, $1.54@1.65; medium, $1.35@1.50; pea, $1.70@1.85; white kidney, $1.80@2.05; red do., prime, $1.90; poor, $1.70@1.80; black $1.85@1.90.

Receipts of beans for week, 20,408 bush.; exports, 1,798 bbls.

BUTTER.—Trade does not start off at the pace looked for by this date of December, but it is estimated that the whole product will be needed if only a fair export demand accompanies full local wants. Prices are still quoted at the reduction noted last week, but have ruled steady. Some of the later speculators have been anxious to realize, and when a buyer has been in treaty with a holder who has at all wavered in his early faith, he can use the point with a degree of effect upon regular dealers. The scale of quotations is almost as before, and as the market is quiet inside figures are oftenest quoted. Shippers have operated quite freely, considering the prices. Fine lines of Western are not plenty for general use; the offering of creamery, however, is very full. State pails and tubs, small dairy and fresh ends, 29@30c.; best lines, 26@28c.; fair to good, 23@25c.; firkin and tub single dairies, 27@28c.; do. fair to prime, 22@26c.; do., firkins, choice dairies, 25c.; do. fair to prime, 22@23c.; Welsh tubs, 21@25c.; poor State 21@21c.; creamery, finest, 35c.; good to prime, 32@33c.; sweet cream, 32@33c.; poor to good, 26@32c.; Western imitation cream, 25@28c.; dairy, fresh, extra, 24@25c.; poor to good, 18@23c.; factory, late made, 20@22c.; poor to good, 18@18c.; very poor Western, 10@11c.; rolls, 20@22c.

Receipts for week, 22,611 pkgs.; do., exports, 6,118 do.

CHEESE.—The shipments for the week have been 43,523 boxes. The business has been at very steady prices, and the market generally is without important change.

Quotations are for State factory: Fancy, 13c.; good to prime, at 11¾@12¼c; fair to good, at 10¾@11¾c.; half-skimmed at 9¾@10c.; skimmed at 6¾8c. State farm dairy: Fine at 12¾@12¾c.; good to prime 10¾@12c.; fair to good at 9@10¾c.; skimmed at 6¾8c. Wis. factory: Fine at 12¾@12¾c.; good to prime at 11@12¾c. Ohio factory: Cheddar, fine, at 12¾@12¾c.; do., fair to good, 10@11c.; flat, fine, 12¾@12¾c.; flat, good to prime, 11¾@12¾c.; flat, fair to good, 10@11¾c.; half-skimmed, 9@10c.; skimmed, 6@8c.

Receipts for the week, 52,058 boxes; exports, 42,000 do.

Liverpool cable quotation, 65s. Steam to Liverpool, 30@35s.

DRIED FRUITS.—Apples move out well and at strong prices. Peaches have a poor sale and show no decided change. Small points are steadily held.

Apples—New North Carolina, at 6¾@8¾c. for fair; 10@10½c for choice; 11@11¾c. for fancy sliced. Patent evaporated apples, choice, in cases, 13@14c.; do. fair to good, 13¾@14¾c.; N.Y. State sliced new, 8@8¾c.; quarters, choice, 7¾@8¾; new southern quarters scarce and nominal; new North Carolina peeled peaches at 17@19c., do., Georgia, 13¾@16¾c. Peaches, Delaware evaporated, peeled at 25@28c.; do. unpeeled at 13@14c.; new halves at 8c. Blackberries at 9@10c. for new. Raspberries at 27@27½c. Pitted cherries at 18@19c.

Exports for week, 131 bbls. apples.

COTTON.—Trade has been liberal with an irregular sensitive market, closing at for Dec. 12.75@12.77c.; 12.90c. for Jan, 13.17@13.19c. for Feb.; 13.43@13.44c. for March; 13.60@13.62c. for April; 13.79@13.80c. for May; 13.94@13.96c. for June; 14.02@14.04c. for July, and 14.10@14.15c. for August.

Quotations for spot cotton are based on American standard of classification, and on cotton in store running in quality not more than half a grade above or below the grade quoted.

	Uplands.	N. Orleans and Gulf.	Texas.
Ordinary	11¼	11¾	11¾
Strict ordinary	11⅞	12	12
Good ordinary	12¾	12⅜	12⅜
Strict good do	12⅝	12⅝	12⅝
Low middling	12¾	12¾	14¾
Strict low middling	12 15-16	13 1-16	13 1-16
Middling	13 1-16	13 3-16	13 3-16
Good middling	13 5-16	13 7-16	13 7-16
Strict good middling	13 9-16	13 11-16	13 11-16
Middling Fair	14 1-16	14 3 16	14 3-16
Fair	14 13-16	14 15-16	14 15-16

STAINED.

Good ordinary	10 15-16	Low middling	12¾
Strict good ordinary	12 1-16	Middling	12 15-16

EGGS.—Receipts for the week, 6,230 bbls.; do. last week, 7,187 do. Re eipts are falling off, and for really prime marks their is some strength. Old or held lots of Western are irregular; after they have been sold they frequently return to seller. Limed in fair demand for bakers or mixing use.

Near points fresh, doz. 25@26c.; State and Pa., 21¾@23c.; Canadian 18@20c; Western, prime to extra, 21@22c. do. good, 19@20c; off grades, 18@18¾c.; Southern, 21@22c.; State limed, 16½@17c.; Canadian, 16@16½c.; Western, 15@16c.

FRESH FRUITS.—Exports of app'es for week, 8,585 bbls. From the rate that apples have gone abroad this year from a small crop, it would seem as though there were few to spare. Shippers, however, seem determined to obtain their full share, while the weather compels holders to be free sellers and take the chances of future comparative prices.

Spitz, ₮ bbl., $3@3.50; Baldwin, $1.50@2.75; Greenings, $2.25@2.50; mixed stored, 2.25@2.37; do. poor to fair, $1.50@2. Late arrivals are not of good keeping qualities. Cranberries hold a late advance—firmly. Cape Cod, fancy, per bbl., $8@8.50; fair to choice, $7@$6.75; other, Eastern, $6@$8; N. J. crates, $1.75@2.25. Box pears, per bush. $2@4; W. Nells and Lawrence, bbls., $3@4; Vicars, $2.50@3; not much inquiry. Grapes salable when strictly prime. Catawba cases, $1.75@3.75; do., loose, per lb., 4@6c. Florida oranges are improving in quality, but many have to be repacked. Choice, $3@3.50; hf. bbl cases mainly at $2.50@3; very common or rusty, $1.50@2. Peanuts in good demand for holiday trade. Hand-picked, 5@5¾c. ₮ lb.; do., good to choice, 3¾@4¼c.; shelled, Am., 4½@5½c.; do., Spanish, 3c.; shellbarks, 87c.@1; B. walnuts 60c.; Pecans, 9@10c.

FLOUR—Has shown a fair degree of activity, with exports for the week of 48,100 bbls., and prices steady.

Latest prices are $5.40@6.00 for inferior to fancy superfine State; $6.00@6.30 for inferior to good extra do., odd lots and lines; $6.30@6.50 or good to very choice do.; $5.40@6.00 for inferior to very fancy superfine Ind., Iowa, Michigan, &c.; (the latter an extreme): $6.00@6.30 for inferior to good shipping extra do., and $6.70@6.50 for good to fancy shipping extra do.; inferior to about choice white wheat extras, $6.25@7.25; choice to fancy do. at $7.25@8.50; red and amber winter wheat, inferior to fancy grade and family, at $6.10@8; round hoop Ohio, 6.10@6.50; and trade and family brands of do. at $6.60@ 8.00; the latter rate for very choice; St. Louis at $6.25@7.25 for inferior to very good extra; $7.25@8.50 for very good to fancy; Minnesota clear, very inferior to fancy, at $6 @7.25; Minnesota "straight," very inferior to fancy, at $6.50@8.10, and patent poor to very fancy, at $7 10 @9 00; unsound stock at from $4.50@6 50 city infill extra at $6.85@7.25 for about fair to choice for West Indies (fancy do. quoted at higher figures); do. for England, $6 00@6.40 for poor to choice; do. trade and family extras, $7,25@8 25; do. for South America, $6.90 @7.35; No. 2 at $4.50@5.35 for very poor to fancy.

GRAIN.—Wheat has shown sharp fluctuations, but has been active. The shipments for the week have reached 800,000 bushels. Prices closed easy.

Latest sales are or No. 1 amber at $1.55@1.53; No. 2 amber at $1.55@1.57; ungraded amber at $1.51@1.58; extra white at $1.55¼; No. 1 white at $1.51½@1.55; do., December option, at $1.51½@1.55; do., January, at $1.56@1.57; do., February, at $1.58¾@1 60; do., May, at $1.42; No. 2 white at $1.51@1.52; ungraded white at $1.50@1.52¾; No. 1 red at $1.58@1.58¾; No. 2 red at $1.57½@1.58¾; do., December option, at $1.57¾@ 1.58¼; do., January, at $1.59¾@1.61; do., February, at $1.61¾@1.64; No. 3 red at $1 47@1.49; ungraded red at $1.43@1.56; red Canada, in bond, at $1.52¾; No. 2 Chicago, at $1.47; New York No. 2 spring, at $1.45; No. 3 spring at $1.38¾@1.39; ungraded spring at $1 32 @1.41. Rye is at 97c. for prime State. Corn is offered lower and is fairly active; latest sales of New York No. 2 at 66¾@66¾c.; do., Dec., at 65¾c; do., Jan., at 64c.; New York steamer mixed at 63c.; do., Dec., at 63c; do., Jan., at 61¾@62c.; ungraded western mixed at 64@65½c. in store and afloat; No. 3 at 6?@62½c. Oats are in steady demand, with prices closing in the buyers favor; sales of New York No. 1 white at 55c.; New York No. 2 white at 51c.; New York No. 3 white at 51¾c; New York No. 1 at 52c; New York No. 2 at 51¾@52c.; do., December, at 51c.; do, January, at 51c. New York No. 3 at 49@50c.; ungraded white western at 51@51c.; ungraded mixed western at 50@ 52½c.; white State at 54c.; mixed State at 52@52½c; No. 2 Chicago at 52c. afloat.

HAY AND STRAW.—Prices are held very regular and the market fairly active. Shipping hay quoted at 60@62c.; retail lots at 70@80c. for medium, and 80 @85c. for prime; clover at 55@60c. Straw at 90c.@$1 for long rye; 65@75c. for short rye, and 55@60c. for oat.

Exports for week, 208 bdls.

HONEY—Sales though small are frequent enough to support prices; and the holiday demand may give quotations a lift. Single comb w. clover, ₮ lb, 18@ 18c.; larger, 14@16c.; buckwheat, 12@14c.; clover extracted, 11@13c.; strained, 8@10c.

HOPS.—Emmet Wells in his weekly circular says: "The export traffic has almost entirely ceased, 133 bales being the extent of the shipments this week. Brewers are holding off for lower prices, which is a very natural thing for them to do on a declining market. The butter and cheese fair, now being being held in the American Institute building, this city, has brought a large number of farmers to town, many of whom brought with them their hops, and have been forcing the same upon the market, accepting the best bids offered. The result is, some very fine parcels have been bought as low as 35c., which have brought from 38@39c. ₮ lb more through the legitimate channels of trade. This forced business compels us to reduce our quotations 3c. ₮ lb all round on new hops, Bavarian excepted. The German hops arriving here weigh about 400 lbs to the bale. Our brewers take them at the prices we quote as fast as they come along. Old hops, the same as in London, are entirely neglected."

Quotations are for New Yorks, new crop, choice, 38@40c.; New Yorks, new crop, medium, 34@36c.; New Yorks, new crop, low to fair, 30@32c.; Eastern, new crop, 30@38c.; Wisconsin, new crop, 30@38c.; Yearlings, 7@18c. Olds, all growths, 4@10c. Pacific coast, new, 35@40c.; Pacific coast, olds (nominal), 7@12c.; Bavarians, 50@65.

OIL-CAKE.—Western quoted at $33.50 ₮ ton.

POULTRY AND GAME.—The weather has been mild and moist and trade has missed several days. Bought fresh dressed is improving in demand and and the market is pretty clear of worst rubbish left by the Thanksgiving surplus. Some lots of Western that have come on by freight on a have turned poor and make the wide range noted. There is considerable stock in ice houses and dealer do not risk taking it out while the weather is variable. Some of it shows that it was held open too long, other cases that were carefully and timely housed are in good order.

Turkeys, Jersey and Pa., prime, 13@14c.; State, Northern Ohio and Mich. prime, 12@12½c. other Western, prime, 11@11½c.; fair to good, 8@10c.; Philadelphia, dry-picked, 14@15c.; do., chickens, 14@15c.; do., Jersey, per lb., 10@12c; do. State and Western, prime, 10@11c.; fair to good, 7@9c.; Phila fowls dry-picked, 12@13c.; N. J. do., 10@12c.; good to prime, State and Western, 8@10c.; poor do., 5@7c; Ducks, Phila., dry-picked, 14@15c; Jersey, 14@15c.; State, 11@13c.; Western, 10@12c. Geese, N. J., 12@12c.; State, 9@11c.; Western, 8@10c. For live poultry there is a fair demand at easy quotations. Fowls and chickens, 7@9c; turkeys, 9@11c. which is higher. Ducks, 40@70c; geese, extra, 1.75@$2; other, $1@1.50c.

Game is in good demand when quality is faultless. When the weather is variable buyers do not stock up for show as usual in winter and some trade has been lost in this way.

Wild Ducks Canvas-backs, Havre de Grace, $3 25@3.50, W. $3@3.25; North, $2.50@3; do. red-heads, 50@75c.; do. Western, 80@90c.; Mallards, 65@75c.; Teal, 40@50c. Black, 50@60c.; common 30 ₮ pair. Quail, trapped, ₮ doz., $1.25@2; Partridges, State, prime, ₮ pair, 90@$1; do. Western, 80@90c.; soft and drawn, 60@70c.; Grouse, 80c@$1. Tame pigeons, shot, ₮ doz., $1@1.25; Rabbits, ₮ pair, 30@35c.; Hares, 40@50c.; Minn. venison, saddles, ₮ lb., 13@14c.; other, 12@13c.; whole deer, 8@9c.

PROVISIONS.—Hog products have been active and closed firm. Mess pork quoted at $12 50@12.60 for December; $12.60 for sellers' option, old or new, for January; $14.25@14 30 for new do. for do, and $14.30@14.35 for Feb.; $14.40@14.45 for March. Bacon at 7¼@7¾c. for long clear and @7½7¾c. for short clear. Lard—Western steam at $8.05@8.10 for spot lots; $8.10@8.12½ for new for January; $8.20@8.25 for new for February; 8.30@8 32½ for new for March Stearine at 7¾@8c. for Western and 8¼@8¾ for city.

TOBACCO—Has not varied in price, ruling essentially as at the close of last week, with a fair trade.

SEED.—Grass are quiet. Clover quoted at 8¾@ 9¾c. for prime to choice, and 9¾c. for extra choice. Timothy at $2.75 for prime; Flaxseed at $1.75@2.00.

VEGETABLES.—The market continues loaded with potatoes and prices for State and Eastern are toned down by the offering of Nova Scotia. Red Peachblows, 25c. under white; prime white onions, scarce; prices for all firm. Pumpkins have advanced. Potatoes, Nova Scotia Rose, $.150@1.75; do. prolific, 1.37 @1.80; Mercer, $1.25@1.37; State Peachblows, d.-h., 2@$2.12; Snowflake, d.-h. $1.37@1 50; Early Rose, Maine, d.-h. $1.50@1.75; State, $1.37@1.62; do. in bulk, 1.25@1.50; do. Peerless, $1.25@1.50; N. J. Sweet potatoes, 2@2.25; the latter for kiln dried; squash, marrow, ₮ bbl., 75c; do., Hubbard, $1.25@1.50; cabbage, white, per 100, $4@5.; red do., cabbage, $5@6; onions, white, per bbl., $3 00@4.50; do, yellow, $2.50@2.75; do., red, $2.25@2.50; do., Chester, $1.75@$2.25; beets, $1@1.25; Russia turnips, 81c.@$1; carrots, 75c.@$1; pumpkins, per 100, $6@9; celery, per doz., 75c.@$1.

Exports potatoes for week, 2 851 bbls.

WOOL.—As the year draws to a close, diminished business is noted as usual, but holders look for more life with the turn of the year and are very confident as to prices.

Ohio, Pennsylvania and West Virginia—XXX, 55@58c.; XX, 51@55c.; X, 50@53c.; No. 1, 55@57c.; No. 2, 47@50c.; coarse, 43@46c.; combing, 53@57c.

New York, Michigan and Wisconsin—XX, 47@50c.; X, 47@50c.; No. 1, 52@ 55c.; No. 2, 46@50c.; coarse, 38@40c.; combing, 50@54c.

Indiana, Kentucky and Tennessee—XX and X, 46@50c.; No. 1, 52@55c.; No. 2, 46@50c.; coarse, 38@40c.; combing, 50@54c.; do. unwashed, 37@42c.

Illinois, Iowa and Minnesota—X and XX, 43@47c.; No. 1, 48@52c.; No. 2, 43@45c.; coarse, 37@40c.

Georgia, Alabama, Mississippi and Louisiana—Fine unwashed, 43@45c; medium unwashed, 40@43c.; coarse unwashed, 30@33c.; burry 18@24c.

LIVE STOCK MARKETS

NEW YORK, Saturday, Dec. 13.

BEEVES.—Receipts for the week, 9,740 head; do. last week, 9 541 do. The market closed strong although there was some resistance to the higher demands of sellers. Receipts, however, were in favor of the yards, and the bulk of cattle sold in the 9@10c. range. Common to fair steers ranged 7¼@8¾c.; to dress, 55@58 lbs.; good to prime, 9@10c.; do. 56 lbs; choice, 10¼c.; do. 57 lbs.; the latter price paid for export stock. Dry cows, 6¾c.

SHEEP AND LAMBS.—Receipts for the week, 25,368 head. The demand has improved with a smaller offering. Sheep sold at the close at 4@5¾c.; some reported at 6c Lambs, 5¾@6¾c. A few at nearly 6¾c.

HOGS.—Receipts for the week, 26 362 head. Light receipts and enlarged packing and retail wants have stiffened the market. State, live, per 100, $4,60@4.80; Western, $4.60@4.80; country pork, 5¾@7c. heavy and light; city dressed, 6@7¾. Pork tenderloins, 7c.

MILCH COWS.—The demand is not heavy and the high cost of keeping makes owners here ready sellers, even if concessions have to be made. We quote $35@55 per head, with $60 seldom quoted.

VEAL CALVES.—Prime live calves in good demand and firm. Dressed calves dull, but expected to do better when the soft weather subsides. Bucks Co., 6¾@7¾c.; State, prime, 7@7¾c; other, 5¾@6¾c.; Mount Hollys, 300 lbs to 400 lbs, 4¾@7¾c.; buttermilks, 4@5c.; grassers, 1¾@2¾c.

Send **$3.00-3.50-4.00-$5.00** and get a Holly Saw, which to every household is worth ten times its price. The engravings represent many beautiful articles it makes. Wood and Patterns enough with **$4 Saw** to make **$30 worth of work.** Glove Box, Handkerchief Box, Motto, Corner Bracket, and Witch of Endor Horse-Shoe Patterns just out; sell when sawed for **$6.**—material, **75c.**; profit, **$5.25.** Patterns so simple a boy 12 years old can saw them so handsomely they sell at sight. J. Gray, Lebanon, Kan., sawed Lord's Prayer in 3 days, and sold it for **$30**; material, **$1.25.** Many report getting same price. Hundreds sold for **$15** and **$20.** Boys make most money on comical articles, earning **$4** and **$5**, and even much more per day. *Motto Welcome* in engraving, 10 pieces are sawed at once in ¾ of a day—you can see the money in it at **$1 each.** Its utility and practicability is properly described by F. Hubbell, Saginaw, Mich.: "Dear Sir—Holly Saw came to-day. Have already made one bracket. Four of my playmates have seen it, and all are going to have one. What discount will you allow me, for I know I can sell quite a number in our little village. The machine is much better than I expected. Answer at once, as I wish to send the money for at least four more." **To Parents** who look to their own interests and the welfare of their children I give an extract from a letter of J. H. Gunnell, of Santiago, Ill.: "Dear Sir—Last fall I purchased a Holly Saw for my boy. Hesitated long before I sent the money, having bought so much for him, and all to no purpose. But allow me to express my gratitude for the good it has done in my family. My three boys now spend their evenings at home, have quite a factory, and are laying up money. Can heartily say that $3 was the greatest investment of my life, and gave me the greatest satisfaction. All additional tools they bought with money earned on the $3 Holly. Have just bought your New Demas Lathe and Saw, which is a marvelous piece of machinery for the money." In conclusion he says: "Could all parents know the great pleasure and benefit it has been to me, they would not be another day without one of your little Saws." I receive many similar letters daily

No. 1 (27 New Designs, 6 Saw Blades, 1 Drill Point).**$3.00**
No. 2 (87 Patterns, 6 Saw Blades, 3 Drill Points)... **3.50**
No. 3 (87 Patterns, 6 Saw Blades, 3 Dr. Pts, 15 ft. Wood) **4.00**

A Manual of Fret-Sawing and Turning accompanies each machine. No. 3 Machine is a special offer, and is the greatest bargain ever offered; and for **$1** extra will deliver either all set up ready to use. ☞ The last offer has never had its equal. Catalogue **free.** Address **A. H. SHIPMAN, Rochester, N. Y.**

Reading for the Young.

THREE LITTLE GIRLS.

ONCE upon a time, three little girls lived in a queer, little, old fashioned house, that had three little dormer windows looking out to the sunset. Three little, merry girls, full of song as a spring day, and fair as anemones, their long curls were the color of pale corn silk, and their three pairs of bright eyes were like June Violets. O, they were fair as the fairies! and they lived long ago. Often on cold winter nights, when the wind rattled the three little dormer windows, would the three little girls stand and look out, and away between the three slim poplars that kept watch at the garden gate, and they would shiver and wonder what all poor dead flowers were thinking about, and what all the leaves were dreaming of, or if they could think at all. Then they would dance back to the warm rooms, and bringing their three little, red velvet cushioned chairs close to the ancient fireplace, they would look into the glowing coals and tell all sorts of wild stories and dream all kinds of queer dreams; then, nestling closely together, they would sing and read. Oh, such songs as they would sing, and such stories as they would read—songs that made one think of the summer wind among the Daisies, or of Æolian harps at sunrise. Why, in the mid-winter night, it would fairly seem that the robins were singing and the Roses blooming; the room grew bright as with golden sunshine, and the air grew sweet as with the breath of Lilies, and still they read on, all the marvelous stories of fairies and brownies, all the wonderful stories of knights and ladies. They read about the musician who played upon the harp with such skill, that even the most turbulent rivers became motionless and ceased to flow, and all the wild beasts forgot their prey and stood spellbound to listen to the rare melody;—and all the mountains felt a strange thrill creeping down through every crevice about them. On and on they read, till their eyes grew dark with wonder and the peach bloom deepened on their cheeks. They read of the virgin who was much too pure for earth, and when the golden age ceased to be, she sought her place among the stars, where she ever waits, scales in hand, until the dawn of a second golden age. They wondered exceedingly how she ever performed the journey and found her place among the stars; but still they read on. They read about Hercules the Theban who slew the fearful hydra with its hundred hissing heads, and caught alive the stag with its great horns all made of fine gold, and how this giant killed the dragon that also had a hundred heads and as many voices, that he might gain access to the garden of Hesperides and bring away the golden apples. Oh! a whole book could not contain half the marvelous stories they read and told; and you could never sing half the strange songs they sang.

The fire burned low in the grate, the cricket ceased to sing, and the winds sped away and it was spring time, then the three little girls brushed their long curls, the color of pale corn silk, and robed themselves in white and you would have thought them fairies so fair were they, so blue were their eyes, and so red were their cheeks. So it happened long ago when the three pairs of little birds with red down on their dainty breasts and yellow plumes on their heads came back as they always did to build their three little nests in the poplars. The three little dormer windows became shaded with great blue Morning Glories, and the birds sang for very joy everywhere in all the sunny land. Then when the days grew long and breathless the three little girls each cried out, "O the fairies! the fairies. I go to find them;" so taking their three little hats that were made entirely of grass blades plaited together and fastened with blue Violets. Away they sped to the woods where the moss was moist and spongy beneath their feet, and clapped their hands with glee. The winds shouted "they come, they come," and all the forest was sweet, and vocal. Onward they sped but never a fairy crossed their path. They peeped into the robin's nest, they listened to the insects humming among the bushes, and watched the honey bees fly homeward with their sweets; they leaned their peach blossom cheeks upon the emerald grasses on the river bank, where the silvery fishes were flashing in and out among the pebbles; they heard the babbling of the little waves as they scrambled over the limestone ridge, and listened to them as they laughed among the round pebbles. At last they grew tired and sat very still and the flowers dropped from their fingers and their hands lay quiet in their laps.

The waves were touched with gold and went softly by, and the sun leaned low to the West, when the three little girls with eyes like pure Violets heard many little voices. Oh, the woods became filled with tiny voices, sweet as summer winds, and throngs of fairy folk clustered about them, and every tree and every flower became a fairy, and every bird and insect became a fairy, and the whole woods were made vocal with rare music, when the three little girls opened their blue, bewildered eyes, and the world was grand and glorious; the trees were all telling strange stories—tales of long ago, when gallant knights and beautiful ladies had lingered in their cool shadows. They heard the story of the twin children who had sought in field and wood for the fairies, and found them at last in every leaf and flower. The three little girls wondered much that they had never thought of that before; so they gathered a handful of the little heartsease at their feet, and every blossom was a tiny, winsome face. They pressed the flowers to their lips and rejoiced, for they had found the fairies. Then a few crystal drops fell from the fringed clouds and a rainbow spanned the heavens, touching the earth at the North and South, and all was light and glory, above and below. The three little girls went, hand in hand, homeward. They had learned that the woods and fields were full of fairy forms and voices; but we must search for them, for they are shy little things, and do not force themselves upon our sight. We must listen for their sweet tones—they are so like the sound of the winds and the songs of the birds, that only listening ears can detect the sweet, teaching voices. Nevertheless, these fairies are flitting about and singing now, as of old, teaching the pure doctrines that all should be glad to learn. The three little girls went homeward, their faces sweeter than ever before, and they sat in the queer little dormer windows, thinking of the day's adventure, until stars were in the sky.

MRS. CHARLOTTE E FISHER.

LETTERS FROM THE COUSINS.

Letter from one of the Aunties.

DEAR UNCLE MARK:—Seeing that you published my letter, I now, according to promise, send you some seeds of the China Tree. I do not propose to tell you what to do with them, but I would respectfully state to you, what I know of the tree, its peculiarities &c., &c. It is the hardiest of Southern trees, and next to the "Crape Myrtle" the handsomest. It is almost impossible to exterminate this "China tree" in the South as so many seeds fall (we call them "China balls") that you can scarcely tell where they may not appear. Main St., of Natchez, Miss., is bordered on each side with those trees and I suppose all the "little geographers" know that the city is built upon a bluff 300 feet above the level of the Mississippi River, so that upon coming to the top of the bluff and gazing up, it being an up grade, those trees look like a dream of fairy land, when in the spring they are in full bloom. Every fall, or in early spring, before the sap rises, the old trees are cut down close to the stock, so that they look like some ghostly giant of a dark night, and their shadows on moonlight nights, when I was a child, often caused me fear, they are such profuse growers, that if they were not yearly cut down close, they would be in the way and look unsightly. After the trees are through blooming, those seeds form; each ball contains from four to six seeds, they ought to be planted in fall, and they will come up in spring, ready for the growing season. Mine that I planted in our front-yard grew over four feet in one summer; they will not blossom till they are three years old.

In this Northern climate they will need a Southern location and protection in winter until they become thoroughly "Yankeeized," like I have been. I wish the children could have seen the Magnolia blossoms my sister sent me from New Orleans last fall and this spring; they are pure as any Lily in their petals, while they are as large round as a saucer; the corolla of the flower is a pure creamy white. In by-gone days, when, a happy child, I played 'neath the shade of those stately trees, with not a care to dim the brightness of my life, I thought then that the happy days were coming; but let me tell you, dear little ones, that childhood's days are the best in life. I never dreamed then of the "red hand" of war that was slowly and surely coming to overshadow all this brightness, and, like an eclipse, was to darken the fairest and brightest hopes of many a life ere peace should once more appear to dispel the darkness. But I must cease my rambling, or I shall be tumbled into the waste basket, but childhood's days always have a charm for me. I love to read the letters from the children; there is no subterfuge, no glossing over in their composition, and it is refreshing, in this world of "artificiality," to find something that is purely natural. My flower garden ran wild last summer, as I was not able to attend to it, while the Morning Glories stepped in and took possession; even the shade trees were garlanded, and in the morning it used to look lovely; Providence and health permitting, I will do better next summer, as I dearly love flowers. I intend getting some seeds from the RURAL, and then I shall "go into business" on the flower question. But adieu, aunts, cousins and all; my baby is clamoring for attention, and as it is bedtime, I shall say good night and God bless you to one and all till we meet again. Yours, &c.,

Marshall Co., Kas. MRS. M. J. GALPIN.

[Many thanks for the seeds, auntie; we will plant them in the experiment garden at the Rural Grounds.—U. M.]

UNCLE MARK:—I will tell you how I have prospered with my first garden. All the seeds I planted grew except the peanuts. The musk-melons were the nicest we ever ate. The water-melons large and good Acme tomatoes extra. I did not sell any of them, I think it better to supply the table with nice fruit than to have the money for my own use. Where the nuts did not grow I planted beans. I had 75 plants of tobacco which is ripe and ready for sale. I would not use it if I were a man. Do any of the cousins know that snakes grow? I was plowing one day and plowed up some eggs with a rough shell one and one-half inches long, thinking they were turtle eggs I took them into the house; but after a little while one of them cracked open and a little spotted snake, six inches long, crawled out. I have been back to the city and staid two weeks, but I like the country the best. I am going to school now. I shall try to have a better garden next year. There are large persimmons grown here and I want some in my garden.

GEORGE SHAW.

Washington Co., Ill.

DEAR UNCLE MARK:—I am almost 12 years old. I have a piano and have been taking music lessons all summer. I can play most exquisitely. We have not had any school in our district since the 1st of June, on account of building a new schoolhouse. The work is going up very slowly but it will be exquisitely grand when it is finished, I wish all the Rural Cousins could come and see it. We have had a splendid autumn but Jack Frost has come and caught all of our flowers except what we took in. We have a greenhouse and it is full of beautiful plants. We have an Agapanthus plant seven years old. It has never bloomed; can any one tell how to make it bloom? I do not wish you to think we raise nothing but flowers; we raised pumpkins that weighed fifty-three pounds; and squashes that weighed 41 pounds. I saw my other letter published, and if I see this published, too, I will write again. So good-bye, Uncle Mark. EVA.

Warren Co., O.

DEAR UNCLE MARK:—I saw my former letter printed, and then thought I would write again. We have taken the RURAL for many years. I always read the letters from the cousins first. Why don't the cousins write and speak of their gains and failures of the summer, (I have none to speak of.) Uncle Mark I wish you would tell me how to make Calla Lilies grow, whether to put the pots in pans of water or not.

I am 16, but I trust my age will not be an objection to my becoming a member of the Horticultural Club. This is only my second letter.

Yours truly, MAPLE LEAVES.

Crawfordsville, Ind.

[Calla Lilies should never be put in pans of water though they should be watered freely while in bloom.—U. M.]

DEAR UNCLE MARK:—I thank you for all those seeds you have sent me. The weather was so dry that many of them did not germinate. My radishes and tomatoes came up well and both were excellent; the corn came up but did not grow well; enough ripened, however, to try again. I had but few flowers this summer, but expect to have a large collection another year. I have one vine of the Jerusalem Apple, two yellow Crysanthemums, two monthly Roses, two scarlet Geraniums, one Sword Cactus, and one Othonna crassifolia—a basket plant. We received the grape seed and planted it according to directions.

Your niece, LETHA M. ABBOTT.

Clemont Co., Ohio.

DEAR UNCLE MARK:—I have been thinking of joining the club for a long time. I live in the country and read the letters from the cousins with interest every week; I am also very much interested in the culture of flowers. I have quite a variety of Geraniums. Will you please tell me why my Carnation don't bloom and what I shall do with it. Please put my sister and my name on the Horticultural Club list.

Yours respectfully, ALLIE.

Main St., Richmond, Va.

[I really do not know why your Carnation should refuse to bloom. Do you take good care of it?—U. M.]

The Puzzler.

HIDDEN SOUNDS.

1. See the scores by Ella's hand.
2. His name is Hiram Juralda.
3. How hale uncle looks,
4. Ibo other causes exist.
5. He went to "Davy Jones' locker."
6. She was crossed in love.
7. Mr. Wolsten holm trees I want.
8. On the bay fields of grain perished.
9. They woo desperately.
10. Fiscoll in silence wept.
11. Dick, on the Mt., deserted us.
12. Some one wrote V in Eyard's new book.
13. It stang I ernestly assure you.
14. Mrs Curr, I tucked it as well as I could.
15. I round mastic ore.
16. The quartette was formed of Calib, Oguen and two boys.
17. This ape looks wild.
18. Have a cucumber, Landon?
19. Al Alta ma had a spasm.
20. Use allegro no more.
21. Maje suits me to a "t."

☞ Answer in two weeks. LITTLE ONE.

ACROSTICAL ENIGMA.

My first, if you will see, is with each dear friend we meet.
My second came with me, we will find on Seventh street.
Our cousins' club looks sadly out without my third in the chair.
My fourth I saw but yesterday in a laughing maiden's hair.
My fifth was also mingled with the pretty ringlets free.
My sixth is often near my home, it ne'er deserted me.
The farmer needs my seventh with my eighth to fill his barn.
My whole came, all dear readers, and very soon we'll learn.

☞ Answer in two weeks. MARY WALEY.

A HOUR GLASS PUZLLE.

Sudden; Moving awkwardly; Agreeably; A woman of the Bible; A hole; A consonant; Satisfied appetite; Part of a spur; To walk carelessly; Celerity; Lovers. Centrals form a city of Wales.

☞ Answer in two weeks. L. O.

PUZZLER ANSWERS.—Dec. 6.

MALTESE CROSS:—

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        P U S S Y
          T U B
B           S           L
O G       A P E       A A
W A N D E R   I   N G
E R   I N A       N E
R           D           R
          G E T
        Y E D D O
```

Centrals form "*Suspended*" and "*Wandering*."

HIDDEN VEGETABLES.—1. Cress; 2. Greens; 3. Spinach; 4. Cauliflower; 5. Endive; 6. Gherkin; 7. Gumbo; 8. Garlic; 9. Cymlin; 10. Shallot; 11. Okra.

ACROSTICAL ENIGMA.—EMILY MAPLE.

RECENT LITERATURE.

The Mouth and Teeth. By J. W. WHITE, M.D., D. D. S.—Philadelphia, Lindsay and Blakiston, 50 cents.

THIS little book, the seventh of the American Health Primers, gives concisely the best and most useful information of the teeth, of any work we can cite. Dr. White, who is authority on the subject, has presented twenty chapters of excellent matter regarding the physiology and treatment of the teeth. The discussion of the mouth, anatomy, dentition, etc., are clearly illustrated, and are the preliminary essentials to a scientific knowledge of the teeth and the best methods for preserving them. His statements, which are accurate and logical, should be accepted by all. For young people the value of this work is inestimable, as it cautions against abuse and advises hygienic modes for treating disease. Caries, toothache, tartar, nervousness, food, the health as affected by the teeth and the teeth by disorders, are especially mentioned as attending topics. All should possess this useful book.

Pilgrim's Progress. By JOHN BUNYAN. With a Memoir of Bunyan, and Macaulay's Essay on the Pilgrim's Progress. Freely illustrated. Boston: Houghton, Osgood & Co.

THE publishers present this old-time favorite in a new, appropriate and tasteful dress. The clear, large type, the many explanatory notes and the illustrations make the reading of it pleasant and instructive. A colored plate of Christian at the Gate adorns the first page.

CHAS. SCRIBNERS' SONS' LIFE AND WORK OF GILBERT STUART was from the first received with an exceptional interest, which the book, both in its literary and artistic sides, fully justifies. As a biography, it deals not only with the painter, but with Stuart's brilliant social life as the intimate of half the celebrities of his time; and the personal reminiscences of his daughter, Miss Jane Stuart, at whose request and whose aid Mr. Mason has written, add special value to these anecdotes of her father's friends. As an art publication, the publishers believe that the volume stands alone in faithful reproduction of a painter's works. Messrs. Goupil & Co. have prepared the majority of the plates in Paris by their photogravure process, and have produced the most careful and beautiful specimens of this work yet used for book illustrations—to which they are here applied for the first time in this country. The richness of Stuart's coloring is conveyed with a truth which has hitherto been impossible in any form of print. Beside these plates there is an admirable engraving in pure line by Burt, of the "Gibbs Washington," considered by connoisseurs the best of Stuart's Washingtons, and now for the first time engraved; an etched fac-simile, by Duthie, of Stuart's pen-and-ink portait of himself; and an engraving by Cole of Miss Goodridge's miniature of the artist.

MR. HERBERT H. SMITHS' BRAZIL, published by the same house, is by no means an ordinary book of travel, though it has all the qualities which make the literature of travels attractive. Mr. Smith has studied the Amazons and the Brazilian coast with a thoroughness that makes his volume an authority perhaps without a rival in its special field; but he has made his description so vivid, and so communicates his own enthusiasm to the to the reader, that the information he gives is mastered unconsciously, and is never dull. He looks at the scenery of the great river with so strong an appreciation of its beauty, and conveys so well the impressions made by the great Amazons forest, that only occasional passages remind us he also studied the region with the skill of a trained naturalist. In the same way, the life of the people, both in the country and the towns, is so well described from the traveler's and resident's points of view, that only Mr. Smith's excellent chapters on Rio de Janeiro and his account of the Brazilian myths recall the amount of political and scientific knowledge of which the reader has also had the benefit. Mr. Champney's illustrations complete the value of the book.

MAGAZINES FOR DECEMBER.

LIPPINCOTT'S MAGAZINE for December has a varied list of contents, the most noticeable feature being the number of articles descriptive of life and manners at home and abroad. "Among the Biscayans," by George L. Catlin, our consul at La Rochelle, gives a graphic account, with illustrations, of the old Spanish seaport of Bilboa. "In the Backwoods of Carolina," by Louise Coffin Jones, presents a contrasted picture of the primitive and amusing aspects of American life in a mountain region remote from railways and the usual lines of travel. Wirt Sikes describes the "English Coffee Palaces" recently established by the Duke of Westminster, Lord Shaftesbury, Mr. Gladstone and others, to attract the working classes from the "gin palaces" and ordinary public houses. "The City of the Simple," by Helen Campbell, deals with a subject of constantly increasing interest and importance, the proper treatment of the insane, and contrasts the common method pursued in the best asylums both of Europe and America with the system instituted at Gheel, in Belgium, which is a colony of lunatics subject to no confinement or restraint. Another paper deserving of careful consideration is a description of the "Advantages and Disadvantages of a Foreign Education for Young Republicans," by a writer who compares the teaching in our public and private schools with German methods of instruction, as well as to indirect influences of social habits and surroundings on undeveloped minds. Dr. Charles W. Dulles has a short practical paper on "Poisoning, and How to treat it." L. Lejeune criticises the "Impressionist School of Painting," and M. Mather contributes an entertaining historical sketch entitled "Monsieur le Charmant." "Annee," by G. H. Pierce, which is concluded in this number, is a simply told but deeply pathetic story. The "Monthly Gossip" and literary notices are as bright and readable as usual.

The new volume begins with the next number, and in it will be commenced a new serial story, "Adam and Eve," by the author of "Dorothy Fox."

BRIEFLETS.

MR. J. G. EDWARDS, of England, remarks "Any man who has seen a turnip deems himself qualified to advise the farmer, and though each man sings to a different tune, the burden of the song is the same—that the farmer is in the fault and needs setting right." . . A very good colored plate of Virburnum plicatum—one of the best hardy shrubs in cultivation—appears in the current number of the Gardener's Monthly. We have talked *and* talked about this plant until we hope every reader that cares for shrubs at all, has one in his garden. . . What is the reason that all the journals are so much better now than during the rest of the year? . . The Maine Farmer says that the Portland Beet-sugar manufactory will be fortunate if it gets a new dollar for an old one as the result of this year's operations. . . The New England Farmer says that there has been a charm connected with the word "imported," when applied to cattle, as well as to dry-goods and wines; but since it has been discovered that as fine cloths, carpets and machinery can be made at home as can be produced in any other part of the world, some of us are bold enough to believe that even among domestic animals there may be real merit in our native breeds. . . Some go further, and claim that, taking everything into account, we can do better to select from and improve our own animals, than to look further for improvement by importing. . . Hit the nail on the head—not on the thumb. . . A rolling pin gathers no dough. . . Corn in the ear is worth two in the foot. . . It's a sensible cow that knoweth her own "fodder." . . . . . Mr. Wallace says: "To prevent horses overreaching, *shorten* the toes of the front shoes and *lengthen* the toes of the hind shoes. . . When people are ill-fed, they naturally become discontented. . . A good house and a good half-acre garden or cow pasture have lifted many a farm-laborer above the level of pauperism, while others have been steeped to the chin in poverty in the first week of any reverse occurring to them from illness or loss of work.—London Gazette. . . The expert who does not regard every other expert as an unmitigated ass is no expert at all.—N. Y. Advertiser. . . The green grass, which is the charm of all gardens, soon departs when large trees are about.—Meehan. . . Mr. D. B. Weir acknowledges that he issued his pamphlet of "Copyrighted" Cherries before a certificate of registry was received, which, as he says, "was not strictly legal." This is in answer to Mr. Eugene Glenu's strictures in the Gardener's Monthly. . . The Jingko (Salisburia) is capable of being trained to a wall as readily as a vine, and it is in this way very beautiful and curious—says Mr. Meehan. It may be curved in circles, or trained to any form. . . Gen. Le Duc has made the Reports of the Patent Office and Agricultural Department thrice as valuable by his General Index. Everybody appreciates the value of a good index. The reason why indexes of comprehensive works are so slighted, is because it is really an arduous, tedious task to compile them. . . The cross-breeding of fish is talked of as if it were more remarkable than any other sort of cross-breeding. . . It is time that there should be a boom in the wood-pile. . . Mrs. Grubs (to her sick husband): "I wish you to bear in mind, Joseph, that when I die I shall request to be placed by your side." Mr. Grubs (with a sigh): "Darn it! No rest for me, even in the grave."—Punch. . . . Roots of rhubarb may be lifted, if the soil is not frozen, and forced into growth in any warm room. . . . Will the cat ever legislate well for the mouse? . . . To assure the English farmer good crops when he has neither summer nor sun to work with, is the bottom problem which the present agricultural depression presents. . . . Some one has said that tables of figures are like cobwebs—beautifully reticulated, but holding no conclusions. . . . "Waldo" (Ohio Farmer) thinks that the phrase "Possibilities of an Acre" is the invention of Conrad Wilson. It does sound like him. . . . Corn is King in Southern Michigan, says Mr. Lewis; and unless farmers keep swine that will grow and fatten on pasture and harden up for market by being fed some grain, there is no money in making pork for the Southern Michigan farmer. . . . A Southern fancier informs the Poultry Bulletin that if the game of "hide 'n coop" were not so popular among the darkies in his neighborhood, the profits of poultry-raising would be greater. . . .

An Old Hen's Epitaph.

BY A MARKETMAN.

Ten years since, alive and kickin',
I came forth a young spring chicken;
And though so old when I did die,
Soon a spring chicken *again* was I.

PERSONAL ITEMS.

Chief Justice Fisher, of Washington Territory, has resigned.

Pinchback, of Louisiana, has come out in favor of a general exodus of his race to Kansas. Before the late election he was persistently opposed to the movement; but he says that recent bulldozing has opened his eyes to the necessity of it.

One hundred millionaires are now residents of San Francisco. Mackay, who is thought to be their chief, being worth about twenty millions, is content to pass most of his time in a temperature of one hundred degrees, down in his mines.

The notorious Eliza Pinkerton, the mulatto who rivaled Mrs. Jenks as a Louisiana witness, has been acquitted of the charge of poisoning her husband, medical analysis failing to discover anything out of the way in the dead man's stomach.

A London paper, in recording the death of John Grant, for twenty-five years head gamekeeper as Balmoral, says that the Queen frequently visited him prior to his death, and delayed her departure from Balmoral four days to pay him a last tribute of friendship.

According to West End, London, gossip, the libels in Town Talk on Mrs. Langtry and Mrs. Cornwallis West, for which Mr. Rosenbergh is undergoing imprisonment, are the work of a rival beauty, who found herself eclipsed by their superior charms. Her father's name appears in the baronet's list, and money and influence were successfully interposed to prevent exposure.

Sir Henry Havelock has been left a large fortune, but there is an awkward condition attached to it. He is to take the name of Allan in the future in return for the sudden wealth thrust upon him. Tennyson declined some thousands a year recently, which he was offered on change of his name, and it is hard on a man with such an honored name as Havelock to be obliged to part with it.

The long-pending "disruption" between the Jesuit order in England and Cardinal Manning is to be inquired into by his Holiness the Pope before the close of the present month. Father Porter, the head of the Jesuit College at Roehampton, England, has been at Rome for some time preparing for the conflict, and the head of the order is on his way. Cardinal Manning has also arrived in Rome.

Gen. Grant has resumed his public progress of the American cities. Last week he was at Chicago, where all the clergymen of the city called and paid their respects. Indianapolis next gave him an ovation, Louisville, Ky., followed with a brilliant reception, Wednesday, and Cincinnati rivaled Louisville in attention to the General on the following day. Columbus, O., then honored itself by honoring him, and next, smoky Pittsburgh is bright in his reception.

The Lord Chief Baron of the British Exchequer, Sir Fitzroy Kelly, recently attained his 83d year. He is a remarkable man, can walk 12 miles a day and sit any number of hours on the bench. Some 40 years ago he was ostracised for having committed some corrupt act at an election at Ipswich and committing perjury to palliate it; but he outlived the imputations through his great ability. Like the Lord Chancellor, Lord St. Leonards, he married his cook.

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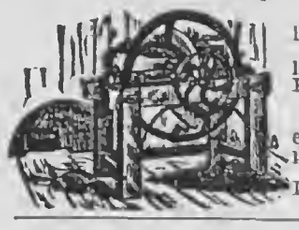

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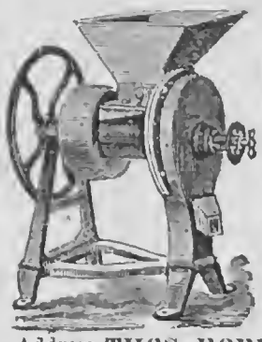

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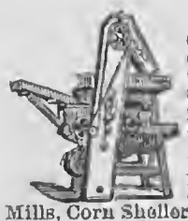

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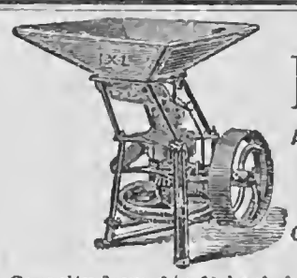

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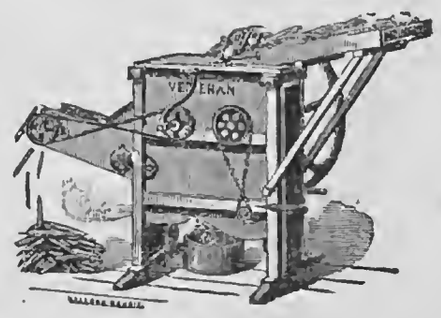

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Field Crops.

NOTES FROM THE RURAL EXPERIMENT GROUNDS.

Experiments with Doura.—White and Brown Egyptian and China Corn.—The best Fodder Plant.

ABOUT the first of June we procured and planted several sorts of sorghum seeds marked (1st) Doura, (2nd) White Egyptian Corn, (3rd) Brown Egyptian Corn, (4th) China Corn. Of the first one twentieth of an acre was planted; of the others, single rows fifty feet in length, all two feet apart in the rows—the rows three feet apart. Unlike Pearl Millet, the seed germinated freely and grew freely throughout the entire season, all ripening fruit fully except the first (Doura), for which our season is not quite long enough. All except Doura sent up a single stalk as thick as that of good-sized corn-stalks. In these remarks we desire mainly to confine ourselves to such results of our experiments as have either not been published before, so far as we know, or that differ from those which have been published. Leaving Doura for a moment, it appears to us that neither for grain nor for fodder is any of the others worth cultivation in this climate. For fodder, corn will produce twice as much. For grain, whatever they may do in India, China, Syria or, in this country, in some of our Southern States and in California, they will not yield enough in this climate to make their cultivation profitable, especially when their inferior quality as compared with other grains, is taken into the account. The size of the grain varies as much as that of corn, the largest being smaller than small pop-corn. It is white in the White Egyptian—dull-brown in the Brown Egyptian and white in the China Corn. It has been stated that the last bears its fruit in *erect* heads. Either this is incorrect or our variety was not China Corn, since the heads of this as of the others (except Doura) were recurved. It has also been stated that China Corn, and if we mistake not, Brown and White Egyptian as well, would continue to grow after being cut. July 17 when about three feet high, we cut the stalks six inches above the ground. Except to throw out a feeble shoot or so, not one plant made any subsequent growth. All but Doura bloomed about Aug. 20 and while afterwards in the milk state and later, they were frequented by hundred of sparrows which robbed the heads of a greater part of their grain.

To return to Doura:—This, as we believe from the test of a single season, will prove of great value as a fodder plant. It is true we cannot say positively that it *is* Doura. The variety-names are so confused that we can speak of this only as the variety sent to us and cultivated under that name. It has been published that Doura sends up a single stalk. Ours averaged at least *eight* to a single seed under very ordinary cultivation. The stalks are slender as compared with the other kinds we have mentioned. The leaves are broad and long. The average hight of the stalks, Sep. 20, was nine feet. July 10 one row which was then five feet high, was cut five inches above ground. Each stalk continued to grow and the average hight was six feet on Oct. 1st when all was cut. Cattle and horses relish this even better than corn and eat the stalks entire, which are perceptibly sweeter than those of corn. While corn was prostrated by high winds which occurred twice during the growing season, every stalk of this remained as upright as ever. The seeds are smaller and more elliptical in shape than those of the others Our engraving of a panicle and a section of a leaf are those of this variety drawn just before the first frost. All of the above varieties belong to the common sorghum family—Sorghum vulgare.

That under the same genus and species varieties presenting such marked differences should occur may at first seem remarkable. But it must be remembered, as Dr. Thurber remarked in answer to a letter of inquiry by the writer of this, that this plant has been in cultivation for untold ages in Africa and Southern Asia. In all these centuries it has broken into apparently as many varieties as Indian Corn. Just as in corn, these sorts may be grouped by some striking peculiarity. We have Dent, Flint, Sweet and Pop-corn groups, each with many varieties, and so it is with sorghum. We have Broom-corn, Sugar-sorghums or Doura or "Millet," each, especially the latter, comprising many varieties. In corn we have the widest dissimilarities in size, color, etc., yet the plant does not cease to be corn or, botanically, Zea Mays. In like manner, the increasing number of varieties of sorghums is due alone to culture. According to some authorities, those sorghums that have drooping panicles are called botanically S. cernuum. There is no specific difference and the drooping head should no more make it so than the downward growth of the Weeping Beech or Spruce should entitle them to distinct specific names. Besides, this drooping habit is not invariable. A very slight support we found would cause an upright growth. That, moreover, the weight of the head has something to do with the drooping propensity, we found by thinning out a few of the panicles which afterward curved less. This might have been due, perhaps, to a consequent partial cessation of growth, for in one case we cut off the entire young head just as the stem began to curve and, as might have been expected, the stem died down to the node or joint beneath.

We freely recommend to our readers that they purchase, or procure, a small quantity of the seeds of Doura and test its value as a fodder plant. We have tried it in both sandy and clayey soils, at the Rural Grounds and at the Rural Farm with the results stated above or rather, to emphasize it still more, with the result that we like it better than any other fodder plant we have ever tried. No doubt it will be offered for sale by some of our seedsmen. We commend its sale especially to those who sold immense quantities of Pearl Millet last season at an immensely high price, causing, though unwittingly, immense disappointment in a large majority of instances.

PANICLE AND SECTION OF LEAF OF DOURA.—(Drawn from Liffe.)

Farm Topics.

BONE MANURES.

PROFESSOR G. C. CALDWELL.

MOST of the recent analyses of bone meal made at the Experiment Stations in this country show that no other commercial fertilizer, except, perhaps, Peruvian guano, offers so favorable a relation between estimated trade value and market price. The trade valuation is based on the proportion of nitrogen and phosphoric acid in the fertilizer. and the average cost of these substances in fertilizers generally, in equally soluble and assimilable forms, and also on the degree of fineness of the bone-meal; the finer it is, the more rapidly its constituents will become available in the soil, and the quicker will be the return for the capital invested in the manure.

The following table exhibits some of the general average results that have been obtained in these analyses.

	Number of samples analyzed.	Per cent of nitrogen.	Per cent of phosphoric acid.	Estimated value.	Cost in market.
Middletown (Ct.), experiment station, 1877-8.....	7	3.28	24.2		
Conn. Exp. Station, 1877.	7	3.09	22.26	38.08	31.89
Conn. Exp. Station, 1878.	26	2.68	18.13	33.10	31.58
Conn. Exp. Station, 1879.	9	3.62	20.26	38.56	31.90
Georgia, 1877-8.....	4	3.26	15.92		
North Carolina, 1877.....	2	2.31	10.62		

The average quality of this fertilizer, as is shown in the above table, varies considerably in different years as well as in different localities. It does not appear to be a favorite manure at the South, which, considering the comparatively poor quality of the article as offered there, is quite natural. The average result of the analyses made at the Connecticut Experiment Station in 1878, is reduced by the comparatively large number of poor samples received at the Station that year. Up to the date of this writing, December 10, the average results obtained this year indicate a marked general improvement in quality.

It may be that the dealers in such poor stuff do not find it profitable to allow their goods to fall under the observation of the Experiment Station; they can find markets close by in the neighboring State of New York where, although there is a law for the prevention of frauds in fertilizers, no such means are wisely provided by the State for exposing fraud. Farmers themselves cannot in most cases afford to take the necessary steps to enforce the law, and in other cases they will give themselves no concern about the matter under any circumstances.

I wish to call special attention to the figures in the last two columns. Even in that year when the bone manures were poorest in quality, the trade values were greater than the cost, and in the year preceding and that following, the difference was much greater in favor of these manures. It must not be supposed, however, that all bone manures put on the market are thus worth more than they cost, although up to this time only one has been analysed this year at the Connecticut Station, that was not. That one, I observe, was one of the very few brands offered for sale at the South. Last year, out of the 26 samples analysed at the same station, 10 cost more than their estimated trade value, and of this number three were different brands, manufactured by the same firm; this firm has been engaged in the business for a long time, and is widely known. On the other hand, I notice another brand, bearing the name of one of New York's most honored citizens, whose estimated value has always been greater than its cost, and sometimes one-third greater; if, as is undoubtedly the case, this firm makes a fair profit in selling an article of superior quality for $30 a ton, which is worth $40, then the other firm which sells, at the same price, an article whose trade value is only $27.56, and another for $35 which is worth but $29, must make exorbitant, or at least unreasonable profits. The farmers, of course, pay these excessive profits, and they will continue to be fleeced after this fashion as long as they will buy commercial manures without any guarantee as to their composition, or even with a guarantee, if they do not make some provision for having the statements of the dealers tested and verified, from time to time, by expert and disinterested chemists. If dealers know that, as in the State of New York as well as many other States, their statements of the composition of their manures will in all probability not be tested, it is not to be expected of average human nature, in the face of so much competition as there is in the fertilizer trade, that such statements will be as carefully made as when they are intended for localities where a rigid scrutiny is exercised. I might, if space permitted, present many illustrations of the position that these guarantees need verification.

The average cost per ton of superphosphate offered for sale last year and this in Connecticut, has been very nearly $38: bone-meal is therefore somewhat cheaper. Superphosphates contain generally a little less nitrogen than bone-meals and much less phosphoric acid, the average proportion being not over 12 per cent., of which about half is soluble in water, while none of the acid in bone-meal is directly soluble. The nitrogenous substance of the bone-meal, which is most intimately associated with the phosphate of lime, soon putrefies in the soil, and is supposed to assist very materially in bringing the phosphate into solution; hence all the phosphate in bone-meal may be regarded as existing there in a condition of medium solubility. On the other hand, it is a very generally accepted principle that the soluble acid of the superphosphate does not long remain in that condition in the soil, but is sooner or later converted into a less soluble form, similar to that in the bone-meal, but with this advantage, however, that it is more uniformly distributed over the surfaces of the particles of the soil.

Putting all these considerations together, we need not be surprised at the claims sometimes made to the effect that better results have been obtained with bone-meal than with superphosphate. Such a result would be more likely to occur with superphosphates made from mineral phosphate instead of bone-meal, since the insoluble portion of such phosphate is usually quite insoluble and unassimilable so far as its immediate usefulness is concerned.

Cornell University, Ithaca, N. Y.

ENSILAGE.

The opening of the silo at "Winning Farm," Bellerica, Mass., Dec. 3, was attended by a number of agriculturists and members of the press. This is the first American silo built exactly on the French plan, as discovered and invented by M. Auguste Goffart, after many years' experimenting. The silo is double, each side, 40 ft. long, 12 ft. wide, 16 ft. deep, the whole being roofed, containing altogether about 500 tons when filled. One side was about half full, containing about 125 tons of cornstalks; the walls were concrete, 15 in. thick, and cemented smoothly on the inside. It was sealed with a small door on Sept. 30, after eight days employed in the cutting with 5½ horse-power engine and large ensilage cutter placed near the silo, cutting the stalks 4-10 inch, and elevating the fodder over the wall into it, where two men spread and trampled it. Straw, about 12 in. thick, was spread over it; a layer of 1½in. spruce planks covered the whole crosswise, on which were placed about 50 tons of stone.

The stalks, however, were cut when too mature, some of them having roasting ears, and some being dried and frost-bitten. This delay was owing to the silo not being finished in time. Notwithstanding this, the ensilage was found to be in excellent preservation, with a very thin crust (2 in.) of adhesive steamed fodder, which readily separated from the bright, pale mass of fodder. The fodder was at first sour to the taste, the result of the delay in cutting; but on exposure to the air for a few hours, it became sweet with natural color, and taste slightly alcoholic, and all the cattle, sheep and hogs eat it greedily.

The cost of the double side was about $500, and the cost of the corn-fodder does not exceed 75 cents per ton. The proprietor, Mr. J. M. Bailey, is greatly pleased with the results, and will ensilage a much larger quantity the coming season. Mr. Morris, of Maryland, is also preparing to raise 1,000 tons for ensilage.

J. B. BROWN.

Farm Economy.

CONSTRUCTION OF SNOW-PLOW.

We here present a snow-plow which, in its construction, is superior to any other implement of the kind that we have seen, and it

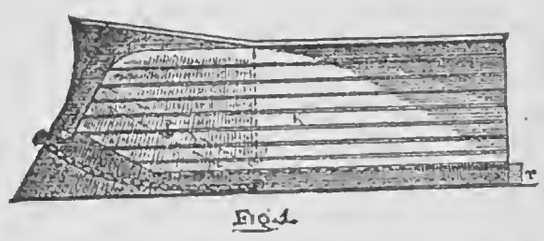


Fig. 1.

can be made by anybody accustomed to the use of tools. Fig. 1 shows a side view of the plow when complete, and fig. 2 a ground-plan of the same. One-half of the bottom is left unboarded to show the construction of the frame, and in the other half is seen the side

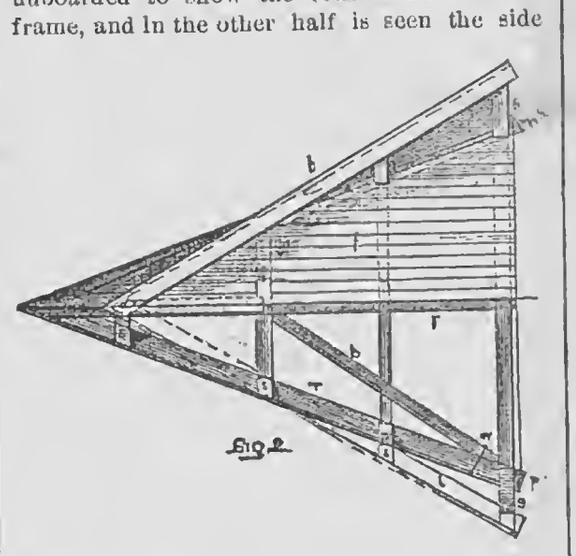


Fig. 2.

and the boarded floor. Fig. 3 represents a rear view, and fig. 4, a front view of the plow. Its construction is explained by the letters as follows: r, r, r, are the runners, of which there are three, one being in the middle; in a small plow this middle runner can be

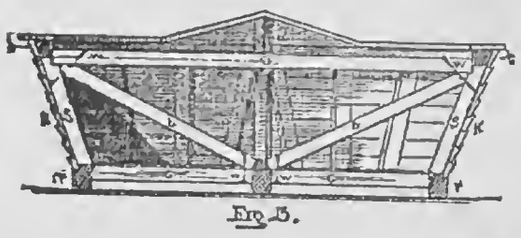


Fig. 3.

omitted; t t are the top rails, b b, the braces and k k, clapboards. These overlap one another upwards to hold the plow the more steadily in the snow; if they overlapped downwards, there would be a tendency to lift the plow out of the snow. The flooring is shown at f; w, w are iron bolts; c, c, floor beams; a, beams to resist pressure from the sides; i, a sheet-iron covering fastened on the front and

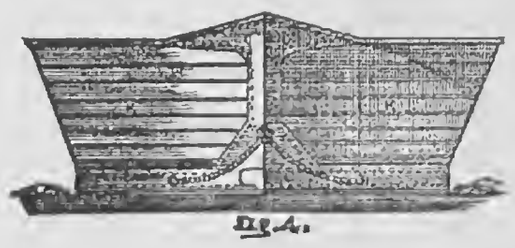


Fig. 4.

base of the sides to prevent the snow from entering the joints and also to give the front a smooth surface. The runners should be made of oak, and in addition they may be shod with iron; the rest of the timber can be pine or spruce. This plow can be made of any desirable size, and if only a small light plow is wanted, the details of construction need not be carried out as fully as here indicated, but if the directions are followed the result will be a strong, light-running and efficient implement capable of withstanding severe work.

A Good Deodorizer.

In our vicinity are numerous kilns where large quantities of wood are burned into charcoal for use in the iron furnaces located at Appleton. The screenings, or fine coal, are thrown out as useless. I haul a load of the stuff now and then for use as a deodorizer, using it freely in the stables, the privy vault, the pig-pen, the hennery; in fact, in every place from which foul odors arise. I find that it answers that purpose better than any other substance which I can use, not only adding to the health and comfort of my family, but to the well-being of the pigs and chickens as well. I cannot say how much real value there is in charcoal as a manure. (This was explained in "Querist" of a late issue. EDS); but believe that when it is mixed thoroughly with other manure, as in this case, it adds materially to its value. I have occasionally applied the fresh coal directly to the soil, but cannot speak very favorably of the results. Where it can be had for the hauling any reasonable distance, however, I would advise its free use as above. J. K.

Outagamie Co., Wis.

Industrial Societies.

INTERNATIONAL DAIRY FAIR.

(Continued from last week.)

Dairy Implements and Cattle Exhibits.

Lincoln's Patent Creamery comes next. This is exceedingly simple in construction. The ice chamber, one-third, as usual, of the box, has a conical bottom and turns back from the cans on a hinge, and is held in place by two leather straps. The cans have no covers and no fancy fixings for removing the cream or skimmed milk. This must be done with a dipper.

In butter coloring materials there are numerous displays. Wells, Richardson & Co., so well and favorably known in this connection, make, as usual, a very fine display, pointing out the necessity for supplying the uniform color to butter that the cows do not always succeed in producing. There are also fine displays by Mrs. B. Smith, who claims many new and valuable improvements in the goods she now produces. There are also fine foreign exhibits in this line, notably Mr. Chr. Hansen's Liquid Butter Coloring: also L. Ziffer's Liquid Annatto Also Badger State, and Natural Butter Colors from Wisconsin. Then there are minor exhibits under the patronage of larger displays.

One of the most interesting and striking displays of the exhibition is made by the Dairy Supply Company. Festoons of their popular and unique milking-pail grace the front of their three alcoves, while the Pendulum churn attracts its usual crowd of investigators. They have many novelties in the way of wooden butter packages called "knock down" boxes, that are shipped to the dairyman in solid packages to be set up when used, and made after the pattern of Crandell's jointed toys.

Cornish & Curtis display novel plans of box and rectangular churns, that are so popular in the West. This compact, durable and efficient churn, we are told, bore away the highest award—a cash premium and a diploma—at the great Chicago Dairy Fair last December.

The Blanchard Sons, not satisfied with the famous reputation of their churn, are still urging it upon the notice of dairymen with new improvements. One late improvement consists in substituting a circular top to it in place of the flat top that it formerly had. This circular top does not hold an accumulation of cream while the churn is in motion, thus doing away with the old necessity for "scraping down" that the flat top imposed upon the churner. This new feature brings this popular churn very nearly to perfection—it is called the "New Blanchard." The Davis Swing Churn that carried off the first honors last year, is on hand again, and rigged, as it was thought impossible to do, with a power. The attraction is in the shape of a fine dog, that moves it with an ease and grace that speak volumes for the mechanical ingenuity that reduces the labor to a minimum.

The great attraction in the line of novelties this year consists of a home-made and an imported centrifugal Cream Separator. These are machines with hollow cylinders, in which are placed the full milk, fresh from the cow. These cylinders are revolved at the rate of about two thousand revolutions to the minute. The great speed causes the heavier parts of the milk to seek the circumference, while the lighter particles gather in the center. By ingenious contrivances the cream, which is lightest, is drawn from the center, while the rest of the milk is taken from the outer circle. Every one is wondering if these machines will not revolutionize butter making once more, as the cold setting has done in the last few years. A man who had a patent churn, with rights for sale, excited much interest and amusement among the spectators by a challenge trial between his device and others; the Surprise Churn, exhibited by Morsely & Stoddard, gave it such a close race that the other was, owing to one of those mishaps that always occur in a race where one party is a little faster than the other, left slightly in the rear, much to the gratification of these enterprising manufacturers of dairy implements.

Mr. Jas. B. Gilberds shows a new model of the Jamestown return butter pail with a patent fastening that does away with the old objectionable "ears" that were always sticking up in the way, so that one tub could not be set upon another, and greatly hindering the very necessary process of "stripping." This contrivance, the "Optimus," as it is called, consists of a sliding lever, with galvanized flat hooks, that the ends of the lever cover, when in position. This takes the place of the old-fashioned wooden pins that passed through holes in the long staves or "ears."

One of the showiest, handsomest and most striking exhibits in the fair is Frank B. Ward's milk wagon. It is complete in its appointments with patent refrigerated cans in front, and sliding brackets to hold the cups. Instead of a bell, a melodious gong is rung with the foot of the driver. With great ingenuity every spare inch of the wagon is utilized, while its outside ornamentation is simply resplendent. Mr. Ward, we understand, is one of the most enterprising milk men of Washington, D. C., and has made a handsome fortune in the trade. It is to such men that we are always indebted for advanced ideas and improvements in dairy practice.

The Vermont Machine Company show a patent "Evaporator," contrived for perfectly taking the water out of anything. The farmer nearly every year is overrun with some one or more of the various kinds of fruits. What to do with the surplus that he sees rotting about him is a serious question. This machine solves the problem. It condenses into jelly, or syrup, or sugar, thus placing the fruit in a shape which can be preserved or shipped in the least bulk, and upon a paying basis. Warren's glass milk vessel for delivering milk fresh and genuine, a method that is likely to revolutionize milk-delivery in large cities, is exhibited by the Dairy Supply Company, and should be well studied by all who are interested in this branch of dairying.

A new thing on the market is here introduced—fresh cream from Iowa. The West will never get done surprising us, and at last we are able to eat fresh, sweet, rich cream a thousand miles from the cows that produced it. But let this enterprising gentleman tell his own tale. "Fresh, sweet cream! This cream is produced from healthy cows, fed upon the corn and nutritious grasses of Iowa, the banner dairy State of America." That it is good we know from actual test.

Among the large exhibitors the most prominent are Whitman & Burrell, with quite a grand display of dairy utensils, making cheese and creamery butter and doing things as usual on a grand scale. They exhibit cream-raising in vats for factory purposes, and on a large scale. Among their novelties this year they show a seamless cheese-cloth or bandage, that works much more smoothly and keeps off the fly better than the old kind. They also have a model stable filled with cows that slipped into the fair without being examined, and are now standing where Gen. Patrick said no cows should be. We hope the General and every lady visitor has looked into this matter, and examined it for themselves. In their refrigerated cheese-vat they have introduced the improvement of putting ice in the hollow partition, through the center. Their general display is very fine, and does credit to the enterprise of the firm.

Davis and Fairlamb show a full line of their cans for handling cream by the Fairlamb process, also a new Stock Food Strainer.

THE CATTLE EXHIBITS AT THE DAIRY FAIR

L. S. HARDIN.

It was early known that the managers of the International Dairy Fair, now being held in this city at the American Institute, intended to make extraordinary exertions to bring together at this fair one of the finest collections of dairy cattle that had ever been exhibited. To that end, liberal premiums were offered and the breeders of fine cattle from all parts of the country fully notified and requested to exhibit their cattle. Out of this clear sky, however, came the thunderbolt that well-nigh blasted all their hopes. In pursuance with the legal precautions taken to prevent the spread of pleuro-pneumonia, Gen. Patrick laid an embargo upon all cattle intended for the fair from many of the adjoining States and counties lying in the vicinity of this city. By judicious exertion, however, about one hundred head, representing all the leading dairy breeds, have been brought together.

As you enter the dairy building, to the right and left, in strong contrast, is presented the picturesque sight of Jerseys and Holsteins;—the one largely prominent and striking from the abrupt contrasts of black and white, the other small, unique, and of modest, faded colors. This is quarantine, the orders being that cattle from certain States shall not come within three hundred feet of each other. Here in the Jersey section may be seen the famous herd of John J. Holly, of New Jersey, containing such cows as "Favorite of the Elms," "Filbert" and "Josephine 2d," cows that have won the first honors at fairs until their names have become to Jersey breeders as familiar as household words. Standing by their side, and possessing rare lines of beauty, is the first-premium bull of New Jersey, as determined at the last State fair, "Much a do." He is certainly a bull of grand proportions. In the adjoining pens, Dr. Newell, of the same State, exhibits some charming specimens of young Jerseys. Across the entrance aisle, stand the large black-and-white Holsteins of Mr. Neilson, of New Jersey, apparently unconscious, in their ponderous strength, of the mighty weight of impossible names they are bearing, chewing the cud of perfect contentment amongst all the din of a large fair. In point of quality, this imported herd is said by those competent to judge to be up to the full measure of the Holstein standard.

Back in what is called "Machinery Hall"—the rear apartment of the building—are collected the remainder of the cattle. Here William Crozier, the veteran showman, as he may well be called, exhibits a large herd, some forty in number, of Jerseys, Guernseys and Ayrshires. In point of evenness—probably the highest of all points of quality—this is a most remarkable collection. Among the Jerseys there may be said to be not one that is below medium in quality. "Rival," the hero of a dozen fairs, stands at the head of the herd, and is only equaled in points of beauty by that rare specimen of the Jersey type, "Gold Cup," just in his prime, some eighteen months of age. The Guernseys can scarcely be said to be up to the standard of Mr. Crozier's rare judgment in selecting cattle. The Ayrshires are specimens of the first water.

The Messrs. S. M. & D. Wells, of Conn., show a herd of superb Ayrshires, not only models in shape and comeliness, but holding that best of all virtues in a dairy cow, a record of performance that will make the best of the larger breeds look sharply to their laurels. Close competition for first honors is naturally looked for between these last two herds. The Messrs. Harvey & Weed and Mr. W. H. Walmsley, all of Connecticut, show herds of Devons. In shape, size, and especially in color, there is so much uniformity, it would be beyond us to express a choice. As specimen representatives of the breed, they are pronounced first-class. Mr. Decker, of this city, exhibits a herd of native cattle. There is a lack of evenness about them as usual, though we suppose they possess individual merits as milkers.

On the whole, though this fair exhibit was cut more than half in two by the cattle inspection authorities, the numbers are respectable and the quality as good as we have seen at a cattle exhibition.

Pomological.

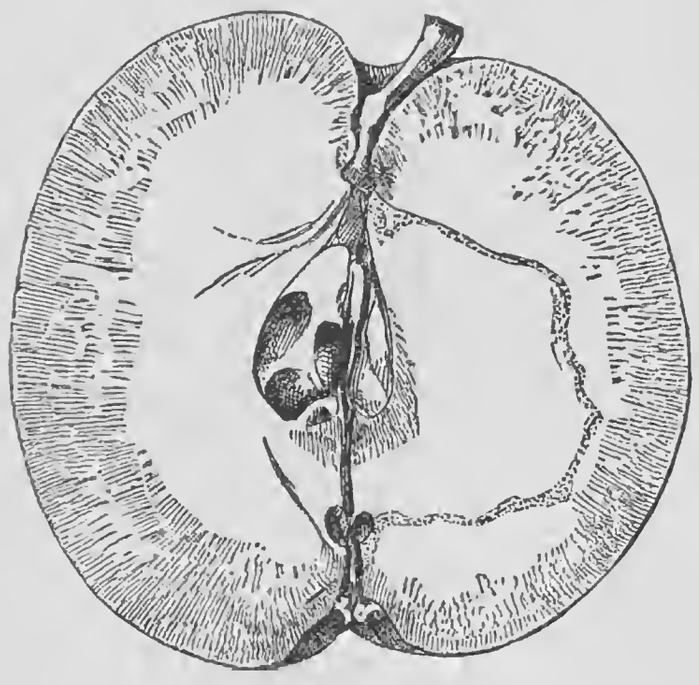
UNITING SPLIT BUDS AS GRAFTS.

A CORRESPONDENT of the RURAL NEW-YORKER in answer to an inquiry whether it "is possible to make buds split into halves and united as one, grow," says he "would as soon think of cutting two animals through the center to make one compound of them." When he cuts a potato into sets, or a twig from a Rhode Island Greening for a graft, does he then as "soon think of cutting up his animals" in the same way? I do not see why we should think of the animal when we are considering questions of grafting. How does he know that the "vital point in a seed or bud is a different thing" from the "mass of vessels and cells" which "adhere by advancing growth" in grafting? I would like to know more about this "vital point," for I find no reference to it in any of Dr. Gray's physiological works on my shelves.

I was gratified to learn that "it was quite possible to make two halved grafts adhere," and to know that in such cases "each half would remain distinct from the other;" but what would be interesting to know is how the new growth from these two halves behaves. "That a hybrid could be thus produced is contrary to all analogy and fact" leads me to inquire what facts are referred to? I have just been reading an interesting paper by F. W. Burbidge, a distinguished English horticulturist, who has taken the trouble to go over the whole recorded "facts," and select those which are undoubted, and I find that there are many things in existence positively known to have been raised by bud-grafting.

I should not have ventured to make these remarks only that you say the writer is "one of our first pomologists." As such, he is, of course, familiar with the subject he writes about, and, of course, he knows all about so distinguished a work on the subject as this of Mr. Burbidge. I beg to ask him, therefore, if when he says "bud hybrids" are contrary to "fact," he means to say that all the so-called facts collected by Mr. Burbidge are worthless? If pains-taking experiment, and careful investigation, such as Mr. Burbidge has taken, are of no more value than the mere "impossible" of a "first pomologist," it is hardly worth anybody's while to try experiments, much less to record the results.

ENGLISH SPARROW.



SECTION OF MOUNTAIN BEET APPLE.

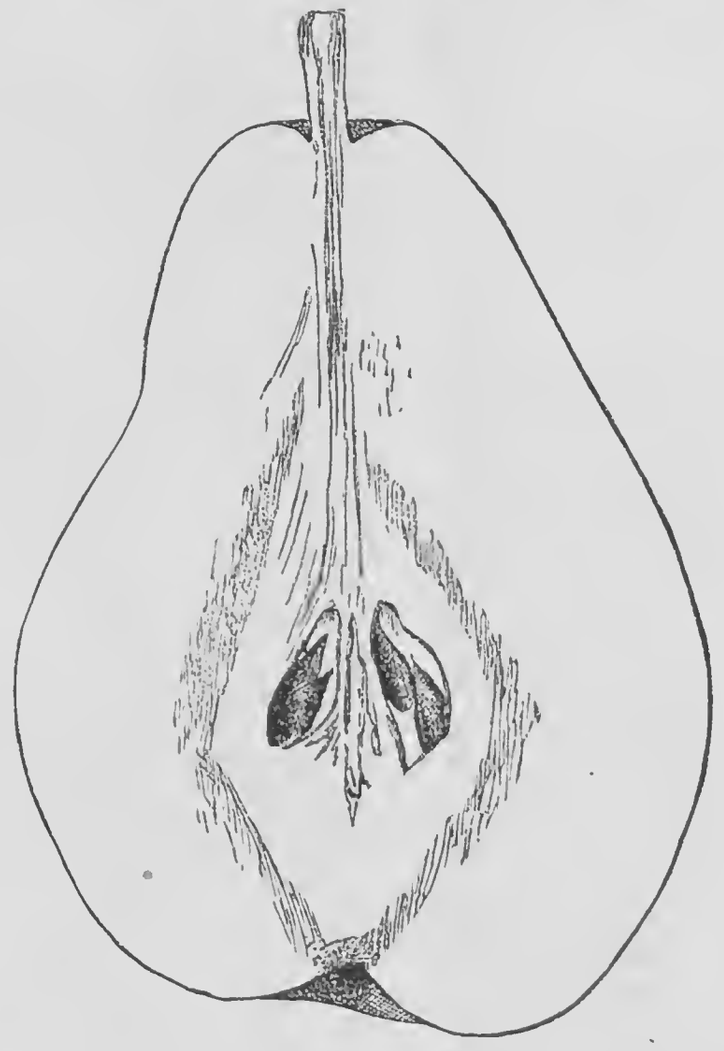
The Mountain Beet apple.

A BRIEF description, but without an illustration, was given of this apple in the RURAL a year ago. It is a dessert fruit of very good quality; tree vigorous and hardy in the severe climate of Lower Canada, and quite productive. It originated on Yamaska Mountain near Abbottsford, Quebec, and has been considerably propagated, the fruit proving salable and profitable in the city markets. It is a conical apple, of medium-size, and dark-red in color. The peculiarity of this variety is that when fully ripened on the tree, the flesh is nearly as red as the skin, like the blood-peach, or a blood-orange, with a red juice that stains the fingers like that of a strawberry. When well grown it is a very showy apple; but, like its probable parent, the Fameuse, it spots somewhat in unfavorable seasons or on unsuitable soil. Season, October and November.

Orleans Co., Vt. T. H. HOSKINS, M. D.

The Howell Pear.

We rarely hear this favorite market pear spoken of as doing well on Quince, but with us it seems as much improved in size as the Duchess is by the quince stock. Coming after the Bartlett and just before the Duchess, it meets with an immense sale in our markets. Its size is large, the engraving representing the average size; its color is yellow, often with a bronzy-red cheek and slight dots. The flesh is white, buttery, quite rich, aromatic and variable in quality in different places. It is a fair, showy fruit and is ranked as of good quality by pomologists. The tree is a strong grower and less liable to blight than many other sorts. The specimen from which our engraving is made, was picked from one of our own dwarf trees about the 1st of October. It is recommended for Texas, Georgia, Kansas, Louisiana, California, Utah, Tennessee, Illinois, Nebraska, Iowa, Ohio, Pennsylvania, New Jersey, Virginia, New Hampshire, Massachusetts, New York.



THE HOWELL PEAR—SECTION.

Pruning—Scraping the Bark.

AFTER watching closely the results of different methods of pruning for the last ten years, I have come to the conclusion that the majority of orchardists prune too seldom and too severely. Trees that are almost unpruned, being longer-lived and more fruitful than trees that are subjected to a severe pruning once a year or once in two years. We should bear in mind the fact that there should be a proper proportion between roots and branches. If we take off all the top, the roots all die; if we take off half the top, the roots are badly injured unless the tree can succeed in forcing latent buds into a plentiful crop of suckers. Again, scraping the bark off too closely is a mistake that is often made, all that is necessary is to take off the loose bark; if we scrape off *all* dead bark, we destroy nature's covering and leave the naked trunks to be scalded by the sun and injured by each and every frost.

T. F. FORFAR.

KEROSENE ON TREES.—I have never used kerosene on trees for the destruction of insects, etc.; but I have seen apple trees, of bearing size, ten to fourteen inches through near the ground, to which it had been applied to keep the canker-worm off. The trees made an attempt one or two seasons after to leaf out, but could not succeed in growing more than now and then a leaf a little larger than mouse ears and then ceased entirely to try, and became cumberers of the ground. I do not know how carefully the application was made, but as the trees were valuable I presume ordinary care was used. W. H. W.

Worcester Co., Mass.

THE KIEFFER'S HYBRID SEEDLING PEAR.—Mr. J. S. Collins, of Moorestown, N. J., in answer to our inquiry in Editorial Brevity in RURAL of November 22, as to whether the above Pear is really a "hybrid" or cross-breed, writes us that in his opinion it certainly is a hybrid, and that Mr. Thomas Meehan, Editor of the Gardener's Monthly, shares this opinion. But we do not find that anything *positive* is known about it.

Dairy Husbandry.

MAKING BUTTER IN THE WINTER—No. 1.

HENRY STEWART.

EVERY winter there is an outcry for fresh packed butter in small packages. In every country village there are families who are anxious to procure butter of first-rate quality in the winter season, when the summer dairies have finished their make, and when farmers can no longer supply them; and they are willing to pay an extra price for it. In winter, fresh butter is scarce, and in summer it is plentiful. It is the part of wisdom in one who makes anything to sell, to have it on the market when there is a scarcity, and when prices are high. It costs no more to make butter in the winter than in the summer. A dairyman who makes fine butter a specialty can just as easily keep his product even in quantity through the whole year as make it during the summer and be idle in the winter. It pays to work the year round and not stay idle one-half of it, and he who makes butter in the summer and keeps his cows idle in the winter throws away one-half of his opportunities. The old fashion of packing butter in June for sale in the fall for winter use, is obsolete. Western creameries and Eastern dairies have changed that practice of the farm, and farm butter has now no chance by the side of the fine goods that are put on the market by the creameries and winter dairymen. Winter dairying has been made possible by the inventive genius of the patent-churn people. Heretofore these useful persons spent their energies in discovering a possible churn that could differ from the 8,001 that had been already devised. Failing in finding an 8,002d one, they turned their attention to devising methods and machines for the setting of milk for cream, in which the temperature could be kept even by the use of ice in summer and warm water in the winter. The Swedish system of setting milk in deep pails soon became prevalent here, and a 10-cow dairy could be accommodated in a space which was formerly required for two cows. The inventive faculty of scores of ingenious men has been stimulated until there are numerous devices and kinds of apparatus for keeping milk in any desired temperature, and in such a way as to yield the best quality of butter, so that dairying can be carried on in winter as easily and cheaply as in summer.

But one must have the fresh cows, and this is easily accomplished. For winter dairying especially it is best to keep no cows through the summer, but to spend all the time in growing crops for winter feeding; and instead of selling the crops, to feed them to cows and turn them into butter. In this way the waste of pasturing is avoided and so is the waste of manure. Fresh cows can be purchased in the fall cheaper than in the spring and it has often happened that cows bought in the fall have been milked and fed through the winter and have been sold in the spring, for more than their cost; where there is pasture, this need not be done and the cows may be turned out to feed in the summer when dry, at very small expense.

Feeding for Winter Butter.

It has been said and insisted upon by some persons for whose opinion I have great respect, that the kind and quantity of feed given to a cow have no influence on the quantity and quality of the butter. But every day's experience convinces me that this opinion is without any good basis. I have proved the contrary again and again, and I *know* that the feed is of the utmost importance in making winter butter. I can choose such feed as will make a Jersey cow give white butter of no more flavor than lard, and such as will make butter that will need no color to make it acceptable in that regard to the most fastidious judge; and the same with regard to flavor. I have tried experiments on my customers and on my butter-maker, by changing the feed, and have been amused to hear the remarks as to the quality of the butter, and the yield of both milk and butter. Almost every farmer and farmer's boy knows that buckwheat bran fed to cows, will produce butter almost perfectly white in color and of a greasy, unpleasant flavor. Perhaps the worst possible fresh butter might be made from a cow fed upon corn stalks, turnips and buckwheat bran, for it would be poor in color without texture, and of a strong flavor. Linseed oil-cake meal gives a greasy unpleasant flavor and light color; palm-nut meal is but little better, although it is remarkable for its effect in increasing the quantity of cream in the milk; cotton-seed meal is certainly the best of all the artificial foods, as it both increases the cream

and gives it a rich yellow color. Corn meal is an excellent feed for color and quality of butter, but it often decreases the yield of milk when used alone; a mixed meal of oats, corn and wheat or rye middlings in equal quantities, is excellent feed for butter; but when the oats are used in excess, there is often trouble in churning. A new feed in this country is rice meal, which is the refuse from the hulling machine, ground into a fine meal. Its feeding value is theoretically high, but experience alone can fix its actual value. I am now using this meal and shall soon be able to give an opinion as to its value for milk and butter.

Fodders are of various kinds. The first in value is undoubtedly clover hay cut in an early stage. The next is orchard grass, clover and Kentucky blue-grass mixed. The mixed grasses of an old meadow which are chiefly red top, some of the fescues, with some timothy and blue grass, make a good hay for the dairy. Fodder corn grown especially for this use, and thickly planted so as to have their stalks and plenty of leaves, cut while in blossom and well cured in the shock, has proved with me to be equal to the best hay. Sweet corn of the large kinds is preferable to field corn; the Blount's White Prolific is a fine fodder corn, growing tall, having leaves to the bottom, and many half-grown ears when planted as late as June, and being very sweet. A few acres of this corn planted last season, turned out a large crop of the finest fodder, which gave a better yield of milk than mixed timothy and clover hay.

Roots are, however, the chief dependence of a winter dairy. Turnips and ruta-bagas should never be used. I would as soon feed onions to my cows. A delicate taste can even detect the flavor of turnips that have been stored on the barn floor upon which cows have been fed, although the cows have eaten none. There is no use in trying to believe that turnips will not flavor milk and butter if given to the cows immediately after milking. I have tried it oftentimes, and invariably my customers have complained of a taste in the milk, which they suspected was from dirty milking, and I can detect the scent and flavor of the turnips in the butter. Mangels, the Yellow Globe or the long red varieties being the best, are unexceptionable, giving much milk and that of a good, rich color. From one peck to half a bushel per cow, sliced and sprinkled with feed, will make a profitable feed for a dairy cow in full milking.

In feeding cows in winter, a daily ration of salt should be given. One ounce, or a tablespoonful per day, is a fair allowance for a cow. The want of salt will cause slow churning, and foaming in the churn, and butter not coming may often be attributed to this. It should go without saying that perfect cleanliness in food and water is of paramount importance. Where the dairyman intrusts the feeding to a hired man, the observance of cleanliness should be insisted upon as absolutely as honesty or sobriety. To use a dung-fork for mixing feed, or trampling upon hay or fodder with filthy boots, cannot be permitted with impunity. It will pay for the employer to keep one man specially to feed the cows where 10 to 20 are kept, and not permit him to handle manure or clean the cows, or to provide him with rubber boots for working in manure and in the yards, for the purpose of maintaining perfect cleanliness. Lastly, the water should be pure and given fresh and warm from a spring or well.

The Herdsman.

WINTER FEEDING FOR STOCK.—No. 2.

PROFESSOR E. W. STEWART.

Cattle.

CATTLE feeding represents our greatest stock interest, since the number of head now reaches at least 30,000,000 valued at $750,000,000; and sheep and swine only number two to five millions more each, so that the cattle interest greatly exceeds both of these. The only other stock interest that approximates to it in value, is that of horses, something over ten millions in number, estimated at $600,000,000. But the cattle interest represents the most important elements of animal food among civilized people—beef and dairy products. The feeding of cattle, in this country, has only lately entered upon its scientific stage—that stage in which all the elements of success are taken into consideration. It is only of late that serious inquiry has been made as to the cost of growing a pound of beef, but this apparently simple matter is very indefinitely understood either in this country or elsewhere. Perhaps in Germany the value of foods has been more carefully studied than in any other country, but even there the cost of a 1500-pound bullock has never been accurately determined. If we had the cost of feeding 20 calves from the time they were dropped until they averaged 1500 pounds live weight, with the cost separately determined for each three months, and the food consumed accurately noted, we should have a more complete test for determining the cost of beef than we can now refer to in all the knowledge extant. The investigations of the last fifteen years have brought out, in clear light, the important fact, that the cost of beef under the best system of feeding, is in proportion to the age of the animal—that is, the younger the animal the less it costs to put on a pound live weight—and, consequently, if a steer is grown to 1500 pounds weight in two years, it will cost much less than to reach that weight in three to four years. There have been so many cases of cattle reaching 1400 to 1500 pounds in 24 months, that this may be considered as an average attainable under a proper system of breeding and feeding, and a less result should not be considered satisfactory feeding. This requires a gain, from birth, of two pounds per day for two years. The first year should give a weight of about 900 pounds, as a full-fed animal gains faster the first year than the second.

The Calf.

The proper winter-feeding of calves is first in order. As we have just seen in reference to growing beef, the rapid growth of the young animal is of the greatest importance. Farmers, then, cannot afford to winter their calves in an indifferent manner, keeping them, as is too frequently the case, in a state of suspended growth till grass comes again, relying upon that to give them thrift. It costs two-thirds as much to keep calves in winter without any increase in weight, as it does to make a fine growth. The gain in full feeding, all comes from one-third of the food—two-thirds being expended to keep the calf alive without loss. Is it not, therefore, very bad economy to throw away two-thirds of the food required to make a good growth, in order to save the last third? All growth comes from the last third of the food in a full ration. When farmers fully understand this, they will cease to throw away food in starving young animals. Some farmers are careless even in keeping the calf the first summer, allowing it to gather all its food in a poor pasture after the short season of milk feeding. The calf thus takes on a stunted condition before winter comes. In such case the greatest skill is required to change this condition into one of thrift, and if it be not done, it would be much more profitable to skin the calf in the fall than to keep it in that stand-still condition, for its food through the winter will cost more than the calf is worth in the spring. Having treated in a previous article upon the importance of warm, well ventilated stables, it will be understood that calves are to have comfortable quarters. And, if the calves have come to winter-quarters in poor condition, the best food to start them, when it can be had is, six or eight quarts of skimmed milk with two quarts of oats and one pound of linseed oil-meal per day, with good hay. This ration for four to six weeks will start any calf in December that is not past recovery. But it will not often happen that the farmer has milk at this season of the year, so we must give a ration that is not difficult to obtain. Most farmers have corn meal and oats, and linseed oil meal is obtainable in almost any part of the country. Give each poor calf two pounds of corn meal, two pounds of oats, and one pound of oil-meal per day, in two feeds. This, with good clover hay or rowen, will soon change the thrift of the calf. Perhaps the farmer will say he cannot afford it; well, then he cannot afford to keep calves at all. This feed for 150 days will cost about seven dollars, as an average—in the West somewhat less. Now, calves with this ration ought to gain at least 300 pounds; whereas, if only fed hay, being poor on the start, they will not gain anything in weight. Will not these 300 pounds' gain in weight with the greater value per pound of the whole animal, be full compensation for this extra expenditure? This extra weight and condition will more than double the value of the calf in spring.

If the calves come to winter feeding in good, thrifty condition, they will winter finely upon two quarts of oats and one pound of oil meal. I mention the oil meal because of its sanitary value in keeping the stomach and bowels in a healthy condition. But, if it is not easy to obtain it, feed three quarts of oats per day to each calf with good hay, and you bring it through finely. If you have not oats, but corn and good clover hay, feed three pints of corn meal or shelled corn on a thin layer of hay in the manger; or, better, if you have wheat bran and corn meal, feed two quarts of bran and one quart of corn meal mixed, in two feeds. If you live near grape-sugar works, your calves may be fed still cheaper on four quarts of sugar meal and one pound of oil meal with hay, or the sugar meal with one quart of oats per day. The sugar meal is not a complete food in itself and should always be fed with a small portion of other grain. But whatever ration you adopt, feed liberally; in that will be found the most profit. For heifers intended for the dairy I have not given different rations from those for calves intended for beef, because they both require nitrogenous rations to grow the frame and muscles, and I have not given excessive ration that would injure young heifers intended for breeding.

Fattening Cattle.

This is a subject of great interest to the American farmer at the present time. Since Europe has opened up a market for all our surplus first-quality beef, it stands us in hand to study the question of economical feeding; for it must become the life-blood of our agriculture. The true system of growing the best beef begins with the calf and continues till the animal is ripe for market. But we must consider the best mode of fattening cattle that are ready for the last stage of feeding steers two and a half to three and a half years old. The most difficult problem to solve in fattening pertains to those cattle that have been raised on the old plan of slow growth. Their digestive capacity is small, comparatively, and it is exceedingly difficult to start the fattening process in a satisfactory manner. Having grown so slowly, they cannot, at once, assimilate food enough to make a respectable increase in weight. It must take a longer fattening period than with thrifty steers that have grown rapidly. The feeder must take this into account when he buys this kind of cattle to fatten. I have thoroughly tried the experiment, and find that it requires from two to four months to put such steers into a thriving condition. The ration best adapted to start thrift in this class of steers must contain a portion of flax-seed or linseed oil-meal Flaxseed ground with other grain, as mentioned last week, or oil-meal, has a most decided effect upon the secretory system—slicking the hair, loosening the skin, seeming to lubricate the whole animal machinery, and putting it in condition to assimilate other food. Take these steers of 1000 pounds-weight, and the following ration will have the best effect: one part of flaxseed ground with sixteen parts of corn—six pounds of this mixture, four pounds of bran or middlings, with 18 pounds of good hay, or ten pounds of hay, and ten pounds of straw; or three pounds of linseed oil-meal, six pounds of corn-meal and four pounds of middlings with hay or hay and straw; continue this for 30 or 40 days. Then increase the corn-meal to eight pounds, the other parts remaining the same for 30 days—again increase the corn-meal to ten pounds, oil-meal, middlings and hay as before, and continue this as long as it seems to be a full ration, say for 30 to 40 days. Now increase the corn-meal to twelve pounds, two pounds of bran, oil-meal as before, and continue this until ready for market.

This has proved a very successful ration with the writer, and it will transform these stunted cattle, if anything will, into nicely rounded beeves. But such cattle are not profitable to feed unless purchased very low. Of course, this ration may be greatly modified to suit circumstances—corn and oats ground together may be fed eight pounds of the mixture to begin with, and increased gradually as the beasts can bear it; or, corn meal and bran in equal weights, increasing as before; or, peas and corn ground together, starting with six pounds and increasing with one pint of cheap molasses dissolved in a gallon of water and used to wet the hay. This will give appetite, and the molasses is laxative. Corn fed alone to such steers creates a feverish and constipated state of the system, and the skin does not loosen.

For thrifty, well grown cattle, the following ration will succeed:—one pint of oil-meal, 10 pounds of corn-meal, four pounds of bran with hay and straw, and it will, under favorable circumstances, produce a gain of 2½ to three pounds per day. Western cattle are generally fed on corn and corn fodder almost wholly, in winter. The Germans would call this a bad ration; but these cattle have been well nourished on grass during the summer and come to the corn ration in a very thrifty condition: they thus keep their health better and generally fatten well on 20 pounds of corn and the stalks.

Sheep Husbandry.

ORIGIN OF LINCOLN SHEEP, "DASHES" OF BLOOD.

IN the RURAL of Oct., 11. Col. Curtis, in speaking of the Lincoln sheep, says they are a cross between the Cotswold and the Bakewell Leicester, a statement in which I can by no means agree with him. The original Lincolns were very large, coarse sheep, double the size of the Bakewell Leicesters and larger than the Cotswolds. To give them a better quality, however, breeders gave "dashes" of Cotswold and Leicester blood; but animals of this breed have still more than half of the original blood, which gives them their great size. The heaviest Lincolns run from 300 to 350 pounds, and there have been two instances, or two of 400 pounds. The Cotswolds run from 250 to 350 pounds, and the Leicester from 260 to 300 pounds. Each of these breeds has received "dashes" of blood from other breeds, but the breeders were careful to avoid any direct cross.

The "dash" of blood is given something in this way—and I know, because I was raised in the midst of the greatest sheep district in England and my father and self were well acquainted with breeders of Cotswolds and Leicesters, while another member of my family has now the only flock of pure Bakewell Leicesters in England and—well, as I was about to say, the "dash" of blood is given, say of the Leicester to the Cotswold, by a breeder of the latter looking through some flocks of the former and choosing one of the largest and most Cotswold-looking rams of the best quality, and using him with some of his finest ewes which have every good point but the one predominant in the Leicester ram, and then he uses a ram of this cross with his flock or with such part of it as his judgment tells him will be benefited by this infusion of new blood. Thus the Lincoln breeders chose Cotswold and Leicester rams to improve their flocks without doing the thing in too violent a manner.

G. G.

Col. Curtis, having seen the proof of the above article, on calling at this office while on a visit to the Dairy Fair, makes the following remarks:—

"Unless we are mistaken in our recollection, we were told by Mr. Gibson, manager for Wolcott & Campbell when their Lincoln sheep were imported, that the breed was formed by crossing the Cotswold with the Leicester. This statement agrees with G. G., who says they were improved with 'dashes' of Cotswold and Leicester upon the old heavy-bodied, long-wooled Lincoins. By Lincolns, we do not understand a distinct breed before these 'dashes' were made, but a name for the sheep of a locality. This is a common custom in England to call animals after the locality in which they were bred; thus, we have a half-dozen different names for Suffolk pigs, and we doubt not but the same peculiarity exists in regard to sheep, and that if the histories of the different breeds could be traced to their origin, it would be found that they all originated by crossing the Cheviot, Cotswold and Leicester; or, perhaps, the black-faced and white-faced sheep were the only foundations for all. We understand 'dashes' to be crosses, and this is what they are, and this is substantially what we mean, that the Lincoln sheep are made by crossing or dashing the Leicester with or upon the Cotswold. Close observers, with experience in breeding sheep, will undoubtedly come to the same conclusion if they should see the sheep and study their characteristics, even though traditionary accounts might be opposed. A 'dash' of Cotswold would make half Cotswold, and a 'dash' of Leicester would make half Leicester, leaving only a quarter of Lincoln after the double cross, and reducing the Lincoln with other 'dashes' to an eighth or sixteenth, etc."

Housing Sheep.

Mr. Jonathan Talcot should take a trip to the home of the Cotswolds; he would there see tens of thousands of them on cold, damp ground, eating the turnips which are sliced up for them by machines, after having been pulled up, thrown into heaps and covered with earth. A rick of hay is in some convenient part of the field, and from this the shepherd feeds his flock morning and evening, and the fattening sheep, which are the wether tegs and the draft ewes, have some grain or oil-cake given them once per day—generally at noon.

If these sheep were driven home and housed in stormy weather, the land would not have an even distribution of manure and urine, and as I never heard of sheep taking cold in this their natural state, it is probable they would be made tender and they would not be so healthy. I don't think the wool ever becomes wet through to the skin, and I don't believe they ever feel cold, for the Swedish turnips have a heating tendency, and it is so arranged that Swedes are always fed to them after Christmas, when cold weather is most severe.

Americans have no proper conception of sheep husbandry, as it is conducted in England. The idea of housing the sheep with such buildings as exist there, is out of the question. Besides, on every farm animals of different ages and sexes are kept separate, and a shepherd would have to run one lot after another home, if there were places for the purpose, till it would take him more than half his time going to and fro. As for my giving no argument that the sheep would not have been better off for housing, it is only necessary to say the wether tegs, at the close of the turnip season, will shear from 10 lbs. to 14 lbs. of washed wool (all wool is washed there), and the weight, when dressed, will be from 100 lbs. up to 150 lbs., according to skill in feeding. I have myself sold draft ewes in March, which weighed 160 lbs. each, dressed weight.

If the small number usually kept in the Eastern States were only kept in England by

sacrificing the benefit of the present course of management and having new barns built, it is possible the weight mentioned might be increased, and I know that the sheep exhibited for premiums at the agricultural shows are favored in this respect, but they are seldom good for breeding afterwards, and generally go to the butcher after the show is over.

G. G.

The Poultry Yard.

FATTENING POULTRY FOR MARKET.

FORREST K. MORELAND.

How many farmers there are who, although they are good farmers in other respects, are very slovenly and negligent in regard to their poultry. Were you to inform one of them that his pork was not properly fattened, or that his dairy had not been profitably managed, he would be very apt to resent the intimation as an insult. The fattening of pork is a matter worth attending to properly. If this is not done, the farmer is sure to know it when he comes to market. The dairy is even more important. The farmer prides himself not only on owning good stock, but in caring for them to the best of his ability, making them as profitable as possible during the year; for a large proportion of our farmers' prosperity depends upon the dairy. Why is it that the majority of them seem to be so constituted that it appears to be a moral impossibility for them to attend to the small things incident to farm life. I have known good farmers, men capable of cultivating premium fields of corn, wheat and potatoes, who were utterly unable to understand the value of a good garden and had none worthy of the name.

This peculiar quality of the minds of our farmers is most emphatically shown by the attitude the majority of them occupy towards the poultry industry. I do not know a single farmer who takes any especial interest in poultry. Many of them give the proceeds of this department to their wives and daughters for "pin-money." I do not find any fault with this; it is as it should be; but even then they should take some little interest in the matter. Fowls need comfortable quarters and suitable food; if deprived of either, they will not thrive. The supply of both of these necessaries of fowl life depends somewhat upon the good-will of the farmers. I know that some of these argue that fowls do not amount to much, and that they are not "worth the trouble." Let us see: I think one important difficulty in making them plainly profitable, lies in the manner fowls are usually fattened. The appearance of dressed fowls in our meat markets is often enough to frighten even not very fastidious poultry eaters. The chickens (?) weigh from one-half pound to one pound and a half; the latter is considered a good weight and is rarely reached. They are poorly picked and the skin tears in many places; but it is the size of a large proportion of the chickens in market to which I would call attention; they are almost all under two pounds in weight and at from eight to ten cents per pound dressed weight, it certainly does not pay to raise such chickens. I think I can hear the great majority of farmers say, "I told you so." But there is a remedy for the evil, and the fault is so great that it is worth some little trouble to seek a remedy for it.

If farmers aimed to keep the best breeds of fowls as they do of swine and sheep, the poultry interest of the country would make a long stride in advance. I do not propose to discuss in this place the merits of the different breeds of poultry. If country folks were to feed their young chicks as they do their calves and pigs, the chickens would weigh much more and be much more profitable than under present treatment. Talk to any enterprising farmer about his calves, and the chances are ten to one that he will ventilate his peculiar views about rearing calves in something like the following style: "Calves must be kept growing *all* the time from birth until maturity; if they are starved for a few days, it is so much growth lost, and it is growth that the calves cannot regain." Across the way from the calf pasture there is a chicken coop with a brood of young chickens that have had no feed since yesterday and no water since the day before. But these young chickens are very different from young calves. Were I to enlarge on the proper treatment of growing chickens, this letter, intended to be very brief, would grow to the dimensions of a treatise on poultry raising. I propose to call attention as briefly as possible to a few hints on fattening poultry.

It is a mistake to suppose that a fowl one or two years old cannot be fattened so as to be tender. Above two years or thirty months, birds should not be kept. On the other hand, the chickens should be kept long enough to have the proper amount of flesh or lean meat. It will be but a sorry job to undertake to fatten a growing chick or one that has been starved. If chickens have been fed as they ought to be fed, they are ready to fatten at the age of four or five months. For my own table I prefer to take them from the yard just as they are at that age, without any extra fat; but for the market a different mode must be adopted. From their habits chickens do not take on flesh rapidly unless confined. A friend of mine is in the habit of building a large pen of rails, like a stock pen six or eight feet high and covered. In this he confines from 25 to 50 chickens while they are being fattened. Although it is much better than allowing them to run at liberty, still it is objectionable as affording too much exercise. My own plan, which is very satisfactory for feeding a small number of fowls, is to provide as many coops as there are birds to be fattened at one time, so that each one may be confined alone and out of sight of all others. Each pen is as neat as may be, about one foot wide, eighteen inches long and twenty inches high, closed on all sides except the front; with no floor, but cleats so placed that a wooden platter covered with fresh earth, may be used for the floor. The front of the pen should be of a few slats nailed up and down. The feed and water tins should be placed outside, as with pens of the dimensions I have described, there is no room in the pen for anything except the fowl. The water tins should be replenished twice in the day and the food tins at least four times.

The most desirable food for fattening fowls is buckwheat flour. The French poultry-raisers esteem it very highly, and it is much in vogue in all large establishments. Farmers can usually procure it for this purpose at as little cost as any other grain. If for any reasons it cannot be obtained, a mixture of equal parts of corn meal, ground oats and barley flour will be found very satisfactory. A little fresh meat, chopped fine and given daily will not come amiss. And, as poultry are at all times fond of vegetables and green leaves, they should not be neglected in this particular. A few cabbage leaves, if nothing else offers, will answer the purpose. They will do much to insure good health, and an unhealthy fowl will feed to but poor purpose. Every possible means should be adopted to insure a good digestion; for this purpose a handful of gravel should be thrown into the pen, or a few broken oyster shells. For the same reason, the fowls must be kept perfectly quiet, and their coops be darkened for a short time, say a couple of hours, after each feeding. This may be accomplished by dropping a cloth over the front of the pen. If these few suggestions are adopted, and the feed is abundant and good, the process of fattening fowls for market will not necessarily take more than two or three weeks, at the farthest.

Care should be taken to prevent the pens from becoming infested with vermin. Before any fowls are placed therein, the pens should be thoroughly cleaned and white-washed. This should be repeated every time a bird is removed and before another is placed in the pen. If one should become infested with vermin, a little sulphur rubbed on at the roots of the feathers will be pretty sure to work a cure. All these suggestions must be adopted and properly carried out, and the result will be a great increase in the weight of the fowls, and a corresponding improvement in the quality and appearance of the bird. When the fowls are sent to market, they will not only command a higher price per pound, but the greater weight acquired at less cost than the smaller weights of fowls not half fattened while running at large, will nett the farmer a much larger profit per pound, in proportion to this outlay, than if the poultry were fattened in the old way.

If extra fatness is desirable, the fowls, if there are not too many of them, may be *crammed* during the last week. A mixture of buckwheat and barley flour or corn meal is made into a dough, and fashioned into rolls about the size of a pencil. Cut these into sections about two inches in length, and dip the pieces in milk before placing them in the bird's mouth. The proper quantity to feed a fowl at one time will probably be learned after a few have been stuffed to death.

The French peasants are such adepts at this one of the fine arts, that they use a sort of a ramrod to assist the fowl in swallowing. Could they assist the bird in digesting its food the whole thing would be mastered. But the process of cramming is wholly unnecessary, and in the hands of the unskillful, is not seldom cruel, and too often the occasion of loss to the poultry raiser. I think this matter of fattening poultry for market is a subject well worthy of the earnest consideration of thinking farmers. When it is known that poultry can be produced as cheaply as pork or beef—for such is the fact—more farmers will turn their attention to the industry, breed and fatten birds worth shipping, and ship such poultry to our large cities at a good profit to themselves. And, what is much more to the purpose in a financial point of view, by so doing a demand for good poultry may be enlarged or created at remunerative prices.

Everywhere.

RURAL SPECIAL REPORTS.

MASS., Chelsea, Suffolk Co., Dec. 15.—We have a new variety of tomato called the Dayton Purple, which is large, smooth and very firm and a good keeper. C. A. B.

MICHIGAN, St. Johns, Clinton Co., Dec. 5.—We have unusually warm weather for this time of the year—plenty of rain now. The summer was very dry, with no rain when it was most needed for the benefit of the corn, so the latter was a short crop. W. T. B.

IOWA, Fredonia, Louisa Co., Dec. 8.—Corn is worth here 30c.; rye, 70c.; good hops, $2.30 per 100lbs. There is every prospect here of an open winter; no snow hitherto, except a few light falls that soon disappeared; no frost in the ground, except what has gone there during the last 24 hours. H. J. B.

MO., Milford, Barton Co., Dec. 12th.—Our corn crops were good, considering the drought; will average from 30 to 50 bushels per acre. Wheat was good, but rather a small yield. Oats a very light crop—the lightest for a number of years. Stock of all kinds bring a good price, and money is more plentiful than for several years. *No cold weather yet*; the ground has not frozen an inch. No snow; country settling up fast; land cheap yet. A. A. S., M. D.

KANSAS, White Water, Butler Co., Dec. 10.—The White Water Sorgo Association manufactured the past season 20,000 gallons of sirup, but as yet only a limited quantity of sugar. Our supply of sirup is inadequate to the demand. Price 40c. to 60c. per gallon. Farmers can grow enough sorgo for 200 gallons of sirup with as little labor and expense as 100 bushels of corn. The blades and seed are valuable for feed; the bagasse for fuel; the skimmings for vinegar, and much of the sirup granulates. The quality of butter depends much upon the cow, more upon the feed, but most upon the handling. The flavor of sorgo is equally dependent upon the seed, soil, and manufacture. The same varieties of seeds planted on like soils produce unlike flavors; while the same juice, differently handled, furnishes a variety of flavors. Any deterioration of the cane, admixture in the soil of foreign elements or mistake in boiling locks the impurities in, which otherwise may be removed by fire alone. Sorgo is as susceptible of taint as milk and butter. The sorgo tang belongs just as properly to sorgo as the butter tang does to tainted butter.
White Water, Kans. O. W. H.

COLORADO, Burnet, Dec. 10.—A year ago I sowed some black-walnut seed, and now the plants are 18 inches high. From peach-stones sowed at the same time I now have seedlings three feet high. Both have done well the first year. Not so European larch, Norway spruce and Scotch pine; these are all dead, though I shaded them with lath frames, and watered and petted them as well as I knew how. Last spring I sowed a little catalpa speciosa seed; the plants came up well, and made from eight to ten inches of growth, and, to all appearances the trees will do well here. A few are covered slightly. About the same time I put out a few Raspberries, Blackberries, Strawberries, and Grapes. The Raspberries did the poorest, the Strawberries the best; out of 33 of the former three only have managed to survive. All this sort of thing is experimental in this new country. J. W. S.

TEXAS, McKinney, Collin Co., Dec. 8.—Of twelve varieties of wheat I am testing, the Clawson looks the best at this time. Texas farmers are preparing for a large cotton crop another year. Cotton and wheat are the "money" crops here. W. N. W.

The Querist.

ANSWERS TO CORRESPONDENTS.

Scale of Points of Jersey Cattle.

W. S. M., Martinsburgh, W. Va., asks what is the scale of points by which Jersey cattle are judged at fairs.

ANS.—The following is the scale adopted by the Jersey Cattle Club, on April 21, 1875, and which still remains in force:

Points.	Counts.
1. Head small, lean and rather long	2
2. Face dished, broad between the eyes and narrow between the horns	1
3. Muzzle dark, and encircled by a light color	1
4. Eyes full and placid	1
5. Horns small, crumpled and amber color	3
6. Ears small and thin	1
7. Neck straight, thin, rather long, with clean throat, and not heavy at the shoulders	4
8. Shoulders sloping and lean, withers thin, breast neither deficient nor beefy	3
9. Back level to the setting on of the tail, and broad across the loin	4
10. Barrel, hooped, broad and deep at the flank	5
11. Hips wide apart, and fine in the bone, rump long and broad	4
12. Thighs long, thin, and wide apart, with legs standing square, and not to cross in walking	4
13. Legs short, small below the knee, with small hoof	3
14. Tail fine, reaching the hocks, with good switch	3
15. Hide thin and mellow, with fine, soft hair	4
16. Color of hide where the hair is white, and udder and inside of ears, yellow	5
17. Fore udder full in form, and running well forward	8
18. Hind udder full in form, and well up behind	8
19. Udder free from long hair, and not fleshy	5
20. Teats rather large, wide apart, and squarely placed	6
21. Milk veins prominent	5
22. Escutcheon high and broad, and full on thighs	8
23. Disposition high and good-natured	3
24. General appearance rather bony than fleshy	6
Perfection	100

In judging heifers, omit Nos. 17, 18 and 21.

The same scale of points shall be used in judging bulls, omitting Nos. 17, 18, 19 and 21 and making moderate allowance for masculinity.

It is recommended that judges at fairs do not award prizes to animals falling below the following *minimum* standard, viz: Cows, 70 counts; heifers, 55 counts; bulls 50 counts.

Miscellaneous.

W. H. Brown, Afton, Union, Co. Iowa, asks, 1, whether Rennie's White Field Corn would be likely to do well in that locality; 2, for the address of Daniel Steck, of Lycoming Co., Pa., who told the RURAL some time back how he raised 97 bushels of corn to the acre.

ANS.—1. Reunie's White Field Corn, being a Canadian sort, would probably thrive in the above latitude, but if the experiments with the Blount corn all over the country, this year, have proved one thing more strongly than another, it is the necessity of testing each variety in different places, in order to be able to determine whether it will succeed there. 2. We give our friend's address in full, so that Mr. Steck can correspond with him direct, should he wish to do so. We do not feel at liberty to give the addresses of our contributors, as frequently explained here.

D. F., Kilsyth, Ont., Canada, asks where several of the varieties of potatoes mentioned in our Potato Number can be obtained.

ANS.—From B. K. Bliss & Son, 34 Barclay St., N. Y. Price list will be published in spring.

C. V., Tranquility, N. J., sends us some ore and says he would like to know what we think it is.

ANS.—It is an iron ore known as brown hematite—chemical symbol Fe^2O_3, combined with three equivalents of water. The water will be driven off by heating; it will then become red hematite, or blood-stone.

J. R., Lawrence, Texas, asks where wheel harrows are made.

ANS.—Wheeler & Melick Co., Albany, N. Y., Warrior Mower Co., Little Falls, N. Y.; Jno. W. Stoddard & Co., Dayton, Ohio.

L. E. Y., Riverhead, N. Y., asks for the name of a dealer in dressed poultry in this city.

ANS.—J. B. Helfrich, Park Place, between West St. and Washington St.

Miscellaneous.

BEE NOTES.

HAS anybody noted the results of breeding in-and-in on bees? Is it not frequently the cause of disease and the dwindling down of stocks? Many old bee-keepers of my acquaintance have almost given up; their stocks dwindled from 75 to 100 down to three or four. Their never having introduced new strains for a number of years, I believe to be the sole cause. That I have been more successful than my neighbors this year I believe is owing to my having purchased stocks from different localities. If my theory is right, it would be a good plan to buy or trade for stocks from a distance, still keeping some of our own to cross with the strangers. This has been a good year for bee-men in Canada. Where extractors were used, hives averaged from 75 to 100 pounds of honey, Mr. Jones, of Beaton, obtaining the nice quantity of 70,000 pounds, or 35 tons of honey. T. F. F.

HORSE SALE.—L. S. Follett, of Hastings, Minn., has just purchased of the Messrs. Smith & Powell of Syracuse, New York, the Clydesdale stallion, Souter Johnnie, imported last September. His sire is the celebrated Tam O'Shanter, by Rantin Robin. Souter Johnnie has been a great prize winner in Scotland, having won five first prizes in competition with some of the most famous prize winners of the British Isles. Mr. F. also took Maggie, the three-year-old Clydesdale mare, imported at the same time. Her sire, Sampson, was by Emperor, dam by Gen. Williams. This mare is a model in form, of great strength and power, and cannot fail to make a fine breeder. Mr. Follett has a large and new field to work in, and certainly deserves credit for his enterprise in introducing so meritorious a class of horses into the State.

Four page index removed here.

THE
RURAL NEW-YORKER.
PUBLISHED EVERY SATURDAY.

CONDUCTED BY
ELBERT S. CARMAN.

Address THE RURAL NEW-YORKER,
78 Duane Street, New York City.

SATURDAY, DEC. 27, 1879.

SPECIAL.

Many of our friends write to inquire when their subscription terms expire. The answer is before them on every paper. Under the title-head on first page is printed our *whole number*. The present paper is, for example, 1561. If the label on the mail wrapper is the same, the subscription term expires with this number; if 1562, then it will expire with next number; if 1613, then it will expire one year hence, having 52 numbers yet to run, and so on. With this constant reminder before them, we do not deem it necessary to advise our patrons individually of the expiration of their subscription terms.

A FRIEND writes us from near De Land, Fla., that the majority of the people there are very poor; that hundreds of thousands of dollars have been laid out in orange culture, and it will be years yet before the result can be known. The State, however, has, he says, a good prospect for other products besides oranges, if new settlers will turn their attention to them. But every one seems to get the orange fever as soon as he goes there.

A THRICE-MERRY Christmas to our readers! To a great majority of them this should prove the merriest of Christmasses. The RURAL sends its kindliest greetings to all, and its best thanks for the many quite extraordinary expressions of their approval of our work during the present year. With such encouragement, and with the pleasant prospect of an increased circulation for 1880, we should feel sadly remiss if we abated our efforts towards continued improvement.

A CONSIDERABLE number of our readers apply for our plants and seeds, forgetting to send any postage stamps. It surprises us that this occurs so often. As we bear a part even of the postage expenses, it is not *fair* to us that our readers should be so unmindful, and, although we have not yet done so, we are tempted to throw such letters aside. Others of our readers say in effect, "Please send my plants and seeds at once," showing that they have not even taken the pains to read throughout the terms of our "free distribution," which were plainly presented and emphasized.

OUR Premium List for 1880 consists of four pages, the size of the RURAL, and of 45 fine engravings. Whether or not readers desire to get up clubs and compensate themselves for so doing by drawing premiums, its perusal will give both amusement and instruction. Many of the articles are of late invention, such, for example, as the Mechanical Orguinette, and all are the best of their kinds. There are few households that will not find in this Premium List something needed therein. The lowest cash price is given for each article, so that those who cannot find time or inclination to form clubs, can ascertain all they need to know about it. It should be borne in mind that we do not *sell* anything except subscriptions to the RURAL NEW-YORKER. Any of our friends intimating by postal that they desire a Premium List, will have one mailed at once free of charge.

SPECIMENS OF OLEOMARGARINE

Purchased by the International Dairy Association, at the request of many prominent dairymen, **FOR EXHIBITION AND SAMPLING.**

THE above is a facsimile—except that the letters there were about half-a-dozen times larger than those here—of a notice calling the special attention of visitors to half a dozen tubs of grease-butter, carefully selected, and exhibited during the past week in the most prominent part of the Fair. The President of the Fair Association is interested in the manufacture of this product, and is the largest dealer in the stuff in the country. He is, therefore, anxious to advertise it. Now, gentlemen managers of the Fair, give the names of a few of the many prominent dairymen who are also anxious to advertise an article that has inflicted and is now inflicting a monstrous injury on the dairy interests of the country.

AT a late meeting on the land question in Ireland, one of the speakers said that the rents which the landlords got for the last year or two did not come from the soil, but from America. He might, with at least a close approximation to the truth, have extended the time to the last twenty years. Among the millions who flock to these shores from all countries, there is no class that send so much of their earnings to the relief of those they have left behind them, as Irish laborers and Irish servant-girls; while the remittances to the old folks at home from those absent ones who have ampler means are generally more generous in amount, if not in good-will. For years back thousands of the small tenants all over the Emerald Isle have had the roofs kept over their heads by the periodical receipt of help from some "boy" or "girleen," mindful of them while toiling and saving among us. The land has merely supported those who tilled it, while the rent, or a large portion of it, has come from this country. The rack-renters, however, seeing the apparent prosperity of the peasantry, and ignorant or careless of its cause, have been constantly putting up the rents until the last possible farthing has been wrung from the tenants, so that now, when bad crops stint the livelihood obtained from the soil, there is nothing laid by for a "rainy day" on which the wretched peasants can fall back, and the discontent of generations naturally finds vent in threats and turbulence.

The Produce Exchange of this city is now violently agitated about the adoption of the cental system in the marketing of produce. On the 31st of last May it was resolved, by a vote of 485 against 232, to buy and sell grain and other produce by the cental of 100 lbs. At that time, those engaged in the grain trade were mostly in favor of the measure, but in the interval a change has occurred in their views, and at present nearly all of them are bitterly opposed to the innovation. While acknowledging that the adoption of the system must ultimately take place, their objections to its use at present are mainly based on the temporary inconvenience incident to the change. Of all the other chief markets in the country, the Exchanges of Baltimore, Toledo and Chicago alone are absolutely opposed to the system, while all the others favor it more or less strongly. The grain dealers here, however, insist that so long as the change is not universal throughout the country, those doing business where it has not occurred will at first have an advantage in buying and selling according to the old system, in a feverish market, owing to the embarrassment caused by the necessity of calculating, amid the distraction of bidding, the sum of so many bushels of 60 lbs., in centals of 100 lbs. There are, of course, minor inconveniences also in the way of clerical work and novelty. As noticed last week, the action of the Exchange in May was confirmed by a vote last Saturday week, and the indignation of the grain men then mentioned, has cooled but little in the interval. A compromise is at present expected between them and the other interests in the Exchange, but the nature of this has not yet been decided on. That the decimal system will, ere long, be widely introduced in this country in other matters as it is now in financial transactions, there is little doubt, but the change should be either so gradual as to cause no inconvenience, or Congress should legislate on the matter, so as to enact uniformity in all parts of the country.

REMEMBER THE DAYS OF YOUR CHILDHOOD.

WHY do not all of us to whom God, in His fatherly love, has given the care and comfort of little ones, oftener remember our own feelings in the days of our childhood in our treatment of them? Few, if any, are those among us who, looking away back to that dimly-remembered era of quick impulses and fresh, keen susceptibilities, cannot recall moments of hot indignation at petty slights or positive injustice on the part of those over us. Of course, with our present severe sense of the duty of unquestioning submission on the part of children—a sense that comes with age, and with age only—we can all see that such a sentiment is rebellious, and should never find a place in the mind of the model child. But the model child is too good for this world and, oh, the pity of it! always—well, nearly always—dies young, so that, alas! very few of us old folks ever belonged to that very exceptional class. We have nearly all, therefore, experienced this sort of feeling at one time or another in our bread-and-butter days. If it occurred seldom or on slight provocation, or if a general course of loving kindness in the conduct of those over us, or a naturally good disposition on our part, has rapidly obliterated it, it has rarely had much influence on our after-lives; but when it has, frequently or in flagrant cases, excited the tendency to resentful passion that often is innate even in juvenile human nature, Good God! how many children, even of a promising character, has it soured in disposition, or driven to wayward courses and rendered a curse instead of a blessing to parents and kindred!

Oh! fathers and mothers, and all you to whom the Great Father has assigned the formation of the character of men and women of the next generation, in your treatment of them now in their childhood, for God's sake, for your own sake, and for their sake, be a little more mindful of your own experience at that susceptible and formative period. Every week one comes across faces so cold, selfish, and adamantine, that one wonders if they were ever beautified with the warmth, generosity and mobility of youth. A bitter reproach is such an emotion to the object that has excited it. Yet, when one thinks of it, how much more numerous are the characters deserving a like censure in that they, too, seem never to have known the sensations of childhood.

EMBELLISHMENT OF COUNTRY SCHOOL GROUNDS.

WE are glad to see that public attention has been called to this subject, for although the discussion of it may not have the effect of immediately improving all school premises, yet it is the forerunner of public sentiment which indicates a growing interest in the matter, and predicts with certainty that improvements will be made in a not distant future. The idea comes from progressive Michigan, and in a late RURAL Secretary Garfield expressed some views upon the subject. Is it desirable to ornament the grounds? There is no question of the desirability to ornament the grounds surrounding our common schools wherever it is possible to do so. Next to the home, the school is the place where children spend most of their time, and the more attractive the place is made the better for the purpose assigned. A neatly kept school-garden will also serve to inculcate ideas of neatness, and help to develop a taste for the beautiful.

Co-operation in the matter by the people in the district is necessary in planting and laying out the grounds; but this done, the teacher and school directors should be the only persons in authority over the premises. The trees and shrubbery should not be expensive, and they should, of course, be of a character to suit the extent of the grounds. Many of our native plants could be employed to good advantage, but they should not all be common species. A few trees and smaller plants, remarkable for their flowers, foliage or fruit, which are not to be found anywhere else in the neighborhood would serve greatly to attract attention and create an interest in the youthful minds. To make the plants useful in the economy of the school, the teacher should not only have a knowledge of botany and horticulture; but he should be as enthusiastic upon these subjects as upon grammar, arithmetic, or anything else he has to teach. Here it is that the plan will be apt to meet with difficulty. Few teachers of our common schools have more than a very elementary knowledge of plants and their culture, and fewer still can present the subject in a manner that would be really interesting and instructive to children. A few trees and plants having some peculiar features, would be most likely to engage the attention of both teachers and pupils, and the interest awakened, they could gradually advance to common garden plants. Let the school grounds be embellished by all means. By the exercise of a little good will, a little good taste and the employment of a little expense these now woefully neglected places can be made objects of attraction, and educating in their influence, to young and old.

BREVITIES.

THE RURAL is, of course, this week much cut up by its index.

BEURRE SUPERFIN, an excellent pear, does well on the quince in England.

MR. DYER writes us that he has plum trees set in his hen-yards and they fruit well.

"BOTANICALLY," says the Gardeners' Chronicle, "the Camellia is but a glorified Tea plant." Is there any danger of Gen. LeDuc's turning into a Camellia?

IT is a duty which every parent owes to his children to make the home cheerful and festive for the Holidays. Those homes which do not regard such "foolishnesses" are the ones which cannot keep the boys on the farm.

ONE of our veteran agriculturists said to the writer a few days ago that Cow Peas would not ripen in this climate. This is substantially a mistake, as a considerable quantity in our barn from the past season's crop, will prove.

WE learn from one of the faculty that the State Ag. College, Fort Collins, Colo., opened September 1, with five students, and closed last week with twenty. Over fifty have already applied for admission next term. This is as it ought to be.

A WEALTH of very seasonable information about feeding farm stock enriches this issue. The proper care and management of all domestic animals on the farm will have even more of our attention and space in the future than in the past.

FROM the success of the first notable experiment in ensilage in this country, as described elsewhere, it would seem that the next agricultural "boom" might be in that direction. Mr. Bailey thinks it possible to keep four cows for a year upon the ensilaged corn fodder raised from one acre of land.

THE value of our "EVERYWHERE" to those who have an interest in crop prospects and the products of the different parts of the country, will appear upon glancing over the Index of that department. The climate, educational advantages, market facilities, etc., etc., of almost any given place may thus be easily obtained.

"OUR English conceit as to all improvement," says the London Ag. Gazette, "is like an extinguisher which is endeavoring to stand upon its narrow end. It is now well-known to all persons who have experience that, in thrift, ingenuity and making things go far and pleasantly, the French are far in advance of ourselves, and that from no Continental nation have we so much to learn as from the French." A frank confession is good for the soul. The above *is* a frank confession for a thoroughbred English farm paper.

THAT iteration and reiteration have much virtue in securing at length the object sought, has been repeatedly proven both before and since the date of the parable of the unjust judge. Hence we once more insist upon the necessity of having in the State, and in every State in which such institutions have not already been established, an Experiment Station, to which each farmer may send samples of fertilizers to be tested. What Prof. Caldwell has well said elsewhere on this topic obviates any necessity on our part of speaking at greater length on it here.

AT length Congress has found time to pay some attention to the agricultural interests of the country. On Thursday last the Senate and House passed similar resolutions for the appointment of a sub-committee of the Committees of Agriculture, to investigate the system and workings of the Department of Agriculture, with a view of extending the benefits conferred by the Department for the advancement and protection of agricultural interests throughout the country. The chief advocate of the measure in the Senate was Senator Johnson, Chairman of the Committee of Agriculture, while in the House Mr. Lefevre, Member of the House Committee on the same subject, spoke forcibly in support of the resolution.

WE clip the following from the good old Germantown Telegraph:—The editor of the RURAL NEW-YORKER has, with a few other experts in seed-planting, taken the ground that bug-eaten peas will not germinate so as to produce any kind of a crop. We have taken the opposite ground so far as to say that we have seen very fair crops produced from such peas when not too badly eaten up. He challenges us to the effect that we cannot obtain fifteen plants from a hundred of bug-eaten seed in a very heavy wager—about a million of dollars, if we are are not mistaken—and we have accepted it on the condition that we can obtain the seed. If any of our readers shall have such seed in the spring we will thank them for a hundred of them; and if we win the bet, they shall come in for "snacks" to the extent of $500,000.

JUST as we go to press we learn with much regret of the untimely death, at the age of 47, of Mr. H. N. F. Lewis, who began his journalistic career 28 years ago in the office of the RURAL NEW-YORKER, when he was only 19 years old. Since then he has owned or been editorially connected with several papers, notably with the Western Rural, which, under his able control, deservedly won a fine reputation, a large circulation, and great influence all over the West. The Chicago fire of 1871 having destroyed his property, greatly crippled his resources, and although he struggled bravely to uphold the old-time character of his paper, it passed out of his hands in 1873, since which date, hard times hampered his efforts in other ventures. His death will be heartily regretted by a wide circle of friends all over the country.

OUR readers have already several times had our opinion of the "American Banner" Rose, offered for the first time, in the early part of this year, for the exorbitant price of five or six dollars each. The buds are small; but upon a white or rosy-white ground are distinct stripes of red. The flower in bloom is semi-double, of small size and feeble endurance, resembling a half-starved Bon Silene. We learn that the *buds* of "American Banner" are selling, or have recently sold, in this market for 25 cents each, which is to us no less a matter of surprise than that the plants should have been sold for five dollars each. Oftentimes the popularity of a new plant will depend upon some little something or other that, at the outset, is liable to be overlooked. The "American Banner," in this case, is most striking before it is unfurled, and this is the "something" to which we failed to attach due importance.

Literary Miscellany.

IF WE KNEW.

If we knew the woe and heartache
Waiting for us down the road,
If our lips could taste the wormwood,
If our backs could feel the load,
Would we waste the day in wishing
For the time that ne'er can be?
Would we wait with such impatience
For our ships to come from sea?

If we knew the baby fingers,
Pressed against the window pane,
Would be cold and stiff to-morrow—
Never trouble us again—
Would the bright eyes of our darling
Catch the frown upon our brow?
Would the print of rosy fingers
Vex us then as they do now?

Ah, these little ice-cold fingers,
How they point our memories back
To the hasty words and actions
Strewn along our backward track!
How these little hands remind us,
As in snowy grace they lie,
Not to scatter thorns, but roses,
For our reaping by and by!

Strange we never prize the music,
Till the sweet-voiced bird has flown;
Strange that we should slight the violets
Till the lovely flowers are gone;
Strange the summer skies and sunshine
Never seem one-half so fair
As when winter's snowy pinions
Shake their white down in the air.

Lips from which the seal of silence
None but God can roll away
Never blossomed in such beauty
As adorns the month to-day;
And sweet words that freight our memory
With their beautiful perfume
Come to us in sweeter accents
Through the portals of the tomb.

Let us gather up the sunbeams
Lying all around our path;
Let us keep the wheat and roses,
Casting out the thorns and chaff;
Let us find our sweetest comfort
In the blessings of to-day,
With the patient hand removing
All the briars from our way.

IN FOLLY'S NET.

(Continued from page 827.)

"What did she say? Did he drink it?" She cried out, as if the words hurt her, "Yes he drank it."

"What followed?"

"She asked him if she should send to Edinburgh for medical aid, and in answer he asked her if she wished him to live, as his death would set her free?"

"What answer did she make?"

"She could not bear that, or words to that effect, and he said that he was dying, and asked if her hatred would die with him."

"Was that all?"

"All that passed between them while I was in the room; shortly after I was called away."

The next evidence was that of Dr. Mackenzie, and the former part of his testimony coincided exactly with that of his medical colleague.

"I believe you remained in the room after Mr. Powle?" said the junior counsel.

"I remained with him until he died."

"What passed there after Mr. Powle's departure?"

"But little speech passed. Once Mrs. Blair offered her husband a glass of water, but he refused to take it from her hand."

"What did he say?"

"Not from her—she hates me."

"What did Mrs. Blair say?"

"She appeared greatly terrified, and wished to leave the room."

"Did you prevent her?"

"I said, 'Your place is here;' and she said she could not bear it—to let her go; upon which her husband said 'Stay.'"

"What did she say?"

"She said, 'It is cruel to keep me here; you will kill me.'"

"Did she stay?"

"Yes. Shortly after he died."

"How did Mrs. Blair behave?"

"Her terror was excessive, especially when I said that her husband died from the effects of poison."

"Will you tell us what passed?"

"She put her hand up to her head, and cried out in a shrill voice 'No, no,' and moving across the room, fainted and fell."

"Did you see her again?"

"Yes, I attended to a hurt she received in her fall, but she was not conscious."

"Did you have any other conservation with her?"

"Yes, the next evening she sent for me."

"For what reason?"

"She entreated me to oppose an examination and inquest; to stop it in fact."

"What was your answer?"

"I said it was impossible."

"Well?"

"Mrs. Blair said she would give any sum of money, make any sacrifice to prevent it."

"You told her it was impossible?"

"Yes, and she fainted."

"That is all, I think, Dr. Mackenzie."

But Sir David Cairnes interposed.

"One moment, if you please, Dr. Mackenzie. You say that Mrs. Blair appeared greatly terrified at hearing the cause of her husband's death. Do you think it unnatural that a young lady should feel a certain amount of terror at such a terrible occurrence?"

"Unnatural! No," said the witness, looking rather confused; "but Mrs. Blair's terror appeared to me exaggerated."

"Do you think any terror exaggerated on such an occasion? If Mrs. Blair had dropped down dead instead of senseless it would not have appeared strange to me."

Dr. Mackenzie left the witness-box looking rather ashamed. The few words addressed to him by Sir David had been spoken with clear, concise, cutting contempt, and the advocate's steel-blue eyes had matched in their expression the disdain of his words.

The next person called was the butler of Blair Gates, Bransby, who repeated, apparently with great reluctance, the words he had overheard used by Jean on the New Year's-night before Mr. Blair died:

"I am weary of this bondage—I will submit to it no longer. If you will not give me freedom, I will make myself free! I do not care for shame! If you will not liberate me—I will liberate myself! I am a desperate woman—so beware!"

The man spoke huskily, giving his evidence most unwillingly. Jean was a favorite among the upper servants of the household. Mr. Blair naturally haughty and imperious, had not been so.

The next name called out was that of Maria Collins, and a murmur went through the court when the maid, who was sitting by the prisoner's side, rose, and looking very pale and bewildered, made her way to the witness-box.

"You have been for some years in Mrs. Blair's service, I believe?"

"Yes, sir."

"You have been with her at Blair Gates?"

"Yes, sir."

"I believe she was on bad terms with her husband?"

"She was not happy, sir," answered Collins, with her eyes full of tears.

"I am going to ask you a question which you may take some time to consider. Did you ever, at any time, hear Mrs. Blair wish her husband dead?"

"No, sir," said the woman at once.

"Think well. Did you ever hear her say that she would not be happy until he died, or words to that effect?"

Collins hesitated and stammered

"You are on your oath, remember."

"I only remember this, sir," she said at last. "Once when she was unhappy, I said happier days were in store for her, and she said——"

"She said?"

"That happier days could only come to her when he died. She was in great trouble, my lord," added Collins, turning her streaming eyes on the judge, "She did not mean what she said."

CHAPTER XXVI.

COLLINS went back to her place sobbing loudly, and those in court saw that Jean put out her hand and took the maid's again, as if to show her that she was not angry with her for speaking the truth.

There was a slight pause here, the counsel consulted their notes, the jury spoke together in undertones, the audience exchanged remarks: Jean's head sank wearily on the friendly shoulder near her, and her eyes closed.

"You are not faint, Miss Jean?" whispered Collins, offering her a vinaigrette; but the answer was a shake of the head and a little smile.

After the pause the name Emily Brett was called, and the housekeeper entered the witness box, while a murmur of admiration ran through the spectators at her wondrous beauty.

She was dressed in deep mourning, and as she threw back her veil the marvellous beauty of her face was framed in the heavy crape, while the dark, close-fitting dress showed off the queenly perfection of her matchless figure. Her face was flushed, and her eyes glittering with a suppressed excitement, her red lips so firmly closed that they seemed but a line of scarlet; she looked fiercely, grandly beautiful, but it was an evil beauty, and once her eyes turned on the bowed head of the young mistress of Blair Gates, at the pure, pale face on Collin's shoulder, with a flash of exultation in their depths, at which those who noticed wondered.

"You are the housekeeper at Blair Gates?" said Mr. Donaldson

"Yes," said the calm, rich voice, coolly.

"You were in Mr. Blair's service before his marriage?"

"Yes, I was in his service in Australia."

"You remember his return to Blair Gates with his wife?"

"Certainly."

"Were you surprised?"

"No."

"You were prepared?"

"Yes, Mr. Blair had written to me, besides, the house had been prepared for a mistress."

"Did Mrs. Blair appear a happy bride?"

"Happy!" a slight sneer crossed the woman's beautiful face. "Anything but that."

"Unhappy?"

"Most miserable."

"You were, I suppose, never present at any little differences between her and Mr. Blair?"

"No, I was only the housekeeper."

Oh! the bitterness of her voice as she uttered the words!

"But you were aware they did not live happily?"

"Of course I was—we all knew it."

"Did you know the circumstances of the marriage?"

"Partly."

"Who had told you of them?"

"Mr. Blair. He told me his wife hated him, because he had married her by a fraud."

A murmur of surprise, and some indignation, went round the court. Jean lifted her head; bitterly as he had injured her, she shuddered as she heard the dead man so harshly spoken of.

"Have you ever heard Mrs. Blair say bitter things to her husband?"

"And of him? Yes, on several occasions."

"Which was the first?"

"One day in December they were at breakfast. I went into the dining-room, and I heard Mrs. Blair say, that not only did she not love her husband, but that she hated him, and that she would rejoice if she saw him dead at her feet, and"—she paused a moment as if to give strength to her concluding words—"that she would kill him if she could."

There was a sensation among the spectators at the words; one or two watched the speaker narrowly. The prisoner turned, lifting her eyes to the beautiful, vindictive face.

"How she hates her!" was the thought of more than one present in the court at that moment. "With what a bitter hatred!"

"On another occasion?"

"She said she hated him with the bitterest hatred!"

"And again?"

"Bransby the butler, has already told you."

"Yes, I remember; the discussion on New-Year's night was occasioned by Mrs. Blair's refusal to go to the ball at Sholto?"

"Yes."

"It was a very noisy one; both were excited?"

"Very much excited."

"Did Mr. Blair go to the ball alone?"

"Yes."

"Mrs. Blair stayed at home?"

"Yes."

"Will you tell us what passed that night, Mrs. Brett?"

"Very soon after Mr. Blair had left, Mrs. Blair came downstairs, and went into the laboratory."

"You saw her going in?"

"Yes."

"Did she say anything to account for her presence?"

"Yes. She said she was faint, and was getting something to take away the faintness."

"Did she appear ill?"

"She was very pale when she entered."

"Did she stay long?"

"A few minutes only; she came out almost immediately."

"What did she do then?"

"She went straight to her room."

"Did you see her again?"

"Not till the next day."

"When was Mr. Blair taken ill?"

"The next morning at breakfast."

"What did he drink at breakfast?"

"He drank tea."

"And Mrs. Blair?"

"Coffee."

"Who made Mr. Blair's tea?"

"Mrs. Blair. There was an urn on the table."

"Was the tea which remained from breakfast thrown away?"

"I suppose so."

"Did the doctor's examine the teapot?"

"No it had been washed."

"Did Mrs. Blair seem annoyed at your sending for Dr. Mackenzie?"

"Extremely so."

"Do you think Mr Blair died in the belief that Mrs. Blair had poisoned him?"

Objection to this question by the counsel for the defence, and the judge told the witness that she must not answer it, as that was a very usual thing for Mrs. Blair to go into the laboratory. She suffered from headache and attacks of faintness, and sometimes she went in for drugs for the servants. She also admitted that Mrs. Blair's annoyance was not at her having sent for medical aid, but because Dr. Mackenzie had been sent for. She said Mr Powle was the abler man.

It was then proved that arsenic had been found in Mrs. Blair's dressing-case when her effects had been examined, and with this the case for the prosecution closed.

CHAPTER XXVII.

The case for the prosecution closed amid a profound silence; people felt that things were going against poor Jean; that the evidence against her was strong. Very pale and grave grew the faces of her friends—Lord Ivor's terribly sad and haggard, though he tried to smile at Jean when she glanced toward him.

The judge's face was very grave as he consulted his notes. He was an elderly man, with a mild, benevolent countenance, and he had a fair young daughter at home, which may have led him to pity the unhappy prisoner. The lawyers looked impassive as usual. Sir David's face had not changed; but calmest of all there—calm with a terrible, awful calm, the calm of one stunned into utter hopelessness—was the accused herself! She sat, white and still, with her hands clasped tightly in her lap, and her eyes fixed with a staring, sightless look of intolerable pain, straight before her.

A new dread sprang into Lord Ivor's heart as he watched her. Would her brain give way under this dreadful pressure? Better tears, better any agony of despair, than this awful stillness—this strange and startling unconsciousness to outer things!

"It will kill her," thought Lord Sholto, with a groan, as he looked at the livid face from which all youth seemed to have died.

There were but few witnesses for her, and these were chiefly from among the servants of her household and her personal friends, who spoke mainly in praise of Jean's generosity and unselfishness of disposition; the extreme kindliness of nature; the tender, loving heart which no sooner saw suffering than it longed to relieve it; the sensitive feeling which never cared to wound; the patience with which she had accepted the heavy trouble which had come into her young life, and the tenderness with which she treated her husband in his first symptoms of suffering, which a servant, crossing the lawn in front of the dining-room windows, had seen.

That was all, and it was terribly little wherewith to refute the charge against her—with which to crush the evidence which had been brought forward to prove her guilt. Terribly little! those who loved her felt it so, and their hearts sank heavy as lead; and the Earl of Ivor, lifting his hand, shaded his face with his fingers.

The court was very still when Sir David Cairnes rose to address the jury; not only was the interest in the trial very great, but Sir David's reputation, the eloquence for which he was renowned, stirred every pulse with excitement, as his rich, deep voice—rich and deep, but clear as a bell—rose in the crowded building, thrilling every heart, as a clarion-roll thrills the soldier's heart.

He spoke as only those speak who have been long trained to speak in public; who have mastered all the difficulties of oratory; who have studied its science from their youth upwards. He spoke eloquently, as one who knows and feels the subject of his discourse, with the polish of practised power joined to natural talent. There was a breathless silence when he spoke, the clear, deep voice penetrating, without effort, to the farthest limits of the listening throng, and as he spoke the feeling of the crowd changed as he swayed them with his matchless oratory.

He spoke of Jean's position, her gentleness, her tenderness; of the education which made the crime imputed to her almost a ludicrous charge.

"Is it likely—ask yourselves the question—is it likely that any girl—a young girl gently born and tenderly nurtured—should fall so low? Ask yourselves whether she, whose gentle heart and kindly feelings were proverbial among her friends, should put her husband to such cruel torture? Granted her marriage was an unhappy one; granted she longed for her freedom; are there no other ways but death to obtain freedom from such bondage as hers? If her chains galled her she could have rid herself from them at less cost than his life. But this also her education forbade; she was too pure to take these means; too gentle, too good, to take those of which she is accused; but if she turned from the lesser sin, is it likely that she succumbed to the greater?

"We have heard the account of her husband's dying hours. That he died from poison there is, unhappily, no doubt; but to think that his wife administered that poison is a monstrous, a palpable invention. We have been told that he shrank from her; but I tell you, that when he sent for her, the message given to the housekeeper—the principal witness against the accused—was not given. I tell you that when, at last, in defiance of a supposed command from her husband to keep from his presence, she entered his room, he received her with a gently-uttered reproach, and even appealed to her to defend him from the instances of those who were trying to induce him to take some restorative. 'Tell them to leave me alone, Jean,' he said, pleadingly; and when she bent over him with the mixture, he allowed her—his wife—to prevail, and took it from her hand. If she cried out at the word 'poison,' it was but natural, gentlemen of the jury, for she is young, and impressionable, and she saw her husband dying of some strange, mysterious, sudden illness. If he turned against her at the end, it was because one at his bedside insinuated that the word 'poison' had unduly disturbed his wife. We have heard she pleaded with him to let her send for further advice, but it was useless; and it is not surprising that she should shrink from seeing the suffering, the death-agony of a man to whom she was bound by no tie of love. The horror at the inquest is also a natural one, for you and I, gentlemen of the jury, would have felt it also.

"And now I must touch on one point which must have appeared strange—the presence of arsenic in her dressing-case. In order to account for it, I must probe a wound which is still raw; but if I give my client pain, she will pardon me—it is in her interest. The housekeeper has told us how, on New Year's night, there was a discussion between the husband and wife because she refused to go to a ball at Sholto Hall, and that when her husband left Mrs. Blair came down to the laboratory. It is quite correct; Mrs. Blair refused to attend the ball at Sholto Hall because she wished to keep true to the husband whom she did not love, by avoiding the presence of the man she loved, and who loved her; and when her husband taunted her with this fact, she was desperate; she was trying to do right, and he, in his ignorance or folly, was trying to force her to do wrong.

"When he had left her, stung to the heart by his angry words, she had gone to her room in silence. She had pictured to herself a long life—she is young, there is a long life before her—and she had recoiled from such an existence with a sickening shudder, as the bravest man or woman would shrink from the approach of a long and terrible bodily suffering; and for a moment the thought crossed her 'Why meet it? Why live in unhappiness, when the blessed silence of the tomb might be hers? Why support existence when it was burdensome? when every breath was pain?'

"The means of escape were near at hand. She had free access to the room where Mr. Blair kept the drugs which he used sometimes in chemical experiments, and the medicines which are indispensable in a country house at some distance from medical aid. Why not make use of some of the deadly drugs there and so win peace? Remember, she is a woman, desperate with suffering, and death allured her with a terrible power. All that made life worth living for was dead to her—the body only was left to perish; all hope had already died with all happiness.

"She went into the laboratory, and took from among the drugs sufficient—ay, and more than sufficient—arsenic to obtain the repose she craved, and went back to her room with a terrible resolution. She would set herself free. Far behind her—gone for ever—was a past which had for many years been one long cloudless sunshine; before her lay a future which looked unutterably gloomy and drear.

"The temptation was terrible, but she fought against it desperately. She remembered its sin—its terrible guilt—and she prayed, with a passion and earnestness which she had never felt before, for strength to conquer and to endure.—To be continued.

THE BIBLE WAS NOT ATTACKED.

An honored correspondent, one whose good opinion we highly esteem, has written us as follows, and thinking, perhaps, other readers may have misinterpreted the article in question we publish both his complaint and our explanation:

"Permit me a piece of criticism; I was very sorry to find in the RURAL of Nov. 8, that extract from the Atlantic Monthly. It was the first time I have seen anything in its columns that I was not willing my six children should read. I would not for the world have their faith in the Bible undermined as a matter for their good in *this life*, to say nothing of the life *hereafter*, and in my opinion the ruin of this nation is *sure* whenever the majority of its people become disbelievers in Divine Revelation. No other power than belief in the truths of the Bible will restrain the tendencies to vice and crime. M. B. B.

Prof. Goldwin Smith does not affirm anything against the Bible; he merely states, what is the fact, that, to a large and increasing number of people, the Bible is not the sacred book it once was. He deplores most heartily that religion is losing its hold on the masses of the people, and prognosticates dire evils as the result of the prevailing lack of interest in things spiritual. No one would be more astonished than Professor Smith himself to know that what he intended as a note of warning should have been construed into an attack on religion.

The Christian Union of November 19 says of this same article: "Professor Smith argues with great force and abundant wealth of historical illustration that the decadence of faith has always been followed by an interregnum of morality. He assumes that the present age is one of decadence of faith; and he summons from contemporaneous history some very significant facts to show that there is already in England the beginning of an interregnum of morality. *The article itself is well worthy the thoughtful study of ministers and teachers and parents.*" The italics are ours. We quote from our religious contemporary only to show that others beside ourselves considered the article worthy of the serious attention of the best classes in the community.—[EDS.

THE HOLIDAY SHIPPING GUIDE, which has just been published by Mr. F. Leypoldt, 15 Park Row, New York, is intended as a convenient pocket directory for Holiday shopping in the Retail Center of New York City. It is intended chiefly for the ladies, and will save them much time, anxiety, and fatigue during the rush of Christmas shopping.

It aims especially to answer the questions which so often perplex the shopper: What can I get? Where can I find it? What other stores have it? Which is the nearest? What stores are on my way? Where shall I stop? What for? Where is such and such a store? What car, etc., takes me nearest? Where is the nearest Druggist, Lunch Place, Telegraph and Messenger Office? Etc., etc.

This little book, in neat paper covers, sells for ten cents, and can be found at any bookstore or news-stand. We can recommend it to our readers as a practical and handy shopping guide.

For Women.

CONDUCTED BY MISS FAITH RIPLEY.

IT WAS A DREAM.

It was a dream—
As a lily fair
Bends o'er the placid waters low,
My couch she bent above.
Her eyes
Seemed heaven's self—so pure, so true!
Her dewy lips in cadence rare,
Lisped "Darling, O, I love but you!"

I had bowed to the spell of the tender voice so oft',
To-night within me welled,
In ecstacy, my inmost soul;
Her face touched mine—
Could I refrain?
In silent bliss I hugged and kissed—
My brain grew wild my nose quite *flat!*
Heavens! It was my *old Tom cat!*

[*Charlie A. Fischer.*

A MOTHERLY LETTER.

DEAR MISS RIPLEY:—Reading the excellent letter of Mrs. Griffith—RURAL, Nov. 29—in regard to children, I would say that she very forcibly describes a good many things that come under one's daily observation. I echoed the remark when my baby was born, that I was "glad he was a boy;" not but that I love girls, but because, looking down the dim vista of years, I see more chance for a man than a woman. Take, for example, a young man and woman of average age starting out in life, if the girl makes the slightest *faux pas* even though it be but once, and she tries to redeem herself, how will she prosper? All respectable people, especially our own sex, will give her the cold shoulder and treat her with contempt. Let the young man, however, go from bad to worse, and be sunk in the depths of immorality and drunkenness; let him, I say, resolve to "straighten up," and what is the consequence? Why, in a few years he is tolerated in the best society, and "swings around the circle" as if to the manor born. I heard it urged once that a reformed man made the best husband; it may be so, but God forbid my girl should mate with such—and why not apply this argument to women? then such sad cases as that of "The Unfortunate," described in the New York Sun, could or would never have taken place. The different latitude granted to the sexes has always been an enigma to me, but while time endures I suppose it will remain the same.

I fully endorse what your correspondent wrote in regard to frequent bathing, particularly in the case of infants. After a new-born babe has been washed and tormented to the utmost by a nurse, then the little helpless creature is only allowed 24 hours' rest, when it is put through the same performance again. I fail to see why a baby, after its first washing, should require so much cleansing. The idea, especially in cold weather, of bathing an infant all over every morning, is, to my mind, actual cruelty. I bathe my boy once a week all over, and every day wash his face, neck, hands, etc., but I fear he would not be alive now if I had followed the daily bathing plan. When my baby was born, from some unaccountable cause he was a "living skeleton," didn't weigh over four or five pounds. I never saw anything alive so poor. The women all shook their heads and said he couldn't live. I was afraid so myself, but I thought I would do my best and trust to my Heavenly Father for success. The child has often laid in my lap, looking just like a dead child. Many are the tears I shed over his little sleeping form. I knew the usual style of dressing would not suit him. I abandoned linen shirts, put on flannel, and then laid away all his dresses and replaced them by flannel gowns, so that now he is in flannel from head to foot. For nearly two months after his birth he did not gain a pound, but after adopting flannel I commenced to see the difference; he has kept on improving and is now growing fat and hearty, and bids fair to become a man some day.

The reason why I have occupied so much time on this subject is that there may be other mothers with delicate babes, who might profit by my experience. I never give my babies anything but catnip tea, peppermint, etc. If they have the colic badly, "just reverse the polez," that is, take them by the long clothes and turn them head downward for a moment, and it will help them almost instantly. Don't be afraid to do it, it won't hurt them; at least, it never injured mine, and I have seen my mother do it to my sister's boy when he was making the welkin ring with his protestations against the "twisters."

We have had a delightful Indian summer, and to-day—the 3d of December—it is almost warm enough to be without fire. I like this Kansas climate; the only thing that I have any serious objection to is the wind, that hardly ever rests—it blows soft or hard continually. We have good soil and good crops, so that Kansas is a good State to live in, if one is willing to work. I would say more, but my letter, I am afraid, is already too long. So adieu for the present, till we meet again.

Waterville, Kas. MRS. M. GALPIN.

HOW CAN MOTHERS FIGHT TOBACCO SUCCESSFULLY?

BY MARGUERITE.

I AM a mother and have a son almost three years old. Doubtless, many will think me premature on the tobacco question; so far as we are concerned, when I ask the above, but I scorn the weed, despise the habit, and think that few attain a perfected manhood who use it—none, if they commence early in life. Think of the money worse than wasted which might be used to ennoble the immortal part of man! Think of the homes bearing the impress of poverty, and of the wives and children who suffer for the common comforts of body and soul while a daily liberal allowance is made by the husband and father for his usual tobacco supplies.

When Fred was an infant I stepped to the outer door of my husband's place of business one evening and found about a dozen boys on the platform who were hardly in their teens and each one was smoking as intently as if the fate of the nation depended on his doing his very best.

"Not every one smoking I hope," I exclaimed.

"Yes" said one between puffs. "Just what your boy will be doing some day."

"Never if I live," I said emphatically and I hope I spoke truly.

"Oh well," remarked another, "my mother did not intend that I should, but I commenced it for the toothache and when that was cured I could not stop."

(Query. I wonder why tobacco is so good for boys' toothache? I never hear it prescribed for girls.)

A gentleman dined with us this week and I inquired after the baby.

"Oh he is a fine little fellow, and generally well, but just now he is troubled with worms. Wife had asked me to get medicine for him when I was down street but neglected it, and last night an old man staid with us who smoked an old strong pipe. During the evening baby got hold of it and blew through it and sucked at it for a long time. Wife interferred but the old man said to leave him alone, "it was good medicine," and that he would be well in the morning and he is.

"I would have interferred too," I said.

"So would I," said my husband. "He will acquire a taste for it soon enough."

"If my boy wants tobacco he can have it," said our visitor. "I'll never oppose him."

"I will mine," said I.

"It is of no use, Mrs. Lee," he said. "My father told me that if I ever used it he would whip me, even if I was as big as Joe Stevens, and he measured six feet five inches in his stockings. When he told me we were sawing logs together, and I had a quid of tobacco in my mouth then, and I had been using it for two years. I was neat about it though and kept the corners of my mouth clean, and never spit upon the floor as some of the neighbors' boys did."

"How long before he found you out?" was asked.

"Never, until I had been in the army for some time, and then he wrote me that he had sent a box to my brother, and was going to send one to me, and if there was anything I wanted particularly to let him know. I wrote back, 'for heaven's sake, to put in a pound of good chewing tobacco,' and when I opened the box it was there!"

This father lived in far away Vermont. After the war the son settled in Pennsylvania, married but did not visit his early home until the Centennial year, and when he did so, he was accompanied by his wife and two daughters, and—his naughty habit. I would like to chronicle for my own satisfaction and the good of my readers, that his father whipped him soundly, but cannot state facts. He arrived home in the night and the dear old father doubted that it was Ogden, until he said, "My wife and children are in a carriage outside, tired almost to death." And then the dear aged parents hastily opened their arms, hearts and homes to them all. Now, I want to be more successful in bringing up my boy than Ogden's father was with his. There is not a drop of tobacco taint in his veins for several generations, and now as I write, he climbs up to love and kiss me, bothering me all he can. I earnestly desire that his life may be as pure and his breath as sweet twenty years from now, as it is at present. How can I accomplish this? Who can tell?

CHEMILOONS.

ABOUT a year ago, I read in this department a short article in favor of a merino waist instead of the chemise, for ladies underwear. I thought the idea very sensible, and only differed with the writer in regard to chemiloons. She did not like them, but I hope no one will be deterred from trying them on that account. Having worn them for four years, I have no wish to change for any other style of garment. One advantage is in having one garment to make, wash, iron and mend, instead of two, which, in the present rather elaborate state of woman's wardrobe, seems quite desirable. Probably the best thing to be said for it is, that its weight is supported by the shoulders, as indeed, the weight of all clothing, especially for woman, should be.

Physicians agree that not a feather's weight should be suspended from the hips. In these degenerate days, when the race grows weaker more perceptibly than wiser, too much attention can scarcely be given to straps and strings and buttons, as related to the proper physical development of girls. How many mothers attend to this, and to the corset question? They control their girls on all other subjects, it may be, but they rather like to see them look trim, like other girls, as they gently remonstrate against abuses worse than Chinese damsels inflict on themselves, but they do not stop them. Will women with weak backs and ribs pressed together over lungs and heart and stomach, be likely to produce a race of robust men? The idea of tampering with the form God made and "bringing it into shape!" And this shapelessness does not even look better to the least artistic eye. It looks better to the slave of fashion as do the nose-rings to the Hottentot, and the tiny pointed shoe to the Celestial. But I have wandered from my subject.

OLD MAIDS.

A SENSIBLE writer expresses his opinion of old maids in the following manner: "I am inclined to think that many of the satirical aspersions cast upon old maids tell more to their credit than is generally imagined. Is a young woman remarkably neat in her person? 'She will certainly be an old maid.' Is she perfectly reserved towards the other sex? 'She has all the squeamishness of an old maid.' Is she frugal in her expenses and exact in her domestic concerns? She is cut out for an old maid. If she is kindly, humane to the animals about her, nothing can save her from the appellation of an old maid. In short, I have always found that neatness, modesty, economy and humanity, are the never-failing characteristics of that terrible creature—the old maid.

It is no doubt a terrible thing to be an old maid, but so long as men drink rum, chew tobacco, smoke cigars, and act like fools, and even worse, it is not the worst thing that can happen to a woman. Indeed, we should not have to hunt very far to find plenty of women who are not old maids but who would give all their boots and shoes if they were: and who in bitterness and sorrow lament the day when they suffered a yoke to be placed upon their necks, which is grievous and hard to be borne. Marriage is honorable in all, but if it is honorable it should be honored, and those who make it a burden and a calamity, need not wonder that intelligent and considerate women fear to take the risks it involves.

MATTHEW'S HAND SEED DRILL.

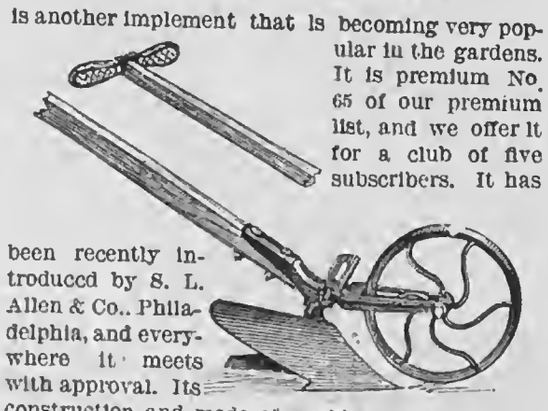
Every nurseryman, gardener and amateur horticulturist, knows how valuable and time-saving machine a good seed-drill is in the spring, when work is pressing. Nobody who raises vegetables for the market can, from a labor-saving point of view,

afford to do without one or more seed-drills.

The Matthew's drill is one of the best in the market. We offer it as a premium to any one who will send us a club of 28 subscribers, and never was there a better time to get up a club than just now, during the holidays, when work is slack and friends are visiting and plans are laid for the coming spring. This drill will open a furrow, drop seed accurately at the desired depth, cover it, roll it lightly, and at the same time mark the next row. It sows with an evenness and rapidity impossible for the most skillful hands to do, and can be adjusted to sow any variety of garden seeds, from the size of peas to that of catnip seed. The drill is complete in all its arrangements, and very durable.

THE FIRE-FLY HAND HOE

is another implement that is becoming very popular in the gardens. It is premium No. 65 of our premium list, and we offer it for a club of five subscribers. It has been recently introduced by S. L. Allen & Co., Philadelphia, and everywhere it meets with approval. Its construction and mode of working are seen in the cut.



COMMUNICATIONS RECEIVED FOR THE WEEK ENDING SATURDAY, DEC. 20.

W. F. H.—W. V. B.—D. F. W.—B. M.—A. R.—L. B. S.—W. J. B.—G. H. T.—L. F.—L. A. R.—N. C.—A R.—J. D. P.—J. R.—O. W. F.—A. R.—E. K. W.—T. H.—P. B. B.—C. C. H.—F. H.—C. C. B.—T. H. H.—E. L. M.—J. H. S.—R. W. S.—J. F. L.—W. H. C., M. D.—M. N. N., no shrub inclosed.—B. F. R.—S. F. R.—A. H.—O. W. H.—J. B.—Emily.—F. H. D.—W. D. B.—G. C. C.—A. L. J.—A. P. A.—A. M. L.—W. C. C.—J. W. B.—R. B.—S. P.—C. W. S.—L. T.—L. F.—N.—N. R. S.—B. C. D.—L. S.—M. E. S.—D. E. J.—J. W. B.—J. C.—C. V.—J. D. D.—M. B. McL.—T. G. L.—L. S. H.—W. W. W.—N. R., thanks.—F. D. C.—F. J. B.—D. W. C.—E. L. M.—J. S. S.—E. S. K.—W M.—"Clinton"—L. G.—H. H.—M. E. H.—J. W. W.—G. A. G., Jr.

Do a Clever Thing

for your wife. She does many for you—bakes, cooks, scrubs and mends. Her work is never done. Get from your grocer a package of Gilt-Edge Butter Maker for twenty-five cents. She can churn in half the time, get ten per cent. more butter and of a color that she will be proud of. The valuable book, "Hints to Butter-Makers," is given away by all store-keepers.

NOVA POST-OFFICE, Ashland Co. Ohio, May 28, 1879.

BUTTER IMPROVEMENT CO.:

Gentlemen—My attention was called by your correspondent of Elyria, Mr. Boynton, to your Gilt-Edge Butter Maker, and wished me to give it a trial. We churned one gallon of cream according to your directions in your letter to Mr. Boynton, with the following result, time of churning 12 minutes, produced 3¼ lbs., color good and quality far better than any thing that I have tried previously. I have been engaged in the dairy business more or less for the last 15 years. Also took of the same cream, the same time and from the same bulk, omitting your powder, as per directions with the following result, time of churning 20 minutes, three pounds, quality inferior, short of what is required in our market. I would further say, I made a second trial with about the same result.

Truly Yours, C. S. VAN AMANN.

In **1850** the "BRONCHIAL TROCHES" were introduced, and from that time up to the present their success in Colds, Coughs, Asthma and Bronchitis has been unparalleled. No household should be without "*Brown's Bronchial Troches*," as by their early use most troubles of the Throat induced by cold can be overcome.

Why let ladies and children run their shoe heels over? Prevent it by using Lyon's Heel Stiffeners.

"That medicine goes right to the spot, refreshes, revives and cures."—A patient on Hop Bitters.

News of the Week.

Congress adjourned last Friday for the holidays, having accomplished little. On last Friday week the House passed the Fortifications and the Pensions Appropriation Bills, the latter calling for $32,404,000. During the week Mr. Warner has asked for information as to what came of the bimetallic mission to the governments of Europe, for which $20,000 was appropriated; and Mr. Morrill for the effect on the revenue of the repeal of the duties on tea and coffee. Resolutions have been introduced expressing sympathy with the Irish Nationalists in their effort for equal laws and self-government, and the hope that they may soon become owners of the soil they cultivate; and equally buncombe speeches have been made over petitions for enriching the soldiers and sailors of the civil war by the difference between the gold value of the greenbacks in which they were paid and their nominal value. This impudent proposition of course comes from the demagogues who denounced as ruinous the measure which was to remove the discount on greenbacks.

New Orleans, Dec. 21—Major George W. Carey, late of the firm of Richardson & Carey, a large dry goods house, who was indicted a few days ago for embezzlement and forgery, was brought here from Mobile to-day on a requisition from Gov. Nicholls, and remanded in default of a bond of $10,000. The Chamber of Deputies at Rome has passed a bill authorizing the Government to take immediate steps for the prosecution of the public works in order to relieve the distress of the working classes by furnishing them with employment. A correspondent at Pesth says telegrams from Sophia state that 60 Mohammedan refugees whom the Bulgarian Government had refused to admit to their former homes, have died of cold and starvation in the open fields.

A Cairo correspondent states that Gordon Pasha has been recalled. . . A Vienna dispatch reports that the Montenegrin representative in Constantinople has demanded his recall in consequence of the difficulty of his position in regard to the Gul-

singe question' . . A Vienna correspondent says the Austrian Army bill was passed from patriotic motives, but its passage must not be regarded as a vote of confidence in the Ministry.

A Calcutta dispatch says executions continue in the Palace at Mandelay, Five Princesses were recently murdered. The Burmese Embassy is still at Thyetmyo. . . A Berlin dispatch says the famine in Silesia is gradually increasing. . . Special dispatches from Madrid state that there have been several riotous street demonstrations during the past week. After the funeral of Gen: Lagunero, a riot occurred between a mob and the police, in which shots were fired. Seventeen porsons were arrested.

The Markets.

Late advices from nearly all over the country go to prove that an unusually large increase of acreage has this year been planted to wheat. With a fair season the increase of yield next year would be very great, even from the normal increase of area under this cereal. Since 1850, according to the best accounts, the wheat yield has increased as follows:

1850	100,485,994 bushels.
1860	173,104,124 "
1860	235,884,700 "
1876	289,356,500 "
1877	364,194,146 "
1878	420,122,400 "
1879	448,000,000 "

It will be noticed that the yield has nearly doubled in the last nine years, and will doubtless have more than doubled within the decade. Great as has been the increase in the population of this country, the increase in the yield of what has been much larger, so that every year we have a larger surplus for export. Previous to 1872 our greatest crops gave only about five bushels per head, whereas last year's harvest afforded 8¾ bushels. It is estimated that 35 per cent. of the wheat grown here is exported, of which Great Britain takes about half. Where shall we get a paying market ten years hence at our late rate of increase?

Index has cut things short here, too.

SPECIALS FROM ALL CENTERS.
Until Saturday, Dec. 20.

Baltimore.—WHEAT—Southern red at $1.40@$1.55; do. amber at $1.50@$1.67; No. 1 Maryland at $1.56½; No. 2 Western winter red, spot at $1.53¾; December at $1 53½@$1.53¾; January $1.55½@$1.55¾; February at $1.59½@$1.59¾. CORN—Inferior to prime white at 56@65c.; do. yellow at 59@60c.; Western mixed, spot and December, old, 64c.; new, 60½c. OATS—Southern at 47@48c.; Western white at 47@48c.; mixed at 45@46½c.; Pennsylvania at 47@48c. RYE—Quiet at $1.00. HAY—Unchanged. BUTTER—Prime to choice Western packed at 22@23c.; roll at 20@24c. EGGS—Fresh at 22c.; limed at 16@18c. COTTON—Middling, 12½c.; low middling, 12¼c.; good ordinary, 12c.

Boston.—CORN.—Sales at 65@67c. for old; 62@64c. for new. OATS.—Sales of No 1 and extra white at 52@54c; No. 2 white at 50@50½c; No. 3 white and No. 2 mixed at 48@49c. RYE nominally 95c@$1. Shorts selling at $18; fine feed at $18@18.50; middlings, $19@20. COTTON.—Middling 12¾c; low middling 12⅜; good ordinary 12c.

Buffalo.—WHEAT. No. 1 hard Duluth at $1.40; buyers and sellers generally apart. CORN.—New No. 2 mixed Western at 61c. OATS.—No 2. Western quoted at 45c; State retailing at 48@49c. BARLEY. Canada quoted at 70@85c; State at 65@75c; No. 2. Western at 85@90c. RYE.—Holders asking 90c. for No. 1 Milwaukee.

Chicago.—WHEAT—No. 2 red winter, $1.33; No. 2 Chicago spring at $1.31¾ cash; $1.31¾@$1.31¾ January; $1.33½@$1.33¾ February; No. 3 do at $1.14¾; rejected at 98c. CORN—40½@40¾c. cash; 40½c. January; 41c. February; 46¾c. May; rejected, 38¾c. OATS—34¾c. cash; 35c. bid January; 35¼c. February; 40c. May. RYE—Stronger at 79@80c. BARLEY—Firmer at 87@88c. EGGS—17@20c. HOGS—Light, $4.15@4.25; choice to heavy $4.30@4.60; mixed packing, $4.00@4.30. CATTLE—Shipping. $3.60@$5.12½; butchers, $2.00@$3.50; feeders and stockers, $2.40@$3.60. SHEEP—$2.90@$4.50.

Cincinnati.—WHEAT stronger at 1.34@1.36. CORN dull at 41@43½c. OATS steady at 40@41c. RYE firm at 93. BARLEY dull at 90c. BUTTER active firm and higher; choice Western Reserve at 24@26c; prime do., 20@22c; prime to choice Central Ohio at 19@20c. HOGS active, common at $3.65@4; light at $4@4.25; packing at $4.25@4.45 butchers' at $4 45@4.50; receipts, 3,000 head; shipments, 600.

Detroit, Dec. 26.—WHEAT stronger; extra white Michigan, no sales; No. 1 white Michigan at $1.37½; December at $1.37½; January at $1.38¾; February at $1 42¾; March at $1 45; No. 1 milling at $1 53¾; No. 1 amber Michigan at $1.37½; No. 2 Red Michigan at $1 37½. CORN quiet but steady; No. 1 yellow at 42½c.; high mixed, 48¾.; No. 1 mixed, 48c.; No. 2 mixed at 46c. OATS scarce and strong; No. 1 white at 41c.; No. 2 white at 39c.; No. 1 mixed at 39½c.; No. 2 mixed at 38c. CLOVER seed steady and in fair demand; prime at $5.10@$5.15; choice at $5 45. Dressed hogs firmer, with a very active inquiry at $5.25.

Indianapolis.—WHEAT firm; No. 2 red at $1.34@$1.36. CORN firm at 40½@40¾c. OATS steady at 38@40c. Hogs quiet at $4@4.35.

Louisville.—WHEAT firm at $1,30@1.32. CORN steady, with a fair demand; white at 46c.; mixed at 45c. OATS firm; white, 43c.; mixed at 41c. RYE steady at 91c. COTTON, middling 12c.

Milwaukee, Dec. 20.—WHEAT, No. 1 Milwaukee hard at $1 31¾; do. soft at $1 30¾; No. 2 Milwaukee at $1 29¾ spot and December; $1 30¾ January; $1 32¾ February; No. 3 do. at $1 15¾; No. 4. do. at $1 08; rejected at 99c. CORN stronger; No. 2 at 40½c. OATS ½c. firm; No. 2, 35@35½c. RYE steady; No. 1 at 78½c. BARLEY stronger; No. 2 spring, 74c. cash; 75¼ February.

New Orleans.—CORN scarce and firm at 58c. OATS in active demand at 48c. CORN meal quiet but firm at $2 55. HAY firm; prime at $24; choice at $26. SUGAR active, firm and higher; inferior at 4¾@5¼; common to good common at 5@6¾c.; fair to fully fair at 6¾@7c.; prime to choice, 7¼@7¾c.; yellow clarified, 7¾@8¾c. MOLASSES steady with a good demand; common at 25@27c.; centrifugal at 25@33c.; fair at 30@32c.; prime to choice at 33@40c. RICE dull and nominal: Louisiana, ordinary to choice at 6¾@7¼c. BRAN dull; quoted at 77½c. COTTON dull and easier; middling, 11¾c.; low middling, 11¼c.; good ordinary, 11¼c.; net receipts, 9,814 bales; gross, 11,271; exports to Great Britain, 8,910; to the Continent, 1,905; sales, 3,000; stock, 290,720.

Philadelphia.—WHEAT.—Western rejected at $1.47¼; Southern red on trackat $1 52; Delaware amber on track at $1 54; No. 2 red in elevator at $1 53¾ RYE quiet; Pennsylvania at 98c. Corn.—Old Pennsylvania and Southern red on track and in grain depot at 60@63c. OATS.—Western mixed at 47@48c; stained at 48½c. fair and choice white at 49@50c. BUTTER.—Creamery extra at 32@34c. Bradford county and New York extra at 28@29c; Western Reserve extra at 23@25c; do. good to choice at 17@21c; rolls dull; Pennsylvania extra at 18@21c. EGGS.—Pennsylvania at 24c; western at 20@22c. CHEESE.—New York factory at 13@13½c; Western full cream at 12½c; do. good at 11@12c; do. skims at 7@9c. BRAN at $17 50@18 50. COTTON.—Middling 12¾; low middling 12⅜c; good ordinary 12¼c.

St. Louis.—WHEAT—Higher, but slow; No. 2 red fall at $1.34½@$1.34¾, cash; $1.36½@$1.36¾ January; $1.41@$1.41¾ February; No. 3 do., $1.25¾. CORN—Dull at 36¾@36¾c. cash; 36⅝@36¾c. January; 43¾@43¾c. May. OATS—Dull at 36¾c. cash; RYE—Firmer at 81½c. BARLEY—Quiet and unchanged. HOGS—Active and a shade higher; light shipping at $4@4.10; packing at $4.10@4 30; butchers' to select at $4.30@4.40; receipts, 3,500; shipments, 1,600. CATTLE—Firm; supply entirely inadequate; choice to heavy fancy steers at $4 70@$4.90; good to prime at $4.25@$4.65; light at $3.50@4.00; cows and heifers at $2.50@$3.75; feeders at $3 25@$3.75. SHEEP—Firm and unchanged; fair to fancy at $3.25@$4 00; receipts, 400; shipments, 150.

Toledo.—WHEAT—Amber Michigan at $1.40; No 2 red winter, spot, at $1.41¾; December at $1.42; January at $1.42¾; February at $1.46; March at $1.48¾; April at $1.51¾; No 3 red Wabash at $1.29; No. 2 red Dayton and Michigan at $1.39; rejected at $1.07; Western amber at $1.43¾; No. 2 red mixed at $1.38. CORN quiet; high mixed at 44¼c.; No. 2 at 43¾c.; rejected at 43¾c. OATS quiet; No. 2 at 40¾c.; Michigan at 42¾c. SEEDS—Clover at $4.90. Dressed hogs at $5.15.

PRODUCE AND PROVISIONS.

NEW YORK, Saturday, Dec. 20, 1879

BEANS AND PEAS.—The principal sorts of beans are in large supply, and prices again feel the weight of them in the absence of proportionate demand. Outside rates are extreme for all grades Green peas hold prices by some export call; $1.80@$1.85; field peas not quoted; E. E. peas $2.25@2.30 for 2 bu bag; Marrow beans, $1.10@1.65 medium, $1.35@1.55; pea, $1 50@1.80; white kidney, $1.75@2; red do., prime, $1.80@1 90; poor, $1.70@1.75; black, (or turtle soup) $1.90.

Receipts of beans for week, 14,775 oush.; exports, 1,775 pkgs do., and 200 bbls. green peas.

BEESWAX.—A small business is in progress at 24½@25½.

BROOM CORN.—Offerings are small and business limited. Jobbing sales of green stalk braid at 5½@6¾c.; green hurl at 7@8c.; red and mixed at 4@5c.; fancy brush corn at 9c.

BUTTER.—Sales were only of a moderate volume, but receipts of either State or Western are not of depressing bulk and sellers have not changed prices to any quotable degree. Exports are again fair, and as this outlet is for sound, useful, but not top-notch grades, the latter will not lose strength by having a more concentrated position. The market will rule dull for a week or so, as Christmas time always curtails grocers' wants. Bakery and pastry are large, but prices for under-grades send the trade largely to lard. State pails and tubs, small dairy and fresh ends, 27@29c.; best lines, 26@27c.; fair to good, 21@25c.; firkin and tub single dairies, choice, 26@27c.; do. fair to prime, 22@25c.; do., firkins, alone, 21@24c.; Welsh tubs, 20@24c.; poor State 19@20c.; creamery, finest, 28c.; good to prime, 33@31c.; sweet cream, 33@34c.; poor to good, 23@33c.; Western imitation cream, 23@30c.; dairy, Irish, extra, 24@25c.; poor to good, 18@22c.; factory, late made, 22c.; poor to good, 13@18c.; very poor Western, 10@12c.; rolls, 19@20c.

Receipts for week, 20,000 pkgs.; do., exports, 5 400 do.

CHEESE.—The shipments for the week have been 41,600 boxes. Those have been mainly of good and low grades, with not much of a disposition to buy fancy except on imperative orders, since the temper of the markets abroad does not invite free shipments.

Quotations are for State factory: Fancy, 13@13½c.; good to prime, at 11¾@12¾c; fair to good, at 10¾@11¾c.; half-skimmed at 8@10c.; skimmed at 6@8c. State farm dairy: Fine at 12¾@12¾c.; good to prime 10½@12c.; fair to good at 9@10¾c.; skimmed at 6@8c. Wis. factory: Fine at 12½@12¾c.; good to prime at 11@12½c. Ohio factory: Cheddar, fine, at 12¾@12¾c.; do., fair to good, 10@11c.; flat, fine, 12¾@12¾c.; flat, good to prime, 11½@12½c.; flat, fair to good, 10@11½c.; half-skimmed, 9@10c.; skimmed, 6@8c.

Receipts for the week, 31,700 boxes; exports, 38,000 do.

Liverpool cable quotation, 64s. 6d. Steam to Liverpool, 30s.

COTTON.—The market has been subjected to speculative manipulation and has been feverish and irregular, closing weak at for Dec. 12.52@12.54c.; 13.65@12 67c. for Jan; 12.94@12.96c. for Feb.; 13.20@13.21c. for March; 13.40@13.41c. for April; 13.60@13.61c. for May; 13.75@13.76c. for June; 13.85@13.85c. for July, and 13 92@13.94c. for August.

Quotations for spot cotton are based on American standard of classification, and on cotton in store running in quality not more than half a grade above or below the grade quoted.

	Uplands.	N. Orleans and Gulf.	Texas.
Ordinary	11	11⅛	11⅛
Strict ordinary	11⅜	11⅜	11⅜
Good ordinary	11⅝	11⅝	11⅝
Strict good do	12	12⅛	12⅛
Low middling	12¼	12⅜	12⅜
Strict low middling	12 7-16	12 9-16	12 9-16
Middling	12 9-16	12 11-16	12 11-16
Good middling	12 13-16	12 15-16	12 15-16
Strict good middling	13 1-16	13 3-16	13 3-16
Middling Fair	13 9-16	13 11-16	13 11-16
Fair	14 5-16	14 7-16	14 7-16

STAINED.

Good ordinary	10 7-16	Low middling	11⅛
Strict good ordinary	11 9-16	Middling	12¼

DRIED FRUITS.—The trading is confined to small lots, owing to the full incident to the holiday period, with prices, however, generally steady.

Apples—New North Carolina, at 6¾@8¾c. for fair; 10@10½c. for choice; 11@11¾c. for fancy sliced. Patent evaporated apples, choice, in cases, 15@16c.; do. fair to good, 13½@14¼c.; N.Y. State sliced, new, 7½@8¼c.; quarters, choice, 7@8c.; new southern quarters scarce and nominal; new North Carolina peeled peaches at 17@19c., do., Georgia, 13¾@16¾c. Peaches, Delaware evaporated, peeled at 25@28c.; do. unpeeled at 13@14c.; new halves at 8c. Blackberries at 9@10c. for new. Raspberries at 26½@27c. Pitted cherries at 18@19c.

Exports for week, 631 bbls. apples.

EGGS.—Receipts for the week, 5,900 bbls.; do. last week 6,230 do. The demand has taken a favorable start and good qualities are firm. Held lots quoted weaker every time offered, and many of the old ones will soon be unsalable. Near points arrive liberally, and with selected Western and prime Northern the supply meets the demand.

Near points fresh, doz. 25@26c.; State and Pa., 21½@23¼c.; Canadian 18@c.; 19 Western, prime to extra, 22@23c.; off grades, 17@20c.; Southern, 21½@22½c.; State limed, 16@16½c.; Canadian, 15@16c.; Western, 14½@15½c.

FLOUR.—The exports this week reach nearly 100,000 bbls.; this shows a marked improvement in trade. The prices made have varied little Closing dealings are at $5 50@5.80 for inferior to fancy superfine State; $5 90@6.15 for inferior to good extra do., odd lots and lines; $6.15@6.35 for good to very choice do.; $5.25@5.90 for inferior to very fancy superfine Ind., Iowa, Michigan, &c.; (the latter an extreme); $5.90@6.15 for inferior to good shipping extra do., and $6.15@6.25 for good to fancy shipping extra do.; inferior to about choice white wheat extras, $6.10@7.15; choice to fancy do. at $7.25@8.50; red and amber winter wheat, inferior to fancy trade and family, at $6.00@8; round hoop Ohio, $6 60@6.40; and trade and family brands of do. at $6.50@8.00; the latter rate for very choice; St. Louis at $6 10@7.00 for inferior to very good extra; $7 15@8.50 for very good to fancy; Minn. clear, very inferior to fancy, at $5 90@7.10; Minnesota "straight," very inferior to fancy, at $6.50@8.00, and patent poor to very fancy, at $7.00@9.25; unsound stock at from $4.25@6.25; city mill extra at $6.75@7 00 for about fair to choice for West Indies (fancy do. quoted at higher figures); do. for England, $5 90@6.35 for poor to choice; do. trade and family extras, $7.10@8 25; do. for South America, $6.75@7.25; No. 2 at $4.35@$5.25 for very poor to fancy.

CORN MEAL.—Brandywine is quoted at $3.30@3.35 and yellow western at $2.75@3 25.

FRESH FRUITS.—For apples there is the customary holiday demand for fine sorts, and small selections are firm. Lady apples are unusually high. Fair shipping Greenings and Baldwins can be bought about as before.

Spitz, ₱ bbl., $3@3.50; Baldwin, $2.50@2.75; Greenings, $2.25@2.50; winter mixed, prime, $2.25@3.00; poor to fair, $1.50@2. Lady apples, 18@18c. Pears quiet; Winter Nelis, Vicars and Lawrence range at $2 50@4.00 per bbl. Cranberries are quiet, but very firm, as there is no surplus of prime. Cape Cod, fancy, per bbl., $8@8.50; other, Capes and Eastern, $6@8; N. J. crates, $1.75@2.25. Choice Catawba grapes firm; cases, $2@3; do., loose, per lb., 5@7c. Florida oranges in good demand when prime. Choice hf. bbl crates, $3@3.50; fair, $2@2.50. Peanuts active. Va. hand-picked, 5@5½c., and other grades 3¾@4¼c. Hickory nuts, 80c.@$1; B. walnuts, 50c.; Pecans have advanced; 9¾@11c.

GRAIN.—Shippers have not been as free buyers, yet a fair business has been done, and the exports have been 100,000 bushels of wheat and 780,000 bushels of corn for the week. Prices closed strong.

For wheat latest sales are of No. 2 umber at $1.54@1.54½; ungraded amber at $1.52¾; No. 1 white at $1.52@1.53; No. 2 red, 1.55¼@1.56¼; do., Dec. option, at $1.52¾@1.52¾; do., Jan., at $1.53¾@1.55; do., Feb. at $1.57@1 58¾; ungraded white at $1.53@1.54½; No. 1 red at $1.55¼@1.56; do, Dec. option, at $1.55¾@1.56¼; do, Jan., at $1.57¼@1.59 do. Feb., at $1.60¼@1 12¾; do., ungraded red, at $1.44@1.54; No. 3 spring, at $1.38@1.39; ungraded spring at $1.29@1 36. Corn at for New York No. 2 at 64¼@61¾c.; do., December, at 61¼@64¼c.; do., January, at 61¾c.; do., February, at 64¼c.; New York steamer mixed at 63c.; do., December, at 61¼@62¾c; do., January, at 60¾c.; ungraded western mixed at 61@62c.; No. 3 at 61@61¾c.; round yellow, new, at 63¾c.; No. 2 white at 67c. Oats at for New York No. 1 white at 53¾@54c.; New York No. 2 white at 52@52¾c.; New York No. 3 white at 50@51¾c.; New York No. 1 at 50¾c.; New York No. 2 at 50@50¼c.; do., New York No. 3 at 48¾c.; rejected at 48c.; ungraded white western at 49@52¾c.; ungraded mixed western at 49@50¾c.; white State at 51¾@53c.; mixed State at 5:@52c.; No. 2 Chicago at 50¾c. afloat.

HAY AND STRAW.—There is a fair call for supplies and a steady market. Shipping hay quoted at 60@65c.; retail lots at 70@80c. for medium, and 80@95c. for prime; clover at 45@60c. Straw at 90c.@$1 for long rye; 65@75c. for short rye, and 55@60c. for oat.

Exports for week, 1,518 bdls.

HONEY—Sales for store decoration have increased with the approach to the holidays and prices are firm. Single comb white clover, ₱ lb., 18@19c.; larger, 14@16c.; buckwheat, 12@14c.; clover extracted, 11@13c.; strained, 8@10c.

HOPS.—The receipts for the week have been 1,200 bales, while the exports have been only 359 bales. Emmet Wells in his weekly circular says: "We are now passing through the usual dull season preceding the holidays, and very little business will be transacted in hops for the next three weeks. Much disappointment is felt on the part of speculators by the downward course of prices, most of them at the time they put their money into hops being firm believers in a steady market and higher prices before the close of the year. The hope now indulged in of a better market immediately after the holidays may possibly be realized; if it is, however, it will be a state of things quite different from what has been the usual course of the trade in former seasons. Our predilection is, that if any improvement at all takes place it will be later in the season, at a time when the market may become influenced by unfavorable crop prospects, the same as was the case last summer.

Prices are entirely nominal New Yorks, new crop, choice, 38@40c.; New Yorks, new crop, medium, 34@36c.; New Yorks, new crop, low to fair, 30@32c.; Eastern, new crop, 30@33c.; Wisconsin, new crop, 30@33c.; Yearlings, 7@18c. Olds, all growths, 4@10c.; Pacific coast, new, 35@40c.; Pacific coast, olds (nominal), 7@12c.; Bavarians, 50@65.

OIL-CAKE.—Western is quoted at $35.00 ₱ ton.

PROVISIONS.—Hog products have been active and closed strong. Mess pork quoted at $11.80@11.85 for old for December and January; $13 45@13.50 for new for January; $13.45@13.50 for new for February, and $13 50 for March. Bacon at 7c. for long clear and 7¾c. for short clear. Lard at $7.62½@7 70 for spot lots of old and new; $7@7½ for new for January; $7 60 for old for do.; 7.82½@7.85 for new for February; $7.70@7.72½ for old for do.; $7.92½@7.95 for new for March; $7.82½@7.85 for old for do. Stearine at 7¾@7¾c. for Western. Tallow at 6 11-16@6¾c. for prime. Beef at $10.50@11 for prime mess; $11@12 for extra mess. Beef hams at $16.

POULTRY AND GAME.—Cooped stock is in large supply, and easy rates rule right through. Chickens and birds, 7@8c.; Turkeys, 7@9c.; Ducks, 15@17c.; Geese, Western, 70@10c. prime to fancy, near by, 1.25@1.75. Dressed Poultry is quoted steadier, but rates have to be kept low even for fresh receipts in order to handle the winter supply. Qualities are less mixed than they were, and sales are helped thereby. The weather does not promise an active holiday trade; and it is certain there will be no fancy figures. Poultry resources now make it a common-place item.

Turkeys, New Jersey and Pa., prime, 12@12½c.; State, Northern Ohio and Mich. 11¾@12c, other Western, prime, 11@11¾c.; do. fair to good, 9@10¾c.; Philadelphia, dry-picked, 13@13c.; do., chickens, 12@12¾c.; do., Jersey, per lb., 10@11c; do., State and Western, prime, 9@10c. fair to good, 7@8c.; Phila. fowls dry-picked, 10@11c.; N. J. do., 9@10c.; State, dry-picked, 8@9c.; Western, dry-picked, 6@8c; Geese choice, 10@11c.; others, 8@9c.; Ducks, choice 12@13c.; other 9@11c. Prices are strong for game that will carry over to Christmas. Rough lots seem well out, and if the weather hardens buyers will purchase ahead for decorative use.

Wild Ducks, Canvas-backs, Havre de Grace, pair, $4; Norf., $3.50; do. red-heads, $1@1 25; Mallards, 60@80c.; Teal, 40@50c; Black, 50@60c.; common 20@30c. Quail, trapped, ₱ doz., $2 50; Partridges, State, ₱ pair, $1.12@1.25; do. Western, $1@1.12. Grouse, $1@1.25; Wild pigeons, flight, ₱ doz., $1.25; Rabbits, ₱ pair, 30@35c.; Hares, 30@35c.; Minn. venison, saddles, ₱ lb., 13@15c.; other, 12@13c.; whole deer, 8@9c.

SEEDS—Grass is quiet. Clover at 8¾@9¼c. for prime to choice; 9¾@9¾c. for extra choice. Timothy at $2.75 for prime.

TOBACCO.—Export demand is slack and the home trade moderate, with prices unchanged.

VEGETABLES.—Railroad supplies are liberal but there is some accumulation from previous receipts. The heartiest is weak and ordinary lots decidedly in buyer's favor for wholesale parcels. Onions show stiff figures, particularly for fine large white. Cabbage higher. Celery not turning out as fine as last year. Potatoes, Nova Scotia Rose, $1.50@$1.75; prolific, 1.37@1.50; Mercer, $1.25; State Peachblows, d.-h., 2@$2.15; Snowflake, d.-h. $1.37@$1.62; Early Rose, Maine, d.-h. $1.50@1.75 State, $1.15@2 12; do. in bulk, 1.37@1.51; do. Peerless, $1.25@$1.62; N. J., do., 87c.@$1.00. Sweet potatoes, $3.25@$3.50 squash marrow, ₱ bbl., 75c@$1.25; Hubbard, $1.25@1.50; cabbage, white, per 100, $4@6; red do., cabbage, $7@8; onions, white, per bbl., $3 00@5.00; do. red, $2.25@$2.50 do., yellow, $2.50@2.75; do., Chester, $1.75@2.50 beets, $1@1.25; Russia turnips, 75c.@$1; carrots, 75c.@$1; pumpkins, per 100, $8@10; celery, per doz., 75c.@$1.

Exports potatoes for week, 7 850 bbls.

WOOL.—Demand is slack as usual at this period of the year, or approaching the holidays with prices, however, very firm.

Ohio, Pennsylvania and West Virginia—XXX, 52@55c.; XX, 49@52c.; X, 49@52c.; No. 1, 53@56c.; No. 2, 47@50c.; common, 43@45c.; combing, 55@57c.

New York, Michigan and Wisconsin—XX, 43@48c.; X, 43@47c.; No. 1, 50@55c.; No. 2, 46@50c.; common, 40@41c.; combing, 50@55c.

Iowa, Vermont and Illinois—X and XX, 42@46c.; No. 1, 48@52c.; No. 2, 44@46c.; combing, 43@53c.

Missouri, Kentucky and Tennessee—Washed fleece, 46@53c.; unwashed fleece, 35@42c.; unwashed combing, 35@45c.

LIVE STOCK MARKETS

NEW YORK, Saturday, Dec. 20.

BEEVES.—Receipts for the week, 10,552 head; do. last week, 9,740 do. There has been a good rule for cattle all the week and the quick sale and high rate of premium stock gave the market an old-fashioned tune. One drove of 20 fancy four year old brought 11¾c.@12c. to dress, 58lbs; other lots 7 to ½ head found ready customers at what became an established range for high grade 10¾@12c.; common to fair, steers, 8@9¼c. to dress 55lbs.; good to choice, 9¾@10¾c.

MILCH COWS.—There are no new features. Demand light.

VEAL CALVES.—Live calves in light supply and prime. Choice N. J. and Bucks Co., 7¾@7¾c.; fair to prime including, State, 5@7¼c.; Mount Hollys 5@7¼c, Buttermilk, 3½@5c.; grass, 2@2½c. Hog dressed 7¾@10¾c.

SHEEP AND LAMBS.—Receipts for the week, 27,087 head; do. last week, 25,368 do. The market has been good for sellers with moderate supplies: the range for sheep 4@5½c. fair to choice. Lambs, 6@7¼c. ordinary to extra.

HOGS.—Receipts for the week, 30,376 head; do last week, 26,378 do. There has been an easy feeling in pork and prices have favored large buyers: live, $4.50@$4.65 per 100; N. J, dressed light, 6¾@6¾c.; medium, 6@6¼c; heavy, 5¾c@5¾c.; city dressed, 5¾@6¾c. Pork tenderloins, 9c. in boxes.

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Reading for the Young.

KITTY'S CHRISTMAS TREE.

ALICE P. ADAMS.

KITTY had been very busy for several weeks, for you see there was to be a Christmas tree at her home, and all the uncles and aunts and cousins were invited; so every minute of her time was occupied in making presents.

She was so fearful that all would not be finished in time that she took her work to school, and crocheted under the desk while she was *apparently* learning her geography lesson. A number of girls did this, and Kitty never thought of cheating.

It was soon stopped, however, for Mr. Kimball, noting the imperfect lessons, knew that something must be wrong, and was more watchful accordingly.

One day Grace Henley made a mistake in her tidy, and she had to unravel part of it; her thread knotted, and, forgetting where she was, she held it up in plain sight while she tried to disentangle it. Mr. Kimball's eye was on her before long, attracted by the bright scarlet, and the girls coughed and tried in vain to warn her; for all her thoughts were centred on that obstinate snarl.

But she heard the stern voice that said, "I wish to call the attention of the school to that industrious young lady sitting in the fifth row, next the middle aisle."

How she started and pushed her work into the further corner of her desk, while the girls sympathized and the unfeeling boys laughed!

But that was not the end. "Miss Grace, you may bring that gay arrangement here to the desk. I want to examine it more closely, as the brief glimpse I had did not satisfy my curiosity."

Very slowly Grace obeyed, with crimson face and downcast head, and Mr. Kimball, taking the tidy from her unwilling hand, gravely inspected its scarlet and white intricacies; then, laying it upon the desk, and motioning for her to resume her seat, he delivered a long lecture about the sense of honor which should prevail in schools, but seemed entirely lacking in his, and concluded by saying that if he saw any more fancy-work during school hours, he would take care of it, and the owner would never see it again.

This alarmed Miss Kitty, and thereafter she confined her work at school to recess, and the intermission hour. But she was so industrious at home that the last present was finished the day before Christmas.

For papa she made a case of card-board, bound with blue ribbon, for squares of court-plaster. On one side, embroidered in blue silk, were the words:

"If knife or pin,
"Or aught offend,"

and on the other,

"Go, little case,
"Assistance lend."

She made for mamma a beautiful case for her scissors, of quilted cardinal satin, trimmed with tiny cardinal bows. For little Dick she crocheted a pair of reins, and with aunt Mary's help she constructed a most wonderful rabbit from Canton flannel (woolly side out) for the baby.

The relatives were all served alike for fear they would think she was partial. Each of the three aunts was destined to receive a receptacle for burnt matches, each of the three uncles a shaving-case, and each of the cousins an embroidered silk bookmark.

Kitty's papa and mamma intended to have the tree on Christmas Eve, until they learned that the Sunday-school entertainment was to be held on that night, so they gave their invitations for Christmas evening.

"Dear me!" sighed Kitty, on the morning of the eventful day. "All my things are ready, and I don't know what to do. It don't seem as if I could *possibly* wait till night."

"You might string some pop-corn while papa and Uncle Nat are gone for the tree," suggested mamma, who was trimming the parlors. "And you could string some cranberries too, if you have time. The red and white festoons would look very pretty among the presents when the candles are lighted."

So Kitty commenced to string pop-corn and cranberries, but before she had half enough done they came with the tree. Such a beautiful tree! Its top swept the ceiling of the back parlor, and how symmetrical were its green branches. Kitty was sure that it was the nicest tree in town.

And now commenced the work of arranging the gifts; most delightful work Kitty thought it would be, but she was soon banished from the room with the assurance that she would help just as much if she would go on making the ropes of cranberries and pop-corn. So she confided part of her gifts to mamma and the rest to Aunt Mary, and took up her position on a convenient sofa, where she could catch occasional glimpses of the splendor when the door opened and the favored one passed in and out. It seemed as if the door-bell rang every few minutes, and mamma kept hurrying back and forth with very mysterious looking parcels half hidden under her apron. Once she forgot to latch the door, and left such an enticing little crack that Kitty could not resist the temptation to peep. So she dropped her needle and crept softly to the door when Uncle Nat unexpectedly coming in and seeing her purpose, gave her a push that made the door fly open, and sent her plump against mamma who was bestowing a bewitching little work basket among the green boughs.

"Oh! I didn't see! I didn't see anything, hardly!" cried Kitty shutting her eyes as the workers about the tree exclaimed indignantly. "It was all Uncle Nat. He pushed me in"

"Pushed you off the sofa?" queried mamma with her eyebrows raised unbelievingly.

"Well—not exactly that—" murmured Kitty. "I wasn't on the sofa."

"Ha, ha, miss! that's what comes of *peeking!*"

A MERRY, merry Christmas
To crown the closing year!
Peace and good will to mortals,
And words of sacred cheer.

What though the wind at evening
Blow harsh o'er land and sea,
If eager hands and joyful hearts
Light up the Christmas tree.

In the midst of your pleasures,
Your gifts and your treasures,
Remember the one which our Father hath given,
The purest and fairest
The richest and rarest,
The gift of a blessed Redeemer from Heaven.

laughed Uncle Nat as the excited lady again took up her string or pop-corn.

The door was scrupulously closed after that, and when it was nearly dark mamma came out and told Kitty to run up stairs and get dressed for the evening. She arrayed herself in her best wine-colored cashmere, which was magnificently bedecked with light blue bows for the occasion, settled the pretty gold chain that was her last birthday present, and with her best handkerchief, freshly perfumed, in her hand she went down stairs, her cheeks flushed with anticipation.

"Dear me!" she cried impatiently after a few minutes' waiting in the parlor; "I wish they *would* hurry. Seems as if I can't wait another minute.

But she had to wait several before there came a loud peal from the bell, when she flew to the door crying, "Merry Christmas!" to the smiling people who came trooping in.

Before long the sprightly company had assembled—the last comers being two young Sophomores who affected an indifference to Christmas trees, and "only came to please Cousin Kitty," and all eyes were directed expectantly toward the closed folding doors.

They were not kept in suspense long, for the doors were soon thrown back and disclosed the tree in all its splendor, with papa, dressed as Santa Claus, bowing beside it. He made a little speech, and then all rushed in to look at the tree before the presents were taken off.

Well, it was a pretty sight. The tree was set, to all appearance, in a bank of moss, which was interspersed with lovely greenhouse plants destined to make several homes cheerful during the long winter. The festoons of red and white were supplemented by long chains of variously-colored paper; gaily decorated egg-shells hung from every tiny bough; little waxen canaries swung in scarlet rings; horns of plenty filled to overflowing would shortly reward those who had waited long for this night; and the wax tapers shone brightly on the presents that bent the green boughs, and the larger ones that lay on the table at the side.

Yes, it was certainly a wonderful tree, and I could not begin to tell half the gifts that Santa Claus and Kitty and two or three of the cousins distributed among the merry company. But as I disclosed Kitty's secrets, it is but just that I should tell how her friends remembered her.

Among the first articles taken from the tree was that dear little work-basket, lined with dainty blue silk, and filled up with thimble, scissors, needles, silk, cotton, and other essentials. This was mamma's present to her daughter.

Papa's gift was a writing desk well stocked with tinted and gilt-edged paper, and tucked away in a compartment of its own was a little pearl-handled gold pen, which made her eyes sparkle.

Beautifully illustrated copies of Hawthorne's "Tanglewood Tales" and "Wonder Book," a bottle of Sweet Briar, a silver filagree pin for her hair, a box of handkerchiefs embroidered with a handsome K, and an onyx ring on which was engraved a little forget-me-not, were among the other presents given her.

Do you wonder that she exclaimed as she kissed mamma good-night, "I've had a *perfectly elegant* time! I don't believe there *could* be a nicer tree than ours, do you, mamma?"

DEAR UNCLE MARK:—The cold winter is at hand yet it is my season, the time I love best. If I, like Joshua, could make the sun stand still, it would be winter all the time. All my vegetables are housed for winter, and my poor flowers have all been mowed down by Jack Frost. I want all the cousins to mention what virtue they admire most; for my part it is contained in the following:

If wisdom's way ye wisely seek,
Five things observe with care;
Of whom you speak, to whom you speak,
How, when and where.

I have only seen one who attained this virtue of discrimination to perfection, and since I met that person, I have striven hard to be as wise, but I can assure you, I have not reached perfection yet; so give me a recipe for it, whoever has one. Good-bye, Uncle Mark. I remain your loving

Temistguemangue. LIZZIE A. PICHA.

Various.

BRIEFLETS.

THE poultry should be fed meat three or four times a week with their other food when, the ground being frozen, there are neither worms nor insects for them to pick up about the premises. . . It makes little difference how well poultry are cared for. They may have everything they need. But if too many are confined in one house and run, they cannot be made to thrive and give a paying number of eggs. . . The Ed. of the American Rural Home says that if all farmers would *partially* substitute good beef, mutton, fish, chickens, and turkeys, for pork, in their diet, they would be healthier, stronger, and happier for the substitution. . . The Philadelphia Record says that a good careful man placed in charge of a badly-managed herd of cows increased the flow of milk to an extent sufficient to pay his wages. . . Weather Signs.—When you see a doctor and nurse take charge of the house, look out for squalls.—Wheeling Leader. . . The man who pays cash is a person of no account. Credit lost. . . The Rural World is entitled to much credit for its persistent, systematic encouragement of the Sorgo industry. Credit to whom credit is due. . . A new Pullman car is to be called the Gen. Grant. It would be a better name for the "smoker."—Boston Comm. Bulletin. . . The monotony of life is much enhanced by having no change. . . A partial failure of the wheat and raisin crops in Ooroomeeyah, Persia, has produced a severe famine. Only about one-tenth part the usual amount of food has been raised; the government is doing nothing, and the people are starving. . . . Hog-guessings are beginning to be reported. . . Opium is now being produced in the Sonoma Vally, Cal. It's better than the Oriental article, and though the cost of production is greater, this is counterbalanced by the absence of import duty. . . On Tuesday, the 16th, motions were agreed to in the House for establishing Public Land Offices in the Territories of Montana and Dacotah. . . The Hudson River is full of floating ice, and navigation on it is about to close for the season. . . Pleuro-pneumonia has broken out among the cattle of James Merrill, of Haverhill, N. H. Gov. Head called a meeting of the Council on Friday last, and appointed a committee to take steps at once to arrest the spread of the plague. Farmers thereabouts are much excited. . . Eight thousand "Union" pork-packers are on strike in Chicago because non-union men were allowed to work. Several of the packeries are idle, and more working very short-handed. Some say the pork-packer's strike is merely a trick of the packers to lower the price of hogs, by causing the market to be over-stocked. All the hogs in the yards are being quickly picked up at low prices. . . . The depression in the hog market in Chicago is sure temporarily to reduce prices elsewhere, but—hold on to your hogs, friends, hold on to your hogs. The supply is less this year than last, the demand greater, and hogs are pretty sure to rule high before winter is over. . . The Wisconsin Dairymen's Association will hold their annual meeting at Elkhorn, January 14 and 15, 1880. . . Most of the French bouquets are made of one kind of flowers only.

WHAT OTHERS SAY.

SPREADING MANURE.—We are glad to see a corroboration of what has been said under our History of a Poor Farm, by so good an authority as Professor S. W. Johnson. He says in the Conn. Farmer, in answer to an inquiry: Manure from the yard or stable rarely contains such an amount of volatile fertilizing matter as should deter from spreading it broadcast on the surface when most convenient. Unless manure is very rich, as from grain-fed animals, and is in an active state of fermentation, hot and smoking, and exhales a distinct smell of hartshorn, there can be no loss from exposure, and in any case, the loss will be less by spreading out thinly, than by dropping it in small heaps, because spreading means cooling and the stop of fermentation. The soil, if not sand, is an energetic absorber of ammonia, and will not allow much to escape. But manure, when properly handled, need not suffer any waste from evaporation. A moderate and regulated heating of fresh manure results in the formation of humic acid, which secures the ammonia from loss by evaporation. This moderate heating it should have before hauling out, or in cold weather before it heats at all. The advantages of spreading manure from the wagon as it is drawn out, are a saving of labor and an even distribution of the soluble salts (ammonia, potash, phosphate, &c.), in the soil by rain. If the manure is heaped on the field and gets a heavy rain before spreading, the ground under the heaps receives an undue share of the best part of the manure. Independently, however, of loss by evaporation, there may be circumstances when it is best to get the manure into the ground before it has had a chance to become dry, for it distributes much better when moist and swollen with water, than when "chippy" or "snuffy" in texture, and is ready at once to act as manure, whereas dry manure must recover moisture before it can be of any use.

PASTURING WHEAT.—"Several with whom I have talked," says a writer in the Detroit Free Press, "are of the opinion that it is rather beneficial than otherwise to pasture wheat in the fall. A notable instance of apparent benefit from fall and winter feeding of the top, was with Mr. Payne Axford, of Orion, who pastured a piece of thirty acres during the fall and winter two years ago, turning on his stock whenever the ground was firm and frozen, taking them off when the ground was soft during the fall and early part of winter. This field, he says, yielded thirty-nine bushels to the acre, and was probably the best yield in the neighborhood. One piece of twenty acres had equally as fine an appearance through the season, but was not pastured, and yielded only thirty-one bushels to the acre. Mr. A. is a full believer in pasturing wheat, and is now, although the ground is very wet and soft, keeping his stock on his wheat field every day. It seems to me a barbarous practice, nevertheless, and although I have a field of heavy growth, I think I will take the chances of its natural top."

CARE OF POULTRY.—The American Poultry Yard says: We must shortly close up the doors and windows of our fowl-houses, to guard the occupants against the sharp air by day, and the chillier atmosphere at night. But let us be sufficiently careful to perform this operation sensibly, and not so stifle the birds that the emanations from their bodies will infect the internal atmosphere of the premises, and thus poison or sicken the stock. *Ventilate* the premises thoroughly every day and every night in the year. No matter how hot, how cold, how dry, the fresh air of heaven *must be* afforded your fowls, either by allowing them freedom out-of-doors altogether, or by supplying their quarters with this necessity to their comfort and thrift.

ORIGIN OF EARLY ROSE, ETC.—The Early Rose was raised by Mr. Albert Bresee, of Hubbardton, Vt. In what year it began its career, Mr. Pringle says, in the Vermont Record and Farmer, he is unable to say, but it was first put in commerce in 1868. Its origin, he understands, was in this wise: Mr. Bresee had been raising seedling potatoes for many years without getting anything superior to the parent sorts. One fall his hired man, while digging a few rows of the Garnet Chili, which had never been known to have seed-balls, found on the stalks a little ball, scarcely larger than a pea. From this Mr. Bresee raised all his named sorts, Early Rose, Bresee's Prolific, Peerless and King of the Earlies.

HOW NOT TO DO IT.—The true story is told of a well-to-do New Hampshire farmer who last spring gave his fifteen-year-old son a motherless lamb; Johnnie brought it up carefully, and the past fall the father sold it with others and put the money in his own pocket, an act which The Manchester Mirror indignantly characterizes as "The meanest robbery that could be perpetrated." It will not be strange if that youth speedily develops an irresistible longing for town life, or the Western country, and the old man will murmur because he is left alone in his age!—N. Y. Tribune.

PERSONAL ITEMS.

The Countess Montijo, mother of the ex-Empress Eugenie, once kept a millinery store in Brussels

The Rev. Dr. John Hall, of this city, is said to have received over $10,000 in wedding fees during the present year.

Judge Hunt has resigned his seat on the bench of the U. S Supreme Court, and Senator Edmunds has accepted the place.

Buford, who was convicted at Frankfort, Ky., and sentenced to imprisonment for life for the atrocious murder of Judge Elliot, has been granted a new trial.

A. J. Hamilton, City Tax Collector of Los Angeles, Cal., has absconded with $9,000 This is the fourth defalcation on the part of officers of that city in the last five years.

On Tuesday week the U. S. Senate, without a dissentent voice, confirmed the nomination of Secretary of War, McCreary, to be U. S. Circuit Judge for the Eighth Circuit.

The two highwaymen who assailed John Hamm a thin, bent, consumptive little man, near Vincennes, Ind., waked up the wrong customer, for he drew a pistol and shot one of them, and pounded the other insensible with the weapon.

Walter T. Colquitt, the father of Governor Colquitt, of Georgia, and James Rockmore were famous preachers in that State in former days, and this story is told of an encounter which they once had: Mr. Colquitt, while on the way to church one Sunday, stopped at a peach orchard by permission of the owner and ate some of the fruit. Mr. Rockmore, riding by on his way to his meeting, called out: "Never mind, Colquitt, I'll bear witness in heaven against you for stealing those peaches." "Hold on," said Colquitt, drawing a blank book and pencil from his side pocket; "let me take your interrogatories; you wont be there."

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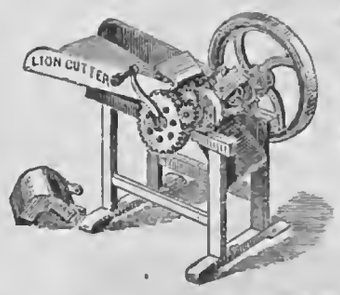

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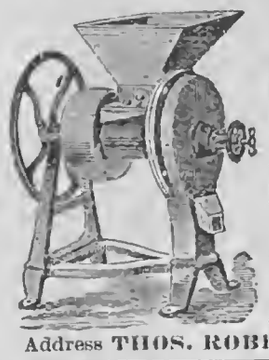

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A BRIDAL couple from Washoe valley at breakfast in a Reno hotel, conversed as follows: He—"Shall I skin you a pertater, honey?" She—"No, thank you, deary. I have one already skun.—*Denver News.*

WEBSTER tells us that the definition of a bonnet is "a covering for the head," but a glance at some of ladies' headwear forces home the idea that it is merely a false-hood.—*Danielsonville Sentinel.*

JO COOK on Ingersoll: "His lack of religion sufficiently illustrates his lack of sense." Bob Ingersoll on Jo Cook: "His philosophy is the theology of New England, seasoned with poor German thought—that is to say, he mixes sauerkraut with his beans."

A CERTAIN bald-headed man had a large spider painted on the top of his head in fly-time, and the first day it scared his wife into a fit, and he was knocked out of his chair three times by people who wanted to kill the poisonous insect, without alarming the old gentleman by telling him it was there.—*Boston Post.*

WE don't know whether it is old or not, but we heard a lady ask a friend, in a street car, the other day: "Annie, is it proper to say this 'ere, that 'ere?" "Why, Kate, of course not," was the reply. "Well," said Kate, "I don't know whether it is proper or not, but I feel cold in this ear from that air." The conductor fainted.—[Phila. Item.

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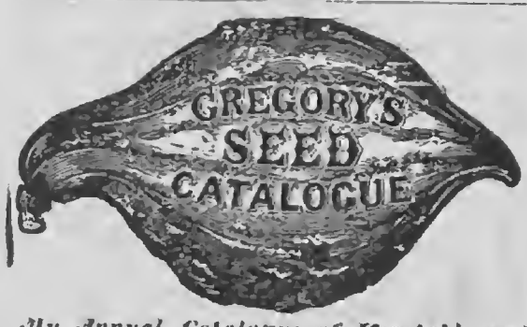

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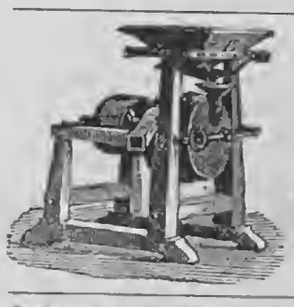

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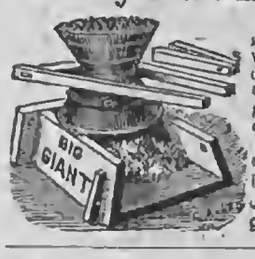

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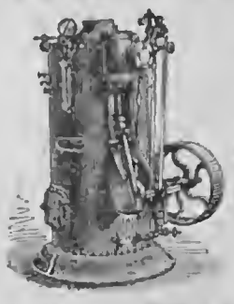

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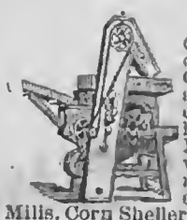

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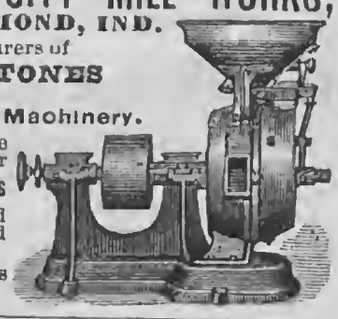

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